



Agenda
Village of Glen Ellyn
Plan Commission Meeting
Thursday, April 25, 2024
7:00 PM
Glen Ellyn Civic Center, Galligan Board Room

Visitors are most welcome to attend all public meetings and can find copies of the Agenda online at www.glenellyn.org prior to the meeting. Any individual with a disability requiring reasonable accommodation in order to participate in a meeting should contact the Village of Glen Ellyn ADA Coordinator, 630-469-5000, at least five (5) business days in advance of the next scheduled meeting.

- A. Call to Order**
- B. Public Comment**
- C. New Business**
 - 1) Pre-Application - Glen Ellyn Metra Station and Multimodal Improvements Project
- D. Trustee Liaison's Report**
- E. Chairman's Report**
- F. Staff Report**
- G. Other Business**
- H. Adjourn**



**Glen Ellyn Plan
Commission**
535 Duane Street
Glen Ellyn, IL 60137

Meeting 4/25/2024 7:00 PM
Department: Community Development
Department Head: Emily Rodman
Category: Commission Recommendation
Prepared By: Daniel Harper

**AGENDA ITEM (ID
2024-231)**

DOC ID: 2024-231

Pre-Application - Glen Ellyn Metra Station and Multimodal Improvements Project

Statement of the Issue:

The petitioner is requesting a pre-application meeting to discuss proposed designs regarding the Glen Ellyn Metra Station and Multimodal Improvement Project.

Analysis:

PETITIONER: The petitioner is Matthew L. Aklan of CDM Smith Inc.

REQUEST: The petitioner is requesting a pre-application meeting to discuss proposed designs regarding the Glen Ellyn Metra Station and Multimodal Improvement Project.

LOCATION/ ZONING:

The subject properties consist of the Glen Ellyn Metra Station and platforms and parking lots located to the east and west of the station and the parking lots located south of the railroad tracks. The subject properties are located in the CR Conservation Recreation district. The surrounding zoning and land uses are as follows:

Surrounding Land Uses:

North: Restaurant / Retail
South: Retail / Office
East: Parking Lot
West: Restaurant / Retail

Surrounding Zoning:

C5A and C5B - CBD Districts
C5A and C5B – CBD Districts
CR Conservation Recreation
C5A - Central Retail Core Subdistrict

COMP PLAN: The 2023 Comprehensive Plan identifies the need to consider a new Metra station, station plaza area, and pedestrian tunnel to enhance pedestrian safety and mobility at the Glen Ellyn Metra Station and better connect the north and south side of Downtown by completing the proposed north-south pedestrian underpass access at Forest Avenue as well as the creation of station plaza adjacent to the station (pg.22). Objective 9 of the Transportation goals identify a need to “replace the Metra commuter station

with a new station that incorporates historically sensitive design and includes a pedestrian underpass...” (pg 8).

**DOWNTOWN
STRATEGIC
PLAN:**

The Downtown Strategic Plan states that “The Village should create the north half of the greenway by reconfiguring the curb lines along Crescent Boulevard. This project would include changing the one-way streets on Main Street and Crescent Boulevard, to accommodate two-way traffic, providing parallel parking adjacent to the Crescent and Main storefronts, and installing angled parking along the railroad tracks” (pg. 10.13) and “The Village should construct a new train station with new platforms and shelters, along with a possible pedestrian underpass”. (pg. 10.17)

BACKGROUND:

The petitioner is requesting a pre-application meeting to discuss proposed designs regarding the Glen Ellyn Metra Station and Multimodal Improvement Project. Because the Metra station and parking lots are located in the CR Conservation District, a Special Use Permit will be required.

**PROJECT
SUMMARY:**

The applicant is proposing an initial design to remove the existing Metra station and construct a larger station building and pedestrian tunnel under the Union Pacific Railroad (UPRR) West Line. The proposal includes the removal of the existing station to be replaced with a new larger station, reconstruction of the existing east, west and south parking lots, providing improved ADA access throughout the site and constructing improved underground utilities and streetscapes.

New Station and Architectural Design

The new proposed inbound station is approximately 3,500 sf and will include heated and cooled waiting areas, a covered outdoor waiting area, restrooms, and vendor area. The platforms will include two enclosed warming shelters designed to match the architectural style and finish of the inbound station.

The proposed inbound station will be of masonry construction featuring arches of veneered stone modeled as a homage to the station platform located in Glen Ellyn during the early 20th century. The canopies will feature exposed steel roof trusses, dimensional shingle roofing and exposed wood roof deck to create a visually appealing ceiling finish.

Because this property is zoned CR Conservation District, a Special Use Permit will need to be requested and approved to allow for the Metra station use.

Pedestrian Tunnel

The proposed plan also includes a new pedestrian tunnel located below the tracks to allow for greater connectivity for pedestrians travel north/south

near the station. The northern entrance to the tunnel will be located west of the inbound station building. The northern entrance will be surrounded by the landscape courtyard will be directly adjacent to the bus stop and passenger loading zone area northwest of the station. The south entrance of the tunnel will be located directly north of the Forest Avenue south parking lot. The tunnel is designed to be ADA accessible.

Landscape Design

The proposed station design incorporates a plaza adjacent to the west of the inbound station building. The design of the plaza includes a variety of seating options and is designed to encourage pedestrians and travelers to utilize and enjoy the outdoor space. The proposed planting will include a variety of shade trees, ornamental trees, shrubs, perennials, ornamental grasses, and ground cover with a focus on low maintenance native species.

Parking Lot Design

The Metra station is serviced by four dedicated parking lots with additional public parking provided on Crescent Boulevard and Forest Avenue. The proposed design provides an updated configuration to meet Village and Metra design standards guidelines. The proposed parking designs show a reconfiguration on Forest Avenue and the south lot from head-on parking stalls to angled parking spaces. Parking spaces located on Crescent Boulevard and north Forest Avenue are proposed to be converted from angled parking spaces to parallel spaces. The four dedicated parking lots will be redesigned to meet Village and Metra station parking standards and guidelines.

As a result of the proposed parking lot and on-street parking redesigns, 107 total number of parking spaces will be lost. The proposed designs were brought for review by Village Board at the April 15, 2024 workshop and staff was given direction to propose alternatives to what was presented for the redesign in order to reduce the number of lost parking spaces as much as possible. The applicants will provide proposed alternative parking designs during their presentation for the Plan Commission to review.

Section 106 Effects Assessment

The proposed project involves multiple agencies including the Illinois Department of Transportation (IDOT) and the Federal Highway Administration (FHWA). Section 106 of the National Historic Preservation Act (NHPA) requires that federal agencies consider the effects of projects they carry out, approve, or fund on historic properties. The current Metra station was deemed eligible for listing on the National Register of Historic Places under Criterion A and C of the NHPA through a historic analysis.

Six alternatives were proposed during the initial project design and development stage and were presented to the Board of Trustees on July 12, 2021. The preferred alternative was to construct a new station with mitigation measures to reduce the severity of the effects of the proposed

development. These proposed mitigation measures can be reviewed in Section 5. Resolution of Adverse Effects and Next Steps in the Section 106 Effects Assessment attached in the staff report packet.

Budget Impact:

N/A

Contribution to Strategic Plan

Action Requested:

The Plan Commission is being asked to conduct a pre-application conference and provide comments that will assist the petitioner in preparing a formal application. In reviewing the project, the Plan Commission may wish to consider/provide feedback regarding the following:

1. If the Commission is generally supportive of the development concept.
2. If the Commission has any comments/concerns regarding parking and traffic circulation.
3. If the Commission would like to clarify any concerns.

Attachments:

1. 1. Glen Ellyn Metra Station - Aerial Map
2. 2. Location and Zoning Map
3. 3. Exerpts from Comprehensive Plan
4. 4. Excerpts from Downtown Strategic Plan
5. 5. Application for Commission Pre-Application Meeting
6. 6. Commission Pre-Application Meeting Narrative Statement
7. 7. Pre-Application Preliminary Drawings
8. 8. Preliminary Design Report
9. 9. Section 106 Effects Assessment

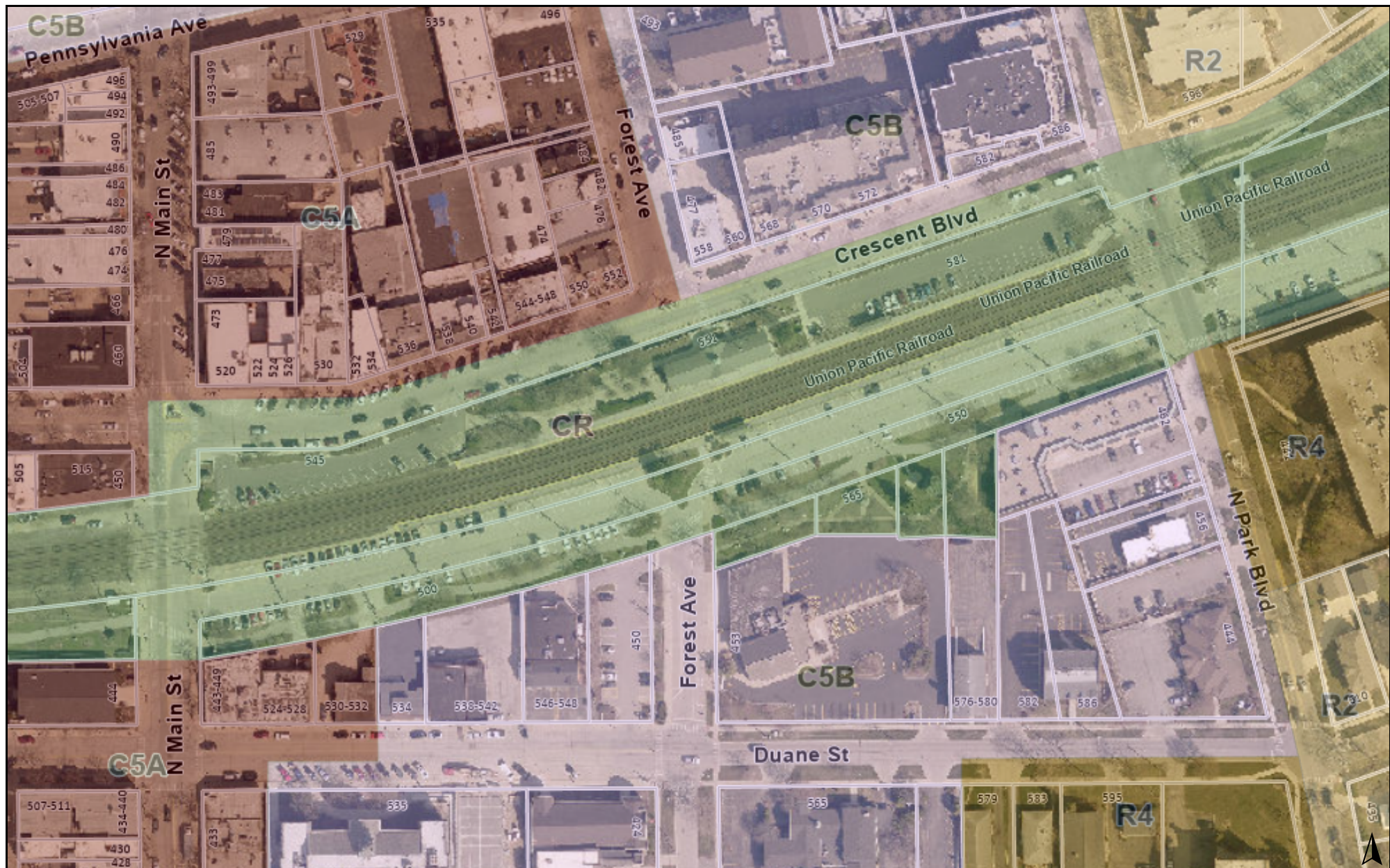


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Print Date: 4/16/2024

Notes

Disclaimer: The GIS Consortium and MGP Inc. are not liable for any use, misuse, modification or disclosure of any map provided under applicable law. This map is for general information purposes only. Although the information is believed to be generally accurate, errors may exist and the user should independently confirm for accuracy. The map does not constitute a regulatory determination and is not a base for engineering design. A Registered Land Surveyor should be consulted to determine precise location boundaries on the ground.



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Print Date: 4/16/2024

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- **Objective 19:** Enhance the high-speed communications capacity, including fiber optic connections, available to businesses within the community.
- **Objective 20:** Ensure that adequate stormwater management and infrastructure provisions are included in all new commercial developments.
- **Objective 21:** Update the Village's Zoning Ordinance to be reflective of the policies and objectives of the commercial areas framework.
- **Objective 22:** Encourage minority-owned businesses to invest in and/or relocate to the Village.
- **Objective 23:** Encourage eco-friendly components of developments and redevelopments by incorporating technologies/amenities that reduce emissions, pollutants, and energy consumption, including dark-sky compliance lighting, repurposing reclaimed building materials, green roofs, native-plant landscaping, etc.

Transportation

Goal

A balanced transportation system that provides for safe and efficient movement of vehicles and pedestrians, reinforces surrounding development patterns, and enhances regional transportation facilities.

- **Objective 1:** Maintain and improve the condition of street surfaces throughout the Village.
- **Objective 2:** Consolidate access in large parking areas, including cross-easements in shopping centers and between commercial properties and reduced curb cuts to major arterial roadways.
- **Objective 3:** Create a comprehensive system of bicycle facilities and pedestrian walkways that enables safe and convenient movement within the Village and connects with nearby regional systems and facilities.
- **Objective 4:** Pursue opportunities with neighboring communities and agencies to create pedestrian and bicycle connections to nearby trails and recreation areas.

- **Objective 5:** Encourage the development of a complete sidewalk network, bike lanes, bicycle parking facilities, and pedestrian amenities (lighting, signage, etc.).
- **Objective 6:** Promote convenient public transportation services within the Village and between the Village and nearby communities and destinations.
- **Objective 7:** Work cooperatively with Pace, Metra, and other agencies to assess and respond to evolving transit user needs in the Village.
- **Objective 8:** Encourage increased Metra ridership through parking accommodation and transit-oriented development surrounding the train station.
- **Objective 9:** Replace the Metra commuter station with a new station that incorporates historically sensitive design and includes a pedestrian underpass to create appropriate pedestrian connections between the north and south sides of Downtown. A plaza facing Crescent Boulevard should be included in the design.
- **Objective 10:** Encourage the inclusion of car share, electric vehicle, and bicycle facilities in new development proposals.

- **Objective 11:** Actively monitor, manage, and address on-street and off-street parking needs within the Village to ensure adequate and conveniently located parking to serve all current and future land uses.
- **Objective 12:** Study parking minimums for both commercial and residential developments within a half-mile of the Metra station, with good access to transit, walking, and biking.
- **Objective 13:** Reduce vehicle emissions by enhancing infrastructure to support clean/zero emission vehicles as well improving safety and increasing options for biking, walking, and public transportation in the community.

Community Facilities

Goal

A system of community facilities that provides for the efficient and effective delivery of public services and promotes the Village as a desirable place in which to live and do business.

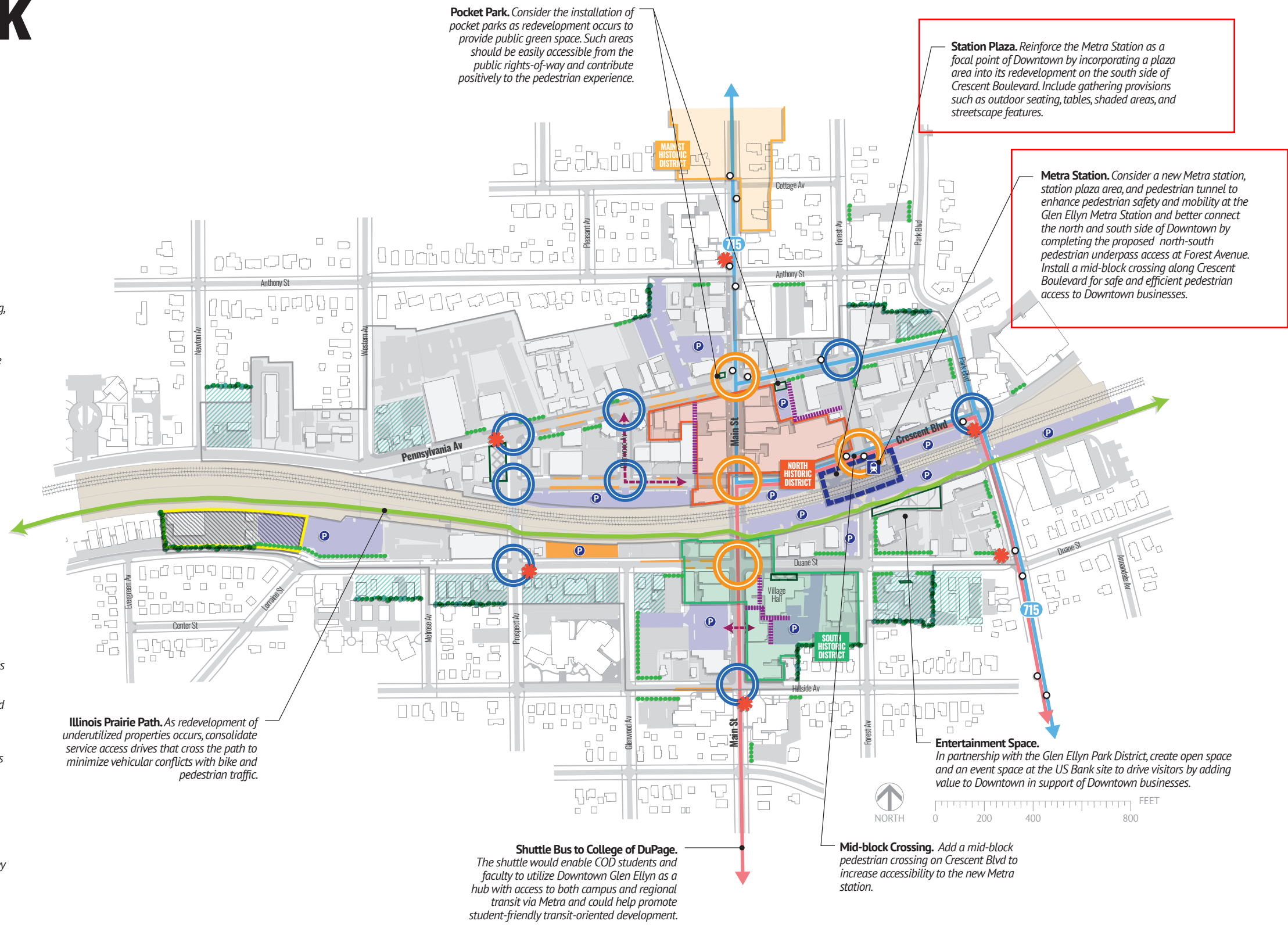
- **Objective 1:** Maintain effective fire and police protection throughout the Village.
- **Objective 2:** Cooperate with public and private schools and districts to maintain adequate school sites and facilities within the Village.
- **Objective 3:** Maintain Glen Ellyn Public Library as an important focal point and resource for the community.
- **Objective 4:** Provide adequate water supply, water distribution, and sanitary sewer systems throughout the Village.
- **Objective 5:** Where practically feasible, improve stormwater management infrastructure as part of comprehensive capital improvement projects.

- **Objective 6:** Encourage the development of consolidated stormwater management facilities that provide maximum volume control and water quality benefits and mitigate impacts of development on surrounding properties.
- **Objective 7:** Maintain adequate sites and facilities for all Village services; undertake expansion, improvement, and replacement programs as necessary.
- **Objective 8:** Promote the adaptive reuse of surplus or outdated public buildings for new uses that benefit the community as a whole.
- **Objective 9:** Ensure that all community facility sites and buildings are sound, attractively maintained, compliant with Village Codes, and compatible with surrounding neighborhoods and development areas.
- **Objective 10:** Review the policy of burying overhead cables and utility lines within the Village.
- **Objective 11:** Provide facilities and services for teens, senior citizens, people with disabilities, and other special-needs groups in need.
- **Objective 12:** Cooperate with and support College of DuPage as a major community amenity and attraction.

- **Objective 13:** Consider the need for and desirability of new community facilities that will serve the needs and desires of residents and businesses.
- **Objective 14:** Emphasize facilities, services, and programs at locations that serve the entire community and can bring together residents from throughout the Village.
- **Objective 15:** Create additional support for commercial, residential, and multi-family recycling and composting sites as well as support for hazardous waste disposal and construction and debris recycling for Village residents and businesses.
- **Objective 16:** Facilitate provision of support services to disabled community.

The framework plan identifies overarching recommendations that should play a significant role in guiding investment in existing structures and streetscape and in guiding the character of future redevelopment. The following pages illustrate recommended improvements and identify development considerations for specific sites throughout Downtown.

- **Key Intersections.** *Enhance existing median features and install bump-outs, monument signage, enhanced lighting, landscaping, and decorative pavers or stamped concrete at key intersections along Main Street and Crescent Blvd.*
- **Intersection Improvements.** *Install decorative surfacing or crosswalk art at key locations that complement adjacent streetscaping. Install bump-outs, masonry seatwalls, landscape planters, and enhanced crosswalks.*
- **Gateway Features.** *Per recommendations of the Community Signage and Wayfinding Plan, install Historic Downtown Glen Ellyn signs on heavily trafficked roads to identify prominent entry points into the downtown. Such signs should be complemented by streetscape components such as intersection treatments and hardscape and landscape features.*
- **Alleyscape/Pedestrian Corridor Improvements.** *Install signage and wayfinding to promote safe vehicular and pedestrian circulation patterns, especially where alleys open to active pedestrian streets. Screen loading docks and trash receptacles where alleys intersect with public walks.*
- **Transition Areas.** *Promote residential development in the outer edges of the C5B zoning area of the Central Business District to transition to the adjacent to residential zones. Consider reduced setbacks and increased housing options in these areas.*
- **Catalyst Site.** *Redevelop these vacant or underutilized sites to act as catalysts for further development and investment within Downtown.*
- **North Historic District**
- **South Historic District**
- **Residential Screening.** *Provide landscaping and utility areas from adjacent residential properties and, where feasible, public rights-of-way. Apply dark sky village lighting standards in transition areas to minimize glare and decrease light trespass in adjacent single-family areas.*
- **Perimeter Landscaping.** *Provide landscaping and decorative, low-profile fencing or knee walls to delineate public rights-of-way and screen parking areas. Perimeter landscaping should be designed to maximize stormwater management and improve water quality through the implementation of Best Management Practices (BMP's, such as bioretention areas.*
- **Parking Enhancements.** *Buffer and screen parking areas to separate and delineate parking and walking areas. Like the Duane & Glenwood parking lot, embrace sustainable surface parking lot practices for new and existing lots, such as through pervious paving, electric charging stations, and stormwater-fed landscaping and planters.*
- **Leverage Existing Parking.** *Investigate policies that encourage parking turnover, such as time restrictions, and maximize usage of underutilized parking inventory through shared parking agreements. Purchase additional property to enhance parking supply.*
- **Public Parking.** *As Downtown public parking is in high demand, incorporate parking into the site design of future redevelopment of underutilized properties where appropriate.*
- **Maintain Access.** *Ensure that vehicular and pedestrian access is maintained along Glenwood Avenue and Crescent Boulevard as redevelopment occurs at the former McChesney & Miller grocery property.*
- **Pace Bus Route 715.**
- **Proposed Shuttle Bus to College of DuPage.**



7. Design and Consider Constructing Main Street and Crescent Boulevard Streetscape, and the North Downtown Greenway

Infrastructure

Convert existing one-way traffic patterns to two-way traffic patterns, maintain and upgrade the streetscaping, and install the North Downtown Greenway landscape features.

The Village should create the north half of the greenway by reconfiguring the curb lines along Crescent Boulevard. This project would include changing the one-way streets on Main Street and Crescent Boulevard, to accommodate two-way traffic, providing parallel parking adjacent to the Crescent and Main storefronts, and installing angled parking along the railroad tracks. This project would result in no net loss of public parking, yet allow the conversion of two public parking lots to greenspace.

The North Downtown Greenway is intended to be a unique feature in the heart of Downtown Glen Ellyn that sets it apart from other communities along Metra's Union Pacific – West Line and other western suburbs. The anticipated programming is intended to include beautification (e.g. a new train station in a garden setting, lush landscaping, a small street-side plaza, etc.) and “passive” recreation (e.g. art sculpture, train watching, picnics, etc.), and not “active” recreation (e.g. play fields for team sports).

The greenway should be programmed with passive – not active – recreational uses, with the exception of the looped path connection to Lake Ellyn.

Source of Funds and Resources

Village of Glen Ellyn

Open Space Lands Acquisition and Development (OSLAD) Program

Illinois Transportation Enhancement Program

Congestion Mitigation and Air Quality (CMAQ)

Tax Increment Financing (TIF)

Nonpoint Source Management Grant

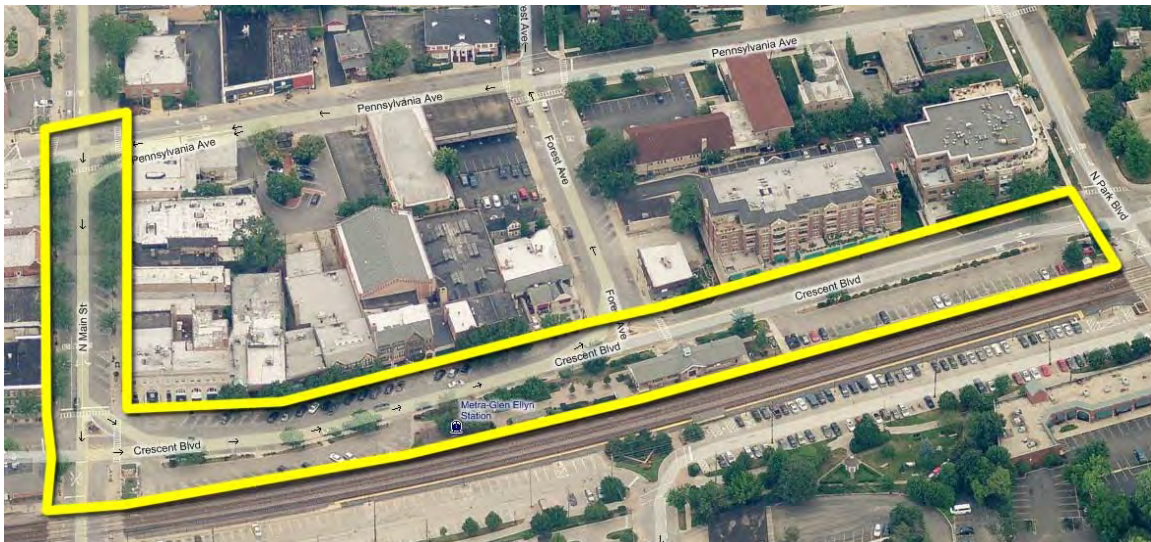


Figure 48: Main Street and Crescent Boulevard Streetscape Area

Source: maps.live.com with edits by Town Builder Studios.

10. Design and Construct New Glen Ellyn Train Station Facilities, Platforms, Shelters and Pedestrian Underpass

Infrastructure

Construct a new Glen Ellyn Train Station, platforms, shelters, and the train station-area pedestrian underpass.

The Village should construct a new train station with new platforms and shelters, along with a possible pedestrian underpass. The costs associated with this project are based upon recent train station redevelopments that have occurred in the Chicago region. Metra believes that a standard train station without any special architectural elements or vendor space will cost between \$5.5 and \$6.0 million. Since a “landmark quality” station is envisioned, additional funding will be necessary.

The Village should evaluate the possibility of leasing the station, allowing the Village to have control over the use of the facility and providing a revenue source for the maintenance of the building and grounds. In any case, construction of a new station will require coordination with – and approval by – Metra.

Source of Funds and Resources

Village of Glen Ellyn

Illinois Transportation Enhancement Program

Congestion Mitigation and Air Quality (CMAQ)

U.S. Environmental Protection Agency (EPA) – Brownfields Assessment Grants⁴

U.S. Environmental Protection Agency (EPA) – Brownfields Revolving Loan Funding (RLF) Grants

U.S. Environmental Protection Agency (EPA) – Brownfields Cleanup Grants

U.S. Department of Transportation – 20.507 Federal Transit Formula Grants

Tax Increment Financing (TIF)

Illinois Municipal Brownfields Redevelopment Grant

Illinois Brownfields Redevelopment Loan Program

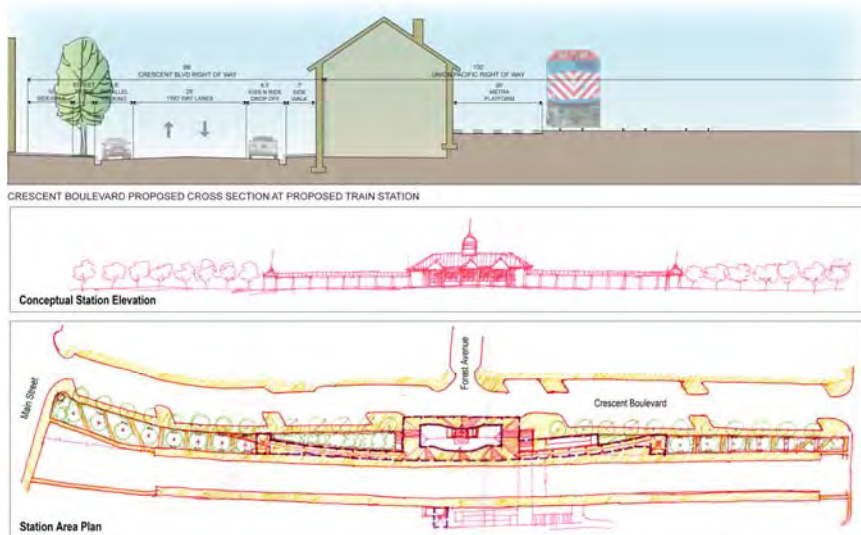


Figure 53: New Glen Ellyn Train Station Cross-Section, Concept Elevation, and Concept Plan

Source: Town Builder Studios.

⁴ The U.S. EPA brownfields grant programs would potentially be used for the Glen Ellyn Train Station facilities – especially the pedestrian underpass, where the cleanup of the diesel fuel and other pollutants dropped from passing trains over the years would be necessary in order to proceed with the construction of the underpass.

Application for Commission Pre-Application Meeting

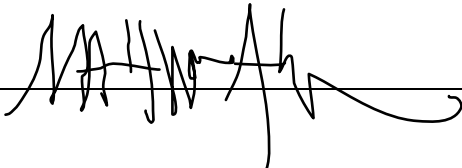
The purpose of a pre-application meeting is to receive preliminary comments for a proposal before detailed plans are developed and a formal application is submitted.

I. APPLICATION INFORMATION:

- A. Date Filed: 03/07/24
- B. Project Name: Glen Ellyn Metra Station and Multimodal Improvements Project
- C. Project Description: Site and Building renovation for the Union Pacific Railroad (UPRR) West Line.
- D. Address of Property: 551 Crescent Boulevard
- E. Permanent Index No: 0511505002 Zoning: CR
- F. Name of Applicant: CDM Smith, Aklan, Matthew L. Aklan, Senior Project Manager
- G. Address of Applicant: 125 S. Wacker Dr., Suite 2510 Chicago, IL 60606
- H. Phone No. (Business): 312.780.7801 (Home) _____
- I. Fax No. (Business): _____ (Mobile) _____
- J. E-mail Address of Applicant: aklanml@cdmsmith.com
- K. Name of Property Owner: Union Pacific Railroad, Tom Evenson, Senior Director, Public Affairs
- L. Address of Property Owner: 123 N. Wacker Dr., Suite 2550, Chicago, IL 60606
- M. Phone No. (Business): _____ (Home) _____
- N. Fax No. (Business): _____ (Mobile) _____
- O. E-Mail Address of Property Owner: Thomas.evenson@up.com

II. SUBMISSION REQUIREMENTS

1. Application Fee - \$250.00
2. Application Form
3. Cover Letter describing the project.
4. Plats of Survey or Existing Conditions Plan showing any existing buildings and associated setbacks.
5. Concept Plan showing any proposed buildings and associated setbacks, parking lot dimensions and all landscape/impervious surface setbacks.
6. Preliminary Building Elevations
7. Preliminary Sign Plan and Elevations
8. Any other plans or information for which preliminary feedback is requested.

Signature:  Date: 4/12/2024

Commission Pre-Application Meeting Introduction

1.1 Summary

The purpose of the Glen Ellyn Metra Station and Multimodal Access Improvements Project is to remove the existing station and construct a new larger station building and a pedestrian tunnel under the Union Pacific Railroad (UPRR) West Line. Work will also include reconstructing existing parking lots, providing ADA access throughout the project area including to the pedestrian tunnel, and reconstructing affected roadways surrounding the site. This will also include underground utility and streetscape improvements around the proposed station. Refer to Figure 1.1 below for the extents of the project area.

The existing site is in the CR Conservation and Recreation District which only permits open space uses and passive recreation areas as described in Title 10 - Zoning Code: 10-4-3. We anticipate the need for a special use permit for the station.

1.2 Landscape Design

The landscape design for the Glen Ellyn train station is intended to provide a safe and comfortable environment for people of all ages and abilities to gather. The primary focus of the design is the creation of a plaza adjacent to the station that will include a variety of seating options, including seat walls, benches, and movable bistro tables and chairs. On a daily basis the plaza's configuration creates places for commuters to wait for their train and downtown shoppers and employees to take a lunch break while also allowing movement through the space. The plaza's flexible layout also creates an area for programming, small events, incorporation of a food kiosk, and an extension of the proposed Downtown Park at Forest and Duane.

Beyond creating a new plaza space, the landscape design will help unify the downtown with new street trees, low maintenance native planting, and high-quality materials that will complement both the train station and surrounding streetscapes. The design will establish a setting for the new station, add an enticing visual aesthetic for commuters, and create a series of comfortable spaces for residents and visitors to enjoy.

1.3 Architectural Design

The architectural design includes an approximately 3,500 gross square footage inbound station with a heated and cooled waiting area, a covered outdoor loggia, single occupant unisex restrooms, vendor area, janitor's closet, electrical room, fire sprinkler riser closet, and mechanical equipment space. Two enclosed warming shelters are provided to match the architectural style and finish of the inbound station.

The proposed inbound station building will consist of a structural steel frame with CMU block backup walls, concrete arches, exposed steel trusses, exposed interior roof wood deck, continuous insulation and fluid applied air barrier, sloped roofs, insulated glass unit storefronts with operable windows, metal soffits, and various masonry veneers.

1.4 Parking Lot Design

The Metra Station is currently serviced by four dedicated parking lots, with additional public parking along Crescent Boulevard and Forest Avenue. These four lots will be reconfigured to be better accommodate the new site geometry and roadway reconstruction. At the current design phase, the design team has assumed that the parking lots will have same proposed pavement design as the adjacent roadways (pavement described above in Section 3.3.1).

For the parking space reconstruction and reconfiguration, the Civil Design uses the Metra Station and Parking Design Guidelines.

The number of proposed parking spaces compared to the existing parking spaces currently available has decreased in number. This is due to the reconfiguration of the parking stalls from head-on to angled parking on Forest Avenue and in the South lot, and conversion from angled parking to parallel parking on Crescent Blvd. and Forest Avenue, North. Angled stalls are easier for a vehicle to enter and exit, allowing better vehicle flow at the expense of some parking capacity. In addition, angled stalls provide increased safety due to minimal wheel movement and better visibility of traffic within the lane. Parallel parking requires even less space to allow more sidewalk space and is safer for vehicles when exiting the space compared to angled street parking. It is noted that the on-street parking changes were previously reviewed by Village staff, the Capital Improvements Commission, and Village Board as part of the Downtown Streetscape Project Design. Having said that, staff is seeking to affirm direction on the parking changes from the Capital Improvements Commission and Village Board.

As a result of this reconfiguration of parking stalls, a number of areas lost parking capacity in order to make adequate space for the proposed pedestrian tunnel ADA access ramps, and the proposed warming shelters. Refer to Table 3.2 for a summary in the number of parking stalls per location.

Table 3.2 – Parking Stall Summary

Location	No. of Existing Parking Stalls (Non-ADA)	No. of Existing Parking Stalls (ADA)	No. of Proposed Parking Stalls (Non-ADA)	No. of Proposed Parking Stalls (ADA)
Northwest Lot	21	1	12	1
Northeast Lot	25	3	12	1
Forest Ave. North	13	0	11	1
Crescent Blvd.	60	1	31	3
South Lot West	79	3	55	3
South Lot East	84	3	56	4
Forest Ave. South	5	0	3	1
Forest Ave. South Lot	23	2	20	2
TOTAL	310	13	200	16

FIGURE 1.1 - Project Area



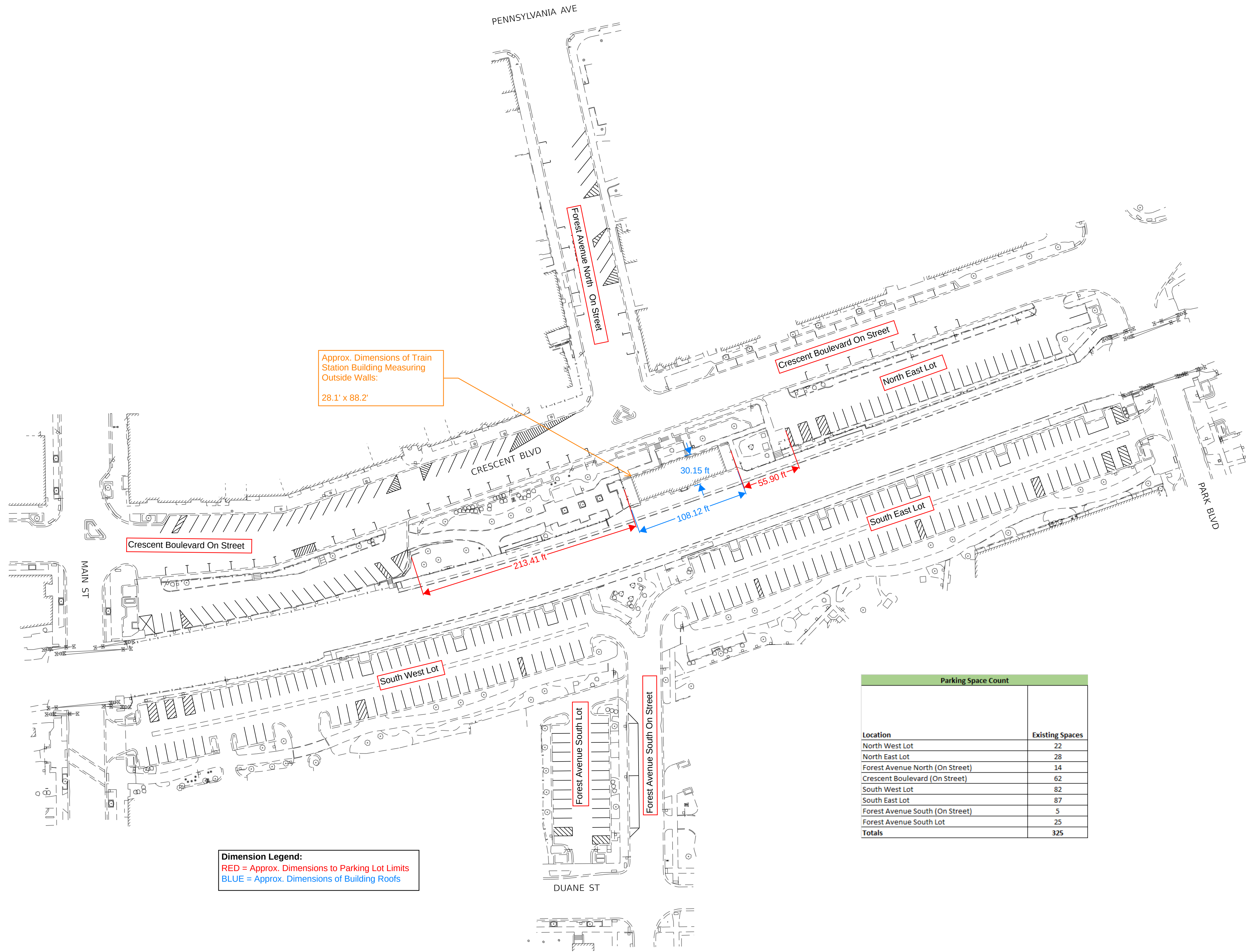
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USER NAME	= SUBACJ
ISSUED FOR	10 PCT
PLOT SCALE	= 49.999990000 ' / in.
PLOT DATE	= 4/10/2024

Dimension Legend:
RED = Approx. Dimensions to Parking Lot Limits
BLUE = Approx. Dimensions of Building Roofs

Approx. Dimensions of Train Station Building Measuring Outside Walls:
28.1' x 88.2'

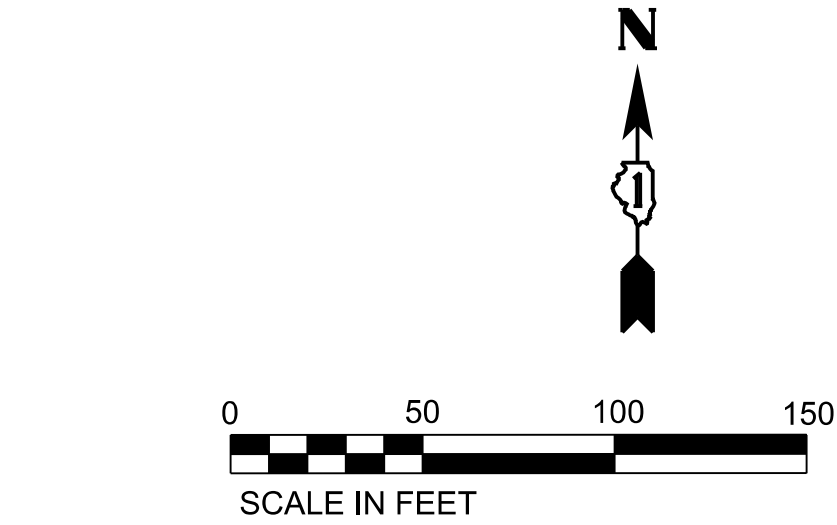


Parking Space Count	
Location	Existing Spaces
North West Lot	22
North East Lot	28
Forest Avenue North (On Street)	14
Crescent Boulevard (On Street)	62
South West Lot	82
South East Lot	87
Forest Avenue South (On Street)	5
Forest Avenue South Lot	25
Totals	325

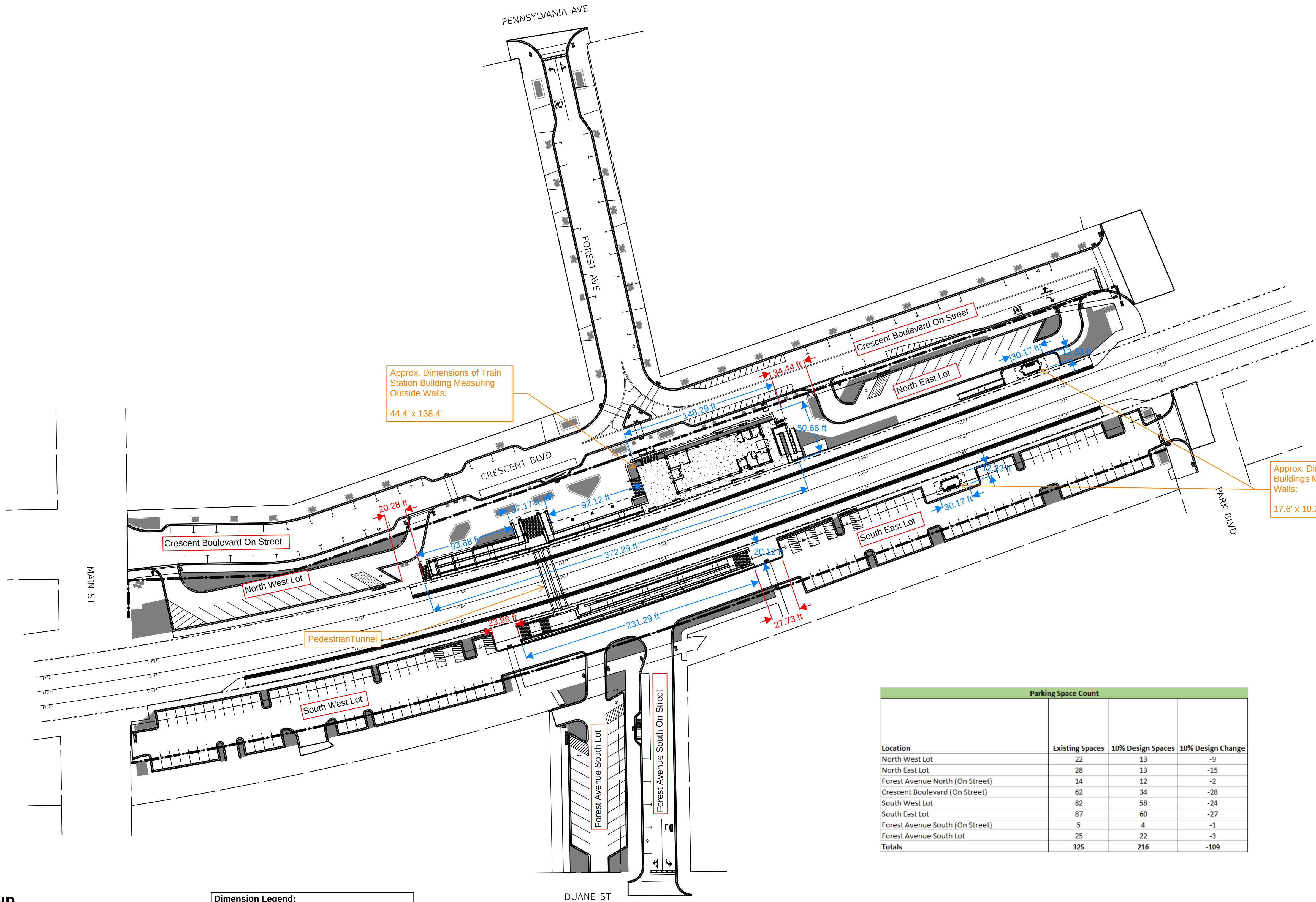
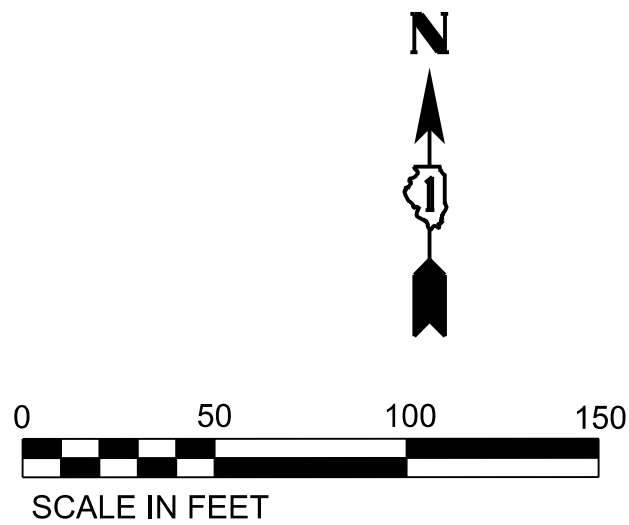
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING SITE PLAN

SCALE: SHEET 1 OF 6 SHEETS STA. TO STA.



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		
CONTRACT NO. 284380				
ILLINOIS FED. AID PROJECT				



LEGEND

FUTURE LANDSCAPE AREAS

Dimension Legend:

RED = Approx. Dimensions to Parking Lot Limits

BLUE = Approx. Dimensions of Building Roofs

Parking Space Count			
Location	Existing Spaces	10% Design Spaces	10% Design Change
North West Lot	22	13	-9
North East Lot	28	13	-15
Forest Avenue North (On Street)	14	12	-2
Crescent Boulevard (On Street)	62	34	-28
South West Lot	82	58	-24
South East Lot	87	60	-27
Forest Avenue South (On Street)	5	4	-1
Forest Avenue South Lot	25	22	-3
Totals	325	216	-109



USER NAME = SUBACJ	DESIGNED -	REVISED -
ISSUED FOR 10 PCT	DRAWN - JGC	REVISED -
PLOT SCALE = 49.999990000' / in.	CHECKED -	REVISED -
PLOT DATE = 4/10/2024	DATE - JAN 2024	REVISED -

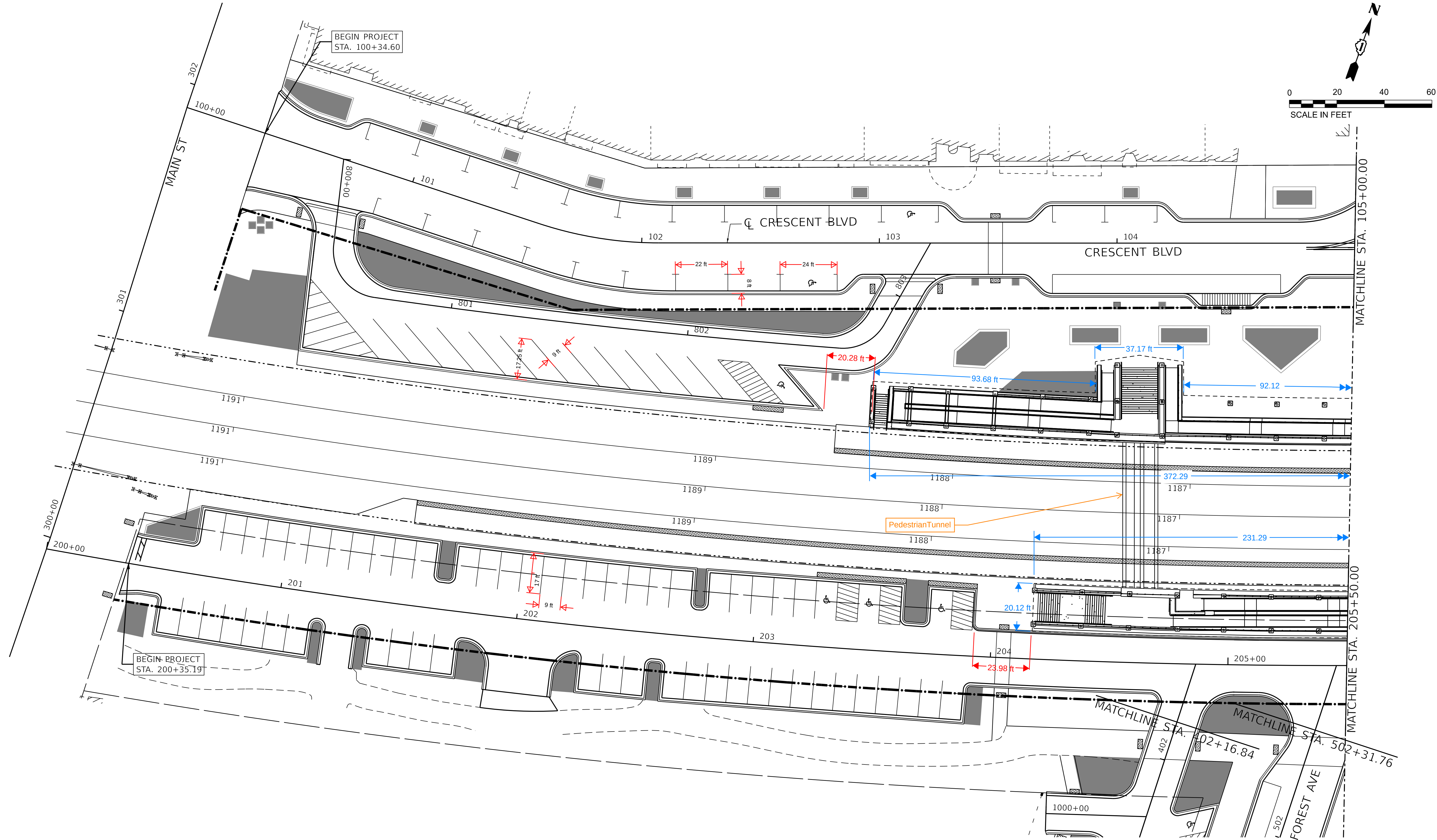
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED SITE PLAN

SCALE: SHEET 2 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
---	---	DUPAGE		
CONTRACT NO. 284380				
ILLINOIS FED. AID PROJECT				

MODEL: Roadway Plan 1
FILE NAME: p:\Documents\256021284380\10 Transportation\02 Engineering Services\01 Roadway\10 BIM_CADD\01 Working\Zoning\1284380-shd-jden-Rdw



LEGEND

FUTURE LANDSCAPE AREAS

Dimension Legend:

RED = Approx. Dimensions to Parking Lot Limits
BLUE = Approx. Dimensions of Building Roofs



USER NAME	= SUBACJ
ISSUED FOR	10 PCT
PLOT SCALE	= 0.08333317" / in.
PLOT DATE	= 4/10/2024

DESIGNED	-	REVISED	-
DRAWN	- JGC	REVISED	-
CHECKED	-	REVISED	-
DATE	- JAN 2024	REVISED	-

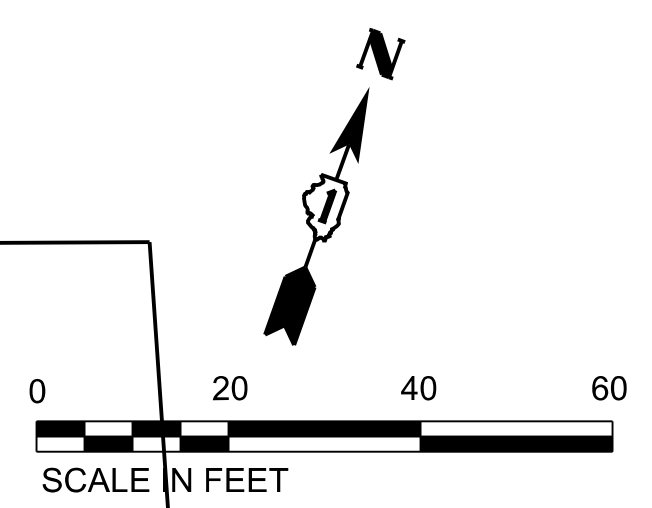
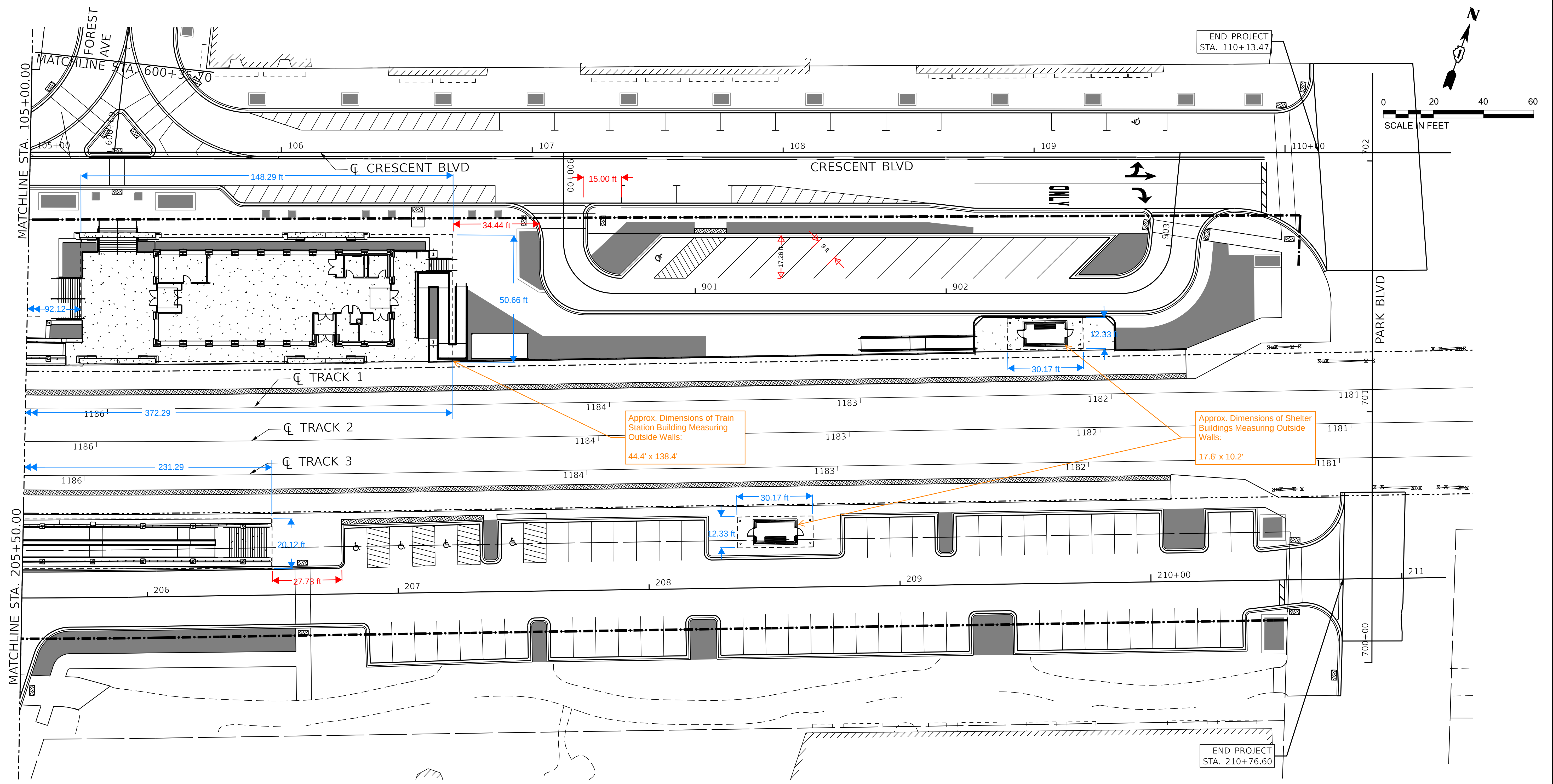
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN

SCALE: SHEET 3 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	DUPAGE	-	-
CONTRACT NO. 284380				
ILLINOIS FED. AID PROJECT				

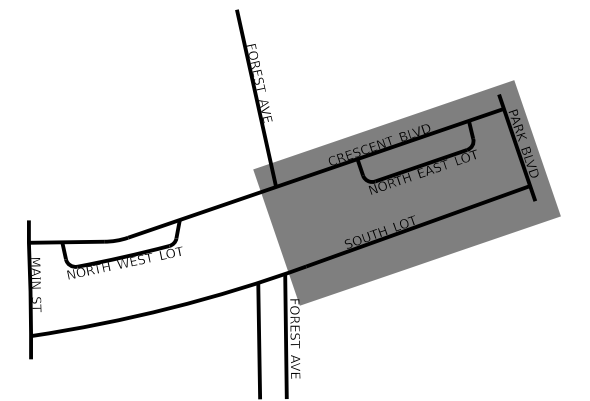
MODEL: Roadway Plan 2
FILE NAME: p:\documents\256021284380\10 Transportation\02 Engineering Services\01 Roadway\10 BIM_cADD\01 Working\Zoning\284380-sh-plan.dwg



LEGEND

FUTURE LANDSCAPE AREAS

Dimension Legend:
RED = Approx. Dimensions to Parking Lot Limits
BLUE = Approx. Dimensions of Building Roofs



USER NAME = SUBACJ	DESIGNED -	REVISED -
ISSUED FOR 10 PCT	DRAWN - JGC	REVISED -
PLOT SCALE = 0.08333317" / in.	CHECKED -	REVISED -
PLOT DATE = 4/10/2024	DATE - JAN 2024	REVISED -

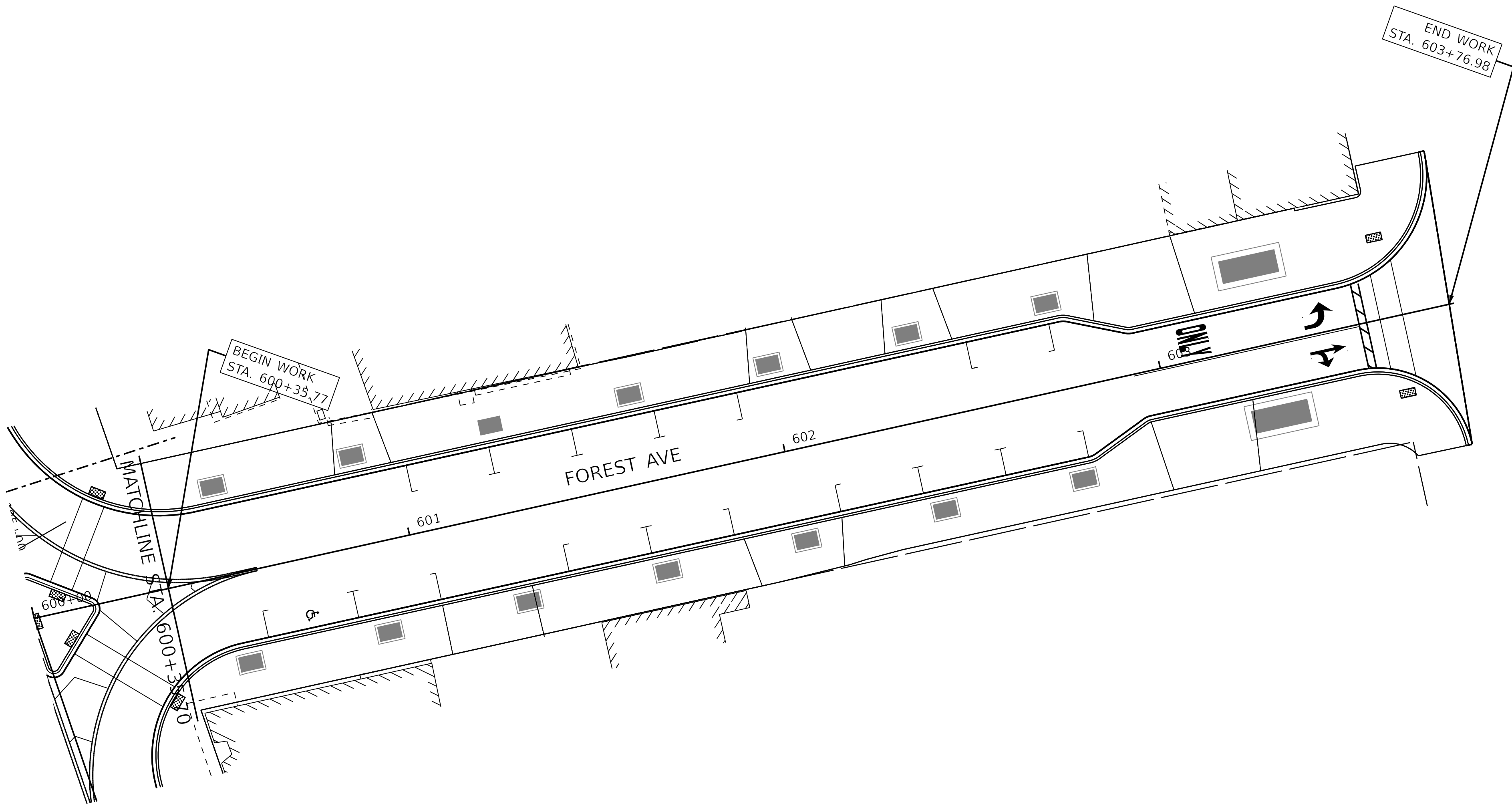
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN

SCALE: SHEET 4 OF 6 SHEETS STA. TO STA.

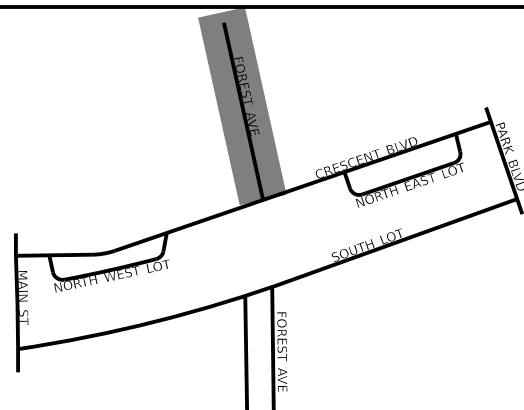
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		
CONTRACT NO. 284380				
ILLINOIS FED. AID PROJECT				

MODEL: Roadway Plan 3
FILE NAME: p:\concominthas\2024\hertley.com\paw\Documents\256021284380\10 Transportation\02 Engineering Services\01 Roadway\10 BIM_CADD\01 Working\Zoning\0284380-shd-jan-Rdwy



LEGEND

 FUTURE LANDSCAPE AREAS



USER NAME = SUBACJ	DESIGNED -	REVISED -
ISSUED FOR 10 PCT	DRAWN - JGC	REVISED -
PLOT SCALE = 0.08333317" / in.	CHECKED -	REVISED -
PLOT DATE = 4/10/2024	DATE - JAN 2024	REVISED -

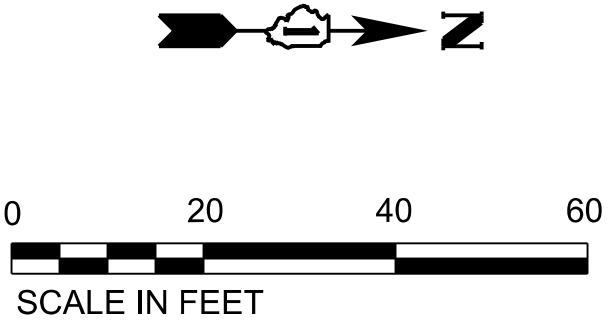
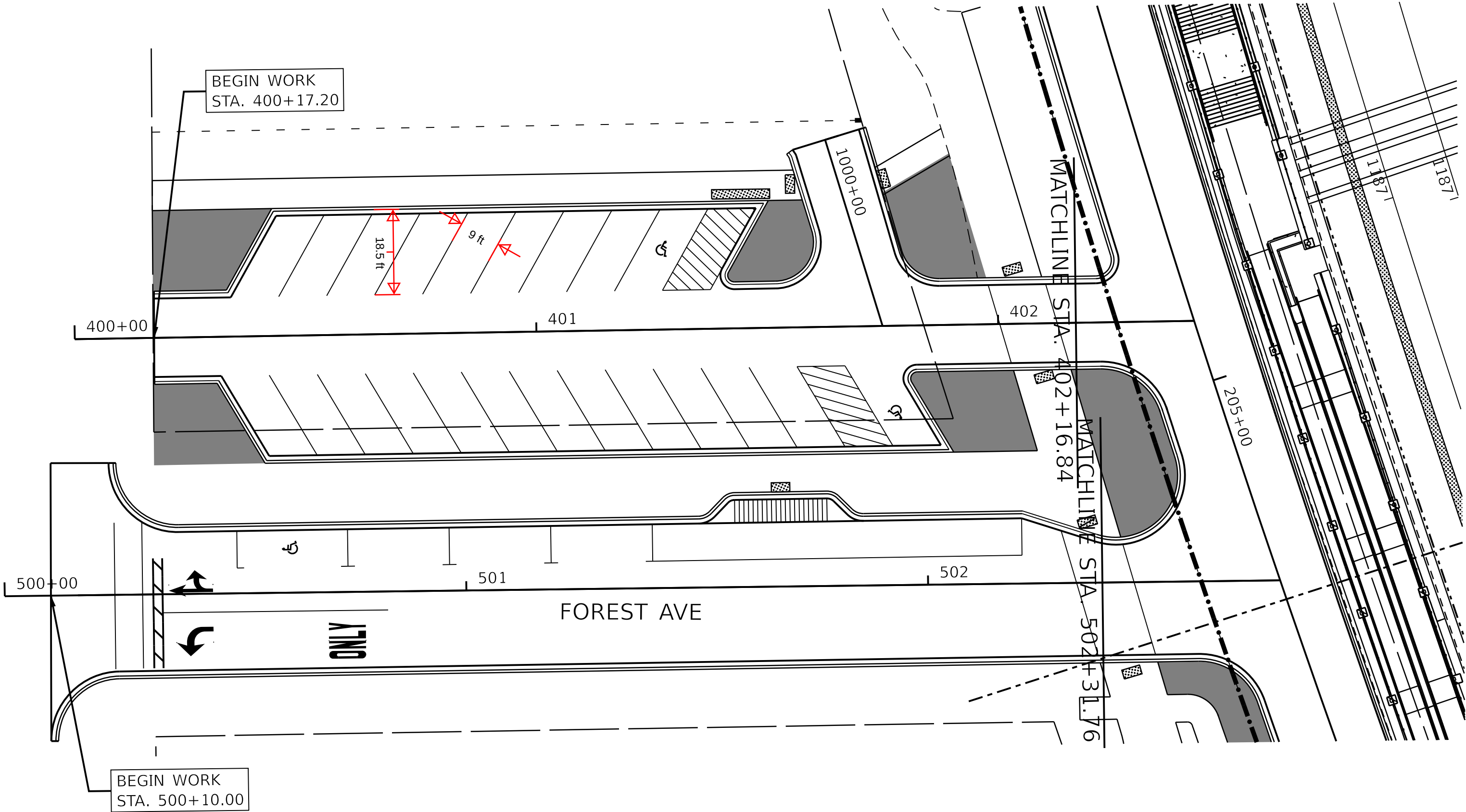
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN

SCALE: SHEET 5 OF 6 SHEETS STA. TO STA.

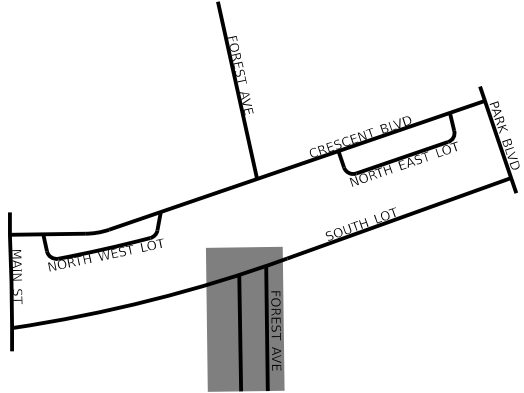
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		
CONTRACT NO. 284380				
ILLINOIS FED. AID PROJECT				

MODEL: Roadway Plan 4
FILE NAME: p:\consmth\haz02-pw\hantley.com\p_w\Documents\256021284380\10 Transportation\02 Engineering Services\01 Roadway\10 BIM_CADD\01 Working\Zoning\0284380-sh-jden-Rdwy



LEGEND

 FUTURE LANDSCAPE AREAS



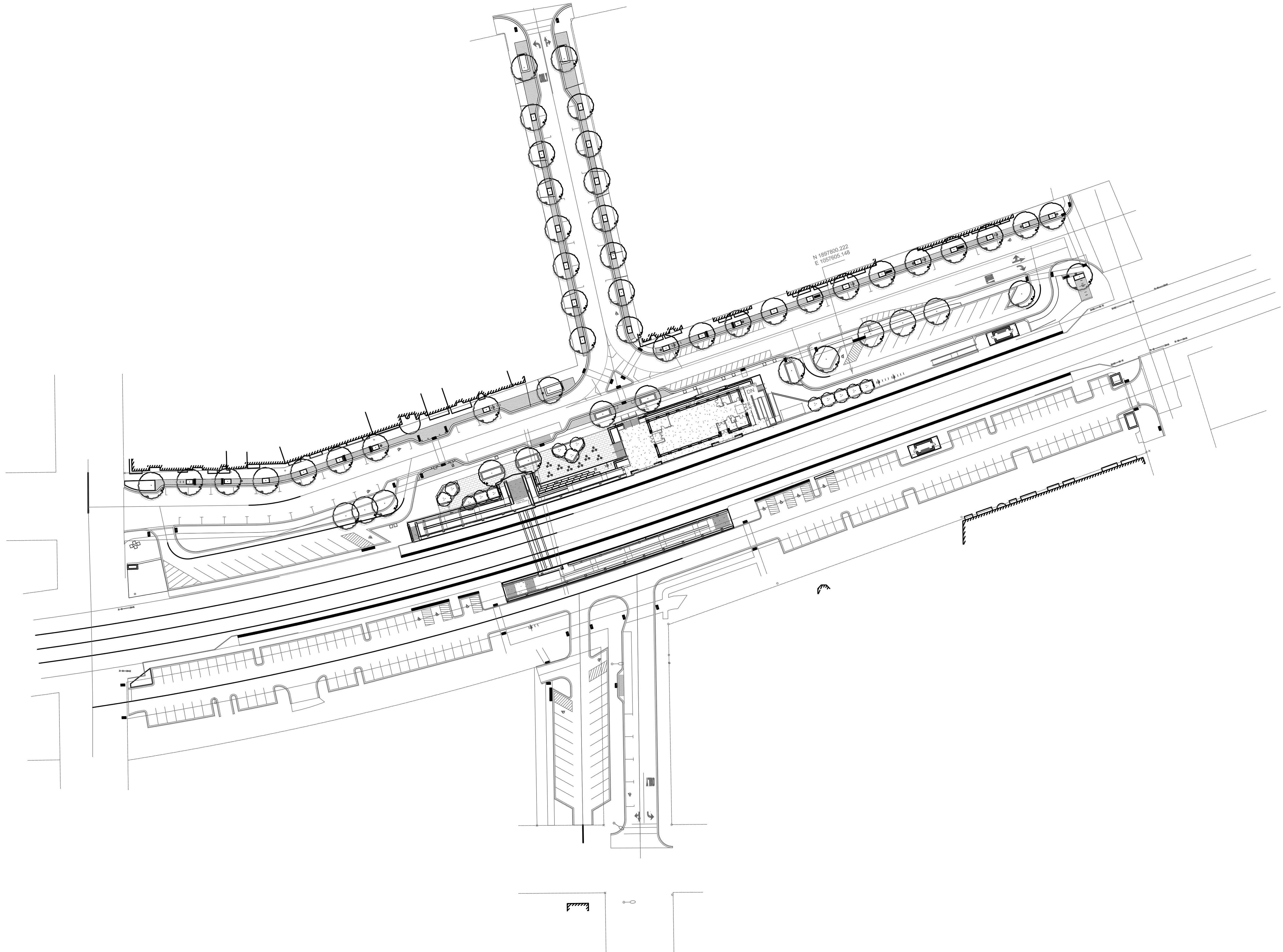
USER NAME = SUBACJ	DESIGNED -	REVISED -
ISSUED FOR 10 PCT	DRAWN - JGC	REVISED -
PLOT SCALE = 0.08333317" / in.	CHECKED -	REVISED -
PLOT DATE = 4/10/2024	DATE - JAN 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN

SCALE: SHEET 6 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNT	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		
CONTRACT NO. 284380				
ILLINOIS FED. AID PROJECT				



USER NAME	=	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
PLOT SCALE	=	CHECKED	-	REVISED	-
PLOT DATE	=	DATE	- April 2024	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPE PLAN
Plan Commission

SCALE: 1:50 SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	-	DUPAGE		
CONTRACT NO. _				
ILLINOIS FED. AID PROJECT				

PAVING

POURED CONCRETE MAIN WALKS



*TO MATCH CITY STREETSCAPE GUIDELINES

PAVER BANDING ALONG STREET



*TO MATCH CITY STREETSCAPE GUIDELINES

PLAZA PAVER OPTION



UNILOCK - "ARTLINE" IN FOSSIL (COLOR)

PLAZA PAVER - PERMEABLE OPTION



UNILOCK - "TREO" IN TUSCANY (COLOR)

STRUCTURES

CONCRETE SEATWALLS WITH BENCH SEATS



"CODE" MODULE BENCH BY VESTRE

CONCRETE PLANTERS WITH HANGING BENCHES



"WALLY" BENCH BY TOURNESOL





GLEN ELLYN METRA STATION
REFERENCE IMAGERY

GLEN ELLYN, ILLINOIS



AL 1 -
STOREFRONTS AND ENTRANCE DOORS
DARK BRONZE ANODIZED ALUMINUM



PT 3 - EXTERIOR RAILINGS
SW 7069 (IRON ORE)



BRK 1 - EXTERIOR BRICK
SUMMIT BRICK COMPANY
CHERRY CREEK



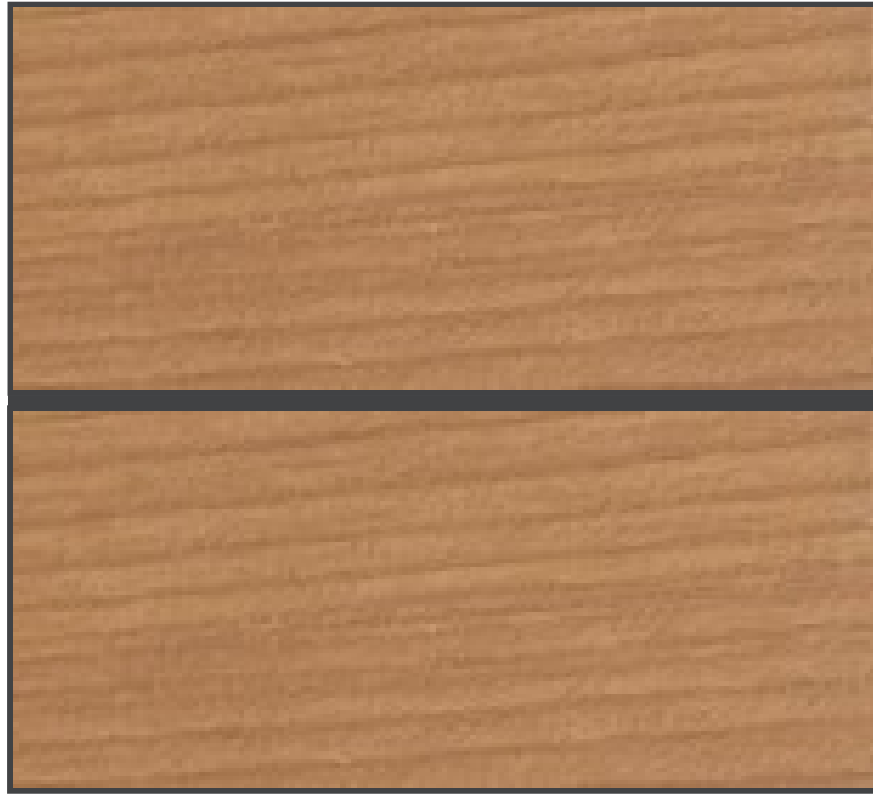
CAST STONE SILLS/ BASE / COPINGS -
LIMESTONE TO MATCH EXTERIOR
STONE



ST 1 - EXTERIOR STONE
ELDORADO STONE
ROUGH CUT CASA BLANCA



RF 1 - ROOF SHINGLES
ATLAS STORMMASTER SHAKE
MOONLIGHT BEACH



WD-2 - ARMSTRONG - METALWORKS
METAL PLANK EXTERIOR SOFFIT
- MATCH WOOD DECK



MTL 1 - COLUMNS / FASCIAS
GORDON - BRONZE TEXTURE -
PDR-60202



WD-1 - CEILING
EXPOSED TONGUE AND GROOVE
CHERRY ROOF DECK



GLEN ELLYN METRA STATION
REFERENCE IMAGERY

GLEN ELLYN, ILLINOIS



AL 1 -
STOREFRONTS AND ENTRANCE DOORS
DARK BRONZE ANODIZED ALUMINUM



PT 3 - EXTERIOR RAILINGS
SW 7069 (IRON ORE)



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SUMMIT BRICK COMPANY
CHERRY CREEK



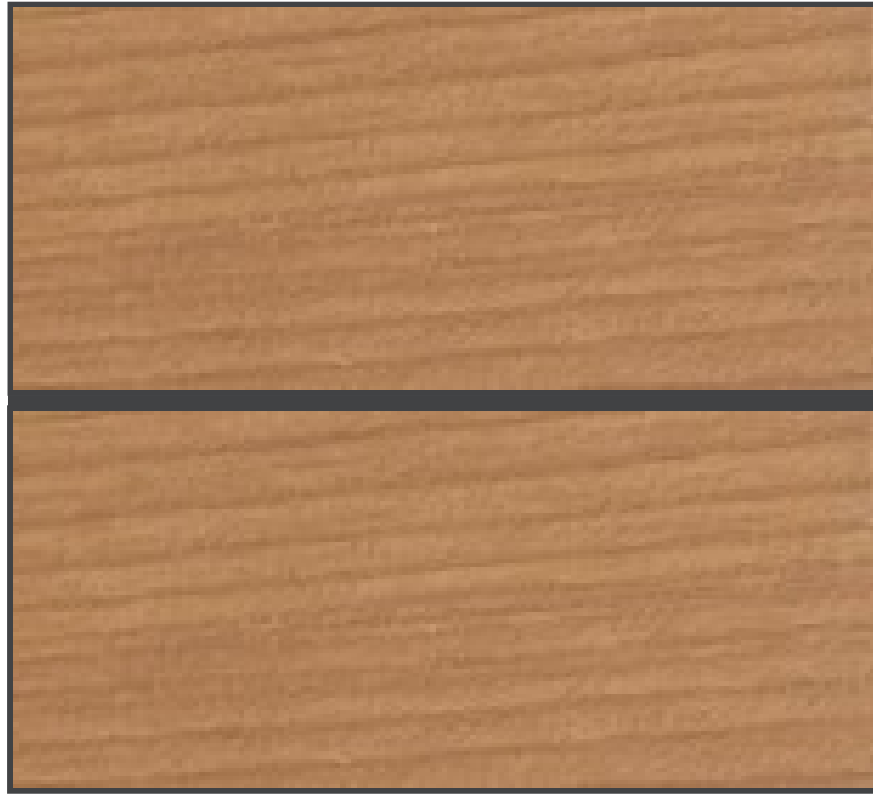
CAST STONE SILLS/ BASE / COPINGS -
LIMESTONE TO MATCH EXTERIOR
STONE



ST 1 - EXTERIOR STONE
ELDORADO STONE
ROUGH CUT CASA BLANCA



RF 1 - ROOF SHINGLES
ATLAS STORMMASTER SHAKE
MOONLIGHT BEACH



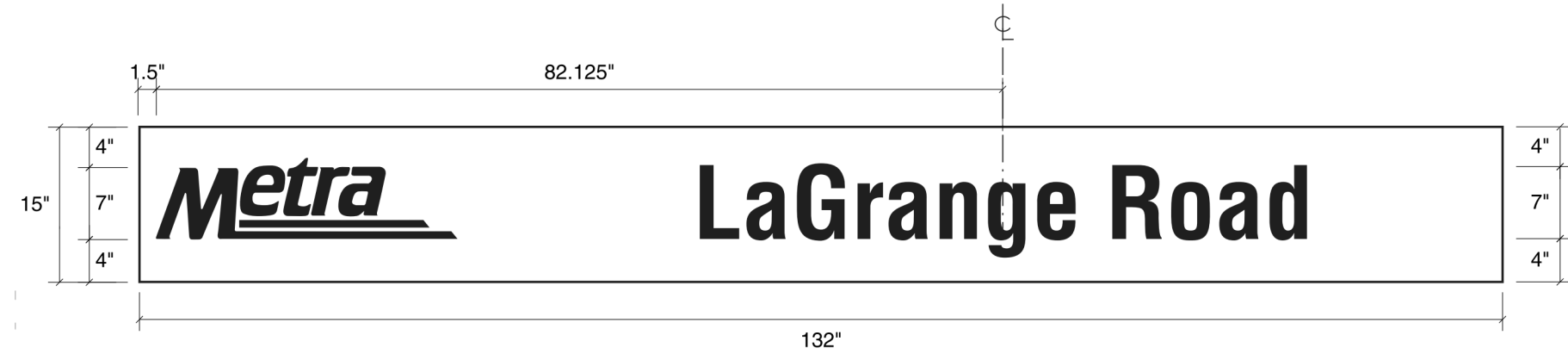
WD-2 - ARMSTRONG - METALWORKS
METAL PLANK EXTERIOR SOFFIT
- MATCH WOOD DECK



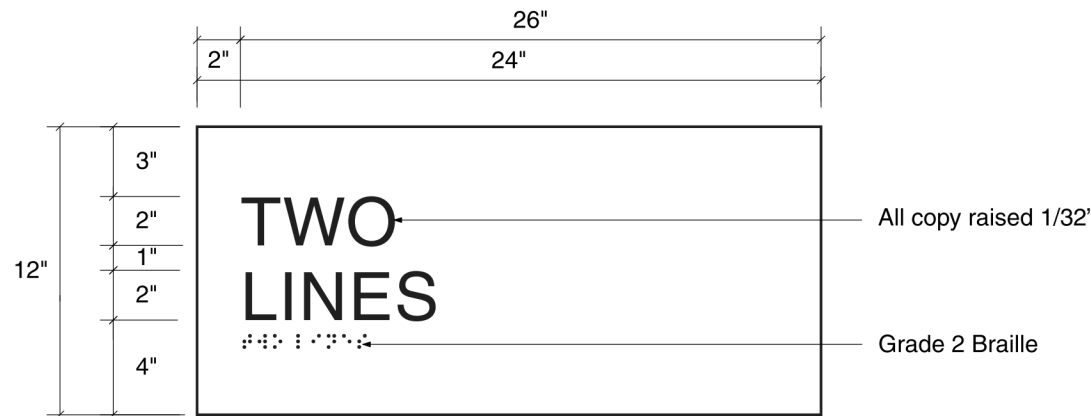
MTL 1 - COLUMNS / FASCIAS
GORDON - BRONZE TEXTURE -
PDR-60202



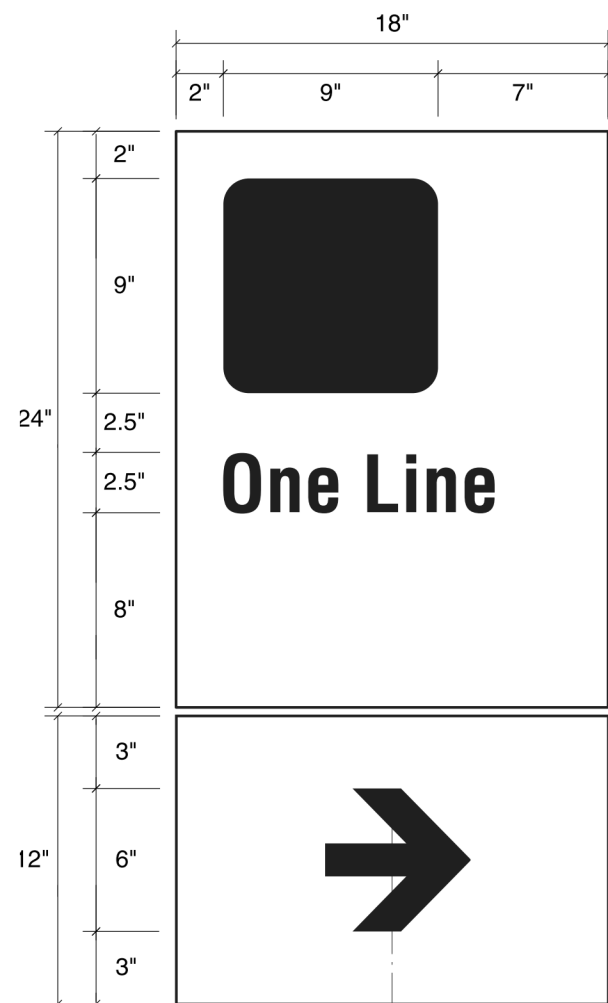
WD-1 - CEILING
EXPOSED TONGUE AND GROOVE
CHERRY ROOF DECK



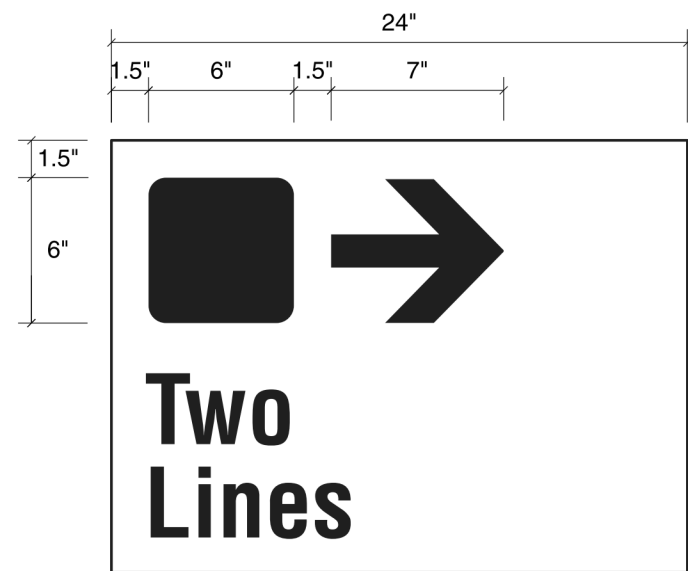
S-1
EAVE-MOUNTED MAJOR
STATION IDENTIFIER



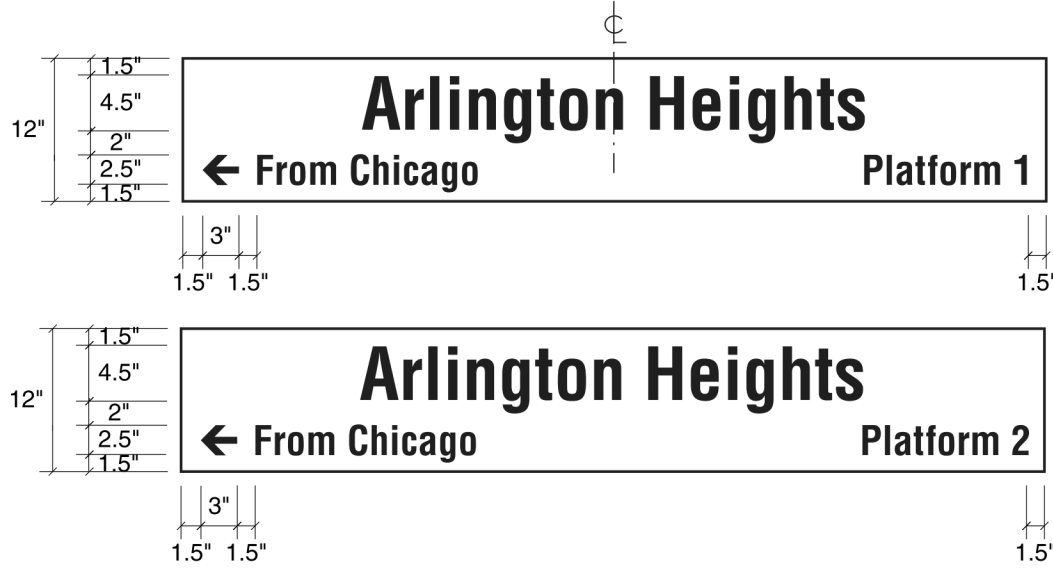
S-1D
WALL-MOUNTED MINOR
STATION IDENTIFIER



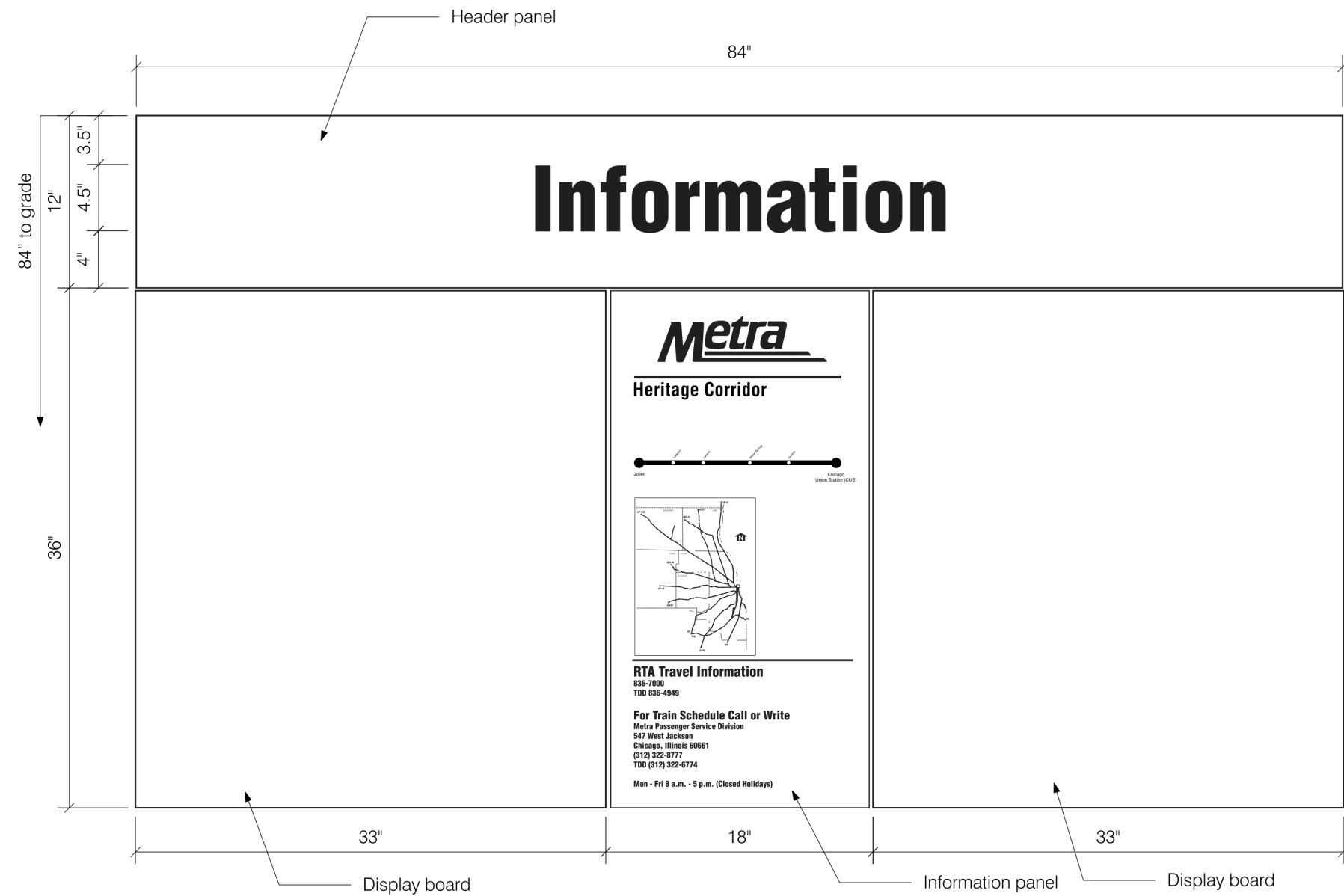
S-4
EXTERIOR POST-MOUNTED
DIRECTIONAL SIGNS



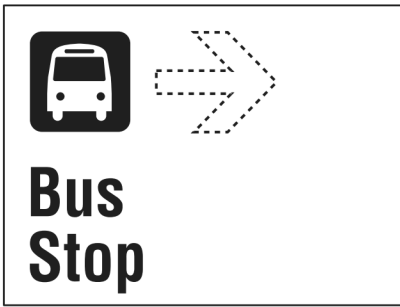
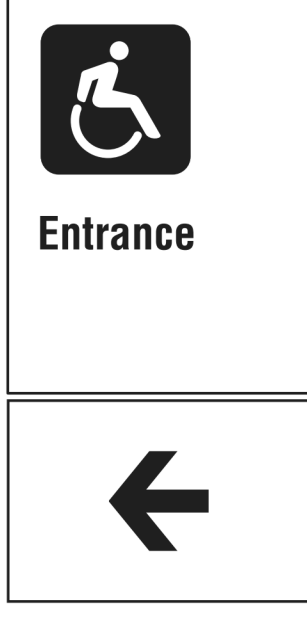
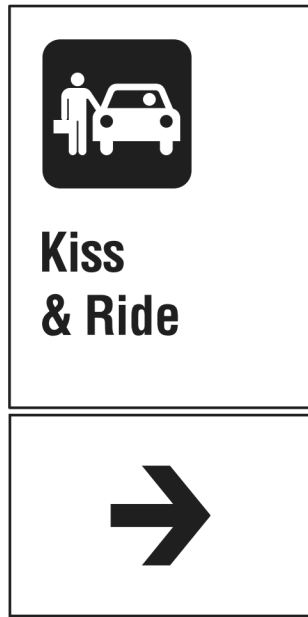
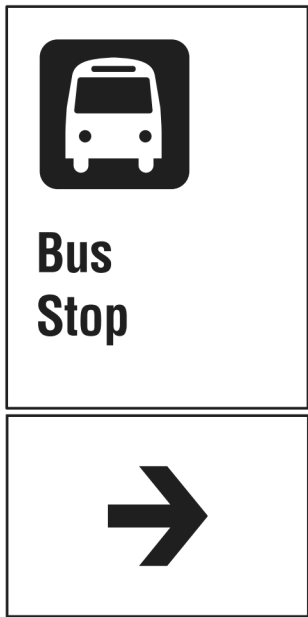
S-5
FLUSH-MOUNTED
DIRECTIONAL SIGNS



S-2
POST-MOUNTED PLATFORM IDENTIFIER



S-3
WALL-MOUNTED INFORMATIONAL SIGNAGE



NOTE: SIGNAGE TYPES PROVIDED FOR DESIGN INTENT ONLY. ALL SIGNS TO BE PROVIDED BY METRA AND INSTALLED BY CONTRACTOR.

SITE SIGNAGE INSTALLATION NOTES

- ALL SIGN PANELS, INCLUDING THE ARROW AND MESSAGE PANELS, SLIDE AND LOCK INTO POSTS. PANELS MUST BE CAPABLE OF BEING REMOVED AND REPLACED ON SITE TO KEEP MAINTENANCE AND REPLACEMENT COSTS TO A MINIMUM.
- CONCRETE EMBEDMENT MOUNTING REQUIREMENTS:** ALUMINUM POSTS ARE TYPICALLY EMBEDDED 3 FT. DIRECTLY IN CONCRETE FOOTINGS. ADD THE DISTANCE BELOW GRADE TO POST LENGTH FOR DIRECT BURIAL MOUNTING.
- PLATE AND BOLT MOUNTING REQUIREMENTS:** WELDED ALUMINUM FLANGE PLATES ARE MECHANICALLY FASTENED TO J-BOLTS OR ANCHOR BOLTS EMBEDDED INTO CONCRETE FOOTINGS.
- WALL MOUNTING REQUIREMENTS:** EXTRUDED ALUMINUM END SECTIONS ARE MECHANICALLY FASTENED TO WALL WITH ANCHOR BOLTS.



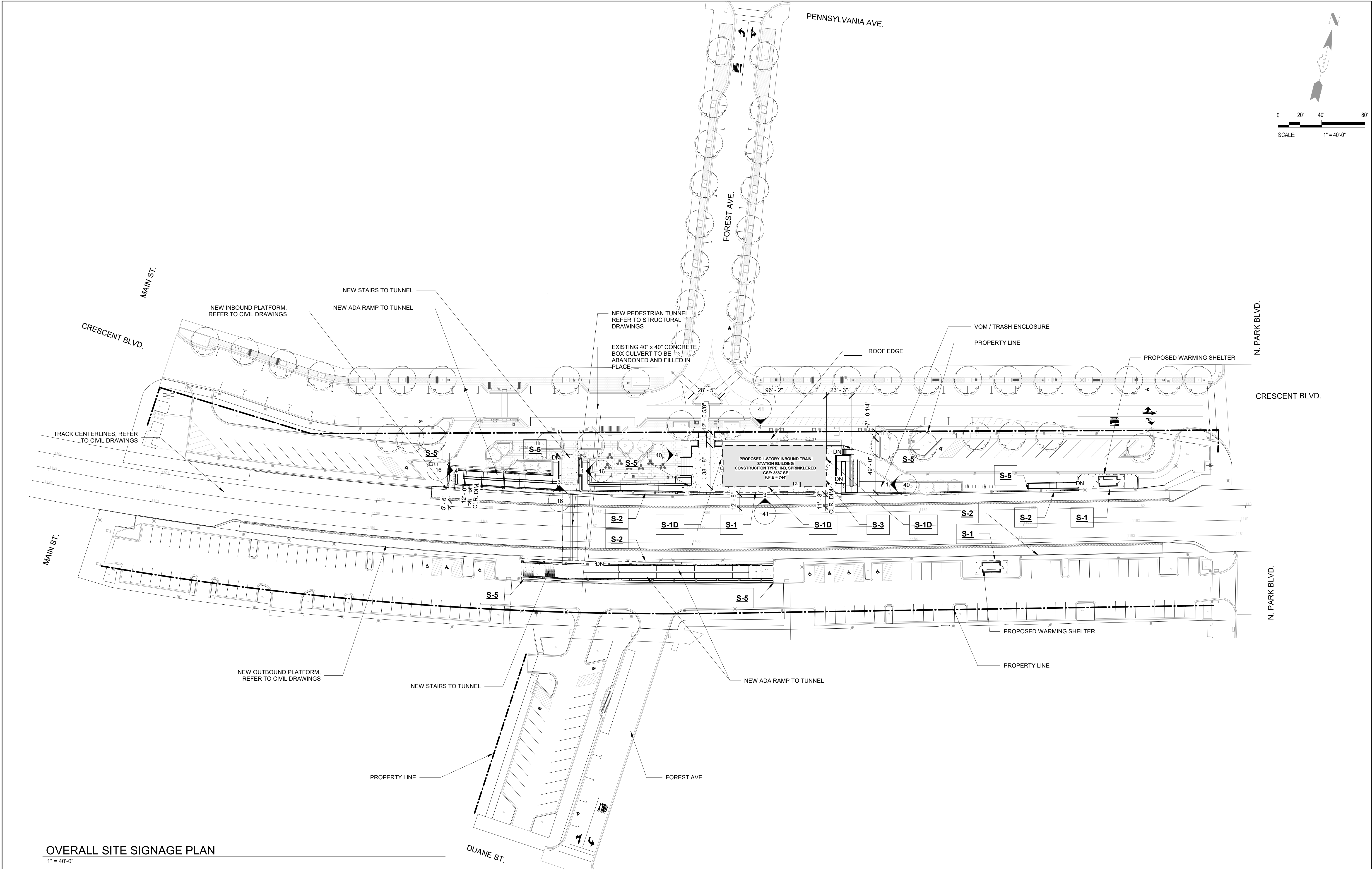
USER NAME	=	DESIGNED	- Designer	REVISED	-
ISSUED FOR	10 PCT	DRAWN	- Author	REVISED	-
PLOT SCALE	=	CHECKED	- Checker	REVISED	-
PLOT DATE	=	DATE	- JAN 2024	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ARCHITECTURAL SITE SIGNAGE TYPES

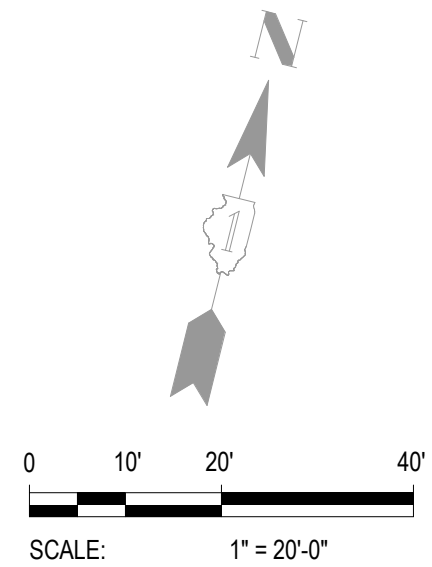
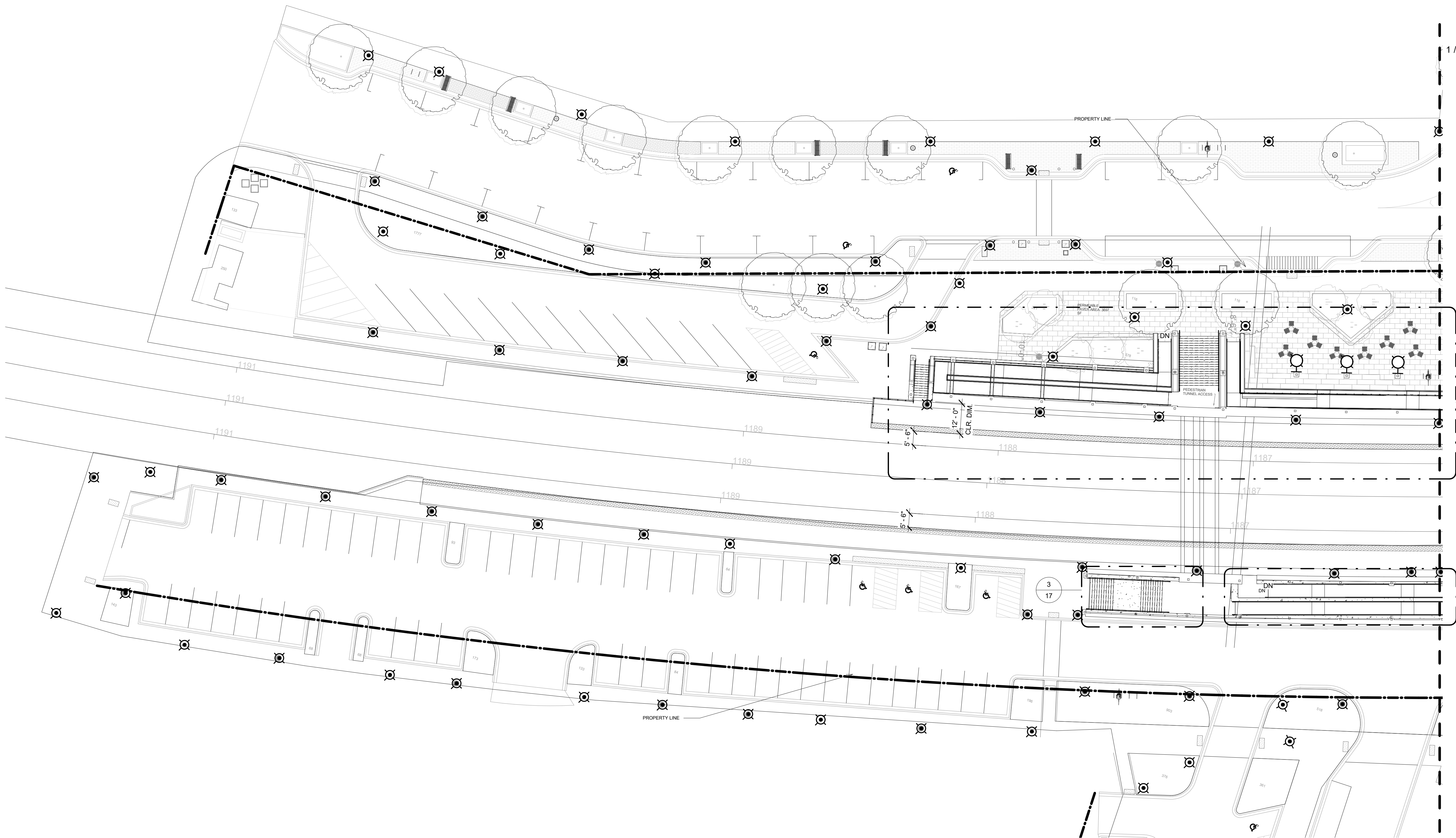
SCALE: Checker SHEET 02 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		02
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

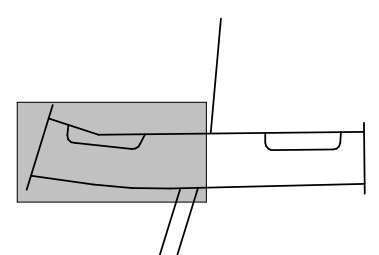


OVERALL SITE SIGNAGE PLAN
1" = 40'-0"

	USER NAME =	DESIGNED - Designer	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERALL SITE SIGNAGE PLAN				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ISSUED FOR 10 PCT	DRAWN - Author	REVISED -				DUPAGE		04				
	PLOT SCALE =	CHECKED - Checker	REVISED -		SCALE: Checker SHEET 04 OF SHEETS				ILLINOIS FED. AID PROJECT				
	PLOT DATE =	DATE - JAN 2024	REVISED -										



SITE PLAN - PART A
1" = 20'-0"

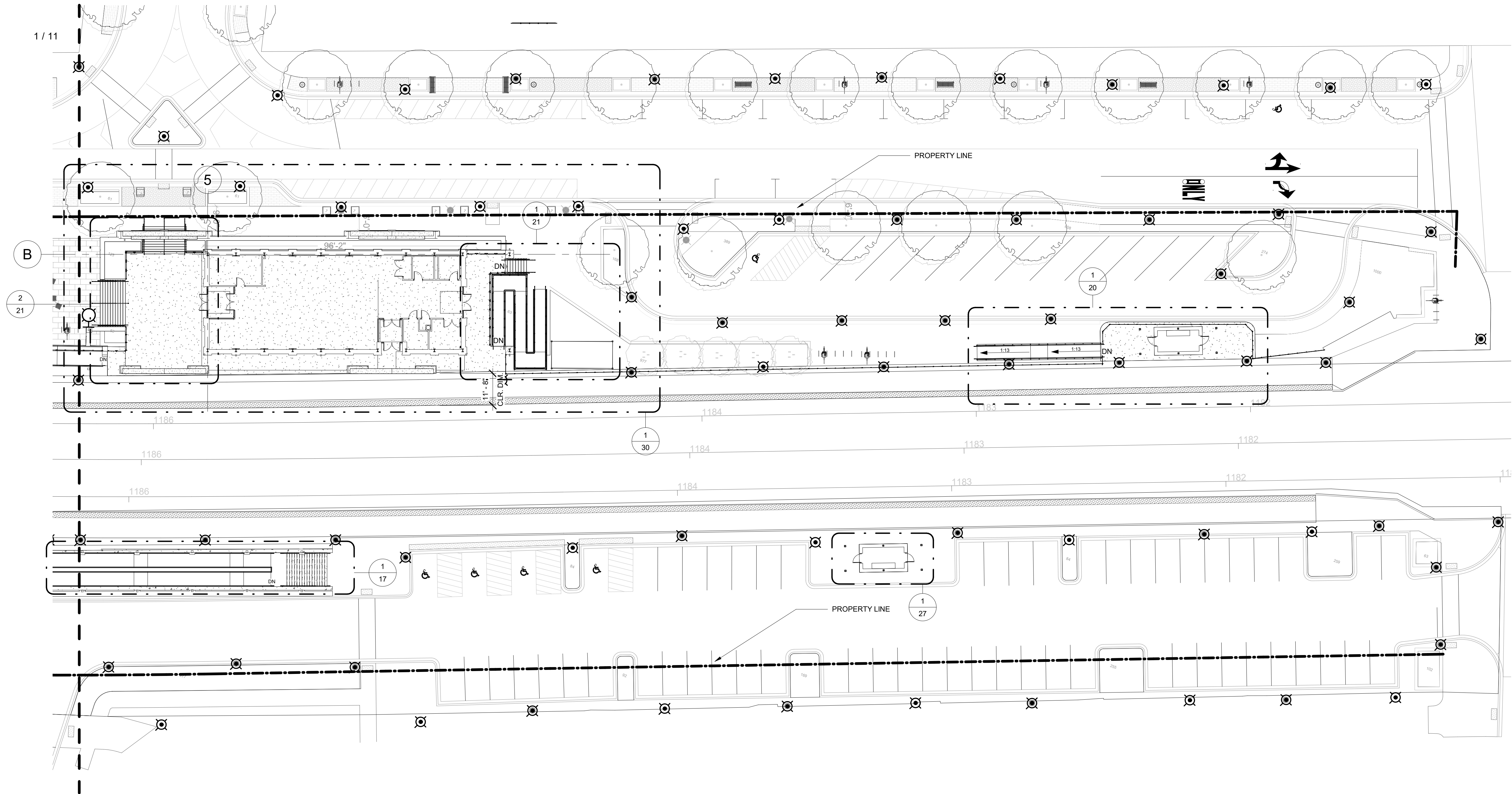
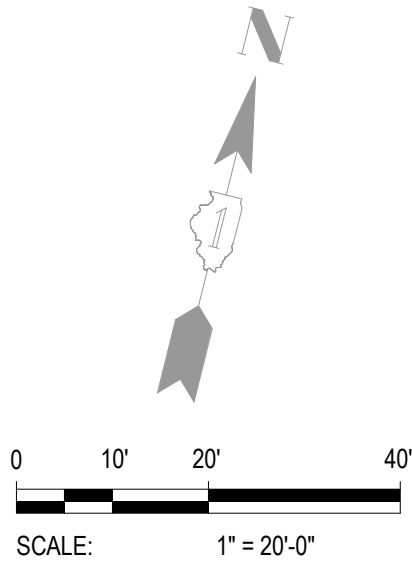


USER NAME =	DESIGNED - SJS	REVISED -
ISSUED FOR 10 PCT	DRAWN - CP/AA	REVISED -
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PLOT DATE =	DATE - JAN 2024	REVISED -

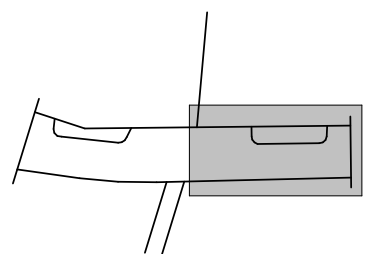
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SITE PLAN - PART A		
SCALE: SJS	SHEET 11	OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		11
ILLINOIS FED. AID PROJECT				



SITE PLAN - PART B
1" = 20'-0"



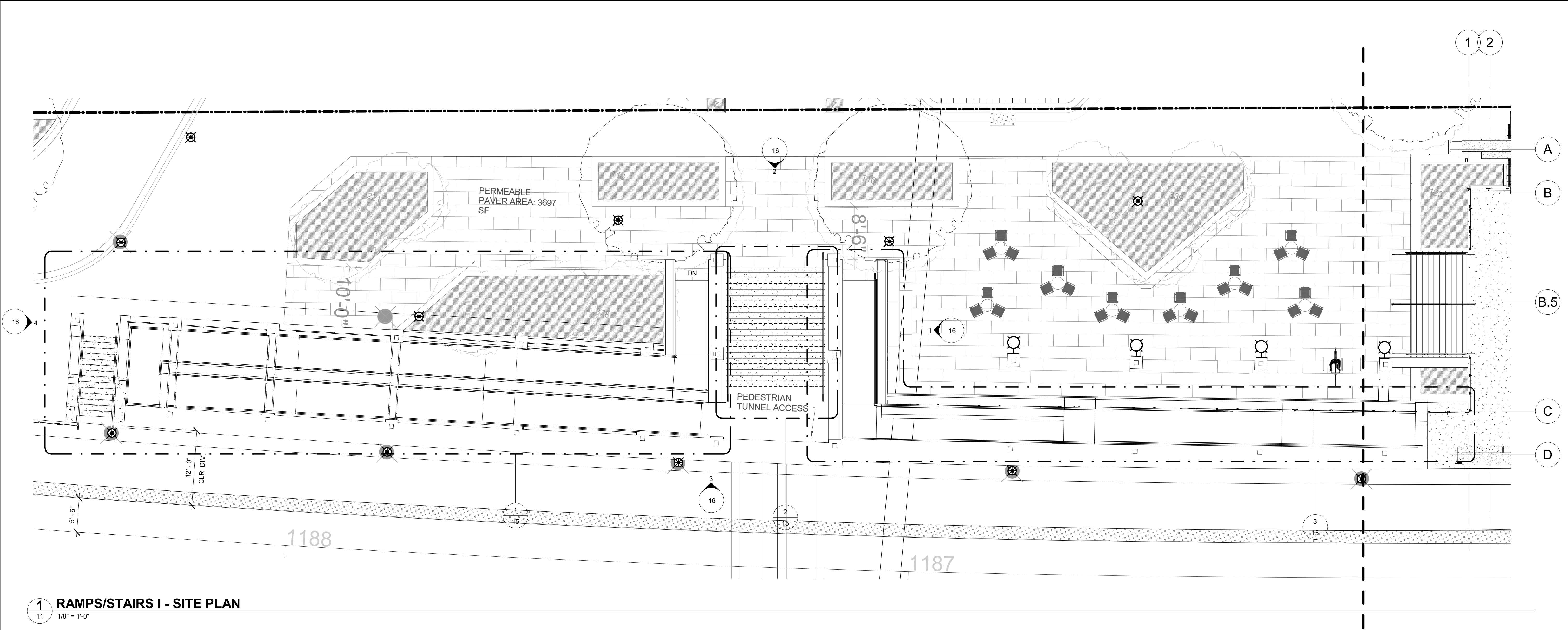
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ISSUED FOR 10 PCT	DRAWN - CP/AA	REVISED -
PLOT SCALE =	CHECKED - SJS	REVISED -
PLOT DATE =	DATE - JAN 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SITE PLAN - PART B

SCALE: SJS SHEET 12 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		12
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



1 RAMP/STAIRS I - SITE PLAN
11 1/8" = 1'-0"



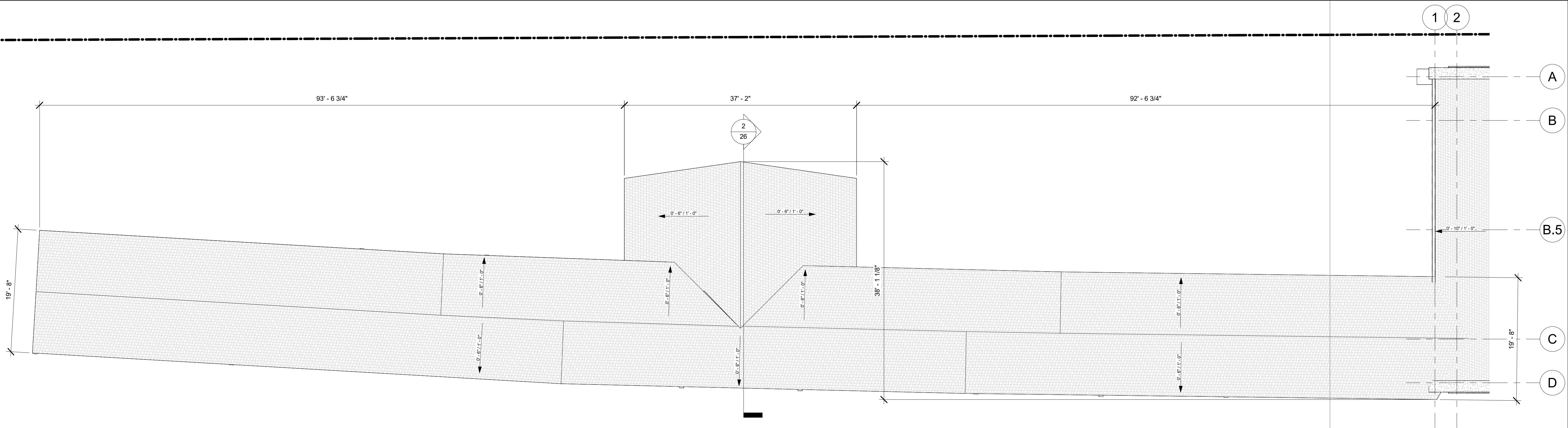
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ISSUED FOR	10 PCT	DRAWN	- Author	REVISED	-
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PLOT DATE	=	DATE	- JAN 2024	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

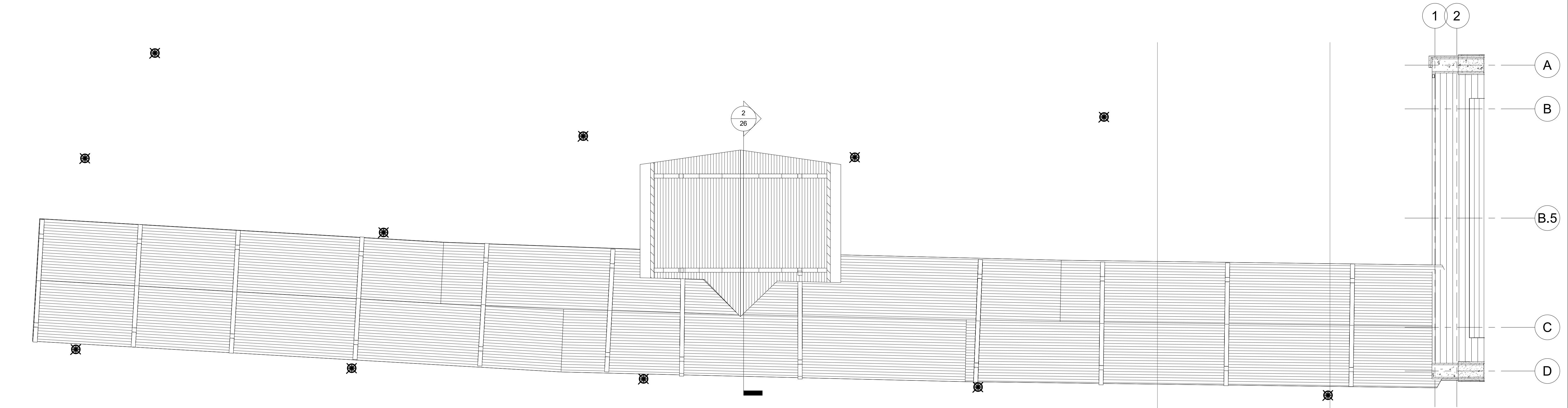
RAMP/STAIRS I - ENLARGED PLANS

SCALE: Checker SHEET 13 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		13
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



2 RAMPS/STAIRS I - ROOF PLAN
26 1/8" = 1'-0"



1 RAMPS/STAIRS I - REFLECTED CEILING PLAN
26 1/8" = 1'-0"



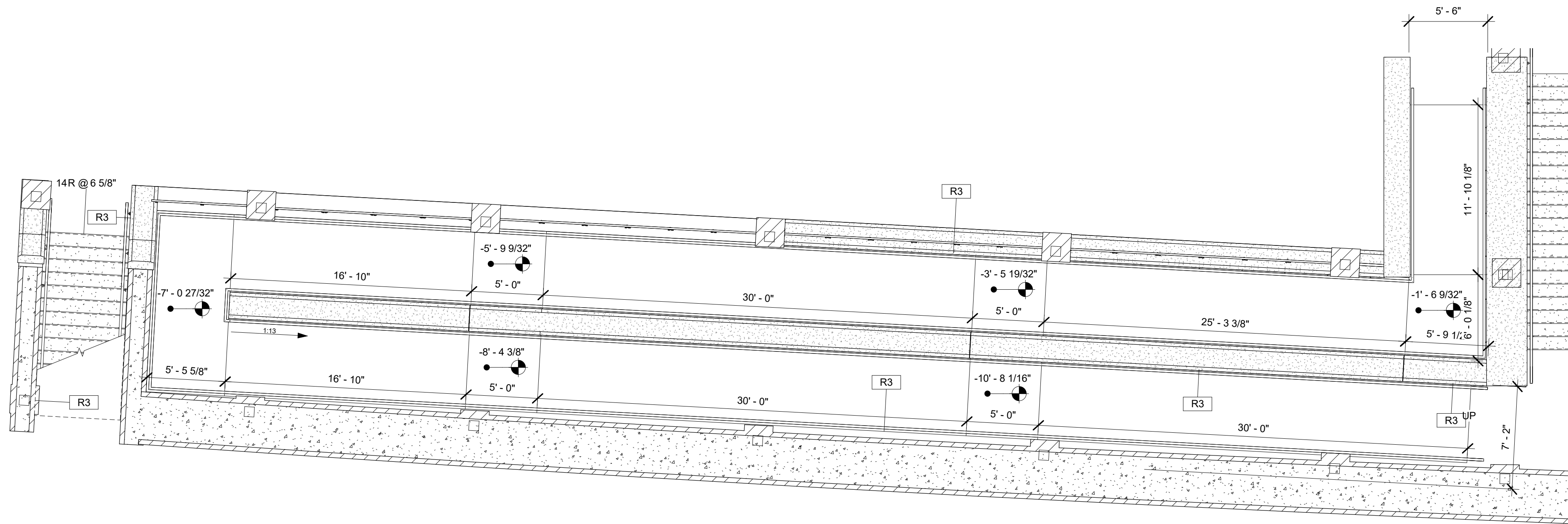
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ISSUED FOR 10 PCT	DRAWN - Author	REVISED -
PLOT SCALE =	CHECKED - Checker	REVISED -
PLOT DATE =	DATE - JAN 2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

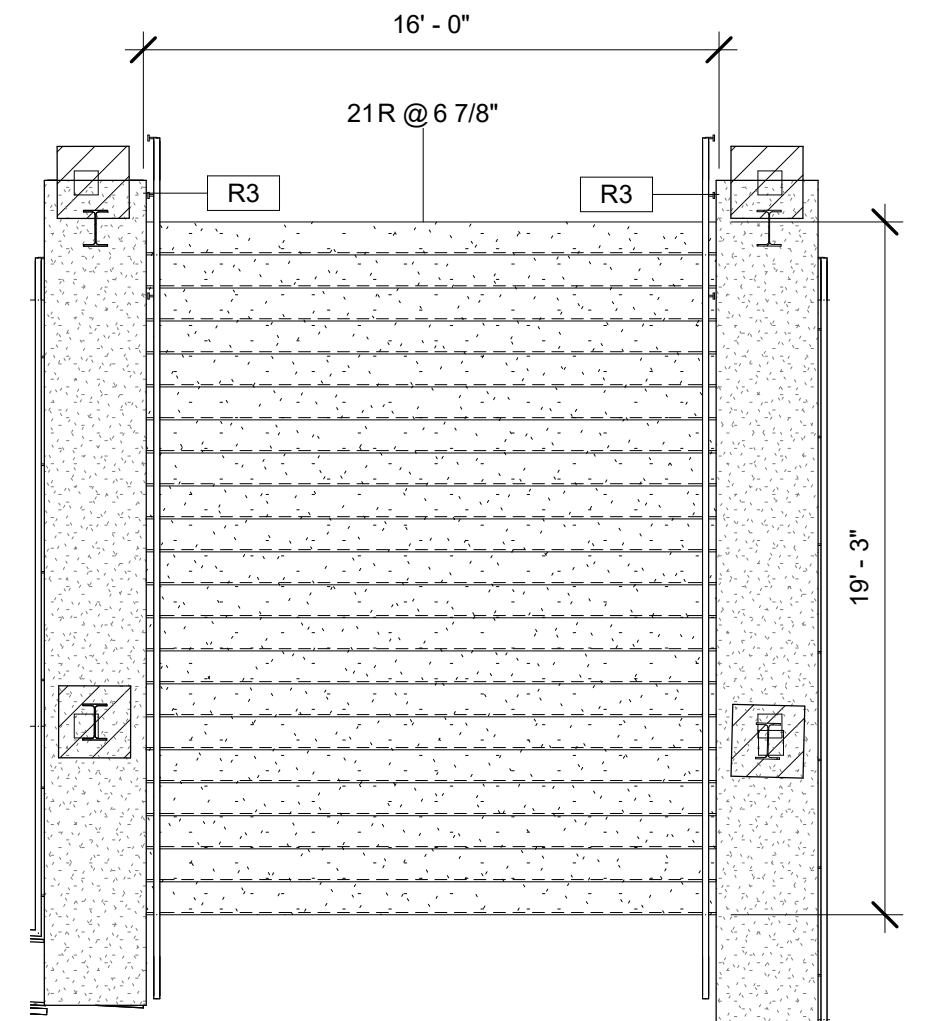
RAMP/STAIRS I - ENLARGED PLANS

SCALE: Checker SHEET 14 OF SHEETS

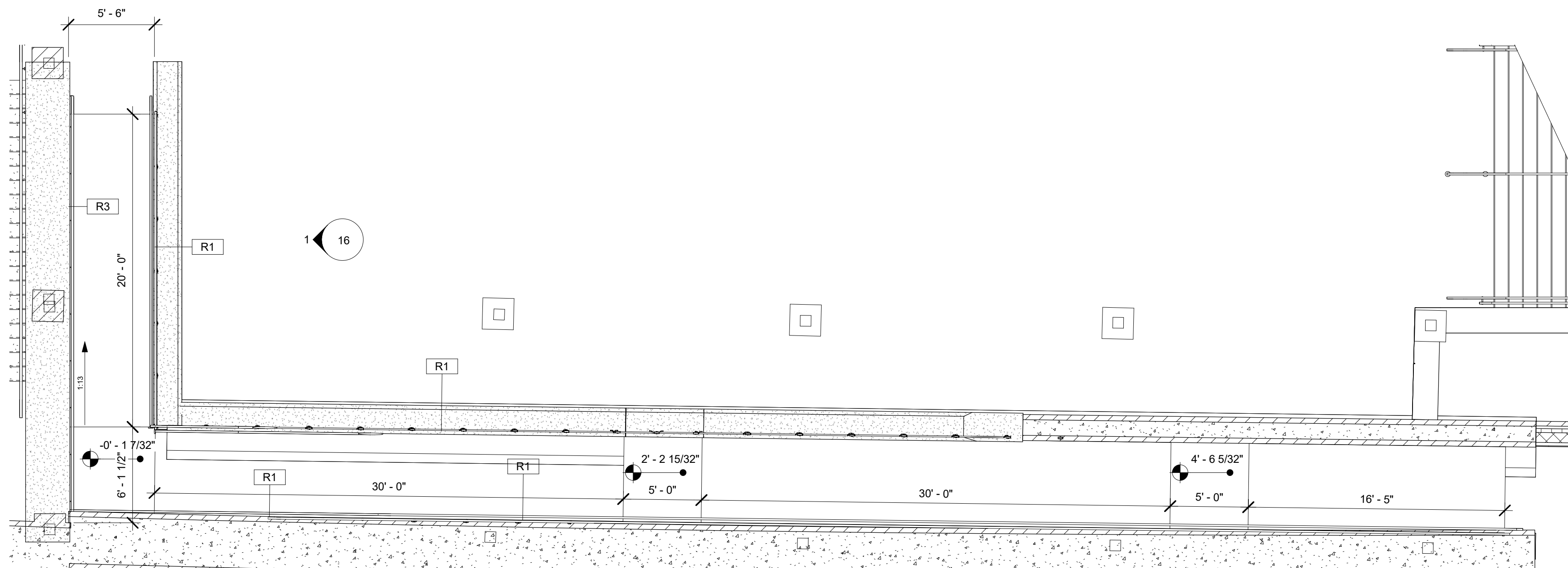
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE	14	
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



1 ENLARGED PLAN - RAMP WEST
13 3/16" = 1'-0"



2 ENLARGED PLAN - STAIR
13 3/16" = 1'-0"



3 ENLARGED PLAN - RAMP EAST
13 3/16" = 1'-0"



USER NAME =	DESIGNED - Designer	REVISED -
ISSUED FOR 10 PCT	DRAWN - Author	REVISED -
PLOT SCALE =	CHECKED - Checker	REVISED -
PLOT DATE =	DATE - JAN 2024	REVISED -

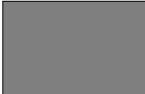
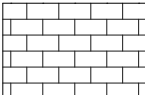
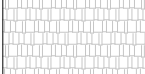
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

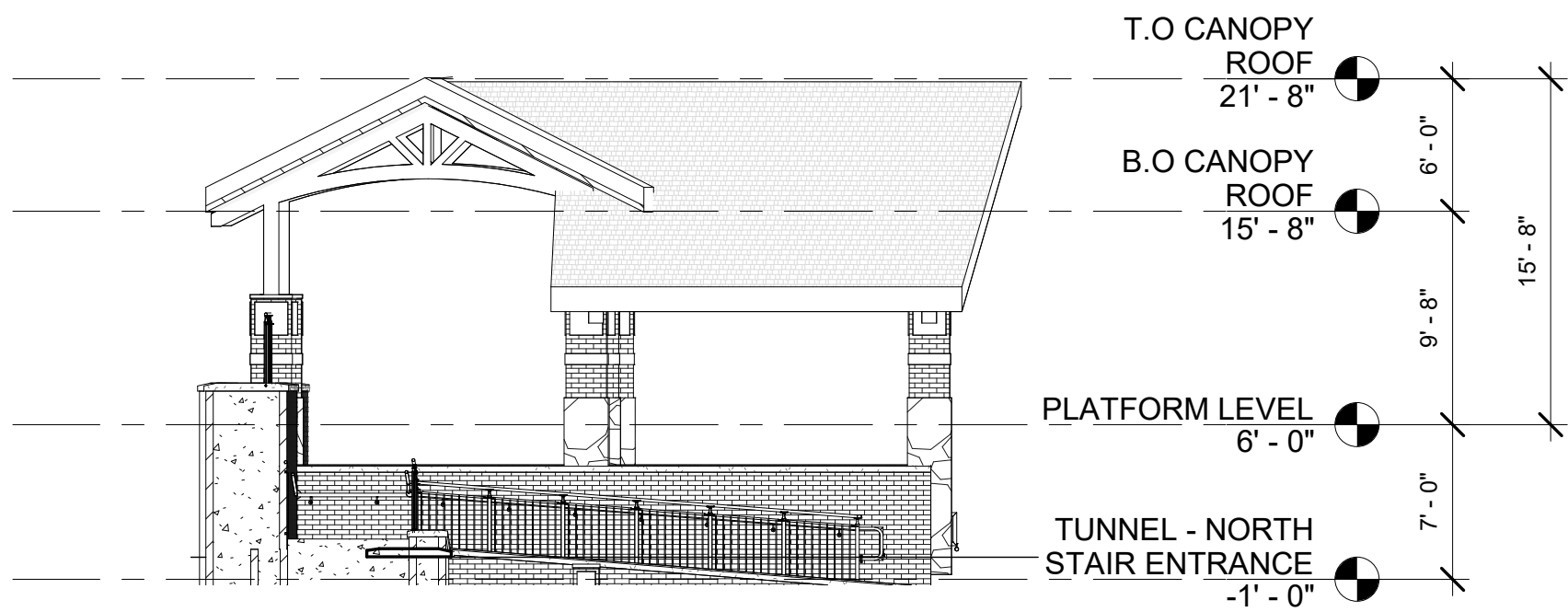
RAMP/STAIRS I - ENLARGED PLANS

SCALE: Checker SHEET 15 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				15
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

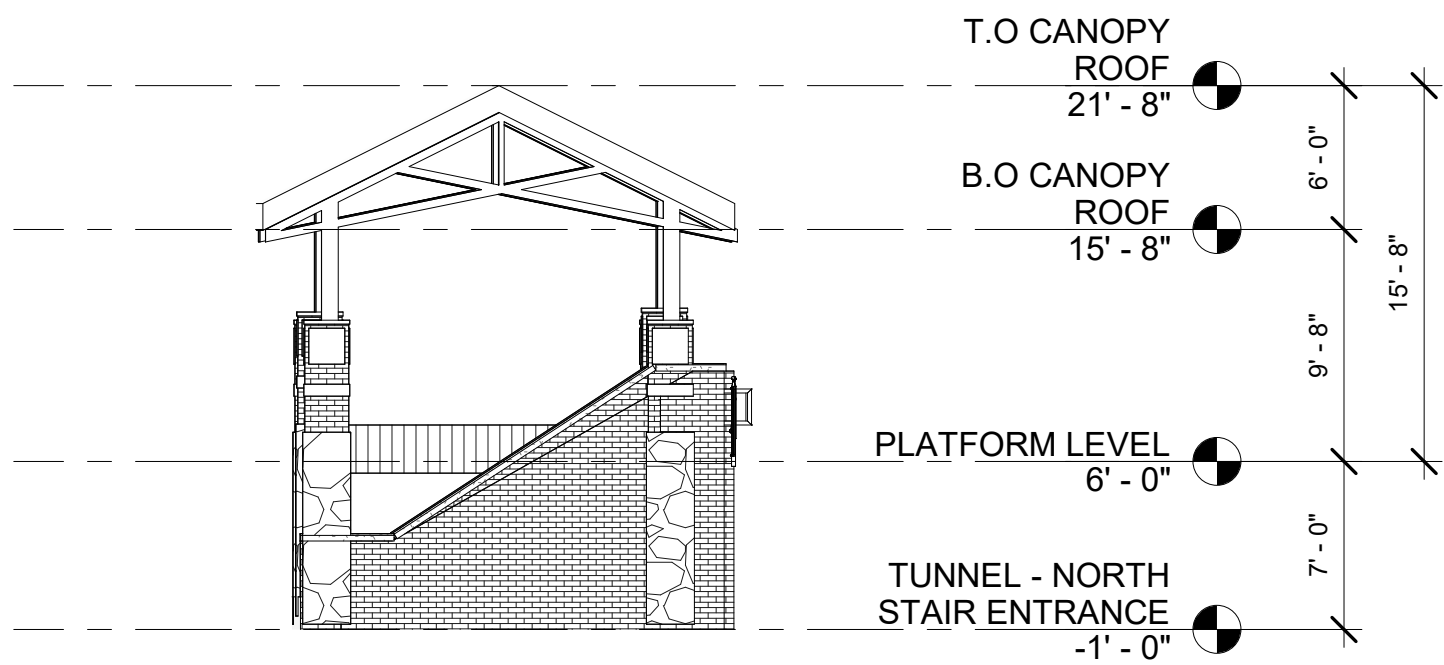
EXTERIOR MATERIAL LEGEND

-  NSULATED GLASS UNIT - VISION
-  INSULATED GLASS UNIT - SPANDREL
-  BRICK
-  CAST STONE
-  CULTURED STONE
-  PREFINISHED METAL
-  ASPHALT SHINGLE



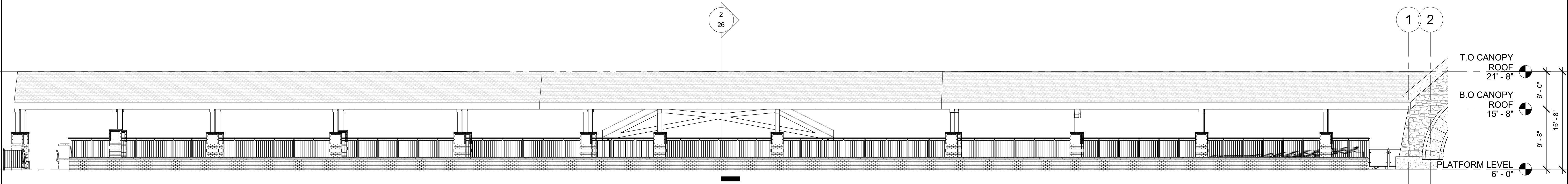
1 RAMP/STAIR I - EAST ELEVATION

04 1/8" = 1'-0"



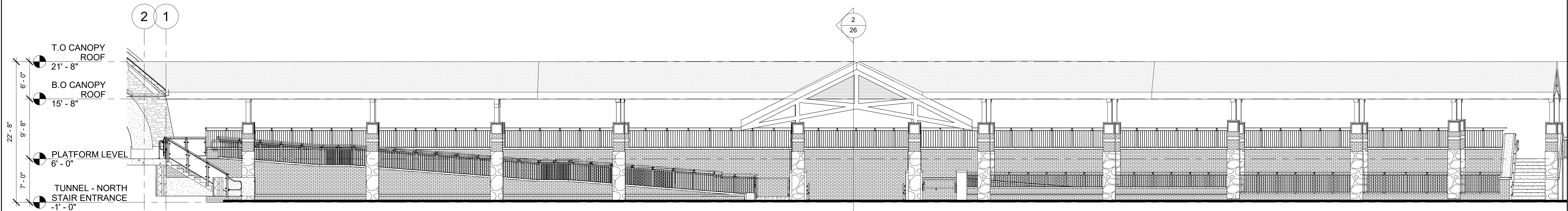
4 RAMP/STAIR I - WEST ELEVATION

04 1/8" = 1'-0"



3 RAMP/STAIR I - SOUTH ELEVATION

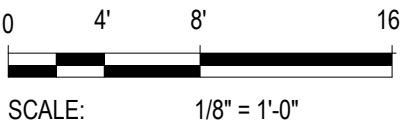
04 1/8" = 1'-0"



2 RAMP/STAIR I - NORTH ELEVATION

13 1/8" = 1'-0"

TAG	MATERIAL	BASIS OF DESIGN PRODUCT DESCRIPTION	COLOR / FINISH	REFERENCE SPECIFICATION
E-PNT-01	HIGH PERFORMANCE COATING	PPG CORAFLOX POWDER COATINGS	SW 7068 - IRON ORE	09 91 13
E-MTL-01	PREFINISHED ALUMINUM COPING	COPING	MATCH E-PNT-01	07 71 00
E-SFT-01 / E-GL-01	ALUMINUM STOREFRONT WITH INSULATED GLASS	E-SFT-01: KAWNEER NORTH AMERICA / E-GL-01: GUARDIAN GLASS; 1" INSULATED GLASS LOW-E - CLEAR	DARK BRONZE ANNOIDIZED / SNX51/23	08 41 13 AND 08 80 00
E-SFT-01 / E-GL-02	ALUMINUM STOREFRONT WITH INSULATED SPANDREL GLASS	E-SFT-01: KAWNEER NORTH AMERICA / E-GL-02: GUARDIAN GLASS; 1" INSULATED GLASS LOW-E - SPANDREL WITH MINERAL WOOL BOARD INSULATION AND METAL BACK PAN	DARK BRONZE ANNOIDIZED FRAMES AND BACK PAN / SNX51/23 WITH MEDIUM GRAY SPANDREL	08 41 13 AND 08 80 00
E-DWS-01	PREFINISHED ALUMINUM DOWNSPOUT	DOWNSPOUT	MATCH E-PNT-01	07 71 00
E-LVR-01	PREFINISHED ALUMINUM LOUVER	HIGH PERFORMANCE COATING FINISH	MATCH E-BRK-01	10 20 00
E-ST-01	CAST STONE	ARCHITECTURAL CAST STONE	MATCH E-ST-02	04 72 00
E-ST-02	ADHERED STONE VENEER	ELDORADO STONE; MANUFACTURED STONE	ROUGH CUT; CASA BLANCA	04 43 13.16
E-BRK-01	UNIT BRICK	SUMMIT BRICK COMPANY; MODULAR SIZE	CHERRY CREEK	04 20 00
E-RF-01	ARCHITECTURAL ASPHALT SHINGLES	ATLAS ROOFING CORPORATION; STORMMASTER SHAKE	MOONLIGHT BEACH	07 31 13
E-WD-01	LINEAR METAL CEILINGS	ARMSTRONG; METALWORKS LINEAR - SYNCHRO	CHERRY	09 54 23
E-WD-02	WOOD ROOF DECKING	SOLID TONGUE AND GROOVE DECKING	CHERRY	06 15 16



SCALE: 1/8" = 1'-0"



USER NAME =	DESIGNED - Designer	REVISED -
ISSUED FOR 10 PCT	DRAWN - Author	REVISED -
PLOT SCALE =	CHECKED - Checker	REVISED -
PLOT DATE =	DATE - JAN 2024	REVISED -

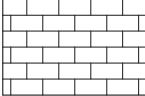
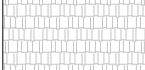
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

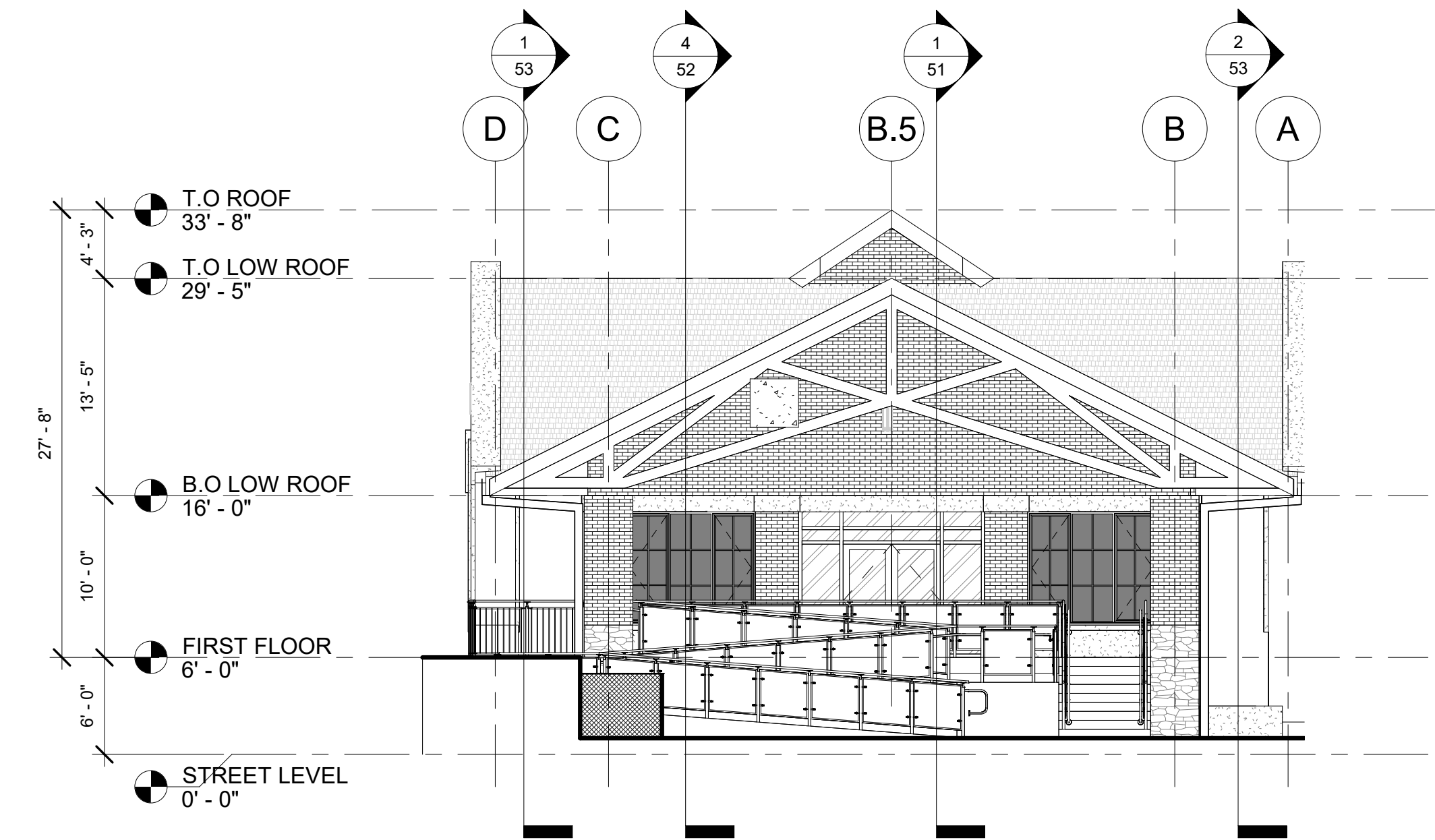
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SCALE: Checker SHEET 16 OF SHEETS

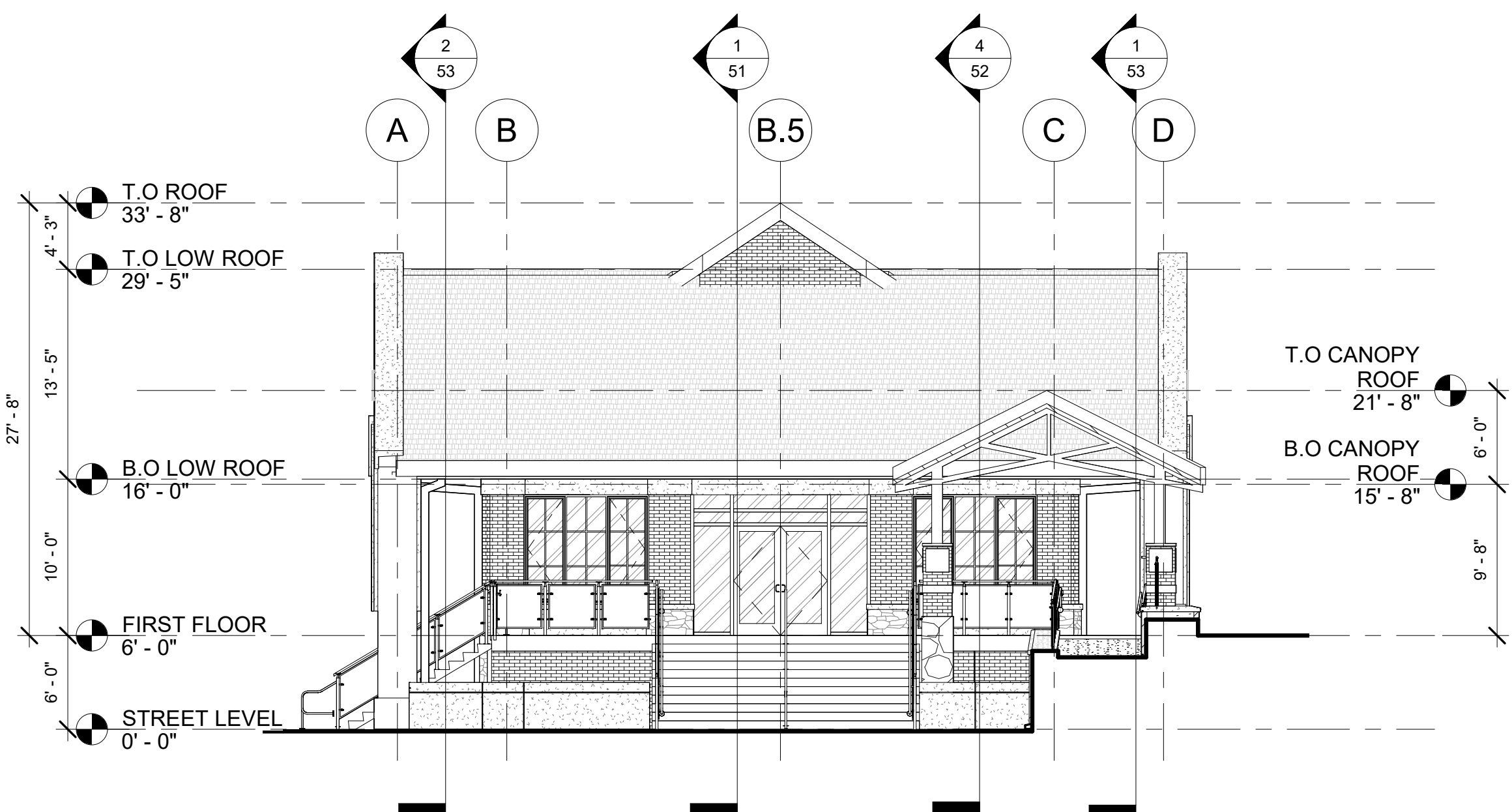
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CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

EXTERIOR MATERIAL LEGEND

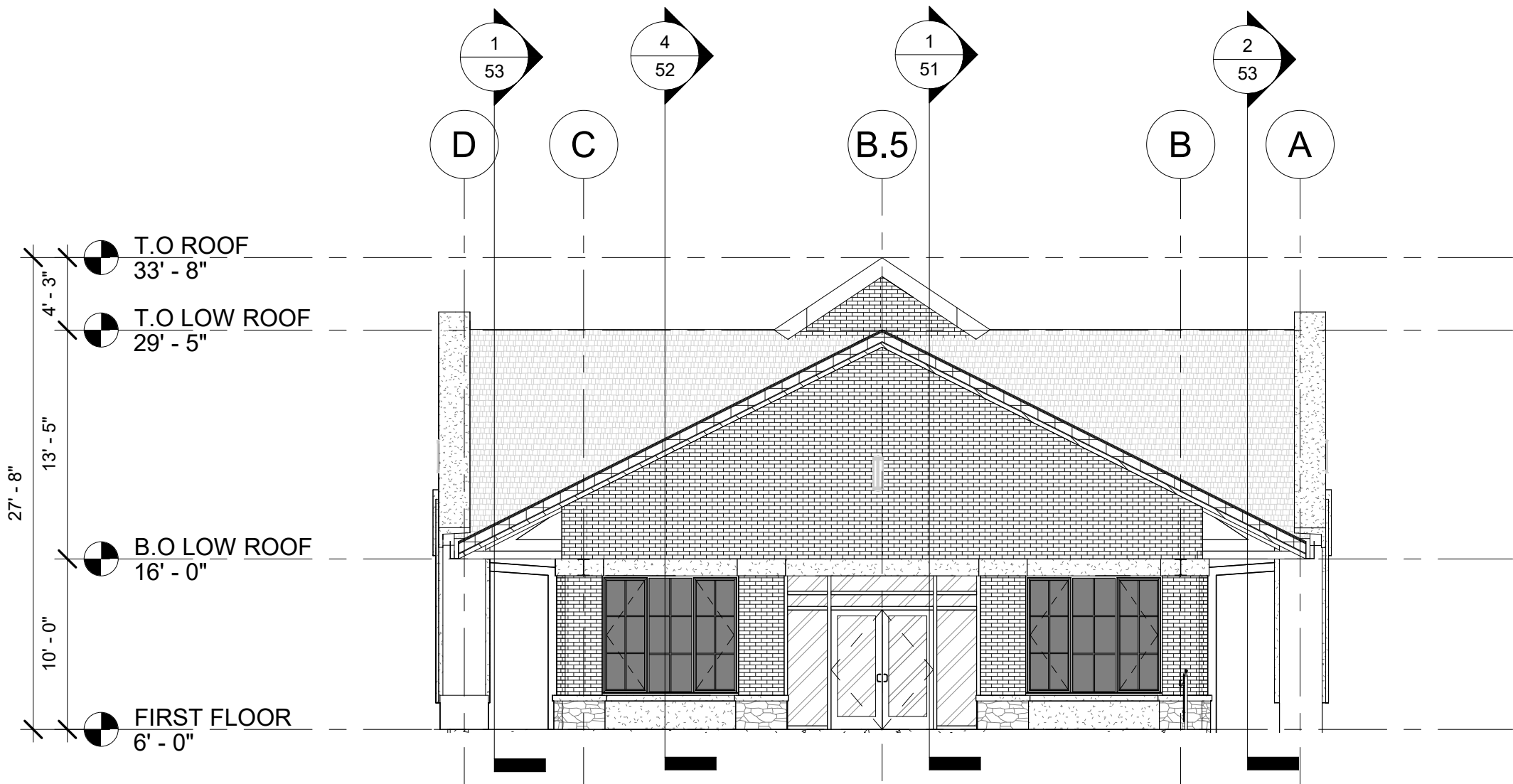
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-  INSULATED GLASS UNIT - SPANDREL
-  BRICK
-  CAST STONE
-  CULTURED STONE
-  PREFINISHED METAL
-  ASPHALT SHINGLE



1
40
EAST EXTERIOR ELEVATION
1/8" = 1'-0"

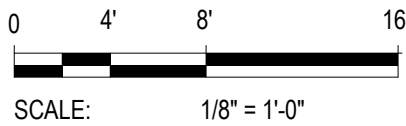


4
40
WEST EXTERIOR ELEVATION
1/8" = 1'-0"



3
40
EAST HIDDEN EXTERIOR ELEVATION
1/8" = 1'-0"

TAG	MATERIAL	BASIS OF DESIGN PRODUCT DESCRIPTION	COLOR / FINISH	REFERENCE SPECIFICATION
E-PNT-01	HIGH PERFORMANCE COATING	PPG CORAFLOX POWDER COATINGS	SW 7068 - IRON ORE	09 91 13
E-MTL-01	PREFINISHED ALUMINUM COPING	COPING	MATCH E-PNT-01	07 71 00
E-SFT-01 / E-GL-01	ALUMINUM STOREFRONT WITH INSULATED GLASS	E-SFT-01: KAWNEER NORTH AMERICA / E-GL-01: GUARDIAN GLASS; 1" INSULATED GLASS LOW-E - CLEAR	DARK BRONZE ANNOXIDIZED / SNX51/23	08 41 13 AND 08 80 00
E-SFT-01 / E-GL-02	ALUMINUM STOREFRONT WITH INSULATED SPANDREL GLASS	E-SFT-01: KAWNEER NORTH AMERICA / E-GL-02: GUARDIAN GLASS; 1" INSULATED GLASS LOW-E - SPANDREL WITH MINERAL WOOL BOARD INSULATION AND METAL BACK PAN	DARK BRONZE ANNOXIDIZED FRAMES AND BACK PAN / SNX51/23 WITH MEDIUM GRAY SPANDREL	08 41 13 AND 08 80 00
E-DWS-01	PREFINISHED ALUMINUM DOWNSPOUT	DOWNSPOUT	MATCH E-PNT-01	07 71 00
E-LVR-01	PREFINISHED ALUMINUM LOUVER	HIGH PERFORMANCE COATING FINISH	MATCH E-BRK-01	10 20 00
E-ST-01	CAST STONE	ARCHITECTURAL CAST STONE	MATCH E-ST-02	04 72 00
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E-BRK-01	UNIT BRICK	SUMMIT BRICK COMPANY; MODULAR SIZE	CHERRY CREEK	04 20 00
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E-WD-01	LINEAR METAL CEILINGS	ARMSTRONG; METALWORKS LINEAR - SYNCHRO	CHERRY	09 54 23
E-WD-02	WOOD ROOF DECKING	SOLID TONGUE AND GROOVE DECKING	CHERRY	06 15 16



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ISSUED FOR 10 PCT	DRAWN - CP/AA	REVISED -
PLOT SCALE =	CHECKED - SJS	REVISED -
PLOT DATE =	DATE - JAN 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUILDING ELEVATIONS

SCALE: SJS SHEET 40 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		40
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

- INSULATED GLASS UNIT - VISION
- INSULATED GLASS UNIT - SPANDREL
- BRICK
- CAST STONE
- CULTURED STONE
- PREFINISHED METAL
- ASPHALT SHINGLE



USER NAME =	DESIGNED - SJS	REVISED -
ISSUED FOR 10 PCT	DRAWN - CP/AA	REVISED -
PLOT SCALE =	CHECKED - SJS	REVISED -
PLOT DATE =	DATE - JAN 2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BUILDING ELEVATIONS

BUILDING ELEVATIONS				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
						DUPAGE		41
				CONTRACT NO.				
SCALE: SJS	SHEET 41	OF	SHEETS	ILLINOIS FED. AID PROJECT				



Preliminary Design Report

Glen Ellyn Metra Station and Multimodal Access Improvements Project

Village of Glen Ellyn

10% Design January 2024

Rev. 4/12/2024



Section 1

Introduction and Background

This section provides the introduction and background for the Glen Ellyn Metra Station and Multimodal Access Improvements Project.

1.1 Introduction and Background

The purpose of the Glen Ellyn Metra Station and Multimodal Access Improvements Project is to remove the existing station and construct a new larger station building and a pedestrian tunnel under the Union Pacific Railroad (UPRR) West Line. Work will also include reconstructing existing parking lots, providing ADA access throughout the project area including to the pedestrian tunnel, and reconstructing affected roadways surrounding the site. This will also include improvements to water service in the area, and streetscape improvements around the proposed station. Refer to Figure 1.1 below for the extents of the project area.

FIGURE 1.1 - Project Area



Within the downtown are two independent Village of Glen Ellyn projects that will require ongoing coordination with this project. First, the US Bank site at Forest Avenue and Duane Street is currently being redesigned as a Downtown Community Park. The park will interface with the

project area at the Illinois Prairie Path and Forest Avenue. Secondly, implementation of Glen Ellyn's streetscape improvements project is ongoing throughout the downtown, with subareas at different stages of design and construction. Streetscape improvements will interface with the project area at Main Street, Pennsylvania Ave, and Duane Street at the perimeter of the project area. Both projects may inform and in turn be informed by the design of the Glen Ellyn Metra Station and Multimodal Access Improvements Project to ensure a harmonious downtown.

The project currently has approximately \$23.4 million in outside funding sources including from the Congestion Mitigation and Air Quality Improvement (CMAQ) Program (\$14.4 million Federal), Metra (\$4 million Federal), and State of Illinois Commerce Commission Grade Crossing Protection Fund (ICC GCPF) (\$5 million State). Additional funding will be pursued, and local funding will be provided by the Village of Glen Ellyn.

The current design being developed in Phase II engineering is a result of a multi-discipline investigations conducted during preliminary engineering (Phase I). The Phase I process was comprised of concurrent and coordinated engineering studies, environmental reviews, and public involvement and stakeholder outreach that resulted in identifying a preferred alternative.

Concurrent with the completion of Phase I Engineering and the pursuit of additional outside project funding sources, the Village's goal is to complete Phase II Engineering for the project. Phase II Engineering involves completing the detailed design of the project including all necessary permissions to bring the project to a state where it can be competitively bid by the Illinois Department of Transportation. More specifically, as part of Phase II engineering, the design team will prepare engineering documents according to requirements set forth by the Village of Glen Ellyn, DuPage County, Metra, UPRR and the Illinois Commerce Commission (ICC).

1.2 Report Organization

This preliminary design report is organized as follows:

Section 1 – Introduction and Background

Section 2 – Design Criteria

Section 3 – Civil/Site Design

Section 4 – Pedestrian Tunnel Design

Section 5 – Drainage Design

Section 6 – Landscape Design

Section 7 – Structural Design

Section 8 - Architectural Design

Section 9 – Electrical Design

Section 10 – Mechanical Design

Section 11 – Implementation & Permitting Plan

Appendices:

Appendix A – Conceptual Design Exhibits

Appendix B – Geothermal Feasibility Study

Appendix C – Tunnel Alternatives Evaluation Technical Memorandum

Appendix D – Tunnel Settlement Analysis

Appendix E – Geotechnical Engineering Report

Appendix F – Geotechnical Interpretive Memo

Appendix G – UPRR Request for Exception

Appendix H – Value Engineering Report

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Section 2

Design Criteria

This section provides the design criteria, standards, and codes for the Glen Ellyn Metra Station and Multimodal Access Improvements Project.

2.1 Project Design Criteria

Due to the complexity of this project, and the type of stakeholders, a variety of design criteria is required. Refer to Table 2.1 below for a summary of the current design criteria applicable to this project.

Table 2.1 - Project Design Criteria

Guideline	Application	Source for Criteria
Metra Standards	Platforms, platform and tunnel access, station depot, warming shelters, off-street parking	Metra Station and Parking Design Guidelines, February 2022
UPRR Standards	Platforms, excavation setbacks, structures clearance from tracks, excavation near tracks, pedestrian underpass	2021 Union Pacific Railroad Engineering Standards, UPRR/BNSF Bridge Standard, UPRR/BNSF Guidelines for Temporary Shoring
IBC	Station depot, warming shelters, canopies, retaining walls, tunnel (all things not roadway/train)	2021 ICC International Construction Codes with Village of Glen Ellyn Amendments
AREMA	Construction adjacent to/under railroad (train loading)	AREMA Manual for Railway Engineering 2021
AASHTO	Construction adjacent to/under roadway (traffic loading)	2020 AASHTO LRFD Bridge Design Specifications
ADAAG	Accessibility of site, facilities, and buildings	Department of Transportation ADA Standards for Transportation Facilities 2006
PROWAG	Accessibility at sidewalks, streets, crosswalks, curb ramps, parking, and all other components of the Public ROW	Public Right of Way Accessibility Guidelines 2023
ICC	Grade crossings	IDOT BDE Chapter 17-4. Pedestrian Accommodations at Highway-Rail intersections & Pedestrian-Rail Grade Separations
IDOT/BLRS	Roadway	IDOT Highway Standards 2023 IDOT Standard Specifications for Road and Bridge Construction 2022

Guideline	Application	Source for Criteria
IDOT/BLRS (Cont'd)		Supplemental Specifications and Recurring Special Provisions 2024 IDOT Traffic Signal Design Guidelines
PACE Standards	Bus stops	PACE Transit Supportive Guidelines for the Chicagoland Region, March 2013
IDOT Drainage Manual and BLRS Manual	Roadway and ROW Drainage	IDOT Drainage Manual IDOT Bureau of Local Roads and Streets Manual
Village Stormwater Ordinance	Site drainage (Non-ROW)	DuPage County Countywide Stormwater & Floodplain Ordinance
Buy America	Procurement of all elements receiving federal funding	FTA Build America, Buy America Act (BABA 2021)

A jurisdictional diagram in Appendix A further defines the portions of the project area that these standards and criteria apply to.

2.2 Design Standards

Specific stakeholders, such as Metra and Union Pacific Railroad (UPRR) that are affected by and critical to the success of this project have specific design standards that need to be followed and incorporated into the project design.

2.2.1 Metra Standards

The following tables (2.2-1 through 2.2-5) were developed based on ridership projections received from Metra, Metra Design Guidelines, and ongoing coordination with Metra representatives. These values were considered in the design of the station, its amenities, and the surrounding site.

Table 2.2-1 - Metra Ridership Projections

Boardings (PDB)	Fall 2018 Data	20-year projections
Inbound	2408	3053
Outbound	132	167
Total	2540	3220
Peak Time Boardings (PTB)		
Inbound	414	525
Outbound	0	0
Total	414	525

Note:

1. Metra ridership projections as received from Metra were used as the basis of all calculations below.

Table 2.2-2 - Platform Dimensions

Platform Dimensions	Platform Type	Dimension
Platform Width ¹	Side Platforms	10'-0"
Platform Length ^{2,3}	Inbound Platform	680 LF (8 car)
	Outbound Platform	850 LF (10 car)

Notes:

1. Clear dimension inclusive of any light poles, benches, canopy overhangs, etc.
2. Required platform lengths were confirmed in a 10/12/2023 meeting with Metra.
3. Temporary platforms should maintain half of the platform in use at a time, per Metra 11/07/2023.

Table 2.2-3 - Waiting Areas (IB & OB)

Inbound	PTB	Pax	Required SF
Standing Waiting	525	473	4021
Heated Waiting	525	263	2236
Seated Waiting ¹	525	53	689
Total Waiting Passengers²	525	525	4710

Outbound	PTB	Pax	Required SF
Standing Waiting	0	0	0
Heated Waiting	0	0	0
Seated Waiting ¹	0	0	0
Total Waiting Passengers²	0	0	0

Notes:

1. Provide 1 seat for each Pax (passenger); SF is a planning guide, not a strict requirement.
2. Total waiting passenger load must be provided with overhead weather protection.

Table 2.2-4 – Station Amenities

Station Amenities	PDB	Guideline
Vendor Area	3220	200 SF
TVM		2
Restrooms		None ¹
Ticket Agent Office	3220	200 SF ²

Notes:

1. Per local authority
2. Not required by Metra for this service line

The following dimensions are based on Metra Standards which exceed those found in the International Construction Codes, ADAAG/PROWAG, or local jurisdictions.

Table 2.2-5 – Design Components

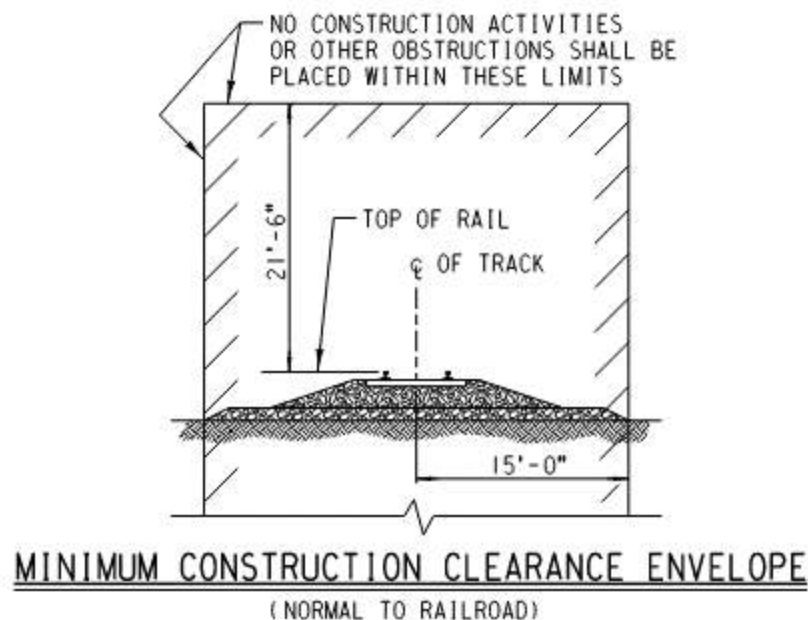
Design Components	Criteria	Comment
Ramp Slope	1:13 Max	Max Slope
Handrail Extensions	1'-2"	Top of ramp/stair
Handrail Outside Diameter	2"	
Parking Stall	8'-6" W Min	See guideline Table 6-1 for depth
Platform setback from CL of track	5'-6"	

2.2.2 UPRR Standards

Table 2.2-6 includes minimum clearance dimensions required for construction from an active adjacent railroad based on Union Pacific Railroad's current Standards. Additionally, UPRR also has a required construction envelop that cannot be fouled by construction activities or any obstructions at any time, while rail lines are active. This envelope is shown in Figure 2.1, below.

Table 2.2-6 – Required UPRR Clearances

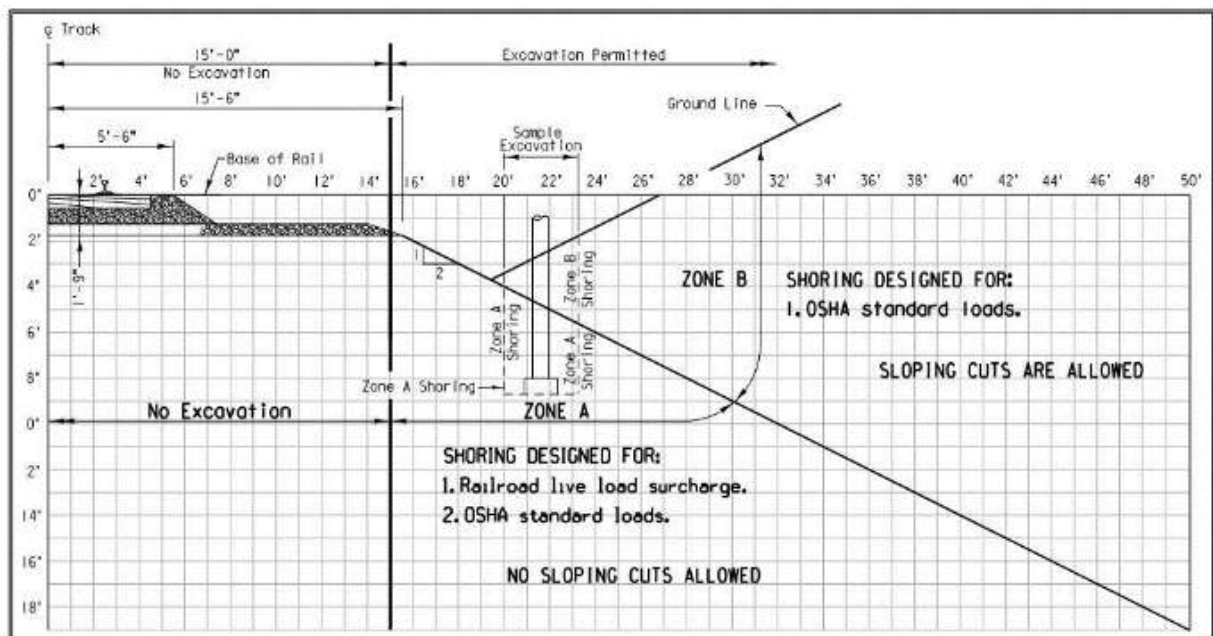
Clearance Component	Criteria	Comment
Excavation setback from CL of track	15'-0"	See Figure 2-2
Structure clearance from CL of track	15'-4"	For permanent structures. See also Figure 2-1.
Platform setback from CL of track	5'-4"	Superseded by Metra Standard
Landscape setback from CL of track	25'-0"	

Figure 2.1 - UPRR/BNSF Bridge Standards – Temporary Clearance Envelope

The proposed platforms for the stations will be constructed by UPRR forces. It is anticipated that the platforms will be constructed of cast-in-place concrete, built on-grade adjacent to each of the outermost tracks.

For construction performed for this project excluding platform and trackwork, there are strict construction clearances required from the track. As a result of these requirements, the design will require temporary shoring for construction of the pedestrian tunnel and associated ADA tunnel ramp access for open excavations near the rail lines. Given the required proximity of construction to the active tracks and the load surcharge through the soil from train vehicles, UPRR also has strict requirement for where excavation is permitted, and the types of loads shoring will be subjected to. Refer to Figure 2.2 below for guidelines on temporary shoring design.

Figure 2.2 - UPRR/BNSF Guidelines for Temporary Shoring



2.2.3 Leadership in Energy and Environmental Design (LEED)

LEED is the world's most widely used green building rating system. LEED certification provides a framework for healthy, highly efficient, and cost-saving green buildings, which offer environmental, social and governance benefits. For the 10% design investigation, a LEED Scorecard (refer to Figure 2.3 below), was completed based on the best information available currently for the project. It is expected that if pursued the project could reach Certified status, with approximately forty-three points. The Village of Glen Ellyn has expressed desires to implement sustainable best practices based on the LEED checklist but pursuing any formal LEED certification beyond the 10% level is not in the current work scope. However, the LEED scorecard will be used as a mechanism to track the implementation of best practices for this project beyond the 10% design.

Figure 2.3 - LEED V4.1 Scorecard



LEED v4.1 BD+C

Project Checklist

Y

?

N

Credit

Integrative Process

1

13

0

0

Location and Transportation

16

Credit

LEED for Neighborhood Development Location

16

Credit

Sensitive Land Protection

1

Credit

High Priority Site and Equitable Development

2

Credit

Surrounding Density and Diverse Uses

5

Credit

Access to Quality Transit

5

Credit

Bicycle Facilities

1

Credit

Reduced Parking Footprint

1

Credit

Electric Vehicles

1

4

3

0

Sustainable Sites

10

Prereq

Construction Activity Pollution Prevention

Required

Credit

Site Assessment

1

Credit

Protect or Restore Habitat

2

Credit

Open Space

1

Credit

Rainwater Management

3

Credit

Heat Island Reduction

2

Credit

Light Pollution Reduction

1

3

0

0

Water Efficiency

11

Prereq

Outdoor Water Use Reduction

Required

Prereq

Indoor Water Use Reduction

Required

Prereq

Building-Level Water Metering

Required

Credit

Outdoor Water Use Reduction

2

Credit

Indoor Water Use Reduction

6

Credit

Optimize Process Water Use

2

Credit

Water Metering

1

9

0

0

Energy and Atmosphere

33

Prereq

Fundamental Commissioning and Verification

Required

Prereq

Minimum Energy Performance

Required

Prereq

Building-Level Energy Metering

Required

Prereq

Fundamental Refrigerant Management

Required

Credit

Enhanced Commissioning

6

Credit

Optimize Energy Performance

18

Credit

Advanced Energy Metering

1

Credit

Grid Harmonization

2

Credit

Renewable Energy

5

Credit

Enhanced Refrigerant Management

1

2

11

0

Materials and Resources

13

Prereq

Storage and Collection of Recyclables

Required

Credit

Building Life-Cycle Impact Reduction

5

Credit

Environmental Product Declarations

2

Credit

Sourcing of Raw Materials

2

Credit

Material Ingredients

2

Credit

Construction and Demolition Waste Management

2

11

2

0

Indoor Environmental Quality

16

Prereq

Minimum Indoor Air Quality Performance

Required

Prereq

Environmental Tobacco Smoke Control

Required

Credit

Enhanced Indoor Air Quality Strategies

2

Credit

Low-Emitting Materials

3

Credit

Construction Indoor Air Quality Management Plan

1

Credit

Indoor Air Quality Assessment

2

Credit

Thermal Comfort

1

Credit

Interior Lighting

2

Credit

Daylight

3

Credit

Quality Views

1

Credit

Acoustic Performance

1

1

0

0

Innovation

6

Credit

Innovation

5

Credit

LEED Accredited Professional

1

0

0

0

Regional Priority

4

Credit

Regional Priority: Specific Credit

1

Credit

Regional Priority: Specific Credit

1

Credit

Regional Priority: Specific Credit

1

Credit

Regional Priority: Specific Credit

1

43

16

0

TOTALS

Possible Points: 110

Certified: 40 to 49 points,

Silver: 50 to 59 points,

Gold: 60 to 79 points,

Platir

Section 3

Civil/Site Design

This section summarizes Civil/Site features of the Project.

3.1 Summary

The civil/site work for the Glen Ellyn Metra Station involves improving the roadways, parking lots, replacing utilities, adding new passenger boarding platforms, and connecting site features surrounding the proposed Metra Station Buildings. The backbone of the proposed civil work is the roadway and parking lot reconstruction. The roads to be reconstructed include Crescent Boulevard between Main Street and Park Boulevard; Forest Avenue from the south side parking lot to Duane Street; and Forest Avenue from Pennsylvania Avenue to Crescent Boulevard. The parking lots adjacent to the Metra Station requiring reconstruction include the south side lot between Main Street and Park Boulevard, the north side lot (north of the railroad tracks), and parking lot on the west side of Forest Avenue north of Duane Street.

There are opportunities afforded when work includes roadway and parking lot reconstruction. This project will take advantage of that work and allow for utility improvements to take place. Both overhead and underground utilities are known to exist within the project limits. Existing utilities include privately owned electric duct banks, gas, internet, and telecommunications along with Village owned water mains and sanitary sewer mains. Several utilities around the proposed Metra station will remain untouched, however others will require replacement, improvement, or partial relocation. Replacement of Village owned water and sanitary mains is one of the largest portions of the planned replacement utility work.

Improvements to roadway and parking lots in the area also include the addition of new sidewalk and new passenger boarding platforms that serve the proposed Metra Station. The sidewalks will be reconstructed adjacent to the public right-of-way to maintain access to private property surrounding the reconstructed streets. The sidewalk will also be reconstructed to improve access to the Metra Station site from the adjacent parking lots, with pedestrian movements and ADA accessibility in mind. The sidewalks will tie into the boarding platforms which occupy much of the space adjacent to the tracks, allowing for fluid interconnectivity between trains and the rest of the proposed improvements.

3.2 Codes and Standards

The civil design is governed by several applicable codes and standards given below.

- IDOT Bureau of Local Roads and Streets Manual
- Glen Ellyn Municipal Code (On-street parking)
- US Access Board ADA Guidelines (<https://www.access-board.gov/ada/>)
- Metra Station and Parking Design Guidelines (parking lots)
- Pace Transit Supportive Guidelines
- Union Pacific Railroad Guidelines for Temporary Shoring

- Union Pacific Railroad Public Projects Manual
- Ten State Recommended Standards for Waterworks – 2022 (Water and Sewer Utilities)
- Illinois Administrative Code Title 35, Subtitle C, Chapter II, Part 370 Sewage Works
- Illinois Administrative Code Title 35, Subtitle F, Chapter I, Part 604 Design Operation, and Maintenance Criteria
- Illinois Plumbing Code (Service Lines)
- Illinois Administrative Code Title 77, Chapter I, Subchapter R, Part 900 Drinking Water Systems Code
- AWWA C151, Ductile Iron Pipe, Latest Edition (Water Mains)
- AWWA C900, PVC Pressure Pipe, Latest Edition (Sewer Mains)
- Standard Specifications for Sewer and Water Construction in Illinois

3.3 Civil Basis of Design

The basis of design for the reconstruction of roadways and parking lots adjacent to the proposed Metra Station is governed by IDOT Design Standards and Metra Station and Parking Design Guidelines, respectively. The design also considers requirements for grading, site attributes and the presence of the active railways. The sections below detail the criteria that for the Civil Design.

3.3.1 Roadway Design

For roadway design, the Civil Design uses the IDOT Bureau of Local Roads and Streets Manual. Specific Chapters of importance include:

- Chapter 32 Figure 32-2I – Geometric Design Criteria for Urban Local Streets
- Chapter 32 Figure 32-3C – Alignment Criteria for Urban Collector/Local Streets
- Chapter 41 Figure 41-2A-Design Criteria for Driveways

The pavement section used for reconstructed roadways matches the newly constructed Glen Ellyn Downtown Streetscape Project. For the current design, all roadway pavement is assumed to be full depth removal and replacement. Specifics of the full depth pavement are as follows:

- Surface Course: 2"
- Binder Course: 6.25"
- Base Course: 2"
- Aggregate Base Course: 1'

All proposed sidewalks shall be 5" of PCC.

The geometric design criteria used for the current design is based on the assumption that all streets within the scope of work are low speed (less than 30 mph, since speed limit is not posted) urban collectors, per IDOT:

For Horizontal Geometry:

- Minimum Right turn radius: 15'-0"
- Spacing between street corner and driveway: 30'-0"

For Vertical Geometry:

- Minimum vertical curve length: 80'-0"

For Streetscape Design:

- Minimum turn lane width: 10'-0"
- Minimum lane width: 10'-0"
- Curb type: Type B-6.12 curb
- No buffer Sidewalk minimum width: 6'-0"

One noteworthy exception to the Type B-6.12 curb occurs in the lot south of the tracks, where the proposed curb and gutter adjacent to the proposed ramp/stairs of the tunnel is Type B-6.6. This curb was chosen because it has a narrower gutter (6-inch vs. 12-inch), allowing a wider cross section of traversable parking lot pavement.

The design team performed an AutoTURN analysis on the preliminary roadway and parking lot geometry using the "2017 Dodge Ram 5500 Crew Cab" design vehicle as a template. This vehicle was as it is the largest vehicle public vehicle to regularly traverse the parking lots. It was selected because 1), it is similar four door pickup trucks owned by the Glen Ellyn Public Works and 2), Union Pacific operates a similar truck for maintenance purposes, often with hi-rail wheels to allow both road and rail travel. The AutoTURN analysis concluded this vehicle can maneuver around the site without conflicts with proposed curbs. The design team will run also additional AutoTURN analysis using AASHTO design vehicles in subsequent design phases of the project to maintain confidence in the roadway geometry.

3.3.2 Parking Lot Design

The Metra Station is currently serviced by four dedicated parking lots, with additional public parking along Crescent Boulevard and Forest Avenue. These four lots will be reconfigured to be better accommodate the new site geometry and roadway reconstruction. At the current design phase, the design team has assumed that the parking lots will have same proposed pavement design as the adjacent roadways (pavement described above in Section 3.3.1).

For the parking space reconstruction and reconfiguration, the Civil Design uses the Metra Station and Parking Design Guidelines. Specific Chapters of importance include:

- Chapter 6 Table 6-1: Parking Module Dimensions for 8'-6" Stalls
- Chapter 6 Table 6-4: Minimum Required Accessible Parking Spaces

The parking lots and street parking stalls adjacent to the Proposed Glen Ellyn Metra Station have, in several locations, been converted as part of the reconstruction work from head-on to angled parking. All proposed parking stalls have a standard width of 9'-0". However, the length of each stall is dependent on the angle of the parking. Refer to Table 3.1 below for parking stall lengths. On parallel street parking on Crescent Blvd. and Forest Ave. North, ADA spots will follow PROWAG's length requirements of 24'-0".

Table 3.1 – Angled Stall Lengths

Parking Angle	Length Perpendicular to the Driving Aisle	Drive Aisle Width
45 degrees	17'-3"	13'-0"
60 degrees	18'-6"	17'-0"
90 degrees	18'-0"	22'-0"
0 degrees (parallel) (Non-ADA)	22'-0"	22'-0"
0 degrees (parallel) (ADA)	24'-0"	22'-0"

The number of proposed parking spaces compared to the existing parking spaces currently available has decreased in number. This is due to the reconfiguration of the parking stalls from head-on to angled parking on Forest Avenue and in the South lot, and conversion from angled parking to parallel parking on Crescent Blvd. and Forest Avenue, North. Angled stalls are easier for a vehicle to enter and exit, allowing better vehicle flow at the expense of some parking capacity. In addition, angled stalls provide increased safety due to minimal wheel movement and better visibility of traffic within the lane. Parallel parking requires even less space to allow more sidewalk space and is safer for vehicles when exiting the space compared to angled street parking.

As a result of this reconfiguration of parking stalls, a number of areas lost parking capacity in order to make adequate space for the proposed pedestrian tunnel ADA access ramps, and the proposed warming shelters. Refer to Table 3.2 for a summary in the number of parking stalls per location.

Table 3.2 – Parking Stall Summary

Location	No. of Existing Parking Stalls (Non-ADA)	No. of Existing Parking Stalls (ADA)	No. of Proposed Parking Stalls (Non-ADA)	No. of Proposed Parking Stalls (ADA)
Northwest Lot	21	1	12	1
Northeast Lot	25	3	12	1
Forest Ave. North	14	0	11	1
Crescent Blvd.	61	1	31	3
South Lot West	79	3	55	3
South Lot East	84	3	56	4
Forest Ave. South	5	0	3	1
Forest Ave. South Lot	23	2	20	2
TOTAL	312	13	200	16

Even though there is a reduction of spaces, there will additional improvement. As an example, the parking design will include a minimum of four new electric vehicle charging stations. Further evaluation of these spot types will be done in subsequent design phases. Electrical design coordination and spatial considerations for these charging areas will also be determined in future design phases.

3.3.3 Roadway Grading

For grading design, the Civil Design uses the IDOT Bureau of Local Roads and Streets Manual. Specific Chapters of importance include:

- Chapter 32 Figure 32-3C – Alignment Criteria for Urban Collectors/Local Roads

Specifics of that criteria used in the proposed roadway design includes the following:

- The profiles of the roads follow a minimum grade of 0.5% and a maximum grade of 9.0%
- Parking lot entrances and exits have a desirable grade of 5.0% and a maximum grade of 10.0%.
- The Northeast parking lot North of the tracks has an entrance grade of 3.17%, an exit grade of -1.09%, and a longitudinal grade of -1.09%.
- The Northwest parking lot North of the tracks has an entrance grade of 7.25%, an exit grade of -3.04%, and a longitudinal grade of -0.93%.

3.3.4 Accessibility Considerations

The proposed civil and site design considers accessibility of critical importance to the function of the area in and around the proposed Metra Station. Sidewalks will allow for pedestrian connectivity between areas and to existing businesses along the site perimeter. Proposed sidewalks will meet all ADA requirements outlined by IDOT in terms of longitudinal slopes and cross slopes. The design team will include details of all ADA with IDOT standard details in future design phases. Design considerations for ADA compliant design for the current design are as follows:

For Sidewalks:

- Maximum cross slope: 1.5%
- Maximum running slope for 2-way pedestrian traffic ramps: 8.33%
- Maximum slope for areas intended to allow pedestrians to navigate any direction: 1.5%

3.3.5 Platforms

Metra Station and Parking Design Guidelines have been used to help define station and platform dimensions. Specific Chapters of importance include:

- Chapter 2 Table 2-1: Platform Standard Dimensions

Specifics of that criteria used in the layout out the proposed platform limits include the following:

- Horizontal distance from track centerline to edge of platform: 5'-6"
- Platform width: 10'-0" minimum
- Typical Slope: 1.7% away from tracks
- Slope at building: 1.7% away from building

To meet UPRR and Metra requirements, the horizontal distance from track centerline to edge of platform can be no closer than 5'-6". However, there are portions of the track running along the proposed platforms that contain a horizontal curve, and the clearance requirements are not given in the criteria. The design team discussed this issue with Union Pacific early in design they clarified that platform edge distance of 5'-6" should also apply for the curve tracks in the area of the proposed station. They also recommended the design team keep in contact with them regularly, so that they can inform CDM Smith if maintenance crews re-surface the rail prior to final design. The concern is if tracks are resurfaced, then horizontal shifting of the rail may occur and top of rail elevations may change. This is a design coordination item that will be focused on as design develops further.

The other key Union Pacific Design Criteria used in the civil/site design involves how close proposed work can be to the centerline of the nearest track. As mentioned in the UPRR/BMSF Guidelines for Temporary Shoring and Section 2.2.2 of this report:

- Minimum distance from adjacent track centerline to any proposed construction activity: 15'-0"

Therefore, all demolition and proposed civil/site design features (excluding the platform) must maintain this offset.

3.3.6 Bus Stops and Passenger Loading Zones

Loading zones for buses and passengers were also considered as part of the Civil Design. Required ADA access as well appropriate queueing and standing space for buses along the roadway are provided. For ADA access requirements, the U.S. Access Board, ADA Guidelines and Pace Transit Supportive Guidelines were used. Specific details of those criteria used in design include:

For ADA Passenger Loading Zones:

- Vehicle pull up zone: 20-feet by 8-feet.
- Access aisle: 20-feet by 5-feet
- Curb ramp required.

For Bus Stops Service Pace:

- Minimum 100-foot by 10-foot-wide concrete bus pad to handle the transition to the curb. The bus stop must also include a 5-foot by 8-foot boarding area.

3.3.7 Utilities

The limits of the proposed work are known to have above ground and below ground utilities throughout. Utility information comes from visual inspection on site, information provided by atlases (maps) provided or from identification in the field site survey. At our current phase of development, the design team is aware of the following utilities within the project limits, as shown in Table 3.3:

Table 3.3 – Current Knowledge of Utilities Found Within Project Limits

Type of Utility	Name of Utility Owner	Above Ground or Below Ground Infrastructure?	Is Utility Infrastructure Found Within Project Limits?
Electrical	ComEd	Both	Yes
Natural Gas	Nicor	Below	Yes
Telecom/Internet	Astound	Both	Yes
Telecom/Internet	Crown Castle	Currently Unclear	Potentially
Telecom/Internet	Verizon	Currently Unclear	Potentially
Telecom/Internet	Sprint	Currently Unclear	Potentially
Telecom/Internet	AT&T	Currently Unclear	Potentially
Water Main	Glen Ellyn	Below	Yes
Sanitary Sewer Main	Glen Ellyn	Below	Yes
Underground Duct bank Between Street Lights	Glen Ellyn	Below	Yes

Storm sewers are discussed in the Drainage section of this report.

Due to site/civil demolition scope included in this project, it is critical to identify utility locations and depths. Subsurface excavation always poses a risk to utilities when there is a lack of information. Before declaring whether a utility is safe to remain in place, a high degree of confidence in each utility's depth and location is required. At our current design level, not all utility information has been confirmed. To capture that fact, utilities have been listed below with varying degree of confidence, summarized in Table 3.4.

Table 3.4 – Current Confidence in Utility Depth and Location Found Within Project Limits

Utility (Owner)	Confidence in Location	Confidence in Depth	Source of Confidence
Electricity (ComEd)	High	Unclear	Site Survey, Atlas
Natural Gas (Nicor)	High	Unclear	Site Survey, Atlas
Telecom/Internet (Astound)	High	Unclear	Site Survey, Atlas
Telecom/Internet (Crown Castle)	Unclear if on site	Unclear if on site	No sources yet
Telecom/Internet (Verizon)	Unclear if on site	Unclear if on site	No sources yet
Telecom/Internet (Sprint)	Unclear if on site	Unclear if on site	No sources yet
Telecom/Internet (AT&T)	Unclear if on site	Unclear if on site	No sources yet
Water Mains (Glen Ellyn)	High	High	Site Survey, Atlas

Utility (Owner)	Confidence in Location	Confidence in Depth	Source of Confidence
Sanitary Sewer Main (Glen Ellyn)	High	High	Site Survey, Atlas
Underground Electric Between Street Lights (Glen Ellyn)	Low	Unclear	Atlas

The source of high confidence utility location information is typically the result of an underground scan which is marked on street level via a JULIE ticket. Low confidence utility locations are based only on a PDF Atlases and other less formal utility mapping. The source of high confidence utility depth information is typically the result of physical verification via manhole or other surface-level structure. For the water mains and sanitary sewer mains within the project area the design team has pipe invert data within the site survey.

Utility investigations will continue during the next design phase to confirm all unknown information. The design team will continue to reach out to utility owners who own infrastructure within the project limits, as well as conduct all required site visits to visually verify all location data gathered by atlases and survey. For utility depth information the design team intends to pothole select underground utilities during the next design phase, which involves digging (via vacuum truck) over top of the utility to expose its top surface. The elevation of the utility can be confirmed using this information along with the confirmed size of the utility.

Due to the age of the water and sewer mains in the project area, the Village has chosen to replace them as part of this project. The scope of work for this project includes the replacement of water mains and sewer mains and service laterals for the following locations.

- Crescent Boulevard; N Park Avenue to Main Street
- Forest Avenue; North Crescent Boulevard to South of Pennsylvania Avenue
- Forest Avenue; South of the Tracks to Duane Street

All replacements are considered “in kind” and do not include improvements or upgrades, nor the study of the existing mains and their efficiency. The Village will provide information including standard details, models, and outreach. It is also assumed that the existing water main and service lines are not lead lines. Table 3.5 below estimates the linear footage of main replacement for potable water and sanitary sewer mains, and the number of sanitary sewer laterals to be replaced. These numbers are subject to change as more utility investigations are performed. Not included below are fire hydrants, manholes, valves, and other appurtenances that are to be replaced in kind.

Table 3.5 – Water and Sewer Scope Summary

Location	Water Main (feet)	Sanitary Sewer Main (feet)	Sewer Laterals (#)	Water Laterals (#) ⁽¹⁾
Crescent Boulevard	1,200	1,100	16	17
Forest Avenue (N)	325	325	-	3
Forest Avenue (S)	250	-	-	-

(1) Although water laterals are not being replaced, this amount demonstrates the number of connections and affected properties for each location.

Based off existing record drawings, recent condition assessments from the Village, and the survey, the size and material of existing water mains and sewer mains have been determined. These will be confirmed with field investigations in the next phase of design. Refer to Table 3.6 below.

Table 3.6 – Water and Sewer Scope Summary

Location	Water Main	Sanitary Sewer Main
Crescent Boulevard	12" Ductile Iron Pipe (DI)	12" and 15" Reinforced Concrete Pipe (RCP)
Forest Avenue (N)	6" DI	8" RCP
Forest Avenue (S)	6" DI	-

The replacement pipe will adhere to the following standards. Note that the material is subject to change but will meet all applicable standards.

For Water Mains:

- Material - AWWA C151, Ductile Iron Pipe, Latest Edition
- Installation – AWWA C600, Installation of Ductile Iron Main, Latest Edition
-

For Sewer Mains:

- Material - AWWA C900, PVC Pressure Pipe, Latest Edition
- Installation – AWWA C605, Installation of PVC Pressure Pipe, Latest Edition

Assumptions and best practices for sanitary sewer and water replacement are as follows:

- Lay water main below the frost line, approximately 5 feet.
- Minimize crossings of existing utilities.
- Sanitary sewers flow by gravity.
- Provide watertight seals at-grade to manhole and valves.
- No water line shall pass through, or come into contact with, any part of a sewer manhole.

Specific design criteria as listed in the codes and standards listed in Section 3.2 above include, but are not limited to, the list below. Note that “sewer” as stated in the list refers to sanitary sewer, storm drains, and combined sewers unless otherwise specified.

- Horizontal separation between water mains and sewer mains and connections of 10-feet outside diameter to outside diameter.
- Vertical separation of 18 inches from the crown of the sewer to the invert of the water main, with the water main laid above the sewer main, when crossing or within 10-feet horizontal of the sewer.

- Minimum sanitary sewer slope of 0.22 per 100 feet for 12-inch diameter pipe and 0.15 per 100 feet for 15-inch diameter pipe.
- Sanitary sewers shall have a minimum slope of 1%.

If the horizontal and vertical separation cannot be achieved, there are design alternatives that can be implemented to waive these requirements. These will be minimized where possible due to an increased associated cost with those alternatives.

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Section 4

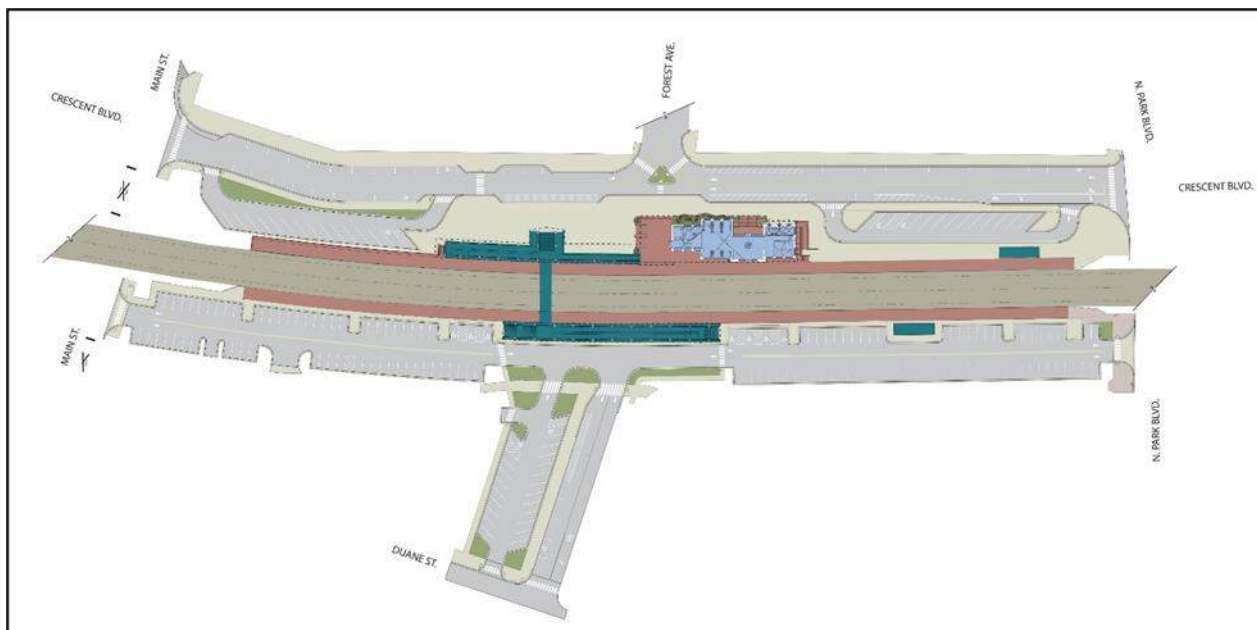
Pedestrian Tunnel Design

This section summarizes Tunnel design for the proposed pedestrian tunnel under UPRR.

4.1 Summary

As part of the removal and reconstruction of a proposed Metra Station in Glen Ellyn, the project also includes construction of a new pedestrian tunnel below the existing and active Union Pacific Railroad (UPRR) railway. The pedestrian tunnel below the tracks will not only make it easier for customers to access the station from either side of the railroad but going under in lieu of across the tracks at nearby grade crossings will save time and provides an additional level of safety. Tunneling below active railways is a challenging design task given tolerances that must be upheld to minimize track settlement. The tunnel basis of design concepts put forth are the best and most modern tunnel methods available, to minimize any affects of track settlement. Refer to Figure 4.1 for the location of the pedestrian tunnel and adjacent ADA access ramps.

Figure 4.1 - Project Design Criteria



4.2 Codes, Standards, and References

The tunnel design is governed by several applicable codes and standards given below:

- **References:**
 - International Tunnelling and Underground Space Association – Conventional Tunnelling
 - ITA Report No. 002- General report on Conventional Tunnelling Method, April 2009

- Youssef M.A. Hashash et al. Seismic design and analysis of underground structures, 2001
- U.S. Department of Transportation Federal Highway Administration
 - Technical Manual for Design and Construction of Road Tunnels – Civil Elements Appendix F – Sequential Excavation Method Example, 2010
- CDM Smith Tunnel Alternatives Evaluation Technical Memorandum, 26/1/2024
- CDM Smith Geotechnical Interpretative Memorandum, 26/1/2024
- Geotechnical Engineering Report prepared GZA GeoEnvironmental Inc, 07/6/2021.
- **Codes and Standards**
 - American Association of State Highway and Transportation Official (AASHTO)
 - Technical Manual for Design and Construction of Road Tunnels – Civil Elements – June 2010
 - AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2nd Edition, 2021
 - LRFD Road Tunnel Design and Construction Guide Specifications, 1st Edition, 2017
 - American Society for Testing and Materials International (ASTM)
 - Union Pacific, Guidelines for temporary shoring, 2021
 - AREMA 2023 - Manual for Railway Engineering.
 - ACI 544 - Guide to Design with Fiber-Reinforced Concrete
 - American Welding Society, (AWS) D1.1/D1.1M Structural Welding Code
 - Swiss Society of Engineers and Architects, Codes SIA 118, 197, 198.
 - ACI 318 - Building Code Requirements for Structural Concrete

4.3 Basis of Design

For construction of the pedestrian crossing under the UPRR, several tunneling methodologies were evaluated in the Tunnel Alternatives Evaluation memorandum, included as Appendix C. The memo discussed options, including pipe jacking, box jacking and open face tunneling. The overall evaluation included technical feasibility, risks, benefits, costs, constructability and site constraints, open face tunneling using sequential excavation method (SEM) with a pipe support system around the excavation.

SEM is commonly used in soft ground tunneling. Excavation is performed in short sections (4 to 6-feet per section) and used small conventional equipment based on the size of the tunnel. Following each excavation section, a layer of shotcrete is applied to the excavation face, and then tunnel walls to stabilize work performed. After shotcrete cure, excavations begin again, and the same process is repeated.

In ground with low shear strength, similar to what is present under the existing UPRR right-of-way, pre-support for the soil is required to limit the ground movement toward excavation (reduces ground loss) and to provide support for the loads from active train traffic and minimized the settlement of existing tracks. This will be achieved by installing a canopy of tangentially placed steel pipes, in the shape of an arch. Each pipe will be pushed hydraulically from a pit on the north side of the tracks, one at a time, through to the other side, until the full canopy is

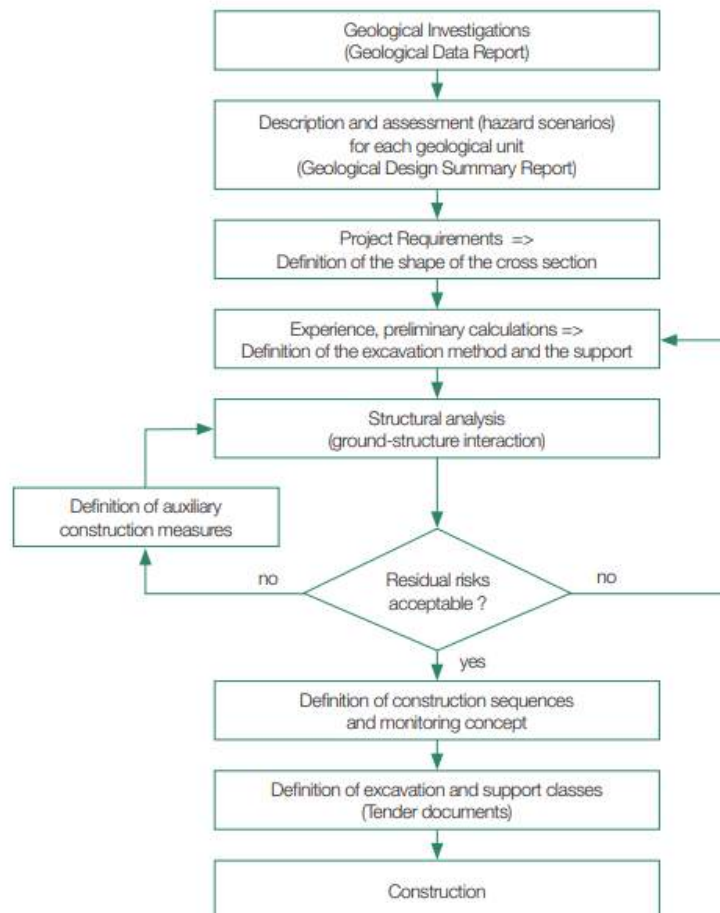
installed. Following completion, each pipe will be filled with grout and allowed to cure before any excavation via SEM takes place.

4.3.1 Analysis and Design Methodology

Further development of the tunnel design will be executed through a methodical and structured approach. The initial phase involves defining the ground condition and behavior, followed by identifying the excavation and support classes. Upcoming phase of the design development will include numerical modeling for soil/structure interaction using Plaxis 3D to develop earth loads, examine temporary support of the excavation needs, establish the tunnel mining sequence, and determine the appropriate advance rate. Additionally, temporary face stability methods will be considered, and more realistic ground settlement will be estimated and documented in calculations and technical memoranda for review by the Village of Glen Ellyn and UPRR.

The structural analysis of the tunnel will be conducted using SAP2000 or similar software as part of the design process and aid in finalizing excavation support and permanent tunnel lining design. The workflow process for this work is depicted below in the workflow in Figure 4.1 below.

Figure 4.2 – Tunnel Design Workflow



Project specific tunnel (geotechnical and structural) design criteria will be developed for use during the final design phase to include all key elements described in the following subsections. The design methodology document will detail all requirements for analysis and design of the tunnel. The design will focus on the establishing requirements for analysis and design for the following considerations:

- Strength and serviceability of the tunnel lining.
- Allowable deformation, settlements, and impact to the railway's tracks.

4.3.2 Structural Design Loads

The loads used for the design of the pedestrian tunnel will adhere with the requirements set forth in Section 2.2.3, Chapter 8, AREMA Manual for Railway Engineering 2023 (AREMA). Specific loads defined and required in that section of AREMA include the following:

- D= Dead Load
- L= Live Load (Cooper E-80)
- I= Impact Load ($I = 225\sqrt{L}$, L is the span length in feet)
- E= Earth Load (derived from Plaxis analysis)
- B= Buoyancy
- EQ= Earthquake (Seismic)

4.3.3 Load Combinations

The Load Combinations used for the design of the tunnel structure will follow the requirements set forth in AREMA:

- Chapter 8 for concrete elements. The applicable load combinations have been distilled down to:
 - $1.4 (D + 5/3(L+I) + E)$
 - $1.8 (D + L + I + E)$
 - $1.4 (D + E)$
 - $1.0 (D+E+B+EQ)$
- Chapter 15 for structural steel elements. The applicable load combinations have been distilled down to:
 - $DL+LL+I+E$ (with an allowable stress factor of 100%)

4.3.4 Materials

This section describes the materials to be used for the Glen Ellyn station pedestrian underpass.

Concrete: For underground concrete structures (plain concrete, reinforced concrete, and fiber-reinforced shotcrete), the latest edition of the ACI Code Requirements for Engineering Concrete Structures - ACI-318 will be used. All codes and regulations of ACI Manual of Concrete Practice will be used.

The minimum strength requirements for concrete will be as follows:

- | | |
|---------------------------------|--------------------------------|
| • Cast-in-Place Concrete: | $f'_c = 5,000$ psi, at 28 days |
| • Lean Concrete: | $f'_c = 2,000$ psi, at 28 days |
| • Fiber Reinforced Shotcrete: | $f'_c = 5,000$ psi, at 28 days |
| • Reinforcing Steel: | ASTM A615, $F_y=60$ ksi |
| • Welded Wire Fabric (smooth): | ASTM A185, $F_y=65$ ksi |
| • Welded Wire Fabric (deformed) | ASTM A974, $F_y=65$ ksi |

Structural Steel: For underground structural steel not subjected to vehicular loading, the current edition of the AISC Manual of Steel Construction, Allowable Stress Design, will be used. All welding of steel will conform to AWS code, latest edition.

The minimum strength requirements for structural steel will be as follows:

For Hot-Rolled Structural Shapes, Plates, and Bars:

- ASTM A36, $F_y=36$ ksi, $F_u=58$ ksi- Structural Section, Bars, Plates
- ASTM A572, Grade 50, $F_y=50$ ksi, $F_u=65$ ksi - Sheet piling, Structural Section
- ASTM A588, Grade 50, $F_y=50$ ksi, $F_u=70$ ksi - - Sheet piling, Structural Section

For Structural Tubing and Steel Pipe:

- ASTM A500, Grade B, $F_y=42$ ksi, $F_u=58$ ksi
- Steel pipe < 12-inch-diameter: ASTM A501, $F_y=36$ ksi, $F_u=58$ ksi
- Steel pipe 12 to 24-inch-diameter: ASTM A53, Type E or S, Grade B, Black, $F_y=35$ ksi, $F_u=60$ ksi

For temporary Glass fiber bars:

- Solid Round Glass Fiber Bar 1-to-1.27-inch diameter ASTM D7957 Ultimate tensile force 66.8 kip to 98.2 kip

4.3.5 Geotechnical Information

The geotechnical investigation for this project has been completed by GZA GeoEnvironmental, Inc. (see Appendix E). A geotechnical interpretive memorandum was developed to support analysis and design for tunneling conditions. The memorandum is included in Appendix E.

Soils encountered in proximity of the proposed pedestrian tunnel consists of loose/soft soils that may flow or unravel when tunneling, unless pre-support is provided to mitigate risk of excessive settlement.

The water table in proximity of the proposed tunnel is observed between 16.9-feet and 17.3-feet below existing grade (Elevation 726.3 to 727.2). The proposed bottom of the tunnel construction is set at elevation 722.5. Contractor will need to perform groundwater dewatering during construction.

Section 5

Drainage Design

This section summarizes Drainage design in the area adjacent to the proposed Glen Ellyn Metra Station.

5.1 Summary

As part of the work to design a new Metra Station at Glen Ellyn, the project also includes roadway and drainage improvements. The area surrounding the proposed development consists of small businesses and residential buildings, with existing land cover in the area nearly 90% impervious. Topography in the area is generally flat but does have some slope toward the northeast. Surface runoff within the project area is captured by storm inlets and conveyed through the Glen Ellyn's storm sewer system. All runoff generated within the project site is ultimately routed to Lake Ellyn, via the municipal storm sewer system. An exhibit depicting the drainage area of the overall site is included in Appendix A.

The specific existing drainage infrastructure is comprised of a series of storm sewer lines, with three lines crossing under UPRR rail lines. The storm sewer system is complex, comprised of interconnected systems with structures that split flow in multiple directions. The Village of Glen Ellyn conducted a Hydrologic and Hydraulic Report in 2021 (called the *Pennsylvania Avenue Hydrologic and Hydraulic Analysis Revised 4/9/2021*) that identified storm sewer consolidation and improvements. The drainage design will incorporate a portion of improvements proposed in the report, into this design.

5.2 Codes and Standards

The Village of Glen Ellyn (VGE) is a Complete Waiver Community, which means they have adopted the DuPage County Countywide Stormwater & Floodplain Ordinance and administer it. There are no floodplains or wetlands on site and therefore coordination with the Illinois Department of Natural Resources (IDNR) or U.S. Army Corps of Engineers (USACE) will not be required.

The Village, along with Metra and Union Pacific Railroad (UPRR) have shared jurisdiction over the design approval for the Metra Station elements. The pipe jacking and pipe filling/abandoning that is proposed underneath the railroad will be permitted through UPRR.

The National Pollutant Discharge Elimination System (NPDES) permit program will require that the project plans include a Stormwater Pollution Prevention Plan (SWPPP) as the project proposes more than one acre of disturbance.

In addition, the drainage design will adhere to the following criteria:

- IDOT Drainage Manual
- IDOT Bureau of Local Roads and Streets (BLRS) Manual
- Village of Glen Ellyn Guidelines:
 - Village Stormwater Ordinance (and DPCCSFO by adoption)
 - Stormwater Permit Flow Chart document
 - Drainage Plan Guidelines document

- Grading Plan Guidelines document
- Storm Drainage and Sanitary Sewers Ordinance

5.3 Drainage Basis of Design

As part of the drainage design, roadway inlets spacing will follow the IDOT Bureau of Local Roads. The design will minimize inlets and system additions where possible. The proposed storm sewer system will be consolidated where feasible within the project limits. It is anticipated that a 10-year, Bulletin-75 design criteria will be used for drainage design. Additionally, Village standard structures and castings will be used in the design for this project.

For Stormwater Management design, post construction BMPs are not anticipated, due to the expected reduction in impervious surfaces on the project. Final impervious tabulations will be conducted as design progresses.

For Erosion and Sediment Control, it is anticipated that the NPDES SWPPP will govern temporary control measures. These measures are anticipated to include inlet protection, silt fence, street sweeping, and washout area(s).

Section 6

Landscape Design

This section summarizes Landscaping features of the Project.

6.1 Summary

The landscape design for the Glen Ellyn train station is intended to provide a safe and comfortable environment for people of all ages and abilities to gather. The primary focus of the design is the creation of a plaza adjacent to the station that will include a variety of seating options, including seat walls, benches, and moveable bistro tables and chairs. On a daily basis the plaza's configuration creates places for commuters to wait for their train and downtown shoppers and employees to take a lunch break while also allowing movement through the space. The plaza's flexible layout also creates an area for programming, small events, incorporation of a food kiosk, and an overflow location for the proposed Village park to the south.

Beyond creating a new plaza space, the landscape design will help unify the downtown with new street trees in curbed planters, low maintenance native planting, and high-quality materials that will complement both the train station and surrounding streetscapes. The design will establish a setting for the new station, add an enticing visual aesthetic for commuters, and create a series of comfortable spaces for residents and visitors to enjoy.

6.2 Codes and Standards

- Title 10 - Zoning Code: 10-4-3. - CR Conservation/Recreation District. Per the provisions of the ordinance, the open space and passive recreation areas comprising the landscape design component of the project are all permitted uses in this district.
- Title 4 - Building Regulations: Chapter 8 – Tree Preservation. Per the provisions of the ordinance, standards shall be met for the preservation and removal of existing trees and planting of new trees, shrubs, and other plants on the property.
- All regulations for site accessibility standards including ADA and PROWAG compliance will be observed as well as additional regulations for public health, safety, and welfare.
- Best practices for environmental sustainability and stormwater management will be taken into account and incorporated into the site and landscape design as applicable.
- UPRR setback for vertical landscaping of 25' from CL of track will be observed.

6.3 Basis of Design

The materials envisioned for the concepts shown include curbed granite planters and pedestrian lights along Crescent Boulevard to match the character of recently-completed downtown streetscapes. Within the plaza, concrete or masonry seatwalls with landscaping and stepped poured concrete terraces or seating would outline the primary plaza and gathering spaces. A

large portion of the plaza and sidewalk along Crescent is envisioned to be comprised of clay pavers, including permeable pavers if necessary for stormwater management, while other hardscape surfaces would be concrete. Other elements within the train station area include moveable planters, benches, bistro tables, bike racks, and potential locations for art.

The landscape plantings around the train station include shade trees, ornamental trees, shrubs, perennials, ornamental grasses, and groundcover with a focus on native species. The moveable planters would provide the opportunity for seasonal displays. It is noted that with the removal of the large memorial oak tree, a new memorial tree could be re-dedicated in a similar location; this tree could be a larger caliper tree (6" to 8") to provide an immediate impact.

Other landscape areas within the project limits include curbed foundation landscape areas, new parking lot islands, and adjacent parking lot buffers. These would include hardy, low maintenance plant species with appropriate shade trees, ornamental trees, evergreen and deciduous shrubs, perennials, ornamental grasses, and groundcovers, depending on the location. Irrigation is recommended in raised planters, at street trees, and in at grade planting bed areas.

Potential hardscape and site materials are depicted in Appendix A.

Section 7

Structural Design

This section summarizes the Structural design for the proposed Glen Ellyn Metra Station.

7.1 Summary

The proposed Glen Ellyn Metra Station is currently designed as structural steel framed building clad in masonry. For the main stationhouse, long-span trusses will make of the roof structure and span in the north-south direction. Four (4) larger decorative arches (two each on the north and south faces) will be constructed of reinforced cast-in-place concrete and provide lateral system stability to the structure. The building will be founded on cast-in-place concrete spread footing.

In addition to the stationhouse, a canopy, consisting of a series of steel trusses moment frames, will cover the entirety of the ADA Access ramps to the pedestrian tunnel on both the north and south sides of the UPRR tracks.

7.2 Codes and Standards

The strength, serviceability, and quality for materials and design procedures will conform to the codes, standards, and references listed below. In case of conflicting requirements, the requirements most applicable to the work will be used. Additional references and standards will also be used if needed for specific design components:

- International Code Council 2021 International Building Code, with Village of Glen Ellyn Amendments.
- American Society of Civil Engineers ASCE/SEI 7-16: Minimum Design Loads and Associated Criteria for Buildings and Other Structures.
- American Concrete Institute ACI 318-19: Building Code Requirements for Structural Concrete.
- American Institute of Steel Construction ANSI/AISC 360-16: Specification for Structural Steel Buildings.
- American Wood Council ANSI/AWC NDS 2018: National Design Specification (NDS) for Wood Construction with Supplement.
- American Wood Council ANSI/AWC SDPWS 2021: Special Provision for Wind and Seismic.
- The Masonry Society 402-2016: Building Code for Masonry Structures.
- AREMA Manual for Railway Engineering 2021.
- 2020 AASHTO LRFD Bridge Design Specifications.

7.3 Structural Basis of Design

The gravity-resisting system of the proposed building will consist of steel W-shaped columns supporting long span steel trusses that will span transversely over the proposed station building

in the north-south direction. Each pair of columns will be connected to a single long span truss integrated with moment connections to support the roof structure and provide transverse stability to the building. The exterior roof surface and interior soffit of the roof will receive additional bracing with the use of sheathing.

To resolve structural forces in the east-west direction of the building, the four reinforced concrete arches (two on each side of the building) will act as shear walls to collect force as act as the lateral force resisting system.

The canopy that is positioned over the ADA Access ramps to the pedestrian tunnel on both the north and south sides of the UPRR tracks will consist of a series of steel and concrete composite moment frame (long-span steel trusses connected to cast-in-place reinforced concrete walls).

The canopy will be supported on retaining walls designed per AREMA. The retaining walls will be designed for global stability to resist the surcharge created by the adjacent train tracks.

Additionally, the walls will be designed to resist the at rest soil pressure to provide additional stiffness and minimize deflection. Prior to construction of the cast in place concrete retaining walls sheet piling will be installed to prevent construction adversely affecting the operation of the railroad tracks.

Given the condition of the native soils found in the area of the proposed station, building foundations will not be able to bear directly on this soil, as doing so will cause slow unpredictable settlement. There are several design options that are currently being considered to avoid this, including over-excavation (removal and replacement of unsound soil), deep spread footing foundations, helical piles, geo-grid reinforced fill, or application of other improvement techniques. The structural design will coordinate with our geotechnical engineers and present several options to the Village for a proposed foundation system, as design development continues.

7.3.1 Structural Design Loads

The building structural design will be designed with a specific series of risk and load data:

For Risk Category:

- The building will be design using Risk Category III.

For Roof Live Load:

- Ordinary pitched roof = 20 psf.

For Snow Rood Load Data:

- Ground snow load, $p_g = 25$ psf.
- Snow exposure factor, $C_e = 1.0$.
- Snow load importance factor, $I_s = 1.1$.
- Thermal Factor, C_t (main station) = 1.0.
- Flat-roof snow load, p_f (main station) = 19.3 psf.
- Thermal Factor, C_t (open air structures) = 1.2.
- Flat-roof snow load, p_f (open air structures) = 23.1 psf.

- Slope factor, $C_s = 1.0$.

For Wind Design Data:

- Basic design wind speed, $V = 114$ mph.
- Allowable stress design wind speed, $V_{asd} = 88.3$ mph.
- Wind Exposure = Category C.
- Applicable internal pressure coefficient = To Be Determined.

For Seismic Design Data:

- Seismic importance factor, $I_e = 1.25$.
- Mapped spectral response acceleration, $S_S = 0.129$.
- Mapped spectral response acceleration, $S_1 = 0.064$.
- Site Class = D.
- Design spectral response acceleration, $S_{DS} = 0.137$.
- Design spectral response acceleration, $S_{D1} = 0.103$.
- Seismic design category = B.

7.3.2 Materials

This section describes the materials to be used for structures related to the Glen Ellyn Metra Station building (excluding the tunnel and concrete retaining walls).

Concrete:

- Class A: $f'_c = 2,500$ psi: Fill, duct encasement, where noted.
- Class B: $f'_c = 3,000$ psi: Miscellaneous civil structures, where noted.
- Class E: $f'_c = 4,500$ psi: Structural concrete.
- Reinforcing steel: $f_y = 60,000$ psi: ASTM A615, Grade 60.
- Cement: ASTM C595, Type IL

Non-structural Concrete Masonry:

- Concrete masonry unit (CMU): ASTM C90, Type 1, normal weight.
- Mortar: $f'_c = 2,000$ psi: ASTM C270, type S.
- Grout: $f'_c = 2,500$ psi: ASTM C476.
- Prism strength: $f'_m = 2,000$ psi.
- Reinforcing steel: $f_y = 60,000$ psi: ASTM A615, Grade 60.

Structural Steel:

- Structural WF shapes: ASTM A992.
- Other structural shapes: ASTM A36.
- Structural steel plates: ASTM A36, or ASTM A572 where required.
- Hollow structural sections (HSS): ASTM A500, Grade C.
- Pipe: ASTM A53, Grade B.

- High strength bolts: ASTM F3125, Grade A325 (minimum 5/8-inch diameter).
- Cast-in anchor rods: ASTM F1554, Grade 55 (minimum 3/4-inch diameter).
- Welding electrode: Type E70XX (minimum strength of 70 ksi).

7.3.3 Geotechnical Information

The geotechnical investigation for this project has been completed by GZA GeoEnvironmental, Inc. Soil encountered in the project area of the new station exhibited low shear strength fill ranging in depths from 8.5-feet to 13.5 feet below existing grade. Soils generally consisted of fill soil underlain with fine grained soils (clayey and silty soils) with occasional layers of sandy or gravely soils. Refer to Appendix E for the report for additional details.

Section 8

Architectural Design

This section summarizes Architectural design for the proposed Glen Ellyn Metra Station.

8.1 Summary

The architectural design includes an approximately 3,500 GSF inbound station with a heated and cooled waiting area, a covered outdoor loggia, single occupant unisex restrooms, vendor area, janitor's closet, electrical room, fire sprinkler riser closet, and mechanical equipment space.

Two enclosed warming shelters are provided to match the architectural style and finish of the inbound station.

The architectural design also includes the design of ramps, stairs, canopies, and finishes for the tunnel access between inbound and outbound platforms.

8.2 Codes and Standards

The design must comply with the following building codes per Title 1, Chapter 1 of the Code of Ordinances Village of Glen Ellyn, IL, (410 ILCS 25/) Environmental Barriers Act, and (20 ILCS 3125) Subpart B of the Illinois Energy Conservation Code.

- 2021 ICC International Building Code with Village of Glen Ellyn Amendments
- 2021 ICC International Mechanical Code with Village of Glen Ellyn Amendments
- 2021 ICC International Fuel Gas Code with Village of Glen Ellyn Amendments
- 2017 National Electrical Code - NFPA 70 with Village of Glen Ellyn Amendments
- 2021 ICC International Fire Code with Village of Glen Ellyn Amendments
- 2018 Illinois Accessibility Code
- Illinois State Plumbing Code
- 2009 ANSI 117.1 with village of Glen Ellyn Amendments
- 2021 International Energy Conservation Code

In addition to the above referenced codes, the station design must allow comply with the following Agency Standards:

- Metra Station Design Standards
- Applicable Union Pacific Railroad Standards
- Applicable Illinois Commerce Commission ICC standards
- Applicable Illinois Department of Transportation (IDOT) Standards

Note: According to city officials, Glen Ellyn will adopt IBC 2021 with local amendments in lieu of the IBC 2018 as listed on the Villages' "Adopted Building Codes, Ordinances, and Applicable Regulations" form.

8.2.1 Code Analysis

The proposed inbound station building is classified as A-3 type occupancy “Waiting areas in transportation terminals” with accessory occupancies for the vendor space. It is a one-story building with a sprinkler fire suppression system adhering to a Type II-B construction type. The architectural design followed the International Building Code (IBC), which specifies several key building attributes shown below:

IBC Table 504.3/504.4 /506.2 - Allowable Building Heights and Number of Stories and Allowable Area, shown below in Table 8.2-1, lists limiting dimensions and areas permitted.

Table 8.2-1 – Building Height and Area Limitations

Requirement			Actual
Group		Type II-B	
	Height	75'	34'
A-3 (sprinklered 1-story)	Stories	3	1
	Building Area	38,000	3,587

IBC Table 601- Fire-Resistance Rating Requirements for Building Elements, shown in Table 8.2-2, lists fire resistance rating of specific building elements in hours.

Table 8.2-2 – Fire Resistance Ratings

Building Element	Type II-B
Primary structural frame	0 (zero)
Exterior Bearing Walls	0 (zero), See Section 704.10
Interior Bearing Walls	0 (zero)
Nonbearing walls and partitions (exterior)	See Table 705.5
Nonbearing walls and partitions (interior)	0 (zero), unless otherwise required
Floor construction and associated secondary members	0 (zero)
Roof construction and associated secondary members	0 (zero)

IBC Table 509.1- Incidental Uses, shown in Table 8.2-3, list required fire separation or protection of a space based on use. Based on this criteria, automatic sprinkler system will be provided through the proposed station.

Table 8.2-3 – Fire Separation/Protection

Room or Area	Separation and/or Protection
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic sprinkler system
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	1 hour or provide automatic sprinkler system

8.2.2 Zoning Analysis

For zoning, the existing site is in the CR Conservation and Recreation District which only permits open space uses and passive recreation areas. We anticipate the need for a special use permit for the station.

During the Phase I portion of the project, it was determined by the SHPO that the existing station is eligible for listing on the National Historic Register. A Memorandum of Understanding is currently being finalized between the Village of Glen Ellyn and FHWA/IDOT/SHPO that provides the following historical resource mitigations:

1. The Village of Glen Ellyn will install interpretive signage or plaques near the former site of the demolished Metra Station. The signage/plaques may include the following: historical information about the station; impacts the station had on the area; and architectural/engineering significance of the station. This list of topics is not meant to be comprehensive but is provided to guide the design of the signage/plaques. Design of the signage/plaques will be completed by the Village of Glen Ellyn with input solicited from the Village of Glen Ellyn Historic Preservation Commission on content, material selection, size, signage location, and other pertinent details. The location and content of the signage/plaques will be reviewed and approved by IDOT and SHPO prior to production and installation. Any changes, proposed by IDOT or SHPO in either location or content must be received within 45 days of receipt. After that, it will be presumed the location and content of the signage/plaques is sufficient.
2. The mural, which is painted on sheets of plywood fastened to the north and west walls of the current station, will be professionally removed before demolition of the current station. The mural will be protected and stored in a climate-controlled location. Following completion of the Project, the mural, or portions thereof, will be installed preferably within the proposed new Metra station if practical or in an alternative publicly accessible facility (such as the Glen Ellyn Village Hall, Glen Ellyn History Center, Glen Ellyn Public Library). As the mural was specifically sized to the space available within the existing Metra Station, the mural may require minor alterations to accommodate reinstallation.

8.3 Architectural Basis of Design

The proposed inbound station building will consist of a structural steel frame with CMU block backup walls, concrete arches, exposed steel trusses, exposed interior roof wood deck, continuous insulation and fluid applied air barrier, sloped roofs, insulated glass unit storefronts with operable windows, metal soffits, and various veneers as described below:

- Steel Frame with CMU Block Backup Walls: Primary structural steel support and secondary non load bearing concrete masonry unit blocks.
- Concrete Arches: The project incorporates concrete arches with adhered stone and cast stone veneer. These arches will be structural load bearing.
- Exposed Steel Trusses: Visible steel structural trusses within the interior.
- Exposed Interior Wood Roof Deck: A wooden horizontal surface, offering a natural and visually appealing ceiling finish.

- Continuous Insulation: Rigid foil-faced polyisocyanurate board boards installed continuously on the exterior over the fluid applied air barrier.
- Architectural Dimensional Shingle Roof System: Roof covering made of 30-year architectural dimensional shingles, applied over a roof membrane, cover board, roof insulation, and vapor retarder.
- Insulated Glass Unit Storefronts System: Exterior vision and spandrel glass panels designed for a anodized aluminum captured mullion storefront system with operable windows. The spandrel glass panels will also include mineral wool board insulation and a prefinished sealed metal back pan.
- Metal Soffit System: The underside of roof overhangs is proposed in metal panels suspended from a cold formed metal framed ceiling with glass-mat gypsum sheathing, fluid applied air barrier, and mineral wool board insulation.
- Brick Veneer System: External single or double layer of brick and cast stone within a cavity wall system with an air cavity, rigid insulation, and fluid applied air barrier.
- Cast Stone Veneer System: Cast stone within a cavity wall system with an air cavity, rigid insulation, and fluid applied air barrier.
- Adhered Stone Veneer System: Manufactured stones adhered directly to the building's CMU block or concrete walls with a mortar setting bed, lath, and fluid applied air barrier.
- Interior Finishes: The interior of the inbound station building is proposed with a terrazzo flooring in public spaces. The walls in public spaces are proposed in a combination of thin masonry veneer wainscoting to match the exterior aesthetic and painted walls to harmonize with the overall interior. In the restrooms, tile is proposed on all walls and floors with a cove base.
- Site Structures (Canopies): The site structures incorporate a covered roof at the ramp and stairs, mirroring systems found in the inbound station building. The canopies are proposed with exposed steel roof trusses, 30-year architectural dimensional shingle roofing, and exposed wood roof deck, and brick and stone veneer at the columns. Additionally, the proposed railings for the site are intended to be galvanized and painted.

Section 9

Electrical Design

This section summarizes the Electrical design for the proposed the Glen Ellyn Metra Station and Multimodal Access Improvements Project.

9.1 Summary

The existing Glen Ellyn Metra Station will be demolished, and a new station with a new electrical distribution system will be developed as part of the Multimodal Access Improvement Project. This will include, but is not limited to, a new ComEd electrical service, new electrical distribution equipment, new interior and exterior lighting, new wiring/conduit/duct bank, new fire alarm system, new security system, and accommodations for Voice of Metra (VOM) equipment.

9.2 Codes and Standards

The relevant adopted codes and standards pertaining to the building Electrical systems include, but are not limited to, the following codes and standards:

- 2017 Glen Ellyn Code of Ordinances
- 2017 National Electrical Code with amendments listed in Glen Ellyn Adopted Building Codes
- 2018 International Energy Conservation Code with amendments listed in Glen Ellyn Adopted Building Codes
- 2018 International Building Code with amendments listed in Glen Ellyn Adopted Building Codes
- 2018 International Fire Code with amendments listed in Glen Ellyn Adopted Building Codes
- Metra Station and Parking Design Guidelines
- 2013 ASHRAE 90.1
- 2018 IDOT Bureau of Local Roads and Streets Manual
- ANSI/IES RP-8-22

9.3 Electrical Basis of Design

The current electrical design assumes that the existing electrical service will be required to be replaced with a larger service to accommodate the proposed electrical demand of the new station and platforms. The station electrical design will include power and lighting plans, an electrical one-line diagram, a fire alarm design, and a security camera layout and specification.

Photometric and site lighting plans will be provided at the parking lots, plaza, platforms, pedestrian underpass, warming shelters, along Crescent Boulevard from Main Street to Park Boulevard, and along Forest Avenue from Pennsylvania Avenue to Duane Street. These plans will include new and existing lighting to meet required illumination per applicable standards. The fixtures and poles used in these locations will follow the existing Glen Ellyn streetscape standard.

The illumination in the parking lots, plaza, platforms, pedestrian underpass, and warming shelters will be evaluated against Metra Station Design Guidelines (Table 4-1 Lighting Illuminance Values and Control Criteria). The illumination of Crescent Boulevard and Forest Avenue will be evaluated against IES RP-8-22 (Table 11-1 Lighting Design Criteria for Streets).

Security plans with a camera layout will be provided for the platforms, pedestrian tunnel area and stand-alone warming shelters. These will be connected back to a security panel in the station electrical room.

The locations of VOM devices (e.g., station displays, speakers) will be shown at the station, platform, and warming stations. It is assumed Metra will be furnishing and installing all VOM equipment and associated wiring. The design will indicate the locations of all VOM equipment (including a VOM control cabinet) and will direct the contractor to provide empty conduits with pull-strings to all of this equipment.

Design coordination with Commonwealth Edison (ComEd) have not yet taken place. To initiate coordination with ComEd, a Tax ID number, an account number, and a meter number is required. Discussions with Union Pacific representatives have been started with the goal of obtaining this information. Once this information is received, ComEd will be contacted to initiate formal design coordination and development. During these conversations, the available voltages in the area will be determined. In anticipation of the availability of 208-volt 3 phase power with ComEd, the design has allocated an area for a proposed ComEd transformer enclosure and meter enclosure in an area east of the station.

A new main distribution panel will be installed in the station electrical room which will feed a vendor panel, a lighting panel and some of the larger 208V, 3P loads such as sump pumps and air handling units. The vendor panel will be located in and reserved for loads in the vendor space only. The lighting panel will be used to provide 120V, 1P and 208V, 3P power to building loads such as lighting, receptacles, security, Voice of Metra equipment, HVAC/pumping equipment, etc.

Section 10

Mechanical Design

This section summarizes the building mechanical design for the proposed Glen Ellyn Metra Station. The mechanical design includes HVAC, plumbing, and fire protection designs.

10.1 Summary

The HVAC design for the proposed Glen Ellyn Metra Station will include a central split system heat pump unit providing heating, cooling, and ventilation systems for the Inbound Station; dedicated standalone HVAC system to provide cooling for the electrical room located in the Inbound Station; and infrared unit heaters and exhaust fans providing heating and ventilation systems for the warming shelters. Electric heat will be utilized for heating in all spaces. The Inbound Station will include hot and cold potable water systems, a sanitary drainage system, and an automatic wet sprinkler system. The plumbing design will also include sump pumps and associated piping within the manhole sump pit located at the south end of the tunnel.

Per the recommendations of the Geothermal Feasibility Study, the building mechanical design will not incorporate any elements of a geothermal system. Refer to Appendix B for additional information.

10.2 Codes and Standards

The building mechanical design is governed by several applicable codes and standards given below:

- 2021 International Building Code with Village of Glen Ellyn Amendments
- 2021 International Mechanical Code with Village of Glen Ellyn Amendments
- 2021 International Fire Code with Village of Glen Ellyn Amendments
- 2021 International Fuel Gas Code with Village of Glen Ellyn Amendments
- 2021 International Energy Conservation Code
- Current Illinois State Plumbing Code
- Metra Station Design Standards
- American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) Standards
- Sheet Metal and Air Conditioning Contractors National Association (SMACNA) Standards
- National Fire Protection Association (NFPA) Standards
- American Society of Plumbing Engineers (ASPE) Standards and Handbooks
- Buy America Provisions

10.3 HVAC Basis of Design

The HVAC system for the Inbound Station will include a constant-volume split system air handling unit, with the fan unit located in the mechanical room. The air handling unit will include a supplemental electric resistance heating coil and a direct expansion (DX) cooling coil with refrigerant piping routed to an outdoor condensing/heat pump unit. Outside air for ventilation will be ducted from a wall-mounted intake louver to a mixing box inside the air handling unit. Airside economizer mode will be included with the air handling unit, as required by the Energy Conservation Code. Condensate drains from the air handling unit will be schedule 40 PVC and routed to a floor drain in the mechanical room. Ductwork associated with the air handling unit will be sized for low pressure applications and will be constructed of galvanized steel. Ductwork will be exposed in the main waiting area of the Inbound Station. The toilet rooms will be served by dedicated exhaust fans, and the exhaust fan operation will be interlocked with the central air handling unit. The electrical room will be served by a dedicated ductless split system heat pump unit, sized for 100% of the anticipated cooling load. All HVAC controls will be an open protocol BACnet IP based direct digital control (DDC) system.

The HVAC system for the Warming Shelters will include electric quartz lamp infrared heaters to provide winter heating. Ventilation will be provided naturally via the operable doors, as well as an exhaust fan and intake louver, which will be provided for summer cooling ventilation. The exhaust fan will be thermostat-controlled with a setpoint of 80° F. No air conditioning will be provided for the Warming Shelters.

10.3.1 Climate Design Criteria

The HVAC system for the proposed station will be sized per local outdoor design conditions shown in Table 10.3-1, based on weather data for Chicago, Illinois.

Table 10.3-1 - HVAC Design Criteria, Outdoor Conditions

Parameter	Design Criteria
Winter Design Temperature	Dry Bulb: -6.0°F
Summer Design Temperature	Dry Bulb / Mean Coincident Wet Bulb: 91.0°F / 74.0°F
Latitude/Longitude	42.0 N / 87.9 W

10.3.2 Space Design Criteria

The HVAC design will provide heating, cooling, and ventilation to the following type of building spaces in the proposed station as shown in Table 10.3-2 below:

Table 10.3-2 - HVAC Design Criteria, Indoor Conditions

Area	Summer		Winter		Pressurization Type
	Temp (°F)	Minimum Outside Air	Temp (°F)	Minimum Outside Air	
Inbound Waiting Areas	72	5 CFM/person and 0.06 CFM/ft ²	70	5 CFM/person and 0.06 CFM/ft ²	Positive
Vendor Area	72	5 CFM/person and 0.06 CFM/ft ²	70	5 CFM/person and 0.06 CFM/ft ²	Positive
Warming Shelters	Max 10°F above ambient	Natural Ventilation/ Summer temperature maintenance	55	No	Neutral
Mechanical Room	85	No	55	No	Neutral
Electrical Room	80	No	55	No	Neutral
Toilet Rooms	72	70 CFM/Water Closet	70	70 CFM/Water Closet	Negative

10.4 Plumbing Basis of Design

The plumbing system for the Inbound Station will include commercial grade plumbing fixtures located at the toilet rooms and janitor closet. These fixtures will include water closets, lavatories, electric water cooler, mop sink, water heaters, and floor drains. Potable water service will include a reduced pressure zone backflow preventer to protect against possible contamination. Hot water will be supplied to the lavatories in the bathrooms via instantaneous or tank-type electric water heaters. Hot water will be supplied to the mop sink in the janitor's closet via an electric tank-type water heater. Floor drains will be located in the toilet rooms, mechanical room, janitor's closet, and fire riser room. Sanitary drain and vent systems from the building will be routed to the site sanitary sewer system. A sanitary drain connection and domestic water stub-outs will be provided in the Vendor Area for future build-out. Exterior freeze-proof hose bibs will be provided for wash down purposes. At a minimum, one will be located at each end of the station in adherence to the Metra Commuter guidelines. Primary and secondary roof drains with leader and overflow leader piping will be provided for roof sections not served by gutters or downspouts. No water piping will be permitted to be routed through the electrical room.

The plumbing system for the Warming Shelters will include primary and secondary roof drains with leader and overflow leader piping for roof sections not served by gutters or downspouts. Sanitary and domestic water systems will not be provided at the Warming Shelters.

The plumbing system for the Pedestrian Tunnel will include submersible sump pumps (located in a manhole designed by Civil), associated discharge piping, and integral controls. The sump pumps will discharge to the civil storm sewer.

10.4.1 Plumbing Material Criteria

The plumbing design will include several different material types, based on the system required. Refer to Table 10.4-1 below for details on plumbing material types used in design.

Table 10.4-1 - Plumbing Materials

System	Description
Sanitary Drainage Systems	- Buried System: Cast iron pipe and fittings, service weight bell and spigot. - Above Grade: Cast iron pipe and fittings, no hub.
Storm Water Systems	- Buried System: Cast iron pipe and fittings, service weight bell and spigot. - Above Grade: Cast iron pipe and fittings, no hub.
Potable Water, Protected Water	Above Grade: Type L Copper Tubing
Pipe Supports	General Areas: Galvanized Steel

10.5 Fire Protection Basis of Design

The Inbound Station will be served by a wet automatic fire sprinkler system, designed as a performance specification to meet the requirements of NFPA 13. The wet sprinkler system backflow preventer, riser, and accessories will be in located the fire riser room. The Warming Shelters will not require a fire sprinkler system.

Section 11

Implementation and Permitting Plan

This section summarizes the proposed schedule and process for permitting and implementation of the project.

11.1 Implementation Schedule

The anticipated schedule for the remainder of the Phase II design is as follows. It is subject to refinement based on third party reviews, agency coordination, and real estate agreements.

- 30% Design Submittal: 06/11/2024
- 60% Design Submittal: 10/23/2024
- 90% Design Submittal: 03/19/2025
- IDOT 95% Pre-Final Submittal: 05/30/2025
- IDOT 99% Final Submittal: 07/28/2025
- 100% Design Submittal: 09/15/2025
- IDOT letting date (bid): 11/07/2025
- The Village's CMAQ funds must be obligated (project awarded) by 9/30/2026
- Construction is anticipated from 2026-2028

Each deliverable will be submitted to the following stakeholders, except submittals specifically noted as IDOT submittals will only be submitted to IDOT. The schedule accommodates 60-day stakeholder review periods.

- UPRR
- Metra
- ICC
- Village of Glen Ellyn

11.2 Permitting

The design team anticipates that several permits will be required to be approved prior to Phase III construction. Refer to Table 11.2-1 for the permits and approvals required.

Table 11.2-1 - Required Permit Matrix

Permit/Approval	Items Needed	Submittal Milestone	Approval Milestone
Glen Ellyn (DuPage County) Stormwater Permit	Application and submittal documents will be submitted to the Village of Glen Ellyn because the Village of Glen Ellyn is a full waiver community.	90% Design	Prior to IDOT 99% submittal
Notice of Intent for NPDES Permit	Application and submittal documents for the Notice of Intent in reference to the NPDES permit application.	90% Design	Prior to IDOT letting
Stormwater Pollution Prevention Plan (SWPPP)	A SWPPP that complies with the DuPage County Stormwater Ordinances will be included with the NPDES Permit.	90% Design	Prior to IDOT letting
Sanitary Sewer Permit and Water Main Permit– (IEPA)	Application and submittal documents for the Sanitary Sewer Permit for the Station, the sanitary sewer main replacement and the water main replacement.	90% Design	Prior to IDOT letting
Village of Glen Ellyn Building Permit	Application and submittal documents for the new facilities. Contractor will obtain permit following approvals.	90% Design	Prior to Ph III Construction
DuPage County Highway Permit	Application and submittal documents.	90% Design	Prior to IDOT 99% submittal
Zoning Approval	• Preapplication Meeting • Plan Commission / Zoning Meeting - Pre-Meeting with Director of Planning and Development • Plan Commission / Zoning Workshop - Attend Village Board Workshop • Zoning Presentation - Presentation to Village Board • Zoning Presentation - Public Hearing before Zoning Board of Appeals / Plan Commission	Preapplication meeting following submission of the 10% package	Prior to Building Permit submittal
Architectural Appearance Commission (ARC)	• Preapplication Meeting with the ARC • Appearance Review Meeting - Pre-Meeting with Director of Planning and Development • Appearance Review Presentation – Presentation at Commission meeting • Appearance Review Presentation - Presentation to Village Board	Preapplication meeting following submission of the 30% design package	Prior to Building Permit submittal
UPRR Engineering Approval	Tunnel Settlement Analysis, Tunnel Alternatives Evaluation, Geotechnical Report, Geotechnical Interpretive Memo, Request for Exception	10% Design	Prior IDOT Pre-Final submittal
ICC	If UPRR rejects the tunnel Request for Exception, a petition to ICC will be required.	TBD	Prior IDOT Pre-Final submittal
IDOT Ph I Approval	Closeout of Phase I process will be required prior to a Phase II kick-off meeting with IDOT.	Concurrent with Phase II Design	Prior IDOT Pre-Final submittal
IDOT Ph II Approval	Final plans and specifications.	100% Design	Prior to IDOT letting

11.3 Funding

Glen Ellyn has pursued a multi-pronged grant strategy to fund the Project. Glen Ellyn has secured over \$23.4M in grants for this project from a diversified set of funding sources, including:

- \$14.4M in CMAQ funding
- \$5M in ICC Grade Crossing Protection Program funding
- \$4M in Metra contributions

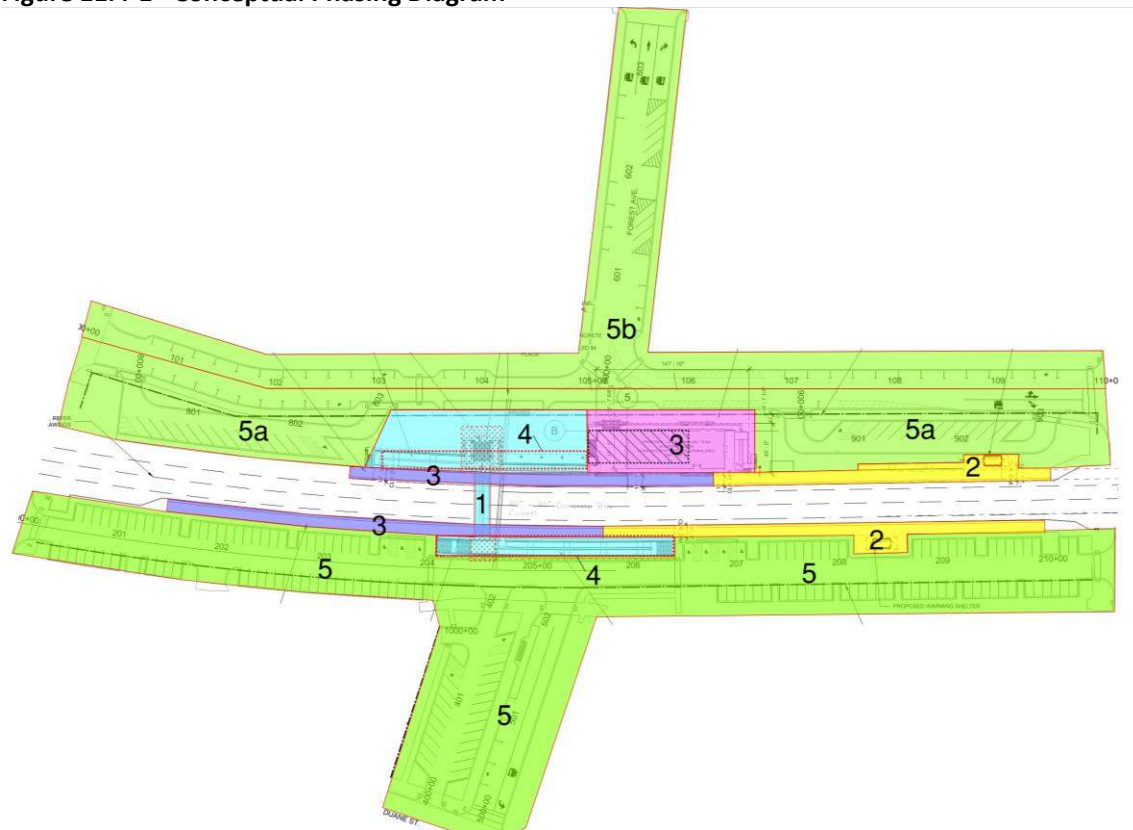
Additional funds will be pursued as the project progresses. The project is on the STP Shared Fund Contingency List for an additional \$10.8M in funding. Additionally, CMAQ grants are open every other year, on the odd years. CMAP has traditionally prioritized project readiness and project advancement during their programming exercises. As such, Glen Ellyn has a strong opportunity to re-apply for funds in 2025 once Phase I is completed. There may also be an opportunity to continue to collaborate with CMAP on opportunities to increase the existing CMAQ award through the project cost increase process.

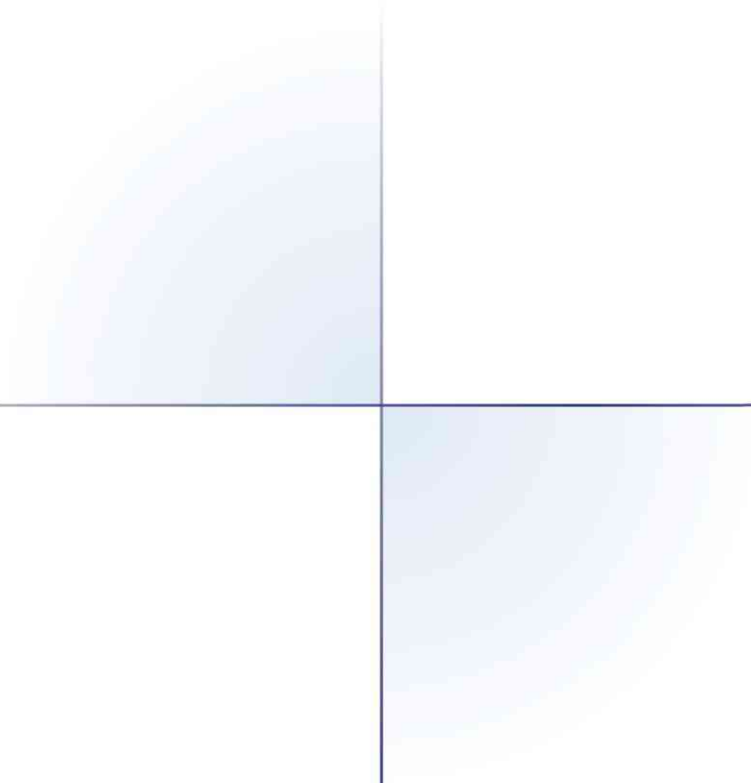
11.4 Phasing

Anticipated construction phasing is described in this section at a conceptual level and is subject to refinement as the design and coordination progresses. Refer to Figure 11.4-1.

1. Construction will begin with excavation for the new pedestrian tunnel. Excavation will require a tunneling pit on the north side of the track and a receiving pit at the south side of the tracks for construction equipment. These are indicated with a dot hatch in the diagram. The installation of the new major retaining walls at the tunnel will also occur during this phase, and construction of the ramps and stairs will begin.
2. Each platform (inbound and outbound) will close and be construction one half of its length at a time, to allow for use of half of the platform at any one time. Construction of the platforms will be the responsibility of UPRR and its construction forces. According to early coordination with UPRR, each section may take around 3-4 months to complete. The East half of each platform reconstruction will occur first, along with associated warming houses. The inbound side warming shelter may be used as the temporary station during the next phase.
3. The demolition and new construction of the train station can occur upon completion of the East platforms and warming shelter. The West platform reconstruction may occur simultaneously with the station reconstruction.
4. The ramp and stair canopies may now be constructed atop the new retaining wall structures and the pedestrian tunnel opened to the public. This may be combined with the previous phase.
5. Site work on the remainder of the site will commence, with utility replacement happening in advance of roadway reconfiguration. It is anticipated that one direction of Crescent boulevard could be closed at a time. Additional subphases (such as “a”, “b” and “c” as shown) for site and roadway work may be necessary.

Figure 11.4-1 - Conceptual Phasing Diagram





**SECTION 106
EFFECTS
ASSESSMENT
REPORT**

**Village of Glen Ellyn Metra
Station and Multimodal Access
Improvements Project**

DuPage County
Section Number: 18-00082-00-MS
Sequence Number: 21823

Village of Glen Ellyn
535 Duane Street
Glen Ellyn, IL 60137

September 23, 2022

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Section 1

Introduction

The Village of Glen Ellyn (Village), Illinois Department of Transportation (IDOT), and the Federal Highway Administration (FHWA) are proposing the redevelopment of the Glen Ellyn Metra Station and complex along the Union Pacific Railroad West line in the Village of Glen Ellyn, Illinois.

Section 106 of the National Historic Preservation Act (NHPA) requires that federal agencies consider the effects of projects they carry out, approve, or fund on historic properties. The Section 106 process is outlined in 36 Code of Federal Regulations (CFR) Part 800. As this project is federally funded by FHWA, the Section 106 process does apply. FHWA and IDOT have a programmatic agreement (PA) with the Illinois State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (ACHP) titled *Programmatic Agreement Regarding Section 106 Implementation for Federal-Aid Transportation Projects*, which was ratified March 7, 2018. The PA sets forth how FHWA- and IDOT-sponsored projects comply with Section 106 of the NHPA. IDOT Cultural Resources staff are responsible for evaluating the presence of, and identifying any potential effects to, Section 106 resources. The Illinois SHPO (and ACHP when required) are responsible for responding to and concurring with IDOT staff determinations.

This technical report documents the anticipated effects to historic and cultural resources that could occur as a result of implementing the preferred alternative for this project. Coordination with the SHPO has been ongoing to identify historic and cultural resources near the project, and evaluate potential effects to historic and cultural resources.

IDOT Cultural Resources had their Secretary of Interior-qualified architectural historians review the project area for all previously identified historic resources, which means seeking out any resources already listed on, or previously determined eligible for, listing on the National Register of Historic Places (NRHP) or identified in previous surveys. In addition, IDOT Cultural Resources staff evaluated the project area for resources not previously identified, and assessed their NRHP eligibility. This evaluation resulted in the discovery of two NRHP-listed historic districts, the Glen Ellyn Downtown North and South Historic Districts, and seven resources that warrant consideration for NRHP listing.

IDOT completed a historic resources inventory (HRI) documenting all NRHP-eligible resources within the area of potential effects (APE). The HRI is included as **Appendix A**. The Illinois SHPO concurred with the results of IDOT's HRI on October 1, 2020, that seven total resources warrant consideration for listing on the NRHP and are treated as NRHP-eligible. A letter documenting this concurrence is included as **Appendix B**. On February 5, 2019, the Illinois SHPO also previously concurred with IDOT's determination that the Glen Ellyn Metra Station was NRHP-eligible, prior to the completion of the full HRI documenting eligibility of all properties within the APE. This concurrence is included as **Appendix C**.

On January 18, 2019, IDOT asked that all reasonable measures be taken to avoid demolishing the Glen Ellyn Metra Station as demolition would be considered an adverse effect. This determination

is included as **Appendix D**. The findings of this effects assessment are consistent with that determination. The removal and replacement of the Glen Ellyn Metra Station will cause an adverse effect to an NRHP-eligible resource. No other NRHP-eligible resources within the APE are anticipated to have an adverse effect. Section 4 of this report provides the methodology and results from this effects assessment.

A summary of consulting party outreach regarding potential historic and cultural effects for the project is included as **Appendix E**. As the Section 106 process requires that all reasonable measures be taken to avoid this adverse effect, documentation regarding an alternative analysis, and project purpose and need are included in **Appendices F** and **G**, respectively. In summary, no feasible alternatives were identified that avoided demolishing the existing Glen Ellyn Metra Station. Minimization and mitigation measures have been developed to address the adverse effect as discussed further in Section 5.

Section 2

Project Description

2.1 Proposed Action

IDOT proposes to proceed with a transportation facilities improvement project for the Glen Ellyn Metra Station in the Village of Glen Ellyn in DuPage County, Illinois, at 551 Crescent Boulevard. This project will include the demolition of the existing Metra station and the construction of a larger station house to address existing and continued growth and capacity needs and bring the station house to modern building, energy, and Americans with Disabilities Act standards.. This project would address aging infrastructure and conflicts with existing surface parking and traffic. A new pedestrian drop-off location at the station would be constructed, and pedestrian safety and access to and from the station platform across the existing at-grade rail line would be improved through installing a pedestrian tunnel under the railroad. The proposed improvements include roadway resurfacing or reconstruction along Crescent Boulevard between Main Street and Park Boulevard; improvements to crosswalks at Main Street, Forest Avenue, and Park Boulevard; new sidewalks to access the station on the north and south sides of Crescent Boulevard; and other streetscape improvements such as tree planting and landscaping installations. The streetscape design and material selection has been coordinated with the Glen Ellyn Historic Preservation Commission, including the introduction of sidewalk plaques to commemorate historic buildings throughout the downtown.

2.2 Study Area

The study area is primarily located in downtown Glen Ellyn and includes the Glen Ellyn Metra Station, adjacent parking areas, and adjacent streets. The existing station consists of a station house (108 feet by 28 feet exterior dimensions) and amenities, boarding platforms, and two connecting surface parking lots located directly adjacent to the station to the east and west of the station house between Main Street and Park Boulevard. The distance between Main Street and Park Boulevard is approximately 1,010 feet. Additional surface parking for the station is located south of the rail line and station. Two at-grade railroad crossings provide vehicular and pedestrian access to the station, one approximately 600 feet west of the station at Main Street, and a second approximately 500 feet east of the station at Park Boulevard. **Figures 2-1** and **2-2** provide a site overview and picture of the existing station, respectively.

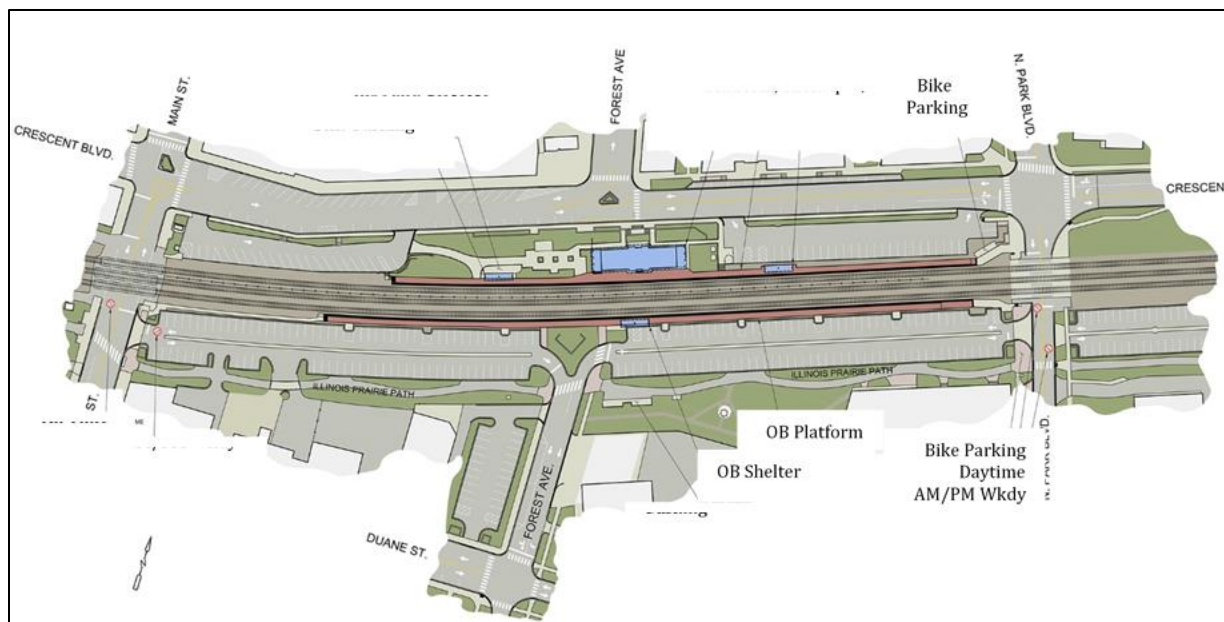


Figure 2-1 Existing Site Plan of the Station and Site Improvements



Figure 2-2 Existing Station Elevation from the North Looking South

Section 3

Area of Potential Effects

The APE is defined by 36 CFR § 800.16 as:

“The geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.”

An APE was developed as part of IDOT’s Environmental Survey Request process to initiate consultation with IDOT Cultural Resources. The APE for this project considers the location of the project, and the potential for indirect changes that could impact historic or cultural resources. Through consultation and concurrence with IDOT Cultural Resources and the Illinois SHPO, an APE was established based on site visits, aerial imagery review, and preliminary engineering details. The APE encompasses properties that would be directly or indirectly affected by the project, including properties with views of the existing and/or proposed station. Viewsheds within the APE are dominated by the Metra Union Pacific Railroad West line; Glen Ellyn station and associated features; streetscaping; landscaping; and a mix of commercial, residential, and mixed-use buildings typically less than five stories high. The APE is depicted on **Figure 3-1** and includes properties along the following locations:

- Crescent Boulevard and adjacent right-of-way, including intersections between Main Street and N. Park Boulevard
- Glen Ellyn Metra Station, rail tracks, and parking areas between Main Street and N. Park Boulevard
- Forest Avenue and adjacent right-of-way between Pennsylvania Avenue and Crescent Boulevard
- Forest Avenue, including adjacent parking and the right-of-way between the tracks and Duane Street

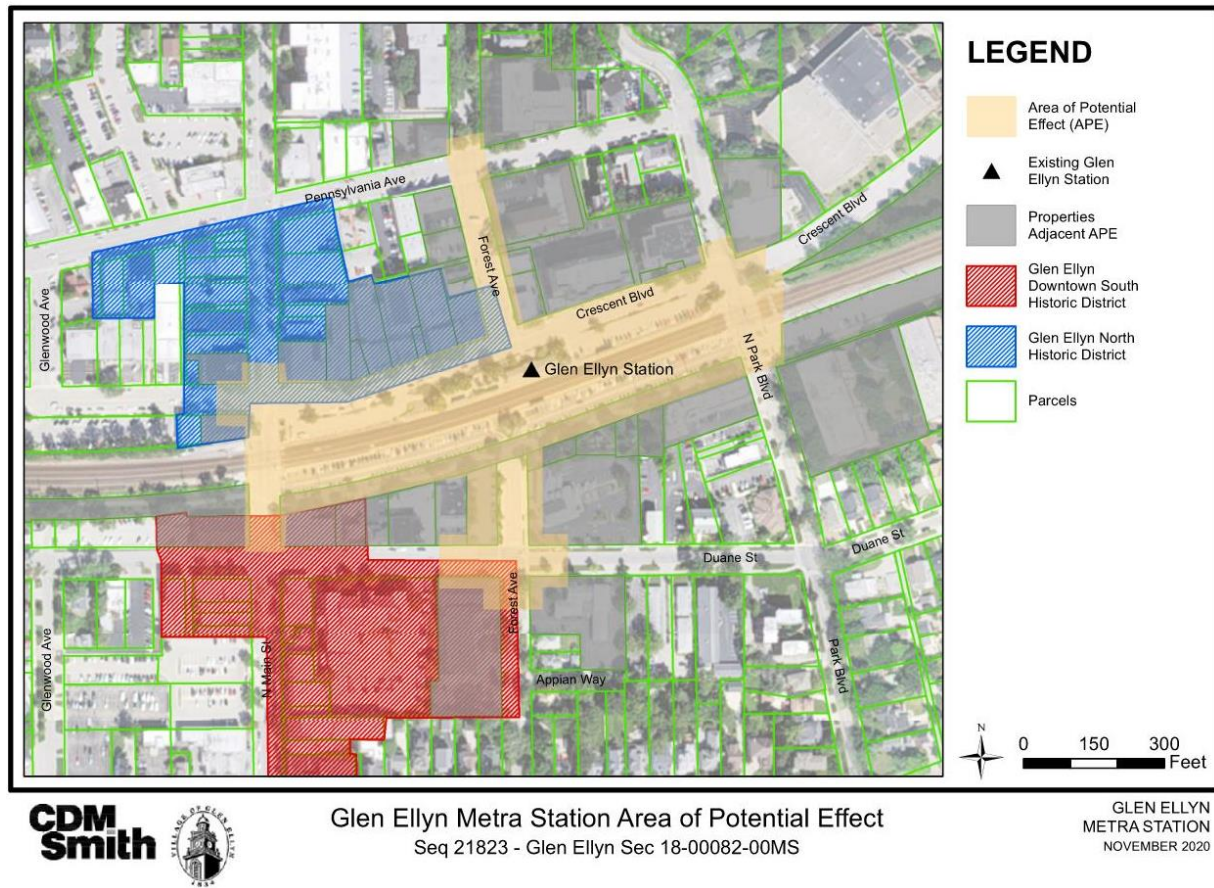


Figure 3-1 Study Area (APE)

Section 4

Effects Determination

For each NRHP-listed or -eligible historic resource within the APE, an effects assessment has been made by Secretary of Interior-qualified architectural historians to document the potential for effects to historic resources.

4.1 Effects Assessment Methodology

An effects assessment is based on the criteria of adverse effect as identified in CFR 800.5:

“An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property’s eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.”

The criteria for effects assessment include both direct and indirect effects from a project. Examples of adverse effects include:

- *Physical destruction of, or damage to, all or part of the property*
- *Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary of Interior’s Standards for the Treatment of Historic Properties (36 CFR 68) and applicable guidelines*
- *Removal of the property from its historic location*
- *Change of the character of the property’s use or of physical features within the property’s setting that contribute to its historic significance*
- *Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property’s significant historic features*
- *Neglect of a property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization*
- *Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property’s historic significance*

Following the criteria of adverse effect guidelines, and supported by the information on historic significance and integrity set forth in the National Register Bulletin *How to Apply the National*

Register Criteria for Evaluation, the following definitions are used to assess project effects to individual historic properties and make an overall project finding of effect:

- **No Historic Properties Affected:** Per 36 CFR 800.4(d)(1), an undertaking may have no effect to historic properties present in the APE, and a finding of “No Effect” may be determined for an undertaking. This finding indicates that an undertaking would not alter any character-defining features and aspects of integrity for any historic properties.
- **No Adverse Effect:** Per 36 CFR 800.5(b), an undertaking may be determined to have “No Adverse Effect” to historic properties if the undertaking’s effects do not meet the criteria of adverse effect as described above. If project implementation would alter a specific aspect of integrity for a historic property but the effect would not alter a characteristic that qualifies that resource for inclusion in the NRHP in a manner that diminishes the significant aspect of integrity, then the finding for that aspect of integrity is “No Adverse Effect.”
- **Adverse Effect:** An adverse effect is determined if the undertaking would alter a characteristic that qualifies that historic property for inclusion in the NRHP in a manner that diminishes the significant aspect(s) of integrity.

Project design plans and documentation have been reviewed to determine which historic resources within the APE would be affected. Using the criteria of adverse effect established in 36 CFR 800.5(a)(1) and guidance found in *How to Apply the National Register Criteria for Evaluation*, each historic property was evaluated to determine if the proposed project would alter any historically significant character-defining features or diminish any aspect of integrity of each historic property.

4.2 Effects Findings

Figure 4-1 depicts and **Table 4-1** summarizes NRHP-listed and -eligible resources within the APE and potential effects to the resources. IDOT’s architectural historians reviewed all previously recorded listed, eligible, or undetermined historic resources on the NRHP. In summary, there are two NRHP-listed historic districts, the Glen Ellyn Downtown North and South Historic Districts, and seven resources that are being treated as individually eligible for NRHP listing (Property IDs 10, 14, 16, 22, 34, 35, and 36).

Table 4-1 Summary of Effects Determinations

Property ID	Resource	Resource Description	Determination of Effect
Not applicable	Glen Ellyn Downtown North Historic District – NRHP-listed	Historic District	No Adverse Effect
Not applicable	Glen Ellyn Downtown South Historic District – NRHP-listed	Historic District	No Effect
10	558–564 Crescent Boulevard – NRHP-eligible	Two-Unit Late Victorian Commercial Block	No Adverse Effect
14	596 Crescent Boulevard NRHP-eligible	School District 87 Administration Center	No Effect

Property ID	Resource	Resource Description	Determination of Effect
16	551 Crescent Boulevard NRHP-eligible	Glen Ellyn Metra Station	Adverse Effect
22	540–542 Duane Street NRHP-eligible	Mid-Century Modern, 2-Story, Commercial Buildings	No Effect
34	484 Forest Avenue NRHP-eligible	Late Victorian Dwelling	No Effect
35	474–482 Forest Avenue NRHP-listed	1920s Stone Store Building	No Effect
36	485 Forest Avenue NRHP-eligible	Ellyn Cleaners	No Effect

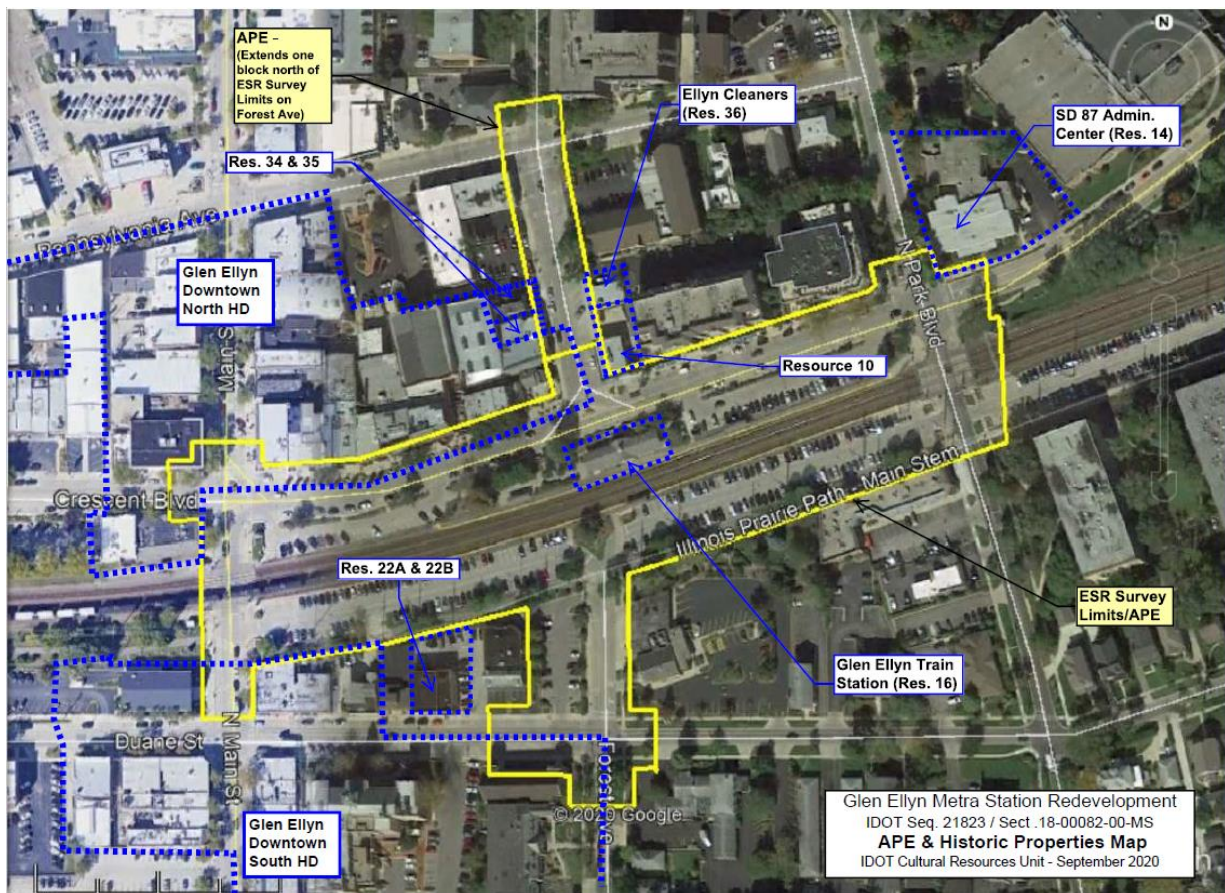


Figure 4-1 APE and Historic Properties Map

On January 18, 2019, IDOT asked that all reasonable measures be taken to avoid demolishing the Glen Ellyn Metra Station as demolition would be considered an adverse effect. This determination is included as **Appendix D**. The findings of this effects assessment are consistent with that determination. The removal and replacement of the Glen Ellyn Metra Station (Property ID 16) will cause an adverse effect to one NRHP-eligible resource. No other NRHP-listed or -eligible resources within the APE are anticipated to have an adverse effect.

The project would have **“No Effect”** on the Glen Ellyn Downtown South Historic District, 558–564 Crescent Boulevard, 596 Crescent Boulevard, 540–542 Duane Street, 484 Forest Avenue, 474–

482 Forest Avenue, or 485 Forest Avenue because the project would not directly or indirectly affect these historic resources. The project would not alter the architectural significance of these historic resources, nor would it restrict access to these resources. The project would not alter the audible, atmospheric, or visual characteristics of these resources where it diminishes the integrity of the property's significant historic features.

The project would have **"No Adverse Effect"** on Glen Ellyn Downtown North Historic District or 558–564 Crescent Boulevard. The viewsheds of these two resources are in the direct line of sight of the proposed project. The project would replace the Glen Ellyn Metra Station and include additional roadway and streetscaping improvements in downtown Glen Ellyn. Within the Glen Ellyn Downtown North Historic District, the proposed improvements are to crosswalks and sidewalks along the north side of Crescent Boulevard. These sidewalk improvements are also proposed along 558–564 Crescent Boulevard, and will include installation of planters and other decorative elements. No other direct effects to 558–564 Crescent Boulevard are proposed. The sidewalk and crosswalk improvements have been selected to help maintain the historic look and feel within downtown Glen Ellyn and help highlight some of the buildings within the historic district such as 558–564 Crescent Boulevard. The streetscape design and material selection has been coordinated with the Glen Ellyn Historic Preservation Commission, including the introduction of sidewalk plaques to commemorate historic buildings throughout the downtown. These proposed actions would alter the visual environment but would not affect the characteristics that qualify these resources for inclusion on the NRHP. The project would not directly affect or incorporate land from these historic resources or impede access to these resources.

4.2.1 Glen Ellyn Metra Station: Adverse Effect

The Glen Ellyn Metra Station was deemed eligible for listing on the NRHP under Criterion A (transportation) and C (architecture) through a historic analysis. Criterion A is associated with events that have made a broad contribution to the patterns of history. Criterion C refers to distinctive characteristics of a type, period, or method of construction, or are representative as the work of a master or possess high artistic values that are representative of a significant and distinguishable entity. The Illinois SHPO concurred with this eligibility determination in 2019 (**Appendix C**).

4.2.1.1 Historic Significance

The station is located at 551 Crescent Boulevard in Glen Ellyn, Illinois, in the center of a historic downtown. This commuter station is on Metra's Union Pacific Railroad West line. The line begins in Elburn, Illinois, and the eastern terminus is the Ogilvie Transportation Center in Chicago, Illinois. It is the oldest railway route in Chicago. Although trains initially did not stop in the Village, a local resident deeded a right-of-way to the railroad in exchange for the construction of a depot and water tank. Subsequently, the first station was built in 1851 and has contributed to the development of the Village.

The current station was designed in 1966 by DeLeuw Cather & Co., a prominent engineering company, with Andrew N. Rebori as the consulting architect. The building represents a style characteristic of a mid-20th Century Colonial Revival institutional facility. Traditional Colonial Revival elements include red brick walls, quoins, white painted trim, symmetrical center-entries,

and a cupola. However, mid-century elements are also present and include horizontal proportions, over-scaled door surrounds, entrance pediments, and multilight windows.

The current station has had minimal changes or updates to the exterior and interior since construction. The window on the west side of the north elevation has been filled in with brick. Entrance doors, which originally had paneled windows, have been replaced with glass doors. Originally, there was a glass enclosed area on the northwest corner of the station that was used as a taxi office. That area has since been converted into a cafe. The interior east wall separating the waiting room from the rest room and ticket office has been expanded. Benches for seating in the room have been replaced and the number of benches has increased. A mural painted by Glenbard West High School students in 1997 was added to the west and north walls of the station.

In 1987, the site along the west elevation of the station was renovated. An existing sidewalk was removed and a wider sidewalk installed. A flagstone retaining wall was removed and a brick wall and new stairway installed. Lighting was installed consistent with other lighting in the central business district and benches were added. Landscaping was also added. Parking lots were reconstructed around the station in 1992, and in 2008, a permit was granted to Molten Corporation for reconstruction of the station retaining wall.

This lack of substantive alterations contributes to the station's continued historic integrity and eligibility for the NRHP.

4.2.1.2 Relationship to Similar Properties in Vicinity

The station is located in downtown Glen Ellyn between two historic districts and is adjacent to two NRHP-eligible resources. Located directly north and northwest of the project area is the Glen Ellyn North Historic District, a roughly two-block area in the Village's commercial district that includes Glen Ellyn's earliest commercial blocks dating from the 1890s, as well as a substantial number of commercial buildings from the early decades of the 20th Century. Although most buildings exhibit at least minor alterations, overall integrity in the district is good. Located southwest of the project area is the Glen Ellyn South Historic District, which encompasses a formerly residential area that was rezoned in the mid-1920s for commercial use to accommodate Glen Ellyn's expanding business district. Although most buildings exhibit at least minor alterations, overall integrity in the district is good. To the east of the station, there are fewer properties listed in or eligible for the NRHP.

4.2.1.3 Effects Determination

The proposed project includes the removal and replacement of the Glen Ellyn Metra Station. Therefore, a direct physical impact would occur on this NRHP-eligible resource. IDOT asked that all reasonable measures be taken to avoid demolishing the Glen Ellyn Metra Station as demolition would be considered an adverse effect (**Appendix D**).

The existing station is currently used for transportation purposes and was deemed eligible for the NHRP under Criteria A (transportation) and C (architecture). The station is currently owned and maintained by the Union Pacific Railroad. No use changes are proposed; however, the proposed project includes Union Pacific Railroad leasing or selling the station to the Village. The Village is coordinating with the Union Pacific Railroad, who has expressed support for the project.

Removing the existing NRHP-eligible station would result in permanent impacts. Because there would be permanent irreversible effects to the station, the project would result in an adverse effect. Regulation 36 CFR 800, Illinois State Agency Historic Resources Preservation Act, and the Section 106 process require that all reasonable measures be taken to avoid this adverse effect to this historic building. Reasonable measures include evaluation of alternatives that avoid or minimize adverse effects. If alternatives cannot avoid or minimize adverse effects, evaluation of mitigation measures are then undertaken and continued coordination with consulting parties is conducted to resolve adverse effects. Section 5 describes the reasonable measures taken to resolve adverse effects.

Section 5

Resolution of Adverse Effects and Next Steps

5.1 Avoidance and Minimization Strategies

As part of the initial project design and development, an alternative analysis was developed. Six separate alternatives were considered and presented to the Village of Glen Ellyn Board of Trustees on July 12, 2021. The alternatives include:

- No Build Alternative
- New Station Location – West Alternative
- Rehabilitate the Existing Station Alternative
- New Station Location – East Alternative
- Rehabilitate and Expand the Existing Station Alternative
- **Preferred Alternative: New Station Construction – Same Location**

The full alternative analysis is included in **Appendix F** and the Purpose and Need for the project is included in **Appendix G**. The preferred alternative selected included a new station construction at the same location. This alternative is the only feasible alternative that meets all requirements outlined in the purpose and need documentation. However, this alternative does cause an adverse effect to the Glen Ellyn Metra Station, an NRHP-eligible resource.

As the preferred alternative causes an adverse effect to a historic property, a resolution of adverse effects with consulting parties is needed as part of the Section 106 consultation process. This can include the development of measures to avoid, minimize, and mitigate for adverse impacts to historic resources. The finalized stipulations to avoid, minimize, and mitigate for the adverse effect will be included within a Memorandum of Agreement (MOA) signed by FHWA, the Illinois SHPO, IDOT, and other invited signatories and/or concurring parties. A finding of Adverse Effect also requires that ACHP be invited to participate as a consulting party by FHWA. In addition, historic resources are also considered Section 4(f) of the U.S. Department of Transportation Act of 1966 resources. A Section 4(f) analysis is concurrently being developed to document the use of the property.

To develop a resolution of adverse effects, coordination with Illinois SHPO and consulting parties will be conducted. IDOT and the Village have conducted outreach efforts with consulting parties, which includes area residents, businesses, and key stakeholders with respect to development of the project and effects on historic resources.

In general, consulting parties did not consider the station to be historically significant and proposed that the new construction should be pursued. Additional comments included requests to preserve an existing mural at the station, further consideration of construction logistics, and

consideration of additional historic architectural styles in the design. Several comments noted a positive reaction to the new construction design. One comment also expressed a desire to incorporate “transom hinged windows” into the new station design. A summary of consulting parties’ responses is included as **Appendix E**.

5.2 Preliminary Mitigation Measures Development

The Village has developed preliminary mitigation measures for the project to reduce the severity of effects and offset or mitigate adverse effects. The preliminary mitigation measures aim to address the adverse impacts to Criterion C (architecture), which relates to the architectural significance of the Glen Ellyn Metra Station. These measures aim to preserve important architectural features of the station and promote and educate the public of the station’s historical significance on development throughout downtown Glen Ellyn. The preliminary minimization and mitigation measures identified are discussed below and are being shared with the SHPO and consulting parties to solicit their input.

5.2.1 Preserve Glen Ellyn Mural

IDOT will preserve the mural of Glen Ellyn that is in the existing Metra station. Although not considered NRHP-eligible because of age requirements, consulting parties did express a preference to preserve the mural during the Section 106 consultation process. IDOT will identify and install the mural at a new location within downtown Glen Ellyn.

5.2.2 Develop and Install Glen Ellyn Station Interpretative Exhibit

The Village will develop an interpretative exhibit that shows the history of train transportation in Glen Ellyn and the Glen Ellyn Metra Station including the original 1895 station. The content of the exhibit will be developed in consultation with the SHPO, Illinois Historic Group, Glen Ellyn Historic Preservation Commission, and Glen Ellyn Historical Society. The interpretative exhibit will be installed in the new Metra station as part of the project.

5.2.3 Preservation and Reuse of Historic Materials

The Village will salvage/recreate the stone door surrounds on the north and south facade of the existing Glen Ellyn station to be reused as a feature within the station area site improvements. The preserved/recreated stone door surrounds could be used in consort with the interpretive exhibit noted in Section 5.2.

5.2.4 Historic Plaques

The Village is developing sidewalk plaques that display historical information about significant buildings throughout downtown Glen Ellyn. Plaques are anticipated to be installed at 60 other buildings within downtown Glen Ellyn, including six buildings directly across from the Metra station along Crescent Boulevard. As part of the Metra station project, the Village will install a sidewalk plaque commemorating the 1966 Glen Ellyn train station.

5.3 Next Steps

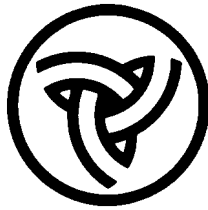
As there is no feasible alternative to avoid an adverse effect to the Glen Ellyn Metra Station; a resolution of adverse effects is required. Further coordination with the Illinois SHPO and

consulting parties will be conducted to agree upon and finalize the preliminary measures discussed in Section 5.2, as well as any other measures to be undertaken to mitigate for adverse effects. An MOA will be drafted among the SHPO, FHWA, IDOT, and the Village and reviewed by the consulting parties to memorialize all mitigation measures. As the proposed project will result in an adverse effect, IDOT, acting on behalf of FHWA, will notify ACHP of the project and the effects determination.

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Appendix A

IDOT Historic Survey Inventory



Illinois Department of Transportation

Memorandum

To: Brad Koldehoff, IDOT Cultural Resources Unit Chief
From: Elizabeth (Becky) Roman, IDOT Architectural Historian
Subject: Final Historic Resources Inventory
Date: September 4, 2020

**Du Page County
Village of Glen Ellyn
Mun 3 / Mun 2090B
Glen Ellyn Metra Train Station Redevelopment
Section 18-00082-00-MS
IDOT Sequence # 21823
SHPO Log #007011819**

The above-referenced project involves the proposed redevelopment of the Glen Ellyn Metra Train Station including demolition and reconstruction of the train station, new pedestrian underpass tunnel, replacement of the station platforms, and extensive site improvements to parking lots and adjacent roadways. The Environmental Survey Request (ESR) survey limits extend into two National Register of Historic Places (NRHP) listed and local historic districts, the Glen Ellyn Downtown North Historic District and the Glen Ellyn Downtown South Historic District. On February 5, 2020, the Illinois State Historic Preservation Office (SHPO) concurred with our determination that the Glen Ellyn Station was eligible for listing on the NRHP. This memo is to complete identification of other historic properties that may be affected by the proposed work.

Given that the project proposes to replace the train station building, augment parking along streets north and south of the station, and construct a new pedestrian underpass, the Area of Potential Effect (APE) is defined as the properties encompassing and abutting the ESR Survey Limits, extended one block north on Forest Avenue to account for views of the new station. Photographs of all the pre-1981 buildings in the APE were provided by the project sponsor following IDOT Photo Log Guidance. The provided photo log required editing to correct the direction of the views and to add two missed properties.

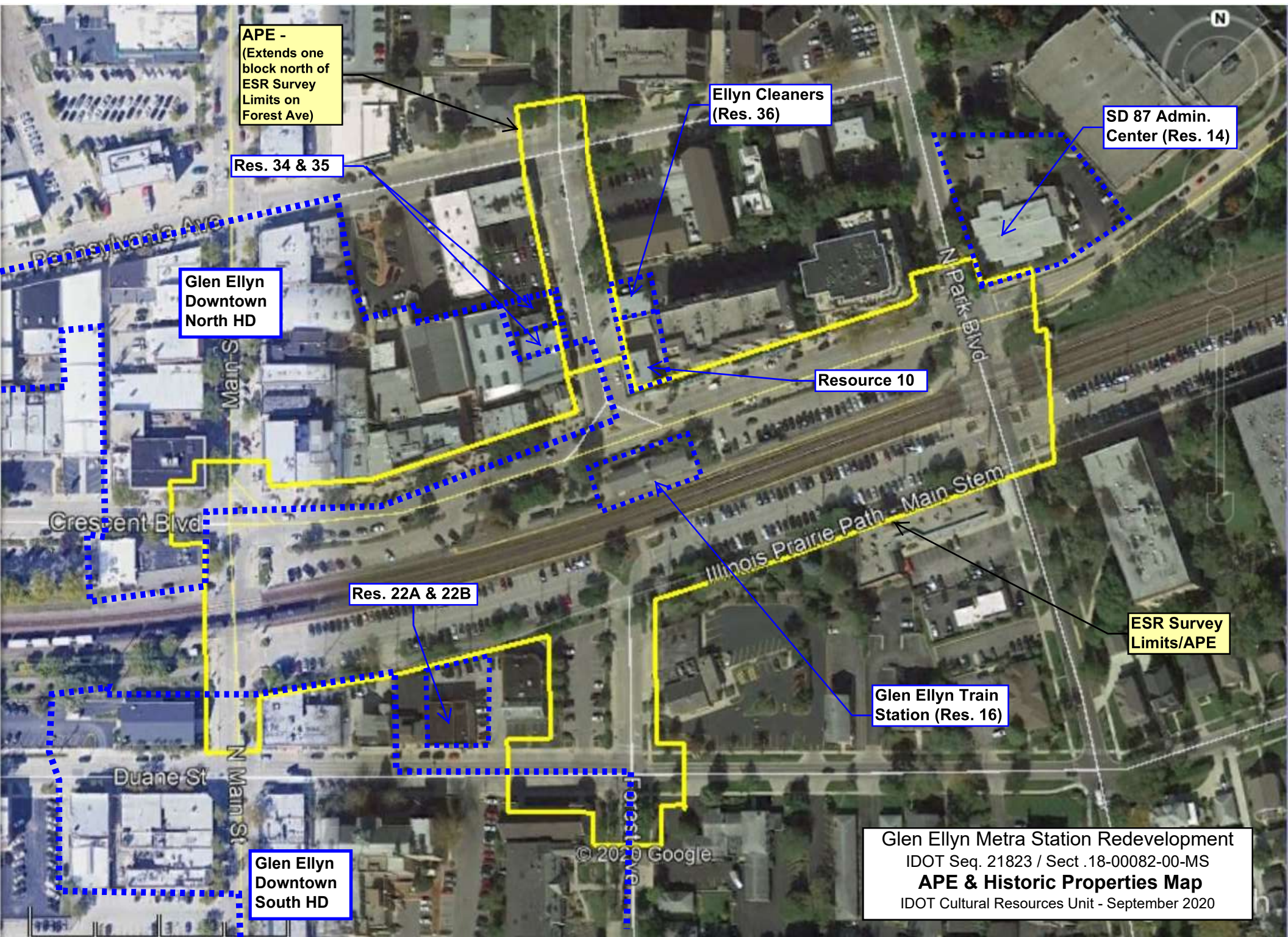
Based on a review of the project files, the edited Photo Log, Google Earth Streetviews, and histories of Glen Ellyn and the western suburbs available in the NRHP district nomination forms and online, a total of 9 above-ground historic properties have been identified in the APE. Excepting the three known historic properties in the APE mentioned above, each warrants consideration for NRHP listing, with properties warranting NRHP consideration treated as NRHP eligible historic properties by IDOT. The nine historic properties in the APE are as follows and shown on Photo Log Key Map:

1. Downtown North Glen Ellyn Historic District, NRHP Listed, September 2013. (Resources 1 through 9, 15 and 35 all contributing to this district.)
2. Downtown South Glen Ellyn Historic District, NRHP Listed, September 2013. (Resources 19, 20, 30 and 32 all contributing to this district)
3. Glen Ellyn Train Station, NRHP Eligible, February 2020. (Resource 16)

4. Two-unit Late Victorian Commercial Block at 558-564 Crescent Boulevard. (Resource 10)
5. School District 87 Administration Center, Mid-Century Modern former School at 596 Crescent Boulevard. (Resource 14)
6. Mid-Century Modern, 2-story, Commercial Buildings with ribbed and smooth steel panel facades, at 540 Duane Avenue and 542 Duane Avenue. (Resources 22A and 22B).
7. Late Victorian Dwelling at 484 Forest Avenue. (Resource 34)
8. C. 1920s Stone Store Building at 482 Forest Avenue. (Resource 35)
9. Ellyn Cleaners, Mid-Century Modern Building at 485 Forest Avenue (Resource 36)

The remaining resources in the APE lack the historic associations, physical integrity, age, architectural distinction, and/or historic associations and significance needed for NRHP eligibility.

If there any questions about this memorandum, please do not hesitate to contact me by phone at (217) 558-4752 or by email at elizabeth.roman@illinois.gov.



APE -
(Extends one
block north of
ESR Survey
Limits on
Forest Ave)

Res. 34 & 35

Glen Ellyn
Downtown
North HD

Ellyn Cleaners
(Res. 36)

SD 87 Admin.
Center (Res. 14)

Resource 10

Res. 22A & 22B

ESR Survey
Limits/APE

Glen Ellyn Train
Station (Res. 16)

Glen Ellyn
Downtown
South HD

Glen Ellyn Metra Station Redevelopment
IDOT Seq. 21823 / Sect .18-00082-00-MS
APE & Historic Properties Map
IDOT Cultural Resources Unit - September 2020

Appendix B

2020 Illinois Historic Preservation Office Eligibility Concurrence



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

RECEIVED
SEP 18 2020

September 18, 2020

Preservation Services

DuPage County
Village of Glen Ellyn
MUN 3 / MUN 2090B
Glen Ellyn Metra Train Station Redevelopment
Section 18-00082-00-MS
IDOT Sequence # 21823
SHPO Log #007011819

IHPA REVIEW

H/A _____
AC _____
AR _____
File _____

FEDERAL – SECTION 106 PROJECT

Identification of Architectural Historic Properties

Ms. Carol J. Wallace
Cultural Resources Coordinator
Illinois State Historic Preservation Office
Illinois Department of Natural Resources
1 Old State Capitol Plaza
Springfield, Illinois 62701

Concur except
property #8 is
already listed

RB 10/1/2020

Dear Ms. Wallace:

In continuing coordination with your office, the Village of Glen Ellyn proposes to redevelop the Glen Ellyn Metra Station in coordination with the Illinois Department of Transportation (IDOT), the Federal Highway Administration (FHWA), and the Federal Transit Administration (FTA). As shown in the enclosed Environmental Survey Request (ESR), the undertaking involves demolition and reconstruction of the train station, construction of new pedestrian underpass, and reconstructed parking lots and station access on both sides of the Metra Tracks. On February 5, 2019, your office concurred that Glen Ellyn Train Station was eligible for listing on the National Register of Historic Places. A review of potential impacts to other historical, archaeological, and architectural properties in the Area of Potential Effects (APE) has been completed by IDOT's Cultural Resources staff. ***In accordance with the Programmatic Agreement Regarding Section 106 Implementation for Federal-Aid Transportation Projects (PA), ratified March 7, 2018, an archaeological survey was not required for these projects.***

Enclosed please find the Historic Resources Inventory completed by IDOT architectural historian Elizabeth L. Roman. This memorandum with attached maps and photo log provides the definition of the APE, methodology employed, and results of this inventory. The APE was extended north of the existing train station to account for views of the proposed new facility. Nine historic properties have been identified in the APE, including 2 NRHP listed historic districts, the NRHP eligible train station, and 6 properties warranting NRHP consideration. The remaining resources in the APE do not have the historic significance, associations, age, and/or integrity needed for individual NRHP eligibility. The 9 historic properties in the APE are as follows:

- ✓ 1. Downtown North Glen Ellyn Historic District (NRHP Listed)
- ✓ 2. Downtown South Glen Ellyn Historic District (NRHP Listed)
- ✓ 3. Glen Ellyn Train Station (NRHP Eligible)
- ✓ 4. Two-unit Late Victorian Commercial Block at 558-564 Crescent Boulevard (Warrants NRHP Consideration)
- ✓ 5. School District 87 Administration Center at 596 Crescent Boulevard. (Warrants NRHP Consideration)
- ✓ 6. Mid-Century Modern Commercial Buildings at 540 Duane Avenue and 542 Duane Avenue. (Warrants NRHP Consideration)
- ✓ 7. Late Victorian Dwelling at 484 Forest Avenue. (Warrants NRHP Consideration)
- ✓ 8. C. 1920s Store Building at 482 Forest Avenue. (Warrants NRHP Consideration) - C. North
- ✓ 9. Ellyn Cleaners at 485 Forest Avenue (Warrants NRHP Consideration)

In coordination with FHWA, IDOT requests the concurrence of the State Historic Preservation Office in our determination that the above listed 6 historic resources warrant NRHP consideration and that the remaining resources in the APE are not eligible for listing on the NRHP. The historic resources that warrant NRHP consideration will be treated as NRHP eligible historic properties for this undertaking, and therefore, are subject to protection under Section 106 of the National Historic Preservation Act of 1966. Assessments of the undertaking's effect to the historic properties in the APE will be completed and coordinated with your office during the next phase of the undertaking.

In accordance with 36 CFR Part 800.3(c)(4), FHWA and IDOT will proceed to the next step in the Section 106 process if we do not receive a written response from your office within 30 days.

Sincerely,



Brad H. Koldehoff
Cultural Resources Unit Chief
Bureau of Design & Environment

BK:br

CONCUR

By: Robert Appleman
Deputy State Historic Preservation Officer

Date: 10/11/2020

Appendix C

2019 Illinois Historic Preservation Office Eligibility Concurrence



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764



January 18, 2019

DuPage County
Village of Glen Ellyn
MUN 3 / MUN 2090B
Glen Ellyn Metra Train Station Redevelopment
Section 18-00082-00-MS
IDOT Sequence # 21823

IHPA REVIEW
H/A Concur SA 2/5/19
AC _____
AR _____
File DU/FCC

FEDERAL 106 PROJECT – DETERMINATION OF ELIGIBILITY

Mr. Robert F. Appleman
Deputy State Historic Preservation Officer
Illinois Department of Natural Resources
Illinois State Historic Preservation Office
1 Natural Resources Way
Springfield, Illinois 62702

Dear Mr. Appleman:

The Village of Glen Ellyn proposes to redevelop the Glen Ellyn Metra Train Station property, including demolition and reconstruction of the train station building using IDOT and Federal Highway Administration (FHWA) funding. As outlined in the attached email correspondence with Anthony Rubano of your office, the Glen Ellyn Train Station is eligible for listing on the National Register of Historic Places (NRHP) under Criteria A and C as an excellent example of the Colonial Revival style in the mid-twentieth century and for its association with rail travel to and from suburban Glen Ellyn.

In accordance with established procedures for coordination of IDOT projects, we request the concurrence of the State Historic Preservation Office in our determination that the Glen Ellyn Train Station is eligible for listing on the NRHP and is therefore subject to protection under Section 106 of the National Historic Preservation Act of 1966.

In accordance with 36 CFR Part 800.3(c)(4), FHWA will proceed to the next step in the Section 106 process if we do not receive a written response from your office within 30 days.

Sincerely,

Brad H. Koldehoff, RPA
Cultural Resources Unit
Bureau of Design & Environment

BK:br

CONCUR

By: Robert Appleman
Deputy State Historic Preservation Officer

Date: 215119

Roman, Elizabeth L.

From: Roman, Elizabeth L.
Sent: Thursday, January 17, 2019 8:34 AM
To: Rubano, Anthony
Cc: Koldehoff, Brad H.; Young, LaDonna; Raffensperger, William
Subject: RE: Glen Ellyn Train Station, DuPage County (IDOT 21833)

Good morning Anthony,

I agree with your assessment, and we will consider the property eligible for NRHP listing. Brad will bring hard copies of this correspondence to your office tomorrow.

Thank you for your detailed and quick response. It has expedited our initial review of this ESR and our time consulting with your office.

Becky

From: Rubano, Anthony
Sent: Wednesday, January 16, 2019 6:37 PM
To: Roman, Elizabeth L. <Elizabeth.Roman@illinois.gov>
Cc: Koldehoff, Brad H. <Brad.Koldehoff@Illinois.gov>; Young, LaDonna <LaDonna.Young@Illinois.gov>; Raffensperger, William <William.Raffensperger@illinois.gov>
Subject: RE: Glen Ellyn Train Station, DuPage County (IDOT 21833)

Hi Becky,

The images included in your attachments are enough for this particular building for me to make a determination. This is an excellent example of what the Colonial Revival looked like in the mid-20th century – horizontally proportioned with traditionally Colonial elements that aren't academically designed: the mannered, over-scaled cyma-recta door surround, the widely proportioned entrance pediment, the oversized multi-light windows touching the frieze, the horizontally proportioned quoins. Its interior has great integrity; its design is more institutional and designed for a long lifespan, like a 1960s modern school rather than Colonial Revival in character, with glazed block walls with rounded corners, clear-anodized-aluminum or stainless-steel trim, terrazzo floor, and door-transom combinations that are full height to the ceiling, which looks like metal concealed-spline tiles. I would say it's individually eligible under A and C at the local level of significance.

I'm aware that some NR districts don't include railroad rights of way and rivers, but it's not because they don't have significance. Frankly, I don't understand why they would be cut out of a district, since their presence and location is often why the downtown developed where it did. I can imagine the railroad isn't included in this district because it would have meant engaging the railroad in the nomination process as an owner. So it's not that they were specifically not included. It's that they were simply not included, likely because it was easier to not include them, which is different from excluding them. Glen Ellyn happens to have enough integrity on both sides of the RR to get to have two distinct districts. Some towns don't.

At your convenience, please submit this in hard copy so we can issue a formal letter with the determination of eligibility. Thanks.

Anthony Rubano
Illinois State Historic Preservation Office

Illinois Department of Natural Resources
One Old State Capitol Plaza
Springfield, Illinois 62701
(217) 782-7459
anthony.rubano@illinois.gov

From: Roman, Elizabeth L.
Sent: Wednesday, January 16, 2019 11:27 AM
To: Rubano, Anthony <Anthony.Rubano@Illinois.gov>
Cc: Koldehoff, Brad H. <Brad.Koldehoff@Illinois.gov>; Young, LaDonna <LaDonna.Young@Illinois.gov>; Raffensperger, William <William.Raffensperger@illinois.gov>
Subject: Glen Ellyn Train Station, DuPage County (IDOT 21833)

Good Morning Anthony,

IDOT is involved with the project to make improvements and upgrades the train station and its surrounding property in Glen Ellyn, DuPage County. The village has been in a planning process to design and fund this project, which will involve many agencies including IDOT. At this time, they have submitted an ESR to IDOT. The current project proposed by the Village of Glen Ellyn will include demolition and reconstruction of the train station.

In order to make a finding of effect to historic properties for this project, IDOT must first address eligibility of historic resources that may be affected by the project. So I am contacting you at this time about your opinion on the NRHP eligibility of the Glen Ellyn Train Station. Please see attached information on this 1966 building provided by the project sponsor with the ESR, including select photographs. The train station and railroad rights-of-way were specifically not included in the Glen Ellyn Downtown North and South Historic Districts when they were listed on the NRHP in 2013. What is your opinion of the station's eligibility? You know much more about mid-20th century architecture in Illinois than I do, so I am relying on that knowledge to guide us for this building. If you need more information to form an opinion, what exactly would you need submitted to your office to make that opinion?

Please do not hesitate to contact me with any questions. Your assistance in this matter is highly appreciated.

Many Thanks,
Becky

Elizabeth L. (Becky) Roman, M.A.
Architectural Historian
Bureau of Design & Environment
Illinois Department of Transportation
2300 S. Dirksen Parkway, Room 330, Springfield, IL 62764
Tel: 217.5578.4752 | Email: elizabeth.roman@illinois.gov

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Appendix D

Illinois Department of Transportation Adverse Effects Determination



Page 119 of 172

Appendix E

Consulting Parties Summary



Memorandum

To: Richard Daubert, Village Engineer – Village of Glen Ellyn

From: Steve Hands, Senior Project Manager – CDM Smith

Date: September 24, 2021

Subject: Section 106 Consultation, Initiation Letter Response Summary

For the Glen Ellyn Metra Station Project, the Village of Glen Ellyn sent Section 106 Consultation Invitation letters to eight parties on January 4, 2021. The Village sent another reminder correspondence to parties that had not yet responded on February 25, 2021. The Village sent invitations letters to three more parties on August 10, 2021 and a follow up email on September 21, 2021. The parties that received invitation letters and their responses are listed below:

Of the eleven (11) parties invited to participate in the Section 106 Consultation, eight (8) parties have responded.

Party Invited to Consult	Response
Citizens for Glen Ellyn Preservation	No Response
DuPage County Historical Society	No Response
Glen Ellyn Historic Preservation Commission	Responded with Comments
Glen Ellyn Historical Society	Responded with Comments
Landmarks Illinois	Responded; Declined to Consult
Next Stop Coffee Shop	Responded with Comments
Northern Illinois Historic League	No Response
Illinois Historic Group	Responded with Comments
Illinois Commerce Commission	Responded; Declined to Consult
Metra Rail	Responded; Accepted Invitation to Consult
Union Pacific Railroad	Responded; Accepted Invitation to Consult

Of the eleven (11) parties invited, four (4) responded with comments and will participate in the future, two (2) accepted the invitation to consult without additional comments, two (2) declined to participate in the future, and three (3) did not respond. A summary of comments received in these responses is below.

Next Stop Coffee Shop: Mary Ann Kauffman responded for the Next Stop Coffee Shop with a few concerns related to the area of potential effects and the project description:

- Recommended phasing to reduce impacts to parking and traffic for businesses during construction. Noted interest in how train station boarding and ticket sales would be accommodated during construction, and noted concerns about the soundness of the Whale Antique Store building across the street from station. Requested the project review temporary construction impacts to the Prairie Path and Prairie Park and temporary loss of bicycle parking during construction
- Expressed interest in preserving the mural of Glen Ellyn inside the existing station

Illinois Historic Group: Bill Kenney of the Illinois Historic Group noted the Metra station building was not included in either of Glen Ellyn's historic districts as it was not old enough at the time of assessment and determined it unlikely that someone would sponsor a revision to either district to add the station. Bill Kenney noted that from Illinois Historic Group's view, the existing station would be ruled not historic and not subject to the Section 106 process. Bill noted that the Village can proceed with the plans for station replacement.

Glen Ellyn Historical Preservation Commission: Timothy Lottus confirmed that the existing station did not meet the Village Ordinance's criteria to be deemed a Village landmark. Timothy expressed appreciation for the architectural features included in the renderings of the proposed reconstructed station; however, Timothy requested that alternative architectural styles also be considered for the reconstruction design, while commending the architectures of the current design for projecting a pleasant and welcoming façade towards Crescent Boulevard.

Glen Ellyn Historical Society: Karen Hall confirmed that the Historical Society has no opposition to the proposed demolition of the Metra station and plans for reconstructing the Glen Ellyn Metra Station and would be happy to provide any assistance or necessary documentation.

Landmarks Illinois: Lisa DiChiera confirmed that Landmarks Illinois declines to participate in the Section 106 process; however, also noted that there is interest in preserving the existing station mural.

Illinois Commerce Commission: Brian Vercruysse confirmed that the Illinois Commerce Commission declines to participate in the Section 106 process. Brian noted that they look forward to working on the pedestrian underpass and would like to be involved in coordination with the

Union Pacific and Illinois Department of Transportation for the development of Phase I and II engineering.

Union Pacific Railroad: Jill Bazzell-Stenstrom of the Union Pacific Railroad formally accepted the invitation to participate in the Section 106 process for the Glen Ellyn Metra Station.

Summary of Comments

Generally, feedback received noted that the existing station is not considered historically significant locally and that the proposed new construction alternative should continue to be pursued. Several comments noted the mural within the station should be preserved. Other comments noted the importance of considering logistics during construction, to minimize impacts to traffic patterns, parking, as well as ticket sales and waiting areas for Metra riders. Several comments noted a positive reaction to the new construction design, and one noted that additional historic architectural styles should be considered.

Attachments: Compiled_Section_106_Parties_Responses_20210302

CC: Steve Pasinski, Client Service Leader – CDM Smith

February 19, 2021

Mr. Mark Franz
Village Manager
Village of Glen Ellyn
535 Duane Street
Glen Ellyn, Illinois 60137

RE: Metra Train Station Project

Dear Mark,

On behalf of the Glen Ellyn Historic Preservation Commission, thank you for the opportunity to provide input on the Metra Train Station Improvement Project.

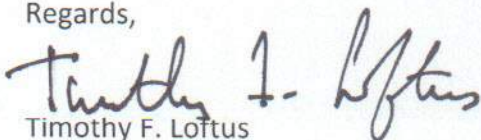
When considering the existing building's possible designation as a village landmark, our first criteria is the age of the building, which must be a minimum of fifty-years old. Per the Village Ordinance, we also consider eleven other criteria, of which at least two must be met. After review of the structure's history — with help from Village staff and the Glen Ellyn Historical Society — no information has yet been discovered regarding the original architect or the occurrence of any significant event on the premises. Furthermore, the building is not of a distinguishing architectural style nor possesses characteristics unique for Glen Ellyn architecture. With those facts in mind, we could not oppose any plans to upgrade or replace the structure.

The renderings of the proposed replacement structure improve upon the current building. The renderings appear to utilize characteristics of both the 1895 station (replaced by the current structure in the current location) and the now-demolished 1926 rebuild of the Chicago Aurora & Elgin rail line station that was located at the southwest corner of Main Street and the railroad tracks. The proposed Richardsonian Romanesque style would complement the existing historical styles of buildings in the two downtown National Register of Historic Places Districts adjacent to the train station.

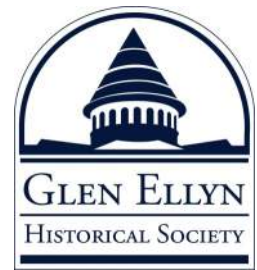
While the proposed structure improves upon the existing one, consideration should still be given to alternative architectural styles befitting of the location. The proposed Richardsonian Romanesque style would be a near repetition of the Wheaton downtown station just two stops to the west on the UP-West Metra line. Glen Ellyn could be missing out on an opportunity to have a truly unique structure. This is especially true considering its prominent downtown location. An exemplary example of a train station reconstruction in the Chicagoland area is the recently restored 1899 Tudor Revival station in Lake Forest, Illinois. This architectural style would be befitting for Glen Ellyn, as it is in harmony with the Tudor Revival style of several buildings in our Historic District and adds to the charm of our downtown area. This style would also be unique to the UP-West Metra line.

In closing, I would like to commend the architects for projecting a pleasant and welcoming façade towards the Crescent Boulevard side of the building, improving the walkability around the station. Many train stations in the Chicago metropolitan area leave the street facade an unimaginative stretch of double hung windows or large expanses of brick walls. A welcoming entrance to the train station has always been a hallmark in Glen Ellyn.

Regards,



Timothy F. Loftus
Chairperson of the Glen Ellyn Historical Preservation Commission



February 25, 2021

Richard Daubert, P.E.
Village of Glen Ellyn
Department of Public Works
30 S. Lambert Rd.
Glen Ellyn, IL 6037

Re: Glen Ellyn Metra Station Improvements

Dear Mr. Daubert:

In response to your letter of January 4, the Board of Directors of the Glen Ellyn Historical Society has no opposition to the proposed plans for the Glen Ellyn Metra Station.

We are happy to provide the Village, and any consultants, any assistance in researching the Metra Station and surrounding historic properties, as we have already been doing.

It is helpful if you would please keep us on your list of parties to be informed about progress in this area.

Please let me know if there is anything else you need. I would be your Historical Society point of contact for this project.

Many thanks,



Glen Ellyn, Illinois

Karen Hall
Executive Director
director@gehs.org
630-469-1867

Illinois Historic Group Directory

From: Richard Daubert <rdaubert@glenellyn.org>
Sent: Friday, January 15, 2021 1:26 PM
To: Illinois Historic Group Directory
Cc: 'GEHS Director'; lara@ramseyhcinc.com; Cole Jackson; Hands, Stephen L.; Kelly Purvis
Subject: RE: LEAGUE - ADMINISTRATIVE OPINION - GLEN ELLYN OUTGOING METRA STATION

Mr. Kenney,

We appreciate your time and efforts in considering participation in the Section 106 process and look forward to receipt of your letter outlining the points noted below.

Sincerely,

Rich Daubert, P.E.
Professional Engineer

Village of Glen Ellyn
Public Works Department
30 South Lambert Road
Glen Ellyn, Illinois 60137
Telephone (Direct): (630) 547-5507
Fax: (630) 469-3128
E-mail: rdaubert@glenellyn.org

Approved,
Allen Kenney
President,
Northern Illinois
Historic League
01/15/2021

From: Illinois Historic Group Directory [mailto:ihgdir@gmail.com]
Sent: Friday, January 15, 2021 11:47 AM
To: Kelly Purvis <kpurvis@glenellyn.org>
Cc: Richard Daubert <rdaubert@glenellyn.org>; 'GEHS Director' <director@gehs.org>; lara@ramseyhcinc.com; Cole Jackson <cjackson@glenellyn.org>
Subject: LEAGUE - ADMINISTRATIVE OPINION - GLEN ELLYN OUTGOING METRA STATION

OK thank you for providing this, Kelly.

Based on the previous hearing in 2018 by the Glen Ellyn Historic Preservation Commission and the research I was able to complete this week on the matter, I will provide my final feedback letter to Rich Daubert and yourself that the historic preservation community will not have a preservation opinion on the 1966 Glen Ellyn Metra Station since we have concluded the existing structure is not in itself historic. I can not locate evidence to isolate the current depot is a contributing property for any of these Glen Ellyn National Register historic districts:

84000204 Glen Ellyn Main Street Historic District
13000716 Glen Ellyn Downtown North Historic District
13000717 Glen Ellyn Downtown South Historic District

I can not establish an overall local preservation sponsor for the existing building, and both Glen Ellyn Historical Society and Glen Ellyn Historic Preservation Commission have reviewed the matter.

Rich, please proceed with your plans to continue with station replacement, following whatever normal public notices the Village needs to file in order for work to begin. Best of luck with the upcoming project.

Bill Kenney
Illinois Historic Group Directory Administrator



From: Kelly Purvis <kpurvis@glenellyn.org>
Sent: Friday, January 15, 2021 9:31 AM
To: Illinois Historic Group Directory <ihgdir@gmail.com>
Cc: Richard Daubert <rdaubert@glenellyn.org>; 'GEHS Director' <director@gehs.org>; lara@ramseyhcinc.com; Cole Jackson <cjackson@glenellyn.org>
Subject: RE: OUTGOING GLEN ELLYN METRA STATION - SECTION 106 PROJECT

Mr. Kenney,

Thank you for reaching out. You are correct that the Historic Preservation Commission has not expressed an interest in preserving, or landmarking the existing Metra station building. The project plans for the upgraded station were presented to the Commission on June 21, 2018. I have attached the minutes from that meeting for your information. While the composition of the Commission has changed some since 2018, several members of the Commission from 2018 remain. Overall, they expressed support for the proposed improvements.

Please let me know if you need anything further.

Best,

Kelly Purvis, AICP

Planning Manager | Community Development Department
Village of Glen Ellyn | 535 Duane Street Glen Ellyn, IL 60137
Ph: 630-547-5371 | kpurvis@glenellyn.org

From: Illinois Historic Group Directory [<mailto:ihgdir@gmail.com>]
Sent: Thursday, January 14, 2021 2:15 PM
To: Kelly Purvis
Cc: Richard Daubert; 'GEHS Director'; lara@ramseyhcinc.com
Subject: FW: OUTGOING GLEN ELLYN METRA STATION - SECTION 106 PROJECT

Hello Kelly,

Hope all is well there with you during these COVID times.

I have since learned that Lara Ramsey was engaged to prepare the original National Register documentation for the Glen Ellyn north and south historic downtown business districts. Her comment about the Metra station at the time in 2013 was that the station was constructed in 1966, which appears to have been 3 years newer than the period of significance

on Lara's documentation (47 versus 50 year minimum, National Register approved in 2013). That would explain to me why the Metra station was not included on either historic district proposal back then.

Do we know if the HPC has any interests in applying to have the old station integrated into one of the existing districts since it is over the 50 year minimum now, driving this recent review with Mr. Daubert? I am interpreting no, since there has already been a significant publicity profile driven about the upgraded and replacement Metra station planned. I am sure eligibility for the construction grants would not be helped with a last minute preservation drive with an unclear overall sponsor interested in this preservation.

I am aware that Glen Ellyn Historical Society will not be weighing in with an opinion, and I am not aware of any historic groups with an emotional or extra attachment to the current station building to result in a fundraising drive to move the depot structure to a separate location for preservation (like New Lenox did in 2019 and others have done in other communities previously). Since the current depot was too new in 2013 to be included, unless some new sponsor surfaces over these next 2-3 weeks, I will be recommending that Glen Ellyn proceed with their replacement plans and that the regional League will not be weighing in with a preservation opinion. The outgoing station would be ruled not historic in our view and not subject to the Section 106 process.

I copied Karen Hall of GEHS, Rich Daubert and Lara Ramsey on my comments back to you so they know my current plan on the request. I will likely put a final notice on the League's LinkedIn network page to see whether anyone out there in the preservation community has any opinion or comment on this before the League's preservation opinion is provided back to the Village of Glen Ellyn.

Bill Kenney
Illinois Historic Group Directory Administrator



From: Richard Daubert <rdaubert@glenellyn.org>
Sent: Thursday, January 14, 2021 1:15 PM
To: Illinois Historic Group Directory <ihgdir@gmail.com>
Cc: Kelly Purvis <kpurvis@glenellyn.org>
Subject: RE: OUTGOING METRA STATION - SECTION 106 PROJECT

Thank you Mr. Kenney,

We look forward to your final reply.

Village Planner Purvis would be best suited to provide insight on your inquiry.

Sincerely,

Rich Daubert, P.E.

Professional Engineer

Village of Glen Ellyn
Public Works Department
30 South Lambert Road
Glen Ellyn, Illinois 60137
Telephone (Direct): (630) 547-5507
Fax: (630) 469-3128
E-mail: rdaubert@glenellyn.org

From: Illinois Historic Group Directory [<mailto:ihgdir@gmail.com>]
Sent: Wednesday, January 13, 2021 4:14 PM
To: Richard Daubert <rdaubert@glenellyn.org>
Cc: Kelly Purvis <kpurvis@glenellyn.org>
Subject: OUTGOING METRA STATION - SECTION 106 PROJECT

Hello Richard,

I have received your invitation to participate as a Section 106 Consulting Party for the project letter involving the replacement project for the Glen Ellyn Metra station. I am looking into it and will give a final reply by 2/03 as you requested.

I noted that there are downtown Glen Ellyn historic districts, both north and south, near the Metra station. I acknowledge your comment that surrounding property would not be in scope for the APE, but I am interested in knowing if this was by design that the train station was not included originally in either nearby historic district. I am just trying to understand better if this should be considered historic property if it was left off the original designations in downtown Glen Ellyn, or how relevant Section 106 review could be now considering the existing train station was not included originally in either established historic district.

I will be looking into any other potential building advocates for the old depot. At this point, none have been identified.

Bill Kenney
Illinois Historic Group Directory Administrator



Weddle, Annamarie E.

From: Weddle, Annamarie E.
Sent: Tuesday, March 2, 2021 11:41 AM
To: Weddle, Annamarie E.
Subject: Glen Ellyn: Landmarks Illinois Response

From: Lisa DiChiera <ldichiera@landmarks.org>
Sent: Monday, March 1, 2021 1:19 PM
To: Richard Daubert <rdaubert@glenellyn.org>
Cc: Hands, Stephen L. <handssl@cdmsmith.com>; Tim Loftus <timloftus@yahoo.com>; seacwilson@aol.com; anne gould <jagould2000@sbcglobal.net>; director@gehs.org; Wallace, Carol <Carol.Wallace@illinois.gov>
Subject: RE: Follow Up: Glen Ellyn Invitation to Participate as a Section 106 Consulting Party

Mr. Daubert,

Landmarks Illinois will be declining participation in the Section 106 process at this time. I do know that there is interest by the Glen Ellyn Historic Preservation Commission and Citizens for Glen Ellyn Preservation in seeing the mural retained or relocated and in reviewing the design of the new construction. I encourage the village to consider their recommendations in addition to any requirements of the IL SHPO.

Thank you for the invitation.

Lisa DiChiera
Director of Advocacy
Landmarks Illinois

30 N. Michigan Avenue, Suite 2020, Chicago, IL 60602
O: 312-922-1742 [Landmarks.org](https://www.landmarks.org) [Facebook](https://www.facebook.com/landmarks.org) [Twitter](https://twitter.com/landmarks.org)
People saving places. [Join us today.](#) Memberships begin at \$35
[Become a Sustaining Partner by joining the LI Monthly Giving Program!](#)

From: Richard Daubert <rdaubert@glenellyn.org>
Sent: Thursday, February 25, 2021 11:21 AM
To: Lisa DiChiera <ldichiera@landmarks.org>
Cc: Hands, Stephen L. <handssl@cdmsmith.com>
Subject: Follow Up: Glen Ellyn Invitation to Participate as a Section 106 Consulting Party

Ms. DiChiera,

On January 4, 2021, the Village of Glen Ellyn transmitted (to you) the attached email and invitation letter (letter transmitted via email and USPS) to participate as a Section 106 Consulting Party for the Village's Glen Ellyn Metra Transit Station Improvements Project. We did not receive a response to this outreach and are respectfully following up. Should Landmarks Illinois wish to serve as a Section 106 Consulting Party on the project, or otherwise decline participation due to no concerns with the proposed demolition of the Metra Station, a response to this email indicating so would be greatly appreciated.

Sincerely,

Rich Daubert, P.E.
Professional Engineer

Village of Glen Ellyn
Public Works Department
30 South Lambert Road
Glen Ellyn, Illinois 60137
Telephone (Direct): (630) 547-5507
Fax: (630) 469-3128
E-mail: rdaubert@glenellyn.org

Weddle, Annamarie E.

From: Richard Daubert <rdaubert@glenellyn.org>
Sent: Wednesday, February 3, 2021 11:35 AM
To: Hands, Stephen L.; Harber, Benjamin O.; Pasinski, Steven S.
Subject: FW: Acceptance of Invitation to Serve as a Section 106 Consulting Party
Attachments: Metra Mural Article (Original).png; Transom center hinged windows and Transom latch hook (antique).png; Areas of concern.png

Rich Daubert, P.E.
Professional Engineer

Village of Glen Ellyn
Public Works Department
30 South Lambert Road
Glen Ellyn, Illinois 60137
Telephone (Direct): (630) 547-5507
Fax: (630) 469-3128
E-mail: rdaubert@glenellyn.org

From: Mary Ann Kaufman [mailto:maryannkaufman100@gmail.com]
Sent: Tuesday, February 02, 2021 3:16 PM
To: Richard Daubert <rdaubert@glenellyn.org>
Subject: Acceptance of Invitation to Serve as a Section 106 Consulting Party

Dear Mr. Richard Daubert,

I have thought long and hard about this wonderful opportunity and as to if I'm up to the task. I find that I am up to this task and gladly accept your invitation to serve as a Section 106 Consulting Party.

Several observations about the APE region that could cause some areas of concern.
Depending on how the construction timeline and process is permitted, Crescent businesses and parking and access to their places of business or residences.

I would recommend for the historic business district on Crescent that either the tunnel is constructed first, or the train station is constructed first, but that they are not constructed at the same time so that patrons can use Park Blvd to Access the Platform and then later use Mainstreet to access the Platform so that all of the platforms are not disabled at the same time.

I think Metra, and Union Pacific need to have input on how this is going to affect the scheduling and boarding process of Metra and the impact on Union Pacific freight rail service. When the train station is demolished, where will tickets be sold?

Of further concern is the prairie path and prairie path park. The prairie path park is a historical space owned by Glen Ellyn Park District. The prairie path is also owned by the county as a right-of-way as part of the overall effort for active transportation and recreation. Construction may end up disrupting the prairie path system in

Glen Ellyn depending on street closures, train boardings etc. When presenting this Area of Potential Effect to the public, possibly subdivide it and include dates when there are closures, rerouting or limited access may occur.

Train Station and Platform Area

Bicycle parking will be affected on the platform no matter how the construction phases go. Is there a possibility of utilizing putting in temporary parking for motorcycles and bicycles behind the now empty building where the Dog Treats store was on Park Boulevard?

While construction is happening involving a change at Park Boulevard and Crescent, could this empty store space be utilized as a temporary waiting area during inclement weather (mostly storms with wind, lightning, hail, sleet)?

Inside the train station there is a one of a kind mural of Glen Ellyn that is 24 years old created by Glenbard West students in the club "Students for Students." This should be saved to be installed in the next train station as there is an actual directional relation to what is on the mural and the direction you are looking. It must be mounted on a north wall to make sense. You can read more about the mural here. [Glen Ellyn Train Station Mural](#)

Another concern is in regarding the Transom latch Hook (which is an antique) for the upper row of transom center hinged windows that are the best for gravity flow cooling in late Spring, Summer and early Fall. These types of windows lower the inside temperature by 5 to 8 degrees depending on direction of wind flow. This reduces the need for air conditioning on cooling degree days.

A tree, on the west side of the current train station has a memorial plaque at the base. I'll take a picture of it, but my guess is that this is a historic site. I can make sure tomorrow what it says. But this tree should be preserved.



Thank you so much for asking for my opinions in regard to the Area of Potential Effect. I'm hoping that things go smoothly. If this is not the information you were hoping for, please let me know through email.

Weddle, Annamarie E.

From: Richard Daubert <rdaubert@glenellyn.org>
Sent: Wednesday, February 3, 2021 11:35 AM
To: Hands, Stephen L.; Harber, Benjamin O.; Pasinski, Steven S.
Subject: FW: Further Thoughts on APE area for the Train Station Reconstruction and Tunnel

Rich Daubert, P.E.
Professional Engineer

Village of Glen Ellyn
Public Works Department
30 South Lambert Road
Glen Ellyn, Illinois 60137
Telephone (Direct): (630) 547-5507
Fax: (630) 469-3128
E-mail: rdaubert@glenellyn.org

From: Mary Ann Kaufman [mailto:maryannkaufman100@gmail.com]
Sent: Tuesday, February 02, 2021 3:52 PM
To: Richard Daubert <rdaubert@glenellyn.org>
Subject: Further Thoughts on APE area for the Train Station Reconstruction and Tunnel

Of course my entire business is in the APE. If you do the tunnel first, I might have additional businesses if the western parking lot along crescent for train station parking is utilized the most for equipment and materials.

Once I'm told to close business because the station will be torn down and rebuilt, hoping that it is as close to the tear down date as possible, I have one year of disruption of business insurance. I can utilize that insurance monies for moving my equipment, and storage until the station is built.

One day while shopping at the Antique store, I noticed that the front of the building wall is pulling away from the building. The cracks are huge inside and along the seam. Before the heavy equipment comes in, possibly take a look for building soundness at the The Whale Antique store across the street?

About the mural, it's removable. I don't think it's glued to the wall. It's bolted. I hope that the transom mid-hinged windows can be translated to the new train station so that the window latch hook can be used still. It's kind of cool. It is an antique.

Oh, in the case of the mural, there is a potential buyer, if we need one, but it was an off-hand remark and so that can be followed up later.

Hope that everything is ok with you. And I look forward to hearing from you.

Sincerely,
Mary Ann Kaufman
630-730-3417

Metra wall to speak volumes about students' anti-drug work

BY MATTHEW NICKERSON
Daily Herald Staff Writer

Commuters who board Metra trains in downtown Glen Ellyn will soon see a colorful mural sprawling across the inside of the train station.

The 164-square-yard mural, to be painted by Glenbard West High School students, will show the school and town landmarks.

Gilda Ross, the students' faculty adviser, said the mural will spread over the brick station's north side.

"It's going to cover the entire side of the wall," she said Tuesday. "It's really big."

The idea for the mural was spawned last fall, when Ross' Students for Students anti-drug group was talking about doing a service project.

Food and clothing drives already were being conducted, so Ross suggested a mural to the students.

"They thought it was a great idea," she said.

The mural's purpose, she said, "is to reinforce the positive message of Students for Students and to share that message with the community."

Glenbard West and the hill it

stands on will be depicted in the painting's center, with the Glen Ellyn village hall, library and other landmarks to the sides.

Town denizens, a marching band and Students for Students slogans such as "If you can dream it, you can do it" will be scattered throughout the mural.

The mural will wrap around windows and may include a depiction of the newspaper counter that sits in the train station.

Judy Higby, a 49-year-old Glen Ellyn artist, is supervising the 50 Students for Students members and other teens painting the mural.

Working in teams, students are painting plywood planks in Higby's cellar seven nights a week.

"It's a blast," said Higby's daughter, Annie, one of the painters.

Students aim to assemble the planks and hang them on the station wall by the end of the school year.

The station, which is on Crescent Boulevard, serves commuters on the rail line to Chicago. The Union Pacific railroad owns the station and tracks and gave permission for the mural.



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The Daily Herald
Chicago, Illinois
29 Jan 1997, Wed • Page 280



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Enter address, PIN, intersection, place, street or XY.

Location found:

Prairie Path Park, Glen Ellyn

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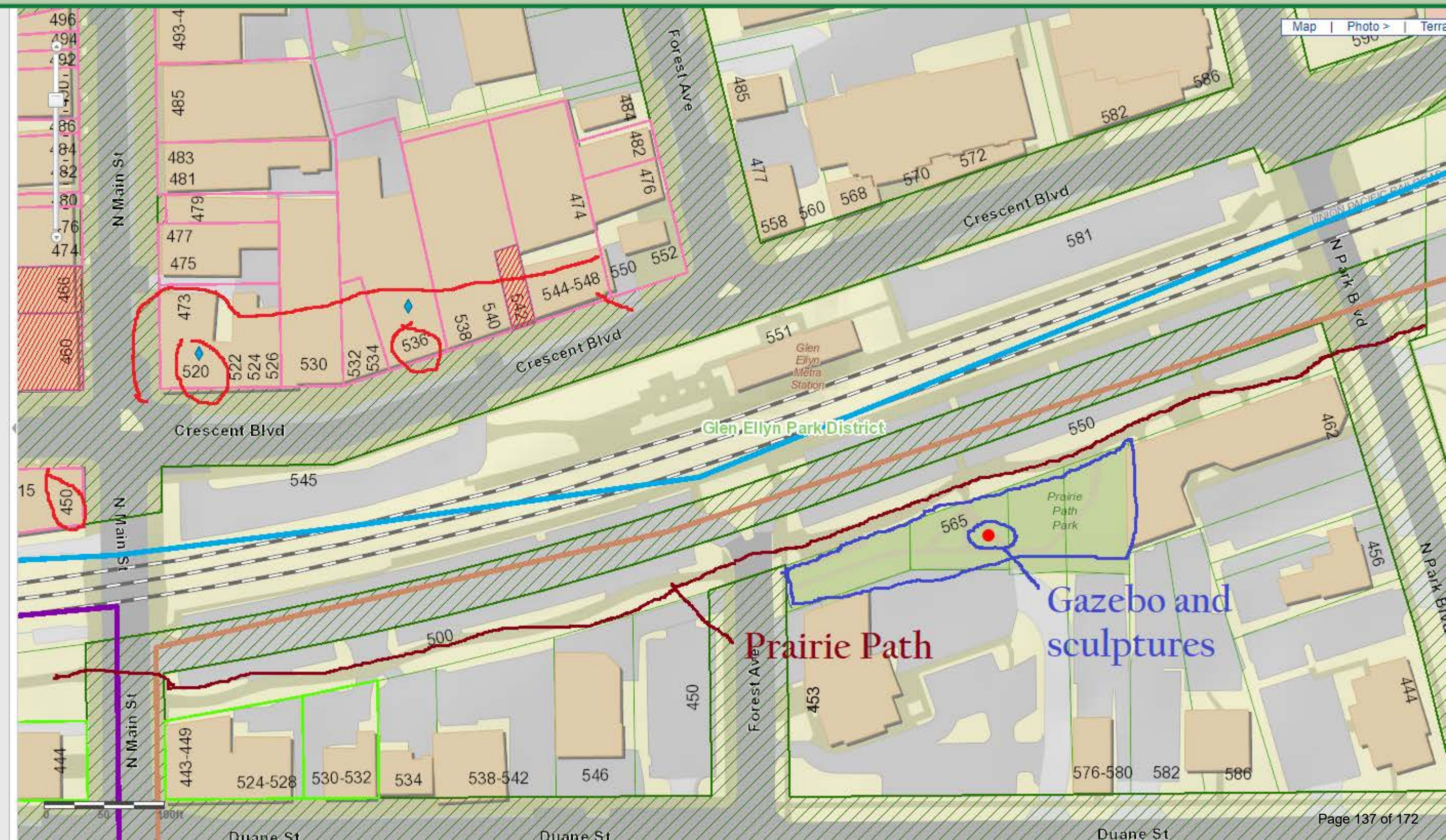
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Walsh, Kevin J.

From: Hands, Stephen L.
Sent: Tuesday, September 21, 2021 12:37 PM
To: Walsh, Kevin J.
Subject: FW: Glen Ellyn Metra Transit Station Improvements - Village of Glen Ellyn, Illinois - Invitation to Serve as a Section 106 Consulting Party
Attachments: S106 CP Invite Letter - ICC.pdf

Please also add this response to consulting party memo/package for Glen Ellyn.

Best ,
Steve

From: Richard Daubert <rdaubert@glenellyn.org>
Sent: Tuesday, August 10, 2021 4:06 PM
To: Hands, Stephen L. <handssl@cdmsmith.com>
Subject: FW: Glen Ellyn Metra Transit Station Improvements - Village of Glen Ellyn, Illinois - Invitation to Serve as a Section 106 Consulting Party

FYI

Rich Daubert, P.E.
Professional Engineer

Village of Glen Ellyn
Public Works Department
30 South Lambert Road
Glen Ellyn, Illinois 60137
Telephone (Direct): (630) 547-5507
Fax: (630) 469-3128
E-mail: rdaubert@glenellyn.org

From: Vercruysse, Brian [<mailto:Brian.Vercruysse@illinois.gov>]
Sent: Tuesday, August 10, 2021 4:01 PM
To: Richard Daubert <rdaubert@glenellyn.org>
Cc: Murauski, Christopher <Christopher.Murauski@illinois.gov>; Milewski, Stanley <Stanley.Milewski@illinois.gov>
Subject: RE: Glen Ellyn Metra Transit Station Improvements - Village of Glen Ellyn, Illinois - Invitation to Serve as a Section 106 Consulting Party

Mr. Daubert,

Thank you for the letter. ICC Staff declines to participate as a Section 106 Consulting Party for the station improvements.

We look forward to working with you on the pedestrian underpass. Please feel free to contact myself or Chris Murauski (cc'd) as you move forward with coordination with the Union Pacific Railroad and IDOT for the development of Phase I and II engineering.

Have a good night,
Brian

Brian Vercruysse, P.E.
Rail Safety Program Administrator
Illinois Commerce Commission
527 E. Capitol Avenue, Springfield, IL 62701
312-636-7760 | brian.vercruysse@illinois.gov

From: Richard Daubert <rdaubert@glenellyn.org>
Sent: Tuesday, August 10, 2021 2:40 PM
To: Vercruysse, Brian <Brian.Vercruysse@illinois.gov>
Subject: [External] Glen Ellyn Metra Transit Station Improvements - Village of Glen Ellyn, Illinois - Invitation to Serve as a Section 106 Consulting Party

Mr. Vercruysse,

Please see the attached document pertaining to the Village of Glen Ellyn Metra Transit Station Improvements Project. A hard copy has also been mailed to the address referenced in the document.

Rich Daubert, P.E.
Professional Engineer

Village of Glen Ellyn
Public Works Department
30 South Lambert Road
Glen Ellyn, Illinois 60137
Telephone (Direct): (630) 547-5507
Fax: (630) 469-3128
E-mail: rdaubert@glenellyn.org

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Richard Daubert

From: Kenneth M. Schultz <KSchultz@METRARR.COM>
Sent: Thursday, August 19, 2021 4:06 PM
To: Richard Daubert
Cc: Demetrios Skoufis; Daniel Thomas; Brian Stepp; Andrew Roth; Anthony Ognibene; Mark Delaney; David Kralik; Glen Peters; Paul Bobby
Subject: Glen Ellyn Metra Transit Station Improvements - Village of Glen Ellyn, Illinois - Invitation to Serve as a Section 106 Consulting Party
Attachments: S106 CP Invite Letter - Metra.pdf

Mr. Daubert,

Demetri forwarded to me the attached letter. I am the project manager in Metra Capital Project Delivery Department assigned to your Glen Ellyn UPW station project. Please include me as Metra contact moving forward. Also copy Dan Thomas with Metra Grants for all NEPA related issues. Yes, we would like to participate as a consulting party. Thank you.



Kenneth M. Schultz | Architect 3
547 W. Jackson Blvd, Chicago, IL, 60661
P: 312-322-6618 | E: KSchultz@METRARR.COM
C: 630-418-0021

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Walsh, Kevin J.

From: Jill Bazzell - Stenstrom <JCBAZZELL@UP.COM>
Sent: Wednesday, September 22, 2021 4:50 PM
To: Richard Daubert; Liisa Lawson Stark
Cc: Dana Brummund; Rebecca Hoffman; Hands, Stephen L.
Subject: RE: Glen Ellyn Metra Transit Station Improvements - Village of Glen Ellyn, Illinois - Invitation to Serve as a Section 106 Consulting Party

Yes, please consider this our formal response to participate in the Section 106 process for the Metra Station. I can be your point of contact. Thank you.

Jill C Bazzell-Stenstrom
General Director – Real Estate
Union Pacific Railroad
402-544-4402

From: Richard Daubert <rdaubert@glenellyn.org>
Sent: Tuesday, September 21, 2021 10:53 AM
To: Jill Bazzell - Stenstrom <JCBAZZELL@UP.COM>; Liisa Lawson Stark <LLSTARK@up.com>
Cc: Dana Brummund <DLBrummund@up.com>; Rebecca Hoffman <RHOFFMAN@UP.COM>; Hands, Stephen L. <handssl@cdmsmith.com>
Subject: Glen Ellyn Metra Transit Station Improvements - Village of Glen Ellyn, Illinois - Invitation to Serve as a Section 106 Consulting Party

*** PROCEED WITH CAUTION - This email was sent from outside the Company ***

Hi Jill and Liisa,

I had transmitted the attached letter to Erik Varela back on 8/10/2021 and he had forwarded it to Colby Rinker for what we anticipated would be a formal response to either participate in, or decline participation in, the Section 106 process for the Metra Station. Colby had verbally mentioned that UP would likely provide a response to participate but never provided a formal response.

Can you please facilitate a formal response to me on behalf of UP or otherwise indicate that you will not be providing a response?

Thank you!

Rich Daubert, P.E.
Professional Engineer

Village of Glen Ellyn

Public Works Department

30 South Lambert Road

Glen Ellyn, Illinois 60137

Telephone (Direct): (630) 547-5507

Fax: (630) 469-3128

E-mail: rdaubert@glenellyn.org

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Appendix F

Alternative Analysis

Alternative Analysis

The following documents each of the six alternatives that were considered as part of this project. The alternatives considered include:

- No Build Alternative
- New Station Location – West Alternative
- Rehabilitate the Existing Station Alternative
- New Station Location – East Alternative
- Rehabilitate and Expand the Existing Station Alternative
- **Preferred Alternative – New Station Construction – Same Location**

These alternatives were presented to the Village of Glen Ellyn Board of Trustees on July 12, 2021 and selected the New Construction-Same Location alternative as the preferred alternative. Although this alternative causes an adverse effect to the Glen Ellyn Metra Station, Section 106 resource, it is the only alternative that addresses all requirements outlined in the Purpose and Need. The Purpose and Need is included in **Appendix F**.

No Build Alternative

The No Build Alternative would include no improvements to the Glen Ellyn Metra Station and it would retain the existing physical features of the station. The No Build Alternative includes only routine maintenance conducted at the station.

The existing station consists of a station house (85 feet by 22 feet interior dimensions) and amenities, boarding platforms, and two connecting surface parking lots located directly adjacent to the station to the east and west of the station house between Main Street and Park Boulevard. The distance between Main Street and Park Boulevard is approximately 1,010 feet. Additional surface parking for the station is located south of the rail line and station. Two at-grade railroad crossings provide vehicular and pedestrian access to the station: one approximately 600 feet west of the station at Main Street and a second approximately 500 feet east of the station at Park Boulevard.

With no construction at the existing station site, there would be no adverse effect to the station and therefore there would be no section 4(f) use.

Based on the purpose and need of the project, the No Build Alternative is not a prudent alternative. The No Build Alternative does not meet capacity needs or modern building standards and codes. The No Build Alternative does not improve access or provide pickup and drop-off locations for users. In addition, its physical location is separated in elevation from the remainder of downtown and the design does not address the pedestrian realm of the downtown. The No Build Alternative would retain this physical configuration incongruity between the station and

surrounding historic districts, would not support the Downtown Strategic Plan, and would not meet the Village and Metra's operational requirements. Therefore, this alternative has been dismissed from further consideration because it does not meet the project purpose and need.

New Station Location – West Alternative

A new station location west of Main Street was evaluated and shown in **Figure 1**. This alternative would require locating the new station on a curve in the railroad tracks. The curvature of the tracks at this location exceeds Metra and Union Pacific Railroad operational and safety standards. The location along a curve causes visibility challenges for train operators and passengers. From a safety perspective, platform gaps would increase because of the location on a curve and the super-elevation of the railroad tracks, and could present tripping hazards for passengers waiting on the platform. Additionally, this location is not well aligned with the denser sections of downtown and the majority of commuter parking.

This alternative was dismissed from further consideration as an avoidance alternative because it is not considered feasible as a matter of sound engineering judgment and is not considered prudent as it results in unacceptable safety or operational problems.

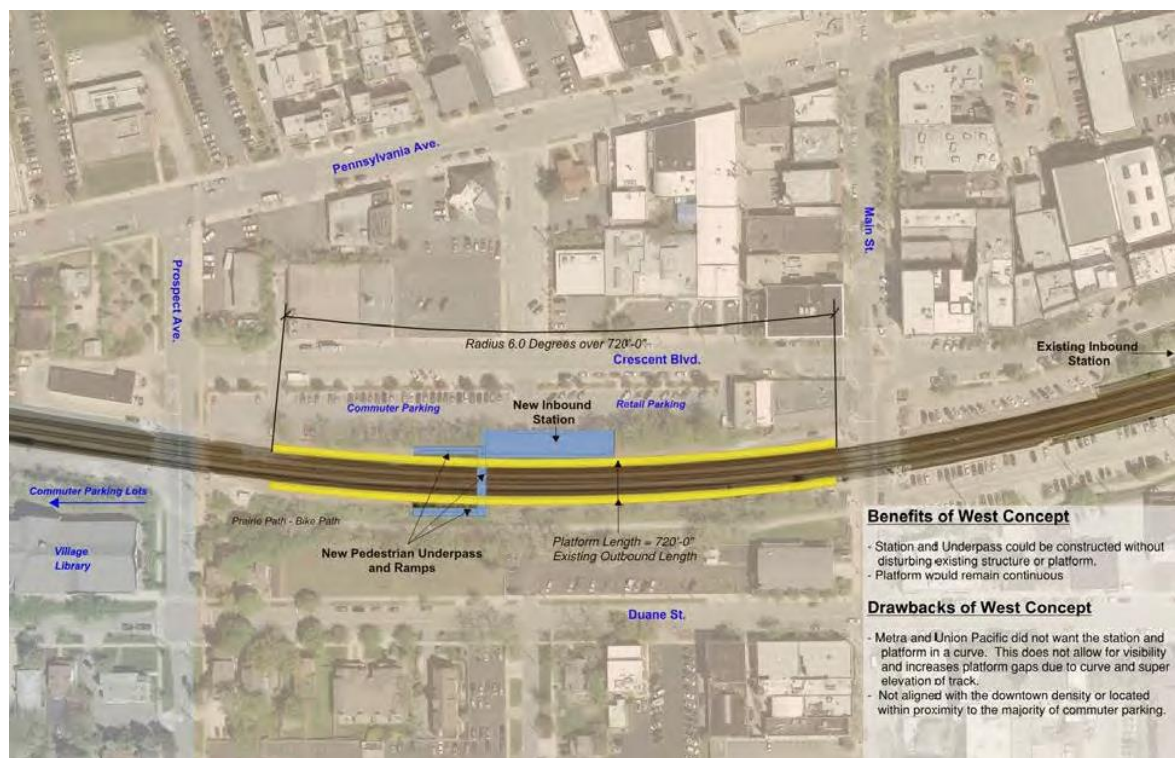


Figure 1 New Station Location – West Alternative

Rehabilitate the Existing Station

Rehabilitate the Existing Station Alternative, shown in **Figures 2 and 3**, would renovate the station building and improve the site, but would not externally modify the existing station house. Rehabilitation of the station would consist of demolishing and rebuilding the existing flatwork, retaining walls, and exterior stairs. The existing exterior brick, stone, and wood would need to be

replaced and/or tuckpointed, and exposed steel would need to be removed, refabricated, and reinstalled. The existing interior terrazzo floor and concrete slab would be demolished and removed, including original ground heating loops. All existing mechanical, electrical, and plumbing would be removed and replaced. This would require demolishing interior walls and floors to gain access, and replacing the existing ceilings. A fire protection system would be need to be installed and a new restroom would need to be built within the existing waiting area, further reducing the usable waiting area. Additionally, a new roof and insulation would be required. New windows and doors would be required to bring the station into a state of good repair and to meet energy codes. New water, sewer, and electrical feeds into the building from the street would also be required. These improvements are representative of the types of required improvements to maintain a state of good repair. Given the age, condition, and materials used for the station, operations and maintenance costs would continue to grow and are not sustainable in the long-term. This alternative would not address the station capacity expansion needs noted in the purpose and need identified for this project to address existing and future ridership growth.

Further, rehabilitation would not bring the station to modern building codes, meet ADA requirements, or meet Metra's Commuter Rail Station Guidelines and Standards. Finally, with this alternative, the retaining walls required to support the existing stationhouse structure would limit the integration of the station to the plaza proposed at the north entrance to the pedestrian tunnel. This proposed plaza is integral to the goals of reconnecting the station to the adjacent downtown businesses.

Like the No Build Alternative, the Rehabilitate the Existing Station Alternative would retain the physical configuration incongruity between the station and surrounding historic districts in downtown Glen Ellyn. The rehabilitation could also result in a Section 106 adverse effect determination and use of a Section 4(f) resource if it diminishes the integrity of the property's significant historic features without replacing them in-kind.

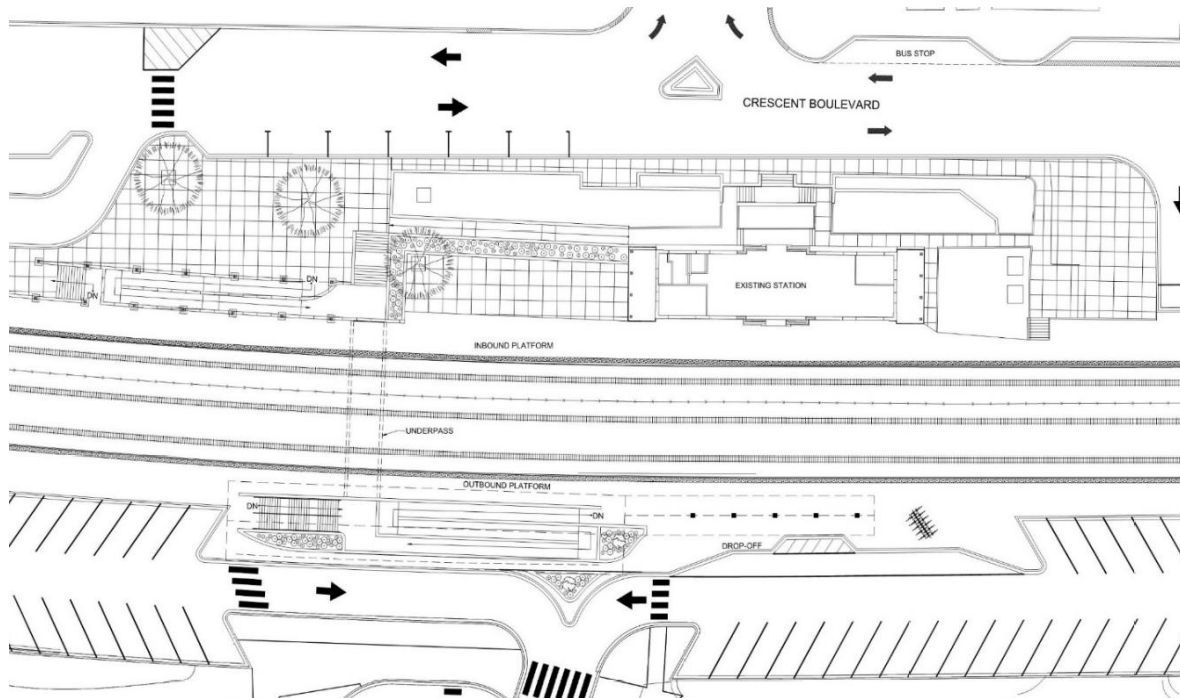


Figure 2 Rehabilitate the Existing Station Alternative – Site Plan

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Figure 3 Rehabilitate the Existing Station Alternative – Rendering

Rehabilitate and Expand the Existing Station

The Rehabilitate and Expand the Existing Station Alternative, shown in **Figures 4 and 5**, modifies the existing station to accommodate new building codes and expanded capacity. While an

improvement over the Rehabilitate Existing Station Alternative, the Rehabilitate and Expand Alternative still does not provide compliance with Metra's Commuter Rail Station Guidelines and Standards as the configuration creates station areas not visible from the ticket counter. The existing station would also be substantially changed aesthetically since the existing mechanical, electrical, plumbing, and programmed spaces would all need to be relocated to allow for the expansion and provide sufficient circulation and use of the station. Exterior pavement, landscaping, retaining walls, and utilities would be removed and reconstructed. The exterior walls would need to be reconstructed and demolished at the west end to allow for expansion. Interior walls and utilities would be removed, as well as the terrazzo floor and ceiling to accommodate utilities and new mechanical systems. To meet modern building and energy codes, new insulation and windows would need to be added. If the required addition is made to the exterior, it would further change the character of the building given that it would expand the building footprint and the proportions would therefore change.

Connecting new and older systems of a building is complex, does not allow for construction methods like prefabrications, and is costly for contractors in terms of risk. It is also complex in maintenance needs between older elements and newer elements of construction. All new mechanical, electrical, plumbing, and utility services would be required, and the station would have foundations and systems that were both new and old, reducing the longevity and long-term sustainability of the station. Additionally, phasing construction on the small site while keeping the site operational would be costly because of the active rail lines. A secure and open plaza would be substantially smaller at the new underpass structure under this alternative because of the need to maintain the existing station location, expand the station, and not significantly reduce already constrained parking supply.

The new addition would be consistent with the Secretary of the Interior's Standards to be compatible with the existing station. In addition, the design does not address the physical separation created by the design configuration of the existing station and its relationship to the North and South Historic Districts.

The Rehabilitate and Expand the Existing Station Alternative has not been carried forward for further consideration because it does not meet the purpose and need of the project.

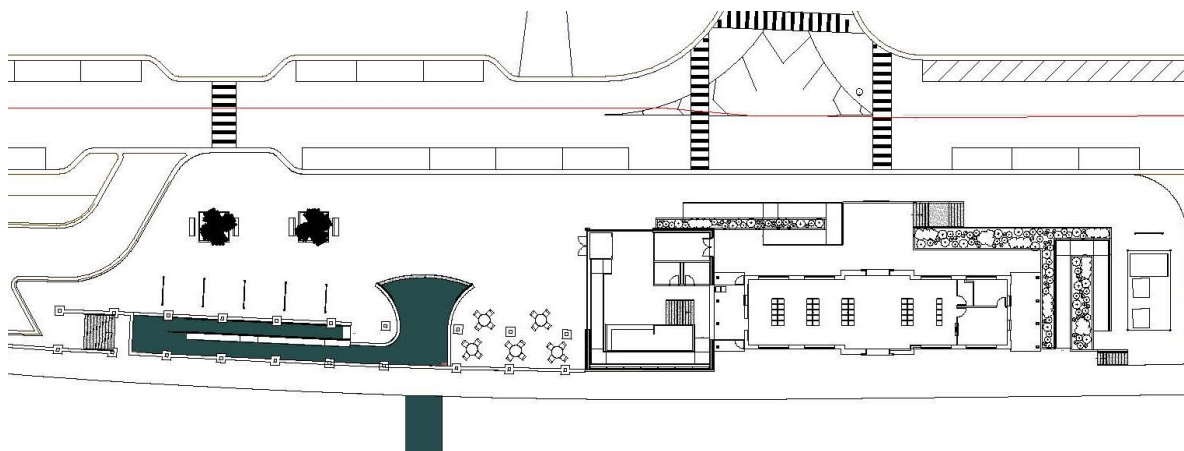


Figure 4 Rehabilitate and Expand the Existing Station Alternative – Site Plan



Figure 5 Rehabilitate and Expand the Existing Station Alternative – Rendering

New Station Location – East Alternative

A new station location east of Park Boulevard was evaluated and is shown in **Figure 6**. Memorial Park, which is owned and operated by the nearby Glenbard West High School, is in this area and would require repurposing for the new station. Memorial Park primarily consists of school athletic fields and includes a greenspace area open to the general public with amenities such as public picnic tables and a veteran’s memorial. Therefore, the required removal of portions of Memorial Park would likely result in a use of a Section 4(f) property.

With a new station east of the current location, the existing Metra station would no longer be used for transportation purposes. Because of its configuration, building deficiencies, and location immediately adjacent to the operating railroad, there are limited opportunities for adaptive reuse of this Section 4(f) resource.

The existing railroad tracks would be tangent to a new station house at this location, a key consideration for construction and operational feasibility. A new platform would need to be created and there is available width at this location to provide a continuous platform. However, there were several concerns with this alternative. These included operations and access concerns, the need for additional ROWs from the existing park/green space, and community concerns. Union Pacific Railroad’s signal mast is located further east of where the platform would need to be located, and would interfere with platform visibility for trains. Given the narrowing of the existing ROW at this location and to provide pickup and drop-off locations at the station, not only would this alternative remove an existing park/green space, but it would also require an additional ROW from Glenbard West High School.

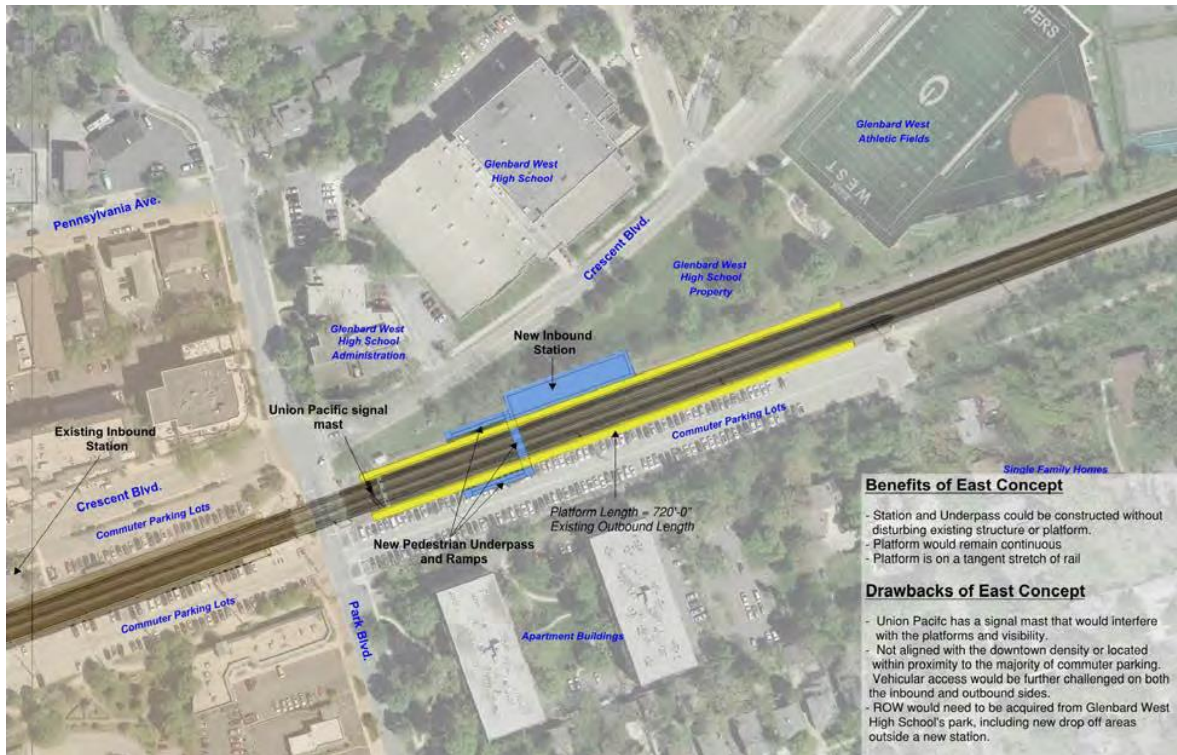


Figure 6 New Station Location – East Alternative

Vehicular access would be further challenged both north and south of the existing railroad tracks. Further, there are existing apartment homes located on the south side of the existing tracks near the potential location of the new station, complicating access from the south.

Because of concerns with its constructability and the potential impacts, including use of a different 4(f) property associated with this alternative, the New Station Location – East Alternative has been dismissed from further consideration.

New Station Construction – Same Location (Preferred Alternative)

The New Construction Alternative, shown in **Figure 7** and **Figure 8**, would involve demolition of the existing station to provide a larger, new, and modern station that meets Metra's capacity standards. The new building would be built to be consistent with the Tudor Revival style of the surrounding historic districts and further tie the station into the surrounding community. Input from stakeholders as part of this process indicated preference for consistency in architectural style with the surrounding historic districts. Modernization would not only realize the needed capacity improvements, but would also comply with modern building codes, ADA accessibility standards, and Metra's Commuter Rail Station Guidelines and Standards. The new underpass would align with the commuter parking lots to the south and would have a minimal impact to on-site parking.

Building a new station also allows the building to be shifted slightly east, which would provide sufficient space to create a new open space plaza at the station, further contributing to increased amenities and visibility, and enhancing active uses at the station. The openness of the design of both the plaza and underpass was noted as a desirable feature when presented to the public. The

new plaza would engage Crescent Boulevard at the existing sidewalk level, creating an improved connection to the adjacent North Historic District. The new station would require excavation of the existing sloped landscape to the west of the station, new utilities, and new cast-in-place retaining walls. The station exterior would be new brick and stone construction with a steel frame. Mechanical, electrical, plumbing, and fire protection systems would all be new, complying with current energy efficiency standards and code requirements. Because of the structure, site, and utilities being new, the expected life of the facility would be greater than the rehabilitate alternatives and long-term maintenance costs would be reduced.

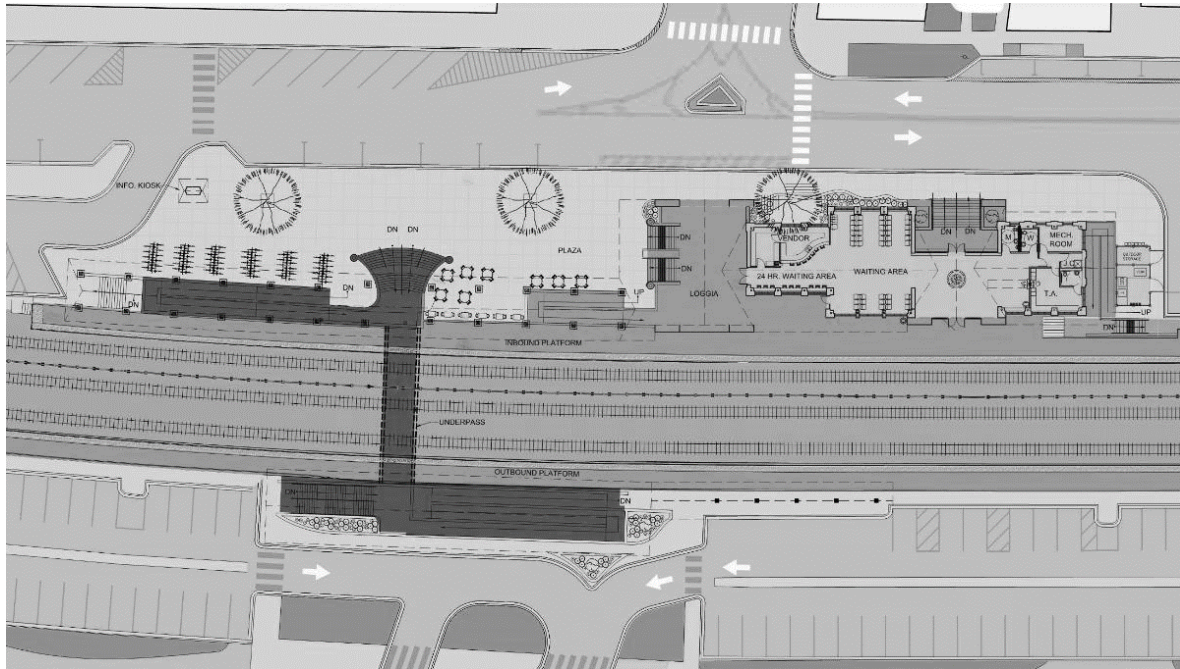


Figure 7 New Construction, Same Location Alternative – Site Plan



Figure 8 New Construction, Same Location Alternative – Rendering

Summary of Alternative Analysis

Table 1-1 provides a summary of how each of the alternatives was analyzed with regard to Section 106 adverse effect avoidance and addressing the project's purpose and need. The alternatives were presented to the Village of Glen Ellyn Board of Trustees on July 12, 2021 and selected the New Construction-Same Location alternative as the preferred alternative. Although this alternative causes an adverse effect to the Glen Ellyn Metra Station, a Section 106 resource, it is the only alternative that addresses all requirements outlined in the Purpose and Need.

Table 1-1: Alternatives Comparison

	No Build	New Station East	New Station West	Rehabilitate	Rehabilitate and Expand	New Construction-Same Location
Impacts to Historic Resources						
Impacts Resource #16- Glen Ellyn Metra Station	No effect	No effect	No effect	No adverse effect	Adverse effect	Adverse effect
Feasible from sound engineering framework	Yes	No	Yes	Yes	Yes	Yes
Addresses Purpose and Need						
Meets capacity needs (including Metra's standards)	No	Yes	Yes	No	Partial	Yes
Meets modern building standards and codes (energy code, ADA, etc.)	No	Yes	Yes	Partial	Partial	Yes
Improves access for users	No	No	No	No	Yes	Yes
Provides drop-off and pickup locations	No	Yes	Yes	Yes	Yes	Yes
Improve physical configuration incongruity with the station and existing two downtown Glen Ellyn historic districts	No	Not applicable	Not applicable	No	No	Yes
Supports Glen Ellyn's Downtown Strategic Plan	No	No	No	No	No	Yes
Meets Village and Metra's operational requirements (including costs)	No	No	No	No	No	Yes

Appendix G

Purpose and Need

Glen Ellyn Station Improvement Project

Proposed Purpose and Need

Revision 2.1 Final – March 30, 2021

I. Project Overview

The Glen Ellyn Station is a commuter rail station served by Metra Union Pacific Railroad/West Line located in the Village of Glen Ellyn (the “Village”) in DuPage County, IL at 551 Crescent Boulevard. The existing station consists of a station house (85 feet by 22 feet interior dimensions) and amenities, boarding platforms, and two connecting surface parking lots located directly adjacent to the station to the east and west of the station house between Main Street and Park Boulevard. The distance between Main Street and Park Boulevard is approximately 1,010 feet. Additional surface parking for the station is located south of the rail line and station. Two at-grade railroad crossings provide vehicular and pedestrian access to the station, one approximately 600 feet west of the station at Main Street, and a second approximately 500 feet east of the station at Park Boulevard. **Figure 1** through **Figure 3** provide an aerial view, site overview, and picture of the existing station. **Attachment A** provides additional details on the existing station floorplan, station elevation and construction materials. **Attachment B and Attachment C** include the nomination forms for the Glen Ellyn Downtown North and Glen Ellyn Downtown South Historic Districts.

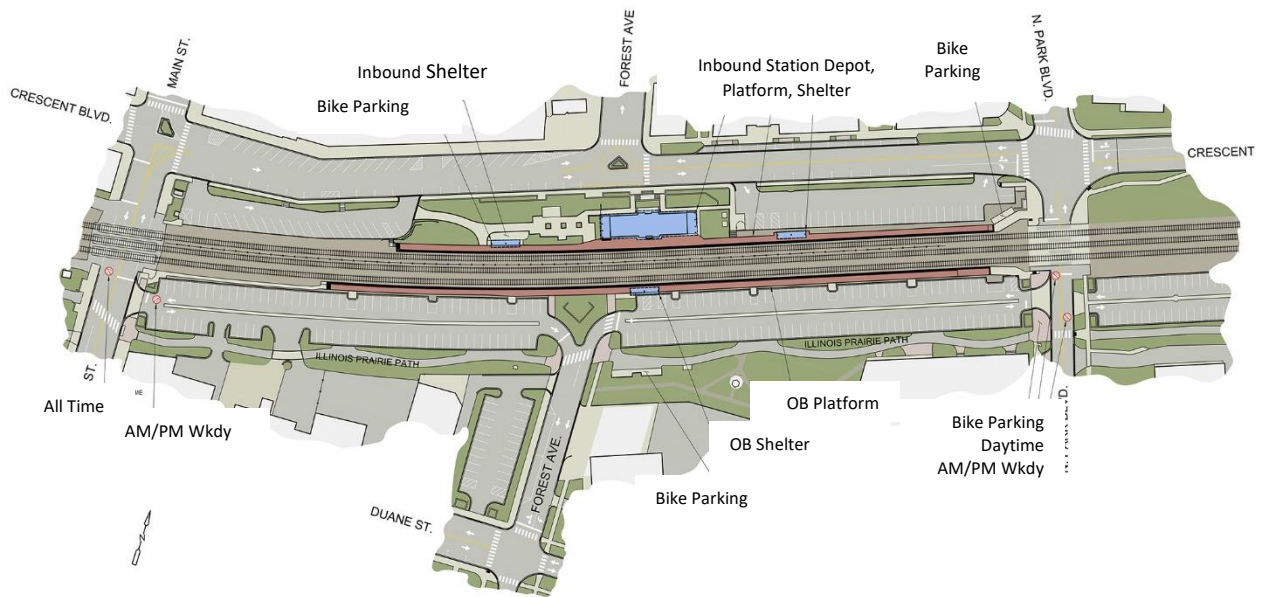
The Glen Ellyn Station Improvement Project (the “project”) proposes to construct a larger station house to address existing and continued growth and capacity needs, bring the station house to modern building, energy, and Americans with Disabilities Act (ADA) standards and address aging infrastructure, provide a new pedestrian drop-off location at the station to address conflicts with existing surface parking and traffic, and provide new and improved pedestrian safety and access to and from the station across the existing at-grade rail line. As part of the project, roadway resurfacing along Crescent Boulevard between Main Street and Park Boulevard, improvements to crosswalks at Main Street, Forest Avenue and Park Boulevard, and new sidewalks to access the station on the north and south sides of Crescent Boulevard are proposed as well as streetscape improvements. **Figure 1** shows an existing aerial of the station and surrounding site.

Glen Ellyn Station Improvement Project Proposed Purpose and Need

Figure 1: Existing Aerial of the Station and Surrounding Site



Figure 2: Existing Site Plan of the Station and Site Improvements



Glen Ellyn Station Improvement Project

Proposed Purpose and Need

Figure 3: Existing Station Elevation from north looking south



II. Needs to Be Addressed

A number of problems identify the need for this project. Metra ridership, demographic information, Illinois Department of Transportation (IDOT) safety and crash data, and established codes and standards were analyzed to demonstrate the need for the project and are summarized below and further detailed in the following sections.

- A. The surrounding community relies on commuter rail service and the existing station does not address capacity needs.
 - The current station at approximately 1,900 square feet represents only 65% of the recommend station size of approximately 2,896 square feet per Metra's Station Standards for 2036 projected ridership levels.
- B. The existing station is substantially past its useful life and has not been upgraded to meet modern standards.
 - Exterior masonry has cracked and degraded and requires continual rehabilitation.
 - Windows and doors are not compliant with current energy codes.
 - Mechanical and plumbing systems are past their useful life and present ongoing maintenance issues.
 - Site access and platforms are showing signs of deterioration that needs to be addressed to minimize tripping hazards.
- C. Access to the station is challenging for Glen Ellyn Metra users regardless of whether they walk, ride or bike, specifically:

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- It is difficult to cross the railroad tracks, as all crossings are at-grade and both signalized grade crossings are at least 500 feet from the station.
 - There is limited station parking and the majority of parking is on south side of the tracks, while the station is on north side of the track.
 - The at-grade crossings for vehicles create traffic congestion due to the frequency of Metra and freight rail operations. In addition, due to this, traffic turning movements for parking lots are restricted.
 - There is a lack of protection for pedestrians and bicyclists crossing the tracks and accessing the station.
- D. Traffic queuing occurs today at the station and there are limited drop off and pick up locations.
- The lack of drop off and pick up lanes/locations has contributed to safety concerns, with several noted collisions along Crescent Boulevard, as well as traffic congestion in downtown Glen Ellyn.
- E. The current station, tracks, and facilities create a barrier separating the north and south areas of Downtown Glen Ellyn and the existing building architecture is not compatible with the adjacent Historic Districts.
- While located in the center of Downtown Glen Ellyn, the current Metra station and railroad tracks serve as a barrier instead of a focal point of downtown.
 - Due to the boundary created by the existing railroad infrastructure, two separate historic districts have been listed on the national register even though the two areas share historic development patterns and architectural styles.
 - The existing 1966 Metra station was built after the period of significance of both Historic Districts and is considered Mid-Century Colonial Revival, a style not identified in either Glen Ellyn downtown Historic District architectural classifications.

A. The surrounding community relies on commuter rail service and the existing station does not address capacity needs

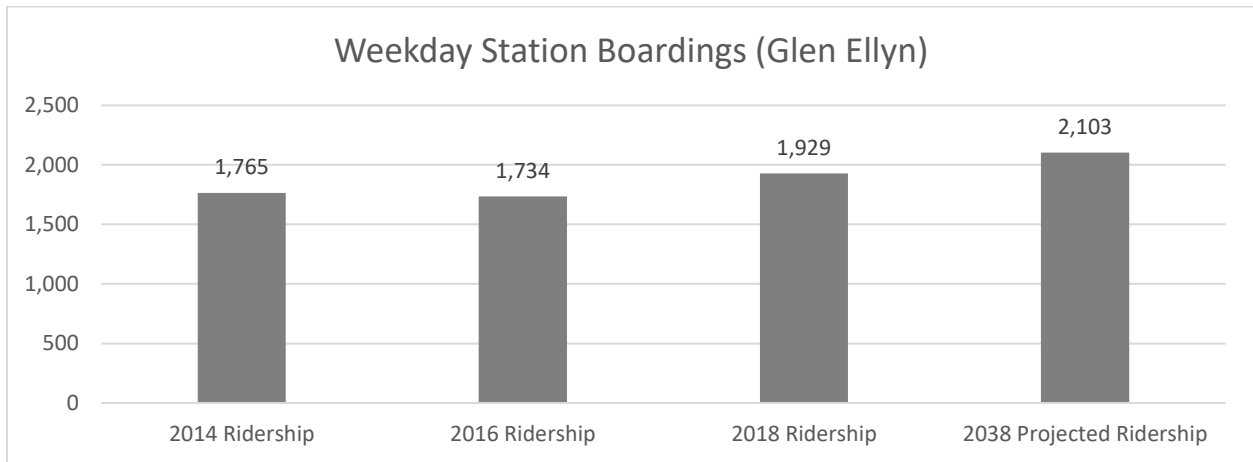
The Glen Ellyn Metra Station provides commuter rail service between the western suburbs and downtown Chicago. The population of Glen Ellyn is approximately 27,983 (2017) and has grown by 3.6% from 2000-2017.

The Glen Ellyn Metra Station is the second busiest stop on the Union Pacific West line and 9th busiest of Metra's 236 stations per Metra's 2018 boarding survey. **Figure 4** shows ridership at the station between 2014 and 2018 as well as projected ridership growth from Metra (2038). Based on Metra's most recent ridership survey, there are 1,929 boardings each weekday at the station, an 11% increase from 2016. Currently, the morning peak hours boardings often exceed Metra's recommended design capacity for a station of this size by as much as 15%.

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Figure 4: 2014-2016 Glen Ellyn Station Average Weekday Ridership Data



Source: Metra Commuter Rail System Station Boarding/Alighting Count

Metra has projected an additional 9% increase in ridership at the station over the next 20 years. This projected growth does not account for new and more recent transit-oriented development occurring in the Village. The Village has planned an additional 450 multifamily residential units in the downtown area near the station and 155 of those are already currently under construction or in the permitting process. Today's station enclosed area is approximately 1,900 square feet. Utilizing Metra's current station standard guidelines, current International Building Code, and comparing that against both today's ridership and the 20-year projected ridership, the current station does not meet sizing standards established to accommodate existing ridership and would need to be expanded to greater than 2,896 square feet to meet 20-year projected ridership growth.

See **Table 1** below for further details on the existing station sizing and standards set to meet existing and future ridership at the station.

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Table 1: Existing Station House Sizing and Deficiencies

Station Sizing - Inbound Station (Existing 1,900 Sqft)					
Program Areas			Existing Conditions	Standards for Current Ridership (Fall 2016)	Sized for 20 - Year Ridership (Fall 2036)
Waiting Area	SF/OC	4.72	1100	1232	1343
Ticket Agent office		200	193	200	200
Agent's Toilet		80	60	80	80
Public Toilets (M+W)		160	55	160	160
Janitor's Closet		25	0	25	25
Mechanical Room		300	55	300	300
Electrical Room		100	0	100	100
Storage		50	0	50	50
Vendor Area		500	300	500	500
Other (Existing Circulation)		0	137	0	0
Subtotal			1900	2646.92	2758
Circulation 5%		5%		132.346	137.88964
Total Square Feet Required			1900	2779	2896

Source: 2016 Ridership Data from Metra planning. Reviewed by Metra planning, March 2019.

Additional and full supporting information on Metra's Station Standards may be found at https://metrarail.com/system/files/station_guidelines_standards0807.pdf.

B. The existing station is substantially past its useful life and has not been upgraded to meet modern standards

The existing station was designed in 1966 and has only had minor maintenance improvements to maintain a state of good repair during that time. The exterior retaining wall, which supports the station house was rebuilt in the 1990s by Metra, and the original taxi stand was replaced by a small coffee shop over the last 53 years. The base electrical, mechanical, plumbing systems appear to be original based on the site survey conducted by a team of architects and engineers as part of this project.

General Building

Based on the 1966 design drawings, the building exterior walls are constructed of a single layer of 4-inch nominal face brick, typically with an 8-inch nominal concrete block and vermiculite filled interlayer, and a single layer of structural glazed tile in the interior of the station. **Figure 5** shows the typical east/west overhang detail as well as the ceiling and masonry wall assembly. The floor of the station is composed of a 4-inch concrete slab, with a 2-inch topping, finished in a large aggregate terrazzo. The ceiling is a

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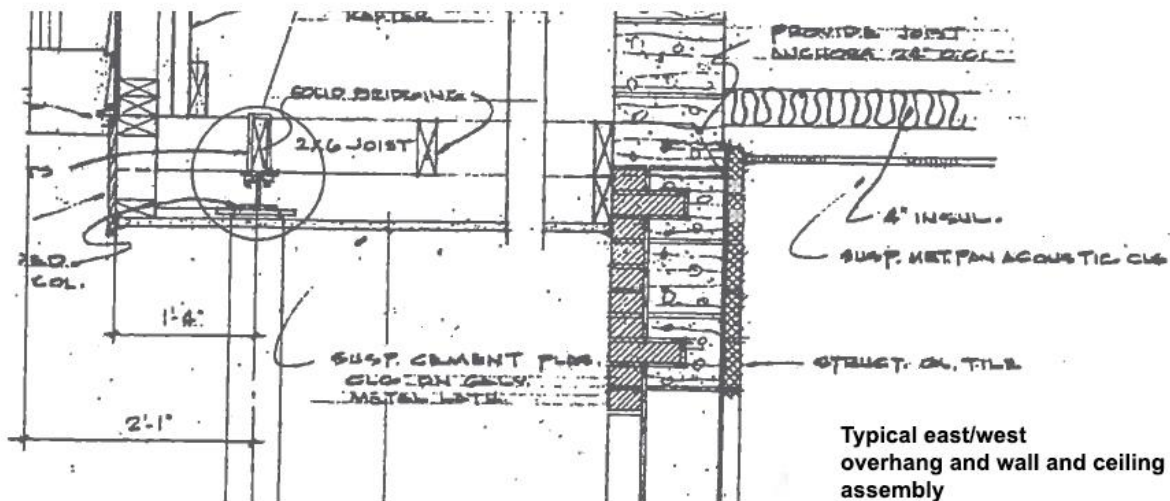
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concealed spline system with fluorescent semi-recessed fixtures, 4-inch batt insulation is shown above ceiling from the existing drawings.

The building structure is a load bearing exterior wall, with 2 inches by 6-inch nominal wood trusses with three 6-inch diameter steel exterior columns at the east and west of the enclosed building supporting a perimeter steel beam. Fenestration is composed of both fixed and operable single paned non-thermally broken extruded aluminum, and clear glazing.

The exterior masonry has cracked and degraded both the brick and limestone due to water infiltration, and salt. Because of the age of the exterior construction, there is no cavity wall or other technique to remove water infiltration. Continual rehabilitation to address moisture capture involves extensive efforts - removal of portions of the existing foundation, installation of new stone and brick and providing “re-tuck” points – which need to be done on a routine basis. In addition to ongoing maintenance costs associated with this continual rehabilitation, these improvements do not improve energy efficiency or performance of the exterior building.

Figure 5: Typical East/West Overhang Detail, Ceiling Assembly, and Masonry Wall Assembly



The interior of the building is approximately 85 feet by 22 feet of enclosed space with a secure ticket office, staff restroom, and mechanical room at the east end of the floor plan, and one public restroom. The remaining area is a waiting area with a coffee shop to the west end of the station.

Figure 6 through **Figure 8** show interior station conditions. **Attachment A** provides further details on the original 1966 station floor plan. The existing base building has reached the point of being past its useful life as the exterior building masonry (brick and limestone) are cracking and degrading from exposure to water infiltration, heavy salt exposure, and freeze/thaw cycles.

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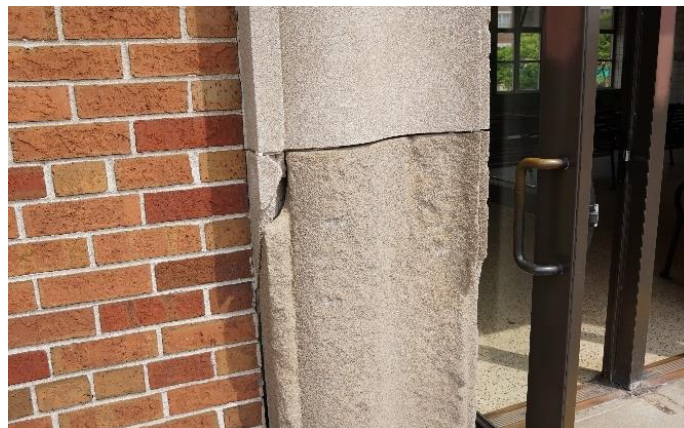
Figure 6: Existing Station Wall Interior – Spine Ceiling, Terrazzo Floors, Structural Tile Wall Surface



Figure 7: Existing aluminum single pane windows



Figure 8: Masonry damage at platform to station entry



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This also affects the steel lally columns at the east and west and the landings. The windows, doors are non-compliant with current energy codes, and need replacement due to age in a highly trafficked environment, weather exposure, and limited maintenance. Similarly, the wall assemblies and finished have aged are also not up to current energy building codes due to the perlite filled block being an R-Value of 3.26 per the Perlite Institute (2013) and current 2018 International Energy Code (IEC) requiring R-13 for mass buildings. The 4-inch roof insulation provides up to R-13 as installed but would require R-30 under IEC requirements for climate zone 5. The terrazzo floor is cracked due to settlement and maintenance. The existing restroom is not currently compliant as there are not adequate facilities for the number of occupants and both male and female facilities and clear area for ADA turning movements, as well as hardware. Neither finish materials or mechanical/electrical materials have been tested for lead or asbestos, but due to the time of construction, both may be present within the materials of the station.

Mechanical and Plumbing

The mechanical and plumbing systems of the station appear to be original, based on visual observations and comparisons from the 1966 design drawings. The building only has natural ventilation and exhaust fans (accessible only from the attic) to attempt to keep the station temperature moderated during the summer, with a small window air conditioner unit installed over the last 50 years for the ticketing agent. The heating system is primarily electric resistance heating loops installed within the concrete slab of the station floor. With regard to plumbing, the station has a public restroom with a sink and toilet fixture, and the ticket agent bathroom also has a sink and toilet. The utility room contains a utility sink and the café has a sink. There is a hot water tank in the utility room. Sanitary, storm water, and water all appear to be original to the building. Based on field review and the age of the structure, it is assumed that galvanized pipe provides is currently providing distribution of water. Sanitary is noted as 6 inches, storm water as 10 inches, and water supply is a 2-inch line per the drawings. The building gutters are exterior and lead down to grade within downspouts (leaders) and are connected to the storm water piping below grade.

Due to the age of the mechanical and plumbing systems, there are both ongoing maintenance issues, and equipment and piping have reached the end of their useful life. As shown on **Figure 9**, leaders have rusted through or have cracked in locations at the perimeter of the building due to age, galvanized piping has reached the materials end of useful life, and mechanical equipment is also in need of replacement. This would require removal of walls to replace piping. **Attachment A** provides further details on the original 1966 resistance heating cable loops and zones.

Due to the heating being provided through resistance heating loops, the age of the building, and buildings designed and constructed during the same period failing, it is expected that loops have or will begin to fail due to settlement of the concrete (cracking through the coils), and through breakdown in the resistance coils. Replacement of the coils would require removing the floor slab and electrical systems feeding the slab. Additionally, resistance heating is costly to operate as the primary heating source do to the cost electricity versus other sources.

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Figure 9: Rusty Lally Column (L), Rusty through leader (R)



Electrical

The electrical system for the station appears to not have been upgraded since the time of construction, except for minor wiring routing for the café and staff office. The lighting locations correspond to the original 1960s quick start fluorescent lights specified in the 1966 drawings. Due to the age of the existing electrical distribution system, the panels need to be removed and replaced. As noted in the mechanical section, the resistance heating is also at the end of the system's useful life.

Building Access and Platforms

Immediate access to the station is provided by stairs at the front of the station (north side) from Crescent Avenue and from stairs at the east and a ramp at the west of the station. The station finished elevation and platform elevation are the same at the south exit of the station. The retaining wall and landscaping to the south was reconstructed in the early 1990s and has a face brick exterior and concrete walking stairs and walking surfaces with steel pipe rail handrails and guardrails.



Figure 10: North retaining wall, stairs, and handrail showing cracking, and deterioration

As shown on **Figure 10**, the retaining wall and stairs are showing signs of severe weathering and damage due to exposure, water, and salt. The stairs have been patched as a temporary action, but are becoming tripping hazards, and will continue to deteriorate. Concrete walls are also cracking through settlement and weathering, and handrails are rusting and wearing through.

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The existing platform was replaced at least once since the original construction and is an asphalt platform with an imbedded yellow fiberglass tactile warning surface along the edge of platform. There are several areas of the platform that the asphalt surface varies, and sections of the tactile warning strip have deteriorated or have been damaged due to weather exposure, snow removal, or impacts (see **Figure 11**). These platforms need to be reconstructed and repaired to avoid further deterioration and to prevent tripping hazards.



Figure 11: Damaged tactile warning strip at platform edge

C. Access to the station is challenging for Glen Ellyn Metra users regardless of whether they walk, ride or bike.

Glen Ellyn Metra users predominantly gain access to the station via cars, bikes, walking, vehicular drop-offs or some combination of these modes either in the same trip or particular riders using various modes during the year. Based on a survey of 845 Metra users, the most popular trips involved a vehicle (84%) with walking (65%) also being a very common mode.

The majority of station parking provided is located south of these tracks while the station is located north of the tracks. As shown in **Table 2**, only 13% of the parking available for commuters between Main Street and Park Boulevard is on the north side (location of station), and this percentage drops further when including in areas for commuter parking that are to the east and west of these streets, all located on the south side. Currently there are two at-grade railroad crossings that provide access to and from the southern surface parking lot to the station: one located 600 feet west of the station at Main Street and another approximately 500 feet east of the station at Park Boulevard. This requires commuters to walk up to 0.3 miles or 5 minutes from their parking spot, across 3 tracks, to the Metra Station. This distance and the challenges crossing three railroad tracks is particularly significant for mobility impaired users.

Table 2: Existing Commuter Parking Quantities and Locations (excluding additional commuter parking to the east and west of Main and Park Boulevards)

Locations	Existing Commuter Parking Spots
Southwest Lot	81
South Lot	25
Southeast Lot	87
Northeast Lot	30
Total	223

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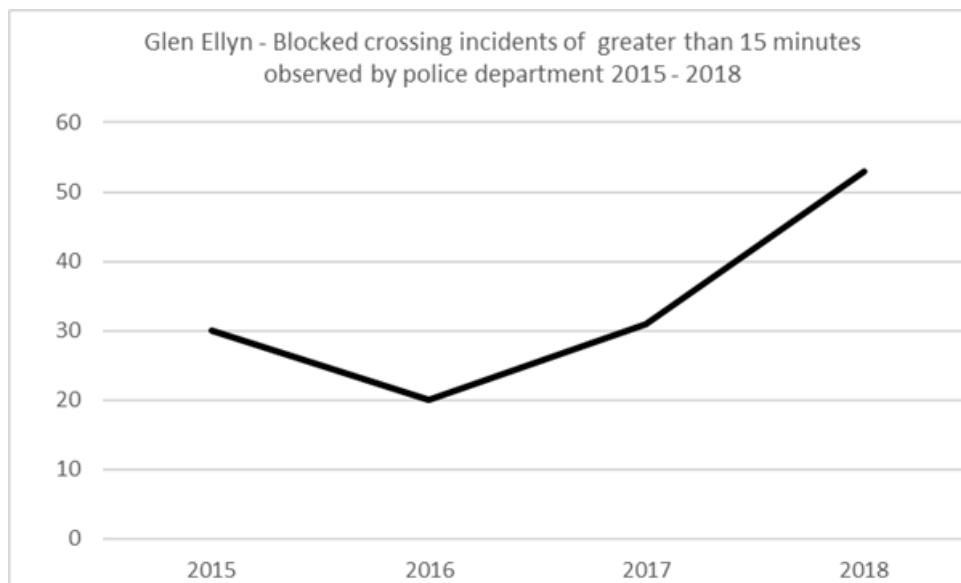
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In a survey of 845 Metra users, respondents indicated that the top four (4) challenges to accessing the station were as follows:

- Difficult to cross the railroad tracks
- Limited station parking
- Vehicular Traffic
- Lack of Protection for Pedestrians and Bicyclists

Many of the respondents indicated these challenges were not mutually exclusive but rather compounded the difficulty of reaching the station. Contributing to this difficulty are the train speeds and frequency of train crossings. The train speeds at these at-grade crossings range from 20 mph to 70 mph and there are 104 trains crossing per day, which limit safe crossing times for pedestrians. Railroad crossing gates are often closed for long periods of time as well. **Figure 12** provides police department data on reported incidents where gates were closed for more than 15 minutes at a time. While this doesn't account for all gate closings, it provides insights into the most excessive reporting on gate closings.

Figure 12: Blocked Crossing Incidents of Greater than 15 Minutes, 2015-2018



Additionally, a frequent occurrence due to Union Pacific and Metra operations is to switch the inbound and outbound platforms due to rail traffic. The notice is made to commuters over the intercom system and is typically announced only minutes before trains approach. While commuters are expected to walk at least 500 feet in each direction and cross the grade crossings, freight and express trains are continuing to move through the intersections, not allowing at-grade crossing and forcing commuters to miss trains.

From the current station construction in 1966 through the early 2000s, the solution was to allow commuters to cross at-grade between the inbound and outbound platforms. **Attachment A** provides a schematic of this at-grade crossing between platforms north and south of the station. This was removed in the early 2000s due to Metra and Union Pacific concerns about safety of pedestrians in the active rail

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right-of-way (ROW). While this reduced potential for striking pedestrians in this location, it did not eliminate the need for pedestrians to cross for the switching of trains or access to commuter parking. Additionally, for those with disabilities, the distance that was required to walk and cross has become prohibitive during changes in operations. The path of travel is also not ADA compliant.

D. Traffic queuing occurs today at the station and there are limited drop off and pick up locations

Adjacent to the Metra Station, Crescent Boulevard is one lane and there are no drop off lanes. Most of the crashes within the last 5 years occurred along Crescent Boulevard within the block approaching the Metra Station. The top two crash types were parked motor vehicle and sideswipe same direction. Parking adjacent to the station is limited and there is an 8-year backlog in parking needs. This encourages more commuters to get dropped off as opposed to driving to the station. During AM and PM peak boarding times, this condition causes congestion, and queueing from Crescent Boulevard to adjacent north and south streets. **Figure 13** and **Figure 14** show examples of PM peak hour traffic conditions and queueing.

Figure 13: Crescent Street Traffic and Queuing



Figure 14: Main Street (View north) Showing Traffic Queuing



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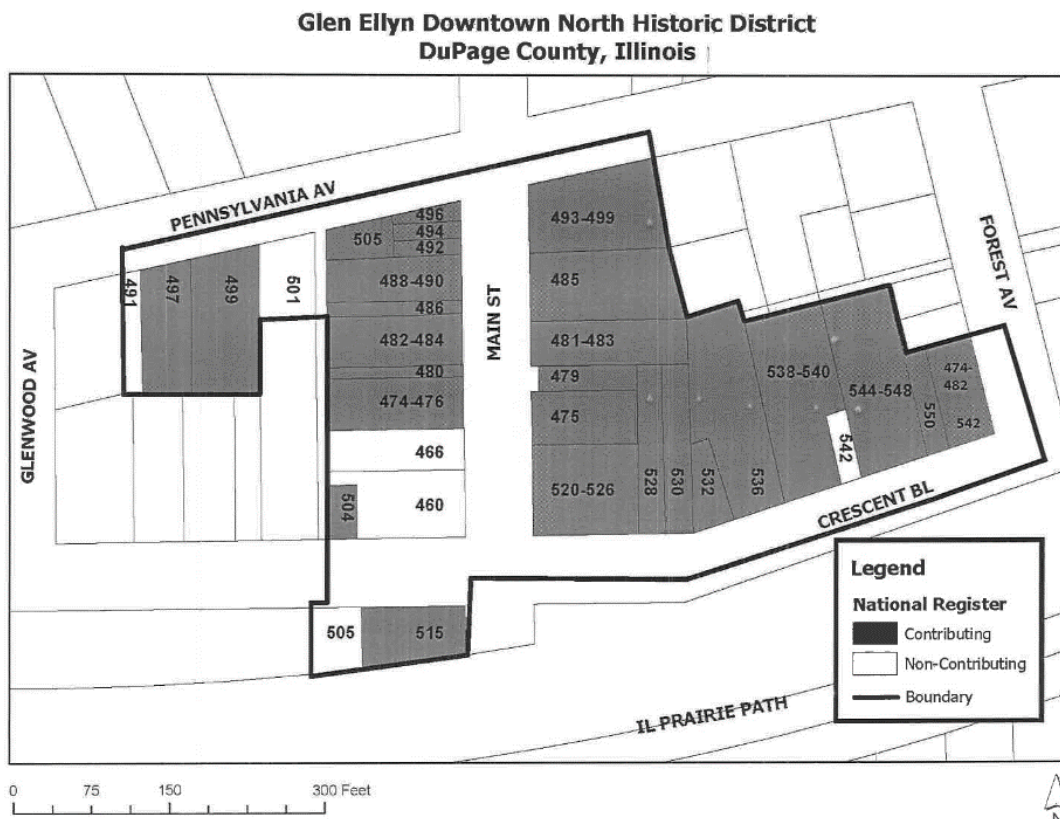
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E. The current station, tracks, and facilities create a barrier separating the north and south areas of Downtown Glen Ellyn and the existing building architecture is not compatible with the adjacent Historic Districts

Downtown Glen Ellyn includes two National Historic Districts, one northwest of the Metra station and one southwest of the Metra station that contribute to the context of the surrounding area:

- **Glen Ellyn Downtown North Historic District:**
 - Period of Significance 1890-1963
 - Contributing Buildings: 28
 - Non-Contributing Buildings: 6
 - Of the 28 contributing structures, 26 (92%) were built before 1930
 - The common architectural styles identified:
 - Late 19th and 20th Century Revivals – Classical Revival
 - Late 19th and Early 20th Century Revivals – Queen Anne
 - Late 19th and Early 20th Century Revivals – Tudor Revival
 - Late 19th and Early 20th Century Revivals – Renaissance Revival

Figure 15: Glen Ellyn Downtown North Historic District Map

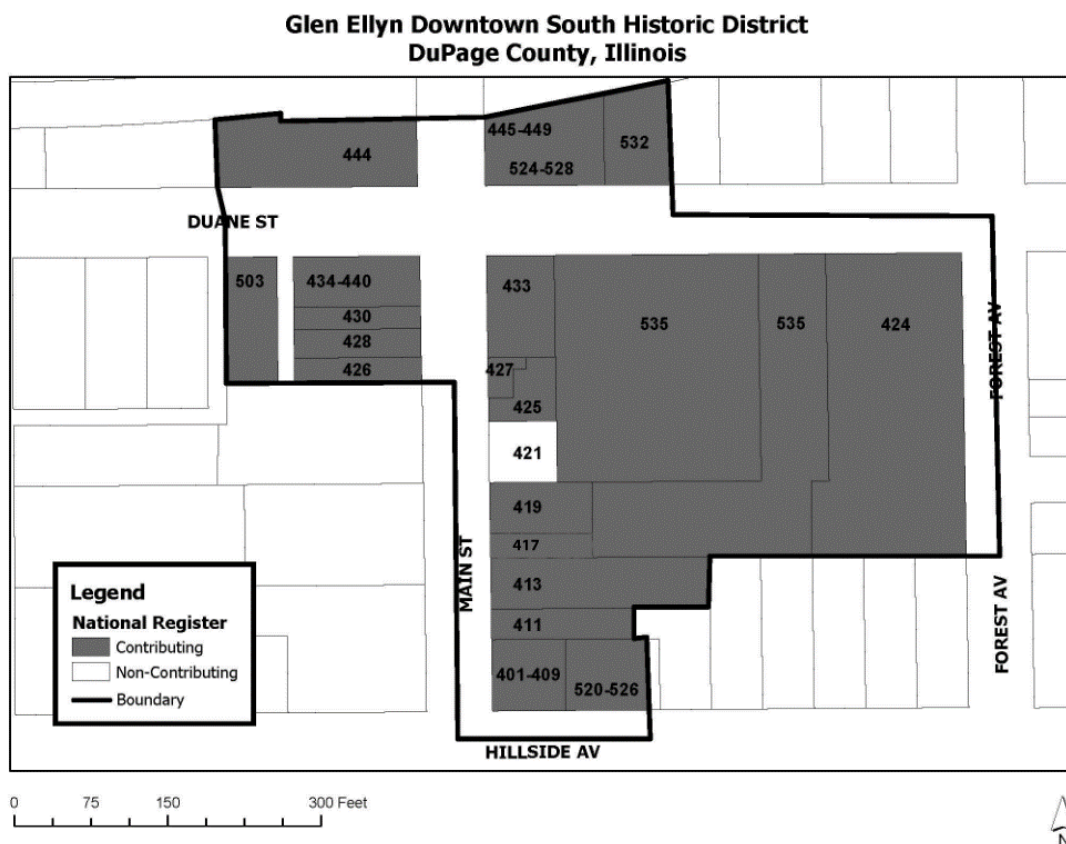


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- **Glen Ellyn Downtown South Historic District:**
 - Period of Significance 1880-1963
 - Contributing Buildings: 19
 - Non-Contributing Buildings: 1
 - Of the 19 contributing structures, 14 (74%) were built before 1930
 - The common architectural styles identified:
 - Late 19th and 20th Century Revivals – Classical Revival
 - Late 19th and Early 20th Century Revivals – Late Gothic
 - Late 19th and Early 20th Century Revivals – Tudor Revival
 - Late 19th and Early 20th Century Revivals – Spanish Colonial Revival
 - The Tudor Revival style is noted frequently within the nomination form, due to its preference by the 1920s Plan Commission in Glen Ellyn during the time of development.

Figure 15: Glen Ellyn Downtown South Historic District Map



While located in the center of Downtown Glen Ellyn, the current Metra station and railroad track serve as a barrier instead of focal point of Downtown. Both the Glen Ellyn Downtown North and South Historic District Nomination forms specifically note that: “Because of the active commuter railroad tracks, the former electric rail right-of-way, and the parking lots between the north and south sections of the

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commercial district, Glen Ellyn's downtown has been divided into two separate historic districts for nomination to the National Register."

The existing station is immediately adjacent to both the North and South Downtown Glen Ellyn Historic Districts. The existing 1966 Metra station was built after the period of significance of both Historic Districts and is considered Mid-Century Colonial Revival, a style not identified in either Glen Ellyn downtown Historic District architectural classifications.

The distinctively utilitarian/institutional design of the Mid-Century Colonial Revival Metra station is inconsistent with the architectural ornament common in the two historic districts as noted in the two nomination forms.

While the existing station continues to contribute to the history of the development Glen Ellyn, most of Downtown Glen Ellyn was developed prior to the construction of the existing station, with 92% of the Downtown North and 72% of the Downtown South Historic District contributing structures built prior to 1930. The station that predated the current station was built in 1895 during the period of significance for both Downtown Glen Ellyn Historic Districts. This station was demolished to build the 1966 station.

Figure 16: Photo of previous Glen Ellyn Station Circa 1895



In 2009 the Village adopted the Downtown Strategic Plan (<https://www.glenellyn.org/263/Downtown-Strategic-Plan>) to describe the Village's vision and strategies to encourage economic development and historic preservation in the Downtown area. This plan identified the importance of both constructing "an attractive new train station with landmark-quality design features and commuter-friendly goods and

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services” and establishing “a historic district in the Downtown core area”. The current train station was identified as one of the Village’s most “important destinations” providing service to the community, but was also identified as one of its “worst features.”

III. Project Purpose Statement

The purpose of the project is to construct a larger capacity station in Glen Ellyn to meet existing and future ridership needs, bring the station house to modern and applicable standards and codes, improve and expand pedestrian safety and accessibility in and around the station, improve compatibility with the existing two Downtown Glen Ellyn Historic Districts, support Glen Ellyn’s Downtown Strategic Plan, and allow for efficient maintenance and operation of the station facility by the Village and Metra.

Benefits of the project would include:

- Enhanced station capacity for existing and future projected riders
- Modernization of station to meet all applicable building, energy, ADA accessibility, and Metra’s operational requirements
- Improvements to safety and access for pedestrians and removal of conflicts between pedestrians, vehicles, and rail operations
- Improved access and circulation for both pedestrians and vehicular traffic to and from the station
- Improved connectivity and compatibility with the adjacent historic commercial areas north and south of the station
- Support for the Village’s downtown development goals as stated in the Downtown Strategic Plan
- Reduced cost of maintenance as the Village takes responsibility for station

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Additional Supporting Documentation

The following supporting documents are attached for additional details on existing conditions

- Attachment A: Original 1966 Station Drawings and Existing Elevation and Construction Materials
- Attachment B: Glen Ellyn Downtown North Historic District Nomination Form
- Attachment C: Glen Ellyn Downtown South Historic District Nomination Form