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 # Performance measure results are no longer applicable with the presence of passing lanes.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

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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**	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

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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.**
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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.**
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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.**
 # Performance measure results are no longer applicable 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\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

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence 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**	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.**
 # Performance measure results are no longer applicable with the presence 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\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.**
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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**	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**
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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					

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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**	Corporate Pkwy	**Study Period**	**Kother**
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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					

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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**	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					

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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**	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					

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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
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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					

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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					

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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
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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.**
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HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	136th Street	**Study Period**	**Kother**
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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.**
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HIGHPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	TR	**Highway Name**	136th Street	**Study Period**	**Kother**
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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.**
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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
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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**	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
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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**	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.