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APPENDIX D:
FUTURE SEGMENT CAPACITY OUTPUT SHEETS

CITY OF NOBLESVILLE

MARCH 2024

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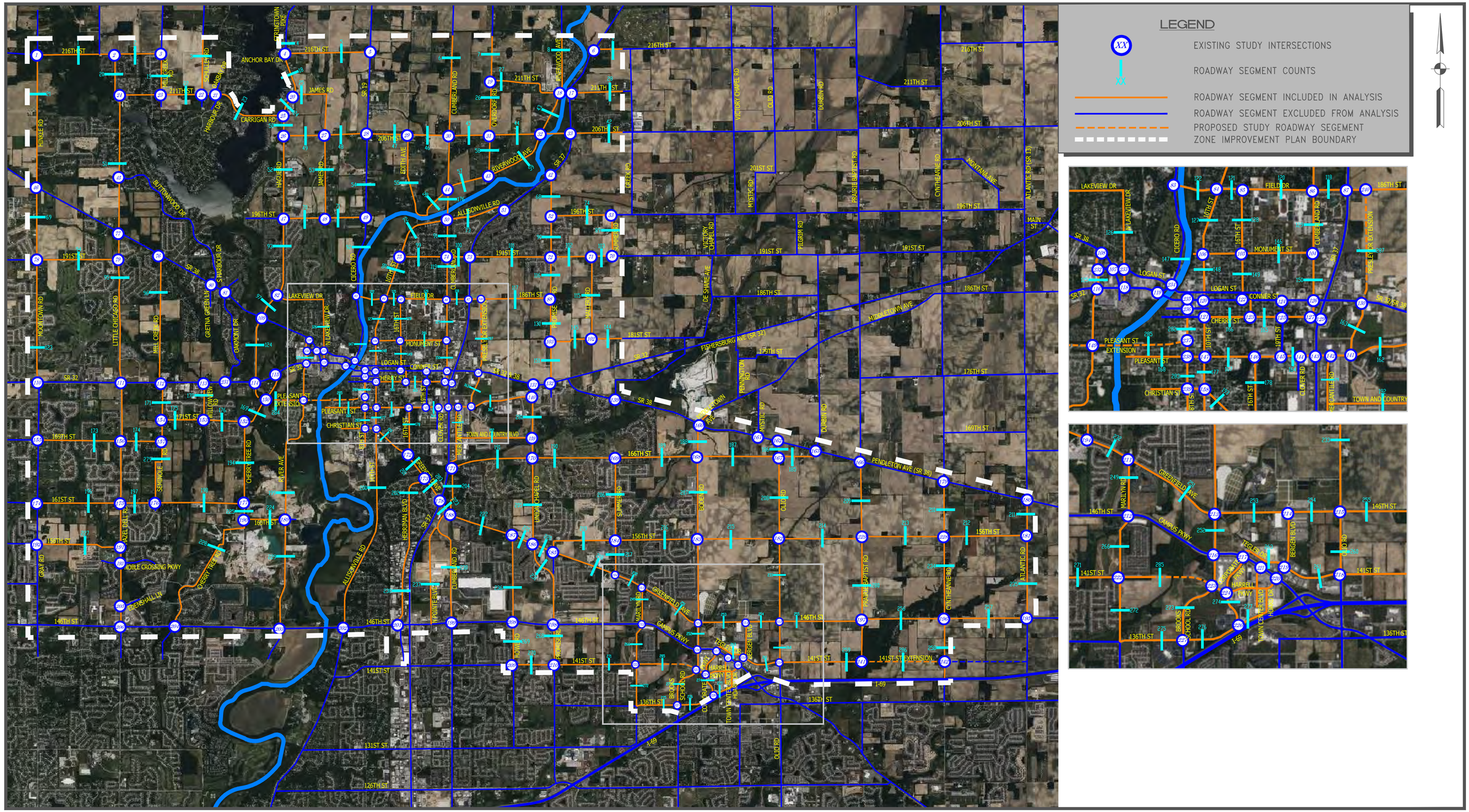

Prepared By:

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CITY OF NOBLESVILLE
ZONE IMPROVEMENT PLAN
STUDY AREA ROADWAY NETWORK

FIGURE 1

Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\DWG\23077S-Impact Fee Map.dwg

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	Hinkle Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Little Chicago Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 1 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2756	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.074	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.790	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	31	**Peak Dir. Hrly. Vol.**	161	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	43	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	46.5	**ATS**	42.8	**% FFS**	95.1
FFS Delay	3.9	**LOS Thresh. Delay**	11.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	290	540	860	1210	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	370	690	1090	1540	1800
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5000	9400	14800	20900	24400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	Hinkle Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Little Chicago Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 1 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2756	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.135	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.810	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	31	**Peak Dir. Hrly. Vol.**	301	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	71	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	58.9	**ATS**	41.2	**% FFS**	91.6
FFS Delay	6.9	**LOS Thresh. Delay**	14.5	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	300	570	880	1230	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	380	710	1090	1520	1760
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	5300	8100	11300	13100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	Hinkle Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Little Chicago Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 1 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3059	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.076	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.740	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	31	**Peak Dir. Hrly. Vol.**	172	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	60	**Adjusted Capacity**	0

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	46.8	**ATS**	42.5	**% FFS**	94.5
FFS Delay	4.4	**LOS Thresh. Delay**	12.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	260	490	830	1150	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	360	670	1130	1560	1920
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4800	8900	14900	20600	25300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	Hinkle Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Little Chicago Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 1 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3059	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.135	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.777	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	31	**Peak Dir. Hrly. Vol.**	321	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	92	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	60.7	**ATS**	40.7	**% FFS**	90.5
FFS Delay	8.0	**LOS Thresh. Delay**	15.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	280	530	850	1200	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	370	690	1100	1550	1830
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	5200	8200	11500	13600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	Little Chicago Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mill Creek Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 2 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1397	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.760	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	71	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	22	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	46.9	**ATS**	41.7	**% FFS**	92.7
FFS Delay	3.8	**LOS Thresh. Delay**	8.6	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	360	600	990	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	480	790	1310	1870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	7200	11800	19600	28000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	Little Chicago Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mill Creek Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 2 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1397	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.099	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.810	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	112	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	26	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	53.7	**ATS**	41.3	**% FFS**	91.8
FFS Delay	4.3	**LOS Thresh. Delay**	9.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	410	650	1000	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	510	810	1240	1760
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	5200	8200	12600	17800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/11/2023 10:58:32 AM	**From**	Little Chicago Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mill Creek Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 2 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1537	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.757	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	78	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	25	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	47.6	**ATS**	41.6	**% FFS**	92.5
FFS Delay	3.9	**LOS Thresh. Delay**	8.7	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	360	600	990	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	480	800	1310	1880
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	7200	12000	19600	28100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/11/2023 10:58:32 AM	**From**	Little Chicago Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mill Creek Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 2 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1537	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.758	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	117	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	37	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	52.5	**ATS**	41.1	**% FFS**	91.4
FFS Delay	4.5	**LOS Thresh. Delay**	9.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	360	600	990	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	480	800	1310	1880
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4800	8000	13200	18800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Schuller Road	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	221st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 3 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1531	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.051	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.830	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	60	**Peak Dir. Hrly. Vol.**	65	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	13	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	47.4	**ATS**	42.6	**% FFS**	94.6
FFS Delay	3.7	**LOS Thresh. Delay**	10.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	480	740	1090	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	220	580	900	1320	1720
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4400	11400	17700	25900	33800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Schuller Road	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	221st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 3 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1531	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.099	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	60	**Peak Dir. Hrly. Vol.**	108	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	44	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	48.6	**ATS**	41.9	**% FFS**	93.0
FFS Delay	4.8	**LOS Thresh. Delay**	11.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	350	670	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	220	500	950	1440	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2300	5100	9600	14600	20300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Schuller Road	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	221st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 3 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	3059	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.051	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.583	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	60	**Peak Dir. Hrly. Vol.**	91	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	65	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	42.3	**ATS**	41.8	**% FFS**	92.9
FFS Delay	4.9	**LOS Thresh. Delay**	11.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	290	600	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	210	500	1030	1510	2440
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4200	9900	20200	29700	47900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Schuller Road	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	221st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 3 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	3059	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.139	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.864	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	60	**Peak Dir. Hrly. Vol.**	367	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	58	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	71.3	**ATS**	39.3	**% FFS**	87.4
FFS Delay	9.2	**LOS Thresh. Delay**	15.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	530	810	1110	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	210	620	940	1290	1650
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4500	6800	9300	11900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Rd	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	North of	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	216th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 4 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3280	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.072	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.830	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	196	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	40	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	61.8	**ATS**	35.4	**% FFS**	88.4
FFS Delay	11.2	**LOS Thresh. Delay**	28.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	370	600	830	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	450	730	1000	1720
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	6300	10200	13900	23900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Rd	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	North of	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	216th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 4 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3280	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.117	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	246	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	138	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.17	**Density**	N/A	**PTSF**	63.6	**ATS**	32.9	**% FFS**	82.3
FFS Delay	18.5	**LOS Thresh. Delay**	35.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	460	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	720	1190	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3000	6200	10200	19000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Rd	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	North of	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	216th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 4 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	4034	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.075	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.845	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	256	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	47	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	66.1	**ATS**	34.8	**% FFS**	86.9
FFS Delay	12.9	**LOS Thresh. Delay**	30.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	380	630	860	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	450	750	1020	1690
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	6000	10000	13600	22600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Rd	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	North of	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	216th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 4 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	4034	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.117	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.648	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	306	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	166	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	N/A	**PTSF**	68.7	**ATS**	31.6	**% FFS**	79.0
FFS Delay	22.8	**LOS Thresh. Delay**	39.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	230	460	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	360	710	1190	2200
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3100	6100	10200	18900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	Hague Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 19	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 5 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.020	**Median**	No	**AADT**	2497	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.084	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.740	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	60	**Peak Dir. Hrly. Vol.**	155	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	55	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	54.8	**ATS**	46.1	**% FFS**	92.2
FFS Delay	6.2	**LOS Thresh. Delay**	6.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	420	790	1180	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	230	570	1070	1600	1920
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	6800	12800	19100	22900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	Hague Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 19	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 5 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.020	**Median**	No	**AADT**	2497	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.164	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.740	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	60	**Peak Dir. Hrly. Vol.**	303	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	106	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	N/A	**PTSF**	67.4	**ATS**	43.8	**% FFS**	87.7
FFS Delay	10.3	**LOS Thresh. Delay**	10.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	420	790	1180	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	230	570	1070	1600	1920
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	3500	6600	9800	11800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	Hague Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 19	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 5 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.020	**Median**	No	**AADT**	3248	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.086	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.774	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	60	**Peak Dir. Hrly. Vol.**	216	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	63	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	61.5	**ATS**	45.5	**% FFS**	90.9
FFS Delay	7.3	**LOS Thresh. Delay**	7.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	460	800	1210	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	240	600	1040	1570	1840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	7000	12100	18300	21400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	Hague Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 19	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 5 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.020	**Median**	No	**AADT**	3248	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.113	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.643	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	60	**Peak Dir. Hrly. Vol.**	236	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	131	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.17	**Density**	N/A	**PTSF**	61.0	**ATS**	43.8	**% FFS**	87.6
FFS Delay	10.4	**LOS Thresh. Delay**	10.4	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	360	730	1070	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	240	560	1140	1670	2210
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	5000	10100	14800	19600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cumberkand Road	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	E 234th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 6 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	2.850	**Median**	No	**AADT**	4003	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.064	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.780	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	42	**Peak Dir. Hrly. Vol.**	200	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	56	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	54.1	**ATS**	46.8	**% FFS**	93.5
FFS Delay	14.2	**LOS Thresh. Delay**	14.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	270	530	890	1260	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	350	680	1150	1620	1830
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5500	10700	18000	25400	28600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cumberkand Road	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	E 234th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 6 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	2.850	**Median**	No	**AADT**	4003	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.730	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	42	**Peak Dir. Hrly. Vol.**	298	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	110	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	62.0	**ATS**	44.9	**% FFS**	89.8
FFS Delay	23.3	**LOS Thresh. Delay**	23.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	240	480	840	1210	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	660	1160	1660	1950
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3300	6500	11400	16300	19200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberkand Road	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	E 234th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 6 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	2.850	**Median**	No	**AADT**	5618	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.066	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.796	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	42	**Peak Dir. Hrly. Vol.**	295	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	76	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	62.1	**ATS**	45.7	**% FFS**	91.4
FFS Delay	19.3	**LOS Thresh. Delay**	19.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	280	550	900	1280	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	360	700	1140	1610	1790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5500	10700	17300	24400	27200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberkand Road	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	E 234th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 6 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	2.850	**Median**	No	**AADT**	5618	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.733	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	42	**Peak Dir. Hrly. Vol.**	420	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	153	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.30	**Density**	N/A	**PTSF**	68.5	**ATS**	42.7	**% FFS**	85.4
FFS Delay	35.1	**LOS Thresh. Delay**	35.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	240	490	850	1220	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	670	1160	1670	1940
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3300	6600	11400	16400	19100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Overdorf Road	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	221st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 7 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.844	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.021	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	90	**Peak Dir. Hrly. Vol.**	15	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	6	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	37.0	**ATS**	47.4	**% FFS**	94.7
FFS Delay	3.4	**LOS Thresh. Delay**	3.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	350	730	1120	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	500	1030	1580	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	8100	23900	49100	75300	95300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Overdorf Road	**Study Period**	**Kother**
Date Prepared	9/19/2023 10:58:32 AM	**From**	221st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 7 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.040	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.550	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	90	**Peak Dir. Hrly. Vol.**	22	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	18	**Adjusted Capacity**	1547

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	32.1	**ATS**	47.2	**% FFS**	94.3
FFS Delay	3.5	**LOS Thresh. Delay**	3.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	290	630	920	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	530	1150	1680	2590
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4300	13300	28800	42000	64800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Overdorf Road	**Study Period**	**Kother**
Date Prepared	9/11/2023 10:58:32 AM	**From**	221st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 7 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.844	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.028	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	90	**Peak Dir. Hrly. Vol.**	20	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	8	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	37.8	**ATS**	47.3	**% FFS**	94.6
FFS Delay	3.5	**LOS Thresh. Delay**	3.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	350	730	1120	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	500	1030	1580	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	6100	17900	36800	56500	71500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Overdorf Road	**Study Period**	**Kother**
Date Prepared	9/11/2023 10:58:32 AM	**From**	221st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 7 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.844	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.052	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.538	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	90	**Peak Dir. Hrly. Vol.**	28	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	24	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	32.3	**ATS**	47.1	**% FFS**	94.1
FFS Delay	3.8	**LOS Thresh. Delay**	3.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	620	900	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	530	1160	1680	2640
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3300	10200	22400	32400	50800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	221st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 8 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2756	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.162	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	237	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	210	**Adjusted Capacity**	0

LOS Results

v/c Ratio	0.17	**Density**	N/A	**PTSF**	61.4	**ATS**	42.2	**% FFS**	84.3
FFS Delay	12.7	**LOS Thresh. Delay**	12.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	610	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	530	1160	1670	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	3300	7200	10400	16600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	221st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 8 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2756	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.128	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	226	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	127	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.16	**Density**	N/A	**PTSF**	61.8	**ATS**	43.4	**% FFS**	86.7
FFS Delay	10.5	**LOS Thresh. Delay**	10.5	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	290	690	1030	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	460	1080	1610	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	3600	8500	12600	17400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	221st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 8 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.200	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.505	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	101	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	99	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	41.7	**ATS**	45.3	**% FFS**	90.6
FFS Delay	7.1	**LOS Thresh. Delay**	7.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	270	590	840	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	160	540	1170	1670	2820
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	2800	5900	8400	14200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	221st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 8 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.157	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	102	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	55	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	47.2	**ATS**	46.0	**% FFS**	92.0
FFS Delay	5.9	**LOS Thresh. Delay**	5.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	300	690	1050	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	470	1070	1620	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	3000	6900	10400	14000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Creek Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 9 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.450	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.011	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.910	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	10	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	41.2	**ATS**	47.4	**% FFS**	94.8
FFS Delay	1.8	**LOS Thresh. Delay**	1.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	570	950	1300	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	630	1050	1430	1570
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	16400	57300	95500	130000	142800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Creek Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 9 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.450	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.036	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	19	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	17	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	30.8	**ATS**	47.2	**% FFS**	94.3
FFS Delay	2.0	**LOS Thresh. Delay**	2.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	610	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	530	1160	1670	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4800	14800	32300	46400	74500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Creek Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 9 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.450	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.013	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.923	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	12	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	42.1	**ATS**	47.4	**% FFS**	94.8
FFS Delay	1.8	**LOS Thresh. Delay**	1.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	570	990	1350	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	620	1080	1470	1540
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	13900	47700	83100	113100	118500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	216th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Creek Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 9 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.450	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.044	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.523	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	23	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	21	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	31.1	**ATS**	47.1	**% FFS**	94.2
FFS Delay	2.0	**LOS Thresh. Delay**	2.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	600	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	540	1150	1670	2720
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4100	12300	26200	38000	61900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 18 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	4261	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.069	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.730	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	31	**Peak Dir. Hrly. Vol.**	215	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	79	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	51.3	**ATS**	37.0	**% FFS**	92.4
FFS Delay	2.2	**LOS Thresh. Delay**	7.6	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	230	420	710	1000	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	580	980	1370	1950
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4700	8500	14300	19900	28300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 18 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	4261	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	31	**Peak Dir. Hrly. Vol.**	276	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	184	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.20	**Density**	N/A	**PTSF**	57.9	**ATS**	34.5	**% FFS**	86.2
FFS Delay	4.3	**LOS Thresh. Delay**	9.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	360	610	840	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	290	600	1020	1400	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2700	5600	9500	13000	22000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 18 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	4507	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.069	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.720	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	224	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	87	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.16	**Density**	N/A	**PTSF**	62.2	**ATS**	34.6	**% FFS**	86.4
FFS Delay	4.2	**LOS Thresh. Delay**	9.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	280	470	810	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	390	660	1130	1980
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	5700	9600	16400	28700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 18 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	4507	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.599	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	292	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	195	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	68.2	**ATS**	31.7	**% FFS**	79.2
FFS Delay	7.1	**LOS Thresh. Delay**	12.5	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	450	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	760	1240	2380
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3200	7100	11500	22100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Mill Creek Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 19 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1742	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.550	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	90	**Peak Dir. Hrly. Vol.**	74	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	60	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	39.3	**ATS**	51.1	**% FFS**	92.9
FFS Delay	2.5	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	360	720	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	190	660	1310	1860	2590
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2500	8600	17100	24200	33700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Mill Creek Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 19 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1742	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.550	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	90	**Peak Dir. Hrly. Vol.**	74	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	60	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	39.3	**ATS**	51.1	**% FFS**	92.9
FFS Delay	2.5	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	360	720	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	190	660	1310	1860	2590
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2500	8600	17100	24200	33700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Mill Creek Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 19 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	2206	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.081	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.562	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	90	**Peak Dir. Hrly. Vol.**	100	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	78	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	43.4	**ATS**	50.7	**% FFS**	92.1
FFS Delay	2.8	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	360	730	1040	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	200	650	1300	1860	2530
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2500	8100	16100	23000	31300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Mill Creek Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 19 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	2206	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.107	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.508	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	90	**Peak Dir. Hrly. Vol.**	120	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	116	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	45.1	**ATS**	49.6	**% FFS**	90.1
FFS Delay	3.6	**LOS Thresh. Delay**	0.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	350	670	950	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	690	1320	1880	2800
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	6500	12400	17600	26200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Little Chicago Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 20 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	2964	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.079	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.700	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	164	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	70	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	55.5	**ATS**	40.4	**% FFS**	89.8
FFS Delay	4.6	**LOS Thresh. Delay**	8.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	300	590	950	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	430	850	1360	2030
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	5500	10800	17300	25700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Little Chicago Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 20 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	2964	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.119	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	250	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	102	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	64.4	**ATS**	38.9	**% FFS**	86.4
FFS Delay	6.3	**LOS Thresh. Delay**	10.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	310	590	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	440	840	1360	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3700	7100	11500	16900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Little Chicago Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 20 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3177	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.079	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.709	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	178	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	73	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.13	**Density**	N/A	**PTSF**	57.3	**ATS**	40.2	**% FFS**	89.4
FFS Delay	4.7	**LOS Thresh. Delay**	8.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	310	590	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	440	840	1360	2010
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	5600	10700	17300	25500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Little Chicago Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 20 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3177	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.120	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.704	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	268	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	113	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	N/A	**PTSF**	65.7	**ATS**	38.4	**% FFS**	85.3
FFS Delay	6.9	**LOS Thresh. Delay**	10.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	310	590	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	450	840	1370	2020
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	3800	7000	11500	16900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hinkle Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\AM\Ex 21 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.600	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.180	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.890	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	64	**Peak Dir. Hrly. Vol.**	160	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	20	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	59.0	**ATS**	51.0	**% FFS**	92.8
FFS Delay	8.2	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	210	650	1030	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	240	740	1160	1600	1600
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4200	6500	8900	8900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hinkle Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 21 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.600	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.200	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.580	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	64	**Peak Dir. Hrly. Vol.**	116	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	84	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	45.8	**ATS**	50.8	**% FFS**	92.3
FFS Delay	8.7	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	390	760	1090	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	210	680	1320	1880	2450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	3400	6600	9400	12300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hinkle Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 21 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.600	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.200	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.808	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	64	**Peak Dir. Hrly. Vol.**	162	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	38	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	58.2	**ATS**	50.8	**% FFS**	92.4
FFS Delay	8.6	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	530	910	1370	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	240	660	1130	1700	1760
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3400	5700	8600	8800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hinkle Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	216th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 21 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.600	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.200	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.500	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	64	**Peak Dir. Hrly. Vol.**	100	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	100	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	39.8	**ATS**	50.5	**% FFS**	91.9
FFS Delay	9.3	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	360	680	940	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	200	720	1360	1880	2840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3600	6800	9400	14200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Mill Creek Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Schulley Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 22 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7763	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	365	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	233	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	71.3	**ATS**	35.9	**% FFS**	79.9
FFS Delay	10.1	**LOS Thresh. Delay**	14.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	240	570	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	400	940	1450	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	5200	12300	18900	30300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Mill Creek Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Schulley Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 22 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7763	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.116	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	540	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	360	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.38	**Density**	N/A	**PTSF**	79.5	**ATS**	34.1	**% FFS**	75.7
FFS Delay	12.8	**LOS Thresh. Delay**	16.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	230	560	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	390	940	1460	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3400	8200	12600	20500

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Mill Creek Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Schulley Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 22 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	10983	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.546	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	522	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	434	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.37	**Density**	N/A	**PTSF**	77.8	**ATS**	33.9	**% FFS**	75.4
FFS Delay	13.0	**LOS Thresh. Delay**	17.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	530	810	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	370	980	1490	2610
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4300	11300	17200	30100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Mill Creek Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Schulley Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 22 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	10983	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.116	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.615	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	784	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	491	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.55	**Density**	N/A	**PTSF**	87.1	**ATS**	31.3	**% FFS**	69.6
FFS Delay	17.5	**LOS Thresh. Delay**	21.5	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	240	570	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	400	930	1440	2310
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3500	8100	12500	20000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Carrigan Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Harbor Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hague Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 23 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	8950	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.076	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	483	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	197	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.34	**Density**	N/A	**PTSF**	75.4	**ATS**	34.9	**% FFS**	77.6
FFS Delay	22.0	**LOS Thresh. Delay**	29.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	310	590	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	440	840	1360	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	5800	11100	17900	26400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Carrigan Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Harbor Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hague Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 23 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	8950	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.112	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	531	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	471	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.37	**Density**	N/A	**PTSF**	77.5	**ATS**	33.7	**% FFS**	74.9
FFS Delay	25.4	**LOS Thresh. Delay**	33.0	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	520	780	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	380	990	1480	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3400	8900	13300	24000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Carrigan Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Harbor Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hague Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 23 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	15289	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.076	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.740	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	860	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	302	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.60	**Density**	N/A	**PTSF**	92.7	**ATS**	31.3	**% FFS**	69.5
FFS Delay	33.4	**LOS Thresh. Delay**	41.0	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	340	600	980	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	460	820	1330	1920
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	6100	10800	17600	25300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Carrigan Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Harbor Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hague Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 23 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	15289	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.115	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.565	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	993	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	765	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.70	**Density**	N/A	**PTSF**	90.9	**ATS**	27.6	**% FFS**	61.2
FFS Delay	48.1	**LOS Thresh. Delay**	55.7	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	210	540	830	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	380	960	1470	2520
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	3400	8400	12800	22000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Carrigan Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th St (James Rd)	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 24 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	4268	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.068	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.690	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	200	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	90	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	59.3	**ATS**	44.6	**% FFS**	89.2
FFS Delay	2.6	**LOS Thresh. Delay**	2.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	330	720	1090	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	480	1050	1580	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2700	7100	15500	23300	30300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Carrigan Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th St (James Rd)	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 24 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	4268	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.112	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	301	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	177	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	68.5	**ATS**	41.6	**% FFS**	83.2
FFS Delay	4.4	**LOS Thresh. Delay**	4.4	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	290	680	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	470	1080	1620	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4200	9700	14500	20200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Carrigan Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th St (James Rd)	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 24 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	4580	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.069	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.685	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	216	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	100	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	60.9	**ATS**	44.2	**% FFS**	88.4
FFS Delay	2.8	**LOS Thresh. Delay**	2.8	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	330	720	1090	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1060	1600	2080
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2700	7200	15400	23200	30200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Carrigan Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th St (James Rd)	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 24 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	4580	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.112	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.624	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	320	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	193	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	70.2	**ATS**	41.4	**% FFS**	82.8
FFS Delay	4.5	**LOS Thresh. Delay**	4.5	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	680	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	470	1090	1640	2280
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4200	9800	14700	20400

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hague Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	James Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 25 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.010	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.500	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	5	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	5	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.00	**Density**	N/A	**PTSF**	5.3	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.2	**LOS Thresh. Delay**	0.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	390	640	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	780	1280	1740	2840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	32000	78000	128000	174000	284000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hague Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	James Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 25 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.010	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.500	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	5	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	5	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.00	**Density**	N/A	**PTSF**	5.3	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.2	**LOS Thresh. Delay**	0.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	390	640	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	780	1280	1740	2840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	32000	78000	128000	174000	284000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hague Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	James Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 25 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	1778	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.018	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.656	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	21	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	11	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	10.0	**ATS**	49.5	**% FFS**	99.0
FFS Delay	0.3	**LOS Thresh. Delay**	0.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	240	500	820	1140	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	370	770	1260	1740	2170
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	20600	42800	70000	96700	120600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hague Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	James Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 25 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	1778	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.021	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.568	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	21	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	16	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	9.1	**ATS**	49.4	**% FFS**	98.9
FFS Delay	0.3	**LOS Thresh. Delay**	0.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	440	730	990	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	780	1290	1750	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	16200	37200	61500	83400	119100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Overdorf Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	211th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 26 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.049	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.880	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	43	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	6	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	45.3	**ATS**	47.0	**% FFS**	94.1
FFS Delay	3.2	**LOS Thresh. Delay**	3.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	550	880	1200	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	630	1000	1370	1620
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3700	12900	20500	28000	33100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Overdorf Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	211th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 26 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.054	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	33	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	21	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	37.3	**ATS**	47.0	**% FFS**	94.0
FFS Delay	3.2	**LOS Thresh. Delay**	3.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	670	1000	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	480	1100	1640	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3200	8900	20400	30400	43200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Overdorf Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	211th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 26 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	1317	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.063	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.819	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	68	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	15	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	48.2	**ATS**	46.7	**% FFS**	93.4
FFS Delay	3.6	**LOS Thresh. Delay**	3.6	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	470	740	1180	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	580	910	1450	1740
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	9300	14500	23100	27700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Overdorf Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	211th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 26 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	1317	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.584	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	59	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	42	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	39.6	**ATS**	46.5	**% FFS**	93.1
FFS Delay	3.7	**LOS Thresh. Delay**	3.7	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	650	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	500	1120	1650	2440
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	6500	14600	21500	31700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Overdorf Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 27 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.026	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	26	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	8.5	**ATS**	39.7	**% FFS**	99.1
FFS Delay	0.7	**LOS Thresh. Delay**	16.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	340	700	1060	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	700	1060	1420	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	13100	27000	40800	54700	54700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Overdorf Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 27 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.014	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.790	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	11	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	3	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	8.8	**ATS**	39.8	**% FFS**	99.4
FFS Delay	0.5	**LOS Thresh. Delay**	16.7	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	270	510	770	1050	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	350	650	980	1330	1800
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	25100	46500	70000	95100	128600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Overdorf Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 27 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.056	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.589	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	33	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	23	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	11.2	**ATS**	39.4	**% FFS**	98.4
FFS Delay	1.3	**LOS Thresh. Delay**	17.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	360	590	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	290	620	1010	1400	2420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5200	11100	18100	25100	43300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Overdorf Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 27 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.054	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.537	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	29	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	25	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	9.6	**ATS**	39.4	**% FFS**	98.5
FFS Delay	1.3	**LOS Thresh. Delay**	17.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	330	540	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	280	620	1010	1400	2650
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5200	11500	18800	26000	49100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Creek Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 28 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.010	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.500	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	5	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	5	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.00	**Density**	N/A	**PTSF**	5.3	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.3	**LOS Thresh. Delay**	0.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	390	640	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	780	1280	1740	2840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	32000	78000	128000	174000	284000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Creek Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 28 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.010	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.500	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	5	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	5	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.00	**Density**	N/A	**PTSF**	5.3	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.3	**LOS Thresh. Delay**	0.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	390	640	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	780	1280	1740	2840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	32000	78000	128000	174000	284000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Creek Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 28 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.010	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.500	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	5	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	5	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.00	**Density**	N/A	**PTSF**	5.3	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.3	**LOS Thresh. Delay**	0.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	390	640	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	780	1280	1740	2840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	32000	78000	128000	174000	284000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	211th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Creek Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 28 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.010	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.500	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	5	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	5	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.00	**Density**	N/A	**PTSF**	5.3	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.3	**LOS Thresh. Delay**	0.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	390	640	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	780	1280	1740	2840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	32000	78000	128000	174000	284000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	CreekRoad	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 42 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1935	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.080	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.740	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	115	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	40	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	51.6	**ATS**	46.0	**% FFS**	92.1
FFS Delay	5.0	**LOS Thresh. Delay**	5.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	380	730	1130	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	520	990	1530	1920
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2300	6600	12400	19200	24000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	CreekRoad	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 42 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1935	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	129	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	86	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	49.8	**ATS**	45.4	**% FFS**	90.8
FFS Delay	5.9	**LOS Thresh. Delay**	5.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	660	990	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	490	1100	1660	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4500	10000	15000	21400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	CreekRoad	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 42 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	2450	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.082	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.760	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	153	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	48	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	56.4	**ATS**	45.6	**% FFS**	91.2
FFS Delay	5.6	**LOS Thresh. Delay**	5.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	400	730	1150	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	530	970	1520	1870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	6500	11900	18600	22900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	CreekRoad	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 42 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	2450	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.607	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	165	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	107	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	54.6	**ATS**	44.5	**% FFS**	88.9
FFS Delay	7.2	**LOS Thresh. Delay**	7.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	670	1000	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	480	1110	1650	2340
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4400	10000	14900	21100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 43 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1305	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.124	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	45	**Peak Dir. Hrly. Vol.**	86	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	76	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	35.6	**ATS**	47.5	**% FFS**	94.9
FFS Delay	2.3	**LOS Thresh. Delay**	2.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	370	660	920	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	250	700	1250	1740	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	5700	10100	14100	21700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 43 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1305	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	45	**Peak Dir. Hrly. Vol.**	87	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	47	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	39.3	**ATS**	47.7	**% FFS**	95.4
FFS Delay	2.1	**LOS Thresh. Delay**	2.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	430	770	1110	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	300	670	1190	1710	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3000	6600	11600	16700	21300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 43 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1823	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.124	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.535	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	45	**Peak Dir. Hrly. Vol.**	121	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	105	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	41.6	**ATS**	46.5	**% FFS**	93.0
FFS Delay	3.3	**LOS Thresh. Delay**	3.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	370	670	930	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	270	700	1260	1740	2660
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	5700	10200	14100	21500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 43 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1823	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.112	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.657	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	45	**Peak Dir. Hrly. Vol.**	134	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	70	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	45.5	**ATS**	47.1	**% FFS**	94.1
FFS Delay	2.7	**LOS Thresh. Delay**	2.7	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	430	780	1120	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	290	660	1190	1710	2170
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	5900	10700	15300	19400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Riverwood Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Overdorf Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 44 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	4791	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.071	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	42	**Peak Dir. Hrly. Vol.**	173	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	167	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	49.6	**ATS**	40.1	**% FFS**	89.0
FFS Delay	5.9	**LOS Thresh. Delay**	10.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	370	590	800	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	260	730	1160	1570	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3700	10300	16400	22200	39300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Riverwood Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Overdorf Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 44 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	4791	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.106	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.500	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	42	**Peak Dir. Hrly. Vol.**	254	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	254	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	57.5	**ATS**	39.1	**% FFS**	86.8
FFS Delay	7.3	**LOS Thresh. Delay**	12.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	360	580	790	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	260	720	1160	1580	2840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2500	6800	11000	15000	26800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Riverwood Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Overdorf Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 44 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	7208	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.076	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.613	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	42	**Peak Dir. Hrly. Vol.**	336	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	212	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	N/A	**PTSF**	65.0	**ATS**	38.4	**% FFS**	85.4
FFS Delay	8.2	**LOS Thresh. Delay**	13.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	420	710	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	280	690	1160	1570	2320
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3700	9100	15300	20700	30600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Riverwood Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Overdorf Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 44 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	7208	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.106	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.533	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	42	**Peak Dir. Hrly. Vol.**	407	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	357	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.29	**Density**	N/A	**PTSF**	68.3	**ATS**	37.3	**% FFS**	82.8
FFS Delay	10.0	**LOS Thresh. Delay**	14.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	390	620	840	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	270	740	1170	1580	2670
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	7000	11100	15000	25200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Overdorf Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 45 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4818	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	53	**Peak Dir. Hrly. Vol.**	165	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	158	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	51.6	**ATS**	39.5	**% FFS**	87.8
FFS Delay	5.6	**LOS Thresh. Delay**	9.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	310	570	790	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	220	610	1120	1550	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3300	9200	16800	23200	41700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Overdorf Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 45 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4818	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.114	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	53	**Peak Dir. Hrly. Vol.**	291	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	258	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	63.2	**ATS**	37.9	**% FFS**	84.2
FFS Delay	7.5	**LOS Thresh. Delay**	11.5	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	320	580	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	210	610	1100	1550	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	5400	9700	13600	23600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Overdorf Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 45 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5307	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.071	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.525	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	53	**Peak Dir. Hrly. Vol.**	198	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	179	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	55.3	**ATS**	39.0	**% FFS**	86.6
FFS Delay	6.2	**LOS Thresh. Delay**	10.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	320	580	810	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	210	610	1110	1550	2710
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3000	8600	15700	21900	38200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Overdorf Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 45 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5307	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.114	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.531	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	53	**Peak Dir. Hrly. Vol.**	321	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	284	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	64.9	**ATS**	37.5	**% FFS**	83.4
FFS Delay	7.9	**LOS Thresh. Delay**	11.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	320	590	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	210	610	1120	1550	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	5400	9900	13600	23600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Edith Ave	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 46 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	5.000	**Median**	No	**AADT**	8505	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.065	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.680	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	376	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	177	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.27	**Density**	N/A	**PTSF**	71.6	**ATS**	36.1	**% FFS**	80.2
FFS Delay	99.1	**LOS Thresh. Delay**	139.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	600	950	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	430	890	1400	2090
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	6700	13700	21600	32200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Edith Ave	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 46 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	5.000	**Median**	No	**AADT**	8505	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.099	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	429	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	413	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.30	**Density**	N/A	**PTSF**	71.9	**ATS**	35.0	**% FFS**	77.8
FFS Delay	114.3	**LOS Thresh. Delay**	154.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	210	520	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	160	420	1020	1500	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4300	10400	15200	28200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Edith Ave	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 46 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	12477	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.065	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.626	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	508	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	303	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.36	**Density**	N/A	**PTSF**	77.3	**ATS**	34.7	**% FFS**	77.0
FFS Delay	11.9	**LOS Thresh. Delay**	15.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	250	590	900	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	400	950	1440	2270
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	6200	14700	22200	35000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Edith Ave	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 46 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	12477	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.125	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.508	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	792	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	767	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.56	**Density**	N/A	**PTSF**	85.8	**ATS**	29.6	**% FFS**	65.7
FFS Delay	20.9	**LOS Thresh. Delay**	24.9	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	210	520	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	160	420	1030	1500	2800
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3400	8300	12000	22400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Edith Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cicero Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 47 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	8284	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.680	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	33	**Peak Dir. Hrly. Vol.**	377	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	178	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.27	**Density**	N/A	**PTSF**	64.8	**ATS**	33.5	**% FFS**	83.8
FFS Delay	8.7	**LOS Thresh. Delay**	17.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	390	680	940	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	300	580	1000	1390	2090
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4500	8700	15000	20800	31200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Edith Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cicero Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 47 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	8284	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	33	**Peak Dir. Hrly. Vol.**	435	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	418	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.31	**Density**	N/A	**PTSF**	69.3	**ATS**	31.6	**% FFS**	78.9
FFS Delay	12.0	**LOS Thresh. Delay**	21.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	320	530	710	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	260	630	1040	1400	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	6200	10100	13600	27100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Edith Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cicero Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 47 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	10418	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.593	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	33	**Peak Dir. Hrly. Vol.**	414	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	284	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.29	**Density**	N/A	**PTSF**	67.0	**ATS**	32.6	**% FFS**	81.6
FFS Delay	10.2	**LOS Thresh. Delay**	19.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	350	600	830	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	270	600	1020	1400	2400
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4100	9000	15300	20900	35900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Edith Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cicero Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 47 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	10418	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.133	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.528	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	33	**Peak Dir. Hrly. Vol.**	732	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	654	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.51	**Density**	N/A	**PTSF**	82.1	**ATS**	26.8	**% FFS**	67.1
FFS Delay	22.1	**LOS Thresh. Delay**	31.1	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	330	540	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	250	630	1030	1410	2690
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	4800	7800	10700	20300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cicero Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	James Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 48 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7327	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.790	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	70	**Peak Dir. Hrly. Vol.**	388	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	103	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.27	**Density**	N/A	**PTSF**	73.5	**ATS**	38.1	**% FFS**	84.6
FFS Delay	7.3	**LOS Thresh. Delay**	11.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	420	660	1050	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	190	540	840	1330	1800
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	8100	12600	19900	26900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cicero Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	James Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 48 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7327	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.109	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	70	**Peak Dir. Hrly. Vol.**	407	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	391	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.29	**Density**	N/A	**PTSF**	70.1	**ATS**	35.6	**% FFS**	79.0
FFS Delay	10.6	**LOS Thresh. Delay**	14.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	240	530	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	480	1040	1510	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4500	9600	13900	25600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cicero Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	James Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 48 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	10045	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.762	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	70	**Peak Dir. Hrly. Vol.**	513	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	160	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.36	**Density**	N/A	**PTSF**	74.7	**ATS**	35.4	**% FFS**	78.6
FFS Delay	10.9	**LOS Thresh. Delay**	14.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	390	660	1040	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	190	520	870	1370	1870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	7800	13000	20500	28000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cicero Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	James Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 48 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	10045	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.126	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.536	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	70	**Peak Dir. Hrly. Vol.**	678	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	587	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.48	**Density**	N/A	**PTSF**	82.2	**ATS**	32.0	**% FFS**	71.2
FFS Delay	16.2	**LOS Thresh. Delay**	20.2	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	250	550	810	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	470	1030	1520	2650
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	3800	8200	12100	21100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	James Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hague Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 49 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7356	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.066	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.800	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	388	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	97	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.27	**Density**	N/A	**PTSF**	53.9	**ATS**	40.2	**% FFS**	89.3
FFS Delay	4.8	**LOS Thresh. Delay**	8.8	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	310	580	890	1210	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	390	730	1120	1520	1780
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	6000	11100	17000	23100	27000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	James Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hague Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 49 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7356	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.109	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	409	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	393	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.29	**Density**	N/A	**PTSF**	61.6	**ATS**	36.8	**% FFS**	81.8
FFS Delay	8.9	**LOS Thresh. Delay**	12.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	360	590	800	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	710	1160	1570	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3000	6600	10700	14500	25600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	James Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hague Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 49 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	9727	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.066	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.766	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	492	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	150	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.35	**Density**	N/A	**PTSF**	60.7	**ATS**	38.3	**% FFS**	85.0
FFS Delay	7.1	**LOS Thresh. Delay**	11.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	290	540	850	1160	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	380	710	1110	1520	1860
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5800	10800	16900	23100	28200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	206th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	James Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hague Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 49 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	9727	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.128	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.537	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	669	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	576	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.47	**Density**	N/A	**PTSF**	76.6	**ATS**	33.1	**% FFS**	73.5
FFS Delay	14.4	**LOS Thresh. Delay**	18.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	370	620	850	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	690	1160	1590	2650
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	5400	9100	12500	20800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Carrigan Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 50 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	10663	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.790	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	564	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	150	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.40	**Density**	N/A	**PTSF**	78.7	**ATS**	39.6	**% FFS**	79.2
FFS Delay	5.7	**LOS Thresh. Delay**	5.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	440	740	1170	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	560	940	1490	1800
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	8400	14100	22300	26900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Carrigan Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 50 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	10663	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.117	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	736	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	512	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.52	**Density**	N/A	**PTSF**	85.4	**ATS**	36.6	**% FFS**	73.1
FFS Delay	7.9	**LOS Thresh. Delay**	7.9	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	650	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	500	1110	1650	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4300	9500	14200	20600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Carrigan Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 50 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	17017	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.071	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.790	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	954	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	254	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.67	**Density**	N/A	**PTSF**	99.4	**ATS**	35.5	**% FFS**	70.9
FFS Delay	8.8	**LOS Thresh. Delay**	8.8	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	440	740	1170	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	560	940	1490	1800
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	7900	13300	21000	25400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Carrigan Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 50 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	17017	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.117	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.598	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1191	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	800	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.84	**Density**	N/A	**PTSF**	94.0	**ATS**	30.4	**% FFS**	60.8
FFS Delay	13.9	**LOS Thresh. Delay**	13.9	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	660	980	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	490	1110	1640	2380
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4200	9500	14100	20400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Little Chicago Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Buttonwood Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 51 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	11374	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.084	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.850	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	812	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	143	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.57	**Density**	N/A	**PTSF**	87.6	**ATS**	32.5	**% FFS**	72.3
FFS Delay	29.1	**LOS Thresh. Delay**	36.7	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	460	720	1010	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	550	850	1190	1680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	6600	10200	14200	20000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Little Chicago Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Buttonwood Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 51 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	11374	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	682	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	455	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.48	**Density**	N/A	**PTSF**	84.5	**ATS**	32.4	**% FFS**	72.0
FFS Delay	29.6	**LOS Thresh. Delay**	37.2	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	230	560	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	390	940	1460	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4000	9400	14600	23800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Little Chicago Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Buttonwood Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 51 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	12571	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.084	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.841	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	888	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	168	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.62	**Density**	N/A	**PTSF**	91.3	**ATS**	31.2	**% FFS**	69.4
FFS Delay	33.6	**LOS Thresh. Delay**	41.2	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	450	700	1010	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	540	840	1210	1690
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	6500	10000	14500	20200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Little Chicago Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Buttonwood Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	211th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 51 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	12571	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.606	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	777	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	505	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.55	**Density**	N/A	**PTSF**	86.7	**ATS**	31.3	**% FFS**	69.6
FFS Delay	33.2	**LOS Thresh. Delay**	40.8	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	230	560	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	380	930	1440	2350
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	3800	9200	14200	23100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	196th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 52 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	7103	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	284	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	263	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.20	**Density**	N/A	**PTSF**	64.4	**ATS**	41.6	**% FFS**	83.3
FFS Delay	13.7	**LOS Thresh. Delay**	13.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	280	600	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	160	540	1160	1680	2740
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	7100	15100	21900	35600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	196th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 52 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	7103	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.153	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	674	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	413	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.47	**Density**	N/A	**PTSF**	84.7	**ATS**	37.6	**% FFS**	75.1
FFS Delay	22.6	**LOS Thresh. Delay**	22.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	680	1010	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	470	1100	1630	2300
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3100	7200	10700	15100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	196th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 52 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	9078	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.096	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.641	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	559	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	313	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.39	**Density**	N/A	**PTSF**	80.1	**ATS**	39.0	**% FFS**	78.1
FFS Delay	19.2	**LOS Thresh. Delay**	19.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	290	690	1040	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	460	1080	1630	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	4800	11300	17000	23200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	196th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 52 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	9078	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.153	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.617	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	857	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	532	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.60	**Density**	N/A	**PTSF**	89.0	**ATS**	35.3	**% FFS**	70.6
FFS Delay	28.4	**LOS Thresh. Delay**	28.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	670	1010	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	480	1090	1640	2310
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3200	7200	10800	15100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	James Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 53 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.032	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.780	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	25	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	7	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	10.9	**ATS**	49.5	**% FFS**	99.0
FFS Delay	0.7	**LOS Thresh. Delay**	0.7	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	320	590	950	1310	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	420	760	1220	1680	1830
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	13200	23800	38200	52600	57200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	James Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 53 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.057	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	31	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	26	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	9.9	**ATS**	49.3	**% FFS**	98.5
FFS Delay	1.1	**LOS Thresh. Delay**	1.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	420	690	940	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	780	1280	1750	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5700	13700	22500	30800	46200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	James Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 53 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.073	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.781	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	57	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	16	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	15.3	**ATS**	49.1	**% FFS**	98.2
FFS Delay	1.3	**LOS Thresh. Delay**	1.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	320	590	950	1310	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	410	760	1220	1680	1820
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5700	10500	16800	23100	25000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	James Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 53 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.129	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.597	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	77	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	52	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	17.3	**ATS**	48.6	**% FFS**	97.1
FFS Delay	2.1	**LOS Thresh. Delay**	2.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	460	760	1040	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	780	1280	1750	2380
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2700	6100	10000	13600	18500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cicero Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	196th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 54 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	9408	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.096	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.850	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	44	**Peak Dir. Hrly. Vol.**	768	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	135	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.54	**Density**	N/A	**PTSF**	79.4	**ATS**	44.4	**% FFS**	80.8
FFS Delay	15.6	**LOS Thresh. Delay**	9.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	280	660	1020	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	780	1200	1680	1680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3500	8200	12600	17600	17600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cicero Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	196th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 54 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	9408	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.115	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.690	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	44	**Peak Dir. Hrly. Vol.**	747	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	335	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.52	**Density**	N/A	**PTSF**	83.1	**ATS**	43.0	**% FFS**	78.1
FFS Delay	18.4	**LOS Thresh. Delay**	11.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	210	500	890	1280	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	310	730	1290	1860	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2700	6400	11300	16200	18000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cicero Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	196th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 54 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	13148	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.104	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.884	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	44	**Peak Dir. Hrly. Vol.**	1209	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	159	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.85	**Density**	N/A	**PTSF**	86.7	**ATS**	39.8	**% FFS**	72.3
FFS Delay	25.1	**LOS Thresh. Delay**	18.5	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	300	720	1080	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	820	1230	1610	1610
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3300	7900	11900	15500	15500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cicero Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	196th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 54 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	13148	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.115	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.747	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	44	**Peak Dir. Hrly. Vol.**	1129	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	383	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.79	**Density**	N/A	**PTSF**	92.6	**ATS**	39.2	**% FFS**	71.3
FFS Delay	26.4	**LOS Thresh. Delay**	19.8	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	240	520	940	1360	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	700	1260	1830	1910
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	6100	11000	16000	16700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Edith Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012

File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 55 AM.xhp
User Notes	

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.012	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	12	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	45.3	**ATS**	47.5	**% FFS**	94.9
FFS Delay	4.2	**LOS Thresh. Delay**	4.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	630	1080	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	640	1080	1420	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	15000	53400	90000	118400	118400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Edith Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 55 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.020	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	13	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	7	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	34.9	**ATS**	47.4	**% FFS**	94.8
FFS Delay	4.4	**LOS Thresh. Delay**	4.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	300	700	1060	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	470	1080	1640	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	8600	23600	54000	82000	109600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Edith Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 55 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	1476	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.054	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.835	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	67	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	13	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	48.1	**ATS**	46.8	**% FFS**	93.6
FFS Delay	5.4	**LOS Thresh. Delay**	5.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	500	780	1190	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	600	940	1430	1710
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3400	11200	17500	26500	31700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Edith Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 55 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	1476	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.084	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.621	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	77	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	47	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	42.9	**ATS**	46.4	**% FFS**	92.8
FFS Delay	6.2	**LOS Thresh. Delay**	6.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	300	690	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1120	1650	2290
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	5900	13400	19700	27300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Edith Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 56 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.012	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	50	**Peak Dir. Hrly. Vol.**	12	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	40.2	**ATS**	48.6	**% FFS**	97.2
FFS Delay	0.8	**LOS Thresh. Delay**	0.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	300	750	1200	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	300	760	1200	1420	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	25000	63400	100000	118400	118400

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Edith Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 56 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.020	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	50	**Peak Dir. Hrly. Vol.**	13	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	7	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	30.9	**ATS**	48.5	**% FFS**	97.0
FFS Delay	0.9	**LOS Thresh. Delay**	0.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	410	760	1100	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	280	640	1170	1700	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	14000	32000	58600	85000	109600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Edith Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 56 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	2000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.040	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.835	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	50	**Peak Dir. Hrly. Vol.**	67	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	13	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	43.6	**ATS**	47.9	**% FFS**	95.9
FFS Delay	1.2	**LOS Thresh. Delay**	1.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	250	580	890	1290	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	300	700	1070	1550	1710
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	7600	17600	26800	38800	42800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Edith Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 56 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	2000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.062	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.621	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	50	**Peak Dir. Hrly. Vol.**	77	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	47	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	39.0	**ATS**	47.5	**% FFS**	95.0
FFS Delay	1.5	**LOS Thresh. Delay**	1.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	400	740	1060	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	260	650	1200	1710	2290
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4200	10500	19400	27600	37000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Overdorf Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 57 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.021	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	43	**Peak Dir. Hrly. Vol.**	15	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	6	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	30.4	**ATS**	48.9	**% FFS**	97.8
FFS Delay	1.0	**LOS Thresh. Delay**	1.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	230	470	820	1190	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	670	1160	1680	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	15800	32000	55300	80000	95300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Overdorf Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 57 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.047	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.660	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	43	**Peak Dir. Hrly. Vol.**	31	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	16	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	31.4	**ATS**	48.7	**% FFS**	97.3
FFS Delay	1.2	**LOS Thresh. Delay**	1.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	440	790	1120	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	310	670	1200	1700	2160
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	6600	14300	25600	36200	46000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Overdorf Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 57 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.026	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.654	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	43	**Peak Dir. Hrly. Vol.**	17	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	9	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	29.3	**ATS**	48.9	**% FFS**	97.7
FFS Delay	1.0	**LOS Thresh. Delay**	1.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	440	780	1110	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	310	680	1200	1700	2180
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	12000	26200	46200	65400	83900

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Overdorf Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 57 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.055	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.655	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	43	**Peak Dir. Hrly. Vol.**	36	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	19	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	32.0	**ATS**	48.6	**% FFS**	97.2
FFS Delay	1.2	**LOS Thresh. Delay**	1.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	440	780	1120	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	310	680	1200	1710	2170
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5700	12400	21900	31100	39500

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Overdorf Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 58 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.016	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	57	**Peak Dir. Hrly. Vol.**	16	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	45.5	**ATS**	48.1	**% FFS**	96.3
FFS Delay	1.4	**LOS Thresh. Delay**	1.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	260	710	1160	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	260	720	1160	1420	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	16300	45000	72600	88800	88800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Overdorf Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 58 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.021	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.670	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	57	**Peak Dir. Hrly. Vol.**	14	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	7	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	34.6	**ATS**	48.1	**% FFS**	96.2
FFS Delay	1.4	**LOS Thresh. Delay**	1.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	380	760	1110	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	260	570	1140	1660	2120
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	12400	27200	54300	79100	101000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Overdorf Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 58 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.019	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.842	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	57	**Peak Dir. Hrly. Vol.**	16	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	3	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	40.6	**ATS**	48.1	**% FFS**	96.2
FFS Delay	1.4	**LOS Thresh. Delay**	1.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	210	560	850	1260	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	250	670	1010	1500	1690
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	13200	35300	53200	79000	89000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Overdorf Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	206th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 58 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.024	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.708	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	57	**Peak Dir. Hrly. Vol.**	17	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	7	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	36.3	**ATS**	48.1	**% FFS**	96.1
FFS Delay	1.5	**LOS Thresh. Delay**	1.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	390	780	1160	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	260	560	1110	1640	2010
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	10900	23400	46300	68400	83800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Overdorf Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 59 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.025	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.760	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	19	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	6	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	39.6	**ATS**	47.3	**% FFS**	94.5
FFS Delay	3.8	**LOS Thresh. Delay**	3.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	400	730	1150	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	530	970	1520	1870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	7200	21200	38800	60800	74800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Overdorf Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 59 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.040	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.680	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	27	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	13	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	37.7	**ATS**	47.1	**% FFS**	94.2
FFS Delay	4.0	**LOS Thresh. Delay**	4.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	320	710	1080	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	480	1050	1590	2090
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4300	12000	26300	39800	52300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Overdorf Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 59 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.027	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.704	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	19	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	8	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	37.3	**ATS**	47.2	**% FFS**	94.5
FFS Delay	3.8	**LOS Thresh. Delay**	3.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	340	720	1100	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1030	1570	2020
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	6700	18200	38200	58200	74900

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Riverwood Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Overdorf Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 59 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.045	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.644	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	29	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	16	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	37.5	**ATS**	47.1	**% FFS**	94.1
FFS Delay	4.0	**LOS Thresh. Delay**	4.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	290	690	1040	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	460	1080	1620	2210
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4000	10300	24000	36000	49200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	196th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 68 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3138	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.088	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.550	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	65	**Peak Dir. Hrly. Vol.**	152	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	124	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	50.4	**ATS**	44.6	**% FFS**	89.3
FFS Delay	4.3	**LOS Thresh. Delay**	4.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	320	650	930	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	200	590	1190	1700	2590
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2300	6800	13600	19400	29500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	196th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 68 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3138	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.116	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	65	**Peak Dir. Hrly. Vol.**	186	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	178	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.13	**Density**	N/A	**PTSF**	54.6	**ATS**	43.2	**% FFS**	86.4
FFS Delay	5.6	**LOS Thresh. Delay**	5.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	310	620	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	200	610	1220	1710	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	5300	10600	14800	24100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	196th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 68 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	8647	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.091	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.693	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	65	**Peak Dir. Hrly. Vol.**	545	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	242	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.38	**Density**	N/A	**PTSF**	77.9	**ATS**	39.7	**% FFS**	79.5
FFS Delay	9.3	**LOS Thresh. Delay**	9.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	360	760	1130	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	220	520	1100	1640	2050
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2500	5800	12100	18100	22600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	196th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 68 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	8647	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.116	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	65	**Peak Dir. Hrly. Vol.**	572	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	431	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.40	**Density**	N/A	**PTSF**	79.3	**ATS**	38.9	**% FFS**	77.7
FFS Delay	10.3	**LOS Thresh. Delay**	10.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	330	670	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	220	580	1180	1710	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	5000	10200	14800	21600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Moontown Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 69 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	1859	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.089	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.670	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	64	**Peak Dir. Hrly. Vol.**	111	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	55	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	47.8	**ATS**	46.4	**% FFS**	92.8
FFS Delay	5.0	**LOS Thresh. Delay**	5.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	350	750	1100	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	230	530	1120	1650	2120
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	6000	12600	18600	23900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Moontown Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 69 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	1859	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	64	**Peak Dir. Hrly. Vol.**	114	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	86	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	45.0	**ATS**	46.0	**% FFS**	92.0
FFS Delay	5.6	**LOS Thresh. Delay**	5.6	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	330	670	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	220	580	1180	1710	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	5400	11000	15900	23200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Moontown Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 69 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	2225	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.089	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.621	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	64	**Peak Dir. Hrly. Vol.**	123	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	75	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	48.2	**ATS**	46.1	**% FFS**	92.2
FFS Delay	5.4	**LOS Thresh. Delay**	5.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	340	710	1040	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	210	550	1150	1680	2290
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	6200	13000	18900	25800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Moontown Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 69 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	2225	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.555	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	64	**Peak Dir. Hrly. Vol.**	136	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	109	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	47.9	**ATS**	45.2	**% FFS**	90.4
FFS Delay	6.9	**LOS Thresh. Delay**	6.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	330	660	940	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	200	600	1190	1700	2560
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	5500	10900	15500	23300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	196th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hague Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	James Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 70 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4602	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.085	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.550	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	215	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	176	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	59.6	**ATS**	32.4	**% FFS**	81.0
FFS Delay	10.5	**LOS Thresh. Delay**	19.5	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	430	690	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	790	1260	2590
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3700	9300	14900	30500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	196th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hague Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	James Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 70 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4602	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.139	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	326	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	313	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	66.0	**ATS**	31.2	**% FFS**	77.9
FFS Delay	12.7	**LOS Thresh. Delay**	21.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	40	150	420	650	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	80	300	830	1280	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	600	2200	6000	9300	20100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	196th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hague Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	James Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 70 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4669	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.086	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.552	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	222	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	180	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.16	**Density**	N/A	**PTSF**	60.4	**ATS**	32.3	**% FFS**	80.9
FFS Delay	10.7	**LOS Thresh. Delay**	19.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	430	690	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	780	1260	2580
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3700	9100	14700	30100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	196th Street	**Study Period**	Kother
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hague Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	James Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 70 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4669	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.139	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.512	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	332	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	317	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	N/A	**PTSF**	66.3	**ATS**	31.1	**% FFS**	77.8
FFS Delay	12.9	**LOS Thresh. Delay**	21.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	150	420	660	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	300	830	1290	2780
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	2200	6000	9300	20000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	196th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	James Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 19	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 71 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5381	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.075	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	81	**Peak Dir. Hrly. Vol.**	210	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	194	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	57.9	**ATS**	32.6	**% FFS**	81.6
FFS Delay	10.2	**LOS Thresh. Delay**	19.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	160	430	670	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	120	310	830	1290	2740
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4200	11100	17200	36600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	196th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	James Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 19	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 71 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5381	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.117	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	81	**Peak Dir. Hrly. Vol.**	321	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	308	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	65.0	**ATS**	31.4	**% FFS**	78.5
FFS Delay	12.3	**LOS Thresh. Delay**	21.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	160	430	660	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	120	320	850	1300	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	2800	7300	11200	23900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	196th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	James Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 19	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 71 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5987	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.075	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.501	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	81	**Peak Dir. Hrly. Vol.**	225	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	224	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.16	**Density**	N/A	**PTSF**	58.7	**ATS**	32.4	**% FFS**	81.1
FFS Delay	10.5	**LOS Thresh. Delay**	19.5	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	150	420	650	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	300	840	1300	2840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4000	11200	17400	37900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	196th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	James Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 19	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 71 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5987	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.118	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.507	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	81	**Peak Dir. Hrly. Vol.**	358	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	348	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.25	**Density**	N/A	**PTSF**	67.0	**ATS**	31.0	**% FFS**	77.4
FFS Delay	13.1	**LOS Thresh. Delay**	22.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	420	660	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	320	830	1310	2810
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	2800	7100	11200	23900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 72 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	2304	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.080	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.880	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	162	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	22	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	59.6	**ATS**	40.9	**% FFS**	90.8
FFS Delay	6.5	**LOS Thresh. Delay**	12.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	480	790	1070	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	550	900	1220	1620
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	6900	11300	15300	20300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 72 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	2304	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.149	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.730	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	251	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	93	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	64.8	**ATS**	39.1	**% FFS**	87.0
FFS Delay	9.6	**LOS Thresh. Delay**	16.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	330	600	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	460	830	1330	1950
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3100	5600	9000	13100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 72 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	2336	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.080	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.882	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	165	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	22	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	59.8	**ATS**	40.8	**% FFS**	90.8
FFS Delay	6.5	**LOS Thresh. Delay**	12.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	480	790	1080	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	550	900	1230	1610
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	6900	11300	15400	20200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 72 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	2336	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.149	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.727	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	253	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	95	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	64.9	**ATS**	39.1	**% FFS**	86.8
FFS Delay	9.7	**LOS Thresh. Delay**	16.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	330	600	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	460	830	1340	1960
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3100	5600	9000	13200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 73 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	2093	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.084	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	90	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	86	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	39.7	**ATS**	40.8	**% FFS**	90.8
FFS Delay	5.7	**LOS Thresh. Delay**	11.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	510	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	400	1000	1500	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4800	12000	17900	33300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	DA	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 73 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	2093	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	121	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	112	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	46.0	**ATS**	39.8	**% FFS**	88.5
FFS Delay	7.3	**LOS Thresh. Delay**	12.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	520	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	390	1000	1490	2740
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3600	9100	13500	24700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 73 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	2093	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.084	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.506	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	89	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	87	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	39.3	**ATS**	40.8	**% FFS**	90.7
FFS Delay	5.7	**LOS Thresh. Delay**	11.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	510	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	400	1010	1490	2810
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4800	12100	17800	33500

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 73 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	2093	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.517	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	120	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	112	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	45.7	**ATS**	39.8	**% FFS**	88.5
FFS Delay	7.3	**LOS Thresh. Delay**	12.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	520	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	390	1010	1490	2750
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3600	9100	13500	24800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	196th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Promise Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 74 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.021	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.810	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	88	**Peak Dir. Hrly. Vol.**	17	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	4	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	40.8	**ATS**	47.4	**% FFS**	94.7
FFS Delay	3.2	**LOS Thresh. Delay**	3.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	460	750	1180	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	570	930	1460	1760
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	8600	27200	44300	69600	83900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	196th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Promise Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 74 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.054	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.740	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	88	**Peak Dir. Hrly. Vol.**	40	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	14	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	41.6	**ATS**	47.0	**% FFS**	94.1
FFS Delay	3.6	**LOS Thresh. Delay**	3.6	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	380	740	1140	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	520	1000	1550	1920
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3400	9700	18600	28800	35600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	196th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Promise Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 74 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.023	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.783	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	88	**Peak Dir. Hrly. Vol.**	18	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	5	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	40.1	**ATS**	47.3	**% FFS**	94.7
FFS Delay	3.2	**LOS Thresh. Delay**	3.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	430	740	1170	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	550	950	1500	1820
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	7900	24000	41400	65300	79200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	196th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Promise Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 74 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.063	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.746	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	88	**Peak Dir. Hrly. Vol.**	47	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	16	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	42.8	**ATS**	47.0	**% FFS**	93.9
FFS Delay	3.7	**LOS Thresh. Delay**	3.7	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	390	740	1150	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	530	1000	1550	1910
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	8500	15900	24700	30400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Summer Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 89 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.011	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	12	**Peak Dir. Hrly. Vol.**	7	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	4	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	17.3	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.2	**LOS Thresh. Delay**	0.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	230	490	810	1110	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	360	770	1270	1740	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	32800	70000	115500	158200	201900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Summer Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 89 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.023	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	12	**Peak Dir. Hrly. Vol.**	13	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	10	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	16.5	**ATS**	49.6	**% FFS**	99.2
FFS Delay	0.3	**LOS Thresh. Delay**	0.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	440	730	1000	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	780	1290	1760	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	14800	34000	56100	76600	108700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Summer Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 89 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.021	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.810	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	12	**Peak Dir. Hrly. Vol.**	17	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	4	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	21.1	**ATS**	49.6	**% FFS**	99.2
FFS Delay	0.3	**LOS Thresh. Delay**	0.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	340	630	980	1350	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	420	780	1210	1670	1760
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	20000	37200	57700	79600	83900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Summer Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 89 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.026	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.538	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	12	**Peak Dir. Hrly. Vol.**	14	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	12	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	15.4	**ATS**	49.6	**% FFS**	99.1
FFS Delay	0.3	**LOS Thresh. Delay**	0.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	420	690	940	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	790	1290	1750	2640
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	12400	30400	49700	67400	101600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 90 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3531	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.690	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	251	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	113	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	64.2	**ATS**	43.5	**% FFS**	87.0
FFS Delay	5.4	**LOS Thresh. Delay**	5.4	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	330	720	1090	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	480	1050	1580	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	4700	10200	15400	20000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 90 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3531	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.133	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.550	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	258	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	211	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	63.9	**ATS**	42.0	**% FFS**	83.9
FFS Delay	6.9	**LOS Thresh. Delay**	6.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	630	910	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	510	1150	1660	2590
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3900	8700	12500	19500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 90 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	8308	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.748	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	640	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	216	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.45	**Density**	N/A	**PTSF**	84.1	**ATS**	38.4	**% FFS**	76.8
FFS Delay	10.8	**LOS Thresh. Delay**	10.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	390	730	1140	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	530	980	1530	1900
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	5200	9600	14900	18500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 90 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	8308	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.133	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.594	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	656	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	449	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.46	**Density**	N/A	**PTSF**	83.7	**ATS**	37.6	**% FFS**	75.1
FFS Delay	11.9	**LOS Thresh. Delay**	11.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	660	980	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	490	1120	1650	2400
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3700	8500	12500	18100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Allisonville Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 91 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7095	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.066	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.820	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	384	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	84	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.27	**Density**	N/A	**PTSF**	74.1	**ATS**	38.2	**% FFS**	84.8
FFS Delay	7.2	**LOS Thresh. Delay**	11.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	420	660	1000	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	520	810	1220	1740
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	7900	12300	18500	26400

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Allisonville Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 91 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7095	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.094	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	427	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	240	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.30	**Density**	N/A	**PTSF**	73.2	**ATS**	35.4	**% FFS**	78.6
FFS Delay	10.9	**LOS Thresh. Delay**	14.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	260	580	910	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	410	910	1430	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4400	9700	15300	23700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Allisonville Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 91 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	13864	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.066	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.737	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	674	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	241	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.47	**Density**	N/A	**PTSF**	85.7	**ATS**	33.1	**% FFS**	73.5
FFS Delay	14.4	**LOS Thresh. Delay**	18.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	340	600	980	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	470	820	1330	1930
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	7200	12500	20200	29300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Allisonville Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 91 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	13864	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.122	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.592	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1001	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	690	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.70	**Density**	N/A	**PTSF**	91.1	**ATS**	28.1	**% FFS**	62.5
FFS Delay	24.0	**LOS Thresh. Delay**	28.0	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	220	560	860	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	380	950	1460	2400
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3200	7800	12000	19700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cicero Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Field Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 92 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	14464	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.084	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.800	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	73	**Peak Dir. Hrly. Vol.**	972	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	243	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.68	**Density**	N/A	**PTSF**	85.5	**ATS**	40.5	**% FFS**	73.6
FFS Delay	22.3	**LOS Thresh. Delay**	16.1	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	510	890	1350	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	230	640	1120	1690	1780
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	7700	13400	20200	21200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cicero Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Field Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 92 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	14464	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.118	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.670	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	73	**Peak Dir. Hrly. Vol.**	1144	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	563	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.80	**Density**	N/A	**PTSF**	93.0	**ATS**	37.6	**% FFS**	68.4
FFS Delay	28.7	**LOS Thresh. Delay**	22.5	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	400	830	1220	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	230	600	1240	1830	2120
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	5100	10600	15600	18000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cicero Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Field Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 92 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	18746	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.092	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.844	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	90	**Peak Dir. Hrly. Vol.**	1456	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	269	**Adjusted Capacity**	0

LOS Results

v/c Ratio	1.02	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	550	880	1360	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	210	660	1050	1620	1690
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2300	7200	11500	17700	18400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cicero Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Field Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 92 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	18746	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.118	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.716	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	90	**Peak Dir. Hrly. Vol.**	1584	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	628	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.11	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	400	840	1270	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	200	560	1180	1780	1990
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4800	10000	15100	16900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cicero Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Field Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 92 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	18746	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.092	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.844	**Base Capacity**	2100
Posted Speed	50	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1456	**Local Adj. Factor**	0.88
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	269	**Adjusted Capacity**	1730

LOS Results

v/c Ratio	0.46	**Density**	17.5	**PTSF**	N/A	**ATS**	55.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	5.5	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	830	1410	2000	2530	2800
3	1250	2120	3000	3790	4200
4	1660	2830	4000	5060	5600
Lanes	**Hourly Volume In Both Directions**				
2					
4	990	1680	2370	3000	3320
6	1490	2520	3560	4500	4980
8	1970	3360	4740	6000	6640
Lanes	**Annual Average Daily Traffic**				
2					
4	10800	18300	25800	32700	36100
6	16200	27400	38700	49000	54200
8	21500	36600	51600	65300	72200

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cicero Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Field Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 92 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	18746	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.118	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.716	**Base Capacity**	2100
Posted Speed	50	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1584	**Local Adj. Factor**	0.88
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	628	**Adjusted Capacity**	1730

LOS Results

v/c Ratio	0.50	**Density**	19.0	**PTSF**	N/A	**ATS**	55.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	5.5	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	830	1410	2000	2530	2800
3	1250	2120	3000	3790	4200
4	1660	2830	4000	5060	5600
Lanes	**Hourly Volume In Both Directions**				
2					
4	1160	1970	2800	3540	3920
6	1750	2970	4190	5300	5870
8	2320	3960	5590	7070	7830
Lanes	**Annual Average Daily Traffic**				
2					
4	9900	16700	23800	30000	33300
6	14900	25200	35600	45000	49800
8	19700	33600	47400	60000	66400

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Lakeview Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 93a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	13838	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.047	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.700	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	455	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	195	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.32	**Density**	N/A	**PTSF**	74.4	**ATS**	40.2	**% FFS**	80.3
FFS Delay	12.3	**LOS Thresh. Delay**	12.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	340	720	1100	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1030	1580	2030
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3900	10500	22000	33700	43200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Lakeview Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012

File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 93a PM.xhp
User Notes	

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	13838	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	915	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	538	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.64	**Density**	N/A	**PTSF**	90.2	**ATS**	34.8	**% FFS**	69.5
FFS Delay	22.1	**LOS Thresh. Delay**	22.1	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	290	680	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	470	1080	1620	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	4500	10300	15500	21600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Lakeview Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 93a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	16790	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.744	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	837	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	288	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.59	**Density**	N/A	**PTSF**	92.4	**ATS**	36.5	**% FFS**	73.0
FFS Delay	18.6	**LOS Thresh. Delay**	18.6	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	380	730	1140	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	520	990	1540	1910
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2700	7800	14800	23000	28600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Lakeview Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 93a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	16790	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.629	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1109	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	654	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.78	**Density**	N/A	**PTSF**	92.7	**ATS**	32.3	**% FFS**	64.6
FFS Delay	27.6	**LOS Thresh. Delay**	27.6	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	290	680	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	470	1090	1630	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	4500	10400	15600	21600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Lakeview Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 93b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	13838	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.057	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.700	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	552	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	237	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.17	**Density**	6.9	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	2.4	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1130	1930	2730	3490	4050
6	1700	2900	4100	5250	6080
8	2280	3880	5460	6990	8110
Lanes	**Annual Average Daily Traffic**				
2					
4	19900	33900	47900	61300	71100
6	29900	50900	72000	92200	106700
8	40000	68100	95800	122700	142300

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Lakeview Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 93b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	13838	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	915	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	538	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.29	**Density**	11.5	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	2.4	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1260	2150	3040	3880	4500
6	1890	3230	4560	5830	6750
8	2530	4310	6070	7770	9000
Lanes	**Annual Average Daily Traffic**				
2					
4	12000	20500	29000	37000	42900
6	18000	30800	43500	55600	64300
8	24100	41100	57900	74000	85800

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Lakeview Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 93b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	16790	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.744	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	837	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	288	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	10.5	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	2.4	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1070	1820	2570	3280	3810
6	1600	2730	3860	4940	5720
8	2140	3650	5140	6580	7630
Lanes	**Annual Average Daily Traffic**				
2					
4	16000	27200	38400	49000	56900
6	23900	40800	57700	73800	85400
8	32000	54500	76800	98300	113900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	196th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Lakeview Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 93b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	16790	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.629	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1109	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	654	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.35	**Density**	13.9	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	2.4	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1260	2150	3040	3880	4500
6	1900	3230	4570	5840	6760
8	2530	4310	6080	7780	9020
Lanes	**Annual Average Daily Traffic**				
2					
4	12000	20500	29000	37000	42900
6	18100	30800	43600	55700	64400
8	24100	41100	58000	74100	86000

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Little Chicago Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Moontown Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 94 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	7010	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	50	**Peak Dir. Hrly. Vol.**	433	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	177	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.31	**Density**	N/A	**PTSF**	70.2	**ATS**	46.4	**% FFS**	84.4
FFS Delay	11.5	**LOS Thresh. Delay**	5.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	210	480	890	1300	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	300	680	1260	1840	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3500	7900	14500	21200	23000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Little Chicago Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Moontown Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 94 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	7010	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	50	**Peak Dir. Hrly. Vol.**	506	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	272	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.36	**Density**	N/A	**PTSF**	74.7	**ATS**	45.3	**% FFS**	82.4
FFS Delay	13.3	**LOS Thresh. Delay**	7.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	460	850	1210	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	280	710	1310	1870	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	6400	11900	16900	19800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Little Chicago Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Moontown Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 94 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	9517	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.687	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	50	**Peak Dir. Hrly. Vol.**	569	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	259	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.40	**Density**	N/A	**PTSF**	77.5	**ATS**	44.8	**% FFS**	81.4
FFS Delay	14.2	**LOS Thresh. Delay**	8.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	470	880	1270	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	280	690	1290	1850	2070
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3300	8000	14900	21300	23800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Little Chicago Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Moontown Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 94 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	9517	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.119	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.619	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	50	**Peak Dir. Hrly. Vol.**	701	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	431	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.49	**Density**	N/A	**PTSF**	83.1	**ATS**	42.8	**% FFS**	77.8
FFS Delay	17.7	**LOS Thresh. Delay**	11.5	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	440	820	1160	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	260	720	1330	1880	2300
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	6100	11200	15800	19400

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Little Chicago Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 95 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.500	**Median**	Yes	**AADT**	9463	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.086	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.770	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	627	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	187	**Adjusted Capacity**	0

LOS Results

v/c Ratio	0.20	**Density**	7.9	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	18.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1030	1760	2490	3170	3680
6	1550	2640	3730	4770	5520
8	2070	3520	4970	6360	7370
Lanes	**Annual Average Daily Traffic**				
2					
4	12000	20500	29000	36900	42800
6	18100	30700	43400	55500	64200
8	24100	41000	57800	74000	85700

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Little Chicago Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 95 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.500	**Median**	Yes	**AADT**	9463	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.137	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	739	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	557	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	9.3	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	18.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1390	2370	3360	4290	4970
6	2090	3570	5040	6440	7460
8	2790	4760	6710	8580	9950
Lanes	**Annual Average Daily Traffic**				
2					
4	10200	17300	24600	31400	36300
6	15300	26100	36800	47100	54500
8	20400	34800	49000	62700	72700

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Little Chicago Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 95 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.500	**Median**	Yes	**AADT**	12756	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.086	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	779	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	318	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	9.8	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	18.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1120	1910	2700	3440	3990
6	1680	2860	4050	5170	5990
8	2240	3820	5390	6890	7990
Lanes	**Annual Average Daily Traffic**				
2					
4	13100	22300	31400	40000	46400
6	19600	33300	47100	60200	69700
8	26100	44500	62700	80200	93000

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Little Chicago Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 95 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.500	**Median**	Yes	**AADT**	12756	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.138	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.561	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	988	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	773	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.31	**Density**	12.4	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	18.0	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1410	2410	3410	4350	5050
6	2130	3620	5120	6550	7580
8	2840	4840	6810	8720	10110
Lanes	**Annual Average Daily Traffic**				
2					
4	10300	17500	24800	31600	36600
6	15500	26300	37200	47500	55000
8	20600	35100	49400	63200	73300

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Mill Creek Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 96 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.600	**Median**	No	**AADT**	1241	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.053	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.760	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	72	**Peak Dir. Hrly. Vol.**	50	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	16	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	43.3	**ATS**	42.4	**% FFS**	94.2
FFS Delay	7.9	**LOS Thresh. Delay**	20.7	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	380	650	1030	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	190	500	860	1360	1870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3600	9500	16300	25700	35300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Mill Creek Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 96 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.600	**Median**	No	**AADT**	1241	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.140	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	72	**Peak Dir. Hrly. Vol.**	108	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	66	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	46.5	**ATS**	41.3	**% FFS**	91.9
FFS Delay	11.3	**LOS Thresh. Delay**	24.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	260	600	910	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	420	970	1470	2300
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3000	7000	10500	16500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Mill Creek Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 96 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.600	**Median**	No	**AADT**	2150	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.069	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.517	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	72	**Peak Dir. Hrly. Vol.**	77	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	72	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	37.0	**ATS**	41.6	**% FFS**	92.4
FFS Delay	10.5	**LOS Thresh. Delay**	23.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	240	540	780	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	470	1050	1510	2750
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2700	6900	15300	21900	39900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Mill Creek Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 96 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.600	**Median**	No	**AADT**	2150	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.140	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.618	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	72	**Peak Dir. Hrly. Vol.**	186	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	115	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.13	**Density**	N/A	**PTSF**	56.3	**ATS**	39.5	**% FFS**	87.9
FFS Delay	17.7	**LOS Thresh. Delay**	30.5	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	260	600	910	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	430	980	1480	2300
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3100	7000	10600	16500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Lakeview Drive	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 97 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	13935	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.061	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.700	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	595	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	255	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	7.5	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	3.6	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1130	1930	2730	3490	4050
6	1700	2900	4100	5250	6080
8	2280	3880	5460	6990	8110
Lanes	**Annual Average Daily Traffic**				
2					
4	18600	31700	44800	57300	66400
6	27900	47600	67300	86100	99700
8	37400	63700	89600	114600	133000

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Lakeview Drive	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 97 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	13935	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.099	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	842	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	538	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	10.6	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	3.6	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1300	2220	3140	4000	4640
6	1960	3330	4710	6020	6970
8	2610	4450	6270	8020	9300
Lanes	**Annual Average Daily Traffic**				
2					
4	13200	22500	31800	40500	46900
6	19800	33700	47600	60900	70500
8	26400	45000	63400	81100	94000

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Lakeview Drive	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 97 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	16990	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.070	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.736	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	875	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	314	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.27	**Density**	11.0	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	3.6	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1080	1840	2600	3320	3850
6	1620	2760	3900	4990	5780
8	2170	3690	5200	6650	7710
Lanes	**Annual Average Daily Traffic**				
2					
4	15500	26300	37200	47500	55000
6	23200	39500	55800	71300	82600
8	31000	52800	74300	95000	110200

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Lakeview Drive	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 97 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	16990	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.099	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.611	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1028	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	654	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.32	**Density**	12.9	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	3.6	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1300	2210	3130	4000	4640
6	1950	3330	4700	6010	6960
8	2610	4440	6260	8010	9280
Lanes	**Annual Average Daily Traffic**				
2					
4	13200	22400	31700	40500	46900
6	19700	33700	47500	60800	70400
8	26400	44900	63300	81000	93800

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	10th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Field Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 98 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5949	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.125	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.780	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	580	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	164	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.41	**Density**	N/A	**PTSF**	79.7	**ATS**	29.1	**% FFS**	72.7
FFS Delay	16.9	**LOS Thresh. Delay**	25.9	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	330	520	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	430	670	1060	1830
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	3500	5400	8500	14700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	10th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Field Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 98 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5949	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.163	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.690	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	669	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	301	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.47	**Density**	N/A	**PTSF**	84.1	**ATS**	28.0	**% FFS**	70.1
FFS Delay	19.2	**LOS Thresh. Delay**	28.2	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	260	470	800	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	380	690	1160	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	600	2400	4300	7200	12700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	10th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Field Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 98 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5975	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.125	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.785	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	586	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	161	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.41	**Density**	N/A	**PTSF**	80.0	**ATS**	29.1	**% FFS**	72.8
FFS Delay	16.8	**LOS Thresh. Delay**	25.8	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	330	530	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	430	680	1050	1810
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	3500	5500	8400	14500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	10th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Field Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 98 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5975	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.163	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.692	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	674	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	300	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.47	**Density**	N/A	**PTSF**	84.3	**ATS**	28.0	**% FFS**	69.9
FFS Delay	19.3	**LOS Thresh. Delay**	28.3	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	260	470	800	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	380	680	1160	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	600	2400	4200	7200	12700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 99 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	3935	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.082	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	184	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	139	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.13	**Density**	N/A	**PTSF**	56.9	**ATS**	33.4	**% FFS**	83.6
FFS Delay	10.6	**LOS Thresh. Delay**	21.4	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	440	710	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	320	780	1250	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	4000	9600	15300	30500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 99 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	3935	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.088	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.550	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	190	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	156	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	57.4	**ATS**	32.9	**% FFS**	82.3
FFS Delay	11.6	**LOS Thresh. Delay**	22.4	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	430	690	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	790	1260	2590
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3600	9000	14400	29500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 99 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	3935	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.082	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.575	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	186	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	137	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.13	**Density**	N/A	**PTSF**	57.2	**ATS**	33.5	**% FFS**	83.7
FFS Delay	10.5	**LOS Thresh. Delay**	21.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	450	720	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	790	1260	2470
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	4200	9700	15400	30200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 99 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	3935	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.088	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.552	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	191	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	155	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	57.6	**ATS**	32.9	**% FFS**	82.3
FFS Delay	11.6	**LOS Thresh. Delay**	22.4	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	430	690	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	780	1260	2580
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3600	8900	14400	29400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 100 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	8521	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.550	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	492	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	403	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.35	**Density**	N/A	**PTSF**	76.6	**ATS**	39.3	**% FFS**	78.6
FFS Delay	5.9	**LOS Thresh. Delay**	5.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	630	910	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	510	1150	1660	2590
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4900	11000	15900	24700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 100 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	8521	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	448	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	430	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.32	**Density**	N/A	**PTSF**	73.5	**ATS**	39.6	**% FFS**	79.2
FFS Delay	5.7	**LOS Thresh. Delay**	5.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	280	590	850	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	160	550	1160	1670	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	5400	11300	16300	27100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 100 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	12819	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.585	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	787	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	559	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.55	**Density**	N/A	**PTSF**	87.2	**ATS**	35.8	**% FFS**	71.6
FFS Delay	8.6	**LOS Thresh. Delay**	8.6	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	650	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	500	1120	1660	2430
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	4800	10700	15900	23200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 100 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	12819	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.148	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.528	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1002	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	895	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.70	**Density**	N/A	**PTSF**	91.1	**ATS**	31.4	**% FFS**	62.7
FFS Delay	12.8	**LOS Thresh. Delay**	12.8	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	610	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	540	1160	1670	2690
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3700	7900	11300	18200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 101 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	7666	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.086	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.800	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	527	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	132	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.37	**Density**	N/A	**PTSF**	76.6	**ATS**	40.4	**% FFS**	80.9
FFS Delay	16.2	**LOS Thresh. Delay**	16.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	450	740	1170	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	570	930	1470	1780
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	6700	10900	17100	20700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 101 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	7666	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.104	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	486	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	311	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.34	**Density**	N/A	**PTSF**	76.6	**ATS**	39.7	**% FFS**	79.4
FFS Delay	17.7	**LOS Thresh. Delay**	17.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	670	1000	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	480	1100	1640	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4700	10600	15800	22500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 101 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	8221	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.086	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.796	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	563	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	144	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.40	**Density**	N/A	**PTSF**	78.6	**ATS**	39.8	**% FFS**	79.6
FFS Delay	17.6	**LOS Thresh. Delay**	17.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	440	740	1170	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	560	930	1470	1790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	6600	10900	17100	20900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 101 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	8221	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.605	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	537	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	351	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.38	**Density**	N/A	**PTSF**	79.2	**ATS**	39.1	**% FFS**	78.2
FFS Delay	19.0	**LOS Thresh. Delay**	19.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	660	990	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	480	1100	1640	2350
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4500	10200	15200	21800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Promise Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mallery Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 102 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3409	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.690	**Base Capacity**	1700
Posted Speed	55	**% NPZ**	66	**Peak Dir. Hrly. Vol.**	254	**Local Adj. Factor**	0.91
Free Flow Speed	60	**Class**	3	**Off Peak Dir. Hrly. Vol.**	114	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	63.1	**ATS**	53.5	**% FFS**	89.1
FFS Delay	3.7	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	480	960	1390	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	250	700	1400	2020	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	6500	13000	18800	19100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Promise Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mallery Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 102 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3409	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.112	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.580	**Base Capacity**	1700
Posted Speed	55	**% NPZ**	66	**Peak Dir. Hrly. Vol.**	221	**Local Adj. Factor**	0.91
Free Flow Speed	60	**Class**	3	**Off Peak Dir. Hrly. Vol.**	160	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.16	**Density**	N/A	**PTSF**	59.0	**ATS**	52.7	**% FFS**	87.8
FFS Delay	4.2	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	460	850	1190	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	230	800	1470	2060	2450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	7200	13200	18400	21900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	191st Street	**Study Period**	Kother
Date Prepared	9/20/2023 10:58:32 AM	**From**	Promise Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mallery Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 102 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4852	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.714	**Base Capacity**	1700
Posted Speed	55	**% NPZ**	67	**Peak Dir. Hrly. Vol.**	374	**Local Adj. Factor**	0.91
Free Flow Speed	60	**Class**	3	**Off Peak Dir. Hrly. Vol.**	150	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	71.3	**ATS**	51.5	**% FFS**	85.8
FFS Delay	5.0	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	490	970	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	260	690	1360	1990	1990
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2500	6400	12600	18500	18500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Promise Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mallery Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 102 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4852	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.113	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.605	**Base Capacity**	1700
Posted Speed	55	**% NPZ**	67	**Peak Dir. Hrly. Vol.**	332	**Local Adj. Factor**	0.91
Free Flow Speed	60	**Class**	3	**Off Peak Dir. Hrly. Vol.**	217	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	N/A	**PTSF**	68.6	**ATS**	51.4	**% FFS**	85.7
FFS Delay	5.0	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	470	880	1240	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	240	780	1460	2050	2350
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	7000	13000	18200	20800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Mallery Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 103 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	3350	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.092	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	50	**Peak Dir. Hrly. Vol.**	191	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	117	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	53.6	**ATS**	45.2	**% FFS**	90.4
FFS Delay	2.3	**LOS Thresh. Delay**	2.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	400	740	1060	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	260	650	1200	1710	2300
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	7100	13100	18600	25000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Mallery Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 103 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	3350	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.099	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	50	**Peak Dir. Hrly. Vol.**	212	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	119	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	56.2	**ATS**	45.0	**% FFS**	89.9
FFS Delay	2.4	**LOS Thresh. Delay**	2.4	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	400	750	1080	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	270	630	1180	1690	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	6400	12000	17100	22500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Mallery Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 103 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	4111	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.097	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.651	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	50	**Peak Dir. Hrly. Vol.**	260	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	139	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	60.6	**ATS**	44.0	**% FFS**	88.0
FFS Delay	2.9	**LOS Thresh. Delay**	2.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	410	760	1100	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	280	630	1170	1690	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	6500	12100	17500	22600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	191st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Mallery Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 103 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	4111	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.099	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.644	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	50	**Peak Dir. Hrly. Vol.**	262	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	145	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	N/A	**PTSF**	60.7	**ATS**	43.8	**% FFS**	87.7
FFS Delay	3.0	**LOS Thresh. Delay**	3.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	410	760	1090	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	270	640	1190	1700	2210
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	6500	12100	17200	22400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Mallery Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	181st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 115 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.022	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	22	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	7.9	**ATS**	49.6	**% FFS**	99.2
FFS Delay	0.6	**LOS Thresh. Delay**	0.6	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	420	870	1320	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	420	880	1320	1420	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	19100	40000	60000	64600	64600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Mallery Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	181st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 115 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.010	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	10	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	6.2	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.4	**LOS Thresh. Delay**	0.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	420	870	1320	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	420	880	1320	1420	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	42000	88000	132000	142000	142000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Mallery Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	181st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 115 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.873	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	89	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	13	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	17.4	**ATS**	48.8	**% FFS**	97.7
FFS Delay	1.7	**LOS Thresh. Delay**	1.7	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	370	730	1070	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	430	840	1230	1630	1630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4300	8300	12100	16000	16000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Mallery Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	181st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 115 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.128	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.656	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	84	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	44	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	18.5	**ATS**	48.6	**% FFS**	97.2
FFS Delay	2.1	**LOS Thresh. Delay**	2.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	240	500	820	1140	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	370	770	1260	1740	2170
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	6100	9900	13600	17000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 116 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5761	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.081	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	299	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	168	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	68.1	**ATS**	41.6	**% FFS**	83.3
FFS Delay	7.2	**LOS Thresh. Delay**	7.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	290	690	1030	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	460	1080	1610	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2300	5700	13400	19900	27500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 116 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5761	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.117	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	357	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	317	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.25	**Density**	N/A	**PTSF**	68.1	**ATS**	40.9	**% FFS**	81.8
FFS Delay	8.0	**LOS Thresh. Delay**	8.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	610	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	530	1160	1670	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4600	10000	14300	23000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 116 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	13513	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.085	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.718	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	825	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	324	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.58	**Density**	N/A	**PTSF**	89.6	**ATS**	36.6	**% FFS**	73.1
FFS Delay	13.2	**LOS Thresh. Delay**	13.2	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	360	720	1120	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	510	1010	1560	1980
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	6000	11900	18400	23300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 116 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	13513	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.117	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.582	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	920	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	661	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.65	**Density**	N/A	**PTSF**	89.8	**ATS**	34.0	**% FFS**	68.0
FFS Delay	16.9	**LOS Thresh. Delay**	16.9	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	650	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	500	1120	1650	2440
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4300	9600	14200	20900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	186th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Promise Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 117 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1111	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.063	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	36	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	34	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	32.4	**ATS**	41.9	**% FFS**	93.2
FFS Delay	5.6	**LOS Thresh. Delay**	13.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	510	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	400	1000	1500	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2300	6400	15900	23900	44300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	186th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Promise Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 117 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1111	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.123	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	74	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	63	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	39.0	**ATS**	41.3	**% FFS**	91.8
FFS Delay	6.8	**LOS Thresh. Delay**	14.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	530	800	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	380	990	1490	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	3100	8100	12200	21400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	186th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Promise Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 117 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	4122	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.071	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.522	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	153	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	140	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	51.9	**ATS**	38.7	**% FFS**	86.0
FFS Delay	12.4	**LOS Thresh. Delay**	20.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	520	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	390	1000	1480	2730
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	5500	14100	20900	38500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	186th Street	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	Promise Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 37	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 117 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	4122	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.123	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.606	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	307	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	200	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	N/A	**PTSF**	69.4	**ATS**	36.5	**% FFS**	81.2
FFS Delay	17.6	**LOS Thresh. Delay**	25.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	230	560	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	380	930	1440	2350
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3100	7600	11800	19200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	186th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 118 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	6646	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.076	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.730	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	369	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	136	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	73.4	**ATS**	31.8	**% FFS**	79.5
FFS Delay	6.9	**LOS Thresh. Delay**	12.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	290	470	810	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	400	650	1110	1950
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	5300	8600	14700	25700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	186th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 118 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	6646	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.120	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	518	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	279	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.37	**Density**	N/A	**PTSF**	78.3	**ATS**	29.5	**% FFS**	73.6
FFS Delay	9.7	**LOS Thresh. Delay**	15.1	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	230	460	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	360	710	1190	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3000	6000	10000	18300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	186th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 118 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	10217	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.084	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.551	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	473	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	385	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.33	**Density**	N/A	**PTSF**	75.7	**ATS**	29.6	**% FFS**	74.0
FFS Delay	9.5	**LOS Thresh. Delay**	14.9	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	430	690	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	790	1260	2580
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3700	9500	15000	30800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	186th Street	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 118 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	10217	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.120	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.733	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	899	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	327	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.63	**Density**	N/A	**PTSF**	92.6	**ATS**	25.9	**% FFS**	64.7
FFS Delay	14.7	**LOS Thresh. Delay**	20.1	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	290	470	810	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	400	650	1110	1940
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3400	5500	9300	16200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 119 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4689	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.055	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.690	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	178	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	80	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.13	**Density**	N/A	**PTSF**	56.9	**ATS**	35.2	**% FFS**	87.9
FFS Delay	6.2	**LOS Thresh. Delay**	15.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	260	470	800	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	380	690	1160	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	7000	12600	21100	37500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 119 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4689	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.129	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	429	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	175	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.30	**Density**	N/A	**PTSF**	73.8	**ATS**	30.4	**% FFS**	76.1
FFS Delay	14.1	**LOS Thresh. Delay**	23.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	270	470	810	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	390	670	1150	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	700	3100	5200	9000	15600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 119 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4689	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.055	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.691	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	178	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	80	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.13	**Density**	N/A	**PTSF**	56.9	**ATS**	35.2	**% FFS**	87.9
FFS Delay	6.2	**LOS Thresh. Delay**	15.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	260	470	800	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	380	690	1160	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	7000	12600	21100	37500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	191st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 119 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4689	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.129	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	429	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	175	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.30	**Density**	N/A	**PTSF**	73.8	**ATS**	30.4	**% FFS**	76.1
FFS Delay	14.1	**LOS Thresh. Delay**	23.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	270	470	810	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	390	670	1150	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	700	3100	5200	9000	15600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Field Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	16th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 120 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	9038	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.052	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.700	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	329	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	141	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	70.6	**ATS**	32.0	**% FFS**	80.1
FFS Delay	11.2	**LOS Thresh. Delay**	20.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	260	470	800	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	380	680	1150	2030
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	7400	13100	22200	39100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Field Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	16th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 120 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	9038	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.115	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	540	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	499	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.38	**Density**	N/A	**PTSF**	77.2	**ATS**	28.5	**% FFS**	71.3
FFS Delay	18.1	**LOS Thresh. Delay**	27.1	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	420	660	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	810	1270	2740
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	2700	7100	11100	23900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Field Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	16th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 120 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	12809	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.064	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.811	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	665	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	155	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.47	**Density**	N/A	**PTSF**	84.1	**ATS**	28.5	**% FFS**	71.4
FFS Delay	18.1	**LOS Thresh. Delay**	27.1	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	360	570	830	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	450	710	1030	1760
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	7100	11100	16100	27600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Field Drive	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	16th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 120 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	12809	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.115	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.597	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	879	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	594	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.62	**Density**	N/A	**PTSF**	89.5	**ATS**	24.9	**% FFS**	62.2
FFS Delay	27.4	**LOS Thresh. Delay**	36.4	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	450	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	760	1240	2380
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	3000	6700	10800	20700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Field Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 121 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	9132	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.051	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.700	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	326	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	140	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	70.4	**ATS**	32.1	**% FFS**	80.3
FFS Delay	6.6	**LOS Thresh. Delay**	12.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	260	470	800	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	380	680	1150	2030
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	7500	13400	22600	39900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Field Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 121 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	9132	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.116	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	540	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	519	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.38	**Density**	N/A	**PTSF**	77.0	**ATS**	28.4	**% FFS**	71.1
FFS Delay	11.0	**LOS Thresh. Delay**	16.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	40	150	420	650	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	80	300	830	1280	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	700	2600	7200	11100	24100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Field Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 121 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	12862	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.064	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.807	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	664	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	159	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.47	**Density**	N/A	**PTSF**	84.4	**ATS**	28.4	**% FFS**	71.1
FFS Delay	11.0	**LOS Thresh. Delay**	16.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	350	560	830	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	440	700	1030	1760
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	6900	11000	16100	27600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Field Drive	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 121 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	12862	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.116	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.607	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	906	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	586	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.64	**Density**	N/A	**PTSF**	90.1	**ATS**	24.7	**% FFS**	61.7
FFS Delay	16.8	**LOS Thresh. Delay**	22.2	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	450	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	750	1220	2340
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	2900	6500	10600	20200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Field Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	10th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cicero Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 122 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	16225	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.062	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	614	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	392	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.41	**Density**	N/A	**PTSF**	81.5	**ATS**	28.6	**% FFS**	71.5
FFS Delay	14.4	**LOS Thresh. Delay**	21.6	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	470	780	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	370	780	1280	2450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	6000	12600	20700	39600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Field Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	10th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cicero Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 122 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	16225	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.119	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	985	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	946	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.66	**Density**	N/A	**PTSF**	89.8	**ATS**	21.9	**% FFS**	54.7
FFS Delay	29.8	**LOS Thresh. Delay**	37.0	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	440	690	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	320	870	1360	2930
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	2700	7400	11500	24700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Field Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	10th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cicero Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 122 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	19924	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.069	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.694	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	954	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	421	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.64	**Density**	N/A	**PTSF**	90.5	**ATS**	25.5	**% FFS**	63.8
FFS Delay	20.5	**LOS Thresh. Delay**	27.7	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	270	490	840	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	110	390	710	1220	2150
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	5700	10300	17700	31200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Field Drive	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	10th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cicero Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 122 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	19924	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.119	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.581	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1378	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	993	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.92	**Density**	N/A	**PTSF**	94.9	**ATS**	18.0	**% FFS**	45.1
FFS Delay	43.8	**LOS Thresh. Delay**	51.0	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	470	760	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	350	810	1310	2570
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	3000	6900	11100	21600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Moontown Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 123 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.500	**Median**	No	**AADT**	3823	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.780	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	75	**Peak Dir. Hrly. Vol.**	230	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	65	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.16	**Density**	N/A	**PTSF**	63.3	**ATS**	44.9	**% FFS**	89.9
FFS Delay	12.1	**LOS Thresh. Delay**	12.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	440	760	1190	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	200	570	980	1530	1830
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	7500	12800	19900	23800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Moontown Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 123 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.500	**Median**	No	**AADT**	3823	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.118	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	75	**Peak Dir. Hrly. Vol.**	244	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	208	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.17	**Density**	N/A	**PTSF**	61.2	**ATS**	42.3	**% FFS**	84.7
FFS Delay	19.6	**LOS Thresh. Delay**	19.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	300	630	910	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	190	560	1170	1690	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4800	10000	14400	22300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Moontown Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 123 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.500	**Median**	No	**AADT**	5966	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.079	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.781	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	75	**Peak Dir. Hrly. Vol.**	368	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	103	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	72.6	**ATS**	42.9	**% FFS**	85.9
FFS Delay	17.8	**LOS Thresh. Delay**	17.8	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	440	760	1190	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	200	570	980	1530	1820
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	7300	12500	19400	23100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Moontown Road	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	191st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 123 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.500	**Median**	No	**AADT**	5966	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.118	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.565	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	75	**Peak Dir. Hrly. Vol.**	398	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	306	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.28	**Density**	N/A	**PTSF**	70.2	**ATS**	40.7	**% FFS**	81.5
FFS Delay	24.6	**LOS Thresh. Delay**	24.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	300	660	950	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	200	540	1170	1690	2520
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4600	10000	14400	21400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 124 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	Yes	**AADT**	7730	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.062	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	283	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	196	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	3.5	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	9.6	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1340	2290	3240	4140	4800
6	2020	3450	4870	6230	7210
8	2700	4600	6480	8290	9620
Lanes	**Annual Average Daily Traffic**				
2					
4	21700	37000	52300	66800	77500
6	32600	55700	78600	100500	116300
8	43600	74200	104600	133800	155200

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 124 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	Yes	**AADT**	7730	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.098	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.660	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	499	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	257	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.16	**Density**	6.3	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	9.6	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1200	2050	2900	3700	4290
6	1810	3080	4350	5570	6440
8	2410	4110	5790	7410	8600
Lanes	**Annual Average Daily Traffic**				
2					
4	12300	21000	29700	37900	43900
6	18600	31500	44500	57000	65900
8	24700	42100	59300	75800	88000

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 124 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	Yes	**AADT**	16173	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.089	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.732	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1054	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	386	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.33	**Density**	13.2	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	9.6	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1080	1850	2610	3340	3870
6	1630	2780	3930	5020	5810
8	2180	3710	5220	6690	7750
Lanes	**Annual Average Daily Traffic**				
2					
4	12200	20800	29400	37600	43500
6	18400	31300	44200	56500	65300
8	24500	41700	58700	75200	87100

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Hague Road	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 124 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	Yes	**AADT**	16173	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.098	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.563	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	892	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	693	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.28	**Density**	11.2	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	9.6	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1410	2400	3400	4340	5030
6	2120	3610	5100	6520	7550
8	2830	4820	6790	8690	10080
Lanes	**Annual Average Daily Traffic**				
2					
4	14400	24500	34700	44300	51400
6	21700	36900	52100	66600	77100
8	28900	49200	69300	88700	102900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 125 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	5033	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.074	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.580	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	216	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	156	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	59.3	**ATS**	33.0	**% FFS**	82.4
FFS Delay	5.8	**LOS Thresh. Delay**	11.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	470	760	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	350	820	1320	2570
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	4800	11100	17900	34800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 125 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	5033	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.670	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	364	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	179	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.25	**Density**	N/A	**PTSF**	71.4	**ATS**	31.2	**% FFS**	78.0
FFS Delay	7.6	**LOS Thresh. Delay**	13.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	260	490	820	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	390	740	1230	2230
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3700	6900	11400	20700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 125 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	5033	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.074	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.575	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	214	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	158	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	59.0	**ATS**	32.9	**% FFS**	82.4
FFS Delay	5.8	**LOS Thresh. Delay**	11.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	470	750	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	350	820	1310	2600
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	4800	11100	17800	35200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 125 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	5033	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.666	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	362	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	182	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	N/A	**PTSF**	71.3	**ATS**	31.2	**% FFS**	78.0
FFS Delay	7.6	**LOS Thresh. Delay**	13.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	250	490	820	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	380	740	1240	2240
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3600	6900	11500	20800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	N Lakeview Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Lakeview Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 126 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	4080	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.690	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	312	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	140	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	N/A	**PTSF**	69.3	**ATS**	32.2	**% FFS**	80.6
FFS Delay	17.4	**LOS Thresh. Delay**	31.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	260	470	800	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	380	690	1160	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3500	6300	10500	18600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	N Lakeview Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Lakeview Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 126 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	4080	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.170	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	368	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	326	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	68.8	**ATS**	30.8	**% FFS**	76.9
FFS Delay	21.6	**LOS Thresh. Delay**	36.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	420	670	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	800	1270	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	600	1900	4800	7500	15800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	N Lakeview Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Lakeview Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 126 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	4080	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.688	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	312	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	141	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	N/A	**PTSF**	69.3	**ATS**	32.2	**% FFS**	80.5
FFS Delay	17.4	**LOS Thresh. Delay**	31.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	260	470	790	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	380	690	1150	2070
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3500	6300	10400	18700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	N Lakeview Drive	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	Lakeview Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 126 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	4080	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.200	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.598	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	488	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	328	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.34	**Density**	N/A	**PTSF**	76.6	**ATS**	29.7	**% FFS**	74.2
FFS Delay	25.1	**LOS Thresh. Delay**	39.5	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	450	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	760	1240	2380
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	500	1800	3800	6200	12000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	10th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Field Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 127 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4895	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.107	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.830	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	435	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	89	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.31	**Density**	N/A	**PTSF**	75.8	**ATS**	32.6	**% FFS**	81.4
FFS Delay	10.3	**LOS Thresh. Delay**	19.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	370	600	830	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	450	730	1000	1720
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	4300	6900	9400	16100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	10th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Field Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 127 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4895	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.164	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.740	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	594	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	209	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.42	**Density**	N/A	**PTSF**	81.5	**ATS**	28.9	**% FFS**	72.1
FFS Delay	17.4	**LOS Thresh. Delay**	26.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	300	470	810	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	410	640	1100	1920
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	700	2600	4000	6800	11800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	10th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Field Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 127 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4895	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.107	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.826	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	433	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	91	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.31	**Density**	N/A	**PTSF**	75.8	**ATS**	32.5	**% FFS**	81.3
FFS Delay	10.4	**LOS Thresh. Delay**	19.4	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	370	590	830	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	450	720	1010	1720
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	4300	6800	9500	16100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	10th Street	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Field Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 127 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4895	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.164	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.744	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	597	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	206	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.42	**Density**	N/A	**PTSF**	81.7	**ATS**	28.8	**% FFS**	72.1
FFS Delay	17.4	**LOS Thresh. Delay**	26.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	300	470	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	410	640	1110	1910
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	700	2600	4000	6800	11700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	16th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Field Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Monument Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 128 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	2325	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.076	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.760	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	134	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	42	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	54.5	**ATS**	35.9	**% FFS**	89.8
FFS Delay	5.1	**LOS Thresh. Delay**	14.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	310	500	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	410	660	1080	1870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	5400	8700	14300	24700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	16th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Field Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Monument Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 128 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	2325	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.095	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	139	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	82	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	51.6	**ATS**	35.5	**% FFS**	88.7
FFS Delay	5.7	**LOS Thresh. Delay**	14.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	460	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	740	1210	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	3700	7800	12800	23800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	16th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Field Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Monument Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 128 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	2329	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.076	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.763	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	135	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	42	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	54.6	**ATS**	35.9	**% FFS**	89.8
FFS Delay	5.1	**LOS Thresh. Delay**	14.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	310	500	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	410	660	1080	1870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	5400	8700	14300	24700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	16th Street	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	Field Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Monument Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 128 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	2329	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.095	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.631	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	140	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	82	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	51.7	**ATS**	35.5	**% FFS**	88.7
FFS Delay	5.7	**LOS Thresh. Delay**	14.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	460	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	730	1210	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	3700	7700	12800	23800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Field Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 129 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7921	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.068	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	291	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	248	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	65.8	**ATS**	31.6	**% FFS**	79.0
FFS Delay	12.0	**LOS Thresh. Delay**	21.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	430	680	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	320	800	1260	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4800	11800	18600	38700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Field Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 129 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7921	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.094	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	454	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	290	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.32	**Density**	N/A	**PTSF**	75.0	**ATS**	30.0	**% FFS**	75.1
FFS Delay	14.9	**LOS Thresh. Delay**	23.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	210	450	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	350	740	1230	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3800	7900	13100	24800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Field Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 129 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7921	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.068	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.536	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	289	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	250	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	65.5	**ATS**	31.6	**% FFS**	79.0
FFS Delay	11.9	**LOS Thresh. Delay**	20.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	430	680	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	320	810	1270	2650
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4800	12000	18700	39000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Field Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 129 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7921	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.094	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.608	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	453	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	292	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.32	**Density**	N/A	**PTSF**	74.9	**ATS**	30.0	**% FFS**	75.1
FFS Delay	14.9	**LOS Thresh. Delay**	23.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	450	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	750	1220	2340
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3600	8000	13000	24900

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	181st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 130 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	6730	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.075	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	318	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	187	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	70.1	**ATS**	41.4	**% FFS**	82.9
FFS Delay	7.4	**LOS Thresh. Delay**	7.4	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	290	680	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	470	1080	1620	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	6300	14400	21600	30200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	181st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 130 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	6730	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.114	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	399	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	368	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.28	**Density**	N/A	**PTSF**	70.9	**ATS**	40.3	**% FFS**	80.6
FFS Delay	8.7	**LOS Thresh. Delay**	8.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	280	600	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	160	540	1160	1680	2740
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4800	10200	14800	24100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	181st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 130 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	16921	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.081	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.720	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	987	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	384	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.69	**Density**	N/A	**PTSF**	93.1	**ATS**	34.8	**% FFS**	69.6
FFS Delay	15.7	**LOS Thresh. Delay**	15.7	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	360	720	1120	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	500	1000	1560	1980
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	6200	12400	19300	24500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	181st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 130 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	16921	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.114	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.575	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1109	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	820	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.78	**Density**	N/A	**PTSF**	92.9	**ATS**	31.0	**% FFS**	62.0
FFS Delay	22.1	**LOS Thresh. Delay**	22.1	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	280	640	950	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1120	1660	2470
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4300	9900	14600	21700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	181st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Deshane Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mallery Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 144 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.010	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	10	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	6.2	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.5	**LOS Thresh. Delay**	0.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	420	870	1320	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	420	880	1320	1420	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	42000	88000	132000	142000	142000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	181st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Deshane Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mallery Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 144 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.014	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.790	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	11	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	3	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	8.8	**ATS**	49.7	**% FFS**	99.3
FFS Delay	0.5	**LOS Thresh. Delay**	0.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	320	600	960	1330	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	410	760	1220	1690	1800
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	29300	54300	87200	120800	128600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	181st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Deshane Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mallery Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 144 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.010	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	10	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	6.2	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.5	**LOS Thresh. Delay**	0.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	420	870	1320	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	420	880	1320	1420	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	42000	88000	132000	142000	142000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	181st Street	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	Deshane Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mallery Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 144 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.018	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.778	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	14	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	4	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	9.2	**ATS**	49.6	**% FFS**	99.3
FFS Delay	0.6	**LOS Thresh. Delay**	0.6	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	310	590	950	1310	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	400	760	1230	1690	1830
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	22300	42300	68400	93900	101700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	181st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Mallery Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 145 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.022	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	22	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	7.9	**ATS**	49.6	**% FFS**	99.2
FFS Delay	0.3	**LOS Thresh. Delay**	0.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	420	870	1320	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	420	880	1320	1420	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	19100	40000	60000	64600	64600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	181st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Mallery Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 145 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.018	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.830	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	15	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	3	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	8.6	**ATS**	49.6	**% FFS**	99.3
FFS Delay	0.3	**LOS Thresh. Delay**	0.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	350	660	1010	1380	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	430	800	1220	1670	1720
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	23900	44500	67800	92800	95600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	181st Street	**Study Period**	Kother
Date Prepared	9/20/2023 10:58:32 AM	**From**	Mallery Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 145 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1313	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.080	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.867	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	91	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	14	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	17.8	**ATS**	48.8	**% FFS**	97.6
FFS Delay	0.9	**LOS Thresh. Delay**	0.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	360	720	1050	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	420	840	1220	1640	1640
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5300	10600	15300	20600	20600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	181st Street	**Study Period**	Kother
Date Prepared	12/1/2023 10:58:32 AM	**From**	Mallery Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 145 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1313	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.117	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.699	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	107	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	46	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	21.5	**ATS**	48.3	**% FFS**	96.7
FFS Delay	1.2	**LOS Thresh. Delay**	1.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	260	530	860	1210	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	380	760	1240	1740	2040
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3300	6500	10600	14900	17500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Monument Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	16th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 146 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3569	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.113	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	258	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	145	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	64.6	**ATS**	32.6	**% FFS**	81.5
FFS Delay	10.2	**LOS Thresh. Delay**	19.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	460	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	720	1190	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3100	6400	10600	19700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Monument Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	16th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 146 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3569	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.094	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	201	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	134	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	59.0	**ATS**	33.4	**% FFS**	83.6
FFS Delay	8.8	**LOS Thresh. Delay**	17.8	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	450	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	760	1240	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3700	8100	13200	25300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Monument Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	16th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 146 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3569	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.113	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.642	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	259	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	144	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	64.8	**ATS**	32.6	**% FFS**	81.5
FFS Delay	10.2	**LOS Thresh. Delay**	19.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	230	460	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	360	720	1200	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3200	6400	10700	19700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Monument Street	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	Cumberland Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	16th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 146 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3569	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.094	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.601	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	202	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	134	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	59.1	**ATS**	33.4	**% FFS**	83.6
FFS Delay	8.9	**LOS Thresh. Delay**	17.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	450	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	750	1240	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3700	8000	13200	25300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cicero Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Field Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Logan Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 147 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	15676	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.083	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.760	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	989	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	312	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.69	**Density**	N/A	**PTSF**	96.1	**ATS**	35.1	**% FFS**	70.1
FFS Delay	24.5	**LOS Thresh. Delay**	24.5	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	400	730	1150	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	530	970	1520	1870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	6400	11700	18400	22600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cicero Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Field Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Logan Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 147 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	15676	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.680	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1066	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	502	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.75	**Density**	N/A	**PTSF**	92.4	**ATS**	33.6	**% FFS**	67.1
FFS Delay	28.2	**LOS Thresh. Delay**	28.2	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	320	710	1080	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	480	1050	1590	2090
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	4800	10600	16000	21000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cicero Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Field Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Logan Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 147 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	16480	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.088	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.775	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1124	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	326	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.79	**Density**	N/A	**PTSF**	96.9	**ATS**	33.8	**% FFS**	67.6
FFS Delay	27.6	**LOS Thresh. Delay**	27.6	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	420	740	1160	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	550	960	1500	1840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	6300	11000	17100	21000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cicero Road	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	Field Drive	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Logan Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 147 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	16480	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.686	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1131	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	517	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.79	**Density**	N/A	**PTSF**	93.3	**ATS**	32.9	**% FFS**	65.7
FFS Delay	30.0	**LOS Thresh. Delay**	30.0	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	330	720	1090	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1050	1590	2070
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	5000	10600	16000	20800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	10th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Logan Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 148 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	7222	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.064	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.580	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	268	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	194	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	N/A	**PTSF**	65.4	**ATS**	31.9	**% FFS**	79.7
FFS Delay	6.9	**LOS Thresh. Delay**	12.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	450	720	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	780	1250	2450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	5200	12200	19600	38300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	10th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Logan Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 148 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	7222	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.117	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	515	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	330	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.36	**Density**	N/A	**PTSF**	78.0	**ATS**	29.4	**% FFS**	73.5
FFS Delay	9.7	**LOS Thresh. Delay**	15.1	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	210	450	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	350	740	1230	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	3000	6400	10600	20000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	10th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Logan Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 148 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	7222	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.064	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.576	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	266	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	196	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	N/A	**PTSF**	65.1	**ATS**	31.9	**% FFS**	79.8
FFS Delay	6.8	**LOS Thresh. Delay**	12.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	450	720	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	790	1250	2470
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	5200	12400	19600	38600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	10th Street	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Logan Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 148 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	7222	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.117	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.607	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	513	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	332	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.36	**Density**	N/A	**PTSF**	77.9	**ATS**	29.4	**% FFS**	73.6
FFS Delay	9.7	**LOS Thresh. Delay**	15.1	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	450	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	750	1220	2340
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	2900	6500	10500	20000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	16th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Logan Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 149 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	2465	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.063	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	101	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	54	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	47.2	**ATS**	36.1	**% FFS**	90.3
FFS Delay	2.9	**LOS Thresh. Delay**	8.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	230	460	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	360	710	1190	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	5800	11300	18900	34800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	16th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Logan Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 149 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	2465	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.140	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	211	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	135	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	60.1	**ATS**	33.3	**% FFS**	83.3
FFS Delay	5.4	**LOS Thresh. Delay**	10.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	210	450	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	350	740	1230	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	700	2500	5300	8800	16700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	16th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Logan Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 149 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	2465	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.063	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.654	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	102	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	54	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	47.3	**ATS**	36.1	**% FFS**	90.3
FFS Delay	2.9	**LOS Thresh. Delay**	8.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	230	460	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	360	710	1180	2180
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	5800	11300	18800	34700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	16th Street	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Logan Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 149 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	2465	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.140	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	211	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	135	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	60.1	**ATS**	33.3	**% FFS**	83.3
FFS Delay	5.4	**LOS Thresh. Delay**	10.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	210	450	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	350	740	1230	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	700	2500	5300	8800	16700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Conner Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 150 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	10814	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.064	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.550	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	381	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	311	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	69.0	**ATS**	30.9	**% FFS**	77.1
FFS Delay	10.7	**LOS Thresh. Delay**	17.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	460	730	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	330	840	1330	2710
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	5200	13200	20800	42400

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Conner Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 150 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	10814	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.089	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	597	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	366	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.40	**Density**	N/A	**PTSF**	80.6	**ATS**	28.8	**% FFS**	72.1
FFS Delay	13.9	**LOS Thresh. Delay**	21.1	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	480	790	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	360	780	1280	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	4100	8800	14400	27100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Conner Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 150 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	10814	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.064	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.555	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	384	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	308	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	69.3	**ATS**	30.8	**% FFS**	77.1
FFS Delay	10.7	**LOS Thresh. Delay**	17.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	460	730	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	330	830	1320	2690
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	5200	13000	20700	42100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	12/1/2023 10:58:32 AM	**From**	Monument Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Conner Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 150 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	10814	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.089	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.619	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	596	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	367	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.40	**Density**	N/A	**PTSF**	80.6	**ATS**	28.9	**% FFS**	72.1
FFS Delay	13.9	**LOS Thresh. Delay**	21.1	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	480	790	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	360	780	1280	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	4100	8800	14400	27100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	181st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 151 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	6480	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.078	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	329	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	177	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	70.7	**ATS**	41.4	**% FFS**	82.7
FFS Delay	7.5	**LOS Thresh. Delay**	7.5	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	300	690	1050	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	470	1070	1620	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	6100	13800	20800	28100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	181st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 151 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	6480	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.114	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	399	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	340	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.28	**Density**	N/A	**PTSF**	70.9	**ATS**	40.4	**% FFS**	80.9
FFS Delay	8.5	**LOS Thresh. Delay**	8.5	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	620	900	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	520	1150	1670	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4600	10100	14700	23100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	181st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 151 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	18965	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.081	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.731	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1123	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	413	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.79	**Density**	N/A	**PTSF**	94.8	**ATS**	33.4	**% FFS**	66.8
FFS Delay	17.9	**LOS Thresh. Delay**	17.9	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	370	730	1130	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	510	1000	1550	1950
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	6300	12400	19200	24100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	181st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 151 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	18965	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.114	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.588	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1271	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	891	**Adjusted Capacity**	0

LOS Results

v/c Ratio	0.89	**Density**	N/A	**PTSF**	94.8	**ATS**	28.9	**% FFS**	57.8
FFS Delay	26.3	**LOS Thresh. Delay**	26.3	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	650	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	500	1110	1650	2420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4400	9800	14500	21300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Presley Drive	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Union Chapel Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 162 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	Yes	**AADT**	6625	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.061	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	230	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	174	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	3.2	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	22.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1250	2150	3020	3900	4760
6	1880	3220	4530	5850	7130
8	2510	4290	6040	7810	9510
Lanes	**Annual Average Daily Traffic**				
2					

4	20500	35300	49600	64000	78100
6	30900	52800	74300	96000	116900
8	41200	70400	99100	128100	156000

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Presley Drive	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Union Chapel Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 162 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	Yes	**AADT**	6625	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.130	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	534	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	327	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	7.4	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	22.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1150	1970	2780	3590	4380
6	1730	2960	4170	5380	6550
8	2310	3940	5550	7180	8750
Lanes	**Annual Average Daily Traffic**				
2					

4	8900	15200	21400	27700	33700
6	13400	22800	32100	41400	50400
8	17800	30400	42700	55300	67400

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Presley Drive	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Union Chapel Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 162 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	Yes	**AADT**	7361	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.061	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.588	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	264	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	185	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	3.7	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	22.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1210	2080	2930	3780	4610
6	1820	3120	4390	5670	6910
8	2440	4150	5860	7570	9220
Lanes	**Annual Average Daily Traffic**				
2					

4	19900	34100	48100	62000	75600
6	29900	51200	72000	93000	113300
8	40000	68100	96100	124100	151200

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Presley Drive	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Union Chapel Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 162 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	Yes	**AADT**	7361	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.133	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.636	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	623	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	356	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	8.7	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	22.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1120	1920	2710	3500	4270
6	1690	2880	4060	5240	6390
8	2250	3840	5410	7000	8530
Lanes	**Annual Average Daily Traffic**				
2					

4	8500	14500	20400	26400	32200
6	12800	21700	30600	39400	48100
8	17000	28900	40700	52700	64200

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Presley Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 163 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	Yes	**AADT**	1560	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.200	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	168	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	144	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	53.1	**ATS**	33.7	**% FFS**	84.3
FFS Delay	10.0	**LOS Thresh. Delay**	20.8	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	450	720	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	340	840	1340	2760
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	600	1800	4200	6800	13800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Presley Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 163 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	Yes	**AADT**	1560	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.200	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.910	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	284	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	28	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	N/A	**PTSF**	67.2	**ATS**	34.8	**% FFS**	87.0
FFS Delay	8.0	**LOS Thresh. Delay**	18.8	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	430	780	1080	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	480	860	1190	1640
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	600	2400	4400	6000	8200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Presley Drive	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 163 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	Yes	**AADT**	1591	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.200	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.547	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	174	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	144	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	54.1	**ATS**	33.7	**% FFS**	84.2
FFS Delay	10.1	**LOS Thresh. Delay**	20.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	450	720	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	330	830	1320	2730
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	600	1700	4200	6600	13700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Presley Drive	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 163 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	Yes	**AADT**	1591	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.200	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.904	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	288	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	31	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	N/A	**PTSF**	67.0	**ATS**	34.7	**% FFS**	86.9
FFS Delay	8.2	**LOS Thresh. Delay**	19.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	430	770	1060	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	480	860	1180	1650
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	600	2400	4400	6000	8300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	19th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Clover Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 164 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	10153	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.053	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	274	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	264	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	N/A	**PTSF**	62.6	**ATS**	31.9	**% FFS**	79.7
FFS Delay	4.6	**LOS Thresh. Delay**	8.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	440	690	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	320	870	1360	2930
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	6100	16500	25700	55300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	19th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Clover Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 164 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	10153	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.096	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	575	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	400	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.39	**Density**	N/A	**PTSF**	79.8	**ATS**	28.9	**% FFS**	72.3
FFS Delay	6.9	**LOS Thresh. Delay**	10.5	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	200	470	770	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	110	340	800	1310	2530
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3600	8400	13700	26400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	19th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Clover Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 164 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	10646	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.054	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.513	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	295	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	280	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.20	**Density**	N/A	**PTSF**	64.0	**ATS**	31.7	**% FFS**	79.2
FFS Delay	4.7	**LOS Thresh. Delay**	8.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	440	690	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	320	860	1350	2910
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	6000	16000	25000	53900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	19th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Clover Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 164 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	10646	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.096	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	603	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	419	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.40	**Density**	N/A	**PTSF**	81.0	**ATS**	28.6	**% FFS**	71.5
FFS Delay	7.2	**LOS Thresh. Delay**	10.8	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	200	470	770	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	110	340	800	1310	2530
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3600	8400	13700	26400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cherry Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	19th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 165 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.090	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	46	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	44	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	11.4	**ATS**	39.0	**% FFS**	97.6
FFS Delay	0.7	**LOS Thresh. Delay**	6.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	310	520	710	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	280	610	1020	1400	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3200	6800	11400	15600	31000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cherry Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	19th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 165 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.151	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	82	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	69	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	16.8	**ATS**	38.5	**% FFS**	96.2
FFS Delay	1.1	**LOS Thresh. Delay**	6.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	330	550	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	280	620	1020	1390	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	4200	6800	9300	17500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cherry Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	19th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 165 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.090	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.511	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	46	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	44	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	11.4	**ATS**	39.0	**% FFS**	97.6
FFS Delay	0.7	**LOS Thresh. Delay**	6.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	310	520	710	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	280	610	1020	1390	2780
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3200	6800	11400	15500	30900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cherry Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	19th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 165 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.151	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.543	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	82	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	69	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	16.8	**ATS**	38.5	**% FFS**	96.2
FFS Delay	1.1	**LOS Thresh. Delay**	6.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	330	550	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	280	610	1020	1400	2620
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	4100	6800	9300	17400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cherry Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	10th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	16th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 166 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.057	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.700	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	40	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	17	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	12.8	**ATS**	39.4	**% FFS**	98.4
FFS Delay	0.6	**LOS Thresh. Delay**	7.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	220	430	680	950	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	620	980	1360	2030
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5700	10900	17200	23900	35700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cherry Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	10th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	16th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 166 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.095	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	56	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	39	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	14.4	**ATS**	39.0	**% FFS**	97.5
FFS Delay	0.9	**LOS Thresh. Delay**	8.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	360	590	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	290	620	1000	1390	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3100	6600	10600	14700	25400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cherry Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	10th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	16th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 166 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.057	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.702	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	40	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	17	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	12.8	**ATS**	39.4	**% FFS**	98.4
FFS Delay	0.6	**LOS Thresh. Delay**	7.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	230	430	680	950	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	620	970	1360	2030
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5800	10900	17100	23900	35700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cherry Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	10th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	16th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 166 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.095	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.589	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	56	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	39	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	14.4	**ATS**	39.0	**% FFS**	97.5
FFS Delay	0.9	**LOS Thresh. Delay**	8.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	360	590	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	290	620	1010	1400	2420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3100	6600	10700	14800	25500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 167 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	10174	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.044	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	291	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	157	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	67.4	**ATS**	31.9	**% FFS**	79.9
FFS Delay	9.1	**LOS Thresh. Delay**	16.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	230	460	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	360	710	1190	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2300	8200	16200	27100	49800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 167 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	10174	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.090	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	549	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	366	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.39	**Density**	N/A	**PTSF**	79.9	**ATS**	29.0	**% FFS**	72.4
FFS Delay	13.7	**LOS Thresh. Delay**	20.9	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	450	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	760	1240	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3800	8500	13800	26400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 167 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	10733	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.045	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.603	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	291	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	192	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	68.0	**ATS**	31.7	**% FFS**	79.2
FFS Delay	9.5	**LOS Thresh. Delay**	16.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	450	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	750	1230	2360
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	7600	16700	27400	52500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 167 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	10733	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.090	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.602	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	582	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	384	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.41	**Density**	N/A	**PTSF**	81.4	**ATS**	28.6	**% FFS**	71.5
FFS Delay	14.4	**LOS Thresh. Delay**	21.6	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	450	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	750	1230	2360
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3800	8400	13700	26300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	8th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 168a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.100	**Median**	No	**AADT**	5693	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.044	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	150	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	100	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	52.6	**ATS**	34.9	**% FFS**	87.2
FFS Delay	1.3	**LOS Thresh. Delay**	3.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	450	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	760	1240	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	7800	17300	28200	53900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	8th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 168a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.100	**Median**	No	**AADT**	5693	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	253	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	243	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	62.1	**ATS**	32.0	**% FFS**	79.9
FFS Delay	2.3	**LOS Thresh. Delay**	4.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	40	150	420	650	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	80	300	830	1280	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3500	9600	14800	32100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	8th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 168a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.100	**Median**	No	**AADT**	18310	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.071	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.584	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	759	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	541	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.53	**Density**	N/A	**PTSF**	86.3	**ATS**	26.3	**% FFS**	65.7
FFS Delay	4.7	**LOS Thresh. Delay**	6.5	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	450	720	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	780	1240	2440
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	4700	11000	17500	34400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	8th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	10th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 168a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.100	**Median**	No	**AADT**	18310	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.097	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.565	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1003	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	773	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.70	**Density**	N/A	**PTSF**	91.1	**ATS**	22.4	**% FFS**	56.0
FFS Delay	7.1	**LOS Thresh. Delay**	8.9	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	440	710	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	320	780	1260	2520
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3300	8100	13000	26000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	2nd Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	8th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 168b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	5693	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.044	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	150	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	100	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	27.3	**ATS**	37.4	**% FFS**	93.4
FFS Delay	1.9	**LOS Thresh. Delay**	7.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	370	590	830	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	300	620	990	1390	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	6900	14100	22500	31600	53900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	2nd Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	8th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 168b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	5693	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	253	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	243	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	41.1	**ATS**	34.4	**% FFS**	86.1
FFS Delay	4.4	**LOS Thresh. Delay**	9.8	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	310	520	710	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	280	610	1020	1400	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3300	7100	11800	16100	32100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	2nd Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	8th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 168b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	18310	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.071	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.584	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	759	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	541	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.53	**Density**	N/A	**PTSF**	78.3	**ATS**	27.6	**% FFS**	68.9
FFS Delay	12.2	**LOS Thresh. Delay**	17.6	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	360	580	810	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	300	620	1000	1390	2440
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4300	8800	14100	19600	34400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	2nd Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	8th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 168b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	18310	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.565	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	900	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	693	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.63	**Density**	N/A	**PTSF**	83.7	**ATS**	24.9	**% FFS**	62.3
FFS Delay	16.3	**LOS Thresh. Delay**	21.7	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	340	570	790	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	290	610	1010	1400	2520
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3400	7100	11700	16100	29000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	171st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 169 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	2576	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.035	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.700	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	63	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	27	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	43.3	**ATS**	41.7	**% FFS**	92.8
FFS Delay	5.0	**LOS Thresh. Delay**	11.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	300	590	950	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	430	850	1360	2030
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3800	12300	24300	38900	58000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	171st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 169 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	2576	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.109	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.550	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	154	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	126	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	52.3	**ATS**	39.1	**% FFS**	86.9
FFS Delay	9.7	**LOS Thresh. Delay**	16.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	540	810	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	370	990	1480	2590
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3400	9100	13600	23800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	171st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 169 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	3239	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.038	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.623	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	77	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	46	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	43.6	**ATS**	41.4	**% FFS**	92.1
FFS Delay	5.5	**LOS Thresh. Delay**	11.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	240	570	890	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	390	920	1430	2280
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3500	10300	24300	37700	60000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	171st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 169 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	3239	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.109	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.581	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	205	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	148	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	59.2	**ATS**	38.0	**% FFS**	84.4
FFS Delay	11.8	**LOS Thresh. Delay**	18.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	220	550	850	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	380	950	1470	2450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3500	8800	13500	22500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Willowview Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	171st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 170 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1473	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.042	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	44	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	18	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	41.1	**ATS**	46.9	**% FFS**	93.8
FFS Delay	2.4	**LOS Thresh. Delay**	2.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	350	720	1110	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	500	1020	1570	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4100	12000	24300	37400	47700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Willowview Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	171st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 170 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1473	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.070	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.560	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	58	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	45	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	38.2	**ATS**	46.5	**% FFS**	93.0
FFS Delay	2.7	**LOS Thresh. Delay**	2.7	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	630	930	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	500	1130	1670	2540
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2500	7200	16200	23900	36300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Willowview Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	171st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 170 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1905	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.042	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.763	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	61	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	19	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	45.5	**ATS**	46.7	**% FFS**	93.5
FFS Delay	2.5	**LOS Thresh. Delay**	2.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	400	730	1150	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	530	960	1510	1870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4300	12700	22900	36000	44600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Willowview Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	171st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 170 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1905	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.073	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.514	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	71	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	68	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	37.0	**ATS**	46.2	**% FFS**	92.4
FFS Delay	3.0	**LOS Thresh. Delay**	3.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	280	590	860	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	160	550	1150	1680	2770
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	7600	15800	23100	38000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Mill Creek Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	171st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 171 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1415	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.059	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.720	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	18	**Peak Dir. Hrly. Vol.**	60	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	23	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	28.0	**ATS**	49.0	**% FFS**	98.0
FFS Delay	0.7	**LOS Thresh. Delay**	0.7	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	270	550	880	1240	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	380	770	1230	1730	1980
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	6500	13100	20900	29400	33600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Mill Creek Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	171st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 171 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1415	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.079	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	18	**Peak Dir. Hrly. Vol.**	66	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	46	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	26.7	**ATS**	48.7	**% FFS**	97.5
FFS Delay	0.9	**LOS Thresh. Delay**	0.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	450	750	1030	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	770	1280	1750	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4400	9800	16300	22200	30600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Mill Creek Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	171st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 171 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5119	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.059	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.675	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	18	**Peak Dir. Hrly. Vol.**	204	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	98	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	46.0	**ATS**	46.8	**% FFS**	93.5
FFS Delay	2.5	**LOS Thresh. Delay**	2.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	250	520	840	1170	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	380	780	1250	1740	2110
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	6500	13300	21200	29500	35800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Mill Creek Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	SR 32	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	171st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 171 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5119	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.080	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.588	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	18	**Peak Dir. Hrly. Vol.**	241	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	169	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.17	**Density**	N/A	**PTSF**	50.6	**ATS**	45.0	**% FFS**	89.9
FFS Delay	4.0	**LOS Thresh. Delay**	4.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	450	750	1030	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	350	770	1280	1760	2420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4400	9700	16000	22000	30300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	169th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hazel Dell Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Gray Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 173 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3158	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.065	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	121	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	84	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	48.3	**ATS**	45.5	**% FFS**	91.0
FFS Delay	6.7	**LOS Thresh. Delay**	6.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	650	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	500	1110	1650	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2700	7700	17100	25400	37100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	169th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hazel Dell Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Gray Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 173 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3158	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.120	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	201	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	178	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	58.1	**ATS**	42.5	**% FFS**	85.1
FFS Delay	12.0	**LOS Thresh. Delay**	12.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	610	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	530	1160	1670	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4500	9700	14000	22400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	169th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hazel Dell Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Gray Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 173 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	4600	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.066	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.616	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	187	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	117	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.13	**Density**	N/A	**PTSF**	57.4	**ATS**	44.0	**% FFS**	88.0
FFS Delay	9.3	**LOS Thresh. Delay**	9.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	670	1010	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	480	1090	1640	2310
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	7300	16600	24900	35000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	169th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Hazel Dell Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Gray Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 173 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	4600	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.135	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.500	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	311	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	311	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	N/A	**PTSF**	64.9	**ATS**	41.3	**% FFS**	82.6
FFS Delay	14.4	**LOS Thresh. Delay**	14.4	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	270	580	830	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	160	540	1160	1660	2840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	4000	8600	12300	21100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	169th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hazel Dell Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Semoinole Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 174 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1441	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.076	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	75	**Peak Dir. Hrly. Vol.**	71	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	38	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	42.7	**ATS**	46.7	**% FFS**	93.4
FFS Delay	2.6	**LOS Thresh. Delay**	2.6	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	320	710	1060	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	190	500	1100	1640	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	6600	14500	21600	28900

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	169th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hazel Dell Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Semoinole Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 174 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1441	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	75	**Peak Dir. Hrly. Vol.**	82	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	73	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	38.4	**ATS**	46.2	**% FFS**	92.5
FFS Delay	2.9	**LOS Thresh. Delay**	2.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	300	630	900	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	570	1190	1700	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	5300	11100	15800	24900

4
6
8

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 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	169th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hazel Dell Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Semoinole Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 174 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1908	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.076	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.690	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	75	**Peak Dir. Hrly. Vol.**	100	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	45	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	47.3	**ATS**	46.3	**% FFS**	92.7
FFS Delay	2.8	**LOS Thresh. Delay**	2.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	340	740	1110	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	190	500	1080	1610	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	6600	14300	21200	27200

4
6
8

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HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	169th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Hazel Dell Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Semoinole Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 174 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1908	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.588	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	75	**Peak Dir. Hrly. Vol.**	125	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	87	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	47.9	**ATS**	45.6	**% FFS**	91.2
FFS Delay	3.5	**LOS Thresh. Delay**	3.5	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	310	670	980	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	190	530	1140	1670	2420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	4800	10300	15100	21900

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6
8

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HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	171st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Seminole Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Willowview Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 175 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1578	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.091	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.680	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	98	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	46	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	47.1	**ATS**	36.4	**% FFS**	91.0
FFS Delay	4.5	**LOS Thresh. Delay**	13.5	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	260	480	800	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	110	390	710	1180	2090
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	4300	7900	13000	23000

4
6
8

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HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	171st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Seminole Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Willowview Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 175 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1578	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.124	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	104	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	92	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	42.6	**ATS**	35.7	**% FFS**	89.2
FFS Delay	5.4	**LOS Thresh. Delay**	14.4	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	170	430	680	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	120	330	820	1290	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	2700	6700	10500	21700

4
6
8

*** Cannot be achieved based on input data provided.**
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HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	171st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Seminole Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Willowview Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 175 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	2110	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.091	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.604	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	116	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	76	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	47.6	**ATS**	35.9	**% FFS**	89.8
FFS Delay	5.1	**LOS Thresh. Delay**	14.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	210	470	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	780	1250	2360
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	3900	8600	13800	26000

4
6
8

*** Cannot be achieved based on input data provided.**
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HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	171st Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Seminole Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Willowview Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 175 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	2110	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.140	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.554	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	164	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	132	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	53.2	**ATS**	34.0	**% FFS**	85.0
FFS Delay	8.0	**LOS Thresh. Delay**	17.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	180	450	700	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	110	330	820	1270	2570
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	2400	5900	9100	18400

4
6
8

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HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	171st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Willowview Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry Tree Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 176 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1570	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.075	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.670	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	79	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	39	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	44.8	**ATS**	36.5	**% FFS**	91.2
FFS Delay	4.3	**LOS Thresh. Delay**	13.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	240	460	780	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	360	690	1170	2120
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	4800	9200	15600	28300

4
6
8

*** Cannot be achieved based on input data provided.**
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HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	171st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Willowview Road	**Analysis Type**	Two-Lane Segment
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File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 176 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1570	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.141	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.580	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	128	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	93	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	48.9	**ATS**	35.3	**% FFS**	88.2
FFS Delay	6.0	**LOS Thresh. Delay**	15.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	450	720	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	780	1250	2450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	700	2400	5600	8900	17400

4
6
8

*** Cannot be achieved based on input data provided.**
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HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	171st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Willowview Road	**Analysis Type**	Two-Lane Segment
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Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 176 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1973	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.075	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.649	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	96	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	52	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	46.5	**ATS**	36.2	**% FFS**	90.5
FFS Delay	4.7	**LOS Thresh. Delay**	13.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	230	460	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	360	710	1190	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4800	9500	15900	29200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	171st Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Willowview Road	**Analysis Type**	Two-Lane Segment
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Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
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User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1973	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.145	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.613	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	175	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	111	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	55.9	**ATS**	34.3	**% FFS**	85.8
FFS Delay	7.4	**LOS Thresh. Delay**	16.4	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	210	450	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	740	1230	2320
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	700	2500	5200	8500	16100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Pleasant Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Christian Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 177 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	9908	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.063	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.660	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	412	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	212	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.29	**Density**	N/A	**PTSF**	73.3	**ATS**	30.5	**% FFS**	76.3
FFS Delay	8.4	**LOS Thresh. Delay**	13.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	240	460	780	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	370	700	1190	2160
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	5900	11200	18900	34300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Pleasant Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Christian Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 177 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	9908	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	647	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	364	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.46	**Density**	N/A	**PTSF**	83.7	**ATS**	28.1	**% FFS**	70.1
FFS Delay	11.5	**LOS Thresh. Delay**	16.9	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	460	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	720	1190	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3500	7100	11700	21800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Pleasant Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Christian Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 177 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	20137	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.082	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.501	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	827	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	824	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.58	**Density**	N/A	**PTSF**	86.9	**ATS**	23.6	**% FFS**	59.0
FFS Delay	18.8	**LOS Thresh. Delay**	24.2	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	40	150	410	640	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	80	300	820	1280	2840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3700	10100	15700	34700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Pleasant Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Christian Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 177 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	20137	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.624	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1282	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	772	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.90	**Density**	N/A	**PTSF**	93.9	**ATS**	19.8	**% FFS**	49.6
FFS Delay	27.5	**LOS Thresh. Delay**	32.9	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	210	450	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	340	730	1210	2280
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3400	7200	11900	22400

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	16th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 178 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1322	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.059	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.580	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	45	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	33	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	37.3	**ATS**	36.9	**% FFS**	92.1
FFS Delay	4.6	**LOS Thresh. Delay**	15.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	450	720	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	780	1250	2450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	5600	13300	21200	41600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	16th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 178 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1322	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.083	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	66	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	44	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	41.5	**ATS**	36.6	**% FFS**	91.4
FFS Delay	5.1	**LOS Thresh. Delay**	15.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	450	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	760	1240	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	4100	9200	15000	28600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	16th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 178 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1322	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.059	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.577	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	45	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	33	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	37.3	**ATS**	36.9	**% FFS**	92.1
FFS Delay	4.6	**LOS Thresh. Delay**	15.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	450	720	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	780	1250	2470
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	5600	13300	21200	41900

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	16th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 178 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	1322	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.083	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	66	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	44	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	41.5	**ATS**	36.6	**% FFS**	91.4
FFS Delay	5.1	**LOS Thresh. Delay**	15.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	200	450	740	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	760	1240	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	4100	9200	15000	28600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Mercantile Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Town and Country Blvd	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 179 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	8790	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.055	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	261	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	222	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	62.8	**ATS**	32.0	**% FFS**	80.1
FFS Delay	8.9	**LOS Thresh. Delay**	16.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	450	720	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	340	840	1340	2760
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	6200	15300	24400	50200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Mercantile Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Town and Country Blvd	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 179 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	8790	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	494	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	456	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.33	**Density**	N/A	**PTSF**	74.9	**ATS**	29.4	**% FFS**	73.6
FFS Delay	12.9	**LOS Thresh. Delay**	20.1	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	440	700	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	330	850	1350	2870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3100	7900	12500	26600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Mercantile Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Town and Country Blvd	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 179 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	9120	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.056	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	266	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	245	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	62.6	**ATS**	32.0	**% FFS**	79.9
FFS Delay	9.0	**LOS Thresh. Delay**	16.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	440	700	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	330	850	1350	2870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	5900	15200	24200	51300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Mercantile Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Town and Country Blvd	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 179 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	9120	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.518	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	510	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	475	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.34	**Density**	N/A	**PTSF**	75.4	**ATS**	29.2	**% FFS**	73.0
FFS Delay	13.3	**LOS Thresh. Delay**	20.5	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	440	690	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	850	1340	2880
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	2900	7900	12500	26700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 185 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.032	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	46	**Peak Dir. Hrly. Vol.**	17	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	15	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	26.4	**ATS**	48.6	**% FFS**	97.3
FFS Delay	1.0	**LOS Thresh. Delay**	1.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	370	660	920	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	250	700	1250	1740	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	7900	21900	39100	54400	83800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 185 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.061	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.870	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	46	**Peak Dir. Hrly. Vol.**	53	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	8	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	40.3	**ATS**	48.4	**% FFS**	96.7
FFS Delay	1.2	**LOS Thresh. Delay**	1.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	280	650	970	1350	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	750	1120	1560	1640
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5500	12300	18400	25600	26900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 185 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1333	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.060	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.800	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	46	**Peak Dir. Hrly. Vol.**	64	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	16	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	41.2	**ATS**	48.2	**% FFS**	96.4
FFS Delay	1.4	**LOS Thresh. Delay**	1.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	260	540	880	1270	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	680	1100	1590	1780
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5600	11400	18400	26600	29700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 185 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1333	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.200	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.961	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	46	**Peak Dir. Hrly. Vol.**	256	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	10	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	62.6	**ATS**	46.4	**% FFS**	92.9
FFS Delay	2.8	**LOS Thresh. Delay**	2.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	310	750	1180	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	790	1230	1480	1480
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4000	6200	7400	7400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	166th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 186 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	4038	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.085	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	55	**% NPZ**	35	**Peak Dir. Hrly. Vol.**	209	**Local Adj. Factor**	0.91
Free Flow Speed	60	**Class**	3	**Off Peak Dir. Hrly. Vol.**	134	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	51.7	**ATS**	54.6	**% FFS**	90.9
FFS Delay	1.2	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	530	910	1270	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	870	1500	2090	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3800	10300	17700	24600	27500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	166th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 186 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	4038	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	1700
Posted Speed	55	**% NPZ**	35	**Peak Dir. Hrly. Vol.**	222	**Local Adj. Factor**	0.91
Free Flow Speed	60	**Class**	3	**Off Peak Dir. Hrly. Vol.**	189	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.16	**Density**	N/A	**PTSF**	53.5	**ATS**	53.6	**% FFS**	89.3
FFS Delay	1.4	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	490	820	1120	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	280	910	1520	2080	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	9000	15000	20400	25800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	166th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 186 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	11824	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.085	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.629	**Base Capacity**	1700
Posted Speed	55	**% NPZ**	35	**Peak Dir. Hrly. Vol.**	632	**Local Adj. Factor**	0.91
Free Flow Speed	60	**Class**	3	**Off Peak Dir. Hrly. Vol.**	373	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.45	**Density**	N/A	**PTSF**	78.9	**ATS**	48.9	**% FFS**	81.6
FFS Delay	2.7	**LOS Thresh. Delay**	0.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	540	940	1300	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	860	1500	2070	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3800	10200	17700	24400	26600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	166th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 186 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	11824	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.109	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.573	**Base Capacity**	1700
Posted Speed	55	**% NPZ**	35	**Peak Dir. Hrly. Vol.**	738	**Local Adj. Factor**	0.91
Free Flow Speed	60	**Class**	3	**Off Peak Dir. Hrly. Vol.**	550	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.52	**Density**	N/A	**PTSF**	82.6	**ATS**	46.9	**% FFS**	78.2
FFS Delay	3.3	**LOS Thresh. Delay**	0.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	510	870	1190	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	300	900	1520	2080	2480
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	8300	14000	19100	22800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 187 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1408	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.078	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	17	**Peak Dir. Hrly. Vol.**	69	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	41	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	27.5	**ATS**	48.8	**% FFS**	97.5
FFS Delay	1.7	**LOS Thresh. Delay**	1.7	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	220	480	800	1100	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	350	770	1270	1750	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4500	9900	16300	22500	29000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 187 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1408	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.099	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	17	**Peak Dir. Hrly. Vol.**	84	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	56	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	29.1	**ATS**	48.5	**% FFS**	96.9
FFS Delay	2.2	**LOS Thresh. Delay**	2.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	460	770	1050	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	770	1290	1760	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3500	7800	13100	17800	24000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 187 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	4774	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.078	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.557	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	17	**Peak Dir. Hrly. Vol.**	207	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	165	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	46.2	**ATS**	45.3	**% FFS**	90.6
FFS Delay	7.1	**LOS Thresh. Delay**	7.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	430	710	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	780	1280	1750	2550
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4300	10000	16500	22500	32700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 187 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	4774	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.166	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.741	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	17	**Peak Dir. Hrly. Vol.**	587	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	205	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.41	**Density**	N/A	**PTSF**	71.7	**ATS**	41.4	**% FFS**	82.9
FFS Delay	14.1	**LOS Thresh. Delay**	14.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	290	560	900	1260	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	400	760	1220	1710	1920
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2500	4600	7400	10400	11600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Boden Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 188 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	5507	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.058	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.750	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	48	**Peak Dir. Hrly. Vol.**	240	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	80	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.17	**Density**	N/A	**PTSF**	59.2	**ATS**	45.8	**% FFS**	91.6
FFS Delay	2.6	**LOS Thresh. Delay**	2.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	230	470	840	1220	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	310	630	1120	1630	1900
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5400	10900	19400	28200	32800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Boden Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 188 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	5507	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.096	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.580	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	48	**Peak Dir. Hrly. Vol.**	307	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	222	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	N/A	**PTSF**	64.2	**ATS**	42.8	**% FFS**	85.5
FFS Delay	4.9	**LOS Thresh. Delay**	4.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	390	710	1000	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	260	680	1230	1730	2450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	7100	12900	18100	25600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Boden Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 188 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	13875	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.062	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.665	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	48	**Peak Dir. Hrly. Vol.**	572	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	288	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.40	**Density**	N/A	**PTSF**	77.6	**ATS**	40.0	**% FFS**	79.9
FFS Delay	7.2	**LOS Thresh. Delay**	7.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	420	780	1120	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	290	640	1180	1690	2140
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4700	10400	19100	27300	34600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Boden Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 188 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	13875	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.096	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.580	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	48	**Peak Dir. Hrly. Vol.**	773	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	559	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.54	**Density**	N/A	**PTSF**	84.9	**ATS**	36.7	**% FFS**	73.3
FFS Delay	10.5	**LOS Thresh. Delay**	10.5	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	390	710	1000	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	260	680	1230	1730	2450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	7100	12900	18100	25600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Summer Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Boden Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 189 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3846	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	30	**Peak Dir. Hrly. Vol.**	137	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	121	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	41.3	**ATS**	46.6	**% FFS**	93.1
FFS Delay	5.1	**LOS Thresh. Delay**	5.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	400	670	920	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	310	760	1270	1740	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4700	11400	19000	26000	40000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Summer Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Boden Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 189 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3846	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.119	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.550	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	30	**Peak Dir. Hrly. Vol.**	252	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	206	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	55.8	**ATS**	44.2	**% FFS**	88.3
FFS Delay	9.0	**LOS Thresh. Delay**	9.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	410	700	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	310	750	1280	1750	2590
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2700	6400	10800	14800	21800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Summer Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Boden Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 189 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	7955	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.662	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	30	**Peak Dir. Hrly. Vol.**	353	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	180	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.25	**Density**	N/A	**PTSF**	63.3	**ATS**	43.4	**% FFS**	86.9
FFS Delay	10.3	**LOS Thresh. Delay**	10.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	220	480	810	1140	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	730	1230	1730	2150
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5100	10900	18400	25900	32100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Summer Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Boden Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 189 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	7955	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.121	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.593	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	30	**Peak Dir. Hrly. Vol.**	571	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	392	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.40	**Density**	N/A	**PTSF**	76.0	**ATS**	39.9	**% FFS**	79.8
FFS Delay	17.3	**LOS Thresh. Delay**	17.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	440	750	1030	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	750	1270	1740	2400
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	6200	10500	14400	19900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 190 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	6266	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.061	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.690	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	264	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	118	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	N/A	**PTSF**	65.4	**ATS**	43.2	**% FFS**	86.5
FFS Delay	10.7	**LOS Thresh. Delay**	10.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	330	720	1090	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	480	1050	1580	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3000	7900	17300	26000	33800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 190 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	6266	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.061	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.690	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	264	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	118	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	N/A	**PTSF**	65.4	**ATS**	43.2	**% FFS**	86.5
FFS Delay	10.7	**LOS Thresh. Delay**	10.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	330	720	1090	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	480	1050	1580	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3000	7900	17300	26000	33800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 190 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	12099	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.063	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.751	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	572	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	190	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.40	**Density**	N/A	**PTSF**	80.0	**ATS**	39.1	**% FFS**	78.2
FFS Delay	19.1	**LOS Thresh. Delay**	19.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	390	730	1140	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	520	980	1520	1900
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	8300	15600	24200	30200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 190 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	12099	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.593	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	796	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	547	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.56	**Density**	N/A	**PTSF**	87.5	**ATS**	35.8	**% FFS**	71.6
FFS Delay	27.1	**LOS Thresh. Delay**	27.1	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	660	980	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	490	1120	1660	2400
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4500	10100	15000	21700

4
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8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mercantile Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 191 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3103	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.076	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.740	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	175	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	61	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	57.9	**ATS**	45.3	**% FFS**	90.5
FFS Delay	7.1	**LOS Thresh. Delay**	7.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	380	730	1130	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	520	990	1530	1920
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	6900	13100	20200	25300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mercantile Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 191 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3103	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.122	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	227	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	151	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.16	**Density**	N/A	**PTSF**	61.5	**ATS**	42.7	**% FFS**	85.4
FFS Delay	11.7	**LOS Thresh. Delay**	11.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	660	990	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	490	1100	1660	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4100	9100	13700	19500

4
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8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mercantile Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 191 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	8303	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.723	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	462	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	177	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.33	**Density**	N/A	**PTSF**	74.5	**ATS**	40.1	**% FFS**	80.3
FFS Delay	16.8	**LOS Thresh. Delay**	16.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	360	730	1120	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	500	1010	1550	1970
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2300	6500	13200	20200	25600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	166th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mercantile Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 191 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	8303	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.122	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.657	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	666	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	347	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.47	**Density**	N/A	**PTSF**	84.1	**ATS**	37.9	**% FFS**	75.9
FFS Delay	21.8	**LOS Thresh. Delay**	21.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	300	700	1050	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	460	1070	1600	2170
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	3800	8800	13200	17800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Town and Country Blvd	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mercantile Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 192 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	4754	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.048	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	162	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	66	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	55.6	**ATS**	40.4	**% FFS**	89.9
FFS Delay	8.1	**LOS Thresh. Delay**	15.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	310	590	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	440	840	1360	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3200	9200	17600	28400	41700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Town and Country Blvd	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mercantile Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 192 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	4754	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	304	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	195	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	N/A	**PTSF**	69.3	**ATS**	36.6	**% FFS**	81.2
FFS Delay	16.6	**LOS Thresh. Delay**	23.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	240	570	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	400	940	1450	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	3900	9000	13900	22200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Town and Country Blvd	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mercantile Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 192 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	6143	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.055	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.604	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	204	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	134	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	59.3	**ATS**	38.4	**% FFS**	85.3
FFS Delay	12.4	**LOS Thresh. Delay**	19.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	230	560	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	390	930	1450	2360
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	7100	17000	26400	43000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Town and Country Blvd	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Mercantile Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 192 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	6143	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.561	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	362	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	283	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	69.4	**ATS**	35.9	**% FFS**	79.7
FFS Delay	18.3	**LOS Thresh. Delay**	25.5	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	210	540	830	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	380	970	1480	2540
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3700	9300	14100	24200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Allisonville Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 193 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	14100	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	501	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	444	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.35	**Density**	N/A	**PTSF**	76.5	**ATS**	29.1	**% FFS**	72.8
FFS Delay	16.8	**LOS Thresh. Delay**	25.8	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	420	670	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	800	1270	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4700	12000	19000	40000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Allisonville Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 193 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	14100	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	962	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	589	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.68	**Density**	N/A	**PTSF**	91.1	**ATS**	24.1	**% FFS**	60.3
FFS Delay	29.6	**LOS Thresh. Delay**	38.6	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	210	450	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	340	730	1210	2300
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3100	6700	11000	21000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Allisonville Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 193 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	34245	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.654	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1725	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	912	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.21	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	230	460	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	360	710	1180	2180
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	4700	9300	15400	28400

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Allisonville Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 193 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	34245	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.504	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1899	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1868	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.33	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	40	150	410	650	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	80	300	820	1290	2820
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	2800	7500	11800	25700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Allisonville Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 193 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	34245	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.654	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1725	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	912	**Adjusted Capacity**	1565

LOS Results

v/c Ratio	0.60	**Density**	25.3	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	10.0	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	830	1410	2000	2530	2800
3	1250	2120	3000	3790	4200
4	1660	2830	4000	5060	5600
Lanes	**Hourly Volume In Both Directions**				
2					
4	1270	2160	3060	3870	4290
6	1920	3250	4590	5800	6430
8	2540	4330	6120	7740	8570
Lanes	**Annual Average Daily Traffic**				
2					

4	16500	28100	39800	50300	55800
6	25000	42300	59700	75400	83600
8	33000	56300	79500	100600	111300

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Allisonville Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 193 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	34245	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.504	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1899	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1868	**Adjusted Capacity**	1565

LOS Results

v/c Ratio	0.66	**Density**	27.8	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	10.0	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	680	1150	1630	2110	2570
3	1020	1730	2450	3170	3860
4	1360	2310	3270	4220	5150
Lanes	**Hourly Volume In Both Directions**				
2					
4	1350	2290	3240	4190	5100
6	2030	3440	4870	6290	7660
8	2700	4590	6490	8380	10220
Lanes	**Annual Average Daily Traffic**				
2					

4	12300	20900	29500	38100	46400
6	18500	31300	44300	57200	69700
8	24600	41800	59000	76200	93000

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	161st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	171st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 194 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2498	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.065	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	115	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	47	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	50.2	**ATS**	41.1	**% FFS**	91.3
FFS Delay	7.3	**LOS Thresh. Delay**	14.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	310	590	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	440	840	1360	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	6800	13000	21000	30800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	161st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	171st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 194 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2498	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	138	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	132	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	49.0	**ATS**	39.1	**% FFS**	86.8
FFS Delay	11.5	**LOS Thresh. Delay**	19.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	510	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	400	1000	1500	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3800	9300	13900	25900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	161st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	171st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 194 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2554	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.065	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.711	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	118	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	48	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	50.6	**ATS**	41.0	**% FFS**	91.2
FFS Delay	7.4	**LOS Thresh. Delay**	15.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	310	600	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	440	850	1360	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	6800	13100	21000	30800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	161st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	171st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 194 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2554	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.516	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	142	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	134	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	49.7	**ATS**	39.0	**% FFS**	86.6
FFS Delay	11.7	**LOS Thresh. Delay**	19.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	520	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	390	1010	1480	2760
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3700	9400	13800	25600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	161st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Gray Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hazel Dell Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 196 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	4975	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.073	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	232	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	131	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.17	**Density**	N/A	**PTSF**	62.3	**ATS**	38.2	**% FFS**	85.0
FFS Delay	13.5	**LOS Thresh. Delay**	21.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	260	580	910	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	410	910	1430	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	5700	12500	19600	30500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	161st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Gray Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hazel Dell Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 196 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	4975	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.125	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	330	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	292	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	67.1	**ATS**	36.2	**% FFS**	80.4
FFS Delay	18.6	**LOS Thresh. Delay**	26.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	520	780	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	380	990	1480	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3100	8000	11900	21500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	161st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Gray Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hazel Dell Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 196 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	7768	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.073	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.525	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	298	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	269	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	65.4	**ATS**	36.5	**% FFS**	81.1
FFS Delay	17.7	**LOS Thresh. Delay**	25.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	520	780	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	390	1000	1490	2710
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	5400	13700	20500	37200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	161st Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Gray Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hazel Dell Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 196 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	7768	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.125	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.507	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	492	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	479	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.35	**Density**	N/A	**PTSF**	75.1	**ATS**	34.1	**% FFS**	75.7
FFS Delay	24.4	**LOS Thresh. Delay**	32.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	510	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	400	1010	1480	2810
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3200	8100	11900	22500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	161st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hazel Dell Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Seminole Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 197 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	2872	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.060	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.720	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	124	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	48	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	51.8	**ATS**	41.0	**% FFS**	91.0
FFS Delay	3.1	**LOS Thresh. Delay**	6.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	320	600	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	450	840	1350	1980
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	7600	14000	22600	33000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	161st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hazel Dell Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Seminole Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 197 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	2872	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.060	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.720	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	124	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	48	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	51.8	**ATS**	41.0	**% FFS**	91.0
FFS Delay	3.1	**LOS Thresh. Delay**	6.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	320	600	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	450	840	1350	1980
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	7600	14000	22600	33000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	161st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Hazel Dell Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Seminole Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 197 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	3500	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.060	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.662	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	139	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	71	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	52.1	**ATS**	40.6	**% FFS**	90.2
FFS Delay	3.5	**LOS Thresh. Delay**	6.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	270	590	930	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	410	900	1410	2150
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	6900	15000	23600	35900

4
6
8

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 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	161st Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Hazel Dell Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Seminole Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 197 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	3500	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.141	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	316	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	178	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	N/A	**PTSF**	69.9	**ATS**	36.5	**% FFS**	81.0
FFS Delay	7.5	**LOS Thresh. Delay**	10.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	260	580	910	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	410	910	1430	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	3000	6500	10200	15800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	161st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Seminole Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry Tree Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 198 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	2864	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.034	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	57	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	40	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	39.6	**ATS**	41.7	**% FFS**	92.6
FFS Delay	7.0	**LOS Thresh. Delay**	15.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	220	560	860	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	380	950	1460	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4200	11200	28000	43000	70900

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	161st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Seminole Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry Tree Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 198 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	2864	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.173	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	253	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	243	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	62.1	**ATS**	37.0	**% FFS**	82.1
FFS Delay	19.2	**LOS Thresh. Delay**	28.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	510	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	400	1000	1500	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	2400	5800	8700	16200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	161st Street	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Seminole Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry Tree Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 198 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	5913	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.073	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.806	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	348	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	84	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.25	**Density**	N/A	**PTSF**	72.3	**ATS**	38.5	**% FFS**	85.6
FFS Delay	14.9	**LOS Thresh. Delay**	23.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	410	640	1000	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	510	800	1250	1770
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	7000	11000	17200	24300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	161st Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Seminole Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry Tree Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 198 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	5913	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.173	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.587	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	600	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	422	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.42	**Density**	N/A	**PTSF**	81.8	**ATS**	33.3	**% FFS**	73.9
FFS Delay	31.0	**LOS Thresh. Delay**	39.8	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	220	550	850	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	380	940	1450	2420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	2200	5500	8400	14000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 199a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	4809	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	42	**Peak Dir. Hrly. Vol.**	255	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	163	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	57.9	**ATS**	39.4	**% FFS**	87.4
FFS Delay	10.3	**LOS Thresh. Delay**	17.5	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	420	700	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	280	690	1150	1580	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3300	8000	13300	18200	26800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 199a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	4809	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	42	**Peak Dir. Hrly. Vol.**	327	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	192	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	64.6	**ATS**	38.6	**% FFS**	85.7
FFS Delay	12.0	**LOS Thresh. Delay**	19.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	420	720	990	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	290	670	1150	1580	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2700	6300	10700	14700	21000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 199a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	4920	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.617	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	42	**Peak Dir. Hrly. Vol.**	264	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	164	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	N/A	**PTSF**	58.7	**ATS**	39.2	**% FFS**	87.2
FFS Delay	10.6	**LOS Thresh. Delay**	17.8	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	420	710	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	300	690	1160	1580	2310
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3500	8000	13400	18200	26600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 199a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	4920	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.636	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	42	**Peak Dir. Hrly. Vol.**	344	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	197	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	N/A	**PTSF**	65.4	**ATS**	38.4	**% FFS**	85.3
FFS Delay	12.4	**LOS Thresh. Delay**	19.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	420	730	1000	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	300	670	1150	1580	2240
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	6100	10500	14400	20400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 199b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	4809	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	255	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	163	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	64.0	**ATS**	32.1	**% FFS**	80.3
FFS Delay	13.3	**LOS Thresh. Delay**	24.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	210	450	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	350	740	1230	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	4100	8600	14200	26800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 199b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	4809	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	327	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	192	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	70.5	**ATS**	31.3	**% FFS**	78.4
FFS Delay	14.9	**LOS Thresh. Delay**	25.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	460	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	740	1210	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3300	6900	11300	21000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 199b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	4920	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.617	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	264	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	164	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	N/A	**PTSF**	64.9	**ATS**	32.0	**% FFS**	80.0
FFS Delay	13.5	**LOS Thresh. Delay**	24.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	210	450	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	730	1220	2310
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	4100	8400	14100	26600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 199b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	4920	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.636	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	344	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	197	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	N/A	**PTSF**	71.1	**ATS**	31.2	**% FFS**	78.0
FFS Delay	15.3	**LOS Thresh. Delay**	26.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	460	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	730	1200	2240
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3200	6700	11000	20400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 199c AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	4809	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	255	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	163	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	64.0	**ATS**	32.1	**% FFS**	80.3
FFS Delay	4.4	**LOS Thresh. Delay**	8.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	210	450	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	350	740	1230	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	4100	8600	14200	26800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 199c PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	4809	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	327	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	192	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	70.5	**ATS**	31.3	**% FFS**	78.4
FFS Delay	5.0	**LOS Thresh. Delay**	8.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	460	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	740	1210	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3300	6900	11300	21000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 199c AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	4920	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.617	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	264	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	164	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	N/A	**PTSF**	64.9	**ATS**	32.0	**% FFS**	80.0
FFS Delay	4.5	**LOS Thresh. Delay**	8.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	210	450	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	730	1220	2310
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	4100	8400	14100	26600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 32	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 199c PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	4920	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.636	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	344	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	197	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	N/A	**PTSF**	71.1	**ATS**	31.2	**% FFS**	78.0
FFS Delay	5.1	**LOS Thresh. Delay**	8.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	460	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	730	1200	2240
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3200	6700	11000	20400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Christian Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 200 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	2.500	**Median**	No	**AADT**	10669	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.074	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	466	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	324	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.33	**Density**	N/A	**PTSF**	75.4	**ATS**	39.9	**% FFS**	79.7
FFS Delay	45.7	**LOS Thresh. Delay**	45.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	650	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	500	1110	1650	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2300	6800	15000	22300	32600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Christian Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 200 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	2.500	**Median**	No	**AADT**	10669	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	659	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	440	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.46	**Density**	N/A	**PTSF**	84.0	**ATS**	37.6	**% FFS**	75.2
FFS Delay	59.4	**LOS Thresh. Delay**	59.4	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	660	990	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	490	1100	1660	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4800	10700	16200	23100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Christian Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 200 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	2.500	**Median**	No	**AADT**	10748	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.075	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.588	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	474	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	332	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.33	**Density**	N/A	**PTSF**	75.7	**ATS**	39.8	**% FFS**	79.6
FFS Delay	46.2	**LOS Thresh. Delay**	46.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	650	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	500	1110	1650	2420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	6700	14800	22000	32300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Allisonville Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Christian Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 200 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	2.500	**Median**	No	**AADT**	10748	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.598	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	662	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	445	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.47	**Density**	N/A	**PTSF**	84.0	**ATS**	37.5	**% FFS**	75.1
FFS Delay	59.8	**LOS Thresh. Delay**	59.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	660	980	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	490	1110	1640	2380
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4800	10800	16000	23200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Herriman Blvd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 201 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	14267	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.065	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	547	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	380	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.39	**Density**	N/A	**PTSF**	79.8	**ATS**	28.9	**% FFS**	72.3
FFS Delay	13.8	**LOS Thresh. Delay**	21.0	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	450	730	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	770	1240	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	5100	11900	19100	37100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Herriman Blvd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 201 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	14267	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.580	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	827	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	599	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.58	**Density**	N/A	**PTSF**	88.1	**ATS**	25.3	**% FFS**	63.3
FFS Delay	20.9	**LOS Thresh. Delay**	28.1	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	450	720	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	780	1250	2450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3400	7800	12600	24600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Herriman Blvd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 201 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	36400	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.072	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.634	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1662	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	959	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.17	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	460	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	730	1200	2240
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4900	10200	16700	31200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Herriman Blvd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 201 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	36400	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.524	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1907	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1733	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.34	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	420	670	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	810	1280	2710
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3200	8200	12800	27200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Herriman Blvd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 201 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	36400	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.072	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.634	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1662	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	959	**Adjusted Capacity**	1565

LOS Results

v/c Ratio	0.58	**Density**	24.4	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	8.0	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	680	1150	1630	2110	2570
3	1020	1730	2450	3170	3860
4	1360	2310	3270	4220	5150
Lanes	**Hourly Volume In Both Directions**				
2					
4	1080	1820	2580	3330	4060
6	1610	2730	3870	5000	6090
8	2150	3650	5160	6660	8130
Lanes	**Annual Average Daily Traffic**				
2					

4	15000	25300	35900	46300	56400
6	22400	38000	53800	69500	84600
8	29900	50700	71700	92500	113000

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	16th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Herriman Blvd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 201 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	36400	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.524	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1907	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1733	**Adjusted Capacity**	1565

LOS Results

v/c Ratio	0.66	**Density**	28.0	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	8.0	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	680	1150	1630	2110	2570
3	1020	1730	2450	3170	3860
4	1360	2310	3270	4220	5150
Lanes	**Hourly Volume In Both Directions**				
2					
4	1300	2200	3120	4030	4910
6	1950	3310	4680	6050	7370
8	2600	4410	6250	8060	9830
Lanes	**Annual Average Daily Traffic**				
2					

4	13000	22000	31200	40400	49200
6	19600	33200	46800	60600	73800
8	26000	44200	62600	80600	98400

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Herriman Boulevard	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Before Curve Heading	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 202 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3383	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.084	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.560	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	159	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	125	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	53.1	**ATS**	34.1	**% FFS**	85.2
FFS Delay	14.9	**LOS Thresh. Delay**	32.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	440	700	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	790	1250	2540
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	4000	9500	14900	30300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Herriman Boulevard	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Before Curve Heading	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 202 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3383	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.163	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	314	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	237	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	N/A	**PTSF**	68.2	**ATS**	31.4	**% FFS**	78.5
FFS Delay	23.4	**LOS Thresh. Delay**	40.5	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	440	710	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	320	780	1250	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	600	2000	4800	7700	15400

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Herriman Boulevard	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Before Curve Heading	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 202 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3383	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.084	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.562	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	160	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	124	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	53.4	**ATS**	34.1	**% FFS**	85.2
FFS Delay	14.8	**LOS Thresh. Delay**	31.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	440	700	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	790	1250	2530
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	4000	9500	14900	30200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Herriman Boulevard	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Before Curve Heading	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 202 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3383	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.163	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.565	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	312	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	240	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	N/A	**PTSF**	67.9	**ATS**	31.4	**% FFS**	78.5
FFS Delay	23.4	**LOS Thresh. Delay**	40.5	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	440	710	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	320	780	1260	2520
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	600	2000	4800	7800	15500

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Herriman Blvd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 203 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	14892	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.065	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	552	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	416	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.39	**Density**	N/A	**PTSF**	79.7	**ATS**	28.7	**% FFS**	71.8
FFS Delay	10.6	**LOS Thresh. Delay**	16.0	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	440	710	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	320	780	1250	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	5000	12000	19300	38500

4
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*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Herriman Blvd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 203 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	14892	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	949	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	659	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.67	**Density**	N/A	**PTSF**	90.4	**ATS**	23.8	**% FFS**	59.6
FFS Delay	18.3	**LOS Thresh. Delay**	23.7	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	450	730	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	770	1240	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3100	7200	11500	22400

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*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Herriman Blvd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 203 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	35426	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.075	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.638	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1695	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	962	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.19	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	460	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	350	730	1200	2230
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4700	9800	16000	29800

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*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Herriman Blvd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 203 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	35426	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.514	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1967	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1859	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.38	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	420	660	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	320	820	1290	2770
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3000	7600	12000	25700

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*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Herriman Blvd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 203 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	35426	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.075	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.638	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1695	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	962	**Adjusted Capacity**	1565

LOS Results

v/c Ratio	0.59	**Density**	24.9	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	680	1150	1630	2110	2570
3	1020	1730	2450	3170	3860
4	1360	2310	3270	4220	5150
Lanes	**Hourly Volume In Both Directions**				
2					
4	1070	1810	2560	3310	4030
6	1600	2720	3850	4970	6060
8	2140	3630	5130	6620	8080
Lanes	**Annual Average Daily Traffic**				
2					

4	14300	24200	34200	44200	53800
6	21400	36300	51400	66300	80800
8	28600	48400	68400	88300	107800

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Herriman Blvd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 203 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	35426	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.514	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1967	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1859	**Adjusted Capacity**	1565

LOS Results

v/c Ratio	0.68	**Density**	28.8	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	680	1150	1630	2110	2570
3	1020	1730	2450	3170	3860
4	1360	2310	3270	4220	5150
Lanes	**Hourly Volume In Both Directions**				
2					
4	1330	2240	3180	4110	5000
6	1990	3370	4770	6170	7510
8	2650	4500	6370	8220	10020
Lanes	**Annual Average Daily Traffic**				
2					

4	12400	20800	29500	38100	46300
6	18500	31300	44200	57200	69600
8	24600	41700	59000	76200	92800

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 204 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	4794	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.066	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.560	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	177	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	139	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.13	**Density**	N/A	**PTSF**	55.9	**ATS**	33.5	**% FFS**	83.8
FFS Delay	10.4	**LOS Thresh. Delay**	21.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	440	700	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	790	1250	2540
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	5000	12000	19000	38500

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*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 204 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	5267	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.121	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.580	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	370	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	268	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	70.4	**ATS**	30.8	**% FFS**	77.1
FFS Delay	16.0	**LOS Thresh. Delay**	26.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	450	720	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	780	1250	2450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	2800	6500	10400	20300

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*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 204 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	9298	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.075	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.713	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	497	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	200	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.35	**Density**	N/A	**PTSF**	76.2	**ATS**	29.8	**% FFS**	74.4
FFS Delay	18.5	**LOS Thresh. Delay**	29.3	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	270	470	810	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	380	660	1140	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	5100	8800	15200	26700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 204 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	9298	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.121	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.658	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	740	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	385	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.52	**Density**	N/A	**PTSF**	86.5	**ATS**	27.1	**% FFS**	67.8
FFS Delay	25.6	**LOS Thresh. Delay**	36.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	240	460	780	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	370	700	1190	2160
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3100	5800	9900	17900

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Union Chapel Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 205 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	8993	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.062	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.560	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	312	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	245	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	N/A	**PTSF**	67.7	**ATS**	36.4	**% FFS**	80.9
FFS Delay	20.8	**LOS Thresh. Delay**	29.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	210	540	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	380	970	1470	2540
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	6200	15700	23800	41000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Union Chapel Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 205 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	8993	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.119	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.560	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	599	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	471	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.42	**Density**	N/A	**PTSF**	80.8	**ATS**	33.1	**% FFS**	73.5
FFS Delay	31.7	**LOS Thresh. Delay**	40.5	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	210	540	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	380	970	1470	2540
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	3200	8200	12400	21400

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Union Chapel Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 205 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	16277	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.080	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.639	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	832	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	470	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.58	**Density**	N/A	**PTSF**	88.6	**ATS**	31.0	**% FFS**	68.8
FFS Delay	39.9	**LOS Thresh. Delay**	48.7	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	260	580	910	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	410	910	1430	2230
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	5200	11400	17900	27900

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Union Chapel Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 205 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.100	**Median**	No	**AADT**	16277	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.119	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.585	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1133	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	804	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.80	**Density**	N/A	**PTSF**	93.2	**ATS**	25.9	**% FFS**	57.6
FFS Delay	64.7	**LOS Thresh. Delay**	73.5	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	220	550	850	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	380	950	1460	2430
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3200	8000	12300	20500

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Summer Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166h Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 206 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3156	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.084	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.760	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	201	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	64	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	60.5	**ATS**	45.1	**% FFS**	90.2
FFS Delay	7.5	**LOS Thresh. Delay**	7.5	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	410	740	1160	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	540	980	1530	1870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	6500	11700	18300	22300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Summer Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166h Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 206 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3156	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.135	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.560	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	239	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	187	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.17	**Density**	N/A	**PTSF**	61.5	**ATS**	42.2	**% FFS**	84.5
FFS Delay	12.6	**LOS Thresh. Delay**	12.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	640	930	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	520	1150	1670	2540
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	3900	8600	12400	18900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Summer Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166h Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 206 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3238	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.084	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.765	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	208	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	64	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	61.3	**ATS**	45.0	**% FFS**	90.0
FFS Delay	7.6	**LOS Thresh. Delay**	7.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	410	740	1160	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	190	540	970	1520	1860
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2300	6500	11600	18100	22200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Summer Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	166h Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 206 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	3238	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.136	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.546	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	85	**Peak Dir. Hrly. Vol.**	240	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	200	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.17	**Density**	N/A	**PTSF**	61.3	**ATS**	42.2	**% FFS**	84.4
FFS Delay	12.6	**LOS Thresh. Delay**	12.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	290	630	910	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	540	1160	1670	2610
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	4000	8600	12300	19200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Boden Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 207 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	8383	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.049	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.790	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	6	**Peak Dir. Hrly. Vol.**	325	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	86	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	46.5	**ATS**	45.9	**% FFS**	91.8
FFS Delay	6.1	**LOS Thresh. Delay**	6.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	320	600	960	1330	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	410	760	1220	1690	1800
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	8400	15600	24900	34500	36800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Boden Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 207 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	8383	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	6	**Peak Dir. Hrly. Vol.**	462	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	393	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.33	**Density**	N/A	**PTSF**	63.9	**ATS**	41.1	**% FFS**	82.2
FFS Delay	14.8	**LOS Thresh. Delay**	14.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	420	690	940	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	780	1280	1750	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3200	7700	12600	17200	25800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Boden Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 207 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	19676	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.057	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.719	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	6	**Peak Dir. Hrly. Vol.**	806	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	315	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.57	**Density**	N/A	**PTSF**	78.0	**ATS**	38.5	**% FFS**	76.9
FFS Delay	20.5	**LOS Thresh. Delay**	20.5	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	270	550	880	1240	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	380	770	1230	1730	1980
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	6700	13600	21600	30400	34800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Boden Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 207 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	19676	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.548	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	6	**Peak Dir. Hrly. Vol.**	1100	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	907	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.77	**Density**	N/A	**PTSF**	89.9	**ATS**	31.0	**% FFS**	62.0
FFS Delay	41.9	**LOS Thresh. Delay**	41.9	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	420	700	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	770	1280	1760	2600
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3300	7600	12600	17300	25500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 208 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	5010	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.079	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	55	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	226	**Local Adj. Factor**	0.91
Free Flow Speed	60	**Class**	3	**Off Peak Dir. Hrly. Vol.**	170	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.16	**Density**	N/A	**PTSF**	42.9	**ATS**	54.4	**% FFS**	90.7
FFS Delay	5.9	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	530	880	1190	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	360	930	1550	2090	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4600	11800	19700	26500	31700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	Danah	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 208 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	5010	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.104	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.560	**Base Capacity**	1700
Posted Speed	55	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	292	**Local Adj. Factor**	0.91
Free Flow Speed	60	**Class**	3	**Off Peak Dir. Hrly. Vol.**	229	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	51.0	**ATS**	53.4	**% FFS**	89.0
FFS Delay	7.0	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	520	860	1170	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	930	1540	2090	2540
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3300	9000	14900	20100	24500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 208 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	25981	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.082	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.720	**Base Capacity**	1700
Posted Speed	55	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	1534	**Local Adj. Factor**	0.91
Free Flow Speed	60	**Class**	3	**Off Peak Dir. Hrly. Vol.**	597	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.08	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	290	640	1060	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	410	890	1480	1980	1980
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5100	10900	18100	24200	24200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 208 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	25981	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.104	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.562	**Base Capacity**	1700
Posted Speed	55	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	1519	**Local Adj. Factor**	0.91
Free Flow Speed	60	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1183	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.07	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	520	870	1170	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	930	1550	2090	2530
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3300	9000	15000	20100	24400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 208 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	25981	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.104	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.577	**Base Capacity**	2200
Posted Speed	55	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1559	**Local Adj. Factor**	0.88
Free Flow Speed	60	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1143	**Adjusted Capacity**	1812

LOS Results

v/c Ratio	0.47	**Density**	17.1	**PTSF**	N/A	**ATS**	60.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	0.0	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	900	1540	2170	2720	2930
3	1360	2310	3260	4080	4400
4	1810	3090	4350	5440	5870
Lanes	**Hourly Volume In Both Directions**				
2					
4	1560	2670	3770	4720	5080
6	2360	4010	5650	7080	7630
8	3140	5360	7540	9430	10180
Lanes	**Annual Average Daily Traffic**				
2					
4	15000	25700	36300	45400	48900
6	22700	38600	54400	68100	73400
8	30200	51600	72600	90700	97900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	166th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 208 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	25981	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.082	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.720	**Base Capacity**	2200
Posted Speed	55	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1534	**Local Adj. Factor**	0.88
Free Flow Speed	60	**Class**	3	**Off Peak Dir. Hrly. Vol.**	597	**Adjusted Capacity**	1812

LOS Results

v/c Ratio	0.46	**Density**	16.9	**PTSF**	N/A	**ATS**	60.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	0.0	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	900	1540	2170	2720	2930
3	1360	2310	3260	4080	4400
4	1810	3090	4350	5440	5870
Lanes	**Hourly Volume In Both Directions**				
2					
4	1260	2140	3020	3780	4070
6	1890	3210	4530	5670	6120
8	2520	4300	6050	7560	8160
Lanes	**Annual Average Daily Traffic**				
2					
4	15400	26100	36900	46100	49700
6	23100	39200	55300	69200	74700
8	30800	52500	73800	92200	99600

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Prairie Baptist Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 209 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	1820	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.078	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.720	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	102	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	40	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	27.5	**ATS**	53.2	**% FFS**	96.6
FFS Delay	2.0	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	280	590	970	1350	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	390	820	1350	1880	1980
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5000	10600	17400	24200	25400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Prairie Baptist Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 209 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	1820	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.078	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.720	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	102	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	40	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	27.5	**ATS**	53.2	**% FFS**	96.6
FFS Delay	2.0	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	280	590	970	1350	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	390	820	1350	1880	1980
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5000	10600	17400	24200	25400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Prairie Baptist Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 209 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	15531	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.101	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.813	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	1275	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	293	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.90	**Density**	N/A	**PTSF**	89.0	**ATS**	39.1	**% FFS**	71.1
FFS Delay	24.0	**LOS Thresh. Delay**	18.1	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	350	670	1080	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	440	830	1330	1750	1750
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4400	8300	13200	17400	17400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Prairie Baptist Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	SR 38	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 209 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	15531	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.128	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	1233	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	755	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.87	**Density**	N/A	**PTSF**	91.3	**ATS**	36.1	**% FFS**	65.6
FFS Delay	30.9	**LOS Thresh. Delay**	25.0	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	220	520	860	1190	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	360	840	1390	1920	2300
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	6600	10900	15000	18000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cyntheanne Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 210 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	1875	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.081	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.660	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	25	**Peak Dir. Hrly. Vol.**	100	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	52	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	34.5	**ATS**	52.9	**% FFS**	96.1
FFS Delay	1.8	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	230	540	900	1260	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	350	820	1370	1910	2160
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4400	10200	17000	23600	26700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cyntheanne Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 210 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	1875	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.500	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	25	**Peak Dir. Hrly. Vol.**	97	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	97	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	30.6	**ATS**	52.3	**% FFS**	95.1
FFS Delay	2.4	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	420	710	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	300	840	1420	1920	2840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3000	8200	13800	18700	27600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cyntheanne Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 210 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	2670	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.090	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	25	**Peak Dir. Hrly. Vol.**	130	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	111	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	37.2	**ATS**	51.7	**% FFS**	93.9
FFS Delay	3.0	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	450	760	1030	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	840	1410	1910	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3600	9400	15700	21300	29300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cyntheanne Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 210 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	No	**AADT**	2670	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.505	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	25	**Peak Dir. Hrly. Vol.**	139	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	136	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	38.6	**ATS**	51.0	**% FFS**	92.8
FFS Delay	3.6	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	430	710	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	300	860	1410	1930	2820
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3000	8400	13700	18800	27400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Atlantic Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 211 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.020	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.550	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	11	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	9	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	7.2	**ATS**	49.6	**% FFS**	99.2
FFS Delay	0.2	**LOS Thresh. Delay**	0.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	430	710	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	790	1300	1750	2590
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	16600	39600	65000	87600	129600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Atlantic Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 211 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.053	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.830	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	44	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	9	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	12.7	**ATS**	49.3	**% FFS**	98.6
FFS Delay	0.4	**LOS Thresh. Delay**	0.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	350	660	1010	1380	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	430	800	1220	1670	1720
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	8200	15100	23100	31600	32500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Atlantic Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 211 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.032	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.594	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	19	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	13	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	9.3	**ATS**	49.5	**% FFS**	99.0
FFS Delay	0.3	**LOS Thresh. Delay**	0.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	460	760	1040	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	780	1280	1760	2400
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	10700	24400	40000	55000	75000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Atlantic Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	SR 38	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 211 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.076	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.789	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	60	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	16	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	15.7	**ATS**	49.1	**% FFS**	98.2
FFS Delay	0.5	**LOS Thresh. Delay**	0.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	320	600	960	1320	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	410	770	1220	1680	1800
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5400	10200	16100	22200	23700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Cyntheanne Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Atlantic Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 212 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.010	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	10	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	6.2	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.4	**LOS Thresh. Delay**	0.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	420	870	1320	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	420	880	1320	1420	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	42000	88000	132000	142000	142000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Cyntheanne Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Atlantic Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 212 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.010	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	10	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	6.2	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.4	**LOS Thresh. Delay**	0.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	420	870	1320	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	420	880	1320	1420	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	42000	88000	132000	142000	142000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Cyntheanne Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Atlantic Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 212 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.010	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	10	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	6.2	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.4	**LOS Thresh. Delay**	0.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	420	870	1320	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	420	880	1320	1420	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	42000	88000	132000	142000	142000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Cyntheanne Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Atlantic Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 212 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.010	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	10	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	6.2	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.4	**LOS Thresh. Delay**	0.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	420	870	1320	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	420	880	1320	1420	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	42000	88000	132000	142000	142000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Prairie Baptist Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cyntheanne Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 213 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.010	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.830	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	8	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	2	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	7.3	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.4	**LOS Thresh. Delay**	0.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	350	660	1010	1380	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	430	800	1220	1670	1720
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	43000	80000	122000	167000	172000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Prairie Baptist Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cyntheanne Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 213 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.026	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	14	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	12	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	7.4	**ATS**	49.6	**% FFS**	99.1
FFS Delay	0.6	**LOS Thresh. Delay**	0.6	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	420	690	940	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	780	1280	1750	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	12400	30000	49300	67400	101200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Prairie Baptist Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cyntheanne Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 213 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.013	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.692	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	9	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	4	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	8.3	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.4	**LOS Thresh. Delay**	0.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	260	530	860	1200	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	380	770	1250	1740	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	29300	59300	96200	133900	158500

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Prairie Baptist Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cyntheanne Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 213 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.051	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.667	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	34	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	17	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	11.9	**ATS**	49.3	**% FFS**	98.6
FFS Delay	1.0	**LOS Thresh. Delay**	1.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	240	510	830	1160	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	360	770	1250	1740	2130
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	7100	15100	24600	34200	41800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Prairie Baptist Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 214 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.012	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.920	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	11	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	14.9	**ATS**	44.8	**% FFS**	99.5
FFS Delay	0.4	**LOS Thresh. Delay**	8.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	350	730	1090	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	390	800	1190	1550	1550
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	32600	66700	99200	129200	129200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Prairie Baptist Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 214 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.021	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	13	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	8	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	14.7	**ATS**	44.7	**% FFS**	99.3
FFS Delay	0.5	**LOS Thresh. Delay**	8.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	210	430	710	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	700	1150	1570	2300
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	16200	33400	54800	74800	109600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Prairie Baptist Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 214 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	6200	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.045	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.728	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	203	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	76	**Adjusted Capacity**	1547

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	39.3	**ATS**	47.2	**% FFS**	94.3
FFS Delay	4.1	**LOS Thresh. Delay**	4.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	280	550	890	1250	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	390	760	1230	1720	1960
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	8700	16900	27400	38300	43600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Prairie Baptist Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 214 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	6200	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.563	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	10	**Peak Dir. Hrly. Vol.**	360	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	279	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.25	**Density**	N/A	**PTSF**	56.9	**ATS**	42.9	**% FFS**	85.8
FFS Delay	11.3	**LOS Thresh. Delay**	11.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	430	720	980	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	770	1280	1750	2530
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3400	7500	12500	17000	24600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 215 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.041	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	26	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	15	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	37.0	**ATS**	47.1	**% FFS**	94.2
FFS Delay	4.2	**LOS Thresh. Delay**	4.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	290	680	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	470	1080	1620	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4400	11500	26400	39600	55200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 215 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.063	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	36	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	27	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	35.7	**ATS**	46.9	**% FFS**	93.8
FFS Delay	4.5	**LOS Thresh. Delay**	4.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	280	640	940	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	500	1130	1650	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	8000	18000	26200	39700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 215 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	12651	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.063	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	502	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	295	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.35	**Density**	N/A	**PTSF**	77.5	**ATS**	39.6	**% FFS**	79.2
FFS Delay	18.0	**LOS Thresh. Delay**	18.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	290	680	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	470	1080	1620	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	7500	17200	25800	35900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 215 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	12651	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.109	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.582	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	803	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	576	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.56	**Density**	N/A	**PTSF**	87.6	**ATS**	35.6	**% FFS**	71.1
FFS Delay	27.7	**LOS Thresh. Delay**	27.7	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	650	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	500	1120	1650	2440
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4600	10300	15200	22400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 216 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2038	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.730	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	164	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	61	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	56.4	**ATS**	45.4	**% FFS**	90.8
FFS Delay	7.0	**LOS Thresh. Delay**	7.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	370	730	1130	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	510	1000	1550	1950
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4700	9100	14100	17800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 216 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2038	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.144	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	158	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	135	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	52.8	**ATS**	43.8	**% FFS**	87.5
FFS Delay	9.7	**LOS Thresh. Delay**	9.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	620	900	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	520	1150	1670	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3700	8000	11600	18300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 216 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	5355	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.581	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	342	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	247	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	N/A	**PTSF**	69.6	**ATS**	41.1	**% FFS**	82.3
FFS Delay	14.8	**LOS Thresh. Delay**	14.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	280	650	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1120	1660	2450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4500	10200	15100	22300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 216 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	5355	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.166	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.529	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	470	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	419	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.33	**Density**	N/A	**PTSF**	75.1	**ATS**	39.4	**% FFS**	78.9
FFS Delay	18.3	**LOS Thresh. Delay**	18.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	610	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	530	1160	1670	2690
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	3200	7000	10100	16300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Summer Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 217 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	2519	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.081	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.890	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	182	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	22	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.13	**Density**	N/A	**PTSF**	61.2	**ATS**	45.6	**% FFS**	91.2
FFS Delay	2.8	**LOS Thresh. Delay**	2.8	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	550	900	1230	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	620	1020	1390	1600
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	7700	12600	17200	19800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Summer Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 217 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	2519	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.093	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	148	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	87	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	52.7	**ATS**	45.2	**% FFS**	90.4
FFS Delay	3.1	**LOS Thresh. Delay**	3.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	290	680	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	470	1080	1620	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	5100	11700	17500	24400

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Summer Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 217 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	2605	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.081	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.896	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	189	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	22	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.13	**Density**	N/A	**PTSF**	61.6	**ATS**	45.5	**% FFS**	91.0
FFS Delay	2.8	**LOS Thresh. Delay**	2.8	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	560	920	1250	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	630	1030	1400	1590
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	7800	12800	17300	19700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Summer Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 217 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	No	**AADT**	2605	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.096	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.592	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	148	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	102	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	52.1	**ATS**	44.8	**% FFS**	89.5
FFS Delay	3.4	**LOS Thresh. Delay**	3.4	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	660	980	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	490	1120	1660	2400
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	5200	11700	17300	25000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Summer Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 218 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	10805	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.720	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	599	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	233	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.42	**Density**	N/A	**PTSF**	81.8	**ATS**	38.8	**% FFS**	77.6
FFS Delay	16.7	**LOS Thresh. Delay**	16.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	360	720	1120	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	500	1000	1560	1980
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2300	6500	13000	20300	25800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Summer Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 218 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	10805	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.134	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	854	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	594	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.60	**Density**	N/A	**PTSF**	88.9	**ATS**	35.0	**% FFS**	70.0
FFS Delay	24.7	**LOS Thresh. Delay**	24.7	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	650	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	500	1110	1650	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3800	8300	12400	18000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Summer Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 218 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	29978	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.088	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.546	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1440	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1198	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.01	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	620	910	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	520	1140	1670	2610
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	6000	13000	19000	29700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Summer Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 218 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	29978	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.134	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.557	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	2237	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1780	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.57	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	630	920	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	510	1140	1660	2550
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3900	8600	12400	19100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Summer Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 218 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	29978	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.088	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.546	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1440	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1198	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.48	**Density**	19.0	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	9.6	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1380	2350	3320	4250	4930
6	2070	3540	4990	6380	7400
8	2770	4710	6650	8520	9880
Lanes	**Annual Average Daily Traffic**				
2					

4	15700	26800	37800	48300	56100
6	23600	40300	56800	72600	84100
8	31500	53600	75600	96900	112300

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Summer Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 218 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	29978	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.134	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.557	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2237	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1780	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.74	**Density**	29.7	**PTSF**	N/A	**ATS**	49.8	**% FFS**	99.5
FFS Delay	0.3	**LOS Thresh. Delay**	9.9	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1350	2300	3250	4170	4830
6	2030	3470	4890	6250	7260
8	2720	4620	6520	8350	9680
Lanes	**Annual Average Daily Traffic**				
2					

4	10100	17200	24300	31200	36100
6	15200	25900	36500	46700	54200
8	20300	34500	48700	62400	72300

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Summer Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 219 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	1434	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.117	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.780	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	131	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	37	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	55.0	**ATS**	45.9	**% FFS**	91.8
FFS Delay	5.8	**LOS Thresh. Delay**	5.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	420	740	1170	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	540	950	1500	1830
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4700	8200	12900	15700

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*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Summer Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 219 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	1434	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.171	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	154	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	91	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	53.4	**ATS**	45.0	**% FFS**	90.0
FFS Delay	7.2	**LOS Thresh. Delay**	7.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	290	680	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	470	1080	1620	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	2800	6400	9500	13300

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*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Summer Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 219 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	4547	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.117	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.776	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	413	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	119	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.29	**Density**	N/A	**PTSF**	75.1	**ATS**	41.8	**% FFS**	83.7
FFS Delay	12.6	**LOS Thresh. Delay**	12.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	420	740	1160	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	550	960	1500	1830
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4800	8300	12900	15700

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*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Summer Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 219 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.900	**Median**	No	**AADT**	4547	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.185	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.581	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	489	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	352	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.34	**Density**	N/A	**PTSF**	76.7	**ATS**	39.6	**% FFS**	79.1
FFS Delay	17.1	**LOS Thresh. Delay**	17.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	280	650	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1120	1660	2450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	2700	6100	9000	13300

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*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Union Chapel Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 220 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	13143	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.064	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.720	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	606	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	236	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.43	**Density**	N/A	**PTSF**	82.2	**ATS**	38.7	**% FFS**	77.4
FFS Delay	6.3	**LOS Thresh. Delay**	6.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	360	720	1120	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	500	1000	1560	1980
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2700	7900	15700	24400	31000

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8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Union Chapel Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 220 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	13143	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	861	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	598	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.60	**Density**	N/A	**PTSF**	89.1	**ATS**	34.9	**% FFS**	69.8
FFS Delay	9.3	**LOS Thresh. Delay**	9.3	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	650	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	500	1110	1650	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4600	10000	14900	21800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Union Chapel Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 220 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	41468	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.070	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.504	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1463	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1440	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.03	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	270	590	840	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	160	540	1180	1670	2820
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2300	7800	16900	23900	40300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Union Chapel Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 220 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	41468	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.541	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	2490	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	2113	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.75	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	620	900	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	520	1150	1670	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4700	10400	15100	23700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Union Chapel Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 220 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	41468	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.070	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.504	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1463	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1440	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.48	**Density**	19.3	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	3.6	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1490	2540	3600	4610	5340
6	2250	3830	5400	6910	8020
8	3000	5100	7210	9230	10700
Lanes	**Annual Average Daily Traffic**				
2					

4	21300	36300	51500	65900	76300
6	32200	54800	77200	98800	114600
8	42900	72900	103000	131900	152900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Union Chapel Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 220 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	41468	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.541	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2490	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	2113	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.82	**Density**	33.6	**PTSF**	N/A	**ATS**	48.9	**% FFS**	97.9
FFS Delay	0.5	**LOS Thresh. Delay**	4.1	**Service Measure**	Density	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1390	2370	3350	4290	4980
6	2090	3570	5030	6440	7470
8	2800	4760	6710	8600	9970
Lanes	**Annual Average Daily Traffic**				
2					

4	12600	21400	30200	38700	44900
6	18900	32200	45400	58100	67300
8	25300	42900	60500	77500	89900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Howe Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 221 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	12073	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.074	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	634	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	259	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.45	**Density**	N/A	**PTSF**	83.2	**ATS**	33.4	**% FFS**	74.2
FFS Delay	8.3	**LOS Thresh. Delay**	10.7	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	310	590	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	440	840	1360	2000
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	6000	11400	18400	27100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Howe Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 221 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	12073	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.123	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	891	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	594	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.63	**Density**	N/A	**PTSF**	89.8	**ATS**	29.8	**% FFS**	66.1
FFS Delay	12.3	**LOS Thresh. Delay**	14.7	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	230	560	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	390	940	1460	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3200	7700	11900	19300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Howe Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 221 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	37374	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1468	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1410	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.03	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	510	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	400	1000	1500	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	5200	13000	19500	36300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Howe Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 221 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	37374	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.123	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.534	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	2455	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	2142	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.72	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	530	790	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	380	1000	1480	2660
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3100	8200	12100	21700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Howe Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 221 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	37374	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1468	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1410	**Adjusted Capacity**	1565

LOS Results

v/c Ratio	0.51	**Density**	21.5	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	680	1150	1630	2110	2570
3	1020	1730	2450	3170	3860
4	1360	2310	3270	4220	5150
Lanes	**Hourly Volume In Both Directions**				
2					
4	1340	2260	3200	4140	5040
6	2000	3400	4810	6220	7570
8	2670	4530	6420	8280	10100
Lanes	**Annual Average Daily Traffic**				
2					

4	17500	29400	41600	53800	65500
6	26000	44200	62500	80800	98400
8	34700	58900	83400	107600	131200

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Union Chapel Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Howe Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 221 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	37374	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.123	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.534	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2455	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	2142	**Adjusted Capacity**	1565

LOS Results

v/c Ratio	0.85	**Density**	36.8	**PTSF**	N/A	**ATS**	44.1	**% FFS**	97.9
FFS Delay	0.5	**LOS Thresh. Delay**	6.5	**Service Measure**	Density	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	680	1150	1630	2110	2570
3	1020	1730	2450	3170	3860
4	1360	2310	3270	4220	5150
Lanes	**Hourly Volume In Both Directions**				
2					
4	1280	2160	3060	3960	4820
6	1920	3240	4590	5940	7230
8	2550	4330	6130	7910	9650
Lanes	**Annual Average Daily Traffic**				
2					

4	10500	17600	24900	32200	39200
6	15700	26400	37400	48300	58800
8	20800	35300	49900	64400	78500

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Howe Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 222 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	13269	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.065	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.730	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	630	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	233	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.44	**Density**	N/A	**PTSF**	83.5	**ATS**	33.5	**% FFS**	74.4
FFS Delay	22.0	**LOS Thresh. Delay**	28.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	330	600	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	460	830	1330	1950
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	7100	12800	20500	30000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Howe Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 222 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	13269	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.112	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	847	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	639	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.60	**Density**	N/A	**PTSF**	88.3	**ATS**	29.9	**% FFS**	66.5
FFS Delay	32.3	**LOS Thresh. Delay**	38.7	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	210	550	840	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	370	970	1480	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	3400	8700	13300	22400

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Howe Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 222 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	42116	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.070	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.519	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1530	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1418	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.08	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	520	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	390	1010	1490	2740
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	5600	14500	21300	39200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Howe Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 222 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	42116	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.112	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.539	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	2542	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	2175	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.79	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	530	800	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	380	990	1490	2640
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3400	8900	13400	23600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Howe Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 222 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	42116	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.070	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.519	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1530	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1418	**Adjusted Capacity**	1565

LOS Results

v/c Ratio	0.53	**Density**	22.4	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	16.0	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	680	1150	1630	2110	2570
3	1020	1730	2450	3170	3860
4	1360	2310	3270	4220	5150
Lanes	**Hourly Volume In Both Directions**				
2					
4	1320	2220	3150	4070	4960
6	1970	3340	4730	6110	7440
8	2630	4460	6310	8140	9930
Lanes	**Annual Average Daily Traffic**				
2					

4	18900	31800	45000	58200	70900
6	28200	47800	67600	87300	106300
8	37600	63800	90200	116300	141900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Howe Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 222 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	42116	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.112	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.539	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2542	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	2175	**Adjusted Capacity**	1565

LOS Results

v/c Ratio	0.88	**Density**	38.4	**PTSF**	N/A	**ATS**	43.7	**% FFS**	97.1
FFS Delay	1.9	**LOS Thresh. Delay**	17.9	**Service Measure**	Density	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	680	1150	1630	2110	2570
3	1020	1730	2450	3170	3860
4	1360	2310	3270	4220	5150
Lanes	**Hourly Volume In Both Directions**				
2					
4	1270	2140	3030	3920	4770
6	1900	3210	4550	5890	7170
8	2530	4290	6070	7830	9560
Lanes	**Annual Average Daily Traffic**				
2					

4	11400	19200	27100	35000	42600
6	17000	28700	40700	52600	64100
8	22600	38400	54200	70000	85400

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 223 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	20708	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.062	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	732	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	552	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	10.2	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	4.0	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1250	2150	3020	3900	4760
6	1880	3220	4530	5850	7130
8	2510	4290	6040	7810	9510
Lanes	**Annual Average Daily Traffic**				
2					

4	20200	34700	48800	63000	76800
6	30400	52000	73100	94400	115000
8	40500	69200	97500	126000	153400

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 223 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	20708	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.095	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1003	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	964	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.33	**Density**	14.0	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	4.0	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1400	2400	3380	4360	5320
6	2100	3590	5060	6530	7970
8	2810	4790	6750	8730	10630
Lanes	**Annual Average Daily Traffic**				
2					

4	14800	25300	35600	45900	56000
6	22200	37800	53300	68800	83900
8	29600	50500	71100	91900	111900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 223 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	59905	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.062	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.625	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2321	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1393	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.77	**Density**	32.4	**PTSF**	N/A	**ATS**	44.8	**% FFS**	99.7
FFS Delay	0.1	**LOS Thresh. Delay**	4.1	**Service Measure**	Density	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1140	1960	2760	3560	4340
6	1720	2930	4130	5330	6500
8	2290	3910	5510	7120	8680
Lanes	**Annual Average Daily Traffic**				
2					

4	18400	31700	44600	57500	70000
6	27800	47300	66700	86000	104900
8	37000	63100	88900	114900	140000

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 223 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	59905	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.095	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.574	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	3267	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	2424	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.08	**Density**	49.8	**PTSF**	N/A	**ATS**	41.1	**% FFS**	91.3
FFS Delay	1.5	**LOS Thresh. Delay**	5.5	**Service Measure**	Density	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1240	2130	3000	3870	4730
6	1870	3190	4500	5810	7080
8	2500	4260	6000	7760	9450
Lanes	**Annual Average Daily Traffic**				
2					

4	13100	22500	31600	40800	49800
6	19700	33600	47400	61200	74600
8	26400	44900	63200	81700	99500

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 223 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	59905	**PHF**	0.920
# Thru Lanes	6	**Left Turn Impact**	No	**K**	0.062	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.625	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2321	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1393	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.51	**Density**	21.6	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	4.0	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1140	1960	2760	3560	4340
6	1720	2930	4130	5330	6500
8	2290	3910	5510	7120	8680
Lanes	**Annual Average Daily Traffic**				
2					

4	18400	31700	44600	57500	70000
6	27800	47300	66700	86000	104900
8	37000	63100	88900	114900	140000

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	SR 37	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 223 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	59905	**PHF**	0.920
# Thru Lanes	6	**Left Turn Impact**	No	**K**	0.095	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.574	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	3267	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	2424	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.72	**Density**	30.3	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	4.0	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1240	2130	3000	3870	4730
6	1870	3190	4500	5810	7080
8	2500	4260	6000	7760	9450
Lanes	**Annual Average Daily Traffic**				
2					

4	13100	22500	31600	40800	49800
6	19700	33600	47400	61200	74600
8	26400	44900	63200	81700	99500

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	160th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	River Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry Tree Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 224 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	2892	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.060	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.790	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	137	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	36	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	25.2	**ATS**	43.3	**% FFS**	96.1
FFS Delay	1.6	**LOS Thresh. Delay**	5.6	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	300	570	880	1190	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	380	730	1120	1510	1800
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	6400	12200	18700	25200	30000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	160th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	River Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry Tree Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 224 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	2892	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.149	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.660	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	284	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	147	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.20	**Density**	N/A	**PTSF**	41.6	**ATS**	40.2	**% FFS**	89.4
FFS Delay	4.8	**LOS Thresh. Delay**	8.8	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	230	460	740	1040	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	350	700	1130	1580	2160
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	4700	7600	10700	14500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	160th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	River Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry Tree Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 224 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	6403	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.080	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.843	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	432	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	80	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.31	**Density**	N/A	**PTSF**	46.5	**ATS**	40.1	**% FFS**	89.1
FFS Delay	4.9	**LOS Thresh. Delay**	8.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	320	630	930	1280	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	380	750	1110	1520	1690
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4800	9400	13900	19000	21200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	160th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	River Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry Tree Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 224 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	6403	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.149	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.674	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	643	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	311	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.45	**Density**	N/A	**PTSF**	70.2	**ATS**	35.2	**% FFS**	78.2
FFS Delay	11.1	**LOS Thresh. Delay**	15.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	230	470	750	1060	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	350	700	1120	1580	2110
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	4700	7600	10700	14200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	161st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	160th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 225 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	3459	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.049	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.750	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	127	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	42	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	53.4	**ATS**	41.0	**% FFS**	91.1
FFS Delay	1.6	**LOS Thresh. Delay**	3.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	350	600	990	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	470	800	1320	1900
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	9600	16400	27000	38800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	161st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	160th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 225 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	3459	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.147	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	259	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	249	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	62.5	**ATS**	36.9	**% FFS**	82.0
FFS Delay	3.5	**LOS Thresh. Delay**	5.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	200	510	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	400	1000	1500	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	2800	6900	10300	19000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	161st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	160th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 225 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	7034	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.072	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.831	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	421	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	86	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.30	**Density**	N/A	**PTSF**	75.5	**ATS**	37.8	**% FFS**	83.9
FFS Delay	3.1	**LOS Thresh. Delay**	4.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	440	680	1010	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	530	820	1220	1710
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	7400	11400	17000	23800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	161st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	160th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 225 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	7034	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.147	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.591	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	611	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	423	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.43	**Density**	N/A	**PTSF**	82.3	**ATS**	33.2	**% FFS**	73.7
FFS Delay	5.7	**LOS Thresh. Delay**	7.3	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	220	560	860	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	380	950	1460	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	2600	6500	10000	16400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Gray Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hazel Dell Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 227 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1456	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.059	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.730	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	63	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	23	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	44.6	**ATS**	46.7	**% FFS**	93.4
FFS Delay	4.9	**LOS Thresh. Delay**	4.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	370	730	1130	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	510	1000	1550	1950
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	8700	17000	26300	33100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Gray Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hazel Dell Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 227 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1456	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.113	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	107	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	58	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	47.8	**ATS**	45.9	**% FFS**	91.9
FFS Delay	6.1	**LOS Thresh. Delay**	6.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	300	690	1050	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	470	1070	1620	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4200	9500	14400	19400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Gray Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hazel Dell Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 227 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	5770	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.083	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	302	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	177	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	68.7	**ATS**	41.6	**% FFS**	83.2
FFS Delay	13.8	**LOS Thresh. Delay**	13.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	290	680	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	470	1080	1620	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	5700	13100	19600	27300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	156th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Gray Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hazel Dell Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 227 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	5770	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.113	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.525	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	342	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	310	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	N/A	**PTSF**	67.2	**ATS**	41.0	**% FFS**	82.1
FFS Delay	15.0	**LOS Thresh. Delay**	15.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	600	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	540	1150	1660	2710
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4800	10200	14700	24000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 228a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.200	**Median**	No	**AADT**	1326	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.051	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	43	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	24	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	39.5	**ATS**	42.0	**% FFS**	93.2
FFS Delay	6.9	**LOS Thresh. Delay**	16.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	260	580	910	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	410	910	1430	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3000	8100	17900	28100	43600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 228a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.200	**Median**	No	**AADT**	1326	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	86	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	53	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	44.5	**ATS**	41.3	**% FFS**	91.7
FFS Delay	8.7	**LOS Thresh. Delay**	18.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	240	570	890	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	390	920	1440	2300
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3800	8800	13800	22000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 228a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.200	**Median**	No	**AADT**	1590	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.053	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	54	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	30	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	41.0	**ATS**	41.8	**% FFS**	92.9
FFS Delay	7.3	**LOS Thresh. Delay**	16.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	260	580	910	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	410	910	1430	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	7800	17200	27000	41900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 228a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.200	**Median**	No	**AADT**	1590	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.629	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	105	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	62	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	47.1	**ATS**	41.0	**% FFS**	91.1
FFS Delay	9.3	**LOS Thresh. Delay**	18.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	250	580	900	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	400	930	1440	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3900	8900	13800	21600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 228b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	Yes	**AADT**	1326	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.051	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	43	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	24	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	39.2	**ATS**	42.0	**% FFS**	93.3
FFS Delay	4.0	**LOS Thresh. Delay**	9.6	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	270	610	950	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	430	960	1490	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3000	8500	18900	29300	45700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 228b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	Yes	**AADT**	1326	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	86	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	53	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	44.0	**ATS**	41.3	**% FFS**	91.9
FFS Delay	5.0	**LOS Thresh. Delay**	10.6	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	260	600	930	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	420	970	1500	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4000	9300	14300	23000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 228b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	Yes	**AADT**	1590	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.053	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.553	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	47	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	38	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	35.9	**ATS**	41.8	**% FFS**	93.0
FFS Delay	4.2	**LOS Thresh. Delay**	9.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	210	560	860	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	380	1020	1560	2700
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	7200	19300	29500	51000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cherry Tree Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 228b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.700	**Median**	Yes	**AADT**	1590	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.629	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	105	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	62	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	46.5	**ATS**	41.1	**% FFS**	91.3
FFS Delay	5.3	**LOS Thresh. Delay**	10.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	260	610	940	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	420	970	1500	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4000	9300	14300	22600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 229 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.300	**Median**	No	**AADT**	7241	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.670	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	35	**Peak Dir. Hrly. Vol.**	325	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	160	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.23	**Density**	N/A	**PTSF**	62.5	**ATS**	39.1	**% FFS**	86.9
FFS Delay	15.7	**LOS Thresh. Delay**	26.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	210	450	770	1050	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	680	1150	1570	2120
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4800	10200	17200	23500	31700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 229 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.300	**Median**	No	**AADT**	7241	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	35	**Peak Dir. Hrly. Vol.**	510	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	287	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.36	**Density**	N/A	**PTSF**	72.8	**ATS**	36.7	**% FFS**	81.7
FFS Delay	23.3	**LOS Thresh. Delay**	33.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	440	740	1010	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	690	1160	1580	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3000	6300	10600	14400	20200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 229 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.300	**Median**	No	**AADT**	12200	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.068	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.752	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	35	**Peak Dir. Hrly. Vol.**	624	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	206	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.44	**Density**	N/A	**PTSF**	76.1	**ATS**	36.0	**% FFS**	80.1
FFS Delay	25.8	**LOS Thresh. Delay**	36.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	260	490	830	1170	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	350	660	1110	1560	1890
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5200	9800	16400	23000	27800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	River Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	160th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 229 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.300	**Median**	No	**AADT**	12200	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.665	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	35	**Peak Dir. Hrly. Vol.**	892	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	450	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.63	**Density**	N/A	**PTSF**	87.7	**ATS**	32.1	**% FFS**	71.4
FFS Delay	41.6	**LOS Thresh. Delay**	52.0	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	210	450	760	1050	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	680	1150	1580	2140
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3000	6200	10500	14400	19500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 230a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	10774	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.078	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.660	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	555	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	286	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	7.7	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	8.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1080	1850	2610	3370	4110
6	1630	2780	3910	5050	6160
8	2170	3700	5220	6750	8220
Lanes	**Annual Average Daily Traffic**				
2					

4	13900	23800	33500	43300	52700
6	20900	35700	50200	64800	79000
8	27900	47500	67000	86600	105400

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 230a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	10774	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	730	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	466	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	10.2	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	8.0	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1170	2000	2820	3640	4450
6	1760	3000	4230	5460	6660
8	2350	4000	5640	7300	8890
Lanes	**Annual Average Daily Traffic**				
2					

4	10600	18100	25500	32800	40100
6	15900	27100	38200	49200	60000
8	21200	36100	50900	65800	80100

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 230a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	15757	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.083	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.516	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	675	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	633	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	9.4	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	8.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1380	2370	3340	4310	5260
6	2080	3550	5000	6460	7870
8	2780	4730	6670	8630	10510
Lanes	**Annual Average Daily Traffic**				
2					

4	16700	28600	40300	52000	63400
6	25100	42800	60300	77900	94900
8	33500	57000	80400	104000	126700

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 230a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	15757	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.515	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	901	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	848	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.30	**Density**	12.5	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	8.0	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1380	2370	3340	4320	5270
6	2080	3560	5010	6470	7890
8	2780	4740	6680	8650	10530
Lanes	**Annual Average Daily Traffic**				
2					

4	12500	21400	30100	39000	47500
6	18800	32100	45200	58300	71100
8	25100	42800	60200	78000	94900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 230b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	10774	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.078	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.660	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	555	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	286	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.39	**Density**	N/A	**PTSF**	80.0	**ATS**	34.1	**% FFS**	75.8
FFS Delay	12.8	**LOS Thresh. Delay**	16.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	270	590	930	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	410	900	1410	2160
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	5300	11600	18100	27700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 230b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	10774	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	730	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	466	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.51	**Density**	N/A	**PTSF**	85.9	**ATS**	31.9	**% FFS**	70.9
FFS Delay	16.4	**LOS Thresh. Delay**	20.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	240	570	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	400	940	1450	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3700	8500	13100	21000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 230b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	18775	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.089	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.632	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1056	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	615	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.74	**Density**	N/A	**PTSF**	92.4	**ATS**	28.1	**% FFS**	62.5
FFS Delay	24.0	**LOS Thresh. Delay**	28.0	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	250	580	900	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	400	920	1430	2250
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4500	10400	16100	25300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 230b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	18775	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.604	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1259	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	825	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.88	**Density**	N/A	**PTSF**	94.5	**ATS**	24.6	**% FFS**	54.6
FFS Delay	33.2	**LOS Thresh. Delay**	37.2	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	230	560	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	390	930	1450	2360
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3600	8400	13100	21300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 230c AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	10774	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.078	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.660	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	555	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	286	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	7.7	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	10.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1080	1850	2610	3370	4110
6	1630	2780	3910	5050	6160
8	2170	3700	5220	6750	8220
Lanes	**Annual Average Daily Traffic**				
2					

4	13900	23800	33500	43300	52700
6	20900	35700	50200	64800	79000
8	27900	47500	67000	86600	105400

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 230c PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	10774	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.078	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.660	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	555	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	286	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	7.7	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	10.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1080	1850	2610	3370	4110
6	1630	2780	3910	5050	6160
8	2170	3700	5220	6750	8220
Lanes	**Annual Average Daily Traffic**				
2					

4	13900	23800	33500	43300	52700
6	20900	35700	50200	64800	79000
8	27900	47500	67000	86600	105400

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 230c AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	27225	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.083	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.675	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1525	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	734	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.50	**Density**	21.2	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	10.0	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1060	1810	2550	3290	4020
6	1590	2720	3830	4940	6020
8	2120	3620	5100	6600	8030
Lanes	**Annual Average Daily Traffic**				
2					

4	12800	21900	30800	39700	48500
6	19200	32800	46200	59600	72600
8	25600	43700	61500	79600	96800

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 230c PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	27225	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.111	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.642	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1940	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1082	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.64	**Density**	27.0	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	10.0	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1110	1910	2680	3460	4230
6	1670	2860	4020	5190	6330
8	2230	3810	5360	6940	8450
Lanes	**Annual Average Daily Traffic**				
2					

4	10000	17300	24200	31200	38200
6	15100	25800	36300	46800	57100
8	20100	34400	48300	62600	76200

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 231a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	5891	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.106	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.660	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	412	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	212	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.29	**Density**	N/A	**PTSF**	73.3	**ATS**	35.5	**% FFS**	79.0
FFS Delay	12.8	**LOS Thresh. Delay**	17.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	270	590	930	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	410	900	1410	2160
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	3900	8500	13400	20400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 231a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	5891	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.157	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	583	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	342	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.41	**Density**	N/A	**PTSF**	81.1	**ATS**	33.7	**% FFS**	75.0
FFS Delay	16.0	**LOS Thresh. Delay**	20.8	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	250	580	900	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	400	930	1430	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	2600	6000	9200	14400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 231a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	12159	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.106	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.738	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	951	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	338	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.67	**Density**	N/A	**PTSF**	93.7	**ATS**	30.4	**% FFS**	67.5
FFS Delay	23.2	**LOS Thresh. Delay**	28.0	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	340	600	980	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	470	820	1330	1930
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4500	7800	12600	18300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 231a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	12159	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.157	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.631	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1205	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	704	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.85	**Density**	N/A	**PTSF**	93.3	**ATS**	26.1	**% FFS**	58.0
FFS Delay	34.7	**LOS Thresh. Delay**	39.5	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	250	580	900	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	400	920	1430	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	2600	5900	9200	14400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 231b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	5891	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.106	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.660	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	412	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	212	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.28	**Density**	N/A	**PTSF**	72.8	**ATS**	35.7	**% FFS**	79.4
FFS Delay	10.4	**LOS Thresh. Delay**	14.4	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	290	610	970	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	440	930	1470	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4200	8800	13900	21400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 231b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	5891	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.157	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.630	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	583	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	342	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.39	**Density**	N/A	**PTSF**	79.9	**ATS**	34.0	**% FFS**	75.7
FFS Delay	12.9	**LOS Thresh. Delay**	16.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	260	610	940	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	420	970	1500	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	2700	6200	9600	15100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 231b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	12160	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.106	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.738	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	951	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	338	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.64	**Density**	N/A	**PTSF**	93.2	**ATS**	30.8	**% FFS**	68.5
FFS Delay	18.4	**LOS Thresh. Delay**	22.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	350	630	1030	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	480	860	1400	2020
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4600	8200	13300	19100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 231b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	12160	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.158	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.625	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1201	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	720	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.80	**Density**	N/A	**PTSF**	93.0	**ATS**	26.8	**% FFS**	59.6
FFS Delay	27.1	**LOS Thresh. Delay**	31.1	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	260	600	940	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	420	960	1510	2390
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	2700	6100	9600	15200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 232 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.200	**Median**	No	**AADT**	12009	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.071	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	512	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	341	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.36	**Density**	N/A	**PTSF**	77.9	**ATS**	39.4	**% FFS**	78.8
FFS Delay	23.3	**LOS Thresh. Delay**	23.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	660	990	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	490	1100	1660	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	7000	15500	23400	33400

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 232 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.200	**Median**	No	**AADT**	12009	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.120	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.500	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	721	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	721	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.51	**Density**	N/A	**PTSF**	83.8	**ATS**	35.4	**% FFS**	70.8
FFS Delay	35.7	**LOS Thresh. Delay**	35.7	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	270	580	830	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	160	540	1160	1660	2840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4600	9700	13900	23700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 232 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.200	**Median**	No	**AADT**	33450	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.662	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1705	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	871	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.20	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	310	700	1060	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	470	1060	1610	2150
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2300	6200	13800	21000	28000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 232 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.200	**Median**	No	**AADT**	33450	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.120	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	2408	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1606	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.69	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	660	990	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	490	1100	1660	2370
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4100	9200	13900	19800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 232 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.200	**Median**	No	**AADT**	33450	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.662	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1705	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	871	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.56	**Density**	22.5	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	14.4	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1140	1940	2740	3510	4070
6	1710	2920	4110	5260	6110
8	2290	3890	5490	7030	8150
Lanes	**Annual Average Daily Traffic**				
2					

4	14900	25200	35600	45600	52900
6	22300	38000	53400	68400	79400
8	29800	50600	71300	91300	105900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Summer Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 232 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.200	**Median**	No	**AADT**	33450	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.120	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.600	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2408	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1606	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.79	**Density**	32.3	**PTSF**	N/A	**ATS**	49.2	**% FFS**	98.5
FFS Delay	1.4	**LOS Thresh. Delay**	15.8	**Service Measure**	Density	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1260	2140	3020	3870	4490
6	1890	3220	4540	5800	6740
8	2520	4290	6060	7760	8990
Lanes	**Annual Average Daily Traffic**				
2					

4	10600	17900	25200	32300	37500
6	15800	26900	37900	48400	56200
8	21000	35800	50600	64700	75000

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 233 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	4945	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.092	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	90	**Peak Dir. Hrly. Vol.**	241	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	214	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.17	**Density**	N/A	**PTSF**	61.3	**ATS**	42.2	**% FFS**	84.3
FFS Delay	12.7	**LOS Thresh. Delay**	12.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	610	890	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	530	1160	1680	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1900	5800	12700	18300	29200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 233 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	4945	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.120	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	90	**Peak Dir. Hrly. Vol.**	338	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	255	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	N/A	**PTSF**	68.6	**ATS**	41.2	**% FFS**	82.4
FFS Delay	14.6	**LOS Thresh. Delay**	14.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	650	950	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	510	1150	1670	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4300	9600	14000	20900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 233 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	22592	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.741	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	90	**Peak Dir. Hrly. Vol.**	1708	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	597	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.20	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	380	730	1140	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	520	990	1540	1920
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	5100	9800	15100	18900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 233 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	22592	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.120	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.587	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	91	**Peak Dir. Hrly. Vol.**	1591	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1120	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.12	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 0 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1		460	790	1080	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2		820	1400	1910	2510
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2		7700	13100	17900	23500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 233 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	22592	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.741	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1708	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	597	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.56	**Density**	22.5	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	12.0	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1020	1730	2450	3140	3640
6	1530	2610	3680	4700	5460
8	2040	3470	4900	6280	7280
Lanes	**Annual Average Daily Traffic**				
2					
4	10000	17000	24100	30800	35700
6	15100	25600	36100	46100	53600
8	20000	34100	48100	61600	71400

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 233 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	22592	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.120	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.587	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1591	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1120	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.53	**Density**	21.0	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	12.0	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1280	2190	3090	3960	4590
6	1930	3290	4640	5930	6890
8	2580	4380	6190	7930	9190
Lanes	**Annual Average Daily Traffic**				
2					
4	10700	18300	25800	33000	38300
6	16100	27500	38700	49500	57500
8	21600	36600	51600	66100	76600

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cyntheanne Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 234 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1821	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.088	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	72	**Peak Dir. Hrly. Vol.**	98	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	62	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	45.0	**ATS**	51.0	**% FFS**	92.8
FFS Delay	4.8	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	390	790	1130	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	220	640	1300	1860	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2500	7300	14800	21200	26500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cyntheanne Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 234 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1821	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	72	**Peak Dir. Hrly. Vol.**	114	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	86	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	45.3	**ATS**	50.6	**% FFS**	92.0
FFS Delay	5.4	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	380	750	1070	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	220	670	1320	1880	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	6100	12000	17100	22800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cyntheanne Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 234 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2391	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	72	**Peak Dir. Hrly. Vol.**	139	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	105	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	49.1	**ATS**	49.9	**% FFS**	90.7
FFS Delay	6.4	**LOS Thresh. Delay**	0.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	380	750	1070	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	220	670	1320	1880	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	6600	13000	18500	24600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cyntheanne Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 234 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2391	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	72	**Peak Dir. Hrly. Vol.**	134	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	129	**Adjusted Capacity**	1428

LOS Results

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2					
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2					
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Atlantic Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 235 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.017	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	11	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	6	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	8.5	**ATS**	49.6	**% FFS**	99.3
FFS Delay	0.5	**LOS Thresh. Delay**	0.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	230	500	820	1130	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	360	770	1270	1740	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	21200	45300	74800	102400	128900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Atlantic Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 235 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.048	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.810	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	39	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	9	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	12.6	**ATS**	49.3	**% FFS**	98.7
FFS Delay	0.9	**LOS Thresh. Delay**	0.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	340	630	980	1350	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	420	780	1210	1670	1760
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	8800	16300	25300	34800	36700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Atlantic Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 235 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.029	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.655	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	19	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	10	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	9.7	**ATS**	49.5	**% FFS**	99.0
FFS Delay	0.7	**LOS Thresh. Delay**	0.7	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	230	500	820	1140	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	360	770	1260	1750	2170
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	12500	26600	43500	60400	74900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Atlantic Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	156th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 235 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.073	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.753	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	55	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	18	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	15.0	**ATS**	49.1	**% FFS**	98.2
FFS Delay	1.2	**LOS Thresh. Delay**	1.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	300	570	920	1280	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	400	760	1230	1700	1890
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5500	10500	16900	23300	25900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Howe Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 236a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5995	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.080	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.730	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	350	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	129	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.25	**Density**	N/A	**PTSF**	72.3	**ATS**	32.2	**% FFS**	80.5
FFS Delay	10.9	**LOS Thresh. Delay**	19.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	290	470	810	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	400	650	1110	1950
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	5000	8200	13900	24400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Howe Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 236a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5995	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.120	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.560	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	403	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	317	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.29	**Density**	N/A	**PTSF**	71.4	**ATS**	30.5	**% FFS**	76.1
FFS Delay	14.1	**LOS Thresh. Delay**	23.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	440	700	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	790	1250	2540
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	2800	6600	10500	21200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Howe Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 236a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	8550	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.080	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.725	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	496	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	188	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.35	**Density**	N/A	**PTSF**	75.8	**ATS**	29.8	**% FFS**	74.5
FFS Delay	15.4	**LOS Thresh. Delay**	24.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	280	470	810	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	390	650	1120	1960
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	4900	8200	14000	24600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Howe Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 236a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	8550	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.122	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	542	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	501	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.38	**Density**	N/A	**PTSF**	77.2	**ATS**	28.5	**% FFS**	71.3
FFS Delay	18.1	**LOS Thresh. Delay**	27.1	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	420	660	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	810	1270	2740
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	2600	6700	10500	22500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Howe Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 236b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	Yes	**AADT**	5995	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.080	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.730	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	350	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	129	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	N/A	**PTSF**	71.1	**ATS**	32.5	**% FFS**	81.3
FFS Delay	12.4	**LOS Thresh. Delay**	23.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	300	500	850	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	420	690	1170	2050
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	5300	8700	14700	25700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Howe Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 236b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	Yes	**AADT**	5995	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.120	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.560	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	403	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	317	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.27	**Density**	N/A	**PTSF**	70.3	**ATS**	30.7	**% FFS**	76.6
FFS Delay	16.5	**LOS Thresh. Delay**	27.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	460	740	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	830	1330	2670
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	2900	7000	11100	22300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Howe Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 236b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	Yes	**AADT**	8550	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.080	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.725	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	496	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	188	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.33	**Density**	N/A	**PTSF**	74.8	**ATS**	30.0	**% FFS**	75.1
FFS Delay	17.9	**LOS Thresh. Delay**	28.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	300	490	850	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	420	680	1180	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	5300	8600	14800	25800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Howe Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 236b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	Yes	**AADT**	8550	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.122	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	542	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	501	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.36	**Density**	N/A	**PTSF**	76.5	**ATS**	28.8	**% FFS**	72.1
FFS Delay	20.9	**LOS Thresh. Delay**	31.7	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	440	700	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	330	850	1350	2870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	2800	7000	11100	23600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	North Pointe Blvd	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 237 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	2385	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.082	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.710	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	139	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	57	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	52.2	**ATS**	35.8	**% FFS**	89.6
FFS Delay	5.2	**LOS Thresh. Delay**	14.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	290	490	850	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	410	700	1200	2100
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	5100	8600	14700	25700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	North Pointe Blvd	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 237 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	2385	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	168	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	94	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	54.4	**ATS**	35.1	**% FFS**	87.7
FFS Delay	6.3	**LOS Thresh. Delay**	15.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	240	480	800	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	380	760	1260	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3500	7000	11500	21200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	North Pointe Blvd	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 237 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	12273	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.091	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.513	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	573	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	544	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.38	**Density**	N/A	**PTSF**	77.3	**ATS**	28.4	**% FFS**	70.9
FFS Delay	18.4	**LOS Thresh. Delay**	27.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	440	690	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	320	860	1350	2910
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	3600	9500	14900	32000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	North Pointe Blvd	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cumberland Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 237 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	12273	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.571	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	771	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	579	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.52	**Density**	N/A	**PTSF**	85.4	**ATS**	26.4	**% FFS**	66.1
FFS Delay	23.1	**LOS Thresh. Delay**	32.1	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	470	750	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	830	1320	2610
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3100	7600	12000	23800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Herriman Boulevard	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Stony Crreek Way	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 238 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	5625	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.098	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.670	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	369	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	182	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	72.1	**ATS**	36.0	**% FFS**	79.9
FFS Delay	19.1	**LOS Thresh. Delay**	26.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	590	930	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	420	890	1390	2120
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4300	9100	14200	21700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Herriman Boulevard	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Stony Crreek Way	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 238 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	5625	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.145	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	506	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	310	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.36	**Density**	N/A	**PTSF**	77.7	**ATS**	34.5	**% FFS**	76.7
FFS Delay	23.1	**LOS Thresh. Delay**	30.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	240	570	890	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	390	920	1440	2300
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	2700	6400	10000	15900

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Herriman Boulevard	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Stony Crreek Way	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 238 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	5625	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.098	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.674	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	372	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	180	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	72.2	**ATS**	36.0	**% FFS**	79.9
FFS Delay	19.1	**LOS Thresh. Delay**	26.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	590	940	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	420	880	1400	2110
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4300	9000	14300	21600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Herriman Boulevard	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Stony Crreek Way	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 238 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	5625	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.145	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.619	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	505	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	311	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.36	**Density**	N/A	**PTSF**	77.6	**ATS**	34.5	**% FFS**	76.7
FFS Delay	23.0	**LOS Thresh. Delay**	30.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	240	570	890	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	390	930	1440	2300
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	2700	6500	10000	15900

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Marilyn Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 249 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3477	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.051	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.770	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	137	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	41	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	55.1	**ATS**	35.9	**% FFS**	89.8
FFS Delay	5.1	**LOS Thresh. Delay**	14.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	320	510	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	420	670	1070	1850
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	8300	13200	21000	36300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Marilyn Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 249 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3477	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.560	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	199	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	156	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	58.4	**ATS**	32.8	**% FFS**	82.1
FFS Delay	9.8	**LOS Thresh. Delay**	18.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	440	700	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	790	1250	2540
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3300	7800	12300	25000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Marilyn Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 249 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7598	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.082	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.886	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	552	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	71	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.39	**Density**	N/A	**PTSF**	76.0	**ATS**	31.8	**% FFS**	79.5
FFS Delay	11.6	**LOS Thresh. Delay**	20.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	400	700	960	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	460	800	1090	1610
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	5700	9800	13300	19700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Marilyn Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Greenfield Avenue	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 249 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7598	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.519	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	402	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	373	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.28	**Density**	N/A	**PTSF**	71.1	**ATS**	30.3	**% FFS**	75.7
FFS Delay	14.4	**LOS Thresh. Delay**	23.4	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	420	660	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	810	1280	2740
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3100	8000	12600	26900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Boden Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 251 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	14089	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.064	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	577	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	325	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.41	**Density**	N/A	**PTSF**	80.8	**ATS**	38.8	**% FFS**	77.7
FFS Delay	10.3	**LOS Thresh. Delay**	10.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	290	690	1030	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	460	1080	1610	2220
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	7200	16900	25200	34700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Boden Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 251 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	14089	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.106	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	792	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	702	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.56	**Density**	N/A	**PTSF**	86.2	**ATS**	34.9	**% FFS**	69.8
FFS Delay	15.6	**LOS Thresh. Delay**	15.6	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	610	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	530	1160	1670	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	5000	11000	15800	25300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Boden Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 251 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	35491	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.069	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.621	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1521	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	928	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.07	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	680	1010	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	470	1100	1630	2290
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2500	6900	16000	23700	33200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Boden Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 251 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	35491	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.106	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.621	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	2336	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1426	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.64	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	680	1010	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	470	1100	1630	2290
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4500	10400	15400	21700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Boden Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 251 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	35491	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.069	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.621	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1521	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	928	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.50	**Density**	20.1	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1210	2070	2920	3740	4340
6	1820	3110	4390	5610	6510
8	2440	4140	5850	7490	8680
Lanes	**Annual Average Daily Traffic**				
2					
4	17600	30000	42400	54300	62900
6	26400	45100	63700	81400	94400
8	35400	60000	84800	108600	125800

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Greenfield Avenue	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Boden Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 251 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	35491	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.106	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.621	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2336	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1426	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.77	**Density**	31.2	**PTSF**	N/A	**ATS**	49.5	**% FFS**	98.9
FFS Delay	0.4	**LOS Thresh. Delay**	6.4	**Service Measure**	Density	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1210	2070	2920	3740	4340
6	1820	3110	4390	5610	6510
8	2440	4140	5850	7490	8680
Lanes	**Annual Average Daily Traffic**				
2					
4	11500	19600	27600	35300	41000
6	17200	29400	41500	53000	61500
8	23100	39100	55200	70700	81900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Boden Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Campus Parkway	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 252 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	17892	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.064	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.750	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	859	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	286	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.27	**Density**	10.8	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	4.8	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1060	1800	2550	3260	3780
6	1590	2710	3830	4900	5670
8	2120	3620	5100	6520	7560
Lanes	**Annual Average Daily Traffic**				
2					

4	16600	28200	39900	51000	59100
6	24900	42400	59900	76600	88600
8	33200	56600	79700	101900	118200

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Boden Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Campus Parkway	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 252 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	17892	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1101	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	831	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.35	**Density**	13.8	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	4.8	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1390	2370	3360	4290	4970
6	2090	3570	5040	6440	7460
8	2790	4760	6710	8580	9950
Lanes	**Annual Average Daily Traffic**				
2					

4	12900	22000	31200	39800	46100
6	19400	33100	46700	59700	69100
8	25900	44100	62200	79500	92200

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Boden Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Campus Parkway	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 252 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	54676	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.069	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.633	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2388	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1385	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.75	**Density**	30.1	**PTSF**	N/A	**ATS**	49.7	**% FFS**	99.4
FFS Delay	0.2	**LOS Thresh. Delay**	5.0	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1250	2140	3020	3860	4480
6	1880	3210	4540	5800	6720
8	2520	4290	6040	7730	8960
Lanes	**Annual Average Daily Traffic**				
2					

4	18200	31100	43800	56000	65000
6	27300	46600	65800	84100	97400
8	36600	62200	87600	112100	129900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Boden Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Campus Parkway	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 252 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	54676	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.546	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	3224	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	2681	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.01	**Density**	43.6	**PTSF**	N/A	**ATS**	46.3	**% FFS**	92.7
FFS Delay	2.3	**LOS Thresh. Delay**	7.1	**Service Measure**	Density	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1450	2480	3500	4470	5190
6	2180	3720	5260	6730	7790
8	2920	4970	7000	8960	10390
Lanes	**Annual Average Daily Traffic**				
2					

4	13500	23000	32500	41400	48100
6	20200	34500	48800	62400	72200
8	27100	46100	64900	83000	96300

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Boden Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Campus Parkway	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 252 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	54676	**PHF**	0.920
# Thru Lanes	6	**Left Turn Impact**	No	**K**	0.069	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.633	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2388	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1385	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.50	**Density**	20.0	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	4.8	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1250	2140	3020	3860	4480
6	1880	3210	4540	5800	6720
8	2520	4290	6040	7730	8960
Lanes	**Annual Average Daily Traffic**				
2					

4	18200	31100	43800	56000	65000
6	27300	46600	65800	84100	97400
8	36600	62200	87600	112100	129900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Boden Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Greenfield Avenue	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Campus Parkway	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 252 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.400	**Median**	Yes	**AADT**	54676	**PHF**	0.920
# Thru Lanes	6	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.546	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	3224	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	2681	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.67	**Density**	26.9	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	4.8	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1450	2480	3500	4470	5190
6	2180	3720	5260	6730	7790
8	2920	4970	7000	8960	10390
Lanes	**Annual Average Daily Traffic**				
2					

4	13500	23000	32500	41400	48100
6	20200	34500	48800	62400	72200
8	27100	46100	64900	83000	96300

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Bergen Boulevard	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 253 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	Yes	**AADT**	9982	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.065	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.670	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	435	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	214	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.29	**Density**	N/A	**PTSF**	73.4	**ATS**	40.5	**% FFS**	81.1
FFS Delay	10.1	**LOS Thresh. Delay**	10.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	330	740	1120	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	500	1110	1680	2230
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	7700	17100	25900	34400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Bergen Boulevard	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 253 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	Yes	**AADT**	9982	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	560	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	538	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.38	**Density**	N/A	**PTSF**	76.7	**ATS**	38.4	**% FFS**	76.8
FFS Delay	13.0	**LOS Thresh. Delay**	13.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	290	620	890	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	570	1220	1750	2930
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	5200	11100	16000	26700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Bergen Boulevard	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 253 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	Yes	**AADT**	28500	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1537	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	942	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.03	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	300	710	1060	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1150	1710	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	5700	13300	19700	27800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Bergen Boulevard	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 253 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	Yes	**AADT**	28500	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.644	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	2019	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1116	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.35	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	310	730	1090	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1140	1700	2320
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4500	10400	15500	21100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Bergen Boulevard	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 253 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	28500	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1537	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	942	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.51	**Density**	20.3	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	7.2	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1210	2070	2920	3750	4340
6	1830	3120	4390	5620	6520
8	2440	4150	5860	7500	8700
Lanes	**Annual Average Daily Traffic**				
2					
4	14000	23800	33600	43200	49900
6	21100	35900	50500	64600	75000
8	28100	47800	67400	86300	100000

*** Cannot be achieved based on input data provided.**
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HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Boden Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Bergen Boulevard	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 253 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.600	**Median**	No	**AADT**	28500	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.644	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2019	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1116	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.67	**Density**	26.6	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	7.2	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1170	1990	2820	3610	4180
6	1760	3000	4230	5410	6280
8	2350	4000	5640	7230	8370
Lanes	**Annual Average Daily Traffic**				
2					
4	10700	18100	25700	32900	38000
6	16000	27300	38500	49200	57100
8	21400	36400	51300	65800	76100

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HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Bergen Boulevard	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 254 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	6272	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.057	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	211	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	147	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	58.9	**ATS**	43.2	**% FFS**	86.5
FFS Delay	5.6	**LOS Thresh. Delay**	5.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	300	690	1020	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	510	1170	1730	2530
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3000	9000	20600	30400	44400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Bergen Boulevard	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 254 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	6272	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.115	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	469	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	252	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.32	**Density**	N/A	**PTSF**	74.3	**ATS**	40.2	**% FFS**	80.3
FFS Delay	8.8	**LOS Thresh. Delay**	8.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	310	730	1100	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	190	480	1130	1700	2300
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4200	9900	14800	20000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
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HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Bergen Boulevard	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 254 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	29226	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.592	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1765	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1216	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.18	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	300	690	1030	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	510	1170	1740	2520
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	5000	11500	17100	24800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Bergen Boulevard	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 254 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	29226	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.115	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.623	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	2094	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1267	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.40	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	300	710	1070	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1140	1720	2400
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4300	10000	15000	20900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Bergen Boulevard	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 254 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	29226	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.592	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1765	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1216	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.55	**Density**	22.1	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1340	2290	3230	4130	4790
6	2020	3430	4850	6200	7180
8	2690	4580	6460	8270	9580
Lanes	**Annual Average Daily Traffic**				
2					
4	13200	22500	31700	40500	47000
6	19900	33700	47600	60800	70400
8	26400	45000	63400	81100	94000

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Bergen Boulevard	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 254 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	29226	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.115	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.623	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2094	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1267	**Adjusted Capacity**	1734

LOS Results

v/c Ratio	0.66	**Density**	26.3	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1270	2170	3070	3920	4550
6	1920	3260	4610	5900	6830
8	2560	4350	6140	7850	9110
Lanes	**Annual Average Daily Traffic**				
2					
4	11100	18900	26700	34100	39600
6	16700	28400	40100	51400	59400
8	22300	37900	53400	68300	79300

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Prairie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 255 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1552	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.053	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	53	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	29	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	40.8	**ATS**	46.7	**% FFS**	93.4
FFS Delay	4.8	**LOS Thresh. Delay**	4.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	300	690	1050	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	470	1070	1620	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3300	8900	20200	30600	41400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Prairie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 255 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1552	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.125	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.760	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	147	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	47	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	55.6	**ATS**	45.7	**% FFS**	91.3
FFS Delay	6.5	**LOS Thresh. Delay**	6.5	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	400	730	1150	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	530	970	1520	1870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4300	7800	12200	15000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Prairie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 255 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	24320	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.755	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1983	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	644	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.39	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	400	730	1150	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	530	970	1530	1890
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	5000	9000	14200	17500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Prairie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 255 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	24320	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.125	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.732	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	2225	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	815	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.56	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	370	730	1130	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	510	1000	1550	1940
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4100	8000	12400	15600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Prairie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 255 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	24320	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.108	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.755	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1983	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	644	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.65	**Density**	26.2	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	12.0	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1000	1700	2400	3080	3570
6	1500	2560	3610	4610	5360
8	2000	3410	4810	6160	7140
Lanes	**Annual Average Daily Traffic**				
2					
4	9300	15800	22300	28600	33100
6	13900	23800	33500	42700	49700
8	18600	31600	44600	57100	66200

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Prairie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 255 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	24320	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.125	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.732	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2225	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	815	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.73	**Density**	29.5	**PTSF**	N/A	**ATS**	49.8	**% FFS**	99.6
FFS Delay	0.3	**LOS Thresh. Delay**	12.3	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1030	1750	2480	3170	3680
6	1550	2640	3720	4760	5520
8	2070	3520	4960	6360	7370
Lanes	**Annual Average Daily Traffic**				
2					
4	8300	14000	19900	25400	29500
6	12400	21200	29800	38100	44200
8	16600	28200	39700	50900	59000

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Prairie Baptist Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cyntheanne Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 256 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.029	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.930	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	27	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	2	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	44.6	**ATS**	47.2	**% FFS**	94.4
FFS Delay	4.0	**LOS Thresh. Delay**	4.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	580	1000	1380	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	630	1080	1490	1530
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	6300	21800	37300	51400	52800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Prairie Baptist Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cyntheanne Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 256 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.084	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.700	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	59	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	25	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.04	**Density**	N/A	**PTSF**	42.9	**ATS**	46.7	**% FFS**	93.4
FFS Delay	4.8	**LOS Thresh. Delay**	4.8	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	340	720	1100	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1030	1580	2030
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	5900	12300	18900	24200

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Prairie Baptist Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cyntheanne Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 256 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1486	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.980	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	98	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	2	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	56.2	**ATS**	46.5	**% FFS**	93.1
FFS Delay	5.1	**LOS Thresh. Delay**	5.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	610	1050	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	630	1080	1450	1450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2700	9500	16200	21700	21700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Prairie Baptist Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cyntheanne Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 256 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1486	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.622	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	97	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	59	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	46.0	**ATS**	46.0	**% FFS**	92.0
FFS Delay	5.9	**LOS Thresh. Delay**	5.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	680	1010	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	470	1100	1630	2290
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4500	10500	15600	21900

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Cyntheanne Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Atlantic Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 257 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.020	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.850	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	17	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	3	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	41.5	**ATS**	47.3	**% FFS**	94.6
FFS Delay	3.9	**LOS Thresh. Delay**	3.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	510	810	1190	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	600	960	1400	1680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	9000	30000	48000	70000	84000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Cyntheanne Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Atlantic Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 257 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.046	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	26	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	20	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	34.0	**ATS**	47.1	**% FFS**	94.1
FFS Delay	4.3	**LOS Thresh. Delay**	4.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	280	640	940	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	500	1130	1650	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4000	10900	24600	35900	54400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Cyntheanne Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Atlantic Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 257 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.021	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.857	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	18	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	3	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.01	**Density**	N/A	**PTSF**	41.7	**ATS**	47.3	**% FFS**	94.6
FFS Delay	3.9	**LOS Thresh. Delay**	3.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	520	820	1190	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	610	960	1390	1660
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	8600	29100	45800	66200	79100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	146th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Cyntheanne Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Atlantic Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 257 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.047	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.574	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	27	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	20	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	34.6	**ATS**	47.1	**% FFS**	94.1
FFS Delay	4.3	**LOS Thresh. Delay**	4.3	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	280	640	950	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1120	1660	2480
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3900	10500	23900	35400	52800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cyntheanne Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	136th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 258 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2278	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.082	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	31	**Peak Dir. Hrly. Vol.**	116	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	71	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	38.2	**ATS**	52.3	**% FFS**	95.2
FFS Delay	3.2	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	490	850	1180	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	800	1380	1910	2300
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4100	9800	16900	23300	28100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cyntheanne Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	136th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 258 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2278	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	31	**Peak Dir. Hrly. Vol.**	139	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	89	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	41.3	**ATS**	51.9	**% FFS**	94.3
FFS Delay	3.8	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	490	840	1160	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	810	1380	1910	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3400	8200	13800	19200	23400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cyntheanne Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	136th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 258 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2841	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.082	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.639	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	31	**Peak Dir. Hrly. Vol.**	149	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	84	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	42.9	**ATS**	51.9	**% FFS**	94.3
FFS Delay	3.7	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	210	510	870	1220	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	800	1370	1910	2230
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4100	9800	16800	23300	27200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cyntheanne Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	136th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 258 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	2841	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.107	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.566	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	31	**Peak Dir. Hrly. Vol.**	172	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	132	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	46.5	**ATS**	50.6	**% FFS**	92.0
FFS Delay	5.4	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	460	790	1080	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	310	820	1400	1910	2510
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	7700	13100	17900	23500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Prarie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 259a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1465	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.106	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	79	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	76	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.06	**Density**	N/A	**PTSF**	15.7	**ATS**	53.0	**% FFS**	96.4
FFS Delay	2.0	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	440	720	980	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	870	1420	1930	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3100	8300	13400	18300	26400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Prarie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 259a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1465	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.156	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	117	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	112	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	21.8	**ATS**	52.0	**% FFS**	94.5
FFS Delay	3.1	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	440	720	980	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	320	870	1420	1930	2790
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	5600	9200	12400	17900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Prarie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 259a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	23000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.131	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.539	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	1624	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1389	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.14	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	180	460	760	1030	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	860	1420	1920	2640
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	6600	10900	14700	20200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Prarie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 259a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	23000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.156	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.573	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	2056	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1532	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.44	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	480	800	1100	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	340	840	1400	1920	2480
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	5400	9000	12400	15900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Prarie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 259a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	23000	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.131	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.539	**Base Capacity**	2100
Posted Speed	50	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1624	**Local Adj. Factor**	0.88
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1389	**Adjusted Capacity**	1730

LOS Results

v/c Ratio	0.51	**Density**	19.5	**PTSF**	N/A	**ATS**	55.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	4.4	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	830	1410	2000	2530	2800
3	1250	2120	3000	3790	4200
4	1660	2830	4000	5060	5600
Lanes	**Hourly Volume In Both Directions**				
2					
4	1540	2620	3720	4700	5200
6	2320	3940	5570	7040	7800
8	3080	5260	7430	9390	10390
Lanes	**Annual Average Daily Traffic**				
2					
4	11800	20000	28400	35900	39700
6	17800	30100	42600	53800	59600
8	23600	40200	56800	71700	79400

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Prarie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 259a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	23000	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.156	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.573	**Base Capacity**	2100
Posted Speed	50	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2056	**Local Adj. Factor**	0.88
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1532	**Adjusted Capacity**	1730

LOS Results

v/c Ratio	0.65	**Density**	24.7	**PTSF**	N/A	**ATS**	55.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	4.4	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	830	1410	2000	2530	2800
3	1250	2120	3000	3790	4200
4	1660	2830	4000	5060	5600
Lanes	**Hourly Volume In Both Directions**				
2					
4	1450	2470	3500	4420	4890
6	2190	3700	5240	6620	7330
8	2900	4940	6990	8840	9780
Lanes	**Annual Average Daily Traffic**				
2					
4	9300	15900	22500	28400	31400
6	14100	23800	33600	42500	47000
8	18600	31700	44900	56700	62700

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Prarie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 259b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	1465	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.106	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	79	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	76	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	37.4	**ATS**	50.9	**% FFS**	92.5
FFS Delay	1.1	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	360	700	990	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	710	1380	1950	2930
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	6700	13100	18400	27700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Prarie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 259b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	1465	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.156	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	117	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	112	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	43.9	**ATS**	49.8	**% FFS**	90.6
FFS Delay	1.4	**LOS Thresh. Delay**	0.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	360	700	990	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	710	1380	1950	2930
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	4600	8900	12600	18800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Prarie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 259b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	22981	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.131	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.539	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1623	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1388	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.09	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	370	740	1050	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	190	690	1380	1950	2770
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	5300	10600	14900	21200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Prarie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 259b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	22981	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.156	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.574	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	2058	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1527	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.38	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	370	770	1110	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	200	650	1350	1940	2600
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	4200	8700	12500	16700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Prarie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 259b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	22981	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.131	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.539	**Base Capacity**	2100
Posted Speed	50	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1623	**Local Adj. Factor**	0.88
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1388	**Adjusted Capacity**	1821

LOS Results

v/c Ratio	0.48	**Density**	18.5	**PTSF**	N/A	**ATS**	55.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	1.1	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	870	1490	2100	2660	2950
3	1310	2230	3150	3990	4420
4	1750	2980	4210	5330	5900
Lanes	**Hourly Volume In Both Directions**				
2					
4	1620	2770	3900	4940	5480
6	2440	4140	5850	7410	8210
8	3250	5530	7820	9890	10950
Lanes	**Annual Average Daily Traffic**				
2					
4	12400	21200	29800	37800	41900
6	18700	31700	44700	56600	62700
8	24900	42300	59700	75500	83600

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Olio Road	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Prarie Baptist Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 259b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	Yes	**AADT**	22981	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.156	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.574	**Base Capacity**	2100
Posted Speed	50	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	2058	**Local Adj. Factor**	0.88
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1527	**Adjusted Capacity**	1821

LOS Results

v/c Ratio	0.61	**Density**	23.5	**PTSF**	N/A	**ATS**	55.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	1.1	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	870	1490	2100	2660	2950
3	1310	2230	3150	3990	4420
4	1750	2980	4210	5330	5900
Lanes	**Hourly Volume In Both Directions**				
2					
4	1520	2600	3660	4640	5140
6	2290	3890	5490	6960	7710
8	3050	5200	7340	9290	10280
Lanes	**Annual Average Daily Traffic**				
2					
4	9800	16700	23500	29800	33000
6	14700	25000	35200	44700	49500
8	19600	33400	47100	59600	65900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 260 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	10173	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.073	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	401	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	342	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.13	**Density**	5.3	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1390	2380	3360	4300	4990
6	2100	3580	5040	6450	7490
8	2800	4760	6730	8620	9990
Lanes	**Annual Average Daily Traffic**				
2					
4	19100	32700	46100	59000	68400
6	28800	49100	69100	88400	102700
8	38400	65300	92200	118100	136900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 260 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	10173	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	534	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	513	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	7.1	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1480	2510	3550	4550	5280
6	2220	3790	5340	6830	7930
8	2970	5040	7120	9120	10570
Lanes	**Annual Average Daily Traffic**				
2					
4	14400	24400	34500	44200	51300
6	21600	36800	51900	66400	77000
8	28900	49000	69200	88600	102700

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 260 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	15650	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.082	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.652	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	837	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	447	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.28	**Density**	11.0	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1160	1970	2780	3560	4130
6	1740	2970	4180	5340	6200
8	2320	3950	5570	7140	8270
Lanes	**Annual Average Daily Traffic**				
2					
4	14200	24100	34000	43500	50400
6	21300	36300	51000	65200	75700
8	28300	48200	68000	87100	100900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Olio Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 260 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	15650	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.591	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	953	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	659	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.31	**Density**	12.6	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	750	1280	1810	2320	2690
3	1130	1930	2720	3480	4040
4	1510	2570	3630	4650	5390
Lanes	**Hourly Volume In Both Directions**				
2					
4	1270	2170	3070	3930	4560
6	1920	3270	4610	5890	6840
8	2560	4350	6150	7870	9130
Lanes	**Annual Average Daily Traffic**				
2					
4	12400	21100	29900	38200	44300
6	18700	31800	44800	57200	66500
8	24900	42300	59800	76500	88700

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Bergen Boulevard	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 261 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	7544	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.064	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	314	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	169	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	3.9	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1220	2080	2940	3760	4360
6	1840	3130	4420	5650	6540
8	2450	4170	5880	7530	8730
Lanes	**Annual Average Daily Traffic**				
2					
4	19100	32600	46000	58800	68200
6	28800	49000	69100	88300	102200
8	38300	65200	91900	117700	136500

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Bergen Boulevard	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 261 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	7544	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.510	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	396	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	381	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	5.0	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1550	2650	3750	4790	5550
6	2340	3990	5630	7200	8340
8	3120	5320	7500	9590	11120
Lanes	**Annual Average Daily Traffic**				
2					
4	15100	25800	36500	46600	53900
6	22800	38800	54700	70000	81000
8	30300	51700	72900	93200	108000

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Bergen Boulevard	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 261 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	32223	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.068	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.655	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1435	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	756	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.45	**Density**	18.0	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1210	2070	2920	3730	4330
6	1820	3100	4390	5610	6490
8	2430	4140	5840	7470	8660
Lanes	**Annual Average Daily Traffic**				
2					
4	17800	30500	43000	54900	63700
6	26800	45600	64600	82600	95500
8	35800	60900	85900	109900	127400

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Bergen Boulevard	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Olio Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 261 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	32223	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.547	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1815	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1503	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.57	**Density**	22.8	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1450	2470	3500	4470	5180
6	2180	3720	5250	6710	7770
8	2910	4960	6990	8940	10370
Lanes	**Annual Average Daily Traffic**				
2					
4	14100	24000	34000	43400	50300
6	21200	36200	51000	65200	75500
8	28300	48200	67900	86800	100700

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Tegler Drive	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Corporate Parkway	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Bergen Boulevard	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 263a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	4084	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	170	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	104	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.12	**Density**	N/A	**PTSF**	54.4	**ATS**	44.7	**% FFS**	89.4
FFS Delay	2.6	**LOS Thresh. Delay**	2.6	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	110	300	710	1060	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1150	1710	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2700	7400	17200	25600	36000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Tegler Drive	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Corporate Parkway	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Bergen Boulevard	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 263a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	4084	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.128	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	277	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	246	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	N/A	**PTSF**	63.8	**ATS**	41.9	**% FFS**	83.7
FFS Delay	4.2	**LOS Thresh. Delay**	4.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	290	640	930	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	550	1210	1760	2820
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4300	9500	13800	22100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Tegler Drive	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Corporate Parkway	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Bergen Boulevard	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 263a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	11773	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.082	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.736	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	711	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	255	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.48	**Density**	N/A	**PTSF**	85.8	**ATS**	38.0	**% FFS**	76.1
FFS Delay	6.8	**LOS Thresh. Delay**	6.8	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	130	400	760	1190	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	550	1040	1620	2030
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	6800	12700	19800	24800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Tegler Drive	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Corporate Parkway	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Bergen Boulevard	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 263a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	11773	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.128	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.666	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1004	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	503	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.67	**Density**	N/A	**PTSF**	91.0	**ATS**	34.7	**% FFS**	69.4
FFS Delay	9.5	**LOS Thresh. Delay**	9.5	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	330	740	1120	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	190	500	1120	1690	2240
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4000	8800	13300	17600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Tegler Drive	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Corporate Pkwy	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Bergen Boulevard	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 263b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.100	**Median**	Yes	**AADT**	4084	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.620	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	170	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	104	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	2.1	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	1.2	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1280	2180	3090	3940	4570
6	1920	3280	4630	5920	6860
8	2570	4380	6170	7890	9150
Lanes	**Annual Average Daily Traffic**				
2					

4	19200	32600	46200	58900	68300
6	28700	49000	69200	88400	102400
8	38400	65400	92100	117800	136600

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Tegler Drive	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Corporate Pkwy	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Bergen Boulevard	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 263b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	4084	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.128	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	277	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	246	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	3.5	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	3.6	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1500	2550	3610	4610	5340
6	2250	3840	5420	6930	8020
8	3000	5120	7210	9230	10700
Lanes	**Annual Average Daily Traffic**				
2					

4	11800	20000	28300	36100	41800
6	17600	30000	42400	54200	62700
8	23500	40000	56400	72200	83600

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Tegler Drive	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Corporate Pkwy	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Bergen Boulevard	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 263b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.100	**Median**	Yes	**AADT**	11773	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.082	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.736	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	711	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	255	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	8.9	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	1.2	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1080	1840	2600	3320	3850
6	1620	2760	3900	4990	5780
8	2170	3690	5200	6650	7710
Lanes	**Annual Average Daily Traffic**				
2					

4	13200	22500	31800	40500	47000
6	19800	33700	47600	60900	70500
8	26500	45100	63500	81100	94100

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Tegler Drive	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Corporate Pkwy	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Bergen Boulevard	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 263b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.100	**Median**	Yes	**AADT**	11773	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.128	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.666	**Base Capacity**	2000
Posted Speed	45	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1004	**Local Adj. Factor**	0.88
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	503	**Adjusted Capacity**	1734

LOS Results

v/c Ratio	0.31	**Density**	12.6	**PTSF**	N/A	**ATS**	50.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	1.2	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	790	1350	1910	2440	2830
3	1190	2030	2870	3670	4250
4	1590	2710	3820	4890	5670
Lanes	**Hourly Volume In Both Directions**				
2					
4	1190	2030	2870	3670	4250
6	1790	3050	4310	5520	6390
8	2390	4070	5740	7350	8520
Lanes	**Annual Average Daily Traffic**				
2					

4	9300	15900	22500	28700	33300
6	14000	23900	33700	43200	50000
8	18700	31800	44900	57500	66600

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Marilyn Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Campus Parkway	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 266 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3775	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	144	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	109	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	51.0	**ATS**	34.7	**% FFS**	86.7
FFS Delay	6.9	**LOS Thresh. Delay**	15.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	440	710	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	320	780	1250	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4800	11700	18700	37400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Marilyn Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Campus Parkway	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 266 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3775	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.136	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.540	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	277	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	236	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.20	**Density**	N/A	**PTSF**	65.1	**ATS**	31.7	**% FFS**	79.4
FFS Delay	11.7	**LOS Thresh. Delay**	20.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	430	680	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	320	800	1260	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	2400	5900	9300	19400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Marilyn Road	**Study Period**	**Kother**
Date Prepared	9/20/2023 10:58:32 AM	**From**	Campus Parkway	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 266 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7412	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.091	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.588	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	397	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	278	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.28	**Density**	N/A	**PTSF**	71.4	**ATS**	30.6	**% FFS**	76.4
FFS Delay	13.9	**LOS Thresh. Delay**	22.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	450	730	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	770	1250	2420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3700	8500	13800	26600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Marilyn Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Campus Parkway	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 266 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7412	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.136	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.579	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	584	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	424	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.41	**Density**	N/A	**PTSF**	81.1	**ATS**	28.4	**% FFS**	71.0
FFS Delay	18.4	**LOS Thresh. Delay**	27.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	450	720	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	780	1250	2460
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	700	2500	5800	9200	18100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	141st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 268 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5724	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.076	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	248	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	187	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	63.2	**ATS**	42.1	**% FFS**	84.2
FFS Delay	6.8	**LOS Thresh. Delay**	6.8	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	280	640	940	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	500	1130	1650	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	6600	14900	21800	32900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	141st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 268 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5724	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.121	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.500	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	346	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	346	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.25	**Density**	N/A	**PTSF**	66.9	**ATS**	40.9	**% FFS**	81.8
FFS Delay	8.0	**LOS Thresh. Delay**	8.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	270	580	830	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	160	540	1160	1660	2840
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4500	9600	13800	23500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	141st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 268 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	12198	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.085	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.576	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	597	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	440	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.42	**Density**	N/A	**PTSF**	81.4	**ATS**	38.2	**% FFS**	76.3
FFS Delay	11.2	**LOS Thresh. Delay**	11.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	280	650	950	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	180	490	1130	1650	2470
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	5800	13300	19500	29100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Promise Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	141st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	146th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 268 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	12198	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.121	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.541	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	798	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	677	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.56	**Density**	N/A	**PTSF**	86.5	**ATS**	35.0	**% FFS**	70.0
FFS Delay	15.4	**LOS Thresh. Delay**	15.4	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	620	900	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	520	1150	1670	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4300	9600	13900	21800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Howe Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 269 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4627	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.550	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	221	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	181	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.16	**Density**	N/A	**PTSF**	60.2	**ATS**	32.3	**% FFS**	80.9
FFS Delay	10.6	**LOS Thresh. Delay**	19.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	430	690	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	790	1260	2590
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3600	9100	14500	29800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Howe Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 269 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4627	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.119	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	286	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	264	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.20	**Density**	N/A	**PTSF**	64.6	**ATS**	31.6	**% FFS**	79.0
FFS Delay	11.9	**LOS Thresh. Delay**	20.9	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	420	660	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	810	1270	2740
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	2700	6900	10700	23100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Howe Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 269 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5414	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.087	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	245	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	226	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.17	**Density**	N/A	**PTSF**	61.9	**ATS**	32.1	**% FFS**	80.1
FFS Delay	11.2	**LOS Thresh. Delay**	20.2	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	420	660	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	810	1270	2740
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3600	9400	14600	31500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Howe Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 269 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	5414	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.120	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.534	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	347	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	303	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.25	**Density**	N/A	**PTSF**	67.8	**ATS**	31.0	**% FFS**	77.5
FFS Delay	13.1	**LOS Thresh. Delay**	22.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	430	680	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	300	810	1280	2660
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	2600	6800	10700	22200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Howe Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 270 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	6561	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.072	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.720	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	340	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	132	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	N/A	**PTSF**	71.5	**ATS**	37.2	**% FFS**	82.7
FFS Delay	8.4	**LOS Thresh. Delay**	12.4	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	320	600	970	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	450	840	1350	1980
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2000	6300	11700	18800	27500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Howe Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 270 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	6561	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.119	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	476	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	304	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.34	**Density**	N/A	**PTSF**	76.2	**ATS**	34.8	**% FFS**	77.4
FFS Delay	11.7	**LOS Thresh. Delay**	15.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	240	570	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	400	940	1450	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3400	7900	12200	19600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Howe Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 270 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7908	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.075	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.616	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	365	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	228	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	71.4	**ATS**	35.9	**% FFS**	79.9
FFS Delay	10.1	**LOS Thresh. Delay**	14.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	240	570	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	390	930	1430	2310
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	5200	12400	19100	30800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Howe Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 270 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	7908	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.119	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.570	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	536	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	405	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.38	**Density**	N/A	**PTSF**	79.0	**ATS**	33.9	**% FFS**	75.4
FFS Delay	13.1	**LOS Thresh. Delay**	17.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	210	550	840	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	370	970	1480	2500
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1300	3200	8200	12500	21100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 271 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.500	**Median**	No	**AADT**	4119	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.081	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.700	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	234	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	100	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.17	**Density**	N/A	**PTSF**	62.8	**ATS**	39.1	**% FFS**	86.9
FFS Delay	18.1	**LOS Thresh. Delay**	30.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	300	590	950	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	130	430	850	1360	2030
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	5400	10500	16800	25100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 271 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.500	**Median**	No	**AADT**	4119	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.127	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	340	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	183	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.24	**Density**	N/A	**PTSF**	71.1	**ATS**	36.2	**% FFS**	80.5
FFS Delay	29.0	**LOS Thresh. Delay**	41.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	260	580	920	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	400	900	1420	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3200	7100	11200	17300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 271 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.500	**Median**	No	**AADT**	11593	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.081	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.738	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	693	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	246	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.49	**Density**	N/A	**PTSF**	86.6	**ATS**	32.9	**% FFS**	73.1
FFS Delay	44.2	**LOS Thresh. Delay**	56.2	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	340	600	980	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	470	820	1330	1930
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1800	5900	10200	16500	23900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	141st Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Promise Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 271 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.500	**Median**	No	**AADT**	11593	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.130	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.587	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	885	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	622	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.62	**Density**	N/A	**PTSF**	89.4	**ATS**	29.6	**% FFS**	65.9
FFS Delay	62.1	**LOS Thresh. Delay**	74.1	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	220	550	850	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	380	940	1450	2420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	3000	7300	11200	18700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Marilyn Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	136th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 272 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4976	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.065	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	210	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	113	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	60.3	**ATS**	33.9	**% FFS**	84.9
FFS Delay	8.0	**LOS Thresh. Delay**	17.0	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	230	460	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	360	710	1190	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	5600	11000	18400	33700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Marilyn Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	136th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 272 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	4976	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	272	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	241	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.19	**Density**	N/A	**PTSF**	64.3	**ATS**	31.8	**% FFS**	79.5
FFS Delay	11.6	**LOS Thresh. Delay**	20.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	420	670	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	800	1270	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3100	7800	12400	26100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Marilyn Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	136th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 272 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	10466	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.066	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.545	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	376	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	314	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.27	**Density**	N/A	**PTSF**	69.5	**ATS**	30.7	**% FFS**	76.8
FFS Delay	13.6	**LOS Thresh. Delay**	22.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	430	690	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	320	790	1270	2610
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4900	12000	19300	39600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Marilyn Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	136th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	141st Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 272 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	10466	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.103	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.590	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	636	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	442	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.45	**Density**	N/A	**PTSF**	83.0	**ATS**	27.9	**% FFS**	69.6
FFS Delay	19.6	**LOS Thresh. Delay**	28.6	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	450	730	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	330	770	1240	2410
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	900	3300	7500	12100	23400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Brooks School Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	136th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Harrel Pkwy	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 273 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	10594	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.059	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	325	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	300	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	N/A	**PTSF**	65.7	**ATS**	36.4	**% FFS**	80.8
FFS Delay	9.5	**LOS Thresh. Delay**	13.5	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	210	540	810	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	410	1040	1560	2870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	7000	17700	26500	48700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Brooks School Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	136th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Harrel Pkwy	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 273 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	10594	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	578	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	534	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.39	**Density**	N/A	**PTSF**	77.6	**ATS**	33.4	**% FFS**	74.2
FFS Delay	13.9	**LOS Thresh. Delay**	17.9	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	210	540	810	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	410	1040	1560	2870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4000	10000	14900	27400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Brooks School Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	136th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Harrel Pkwy	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 273 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	18457	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.595	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	736	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	501	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.49	**Density**	N/A	**PTSF**	84.7	**ATS**	32.1	**% FFS**	71.4
FFS Delay	16.0	**LOS Thresh. Delay**	20.0	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	240	590	910	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	410	1000	1530	2510
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	6200	15000	22900	37500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Brooks School Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	136th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Harrel Pkwy	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 273 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	18457	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.105	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.562	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1089	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	849	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.73	**Density**	N/A	**PTSF**	91.7	**ATS**	26.8	**% FFS**	59.5
FFS Delay	27.2	**LOS Thresh. Delay**	31.2	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	220	570	870	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	150	400	1020	1550	2660
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	3900	9800	14800	25400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Corporate Pkwy	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	136th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Harrell Pkwy	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 274 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	2512	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.020	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.660	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	33	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	17	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	38.2	**ATS**	37.1	**% FFS**	92.9
FFS Delay	2.1	**LOS Thresh. Delay**	7.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	250	480	820	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	380	730	1250	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5000	19000	36600	62600	113000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Corporate Pkwy	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	136th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Harrell Pkwy	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 274 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	2512	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	131	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	121	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	46.7	**ATS**	34.7	**% FFS**	86.7
FFS Delay	4.1	**LOS Thresh. Delay**	9.5	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	440	700	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	330	850	1350	2870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3400	8600	13600	28800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Corporate Pkwy	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	136th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Harrell Pkwy	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 274 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	2512	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.020	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.660	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	33	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	17	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.02	**Density**	N/A	**PTSF**	38.2	**ATS**	37.1	**% FFS**	92.9
FFS Delay	2.1	**LOS Thresh. Delay**	7.5	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	250	480	820	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	380	730	1250	2260
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5000	19000	36600	62600	113000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Corporate Pkwy	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	136th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Harrell Pkwy	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 274 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	2512	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.522	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	131	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	120	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	46.7	**ATS**	34.7	**% FFS**	86.8
FFS Delay	4.1	**LOS Thresh. Delay**	9.5	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	440	700	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	330	850	1350	2860
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3400	8600	13600	28600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	136th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Brooks School Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 275 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	8609	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.011	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	95	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.07	**Density**	N/A	**PTSF**	56.7	**ATS**	36.7	**% FFS**	91.7
FFS Delay	4.1	**LOS Thresh. Delay**	13.1	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	450	810	1170	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	460	820	1180	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	9100	41900	74600	107300	129100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	136th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Brooks School Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 275 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	8609	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.022	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	1.000	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	189	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	0	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.13	**Density**	N/A	**PTSF**	66.7	**ATS**	35.8	**% FFS**	89.6
FFS Delay	5.2	**LOS Thresh. Delay**	14.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	450	810	1170	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	460	820	1180	1420
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4600	21000	37300	53700	64600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	136th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Brooks School Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 275 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	14818	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.013	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.667	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	128	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	64	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	50.8	**ATS**	35.8	**% FFS**	89.4
FFS Delay	5.3	**LOS Thresh. Delay**	14.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	240	460	780	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	360	690	1170	2130
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	7000	27700	53100	90000	163900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	136th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Marilyn Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Brooks School Road	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 275 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	14818	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.022	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.788	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	257	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	69	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	66.2	**ATS**	34.5	**% FFS**	86.3
FFS Delay	7.1	**LOS Thresh. Delay**	16.1	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	340	530	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	440	680	1050	1810
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4100	20000	31000	47800	82300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	136th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Brooks School Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Corporate Pkwy	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 276 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	5679	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.035	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.740	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	147	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	52	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.10	**Density**	N/A	**PTSF**	54.2	**ATS**	35.8	**% FFS**	89.5
FFS Delay	5.3	**LOS Thresh. Delay**	14.3	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	310	500	860	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	420	680	1170	2020
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2900	12000	19500	33500	57800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	136th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Brooks School Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Corporate Pkwy	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 276 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	5679	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.116	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.560	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	369	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	290	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.25	**Density**	N/A	**PTSF**	69.1	**ATS**	31.0	**% FFS**	77.5
FFS Delay	13.1	**LOS Thresh. Delay**	22.1	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	460	740	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	830	1330	2670
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	3000	7200	11500	23100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	136th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Brooks School Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Corporate Pkwy	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 276 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	6431	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.045	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.763	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	221	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	69	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.15	**Density**	N/A	**PTSF**	61.8	**ATS**	35.0	**% FFS**	87.5
FFS Delay	6.4	**LOS Thresh. Delay**	15.4	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	330	530	860	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	440	700	1130	1960
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2300	9800	15600	25200	43600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	136th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Brooks School Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Corporate Pkwy	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 276 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	6431	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.116	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.560	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	418	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	328	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.28	**Density**	N/A	**PTSF**	71.2	**ATS**	30.5	**% FFS**	76.3
FFS Delay	14.0	**LOS Thresh. Delay**	23.0	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	460	740	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	830	1330	2670
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	800	3000	7200	11500	23100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	136th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Corporate Pkwy	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hoard Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 277 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	3930	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.040	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.790	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	124	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	33	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	53.8	**ATS**	36.2	**% FFS**	90.5
FFS Delay	2.8	**LOS Thresh. Delay**	8.2	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	360	560	870	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	110	460	710	1110	1890
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	11600	17800	27800	47300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	136th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Corporate Pkwy	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hoard Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 277 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	3930	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.142	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.560	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	313	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	246	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.21	**Density**	N/A	**PTSF**	67.1	**ATS**	31.6	**% FFS**	78.9
FFS Delay	7.2	**LOS Thresh. Delay**	12.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	460	740	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	830	1330	2670
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	700	2400	5900	9400	18900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	136th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Corporate Pkwy	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hoard Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 277 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	4549	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.054	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.799	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	196	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	49	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.13	**Density**	N/A	**PTSF**	60.8	**ATS**	35.4	**% FFS**	88.5
FFS Delay	3.5	**LOS Thresh. Delay**	8.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	80	360	580	870	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	110	460	730	1090	1870
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	8600	13600	20200	34700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	136th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Corporate Pkwy	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Hoard Drive	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 277 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	Yes	**AADT**	4549	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.148	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.567	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	382	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	292	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	69.7	**ATS**	30.9	**% FFS**	77.2
FFS Delay	8.0	**LOS Thresh. Delay**	13.4	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	190	460	740	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	340	820	1310	2630
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	700	2300	5600	8900	17800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Seminole Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	161st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	169th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 279 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.067	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.550	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	37	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	30	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	34.7	**ATS**	46.9	**% FFS**	93.7
FFS Delay	3.9	**LOS Thresh. Delay**	3.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	630	910	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	510	1150	1660	2590
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	7700	17200	24800	38700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Seminole Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	161st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	169th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 279 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.072	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	38	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	34	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	33.5	**ATS**	46.8	**% FFS**	93.6
FFS Delay	3.9	**LOS Thresh. Delay**	3.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	280	610	880	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	530	1160	1670	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2400	7400	16200	23200	37300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Seminole Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	161st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	169th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 279 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	2152	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.079	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.718	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	122	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	48	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.09	**Density**	N/A	**PTSF**	51.4	**ATS**	45.9	**% FFS**	91.8
FFS Delay	5.2	**LOS Thresh. Delay**	5.2	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	360	720	1120	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	510	1010	1560	1980
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	6500	12800	19800	25100
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Seminole Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	161st Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	169th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 279 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	2152	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.118	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.617	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	157	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	97	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	53.8	**ATS**	44.8	**% FFS**	89.6
FFS Delay	6.7	**LOS Thresh. Delay**	6.7	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	100	290	670	1010	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	170	480	1090	1640	2310
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1500	4100	9300	13900	19600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Prairie Baptist Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 280 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1735	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.092	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.690	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	110	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	49	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.08	**Density**	N/A	**PTSF**	21.9	**ATS**	53.0	**% FFS**	96.3
FFS Delay	2.4	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	260	570	940	1310	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	380	830	1370	1900	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4200	9100	14900	20700	22400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Prairie Baptist Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 280 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	1735	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.148	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.740	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	190	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	67	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	N/A	**PTSF**	30.9	**ATS**	52.1	**% FFS**	94.7
FFS Delay	3.5	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	290	610	990	1380	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	400	830	1340	1870	1920
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	5700	9100	12700	13000
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Prairie Baptist Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 280 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	16378	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.117	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.847	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	1623	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	293	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.14	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	360	730	1120	1420	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	430	870	1330	1680	1680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3700	7500	11400	14400	14400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Prairie Baptist Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 280 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.950	**Median**	No	**AADT**	16378	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.148	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.666	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	1614	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	810	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.13	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	250	550	910	1270	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	380	830	1370	1910	2140
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2600	5700	9300	13000	14500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Prairie Baptist Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 280 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	16378	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.117	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.847	**Base Capacity**	2100
Posted Speed	50	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1623	**Local Adj. Factor**	0.88
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	293	**Adjusted Capacity**	1730

LOS Results

v/c Ratio	0.51	**Density**	19.5	**PTSF**	N/A	**ATS**	55.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	5.5	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	830	1410	2000	2530	2800
3	1250	2120	3000	3790	4200
4	1660	2830	4000	5060	5600
Lanes	**Hourly Volume In Both Directions**				
2					
4	980	1670	2370	2990	3310
6	1480	2510	3550	4480	4960
8	1960	3350	4730	5980	6620
Lanes	**Annual Average Daily Traffic**				
2					
4	8400	14300	20300	25600	28300
6	12700	21500	30400	38300	42400
8	16800	28700	40500	51200	56600

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Prairie Baptist Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	146th Street	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	156th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 280 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	16378	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.148	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.666	**Base Capacity**	2100
Posted Speed	50	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1614	**Local Adj. Factor**	0.88
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	810	**Adjusted Capacity**	1730

LOS Results

v/c Ratio	0.51	**Density**	19.4	**PTSF**	N/A	**ATS**	55.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	5.5	**Service Measure**	Density	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	830	1410	2000	2530	2800
3	1250	2120	3000	3790	4200
4	1660	2830	4000	5060	5600
Lanes	**Hourly Volume In Both Directions**				
2					
4	1250	2120	3010	3800	4210
6	1880	3190	4510	5700	6310
8	2500	4250	6010	7600	8410
Lanes	**Annual Average Daily Traffic**				
2					
4	8500	14400	20400	25700	28500
6	12800	21600	30500	38600	42700
8	16900	28800	40700	51400	56900

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Union Chapel Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Town and Country Boulevard	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 281 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	8403	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.078	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.640	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	419	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	236	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.14	**Density**	5.8	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	10.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1110	1910	2690	3470	4240
6	1680	2860	4040	5210	6350
8	2240	3820	5380	6960	8470
Lanes	**Annual Average Daily Traffic**				

2					
4	14300	24500	34500	44500	54400
6	21600	36700	51800	66800	81500
8	28800	49000	69000	89300	108600

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Union Chapel Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Town and Country Boulevard	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 281 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	8403	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.116	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.560	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	546	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	429	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.18	**Density**	7.6	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	10.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1270	2180	3080	3970	4840
6	1920	3270	4610	5950	7250
8	2560	4360	6150	7950	9680
Lanes	**Annual Average Daily Traffic**				

2					
4	11000	18800	26600	34300	41800
6	16600	28200	39800	51300	62600
8	22100	37600	53100	68600	83500

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Union Chapel Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Town and Country Boulevard	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 281 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	14362	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.079	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.523	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	593	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	541	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.20	**Density**	8.3	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	10.0	**Service Measure**	Density	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1360	2340	3290	4250	5190
6	2050	3500	4940	6370	7770
8	2740	4670	6580	8510	10370
Lanes	**Annual Average Daily Traffic**				

2					
4	17300	29700	41700	53800	65700
6	26000	44400	62600	80700	98400
8	34700	59200	83300	107800	131300

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Union Chapel Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Town and Country Boulevard	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Pleasant Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 281 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	Yes	**AADT**	14362	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.116	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.612	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1020	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	646	**Adjusted Capacity**	1647

LOS Results

v/c Ratio	0.34	**Density**	14.2	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	10.0	**Service Measure**	Density	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	710	1220	1720	2220	2710
3	1070	1830	2580	3330	4060
4	1430	2440	3440	4450	5420
Lanes	**Hourly Volume In Both Directions**				
2					
4	1170	2000	2820	3630	4430
6	1750	3000	4220	5450	6640
8	2340	3990	5630	7280	8860
Lanes	**Annual Average Daily Traffic**				

2					
4	10100	17300	24400	31300	38200
6	15100	25900	36400	47000	57300
8	20200	34400	48600	62800	76400

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	8th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Walnut St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 282a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	16797	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.066	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	721	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	388	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.51	**Density**	N/A	**PTSF**	86.0	**ATS**	27.3	**% FFS**	68.2
FFS Delay	8.4	**LOS Thresh. Delay**	12.0	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	230	460	770	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	360	710	1190	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	5500	10800	18100	33200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	8th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Walnut St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 282a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	16797	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.088	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	902	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	576	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.63	**Density**	N/A	**PTSF**	90.1	**ATS**	24.8	**% FFS**	61.9
FFS Delay	11.1	**LOS Thresh. Delay**	14.7	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	210	450	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	350	740	1230	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	4000	8500	14000	26500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	8th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Walnut St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 282a AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	18591	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.066	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.683	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	838	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	389	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.59	**Density**	N/A	**PTSF**	88.9	**ATS**	26.2	**% FFS**	65.5
FFS Delay	9.5	**LOS Thresh. Delay**	13.1	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	250	460	790	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	370	680	1160	2080
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	5700	10400	17600	31600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	8th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Walnut St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 282a PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.200	**Median**	No	**AADT**	18591	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.107	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.545	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1084	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	905	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.76	**Density**	N/A	**PTSF**	92.5	**ATS**	20.5	**% FFS**	51.3
FFS Delay	17.1	**LOS Thresh. Delay**	20.7	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	170	430	690	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	320	790	1270	2610
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3000	7400	11900	24400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	8th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Walnut St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 282b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.100	**Median**	Yes	**AADT**	16797	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.066	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.650	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	721	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	388	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.48	**Density**	N/A	**PTSF**	85.0	**ATS**	27.7	**% FFS**	69.2
FFS Delay	4.0	**LOS Thresh. Delay**	5.8	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	240	480	810	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	370	740	1250	2300
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	5700	11300	19000	34900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	8th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Walnut St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 282b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.100	**Median**	Yes	**AADT**	16797	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.088	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	902	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	576	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.60	**Density**	N/A	**PTSF**	89.1	**ATS**	25.3	**% FFS**	63.3
FFS Delay	5.2	**LOS Thresh. Delay**	7.0	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	220	470	780	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	370	780	1280	2450
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	4300	8900	14600	27900
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	8th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Walnut St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 282b AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.100	**Median**	Yes	**AADT**	18591	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.066	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.683	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	838	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	389	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.56	**Density**	N/A	**PTSF**	87.7	**ATS**	26.6	**% FFS**	66.6
FFS Delay	4.5	**LOS Thresh. Delay**	6.3	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	270	490	830	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	110	400	720	1220	2190
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	6100	11000	18500	33200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	8th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Walnut St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cherry St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 282b PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.100	**Median**	Yes	**AADT**	18591	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.107	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.545	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1084	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	905	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.73	**Density**	N/A	**PTSF**	91.6	**ATS**	21.4	**% FFS**	53.4
FFS Delay	7.9	**LOS Thresh. Delay**	9.7	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	180	450	720	1490
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	340	830	1330	2740
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1000	3200	7800	12500	25700
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	8th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Christian St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Walnut St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 283 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	10493	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	493	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	315	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.35	**Density**	N/A	**PTSF**	77.0	**ATS**	29.6	**% FFS**	74.1
FFS Delay	9.4	**LOS Thresh. Delay**	14.8	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	210	450	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	350	740	1230	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	4600	9700	16000	30300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	8th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Christian St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Walnut St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 283 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	10493	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.089	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	570	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	364	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.40	**Density**	N/A	**PTSF**	80.8	**ATS**	28.8	**% FFS**	71.9
FFS Delay	10.5	**LOS Thresh. Delay**	15.9	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	210	450	750	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	350	740	1230	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	4000	8400	13900	26200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	8th Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Christian St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Walnut St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 283 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	32909	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.704	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1784	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	750	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.25	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	60	270	470	800	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	90	390	670	1140	2020
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	5100	8800	14900	26300
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	8th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Christian St	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Walnut St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 283 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	32909	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.098	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	100	**Peak Dir. Hrly. Vol.**	1709	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1516	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	1.20	**Density**	N/A	**PTSF**	100.0	**ATS**	0.0	**% FFS**	0.0
FFS Delay	Infinity	**LOS Thresh. Delay**	Infinity	**Service Measure**	vcRatio	**LOS**	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	50	160	420	670	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	100	310	800	1270	2680
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1100	3200	8200	13000	27400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	8th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Christian St	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Walnut St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\AM\Fu 283 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	32909	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.077	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.704	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1784	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	750	**Adjusted Capacity**	1565

LOS Results

v/c Ratio	0.62	**Density**	26.2	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	680	1150	1630	2110	2570
3	1020	1730	2450	3170	3860
4	1360	2310	3270	4220	5150
Lanes	**Hourly Volume In Both Directions**				
2					
4	970	1640	2320	3000	3660
6	1450	2460	3490	4510	5490
8	1940	3290	4650	6000	7320
Lanes	**Annual Average Daily Traffic**				
2					
4	12600	21300	30200	39000	47600
6	18900	32000	45400	58600	71300
8	25200	42800	60400	78000	95100

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	8th Street	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Christian St	**Analysis Type**	Multilane Segment
Agency	A & F Engineering LLC	**To**	Walnut St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future Mitigated\PM\Fu 283 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	32909	**PHF**	0.920
# Thru Lanes	4	**Left Turn Impact**	No	**K**	0.098	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.530	**Base Capacity**	1900
Posted Speed	40	**% NPZ**	N/A	**Peak Dir. Hrly. Vol.**	1709	**Local Adj. Factor**	0.88
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	1516	**Adjusted Capacity**	1565

LOS Results

v/c Ratio	0.59	**Density**	25.1	**PTSF**	N/A	**ATS**	45.0	**% FFS**	100.0
FFS Delay	0.0	**LOS Thresh. Delay**	6.0	**Service Measure**	Density	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1850 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1					
2	680	1150	1630	2110	2570
3	1020	1730	2450	3170	3860
4	1360	2310	3270	4220	5150
Lanes	**Hourly Volume In Both Directions**				
2					
4	1290	2170	3080	3990	4850
6	1930	3270	4630	5990	7290
8	2570	4360	6170	7970	9720
Lanes	**Annual Average Daily Traffic**				
2					
4	13200	22200	31500	40800	49500
6	19700	33400	47300	61200	74400
8	26300	44500	63000	81400	99200

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Allisonville Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Ave	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 284 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	7794	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.064	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.750	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	72	**Peak Dir. Hrly. Vol.**	374	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	125	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.26	**Density**	N/A	**PTSF**	72.5	**ATS**	42.4	**% FFS**	84.7
FFS Delay	3.9	**LOS Thresh. Delay**	3.9	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	410	760	1170	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	200	550	1020	1560	1900
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3200	8600	16000	24400	29700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Allisonville Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Ave	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 284 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	7794	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.680	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	72	**Peak Dir. Hrly. Vol.**	530	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	249	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.37	**Density**	N/A	**PTSF**	77.7	**ATS**	39.7	**% FFS**	79.4
FFS Delay	5.6	**LOS Thresh. Delay**	5.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	340	740	1110	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	210	500	1090	1640	2090
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2200	5000	11000	16400	21000

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Allisonville Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Ave	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 284 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	14844	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.064	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.703	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	72	**Peak Dir. Hrly. Vol.**	668	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	282	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.47	**Density**	N/A	**PTSF**	83.2	**ATS**	38.3	**% FFS**	76.7
FFS Delay	6.6	**LOS Thresh. Delay**	6.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	360	750	1130	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	200	520	1070	1610	2020
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3200	8200	16800	25200	31600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Allisonville Road	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Riverwood Ave	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 284 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.300	**Median**	No	**AADT**	14844	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.122	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.612	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	72	**Peak Dir. Hrly. Vol.**	1108	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	703	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.78	**Density**	N/A	**PTSF**	92.4	**ATS**	32.2	**% FFS**	64.4
FFS Delay	12.0	**LOS Thresh. Delay**	12.0	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	320	690	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	200	530	1130	1670	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	4400	9300	13700	19100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Riverwood Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 285 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.640	**Median**	No	**AADT**	7059	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.066	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.740	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	71	**Peak Dir. Hrly. Vol.**	345	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	121	**Adjusted Capacity**	1547

LOS Results

v/c Ratio	0.24	**Density**	N/A	**PTSF**	70.7	**ATS**	42.8	**% FFS**	85.5
FFS Delay	7.8	**LOS Thresh. Delay**	7.8	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	400	760	1160	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	210	550	1030	1570	1920
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3200	8400	15700	23800	29100

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Riverwood Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Existing\Ex 285 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.640	**Median**	No	**AADT**	7059	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.101	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.680	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	71	**Peak Dir. Hrly. Vol.**	485	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	228	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.34	**Density**	N/A	**PTSF**	75.1	**ATS**	40.2	**% FFS**	80.4
FFS Delay	11.3	**LOS Thresh. Delay**	11.3	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	340	740	1110	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	210	500	1090	1640	2090
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2100	5000	10800	16300	20700

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Riverwood Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 285 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.640	**Median**	No	**AADT**	12803	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.066	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.692	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	71	**Peak Dir. Hrly. Vol.**	585	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	260	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.41	**Density**	N/A	**PTSF**	80.1	**ATS**	39.2	**% FFS**	78.4
FFS Delay	12.7	**LOS Thresh. Delay**	12.7	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	140	350	750	1120	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	210	510	1090	1620	2060
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3200	7800	16600	24600	31300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	SK	**Highway Name**	Cumberland Road	**Study Period**	**Kother**
Date Prepared	12/4/2023 10:58:32 AM	**From**	Riverwood Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	206th Street	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 285 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.640	**Median**	No	**AADT**	7059	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.128	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.610	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	71	**Peak Dir. Hrly. Vol.**	551	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	352	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.39	**Density**	N/A	**PTSF**	78.9	**ATS**	39.3	**% FFS**	78.5
FFS Delay	12.6	**LOS Thresh. Delay**	12.6	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	120	320	690	1020	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	200	530	1140	1680	2330
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	4200	9000	13200	18300

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st St Extension	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Prairie Baptist Rd	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cyntheanne Rd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 286 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.071	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.676	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	48	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	23	**Adjusted Capacity**	0

LOS Results

v/c Ratio	0.03	**Density**	N/A	**PTSF**	13.8	**ATS**	53.8	**% FFS**	97.9
FFS Delay	1.4	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	250	560	920	1290	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	370	830	1370	1910	2110
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	5300	11700	19300	27000	29800

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st St Extension	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Prairie Baptist Rd	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Cyntheanne Rd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 286 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	1.000	**Median**	No	**AADT**	1000	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.102	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.637	**Base Capacity**	1700
Posted Speed	50	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	65	**Local Adj. Factor**	0.91
Free Flow Speed	55	**Class**	3	**Off Peak Dir. Hrly. Vol.**	37	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	16.0	**ATS**	53.5	**% FFS**	97.3
FFS Delay	1.8	**LOS Thresh. Delay**	0.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	230	530	880	1220	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	370	840	1390	1920	2230
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3700	8300	13700	18900	21900

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Presley Drive Extension	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Phillip Dr	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Northbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 287 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1200	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.542	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	65	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	55	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.05	**Density**	N/A	**PTSF**	14.6	**ATS**	38.8	**% FFS**	96.9
FFS Delay	1.4	**LOS Thresh. Delay**	10.4	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	150	330	550	760	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	280	610	1020	1410	2620
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	2800	6200	10200	14200	26200
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Presley Drive Extension	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Phillip Dr	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 287 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	1200	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.200	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.627	**Base Capacity**	1700
Posted Speed	35	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	150	**Local Adj. Factor**	0.91
Free Flow Speed	40	**Class**	3	**Off Peak Dir. Hrly. Vol.**	90	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.11	**Density**	N/A	**PTSF**	27.1	**ATS**	37.5	**% FFS**	93.9
FFS Delay	2.9	**LOS Thresh. Delay**	11.9	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	190	380	620	870	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	310	610	990	1390	2270
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1600	3100	5000	7000	11400
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st St (Extension)	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Marilyn Rd	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Brooks School Rd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 288 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3190	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.815	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	260	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	59	**Adjusted Capacity**	1547

LOS Results

v/c Ratio	0.18	**Density**	N/A	**PTSF**	35.9	**ATS**	41.9	**% FFS**	93.1
FFS Delay	3.0	**LOS Thresh. Delay**	7.0	**Service Measure**	PctFFS	**LOS**	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	310	600	900	1230	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	390	740	1110	1510	1750
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4000	7400	11200	15200	17600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	141st St (Extension)	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Marilyn Rd	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	Brooks School Rd	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Westbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 288 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	3190	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.188	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.520	**Base Capacity**	1700
Posted Speed	40	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	312	**Local Adj. Factor**	0.91
Free Flow Speed	45	**Class**	3	**Off Peak Dir. Hrly. Vol.**	288	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.22	**Density**	N/A	**PTSF**	47.9	**ATS**	38.5	**% FFS**	85.5
FFS Delay	6.8	**LOS Thresh. Delay**	10.8	**Service Measure**	PctFFS	**LOS**	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	360	600	820	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	310	700	1160	1580	2740
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1700	3800	6200	8500	14600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Cherry Tree Ln	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	River Ave	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 289 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	16200	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.729	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	1181	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	439	**Adjusted Capacity**	1547

LOS Results

v/c Ratio	0.83	**Density**	N/A	**PTSF**	88.6	**ATS**	34.2	**% FFS**	68.4
FFS Delay	16.7	**LOS Thresh. Delay**	16.7	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	280	560	890	1250	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	390	770	1230	1720	1950
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4000	7800	12400	17200	19600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Pleasant Street	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Cherry Tree Ln	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	River Ave	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 289 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.500	**Median**	No	**AADT**	16200	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.528	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	941	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	841	**Adjusted Capacity**	1428

LOS Results

v/c Ratio	0.66	**Density**	N/A	**PTSF**	85.7	**ATS**	33.1	**% FFS**	66.2
FFS Delay	18.4	**LOS Thresh. Delay**	18.4	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	410	680	920	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	780	1290	1750	2690
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3000	7100	11800	16000	24500

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Pleasant Street Extension	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	River Ave	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	8th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Eastbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\AM\Fu 290 AM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	16120	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.100	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.728	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	1174	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	438	**Adjusted Capacity**	1547

LOS Results

v/c Ratio	0.82	**Density**	N/A	**PTSF**	88.4	**ATS**	34.3	**% FFS**	68.5
FFS Delay	26.5	**LOS Thresh. Delay**	26.5	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	280	550	890	1250	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	390	760	1230	1720	1960
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	4000	7600	12400	17200	19600

4
6
8

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	Presley Drive Extension	**Study Period**	**Kother**
Date Prepared	9/13/2023 10:58:32 AM	**From**	Phillip Dr	**Analysis Type**	Two-Lane Segment
Agency	A & F Engineering LLC	**To**	186th St	**Program**	HIGHPLAN 2012
Area Type	Transitioning/Urban	**Peak Direction**	Southbound	**Version Date**	12/12/2012
File Name	Z:\2023\23077S-City of Noblesville, Road Impact Fee Update, Noblesville\Capacity Analysis\HCS\Future\PM\Fu 290 PM.xhp				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Segment Length	0.800	**Median**	No	**AADT**	16120	**PHF**	0.920
# Thru Lanes	2	**Left Turn Impact**	No	**K**	0.110	**% Heavy Vehicles**	3.0
Terrain	Level	**Pass Lane Length**	N/A	**D**	0.528	**Base Capacity**	1700
Posted Speed	45	**% NPZ**	0	**Peak Dir. Hrly. Vol.**	936	**Local Adj. Factor**	0.91
Free Flow Speed	50	**Class**	3	**Off Peak Dir. Hrly. Vol.**	837	**Adjusted Capacity**	1547

LOS Results

v/c Ratio	0.66	**Density**	N/A	**PTSF**	85.5	**ATS**	33.2	**% FFS**	66.3
FFS Delay	29.2	**LOS Thresh. Delay**	29.2	**Service Measure**	PctFFS	**LOS**	E		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1650 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	170	410	680	920	1420
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	330	780	1290	1750	2690
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	3000	7100	11800	16000	24500
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.