

## PURPOSE AND NEED

### 1.1 Project Background

The Eastern Will County Freight Mobility Corridor Study (EWC Study) is a Planning and Environmental Linkages (PEL) study initiated due to community concerns regarding growth in truck traffic from the high density and continuing influx of warehousing, distribution centers, and associated freight activity in Will County. Traffic analysis demonstrates that the county road network has gaps in continuous east-west movement between IL 394 and IL 50, with only short discrete segments designated as truck routes. Population and economic growth in Will County have continued steadily, with a sharp increase in transportation, warehousing, and intermodal facilities that have increased freight volumes in and through the county. In 2015, trucks carried \$282 billion in goods through Will County. Multimodal freight volumes in Will County could reach nearly 600 million tons valued at about \$1.2 trillion by 2040<sup>1</sup>.

Will County's largest employer and freight mover is Amazon, which recently built fulfillment centers in Monee, University Park and Matteson, in or adjacent to this study area. The increased freight traffic in eastern Will County was introduced without accompanying improvements to the county transportation network or a supporting designated truck route network. This has led to uncontrolled freight movements on roads that were not designed to support significant truck travel, truck traffic occurring where it is incompatible with land uses, community safety, and freight mobility constraints in the local transportation network. These issues have become a decision factor in continued job growth, economic development, and population growth if transportation needs are left unaddressed.

The Will County Division of Transportation (WCDOT), the communities of eastern Will County (Crete, Monee, Beecher, Peotone, University Park, and Steger), and other stakeholders have been discussing the appropriate location for an east – west designated truck route for more than two decades, leading to the grassroots genesis of this study. These communities and the County identified existing potential routes for a freight corridor; however, these routes are not currently built to appropriate standards for heavy truck utilization.

The PEL process represents a collaborative and integrated approach to transportation decision-making that considers environmental, community, and economic goals early in the transportation planning process, and uses the information, analysis and products developed during planning, to inform the subsequent environmental review process. The PEL is anticipated to be adopted or incorporated by reference into the project's future National Environmental Policy Act (NEPA) documentation (23 USC 168).

Will County's Will Connects 2040 Long Range Transportation Plan (LRTP) highlights two large transportation projects in eastern Will County, the Illiana Expressway and the South Suburban Airport (SSA), that, in addition to increasing freight-related developments, could further change the complexion of the study area. The Illiana project, linking I-55 near Wilmington to I-65 in Indiana, would play a major role in supporting the transportation and logistics industry in Will County, improving regional east-west mobility and accessibility, and offering an alternative

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<sup>1</sup> Will County Community Friendly Freight Mobility Plan <https://www.willcountyfreight.org/>

route for truck traffic on I-80. However, the Illiana project has not advanced beyond initial planning by Illinois and Indiana. The LRTP recognizes that, without the Illiana, much of the existing and projected truck traffic must use county and local roadways, which do not offer the same high-quality mobility as an Interstate facility. The LRTP also states that the SSA, located southeast of Monee and southwest of Crete, would offer a commercial alternative to Chicago O'Hare and Midway airports. The SSA project would include a new interchange with I-57 that would also interchange with IL 50 and offer new routes to local and regional freight traffic as well as airport access. The 2040 plan also identifies University Parkway, Exchange Street and IL 1/394 in eastern Will County as freight routes where 2040 truck volumes will exceed 3,000 a day, and I-57 as a freight corridor where 2040 truck volumes will exceed 8,500 a day.

In addition to the Illiana and SSA projects, other eastern Will County projects evaluated in the LRTP include the following in order of their weighted score. Some of the projects overlap as they represent different project limits:

- I-57 from Wilmington-Peotone Road to I-80 (2.30)
- Manhattan-Monee Road from US 45 to I-57 (2.15)
- Manhattan-Monee Road from I-57 to Center Road (2.10)
- Exchange Street from Western Avenue to State Line Road (1.80)
- I-57 from Manhattan-Monee Road to I-80 (1.80)
- Manhattan-Monee Road Extension from IL 50 to Crete-Monee Road (1.65)
- Pauling-Goodenow Road from IL 50 to Plum Creek near IL 1 (1.65)
- IL 1 Beecher Bypass from Goodenow Road to Corning Road (1.55)
- Will Center Road from County Line to Crete-Monee Road (1.50)
- IL 394 from US 30 to IL 1 (1.45)
- Metra Electric District improvements (1.25)\*
- Manhattan-Monee Road from Crete-Monee Road to State Street (1.15)
- Metra Electric Extension Peotone to Monee (0.95)\*
- Metra SouthEast Service Balmoral Park to Chicago (0.85)\*
- South Suburban Airport Access IL 50 to SSA terminal (0.80)
- South Suburban Airport Access I-57 to IL 50 (0.80)
- South Suburban Airport Access IL 50 to Airport Access Road (0.80)

\*Transit project (all others are roadway projects)

The Will County Community Friendly Freight Mobility Plan (Freight Mobility Plan), approved in September 2017, identifies and provides guidance for local freight policies, programs and investments, while also creating a mechanism for evaluating and prioritizing freight-related projects. Potential projects are identified by Tiers, with highest-ranking projects in "Tier 1" and lower priority projects in lower tiers. Within or near the EWC Study Area, the following projects are identified in the Freight Mobility Plan.

- I-57 Monee-Manhattan Interchange (Tier 1)
- I-57 Add Lanes from Wilmington-Peotone Road to I-80 (Tier 1)
- IL 50 Intersection at Dralle Road (Tier 1)
- IL 50 Intersection at Governor's Highway (Tier 1)

- Manhattan-Monee Road Add Lanes from Center to I-57 (Tier 1)
- Crete-Monee Road Overpass over UP/CSX (Tier 2)
- Wilmington Peotone Road Interchange at I-57 (Tier 3)
- Pauling-Goodenow Road Improvements from IL Route 50 to Plum Creek (Tier 3)
- South Suburban Airport Access at IL 50 (Tier 4)
- South Suburban Airport Western Airport Access (Tier 4)
- Pauling Goodenow Road Bridge Over Plum Creek (Tier 4)
- Illiana Corridor New Road (Tier 4)
- Beecher Bypass from IL 1/Goodenow Road to Corning Road (Tier 4)

It is noted that the Freight Mobility Plan did not identify potential mainline improvements to Crete-Monee Road.

The genesis of the EWC Study was the elected officials in eastern Will County bringing WCDOT's attention to the issues of increasing truck traffic, a lack of east-west through routes, less than ideally designed routes for trucks, and unauthorized truck traffic on routes with posted weight limits. In turn, WCDOT initiated this study to identify potential improvements to alleviate the issues identified by the Eastern Will elected officials.

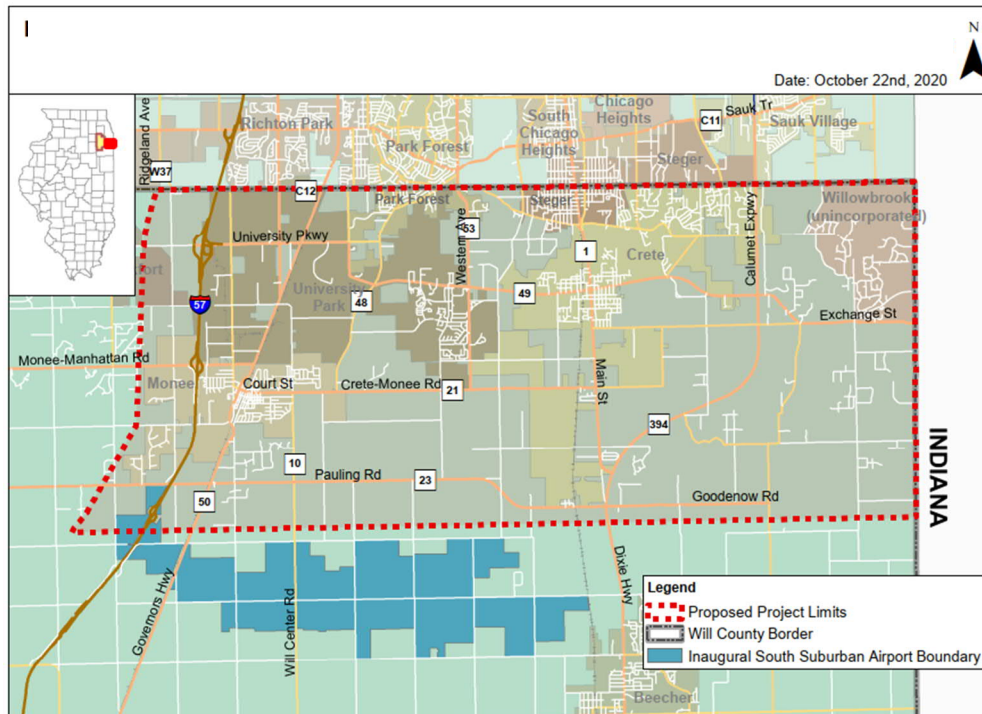
## 1.2 Study Area and Logical Termini

WCDOT is responsible for the existing county roadway network and has sponsored the EWC Study to evaluate what can be accomplished within that network. As termini are evaluated, there are some multi-jurisdictional areas that transition from Will County to other agencies. It is anticipated that the study team will primarily evaluate county highway improvements, but may also consider roadway elements outside of county jurisdiction but of benefit to the impacted stakeholders if improved.

### 1.2.1 Study Area

The EWC Study Area is defined as the Will/Cook County line to the north, the Indiana state line to the east, north of the SSA inaugural airport boundary on the south, and west of I-57 on the west.

## EWC Study Area



### 1.2.2 Logical Termini

The logical western terminus of the project is I-57, the major north-south interstate corridor of eastern Illinois, which terminates at the Dan Ryan Expressway (I-94) in Chicago at its north end and I-55 in Sikeston, MO at its south end. I-57 is one of four interstate routes that passes through Will County. I-57 is the busiest truck route in the EWC Study Area, carrying 1,054 Single-Unit (SU) and 7,354 Multiple-Unit (MU) trucks per day north of the Monee exit. By 2050, truck traffic is projected to reach 1,530 SU and 9,344 MU trucks per day at the same location.

The logical eastern terminus of the project is the north-south IL 1/I-394 corridor; IL 394 terminates at its junction with IL 1 south of Crete, connects to the I-80/94 Kingery Expressway junction in unincorporated Cook County, and is a 4-lane expressway with at-grade intersections south of US 30 and full access control from US 30 to the Kingery Expressway. South of the IL 394 junction, IL 1 is a north-south 2-lane other principal arterial highway that serves eastern Illinois communities near the Indiana border and terminates near the Ohio River at Cave-in-Rock in southern Illinois. IL 1 was a part of the "Dixie Highway" system that connected the upper Midwest to Florida through a combination of routes prior to the development of the Interstate highway system. IL 1 was also part of a Supplemental Freeway system conceived in the late 1960s by the state of Illinois but was not developed as a freeway or expressway south of the IL 394/IL 1 junction. IL 394 is the second busiest truck route in the EWC Study Area, carrying 365 SU and 1,123 MU trucks per day north of the IL 1 junction. By 2050, truck traffic is projected to reach 560 SU and 1,540 MU per day at the same location.

### 1.3 Regional Planning Context

The project lies entirely within the Chicago Metropolitan Agency for Planning (CMAP) planning area boundary. On October 10, 2018, CMAP adopted its ON TO 2050 comprehensive plan, utilizing a year 2050 long range planning horizon; accordingly, the EWC Study will use a 2050 planning horizon for consistency with the adopted regional plan. According to ON TO 2050, Will County is anticipated to grow in population from 687,252 in 2015 to 1,073,023 in 2050, and in employment from 204,622 in 2015 to 361,477 in 2050. The CMAP 2050 plan also identifies transportation projects that are needed to accommodate the shifting and growing needs of its 7-county planning region.

Regionally significant projects in the CMAP transportation plan are identified as either “constrained” or “unconstrained”. The plan includes a relatively small number of constrained regionally significant projects as priorities and recommends further study of others that are classified as “unconstrained.” Only constrained projects are eligible to receive federal transportation funds and obtain certain federal approvals.

Within or near the EWC Study Area, the following projects are identified as regionally significant projects in the CMAP ON TO 2050 plan<sup>2</sup>:

#### Expressways:

- I-57 from I-80 to the Will/Kankakee border, RSP 35. Only the reconstruction portion of the project, to essentially replace the existing facility in-kind with no lane additions, is identified as constrained.
- I-80 Managed Lanes (US 30 to I-294, RSP 37. This project envisions adding capacity with the addition of tolled managed lanes and consideration of truck-only lanes, and would serve along with a project directly to the west, Western I-80 Reconstruction and Mobility Improvements (Ridge Road to US 30), RSP 36, to improve operations across the entire I-80 corridor.
- I-294/I-57 Interchange Addition, RSP 22. This improvement adds additional movements to an interchange where, prior to 2014, it was not possible to directly access between the routes.

#### Transit:

- Metra Rock Island Improvements, RSP 70. This project will improve rail freight movement through the region, provide capacity for additional express service, reduce congestion, and improve access at Union Station.

#### Arterial Projects:

- Laraway Road from US 52 to Harlem Avenue, RSP 55. Provides an upgraded roadway to accommodate growth in the corridor.
- Wilmington-Peotone Road from IL 53 to Drecksler Road, RSP 56. Improves freight movement and provides economic benefits.

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<sup>2</sup> CMAP Regionally significant projects, <https://www.cmap.illinois.gov/2050/mobility/regionally-significant-projects>

## Unconstrained Projects:

- Illiana Expressway, a proposed limited access highway connecting I-55 in Will County, IL and I-65 in Lake County, IN south of the EWC Study Area.
- Metra Electric improvements, which would address state of good repair and integrate more closely with CTA's fare system.
- Metra Rock Island RER projects, which would convert the Metra Rock Island service from diesel to electric operation and provide higher frequency service.
- STAR Line, a new Metra service that would use the ex-EJ&E CN railroad corridor as far east as Lynwood to provide a circumferential transit service from the south, west and northwest suburbs to O'Hare airport.

### 1.4 Project Need

Existing and future travel demand within and near the EWC Study Area is driven by growth in the intermodal and freight industry, population, employment, and commuter traffic, especially in the I-57 corridor. The ability for the existing transportation network to accommodate these demands is strained as these travel demands increase. The I-80/US 30 corridors are projected to be widened to their ultimate footprint by 2050, and the travel demands are shifting significantly south of these vital links.

With its prominent role as home to North America's largest inland port and its centralized location bound and traversed by I-55, I-80, I-355, and I-57, Will County emerged as a prominent freight intermodal and logistics center more than fifteen years ago, especially for the transfer of containerized rail freight of domestic and international origin for distribution by local and long-distance trucking as well as collection of bulk products for domestic and international export via rail. Within and near the EWC Study Area, businesses such as the new Amazon fulfillment centers built or planned in Monee, University Park and Matteson, as well as other large warehousing, manufacturing and logistics businesses have located around the Monee and Stuenkel Road/University Parkway interchanges along I-57 in northeastern Will County.

A transportation system improvement(s) is needed in the EWC Study Area to address the following needs:

- Improve Freight Mobility Deficiencies Due to a Lack of Continuous East-West Freight Routes
- Accommodate Growth in Local and Regional Freight Traffic
- Alleviate Roadway Safety Deficiencies for Freight and Other Users

These needs are developed in more detail as described below.

#### 1.4.1 Improve Freight Mobility Deficiencies Due to a Lack of Continuous East-West Freight Routes

The EWC Study Area does not have the required roadway network to accommodate this growth in local and regional truck traffic. Although there are three major north-south 4-lane routes traversing the EWC Study Area (I-57, IL 50 and IL 394), the EWC Study Area does not have any through east-west routes between I-57 and the IL 1/IL 394 corridors. The nearest continuous routes that will accommodate legal load trucks are Sauk Trail and US 30 to the north in Cook County, and the Wilmington-Peotone/IL 50/Peotone Beecher Road combination to the south.

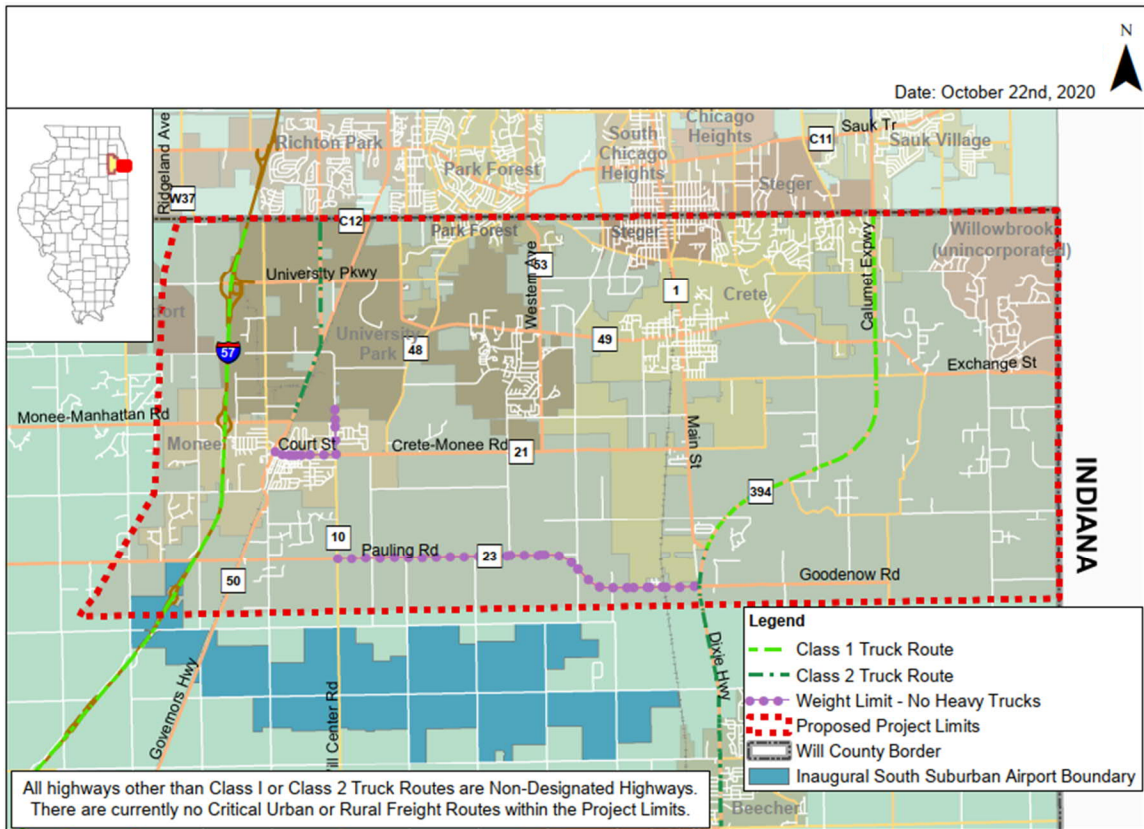
Within the EWC Study Area, there are many east-west 2-lane roads, but only a handful do not have a weight limit restricting heavy trucks. In general, trucks traveling from IL 50 to the east from the Monee area are restricted to either a route utilizing IL 50 to the south, Pauling Road to the east, Will Center Road (CH 10) to the north, and Crete-Monee Road (CH 21) to the east; or else they would have to travel further to the north along IL 50 to access Sauk Trail or US 30 in Cook County, or to the south along IL 50 to access Peotone Beecher Road. Likewise, trucks traveling west from the Crete area do not have a direct route to the east and would either need to access Exchange Street to the west, Western Avenue to the North, and either Sauk Trail or US 30 to the west, or go south to Beecher on IL 1 and access Peotone Beecher Road to the west to connect to IL 50 or I-57.

Stakeholder Comments:  
Lack of Continuous East-West Freight Route

Midwest Truckers Association  
Trucks travel along Manhattan-Monee Road from Joliet, then have no way to travel past I-57 on that route. This leads to freight travel on unauthorized roads in eastern Will County.

Will County Center for Economic Development  
A big reason [the site] is not being developed is lack of east-west connection.

## Existing Truck Routes within the EWC Study Area

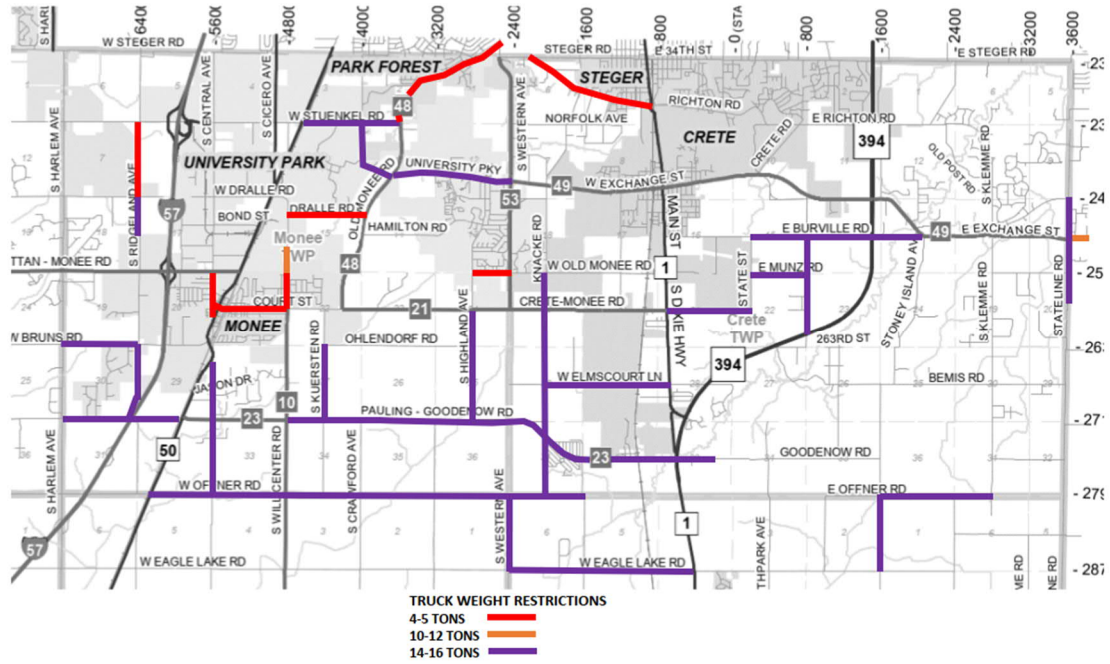


### 1.4.2 Accommodate Growth in Local and Regional Freight Traffic

The existing EWC Study Area roadway network accommodates a mixture of automobile, SU and MU truck traffic. However, larger SU and all MU vehicles are restricted from a substantial portion of the network. The exhibit below shows that there are several north-south highways with no weight restriction (such as I-57, IL 50, Western Avenue, IL 1 and IL 394) but few similar east-west highways (Crete-Monee Road, Exchange Street, and a short portion of Pauling Goodenow Road), and none are continuous between the I-57 and IL 1/394 termini. In addition, there is no highway that can legally accommodate a >16ton vehicle crossing the Illinois/Indiana state line within the EWC Study Area; the nearest compatible crossings are Sauk Trail, a Cook County highway approximately one mile north of the EWC Study Area, and IL 17/IN 2, approximately nine miles south of the EWC Study Area.

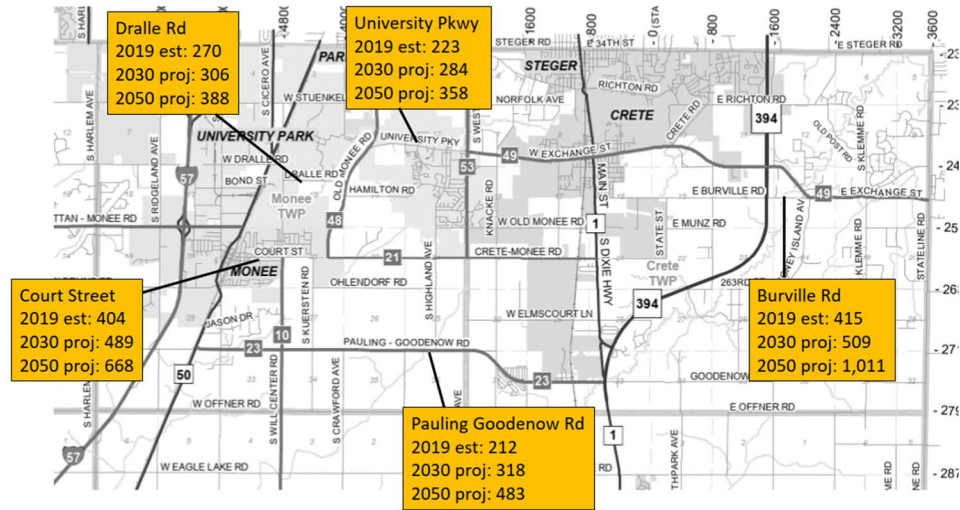


## Current Weight Limits on Selected EWC Study Area Highways



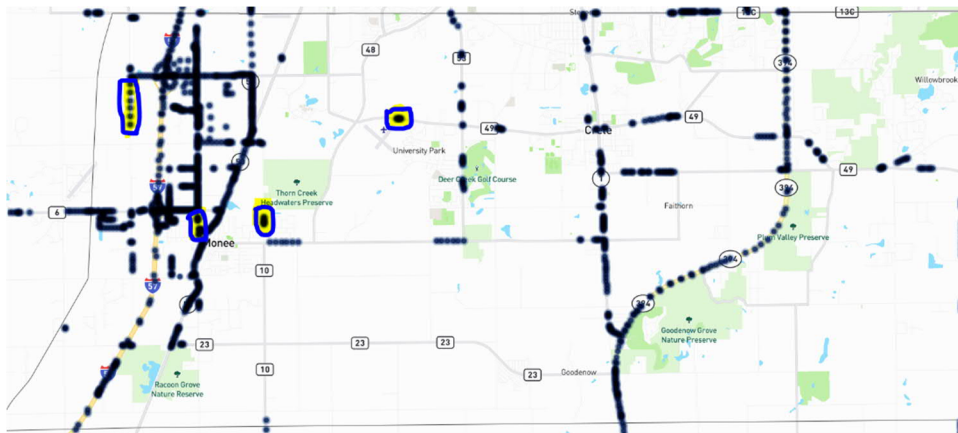
Despite the posted weight limits on various highways within the Study Area, there is evidence of larger multiple-unit (MU) trucks utilizing these routes. Below is a map showing selected east-west routes with postings of 16 tons or less, with the 2019 estimates (based on recent traffic counts) and traffic model projections of the 2030 and 2050 MU truck volumes in a “do nothing” scenario (no additional improvements and no additional weight enforcement measures).

## Daily MU Truck Counts and Projections on Selected ≤16 Ton Posted Highways



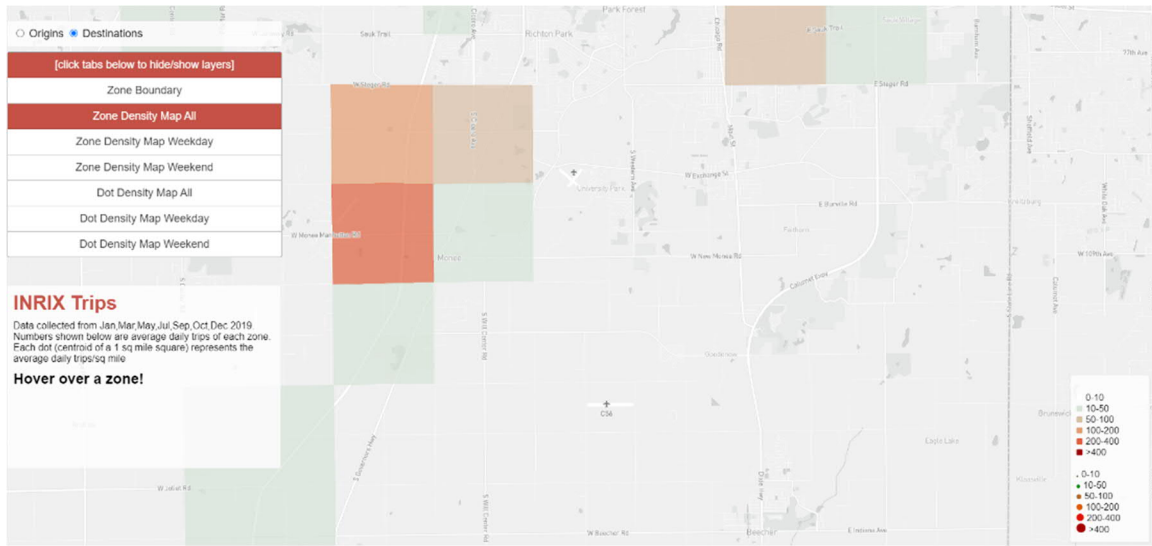
Further evidence of overweight trucks on local roads in the study area is found in the INRIX truck GPS traces that were analyzed for this study. The map below shows the intensity of medium and heavy truck trips for a single representative weekday in March 2019. Locations with unauthorized truck activity are highlighted and circled in blue.

### Sample INRIX Truck GPS Locations from Representative Weekday in March 2019



INRIX data from 2019 was processed and origins and destinations were summed to the traffic analysis zones covering the study area. The map below shows the density of truck destinations captured by the INRIX data. The I-57 corridor between Monee and University Park contains a heavy concentration of truck destinations.

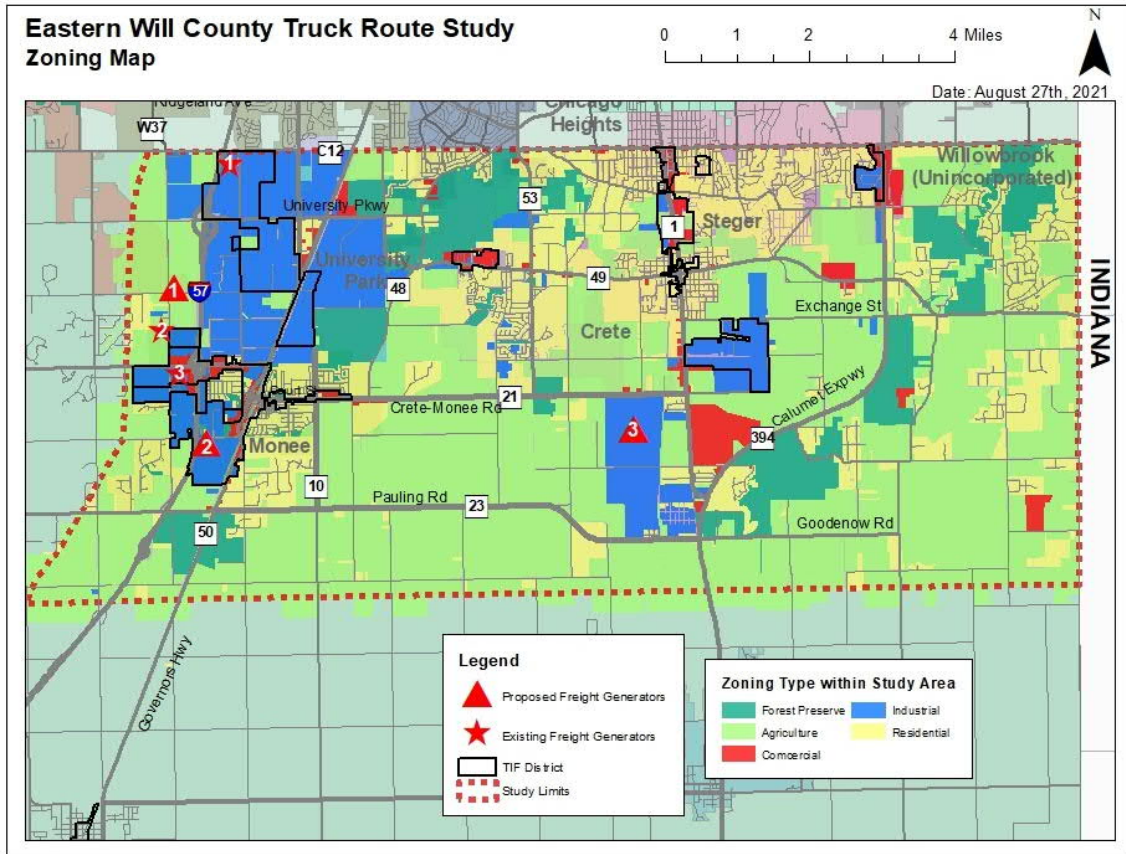
## INRIX Data – Density of Truck Destinations



**Future Congestion:** In addition to the truck activity, the overall traffic congestion in the study area is projected to worsen by 2030 and beyond, as a result of increased land use devoted to warehouse and also residential development.

**Changing Land Uses:** As stated previously, several existing and potential land use changes are occurring in the EWC Study Area, much of which are driven by growth in the logistics industry. In the map below, the blue areas represent currently zoned industrial uses. The EWC Study interviewed municipalities, economic development and planning organizations, and Amazon to determine future growth patterns including employment and population, which in turn would lead to changes in transportation demand. In addition to the existing and under construction Amazon fulfillment centers in Monee, University Park, Matteson and Markham, other potential developments, primarily in the University Park/Monee area, were considered in estimating growth. It is noted that growth from the proposed CSX Intermodal facility in Crete was not considered, since its planning was determined by the EWC Study to be in a dormant state. CMAP's population and employment projections for an inaugural SSA airport were included in conformity with their Go To 2050 long range transportation plan. These modeling inputs were reviewed with CMAP, which agreed in March 2021 that the EWC Study methodology used to estimate future freight traffic growth in Will County was sound.

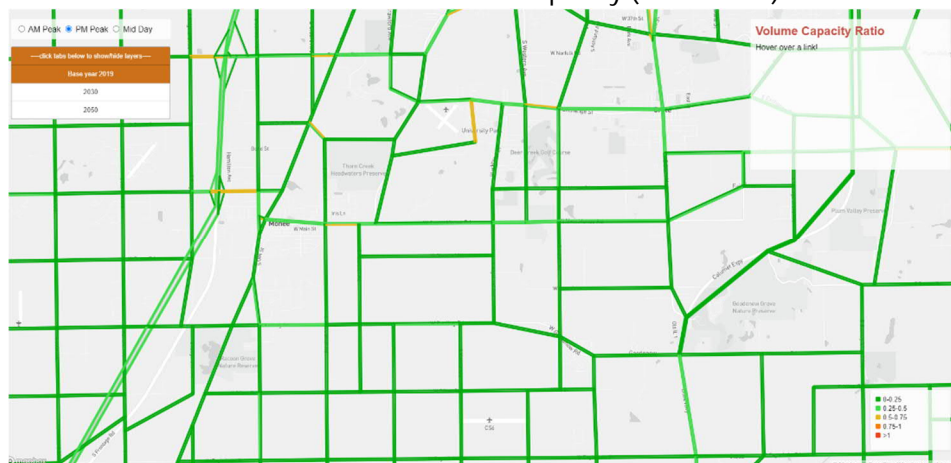
Current Zoned Land Uses in the EWC Study Area  
 Showing Major Existing and Potential Freight Generators



Travel Demand Projections: The travel demand model was used to produce the following maps of volume-to-capacity ratios, which show the degree of congestion.

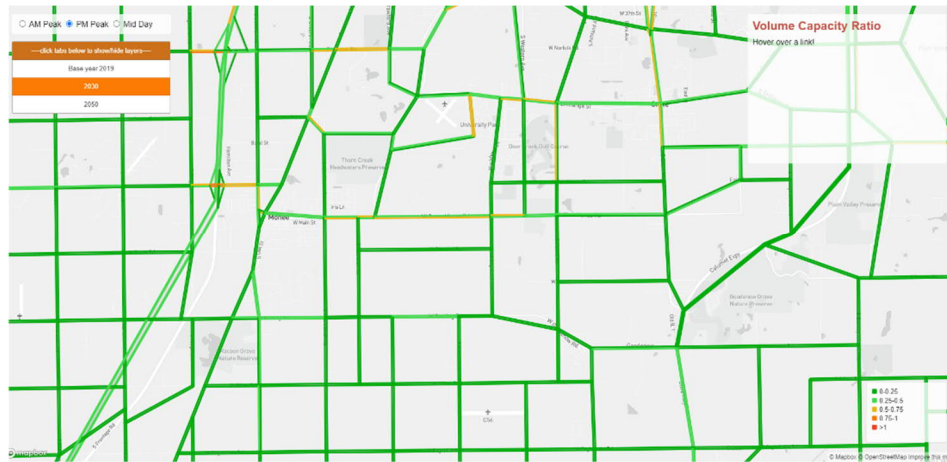
2019: The 2019 (base year) model shows very limited congestion, mostly limited to immediate surroundings near I-57 interchanges. Volume-to-capacity ratios are mostly below 0.5 in the PM peak time period (4-6pm).

2019 Base Year Volume-to-Capacity (all vehicles)



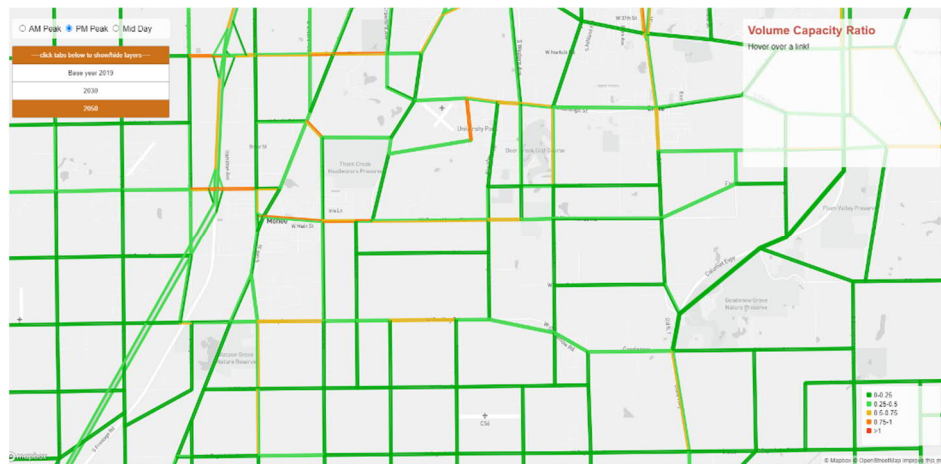
2030: Looking at the PM peak time period in 2030, we see congestion getting worse along Crete-Monee Road and University Parkway.

2030 Projected Volume-to-Capacity (all vehicles)



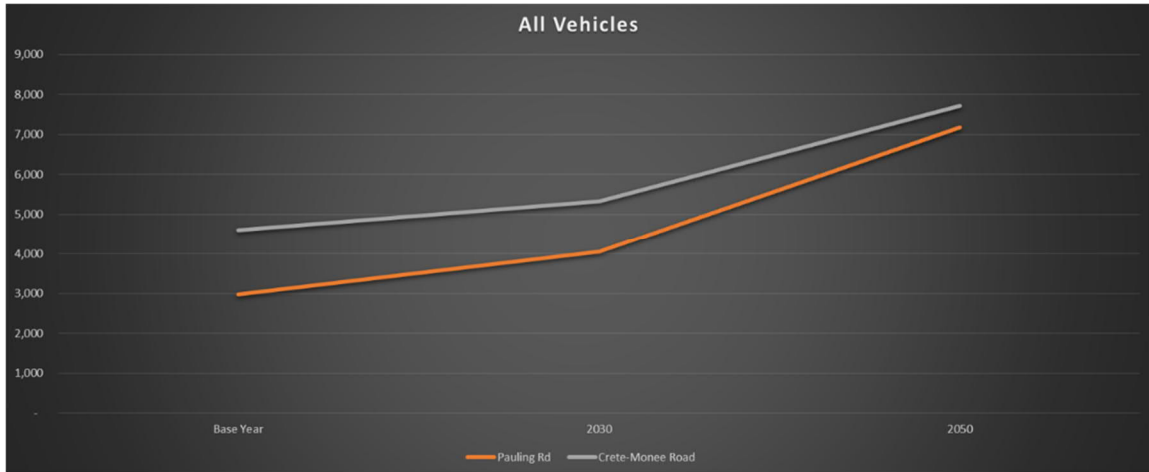
2050: By 2050, PM peak congestion has spread to Pauling Goodenow Road and multiple locations in the EWC Study Area.

2050 Projected Volume-to-Capacity (all vehicles)

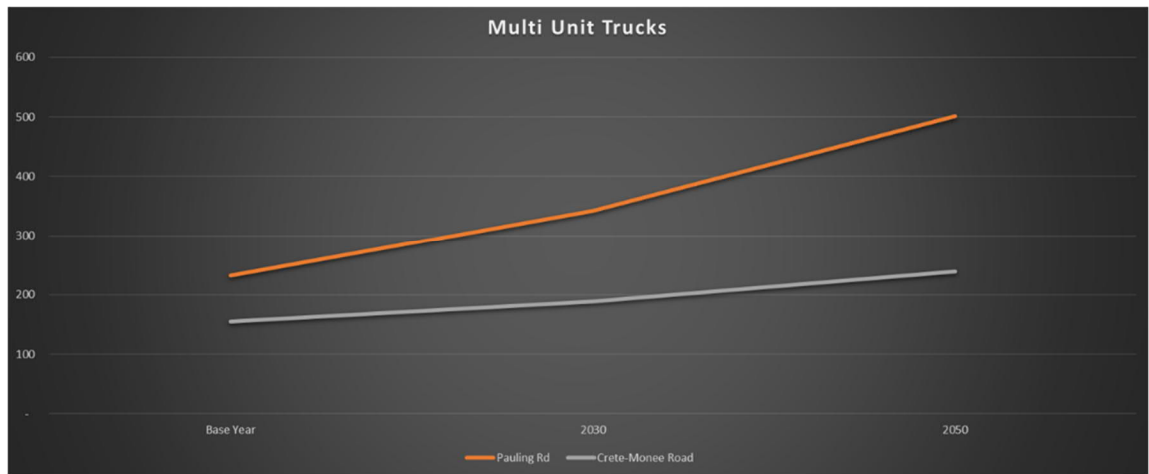


Truck vs. Auto Growth: Pauling Goodenow Road and Crete-Monee Road stick out as areas of concern for growing congestion in future years as planned economic development occurs. The following two charts show the traffic growth for all vehicles and MU trucks for just these two roads for 2019, 2030, and 2050. The biggest driver of traffic growth is projected to be private automobiles. While MU truck traffic growth will continue on Crete-Monee Road, it is projected to be outpaced by growth on Pauling Goodenow Road.

2019-2050 Projected Traffic Growth  
Crete-Monee and Pauling Goodenow Roads (all vehicles)



2019-2050 Projected Traffic Growth  
Crete-Monee and Pauling Goodenow Roads (MU Trucks)



1.4.3 Alleviate Roadway Safety Deficiencies for Freight and Other Users

Pavement Structure/Weight Limits: While subsurface pavement investigations have not yet been undertaken, several factors are known. Crete-Monee Road is classified as a Minor Arterial from IL Rt. 50 to IL Rt. 1. East of IL 1, it is a Minor Collector. Pauling Goodenow Road is classified as a Local Road. It is assumed they were constructed to different standards.

Stakeholder Comments:  
Accommodate Growth in Local and Regional Freight Traffic

Village of University Park  
Truck routes are very inconsistent... if we are promoting freight, we need to do some rebuilding. There is very little to no connectivity.

Court Street (Crete-Monee Road extended west) is under jurisdiction of Village of Monee from IL 50 to Will Center Road and is posted at 4 tons. West of Will Center to IL 1 along Crete-Monee Road, there are no weight restrictions. East of IL 1, Crete-Monee Road is under jurisdiction of Crete Township and is posted at 15 tons. Pauling Goodenow Road has no posted limit between IL 50 and Will Center Road, but has a posted limit of 14 tons for the entire 5.5-mile portion east of Will Center Road.

Crash Analysis: An analysis of crashes along Crete-Monee and Pauling Goodenow Roads was conducted at six intersection locations. The 2014-2018 crash summary table below shows what types of traffic control were in place at crash locations, the conditions in which crashes occurred, number and type of crashes, and the percentage of injuries and fatalities at each location. Color-coding is used to represent low (green) average (yellow) and higher than average (red) crash experience as compared to national crash data for locations on similar type facilities with similar traffic volumes. It is noted that the number and severity of crashes of these Study Area intersections is not generally higher than expected, but a higher percentage of wet/snow and nighttime crashes occurred than were expected.

2014-2018 Crashes at Six EWC Study Area Intersection Locations

INTERSECTION	TRAFFIC CONTROL					CONDITIONS		# CRASHES							PERCENT		
	1 OR 2-W STOP	ALL-WAY STOP	SIGNAL	LIGHTED	MULTILANE	% WET / SNOW	% DARKNESS	REAR END	ANGLE	TURNING	FIXED OBJECT	SIDESWIPE	ANIMAL	OTHER	TOTAL CRASHES	% FATALITIES	% INJURIES
Court St/Crete-Monee Rd & IL 50			Y	Y	Y	50	0	2	3	4	1	0	0	0	10	0%	20%
Crete-Monee Rd & Will Center Rd.		Y		Y		25	12	3	2	2	0	0	1	0	8	0%	0%
Crete-Monee Rd. & Western Ave.	Y			Y		70	40	3	1	1	1	0	1	3	10	0%	50%
Pauling Rd. & IL 50	Y			Y		45	18	3	4	1	1	0	0	2	11	0%	27%
Pauling Rd & Will Center Rd.		Y		Y		27	64	2	5	0	2	1	0	1	11	0%	55%
Pauling/Goodenow Rd. & IL 394			Y	Y	Y	28	39	6	0	3	2	1	4	2	18	0%	11%
<b>TOTAL</b>								<b>19</b>	<b>15</b>	<b>11</b>	<b>7</b>	<b>2</b>	<b>6</b>	<b>8</b>	<b>68</b>	<b>0%</b>	<b>26%</b>

Design Deficiencies: roadway shoulders are narrow along both Crete-Monee Road and Pauling Goodenow Road, with typical widths of 2 to 3 feet as an aggregate wedge. The travel lanes of Crete-Monee Road (classified as a Minor Arterial) are nominally striped at 12' width, but most of Pauling Goodenow Road (classified as a Local Road) is nominally striped at 10' lane width. It is noted that Minor Arterial criteria for existing two-lane roadways are 11' lane width and 8' shoulders (4' paved and 4' aggregate) and Illinois Department of Transportation (IDOT) Bureau of Local Roads (BLR) criteria for existing two-lane roadways are 11-12' lane width and 4'-6' (aggregate).<sup>3</sup> It is also noted that, while Pauling Goodenow Road meets Local Road criteria, those criteria are not desirable for a designated truck route. It is desirable for truck routes to have minimum 11' -12' lane widths and relatively wide shoulders meeting or exceeding IDOT BLR standards to promote a safe area for crash avoidance and pull-off area for breakdowns;

<sup>3</sup> IDOT BLR Manual, Fig. 33-3A (DHV <975) and 33-3C (ADT > 3000)

neither route currently offers that opportunity, and where narrow shoulders and lanes exist, they can contribute to an increased crash exposure for all vehicles, including trucks.

A notable geometric deficiency along Pauling Goodenow Road is the CSX/UP Railroad-highway underpass west of IL 1, which does not meet IDOT BLR standards for vertical and horizontal clearance<sup>4</sup>. The vertical clearance is 13'-9", but should be 14'-9". The opening width measures approximately 21' between abutments, but should be 62'-68'. The existing width leaves little clearance for vehicles passing underneath the structure. This route, including the CSX/UP Railroad-highway underpass, is restricted to ≤14-ton vehicles between Will Center Road and IL 1.

Stakeholder Comments:  
Safely Accommodate Truck Freight Traffic  
Anonymous, MetroQuest Public Comment  
"Bridge on Goodenow is too narrow and dangerous. Also Pauling would be a great route for trucks to get to 394 to 50 if you removed the weight limits."

CSX/UP Railroad-Pauling Goodenow Road Underpass Structure



Drainage: A review of drainage and drainage structures along Crete-Monee and Goodenow Pauling Roads revealed the following information.

General: No overtopping incidents were reported on either Crete-Monee or Pauling Goodenow Roads. However, all four creeks that bisect the Study Area (Rock, Deer, Black Walnut, and Plum Creeks) have floodplains on the roadway, suggesting overtopping is possible. Virtually every major culvert along either route is a safety issue due to narrow/no shoulder width, substandard guardrail and terminal sections, vertical protrusions of headwalls not shielded by guardrail, periodic highwater levels, and/or close proximity utility poles.

<sup>4</sup> IDOT BLR Manual, Figure 36-4I (Local Road DHV > 200, Design Speed <60)



### Crete-Monee Road Typical Drainage Structures



Crete-Monee Road: At Crete-Monee and Pinewood, the double box culvert has undesirable skewed geometry, was observed to have a highwater level (i.e. freeboard issue), has many nearby utility poles, and has a nearby CMP culvert beneath Pinewood.



Pauling Goodenow Road: The Pauling-Goodenow double box culvert at the Rock Creek is in IDOT's Structure Summary Reports. There are narrow shoulders, pipeline on the south side, and utility poles on the north side. The east box is silted up, suggesting a drainage issue.



The Pauling-Goodenow Road underpass at CSX/UP railroad is in the floodplain north of the road. Although the underpass has not had a reported closure due to flooding, maintenance personnel often need to clean gravel out of the grates following a storm.



The western Pauling-Goodenow double box culvert at Plum Creek was constructed in 2018. Although the structure is in very good condition, the west box is silted up after only 3 years, suggesting a drainage issue.



Other Drainage Notes: IL 50 north of Manhattan Monee Road is subject to flooding, with 11 reports of flooding from 1990 to 2014, and reports of IL 50 at Steger Road (Will/Cook County line) as a recurring flood area. About half of the reports indicated a situation where the road was impassable. It is noted that IL 50 is under IDOT jurisdiction, but that flooding along IL 50 may periodically affect access to county routes such as Crete-Monee and Pauling Goodenow Roads.

## 1.5 Purpose Statement

Based on the Project Need identified in Section 1.4, the purpose of the EWC project is to provide a sustainable transportation solution that would improve east-west connectivity between the I-57 corridor and the IL 1-IL 394 corridor within the Study Area. This solution will be consistent with local and regional planning and economic development goals so as to:

- Provide a continuous east-west truck route that is designed to attract and accommodate freight-oriented and other users to promote freight mobility, and helping to alleviate utilization of circuitous or weight-restricted routes that are not suitable as truck routes;
- Accommodate market demands for the increasing freight logistics transportation and more efficient freight movement including better accommodation of regional truck trips and accommodation of potential multi-modal freight connections; and
- Provide infrastructure that safely accommodates east-west travel, including freight, through eastern Will County.