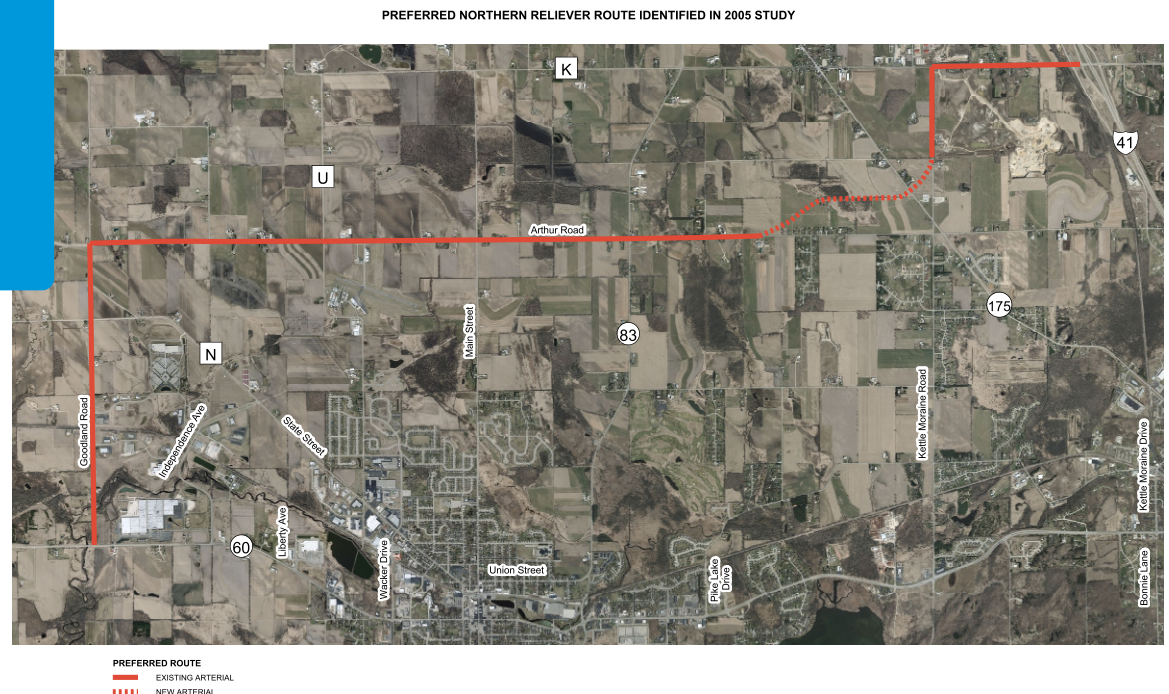


STH 60 NORTHERN RELIEVER ROUTE FEASIBILITY STUDY

- At the request of Washington County, the Southeastern Wisconsin Regional Planning Commission is conducting a feasibility study of a northern reliever route to STH 60 between the western limits of the City of Hartford and IH 41.
- This study is a response to a request from the Hartford Area Development Corporation to the Washington County Board Chairperson, which was prompted by their concerns of increasing traffic volume, congestion, and safety problems on STH 60, and in particular, the effect of increasing truck traffic.
- The study will identify and evaluate potential STH 60 northern reliever routes and improvements to STH 60, and will be conducted in cooperation with concerned and affected local governments, Washington County, and the Wisconsin Department of Transportation (WisDOT).

Background

This study is an update of a Washington County study that was completed in 2005, which considered and evaluated a number of alternative STH 60 northern reliever routes. A preferred northern reliever route was identified (as shown on the map to the right) as part of the 2005 study, but was not implemented by the County.



STUDY STEPS

1 Problem Identification

The Commission staff and Washington County staff will meet with officials from local concerned and affected governments, WisDOT, and the Hartford Area Development Corporation to identify and discuss the problems with traffic movement on STH 60.

2 Goal Formulation

Based on the problems identified, goals to be achieved by a potential northern reliever routes and potential improvements to STH 60 will be identified.

3 Inventory

Existing conditions of STH 60 will be documented, including total and truck traffic volume, traffic congestion, travel times, and pedestrian and vehicular traffic volumes. In addition, forecasts of probable future traffic volume on STH 60 will be prepared.

4 Identification of Alternatives

Potential alternative northern reliever routes will be identified for evaluation, with consideration given to alternative routes and STH 60 improvements suggested in the problem identification element of the study.

5 Evaluation of Alternatives

The identified potential alternative northern reliever routes, along with potential STH 60 improvements, will be evaluated and compared with respect to their attainment of the goals and criteria developed under a previous step of the study.

6 Recommendations

Based upon the evaluation of the potential northern reliever routes and STH 60 improvements, Commission staff working with Washington County staff will develop preliminary recommendations with respect to a northern reliever route and STH 60 improvements.

The preliminary recommended northern reliever route and STH 60 improvements will be reviewed with the Washington County Board of Supervisors, officials of concerned and affected local governments, the Hartford Area Development Corporation, and WisDOT.

PUBLIC INFORMATION MEETING

JUNE 29, 2016

What is Presented Tonight

- Inventory of STH 60 (truck and traffic volumes, traffic congestion, travel times, vehicular and truck crashes)
- Potential goals and criteria to be used to compare and evaluate Alternative STH 60 Reliever Routes
- Potential Alternative Reliever Routes identified to date

What Remains to be Done

- Comparison and Evaluation of Alternative STH 60 Northern Reliever Routes
- Selection by Washington County of Preferred Alternative STH 60 Northern Reliever Route(s) and STH 60 improvements

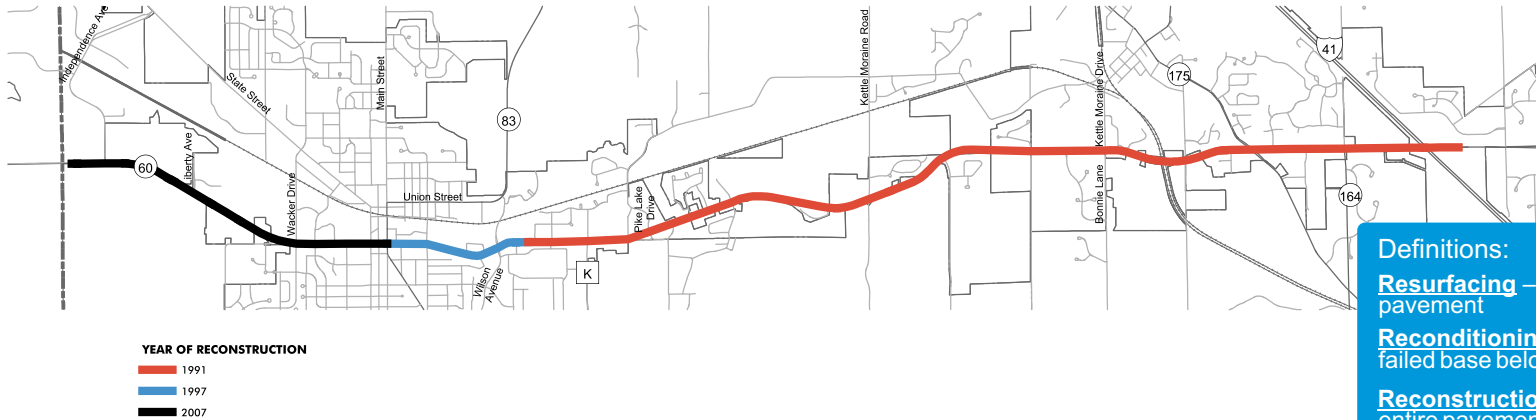
Comments Requested Tonight

- Input on issues related to STH 60
- Comment on potential alternative reliever routes and improvements to STH 60

STH 60 PAVEMENT HISTORY

- Pavements have a design life ranging from 50 to 60 years before they need to be replaced or reconstructed.
- Because of traffic use (particularly trucks) and changes in weather (freeze and thaw), it is necessary to improve the conditions of the pavement surface through resurfacing or reconditioning. The first rehabilitation typically occurs 20 to 30 years following a roadway construction or reconstruction, with subsequent rehabilitation occurring every 8 to 18 years.

DATE OF RECONSTRUCTION OF STH 60 BETWEEN THE WASHINGTON COUNTY LINE AND IH 41



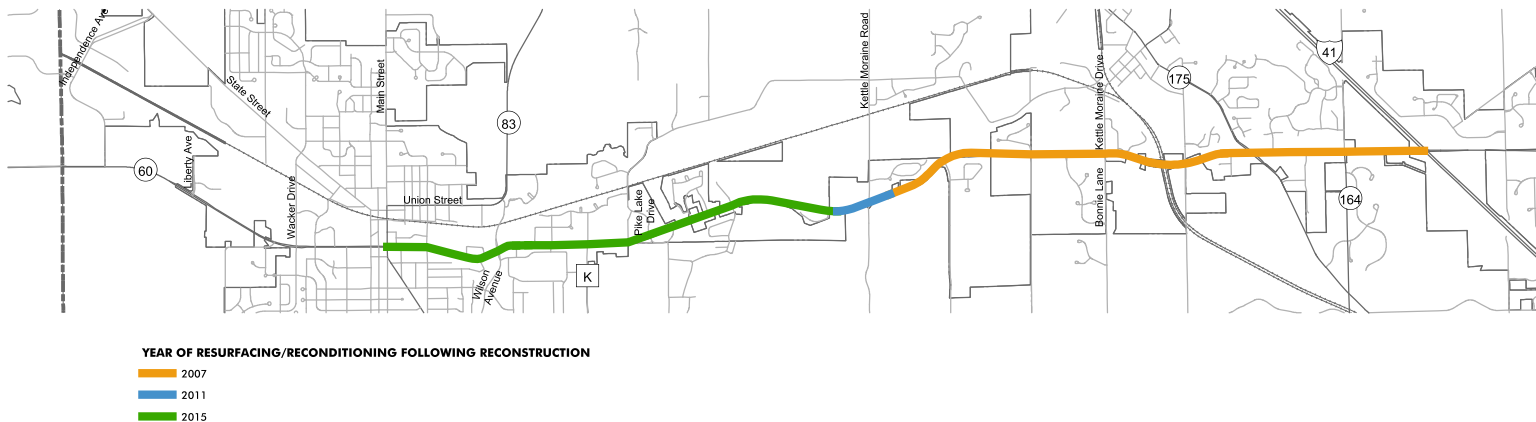
Definitions:

Resurfacing – removing and overlaying a layer of pavement

Reconditioning – resurfacing plus spot repair of failed base below the pavement

Reconstruction – removal and replacement of the entire pavement structure

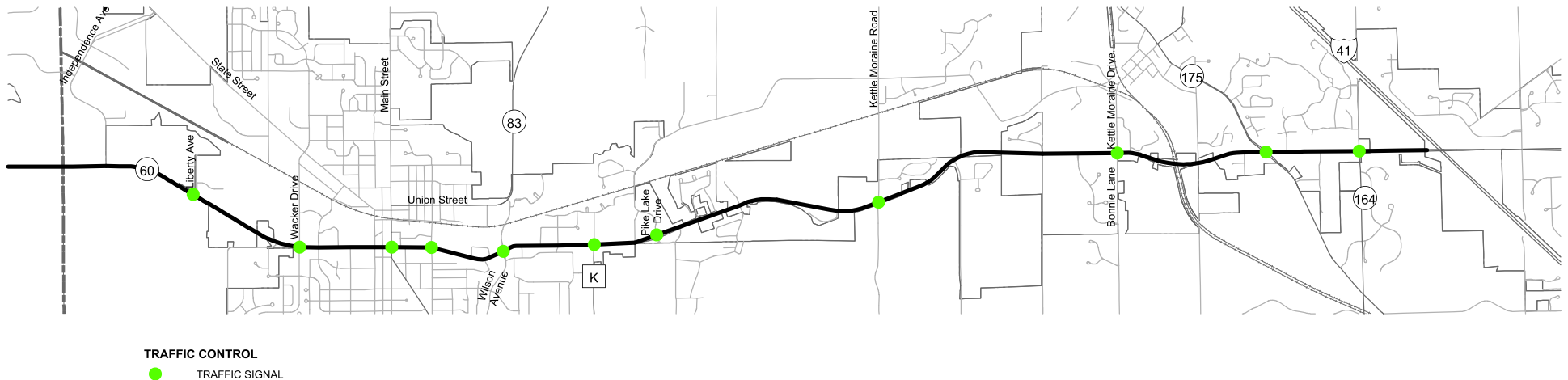
DATE OF RESURFACING OR RECONDITIONING FOLLOWING LATEST RECONSTRUCTION OF STH 60 BETWEEN THE WASHINGTON COUNTY LINE AND IH 41



TRAFFIC CONTROL

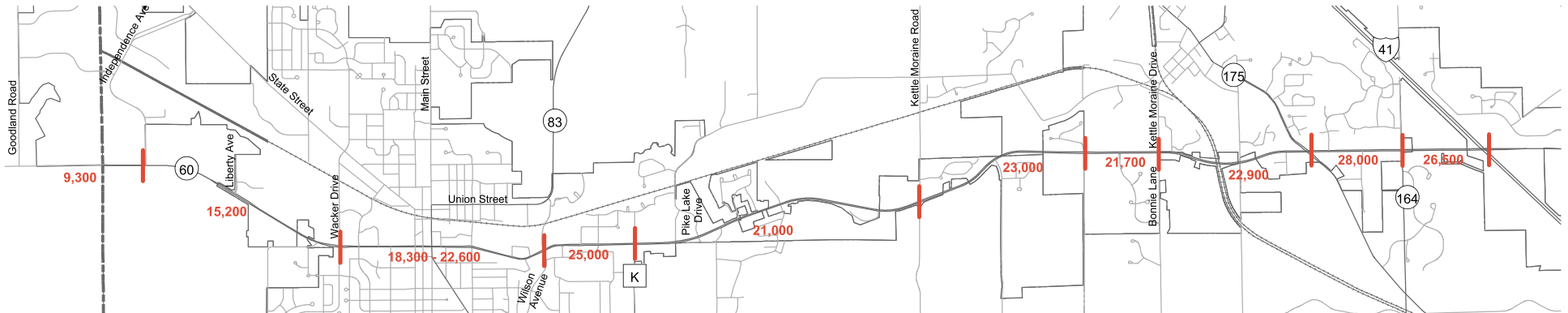
- The traffic control along a roadway can affect its travel time (desired traffic signal spacing is one mile or more and acceptable traffic signal spacing is one-half mile or more)
- STH 60 between Liberty Avenue and Pike Lake Drive has a signal spacing of 0.4 miles per traffic signal (less than the acceptable spacing of 0.5 miles)
- Between Pike Lake Drive and STH 164, STH 60 has a signal spacing of 1.1 miles (meeting desired signal spacing of 1.0 miles)
- Traffic signals on STH 60 are owned and operated by either the City of Hartford or the Wisconsin Department of Transportation
- There is currently no traffic signal coordination of the signals along STH 60

TRAFFIC CONTROL ALONG STH 60



CURRENT TOTAL AND TRUCK TRAFFIC VOLUME ALONG STH 60

CURRENT AVERAGE WEEKDAY TOTAL TRAFFIC VOLUME ALONG STH 60

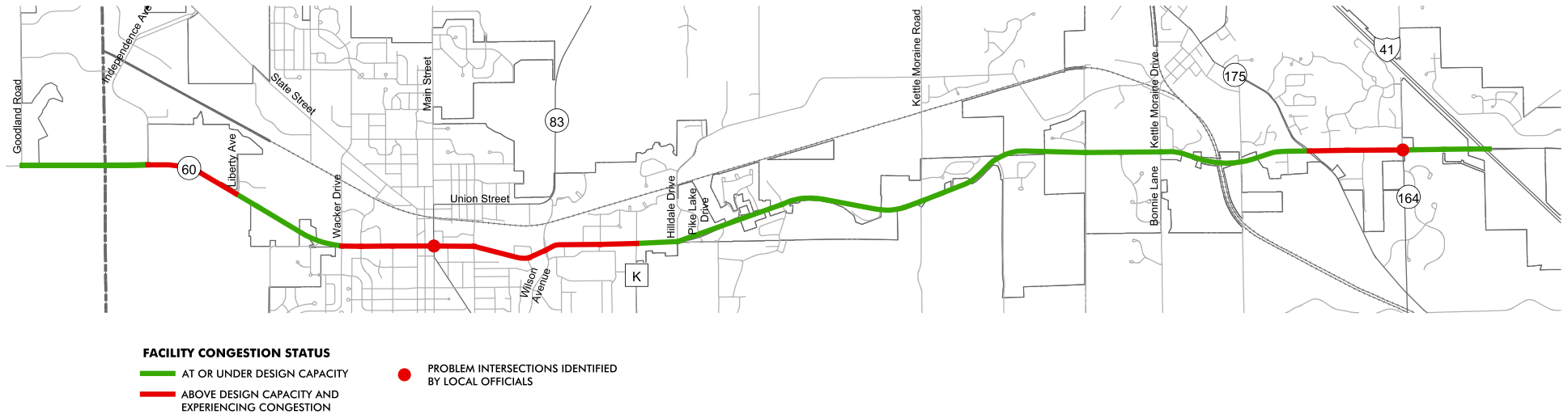


Specific Truck Data:

- Truck traffic represents about 9 to 10 percent of total traffic on STH 60.
- Of the trucks traveling to the Hartford-Slinger area on STH 60, 7 percent travel through the area, that is, travel on STH 60 between Goodland Road and IH 41 without a destination within the Hartford-Slinger area. Therefore, a significant proportion of the trucks traveling on STH 60 (over 90 percent) have at least one trip end in the Hartford-Slinger area.
- Truck information provided by Hartford Area Industries:
 - A survey of seven large companies in the Hartford Industrial Park on the west side of the City of Hartford indicated that they generate about 1,300 truck trips per day
 - 75 to 85 percent of the two largest freight generators in the Hartford Industrial Park travel on STH 60 to/from destinations south of the Hartford area.

CURRENT TRAFFIC CONGESTION ALONG STH 60

CURRENT YEAR TRAFFIC CONGESTION ALONG STH 60



- When traffic volume exceeds the design capacity of a roadway, it experiences traffic congestion, typically, during the peak traffic times of an average weekday. Congestion can result in slower traffic speeds between controlled intersections and longer delays and queues at controlled intersections.
- During meetings with local officials, two intersections were identified as experiencing congestion, or delay: the intersection of STH 60 and STH 83 and the intersection of STH 60 and STH 164

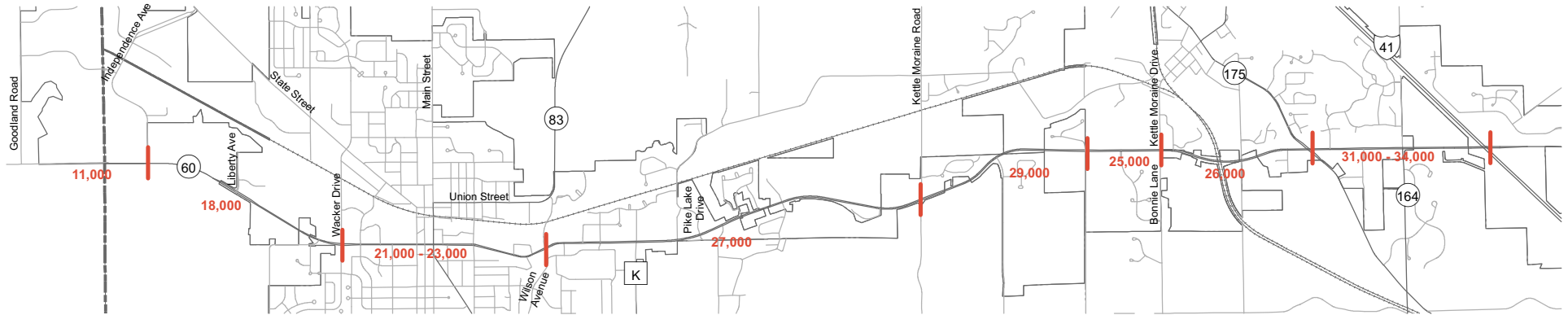
ESTIMATED STH 60 DESIGN CAPACITY

Segment	Facility Type	Design Capacity (Average Weekday Traffic Volume)
Goodland Road to Liberty Avenue	Two-lane	14,000
Liberty Avenue to Wilson Avenue	Four-lane Undivided	18,000
Wilson Avenue to Hilldale Drive	Four-lane with Two-Way Left Turn Lane (TWTL)	21,000
Hilldale Drive to IH 41	Four-Lane Divided/TWTL ^a	27,000

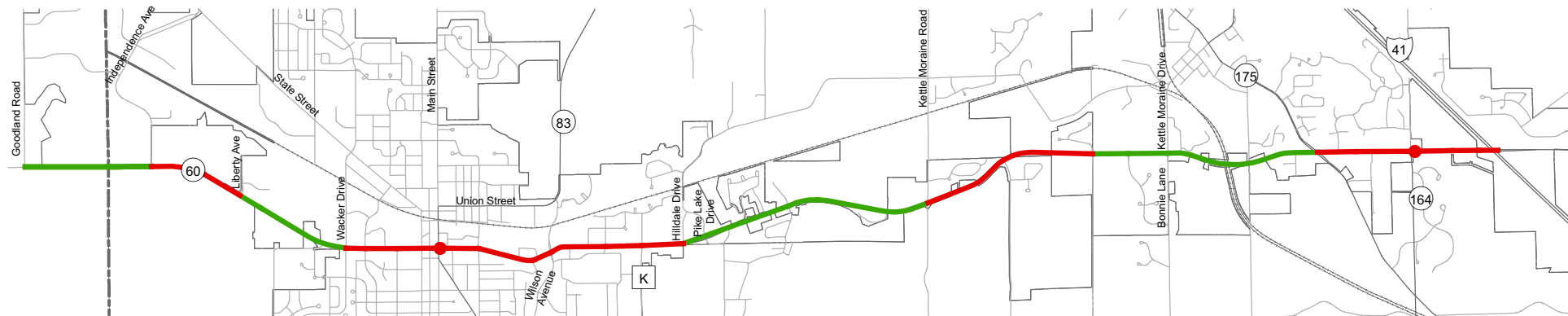
^aWhile portions of this segment have a four-lane TWTL cross-section, development and/or direct access by abutting properties is limited. Therefore a design capacity of 27,000 was assigned to the full segment.

FUTURE TOTAL TRAFFIC VOLUME AND CONGESTION ALONG STH 60

FORECAST YEAR 2050 AVERAGE WEEKDAY TOTAL TRAFFIC VOLUME ALONG STH 60



FORECAST YEAR 2050 TRAFFIC CONGESTION ALONG STH 60



FACILITY CONGESTION STATUS

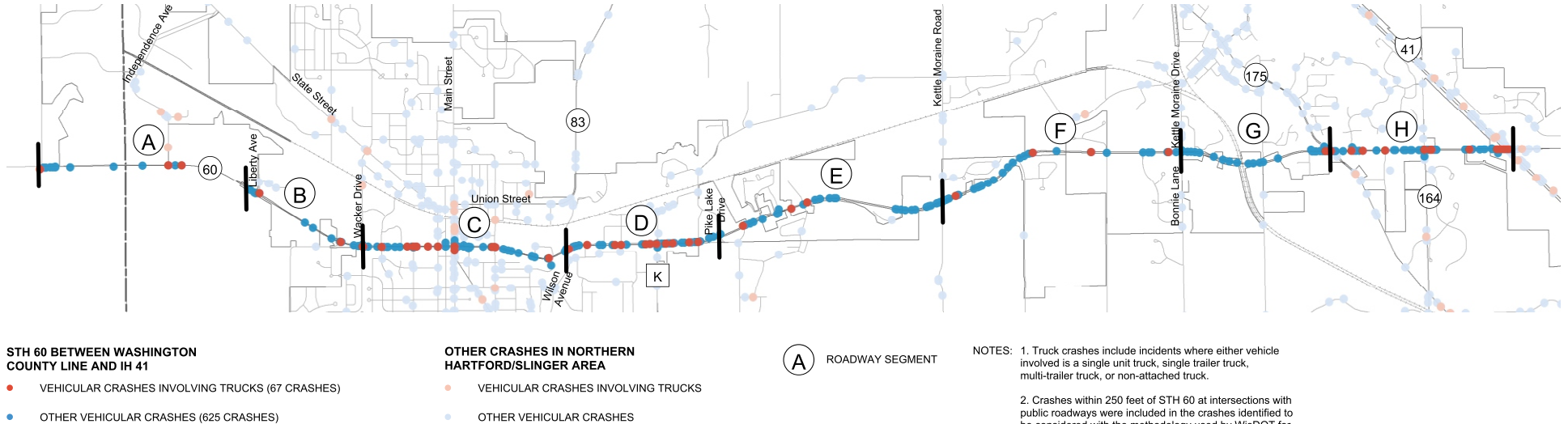
— AT OR UNDER DESIGN CAPACITY
— ABOVE DESIGN CAPACITY

● PROBLEM INTERSECTIONS IDENTIFIED BY LOCAL OFFICIALS

- Based on forecast year 2050 average weekday total traffic volumes, two additional segments of STH 60 would operate under congestion during the peak traffic times of an average weekday—between CTH K and Hilldale Drive, between Kettle Moraine Road and CTH CC, and between STH 164 and IH 41

TOTAL VEHICULAR CRASHES ALONG STH 60

TOTAL VEHICULAR CRASHES ALONG STH 60 BETWEEN THE GOODLAND ROAD AND IH 41: 2010-2014



Total Vehicular Crashes:

- Crash rates for all vehicular crashes exceed the State average for similar roadway types on STH 60 between Goodland Road and Liberty Avenue (Segment A), between Wacker Drive and Wilson Avenue (Segment C), and between STH 175 and IH41 (Segment H)
- Rates of crashes involving a fatality or observed injury exceed the State average for similar roadway types on STH 60 between Goodland Road and Liberty Avenue (Segment A), between Pike Lake Drive and Kettle Moraine Drive (Segments E and F), and between STH 175 and IH 41 (Segment H)

Crashes Involving Trucks:

- The proportion of truck crashes along STH 60 between Wacker Drive and Wilson Avenue (13 percent) and between STH 175 and IH 41 (11 percent) exceeds the proportion of trucks traveling on these segments of STH 60 (about 9-10 percent)
- There were no crashes involving both a truck and a pedestrian and only one crash involving both a truck and a bicyclist from 2010 to 2014

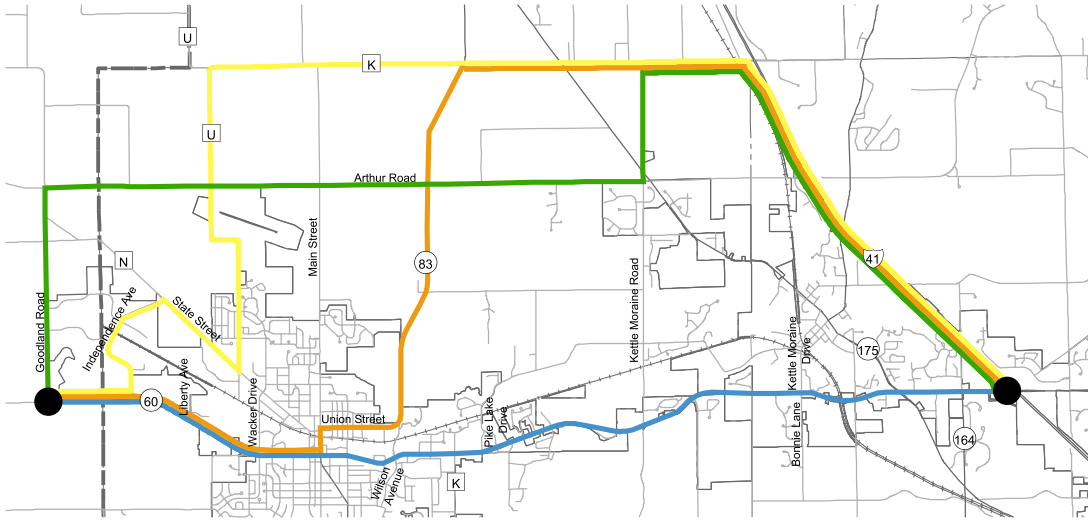
TOTAL VEHICULAR AND TRUCK CRASHES ALONG STH 60 BETWEEN GOODLAND ROAD AND IH 41: 2010-2014

Segment	Total Vehicular Crashes (All Vehicles)							
	Total Crashes		Crashes Involving Pedestrians		Crashes Involving Bicyclists		Crashes Involving a Fatality or Observed Injury	
	Total Number	Crash Rate per 100 Million Vehicle Miles	Total Number	Crash Rate per 100 Million Vehicle Miles	Total Number	Crash Rate per 100 Million Vehicle Miles	Total Number	Crash Rate per 100 Million Vehicle Miles
A	35	125.6	0	0.0	1	3.6	6	21.5
B	36	239.5	0	0.0	0	0.0	2	13.3
C	194	443.0	9	20.6	2	4.6	16	36.5
D	107	284.5	2	5.3	4	10.6	12	31.9
E	60	106.1	1	1.8	1	1.8	13	23.0
F	53	119.5	1	2.3	0	0.0	11	24.8
G	67	123.5	0	0.0	0	0.0	9	16.6
H	140	281.0	0	0.0	0	0.0	25	50.2
Total	692	210.2	13	3.9	8	2.4	94	28.6

Segment	Crashes Involving Trucks							
	Total Crashes		Crashes Involving Pedestrians		Crashes Involving Bicyclists		Crashes Involving a Fatality or Observed Injury	
	Total Number	Crash Rate per 100 Million Vehicle Miles	Total Number	Crash Rate per 100 Million Vehicle Miles	Total Number	Crash Rate per 100 Million Vehicle Miles	Total Number	Crash Rate per 100 Million Vehicle Miles
A	4	7.4	0	0.0	0	0.0	1	1.8
B	2	4.0	0	0.0	0	0.0	0	0.0
C	25	57.1	0	0.0	1	2.3	2	4.6
D	11	29.2	0	0.0	0	0.0	2	5.3
E	3	5.3	0	0.0	0	0.0	1	1.8
F	4	9.0	0	0.0	0	0.0	0	0.0
G	3	5.5	0	0.0	0	0.0	0	0.0
H	15	30.1	0	0.0	0	0.0	1	2.0
Total	67	20.4	0	0.0	1	0.3	7	2.1

COMPARISON OF EXISTING TRAVEL TIMES

TRAVEL ROUTES FOR NORTHERN HARTFORD RELIEVER ROUTE FEASIBILITY STUDY



AVERAGE TRAVEL TIMES (IN MINUTES) FOR SELECTED EXISTING ROUTES
BETWEEN GOODLAND ROAD AND THE IH 41 INTERCHANGE WITH STH 60

Route	Length (Miles)	Direction	Mid Day Travel Times
STH 60 (Blue)	9.2	Eastbound	14
		Westbound	13
Goodland Road/Arthur Road//Kettle Moraine Road/CTH K/IH 41 (Green)	13.5	Eastbound	17
		Westbound	17
STH 60/STH 83/CTH K/IH 41 (Orange)	13.7	Eastbound	16
		Westbound	16
STH 60/Independence Avenue/State Street/CTH U/Turtle Road/CTH K/IH 41 (Yellow)	15.0	Eastbound	19
		Westbound	19

- The travel time on STH 60 is affected by the level of traffic volume and congestion along the route. Congestion can result in reduced speeds between the signalized intersections or increased delay at the signalized intersections.
- The likelihood that traffic would divert from STH 60 to a northern reliever route would, in part be dependent on the travel time on the reliever route being competitive to the travel time on STH 60 (within a few minutes).

STH 60 NORTHERN RELIEVER ROUTE FEASIBILITY

STUDY GOAL, OBJECTIVES, AND CRITERIA

STH 60 is the only direct and continuous route between the Hartford and Slinger areas and currently experiences heavy truck and total traffic volumes and traffic congestion. Failure to alleviate the traffic congestion and heavy truck volumes can be expected to affect livability and safety in the Hartford and Slinger areas, and hinder economic development and expansion.

Listed below is the overall goal which a northern reliever route would attempt to address. Under the goal, a number of objectives are proposed which would measure the extent to which potential northern reliever routes may achieve this overall goal. These objectives are proposed to be used to design, evaluate, and compare northern reliever route alternatives. Under each objective, specific criteria are proposed which would measure the achievement of each proposed objective. It is unlikely that any one proposed reliever route would best meet each of the objectives and criteria. Certain objectives and criteria may be complementary; however, other objectives and criteria may be conflicting. Consideration will need to be given to a comparison of how well each proposed route achieves each objective, followed by resolution through balancing competing objectives. In addition, an overall evaluation of each alternative reliever route proposal may need to be made on the basis of cost.

Goal

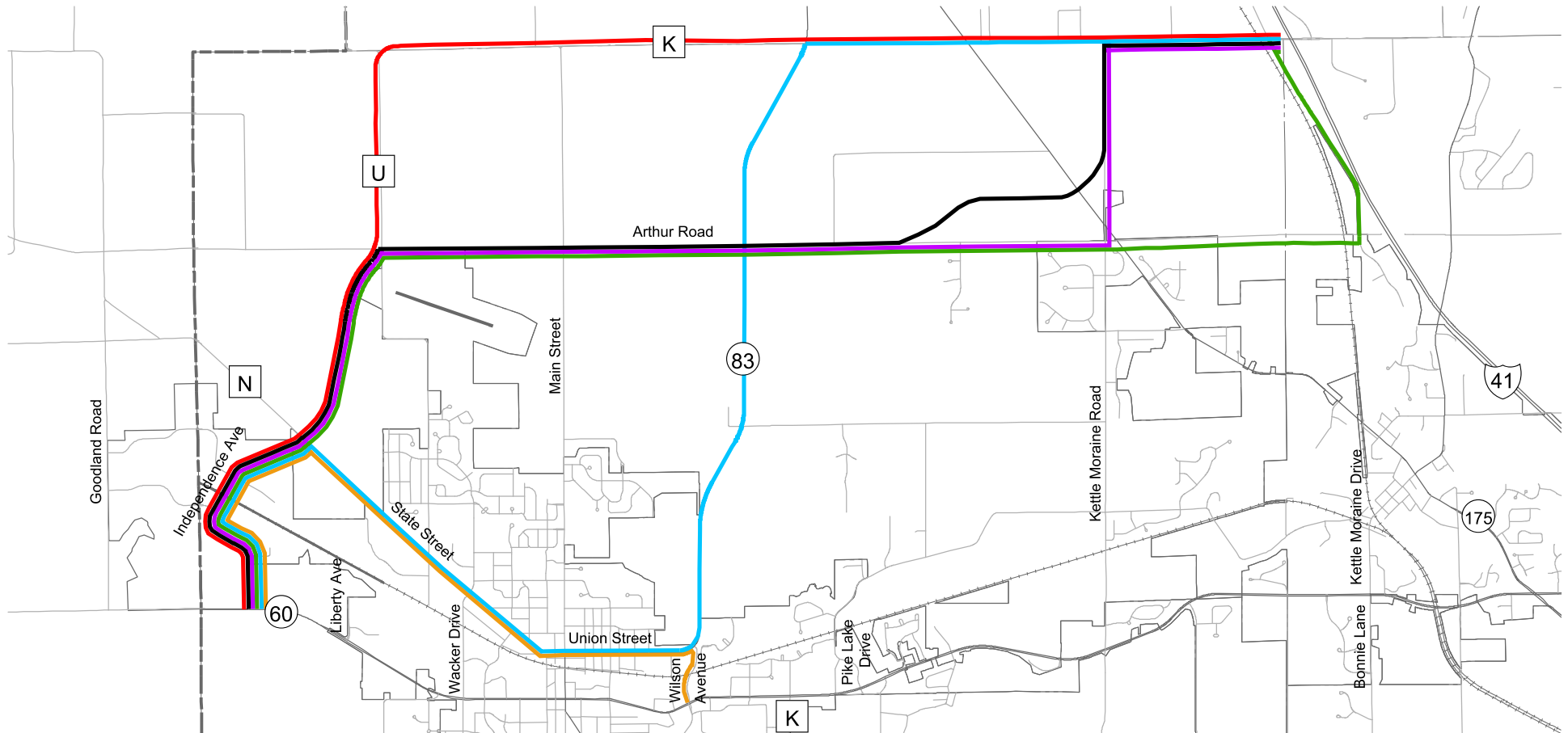
Enhance the livability and safety of the Hartford and Slinger areas, and thereby encourage continued economic development and expansion

Objectives and Criteria

- 1) **Provide Alternate Route with Comparable Travel Time to STH 60**
 - Ratio of Alternative Route Travel Time to STH 60 Travel Time
- 2) **Reduce STH 60 Traffic Volume and Alleviate STH 60 Traffic Congestion**
 - STH 60 Average Weekday Traffic Volume
 - STH 60 Traffic Congestion--Average weekday traffic volume compared to design capacity
 - Potential to divert truck traffic from STH 60
- 3) **Minimize Construction Cost**
 - Estimated Construction Cost
- 4) **Minimize Impact of Alternative Route**
 - Right-of-way Acquisitions
 - Number of Residences
 - Number of Businesses
 - Acres of Farmland
 - Total Acres
 - Number of Farms Divided by Alternative Routes
 - Residences Located Along Alternative Route

ALTERNATIVES IDENTIFIED TO DATE

POTENTIAL ALTERNATIVE NORTHERN RELIEVER ROUTES IDENTIFIED TO DATE



POTENTIAL ALTERNATIVE ROUTES

- ALTERNATIVE 1
- ALTERNATIVE 2
- ALTERNATIVE 3
- ALTERNATIVE 4
- ALTERNATIVE 5
- ALTERNATIVE 6

Thank You For Attending

Ways to Comment on STH 60 Issues and Northern Reliever Routes

- Comment cards are available at the sign-in table and on the table with the comment box. Comment cards can be handed to Commission or County staff, placed in the comment box, or mailed, faxed or emailed to the Commission:

Southeastern Wisconsin Regional Planning Commission
P.O. Box 1607
Waukesha, Wisconsin 53187-1607
Fax: 262-547-1103
e-mail: STH60Study@sewrpc.org

- Comments can be made on stick-it notes and placed on the large aerial maps at the appropriate location.
- Comments can also be made at the Commission's website: sewrpc.org/STH60Study

Remaining Steps

- Comparison and Evaluation of Alternative STH 60 Northern Reliever Routes
- Identification of Preferred Alternative STH 60 Northern Reliever Route(s) by Commission and County staff