Recommended Transportation Improvement Program

There are a total of 49 projects identified through the transportation improvement program project selection process. They have been broken into three tiers based on the prioritization goals and weights mentioned previously in **Section 3**. Most projects are concentrated in the north and east portions of the county where future development is mostly likely to be located. The following pages provide the detailed list as well as maps illustrating the project locations.

Improvements to the county's most important assets represent the top tier or priorities in the TIP. These include modernization and widening projects on I-80, important US and state routes like US 6 and IL 113, and local arterial roads like Ridge Road, McEvilly Road, and Pine Bluff Road. Improvements to key interchanges or intersections were also included such as IL 47 at I-80 and Green Acres Drive, and Ridge Road at I-80.

Projects in the second tier include several more road modernization and widening projects for local jurisdiction roads and two more for IDOT jurisdiction roadways, I-55 near the Will County line and US 6 near Seneca. Additionally, there are three new potential I-80 interchanges and intersection improvements at IL 47 and Bedford Road—which are already programmed.

Third tier projects are comprised of some road widening and several new road connections that will mainly increase mobility in the northeast quadrant of the county. There are also more unique project scopes including a new Illinois River Bridge and extending Metra to the county.

Tier 1 projects scored the highest and contain 15 proposed projects. Tier 2 is next with 16 proposed projects and is then followed with Tier 3 containing 18 projects.

15
PROPOSED PROJECTS
TIER 1

16
PROPOSED PROJECTS
TIER 2

18
PROPOSED PROJECTS
TIER 3

Section 4

Photo courtsey of Google Earth

Table 2. Transportation Improvement Program Detailed List, Tier 1 Projects

Tier	Road/Intersection	Extent	Jurisdiction	Category	Source	Map ID
1	US 6	IL 47 to Ridge Rd	IDOT	Road Widening	Stakeholders, TDM, survey	A
2	I-80	IL 47 to I-55	IDOT	Road Widening	Previous plan, ECA, TDM, stakeholders, survey	B
3	Ridge Rd/I-80 Interchange		IDOT	Interchange/Intersection Improvement	ECA, stakeholders, IA	C
4	IL 47/US 6-Green Acres Dr (north)		IDOT	Interchange/Intersection Improvement	ECA, TDM, IA, stakeholders, survey	D
5	IL 113	IL 47 to I-55	IDOT	Road Widening	Previous plan, TDM, IA, AC feedback	E
6	Ridge Rd	McEvilly Rd to Hansel Rd	County/Municipal	Road Widening	Previous plan, survey, TDM	F
7	IL 47/I-80 Interchange		IDOT	Interchange/Intersection Improvement	ECA, stakeholders	G
8	US 6	IL 47 to Saratoga Rd	IDOT	Road Widening	Previous plan, partially programmed, ECA, stakeholder	H
9	Gore Rd	Lisbon Rd to IL 47	Municipal	Road Widening	TDM	I
10	McEvilly Rd	Vista Ct to Ridge Rd	County	Road Widening	TDM, AC Feedback, survey	J
11	Lisbon Rd	Sherrill Rd to Gore Rd	County	Road Widening	Previous plan	K
12	Broadway Rd	Spring Rd to Braceville Rd	County/Municipal	Road Widening	Previous plan	L
13	Brisbin Rd/I-80 Interchange		IDOT	Interchange/Intersection Improvement	Stakeholders	M
14	McLindon Rd	Minooka Rd to US 6	Township/Municipal	Road Widening	TDM	N
15	Pine Bluff Rd/Lorenzo Rd	IL 47 to I-55	County	Road Widening	Stakeholders, TDM	O

ECA = Existing Conditions Analysis, IA = Intersections Analysis, TDM = Travel Demand Model

TIER 1 PROJECTS

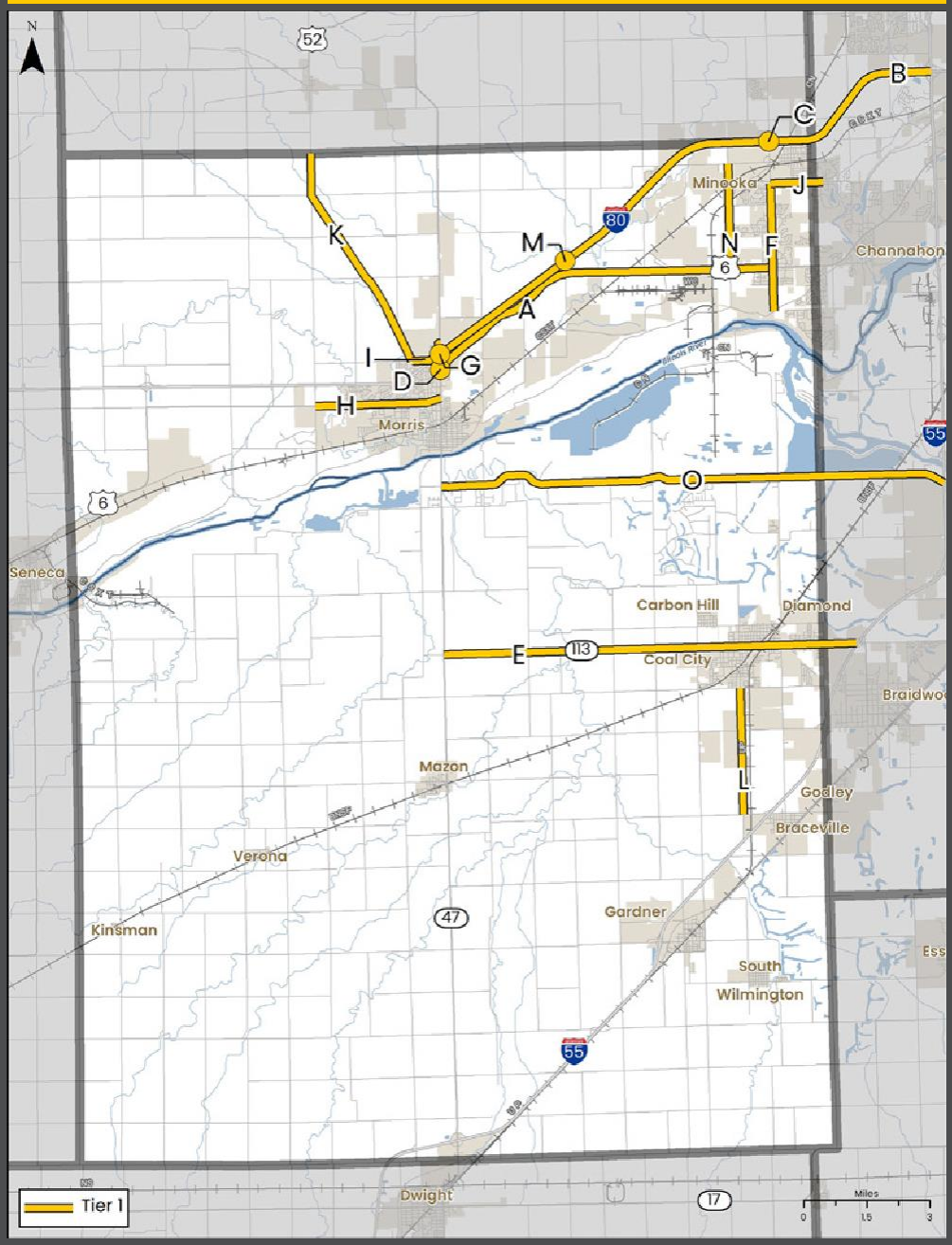

Figure 12. Tier 1 Projects

Table 3. Transportation Improvement Program Detailed List, Tier 2 Projects

Tier	Road/Intersection	Extent	Jurisdiction	Category	Source	Map ID
16	Brisbin Rd	US 6 to Bungalow Rd	Township / Municipal	New Road	AC feedback	P
17	IL 47/US 6- Bedford Rd (south)		IDOT	Interchange/Intersection Improvement	IDOT study for US 6, ECA, TDM, IA, stakeholders, survey	Q
18	Reed Rd/Jugtown Rd	IL 113 (North) to Broadway St (East)	County/Municipal	Road Widening	ECA, stakeholders, previous plan, TDM, IA	R
19	Brisbin Rd	US 6 to Sherrill Rd	County	Road Widening	Previous plan, TDM	S
20	Minooka Rd, O'Brien Rd, Sherill Rd	Tabler Rd to IL 47	County	Road Widening	AC feedback, TDM	T
21	I-55	Gardner to Will Co Line	IDOT	Road Widening	Previous plan, stakeholders	U
22	US 6/Seneca Rd	Main St (Seneca) to I-80	IDOT	Road Widening	TDM	V
23	Grainger Way	Minooka Rd to entrance to Grainger facilities	Municipal	Road Widening	Stakeholders	W
24	Tabler Rd	Minooka Rd to Nouryon	Township	Road Widening	TDM	X
25	Ashley Rd	Granville Rd to Bungalow Rd	Municipal	Road Widening	TDM, survey	Y
26	Saratoga Rd/I-80 Interchange		IDOT	New Interchange	Previous plan	Z
27	Shepley Rd/I-80 Interchange		IDOT	New Interchange	Previous plan	AA
28	Minnoka Rd/I-80 Interchange		IDOT	New Interchange	ECA, TDM	BB
29	Granville Rd	IL 47 to Ashley Rd	Municipal	Road Widening	TDM	CC
30	Dupont Rd	Gonnam Rd to Kinsman Rd	County	Road Widening	TDM	DD
31	IL 113	BNSF and UP Railroads	IDOT	Grade Crossing	ECA, stakeholders, previous plan	EE

ECA = Existing Conditions Analysis, IA = Intersections Analysis, TDM = Travel Demand Model

TIER 2 PROJECTS

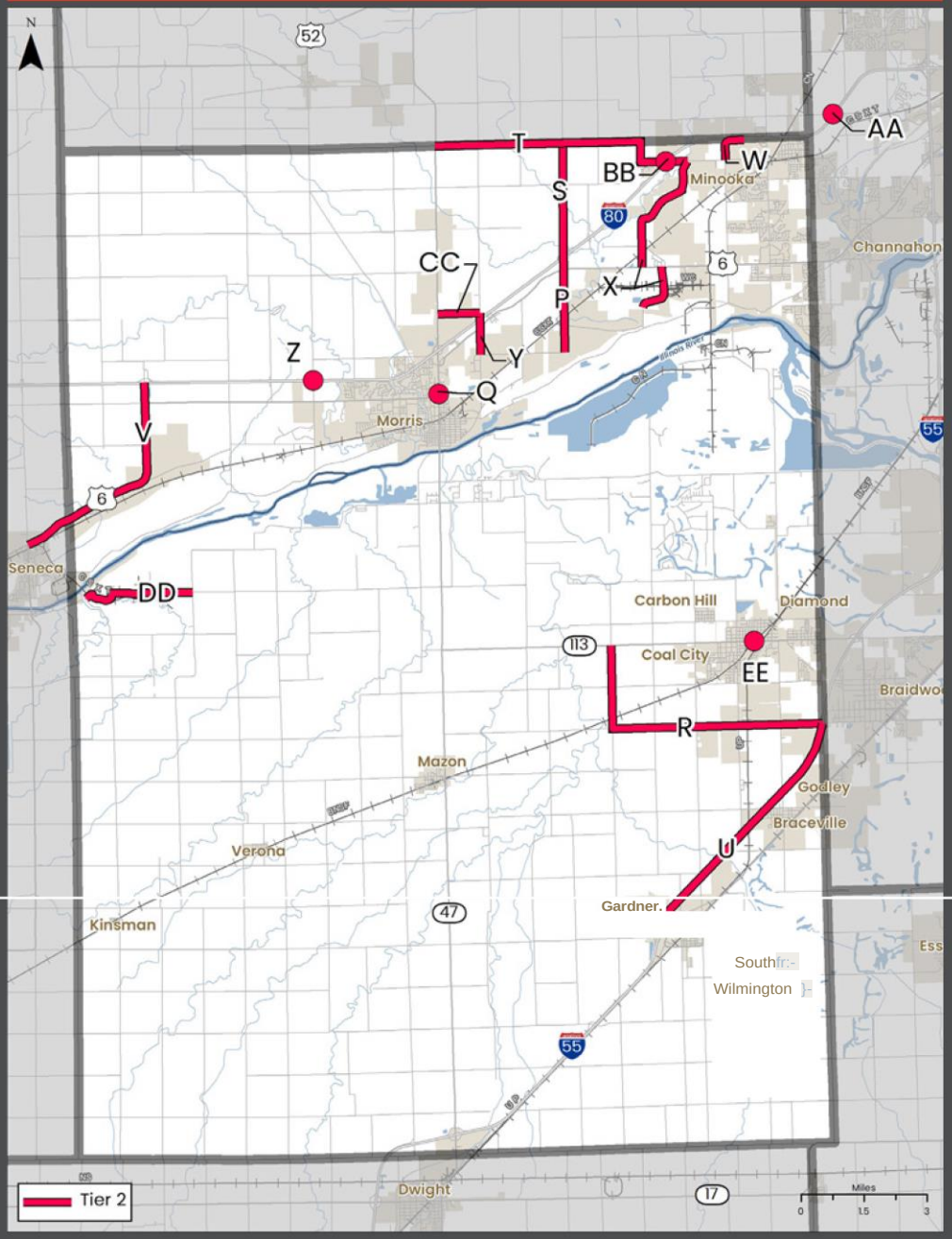

Figure 13. Tier 2 Projects

Table 4. Transportation Improvement Program Detailed List, Tier 3 Projects

Tier	Road/Intersection	Extent	Jurisdiction	Category	Source	Map ID
32	I-55	1.5 miles south and north of IL 47	IDOT	Road Widening	Previous plan, stakeholders	FF
33	Brannick Rd	Ridge Rd to McLindon Rd	Municipal	Road Widening	AC feedback, TDM	GG
34	Hansel Rd	Ridge Rd to Cemetery Rd	Municipal	Road Relocation	Previous plan	HH
35	Sand Ridge Rd Extension	US 6 to Tabler Rd	County/Municipal	New Road	Previous plan	II
36	Sherrill Rd	O'Brien Rd to Ridge Rd at I-80	County/Municipal	New Road	Previous plan	JJ
37	Grand Ridge Rd	IL 47 to School District Facility	Municipal	Road Widening	AC feedback	KK
38	Illinois River Bridge	New crossing between IL 47 and I-55	TBD	New Road	ECA, stakeholders, survey	LL
39	IL 47	Southmor Rd to IL 113	IDOT	Road Widening	AC feedback, survey	MM
40	New Road	Aux Sable Liquid Products/US 6 to Sand Ridge Rd Extension	TBD	New Road	Previous plan	NN
41	Ridge Rd Extension	Hansel Rd to Old Kerry Grove	TBD	New Road	Previous plan	OO
42	Livingston Rd Extension	Dwight Rd to Old Rte 66	TBD	New Road	AC feedback	PP
43	New Collector	Hansel Rd to McLindon Rd	County/Municipal	New Road	Previous plan, stakeholders	QQ
44	Metra Extension		Regional Transit Authority	Transit	Previous plans, survey	RR
45	Wapella St	Western terminus to Rivers Edge Dr	Municipal	Road Widening	AC feedback	SS
46	McGinty St Extension	McGinty St to Girot Ln	County/Municipal	New Road	Previous plan	TT
47	New Collector	US 6 to Bell Rd	County/Municipal	New Road	Previous plan, stakeholders	UU
48	Sherrill Rd	Roods Rd to LaSalle Rd	County	New Road	Previous plan	VV
49	Sherrill Rd	Townhouse Rd to Lisbon Rd	County	New Road	Previous plan	WW

ECA = Existing Conditions Analysis, IA = Intersections Analysis, TDM = Travel Demand Model

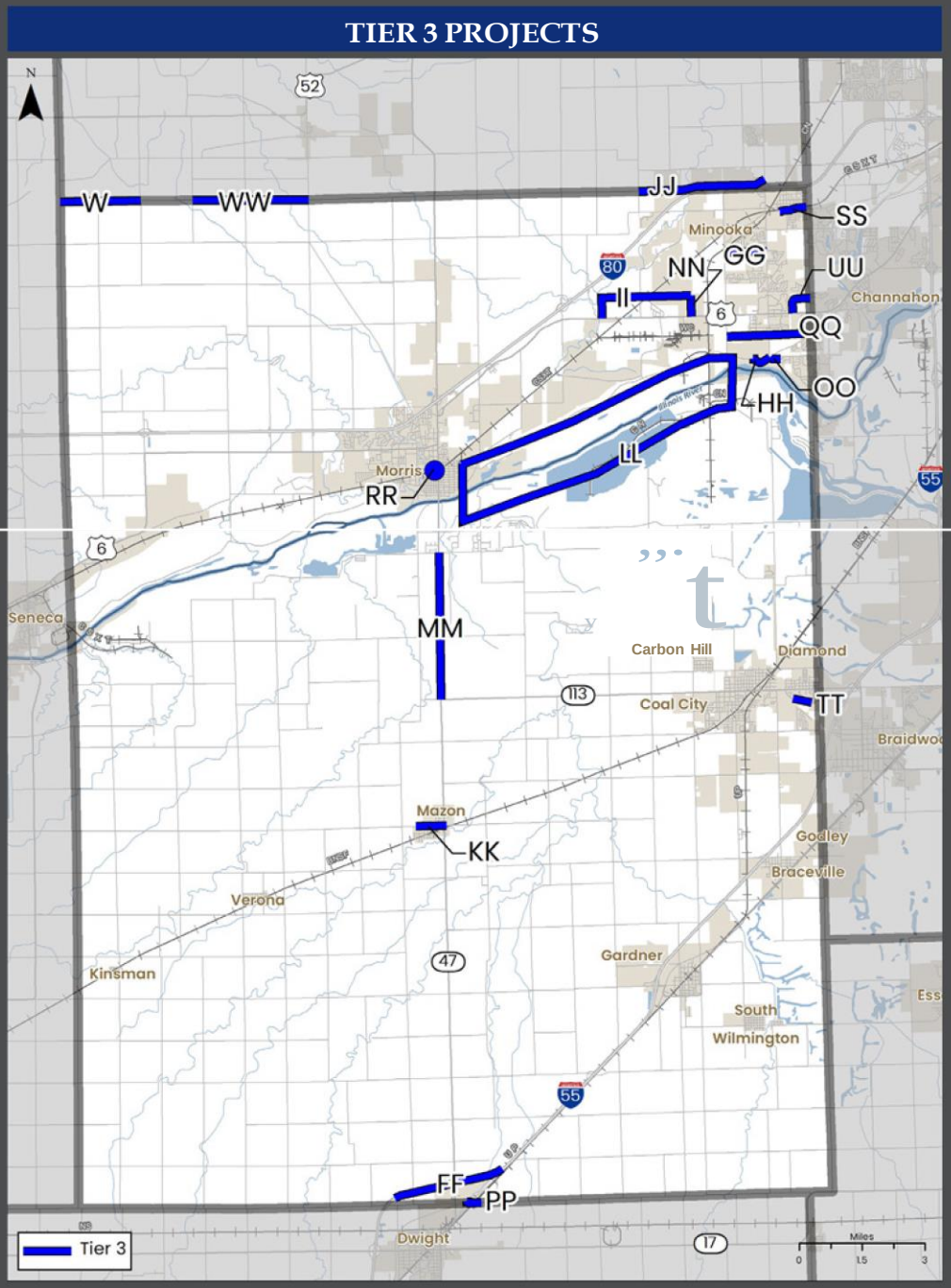

Figure 14. Tier 3 Projects

Section 5

Intelligent Transportation Systems and Emerging Technologies

This section summarizes the current state of the practice for several intelligent transportation solutions as part of Grundy Moves. The project team selected the strategies and design considerations included in this memo based on having potential relevance for Grundy County. The following sections review emerging technology strategies most relevant to this study for improving traffic operations, safety, and infrastructure design.

Strategies to Improve Traffic Operations

Corridor signals can be timed to synchronize traffic across multiple intersections and create a seamless flow of traffic along major roadways. This system ensures that green lights are timed to allow continuous traffic movement at a defined speed, reducing the frequency of stopping at multiple red lights. Unique traffic characteristics can impact the timing and programming of signalized intersections in other ways, such as clearance interval requirements and corridor progression. This tool can be applied specifically for truck traffic through freight signal coordination, which reduces truck delays at intersections by enabling dynamically adjustable traffic signal phasing and timing that assigns priority to trucks when conditions allow.

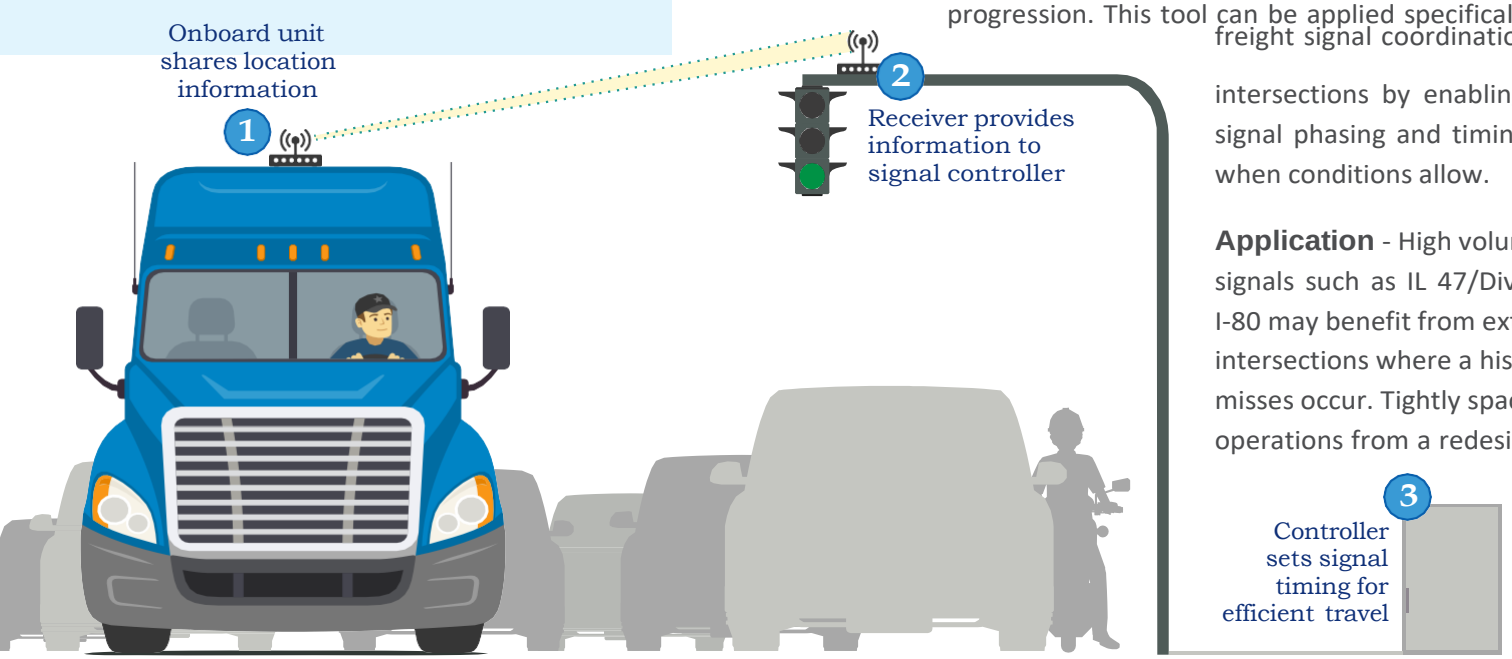

Figure 15. Communication between roadside units and on-board units for freight signal coordination

Application - High volume roadways with tightly spaced signals such as IL 47/Division Street or Ridge Road near I-80 may benefit from extended clearance intervals at intersections where a history of angle crashes or near-misses occur. Tightly spaced signals may see improved operations from a redesigned corridor progression. Freight signal coordination could also be explored in these locations as well as more industrial oriented roadways including portions of Minooka Road, Grainger Way, McLindon Road, or IL 113.

Strategies to Improve Safety

Intelligent Warning Signs

Advance Warning Signs that operate at specific times of the day are tailored to address peak traffic hours, high-incident locations, or changing weather conditions. These signs can be programmed to display messages about congestion, upcoming hazards, or recommended speeds based on real-time traffic and road conditions. By providing timely and relevant information, they are more likely to be observed and help reduce the likelihood of rear-end crashes and other accidents, especially in high-risk situations like sudden traffic slowdowns or in areas with frequent environmental changes.

Additionally, intelligent signs can be designed to prevent large commercial vehicles from using routes unsuitable for their size or weight using sensors and GPS data to identify trucks about to enter restricted routes and provide real-time warnings to re-route them.

Application - Changing traffic patterns in the study region create the opportunity for unexpected congestion and other conditions. Such conditions are common at US 6/Bedford Rd and IL 47/ Division St, and seasonal impacts occur near the Dresden nuclear power plant during refueling operations. In these cases, an elevated crash risk, particularly with rear-end crashes, could be mitigated by an intermittent warning system for congestion ahead that is activated by traffic backups or only during peak periods. There are also heavy vehicle restrictions on roadways that could also benefit from warning signs to prevent trucks from using them.

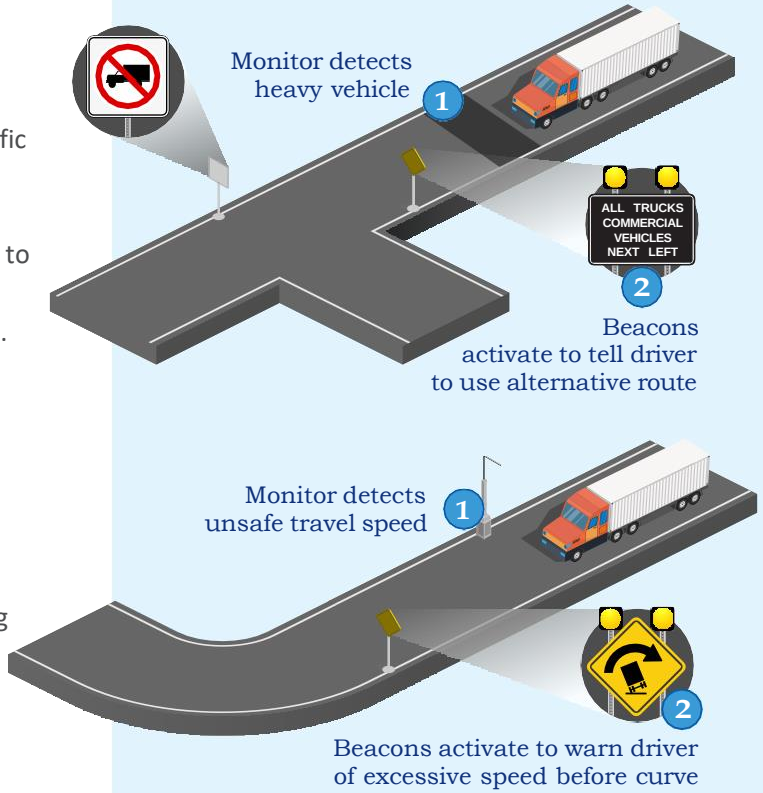

Figure 16. Intelligent Warning Sign Illustrations

Truck Parking Availability

Knowledge of available parking along freight routes is vital to safe and efficient operation of commercial vehicles. Surveys performed by the US DOT indicate that drivers prioritize maximizing driving time and distance within the mandated maximum hours of service. If adequate parking is not available or easily located when they have reached the hours-of-service limit, drivers are increasingly likely to park in an unsafe manner. This is especially pertinent for trucks with electronic logging devices that automatically disable the vehicle if the allowable hours of service are exceeded. Illinois ranks in the top quartile of states in total truck parking spaces, but ranks in the lowest quartile in spaces per truck vehicle mile traveled.[1]

Application - Interstates 80 and 55 cross Grundy County, with major freight destinations along each, including several large private travel centers. Rest areas also exist on Interstate 80, east of Morris. Dynamic message signs in advance of the rest area and exits could prove beneficial to the area by reducing commercial vehicles circulating to find parking.

[1] https://ops.fhwa.dot.gov/freight/infrastructure/truck_parking/jasons_law/truckparkingsurvey/index.htm

Figure 17. Roundabout in Kane County, IL

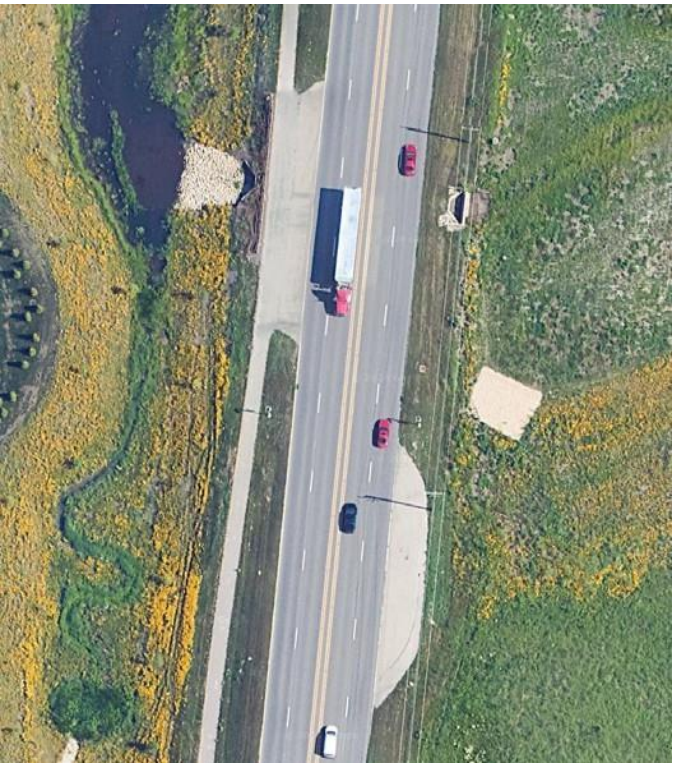

Figure 18. Truck Pullouts in Kane County, IL

Design Considerations for New Facilities

In parallel with deploying ITS solutions, it is important to consider design modifications in new infrastructure projects to enhance operational efficiency and safety further. Grundy County is developing rapidly, and with that growth comes the need to invest in new infrastructure. As the roadway network is expanded, there will be opportunity to implement new systems and design standards. Integrating these structural design elements with advanced ITS solutions creates a more comprehensive approach to transportation planning, ensuring that the technological and physical aspects of Grundy County's roadways are optimized for safety, efficiency, and future readiness.

Roundabouts

As existing facilities are widened or new facilities built in Grundy County, agencies can consider alternative roadway design options. One opportunity is the incorporation of roundabouts in strategic locations. Roundabouts facilitate smoother traffic flow, reducing the likelihood of congestion and significantly lowering the risk of high-speed collisions compared to traditional intersections. This makes them particularly effective in managing traffic in both urban and rural settings.

Truck Pullouts on Rural Roads

With the growing freight and truck traffic in Grundy County, implementing truck pullouts along key rural and arterial routes could significantly enhance road safety and operational efficiency. Truck pullouts are designated areas, typically on the shoulder of the road, where heavy vehicles and trucks can safely pull over. This feature is particularly beneficial in areas where slower-moving trucks can impede traffic flow or in zones where drivers require rest to comply with hours-of-service regulations. By providing these designated spaces, Grundy County can reduce the incidence of rear-end collisions and other traffic accidents caused by sudden stops or slow-moving heavy vehicles on the main roadway.

Other ITS Strategies

Other strategies using intelligent transportation systems explored in this study include:

- Improved Vehicle Detection Systems
- Speed Radar Signs
- Rail Crossings Blocked Warning Signs
- Traffic Management Center and Communication
- Connected and Autonomous Vehicles

Section 6

Next Steps

The Grundy County Multimodal Transportation Master Plan provides a data-driven, consensus-based list of 49 capital projects. Each implementing agency is responsible to manage project development for the improvements listed in the transportation improvement program, including the required planning and engineering studies, potential right-of-way acquisition, construction activities, and future operations and maintenance. The plan supports these implementing agencies by providing key data items, completing initial public engagement, and identifying appropriate funding opportunities.

Moreover, the core stakeholder group convened as part of the *Grundy Moves* initiative can continue to play an active role in advancing the priority projects in the TIP. In addition, the regional consensus provided by *Grundy Moves* is an asset when competing for federal and state funding opportunities. Close working relationships among stakeholders facilitates coordination with the Illinois Department of Transportation and among local agencies as project development gets underway.

Future study can provide greater insight into the topics introduced in this plan. Over the course of the study, the Advisory Committee identified the need for a separate countywide bicycle and pedestrian plan. Further, a standalone intelligent transportation systems study could develop tailored recommendations for communities by developing a common data architecture and deployment plan. The development of a regional grant strategy could provide guidance and support for implementing agencies.

Given the rapid pace of change in Grundy County, the recommendations in this plan could be revisited and updated on a regular basis. Future updates would ensure that the plan evolves with the changing development patterns, emerging technologies, and new travel patterns. The *Grundy Moves* initiative, including its analytical approach, stakeholder relationships, and implementation tools, provides a strong foundation for the region to proactively shape its future.

PREPARED BY

CDM Smith

IN CONSULTATION WITH

ANN L. SCHNEIDER
& ASSOCIATES LLC
Premier Transportation and Government Consulting