City of Evanston

CHICAGO AVENUE

Multimodal Corridor Improvement Project



Project Development Report
February 2023

Project:	Chicago Avenue (FAU 2853)
Section:	21-00288-00-RS
From:	Howard Street (FAU 1334)
To:	Davis Street (MUN 3020)
Local Agency:	City of Evanston 2100 Ridge Avenue Evanston, Il 60201
County:	Cook

Prepared by: Epstein

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BLR 22211

EXHIBITS

Illinois Department of Transportation

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

County: Cook
Local Public Agency: City of Evanston, IL
Section Number: 21-00288-00-RS
Route: 9-2853

Project Number: _____ Project Length: 1.9 miles

Street/Road Name: Chicago Avenue (9-2853)

Termini: Howard Street (9-1334) to Davis Street (0-3020)

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

_____ _____
County Engineer Date

☒ Categorical Exclusion and Design Approval Recommended

_____ 1/6/2023
Local Agency Date

Categorical Exclusion Statement

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

☒ Categorical Exclusion and Design Approval

Jose Rios 1/6/2023
Regional Engineer Date

1. LOCATION AND EXISTING CONDITIONS

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

The Chicago Avenue Multimodal Corridor Improvement Project is located in the City of Evanston in Cook County, Illinois. The project limits for Chicago Avenue extend from Howard Street at the municipal boundary with the City of Chicago north to Davis Street. See Tab 1 - Location Map.

b. **Description of Existing Facility** - Give narrative description, including such items as width of travel, parking and turn lanes, sidewalks, 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, sidewalk widths, guardrail, curb and gutter and surface types.

HOWARD STREET TO JUNEWAY TERRACE

Classification, Width, Existing Utilities
Chicago Avenue from Howard Street to Juneway Terrace is a north/south roadway classified as a minor arterial. This section of Chicago Avenue is 38 feet wide E-E with B-6.12 curb and gutter. There are two 10-foot wide through lanes in the southbound direction and one 10-foot wide through lane in the northbound direction with 4-foot shoulders on both sides. There are two structures in this section, one overpass over the CTA Yellow Line (SN 016-6954) and one underpass below the CTA Purple Line (no SN). Existing utilities include underground combined sewer lines, a NICOR gas line at Howard Street, ComED underground and aerial electric lines, a 6" water main maintained by the City of Evanston, and private utilities owned by AT&T and RCN.

Bicycle/Pedestrian/Transit Facilities
Chicago Avenue is a signed bicycle route within the project limits. There are no existing bicycle facilities on Chicago Avenue. Juneway Terrace is a marked and signed bike route that continues into the City of Chicago. Howard Street on the project south limit has conventional bike lanes. 5-foot wide sidewalks exist on both sides of this section of Chicago Avenue. Pace Bus Route 213 runs along the project limits and stops in both directions at Juneway Terrace.

Vertical Alignment
The vertical alignment of Chicago Avenue from Howard Street to Juneway Terrace has bridge approaches with a maximum gradient of 2.2%.

Lighting
Overhead lighting exists on both sides of Chicago Avenue between Howard Street and Juneway Terrace. The light poles are staggered and utilize 400W high-pressure sodium luminaires. The roadway illuminance in this section is 0.18 fc, lower than the minimum recommended value of 0.9 fc from the City of Evanston Street Light Master Plan.

Intersections and Traffic Control Devices
The intersection of Chicago Avenue and Howard Street is signalized. The north approach (within project limits) has one left turn lane, one through lane, and one through/right turn lane; the south approach (Clark Street) has one left turn lane and one wide through lane; the east approach has one left turn lane and one wide through lane used for a bus stop; the west approach has one left turn lane, one through lane, and a right-turn lane. Standard crosswalks exist on each leg of the intersection. The intersection at Juneway Terrace is stop-controlled on the minor street (Juneway Terrace) with a crosswalk across the Juneway Terrace approach.

Jurisdiction and Maintenance
Chicago Avenue is a minor arterial that is under the jurisdiction and maintenance responsibility of the City of Evanston. The intersection at Howard Street has joint jurisdiction between the City of Chicago (40%) and the City of Evanston (60%).

Drainage and Terrain
The existing terrain on Chicago Avenue from Howard Street to Juneway Terrace is varied with some inclines on Chicago Avenue due to bridge approaches. It is drained through a series of catch basins to a combined sewer system.

Land Use
Existing land use along Chicago Avenue between Howard Street to Juneway Terrace is mostly commercial with a mixed-use building on the NW corner of Chicago at Howard. The east side of Chicago Avenue south of Juneway Terrace borders the CTA Howard Yard.

Right-of-Way
The right-of-way width of Chicago Avenue between Howard Street and Juneway Terrace is 64 feet.

JUNEWAY TERRACE TO SOUTH BOULEVARD

Classification, Width, Existing Utilities
Chicago Avenue from Juneway Terrace to South Boulevard roadway classified as a minor arterial. This section of Chicago Avenue is 35 feet wide E-E with B-6.12 curb and gutter. There are two through lanes (12 feet & 11 feet) in the southbound direction and one 12-foot wide through lane in the northbound direction with no shoulders. Guardrail exists approximately 600 feet to the south of South Boulevard up to South Boulevard to protect a steep embankment supporting the CTA Purple Line tracks. Existing utilities include underground combined sewer lines, ComED underground electric lines, a 16" water main maintained by the City of Evanston, and private utilities owned by AT&T.

Bicycle/Pedestrian/Transit Facilities
Chicago Avenue is a signed bicycle route within the project limits. There are no existing bicycle facilities on Chicago Avenue between Juneway Terrace and South Boulevard. A 6-foot wide sidewalk exists on the east side of this section of Chicago Avenue. Pace Bus Route 213 runs along the project limits and stops in both directions at Juneway Terrace and South Boulevard. Both stops in each direction at South Boulevard are near-side stops.

Vertical Alignment
The vertical alignment of Chicago Avenue from Juneway Terrace to South Boulevard is generally flat with a slope no greater than 1%, except approaching South Boulevard where a 2% grade is required to meet the elevation of South Boulevard.

Lighting
Overhead lighting exists on the east side of Chicago Avenue between Juneway Terrace and South Boulevard. The light poles utilize 400W high-pressure sodium luminaires. The roadway illuminance in this section is 0.14 fc, lower than the minimum recommended value of 0.9 fc from the City of Evanston Street Light Master Plan.

Intersections and Traffic Control Devices
The intersection of Chicago Avenue and South Boulevard is signalized. The north approach has one left turn lane and one through/right turn lane; the south approach has one left turn lane and one through/right turn lane; the east approach is one lane; the west approach is immediately after a viaduct and has one lane. Standard crosswalks exist on each leg of the intersection. Signal equipment will be removed and relocated to accommodate the separated bike lane.

Jurisdiction and Maintenance
Chicago Avenue is a minor arterial that is under the jurisdiction and maintenance responsibility of the City of Evanston. The east leg of South Boulevard at Chicago Avenue is under the jurisdiction of IDOT.

Drainage and Terrain
The existing terrain on Chicago Avenue from Juneway Terrace to South Boulevard is relatively flat and is drained through a series of catch basins to a combined sewer system.

Land Use
The west side of Chicago Avenue between Juneway Terrace to South Boulevard directly abuts the embankment for the CTA Purple Line. The east side of this section borders Calvary Cemetery.

Right-of-Way
The right-of-way width of Chicago Avenue between Juneway Terrace to South Boulevard is 56 feet.

SOUTH BOULEVARD TO MAIN STREET

Classification, Width, Existing Utilities
Chicago Avenue from South Boulevard to Main Street is a north/south roadway classified as a minor arterial. This section of Chicago Avenue is 34 feet wide E-E with B.6-12 curb and gutter. There is one 12-foot wide through-lane in each direction, parking along the east curb, and a 3-foot shoulder along the west curb. A concrete retaining wall runs along the west side of Chicago Avenue supporting off-street parking. Existing utilities include underground combined sewer lines, two water mains maintained by the City of Evanston, and various utilities crossing Chicago Avenue.

Bicycle/Pedestrian/Transit Facilities
Chicago Avenue is a signed bicycle route within the project limits. There are no existing bicycle facilities on Chicago Avenue between South Boulevard and Main Street. Main Street is a signed bicycle route. A 9-foot wide sidewalk exists on the east side of Chicago Avenue between South Boulevard and Madison Street. North of Madison Street sidewalks exist on both sides, approximately 12 feet in width on the west side and 9' on the east side. Pace Bus Route 213 runs along the project limits and stops in both directions at South Boulevard (both near-side), between Kedzie Street and Madison Street, and Main Street (both far-side). The CTA Purple Line and Metra UP-N line stop at Main Street along Chicago Avenue.

Vertical Alignment
The vertical alignment of Chicago Avenue from South Boulevard to Main Street is flat with a slope no greater than 1%.

Lighting
85W Tallmadge light poles are used on the east side of Chicago Avenue from South Boulevard to Kedzie Street. This section has a roadway illuminance of 0.32 fc, less than the minimum recommended illuminance of 0.9 fc. Overhead 400W high-pressure sodium lighting exists on both sides of Chicago Avenue between Kedzie Street and Main Street. This section has a roadway illuminance of 0.21 fc.

Intersections and Traffic Control Devices
Chicago Avenue intersects three local streets in this section that are controlled with stop signs on the minor street: Keeney Street, Madison Street, and Washington Street. The three-leg intersection of Chicago Avenue and Kedzie Street is signalized with standard crosswalks and no turning lanes. The signalized intersection of Chicago Avenue and Main Street has left-turn lanes on both legs of Chicago Avenue, a right-turn lane in the southbound direction, and no turn lanes on Main Street on either approach.

Jurisdiction and Maintenance
Chicago Avenue is a minor arterial that is under the jurisdiction and maintenance responsibility of the City of Evanston. All intersecting streets are also under the jurisdiction of the City of Evanston.

Drainage and Terrain
The existing terrain on Chicago Avenue from South Boulevard to Main Street is relatively flat and is drained through a series of catch basins to a combined sewer system.

Land Use
The west side of Chicago Avenue between South Boulevard and Madison Street is used for off-street parking and is separated from the street by a retaining wall. The west side of the street between Madison Street and Main Street is used for commercial uses as well as the Main and Main St. stops on the CTA Purple Line and Metra UP-N line, respectively. The east side of the street has mostly mixed-use development and storefronts abutting the sidewalk.

Right-of-Way
The right-of-way width of Chicago Avenue between South Boulevard and Main Street is 66 feet.

MAIN STREET TO GREENWOOD STREET

Classification, Width, Existing Utilities
Chicago Avenue from Main Street to Greenwood Street is a north/south roadway classified as a minor arterial. This section of Chicago Avenue is 48 feet wide E-E with B.6-12 curb and gutter. There is one 16-foot through-lane in each direction and on-street parking on both sides of the street. Existing utilities include underground combined sewer lines, two water mains maintained by the City of Evanston, a private utility line owned by AT&T, and various

utilities crossing Chicago Avenue.

Bicycle/Pedestrian/Transit Facilities

Chicago Avenue is a signed bicycle route within the project limits. There are no existing bicycle facilities on Chicago Avenue between Main Street and Greenwood Street. Sidewalks exist on both sides of Chicago Avenue in this section. Pace Bus Route 213 runs along the project limits and stops in both directions at Greenleaf Street (both near-side), Hamilton Street (both near-side), and Dempster Street (both near-side).

Vertical Alignment

The vertical alignment of Chicago Avenue from Main Street to Greenwood Street is flat with a slope no greater than 1%.

Lighting

Overhead lighting exists on both sides of Chicago Avenue between Main Street and Greenwood Street. The light poles utilize 400W high-pressure sodium luminaires. The roadway illuminance in this section is 0.21 fc, lower than the minimum recommended value of 0.9 fc from the City of Evanston Street Light Master Plan.

Intersections and Traffic Control Devices

There are two three-leg intersections with stop control on the minor street at Lee Street and Hamilton Street. There is a marked crosswalk across Chicago Avenue at Hamilton Street. There are three four-leg signal controlled intersections on this section: at Greenleaf Street, Dempster Street, and Greenwood Street. There are left turn lanes on both legs of Chicago Avenue at Greenleaf Street and no turn lanes on Greenleaf Street. At Dempster Street there are left turn lanes on both legs of Chicago Avenue and no turn lanes on Dempster Street. At Greenwood Street there are no turn lanes on any leg.

Jurisdiction and Maintenance

Chicago Avenue is a minor arterial that is under the jurisdiction and maintenance responsibility of the City of Evanston. All intersecting streets are also under the jurisdiction of the City of Evanston.

Drainage and Terrain

The existing terrain on Chicago Avenue from Main Street to Greenwood Street is generally flat and is drained through a series of catch basins to a combined sewer system.

Land Use

The land use of both sides of Chicago Avenue in this section comprises of mostly mixed-use development with storefronts abutting the sidewalk as well as large retail establishments with off-street parking, including Jewel Osco, Binny's, and Trader Joe's. There are also car dealerships and the Hemenway United Methodist Church.

Right-of-Way

The right-of-way width of Chicago Avenue between Main Street and Greenwood Street is 66 feet.

GREENWOOD STREET TO DAVIS STREET

Classification, Width, Existing Utilities

Chicago Avenue from Greenwood Street to Davis Street is a north/south roadway classified as a minor arterial. This section of Chicago Avenue is 39 feet wide E-E with B-6.12 curb and gutter. There is one 11.5-foot through-lane in each direction and on-street parking on both sides of the street. Existing utilities include underground combined sewer lines, two water mains maintained by the City of Evanston, a private utility line owned by AT&T, and various utilities crossing Chicago Avenue.

Bicycle/Pedestrian/Transit Facilities

Chicago Avenue is a signed bicycle route within the project limits. There are no existing bicycle facilities on Chicago Avenue between Greenwood Street to Davis Street. There is a bike lane on Lake Street west of Chicago Avenue. A two-way cycle track continues north on Chicago Avenue past Davis Street, and a westbound protected bike lane runs along Davis Street. Pace Bus Route 213 runs along the project limits and stops in both directions at Lake Street (both near-side). Northbound buses stop at Grove Street (near-side) before turning left onto Davis Street.

Vertical Alignment

The vertical alignment of Chicago Avenue from Greenwood Street to Davis Street is flat with a slope no greater than 1%.

Lighting
Overhead lighting exists on both sides of Chicago Avenue between Main Street and Greenwood Street. The light poles utilize 400W high-pressure sodium luminaires. Between Greenwood Street and Grove Street, the roadway illuminance is 0.19 fc, lower than the minimum recommended value of 0.9 fc from the City of Evanston Street Light Master Plan. Between Grove Street and Davis Street, the roadway illuminance is 0.92 fc.

Intersections and Traffic Control Devices
The intersections of Chicago Avenue at Grove Street, Lake Street, and Davis Street are all signalized. There are no turn lanes at Grove Street or Lake Street. There is a left turn lane on the south leg of Chicago Avenue at Davis Street, which is a one-way street. The intersection at Davis Street has bike signals to allow southbound travelling bicyclists to maneuver from the east side of Chicago Avenue to the west side of Chicago Avenue in the correct direction of travel.

Jurisdiction and Maintenance
Chicago Avenue is a minor arterial that is under the jurisdiction and maintenance responsibility of the City of Evanston. All intersecting streets are also under the jurisdiction of the City of Evanston.

Drainage and Terrain
The existing terrain on Chicago Avenue from Greenwood Street to Davis Street is flat and is drained through a series of catch basins to a combined sewer system.

Land Use
There are two churches on Chicago Avenue between Greenwood Street and Davis Street: First Presbyterian Church and Lake Street Church of Evanston. The First Presbyterian Church has off-street parking on-site, however the Lake Street Church of Evanston does not have off-street parking available. Raymond Park sits east of Chicago Avenue between Lake Street and Grove Street. There is also mixed-use development with storefronts abutting the sidewalk along Chicago Avenue, especially north of Grove Street.

Right-of-Way
The right-of-way width of Chicago Avenue between Greenwood Street to Davis Street is 74 feet.

c. **Traffic Data**

Current ADT: 14,600 % trucks: 1

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

Design Year: 2024 ADT: 14,600 DHV: 1380 % 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.

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

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

*Include a sketch showing location of railroad protective devices from the edge of roadway and to the nearest track.

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

N. Clark Street south of the project limit (contiguous with Chicago Avenue) is 50 feet wide E-E with a 10-foot left turn lane, one through lane in each direction, and parking on both sides of the street. The east sidewalk is 6 feet wide and the west sidewalk is 8 feet wide. There are no bike facilities on N. Clark Street but there are conventional bike lanes on W. Howard Street.

Chicago Avenue north of Davis Street is 50' wide E-E with a 10-foot wide right turn lane, two 10-foot through lanes (one in each direction), an 8-foot wide painted median, and an 8-foot wide two-way protected cycle track separated from traffic with a 2-foot wide concrete barrier. The west sidewalk is 20 feet wide and the east sidewalk is 26 feet wide.

2. **Proposed Improvement**

a. Discuss the purpose and need of the project:

The purpose of this project is to improve transit operations, access to transit stations, how Chicago Avenue functions for local businesses and residents, and create a safer environment for all roadway users through Complete Streets design principles. Chicago Avenue is currently an uncomfortable bicycling route with no accommodation for bicyclists but wide travel lanes for motorists that encourage higher speeds and reckless driving, negatively impacting Chicago Avenue's ability to function as a public space and local businesses. As the main route between Evanston and the City of Chicago, it is important that this street functions for all users. Special consideration will be given to reducing conflicts between users within the limited right-of-way available, comfortably accommodating transit users and bicyclists while maintaining adequate traffic flow.

Accessibility improvements are critical for the local small business ecosystem along Chicago Avenue. Many business owners have expressed concerns about the safety and security of the corridor as well as the need to accommodate deliveries. Chicago Avenue serves a number of different land uses, from mixed-use development with small businesses fronting the sidewalk, big box stores with off-street parking facilities, and major transit stations serving local and regional trips. All of these uses will benefit from greater accessibility by making it easier for local residents to reach these uses via transit, walking, and biking without needing to use a motor vehicle.

b. What design guidelines will be used for the proposed improvement? (Check One)

☐ Rural (BLRS Manual Chapter 32)
☐ Urban (BLRS Manual Chapter 32)
☐ Suburban (BLRS Manual Chapter 32)
☒ 3R Guidelines (BLRS Manual Chapter 33)
☒ Bicycle Guidelines (BLRS Manual Chapter 42)
☒ Pedestrian Guidelines
☐ Other:

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

Terrain: ☒ Level ☐ Rolling

Regulatory or Posted Speed Limit: 30 Design Speed: 30

c. Describe type of work to be accomplished by the improvement. Discussion should include width of proposed travel, parking, bicycle and turning lanes, sidewalks, shared-use paths, guardrail, traffic control devices, drainage items (including storm sewer outfalls), alignment changes, railroad work, utility adjustments, intersection improvements, side slopes and clear zones. Specify the emax for horizontal curves. Attach typical sections, plan and profile sheets, and intersection design studies when applicable.

A separated two-way bike lane is proposed on the east side of Chicago Avenue, extending the existing separated facility serving Northwestern University on the north project limit. Other improvements include resurfacing of the roadway, repairs to underground utilities, accessible bus stops, LED streetlights replacing older HPS lights, street loading zones, pedestrian refuge islands, widening sidewalks, planting street trees and native plants, adding crosswalks at critical locations, and adding curb extensions. This will be accomplished by narrowing existing travel lanes to 10', removing one of two southbound lanes between Howard Street and South Boulevard, and removing on-street parking where necessary.

HOWARD STREET TO JUNEWAY TERRACE

Proposed Travel Lanes

Chicago Avenue between Howard Street and Juneway Terrace will be resurfaced and restriped as part of this project. The cross section will consist of one 10-foot travel lane in each direction and a 7-foot parking lane adjacent to the western curb.

Bicycle/Pedestrian/Transit Facilities

A two-way separated bike lane will be constructed along the east side of Chicago Avenue. The separated bike lane will consist of a 4-foot northbound bike lane adjacent to the curb and a 4-foot wide southbound bike lane separated from vehicular traffic by a 3-foot raised buffer. The separated bike lane will provide an exclusive facility for cyclists, mitigating conflicts with pedestrians on the sidewalks or with motorists on Chicago Avenue.

Northbound and southbound bus stops are proposed at Juneway Terrace. The northbound stop will have a dedicated boarding island and buses will stop in-lane. This boarding island will connect to a proposed crosswalk at Mulford Street to provide access to pedestrians and cyclists to points west of the CTA Purple Line and Metra UP-N line via an existing underpass. Southbound buses will stop in-lane and will be served by a proposed bus stop pad.

Lighting Improvements

All existing lighting units and foundations along Chicago Avenue will be removed and replaced. The proposed lighting units will consist of a spun aluminum pole with 8-foot davit arm and LED cobra head type luminaire with Type III full-cutoff type optics mounted at 30 feet. Between Howard Street and Juneway Terrace, lights will be installed on the east side of Chicago Avenue.

Intersections and Traffic Control Devices

Clark Street / Chicago Avenue at Howard Street
Existing signal equipment will remain at the intersection of N. Clark Street / Chicago Avenue at W. Howard Street. A protected intersection is proposed with concrete islands protecting bicylists making turns and waiting to proceed through the intersection, except the northwest corner of the intersection which does not have room for physical protection. The proposed two-way separated bike lane will terminate at this intersection, so bicyclists continuing southbound need to move to the right side of N. Clark Street to be with the flow of traffic.

The northbound approach of N. Clark Street will have a 6-foot bike lane separated from traffic by a 3-foot buffer with bollards, a 10-foot through lane and a 10-foot left turn lane. The eastbound approach of W. Howard Street goes is restricted due to the railroad viaduct adjacent to the intersection. This approach is proposed to have a 6-foot bike lane, a 3-foot buffer with bollards, a 10-foot through lane, and a 10-foot left turn lane with only 27' of storage. Eastbound bicyclists will utilize a 6-foot bike lane beyond the intersection that connects to the existing bike lane on W. Howard Street. The southbound approach on Chicago Avenue is proposed to have a 10-foot through lane adjacent to the curb and a 10-foot left turn lane. The westbound approach of W. Howard Street is proposed to have a 10-foot through lane and a 10-foot left turn lane. A raised platform is proposed adjacent to the through lane on this approach to serve the number of bus routes that stop here. This platform will be shared between bicyclists and bus passengers. Westbound bicyclists will utilize a 6-foot bike lane to continue beyond the intersection.

Chicago Avenue at Juneway Terrace
No changes are proposed to the traffic control at this intersection.

JUNEWAY TERRACE TO SOUTH BOULEVARD

Proposed Travel Lanes

Chicago Avenue between Juneway Terrace and South Boulevard will be resurfaced and restriped as part of this project. The cross section will consist of one 10-foot travel lane in each direction, an 8-foot two-way separated bike lane, and a 3-foot buffer. 5-8 feet of pavement will be removed and the curb reconstructed on the west side

of Chicago Avenue to accommodate the addition of roadway lighting adjacent to the CTA Purple Line embankment.
Bicycle/Pedestrian/Transit Facilities

A two-way separated bike lane will be constructed along the east side of Chicago Avenue. Between Juneway Terrace and South Boulevard the separated bike lane will consist of a 4-foot northbound bike lane adjacent to the curb and a 4-foot wide southbound lane separated from vehicular traffic by a 3-foot raised buffer. The separated bike lane will provide an exclusive facility for cyclists, mitigating conflicts with pedestrians on the sidewalk or with motorists on Chicago Avenue which currently does not accommodate cyclists.

A crosswalk will be added at Mulford Street to provide access to pedestrians and cyclists to points west of the CTA Purple Line and Metra UP-N line via an existing underpass.

Northbound and southbound bus stops are proposed at South Boulevard. The northbound bus stop will be a shared cycle-track/bus stop, located near-side of South Boulevard. The bike lane will be raised across the boarding area and pavement markings will be added to reinforce that cyclists must yield to transit users boarding/alighting buses. Buses serving this stop will stop in-lane. The southbound bus stop is also near-side of South Boulevard and will be served by the existing sidewalk adjacent to the South Blvd. CTA Purple Line Station. Buses serving this stop will stop in-lane.

Lighting Improvements

All existing lighting units and foundations along Chicago Avenue will be removed and replaced. The proposed lighting units will consist of a spun aluminum pole with 8-foot davit arm and LED cobra head type luminaire with Type III full-cutoff type optics mounted at 30 feet. Between Juneway Terrace and South Boulevard, lights will be installed on both sides of Chicago Avenue. Roadway narrowing in this section provides space along the embankment to install new lighting. The proposed lighting will conform to IES standards.

Intersections and Traffic Control Devices

Chicago Avenue at South Boulevard
Signal equipment at South Boulevard is to be removed and replaced. The signal facing Chicago Avenue on the SE corner of the intersection will be relocated to accommodate the bike lane. Bike signals will be added to serve the two-way bike lane. No modifications to lane configuration are proposed on the approaches of this intersection. The northbound approach of Chicago Avenue will have a 10-foot through lane and 10-foot left turn lane. Buses will stop in the through lane of this approach adjacent to the shared cycle-track/bus stop. The eastbound approach of South Boulevard will have a single 20-foot lane to accommodate all traffic due to viaduct piers 15 feet from the intersection. The southbound approach of Chicago Avenue will have a 10-foot through lane and 10-foot left turn lane. Buses will stop in-lane in the through lane. The westbound approach of South Boulevard will have a single 20-foot wide lane to accommodate all traffic.

SOUTH BOULEVARD TO MAIN STREET

Proposed Travel Lanes

Chicago Avenue between South Boulevard and Main Street will be resurfaced and restriped as part of this project. The cross section will consist of one 10-foot northbound travel lane and an 11-foot southbound travel lane. An 8-foot parking lane will be included adjacent to the raised two-way separated bike lane starting approximately 300 feet south of Madison Street to Main Street. This parking lane will be partly used for parking, a bus boarding island, and loading zone.

Bicycle/Pedestrian/Transit Facilities

A two-way separated bike lane will be constructed along the east side of Chicago Avenue. Between South Boulevard and Madison Street the separated bike lane will consist of a 5-foot northbound bike lane adjacent to the curb and a 5-foot wide southbound lane separated from vehicular traffic by a 3-foot raised buffer. Between Madison Street and Main Street, the separated bike lane will be raised and consist of a 4-foot northbound bike lane adjacent to a 2-foot brick paver buffer and a 4-foot southbound bike lane separated from parking by a 5-foot median. The separated bike lane will provide an exclusive facility for cyclists, mitigating conflicts with pedestrians on the sidewalk or with motorists on Chicago Avenue which currently does not accommodate cyclists.

A crosswalk will be added at Madison Street and Washington Street to serve pedestrians accessing the Chicago Avenue corridor from the west. Two curb extensions will be installed at the Madison Street crosswalk and one at Washington Street to reduce the crossing distance to only the two travel lanes. A pedestrian refuge island between the separated bike lane and travel lanes is proposed at Kedzie Street.

Northbound and southbound bus stops are proposed at Madison Street and Main Street. The northbound bus stop at Madison Street will be served by a boarding island separated from the bike lane. Buses will stop in-lane. The southbound bus stop will be near side to Madison Street and buses will stop in-lane. The northbound stop at Main Street will be served by a near-side shared cycle-track/bus stop and buses will stop in the through lane at the intersection. The southbound stop will be near-side and buses will stop in-lane.

Lighting Improvements

All existing lighting units and foundations along Chicago Avenue will be removed and replaced. Two different types of lights are proposed for Chicago Avenue north of South Boulevard, a cobra-style light and a Tallmadge-style light. The cobra-style light will consist of a spun aluminum pole with 8-foot davit arm and LED cobra head type luminaire with Type III full-cutoff type optics mounted at 30 feet. The Tallmadge-style light will consist of a fluted aluminum pole and post top Tallmadge LED luminaire mounted at 16 feet. These two light types will alternate along the east side of Chicago Avenue between South Boulevard and Kedzie Street. Between Kedzie Street and Main Street, the light types will alternate on both sides of Chicago Avenue. The proposed lighting will conform to IES standards.

Intersections and Traffic Control Devices

Chicago Avenue at Keeney Street
The existing traffic control, a stop sign on Keeney Street, will remain.

Chicago Avenue at Madison Street
A crosswalk will be added across Chicago Avenue to serve pedestrians on Madison Street. No other changes are proposed to traffic control at this intersection. Madison Street is controlled by a stop sign and Chicago Avenue has no traffic control at this intersection.

Chicago Avenue at Kedzie Street
All signals and signal equipment will be removed and replaced at Kedzie Street. Bike signals will be added to serve the two-way bike lane.

Chicago Avenue at Washington Street
A crosswalk will be added across Chicago Avenue to serve pedestrians on Washington Street. The existing traffic control, a stop sign on Washington Street, will remain.

Chicago Avenue at Main Street
All signals and signal equipment will be removed and replaced at Main Street. Bike signals will be added to serve the two-way bike lane. The northbound approach of Chicago Avenue will have a 10-foot left turn lane and 10-foot through lane. Buses will stop in the through lane of this approach adjacent to the shared cycle-track/bus stop. The eastbound approach of Main Street will have a single 18-foot lane serving the intersection. The southbound approach of Chicago Avenue will have one 10-foot left turn lane and one 10-foot through lane. The right turn lane currently on this approach will be removed to widen the sidewalk. The westbound approach will have an 18-foot lane serving the intersection.

MAIN STREET TO GREENWOOD STREET

Proposed Travel Lanes

Chicago Avenue between Main Street and Greenwood Street will be resurfaced and restriped as part of this project. The cross section will consist of one 10-foot travel lane in each direction, a 7-foot parking lane adjacent to the west curb and 8-foot parking lane adjacent to the two-way separated bike lane.

Bicycle/Pedestrian/Transit Facilities

A two-way separated bike lane will be constructed along the east side of Chicago Avenue. Between Main Street

to Greenwood Street the separated bike lane will consist of a 4-foot northbound bike lane adjacent to the curb and a 4-foot wide southbound lane separated from vehicular traffic by a 3-foot buffer and a 8-foot parking lane. The separated bike lane will provide an exclusive facility for cyclists, mitigating conflicts with pedestrians on the sidewalk or with motorists on Chicago Avenue.

The sidewalk in front of Jewel-Osco (north of Greenleaf Street) will be widened by 7 feet to accommodate street trees and sidewalk furniture. Pedestrian refuge islands between the separated bike lane and travel lanes are proposed at Hamilton Street and Greenwood Street.

Northbound and southbound bus stops are proposed at Hamilton Street and Dempster Street. At Hamilton Street, the northbound bus stop will be a bus boarding island separate from the two-way separated bike lane. Buses will stop in-lane short of the crosswalk at Hamilton Street. Southbound buses will stop in-lane south of the Jewel-Osco driveway. At Dempster Street, northbound buses will stop near-side, in-lane and utilize a bus boarding island separate from the two-way separated bike lane. Southbound buses will stop near-side and in-lane, adjacent to an expanded sidewalk.

Lighting Improvements

All existing lighting units and foundations along Chicago Avenue will be removed and replaced. Two different types of lights are proposed for Chicago Avenue north of South Boulevard, a cobra-style light and a Tallmadge-style light. The cobra-style light will consist of a spun aluminum pole with 8-foot davit arm and LED cobra head type luminaire with Type III full-cutoff type optics mounted at 30 feet. The Tallmadge-style light will consist of a fluted aluminum pole and post top Tallmadge LED luminaire mounted at 16 feet. Between Main Street and Greenwood Street, the light types will alternate on both sides of Chicago Avenue. The proposed lighting will conform to IES standards.

Intersections and Traffic Control Devices

Chicago Avenue at Lee Street
The existing traffic control, a stop sign on Lee Street, will remain.

Chicago Avenue at Greenleaf Street
All signals and signal equipment will be removed and replaced at Greenleaf Street. Bike signals will be added to serve the two-way bike lane. Left turn lanes on Chicago Avenue will be removed. The northbound approach of Chicago Avenue will have a single 10-foot through lane. The eastbound approach of Greenleaf Street will have a single 20-foot lane serving the intersection. The southbound approach of Chicago Avenue will have one 18-foot through lane. The westbound approach of Greenleaf Street will have a 15-foot lane serving the intersection.

Chicago Avenue at Hamilton Street
The existing traffic control, a stop sign on Hamilton Street, will remain. There is an existing crosswalk on the south side of Hamilton Street across Chicago Avenue which will remain.

Chicago Avenue at Dempster Street
All signals and signal equipment will be removed and replaced at Dempster Street. Bike signals will be added to serve the two-way bike lane. The northbound approach of Chicago Avenue will have a 10-foot left turn lane and 10-foot through lane. Buses will stop in the through lane of this approach adjacent to the bus boarding island. The eastbound approach of Dempster Street will have a single 21-foot lane serving the intersection. The southbound approach of Chicago Avenue will have one 10-foot left turn lane and one 10-foot through/right-turn lane. The right turn lane currently on this approach will be removed to accommodate the left turn lane. The westbound approach of Dempster will have a 17-foot lane serving the intersection.

Chicago Avenue at Greenwood Street
All signals and signal equipment will be removed and replaced at Greenwood Street. Bike signals will be added to serve the two-way bike lane. No modifications to lane configuration are proposed at this intersection. The northbound approach of Chicago Avenue will have a 10-foot through lane. The eastbound approach of Greenwood Street will have a single 24-foot lane serving the intersection. The southbound approach of Chicago Avenue will have one 10-foot through lane. The westbound approach of Greenwood Street will have a 16-foot lane serving the intersection. Pedestrian refuges are proposed between the separated bike lane and through lanes.

GREENWOOD STREET TO DAVIS STREET

Proposed Travel Lanes

Chicago Avenue between Greenwood Street and Davis Street will be resurfaced and restriped as part of this project. The cross section will consist of one 10-foot travel lane in each direction, a 8-foot parking lane and 3' buffer adjacent to the two-way separated bike lane between Greenwood Street and Lake Street as well as between Grove Street and Davis Street, and a 7-foot parking lane is proposed on the west side of Chicago Avenue between Lake Street and Davis Street.

Bicycle/Pedestrian/Transit Facilities

A two-way separated bike lane will be constructed along the east side of Chicago Avenue. Between Greenwood Street and Lake Street the separated bike lane will consist of a 4-foot northbound bike lane adjacent to the curb and a 4-foot wide southbound lane separated from vehicular traffic by a 3-foot buffer and a 8-foot parking lane. Between Lake Street and Grove Street, the bike facility will be separated from vehiclular traffic with a raised buffer. Between Grove Street and Davis Street, the bike facility will be separated from vehicular traffic by a 3-foot buffer and a 8-foot parking lane, which will also be utilized for a loading zone and boarding island. The separated bike lane will provide an exclusive facility for cyclists, mitigating conflicts with pedestrians on the sidewalk or with motorists on Chicago Avenue.

Northbound and southbound bus stops are proposed at Lake Street. At Lake Street, the northbound bus stop will be in-lane and served by a boarding island. Southbound buses will stop near-side, in-lane adjacent to a proposed bus boarding pad. A northbound bus stop is proposed mid-block between Grove Street and Davis Street. This stop will include a boarding island and buses will stop in-lane, allowing them to immediately turn left onto Davis Street.

Lighting Improvements

All existing lighting units and foundations along Chicago Avenue will be removed and replaced. Two different types of lights are proposed for Chicago Avenue north of South Boulevard, a cobra-style light and a Tallmadge-style light. The cobra-style light will consist of a spun aluminum pole with 8-foot davit arm and LED cobra head type luminaire with Type III full-cutoff type optics mounted at 30 feet. The Tallmadge-style light will consist of a fluted aluminum pole and post top Tallmadge LED luminaire mounted at 16 feet. Between Greenwood Street and Davis Street, the light types will alternate on both sides of Chicago Avenue. The proposed lighting will conform to IES standards.

Intersections and Traffic Control Devices

Chicago Avenue at Lake Street
All signals and signal equipment will be removed and replaced at Lake Street. Bike signals will be added to serve the two-way bike lane. No modifications to lane configuration are proposed at this intersection.The northbound approach of Chicago Avenue will have a single 10-foot through lane adjacent to a bus boarding island. The eastbound approach of Lake Street has a single 10-foot lane adjacent to an existing 5-foot conventional bike lane. The southbound approach will have a single 10-foot through lane. The westbound approach of Lake Street will have a single 14-foot through lane at the intersection.

Chicago Avenue at Grove Street
All signals and signal equipment will be removed and replaced at Grove Street. Bike signals will be added to serve the two-way bike lane. No modifications to lane configuration are proposed at this intersection. The northbound approach of Chicago Avenue will have a single 10-foot through lane. The eastbound approach of Grove Street has a single 27-foot lane. The southbound approach of Chicago Avenue will have a single 17-foot through lane. The westbound approach of Grove Street will have a single 10-foot through lane at the intersection.

Chicago Avenue at Davis Street
All signals and signal equipment will be removed and replaced at Davis Street. Bike signals will be added to serve the two-way bike lane. The bike signal phase for cyclists to continue southbound on Chicago Avenue from the existing two-way separated bike lane will be removed as the movement across the intersection will no longer be necessary. The northbound approach of Chicago Avenue will have a 10-foot left turn lane and a 10-foot through lane. The southbound approach of Chicago Avenue will be unchanged, with a 10-foot right turn lane and 10-foot through lane. The westbound approach of Davis Street (one-way) will also remain unchanged, with two

travel lanes serving all movements.

d. Discuss items affecting improvement such as hazardous mailbox supports, parking and truck restrictions, mail delivery from traffic lanes, justification (including warrants) for multi-way stop signs, traffic signals and other traffic control and railroad protective devices, stage construction, nearby airports, and additional lighting:

No new traffic control devices are proposed with this project. The existing signals are being replaced at most intersections and bicycle signal heads will be added as appopriate. No new traffic signals are proposed.

Construction will occur in stages to maintain two-way traffic on Chicago Avenue at all times. Most work will occur on the east side of Chicago Avenue, meaning one stage will take longer to complete.

e. Identify each aspect to be constructed at less than the design guidelines and provide a clear description of required design variances and appropriate justification. (BLRS Manual Section 27-7). If a design variance is required, include a copy of the approved BLR 22120 form as an attachment.

Design variances will be required for this project. The taper length used for the project (100 feet) is lower than the minimum 135 feet. Left-turn storage at intersections on Chicago Avenue is 90-100 feet, which combined with the taper length is below the 235 foot minimum length. Immediately north of South Boulevard, the bike lane buffer is 1.5' to accommodate the left-turn lane onto South Boulevard while mainting the existing curb. The design vehicle used at the intersection of South Boulevard (a minor arterial) is a WB-40 instead of a WB-65. This was done because a WB-65 truck cannot use the intersection in the current condition due to an existing CTA & UP railroad viaduct with a pier in the center of the west leg of South Boulevard. This causes a lack of space to execute turning movements.

f. Current estimated cost of proposed improvement? $ 13374300

g. Analyze the need for accommodating pedestrians, bicyclists and the handicapped. When applicable, describe the facilities to be provided for pedestrians and bicyclists. Discuss the ADA accessibility and maximum longitudinal grade of these facilities. (BLRS Manual Chapter 41)

The main goal of this project is to provide a proper cycling route along Chicago Avenue through the construction of a two-way separated bike lane. Sidewalks in some locations will be widened and ADA curb ramps will be constructed at intersections and proposed crosswalks. Bus stop designs are ADA compliant and will improve the transit experience for users by providing room to wait for incoming buses. The maximum longitudinal grade on Chicago Avenue is 2.25%.

Sidewalks/Shared-Use Paths:

Maximum 2% crosslope: ☒ Yes ☐ No ☐ Not Applicable

ADA ramps with detectable warnings at street intersections: ☒ Yes ☐ No ☐ Not Applicable

If no, provide justification.

h. Discuss any proposed improvements being considered in adjacent segments including the anticipated construction startup date of these improvements.
N/A

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

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

Crash data was obtained from the Illinois Department of Transportation (IDOT) for the years 2016 to 2020. A total of 354 crashes were reported in the study area within the 5-year study period. The most common crash types were rear end (102 crashes, 29% of total); turning (64 crashes, 18%), parked motor vehicle (40 crashes, 11%), sideswipe same direction (35 crashes, 10%), and angle (34 crashes, 10%).

Cyclists were involved in 25 crashes during the study period (7% of total) and pedestrians were involved in 19 crashes (5% of total).

There was one reported fatality in the study area within the 5-year period: a crash at the intersection of Chicago Avenue and Howard Street resulted in a pedestrian fatality. There were no reported crash fatalities in the study area within the 5-year study period. There were 13 A-Injury (incapacitating) crashes, 29 B-Injury (non-incapacitating) crashes, and 35 C-Injury (reported but not evident) crashes reported. The remainder (276) of crashes reported included property damage only.

Of the 25 crashes involving cyclists, 24 were injury crashes – two A-Injury, 15 B-Injury, and seven C-Injury – and one included property damage only. Of the 19 crashes involving pedestrians, one was fatal to the pedestrian and the remaining 18 were injury crashes – seven A-Injury, five B-Injury, and six C-Injury crashes.

See Attachment X – Crash Maps

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.

Out of 354 total crashes in the project area from 2016 to 2020, 235 crashes (66%) occurred at signalized intersections:
Howard Street: 76 (21%)
South Boulevard: 29 (8%)
Main Street: 28 (8%)
Dempster Street: 22 (6%)
Davis Street: 18 (5%)
Kedzie Street: 17 (5%)
Greenwood Street: 16 (5%)
Lake Street: 13 (4%)
Grove Street: 9 (3%)
Greenleaf Street: 7 (2%)

The remaining 119 crashes (34%) occurred at unsignalized intersections or midblock locations along Chicago Avenue.
The 25 crashes involving cyclists in the 5-year period occurred at the following cross streets/locations:
- 1 at Mulford Street
- 4 at South Boulevard
- 2 at Main Street
- 1 at Greenleaf Street
- 1 at Dempster Street
- 3 at Greenwood Street
- 2 at Lake Street
- 1 at Grove Street
- 3 at Davis Street
- 7 at midblock locations

The 19 crashes involving pedestrians in the 5-year period occurred at the following cross streets/locations:
- 6 at Howard Street (including one fatality)
- 2 at South Boulevard
- 1 at Keeney Street
- 1 at Kedzie Avenue
- 1 at Main Street
- 1 at Dempster Street
- 3 at Lake Street
- 4 at midblock locations

c. Describe how the proposed project will address any crash issues.

The project proposes to install centerline and edgeline markings to reduce the occurrence of sideswipe crashes. Proposed roadway configuration will shadow the placement of turn lanes and improve alignment to reduce the occurrence of turning and angle crashes. Proposed traffic control devices will include a prohibition of right turn on red to reduce the occurrence of turning crashes and remain consistent with guidance for Interim Approval 16 (IA-16) for application of bicycle signals. Addition of high visibility crosswalk markings is proposed to reduce the occurrence of pedestrian crashes.

4. **Right-of-Way**

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

No Right-of-Way will be acquired as part of this project

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

☐ Yes ☒ No

If yes, describe the number and type of displacements anticipated and mitigation that will be taken to provide relief for this impact on an attached sheet.

5. **Prime Farmland (BLRS Manual Section 20-10)**

a. If the project requires more than 3 acres/mile (0.75 hectares/kilometers), 10 acres (4 hectares) for a non-linear improvement, or the project ROW is not contiguous to the existing ROW, contact the Illinois Department of Agriculture and attach results of the coordination and summarize the results below.

No farmland will be impacted

b. ☐ The project requires consultation with the Natural Resource Conservation Service., Form AD-1006 has been completed and submitted to the local office of NRCS. The completed AD-1006 form is attached.

☐ The impact of this project on farmland conversion has been evaluated in accordance with the requirements of the US Natural Resources (NRCS). The project will cover 3 acres or less of farmland per mile (0.75 hectares or less of farmland per kilometer) and the conversion will not result in more than minor impacts. Accordingly, the project conforms to the general form AD-1006 prepared by NRCS. Therefore, further coordination with NRCS on this project will not be necessary.

6. **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.

7. **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.

8. **"404" Permit (BLRS Manual Section 7-4.02)**

Does this project involve waters regulated by Section 404?

☐ Yes ☒ No

If yes, what type of 404 permit is required? ☐ Nationwide ☐ Individual ☐ Regional ☒ None

Attach a copy of any 404 permit authorization and/or coordination letters with the Corps of Engineers.
If an individual Section 404 permit is required, please notify the Illinois Department of Transportation district office before submitting the application.

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

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

☒ Yes ☐ No

b. Is work being done on property in the name of the state or are contract plans being prepared by the state?

☒ Yes ☐ No

c. If a PESA is required for either state or local ROW, did the PESA results determine that the project has Recognized Environmental Conditions (REC's) for special waste?

☒ Yes ☐ No

If the PESA results determine that the project contains REC's, describe how the special waste is proposed to be handled (including if a Preliminary Site Investigation (PSI) is required).

Based on proposed impacts within the project corridor and the potential presence of contamination related to recorded leaking underground storage tanks, underground storage tanks, historic hazardous material spill incidents, historic hazardous waste generators and multiple environmental regulatory database listings, a Preliminary Site Investigation (PSI) is warranted.

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

Whenever a project involves land acquisition (including easements), any in-stream work (including drainage structure run-around), is located within or adjacent to historic properties listed in (or eligible for) the National Register of Historic Places, a bridge on the historic list, is near 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 - Does the proposed work impact the use of regulatory wetlands?

☐ Yes ☒ No

If yes, indicate how the wetlands will be migrated. ☐ Banking ☐ Accumulation ☐ On-site ☐ Other

c. Archaeological and Historical Preservation Include results of coordination. Does the project impact an archaeological or historic preservation site?

☐ Yes ☒ No

If yes, describe any required documents.

d. Threatened or Endangered Species – Does the project impact any endangered species or plants?

☐ Involvement ☒ No Involvement

Include copy of biological resources memorandum or signoff by BDE and/or IDNR.

e. Stream Modification and Wildlife Impacts - Include copies of any correspondence between BDE and IDNR or U.S. Fish and Wildlife Service. Attach copies of any additional coordination between local agency and IDNR 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

11. **Section 4(f) Lands (BLRS Manual Section 20-3)**

a. Does this project require any right-of-way, including temporary construction easements, from a publicly owned park, recreational area, wildlife and waterfowl, or any historic site in or eligible for the National Register of Historic Places?

☐ Yes ☒ No

b. If yes, what type of of the Section 4(f) involvement has been completed?

☐ Section 4(f) deminimis ☐ Standard Section 4(f) ☐ Temporary Occupancy ☒ None

12. **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 **ONTO 2050** (transportation plan) and in the Transportation Improvement Program (TIP), endorsed by the CMAP , the region's Metropolitan Planning Organization. The ONTO 2050 (transportation plan) was found to conform by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) on 12/19/2022.

The TIP was found to conform by FHWA on 12/19/2022 and by FTA on 12/19/2022.

☐ Projects within a nonattainment area served by a Metropolitan Planning Organization other than CMAP.

This project is included in the Long-Range Transportation Plan and in the _____ Transportation Improvement Program (TIP) endorsed by _____, the Metropolitan Planning Organization (MPO) for the region in which the project is located.

On _____ the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) determined that the Long-Range Transportation Plan conforms with the transportation-related provisions of the Clean Air Act Amendments of 1990. The FHWA and the FTA determined on _____ that the TIP conforms with the Clean Air Act Amendments. These finding were in accordance with 40 CFR Part 93, "Criteria and Procedures for Determining Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and projects Funded or Approved Under Title 23 USC or the Federal Transit Act."

The project's design concept and scope are consistent with the project information used for the TIP conformity analysis. Therefore, this project conforms to the existing State Implementation Plan and the transportation-related requirements of the 1990 Clean Air Act Amendments.

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

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

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

c. **Construction-related Particulate Matter**

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

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

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

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

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

☒ This project does not meet the definition of a project of air quality concern as defined in 40 CFR 93.123(b)(1).

Due to

This is a roadway improvement project which will not include additional travel lanes and primarily serves gasoline vehicle traffic (i.e. does not involve a significant number or increase in the number of diesel vehicles.) The goal of this project is to reduce emissions by increasing the mode share of cyclists on Chicago Avenue and Evanston as a whole. This project will not increase emissions or involve increases in idling.

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

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

e. **COSIM**

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

☐ Yes ☒ No

If yes, has a COSIM pre-screen analysis been completed?

☐ Yes ☐ No

If yes, pre-screen analysis is attached as Attachment _____ .

If no, explain why an analysis has not been performed. _____

_____

_____

If yes, did the COSIM pre-screen analysis pass or fail? ☐ Pass ☐ Fail

If the COSIM pre-screen analysis failed, a full COSIM analysis would be required.

13. **Noise (BLRS Manual Section 20-6)**

☒ The referenced project meets the criteria for a Type III project established in 23 CFR Part 772. Therefore, the proposed project requires no traffic noise analysis or abatement evaluation. Type III projects do not involve added capacity, construction of new through lanes, changes in the horizontal or vertical alignment of the roadway, or exposure of noise sensitive land uses to a new or existing highway noise source.

☐ Based on the traffic noise analysis and noise abatement evaluation conducted, highway traffic noise abatement measures are likely to be implemented based on preliminary design. The noise barriers determined to meet the feasible and reasonable criteria are identified on the attachment. If it subsequently develops during final design that constraints not foreseen in the preliminary design or public input substantially change, the abatement measures may need to be modified or removed from the project plans. A final decision of the installation of the abatement measure(s) will be made upon completion of the project's final design and the public involvement process.

If this project involves a new alignment, additional lanes, or involves a significant alignment change, attach a traffic noise analysis.

14. Work Zone Transportation Management Plans

Does the project intersect or follow a state route?

☒ Yes ☐ No

Is the state or local route considered a significant route?

☐ Yes ☒ No ☐ Not Applicable

If yes, describe how the Work Zone Transportation Management Plan is being implemented.

Proposed improvements involve roadway resurfacing to match existing conditions on South Boulevard (intersecting state route) at Chicago Avenue. Based on these factors and discussions with IDOT, it was determined that a TMP will be prepared in Phase II.

15. Complete Streets (BLRS Manual Chapter 10)

Does the project include the addition of a travel, turning, or bi-directional turn lane on a state highway?

☐ Yes ☒ No

If yes, describe how the Complete Streets Law requiring accommodating bicyclists on a state route apply.

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

Discuss how vehicle traffic and pedestrians will be accommodated during construction, including the impacts of any road and/or sidewalk closure. If the road will be closed, include information concerning location of alternate routes, their ability to handle the additional traffic (street width, number of traffic lanes, structural adequacy, etc.), and the amount of adverse travel. When a marked detour route will be provided, include coordination with appropriate agencies, a description of the adverse travel, and include a map showing the alternate routes or marked detour in the report.

Chicago Avenue will remain open to two-way traffic during construction and all sidewalks, crosswalks, and entrances within the project limits are to remain open during construction and remain ADA compliant. Construction will be done on one half of the roadway at a time and parking lanes will be used as travel lanes during construction. Alternative parking will be available along adjacent streets and off-street parking lots along the corridor. All lane closures will be according to IDOT Highway Standards.

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

a. Summarize public informational meetings, formal public hearings, property owner signoffs, council or board meetings, media coverage, and personal contact with public. Include copies of newspaper advertisements, letter to property owners, public comments, and documents showing all public comments have been addressed.

The following outlines public-outreach and community-input efforts for this project:

December 3, 2020	Advisory Committee Meeting #1
February 4, 2021	Bike Shop Coordination
February 4, 2021	CTA / Pace / Northwestern University Coordination
February 15, 2021	Center for Independent Futures Coordination
February 18, 2021	Chicago Department of Transportation (CDOT) Coordination
March 4, 2021	Main Dempster Mile Coordination
March 11, 2021	Downtown Evanston Executive Board Meeting
March 31, 2021	Evanston Climate Action Group, GO Committee
May 27, 2021	Evanston Climate Action Group
June 29, 2021	Courts of Evanston Introduction Meeting
July 29, 2021*	Public Information Meeting #1
September 23, 2021	Advisory Committee Meeting #2
October 14, 2021	Pace Coordination Meeting #2
October 19, 2021	Art Community Coordination Meeting
October 21, 2021	CTA / Northwestern University Coordination Meeting #2
November 11, 2021*	Public Information Meeting #2
November 12, 2021	Connections for the Homeless Introduction Meeting
November 16, 2021	Greenwood Care

The two public meetings for categorical exclusion are denoted with asterisks. All public meeting materials, comments, and summaries are included in the attachments.

b. Has any opposition been expressed toward the improvement?

☒ Yes ☐ No

If yes, briefly discuss the type and extent of opposition.

Some residents are concerned with the removal of on-street parking for motor vehicles.

c.

If yes, discuss how the opposition has been addressed with the property owners?

Permitted and paid short-term parking will be moved to the adjacent side streets. Bike parking will be added on the project street to increase total parking available for businesses compared to the existing condition.

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

Has there been any coordination meetings for this project? ☐ Yes ☒No

If yes, list the date(s) of the coordination meeting(s) below and attach coordination meeting minutes in the report.

19. **Other Coordination**

Attach results.

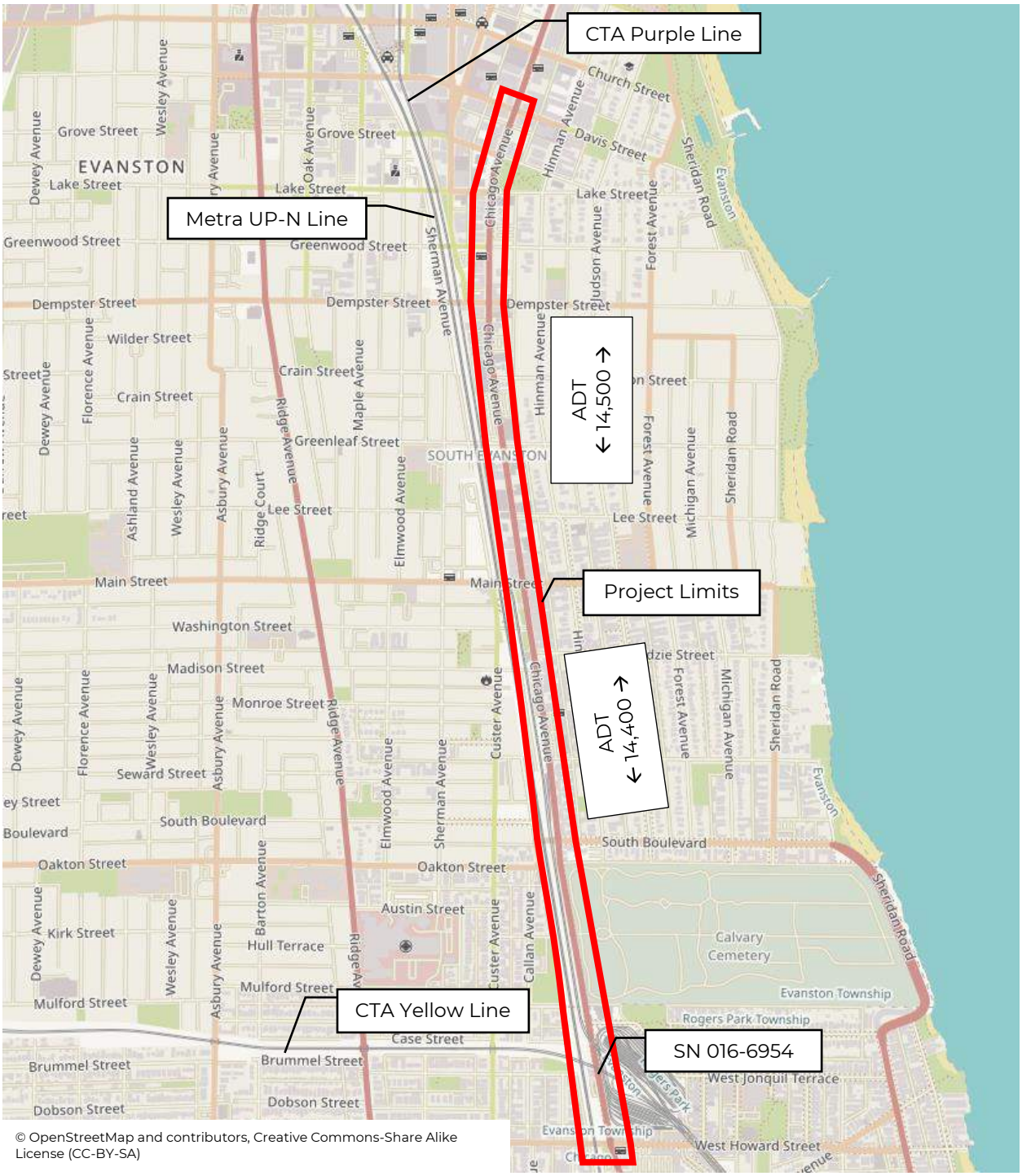
20. **Summary of Commitments**

Summary of Attachments (when required):

1. Location Map and Functional Classification Map
2. Existing and Proposed Typical Sections
3. Structure Master Report
4. Bridge Condition Report Approval Cover Letter
5. Preliminary Bridge Design and Hydraulic Report Approval Cover Letter
6. Railroad Crossing Drawing
7. Plan and Profile Sheet (for Rural Projects with additional ROW, Urban Projects, bike trail/or sidewalk projects, and Bridge Projects)
8. Intersection Design Studies
9. Spot Map and/or Collision Diagram
10. Soil Conservation Service and Illinois Department of Agriculture Coordination
11. “404” Permit correspondence
12. Environmental Clearances and Correspondence
13. Property Owner Signoffs and/or Correspondence with Property Owners Regarding Public Comments
14. Public Information Meeting Newspaper Advertisement and a Copy of Property Owner Letter
15. Bimonthly Coordination Meeting Minutes
16. BLR 22120 Design Variance Form
17. Detour or Alternate Route Map
18. Other Coordination

TAB 1

LOCATION MAP



Project Location Map

Chicago Avenue

Howard Street to Davis Street

City of Evanston, Cook County, IL

EPSTEIN

TAB 2

STRUCTURE MASTER REPORT (SN 016-6954)

Illinois Department of Transportation
Structures Information Management System
Structure Summary Report

Date: 12/02/2022
Page: 1

Structure Number: 016-6954 **District: 1**

Inventory Data

Facility Carried:	CHICAGO AVE-CLARK ST	**Bridge Name:**	CHIC AV SKOKIE SWIFT	**Sufficiency Rating:**	74.6	**Structure Length:**	90.2
Feature Crossed:	CTA SKOKIE SWIFT	**Location:**	0.18 M N HOWARD P6	**HBP Eligible:**	Yes	**AASHTO Bridge Length:**	81.0
Bridge Remarks:				**Replaced By:**	016-6958	**Length of Long Span:**	43.1
Bridge Status:	1 OPEN - NO RESTRICT	**Status Date:**	4/1/1988 12:00:00 AM	**Replaces:**	-	**Bridge Roadway Width:**	50.0
Status Remarks:				**Last Update Date:**	03/30/2021	**Appr Roadway Width:**	36.0
Maint County:	016 COOK	**Maint Township:**	58 EVANSTON (EVANSTON)	**Parallel Structure:**	None	**Deck Width:**	66.0
Maint Responsibility:	40 MUNICIPALITY		UNKNOWN	**Multi-Level Structure Nbr:**		**Sidewalk Width Right:**	7.0
Service On/Under:	1 HIGHWAY		2 / RAILROAD	**Skew Direction:**	L Left	**Sidewalk Width Left:**	7.0
Reporting Agency:	4 MUNICIPALITY			**Skew Angle:**	35 **D**	**Navigation Control:**	N N/A
Main Span Matl/Type:	4 STEEL CONTINUOUS		/ 02 STRINGER/MULTI-BEAM/GIRDER	**Structure Flared:**	No	**Navigation Horiz Clear:**	0
Nbr Of Main Spans:	2	**Nbr Of Approach Spans:**	0	**Historical Significance:**	No	**Navigation Vert Clear:**	0
*****Approaches*****				**Border Bridge State:**		**Culvert Fill Depth:**	0.0
Near #1 Matl/Type:			/	**Bdr State SN:**		**Number Culvert Cells:**	0
Near #2 Matl/Type:			/	**Bdr State % Responsibility:**	0	**Culvert Opening Area:**	0.0
Far #1 Matl/Type:			/	**Structural Steel Wt**	123180	**Culvert Cell Height:**	0.00
Far #2 Matl/Type:			/	**Substructure Material:**	53	**Culvert Cell Width:**	0.00
Median Width/Type:	0 Ft. / 0 None			**Rated By:**	3 Consultant	**Rate Method:**	6 LOAD FACTOR (LF) REPORTED BY RATING FACTOR (RF)
Guardrail Type L/R:	0None / 0 None			**Inventory Rating:**	0.930(33)	**Load Rating Date:**	02/20/2017
Toll Facility Indicator:	0 No Toll			**Operating Rating:**	1.560(56)	**Railroad Crossing Info**	
Latitude:	42.02226029 **S**	**Longitude:**	87.67701499 **S**	**Design Load:**	02 HS20	**Crossing 1 Nbr:**	863950 C
Deck Structure Type:	A CIP CON NRMLLY FORM			**Deck Structure Thickness:**	7.5 **SD:** N **FO:** Y	**Crossing 1 Nbr:**	861294 N
Sidewalks Under Structure:	0 None					**RR Lateral Underclear:**	14.7
						RR Vertical Underclear:	70 **Ft** 03 **In**

Key Route On Data

Key Route Nbr:	FEDERAL-AID URBAN 2853	**Station:**	3.4800		
Appurtenances	Main Route 00000	**Segment:**			
Inventory County:	016 COOK	**Linked:**	Y		
Township/Road Dist	58 EVANSTON (EVANSTON)	**Natl. Hwy System:**	Not on NHS		
Municipality	1845 EVANSTON	**Inventory Direction:**			
Urban Area:	1051 1051	**Curr AADT Yr/Count:**	2018 / 14600		
Functional Class:	4 MINOR ARTERIAL	**Est Truck Percentage:**	3		
**** CLEARANCES ****	**South/East** **North/West**	**Number Of Lanes:**	4	**South/East**	**North/West**
Max Rdwy Width:	46.2	**One Or Two Way:**	2 Two-Way		
Horizontal:	63.8 0.0	**Bypass Length:**	1		
		Future AADT Yr/Cnt:	2046 / 14746		
		Designated Truck Rte:	NONE		
Lateral:		**Special Systems:**	No		

Key Route Under Data

Station:	
Segment:	
Linked:	
Natl. Hwy System:	
Inventory Direction:	
Curr AADT Yr/Count:	/
Est Truck Percentage:	
Number Of Lanes:	
One Or Two Way:	
Bypass Length:	
Future AADT Yr/Cnt:	/
Designated Truck Rte:	
Special Systems:	

*** Marked Route On Data ***						*** Marked Route Under Data ***					
	Designation		Kind		Number		Designation		Kind		Number
Route #1:	1	Mainline	8	Other							
Route #2:	1	Mainline									
Route #3:	1	Mainline									

Structure Number: 016-6954 **District: 1**

Data Related to Inspection Information

*** Inspection Intervals ***				*** Maximum Allowable Posting Limits ***				Bridge Posting Level:	
Routine NBIS:	48 MOS	**Underwater:**	0 MOS	**One Truck At A Time:**	0	**Combination Type 3S-1:**	Tons	5	No Posting Required
		Special:	N	**Single Unit Vehicles:**	Tons	**Combination Type 3S-2**	Tons		

Inspection/Appraisal Information

Inspection Date: 01/04/2022 **Inspection Temperature:** 38Deg. F

Deck:	7	GOOD CONDITION - SOME MINOR PROBLEMS						**Single Unit Vehicles:**	Tons
Superstructure:	8	VERY GOOD CONDITION - NO PROBLEMS NOTED						**Combination Type 3S-1:**	Tons
Substructure:	7	GOOD CONDITION - SOME MINOR PROBLEMS						**Combination Type 3S-2:**	Tons
Culvert:	N	NOT APPLICABLE						**One Truck At A Time:**	0
Channel and Protection:	N	NOT APPLICABLE		**Deck Wearing Surf:**	G	BITUMINOUS OVERLAY		**Last Paint Type:**	VJ
Structural Evaluation:	7	BETTER THAN PRESENT MINIMUM CRITERIA		**Deck Membrane:**	F	NONE	GALVANIZED		
Deck Geometry:	3	INTOLERABLE - HIGH PRIORITY FOR CORRECTION		**Deck Protection:**	A	EPOXY COATED REINF	IR/ZC/OXIDE ALKYD		
Underclearance-Vert/Lat.:	2	INTOLERABLE - HIGH PRIORITY FOR REPLACEMENT		**Total Deck Thick:**	9.5				
Waterway Adequacy:	N	NOT APPLICABLE		**Last Paint Date:**	01/2001				
Approach Roadway Align:	7	BETTER THAN PRESENT MINIMUM CRITERIA							
Bridge Railing Appraisal:	3	Meets Standards							
Approach Guardrail:	111	Does Not Exist	Does Not Exist	Does Not Exist					
Pier Navig Protection:	N	N/A							

**** Actual Posted Limits ****

Underwater Inspection/Appraisal Information

Inspection Date:
Temperature: **Inspection Method:**
Appraisal Rating:

Scour Critical Information

Rating: **Evaluation Method:**
Analysis Date:

Miscellaneous

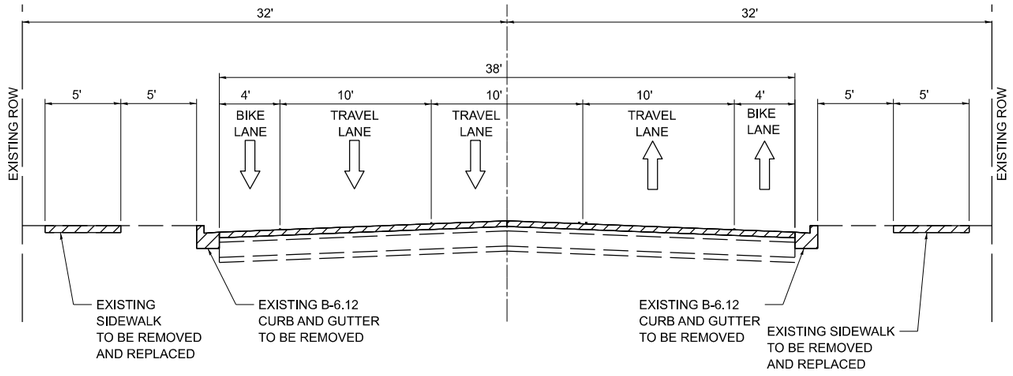
Microfilm Data Recorded: No

Construction Information

Year:	1924	Original	2001	Reconstructed	
Route:		**Sta:**	FAU2853	**Sta:**	9+99.47
Section Nbr:			95-00205-00-BR		
Contract Nbr:					
Fed Aid Pr#:					
Built By:	0	UNKNOWN	1	I.D.O.T.	

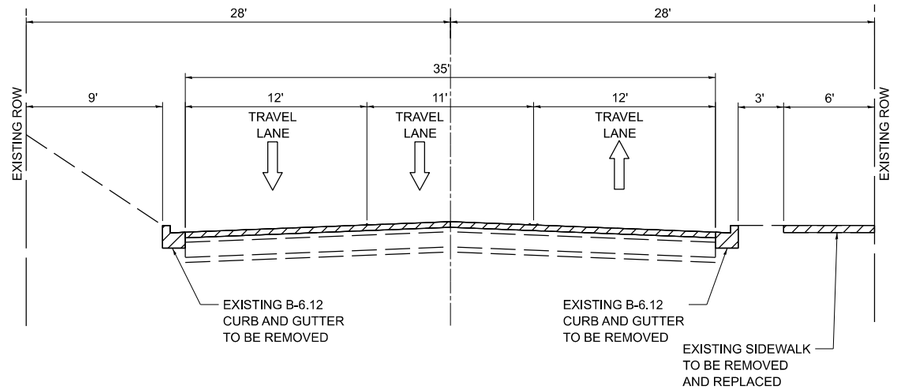
TAB 3

EXISTING AND PROPOSED TYPICAL SECTIONS



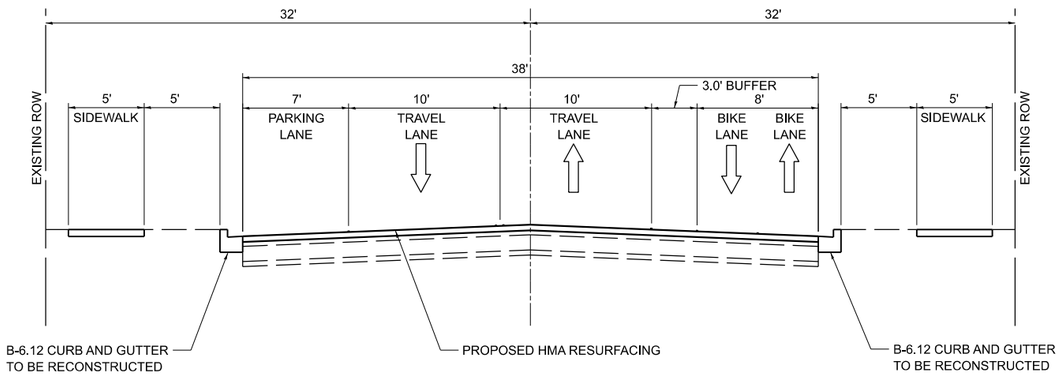
EXISTING TYPICAL SECTION

CHICAGO AVENUE
HOWARD AVENUE TO JUNEWAY TERRACE
STA 11+24 TO STA 22+89
(LOOKING NORTH)



EXISTING TYPICAL SECTION

CHICAGO AVE
JUNEWAY TERRACE TO SOUTH BOULEVARD
STA 22+89 TO STA 40+28
(LOOKING NORTH)



PROPOSED TYPICAL SECTION

CHICAGO AVENUE
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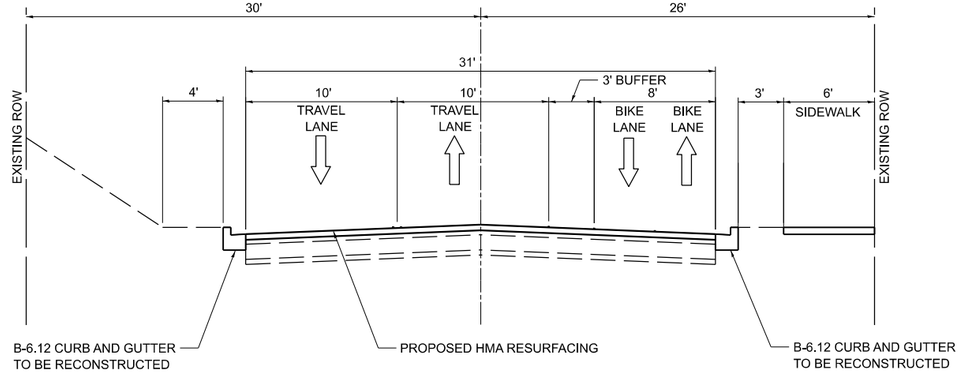
STA 11+24 TO STA 22+89
(LOOKING NORTH)



PROPOSED TYPICAL SECTION

CHICAGO AVE
JUNEWAY TERRACE TO SOUTH BOULEVARD
STA 22+89 TO STA 40+28
(LOOKING NORTH)

REMOVAL ITEMS

PLAN
SURVEYED
PLOTTED
ASSIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
DESIGN CHECKED
B.M. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

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	DRAWN - AE	REVISED -	
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PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED -	

CITY OF EVANSTON

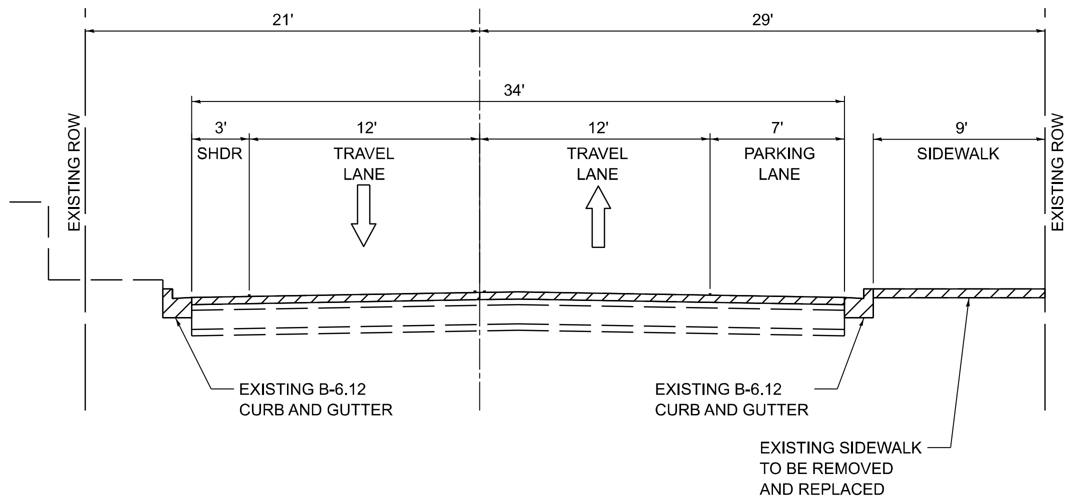
CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
TYPICAL SECTIONS

SCALE: 1" = 20' | SHEET 1 OF 21 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	01
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	

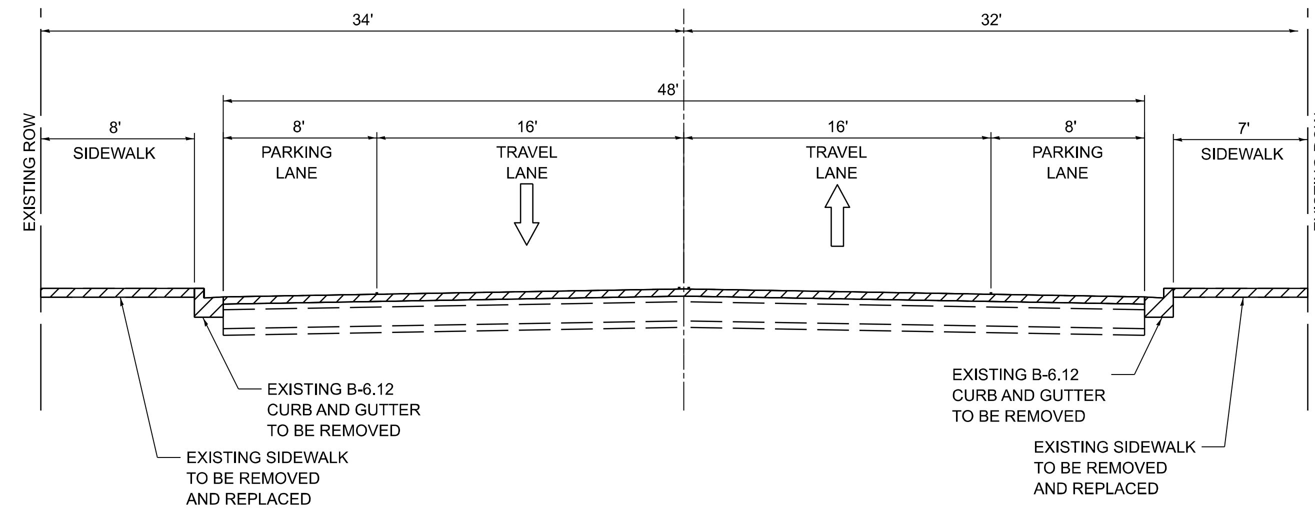
PLAN | NOTE BOOK | NO. ____ | SURVEYED | PLOTTED | ALIGNMENT CHECKED | RT. OF WAY CHECKED | CADD FILE NAME | BY | DATE

PROFILE | NOTE BOOK | NO. ____ | SURVEYED | PLOTTED | GRADES CHECKED | B.M. NOTED | STRUCTURE NOTATNS CHKD | BY | DATE



EXISTING TYPICAL SECTION

CHICAGO AVENUE
SOUTH BOULEVARD TO MAIN STREET
STA 40+28 TO STA 64+90
(LOOKING NORTH)



EXISTING TYPICAL SECTION

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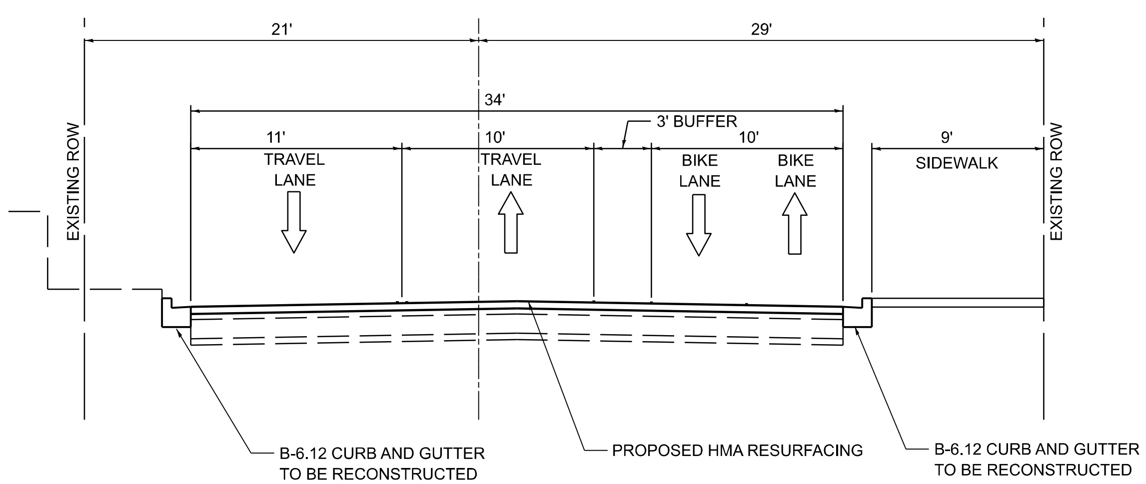
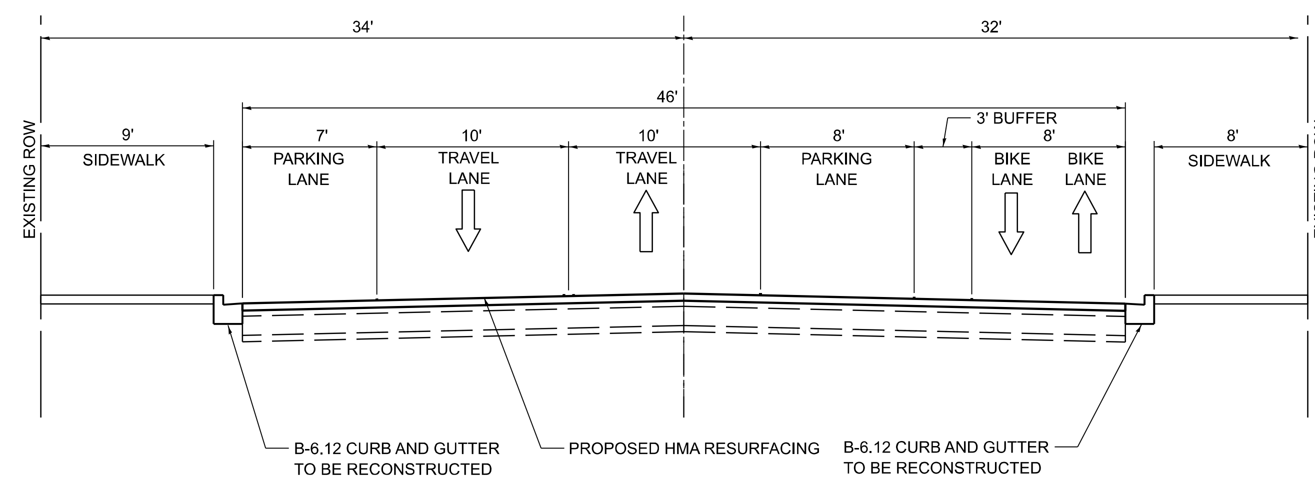
STA 64+90 TO STA 96+83
(LOOKING NORTH)



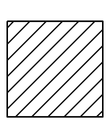
PROPOSED TYPICAL SECTION

CHICAGO AVENUE
SOUTH BOULEVARD TO MAIN STREET
STA 40+28 TO STA 64+90
(LOOKING NORTH)



PROPOSED TYPICAL SECTION

CHICAGO AVE
MAIN STREET TO GREENWOOD STREET
STA 64+90 TO STA 96+83
(LOOKING NORTH)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CITY OF EVANSTON

CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
TYPICAL SECTIONS

SCALE: 1" = 20' | SHEET 02 OF 21 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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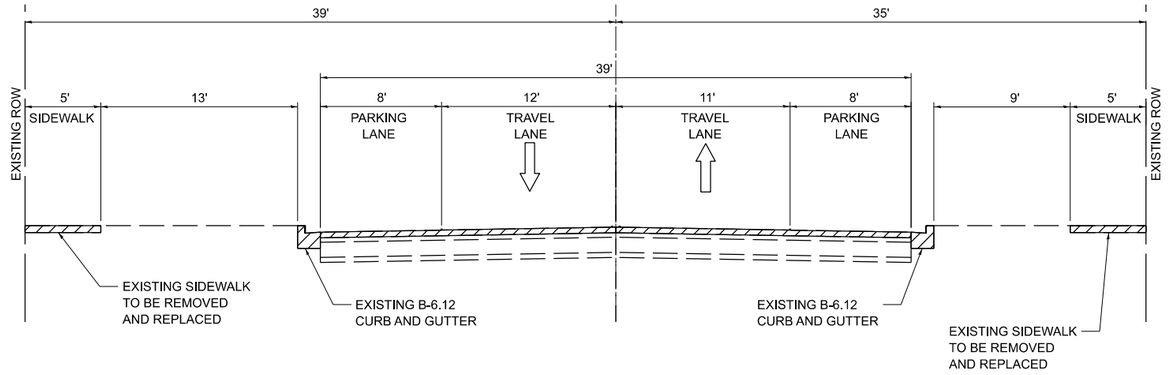
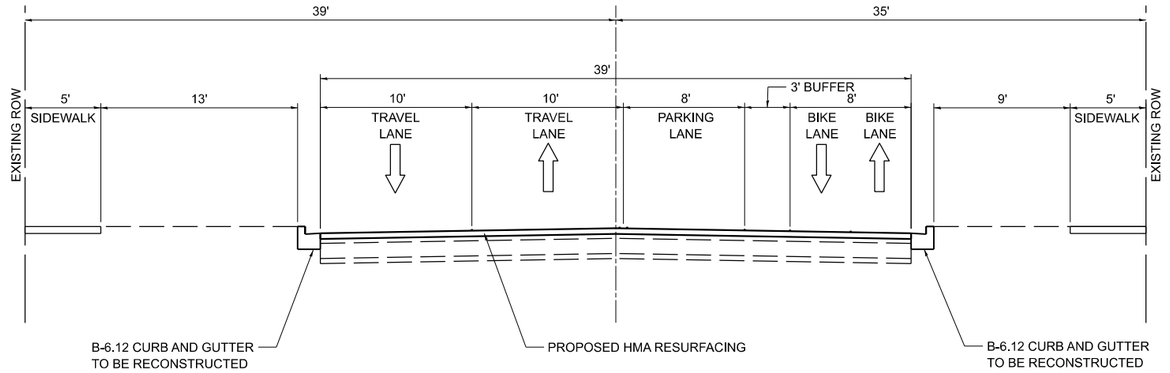
		ILLINOIS	FED. AID PROJECT	



EXISTING TYPICAL SECTION

CHICAGO AVE
GREENWOOD STREET TO DAVIS STREET
STA 96+83 TO STA 110+18
(LOOKING NORTH)



PROPOSED TYPICAL SECTION

CHICAGO AVE
GREENWOOD STREET TO DAVIS STREET
STA 96+83 TO STA 110+18
(LOOKING NORTH)

REMOVAL ITEMS

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ASSIGNMENT CHECKED
RT. OF WAY CHECKED
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DATE
NOTE BOOK
NO.

PROFILE
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PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTATNS CHKD
BY
DATE
NOTE BOOK
NO.

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	DRAWN - AE	REVISED -		
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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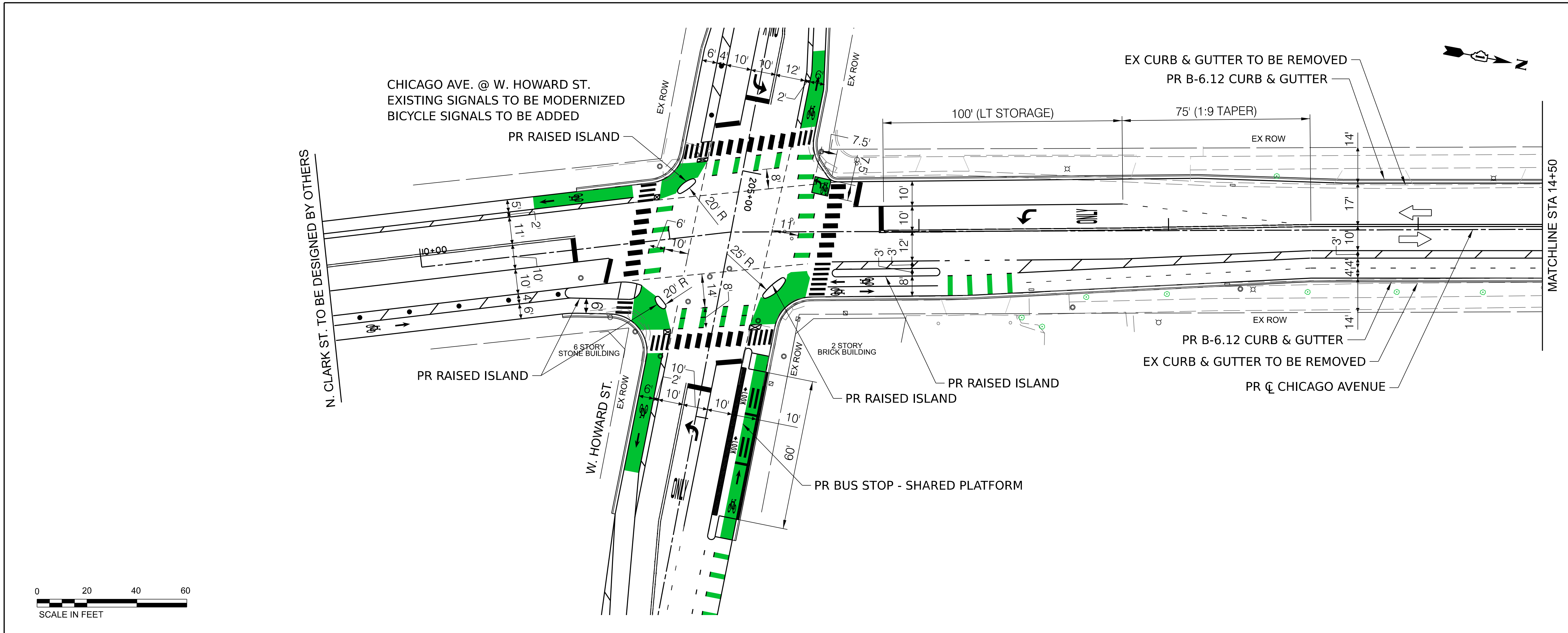
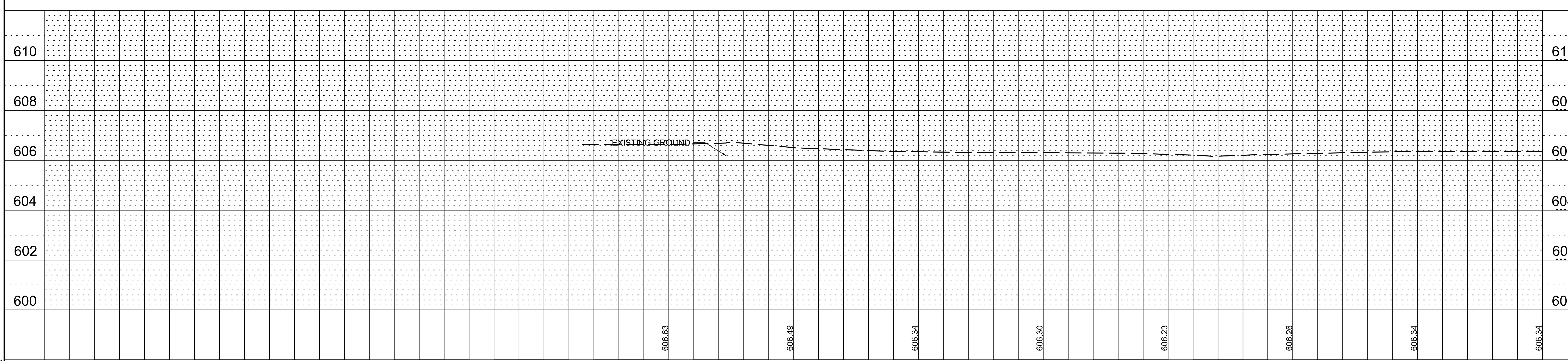
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

TAB 4

PLAN SHEETS





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PROFILE — NOTE BOOK NO. ___ — SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATNS CHKD — BY — DATE

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PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED -	

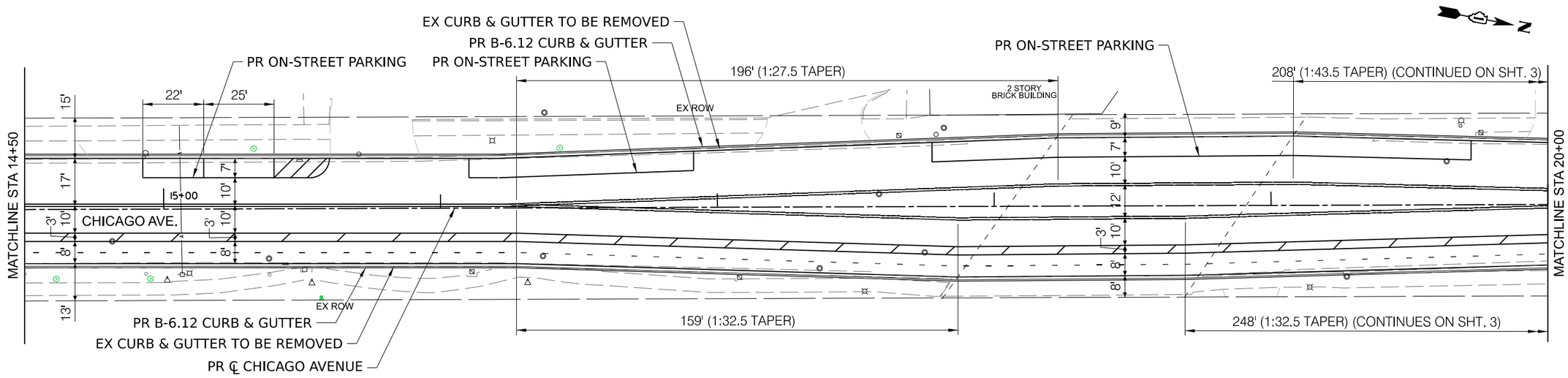
CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

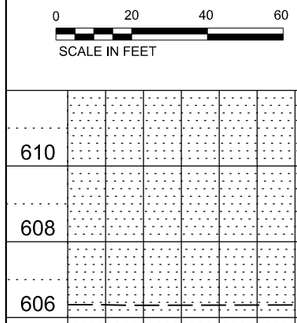
SCALE: 1" = 20' | SHEET 4 OF 21 SHEETS | STA. 10+00 TO STA. 16+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	4

CONTRACT NO. ___

ILLINOIS | FED. AID PROJECT





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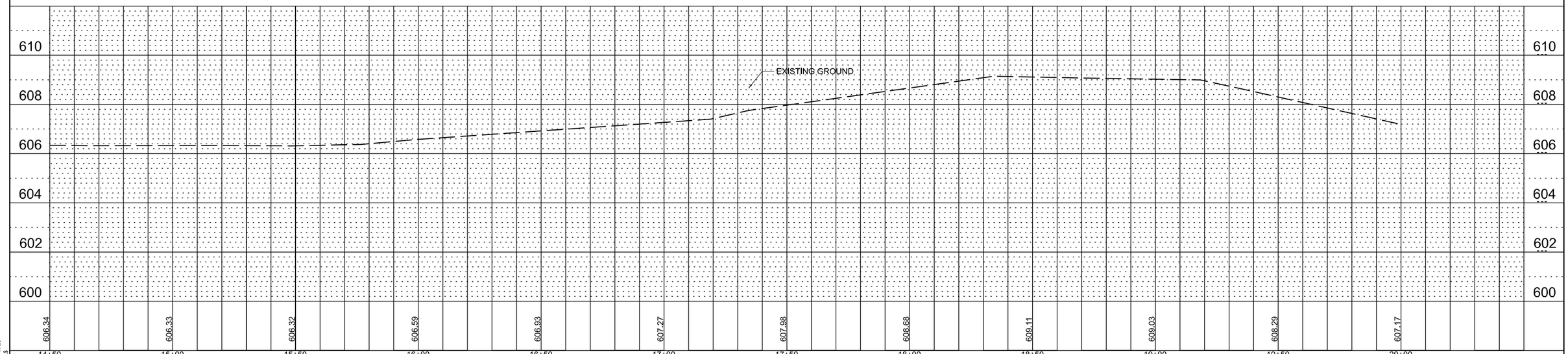
SCALE IN FEET



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CITY OF EVANSTON

CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

SCALE: 1" = 20' | SHEET 5 OF 21 SHEETS | STA. 16+50 | TO STA. 22+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	5
		CONTRACT NO. ___		
		ILLINOIS	FED. AID PROJECT	

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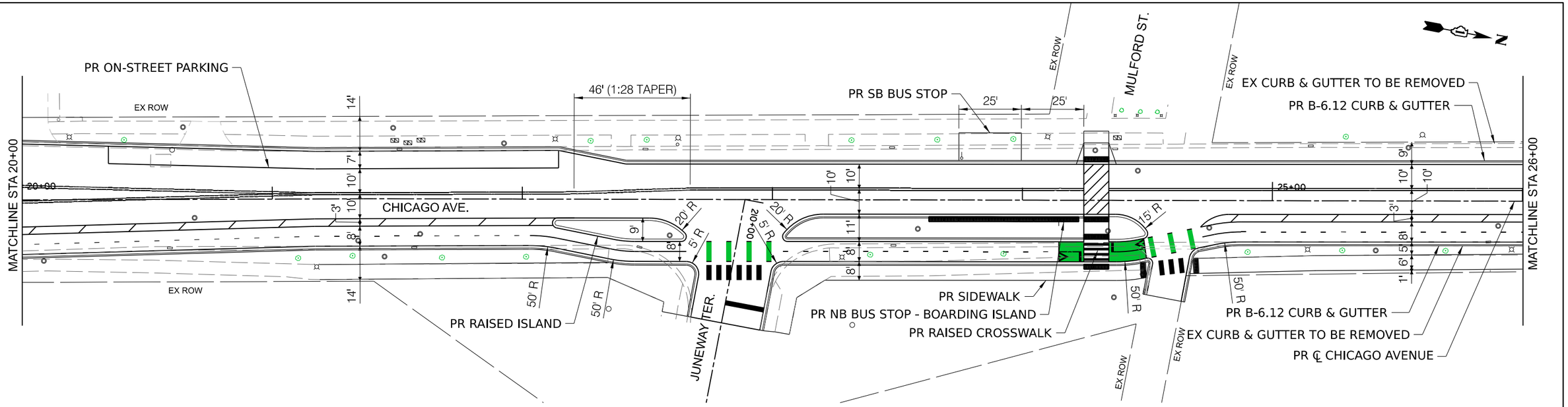
BY
DATE



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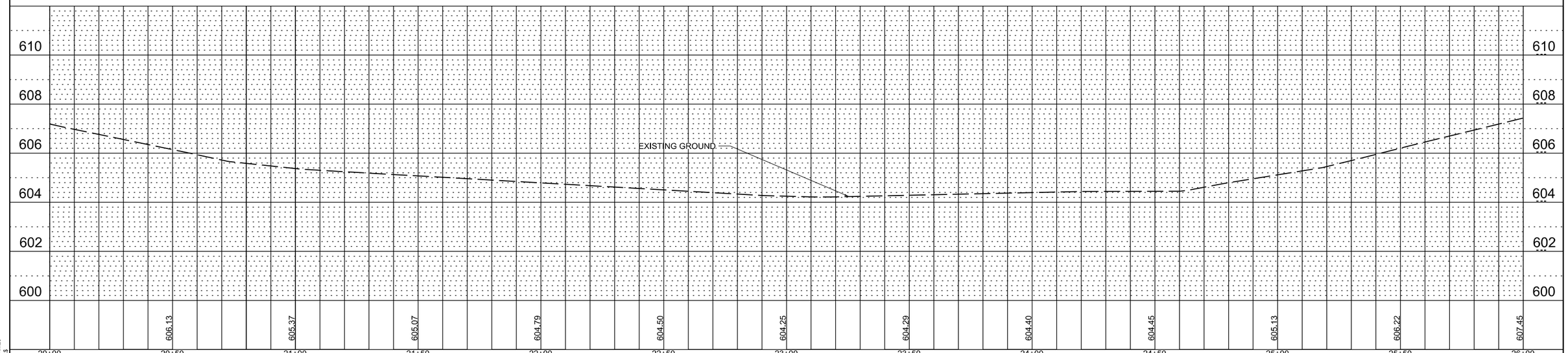
B.M. NOTED
STRUCTURE NO.
NOTE BOOK
NO.
BY
DATE



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CITY OF EVANSTON

CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

SCALE: 1" = 20' | SHEET 06 OF 21 SHEETS | STA. 22+00 | TO STA. 28+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	06
		CONTRACT NO. ___		
		ILLINOIS	FED. AID PROJECT	

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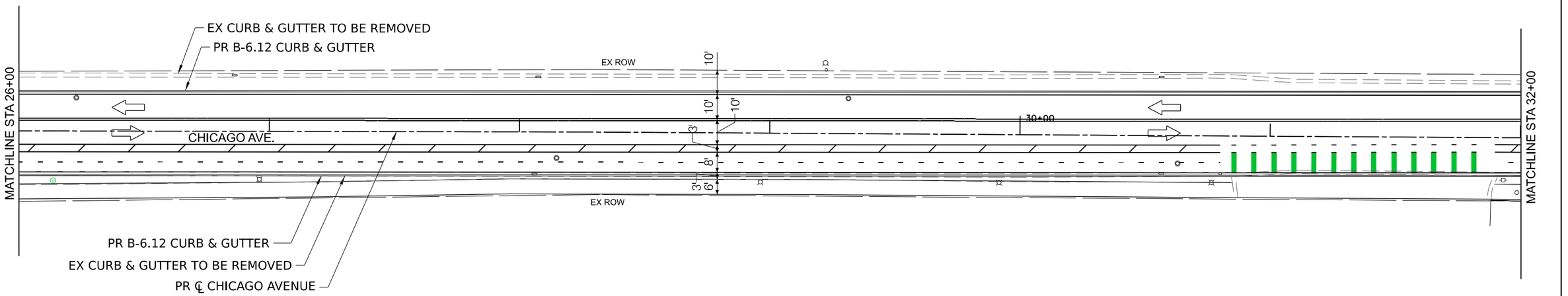
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE



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STRUCTURE NO.
NOTE BOOK
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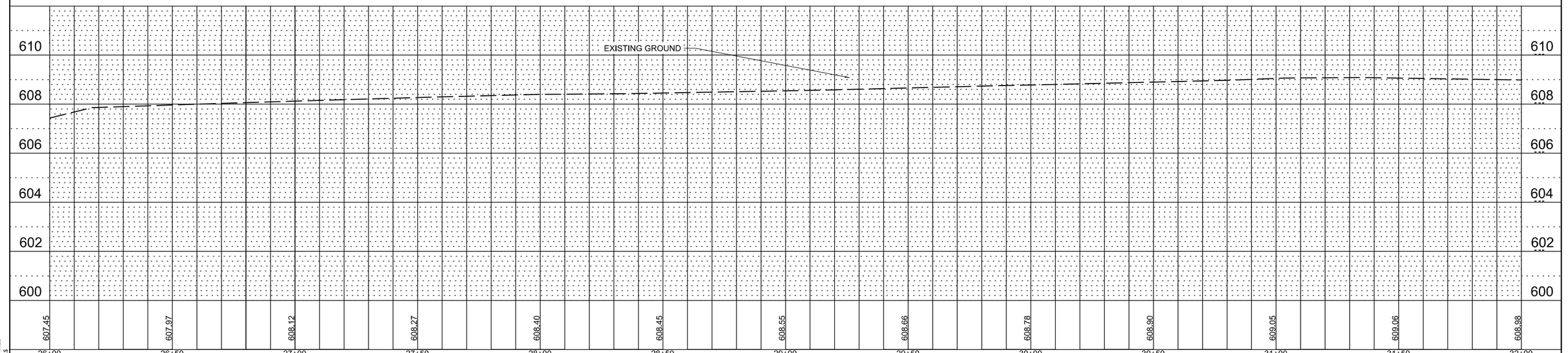
BY
DATE



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CITY OF EVANSTON

CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

SCALE: 1" = 20' | SHEET 07 OF 21 SHEETS | STA. 28+00 | TO STA. 34+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	07
		CONTRACT NO. ___		
		ILLINOIS	FED. AID PROJECT	

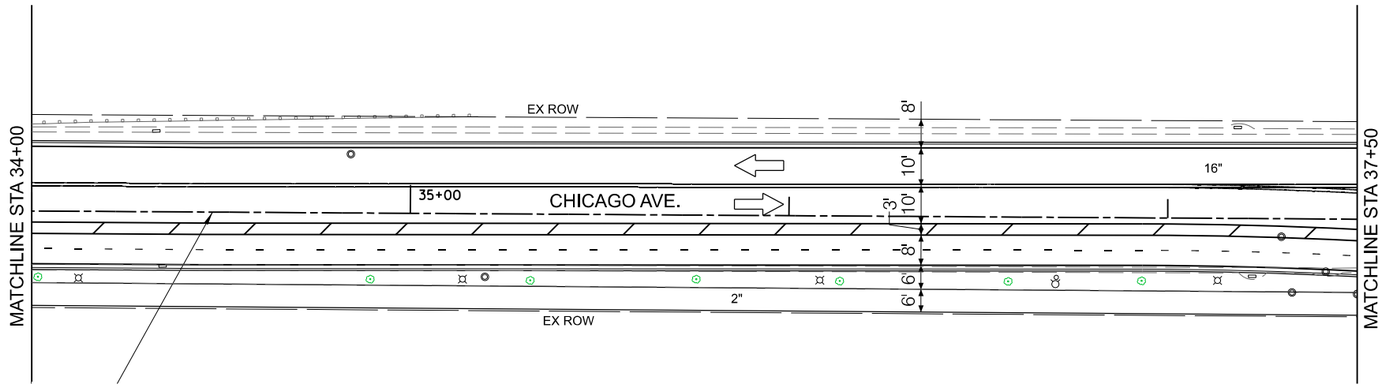
PLAN

SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME

NOTE BOOK
NO.

BY

DATE



PROFILE

SURVEYED
PLOTTED
ALIGNMENT CHECKED
B.M. NOTED
STRUCTURE NOTATNS CHKD

NOTE BOOK
NO.

BY

DATE

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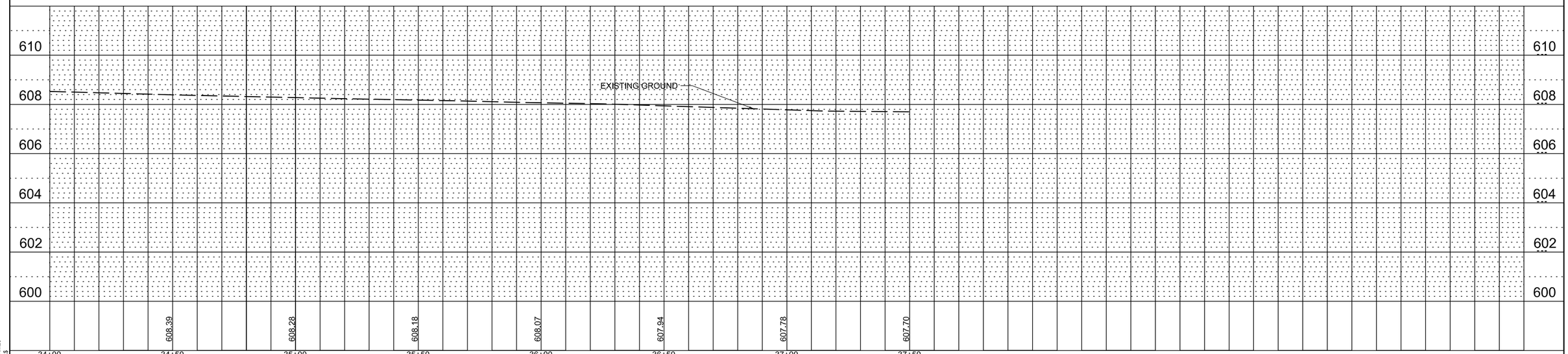

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PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED - ____

CITY OF EVANSTON

CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

SCALE: 1" = 20' | SHEET 08 OF 21 SHEETS | STA. 34+00 | TO STA. 37+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	08
		CONTRACT NO. ___		
		ILLINOIS	FED. AID PROJECT	

PR B-6.12 CURB & GUTTER

EX CURB & GUTTER TO BE REMOVED

PR RAISED ISLAND

EX LIGHT POLE TO BE REMOVED

CHICAGO AVE. @ SOUTH BLVD.
EXISTING SIGNALS TO BE MODERNIZED
BICYCLE SIGNALS TO BE ADDED

PR SB BUS STOP

1:27 TAPER

1:15.8 TAPER

MATCHLINE STA 37+50

MATCHLINE STA 43+50

76' (1:12 TAPER)

90' (LT STORAGE)

90' (LT STORAGE)

100'

113' R

1145' R

10' R

15' R

20' R

0+00

EX ROW

1 STORY BRICK

2 STORY STUCCO & WOOD BUILDING

3 STORY BRICK BUILDING

3 STORY BRICK BUILDING

ONLY

CHICAGO AVE.

ALLEY

SOUTH BLVD.

EX UTILITY POLE TO BE RELOCATED

PR NB BUS STOP - SHARED PLATFORM

EX SIGNAL TO BE REMOVED AND RELOCATED

EX UTILITY POLE TO BE RELOCATED

EX LIGHT POLE TO BE REMOVED

PR B-6.12 CURB & GUTTER

EX CURB & GUTTER TO BE REMOVED

PR ℄ CHICAGO AVENUE

PR ℄ SOUTH BOULEVARD

PLAN

SURVEYED
PLOTTED
ASSIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME

NOTE BOOK
NO.

DATE
BY

0 20 40 60
SCALE IN FEET

PROFILE

SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTATNS CHKD

NOTE BOOK
NO.

610
608
606
604
602
600

EXISTING GROUND

607.61 607.48 606.76 605.61 604.64 604.52 604.91 605.04 605.02 604.99 604.96 604.93

37+50 38+00 38+50 39+00 39+50 40+00 40+50 41+00 41+50 42+00 42+50 43+00 43+50

MODEL: $MODELNAME$
FILE NAME: $FILE$

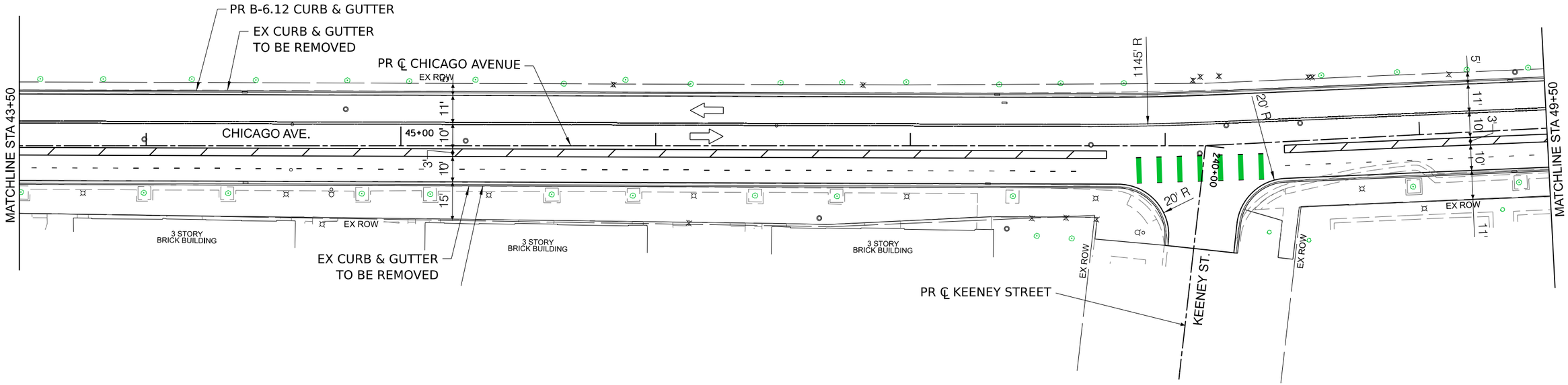
USER NAME = $USER$	DESIGNED - TMG	REVISED - ____
	DRAWN - AE	REVISED - ____
PLOT SCALE = $SCALE$	CHECKED - JRK	REVISED - ____
PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED - ____

CITY OF EVANSTON

CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

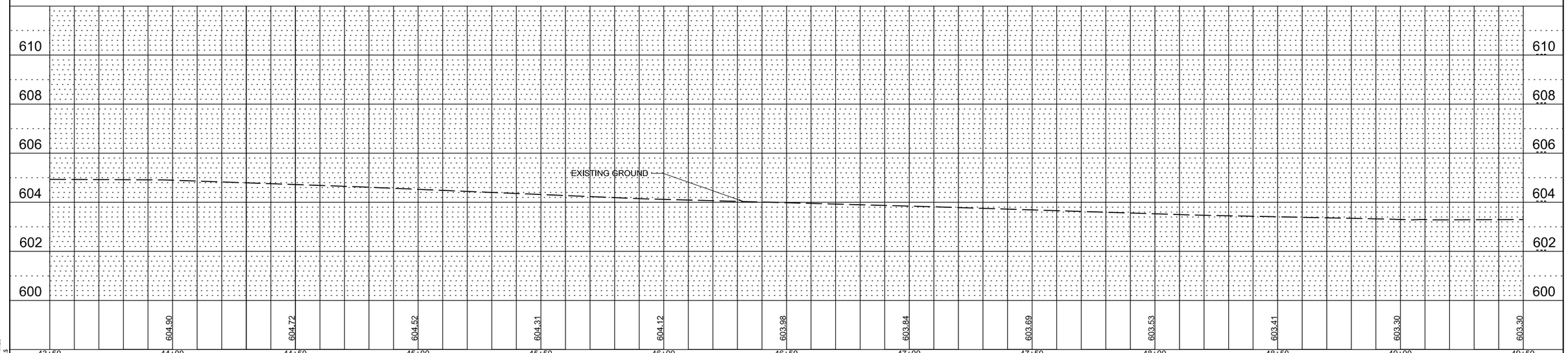
SCALE: 1" = 20' | SHEET 09 OF 21 SHEETS | STA. 37+50 | TO STA. 43+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	09
		CONTRACT NO. ___		
		ILLINOIS	FED. AID PROJECT	



0 20 40 60

SCALE IN FEET



PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

MODEL: $MODELNAME$
FILE NAME: $FILE$

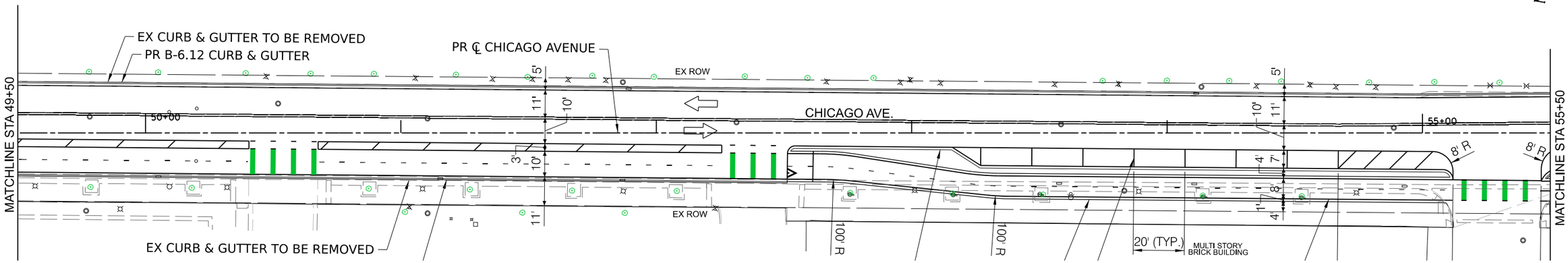
USER NAME = $USER$	DESIGNED - TMG	REVISED - ____
	DRAWN - AE	REVISED - ____
PLOT SCALE = $SCALE$	CHECKED - JRK	REVISED - ____
PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED - ____

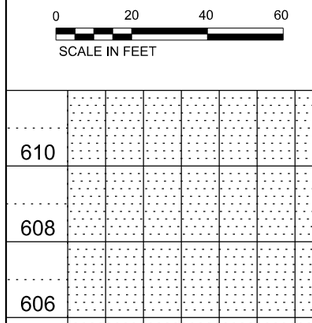
CITY OF EVANSTON

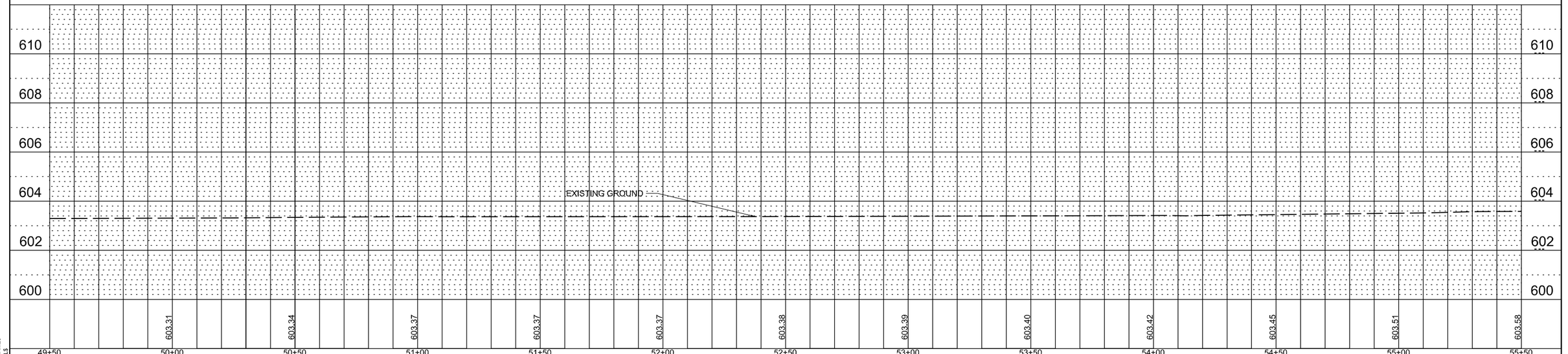
CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

SCALE: 1" = 20' | SHEET 10 OF 21 SHEETS | STA. 43+50 | TO STA. 49+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	10
		CONTRACT NO. ___		
		ILLINOIS	FED. AID PROJECT	







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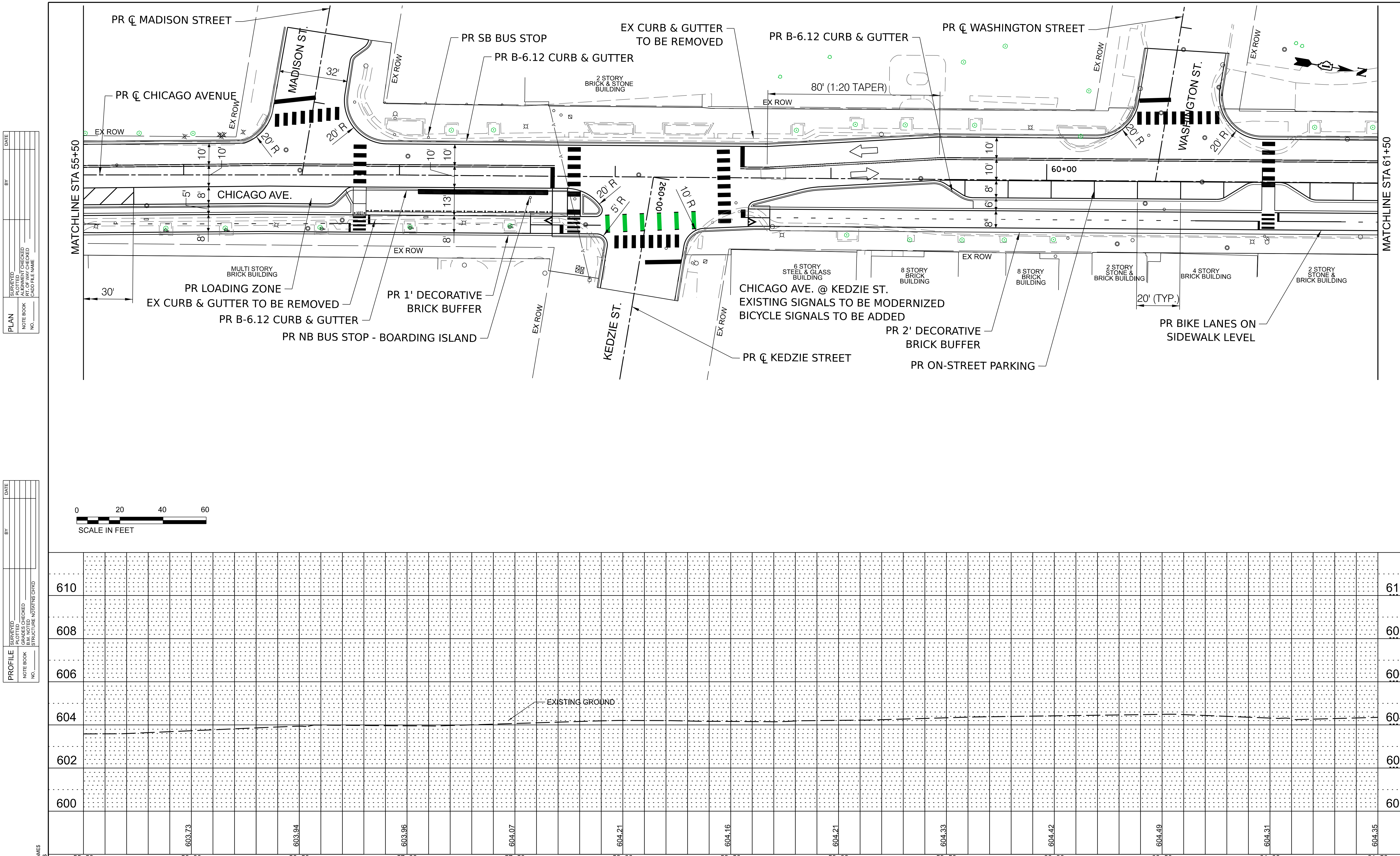
	DRAWN - AE	REVISED - ____
PLOT SCALE = $SCALE$	CHECKED - JRK	REVISED - ____
PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED - ____

CITY OF EVANSTON

CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

SCALE: 1" = 20' | SHEET 11 OF 21 SHEETS | STA. 49+50 | TO STA. 55+50

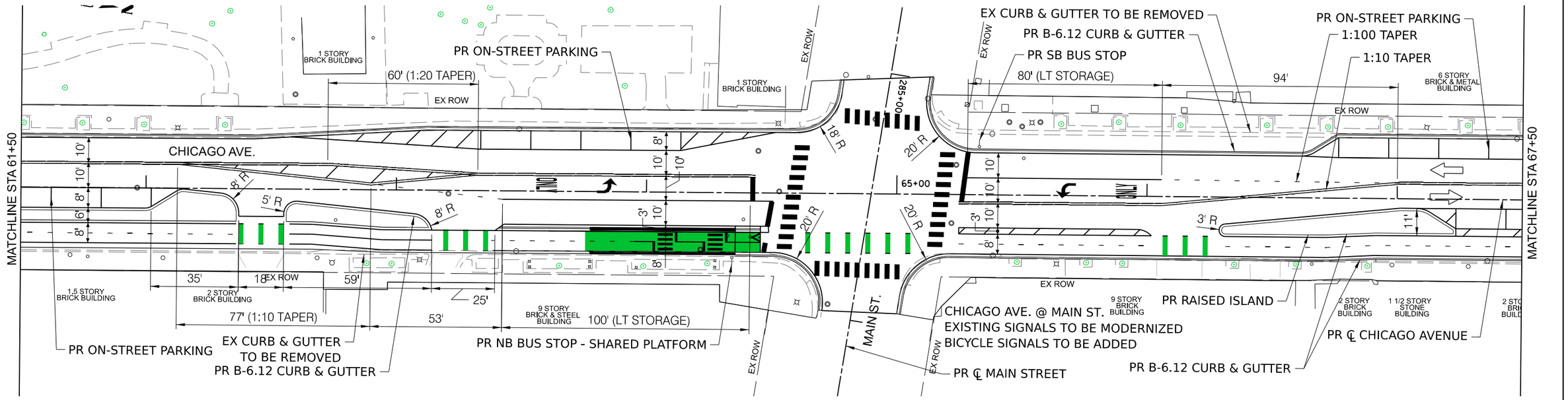
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	11
		CONTRACT NO. ___		
	ILLINOIS	FED. AID PROJECT		



USER NAME = $USER$	DESIGNED - TMG	REVISED -	CITY OF EVANSTON	CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
	DRAWN - AE	REVISED -		PROPOSED PLAN & PROFILE
PLOT SCALE = $SCALE$	CHECKED - JRK	REVISED -		
PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED -		SCALE: 1" = 20' SHEET 12 OF 21 SHEETS STA. 55+50 TO STA. 61+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	12
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	

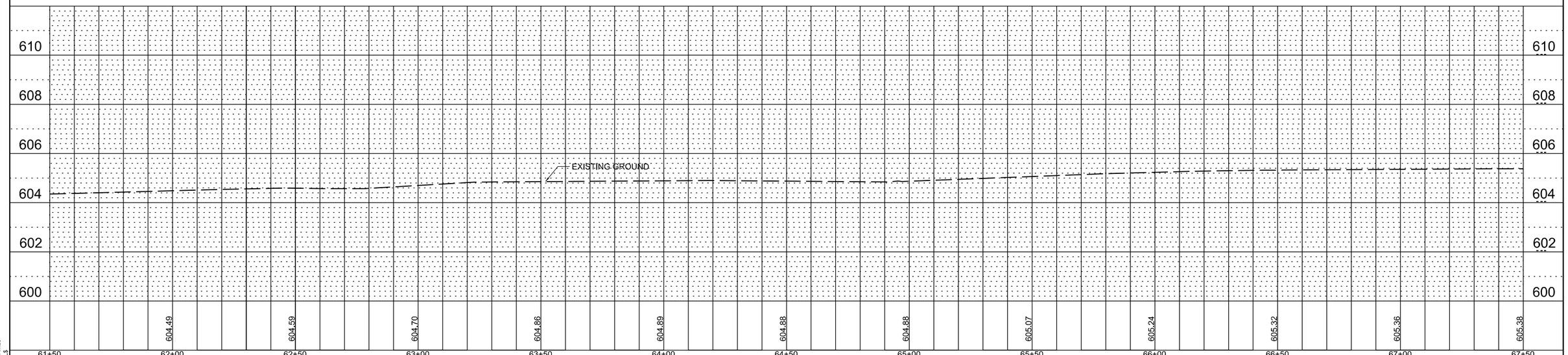
MODEL: $MODELNAME$
FILE NAME: $FILE$



PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

0 20 40 60
SCALE IN FEET

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.



MODEL: $MODELNAME$
FILE NAME: $FILE$

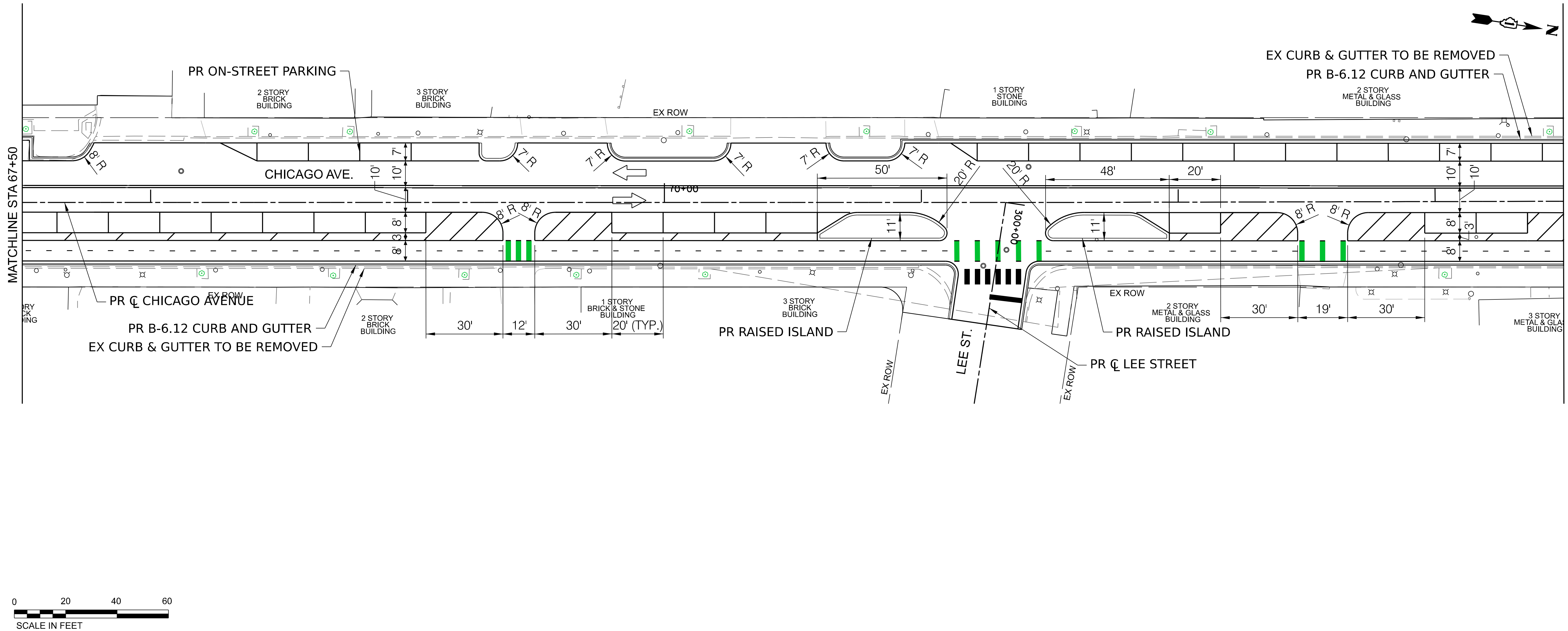
USER NAME = $USER$	DESIGNED - TMG	REVISED - ____
	DRAWN - AE	REVISED - ____
PLOT SCALE = $SCALE$	CHECKED - JRK	REVISED - ____
PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED - ____

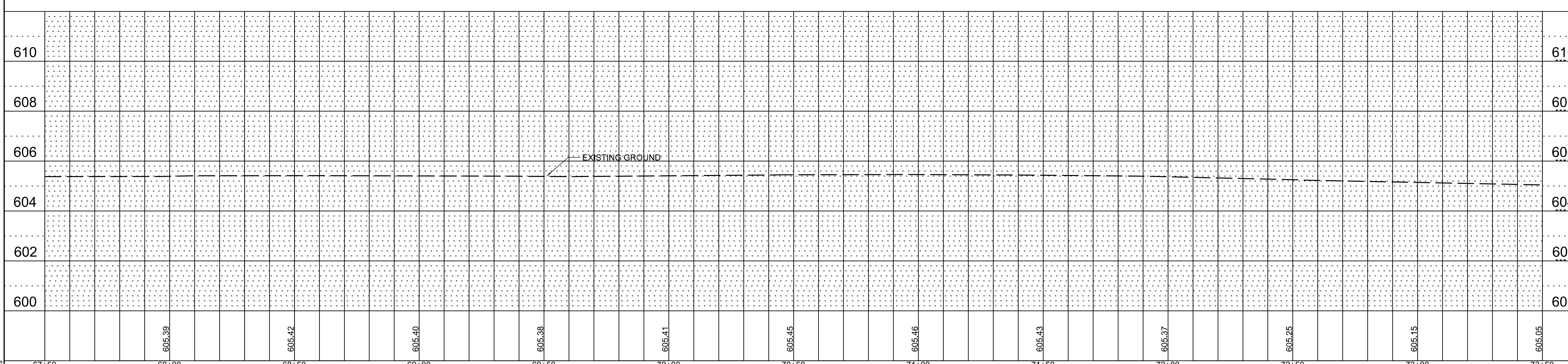
CITY OF EVANSTON

CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

SCALE: 1" = 20' | SHEET 13 OF 21 SHEETS | STA. 61+50 | TO STA. 67+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	13
		CONTRACT NO. ___		
		ILLINOIS	FED. AID PROJECT	





PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, R/W CHECKED, CADD FILE NAME, NOTE BOOK NO.

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATNS CHKD, NOTE BOOK NO.

MODEL: $MODELNAME$
FILE NAME: $FILE$

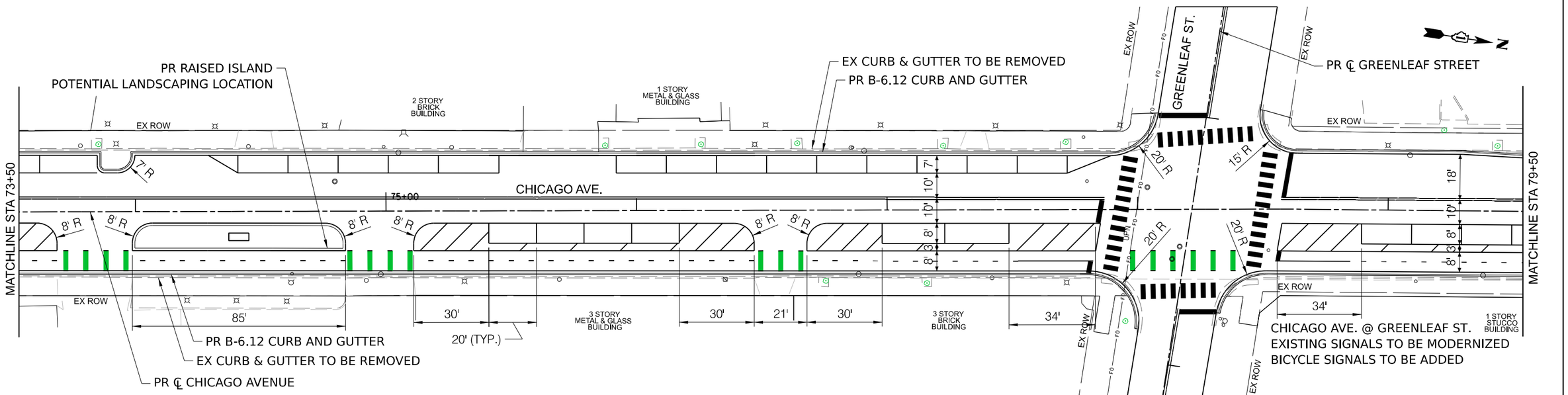
USER NAME = $USER$	DESIGNED - TMG	REVISED -	CITY OF EVANSTON	CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT	
	DRAWN - AE	REVISED -		PROPOSED PLAN & PROFILE	
PLOT SCALE = $SCALE$	CHECKED - JRK	REVISED -			
PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED -		SCALE: 1" = 20'	SHEET 14 OF 21 SHEETS STA. 67+50 TO STA. 73+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	14

CONTRACT NO. ___

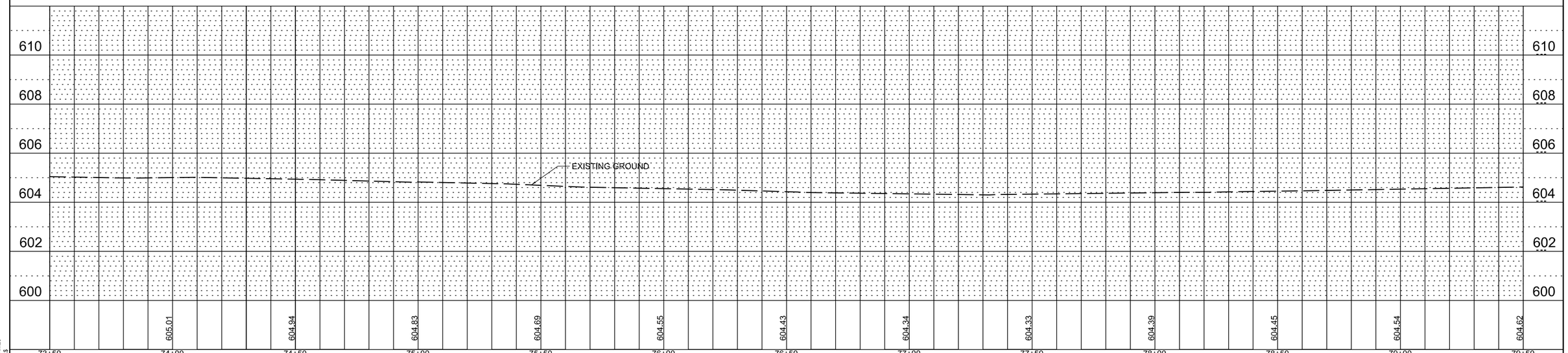
ILLINOIS FED. AID PROJECT

PLAN
SURVEYED
PLOTTED
ASSIGNED / CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE



PROFILE
SURVEYED
PLOTTED
ASSIGNED / CHECKED
B.M. NOTED
STRUCTURE NO.
NOTE BOOK
NO.
BY
DATE

0 20 40 60
SCALE IN FEET



MODEL: $MODELNAME$
FILE NAME: $FILE$

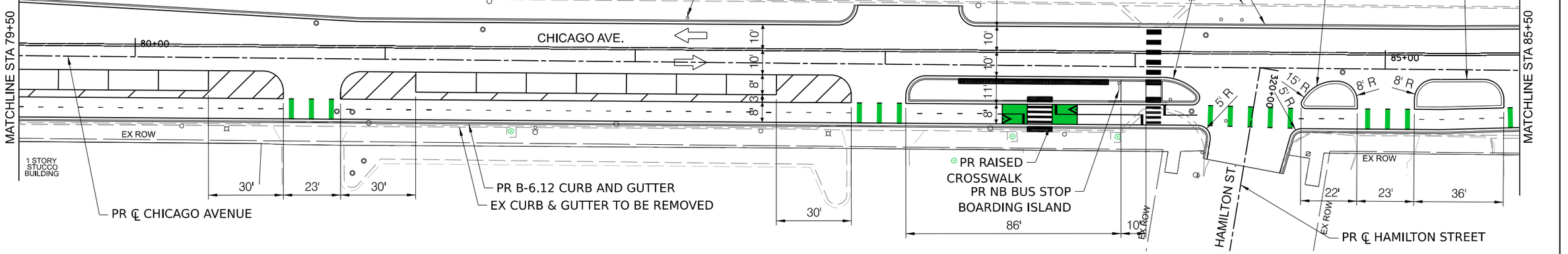
USER NAME = $USER$	DESIGNED - TMG	REVISED - ____
	DRAWN - AE	REVISED - ____
PLOT SCALE = $SCALE$	CHECKED - JRK	REVISED - ____
PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED - ____

CITY OF EVANSTON

CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

SCALE: 1" = 20' | SHEET 15 OF 21 SHEETS | STA. 73+50 | TO STA. 79+50

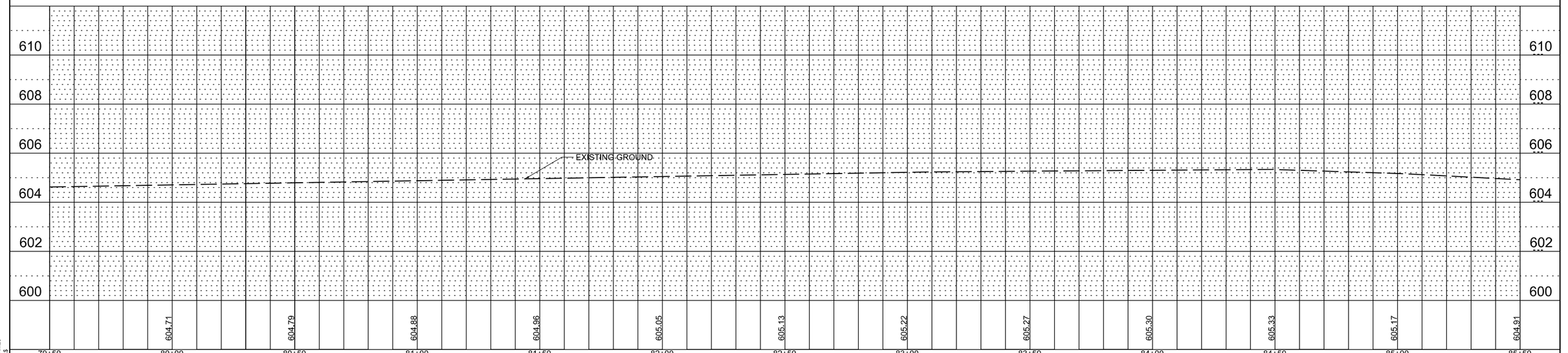
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	15
		CONTRACT NO. ___		
		ILLINOIS	FED. AID PROJECT	



PLAN
SURVEYED
PLOTTED
ASSIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

0 20 40 60
SCALE IN FEET

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NO'S/T'N'S CHKD
NOTE BOOK
NO.
BY
DATE



MODEL: $MODELNAME$
FILE NAME: $FILE$

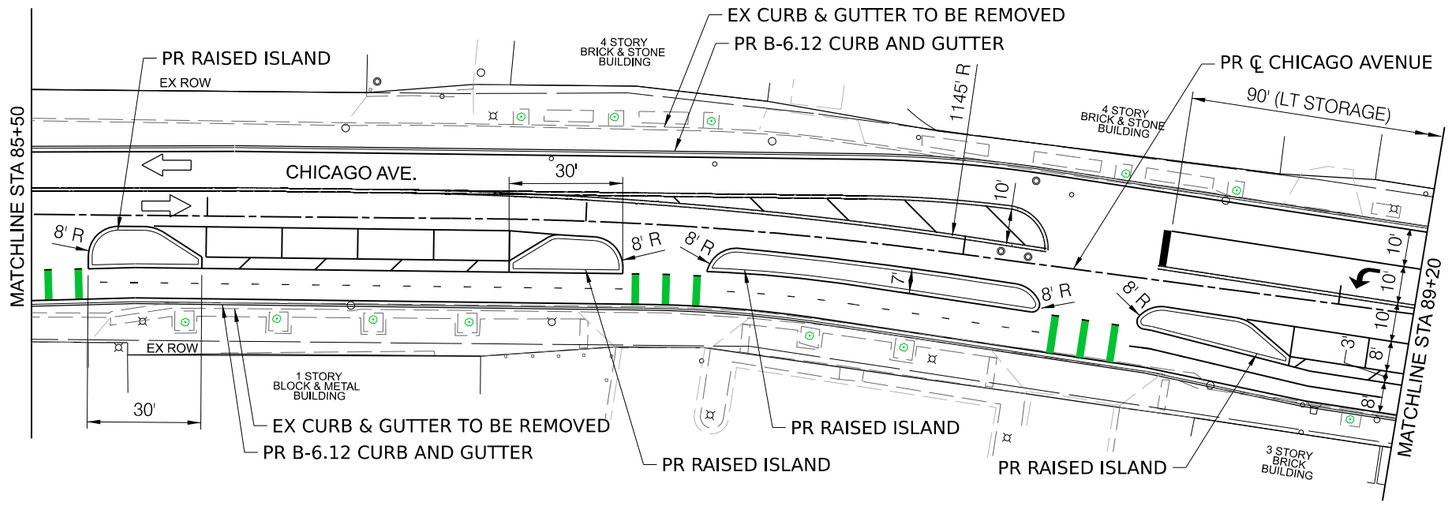
USER NAME = $USER$	DESIGNED - TMG	REVISED - ____
	DRAWN - AE	REVISED - ____
PLOT SCALE = $SCALE$	CHECKED - JRK	REVISED - ____
PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED - ____

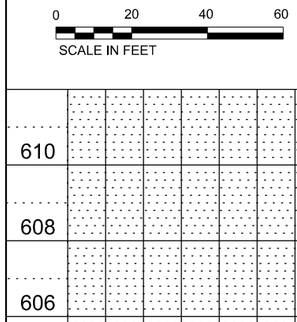
CITY OF EVANSTON

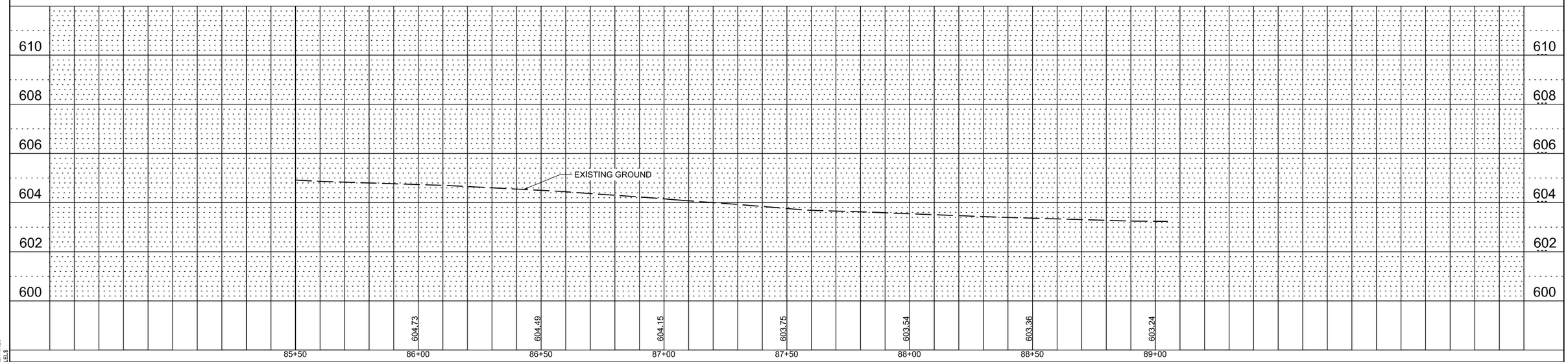
CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

SCALE: 1" = 20' | SHEET 16 OF 21 SHEETS | STA. 79+50 | TO STA. 85+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	16
		CONTRACT NO. ___		
		ILLINOIS	FED. AID PROJECT	







MODEL: $MODELNAME$
FILE NAME: $FILE$

USER NAME = $USER$	DESIGNED - TMG	REVISED - ____
	DRAWN - AE	REVISED - ____
PLOT SCALE = $SCALE$	CHECKED - JRK	REVISED - ____
PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED - ____

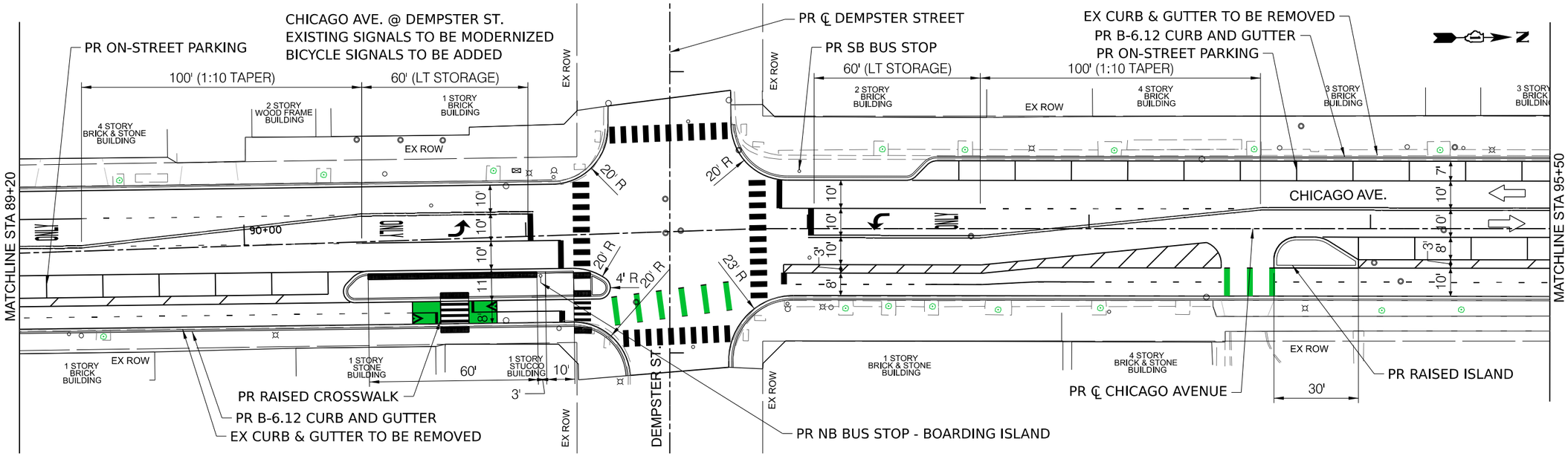
CITY OF EVANSTON

CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

SCALE: 1" = 20' | SHEET 17 OF 21 SHEETS | STA. 85+50 | TO STA. 89+20

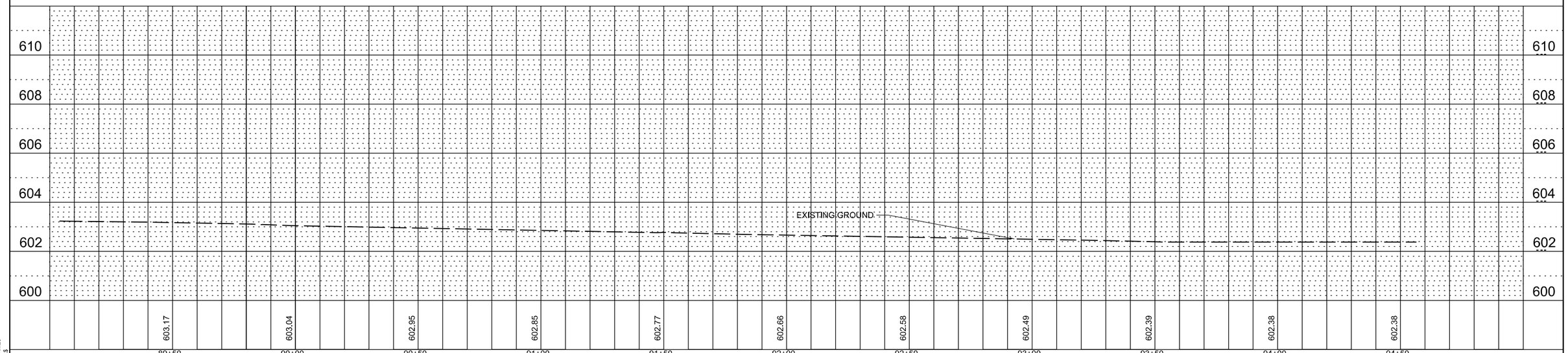
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	17
		CONTRACT NO. ___		
		ILLINOIS	FED. AID PROJECT	

PLAN
SURVEYED
PLOTTED
ASSIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE



0 20 40 60
SCALE IN FEET

PROFILE
SURVEYED
PLOTTED
ASSIGNMENT CHECKED
B.M. NOTED
STRUCTURE NO.
STA'NG
GHKD
NOTE BOOK
NO.
BY
DATE



MODEL: $MODELNAME$
FILE NAME: $FILE$

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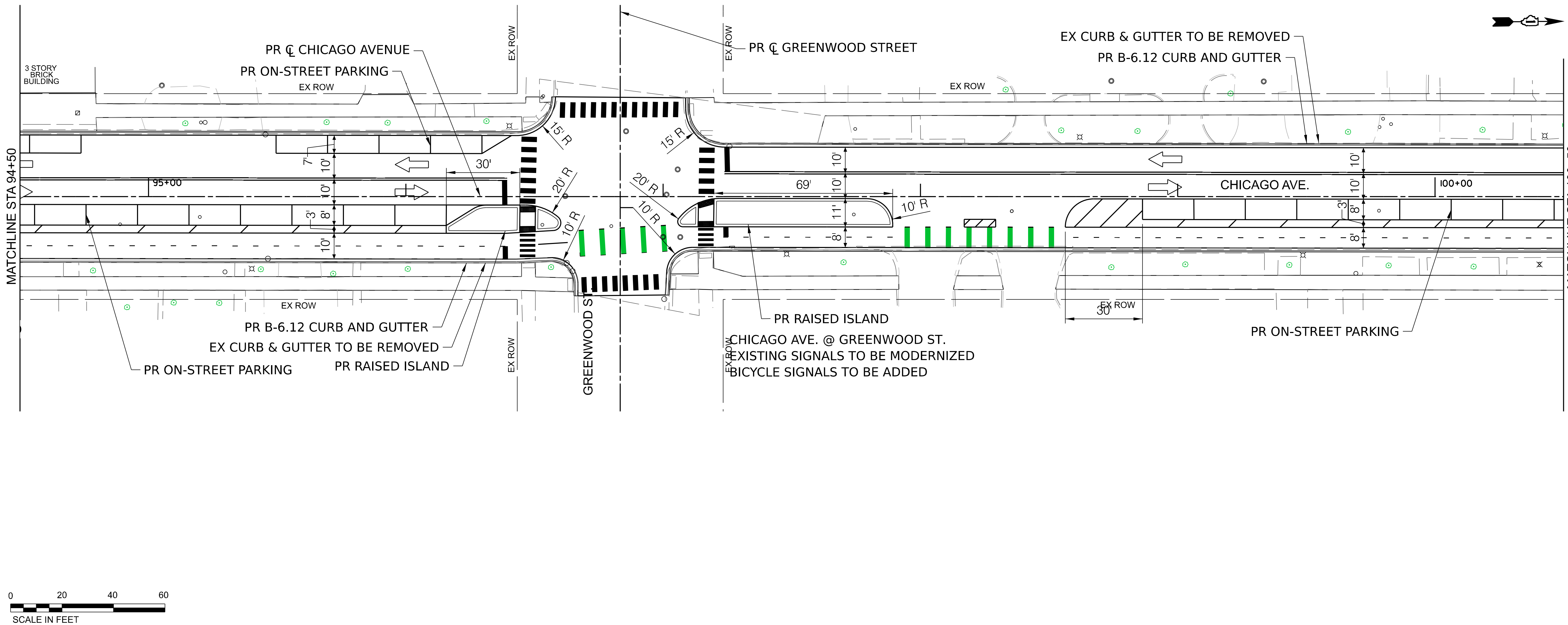
	DRAWN - AE	REVISED - ____
PLOT SCALE = $SCALE$	CHECKED - JRK	REVISED - ____
PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED - ____

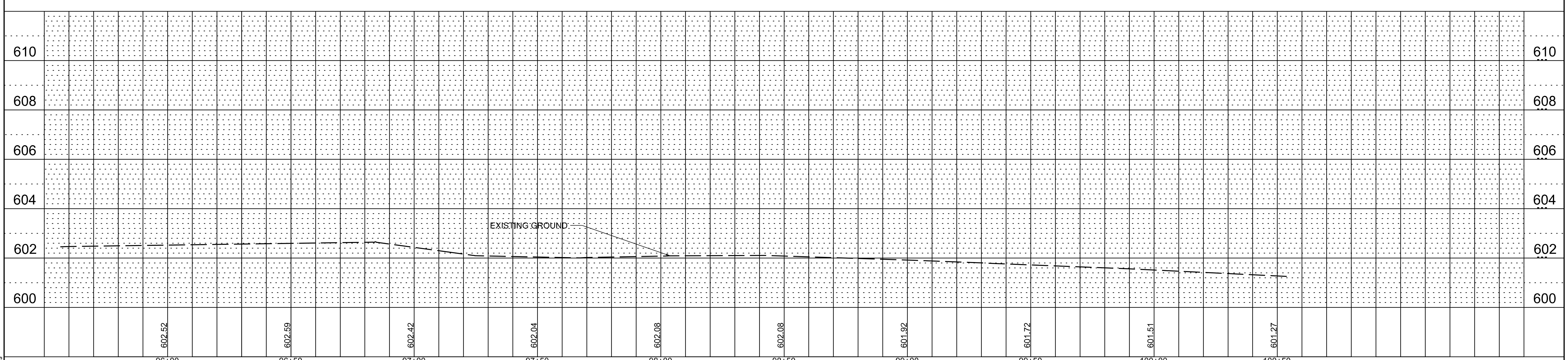
CITY OF EVANSTON

CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

SCALE: 1" = 20' | SHEET 18 OF 21 SHEETS | STA. 89+20 | TO STA. 64+63

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	18
		CONTRACT NO. ___		
		ILLINOIS	FED. AID PROJECT	





PLAN — SURVEYED / PLOTTED / ALIGNMENT CHECKED / R/W CHECKED / CADD FILE NAME / NOTE BOOK / NO. / BY / DATE

PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATNS CHKD / NOTE BOOK / NO. / BY / DATE

MODEL: $MODELNAME$
FILE NAME: $FILE$

USER NAME = $USER$	DESIGNED - TMG	REVISED -	
	DRAWN - AE	REVISED -	
PLOT SCALE = $SCALE$	CHECKED - JRK	REVISED -	
PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED -	

CITY OF EVANSTON

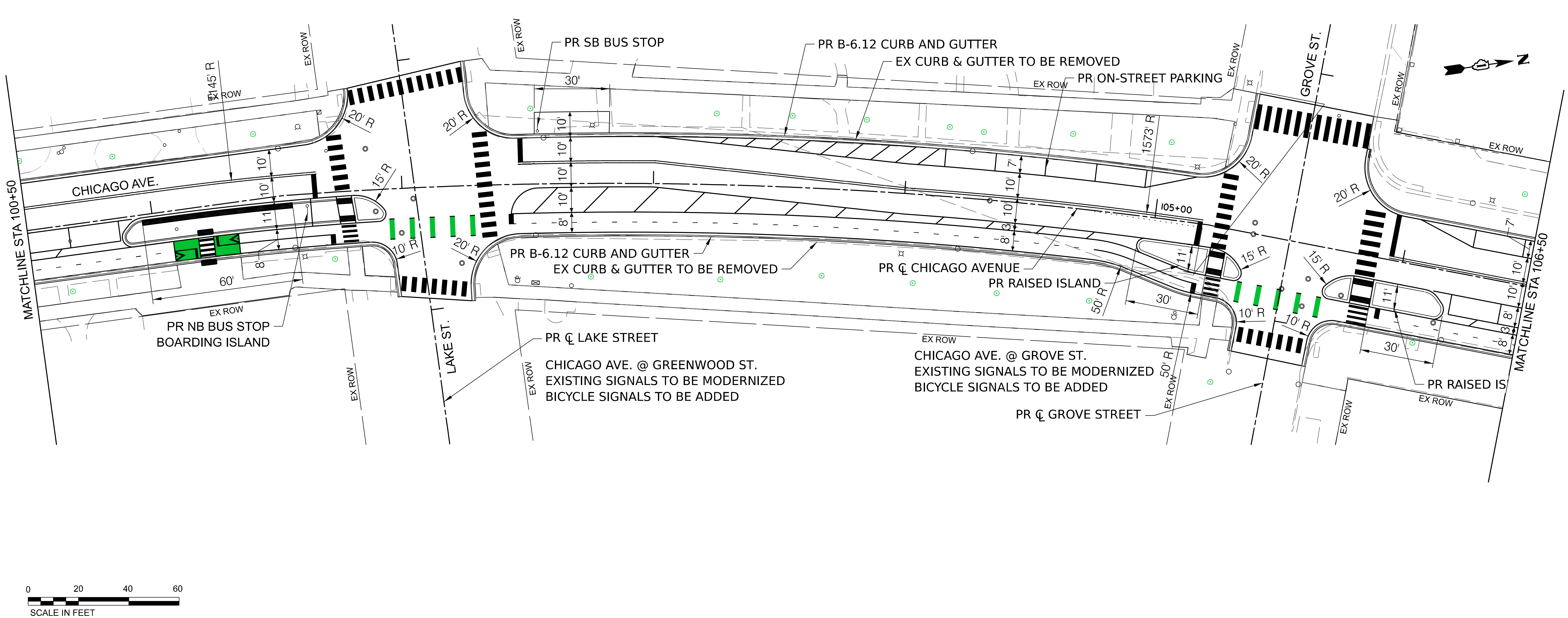
CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

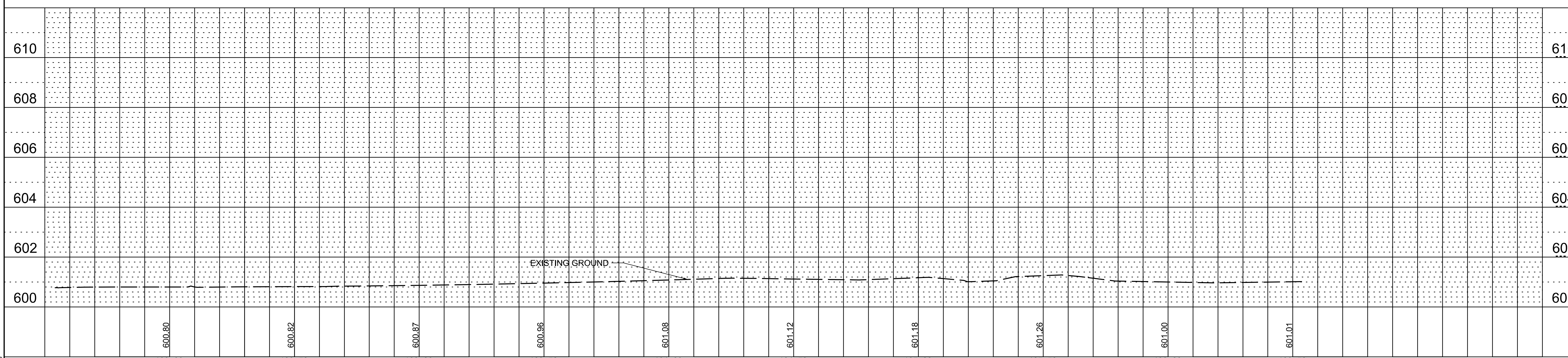
SCALE: 1" = 20' | SHEET 19 OF 21 SHEETS | STA. 96+00 TO STA. 101+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	19

CONTRACT NO. ___

ILLINOIS | FED. AID PROJECT





PLAN — SURVEYED / PLOTTED / ALIGNMENT CHECKED / R/T. OF WAY CHECKED / CADD FILE NAME — NOTE BOOK NO. ___ — BY — DATE

PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATNS CHKD — NOTE BOOK NO. ___ — BY — DATE

MODEL: $MODELNAME$
FILE NAME: $FILE$

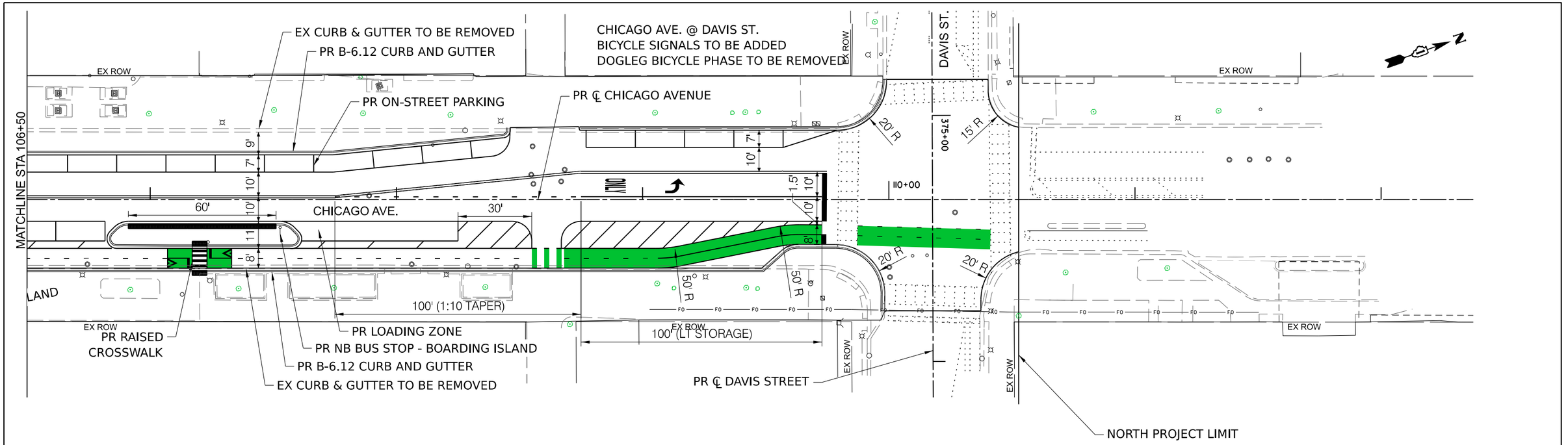
USER NAME = $USER$	DESIGNED - TMG	REVISED - ____	
	DRAWN - AE	REVISED - ____	
PLOT SCALE = $SCALE$	CHECKED - JRK	REVISED - ____	
PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED - ____	

CITY OF EVANSTON

CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

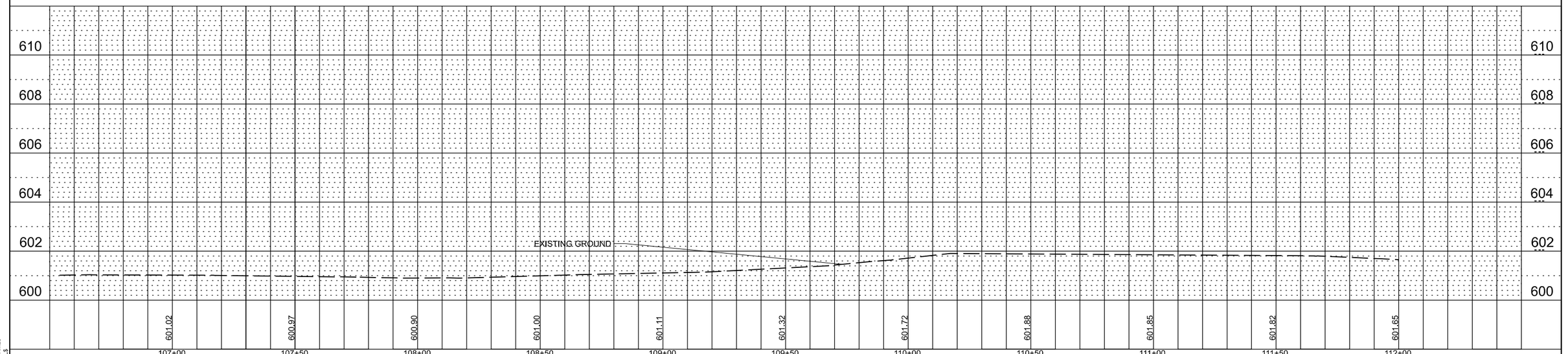
SCALE: 1" = 20' | SHEET 20 OF 21 SHEETS | STA. 100+58 TO STA. 106+58

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	20
		CONTRACT NO. ___		
		ILLINOIS	FED. AID PROJECT	



0 20 40 60

SCALE IN FEET



PLAN — SURVEYED; PLOTTED; AS-BUILT CHECKED; RT. OF WAY CHECKED; CADD FILE NAME; NOTE BOOK; NO.; BY; DATE

PROFILE — SURVEYED; PLOTTED; GRADES CHECKED; B.M. NOTED; STRUCTURE NO'S/ATN'S CHKD; NOTE BOOK; NO.; BY; DATE

MODEL: $MODELNAME$
FILE NAME: $FILE$

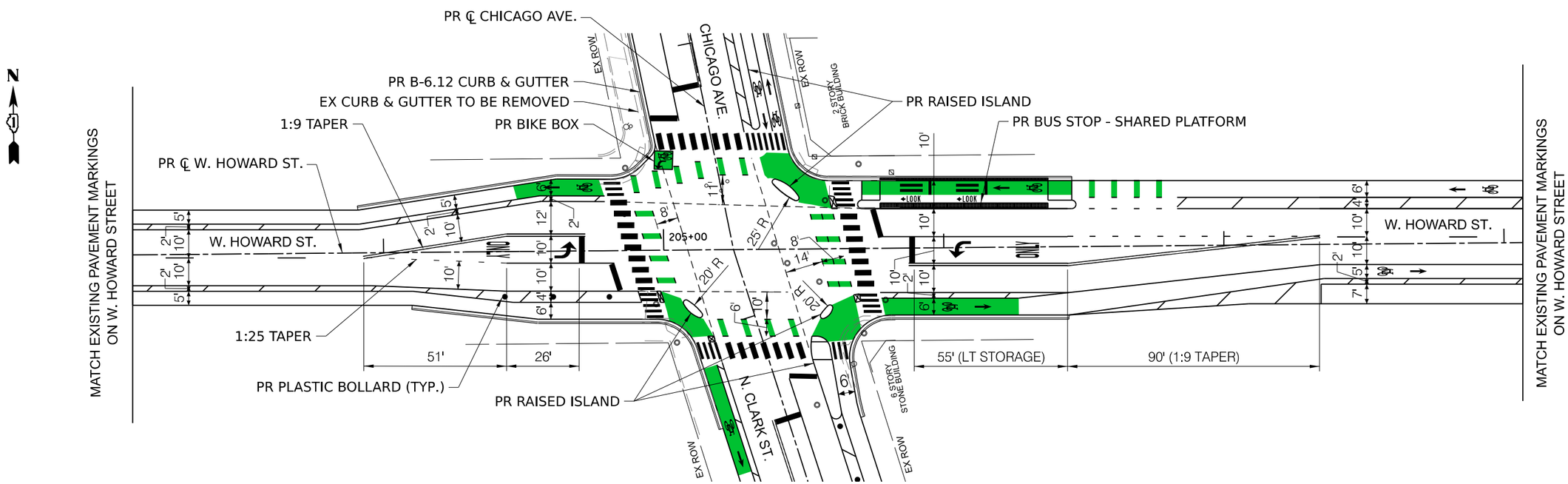
USER NAME = $USER$	DESIGNED - TMG	REVISED - ____
	DRAWN - AE	REVISED - ____
PLOT SCALE = $SCALE$	CHECKED - JRK	REVISED - ____
PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED - ____

CITY OF EVANSTON

CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

SCALE: 1" = 20' | SHEET 21 OF 21 SHEETS | STA. 106+58 | TO STA. 112+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	21
		CONTRACT NO. ___		
		ILLINOIS	FED. AID PROJECT	



PROFILE

NO PROFILE AVAILABLE FOR W. HOWARD STREET

610 608 606 604 602 600

USER NAME = $USER$	DESIGNED - TMG	REVISED - ____	CITY OF EVANSTON
	DRAWN - AE	REVISED - ____	
PLOT SCALE = $SCALE$	CHECKED - JRK	REVISED - ____	
PLOT DATE = $DATE$	DATE - 06/08/2022	REVISED - ____	

CHICAGO AVE. MULTIMODAL CORRIDOR IMPROVEMENT PROJECT
PROPOSED PLAN & PROFILE

SCALE: 1" = 20' | SHEET 21 OF 21 SHEETS | STA. 106+58 | TO STA. 112+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2853	21-00288-00-RS	COOK	22	22
		CONTRACT NO. ___		
		ILLINOIS	FED. AID PROJECT	

MODEL: $MODELNAME$
FILE NAME: $FILE$

TAB 5

CRASH AND CAPACITY ANALYSIS

CORRIDOR IMPROVEMENT STUDY

CHICAGO AVENUE

Howard Street to Davis Street
Cook County, Illinois

Prepared for the City of Evanston

JANUARY 8, 2020

CHRISTOPHER B. BURKE ENGINEERING, LTD
9575 West Higgins Road, Suite 600, Rosemont, IL 60018

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Executive Summary

The City of Evanston is investigating the potential for transportation improvements within the Chicago Avenue corridor. The limits of the current study are from Howard Street to Davis Street, however, no improvements are anticipated at Howard Street. The corridor carries moderate volumes of pedestrian and bicycle traffic in addition to automobile traffic, and is a signed bicycle route within the City.

The Chicago Avenue corridor Improvement Study was initiated in order to address the needs of all the users of the corridor, with emphasis placed on improving safety and mobility for all modes of transportation.

This report describes the existing traffic conditions within the Chicago Avenue study area. The report summarizes the following items:

- Existing vehicle volumes
- Existing crash data along the corridor
- Current intersection traffic operations

Since traffic conditions are not normal due to the current work-from-home options that many industries are allowing for, it is challenging to obtain accurate existing volumes of pedestrian, bicycle, and auto users of the corridor. Therefore, historic data was evaluated and baseline volumes were developed based on growth trends and interpolation to estimate what 2020 conditions would be in the absence of abnormalities associated with the COVID pandemic. It is believed that these estimates are generally sufficient to serve as a starting point for development of potential improvement alternatives within the Chicago Street corridor.

Review and analysis of the existing conditions within the Chicago Avenue corridor have resulted in the following key findings:

- The majority of crashes within the corridor in the 2014-2018 period were rear-end crashes, followed by turning and parked motor vehicles.

- Pedestrian and bicycle crashes account for 11% of all crashes but 63% of all serious injury crashes in the corridor.

- The intersections within the study limits do not present capacity problems for No Build, Conditions 1 and 2, based on Level of Service and v/c ratios.

The conclusion of the traffic and operations analyses for the corridor is as follows:

- CBBEL evaluated the 2020 No Build scenario, as well as 3 additional alternatives. The analysis proved that restricting movements and/or phases did not have detrimental effects on the intersections under No Build and Conditions 1 and 2. Summary tables are provided in the Traffic Operations Analysis section below.

Introduction

The City of Evanston (City) is investigating potential transportation improvements within the Chicago Avenue Corridor from the southern city limit north of Howard Street to Davis Street. Chicago Avenue is a north-south oriented arterial corridor that runs adjacent to residential, commercial, and institutional land uses within the study area. An aerial photograph illustrating the corridor and items of interest is shown on **Exhibit 1**. The corridor carries traffic of all modes, including pedestrian and bicycle traffic in addition to automobile and bus traffic. When the City updated the *Evanston Bike Plan* in 2014, Chicago Avenue was identified as a corridor meriting further analysis for bicycle infrastructure improvements.

The City has initiated this study along the Chicago Avenue Corridor in order to address the needs of all the users of the corridor.

This report describes the existing traffic conditions within the Chicago Avenue corridor study area. The report summarizes existing vehicle volumes. Intersection traffic operations, and existing crash data are presented and proposed improvements are evaluated.

Existing Conditions

Roadway Characteristics

See **Exhibit 1** for existing conditions along the corridor. Chicago Avenue is a minor arterial street that is oriented in a north-south direction within the study area. Generally, the lane widths on Chicago Avenue vary between 11 foot to 12 foot in the project limits. On street parking is provided in the mid-block segments throughout the project limits. Parking is generally restricted at the intersection approaches. Left turn lanes are provided on Chicago Avenue at Davis Street, Dempster Street, Greenleaf Street, Main Street and South Boulevard.

Land uses within the corridor are predominantly commercial, retail and restaurants. There is medium density residential near South Boulevard.

Traffic Data

The COVID-19 pandemic has limited the ability to collect accurate existing traffic data in 2020. CBBEL relied on several sources of historic traffic count data in order to determine a baseline traffic condition which have been summarized in **Table 1**.

Using the 2010 turning movement count (TMC) data along with the 2010 projected traffic data that CBBEL developed, the base traffic volumes were projected to 2020 volumes using an average yearly traffic growth rate of 0.5%. CBBEL utilized the percentage of turning traffic from the 2018 counts at Davis Street and the 2014/15 counts at Grove Street and applied those percentages to the 2020 projected northbound/southbound volumes along Chicago Avenue to calculate and balance the projected 2020

volumes at Davis and at Grove Street. The daily traffic volume estimates were finalized as shown in **Exhibit 2**. The historical count data is illustrated in **Exhibit 3**. The 2020 post-COVID count data are illustrated in **Exhibit 4**.

The average daily traffic (ADT) volumes along the Chicago Avenue Corridor are estimated to range between 10,250 and 14,500 veh/day, which is within the capacity of a typical two-lane roadway (usually 15,000-18,000 veh/day).

Table 1.
Summary of Record Traffic Count Data Sources

Location	Mode(s)	Type	Date(s)
South Boulevard	Cars, Trucks	Peak Period TMC – CBBEL	November 2010
	Cars, Trucks, Bikes, Pedestrians	Peak Period TMC – CBBEL	October 2020 – Post Covid-19
Kedzie Street	Cars, Trucks	Peak Period TMC – CBBEL	November 2010
Main Street	Cars, Trucks	Peak Period TMC – CBBEL	November 2010
	Cars, Trucks, Bikes, Pedestrians	Peak Period TMC – Patrick Count location at Main & Custer	December 2018 – Patrick – Can only be used to determine volumes on west approach at Main & Chicago
Between Greenleaf St & Main St	Vehicles	ADT – Post Covid-19 – CBBEL	November 2020 – Post Covid-19
Greenleaf Street	Cars, Trucks	Peak Period TMC – CBBEL	November 2010
Dempster Street	Cars, Trucks	Peak Period TMC – CBBEL	November 2010
Greenwood Street	Vehicles	2010 Projections – CBBEL	N/A
Lake Street	Vehicles	2010 Projections – CBBEL	N/A
	Cars, Trucks, Bikes, Pedestrians	Peak Period TMC – CBBEL – Post Covid-19	October 2020 – Post Covid-19
Grove Street	Vehicles	2010 Projections – CBBEL	N/A
	Cars, Trucks, Bikes, Pedestrians	Peak Period TMC – 1-hour peak counts City of Evanston	June 2014 - PM January 2015 - AM
Davis Street	Cars, Trucks, Pedestrians	Peak Period TMC Gewalt Hamilton	November 2018

Transit Data

Currently, the Pace Bus service (Pace) operates one bus route within the Chicago Avenue corridor, with characteristics as shown in **Table 2**.

Table 2.
Transit Routes and Characteristics

Pace Bus Route	Routing	Daily Buses	Designated Stops
213	Howard Street to Highland Park Metra	38 Northbound 39 Southbound	South, Main, Kedzie, Greenleaf, Hamilton, Dempster, Lake

Route 213 runs both northbound and southbound on Chicago Avenue throughout the day. The designated stops for Route 213 are marked with signage.

Intersection Traffic Control

The existing traffic control at intersections within the corridor are summarized in **Table 3**. There are nine signalized intersections and five unsignalized intersections within the corridor, as well as numerous commercial and residential driveways.

Table 3.
Summary of Intersection Traffic Control Types

Intersection	Type of Traffic Control	Notes
South Boulevard	Traffic Signal	T-type intersection w/ LT lane on Chicago Ave
Keeney Street	Unsignalized	T-type intersection
Madison Street	Unsignalized	T-type intersection
Kedzie Street	Traffic Signal	T-type intersection
Washington Street	Unsignalized	T-type intersection
Main Street	Traffic Signal	LT lanes N/S, RT lane SB
Lee Street	Unsignalized	T-type intersection
Greenleaf Street	Traffic Signal	LT lanes N/S
Hamilton Street	Unsignalized	
Dempster Street	Traffic Signal	LT lanes N/S, RT lane SB
Greenwood Street	Traffic Signal	
Lake Street	Traffic Signal	
Grove Street	Traffic Signal	
Davis Street	Traffic Signal	LT lanes N/S

Existing Crash Data

The crash data was obtained from the Illinois Department of Transportation. The 5-year study period, from 2014 to 2018, includes a total of 287 crashes within the study area. Overall, 91 (31.7%) of the crashes were rear end type; 53 (18.5%) were turning type; 43 (15.0%) were parked vehicle type; 24 (8.4%) were angle type; 30 (10.5%) were sideswipe same direction type; 22 (7.7%) were bicyclist type; 10 (3.5%) were pedestrian type; 9 (3.1%) were fixed object type; and five (5) (1.6%) were of other types.

Crashes are summarized by crash type in **Table 4** and by severity in **Table 5**. Graphical representations of the crash data are provided in **Exhibit 5, 6 and 7. Exhibit 5** is a map showing locations of all crashes by mode within the corridor. **Exhibit 6** shows the fatal and severe injury crash locations by mode. **Exhibit 7** shows all injury crashes by mode within the corridor. A summary of all crash data within the project area is included in the Crash Summary Tables of **Appendix A**.

There were 8 A-injury (incapacitating) crashes, 23 B-injury (non-incapacitating) crashes, 36 C-injury (reported but not evident) crashes, and 220 PDO (property damage only) crashes reported.

Table 4.

Crashes by Type, 2014 - 2018

Year	Crash Type												
	Rear End	Angle	SSSD	SSOD	Turning	Fixed Object	Over-turned	Head On	Ped	Other Object	Bike	Parked Motor Vehicle	Total
2014	26	3	4	0	8	0	0	0	1	1	9	11	63
2015	20	7	9	0	13	3	0	0	4	0	5	10	71
2016	16	8	7	0	15	2	0	0	2	1	1	13	65
2017	18	5	5	0	7	3	1	0	0	0	4	4	47
2018	11	1	5	1	10	1	0	1	3	0	3	5	41
Total	**91**	**24**	**30**	**1**	**53**	**9**	**1**	**1**	**10**	**2**	**22**	**43**	**287**

Table 5.

Crashes by Severity, 2014 - 2018

Year	Crash Severity					
	Injury Crashes				Property Damage Only (PDO)	Total
	Fatal (K)	A-Injury	B-Injury	C-injury		
2014	0	2	10	7	44	63
2015	0	0	7	14	50	71
2016	0	0	0	8	57	65
2017	0	4	3	2	38	47
2018	0	2	3	5	31	41
Total	**0**	**8**	**23**	**36**	**220**	**287**

DISCLAIMER: *The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s). Additionally, for coding years 2015 to present, the Bureau of Data Collection uses the exact latitude/longitude supplied by the investigating law enforcement agency to locate crashes. Therefore, location data may vary in previous years since data prior to 2015 was physically located by bureau personnel.*

Out of the 287 total crashes, 139 (48%) occurred at signalized intersections and 148 (52%) occurred along midblock segments.

For both signalized intersections and midblock sections, approximately a third of the crashes were rear end type. Out of the 91 total rear end crashes, 52 (57%) occurred at signalized intersections and 39 (43%) occurred along midblock sections. The rear end crashes can be contributed to minor congestion.

The next highest crash type for signalized intersections was the turning type (24%). Out of the 53 total turning crashes, 33 (62%) occurred at signalized intersections and 20 (38%) occurred along midblock sections. The highest number of turning crashes within the study limits occurred at the signalized intersection of Chicago Avenue and South Boulevard, with 13 total turning crashes, possibly due to sight distance restriction from the railroad viaduct over the west leg. Out of the signalized intersections within the study limits, Chicago Avenue and South Boulevard also had the highest concentration of total crashes.

The next highest crash type for midblock segments was the parked motor vehicle type (24%). Out of the 43 total parked motor vehicle crashes, 8 (19%) occurred at signalized intersections and 35 (81%) occurred along midblock sections. Although there were parked motor vehicle crashes throughout the study limits, the highest concentration of this type of crash occurred between Kedzie Street and South Boulevard. Between Kedzie Street and South Boulevard, there were nine (9) parked motor vehicle crashes, including one (1) A-injury.

Pedestrian/bicyclist crashes account for 63% of all serious injury (A-injury) crashes in the corridor even though they only account for 11% of all crashes. Out of the 32 pedestrian/bicyclist crashes, 20 (62.5%) occurred at signalized intersections and 12 (37.5%) occurred along midblock sections. A cluster of five (5) bicyclist crashes including three (3) B-injury crashes were noted at South Boulevard during the study period. Again, this may be due to sight distance restrictions with the railroad viaduct across the west leg. Otherwise, the pedestrian and bicyclist crashes are distributed along the entire corridor.

Traffic Operations Analysis

Methodology

A traffic analysis was performed for the signalized intersections along Chicago Avenue from Davis Street to South Boulevard to evaluate exiting traffic operations at the intersections. The analysis was performed using 2020 projected traffic volumes.

Traffic analysis was performed using the methodologies in the Transportation Research Board's (TRB) *Highway Capacity Manual* (HCM) as implemented in the Synchro (version 10) capacity analysis software package. This is one of the industry-standard methods for evaluating arterial traffic and signal operations.

The ability of an intersection to accommodate traffic flow is expressed in terms of Level-of-Service (LOS), which is assigned a letter grade from A to F based on the average control delay experienced by vehicles passing through the intersection. Control delay is that portion of the total delay attributed to the traffic signal or stop sign control operation, and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Level-of-Service A is the highest grade (best traffic flow and least delay), Level-of-Service E represents saturated or at-capacity conditions, and Level-of-Service F is the lowest grade (oversaturated conditions, extensive delays). The Highway Capacity Manual definitions for Levels-of-Service and the corresponding control delay for signalized intersections are shown in **Table 6**. In the Chicago area, LOS "D" is typically considered to be the lowest acceptable LOS at a signalized intersection.

Table 6
Level-of-Service Criteria

Level of Service	Description	Avg. Control
A	Very good progression. Most vehicles arrive on green and proceed without stopping.	≤ 10
B	Good progression. Increased number of vehicles stopping.	> 10 – 20
C	At times, one or more vehicles may have to wait more than one signal cycle (cycle failure). Significant number of vehicles stopping, although many still pass through without stopping.	> 20 – 35
D	Volumes approaching capacity and either progression is not effective or cycle length is too long. Many vehicles stop and cycle failures are noticeable.	> 35 – 55
E	Poor Progression. High v/c ratio and long cycle length. Frequent cycle failures.	> 55 – 80
F	Very poor progression. Very high v/c ratio and long cycle lengths. Most signal cycles fail to clear vehicle queues.	≥ 80 or v/c ≥ 1.0

Source: Adapted from 2010 *Highway Capacity Manual.*

Capacity Analysis

The capacity analyses results are summarized in **Table 7** for 2020 No Build traffic conditions along with 2020 Proposed traffic conditions. The 2020 No Build condition consist of 2020 projected traffic volumes along with existing roadway characteristics. In Table 7 below, 'Proposed Condition 1' includes results for eliminating the northbound left turn lane, southbound left turn lane, and southbound right turn lane at Dempster Street, eliminating the southbound right turn lane at Main Street, and eliminating the northbound and southbound left turn lanes at South Boulevard. 'Proposed Condition 2' includes results for eliminating the northbound and southbound right turn lanes at Dempster Street, eliminating the southbound right turn lane at Main Street, eliminating the northbound and southbound left turn lanes at South Boulevard, and modifying the east approach geometry to a shared thru/left lane and an exclusive right turn lane at South Boulevard. 'Proposed Condition 3' includes results for eliminating the northbound left turn lane, southbound left turn lane, and southbound right turn lane at Dempster Street, eliminating the southbound right turn lane at Main Street, and eliminating the northbound and southbound left turn lanes at South Boulevard, and revised east approach geometry at South Boulevard. Under 'Proposed Condition 3' both Dempster Street and South Boulevard operate with split phasing for northbound and southbound. Split phasing involves northbound and southbound traffic operating during separate, protected phases rather than northbound and southbound traffic running concurrently. Summary reports from the Synchro analyses are provided in **Appendix B**.

Chicago Avenue and Dempster Street

Chicago Avenue and Dempster Street has protected-permitted left turns in the northbound and southbound directions and an exclusive southbound right turn lane under the No Build condition. In Proposed Condition 1, the northbound and southbound left turn lanes are removed, and the left turn movement is allowed from the shared lane. This increases delay for those movements and leads to longer queues due to left turning vehicles being blocked by opposing traffic. In Proposed Condition 2, northbound and southbound left turn lanes remain present while the northbound and southbound right turn lanes are removed. These changes perform well under the proposed conditions. In Proposed Condition 3, northbound and southbound left turns are allowed from the shared lane with the intersection operating with split phasing. Under these conditions, delay is significantly increased since northbound and southbound receive approximately half of the green time when compared to standard phasing. Increasing

the cycle length with split phasing to allow more green time reduced delay but significantly increased queue lengths.

Chicago Avenue and Main Street

Chicago Avenue and Main Street has an exclusive southbound right turn lane under the No Build condition. In all proposed conditions, the exclusive southbound right turn lane is removed and vehicles are allowed to make the southbound right turn movement from a shared thru/right turn lane. This change has minimal impact on traffic in the AM peak hour and increases delay by approximately 9 seconds in the PM peak hour.

Chicago Avenue and South Boulevard

Chicago Avenue and South Boulevard has exclusive left turn lanes for northbound and southbound movements along with a protected-permitted left turn in the southbound direction under the No Build condition. In Proposed Condition 1, the northbound and southbound left turn lanes are removed and the left turn movement is allowed from the shared lane. This increases delay for the southbound movement and leads to longer queues due to left turning vehicles being blocked by opposing traffic. In Proposed Condition 2, the northbound and southbound left turn lanes are removed, the east approach geometry is improved to a shared thru/left lane along with an exclusive right turn lane. The exclusive right turn lane will allow for a westbound right turn overlap to run concurrently with the southbound left turn movement. The southbound left turn movement will be given a leading protected left turn arrow. This phasing and geometry combination provide reasonable delay and queue length values. In Proposed Condition 3, northbound and southbound left turns are allowed from the shared lane with the intersection operating with split phasing. Under these conditions, delay is significantly increased since northbound and southbound receive approximately half of the green time when compared to standard phasing. Proposed Condition 3 includes the same east approach improvements as Proposed Condition 2.

Table 7 – Level of Service and Delay

Intersection	Movement	Existing (No Build) Conditions		Proposed Condition 1		Proposed Condition 2		Proposed Condition 3	
		2020 Projected Volumes LOS - Delay		2020 Projected Volumes LOS - Delay		2020 Projected Volumes LOS - Delay		2020 Projected Volumes LOS - Delay	
		AM	PM	AM	PM	AM	PM	AM	PM
Chicago Ave & Davis Street	WB LT/TH/RT	B - 17.6	B - 10.8	B - 19.9	B - 18.7				
	NB LT/TH	B - 13.6	C - 28.5	B - 15.7	B - 10.5				
	SB TH/RT	B - 14.2	C - 27.2	B - 11.5	B - 14.9				
	Intersection	**B - 14.2**	**C - 23.5**	**B - 14.9**	**B - 14.1**				
Chicago Ave & Grove Street	EB LT/TH/RT	B - 11.8	B - 12.7	B - 11.8	B - 11.8				
	WB LT/TH/RT	C - 22.4	D - 38.1	C - 22.4	C - 34.7				
	NB LT/TH/RT	B - 14.7	A - 8.1	B - 10.3	B - 10.3				
	SB LT/TH/RT	A - 3.8	A - 1.3	A - 2.4	A - 4.2				
	Intersection	**B - 12.4**	**B - 11.9**	**A - 9.3**	**B - 12.9**				
Chicago Ave & Lake Street	EB LT/TH/RT	C - 23.7	C - 23.1	C - 23.7	C - 23.1				
	WB LT/TH/RT	C - 23.4	C - 26.7	C - 23.4	C - 26.7				
	NB LT/TH/RT	A - 5.5	A - 4.6	A - 4.2	A - 5.5				
	SB LT/TH/RT	A - 3.0	A - 5.4	A - 3.4	A - 6.4				
	Intersection	**A - 8.6**	**A - 9.5**	**A - 8.0**	**B - 10.3**				
Chicago Ave & Greenwood Street	EB LT/TH	C - 28.4	C - 28.4	C - 28.4	C - 28.4				
	EB RT	A - 9.7	A - 8.1	A - 9.7	A - 8.1				
	WB LT/TH/RT	C - 26.1	C - 26.1	C - 26.1	C - 26.1				
	NB LT	A - 3.5	A - 4.8	A - 4.0	A - 5.9				
	NB TH/RT	A - 9.9	A - 5.3	B - 10.7	A - 5.8				
	SB LT/TH	A - 6.1	A - 8.9	A - 7.3	A - 8.3				
	SB RT	A - 1.7	A - 0.9	A - 2.0	A - 0.5				
	Intersection	**B - 11.5**	**B - 10.4**	**B - 12.2**	**B - 10.3**				
Chicago Ave & Dempster Street	EB LT/TH/RT	C - 24.0	B - 17.0	C - 24.0	B - 15.5	C - 24.0	B - 17.0	C - 26.9	B - 17.0
	WB LT/TH/RT	C - 27.2	C - 32.4	C - 27.2	C - 29.8	C - 27.2	C - 32.4	C - 30.0	C - 32.4
	NB LT	A - 4.1	B - 14.9	B - 18.8	C - 21.4	A - 3.6	C - 24.5	F - 192.0	F - 156.2
	NB TH	A - 9.8	A - 5.4			B - 12.4	A - 5.7		
	NB RT	A - 0.2	A - 0.1	A - 0.4	A - 1.7			A - 2.1	A - 2.7
	SB LT	A - 5.6	A - 7.0	A - 7.6	B - 10.5	A - 5.8	A - 7.0	F - 83.6	F - 182.2
	SB TH	B - 10.8	B - 14.8			A - 9.6	B - 17.5		
	SB RT	A - 0.2	A - 1.1						
	Intersection	**B - 13.5**	**B - 14.1**	**B - 17.5**	**B - 16.3**	**B - 14.6**	**B - 16.3**	**F - 114.4**	**F - 125.7**
Chicago Ave & Greenleaf Street	EB LT/TH/RT	B - 16.1	B - 18.1	B - 16.1	B - 18.1				
	WB LT/TH/RT	B - 20.0	B - 19.7	B - 20.0	B - 19.7				
	NB LT	A - 3.5	B - 15.0	A - 2.7	A - 7.2				
	NB TH	B - 18.9	C - 27.5	B - 15.6	B - 16.0				
	NB RT	A - 1.1	A - 1.0	A - 0.8	A - 1.0				
	SB LT	A - 5.5	A - 4.4	A - 6.9	A - 4.1				
	SB TH	B - 17.7	C - 24.0	B - 17.6	B - 17.1				
	SB RT	A - 3.8	A - 2.1	A - 1.9	A - 0.7				
	Intersection	**B - 17.1**	**C - 22.6**	**B - 15.5**	**B - 16.1**				
Chicago Ave & Main Street	EB LT/TH/RT	D - 34.5	D - 45.2	C - 34.5	D - 45.2				
	WB LT/TH/RT	C - 25.0	C - 22.1	C - 25.0	C - 22.1				
	NB LT	A - 9.9	B - 19.1	A - 8.2	C - 23.9				
	NB TH/RT	B - 12.8	B - 14.0	A - 9.4	B - 14.0				
	SB LT	A - 6.3	B - 14.5	A - 5.1	A - 6.5				
	SB TH	B - 13.4	C - 28.6	B - 13.1	C - 29.7				
	SB RT	A - 8.8	A - 6.3						
	Intersection	**B - 17.8**	**C - 26.4**	**B - 16.3**	**C - 27.4**				
Chicago Ave & Kedzie Street	WB LT\RT	B - 15.7	B - 18.6	B - 15.7	B - 18.6				
	NB TH	A - 8.4	A - 6.7	B - 14.4	B - 12.9				
	NB RT	A - 3.4	A - 3.1	A - 5.6	A - 5.5				
	SB LT	A - 5.5	A - 3.9	A - 5.6	A - 3.9				
	SB TH	A - 6.6	A - 8.6	A - 6.7	A - 8.8				
	Intersection	**A - 8.1**	**A - 8.3**	**B - 11.3**	**B - 10.7**				
Chicago Ave & South Boulevard	EB LT	C - 33.5	C - 33.0	C - 29.6	D - 52.7	C - 30.4	C - 31.9	C - 31.7	D - 39.5
	EB TH/RT	C - 23.2	C - 24.0	C - 22.0	C - 28.5	C - 30.7	C - 28.6	C - 31.9	C - 32.6
	WB LT	B - 19.8	C - 25.9	B - 18.4	C - 31.8	C - 34.3	D - 51.4	D - 35.5	F - 92.0
	WB TH	D - 38.1	C - 31.6	C - 34.4	D - 43.2				
	WB RT					A - 6.5	A - 7.8	A - 6.8	A - 4.1
	NB LT	B - 17.6	B - 18.8	B - 15.9	A - 9.7	B - 15.9	B - 15.6	D - 41.7	E - 77.0
	NB TH/RT	C - 24.1	C - 20.5						
	SB LT	A - 5.9	A - 7.0	B - 14.6	C - 28.3	A - 5.3	B - 20.0	E - 71.6	F - 122.9
	SB TH/RT	A - 2.4	A - 7.4						
	Intersection	**C - 22.3**	**B - 18.3**	**C - 21.6**	**C - 28.4**	**B - 16.4**	**C - 23.7**	**D - 42.4**	**F - 84.5**

Queuing Analysis

An additional measure of intersection performance is queue length. Long queues can indicate inefficient traffic signal operation or lack of capacity to process the demand on the intersection approach. **Table 8** summarizes the 95th percentile queue lengths obtained from the Synchro analysis for the signalized intersections within the corridor.

As indicated in Table 8, removing left turn lanes has a significant impact on queue lengths if left turns are permitted from a shared lane. This is due to left turning vehicles blocking thru vehicles from traveling thru the intersection. Running split phasing at intersections increases queue lengths due to longer red time intervals.

Table 8 – Queue Length Table

Intersection	Movement	Existing (No Build) Conditions		Proposed Condition 1		Proposed Condition 2		Proposed Condition 3	
		2020 Projected Volumes Queue Length		2020 Projected Volumes Queue Length		2020 Projected Volumes Queue Length		2020 Projected Volumes Queue Length	
		AM	PM	AM	PM	AM	PM	AM	PM
Chicago Ave & Davis Street	WB LT/TH/RT	47 ft	64 ft	47 ft	74 ft				
	NB LT/TH	50 ft	106 ft	105 ft	52 ft				
	SB TH/RT	84 ft	183 ft	84 ft	156 ft				
Chicago Ave & Grove Street	EB LT/TH/RT	34 ft	58 ft	34 ft	53 ft				
	WB LT/TH/RT	64 ft	242 ft	64 ft	219 ft				
	NB LT/TH/RT	192 ft	137 ft	175 ft	164 ft				
	SB LT/TH/RT	28 ft	14 ft	13 ft	35 ft				
Chicago Ave & Lake Street	EB LT/TH/RT	114 ft	128 ft	114 ft	128 ft				
	WB LT/TH/RT	119 ft	137 ft	119 ft	137 ft				
	NB LT/TH/RT	124 ft	64 ft	75 ft	60 ft				
	SB LT/TH/RT	34 ft	83 ft	21 ft	81 ft				
Chicago Ave & Greenwood Street	EB LT/TH	92 ft	92 ft	92 ft	92 ft				
	EB RT	25 ft	34 ft	25 ft	34 ft				
	WB LT/TH/RT	129 ft	129 ft	129 ft	129 ft				
	NB LT	6 ft	13 ft	7 ft	18 ft				
	NB TH/RT	91 ft	73 ft	194 ft	144 ft				
	SB LT/TH	87 ft	294 ft	123 ft	161 ft				
	SB RT	5 ft	3 ft	7 ft	1 ft				
Chicago Ave & Dempster Street	EB LT/TH/RT	110 ft	91 ft	110 ft	87 ft	110 ft	91 ft	116 ft	91 ft
	WB LT/TH/RT	146 ft	165 ft	146 ft	159 ft	146 ft	165 ft	152 ft	165 ft
	NB LT	22 ft	36 ft	658 ft	443 ft	11 ft	63 ft	901 ft	627 ft
	NB TH	89 ft	47 ft			233 ft	48 ft		
	NB RT	1 ft	0 ft	1 ft	5 ft			0 ft	5 ft
	SB LT	13 ft	15 ft	93 ft	148 ft	14 ft	15 ft	443 ft	856 ft
	SB TH	124 ft	227 ft			119 ft	250 ft		
	SB RT	0 ft	2 ft						
Chicago Ave & Greenleaf Street	EB LT/TH/RT	57 ft	75 ft	57 ft	75 ft				
	WB LT/TH/RT	44 ft	48 ft	44 ft	48 ft				
	NB LT	8	53 ft	4 ft	34 ft				
	NB TH	652 ft	445 ft	652 ft	400 ft				
	NB RT	4 ft	1 ft	3 ft	1 ft				
	SB LT	5 ft	9 ft	3 ft	6 ft				
	SB TH	304 ft	601 ft	291 ft	579 ft				
	SB RT	10 ft	2 ft	2 ft	0 ft				
Chicago Ave & Main Street	EB LT/TH/RT	232 ft	374 ft	232 ft	374 ft				
	WB LT/TH/RT	137 ft	120 ft	137 ft	120 ft				
	NB LT	35 ft	64 ft	28 ft	67 ft				
	NB TH/RT	156 ft	114 ft	115 ft	114 ft				
	SB LT	9 ft	28 ft	7 ft	11 ft				
	SB TH	321 ft	607 ft	329 ft	693 ft				
	SB RT	23 ft	9 ft						
Chicago Ave & Kedzie Street	WB LT\RT	70 ft	71 ft	70 ft	71 ft				
	NB TH	116 ft	90 ft	303 ft	333 ft				
	NB RT	9 ft	8 ft	21 ft	15 ft				
	SB LT	10 ft	5 ft	9 ft	5 ft				
	SB TH	94 ft	118 ft	105 ft	110 ft				
Chicago Ave & South Boulevard	EB LT	53 ft	61 ft	49 ft	90 ft	50 ft	66 ft	52 ft	72 ft
	EB TH/RT	131 ft	131 ft	123 ft	159 ft	150 ft	159 ft	157 ft	171 ft
	WB LT	24 ft	70 ft	22 ft	85 ft	182 ft	277 ft	191 ft	325 ft
	WB TH	326 ft	238 ft	297 ft	330 ft				
	WB RT					58 ft	62 ft	72 ft	46 ft
	NB LT	37 ft	41 ft	312 ft	165 ft	302 ft	219 ft	466 ft	418 ft
	NB TH/RT	345 ft	253 ft						
	SB LT	22 ft	41 ft	373 ft	696 ft	33 ft	411 ft	430 ft	774 ft
	SB TH/RT	24 ft	198 ft						

Exhibits

City of Evanston

Chicago Avenue Corridor Improvement Study

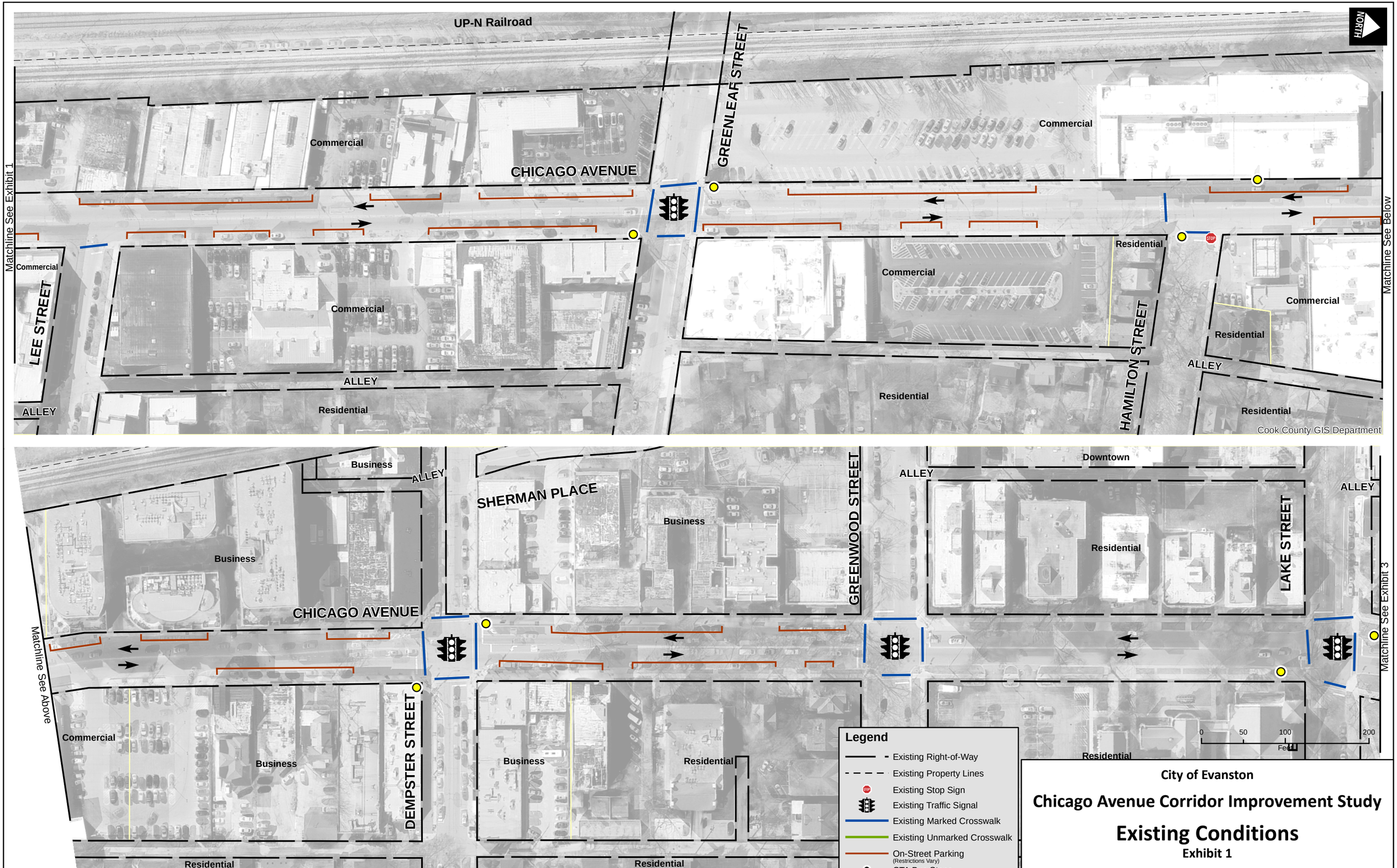
Existing Conditions

Exhibit 1

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

Thursday, December 17, 2020

Path: N:\EVANSTON\200443\GIS\Exhibits\Existing Conditions 1.mxd



City of Evanston

Chicago Avenue Corridor Improvement Study

Existing Conditions

Exhibit 1

CHRISTOPHER B. BURKE ENGINEERING, LTD.
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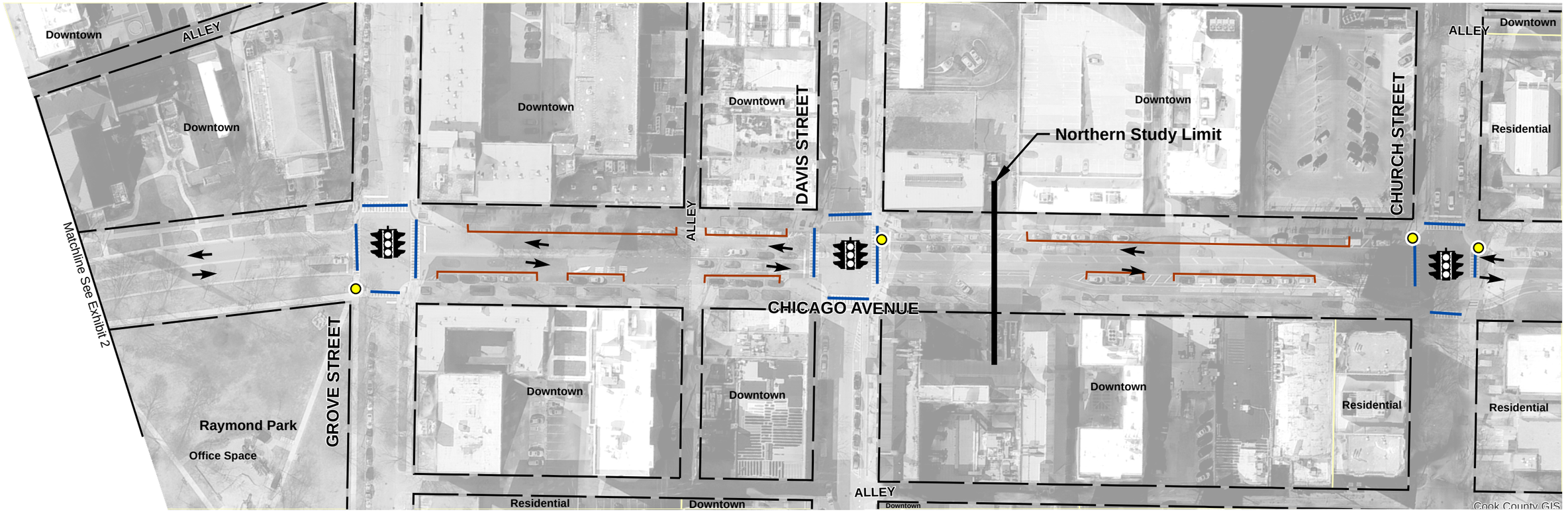

Legend

- Existing Right-of-Way
- Existing Property Lines
- Existing Stop Sign
- Existing Traffic Signal
- Existing Marked Crosswalk
- Existing Unmarked Crosswalk
- On-Street Parking (Restrictions Vary)
- CTA Bus Stops
- Vehicle Through Lane

0 50 100 200
Feet

City of Evanston

Chicago Avenue Corridor Improvement Study

Existing Conditions

Exhibit 1

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

Thursday, December 17, 2020

Path: N:\EVANSTON\200443\GIS\Exhibits\Existing Conditions 3.mxd

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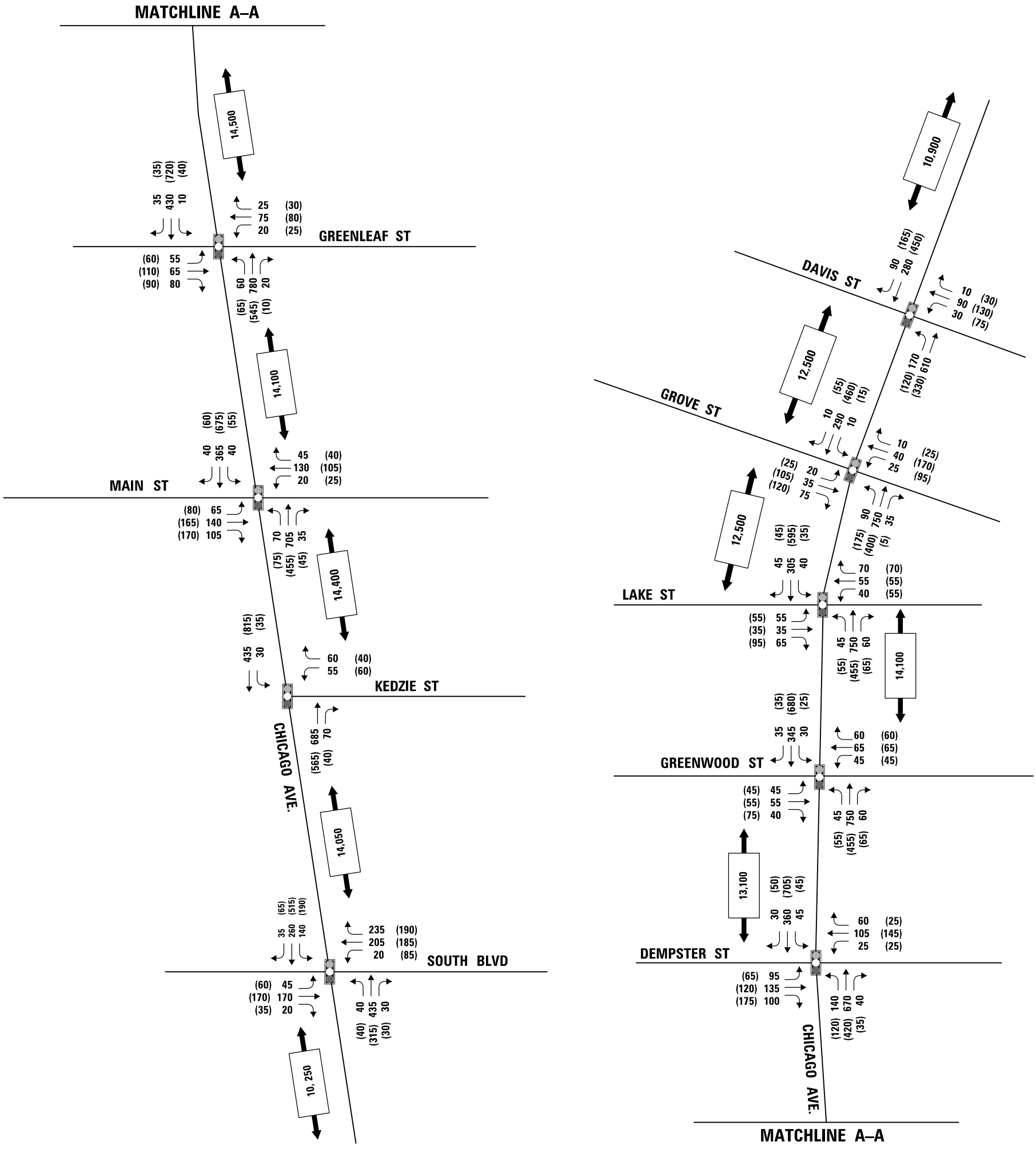

LEGEND:

XX (XX) = A.M. (P.M.) PEAK–HOUR VOLUMES

XX = ADT TOTAL

CHRISTOPHER B. BURKE
ENGINEERING, LTD.
9575 West Higgins Road
Suite 600, Rosemont, Illinois 60018
(847) 823-0500

2020 PROJECTED TRAFFIC VOLUMES

CHICAGO AVE (HOWARD ST TO DAVIS ST)
CITY OF EVANSTON

CALC.	
DWN.	PJA
CHKD.	FN
SCALE:	NTS
DATE:	1/5/2021

PROJECT NO. 200443

SHEET 1 OF 1

DRAWING NO. **EXHIBIT 2**

N:\EVANSTON\200443\Traffic\Exhibits\2020-Projected VOL_CMAP.dgn

N.T.S.

MATCHLINE A–A

13,800 (2010–CBBEL)

2,750 (2010–CBBEL)

35 (35) 405 (685) 10 (35)

25 (25) 70 (75) 20 (25)

GREENLEAF ST (CBBEL – 2010)

(60) 50 (105) 65 (85) 70

(60) 60 (515) 745 (10) 20

4,200 (2010–CBBEL)

13,400 (2010–CBBEL)

290 (315) DHV PATRICK, DEC 2018

35 (60) 350 (645) 35 (50)

4,050 (2010–CBBEL)

40 (40) 125 (100) 20 (20)

MAIN ST

6,200 (2010–CBBEL)

(75) 60 (155) 130 (160) 95

65 (70) 670 (430) 30 (40)

370 (400) DHV PATRICK, DEC 2018

13,700 (2010–CBBEL)

410 (775) 25 (30)

55 (35) 50 (60)

KEDZIE ST (CBBEL – 2010)

650 (535) 65 (35)

CHICAGO AVE.

1,600 (2010–CBBEL)

13,350 (2010–CBBEL)

5,300 (2010–CBBEL)

35 (60) 245 (490) 135 (180)

225 (180) 195 (175) 20 (80)

8,100 (2010–CBBEL)

SOUTH BLVD (CBBEL – 2010)

(55) 45 (165) 165 (35) 20

35 (40) 415 (300) 30 (30)

9,750 (2010–CBBEL)

ONE WAY

10,350 2010–ESTIMATED CBBEL

DAVIS ST (GHA 2018)

(160) (445)

85 215

10 (30) 90 (130) 20 (75)

4,100 2010–ESTIMATED CBBEL

11,900 2010–ESTIMATED CBBEL

GROVE ST (EVANSTON – 2014/2015)

(120) 165 (325) 375

2,000 2010–ESTIMATED CBBEL

(55) (265) (15)

10 175 5

3,200 2010–ESTIMATED CBBEL

10 (25) 35 (165) 5 (50)

(25) 20 (100) 35 (70) 40

11,900 2010–ESTIMATED CBBEL

55 (100) 485 (165) 15 (5)

2,950 2010–ESTIMATED CBBEL

(45) (565) (35)

45 290 35

65 (65) 50 (50) 40 (50)

LAKE ST (CBBEL – ESTIMATED 2010)

3,200 2010–ESTIMATED CBBEL

(50) 50 (35) 35 (90) 60

45 715 55 (50) (430) (60)

13,400 2010–ESTIMATED CBBEL

2,950 2010–ESTIMATED CBBEL

(35) (645) (25)

35 330 25

55 (55) 60 (60) 45 (45)

GREENWOOD ST (CBBEL – 2010)

3,200 2010–ESTIMATED CBBEL

(45) 45 (50) 50 (70) 35

45 715 55 (50) (430) (60)

12,450 (2010–CBBEL)

29,500 2010–ESTIMATED CBBEL

3,700 (2010–CBBEL)

6,300 (2010–CBBEL)

(45) (670) (45)

30 340 40

60 (25) 100 (135) 20 (25)

DEMPSTER ST (CBBEL – 2010)

(60) 90 (110) 130 (165) 95

135 (115) 640 (400) 35 (30)

CHICAGO AVE.

MATCHLINE A–A

LEGEND:

XX (XX) = A.M. (P.M.) PEAK–HOUR VOLUMES

XX = ADT TOTAL

CHRISTOPHER B. BURKE
ENGINEERING, LTD.
9575 West Higgins Road
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(847) 823-0500

HISTORICAL TRAFFIC COUNTS

CHICAGO AVE (HOWARD ST TO DAVIS ST)
CITY OF EVANSTON

CALC.	
DWN.	PJA
CHKD.	FN
SCALE:	NTS
DATE:	12/21/2020

PROJECT NO. 200443

SHEET 1 OF 1

DRAWING NO. **EXHIBIT 3**

N:\EVANSTON\200443\Traffic\Exhibits\2010-VOL.dgn

N

N.T.S.

MATCHLINE A–A

GREENLEAF ST

11,590
NOV 2020
FISH

MAIN ST

KEDZIE ST

CHICAGO AVE.

30 (60)
165 (380)
90 (185)

135 (165)
145 (150)
15 (25)

SOUTH BLVD

OCTOBER 2020
FISH

(55) 50
(150) 120
(5) 30

20 280 15
(65) (255) (20)

DAVIS ST

GROVE ST

10 (20)
195 (420)
5 (10)

5 (5)
40 (35)
5 (15)

LAKE ST

OCTOBER 2020
FISH

(15) 10
(55) 45
(70) 45

20 290 10
(20) (330) (5)

GREENWOOD ST

DEMPSTER ST

CHICAGO AVE.

MATCHLINE A–A

LEGEND:

XX [XX] (XX) = A.M. [MID.] (P.M.) PEAK–HOUR VOLUMES

XX = ADT TOTAL

CHRISTOPHER B. BURKE
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(847) 823-0500

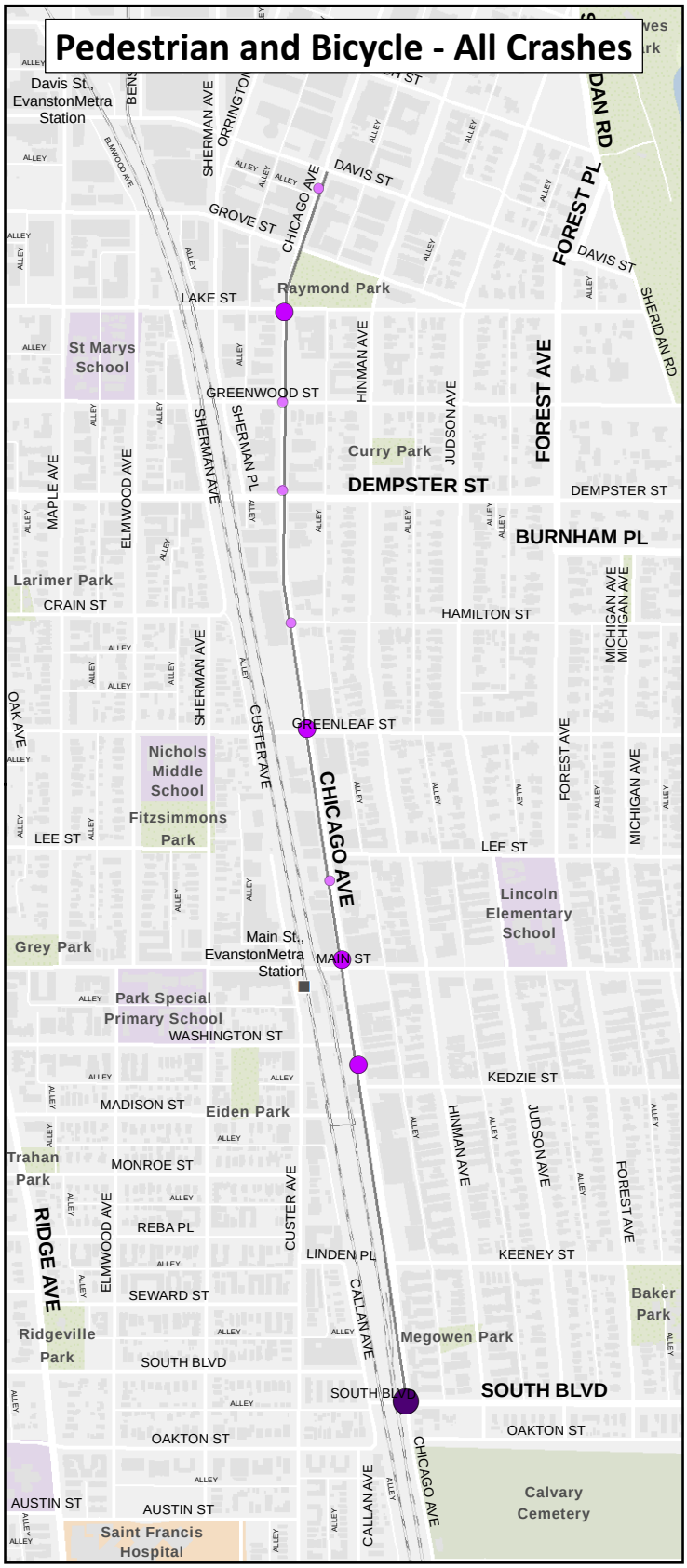
2020 POST COVID TRAFFIC VOLUMES

CHICAGO AVE (HOWARD ST TO DAVIS ST)
CITY OF EVANSTON

CALC.	
DWN.	PJA
CHKD.	FN
SCALE:	NTS
DATE:	12/21/2020

PROJECT NO. 200443
SHEET 1 OF 1
DRAWING NO. **EXHIBIT 4**

N:\EVANSTON\200443\Traffic\Exhibits\2020-Post Covid VOL.dgn



CLIENT: City of Evanston

TITLE:

CHICAGO AVENUE
CHURCH STREET TO HOWARD STREET
TOTAL CRASHES BY MODE 2014-2018

PROJ. NO.	200443
DATE:	01/04/2021
SHEET	1 OF 1
DRAWING NO.	EXH 5

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1:12,000
DWN.	DRW		AUTHOR:	DWALTERS
CHKD.			PLOT DATE:	1/6/2021
FILE:	Total Crashes by Mode 2014-18			

Path: N:\EVANSTON\200443\GIS\Exhibits\Total Crashes by Mode 2014-18.mxd

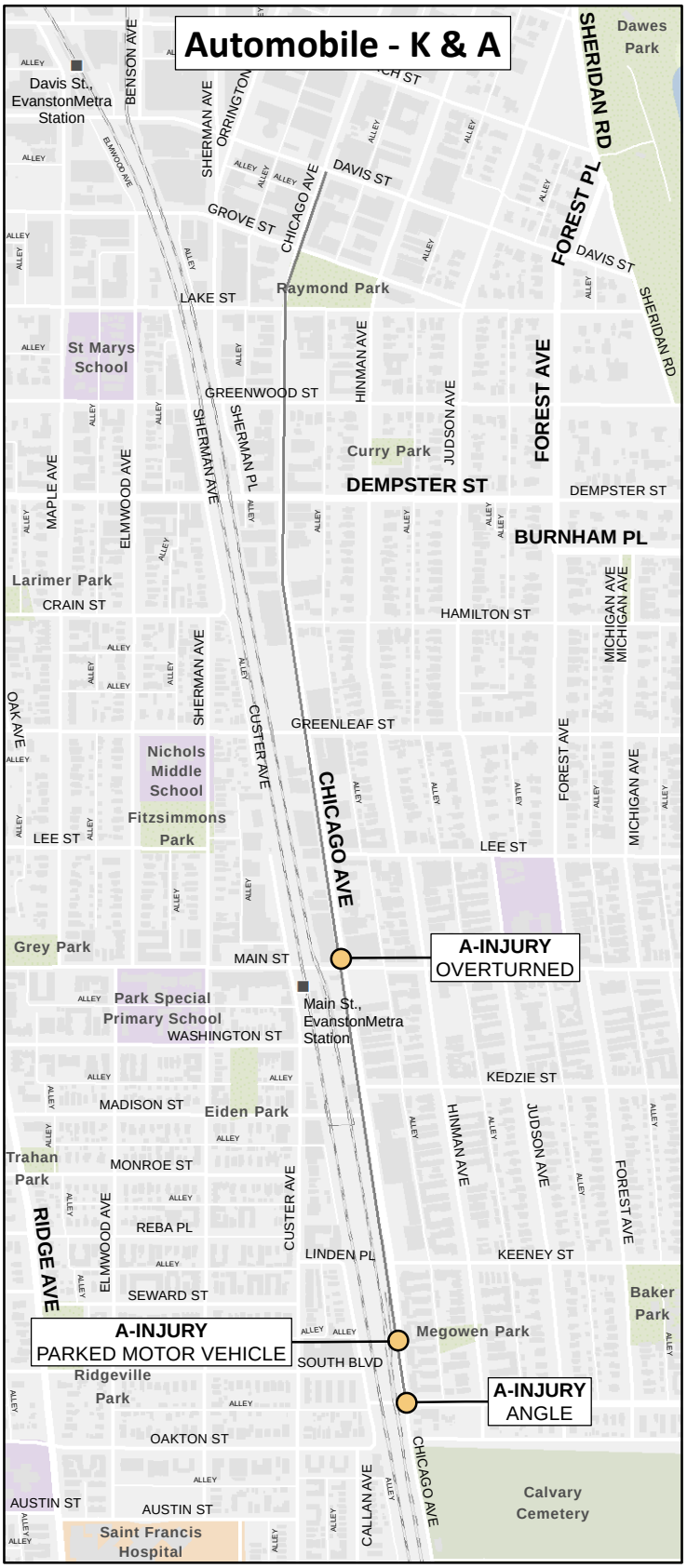
	Fatality	A-Injury
Automobile	✱	○
Pedestrian	✱	○
Bicycle	✱	○

Key to Injury Types

K = Fatality Involved
A = Serious/Incapacitating Injury

NORTH

0 0.25 0.5 Miles



CLIENT: City of Evanston

TITLE:
CHICAGO AVENUE
CHURCH STREET TO HOWARD STREET
FATALITY & SEVERE CRASH LOCATIONS BY MODE 2014-2018

PROJ. NO.	200443
DATE:	01/04/2021
SHEET	1 OF 1
DRAWING NO.	EXH 6

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	
DWN.	DRW		AUTHOR:	DWALTERS
CHKD.			PLOT DATE:	1/5/2021
FILE:	Fatality-Severe Locations by Mode 2014-18			

Path: N:\EVANSTON\200443\GIS\Exhibits\Fatality-Severe Locations by Mode 2014-18.mxd

Density of Injury Crashes

Low Medium High

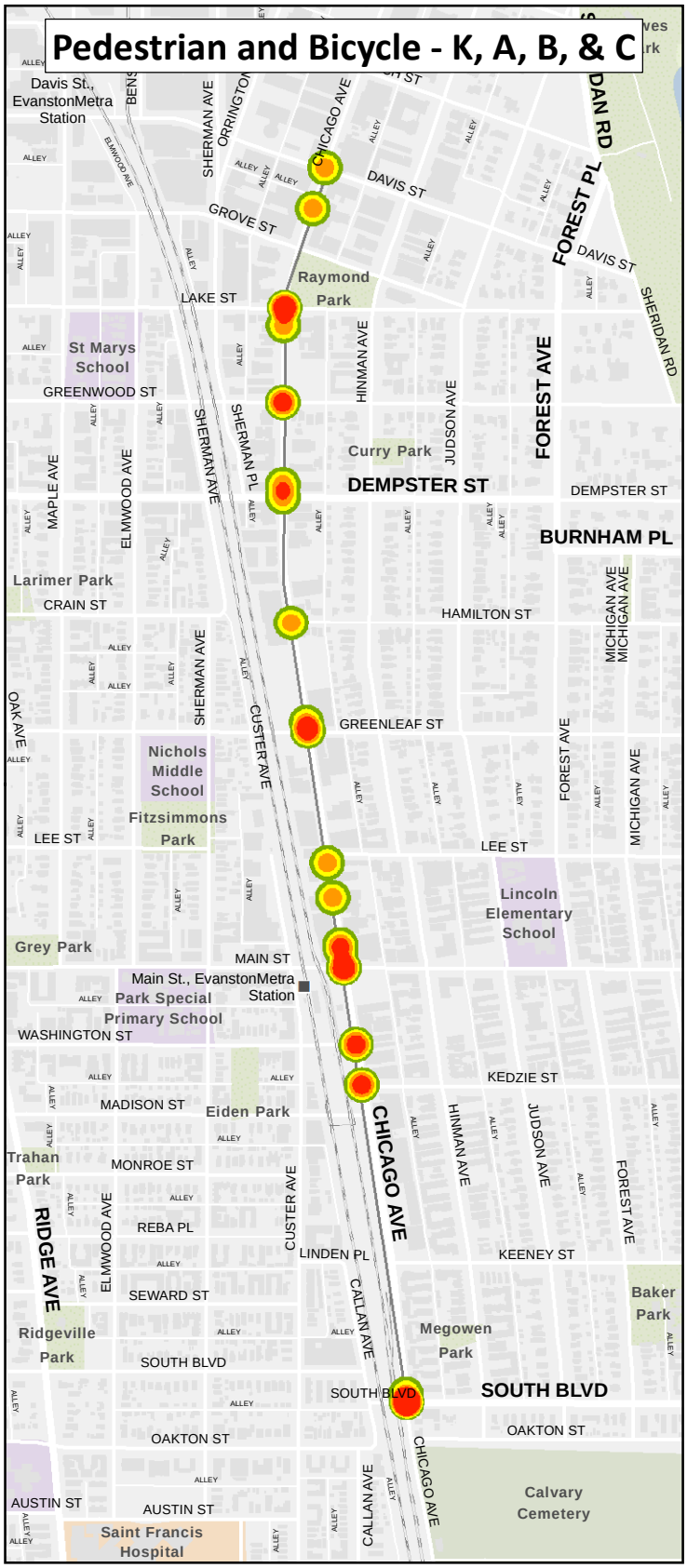
Key to Injury Types

K = Fatality Involved
A = Serious/Incapacitating Injury
B = Minor/Non-Incapacitating Injury
C = Injury Reported but Not Evident

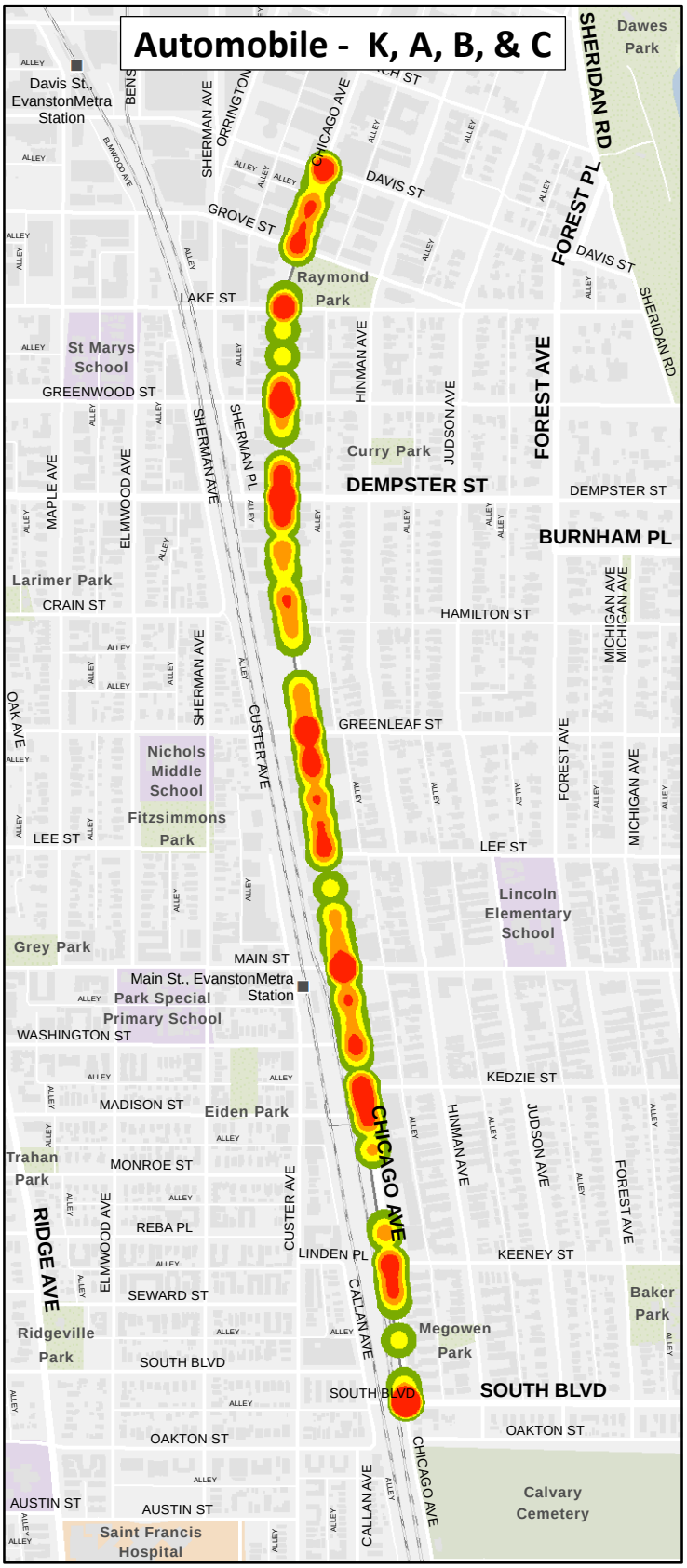
NORTH

0 0.25 0.5 Miles

Pedestrian and Bicycle - K, A, B, & C



Automobile - K, A, B, & C



CLIENT: City of Evanston

TITLE:

CHICAGO AVENUE
CHURCH STREET TO HOWARD STREET
INJURY HOT SPOT ANALYSIS BY MODE 2014-2018

PROJ. NO.	200443
DATE:	01/04/2021
SHEET	1 OF 1
DRAWING NO.	EXH 7

CHRISTOPHER B. BURKE ENGINEERING, LTD.
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DSGN.			SCALE:	1:12,000
DWN.	DRW		AUTHOR:	DWALTERS
CHKD.			PLOT DATE:	1/5/2021
FILE:	Injury Hot Spot by Mode 2014-18			

Path: N:\EVANSTON\200443\GIS\Exhibits\Injury Hot Spot by Mode 2014-18.mxd

Appendix A — Crash Data Summary Table

Project: Chicago Ave (Davis to South) Total

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	26	1 - B 5 - C	3 - BI 5 - CI	3			4						8	1 - B	1 - BI										1	1 - C	1 - CI	1	1 - B	1 - BI	9	1 - A 7 - B 1 - C	1 - AI 7 - BI 1 - CI	11	1 - A	1 - AI	63	2 - AI 12 - BI 7 - CI
2015	20	7 - C	9 - CI	7	2 - C	2 - CI	9						13	3 - C	3 - CI	3									4	3 - B 1 - C	3 - BI 1 - CI				5	4 - B 1 - C	4 - BI 1 - CI	10			71	7 - BI 16 - CI
2016	16	2 - C	2 - CI	8			7						15	3 - C	3 - CI	2									2	2 - C	3 - CI	1			1	1 - C	1 - CI	13			65	9 - CI
2017	18	1 - B 1 - C	1 - BI 1 - CI	5	1 - A 1 - C	1 - AI 1 - CI	5						7			3			1	1 - A	1 - AI									4	2 - A 2 - B	2 - AI 2 - BI	4			47	4 - AI 3 - BI 2 - CI
2018	11	3 - C	4 - CI	1			5			1			10	1 - C	1 - CI	1						1			3	2 - A 1 - B	2 - AI 1 - BI				3	2 - B 1 - C	2 - BI 2 - CI	5			41	2 - AI 3 - BI 7 - CI
TOTAL	**91**	**2 - B 18 - C**	**4 - BI 21 - CI**	**24**	**1 - A 3 - C**	**1 - AI 3 - CI**	**30**			**1**			**53**	**1 - B 7 - C**	**1 - BI 7 - CI**	**9**			**1**	**1 - A**	**1 - AI**	**1**			**10**	**2 - A 4 - B 4 - C**	**2 - AI 4 - BI 5 - CI**	**2**	**1 - B**	**1 - BI**	**22**	**3 - A 15 - B 4 - C**	**3 - AI 15 - BI 5 - CI**	**43**	**1 - A**	**1 - AI**	**287**	**8 - AI 25 - BI 41 - CI**
%	**31.7%**			**8.4%**			**10.5%**			**0.3%**			**18.5%**			**3.1%**			**0.3%**			**0.3%**			**3.5%**			**0.7%**			**7.7%**			**15.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014		2	10	7	44	7	11%	5	8%	16	25%	63
2015			7	14	50	4	6%	6	8%	11	15%	71
2016				8	57	9	14%	1	2%	15	23%	65
2017		4	3	2	38	10	21%	3	6%	11	23%	47
2018		2	3	5	31	9	22%			15	37%	41
TOTAL		**8**	**23**	**36**	**220**	**39**	**13.6%**	**15**	**5.2%**	**68**	**23.7%**	**287**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A: TOTAL CRASHES

Project: Chicago Ave (Davis to South) Total Signalized Intersections

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	14	3 - C	3 - CI	2			2						7	1 - B	1 - BI													1	1 - B	1 - BI	5	4 - B 1 - C	4 - BI 1 - CI				31	6 - BI 4 - CI
2015	7	2 - C	3 - CI	4	1 - C	1 - CI	5						6			2									3	2 - B 1 - C	2 - BI 1 - CI				4	3 - B 1 - C	3 - BI 1 - CI	2			33	5 - BI 6 - CI
2016	7	2 - C	2 - CI	5			3						8			2									1	1 - C	2 - CI	1			1	1 - C	1 - CI	2			30	5 - CI
2017	8			3	1 - A 1 - C	1 - AI 1 - CI	3						5			2			1	1 - A	1 - AI								2	1 - A 1 - B	1 - AI 1 - BI	1			25	3 - AI 1 - BI 1 - CI
2018	3						1						7	1 - C	1 - CI	1						1			2	1 - A 1 - B	1 - AI 1 - BI				2	2 - B	2 - BI	3			20	1 - AI 3 - BI 1 - CI
TOTAL	**39**	**7 - C**	**8 - CI**	**14**	**1 - A 2 - C**	**1 - AI 2 - CI**	**14**						**33**	**1 - B 1 - C**	**1 - BI 1 - CI**	**7**			**1**	**1 - A**	**1 - AI**	**1**			**6**	**1 - A 3 - B 2 - C**	**1 - AI 3 - BI 3 - CI**	**2**	**1 - B**	**1 - BI**	**14**	**1 - A 10 - B 3 - C**	**1 - AI 10 - BI 3 - CI**	**8**			**139**	**4 - AI 15 - BI 17 - CI**
%	**28.1%**			**10.1%**			**10.1%**						**23.7%**			**5.0%**			**0.7%**			**0.7%**			**4.3%**			**1.4%**			**10.1%**			**5.8%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014			6	4	21	3	10%	3	10%	5	16%	31
2015			5	5	23	4	12%	5	15%	7	21%	33
2016				4	26	3	10%	1	3%	10	33%	30
2017		3	1	1	20	7	28%	2	8%	4	16%	25
2018		1	3	1	15	5	25%			6	30%	20
TOTAL		**4**	**15**	**15**	**105**	**22**	**15.8%**	**11**	**7.9%**	**32**	**23.0%**	**139**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-1: TOTAL SIGNALIZED INTERSECTION CRASHES

Project: Chicago Ave at Davis - Signalized Intersection

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	1												1	1 - B	1 - BI																						2	1 - BI
2015																									1	1 - B	1 - BI							1			2	1 - BI
2016	1						1						1																								3	
2017	1																																				1	
2018													1																								1	
TOTAL	**3**						**1**						**3**	**1 - B**	**1 - BI**										**1**	**1 - B**	**1 - BI**							**1**			**9**	**2 - BI**
%	**33.3%**						**11.1%**						**33.3%**												**11.1%**									**11.1%**				

	INJURY TYPE					CRASH CONDITIONS						TOTAL
YEAR	**K**	**A**	**B**	**C**	**PDO**	**Wet**	**Wet %**	**Snow/Ice**	**Snow/Ice %**	**Night**	**Night %**	
2014			1		1	1	50%					2
2015			1		1			1	50%	1	50%	2
2016					3					2	67%	3
2017					1	1	100%					1
2018					1							1
TOTAL			**2**		**7**	**2**	**22.2%**	**1**	**11.1%**	**3**	**33.3%**	**9**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-1A: CHICAGO & DAVIS CRASHES

Project: Chicago Ave at Grove - Signalized Intersection

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014													1																								1	
2015	1																																				1	
2016	1												1																								2	
2017							1																														1	
2018																																						
TOTAL	**2**						**1**						**2**																								**5**	
%	**40.0%**						**20.0%**						**40.0%**																									

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014					1					2	200%	1
2015					1							1
2016					2							2
2017					1							1
2018							-		-		-	
TOTAL					**5**					**2**	**40.0%**	**5**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-1B: CHICAGO & GROVE CRASHES

Project: Chicago Ave at Lake - Signalized Intersection

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	1	1 - C	1 - CI	1																											1	1 - B	1 - BI				3	1 - BI 1 - CI
2015	2	1 - C	2 - CI																												1	1 - B	1 - BI				3	1 - BI 2 - CI
2016				2																																	2	
2017							1																														1	
2018	1						1																								1	1 - B	1 - BI				3	1 - BI
TOTAL	**4**	**2 - C**	**3 - CI**	**3**			**2**																								**3**	**3 - B**	**3 - BI**				**12**	**3 - BI** **3 - CI**
%	**33.3%**			**25.0%**			**16.7%**																								**25.0%**							

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014			1	1	1							3
2015			1	1	1	1	33%					3
2016					2							2
2017					1							1
2018			1		2	1	33%			1	33%	3
TOTAL			**3**	**2**	**7**	**2**	**16.7%**			**1**	**8.3%**	**12**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-1C: CHICAGO & LAKE CRASHES

Project: Chicago Ave at Greenwood - Signalized Intersection

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014							1						1															1	1 - B	1 - BI	1	1 - B	1 - BI				4	2 - BI
2015	2	1 - C	1 - CI				1																														3	1 - CI
2016	1	1 - C	1 - CI	1																														1			3	1 - CI
2017	2			1	1 - C	1 - CI																									1	1 - A	1 - AI	1			5	1 - AI 1 - CI
2018																																						
TOTAL	**5**	**2 - C**	**2 - CI**	**2**	**1 - C**	**1 - CI**	**2**						**1**															**1**	**1 - B**	**1 - BI**	**2**	**1 - A** **1 - B**	**1 - AI** **1 - BI**	**2**			**15**	**1 - AI** **2 - BI** **3 - CI**
%	**33.3%**			**13.3%**			**13.3%**						**6.7%**															**6.7%**			**13.3%**			**13.3%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014			2		2							4
2015				1	2			2	67%	2	67%	3
2016				1	2					2	67%	3
2017		1		1	3			1	20%			5
2018							-		-		-	
TOTAL		**1**	**2**	**3**	**9**			**3**	**20.0%**	**4**	**26.7%**	**15**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-1D: CHICAGO & GREENWOOD CRASHES

Project: Chicago Ave at Dempster - Signalized Intersection

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	3												1																								4	
2015	1			1			1						1			1									1	1 - C	1 - CI							1			7	1 - CI
2016	2												2																					1			5	
2017													3																								3	
2018													1			1																					2	
TOTAL	**6**			**1**			**1**						**8**			**2**									**1**	1 - C	1 - CI							**2**			**21**	1 - CI
%	**28.6%**			**4.8%**			**4.8%**						**38.1%**			**9.5%**									**4.8%**									**9.5%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014					4					1	25%	4
2015				1	6	1	14%			1	14%	7
2016					5							5
2017					3			1	33%			3
2018					2	1	50%			2	100%	2
TOTAL				**1**	**20**	**2**	**9.5%**	**1**	**4.8%**	**4**	**19.0%**	**21**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-1E: CHICAGO & DEMPSTER CRASHES

Project: Chicago Ave at Greenleaf - Signalized Intersection

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	3																														1	1 - C	1 - CI				4	1 - CI
2015	1			1			1						1																								4	
2016							1						1																								2	
2017	1												1																		1	1 - B	1 - BI				3	1 - BI
2018	1																																				1	
TOTAL	**6**			**1**			**2**						**3**																		**2**	**1 - B** **1 - C**	**1 - BI** **1 - CI**				**14**	**1 - BI** **1 - CI**
%	**42.9%**			**7.1%**			**14.3%**						**21.4%**																		**14.3%**							

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014				1	3	1	25%					4
2015					4	1	25%					4
2016					2					2	100%	2
2017			1		2	1	33%			1	33%	3
2018					1					1	100%	1
TOTAL			**1**	**1**	**12**	**3**	**21.4%**			**4**	**28.6%**	**14**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-1F: CHICAGO & GREENLEAF CRASHES

Project: Chicago Ave at Main - Signalized Intersection

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	2			1									1																								4	
2015							1						1												1	1 - B	1 - BI				1	1 - B	1 - BI				4	2 - BI
2016	1															1									1	1 - C	2 - CI	1									4	2 - CI
2017	3																		1	1 - A	1 - AI															4	1 - AI
2018	1												1																					2			4	
TOTAL	**7**			**1**			**1**						**3**			**1**			**1**	**1 - A**	**1 - AI**				**2**	**1 - B** **1 - C**	**1 - BI** **2 - CI**	**1**			**1**	**1 - B**	**1 - BI**	**2**			**20**	**1 - AI** **2 - BI** **2 - CI**
%	**35.0%**			**5.0%**			**5.0%**						**15.0%**			**5.0%**			**5.0%**						**10.0%**			**5.0%**			**5.0%**			**10.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014					4			1	25%	1	25%	4
2015			2		2							4
2016				1	3	1	25%			3	75%	4
2017		1			3	1	25%					4
2018					4	1	25%					4
TOTAL		**1**	**2**	**1**	**16**	**3**	**15.0%**	**1**	**5.0%**	**4**	**20.0%**	**20**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-1G: CHICAGO & MAIN CRASHES

Project: Chicago Ave at Kedzie - Signalized Intersection

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	1	1 - C	1 - CI																											1	1 - B	1 - BI				2	1 - BI 1 - CI
2015																																					
2016	1	1 - C	1 - CI	1			1																														3	1 - CI
2017							1																														1	
2018																									1	1 - A	1 - AI							1			2	1 - AI
TOTAL	**2**	**2 - C**	**2 - CI**	**1**			**2**																		**1**	**1 - A**	**1 - AI**				**1**	**1 - B**	**1 - BI**	**1**			**8**	**1 - AI** **1 - BI** **2 - CI**
%	**25.0%**			**12.5%**			**25.0%**																		**12.5%**						**12.5%**			**12.5%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014			1	1		1	50%					2
2015							-		-		-	
2016				1	2	1	33%	1	33%			3
2017					1							1
2018		1			1					1	50%	2
TOTAL		**1**	**1**	**2**	**4**	**2**	**25.0%**	**1**	**12.5%**	**1**	**12.5%**	**8**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-1H: CHICAGO & KEDZIE CRASHES

Project: Chicago Ave at South Blvd - Signalized Intersection

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	3	1 - C	1 - CI				1						2																		1	1 - B	1 - BI				7	1 - BI 1 - CI
2015				2	1 - C	1 - CI	1						3			1															2	1 - B 1 - C	1 - BI 1 - CI				9	1 - BI 2 - CI
2016				1									3			1														1	1 - C	1 - CI				6	1 - CI
2017	1			2	1 - A	1 - AI							1			2																				6	1 - AI
2018													4	1 - C	1 - CI							1			1	1 - B	1 - BI				1	1 - B	1 - BI				7	2 - BI 1 - CI
TOTAL	**4**	**1 - C**	**1 - CI**	**5**	**1 - A 1 - C**	**1 - AI 1 - CI**	**2**						**13**	**1 - C**	**1 - CI**	**4**						**1**			**1**	**1 - B**	**1 - BI**				**5**	**3 - B 2 - C**	**3 - BI 2 - CI**				**35**	**1 - AI 4 - BI 5 - CI**
%	**11.4%**			**14.3%**			**5.7%**						**37.1%**			**11.4%**						**2.9%**			**2.9%**						**14.3%**							

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014			1	1	5			2	29%	1	14%	7
2015			1	2	6	1	11%	2	22%	3	33%	9
2016				1	5	1	17%			1	17%	6
2017		1			5	4	67%			3	50%	6
2018			2	1	4	2	29%			1	14%	7
TOTAL		**1**	**4**	**5**	**25**	**8**	**22.9%**	**4**	**11.4%**	**9**	**25.7%**	**35**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-1I: CHICAGO & SOUTH CRASHES

Project: Chicago Ave (Davis to South) Total Midblock Segments

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	12	1 - B 2 - C	3 - BI 2 - CI	1			2						1												1	1 - C	1 - CI				4	1 - A 3 - B	1 - AI 3 - BI	11	1 - A	1 - AI	32	2 - AI 6 - BI 3 - CI
2015	13	5 - C	6 - CI	3	1 - C	1 - CI	4						7	3 - C	3 - CI	1									1	1 - B	1 - BI				1	1 - B	1 - BI	8			38	2 - BI 10 - CI
2016	9			3			4						7	3 - C	3 - CI										1	1 - C	1 - CI							11			35	4 - CI
2017	10	1 - B 1 - C	1 - BI 1 - CI	2			2						2			1														2	1 - A 1 - B	1 - AI 1 - BI	3			22	1 - AI 2 - BI 1 - CI
2018	8	3 - C	4 - CI	1			4			1			3												1	1 - A	1 - AI				1	1 - C	2 - CI	2			21	1 - AI 6 - CI
TOTAL	**52**	**2 - B 11 - C**	**4 - BI 13 - CI**	**10**	**1 - C**	**1 - CI**	**16**			**1**			**20**	**6 - C**	**6 - CI**	**2**									**4**	**1 - A 1 - B 2 - C**	**1 - AI 1 - BI 2 - CI**				**8**	**2 - A 5 - B 1 - C**	**2 - AI 5 - BI 2 - CI**	**35**	**1 - A**	**1 - AI**	**148**	**4 - AI 10 - BI 24 - CI**
%	**35.1%**			**6.8%**			**10.8%**			**0.7%**			**13.5%**			**1.4%**									**2.7%**						**5.4%**			**23.6%**				

	INJURY TYPE					CRASH CONDITIONS						TOTAL
YEAR	**K**	**A**	**B**	**C**	**PDO**	**Wet**	**Wet %**	**Snow/Ice**	**Snow/Ice %**	**Night**	**Night %**	
2014		2	4	3	23	4	13%	2	6%	11	34%	32
2015			2	9	27			1	3%	4	11%	38
2016				4	31	6	17%			5	14%	35
2017		1	2	1	18	3	14%	1	5%	7	32%	22
2018		1		4	16	4	19%			9	43%	21
TOTAL		**4**	**8**	**21**	**115**	**17**	**11.5%**	**4**	**2.7%**	**36**	**24.3%**	**148**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-2: TOTAL MIDBLOCK CRASHES

Project: Chicago Ave (Davis to Grove)

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014																																		2			2	
2015							1																											1			2	
2016	1																																	2			3	
2017	1																														1	1 - A	1 - AI				2	1 - AI
2018	1																																	1			2	
TOTAL	**3**						**1**																								**1**	**1 - A**	**1 - AI**	**6**			**11**	**1 - AI**
%	**27.3%**						**9.1%**																								**9.1%**			**54.5%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014					2					2	100%	2
2015					2							2
2016					3							3
2017		1			1							2
2018					2							2
TOTAL		**1**			**10**					**2**	**18.2%**	**11**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-2A: DAVIS TO GROVE MIDBLOCK CRASHES

Project: Chicago Ave (Grove to Lake)

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014																																					
2015	1																																				1	
2016																																					
2017																																					
2018																																					
TOTAL	**1**																																				**1**	
%	**100.0%**																																					

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014							-		-		-	
2015					1							1
2016							-		-		-	
2017							-		-		-	
2018							-		-		-	
TOTAL					**1**							**1**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-2B: GROVE TO LAKE MIDBLOCK CRASHES

Project: Chicago Ave (Lake to Greenwood)

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014																																						
2015				1	1 - C	1 - CI	1																														2	1 - CI
2016	1																																				1	
2017	1	1 - C	1 - CI													1																						2	1 - CI
2018							1																								1	1 - C	2 - CI				2	2 - CI
TOTAL	**2**	**1 - C**	**1 - CI**	**1**	**1 - C**	**1 - CI**	**2**									**1**														**1**	**1 - C**	**2 - CI**				**7**	**4 - CI**
%	**28.6%**			**14.3%**			**28.6%**									**14.3%**														**14.3%**							

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014							-		-		-	
2015				1	1							2
2016					1					1	100%	1
2017				1	1					2	100%	2
2018				1	1							2
TOTAL				**3**	**4**					**3**	**42.9%**	**7**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-2C: LAKE TO GREENWOOD MIDBLOCK CRASHES

Project: Chicago Ave (Greenwood to Dempster)

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	1																																				1	
2015	4	1 - C	1 - CI																															2			6	1 - CI
2016													1	1 - C	1 - CI																			1			2	1 - CI
2017																																		1			1	
2018							1																		1	1 - A	1 - AI										2	1 - AI
TOTAL	**5**	**1 - C**	**1 - CI**				**1**						**1**	**1 - C**	**1 - CI**										**1**	**1 - A**	**1 - AI**							**4**			**12**	**1 - AI 2 - CI**
%	**41.7%**						**8.3%**						**8.3%**												**8.3%**									**33.3%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014					1	1	100%					1
2015				1	5							6
2016				1	1							2
2017					1							1
2018		1			1					1	50%	2
TOTAL		**1**		**2**	**9**	**1**	**8.3%**			**1**	**8.3%**	**12**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-2D: GREENWOOD TO DEMPSTER MIDBLOCK CRASHES

Project: Chicago Ave (Dempster to Greenleaf)

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	6	2 - C	2 - CI																						1	1 - C	1 - CI				1	1 - B	1 - BI				8	1 - BI 3 - CI
2015	2	1 - C	1 - CI				2						3	1 - C	1 - CI																			2			9	2 - CI
2016	2						1						2	1 - C	1 - CI																			2			7	1 - CI
2017				1			1																											1			3	
2018										1																											1	
TOTAL	**10**	**3 - C**	**3 - CI**	**1**			**4**			**1**			**5**	**2 - C**	**2 - CI**										**1**	**1 - C**	**1 - CI**				**1**	**1 - B**	**1 - BI**	**5**			**28**	**1 - BI 6 - CI**
%	**35.7%**			**3.6%**			**14.3%**			**3.6%**			**17.9%**												**3.6%**						**3.6%**			**17.9%**				

	INJURY TYPE					CRASH CONDITIONS						TOTAL
YEAR	**K**	**A**	**B**	**C**	**PDO**	**Wet**	**Wet %**	**Snow/Ice**	**Snow/Ice %**	**Night**	**Night %**	
2014			1	3	4	2	25%	1	13%	4	50%	8
2015				2	7			1	11%	1	11%	9
2016				1	6	2	29%			1	14%	7
2017					3	1	33%			1	33%	3
2018					1					1	100%	1
TOTAL			**1**	**6**	**21**	**5**	**17.9%**	**2**	**7.1%**	**8**	**28.6%**	**28**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-2E: DEMPSTER TO GREENLEAF MIDBLOCK CRASHES

Project: Chicago Ave (Greenleaf to Main)

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	3						1						1																		1	1 - A	1 - AI	3			9	1 - AI
2015	2	1 - C	2 - CI	1									3	1 - C	1 - CI																1 - B	1 - BI	1			8	1 - BI 3 - CI
2016	2			2			2						1												1	1 - C	1 - CI							1			9	1 - CI
2017	4						1																								1 - B	1 - BI	1			7	1 - BI
2018	2												1																					1			4	
TOTAL	**13**	**1 - C**	**2 - CI**	**3**			**4**						**6**	**1 - C**	**1 - CI**										**1**	**1 - C**	**1 - CI**				**3**	**1 - A 2 - B**	**1 - AI 2 - BI**	**7**			**37**	**1 - AI 2 - BI 4 - CI**
%	**35.1%**			**8.1%**			**10.8%**						**16.2%**												**2.7%**						**8.1%**			**18.9%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014		1			8	1	11%	1	11%	3	33%	9
2015			1	2	5					2	25%	8
2016				1	8	2	22%			1	11%	9
2017			1		6					2	29%	7
2018					4	1	25%					4
TOTAL		**1**	**2**	**3**	**31**	**4**	**10.8%**	**1**	**2.7%**	**8**	**21.6%**	**37**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-2F: GREENLEAF TO MAIN MIDBLOCK CRASHES

Project: Chicago Ave (Main to Kedzie)

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	1			1			1																								1	1 - B	1 - BI	1			5	1 - BI
2015																									1	1 - B	1 - BI							1			2	1 - BI
2016							1						2	1 - C	1 - CI																			2			5	1 - CI
2017	1												1																								2	
2018							1						1																								2	
TOTAL	**2**			**1**			**3**						**4**	**1 - C**	**1 - CI**										**1**	**1 - B**	**1 - BI**				**1**	**1 - B**	**1 - BI**	**4**			**16**	**2 - BI 1 - CI**
%	**12.5%**			**6.3%**			**18.8%**						**25.0%**												**6.3%**						**6.3%**			**25.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2014			1		4					1	20%	5
2015			1		1					1	50%	2
2016				1	4	1	20%					5
2017					2	2	100%			1	50%	2
2018					2							2
TOTAL			**2**	**1**	**13**	**3**	**18.8%**			**3**	**18.8%**	**16**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-2G: MAIN TO KEDZIE MIDBLOCK CRASHES

Project: Chicago Ave (Kedzie to South)

Town: Evanston

County: Cook

2020 Critical Safety Tier	
Intersection	Segment
N	N

YEAR	Rear End			Angle			SSSD			SSOD			Turning			Fixed Object			Over-turned			Head On			Pedestrian			Other Object			Bicyclist			Parked Motor Vehicle			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2014	1	1 - B	3 - BI																												1 - B	1 - BI	5	1 - A	1 - AI	7	1 - AI 4 - BI
2015	4	2 - C	2 - CI	1									1	1 - C	1 - CI	1																	1			8	3 - CI
2016	3			1									1																				3			8	
2017	3	1 - B	1 - BI	1									1																							5	1 - BI
2018	5	3 - C	4 - CI	1			1						1																							8	4 - CI
TOTAL	**16**	**2 - B 5 - C**	**4 - BI 6 - CI**	**4**			**1**						**4**	**1 - C**	**1 - CI**	**1**															**1**	**1 - B**	**1 - BI**	**9**	**1 - A**	**1 - AI**	**36**	**1 - AI 5 - BI 7 - CI**
%	**44.4%**			**11.1%**			**2.8%**						**11.1%**			**2.8%**														**2.8%**			**25.0%**				

	INJURY TYPE					CRASH CONDITIONS						TOTAL
YEAR	**K**	**A**	**B**	**C**	**PDO**	**Wet**	**Wet %**	**Snow/Ice**	**Snow/Ice %**	**Night**	**Night %**	
2014		1	2		4					1	14%	7
2015				3	5							8
2016					8	1	13%			2	25%	8
2017			1		4			1	20%	1	20%	5
2018				3	5	3	38%			7	88%	8
TOTAL		**1**	**3**	**6**	**26**	**4**	**11.1%**	**1**	**2.8%**	**11**	**30.6%**	**36**

* Note that the law regarding the crash reporting threshold for Property Damage Only crashes was amended effective January 1, 2009, to the following: When all drivers involved in a crash are insured, the amount of damage to the property of any one person that must be reported increased from $500 to $1,500. If any driver does not have insurance, the threshold remains at $500. (This change in law precludes comparison of 2009 and later Property Damage Only crashes and Total crashes with such crashes for previous years. The change did NOT affect the reporting of injury or fatal crashes.)

TABLE A-2H: KEDZIE TO SOUTH MIDBLOCK CRASHES

Appendix B — Synchro Analysis Reports

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	170	20	20	205	235	40	435	30	140	260	35
Future Volume (vph)	45	170	20	20	205	235	40	435	30	140	260	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		194			640			642			1762	
Travel Time (s)		4.4			14.5			14.6			40.0	
Lane Group Flow (vph)	47	200	0	21	463	0	42	490	0	147	311	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	26.0	26.0		27.0	27.0		28.0	28.0		13.0	28.0	
Total Split (s)	37.0	37.0		37.0	37.0		39.0	39.0		14.0	53.0	
Total Split (%)	41.1%	41.1%		41.1%	41.1%		43.3%	43.3%		15.6%	58.9%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		3.0	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		0.0	1.5	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0		-2.0	-2.0		1.0	-2.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max		None	C-Max	
Act Effct Green (s)	29.3	29.3		29.3	29.3		40.7	40.7		52.7	52.7	
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.45	0.45		0.59	0.59	
v/c Ratio	0.40	0.35		0.07	0.84		0.10	0.61		0.38	0.30	
Control Delay	33.5	23.2		19.8	38.1		17.6	24.1		5.9	2.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	33.5	23.2		19.8	38.1		17.6	24.1		5.9	2.4	
LOS	C	C		B	D		B	C		A	A	
Approach Delay		25.1			37.3			23.6			3.5	
Approach LOS		C			D			C			A	
Queue Length 50th (ft)	20	79		8	200		14	211		8	13	
Queue Length 95th (ft)	53	131		24	#326		37	345		22	24	
Internal Link Dist (ft)		114			560			562			1682	
Turn Bay Length (ft)	25			25						100		
Base Capacity (vph)	132	645		336	610		433	803		414	1024	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.36	0.31		0.06	0.76		0.10	0.61		0.36	0.30	

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 45 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 22.3 Intersection LOS: C
Intersection Capacity Utilization 76.7% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Chicago Av & South Blvd.

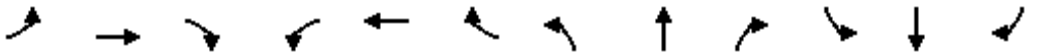
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	55	60	685	70	30	435
Future Volume (vph)	55	60	685	70	30	435
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		25	25	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				25	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	748		1762			656
Travel Time (s)	17.0		40.0			14.9
Lane Group Flow (vph)	121	0	721	74	32	458
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Detector Phase	8		2	2	6	6
Switch Phase						
Minimum Initial (s)	3.0		3.0	3.0	3.0	3.0
Minimum Split (s)	29.0		29.0	29.0	9.0	9.0
Total Split (s)	30.0		60.0	60.0	60.0	60.0
Total Split (%)	33.3%		66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	4.5		4.5	4.5	4.5	4.5
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5
Lost Time Adjust (s)	-2.0		-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0		4.0	6.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Ped		C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	24.0		58.0	56.0	58.0	58.0
Actuated g/C Ratio	0.27		0.64	0.62	0.64	0.64
v/c Ratio	0.27		0.62	0.09	0.10	0.39
Control Delay	15.7		8.4	3.4	5.5	6.6
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	15.7		8.4	3.4	5.5	6.6
LOS	B		A	A	A	A
Approach Delay	15.7		7.9			6.5
Approach LOS	B		A			A
Queue Length 50th (ft)	26		61	4	5	69
Queue Length 95th (ft)	70		116	m9	m10	94
Internal Link Dist (ft)	668		1682			576
Turn Bay Length (ft)				25	25	
Base Capacity (vph)	486		1160	846	311	1160
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.25		0.62	0.09	0.10	0.39

Intersection Summary	
Area Type:	Other

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 8 (9%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 8.1	Intersection LOS: A
Intersection Capacity Utilization 61.1%	ICU Level of Service B
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Chicago Av & Kedzie St

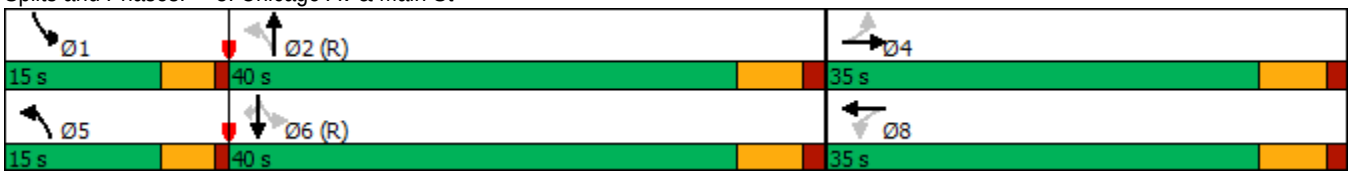


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	140	105	20	130	45	70	705	35	40	365	40
Future Volume (vph)	65	140	105	20	130	45	70	705	35	40	365	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		753			745			656			239	
Travel Time (s)		17.1			16.9			14.9			5.4	
Lane Group Flow (vph)	0	326	0	0	205	0	74	779	0	42	384	42
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		1.5	3.0		1.5	3.0	3.0
Minimum Split (s)	30.0	30.0		28.0	28.0		7.5	26.0		7.5	26.0	26.0
Total Split (s)	35.0	35.0		35.0	35.0		15.0	40.0		15.0	40.0	40.0
Total Split (%)	38.9%	38.9%		38.9%	38.9%		16.7%	44.4%		16.7%	44.4%	44.4%
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.0	1.5		1.0	1.5	1.5
Lost Time Adjust (s)		-2.0			-2.0		1.0	-2.0		1.0	-2.0	0.0
Total Lost Time (s)		4.0			4.0		5.5	4.0		5.5	4.0	6.0
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)		27.1			27.1		50.7	48.0		48.3	45.2	43.2
Actuated g/C Ratio		0.30			0.30		0.56	0.53		0.54	0.50	0.48
v/c Ratio		0.71			0.41		0.16	0.43		0.12	0.42	0.07
Control Delay		34.5			25.0		9.9	12.8		6.3	13.4	8.8
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		34.5			25.0		9.9	12.8		6.3	13.4	8.8
LOS		C			C		A	B		A	B	A
Approach Delay		34.5			25.0			12.6			12.3	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)		153			86		14	96		4	111	4
Queue Length 95th (ft)		232			137		m35	156		m9	321	m23
Internal Link Dist (ft)		673			665			576			159	
Turn Bay Length (ft)							150			150		
Base Capacity (vph)		518			570		510	1800		421	904	634
Starvation Cap Reductn		0			0		0	0		0	0	0
Spillback Cap Reductn		0			0		0	0		0	0	0
Storage Cap Reductn		0			0		0	0		0	0	0
Reduced v/c Ratio		0.63			0.36		0.15	0.43		0.10	0.42	0.07

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 11 (12%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 17.8 Intersection LOS: B
Intersection Capacity Utilization 67.1% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Chicago Av & Main St

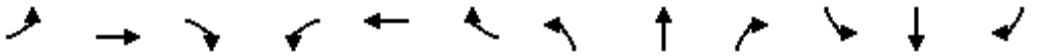


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	65	80	20	75	25	60	780	20	10	430	35
Future Volume (vph)	55	65	80	20	75	25	60	780	20	10	430	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		25	150		25
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		630			794			1104			1315	
Travel Time (s)		14.3			18.0			25.1			29.9	
Lane Group Flow (vph)	0	210	0	0	126	0	63	821	21	11	453	37
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Minimum Split (s)	30.0	30.0		30.0	30.0		6.0	27.0	27.0	6.0	28.0	28.0
Total Split (s)	35.0	35.0		35.0	35.0		14.0	41.0	41.0	14.0	41.0	41.0
Total Split (%)	38.9%	38.9%		38.9%	38.9%		15.6%	45.6%	45.6%	15.6%	45.6%	45.6%
Yellow Time (s)	4.5	4.5		4.5	4.5		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5	1.5	0.0	1.5	1.5
Lost Time Adjust (s)		-2.0			-2.0		1.0	-2.0	0.0	1.0	-2.0	0.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)		25.0			25.0		56.6	55.2	53.2	52.8	48.9	46.9
Actuated g/C Ratio		0.28			0.28		0.63	0.61	0.59	0.59	0.54	0.52
v/c Ratio		0.28			0.16		0.14	0.74	0.02	0.04	0.46	0.05
Control Delay		16.1			20.0		4.0	19.4	1.4	5.5	17.7	3.8
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		16.1			20.0		4.0	19.4	1.4	5.5	17.7	3.8
LOS		B			B		A	B	A	A	B	A
Approach Delay		16.1			20.0			17.9			16.4	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		28			22		13	439	0	2	216	1
Queue Length 95th (ft)		57			44		m8	#652	m4	m5	304	m10
Internal Link Dist (ft)		550			714			1024			1235	
Turn Bay Length (ft)							150		25	150		25
Base Capacity (vph)		924			996		520	1103	863	356	979	773
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.23			0.13		0.12	0.74	0.02	0.03	0.46	0.05

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 66 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 17.4 Intersection LOS: B
Intersection Capacity Utilization 73.6% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Chicago Av & Greenleaf St

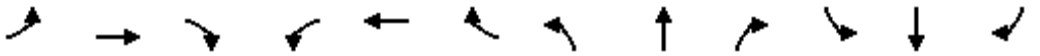


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	135	100	25	105	60	140	670	40	45	360	30
Future Volume (vph)	95	135	100	25	105	60	140	670	40	45	360	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		25	150		100
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		802			842			1315			524	
Travel Time (s)		18.2			19.1			29.9			11.9	
Lane Group Flow (vph)	0	347	0	0	200	0	147	705	42	47	379	32
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Minimum Split (s)	30.0	30.0		30.0	30.0		7.5	28.0	28.0	7.5	28.0	28.0
Total Split (s)	30.0	30.0		30.0	30.0		15.0	45.0	45.0	15.0	45.0	45.0
Total Split (%)	33.3%	33.3%		33.3%	33.3%		16.7%	50.0%	50.0%	16.7%	50.0%	50.0%
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.0	1.5	1.5	1.0	1.5	1.5
Lost Time Adjust (s)		-2.0			-2.0		1.0	-2.0	0.0	1.0	-2.0	-2.0
Total Lost Time (s)		4.0			4.0		5.5	4.0	6.0	5.5	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)		25.0			25.0		53.9	50.1	48.1	47.7	43.7	43.7
Actuated g/C Ratio		0.28			0.28		0.60	0.56	0.53	0.53	0.49	0.49
v/c Ratio		0.51			0.45		0.30	0.70	0.05	0.16	0.43	0.05
Control Delay		24.0			27.2		4.1	9.6	0.2	5.6	10.8	0.2
Queue Delay		0.0			0.0		0.0	0.2	0.0	0.0	0.0	0.0
Total Delay		24.0			27.2		4.1	9.8	0.2	5.6	10.8	0.2
LOS		C			C		A	A	A	A	B	A
Approach Delay		24.0			27.2			8.4			9.5	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		66			81		7	221	0	7	81	0
Queue Length 95th (ft)		110			146		m22	89	m1	13	124	0
Internal Link Dist (ft)		722			762			1235			444	
Turn Bay Length (ft)							150		25	150		100
Base Capacity (vph)		712			457		509	1002	799	365	874	697
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	36	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.49			0.44		0.29	0.73	0.05	0.13	0.43	0.05

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 88 (98%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 13.5 Intersection LOS: B
Intersection Capacity Utilization 82.4% ICU Level of Service E
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Chicago Av & Dempster St



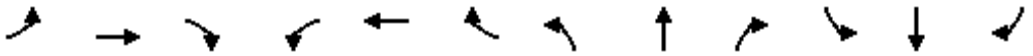
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	55	40	45	65	60	45	750	60	30	345	35
Future Volume (vph)	45	55	40	45	65	60	45	750	60	30	345	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		0	25		0	0		0
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		590			620			524			528	
Travel Time (s)		13.4			14.1			11.9			12.0	
Lane Group Flow (vph)	0	105	42	0	178	0	47	852	0	0	395	37
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	29.0	29.0	29.0	27.0	27.0		28.0	28.0		31.0	31.0	31.0
Total Split (s)	33.0	33.0	33.0	33.0	33.0		57.0	57.0		57.0	57.0	57.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%		63.3%	63.3%		63.3%	63.3%	63.3%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lost Time Adjust (s)		-2.0	0.0		-2.0		-2.0	-2.0			-2.0	0.0
Total Lost Time (s)		4.0	6.0		4.0		4.0	4.0			4.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped	Ped	Ped	Ped		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		24.0	22.0		24.0		58.0	58.0			58.0	56.0
Actuated g/C Ratio		0.27	0.24		0.27		0.64	0.64			0.64	0.62
v/c Ratio		0.27	0.12		0.43		0.09	0.75			0.39	0.04
Control Delay		28.4	9.7		26.1		3.5	8.8			6.1	1.7
Queue Delay		0.0	0.0		0.0		0.0	1.1			0.0	0.0
Total Delay		28.4	9.7		26.1		3.5	9.9			6.1	1.7
LOS		C	A		C		A	A			A	A
Approach Delay		23.0			26.1			9.5			5.8	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		47	0		68		3	60			58	0
Queue Length 95th (ft)		92	25		129		m6	91			87	5
Internal Link Dist (ft)		510			540			444			448	
Turn Bay Length (ft)			25				25					
Base Capacity (vph)		471	433		493		534	1139			1013	859
Starvation Cap Reductn		0	0		0		0	111			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		0.22	0.10		0.36		0.09	0.83			0.39	0.04

Intersection Summary	
Area Type:	Other

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 91.7%	ICU Level of Service F
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Chicago Av & Greenwood St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	35	65	40	55	70	45	750	60	40	305	45
Future Volume (vph)	55	35	65	40	55	70	45	750	60	40	305	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		582			722			528			332	
Travel Time (s)		13.2			16.4			12.0			7.5	
Lane Group Flow (vph)	0	163	0	0	174	0	0	899	0	0	410	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	29.0	29.0		29.0	29.0		25.0	25.0		28.0	28.0	
Total Split (s)	33.0	33.0		33.0	33.0		57.0	57.0		57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		63.3%	63.3%		63.3%	63.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		-2.0			-2.0			-2.0			-2.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		24.0			24.0			58.0			58.0	
Actuated g/C Ratio		0.27			0.27			0.64			0.64	
v/c Ratio		0.41			0.41			0.46			0.24	
Control Delay		23.7			23.4			5.5			3.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		23.7			23.4			5.5			3.0	
LOS		C			C			A			A	
Approach Delay		23.7			23.4			5.5			3.0	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		55			59			55			20	
Queue Length 95th (ft)		114			119			124			34	
Internal Link Dist (ft)		502			642			448			252	
Turn Bay Length (ft)												
Base Capacity (vph)		468			505			1963			1743	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.35			0.34			0.46			0.24	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green, Master Intersection	

Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.46	
Intersection Signal Delay: 8.6	Intersection LOS: A
Intersection Capacity Utilization 70.1%	ICU Level of Service C
Analysis Period (min) 15	

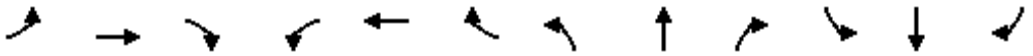
Splits and Phases: 7: Chicago Av & Lake St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	35	75	25	40	10	90	750	35	10	290	10
Future Volume (vph)	20	35	75	25	40	10	90	750	35	10	290	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		506			760			332			453	
Travel Time (s)		11.5			17.3			7.5			10.3	
Lane Group Flow (vph)	0	137	0	0	79	0	0	921	0	0	327	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	27.0	27.0		31.0	31.0		23.0	23.0		28.0	28.0	
Total Split (s)	33.0	33.0		33.0	33.0		57.0	57.0		57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		63.3%	63.3%		63.3%	63.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		-2.0			-2.0			-2.0			-2.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		26.0			26.0			56.0			56.0	
Actuated g/C Ratio		0.29			0.29			0.62			0.62	
v/c Ratio		0.16			0.18			0.51			0.17	
Control Delay		11.8			22.4			14.5			3.8	
Queue Delay		0.0			0.0			0.2			0.0	
Total Delay		11.8			22.4			14.7			3.8	
LOS		B			C			B			A	
Approach Delay		11.8			22.4			14.7			3.8	
Approach LOS		B			C			B			A	
Queue Length 50th (ft)		12			29			182			14	
Queue Length 95th (ft)		34			64			192			28	
Internal Link Dist (ft)		426			680			252			373	
Turn Bay Length (ft)												
Base Capacity (vph)		925			498			1813			1946	
Starvation Cap Reductn		0			0			276			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.15			0.16			0.60			0.17	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 66 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	

Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 72.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: Chicago Av & Grove St

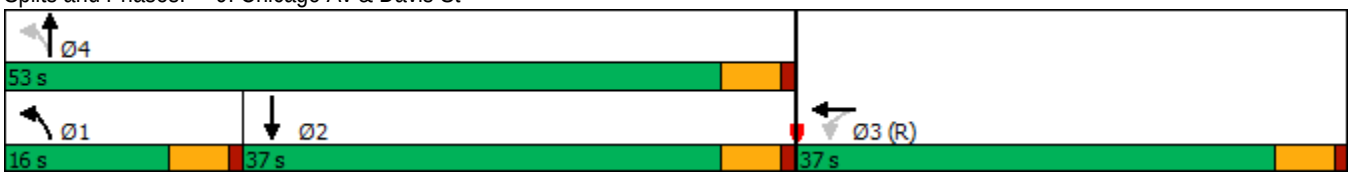


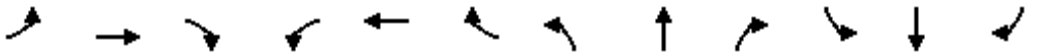
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	30	90	10	170	610	0	0	280	90
Future Volume (vph)	0	0	0	30	90	10	170	610	0	0	280	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		443			490			453			433	
Travel Time (s)		10.1			11.1			10.3			9.8	
Lane Group Flow (vph)	0	0	0	0	138	0	0	821	0	0	390	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					3		1	4			2	
Permitted Phases				3			4					
Detector Phase				3	3		1	4			2	
Switch Phase												
Minimum Initial (s)				21.0	21.0		10.0	21.0			21.0	
Minimum Split (s)				37.0	37.0		16.0	53.0			37.0	
Total Split (s)				37.0	37.0		16.0	53.0			37.0	
Total Split (%)				41.1%	41.1%		17.8%	58.9%			41.1%	
Yellow Time (s)				4.0	4.0		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					5.0			5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		None	None			None	
Act Effct Green (s)					38.0			42.0			42.0	
Actuated g/C Ratio					0.42			0.47			0.47	
v/c Ratio					0.10			0.69			0.25	
Control Delay					17.6			13.6			14.2	
Queue Delay					0.0			0.0			0.0	
Total Delay					17.6			13.6			14.2	
LOS					B			B			B	
Approach Delay					17.6			13.6			14.2	
Approach LOS					B			B			B	
Queue Length 50th (ft)					24			50			66	
Queue Length 95th (ft)					47			50			84	
Internal Link Dist (ft)		363			410			373			353	
Turn Bay Length (ft)												
Base Capacity (vph)					1411			1361			1537	
Starvation Cap Reductn					0			3			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.10			0.60			0.25	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 35 (39%), Referenced to phase 3:WBTL, Start of 1st Green	

Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 14.2	Intersection LOS: B
Intersection Capacity Utilization 69.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Chicago Av & Davis St



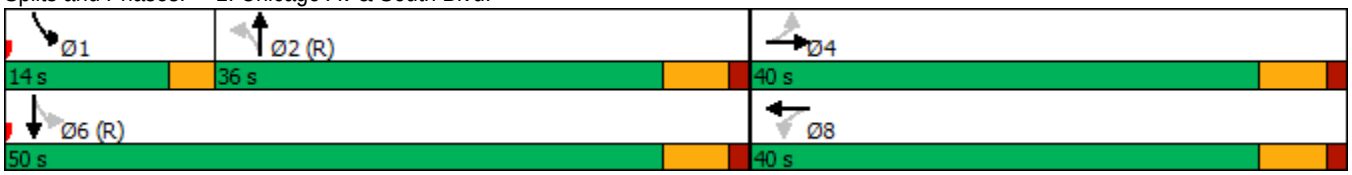


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	170	35	85	185	190	40	315	30	190	515	65
Future Volume (vph)	60	170	35	85	185	190	40	315	30	190	515	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		194			640			642			1762	
Travel Time (s)		4.4			14.5			14.6			40.0	
Lane Group Flow (vph)	63	216	0	89	395	0	42	364	0	200	610	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	26.0	26.0		27.0	27.0		28.0	28.0		13.0	28.0	
Total Split (s)	40.0	40.0		40.0	40.0		36.0	36.0		14.0	50.0	
Total Split (%)	44.4%	44.4%		44.4%	44.4%		40.0%	40.0%		15.6%	55.6%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		3.0	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		0.0	1.5	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0		-2.0	-2.0		1.0	-2.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max		None	C-Max	
Act Effct Green (s)	27.9	27.9		27.9	27.9		41.4	41.4		54.1	54.1	
Actuated g/C Ratio	0.31	0.31		0.31	0.31		0.46	0.46		0.60	0.60	
v/c Ratio	0.43	0.40		0.33	0.75		0.13	0.45		0.40	0.58	
Control Delay	33.0	24.0		25.9	31.6		18.8	20.5		7.0	7.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	33.0	24.0		25.9	31.6		18.8	20.5		7.0	7.4	
LOS	C	C		C	C		B	C		A	A	
Approach Delay		26.0			30.5			20.3			7.3	
Approach LOS		C			C			C			A	
Queue Length 50th (ft)	29	90		39	169		13	133		17	51	
Queue Length 95th (ft)	61	131		70	238		41	253		m41	198	
Internal Link Dist (ft)		114			560			562			1682	
Turn Bay Length (ft)	25			25						100		
Base Capacity (vph)	188	693		346	662		329	811		519	1053	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.34	0.31		0.26	0.60		0.13	0.45		0.39	0.58	

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 29 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 18.3 Intersection LOS: B
Intersection Capacity Utilization 74.9% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Chicago Av & South Blvd.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	60	40	565	40	35	815
Future Volume (vph)	60	40	565	40	35	815
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		25	25	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				25	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	748		1762			656
Travel Time (s)	17.0		40.0			14.9
Lane Group Flow (vph)	105	0	595	42	37	858
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Detector Phase	8		2	2	6	6
Switch Phase						
Minimum Initial (s)	3.0		3.0	3.0	3.0	3.0
Minimum Split (s)	29.0		29.0	29.0	9.0	9.0
Total Split (s)	30.0		60.0	60.0	60.0	60.0
Total Split (%)	33.3%		66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	4.5		4.5	4.5	4.5	4.5
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5
Lost Time Adjust (s)	-2.0		-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0		4.0	6.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Ped		C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	24.0		58.0	56.0	58.0	58.0
Actuated g/C Ratio	0.27		0.64	0.62	0.64	0.64
v/c Ratio	0.23		0.51	0.05	0.09	0.74
Control Delay	18.6		6.7	3.1	3.9	7.3
Queue Delay	0.0		0.0	0.0	0.0	1.3
Total Delay	18.6		6.7	3.1	3.9	8.6
LOS	B		A	A	A	A
Approach Delay	18.6		6.4			8.4
Approach LOS	B		A			A
Queue Length 50th (ft)	29		138	1	4	92
Queue Length 95th (ft)	71		90	m8	m5	m118
Internal Link Dist (ft)	668		1682			576
Turn Bay Length (ft)				25	25	
Base Capacity (vph)	481		1160	843	393	1160
Starvation Cap Reductn	0		0	0	0	135
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.22		0.51	0.05	0.09	0.84

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 80 (89%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 8.3 Intersection LOS: A
Intersection Capacity Utilization 67.9% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Chicago Av & Kedzie St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	165	170	25	105	40	75	455	45	55	675	60
Future Volume (vph)	80	165	170	25	105	40	75	455	45	55	675	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		753			745			656			229	
Travel Time (s)		17.1			16.9			14.9			5.2	
Lane Group Flow (vph)	0	437	0	0	179	0	79	526	0	58	711	63
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	30.0	30.0		28.0	28.0		9.0	26.0		9.0	26.0	26.0
Total Split (s)	35.0	35.0		35.0	35.0		15.0	40.0		15.0	40.0	40.0
Total Split (%)	38.9%	38.9%		38.9%	38.9%		16.7%	44.4%		16.7%	44.4%	44.4%
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.0	1.5		1.0	1.5	1.5
Lost Time Adjust (s)		-2.0			-2.0		1.0	-2.0		1.0	-2.0	0.0
Total Lost Time (s)		4.0			4.0		5.5	4.0		5.5	4.0	6.0
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		None	C-Max		None	C-Max	C-Max
Act Effct Green (s)		29.4			29.4		47.2	43.2		46.2	42.7	40.7
Actuated g/C Ratio		0.33			0.33		0.52	0.48		0.51	0.47	0.45
v/c Ratio		0.87			0.35		0.37	0.33		0.14	0.83	0.10
Control Delay		45.2			22.1		19.1	14.0		14.5	28.6	6.3
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		45.2			22.1		19.1	14.0		14.5	28.6	6.3
LOS		D			C		B	B		B	C	A
Approach Delay		45.2			22.1			14.7			26.0	
Approach LOS		D			C			B			C	
Queue Length 50th (ft)		206			66		20	80		16	199	3
Queue Length 95th (ft)		#374			120		64	114		m28	#607	m9
Internal Link Dist (ft)		673			665			576			149	
Turn Bay Length (ft)							150			150		
Base Capacity (vph)		526			541		271	1607		485	854	647
Starvation Cap Reductn		0			0		0	0		0	0	0
Spillback Cap Reductn		0			0		0	0		0	0	0
Storage Cap Reductn		0			0		0	0		0	0	0
Reduced v/c Ratio		0.83			0.33		0.29	0.33		0.12	0.83	0.10

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 77 (86%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 26.4 Intersection LOS: C
Intersection Capacity Utilization 87.1% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

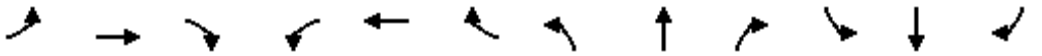
Splits and Phases: 3: Chicago Av & Main St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	110	90	25	80	30	65	545	10	40	720	35
Future Volume (vph)	60	110	90	25	80	30	65	545	10	40	720	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		25	150		25
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		630			794			1114			1315	
Travel Time (s)		14.3			18.0			25.3			29.9	
Lane Group Flow (vph)	0	274	0	0	142	0	68	574	11	42	758	37
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Minimum Split (s)	30.0	30.0		30.0	30.0		6.0	27.0	27.0	6.0	28.0	28.0
Total Split (s)	35.0	35.0		35.0	35.0		14.0	41.0	41.0	14.0	41.0	41.0
Total Split (%)	38.9%	38.9%		38.9%	38.9%		15.6%	45.6%	45.6%	15.6%	45.6%	45.6%
Yellow Time (s)	4.5	4.5		4.5	4.5		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5	1.5	0.0	1.5	1.5
Lost Time Adjust (s)		-2.0			-2.0		1.0	-2.0	0.0	1.0	-2.0	0.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)		25.0			25.0		55.0	51.1	49.1	53.3	48.8	46.8
Actuated g/C Ratio		0.28			0.28		0.61	0.57	0.55	0.59	0.54	0.52
v/c Ratio		0.35			0.18		0.26	0.56	0.01	0.10	0.78	0.05
Control Delay		18.1			19.7		15.0	27.5	1.0	4.4	24.0	2.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		18.1			19.7		15.0	27.5	1.0	4.4	24.0	2.1
LOS		B			B		B	C	A	A	C	A
Approach Delay		18.1			19.7			25.8			22.0	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)		41			24		24	308	0	6	445	0
Queue Length 95th (ft)		75			48		m53	m445	m1	m9	#601	m2
Internal Link Dist (ft)		550			714			1034			1235	
Turn Bay Length (ft)							150		25	150		25
Base Capacity (vph)		956			973		332	1022	803	487	977	771
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.29			0.15		0.20	0.56	0.01	0.09	0.78	0.05

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 69 (77%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 22.6 Intersection LOS: C
Intersection Capacity Utilization 74.0% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Chicago Av & Greenleaf St



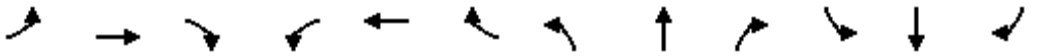
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	120	175	25	145	25	120	420	35	45	705	50
Future Volume (vph)	65	120	175	25	145	25	120	420	35	45	705	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		25	150		100
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		802			842			1315			524	
Travel Time (s)		18.2			19.1			29.9			11.9	
Lane Group Flow (vph)	0	378	0	0	205	0	126	442	37	47	742	53
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Minimum Split (s)	27.0	27.0		27.0	27.0		7.5	28.0	28.0	7.5	28.0	28.0
Total Split (s)	27.0	27.0		27.0	27.0		10.0	53.0	53.0	10.0	53.0	53.0
Total Split (%)	30.0%	30.0%		30.0%	30.0%		11.1%	58.9%	58.9%	11.1%	58.9%	58.9%
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.0	1.5	1.5	1.0	1.5	1.5
Lost Time Adjust (s)		-2.0			-2.0		1.0	-2.0	0.0	1.0	-2.0	-2.0
Total Lost Time (s)		4.0			4.0		5.5	4.0	6.0	5.5	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)		23.0			23.0		54.2	53.0	51.0	52.0	49.0	49.0
Actuated g/C Ratio		0.26			0.26		0.60	0.59	0.57	0.58	0.54	0.54
v/c Ratio		0.51			0.50		0.50	0.42	0.04	0.10	0.76	0.07
Control Delay		17.0			32.4		14.9	5.4	0.1	7.0	14.3	1.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.5	0.0
Total Delay		17.0			32.4		14.9	5.4	0.1	7.0	14.8	1.1
LOS		B			C		B	A	A	A	B	A
Approach Delay		17.0			32.4			7.1			13.5	
Approach LOS		B			C			A			B	
Queue Length 50th (ft)		46			95		10	32	0	7	128	1
Queue Length 95th (ft)		91			165		36	47	m0	m15	227	m2
Internal Link Dist (ft)		722			762			1235			444	
Turn Bay Length (ft)							150		25	150		100
Base Capacity (vph)		744			410		253	1060	841	488	980	770
Starvation Cap Reductn		0			0		0	0	0	0	47	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.51			0.50		0.50	0.42	0.04	0.10	0.80	0.07

Intersection Summary	
Area Type:	Other

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 14.1	Intersection LOS: B
Intersection Capacity Utilization 86.2%	ICU Level of Service E
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Chicago Av & Dempster St



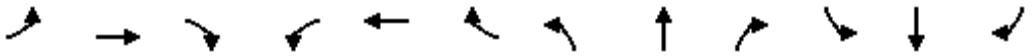
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	55	75	45	65	60	55	455	65	25	680	35
Future Volume (vph)	45	55	75	45	65	60	55	455	65	25	680	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		0	25		0	0		0
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		590			620			524			528	
Travel Time (s)		13.4			14.1			11.9			12.0	
Lane Group Flow (vph)	0	105	79	0	178	0	58	547	0	0	742	37
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	29.0	29.0	29.0	27.0	27.0		28.0	28.0		31.0	31.0	31.0
Total Split (s)	33.0	33.0	33.0	33.0	33.0		57.0	57.0		57.0	57.0	57.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%		63.3%	63.3%		63.3%	63.3%	63.3%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lost Time Adjust (s)		-2.0	0.0		-2.0		-2.0	-2.0			-2.0	0.0
Total Lost Time (s)		4.0	6.0		4.0		4.0	4.0			4.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped	Ped	Ped	Ped		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		24.0	22.0		24.0		58.0	58.0			58.0	56.0
Actuated g/C Ratio		0.27	0.24		0.27		0.64	0.64			0.64	0.62
v/c Ratio		0.27	0.20		0.43		0.19	0.49			0.66	0.04
Control Delay		28.4	8.1		26.1		4.8	5.3			8.8	0.9
Queue Delay		0.0	0.0		0.0		0.0	0.1			0.0	0.0
Total Delay		28.4	8.1		26.1		4.8	5.3			8.9	0.9
LOS		C	A		C		A	A			A	A
Approach Delay		19.7			26.1			5.3			8.5	
Approach LOS		B			C			A			A	
Queue Length 50th (ft)		47	0		68		6	51			197	1
Queue Length 95th (ft)		92	34		129		m13	73			294	3
Internal Link Dist (ft)		510			540			444			448	
Turn Bay Length (ft)			25				25					
Base Capacity (vph)		471	459		493		298	1125			1127	859
Starvation Cap Reductn		0	0		0		0	47			0	0
Spillback Cap Reductn		0	0		0		0	0			10	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		0.22	0.17		0.36		0.19	0.51			0.66	0.04

Intersection Summary	
Area Type:	Other

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 8 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 10.4	Intersection LOS: B
Intersection Capacity Utilization 83.8%	ICU Level of Service E
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Chicago Av & Greenwood St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	35	95	55	55	70	55	455	65	35	595	45
Future Volume (vph)	55	35	95	55	55	70	55	455	65	35	595	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		582			722			528			332	
Travel Time (s)		13.2			16.4			12.0			7.5	
Lane Group Flow (vph)	0	195	0	0	190	0	0	605	0	0	710	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	29.0	29.0		29.0	29.0		25.0	25.0		28.0	28.0	
Total Split (s)	33.0	33.0		33.0	33.0		57.0	57.0		57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		63.3%	63.3%		63.3%	63.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		-2.0			-2.0			-2.0			-2.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		24.0			24.0			58.0			58.0	
Actuated g/C Ratio		0.27			0.27			0.64			0.64	
v/c Ratio		0.48			0.48			0.34			0.37	
Control Delay		23.1			26.7			4.6			5.2	
Queue Delay		0.0			0.0			0.0			0.2	
Total Delay		23.1			26.7			4.6			5.4	
LOS		C			C			A			A	
Approach Delay		23.1			26.7			4.6			5.4	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		62			72			40			59	
Queue Length 95th (ft)		128			137			64			83	
Internal Link Dist (ft)		502			642			448			252	
Turn Bay Length (ft)												
Base Capacity (vph)		480			471			1763			1943	
Starvation Cap Reductn		0			0			0			532	
Spillback Cap Reductn		0			0			0			21	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.41			0.40			0.34			0.50	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	

Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 9.5 Intersection LOS: A
Intersection Capacity Utilization 64.2% ICU Level of Service C
Analysis Period (min) 15

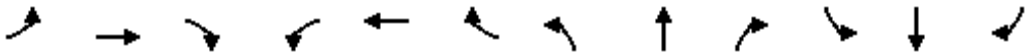
Splits and Phases: 7: Chicago Av & Lake St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	105	120	95	170	25	175	400	5	15	460	55
Future Volume (vph)	25	105	120	95	170	25	175	400	5	15	460	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		506			760			332			453	
Travel Time (s)		11.5			17.3			7.5			10.3	
Lane Group Flow (vph)	0	263	0	0	305	0	0	610	0	0	558	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	27.0	27.0		31.0	31.0		23.0	23.0		28.0	28.0	
Total Split (s)	33.0	33.0		33.0	33.0		57.0	57.0		57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		63.3%	63.3%		63.3%	63.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		-2.0			-2.0			-2.0			-2.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		27.3			27.3			54.7			54.7	
Actuated g/C Ratio		0.30			0.30			0.61			0.61	
v/c Ratio		0.28			0.72			0.46			0.29	
Control Delay		12.7			38.1			7.9			1.3	
Queue Delay		0.0			0.0			0.2			0.0	
Total Delay		12.7			38.1			8.1			1.3	
LOS		B			D			A			A	
Approach Delay		12.7			38.1			8.1			1.3	
Approach LOS		B			D			A			A	
Queue Length 50th (ft)		30			154			47			6	
Queue Length 95th (ft)		58			242			137			14	
Internal Link Dist (ft)		426			680			252			373	
Turn Bay Length (ft)												
Base Capacity (vph)		975			450			1328			1892	
Starvation Cap Reductn		0			0			162			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.27			0.68			0.52			0.29	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	

Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 11.9	Intersection LOS: B
Intersection Capacity Utilization 83.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: Chicago Av & Grove St

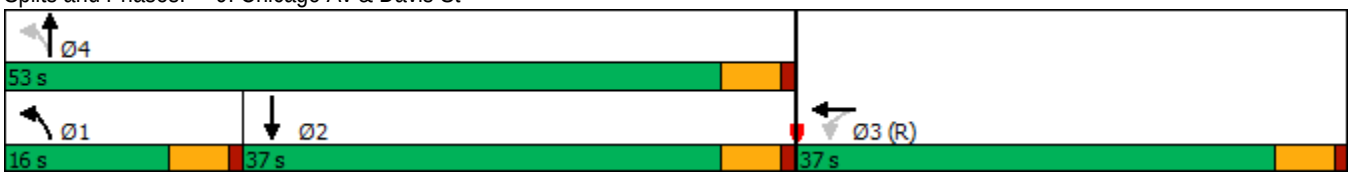


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	75	130	30	120	330	0	0	450	165
Future Volume (vph)	0	0	0	75	130	30	120	330	0	0	450	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		443			490			453			472	
Travel Time (s)		10.1			11.1			10.3			10.7	
Lane Group Flow (vph)	0	0	0	0	248	0	0	473	0	0	648	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					3		1	4			2	
Permitted Phases				3			4					
Detector Phase				3	3		1	4			2	
Switch Phase												
Minimum Initial (s)				21.0	21.0		10.0	21.0			21.0	
Minimum Split (s)				37.0	37.0		16.0	53.0			37.0	
Total Split (s)				37.0	37.0		16.0	53.0			37.0	
Total Split (%)				41.1%	41.1%		17.8%	58.9%			41.1%	
Yellow Time (s)				4.0	4.0		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					5.0			5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		None	None			None	
Act Effct Green (s)					50.6			29.4			29.4	
Actuated g/C Ratio					0.56			0.33			0.33	
v/c Ratio					0.13			0.72			0.60	
Control Delay					10.8			28.5			27.2	
Queue Delay					0.0			0.0			0.0	
Total Delay					10.8			28.5			27.2	
LOS					B			C			C	
Approach Delay					10.8			28.5			27.2	
Approach LOS					B			C			C	
Queue Length 50th (ft)					33			83			160	
Queue Length 95th (ft)					64			106			183	
Internal Link Dist (ft)		363			410			373			392	
Turn Bay Length (ft)												
Base Capacity (vph)					1857			1067			1216	
Starvation Cap Reductn					0			0			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.13			0.44			0.53	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 48 (53%), Referenced to phase 3:WBTL, Start of 1st Green	

Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 24.7	Intersection LOS: C
Intersection Capacity Utilization 65.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Chicago Av & Davis St

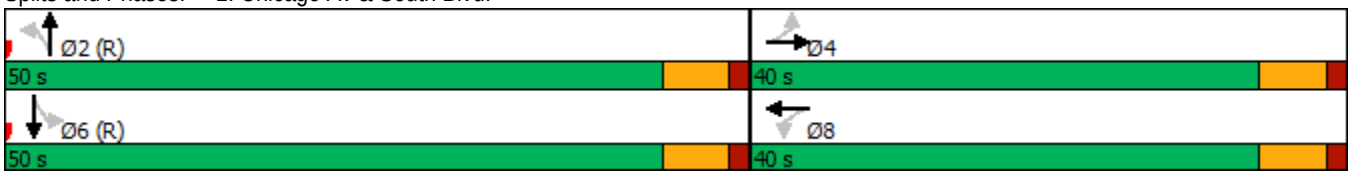


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	170	20	20	205	235	40	435	30	140	260	35
Future Volume (vph)	45	170	20	20	205	235	40	435	30	140	260	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		194			640			642			1762	
Travel Time (s)		4.4			14.5			14.6			40.0	
Lane Group Flow (vph)	47	200	0	21	463	0	0	532	0	0	458	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	26.0	26.0		27.0	27.0		28.0	28.0		28.0	28.0	
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		50.0	50.0	
Total Split (%)	44.4%	44.4%		44.4%	44.4%		55.6%	55.6%		55.6%	55.6%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0			-2.0			-2.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	30.2	30.2		30.2	30.2			51.8			51.8	
Actuated g/C Ratio	0.34	0.34		0.34	0.34			0.58			0.58	
v/c Ratio	0.36	0.34		0.07	0.82			0.55			0.65	
Control Delay	29.6	22.0		18.4	34.4			15.9			14.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	29.6	22.0		18.4	34.4			15.9			14.6	
LOS	C	C		B	C			B			B	
Approach Delay		23.4			33.7			15.9			14.6	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	20	79		8	199			178			258	
Queue Length 95th (ft)	49	123		22	297			312			373	
Internal Link Dist (ft)		114			560			562			1682	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	154	703		369	662			959			701	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.31	0.28		0.06	0.70			0.55			0.65	

Intersection Summary	
Area Type:	Other

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 55 (61%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 95.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 1: Chicago Av & South Blvd.



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	55	60	685	70	30	435
Future Volume (vph)	55	60	685	70	30	435
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		25	25	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				25	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	748		1762			656
Travel Time (s)	17.0		40.0			14.9
Lane Group Flow (vph)	121	0	721	74	32	458
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Detector Phase	8		2	2	6	6
Switch Phase						
Minimum Initial (s)	3.0		3.0	3.0	3.0	3.0
Minimum Split (s)	29.0		29.0	29.0	9.0	9.0
Total Split (s)	30.0		60.0	60.0	60.0	60.0
Total Split (%)	33.3%		66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	4.5		4.5	4.5	4.5	4.5
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5
Lost Time Adjust (s)	-2.0		-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0		4.0	6.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Ped		C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	24.0		58.0	56.0	58.0	58.0
Actuated g/C Ratio	0.27		0.64	0.62	0.64	0.64
v/c Ratio	0.27		0.62	0.09	0.10	0.39
Control Delay	15.7		14.4	5.6	5.6	6.7
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	15.7		14.4	5.6	5.6	6.7
LOS	B		B	A	A	A
Approach Delay	15.7		13.6			6.6
Approach LOS	B		B			A
Queue Length 50th (ft)	26		327	12	6	88
Queue Length 95th (ft)	70		303	m21	m9	105
Internal Link Dist (ft)	668		1682			576
Turn Bay Length (ft)				25	25	
Base Capacity (vph)	486		1160	846	311	1160
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.25		0.62	0.09	0.10	0.39

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 89 (99%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 11.3 Intersection LOS: B
Intersection Capacity Utilization 61.1% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

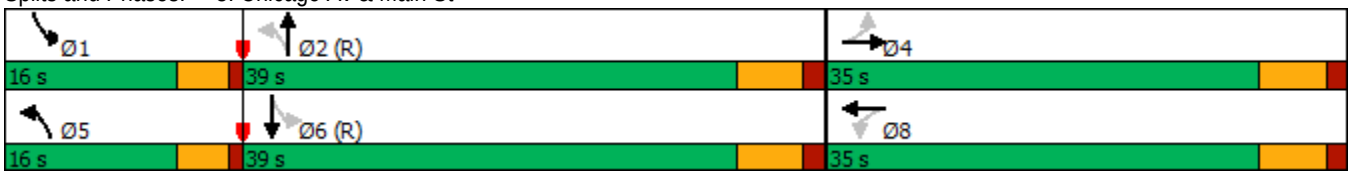
Splits and Phases: 2: Chicago Av & Kedzie St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	140	105	20	130	45	70	705	35	40	365	40
Future Volume (vph)	65	140	105	20	130	45	70	705	35	40	365	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		0
Storage Lanes	0		0	0		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		753			745			656			239	
Travel Time (s)		17.1			16.9			14.9			5.4	
Lane Group Flow (vph)	0	326	0	0	205	0	74	779	0	42	426	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		1.5	3.0		1.5	3.0	
Minimum Split (s)	30.0	30.0		28.0	28.0		7.5	26.0		7.5	26.0	
Total Split (s)	35.0	35.0		35.0	35.0		16.0	39.0		16.0	39.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%		17.8%	43.3%		17.8%	43.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)		-2.0			-2.0		1.0	-2.0		1.0	-2.0	
Total Lost Time (s)		4.0			4.0		5.5	4.0		5.5	4.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		None	C-Max		None	C-Max	
Act Effct Green (s)		27.1			27.1		50.7	48.0		48.3	45.2	
Actuated g/C Ratio		0.30			0.30		0.56	0.53		0.54	0.50	
v/c Ratio		0.71			0.41		0.17	0.43		0.12	0.48	
Control Delay		34.5			25.0		8.2	9.4		5.1	13.1	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		34.5			25.0		8.2	9.4		5.1	13.1	
LOS		C			C		A	A		A	B	
Approach Delay		34.5			25.0			9.3			12.4	
Approach LOS		C			C			A			B	
Queue Length 50th (ft)		153			86		9	58		2	187	
Queue Length 95th (ft)		232			137		m28	115		m7	329	
Internal Link Dist (ft)		673			665			576			159	
Turn Bay Length (ft)							150			150		
Base Capacity (vph)		518			570		499	1800		439	879	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.63			0.36		0.15	0.43		0.10	0.48	

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 16.3 Intersection LOS: B
Intersection Capacity Utilization 68.9% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Chicago Av & Main St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	65	80	20	75	25	60	780	20	10	430	35
Future Volume (vph)	55	65	80	20	75	25	60	780	20	10	430	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		25	150		25
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		630			794			1104			1315	
Travel Time (s)		14.3			18.0			25.1			29.9	
Lane Group Flow (vph)	0	210	0	0	126	0	63	821	21	11	453	37
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Minimum Split (s)	30.0	30.0		30.0	30.0		6.0	27.0	27.0	6.0	28.0	28.0
Total Split (s)	35.0	35.0		35.0	35.0		14.0	41.0	41.0	14.0	41.0	41.0
Total Split (%)	38.9%	38.9%		38.9%	38.9%		15.6%	45.6%	45.6%	15.6%	45.6%	45.6%
Yellow Time (s)	4.5	4.5		4.5	4.5		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5	1.5	0.0	1.5	1.5
Lost Time Adjust (s)		-2.0			-2.0		1.0	-2.0	0.0	1.0	-2.0	0.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)		25.0			25.0		56.6	55.2	53.2	52.8	48.9	46.9
Actuated g/C Ratio		0.28			0.28		0.63	0.61	0.59	0.59	0.54	0.52
v/c Ratio		0.28			0.16		0.14	0.74	0.02	0.04	0.46	0.05
Control Delay		16.1			20.0		2.7	15.6	0.8	6.9	17.6	1.9
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		16.1			20.0		2.7	15.6	0.8	6.9	17.6	1.9
LOS		B			B		A	B	A	A	B	A
Approach Delay		16.1			20.0			14.3			16.2	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		28			22		9	237	0	2	207	1
Queue Length 95th (ft)		57			44		m4	#652	m3	m3	291	m2
Internal Link Dist (ft)		550			714			1024			1235	
Turn Bay Length (ft)							150		25	150		25
Base Capacity (vph)		924			996		520	1103	863	356	979	773
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.23			0.13		0.12	0.74	0.02	0.03	0.46	0.05

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 15.5 Intersection LOS: B
Intersection Capacity Utilization 73.6% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Chicago Av & Greenleaf St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	135	100	25	105	60	140	670	40	45	360	30
Future Volume (vph)	95	135	100	25	105	60	140	670	40	45	360	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		25	150		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		802			842			1315			524	
Travel Time (s)		18.2			19.1			29.9			11.9	
Lane Group Flow (vph)	0	347	0	0	200	0	0	852	42	0	458	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		28.0	28.0	28.0	28.0	28.0	
Total Split (s)	30.0	30.0		30.0	30.0		60.0	60.0	60.0	60.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%	66.7%	66.7%	66.7%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)		-2.0			-2.0			-2.0	0.0		-2.0	
Total Lost Time (s)		4.0			4.0			4.0	6.0		4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)		25.0			25.0			57.0	55.0		57.0	
Actuated g/C Ratio		0.28			0.28			0.63	0.61		0.63	
v/c Ratio		0.51			0.45			0.89	0.05		0.54	
Control Delay		24.0			27.2			17.8	0.4		7.6	
Queue Delay		0.0			0.0			1.0	0.0		0.0	
Total Delay		24.0			27.2			18.8	0.4		7.6	
LOS		C			C			B	A		A	
Approach Delay		24.0			27.2			17.9			7.6	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		66			81			472	0		68	
Queue Length 95th (ft)		110			146			#658	m1		93	
Internal Link Dist (ft)		722			762			1235			444	
Turn Bay Length (ft)									25			
Base Capacity (vph)		712			457			954	879		842	
Starvation Cap Reductn		0			0			0	0		0	
Spillback Cap Reductn		0			0			20	0		0	
Storage Cap Reductn		0			0			0	0		0	
Reduced v/c Ratio		0.49			0.44			0.91	0.05		0.54	

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 71 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 17.5 Intersection LOS: B
Intersection Capacity Utilization 107.6% ICU Level of Service G
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Chicago Av & Dempster St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	55	40	45	65	60	45	750	60	30	345	35
Future Volume (vph)	45	55	40	45	65	60	45	750	60	30	345	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		0	25		0	0		0
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		590			620			524			528	
Travel Time (s)		13.4			14.1			11.9			12.0	
Lane Group Flow (vph)	0	105	42	0	178	0	47	852	0	0	395	37
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	29.0	29.0	29.0	27.0	27.0		28.0	28.0		31.0	31.0	31.0
Total Split (s)	33.0	33.0	33.0	33.0	33.0		57.0	57.0		57.0	57.0	57.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%		63.3%	63.3%		63.3%	63.3%	63.3%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lost Time Adjust (s)		-2.0	0.0		-2.0		-2.0	-2.0			-2.0	0.0
Total Lost Time (s)		4.0	6.0		4.0		4.0	4.0			4.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped	Ped	Ped	Ped		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		24.0	22.0		24.0		58.0	58.0			58.0	56.0
Actuated g/C Ratio		0.27	0.24		0.27		0.64	0.64			0.64	0.62
v/c Ratio		0.27	0.12		0.43		0.09	0.75			0.39	0.04
Control Delay		28.4	9.7		26.1		4.0	8.9			7.3	2.0
Queue Delay		0.0	0.0		0.0		0.0	1.8			0.0	0.0
Total Delay		28.4	9.7		26.1		4.0	10.7			7.3	2.0
LOS		C	A		C		A	B			A	A
Approach Delay		23.0			26.1			10.3			6.8	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		47	0		68		5	133			78	0
Queue Length 95th (ft)		92	25		129		m7	m194			123	7
Internal Link Dist (ft)		510			540			444			448	
Turn Bay Length (ft)			25				25					
Base Capacity (vph)		471	433		493		534	1139			1013	859
Starvation Cap Reductn		0	0		0		0	149			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		0.22	0.10		0.36		0.09	0.86			0.39	0.04

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 87 (97%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 12.2 Intersection LOS: B
Intersection Capacity Utilization 91.7% ICU Level of Service F
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Chicago Av & Greenwood St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	35	65	40	55	70	45	750	60	40	305	45
Future Volume (vph)	55	35	65	40	55	70	45	750	60	40	305	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		582			722			528			332	
Travel Time (s)		13.2			16.4			12.0			7.5	
Lane Group Flow (vph)	0	163	0	0	174	0	0	899	0	0	410	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	29.0	29.0		29.0	29.0		25.0	25.0		28.0	28.0	
Total Split (s)	33.0	33.0		33.0	33.0		57.0	57.0		57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		63.3%	63.3%		63.3%	63.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		-2.0			-2.0			-2.0			-2.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		24.0			24.0			58.0			58.0	
Actuated g/C Ratio		0.27			0.27			0.64			0.64	
v/c Ratio		0.41			0.41			0.46			0.24	
Control Delay		23.7			23.4			4.2			3.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		23.7			23.4			4.2			3.4	
LOS		C			C			A			A	
Approach Delay		23.7			23.4			4.2			3.4	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		55			59			38			15	
Queue Length 95th (ft)		114			119			75			21	
Internal Link Dist (ft)		502			642			448			252	
Turn Bay Length (ft)												
Base Capacity (vph)		468			505			1963			1743	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.35			0.34			0.46			0.24	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green, Master Intersection

Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.46	
Intersection Signal Delay: 8.0	Intersection LOS: A
Intersection Capacity Utilization 70.1%	ICU Level of Service C
Analysis Period (min) 15	

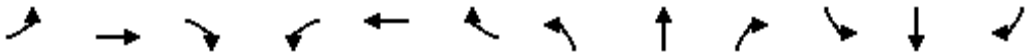
Splits and Phases: 7: Chicago Av & Lake St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	35	75	25	40	10	90	750	35	10	290	10
Future Volume (vph)	20	35	75	25	40	10	90	750	35	10	290	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		506			760			332			453	
Travel Time (s)		11.5			17.3			7.5			10.3	
Lane Group Flow (vph)	0	137	0	0	79	0	0	921	0	0	327	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	27.0	27.0		31.0	31.0		23.0	23.0		28.0	28.0	
Total Split (s)	33.0	33.0		33.0	33.0		57.0	57.0		57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		63.3%	63.3%		63.3%	63.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		-2.0			-2.0			-2.0			-2.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		26.0			26.0			56.0			56.0	
Actuated g/C Ratio		0.29			0.29			0.62			0.62	
v/c Ratio		0.16			0.18			0.51			0.17	
Control Delay		11.8			22.4			10.2			2.4	
Queue Delay		0.0			0.0			0.1			0.0	
Total Delay		11.8			22.4			10.3			2.4	
LOS		B			C			B			A	
Approach Delay		11.8			22.4			10.3			2.4	
Approach LOS		B			C			B			A	
Queue Length 50th (ft)		12			29			125			8	
Queue Length 95th (ft)		34			64			175			13	
Internal Link Dist (ft)		426			680			252			373	
Turn Bay Length (ft)												
Base Capacity (vph)		925			498			1813			1946	
Starvation Cap Reductn		0			0			154			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.15			0.16			0.56			0.17	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 71 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	

Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 9.3	Intersection LOS: A
Intersection Capacity Utilization 72.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: Chicago Av & Grove St

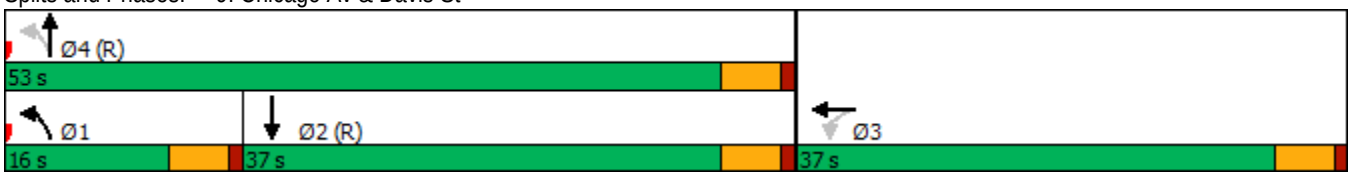


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	30	90	10	170	610	0	0	280	90
Future Volume (vph)	0	0	0	30	90	10	170	610	0	0	280	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		443			490			453			433	
Travel Time (s)		10.1			11.1			10.3			9.8	
Lane Group Flow (vph)	0	0	0	0	138	0	0	821	0	0	390	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					3		1	4			2	
Permitted Phases				3			4					
Detector Phase				3	3		1	4			2	
Switch Phase												
Minimum Initial (s)				21.0	21.0		10.0	21.0			21.0	
Minimum Split (s)				37.0	37.0		16.0	53.0			37.0	
Total Split (s)				37.0	37.0		16.0	53.0			37.0	
Total Split (%)				41.1%	41.1%		17.8%	58.9%			41.1%	
Yellow Time (s)				4.0	4.0		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					5.0			5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?												
Recall Mode				Max	Max		None	C-Max			C-Max	
Act Effct Green (s)					32.0			48.0			48.0	
Actuated g/C Ratio					0.36			0.53			0.53	
v/c Ratio					0.12			0.60			0.22	
Control Delay					19.9			15.7			11.5	
Queue Delay					0.0			0.0			0.0	
Total Delay					19.9			15.7			11.5	
LOS					B			B			B	
Approach Delay					19.9			15.7			11.5	
Approach LOS					B			B			B	
Queue Length 50th (ft)					27			107			58	
Queue Length 95th (ft)					47			105			84	
Internal Link Dist (ft)		363			410			373			353	
Turn Bay Length (ft)												
Base Capacity (vph)					1188			1372			1757	
Starvation Cap Reductn					0			6			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.12			0.60			0.22	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 65 (72%), Referenced to phase 4:NBTL and 2:SBT, Start of 1st Green	

Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 14.9	Intersection LOS: B
Intersection Capacity Utilization 69.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Chicago Av & Davis St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	170	35	85	185	190	40	315	30	190	515	65
Future Volume (vph)	60	170	35	85	185	190	40	315	30	190	515	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		194			640			642			1762	
Travel Time (s)		4.4			14.5			14.6			40.0	
Lane Group Flow (vph)	63	216	0	89	395	0	0	406	0	0	810	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	26.0	26.0		27.0	27.0		28.0	28.0		28.0	28.0	
Total Split (s)	30.0	30.0		30.0	30.0		60.0	60.0		60.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0			-2.0			-2.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	24.9	24.9		24.9	24.9			57.1			57.1	
Actuated g/C Ratio	0.28	0.28		0.28	0.28			0.63			0.63	
v/c Ratio	0.59	0.45		0.39	0.84			0.41			0.93	
Control Delay	52.7	28.5		31.8	43.2			9.7			28.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	52.7	28.5		31.8	43.2			9.7			28.3	
LOS	D	C		C	D			A			C	
Approach Delay		33.9			41.1			9.7			28.3	
Approach LOS		C			D			A			C	
Queue Length 50th (ft)	30	94		40	179			104			484	
Queue Length 95th (ft)	#90	159		85	#330			165			#696	
Internal Link Dist (ft)		114			560			562			1682	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	112	503		240	490			984			875	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.56	0.43		0.37	0.81			0.41			0.93	

Intersection Summary	
Area Type:	Other

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 43 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 28.4	Intersection LOS: C
Intersection Capacity Utilization 102.9%	ICU Level of Service G
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Chicago Av & South Blvd.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	60	40	565	40	35	815
Future Volume (vph)	60	40	565	40	35	815
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		25	25	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				25	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	748		1762			656
Travel Time (s)	17.0		40.0			14.9
Lane Group Flow (vph)	105	0	595	42	37	858
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Detector Phase	8		2	2	6	6
Switch Phase						
Minimum Initial (s)	3.0		3.0	3.0	3.0	3.0
Minimum Split (s)	29.0		29.0	29.0	9.0	9.0
Total Split (s)	30.0		60.0	60.0	60.0	60.0
Total Split (%)	33.3%		66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	4.5		4.5	4.5	4.5	4.5
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5
Lost Time Adjust (s)	-2.0		-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0		4.0	6.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Ped		C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	24.0		58.0	56.0	58.0	58.0
Actuated g/C Ratio	0.27		0.64	0.62	0.64	0.64
v/c Ratio	0.23		0.51	0.05	0.09	0.74
Control Delay	18.6		12.9	5.5	3.9	7.4
Queue Delay	0.0		0.0	0.0	0.0	1.4
Total Delay	18.6		12.9	5.5	3.9	8.8
LOS	B		B	A	A	A
Approach Delay	18.6		12.4			8.6
Approach LOS	B		B			A
Queue Length 50th (ft)	29		219	8	4	93
Queue Length 95th (ft)	71		m333	m15	m5	m110
Internal Link Dist (ft)	668		1682			576
Turn Bay Length (ft)				25	25	
Base Capacity (vph)	481		1160	843	393	1160
Starvation Cap Reductn	0		0	0	0	142
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.22		0.51	0.05	0.09	0.84

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 80 (89%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 10.7 Intersection LOS: B
Intersection Capacity Utilization 67.9% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Chicago Av & Kedzie St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	165	170	25	105	40	75	455	45	55	675	60
Future Volume (vph)	80	165	170	25	105	40	75	455	45	55	675	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		0
Storage Lanes	0		0	0		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		753			745			656			229	
Travel Time (s)		17.1			16.9			14.9			5.2	
Lane Group Flow (vph)	0	437	0	0	179	0	79	526	0	58	774	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	30.0	30.0		28.0	28.0		9.0	26.0		9.0	26.0	
Total Split (s)	35.0	35.0		35.0	35.0		15.0	40.0		15.0	40.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%		16.7%	44.4%		16.7%	44.4%	
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)		-2.0			-2.0		1.0	-2.0		1.0	-2.0	
Total Lost Time (s)		4.0			4.0		5.5	4.0		5.5	4.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		None	C-Max		None	C-Max	
Act Effct Green (s)		29.4			29.4		47.2	43.2		46.2	42.7	
Actuated g/C Ratio		0.33			0.33		0.52	0.48		0.51	0.47	
v/c Ratio		0.87			0.35		0.39	0.33		0.14	0.92	
Control Delay		45.2			22.1		23.9	14.0		6.5	29.7	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		45.2			22.1		23.9	14.0		6.5	29.7	
LOS		D			C		C	B		A	C	
Approach Delay		45.2			22.1			15.3			28.1	
Approach LOS		D			C			B			C	
Queue Length 50th (ft)		206			66		22	58		6	~480	
Queue Length 95th (ft)		#374			120		67	114		m11	#693	
Internal Link Dist (ft)		673			665			576			149	
Turn Bay Length (ft)							150			150		
Base Capacity (vph)		526			541		262	1607		485	837	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.83			0.33		0.30	0.33		0.12	0.92	

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 77 (86%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 27.4 Intersection LOS: C
Intersection Capacity Utilization 91.1% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Chicago Av & Main St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	110	90	25	80	30	65	545	10	40	720	35
Future Volume (vph)	60	110	90	25	80	30	65	545	10	40	720	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		25	150		25
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		630			794			1114			1315	
Travel Time (s)		14.3			18.0			25.3			29.9	
Lane Group Flow (vph)	0	274	0	0	142	0	68	574	11	42	758	37
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Minimum Split (s)	30.0	30.0		30.0	30.0		6.0	27.0	27.0	6.0	28.0	28.0
Total Split (s)	35.0	35.0		35.0	35.0		14.0	41.0	41.0	14.0	41.0	41.0
Total Split (%)	38.9%	38.9%		38.9%	38.9%		15.6%	45.6%	45.6%	15.6%	45.6%	45.6%
Yellow Time (s)	4.5	4.5		4.5	4.5		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5	1.5	0.0	1.5	1.5
Lost Time Adjust (s)		-2.0			-2.0		1.0	-2.0	0.0	1.0	-2.0	0.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)		25.0			25.0		55.0	51.1	49.1	53.3	48.8	46.8
Actuated g/C Ratio		0.28			0.28		0.61	0.57	0.55	0.59	0.54	0.52
v/c Ratio		0.35			0.18		0.26	0.56	0.01	0.10	0.78	0.05
Control Delay		18.1			19.7		7.2	16.0	1.0	4.1	17.1	0.7
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		18.1			19.7		7.2	16.0	1.0	4.1	17.1	0.7
LOS		B			B		A	B	A	A	B	A
Approach Delay		18.1			19.7			14.8			15.8	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		41			24		12	284	0	4	270	0
Queue Length 95th (ft)		75			48		m34	m400	m1	m6	#579	m0
Internal Link Dist (ft)		550			714			1034			1235	
Turn Bay Length (ft)							150		25	150		25
Base Capacity (vph)		956			973		332	1022	803	487	977	771
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.29			0.15		0.20	0.56	0.01	0.09	0.78	0.05

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 49 (54%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 16.1 Intersection LOS: B
Intersection Capacity Utilization 74.0% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Chicago Av & Greenleaf St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	120	175	25	145	25	120	420	35	45	705	50
Future Volume (vph)	65	120	175	25	145	25	120	420	35	45	705	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		25	150		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		802			842			1315			524	
Travel Time (s)		18.2			19.1			29.9			11.9	
Lane Group Flow (vph)	0	378	0	0	205	0	0	568	37	0	842	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		28.0	28.0	28.0	28.0	28.0	
Total Split (s)	30.0	30.0		30.0	30.0		60.0	60.0	60.0	60.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%	66.7%	66.7%	66.7%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)		-2.0			-2.0			-2.0	0.0		-2.0	
Total Lost Time (s)		4.0			4.0			4.0	6.0		4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)		25.0			25.0			57.0	55.0		57.0	
Actuated g/C Ratio		0.28			0.28			0.63	0.61		0.63	
v/c Ratio		0.47			0.46			0.72	0.04		0.79	
Control Delay		15.5			29.8			21.4	1.7		10.5	
Queue Delay		0.0			0.0			0.0	0.0		0.0	
Total Delay		15.5			29.8			21.4	1.7		10.5	
LOS		B			C			C	A		B	
Approach Delay		15.5			29.8			20.2			10.5	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)		45			92			314	3		85	
Queue Length 95th (ft)		87			159			443	m5		148	
Internal Link Dist (ft)		722			762			1235			444	
Turn Bay Length (ft)									25			
Base Capacity (vph)		836			465			789	879		1064	
Starvation Cap Reductn		0			0			0	0		0	
Spillback Cap Reductn		0			0			0	0		0	
Storage Cap Reductn		0			0			0	0		0	
Reduced v/c Ratio		0.45			0.44			0.72	0.04		0.79	

Intersection Summary	
Area Type:	Other

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 82 (91%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 16.3	Intersection LOS: B
Intersection Capacity Utilization 112.8%	ICU Level of Service H
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Chicago Av & Dempster St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	55	75	45	65	60	55	455	65	25	680	35
Future Volume (vph)	45	55	75	45	65	60	55	455	65	25	680	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		0	25		0	0		0
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		590			620			524			528	
Travel Time (s)		13.4			14.1			11.9			12.0	
Lane Group Flow (vph)	0	105	79	0	178	0	58	547	0	0	742	37
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	29.0	29.0	29.0	27.0	27.0		28.0	28.0		31.0	31.0	31.0
Total Split (s)	33.0	33.0	33.0	33.0	33.0		57.0	57.0		57.0	57.0	57.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%		63.3%	63.3%		63.3%	63.3%	63.3%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lost Time Adjust (s)		-2.0	0.0		-2.0		-2.0	-2.0			-2.0	0.0
Total Lost Time (s)		4.0	6.0		4.0		4.0	4.0			4.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped	Ped	Ped	Ped		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		24.0	22.0		24.0		58.0	58.0			58.0	56.0
Actuated g/C Ratio		0.27	0.24		0.27		0.64	0.64			0.64	0.62
v/c Ratio		0.27	0.20		0.43		0.19	0.49			0.66	0.04
Control Delay		28.4	8.1		26.1		5.9	5.4			8.3	0.5
Queue Delay		0.0	0.0		0.0		0.0	0.4			0.0	0.0
Total Delay		28.4	8.1		26.1		5.9	5.8			8.3	0.5
LOS		C	A		C		A	A			A	A
Approach Delay		19.7			26.1			5.8			8.0	
Approach LOS		B			C			A			A	
Queue Length 50th (ft)		47	0		68		6	53			125	1
Queue Length 95th (ft)		92	34		129		m18	144			161	1
Internal Link Dist (ft)		510			540			444			448	
Turn Bay Length (ft)			25				25					
Base Capacity (vph)		471	459		493		298	1125			1127	859
Starvation Cap Reductn		0	0		0		0	193			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		0.22	0.17		0.36		0.19	0.59			0.66	0.04

Intersection Summary	
Area Type:	Other

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 83 (92%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 10.3	Intersection LOS: B
Intersection Capacity Utilization 83.8%	ICU Level of Service E
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Chicago Av & Greenwood St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	35	95	55	55	70	55	455	65	35	595	45
Future Volume (vph)	55	35	95	55	55	70	55	455	65	35	595	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		582			722			528			332	
Travel Time (s)		13.2			16.4			12.0			7.5	
Lane Group Flow (vph)	0	195	0	0	190	0	0	605	0	0	710	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	29.0	29.0		29.0	29.0		25.0	25.0		28.0	28.0	
Total Split (s)	33.0	33.0		33.0	33.0		57.0	57.0		57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		63.3%	63.3%		63.3%	63.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		-2.0			-2.0			-2.0			-2.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		24.0			24.0			58.0			58.0	
Actuated g/C Ratio		0.27			0.27			0.64			0.64	
v/c Ratio		0.48			0.48			0.34			0.37	
Control Delay		23.1			26.7			5.5			6.1	
Queue Delay		0.0			0.0			0.0			0.2	
Total Delay		23.1			26.7			5.5			6.4	
LOS		C			C			A			A	
Approach Delay		23.1			26.7			5.5			6.4	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		62			72			42			64	
Queue Length 95th (ft)		128			137			60			81	
Internal Link Dist (ft)		502			642			448			252	
Turn Bay Length (ft)												
Base Capacity (vph)		480			471			1763			1943	
Starvation Cap Reductn		0			0			0			512	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.41			0.40			0.34			0.50	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	

Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 10.3	Intersection LOS: B
Intersection Capacity Utilization 64.2%	ICU Level of Service C
Analysis Period (min) 15	

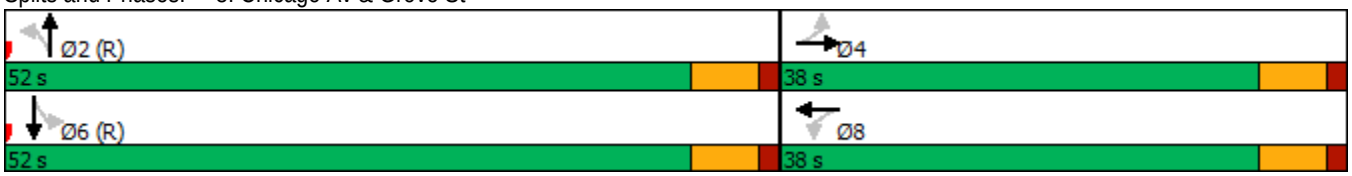
Splits and Phases: 7: Chicago Av & Lake St

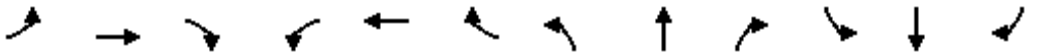
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	105	120	95	170	25	175	400	5	15	460	55
Future Volume (vph)	25	105	120	95	170	25	175	400	5	15	460	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		506			760			332			453	
Travel Time (s)		11.5			17.3			7.5			10.3	
Lane Group Flow (vph)	0	263	0	0	305	0	0	610	0	0	558	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	27.0	27.0		31.0	31.0		23.0	23.0		28.0	28.0	
Total Split (s)	38.0	38.0		38.0	38.0		52.0	52.0		52.0	52.0	
Total Split (%)	42.2%	42.2%		42.2%	42.2%		57.8%	57.8%		57.8%	57.8%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		-2.0			-2.0			-2.0			-2.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		28.5			28.5			53.5			53.5	
Actuated g/C Ratio		0.32			0.32			0.59			0.59	
v/c Ratio		0.27			0.69			0.47			0.30	
Control Delay		11.8			34.7			10.2			4.2	
Queue Delay		0.0			0.0			0.2			0.0	
Total Delay		11.8			34.7			10.3			4.2	
LOS		B			C			B			A	
Approach Delay		11.8			34.7			10.3			4.2	
Approach LOS		B			C			B			A	
Queue Length 50th (ft)		30			153			66			24	
Queue Length 95th (ft)		53			219			164			35	
Internal Link Dist (ft)		426			680			252			373	
Turn Bay Length (ft)												
Base Capacity (vph)		1122			528			1296			1849	
Starvation Cap Reductn		0			0			150			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.23			0.58			0.53			0.30	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	

Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 12.9	Intersection LOS: B
Intersection Capacity Utilization 83.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: Chicago Av & Grove St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	75	130	30	120	330	0	0	450	165
Future Volume (vph)	0	0	0	75	130	30	120	330	0	0	450	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		443			490			453			472	
Travel Time (s)		10.1			11.1			10.3			10.7	
Lane Group Flow (vph)	0	0	0	0	248	0	0	473	0	0	648	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					3		1	4			2	
Permitted Phases				3			4					
Detector Phase				3	3		1	4			2	
Switch Phase												
Minimum Initial (s)				21.0	21.0		10.0	21.0			21.0	
Minimum Split (s)				37.0	37.0		16.0	53.0			37.0	
Total Split (s)				40.0	40.0		16.0	50.0			34.0	
Total Split (%)				44.4%	44.4%		17.8%	55.6%			37.8%	
Yellow Time (s)				4.0	4.0		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					5.0			5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?												
Recall Mode				Max	Max		None	C-Max			C-Max	
Act Effct Green (s)					35.0			45.0			45.0	
Actuated g/C Ratio					0.39			0.50			0.50	
v/c Ratio					0.19			0.43			0.39	
Control Delay					18.7			10.5			14.9	
Queue Delay					0.0			0.0			0.0	
Total Delay					18.7			10.5			14.9	
LOS					B			B			B	
Approach Delay					18.7			10.5			14.9	
Approach LOS					B			B			B	
Queue Length 50th (ft)					47			48			115	
Queue Length 95th (ft)					74			52			156	
Internal Link Dist (ft)		363			410			373			392	
Turn Bay Length (ft)												
Base Capacity (vph)					1284			1095			1642	
Starvation Cap Reductn					0			0			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.19			0.43			0.39	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 85 (94%), Referenced to phase 4:NBTL and 2:SBT, Start of 1st Green	

Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 14.1	Intersection LOS: B
Intersection Capacity Utilization 65.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Chicago Av & Davis St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	170	20	20	205	235	40	435	30	140	260	35
Future Volume (vph)	45	170	20	20	205	235	40	435	30	140	260	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	0		50	0		0	100		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		194			640			642			1762	
Travel Time (s)		4.4			14.5			14.6			40.0	
Lane Group Flow (vph)	47	200	0	0	237	247	0	532	0	0	458	0
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		pm+pt	NA	
Protected Phases		4			8	1		2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	2	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Split (s)	26.0	26.0		27.0	27.0	13.0	28.0	28.0		13.0	28.0	
Total Split (s)	30.0	30.0		30.0	30.0	14.0	46.0	46.0		14.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%	15.6%	51.1%	51.1%		15.6%	66.7%	
Yellow Time (s)	4.5	4.5		4.5	4.5	3.0	4.5	4.5		3.0	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	0.0	1.5	1.5		0.0	1.5	
Lost Time Adjust (s)	-2.0	-2.0			-2.0	0.0		-2.0			-2.0	
Total Lost Time (s)	4.0	4.0			4.0	3.0		4.0			4.0	
Lead/Lag						Lead	Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped	None	C-Max	C-Max		None	C-Max	
Act Effct Green (s)	22.8	22.8			22.8	29.4		50.6			59.2	
Actuated g/C Ratio	0.25	0.25			0.25	0.33		0.56			0.66	
v/c Ratio	0.25	0.45			0.55	0.42		0.57			0.55	
Control Delay	30.4	30.7			34.3	6.5		15.9			5.3	
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	
Total Delay	30.4	30.7			34.3	6.5		15.9			5.3	
LOS	C	C			C	A		B			A	
Approach Delay		30.6			20.1			15.9			5.3	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)	22	93			118	12		175			19	
Queue Length 95th (ft)	50	150			182	58		302			33	
Internal Link Dist (ft)		114			560			562			1682	
Turn Bay Length (ft)	25					50						
Base Capacity (vph)	215	509			496	670		936			831	
Starvation Cap Reductn	0	0			0	0		0			0	
Spillback Cap Reductn	0	0			0	0		0			0	
Storage Cap Reductn	0	0			0	0		0			0	
Reduced v/c Ratio	0.22	0.39			0.48	0.37		0.57			0.55	

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 45 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 16.4 Intersection LOS: B
Intersection Capacity Utilization 96.9% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 1: Chicago Av & South Blvd.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	135	100	25	105	60	140	670	40	45	360	30
Future Volume (vph)	95	135	100	25	105	60	140	670	40	45	360	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		25	150		100
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		802			842			1315			524	
Travel Time (s)		18.2			19.1			29.9			11.9	
Lane Group Flow (vph)	0	347	0	0	200	0	147	747	0	47	411	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		7.5	28.0		7.5	28.0	
Total Split (s)	30.0	30.0		30.0	30.0		10.0	50.0		10.0	50.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		11.1%	55.6%		11.1%	55.6%	
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)		-2.0			-2.0		1.0	-2.0		1.0	-2.0	
Total Lost Time (s)		4.0			4.0		5.5	4.0		5.5	4.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		None	C-Max		None	C-Max	
Act Effct Green (s)		25.0			25.0		52.2	50.4		49.7	46.0	
Actuated g/C Ratio		0.28			0.28		0.58	0.56		0.55	0.51	
v/c Ratio		0.51			0.45		0.33	0.75		0.18	0.45	
Control Delay		24.0			27.2		3.6	12.3		5.8	9.6	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		24.0			27.2		3.6	12.4		5.8	9.6	
LOS		C			C		A	B		A	A	
Approach Delay		24.0			27.2			10.9			9.2	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		66			81		7	429		7	78	
Queue Length 95th (ft)		110			146		m11	#233		14	119	
Internal Link Dist (ft)		722			762			1235			444	
Turn Bay Length (ft)							150			150		
Base Capacity (vph)		712			457		450	998		258	904	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	5		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.49			0.44		0.33	0.75		0.18	0.45	

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 88 (98%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 14.6 Intersection LOS: B
Intersection Capacity Utilization 85.0% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Chicago Av & Dempster St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	170	35	85	185	190	40	315	30	190	515	65
Future Volume (vph)	60	170	35	85	185	190	40	315	30	190	515	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	0		50	0		0	100		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		194			640			642			1762	
Travel Time (s)		4.4			14.5			14.6			40.0	
Lane Group Flow (vph)	63	216	0	0	284	200	0	406	0	0	810	0
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		pm+pt	NA	
Protected Phases		4			8	1		2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	2	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Split (s)	26.0	26.0		27.0	27.0	13.0	28.0	28.0		13.0	28.0	
Total Split (s)	30.0	30.0		30.0	30.0	14.0	46.0	46.0		14.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%	15.6%	51.1%	51.1%		15.6%	66.7%	
Yellow Time (s)	4.5	4.5		4.5	4.5	3.0	4.5	4.5		3.0	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	0.0	1.5	1.5		0.0	1.5	
Lost Time Adjust (s)	-2.0	-2.0			-2.0	0.0		-2.0			-2.0	
Total Lost Time (s)	4.0	4.0			4.0	3.0		4.0			4.0	
Lead/Lag						Lead	Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped	None	C-Max	C-Max		None	C-Max	
Act Effct Green (s)	24.8	24.8			24.8	31.4		48.6			57.2	
Actuated g/C Ratio	0.28	0.28			0.28	0.35		0.54			0.64	
v/c Ratio	0.35	0.45			0.82	0.35		0.49			0.93	
Control Delay	31.9	28.6			51.4	7.8		15.6			20.0	
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	
Total Delay	31.9	28.6			51.4	7.8		15.6			20.0	
LOS	C	C			D	A		B			B	
Approach Delay		29.3			33.4			15.6			20.0	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	28	94			148	19		138			29	
Queue Length 95th (ft)	66	159			#277	62		219			#411	
Internal Link Dist (ft)		114			560			562			1682	
Turn Bay Length (ft)	25					50						
Base Capacity (vph)	191	503			362	654		834			869	
Starvation Cap Reductn	0	0			0	0		0			0	
Spillback Cap Reductn	0	0			0	0		0			0	
Storage Cap Reductn	0	0			0	0		0			0	
Reduced v/c Ratio	0.33	0.43			0.78	0.31		0.49			0.93	

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 29 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 23.7 Intersection LOS: C
Intersection Capacity Utilization 108.6% ICU Level of Service G
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

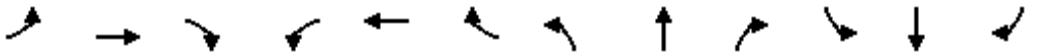
Splits and Phases: 1: Chicago Av & South Blvd.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	120	175	25	145	25	120	420	35	45	705	50
Future Volume (vph)	65	120	175	25	145	25	120	420	35	45	705	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		25	150		100
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		802			842			1315			524	
Travel Time (s)		18.2			19.1			29.9			11.9	
Lane Group Flow (vph)	0	378	0	0	205	0	126	479	0	47	795	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	27.0	27.0		27.0	27.0		7.5	28.0		7.5	28.0	
Total Split (s)	27.0	27.0		27.0	27.0		10.0	53.0		10.0	53.0	
Total Split (%)	30.0%	30.0%		30.0%	30.0%		11.1%	58.9%		11.1%	58.9%	
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)		-2.0			-2.0		1.0	-2.0		1.0	-2.0	
Total Lost Time (s)		4.0			4.0		5.5	4.0		5.5	4.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		None	C-Max		None	C-Max	
Act Effct Green (s)		23.0			23.0		54.2	53.0		52.0	49.0	
Actuated g/C Ratio		0.26			0.26		0.60	0.59		0.58	0.54	
v/c Ratio		0.51			0.50		0.58	0.46		0.10	0.82	
Control Delay		17.0			32.4		24.5	5.7		7.0	17.1	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.4	
Total Delay		17.0			32.4		24.5	5.7		7.0	17.5	
LOS		B			C		C	A		A	B	
Approach Delay		17.0			32.4			9.6			16.9	
Approach LOS		B			C			A			B	
Queue Length 50th (ft)		46			95		19	33		7	137	
Queue Length 95th (ft)		91			165		#63	48		m15	#250	
Internal Link Dist (ft)		722			762			1235			444	
Turn Bay Length (ft)							150			150		
Base Capacity (vph)		744			410		217	1044		461	965	
Starvation Cap Reductn		0			0		0	0		0	23	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.51			0.50		0.58	0.46		0.10	0.84	

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 16.3 Intersection LOS: B
Intersection Capacity Utilization 89.4% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Chicago Av & Dempster St

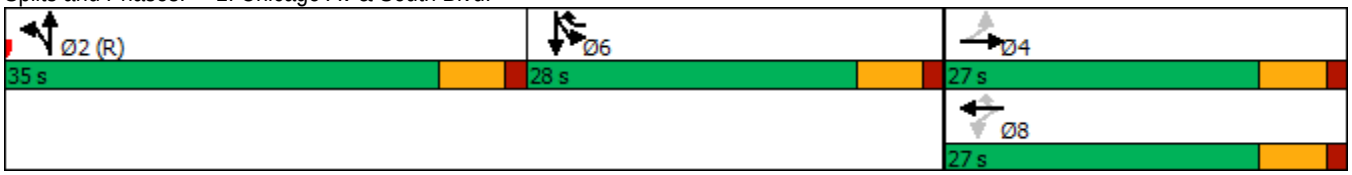


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	170	20	20	205	235	40	435	30	140	260	35
Future Volume (vph)	45	170	20	20	205	235	40	435	30	140	260	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	0		50	0		0	100		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		194			640			642			1762	
Travel Time (s)		4.4			14.5			14.6			40.0	
Lane Group Flow (vph)	47	200	0	0	237	247	0	532	0	0	458	0
Turn Type	Perm	NA		Perm	NA	pm+ov	Split	NA		Split	NA	
Protected Phases		4			8	6	2	2		6	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	6	2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Split (s)	26.0	26.0		27.0	27.0	28.0	28.0	28.0		28.0	28.0	
Total Split (s)	27.0	27.0		27.0	27.0	28.0	35.0	35.0		28.0	28.0	
Total Split (%)	30.0%	30.0%		30.0%	30.0%	31.1%	38.9%	38.9%		31.1%	31.1%	
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	-2.0	-2.0			-2.0	0.0		-2.0			-2.0	
Total Lost Time (s)	4.0	4.0			4.0	6.0		4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped	Ped	C-Max	C-Max		Ped	Ped	
Act Effct Green (s)	22.2	22.2			22.2	42.2		31.8			24.0	
Actuated g/C Ratio	0.25	0.25			0.25	0.47		0.35			0.27	
v/c Ratio	0.26	0.46			0.56	0.33		0.85			0.98	
Control Delay	31.7	31.9			35.5	6.8		41.7			71.6	
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	
Total Delay	31.7	31.9			35.5	6.8		41.7			71.6	
LOS	C	C			D	A		D			E	
Approach Delay		31.8			20.9			41.7			71.6	
Approach LOS		C			C			D			E	
Queue Length 50th (ft)	22	94			118	33		273			216	
Queue Length 95th (ft)	52	157			191	72		#466			#430	
Internal Link Dist (ft)		114			560			562			1682	
Turn Bay Length (ft)	25					50						
Base Capacity (vph)	187	450			439	741		626			466	
Starvation Cap Reductn	0	0			0	0		0			0	
Spillback Cap Reductn	0	0			0	0		0			0	
Storage Cap Reductn	0	0			0	0		0			0	
Reduced v/c Ratio	0.25	0.44			0.54	0.33		0.85			0.98	

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 44 (49%), Referenced to phase 2:NBTL, Start of 1st Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 42.4 Intersection LOS: D
Intersection Capacity Utilization 96.9% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Chicago Av & South Blvd.

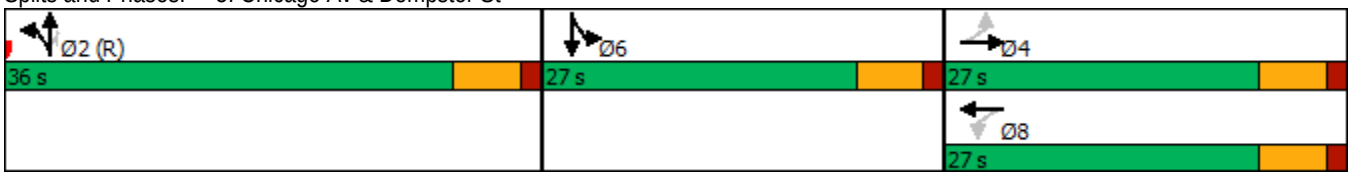


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	135	100	25	105	60	140	670	40	45	360	30
Future Volume (vph)	95	135	100	25	105	60	140	670	40	45	360	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		25	150		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		802			842			1315			524	
Travel Time (s)		18.2			19.1			29.9			11.9	
Lane Group Flow (vph)	0	347	0	0	200	0	0	852	42	0	458	0
Turn Type	Perm	NA		Perm	NA		Split	NA	Perm	Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8					2			
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Minimum Split (s)	27.0	27.0		27.0	27.0		27.0	27.0	27.0	27.0	27.0	
Total Split (s)	27.0	27.0		27.0	27.0		36.0	36.0	36.0	27.0	27.0	
Total Split (%)	30.0%	30.0%		30.0%	30.0%		40.0%	40.0%	40.0%	30.0%	30.0%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)		-2.0			-2.0			-2.0	0.0		-2.0	
Total Lost Time (s)		4.0			4.0			4.0	6.0		4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max	C-Max	Ped	Ped	
Act Effct Green (s)		23.0			23.0			32.0	30.0		23.0	
Actuated g/C Ratio		0.26			0.26			0.36	0.33		0.26	
v/c Ratio		0.56			0.50			1.34	0.08		1.01	
Control Delay		26.8			29.8			191.4	2.1		83.6	
Queue Delay		0.1			0.2			0.6	0.0		0.0	
Total Delay		26.9			30.0			192.0	2.1		83.6	
LOS		C			C			F	A		F	
Approach Delay		26.9			30.0			183.1			83.6	
Approach LOS		C			C			F			F	
Queue Length 50th (ft)		71			84			~668	0		~223	
Queue Length 95th (ft)		116			152			#901	m0		#443	
Internal Link Dist (ft)		722			762			1235			444	
Turn Bay Length (ft)									25			
Base Capacity (vph)		622			404			634	544		452	
Starvation Cap Reductn		0			0			0	0		0	
Spillback Cap Reductn		23			22			52	0		0	
Storage Cap Reductn		0			0			0	0		0	
Reduced v/c Ratio		0.58			0.52			1.46	0.08		1.01	

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of 1st Green
Natural Cycle: 125
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.34
Intersection Signal Delay: 114.4 Intersection LOS: F
Intersection Capacity Utilization 107.6% ICU Level of Service G
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Chicago Av & Dempster St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	170	35	85	185	190	40	315	30	190	515	65
Future Volume (vph)	60	170	35	85	185	190	40	315	30	190	515	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	0		50	0		0	100		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		194			640			642			1762	
Travel Time (s)		4.4			14.5			14.6			40.0	
Lane Group Flow (vph)	63	216	0	0	284	200	0	406	0	0	810	0
Turn Type	Perm	NA		Perm	NA	pm+ov	Split	NA		Split	NA	
Protected Phases		4			8	6	2	2		6	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	6	2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Split (s)	25.0	25.0		26.0	26.0	27.0	25.0	25.0		27.0	27.0	
Total Split (s)	26.0	26.0		26.0	26.0	39.0	25.0	25.0		39.0	39.0	
Total Split (%)	28.9%	28.9%		28.9%	28.9%	43.3%	27.8%	27.8%		43.3%	43.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	-2.0	-2.0			-2.0	0.0		-2.0			-2.0	
Total Lost Time (s)	4.0	4.0			4.0	6.0		4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped	Ped	C-Max	C-Max		Ped	Ped	
Act Effct Green (s)	22.0	22.0			22.0	53.0		21.0			35.0	
Actuated g/C Ratio	0.24	0.24			0.24	0.59		0.23			0.39	
v/c Ratio	0.43	0.51			1.01	0.22		0.99			1.19	
Control Delay	39.5	32.6			92.0	4.1		77.0			122.9	
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	
Total Delay	39.5	32.6			92.0	4.1		77.0			122.9	
LOS	D	C			F	A		E			F	
Approach Delay		34.2			55.7			77.0			122.9	
Approach LOS		C			E			E			F	
Queue Length 50th (ft)	30	101			~164	21		229			~548	
Queue Length 95th (ft)	72	171			#325	46		#418			#774	
Internal Link Dist (ft)		114			560			562			1682	
Turn Bay Length (ft)	25					50						
Base Capacity (vph)	146	427			282	895		412			680	
Starvation Cap Reductn	0	0			0	0		0			0	
Spillback Cap Reductn	0	0			0	0		0			0	
Storage Cap Reductn	0	0			0	0		0			0	
Reduced v/c Ratio	0.43	0.51			1.01	0.22		0.99			1.19	

Intersection Summary	
Area Type:	Other

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 84.5	Intersection LOS: F
Intersection Capacity Utilization 108.6%	ICU Level of Service G
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Chicago Av & South Blvd.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	120	175	25	145	25	120	420	35	45	705	50
Future Volume (vph)	65	120	175	25	145	25	120	420	35	45	705	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		25	150		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		802			842			1315			524	
Travel Time (s)		18.2			19.1			29.9			11.9	
Lane Group Flow (vph)	0	378	0	0	205	0	0	568	37	0	842	0
Turn Type	Perm	NA		Perm	NA		Split	NA	Perm	Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8					2			
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Minimum Split (s)	27.0	27.0		27.0	27.0		27.0	27.0	27.0	27.0	27.0	
Total Split (s)	27.0	27.0		27.0	27.0		27.0	27.0	27.0	36.0	36.0	
Total Split (%)	30.0%	30.0%		30.0%	30.0%		30.0%	30.0%	30.0%	40.0%	40.0%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)		-2.0			-2.0			-2.0	0.0		-2.0	
Total Lost Time (s)		4.0			4.0			4.0	6.0		4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max	C-Max	Ped	Ped	
Act Effct Green (s)		23.0			23.0			23.0	21.0		32.0	
Actuated g/C Ratio		0.26			0.26			0.26	0.23		0.36	
v/c Ratio		0.51			0.50			1.25	0.09		1.34	
Control Delay		17.0			32.4			155.8	2.7		182.2	
Queue Delay		0.0			0.0			0.0	0.0		0.0	
Total Delay		17.0			32.4			155.8	2.7		182.2	
LOS		B			C			F	A		F	
Approach Delay		17.0			32.4			146.4			182.2	
Approach LOS		B			C			F			F	
Queue Length 50th (ft)		46			95			~417	0		~643	
Queue Length 95th (ft)		91			165			#627	m5		#856	
Internal Link Dist (ft)		722			762			1235			444	
Turn Bay Length (ft)									25			
Base Capacity (vph)		744			410			455	413		630	
Starvation Cap Reductn		0			0			0	0		0	
Spillback Cap Reductn		0			0			0	0		0	
Storage Cap Reductn		0			0			0	0		0	
Reduced v/c Ratio		0.51			0.50			1.25	0.09		1.34	

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of 1st Green
Natural Cycle: 135
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.34
Intersection Signal Delay: 125.6 Intersection LOS: F
Intersection Capacity Utilization 112.8% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Chicago Av & Dempster St

TAB 6

INTERSECTION DESIGN STUDY (CHICAGO AVE AT SOUTH BOULEVARD)

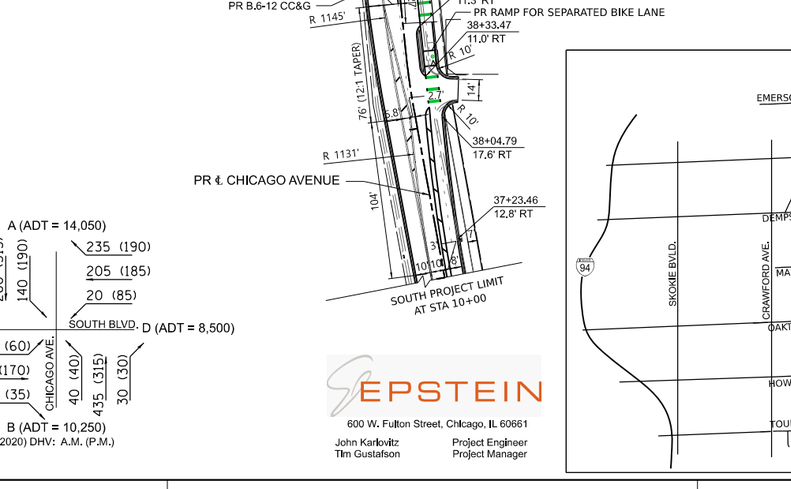
PLOT DATE = 1/31/2023
FILE NAME = \\truman\projects\Projects\19000\19218\DESIGN\ENGINEERING\Design\IDS\Sheets\19218_IDS_Chicago at South_1.dgn
PLOT SCALE = 100.0000 ' / in.
USER NAME = aebs

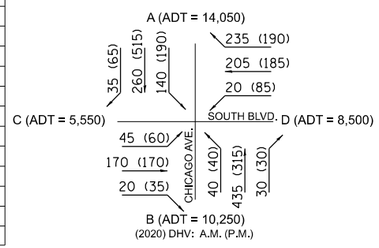
SIGNALIZED CAPACITY DESIGN ANALYSIS

PROGRAM USED: SYNCHRO , VERSION: 11 SIGNAL TYPE: ACTUATED AREA TYPE: OTHER
NUMBER OF PHASES: (A.M.) 4 (P.M.) 4 CYCLE LENGTH: (A.M.) 90 SEC. (P.M.) 90 SEC. PEAK HOUR FACTOR: 0.95
INTERSECTION DELAY/LEVEL-OF-SERVICE A.M. 32.3 SECONDS LOS C P.M. 34.8 SECONDS LOS C

APPROACH		NORTH (A)				SOUTH (B)				WEST (C)				EAST (D)			
LANE GROUP		L	TR	--	--	L	TR	--	--	L	TR	--	--	L	TR	--	--
NUMBER OF LANES		1	1	--	--	1	1	--	--	1	1	--	--	1	1	--	--
2020 30TH MAX. HOUR TRAFFIC (veh/h)	A.M.	140	295	--	--	40	465	--	--	45	190	--	--	--	460	--	--
	P.M.	190	580	--	--	40	345	--	--	60	205	--	--	--	460	--	--
BASE SATURATION FLOW RATE (veh/h)		1900	1900	--	--	1900	1900	--	--	1900	1900	--	--	1900	1900	--	--
LANE WIDTH (FT)		10'	10'	--	--	10'	10'	--	--	9'	10'	--	--	10'	10'	--	--
VOLUME OF RIGHT TURN ON RED (veh/h)		A.M. 0		P.M. 0		A.M. 0		P.M. 0		A.M. 0		P.M. 0		A.M. 0		P.M. 0	
PEDESTRIANS/HOUR (ped/h)		A.M. 50		P.M. 50		A.M. 50		P.M. 50		A.M. 50		P.M. 50		A.M. 50		P.M. 50	
ARRIVAL TYPE		3				3				3				3			
LANE UTILIZATION ADJ. FACTOR		1,000	1,000	--	--	1,000	1,000	--	--	1,000	1,00	1,000	--	1,000	1,000	1,000	--
GREEN TIME (SECONDS)	A.M.	12.5	37.0	--	--	8.5	32.5	--	--	31.5	31.5	--	--	31.5	31.5	--	--
	P.M.	17.5	40.5	--	--	8.5	31.5	--	--	27.5	27.5	--	--	27.5	27.5	--	--
GREEN RATIO (g/C)	A.M.	0.13	0.52	--	--	0.10	0.42	--	--	0.34	0.34	--	--	0.34	0.34	--	--
	P.M.	0.16	0.56	--	--	0.10	0.42	--	--	0.30	0.30	--	--	0.30	0.30	--	--
CAPACITY (c)	A.M.	229	866	--	--	192	714	--	--	137	650	--	--	329	591	--	--
	P.M.	302	922	--	--	192	697	--	--	135	561	--	--	264	523	--	--
v/c RATIO (X)	A.M.	0.72	0.35	--	--	0.25	0.66	--	--	0.37	0.33	--	--	0.07	0.85	--	--
	P.M.	0.78	0.66	--	--	0.25	0.52	--	--	0.50	0.42	--	--	0.36	0.82	--	--
STORAGE QUEUE (FEET)	A.M.	169	240	--	--	53	354	--	--	52	133	--	--	23	385	--	--
	P.M.	195	435	--	--	53	257	--	--	73	156	--	--	80	335	--	--
LANE GROUP DELAY(SECONDS)	A.M.	48.0	22.0	--	--	40.7	27.6	--	--	30.8	22.9	--	--	19.1	42.7	--	--
	P.M.	48.0	33.7	--	--	40.3	24.1	--	--	40.5	27.2	--	--	28.6	43.5	--	--
LANE GROUP LEVEL-OF-SERVICE	A.M.	D	C	--	--	D	C	--	--	C	C	--	--	B	D	--	--
	P.M.	D	C	--	--	D	C	--	--	D	C	--	--	C	D	--	--
APPROACH DELAY (SECONDS/VEHICLE)	A.M.	30.4				28.6				24.4				41.7			
	P.M.	37.3				25.8				30.2				40.7			
APPROACH LEVEL-OF-SERVICE	A.M.	C				C				C				D			
	P.M.	D				C				C				D			

PHASE	1			2			3			4		
		YELLOW	RED		YELLOW	RED		YELLOW	RED		YELLOW	RED
AM	8.5	2.5	1.5	0.0	3.0	1.5	32.5	3.0	1.5	31.5	3.0	1.5
PM	8.5	3.0	1.5	4.5	3.0	1.5	31.5	3.0	1.5	27.5	3.0	1.5





TRAFFIC DATA

MOVEMENT	YEAR 2020 30TH MAXIMUM HOUR TRAFFIC		PERCENT TRUCK TRAFFIC IN 30TH MAX. HOUR		ESTIMATED PERCENT INCREASE BY __	YEAR ____ 30TH MAXIMUM HOUR TRAFFIC		ESTIMATED PERCENT INCREASE BY __	YEAR ____ 30TH MAXIMUM HOUR TRAFFIC	
	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.		A.M.	P.M.
AD (L)	140	190	1	1	__	__	__	__	__	__
AB (T)	260	515	1	1	__	__	__	__	__	__
AC (R)	35	65	0	0	__	__	__	__	__	__
BC (L)	40	40	0	0	__	__	__	__	__	__
BA (T)	435	315	1	1	__	__	__	__	__	__
BD (R)	30	30	0	0	__	__	__	__	__	__
CA (L)	45	60	0	0	__	__	__	__	__	__
CD (T)	170	170	0	0	__	__	__	__	__	__
CB (R)	20	35	0	0	__	__	__	__	__	__
DB (L)	20	85	0	0	__	__	__	__	__	__
DC (T)	205	185	0	0	__	__	__	__	__	__
DA (R)	235	190	1	1	__	__	__	__	__	__
TOTAL A	1150	1335	--	--	__	__	__	__	__	__
TOTAL B	805	1020	--	--	__	__	__	__	__	__
TOTAL C	515	555	--	--	__	__	__	__	__	__
TOTAL D	800	850	--	--	__	__	__	__	__	__

T = THROUGH, L = LEFT, R = RIGHT

N

ELEMENTS CONTROLLING DESIGN

PREFERRED ROUTE:

F.A.U. ROUTE NUMBER: 2853 . MARKED ROUTE NUMBER: _____.
STREET NAME: CHICAGO AVENUE . SRA ROUTE ? N .
FUNCTIONAL CLASSIFICATION: ARTERIAL . OSOW DESIGN ? N .
EXISTING ADT: 14050 VPD. DESIGN YEAR ADT: 14050 VPD.
PROPOSED DESIGN SPEED: 30 MPH. PROPOSED POSTED SPEED: 30 MPH.

SECONDARY ROUTE:

F.A.U. ROUTE NUMBER: 1332 . MARKED ROUTE NUMBER: _____.
STREET NAME: SOUTH BOULEVARD . SRA ROUTE ? N .
FUNCTIONAL CLASSIFICATION: ARTERIAL . OSOW DESIGN ? Y .
EXISTING ADT: 8550 VPD. DESIGN YEAR ADT: 8550 VPD.
PROPOSED DESIGN SPEED: 30 MPH. PROPOSED POSTED SPEED: 30 MPH.

IMPROVEMENT TYPE: 3R . ANTICIPATED YEAR OF CONSTRUCTION: 2024 .
EXISTING METHOD OF TRAFFIC CONTROL: SIGNAL . PROPOSED METHOD: SIGNAL .
SIGNAL WARRANT: N/A .
DESIGN VEHICLE: S-BUS-40 .
DESIGN YEAR: 2024 WHICH IS A 0 YEAR DESIGN.
TRUCK ROUTE DESIGNATION: PREFERRED ROADWAY: NON-DESIGNATED .

DESIGN CRITERIA: BLRS CHAPTERS 31, 34, & 42. BDE CHAPTERS 36 & 49.

GENERAL NOTES

ARE PROFILES PROVIDED ? YES SINCE APPROACH GRADES ARE > 1%
TYPE B-6.12 CURB AND GUTTER ON THE OUTSIDE OF THE ROADWAY/SHOULDERS.

ALL DIMENSIONS ARE (E-E OR F-F) E-E , UNLESS OTHERWISE NOTED
THE RIGHT-OF-WAY LIMITS ARE PRELIMINARY.
DESIGN VEHICLE TURNING MOVEMENTS ARE ACCOMMODATE PER AUTOTURN SOFTWARE, VERSION 11 .
THE SCOPE OF WORK: SIGNAL REPLACEMENT AND ADDITION OF TWO-WAY BIKE LANE .
INTERSECTION DESIGN EXCEPTIONS:

1. INTERSECTIONS: DESIGN VEHICLE, S-BUS-40 ENCROACHMENT RT FROM SB CHICAGO AVENUE TO WB SOUTH BOULEVARD (BDE 36-2.01(c))
2. INTERSECTIONS: MINIMUM LEFT TURN LANE STORAGE LENGTH NB LEFT-TURN LANE (BDE FIGURE 36-3.J)
3. INTERSECTIONS: MINIMUM TURN LANE APPROACH TAPER NB APPROACH (BDE FIGURE 36-3.I)
4. INTERSECTIONS: MINIMUM LEFT TURN LANE TAPER NB LEFT-TURN TAPER (BDE FIGURE 36-3.I)
5. INTERSECTIONS: MINIMUM LEFT TURN LANE STORAGE LENGTH SB APPROACH (BDE 36-3.02(b) #3)
6. INTERSECTIONS: MINIMUM TURN LANE APPROACH TAPER SB APPROACH (BDE FIGURE 36-3.I)
7. SIDEWALK WIDTH, SE CORNER

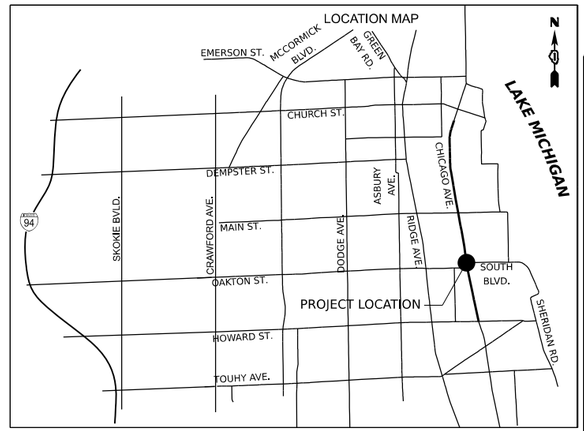
ADDITIONAL NOTES:

1. S-BUS-40 USED AS DESIGN VEHICLE INSTEAD OF WB-65 DUE TO EXISTING INTERSECTION CONDITIONS. IN THE EXISTING CONDITION, WB-65 TRUCKS CANNOT EXECUTE LEFT OR RIGHT TURNS DUE TO CONSTRAINED CONDITIONS.
2. MAXIMUM VERTICAL VEHICLE CLEARANCE IS 12.0 FEET ON THE WEST LEG OF SOUTH BOULEVARD.
3. NO TRUCKS OVER 8,000 LB ARE PERMITTED ON SOUTH BOULEVARD WEST OF CHICAGO AVENUE.
4. THIS IS NOT A CRITICAL TIER LOCATION.
5. THIS IS NOT AN INTERCONNECTED SYSTEM.

ALL SIDEWALKS AND RAMPS AS SHOWN ARE IN COMPLIANCE WITH THE AMERICAN DISABILITIES ACT

EPSTEIN
600 W. Fulton Street, Chicago, IL 60661
John Karlovitz Project Engineer
Tim Gustafson Project Manager

LOCATION MAP



50 0 50
GRAPHIC SCALE

INTERSECTION DESIGN STUDY

FAU ROUTE 2853 (CHICAGO AVENUE
WITH
FAU ROUTE 1332 (SOUTH BOULEVARD

SEC. NO. 21-00288-00-RS PROJ. NO. _____
SCALE 1" = 50' COUNTY COOK
SJN : _____ REV. NO. ___

DESIGNED BY AE DATE 01/31/2023

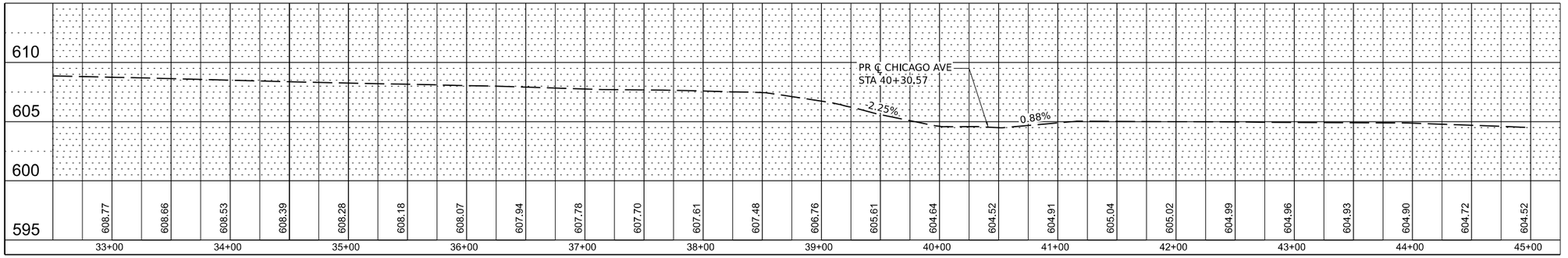
SATISFACTORY _____ DATE
DISTRICT GEOMETRICS ENGINEER
SATISFACTORY _____ DATE
DISTRICT PROGRAM DEVELOPMENT ENGINEER
SATISFACTORY _____ DATE
DISTRICT OPERATIONS ENGINEER
APPROVED _____ DATE
REGIONAL ENGINEER

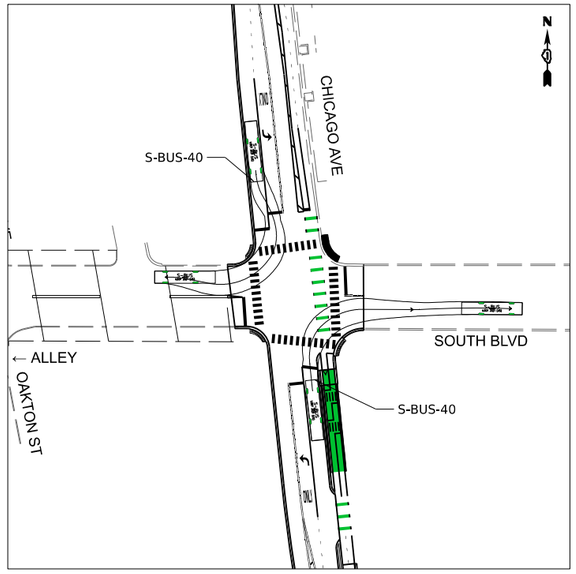
CADD FILE NAME : [ ]

BDE-9908

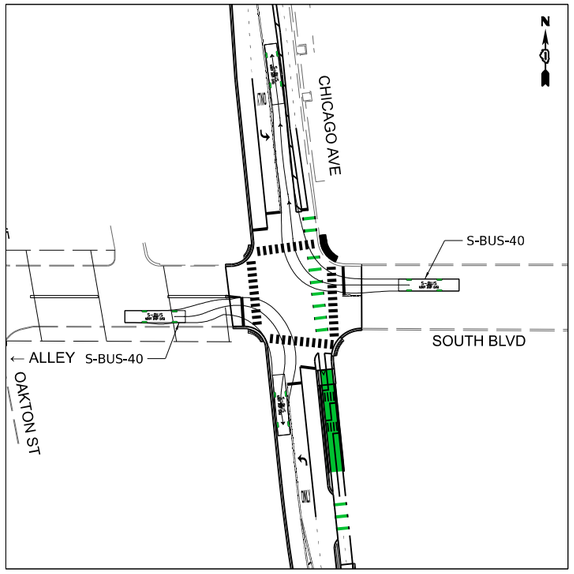
PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$

CHICAGO AVENUE EXISTING PROFILE

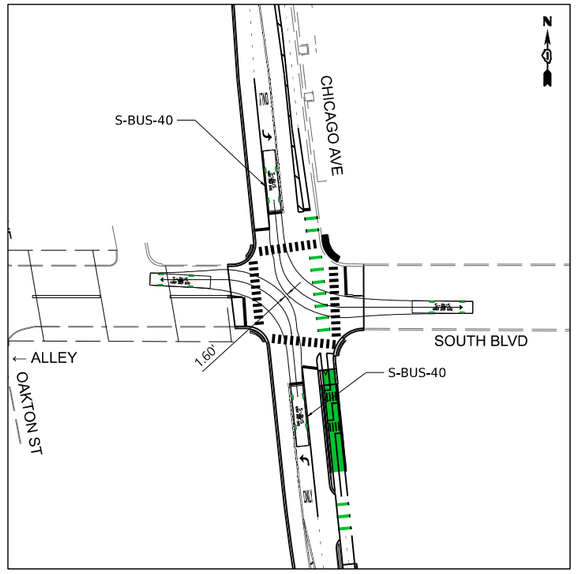




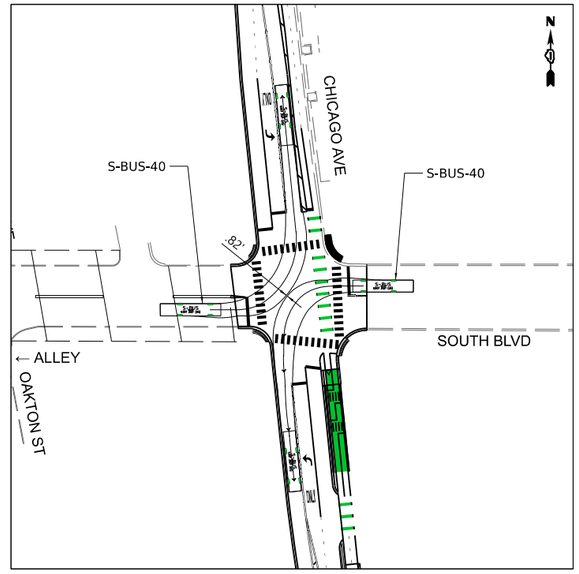
AUTOTURN ANALYSIS - S-BUS-40 TURNS



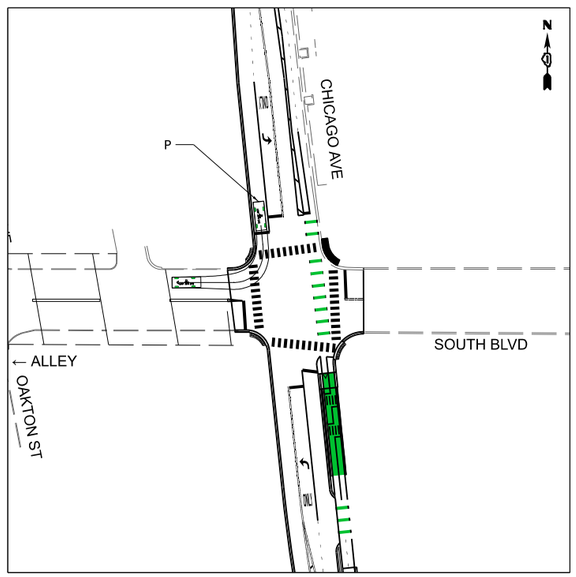
AUTOTURN ANALYSIS - S-BUS-40 TURNS



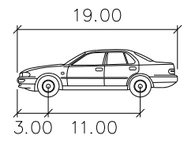
AUTOTURN ANALYSIS - S-BUS-40 TURNS



AUTOTURN ANALYSIS - S-BUS-40 TURNS

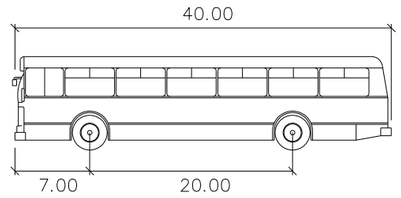


AUTOTURN ANALYSIS - DL-23 TURNS



P

	feet
Width	: 7.00
Track	: 6.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.6



S-BUS

feet

Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 30.8

INTERSECTION DESIGN STUDY

FAU ROUTE 2853 WITH CHICAGO AVENUE
FAU ROUTE 1332 SOUTH BOULEVARD

SEC. NO. 21-00288-00-RS

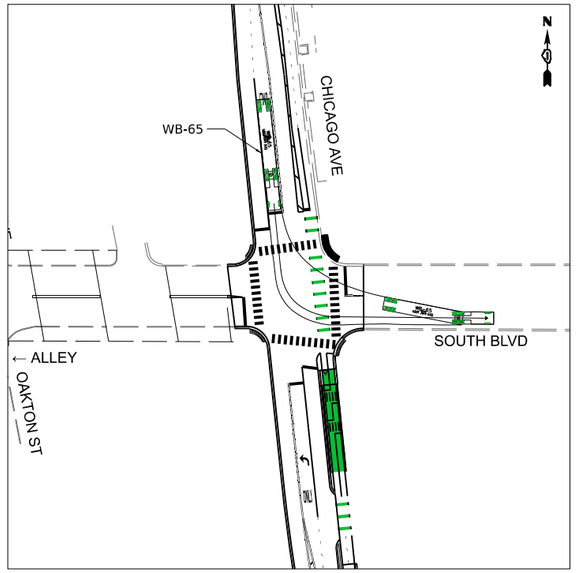
SCALE 1" = 50' COUNTY COOK

SJN : ____

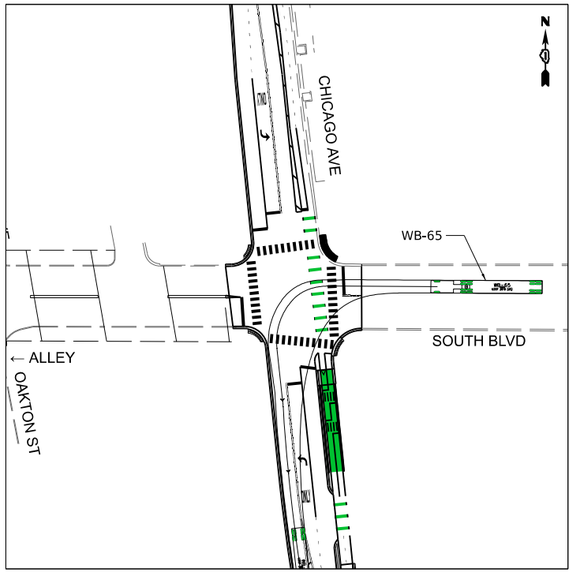
I.D.S. SHEET 2 OF 5

BDE-9908

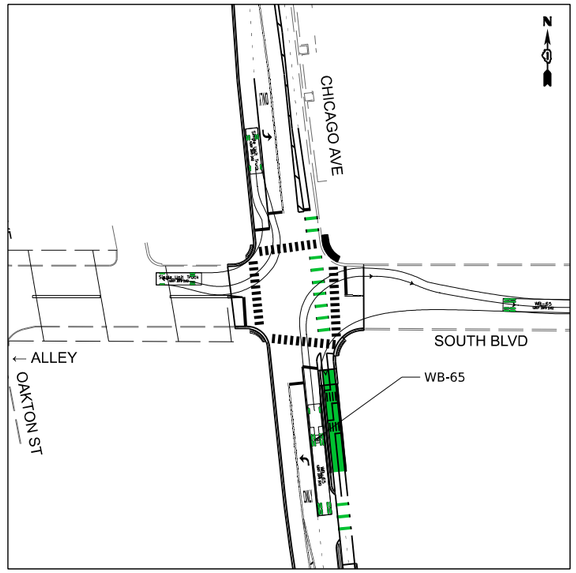
PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$



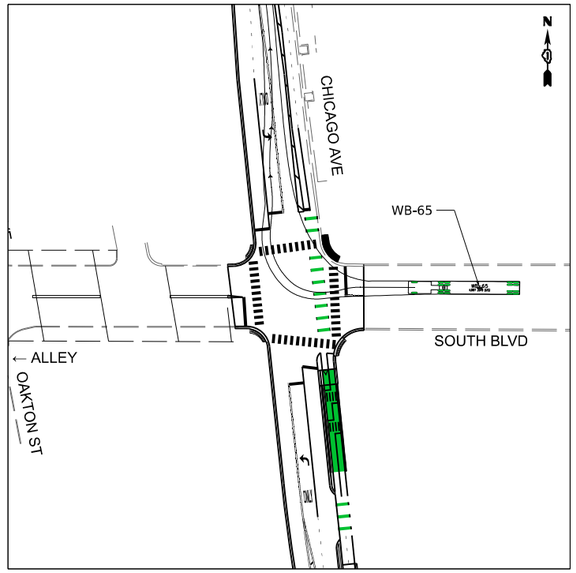
AUTOTURN ANALYSIS - WB-65 TURNS



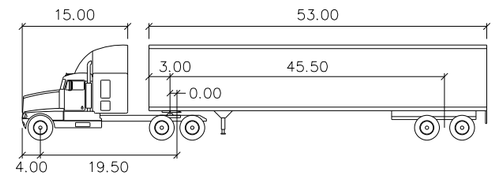
AUTOTURN ANALYSIS - WB-65 TURNS



AUTOTURN ANALYSIS - WB-65 TURNS



AUTOTURN ANALYSIS - WB-65 TURNS



WB-65

feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.5
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		

WB-65 TEMPLATE

INTERSECTION DESIGN STUDY

FAU ROUTE 2853 WITH CHICAGO AVENUE
FAU ROUTE 1332 SOUTH BOULEVARD

SEC. NO. 21-00288-00-RS

SCALE 1" = 50' COUNTY COOK

SJN : ____

I.D.S. SHEET 3 OF 5

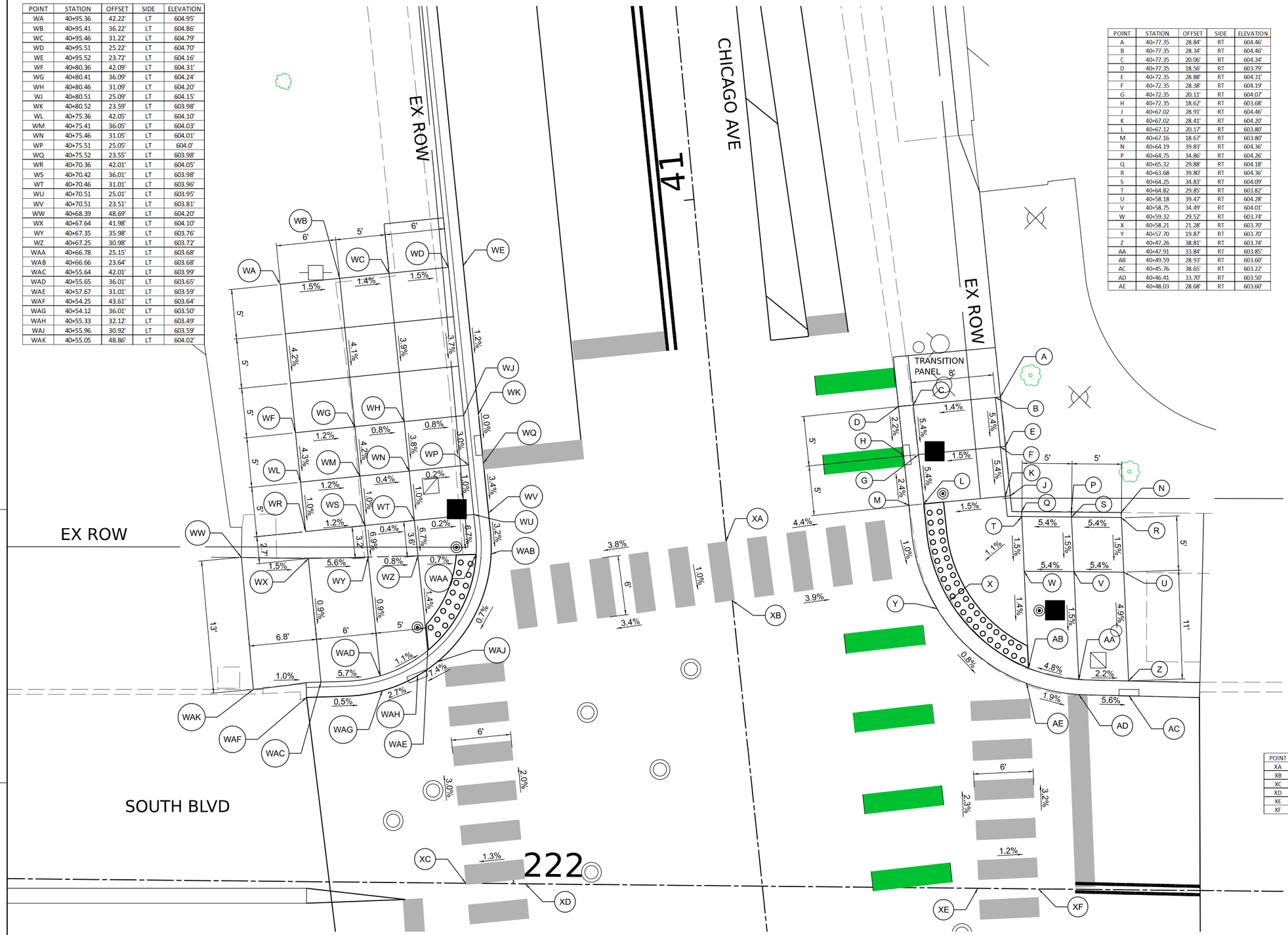
BDE-9908

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

POINT	STATION	OFFSET	SIDE	ELEVATION
WA	40+95.36	42.22'	LT	604.95'
WB	40+95.41	36.22'	LT	604.86'
WC	40+95.46	31.22'	LT	604.79'
WD	40+95.51	25.22'	LT	604.70'
WE	40+95.52	23.72'	LT	604.16'
WF	40+80.36	42.09'	LT	604.31'
WG	40+80.41	36.09'	LT	604.24'
WH	40+80.46	31.09'	LT	604.20'
WJ	40+80.51	25.09'	LT	604.15'
WK	40+80.52	23.59'	LT	603.98'
WL	40+75.36	42.05'	LT	604.10'
WM	40+75.41	36.05'	LT	604.03'
WN	40+75.46	31.05'	LT	604.01'
WP	40+75.51	25.05'	LT	604.0'
WQ	40+75.52	23.55'	LT	603.98'
WR	40+70.36	42.01'	LT	604.05'
WS	40+70.42	36.01'	LT	603.98'
WT	40+70.46	31.01'	LT	603.96'
WU	40+70.51	25.01'	LT	603.95'
WV	40+70.51	23.51'	LT	603.81'
WW	40+68.39	48.69'	LT	604.20'
WX	40+67.64	41.98'	LT	604.10'
WY	40+67.35	35.98'	LT	603.76'
WZ	40+67.25	30.98'	LT	603.72'
WAA	40+66.78	25.15'	LT	603.68'
WAB	40+66.66	23.64'	LT	603.68'
WAC	40+55.64	42.01'	LT	603.99'
WAD	40+55.65	36.01'	LT	603.65'
WAE	40+57.67	31.01'	LT	603.59'
WAF	40+54.25	43.61'	LT	603.64'
WAG	40+54.12	36.01'	LT	603.50'
WAH	40+55.33	32.12'	LT	603.49'
WAJ	40+55.96	30.92'	LT	603.59'
WAK	40+55.05	48.86'	LT	604.02'

POINT	STATION	OFFSET	SIDE	ELEVATION
A	40+77.35	28.84'	RT	604.46'
B	40+77.35	28.34'	RT	604.46'
C	40+77.35	20.06'	RT	604.34'
D	40+77.35	18.56'	RT	603.79'
E	40+72.35	28.88'	RT	604.31'
F	40+72.35	28.38'	RT	604.19'
G	40+72.35	20.11'	RT	604.07'
H	40+72.35	18.62'	RT	603.68'
J	40+67.02	28.91'	RT	604.46'
K	40+67.02	28.41'	RT	604.20'
L	40+67.12	20.17'	RT	603.80'
M	40+67.16	18.67'	RT	603.80'
N	40+64.19	39.83'	RT	604.36'
P	40+64.75	34.86'	RT	604.26'
Q	40+65.32	29.88'	RT	604.18'
R	40+63.68	39.80'	RT	604.36'
S	40+64.25	34.83'	RT	604.09'
T	40+64.82	29.85'	RT	603.82'
U	40+58.18	39.47'	RT	604.28'
V	40+58.75	34.49'	RT	604.01'
W	40+59.32	29.52'	RT	603.74'
X	40+58.21	21.28'	RT	603.70'
Y	40+57.70	19.87'	RT	603.70'
Z	40+47.26	38.81'	RT	603.74'
AA	40+47.91	33.84'	RT	603.85'
AB	40+49.59	28.93'	RT	603.60'
AC	40+45.76	38.65'	RT	603.22'
AD	40+46.41	33.70'	RT	603.50'
AE	40+48.03	28.68'	RT	603.60'

POINT	STATION	OFFSET	SIDE	ELEVATION
XA	40+65.47	.0'	CL	604.62'
XB	40+59.46	.0'	CL	604.56'
XC	40+33.99	29.64'	LT	604.24'
XD	40+33.30	23.63'	LT	604.32'
XE	40+28.09	21.56'	RT	604.31'
XF	40+27.39	27.61'	RT	604.24'



0 5 10 15
SCALE IN FEET

INTERSECTION DESIGN STUDY

FAU ROUTE 2853 WITH CHICAGO AVENUE
FAU ROUTE 1332 SOUTH BOULEVARD

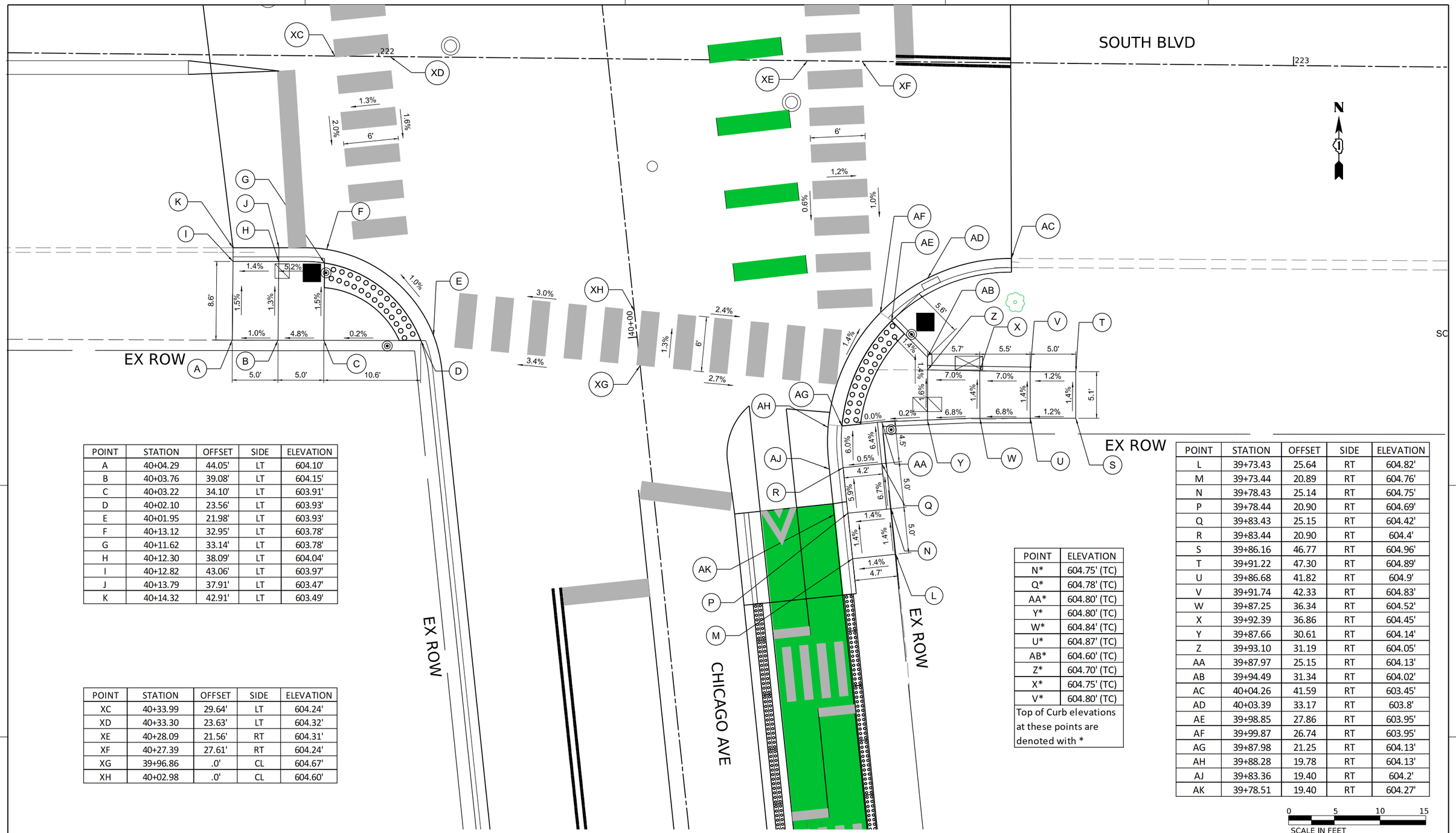
SEC. NO. 21-00288-00-RS

SCALE 1" = 5' COUNTY COOK

SJN : ____

I.D.S. SHEET 4 OF 5

BDE-9908



POINT	STATION	OFFSET	SIDE	ELEVATION
A	40+04.29	44.05'	LT	604.10'
B	40+03.76	39.08'	LT	604.15'
C	40+03.22	34.10'	LT	603.91'
D	40+02.10	23.56'	LT	603.93'
E	40+01.95	21.98'	LT	603.93'
F	40+13.12	32.95'	LT	603.78'
G	40+11.62	33.14'	LT	603.78'
H	40+12.30	38.09'	LT	604.04'
I	40+12.82	43.06'	LT	603.97'
J	40+13.79	37.91'	LT	603.47'
K	40+14.32	42.91'	LT	603.49'

POINT	STATION	OFFSET	SIDE	ELEVATION
XC	40+33.99	29.64'	LT	604.24'
XD	40+33.30	23.63'	LT	604.32'
XE	40+28.09	21.56'	RT	604.31'
XF	40+27.39	27.61'	RT	604.24'
XG	39+96.86	.0'	CL	604.67'
XH	40+02.98	.0'	CL	604.60'

POINT	STATION	OFFSET	SIDE	ELEVATION
L	39+73.43	25.64	RT	604.82'
M	39+73.44	20.89	RT	604.76'
N	39+78.43	25.14	RT	604.75'
P	39+78.44	20.90	RT	604.69'
Q	39+83.43	25.15	RT	604.42'
R	39+83.44	20.90	RT	604.4'
S	39+86.16	46.77	RT	604.96'
T	39+91.22	47.30	RT	604.89'
U	39+86.68	41.82	RT	604.9'
V	39+91.74	42.33	RT	604.83'
W	39+87.25	36.34	RT	604.52'
X	39+92.39	36.86	RT	604.45'
Y	39+87.66	30.61	RT	604.14'
Z	39+93.10	31.19	RT	604.05'
AA	39+87.97	25.15	RT	604.13'
AB	39+94.49	31.34	RT	604.02'
AC	40+04.26	41.59	RT	603.45'
AD	40+03.39	33.17	RT	603.8'
AE	39+98.85	27.86	RT	603.95'
AF	39+99.87	26.74	RT	603.95'
AG	39+87.98	21.25	RT	604.13'
AH	39+88.28	19.78	RT	604.13'
AJ	39+83.36	19.40	RT	604.2'
AK	39+78.51	19.40	RT	604.27'

POINT	ELEVATION
N*	604.75' (TC)
Q*	604.78' (TC)
AA*	604.80' (TC)
Y*	604.80' (TC)
W*	604.84' (TC)
U*	604.87' (TC)
AB*	604.60' (TC)
Z*	604.70' (TC)
X*	604.75' (TC)
V*	604.80' (TC)

Top of Curb elevations at these points are denoted with *

0 5 10 15
SCALE IN FEET

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

INTERSECTION DESIGN STUDY

FAU ROUTE 2853 CHICAGO AVENUE
FAU ROUTE 1332 WITH SOUTH BOULEVARD

SEC. NO. 21-00288-00-RS

SCALE 1" = 5' COUNTY COOK

SJN :

I.D.S. SHEET 5 OF 5

BDE-0908

TAB 7

IDOT KICKOFF MEETING MINUTES

CHICAGO AVENUE CORRIDOR IMPROVEMENTS – IDOT KICKOFF MEETING MINUTES
Meeting Date: September 30, 2020, 11:00 a.m.

Date Published	October 5, 2020
From	Tim Gustafson
Project Name	Chicago Avenue Corridor Improvement Project
Meeting	IDOT Phase I Initial Coordination Meeting

PARTICIPANTS

Name	Company
Sat Nagar	City of Evanston
Mike Kerr	Christopher B. Burke Engineering, Ltd. (CBBEL)
Tim Gustafson	A. Epstein and Sons International, Inc. (Epstein)
Alex Househ	Illinois Department of Transportation (IDOT)

A meeting was held on September 30, 2020 to introduce the City of Evanston Chicago Avenue Corridor Improvement and discuss IDOT BLRS project development and processing requirements. Below is a summary of the meeting and action items.

Item	Description/Update	Responsibility
001	**Project Introduction.** Sat Nagar (City of Evanston) introduced the project and Tim Gustafson (Epstein) provided a draft BLR 22410 Initial Coordination Meeting Data form with attached project location map, jurisdiction map, average daily traffic (ADT) map.	No action items.
002	**Scope of Improvements.** Tim Gustafson described the proposed scope of work, which includes improving bicycle, pedestrian, transit, and on-street parking accommodations on Chicago Avenue between Howard Street and Davis Street in the City of Evanston. Construction will include the replacement of water main between Hamilton and Kedzie Streets within the project limits, signalized intersection improvements, roadway lighting and drainage improvements. The entire roadway is a local arterial under the jurisdiction of Evanston. Proposed bicycle accommodation would be bike lanes to connect to an existing two-way separated bike lane at the northern project limit and a bike boulevard (marked shared lanes) near the southern project limit. CBBEL discussed a range of alternatives that would be evaluated based on their impacts to roadway lane width, parking impacts, transit impacts, and level of comfort for prospective bicyclists.	No action items.
003	**Data Collection and Investigations.** Data collection and investigation will involve topographic survey, utility survey, parking utilization, traffic counts including bicycle and pedestrian volumes, drainage study reporting, roadway lighting assessment, and investigation of sidewalk vaults. The following is a summary of investigation needs.	
003.1	**Preliminary Environmental Site Assessment (PESA).** Sat Nagar (Evanston) stated that the east leg of South Boulevard is under IDOT jurisdiction. Alex	Epstein to prepare and submit ESR. ESR

Item	Description/Update	Responsibility
	Househ (IDOT) requested the Environmental Survey Request (ESR) Form be submitted as soon as possible so that IDOT may begin the PESA for IDOT roadway jurisdiction, and cultural and biological resources for the entire corridor. Evanston's consultant will be responsible for all local PESA. **Cultural Resources.** The Chicago Avenue right-of-way extends through the Evanston Lakeshore Historic District, and there are two buildings on Chicago Avenue that have been entered in the National Register. IDOT requested the ESR reflect all parts of the project limits that would be impacted by proposed improvements so that IDOT Cultural Resources may investigate. **Biological Resources.** The project limits are urban and there are no anticipated impacts to habitat or threatened or endangered (T&E) species. IDOT inquired how many trees would be impacted. CBBEL stated that survey will locate all trees within the project limits and inventory any tree with a caliper of 6" or larger. Epstein stated that trees planted as part of streetscape improvements would be impacted but the number of trees will be determined after topographic survey is complete.	limits should be drawn so that IDOT may conduct a PESA for roadways under IDOT jurisdiction and biological and cultural resource investigation within the entire ESR limits. Local agency will be conduct a PESA for local roads.
003.2	**Drainage.** Epstein stated that proposed improvements would either retain existing drainage patterns, or relocate structures concurrent with any roadway reconfiguration. IDOT stated that no drainage is necessary for Phase I except where IDOT facilities are affected.	Epstein to prepare a summary of existing and proposed drainage impacts.
003.3	**Survey.** Epstein's subconsultant to provide survey for the project limits. IDOT inquired whether trees would be impacted. The number and size of tree impacts is not known at this time, but there are trees on the west side of Chicago Avenue between South Boulevard and Madison Street that would be impacted.	CBBEL survey to include tree survey and inventory of trees with trunks 6" or greater.
003.4	**Traffic Capacity, Signal Modernization, IDS.** There are 10 signalized intersections within the project limits. The consultant team will conduct a capacity analysis to confirm how proposed improvements impact intersection performance. IDOT inquired whether a roadway reconfiguration or road diet is proposed. Epstein stated that a roadway reconfiguration is proposed on Chicago Avenue between Howard Street and South Boulevard. This segment of Chicago Avenue has an ADT of 14,600 on a three-lane section consisting of two southbound travel lanes and one northbound lane. The second southbound lane begins south of South Boulevard and terminates in a lane drop upon reaching Howard Street. IDOT stated that the network capacity analysis should include a segment capacity analysis if a roadway reconfiguration is proposed at this location. The east leg of the intersection of Chicago Avenue and South Boulevard is IDOT jurisdiction. Evanston stated that an IDS will be prepared for this intersection to accompany any proposed changes.	CBBEL to conduct a capacity analysis for the entire project. Epstein to prepare an IDS for the intersection of Chicago Avenue and South Boulevard.

Item	Description/Update	Responsibility
003.5	**Vaulted Sidewalk.** Epstein will identify and investigate the locations of existing sidewalk vaults within the project limits and make recommendations to the City to mitigate impacts that proposed improvements may have on these vaults.	Epstein to identify sidewalk vaults and prepare recommendations.
003.6	**Street Lighting.** CBBEL will conduct an investigation of existing roadway illumination and prepare recommendations to ensure proposed streetscape improvements are consistent with the City of Evanston Streetlight Master Plan.	CBBEL to review street lighting and prepare recommendations for compliance with the Evanston Street Light Master Plan.
004	**Project Development.** Epstein described that the project is not anticipated to have any unusual circumstances: there is no in-stream work, no 404 permit is required, it will not require right of way acquisition, no substantial changes are proposed to access control, there are no wetlands within the ESR limits nor is the project in a floodplain. There are buildings on the National Register within the project limits, but proposed improvements are not anticipated to impact these buildings' qualifying characteristics. No section 106 or 4(f) impacts are anticipated, and the proposed improvement is consistent with the Evanston Bicycle Master Plan. IDOT stated that if IDOT cultural, biological, and geotechnical investigations do not state otherwise, the project will be processed as a State-approved Categorical Exclusion with report. To determine this, IDOT requested submittal of an ESR and directed Epstein to request a Section Number for the project.	Epstein to submit an ESR and request a Section Number.
005	**Public Involvement.** IDOT stated that a public information meeting, the guidance for which is provided in BLRS 21.3, will need to be adjusted to adhere to social distancing requirements. CBBEL recently has received IDOT approval for a virtual public information meeting work plan for another Local Roads project. IDOT recommended that a similar public information meeting framework be established for Chicago Avenue. Evanston stated that additional stakeholder engagement activities are planned in addition to those required in BLRS 21.3.	Epstein to develop public information meeting format for review and approval by IDOT.

The above constitutes the author's understanding of the meeting as referenced in the subject line. Please review and provide comments or corrections within three (3) business days.

TAB 8

ESR & ENVIRONMENTAL CLEARANCES

View up to date information on how Illinois is handling the Coronavirus Disease 2019 (COVID-19) from the Illinois Department of Public Health (http://www.dph.illinois.gov/topics-services/diseases-and-conditions/diseases-a-z-list/coronavirus)

ENVIRONMENTAL SURVEY REQUEST

Prior to preparing and submitting this ESR, the user should carefully read the instructions (http://apps.dot.illinois.gov/environment/esrhome.html), and associated IDOT policy (BDE Manual Chapter 27 & Local Roads Manual Chapter 20).

Submittal of the ESR initiates the Phase I environmental survey process, which takes a minimum of 6 months to complete. Results of the environmental surveys must be completed in advance of the desired construction letting.

All fields must be completed unless the information is unavailable at the time of submittal or not applicable to the project. If the District and Requesting Entity fields are filled out incorrectly, the ESR will not be submitted to the appropriate person.

A. PROJECT INFORMATION:

- [x] **Biological**
- [x] **Cultural**
- [x] **State ROW Special Waste**

Submittal Date: 11/03/2020 ***(mm/dd/yyyy)***

Requesting Entity: Local Roads

Contract #:

Job No.: - -

PPS Project No.:

Section No.: 21-00288-00-RS

District: 1

County(ies): Cook

Route: FAU2853

Marked:

Street: Chicago Ave

Project Length: 1.9 **Miles**

Municipality(ies): CITY OF EVANSTON

Township-Range-Section: 41N-14E-30, -19, -18

Quadrangle: Evanston

From To (At): HOWARD STREET TO DAVIS STREET

Survey Completion Target Date: 05/03/2021 ***(mm/dd/yyyy)***

(Six months minimum required)

Anticipated Design Approval Date: 07/03/2021 ***(mm/dd/yyyy)***

Anticipated NEPA Processing: CE

B. REASON(S) FOR SUBMITTAL: (Check all that apply; includes Special Waste Level 1 Screening Criteria)
Survey Types: B = Biological; C = Cultural; SW = Special Waste

B,C ☑ **Involves acquisition of additional ROW or temporary or permanent easements.** 0.1 **acres**

SW ☐ **Crosses or involves RR Row on a state-maintained route.**

B,C
☐ **Requires in-stream work (e.g., drainage structure runaround). Stream Name:**

C ☑ **Potential to affect a historic district or historic property.**

C ☐ **Involves replacement or rehabilitation of a bridge/culvert 40 years old or older.**

SW ☑ **Involves acquisition of State ROW; involves excavation on State ROW, or involves subsurface utility relocation on State ROW.**

☐ **Other**

☑ **Biological**

☑ **Cultural**

☑ **State ROW Special Waste (ensure these checked boxes match with those above)**

C. PROJECT DESCRIPTION: [255 character limit. If needed, use "Addl. Info" Memo to expand on this description.]

Roadway improvements for bicycle, pedestrian, bus stop, and on-street parking on Chicago Ave. between Howard St. and Davis St. in the City of Evanston.

Proposed Work: ☑ **Roadway** ☐ **Bridge** ☐ **Railroad** ☐ **Airport** ☑ **Other** Watermain Replacement

Tree Removal? Yes

Number: 20 **or** **Acres**

Existing Bridge(s) Structure Number: 016 - 6954 , - - , - -

Historic District Involved? Yes

Historic Buildings Involved? Yes

Section 4(f) Lands Involved? Yes

Section 6(f) Lands Involved? No

D. FUNDING & PERMITTING:

☑ **Federal** ☐ **State** ☐ **TBP** ☐ **MFT** ☐ **Local Non-MFT** ☐ **Other** **(Identify)**

☐ **404 Permit Required**

E. PROJECT CONTACT PERSON

Name: Tim Gustafson

Telephone #: (312) 429 - 8054 **ext.**

Title/Organization: Project Manager

E-Mail: TGustafson@epsteinglobal.com

ADDITIONAL INFORMATION

Memo By: Tim Gustafson

Construction will include the replacement of water main between Hamilton and Kedzie Streets within the project limits, signalized intersection improvements, roadway lighting and drainage improvements. Proposed roadway improvements for Chicago Ave. include removal of existing pavement, removal of existing curb and gutter, HMA resurfacing, installation of a new concrete curb and gutter, and new pavement markings.
There is an additional structure carrying Chicago Ave. over CTA Yellow line with the DOT No. of 861294N. There was no bridge structure number assigned to this structure in IDOT Bridge Info System.

Page 2 - SPECIAL WASTE LEVEL II SCREENING

If the Special Waste box is checked in Section B above based on the type of work involved with the project, then Level 1 special waste screening fails and a PESA is required. Submitting this ESR initiates the PESA process. Optionally, you may proceed with a Level 2 special waste screening.

According to IDOT Policy, "due care" must be performed to determine whether regulated substances may be present on or adjoining a project. A PESA is IDOT's chosen initial and minimum method of demonstrating "due care". Thus, a PESA is required on every project where the Special Waste box is checked.

There are some select scenarios where the need for a PESA can be avoided and "due care" demonstrated based on the successful performance and documentation of a Level II Screening. The Level II Screening criteria have been carefully constructed and apply in project situations that are likely to pose minimal risk. ***If any response to Level 2 Screening questions in 2A below is "yes" or is undetermined, then a PESA is required.***

Level 1 Screening Criteria Yes **1. Acquisition of additional right-of-way or easements (temporary or permanent)**

No **2. Railroad ROW (other than single rail rural ROW with no maintenance facilities)**

Yes **3. Excavation or subsurface utility relocation**

Level 2 Screening Criteria

☑ **If for any reason, the presence of any environmental condition cannot be determined from the site reconnaissance or from database searches, please check this box, add an explanation below, and submit for PESA.**

2A. Does the project involve any of the following environmental conditions within the corresponding minimum search distance?

Environmental Condition	Minimum Search Distance	Database Search	Site Reconnaissance
Industrial and/or commercial property	0.25 miles		Yes
Other Environmental Conditions (Please detail below.)[1]	Property & adjoining property		No
Crosses or otherwise involves railroad ROW (Please detail below.)[2]	Property & adjoining property		No
State UST	Property & adjoining property	Yes	
State LUST	0.5 miles	Yes	
State Voluntary Cleanup, Brownfield, or landfills	0.5 miles	Yes	
Federal NPL; NPL delisted, SEMS; SEMS NFRAP	1.0 miles; 0.5 miles; 0.5 miles; 0.5 miles, respectively	No	
Federal RCRA CORRACTS facilities; RCRA non-CORRACTS TSD facilities	1.0 miles; 0.5 miles, respectively	No	
Federal RCRA generators list	Property & adjoining property	No	
Federal RCRA Brownfield sites	0.5 miles	No	
Federal ERNS System	Property	No	

[1] Other Environmental Conditions are identified through in-person site reconnaissance and include situations that may negatively affect the property including the presence of, for example, illegal dumping, unknown containers, waste associated with “crack” or methamphetamine houses (i.e., discarded hazardous material on the outside of a property), battery piles, paint spills, abandoned transformers, surface staining, vegetative damage, etc. Historic land uses that include any of these activities also qualify.

[2] Crosses or otherwise involves railroad ROW, other than a single rail rural ROW with no maintenance facilities.

Describe Findings/Other Environmental Conditions:

2B. Were photographs taken of the site and/or surrounding area? No

2C. Place a check next to each reference that is reviewed. (Optional)

To identify a property or condition that may negatively affect the project site or potential historical, industrial and/or commercial use, the following sources of information can be helpful while screening the project.

- [x] **Google - type aerial maps**
- [ ] **Extranet data**
- [ ] **Historic Aerial Photos**
- [ ] **Survey Books**
- [ ] **Other Files & Photos**
- [x] **City Directories**
- [ ] **County Assessor**
- [ ] **Sanborn Fire Insurance Maps**
- [ ] **Plat Books**
- [x] **Other source (describe):** IL Historic & Architectural GIS (HARGIS)

If any historical reference indicates the possible presence of a property or condition that may negatively affect the project site, then a PESA is required.

If all responses for database and site reconnaissance are conclusively “No”, then the Level II screening is successful and the District Special Waste Coordinator may sign-off the project. Ensure the “Special Waste” box in Section A is checked.

For local roads projects, the local public agency (LPA) shall complete the Level 2 Screening form for portions of the project affecting State right-of-way. The District Special Waste Coordinator must confirm the screening results and shall replace the LPA information in the sign-off box with their own information prior to submittal to BDE.

The Level II District Sign-off is valid for up to six months. After that, the District Sign-Off must be validated for the project to achieve design approval and ultimately cleared for letting. If any response for database search and site reconnaissance is “Yes”, or if a database search or site reconnaissance is not performed or is inconclusive, then a PESA is required. See BDE Manual 27-3 for additional instructions.

Special Waste Screen Preparation Date:

Prepared By (name):

Organization/firm:

Telephone #: ( ) -

Ext.

Email:

On behalf of (project developer):

Other Information:

ESR Home Page Clear Form Submit Form

Illinois Department of Transportation

Memorandum

To:	George A. Tapas	Attn: Greg S. Lupton
From:	Jack A. Elston	By: Thomas C. Brooks
Subject:	Natural Resources Review	
Date:	March 8, 2021	

Chicago Avenue
Sec. 21-00288-00-RS
T41N/R14E/S 18
Seq. No.: 23602
Cook County

The proposed project involves roadway improvements for bicycle, pedestrian, bus stop, and on-street parking on Chicago Avenue between Howard Street and Davis Street in the City of Evanston.

The project requires no land acquisition. There will be no instream work. There will be twenty urban trees to be removed. The land cover in the vicinity of the project is urban.

Review for Illinois Endangered Species Protection and Illinois Natural Areas Preservation – Part 1075

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project. The south end of the project occurs in a rusty patched bumble bee High Potential Zone (RPBB HPZ) and there is a state and federally listed RPBB occurrence one mile south of the project. The project area consists entirely of managed urban industrial lands. The RPBB requires full season nectar sources and loose soils for nesting and hibernation. There is no habitat for this species and thus no (adverse) effect by the project on this species. **Therefore, consultation under Part 1075 is terminated.**

This review for compliance with 17 Ill. Adm. Code Part 1075 is valid for two years unless new information becomes available that was not previously considered; the proposed improvement is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the proposed improvement has not been implemented within two years of the date of this memorandum, or any of the above listed conditions develop, a new review will be necessary.

Review for Illinois Interagency Wetland Policy Act – Part 1090

The proposed improvement was not surveyed for wetlands. There are no inventoried wetlands within the ESR limits. Soils are considered urban. **Our review for compliance under Part 1090 is terminated.**

Review for Endangered Species Act - Section 7

The proposed improvement was reviewed in fulfillment of our obligation under Section 7(a)(2) of the Endangered Species Act. Our review included use of the US Fish and Wildlife Service's Information for Planning and Conservation (IPaC) web-based review tool. Through IPaC, an official species list was received and is saved to the project folder. The list contains the endangered, threatened, proposed and candidate species and proposed and designated critical habitat that may be present within or in the vicinity of the proposed improvement. The following species are listed in Cook County: Northern long-eared bat (NLEB), piping plover, red knot, Eastern massasauga, Rusty patched bumble fee, Hine's emerald dragonfly, leafy prairie clover, Eastern prairie fringed orchid (EPFO), and Prairie bush-clover. There is no Critical Habitat in the project vicinity. **Under 50 CFR 402.12(e), the accuracy of the species list is limited to 90 days**.

Northern long-eared bat

Northern long-eared bat suitable summer habitat consists of a wide variety of forested or wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees or snags ≥3 inches dbh that have exfoliating bark, cracks, crevices, or hollows) as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit characteristics of suitable roost trees and are within 1,000 feet of other forested or wooded habitat. Trees found in highly-developed urban areas (e.g., street trees, downtown areas) are extremely unlikely to be suitable NLEB habitat.

There will be twenty trees removed as a result of this project. Land use in the project area is urban. There are no records of maternity roost trees, maternity colonies or hibernacula in the vicinity of the project corridor.

We assessed the potential for adverse impacts to the NLEB in accordance with the Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions and determined that the proposed improvement will have no effect to the NLEB.

Eastern prairie fringed orchid

Eastern prairie fringed orchid occurs in a wide variety of habitats, from mesic prairie to wetland communities such as sedge meadows, marsh edges and even bogs. It requires full sunlight for optimum growth and flowering, which restricts it to grass- and sedge-dominated plant communities. The substrate of the sites where it occurs ranges from neutral to mildly calcareous. Occasionally the orchid colonizes successional habitats or recolonizes previously occupied areas.

We evaluated the limits of the proposed improvement for the presence of potentially suitable EPFO habitat. Our evaluation included the use of EPFO guidance from the US Fish and Wildlife Service, Chicago Ecological Services Field Office. There are no impacted prairies or high-quality wetlands in the project corridor. We determined there would be no effect to EPFO from the proposed improvement.

Rusty patched bumble bee

We evaluated the limits of the proposed improvement for the presence of potentially suitable Rusty patched bumble bee habitat. Our evaluation included the use of the guidance issued by USFWS dated April 2019 and titled "Rusty Patched Bumble Bee (*Bombus affinis*), Endangered Species Act, Section 7(a)(2) Voluntary Implementation Guidance Version 2.1" ("USFWS Interagency Guidance"). According to the guidance, if a project is outside of a high potential zone, then the USFWS advises that the incidental take coverage is not necessary (https://www.fws.gov/midwest/endangered/insects/rpbb/ProjectProponent.html.) Therefore, if the project is outside of a high potential zone, then a "no effect" determination is appropriate.

We cross referenced the preferred habitat of the Rusty patched bumble bee with our knowledge of the project areas and determined that there is a USFWS High Potential Zone in the southern tip of the project area. There is a RPBB record one mile south of the project. RPBB requires full season nectar plants and upland undisturbed loose soils for nesting. The project area consists entirely of managed urban industrial lands. There is no habitat for RPBB in the project area. In accordance with Section 7 of the Endangered Species Act, we determined that there will be no effect to the Rusty patched bumble bee.

Other Federally Listed Species

We cross-referenced the preferred habitat of each of the remaining listed species with our knowledge of the project area and determined that there are no suitable habitats present. We have determined that the proposed improvement will have no effect on any of the remaining listed species.

We have determined that the proposed improvement is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of any critical habitat.

Should the proposed improvement be modified or new information indicate listed or proposed species may be affected, consultation or additional coordination should be initiated.

Attachment — USFWS species list

SDH

Placeholder:

IDOT Cultural Resources Unit (CRU)
Clearance Documentation
(Pending Review)

TAB 9

PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT (PESA)

Placeholder:

IDOT Preliminary Environmental Site Assessment (PESA)
Clearance Documentation
(for portion of project involving IDOT ROW)

(Pending Review)

TAB 10

PUBLIC INPUT & COMMUNITY INVOLVEMENT

Public Input & Community Involvement

The following outlines public-outreach and community-input efforts for this project:

December 3, 2020	Advisory Committee Meeting #1
February 4, 2021	Bike Shop Coordination
February 4, 2021	CTA / Pace / Northwestern University Coordination
February 15, 2021	Center for Independent Futures Coordination
February 18, 2021	Chicago Department of Transportation (CDOT) Coordination
March 4, 2021	Main Dempster Mile Coordination
March 11, 2021	Downtown Evanston Executive Board Meeting
March 31, 2021	Evanston Climate Action Group, GO Committee
May 27, 2021	Evanston Climate Action Group
June 29, 2021	Courts of Evanston Introduction Meeting
July 29, 2021	Public Meeting #1
September 23, 2021	Advisory Committee Meeting #2
October 14, 2021	Pace Coordination Meeting #2
October 19, 2021	Art Community Coordination Meeting
October 21, 2021	CTA / Northwestern University Coordination Meeting #2
November 11, 2021	Public Meeting #2
November 12, 2021	Connections for the Homeless Introduction Meeting
November 16, 2021	Greenwood Care

Date: July 29, 2021

Location: City Volkswagen of Evanston,
1034 Chicago Ave.
Evanston, IL 60202

Topic: Evanston Chicago Avenue Multimodal Corridor Improvement Study
Public Meeting #1

Meeting Summary

The first public meeting for the Evanston Chicago Avenue Multimodal Corridor Improvement Study was held on July 29, 2021 between the hours of 4:00 and 7:00 PM at the City Volkswagen of Evanston showroom. The meeting was an Open House style event with informational and interactive exhibits for attendees to view at their leisure. The purpose of the meeting was to:

- Introduce the project
- Provide existing conditions and safety information
- Describe the range of potential multimodal corridor improvements
- Describe the project process and schedule
- Obtain public input on the desired improvements within the project study area

Comments were provided by attendees in the form of comment sheets and interaction with exhibit boards and roll plots.

The following exhibits were displayed at the public meeting:

<u>Informational Exhibits</u>

1. *Welcome/Overview Board* describes the purpose of the meeting, orients attendees to the available exhibits and options for input, and lays out COVID-19 pandemic protocols for meeting attendees.
2. *Project Overview* presents a map of the project corridor with landmarks and places of interest and a timeline showing the three project phases.
3. *History of Transit Along Chicago Ave & the Surrounding Evanston Area* includes a timeline of transit milestones on the project corridor from 1899 to 1959.
4. *City of Evanston Adopted Bike Plan 2014* displays a map of Evanston corridors recommended for further analysis in the 2014 Evanston Bike Plan, including Chicago Avenue.
5. *Existing Conditions* includes 13 boards showing an aerial image of the project corridor with transit stops and recognizable landmarks called out, and all crashes on the project corridor in the past five years (2016-2020) shown by crash type and severity.

Evanston Chicago Avenue Multimodal Corridor Improvement Study

July 29, 2021 Public Meeting Summary

Interactive Exhibits

1. *Visual Preference Boards* present a range options for multimodal improvements on the project corridor; attendees are invited to place stickers next to their preferred improvement types on each of the following boards:
    a. *Bikeways* shows eight options for cycling infrastructure on the project corridor including on-street two-way cycle tracks, raised two-way cycle tracks, conventional bike lanes.
    b. *Landscaping* and *Bus Stops* show four options for street trees and planters, and three options for bus stops integrated with on-street bike facilities.
    c. *Green Infrastructure* shows eight options for green infrastructure improvements on the sidewalk including permeable pavers, bioswales, and LED lighting.
    d. *Public Space Activation* shows eight examples of other amenities within the public right-of-way including public art, bike parking, and flexible uses of on-street parking spaces.
2. *Big Idea Board* asks meeting attendees to write directly on the board and complete the sentence, "My big idea for Chicago Ave is…"
3. *Public Place Activation Board and Roll Plot* consists of a roll plot of the project corridor including aerial imagery, transit stops, and recognizable landmarks, and a board with corresponding stickers that represent potential multimodal corridor improvements; attendees are invited to place stickers on the aerial where they would like to see the following amenity types:
    a. Trees/Landscaping
    b. Sidewalk Café
    c. Outdoor Seating
    d. Public Art
    e. Parklet/Flexible Parking
    f. Bike Racks
    g. Improved Pedestrian Crossing

Project Overview PowerPoint

A PowerPoint presentation was played on a loop during the meeting. The presentation included closed captioning and covered the following topics:

- Project goals
- Project purpose and need
- IDOT project development phases and process
- IDOT Phase I coordination overview
- Stakeholder engagement and communication plan
- Project schedule and engagement meetings
- Corridor context maps
- Parking utilization context
- Invitation to share your thoughts and vision

Meeting exhibits are shown in Appendix A.

Event Advertisement

The meeting was advertised in the following publication on the dates noted, both online and in print.

- Evanston Review
    - July 8, 2021
    - July 22, 2021

A public meeting invitation flyer was distributed by hand to all available businesses within one block of the project corridor on July 21, 2021; 102 businesses were visited, 64 of which accepted flyers. Many of the 102 businesses were permanently or temporarily closed, or open by appointment only, due to COVID-19. The flyer was also emailed to members of the Project Advisory Committee on July 19, 2021, for distribution to their networks. The flyer included the following information:

- Public meeting date, time, and location with a photo of the venue
- Overview of the project
- Purpose of the public meeting
- COVID-19 precaution requirements
- Invitation to view materials and provide comments on the project website
- Contact information of the City of Evanston Project Manager

Copies of the certificate of publication for the newspaper advertisement and meeting flyer are shown in Appendix B.

Event Attendance

Thirty-nine individuals attended the public meeting on July 29, 2021 and filled out the sign-in sheet. Of these, 36 provided addresses in the City of Evanston, one provided a City of Chicago address, and two did not include an address.

The public meeting sign-in sheets are included in Appendix C.

Comments

Comments were provided by meeting attendees in comment sheets and on three interactive exhibits: visual preference boards, the “big idea” board, and the public place activation board and roll plot.

<u>Comment Sheets</u>

Four comment sheets were submitted at the public meeting on July 29, 2021. The following comments proposed design elements that will be reviewed for their ability to be incorporated into proposed preliminary engineering plans:

- On-street bicycle facilities

    - I'd like a bi-directional bike lane to connect from Howard St. in Chicago all the way to the Sheridan bike lane, with a concrete buffer to separate it from traffic.
    - If possible I'd love for some king of flexibility for getting in/out of a protected bike lane in a pinch – either bollards, or maybe intermittent breaks in the cement barrier so that it's possible to avoid any obstructions or pass anyone (or be passed!).
    - Protected bike path critical if on Chicago. Could be somewhat less protected if on Hinman.
- Sidewalk planters and landscaping
    - I encourage you to use native, pollinator-friendly plants in landscaping.
    - Foliage and other separators between traffic and pedestrian space will be necessary to make pedestrian experience pleasant.
    - One-sided streetscape below Firehouse Grill through to Oaktown tough to activate. Plantings and decorative hardscapes along railroad track could work well to provide aesthetic value without drawing pedestrian traffic.
    - Permanent planters, whether above or below ground, take up space and are not going to be as pretty as the pictures show for much of the year. For these reasons I like parklets and free-standing planters: cheaper, more flexible, easier to maintain, can be adjusted to fit the season.
- Concern about available sidewalk space
    - We don't have a lot of space to work with, unfortunately.
    - Public art is tricky. Gotta be sure it doesn't take up precious space. Room to walk, bike, and drive should be the priority.
    - Am concerned about availability of room for pedestrians and interest providing street side features if bike lanes are on Chicago.
    - In many places, such as adjacent to Jewel, the sidewalks need to be wider.

The following comments proposed repurposing or redevelopment of private property – these proposals are beyond the scope of the project which is limited to public right-of-way:

- I encourage the City to take a look at all of the mostly-empty parking lots on the Chicago Ave. corridor, such as Jewel, Binny's, and the church that is north of Dempster. All of these lie mostly fallow and contribute to urban heat islands. These can and should be converted to useful buildings and space with underground parking, that would generate much more revenue per square foot to the City.
- Parking lots important to activate to 1) be permeable to manage runoff, 2) charging stations, 3) bike parking, 4) wider pedestrian area to include features.

All comment sheets are included in Appendix D.

Interactive Exhibits

Meeting attendees also provided comments by placing stickers or writing on one or more of the three informational exhibit types:

- Visual Preference Boards – A total of 257 stickers were placed on the boards to indicate attendees' preference for the improvements shown.
- Big Idea Board – Meeting attendees wrote in 27 of the 28 available idea spaces on board, as well as adding responses to or affirmations of other comments.
- Public Place Activation Board and Roll Plot – 213 stickers were placed on the Chicago Avenue Corridor roll plot that corresponded to suggested locations for

trees/landscaping, sidewalk cafés, outdoor seating, public art, parklets/flexible parking, bike racks, and improved pedestrian crossings; attendees also wrote 16 notes on the map for items such as development sites, piazzas, bike turn boxes, and landscaping improvements.

A summary of comments provided on interactive exhibits is included in Appendix E.

Next Steps

The City of Evanston will post this public meeting summary on the project website. Comments, ideas, visual preference votes, and stickers will be reviewed and incorporated into proposed preliminary engineering plans where applicable. The proposed plans will be presented at a second public meeting for further review and comment.

Appendix B

Event Advertisement

CHICAGO TRIBUNE
media group

Sold To:
Richard Cody McChane - CU80119122
4022 N Monticello Ave, Apt 3S
Chicago,IL 60618

Bill To:
Richard Cody McChane - CU80119122
4022 N Monticello Ave, Apt 3S
Chicago,IL 60618

Certificate of Publication:

Order Number: 6989934
Purchase Order:

State of Illinois - Cook

Chicago Tribune Media Group does hereby certify that it is the publisher of the Evanston Review. The Evanston Review is a secular newspaper, has been continuously published Weekly for more than fifty (50) weeks prior to the first publication of the attached notice, is published in the City of Evanston, Township of Evanston, State of Illinois, is of general circulation throughout that county and surrounding area, and is a newspaper as defined by 715 IL CS 5/5.

This is to certify that a notice, a true copy of which is attached, was published 2 time(s) in the Evanston Review, namely one time per week or on 2 successive weeks. The first publication of the notice was made in the newspaper, dated and published on 7/08/2021, and the last publication of the notice was made in the newspaper dated and published on 7/22/2021.

This notice was also placed on a statewide public notice website as required by 715 ILCS 5/2. 1.

PUBLICATION DATES: **Jul 08, 2021; Jul 22, 2021.**

Evanston Review
In witness, an authorized agent of The Chicago Tribune Media Group has signed this certificate executed in Chicago, Illinois on this

23rd Day of July, 2021, by

Chicago Tribune Media Group

Jeremy Gates

CHICAGO TRIBUNE
media group

Public Meeting Notice
City of Evanston
Chicago Avenue Multimodal Corridor Improvements
Phase I Study
Howard Street to Davis Street

The City of Evanston invites all persons interested in the project to attend a Public Meeting regarding the Phase I Study for the proposed improvements along Chicago Avenue from Howard Street to Davis Street. The meeting is scheduled for the following date and time:

Date: Thursday, July 29, 2021
Time: 4:00 PM to 7:00 PM
Location: The City Volkswagen of Evanston
1034 Chicago Ave., Evanston, IL 60202
Note: the building is located at the southwest corner of Chicago Avenue and Greenleaf Street. Please enter at the north side of the building.

The purpose of this meeting is to introduce the project, present information about existing conditions, and solicit input from the public on potential design solutions and aesthetic features. The meeting will be held in an Open House format and will include informational exhibit display boards for viewing and comment. Representatives from the City of Evanston and the consultant team will be present to provide information, answer questions, and receive input.

Written comments regarding the project may be completed and submitted at the public meeting or emailed to Mr. Sat Nagar, P.E., Senior Project Manager, City of Evanston, at snagar@cityofevanston.org no later than August 13, 2021, for them to be included as part of the official record of this public meeting. Questions about the project should be directed to Mr. Sat Nagar at 3-1-1 or (847) 448-4311.

Additional information can be found at the project website: bit.ly/EvanstonChicagoAve.

The meeting location is accessible to persons with a disability. Persons with a disability planning to attend this meeting or those that need special accommodations should notify Mr. Sat Nagar by July 22, 2021.

Face coverings must be worn at all times, and social distancing will be implemented.
7/8, 7/22/2021 6989934

CHICAGO AVENUE MULTIMODAL CORRIDOR IMPROVEMENT PROJECT

PUBLIC MEETING

Please join us for the
CHICAGO AVENUE MULTIMODAL CORRIDOR IMPROVEMENT STUDY
Public Meeting!

Thursday July 29, 2021
4:00 pm to 7:00 pm

City Volkswagen of Evanston
1034 Chicago Ave, Evanston

The City of Evanston invites you to attend a Public Meeting regarding potential multimodal improvements along Chicago Avenue from Howard Street to Davis Street. The goal of the project is to improve safety and comfort for all roadway users including pedestrians, cyclists, buses, cars and various modes of transportation. The project will also review intersection operations along the Chicago Avenue Corridor.

This meeting is an opportunity to learn about the project, view existing project data, review potential improvement concepts, and provide input. The meeting will include informational exhibit display boards for viewing. City staff and members of the consultant team will be available to solicit input and answer your questions.

Face coverings must be worn at all times, and social distancing will be implemented. Anyone who requires assistance to participate in this meeting is invited to contact Sat Nagar by July 22, 2021.

Can't make it to the meeting? Interested in sharing your thoughts?
Meeting materials and a comment form will be posted on the project website:
www.cityofevanston.org/ChicagoAvenueMultimodal

If you have any questions or comments, please contact:
Sat Nagar, P.E. . 847.448.4311 . snagar@cityofevanston.org

Appendix C

Sign-In Sheets

City of Evanston

Evanston
Chicago Avenue
MULTIMODAL CORRIDOR IMPROVEMENTS

Sign-In Sheet

Event: PUBLIC MEETING #1 **Date:** 7/29/2021

Name	Email	Address
CONNIE USELMAN		
Matt Simonette (Evanston Round Table)		
Steve Budde		
Dan Ruswick		
Carrie Ruswick		
DAN JOSEPH		
Lea Ansky		
Carole Mark		
Robert Mark		
Peter Laundy		
Shirley Dugdale		
Debbie Hillman		
JANET Stein		
Sanford Stein		

City of Evanston

Evanston
Chicago Avenue
MULTIMODAL CORRIDOR IMPROVEMENTS

Sign-In Sheet

Event: PUBLIC MEETING #1 **Date:** 7/29/2021

Name	Email	Address
ANNE CORDES		
Steve Nelson		
Reuben Perelman		
Barbara Miller		
Jonathan Roth		
Justin Haugens		
Liz W Durham		
Robb Geiger		
PAUL ZALEWSKI		
Alex Christopher		
Ben Schapiro		
Cecelia Wallin		
Jessica Mynk		
Scott Mangum		

City of Evanston

Evanston
Chicago Avenue
MULTIMODAL CORRIDOR IMPROVEMENTS

Sign-In Sheet

Event: PUBLIC MEETING #1 **Date:** 7/29/2021

Name	Email	Address
Emilie Campbell		
Vickie Barrett		
Dave Stoneback		
Mary Korte		
Kurt Gelhausen		
[illegible] Busse		
Levi Shusterman		
John Ivaska		
Zafiro Papastratakos		
Sally Macnamara		
Liz Telow		

Appendix D

Comment Sheets

COMMENT SHEET

1) ~~Bike~~ Protected bike path critical if on Chicago. Could be somewhat less protected if on Hinman. Am concerned about availability of room for pedestrians and interest providing street side features if bike lanes are on Chicago

2) Foliage and other separators between traffic and pedestrian space will be necessary to make pedestrian experience pleasant

3) One-sided streetscape below Firehouse grill through to Oaktown tough ~~the~~ to activate. Plantings and decorative landscapes along railroad track could ~~be~~ work well. to provide aesthetic value without drawing pedestrian traffic.

4) Parking lots important to activate to 1) be permeable to manage runoff 2) charging stations 3) bike parking 4) wider pedestrian area to include features.

For more information visit the project website with QR code or link below:
www.cityofevanston.org/ChicagoAvenueMultimodal

or contact Sat Nagar by phone at 847-448-4311 or email at snagar@cityofevanston.org

EVANSTON - CHICAGO AVE MULTIMODAL CORRIDOR IMPROVEMENTS

COMMENT SHEET

We don't have a lot of space to work with, unfortunately.

Permanent planters, whether above or below ground, take up space and are not going to be as pretty as the pictures shown for much of the year.

Public art is tricky. Gotta be sure it doesn't take up precious space. Room to walk, bike, and drive should be the priority.

For these reasons I like parklets and free-standing planters: cheaper, more flexible, ~~to~~ easier to maintain, can be adjusted to fit the season.

For more information visit the project website with QR code or link below:
www.cityofevanston.org/ChicagoAvenueMultimodal

or contact Sat Nagar by phone at 847-448-4311 or email at snagar@cityofevanston.org

EVANSTON - CHICAGO AVE
MULTIMODAL CORRIDOR IMPROVEMENTS

COMMENT SHEET

if possible i'd love for some kind of flexibility for getting in/out of a protected bike lane in a pinch — either bollards, or maybe intermittent breaks in the cement barrier so that it's possible to avoid any obstructions or pass anyone (or be passed!)

For more information visit the project website with QR code or link below:
www.cityofevanston.org/ChicagoAvenueMultimodal

or contact Sat Nagar by phone at 847-448-4311 or email at snagar@cityofevanston.org

EVANSTON - CHICAGO AVE
MULTIMODAL CORRIDOR IMPROVEMENTS

COMMENT SHEET

I'd like a bi-directional bike lane to connect from Howard St. in Chicago all the way to the Sheridan bike lane, with a concrete buffer to separate it from traffic. I encourage you to use native, pollinator-friendly plants in landscaping.

In many places, such as adjacent to Jewel, the sidewalks need to be wider.

Also, I encourage the city to take a look at all of the mostly-empty parking lots on the Chicago Ave corridor, such as Jewel, Binny's, and the church that is north of Dempster. All of these lie mostly fallow and contribute to urban heat islands. These can, and should be converted to useful buildings & space with underground parking, that would generate much more revenue per square foot to the city.

For more information visit the project website with QR code or link below:
www.cityofevanston.org/ChicagoAvenueMultimodal

or contact Sat Nagar by phone at 847-448-4311 or email at snagar@cityofevanston.org

EVANSTON - CHICAGO AVE MULTIMODAL CORRIDOR IMPROVEMENTS

Appendix E

Interactive Exhibit Summary

Date: November 11, 2021

Location: City Volkswagen of Evanston,
1034 Chicago Ave.
Evanston, IL 60202

Topic: Evanston Chicago Avenue Multimodal Corridor Improvement Study
Public Meeting #2

Meeting Summary

The second public meeting for the Evanston Chicago Avenue Multimodal Corridor Improvement Study was held on November 11, 2021 between the hours of 4:00 and 7:00 PM at the City Volkswagen of Evanston showroom. The meeting was an open house style event with informational and interactive exhibits for attendees to view at their leisure. The purpose of the meeting was to:

- Reintroduce the project and project goals
- Review comments from Public Meeting #1
- Present conceptual design for two-way separated bike lane
- Describe opportunities for public space activation along project study area
- Obtain public input on the conceptual design of the project study area

Comments were provided by attendees in the form of comment sheets.

The following exhibits were displayed at the public meeting:

<u>Informational Exhibits</u>

1. *Project Overview* presents a map of the project corridor with landmarks and places of interest and a timeline showing the three project phases.
2. *Public Space Activation Boards* show options to activate public spaces along the corridor.
3. *Design Detail Boards* show details of specific infrastructure types with photos, renderings, section views, and/or short text descriptions as applicable. These infrastructure types include two-way separated bike lanes, 2-stage turn boxes, shared cycle-track/bus stops, bus boarding islands, curb extensions, parklets, and sidewalk widening.
4. *"What We Heard" Boards* review the public comments from the interactive exhibits used during PM #1. Includes selected short comments, tabulation of votes for different treatments presented related to bikeway design, public space activation, green infrastructure, landscaping, and bus stops.
5. *Conceptual Design Roll Plots* include scanned roll plots from PM #1 above the proposed conceptual design, showing aerial imagery, proposed transit stops, intersection designs, cross-section widths, and parking.

Project Overview PowerPoint

A PowerPoint presentation was played on a loop during the meeting. The presentation included closed captioning and covered the following topics:

- Project goals
- Project purpose and need
- IDOT project development phases and process
- Stakeholder engagement and communication plan
- Project schedule and engagement meetings
- Review of comments solicited during Public Meeting #1
- Review of concept design by section, including typical sections, activation opportunities, transit stops, and other proposed improvements
- Map and renderings/descriptions of public space activation opportunities
- Next steps, including request for comments on conceptual design

Meeting exhibits are shown in Appendix A.

Event Advertisement

The meeting was advertised in the following publication on the dates noted, both online and in print.

- Evanston Review
    - October 21, 2021
    - November 4, 2021

A public meeting invitation flyer was distributed by hand to all available businesses within one block of the project corridor on November 2, 2021; 117 businesses were visited, 79 of which accepted flyers. Many of the 117 businesses were permanently or temporarily closed, or open by appointment only, due to COVID-19. Members of the Project Advisory Meeting were supplied this flyer for distribution to their networks. The flyer included the following information:

- Public meeting date, time, and location
- Purpose of the public meeting
- COVID-19 precaution requirements
- Invitation to view materials and provide comments on the project website
- Contact information of the City of Evanston Project Manager

Copies of the certificate of publication for the newspaper advertisement and meeting flyer are shown in Appendix B.

Event Attendance

Fifty-two individuals attended the public meeting on November 11, 2021 and filled out the sign-in sheet. Of these, 42 provided addresses in the City of Evanston, three provided a City of Chicago address, and seven did not include an address.

The public meeting sign-in sheets are included in Appendix C.

Comments

Comments were provided by meeting attendees in comment sheets.

Comment Sheets

Thirteen comment sheets were submitted at the public meeting on November 11, 2021. The following comments proposed design elements that will be reviewed for their ability to be incorporated into proposed preliminary engineering plans:

- On-street bicycle facilities
    - I like having a bike lane run from Howard north to the protected bike lanes. Protect bikers.
    - Permanent barriers near non-parking, especially near downtown, north of Lake
    - Hope that there will be physical separation between vehicles and bikes everywhere (quik curb, pre-cast curb, etc)
- Parking
    - Paid parking for higher turnover
    - Parking does not seem to be well-utilized so would prefer more sidewalk cafes and curb extensions.
    - Representing Chicago-Main Newsstand I'm disappointed to see the proposal that takes away all of the parking outside our business. This could be a problem for us.
    - The only thing I would like is clear indication of more bike parking – as this stands now I am often scrambling to find parking.
    - I am requesting that two additional spots be added in front of 807 Chicago, one of which would be handicap accessible.
    - Taking out parking south of Greenleaf is a concern. I'm not sure why a space needs to be removed.
- Sidewalks & Pedestrian Accommodations
    - Line up crossing with Juneway Terrace for visibility
    - Maintain sidewalk width for wheelchairs/groceries
    - Blocks are long and if there is an opportunity for mid-block crosswalks that would be appreciated.
    - Consider flashing / crossing light at Mulford & Chicago
    - Thank you for adding crosswalks near Madison St. & Washington St.
- Transit
    - Move bus stop directly at Mulford for less steps

All comment sheets are included in Appendix D.

Next Steps

The City of Evanston will post this public meeting summary on the project website. Comments will be reviewed and used to refine preliminary engineering plans where possible.

Appendix B

Event Advertisement

CHICAGO TRIBUNE
media group

Sold To:
Tim Gustafson - CU80112981
600 W Fulton St, Ste 900
Chicago,IL 60661

Bill To:
Tim Gustafson - CU80112981
600 W Fulton St, Ste 900
Chicago,IL 60661

Certificate of Publication:

Order Number: 7064751
Purchase Order: Wants only in Evanston Review

State of Illinois - Cook

Chicago Tribune Media Group does hereby certify that it is the publisher of the Evanston Review. The Evanston Review is a secular newspaper, has been continuously published Weekly for more than fifty (50) weeks prior to the first publication of the attached notice, is published in the City of Evanston, Township of Evanston, State of Illinois, is of general circulation throughout that county and surrounding area, and is a newspaper as defined by 715 IL CS 5/5.

This is to certify that a notice, a true copy of which is attached, was published 2 time(s) in the Evanston Review, namely one time per week or on 2 successive weeks. The first publication of the notice was made in the newspaper, dated and published on 10/21/2021, and the last publication of the notice was made in the newspaper dated and published on 11/04/2021.

This notice was also placed on a statewide public notice website as required by 715 ILCS 5/2. 1.

PUBLICATION DATES: **Oct 21, 2021; Nov 04, 2021.**

Evanston Review
In witness, an authorized agent of The Chicago Tribune Media Group has signed this certificate executed in Chicago, Illinois on this

5th Day of November, 2021, by

Chicago Tribune Media Group

Jeremy Gates

CHICAGO TRIBUNE
media group

Public Meeting Notice

City of Evanston
Chicago Avenue Multimodal Corridor Improvements
Phase I Study
Howard Street to Davis Street

The City of Evanston invites all persons interested in the project to attend a Public Meeting regarding the Phase I Study for the proposed improvements along Chicago Avenue from Howard Street to Davis Street. The meeting is scheduled for the following date and time:

Date: Thursday, November 11, 2021
Time: 4:00 PM to 7:00 PM
Location: The City Volkswagen of Evanston
1034 Chicago Ave., Evanston, IL 60202

Note: The building is located at the southwest corner of Chicago Avenue and Greenleaf Street. Please enter at the north side of the building.

The purpose of this meeting is to present the proposed multimodal corridor improvements and concept geometry and solicit input from the public on the proposed improvements. The meeting will be held in an Open House format and will include informational exhibit display boards for viewing and comment. Representatives from the City of Evanston and the consultant team will be present to provide information, answer questions, and receive input.

Written comments regarding the project may be completed and submitted at the public meeting or emailed to Mr. Sat Nagar, P.E., Senior Project Manager, City of Evanston, at snagar@cityofevanston.org no later than November 30, 2021, for them to be included as part of the official record of this public meeting. Questions about the project should be directed to Mr. Sat Nagar at 3-1-1 or (847) 448-4311.

Additional information can be found at the project website: www.cityofevanston.org/ChicagoAvenueMultimodal.

The meeting location is accessible to persons with a disability. Persons with a disability planning to attend this meeting or those that need special accommodations should notify Mr. Sat Nagar by November 4, 2021.

Face coverings must be worn at all times, and social distancing will be implemented.

10/21 & 11/4/21 7064751

Appendix C

Sign-In Sheets

City of Evanston

Evanston
Chicago Avenue
MULTIMODAL CORRIDOR IMPROVEMENTS

Sign-In Sheet

Event: CHICAGO AVENUE CORRIDOR PUBLIC MEETING #2 **Date:** NOVEMBER 11, 2021

Name	Email	Address
Susan Munro		
Sam Johnson		
Cecelia Wallin		
BOB + ON MANGUM		
Scott + Scott MANGUM		
Michael Wonderlich		

City of Evanston

Evanston
Chicago Avenue
MULTIMODAL CORRIDOR IMPROVEMENTS

Sign-In Sheet

Event: CHICAGO AVENUE CORRIDOR PUBLIC MEETING #2 **Date:** NOVEMBER 11, 2021

Name	Email	Address
Ben Howard		
Erik van Leer		
Cora Wigger		
Luke van Leer		
Tom Alcaro		

City of Evanston

Evanston
Chicago Avenue
MULTIMODAL CORRIDOR IMPROVEMENTS

Sign-In Sheet

Event: CHICAGO AVENUE CORRIDOR PUBLIC MEETING #2 **Date:** NOVEMBER 11, 2021

Name	Email	Address
Britt Badkin		
TIM SALISBURY		
Andrew Lazaro		
PATRICIA DENOYER		
Craig Jakobsen		
Vickie Bennett		
Austin Busch		
Martha Logan		
JOEL FREEMAN		
CHONY M		
ILK + Other		
MIKE MORAN		
Julie van Leer		
Andrew Kiene +		

City of Evanston

Evanston
Chicago Avenue
MULTIMODAL CORRIDOR IMPROVEMENTS

Sign-In Sheet

Event: CHICAGO AVENUE CORRIDOR PUBLIC MEETING #2 **Date:** NOVEMBER 11, 2021

Name	Email	Address
KEVIN SCHNEIDER		
Bob Aronsohn		
Dana Barnett-Owens		
Katie Vienot		
DAN JOSEPH		
Jane Woolley		
Barbara Miller		
Justin Haugens		
Jeffrey Anderson		
Robb Geiger		
MATT WEISS		
Shirley Adams		
Carolyn Potts		
JIM DENOYER		

City of Evanston

Evanston
Chicago Avenue
MULTIMODAL CORRIDOR IMPROVEMENTS

Sign-In Sheet

Event: CHICAGO AVENUE CORRIDOR PUBLIC MEETING #2 **Date:** NOVEMBER 11, 2021

Name	Email	Address
ERIC ISMOND CHICAGO-MAIN/NEW		
Kevin Bodkin		
CADE STERLING		
Joe Goodman		
Karen Laffe		
JOHN WERTYMER		
Lea Pinsky		
Paul Chasnoff		
Brian Manzella		
Tom Wuellner		
CONNIE USELMAN		
Meredith Freeland		
Reuben Perelman		
Courtney Cobbs		

Appendix D

Comment Sheets

COMMENT SHEET

Name: Martha Logan

Address:

I like having a bike lane run from Howard north to the protected bike lanes. Protect bikers.

yes to more friendly pedestrian areas more green space, more trees and reduced width of street crossing areas.

For more information visit the project website with QR code or link below:
www.cityofevanston.org/ChicagoAvenueMultimodal

or contact Sat Nagar by phone at 847-448-4311 or email at snagar@cityofevanston.org

EVANSTON - CHICAGO AVE MULTIMODAL CORRIDOR IMPROVEMENTS

City of Evanston

COMMENT SHEET

Name: Austin Busch

- Lighting south of South Blvd, increase visibility, maintain sidewalk width for wheelchair/groceries
- Line up crossing with Juneway Terrace for visibility
- Bus stop directly at Mulford for less steps
- Dedicated signal crossings for left at Main, Lake or Greenleaf
  - single-cycle crossings, multi-phase will induce jaywalking
- Permanent barriers near non-parking
  - especially near down town, north of lake
- Paid parking for higher turnover
- Phase construction: fix deadly stretch of Juneway - South Blvd

For more information visit the project website with QR code or link below:
www.cityofevanston.org/ChicagoAvenueMultimodal

or contact Sat Nagar by phone at 847-448-4311 or email at snagar@cityofevanston.org

EVANSTON - CHICAGO AVE MULTIMODAL CORRIDOR IMPROVEMENTS

COMMENT SHEET

Name: Craig Jakobsen

Very excited about the two-way bikeway!

Hope that there will be physical separation between vehicles and bikes everywhere (Knuckle curb, pre-cast curb etc).

Blocks are long and if there is an opportunity for mid-block crosswalks that would be appreciated.

Parking does not seem to be well-utilized so would prefer more sidewalk cafes and curb extensions.

Great work overall! Can't wait

For more information visit the project website with QR code or link below:
www.cityofevanston.org/ChicagoAvenueMultimodal

or contact Sat Nagar by phone at 847-448-4311 or email at snagar@cityofevanston.org

EVANSTON - CHICAGO AVE
MULTIMODAL CORRIDOR IMPROVEMENTS

COMMENT SHEET

Name: Sam Johnson

In Full 1000% support of this project - Everything looks great - thank you!

For more information visit the project website with QR code or link below:
www.cityofevanston.org/ChicagoAvenueMultimodal

or contact Sat Nagar by phone at 847-448-4311 or email at snagar@cityofevanston.org

EVANSTON - CHICAGO AVE
MULTIMODAL CORRIDOR IMPROVEMENTS

COMMENT SHEET

Name: _____

Thank You for this presentation
In my opinion Binney's & Trader Joe's should have only one entrance/exit on to Chicago Ave

Otherwise great job!

For more information visit the project website with QR code or link below:
www.cityofevanston.org/ChicagoAvenueMultimodal

or contact Sat Nagar by phone at 847-448-4311 or email at snagar@cityofevanston.org

EVANSTON - CHICAGO AVE
MULTIMODAL CORRIDOR IMPROVEMENTS

COMMENT SHEET

Name: Brian Mantella

Just want to voice my support for this amazing project. easily one of the most important infrastructure projects proposed.

I would like to point some attention to ~~wate~~ drainage & snow removal. Some areas appear that they may provide a bit of a challenge with the concrete barrier.

An example of this being an issue is on S Clinton st in Chicago next to union station. The bike lane there was improperly graded & has a concrete barrier that prevents drainage. The bike lane is frequently flooded, making cyclists ride on the busy street.

Overall I really love the project & find the layout to be amazing! Thank you Thank you Thank you so much for this amazing design.

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EVANSTON - CHICAGO AVE
MULTIMODAL CORRIDOR IMPROVEMENTS

COMMENT SHEET

Name: Sam Johnson

I am very supportive of the

MIKE MORAN

CONSIDER FLASHING / CROSSING LIGHT

AT MULFORD & CHICAGO !

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EVANSTON - CHICAGO AVE
MULTIMODAL CORRIDOR IMPROVEMENTS

City of Evanston

COMMENT SHEET

Name: Eric Ismond - Chicago-Main Newsstand

Representing Chicago-Main Newsstand I'm disappointed to see the proposal that takes away all of the parking outside our business. This could be a problem for us.

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EVANSTON - CHICAGO AVE
MULTIMODAL CORRIDOR IMPROVEMENTS

City of Evanston

COMMENT SHEET

Name: Jeffrey Anderson

I love the designs. Looking forward to seeing this plan implemented.
+ Looking forward to more bike lanes in Evanston, especially East-West lanes

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or contact Sat Nagar by phone at 847-448-4311 or email at snagar@cityofevanston.org

EVANSTON - CHICAGO AVE MULTIMODAL CORRIDOR IMPROVEMENTS

COMMENT SHEET

Name: Kevin Bodlem

Love the thoughtful design of protected bike lanes that run the entire length of Chicago. There's clearly been a lot of thought put in to designing the interactions between various road users, and I appreciate how the bike boxes give a safe way to cross at each intersection.

The only thing I would like is clear indication of more bike parking - as things stand now I am often scrambling to find parking

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or contact Sat Nagar by phone at 847-448-4311 or email at snagar@cityofevanston.org

EVANSTON - CHICAGO AVE
MULTIMODAL CORRIDOR IMPROVEMENTS

COMMENT SHEET

Name: Britt Bodkin

Thank you for adding crosswalks near Madison St. & Washington St. I appreciate the thoughtfulness of designing lanes with safety for children in mind. I'm excited to see more pedestrians, cyclists, and greenery (no pun intended) along Chicago Ave!

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EVANSTON - CHICAGO AVE MULTIMODAL CORRIDOR IMPROVEMENTS

City of Evanston

COMMENT SHEET

Name: Katie Vienot

I am opening a pediatric Speech + OT clinic in this location within Q1 of 2022.

I am requesting that 2 additional spots be added in front of 807 Chicago, one of which would be handicap accessible.

My business will create an additional 4-6 cars in need of parking PER HOUR by 2022-2023.

My concern is that this construction will cause financial harm to my business and long term parking problems for my clients.

I'd appreciate the opportunity to participate in further discussions, as I am concerned that the parking survey did not take into account my business, evening/morning traffic patterns, or seasonal increases in car travel/parking utilization.

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EVANSTON - CHICAGO AVE MULTIMODAL CORRIDOR IMPROVEMENTS

COMMENT SHEET

Name: Dana Barnett-Owens

I just moved into 1041 Chicago Ave, opening Farmers Insurance Agency. Taking out parking south of Greenleaf is a concern. I'm not sure why a space needs to be removed.

Thx,

For more information visit the project website with QR code or link below:
www.cityofevanston.org/ChicagoAvenueMultimodal

or contact Sat Nagar by phone at 847-448-4311 or email at snagar@cityofevanston.org

EVANSTON - CHICAGO AVE
MULTIMODAL CORRIDOR IMPROVEMENTS

TAB 11

BLR 22120 DESIGN VARIANCE FORM

Illinois Department of Transportation

Approval of Design Variance

Project Identification

Local Agency: City of Evanston, IL (County, Municipality, Road District / Township) County: Cook

Section No.: 21 - 00288 - 00 - RS Route: 9-2853

Street/Road Name: Chicago Avenue

Project Limits: Howard Street (9-1334) to Davis Street (0-3020)

Project Length: 1.9 miles Functional Classification: Minor Arterial

Design Year: 2022 Design Traffic: ☐ DHV _____ ☒ ADT 13,000

Existing Structure No.: N/A Proposed Structure No.: _____

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):

A separated two-way bike lane is proposed on the east side of Chicago Avenue, extending the existing separated facility serving Northwestern University on the north project limit. Other improvements include resurfacing of the roadway, repairs to underground utilities, accessible bus stops, LED streetlights replacing older HPS lights, street loading zones, pedestrian refuge islands, widening sidewalks, planting street trees and native plants, adding crosswalks at critical locations, and adding curb extensions. This will be accomplished by narrowing existing travel lanes to 10', removing one of two southbound lanes between Howard Street and South Boulevard, and removing on-street parking where necessary.

District Coordination Meetings

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

Dates:

Level One Design Variance Approval

Local Agency: City of Evanston, IL Section No.: 21-00288-00-RS

Design Criteria for Project (Provide numerical value where indicated)	BLR&S Criteria	Variance Yes	Variance No	Summary of Variance and Justification
1. Design Speed: 30 mph	30-40 mph Fig. 33-3D	☐	☒	
2. Level of Service (Mainline): C	D Fig. 33-3D	☐	☒	
3. Lane Widths				
a. Through Lanes: 10 feet	10' Fig. 33-3D	☐	☒	
b. Turn Lanes: 10 feet	10' Fig. 33-3D	☐	☒	
c. Parking Lanes: 8 feet	8' Fig. 33-3D	☐	☒	
d. Bike Lanes: 8-10 feet		☐	☒	
4. Through Travel Lane Cross Slopes				
Inside Lane: 1.5 %	1.5-2.0% Fig. 33-3D	☐	☒	
Outside Lane: _____ % (if more than 2 lanes)	N/A	☐	☐	
5. Shoulder Widths: N/A feet	N/A	☐	☐	
6. Horizontal Curvature (Minimum Radius)				
500 feet	324' Fig 29-4A	☐	☒	
List curves not meeting criteria				
Sta. Radius Design Speed		☐	☐	
		☐	☐	
		☐	☐	
7. Superelevation Rates				
e_{max} Normal Crown %	Normal Crown Fig. 29-4A	☐	☒	
List curves for which e does not meet criteria				
Pl Sta. Radius e Design Speed		☐	☐	
		☐	☐	
		☐	☐	
8. Maximum Grade: 2.25 %	9% Fig. 32-3C	☐	☒	

Level One Design Variance Approval

Local Agency: City of Evanston, IL Section No.: 21-00288-00-RS

9. Minimum Intersection Sight Distance 25 feet	335' Fig 28-3E (Case B, stop control on the minor road)	☒	☐	Existing location of building faces prevent ISD minimums from being met at unsignalized intersections. Designing to minimum distance would result in removing or modifying buildings in the Lakeshore Historic District.
List locations not meeting the criteria Cross Road / Distance				
Madison St 25'		☒	☐	Existing retaining wall, Madison St stop-controlled
, Lee St 50'		☒	☐	Existing building face Lee St stop-controlled
Hamilton St 200'		☒	☐	On-street parking, Hamilton St stop-controlled
10. Minimum Stopping Sight Distance 200 feet	200' Fig.28-1A	☐	☒	
a. Crest Vertical Curves – Min. K value 30	19 Fig. 30-2A	☐	☒	at bridge over CTA Yellow Line
List curves not meeting the criteria VPI Sta. / Sight Distance / Design Speed / Curve Length				
		☐	☐	
		☐	☐	
		☐	☐	
b. Sag Vertical Curves – Min. K value 96	37 Fig. 30-2D	☐	☒	At bridge under CTA Purple Line
List curves not meeting the criteria VPI Sta. / Sight Distance / Design Speed / Curve Length				
		☐	☐	
		☐	☐	
		☐	☐	
c. Inside of Horizontal Curves **List curves not meeting the criteria** Sta. / Sight Distance / Design Speed / Radius				
	M = 10' Fig. 29-5A	☐	☒	
		☐	☐	
		☐	☐	
11. Clear Roadway Bridge Widths: _____ feet	N/A	☐	☐	
12. Freeboard Above Design High Water: _____ feet	N/A	☐	☐	

Level One Design Variance Approval

Local Agency: City of Evanston, IL Section No.: 21-00288-00-RS

13. Vertical Clearances:				
☐ Over Roadway/RR _____ feet	N/A	☐	☐	
☐ Under Structure _____ feet	N/A	☐	☐	
14. Accessibility Criteria for Disabled Persons **List any feature not meeting ADA Criteria**				
All work will meet ADA criteria	PROWAG	☐	☒	
15. Roadside Clear Zone:				
a. Tangent 1.5 feet	1.5' obstruction-free clearance for urban facilities 35-2.02(f)	☐	☒	
b. Outside of Curve _____	N/A	☐	☐	
List criteria for each radius Radius (ft) Clear Zone (ft)		☐ ☐ ☐	☐ ☐ ☐	
16. Intersection(s) Level of Service: C		☐	☐	
17. Warrants for Stop Signs or Signals				
Cross Road Warrant	N/A	☐ ☐ ☐	☐ ☐ ☐	
18. Pavement Design (list any variance to policy)				
		☐	☐	

Prepared By: _____ Date: _____
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: City of Evanston, IL Section No.: 21-00288-00-RS

Design Criteria for Project (Provide numerical value where indicated)	BLR&S Criteria	Variance Yes	Variance No	Summary of Variance and Justification
1. Design Period: 20 years	20 years	☐	☒	
2. Horizontal Alignment (Mainline)				
a. Minimum Superelevation Transition Lengths: _____ feet	N/A	☐	☐	
b. Superelevation Distribution Between Tangent and Curve: _____	2/3 : 1/3	☐	☐	
3. Vertical Alignment (Mainline)				
a. Minimum Grade of Urban Cross Section ____ %	0.3%	☐	☐	
b. Minimum Length of Vertical Curves ___ feet	N/A	☐	☐	
c. Maximum K value of Vertical Curves ___ (for curbed facilities)	167	☐	☐	
4. Cross Section Elements (Mainline)				
a. Design of Parking Lanes				
• Cross Slope: 2.0 %	2.0% Fig. 33-3D	☐	☒	
b. Design of Sidewalks				
• Width: 6 feet	4 feet	☐	☒	
• Buffer Distance: 2 feet	2 feet	☐	☒	
• Cross Slope: 1.5 %	2% max.	☐	☒	
• Longitudinal Grades: 2.25 %	5% max.	☐	☒	
c. Median				
• Type: _____	N/A	☐	☐	
• Width: _____ feet	N/A	☐	☐	
d. Shoulder Cross Slopes: _____ %	N/A	☐	☐	
e. Rollover Factor _____ %	N/A	☐	☐	
f. Curb and Gutter Type B-6.12	B-6.12 Fig. 33-3D	☐	☒	
g. Roadway Element				
• Steepest Front Slopes: _____ (H:V)	N/A	☐	☐	
• Steepest Back Slopes: _____ (H:V)	N/A	☐	☐	
5. Drainage (Flood Frequency)				
a. Pavement: 10 years	10 years 38-2.02	☐	☒	
b. Structure: _____ years	N/A	☐	☐	
c. Storm Sewer: 10 years	10 years 38-2.02	☐	☒	
6. Intersections				
a. Level of Service for Individual Movement:				
• Through Lanes: D	D	☐	☒	
• Turn Lanes: D	D	☐	☒	
b. Skew Angle: 72.5 Degrees	60° 34-1.01(a)	☐	☒	
c. Approach Grades: 2.25 %	5.0% 34-1.02(a)	☐	☒	

Local Agency: City of Evanston, IL Section No.: 21-00288-00-RS

d. Design Vehicle: WB-40	WB-55	☒	☐	Not feasible to acocmmodate Design Vehicle at Dempster Street due to constrained conditions.
e. Turning Radius for Design Vehicle: 36.0'	41.0'	☒	☐	CTR for WB-40
f. Minimum Corner Island Size: _____	N/A	☐	☐	
g. Minimum Turn Lane Length 160 feet	235' 34-3.02(b)	☒	☐	Constrained conditions on existing corridor, matching existing turn lane storage. Designing to standard would result in overlapping tapers due to short block lengths and/or closure of several urban intersections.
• Approach Taper: 100_____ feet	135' Fig. 34-3B	☒	☐	1:10 taper typ.
• Departure Taper: 100_____ feet	135' Fig. 34-3B	☒	☐	1:10 taper typ.
• Bay Taper: _____ feet		☐	☐	
h. Entrances				

Entrance Type	Max. Width (ft.)	Min. Width (ft.)	Max. Grade(%)			
Commercial	30	18	1.5%		☐	☒	
Residential	30	14	1.5%		☐	☒	
7. RR Crossings						
a. Type of Railroad Protection: N/A				N/A	☐	☐	
b. Crossing Width (at 90º angle) N/A feet				N/A	☐	☐	
8. Lighting						
a. Illuminance 12.9 lux				IESNA compliant 41-7.02	☐	☒	
b. Uniformity Ratio 2.8				IESNA compliant 41-7.02	☐	☒	
9. Other Items						
Bike lane buffer N of South Blvd, 1.5' wide				2' 43-3.02(d)	☒	☐	Insufficient width within right-of-way to provide turn lanes and 2-foot buffer. Designing to standard would require the narrowing of automobile travel lane, turn lane, or sidewalk to less than standard minimum width.

Level Two Design Variance Approval

Local Agency: City of Evanston, IL Section No.: 21-00288-00-RS

Prepared By: _____ Date: _____
Designer (Local Agency or Consultant)

When Prepared by Consultant
Local Agency Concurrence: _____ Date: _____

IDOT Regional Engineer Concurrence	Date	Central BLR&S Approval	Date

TAB 12

PRELIMINARY COST ESTIMATE

Concept Cost Estimate

Chicago Avenue Multimodal Corridor Improvements

Item	Unit	Quantity	Unit Cost	Total Cost
Removal				
Full-Depth Pavement Removal	SY	5600	$ 20	$ 112,000
Bituminous Pavement Removal, 4"	SY	44300	$ 10	$ 443,000
Sidewalk Removal	SY	3300	$ 27	$ 89,100
Curb & Gutter Removal	LF	10600	$ 9	$ 90,100
Inlet Removal	EA	30	$ 500	$ 15,000
Fire Hydrant Relocation	EA	2	$ 6,500	$ 13,000
Tree Removal	EA	15	$ 750	$ 11,250
Lighting Removal	EA	100	$ 1,000	$ 100,000
		Removal Subtotal		**$ 873,450**
Roadway				
Bituminous Pavement, 4"	SY	44200	$ 30	$ 1,326,000
Aggregate Base, 6"	SY	200	$ 20	$ 4,000
B.6-12 Curb and Gutter	LF	9100	$ 30	$ 273,000
Separated Bike Lane Barrier	LF	4300	$ 30	$ 129,000
Striping	LF	49400	$ 3	$ 123,500
Green/White MMA	SF	7400	$ 14	$ 99,900
Sidewalk (incl. ADA Ramps)	SF	28900	$ 12	$ 346,800
Remove Vaulted Sidewalks (Nominal)	EA	4	$ 500,000	$ 2,000,000
Raised / Boarding Islands	SF	14700	$ 13	$ 191,100
Bus Shelters	LS	1	$ 100,000	$ 100,000
Specialty Clay Brick Pavers	SF	25000	$ 25	$ 625,000
4" Topsoil	SY	1100	$ 6	$ 6,600
Sodding, Fertilizers and Sup. Water	SY	1100	$ 10	$ 11,000
Planting Restoration along Ret. Walls	SF	4500	$ 50	$ 225,000
Trees w/ Grates & Soil Mix	EA	15	$ 5,000	$ 75,000
Field Office	Cal. Mo	20	$ 2,000	$ 40,000
		Roadway Subtotal		**$ 5,575,900**
Streetscape Amenities				
Bike Racks	EA	40	$ 400	$ 16,000
Benches	EA	20	$ 4,000	$ 80,000
Trash Receptacles	EA	20	$ 2,000	$ 40,000
		Streetscape Subtotal		**$ 136,000**
Drainage				
Adjust Manholes	EA	133	$ 500	$ 66,500
Inlets (incl. Laterals and Backfill)	EA	30	$ 3,500	$ 105,000
		Drainage Subtotal		**$ 171,500**
Lighting				
New 30', 8' Davit Cobra Light w/ foundation	EA	52	$ 20,000	$ 1,040,000
New 16' Tallmadge w/ foundation	EA	31	$ 15,000	$ 465,000
Power Receptacles @ Trees	EA	15	$ 2,000	$ 30,000
Lighting Controllers	EA	3	$ 20,000	$ 60,000
		Lighting Subtotal		**$ 1,595,000**
Traffic Signal Modernization				
Traffic Signal Replacement + Temp. Signal (no relocation) (per int.)	EA	9	$ 150,000	$ 1,350,000
Addition of Bike Signals to Existing Signal Equipment (per intersection)	EA	1	$ 25,000	$ 25,000
		Signals Subtotal		**$ 1,375,000**

Project Subtotal		**$ 9,726,850**
Maintenance of Traffic (5%)		*$ 486,300*
Construction Layout (2%)		*$ 194,537*
Mobilization (6%)		*$ 583,600*
Erosion Control (2%)		*$ 194,500*
Phase II Design (8%)		*$ 778,100*
Construction Engineering (12%)		*$ 1,167,200*
Project Cost minus Contingency		**$ 12,158,487**
Contingency	**10%**	**$ 1,215,849**
Total Cost		**$ 13,374,300**