

WILL COUNTY
COMMUNITY FRIENDLY
FREIGHT MOBILITY PLAN



CED WILL COUNTY
CENTER FOR
ECONOMIC DEVELOPMENT

APPENDIX K
WORKFORCE
MOBILITY REPORT—

Subject to update with final JADA report

September 2017

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1. INTRODUCTION

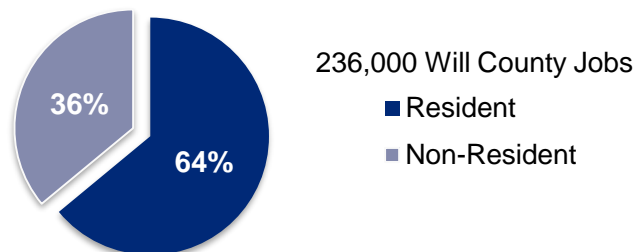
Tremendous growth in freight-oriented development during the past decade, together with significant and continued growth in employment and population, has greatly strained Will County's transportation systems for goods, residents, and workers. As part of the *Will County Community Friendly Freight Mobility Plan* directed by the Joliet Arsenal Development Authority (JADA), this Workforce Mobility Report evaluates the existing transportation system and recommends alternatives to driving alone as a commute mode in Will County. This summary includes the following:

- Key findings on current worker travel patterns and options,
- Overview of approach and methodology used to identify possible transportation improvements,
- Recommendations for transportation improvements by freight cluster, and
- Suggestions for follow-up actions.

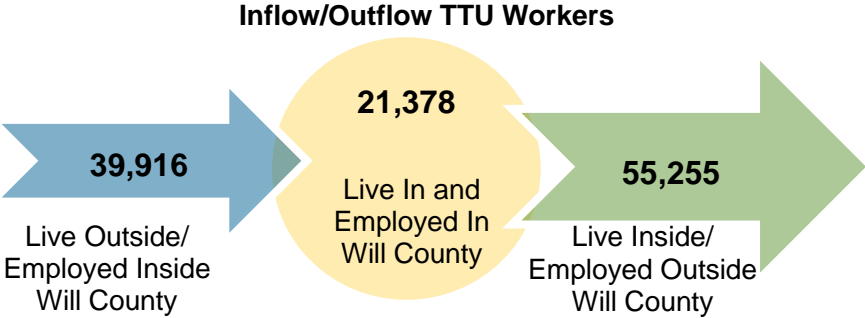
2. EXISTING WORKER COMMUTE PATTERNS

Key points from the research of background issues include:

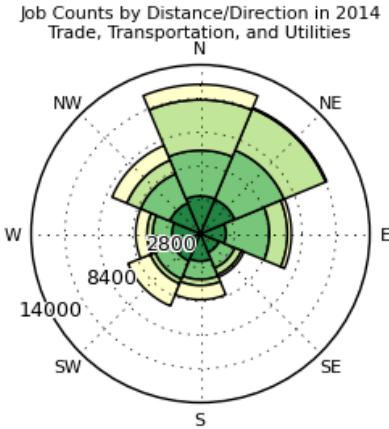
- Of the 236,000 jobs in Will County, 64% were held by residents and 36% by non-residents. Nearly ¾ of the workers commuting into Will County reside in Cook, DuPage and Grundy Counties (US Census, Journey to Work, based on ACS 2013 (5-year estimates)).



- Of the 60,294 Trade, Transportation and Utilities (TTU) Industries jobs within Will County 21,378 workers live within Will County and 38,916 live outside of Will County. Additionally 55,225 Will County residents employed in the TTU industries work outside of Will County (US Census, LEHD, 2014).



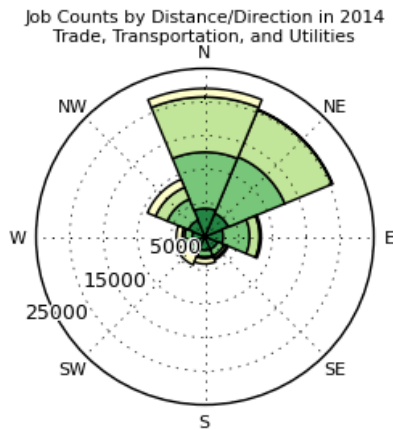
- Of the 60,294 TTU Jobs within Will County, workers overwhelmingly commute from the North and Northeast (US Census, LEHD, 2014 Home Block to Work Block).



**Will County TTU Jobs
Worker Origins**

	Count	Share
Total All TTU Jobs	60,294	100.0%
Less than 10 miles	19,834	32.9%
10 to 24 miles	20,522	34.0%
25 to 50 miles	12,613	20.9%
Greater than 50 miles	7,325	12.1%

- Of the 70,603 TTU Will County residents that work in TTU industries, an overwhelming majority commute to the North and Northeast (US Census, LEHD, 2014 Home Block to Work Block)



**Will County Residents in TTU Industries
Worker Destinations**

	Count	Share
Total All TTU Jobs	76,603	100.0%
Less than 10 miles	21,126	27.6%
10 to 24 miles	28,663	37.4%
25 to 50 miles	20,402	26.6%
Greater than 50 miles	6,412	8.4%

- Over 80% of Will County workers drive alone to reach their work locations. Use of carpool (9%) and other modes (8%) (e.g., walk, bike, work from home) accounted for the majority of the other travel modes. Less than 1% of Will County workers use transit to reach their workplace.
- A Regional Transportation Authority study of 20 employment areas in northeastern Illinois showed that the top 6 areas by job density had transit mode shares ranging from 10% to 64%.
 - The remaining 14 employment corridors had significantly lower job densities and transit shares of roughly 2%. Most of these areas exhibited job densities above rates that are typical for Will County.
- Metra has four lines operating in Will County: the Rock Island District, Metra Electric, Heritage Corridor and SouthWest Service. In addition, the BNSF route through DuPage County is accessible to Will County commuters.
 - A shortcoming with Metra service is that service is oriented to the downtown Chicago commute. Lines offering reverse commuter service may not operate early enough to meet work start times in Will County.
- Pace operates a wide array of services in Will County, including express and fixed-route buses, employee shuttles, and call-n-ride services. Employee shuttles have comparatively low ridership, and fixed route services generally do not directly serve job sites in business and industrial parks in the County.
- Non-traditional transit services are provided in the County, including vanpools, dial-a-ride, and ride-hailing. They do not have significant impacts today, but they may play a larger role in addressing workforce mobility in the future.

3. ANALYSIS

The freight planning process identified 14 clusters of current and future freight-related employment activity in Will County and developed employment projections for each cluster. This report describes the transportation improvements that were developed for the clusters based on their projected growth and opportunities in the existing or planned infrastructure.

In recommending an initial set of solutions for each freight cluster, a high-level suitability assessment of each transportation mode was made. Specific solutions were based largely on professional judgement, guided by the following factors:

- Number of employees, job density, and general pattern of worker origin
- Modifying existing services was of higher priority than introducing new services
- Opportunities to serve other travel markets

The approach to recommending transportation improvements involved assessing the applicability of the following options to each of the 14 clusters: line haul services (commuter rail, express bus, fixed-route bus), last mile connections (flexible bus, employer shuttle or vanpool, ride-hailing, biking), and door-to-door service (rideshare vanpool, dial-a-ride, carpool).

The transportation improvements recommended for consideration were first defined at a very high level. A second step involved evaluating the impact of the specific recommendations, which resulted in dropping or refining some of the initial concepts. The evaluation methodology involved assessing the number of potential riders served based on a growth factor from the 2026 projections and an assumed transit mode share of 2%.

4. TRANSPORTATION RECOMMENDATIONS BY CLUSTER

The following sections summarize the key characteristics of each cluster and highlight their unique transit recommendations. Within the recommendations, emphasis is placed on line haul service and, to a lesser extent, last mile connections. In many cases, the last-mile and door-to-door service recommendations are consistent across geographies. These common recommendations include:

- Last Mile
 - Promote Pace's Employer Shuttle Vanpool program
 - Consider bike trail connections to cluster
 - Encourage use of ride-hailing services

- Door-to-Door
 - Promote Pace's Employee Vanpool program
 - Expand the hours and eligibility of local dial-a-ride service
 - Promote Pace's RideShare Carpool program

A map depicting proposed transit improvements at a sketch level is provided at the end of section 4.

4.1 WILMINGTON

The 5,000-acre Wilmington Freight Cluster is served by a BNSF freight rail line and has access to I-55 at Lorenzo Road. Much of the area is being developed as the Ridgeport Logistic Center, a 20 million square foot park of distribution and manufacturing space.

Transit service to the Wilmington Cluster includes limited access to Metra service and no fixed route bus service. Due to low density, bike trail connections are unlikely to be successful.

Recommendations for the Wilmington Cluster include:

- Line Haul
 - Add earlier outbound train on Metra's RID
- Last Mile
 - New employer-subsidized shuttle bus service from downtown Joliet, which could operate flex within the cluster

4.2 I-55/I-355/JOLIET ROAD

This 6,500-acre corridor is generally centered on I-55 near Bolingbrook. The area includes manufacturing, warehousing, and commercial uses and is approaching full build-out. It has far more workers than any other cluster, and I-55 and I-355 provide a high level of truck accessibility from all directions. Employment in 2014 was roughly 28,500, which is nearly three times more than the next highest cluster.

The cluster has access to both rail and bus transit services. Metra has three lines that are relatively proximate to the area, including HC (5 miles), BNSF (8 miles), and RID (11 miles). Pace Route 834 (Joliet-Downers Grove) provides a fixed service schedule along IL 53 in the eastern portion of the cluster. Pace bus-on-shoulder I-55 express routes provide peak-direction service to downtown Chicago and the Illinois Medical District.

Recommendations for the I-55/I-355/Joliet Road Cluster include:

- Line Haul
 - Add earlier outbound train on Metra's RID and BNSF lines
 - Add reverse commuter service on Pace's I-55 express bus routes serving Bolingbrook

- Add peak service to Route 834 (Joliet-Downers Grove)
- Create a new North Weber Road Route between Naperville and the cluster
- Create a new South Weber Road Route between Joliet and the cluster
- Last Mile
 - New Weber Road routes could operate flex in the cluster
 - Consider bike trail connections to cluster

4.3 INTERMODAL

This cluster includes portions of Joliet and Elwood, and is the largest of the 14 clusters at 13,600 acres. The area includes two major intermodal rail yards: the BNSF Logistics Park Chicago and the Union Pacific (UP) Joliet Intermodal Terminal. Combined with access to two major interstate roadways (I-80 and I-55), the area has evolved to become North America's largest inland port. Over 2,000 people worked in the Intermodal cluster in 2014.

In terms of transit, the nearest Metra service is at Joliet Station (2.5 miles from the nearest edge of the cluster, 11 miles from the farthest), which serves RID, HC, and Amtrak trains. Pace Route 361 (Harvey-Laraway Crossing Express, partially subsidized by Amazon) connects the northeast corner of the cluster to the Pace Harvey Transportation Center using I-80. Pace Route 504 (South Joliet) serves the Laraway Crossing Business Park with a connection to downtown Joliet. Pace Routes 511 (Joliet-Elwood) and 512 (Joliet CenterPoint) operate in the cluster from downtown Joliet, and are designed to serve cluster workers.

Recommendations for the Intermodal Cluster include:

- Line Haul
 - Add earlier outbound train on Metra's RID
 - Add peak period service to Route 361
 - Build transit transfer facility near IL 53 and Laraway Road
 - Add peak trips to Route 511
- Last Mile
 - Add shuttle route from Joliet, covering areas not served by existing routes
 - Convert Routes 504, 511, 512, and proposed shuttle to flex routes within cluster

4.4 ROMEOVILLE / AIRPORT ROAD

The 1,400-acre Romeoville / Airport Road Cluster is located east and north of the Lewis University Airport. The nearest expressway interchange is three miles north at Weber Road and I-55. Employment was approximately 1,500 in 2014.

The cluster is served by two Metra lines that are relatively proximate to the area, including HC (3 miles) and RID (7 miles). A new HC station at 135th Street in Romeoville is

in construction. Pace Route 834 (Joliet-Downers Grove) provides a fixed service schedule along IL 53, with the Taylor Road stop $\frac{3}{4}$ -mile east of the nearest building in the cluster.

Recommendations for the Romeoville Cluster include:

- Line Haul
 - Add earlier outbound train on Metra's RID
 - Add peak period service to Route 834
 - Create a new South Weber Road Route from Joliet without diversion from Weber Road into business park (also serving I-55/I-355/Joliet Road and Crest Hill Clusters)

4.5 PLAINFIELD

The Plainfield Cluster includes mostly long-established industrial uses that were attracted by the availability of freight rail service. I-55 is about 3 miles to the east at the Route 126 interchange. The cluster is relatively small at 560 acres, and employed roughly 1,200 workers in 2014.

The cluster is comparatively far from existing Metra lines: the BNSF is about 11 miles north and the RID is 10 miles southeast. Several Pace express routes originate from Plainfield and use I-55 to serve area residents traveling to work locations in downtown Chicago and the Illinois Medical District (IMD). The western terminal of Pace Route 507 (Plainfield) is four miles from the cluster at US 30 and I-55.

Recommendations for the Plainfield Cluster include:

- Line Haul
 - Add earlier outbound train on Metra's RID

4.6 CREST HILL

The Crest Hill Freight Cluster is east of the Louis Joliet Mall in the Cities of Joliet and Crest Hill. The 426-acre area is less than 2 miles from the US 30/I-55 interchange. Current uses include a distribution center and several trucking facilities. Employment in 2014 was reported at about 200.

In terms of transit, Metra's Lockport Station on the HC is 4 miles east and Joliet Station (HC, RID, Amtrak) is $4\frac{1}{2}$ miles southeast. Pace Route 507 (Plainfield) operates between downtown Joliet and Louis Joliet Mall on US 30 (Plainfield Road-Lincoln Highway), which provides direct access to the westernmost part of the cluster. The West Joliet Call-n-Ride service (#510) offers reservation-based curb-to-curb service for the general public in a defined area on the west side of Joliet. US 30 is the northern boundary of the service area, which would allow access to the west portion of the cluster, including a $\frac{1}{4}$ -mile walk.

Recommendations for the Crest Hill Cluster include:

- Line Haul
 - Add earlier outbound train on Metra's RID
 - Create a new South Weber Road Route from downtown Joliet (also serving I-55/I-355/Joliet Road and Romeoville/Airport Road Clusters)
- Last Mile
 - Expand service area and hours of the West Joliet Call-n-Ride

4.7 I-355

The 1,400-acre I-355 Freight Cluster spans a corridor nearly 4 miles north to south along both sides of I-355 in Lockport and Homer Glen. Access to I-355 is provided at 159th and 143rd Streets. Employment in 2014 was approximately 1,200.

Commuter rail access includes Metra's Lockport Station (HC) 3 miles west of the cluster, New Lenox (RID) 6½ miles to the south, and Orland Park 153rd Street Station (SWS) 8 miles to the east. Pace Route 832 (Joliet-Orland Square) traverses the center of the cluster on 159th Street, but given the length of the corridor, this is 2 miles from the north end and 1½ half miles to the south end.

Recommendations for the I-355 Cluster include the common last mile and door-to-door recommendations outlined at the beginning of section 4.0.

4.8 I-80/HOUBOLT ROAD

The I-80 / Houbolt Freight Cluster includes the I-80/I-55 interchange in Joliet and Shorewood and spans both sides of I-80 for nearly 4 miles. The proposed Houbolt Road Bridge over the Des Plaines River could alter the development pattern in the area and affect the level of transit in the future. The site includes a major Caterpillar manufacturing plant as well as warehouses and logistics facilities. The most developed area is north of I-80, on both sides of Houbolt Road. The 2,400-acre area was estimated to have roughly 4,500 employees in 2014.

The cluster is served by Metra's Joliet Station (HC, RID, and Amtrak) 5 miles to the east and Pace Route 501 (West Jefferson), which serves the area west of Houbolt and north of I-80. The Pace West Joliet Call-n-Ride (#510) service area is comparatively close, with the south boundary at Jefferson Street. Hours are from 6 AM to 6:15 PM.

Recommendations for the I-80/Houbolt Cluster include:

- Line Haul
 - Add earlier outbound train on Metra's RID
 - Add peak period service on Pace Route 501

- Last Mile
 - Expand service area and hours of the West Joliet Call-n-Ride

4.9 UNIVERSITY PARK / MONEE

The University Park / Monee Freight Cluster is a corridor centered on I-57 in University Park and Monee. The 6,300-acre area is less than 50% developed with most existing facilities on the east side of I-57. I-57 access is provided at Stuenkel Road. Employment in 2014 totaled roughly 5,300, which was the third-highest among the 14 clusters.

The cluster's transit options include Metra service at the University Park Metra Electric District (MED) and Pace Route 367 (University Park), which only serves areas east of the CN/MED and not the cluster.

Recommendations for the University Park/Monee Cluster include:

- Line Haul – None
- Last Mile
 - Implement new shuttle bus route from Pace Chicago Heights Terminal; consider operating flex within cluster

4.10 FRANKFORT

The Frankfort Freight Cluster is located east of US 45 LaGrange Road and south of US 30 Lincoln Highway. The site includes a closed general aviation airport. Interstate access is at interchanges about five miles from the cluster. The cluster is 2,000 acres with about a third of the area developed and employment totaling nearly 3,000.

The cluster has limited transit service: the Metra RID Mokena Station is 4 miles to the north and there is no Pace fixed-route service.

Recommendations for the Frankfort Cluster include:

- Line Haul
 - Add earlier outbound train on Metra's RID serving Mokena

4.11 MOKENA

The Mokena Freight Cluster spans I-80 between Harlem Avenue and west of 90th Avenue, a distance of 2½ miles. Interstate access is at the IL 43 Harlem Avenue interchange. In addition to light manufacturing, warehousing and distribution facilities, the site includes a DeVry University campus. The cluster contains 1,400 acres and employed about 10,000 workers in 2014—the second most jobs among the 14 clusters, and the highest job density at 7.4 jobs per acre (followed by 4.4 in I-55/I-355/Joliet Road).

The cluster is served by 2 Metra RID stations: 80th Avenue / Tinley Park and Hickory Creek / Mokena, both of which are within ½ mile of the cluster. Pace Route 356 (Harvey-Tinley Park) operates between the Pace Harvey Transportation Center and the area northwest of Harlem and I-80 at consistent 30-minute frequencies in both directions. Route 386 (South Harlem) has the same south terminal as Route 356 and a north terminal at the Midway Station of the CTA Orange Line with similar headways. Tinley Park Call-n-Ride Route (#595) provides general population reservation-based, curb-to-curb service in an area that covers all of the cluster north of I-80, and the east portion south of I-80 that is in Tinley Park.

Recommendations for the Mokena Cluster include:

- Line Haul
 - Add earlier outbound train on Metra's RID serving 80th Avenue / Tinley Park and Hickory Creek / Mokena Stations
- Last Mile
 - Expand service area and hours of Tinley Park Call-n-Ride service

4.12 NEW LENOX

The New Lenox Freight Cluster is on the south side of I-80 between Gougar Road and Cherry Hill Road in the Village of New Lenox and City of Joliet. Access to I-80 is within two miles at either the Briggs Street or US 30 interchanges. The 1,700-acre area is approximately 40% built-out, primarily on the portion nearest I-80. Most of the uses are large warehouse/logistics centers. Employment in 2014 was approximately 1,700, which may be understated due to more recent development.

Transit service at or near the cluster includes the RID New Lenox Station, which is 3 miles to the east. No Pace fixed route service operates near the area.

Recommendations for the New Lenox Cluster include:

- Line Haul
 - Add New Lenox Station stop to the existing 1st outbound train on Metra's RID; add earlier AM outbound RID train

4.13 CHANNAHON

The Channahon Cluster is west of the Des Plaines River, east of I-55, and south of US 6 Eames Street in the Village of Channahon and the City of Joliet. Access to I-55 is available at US 6 and Bluff Road. The Des Plaines River is an important inland waterway that conveys large volumes of bulk commodities. Docking facilities exist in the cluster. The area is a mix of manufacturing, refining, warehousing, trucking and facilities handling barge traffic. The 1,900-acre area employed nearly 900 workers in 2014, and had one of the lowest job densities among the fourteen clusters.

Existing transit is limited to Metra service at Joliet, which is eight miles to the northeast. There is no Pace fixed route service to the cluster.

Recommendations for the Channahon Cluster include:

- Line Haul
 - Add earlier AM outbound RID train

4.14 CRETE

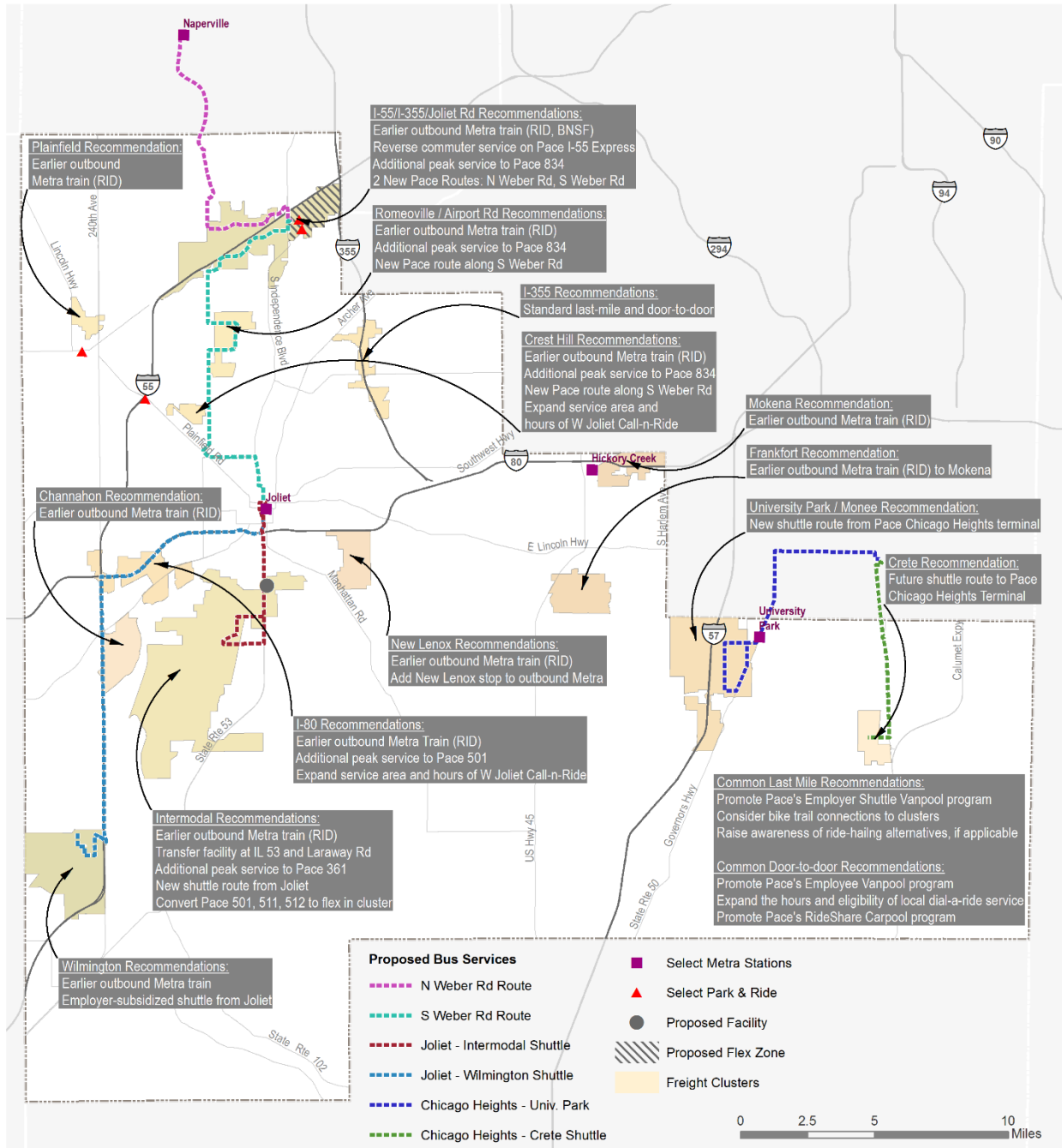
The Crete Freight Cluster is presently vacant; the site is proposed for a CSX Intermodal Terminal. The terminal would use approximately 100 acres of the 1,100-acre cluster. The expectation is that the terminal would attract similar development to that experienced by the BNSF Logistics Park Chicago and the Union Pacific (UP) Joliet Intermodal Terminal, as discussed for the Intermodal Cluster. The site is west of IL 1, Dixie Highway, and is a half mile from IL 394, a partially limited-access roadway that links to I-80/I-94/I-294 further north in South Holland.

Metra's University Park Station is about six miles to the northeast. Pace operates two routes north of the cluster: Route 367 (University Park) serves the MED station and Governor's State University and Route 358 (Torrence) operates from the southeast side of Chicago to the Pace Chicago Heights Terminal, generally along Torrence Avenue.

Recommendations for the Crete Cluster include:

- Line Haul - None
- Last Mile
 - Develop new shuttle route from Pace's Chicago Heights Terminal

FIGURE I. PROPOSED TRANSIT IMPROVEMENTS



5. NEXT STEP / IMPLEMENTATION STRATEGIES

The recommendations identified in this study all require follow-up by the entity likely to be responsible. This will involve their agreement in concept with the proposals, refinements to the concepts, and their willingness to take on the responsibility for implementation. There may be overlap among parties for certain improvement proposals.

Proposed improvements/actions are organized by the anticipated entity responsible below. Implementation timeframes are roughly grouped into three periods: near-term (1-3 years), mid-term (4-7 years) and long-term (8-10 years).

- **Metra** | Proposed improvements to be discussed with Metra, relating to changes or additions to current service.

Improvement Option	Proposal	Cluster(s)	Timing
Added Service	Add 7 Main Line stations to RID Train 401	1, 2, 3, 4, 5, 6, 8, 10, 11, 12, 13	Near-term
Added Service	Add earlier AM outbound Main Line train on RID, preferably using Beverly Branch	1, 2, 3, 4, 5, 6, 8, 10, 11, 12, 13	Near-term
Added Service	Add earlier AM outbound train on BNSF to Downers Grove Main Street	2	Near-term

- **Pace** | Proposed improvements to be discussed with Pace. The timing for some improvements may be constrained by the availability of buses and capacity of area bus maintenance facilities.

Improvement Option	Proposal	Cluster(s)	Timing
Express	Add reverse commute trips to Routes 755 & 851	2	Near-term
Express	Add peak period trips to Route 361	3	Mid-term
Fixed Route	Add peak trips on Route 834	2, 4	Near-term
Fixed Route	Implement new North Weber Road Route	2	Near-term
Fixed Route	Implement new South Weber Road Route	2, 4, 6	Near-term
Fixed Route	Add peak trips & weekend service to Route 511	3	Mid-term
Fixed Route	Add peak trips to Route 501	8	Near-term
Shuttle Route	New route Joliet to Wilmington	1	Long-term
Shuttle Route	New route Joliet to Intermodal	3	Long-term
Shuttle Route	New route Chicago Heights to University Park /Monee	9	Near-term
Shuttle Route	New route Chicago Heights to Crete	14	Long-term
Flex Routes	Expand service area of West Joliet Call-n-Ride	6, 8	Near-term
Flex Routes	Expand service area & hours of Tinley Park Call-n-Ride	11	Near-term
Bus Transfer Facility	Develop site near IL 53 & Emerald Dr.; or nearby alternative location	3	Mid-term

- **Will County** | As the sponsor for the *Will County Community-Friendly Freight Mobility Plan*, it is suggested that Will County be responsible for following up on:
 - Promoting Pace’s Vanpool programs to employers, including the Employer Shuttle program and the rideshare program.
 - Research local ride-hailing services, include documenting any state and local regulations that govern ride-hailing companies.
 - Monitor status of regional trails and local bikes lane projects, continuing the planning associated with the Countywide Bikeway Plan and Will County Long Range Transportation Plan.
 - Promoting Pace’s carpool programs to employers.
 - Assisting in coordination with local dial-a-ride operators to explore relaxing eligibility criteria (such as age or residency) and expanding hours of service.

- **Other Implementation Partners** | In addition to the County and transportation operators, area employers should have a role in planning and implementing transportation improvements that will address area workforce mobility issues. One approach would be to organize a county-wide association of employers, or multiple associations serving subareas of the county. In addition to being responsible for some or all of the proposed actions listed for Will County, the association(s) could also:
 - Be a forum for coordinating start and quit/shift times, which would make transit more effective,
 - Set recommendations on employer funding participation in transportation programs, which could also facilitate the pooling of resources,
 - Be a conduit for transportation program information that can be readily disseminated to workers (e.g., Pace’s RideShare),
 - Heighten awareness on the need to develop facilities with transit in mind. Pace’s Transit Supportive Guidelines (<http://www.pacebus.com/guidelines/>) is a useful resource. Note that this would likely require the involvement of developers.
 - Serve as a unified voice in lobbying for major transportation investments.