



Route	FAP 348 (IL 43)	County:	Cook
Local	River Forest	Project	HPP – 0142(001)
L.A. Section	06 – 00086 – 00 - BR	Project Length:	0.2 Miles
Street/Road	Harlem Avenue		
Termini	500' South of Circle Ave to Westgate Street		

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.

Cook County Engineer Date

Categorical Exclusion and Design Approval

Village of River Forest Date

Regional Engineer Date

This project will not have any significant impacts on the human environment; therefore, the FHWA approves project as a Categorical Exclusion

Date

Design Approval

Bureau of Local Roads & Streets

Date

PROJECT DEVELOPMENT REPORT  
FOR  
GROUP I CATEGORICAL EXCLUSION

**IL 43 (Harlem Avenue) under the  
Union Pacific Railroad**

**Village of River Forest  
Village of Oak Park  
Village of Forest Park**

Cook County

Section: 06-00086-00-BR

Existing SN 016-0310  
Proposed SN 016-0666

FAP 348

H. W. Lochner, Inc.

January, 2013

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## 1. Location and Existing Conditions

### a. Location (attach location map to supplement narrative description)

The study area is centered at the existing underpass which carries the Union Pacific Railroad and the CTA over IL 43 (Harlem Avenue). The study area extends along Harlem Avenue from the intersection of Harlem Avenue and Pleasant Street to the intersection of Harlem Avenue and Lake Street. See Exhibit 1-1 for a project location map, Exhibit 1-2 for a project area map and Exhibit 1-3 for a functional classification map of the area roadways.

The functional classification map is out of date. In the early 1970's Lake Street was closed to through traffic and North Boulevard became a primary east-west roadway. In 1989 the pedestrian mall was removed and Lake Street was reopened to through traffic. The functional classification map has not yet been updated to reflect this change. North Boulevard is currently very similar in character to South Boulevard which is classified as a local road.

### 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.

#### i. Roadways

Harlem Avenue (IL 43, FAP 348) serves the western suburbs of Chicago as a principal arterial. North of the bridge it is approximately 50 feet wide (edge-to-edge) with two 10-foot lanes in each direction, a 10-foot center left turn lane and B-6.12 concrete curbs and gutters. Under the bridge the roadway consists of two 10.5-foot lanes measured face-to-face of the bridge piers in each direction. South of the bridge the roadway consists of two 12-foot lanes in each direction with B-6.12 concrete curbs and gutters. Harlem Avenue is a two-way facility that is designated as a Class II truck route as well as a Strategic Regional Arterial. It consists of a concrete pavement with a bituminous wearing course. Under the structure the pavement is full-depth concrete. No parking is allowed along Harlem Avenue within the project limits. Harlem Avenue is maintained by IDOT. See Exhibit 1-4 for typical roadway sections.

South Boulevard is located along the south side of the Union Pacific Railroad viaduct east of Harlem Avenue in the Village of Oak Park. It is 30 feet wide measured face-to-face between curbs and consists of two 10-foot lanes west bound and one 10-foot

lane east bound. There is B-6.12 concrete curb and gutter along both sides of the roadway. No parking is allowed on South Boulevard between Harlem Avenue and S. Maple Avenue. East of S. Maple Avenue there is parallel parking on the south side and diagonal parking along the north side. See Exhibit 1-4 for a typical roadway section.

Circle Avenue is located south of the Union Pacific Railroad viaduct west of Harlem Avenue in the Village of Forest Park. It is 35.5 feet wide measured edge-to-edge of the pavement with B-6.12 concrete curb and gutter along both sides. The west bound lane is 10 feet in width with an 8-foot parking lane and the east bound lane is 10.5 feet wide with a 6-foot striped out area adjacent to the curb.

North Boulevard is located along the north side of the Union Pacific Railroad viaduct east of Harlem Avenue in the Village of Oak Park. At Harlem Avenue it consists of an 11.5 feet wide lane for east bound traffic and a 15-foot wide lane for the west bound right-turn traffic. Because of conflicts with the existing bridge pier in the center of Harlem Avenue, left turns are not currently permitted from North Boulevard to southbound Harlem Avenue. The roadway consists of a concrete pavement with a bituminous wearing course. See Exhibit 1-4 for a typical roadway section.

Central Avenue is located along the north side of the Union Pacific Railroad viaduct west of Harlem Avenue in the Village of River Forest. It is a one-way east bound roadway with two ten-foot lanes. It has B-6.12 concrete curb and gutter along the south edge and a continuous loading zone on the north side that is separated from the roadway by a low curb. Due to an alignment offset with North Boulevard across the intersection, the left lane is for left turns only while through and right turns use the right lane. The center pier in Harlem Avenue to the south adds difficulties to right turning vehicles, especially multi-unit trucks.

See Exhibit 1-4 for a typical roadway section.

## ii. Alignments

Harlem Avenue, Central Avenue, South Boulevard and North Boulevard are all on tangent alignments. Circle Avenue is on a tangent alignment for the first 150 feet west of Harlem Avenue and then is located on a curve to the south with a 1200-foot radius.

## iii. Bus Transit

Both the CTA and PACE operate bus routes through the project area. Bus volumes were obtained from schedules published by the CTA and PACE.

Pace operate four routes along Harlem Avenue:

- PACE Route 305 – 62 buses daily.
- PACE Route 307 – 104 buses daily
- PACE Route 318 – 76 buses daily
- PACE Route 757 – 10 buses daily

Pace also operates Route 309 along Lake Street that uses southbound Harlem Avenue and eastbound North Boulevard to access the nearby CTA and Metra stations. Route 309 uses Forest Avenue to return to Lake Street. Route 309 sees 23 buses daily.

The CTA operates Route 90 along Harlem Avenue north of the bridge. Southbound buses turn left onto North Boulevard, cross under the railroad viaduct at Forest Avenue and return to Harlem Avenue on South Boulevard after accessing the nearby CTA and Metra stations. The buses then turn north on Harlem Avenue. Route 90 sees 132 buses daily.

There is a bus stop for southbound routes at the northwest corner of the intersection of Harlem Avenue and Circle Avenue outside the CTA entrance and exit to the Green Line station. A bus stop for northbound traffic is located at the southeast corner of the intersection of South Boulevard and Harlem Avenue and includes two shelters on a concrete pad. A bus stop served only by CTA Route 90 is located at the northeast corner of the intersection of South Boulevard and Harlem Avenue and is unimproved.

#### iv. Drainage

All drainage in the project area is collected by curb and gutter into closed systems. There are no reports of flooding in the project area.

#### v. Land Use

The project is located in a fully urbanized area. Commercial properties are located northwest and northeast of the bridge. Southwest of the bridge is a CTA building used for administration, crew support and storage. Further south along Harlem Avenue is a commercial property. Southeast of the bridge is a surface parking lot owned by the Village of Oak Park. This property is planned for future development with a mixed-use building. See Exhibit 1-3 for an aerial map of the project area showing the existing land use.

vi. Traffic Control

The intersections of Harlem Avenue and South Boulevard and Central Avenue/North Boulevard are signalized. The two intersections are currently timed from one traffic signal controller located at the northeast corner of South Boulevard. These intersections are part of an interconnected corridor along Harlem Avenue from the Eisenhower Expressway to West Division Street with a set cycle length of 125 seconds.

Circle Avenue is currently stop-controlled for eastbound traffic.

vii. Lighting

All roadways and parking lots in the project area are lighted.

viii. Utilities

The following utilities are located in the project area:

ComED: Electrical service  
AT&T: Telephone  
Comcast: Cable television and communications  
NICOR: Gas

In addition, the Village of Oak Park owns a water main that is located under Harlem Avenue and the Union Pacific Railroad owns a water main that is located under South Boulevard.

There are multiple railroad-related utilities attached to the existing Harlem Avenue Bridge and buried in the ballast including signaling cables, fiber optic cables and electrical lines.

ix. Sidewalks

The majority of the sidewalks along Harlem Avenue are located at the back of curb with no parkway. South of the bridge the sidewalk is 7' wide along the west side and 6' wide along the east side of Harlem Avenue. North of the bridge the sidewalk is 12' wide and located at the back of curb along the west side and 8' wide separated from the curb by a 4' landscaped parkway along the east side. The sidewalk along Circle Avenue varies from 6' to 7' wide along the south side and is 12' wide along the north side. South Boulevard has 5' sidewalks along both sides separated from the back of curb by a grass parkway that varies in width from 11' to 12'. Central Avenue has no sidewalk along its south side and a paved area between the back of curb and the building along its north side which is 14' in width which is used by pedestrians. North

Boulevard has a 9' wide sidewalk along its south side and no sidewalk along its north side. The sidewalks are all concrete and in generally good condition.

x. CTA Green Line

The CTA operates the Green Line train route on two tracks over the bridge. The Harlem Avenue station is located partially on the bridge with a set of stairs located just west of the bridge. The Harlem Avenue station has one access point west of Harlem Avenue which is not ADA accessible and an access point east of Harlem Avenue near S. Marion Street which has stairs, an escalator and an elevator and is considered fully ADA accessible.

The CTA is a tenant on the Union Pacific bridge and right of way and does not own the part of the viaduct which accommodates their facilities.

West of the bridge is a CTA building which is used as a crew quarters and for storage. Also located west of Harlem Avenue is a staging and service yard for Green Line EL trains.

c. Traffic Data

Traffic volumes were collected on September 30th, 2008 from 6:00 to 10:00 a.m. and from 3:00 to 8:00 p.m. The counts classified the types of vehicles, counted pedestrians crossings and were divided into 15 minute intervals. From this data, the peak morning hour was identified as 7:15 to 8:15 and the evening peak hour as 5:00 to 6:00.

Traffic projections were provided by the Chicago Metropolitan Agency for Planning (CMAP). Those projections are based on a traffic model for the Chicagoland region using socioeconomic projections and the 2040 Regional Transportation Plan.

Correspondence with CMAP is attached as Exhibit 1-6.

i. Harlem Avenue:

**Current ADT:** 33,500      **% trucks:** 5  
**Will 80,000 trucks be legally permitted on this route?**  Yes     No  
**Design Year:** 2040    **ADT:** 35,000    **DHV:** 2,460    **% trucks:** 1

ii. North Boulevard:

**Current ADT:** 7,000      **% trucks:** 4  
**Will 80,000 trucks be legally permitted on this route?**  Yes     No  
**Design Year:** 2040    **ADT:** 8,000    **DHV:** 579    **% trucks:** 1

iii. South Boulevard:

**Current ADT:** 4,700                      **% trucks:** 4

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

**Design Year:** 2040    **ADT:** 6,000    **DHV:** 362    **% trucks:** 1

iv. Circle Avenue

**Current ADT:** 4,300                      **% trucks:** 1

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

**Design Year:** 2040    **ADT:** 6,000    **DHV:** 362    **% trucks:** 1

v. Central Avenue

**Current ADT:** 5,100                      **% trucks:** 1

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

**Design Year:** 2040    **ADT:** 7,000    **DHV:** 434    **% trucks:** 1

- 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.**

SN 016-0310 was originally constructed by the Chicago and North Western Railway in 1911 and is located at Mile Post 8.67 along the Union Pacific Geneva Subdivision. The structure carries a CTA platform, two CTA tracks and three Union Pacific/Metra tracks running east and west with an out-to-out width of ±87'-0". Ballast aggregate lies on several layers of asphaltic waterproofing directly applied to the superstructure concrete.

The superstructure consists of four spans measuring 70'-4" from center-to-center of bearings. Span lengths are as follows: 10'-8", 24'-6", 24'-6", and 10'-8". The superstructure consists of ± 30 lines of ± 20" deep concrete filled steel trough girders spaced at ± 2'-9" on center along with one plate girder at the north fascia. A widening of the original structure consists of four plate girders along the south side. All spans are continuous and moment-fixed to the piers. At the abutments, a steel I-beam reinforced concrete slab serves as an expansion bearing for the superstructure.

The substructure consists of two gravity wall abutments and three multi-column piers. Foundation support is provided by spread foundations bearing on clay. The abutments and piers are slightly skewed (±0°21') relative to the tracks above.

The Structure Summary Report is attached as Exhibit 1-7 and the BCR approval letter is attached as Exhibit 1-8.

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

<b>Railroad Name</b>	<b>Number and Type of Tracks (Main or Switching)</b>	<b>Type of Switching</b>	<b>No. of Trains Per Day</b>	<b>Railroad Width of Crossing at Rt. Angles</b>
Union Pacific	3 (Main)	N/A	50	N/A
Metra	Uses UP Tracks	N/A	60	N/A
CTA	2 (Main)	N/A	300	N/A

**\*Include a sketch showing location of railroad protective devices.**

The viaduct between North and South Boulevards serves three separate entities on five tracks. One is the Union Pacific Railroad, which operates three tracks, two of which are also used by Metra's UP West Line commuter rail service. There is a Metra station located one block to the east of Harlem Avenue. The third entity is the Chicago Transit Authority (CTA) which uses two tracks for its Green Line service. The CTA's Harlem Avenue station on the Green Line is located above Harlem Avenue on the viaduct and bridge. There are two entrances, one through a CTA building in the northwest corner of the intersection of Circle Avenue and Harlem Avenue and one between S. Maple Avenue and S. Marion Street east of Harlem Avenue.

- 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).**

At the south project limit Harlem Avenue consists of four twelve-foot lanes, two northbound and two southbound, with B-6.12 concrete curb and gutter. The total roadway width is 48 feet measured from edge to edge of pavement.

At the north project limit Harlem Avenue consists of four ten-foot lanes, two northbound and two southbound, with a ten-foot left turn lane and B-6.12 concrete curb and gutter. The total roadway width is fifty feet measured from edge to edge of pavement.

## **2. Proposed Improvement**

- a. **Discuss the need and purpose of the project:**

Harlem Avenue (IL 43) serves Chicago and its western suburbs as an Other Principal Arterial. It is a heavily travelled route that includes truck traffic serving the region and the area's commercial and industrial developments. Harlem Avenue is designated by IDOT as a Class II truck route, and as a Strategic Regional Arterial.



In 1996 IDOT developed a Strategic Regional Arterials (SRA) report for Harlem Avenue that included recommendations for future improvements for the entire length of Harlem Avenue. In order to better accommodate the anticipated increases in traffic, the 1996 report recommended that Harlem Avenue, within the area of the Union Pacific Railroad Bridge, be widened to five ten-foot wide lanes. It was also recommended that the bridge be replaced and that the vertical clearance under the bridge be increased to fourteen feet, nine inches.

IDOT made some improvements to Harlem Avenue in the late 1990's, including a lowering of the pavement under the bridge. The lowering was only enough to provide a minimum clearance for trucks and was limited to avoid impacting the side streets. Replacement of the bridge was considered beyond the scope of the improvement program at that time.

The existing bridge was constructed in 1911 and has columns in the center of Harlem Avenue as well as along the curb lines on both sides and of the roadway. The closed abutments are located at the back of the sidewalks. The roadway under the bridge consists of two 10.5-foot lanes in each direction. South of the bridge the roadway consists of two twelve-foot lanes in each direction while to the north it is five ten-foot lanes. The bridge is currently posted as having a 14'-0" clearance. Trucks occasionally strike the bottom of the bridge.

Commercial redevelopment around the bridge has occurred since the 1990's, including the construction of large retail shopping areas northeast and northwest of the bridge. These retail developments attract large volumes of vehicles and pedestrians.

Crash data has indicated that there are clusters of crashes around the bridge that can be attributed to the detrimental effect that the bridge has on lane widths, driver distraction, sight lines and roadway geometrics in general.

The primary purpose of this project is to improve the existing geometric deficiencies of the Union Pacific Railroad Bridge over Harlem Avenue and the associated deficiencies on Harlem Avenue in the immediate vicinity of the bridge.

Secondary purposes include improving connections between the transportation modes associated with the bridge and area roadways (Metra, CTA, PACE and pedestrians) and to improve the aesthetics of the infrastructure components at this location.

This project is needed because:

- The bridge is functionally obsolete for traffic along Harlem Avenue.
- The bridge prevents improvement of Harlem Avenue according to the plan presented in the 1996 SRA study.

- The columns along the curbs and in the center of the roadway reduce the effective lane widths under the bridge which creates a safety risk.
- The low under-clearance continues to result in trucks striking the bridge.
- The low clearance and pier columns of the bridge obstruct sight lines of the intersections, pedestrians, turning vehicles and the traffic signals and intersections.
- The sidewalks through the area do not meet the standards of the Americans with Disabilities Act.
- The bridge is deteriorated and no longer serves the aesthetic needs of the adjacent communities.
- The alignments and geometry of the side streets are substandard and contribute to the crash history and increased crash rates.
- The deteriorated condition of the bridge and the sidewalks discourages pedestrian activity and is a barrier between the commercial successful north side and the under developed south side.
- The poor design and condition of the lighting under the bridge creates a safety issue for pedestrians.

**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)

i. Harlem Avenue:

Functional Classification:  OPA     Collector     Local Road     Other  
 Regulatory or Posted Speed Limit: 30    Design Speed: 35

ii. Central Avenue:

Functional Classification:  OPA     Collector     Local Road     Other  
 Regulatory or Posted Speed Limit: 25    Design Speed: 30

iii. North Boulevard:

Functional Classification:  OPA     Collector     Local Road     Other  
 Regulatory or Posted Speed Limit: 25    Design Speed: 30

iv. Circle Avenue:

Functional Classification:  OPA     Collector     Local Road     Other  
 Regulatory or Posted Speed Limit: 25    Design Speed: 30

v. South Boulevard:

Functional Classification:  OPA     Collector     Local Road     Other  
 Regulatory or Posted Speed Limit: 25    Design Speed: 30

Design Criteria Checklists are attached as Exhibit 2-1.

- 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.**

i. Bridge

In order to meet the need and purpose of the project the center and curb-line columns must be removed. However, it is not possible to remove the columns without removing the bridge deck. Therefore, in order to remove the columns the entire bridge will need to be replaced. The replacement structure will be a single-span through-girder bridge supported by drilled-shaft caissons. A ballast deck plate will be supported by a deck girders system that will be supported by the through-girders. The caissons will be drilled through the existing abutments which will remain in place to provide soil retention during construction. The minimum underclearance will be 14'-9" over Harlem Avenue. See the Preliminary Bridge Design and Hydraulic Report (PBDHR) attached as Exhibit 2-2 for details. The PBDHR approval letter is attached as Exhibit 2-3.

ii. Roadways

In order to provide the necessary underclearance of 14'-9", Harlem Avenue will need to be lowered by approximately 2.5 feet. This is due to the deeper beams associated with the proposed bridge and the need to increase the underclearance from 14' to 14'-9".

The replacement pavement will consist of two 10-foot travel lanes in each direction and a 10-foot southbound center left-turn lane. Since the center columns will be removed it will be possible to allow southbound left turns onto South Boulevard. The proposed 50-foot wide pavement, measured edge to edge, will include B-6.12 concrete curb and gutter along both sides.

Lowering Harlem Avenue will also require the lowering of Circle Avenue, South Boulevard, Central Avenue and North Boulevard. Circle Avenue will be reconstructed with an 11-foot through lane in each direction and a 9-foot parking lane along its north side. South Boulevard will be widened to provide 11-foot left and right westbound turn lanes and one 11-foot eastbound through lane. The wider lanes will reduce the frequency of sideswipe crashes due to turning buses. Central Avenue will be reconstructed with two 10-foot eastbound lanes. North Boulevard will be

reconstructed with an 11-foot westbound lane and a 15-foot eastbound lane. All of the side streets will include B-6.12 concrete curb and gutter along their north and south sides.

See the Proposed Typical Sections attached as Exhibit 2-4 and the Proposed Plan and Profile Drawings attached as Exhibit 2-5 for additional details.

### iii. Sidewalks

Sidewalks of varying widths will be located along both sides of Harlem Avenue at the back of curb. In the vicinity of the CTA building in the southwest corner of the bridge, a dual set of sidewalks will be needed to provide ADA access to the CTA building. The upper level will access the current entrance and will be separated from the lower level by a short retaining wall and railing. The two levels of sidewalk will meet at the same elevation near the Circle Avenue intersection. In the vicinity of the commercial building northeast of the bridge, a dual set of sidewalks will be needed to provide ADA access to existing businesses. The upper level will access the current entrances and will be separated from the lower level by a short retaining wall and railing. The two levels of sidewalk will meet at the same elevation near Westgate Street.

Along the north side of Central Avenue another dual level sidewalk system will be needed to provide access to the emergency and service access points behind the commercial building in the northwest of the bridge. The two levels of sidewalk will meet at the same elevation approximately 200 feet west of Harlem Avenue.

The remainder of the existing sidewalks along the side streets will be replaced at the existing widths. See the Proposed Typical Sections attached as Exhibit 2-4 and the Proposed Plan and Profile Drawings attached as Exhibit 2-5 for additional details.

### iv. Traffic Control

The existing traffic signals at the South Boulevard and North Boulevard intersections will be replaced. The stop control at Circle Avenue will be maintained since the traffic signal at South Boulevard provides adequate gaps in traffic for right-turning vehicles.

### v. Intersection Geometrics

The intersections of Harlem Avenue with Circle Avenue, South Boulevard and Central Avenue / North Boulevard are proposed to be improved to better accommodate the selected design vehicles and to reduce the potential for crashes. For details see the Intersection Design Study attached as Exhibit 2-6.

vi. Drainage

The entire project area is developed with no surface water features. The existing drainage system will be maintained except for those areas affected by pavement lowering. All inlets and catch basins will be reconstructed and some sewers may need to be lowered. There is an existing sewer southeast of the bridge near Harlem Avenue that has an invert approximately 18 feet below the existing pavement elevation. This sewer has available capacity to accommodate the drainage from the underpass and will not be affected by the proposed pavement lowering.

The proposed drainage will be designed for a 25-year event. Specific drainage details will be developed in the next phase of this project.

vii. Clear Zone and Roadside Safety

A 1.5-foot wide clear zone behind the back of curb will be maintained. Utility, light and signal poles will be located at the back of the sidewalk near the right of way line which will provide a clear area typically 6-feet wide.

viii. Railroad Improvements

Although five existing railroad tracks will be either moved or closed during construction, no permanent changes are proposed and the tracks will all be returned to their existing locations and alignments after construction is complete.

ix. Utility Adjustments

There is an Oak Park watermain located under the northbound Harlem Avenue pavement. This watermain will be lowered to accommodate the proposed pavement lowering. Waterlines and hydrants along North Boulevard and South Boulevard may also require adjustment. There are also records of an abandoned 16" gas line under Harlem Avenue. Treatment of the gas line will be coordinated with NICOR during the design phase of the project. There are underground COMED electric lines under all the roadways in the project area which will likely require adjustment that will be coordinated during the design phase of the project.

Track-level utilities, including railroad signaling lines, will be relocated to a temporary railroad runaround structure during construction.

x. CTA Building Entrance Modification

The entrance to the CTA building on the west side of Harlem Avenue is slightly angled but generally parallel to Harlem Avenue. The split-level sidewalk will require this entrance to be modified. The doors are proposed to be removed and a wall will

be constructed parallel to Harlem Avenue as an extension of the existing building. The relocated access doors will be oriented perpendicular to Harlem Avenue and will guide people south to the intersection of Circle Avenue where they can safely cross Harlem Avenue in a crosswalk.

**d. Discuss items affecting improvements 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):**

i. CTA Station

The Chicago Transit Authority (CTA) operates a station located partially on the bridge. The station has two public points of access, one through the CTA building located southwest of the bridge and one near S. Marion Street east of Harlem Avenue. Construction of the replacement bridge will require temporary closure of the west access point and removal of the platform over the bridge. The platform will be replaced with an identical structure after construction of the bridge. The stairs from the platform at the west end to street level are partially located on the existing abutment and will also be removed and replaced.

ii. Trees

There are trees located in the grass parkway along both sides of South Boulevard and along the south side of Circle Avenue. The proposed improvements were designed to avoid impacting the trees but the one tree closest to Harlem Avenue on Circle Avenue and the two trees closest to Harlem Avenue on South Boulevard will likely need to be removed and replaced due to the lowering of the pavement.

Four immature trees along the east and west sides of Harlem Avenue north of the bridge will likely need to be removed and replaced due to the lowering of the pavement.

iii. Parking

The only on-street parking allowed in the project area is along the north side of Circle Avenue. This parking will be maintained in the proposed improvements.

iv. Staged Construction and Maintenance of Roadway Traffic

Harlem Avenue is a critical link in the area roadway network and complete closure is not possible. The nearest major north-south roadways are 1<sup>st</sup> Avenue (IL 171)

located 1.5 miles west and Cicero Avenue located 3 miles east. Therefore staged construction will be necessary. See Section 11 for additional details.

v. Staged Construction and Maintenance of Railroad Traffic

Union Pacific and Metra rail traffic will be maintained with a two-track temporary runaround. The runaround will be located on a temporary structure built over Central Avenue and North Boulevard. It is anticipated that Central Avenue will be closed to through traffic and one lane will be maintained for delivery trucks to the commercial building northwest of the bridge. The section of North Boulevard between Harlem Avenue and the first driveway to the east will be closed. See the Type, Size and Location drawings attached to the Preliminary Bridge Design and Hydraulic Report in Exhibit 2-2 for additional details.

vi. Roadway Lighting

The existing roadway lighting will be replaced where the pole foundations will be impacted by the proposed improvements. The bridge will also include enhanced lighting for the pavement and sidewalks. The lighting will be designed to meet the recommendations in the *Guidelines for Highway Lighting* published by ASSHTO and the *American National Standard Practice for Roadway Lighting* published by ANSI/IESNA, also known as IES.

vii. Starbucks Coffee Store Exit

The commercial building northwest of the bridge has an emergency exit for a Starbucks Coffee on the side of the building facing Harlem Avenue. Due to the lowering of the pavement and sidewalk, a small set of stairs will be required to maintain access at this door.

viii. TGI Friday's Enclosure

A TGI Friday's restaurant located in the commercial building northeast of the bridge has a rear delivery door and dumpster enclosed in a metal shed attached to the south side of the building. Due to the pavement lowering this enclosure will need to be removed and replaced at a lower elevation. A small lift may be required to maintain access to the building for deliveries and garbage removal by TGI Friday's employees. This door is not an emergency exit. This issue was discussed at a Steering Committee meeting with the property manager for the building who indicated he was not opposed to such a modification.

ix. Circle Avenue /South Boulevard Realignment

Circle Avenue and South Boulevard are offset by approximately 45 feet. Due to the complex intersection operations associated with this offset and the importance of maintaining traffic flow along Harlem Avenue, Circle Avenue is limited to right-in, right-out movements and left-turns from northbound Harlem Avenue are prohibited.

A study was completed by another consultant in January, 2009 that investigated the possibility of realigning the intersection. Three options were identified and include shifting Circle Avenue north, shifting South Boulevard south or making Circle one-way westbound and installing a new signal at Franklin to accommodate the redirected traffic.

Shifting Circle Avenue north would require removing the CTA building and access point to the Green Line station. The 2009 Study identified the possibility of combining the relocated CTA building with a new mixed-use development on the property south of Circle Avenue. Some type of pedestrian bridge over relocated Circle Avenue would be required. Since there is no current plan to redevelop that parcel this option is considered beyond the scope of this project.

Shifting South Boulevard south would require the parcel in the southeast corner of the intersection to be partially dedicated for right of way. The resulting parcels would be very irregular in shape. Oak Park acquired this parcel for future mixed-use development and is opposed to reducing the size and shape of the parcel except for a corner cut for the intersection improvement.

A new traffic signal at Franklin and converting Circle Avenue to one-way westbound is beyond the scope of this project.

Therefore, none of the three options to realign the Circle Avenue / South Boulevard intersection are considered feasible or reasonable. The existing traffic pattern is proposed to remain in place.

x. Bus Stops

There is a southbound bus stop at the northwest corner of Circle Avenue and Harlem Avenue. This bus stop is proposed to be moved north to the stop bar for southbound Harlem Avenue at South Boulevard. When buses are stopped at the current location they appear to be stopped in the South Boulevard intersection which can be confusing to westbound South Boulevard drivers.

There is a northbound bus stop at the southeast corner of South Boulevard and Harlem Avenue. Passengers departing stopped buses typically cross Harlem Avenue to access the CTA station and they cross Harlem Avenue at a staggered



rate which effectively blocks left-turning traffic from South Boulevard. This creates a situation where drivers attempt risky maneuvers to clear the intersection before the light changes to red. Another issue with this bus stop is that passengers leaving the CTA station for northbound buses frequently cross the intersection outside the marked crosswalk and against the light in an attempt to catch a bus before it leaves. Pedestrians in the intersection create a serious safety concern for themselves as well as drivers. Therefore, this bus stop is proposed to be moved north to the intersection of Harlem Avenue and North Boulevard. This intersection will be a safer place for passengers to cross Harlem Avenue and also encourages passengers to access the CTA station at the S. Marion Street entrance.

Moving the bus stops has been discussed with representatives from Pace who were not opposed to the idea. Final locations of the bus stops will be coordinated in the design phase of this project.

**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)**

i. Level One Design Exceptions

Lane width

Criteria: 11-12 feet (BDE 46-2.E)  
Location: Along Harlem Avenue  
Provided: 10 feet  
Justification: 10-foot lanes match the Harlem Avenue cross section immediately north of the bridge. Wider lanes would require a wider bridge which would be extremely costly and would impact the existing CTA building. The SRA report for Harlem Avenue also identifies 10-foot lanes as the desired design.

Sag Curve K-Value

Criteria: 37 (BLR 32-3C)  
Location: Along Circle Ave, South Blvd, North Blvd, Central Ave  
Provided: 19 to 28  
Justification: All four roadways are fully lighted and the comfort criteria was used. Providing the minimum k-value for an un-lit roadway would result in much longer vertical curves and much greater lowering of the side streets. The comfort criteria and resulting shorter curves were used to minimize the impacts to adjacent properties and the existing railroad viaduct walls.

ii. Level Two Design Exceptions:

Design vehicle

Criteria: WB-50 (BDE 36-1R)  
Movement: EB Circle to SB Harlem Avenue  
Provided: SU Truck  
Justification: A vehicle larger than an SU truck would require a much larger corner radius which would require additional right of way which would result in a negative impact to the property in that quadrant. Larger vehicles can make this turn by encroaching into the westbound Circle Avenue lane and by using the flush median on Harlem Avenue.

Movement: SB Harlem Avenue to WB Circle  
Provided: SU Truck  
Justification: A vehicle larger than an SU truck would require a much larger corner radius which would require additional right of way which would result in a negative impact to the CTA property in that quadrant. Larger vehicles can make this turn by encroaching into the inside SB lane and the eastbound Circle Avenue lane.

Movement: NB Harlem Avenue to EB South Boulevard  
Provided: SU Truck  
Justification: A vehicle larger than an SU truck would require a much larger corner radius which would require much more additional right of way which would result in a much greater impact on the property in that quadrant.

Movement: SB Harlem Avenue to EB South Boulevard  
Provided: WB-40 Truck  
Justification: A vehicle larger than an SU truck would require either shifting the stop bar east along South Boulevard to an unacceptable distance from Harlem Avenue or shifting the south edge of pavement further south which would require additional right of way which would result in a negative impact to the property in that quadrant.

Movement: WB South Boulevard to NB Harlem Avenue  
Provided: City Bus  
Justification: A city bus was selected because this movement is part of the route for the CTA #90 bus service. A vehicle larger than a city bus would require a much larger corner radius which is not possible due to the proximity of the intersection to the bridge.

Movement: NB Harlem Avenue to EB North Boulevard  
Provided: Passenger Car  
Justification: A vehicle larger than a passenger car would require a much larger corner radius which is not possible due to the proximity of the intersection to the bridge. Larger vehicles can access the commercial area northeast of the bridge by using Westgate or Lake Streets.

Movement: WB North Boulevard to NB Harlem Avenue  
Provided: WB-40 Truck  
Justification: A vehicle larger than a WB-40 Truck would require a much larger corner radius which is not possible due to the proximity of the intersection to the existing building. Large vehicles can exit this area by turning south down Harlem Avenue.

Movement: EB Central Avenue to NB Harlem Avenue  
Provided: WB-40 Truck  
Justification: A vehicle larger than a WB-40 Truck would require shifting the stop bar for southbound Harlem Avenue north. The necessary shift would negatively impact the limited storage available between the Lake Street and Central Avenue intersections. Larger vehicles can make this turn by turning from the through/right turn lane and encroaching slightly into the southbound left-turn lane.

Movement: SB Harlem Avenue to EB North Boulevard  
Provided: City Bus  
Justification: A city bus was selected because this movement is part of the route for the CTA #90 bus service. A vehicle larger than a city bus would require shifting the stop bar for westbound North Boulevard east to an unacceptable distance from Harlem Avenue. Larger vehicles can make this turn by encroaching into the westbound lane.

#### Curb and Gutter

Criteria: B-6.24 (BDE 46-2.E)  
Location: Along Harlem Avenue  
Provided: B-6.12  
Justification: The right of way is restricted through the project area. Wider gutter would require narrower lanes or sidewalks, both of which are already at minimal widths. There is no history of flooding or problems with water on the pavement in the vicinity of the bridge. North and south of the project area Harlem Avenue has B-6.12 curb and gutter.

#### Left Turn Storage Length

Criteria: 150' for urban conditions (BDE 36-3.2.b)  
Location: Southbound Harlem Avenue to eastbound South Boulevard  
Provided: 100'  
Justification: The left turn storage distance is limited by the proximity to the Central Avenue / North Boulevard intersection. The capacity analysis showed the necessary storage ranges from 55' to 77' in the AM and PM peak periods.

Criteria: 150' for urban conditions (BDE 36-3.2.b)  
Location: Southbound Harlem Avenue to eastbound North Boulevard  
Provided: 115'  
Justification: The left turn storage distance is limited by the left turn storage for the Lake Street intersection located immediately north of the project area. The capacity analysis showed the necessary storage ranges from 55' to 98' in the AM and PM peak periods.

#### Left Turn Bay Taper

Criteria: 155' (BDE Fig. 36-3.I)  
Location: Southbound Harlem Avenue to eastbound North Boulevard  
Provided: 100'  
Justification: The left turn bay taper distance is limited by the left turn storage for the Lake Street intersection located immediately north of the project area. Lengthening the taper will reduce the amount of available left turn storage which will negatively impact the functioning of the North Boulevard and Lake Street intersections.

#### Left Turn Deceleration Length

Criteria: 280' (BDE Fig. 36-3.I)  
Location: Southbound Harlem Avenue to eastbound North Boulevard  
Provided: 215'  
Justification: The deceleration distance is limited by the left turn storage for the Lake Street intersection located immediately north of the project area. Lengthening the taper and storage will reduce the amount of Lake Street left turn storage which will negatively impact the functioning of the Lake Street intersection. This is a densely developed area and short deceleration lengths are not atypical.

#### Sidewalk Width

Criteria: 10' (BDE 46-2.E)  
Location: Along Harlem Avenue  
Provided: 6' to 7.5'

Justification: The right of way is restricted through the project area. A wider sidewalk would require narrower lanes or additional right of way. Roadway lanes are already at minimal widths and additional right of way would negatively impact existing development.

For additional details the design criteria checklists are attached as Exhibit 2-1 and the design variance forms for the exceptions along Harlem Avenue are attached as Exhibit 2-7.

**f. Current Estimated Cost of current improvement?**

The estimate for construction of the replacement bridge, associated roadway and sidewalk reconstruction and railroad work is \$19,365,000. See Exhibit 2-8 for details.

**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).**

The project is located in an area heavily travelled by pedestrians. Sidewalks line both sides of Harlem Avenue, Circle Avenue, South Boulevard and North Boulevard. Pedestrians use the sidewalks for through movements as well as access to local facilities and businesses. Central Avenue is also the emergency exit for businesses along the north side of that roadway. The sidewalks will be replaced in their current locations to ADA standards and ADA ramps will be provided at all crosswalks.

IDOT's Complete Streets Policy requires accommodation of non-motorized transport modes along state maintained roadways as described in the Bureau of Design and Environment (BDE) Manual, Chapter 17 when the construction, reconstruction, or other change of any State transportation facility lies in or within one mile of an urban area. Bicycle and pedestrian ways shall be established in conjunction with that work. Harlem Avenue is one such street, even though the sponsoring agency for this particular project is a local municipality. As such it is necessary to determine if the roadway accommodation for non-motorized transportation can and should be included in the proposed improvement.

With a current ADT of 33,500, and many origins and destinations that would benefit from non-motorized access (stores, restaurants, shopping, schools, churches, mass transit, etc.) the route meets the minimum warranting thresholds. Table 17-2A of the BDE Manual indicates that full accommodation would require either a 6' wide on-road bike path or a 10' wide off road multi-use two-way path.

The next step is to determine if such accommodation could take place on the roadway. The right-of-way for Harlem Avenue is 66 feet throughout the project limits. The roadway

is currently 50 feet face-to-face of curbs, leaving eight feet on either side for curbing, sidewalks, and other street furniture. The proposed scope of work calls for a very modest widening to 50 feet edge-to-edge, and then curbing and sidewalks.

There is not sufficient room to accommodate either a separate or a shared lane within the 52-foot roadway. Safety concerns eliminate the on-road accommodation possibility.

An alternative to on-road accommodation would be a separate off-road facility, shared by pedestrians and bicyclists along one side of the roadway with a pedestrian only sidewalk on the opposite side. With the CTA station on the west side of the road, the sidewalk should logically be located along that side of Harlem Avenue with a multi-use path considered on the east side. The path would need to be ten feet in width plus two-foot buffers along both edges to satisfy the requirements for a path that serves both pedestrians and cyclists.

Section 17-2.01 of the BDE Manual provides the following guidance: If it is determined in the Phase I report that the recommended accommodation in the Facility Selection Table cannot be built without excessive cost, local support, or disruptive ROW considerations then the next highest and best accommodation shall be considered that can achieve the highest safety for the user and best meets the project's cost, local support, and ROW considerations. Selection of next highest and best accommodations shall be determined on a case-by-case basis by the district as many variables will need to be considered. This may become an iterative process when considering all project variables.

It is then necessary to determine if it is feasible to incorporate such a multi-use path into the scope of work. As noted previously, the replacement bridge will be a single span structure measuring 68 feet face-to-face of abutments. For details see the Proposed Typical Sections attached as Exhibit 2-4. Note that this is a densely developed and populated area within the Chicago metropolitan area. Virtually every square foot of surface has been paved or built on. Stores, restaurants, transit hubs, roadways and parking lots all share this congested area.

The southeast quadrant of Harlem Avenue and South Boulevard is a municipally owned parking lot anticipated to be a mixed commercial and residential development. The southwest quadrant of Circle Avenue and Harlem Avenue is a commercial parking lot, also being considered for mixed development. The entire remaining frontage within the improvement limits is either the abutment for the UP RR bridge or buildings built at the right-of-way line. As the scope of work describes, the profile change for Harlem Avenue is going to require bi-level sidewalks to serve pedestrians both at street level and at the entrances to the businesses. This further restrains the widths available to serve pedestrians and bicyclists.

While this segment of Harlem Avenue is in a location where a bicycle facility designed to full standards would be desirable, IDOT, River Forest, Oak Park and Forest Park have

not indicated that this is a designated or recommended bike route. Additionally, no agency has indicated any plans to do so in the future.

Accommodating a 14-foot wide multi-use path in this area (ten-foot wide path with two-foot shoulders) would require acquisition of all or parts of the existing structures and businesses along the east right-of-way line. The underpass itself would have to be lengthened (to the east) by an additional seven feet thus increasing loadings and requiring a deeper and/or stronger set of beams. This would increase the span length by almost nine percent and would require a different type of abutment. The depth of the beams would have to increase. The right of way acquisition and the resulting impact to established businesses required by this option are considered beyond the scope of this project.

A ten-foot multiuse path (without shoulders) would require a smaller increase in beam length and superstructure area but would also require a different type of abutment. Any multiuse path would need a bicycle crash-worthy railing between the path and the travelled way, with a 1.5' space for clear zone between the face of curb and the railing. This option would also require additional right of way and would negatively impact existing businesses. The additional cost of the structure, greater difficulty to construct the bridge, necessary right of way and the resulting impact to established businesses required by this option are considered beyond the scope of this project.

At a bare minimum, it is possible to accommodate bicycle users traversing this 0.2 mile segment of Illinois Route 43 on the eastern sidewalk. Under the UP RR structure the width would be eight feet. Outside of the bridge the width would generally be at least six feet but just over five feet adjacent to the businesses north of North Boulevard where there will be two levels of sidewalk.

Pedestrians and cyclists can go one block to the east to S. Marion Street for a parallel north-south path that also allows access under the UP RR viaduct. There are four other bridges providing street level access between the north and south sides of the railroad embankment from S. Marion Street east to Oak Park Avenue.

The nearest access point for pedestrians and cyclists west of Harlem Avenue is Lathrop Avenue, ½ mile away. That access point experiences considerably less traffic than Harlem Avenue and a stop-control intersection just north of the viaduct helps to keep vehicle speeds low.

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

Oak Park was recently received a grant to improve the aesthetics of the area along South Boulevard between Harlem Avenue and S. Marion Street. Details of the proposed improvements associated with the grant have not yet been determined but will not affect the east leg of the Harlem Avenue intersection with South Boulevard.

### 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.**

The crash analysis included Harlem Avenue from north of the Pleasant Street intersection to the Westgate intersection. This area includes the intersections of Harlem Avenue with Circle Avenue / South Boulevard and Central Avenue / North Boulevard. These two intersections and the three segments between the intersections were analyzed separately.

The crash analysis examined the years 2007 through 2011. Crash data was provided by IDOT, the Police Departments of River Forest, Forest Park and Oak Park.

The results of the crash analysis are attached as Exhibit 3-1 and a collision diagram for the intersections is attached as Exhibit 3-2. 16% of crashes were angle, 23% were rear-end, 35% were sideswipe, 10% were turning and 7% involved pedestrian or bicyclists. 19% of crashes occurred during wet or snowy weather and 28% occurred at night under lighted conditions.

The westbound approach to Harlem Avenue on South Boulevard and the conflict between northbound Harlem Avenue traffic and eastbound Central Avenue traffic were identified as crash clusters. These clusters are discussed in the next section.

- 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 is inconclusive make a statement to that effect.**

Five locations were investigated over a five year period from 2007 through 2011. There were 17 possible types of crashes with various types of injuries under different types of weather and lighting conditions. There were a total of 125 crashes of which 82 occurred at intersections. There were 3 Type-A injuries, 8 Type-B injuries, 12 Type-C injuries and no fatalities within the study limits. 28% of the crashes occurred at night and 19% of the crashes occurred on wet, slushy or snow covered pavement.

- i. Segment: Pleasant Street/Franklin Street to Circle Avenue/South Boulevard

27 crashes were reported during the five-year period. 7 (26%) of the crashes were rear-end and were associated with congested conditions. 6 (22%) were turning and 5 (19%) were angle, the majority of which were located near the entrance into the commercial parking lot west of Harlem Avenue. 4 (15%) were sideswipe-same



direction. 7 (26%) of the crashes occurred at night under lighted conditions and 5 (19%) of the crashes occurred on wet or snowy pavement.

2 crashes involved Type-A injuries. One was a rear-end crash caused by a driver having a medical emergency and the other was due to a bicycle-rider crossing mid-block and being struck by a car. There were no reported fatal crashes.

The major contributor to the crash frequency was the lack of a left-turn lane and difficulties with accessing the commercial area west of Harlem Avenue. Stopped vehicles waiting to turn left across the southbound lanes block traffic and cause drivers to make abrupt lane changes. The lack of gaps to enter traffic during congested periods also causes drivers to make unsafe maneuvers.

ii. Intersection: Circle Avenue/South Boulevard

41 crashes were reported during the five-year period. 19 (46%) of the crashes were sideswipe-same direction, the majority of which were associated with the rear end of buses turning from westbound South Boulevard to northbound Harlem Avenue swinging out and striking vehicles in the through/left turn westbound lane. 10 (24%) were rear-end crashes that were caused by driver inattention compounded by congested conditions. 10 (24%) of the crashes occurred at night under lighted conditions and 10 (24%) of the crashes occurred on wet or snowy pavement.

There were no reported Type-A or fatal crashes.

Contributing to the crash frequency at this intersection are the narrow lanes on South Boulevard which result in both westbound sideswipe crashes involving turning buses and a disruption of northbound Harlem Avenue traffic due to slow-downs caused by northbound right-turns onto South Boulevard. Also contributing to the crash frequency are buses stopped in the right lane, pedestrians crossing the intersection improperly and traffic congestion.

Passengers exiting northbound buses at South Boulevard frequently cross Harlem Avenue to access the CTA Green Line entrance. These pedestrians do not cross as a group but instead are spaced out and block left-turning traffic from South Boulevard. That congestion leads to risky behavior and crashes typically associated with impatient drivers. Pedestrians were also observed frequently crossing eastbound improperly against the signal to catch a northbound bus.

iii. Segment: Circle Avenue/South Boulevard to Central Avenue/North Boulevard

Nine crashes were reported during the five-year period. Four (44%) of the crashes were sideswipe-same direction, the majority of which were associated with the restricted lane widths under the viaduct. Four (44%) were rear-end crashes that

were caused by driver inattention compounded by congested conditions. Five (56%) of the crashes occurred at night under lighted conditions and two (22%) of the crashes occurred on wet or snowy pavement.

Contributing to the crash frequency in this segment is a 3' lane-shift through the Central Avenue intersection for southbound Harlem Avenue traffic, an obscured view of the signals at both South and North Boulevards, narrow lanes under the bridge, the close proximity of the center column which was observed to cause drivers to shy away from the column row into the adjacent lane and stopped buses in the southbound right lane.

#### iv. Intersection: Central Avenue/North Boulevard

41 crashes were reported during the five-year period. 15 (37%) of the crashes were sideswipe-same direction, the majority of which were associated with the restricted lane widths under the viaduct, on Central Avenue and southbound Harlem Avenue. 14 (34%) were angle crashes, the majority of which were between eastbound Central Avenue traffic and Northbound Harlem Avenue traffic. It appears that this crash cluster is due to the sight distance being blocked by the bridge piers for northbound and eastbound traffic. 5 (12%) were rear-end crashes that were caused by driver inattention compounded by congested conditions. 13 (32%) of the crashes occurred at night under lighted conditions and 7 (17%) of the crashes occurred on wet or snowy pavement.

The one crash that involved a Type-A injury was a pedestrian crash caused by a pedestrian improperly crossing the intersection. There were no reported fatal crashes.

Contributing to the crash frequency is a 3' lane-shift along Harlem Avenue both northbound and southbound. This shift is due to the change in cross section between the area under the bridge which contains a center column and a 5-lane section with a left-turn lane north of the bridge. This shift can be distracting to drivers in an already congested and complex driving environment and has resulted in a pattern of sideswipe crashes.

The center columns are another major contributor to the crash frequency. The columns block the views of both northbound Harlem Avenue drivers as well as eastbound Central Avenue traffic. Most drivers on Central Avenue are local and are aware of the lengthy red-phase on Central Avenue. Risky behavior was observed during field visits as drivers entered the intersection during the amber signal phase to avoid waiting for the next green phase. These drivers cannot clearly see northbound traffic, nor can northbound traffic clearly see these approaching vehicles.

The bridge also obscures the view of the traffic signal for northbound drivers.

v. Segment: Central Avenue/North Boulevard to Westgate

7 crashes were reported during the five-year period. 3 (43%) were rear-end crashes that were caused by driver inattention compounded by congested conditions. 2 (29%) of the crashes were sideswipe-same direction and 2 (29%) were pedestrian crashes.

None of the crashes occurred at night or on wet or snowy pavement.

The primary contributor to the crash frequency in this segment is the congested nature of the roadway in this area.

**c. Describe proposed countermeasures.**

To better understand the causes and solutions to reducing the number of crashes at the aforementioned locations, the following publication was consulted: NCHRP Report 500: Guidance for Implementation of the AASHTO Strategic Highway Safety Plan - Volume 12: A Guide for Reducing Collisions at Signalized Intersections.

There are four basic objectives to reduce the frequency and severity of the crashes:

- Reduce the severity of intersection conflicts through traffic control and operational improvements;
- Reduce the severity of intersection conflicts through geometric improvements;
- Improve sight distance at signalized locations; and,
- Improve driver awareness of intersections and signal control.

Replacement of the railroad viaduct with a single-span structure is an improvement that would be beneficial since it would allow an increased vertical clearance, a five-lane cross section under the viaduct, elimination of the intersection offset in the travel path along Harlem Avenue through the Central Avenue / North Boulevard intersection and increased visibility of the traffic signals. The shift from 4 12-foot lanes to 5 10-foot lanes would also be shifted from its current location under the viaduct and through the North Boulevard intersection which is obscured and abrupt to the area south of Circle Avenue which is highly visible.

Improving driver awareness of the intersection and signal control may help in reducing crashes. Improving the visibility of the traffic signals is a viable recommendation for these locations. Possible methods to improve the visibility of traffic signals include: install an additional signal heads, provide visors to shade the signal lenses from sunlight, install back plates on all signals and improve the lighting under the viaduct.

Widening South Boulevard to 11-foot lanes and improving the northeast corner radius to accommodate buses will help reduce the frequency of right-turning buses striking vehicles in the adjacent lanes. Widening South Boulevard and improving the southeast corner radius will also prevent encroachments by turning vehicles and will reduce the effect on through traffic of vehicles slowing to turn right.

Moving the northbound bus stop to north of North Boulevard, as recommended by the Steering Committee, will have multiple effects on reducing the potential for crashes and improving traffic flow. Westbound traffic on South Boulevard will no longer conflict with as many pedestrians in the crosswalk, the improper crossing will be greatly reduced and the bus stop will be relocated from the near-side of an intersection to the far-side.

#### Conclusions:

Harlem Avenue within the study limits over the five year period from 2007 through 2011 did not experience an unusual number or severity of crashes. There were two locations where the number of crashes was significantly higher than the rest of Harlem Avenue, the Central Avenue / North Boulevard intersection and on South Boulevard. Possible strategies to reduce the number and severity of crashes include: Improve the traffic signals, improve the roadway lighting under the viaduct, remove the shift through the North Boulevard intersection, remove the center columns under the viaduct, add a southbound left turn lane under the viaduct, widen South Boulevard to 11-foot lanes and move the bus stop to North Boulevard. All of this is incorporated into the proposed scope of work detailed elsewhere in this report.

## 4. Right-of-Way

**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.**

a. Parcel 1

Parcel 1 is located southeast of the bridge and is owned by the Village of Oak Park. The parcel is currently used for public surface parking but is intended for mixed-use redevelopment. A 30-foot by 30-foot corner cut of right of way will be acquired to facilitate the proposed intersection improvement. The acquisition will not affect use or zoning setbacks on the remainder of the parcel.

b. Parcel 2

Parcel 2 is located southwest of the intersection and is currently owned by the CTA. A temporary easement 60 feet long and 25 feet in width will be acquired to facilitate construction of the

proposed roadway, sidewalk and building modification. The acquisition will not affect use or zoning setbacks on the remainder of the parcel.

c. Parcel 3

Parcel 3 is located in the area around the bridge and along the north side of South Boulevard. This area is currently owned by the Union Pacific Railroad. A temporary easement will be acquired with an irregular shape due to an offset in the railroad right of way on each side of Harlem Avenue. Parcel 3 is 60 feet wide along each side of the Harlem Avenue centerline and 17 feet wide along the north side of South Boulevard. The temporary easement is necessary to reconstruct the bridge and the sidewalk along South Boulevard. The acquisition will not affect use or zoning setbacks on the remainder of the parcel.

d. Parcel 4

Parcel 4 is located in the area northeast of the bridge along the east side of Harlem Avenue and the north side of North Boulevard. This area is currently used for commercial retail shopping. A temporary easement will be acquired with an irregular shape due to the existing variable width right of way. Parcel 4 is generally 9 feet wide along Harlem Avenue and varies from 7 feet to 16 feet wide along the north side of North Boulevard. The shape of the easement generally follows the existing right of way and the side of the existing building. The temporary easement is required to construct the sidewalk. A strip of permanent right of way will be acquired along the north side of North Boulevard to construct the roadway and curb and gutter. The strip of right of way is generally 6 feet wide and 185 feet long. The acquisition will not affect use or zoning setbacks on the remainder of the parcel.

e. Parcel 5

Parcel 5 is owned by the same entity as Parcel 4 and is located northwest of the Bridge. This area is currently used for commercial retail shopping. The shape of the temporary easement generally follows the existing right of way and the side of the existing building. The temporary easement is required to construct the sidewalk.

f. Summary

<b>Right of Way Summary</b>		
Parcel	Temporary Easement	Right of Way
1	0 ft <sup>2</sup>	447 ft <sup>2</sup>
2	3,195 ft <sup>2</sup>	0 ft <sup>2</sup>
3	15,921 ft <sup>2</sup>	0 ft <sup>2</sup>
4	5,699 ft <sup>2</sup>	1,133 ft <sup>2</sup>
5	4,803 ft <sup>2</sup>	0 ft <sup>2</sup>
Total	29,618 ft <sup>2</sup> (0.680 acres)	1,580 ft <sup>2</sup> (0.036 acres)

**b. Are any persons, businesses or farms to be displaced?**

Yes     No

**If yes, describe the number and type of displacement anticipated and actions which will be taken to provide relief for this impact on an attached sheet.**

N/A

**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.**

**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 a Preliminary Environmental Site Assessment (PESA) required?**

Yes    No

- 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).**

A PESA was performed by IDOT. Recognized Environmental Conditions were noted at all of the properties from which right of way or temporary easements are proposed to be acquired. A PSI will be performed in the next phase of this project to determine if any material that will be disturbed or displaced during construction will require special handling.

**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.**

- 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

The Project Overview sheet showing cultural clearance is attached as Exhibit 9-1.

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

Involvement       No Involvement

The biological sign-off is attached as 9-2.

- 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.
- Projects within a portion of a nonattainment area for which the Chicago Metropolitan Agency for Planning (CMAP) is the MPO.

This project is included in the FY 2007 – 2012 transportation plan) and in the Transportation Improvement Program (TIP), endorsed by the Policy Committee of the Chicago Metropolitan Agency for Planning, the region’s Metropolitan Planning Organization. The FY 2007 – 2012 (transportation plan) was found to conform by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) on March 12, 2010.

The TIP was found to conform by FHWA on March 12, 2010 and by FTA on March 12, 2010.



**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) since it does not involve a roadway with a large number of diesel vehicles.

**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.**

**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.)**

**a. Roadways**

The change in the structure from a four span to a single span structure will result in an increase in the depth of structure. Due to the proximity of the Metra Station and the CTA station and restrictions with the Union Pacific freight operations, the elevation of the tracks must remain the same. In order to accommodate the deeper bridge beams, the Harlem Avenue pavement must be lowered. Increasing the vertical under-clearance will add to that lowering.

The first two stages of construction will consist of lowering Harlem Avenue to provide adequate clearance for trucks passage underneath the replacement bridge. The foundations for the existing bridge piers consist of increasingly larger concrete footings as the depth increases. Once the pavement is lowered there is not enough horizontal clearance between the footings for more than a single lane of traffic in each direction on

Harlem Avenue. The third stage consist of replacing the bridge and the last two stages consist of replacing Harlem Avenue and the effected side streets with permanent pavement and sidewalks.

i. Stage 1

Stage 1 will consist of removing the northbound pavement, adjusting utilities and constructing a temporary pavement between the existing bridge piers. During Stage 1 Harlem Avenue will be reduced to one 10'-6" lane in each direction and all traffic will be directed through the southbound lanes under the west span of the existing bridge. A northbound right turn lane at South Boulevard will be provided on Harlem Avenue. Southbound left-turns at North Boulevard will likely be restricted. North Boulevard will be restricted to eastbound traffic only. Due to geometric difficulties right turns from South Boulevard will be prohibited. CTA bus traffic will be detoured via Maple and Pleasant Streets.

ii. Stage 2

Stage 2 will consist of lowering the west side of Harlem Avenue. The temporary pavement constructed during Stage 1 will not be wide enough to accommodate two lanes of traffic on Harlem Avenue. The existing signal will be used to create a reversible lane for north and southbound traffic. North Boulevard will be restricted to eastbound traffic only. Central Avenue will be closed to through traffic and restricted to delivery vehicles only. Central Avenue through traffic will be detoured via Bonnie Brae Drive and Lake Street. South Boulevard will be closed to westbound traffic and all traffic will be detoured via Marion and S. Maple Streets. Stage 2 does not involve complex construction and is anticipated to be relatively short in duration.

iii. Stage 3

Stage 3 will consist of constructing the temporary railroad bridge on Central Avenue and North Boulevard and replacing the existing bridge. The entrance to the CTA station west of Harlem Avenue will be closed. One lane of traffic will be maintained in each direction on Harlem Avenue. Left turns will be allowed to North Boulevard. North Boulevard will be restricted to eastbound only. Central Avenue will be closed to through traffic and restricted to delivery vehicles only. Central Avenue through traffic will be detoured via Bonnie Brae Drive and Lake Street. South Boulevard traffic will not have any restrictions. Harlem Avenue may need to be temporarily closed during construction activities that involve placing steel over active roadway lanes.

iv. Stage 4a

Once the replacement bridge is constructed and the temporary railroad bridge has been removed, the permanent improvements to Harlem Avenue can be completed. Stage 4a will consist of replacing the north side of Circle Avenue, the west side of Harlem Avenue and the south side of Central Avenue. Since the piers along the east sidewalk will be removed by this Stage, temporary pavement can be provided to widen the northbound lanes to accommodate two lanes of traffic, one in each direction. The CTA station on the west side of Harlem Avenue will remain closed. Circle Avenue will be restricted to one-way eastbound. Central Avenue will be closed to through traffic and restricted to delivery vehicles only. Central Avenue through traffic will be detoured via Bonnie Brae Drive and Lake Street. North Boulevard will be restricted to eastbound traffic only.

v. Stage 4b

Stage 4b will consist of replacing the south side of Circle Avenue, the west side of Harlem Avenue north and south of the bridge and the north side of Central Avenue. The CTA station on the west side of Harlem Avenue will remain closed. Circle Avenue will be restricted to one-way eastbound. Central Avenue will be closed to through traffic and restricted to delivery vehicles only. North Boulevard will be restricted to eastbound traffic only.

vi. Stage 5a

Stage 5a will consist of replacing the north side of South Boulevard, the east side of Harlem Avenue and the south side of North Boulevard. The Harlem Avenue pavement constructed in Stages 4a and 4b will accommodate two lanes of traffic, one in each direction. The CTA station on the west side of Harlem Avenue can be opened. Circle and Central Avenues will be unrestricted. North Boulevard will be restricted to eastbound traffic only. South Boulevard will be restricted to westbound only to accommodate buses. Eastbound South Boulevard traffic will be detoured via Pleasant Street.

vi. Stage 5b

Stage 5b will consist of replacing the south side of South Boulevard, the east side of Harlem Avenue on each side of the bridge and the north side of North Boulevard. The Harlem Avenue pavement constructed in Stages 4a and 4b will accommodate two lanes of traffic, one in each direction. The CTA station on the west side of Harlem Avenue can be open. Circle and Central Avenues will be unrestricted. North Boulevard will be restricted to eastbound traffic only. South Boulevard will be restricted to westbound only to accommodate buses. Eastbound South Boulevard traffic will be detoured via Pleasant Street.

## vii. Detours

During various stages two different detours will be required, Bonnie Brae Drive for Central Avenue traffic and Maple Street for South Boulevard traffic.

The segment of Bonnie Brae drive to be used for the Central Avenue detour route passes between two large parking lots for the commercial area northwest of the bridge. The intersection of Bonnie Brae and Lake Street is signalized. The detour route is in the jurisdiction of River Forest and will not require any improvement.

The segment of Maple Street to be used for the South Boulevard detour route has four driveways to parking areas serving municipal and residential properties. The intersection of Pleasant Street and Harlem Avenue is stop controlled on Pleasant Street only. The detour route is in the jurisdiction of Oak Park and will not require any improvement.

The majority of traffic on South Boulevard and Central Avenue is local in nature. It is expected that during construction this traffic will naturally seek alternate routes around the construction area and the detoured traffic will be a fraction of normal volumes.

For additional details please see the typical roadway staging sections and plan-view drawings in Exhibit 11-1 and the detour route maps attached in Exhibit 11-2.

## b. Rail Staging

Only one CTA track at a time will be allowed to be removed from service while the replacement bridge is constructed because the rail yard west of Harlem Avenue is the only service area for trains on the Green Line. It may be possible to use the out-of-service track in the station east of the bridge during a track closure since a 6-car train will fit in the station even if the track over the bridge is removed. Trains using this track will reverse direction between runs and remain in service which is a common maneuver.

The Union Pacific Railroad has indicated that they will allow one track at a time to be removed from service while it is shifted onto the temporary structure and back onto the replacement bridge. A temporary two track runaround, a shoofly, will be used to shift two of the Union Pacific Railroad's tracks off of the bridge to leave room for the new structure work. The shoofly will be constructed along the south sides of Central Avenue and North Boulevard, disrupting ground traffic on those streets.

A work area will be available between the CTA and shifted tracks. The first of two replacement CTA bridge spans will be constructed in this area while the new abutment is being constructed under the north CTA track through the use of removable track panels

and track shut-downs. Once the abutment is prepared, the replacement bridge span will be slid onto it from its temporary location. The abutment will then be prepared for the south CTA track and the replacement span will again be constructed in the work area between the CTA and the Union Pacific tracks. Once the abutment is prepared, the first span will be slid from the north to the south track and the second span will be slid over to the north track.

The southern two Union Pacific tracks will then be constructed. Once ready, the southern two tracks will be shifted onto them and the span for the north track will be constructed. Once constructed, the north track can be shifted off of the temporary bridge and the temporary bridge can be removed.

The rail staging plan is detailed in the PBDHR attached as Exhibit 2-2.

c. Pedestrians

A sidewalk will be provided along Harlem Avenue and each of the side streets during every stage of construction. The CTA platform serving the Green Line trains will need to be removed during construction of the bridge. Therefore, the entrance at Harlem Avenue will be closed and passengers will be directed to the entrance at S. Marion Street. Depending upon lane configurations and operations, the existing bus stops on Harlem Avenue may be moved during various stages of construction.

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

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

i. Public Kick-off Meeting

A public kick-off meeting was held on March 3, 2009 at the Roosevelt Middle School in River Forest. The meeting began with a presentation of the project followed by informal questions and answers in an open-house format. The purpose of the meeting was to introduce the project to the public and invite interested project stakeholders to participate in the Steering Committee.

No written comments were received during or after the meeting. The general consensus of those who spoke at the meeting was that the bridge and surrounding area is in poor condition and should be improved. Based on a previous feasibility study, the cost of the bridge replacement or associated improvements was estimated to be in excess of \$10,000,000 which some meeting attendees felt would be better spent on other projects or programs.

Meeting notification letters and advertisements are attached as Exhibit 12-1, the meeting sign-in sheet is attached as Exhibit 12-2 and the meeting handout is attached as Exhibit 12-3.

ii. Steering Committee

Since construction of this project could result in large temporary and permanent impacts to the adjacent properties as well as the surrounding communities, railroads and transit riders, it was determined that a steering committee would be extremely beneficial. The purpose of the steering committee is to help the project team understand the project area's context, the needs of the area users, the purpose and need of the project, the benefits and drawbacks of potential improvements and any additional improvements that could add value to the project. The steering committee was also formed as a liaison group to share information and collect feedback from various interest groups represented by steering committee members.

See Exhibit 12-4 for the Steering Committee invitation letter and the list of people and organizations contacted.

The first steering committee meeting was held on September 30, 2009 at the River Forest Village Hall's Community Room at 7:00 pm. The purpose of the meeting was to introduce the study team and steering committee, to present the general project and Phase I process to the steering committee, to begin the discussion of the idea of Place with distribution of a "Place Survey" that members were asked to complete before the next meeting. A summary of the meeting, sign-in sheet and group memory notes are attached as Exhibit 12-5.

The second steering committee meeting was held on January 28<sup>th</sup>, 2010 at the River Forest Village Hall's Community Room at 7:00 pm. The purpose of the meeting was to present the findings of the traffic and crash studies and to continue the discussion of the Place Survey. A summary of the meeting, sign-in sheet and group memory notes are attached as Exhibit 12-6.

The third steering committee meeting was held on March 24<sup>th</sup>, 2010 at the River Forest Village Hall's Community Room at 7:00 pm. The purpose of the meeting was to finalize the Purpose and Need of the project and begin a discussion of possible solutions. A summary of the meeting, sign-in sheet and group memory notes are attached as Exhibit 12-7.

The fourth steering committee meeting was held on two days, July 14<sup>th</sup> and August 26<sup>th</sup>, 2010 at the River Forest Village Hall's Community Room at 7:00 pm. The meeting was held twice because a large number of the Committee members could not attend the first meeting due to inclement weather. The purpose of the meeting was to present the findings of the improvement study and to discuss how those

proposed improvement satisfy the Purpose and Need of the project. A summary of the meeting, sign-in sheet and group memory notes are attached as Exhibit 12-8.

iii. Project Website

A project website has been maintained at [www.harlemunderpass.com](http://www.harlemunderpass.com) since the projects inception. No comments have been received through the website.

**b. Has any opposition been expressed toward the improvement?**

Yes  No

Although members of the Steering Committee and the general public have expressed concerns that the project is not the best use of available funding dollars or will change Harlem Avenue into a “speedway” through the project area, everybody who has commented on the project has indicated that an improvement is desirable and warranted.

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

**Attach minutes of coordination meetings.**

The project was presented at an FHWA/IDOT/River Forest coordination meeting on April 13, 2010. The Minutes are attached as Exhibit 13-1.

**14. Other Coordination**

A. CTA Coordination Meeting

A coordination meeting to introduce the project to the CTA was held on July 30, 2009. The details of the project were presented and the preliminary construction staging plan. The CTA indicated that they could only provide very brief track closures and they were not in favor of the proposed removal of one track at a time for extended periods of time.

Minutes of the meeting and a sign-in sheet are attached as Exhibit 14-1.

B. UP Coordination Meeting

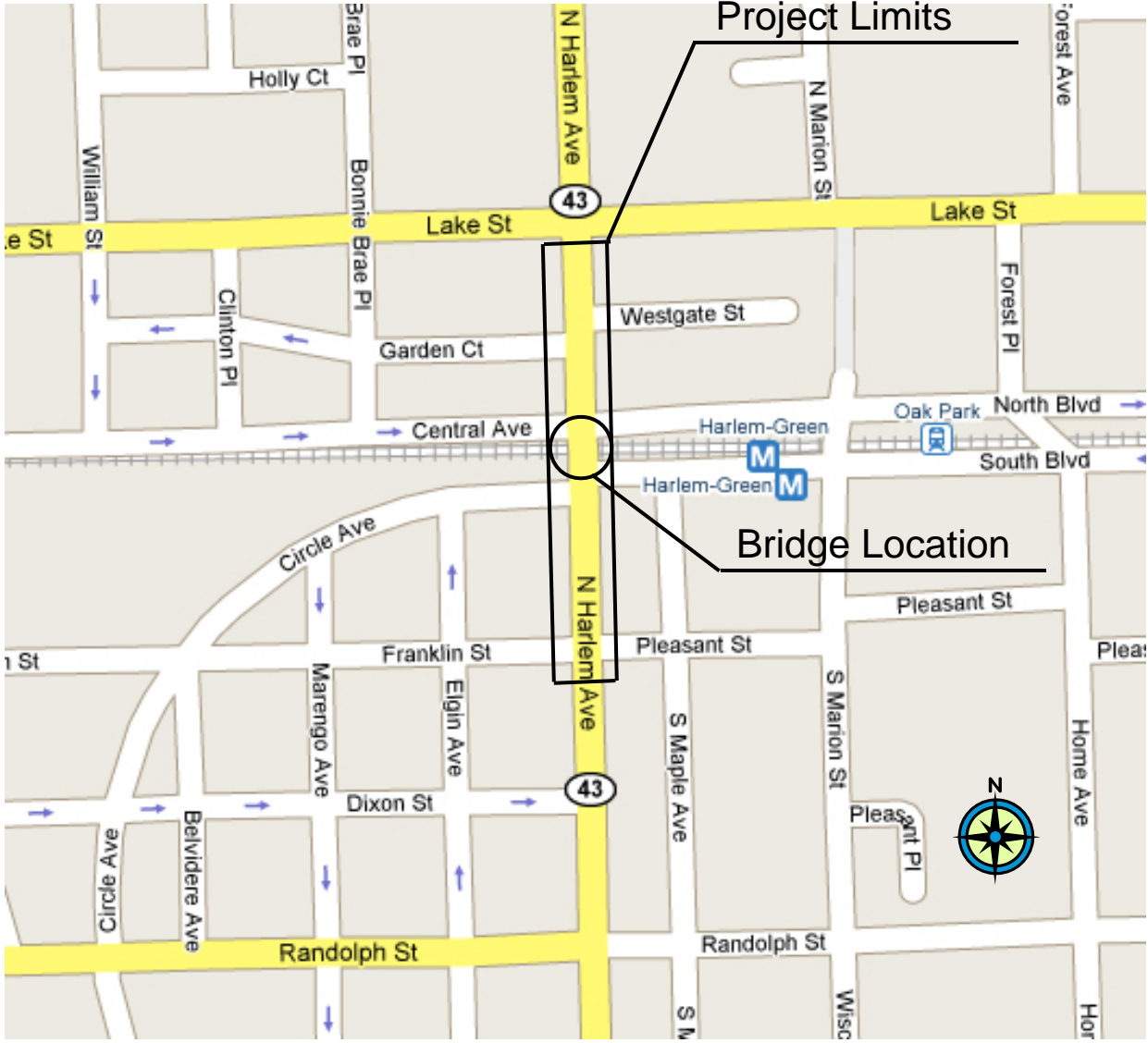
A coordination meeting to discuss the project with the Union Pacific Railroad was held on October 1, 2009. The details of the project were presented and the preliminary construction staging plan. The Railroad was not opposed to the project and had some minor suggestions for the design of the proposed temporary and permanent bridges.

Minutes of the meeting and a sign-in sheet are attached as Exhibit 14-2.



## **15. Summary of Commitments**

No commitments have been made.

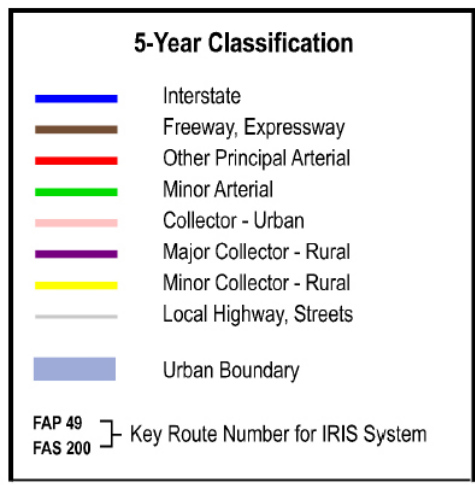
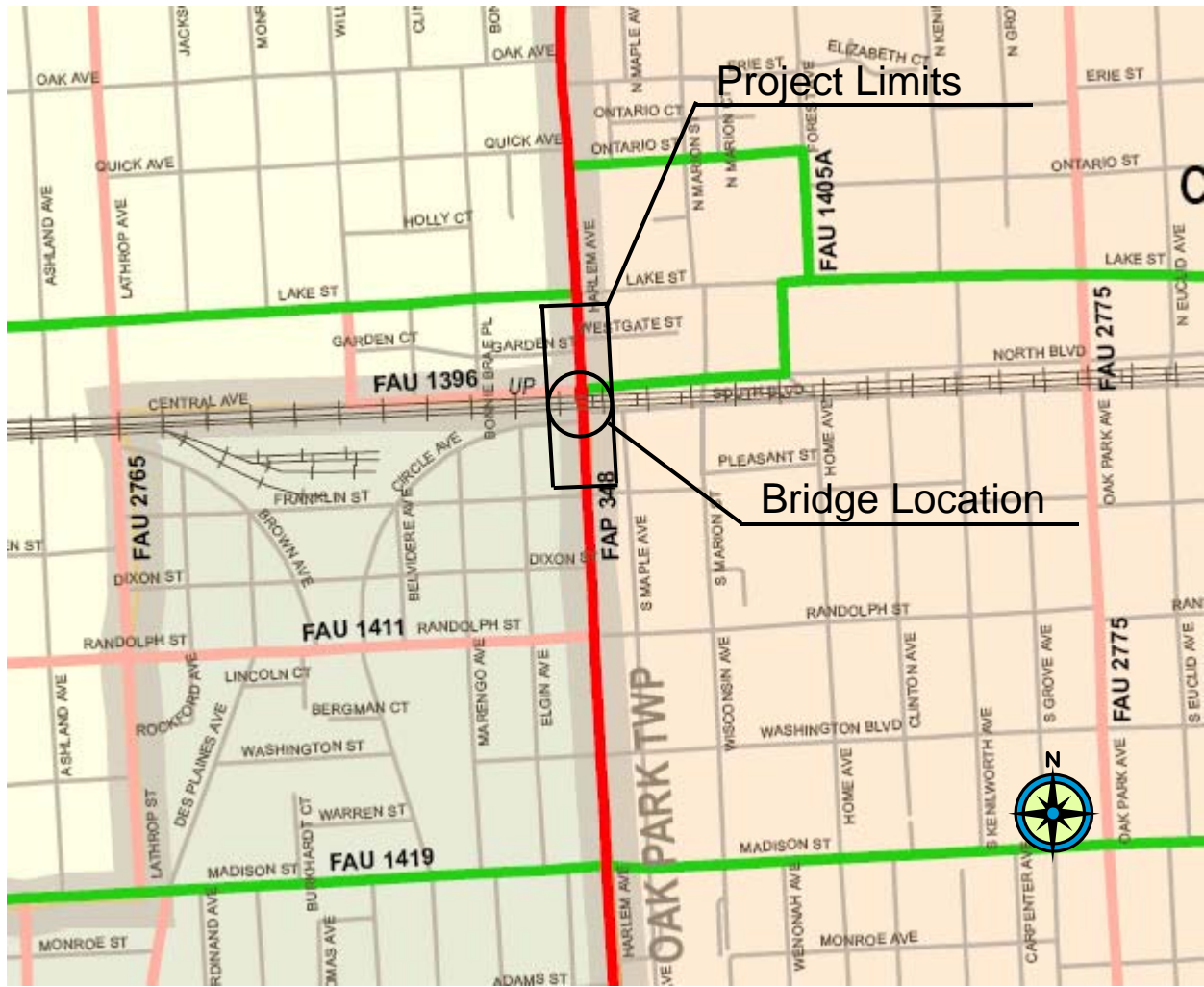


**Harlem Avenue under the  
Union Pacific Railroad  
Project Location Map  
Exhibit 1-1**



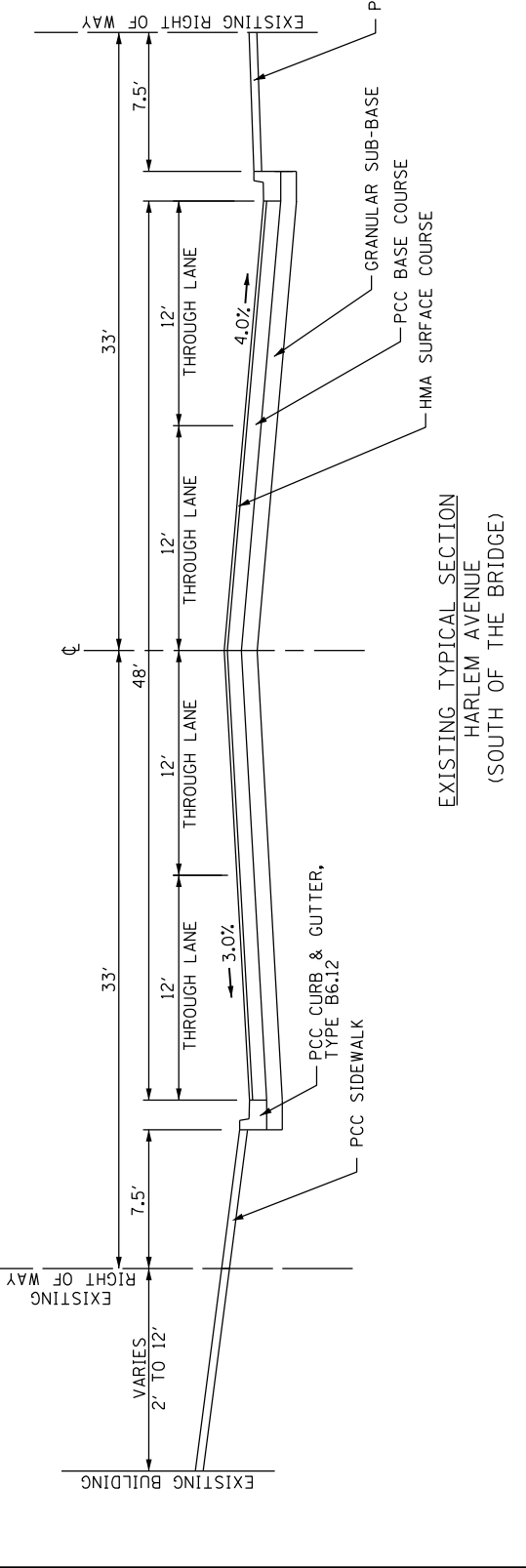
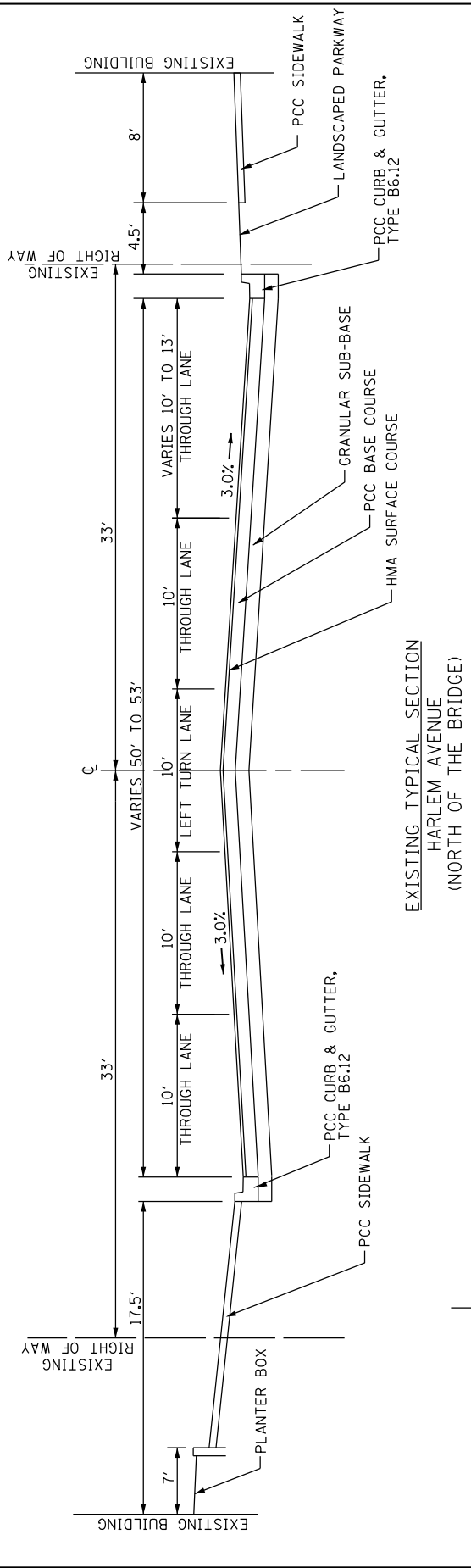
**Harlem Avenue under the  
Union Pacific Railroad  
Project Area Map  
Exhibit 1-2**

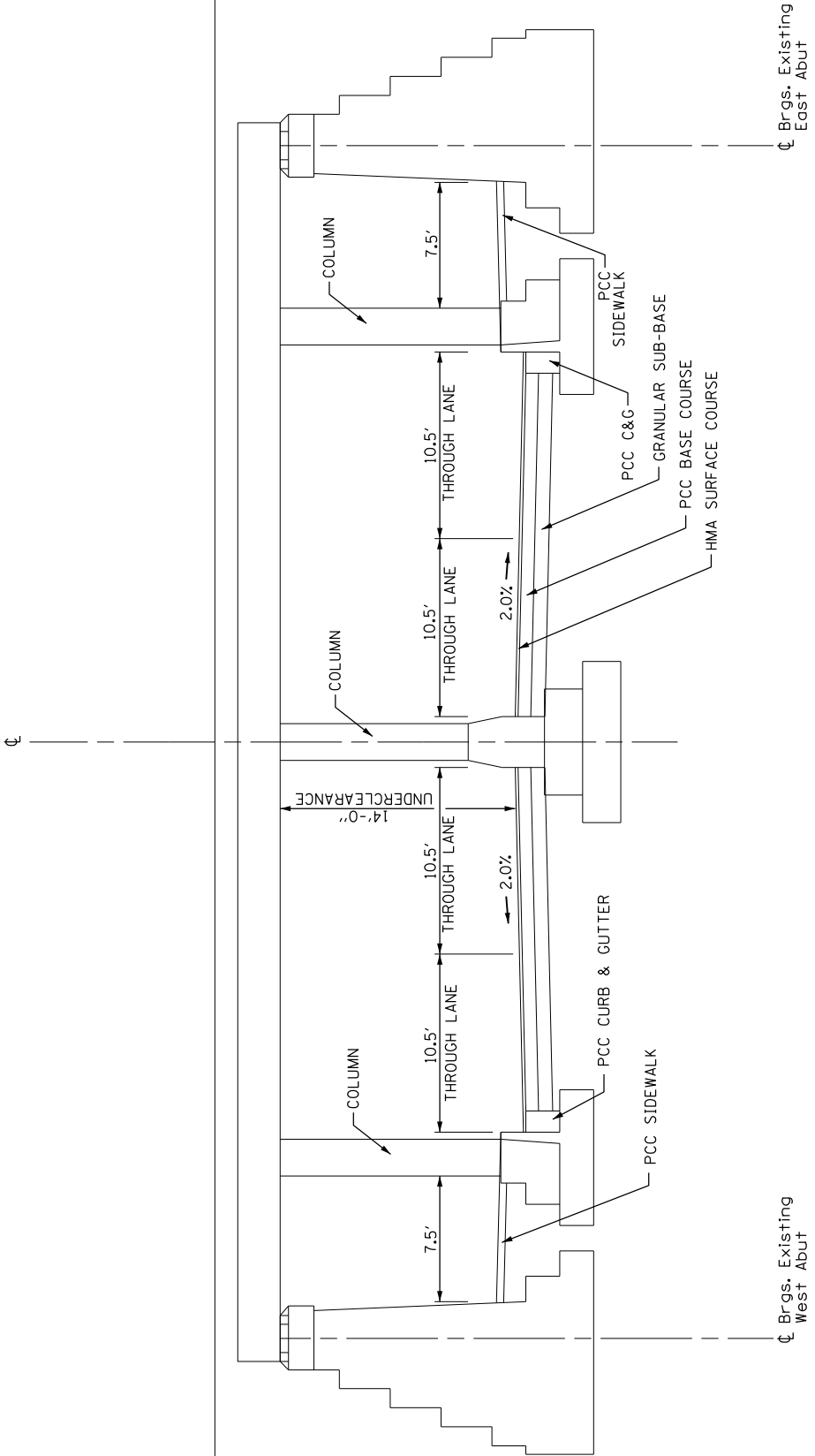




**Harlem Avenue Under  
 the Union Pacific Railroad**  
**Functional Classification Map**  
**Exhibit 1-3**

HARLEM UNDERPASS REPLACEMENT PROJECT		DATE OCTOBER, 2012	FIGURE NO.
EXISTING TYPICAL ROADWAY SECTIONS			
NOT TO SCALE	DATE OCTOBER, 2012	FIGURE NO.	
<b>LOCHNER</b>			





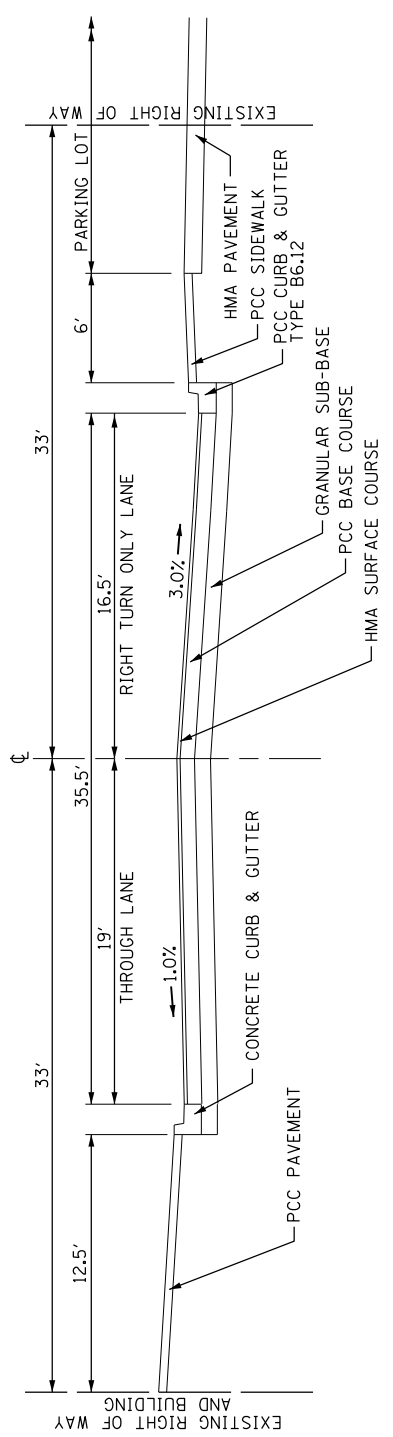
EXISTING TYPICAL SECTION  
HARLEM AVENUE AT UNDERPASS

HARLEM UNDERPASS  
REPLACEMENT PROJECT

EXISTING TYPICAL  
ROADWAY SECTIONS

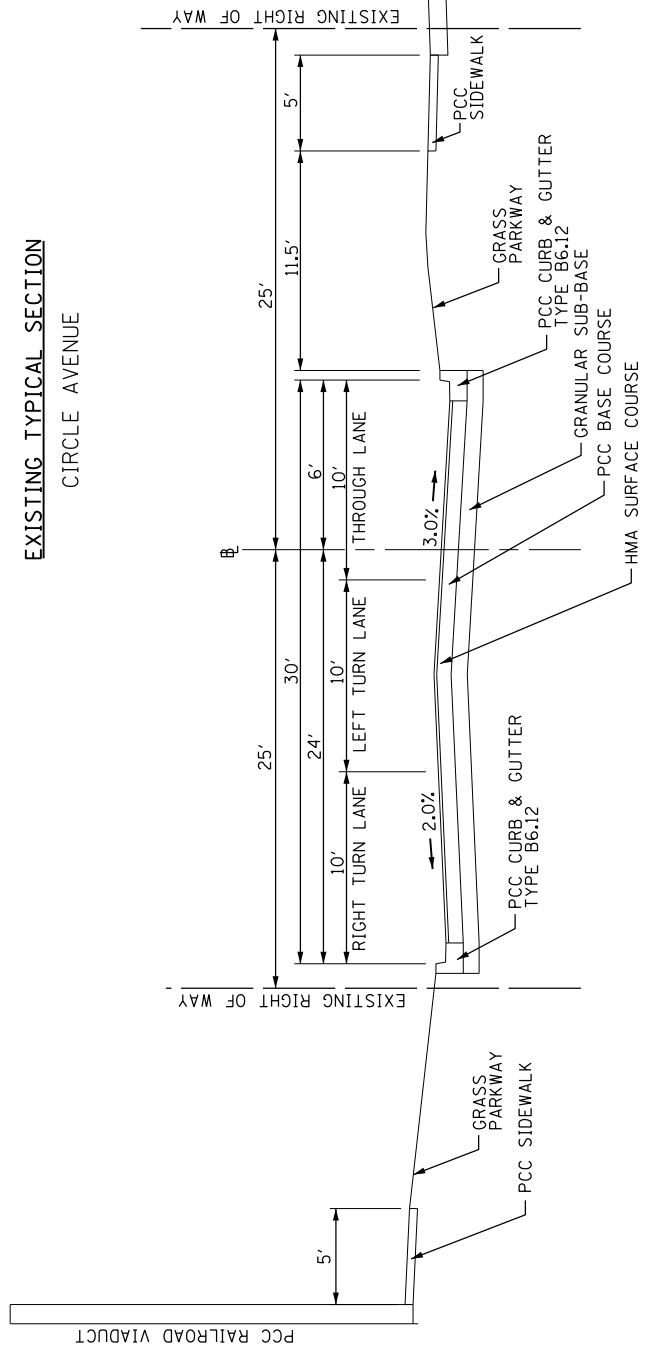
NOT TO SCALE	DATE OCTOBER, 2012	FIGURE NO.
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**LOCHNER**



**EXISTING TYPICAL SECTION**

CIRCLE AVENUE



**EXISTING TYPICAL SECTION**

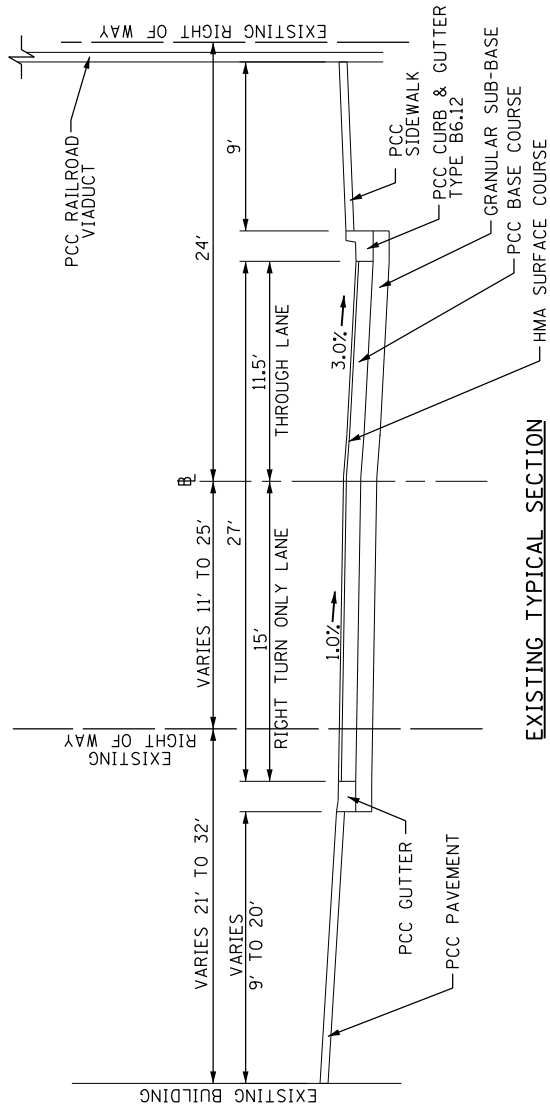
SOUTH BOULEVARD

HARLEM UNDERPASS  
 REPLACEMENT PROJECT

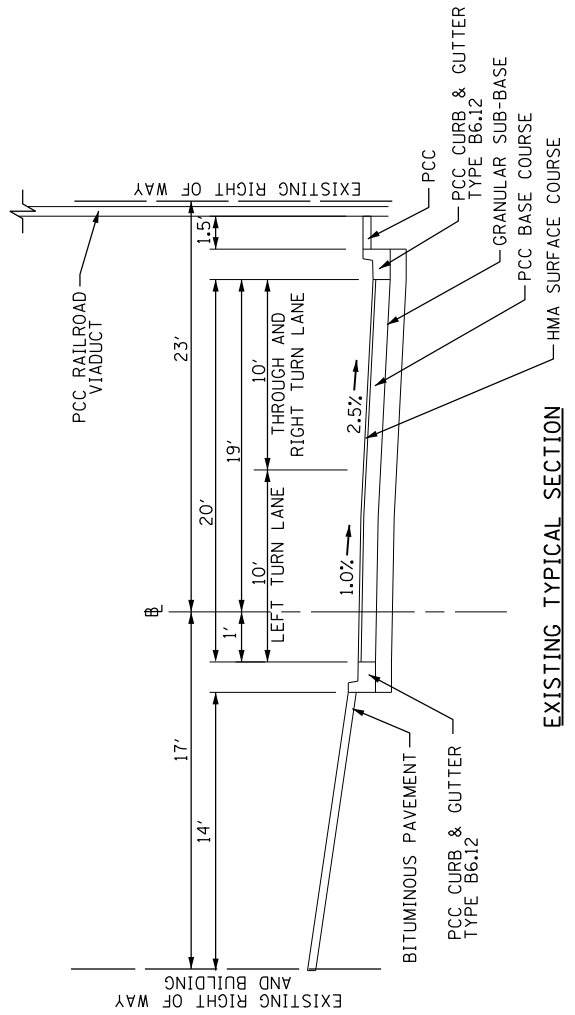
EXISTING TYPICAL  
 ROADWAY SECTIONS

NOT TO SCALE      DATE      FIGURE NO.  
 OCTOBER, 2012

**LOCHNER**



**EXISTING TYPICAL SECTION**  
NORTH BOULEVARD



**EXISTING TYPICAL SECTION**  
CENTRAL AVENUE

HARLEM UNDERPASS  
REPLACEMENT PROJECT

EXISTING TYPICAL  
ROADWAY SECTIONS

NOT TO SCALE	DATE OCTOBER, 2012	FIGURE NO.
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**LOCHNER**

EXHIBIT 1-4  
SHEET 4 OF 4

FILE NAME :  
DATE/TIME :  
USER :



# LOCHNER

May 29, 2009

Mr. Joe Stacho  
ComEd  
1N423 Swift Road  
Lombard, IL 600148

H.W. Lochner, Inc.  
20 North Wacker Drive  
Suite 1200  
Chicago, IL 60606

T 312.372.3011  
F 312.372.5974

hwlochner.com

Re: Verification of Utilities  
Harlem Avenue at Central Avenue/North Boulevard  
Harlem Avenue at Circle Avenue/South Boulevard  
River Forest, Illinois

Dear Mr. Stacho:

The Village of River Forest has retained H.W. Lochner, Inc. to provide preliminary engineering services for the subject project. A project location map is enclosed.

The proposed improvements include modernization and signalization of the intersection of the intersection of Harlem Avenue and Central Avenue/North Boulevard and Circle Avenue/South Boulevard. The proposed intersection improvements will also require reconstruction of Harlem Ave.

Provided is a drawing of the project area highlighting the locations for which a utility map is requested. Known utility locations and sizes are shown. Please verify this information and provide us with any missing information.

All information should be sent to H.W. Lochner, Inc., Attention: Mr. David Zawada, at the address shown on the letterhead.

We appreciate your assistance with this matter. Please call if you have any questions or require additional information.

Very truly yours,  
H. W. LOCHNER, INC.

David Zawada, PE  
Project Manager

encl.

# LOCHNER

May 29, 2009

Mr. Earl Flemming  
AT&T Engineering  
100 Commerce Drive  
2<sup>nd</sup> Floor  
Oakbrook, IL 60523

H.W. Lochner, Inc.  
20 North Wacker Drive  
Suite 1200  
Chicago, IL 60606

T 312.372.3011  
F 312.372.5974

hwlochner.com

Re: Verification of Utilities  
Harlem Avenue at Central Avenue/North Boulevard  
Harlem Avenue at Circle Avenue/South Boulevard  
River Forest, Illinois

Dear Mr. Flemming:

The Village of River Forest has retained H.W. Lochner, Inc. to provide preliminary engineering services for the subject project. A project location map is enclosed.

The proposed improvements include modernization and signalization of the intersection of the intersection of Harlem Avenue and Central Avenue/North Boulevard and Circle Avenue/South Boulevard. The proposed intersection improvements will also require reconstruction of Harlem Ave.

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All information should be sent to H.W. Lochner, Inc., Attention: Mr. David Zawada, at the address shown on the letterhead.

We appreciate your assistance with this matter. Please call if you have any questions or require additional information.

Very truly yours,  
H. W. LOCHNER, INC.

David Zawada, PE  
Project Manager

encl.

# LOCHNER

May 29, 2009

Mr. Frank Gautier  
Comcast Cable  
688 Industrial Drive  
Elmhurst, IL 60126

H.W. Lochner, Inc.  
20 North Wacker Drive  
Suite 1200  
Chicago, IL 60606

T 312.372.3011  
F 312.372.5974

hwlochner.com

Re: Verification of Utilities  
Harlem Avenue at Central Avenue/North Boulevard  
Harlem Avenue at Circle Avenue/South Boulevard  
River Forest, Illinois

Dear Mr. Gautier:

The Village of River Forest has retained H.W. Lochner, Inc. to provide preliminary engineering services for the subject project. A project location map is enclosed.

The proposed improvements include modernization and signalization of the intersection of the intersection of Harlem Avenue and Central Avenue/North Boulevard and Circle Avenue/South Boulevard. The proposed intersection improvements will also require reconstruction of Harlem Ave.

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We appreciate your assistance with this matter. Please call if you have any questions or require additional information.

Very truly yours,  
H. W. LOCHNER, INC.

David Zawada, PE  
Project Manager

encl.

# LOCHNER

May 29, 2009

Mr. Sean McCarthy  
NICOR  
3000 Cass St.  
Joliet, IL 60432

H.W. Lochner, Inc.  
20 North Wacker Drive  
Suite 1200  
Chicago, IL 60606

T 312.372.3011  
F 312.372.5974

hwlochner.com

Re: Verification of Utilities  
Harlem Avenue at Central Avenue/North Boulevard  
Harlem Avenue at Circle Avenue/South Boulevard  
River Forest, Illinois

Dear Mr. McCarthy:

The Village of River Forest has retained H.W. Lochner, Inc. to provide preliminary engineering services for the subject project. A project location map is enclosed.

The proposed improvements include modernization and signalization of the intersection of the intersection of Harlem Avenue and Central Avenue/North Boulevard and Circle Avenue/South Boulevard. The proposed intersection improvements will also require reconstruction of Harlem Ave.

Provided is a drawing of the project area highlighting the locations for which a utility map is requested. Known utility locations and sizes are shown. Please verify this information and provide us with any missing information.

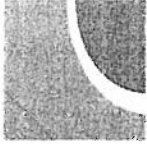
All information should be sent to H.W. Lochner, Inc., Attention: Mr. David Zawada, at the address shown on the letterhead.

We appreciate your assistance with this matter. Please call if you have any questions or require additional information.

Very truly yours,  
H. W. LOCHNER, INC.

David Zawada, PE  
Project Manager

encl.



# Chicago Metropolitan Agency for Planning

233 South Wacker Drive  
Suite 800  
Chicago, Illinois 60606  
  
312 454 0400  
www.cmap.illinois.gov

October 4, 2012

Hon. John P. Rigas  
President  
Village of River Forest  
400 Park Avenue  
River Forest, IL 60305

**Subject: Harlem Avenue Underpass**  
Village of River Forest

Dear President Rigas:

In response to a request made on your behalf and dated October 3, 2012, we have developed year 2040 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	West Leg
Harlem Ave north of Central Ave/North Blvd	35,000
Central Ave west of Harlem Ave	7,000
North Blvd east of Harlem Ave	8,000
Harlem Avenue from Central Ave to Circle Ave	35,000
Circle Ave west of Harlem Ave	6,000
South Blvd east of Harlem Ave	6,000
Harlem Ave south of Circle Ave/South Blvd	35,000

Please be aware that the Illinois Department of Transportation has prepared a Strategic Regional Arterial (SRA) report for IL 43 (Harlem Avenue). Reports include right-of-way, geometric, access, and transit recommendations. The executive summaries can be found at <http://www.cmap.illinois.gov/sra-resources> with other information about the SRA system.

Traffic projections are developed using existing ADT data provided in the request letter and the results from the March 2012 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2040 socioeconomic projections and assumes the implementation of the GO TO 2040 Comprehensive Regional Plan for the Northeastern Illinois area. If you have any questions, please call Jose Rodriguez at (312) 386-8806.

Sincerely,

Donald P. Kopec  
Deputy Director for Planning and Programming

cc: Shannon (HW Lochner)  
M:\proj\1\ceb\forecasts\2012 Response\ck-63-12.docx

**Illinois Department of Transportation  
Structures Information Management System  
Structure Summary Report**

Date: 10/03/2012  
Page: 1

Structure Number: 016-0310

District: 1

**Inventory Data**

Facility Carried:	CTA & UPRR	Bridge Name:		Sufficiency Rating:		Structure Length:	62.0
Feature Crossed:	ILL 43 (HARLEM AV)	Location:	1 M N I290 P16,20	HBP Eligible:	Yes	AASHTO Bridge Length:	61.5
Bridge Remarks:	FACILITY CARRIED WAS FORMERLY C&NW RR	Status Date:	04/1988	Replaced By:	016-0666	Length of Long Span:	24.0
Bridge Status:	1 OPEN - NO RESTRICT	Maint Township:		Replaces:	-	Bridge Roadway Width:	0.0
Status Remarks:				Last Update Date:	07/05/2012	Appr Roadway Width:	0.0
Maint County:	016 COOK			Parallel Structure:	None	Deck Width:	0.0
Maint Responsibility:	06 RAILROAD			Multi-Level Structure Nbr:		Sidewalk Width Right:	0.0
Service On/Under:	2 RAILROAD	1 / HIGHWAY		Skew Direction:	N	Sidewalk Width Left:	0.0
Reporting Agency:	6 RAILROAD			Structure Flared:	No	Navigation Horiz Clear:	0
Main Span Matl/Type:	5 PRESTRESS CONCRETE	/ 00 OTHER		Historical Significance:	No	Navigation Vert Clear:	0
Nbr Of Main Spans:	4	Nbr Of Approach Spans:	0	Border Bridge State:		Culvert Fill Depth:	0.0
***Approaches***				Bdr State SN:		Number Culvert Cells:	0
Near #1 Matl/Type:	/			Bdr State % Responsibility:		Culvert Opening Area:	0.0
Near #2 Matl/Type:	/			Structural Steel Wt	0	Culvert Cell Height:	0.00
Far #1 Matl/Type:	/			Substructure Material:		Culvert Cell Width:	0.00
Far #2 Matl/Type:	/			Rated By:	N N/A	Rate Method:	6
Median Width/Type:	0 Ft. / 0			Load Rating Date:	01/01/1900	Railroad Crossing Info	
Guardrail Type L/R:	0None / 0			Inventory Rating:	0(20)	Crossing 1 Nbr:	173985
Toll Facility Indicator:	0 No Toll			Operating Rating:	0(20)	Crossing 1 Nbr:	X
Latitude:	41 D 53 M 12.9 S	Longitude:	87 D 48 M 17.86 S	Design Load:	99 UNKNOWN	Crossing 1 Nbr:	
Deck Structure Type:				Deck Structure Thickness:	0 SD:	RR Lateral Underclear:	.00
Sidewalks Under Structure:	4 Both Sides Separate					RR Vertical Underclear:	0 Ft 0 In

**Key Route On Data**

Key Route Nbr:		Station:	0348	Station:	19.1900
Appurtenances		Segment:	00000	Segment:	
Inventory County:		Linked:		Linked:	Y
Township/Road Dist		Natl. Hwy System:		Natl. Hwy System:	On NHS
Municipality		Inventory Direction:		Inventory Direction:	
Urban Area:		Curr AADT Yr/Count:	/	Curr AADT Yr/Count:	2011 / 36800
Functional Class:		Est Truck Percentage:		Est Truck Percentage:	7
** CLEARANCES **	South/East	Number Of Lanes:		Number Of Lanes:	4
Max Rdwy Width:		One Or Two Way:		One Or Two Way:	2 Two-Way
Horizontal:		Bypass Length:		Bypass Length:	0
		Future AADT Yr/Cnt:	/	Future AADT Yr/Cnt:	2020 / 37000
		Designated Truck Rte:		Designated Truck Rte:	CLASS II
		Special Systems:		Special Systems:	Yes

**Key Route Under Data**

FEDERAL-AID PRIMARY	0348	Station:	19.1900
Main Route	00000	Segment:	
016		Linked:	Y
73 OAK PARK (OAK PK)		Natl. Hwy System:	On NHS
4295 OAK PARK		Inventory Direction:	
1051 1051		Curr AADT Yr/Count:	2011 / 36800
3		Est Truck Percentage:	7
South/East	North/West	Number Of Lanes:	4
.0		One Or Two Way:	2 Two-Way
22.4	23.0	Bypass Length:	0
		Future AADT Yr/Cnt:	2020 / 37000
		Designated Truck Rte:	CLASS II
		Special Systems:	Yes

**\*\*\* Marked Route On Data \*\*\***

Route #1:	Designation	Kind	Number
Route #2:	1 Mainline	3	043
Route #3:	1 Mainline		
	1 Mainline		

**\*\*\* Marked Route Under Data \*\*\***

Route #1:	Designation	Kind	Number
Route #2:	1 Mainline	3	043
Route #3:	1 Mainline		
	1 Mainline		



**Illinois Department of Transportation  
Structures Information Management System  
Structure Summary Report**

Date: 10/03/2012  
Page: 2

Structure Number: 016-0310 District: 1

**Data Related to Inspection Information**

\*\*\* Inspection Intervals \*\*\*  
 \*\*\* Maximum Allowable Posting Limits \*\*\*

Routine NBIS: 24 MOS Underwater: 0 MOS Special: N  
 One Truck At A Time: 0 Tons  
 Single Unit Vehicles: Tons  
 Combination Type 3S-1: Tons  
 Combination Type 3S-2: Tons

Bridge Posting Level:  
 5 No Posting Required

**Inspection/Appraisal Information**

Inspection Date: Inspection Temperature: Deg. F

Deck: Single Unit Vehicles: Tons  
 Superstructure: Combination Type 3S-1: Tons  
 Substructure: Combination Type 3S-2: Tons  
 Culvert: One Truck At A Time: Tons

\*\* Actual Posted Limits \*\*

Last Paint Type:

Deck Wearing Surf:  
 Deck Membrane:  
 Deck Protection:  
 Total Deck Thick:  
 Last Paint Date:

**Underwater Inspection/Appraisal Information**

Inspection Date:  
 Temperature:  
 Inspection Category:  
 Inspection Method:

Appraisal Rating:

**Scour Critical Information**

Evaluation Method:

**Miscellaneous**

Rating:  
 Analysis Date:  
 Year:  
 Route:  
 Section Nbr:  
 Contract Nbr:  
 Fed Aid Pr#:  
 Built By:

**Construction Information**

Year: 1900 Original  
 Route: Reconstructed  
 Section Nbr: Sta:  
 Contract Nbr: 0000000000000  
 Fed Aid Pr#: 0 UNKNOWN

**Waterway Information**

Flood Design Frequency:  
 Flood Design Q (CFS):  
 Flood Design Nat H W E:  
 Flood Des Open Prop:

Microfilm Data Recorded:

No

YRS Drainage Area:

Acres

Flood Base Q (CFS):  
 Flood Base Nat H W E:  
 Flood Base Nat H W E:

Exhibit 1-7  
 Sheet 2 of 2

MS



# Illinois Department of Transportation

## Memorandum

To: Diane M. O'Keefe, District 1      Attn: Christopher J. Holt  
 From: D. Carl Puzey      By: Jayme F. Schiff  
 Subject: BRIDGE CONDITION REPORT APPROVAL  
 Date: February 27, 2012

Village of River Forest  
 Cook County  
 Section 06-00086-00-BR

SN 016-0310

CTA & UPRR over Illinois Route 43 (Harlem Ave)

The Bridge Condition Report for the above-designated bridge replacement project is hereby approved.

Approval of the project is contingent on approval by others of the proposed geometry, obtaining environmental signoffs, and any required historic structure coordination and other approvals required by statutes or the policies of the Department.

Please also remind the Village's consultant that a new structure number will be required for the proposed structure. This is required before approval, and should be established before and provided with the PBHDR submittal. Per SIP Manual, E. IDENTIFICATION BY STRUCTURE NUMBER, page ix, "For new bridges, the structure number is to be issued and assigned for inclusion in ISIS no later than submittal of preliminary Bridge Design; or Type, Size and Location (TS&L) plans for Central Office approval."

If you have any questions, contact Jim Klein at 217/782-5928 or Matt Humke at 217/782-5929. Two copies of the approved report are being returned, and we will retain one copy for our files.

MDH/kkt0160310-20120227

**RECEIVED**  
**MAR 05 2012**  
**BUREAU OF LOCAL**  
**ROADS & STREETS**



1. **Application**

The designer can use the Level One and Level Two Design Criteria Checklists to summarize compliance with design criteria and assist in the documentation of the adherence of the proposed project design to the design criteria. These checklists become a part of the permanent project file.

2. **Level One Design Exceptions**

A Level One design exception involves one of the controlling design criteria. Check the appropriate boxes on the "Level One Design Criteria Checklist" (p. 3). The determination of whether or not the proposed project design meets the IDOT controlling design criteria is dependent upon the project scope of work. If, for example, a 3R non-freeway project is under design, Chapter 49 will apply. For any Level One element which does not meet IDOT design criteria, the designer should prepare a statement for use at monthly coordination meetings which:

- identifies the design element;
- identifies IDOT design criteria;
- discusses the proposed design; and
- provides justification for the design exception.

The written summary of the discussion at the coordination meeting will document the justification for a design exception. Include the minutes of the meeting describing the project in the Phase I engineering report.

3. **Level Two Design Exceptions**

A Level Two design exception does not involve one of the controlling design criteria. Check the appropriate boxes on pp. 4-10 of the "Design Criteria Checklist." The determination of whether or not the proposed project design meets IDOT design criteria is dependent upon the project scope of work. If, for example, a 3R non-freeway project is under design, Chapter 49 will apply. For any Level Two element which does not meet IDOT design criteria, the designer should prepare a statement similar to that for a Level One exception.

It should be noted that Level Two design exceptions may not require as much justification to receive concurrence of the exception. The written summary of the discussion at the coordination meeting will document the justification for a design exception.

4. **Project Identification**

State Job No.:	<u>P-91-161-06</u>
Marked Route No.:	<u>IL-43</u>
Functional Classification:	<u>Other Principal Arterial (Strategic Regional Arterial)</u>
Highway Type:	<u>4 Lane Undivided</u>
Project Location:	<u>From south of the intersection of Circle Avenue and Harlem Avenue to Westgate Street</u>
County/City:	<u>COOK / River Forest, Oak Park, Forest Park</u>
Project Length:	<u>0.2 MILES</u>

5. **Project Scope of Work**

a. Is project located on the NHS?  Yes  No

b. Check the appropriate box. See Section 31-6 for definitions.

- New construction
- X \*Reconstruction
- 3R (non-freeway)
- \*3R (freeway)

c. Provide a brief project description:

This project involves the improvement of Harlem Avenue under the Union Pacific RR bridge. The project includes the replacement of the RR bridge, the lowering and reconstruction of Harlem Avenue and four intersecting cross streets - Circle Avenue, South Boulevard, Central Avenue and North Boulevard.

Illinois 43 is designed per the BDE Manual, with the requirements/recommendations of the SRA report. The intersecting streets have been designed per the BLRS Manual.

*\*Note: May include "Allowed to Remain in Place" criteria.*

6. **Evaluating Exceptions**

When evaluating exceptions to design criteria, the primary considerations are:

- safety;
- capacity;
- compatibility with adjacent sections;
- time to construction of ultimate improvement; and,
- construction costs.

7. **District Coordination Meetings**

Has project been discussed at district coordination meetings?  Yes  No

Date: April 13, 2010

**Level One Design Criteria Checklist**Route: IL-43 Section: 06 - 00086 - 00 - BR County: COOK

Design Criteria for <u>Mainline</u> Only (Provide numerical value for project, where indicated.)	Does the proposed design meet IDOT criteria?		
	Yes	No*	N/A
1. Design Speed: 30-40 mph (Posted 30 mph) BDE 46-2.E	<input checked="" type="checkbox"/> 35 mph	<input type="checkbox"/>	<input type="checkbox"/>
2. Lane Widths: 11 - 12 feet BDE 46-2.E	<input type="checkbox"/>	<input checked="" type="checkbox"/> 10'	<input type="checkbox"/>
3. Through Travel Lane Cross - Slopes in Percent (%): Lane 1 <u>2.0%</u> BDE 46-2.E Lane 2 <u>2.0%</u> Lane 3 _____	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
4. Shoulder Widths: <u>N/A</u> feet (meters) (inside) <u>N/A</u> feet (meters) (outside)	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
5. Horizontal Curvature (Minimum Radius for selected design speed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Superelevation Rates ( $e_{max} =$ <u>N/A</u> %)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Stopping Sight Distance at Crest Vertical Curves (Level SSD for Passenger Cars) 250' BDE 33-4.A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Stopping Sight Distance at Sag Vertical Curves (Level SSD for Passenger Cars) 250' BDE 33-4.E	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Stopping Sight Distance on Inside of Horizontal Curves (Level SSD for Passenger Cars)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Clear Roadway Bridge Widths: _____ feet	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. Structural Capacity of Bridges: Cooper E-80	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Vertical Clearances: 14'-9" BDE 46-2.E	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Maximum Grades: 7% BDE 46-2.F	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Accessibility Criteria for Disabled Persons BDE 58-1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\* Justification for any design exceptions must be discussed at monthly coordination meetings held in each district and must be documented in the Phase I report.

Note: Numbers 1, 2, 3, and 4 apply throughout the project. The remaining criteria (e.g., superelevation rates) apply to specific sites within the project limits.

**Level Two Design Criteria Checklist**Route: IL-43 Section: 06 - 00086 - 00 - BR County: COOK

Design Criteria		Does the proposed design meet IDOT criteria?		
		Yes	No*	N/A
1. Design Speed: 35 MPH (Posted 30) BDE 46-2.E				
a. Level of Service (mainline) C BDE 46-2.E		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. SSD application at horizontal curves		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. SSD application for vertical curves BDE 33-4.A, BDE 33-4.E	250'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Truck SSD (level) (at specific sites)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Horizontal Alignment (Mainline)				
a. Traveled way widening		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Superelevation transition lengths		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Superelevation distribution between tangent and curve		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. "Breakover" of outside shoulder on super-elevated curves		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Relative longitudinal slope of shoulder to edge of traveled way on high side of S.E. curve adjacent to bridge with S.E.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Superelevation development at reverse curves		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Is superelevation transition length located off of bridges and bridge approach pavements?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Design Criteria	Does the proposed design meet IDOT criteria?		
	Yes	No*	N/A
<b>3. Vertical Alignment (Mainline)</b>			
a. Minimum grades considering drainage Min - 0.3% / des. - 0.5% / BDE 46-2F	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Critical length of grade	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Warrants for truck-climbing lanes	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Design criteria for truck-climbing lanes (e.g., lane width and shoulder width)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Minimum length of vertical curves for selected design speed 105' (BDE 33-4.01(a))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Maximum length of vertical curves (drainage of curbed facilities and bridges) Kmax (drainage) = 167 (BDE 33-4A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4. Cross Section Elements (Mainline)</b>			
a) Design of parking lanes: Cross-slope _____ % Width _____ feet	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
b) Design of sidewalks: BDE 58-1.06(a) Cross-slope <u>2</u> % Width <u>5</u> feet 4' Min Longitudinal slopes <u>3.78%</u>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
c) Type of curb and gutter used on median:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Drainage of raised curb medians: Direction of flow of median surface or pavement _____ Direction of cross-slope on gutter _____ %	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
e) Type of curb and gutter used along outside edges of pavement <u>B-6.24 BDE 46-2.E</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/> B-6.12	<input type="checkbox"/>
f) TWLTL width Flush type <u>N/A</u> feet Traversable type <u>N/A</u> feet	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

Design Criteria	Does the proposed design meet IDOT criteria?		
	Yes	No*	N/A
g) Median widths: BDE 34-3.03(a) • Urban _____ feet • Suburban _____ feet • Rural _____ feet	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
h) Shoulder cross slopes _____ %	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Fill slopes: _____ N/A (V:H)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Outside roadway ditch: • Slopes _____ • Depth _____ • Widths _____ Median ditch: • Widths _____ • Slopes _____ • Depth _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
k) Cross-section transitions into bridges/underpasses	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
l) Use of mountable curbs (V > 45 mph (70 km/h))	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
m) Cross-section transition details (e.g., four-lane to two-lane)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
n) Design of frontage roads: • Des. speed _____ • Pvm. width _____ • Shld. width _____ • Cross-slopes _____ • Super. rate _____ • Ditch slopes _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
5. Roadside Safety			
a. Horizontal clearances: BDE 46-2E • Clear zones on tangent sections 1.5' FOC • Clear zones on outside of horizontal curves	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
b. Barrier warrants	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Barrier length of need	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Deceleration criteria for impact attenuators	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Design Criteria		Does the proposed design meet IDOT criteria?		
		Yes	No*	N/A
6. Intersections				
a. Accommodation of design vehicle BDE 36-1R (Identify Vehicle) <u>WB-50</u>		<input type="checkbox"/>	<input checked="" type="checkbox"/> SU, P, CITY BUS	<input type="checkbox"/>
b. Level of service:				
• Through Lanes <u>D (BDE 46-2E)</u>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Turn Lanes <u>D</u>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Skew angle BDE 36-1.05(a) 90 degrees Preferred 75 degrees Minimum		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Profiles BDE 36-1.06(a) 3%		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Volume guidelines for turn-lanes:				
• Right-turns BDE 36-3.01(a)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Left turns BDE 36-3.01(b)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Design of right-turn lanes BDE 36-3.02		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Design of left-turn lanes 11' Lane Width		<input type="checkbox"/>	<input checked="" type="checkbox"/> 10'	<input type="checkbox"/>
g. Turn-lane tapers				
Approach Taper 35:1		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Departure Taper 35:1		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bay Taper 155 BDE 36-31		<input type="checkbox"/>	<input checked="" type="checkbox"/> 100'	<input type="checkbox"/>
h. Turning roadway widths		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Turn-lane				
Deceleration (Rural)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
lengths Storage (Urban) 150' MIN		<input type="checkbox"/>	<input checked="" type="checkbox"/> 115'	<input type="checkbox"/>
j. Intersection sight distance: List criteria and type: <u>36-6.04</u> <u>Ability to see 1st vehicle on each approach</u>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Median opening length:		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
l. Minimum corner island size:		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
m. Does right-turn radius accommodate design vehicle without encroachment?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Driveway widths Handbook for the Policy on Permits for Access Driveways to State Highways (Commercial) 24'-36'		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Design Criteria		Does the proposed design meet IDOT criteria?		
		Yes	No*	N/A
o. Type of traffic control: • Two-way stop • All-way stop • Traffic signals      ILMUTCD		<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
p. Is maximum grade exceeded on any approach?  NO		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. Max "e" for intersections on curve		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Interchanges				
a. Exit Terminal	Standard Type	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Design speed of first curve	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Are any exit terminals located on mainline horizontal curve?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Entrance Terminal	Standard Type	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Length of tangent after the entering curve	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Design speed of entering curve	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Design speed of ramp proper: _____ mph (km/h)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Design speed of crossroad: _____ mph (km/h)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Maximum ramp grades: • Exit ramp _____ % • Entrance ramp _____ %		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
f. Ramp pavement width		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Ramp shoulder widths • Left _____ • Right _____		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
h. Horizontal ramp curvature in conjunction with selected design speeds		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



Design Criteria		Does the proposed design meet IDOT criteria?		
		Yes	No*	N/A
i. Superelevation development on ramps	Superelevation Rate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Transition Length	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Distribution Between Tangent & Curve	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j. Vertical curvature compliance with selected design speed on ramp		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
k. Length of access control at crossroad		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
l. Type of traffic control at crossroad:				
• Stop signs		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Traffic signals		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Free flow		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
m. Is length of crest vertical curve used on crossroad $\geq$ that required by the selected design speed of crossroad?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
n. Are crossroad approach grades through ramp/crossroad intersections $\leq$ 2%?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o. Are ramp/crossroad intersections located on a tangent section of crossroad alignment?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
p. Is decision sight distance available in advance of exit gore?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
q. Is clear recovery area available beyond gore nose?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
r. Level of service:				
• Exit terminal _____		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Entrance terminal _____		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Ramp proper _____		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Weaving area _____		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Ramp/crossroad intersection		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Design Criteria			Does the proposed design meet IDOT criteria?		
			Yes	No*	N/A
s. Freeway lane drops	Location	Upgrade	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Downgrade	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Inside Lane	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Outside Lane	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		At Exit Terminal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Beyond Exit Terminal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Taper Length	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Prepared By: D. Shannon, Lochner  
 Designer (IDOT or Consultant)

\*See Section 31-8 of *BDE Manual*.

**Project Identification**

Local Agency: Village of River Forest County: Cook  
(County, Municipality, Road District / Township)

Section No.: 06 - 00086 - 00 - BR Route: IL 43

Street/Road Name: Harlem Avnue

Project Limits: From south of the intersection of Harlem Avenue and Circle Avenue to Westgate Street.

Project Length: 0.2 miles Functional Classification: Other Principal Arterial

Design Year: 2040 Design Traffic:  DHV 2,525  ADT \_\_\_\_\_

Existing Structure No.: 016-0310 Proposed Structure No.: 016-0666

**Project Scope of Work**

- a. Is this project located on the NHS?  Yes  No
- b. Is this project on a Strategic Regional Arterial (SRA) route?  Yes  No
- c. Funding  MFT/State Assistance  Federal
- d. Type of Work  New Construction  Reconstruction  3R
- e. Design Guidelines  Urban  Suburban  Rural  3R  Other \_\_\_\_\_

f. Provide a brief project description (major construction elements):  
 This project involves the improvement of Harlem Avenue under the Union Pacific RR bridge. The project includes the replacement of the RR bridge, the lowering and reconstruction of Harlem Avenue and the affected portions of four intersecting streets.

This design criteria applies to Circle Avenue, South Boulevard, North Boulevard and Central Avenue. Circle Avenue, North Boulevard and South Boulevard are classified as local streets and Central Avenue is a classified as a collector. Harlem Avenue was designed using BDE criteria that are detailed in a separate Design Criteria Checklist.

**District Coordination Meetings**

Has project been previously discussed at district coordination meetings?  
 (If yes, attach minutes of variance approvals)  Yes  No

Dates: 04/13/10

Exhibit 2-1, Sheet 11 of 16

### Level One Design Variance Approval

Local Agency: River Forest

Section No.: 06-00086-00-BR

Design Criteria for Project (Provide numerical value where indicated)	BLR&S Criteria	Variance Yes    No		Summary of Variance and Justification
1. Design Speed: 30 mph	30	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 32-2H
2. Level of Service (Mainline): D	D	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 32-2H
3. Lane Widths				
a. Through Lanes: <u>10 to 15</u> feet	12 feet	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The project is in a densely developed urban area. 10' lanes provided on Central due to the proximity of the building and railroad viaduct. 11' lanes provided on Circle and South due to restricted right of way. 11' lane provided on North due to restricted intersection geometrics. BLR 32-2H BLR 32-2H
b. Turn Lanes: 10 feet	10 feet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Parking Lanes: 9 feet	8 feet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Bike Lanes: _____ feet	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Through Travel Lane Cross Slopes				
Inside Lane: 2 %	1.5%-2%	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 32-2H
Outside Lane: 2 % (if more than 2 lanes)	2%	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 32-2H
5. Shoulder Widths: _____ feet	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Horizontal Curvature (Minimum Radius)				
_____ feet	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>List curves not meeting criteria</b>				
<u>Sta.</u> <u>Radius</u> <u>Design Speed</u>		<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	
7. Superelevation Rates				
$e_{max}$ _____ %	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>List curves for which <math>e</math> does not meet criteria</b>				
<u>PI Sta.</u> <u>Radius</u> <u>e</u> <u>Design Speed</u>		<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	
8. Maximum Grade: 4.26 %	9%	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 32-3C
9. Minimum Intersection Sight Distance				
First car on each approach		<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 28-3.05
<b>List locations not meeting the criteria</b>				
<u>Cross Road</u> <u>Distance</u>		<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	
10. Minimum Stopping Sight Distance				
<u>200</u> feet	200	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 32-3C

### Level One Design Variance Approval

Local Agency: River Forest

Section No.: 06-00086-00-BR

<p>a. Crest Vertical Curves – Min. K value <u>21</u>  <b>List curves not meeting the criteria</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>VPI Sta.</u></th> <th style="text-align: left;"><u>Sight Distance</u></th> <th style="text-align: left;"><u>Design Speed</u></th> <th style="text-align: left;"><u>Curve Length</u></th> </tr> </thead> </table>	<u>VPI Sta.</u>	<u>Sight Distance</u>	<u>Design Speed</u>	<u>Curve Length</u>	19	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 32-3C																
<u>VPI Sta.</u>	<u>Sight Distance</u>	<u>Design Speed</u>	<u>Curve Length</u>																					
<p>b. Sag Vertical Curves – Min. K value _____  <b>List curves not meeting the criteria</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>VPI Sta.</u></th> <th style="text-align: left;"><u>Sight Distance</u></th> <th style="text-align: left;"><u>Design Speed</u></th> <th style="text-align: left;"><u>Curve Length</u></th> </tr> </thead> <tbody> <tr> <td>Circle</td> <td>&gt; 200 feet</td> <td>30</td> <td>90</td> </tr> <tr> <td>South</td> <td>&gt; 200 feet</td> <td>30</td> <td>90</td> </tr> <tr> <td>Central</td> <td>&gt; 200 feet</td> <td>30</td> <td>110</td> </tr> <tr> <td>North</td> <td>&gt; 200 feet</td> <td>30</td> <td>110</td> </tr> </tbody> </table>	<u>VPI Sta.</u>	<u>Sight Distance</u>	<u>Design Speed</u>	<u>Curve Length</u>	Circle	> 200 feet	30	90	South	> 200 feet	30	90	Central	> 200 feet	30	110	North	> 200 feet	30	110	37	<input type="checkbox"/>	<input type="checkbox"/>	BLR 32-3C
<u>VPI Sta.</u>	<u>Sight Distance</u>	<u>Design Speed</u>	<u>Curve Length</u>																					
Circle	> 200 feet	30	90																					
South	> 200 feet	30	90																					
Central	> 200 feet	30	110																					
North	> 200 feet	30	110																					
<p>c. Inside of Horizontal Curves  <b>List curves not meeting the criteria</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Sta.</u></th> <th style="text-align: left;"><u>Sight Distance</u></th> <th style="text-align: left;"><u>Design Speed</u></th> <th style="text-align: left;"><u>Radius</u></th> </tr> </thead> </table>	<u>Sta.</u>	<u>Sight Distance</u>	<u>Design Speed</u>	<u>Radius</u>		<input type="checkbox"/>	<input type="checkbox"/>																	
<u>Sta.</u>	<u>Sight Distance</u>	<u>Design Speed</u>	<u>Radius</u>																					
11. Clear Roadway Bridge Widths: _____ feet																								
	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>																					
12. Freeboard Above Design High Water: _____ feet																								
	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>																					
13. Vertical Clearances:																								
<input type="checkbox"/> Over Roadway/RR _____ feet	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>																					
<input type="checkbox"/> Under Structure _____ feet	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>																					
14. Accessibility Criteria for Disabled Persons <b>List any feature not meeting ADA Criteria</b>																								
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 41-6																				
15. Roadside Clear Zone:																								
a. Tangent <u>1.5</u> feet	1.5 feet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 32-2H																				
b. Outside of Curve _____ <b>List criteria for each radius</b>		<input type="checkbox"/>	<input type="checkbox"/>																					
<u>Radius (ft)</u>		<input type="checkbox"/>	<input type="checkbox"/>																					
<u>Clear Zone (ft)</u>		<input type="checkbox"/>	<input type="checkbox"/>																					
16. Intersection(s) Level of Service: <u>D</u>																								
	D	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 32-2H																				
17. Warrants for Stop Signs or Signals																								
<u>Cross Road</u>	<u>Warrant</u>																							
Circle/South	1, 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>																					
Central/North	1, 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>																					
		<input type="checkbox"/>	<input type="checkbox"/>																					
18. Pavement Design (list any variance to policy)																								
		Exhibit 2-1																						

**Level One Design Variance Approval**

Local Agency: River Forest Section No.: 06-00086-00-BR

(Pavement designed in Phase II)

Prepared By: D. Shannon, Lochner

Date: 11/4/2012

Designer (Local Agency or Consultant)

When Prepared by Consultant

Local Agency Concurrence: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
IDOT Regional Engineer Concurrence

\_\_\_\_\_  
Date

\_\_\_\_\_  
Central BLR&S Approval

\_\_\_\_\_  
Date

## Level Two Design Variance Approval

Local Agency: Village of River Forest

Section No.: 06-00086-00-BR

Design Criteria for Project (Provide numerical value where indicated)	BLR&S Criteria	Variance		Summary of Variance and Justification
		Yes	No	
1. Design Period: <u>20</u> years	20 years	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 32-2H
<b>2. Horizontal Alignment (Mainline)</b>				
a. Minimum Superelevation Transition Lengths: _____ feet	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Superelevation Distribution Between Tangent and Curve: _____	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>3. Vertical Alignment (Mainline)</b>				
a. Minimum Grade of Urban Cross Section <u>0.3</u> %	0.3%	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Minimum Length of Vertical Curves <u>90</u> feet	90	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 30-2.01(b)
c. Maximum K value of Vertical Curves <u>80</u> (for curbed facilities)	167	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 30-2.01(b)
<b>4. Cross Section Elements (Mainline)</b>				
a. Design of Parking Lanes • Cross Slope: <u>2</u> %	2 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 32-2H
b. Design of Sidewalks • Width: <u>5</u> feet • Buffer Distance: <u>0</u> feet	4 feet 2 feet	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	BLR 32-2H No buffer is provided in some areas due to restricted right of way.
• Cross Slope: <u>2</u> % • Longitudinal Grades: <u>4.3</u> %	2% max. 5% max.	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	BLR 41-6.06(a) BLR 41-6.06(a)
c. Median • Type: • Width: _____ feet	N/A N/A	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
d. Shoulder Cross Slopes: _____ %	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Rollover Factor _____ %	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Curb and Gutter Type <u>B-6.12</u>	B-6.12	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 32-2H
g. Roadway Element • Steepest Front Slopes: _____ (H:V) • Steepest Back Slopes: _____ (H:V)	N/A N/A	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
<b>5. Drainage (Flood Frequency)</b>				
a. Pavement: <u>10</u> years	10 years	<input type="checkbox"/>	<input checked="" type="checkbox"/>	38-2.02
b. Structure: _____ years	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Storm Sewer: <u>10</u> years	10 years	<input type="checkbox"/>	<input checked="" type="checkbox"/>	38-2.02
<b>6. Intersections</b>				
a. Level of Service for Individual Movement: • Through Lanes: <u>D</u> • Turn Lanes: <u>D</u>	D D	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	BLR 32-2H BLR 32-2H
b. Skew Angle: <u>90</u> Degrees	75 Degrees	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 34-1.01(a)
c. Approach Grades: <u>2</u> %	4%	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 34-1.02(a)
d. Design Vehicle: <u>WB-50/SU/P</u>	WB-50	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Variance discussed in BDE Form 2600.

Exhibit 2-1

### Level Two Design Variance Approval

Local Agency: Village of River Forest Section No.: 06-00086-00-BR

e. Turning Radius for Design Vehicle: <u>50'</u>		<input type="checkbox"/>	<input checked="" type="checkbox"/>													
f. Minimum Corner Island Size: _____	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
g. Minimum Turn Lane Length _____ feet	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
• Approach Taper: _____ feet	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
• Departure Taper: _____ feet	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
• Bay Taper: _____ feet	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
h. Entrances																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; font-size: x-small;">Entrance Type</th> <th style="text-align: left; font-size: x-small;">Max. Width (ft.)</th> <th style="text-align: left; font-size: x-small;">Min. Width (ft.)</th> <th style="text-align: left; font-size: x-small;">Max. Grade(%)</th> </tr> </thead> <tbody> <tr> <td>Commercial</td> <td>_____</td> <td><u>24'</u></td> <td><u>1%</u></td> </tr> <tr> <td>Residential</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>	Entrance Type	Max. Width (ft.)	Min. Width (ft.)	Max. Grade(%)	Commercial	_____	<u>24'</u>	<u>1%</u>	Residential	_____	_____	_____				
Entrance Type	Max. Width (ft.)	Min. Width (ft.)	Max. Grade(%)													
Commercial	_____	<u>24'</u>	<u>1%</u>													
Residential	_____	_____	_____													
7. RR Crossings																
a. Type of Railroad Protection: _____	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
b. Crossing Width (at 90° angle) _____ feet	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
8. Lighting																
a. Illuminance _____ lux		<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 41-7.02												
b. Uniformity Ratio _____		<input type="checkbox"/>	<input checked="" type="checkbox"/>	BLR 41-7.02												
9. Other Items _____																
		<input type="checkbox"/>	<input type="checkbox"/>													

Prepared By: D. Shannon, Lochner  
Designer (Local Agency or Consultant)

Date: 11/4/2012

When Prepared by Consultant  
 Local Agency Concurrence: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
IDOT Regional Engineer Concurrence

\_\_\_\_\_  
Date

\_\_\_\_\_  
Central BLR&S Approval

\_\_\_\_\_  
Date



Municipality River Forest/Oak Park  
 County Cook  
 Road District \_\_\_\_\_  
 Other Agency \_\_\_\_\_  
 Project \_\_\_\_\_  
 Section 06-00086-00-BR



**Illinois Department  
of Transportation**

**Preliminary Bridge Design  
and Hydraulic Report**

Route FAU 348  
 Stream U.P. RR  
 Ex. St. No. 016-0310  
 Pr. St. No. 016-0666  
 Prepared by H.W. Lochner, Inc.  
 Agency/Firm Village of River Forest  
 Date 04/20/2012

Funding Type:  HBP  STU  STR  Enhancement  
 TBP  MFT  Non-MFT  Other ( HPP )

Sufficiency Rating N/A Existing clear span length 24'-6" (2)  
 Functionally Obsolete  Yes  No  
 Structurally Deficient  Yes  No

**Construction Information**

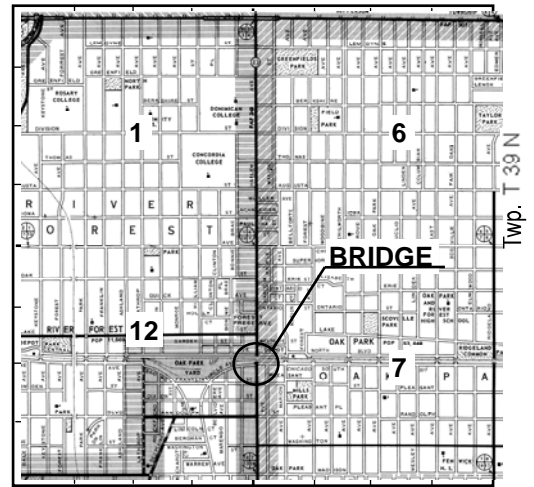
Proposed Letting Date Unknown

Shop Plan Review by  Local Agency  Consultant  State  
 Fabrication Inspection by  Local Agency  Consultant  State

**Approach Roadway Information**

Surface Type: Existing PCC Proposed PCC  
 Surface Width: Existing 48' Proposed 50'  
 Shldr to Shldr Width: Existing N/A Proposed N/A  
 Elevation of Low Point: Existing N/A Proposed N/A  
 Proposed Side Slopes N/A  
 Roadway Functional Classification Other Principle Arterial  
 DHV 2460 Current ADT 33,500 Design Year ADT 35,000  
 % Trucks 1 Design Speed 35 mph  
 3R Design Guidelines Used  Yes  No

Range R 12 E, 3<sup>rd</sup> PM Range R 13 E, 3<sup>rd</sup> PM



Locate bridge accurately above

**Proposed Structure Information**

Type of Structure Proposed  Bridge  Culvert  "Standard Plans" Bridge  Pedestrian/Bicycle  
 Vehicle Design Loading Cooper E80 Pedestrian/Bicycle Design Loading \_\_\_\_\_  
 Superstructure Type six steel thru-girders with closely spaced floorbeam floor system  
 Structure Length Back to Back Abutments 78'-0" Span Length 73'-0"  
 Clear Roadway Width 99'-10" Rail Type Railroad safety rail Crash Tested Rail Required  Yes  No  
 Wearing Surface Type Railroad Ballast Deck Wearing Surface Thickness 9" ballast below ties  
 Deicing Agents Used  Yes  No  
 Embankment Slope Under Bridge N/A Proposed Skew Angle 0°33'03' Forward on.  Rt.  Lt.  
 Pier Type N/A Abutment Type Tangent pile wall  
 Proposed Pile Type 4'-diameter drilled shafts  
 Borings By Geo Services, Inc. Expected Submittal Date for Borings 6/17/2009

**Hydraulic Data**

Exist. Br. Cr. El. \_\_\_\_\_ @ Sta. \_\_\_\_\_ Prop. Br. Cr. El. \_\_\_\_\_ @ Sta. \_\_\_\_\_  
 Exist. Low Beam Elev. \_\_\_\_\_ Proposed Low Beam Elev. \_\_\_\_\_  
 Exist. Freeboard \_\_\_\_\_ Proposed Freeboard \_\_\_\_\_ Streambed Elev. \_\_\_\_\_  
 Drainage Area \_\_\_\_\_ Crossing Location  Rural  Urban  
 Crossing Located within a Mapped National Flood Insurance Program Area  Yes  No (Map No. \_\_\_\_\_ )  
 Crossing Located within a Northeast Region (District #1) FEMA Mapped Floodway  Yes  No  
 Crossing Located over designated "Public Bodies of Water"  Yes  No  
 Design Flood Data  
 Design Flood Frequency \_\_\_\_\_ Design Discharge \_\_\_\_\_ Design High Water Elev. \_\_\_\_\_  
 Exist. Br. Opening \_\_\_\_\_ Exist. Over-the-Road \_\_\_\_\_  
 Prop. Br. Opening \_\_\_\_\_ Prop. Over-the-Road \_\_\_\_\_  
 100 Year Flood Data  
 100 Year Discharge \_\_\_\_\_ 100 Year High Water Elev. \_\_\_\_\_  
 Exist. Br. Opening \_\_\_\_\_ Exist. Over-the-Road \_\_\_\_\_ Exist. Created Head \_\_\_\_\_  
 Prop. Br. Opening \_\_\_\_\_ Prop. Over-the-Road \_\_\_\_\_ Prop. Created Head \_\_\_\_\_

If proposed structure and over-the-road area will not carry entire flow, state kind and area of additional waterway

Type of Streambed soil \_\_\_\_\_ Will drift or ice permit pier in channel?  Yes  No  
Has scour occurred at or near existing structure?  Yes  No; If yes, reason for scour \_\_\_\_\_

Comments on hydraulic adequacy of existing structure \_\_\_\_\_

Has the existing structure been the cause of demonstrable flood damage to adjacent property?  Yes  No  
If yes, describe damage \_\_\_\_\_

Comments on the hydraulic adequacy of upstream and downstream structures and their comparable relationship to the proposed structure \_\_\_\_\_

Will houses, places of business or valuable property be affected by backwater from the proposed bridge?  Yes  No  
If yes, describe property and effect of backwater \_\_\_\_\_

Is any channel excavation beyond that required to construct the substructure required in the channel?  Yes  No  
If yes, describe extent of channel excavation \_\_\_\_\_

Will a channel realignment be required?  Yes  No (If yes, attach Channel Change Sketch)  
Are stream flow data (gaging station or flood study) available for the stream at or near the proposed site?  Yes  No  
(If yes, attach an analysis of the stream flow data)  
Provide information regarding high water from other streams, reservoirs, flood control projects, proposed channel changes, strip mine areas or other controls affecting the hydraulic or hydrologic properties of the crossing site \_\_\_\_\_

### Scour Analysis

Was a HEC-18 scour analysis performed?  Yes  No  
Were all substructure units being utilized evaluated to consider the effect of anticipated scour?  Yes  No  
Will scour protection or corrective actions be required?  Yes  No  
If yes, describe protection or corrective actions. \_\_\_\_\_

### Attachments (Check those items below that are included.)

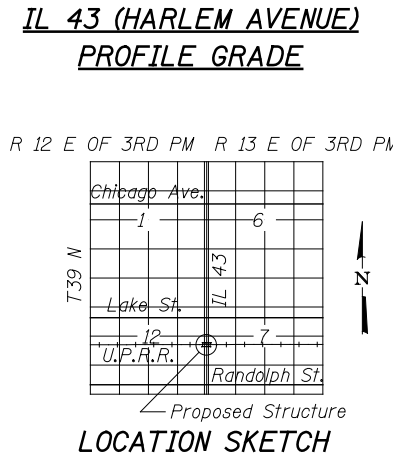
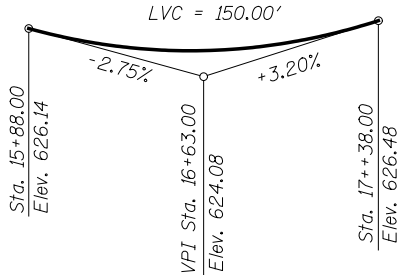
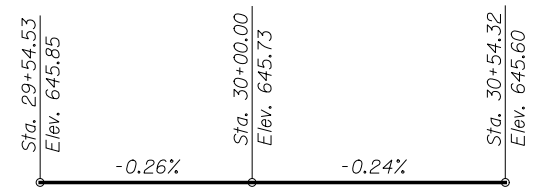
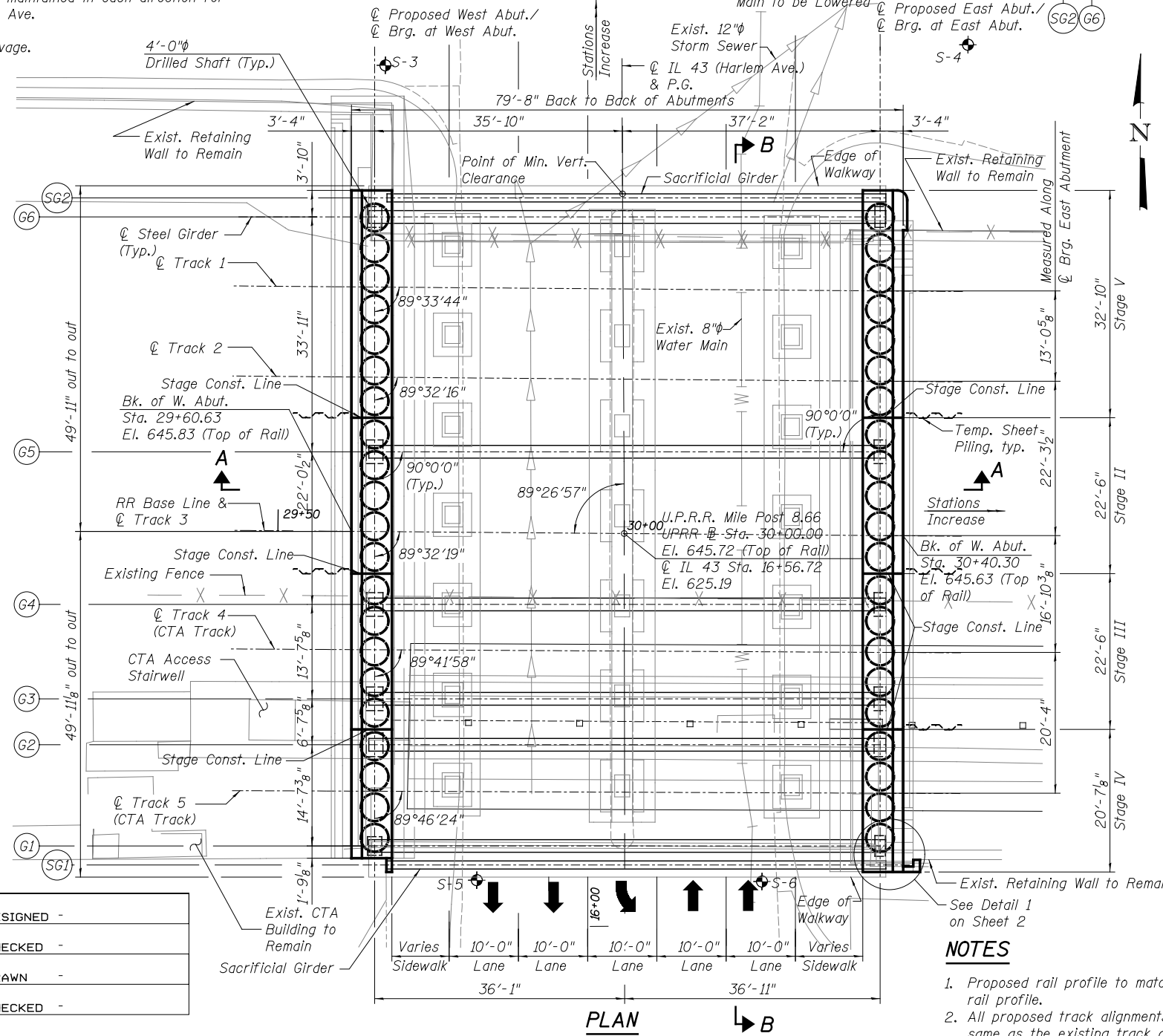
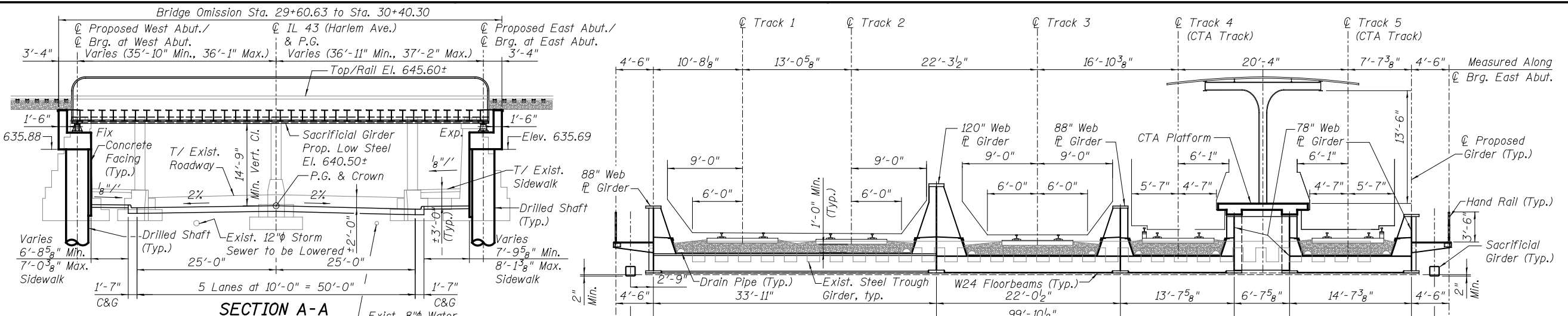
- Reproduction of applicable portion of USGS quadrangle showing locations of proposed bridge and properties affected by backwater caused by the proposed structure
- Cross sections as required by WSPRO including floodplain above high water elevation
- Streambed profile
- Profile of existing and proposed roadway across floodplain
- Hydraulic calculations
- Joint Application Form for construction permit submittals (Joint Form NCR-426)
- Waterway sketch
- Channel change sketch
- Applicable certification(s)
- Boring data
- Scour analysis/evaluation
- Other Proposed structure drawings and cross sections

Bench Mark:  
Control point #126 set at Sta. 14+80.53,  
39.81 Lt., Elev. 629.02; Point PK Nail;  
Control point #102 set at Sta. 19+99.20,  
34.49 Rt., Elev. 631.60; Pont Chiseled Cross.

Existing Structure:  
The existing structure, SN 016-0310, is a  
four-span steel trough girder with  
cast-in-place concrete deck slab bridge Elev. 635.88  
build in 1911. The total length of the  
bridge (between  $\odot$  bearings) is approximately  
70'-4". Individual spans  
measure approximately 12', 23', 23' and 12'.  
The out-to-out deck dimension is  
approximately 88'. The substructure  
consists of unreinforced concrete full  
height abutments and steel column piers. The  
abutments and piers are supported on spread  
footings resting on dense soil.

Staging:  
Stage construction with one lane of stage  
traffic maintained in each direction for  
Harlem Ave.

No Salvage.



**HIGHWAY CLASSIFICATION**

FAP 348 (IL 43)  
Function Class: Other Principle Arterial  
ADT: 33,500 (2008); 35,000 (2040)  
ADTT: 6%  
DHW: 2,500 (2040)  
Design Speed: 35 m.p.h.  
Posted Speed: 30 m.p.h.  
Directional Distribution: (45:55) (NB:SB)

**DESIGN SPECIFICATIONS**

BNSF - Union Pacific Railroad Guidelines for  
Railroad Grade Separation Projects, 2007 Edition;  
AREMA, 2010 Edition

**DESIGN CRITERIA**

Cooper E80 plus impact for equipment without  
hammer blow

**DESIGN STRESSES**

REINFORCED CONCRETE  
 $f_y = 60,000$  psi (Reinforcement)  
 $f'_c = 5,000$  psi  
STRUCTURAL STEEL  
 $f_y = 50,000$  psi (M270 Grade 50) - Galvanized

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.04g  
Site Coefficient (S) = 1.0

**LEGEND**

Soil Boring Location

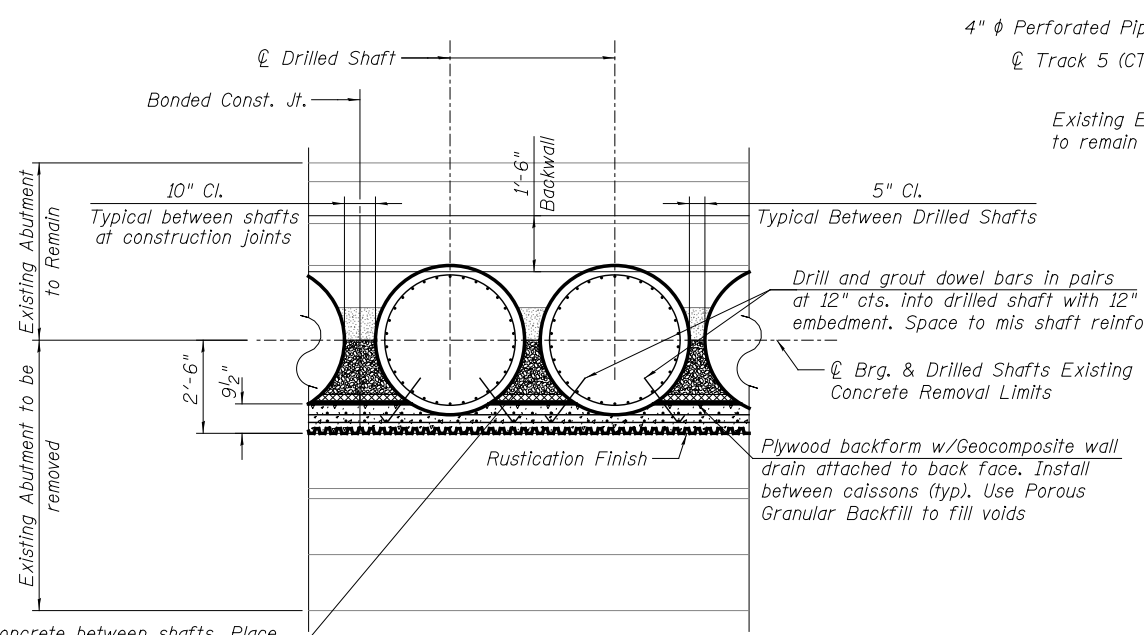
**GENERAL PLAN AND ELEVATION  
CTA & UNION PACIFIC RAILROAD  
OVER IL 43, HARLEM AVENUE  
SECTION 06-00086-00 BR  
COOK COUNTY  
STATION 16+56.72  
STRUCTURE NO. 016-0666**

DESIGNED -	
CHECKED -	
DRAWN -	
CHECKED -	

- NOTES**
- Proposed rail profile to match existing rail profile.
  - All proposed track alignments remain same as the existing track alignments.

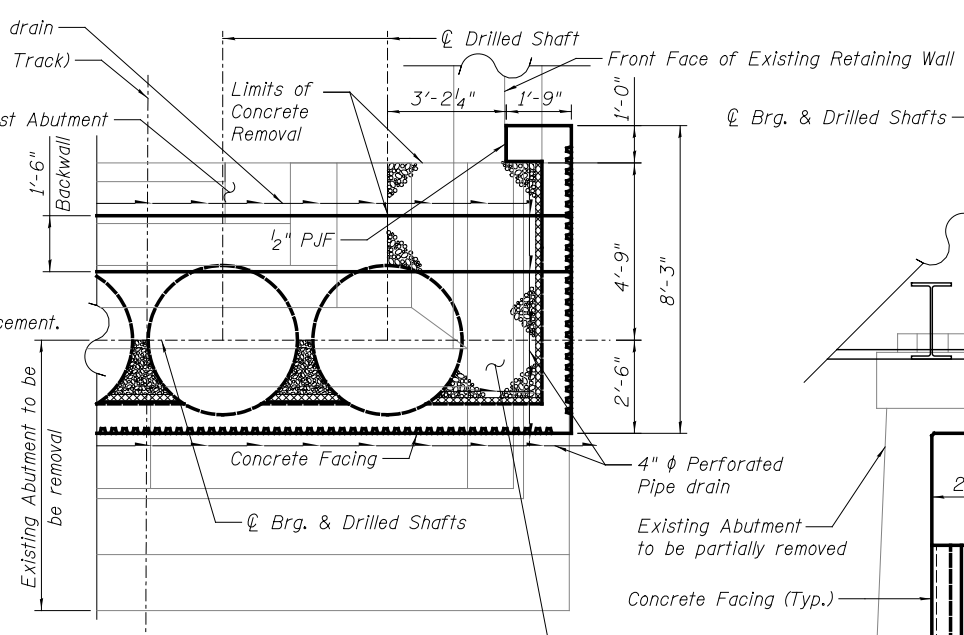
**LOCHNER**  
H.W. LOCHNER, INC.  
CONSULTING ENGINEERS & PLANNERS  
20 NORTH WACKER DRIVE SUITE 1200  
CHICAGO, IL 60606

SHEET NO.  SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		06-00086-00 BR	COOK	5	1
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	CONTRACT RR-07-5529	



Remove loose concrete between shafts. Place plywood with Geocomposite and backfill voids with Porous Granular Backfill

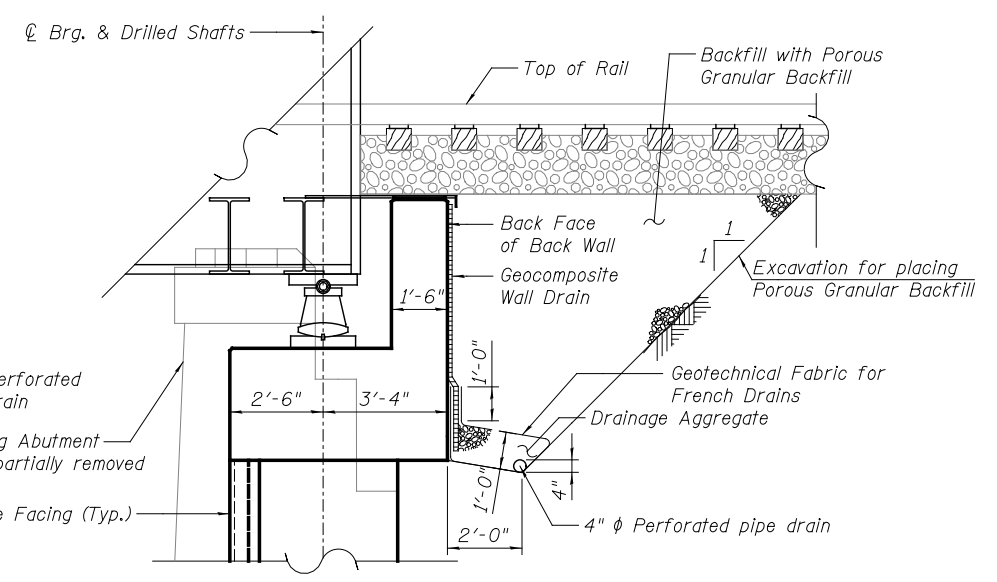
**TYPICAL CONCRETE FACING DETAIL**



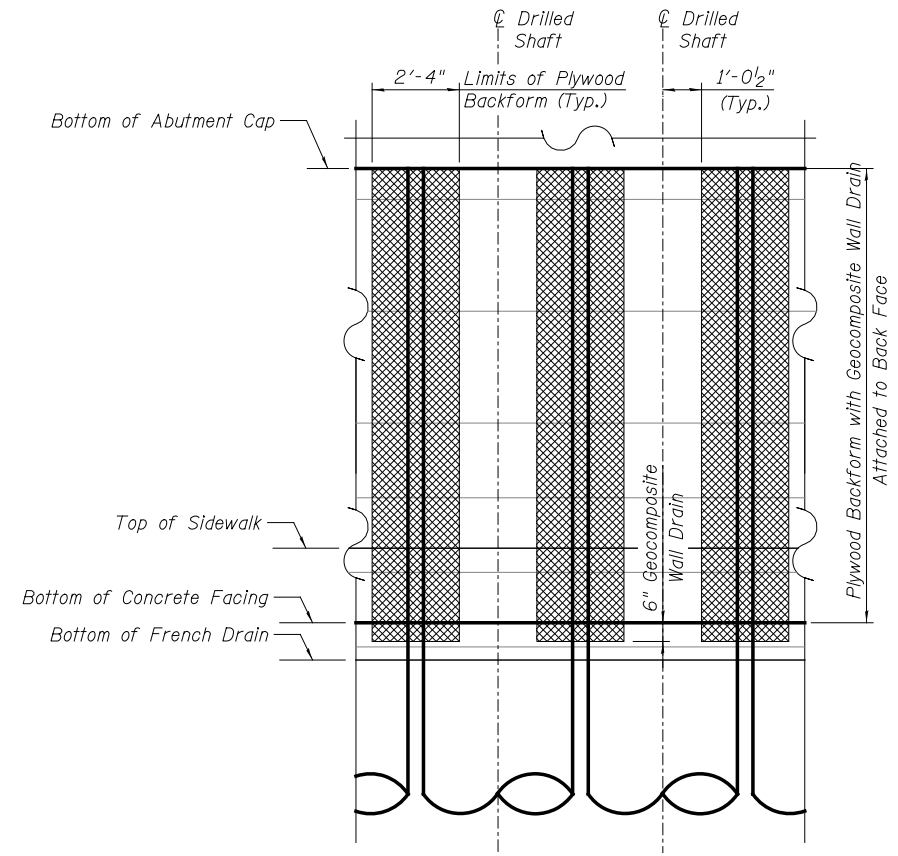
Remove existing concrete at exterior shaft. Place Geocomposite and backfill voids with Porous Granular Backfill

**DETAIL 1**

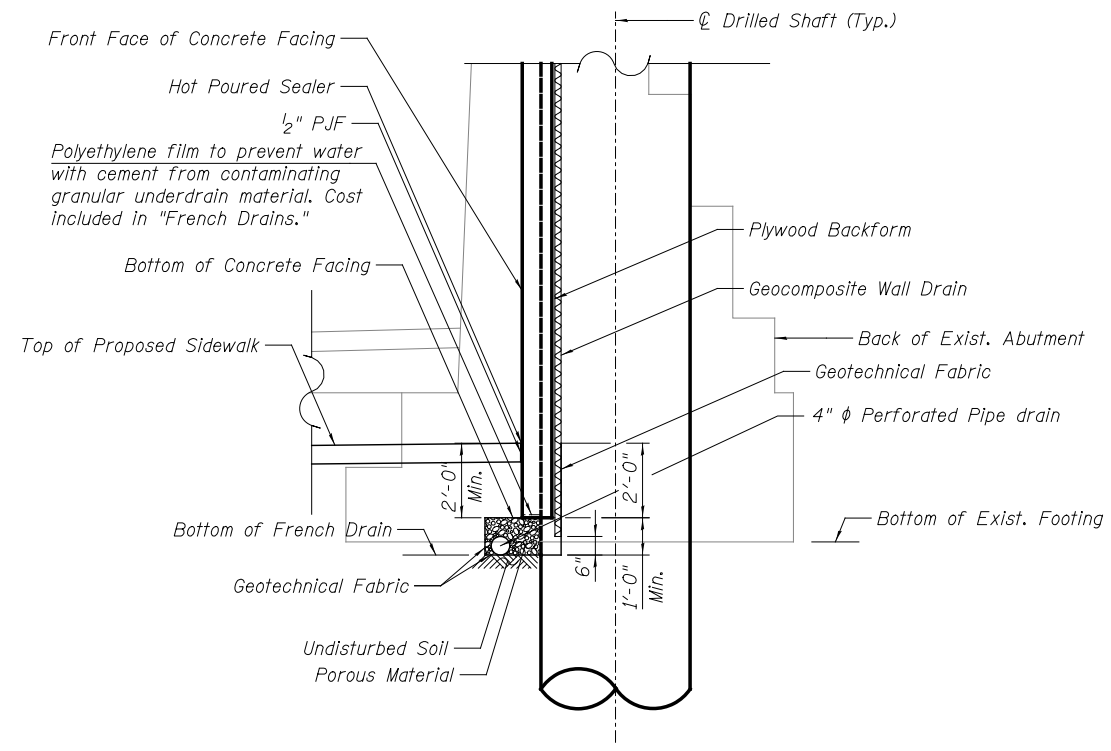
(See Sheet 1 of 5 for Location)



**SECTION THRU ABUTMENT**



**ABUTMENT DRAINAGE DETAIL**



**TYPICAL DRAINAGE DETAIL**

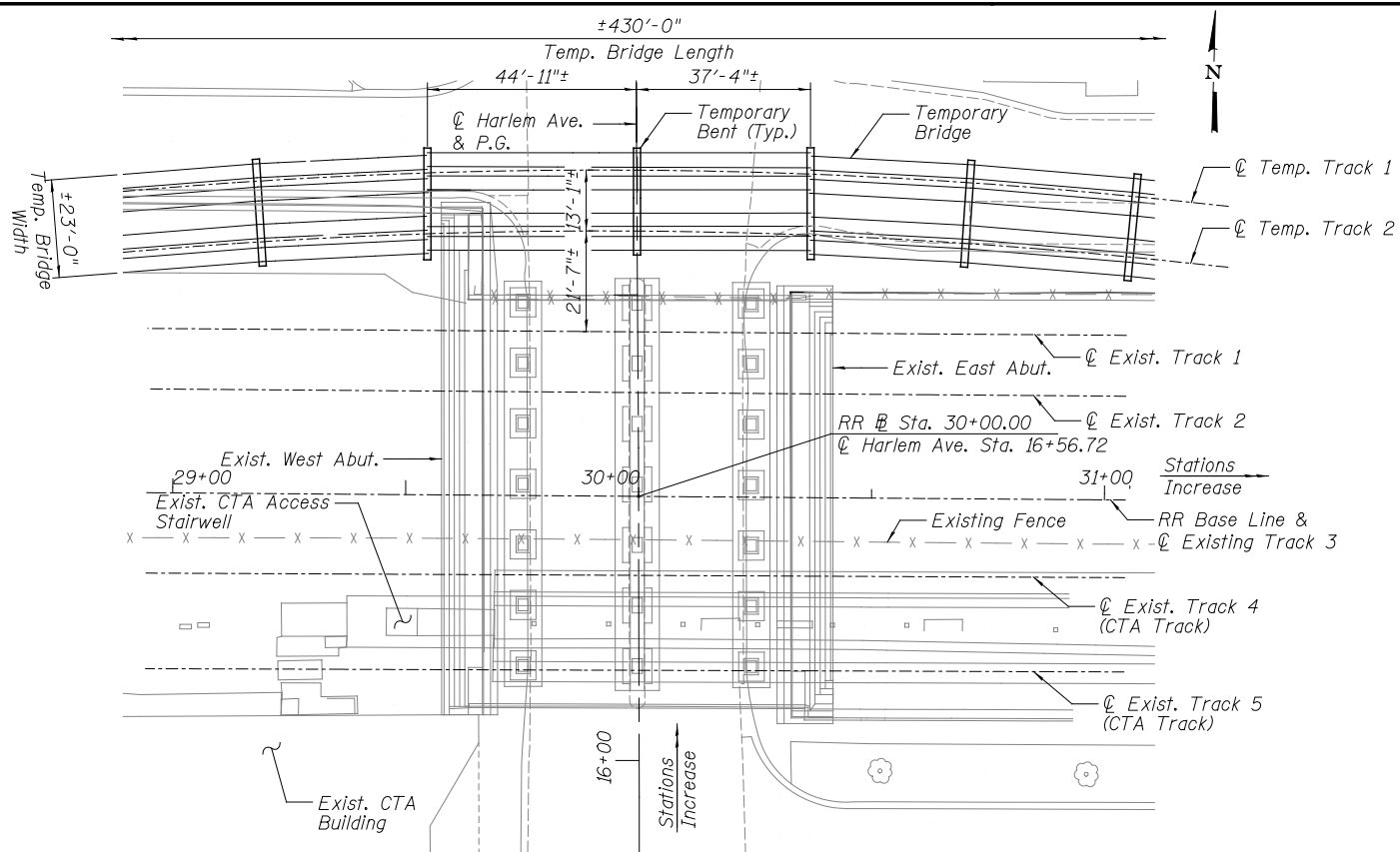
**TYPICAL DETAILS  
CTA & UNION PACIFIC RAILROAD  
OVER IL 43, HARLEM AVENUE  
SECTION 06-00086-00 BR  
COOK COUNTY  
STATION 16+56.72  
STRUCTURE NO. 016-0666**

DESIGNED -	
CHECKED -	
DRAWN -	
CHECKED -	

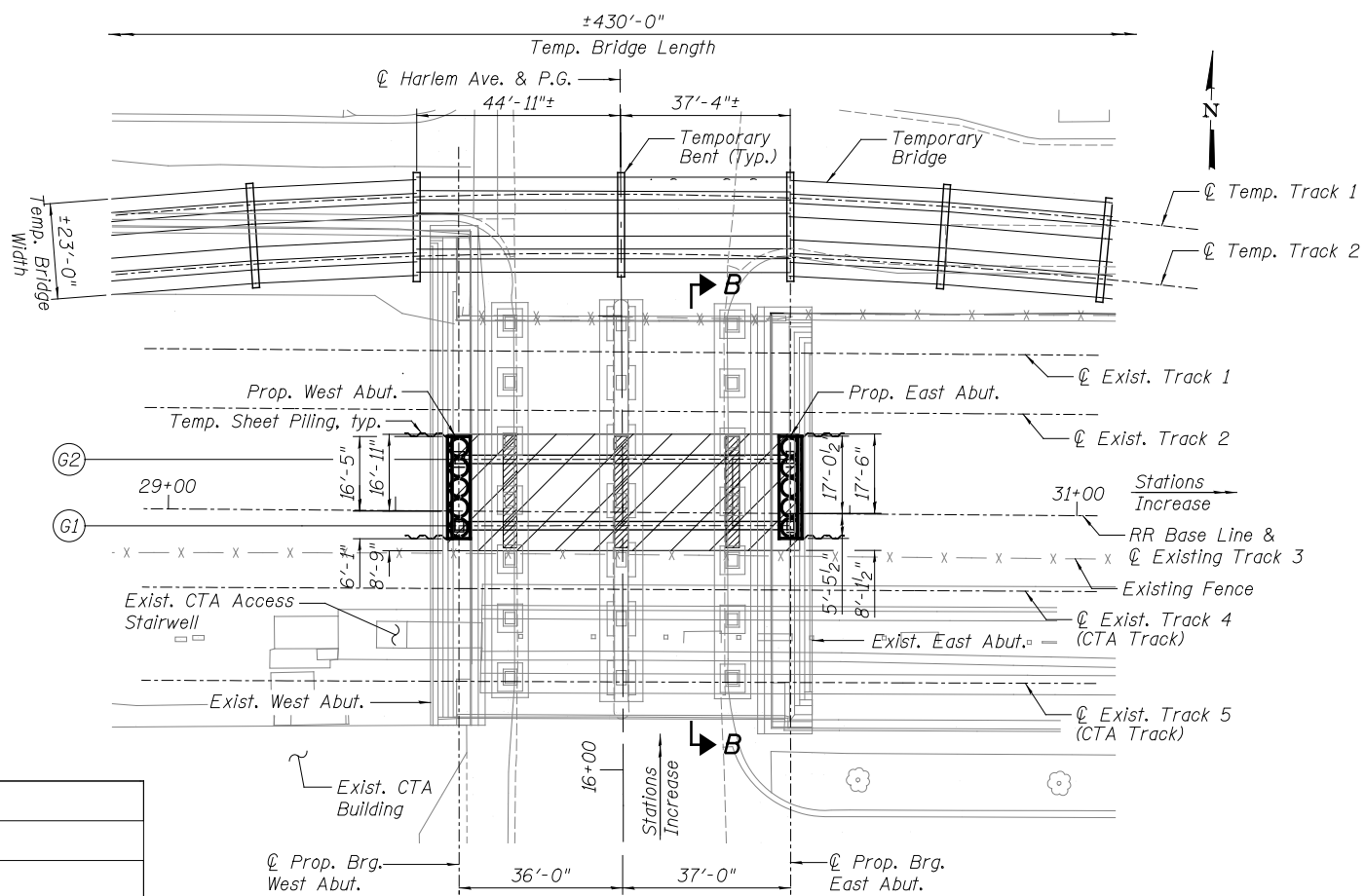
**LOCHNER**  
H.W. LOCHNER, INC.  
CONSULTING ENGINEERS & PLANNERS  
20 NORTH WACKER DRIVE SUITE 1200  
CHICAGO, IL 60606

SHEET NO.	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		06-00086-00 BR	COOK	5	2
SHEETS	CONTRACT			RR-07-5529	
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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**STAGE I**



**STAGE II**

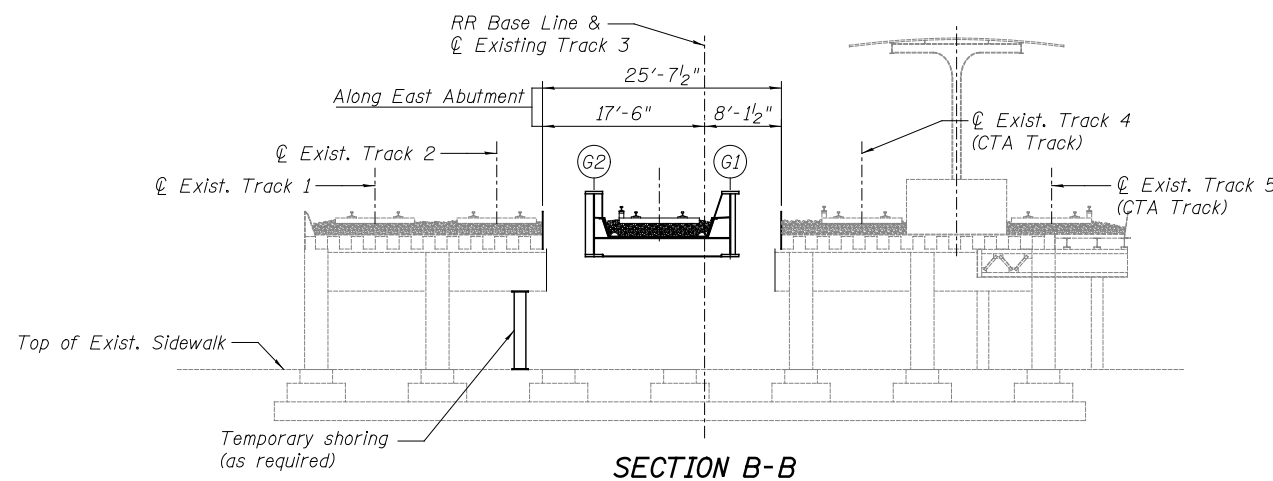
**PRELIMINARY**

1. Contractor must prepare and submit a detailed staging schedule to Union Pacific Railroad, Chicago Transit Authority, Illinois Department of Transportation and Village of River Forest for approval.

The following is a general outline of the major work items anticipated:

**STAGE I**

1. Prior to any reduction in vertical clearance, the existing Harlem Avenue roadway pavements will be removed and replaced with a temporary pavement ±2.5 feet lower than existing roadway pavements, one lane in each direction.
2. Both existing 12"Ø storm sewer and 8"Ø water main will be lowered prior to the construction of proposed Harlem Avenue roadway pavements.
3. Construct a temporary trestle bridge north of the existing railroad overpass bridge to support two temporary run-around tracks. The temporary bridge is approximately 23 feet wide and 430 feet long.
4. Shift railroad traffic from the Existing Track 1 and Track 2 to the two temporary run-around tracks. Shift railroad traffic from the Existing Track 3 to Track 2.

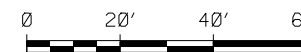


**STAGE II**

1. Remove portion of the Existing Track 3 within the existing bridge limits.
2. Remove part of the existing trough girder superstructure and existing column bents as indicated. Removal limits must not compromise the integrity of the remaining trough girder. Provide temporary shoring support under the existing pier cross girder if required.
3. Install temporary earth retention system behind the existing abutments as required. Excavate and expose the upper portion of the existing abutments for removal.
4. Remove upper portion of the existing abutments for the proposed abutment cap installation.
5. Install drilled shaft in accordance with Standard Specification 516. Contractor must install the drilled shaft in such a sequence that does not compromise the stability of the proposed and existing abutment.
6. Construct the proposed abutment caps. Backfill porous granular materials behind the new abutment.
7. Erect proposed girders G1 & G2 that supports track 5 at the designated location. Complete track work within proposed bridge limits.

**LEGEND**

Exist. Structure Removal



SCALE: 1" = 20'-0"

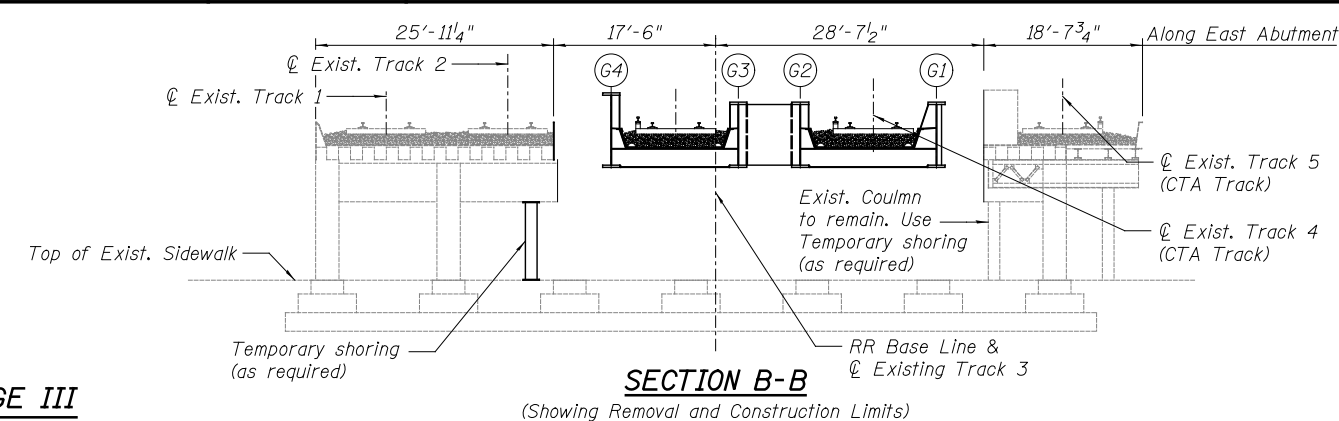
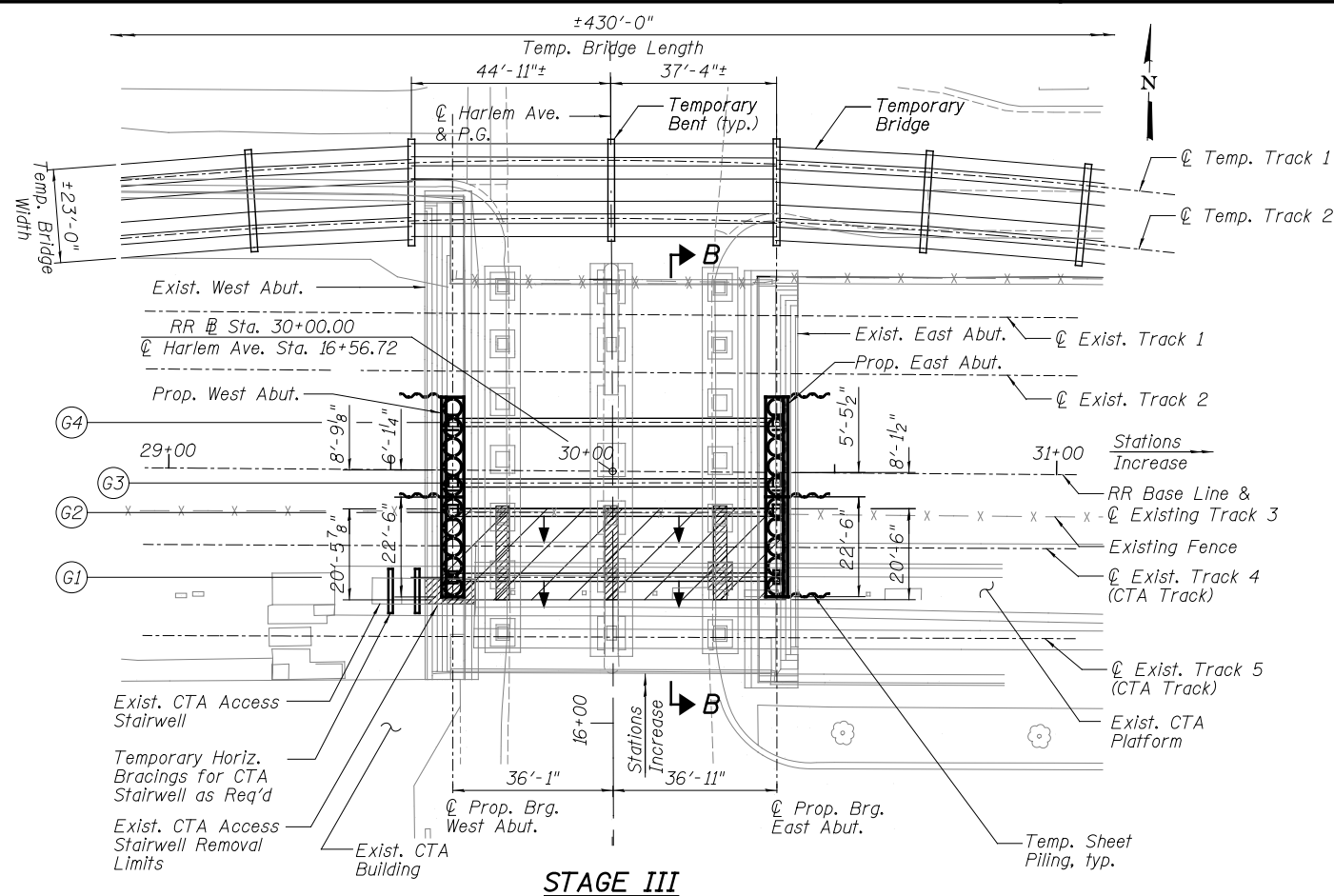
**CONSTRUCTION STAGING I & II  
CTA & UNION PACIFIC RAILROAD  
OVER IL 43, HARLEM AVENUE  
SECTION 06-00086-00 BR  
COOK COUNTY  
STATION 16+56.72  
STRUCTURE NO. 016-0666**

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

**LOCHNER**

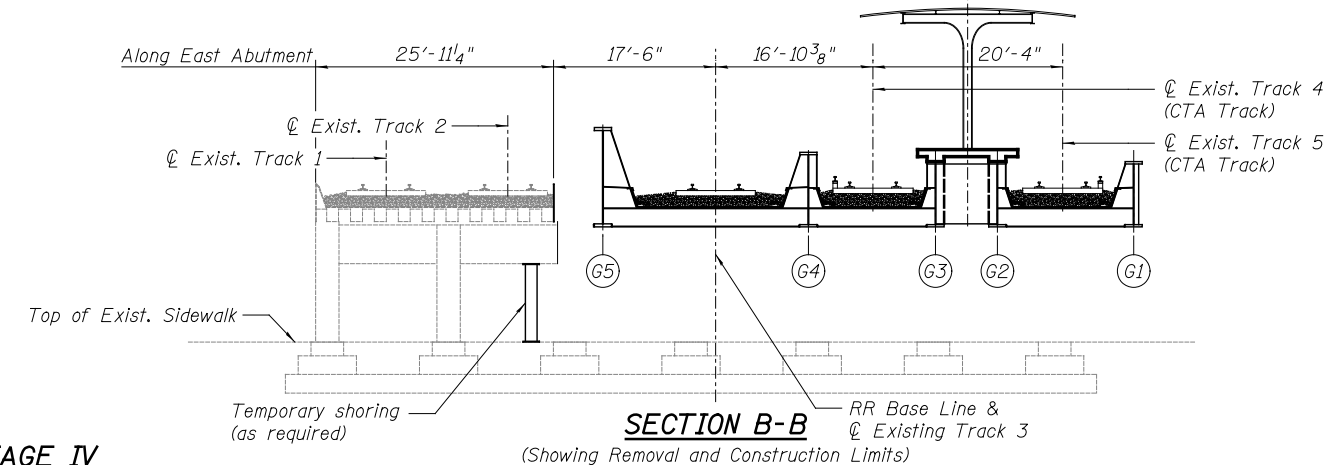
H.W. LOCHNER, INC.  
CONSULTING ENGINEERS & PLANNERS  
20 NORTH WACKER DRIVE SUITE 1200  
CHICAGO, IL 60606

SHEET NO.  SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT	
			CONTRACT RR-07-5529		



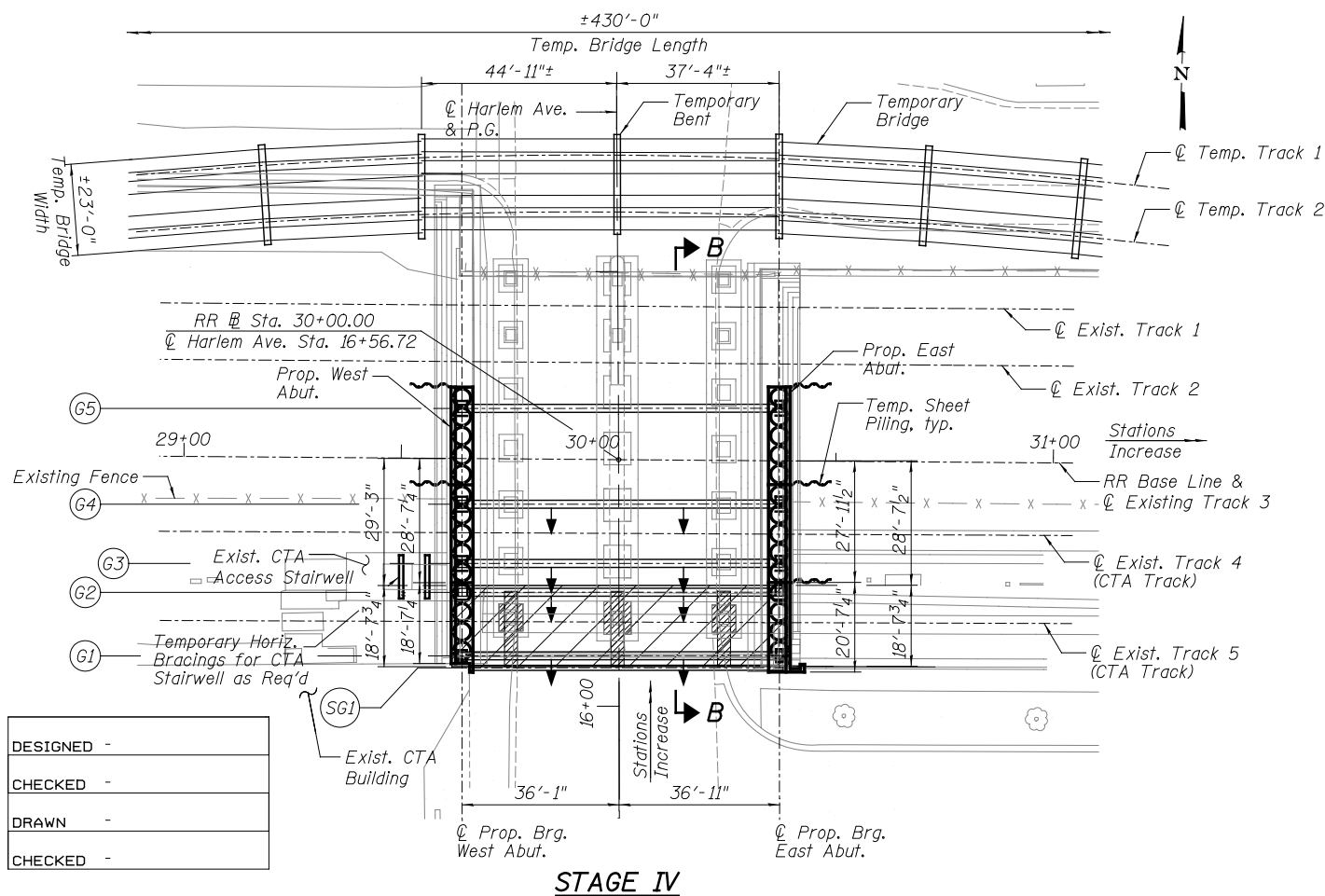
**STAGE III**

1. Close Track 4 (CTA Track) and keep Track 5 (CTA Track) in service.
2. Remove CTA canopy, portion of platform and access stairwell within the bridge limits. A temporary access walkway will be provided on the remaining existing structure for the CTA personnel to access the CTA building west of the existing bridge during construction. Remove trough girder superstructure that supports the existing Track 4 (CTA track) as indicated. Remove the existing column bents as indicated. Removal limits must not compromise the integrity of the remaining trough girder. Provide temporary shoring support under the existing pier cross girder if required.
3. Install the south temporary earth retention system as required. Modify the north temporary earth retention system installed at STAGE II to provide the earth lateral support. Contractor must provide horizontal bracing to the remaining portion of the CTA access stairwell to keep its structural integrity during the construction as required. Excavate and expose the upper portion of the existing abutments for removal.
4. Remove upper portion of the existing abutments and portion of the existing CTA Stairwell as required for the proposed abutment cap installation.
5. Install drilled shaft in accordance with Standard Specification 516. Contractor must install the drilled shaft in such a sequence that does not compromise the stability of the proposed and existing abutment.
6. Construct the proposed abutment caps. Backfill porous granular materials behind the new abutment. Remove the north temporary earth retention system.
7. Roll over the erected Girders G1 & G2 (from Stage II) due south and place them temporary to support Track 4 (CTA Track).
8. Open the existing Track 4 for the CTA rail traffic.
9. Erect the indicated proposed steel superstructure (G3 & G4 Girders) North of girders G1 & G2.

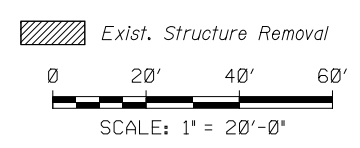


**STAGE IV**

1. Close Track 5 (CTA track) and re-route CTA trains on the existing Track 4 (CTA track).
2. Remove the south portion of the existing trough girder superstructure that supports the existing Track 5 (CTA track) as indicated. Remove the existing column bents as indicated.
3. Modify the south temporary earth retention system installed at STAGE III to provide the earth lateral support. After confirming the lateral earth pressure being properly supported by the remaining portion of the CTA access stairwell, excavate and expose the upper portion of the existing abutments for removal.
4. Remove upper portion of the existing abutments for the proposed abutment cap installation.
5. Install drilled shaft in accordance with Standard Specification 516. Contractor must install the drilled shaft in a sequence that does not compromise the stability of the proposed and existing abutment.
6. Construct the proposed abutment caps. Backfill porous granular materials behind the new abutment. Remove the south temporary earth retention system. Install the proposed girder bearings.
7. Close Track 4 (CTA Track) and roll over erected steel girders G1, G2, G3, and G4 to final girder location to support Track 4 & 5. Finish the track work.
8. Erect girder G5 and related structural members to support proposed Track 3. Erect the proposed CTA platform. Restore the CTA canopy structures. Reconstruct CTA access stairwell in kind as existing. Remove the temporary horizontal stairwell bracings if applicable.
9. Open the proposed Track 4 & 5 to the CTA rail traffic.



**LEGEND**



**CONSTRUCTION STAGING III & IV**  
**CTA & UNION PACIFIC RAILROAD**  
**OVER IL 43, HARLEM AVENUE**  
**SECTION 06-00086-00 BR**  
**COOK COUNTY**  
**STATION 16+56.72**  
**STRUCTURE NO. 016-0666**

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

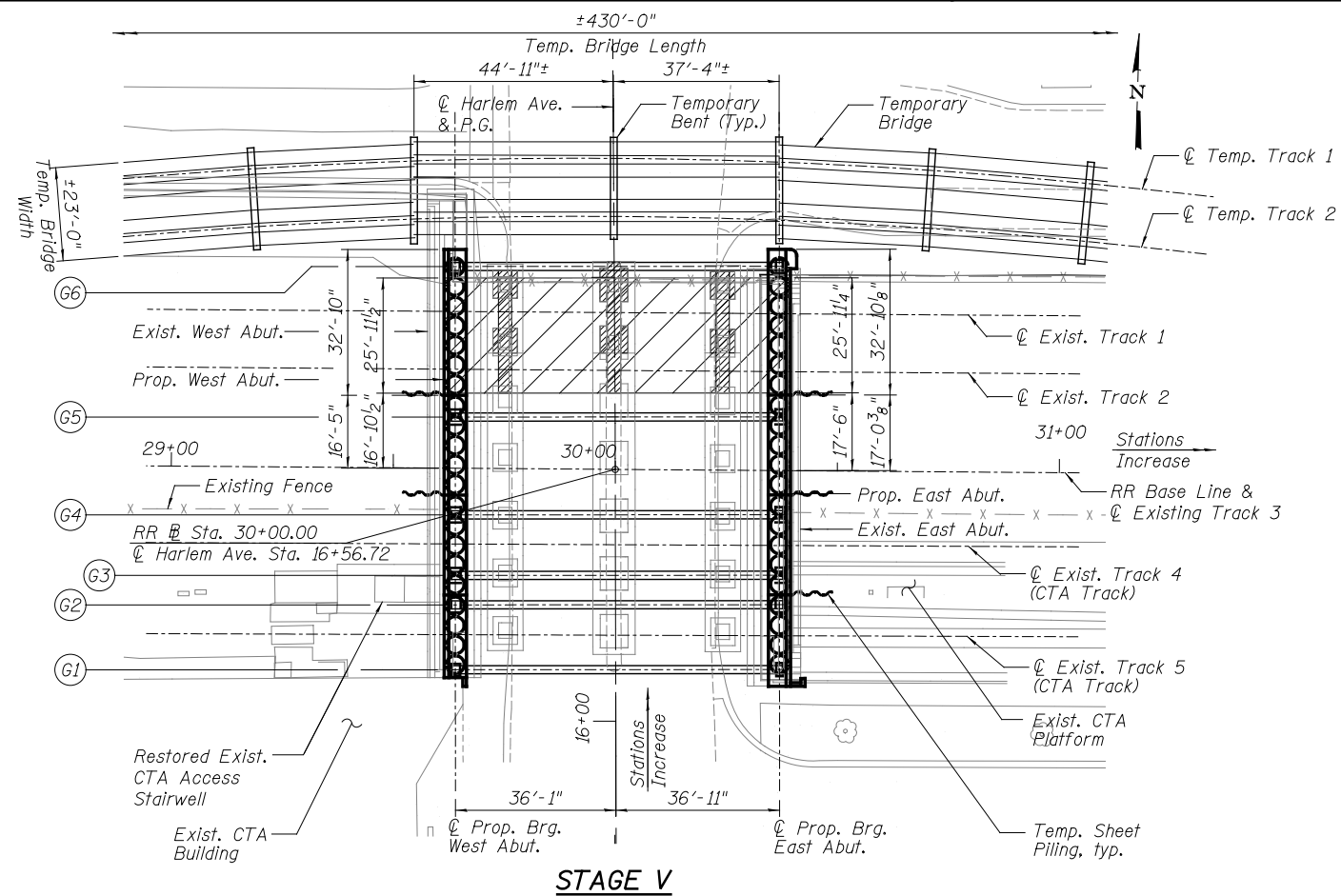
**LOCHNER**  
 H.W. LOCHNER, INC.  
 CONSULTING ENGINEERS & PLANNERS  
 20 NORTH WACKER DRIVE SUITE 1200  
 CHICAGO, IL 60606

SHEET NO.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		06-00086-00 BR	COOK	5	4
SHEETS	CONTRACT RR-07-5529				
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

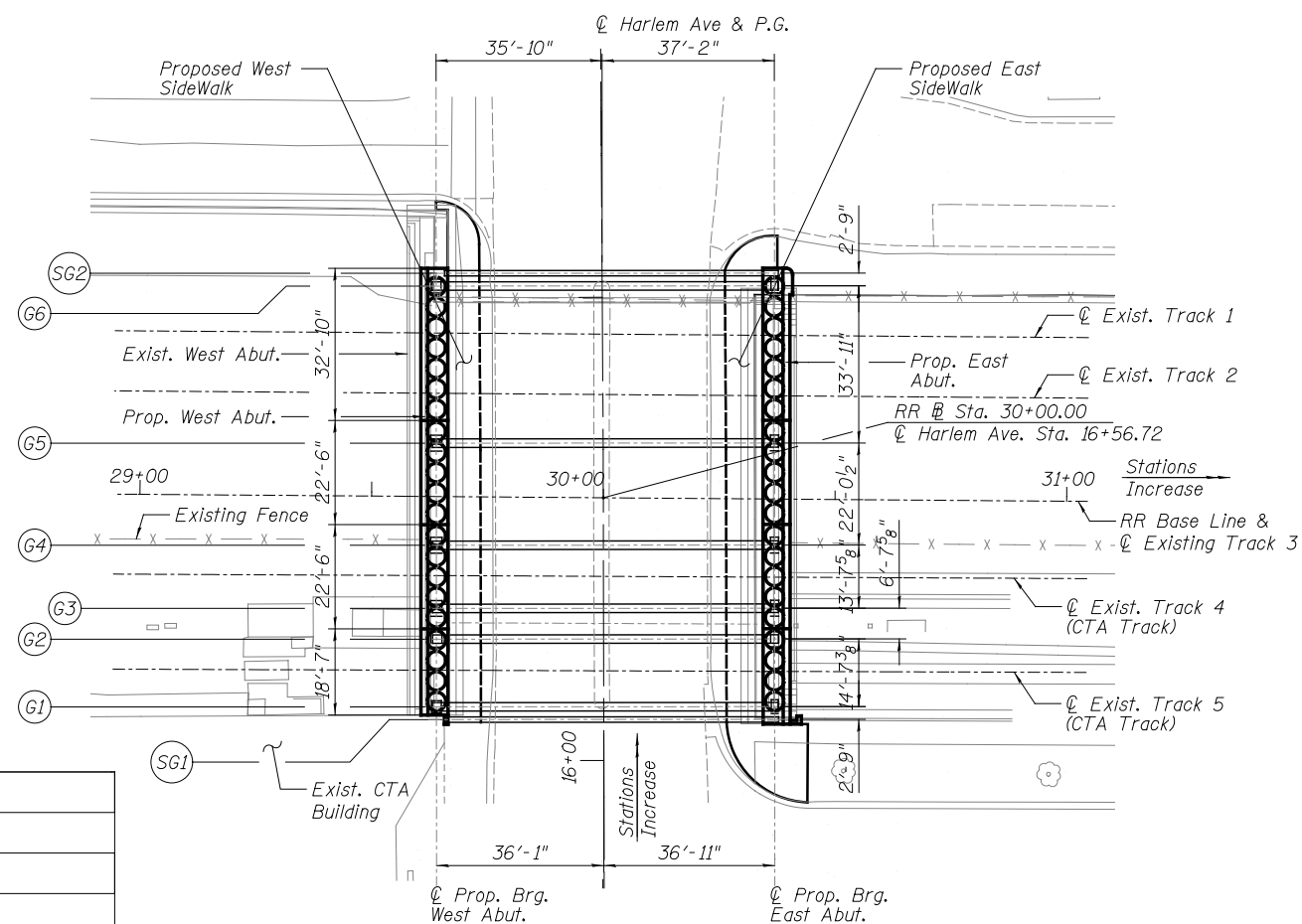
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T:\2765\_Harlem Ave\Structure\ dgn\TS&L\2765\_Stage03.dgn



**STAGE V**



**STAGE VI**

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

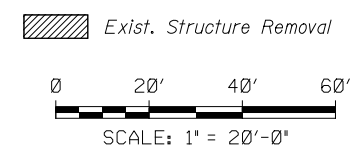
**STAGE V**

1. Finish the track work for proposed tracks.
2. Open proposed Track 3 to railroad traffic. Route railroad traffic from the Existing Track 2 back to the new Track 3. Close existing Track 2.
3. Remove the remaining portion of the existing trough girder superstructure. Remove the existing column bents as indicated.
4. Modify the north temporary earth retention system installed at STAGE II to provide the earth lateral support. Excavate and expose the upper portion of the existing abutments for removal.
5. Remove upper portion of the existing abutments for the proposed abutment cap installation.
6. Install drilled shaft in accordance with Standard Specification 516. Contractor must install the drilled shaft in a sequence that does not compromise the stability of the proposed and existing abutment.
7. Construct the proposed abutment caps. Backfill porous granular materials behind the new abutment. Remove the north temporary earth retention system. Install the proposed girder bearings.
8. Erect the indicated proposed steel superstructure that supports the proposed Track 1 and Track 2. Finish the track work.

**STAGE VI**

1. Open the proposed Tracks 1 and 2 for the rail traffic. Re-route railroad traffic from temporary bridge to proposed Tracks 1 & 2
2. Remove the temporary bridge that supports two temporary run-around tracks. Install sacrificial girders SG1 & SG2. Partially remove the front portion of the existing east and west abutments. Reface and/or clad the precast concrete panels on the front face of the abutments.
3. Reconstruct the sidewalks and roadway under the new railroad overpass bridge. Install hand rails. Complete site restoration.

**LEGEND**



**CONSTRUCTION STAGING V & VI  
CTA & UNION PACIFIC RAILROAD  
OVER IL 43, HARLEM AVENUE  
SECTION 06-00086-00 BR  
COOK COUNTY  
STATION 16+56.72  
STRUCTURE NO. 016-0666**

**LOCHNER**  
H.W. LOCHNER, INC.  
CONSULTING ENGINEERS & PLANNERS  
20 NORTH WACKER DRIVE SUITE 1200  
CHICAGO, IL 60606

SHEET NO.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		06-00086-00 BR	COOK	5	5
SHEETS	CONTRACT			RR-07-5529	
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

RECEIVED

JAN 18 2013

ILLINOIS DEPARTMENT OF TRANSPORTATION  
BUREAU OF BRIDGES AND STRUCTURES  
ROADS & STREETS



# Illinois Department of Transportation

## Memorandum

---

To: John A. Fortmann, District 1      Attn: Christopher J. Holt  
From: D. Carl Puzey      By: Timothy A. Armbrrecht  
Subject: PRELIMINARY BRIDGE DESIGN APPROVAL *Timothy A. Armbrrecht*  
Date: January 17, 2012

---

Village of River Forest  
Section 06-00086-00-BR

SN 016-0666

CTA & Union Pacific Railroad over Illinois Route 43 (Harlem Avenue)

The revised preliminary bridge design and TSL drawings, dated November 16, 2012, for the above-designated bridge replacement project are satisfactory based on the consultant's disposition, which successfully address our review comments. The preliminary bridge design is hereby approved.

The preliminary bridge design indicates the Consultant will perform the steel fabrication inspection. Please advise the Village that if they would like the Department to perform steel fabrication inspection services, a letter requesting such should be sent to the Bureau of Bridges and Structures (BBS) as soon as possible after the steel fabricator is determined. The letter (see attached example) should include the following:

1. Job information (structure number, route, section, county, city, IDOT contract # if applicable, C-# if applicable).
2. Point of contact for questions and who to send reports to at job completion; name, contact and location for fabricator and prime contractor.
3. The approximate start date and duration if known.

This request would essentially authorize the BBS fabrication inspector to act as a representative for the Village. The inspector will need a copy of the shop drawings, approved by the Village's consultant. A second copy should also be provided to the BBS for office use in assisting the inspector with technical or interpretation questions. The inspector and this office will also require reference copies of any special provisions or project-specific specifications applicable to fabrication that are different from IDOT's Standard & Supplemental Specifications.

Please be aware fabrication inspection services supplied by the Department are subject to resource availability and are not guaranteed. In particular, if the fabricator is located outside the area served by Department inspectors, it may be necessary for the Village to retain the services of their own fabrication inspection service to ensure the inspection of the steel.

Exhibit 2-3

Sheet 1 of 3



Mr. John A. Fortmann  
Page 2  
January 17, 2013

Three (3) sets of the final specifications and **reduced-size** structural plans for this project should be submitted to the Bureau of Bridges and Structures, through the District, for final review and approval. After approval, submittal of the original of the General Plan & Elevation (GP&E) sheet, signed and sealed by the Structural Engineer of record, will be required to affix the approval of the Engineer of Bridges and Structures. Please provide an approximately 4"H x 2"V area on the GP&E sheet for affixing the approval stamp. If you have any questions, contact Matt Humke at 217/782-5929 or [matt.humke@illinois.gov](mailto:matt.humke@illinois.gov).

Two copies of the approved report are being returned to you and we will retain one copy for our files.

MDH/kkt0160666-20130117

# LIVINGSTON COUNTY HIGHWAY DEPARTMENT

David R. Winters, P.E., County Engineer  
Clay A. Metcalf, P.E., Asst. County Engineer

1705 S. Manlove Street  
Pontiac, Illinois 61764

Ph. (815) 842-1184  
FAX (815) 842-3305

April 9, 2002

Major Bridge Program  
Pontiac Road District  
"Heisner's Island Bridges"

Structure No.: 053-4146  
District: 3  
Section: 93-22136-00-BR  
Contract No.: 87132  
Job No.: C-93-131-95  
Project No.: BRM-5056(7)  
Route: FA 17506

ILLINOIS DEPARTMENT OF TRANSPORTATION  
BUREAU OF BRIDGES  
AND STRUCTURES

APR 11 2002

~~Mr. John A. Morris, Structural Services Section~~  
Illinois Department of Transportation  
Bureau of Bridges and Structures, Room 240  
2300 South Dirksen Parkway  
Springfield, Illinois 62764  
Attn: Fabrication Unit  
Gentlemen:

TJD REA DISC  
TEA SKW CIRC  
JAM POST

We formally request that the Illinois Department of Transportation perform shop inspection of the steel structures to be fabricated for the above captioned project. This is in accordance with Chapter 5, Section 5(c) of the Federal Aid Procedures for Local Highway Improvements manual. The prime contractor and fabricator information are as follows:

Bureau of Local Roads and Streets Manual

Prime Contractor  
H.J. Eppel & Co., Inc.  
1400 Tuesburg Court  
Pontiac, IL 61764  
Mark Eppel (815)844-7269

Fabricator Section 13-4.01(a).  
Delong Inc.  
P.O. Box 479  
Jefferson City, MO 65102-0479  
Darren B. Kelly (573)635-6121

During the preconstruction meeting it was stated that structural steel is scheduled to be delivered in September of 2002. If you have any questions concerning this submittal, please do not hesitate to call and ask for Clay Metcalf.

Very truly yours,



David R. Winters  
County Engineer

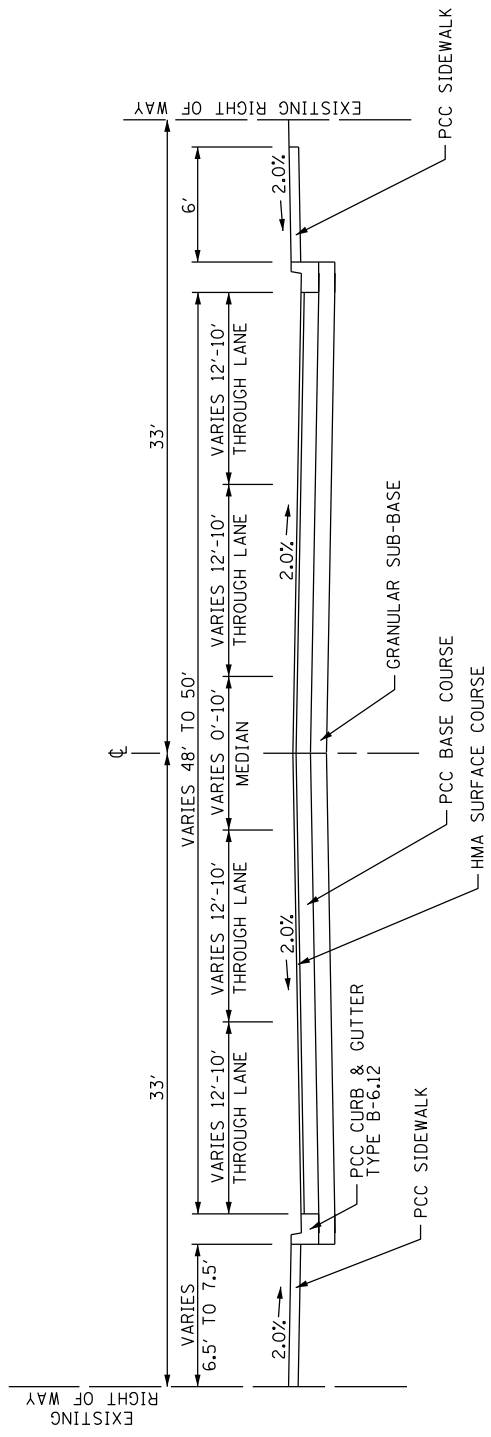
DRW:cam

CC: IDOT - District 3  
H.J. Eppel & Co., Inc.  
Delongs Inc.

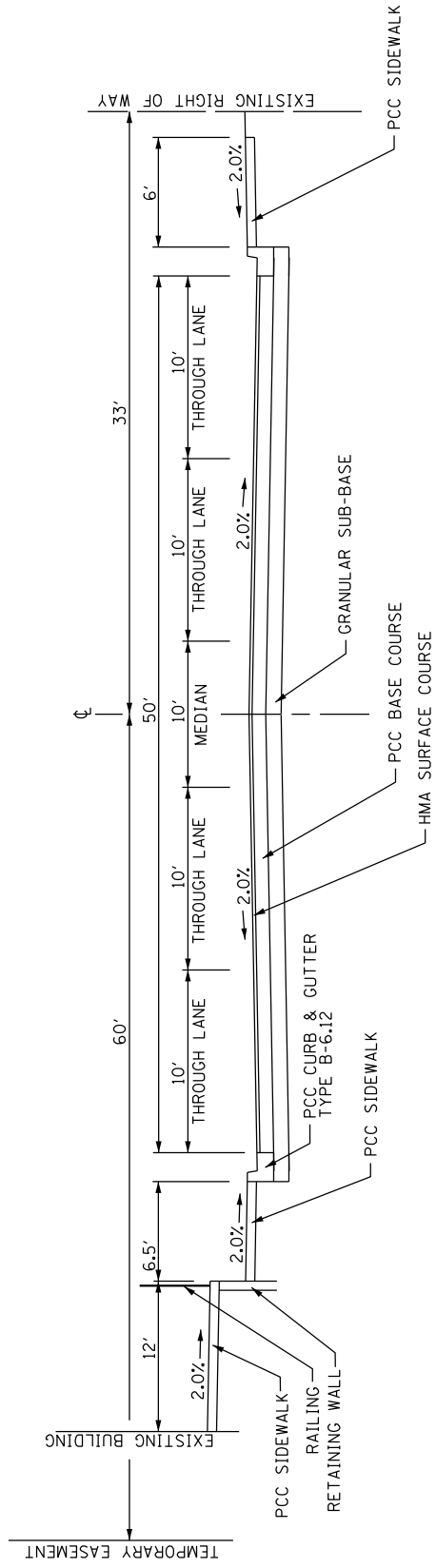
Z:\TWP\Work\Pontiac 22\Bridges\22136br-Heisner Island\CONSTRUCTION\Fabrication Inspection.IDOT.doc

Exhibit 2-3

Sheet 3 of 3



PROPOSED TYPICAL SECTION  
 HARLEM AVENUE  
 (SOUTH PROJECT LIMIT TO CIRCLE AVENUE)



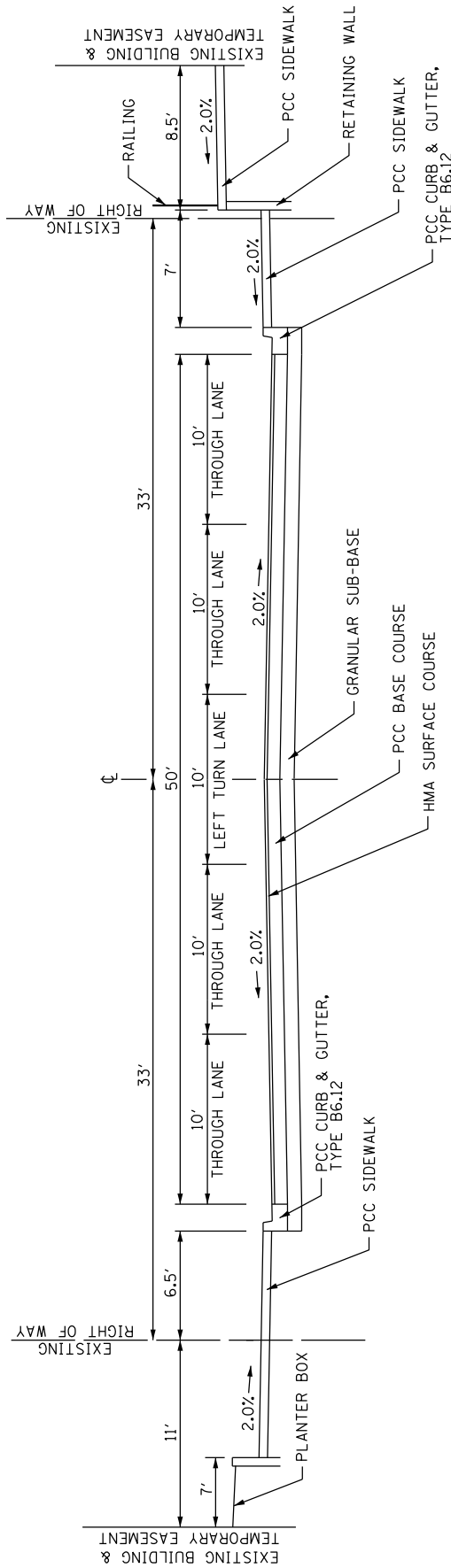
PROPOSED TYPICAL SECTION  
 HARLEM AVENUE  
 (CIRCLE AVENUE TO BRIDGE)

HARLEM UNDERPASS  
 REPLACEMENT PROJECT

PROPOSED TYPICAL  
 ROADWAY SECTIONS

NOT TO SCALE	DATE OCTOBER 2012	FIGURE NO.
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**LOCHNER**



PROPOSED TYPICAL SECTION  
 HARLEM AVENUE  
 (NORTH OF THE BRIDGE)

HARLEM UNDERPASS  
 REPLACEMENT PROJECT

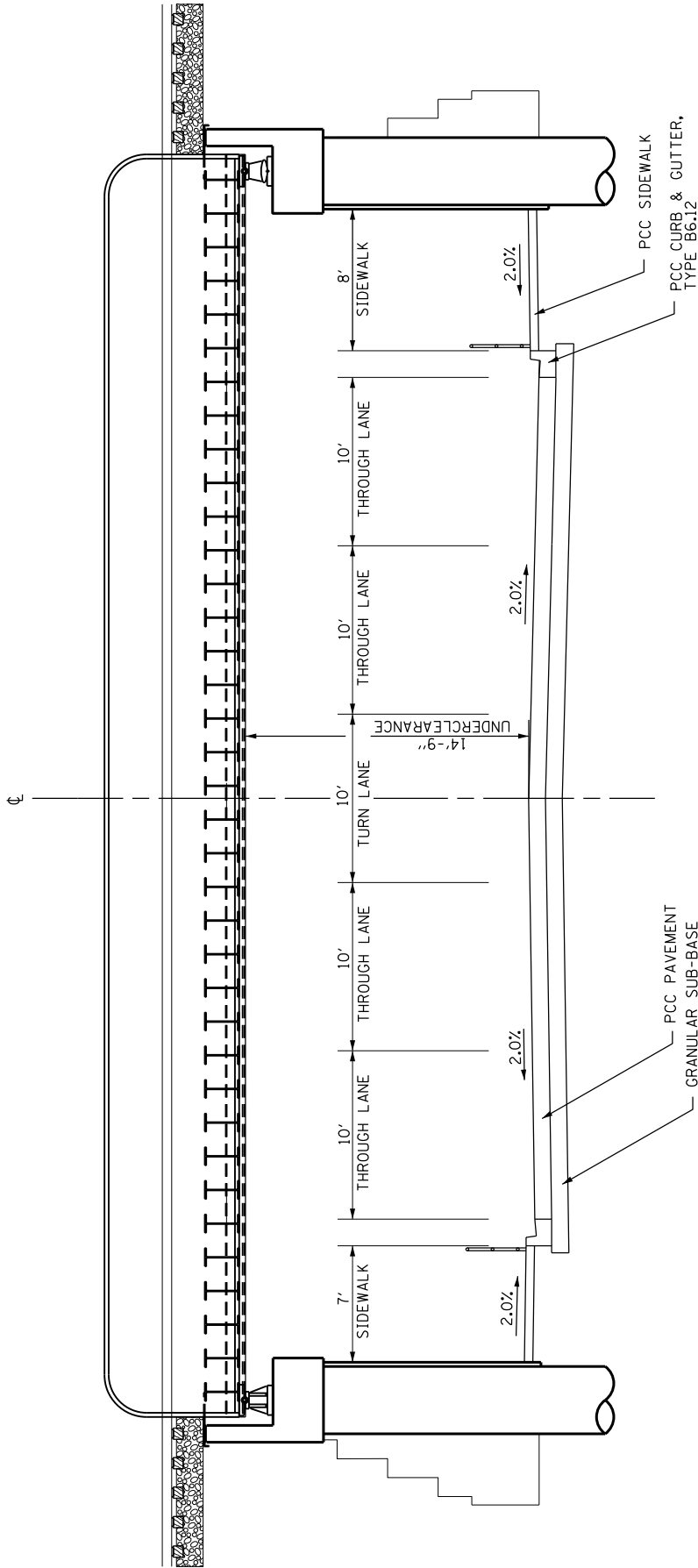
PROPOSED TYPICAL  
 ROADWAY SECTIONS

NOT TO SCALE

DATE  
 OCTOBER 2012

FIGURE NO.

**LOCHNER**



PROPOSED TYPICAL SECTION  
HARLEM AVENUE AT UNDERPASS

HARLEM UNDERPASS  
REPLACEMENT PROJECT

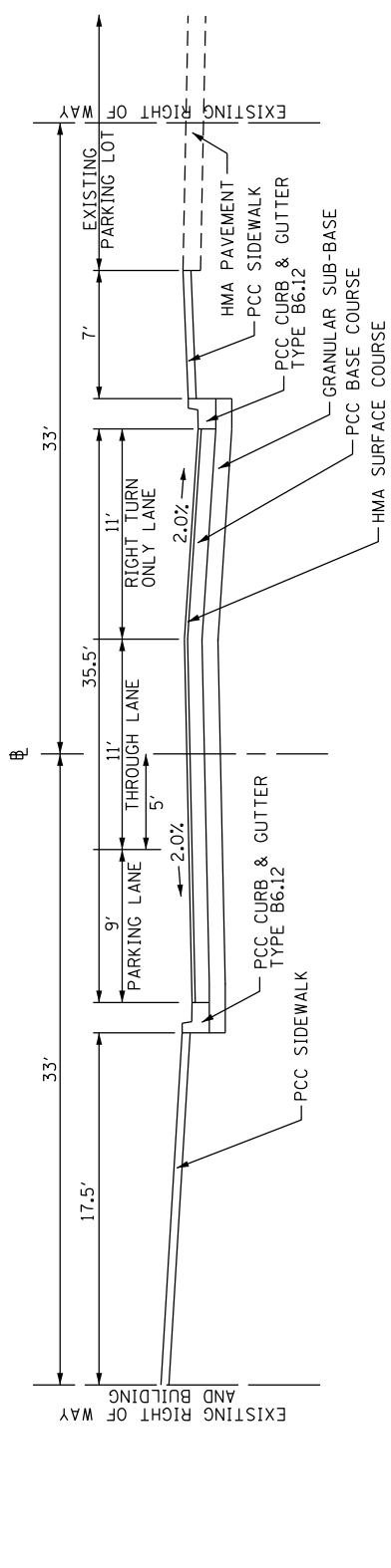
PROPOSED TYPICAL  
ROADWAY SECTIONS

NOT TO SCALE

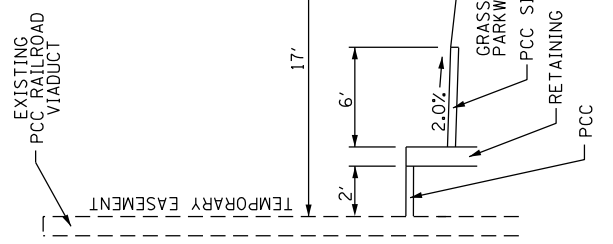
DATE  
OCTOBER 2012

FIGURE NO.

**LOCHNER**



PROPOSED TYPICAL SECTION  
CIRCLE AVENUE



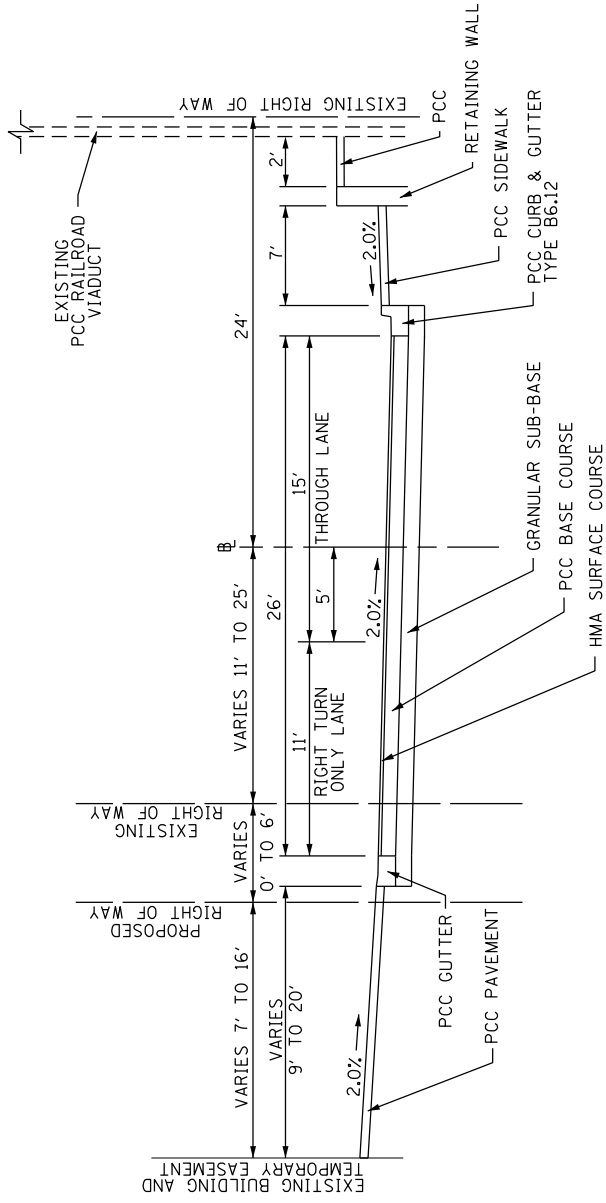
PROPOSED TYPICAL SECTION  
SOUTH BOULEVARD

HARLEM UNDERPASS  
REPLACEMENT PROJECT

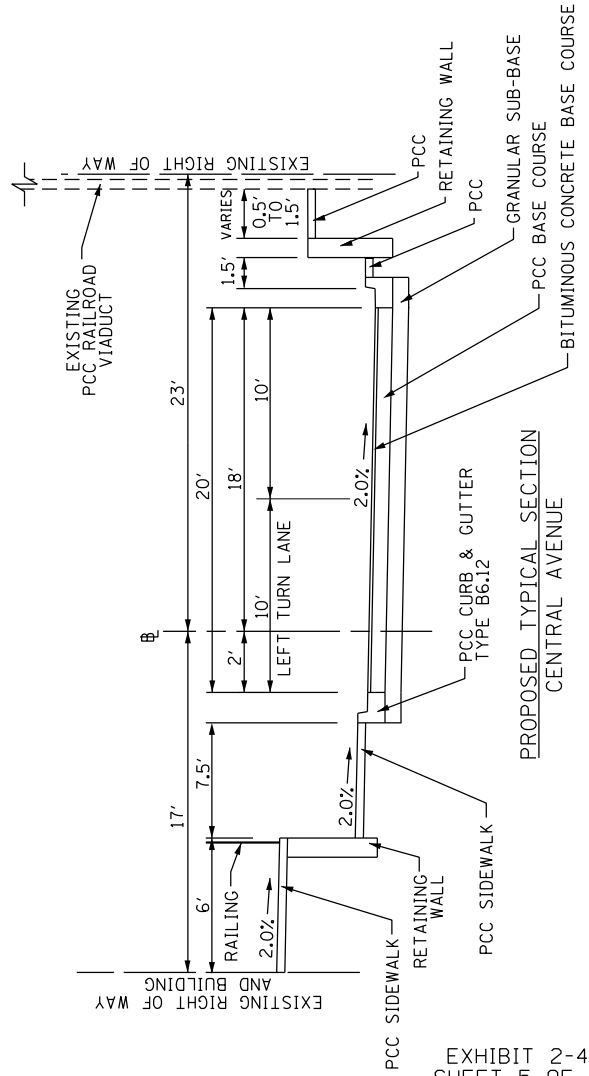
PROPOSED TYPICAL  
ROADWAY SECTIONS

NOT TO SCALE	DATE OCTOBER, 2012	FIGURE NO.
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**LOCHNER**



PROPOSED TYPICAL SECTION  
NORTH BOULEVARD



PROPOSED TYPICAL SECTION  
CENTRAL AVENUE

HARLEM UNDERPASS  
REPLACEMENT PROJECT  
PROPOSED TYPICAL  
ROADWAY SECTIONS

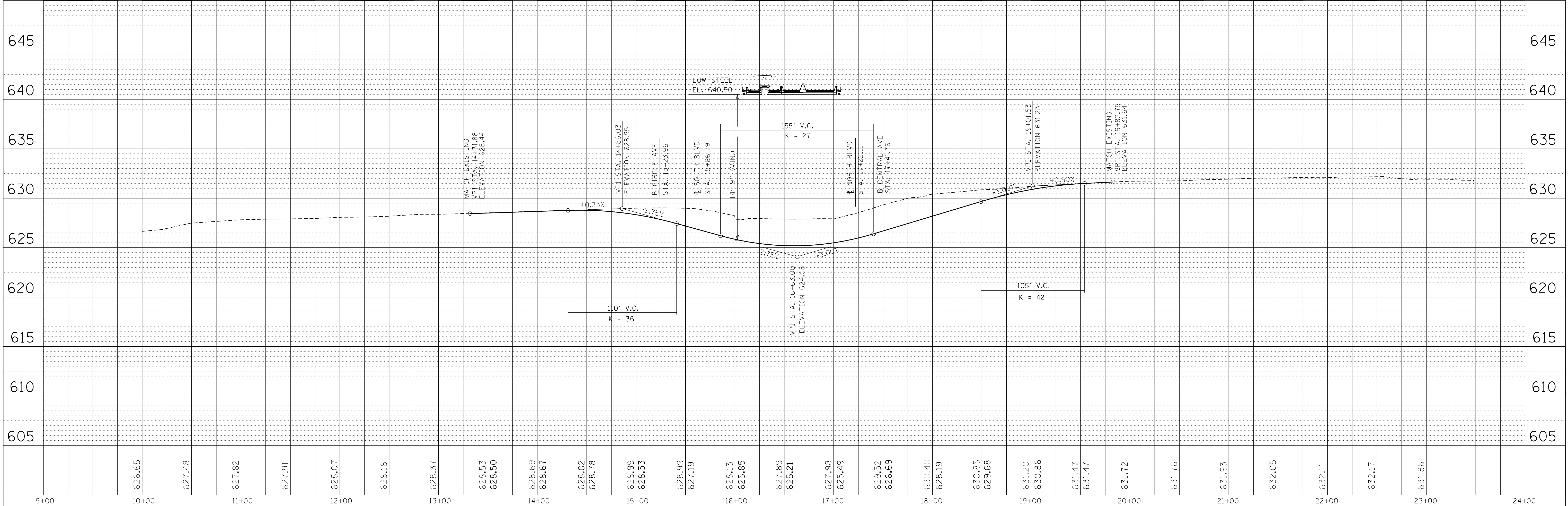
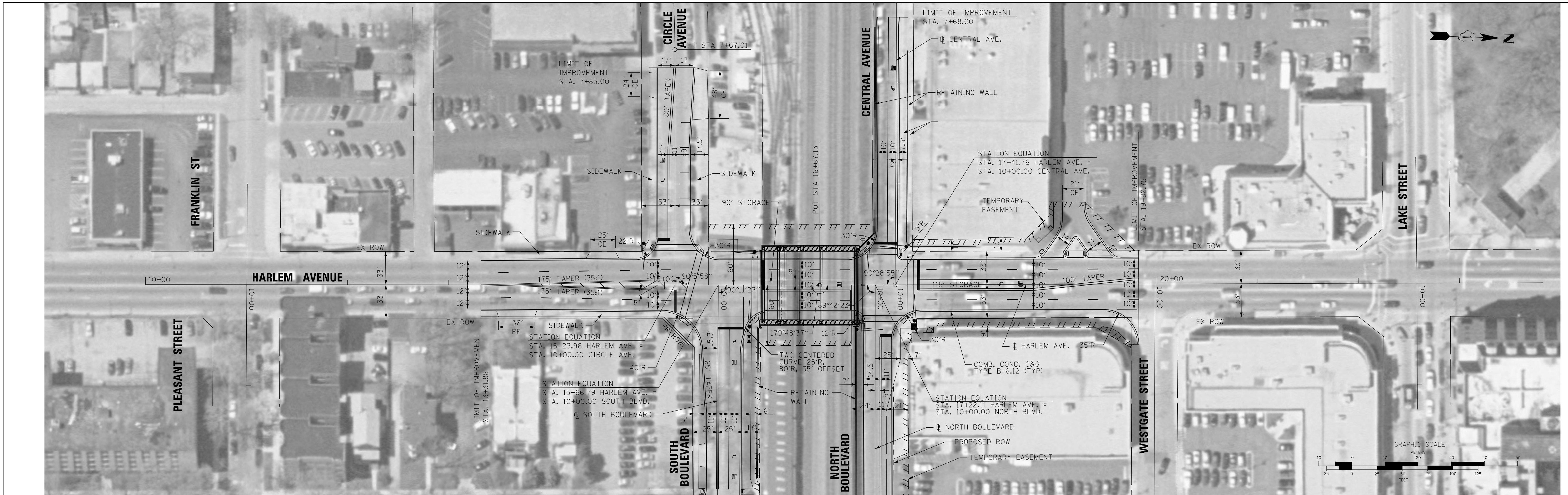
NOT TO SCALE      DATE      OCTOBER 2012      FIGURE NO.

**LOCHNER**



PLAN SURVEYED PLOTTED CHECKED BY DATE  
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 CAD FILE NAME NO.

PROFILE SURVEYED PLOTTED CHECKED BY DATE  
 NOTE BOOK NO. OF MAY CHECKED  
 STRUCTURE NOTATIONS CHKD NO.

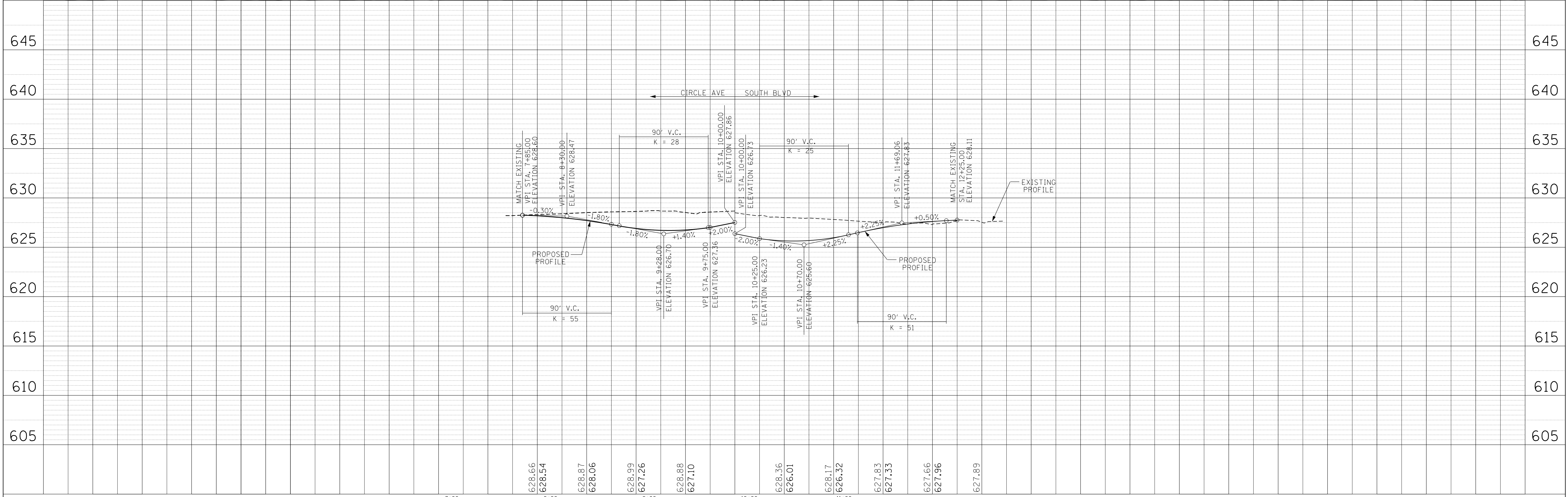
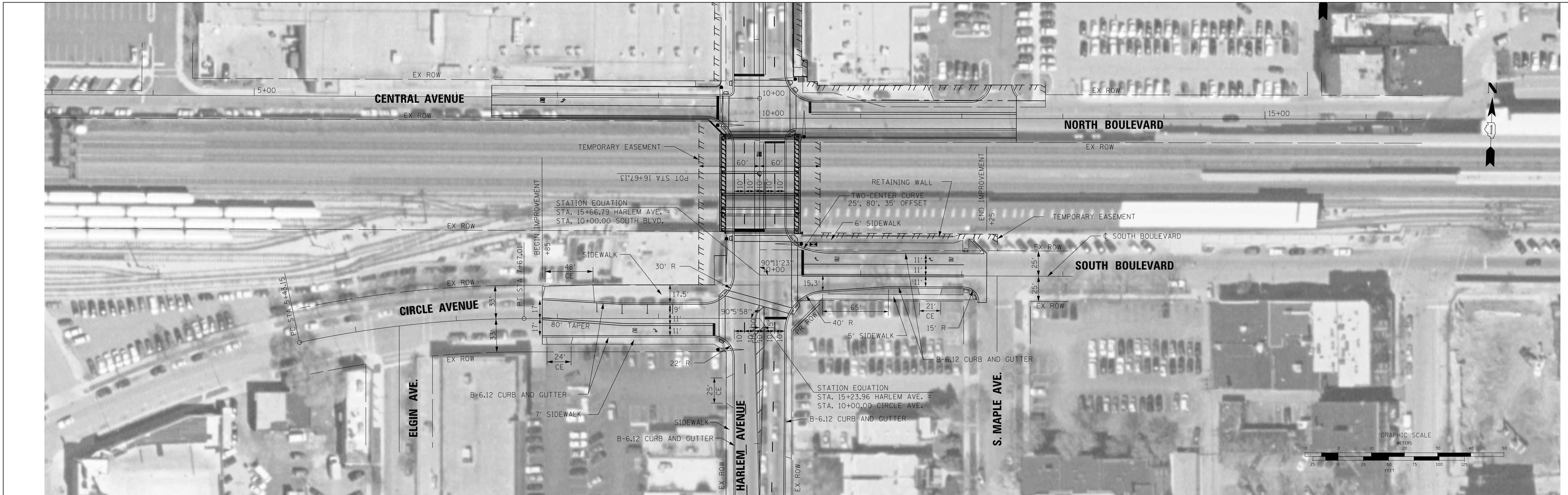


FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>HARLEM AVENUE UNDERPASS REPLACEMENT PROJECT</b>	<b>HARLEM AVENUE PLAN AND PROFILE</b>		F.A.P. RITE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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		CHECKED -	REVISED -									
		DATE -	REVISED -									
										CONTRACT NO.		
										FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		



PLAN	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	BY		
	NO. OF MAY CHECKED		
	CADD FILE NAME		
	NO.		

PROFILE	SURVEYED	BY	DATE
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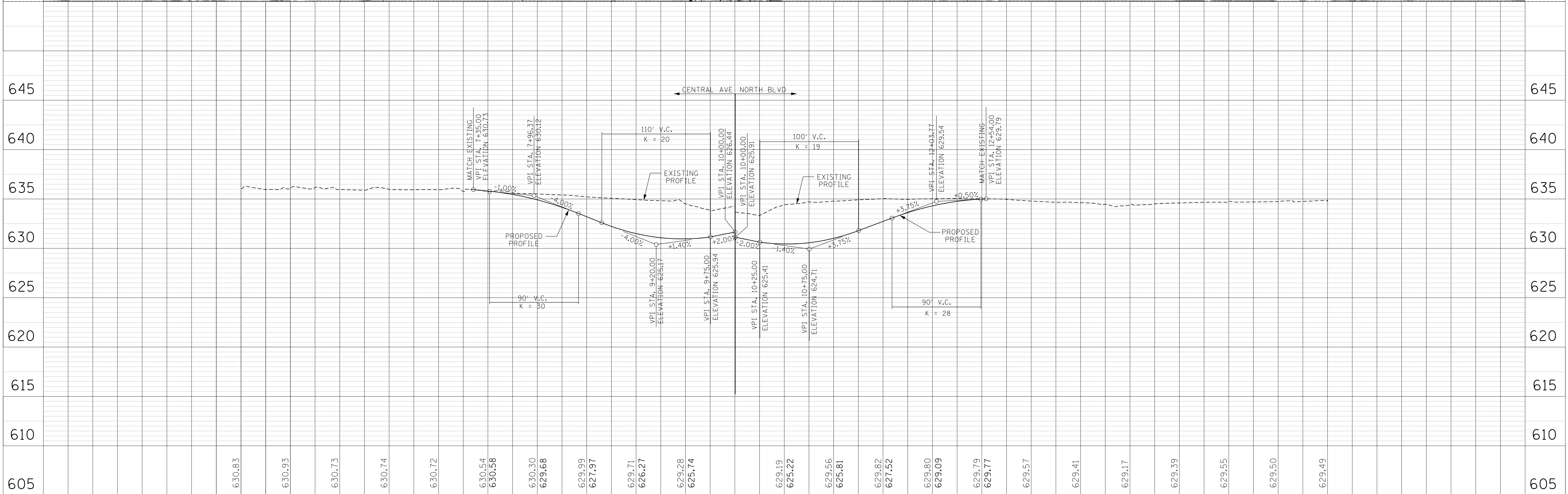
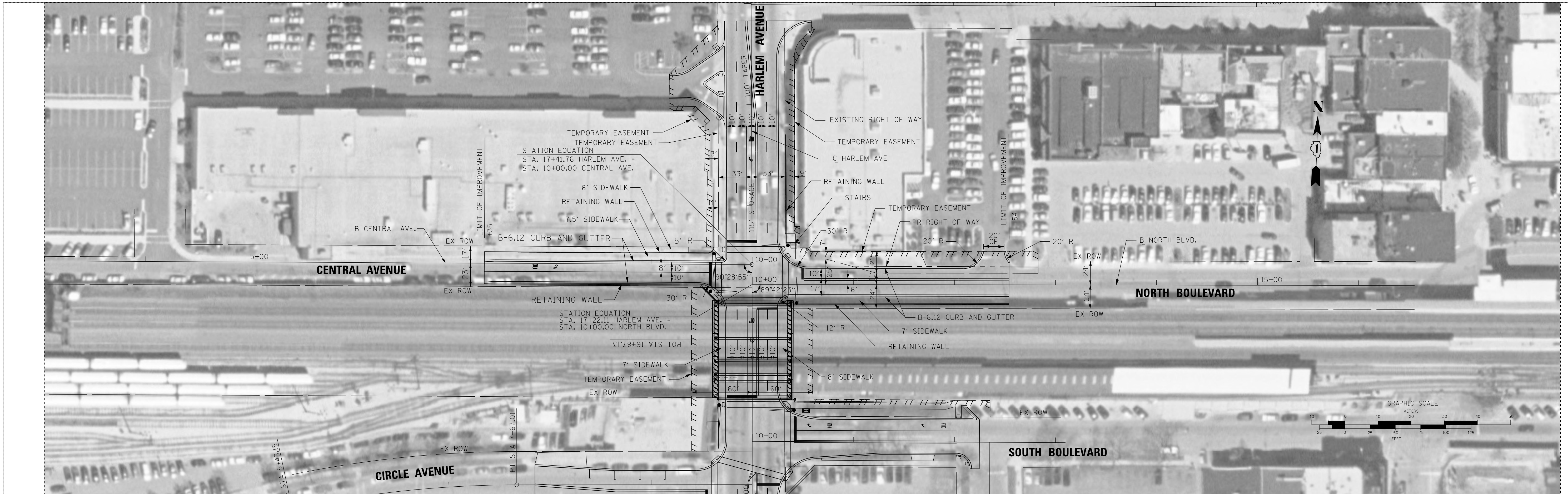


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		DATE -	REVISED -			FED. ROAD DIST. NO.   ILLINOIS   FED. AID PROJECT					
				SCALE: 1"=50'		SHEET NO. OF SHEETS		STA. TO STA.			



PLAN	SURVEYED	DATE
	PLOTTED	BY
	CHECKED	
	BY	
	NO. OF WAY CHECKED	
	CADD FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	CHECKED	
	BY	
	STRUCTURE NOTATIONS CHK'D	



FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>HARLEM AVENUE UNDERPASS REPLACEMENT PROJECT</b>	<b>CENTRAL AVE &amp; NORTH BLVD PLAN &amp; PROFILE</b>	F.A.P. RT#	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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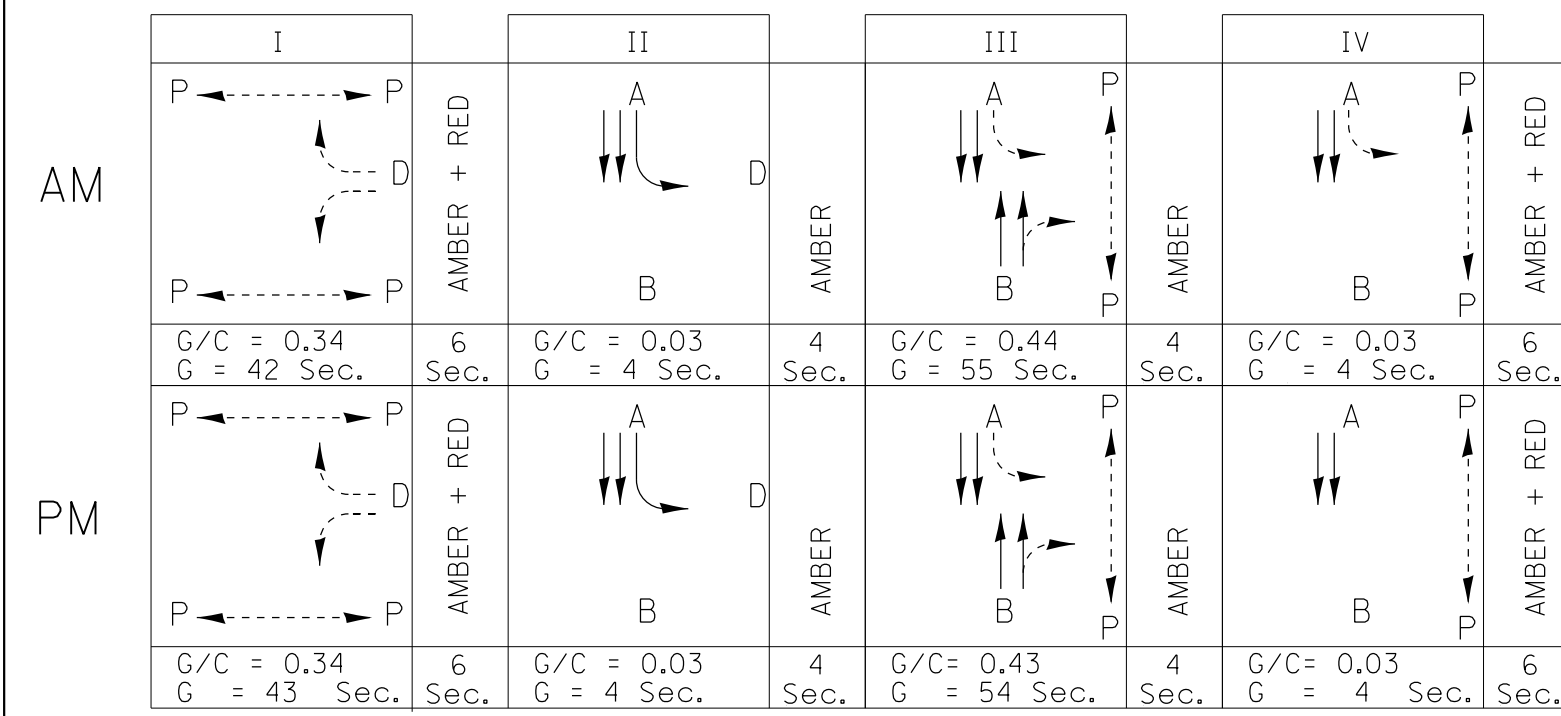
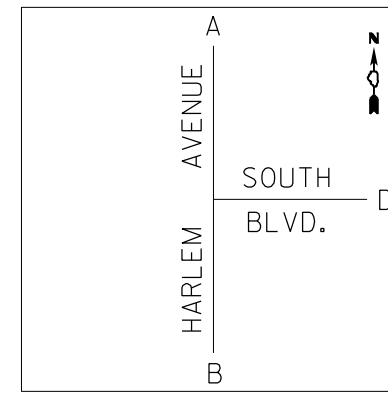
SIGNALIZED INTERSECTION  
CAPACITY ANALYSIS

HIGHWAY CAPACITY SOFTWARE  
PROGRAM NAME HCS  
VERSION 5.4

BASIC CONDITIONS  
AREA: CBD OTHER (CIRCLE ONE)  
PHF 0.95 (CIRCLE ONE)

SIGNAL TYPE ACTUATED INTERCONNECTED  
ARRIVAL TYPE 3\_WB 4\_NB/SB  
C = SIGNAL CYCLE = 125 SEC.

$\Sigma A/C \ 20 / 125 = 0.16$  (AM)  
 $\Sigma A/C \ 20 / 125 = 0.16$  (PM)



APPR. A GR= -2.8% A.M. T= 1% R= 0% L= 0% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 0 BIKES/HR 0  
GR= -2.8% P.M. T= 2% R= 0% L= 0% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 0 BIKES/HR 0

MOVEMENT	L/W	DHV	PHF	BASE SAT.	V/S	USED G/C	CAP C	V/C	DELAY d	LOS	APPR. DELAY	APPR. LOS	RED-TIME	95TH % QUEUE
A.M. L	10'	65	0.95	1900	0.03	0.50	166	0.41	21.5	C	14.7	B	56'	55'
A.M. T	10'	1200	0.95	1900	0.41	0.57	1741	0.73	14.4	B			452'	635'
P.M. L	10'	100	0.95	1900	0.06	0.56	249	0.42	13.4	B	19.4	B	77'	68'
P.M. T	10'	1380	0.95	1900	0.48	0.56	1700	0.85	19.9	B			538'	935'

APPR. B GR= +2.8% A.M. T= 3% R= 2% L= 0% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 6 BIKES/HR 0  
GR= +2.8% P.M. T= 1% R= 5% L= 0% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 18 BIKES/HR 0

MOVEMENT	L/W	DHV	PHF	BASE SAT.	V/S	USED G/C	CAP C	V/C	DELAY d	LOS	APPR. DELAY	APPR. LOS	RED-TIME	95TH % QUEUE
A.M. TR	10'	1040	0.95	1900	0.36	0.44	1321	0.83	30.8	C	30.8	C	511'	805'
P.M. TR	10'	1095	0.95	1900	0.38	0.43	1318	0.87	34.7	C	34.7	C	547'	903'

APPR. C GR= 0% A.M. T= 0% R= 0% L= 0% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 0 BIKES/HR 0  
GR= 0% P.M. T= 0% R= 0% L= 0% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 0 BIKES/HR 0

MOVEMENT	L/W	DHV	PHF	BASE SAT.	V/S	USED G/C	CAP C	V/C	DELAY d	LOS	APPR. DELAY	APPR. LOS	RED-TIME	95TH % QUEUE
A.M.														
P.M.														

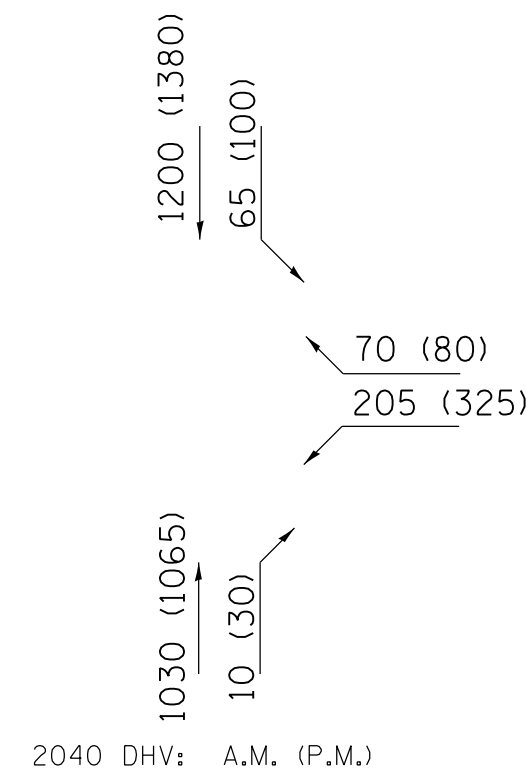
APPR. D GR= +1.4% A.M. T= 2% R= 0% L= 0% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 0 BIKES/HR 0  
GR= +1.4% P.M. T= 1% R= 0% L= 0% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 0 BIKES/HR 0

MOVEMENT	L/W	DHV	PHF	BASE SAT.	V/S	USED G/C	CAP C	V/C	DELAY d	LOS	APPR. DELAY	APPR. LOS	RED-TIME	95TH % QUEUE
A.M. L	11'	205	0.95	1900	0.13	0.34	560	0.39	32.1	C	31.4	C	237'	293'
A.M. R	11'	70	0.95	1900	0.05	0.34	482	0.15	29.2	C			84'	98'
A.M. L	11'	325	0.95	1900	0.20	0.34	600	0.57	34.8	C			372'	480'
P.M. R	11'	80	0.95	1900	0.06	0.34	522	0.16	28.6	C	33.5	C	94'	108'

INTERSECTION DELAY 23.0 (A.M.), 27.0 (P.M.)  
INTERSECTION LOS C (A.M.), C (P.M.)

TRAFFIC DATA

MOVEMENT	YEAR 2008 PEAK HOUR TRAFFIC		PERCENT TRUCK TRAFFIC IN PEAK HOUR		ESTIMATED PERCENT INCREASE BY 2030		YEAR 2040 DESIGN PEAK HOUR TRAFFIC	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
AB	1172	1312	1	2	3%	6%	1200	1380
AD	0	6	0	1			65	100
AC								
BA	925	984	3	1	11%	9%	1030	1065
BC								
BD	8	5	0	0	25%	500%	10	30
CD								
CA								
CB								
DC								
DB	150	251	1	0	37%	29%	205	325
DA	66	78	5	3	6%	3%	70	80
TOTAL A	2163	2380					2300	2525
TOTAL B	2081	2312					2250	2525
TOTAL C								
TOTAL D	224	340					285	435



APPROACH	8TH MAX. HOUR TRAFFIC	
	A.M.	P.M.
A	1,265	1,389
B	1,238	1,389
C		
D	157	239

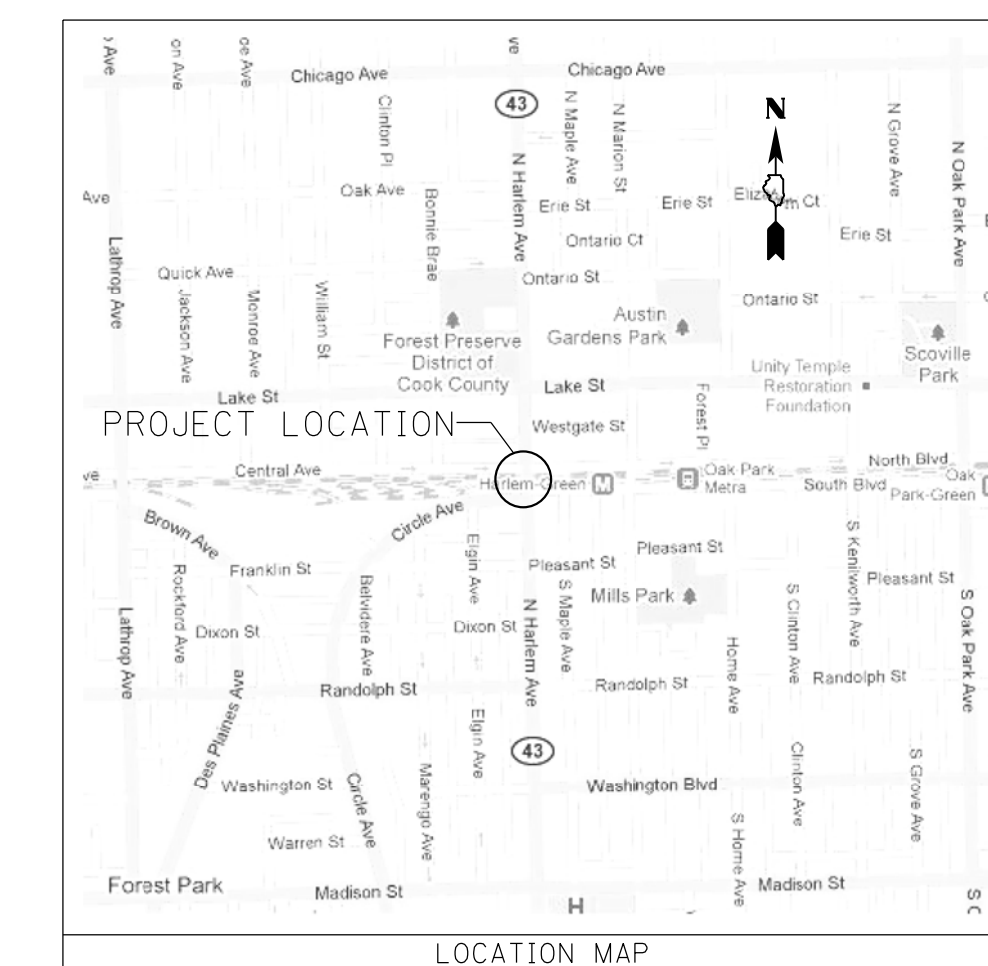
ELEMENTS CONTROLLING DESIGN

- HIGHWAY DESIGN CLASSIFICATION HARLEM AVE. - PRINCIPAL ARTERIAL  
SOUTH BLVD. - LOCAL STREET  
SRA: YES  NO
- AVERAGE DAILY TRAFFIC (ADT) DATA: HARLEM AVE. EXISTING 33,500 DESIGN 35,000  
SOUTH BLVD. EXISTING 4,700 DESIGN 6,000
- HARLEM AVE. IS THE PREFERENCE ROUTE
- ANTICIPATED YEAR OF CONSTRUCTION 2015 DESIGN YEAR 2040
- TRAFFIC CONTROL TO BE SIGNALIZED WARRANTS MET I AND 2
- DESIGN CRITERIA: HARLEM - URBAN BDE, SOUTH - URBAN BLR
- DESIGN VEHICLE: WB-50 TRUCK ROUTE DESIGNATION CLASS II
- DESIGN SPEED HARLEM AVE. - 35 MPH  
SOUTH BLVD. - 25 MPH
- POSTED SPEED HARLEM AVE. - 30 MPH  
SOUTH BLVD. - 25 MPH

GENERAL NOTES

- PROFILES ARE PROVIDED, SINCE APPROACH GRADES ARE GREATER THAN 1.0 PERCENT HARLEM AVE. AND SOUTH BLVD.
- TYPE B-6.12 CURB AND GUTTER TO BE USED ON OUTER EDGES OF PAVEMENT
- TYPE CURB AND GUTTER TO BE USED ON CHANNELIZING ISLAND N/A
- ALL DIMENSIONS ARE SHOWN E-E OF PAVEMENT
- INTERSECTION IS NOT A HIGH ACCIDENT LOCATION
- INTERSECTION IS PART OF INTERCONNECTED SYSTEM
- ALL SIDEWALKS AND RAMPS AS SHOWN ARE IN COMPLIANCE WITH THE AMERICAN DISABILITIES ACT.
- EXPECTED PEDESTRIAN/BICYCLE USAGE TYPICAL FOR COMMERCIAL AREA
- ALL ENTRANCES AS SHOWN ARE IN COMPLIANCE WITH IDOT 'POLICIES ON ACCESS TO STATE HIGHWAYS'.
- NOTED EXCEPTIONS:
- SCOPE OF WORK: RECONSTRUCTION AND MODERNIZED SIGNAL
- DESIGN EXCEPTIONS: DESIGN VEHICLE - SE CORNER - SU TRUCK  
DESIGN VEHICLE - NE CORNER - CITY BUS

PREPARED BY:  
PROJ. MGR. DS PROJ. ENG.

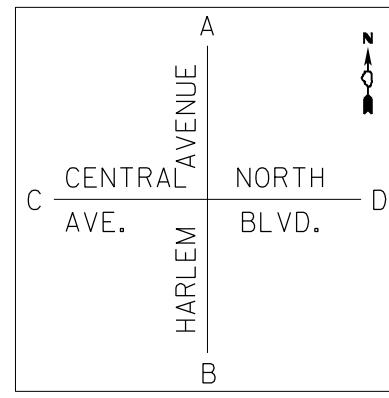


DRAWING NO. \_\_\_\_\_  
INTERSECTION DESIGN STUDY  
IL ROUTE 43 (HARLEM AVENUE)  
ROUTE WITH (SOUTH BLVD.)  
SEC. NO. 06-00086-00-BR PROJ. NO. HPP-0142(001)  
SCALE COUNTY COOK  
SUN : REV. NO. \_\_\_\_\_  
DATE QA/OC REVIEWER REMARKS  
CADD FILE NAME \*DWG-SPEC\*  
REF FILE NAME I.D.S. SHEET 1 OF 6

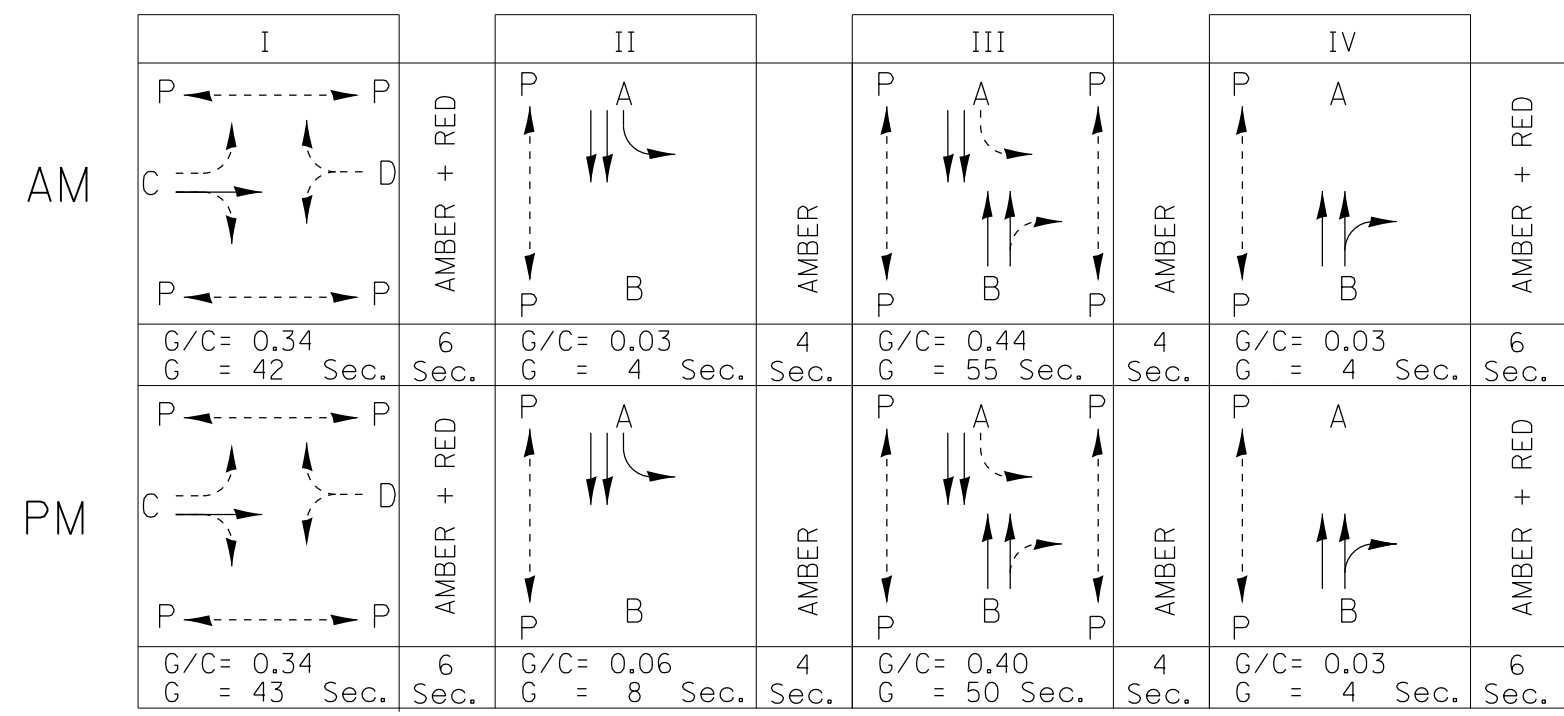


SIGNALIZED INTERSECTION  
CAPACITY ANALYSIS

HIGHWAY CAPACITY SOFTWARE  
PROGRAM NAME HCS  
VERSION 5.4



BASIC CONDITIONS PHF 0.95  
AREA: CBD OTHER (CIRCLE ONE)  
SIGNAL TYPE ACTUATED ARRIVAL TYPE 3 EB/WB 4 NB/SB  
INTERCONNECTED  
C = SIGNAL CYCLE = 125 SEC.  $\Sigma A/C \ 20 / 125 = 0.16$  (AM)  
 $\Sigma A/C \ 20 / 125 = 0.16$  (PM)



APPR. A GR= -3.0% A.M. T= 1% R= 0% L= 0% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 0 BIKES/HR 0  
GR= -3.0% P.M. T= 1% R= 0% L= 0% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 0 BIKES/HR 0

MOVEMENT	L/W	DHV	PHF	BASE SAT.	V/S	USED G/C	CAP C	V/C	DELAY d	LOS	APPR. DELAY	APPR. LOS	RED-TIME	95TH % QUEUE
A.M. L	10'	65	0.95	1900	0.03	0.50	157	0.43	21.1	C	19.6	B	60'	55'
A.M. T	10'	1130	0.95	1900	0.36	0.50	1685	0.71	19.5	B	19.6	B	495'	673'
P.M. L	10'	100	0.95	1900	0.06	0.50	174	0.60	28.2	C	23.4	C	89'	98'
P.M. T	10'	1250	0.95	1900	0.39	0.50	1658	0.79	23.0	C	23.4	C	548'	840'

APPR. B GR= +3.0% A.M. T= 3% R= 5% L= 0% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 105 BIKES/HR 0  
GR= +3.0% P.M. T= 1% R= 12% L= 0% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 162 BIKES/HR 0

MOVEMENT	L/W	DHV	PHF	BASE SAT.	V/S	USED G/C	CAP C	V/C	DELAY d	LOS	APPR. DELAY	APPR. LOS	RED-TIME	95TH % QUEUE
A.M. TR	10'	1100	0.95	1900	0.36	0.50	1641	0.71	19.6	B	19.6	B	491'	658'
P.M. TR	10'	1155	0.95	1900	0.37	0.46	1525	0.79	26.1	C	26.1	C	546'	805'

APPR. C GR= +1.4% A.M. T= 1% R= 28% L= 0% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 86 BIKES/HR 0  
GR= +1.4% P.M. T= 0% R= 26% L= 0% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 118 BIKES/HR 0

MOVEMENT	L/W	DHV	PHF	BASE SAT.	V/S	USED G/C	CAP C	V/C	DELAY d	LOS	APPR. DELAY	APPR. LOS	RED-TIME	95TH % QUEUE
A.M. L	10'	10	0.95	1900	0.01	0.34	529	0.02	27.8	C	33.2	C	12'	15'
A.M. TR	10'	250	0.95	1900	0.16	0.34	551	0.48	33.5	C	33.2	C	290'	365'
P.M. L	10'	50	0.95	1900	0.03	0.34	551	0.10	27.9	C	43.8	D	57'	68'
P.M. TR	10'	435	0.95	1900	0.28	0.34	568	0.81	45.6	D	43.8	D	499'	720'

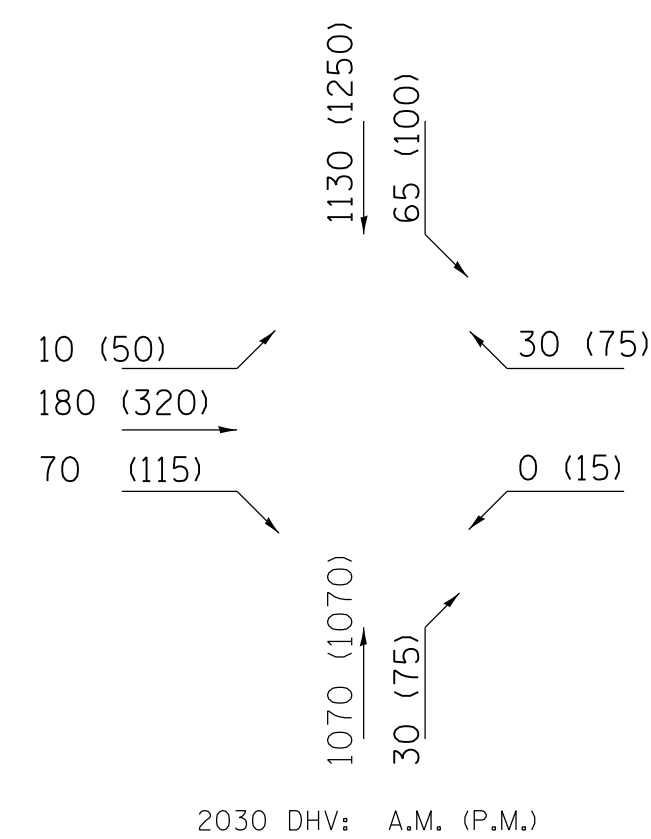
APPR. D GR= +1.4% A.M. T= 2% R= 0% L= 100% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 11 BIKES/HR 0  
GR= +1.4% P.M. T= 1% R= 17% L= 83% PKG 0 (MNV/HR) BUS 0 (STOP/HR) PEDS/HR 57 BIKES/HR 0

MOVEMENT	L/W	DHV	PHF	BASE SAT.	V/S	USED G/C	CAP C	V/C	DELAY d	LOS	APPR. DELAY	APPR. LOS	RED-TIME	95TH % QUEUE
A.M. LR	11'	30	0.95	1900	0.02	0.34	529	0.06	28.2	C	28.2	C	35'	40'
P.M. LR	11'	90	0.95	1900	0.07	0.34	458	0.21	29.2	C	29.2	C	104'	125'

INTERSECTION DELAY 21.1 (A.M.), 27.8 (P.M.)  
INTERSECTION LOS C (A.M.), C (P.M.)

TRAFFIC DATA

MOVEMENT	YEAR 2008 PEAK HOUR TRAFFIC		PERCENT TRUCK TRAFFIC IN PEAK HOUR		ESTIMATED PERCENT INCREASE BY 2030		YEAR 2040 DESIGN PEAK HOUR TRAFFIC	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
AB	1119	1236	1	1	1%	1%	1130	1250
AD	62	94	7	3	5%	6%	65	100
AC								
BA	966	1008	3	1	11%	7%	1070	1070
BC								
BD	25	54	1	0	20%	39%	30	75
CD	174	281	1	0	3%	14%	180	320
CA	6	18	6	0	67%	178%	10	50
CB	53	72	2	1	32%	60%	70	115
DC								
DB	0	10	0	0				15
DA	29	68	3	1	3%	10%	30	75
TOTAL A	2182	2424					2305	2545
TOTAL B	2163	2380					2300	2525
TOTAL C	233	371					260	485
TOTAL D	290	507					305	585



APPROACH	8TH MAX. HOUR TRAFFIC	
	A.M.	P.M.
A	1,268	1,400
B	1,265	1,389
C	143	267
D	168	322

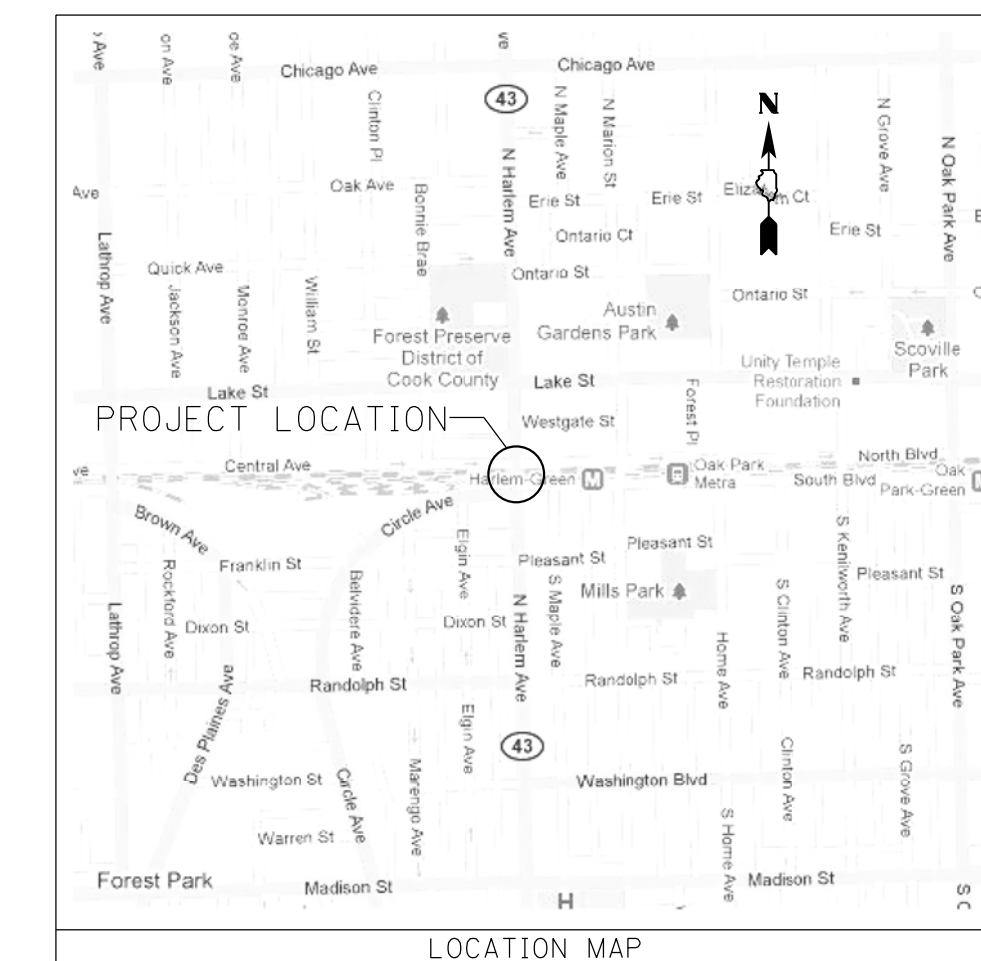
ELEMENTS CONTROLLING DESIGN

- HIGHWAY DESIGN CLASSIFICATION HARLEM AVE. - PRINCIPAL ARTERIAL  
CENTRAL AVE. - COLLECTOR, NORTH BLVD. - LOCAL  
SRA: YES  NO
- AVERAGE DAILY TRAFFIC (ADT) DATA: HARLEM AVE. EXISTING 33,500 DESIGN 35,000  
CENTRAL AVE. EXISTING 3,700 DESIGN 7,000  
NORTH BLVD. EXISTING 5,100 DESIGN 8,000
- HARLEM AVE. IS THE PREFERENCE ROUTE
- ANTICIPATED YEAR OF CONSTRUCTION 2015 DESIGN YEAR 2040
- TRAFFIC CONTROL TO BE SIGNALIZED WARRANTS MET 1 AND 2
- DESIGN CRITERIA: HARLEM - URBAN BDE, CENTRAL/NORTH - URBAN BLR
- DESIGN VEHICLE: WB-50 TRUCK ROUTE DESIGNATION CLASS II
- DESIGN SPEED HARLEM AVE. - 35 MPH  
CENTRAL AVE./ NORTH BLVD. - 25 MPH
- POSTED SPEED HARLEM AVE. - 30 MPH  
CENTRAL AVE./ NORTH BLVD. - 25 MPH

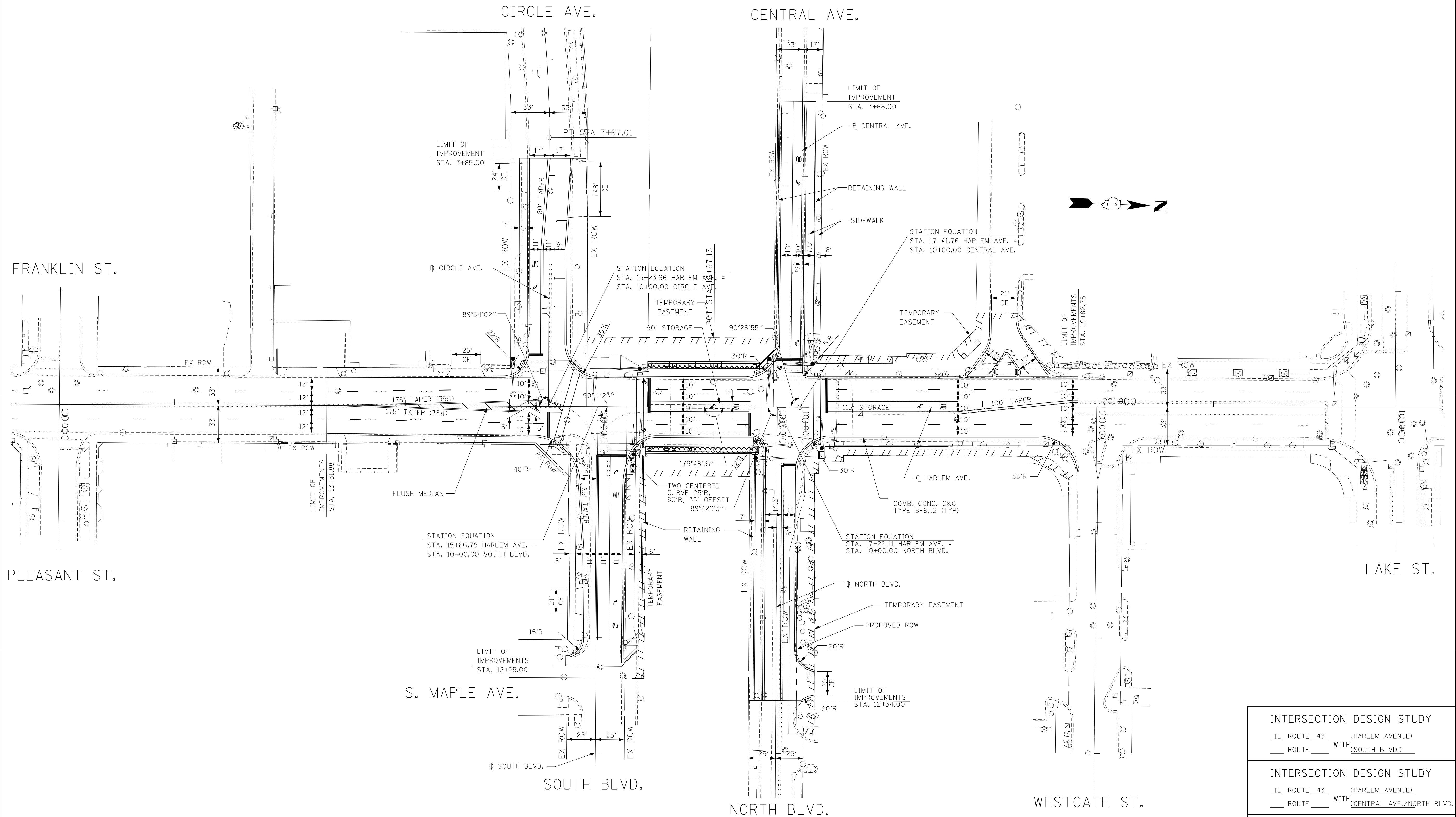
GENERAL NOTES

- PROFILES ARE PROVIDED, SINCE APPROACH GRADES ARE GREATER THAN 1.0 PERCENT HARLEM AVE. AND CENTRAL AVE./ NORTH BLVD.
- TYPE B-6.12 CURB AND GUTTER TO BE USED ON OUTER EDGES OF PAVEMENT
- TYPE CURB AND GUTTER TO BE USED ON CHANNELIZING ISLAND N/A
- ALL DIMENSIONS ARE SHOWN E-E OF PAVEMENT
- INTERSECTION IS NOT A HIGH ACCIDENT LOCATION
- INTERSECTION IS PART OF INTERCONNECTED SYSTEM
- ALL SIDEWALKS AND RAMPS AS SHOWN ARE IN COMPLIANCE WITH THE AMERICAN DISABILITIES ACT.
- EXPECTED PEDESTRIAN/BICYCLE USAGE TYPICAL FOR COMMERCIAL AREA
- ALL ENTRANCES AS SHOWN ARE IN COMPLIANCE WITH IDOT "POLICIES ON ACCESS TO STATE HIGHWAYS".  
NOTED EXCEPTIONS:
- SCOPE OF WORK: RECONSTRUCTION AND MODERNIZED SIGNAL
- DESIGN EXCEPTIONS: DESIGN VEHICLE - ALL MOVEMENTS EXCEPT SW AND SE - SU  
DESIGN VEHICLE - SE CORNER - PASSENGER CAR

PREPARED BY:  
PROJ. MGR. DS PROJ. ENG.



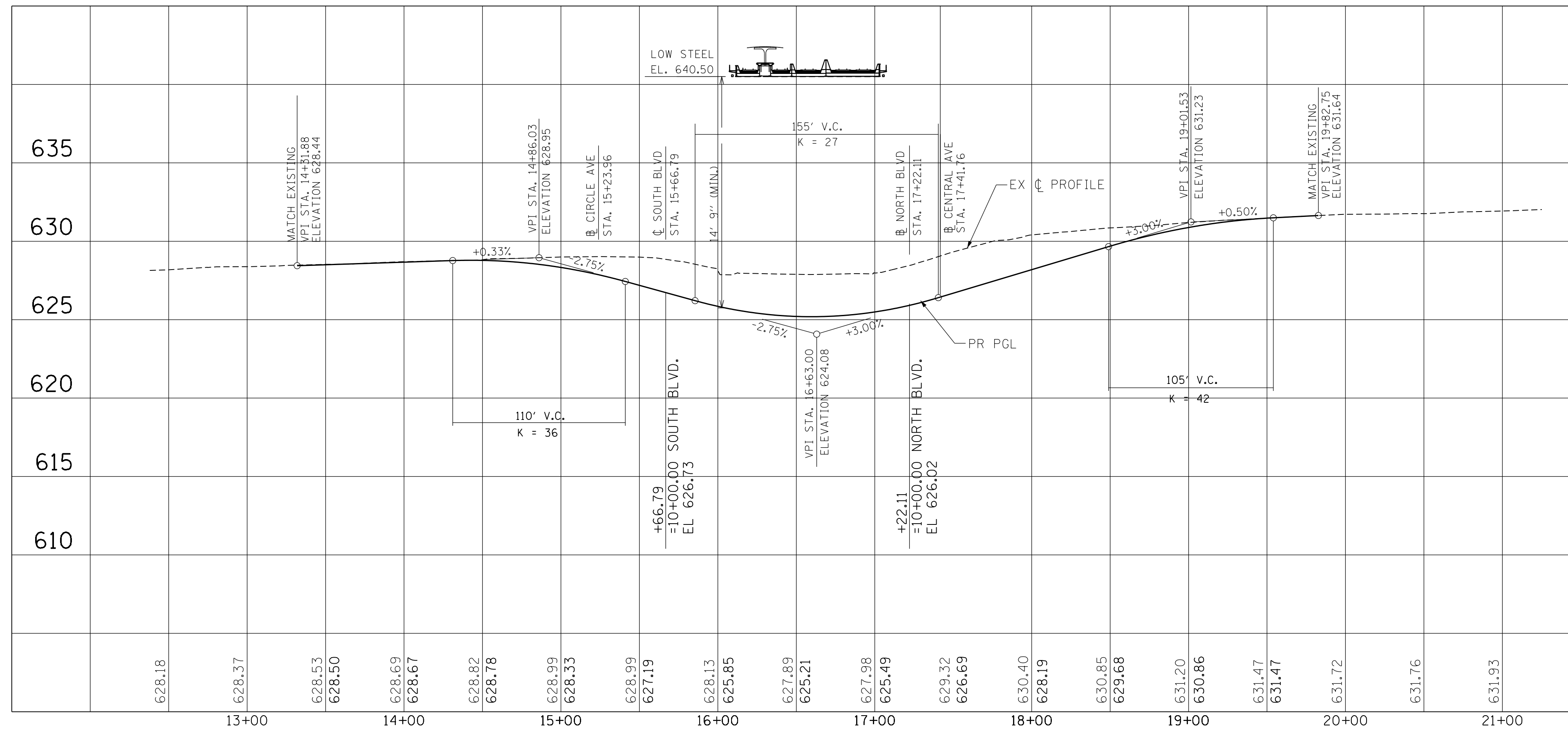
DRAWING NO. \_\_\_\_\_  
INTERSECTION DESIGN STUDY  
IL ROUTE 43 (HARLEM AVENUE)  
ROUTE WITH (CENTRAL AVE./NORTH BLVD.)  
SEC. NO. 06-00086-00-BR PROJ. NO. HPP-0142(001)  
SCALE COUNTY COOK  
SUN : REV. NO. \_\_\_\_\_  
DATE QA/OC REVIEWER REMARKS  
CADD FILE NAME \*DGN-SPEC\*  
REF FILE NAME \_\_\_\_\_  
I.D.S. SHEET 2 OF 6



INTERSECTION DESIGN STUDY  
 IL ROUTE 43 (HARLEM AVENUE)  
 WITH (SOUTH BLVD.)

INTERSECTION DESIGN STUDY  
 IL ROUTE 43 (HARLEM AVENUE)  
 WITH (CENTRAL AVE./NORTH BLVD.)

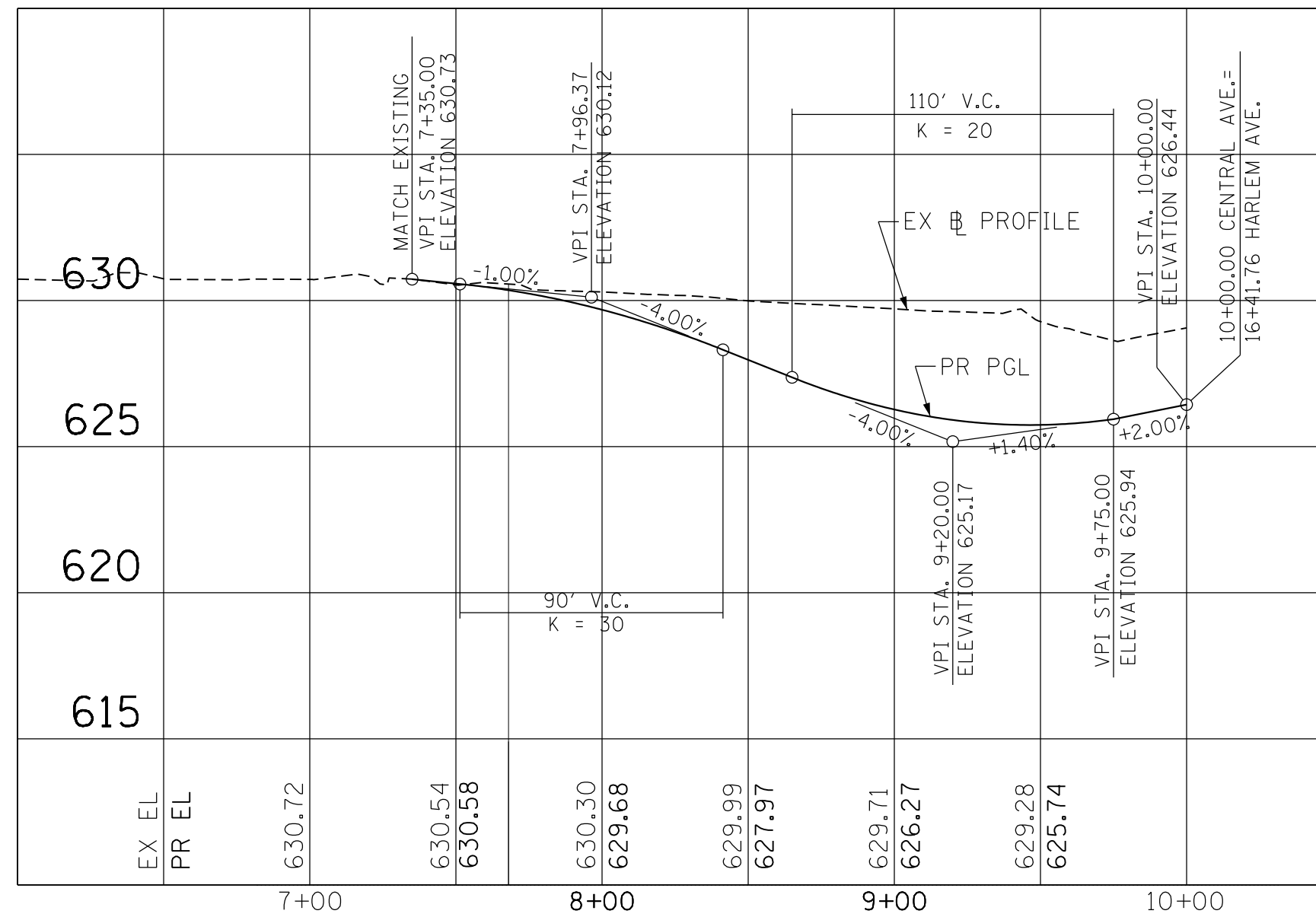
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 SCALE 1"=40' COUNTY COOK  
 SJN : \_\_\_\_\_ PROJ. NO. HPP-0142(001)  
 I.D.S. SHEET 3 OF 6



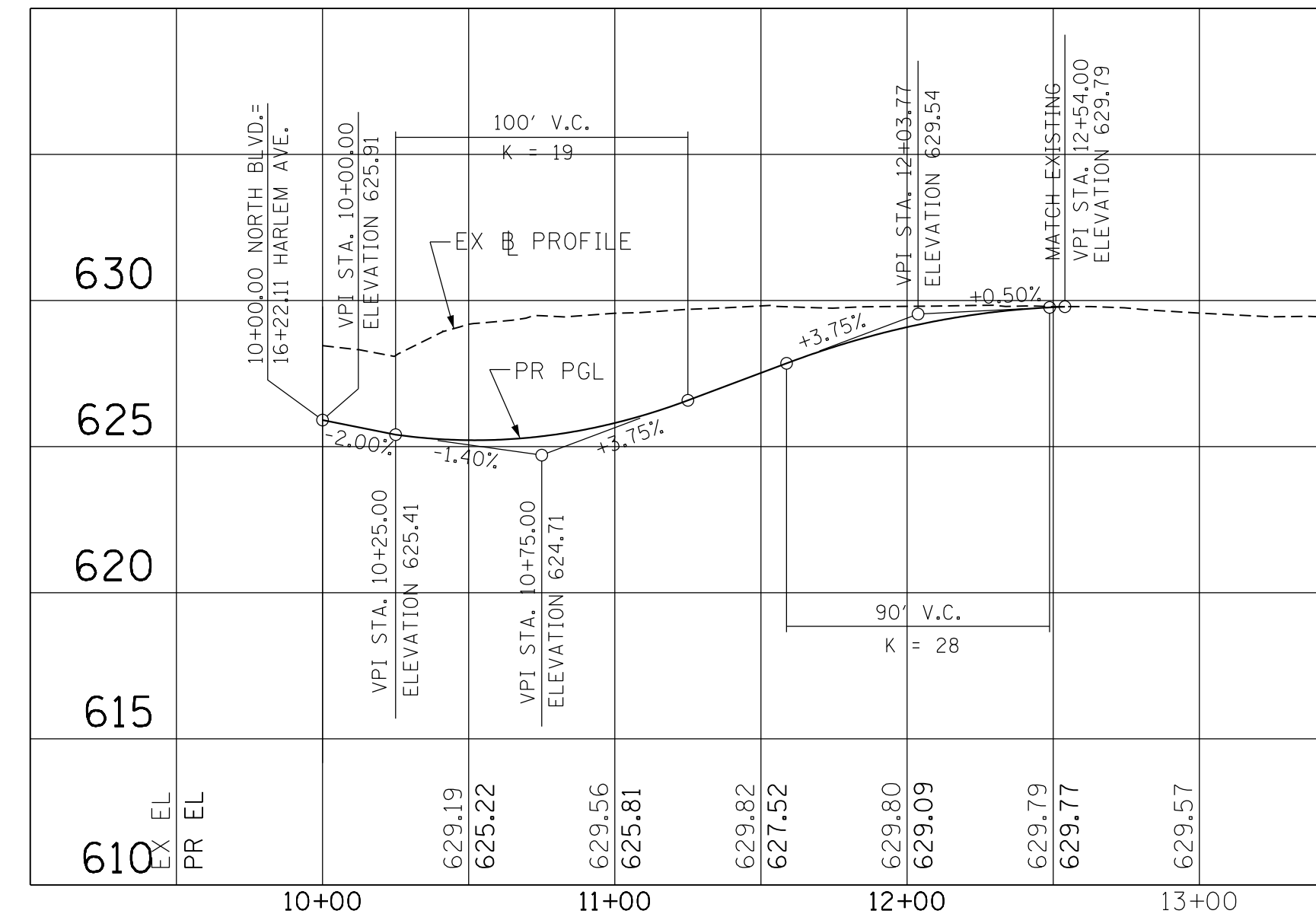
INTERSECTION DESIGN STUDY  
 IL ROUTE 43 (HARLEM AVENUE)  
 WITH (SOUTH BLVD.)

INTERSECTION DESIGN STUDY  
 IL ROUTE 43 (HARLEM AVENUE)  
 WITH (CENTRAL AVE./NORTH BLVD.)

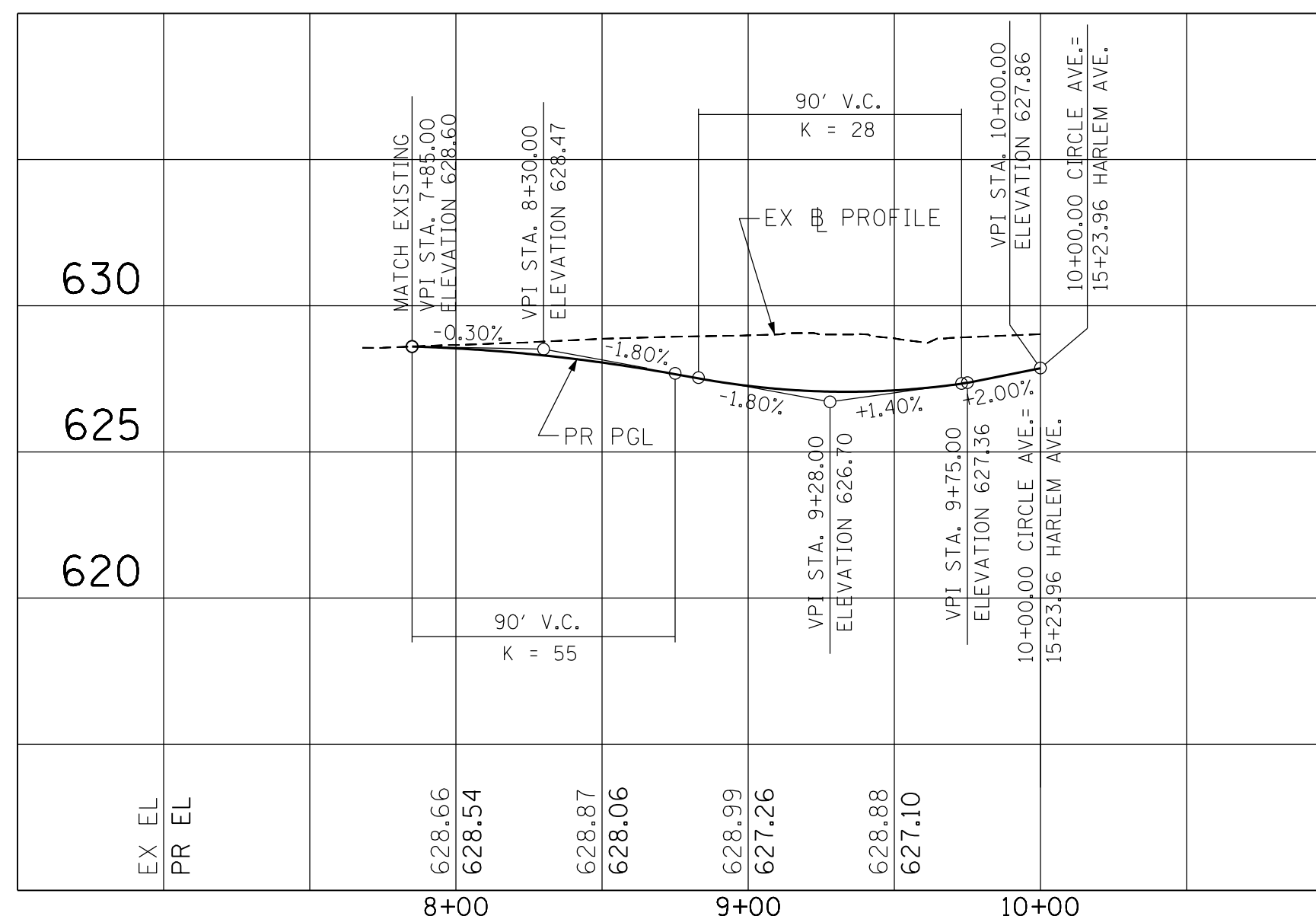
SEC. NO. 06-00086-00-BR  
 SCALE 1"=50'H  
 1"=5' V COUNTY COOK  
 SJN : PROJ. NO. HPP-0142(001)  
 I.D.S. SHEET 4 OF 6



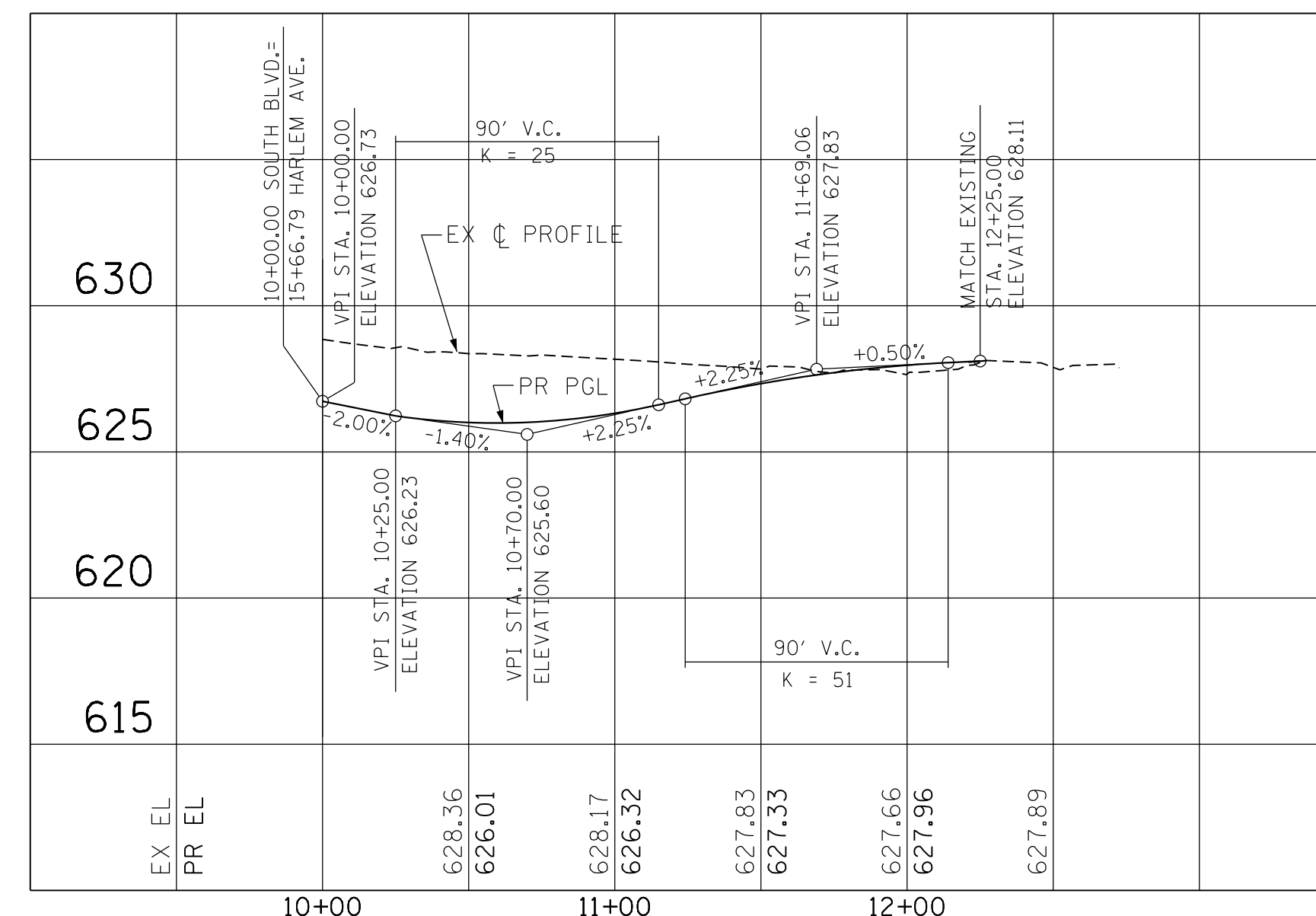
PROPOSED PROFILE - CENTRAL AVE.



PROPOSED PROFILE - NORTH BLVD.



PROPOSED PROFILE - CIRCLE AVE.

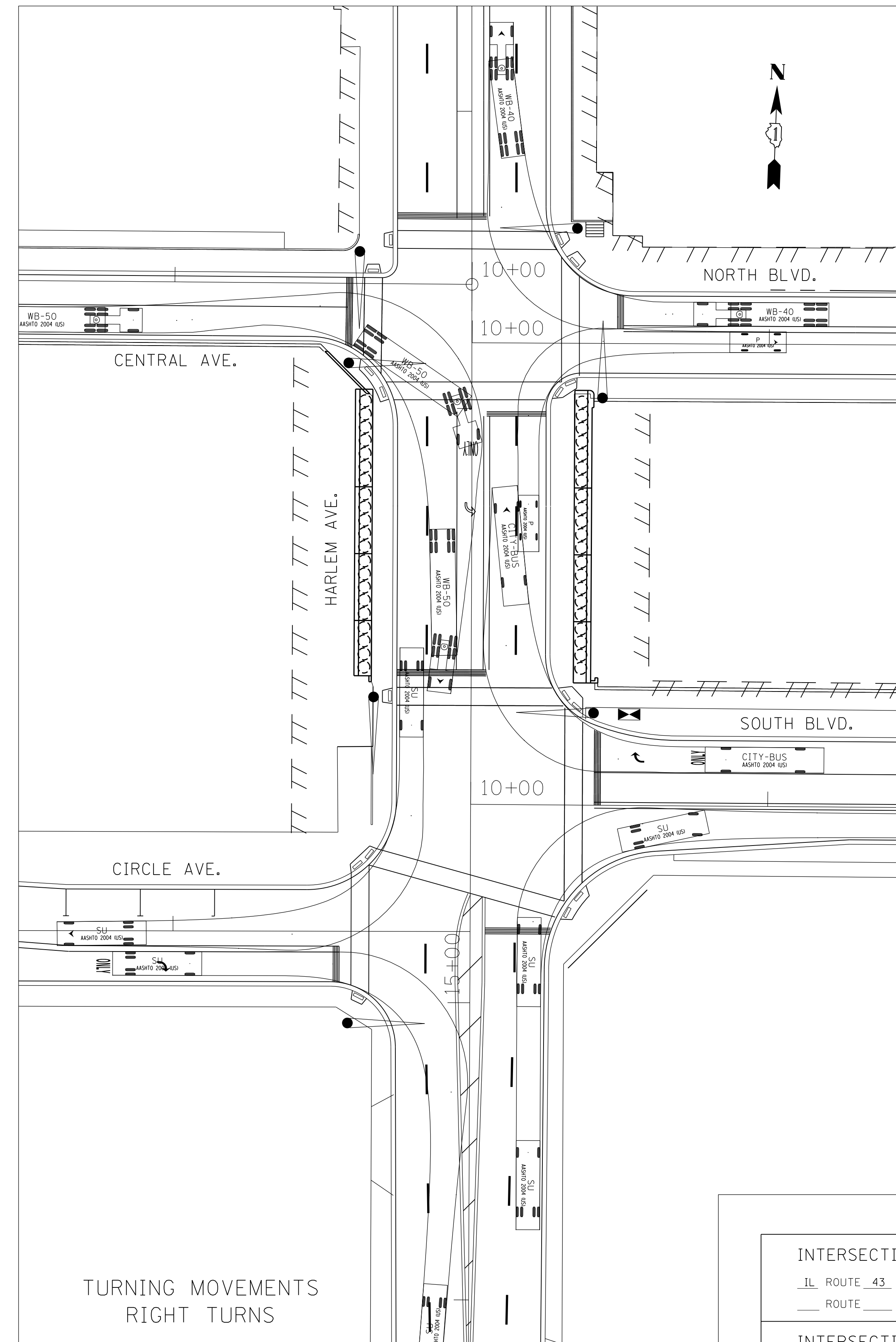
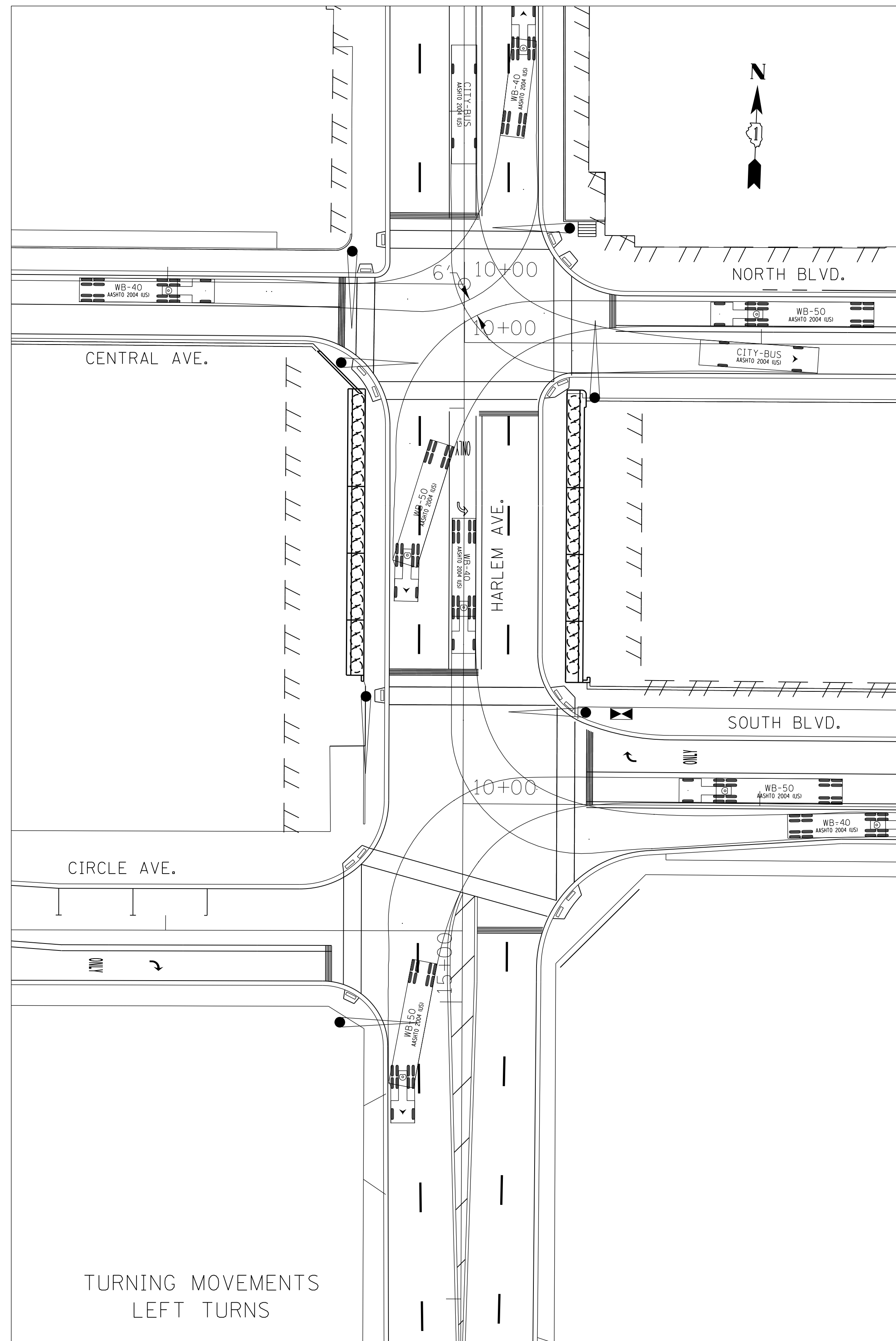


PROPOSED PROFILE - SOUTH BLVD.

INTERSECTION DESIGN STUDY  
 IL ROUTE 43 (HARLEM AVENUE)  
 WITH ROUTE (SOUTH BLVD.)

INTERSECTION DESIGN STUDY  
 IL ROUTE 43 (HARLEM AVENUE)  
 WITH ROUTE (CENTRAL AVE./NORTH BLVD.)

SEC. NO. 06-0086-00-BR  
 SCALE 1"=50'H COUNTY COOK  
 1"=5' V  
 SJN : PROJ. NO. HPP-0142(001)  
 I.D.S. SHEET 5 OF 6



INTERSECTION DESIGN STUDY  
 IL ROUTE 43 (HARLEM AVENUE)  
 WITH SOUTH BLVD.)  
 INTERSECTION DESIGN STUDY  
 IL ROUTE 43 (HARLEM AVENUE)  
 WITH (CENTRAL AVE./NORTH BLVD.)  
 SEC. NO. 06-00086-00-BR  
 SCALE 1"=25' COUNTY COOK  
 SJN : PROJ. NO. HPP-0142(001)  
 I.D.S. SHEET 6 OF 6





**Design Exception Request  
Project Identification**

Route:FAP 348		Street:Harlem Avenue		Marked:IL 43	
Contract #:		State Job #:		Section:06-00086-00-BR	
County: Cook			Municipality: River Forest, Oak Park, Forest Park		
Local Agency: River Forest, Oak Park, Forest Park			LRS Section #:		
Permit Applicant:			Permit #:		
Project Limits: South of Circle Avenue to Westgate Street					
Project Length: 0.2 miles			FHWA Oversight?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Estimate of Cost: \$			Functional Classification: Other Principal Arterial (SRA)		
Design Year: 2040		Design Traffic: ADT 35,000 DHV 2,525		Current Posted Speed: 30 mph	
On the NHS System? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Structure Numbers: EX 016-0310, PR 016-0666		
Type of Project (Construction, Reconstruction, 3R, HES, etc): Reconstruction					
Brief Project Description: Replacement of the structure carrying the Union Pacific Railroad, Metra and CTA over Harlem Avenue, lowering Harlem Avenue to provide minimum clearance and reconstruction of affected portions of Circle Avenue, South Boulevard, North Boulevard and Central Avenue.					

**EXCEPTION DOCUMENTATION**

Level of Exception: Level I <input checked="" type="checkbox"/> Level II <input type="checkbox"/>	
Design Element for Which an Exception Is Requested: Through Lane Width	
Design Element Policy Value: 12'	
Proposed Design Element Value: 10'	
Location(s) of Exception: Along Harlem Avenue	
Accident History and Potential of Exception Location(s): No crash cluster associated with narrow lanes.	
Cost of Using Policy Value:	Cost of Using Proposed Exception Value:
Impacts Other Than Cost, of Using Policy Value: Sidewalks narrowed or additional right of way acquired.	
Proposed Mitigation To Address Exception: None.	
Geometric Compatibility with Adjacent Sections: Taper to 4 12' lanes south of project. Matches section north of project.	
Potential Effects On Other Design Elements: None.	
Potential Impacts On Mobility or Traffic Operations: None.	
Summary of Justification for Exception: 10' lanes match the Harlem Avenue cross section immediately north of the bridge. Wider lanes would require a wider bridge which would be extremely costly and would impact the existing CTA building. The SRA report for Harlem Avenue also identifies 10' lanes as the desired design.	
Coordination Meeting Date:	
Prepared By:	Date:

**APPROVAL/DISAPPROVAL**

BDE Approval Date:	BDE Disapproval Date:
BDE Comments on Disapproval:	
DOH Approval Date:	DOH Disapproval Date:
DOH Comments on Disapproval:	
FHWA Approval Date:	FHWA Disapproval Date:



Route:FAP 348		Street:Harlem Avenue		Marked:IL 43	
Contract #:		State Job #:		Section:06-00086-00-BR	
County: Cook			Municipality: River Forest, Oak Park, Forest Park		
Local Agency: River Forest, Oak Park, Forest Park			LRS Section #:		
Permit Applicant:			Permit #:		
Project Limits: South of Circle Avenue to Westgate Street					
Project Length: 0.2 miles			FHWA Oversight?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Estimate of Cost: \$			Functional Classification: Other Principal Arterial (SRA)		
Design Year: 2040		Design Traffic: ADT 35,000 DHV 2,525		Current Posted Speed: 30 mph	
On the NHS System? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Structure Numbers: EX 016-0310, PR 016-0666		
Type of Project (Construction, Reconstruction, 3R, HES, etc): Reconstruction					
Brief Project Description: Replacement of the structure carrying the Union Pacific Railroad, Metra and CTA over Harlem Avenue, lowering Harlem Avenue to provide minumim clearance and reconstruction of affected portions of Circle Avenue, South Boulevard, North Boulevard and Central Avenue.					

**EXCEPTION DOCUMENTATION**

Level of Exception: Level I <input type="checkbox"/> Level II <input checked="" type="checkbox"/>	
Design Element for Which an Exception Is Requested: Curb and Gutter	
Design Element Policy Value: B-6.24	
Proposed Design Element Value: B-6.12	
Location(s) of Exception: Along Harlem Avenue	
Accident History and Potential of Exception Location(s): No crashes attributed to existing B-6.12 curb and gutter	
Cost of Using Policy Value:	Cost of Using Proposed Exception Value:
Impacts Other Than Cost, of Using Policy Value: Sidewalks would be narrowed from 6' to 5' with no buffer.	
Proposed Mitigation To Address Exception: None.	
Geometric Compatibility with Adjacent Sections: B-6.12 north and south of project area.	
Potential Effects On Other Design Elements: None.	
Potential Impacts On Mobility or Traffic Operations: None.	
Summary of Justification for Exception: The right of way is restricted through the project area. Wider gutter would require narrower lanes or sidewalks, both of which are already at minimal widths. There is no history of flooding or problems with water on the pavement in the vicinity of the bridge. North and south of the project area Harlem Avenue has B-6.12 curb and gutter.	
Coordination Meeting Date:	
Prepared By: D. Shannon, Lochner	Date: 11/4/2012

**APPROVAL/DISAPPROVAL**

BDE Approval Date:	BDE Disapproval Date:
BDE Comments on Disapproval:	
DOH Approval Date:	DOH Disapproval Date
DOH Comments on Disapproval:	
FHWA Approval Date:	FHWA Disapproval Date:



**Design Exception Request  
Project Identification**

Route:FAP 348		Street:Harlem Avenue		Marked:IL 43	
Contract #:		State Job #:		Section:06-00086-00-BR	
County: Cook			Municipality: River Forest, Oak Park, Forest Park		
Local Agency: River Forest, Oak Park, Forest Park			LRS Section #:		
Permit Applicant:			Permit #:		
Project Limits: South of Circle Avenue to Westgate Street					
Project Length: 0.2 miles			FHWA Oversight?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Estimate of Cost: \$			Functional Classification: Other Principal Arterial (SRA)		
Design Year: 2040		Design Traffic: ADT 35,000 DHV 2,525		Current Posted Speed: 30 mph	
On the NHS System? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Structure Numbers: EX 016-0310, PR 016-0666		
Type of Project (Construction, Reconstruction, 3R, HES, etc): Reconstruction					
Brief Project Description: Replacement of the structure carrying the Union Pacific Railroad, Metra and CTA over Harlem Avenue, lowering Harlem Avenue to provide minumim clearance and reconstruction of affected portions of Circle Avenue, South Boulevard, North Boulevard and Central Avenue.					

**EXCEPTION DOCUMENTATION**

Level of Exception: Level I <input type="checkbox"/> Level II <input checked="" type="checkbox"/>	
Design Element for Which an Exception Is Requested: Left Turn Deceleration Distance	
Design Element Policy Value: 280'	
Proposed Design Element Value: 215'	
Location(s) of Exception: Southbound Harlem Avenue to eastbound North Boulevard	
Accident History and Potential of Exception Location(s): No crash cluster associated with deceleration.	
Cost of Using Policy Value:	Cost of Using Proposed Exception Value:
Impacts Other Than Cost, of Using Policy Value: None.	
Proposed Mitigation To Address Exception: None.	
Geometric Compatibility with Adjacent Sections: N/A	
Potential Effects On Other Design Elements: Longer deceleration would impact left turns for Lake Street intersection.	
Potential Impacts On Mobility or Traffic Operations: Left turns must use portion of through lane for deceleration.	
Summary of Justification for Exception: The deceleration distance is limited by the left turn storage for the Lake Street intersection located immediately north of the project area. Lengthening the taper and storage will reduce the amount of Lake Street left turn storage which will negatively impact the functioning of the Lake Street intersection. This is a densely developed area and short deceleration lengths are not atypical.	
Coordination Meeting Date:	
Prepared By: D. Shannon, Lochner	Date: 11/4/2012

**APPROVAL/DISAPPROVAL**

BDE Approval Date:	BDE Disapproval Date:
BDE Comments on Disapproval:	
DOH Approval Date:	DOH Disapproval Date
DOH Comments on Disapproval:	
FHWA Approval Date:	FHWA Disapproval Date:



**Design Exception Request  
Project Identification**

Route:FAP 348		Street:Harlem Avenue		Marked:IL 43	
Contract #:		State Job #:		Section:06-00086-00-BR	
County: Cook			Municipality: River Forest, Oak Park, Forest Park		
Local Agency: River Forest, Oak Park, Forest Park			LRS Section #:		
Permit Applicant:			Permit #:		
Project Limits: South of Circle Avenue to Westgate Street					
Project Length: 0.2 miles			FHWA Oversight?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Estimate of Cost: \$			Functional Classification: Other Principal Arterial (SRA)		
Design Year: 2040		Design Traffic: ADT 35,000 DHV 2,525		Current Posted Speed: 30 mph	
On the NHS System? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Structure Numbers: EX 016-0310, PR 016-0666		
Type of Project (Construction, Reconstruction, 3R, HES, etc): Reconstruction					
Brief Project Description: Replacement of the structure carrying the Union Pacific Railroad, Metra and CTA over Harlem Avenue, lowering Harlem Avenue to provide minumim clearance and reconstruction of affected portions of Circle Avenue, South Boulevard, North Boulevard and Central Avenue.					

**EXCEPTION DOCUMENTATION**

Level of Exception: Level I <input type="checkbox"/> Level II <input checked="" type="checkbox"/>	
Design Element for Which an Exception Is Requested: Design Vehicle	
Design Element Policy Value: WB-50	
Proposed Design Element Value: Passenger Car, SU Truck, City Bus	
Location(s) of Exception: Intersection of Circle Avenue, South Boulevard, North Boulevard and Central Avenue	
Accident History and Potential of Exception Location(s): Some crashes due to tight corner at North Boulevard	
Cost of Using Policy Value:	Cost of Using Proposed Exception Value:
Impacts Other Than Cost, of Using Policy Value: Narrower sidewalks, additional right of way, impacts to existing structures.	
Proposed Mitigation To Address Exception: None.	
Geometric Compatibility with Adjacent Sections: The adjacent area is not a source or destination for heavy trucks.	
Potential Effects On Other Design Elements: None.	
Potential Impacts On Mobility or Traffic Operations: None.	
Summary of Justification for Exception:	
<p>Movement: EB Circle to SB Harlem Avenue          Provided: SU Truck          Justification: A vehicle larger than an SU truck would require a much larger corner radius which would require additional right of way which would result in a negative impact to the property in that quadrant. Larger vehicles can make this turn by encroaching into the westbound Circle Avenue lane and by using the flush median on Harlem Avenue.</p> <p>Movement: SB Harlem Avenue to WB Circle          Provided: SU Truck          Justification: A vehicle larger than an SU truck would require a much larger corner radius which would require additional right of way which would result in a negative impact to the CTA property in that quadrant. Larger vehicles can make this turn by encroaching into the inside SB lane and the eastbound Circle Avenue lane.</p> <p>Movement: NB Harlem Avenue to EB South Boulevard          Provided: SU Truck          Justification: A vehicle larger than an SU truck would require a much larger corner radius which would require much more additional right of way which would result in a much greater impact on the property in that quadrant.</p> <p>Movement: SB Harlem Avenue to EB South Boulevard          Provided: WB-40 Truck          Justification: A vehicle larger than an WB-40 truck would require either shifting the stop bar east along South Boulevard to an unacceptable distance from Harlem Avenue or shifting the south edge of pavement further south which would require additional right of way which would result in a negative impact to the property in that quadrant.</p>	

Movement: WB South Boulevard to NB Harlem Avenue

Provided: City Bus

Justification: A city bus was selected because this movement is part of the route for the CTA #90 bus service. A vehicle larger than a city bus would require a much larger corner radius which is not possible due to the proximity of the intersection to the bridge.

Movement: NB Harlem Avenue to EB North Boulevard

Provided: Passenger Car

Justification: A vehicle larger than a passenger car would require a much larger corner radius which is not possible due to the proximity of the intersection to the bridge. Larger vehicles can access the commercial area northeast of the bridge by using Westgate Street.

Movement: WB North Boulevard to NB Harlem Avenue

Provided: WB-40 Truck

Justification: A vehicle larger than a WB-40 Truck would require a much larger corner radius which is not possible due to the proximity of the intersection to the existing building. Large vehicles can exit this area by turning south down Harlem Avenue.

Movement: EB Central Avenue to NB Harlem Avenue

Provided: WB-40 Truck

Justification: A vehicle larger than a WB-40 Truck would require shifting the stop bar for southbound Harlem Avenue north. The necessary shift would negatively impact the limited storage available between the Lake Street and Central Avenue intersections. Larger vehicles can make this turn by turning from the through/right turn lane and encroaching slightly into the left-turn lane.

Movement: SB Harlem Avenue to EB North Boulevard

Provided: City Bus

Justification: A city bus was selected because this movement is part of the route for the CTA #90 bus service. A vehicle larger than a city bus would require shifting the stop bar for westbound North Boulevard east to an unacceptable distance from Harlem Avenue. Larger vehicles can make this turn by encroaching into the westbound lane.

Coordination Meeting Date:

Prepared By: D. Shannon / Lochner

Date: 11/4/2012

#### APPROVAL/DISAPPROVAL

BDE Approval Date:	BDE Disapproval Date:
BDE Comments on Disapproval:	
DOH Approval Date:	DOH Disapproval Date
DOH Comments on Disapproval:	
FHWA Approval Date:	FHWA Disapproval Date:



**Design Exception Request  
Project Identification**

Route:FAP 348		Street:Harlem Avenue		Marked:IL 43	
Contract #:		State Job #:		Section:06-00086-00-BR	
County: Cook			Municipality: River Forest, Oak Park, Forest Park		
Local Agency: River Forest, Oak Park, Forest Park			LRS Section #:		
Permit Applicant:			Permit #:		
Project Limits: South of Circle Avenue to Westgate Street					
Project Length: 0.2 miles			FHWA Oversight?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Estimate of Cost: \$			Functional Classification: Other Principal Arterial (SRA)		
Design Year: 2040		Design Traffic: ADT 35,000 DHV 2,525		Current Posted Speed: 30 mph	
On the NHS System? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Structure Numbers: EX 016-0310, PR 016-0666		
Type of Project (Construction, Reconstruction, 3R, HES, etc): Reconstruction					
Brief Project Description: Replacement of the structure carrying the Union Pacific Railroad, Metra and CTA over Harlem Avenue, lowering Harlem Avenue to provide minumim clearance and reconstruction of affected portions of Circle Avenue, South Boulevard, North Boulevard and Central Avenue.					

**EXCEPTION DOCUMENTATION**

Level of Exception: Level I <input type="checkbox"/> Level II <input checked="" type="checkbox"/>	
Design Element for Which an Exception Is Requested: Left Turn Bay Taper	
Design Element Policy Value: 155'	
Proposed Design Element Value: 100'	
Location(s) of Exception: Southbound Harlem Avenue left turn to North Boulevard	
Accident History and Potential of Exception Location(s): Crash pattern typical for signalized intersection.	
Cost of Using Policy Value:	Cost of Using Proposed Exception Value:
Impacts Other Than Cost, of Using Policy Value: None.	
Proposed Mitigation To Address Exception: None.	
Geometric Compatibility with Adjacent Sections: N/A	
Potential Effects On Other Design Elements: None.	
Potential Impacts On Mobility or Traffic Operations: None.	
Summary of Justification for Exception: The left turn bay taper distance is limited by the left turn storage for the Lake Street intersection located immediately north of the project area. Lengthening the taper will reduce the amount of available left turn storage which will negatively impact the functioning of the North Boulevard and Lake Street intersections.	
Coordination Meeting Date:	
Prepared By: D. Shannon, Lochner	Date: 11/4/2012

**APPROVAL/DISAPPROVAL**

BDE Approval Date:	BDE Disapproval Date:
BDE Comments on Disapproval:	
DOH Approval Date:	DOH Disapproval Date
DOH Comments on Disapproval:	
FHWA Approval Date:	FHWA Disapproval Date:



Route:FAP 348		Street:Harlem Avenue		Marked:IL 43	
Contract #:		State Job #:		Section:06-00086-00-BR	
County: Cook			Municipality: River Forest, Oak Park, Forest Park		
Local Agency: River Forest, Oak Park, Forest Park			LRS Section #:		
Permit Applicant:			Permit #:		
Project Limits: South of Circle Avenue to Westgate Street					
Project Length: 0.2 miles			FHWA Oversight?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Estimate of Cost: \$			Functional Classification: Other Principal Arterial (SRA)		
Design Year: 2040		Design Traffic: ADT 35,000 DHV 2,525		Current Posted Speed: 30 mph	
On the NHS System? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Structure Numbers: EX 016-0310, PR 016-0666		
Type of Project (Construction, Reconstruction, 3R, HES, etc): Reconstruction					
Brief Project Description: Replacement of the structure carrying the Union Pacific Railroad, Metra and CTA over Harlem Avenue, lowering Harlem Avenue to provide minumim clearance and reconstruction of affected portions of Circle Avenue, South Boulevard, North Boulevard and Central Avenue.					

**EXCEPTION DOCUMENTATION**

Level of Exception: Level I <input type="checkbox"/> Level II <input checked="" type="checkbox"/>	
Design Element for Which an Exception Is Requested: Left Turn Storage Length	
Design Element Policy Value: 150'	
Proposed Design Element Value: 100'	
Location(s) of Exception: Southbound Left Turn at South Boulevard	
Accident History and Potential of Exception Location(s): This movement is not currently allowed.	
Cost of Using Policy Value:	Cost of Using Proposed Exception Value:
Impacts Other Than Cost, of Using Policy Value: Impact to Central Avenue / North Boulevard intersection.	
Proposed Mitigation To Address Exception: None.	
Geometric Compatibility with Adjacent Sections: N/A	
Potential Effects On Other Design Elements: None.	
Potential Impacts On Mobility or Traffic Operations: None.	
Summary of Justification for Exception: The left turn storage distance is limited by the proximity to the Central Avenue / North Boulevard intersection. The capacity analysis showed the necessary storage ranges from 55' to 77' in the AM and PM peak periods.	
Coordination Meeting Date:	
Prepared By: D. Shannon, Lochner	Date: 11/4/2012

**APPROVAL/DISAPPROVAL**

BDE Approval Date:	BDE Disapproval Date:
BDE Comments on Disapproval:	
DOH Approval Date:	DOH Disapproval Date
DOH Comments on Disapproval:	
FHWA Approval Date:	FHWA Disapproval Date:



Route:FAP 348		Street:Harlem Avenue		Marked:IL 43	
Contract #:		State Job #:		Section:06-00086-00-BR	
County: Cook			Municipality: River Forest, Oak Park, Forest Park		
Local Agency: River Forest, Oak Park, Forest Park			LRS Section #:		
Permit Applicant:			Permit #:		
Project Limits: South of Circle Avenue to Westgate Street					
Project Length: 0.2 miles			FHWA Oversight?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Estimate of Cost: \$			Functional Classification: Other Principal Arterial (SRA)		
Design Year: 2040		Design Traffic: ADT 35,000 DHV 2,525		Current Posted Speed: 30 mph	
On the NHS System? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Structure Numbers: EX 016-0310, PR 016-0666		
Type of Project (Construction, Reconstruction, 3R, HES, etc): Reconstruction					
Brief Project Description: Replacement of the structure carrying the Union Pacific Railroad, Metra and CTA over Harlem Avenue, lowering Harlem Avenue to provide minumim clearance and reconstruction of affected portions of Circle Avenue, South Boulevard, North Boulevard and Central Avenue.					

**EXCEPTION DOCUMENTATION**

Level of Exception: Level I <input type="checkbox"/> Level II <input checked="" type="checkbox"/>	
Design Element for Which an Exception Is Requested: Left Turn Storage Length	
Design Element Policy Value: 150'	
Proposed Design Element Value: 115'	
Location(s) of Exception: Southbound Left Turn at North Boulevard	
Accident History and Potential of Exception Location(s): No cluster of crashes associated with existing left turn storage.	
Cost of Using Policy Value:	Cost of Using Proposed Exception Value:
Impacts Other Than Cost, of Using Policy Value: Impact to northbound left turn lane at Lake Street.	
Proposed Mitigation To Address Exception: None.	
Geometric Compatibility with Adjacent Sections: N/A	
Potential Effects On Other Design Elements: None.	
Potential Impacts On Mobility or Traffic Operations: None.	
Summary of Justification for Exception: The left turn storage distance is limited by the left turn storage for the Lake Street intersection located immediately north of the project area. The capacity analysis showed the necessary storage ranges from 55' to 98' in the AM and PM peak periods.	
Coordination Meeting Date:	
Prepared By: D. Shannon, Lochner	Date: 11/4/2012

**APPROVAL/DISAPPROVAL**

BDE Approval Date:	BDE Disapproval Date:
BDE Comments on Disapproval:	
DOH Approval Date:	DOH Disapproval Date
DOH Comments on Disapproval:	
FHWA Approval Date:	FHWA Disapproval Date:





Route:FAP 348		Street:Harlem Avenue		Marked:IL 43	
Contract #:		State Job #:		Section:06-00086-00-BR	
County: Cook			Municipality: River Forest, Oak Park, Forest Park		
Local Agency: River Forest, Oak Park, Forest Park			LRS Section #:		
Permit Applicant:			Permit #:		
Project Limits: South of Circle Avenue to Westgate Street					
Project Length: 0.2 miles			FHWA Oversight?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Estimate of Cost: \$			Functional Classification: Other Principal Arterial (SRA)		
Design Year: 2040		Design Traffic: ADT 35,000 DHV 2,525		Current Posted Speed: 30 mph	
On the NHS System? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Structure Numbers: EX 016-0310, PR 016-0666		
Type of Project (Construction, Reconstruction, 3R, HES, etc): Reconstruction					
Brief Project Description: Replacement of the structure carrying the Union Pacific Railroad, Metra and CTA over Harlem Avenue, lowering Harlem Avenue to provide minumim clearance and reconstruction of affected portions of Circle Avenue, South Boulevard, North Boulevard and Central Avenue.					

**EXCEPTION DOCUMENTATION**

Level of Exception: Level I <input type="checkbox"/> Level II <input checked="" type="checkbox"/>	
Design Element for Which an Exception Is Requested: Sidewalk Width	
Design Element Policy Value: 10'	
Proposed Design Element Value: 6' to 7.5'	
Location(s) of Exception: Along Harlem Avenue	
Accident History and Potential of Exception Location(s): None.	
Cost of Using Policy Value:	Cost of Using Proposed Exception Value:
Impacts Other Than Cost, of Using Policy Value: Additional right of way	
Proposed Mitigation To Address Exception: None.	
Geometric Compatibility with Adjacent Sections: Matches section north and south of project	
Potential Effects On Other Design Elements: None.	
Potential Impacts On Mobility or Traffic Operations: None.	
Summary of Justification for Exception: The right of way is restricted through the project area. A wider sidewalk would require narrower lanes or additional right of way. Roadway lanes are already at minimal widths and additional right of way would negatively impact existing development.	
Coordination Meeting Date:	
Prepared By: D. Shannon/Lochner	Date: 11/4/2012

**APPROVAL/DISAPPROVAL**

BDE Approval Date:	BDE Disapproval Date:
BDE Comments on Disapproval:	
DOH Approval Date:	DOH Disapproval Date
DOH Comments on Disapproval:	
FHWA Approval Date:	FHWA Disapproval Date:

Harlem Avenue Underpass  
River Forest, Oak Park, Forest Park

PRELIMINARY ESTIMATE OF COST  
(2012 Base Year)

<u>WORK CLASSIFICATION</u>	<u>COST</u>
Roadway Removal Items	\$ 150,000
Structure Removal	\$ 750,000
Earthwork	\$ 130,000
Utility Adjustment	\$ 100,000
Drainage	\$ 95,000
Pavement and Sidewalks	\$ 985,000
Retaining Walls	\$ 15,000
Detour and Temporary Traffic Control	\$ 150,000
Lighting	\$ 80,000
Traffic Signals	\$ 500,000
Structure	\$ 7,200,000
Temporary Railroad Structure	\$ 4,800,000
Railroad Temporary Track Work	\$ 750,000
Railroad Flagging	\$ 200,000
Environmental Mitigation/Incidental Items	\$ 50,000
Existing Building Modifications	\$ 100,000
ROAD AND BRIDGE CONSTRUCTION SUB-TOTAL	\$ 16,055,000
Contingencies (20%)	\$ 3,210,000
CONSTRUCTION COST	\$ 19,265,000
Land Acquisition	\$ 100,000
TOTAL PROJECT COST	\$ 19,365,000

## Harlem Avenue Underpass Study Crash Analysis

Segment - Pleasant St to Circle Ave / South Boulevard  
Total Crashes: Type and Number

Source: IDOT, River Forest PD, Oak Park PD, Forest Park PD

	YEAR					TOTAL
	2007	2008	2009	2010	2011	
A. ANGLE	2	1	2	0	0	5
B. ANIMAL	0	0	0	0	0	0
C. BICYCLIST	0	2	0	0	1	3
D. FIXED OBJECT	0	0	0	0	0	0
E. HEAD ON	0	0	0	0	0	0
F. OTHER NON-COLLISION	0	0	0	0	0	0
G. OTHER NON-COLLISION-OFF ROAD	0	0	0	0	0	0
H. OTHER OBJECT-OFF ROAD	0	0	0	0	0	0
I. OVERTURNED-OFF ROAD	0	0	0	0	0	0
J. OVERTURNED-ON ROAD	0	0	0	0	0	0
K. PARKED VEHICLE	0	0	0	1	0	1
L. PEDESTRIAN	0	0	1	0	0	1
M. REAR	2	1	2	0	2	7
O. SIDESWIPE-OPPOSITE DIRECTION	0	0	0	0	0	0
P. SIDESWIPE-SAME DIRECTION	2	1	0	1	0	4
Q. TURNING	1	0	1	1	3	6
R. UNKNOWN	0	0	0	0	0	0
Total Crashes	7	5	6	3	6	27
Fatalities	0	0	0	0	0	0
A-Injuries	0	0	0	0	2	2
B-Injuries	0	0	1	1	0	2
C-Injuries	0	2	3	0	0	5
Wet Crashes	0	1	2	1	0	4
Night Crashes	1	0	2	1	3	7
Ice/Snow Crashes	0	0	0	0	1	1

## Harlem Avenue Underpass Study Crash Analysis

Intersection - Circle Ave / South Boulevard  
Total Crashes: Type and Number

Source: IDOT, River Forest PD, Oak Park PD, Forest Park PD

	YEAR					TOTAL
	2007	2008	2009	2010	2011	
A. ANGLE	1	0	0	0	0	1
B. ANIMAL	0	0	0	0	0	0
C. BICYCLIST	0	0	0	0	0	0
D. FIXED OBJECT	0	2	0	0	0	2
E. HEAD ON	0	0	0	0	0	0
F. OTHER NON-COLLISION	0	0	0	0	0	0
G. OTHER NON-COLLISION-OFF ROAD	0	0	0	0	0	0
H. OTHER OBJECT-OFF ROAD	0	0	0	0	0	0
I. OVERTURNED-OFF ROAD	0	0	0	0	0	0
J. OVERTURNED-ON ROAD	0	0	0	0	0	0
K. PARKED VEHICLE	1	0	0	0	0	1
L. PEDESTRIAN	0	1	1	1	1	4
M. REAR	1	8	0	0	1	10
O. SIDESWIPE-OPPOSITE DIRECTION	0	0	0	0	0	0
P. SIDESWIPE-SAME DIRECTION	5	7	2	3	2	19
Q. TURNING	3	0	0	1	0	4
R. UNKNOWN	0	0	0	0	0	0
Total Crashes	11	18	3	5	4	41
Fatalities	0	0	0	0	0	0
A-Injuries	0	0	0	0	0	0
B-Injuries	0	1	1	0	1	3
C-Injuries	0	0	4	1	0	5
Wet Crashes	1	3	0	1	1	6
Night Crashes	1	6	1	2	0	10
Ice/Snow Crashes	0	3	0	0	1	4

## Harlem Avenue Underpass Study Crash Analysis

Segment - Circle Avenue / South Boulevard to North Boulevard / Central Avenue  
Total Crashes: Type and Number

Source: IDOT, River Forest PD, Oak Park PD, Forest Park PD

	YEAR					TOTAL
	2007	2008	2009	2010	2011	
A. ANGLE	0	0	0	0	0	0
B. ANIMAL	0	0	0	0	0	0
C. BICYCLIST	0	0	0	0	0	0
D. FIXED OBJECT	0	1	0	0	0	1
E. HEAD ON	0	0	0	0	0	0
F. OTHER NON-COLLISION	0	0	0	0	0	0
G. OTHER NON-COLLISION-OFF ROAD	0	0	0	0	0	0
H. OTHER OBJECT-OFF ROAD	0	0	0	0	0	0
I. OVERTURNED-OFF ROAD	0	0	0	0	0	0
J. OVERTURNED-ON ROAD	0	0	0	0	0	0
K. PARKED VEHICLE	0	0	0	0	0	0
L. PEDESTRIAN	0	0	0	0	0	0
M. REAR	1	2	0	0	1	4
O. SIDESWIPE-OPPOSITE DIRECTION	0	0	0	0	0	0
P. SIDESWIPE-SAME DIRECTION	1	1	1	1	0	4
Q. TURNING	0	0	0	0	0	0
R. UNKNOWN	0	0	0	0	0	0
Total Crashes	2	4	1	1	1	9
Fatalities	0	0	0	0	0	0
A-Injuries	0	0	0	0	0	0
B-Injuries	0	0	0	0	0	0
C-Injuries	0	0	0	0	0	0
Wet Crashes	0	0	1	0	0	1
Night Crashes	0	2	1	1	1	5
Ice/Snow Crashes	0	1	0	0	0	1

## Harlem Avenue Underpass Study Crash Analysis

Intersection - North Boulevard / Central Avenue  
Total Crashes: Type and Number

Source: IDOT, River Forest PD, Oak Park PD, Forest Park PD

	YEAR					TOTAL
	2007	2008	2009	2010	2011	
A. ANGLE	7	3	2	1	1	14
B. ANIMAL	0	0	0	0	0	0
C. BICYCLIST	0	1	0	0	0	1
D. FIXED OBJECT	0	1	0	0	0	1
E. HEAD ON	0	0	0	0	0	0
F. OTHER NON-COLLISION	0	0	0	0	0	0
G. OTHER NON-COLLISION-OFF ROAD	0	0	0	0	0	0
H. OTHER OBJECT-OFF ROAD	0	0	0	0	0	0
I. OVERTURNED-OFF ROAD	0	0	0	0	0	0
J. OVERTURNED-ON ROAD	0	0	0	0	0	0
K. PARKED VEHICLE	0	0	0	0	0	0
L. PEDESTRIAN	0	1	1	0	0	2
M. REAR	3	2	0	0	0	5
O. SIDESWIPE-OPPOSITE DIRECTION	0	0	0	0	0	0
P. SIDESWIPE-SAME DIRECTION	4	6	3	1	1	15
Q. TURNING	1	0	1	0	1	3
R. UNKNOWN	0	0	0	0	0	0
Total Crashes	15	14	7	2	3	41
Fatalities	0	0	0	0	0	0
A-Injuries	0	1	0	0	0	1
B-Injuries	0	2	0	1	0	3
C-Injuries	0	0	1	0	0	1
Wet Crashes	1	1	2	0	0	4
Night Crashes	4	3	3	1	2	13
Ice/Snow Crashes	0	2	0	1	0	3

= Forest Park PD

**Harlem Avenue Underpass Study  
Crash Analysis**

Segment - North Boulevard to Westgate Street  
Total Crashes: Type and Number

Source: IDOT, River Forest PD, Oak Park PD, Forest Park PD

	YEAR					TOTAL
	2007	2008	2009	2010	2011	
A. ANGLE	0	0	0	0	0	0
B. ANIMAL	0	0	0	0	0	0
C. BICYCLIST	0	0	0	0	0	0
D. FIXED OBJECT	0	0	0	0	0	0
E. HEAD ON	0	0	0	0	0	0
F. OTHER NON-COLLISION	0	0	0	0	0	0
G. OTHER NON-COLLISION-OFF ROAD	0	0	0	0	0	0
H. OTHER OBJECT-OFF ROAD	0	0	0	0	0	0
I. OVERTURNED-OFF ROAD	0	0	0	0	0	0
J. OVERTURNED-ON ROAD	0	0	0	0	0	0
K. PARKED VEHICLE	0	0	0	0	0	0
L. PEDESTRIAN	1	1	0	0	0	2
M. REAR	2	0	0	0	1	3
O. SIDESWIPE-OPPOSITE DIRECTION	0	0	0	0	0	0
P. SIDESWIPE-SAME DIRECTION	2	0	0	0	0	2
Q. TURNING	0	0	0	0	0	0
R. UNKNOWN	0	0	0	0	0	0
Total Crashes	5	1	0	0	1	7
Fatalities	0	0	0	0	0	0
A-Injuries	0	0	0	0	0	0
B-Injuries	0	0	0	0	0	0
C-Injuries	1	0	0	0	0	1
Wet Crashes	0	0	0	0	0	0
Night Crashes	0	0	0	0	0	0
Ice/Snow Crashes	0	0	0	0	0	0





# Project Overview

**Submittal Date:** 08/30/2011 **Sequence No:** 16818  
**District:** 1 **Requesting Agency:** Local River Forest **Project No:**   
**Contract #:**  **Job No.:** P-91-161-06  
**Counties:** Cook  
**Route:** IL 43 **Marked:**   
**Street:** Harlem Avenue **Section:** 06-00086-00-BR  
**Municipality(ies):** River Forest, Forest Park, Oak Park **Project Length:** 0.3219 km 0.2 miles  
**FromTo (At):** Franklin Street to Lake Street  
**Quadrangle:** River Forest **Township-Range-Section:** T39N, R12E and R13E  
**Anticipated Design Appr.:** 06/01/2012 **Anticipated Processing:** CE  
**Funding:**  Federal  State  TBP  MFT  Local Non-MFT

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

<b>Sequence No:</b> 16818	<b>Biological</b>	<b>Wetlands</b>	<b>Cultural</b>	<b>Special Waste</b>
<b>Entered By</b>	BDE	No	BDE	BDE
<b>Cleared for DA</b>	9/15/2011		9/15/2011	
<b>Cleared for Letting</b>	9/15/2011		9/15/2011	
<b>Resubmittal</b>				
<b>ResubmittalCleared</b>				
<b>Section:</b> 06-00086-00-BR	<b>Job No.:</b> P-91-161-06			
<b>FromTo (At):</b> Franklin Street to Lake Street				

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:**

### Environmental Survey Request

**A. Project Information**       Bio    Cultural    Wetlands    Special Waste

Submittal Date: 08/30/2011    Sequence No: 16818  
District: 1    Requesting Agency: Local    River Forest    Project No:   
Contract #:    Job No.: P-1-161-06  
Counties: Cook  
Route: IL 43    Marked:   
Street: Harlem Avenue    Section: 06-00086-00-BR  
Municipality(ies) River Forest, Forest Park, Oak Park    Project Length: 0.322 km    0.2 miles  
From To (At): Franklin Street to Lake Street  
Quadrangle: River Forest    Township-Range-Section: T39N, R12E and R13E  
Anticipated Design Approval: 06/01/2012

**B. Reason for Submittal: (Check all that apply)**

Acquisition of additional ROW or easement    0.161874    ha/    0.4    acres  
 In-Stream Work    Stream Name:   
 Other:

**C. Project Description:** The project involves the improvement of Harlem Avenue under the Union Pacific railroad bridge and includes replacement of the railroad bridge and lowering Harlem Avenue in the vicinity of the bridge.

Proposed Work:    Highway    Bridge    Bike Trail    Other

**D. Tree Removal?:** Yes    Number?: 18    ha/    acres  
Existing Bridge(s) Structure Number: 016-0310    On Historic Bridge List: No  
Historic District Involved? Yes    Historic Buildings Involved? No  
Section 4(f) Lands Involved? No    Section 6(f) Lands Involved? No  
Wetland delineation performed by: BDE    End. Species Consultation performed by: Consultant

**E. Funding:**    Federal    State    TBP    MFT    Local Non-MFT  
 404 Permit Required    Anticipated Processing: CE

<b>F. Contact Person:</b> Marilyn Solomon	<b>Local Contact Person:</b> Philip Cotter
Telephone #: (847) 705-4407 ext.	Telephone #: (708) 366-8500 ext.
Env. Contact: Sam Mead	E-Mail: pcotter@river-forest.com
Telephone #: 8477054101	Title/Company:

Field Sign Off (Bio & Cultural Only)     Received in CO     SW Received

**BIOLOGICAL & WETLAND RESOURCES**  
**NO SURVEY OR FURTHER COORDINATION REQUIRED**  
*Thomas C. Brooks*  
SIGNED *JML* DATE







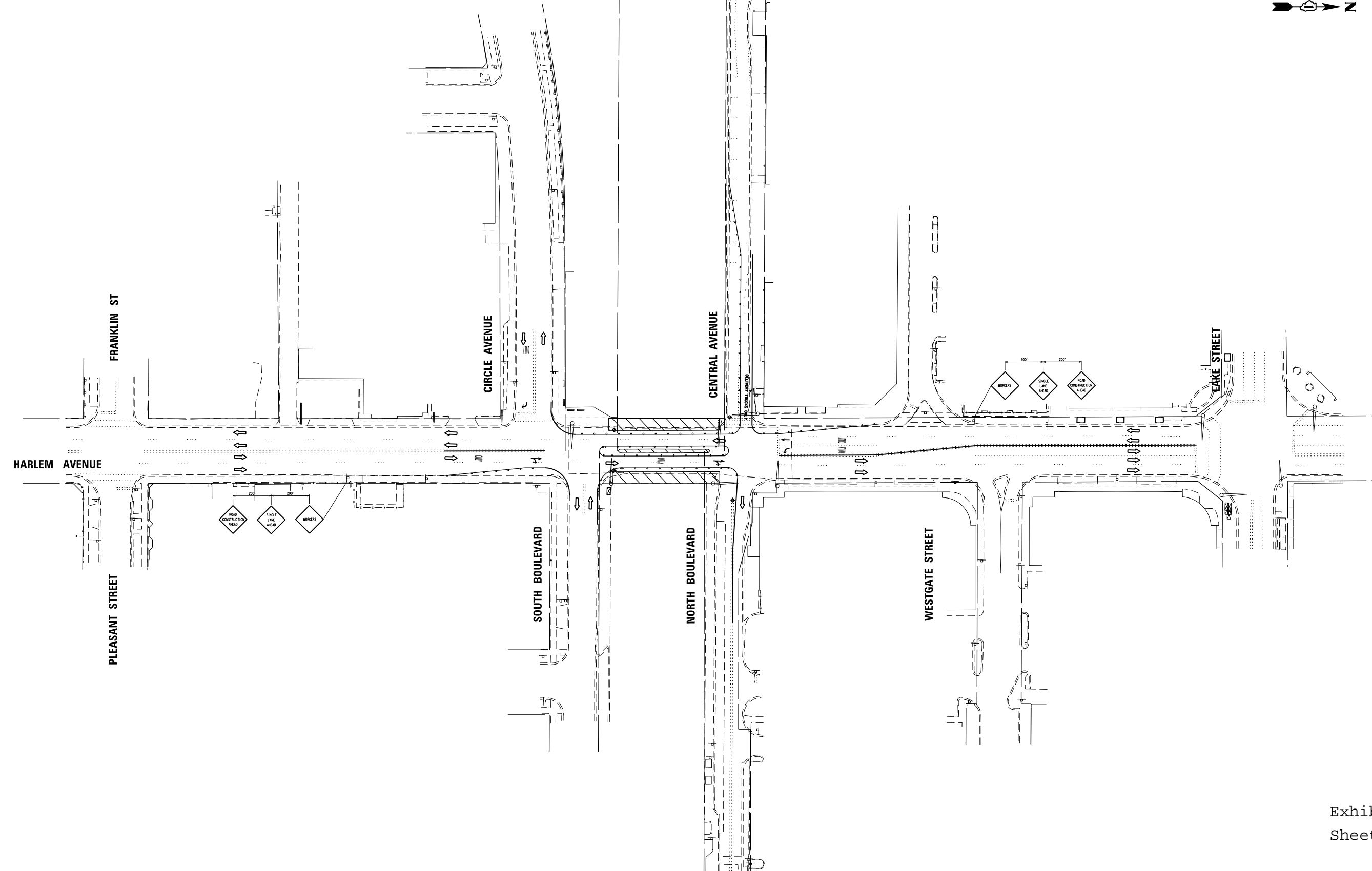
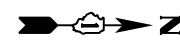


Exhibit 11-1  
Sheet 4 of 8

FILE NAME *FILEL*	USER NAME = *USER*	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAINTENANCE OF TRAFFIC PLANS – STAGE 3</b>			F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = *SCALE*	DRAWN -	REVISED -		PROJECT	JOB NO.		CONTRACT NO.					
PLOT DATE = *DATE*	CHECKED -	REVISED -	SCALE:		SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
	DATE -	REVISED -											

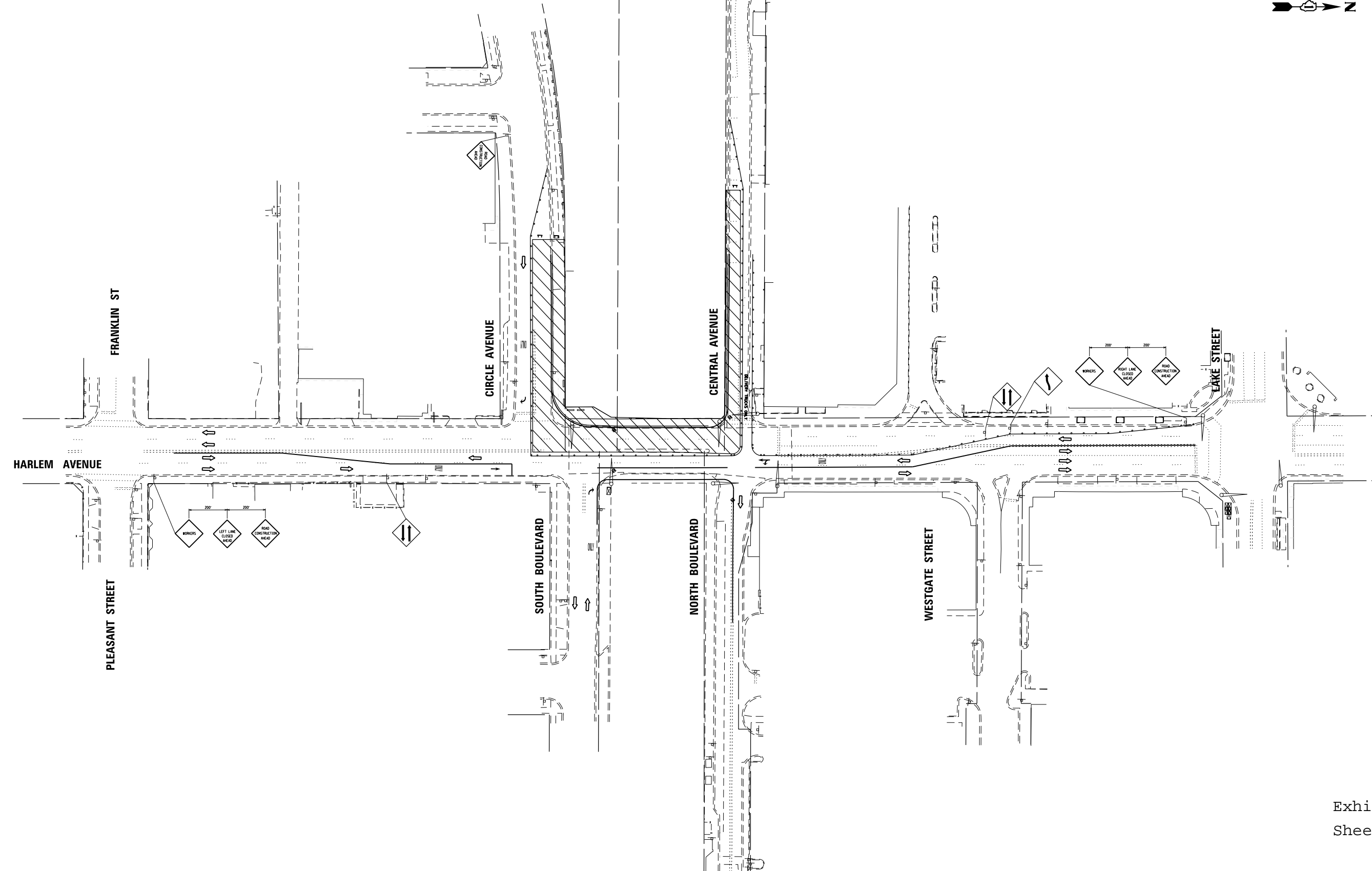


Exhibit 11-1  
Sheet 5 of 8

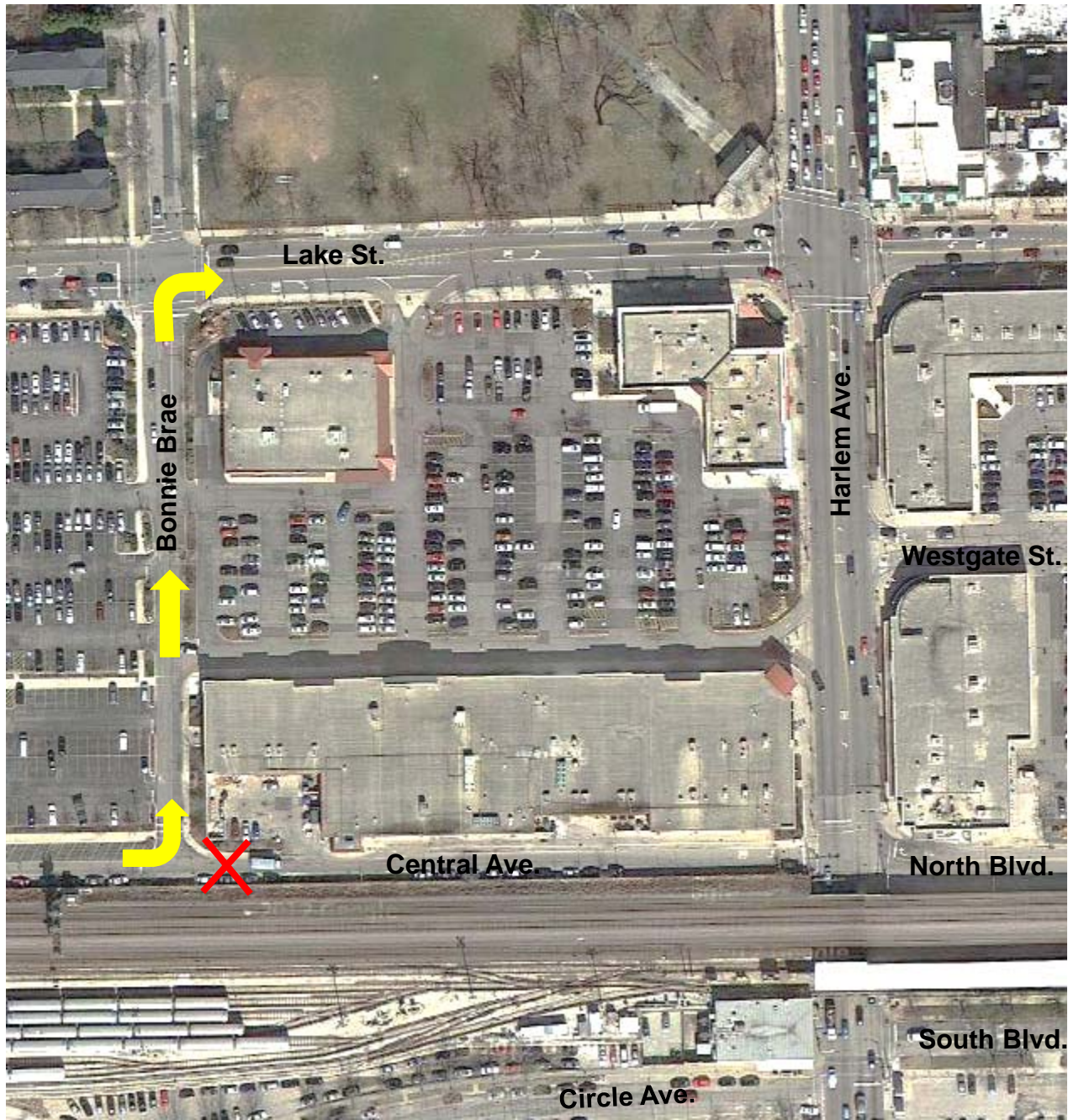
FILE NAME *FILEL*	USER NAME = *USER*	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAINTENANCE OF TRAFFIC PLANS - STAGE 4a</b>			F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = *SCALE*	DRAWN -	REVISED -		PROJECT	JOB NO.						
PLOT DATE = *DATE*	CHECKED -	REVISED -	SCALE:		SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO.			
	DATE -	REVISED -							FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		











**Harlem Avenue under the  
Union Pacific Railroad  
Detour Routes**







**Harlem Avenue under the  
Union Pacific Railroad  
Detour Routes**

# Harlem Avenue Underpass Project

Village of River Forest  
Frank M. Paris  
Village President

Village of Oak Park  
David Pope  
Village President

Village of Forest Park  
Anthony T. Calderone  
Mayor

#### Project Manager

Mr. Gregory Kramer, P.E.  
Director of Public Works  
Village of River Forest  
400 Park Avenue  
River Forest, IL 60305  
(708) 366-8500  
gkramer@river-forest.us

February 20, 2009

Ms. Stacy Taxman  
Taxman Corporation  
9933 N. Lawler, Suite 516  
Skokie, IL 60077

Subject: Public "Kickoff" Meeting  
Harlem Avenue Underpass Project

Dear Ms. Taxman:

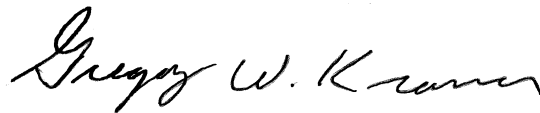
The Village of River Forest, in cooperation with the Village of Oak Park and the Village of Forest Park, is conducting a study for the reconstruction of the railroad bridge that carries the CTA and Metra rail lines over Harlem Avenue just south of Lake Street. This bridge is also known as the Union Pacific, or UP, bridge over Harlem Avenue.

As a beginning step in the study, we have scheduled a public "kickoff" meeting and are inviting all who are interested to attend.

The meeting will be held on Tuesday, March 3, 2009, at Roosevelt Middle School, 7560 Oak Avenue, in River Forest. The doors will open at 6:00 P.M., with a formal presentation given at 7:00. A question and answer session will follow the presentation, and the meeting will remain open until approximately 8:30 for informal discussion with representatives of our study team.

We encourage you to take advantage of this opportunity to learn more about the Harlem Avenue Underpass Project and have included for your convenience a copy of the announcement that we're placing in local newspapers. We look forward to seeing you on March 3rd.

Sincerely,  
Village of River Forest



Gregory Kramer, P.E.,  
Director of Public Works

encl.





## Public Meeting Announcement HARLEM AVENUE UNDERPASS PROJECT

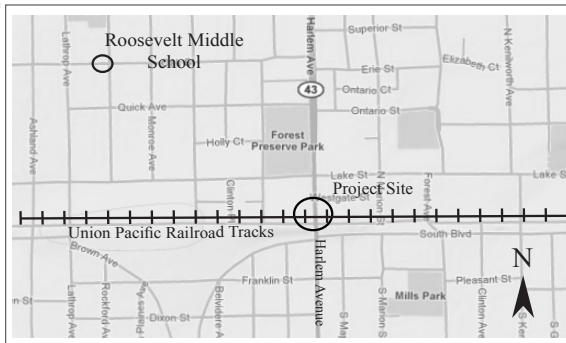
The Village of River Forest, in cooperation with the Village of Oak Park and the Village of Forest Park, has begun a study for the reconstruction of the railroad bridge that carries Union Pacific Railroad freight traffic, CTA, and Metra rail lines over Harlem Avenue just south of Lake Street. This bridge is also known as the Union Pacific, or UP, bridge over Harlem Avenue.

The purpose of the reconstruction project is to rectify the congestion problems caused by the configuration of the existing structure, which has remained essentially unchanged since its construction in the 1920s. Streetscape enhancements are also being considered as part of the project.

A public "kickoff" meeting has been scheduled for the study and all interested groups and individuals are invited to attend. The meeting will be held on Tuesday, March 3, 2009, at Roosevelt Middle School, 7560 Oak Avenue, in River Forest. The doors will open at 6:00 P.M., with a formal presentation given at 7:00. A question and answer session will follow the presentation, and the meeting will remain open until approximately 8:30 for informal discussion with representatives of our study team. All who are interested are encouraged to take advantage of this opportunity to learn more about the study.

For more information about this meeting or the study in general, contact: Mr. Gregory Kramer, P.E., Director of Public Works, 400 Park Avenue, River Forest, IL 60305. Phone: (708) 366-8500, Ext. 350, Fax: (708) 366-3702, email: [gkramer@river-forest.us](mailto:gkramer@river-forest.us)

Roosevelt Middle School is accessible to disabled individuals. Individuals with special needs should notify Mr. Kramer, at least 5 days in advance of the meeting.



### Public "Kickoff" Meeting

Tuesday, March 3, 2009

Roosevelt Middle School  
7560 Oak Avenue  
River Forest, Illinois

Open House  
6:00 P.M. to 8:30 P.M.

Presentation  
7:00 P.M.

**Harlem Avenue Improvement Study  
Steering Committee Invite List  
March 3, 2009**

Village of Forest Park Chamber of Commerce  
7344 West Madison Street  
Forest Park, Illinois 60130

Mr. Richard Vitton  
Village of Forest Park Historical Society  
7555 Jackson Boulevard  
Forest Park, Illinois 60130

Mr. Tim Gillian  
Forest Park Historic Preservation Commission  
517 Desplaines Avenue  
Forest Park, Illinois 60130

Mr. Steven Bitter  
Forest Park Planning Commission  
517 Desplaines Avenue  
Forest Park, Illinois 60130

Ms. Mary Win Connor  
Forest Park Youth Commission  
517 Desplaines Avenue  
Forest Park, Illinois 60130

Ms. Karen Dylewski  
Director  
Howard Mohr Community Center  
7640 Jackson Boulevard  
Forest Park, Illinois 60130

Ms. Andrea Baylock  
President  
Forest Park Library Board  
7555 Jackson Boulevard  
Forest Park, Illinois 60130

Mr. Frank Lipo  
Director  
The Historical Society of Oak Park and River  
Forest  
P.O. Box 771  
Oak Park, Illinois 60303

Oak Park Area Convention and Visitors Bureau  
1118 Westgate Street  
Oak Park, Illinois 60301

Oak Park Area Arts Council  
123 Madison Street  
Oak Park, Illinois 60302

Oak Park Board of Realtors  
212 South Marion Street  
Oak Park, Illinois 60302

Oak Park Regional Housing Center  
1041 South Boulevard  
Oak Park, Illinois 60302

Marion Business Association  
423 North Marion Street  
Oak Park, Illinois 60302

Avenue Business Association  
104 Lake Street, Suite 2A  
Oak Park, Illinois 60302

Mr. Michael Fox  
President Downtown Oak Park  
1110 Pleasant Street  
Oak Park, Illinois 60302

Mr. John Eckenroad  
President  
Oak Park Development Corporation  
104 North Oak Park Avenue, Suite 203  
Oak Park, Illinois 60301

Ms. Grace Whiting  
President  
Oak Park – River Forest Chamber of Commerce  
1110 North Boulevard  
Oak Park, Illinois 60301

Ms. Patricia Schwarze  
Business Owners and Managers Association  
1515 East Woodfield Road, Suite 110  
Schaumburg, Illinois 60173

The Progress Center for Independent Living  
7521 Madison Street  
Forest Park, Illinois 60130

Y. Sheats  
7301 Circle Avenue, Unit 101  
Forest Park, Illinois 60130

A. Spencer  
7301 Circle Avenue, Unit 102  
Forest Park, Illinois 60130

R. J. Lee  
7301 Circle Avenue, Unit 103  
Forest Park, Illinois 60130

**Harlem Avenue Improvement Study  
Kick-off Meeting Invite List  
March 3, 2009  
(Continued)**

D. Pride  
7301 Circle Avenue, Unit 104  
Forest Park, Illinois 60130

J. Neal  
7301 Circle Avenue, Unit 105  
Forest Park, Illinois 60130

J. Bassett  
7301 Circle Avenue, Unit 106  
Forest Park, Illinois 60130

E. U. Thomas  
7301 Circle Avenue, Unit 107  
Forest Park, Illinois 60130

R. Edmon  
7301 Circle Avenue, Unit 201  
Forest Park, Illinois 60130

A. Hughes  
7301 Circle Avenue, Unit 202  
Forest Park, Illinois 60130

R. Johnson  
7301 Circle Avenue, Unit 203  
Forest Park, Illinois 60130

J. Pritchard  
7301 Circle Avenue, Unit 204  
Forest Park, Illinois 60130

C.R. Braun  
7301 Circle Avenue, Unit 205  
Forest Park, Illinois 60130

L. Roberts  
7301 Circle Avenue, Unit 206  
Forest Park, Illinois 60130

C. Robinson  
7301 Circle Avenue, Unit 207  
Forest Park, Illinois 60130

J. Torres  
7301 Circle Avenue, Unit 301  
Forest Park, Illinois 60130

J. Dear  
7301 Circle Avenue, Unit 302  
Forest Park, Illinois 60130

L.G. Camps  
7301 Circle Avenue, Unit 303  
Forest Park, Illinois 60130

M. Johnson / K. Campbell  
7301 Circle Avenue, Unit 304  
Forest Park, Illinois 60130

S.R. Lewis-Wesley / W. Wesley  
7301 Circle Avenue, Unit 305  
Forest Park, Illinois 60130

T. Campbell  
7301 Circle Avenue, Unit 306  
Forest Park, Illinois 60130

Owner of Record  
7301 Circle Avenue, Unit 307  
Forest Park, Illinois 60130

R. Nelson  
7303 Circle Avenue, Unit 101  
Forest Park, Illinois 60130

J.E. Rainey  
7303 Circle Avenue, Unit 102  
Forest Park, Illinois 60130

K.V. Jones  
7303 Circle Avenue, Unit 103  
Forest Park, Illinois 60130

D. Brownlee  
7303 Circle Avenue, Unit 104  
Forest Park, Illinois 60130

A.T. Johnson  
7303 Circle Avenue, Unit 105  
Forest Park, Illinois 60130

M. Lopez  
7303 Circle Avenue, Unit 106  
Forest Park, Illinois 60130

Princeton Paper Company  
101 North Marion Street, Suite 203  
Oak Park, Illinois 60301

Donald McVicker, PhD  
101 North Marion Street, Suite 207  
Oak Park, Illinois 60301



**Harlem Avenue Improvement Study  
Kick-off Meeting Invite List  
March 3, 2009  
(Continued)**

Hathaway Medical Product  
101 North Marion Street, Suite 208  
Oak Park, Illinois 60301

Capston  
101 North Marion Street, Suite 209  
Oak Park, Illinois 60301

Marge Epstein, PhD, LCSW  
101 North Marion Street, Suite 211  
Oak Park, Illinois 60301

Bob Weaver, LCSW  
101 North Marion Street, Suite 300  
Oak Park, Illinois 60301

Conduit Project  
101 North Marion Street, Suite 302  
Oak Park, Illinois 60301

Kent Dean  
101 North Marion Street, Suite 304  
Oak Park, Illinois 60301

Vista Financial Planning  
101 North Marion Street, Suite 306  
Oak Park, Illinois 60301

Kathleen Sherrell  
101 North Marion Street, Suite 311  
Oak Park, Illinois 60301

IK Estate  
101 North Marion Street, Suite 313  
Oak Park, Illinois 60301

Batiste Ceramic Tile  
101 North Marion Street  
Oak Park, Illinois 60301

Edward Bay Consulting Co.  
101 North Marion Street  
Oak Park, Illinois 60301

Gardner Psychological Associates  
101 North Marion Street  
Oak Park, Illinois 60301

Health Ride Systems Inc.  
101 North Marion Street  
Oak Park, Illinois 60301

Hi-Tech Auto Body of Chicago  
101 North Marion Street  
Oak Park, Illinois 60301

Sportspsych Consulting  
101 North Marion Street  
Oak Park, Illinois 60301

The Rocking Horse Boutique  
101 North Marion Street  
Oak Park, Illinois 60301

Kelly Frame Company  
101 North Marion Street  
Oak Park, Illinois 60301

Gregory P. Melnyk Law Office  
103 North Marion Street  
Oak Park, Illinois 60301

Owner of Record  
107 North Marion Street  
Oak Park, Illinois 60301

Prairie Bread Company  
107-B North Marion Street  
Oak Park, Illinois 60301

Owner of Record  
109 North Marion Street  
Oak Park, Illinois 60301

Owner of Record  
109 South Maple Street  
Oak Park, Illinois 60301

Gene L. Armstrong & Associates  
109-B North Marion Street  
Oak Park, Illinois 60301

Owner of Record  
1101 South Boulevard, Unit 201  
Oak Park, Illinois 60305

Mr. Kuhr Denkaky  
1101 South Boulevard, Unit 202  
Oak Park, Illinois 60305

Owner of Record  
1101 South Boulevard, Unit 203  
Oak Park, Illinois 60305

**Harlem Avenue Improvement Study  
Kick-off Meeting Invite List  
March 3, 2009  
(Continued)**

Owner of Record  
1101 South Boulevard, Unit 204  
Oak Park, Illinois 60305

Latz Bruni  
1101 South Boulevard, Unit 205  
Oak Park, Illinois 60305

Owner of Record  
1101 South Boulevard, Unit 301  
Oak Park, Illinois 60305

M. Taylor  
1101 South Boulevard, Unit 302  
Oak Park, Illinois 60305

Owner of Record  
1101 South Boulevard, Unit 303  
Oak Park, Illinois 60305

Owner of Record  
1101 South Boulevard, Unit 304  
Oak Park, Illinois 60305

Owner of Record  
1101 South Boulevard, Unit 305  
Oak Park, Illinois 60305

Owner of Record  
1103 South Boulevard  
Oak Park, Illinois 60305

Ms. Florence Braum, LCSW  
1103 Westgate Street  
Oak Park, Illinois 60301

K.J. Phelan Co.  
1103 Westgate Street  
Oak Park, Illinois 60301

Ms. Erin McCombs  
1103 Westgate Street  
Oak Park, Illinois 60301

Overtones  
1103 Westgate Street  
Oak Park, Illinois 60301

Ms. Nimisha Kumar  
Principal  
Horace Mann Elementary School  
921 Kenilworth Avenue

Mr. Richard A. Kwasniski  
Chairman of the Board  
PACE Suburban Bus Service  
550 West Algonquin Road  
Arlington Heights, Illinois 60005

Mr. Thomas C. Lamm  
President  
River Forest Park District  
401 Thatcher Avenue  
River Forest, Illinois 60305

Mr. Craig M. Lesner  
Chief Financial Officer  
Finance Department  
123 Madison Street  
Oak Park, Illinois 60302

Mr. Frank Limon  
Chief of Police  
River Forest Police Department  
400 Park Avenue  
River Forest, Illinois 60305

Ms. Frances Mazzulla  
Principal  
St. Vincent Ferrer  
1515 Lathrop Avenue  
River Forest, Illinois 60305

Ms. Edina McGivern, M.S. Ed  
Executive Director  
Intercultural Montessori  
301 South Ridgeland Avenue  
Oak Park, Illinois 60302

Mr. William McKenzie  
Zoning Board of Appeals  
Village of Forest Park  
822 Community Drive  
LaGrange, Illinois 60130

Mr. Terrance McMahon  
Traffic and Safety Commission  
Village of Forest Park  
850 Desplaines Avenue  
Forest Park, Illinois 60130

Mr. Cedric V. Melton  
Community Relations Director  
Community Relations Department  
123 Madison Street

**Harlem Avenue Improvement Study  
Kick-off Meeting Invite List  
March 3, 2009  
(Continued)**

Mr. Marcus Muriello  
Planning Commission  
Village of Forest Park  
1528 Marengo Avenue  
Forest Park, Illinois 60130

Dr. Phyllistine Murphy  
Superintendent  
Proviso  
8601 West Roosevelt Road  
Forest Park, Illinois 60130

Mr. Alvin Nepomuceno  
Director of Information Technology  
Information Technology Department  
123 Madison Street  
Oak Park, Illinois 60302

Ms. Sharon O'Shea  
Traffic and Safety Commission  
Village of Forest Park  
824 Hannah Avenue  
Forest Park, Illinois 60130

Mr. Ray Paulin  
Zoning Board of Appeals  
Village of Forest Park  
536 Ferdinand Avenue  
Forest Park, Illinois 60130

Mr. John Plepel  
Planning Commission  
Village of Forest Park  
532 Elgin Avenue  
Forest Park, Illinois 60130

Ms. Susan Poetzel  
Principal  
St. Giles School  
1034 Linden Avenue  
Oak Park, Illinois 60302

Ms. Jill Pollard  
President  
Ascension Catholic School Board  
601 Van Buren Street  
Oak Park, Illinois 60302

Ms. Margaret Provost-Fyfe  
Interim Public Health Director  
Department of Public Health  
123 Madison Street  
Oak Park, Illinois 60302

Dr. James J. Quiad  
Principal  
Fenwick High School  
505 West Washington Boulevard  
Oak Park, Illinois 60302

Ms. Marides Quigley  
Director  
Mosaic Montessori Academy  
7970 West Lake Street  
River Forest, Illinois 60305

Ms. Barbara Rasinski  
Principal  
St. Luke Catholic School  
519 Ashland Avenue  
River Forest, Illinois 60305

Mr. Dave Rita  
Traffic and Safety Commission  
Village of Forest Park  
847 Hannah Avenue  
Forest Park, Illinois 60130

Mr. Nathaniel Rouse  
Principal  
Oak Park River Forest High School  
201 North Scoville Avenue  
Oak Park, Illinois 60302

Mr. Jim Ryan  
Police Chief  
Forest Park Police Department  
517 Desplaines Avenue  
Forest Park, Illinois 60130

Mr. Richard Scafidi  
Zoning Board of Appeals  
Village of Forest Park  
815 Marengo Avenue  
Forest Park, Illinois 60130

**Harlem Avenue Improvement Study  
Kick-off Meeting Invite List  
March 3, 2009  
(Continued)**

Ms. Debbie Senoff-Landford  
Principal  
Intercultural Montessori School  
301 South Ridgeland Avenue  
Oak Park, Illinois 60302

Dr. Victoria Sharts  
Principal  
Percy Julian Middle School  
416 South Ridgeland Avenue  
Oak Park, Illinois 60302

Mr. Tom Sindelar  
Principal  
Gwendolyn Brooks Middle School  
325 South Kenilworth Avenue  
Oak Park, Illinois 60302

Mr. Michael Smith  
Traffic and Safety Commission  
Village of Forest Park  
1407 Marengo Avenue  
Forest Park, Illinois 60130

Mr. Chris Soriano  
Finance Director  
Village of River Forest  
400 Park Avenue  
River Forest, Illinois 60130

Mr. Frank Spataro  
Director of Human Resources  
Human Resources Department  
123 Madison Street  
Oak Park, Illinois 60302

Mr. Rick C. Tanksley  
Police Chief  
Oak Park Police Department  
123 Madison Street  
Oak Park, Illinois 60302

Mr. Burak Tanyu  
Zoning Board of Appeals  
Village of Forest Park  
1007 Dunlop Avenue  
Forest Park, Illinois 60130

Ms. Susan Viselli  
Chairman  
St. Edmund Parish School Advisory Board  
200 South Oak Park Avenue  
Oak Park, Illinois 60302

Ms. Kerry Voytas  
Principal  
St. Edmund Parish School  
200 South Oak Park Avenue  
Oak Park, Illinois 60302

Dr. Attila J. Weninger  
Superintendent  
District 200 board of Education  
201 North Scoville Avenue  
Oak Park, Illinois 60302

Ms. Carol Young  
Principal  
John Greenleaf Wittier Elementary School  
715 North Harvey Avenue  
Oak Park, Illinois 60302

Mr. K. Austin Zimmer  
Zoning Board of Appeals  
Village of Forest Park  
918 Lathrop Avenue  
Forest Park, Illinois 60130

Oak Park Christian Academy  
931 Lake Street  
Oak Park, Illinois 60302

Our Lady Immaculate Academy  
410 Washington Boulevard  
Oak Park, Illinois 60302

St. Catherine of Siena – St. Lucy  
27 Washington Boulevard  
Oak Park, Illinois 60302

Mr. Ronald Atkins  
President  
River Forest Public Schools District 90 Board of  
Education  
7776 West Lake Street  
River Forest, Illinois 60305

**Harlem Avenue Improvement Study  
Kick-off Meeting Invite List  
March 3, 2009  
(Continued)**

Mr. William Bell  
Fire Chief  
Oak Park Fire Department  
100 North Euclid Avenue  
Oak Park, Illinois 60302

Mr. Steven Bitter  
Planning Commission  
Village of Forest Park  
1727 76th Court  
Elmwood Park, Illinois 60707

Mr. Randy Blankenhorn  
Executive Director  
Chicago Metropolitan Agency for Planning  
233 South Wacker Drive, Suite 800  
Chicago, Illinois 60606

Dr. Antonia Bouillette  
Principal  
Trinity High School  
7574 West Division Street  
River Forest, Illinois 60305

Mr. Michael Boyle  
Director  
Forest Park Health and Safety Department  
517 Desplaines Avenue  
Forest Park, Illinois 60130

Mr. Al Bucholtz  
Zoning Board of Appeals  
Village of Forest park  
7742 Monroe Street  
Forest Park, Illinois 60130

Ms. Mary Jo Burns  
Principal  
Ascension Catholic School  
601 Van Buren Street  
Oak Park, Illinois 60302

Ms. Maria Carandang  
Director  
Mosaic Montessori Academy  
7970 West Lake Street  
River Forest, Illinois 60305

Ms. Donna M. Carroll  
President  
Dominican University  
7900 Madison Street  
River Forest, Illinois 60305

Ms. Sheila Carter  
Principal  
William Hatch Elementary School  
1000 North Ridgeland Avenue  
Oak Park, Illinois 60302

Mr. Dorval Carter, Jr.  
Acting President  
Chicago Transit Authority  
567 West Lake Street  
Chicago, Illinois 60661

Dr. Louis Cavallo  
Superintendent  
Oak Park District 97  
970 West Madison Street  
Oak Park, Illinois 60302

Mr. Dick Chappell  
Executive Director  
River Forest Community Center  
7900 Madison Street  
River Forest, Illinois 60305

Mr. Mike Chvatal  
Traffic and Safety Commission  
Village of Forest Park  
313 Elgin Avenue #101  
Forest Park, Illinois 60130

Ms. Donna Clark  
Interim Support Administrator  
Willard Elementary School  
1250 Ashland Avenue  
River Forest, Illinois 60305

Dr. Constance R. Collins  
Superintendent  
Oak Park District 97  
970 West Madison Street  
Oak Park, Illinois 60302

**Harlem Avenue Improvement Study  
Kick-off Meeting Invite List  
March 3, 2009  
(Continued)**

Mr. Jacques A. Conway  
President  
District 200 Board of Education  
201 North Scoville Avenue  
Oak Park, Illinois 60302

Mr. Mark Davis  
Director, Corporate Relations and Media  
Union Pacific Railroad  
1400 Douglas Street  
Omaha, NE 68179

Ms. Michelle Dirks  
Planning Commission  
Village of Forest Park  
622 Beloit Avenue  
Forest Park, Illinois 60130

Ms. Angela Dolezal  
Principal Henry Wadsworth Longfellow  
Elementary School  
715 South Highland Avenue  
Oak Park, Illinois 60304

Mr. John Doss  
Director  
Forest Park Public Works Department  
7343 West 15th Street  
Forest Park, Illinois 60130

Mr. Shawn Edwards  
Executive Director  
Alcuin Montessori School  
324 North Oak Park Avenue  
Oak Park, Illinois 60302

Mr. James L. Eggert  
Fire Chief  
Village of River Forest  
400 Park Avenue  
River Forest, Illinois 60305

Mr. Jonathan Ellwanger  
Principal  
William Beye Elementary School  
230 North Cuyler  
Oak Park, Illinois 60302

Mr. Craig Failor  
Village Planner  
Village of Oak Park  
123 Madison Street  
Oak Park, Illinois 60302

Mr. Glenn A. Garlisch  
President  
Forest Park School District 91 School Board  
424 Desplaines Avenue  
Forest Park, Illinois 60130

Mr. Larry Garstki  
Principal  
Roosevelt School  
7560 Oak Avenue  
River Forest, Illinois 60305

Sister Michelle Germanson, O.P.  
Principal  
Trinity High School  
7574 West Division Street  
River Forest, Illinois 60305

Mr. Steven Glinke  
Fire Chief  
Forest Park Fire Department  
7625 Wicox Street  
Forest Park, Illinois 60130

Mr. Steven Gutierrez  
Village Administrator  
Village of River Forest  
400 Park Avenue  
River Forest, Illinois 60305

Ms. Suzie Hackmiller  
Principal  
Oliver W. Holmes Elementary School  
508 North Kenilworth Avenue  
Oak Park, Illinois 60302

Ms. Catherine Hamilton  
Principal  
Abraham Lincoln Elementary School  
1111 South Grove Avenue  
Oak Park, Illinois 60302

**Harlem Avenue Improvement Study  
Kick-off Meeting Invite List  
March 3, 2009  
(Continued)**

Dr. Thomas Hangerman  
Superintendent  
River Forest Public Schools District 90  
7776 West Lake Street  
River Forest, Illinois 60305

Mr. Kevin Harnett  
Traffic and Safety Commission  
Village of Forest Park  
604 Thomas Avenue  
Forest Park, Illinois 60130

Mr. John Hodge  
Principal  
Washington Irving Elementary School  
1125 Cuyler Avenue  
Oak Park, Illinois 60302

Mr. John Hosty  
Traffic and Safety Commission  
Village of Forest Park  
604 Thomas Avenue  
Forest Park, Illinois 60130

Ms. Pam Hyde  
Principal  
Lincoln Elementary School  
511 Park Avenue  
River Forest, Illinois 60305

Mr. Pat Jacknow  
Zoning Board of Appeals  
Village of Forest Park  
228 Desplaines Avenue  
Forest Park, Illinois 60130

Mr. Bill Kirchner  
Planning Commission  
Village of Forest Park  
830 Dunlop Avenue  
Forest Park, Illinois 60130

Mr. Hugh Kress  
Principal  
Grace Lutheran School  
7300 Division Street  
River Forest, Illinois 60305

Ms. Nimisha Kumar  
Principal  
Horace Mann Elementary School  
921 Kenilworth Avenue  
Oak Park, Illinois 60302

Mr. Richard A. Kwasniski  
Chairman of the Board  
PACE Suburban Bus Service  
550 West Algonquin Road  
Arlington Heights, Illinois 60005

Mr. Thomas C. Lamm  
President  
River Forest Park District  
401 Thatcher Avenue  
River Forest, Illinois 60305

Mr. Craig M. Lesner  
Chief Financial Officer  
Finance Department  
123 Madison Street  
Oak Park, Illinois 60302

Mr. Frank Limon  
Chief of Police  
River Forest Police Department  
400 Park Avenue  
River Forest, Illinois 60305

Ms. Frances Mazzulla  
Principal  
St. Vincent Ferrer  
1515 Lathrop Avenue  
River Forest, Illinois 60305

Ms. Edina McGivern, M.S. Ed  
Executive Director  
Intercultural Montessori  
301 South Ridgeland Avenue  
Oak Park, Illinois 60302

Mr. William McKenzie  
Zoning Board of Appeals  
Village of Forest Park  
822 Community Drive  
LaGrange, Illinois 60130

**Harlem Avenue Improvement Study  
Kick-off Meeting Invite List  
March 3, 2009  
(Continued)**

Mr. Terrance McMahon  
Traffic and Safety Commission  
Village of Forest Park  
850 Desplaines Avenue  
Forest Park, Illinois 60130

Mr. Cedric V. Melton  
Community Relations Director  
Community Relations Department  
123 Madison Street  
Oak Park, Illinois 60302

Mr. Marcus Muriello  
Planning Commission  
Village of Forest Park  
1528 Marengo Avenue  
Forest Park, Illinois 60130

Dr. Phyllistine Murphy  
Superintendent  
Proviso  
8601 West Roosevelt Road  
Forest Park, Illinois 60130

Mr. Alvin Nepomuceno  
Director of Information Technology  
Information Technology Department  
123 Madison Street  
Oak Park, Illinois 60302

s. Sharon O'Shea  
Traffic and Safety Commission  
Village of Forest Park  
824 Hannah Avenue  
Forest Park, Illinois 60130

Mr. Ray Paulin  
Zoning Board of Appeals  
Village of Forest Park  
536 Ferdinand Avenue  
Forest Park, Illinois 60130

Mr. John Plepel  
Planning Commission  
Village of Forest Park  
532 Elgin Avenue  
Forest Park, Illinois 60130

Ms. Susan Poetzel  
Principal  
St. Giles School  
1034 Linden Avenue  
Oak Park, Illinois 60302

Ms. Jill Pollard  
President  
Ascension Catholic School Board  
601 Van Buren Street  
Oak Park, Illinois 60302

Ms. Margaret Provost-Fyfe  
Interim Public Health Director  
Department of Public Health  
123 Madison Street  
Oak Park, Illinois 60302

Dr. James J. Quiad  
Principal  
Fenwick High School  
505 West Washington Boulevard  
Oak Park, Illinois 60302

Ms. Marides Quigley  
Director  
Mosaic Montessori Academy  
7970 West Lake Street  
River Forest, Illinois 60305

Ms. Barbara Rasinski  
Principal  
St. Luke Catholic School  
519 Ashland Avenue  
River Forest, Illinois 60305

Mr. Dave Rita  
Traffic and Safety Commission  
Village of Forest Park  
847 Hannah Avenue  
Forest Park, Illinois 60130

Mr. Nathaniel Rouse  
Principal  
Oak Park River Forest High School  
201 North Scoville Avenue  
Oak Park, Illinois 60302



**Harlem Avenue Improvement Study  
Kick-off Meeting Invite List  
March 3, 2009  
(Continued)**

Mr. Jim Ryan  
Police Chief  
Forest Park Police Department  
517 Desplaines Avenue  
Forest Park, Illinois 60130

Mr. Richard Scafidi  
Zoning Board of Appeals  
Village of Forest Park  
815 Marengo Avenue  
Forest Park, Illinois 60130

Ms. Debbie Senoff-Landford  
Principal  
Intercultural Montessori School  
301 South Ridgeland Avenue  
Oak Park, Illinois 60302

Dr. Victoria Sharts  
Principal  
Percy Julian Middle School  
416 South Ridgeland Avenue  
Oak Park, Illinois 60302

Mr. Tom Sindelar  
Principal  
Gwendolyn Brooks Middle School  
325 South Kenilworth Avenue  
Oak Park, Illinois 60302

Mr. Michael Smith  
Traffic and Safety Commission  
Village of Forest Park  
1407 Marengo Avenue  
Forest Park, Illinois 60130

Mr. Chris Soriano  
Finance Director  
Village of River Forest  
400 Park Avenue  
River Forest, Illinois 60130

Mr. Frank Spataro  
Director of Human Resources  
Human Resources Department  
123 Madison Street  
Oak Park, Illinois 60302

Mr. Rick C. Tanksley  
Police Chief  
Oak Park Police Department  
123 Madison Street  
Oak Park, Illinois 60302

Mr. Burak Tanyu  
Zoning Board of Appeals  
Village of Forest Park  
1007 Dunlop Avenue  
Forest Park, Illinois 60130

Ms. Susan Viselli  
Chairman  
St. Edmund Parish School Advisory Board  
200 South Oak Park Avenue  
Oak Park, Illinois 60302

Ms. Kerry Voytas  
Principal  
St. Edmund Parish School  
200 South Oak Park Avenue  
Oak Park, Illinois 60302

Dr. Attila J. Weninger  
Superintendent  
District 200 board of Education  
201 North Scoville Avenue  
Oak Park, Illinois 60302

Ms. Carol Young  
Principal  
John Greenleaf Wittier Elementary School  
715 North Harvey Avenue  
Oak Park, Illinois 60302

Mr. K. Austin Zimmer  
Zoning Board of Appeals  
Village of Forest Park  
918 Lathrop Avenue  
Forest Park, Illinois 60130

Oak Park Christian Academy  
931 Lake Street  
Oak Park, Illinois 60302

Our Lady Immaculate Academy  
410 Washington Boulevard  
Oak Park, Illinois 60302

**Harlem Avenue Improvement Study  
Kick-off Meeting Invite List  
March 3, 2009  
(Continued)**

St. Catherine of Siena – St. Lucy  
27 Washington Boulevard  
Oak Park, Illinois 60302

Mayor Anthony Calderone  
Village of Forest Park  
517 Desplaines Avenue  
Forest Park, Illinois 60130

Mr. Rory E. Hoskins  
Commissioner  
Village of Forest Park  
517 Desplaines Avenue  
Forest Park, Illinois 60130

Mr. Michael R. Curry  
Commissioner  
Village of Forest Park  
517 Desplaines Avenue  
Forest Park, Illinois 60130

Mr. Mark S. Hosty  
Commissioner  
Village of Forest Park  
517 Desplaines Avenue  
Forest Park, Illinois 60130

Mr. Martin Tellalian  
Commissioner  
Village of Forest Park  
517 Desplaines Avenue  
Forest Park, Illinois 60130

Ms. Vanessa Moritz  
Village Clerk  
Village of Forest Park  
517 Desplaines Avenue  
Forest Park, Illinois 60130

Mr. David Pope  
Village President  
Village of Oak Park  
123 Madison Street  
Oak Park, Illinois 60302-4205

Mr. Thomas W. Barwin  
Village Manager  
Village of Oak Park  
123 Madison Street  
Oak Park, Illinois 60302-4206

Mr. Jon Hale  
Village Trustee  
Village of Oak Park  
123 Madison Street  
Oak Park, Illinois 60302-4205

Mr. John Hedges  
Village Trustee  
Village of Oak Park  
123 Madison Street  
Oak Park, Illinois 60302-4205

Mr. Ray Johnson  
Village Trustee  
Village of Oak Park  
123 Madison Street  
Oak Park, Illinois 60302-4205

Ms. Colette Lueck  
Village Trustee  
Village of Oak Park  
123 Madison Street  
Oak Park, Illinois 60302-4205

Mr. Greg Marsey  
Village Trustee  
Village of Oak Park  
123 Madison Street  
Oak Park, Illinois 60302-4205

Ms. Jan Pate  
Village Trustee  
Village of Oak Park  
123 Madison Street  
Oak Park, Illinois 60302-4205

Ms. Sandra Sokol  
Village Clerk  
Village of Oak Park  
123 Madison Street  
Oak Park, Illinois 60302-4205

Mr. Frank M. Paris  
Village President  
Village of River Forest  
1100 Keystone Avenue  
River Forest, Illinois 60305

**Harlem Avenue Improvement Study  
Kick-off Meeting Invite List  
March 3, 2009  
(Continued)**

Ms. Nancy C. Dillon  
Village Trustee  
Village of River Forest  
533 Forest Avenue  
River Forest, Illinois 60305

Mr. Patrick J. O'Brien  
Village Trustee  
Village of River Forest  
1048 Ashland Avenue  
River Forest, Illinois 60305

Mr. Russell W. Nummer  
Village Trustee  
Village of River Forest  
7611 Vine Street  
River Forest, Illinois 60305-1310

Mr. Stephen Hoke  
Village Trustee  
Village of River Forest  
1120 Park Avenue  
River Forest, Illinois 60305-1310

Mr. Stephen J. Dudek  
Village Trustee  
Village of River Forest  
826 Keystone Avenue  
River Forest, Illinois 60305

Ms. Susan J. Conti  
Village Trustee  
Village of River Forest  
711 Thatcher Avenue  
River Forest, Illinois 60305-1603

Ms. Catherine M. Adduci  
Village Clerk  
Village of River Forest  
1227 William Street  
River Forest, Illinois 60305-1100

Dr. John F. Johnson  
President  
Concordia University Chicago  
Village of River Forest  
7400 Augusta Street  
River Forest, Illinois 60305

Mr. James Dodge  
Director, Suburban Cook County  
Metra  
547 West Jackson Boulevard, 13th Floor  
Chicago, Illinois 60661

Senator Roland Burris  
230 South Dearborn Street  
Chicago, Illinois 60604

Senator Richard Durbin  
230 South Dearborn Street  
Chicago, Illinois 60604

Congressman Danny K. Davis  
District 7  
3333 West Arthington Street, Suite 130  
Chicago, Illinois 60624

Governor Patrick Quinn  
Office of the Governor  
100 West Randolph, 16-100  
Chicago, Illinois 60601

# Attendance Roster Kick-Off Meeting

March 3, 2009



Name	Representing	Phone Number
BILL MCKENNA	Village of Oak Park	708 358-5728
CHRIS KECKEISEN	UPRR	<del>708 358-5728</del>
Rosemary Johnson	River Forest	
Elaine Kink	River Forest	366-6711
BRIAN JOHNSON	Plan Commission	
Glenn Zika	CTA	312-681-3950
Michael Stirk	Forest Park - CBBEL	847 823 0500
DENNIS McMAHON	RF RESIDENT & DRB	708 207 1491
RAY PAULIN	FP ZONE	708 771 9364
John Huston	Pioneer Press	708-524-4414
MARY Ellen KENNY	R.F. Resident	108-111-5117
Rick Gillis	PII "	488-1090
Bob Coleman	of RIVER FOREST Resident	(708) 366-1905
Jim Dewey	" "	(708) 771-8844
Mike Gibbs	mike Gibbs	708 771 0633
BRIAN DAILY	MORGAN DAILY	708-366-5292
Rory Heston	VFP	708 615 6202
Victoria Penge	Chicago Tribune	708-774-4589
Sheree Fusco	Circle Plaza	708-771-7600
Giino Fioravanti		708 771 4599



# Attendance Roster Kick-Off Meeting

March 3, 2009



Name	Representing	Phone Number
Laura Mettern		771-0532
Liam Gould		708 386 4871
Sean O'Connor	Library Board / R.F.	708-366-5532
Gracie Madloch		708 488-1874
John -	Village of Forest Park	708 323-9136
Marilyn Solomon	IDOT	847-705-4407
Larry Johnson	Village of Oak Park	708-358-5788
Doris Pope	Village of Oak Park	708-660-1156
Ryan Brown	CTA	312.681.2751
MARTY TELLALIAN	VILLAGE OF FOREST PARK	708-771-2326
BURAK TANYU	" " "	708-710-6948
MARTY PAKIS	VILLAGE OF RF.	708.366.9552
Bill Kuehner	VILLAGE of For PK	708.771.4303
John Osga	R.F.	708.366.6196
Dennis G. Kenny	R.F.	708-771-5777
BOB BRACKEN	OAK PARK	708 818 7700

# Attendance Roster Kick-Off Meeting

March 3, 2009



Name	Representing	Phone Number
DAVE SHANNON	H.W. LOCHNER	312 372 3011
Jen Anderer	"	"
Joni Waldman	CP	(312) 681 4176
Dave Zawada	H.W. Lochner	312/ 372-3011
Jeff Schlotter	"	"



## Public Involvement

Public participation is one of the most important elements in the planning phase of a public works project, especially when multiple municipalities are involved. Our public involvement objectives are: 1) to inform the public about the study, it's objectives, and its progress; 2) to hear from the public about the study area conditions and problems caused by the current viaduct and roadway design; and, 3) to hear from the public about possible solutions to the problem that the study is addressing.

Our methods for achieving those objectives include: today's meeting, an alternatives public meeting, a formal public hearing, a project web site, individual or small group meetings, as necessary, and a study steering committee.

### Steering Committee

The study's Steering Committee will be formed in the weeks following tonight's meeting and will include representatives from the villages, civic and other non-governmental organizations, representatives from the business community, and others.

The committee will serve a valuable function in three areas. It will: 1) help in information exchange between the villages, 2) help our study team understand project issues from the user's perspectives, and 3) help create the best possible design concepts to address the identified problems. The committee will meet several times over the course of the 2-year study.

## Study Schedule

Spring through Fall 2009	Engineering and Environmental Studies
Winter 2009-2010	Public Alternatives Meeting
Winter through Spring 2010	Refine project studies and recommendations
Summer 2010	Public Hearing
Fall 2010	Project documentation and approval by IDOT

## Contact Us

For more information, please send your request to:

Mr. David Zawada, P.E.  
Senior Project Manager  
H.W. Lochner, Inc.  
www.harlemunderpass.com

20 N. Wacker Drive, Suite 1200  
Chicago, IL 60606  
312-372-3011  
dzawada@hwlochner.com

**LOCHNER**

# Harlem Avenue Underpass Project

## Public Kickoff Meeting

Tuesday, March 3, 2009  
6:00 PM to 8:30 PM  
Roosevelt School  
River Forest, Illinois



Village of River Forest  
in cooperation with the villages of Oak Park and Forest Park



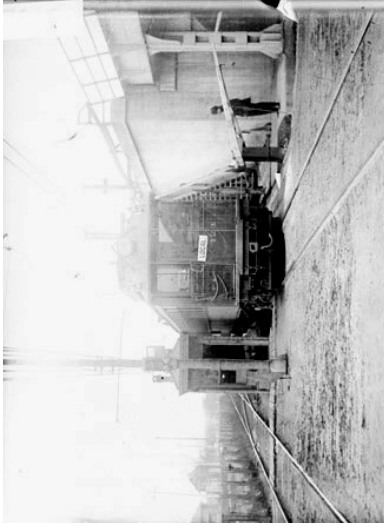
## At Tonight's Meeting ...

To get the most out of tonight's meeting, and to help us learn more about the project area's problems and potential, we suggest that you:

- Read this handout brochure
- View the maps and graphics displayed around the room
- Speak with our Study Team members about the project
- Listen to the study presentation, at 7:00 PM
- Share your comments with us, either verbally or in writing

## Project Background

The railroad bridge over Harlem Avenue was built in the 1920s to carry the Chicago and North Western Railway tracks over the roadway. With only a few exceptions, this viaduct has not changed in almost 90 years, despite significant growth and development along Harlem Avenue.



A trolley car and rail viaduct in Oak Park, circa early 1920s.

Photo: Chicago Daily News negatives collection, Chicago Historical Society

structure and for the reconfiguration of Harlem Avenue. The current US DOT funding legislation (which became law in 2005), included funding for a full planning study for this project. As a result, the Village of River Forest, in cooperation with Oak Park and Forest Park, hired a team of consulting engineers and planners in 2008 to assist in completing the planning study.

## Purpose of the Project

The Harlem Avenue Underpass Project is a study to modify or replace the railroad bridge over Harlem Avenue in the villages of River Forest, Oak Park, and Forest Park. The project also includes the reconstruction of various interconnected roadway and pedestrian facilities and improvement of the area through consideration of intermodal and aesthetic enhancements. The three main areas of focus of the study are safety, mobility, and creating a stronger sense of place.

## Safety

The Harlem Avenue viaduct and underpass area contains elements that do not meet current standards and, as a result, may increase the frequency of traffic accidents. These elements include a row of

columns along the center of Harlem Avenue, shifts in the roadway lanes to accommodate the viaduct, and sidewalks that do not fully accommodate people with disabilities. This study will explore how the structure, roadway, and sidewalks can be upgraded to current standards, along with meeting any other needs the communities might have with in the project limits.



## Mobility

Harlem Avenue is a heavily traveled regional arterial roadway for both cars and trucks. The railroad viaduct and the intersections immediately north and south of it create a traffic bottleneck and are a cause of congestion during high traffic periods and on weekends. This study will examine the effect on traffic flow and congestion of various improvements such as revised signal timing, reconfiguring the design of the intersections, and IDOT's planned reconstruction of Harlem Avenue to include five 10-foot lanes.

## Creating a Stronger Sense of Place

The Harlem Avenue Underpass Project provides a good opportunity to look beyond typical roadway improvements and consider how the redevelopment of this underpass might enhance economic and aesthetic conditions. By focusing on how people interact within a space and encouraging pedestrian friendly elements, we may have the ability to rejuvenate this multimodal transfer point. Part of this study will be the identification of project elements that will enhance the experience of users of the area, changing it from a place where people simply travel through to an actual destination to visit and enjoy.





# Harlem Avenue Underpass Project

July 6, 2009

Village of River Forest  
Frank M. Paris  
Village President

Village of Oak Park  
David Pope  
Village President

Village of Forest Park  
Anthony T. Calderone  
Mayor

Project Manager

Mr. Gregory Kramer, P.E.  
Director of Public Works  
Village of River Forest  
400 Park Avenue  
River Forest, IL 60305  
(708) 366-8500  
gkramer@river-forest.us

Name  
Title  
Organization  
Address  
City, State  
Zip Code

Re: **Harlem Avenue Underpass Project**  
Phase I study for the Replacement of the U.P. Viaduct over Harlem  
Avenue

Dear ,

H.W. Lochner, Inc. is currently performing a Phase I (Preliminary Engineering) Study for the reconstruction of the railroad bridge over Harlem Avenue, south of Lake Street. The project is located in three communities – Village of River Forest, Village of Oak Park and Village of Forest Park. The purpose of this reconstruction project is to rectify a congestion problem on Harlem Avenue caused by the configuration of the existing structure.

Because this is a complex project with three communities involved and a large number of other stakeholder groups, a Steering Committee is being formed for the study. The purpose of the Committee is 1) for its members to function as a liaison between the project engineers and the broader community and 2) to achieve greater efficiencies in the communication of project information. As a representative on an organization having a direct stake in the project, you are invited, on behalf of the Study's Project Manager, Mr. Gregory Kramer, River Forest's Director of Public Works, to become a member of the Steering Committee.

The responsibilities of Steering Committee members will include participating in project discussions; staying informed on project issues; attending Steering Committee meetings; and communicating project information to the broader community. It is anticipated that the Steering Committee will meet approximately five times, in the evening over the next year or so.



Exhibit 12-4

Sheet 1 of 4

We strongly urge you to accept our invitation and would ask you to please respond to us by July 20, 2009. Your response can be made by telephone, email or letter to:

David Zawada, P.E.  
Project Manager  
H. W. Lochner, Inc.  
20 North Wacker Drive  
Chicago, Illinois 60606  
(312) 372-3011  
dzawada@hwlochner.com

Any questions you have may be directed to me, as noted above.

Sincerely,

David Zawada, P.E.  
Project Manager

cc: H.W. Lochner, Inc.  
GK/hwl

Harlem Avenue Improvement Study  
Steering Committee Invite List  
July 6, 2009

Ms. Sarah Faust  
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104 North Oak Park Avenue, Suite 203  
Oak Park, IL  
60301

Ms. Pat Zubak  
Executive Director  
Downtown Oak Park  
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60301

Mr. Frank Lipo  
Executive Director  
The Historical Society of Oak Park and River  
Forest  
P.O. Box 771  
Oak Park, IL  
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Mr. John Limbrecht  
President  
Business Owners and Managers Association  
1515 East Woodfield, Suite 110  
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Mr. Richard Vitton  
President  
Historical Society of Forest Park  
7555 Jackson Boulevard  
Forest Park, IL  
60130

Mr. Jim Doss  
Executive Director  
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1110 North Boulevard  
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Mr. Rich Carollo  
President  
Oak Park Area Convention and Visitors Bureau  
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Ms. Gerri Keating  
Executive Director  
Oak Park Board of Realtors  
212 South Marion Street  
Oak Park, IL  
60302

Mr. Bob Loro  
President  
South Marion Association  
1033 South Boulevard #13  
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60302

Mr. Richard Gloor  
The Avenue Business Association  
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60302

Ms. Sherri Orr  
Asset Manager  
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Oakbrook Terrace, IL  
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Mr. Rob Sadowsky  
Executive Director  
Active Transportation Alliance  
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Mr. Erik Llewellyn  
Service Planning Section  
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Mr. James Dodge  
Director, Suburban Cook County  
Metra  
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Chicago, IL  
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Harlem Avenue Improvement Study  
Steering Committee Invite List  
July 6, 2009  
(Continued)

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Mr. David King  
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Mr. Ryan Mouw  
Senior Government Relations Officer  
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Mr. John Doss  
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Ms. Sherree Krisco  
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60305

Ms. Laurie Kokenes  
Executive Director  
Forest Park Chamber of Commerce  
7344 Madison Street, 2nd Floor  
Forest Park, IL  
60130



**MEMORANDUM**  
**Project 2765**  
**Steering Committee Meeting #1**

Jeff then distributed the “Place Survey” and explained that it is an exercise that we would like each member of the Committee to go out and complete before the next Committee Meeting.

Jeff discussed the action items developed during the meeting. Lochner will prepare a glossary of engineering terms and a sketch of a typical bridge with the major components labeled. Lochner will also prepare vehicle, pedestrian and mass-transit ridership traffic data for presentation at the next meeting. A contact list of the Committee members will be prepared and distributed.

The meeting adjourned at 9:00.

Attendance Roster  
Steering Committee Meeting  
September 30, 2009



Name	Organization	Phone	Email
NICK GAMBINO	AVENUE BUSINESS ASSOC.	312.907.4252	NICK@TWO MAYTOR CATERING.COM
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# Harlem Avenue Underpass Project

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## GROUP MEMORY NOTES

Harlem Avenue Underpass Project

Steering Committee Meeting No. 1

September 30, 2009

Below is a transcript of the flip chart notes recorded during the first Steering Committee meeting on September 30<sup>th</sup> in River Forest, Illinois. No editing has been done except for basic grammar or spelling corrections. Supplemental text has been added for clarification and appears in brackets.

The blue text indicates a question or comment and the green text identifies any response that was given.

### DISCUSSION

**All of Harlem Avenue from Irving Park to the Eisenhower is a bottleneck, not just the bridge location. Buses cause the problem. The slide was misleading.**

**The SRA identified lots of locations for improvements. For this project, however, the focus will be the bridge and the surrounding area. Any improvements will be done without acquisition. There is extremely limited ability to widen the right-of-way.**

**Will there be street closures? Do you anticipate permanently changing a one way to a two way or vice versa?**

**Future engineering studies will help to calculate both quantitative and qualitative data.**

**If we can't add lanes, what can be done?**

**"We can't build our way out of congestion"**

**Any thought of CTA abandoning the Harlem Avenue location and moving to the multimodal center?**

**This has been mentioned, but is a problem because of the substation. There are also issues with the abutment.**



Can the CTA relocate its' main entrance to allow for more space?

The CTA entrance is located on the west side of Harlem Avenue. Ideally any expansion with involve the eastern abutment. Usage and structural reasons limit alterations to the west abutment.

Is there anything wrong with the bridge today?

No. The bridge is structurally sound. It is being widened for potential lanes, sidewalks, etc. Narrow lanes act as a visual barrier.

The project will include the bridge plus structural features.

Have other bridge designs been looked at (i.e., Lewis and Clark type), etc.?

Yes. Various bridge designs were investigated but due to horizontal clearance issues at track level and vertical clearance issues at street level, the only practical design is a through-girder bridge.

Do we have to maintain the existing rail elevations and station locations?

Yes.

How low would the elevation of Harlem Ave need to be? There are old tracks beneath the surface.

The minimum vertical clearance is 14'-9".

Has anyone actually measured the height?

We have survey data on the bridge and roadway and will be checking the existing clearance.

Is it feasible to use taller beams on each end?

This would require taller floor beam as well which would require lowering Harlem Avenue even further.

Existing pier locations are no longer up to standards, so replacement would mean removal or a change in location.

Why do we need to maintain the existing rail elevations and station locations?

The existing rails cannot be raised mainly because trains do not do well with hills. We will look into lowering the street for trucks as opposed to raising the bridge. The current height of the bridge is 14'0"

The bottleneck is the minor issue caused partially by buses and narrow lanes.

Will you provide alternative space for a bus stop and/or a bus lane? The bottleneck is caused by transit stations and stops.

This sort of thing is part of what we'll be studying.

PACE routes run on the west side of Harlem Avenue.

CTA bus routes circle around the project site.

The project area goes beyond just Harlem Avenue to include streets, sidewalks, etc.

South Boulevard will definitely feel the impacts of any road widening.

The current bus shelter is not pedestrian friendly.

Pedestrian traffic due to transit must cross Harlem Avenue which slows vehicular traffic.

What about creating a central side stairway to the EL to reduce the need to cross Harlem?

Have you considered a pedway or skyway to allow entrance into the western CTA station and then cross over to the trains. It could include retail space to draw people in.

Any major structural additions must be ADA accessible.

Consideration of the CTA station moving is beyond the scope of this project.

We should look into the South Boulevard alignment.

The CTA building holds more than just a station.

Any large structural changes must be ADA compliant.

We must think long-term. Movement towards transit based movement will be cheaper to do today than tomorrow.

Will there be complete closure of Harlem Avenue at any point during construction?

Since Harlem Avenue is a major arterial in the area, full closure is not likely. There are ways to construct bridges under traffic . One is called roll-in construction.

What are the current traffic counts?

This data has been collected and will be presented in a traffic report.

How long will the construction phase last?

Full construction is expected to take approximately two years. There are periods of time when work will be on hold such as in the winter when you can't work on the rails due to how they respond. We do not expect to ever close 100% of Harlem.

What is the most frustrating part of this process for you?

IDOT's objectives do not always line up with business owners objectives.

It is not only regulated by IDOT, but also FHWA who have stricter contextual standards.

Replace the bridge vs. solving the problem.

What positive aspects do you see with this method?

Proactive approach.

Do you [the steering committee] have any concerns about the project?

Negative impacts on retail spaces during construction.

Safety issues with regards to the facades.

Overall aesthetics of the area. It is unsightly for all three communities.

This area acts as a gateway. And we must think long term.

Would only the sidewalk on Harlem be improved? What about east-west sidewalks?

The project area is not just Harlem Avenue, it's the whole area.

Development at South Blvd. and Harlem could be affected

East-west pedestrian traffic for CTA is an issue

The bus stops are not good for pedestrians. Have we thought about how to keep people from having to cross Harlem Ave.?

Studying pedestrian flow through the project area will be part of this project.

Does the western abutment need to stay in place?

Keeping it in place would alleviate a lot of problems

At the public Kickoff Meeting, there was a discussion about re-routing Circle Drive and moving the CTA facility to the east. Is this still being considered?

Relocating Circle Drive is not part of the project. The cost of moving the CTA building and electrical substation makes this option beyond the scope of the project.

IDOT will be resurfacing Harlem Avenue in 2013. This is an opportunity to stress IDOT to do more than just resurface.

The tracks (UPRR) move 30-40K people per day. Impacts will go beyond just the project area and onto suburban and Chicago traffic.

Will there lighting under the bridge?

This is the village's responsibility.

Who is responsible for the bridge aesthetics?

Union Pacific is responsible for maintenance. Fascia beams – which are installed to absorb the shock and damage from any collisions with trucks – can have a wide variety of aesthetic treatments.

Who is responsible for the problems such as falling concrete?

Union Pacific Railroad.

Can CTA do a better job of cleaning the station at Harlem?

CTA will take a look at the situation.

CTA comments: echoing those of UP regarding high levels of ridership on the rail lines.

What is CTA's stance on closing the station at Harlem?

It's difficult to envision this happening.

What about just closing the pedestrian entrance?

This can be explored.

**ACTION ITEMS**

---

**Provide a vocabulary list of engineering terms.**

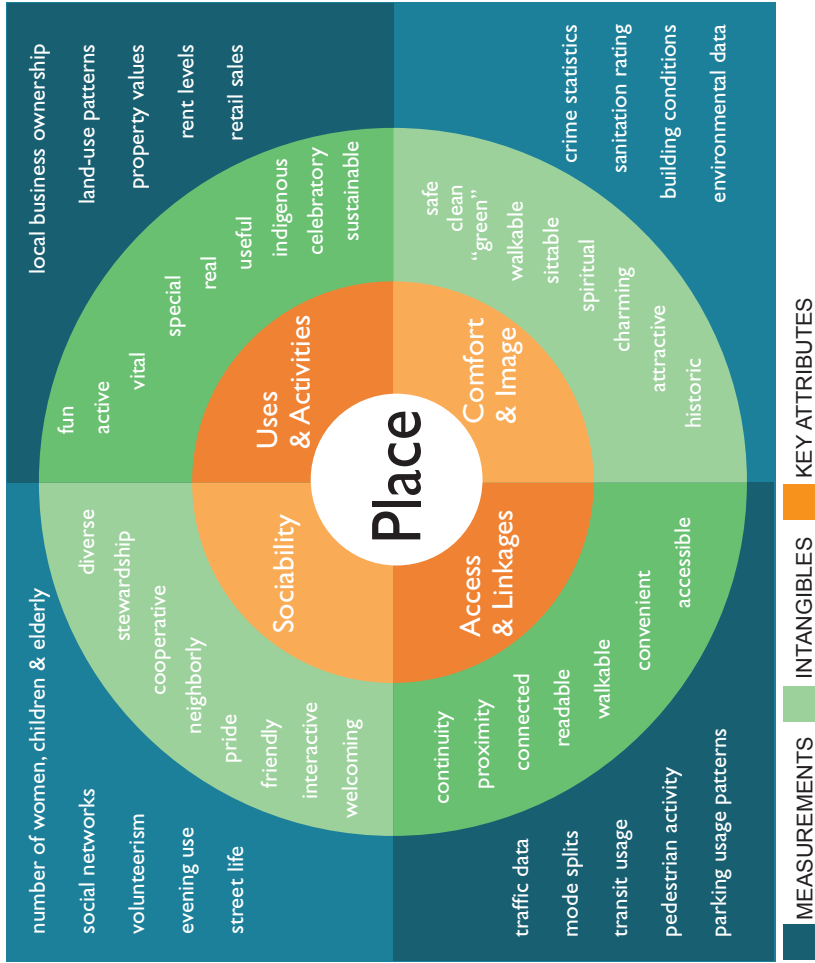
**Provide sketches of the ideas we're discussing.**

**Provide traffic data to the Steering Committee.**

**Distribute a contact list that includes emails.**

**Provide a map of all transit routes and stops including any available data such as ridership levels.**

# What Makes a Great Place?



PPS is a nonprofit organization dedicated to creating and sustaining public places that build communities. We provide technical assistance, education, and research through programs in parks, plazas and central squares; buildings and civic architecture; transportation; and public markets. Since our founding in 1975, we have worked in over 1,000 communities in the United States and around the world, helping people to grow their public spaces into vital community places.

**PPS**  
PROJECT for  
PUBLIC SPACES

700 Broadway  
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Exhibit 12-5  
Sheet 10 of 12

www.pps.org



# Place Game



## Place Performance Evaluation A Tool for Initiating the Placemaking Process

©2005 Project for Public Spaces, Inc. The 'Placegame' cannot be used without formal, written permission from PPS. If permission is granted, full credit must be given to PPS on all written materials and in any verbal descriptions of the game.

SITE #: \_\_\_\_\_

## Rate the Place:

COMFORT & IMAGE	POOR			GOOD		
Overall attractiveness	1	2	3	4		
Feeling of safety	1	2	3	4		
Cleanliness/Quality of Maintenance	1	2	3	4		
Comfort of places to sit	1	2	3	4		

Comments/Notes:

ACCESS & LINKAGES	POOR			GOOD		
Visibility from a distance	1	2	3	4		
Ease in walking to the place	1	2	3	4		
Transit access	1	2	3	4		
Clarity of information/signage	1	2	3	4		

Comments/Notes:

USES & ACTIVITIES	POOR			GOOD		
Mix of stores/services	1	2	3	4		
Frequency of community events/activities	1	2	3	4		
Overall busy-ness of area	1	2	3	4		
Economic vitality	1	2	3	4		

Comments/Notes:

SOCIABILITY	POOR			GOOD		
Number of people in groups	1	2	3	4		
Evidence of volunteerism	1	2	3	4		
Sense of pride and ownership	1	2	3	4		
Presence of children and seniors	1	2	3	4		

Comments/Notes:

## Identify Opportunities

1. What do you like best about this place?
2. List things that you would do to improve this place that could be done right away and that wouldn't cost a lot:
3. What changes would you make in the long term that would have the biggest impact?
4. Ask someone who is in the "place" what they like about it and what they would do to improve it. Their answer:
5. What local partnerships or local talent can you identify that could help implement some of your proposed improvements? Please be as specific as possible.

## Builds & Supports the Local Economy

- Small-scale entrepreneurship
- More quality goods available
- Higher real estate values
- Local ownership, local value
- More desirable jobs
- Increased currency velocity
- Greater tax revenue
- Less need for municipal services

## Nurtures & Defines Community Identity

- Greater community organization
- Sense of pride and volunteerism
- Perpetuation of integrity and values
- “Mutual coercion, mutually agreed upon”
- Less need for municipal control
- Self-managing

## Fosters Frequent & Meaningful Contact

- Improves sociability
- More cultural exposure, interaction
- Exchanges and preserves information, wisdom, values
- Supports barter system
- Reduces race and class barriers
- Feeling of interconnection

# Place

## Creates Improved Accessibility

- More walkable
- Safe for pedestrians
- Compatible with public transit
- Reduces need for cars and parking
- More efficient use of time and money
- Greater connections between uses

## Promotes Sense of Comfort

- Visually pleasing
- Generally stimulating
- Sense of belonging
- Greater security
- Better environmental quality
- Feeling of freedom

## Draws a Diverse Population

- More women, elderly, and children
- Greater ethnic and cultural pluralism
- Encourages a range of activities and uses
- New service, retail, and customer niches
- Variation and character in built environment
- Encourages community creativity

© 2003





**MEMORANDUM**  
**Project 2765**  
**Steering Committee Meeting #2**

Jennifer Anderer then presented the results of the Place Survey that was completed by her and Dave Shannon. The discussion then broadened to include the problems and issues in the area that have been experienced by members of the group. The issues and problems that Jennifer and the group noted are included in the Group Memory Notes.

Jeff then summarized the meeting, noted that we had no action items and said that the next meeting will likely be in March. At that time, the study team will present the Purpose and Need for the project as we understand them to be and we will begin to develop solutions.

The meeting adjourned at 9:00.

# Attendance Roster

## Steering Committee Meeting No. 2

### January 28, 2010

Harlem Avenue  
Underpass Project



Name	Organization
GREG KRAMER	VILLAGE OF RIVER FOREST
CHRIS KECKEISEN	UNION PACIFIC RAILROAD
Bill McKenna	Village of Oak Park
Jim Bydric	Village of Oak Park
KIM GOLDSCHMIDT	OPRF CHAMBER OF COMMERCE
Shanee Krisko	(Village of F.P.) Bern Realty
RICHARD KITTON	Village of Forest Park
Eli Whalley	Village of Forest Park
Bob Loro	South Marion Association
Frank Lipo	Historical Society of Oak Park & River Forest
JOAN LAMBERT	BOMA - BUILDING OWNERS + MANAGERS ASSOC.
Pat Zubak	Downtown OP
TIM GILLIAN	VILLAGE OF FOREST PARK
SARA FAUST	
Tim Gillian	Village of Forest Park

# Harlem Avenue Underpass Project

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## GROUP MEMORY NOTES

Harlem Avenue Underpass Project

Steering Committee Meeting No. 2

January 28, 2010

Below is a transcript of the flip chart notes recorded during the second Steering Committee meeting on January 28<sup>th</sup> in River Forest, Illinois. No editing has been done except for basic grammar or spelling corrections. Supplemental text has been added for clarification and appears in brackets.

The blue text indicates a question or comment and the green text identifies any response that was given.

### TRAFFIC and ACCIDENT DATA

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**Are the Level of Service (LOS) categories an industry standard?**

**Yes. They are used nation-wide so that what is considered a certain LOS in one area can be directly compared to another area. What does change is how the LOS is interpreted for different areas. An LOS in one type of setting, such as urban, may be acceptable there but may not be acceptable in a rural setting.**

**How is safety (accidents) calculated and what is the process for determining priorities?**

**Accidents used to be grouped into those occurring at individual intersections and the segments between them. Crash rates were calculated by the comparing the number of crashes with the volume of traffic traveling through the intersection or segment. Critical rates were calculated for different regions of Illinois and the crash rates were compared to those critical rates. Crash analyses are now concentrating more on the severity of crashes and recurring patterns and less on sheer numbers.**

**Jim Budrick noted that more than 3.9 crashes per million is significant.**

**The use of traffic data and the analysis of alternatives is a work in progress.**

### PROBLEMS AND NEEDS

---

**Even though left turns are prohibited when traveling northbound, traffic still makes the left turn.**

**A right turn off of South Boulevard is tight and requires going into other lanes.**

**Thru vehicles need to also be considered.**

Is an offset intersection a problem?

Not unless it negatively impacts mobility or safety.

Why are there two train stations so close together?

The two entrances serve the same station.

Could we use only the east CTA entrance?

The buses would still have to make stops along Harlem Avenue. Looping around is difficult for northbound buses because the right turn onto South Boulevard does not provide enough space for the bus.

The crossing by Starbucks is better delineated.

The overall geometrics of the site are a problem.

Can we redirect truck traffic to Madison?

No. Many truck deliveries are made off of Harlem and Madison is a heavy residential area not appropriate for truck traffic.

The bus stop on the northeast corner of South Boulevard does not have a shelter or even a pad to stand on.

Any stopping under the viaduct should be avoided for safety reasons.

The buses block driveways.

Harlem was designated an SRA (Strategic Regional Arterial) by IDOT. Although the bridge was not included in the original study, future IDOT visions should be considered.

Is the traffic light at Circle state controlled?

Yes. IDOT maintains an interconnect system along Harlem Avenue.

The structure height is still an issue.

There is an increase in pedestrian movement heading south during the PM peak.

Some of the sidewalks are too high due to previously lowering Harlem.

Pedestrians play a major role in this intersection.

There is a significant delay due to pedestrians.

Approximately 1800 patrons load the CTA each day.

Pedestrians and buses contribute to the safety issues especially their interaction with the viaduct.

Improve pedestrian movement with increased signage.

Broad safety minimums are crucial and an obvious place to start.

It is hard to cross Circle Avenue because there are no crosswalks or pedestrian signals.

We should aim to better balance vehicle and pedestrian traffic.

Crime is a problem in the area. There are also a lot of pan handlers.

Noise is a concern and negatively impacts the safety of pedestrians.

A lot of issues seem to be maintenance issues.

The site is dark and dirty.

The area around the viaduct is filthy.

Lighting is bad under the viaduct. Increased lighting, murals, or paintings could help.

People jog under the viaduct because it is hard to see.

The entire area needs softening with light and landscaping.

Space under the viaduct might be able to be used as commercial space.

Can the UPRR do anything to clean up the area?

UP is making a lot of improvements on crossings west of Harlem. The UPRR is willing to cooperate with any ideas that the local community has to improve the area under the bridge.

What can we do to obtain more funding for the project?

We don't need to position the project for specific funding sources. There are a number of sources that would work for this project but securing any type of funding has been and continues to be very competitive.

Is there a case to be made to leverage multi-modal money to tie this all together?

That kind of strategy applies to the next stages of the process. The process we are at in this phase of the project will make the improvements eligible for most types of federal funding. Exact sources can be determined and identified later as the project moves closer to construction.

#### ACTION ITEMS

---

No action items were made during this meeting.

# Harlem Avenue Underpass Project

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## CONTACT INFORMATION

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FP.History@hotmail.com

Mr. Tom Zapler  
Union Pacific Railroad  
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Ms. Pat Zubak  
Downtown Oak Park  
708.383.4145  
pzubak@downtownoakpark.net



TRAFFIC REPORT  
FOR THE  
**HARLEM AVENUE UNDERPASS**  
**UNION PACIFIC RAILROAD BRIDGE**  
**OVER HARLEM AVENUE,**  
**IL ROUTE 43**  
  
**RIVER FOREST**  
**FOREST PARK**  
**OAK PARK**

Ex. Structure No. 016-0310

Pr. Structure No.

FAU 0348

Section: 06-00086-00-B R

Federal Project:

State Job:

Prepared by

H. W. Lochner, Inc.

February, 2010



## **Introduction**

Harlem Avenue (IL Route 43) is a principal north-south arterial serving the near west communities of the Chicago metropolitan area. Harlem Avenue is a designated Class II truck route and a Strategic Regional Arterial (SRA). It is a heavily traveled route that includes a large volume of truck traffic serving commercial and industrial development using Harlem Avenue as their main access route (See Exhibit 1 – Location Map).

IDOT improved Harlem Avenue in the mid-1990's. Widening the pavement under the UP Railroad bridge was beyond the scope of those improvements. The Villages of River Forest, Forest Park and Oak Park in cooperation with IDOT studied the possibility of replacing the bridge in a feasibility study in the late 1990's. Funding for a full Phase I study of the improvement of this area, including possible replacement of the bridge, was provided through the FHWA HPP program. This traffic study is part of the HPP project.

## **Existing Roadways**

For the purpose of this traffic report, the immediate area surrounding the Union Pacific Railroad Bridge over Harlem Avenue was analyzed. This includes the northwest quadrant in the Village of River Forest, the southwest quadrant in the village of Forest Park, and the northeast and southeast quadrants in the Village of Oak Park.

The intersecting streets of near the bridge are Central Avenue/North Boulevard north of the bridge and Circle Avenue/South Boulevard south of the bridge. Central Avenue, North Boulevard and South Boulevard are controlled by an interconnected signal. Circle Avenue is stop controlled.

Harlem Avenue is a two-way, four lane roadway with a southbound left turn lane at North Boulevard. The pavement width under the bridge is about 21 feet in each direction (face of curb to face of median wall). Central Avenue is a one-way, two lane eastbound roadway while North Boulevard is a two-way, two lane roadway with the westbound traffic restricted to a right turn only movement at Harlem Avenue. South Boulevard is a two-way, three lane roadway and Circle Avenue a two-way two lane roadway with eastbound traffic restricted to right turns at Harlem Avenue and controlled by a stop sign.

Bus stops in each direction on Harlem Avenue are located at South Boulevard.

Exhibit 12-6

Sheet 9 of 14

## **Existing Traffic Volumes**

Traffic volumes were collected on September 30<sup>th</sup>, 2008 from 6:00 to 10:00 a.m. and from 3:00 to 8:00 p.m. The counts classified the types of vehicles and counted pedestrians crossings and were divided into 15 minute intervals. From this data, the peak morning hour was identified as 7:15 to 8:15 and the evening peak hour was 5:00 to 6:00.

Bus volumes were obtained from schedules published by the Chicago Transit Authority and PACE.

## **Design-Year 2030 Traffic Volumes**

Traffic projections were provided by the Chicago Metropolitan Agency for Planning (CMAP). Those projections are based on a traffic model for the Chicagoland region using socioeconomic projections and the 2030 Regional Transportation Plan. The traffic projections for these intersections showed a minimal growth along Harlem Avenue but at least a 10 percent growth on the cross streets.

## **Capacity Analysis**

The intersections of Harlem Avenue with Central Avenue/North Boulevard and Circle Avenue/South Boulevard were analyzed separately using the same phasing operations. The two intersections are currently timed from one traffic signal controller located at the northeast corner of South Boulevard. These intersections are part of an interconnected corridor along Harlem Avenue from the Eisenhower Expressway to West Division Street with a set cycle length of 125 seconds.

Highway Capacity Software (HCS) was used to analyze the capacity of the signalized intersections. HCS is based on procedures published in the Highway Capacity Manual by the Transportation Research Board. HCS is accepted for use in capacity studies by IDOT and the FHWA.

There were three specific adjustments made in analyzing the traffic at this location: the base Saturation Flow Rate was set at 1800 per lane, the Peak Hour Factor to 0.90 and the Adjustment for Bus Blockage to 0.917. The Adjustment for Bus Blockage was based on two factors: 20 bus stops per hour and an average blockage time of 30 seconds per bus, based on field observations, during the green phase of the cycle.

Exhibit 12-6

Sheet 10 of 14

Capacity for an intersection is reported in terms of Level of Service. Level of Service is defined in terms of control delay which is a measure of driver discomfort, frustration, fuel consumption and increased travel time. Six levels of service are defined:

- Level of Service A: Less than 10 seconds of delay, free flow, most vehicles arrive during green phase.
- Level of Service B: 10 to 20 seconds of delay, good progression
- Level of Service C: 20 to 35 seconds of delay, some cycles do not clear completely, fair progression.
- Level of Service D: 35 to 55 seconds of delay, many vehicles stop and cycle failure noticeable.
- Level of Service E: 55 to 80 seconds of delay, poor progression and multiple cycle failures, volume near capacity.
- Level of Service F: Delay greater than 80 seconds, stop and go traffic above capacity, significant delay.

Harlem Avenue Underpass  
Traffic Report

Summary of Levels of Service

Intersection	Movement	Morning Peak Hour				Evening Peak Hour					
		2008 (Existing)	2030 - I (Existing)	2030 - II New SB LT turns @ South	2030 - III New SB LT turns @ South, No Buses	2030 - IV No Left Turns	2008 (Existing)	2030 - I (Existing)	2030 - II New SB LT turns @ South	2030 - III New SB LT turns @ South, No Buses	2030 - IV No Left Turns
North	EB - Left	40.3	40.4	32.7	32.8	32.7	40.8	31.5	31.6	31.5	
	EB - Through/Right	57.2	60.7	42.3	45.5	41.0	126.9	53.5	62.7	49.1	
	WB - Right	41.4	42.4	34.0	34.5	34.0	43.4	34.6	35.1	34.6	
	NB - Through/Right	3.0	3.2	8.2	13.0	7.3	3.4	3.6	12.4	22.4	10.6
	SB - Left	54.6	55.0	48.3	49.7	---	59.7	60.9	51.2	51.6	---
	SB - Through	7.7	7.8	15.0	45.9	14.6	8.6	19.0	31.9	18.3	
	Intersection	12.1	13.1	16.2	32.4	14.7	24.2	22.8	33.1	20.2	
South	WB - Through/Left/Right	54.0	60.4	42.1	42.1	42.1	82.9	48.5	48.5	48.5	
	NB - Through/Right	17.7	17.9	34.5	33.4	34.5	18.0	38.9	37.4	38.9	
	SB - Left	---	---	12.8	12.8	---	---	14.8	14.8	---	
	SB - Through/Right	3.3	2.6	3.6	3.3	3.2	3.2	3.0	4.6	4.0	
	Intersection	13.8	14.8	19.9	19.4	19.7	18.7	23.6	22.8	23.2	

Harlem Avenue Underpass  
Traffic Report

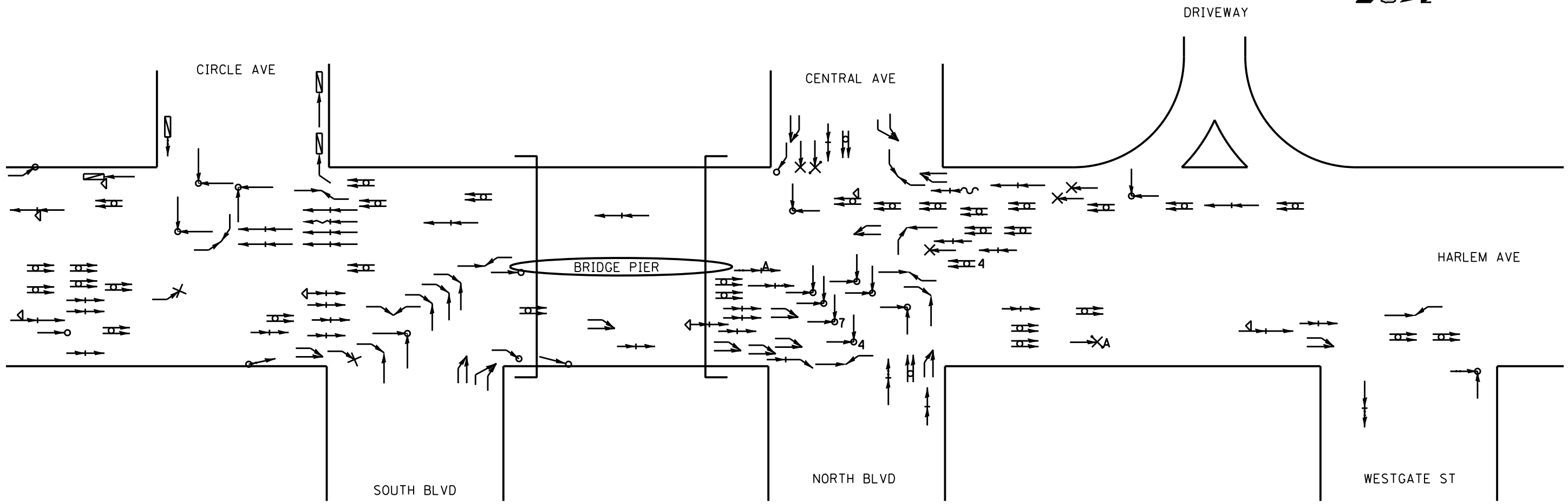
Summary of Levels of Service

Intersection	Movement	Morning Peak Hour				Evening Peak Hour					
		2008	2030 - I	2030 - II	2030 - III	2008	2030 - I	2030 - II	2030 - III	2030 - IV	
		(Existing)	(Existing)	New SB LT turns @ South	New SB LT turns @ South, No Buses	No Left Turns	(Existing)	(Existing)	New SB LT turns @ South	New SB LT turns @ South, No Buses	No Left Turns
North	EB - Left	D	D	C	C	C	D	D	C	C	C
	EB - Through/Right	E	E	D	D	D	F	F	D	E	D
	WB - Right	D	D	C	C	C	D	D	C	D	C
	NB - Through/Right	A	A	A	B	A	A	A	B	C	B
	SB - Left	D	E	D	D	---	E	E	D	D	---
SB - Through	A	A	B	D	B	A	A	B	C	B	
Intersection		B	B	B	C	B	C	C	C	C	C
South	WB - Through/Left/Right	D	E	D	D	D	F	F	D	D	D
	NB - Through/Right	B	B	C	C	C	B	B	D	D	D
	SB - Left	---	---	B	B	---	---	---	B	B	---
	SB - Through/Right	A	A	A	A	A	A	A	A	A	A
Intersection	B	B	B	B	B	B	C	C	C	C	C

# COLLISION DIAGRAM

HARLEM AVE

CRASH REPORTING PERIOD: 2004 - 2008



- |                |                  |              |                     |
|----------------|------------------|--------------|---------------------|
| ← STRAIGHT     | ⤴ OUT OF CONTROL | ⊗ PEDESTRIAN | 3 NUMBER OF CRASHES |
| ⏹ STOPPED      | ↘ RIGHT TURN     | ⊗ BICYCLE    | ▷ 3RD VEHICLE       |
| ○ FIXED OBJECT | ↙ LEFT TURN      | ▭ PARKED     | A TYPE A INJURY     |
| ↔ SIDESWIPE    | ↔ OVERTAKING     | ↻ ANGLE      |                     |
| ↔ REAR END     | ↔ BACKING        |              |                     |

Exhibit 12-6  
Sheet 14 of 14

**COLLISION DIAGRAM**  
HARLEM AVE  
FROM CIRCLE AVE TO WESTGATE ST

NO SCALE



**MEMORANDUM**  
**Project 2765**  
**Steering Committee Meeting #2**

east side. It will be very difficult to make these sidewalks any wider. It was estimated that the existing sidewalks are around 5' wide.

Dave then passed out typical roadway sections and again noted that they are drafts and have not been reviewed by IDOT. The existing sections show four 12-foot lanes south of the bridge and five 10-foot lanes north of the bridge. The eastern-most lane is actually 13-feet in width for no apparent reason. Dave explained that the biggest restrictions on the roadway design will be the number of lanes required and the width of the right of way. The proposed design is based on five 10-foot lanes with B6.12 curb and gutter. The resulting sidewalks are limited therefore to 6.5' in width.

Dave then discussed how, as an engineer, he would approach designing the roadway portion of the improvements. He would start with setting the profile under the bridge, extend it north and south on Harlem Avenue as far as necessary, look at how far on the side streets would need to be improved and then examine what the resulting impacts to the sidewalks would be. Dave then opened up the discussion to general questions, comments and debate which are noted in the Group Memory Notes attached to this memo.

Jeff wrapped up the meeting by asking what the next steps are. Dave said that he would take what was discussed and begin designing the proposed improvements. We will meet again in about two months and review what the design team came up with. We will make any revisions necessary, review the design with IDOT and get their blessing to present the alternatives at the Alternatives Public Meeting. After that meeting, any comments received will be presented to the Steering Committee. We will talk about making revisions and then present the preferred alternative at a Public Hearing.

The meeting adjourned at 9:00.



# Harlem Avenue Underpass

# Meeting #3

Name	Organization
1. Greg Kramer	Village of River Forest
Pat Zubak	Downtown OP
Nicolette Vander Meer	OPDC
JOHN LAMBRECHT	BOMA/TRITON
DAVID KING	DAVID KING + Assoc
Bob Loro	South/MARION Assoc.
John Lawrence	Oak Park Board of Realtors
Eric Llewellyn	Pau
Bill McKenna	Village Oak Park
Jim Busnick	VILLAGE OF OAK PARK
Sherree Krisco	Bern Realty
CHRIS KECKEISEN	UNION PACIFIC RR
MARILIN SOLOMON	IDOT- D1 - LOCAL ROADS

# Harlem Avenue Underpass Project

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## GROUP MEMORY NOTES

Harlem Avenue Underpass Project

Steering Committee Meeting No. 3

March 24, 2010

Below is a transcript of the flip chart notes recorded during the third Steering Committee meeting that was held on March 24<sup>th</sup> in River Forest, Illinois. No editing has been done except for basic grammar or spelling corrections. Supplemental text has been added for clarification and appears in brackets.

The blue text indicates a question or comment and the green text identifies any response that was given.

### Comments on the proposed Purpose and Need:

Accommodating alternative modes of transportation is extremely important.

Are the bus stops an existing problem or is it the conflict with pedestrians off loading from the buses?

The preliminary traffic studies show that buses stopping in traffic do not have a large impact on capacity. It appears that a larger impact is made by people exiting northbound buses and crossing Harlem Avenue, which obstructs the roadway for southbound traffic from South Blvd.

The bridge piers restrict movements such as left turns from South Blvd.

There is a multi-modal station only ½ mile away – synergy possible?

This will be a topic for our next agenda item when we are talking about solutions.

### Discussion about solutions:

Oak Park wants to calm traffic. Removal of the piers will not accomplish this and pedestrians will feel less safe without the piers.

Oak Park's desire for traffic calming is noted, and will be explored. Regarding safety, handrails will be added along the sidewalks and the study team's architect will work on enhancing the pedestrian's experience when walking under the bridge.

Are the piers being removed just to add one lane?

It is part of IDOT's long-term plan for Harlem to have 5 lanes. Removing the piers will also greatly improve visibility and sight-lines under the bridge

South Boulevard has become a "bypass" during rush hour. Turning off of South Boulevard can be difficult at times.

What about closing the station at Harlem? Would this impact anyone?

The CTA entrance and exit near the bridge is heavily used and its closure would require PACE buses to be rerouted to the Marion Street entrance, which is not desirable to PACE.

Make the Harlem CTA station an exit only station.

It is not desirable to have a route using mass-transit that is not reversible. If people get off the train and use that exit for their commute, they will expect to be able to make the reverse commute.

What about putting in a pedestrian bridge? How much congestion is due to pedestrian traffic?

Managing and directing pedestrians is a very difficult thing to accomplish. Providing pedestrian bridges is typically done at very heavily used roadways and there is no guarantee that one at this location would be used or would solve the problem.

Southbound south of the tracks bus stop stops traffic.

Buses will wait for regular commuters, adding to congestion.

Take all buses to the intermodal facility?

This would require some PACE buses to be rerouted to the Marion Street entrance, which is not desirable to PACE.

Move the station from the west to the east side?

This would require a new entrance and station area behind the abutment, which would be extremely expensive to construct. A new access point through the CTA platform may also have clearance issues.

What happens with sidewalks as a result of the two-foot lowering of the road?

We will be examining in detail the impacts of the proposed roadwork on the sidewalks. Whatever is affected will need to be designed to meet ADA standards.

Oak Park does not feel that it shares the same goals as IDOT. A lot of issues can be solved without widening the road.

It is true that no one solution would solve all the problems. Often Steering Committees such as this one can take action beyond the parameters of the study to address related issues.

It would be great if the Study could discuss both the “now” solutions and, separately, the “ultimate” solutions.

We can consult with the FHWA on moving forward with both “now” and “later” alternatives, although projects that use federal funding (as in this study) typically focus on longer-term improvements. Short-term improvements that are suggested during this process can be made at any time by the local communities with their own funding if alternative funding is available.

What would be the possibility of adding a bus bay on the southeast corner?

Turn bays can be very effective but require additional right of way and must be relatively lengthy. Turn bays are also more desirable on the far side of an intersection, which makes it easier for buses to re-enter the traffic stream.

What about a raised median to discourage inappropriate passing of stopped traffic?

Harlem Avenue is an IDOT roadway and it is up to IDOT to allow a raised median.

Pedestrian traffic on the northwest corner lacks a clear line of sight to traffic.

Crash statistics indicate that this corner would benefit from safety improvements.

South Boulevard is not properly striped, resulting in a lot of side swipe accidents.

We will explore the lane width and striping on South Boulevard. Oak Park would prefer that this remain three lanes.

What about fixing the jog between Circle Avenue and South Boulevard?

At one time the project included removal of the CTA building and relocation of Circle Avenue, but was removed from the scope because Forest Park decided to study it themselves. A

report they produced did not make a firm recommendation of any improvements. While Oak Park does own a parcel along South Boulevard, they feel it would be best developed as it is which makes shifting South Blvd to the south undesirable.

From a realtor perspective, aesthetics are important and should be an important part of the improvement process.

The FHWA does allow for certain kinds of aesthetic improvements. The study team's architect will analyze possible aesthetic improvements for the underpass.

**Action Items:**

No action items were assigned during the meeting.

# Harlem Avenue Underpass Project

Village of River Forest  
John P. Rigas  
Village President

Village of Oak Park  
David Pope  
Village President

Village of Forest Park  
Anthony T. Calderone  
Mayor

## Harlem Avenue Underpass Project Purpose and Need

Harlem Avenue (IL Route 43) serves the western suburbs of Chicago as a principal arterial. It is a heavily traveled route that includes a large amount of truck traffic serving the area's commercial and industrial developments. Harlem Avenue is designated by IDOT as a Class II truck route as well as a Strategic Regional Arterial.

A detailed study was completed by IDOT in 1996 which included recommendations for future improvements. In order to better accommodate anticipated increases in traffic, the 1996 report recommended that Harlem Avenue within the area of the UPRR bridge be increased to five 10-foot wide lanes. It also recommended that the UPRR bridge be replaced and the vertical clearance under the bridge be increased to 14 feet-6 inches.

IDOT made some improvements to Harlem Avenue in the late 1990s, including a lowering of the pavement under the UPRR bridge. The lowering was only enough to provide a minimum clearance for trucks and was limited in order to avoid impacting the side streets. Replacement of the bridge was considered beyond the scope of the improvement program at that time.

The existing bridge was constructed in the late 1920s and has columns at the curb line on both sides of Harlem Avenue as well as along the centerline. The roadway under the bridge consists of two 10-foot wide lanes in each direction. South of the bridge the roadway consists of two 12-foot wide lanes in each direction and north of the bridge the approach roadway consists of five 10-foot wide lanes. The bridge is currently posted with a 14 feet-0 inch clearance although trucks do strike the bridge periodically.

Commercial development around the bridge has occurred since the 1990s including the construction of large retail shopping areas northeast and northwest of the bridge. These retail developments attract large volumes of vehicles and pedestrians.

Crash data has indicated that there are clusters of crashes around the bridge that can be attributed to the detrimental effect the bridge has on lane widths, driver distraction, sight lines and roadway geometrics.



# Harlem Avenue Underpass Project

Village of River Forest  
John P. Rigas  
Village President

Village of Oak Park  
David Pope  
Village President

Village of Forest Park  
Anthony T. Calderone  
Mayor

The primary purpose of this project is to improve the existing geometric deficiencies of the UPRR bridge over Harlem Avenue and the associated deficiencies on Harlem Avenue itself in the immediate vicinity of the bridge.

The secondary purposes include improving connections between transportation modes associated with the bridge and roadway (Metra, CTA, PACE, pedestrian, bicycle) and to improve the aesthetics of the infrastructure components of this location.

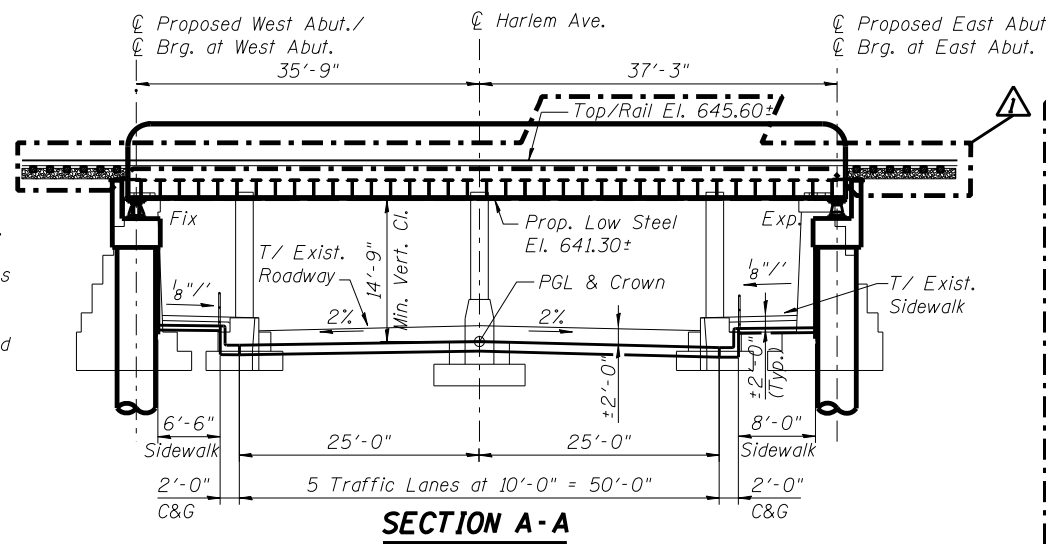
## This project is needed because:

- The bridge is functionally obsolete for traffic along Harlem Avenue.
- The bridge prevents improvement of Harlem Avenue according to the plan presented in the SRA Study.
- The columns along the curb and center lines reduce the effective lane widths under the bridge which creates a safety risk.
- The low clearance of the bridge continues to cause trucks to become stuck.
- The low clearance and columns of the bridge obstruct sight lines to the traffic signals and intersections.
- The sidewalks through the area do not meet the standards of the Americans with Disabilities Act.
- The bridge is in a state of deterioration and no longer aesthetically fits within the community.
- The geometry of the side streets is substandard and contributes to the crash frequency.
- The deteriorated condition of the bridge and sidewalks discourages pedestrian activity and is a barrier between the commercially successful north side with the under-developed south side.
- The poor aesthetics and geometrics of the bridge are a determinant to the overall economic vitality of the area.
- The poor lighting under the bridge creates a safety issue for pedestrians.
- Pavement markings and crossing geometry are deteriorated and cause pedestrian confusion which is a safety concern.

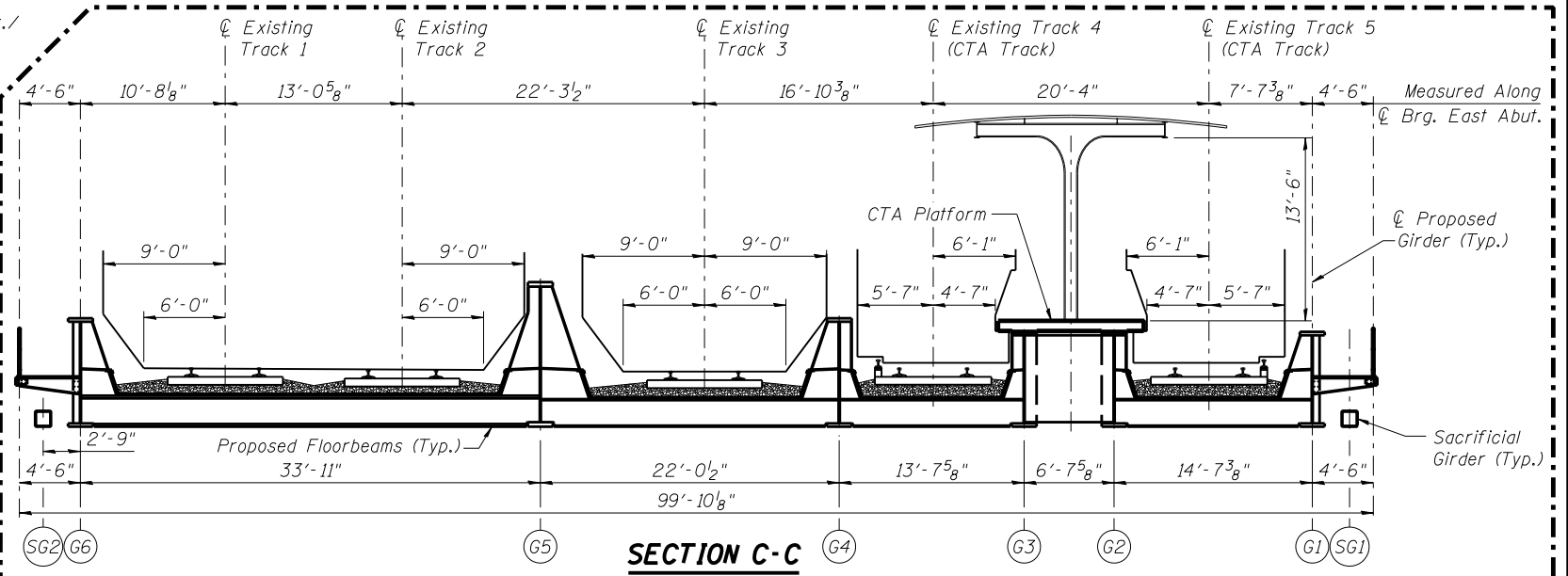


Bench Mark:

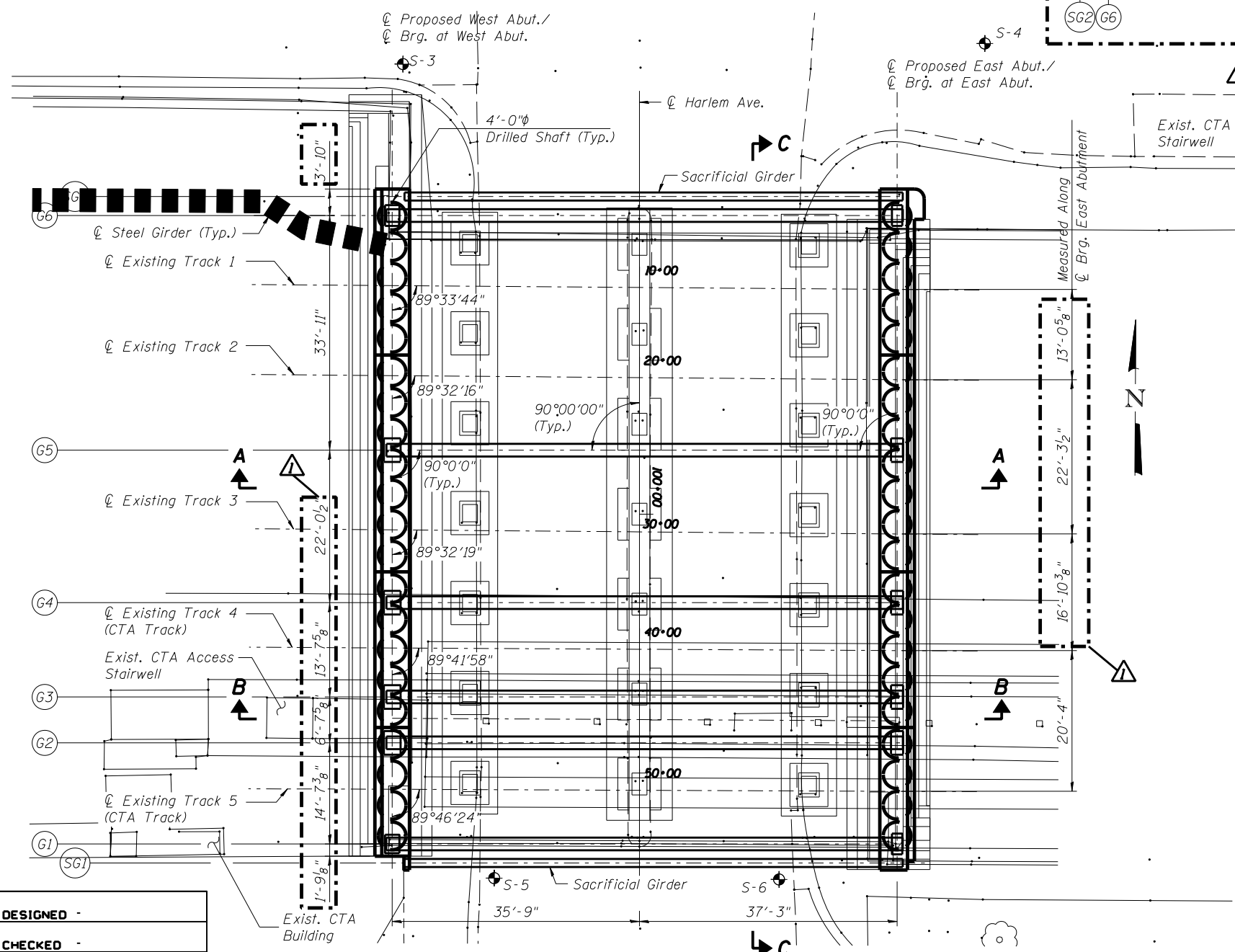
Existing Structure - The existing structure, SN 016-0310, is a four-span steel trough girder with cast-in-place concrete deck slab bridge built in 1911. The total length of the bridge (between  $\text{\O}$  bearings) is approximately 70'-4". Individual spans measure approximately 12', 23', 23' and 12'. The out-to-out deck dimension is approximately 88'. The substructure consists of unreinforced concrete full height abutments and steel column piers. The abutments and piers are supported on spread footings resting on dense soil.



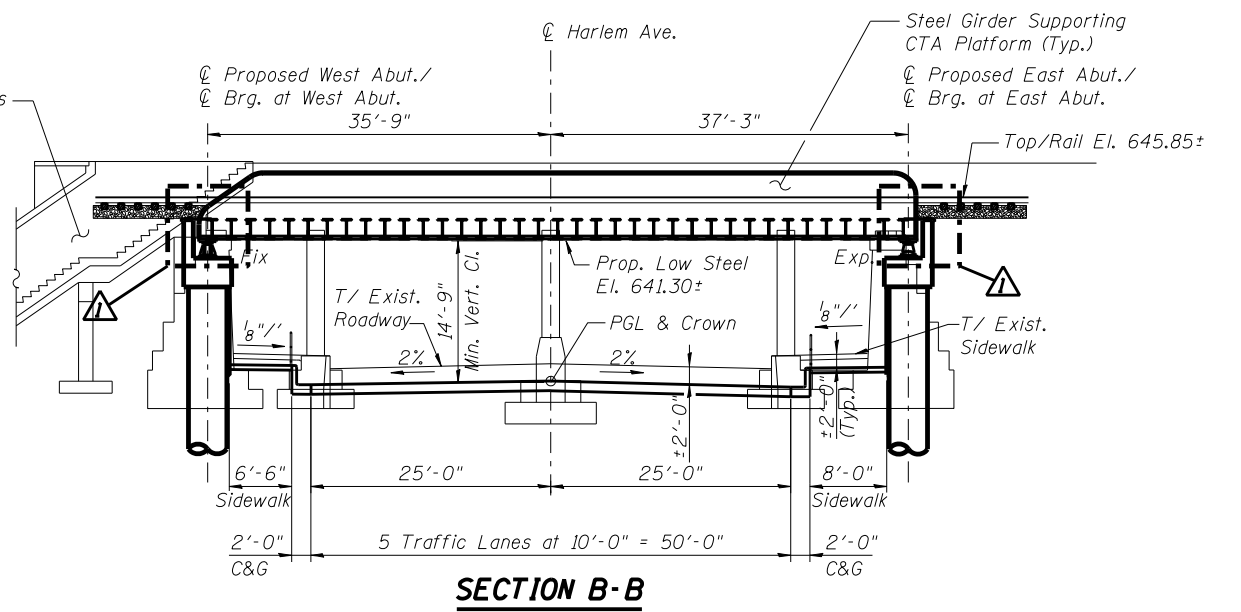
**SECTION A-A**



**SECTION C-C**



**PLAN**



**SECTION B-B**

**DESIGN SPECIFICATIONS**

BNSF - Union Pacific Railroad Guidelines for Railroad Grade Separation Projects, 2007 Edition; AREMA, 2008 Edition

**DESIGN CRITERIA**

Cooper E80 plus impact for equipment without hammer blow

**DESIGN STRESSES**

REINFORCED CONCRETE  
 $f_y = 60,000$  psi (Reinforcement)  
 $f'_c = 5,000$  psi  
 STRUCTURAL STEEL  
 $f_y = 50,000$  psi (M270 Grade 50) - Galvanized

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
 Bedrock Acceleration Coefficient (A) = 0.04g  
 Site Coefficient (S) = 1.0

**LEGEND**

$\blacklozenge$  Soil Boring Location

**NOTES**

1. The profile grades for Harlem Avenue and rails are subject to refinement in the TS&L phase.

2. Rail profile to match existing

**GENERAL PLAN AND ELEVATION  
 CTA & UNION PACIFIC RAILROAD  
 OVER IL 43, HARLEM AVENUE  
 SECTION 06-00086-00 BR  
 COOK COUNTY**

**EXISTING STRUCTURE NO. 016-0310**  
 Exhibit 12-7, Sheet 10 of 12

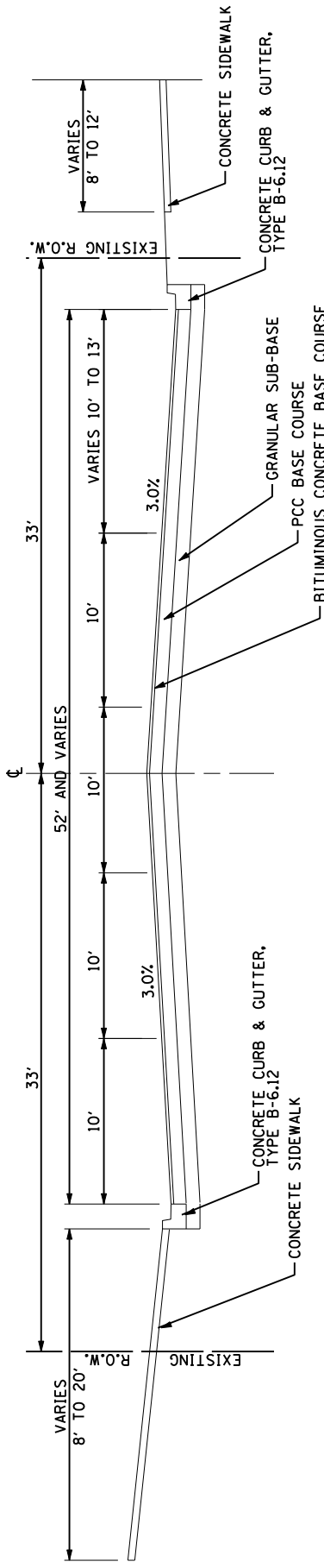
DESIGNED -
CHECKED -
DRAWN -
CHECKED -

**LOCHNER**

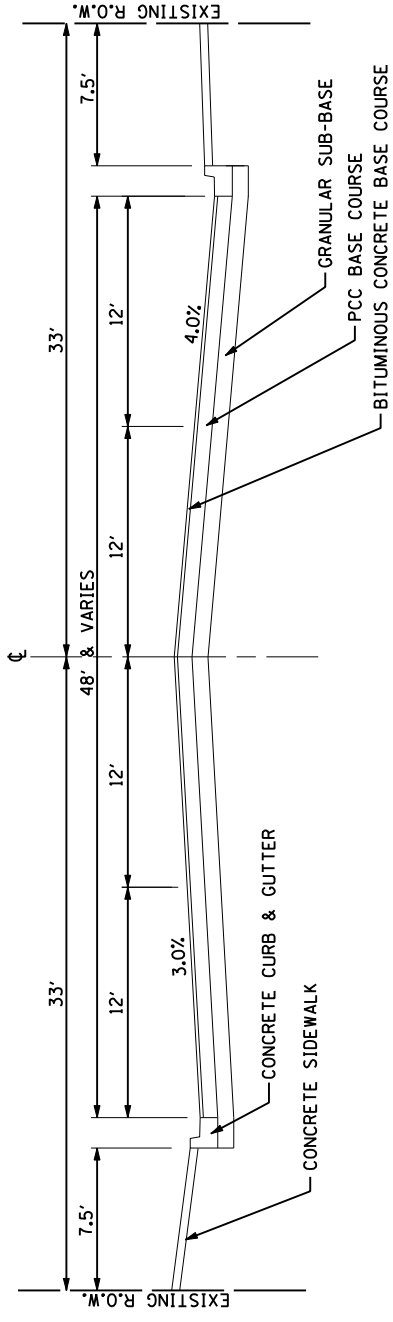
H.W. LOCHNER, INC.  
 CONSULTING ENGINEERS & PLANNERS  
 20 NORTH WACKER DRIVE SUITE 1200  
 CHICAGO, IL 60606

SHEET NO.  SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		06-00086-00 BR	COOK	4	1
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT RR-07-5529	





**EXISTING TYPICAL SECTION**  
 HARLEM AVENUE  
 (NORTH OF THE BRIDGE)

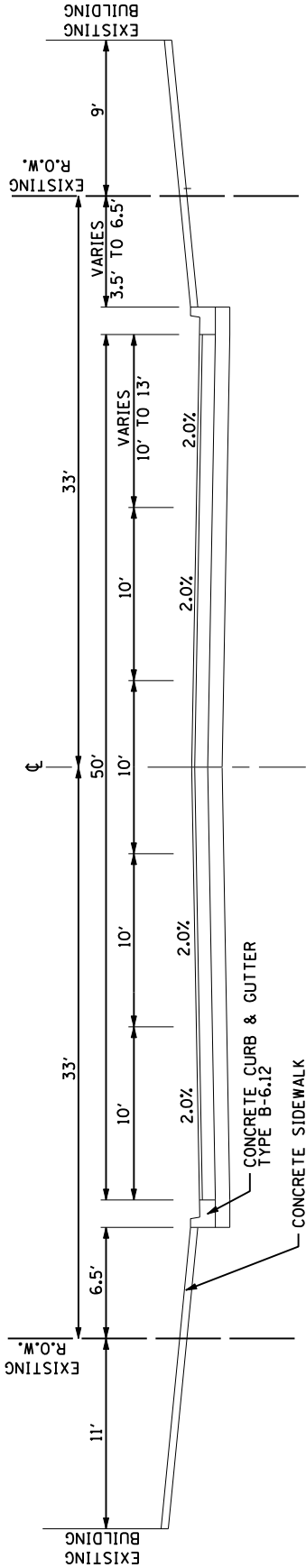


**EXISTING TYPICAL SECTION**  
 HARLEM AVENUE  
 (SOUTH OF THE BRIDGE)

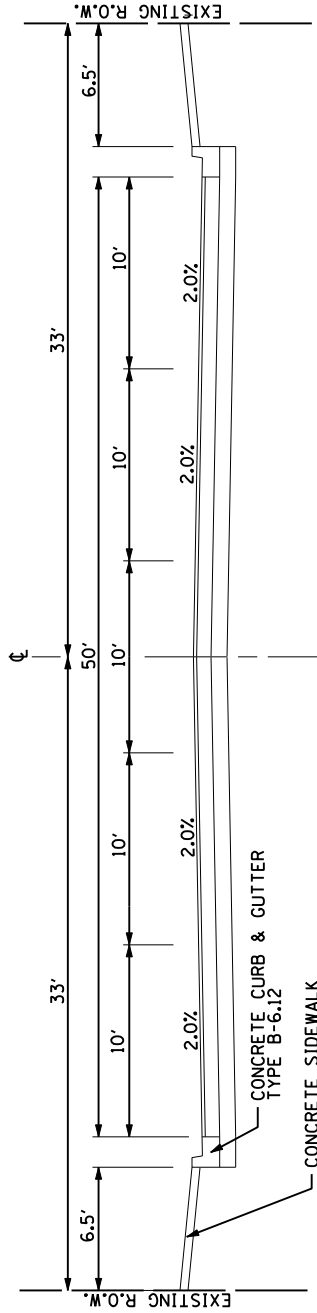
Exhibit 12-7, Sheet 11 of 12

HARLEM UNDERPASS REPLACEMENT PROJECT		FIGURE NO.
EXISTING TYPICAL ROADWAY SECTIONS		
NOT TO SCALE	DATE MARCH 2010	
LOHNER		

FILE NAME =  
 DATE/TIME =  
 USER =



**PROPOSED TYPICAL SECTION**  
 HARLEM AVENUE  
 (NORTH OF THE BRIDGE)



**PROPOSED TYPICAL SECTION**  
 HARLEM AVENUE  
 (SOUTH OF THE BRIDGE)

Exhibit 12-7, Sheet 12 of 12

HARLEM UNDERPASS REPLACEMENT PROJECT		FIGURE NO.
PROPOSED TYPICAL ROADWAY SECTIONS		
NOT TO SCALE	DATE MARCH 2010	
LOGHNER		

FILE NAME =  
 DATE/TIME =  
 USER =



**MEMORANDUM**  
**Project 2765**  
**Steering Committee Meeting #2**

Dave then discussed the remaining work for the Steering Committee. The original plan was to hold an Alternatives Public Meeting to present a few options to the public, but after studying the project it appears that there is only one reasonable option. The Steering Committee was scheduled to hold a meeting after the Alternatives Meeting to review any comments and select a preferred option to move forward. Dave suggested that we eliminate the Public Alternatives meeting and the 5<sup>th</sup> Steering Committee meeting that was intended to address the comments and just go straight to the Public Informational Meeting. Dave also suggested that instead of officially moving the 5th Steering Committee Meeting to after the Public Informational Meeting we meet again if there are comments received at the Public Informational Meeting that warrant reconsideration of any aspects of the project. The group at the first meeting was in favor of this plan but did not feel comfortable making this decision for the entire Committee. The group at the second meeting was also in favor of the meeting schedule plan revision.

Both meetings adjourned at 8:30.

# Attendance Roster

## Steering Committee Meeting 4

### July 14, 2010

Harlem Avenue  
Underpass Project



Name	Organization
1. PHIL COTTER	VILLAGE of RIVER FOREST
2. Erik Ulewallyn	Page
3. Rich FITTON	HISTORICAL SOCIETY of FOREST PARK.
4. Dan Hanson	Mid-America Asset Management
5. Sherree Krisco	Bern Realty
6. Pat Zubak	Downtown OAK PARK
7. Jim Budnick	OAK PARK
8. DAVID STEELE	MULLER & MULLER
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# Attendance Roster

## Steering Committee Meeting 4

Harlem Avenue  
Underpass Project

(repeat)

8/26/2010



	Name	Organization
1.	KIM GOLDSCHMIDT	OAK PARK RIVER FOREST CHAMBER OF COMMERCE
2.	Bob Loro	SOUTH MARION DISTRICT
3.	John Wielebnich	Village of Oak Park - Public Works
4.	Tim Gillian	Village of Forest Park -
5.	DAVID STEELE	MULLER & MULLER ARCHITECTS
6.	TERRY SOLLMAN	MULLER & MULLER ARCHITECTS
7.	Bill McKenna	McKenna@oak-park.us
8.	John Lawrence	J-lawrence@comcast.net
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24.		Exhibit 12-8
25.		Sheet 4 of 10



# Harlem Avenue Underpass Project

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## GROUP MEMORY NOTES

Harlem Avenue Underpass Project

Steering Committee Meeting No. 4

July 14, 2010 and August 26, 2010

Below is a transcript of notes recorded during the fourth Steering Committee meetings that were held on July 14<sup>th</sup> and August 26<sup>th</sup> in River Forest, Illinois. Both meetings followed the same format and were based on the same presentation. These notes have not been edited except for basic grammar or spelling corrections. Supplemental text has been added for clarification.

Dave Shannon presented a series of slides showing the process used to develop the proposed bridge and roadway improvements. Unfortunately due to IDOT policy and procedures, the slides from presentation cannot be distributed prior to the public hearing.

Since relatively little change to the railroad is allowed and a clear-span bridge with no center or sidewalk columns needs to have a thicker bridge deck, the replacement bridge will be need to lower the roadway. The minimum clearance is also greater than the existing clearance which pushes the replacement roadway down even further. The limits of the pavement replacement on Harlem Avenue are then based on how far it takes north and south of the bridge for the profile to come back up to the existing roadway elevation.

Lowering Harlem Avenue will also impact the four side-streets near the bridge. An additional issue to be corrected is that the profile of the side-streets should slope away from Harlem Avenue before coming back up to existing roadway which creates a small sag curve. South Boulevard and Circle Avenue are not as affected by this issue as Central Avenue and North Boulevard.

Once the required roadway improvements are defined, the effects of the roadway lowering on features within the project area can be determined. It is likely that retaining walls will be required along the existing railroad viaduct to avoid undermining the walls. It is also likely that splitting the sidewalks along Harlem Avenue may be necessary near the CTA station, along the retail building northeast of the bridge and behind the retail building northwest of the bridge.

Options and possibilities for architectural treatment of the proposed bridge were also presented. The bridge presents an opportunity for aesthetic enhancements ranging from simple paint to a facing based on a tree-theme (in keeping with the tree-related names of the three Villages) to a technologically modern option involving solar energy and sustainable fixtures. Lighting under the bridge can also be

designed to enhance the experience of users using downwash techniques, colors and modern LED fixtures.

The following issues, questions and comments were discussed:

How will drainage be addressed with the change in road elevation?

We will look at water run-off patterns so that drainage patterns are maintained. The bridge does not currently need a pump to drain the roadway dip under the bridge and there is no history of flooding issues. Drainage is not anticipated to be an issue.

The lane configuration needs to tie into existing lane patterns north and south of the bridge. IDOT indicated they have no plans to expand Harlem to five 10' lanes south of the bridge. Therefore, they recommend that the improvement under the bridge should allow for a gradual shift from the current configuration of four 12' lanes south of the bridge to the five 10' lanes north of the bridge. IDOT and the FHWA recommend constructing four 11'lanes with a painted median.

The side streets must be lowered approximately 2' on South Boulevard and Circle Avenue to line up with the new Harlem pavement.

Harlem is a strategic regional arterial (SRA), but large trucks won't regularly be driving on Circle Drive or South Boulevard so all corner radii were designed to accommodate a single unit truck with the exception of the northeast corner which must accommodate a city bus.

The north side of South Boulevard requires improvements to the bus stop including expanding the sidewalk to provide an accessible landing area.

It was suggested that awnings be installed along the railroad viaduct to guide pedestrians to the multimodal station.

Can we change the bus stop at the north corner of South Boulevard to stop at the multimodal station instead of on Harlem?

The agencies (CTA and PACE) running the existing bus routes are extremely hesitant to relocate stops off of Harlem Avenue. In addition, a number of riders exit buses on Harlem Avenue and utilize the shopping amenities as well as the CTA station.

The south side of South Boulevard also requires bus stop improvements. Proper shelters and seating to protect against weather could be installed.

The north side of Circle Avenue presents the challenge of bus stop placement. It can be moved to the stop bar or in front of the CTA station doors. A split sidewalk with a railing could be put in to accommodate for lowering the roadway 2'.



Moving the bus stops on Harlem Avenue to the north side of the bridge would eliminate a number of concerns for the intersection including traffic delays and dangerous pedestrian movements.

The south side of Circle Avenue will also have to address the 2' difference in pavement. This can be done with a low landscaping wall.

A turning lane would help with left turns off of Circle Avenue and also into the Dunkin Doughnuts.

IDOT is scheduled to repave Harlem in 1-2 years. If lane changes are going to happen, it will have to happen at that time or wait for another 5 to 10 years.

Sidewalk elevation changes on the north side of the bridge will be addressed with low walls and split sidewalks where appropriate.

Central Avenue can be reduced down to one lane from its current two lanes (left and a straight/right) with no change in capacity issues since the light stays green longer for South Boulevard.

Don't cut Central down to one lane. It is already backed up with people turning right onto Harlem and getting stuck under the underpass due to pedestrians, buses, etc.

The Purpose and Need statement for the project was then reviewed to see if each item in the Statement would be addressed by the proposed improvements.

The bridge is functionally obsolete for traffic along Harlem Avenue.

Will be resolved by the proposed improvements.

The bridge prevents improvement of Harlem Avenue according to the plan presented in the SRA Study.

Will be resolved by the proposed improvements.

The columns along the curb and center lines reduced the effective lane widths under the bridge which creates a safety risk.

Will be resolved by the proposed improvements.

The low clearance of the bridge continues to cause trucks to become stuck.

Will be resolved by the proposed improvements.

The low clearance and columns of the bridge obstruct sight lines to the traffic signals and intersections.

Will be resolved by the proposed improvements.

The sidewalks through the area do not meet the standards of the Americans with Disabilities Act.

Will be resolved by the proposed improvements.

The bridge is in a state of deterioration and no longer aesthetically fits within the community.

During the replacement process a number of aesthetically pleasing elements will be added to the underpass, including lighting and visually appealing construction materials.

The geometry of the side streets is substandard and contributes to the crash frequency.

Will be resolved by the proposed improvements.

The deteriorated condition of the bridge and sidewalks discourages pedestrian activity and is a barrier between the commercially successful north side and the under-developed south side.

An improved bridge and improved sidewalks will no longer act as a barrier to pedestrian movement through the area.

The poor aesthetics and geometrics of the bridge are a detriment to the overall economic vitality of the area.

Will be resolved by the proposed improvements.

The poor lighting under the bridge creates a safety issue for pedestrians.

A number of solutions for improving the lighting under the bridge are possible.

Pavement markings and crossing geometry are deteriorated and cause pedestrian confusion which is a safety concern.

Will be resolved by the proposed improvements.

Accommodate all forms of transportation. (South Boulevard bike lane)

The Harlem Avenue corridor is crowded with sidewalks and roadway lanes and the addition of bicycle lanes would require additional right of way and is beyond the scope of this project. A bike path or lane along South Boulevard would require a similar improvement along Circle Avenue to ensure route continuity and improve safety. This issue can be explored further based on community interest.

Better and safer accommodation of pedestrians crossing Harlem Avenue to improve safety and traffic flow on Harlem Avenue.

Will be resolved by the proposed improvements.

The center columns restrict some turning movements.

The proposed bridge will remove the current center columns.

In addition to the Purpose and Need, various issues that had been raised at previous meetings were also examined. Accommodation of alternative modes of transportation

Bus movement or pedestrians causing congestion?

A combination of both. Recommendation will be to move the bus stops on Harlem to the north side of the bridge.

Bridge piers restrict mobility and visibility.

Will be resolved by the proposed improvements.

Tie-in multi-modal station at Marion Street.

It is not within the scope of the project to require PACE to shift bus routes to the Marion Street station. Moving the bus stops will hopefully encourage better use of the station.

Close the CTA station or make exit only.

It is not within the scope of the project to require the CTA to close a well-used station entrance/exit.

Add pedestrian bridge.

Pedestrian bridges are expensive, not well used and difficult to construct in developed areas.

Reroute buses to the multi-modal station.

It is not within the scope of the project to require PACE to shift bus routes to the Marion Street station.

Move the station to the east side of Harlem.

It would be extremely expensive to construct a new station entrance through the east abutment.

Install raised median.

A raised median is possible but a painted median provides less of a hazard and is easier to be used by large vehicles making wide turns.

Properly stripe intersection.

Will be resolved by the proposed improvements.

Fix the jog between Circle and South.

No interest has been expressed thus far to straighten the jog except as a suggestion to seemingly simplify the geometrics. However, if the intersection is straightened and additional movements are provided, such as westbound through or left, then new conflicts are created against westbound traffic and the capacity of the intersection will therefore degrade significantly. Additionally, the added movements may result in undesirable increase in traffic through the neighborhood west of Harlem Avenue. Forest Park will research the level of support for straightening the jog and providing additional movements at the intersection.

#### Key Changes to the Proposed Improvements

1. Look into moving the bus stops along Harlem Avenue to spots north of the bridge to eliminate dangerous pedestrian movements and improve traffic movement through the intersection.
2. Keep Central Boulevard as two lanes since it already has congestion issues due to Harlem Avenue signals.



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**Project 2765**  
**IDOT Kick-Off Meeting**

meeting was held in January, 2010 and focused on the context of the project area and the purpose and need of the project. The third meeting was held in March of 2010 and focused on defining the purpose and need of the project and potential solutions to those problems. It was noted that it has been made clear to the Committee from the beginning that the final design decisions will be made by IDOT, the FHWA and the three Villages.

It is not currently part of the study to re-align Circle Avenue and South Boulevard. Forest Park has completed a study that looked at moving Circle Avenue north and relocating the CTA building. Oak Park owns the parcel on the southeast corner and is actively trying to market it to developers. Oak Park is reluctant to provide right of way from this parcel to allow for a shift in South Boulevard to the south.

Railroad traffic will be staged on a two-track runaround on Circle Avenue and North Boulevard. CTA traffic is proposed to be staged using temporary track shutdowns. Since there is no feasible detour route for Harlem Avenue traffic, traffic will be maintained on Harlem Avenue during construction.

The following comments were made:

IDOT has recently completed traffic counts on Harlem Avenue which appear to be higher than those counted for this project. Lochner will obtain these counts and incorporate them into the study.

It might be a better use of available space to have 4 11'-wide lanes with a striped median under the bridge instead of 5 lanes since there is no fifth lane south of the bridge currently. Building the bridge as we currently have shown would allow for a widening to 5 lanes in the future once Harlem Avenue south of the bridge is widened. This would result in a lane shift through the intersections.

IDOT would prefer to see some alternatives for the geometrics through the project area before an IDS is prepared. Alternatives should include 5-lane and 4-lane versions and some investigation into re-aligning the intersection of South Boulevard and Circle Avenue.

IDOT asked if any ADA issues are anticipated. It was noted that it is our intent to design the proposed improvements to be completely accessible. There may be some issues at the four corners of the bridge and maintaining the entrances/exits to neighboring buildings.

Lochner asked if IDOT or the FHWA knew who would be the owner of the replacement bridge. It is standard practice for the railroad to transfer ownership of the new bridge after construction as an incentive to cooperate with construction and the associated disruptions to their operations. If the three Villages wish IDOT to become the owner of the replacement bridge a formal request should be made.

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Lochner asked what degree of cooperation would be required from the CTA in order for the project to receive design approval. The railroad has been cooperative and securing a letter of general support should be much less of an issue than with the CTA who has no apparent incentive to cooperate. It was noted that although the railroad owns the bridge, the CTA does have some rights as a tenant. IDOT noted there is no easy answer to this question.

It was agreed that since there is little possibility of encountering extraordinary circumstances, the project can be processed as a CE I with a Project Development Report.

It was agreed that project study limits from Lake Street to Franklin/Pleasant Street are appropriate although the improvements will largely be concentrated at the bridge.

The meeting adjourned at 11:05.



<b>Agency Name:</b>	River Forest		
<b>Project &amp; Topic:</b>	Harlem Ave ((IL 43) Underpass at UPRR: Reconstruction of UPRR over Harlem Ave., New Construction		
<b>Section No.:</b>	06-00086-00-BR		
<b>Date:</b>	4/13/10	<b>Time:</b>	10:15 AM
<b>Location:</b>	District One Headquarters	<b>Room:</b>	Executive Conference Room

	<b>NAME (Please Print)</b>	<b>REPRESENTING</b>	<b>PHONE NUMBER</b>
1	Chris Holt <i>CH</i>	IDOT BLRS	(847) 705-4201
2	SALMON DANMOLE	IDOT-CBLRS	217-785-2798
3	CHRIS BYARS	FHWA	312-886-1606
4	MICHAEL HANE	FHWA	217-492-4634
5	JASON SALLEY	IDOT-D1-PROGRAMMING	847-705-4085
6	MICHAEL HARRIS	IDOT - LAND ACQUISITION	847 705-4285
7	HASSAN DASTGIR	FHWA	217-492-4623
8	Robert Hong	H. W. LOCHNER	312-372-3011
9	GREG KRAMER	VILLAGE OF RIVER FOREST	708-366-8500
10	DAVID SHANNON	H.W. LOCHNER	312-372-3011
11	STEVE NABER	CONSULTANT TO IDOT BLRS	847 705 4236
12	MARILIN SOLOMON	IDOT-D1 - BLRS	847-705-4407
13	Jack Melhuish	CONSULTANT TO IDOT BLRS	847-705-4551
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24			Exhibit 13-1
25			Sheet 4 of 4



## Memorandum

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Date: July 30, 2009

From: Dave Shannon

To: Project File  
UPRR Structure Over Harlem Ave.  
IDOT Section No. 00-00086-00-BR  
IDOT Job No. P-91-161-06  
HWL Project No. 2765

Distribution:  
Greg Kramer, Village of River Forest  
Dave Zawada, HWL  
Robert Hong, HWL  
Peter Fahrenwald, CTA

Subject: Project Coordination Meeting with CTA

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A meeting was held on Thursday, July 30, 2009, at 9:00 a.m. in the CTA office at 567 West Jackson, 10<sup>th</sup> Floor. The purpose of the meeting was to introduce the project to the CTA, the preliminary concepts for the proposed improvements and construction staging and to discuss the restrictions that the CTA may have on limiting bus and rail service interruptions during construction

An attendance sheet was distributed and is attached.

Dave Shannon introduced the project and discussed the history of the studies and improvements for this section of Harlem Avenue, including:

- The project is sponsored by River Forest with funding cooperation from Oak Park and Forest Park.
- This phase of the study received federal funding and is therefore being coordinated through IDOT.
- The intent of the project is to ease the restrictions on vehicles and pedestrians through this area along Harlem Avenue.
- Due to the project's complexity and potential impact on many different groups and agencies, a Steering Committee is being formed to assist in project coordination
- The project will likely require lowering Harlem Avenue by approximately 2'.
- There is no feasible detour route for vehicular traffic so the roadwork will be staged.
- A 2-track run-around will likely be used to maintain UP and METRA rail traffic.
- It is anticipated that one CTA track can be removed from service for staging.

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**CTA Coordination Meeting**  
**July 30, 2009**

The CTA indicated the following:

- Both tracks into the yard through the station must remain in service at all times from the beginning of service on Monday morning through the end of service on Friday night/Saturday morning.
- Both tracks into the yard through the station may be removed from service during one short window from the end of service on Friday night/Saturday morning through the beginning of service on Monday morning, potentially so that a new bridge may be rolled into position.
- More frequent single-track closures may be possible from the end of service on Friday night/Saturday morning through the beginning of service on Monday morning.
- It would be acceptable to close the pedestrian platform access during track closures.
- The clearance required between the track centerline and girder must be at least 7'-2".
- The fence between UP and CTA track areas is not based on any type of easement line and may not accurately show where an agreed-to line may be.
- The CTA recommend some type of rolled-in structure to minimized downtime.
- A quick estimate by the CTA showed that the time required to remove a section of track, power and signaling, drill a caisson and restore service would take longer than the allowable service shutdown.
- As much precast as possible, including pier caps, stair section and platform would work the best to expedite construction.
- Access to the CTA building for CTA personnel at track level will be required at all times during construction.
- The canopy over the platform should be replaced wherever it is disturbed with material to match the existing canopy. A 13'-6" clearance is preferred.
- The CTA will provide Lochner with updated clearance diagrams.
- Micropiles are acceptable for use.
- The CTA noted that all bus operations that service the bus stops on Harlem Avenue are operated by PACE. CTA buses use the Marion Street entrance to the CTA station.

The meeting adjourned at 10:00

End.



## Memorandum

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Date: October 7, 2009

From: Dave Shannon

To: Project File  
UPRR Structure Over Harlem Ave.  
IDOT Section No. 00-00086-00-BR  
IDOT Job No. P-91-161-06  
HWL Project No. 2765

Distribution:  
Chris Keckeisen, Union Pacific Railroad  
Greg Kramer, Village of River Forest  
Robert Hong, HWL  
Kevin Kassay, HWL

Subject: Project Coordination Meeting with UP

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A meeting was held on Thursday, October 1, 2009, at 2:30 p.m. in a Lochner conference room at 20 N. Wacker Drive in Chicago. The purpose of the meeting was to introduce the preliminary bridge and maintenance of railroad traffic schemes to the UP and to discuss the response that the UP may have on the proposed schemes.

An attendance sheet was distributed and is attached.

Dave Shannon introduced the project and discussed the general scope of the proposed bridge work.

Robert Hong discussed the proposed structure with the following noteworthy comments:

- Horizontal clearances were designed to meet UP minimums of 9'. The clearances will be reviewed by UP personnel in Omaha.
- The proposed bridge consists of plate girders, deck beams and a ballast deck.
- The proposed abutments will consist of a series of caissons cored through the existing abutments. The existing abutments will be partially demolished once the proposed abutments are constructed.
- The drawing provided by Lochner has not been updated since a coordination meeting was held with the CTA. The CTA requested that the clearance between their inside track and the proposed girder be wider to provide a walkway for train personnel. This will require shifting the UP's Track 3 approximately 1.5' to the north.
- It may be an issue with the UP to move Track 3 to the north since this will introduce a curve in the track where there is not one currently. Any curve in track creates a maintenance issue which is undesirable. The UP would like the proposed design to include as little increased maintenance of the track as possible. Permanent changes to the track alignment will need the approval of the UP.

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**UP Coordination Meeting**  
**October 1, 2009**

- E80 loading for the bridge should be acceptable to the UP.
- It is acceptable to the UP to slightly skew the bridge.
- Robert requested record drawings of the existing viaduct walls and the Harlem Avenue bridge superstructure. Chris noted that they probably have been moved to Omaha.
- Chris noted that the UP prefers self-weathering steel for its bridges but is willing to be flexible depending on what METRA, the CTA and the communities prefer.

Kevin Kassay then presented and discussed the proposed maintenance of railroad traffic scheme with the following noteworthy comments:

- Kevin asked what design speeds should be used for METRA and freight traffic. Chris noted that the curves should be as flat as absolutely possible in order to provide the highest design speed practical. Any temporary restrictions to the speed limit in this area will have to be reviewed and approved by UP transportation staff.
- The runaround will probably be open-deck.
- Some work will be required at the existing viaduct walls to support the temporary track work.
- The temporary bridge will require walkways for UP personnel. It is acceptable to provide a walkway between tracks and it can be supported on the ends of the ties.
- The spacing of the curves on the runaround may need to be wider than 13' in order to maintain the necessary clearance between trains. 13'-6" is preferred and 14' would be better.
- Kevin asked if there are any project planned that could effect this project. Chris noted that there is a plan to add a third track to the area west of River Forest and an associated signal project for the same area. Neither should negatively effect this project and may relieve some freight traffic from this line which may make temporary track closures easier to schedule. METRA may have some improvement projects west of this area which may increase their traffic.

Robert discussed the staging scheme for the construction of the proposed structure with the following noteworthy comments:

- Some sheeting will be required between stages for soil retention. Chris noted that due to the shape of the back of the abutment, it is extremely difficult to install sheeting with any structural stability. Chris also acknowledged that a soldier pile/lagging system may be one of the solutions to the geometric conflict with the back of the abutment. Chris asked if Lochner has the UP standards for bracing. Robert noted that 5' to 6' of excavation will be required to remove the abutment. Chris stated that a feasible bracing strategy will need to be developed and approved by the UP.
- Robert noted the existing bridge could be demolished in portions without any major structural problems. Depending on the location of cuts, temporary columns may be required to strengthen the piers and avoid a cantilever situation.

Dave summarized the results of the meeting with the following noteworthy comments:

- Lochner will look at the possibility of reducing or removing the permanent curves/shift on Track 3.

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**UP Coordination Meeting**  
**October 1, 2009**

- Lochner will look into flattening the curves as much as possible for the track shift onto the temporary runaround.
- Lochner will look into the required spacing between tracks on the temporary runaround.
- Once these issues have been studied and the drawings updated, Lochner will submit them to the UP for review.

Chris noted that he prefers that any future submittals be made to him in a PDF format so that he can easily forward them to the appropriate UP personnel.

The meeting adjourned at 4:00 p.m.

End.

# ATTENDANCE ROSTER

**PROJECT :** Harlem Avenue Bridge Replacement

**UP Coordination Meeting #1**

**DATE/TIME :** October 1, 2009 2:30 p.m.

Name	Representing	Title	Phone No./ Email
Dave Shannon	H. W. Lochner	Project Manager	312-372-3011 ext. 148 dshannon@hwlochner.com
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