PROJECT DEVELOPMENT REPORT

CATEGORICAL EXCLUSION – GROUP 1

BURLINGTON ROAD AT IL 47
SECTION 07-00357-00-CH

KANE COUNTY DIVISION OF TRANSPORTATION
JULY 2011

TABLE OF CONTENTS

Illinois Department of Transportation

Local Project Development Report for Group I Categorical Exclusions and Design Approval

Route: IL 47 at Burlington Road County: Kane

Local Agency: Kane County DOT Project No. CMM-8003 (829)

L.A. Section No.: 07-00357-00-CH Project Length: 3830 feet (0.72 miles)

Street/Road Name: IL 47 at Burlington Road

Termini: From 750' NW to 750' SE of IL 47 on Burlington, and from 1000' south to 1000' north of Burlington on IL 47.

☐ For Township or Road District bridge projects: The County Engineer certifies that the project design speed exceeds the minimum design speed recommended for this classification of roadway as provided in the BLRS Manual in order to prevent a deficient NBIS rating for approach roadway alignment appraisal. All elements have been designed to the chosen design speed unless noted otherwise in Section 2(e) and/or the attached BLR 22120.

County Engineer Date

☒ Categorical Exclusion and Design Approval Recommended

Local Agency 7-21-11
Date

Categorical Exclusion Statement

This project will not have any significant impacts on the environment, or involve any unusual circumstances, therefore, it is a categorical Exclusion I.

☐ Design Approval

Regional Engineer Date

1. LOCATION AND EXISTING CONDITIONS

a. **Location** (attach location map to supplement narrative description)
The Burlington Road/Illinois Route 47 intersection is located in unincorporated Plato Township within Kane County, Illinois. The proposed initial intersection improvement is a total length of 2800 feet, with 2000 feet along IL Route 47 and 800 feet along Burlington Road. Refer to the Location Map (Exhibit A) in the PDR Exhibits section of this Report.

b. **Description of Existing Facility** - Give narrative description, including such items as width of through, parking and turn lanes, alignment, traffic control devices, utilities, jurisdiction, maintenance responsibility, drainage, terrain and current land use (including major public facilities and local landmarks). Attach existing typical sections showing roadway widths, bridge widths, ROW widths, curb and gutter and surface types.
Within the study area, IL 47 and Burlington Road are under the jurisdiction and maintenance of the Kane County Division of Transportation. IL 47 is classified as an arterial and Burlington is classified as a minor arterial.

The intersection is a high-speed isolated intersection in a rural area of Kane County. The surrounding land-use is farmland, and the posted speed limit on both roadways is 55 mph. IL 47 is a Class II truck route, while Burlington is a Class III truck route.

The intersection angle for IL 47 and Burlington Road is approximately 70 degrees. The existing provile of IL 47 north of the intersection descends to the north at less than 0.3 percent, while south of the intersection it rises at approximately 1 percent. The existing profile of Burlington Road descends from northwest to southeast through the intersection at approximately 1 percent. The right-of-way width is 100 feet along IL 47 and 90 feet along Burlington Road. The existing intersection is a four-way stop controlled intersection. A flashing red light hangs above the intersection to warn motorists of the stop sign located at all four legs of the intersection.

The total existing pavement width on IL 47 is 26 feet edge-to-edge of pavement, with one 12-foot travel lane northbound and one 12-foot travel lane southbound. Gravel shoulders are located on both sides of the travel lanes, and vary in width from 7 feet to 19 feet. At the intersection, only one 12-foot lane handles all through, left-turning, and right-turning movements. No parking is allowed along IL 47.

The total existing pavement width on Burlington is 24 feet edge-to-edge of pavement, with one 11-foot travel lane eastbound and one 11-foot travel lane westbound. Gravel shoulders are located on both sides of the travel lanes, and vary in width from 3 feet to 7 feet. At the intersection, only one 11-foot lane handles all through, left-turning, and right-turning movements in each direction. No parking is allowed along Burlington Road.

Existing drainage is through ditches and culverts. Utility poles with overhead utilities are present along both roadways. A gas line is present as well. (Refer to the Correspondence section of this report.)

Refer to Sheet A7 of the Interim Intersection Design Study (Exhibit B) for Existing Typical Sections.

c. **Traffic Data**

Current ADT: IL 47: 9,000 / Burlington: 4,000 % trucks: 14 (percentage is lower during peak periods)

Refer to CMAP correspondence in Section III of the Report.

Will 80,000 trucks be legally permitted on this route? ☐ Yes ☒ No

Design Year: 2030 ADT: IL 47:16,000 DHV: IL 47: 2,854 % trucks: 7% in DHV

d. **Structures** - Identify location within the proposed improvement of all structures on attached location map. Attach a copy of the Structure Master Report for all structures within the project limits. Attach a copy of the Bridge Condition Report or the Bridge Deck Resurfacing approval letter for structures to be replaced, rehabilitated, or resurfaced.

e. **Railroads** - Identify location of all railroad crossings on attached location map and complete the following:

Railroad Name	No. and Type of Tracks (Main or Switching)	Type of Switching	No. of Trains Per Day	Railroad Width of Crossing at Rt. Angles
N/A				

*Include a sketch showing location of railroad protective devices.

f. **Contiguous Sections** - Describe the existing typical sections at each end of the proposed improvement, including number of through lanes, turning lanes and parking lanes, lane widths and roadway width (f-f of curbs or e-e of shoulders).

North:
The existing pavement width on IL 47 at the north end of the improvement is 26 feet edge-to-edge of pavement, with one 12-foot travel lane northbound and one 12-foot travel lane southbound. Seven-foot wide gravel shoulders are located on both sides of the travel lanes. Including shoulders, the total roadway width is 40 feet. Parking is not allowed on IL 47.

South:
The existing pavement width on IL 47 at the south end of the improvement is 26 feet edge-to-edge of pavement, with one 12-foot travel lane northbound and one 12-foot travel lane southbound. Ten-foot wide gravel shoulders are located on the west side, and seven-foot wide gravel shoulders are located on the east side. The total roadway width is 43 feet, edge-to-edge of shoulders. Parking is not allowed on IL 47.

East:
The existing pavement width on Burlington at the east end of the improvement is 24 feet edge-to-edge of pavement, with one 11-foot travel lane eastbound and one 11-foot travel lane westbound. Three-foot wide gravel shoulders are located on both sides of the travel lanes. The total roadway width is 30 feet, edge-to-edge of shoulders. Parking is not allowed on Burlington.

West:
The existing pavement width on Burlington at the west end of the improvement is 24 feet edge-to-edge of pavement, with one 11-foot travel lane eastbound and one 11-foot travel lane westbound. Three-foot wide gravel shoulders are located on the south side, and four-foot wide gravel shoulders are located on the north side. The total roadway width is 31 feet, edge-to-edge of shoulders. Parking is not allowed on Burlington.

2. **Proposed Improvement**

a. Discuss the need and purpose of the project:
Full stop control was instituted at the intersection after a series of high-speed crashes; however, the four-way stop created a traffic flow issue with long vehicle queues. The project is needed because the existing control is insufficient to meet traffic demand.

The purpose of the project is to improve the safety and the capacity of the intersection.

It was determined that a roundabout could be built at less cost than a conventional signalized intersection. A roundabout is expected to be safer than a conventional intersection as well, since it is designed to reduce travel speeds through the intersection. A signalized intersection would have featured traffic traveling at 55 mph or more.

b. What design guidelines will be used for the proposed improvement? (Check One)
- ☒ Rural (BLRS Manual Chapter 32)
- ☐ Urban (BLRS Manual Chapter 32)
- ☐ 3R Guidelines (BLRS Manual Chapter 33)
- ☐ Bicycle Guidelines (BLRS Manual Chapter 42)

Functional Classification: ☒ Arterial ☐ Collector ☐ Local Road ☐ Other SRA

Regulatory or Posted Speed Limit: 55 mph Design Speed: 60 mph

c. Describe type of work to be accomplished by the improvement. Discussion should include width of through, parking and turning lanes, traffic control devices, drainage items (including storm sewer outfalls), alignment changes railroad work, utility adjustments, intersection improvements, side slopes and clear zones. Attach typical sections, plan and profile sheets and intersection design studies when applicable.
The proposed roundabout will be built in two phases. The first phase will consist of a single-lane roundabout with an inscribed circle diameter of 150'. This diameter was found to better accommodate the large percentage of WB-65 vehicles which use this intersection. The roundabout will have a design speed of 20 mph. Geometric details of this interim improvement are given in the Interim Intersection Design Study attached to this Report as Exhibit B (Sheets A1 through A7). The IDS was approved in April of 2011. (Refer to Exhibit C.)

Approach roadways for the initial configuration will begin approximately 540 feet from the intersection on IL 47 and 400 feet from the intersection on Burlington Road. All four approach lanes begin at 12 feet in width, and gradually increase to 14 feet in width as the approach lane turns in three consecutive curves designed to slow approaching traffic. At the roundabout, entry flares taper from 14 feet to 18 feet in marked width, with additional pavement (striped as a shoulder) on the left side of the flare to accommodate the WB-65 design vehicle. The roundabout circle itself will feature a single 18 foot wide lane, with mountable curb on the inside of the circle. Inside the mountable curb, an 8' shoulder will be built to accommodate encroachment by the design vehicle. Departure roadways for both roads will begin at 16 to 20 feet in width and taper to a 12 foot width, which will be maintained to the construction limit.

Splitter islands will be installed in each approach roadway, utilizing B-6.24 curb and gutter and a permeable pavement or grass surface.

A closed drainage system will be installed in the vicinity of the circulating roadway, per the plan provided in our Location Drainage Study. Detention and ditches needed for an expanded improvement will be constructed as part of the initial project. The LDS was approved in July of 2011. (Refer to Exhibit F.)

Outside edges of pavement will be adjoined by shoulders near the construction limits, and B-6.24 curb and gutter closer to the intersection to better control approach speeds.

Capacity analysis indicated the need for a second phase of the project, in which a second lane will be added to each direction of IL 47 and a second lane will be added to the roundabout. Geometric details of this "build-out" improvement are given in the Build-out Intersection Design Study attached to this project as Exhibit B (Sheets B1 through B8).

This improvement was projected to be necessary in or around the year 2025, based on current traffic projections. The expansion will consist of new construction limits on IL 47, approximately 300 feet farther from the roundabout than the limits of the interim work. On the approach roads, the design will consist of an add lane taper to two 12 foot lanes. The 12 foot lanes will taper gradually to 14 foot lanes as the approach lane turns in three consecutive curves designed to slow approaching traffic. At the roundabout, entry flares taper from 14 to 16 feet in width. Entry lanes will be separated by a striped median to minimize the likelihood of encroachment. The roundabout circle itself will be widened by 12 feet to the outside of the circle. Departure lanes on IL 47 will consist of two lanes, tapering beyond the exit flare to 12 feet each in width. The two lane section will be carried for 300 feet beyond the roundabout, after which the right lane will be dropped in a taper at approximately 45:1.

The approach roadways will have to be completely rebuilt on new profile. Departure roadways and the circular roadway are designed to be widened from the existing pavement if the pavement condition allows. It is anticipated that approach roadways beyond the splitter island will need to be rebuilt due to age and the need to revise the superelevation, but profiles would allow for these corrections to be made using resurfacing if allowed.

The expanded drainage system will utilize the ditches and much of the infrastructure installed as part of the initial improvement. A few intercepting inlets will be required to drain the widened pavement. Refer to the LDS for additional information.

No improvements to Burlington Road beyond those described in the interim improvement were deemed necessary within the design period.

d. Discuss items affecting improvement such as: hazardous mailbox supports, parking and truck restrictions, mail delivery from traffic lanes, justification (including warrants) for multi-way stop signs, traffic signals and other traffic control and railroad protective devices, stage construction, nearby airports, encroachments upon ROW and levels of illumination (if lighting will be provided):
None of the above factors are applicable to this project except for roadway lighting. Subject to direction by IDOT, particularly the Bureau of Traffic Operations, all four approaches to the roundabout will have lighting installed. Per concurrence with District 1, the final determination on the scope and extent of the roadway lighting will be made in the design phase. It is anticipated that luminance requirements will be similar to those required for approaches to conventional intersections. Proposed lighting will meet IES standards and IDOT guidelines for roundabout lighting as applicable.

e. Identify each aspect to be constructed at less than the design guidelines and provide a clear description of required variances and appropriate justification. (BLRS Manual Section 27-7)
The existing and proposed roadway profile of IL 47 north of the intersection is very near 0.0%. It is not possible to improve this profile without greatly expanding the impact and limits of the project. The proposed roadway in this section will be superelevated and uncurbed, so drainage will not be an issue.

The proposed single-lane design may reach its capacity near the end of the design period. The design proposed here incorporates the likelihood of eventual expansion which is not needed at this time. Level-of-service design exceptions for three movements during peak periods are sought for the interim condition. No level-of-service design exceptions are required for the build-out concept.

The list, description and approval of project variances is attached to this Report as Exhibit C.

f. Current estimated cost of proposed improvement? $ 2,700,000 Refer to Exhibit D.

g. Analyze the need for accommodating pedestrians, bicyclists and the handicapped. When applicable, describe the facilities to be provided including route continuity for the handicapped and marked crosswalk locations. (BLRS Manual Chapter 41)

Existing conditions for IL 47 and Burlington Road do not warrant the addition of sidewalk or crosswalks. Based on observations during the traffic study, no pedestrians, bicyclists, or handicapped persons were observed at this rural, high-speed intersection.

IDOT concurred on November 15, 2010 that this project is not subject to the requirements of State of Illinois "Complete the Streets" legislation. This concurrence is included in the Correspondence section of the Appendix.

h. Discuss any proposed improvements being considered in adjacent segments:

No improvements are planned to those sections of Burlington Road or IL 47 immediately adjacent to the project limits.

IL 47 is the subject of a concept-level corridor study initiated by the County in 2008. This study is ongoing.

3. **Crash Analysis (BLRS Manual Section 22-2.11(b)(9))**

a. Summarize crash data for the past three years, including a spot map or a location map showing crash locations when possible. Detail the types of crashes and include collision diagrams, if possible, especially at cluster sites. Give the source of this data.

Crash reports through the end of the 2010 calendar year were provided by IDOT and substantiated by the County. State of Illinois crash data reporting requirements changed significantly at the beginning of 2009 in a way that has reduced the number of reported crashes throughout the region. Since the beginning of 2009, only one crash has been reported at the subject intersection. For that reason, crash data for the years 2006-2010 is provided in Exhibit E for reference.

The low crash rate is a product of the existing four-way stop traffic control. This installation has effectively limited the number of crashes at this location during the study period. Only twelve crashes occurred at the intersection over this period of time. Of those twelve, three were angle crashes and six were rear-end crashes.

b. Analyze available crash data including results of field check. Discussion should include high crash locations, critical wet weather sites, and other crash patterns. If the data in inconclusive make a statement to that effect.

The intersection's crash rates are very low. It features long, flat approaches free of conflicting movements or visual impediments. The four-way stop sign is augmented by a flashing beacon wire-mounted over the intersection. Accordingly, visibility of the intersection is not likely to be an issue.

Relatively few injuries in the angle incidents were recorded, which suggests that they probably occurred at low speed; they may well have resulted in more injuries if they had occurred at the posted speed limit. The near absence of crashes after 2008 implies that the incidents prior to that time were of a relatively low magnitude, not meeting the higher 2009 cost-to-repair requirements. The six rear-end incidents appear to have had queuing as a factor, as most occurred during peak periods.

A roundabout will do more to ensure that future crashes are at similarly low speeds, and the reduction in queue lengths should have a positive effect on rear-end crash rates. The fact that only six rear-end collisions have occurred in four years supports the conclusion that visibility is good and that the existing need for speed reductions does not present a statistically-worrisome issue.

c. Describe proposed countermeasures.

None are anticipated beyond the scope of the proposed improvement. The performance of this intersection, one of the first of its type in this area, should be carefully monitored over time to confirm the effectiveness of initial geometric, signing and striping treatments.

4. **Right-of-Way**

a. Describe the right-of-way taking, including the total area required for each of the following categories: ROW, permanent easements, temporary easements and temporary land use permits. Include: width of taking, number of property owners, character of land; i.e., farm, residential, commercial or publicly owned properties, anticipated effects on properties to remain and location of any improvements with respect to required right-of-way. Discuss any effects on setbacks required by zoning.

Portions of four parcels of agricultural land will be affected by the improvement. The total area of ROW required is 2.38 acres; very nearly all of it is required to accommodate drainage and detention. The amount of the proposed acquisitions are relatively small, compared to the area of the impacted properties; they will not negatively affect the function or purpose of the properties, or limit potential development. The right-of-way limits shown in both design concepts are designed to accommodate required detention for the build-out design which was developed as part of this Report.

Permanent or temporary easements, and temporary land use permits, will not be required.

5. **Floodplain Encroachment (BLRS Manual Section 20-7)**

Does the proposed work cross or encroach upon a 100-year floodplain, including a regulatory floodway?

☐ Yes ☒ No

If yes, summarize the location hydraulics study, regulatory floodway restrictions, the effect of any encroachment (including a comparison between existing and proposed conditions) and the effect of over-the-road flow on the proposed transportation facility. Attach any available floodplain maps.

Not applicable. Refer to Exhibit F in the Appendix.

6. **Phase I & II NPDES Storm Water Permit Requirements (BLRS Manual Section 7-4.01)**

Will the project involve soil disturbance of 1 acre (0.4 hectares) or more?

☒ Yes ☐ No

If yes, the project must comply with the Phase II NPDES Storm Water Permit Requirements.

7. **"404" Permit (BLRS Manual Section 7-4.02)**

a. If this project involves water regulated by Section 404, is the project covered by a nationwide permit?

☐ Yes ☒ No

If yes, attach a copy of any permit authorization and coordination letters with the Corps of Engineers.

b. If an individual Section 404 permit is required, please notify the Illinois Department of Transportation district office before submitting the application.

8. **Special Waste (BLRS Manual Section 20-12)**

a. Following the special waste assessment screening criteria shown on Figure 20-12A of the BLRS Manual, is Preliminary Environmental Site Assessment (PESA) required?

☐ Yes ☒ No **Refer to Project Overview in Section III of the Report.**

b. If PESA is required, is special waste located on property to be acquired in the name of the state or are contract plans being prepared by the state?

☐ Yes ☐ No

c. If PESA is required, did the PESA results determine that the project is a "moderate" or "high" risk for special waste?

☐ Yes ☐ No

If the PESA results determine that the project is a "moderate" or "high" risk for special waste, describe how the special waste is proposed to be handled (including if Preliminary Site Investigation (PSI) is required).

9. **Environmental Survey (BLRS Manual Section 20-2)**

Whenever a project involves land acquisition (including easements), any in-stream work (including drainage structure run-around), or is located within or adjacent to historic properties listed in (or eligible for) the National Register of Historic Places, wetlands or known locations of threatened or endangered species, the Environmental Survey Request Form should be submitted early in the project development phase.

Refer to the Project Overview in Section III of the Report.

a. Wild and Scenic Rivers - If this project crosses or affects a river on the National Wild and Scenic Rivers System or a river listed in the Nationwide Inventory of Rivers with potential for inclusion on the system, include coordination between the National Park Service and the Bureau of Design and Environment (BDE).

☐ Involvement ☒ No Involvement

b. Wetlands - If the proposed work involves the use of regulatory wetlands, prepare a "wetlands study" describing the wetlands taking, avoidance minimization and any mitigation measures. Include results of coordination.

☐ Involvement ☒ No Involvement

c. Archaeological and Historical Preservation - Include copy of cultural resources clearance by BDE, SHPO or ACHP.

☐ Involvement ☒ No Involvement

d. Threatened or Endangered Species - Include copy of biological resources memorandum or signoff by BDE.

☐ Involvement ☒ No Involvement

e. Stream Modification and Wildlife Impacts - Include copies of any correspondence between BDE and IDOC or U.S. Fish and Wildlife Service. Attach copies of any additional coordination between local agency and IDOC or U.S. Fish and Wildlife Service whenever required as a result of biological review by BDE. Address any proposed mitigation measures.

☐ Involvement ☒ No Involvement

10. **Air Quality (BLRS Manual Section 20-11)** Check One:

a. ☐ This project is in an attainment area.

☒ This project is included in the **GO TO 2040 Plan** (transportation plan) and in the Transportation Improvement Program (TIP), endorsed by the C.M.A.P., the region's Metropolitan Planning Organization. The GO TO 2040 Plan (transportation plan) was found to conform by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) on 10/13/2010 (date)

The TIP was found to conform by FHWA on 10/13/2010 (date) and by FTA on 10/13/2010 (date)

TIP ID: 09-06-0068.

b. **Mobile Source Air Toxics (See BDE PM 52-06)**

This project will not result in any meaningful changes in traffic volumes, vehicle mix, location of the exiting facility, or any other factor that would cause an increase in emissions relative to the no-build alternative. As such, FHWA has determined that this project will generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special Mobile Source Air Toxic concerns. Consequently, this effort is exempt from analysis for MSATs.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSATs to decline significantly over the next 20 years. Even after accounting for a 64 percent increase in VMT, FHWA predicts MSATs will decline in the range of 57 to 87 percent, from 2000 to 2020, based on regulations now in effect, even with a projected 64 percent increase in VMT. This will both reduce the background level of MSATs as well as the possibility of even minor MSAT emissions from this project.

c. **Construction-related Particulate Matter**

Demolition and construction activities can result in short-term increases in fugitive dust and equipment-related particulate emissions in and around the project area. (Equipment-related particulate emissions are usually insignificant when equipment is well maintained.) The potential air quality impacts will be short-term, occurring only when demolition and construction work is in progress and local conditions are appropriate.

The potential for fugitive dust emissions typically is associated with building demolition, ground clearing, site preparation, grading, stockpiling of materials, on-site movement of equipment, and transportation of materials. The potential is greatest during dry periods, periods of intense construction activity, and during high wind conditions.

The Department's *Standard Specifications for Road and Bridge Construction* include provisions on dust control. Under these provisions, dust and airborne dirt generated by construction activities will be controlled through dust control procedures or a specific dust control plan, when warranted. The contractor and the Department will meet to review the nature and extent of dust-generating activities and will cooperatively develop specific types of control techniques appropriate to the specific situation. Techniques that may warrant consideration include measures such as minimizing track-out of soil onto nearby publicly-traveled roads, reducing speed on unpaved roads, covering haul vehicles, and applying chemical dust suppressants or water to exposed surfaces, particularly those on which construction vehicles travel. With the application of appropriate measures to limit dust emissions during construction, this project will not cause any significant, short-term particulate matter air quality impacts.

d. **Project-level Hot Spot Analysis. Check One:**

☐ This project is in an attainment area and does not require a hot spot analysis.

☒ This project does not meet the definition of a project of air quality concern as defined in 40 CFR 93.123(b)(1).
Due to
A pre-screen carbon monoxide (CO) analysis was completed for this project. The results from this proposed roadway improvement indicate that a COSIM air quality analysis is not required, as the results for the worst-case receptor are below the 8-hour National Ambient Air Quality Standard for CO of 9.0 ppm that is necessary to protect the public health and welfare.

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it has been determined that the project will not cause or contribute to any new localized $PM_{2.5}$ or PM_{10} violations or increase the frequency or severity of any $PM_{2.5}$ or PM_{10} violations. USEPA has determined that such projects meet the Clean Air Act's requirements without any further Hot-Spot analysis.

☐ This project is in a non-attainment or maintenance area and is a project of air quality concern. Therefore, a qualitative hot spot analysis is required. See Attachment _____ .

e. **COSIM**

Are through lanes or auxiliary turn lanes being added with this project?

☒ Yes ☐ No

If yes, has a COSIM analysis been completed?

☐ Yes ☒ No

If yes, analysis is attached as Attachment _____ .

If no, explain why an analysis has not been performed.
This project passed the COSIM Pre-Screen process, most recently in November of 2010. Refer to correspondence in the Appendix.

11. **Maintenance of Traffic (BLRS Manual Section 22-2.11(b)(9))**

Discuss how vehicle traffic and pedestrians will be accommodated during construction, including the effect of any road closure and sidewalk removal. If the road will be closed, include information concerning location of alternate routes and their ability to handle the additional traffic (street width, number of traffic lanes, structural adequacy, etc.)

The conversion of this intersection to a roundabout would be accomplished most easily through the closure of both legs of Burlington Road through the intersection. This would allow the work to be completed in two stages. Burlington Road traffic would be detoured via Plato Road and Dittman Road. Both roads are under Kane County jurisdiction. This route was developed with the concurrence of Kane County DOT.

Construction would begin with installation of a single-lane runaround for northbound IL 47 traffic. In the first stage of construction, southbound IL 47 would be maintained on existing pavement. The new lane of southbound IL 47 and the north leg of Burlington would be built at this time. During the second stage of construction, southbound IL 47 would be moved to the new pavement and northbound IL 47 would remain on the runaround. The northbound IL 47 approach and departure lane would be constructed, along with the remainder of the circulating roadway. In the third and final stage, both directions of IL 47 would be on proposed pavement. The runaround would be removed and the south leg of Burlington Road would be built.

Alternative staging concepts which involved maintaining IL 47 and Burlington traffic were feasible, but these were found to require several substages and the construction of an excessive quantity of temporary pavement.

12. **Public Involvement (BLRS Manual Chapter 21)**

Summarize informational meetings, council or board meetings, media coverage and personal contact with public.

A public open house introducing the project was held at Kane County DOT headquarters on August 18, 2010. It was preceded by standard announcements in local newspapers and on Kane DOT's website. Approximately twenty members of the public attended. Most of the conversation involved attendees' unfamiliarity with the concept in general, and many were receptive to the analysis presented by host staff.

A sample handout, meeting announcements, the presentation sign-in sheet and two written comments are included in the Correspondence section of this Report.

13. **Coordination: LA-IDOT-FHWA (BLRS Manual Section 22-1.02)**

Attach minutes of coordination meetings.

14. **Other Coordination**

Attach results.

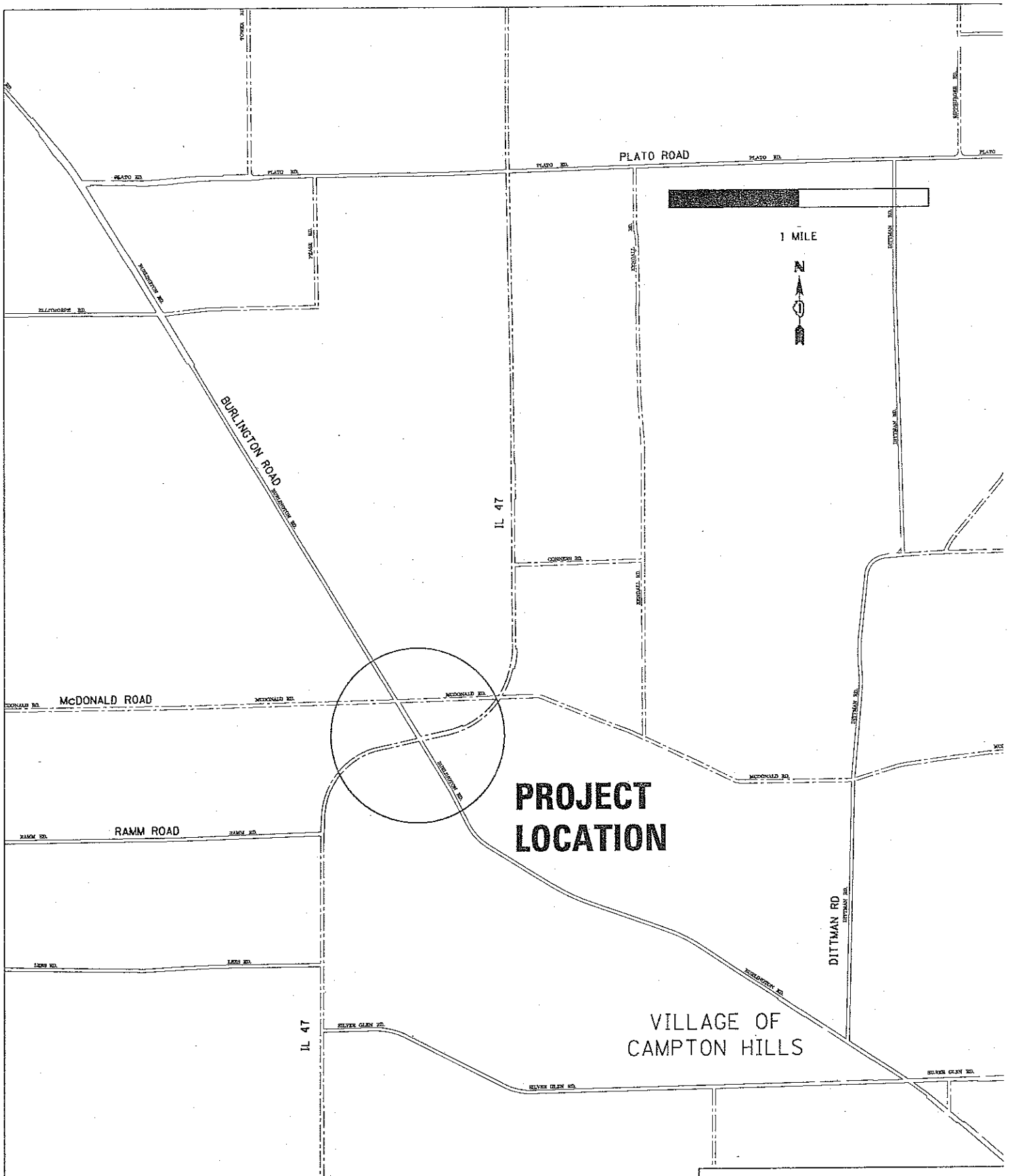
15. **Summary of Commitments**

Summary of Attachments (when required):

1. Location Map and Functional Classification Map
2. Existing and Proposed Typical Sections
3. Structure Master Report
4. Bridge Condition Report Approval Cover Letter
5. Railroad Crossing Drawing
6. Plan and Profile Sheet (for Urban Projects, Bridge Projects and Rural Projects with additional ROW, Preliminary Bridge and Hydraulic Report or TS&L approval.)
7. Intersection Design Study
8. Spot Map and/or Collision Diagram
9. Soil Conservation Service and Illinois Department of Agriculture Coordination
10. "404" Permit correspondence
11. Environmental Coordination
12. Property Owner Signoffs
13. Bimonthly Coordination Meeting Minutes
14. Other Coordination

SECTION II: PDR EXHIBITS

A. Project Location Map
B. Intersection Design Study
   1. Interim Improvements: Sheets A1 through A7
      *** Existing Typical Sections: Sheet A7 ***
      *** Proposed Interim Typical Sections: Sheet A7 ***
   2. Build-out Improvements: Sheets B1 through B8
      *** Proposed Build-out Typical Sections: Sheet B8 ***
C. Summary of Design Exceptions and IDS Approval
D. Engineer's Estimate of Project Cost
E. Crash Diagram for Burlington / IL 47 Intersection
F. FIRM Map and Location Drainage Study Approval



BURLINGTON ROAD / IL 47 INTERSECTION STUDY

PROJECT LOCATION MAP

EXHIBIT A

SCALE: 1" = 1/2 MILE

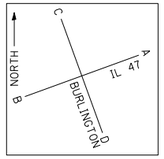
DATE: MARCH 2011

ROUNDABOUT CAPACITY ANALYSIS - INITIAL CONSTRUCTION DESIGN

PROGRAM USED: SIDRA VERSION 4.0

INSCRIBED CIRCLE DIAMETER: 150'
CENTER ISLAND DIAMETER: 114'
PEAK HOUR FACTOR: 0.95 (AM); 0.95 (PM)
AREA TYPE: NON-CBD

INTERSECTION LOS, 2025 (AM): C (27.0 SEC DELAY)
(PM): C (28.9 SEC DELAY)



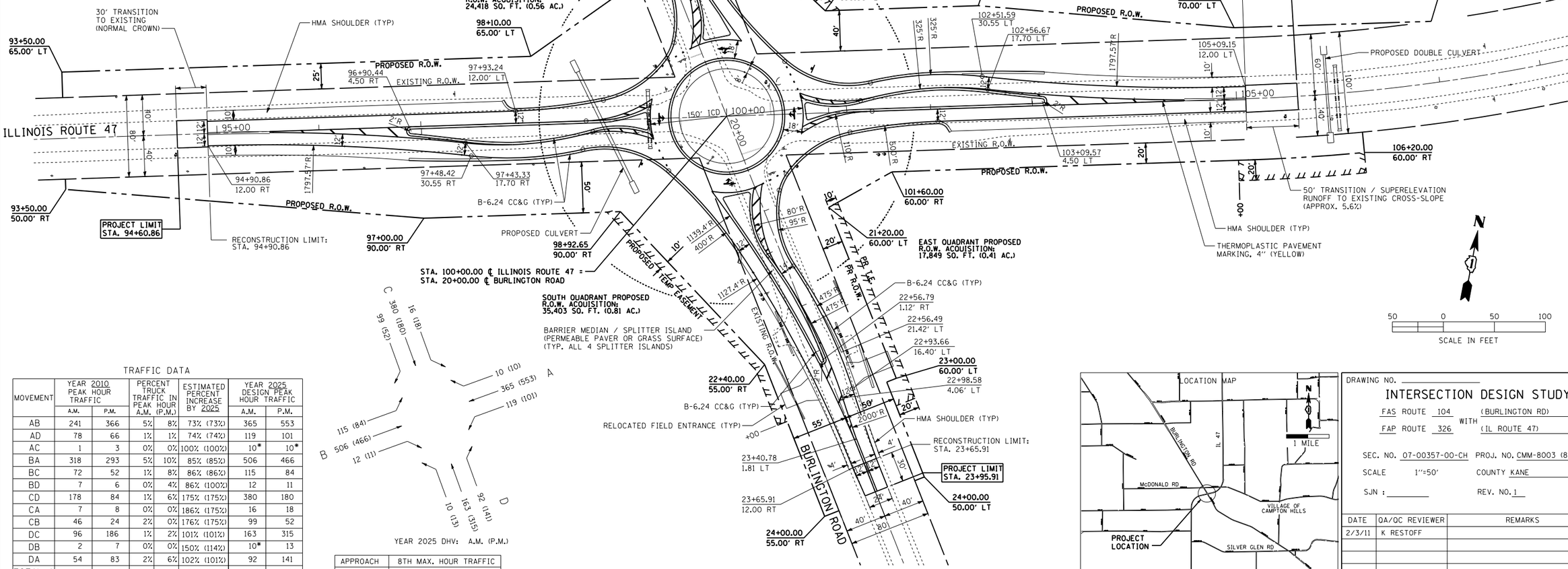
APPROACH		SB IL 47			NB IL 47			SEB BURLINGTON			NWB BURLINGTON		
		A			B			C			D		
		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
DHV	AM	119	365	10	115	506	12	16	380	99	10	163	92
		494			633			495			265		
	PM	101	553	10	84	466	11	18	180	52	13	315	141
		664			561			250			469		
PEDESTRIANS		--			--			--			--		
ARRIVAL TYPE		C			C			C			C		
BASE SATURATION FLOW		1,900			1,900			1,900			1,900		
LANE GROUP		LTR			LTR			LTR			LTR		
LANE WIDTHS		18'			18'			18'			18'		
95th PERCENTILE QUEUE	AM	147'			881'			292'			97'		
	PM	912'			264'			112'			447'		
LANE GROUP DELAY (seconds)	AM	6.6			57.8			16.8			10.4		
	PM	51.2			10.2			13.3			32.3		
V/C RATIO	AM	0.62			1.05			0.80			0.49		
	PM	1.04			0.78			0.53			0.91		
LEVEL OF SERVICE	AM	A			E			B			B		
	PM	E			B			B			D		

ELEMENTS CONTROLLING DESIGN

1. HIGHWAY DESIGN CLASSIFICATION IL 47: OTHER PRINICIPAL ARTERIAL
   SRA: YES X NO
   HIGHWAY DESIGN CLASSIFICATION BURLINGTON ROAD: MINOR ARTERIAL
   SRA: YES NO X
2. AVERAGE DAILY TRAFFIC (ADT) DATA: IL 47 EXISTING 9,000 DESIGN 16,000 (Y2030)
   BURLINGTON EXISTING 4,000 DESIGN 9,000 (Y2030)
3. IL 47 IS THE PREFERENCE ROUTE
4. ANTICIPATED YEAR OF CONSTRUCTION 2013 DESIGN YEAR 2025
5. TRAFFIC CONTROL TO BE POSTED YIELD SIGNS PRIOR TO ENTERING ROUNDABOUT. A ROUNDABOUT DOES NOT UTILIZE ANY MECHANICAL OR ELECTRICAL TRAFFIC CONTROL DEVICES. VEHICLES APPROACHING THE INTERSECTION YIELD TO TRAFFIC CIRCLING THE ROUNDABOUT.
6. DESIGN CRITERIA: BDE CHAPTERS 36, 46 (IL 47); BLRS CHAPTER 32 (BURLINGTON RD)
7. DESIGN VEHICLE: WB-65 TRUCK ROUTE DESIGNATION IL 47: CLASS II
8. DESIGN SPEED 60 MPH (BOTH APPROACHES); POSTED SPEED 55 MPH (BOTH APPROACHES)
   20 MPH (RAB)

GENERAL NOTES

1. PROFILES *ARE* PROVIDED, SINCE APPROACH GRADES ARE GREATER THAN 1.0% ON SOME APPROACHES AND NEW PROFILES ARE PROPOSED.
2. TYPE B-6.24 CURB AND GUTTER TO BE USED ON OUTER EDGES OF PAVEMENT
3. TYPE B-6.24 CURB AND GUTTER TO BE USED ON THE SPLITTER ISLANDS.
4. ALL DIMENSIONS ARE SHOWN E-E OF PAVEMENT UNLESS OTHERWISE NOTED
5. INTERSECTION *IS NOT* A 5% REPORT LOCATION
6. INTERSECTION *IS NOT* PART OF INTERCONNECTED SYSTEM
7. NO SIDEWALKS EXIST WITHIN THE PROJECT LIMITS.
8. EXPECTED PEDESTRIAN/BICYCLE USAGE NONE
9. ALL ENTRANCES AS SHOWN *ARE* IN COMPLIANCE WITH IDOT "POLICIES ON ACCESS TO STATE HIGHWAYS".
   NOTED EXCEPTIONS: N/A
10. SCOPE OF WORK: RECONSTRUCTION OF INTERSECTION OF IL 47 AND BURLINGTON ROAD
11. DESIGN EXCEPTIONS: LOS DEFICIENCIES IN 2025 ON NB IL 47 APPROACH IN AM PEAK, AND ON 2 APPROACHES IN PM PEAK. IL 47 PROFILE NORTH OF BURLINGTON LESS THAN 0.3%.
12. RIGHT-OF-WAY ALIGNMENTS ARE SHOWN. SEE SHEET A2 FOR GEOMETRIC BASELINES.
13. THIS IDS COVERS THE CONSTRUCTION-YEAR ROUNDABOUT. WHICH ACCORDING TO MODELS SHOULD FUNCTION ADEQUATELY AT LEAST THROUGH 2025. A SECOND IDS HAS BEEN PREPARED TO PROVIDE INFORMATION ON THE FINAL BUILD-OUT DESIGN. THAT IDS CONTAINS DRAWINGS NUMBERED B1-B8.
14. RIGHT-OF-WAY SHOWN IS WHAT IS REQUIRED FOR FINAL BUILD-OUT.



TRAFFIC DATA

MOVEMENT	YEAR 2010 PEAK HOUR TRAFFIC A.M.	P.M.	PERCENT TRUCK TRAFFIC IN PEAK HOUR A.M. (P.M.)		ESTIMATED PERCENT INCREASE BY 2025	YEAR 2025 DESIGN PEAK HOUR TRAFFIC A.M.	P.M.
AB	241	366	5%	8%	73% (73%)	365	553
AD	78	66	1%	1%	74% (74%)	119	101
AC	1	3	0%	0%	100% (100%)	10*	10*
BA	318	293	5%	10%	85% (85%)	506	466
BC	72	52	1%	8%	86% (86%)	115	84
BD	7	6	0%	4%	86% (100%)	12	11
CD	178	84	1%	6%	175% (175%)	380	180
CA	7	8	0%	0%	186% (175%)	16	18
CB	46	24	2%	0%	176% (175%)	99	52
DC	96	186	1%	2%	101% (101%)	163	315
DB	2	7	0%	0%	150% (114%)	10*	13
DA	54	83	2%	6%	102% (101%)	92	141
TOTAL A	699	819	-	-	82% (82%)	1108	1289
TOTAL B	686	748	-	-	88% (83%)	1107	1179
TOTAL C	400	357	-	-	141% (123%)	783	659
TOTAL D	415	432	-	-	128% (112%)	776	761

*VOLUMES WERE ROUNDED UP TO 10 FOR DESIGN PURPOSES.

YEAR 2025 DHV: A.M. (P.M.)

APPROACH	8TH MAX. HOUR TRAFFIC
A (NORTH)	605
B (SOUTH)	483
C (WEST)	193
D (EAST)	480

PREPARED BY: BURNS & MCDONNELL
1431 OPUS PLACE / DOWNERS GROVE IL 630-724-3200
PROJ. MGR. M. PAPIRNIK PROJ. ENG. J. BROCHTRUP

DRAWING NO.

INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
FAP ROUTE 326 WITH (IL ROUTE 47)

SEC. NO. 07-00357-00-CH PROJ. NO. CMM-8003 (829)
SCALE 1"=50' COUNTY KANE
SJN : REV. NO. 1

DATE	QA/QC REVIEWER	REMARKS
2/3/11	K RESTOFF	

CADD FILE NAME *DGN-SPEC*
REF FILE NAME

I.D.S. SHEET A1 OF 7

BDE-9409

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

NOTE: ALL CURVES HAVE NORMAL CROWN SUPERELEVATION UNLESS OTHERWISE NOTED.

PROP. CURVE 47SB-1
PI STA. = 298+99.34
Δ = 34° 29′ 17″ (LT)
D = 47° 44′ 47″
R = 120.00′
T = 37.25′
L = 72.23′
E = 5.65′
P.C. STA. = 298+62.09
P.T. STA. = 299+34.33

PROP. CURVE 47SB-2
PI STA. = 300+25.51
Δ = 77° 08′ 40″ (RT)
D = 100° 31′ 08″
R = 57.00′
T = 45.46′
L = 76.75′
E = 15.91′
P.R.C. STA. = 299+80.05
P.R.C. STA. = 300+56.80

PROP. CURVE 47SB-3
PI STA. = 301+17.58
Δ = 54° 50′ 21″ (LT)
D = 48° 54′ 07″
R = 117.16′
T = 60.78′
L = 112.14′
E = 14.83′
P.R.C. STA. = 300+56.80
P.R.C. STA. = 301+68.94

PROP. CURVE 47SB-4
PI STA. = 302+26.84
Δ = 20° 12′ 11″ (RT)
D = 17° 37′ 46″
R = 325.00′
T = 57.90′
L = 114.60′
E = 5.12′
P.R.C. STA. = 301+68.94
P.R.C. STA. = 302+83.54

PROP. CURVE 47SB-5
PI STA. = 304+10.40
Δ = 8° 01′ 13″ (LT)
D = 3° 09′ 59″
R = 1,809.54′
T = 126.86′
L = 253.30′
E = 4.44′
P.R.C. STA. = 302+83.54
P.T. STA. = 305+36.84

PROP. CURVE BURLSEB-1
PI STA. = 116+37.81
Δ = 3° 39′ 01″ (RT)
D = 2° 51′ 53″
R = 2,000.00′
T = 63.73′
L = 127.42′
E = 1.02′
P.C. STA. = 115+74.08
P.R.C. STA. = 117+01.50

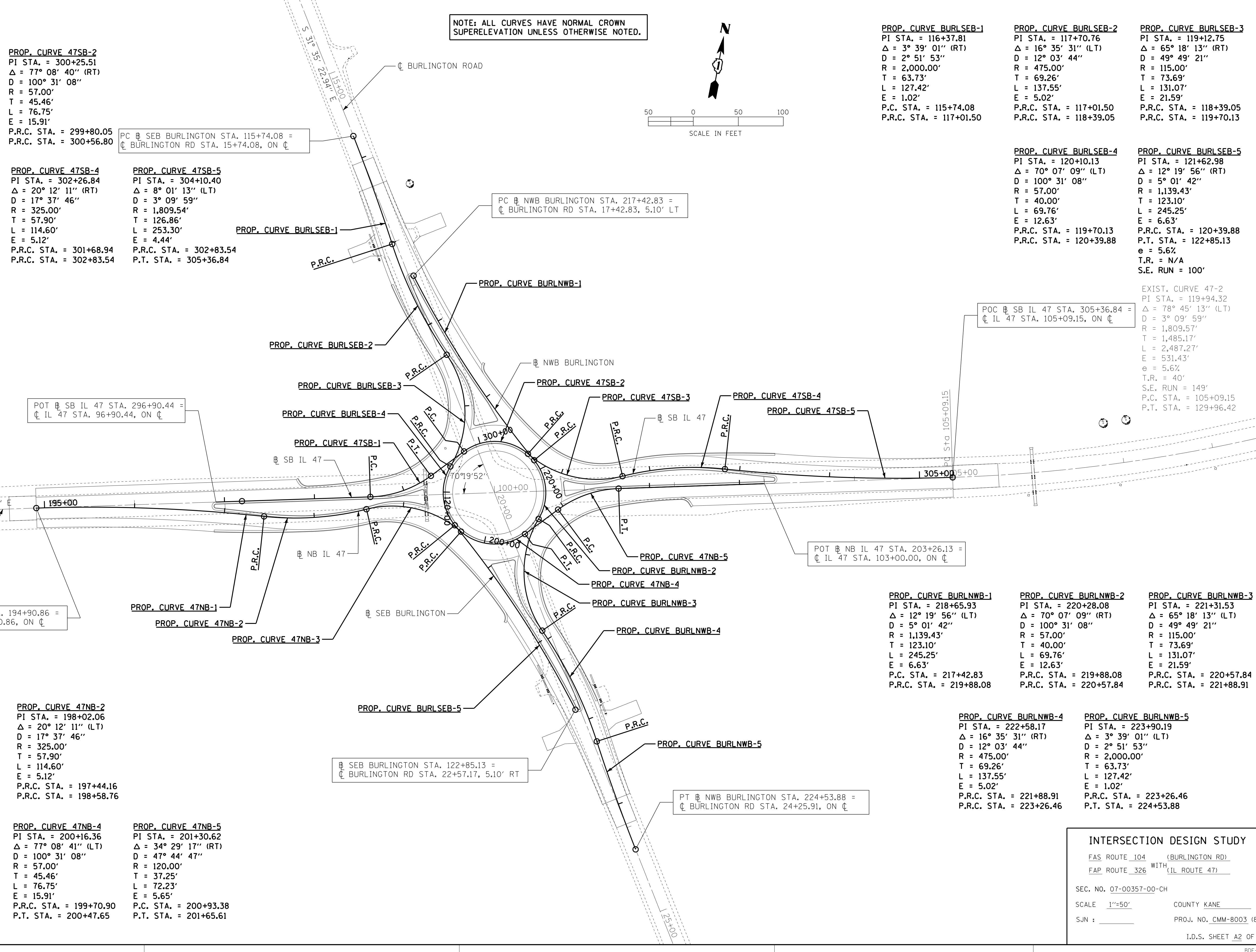
PROP. CURVE BURLSEB-2
PI STA. = 117+70.76
Δ = 16° 35′ 31″ (LT)
D = 12° 03′ 44″
R = 475.00′
T = 69.26′
L = 137.55′
E = 5.02′
P.R.C. STA. = 117+01.50
P.R.C. STA. = 118+39.05

PROP. CURVE BURLSEB-3
PI STA. = 119+12.75
Δ = 65° 18′ 13″ (RT)
D = 49° 49′ 21″
R = 115.00′
T = 73.69′
L = 131.07′
E = 21.59′
P.R.C. STA. = 118+39.05
P.R.C. STA. = 119+70.13

PROP. CURVE BURLSEB-4
PI STA. = 120+10.13
Δ = 70° 07′ 09″ (LT)
D = 100° 31′ 08″
R = 57.00′
T = 40.00′
L = 69.76′
E = 12.63′
P.R.C. STA. = 119+70.13
P.R.C. STA. = 120+39.88

PROP. CURVE BURLSEB-5
PI STA. = 121+62.98
Δ = 12° 19′ 56″ (RT)
D = 5° 01′ 42″
R = 1,139.43′
T = 123.10′
L = 245.25′
E = 6.63′
P.R.C. STA. = 120+39.88
P.T. STA. = 122+85.13
e = 5.6%
T.R. = N/A
S.E. RUN = 100′

EXIST. CURVE 47-2
PI STA. = 119+94.32
Δ = 78° 45′ 13″ (LT)
D = 3° 09′ 59″
R = 1,809.57′
T = 1,485.17′
L = 2,487.27′
E = 531.43′
e = 5.6%
T.R. = 40′
S.E. RUN = 149′
P.C. STA. = 105+09.15
P.T. STA. = 129+96.42



PROP. CURVE BURLNWB-1
PI STA. = 218+65.93
Δ = 12° 19′ 56″ (LT)
D = 5° 01′ 42″
R = 1,139.43′
T = 123.10′
L = 245.25′
E = 6.63′
P.C. STA. = 217+42.83
P.R.C. STA. = 219+88.08

PROP. CURVE BURLNWB-2
PI STA. = 220+28.08
Δ = 70° 07′ 09″ (RT)
D = 100° 31′ 08″
R = 57.00′
T = 40.00′
L = 69.76′
E = 12.63′
P.R.C. STA. = 219+88.08
P.R.C. STA. = 220+57.84

PROP. CURVE BURLNWB-3
PI STA. = 221+31.53
Δ = 65° 18′ 13″ (LT)
D = 49° 49′ 21″
R = 115.00′
T = 73.69′
L = 131.07′
E = 21.59′
P.R.C. STA. = 220+57.84
P.R.C. STA. = 221+88.91

PROP. CURVE BURLNWB-4
PI STA. = 222+58.17
Δ = 16° 35′ 31″ (RT)
D = 12° 03′ 44″
R = 475.00′
T = 69.26′
L = 137.55′
E = 5.02′
P.R.C. STA. = 221+88.91
P.R.C. STA. = 223+26.46

PROP. CURVE BURLNWB-5
PI STA. = 223+90.19
Δ = 3° 39′ 01″ (LT)
D = 2° 51′ 53″
R = 2,000.00′
T = 63.73′
L = 127.42′
E = 1.02′
P.R.C. STA. = 223+26.46
P.T. STA. = 224+53.88

PROP. CURVE 47NB-1
PI STA. = 196+17.72
Δ = 8° 01′ 13″ (RT)
D = 3° 09′ 59″
R = 1,809.57′
T = 126.86′
L = 253.30′
E = 4.44′
P.C. STA. = 194+90.86
P.R.C. STA. = 197+44.16

PROP. CURVE 47NB-2
PI STA. = 198+02.06
Δ = 20° 12′ 11″ (LT)
D = 17° 37′ 46″
R = 325.00′
T = 57.90′
L = 114.60′
E = 5.12′
P.R.C. STA. = 197+44.16
P.R.C. STA. = 198+58.76

PROP. CURVE 47NB-3
PI STA. = 199+19.55
Δ = 54° 50′ 21″ (RT)
D = 48° 54′ 07″
R = 117.16′
T = 60.78′
L = 112.14′
E = 14.82′
P.R.C. STA. = 198+58.76
P.R.C. STA. = 199+70.90

PROP. CURVE 47NB-4
PI STA. = 200+16.36
Δ = 77° 08′ 41″ (LT)
D = 100° 31′ 08″
R = 57.00′
T = 45.46′
L = 76.75′
E = 15.91′
P.R.C. STA. = 199+70.90
P.T. STA. = 200+47.65

PROP. CURVE 47NB-5
PI STA. = 201+30.62
Δ = 34° 29′ 17″ (RT)
D = 47° 44′ 47″
R = 120.00′
T = 37.25′
L = 72.23′
E = 5.65′
P.C. STA. = 200+93.38
P.T. STA. = 201+65.61

INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
WITH
FAP ROUTE 326 (IL ROUTE 47)

SEC. NO. 07-00357-00-CH

SCALE 1″=50′ COUNTY KANE

SJN : PROJ. NO. CMM-8003 (829)

I.D.S. SHEET A2 OF 7

BDE-9908

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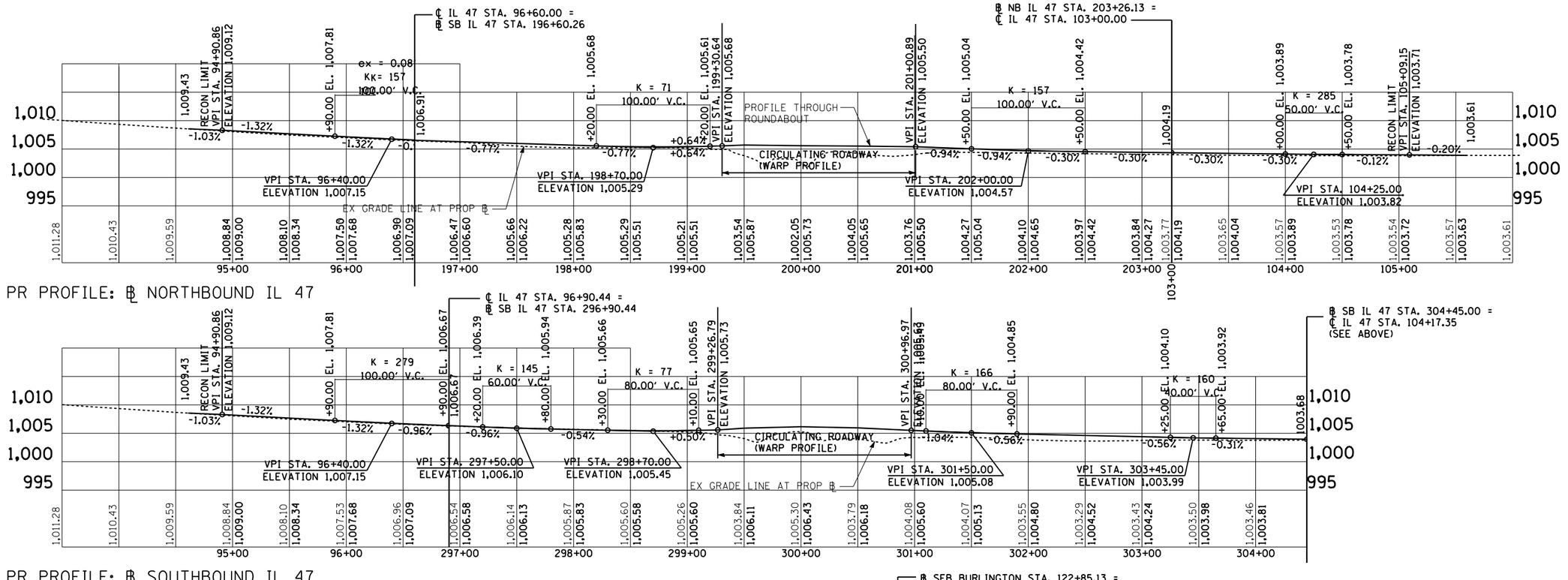
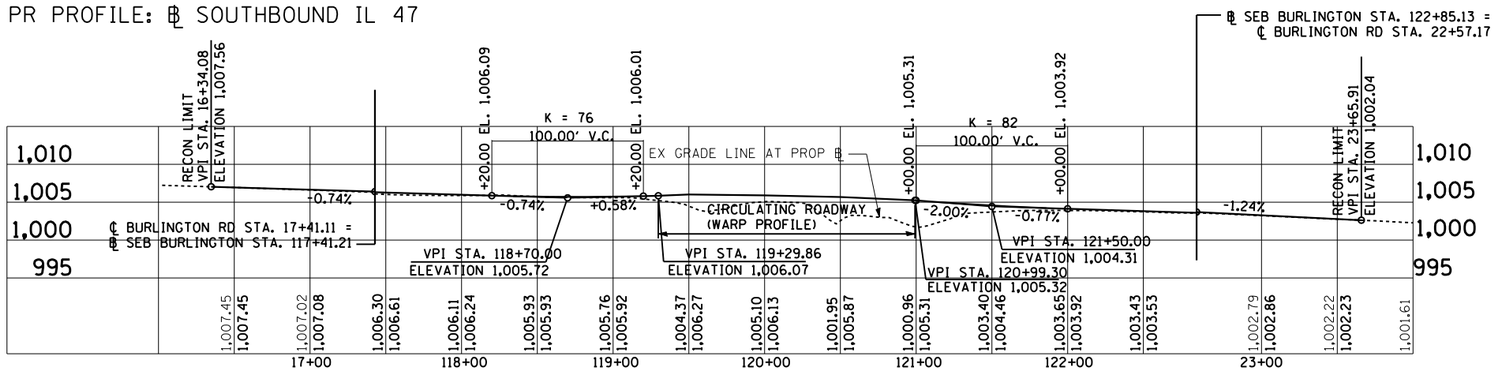
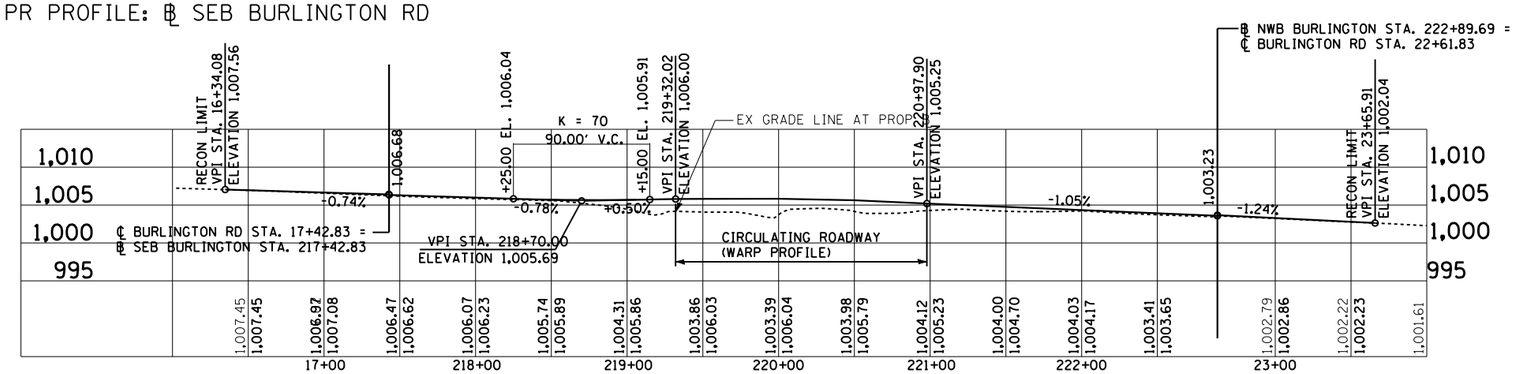


PR PROFILE: ℄ NORTHBOUND IL 47

PR PROFILE: ℄ SOUTHBOUND IL 47



PR PROFILE: ℄ SEB BURLINGTON RD



PR PROFILE: ℄ NWB BURLINGTON RD

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FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$

INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
FAP ROUTE 326 WITH (IL ROUTE 47)

SEC. NO. 07-00357-00-CH
SCALE H 1"=50'
V 1"=10'
COUNTY KANE
SJN : _____
PROJ. NO. _____

I.D.S. SHEET A3 OF 7

BDE-9908

PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$

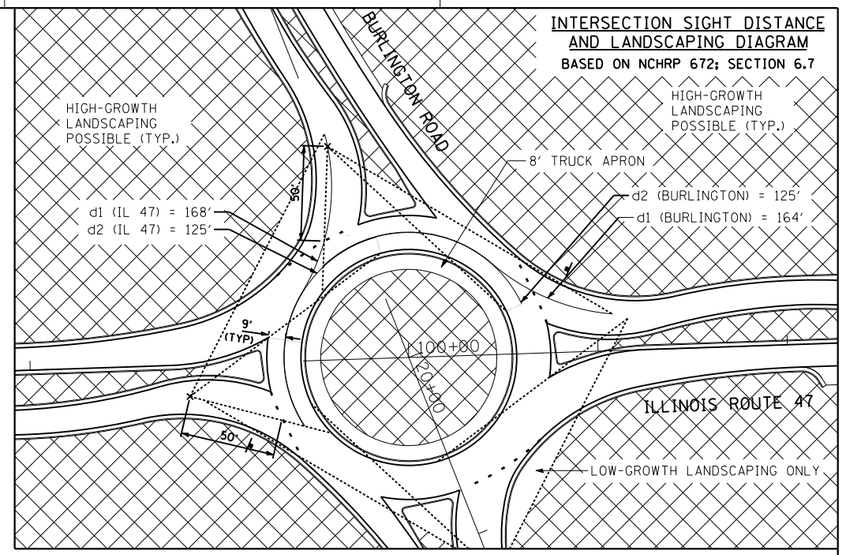
NOTE: ALL STATION AND OFFSET INFORMATION ON THIS SHEET IS BASED ON THE IL ROUTE 47 CENTERLINE, EXCEPT AS NOTED.

STA/OFFSET OF MARKED POINTS ON INSCRIBED CIRCLE:

#1	99+75.45	70.87 LT
#2	99+67.43	67.55 LT
#3	99+27.57	19.44 LT
#4	99+26.13	12.95 LT
#5	99+26.67	15.72 RT
#6	99+27.79	20.24 RT
#7	100+24.56	70.87 RT
#8	100+32.58	67.55 RT
#9	100+72.44	19.44 RT
#10	100+73.88	12.95 RT
#11	100+73.34	15.72 LT
#12	100+72.22	20.24 LT

INTERSECTION SIGHT DISTANCE AND LANDSCAPING DIAGRAM

BASED ON NCHRP 672: SECTION 6.7



SPLITTER ISLAND END DETAIL (TYPICAL)
PER BDE FIGURE 36-2.E

YIELD LINE DETAIL

INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
FAP ROUTE 326 WITH (IL ROUTE 47)

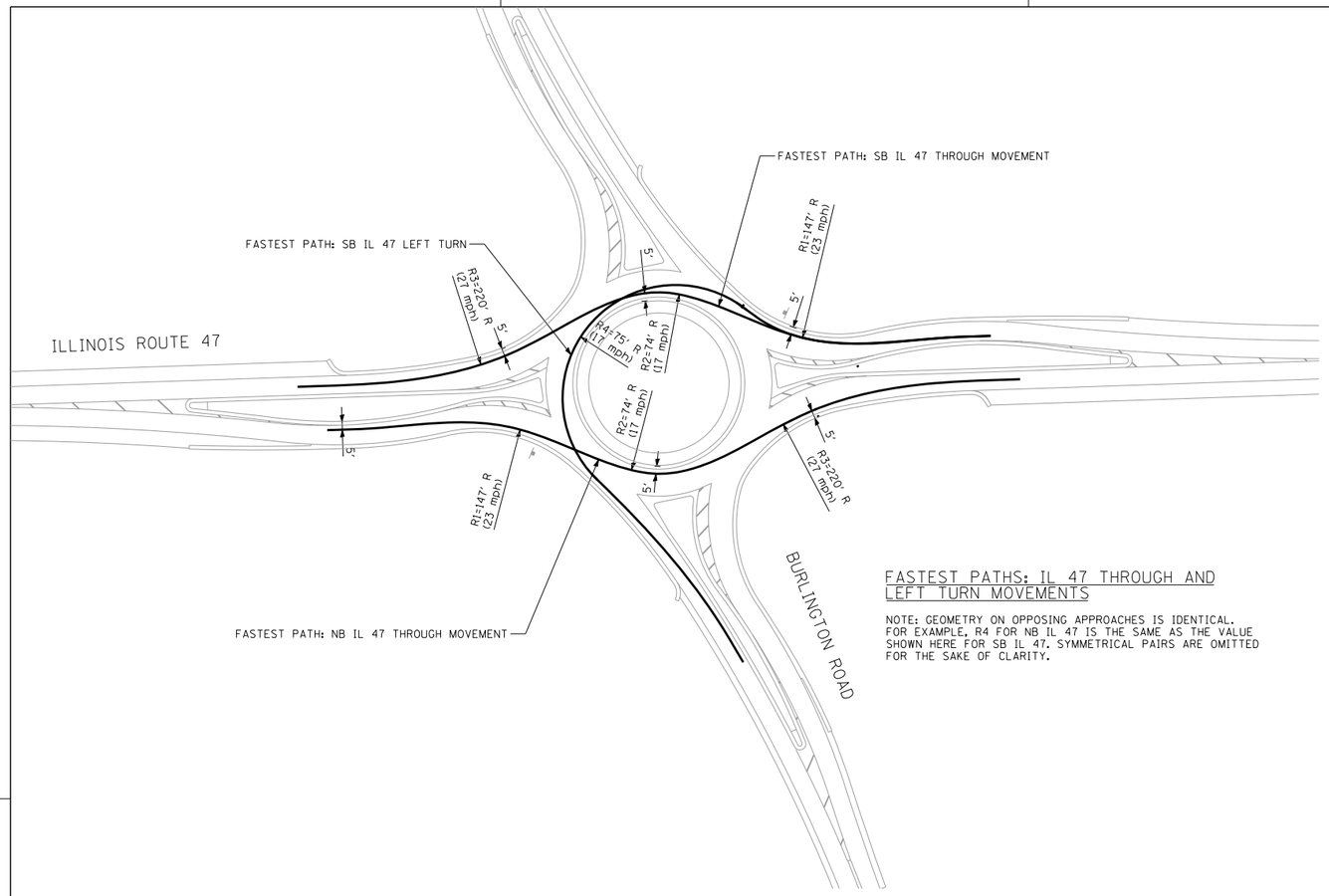
SEC. NO. 07-00357-00-CH

SCALE 1"=20' COUNTY KANE

SJN : _____ PROJ. NO. CMM-8003 (829)

I.D.S. SHEET A4 OF 7

BDE-9908

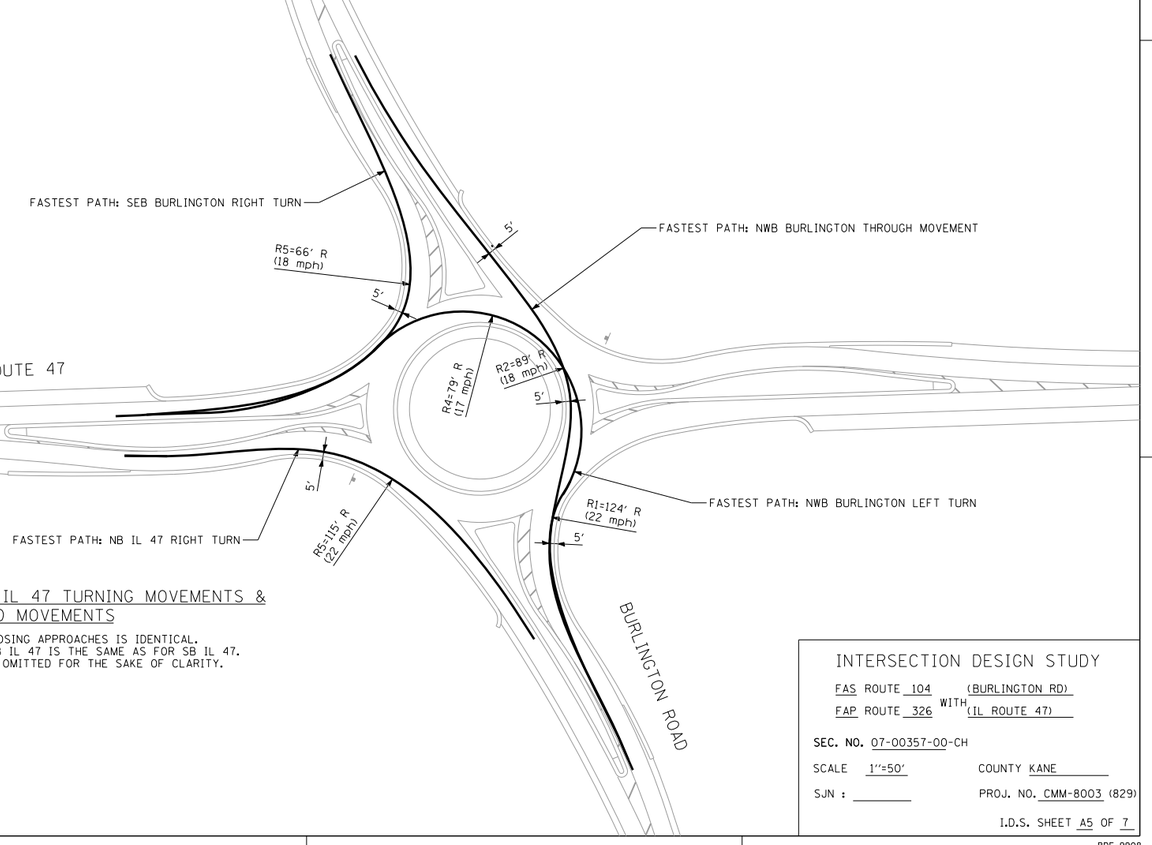


FASTEST PATHS: IL 47 THROUGH AND LEFT TURN MOVEMENTS

NOTE: GEOMETRY ON OPPOSING APPROACHES IS IDENTICAL. FOR EXAMPLE, R4 FOR NB IL 47 IS THE SAME AS THE VALUE SHOWN HERE FOR SB IL 47. SYMMETRICAL PAIRS ARE OMITTED FOR THE SAKE OF CLARITY.

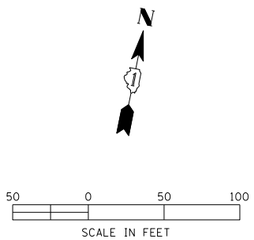
FASTEST PATH RADII

Approach	NB IL 47	NWB Burlington	SB IL 47	SEB Burlington
R1	147'	124'	147'	124'
R2	74'	89'	74'	89'
R3	220'	N/A	220'	N/A
R4	75'	79'	75'	79'
R5	115'	66'	115'	66'



FASTEST PATHS: IL 47 TURNING MOVEMENTS & BURLINGTON ROAD MOVEMENTS

NOTE: GEOMETRY ON OPPOSING APPROACHES IS IDENTICAL. FOR EXAMPLE, R5 FOR NB IL 47 IS THE SAME AS FOR SB IL 47. SYMMETRICAL PAIRS ARE OMITTED FOR THE SAKE OF CLARITY.



INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
FAP ROUTE 326 WITH (IL ROUTE 47)

SEC. NO. 07-00357-00-CH

SCALE 1"=50' COUNTY KANE

SJN : _____ PROJ. NO. CMM-8003 (829)

I.D.S. SHEET A5 OF 7

BDE-9908

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USER NAME = $USER$

PLOT DATE = $DATE$
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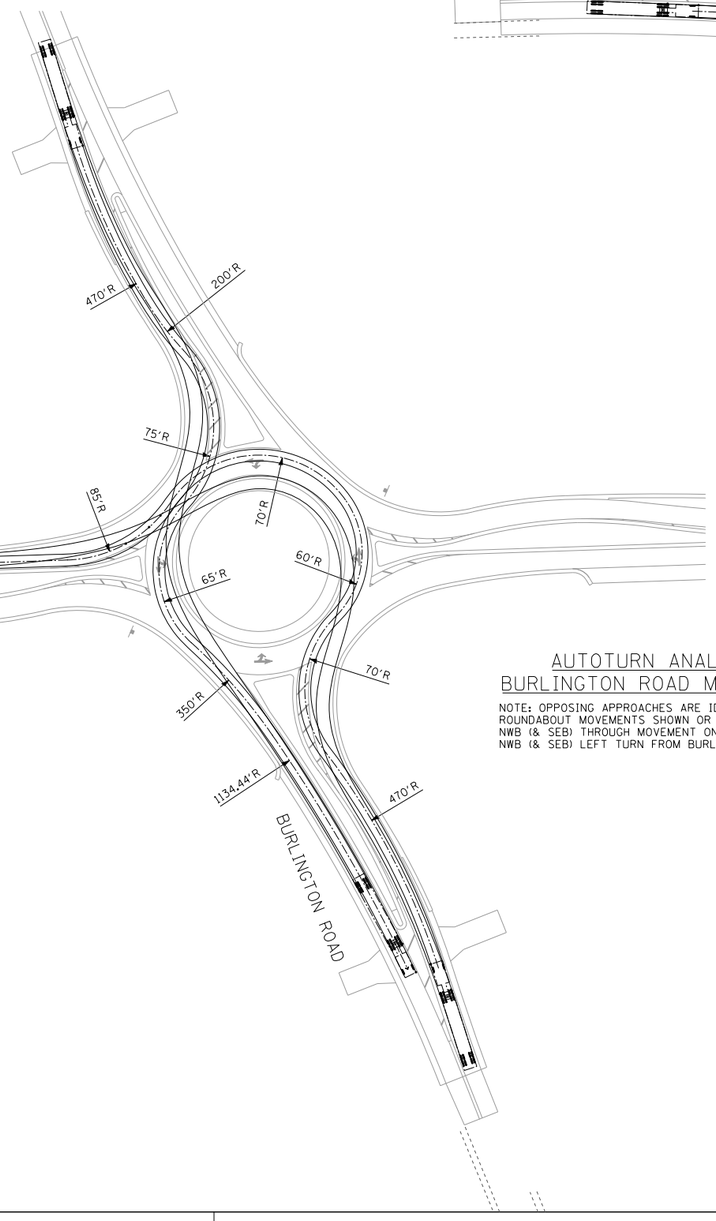
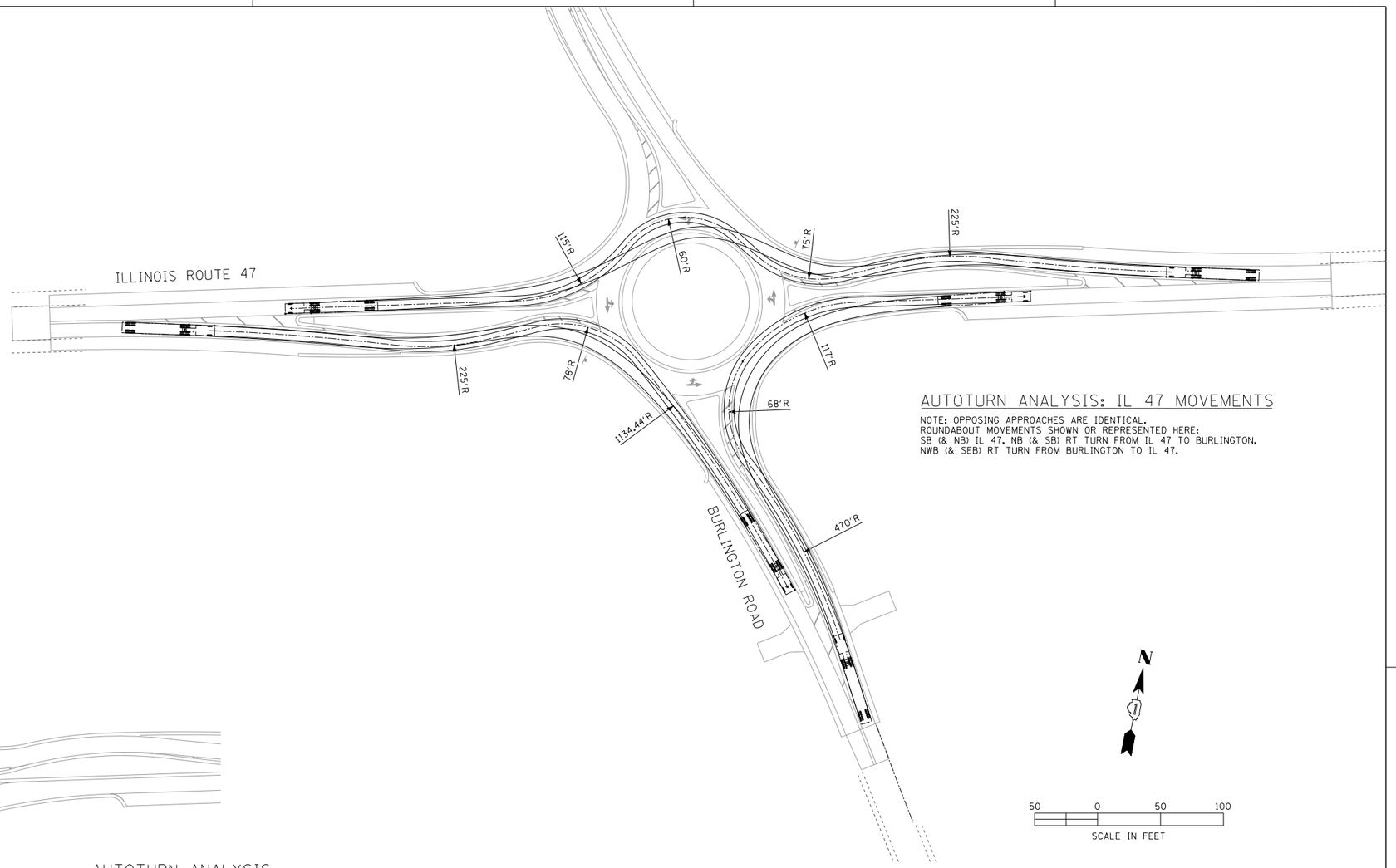
PLOT SCALE = $SCALE$
USER NAME = $USER$



AUTOTURN ANALYSIS: BURLINGTON ROAD MOVEMENTS

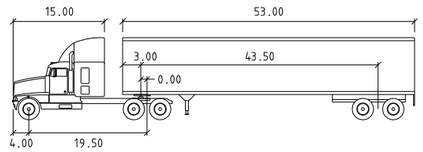
NOTE: OPPOSING APPROACHES ARE IDENTICAL.
ROUNDABOUT MOVEMENTS SHOWN OR REPRESENTED HERE:
NWB (& SEB) THROUGH MOVEMENT ON BURLINGTON.
NWB (& SEB) LEFT TURN FROM BURLINGTON TO IL 47.



AUTOTURN ANALYSIS: IL 47 MOVEMENTS

NOTE: OPPOSING APPROACHES ARE IDENTICAL.
ROUNDABOUT MOVEMENTS SHOWN OR REPRESENTED HERE:
SB (& NB) IL 47, NB (& SB) RT TURN FROM IL 47 TO BURLINGTON.
NWB (& SEB) RT TURN FROM BURLINGTON TO IL 47.

DESIGN VEHICLE: WB-65



WB-65	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.00
Trailer Width	: 8.50	Steering Angle	: 28.40
Tractor Track	: 8.00	Articulating Angle	: 70.00
Trailer Track	: 8.50		

INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
FAP ROUTE 326 WITH (IL ROUTE 47)

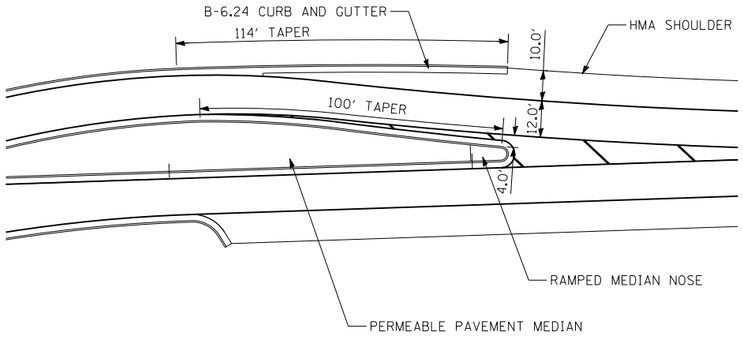
SEC. NO. 07-00357-00-CH

SCALE 1"=50' COUNTY KANE

SJN : _____ PROJ. NO. CMM-8003 (829)

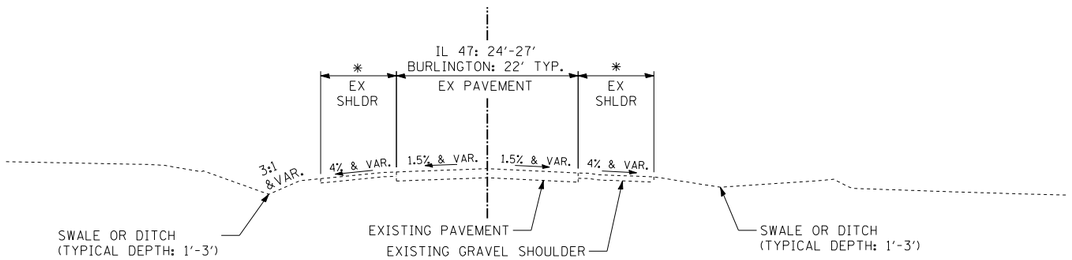
I.D.S. SHEET A6 OF 7

BDE-9908



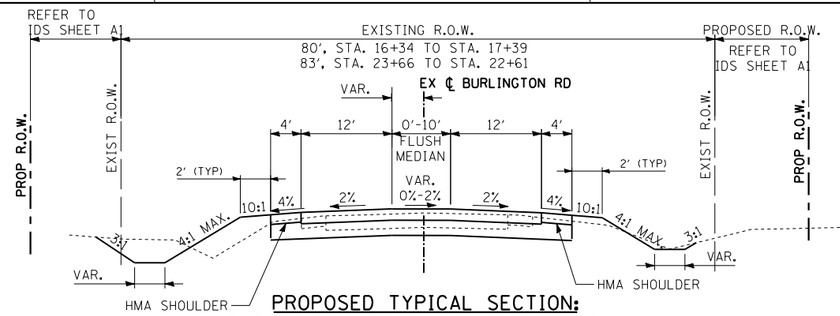
SPLITTER ISLAND NOSE DETAIL

NOTE:
DITCH SLOPES AND WIDTHS VARY SIGNIFICANTLY WITH THE NEED TO PROVIDE DETENTION. REFER TO THE LOCATION DRAINAGE STUDY FOR DETAILS.



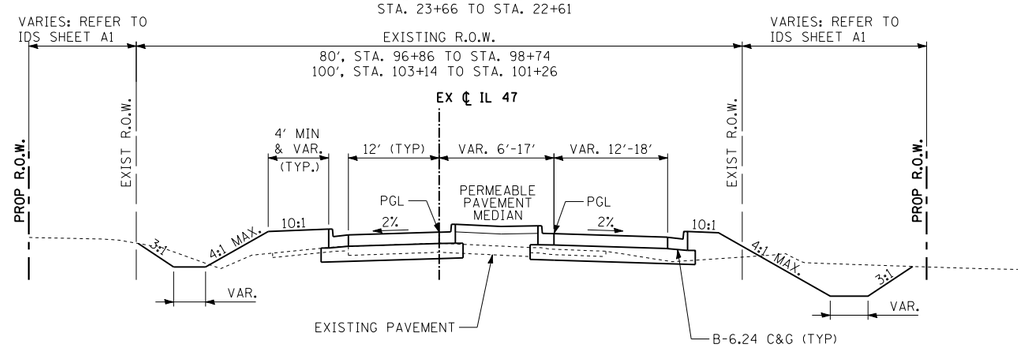
*IL 47: GRAVEL SHOULDER, WIDTH 10' & VAR.
BURLINGTON: TURF/GRAVEL SHOULDER, WIDTH 4' & VAR.

EXISTING TYPICAL SECTION: IL 47 AND BURLINGTON ROAD



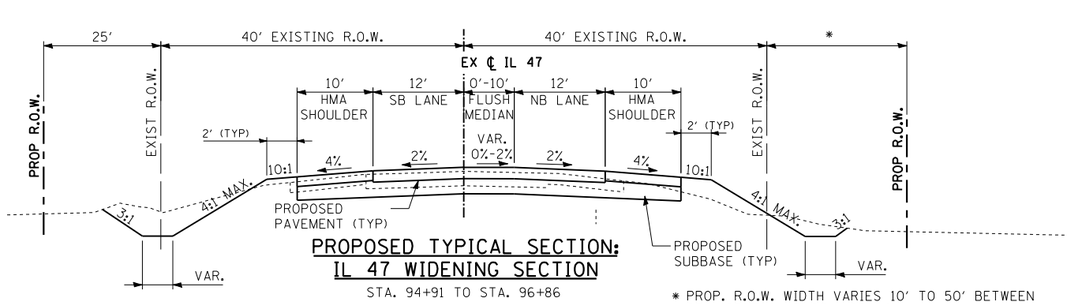
PROPOSED TYPICAL SECTION: BURLINGTON ROAD WIDENING SECTION

LOOKING TOWARD THE INTERSECTION:
STA. 16+34 TO STA. 17+39
STA. 23+66 TO STA. 22+61



PROPOSED TYPICAL SECTION: IL ROUTE 47 APPROACHES

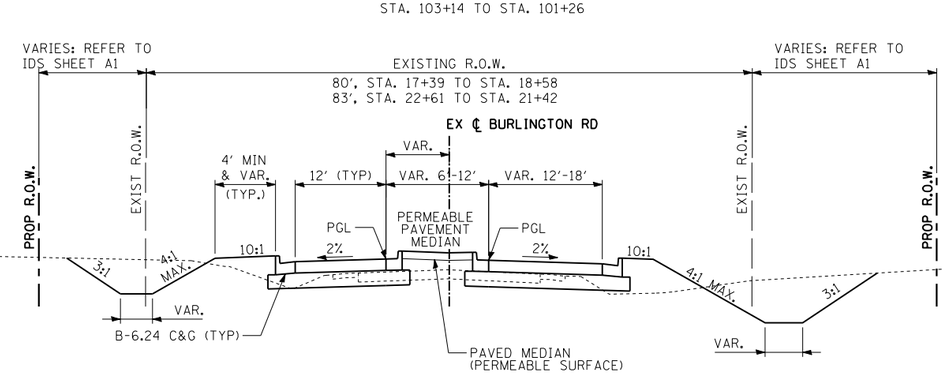
LOOKING TOWARD THE INTERSECTION:
STA. 96+86 TO STA. 98+74
STA. 103+14 TO STA. 101+26



PROPOSED TYPICAL SECTION: IL 47 WIDENING SECTION

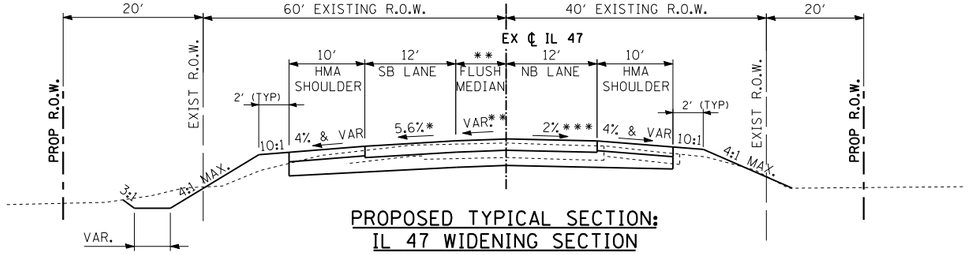
STA. 94+91 TO STA. 96+86

* PROP. R.O.W. WIDTH VARIES 10' TO 50' BETWEEN STA. 93+50 AND STA. 97+00



PROPOSED TYPICAL SECTION: BURLINGTON ROAD APPROACHES

LOOKING TOWARD THE INTERSECTION:
STA. 17+39 TO STA. 18+58
STA. 22+61 TO STA. 21+42



PROPOSED TYPICAL SECTION: IL 47 WIDENING SECTION

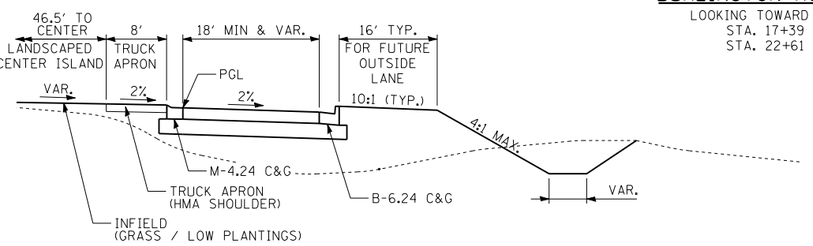
STA. 103+14 TO STA. 105+09

* SB LANE VARIES 2.0% TO 5.6% BETWEEN STA. 103+14 AND STA. 104+14

** MEDIAN SLOPE VARIES 1.0% TO 5.6% AND WIDTH VARIES 10' TO 0' BETWEEN STA. 103+14 AND STA. 105+09

*** NB LANE VARIES 2.0% RT TO 3.75% LT BETWEEN STA. 103+42 AND STA. 105+09

SHOULDER SLOPES VARY WITH ADJACENT LANES



PROPOSED TYPICAL SECTION THROUGH CIRCULATING ROADWAY

LOOKING IN THE DIRECTION OF TRAFFIC

INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
FAP ROUTE 326 WITH (IL ROUTE 47)

SEC. NO. 07-00357-00-CH

SCALE 1"=50' COUNTY KANE

SJN : _____ PROJ. NO. CMM-8003 (829)

I.D.S. SHEET A7 OF 7

BDE-9908

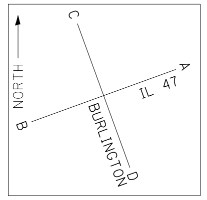
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

ROUNDABOUT CAPACITY ANALYSIS - ULTIMATE BUILD-OUT DESIGN

PROGRAM USED: SIDRA VERSION 4.0

INSCRIBED CIRCLE DIAMETER: 174′
CENTER ISLAND DIAMETER: 114′
PEAK HOUR FACTOR: 0.95 (AM); 0.95 (PM)
AREA TYPE: NON-CBD

INTERSECTION LOS (AM): B (13.7 SEC DELAY)
(PM): B (10.5 SEC DELAY)



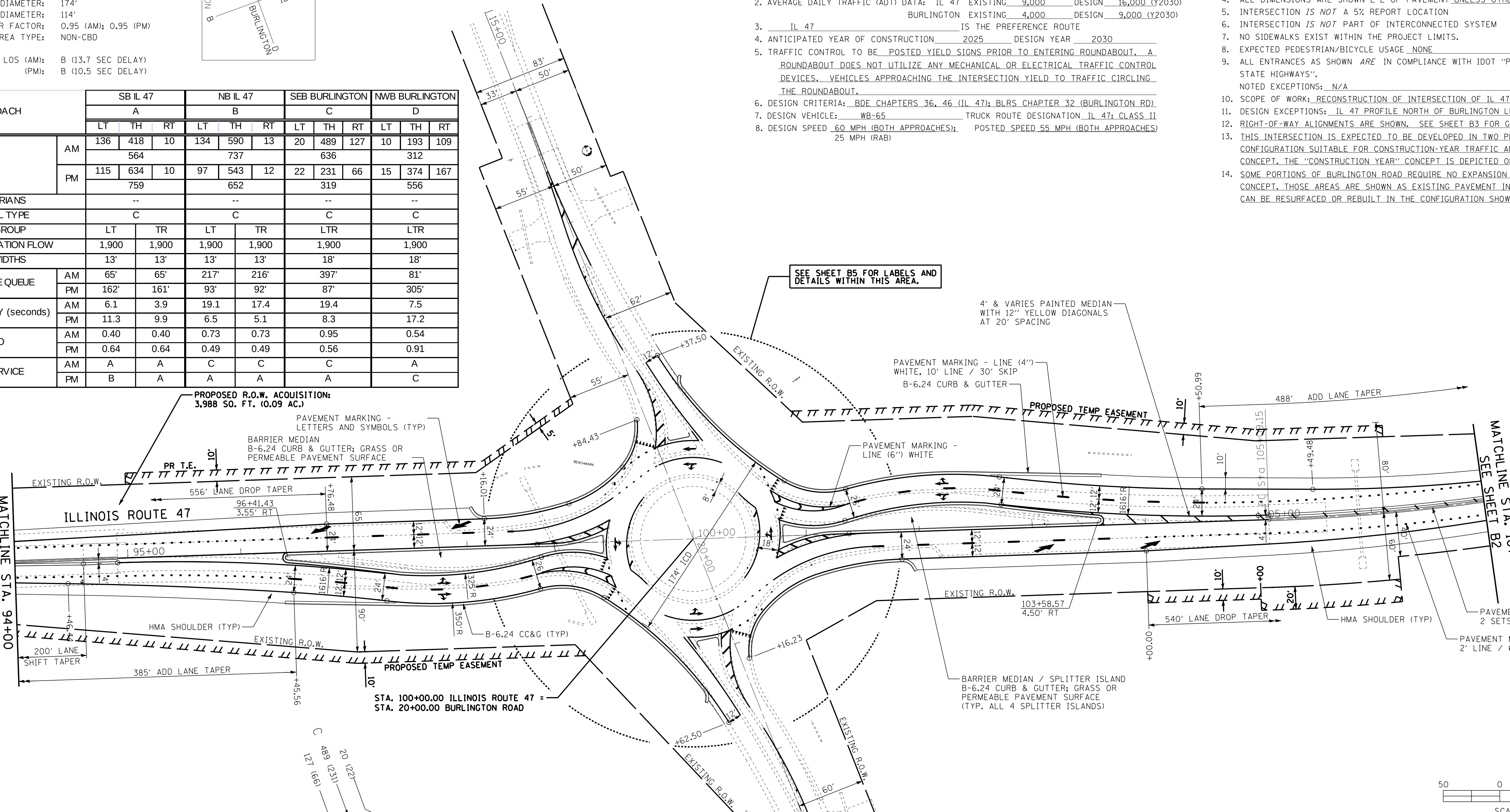
APPROACH		SB IL 47			NB IL 47			SEB BURLINGTON			NWB BURLINGTON		
		A			B			C			D		
		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
DHV	AM	136	418	10	134	590	13	20	489	127	10	193	109
		564			737			636			312		
	PM	115	634	10	97	543	12	22	231	66	15	374	167
		759			652			319			556		
PEDESTRIANS		--			--			--			--		
ARRIVAL TYPE		C			C			C			C		
LANE GROUP		LT	TR		LT	TR		LTR			LTR		
BASE SATURATION FLOW		1,900	1,900		1,900	1,900		1,900			1,900		
LANE WIDTHS		13'	13'		13'	13'		18'			18'		
95th PERCENTILE QUEUE	AM	65'	65'		217'	216'		397'			81'		
	PM	162'	161'		93'	92'		87'			305'		
LANE GROUP DELAY (seconds)	AM	6.1	3.9		19.1	17.4		19.4			7.5		
	PM	11.3	9.9		6.5	5.1		8.3			17.2		
V/C RATIO	AM	0.40	0.40		0.73	0.73		0.95			0.54		
	PM	0.64	0.64		0.49	0.49		0.56			0.91		
LEVEL OF SERVICE	AM	A	A		C	C		C			A		
	PM	B	A		A	A		A			C		

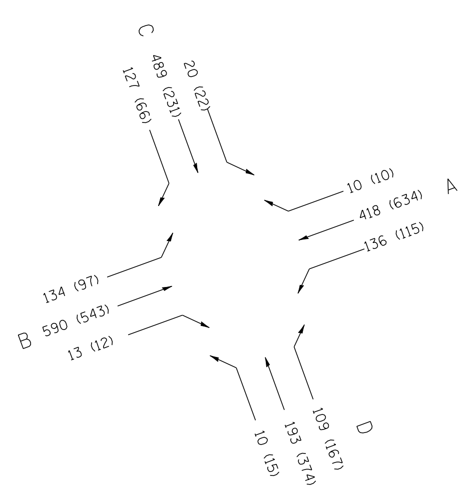
ELEMENTS CONTROLLING DESIGN

1. HIGHWAY DESIGN CLASSIFICATION IL 47: OTHER PRINICIPAL ARTERIAL
   SRA: YES X NO
   HIGHWAY DESIGN CLASSIFICATION BURLINGTON ROAD: MINOR ARTERIAL
   SRA: YES NO X
2. AVERAGE DAILY TRAFFIC (ADT) DATA: IL 47 EXISTING 9,000 DESIGN 16,000 (Y2030)
   BURLINGTON EXISTING 4,000 DESIGN 9,000 (Y2030)
3. IL 47 IS THE PREFERENCE ROUTE
4. ANTICIPATED YEAR OF CONSTRUCTION 2025 DESIGN YEAR 2030
5. TRAFFIC CONTROL TO BE POSTED YIELD SIGNS PRIOR TO ENTERING ROUNDABOUT. A ROUNDABOUT DOES NOT UTILIZE ANY MECHANICAL OR ELECTRICAL TRAFFIC CONTROL DEVICES. VEHICLES APPROACHING THE INTERSECTION YIELD TO TRAFFIC CIRCLING THE ROUNDABOUT.
6. DESIGN CRITERIA: BDE CHAPTERS 36, 46 (IL 47); BLRS CHAPTER 32 (BURLINGTON RD)
7. DESIGN VEHICLE: WB-65 TRUCK ROUTE DESIGNATION IL 47: CLASS II
8. DESIGN SPEED 60 MPH (BOTH APPROACHES); 25 MPH (RAB) POSTED SPEED 55 MPH (BOTH APPROACHES)

GENERAL NOTES

1. PROFILES *ARE* PROVIDED, SINCE APPROACH GRADES ARE GREATER THAN 1.0% ON SOME APPROACHES AND NEW PROFILES ARE PROPOSED.
2. TYPE B-6.24 CURB AND GUTTER TO BE USED ON OUTER EDGES OF PAVEMENT
3. TYPE B-6.24 CURB AND GUTTER TO BE USED ON THE SPLITTER ISLANDS.
4. ALL DIMENSIONS ARE SHOWN E-E OF PAVEMENT UNLESS OTHERWISE NOTED
5. INTERSECTION *IS NOT* A 5% REPORT LOCATION
6. INTERSECTION *IS NOT* PART OF INTERCONNECTED SYSTEM
7. NO SIDEWALKS EXIST WITHIN THE PROJECT LIMITS.
8. EXPECTED PEDESTRIAN/BICYCLE USAGE NONE
9. ALL ENTRANCES AS SHOWN *ARE* IN COMPLIANCE WITH IDOT "POLICIES ON ACCESS TO STATE HIGHWAYS".
   NOTED EXCEPTIONS: N/A
10. SCOPE OF WORK: RECONSTRUCTION OF INTERSECTION OF IL 47 AND BURLINGTON ROAD
11. DESIGN EXCEPTIONS: IL 47 PROFILE NORTH OF BURLINGTON LESS THAN 0.3%.
12. RIGHT-OF-WAY ALIGNMENTS ARE SHOWN. SEE SHEET B3 FOR GEOMETRIC BASELINES.
13. THIS INTERSECTION IS EXPECTED TO BE DEVELOPED IN TWO PHASES, WITH AN INITIAL CONFIGURATION SUITABLE FOR CONSTRUCTION-YEAR TRAFFIC AND THIS FINAL BUILD-OUT CONCEPT. THE "CONSTRUCTION YEAR" CONCEPT IS DEPICTED ON DRAWINGS A1-A7.
14. SOME PORTIONS OF BURLINGTON ROAD REQUIRE NO EXPANSION FOR THE BUILD-OUT CONCEPT. THOSE AREAS ARE SHOWN AS EXISTING PAVEMENT IN THIS DRAWING. THEY CAN BE RESURFACED OR REBUILT IN THE CONFIGURATION SHOWN IF NEEDED.





DESIGN YEAR (2030) DHV: A.M. (P.M.)

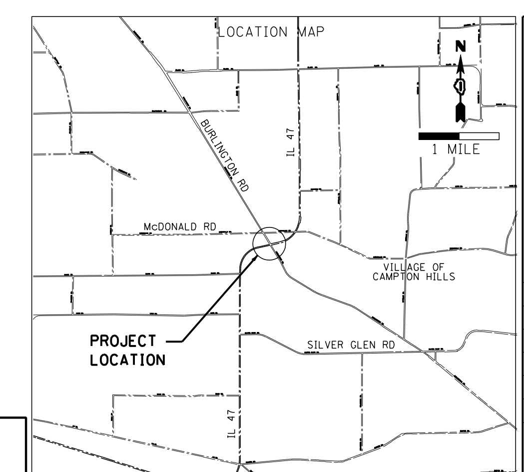
APPROACH	8TH MAX. HOUR TRAFFIC
A (NORTH)	695
B (SOUTH)	564
C (WEST)	248
D (EAST)	572

TRAFFIC DATA

MOVEMENT	YEAR 2010 PEAK HOUR TRAFFIC		PERCENT TRUCK TRAFFIC IN PEAK HOUR A.M. (P.M.)		ESTIMATED PERCENT INCREASE BY 2030	YEAR 2030 DESIGN PEAK HOUR TRAFFIC	
	A.M.	P.M.				A.M.	P.M.
AB	241	366	5%	8%	73% (73%)	418	634
AD	78	66	1%	1%	74% (74%)	136	115
AC	1	3	0%	0%	100% (100%)	10*	10*
BA	318	293	5%	10%	85% (85%)	590	543
BC	72	52	1%	8%	86% (86%)	134	97
BD	7	6	0%	4%	86% (100%)	13	12
CD	178	84	1%	6%	175% (175%)	489	231
CA	7	8	0%	0%	186% (175%)	20	22
CB	46	24	2%	0%	176% (175%)	127	66
DC	96	186	1%	2%	101% (101%)	193	374
DB	2	7	0%	0%	150% (114%)	10*	15
DA	54	83	2%	6%	102% (101%)	109	167
TOTAL A	699	819	-	-	82% (82%)	1275	1487
TOTAL B	686	748	-	-	88% (83%)	1287	1367
TOTAL C	400	357	-	-	141% (123%)	965	796
TOTAL D	415	432	-	-	128% (112%)	945	914

* VOLUMES WERE ROUNDED UP TO 10 FOR DESIGN PURPOSES.

PREPARED BY: BURNS & MCDONNELL
1431 OPUS PLACE / DOWNERS GROVE IL 630-724-3200
PROJ. MGR. M. PAPIRNIK PROJ. ENG. J. BROCHTRUP



DRAWING NO.

INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
WITH
FAP ROUTE 326 (IL ROUTE 47)

SEC. NO. 07-00357-00-CH PROJ. NO. CMM-8003 (829)
SCALE 1″=50′ COUNTY KANE
SJN : REV. NO. 1

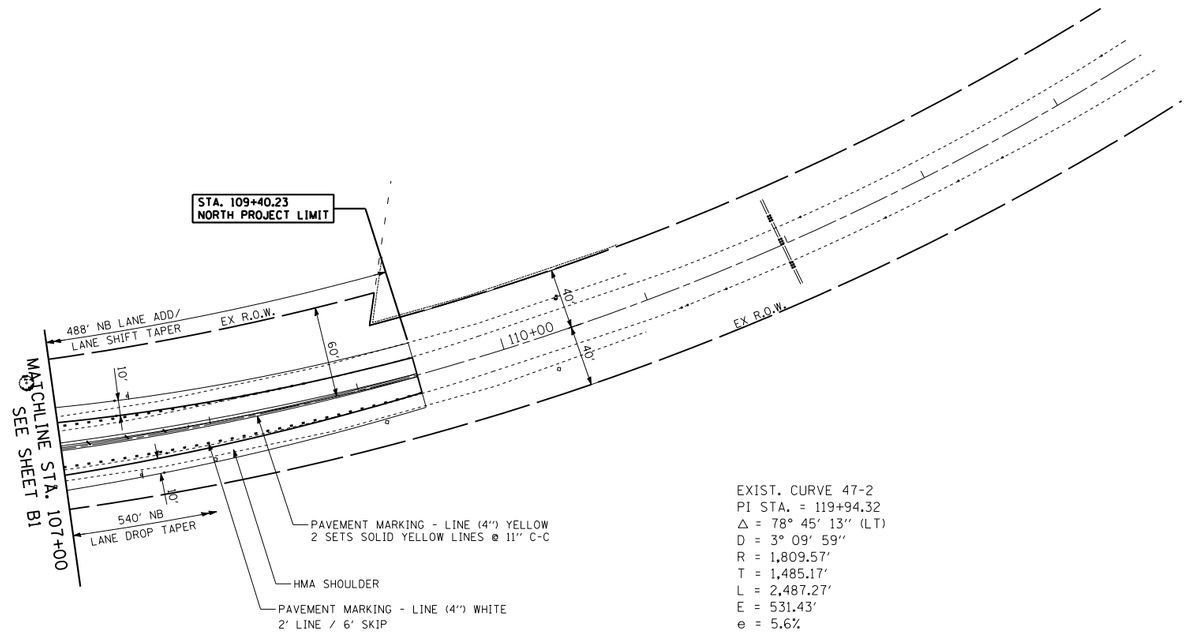
DATE	QA/QC REVIEWER	REMARKS
2/3/11	K RESTOFF	

CADD FILE NAME *DGN-SPEC*
REF FILE NAME

I.D.S. SHEET B1 OF 8

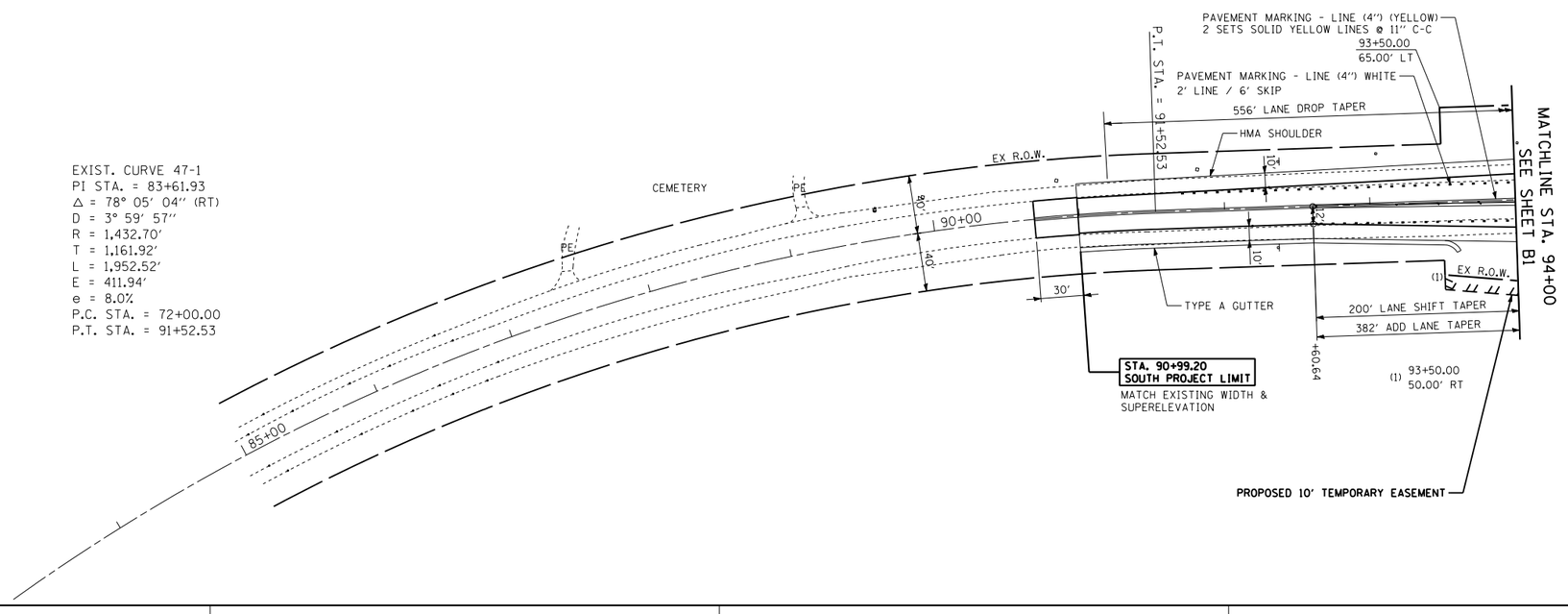
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

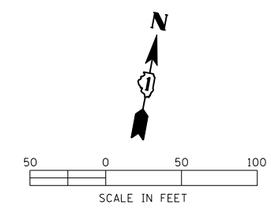
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$



EXIST. CURVE 47-2
PI STA. = 119+94.32
Δ = 78° 45′ 13″ (LT)
D = 3° 09′ 59″
R = 1,809.57′
T = 1,485.17′
L = 2,487.27′
E = 531.43′
e = 5.6%
T.R. = 60′*
S.E. RUN = 224′*
P.C. STA. = 105+09.15
P.T. STA. = 129+96.42

* FOR TWO-LANE APPROACHES WEST OF PC





INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
FAP ROUTE 326 WITH (IL ROUTE 47)

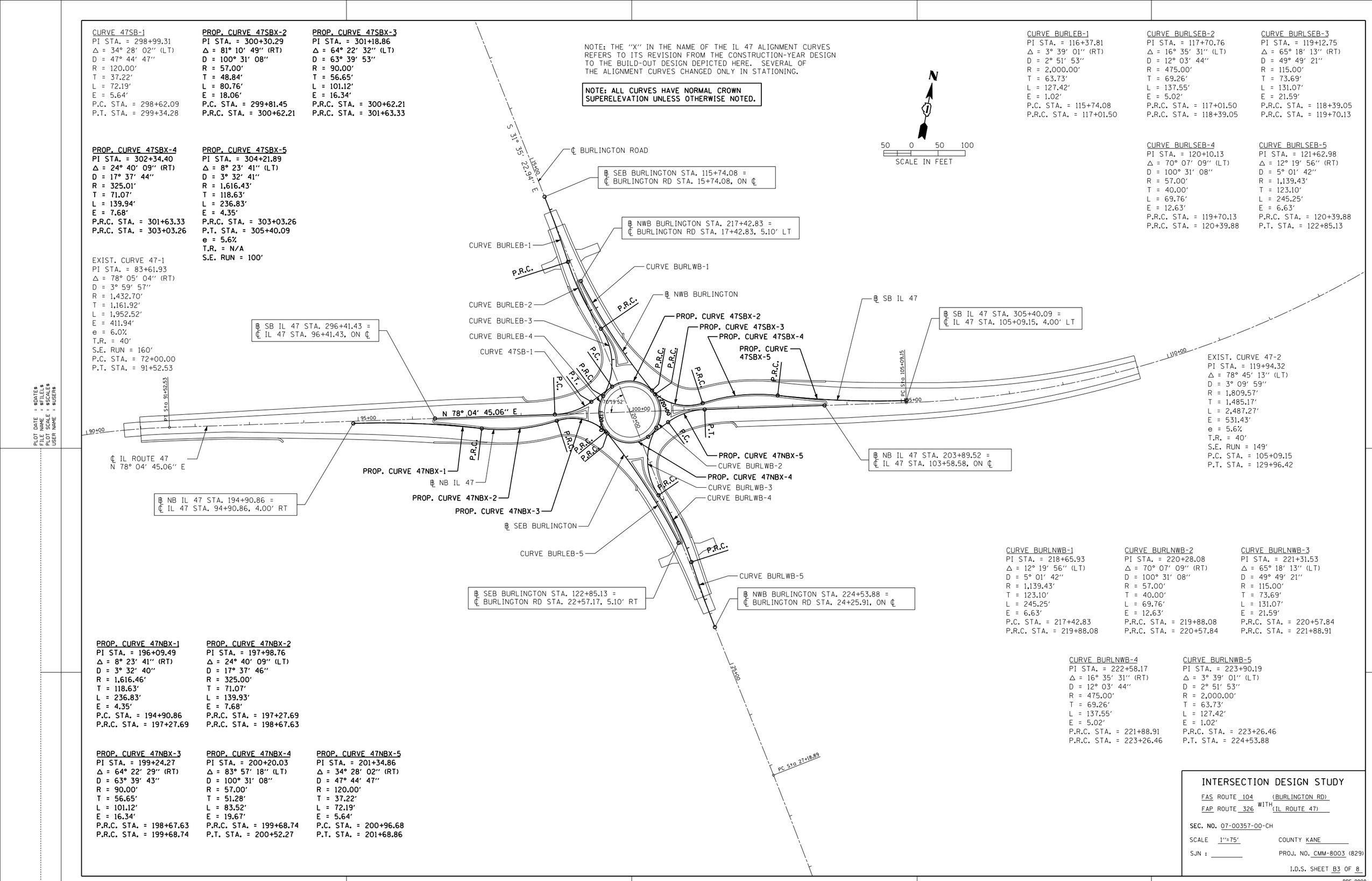
SEC. NO. 07-00357-00-CH
SCALE H 1″=5′ / V 1″=50′
COUNTY KANE
SJN : _____
PROJ. NO. CMM-8003 (829)

I.D.S. SHEET B2 OF 8

BDE-9908

NOTE: THE "X" IN THE NAME OF THE IL 47 ALIGNMENT CURVES REFERS TO ITS REVISION FROM THE CONSTRUCTION-YEAR DESIGN TO THE BUILD-OUT DESIGN DEPICTED HERE. SEVERAL OF THE ALIGNMENT CURVES CHANGED ONLY IN STATIONING.

NOTE: ALL CURVES HAVE NORMAL CROWN SUPERELEVATION UNLESS OTHERWISE NOTED.



CURVE 47SB-1
PI STA. = 298+99.31
Δ = 34° 28' 02" (LT)
D = 47° 44' 47"
R = 120.00'
T = 37.22'
L = 72.19'
E = 5.64'
P.C. STA. = 298+62.09
P.T. STA. = 299+34.28

PROP. CURVE 47SBX-2
PI STA. = 300+30.29
Δ = 81° 10' 49" (RT)
D = 100° 31' 08"
R = 57.00'
T = 48.84'
L = 80.76'
E = 18.06'
P.C. STA. = 299+81.45
P.R.C. STA. = 300+62.21

PROP. CURVE 47SBX-3
PI STA. = 301+18.86
Δ = 64° 22' 32" (LT)
D = 63° 39' 53"
R = 90.00'
T = 56.65'
L = 101.12'
E = 16.34'
P.R.C. STA. = 300+62.21
P.R.C. STA. = 301+63.33

PROP. CURVE 47SBX-4
PI STA. = 302+34.40
Δ = 24° 40' 09" (RT)
D = 17° 37' 44"
R = 325.01'
T = 71.07'
L = 139.94'
E = 7.68'
P.R.C. STA. = 301+63.33
P.R.C. STA. = 303+03.26

PROP. CURVE 47SBX-5
PI STA. = 304+21.89
Δ = 8° 23' 41" (LT)
D = 3° 32' 41"
R = 1,616.43'
T = 118.63'
L = 236.83'
E = 4.35'
P.R.C. STA. = 303+03.26
P.T. STA. = 305+40.09
e = 5.6%
T.R. = N/A
S.E. RUN = 100'

EXIST. CURVE 47-1
PI STA. = 83+61.93
Δ = 78° 05' 04" (RT)
D = 3° 59' 57"
R = 1,432.70'
T = 1,161.92'
L = 1,952.52'
E = 411.94'
e = 6.0%
T.R. = 40'
S.E. RUN = 160'
P.C. STA. = 72+00.00
P.T. STA. = 91+52.53

CURVE BURLEB-1
PI STA. = 116+37.81
Δ = 3° 39' 01" (RT)
D = 2° 51' 53"
R = 2,000.00'
T = 63.73'
L = 127.42'
E = 1.02'
P.C. STA. = 115+74.08
P.R.C. STA. = 117+01.50

CURVE BURLSEB-2
PI STA. = 117+70.76
Δ = 16° 35' 31" (LT)
D = 12° 03' 44"
R = 475.00'
T = 69.26'
L = 137.55'
E = 5.02'
P.R.C. STA. = 117+01.50
P.R.C. STA. = 118+39.05

CURVE BURLSEB-3
PI STA. = 119+12.75
Δ = 65° 18' 13" (RT)
D = 49° 49' 21"
R = 115.00'
T = 73.69'
L = 131.07'
E = 21.59'
P.R.C. STA. = 118+39.05
P.R.C. STA. = 119+70.13

CURVE BURLSEB-4
PI STA. = 120+10.13
Δ = 70° 07' 09" (LT)
D = 100° 31' 08"
R = 57.00'
T = 40.00'
L = 69.76'
E = 12.63'
P.R.C. STA. = 119+70.13
P.R.C. STA. = 120+39.88

CURVE BURLSEB-5
PI STA. = 121+62.98
Δ = 12° 19' 56" (RT)
D = 5° 01' 42"
R = 1,139.43'
T = 123.10'
L = 245.25'
E = 6.63'
P.R.C. STA. = 120+39.88
P.T. STA. = 122+85.13

CURVE BURLNWB-1
PI STA. = 218+65.93
Δ = 12° 19' 56" (LT)
D = 5° 01' 42"
R = 1,139.43'
T = 123.10'
L = 245.25'
E = 6.63'
P.C. STA. = 217+42.83
P.R.C. STA. = 219+88.08

CURVE BURLNWB-2
PI STA. = 220+28.08
Δ = 70° 07' 09" (RT)
D = 100° 31' 08"
R = 57.00'
T = 40.00'
L = 69.76'
E = 12.63'
P.R.C. STA. = 219+88.08
P.R.C. STA. = 220+57.84

CURVE BURLNWB-3
PI STA. = 221+31.53
Δ = 65° 18' 13" (LT)
D = 49° 49' 21"
R = 115.00'
T = 73.69'
L = 131.07'
E = 21.59'
P.R.C. STA. = 220+57.84
P.R.C. STA. = 221+88.91

CURVE BURLNWB-4
PI STA. = 222+58.17
Δ = 16° 35' 31" (RT)
D = 12° 03' 44"
R = 475.00'
T = 69.26'
L = 137.55'
E = 5.02'
P.R.C. STA. = 221+88.91
P.R.C. STA. = 223+26.46

CURVE BURLNWB-5
PI STA. = 223+90.19
Δ = 3° 39' 01" (LT)
D = 2° 51' 53"
R = 2,000.00'
T = 63.73'
L = 127.42'
E = 1.02'
P.R.C. STA. = 223+26.46
P.T. STA. = 224+53.88

PROP. CURVE 47NBX-1
PI STA. = 196+09.49
Δ = 8° 23' 41" (RT)
D = 3° 32' 40"
R = 1,616.46'
T = 118.63'
L = 236.83'
E = 4.35'
P.C. STA. = 194+90.86
P.R.C. STA. = 197+27.69

PROP. CURVE 47NBX-2
PI STA. = 197+98.76
Δ = 24° 40' 09" (LT)
D = 17° 37' 46"
R = 325.00'
T = 71.07'
L = 139.93'
E = 7.68'
P.R.C. STA. = 197+27.69
P.R.C. STA. = 198+67.63

PROP. CURVE 47NBX-3
PI STA. = 199+24.27
Δ = 64° 22' 29" (RT)
D = 63° 39' 43"
R = 90.00'
T = 56.65'
L = 101.12'
E = 16.34'
P.R.C. STA. = 198+67.63
P.R.C. STA. = 199+68.74

PROP. CURVE 47NBX-4
PI STA. = 200+20.03
Δ = 83° 57' 18" (LT)
D = 100° 31' 08"
R = 57.00'
T = 51.28'
L = 83.52'
E = 19.67'
P.R.C. STA. = 199+68.74
P.T. STA. = 200+52.27

PROP. CURVE 47NBX-5
PI STA. = 201+34.86
Δ = 34° 28' 02" (RT)
D = 47° 44' 47"
R = 120.00'
T = 37.22'
L = 72.19'
E = 5.64'
P.C. STA. = 200+96.68
P.T. STA. = 201+68.86

INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
FAP ROUTE 326 WITH (IL ROUTE 47)

SEC. NO. 07-00357-00-CH

SCALE 1"=75' COUNTY KANE

SJN : _____ PROJ. NO. CMM-8003 (829)

I.D.S. SHEET B3 OF 8

BDE-9908

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PLOT SCALE = $SCALE$
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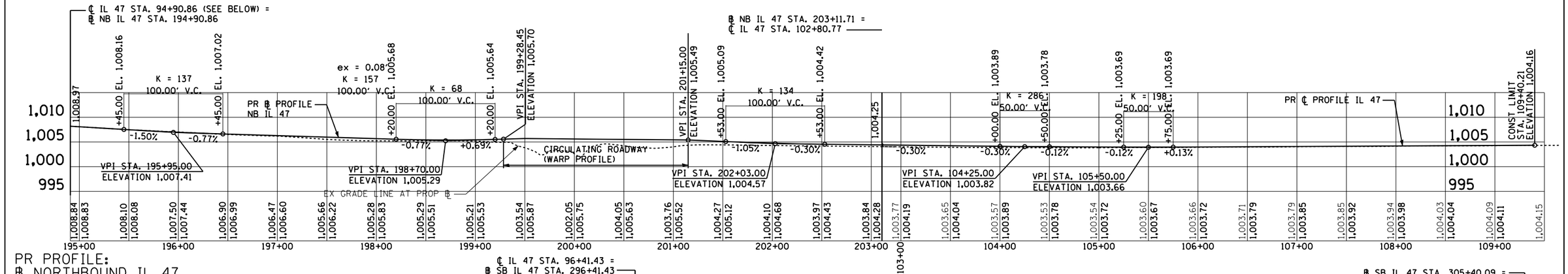
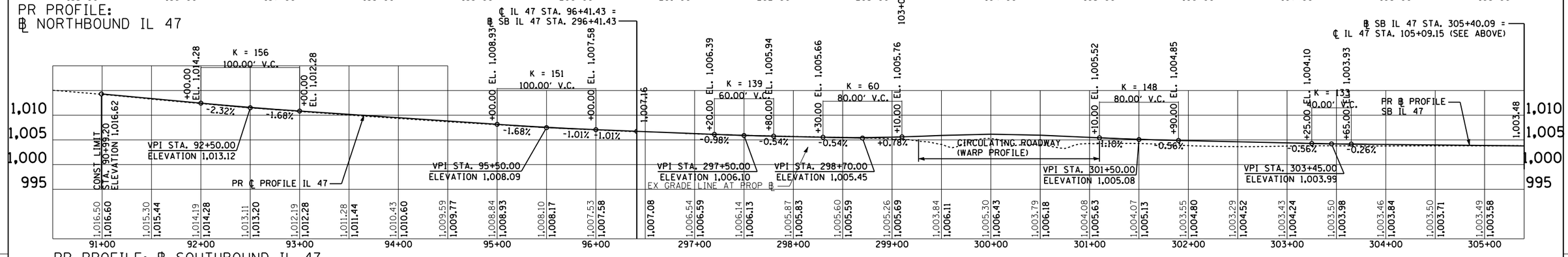
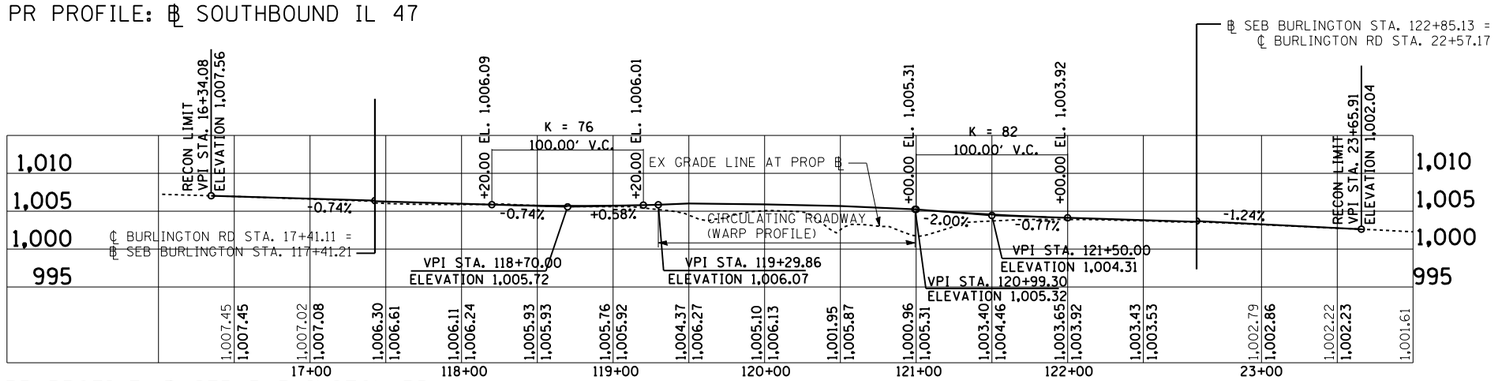


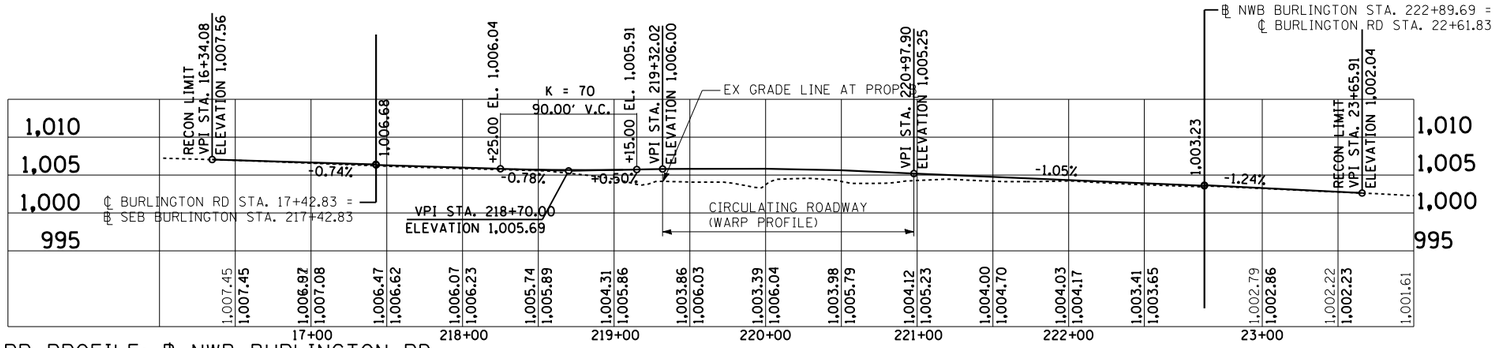
PR PROFILE: ℄ NORTHBOUND IL 47



PR PROFILE: ℄ SOUTHBOUND IL 47



PR PROFILE: ℄ SEB BURLINGTON RD



PR PROFILE: ℄ NWB BURLINGTON RD

NOTE: PROFILES FOR BURLINGTON ROAD WILL BE UNCHANGED FROM INITIAL-BUILD DESIGN, EXCEPT FOR SOME MINOR MODIFICATIONS AT THE ENTRY AND EXIT POINTS OF THE CIRCULATING ROADWAY.

INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
FAP ROUTE 326 WITH (IL ROUTE 47)

SEC. NO. 07-00357-00-CH
SCALE H 1"=50' / V 1"=10'
COUNTY KANE
SJN : _____
PROJ. NO. _____

I.D.S. SHEET B4 OF 8

BDE-9908

PLOT DATE = $DATE$
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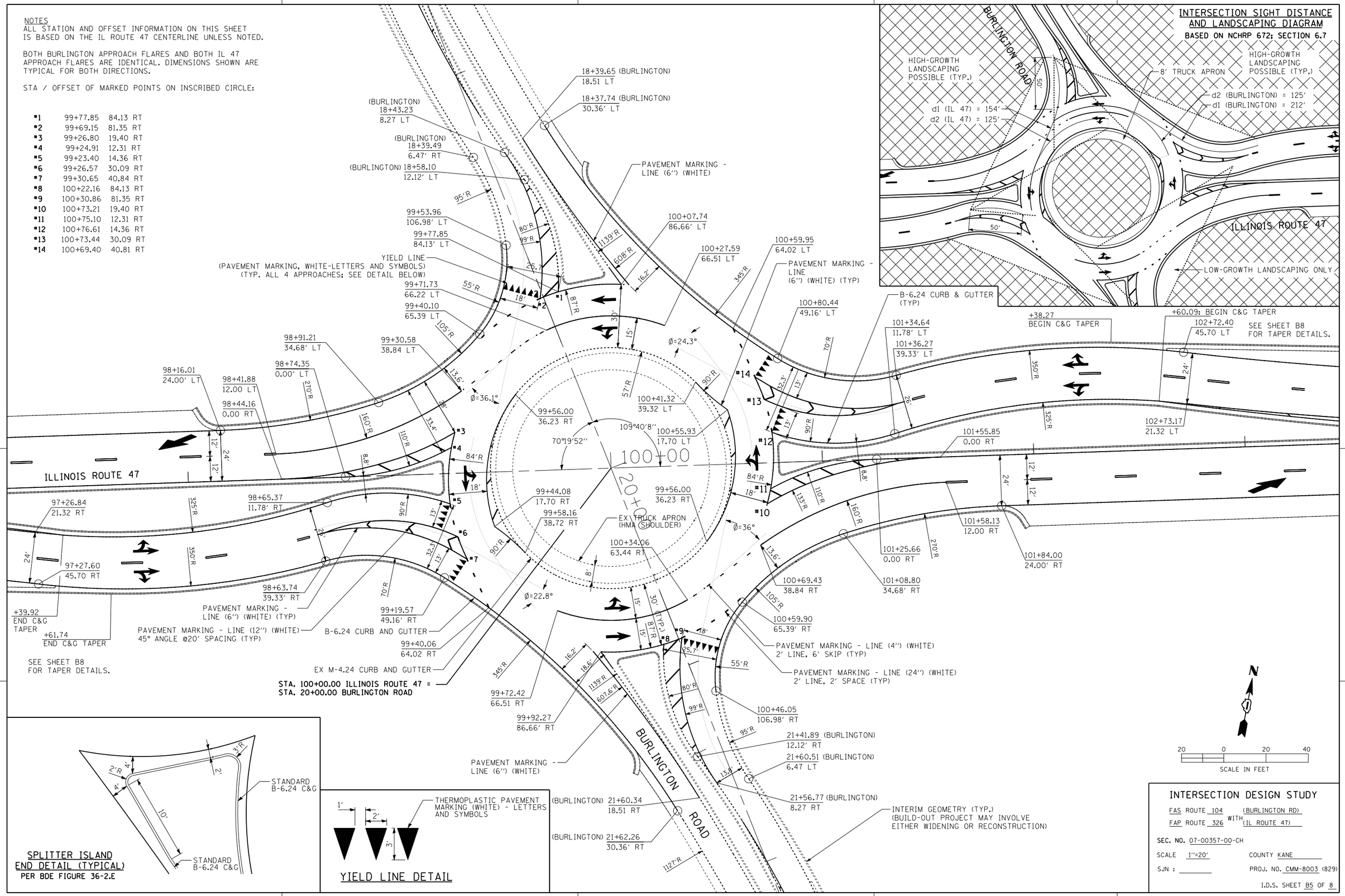
USER NAME = $USER$

NOTES
ALL STATION AND OFFSET INFORMATION ON THIS SHEET IS BASED ON THE IL ROUTE 47 CENTERLINE UNLESS NOTED.

BOTH BURLINGTON APPROACH FLARES AND BOTH IL 47 APPROACH FLARES ARE IDENTICAL. DIMENSIONS SHOWN ARE TYPICAL FOR BOTH DIRECTIONS.

STA / OFFSET OF MARKED POINTS ON INSCRIBED CIRCLE:

#1	99+77.85	84.13 RT
#2	99+69.15	81.35 RT
#3	99+26.80	19.40 RT
#4	99+24.91	12.31 RT
#5	99+23.40	14.36 RT
#6	99+26.57	30.09 RT
#7	99+30.65	40.84 RT
#8	100+22.16	84.13 RT
#9	100+30.86	81.35 RT
#10	100+73.21	19.40 RT
#11	100+75.10	12.31 RT
#12	100+76.61	14.36 RT
#13	100+73.44	30.09 RT
#14	100+69.40	40.81 RT



SPLITTER ISLAND
END DETAIL (TYPICAL)
PER BDE FIGURE 36-2.E

YIELD LINE DETAIL

INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
FAP ROUTE 326 WITH (IL ROUTE 47)

SEC. NO. 07-00357-00-CH

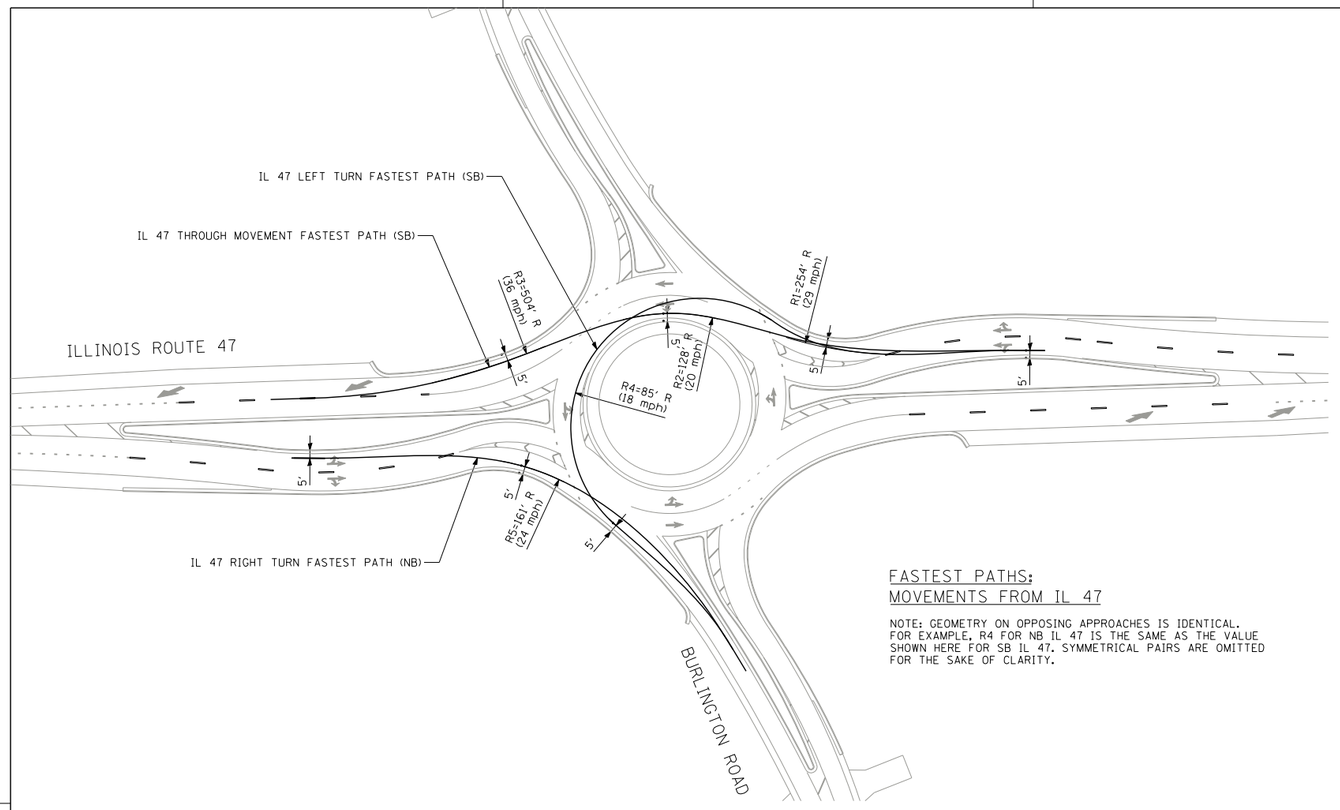
SCALE 1"=20' COUNTY KANE

SJN : PROJ. NO. CMM-8003 (829)

I.D.S. SHEET B5 OF 8

BDE-9908

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

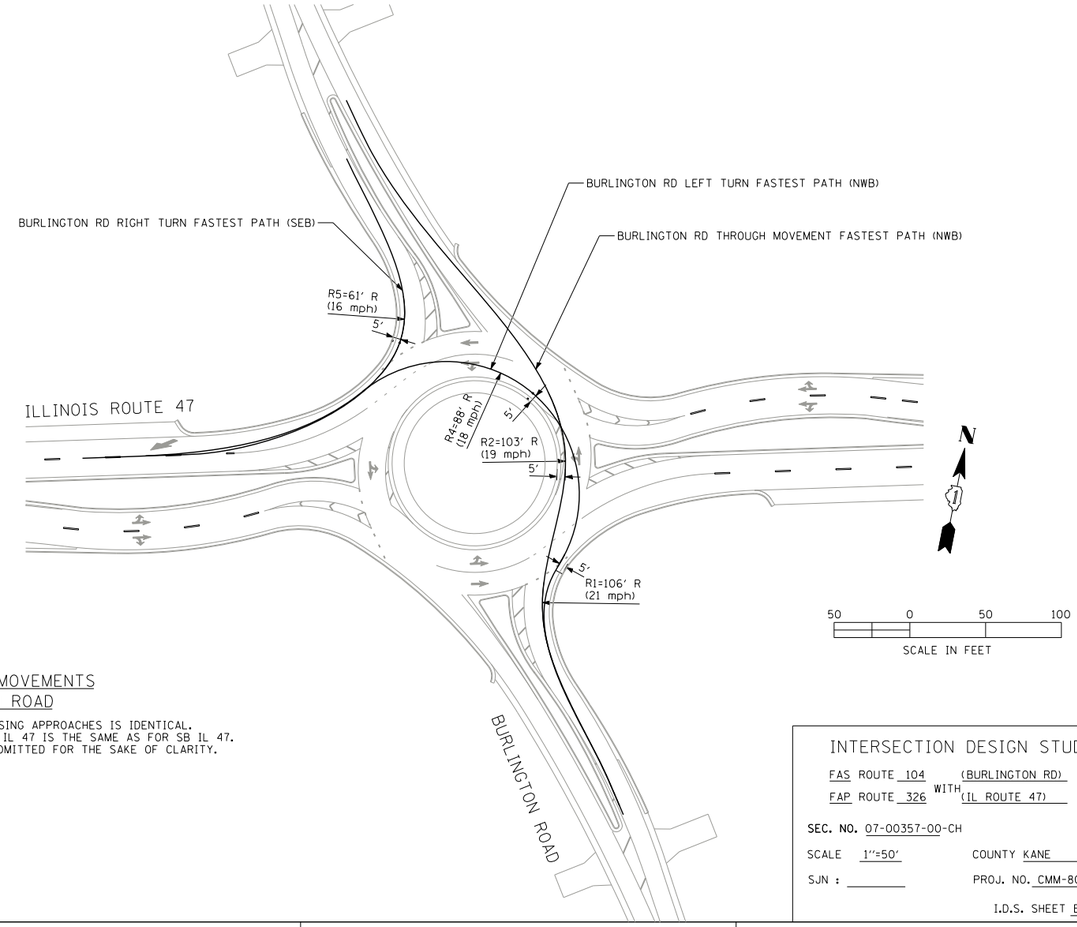


FASTEST PATHS:
MOVEMENTS FROM IL 47

NOTE: GEOMETRY ON OPPOSING APPROACHES IS IDENTICAL. FOR EXAMPLE, R4 FOR NB IL 47 IS THE SAME AS THE VALUE SHOWN HERE FOR SB IL 47. SYMMETRICAL PAIRS ARE OMITTED FOR THE SAKE OF CLARITY.

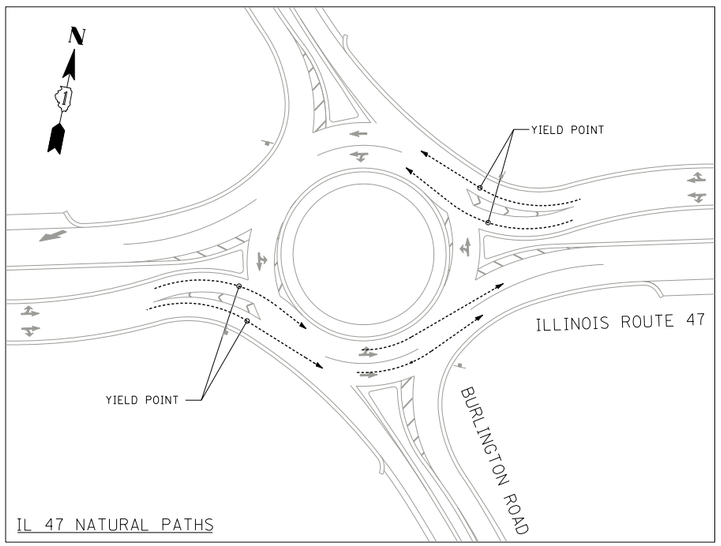
TURNING MOVEMENT RADII

Approach	NB IL 47	NWB Burlington	SB IL 47	SEB Burlington
R1	275'	108'	254'	108'
R2	121'	103'	128'	103'
R3	538'	N/A	504'	N/A
R4	85'	85'	85'	85'
R5	172'	73'	172'	73'



FASTEST PATHS: MOVEMENTS
FROM BURLINGTON ROAD

NOTE: GEOMETRY ON OPPOSING APPROACHES IS IDENTICAL. FOR EXAMPLE, R5 FOR NB IL 47 IS THE SAME AS FOR SB IL 47. SYMMETRICAL PAIRS ARE OMITTED FOR THE SAKE OF CLARITY.



IL 47 NATURAL PATHS

INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
FAP ROUTE 326 WITH (IL ROUTE 47)

SEC. NO. 07-00357-00-CH

SCALE 1"=50' COUNTY KANE

SJN : PROJ. NO. CMM-8003 (829)

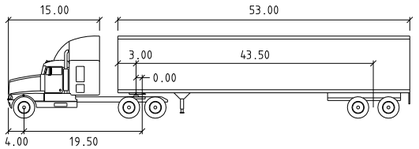
I.D.S. SHEET B6 OF 8

BDE-9908

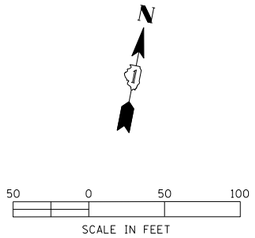
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

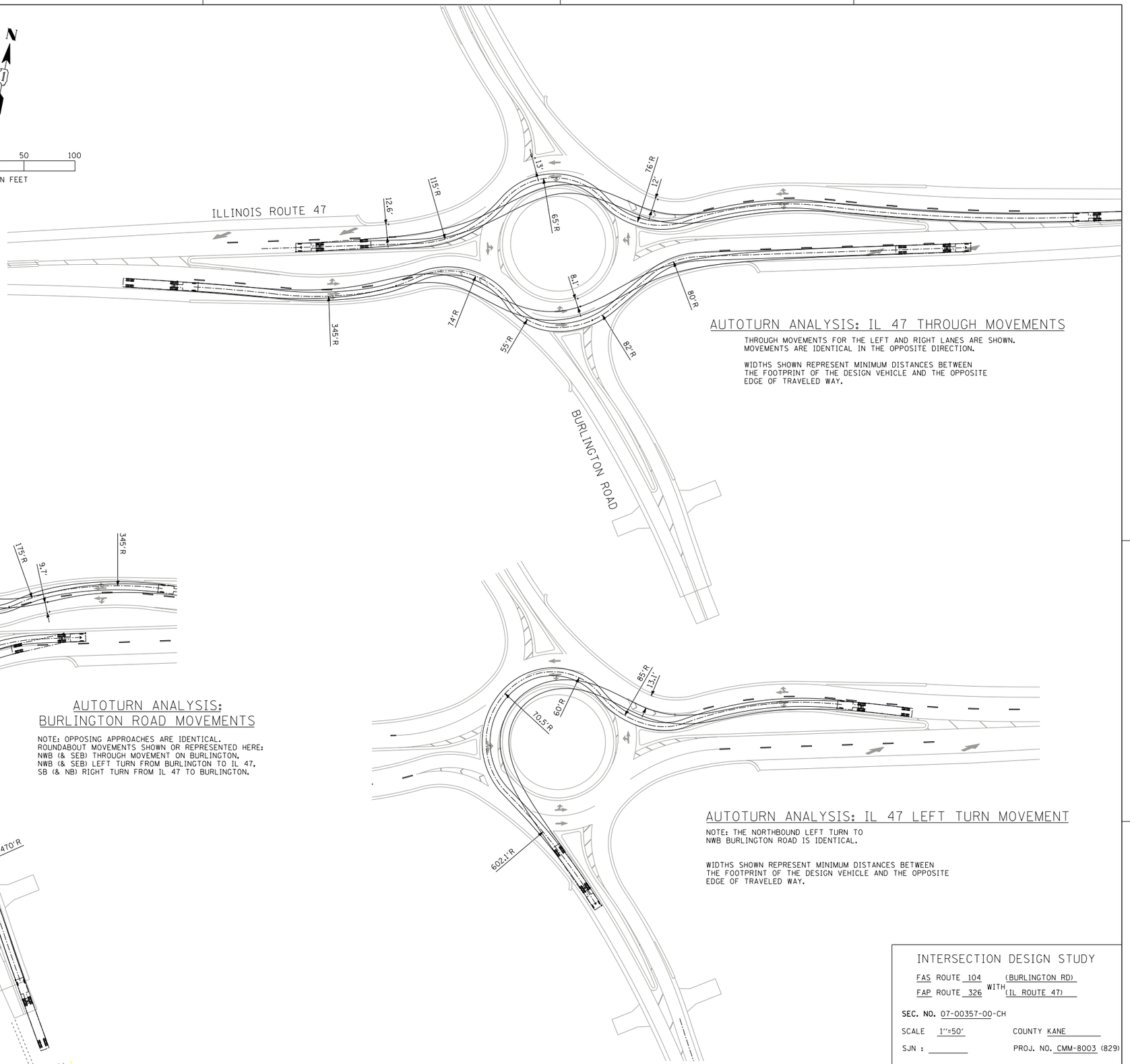
PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$

DESIGN VEHICLE: WB-65



WB-65	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.00
Trailer Width	: 8.50	Steering Angle	: 28.40
Tractor Track	: 8.00	Articulating Angle	: 70.00
Trailer Track	: 8.50		

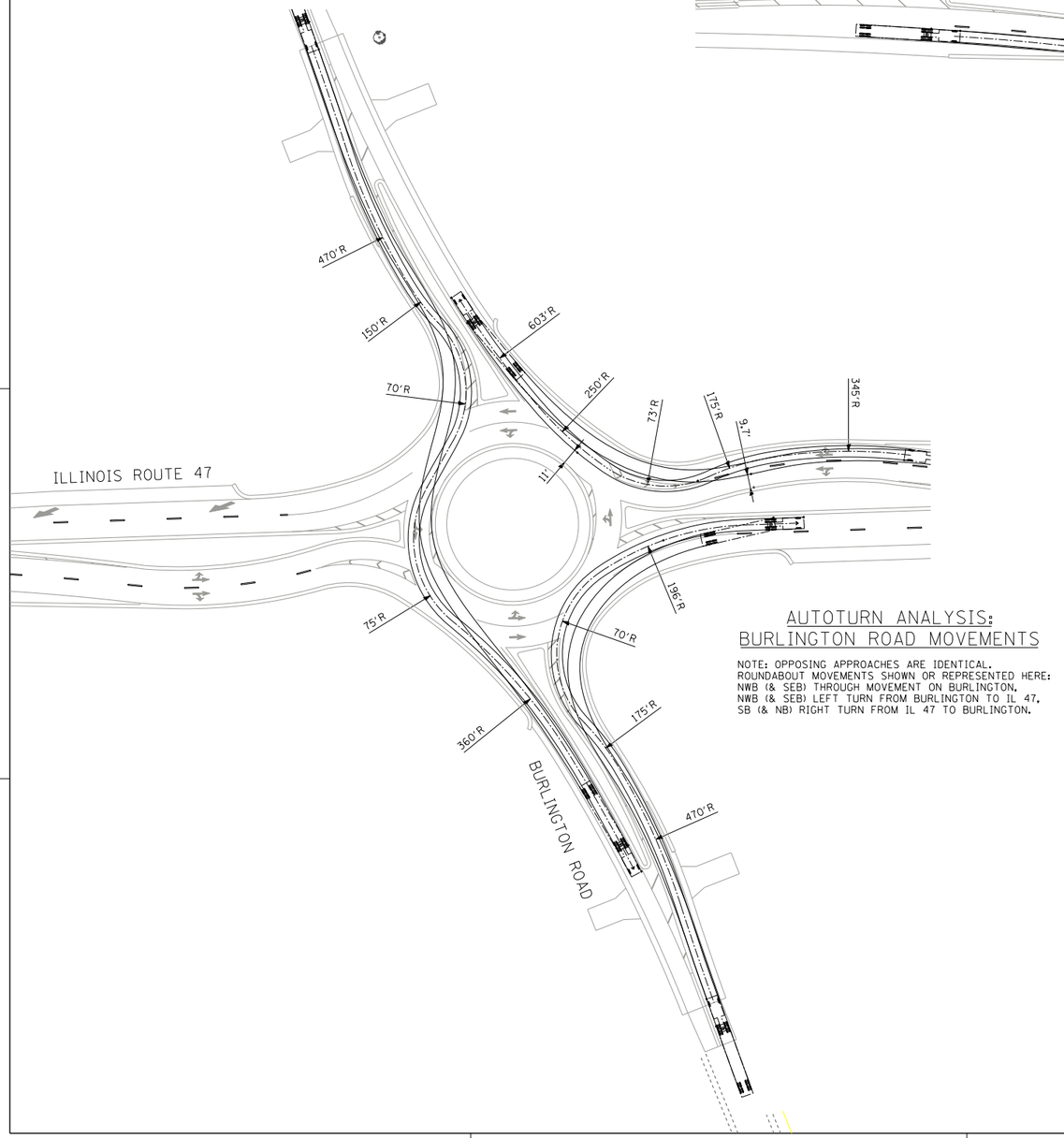




AUTOTURN ANALYSIS: IL 47 THROUGH MOVEMENTS

THROUGH MOVEMENTS FOR THE LEFT AND RIGHT LANES ARE SHOWN.
MOVEMENTS ARE IDENTICAL IN THE OPPOSITE DIRECTION.

WIDTHS SHOWN REPRESENT MINIMUM DISTANCES BETWEEN
THE FOOTPRINT OF THE DESIGN VEHICLE AND THE OPPOSITE
EDGE OF TRAVELED WAY.



AUTOTURN ANALYSIS: BURLINGTON ROAD MOVEMENTS

NOTE: OPPOSING APPROACHES ARE IDENTICAL.
ROUNDABOUT MOVEMENTS SHOWN OR REPRESENTED HERE:
NWB (& SEB) THROUGH MOVEMENT ON BURLINGTON.
NWB (& SEB) LEFT TURN FROM BURLINGTON TO IL 47.
SB (& NB) RIGHT TURN FROM IL 47 TO BURLINGTON.

AUTOTURN ANALYSIS: IL 47 LEFT TURN MOVEMENT

NOTE: THE NORTHBOUND LEFT TURN TO
NWB BURLINGTON ROAD IS IDENTICAL.

WIDTHS SHOWN REPRESENT MINIMUM DISTANCES BETWEEN
THE FOOTPRINT OF THE DESIGN VEHICLE AND THE OPPOSITE
EDGE OF TRAVELED WAY.

INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
FAP ROUTE 326 WITH (IL ROUTE 47)

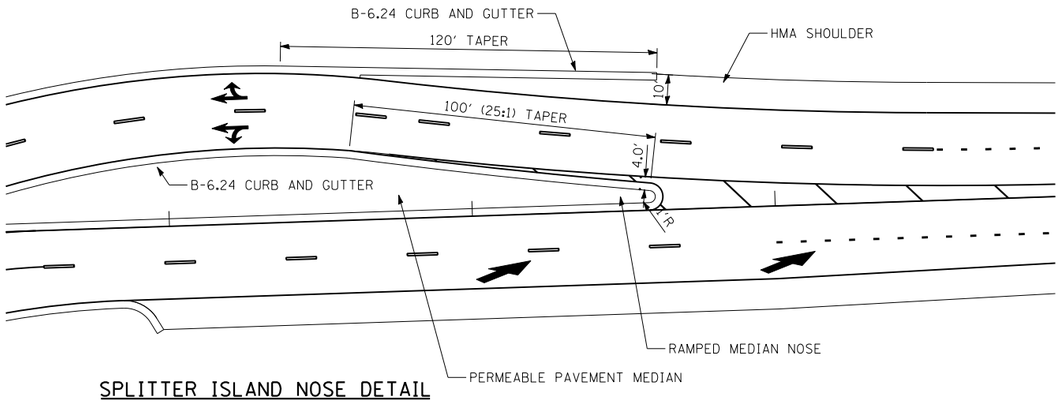
SEC. NO. 07-00357-00-CH

SCALE 1"=50' COUNTY KANE

SJN : _____ PROJ. NO. CMM-8003 (829)

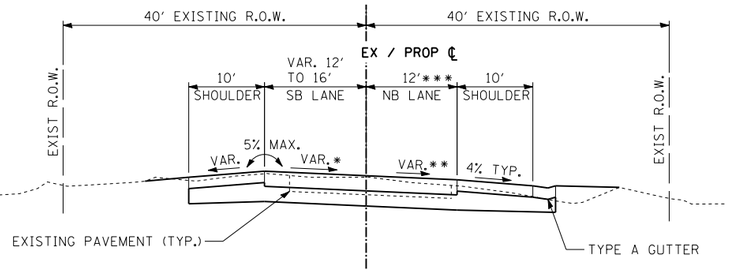
I.D.S. SHEET B7 OF 8

BDE-9908



SPLITTER ISLAND NOSE DETAIL

REFER TO DRAWING A7 FOR "EXISTING" CROSS SECTIONS TO BE BUILT DURING THE INTERIM PHASE.



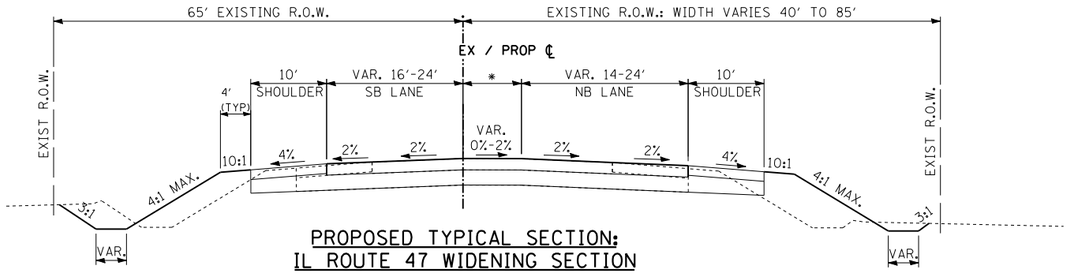
PROPOSED TYPICAL SECTION: IL ROUTE 47 WIDENING SECTION

STA. 90+99 TO STA. 93+13

* SB LANE VARIES 6.0% LT TO 2.0% RT BETWEEN STA. 90+99 AND STA. 93+13.

** NB LANE VARIES 6.0% TO 2.0% RT BETWEEN STA. 90+99 AND STA. 92+06.

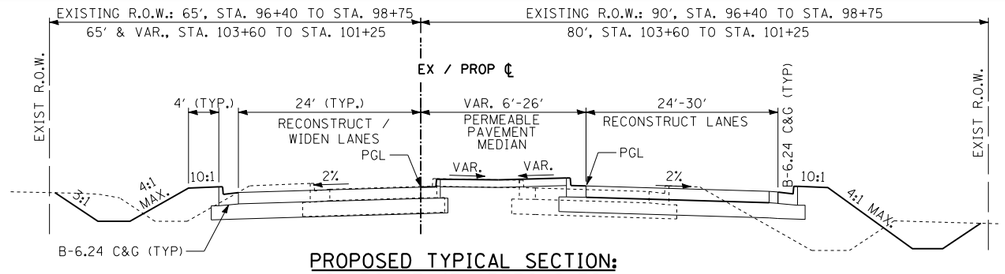
*** TRANSITION TO 2-12' LANES BEGINS AT STA. 92+61.



PROPOSED TYPICAL SECTION: IL ROUTE 47 WIDENING SECTION

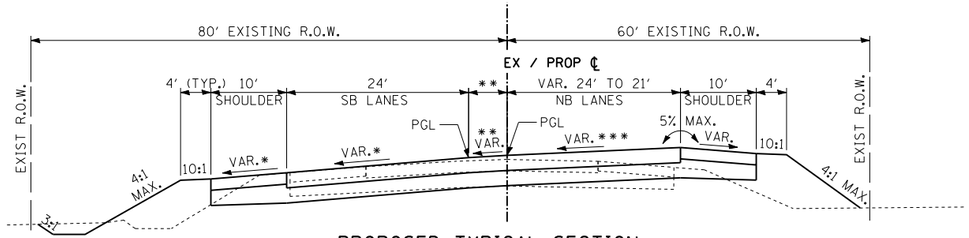
STA. 93+13 TO STA. 96+40

* PAINTED MEDIAN; WIDTH VARIES FROM 0' TO 4' BETWEEN STA. 93+13 AND STA. 94+92. NB PGL BEGINS AT STA. 94+92; WIDTH VARIES FROM 4' TO 11' BETWEEN STA. 94+92 AND STA. 96+40.



PROPOSED TYPICAL SECTION: IL ROUTE 47 APPROACHES

LOOKING TOWARD THE INTERSECTION:
STA. 96+40 TO STA. 98+75
STA. 103+60 TO STA. 101+25



PROPOSED TYPICAL SECTION: IL ROUTE 47 WIDENING SECTION

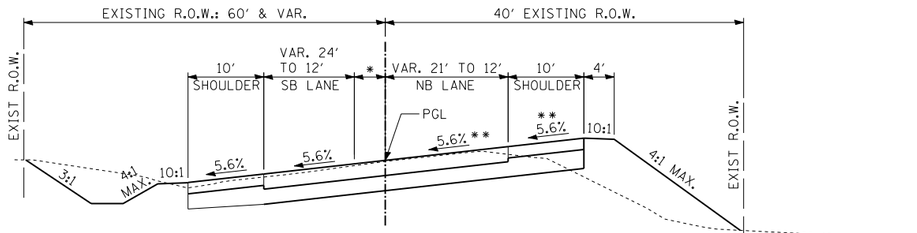
STA. 103+60 TO STA. 105+09

* SB LANE VARIES 2.0% TO 5.6% BETWEEN STA. 103+60 AND STA. 105+09

** MEDIAN SLOPE VARIES 1.0% TO 5.6% AND WIDTH VARIES 11' TO 4' BETWEEN STA. 103+60 AND STA. 105+09

*** NB LANE VARIES 0.0% TO 3.75% LT BETWEEN STA. 103+60 AND STA. 105+09

SHOULDER SLOPES VARY WITH ADJACENT LANES

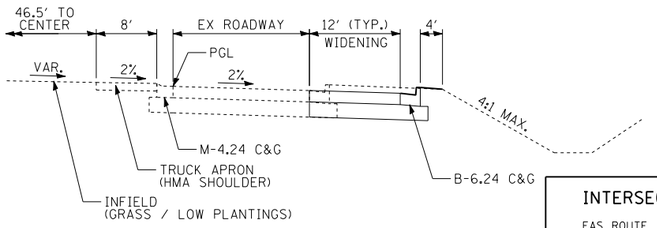


PROPOSED TYPICAL SECTION: IL ROUTE 47 WIDENING SECTION

STA. 105+09 TO STA. 109+40

* PAINTED MEDIAN; WIDTH VARIES FROM 4.0' TO 0' BETWEEN STA. 105+84 AND STA. 109+40

** NB LANE & SHOULDER VARIES 3.75% TO 5.6% BETWEEN STA. 105+09 AND STA. 105+83



PROPOSED TYPICAL SECTION THROUGH CIRCULATING ROADWAY

LOOKING IN THE DIRECTION OF TRAFFIC

INTERSECTION DESIGN STUDY

FAS ROUTE 104 (BURLINGTON RD)
FAP ROUTE 326 WITH (IL ROUTE 47)

SEC. NO. 07-00357-00-CH

SCALE N/A COUNTY KANE

SJN : PROJ. NO. CMM-8003 (829)

I.D.S. SHEET B8 OF 8

BDE-9908

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

Intersection Design Study
Design Exception Requests
January 2011

	BDE Standard	Proposed Design	Location of Exception	Justification
1	LOS C or better (per BDE Ch 46)	LOS E	NB IL 47 approach movement, AM peak	Deficiency does not occur until near the end of the design period. Project is designed to accommodate future widening when capacity is reached. Cost considerations, and local user unfamiliarity with roundabouts, justifies the simpler, lower-capacity design.
2	LOS C or better (per BDE Ch 46)	LOS E	SB IL 47 approach movement, PM peak	Same as above.
3	LOS C or better (per BDE Ch 46)	LOS D	NWB Burlington approach movement, PM peak	Same as above.
4	0.5% minimum profile (per BDE 33-2.03)	0.10%	IL 47 northeast of Burlington Road	Retains existing condition; adequate cross-slope provided; drainage not compromised by use of this slope

Note: All of the LOS Design Exceptions above concern the single-lane roundabout planned for construction in 2013. The roundabout is designed to allow for simple expansion as it approaches capacity. The two-lane roundabout design submitted in this IDS has no design exceptions except for the profile variance shown.

Design Exception Request forms follow this page.

Illinois Department of Transportation

Design Exception Request
Project Identification

Route:FAP Route 326	Street:	Marked:IL Route 47
Contract #:	State Job #:	Section:CMM-8003 (829)
County: Kane	Municipality:	
Local Agency: Kane County	LRS Section #: 07-00357-00-CH	
Permit Applicant:	Permit #:	
Project Limits: 800' N and S of Burlington on IL 47; 500' NW and SE of IL 47 on Burlington		
Project Length: 3700' (0.70 miles)	FHWA Oversight?: ☒ Yes ☐ No	
Estimate of Cost: $3.0 million	Functional Classification: Principal Arterial	
Design Year: 2030	Design Traffic: ADT 16,000 DHV 1373 (AM); 971 (PM)	Current Posted Speed: 55mph
On the NHS System? ☒ Yes ☐ No	Structure Numbers:	
Type of Project (Construction, Reconstruction, 3R, HES, etc): Reconstruction		
Brief Project Description: The intersection of Burlington Road and IL 47 will be reconstructed as a roundabout. A single-lane roundabout will be constructed initially, with expansion to a two-lane roundabout anticipated near the end of the design period. The Design Exception concerns the initial project.		

EXCEPTION DOCUMENTATION

Level of Exception: Level I ☐ Level II ☒	
Design Element for Which an Exception Is Requested: Profile	
Design Element Policy Value: 0.5% (per BDE Figure 46-4D)	
Proposed Design Element Value: 0.10%	
Location(s) of Exception: IL 47, Sta. 103+00 to Sta. 110+00	
Accident History and Potential of Exception Location(s): Exception seeks retention of existing profile, which was not a factor in crashes prior to installation of four-way stop at the intersection. Exception unlikely to have a measurable impact.	
Cost of Using Policy Value: >$50,000	Cost of Using Proposed Exception Value: none
Impacts Other Than Cost, of Using Policy Value: "wavelike" profile with poor rideability	
Proposed Mitigation To Address Exception: None. Impact area is superelevated; drainage will not be compromised.	
Geometric Compatibility with Adjacent Sections: excellent	
Potential Effects On Other Design Elements: positive (drainage & ROW issues would be worse with policy value)	
Potential Impacts On Mobility or Traffic Operations: none	
Summary of Justification for Exception: Fits existing conditions very well; drainage not at all compromised	
Coordination Meeting Date: 4/12/2011	
Prepared By: M. Papirnik, Burns & McDonnell	Date: 06/19/2009

PAVEMENT/RESURFACING EXCEPTIONS

☐ New Pavement ☒ Pavement Widening ☒ Resurfacing			
Design Period/Expected Service Life: 20 years		Design Year: 2030	
Structural Design Traffic:	%PV: 84%	%SU: 5%	%MU: 11%
Design Element Policy Value:		Proposed Design Element Value:	
Location(s) of Exception:			
Cost of Using Policy Value:		Cost of Using Proposed Exception Value:	
Summary of Justification:			
Prepared By:		Date:	

APPROVAL/DISAPPROVAL

BDE Approval Date: 04/12/2011	BDE Disapproval Date:
BDE Comments on Disapproval:	
DOH Approval Date:	DOH Disapproval Date
DOH Comments on Disapproval:	
FHWA Approval Date:	FHWA Disapproval Date:

Illinois Department of Transportation

Design Exception Request
Project Identification

Route:FAP Route 326	Street:	Marked:IL Route 47
Contract #:	State Job #:	Section:CMM-8003 (829)
County: Kane	Municipality:	
Local Agency: Kane County	LRS Section #: 07-00357-00-CH	
Permit Applicant:	Permit #:	
Project Limits: 800' N and S of Burlington on IL 47; 500' NW and SE of IL 47 on Burlington		
Project Length: 2600' (0.5 miles)	FHWA Oversight?: ☒ Yes ☐ No	
Estimate of Cost: $2.5 million	Functional Classification: Principal Arterial	
Design Year: 2030	Design Traffic: ADT 16,000 DHV 1373 (AM); 971 (PM)	Current Posted Speed: 55mph
On the NHS System? ☒ Yes ☐ No	Structure Numbers:	
Type of Project (Construction, Reconstruction, 3R, HES, etc): Reconstruction		
Brief Project Description: The intersection of Burlington Road and IL 47 will be reconstructed as a roundabout. A single-lane roundabout will be constructed initially, with expansion to a two-lane roundabout anticipated near the end of the design period. The Design Exception concerns the initial project.		

EXCEPTION DOCUMENTATION

Level of Exception: Level I ☐ Level II ☒	
Design Element for Which an Exception Is Requested: Level of Service	
Design Element Policy Value: C or better (per BDE Figure 46-4C)	
Proposed Design Element Value: E	
Location(s) of Exception: Northbound IL 47 approach, AM peak	
Accident History and Potential of Exception Location(s): Intersection is currently a four-way stop sign. Before this was installed, crashes were not related to queueing. Exception unlikely to have a measurable impact.	
Cost of Using Policy Value: >$300,000	Cost of Using Proposed Exception Value: none
Impacts Other Than Cost, of Using Policy Value: Prohibitively large increase in project scope – additional travel lanes would be needed in order to improve capacity of the roundabout, which would in turn affect drainage design and site footprint.	
Proposed Mitigation To Address Exception: None.	
Geometric Compatibility with Adjacent Sections: Not Applicable.	
Potential Effects On Other Design Elements: None.	
Potential Impacts On Mobility or Traffic Operations: Positive. Construction of single-lane roundabout represents significant improvement over existing conditions.	
Summary of Justification for Exception: LOS deficiency cannot be avoided without a very large change in scope. The deficiency is not anticipated to occur until nearly 2030.	
Coordination Meeting Date: 04/12/2011	
Prepared By: M. Papirnik, Burns & McDonnell	Date: 01/19/2011

PAVEMENT/RESURFACING EXCEPTIONS

☒ New Pavement ☐ Pavement Widening ☐ Resurfacing			
Design Period/Expected Service Life: 20 years		Design Year: 2030	
Structural Design Traffic:	%PV: 84%	%SU: 5%	%MU: 11%
Design Element Policy Value:		Proposed Design Element Value:	
Location(s) of Exception:			
Cost of Using Policy Value:		Cost of Using Proposed Exception Value:	
Summary of Justification:			
Prepared By:		Date:	

APPROVAL/DISAPPROVAL

BDE Approval Date: 04/12/2011	BDE Disapproval Date:
BDE Comments on Disapproval:	
DOH Approval Date:	DOH Disapproval Date
DOH Comments on Disapproval:	
FHWA Approval Date:	FHWA Disapproval Date:

Illinois Department of Transportation

Design Exception Request
Project Identification

Route:FAP Route 326	Street:	Marked:IL Route 47
Contract #:	State Job #:	Section:CMM-8003 (829)
County: Kane	Municipality:	
Local Agency: Kane County	LRS Section #: 07-00357-00-CH	
Permit Applicant:	Permit #:	
Project Limits: 800' N and S of Burlington on IL 47; 500' NW and SE of IL 47 on Burlington		
Project Length: 2600' (0.5 miles)	FHWA Oversight?: ☒ Yes ☐ No	
Estimate of Cost: $2.5 million	Functional Classification: Principal Arterial	
Design Year: 2030	Design Traffic: ADT 16,000 DHV 1373 (AM); 971 (PM)	Current Posted Speed: 55mph
On the NHS System? ☒ Yes ☐ No	Structure Numbers:	
Type of Project (Construction, Reconstruction, 3R, HES, etc): Reconstruction		
Brief Project Description: The intersection of Burlington Road and IL 47 will be reconstructed as a roundabout. A single-lane roundabout will be constructed initially, with expansion to a two-lane roundabout anticipated near the end of the design period. The Design Exception concerns the initial project.		

EXCEPTION DOCUMENTATION

Level of Exception: Level I ☐ Level II ☒	
Design Element for Which an Exception Is Requested: Level of Service	
Design Element Policy Value: C or better (per BDE Figure 46-4C)	
Proposed Design Element Value: D	
Location(s) of Exception: Northwestbound Burlington Road approach, PM peak	
Accident History and Potential of Exception Location(s): Intersection is currently a four-way stop sign. Before this was installed, crashes were not related to queueing. Exception unlikely to have a measurable impact.	
Cost of Using Policy Value: >$300,000	Cost of Using Proposed Exception Value: none
Impacts Other Than Cost, of Using Policy Value: Prohibitively large increase in project scope – additional travel lanes would be needed in order to improve capacity of the roundabout, which would in turn affect drainage design and site footprint.	
Proposed Mitigation To Address Exception: None.	
Geometric Compatibility with Adjacent Sections: Not Applicable.	
Potential Effects On Other Design Elements: None.	
Potential Impacts On Mobility or Traffic Operations: Positive. Construction of single-lane roundabout represents significant improvement over existing conditions.	
Summary of Justification for Exception: LOS deficiency cannot be avoided without a very large change in scope. The deficiency is not anticipated to occur until nearly 2030.	
Coordination Meeting Date: 04/12/2011	
Prepared By: M. Papirnik, Burns & McDonnell	Date: 01/19/2011

PAVEMENT/RESURFACING EXCEPTIONS

☒ New Pavement ☐ Pavement Widening ☐ Resurfacing			
Design Period/Expected Service Life: 20 years		Design Year: 2030	
Structural Design Traffic:	%PV: 84%	%SU: 5%	%MU: 11%
Design Element Policy Value:		Proposed Design Element Value:	
Location(s) of Exception:			
Cost of Using Policy Value:		Cost of Using Proposed Exception Value:	
Summary of Justification:			
Prepared By:		Date:	

APPROVAL/DISAPPROVAL

BDE Approval Date: 04/12/2011	BDE Disapproval Date:
BDE Comments on Disapproval:	
DOH Approval Date:	DOH Disapproval Date
DOH Comments on Disapproval:	
FHWA Approval Date:	FHWA Disapproval Date:

Illinois Department of Transportation

Design Exception Request
Project Identification

Route:FAP Route 326	Street:	Marked:IL Route 47
Contract #:	State Job #:	Section:CMM-8003 (829)
County: Kane	Municipality:	
Local Agency: Kane County	LRS Section #: 07-00357-00-CH	
Permit Applicant:	Permit #:	
Project Limits: 800' N and S of Burlington on IL 47; 500' NW and SE of IL 47 on Burlington		
Project Length: 2600' (0.5 miles)	FHWA Oversight?: ☒ Yes ☐ No	
Estimate of Cost: $2.5 million	Functional Classification: Principal Arterial	
Design Year: 2030	Design Traffic: ADT 16,000 DHV 1373 (AM); 971 (PM)	Current Posted Speed: 55mph
On the NHS System? ☒ Yes ☐ No	Structure Numbers:	
Type of Project (Construction, Reconstruction, 3R, HES, etc): Reconstruction		
Brief Project Description: The intersection of Burlington Road and IL 47 will be reconstructed as a roundabout. A single-lane roundabout will be constructed initially, with expansion to a two-lane roundabout anticipated near the end of the design period. The Design Exception concerns the initial project.		

EXCEPTION DOCUMENTATION

Level of Exception: Level I ☐ Level II ☒	
Design Element for Which an Exception Is Requested: Level of Service	
Design Element Policy Value: C or better (per BDE Figure 46-4C)	
Proposed Design Element Value: E	
Location(s) of Exception: Southbound IL 47 approach, PM peak	
Accident History and Potential of Exception Location(s): Intersection is currently a four-way stop sign. Before this was installed, crashes were not related to queueing. Exception unlikely to have a measurable impact.	
Cost of Using Policy Value: >$300,000	Cost of Using Proposed Exception Value: none
Impacts Other Than Cost, of Using Policy Value: Prohibitively large increase in project scope – additional travel lanes would be needed in order to improve capacity of the roundabout, which would in turn affect drainage design and site footprint.	
Proposed Mitigation To Address Exception: None.	
Geometric Compatibility with Adjacent Sections: Not Applicable.	
Potential Effects On Other Design Elements: None.	
Potential Impacts On Mobility or Traffic Operations: Positive. Construction of single-lane roundabout represents significant improvement over existing conditions.	
Summary of Justification for Exception: LOS deficiency cannot be avoided without a very large change in scope. The deficiency is not anticipated to occur until nearly 2030.	
Coordination Meeting Date: 04/12/2011	
Prepared By: M. Papirnik, Burns & McDonnell	Date: 01/19/2011

PAVEMENT/RESURFACING EXCEPTIONS

☒ New Pavement ☐ Pavement Widening ☐ Resurfacing			
Design Period/Expected Service Life: 20 years		Design Year: 2030	
Structural Design Traffic:	%PV: 84%	%SU: 5%	%MU: 11%
Design Element Policy Value:		Proposed Design Element Value:	
Location(s) of Exception:			
Cost of Using Policy Value:		Cost of Using Proposed Exception Value:	
Summary of Justification:			
Prepared By:		Date:	

APPROVAL/DISAPPROVAL

BDE Approval Date: 04/12/2011	BDE Disapproval Date:
BDE Comments on Disapproval:	
DOH Approval Date:	DOH Disapproval Date
DOH Comments on Disapproval:	
FHWA Approval Date:	FHWA Disapproval Date:

Illinois Department of Transportation

Informal Transmittal

To:	Chris Holt
Attn:	Marilin Solomon
Bureau:	Local Roads & Streets
Phone:	(847) 705-4407
Date:	June 2, 2011

From:	Jason Salley
Bureau:	Programming/Geometrics Unit
Phone:	(847) 705-4085
Subject:	IL 47 at Burlington Rd Roundabout
	Section No. 07-00357-00-CH

Please check appropriate box below:

- ☒ Take Necessary Action
- ☐ For Your Comments
- ☐ Per Your Request
- ☐ For Your Approval
- ☐ For Your Information
- ☐ See Me About the Attached
- ☐ Draft (Letter)(Memo) For My signature
- ☐ Reply
- ☐ Return
- ☐ Route
- ☒ File

Message

Marilin,
This project's Design Exceptions were approved by BDE on April 12, 2011 and all other Design Elements for this project meet current BDE Policy.
Therefore, the Geometrics Studies Unit approves this project's proposed geometry and Intersection Design Studies (IDS's).
A copy of the project's IDS's have been placed on the H Drive for the District's future reference.
BDE Form 2602 will be forwarded to IDOT BDE for their records along with a copy of the Design Exception Forms, BDE 2600.

Please contact me if you have any questions or comments.

Thanks,

Jason Salley, P.E.
Signature

Copies to

File	BDE	BOT

Response

Signature

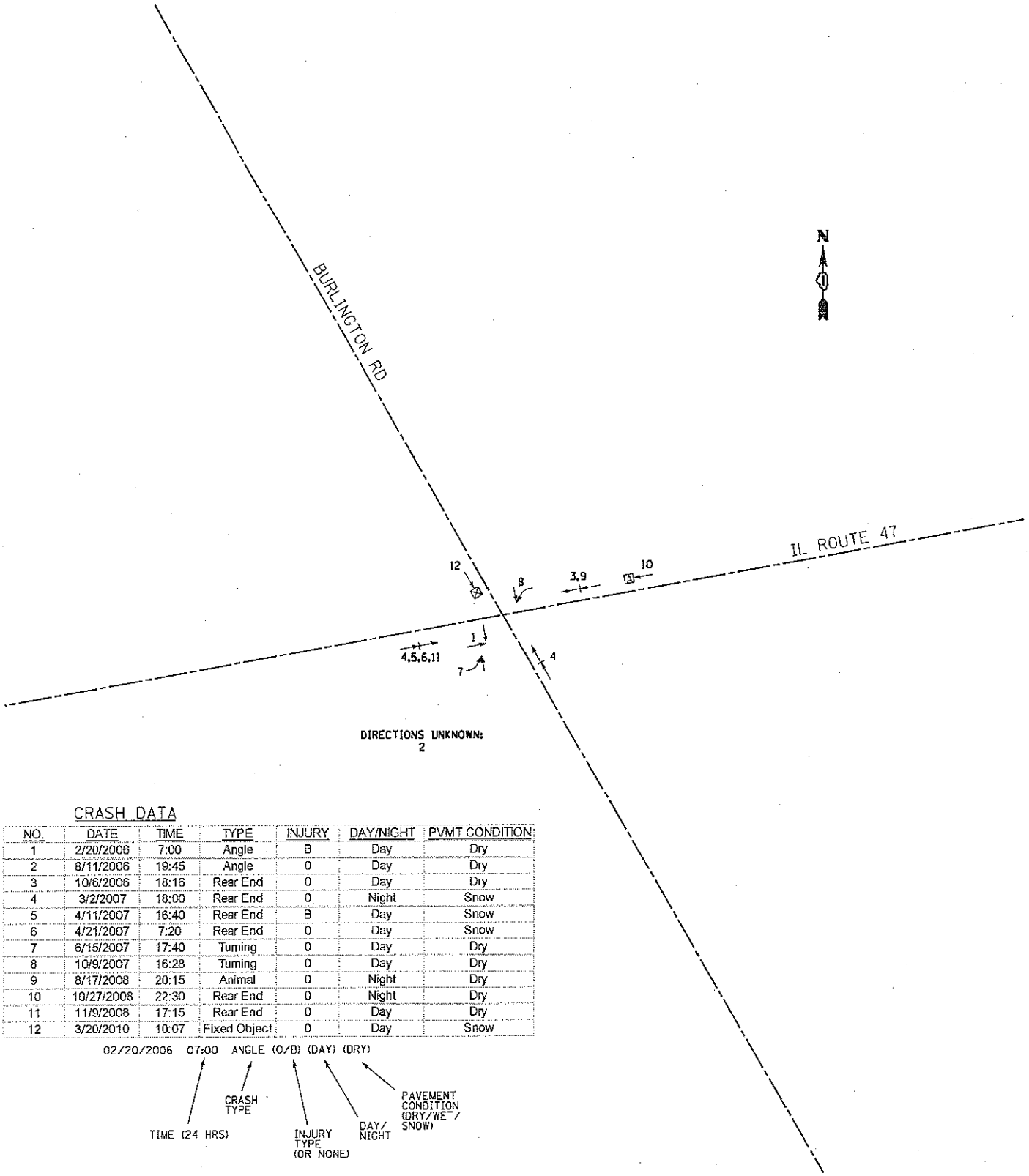
S:\WP\p&es\GEO\Geometric Approvals\2011\IL 47 at Burlington Rd (LR&S) 060211.doc

Exhibit D

SECTION 07-00357-00-CH: BURLINGTON ROAD at IL 47

Concept-Level Estimate of Project Cost - MARCH 2011

Work Classification	Units	Total	Unit Cost	Totals
Clearing; Minor Removal Items	LUMP SUM	1	$12,000	$12,000
Earthwork				
Earth Excavation	CY	4000	$20	$80,000
Restorative Grading / Topsoil Placement	SY	20000	$10	$200,000
Erosion Control				
Perimeter Erosion Barrier	LF	3000	$5	$15,000
Erosion Control Blanket	SY	20000	$2.50	$50,000
Drainage				
Box Culverts (approx. 3' x 2', assume precast)	LF	315	$250	$78,750
Storm Sewer, 24" or less	LF	204	$75	$15,300
Inlets / CBs / Manholes	EA	0	$2,000	$0
Pipe Culverts with End Sections	LF	160	$55	$8,800
Removal Items				
HMA Surface Removal	SY	400	$4	$1,600
Pavement Removal	SY	4900	$13	$63,700
Culvert Removal	LF	140	$30	$4,200
Subbase, Base, Surface, Shoulders				
Aggregate Subbase, 12"	SY	10000	$15	$150,000
HMA Shoulders	SY	2000	$50	$100,000
Aggregate Shoulders & Driveways	SY	641	$25	$16,022
HMA Base Course, 8"	TONS	2600	$72	$187,200
HMA Binder & Surface Course	TONS	1300	$88	$114,400
Permeable Median Surface	SY	880	$60	$52,800
Curb and Gutter	LF	4000	$25	$100,000
Guardrail, Roadside Safety				
Pavement Markings	LF	3050	$1.50	$4,575
Electrical				
Street Lighting	POLE	16	$6,000	$96,000
Detours, Temporary Traffic Control				
Temporary Widening	SY	3000	$35	$105,000
Pavement Patching	SY	20	$100	$2,000
Traffic Control (10% of project cost)	LUMP SUM	1	$159,000	$159,000
Field Office and Laboratory	CAL MO	6	$2,000	$12,000
Environmental Mitigation/Incidental Items				
Seeding / Sodding	SY	20000	$4	$80,000
Roadway Subtotal				**$1,708,347**
Structure Removal				$0
Major Culverts / Headwalls	CU YD	40	$1,000	$40,000
Bridges				$0
Structure Subtotal				**$40,000**
Roadway and Structure Subtotal				**$1,748,347**
Contingencies	20%			**$349,669**
Total Construction Cost				**$2,100,000**
Utility Adjustments	LUMP SUM			$15,000
Land Acquisition and Relocations	ACRE	2.4	$60,000	$142,800
Preliminary Engineering	8%			$168,000
Construction Engineering	10%			$210,000
Total Project Cost				**$2,636,000**



CRASH DATA

NO.	DATE	TIME	TYPE	INJURY	DAY/NIGHT	PVMT CONDITION
1	2/20/2006	7:00	Angle	B	Day	Dry
2	8/11/2006	19:45	Angle	0	Day	Dry
3	10/6/2006	18:16	Rear End	0	Day	Dry
4	3/2/2007	18:00	Rear End	0	Night	Snow
5	4/11/2007	16:40	Rear End	B	Day	Snow
6	4/21/2007	7:20	Rear End	0	Day	Snow
7	6/15/2007	17:40	Turning	0	Day	Dry
8	10/9/2007	16:28	Turning	0	Day	Dry
9	8/17/2008	20:15	Animal	0	Night	Dry
10	10/27/2008	22:30	Rear End	0	Night	Dry
11	11/9/2008	17:15	Rear End	0	Day	Dry
12	3/20/2010	10:07	Fixed Object	0	Day	Snow

02/20/2006 07:00 ANGLE (O/B) (DAY) (DRY)

- TIME (24 HRS)
- CRASH TYPE
- INJURY TYPE (OR NONE)
- DAY/ NIGHT
- PAVEMENT CONDITION (DRY/WET/ SNOW)

LEGEND

- HEAD-ON
- REAR-END
- ANGLE
- TURNING
- ANIMAL
- FIXED OBJECT

BURLINGTON ROAD / IL 47 INTERSECTION STUDY

INTERSECTION CRASH DIAGRAM (2006–2010)

EXHIBIT E–1

SCALE: NONE

DATE: MAY 2011

EXHIBIT E-2: CRASH ANALYSIS DATA
ILLINOIS ROUTE 47 AT BURLINGTON ROAD

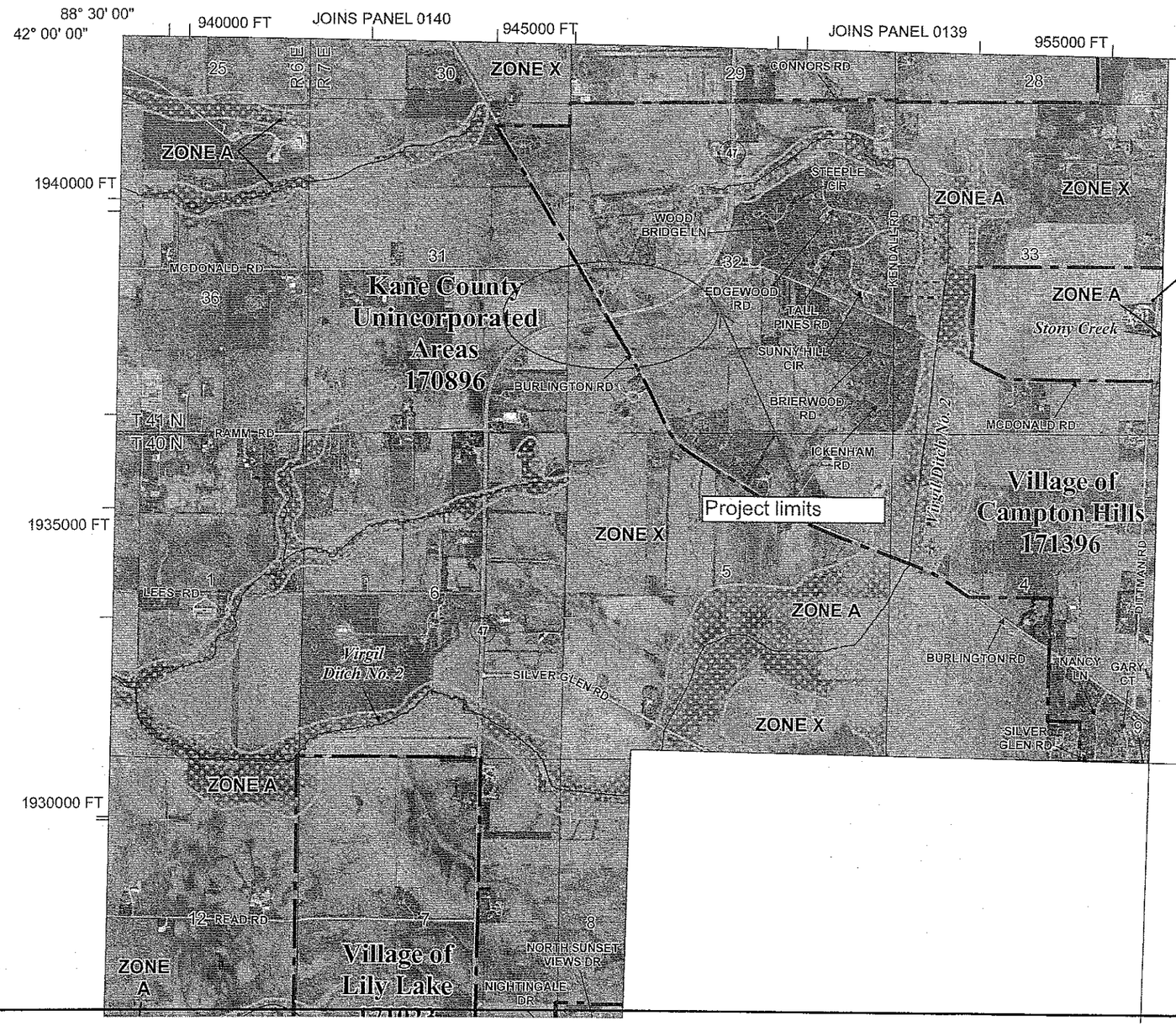
Years Analyzed: **2006-2010**
Total Crashes: **12**

0	Head On		
1	Animal		
2	Turning		
6	Rear End		
0	Sideswipe Same Direction		
0	Sideswipe O/D		
2	Angle		

Crash Details:

Injury Crashes:	**2**
A	**0**
B	**2**
C	**0**
Night Crashes:	**3**
Wet/Snowy Pavement:	**4**

NO.	DATE	TIME	TYPE CODE	TYPE	DAMAGE	INJURY	DAY/NIGHT	WET/DRY /SNOW	NOTES	CONTRIBUTORY CAUSES	ROADWAY DEFECTS
1	2/20/2006	7:00	15	**Angle**	Yes	B	Day	Dry	3 cars involved.	Driver ran stop sign.	
2	8/11/2006	19:45	15	**Angle**	Yes		Day	Dry	Uncertain of who had right-of-way.		
3	10/6/2006	18:16	11	**Rear End**	Yes		Day	Dry	Sunlight caused visual impairment.		
4	3/2/2007	18:00	11	**Rear End**	Yes		Night	Snow	Reported 2 days later.		
5	4/11/2007	16:40	11	**Rear End**	Yes	B	Day	Snow	Weather induced.		Driver could not see stop sign.
6	4/21/2007	7:20	11	**Rear End**	Yes		Day	Snow	Both vehicles towed.		
7	6/15/2007	17:40	10	**Turning**	Yes		Day	Dry			
8	10/9/2007	16:28	10	**Turning**	Yes		Day	Dry			
9	8/17/2008	20:15	4	**Animal**	Yes		Night	Dry	Deer hit and run.		
10	10/27/2008	22:30	11	**Rear End**	Yes		Night	Dry	Cell phone distraction.		
11	11/9/2008	17:15	11	**Rear End**	Yes		Day	Dry	Narratives differ. Damage minor.		
12	3/20/2010	10:07	6	**Fixed Object**	Yes		Day	Snow	Lost control and slid into ditch		



Kane County Unincorporated Areas 170896

THIS AREA SHOWN AT A SCALE O
ON MAP NUMBER 17089C0

MAP SCALE 1" = 2000'

000 0 2000 4000 FEET

METE

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0250H

FIRM

FLOOD INSURANCE RATE MAP

KANE COUNTY, ILLINOIS AND INCORPORATED AREAS

PANEL 250 OF 410

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CAMPTON HILLS, VILLAGE OF	171396	0250	H
ELBURN, VILLAGE OF	171026	0250	H
KANE COUNTY	170896	0250	H
LILY LAKE, VILLAGE OF	171023	0250	H

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER 17089C0250H

MAP REVISED AUGUST 3, 2009

Federal Emergency Management Agency

Exhibit 1-02a

PDR EXHIBIT F

Papirnik, Matt

From: Bergner, Emily R. [Emily.Bergner@Illinois.gov]
Sent: Wednesday, July 20, 2011 5:46 PM
To: Bouckaert, Diane
Cc: Papirnik, Matt; Solomon, Marilin D; Tulgar, Suleyman M
Subject: IL 47 at Burlington Road Roundabout

The LDS for this project is approved by the Hydraulics Section. Marilin and Suleyman, I will also send a reply to your transmittal memo of 7/18.

Thank you,

Emily Bergner, P.E., CFM
Fluid Clarity, Ltd.
Program Management Consultant - Hydraulics Section
Illinois Department of Transportation, Region 1 District 1
201 West Center Court
Schaumburg, Illinois 60196
Telephone: 847-705-4720
Email: Emily.Bergner@illinois.gov

SECTION III - COORDINATION

A. Project Overview
B. COSIM coordination
C. FHWA/IDOT Coordination Meetings
D. "Complete the Streets" Coordination
E. Chicago Area Transportation Study
F. Utilities Coordination
G. Public Presentation Documents & Notes

Project Overview

Submittal Date: 01/28/2008 **Sequence No:** 14314
District: 1 **Requesting Agency:** Local KDOT **Project No:**
Contract #: **Job No.:** P- 91-331-07
Counties: Kane
Route: **Marked:** IL-47
Street: IL-47 at Burlington Rd **Section:** 07-00357-00-CH
Municipality(ies): Unincorporated Kane County **Project Length:** 1.8347 km 1.14 miles
FromTo (At): 200 ft of IL-47 to north and south of intersection, 100 ft of Burlington Rd to east and west of intersection
Quadrangle: Elburn **Township-Range-Section:** T41N, R7E, Sections 31 and 32
Anticipated Design Appr.: 10/01/2008 **Anticipated Processing:** CE

Funding: ☑ Federal ☑ State ☐ TBP ☐ MFT ☐ Local Non-MFT

Consultant:
PTB No.: **Item No.:** **PTB Date:** **Prequal Level:**

Sequence No: 14314

	Biological	Wetlands	Cultural	Special Waste
Entered By	BDE	BDE	BDE	BDE
Cleared for DA	4/25/2008	4/25/2008	4/23/2008	
Cleared for Letting	4/25/2008	4/25/2008	4/23/2008	
Resubmittal	03/22/2010			
ResubmittalCleared	3/22/2010			

expired — OK per BLRS 5/5/2011

Section: 07-00357-00-CH **Job No.:** P- 91-331-07
FromTo (At): 200 ft of IL-47 to north and south of intersection, 100 ft of Burlington Rd to ea

Sequence No: 14314 A

	Biological	Wetlands	Cultural	Special Waste
Entered By	BDE		BDE	BDE
Cleared for DA	4/14/2010		3/17/2011	9/9/2010
Cleared for Letting	4/14/2010		3/17/2011	
Resubmittal				
ResubmittalCleared				

Section: 07-00357-00-CH **Job No.:** P- 91-331-07
FromTo (At): 1250 ft of IL-47 to north and south of intersection, 1250 ft of Burlington Rd to

Intent	Available			Public Info Meeting(s)		Notice of Public Hearing(s)	Public Hearing(s)		ROD/FONSI
	Local	Federal Register		Set 1	Set 2				
		DEIS	FEIS						

Comments:

Inactive Date: **Change in Anticipated Processing:**

Project Phase Comments:

COSIM 3.0 PRE-SCREEN MODELING RESULTS

11-04-10
09:00 AM
IL-47 ; Sec: 07-00357-00-CH

Performed by:	**Barbel Wm**
Intersection Location:	**Kane County**
Intersection Name:	**IL-47 at Burlington Road**
Highest Approach Volume:	**2236 vph**
Closest Receptor:	**800 feet**

Pass

Intersection PASSES Pre-Screen. COSIM analysis not required.
Highest approach volume for the design year on any leg of the intersection
is below Pre-Screen Cutoff ADT for the closest receptor distance.

Please include the following statement in the project report or NEPA document:

A Pre-Screen carbon monoxide analysis was completed for the proposed project. The results from this proposed roadway improvement indicate that a COSIM air quality analysis is not required, as the results for the worst-case receptor are below the 8-hour average National Ambient Air Quality Standard for CO of 9.0 ppm which is necessary to protect the public health and welfare.

Burlington Road / IL 47 Intersection Study
Section 07-00357-00-CH

Minutes from September 1, 2009
FHWA / IDOT Coordination Meeting

Time: Presentation of our project began at 11:00 AM.

Place: Illinois Department of Transportation offices

Meeting Discussion:

This was the second presentation of this project. The first presentation was on June 10, 2008.

The project was introduced as an CMAQ-funded project by the Kane County Division of Transportation (hereafter "County") to improve capacity at the intersection. The intersection is in central Kane County, at the intersection of an SRA (Illinois Route 47) and a local arterial highway, Burlington Road (CH 2). There are no traffic signals nearby. The existing traffic control is a four-way stop in place since 2000.

The proposed improvement originally would have involved construction of a new traffic signal and widening the intersection to provide an auxiliary lane for each turning movement through the intersection. Signal warrants #1 and #2 are met. Turning lane warrants are met for half of the movements in the intersection; the remaining auxiliary lanes were provided for the sake of geometric consistency.

Biological, wetlands, special waste and cultural clearances have all been issued. FHWA recommended that **this project be processed as a State Categorical Exclusion Group I as of June 10, 2008.**

The IDS for the conventional intersection has been approved by IDOT. However, it features several design exceptions (including two for level-of-service) and its cost is much higher than available funding.

The County and its consultant have reviewed the concept and proposed the use of a roundabout intersection in its place. (A preliminary concept was presented at the meeting.) It was noted that the intersection is a good place for a roundabout because of its excellent sight distance, its compact footprint, and its good crash history despite the current stop control at the intersection.

The concept has already been introduced at a meeting on August 18 with representatives from IDOT's Local Roads, Land Acquisition, Programming and Traffic bureaus. Attendees

agreed that no fatal flaws were evident. The County was given permission to proceed with the change in scope with the understanding that attendance at today's meeting was encouraged.

IDOT Central Office and the FHWA likewise identified no fatal flaws in the concept and encouraged the County to proceed with the change in scope. It was noted that this project will use Federal funding in construction and right-of-way purchase, and that IDOT participation in the matching funds was under consideration.

Central Office noted that the project would still be **processed as a Categorical Exclusion, Group I as of this date**. A full Report would be required. An Addendum to the current Environmental Survey Request should be submitted.

FHWA encouraged the County to provide for extra consideration of advance signing, approach geometry and public outreach as part of the new study.

The presentation concluded at 11:20 AM.

Original Issue: 9/02/2009
Approved without comment 10/10/2009

Burlington Road / IL 47 Intersection Study
Section 07-00357-00-CH

Minutes from May 11, 2010
FHWA / IDOT Coordination Meeting

Time: Presentation of our project began at 11:30 AM.

Place: Illinois Department of Transportation offices

Meeting Discussion:

This was the third presentation of this project. The last presentation was on September 1, 2009.

The project was introduced as a CMAQ-funded project by the Kane County Division of Transportation (hereafter "County") to improve capacity at the intersection. The intersection is in central Kane County, at the intersection of an SRA (Illinois Route 47) and a local arterial highway, Burlington Road (CH 2). There are no traffic signals nearby. The existing traffic control is a four-way stop in place since 2000.

The proposed improvement is a single-lane roundabout. It is expected to function with a level of service (LOS) of A in its construction year (targeted for 2012).

Biological, wetlands, special waste and cultural clearances have all been issued. FHWA recommended that **this project be processed as a State Categorical Exclusion Group I as of June 10, 2008.** An AESR for this project was submitted earlier this year; clearances are still being received by Local Roads.

Burns & McDonnell had submitted a memorandum to IDOT requesting their review of several significant design features. They were discussed as follows:

Traffic volumes. In a previous coordination meeting, IDOT had asked Burns & McDonnell to estimate the time at which the one-lane roundabout would begin to break down from a LOS standpoint. It was estimated that this breakdown wouldn't take place until near or at the end of the planning period (i.e. 2030). Traffic projections used in this analysis are the same as those originally used for the study of the conventional intersection.

Construction phasing. Burns & McDonnell proposed to install the future second lane on the inside of the roundabout, and to ease the phasing by constructing a 30' wide circle, striping the inside 12' lanes as shoulder. IDOT and the FHWA discourage this

configuration, noting that a raised shoulder provides a better and more visible means of channeling traffic around the roundabout.

Inscribed circle. An outside diameter of 195' was used in recognition of the large design vehicle, the anticipated use of the roundabout by unconventional vehicles (e.g. farm equipment), and an anticipated "build-inward" phasing. This is a larger radius than is called for in most guides (FHWA, Wisconsin), though Kansas DOT's guide identifies 200' as a maximum. IDOT holds that this diameter is too high for the initial configuration. A new configuration with a smaller inscribed circle is in development.

Shoulders. IDOT and FHWA recommend the use of mountable curb and gutter instead of shoulder for the outside edges of roundabout pavement. (A shoulder may be required on the inside of the roundabout to handle truck encroachment; this shoulder will be installed behind the mountable curb.)

Kane County announced their intent to present the concept to the public through a Public Presentation on July 21. The informational rollout will include a web page containing roundabout guides and project information, and static signs and/or CMSs at the intersection providing information about the web page and the presentation. Several present expressed their interest in attending. No objection was offered to the County's timetable.

The presentation concluded at 12:00 noon.

Original Issue: 5/12/2010

Illinois Department of Transportation

Memorandum

To:

From:

Subject: Omission of Bicycle/Pedestrian Accommodations

Date: 7/15/2011

Route: IL 47 at Burlington Road
Section: 07-00357-00-CH
County: Kane
Limits: 1000' N & S of intersection on IL 47; 750' N & S of intersection on Burlington Road

Region 1 / District 1 is requesting to omit bicycle and pedestrian accommodations from the above referenced project. The justification for the omission is :

☒ **Lack of Need:** Accommodation warrants have not been met and the Bicycle and Pedestrian Coordinator has concurred in the warrant assessment. Attached is a copy of the warrant assessment and supporting correspondence from the Coordinator.

☐ **Excessive Cost:** The cost of the "highest and best" accommodation exceeds percent of the overall project cost. Attached are detailed cost estimates for all accommodation(s) considered and the overall project without the accommodation.

☐ **User Safety:** Sufficient safety cannot be provided for the users of the accommodation under the scope of the existing project. Attached is documentation supporting this decision.

Attachment

Technical Memorandum

Date: October 22, 2010

Revised:

To: Jason Salley, IDOT

From: Matt Papirnik

Project: 07-00357-00-CH: Burlington Road at Illinois Route 47

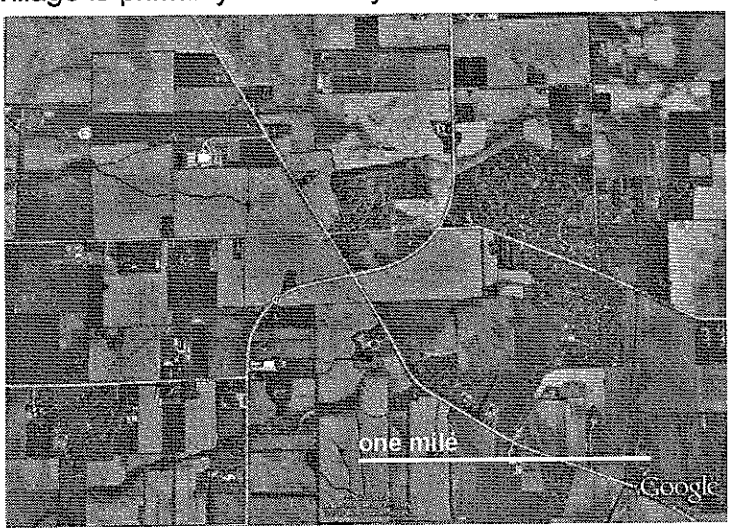
Subject: "Complete Streets" Assessment

Discussion:

The purpose of this technical memorandum is to evaluate the "Complete The Streets" program, as outlined in BDE Memorandum 68-10 and in recent revisions of the BDE Manual as it applies to our project.

Project Description and Location:

The project is a spot improvement at the intersection of Burlington Road and Illinois Route 47 in a rural area near the recently incorporated Village of Campton Hills (population 11,000). The village, covering 22 square miles, lies to the east of Illinois Route 47. The village is primarily low-density residential in nature, with most lots exceeding an acre in size. The estimated population within one mile of the intersection is less than 1,000.



The improvement now planned consists of replacing the current four-way stop with a single-lane roundabout. Reconstruction of all four legs of the intersection will extend for approximately 500 feet from the center. Approaches will feature paved shoulders, while the roundabout flares and circular path will be curbed. The Phase I construction cost estimate is $2.6 million.

Current Bicycle Accommodations:

The Kane County Bicycle Map lists Burlington Road as an F for Bicycle Level of Service ("least comfortable") and Illinois Route 47 as a D through the project

limits. This is likely due to the high speeds (55mph posted speed limit) and aggregate shoulders on both highways. Bicycle counts were to be counted as part of the original study; none at all were recorded.

Discussion of BDE Section 17-1.03 Warrants:

According to the BDE Memorandum and the subject law, "adequate accommodations" must be provided for bicycle travel when any of the following situations exist:

- A highway is designated as a bikeway by the relevant agency;
- Projected two-way bicycle volume exceeds 25 ADT;
- The route provided primary access to a park, recreational area or other significant destination;
- The route provides unique access across a natural or man-made barrier;
- The project will negatively affect the recreational or transportation utility of an existing bikeway or trail.

All but the second point are easily addressed. As noted, the Kane County Bicycle Map actively discourages use of the subject roadways. There are no parks or recreational areas within a mile of the intersection. Neither roadway provides unique access across an impediment. There are no existing trails or bike paths in the vicinity which would be impacted by this improvement.

The Village of Campton Hills recently produced its first Bicycle Planning map. No routes exist, or are planned, for the vicinity. A portion of that map is attached to this Exhibit.

The second warrant is addressed below.

Discussion of BDE Section 17-1.04:

Section 17-1.04 provides guidance on the applicability and force of the warrants based on the geographical area of the project.

The following conditions could be said to apply to our project: "Rural Towns", "Rural Highway Projects", or "Unpopulated Rural Areas". As the project photo indicates, the last of these most precisely defines our location and project type. BDE 17-1.04 states that projects in these types of areas need not include bicycle accommodations. Even if it were to be argued that our area constitutes a "rural town", the text notes that accommodation may be warranted "where bicycle travel within the community and from outlying populated areas could justify such accommodation." Bicycle travel within the community does not use this intersection.

Section 17-1.04(a) references two checklists recommended as an aid in developing bike use projections by compiling potential bike trip origins and destinations. Those checklists are attached as exhibits to this memorandum. Other than a neighborhood of approximately 30 homes on the periphery of the

one-mile study area limit, none of the listed trip generators exist or are anticipated in the next five years.

Development of ADT projections:

In addition to observed travel and assessment of origin/destination sites, estimated bicycle ADT was to be calculated using the 2006-2008 U.S. Census commuting trends spreadsheet available from the IDOT website.

The nearest municipalities, Campton Hills and Lily Lake, are not represented in the census data, so reference was made to countywide data instead. The Kane County average data suggested that weekday commuter bike traffic would total 0.5% of the vehicular ADT. A vehicle ADT of approximately 11,000 in 2015 thus yielded a bicycle ADT of 54 for Illinois Route 47. Similarly, Burlington was projected to have a bicycle ADT of 25. Projected ADTs of this magnitude would warrant bikeway treatments.

These projections, however, are based on assumptions which do not hold up under scrutiny. As noted by the County's bike and pedestrian planning liaison:

- The idea of applying a general percentage equally to rural and urban sections of Kane County does not seem appropriate.
- The percentage applied to this section of rural Kane County is larger than the percentage applied to cities like Naperville or Elgin.
- Suburban communities are reasonably likely to have a percentage of bicyclists as commuters, since they feature fairly dense concentrations of residential and job-related development; with neither of these present in a significant quantity for miles in any direction from the project site, the likelihood of any IL 47 commutes being undertaken on bicycle is very small.

Recommendation and Conclusions:

Based on the absence of existing demand, trip generators and logical termini for bicycle or pedestrian trips within this area, and the disinterest expressed by the local municipality in encouraging bike travel at this location, we ask that the Central Office concur with our finding that bicycle accommodations need not be provided as part of this project. Doing so incurs a very real cost in time and money for which no real return on investment is likely.

We note that many of the features of the proposed improvement will facilitate and protect those bicyclists who choose to use Burlington Road or Illinois Route 47. The proposed roundabout is designed to slow traffic to 20-25 miles per hour, and to provide extra pavement for the WB-65 design vehicle. These features will both allow bicyclists to share the road with typical traffic, and to protect them from the high vehicle speeds used on the intersecting streets. As a result, the design features already provided will improve bicycle access within the project limits.

Papirnik, Matt

From: Papirnik, Matt
Sent: Friday, March 04, 2011 12:21 PM
To: Papirnik, Matt
Subject: FW: Bike/Ped Warrants

From: Hill, Todd W
Sent: Monday, November 15, 2010 2:00 PM
To: Salley, Jason R; Feeny, Greg M; Niedernhofer, Paul R
Cc: Mead, Sam M; Danmole, Salmon O; Solomon, Marilin D
Subject: RE: Bike/Ped Warrants

Need has not been established. No shelf either.

From: Salley, Jason R
Sent: Monday, November 15, 2010 1:59 PM
To: Hill, Todd W; Feeny, Greg M; Niedernhofer, Paul R
Cc: Mead, Sam M; Danmole, Salmon O; Solomon, Marilin D
Subject: RE: Bike/Ped Warrants

So no shelf is required either?

From: Hill, Todd W
Sent: Monday, November 15, 2010 1:56 PM
To: Salley, Jason R; Feeny, Greg M; Niedernhofer, Paul R
Cc: Mead, Sam M; Danmole, Salmon O; Solomon, Marilin D
Subject: RE: Bike/Ped Warrants

Jason,

On review I would say that Burns and McDonald's assessment is appropriate. I see no need for bike accommodations here based on the lack of warrants met.

Sincerely,

Todd W. Hill
Bicycle and Pedestrian Coordinator
Illinois Department of Transportation
Room 334
2300 So. Dirksen Parkway
Springfield, IL 62764

217-785-2148
217-524-9357 fax
Todd.Hill@illinois.gov

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<< File: Hill, Todd W.vcf >>

From: Salley, Jason R
Sent: Monday, November 15, 2010 12:58 PM
To: Hill, Todd W; Feeny, Greg M; Niedernhofer, Paul R
Cc: Mead, Sam M; Danmole, Salmon O; Solomon, Marilin D
Subject: RE: Bike/Ped Warrants

Todd,

Here's your first one, IL 47 at Burlington Rd.

A LR&S intersection improvement project in Kane County (see attached Location Map).

Attached you'll also find a memo outlining their position that warrants are not met for ped and bike accommodations.

Thanks,

Jason Salley, P.E.

Geometrics Studies Unit Head

IDOT - District 1

P: 847.705.4085

F: 847.705.4159

Jason.Salley@Illinois.Gov

<< Message: FW: DRAFT Burlington/47 CS Assessment >> << Message: RE: IL 47 at Burlington Rd IDS's >> << File: Location Map.doc >>

From: Hill, Todd W
Sent: Friday, November 12, 2010 11:02 AM
To: Salley, Jason R; Feeny, Greg M; Niedernhofer, Paul R
Cc: Mead, Sam M
Subject: RE: Bike/Ped Warrants

Jason,

In D-1 there will be few cases where bike or ped warrants are not met so I need to review those exceptions. With respect to the accommodation applied, I need to review those as well.

Sincerely,

UTILITIES COORDINATION

An update to available information on existing utilities was sought in the Spring of 2011. The JULIE utilities coordination service identified four contacts for three utilities with facilities within project limits. The outcome of the subsequent correspondence is in the table below. Written responses follow.

Utility	Contact Info	Outcome
AT&T	630-573-5450	AT & T facilities are carried on Com Ed poles passing through the intersection within the IL 47 ROW.
Com Ed	Erica, SM&P 630-396-8224	ROC with SM&P, 7/11/2011: Com Ed local transmission lines of various voltages are carried on approximately ten Com Ed poles within the project limits. Two transformers are carried on these poles.
Comcast	Martha Gieras, Comcast 630-600-6352	Comcast has no facilities within the project limits.
Nicor	Connie Lane, NICOR 630-388-3830	Transmission main near east quadrant ROW line. Proposed ROW takes should allow for pre-construction relocation of main without undue impact to provider or project.

FAXCFM 00002 JULIEx 05/02/11 16:10:22 X1222213-00X DESIGN

Thank you for contacting JULIE, Inc. regarding your upcoming digging project.

Please review and print your locate request ticket below for your records. If any of the information is incorrect, please contact a JULIE call center agent by simply dialing 811 or 800-892-0123 and refer to the locate request number. The agents are available 24/7.

For information about the next steps in the process, a copy of JULIE's Homeowner's Guide, and an explanation of the color-code markings, visit www.illinois1call.com/e_request/what_happens_next.htm

Dig No : X1222213 Rev : 00X Digstart: 11/02/11 15:57
Rcvd : 05/02/11 15:59 Priority: 2 Expires : 01/01/00 00:00
Org Dig: X1222213 Rcvd: 05/02/11 15:56

Firm : BURNS & MCDONNELL Caller: MATT PAPIRNIK
CoAddr1: 1431 OPUS PL, SUITE 400
City,St: DOWNERS GROVE, IL Zip : 60515
Phone : 630-724-3244 Ext : Fax: 630-724-3201
Call Bk: Done For : KANE COUNTY DIV OF TRANS
SiteCnt: SAME AS ABOVE
Email : MPAPIRNIK@BURNSMCD.COM

County : KANE Place: PLATO
Address: RT 47
Subdiv : Cross: BURLINGTON RD

Grids : T41NR07E32*W

BestFit: 41.997547/-88.473348 41.997547/-88.463536
: 41.982799/-88.473348 41.982799/-88.463536
PreMark: NO Directional Boring: NO Depth>7Ft: NO
Locatn : IN THE TOWNSHIP OF PLATO, JUST OUTSIDE THE CITY OF CAMPTON HILLS.
WrkType: ROAD RECONSTRUCTION
Extent : WORK WILL BE DONE WITHIN 1/4 MILE OF ABOVE INTERSECTION
Remarks:

Members:

ATT51A	ATT/DISTRIBUTION		630-573-5450x2nd 6
305735495			
CEC00A	COMED / JOLIET	DESIGN STAGE LOCATE LINE	630-576-7094
COMC0A	COMCAST/BLUEISLAND	MARTHA GIERAS	630-600-6352
NICR0A	NICOR GAS	UTILITY CONSULTANT G03W	630-388-2362
SMP3A	USIC LOCATING SERVICE-ROCKFOR	Information not provided	

Papirnik, Matt

From: Illinois Damage [IllinoisDamage@usicinc.com]
Sent: Friday, May 06, 2011 9:07 AM
To: Papirnik, Matt
Subject: Design Stage Ticket #X1222213
Attachments: UG Locating Map Legend.pdf; 431-32N-UGL.pdf; 431-32S-UGL.pdf

Matt,

If your project is regarding new or renovation construction, supplied electrical voltage needs, or changes in current electrical demands, you must contact ComEd's New Business office at 1-866-NEW-ELEC (1-866-639-3532) to begin the process to complete your request.

If your project is for a publicly funded improvement project such as road widening, sewer, water, or other general public improvement, please call ComEd's Public Relocation Department at 630-437-4855.

ComEd has forwarded your JULIE Design Stage Ticket #X1222213 - Plato to our company to provide the attached prints as you requested. I have also attached a ComEd Legend relative to these prints. Note that since we are submitting this information for ComEd, you may need to contact ComEd directly to further develop your project.

It is very important to note that you must take additional steps if your project is for a new or revised electric service or for a publicly funded roadway improvement project

Have a Great Day & Keep it Safe.

Erica Navarro
Administrative Asst.
Phone : 630-396-8224
Fax: 630-396-8230

Comcast Cable
688 Industrial Drive
Elmhurst, IL 60126

May 25, 2011

Burns & McDonnell
1431 Opus Place, Ste. 400
Downers Grove, IL 60515
Attn: Matthew Papirnik, P.E.

Re: Utilities Information Request
Intersection of Burlington Rd at IL Rte 47
Near Campton Hills, Illinois
JULIE Dig #X1222213

Dear Mr. Papirnik:

With regards to the above request, we do not have any facilities within the referenced project limits.

Feel free to call us if you have any questions about any of this information.

Very truly yours,

Robert L. Schulter Jr.

Robert L. Schulter, Jr.
Right-of-Way Manager
Greater Chicago Market

By: Thomas Munar

Thomas Munar
Right-of-Way Engineer
(630) 600-6316

Chicago Metropolitan
Agency for Planning

233 South Wacker Drive
Suite 800, Sears Tower
Chicago, IL 60606

voice 312-454-0400
fax 312-454-0411
www.chicagoareaplanning.org

November 7, 2007

Mr. Carl Schoedel. P.E.
County Engineer
Kane County Division of Transportation
41W011 Burlington Road
St. Charles, IL 60504

Subject: Illinois Route 47 @ Burlington Road
Kane County DOT

Dear Mr. Schodel:

In response to a request made on your behalf and dated November 2, 2007, we have developed year 2030 average daily traffic (ADT) projections for the subject location.

INTERSECTION	NW Leg	NE Leg	SE Leg	SW Leg
IL Rt 47 @ Burlington Rd	9,000	16,000	8,000	16,000

Please be aware that the Illinois Department of Transportation has prepared a Strategic Regional Arterial (SRA) report for Illinois Route 47. SRA Reports include right-of-way, geometric, access and transit recommendations.

Traffic projections are developed using existing ADT data provided in the request letter and the results from the most recent (year 2006) CATS' RTP/TIP Travel Demand Analysis. The regional travel model uses 2030 socioeconomic projections from the Northeastern Illinois Planning Commission, and assumes the implementation of CATS' 2030 Regional Transportation Plan for the Northeastern Illinois area.

If you have any questions, please call Claire Bozic at (312) 386-8744.

Sincerely,

Donald P. Kopec
Deputy Executive Director for Programming and Operations

cc: Papernik (Burns & McDonnell)
M:\proj1\ceb\forecasts\2007response\ka-11-07.doc

NOTICE
Open House Public Hearing

Scheduled By
Kane County Division of Transportation
For Improvement of the Intersection of Burlington Road at Illinois Route 47

The Kane County Division of Transportation (KDOT) has scheduled an Open House/Public Hearing on July 21, 2010 from 4:00 PM to 7:00 PM at the KDOT office, 41W011 Burlington Road, St. Charles IL 60175 for the purpose of discussing the improvement of the abovementioned intersection and to solicit public comments.

The study of the Burlington Road / IL 47 Intersection Improvement will be used to design an appropriate replacement for the existing four-way stop control currently in place. Conventional traffic signals and roundabout design concepts have both been considered.

All persons interested in this project are invited to attend the meeting at any time between 4:00 p.m. and 7:00 p.m. The meeting will be conducted on an informal basis. An audio-visual presentation will be shown continuously during the meeting, and will address topics such as the need for the project. Project information will be on display, and KCDOT staff will be present to answer questions and discuss the project on a personal basis. An opportunity for written comments will be provided both during and after the meeting.

The meeting will be accessible to persons with a disability. Persons with a disability planning to attend and needing special accommodations should contact the individual listed below.

For more information, contact Paul LaFleur, Project Manager, 41W011 Burlington Road, St. Charles, Illinois 60175, telephone 630/584-1170, fax 630/584-5265.

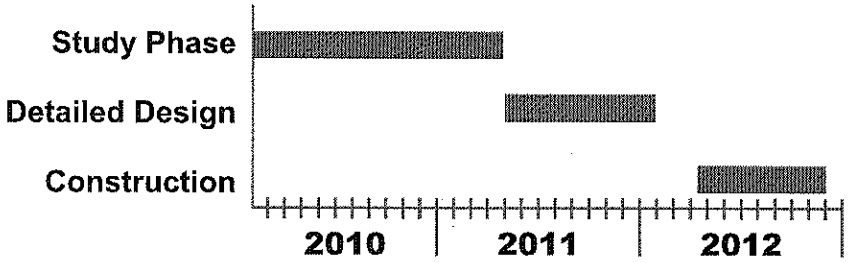
Public Involvement and Next Steps

Your comments are valuable and allow all relevant perspectives to be considered before IDOT approves the project.

The Public Open House and the information provided on Kane County's web site* are intended to help residents and travelers learn more about the history and need for improvements at this intersection. Officials from Kane County and other project team members are available to explain the process, answer questions and provide information on roundabouts and other intersection designs that were considered.

More importantly, these project details are presented to give the public an opportunity to provide verbal and/or written input to help guide the project team. Users' comments are a valuable way for Kane County to ensure that all relevant perspectives are considered. However, once detailed design begins (see schedule, below), the window of opportunity to consider public input drops significantly (to remain on schedule and within budget).

After addressing comments from the meeting and from state and federal engineers, **the next step is to receive approval from IDOT on the preliminary design.** It is hoped that detailed design can begin next year, with construction in 2012.



*www.co.kane.il.us/dot/constprojects/burlingtonat47.aspx

Kane County Division of Transportation
Project Manager: Paul LaFleur, Professional Engineer
41W011 Burlington Road
St. Charles, IL 60175
630.584.1170

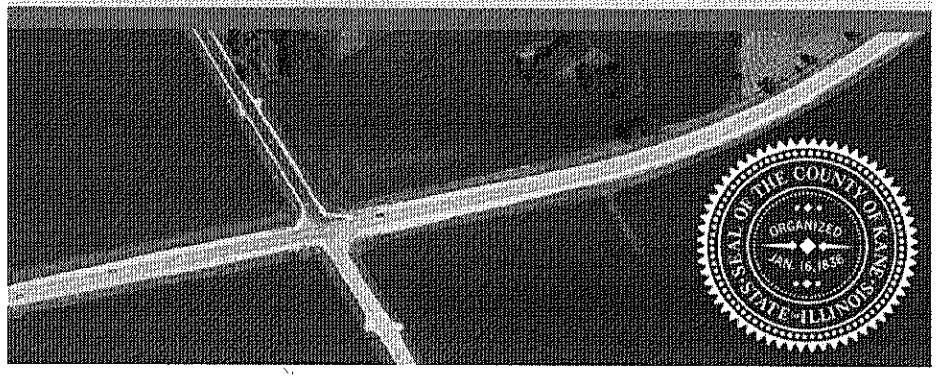
Engineering Consultant: Burns & McDonnell
Downers Grove, IL

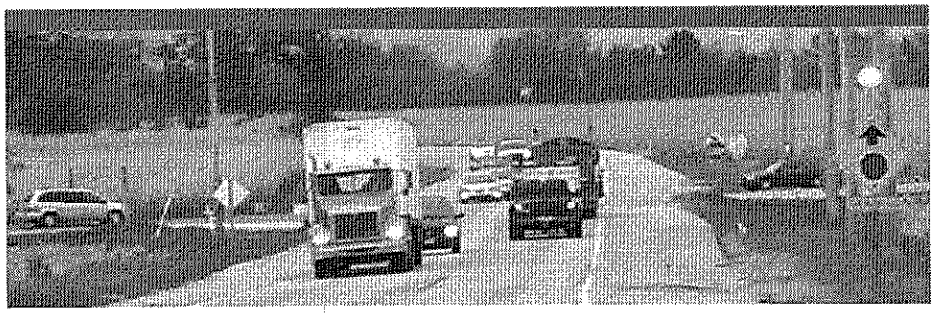
Improving the Flow of Traffic and Public Safety

Public Open House
August 18, 2010
4-7 p.m.

Project Information
Informal Discussion
Verbal/Written Input

BURLINGTON ROAD AND ILLINOIS ROUTE 47 INTERSECTION PROJECT





Intersection History

The intersection of Burlington Road and Illinois Route 47 is in a rural but well-traveled section of Kane County. Burlington Road is a Kane County highway, while Illinois Route 47 is under the jurisdiction of the State. For many years, there were only stop signs for Burlington Road. Accidents in the 1990s prompted the Illinois Department of Transportation (IDOT) to install stop signs on Illinois Route 47 and a flashing overhead beacon. After these traffic control devices were in place, accidents were significantly reduced, but vehicle delay increased.

While the four-way stop has made the intersection much safer, other issues have arisen. The increase in traffic on both roadways has led to significant congestion at the intersection during rush hours. This congestion, and the prospect of more as the County continues to grow, prompted the Kane County Division of Transportation to begin looking for ways to improve the intersection.

Intersection Improvement Study (Traditional Design)

Engineering consultant Burns & McDonnell was hired by Kane County to study the intersection and propose improvements to enhance traffic flow. It was originally anticipated that the intersection could be improved with a traditional design, including widening the existing pavement to add new left turn lanes on all four approaches, and adding a new traffic signal. **Federal Congestion Mitigation and Air Quality (CMAQ) funds were secured to help finance the project.**

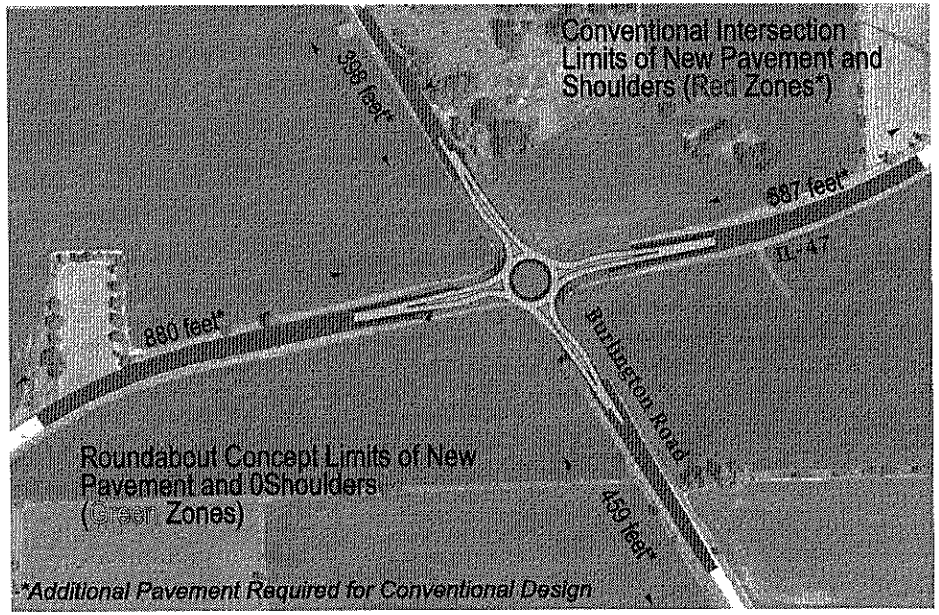
Illinois Route 47 is is classified by the State as a Strategic Regional Arterial (SRA). Roads with this classification are intended to supplement local expressways by encouraging the flow of regional traffic. Any plans to improve Illinois Route 47 must involve special design standards and additional turn lanes for more efficient traffic flow. These required improvements (i.e., adding right turn lanes) increased the total project cost estimate beyond what the CMAQ grant would cover creating a funding shortfall - with the possibility that the extra costs would be paid primarily from County funds.

Roundabout (Alternate Design)

After considering several options a roundabout was proposed instead of the traditional intersection-with-a-traffic-signal design. It was determined that a roundabout would function better than a traffic signal at this location, since vehicles only need to slow down at a roundabout instead of coming to a complete stop.

Roundabouts are a tried and true, low cost engineering solution in other states, but new to most Illinois drivers. Roundabouts are typically much safer than other types of intersections—they reduce the speed of every vehicle traveling through the intersection, and they eliminate the right-angle and head-on collisions that cause the most harm to people and vehicles. **Roundabouts can also reduce congestion by decreasing waiting times** because a driver can enter a roundabout whenever there's a gap in traffic versus waiting for a green light.

A roundabout would also be more cost effective, since only one lane of pavement is required to enter a roundabout, compared to the three lanes (a left turn lane, a through lane, and a right turn lane) needed for a conventional intersection approach. **Since the CMAQ funding can be used for a roundabout, this option would allow the County to provide a high-quality traffic improvement at the least possible cost to its residents.**



Sign In Sheet — Public Open House — August 18, 2010

NAME	HOME ADDRESS	E-MAIL ADDRESS
Charlie Ramm		
JASON SALLEY	IDOT-D1	JASON.SALLEY@ILLINOIS.GOV
Ted Heise	4N605 Woodbridge Ln Elgin IL	
CARLOS FELICIANO	IDOT -D1	CARLOS.FELICIANO@ILLINOIS.GOV.
Art Gustafsson	5N719 Castle Dr. St Charles Il	
BOB KUDLICKI	DIST. 25 COUNTY BOARD	
Walt + Carol Quandt	44W951 Dietrich Hampshire	carol_quandt@hotmail.com
Barbara Wojnicki	41W150 BROWN Road St. Charles	Kane County Board #15
JAYNE HELLEY	41W027 KINGS MILL DR STC 60175	HARJAY41@AOL.COM
L Logan + Kathy Metcalfe	42W201 Empire Rd. St. Charles, IL 60175	

BURLINGTON ROAD AND ILLINOIS ROUTE 47 INTERSECTION PROJECT

2

Sign In Sheet — Public Open House — August 18, 2010

NAME	HOME ADDRESS	E-MAIL ADDRESS
BRIAN FAIRWOOD	4039 Strafford Ln Carpentersville	brianfairwood@sbcglobal.net
Jim WARNER	4N 460 WINDSOR CT Cam. Il.	jww0503@comcast.net
H. DAVID NEWKIRK	3N369 LaFox Rd, St. Charles, Il 60175	dnewkirk@hlreng.com
MARILIN SOLOMON	IDOT	
Sheletha Jasmine		
HAL MILLER	1N202 NANCY LANE CAMPTON HILLS, IL	
Stan Walczynski	7N972 Pharley Dr St. Charles IL	Stanwal.comcast.net
Mike Ormond	Elgin IL 60124 43W308 Burlington Rd	
Mary + Don Zedonis	4N520 Babson Ln St. Charles, Ill. 60175	DollieZEE@SBCGLOBAL.NET
ALAN MAAS	8N209 THOMAS RD. MAPLE PARK ILL 60151	al.nuway@gmail.com

BURLINGTON ROAD AND ILLINOIS ROUTE 47 INTERSECTION PROJECT

Sign In Sheet — Public Open House — August 18, 2010

NAME	HOME ADDRESS	E-MAIL ADDRESS
Jim Kopec	6N960 Canterbury Ct Cll 60175	JWKopec@earthlink.net
Karen Hoyne	40W969 Kings Mill – Compton Hills	KHoyne@foxvalley.net

BURLINGTON ROAD AND ILLINOIS ROUTE 47 INTERSECTION PROJECT

BURLINGTON ROAD AND ILLINOIS ROUTE 47
INTERSECTION PROJECT

COMMENTS FORM

Locations of

Round a bout in

wisconsin

County e-mail address

Barbara

County Board #15

(Optional) Name/E-mail:

BURLINGTON ROAD AND ILLINOIS ROUTE 47
INTERSECTION PROJECT

COMMENTS FORM

Would like to see the traffic circle. With it being one of the 1ST in the area would like to see if well landscaped so its sets the stage for others.

Dave NEWKIRK
Village of Campton Hills
Public Works chairman

(Optional) Name/E-mail: