Agenda
Village of Glen Ellyn
Architectural Appearance Commission Meeting
Wednesday, July 31, 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. Approval of the Minutes

1) Approval of the May 22, 2024 Regular Meeting Minutes

C. Old Business

D. New Business

1) 551 Crescent Boulevard: Discussion Item - Exterior appearance feedback prior to application for the new Metra Station in the CR Zoning District

E. Chairman's Report

F. Trustee Liaison's Report

G. Staff Report

DRAFT MINUTES
Glen Ellyn Architectural Appearance Commission
Wednesday, May 22, 2024 at 7:00 P.M.

Glen Ellyn Civic Center
Galligan Board Room
535 Duane Street

A. Call to Order and Roll Call

Chairperson Susan Jacobson called the meeting to order at 7:00 PM and explained the Architectural Appearance Commission's function and procedures as an advisory body.

Roll was called.

PRESENT: Chairperson Susan Jacobson and Commissioners Pam Albrecht, Yavor Goranov, Heather Mees, Lisa Sallwasser, and Julia Smith.

ABSENT: Commissioner Eric Rahn.

Also in attendance: Anne Gould, Trustee; Daniel Harper, Planning Manager; and Julie Settles, Recording Secretary.

B. Approval of Meeting Minutes

Commissioner Sallwasser made a motion to approve the draft minutes of the March 13, 2024 meeting. Commissioner Goranov seconded the motion, and the motion passed by voice vote.

C. Public Comment (non-agenda items)

None.

D. Exterior Appearance Review: 453 Forest Avenue

Staff Presentation

Daniel Harper, Planning Manager, introduced the request: Exterior appearance review of the proposed downtown event park with performance pavilion and support building located in the C5B Zoning District.

Mr. Harper stated that the Glen Ellyn Park District is requesting the Architectural Appearance Commission review the proposed Downtown Event Park in its entirety, including proposed accessory structures and landscaping. The proposal includes the consolidation of the Prairie Path Park properties and US Bank property to form a 1.5-acre special event park to construct a performance pavilion and restroom/support building with spectator lawn. The proposed park will also include seating areas, bike racks and a naturalized "discovery zone" play area. The Applicant is seeking a recommendation of approval for the proposed exterior appearance of the performance pavilion, support building and landscape plan for the proposed event park.The proposed plan will need to seek zoning variations and approval by the Plan Commission and the

Village Board of Trustees. He stated at Architectural Appearance Commission gave a unanimous recommendation of approval for the pavilion at the March 13, 2024 AAC meeting. He stated that the AAC action is to consider request for exterior appearance recommendation to the Village Board of Trustees. In reviewing the request, the AAC should consider how the proposed exterior appearance conforms to the Appearance Review Guidelines. Staff recommends the AAC consider the following conditions of Approval: The project is constructed in substantial conformance with he plan prepared by Site Design Group, ltd. as presented and the testimony presented at the May 22, 2024, Architectural Appearance Commission meeting and a building permit shall be required prior to construction activity.

Petitioner Presentation

Clare Johnson, Project Manager for Site Design Group, presented on behalf of the Petitioner, showing the site plan and stated that there was some refinement to the plan since the last AAC meeting. Ms. Johnson showed the site plan and highlighted some areas of the proposed design. She stated that the northside of the location by the Prairie Path will have a discovery zone that will provide a buffer between the path and the pavilion area and will help buffer sound. The center will have a gathering space for events. The west side will have a picnic area. There will be secondary seating areas on the north side behind the event lawn as well as on the south side by Duane St. There will also be a planting area along Duane St that will provide a buffer. Ms. Johnson pointed out the locations of the entrances into the area and stated that there will be a 20' setback from the property line by the restrooms and support building. She stated that materials that will be used in the site plan contain red brick on the pavilion and restroom, clay pavers will be installed in gathering spaces to compliment the red brick, limestone will be used for outcropping and retaining wall as seen at Lake Ellyn, the discovery zone/Prairie Path buffer will contain crushed aggregate and primary walkways will be poured concrete. She stated the restroom and support building is designed to complement the pavilion. It will include two single use restrooms, a drinking fountain, an area for storage and possible skate rental location and a canopy over the building. Materials used will be red brick, concrete built in bench, black steel furnishings, commercial grade double metal doors and a roll up transaction window.

Ms. Johnson stated that since the last meeting some new developments include developing a canopy approach of tree specimens per Glen Ellyn code containing ornamental and evergreen trees. The understory planning approach includes natural lawn, a native garden edge along the north side by the Prairie Path and an evergreen buffer on the east side for the neighbors to the east.

Ms. Johnson showed the proposed lighting concept which includes pedestrian overhead lights, bollard lights and recessed lights on stairs that are all Dark Sky compliant and can be programmed to provide safety and security. The pavilion lighting includes everyday use which includes down-lights on pavilion façade, small event lighting includes three focus lights and large event lighting includes permanent lighting and additional theatrical lights.

Ms. Johnson showed the proposed signage and wayfinding approach. She stated at the northwest entry the park signage will be placed. Along the terrace walls would include a donor recognition board. She stated the key sponsorship for pavilion would be affixed to structure and would be non-illuminated.

Chairperson Jacobson stated that she had some recommendations. She stated that the plan included a lot of Kentucky Coffeetrees, and she would like to see some other options. She also recommended different grass other than Northern Sea Oats. She also recommended that on the west side of the performance stage maybe there should be some sort of shade for the performers from the sun. Chairperson Jacobson asked what the type of signage was going to be on the seawalls. Ms. Johnson answered that the text would be engraved in the stone.

Commissioner Goranov asked how drainage was going to be achieved. Ms. Johnson answered showed the stormwater management approach slide. She stated there was a dedicated stormwater detention area and the lawn will drain the water to the northeast and northwest side where the pavement will be sloped.

Chairperson Jacobson asked if there were any more comments or public comments.

Commission Recommendation

Commissioner Sallwasser made the motion:

After conducting a public meeting and deliberating on the request of the petitioner, Glen Ellyn Park District, for approval of an exterior appearance review for 453 Forest Avenue downtown event park in the C5B Downtown Service District and CR Conservation Recreation District, the Architectural Appearance Commission hereby recommends APPROVAL based on the findings of fact, as discussed or amended at the Architectural Appearance Commission public meeting on May 22, 2024, which are hereby incorporated into the Motion by reference as though fully set forth herein, and a copy of which will be attached to the minutes of this meeting and kept on file as part of the permanent records of the Village. The Architectural Appearance Commission makes this recommendation for approval.

Commissioner Goranov seconded the motion. The motion passed on a roll call vote with six Commissioners present voting "Yes": Chairperson Jacobson and Commissioners Albrecht, Goranov, Mees, Sallwasser and Smith.

E. Chairperson's Report

None.

F. Trustee Liaison's Report

Trustee Liaison Anne Gould stated that the Village Board is considering increasing the Fire fees that have not been raised since 2017. The current fee is $15, and the Board is looking to raise it to $24. Commissioner Goranov asked why the Board wouldn't just double the fee. Trustee Gould stated that it's an aggressive fee on the water bill. By adding the new EMS services, it would be a fairly large increase for residents, so the Board is trying to reduce the cost for residents. The Village Board is going to use some of the reserve fund to cover part of the costs. The Board is also looking to add this rate to the tax bill instead of the water bill. She also stated that the State may be eliminating the 1% grocery tax, so the Board is looking into how to make up the lost revenue.

Chairperson Jacobson asked when the train review meeting was coming up. Mr. Harper stated it was May 30th. Commissioner Albrecht asked if any scope could be given. Trustee Gould stated that staff has done a great job and are currently chasing grants. She stated that in the Plan Commission meeting it came up why Glen Ellyn even has a train station. Commissioner Goranov stated that he thinks Glen Ellyn needs a train station. Chairperson Jacobson stated some of the parking is going to be lost and she recommends keeping angled parking on the north side of the tracks. Trustee Gould stated that the engineers are working on competing demands. She stated that north of the tracks is mainly retail and some people stated they'd hate to see another parking garage.

G. Staff Report

Mr. Harper stated the Plan Commission on May 23rd will consider an amendment for the Glen Oaks County Club parking lot expansion. 285 Roosevelt Road will also be on the Plan Commission's agenda. Northwestern Medicine is looking to occupy that space and wants to update the exterior because there are elevation modifications. Commissioner Albrecht stated that the AAC reviews all these types of requests and did not review this request. She asked who was reviewing it. Mr. Harper answered that staff reviewed the request and then it's going to the Plan Commission. Commissioner Goranov stated he thinks it should be reviewed by the AAC. Mr. Harper answered that the AAC would review it if it was downtown they would. If it is not downtown, the AAC would only review if it were new construction. Mr. Harper referenced the code language for AAC items:

A. To review and make recommendations regarding the exterior architectural design drawings, materials and landscape plans for the following:

1. Exterior appearance reviews in the downtown C5A and C5B zoning districts:

(a) New non-residential, multi-family and attached single-family principal building construction.

(b) Non-residential, multi-family and attached single-family principal building additions that require Planned Unit Development Approval (c) Significant exterior façade remodeling.

2. Exterior appearance reviews throughout the remainder of the Village: (a) New non-residential, multi-family and attached single-family principal building construction

Commissioner Goranov stated that maybe the code should be amended. He stated the AAC reviewed a few commercial building remodels on Roosevelt Rd. He stated it benefits the applicant.

Mr. Harper stated that the Village is also working on the chicken ordinance amendment. He's anticipating they should have it completed in July.

H. Adjournment

Commissioner Albrecht made a motion to adjourn the meeting. The motion was seconded by Commissioner Goranov, and the motion passed by voice vote.

The meeting was adjourned at 8:44 PM

Respectfully submitted,

Julie Settles

Recording Secretary

Glen Ellyn
535 Duane Street
Glen Ellyn, IL 60137

Meeting 7/31/2024 7:00 PM
Department: Community Development
Department Head: Emily Rodman
Category: Discussion Item
Prepared By: Anabel Pederson

AGENDA ITEM
(ID # 2024-510)

DOC ID: 2024-510

551 Crescent Boulevard: Discussion Item - Exterior appearance discussion prior to application for the new Metra Station in the CR Zoning District

Statement of the Issue:
The petitioner is requesting a discussion and feedback from the Architectural Appearance Commission regarding the proposed exterior appearance design of the Glen Ellyn Metra Station and Multimodal Improvement Project and procure Commission recommendations prior to the submittal of an application.

Analysis:
The petitioner is requesting a pre-application meeting to discuss the proposed exterior appearance of the Glen Ellyn Metra Station and Multimodal Improvement Project. This project includes a new train station and warming shelters, a plaza, accessible pedestrian underpass, covered stairs and ramps, site improvements, parking lot reconstruction, utility replacement, and streetscape improvements.

The existing station does not meet Metra's regulations or accessibility and building codes. According to the applicant, the proposed redesign is designed to improve passenger experience, safety, and connectivity. Exterior appearance and landscape improvements will include landscaping/streetscape design, signage, lighting, and fencing and screening. The proposed new station has been designed to match the character and architectural style of downtown Glen Ellyn.

The project is included in both the Glen Ellyn Comprehensive Plan and the Downtown Strategic Plan as a future improvement and focal point of the downtown area. (See Attachments 3 and 4). The property is zoned CR Conservation District, which will require a Special Use Permit to be requested and approved to allow for the project's use.

Pedestrian Tunnel

The proposed plan includes a new pedestrian tunnel located below the tracks to allow for greater connectivity for pedestrians traveling 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 a landscaped courtyard and will be directly adjacent to the bus stop and the 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.

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 four dedicated parking lots will be redesigned to meet Village and Metra station parking standards and guidelines. On July 15th, 2024, the parking alternatives for on-street parking designs were brought before the Village Board and Ordinance 7110 was adopted to direct staff on the design of the Crescent Boulevard on-street parking and Main & Crescent parking lot configuration associated with the Glen Ellyn Metra Station & Multimodal Access Improvements Project.

The Ordinance was adopted recommending the Alternate 4 parking configuration as follows: Where Crescent Boulevard between Main Street and Forest Avenue shall be configured with angle parking on the north side of the street as shown in "Crescent On-Street Parking Alternative 2 – Angle" in Exhibit 1 of this Ordinance and Where the Crescent & Main Parking Lot shall be configured with 60-degree angle parking as shown in "Crescent & Main Parking Lot Alternative 2 – 60 Angle No Sidewalk" in Exhibit 1 of this Ordinance.

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. The preferred alternative was to construct a new station with mitigation measures to reduce the severity of the effects of the proposed development.

Extrior Apperance Analysis

Building Materials

The building materials proposed are to be harmonious with other downtown building elements such as limestone and brick, parapet gables, keystone arches, stone facades, and divided lite windows. The exterior of the station is primarily brick, with cultured stone arched entryways and cast stone trims. The roof is to be asphalt shingle with cast stone copings and pre-finished metal fascia. The ceiling of the roofs is to be tongue and groove ceilings of a cherry roof deck material. The doors and windows are to be of insulated glass, with windows in the divided frame style that can be seen throughout other Village designs. The entrance doors are to have dark bronze anodized aluminum frames. The warming shelters are designed to have masonry bases and metal roofing, matching the general design of the station.

Landscape Design

The proposed station design incorporates a plaza adjacent to the west of the inbound station building and includes benches, café tables, and bike parking. The plaza 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, deciduous shrubs, perennials, ornamental grasses, and ground cover with a focus on low maintenance native species. Raised and moveable planters will be located on the plaza.

Budget Impact:
N/A

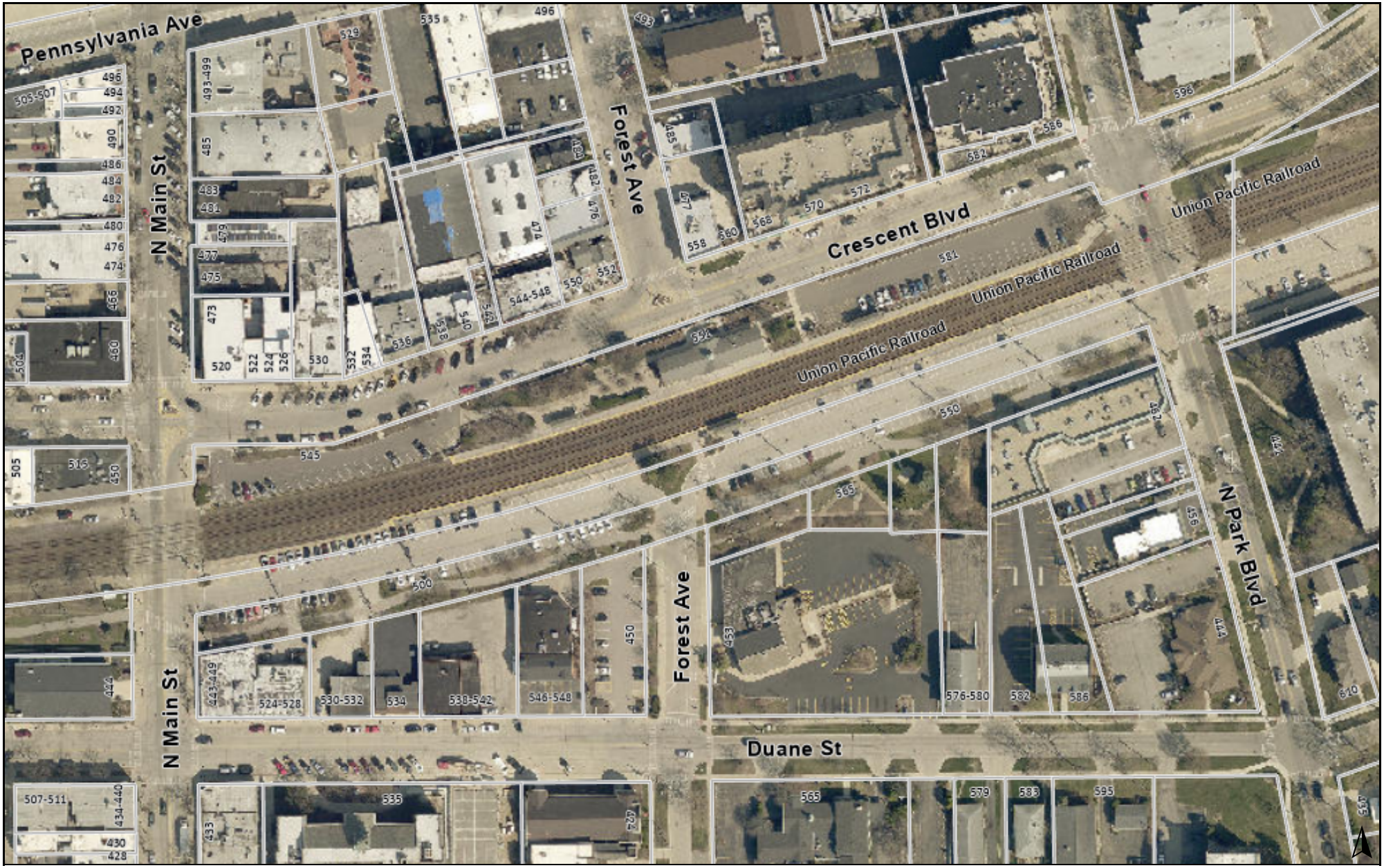
Contribution to Strategic Plan

Action Requested:
The Architectural Appearance Commission is being asked to review the plans and provide comments that will assist the petitioner in preparing a formal application. In reviewing the project, the Architectural Appearance Commission may wish to consider/provide feedback regarding the following:

1. If the Commission believes the proposed exterior appearance follows the Architectural Appearance Guidelines,
2. If the Commission has any comments/concerns regarding materials, styles, and other elements of design.
3. If the Commission would like to clarify any concerns.

Attachments:
1. Glen Ellyn Metra Station - Aerial Map
2. Location and Zoning Map
3. Exerpts from Comprehensive Plan
4. Excerpts from Downtown Strategic Plan
5. Petitioner's Memorandum
6. 30 Percent Design Drawings
7. Preliminary Design Report
8. Section 106 Effects Assessment

GISConsortium | Glen Ellyn Metra Station - Aerial Map



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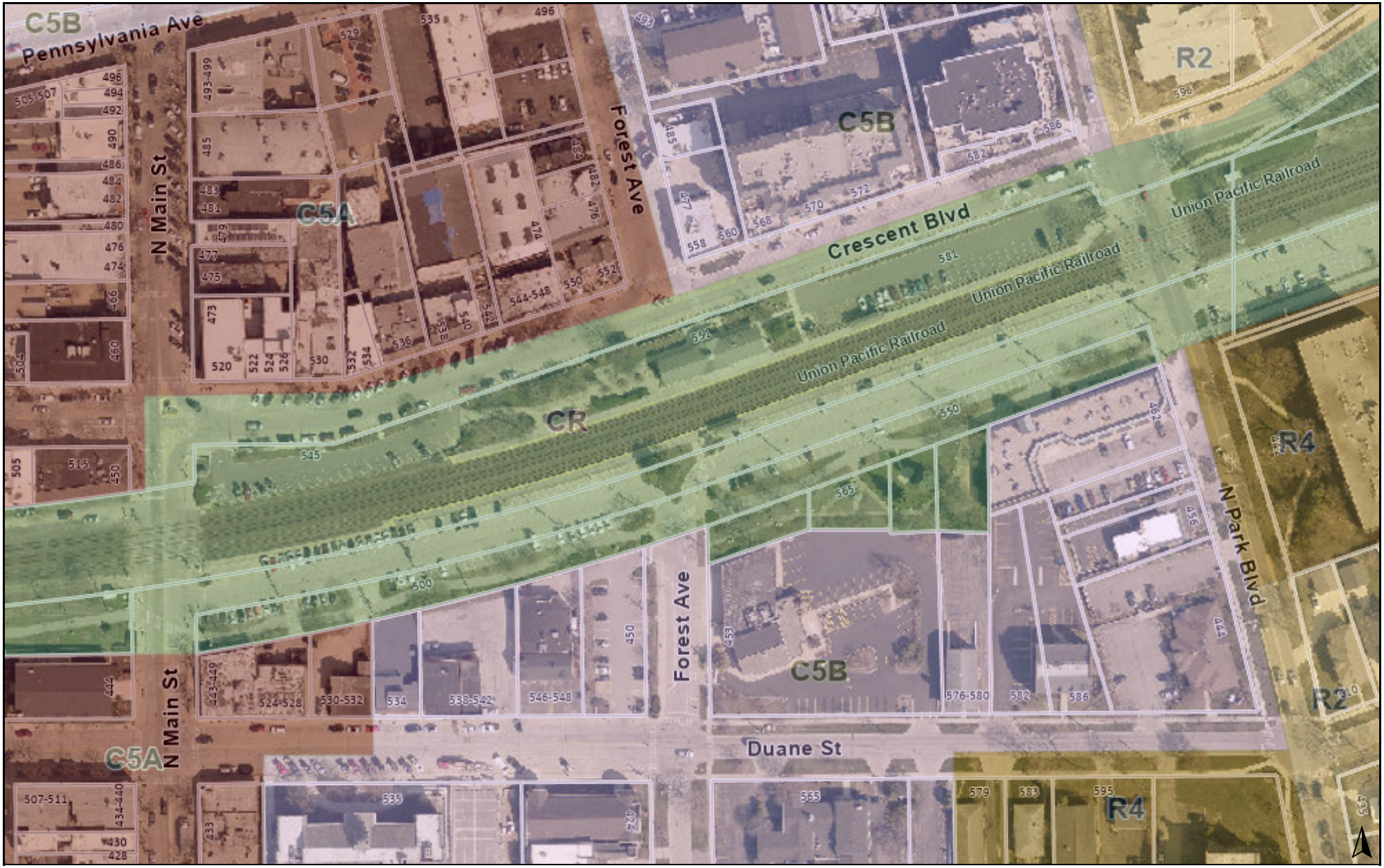
Print Date: 4/16/2024

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.

GISConsortium | Glen Ellyn Metra Station - Location and Zoning Map



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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.

Subarea Framework

DOWNTOWN GLEN ELLYN

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.

Legend

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. *Screen parking, loading, 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.*

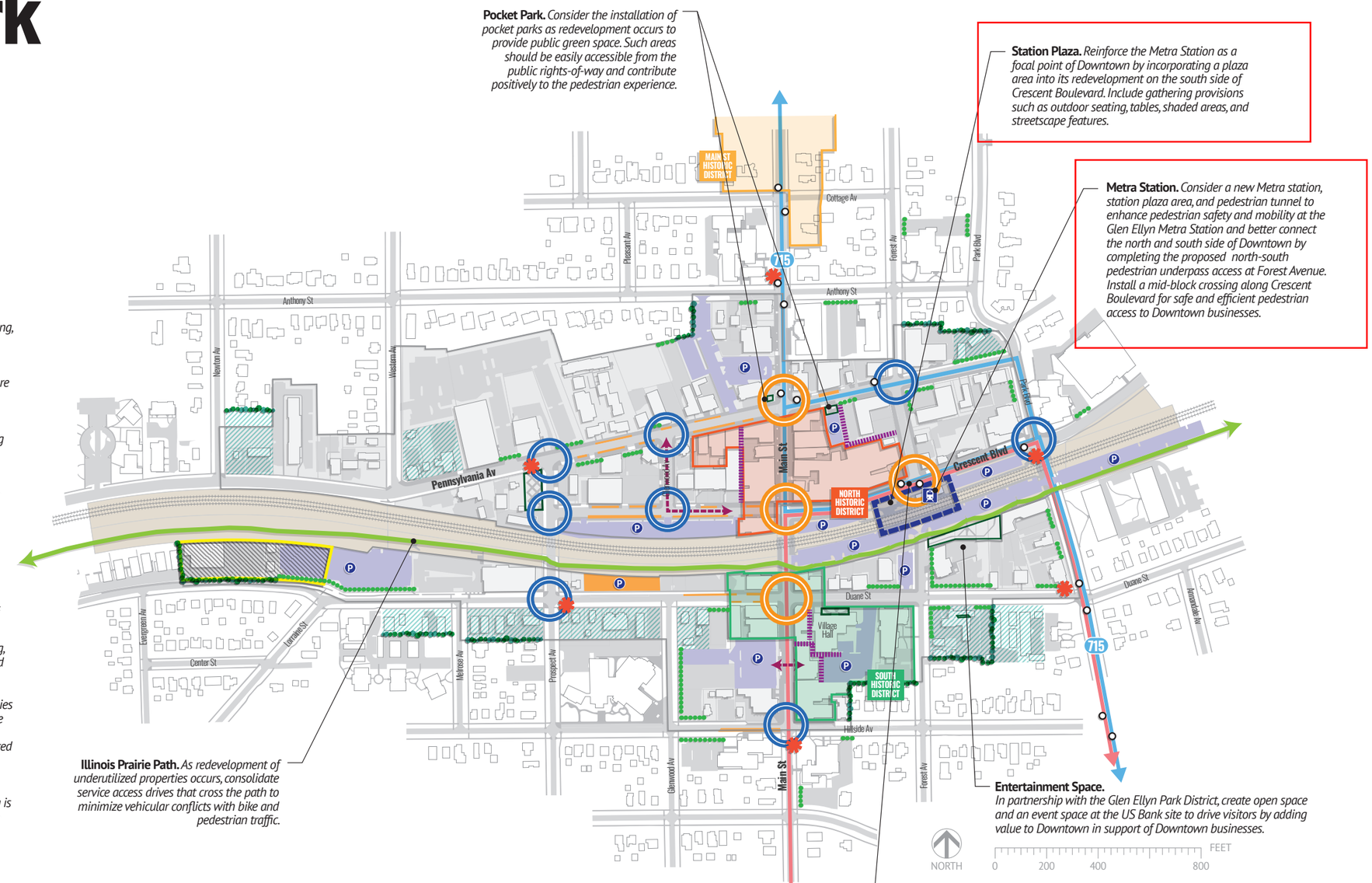
Leverage Existing Parking. *Investigate policies that encourage parking turnover, such as time restrictions, and maximize usage of underutilized parking inventory through shared parking agreements. Purchase additional property to enhance parking supply.*

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.



Pocket Park. *Consider the installation of pocket parks as redevelopment occurs to provide public green space. Such areas should be easily accessible from the public rights-of-way and contribute positively to the pedestrian experience.*

Station Plaza. *Reinforce the Metra Station as a focal point of Downtown by incorporating a plaza area into its redevelopment on the south side of Crescent Boulevard. Include gathering provisions such as outdoor seating, tables, shaded areas, and streetscape features.*

Metra Station. *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. Install a mid-block crossing along Crescent Boulevard for safe and efficient pedestrian access to Downtown businesses.*

Illinois Prairie Path. *As redevelopment of underutilized properties occurs, consolidate service access drives that cross the path to minimize vehicular conflicts with bike and pedestrian traffic.*

Entertainment Space. *In partnership with the Glen Ellyn Park District, create open space and an event space at the US Bank site to drive visitors by adding value to Downtown in support of Downtown businesses.*

Shuttle Bus to College of DuPage. *The shuttle would enable COD students and faculty to utilize Downtown Glen Ellyn as a hub with access to both campus and regional transit via Metra and could help promote student-friendly transit-oriented development.*

Mid-block Crossing. *Add a mid-block pedestrian crossing on Crescent Blvd to increase accessibility to the new Metra station.*

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 Grants[4]
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

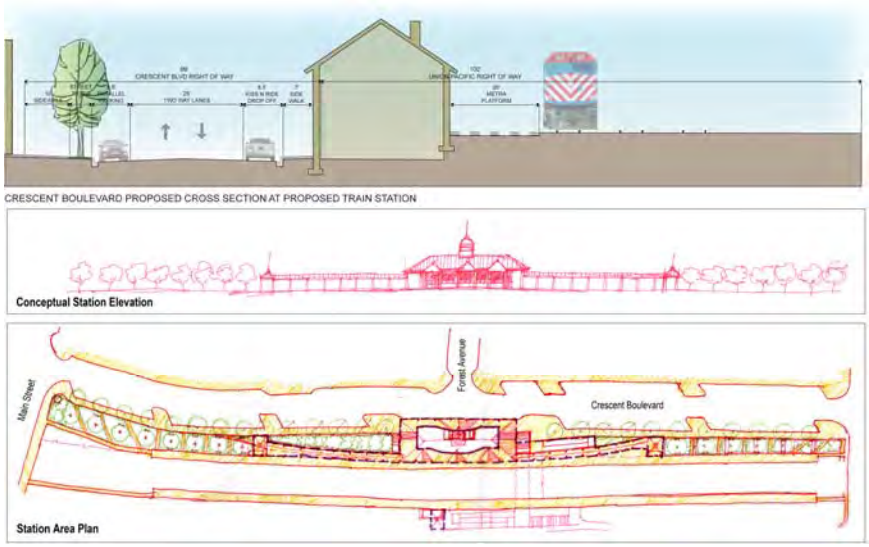


Figure 53: New Glen Ellyn Train Station Cross-Section, Concept Elevation, and Concept Plan
Source: Town Builder Studios.

[4] The U.S. EPA brownfields grant programs would potentially 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.

MEMORANDUM

TO: Daniel Harper, Planning Manager, AICP

FROM: Rich Daubert, Village Engineer, P.E., PTOE

DATE: July 19, 2024

RE: Glen Ellyn Metra Station and Multimodal Access Improvements Project
Application for Pre-Application Commission Meeting with
Architectural Appearance Commission

BACKGROUND

The Village continues to advance the design of a new Train Station, Pedestrian Underpass, and Phase 4 Streetscape and Utility Improvements Project for Downtown Glen Ellyn. The main objectives of the project are as follows:

- Address the station's poor state of repair through construction of a new depot with increased ridership capacity consistent with current Metra Standards
- Bring the station house up to modern building, energy, and accessibility standards
- Provide new and improved pedestrian safety and access across the UP-West Line through the construction of a grade-separated pedestrian crossing
- Improve traffic flow through improved and new drop off and pick up areas for Pace Bus, ride-share, and the general public. Other improvement contributing to this goal include providing two travel lanes on Crescent Boulevard between Main and Forest as well as accommodating two-way traffic between the south commuter parking lots (at Forest Avenue). Staff does note that the configuration of Crescent Boulevard between Main Street and Forest Avenue was recently (7/15/2024) affirmed by the Village Board to maintain angle parking on the north side of the street. Hence, the design shown in the attached materials will be updated to reflect this change.
- Unite the areas of the Central Business District that are north and south of the UP-West line which are divided by the railroad and current station's architecture
- Replace the underground utility infrastructure within the project limits as well as construct pedestrian and streetscape improvements within the Phase 4 area of the Streetscape Project

In terms of project status, preliminary engineering is nearing completion. In summary, preliminary engineering was somewhat complicated due to the State making the determination that the depot is eligible for listing in the national register of historic places. This ultimately required the Village

to work through a protracted process to proceed with the project alternative involving demolition of the train station.

A Section 106 Effects Assessment Report including the evaluation of avoidance and minimization alternatives was developed along with mitigation measures. Ultimately, a MOA has been established to allow for the demolition of the structure subject to the implementation of mitigation measures. Measures include completion of a HIBS Level III Recordation of the Metra Station, installation of interpretive signage or plaques near the demolished station, and preservation of the Mural of Glen Ellyn located in the new depot with the goal to reinstall the Mural in the new depot. The MOA was recently approved by the State and Federal Highway Administration with the Village approving signature by the Village President on March 11. Once signatures by all parties are completed, this will essentially mark the completion of satisfying Section 106 of the National Historic Preservation Act. The MOA will then be inserted into the 4(f) evaluation and submitted to the State for review and processing by FHWA. The Section 106 Effects Assessment including the Purpose and Need Statement is attached to provide context.

To keep the project moving towards construction, last year the Village elected to start final engineering for the project. To date, the Village has secured $24.8M in outside funding for construction. However, an additional $3.0M is anticipated to be secured this year. In addition, the project is at the top of a contingency list for up to an additional $10.8M in funding. With respect to the latter, the project scored higher than other projects which received significant funding. In summary, projects that were further along with engineering received the funding over the Village's project. In this regard, it is important for the Village to focus on completing final engineering for the project as to position it to secure the contingency funding and/or other outside project funding.

SUBJECT

Final engineering is currently at ~30% design status. In this regard, Public Works staff and CDM Smith would like to meet with the Architectural Appearance Commission to secure feedback through a Pre-Application Meeting. This will help staff and CDM Smith guide the advancement of the project design. The following materials are attached for Community Development Staff's review and use in facilitating the Pre-Application Commission Meeting.

1. PowerPoint Presentation
2. 30 Percent Design Drawings
3. Section 106 Effects Assessment (for background)

ACTION REQUESTED

Please review the attached materials and advise of any requested edits or supplemental materials via email to rdaubert@glenellyn.org.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			85	1
		ILLINOIS	CONTRACT NO.	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

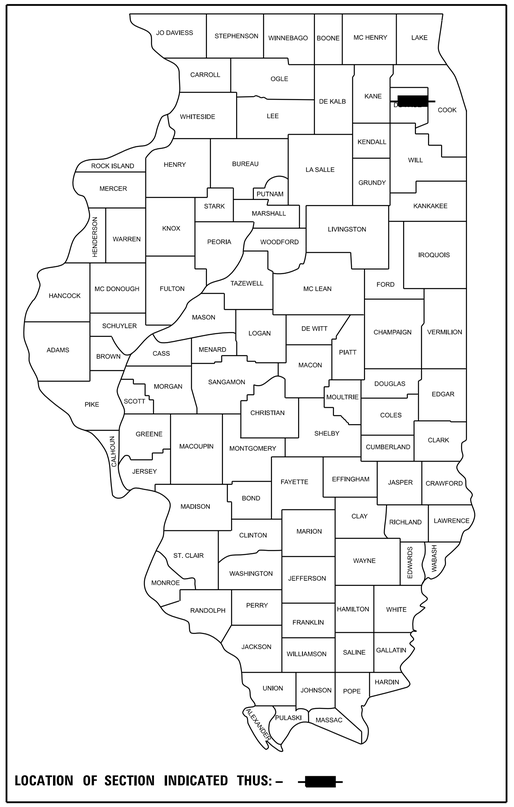
FOR INDEX OF SHEETS, SEE SHEET NO. 1

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAU ROUTE 0003 (CRESCENT BLVD) AT UNION PACIFIC RAILROAD
SECTION _____
PROJECT _____
GLEN ELLYN METRA STATION AND MULTIMODAL IMPROVEMENTS PROJECT
DUPAGE COUNTY

C–9x–xxx–xx

ISSUED FOR 30% – PRELIMINARY DESIGN

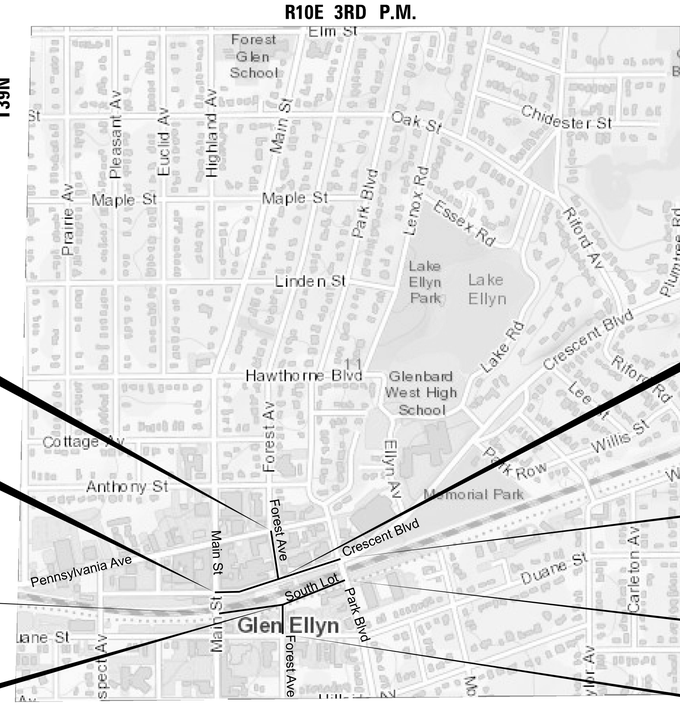


LOCATION OF SECTION INDICATED THUS: –

CRESCENT BLVD – MINOR COLLECTOR – 2,900 ADT
FOREST AVE – LOCAL ROAD

R10E 3RD P.M.

T39N



N

LOCATION MAP
NOT TO SCALE

END PROJECT
STA 603 + 79.16

BEGIN PROJECT
STA 100 + 39.42

BEGIN PROJECT
STA 200 + 35.19

END PROJECT
STA 502 + 76.24

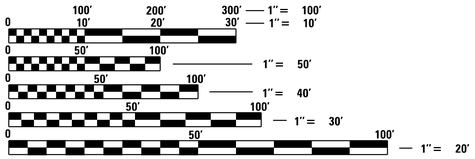
BEGIN PROJECT
STA 600 + 00.00

END PROJECT
STA 110 + 13.97

END PROJECT
STA 210 + 76.60

BEGIN PROJECT
STA 500 + 10.00

MILTON TOWNSHIP



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER
PROJECT MANAGER

CONTRACT NO.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED _____ 20 _____

_____
REGIONAL ENGINEER

_____ 20 _____

_____
ENGINEER OF DESIGN AND ENVIRONMENT

_____ 20 _____

_____
DIRECTOR OF PROGRAM DEVELOPMENT

GROSS LENGTH = 974.55 FT. = 0.185 MILE (CRESCENT BLVD), 341.27 FT. = 0.065 MILE (FOREST AVE NORTH), 226.26 FT. = 0.043 MILE (FOREST AVE SOUTH)
NET LENGTH = 974.55 FT. = 0.185 MILE (CRESCENT BLVD), 341.27 FT. = 0.065 MILE (FOREST AVE NORTH), 226.26 FT. = 0.043 MILE (FOREST AVE SOUTH)

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

GENERAL

SHEET NO.	DESCRIPTION
0	COVER SHEET
1	INDEX OF SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, AND COMMITMENTS
3	TOPOGRAPHIC SURVEY
4	TOPOGRAPHIC SURVEY
5	TOPOGRAPHIC SURVEY
6	TOPOGRAPHIC SURVEY
7	TOPOGRAPHIC SURVEY
8	TOPOGRAPHIC SURVEY

CIVIL DRAWINGS

SHEET NO.	DESCRIPTION
101	CIVIL KEY PLAN
102	CIVIL ROADWAY TYPICAL SECTIONS CRESCENT BOULEVARD
103	CIVIL ROADWAY TYPICAL SECTIONS CRESCENT BOULEVARD
104	CIVIL ROADWAY TYPICAL SECTIONS FOREST AVENUE NORTH
105	CIVIL ROADWAY TYPICAL SECTION FOREST AVENUE SOUTH
106	CIVIL ALIGNMENT, TIES, AND BENCHMARKS
107	CIVIL ROADWAY REMOVAL PLAN
108	CIVIL ROADWAY REMOVAL PLAN
109	CIVIL ROADWAY REMOVAL PLAN
110	CIVIL ROADWAY REMOVAL PLAN
111	CIVIL PLAN AND PROFILE CRESCENT BLVD
112	CIVIL PLAN AND PROFILE CRESCENT BLVD
113	CIVIL PLAN AND PROFILE FOREST AVE
114	CIVIL PLAN AND PROFILE FOREST AVE
115	CIVIL SUGGESTED PHASES OF CONSTRUCTION PHASE 1
116	CIVIL SUGGESTED PHASES OF CONSTRUCTION PHASE 2
117	CIVIL SUGGESTED PHASES OF CONSTRUCTION PHASE 3
118	CIVIL SUGGESTED PHASES OF CONSTRUCTION PHASE 4
119	CIVIL SUGGESTED PHASES OF CONSTRUCTION PHASE 5A
120	CIVIL SUGGESTED PHASES OF CONSTRUCTION PHASE 5B
121	CIVIL SUGGESTED PHASES OF CONSTRUCTION PHASE 5C
122	CIVIL PROPOSED DRAINAGE SITE PLAN
123	CIVIL PROPOSED DRAINAGE SITE PLAN
124	CIVIL PROPOSED DRAINAGE SITE PLAN
125	CIVIL PROPOSED DRAINAGE SITE PLAN
126	CIVIL EXISTING UTILITY ROADWAY PLAN
127	CIVIL EXISTING UTILITY ROADWAY PLAN
128	CIVIL EXISTING UTILITY ROADWAY PLAN
129	CIVIL EXISTING UTILITY ROADWAY PLAN
130	CIVIL PROPOSED UTILITY ROADWAY PLAN
131	CIVIL PROPOSED UTILITY ROADWAY PLAN
132	CIVIL PROPOSED UTILITY ROADWAY PLAN
133	CIVIL PROPOSED UTILITY ROADWAY PLAN
134	CIVIL UTILITY DETAILS
135	CIVIL UTILITY DETAILS
136	CIVIL UTILITY DETAILS
137	CIVIL UTILITY DETAILS
138	CIVIL CROSS SECTIONS CRESCENT BLVD
139	CIVIL CROSS SECTIONS CRESCENT BLVD
140	CIVIL CROSS SECTIONS CRESCENT BLVD
141	CIVIL CROSS SECTIONS CRESCENT BLVD
142	CIVIL CROSS SECTIONS CRESCENT BLVD
143	CIVIL CROSS SECTIONS CRESCENT BLVD
144	CIVIL CROSS SECTIONS CRESCENT BLVD
145	CIVIL CROSS SECTIONS CRESCENT BLVD
146	CIVIL CROSS SECTIONS CRESCENT BLVD
147	CIVIL CROSS SECTIONS CRESCENT BLVD
148	CIVIL CROSS SECTIONS CRESCENT BLVD
149	CIVIL CROSS SECTIONS FOREST AVE NORTH
150	CIVIL CROSS SECTIONS FOREST AVE NORTH
151	CIVIL CROSS SECTIONS FOREST AVE NORTH
152	CIVIL CROSS SECTIONS FOREST AVE NORTH
153	CIVIL CROSS SECTIONS FOREST AVE NORTH
154	CIVIL CROSS SECTIONS FOREST AVE SOUTH
155	CIVIL CROSS SECTIONS FOREST AVE SOUTH
156	CIVIL CROSS SECTIONS FOREST AVE SOUTH
157	CIVIL SITE REMOVAL PLAN
158	CIVIL SITE REMOVAL PLAN
159	CIVIL SITE REMOVAL PLAN
160	CIVIL SITE PLAN
161	CIVIL SITE PLAN
162	CIVIL SITE PLAN
163	CIVIL PLATFORM PLAN
164	CIVIL PLATFORM PLAN
165	CIVIL WEST LOT GRADING PLAN
166	CIVIL EAST LOT GRADING PLAN
167	CIVIL SOUTH LOT GRADING PLAN
168	CIVIL SOUTH LOT GRADING PLAN
169	CIVIL FOREST SOUTH LOT GRADING PLAN
170	CIVIL EXISTING UTILITY SITE PLAN
171	CIVIL EXISTING UTILITY SITE PLAN
172	CIVIL EXISTING UTILITY SITE PLAN
173	CIVIL PROPOSED UTILITY SITE PLAN
174	CIVIL PROPOSED UTILITY SITE PLAN
175	CIVIL PROPOSED UTILITY SITE PLAN
176	CIVIL FENCE PLAN
177	CIVIL FENCE PLAN

LANDSCAPE DRAWINGS

SHEET NO.	DESCRIPTION
301	LANDSCAPE - FULL SITE PLAN
302	LANDSCAPE - ENLARGED PLAN A
303	LANDSCAPE - ENLARGED PLAN B
304	LANDSCAPE - ENLARGED PLAN C
305	LANDSCAPE - ENLARGED PLAN D
306	LANDSCAPE - PLANT PALETTE
307	LANDSCAPE - HARDSCAPE DETAILS
308	LANDSCAPE - SITE FURNISHINGS
309	LANDSCAPE - SITE FURNISHINGS
310	LANDSCAPE - SITE FURNISHINGS
311	LANDSCAPE - SITE FURNISHINGS
312	LANDSCAPE - TIERED WALL

ARCHITECTURAL DRAWINGS

SHEET NO.	DESCRIPTION
401	ARCHITECTURAL GENERAL NOTES AND ABBRIEVATIONS
402	ARCHITECTURAL MOUNTING LOCTIONS & SIGNS
403	ARCHITECTURAL SITE SIGNAGE TYPES
404	ARCHITECTURAL LIFE SAFETY PLANS
405	ARCHITECTURAL METRA SITE SINAGE PLAN
406	ARCHITECTURAL SITE PLAN
407	ARCHITECTURAL SITE PLAN - PART A
408	ARCHITECTURAL SITE PLAN - PART B
409	ARCHITECTURAL RAMP/STAIRS I - ENLARGED PLANS
410	ARCHITECTURAL RAMP/STAIRS I - ELEVATIONS & SECTIONS
411	ARCHITECTURAL RAMP/STAIRS I - ENLARGED PLANS
412	ARCHITECTURAL RAMP/STAIRS II - ENLARGED PLANS
413	ARCHITECTURAL RAMP/STAIRS II - ELEVATIONS & SECTIONS
414	ARCHITECTURAL RAMP/STAIRS III - ENLARGED PLANS
415	ARCHITECTURAL STATION RAMP/STAIRS - ENLARGED PLANS
416	ARCHITECTURAL SITE STAIR DETAILS
417	ARCHITECTURAL TUNNEL FLOOR PLAN AND REFLECTED CEILING PLAN
418	ARCHITECTURAL TUNNEL SECTION AND ELEVATION
419	ARCHITECTURAL SHELTER - FLOOR, CEILING, AND ROOF PLANS
420	ARCHITECTURAL SHELTER - EXTERIOR ELEVATIONS
421	ARCHITECTURAL SHELTER - BUILDING SECTIONS
422	ARCHITECTURAL FLOOR PLAN
423	ARCHITECTURAL REFLECTED CEILING PLANS
424	ARCHITECTURAL ROOF PLAN
425	ARCHITECTURAL ENLARGED FLOOR PLAN AND ELEVATIONS
426	ARCHITECTURAL INTERIOR ELEVATIONS
427	ARCHITECTURAL BUILDING ELEVATIONS
428	ARCHITECTURAL BUILDING ELEVATIONS
429	ARCHITECTURAL ARCH ELEVATIONS
430	ARCHITECTURAL BUILDING SECTIONS
431	ARCHITECTURAL WALL SECTIONS
432	ARCHITECTURAL WALL SECTIONS
433	ARCHITECTURAL ASSEMBLY SECTION DETAILS

STRUCTURAL DRAWINGS

SHEET NO.	DESCRIPTION
501	STATION STRUCTURE GENERAL NOTES, CODE MATRIX
502	STATION FOUNDATION PLAN
503	STATION SLAB PLAN/WALL PLAN
504	STATION ROOF FRAMING PLAN
505	TUNNEL PLAN
506	STATION SHELTER PLAN
507	SECTIONS
508	STATION SECTIONS
509	STATION FRAMING ELEVATIONS I
510	STATION FRAMING ELEVATIONS II
511	GENERAL NOTE FOR TUNNEL
512	TUNNEL GENERAL PLAN, ELEVATION, AND SECTION STRUCTURAL
513	TUNNEL CROSS SECTION GEOMETRY
550	INBOUND RAMPS AND STAIRS SRUCTURAL PLAN
551	INBOUND RAMPS AND STAIRS STRUCTURAL SECTIONS I
552	INBOUND RAMPS AND STAIRS STRUCTURAL SECTIONS II
553	OUTBOUND RAMPS AND STAIRS STRUCTURAL PLAN
554	OUTBOUND RAMPS AND STAIRS SECTIONS I
555	OUTBOUND RAMPS AND STAIRS SECTIONS II

HVAC DRAWINGS

SHEET NO.	DESCRIPTION
601	HVAC SYMBOLS AND ABBREVIATIONS
602	HVAC STATION FLOOR PLAN
603	HVAC WARMING SHELTER FLOOR PLAN
604	HVAC SCHEDULES
605	HVAC DETAILS

PLUMBING DRAWINGS

SHEET NO.	DESCRIPTION
621	PLUMBING SYMBOLS, ABBREVIATIONS AND SCHEDULES
622	PLUMBING STATION BELOW GRADE FLOOR PLAN
623	PLUMBING STATION FLOOR PLAN
624	PLUMBING DETAILS I

FIRE PROTECTION DRAWINGS

641	FIRE PROTECTION LEGEND, ABBREVIATIONS, SCHEDULES, AND NOTES
642	FIRE PROTECTION STATION FLOOR PLAN

ELECTRICAL AND COMMUNICATIONS DRAWINGS

SHEET NO.	DESCRIPTION
701	ELECTRICAL LEGEND SHEET I
702	ELECTRICAL LEGEND SHEET II
703	ELECTRICAL NOTES
704	ELECTRICAL OVERALL SITE PLAN
705	ELECTRICAL SITE PLAN - PART A
706	ELECTRICAL SITE PLAN - PART B
707	ELECTRICAL SITE PLAN - PART C
708	ELECTRICAL SITE PLAN - PART D
709	ELECTRICAL ONE - LINE DIAGRAM AND PANELBOARD SCHEDULE
710	ELECTRICAL INBOUND GROUND FLOOR POWER PLAN
711	ELECTRICAL WARMING SHELTER POWER PLAN
712	ELECTRICAL INBOUND GROUND FLOOR LIGHTING AND RECEPTACLE PLAN
713	ELECTRICAL WARMING SHELTER LIGHTING AND RECEPTACLE PLAN
714	ELECTRICAL INBOUND GROUND FLOOR GROUNDING PLAN
715	ELECTRICAL WARMING SHELTER GROUNDING PLAN
716	ELECTRICAL INBOUND GROUND FLOOR FIRE ALARM PLAN
717	ELECTRICAL WARMING SHELTER FIRE ALARM PLAN
718	ELECTRICAL STANDARD DETAILS I
719	ELECTRICAL SITE PLAN - LIGHTNING CALC 1
720	ELECTRICAL SITE PLAN - LIGHTNING CALC 2
721	ELECTRICAL SITE PLAN - LIGHTNING CALC 3
722	COMMUNICATIONS LEGEND SHEET
723	COMMUNICATIONS NOTES
724	COMMUNICATIONS SITE PLAN - PART A
725	COMMUNICATIONS SITE PLAN - PART B
726	COMMUNICATIONS SITE PLAN - PART C
727	COMMUNICATIONS SITE PLAN - PART D
728	COMMUNICATIONS CCTV SECURITY SYSTEM RISER DIAGRAM
729	COMMUNICATIONS INBOUND GROUND FLOOR COMMUNICATIONS PLAN
730	COMMUNICATIONS STANDARD DETAILS I

IDOT DISTRICT 1 DETAILS

BD07 STORM SEWER CONNECTION TO EXISTING SEWER
BD08 FRAMES AND LIDS ADJUSTMENT WITH MILLING
BD32 BUTT JOINTS AND HMA TAPER
TC10 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
TC13 DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC16 SHORT–TERM PAVEMENT MARKING LETTERS AND SYMBOLS
TC26 DRIVEWAY ENTRANCE SIGNING

WATER MAINS AND WATER SERVICE LINES REMOVAL NOTES

1. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS. IF IT IS REVEALED DURING A FUTURE DESIGN PHASE THAT ANY WATER SERVICE LINE IS MADE OF LEAD MATERIAL, THAT WATER SERVICE LINE WILL BE RECOMMENDED FOR REMOVAL AND REPLACEMENT.

PROPOSED UTILITY NOTES

1. IT IS ASSUMED ALL WATER SERVICE LINES ARE NOT MADE OF LEAD MATERIALS.
2. CONTRACTOR TO CONTACT PROPERTY OWNERS PRIOR TO ANY TEMPORARY SHUTDOWNS. CONTRACTOR TO COORDINATE WITH THE VILLAGE ON ALLOWABLE TEMPORARY SHUTDOWN HOURS.
3. NEW SANITARY SEWER MAIN TO BE MADE OF WATER QUALITY MAIN AND MEET ASTM D2241 REQUIREMENTS.
4. PROVIDE FLOW CONTROLS OR FLOW DIVERSION AS NEEDED TO MAINTAIN CONTINUAL SANITARY SEWER SERVICE TO ALL RESIDENTS. BYPASS PUMPING OF UPSTREAM SEWERS AND SERVICE LATERALS ARE REQUIRED IN ACCORDANCE WITH IDOT SUPPLEMENTAL SPECIFICATION FOR "SANITARY SEWER BYPASS PUMPING".
5. MAINTAIN A MINIMUM OF 18 INCH VERTICAL CLEARANCE OD TO OD FROM SANITARY AND WATER MAINS. WATER MAIN SHALL BE LOCATED OVER SANITARY. MEET THE MINIMUM SANITARY SEWER AND POTABLE WATER SEPARATION STANDARDS OF THE MOST RECENT TEN STATE STANDARDS.
6. MAINTAIN A MINIMUM OF 10 FT OD TO OD HORIZONTAL SEPARATION FROM WATER AND SANITARY SEWER STRUCTURES AND MAINS. MEET THE MINIMUM SANITARY SEWER AND POTABLE WATER SEPARATIONS STANDARD OF TEN STATE STANDARDS.

COMMITMENTS:

UTILITY CONTACT INFORMATION

COMCAST
TED WYMAN BILL MURRAY
O: (224) 229–5850 g11629@att.com
ted_wyman@comcast.com
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SPRINT TOM RYAN
STEVEN HUGHES tr2497@att.com
C: (814) 553–2300
shughes@cogentco.com AT&T MOBILITY
ANDREW NOTESTINE
NICOR an201m@att.com
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c: (224) 242–4043
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C: (630) 639–8372
hg2929@att.com

AT&T

HIGHWAY STANDARDS

000001–08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001–02 AREAS OF REINFORCED BARS
001006 DECIMAL OF AN INCH AND OF A FOOT
280001–07 TEMPORARY EROSION CONTROL SYSTEMS
424001–11 PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424006–05 DIAGONAL CURB RAMPS FOR SIDEWALKS
424011–04 CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424016–05 MID–BLOCK CURB RAMPS FOR SIDEWALKS
424021–06 DEPRESSED CORNER FOR SIDEWALKS
424026–03 ENTRANCE / ALLEY PEDESTRIAN CROSSINGS
424031–02 MEDIAN PEDESTRIAN CROSSINGS
601001–05 PIPE UNDERDRAINS
602001–02 CATCH BASIN, TYPE A
602301–04 INLET, TYPE A
602406–11 PRECAST MANHOLE, TYPE A, 6" (1.83M) DIAMETER
604001–05 FRAME AND LIDS, TYPE 1
604086–05 FRAME AND GRATE. TYPE 23
606001–08 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
635001–02 DELINEATORS
664001–02 CHAIN LINK FENCE
701501–06 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701801–06 SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901–09 TRAFFIC CONTROL DEVICES
704001–08 TEMPORARY CONCRETE BARRIER
720001–01 SIGN PANEL MOUNTING DETAILS
720006–04 SIGN PANEL ERECTION DETAILS
720016–04 MAST ARM MOUNTED STREET NAME SIGNS
720021–03 SIGN PANELS, EXTRUDED ALUMINUM TYPE
729001–01 APPLICATIONS OF TYPES A AND B METAL POSTS (FOR SIGNS & MARKERS)
805001–01 ELECTRICAL SERVICE INSTALLATION DETAILS
814001–03 HANDHOLES
814006–03 DOUBLE HANDHOLES
BLR 28–1 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

MODEL: $MODELNAME$
FILE NAME: $FILEL$

CDM Smith

USER NAME =	DESIGNED – A. ALI	REVISED –	
	DRAWN – A. ALI	REVISED –	
PLOT SCALE =	CHECKED –	REVISED –	
PLOT DATE =	DATE – MAY 2024	REVISED –	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	–	DUPAGE		1
		CONTRACT NO. 284380		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES

1. THE CONTRACTOR MAY BE REQUIRED TO PAY INSPECTION FEES. THE COSTS WILL BE INCLUDED IN THE COST OF THE CONTRACT.

2. DETAILS SHOWN MAY NOT NECESSARILY GRAPHICALLY REPRESENT ALL COMPONENTS NECESSARY TO COMPLETE THE TOTAL SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL OF THE REQUIREMENTS SHOWN ON THE DRAWINGS WITH THOSE STATED IN THE APPLICABLE SPECIFICATIONS AND PROJECT NOTES TO PROVIDE A COMPLETE SYSTEM.

3. DETAILS SHOWN ARE INTENDED TO BE INDICATIVE OF THE PROFILES AND TYPE OF DETAILING REQUIRED FOR THE WORK. CONDITIONS NOT COVERED BY SPECIFIC DETAILS ARE SIMILAR IN CHARACTER AND QUALITY TO THOSE DETAILED AND SHALL MEET SPECIFIED DESIGN CRITERIA.

4.DIMENSIONS WILL GOVERN; DO NOT SCALE DRAWING OR ELECTRONIC DATA.

5. ALL DIMENSIONS SHOWN ON THE CIVIL AND STRUCTURAL PLANS WILL GOVERN OVER OTHER PLAN SHEETS. ALL DIMENSIONS ARE TO BE FIELD VERIFIED FOR ANY ELEMENTS TO BE CONNECTED TO EXISTING ELEMENTS OR ANY ELEMENTS PREVIOUSLY CONSTRUCTED.

6. WHERE SPECIFIC DIMENSIONS, DETAILS, OR DESIGN INTENT CANNOT BE DETERMINED, CONSULT THE ENGINEER IN WRITING BEFORE PROCEEDING WITH THE WORK.

7. ELEMENTS SHALL BE SHOP FABRICATED TO THE GREATEST EXTENT POSSIBLE AND SHIPPED PROTECTED TO REDUCE FIELD WELDING AND FIELD TOUCH UP.

8. ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FROM EACH OTHER WITH A HEAVY COATING OF EPOXY PAINT OR OTHER APPROVED MEANS TO AVOID CORROSION FROM GALVANIC ACTION.

9. WHEN NOTED ON THE DRAWINGS OTC IN THE SPECIFICATIONS THE CONTRACTOR SHALL PROVIDED FINISHED FIELD SAMPLES WHICH, WHEN ACCEPTED, MAY BECOME PART OF THE FINAL WORK AT THE ENGINEER'S APPROVAL.

10. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

11. TEN FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER ITEMS OF WORK TO EXISTING CURB AND GUTTER IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SUSPECTED.

12. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE UTILITY COMPANIES, AND THE VILLAGE OF GLEN EELY.

13. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON VILLAGE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE VILLAGE.

14. ANY PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS OBLITERATED BY MILLING AND RESURFACING OPERATIONS ON SIDE STREETS AND ENTRANCES SHALL BE REPLACED AND PAID FOR IN KIND.

15. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE VILLAGE.

16. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

17. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

18. ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

19. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

20. THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIES OR PLATED STRUCTURES ACCORDING TO THE STATION AND OFFSET LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT UPON COMPLETION OF THE WORK. THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

21. BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT) ACCORDING TO THE "BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

22. WHEN THE MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED $1\frac{1}{2}$ INCHES (40 MM) WHERE THE SPEED LIMIT IS 40 MPH OR LESS. WITH THE WRITTEN APPROVAL OF THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM OF 1:3 (V:H) OR NOTCHED LONGITUDINAL WEDGE IS USED.

23. PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES.

24. UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURES AS DETERMINED AND APPROVED BY THE ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS, OVERNIGHT LANE CLOSURES SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHING.

25. CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS AT ALL TIMES DURING CONSTRUCTION.

26. MOVING UTILITIES WILL BE THE RESPONSIBILITY OF THE UTILITY OWNERS EXCEPT AS NOTED ON THE PLANS. IN THE GENERAL NOTES, AND IN THE SPECIFICATIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING ANY UTILITY RELOCATION(S). THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES IN ADVANCE, ALLOWING SUFFICIENT TIME TO COMPLETE THE WORK IN ACCORDANCE WITH THE CONTRACTOR'S SCHEDULE. COORDINATION EFFORTS ARE INCLUDED IN THE COST OF THE CONTRACT.

27. AS-BUILT PLANS WILL BE SUBMITTED SOON AFTER WORK COMPLETION. FINAL PAYMENT WILL NOT BE MADE TO THE CONTRACTOR UNTIL THE ENGINEER ACKNOWLEDGES RECEIPT OF AS-BUILT PLANS.

28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING, REMOVING, OR REPAIRING ANY GRAFFITI AND/OR VANDALISM WITHIN THE PROJECT LIMITS.

29. PROVISIONS FOR PEDESTRIAN TRAFFIC MUST BE COORDINATED WITH THE CONTRACTOR AND VILLAGE OF GLEN ELLYN PRIOR TO IMPLEMENTATION AND APPROVED BY THE ENGINEER. PROVISIONS FOR PEDESTRIAN TRAFFIC MUST BE PROVIDED AT ALL TIMES FOR BOTH SIDES OF THE STREET AND AT ALL INTERSECTION CORNERS. TEMPORARY ASPHALT OR PLYWOOD RAMPS SHALL BE BUILT TO PROVIDE AN ALTERNATIVE PATH OF TRAVEL AND MAINTAIN CONTINUAL ACCESS TO PEDESTRIANS PER TRAFFIC CONTROL & PROTECTION REQUIREMENTS. THE WALKING PATH MUST BE A MINIMUM OF 5'-0" WIDE AND SHIELDED FROM TRAFFIC BY TEMPORARY CONCRETE BARRIER OR AS DIRECTED BY THE ENGINEER. TEMPORARY RAMPS SHALL BE INSTALLED AT A TAPER RATE NO STEEPER THAN 1:14 (V:H)

30. MAINTAIN ACCESS TO FIRE HYDRANTS, BUILDING STANDPIPES AND OTHER EMERGENCY FACILITIES WITHIN THE CONSTRUCTION ZONE.

31. REGULATORY, WARNING, AND GUIDE SIGNS CONFLICTING WITH THE PROPOSED IMPROVEMENT MUST BE RELOCATED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE COST WILL BE INCLUDED IN TRAFFIC CONTROL AND PROTECTION.

32. IF AVAILABLE BECAUSE OF OPERATING CONDITIONS, THE CONTRACTOR IS ALLOWED TWO (2) WEEKEND SINGLE TRACK OPERATIONS TO ASSIST THE CONTRACTOR IN MEETING UPRR SHORING DIAGRAM REQUIREMENTS, WHILE CONSTRUCTION IMPROVEMENTS WEST OF TRACK #1. ALL TRAINS WILL OPERATE ON TRACK #2 DURING THE SINGLE TRACK OPERATIONS.
NOTIFY METRA THIRTY (30) DAYS PRIOR TO EACH SINGLE TRACK OPERATION. ALLOWABLE HOURS FOR SINGLE TRACK OPERATIONS IS 2000 HRS FRIDAY THROUGH 0400 HRS MONDAY. NOTE: SEE GENERAL CONDITIONS FOR LIQUIDATED DAMAGES ASSOCIATED WITH EACH SINGLE TRACK OPERATION.

33. ALL OF THE CONTRACTOR'S WORKERS SHALL FOLLOW METRA'S SAFETY PROCEDURES, INCLUDING WWW.CONTRACTORORIENTATION.COM REGISTRATION. CONTRACTOR IS RESPONSIBLE FOR ALL REGISTRATION FEES.

34. UPRR TO PROVIDE FLAGGERS UPON REQUEST FOR FLAGGERS REQUIRED BY THE CONTRACTOR, AS PER THE PROJECT SPECIFICATIONS. REQUESTS FOR WORK SHALL BE MADE FOR OPERATIONS DURING THE RAIL SAFETY HOURS OF MON-FRI 0900-1500 HOURS.

35. CONTRACTOR TO ABIDE BY UPRR MINIMUM CONTRACTOR REQUIREMENTS WHEN WORKING ON UPRR ROW.

36. CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING CONSTRUCTION FENCING AS REQUIRED BY UPRR, VILLAGE OF GLEN ELLYN, AND METRA AT ANY LOCATION WITHIN THE OVERALL CONSTRUCTION ZONE.

37. UPRR SUPPLEMENTAL GENERAL CONDITIONS 00 10 10 AND UPRR SUPPLEMENTAL SPECIAL CONDITIONS 00 10 20 SUPERSEDES DIVISION 01 GENERAL REQUIREMENTS. IF ANY CONFLICTS OCCUR BETWEEN THEM THE CONTRACTOR IS HELD TO THE MORE STRINGENT REQUIREMENTS/

38. UPRR GUIDELINES FOR TEMPORARY SHORING ARE PROVIDED IN THE SPECIFICATIONS MANUAL AS INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE TO CONFIRM WITH UPRR THAT THEY ARE ADHERING TO THE MOST UPDATED UPRR TEMPORARY SHORING REQUIREMENTS AT THE TIME OF CONSTRUCTION.

39. HORIZONTAL CONTROL IS BASED ON THE ILLINOIS STATE PLANE COORDINATES, EAST ZONE (NAD 1983). VERTICAL CONTROL IS BASED ON THE NORTH AMERICAN DATUM OF 1988 (NAVD 88).

GLEN ELLYN METRA STATION RESPONSIBILITY SCHEDULE

LEGEND
VGC: THE VILLAGE OF GLEN GLEN CONTRACTOR
VGE: THE VILLAGE OF GLEN ELLYN
UPRR: UNION PACIFIC RAILROAD
M: METRA

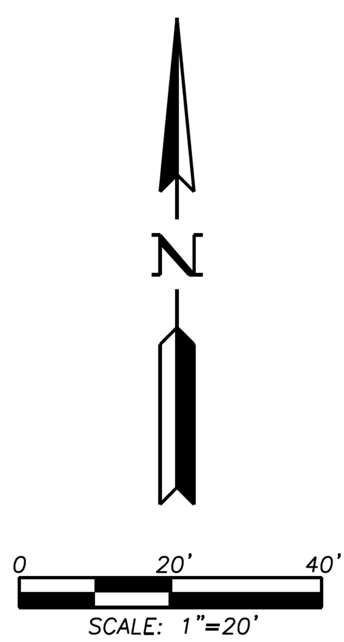
	FURNISHED				INSTALLED			
SCOPE RESPONSIBILITY	VGC	VGE	UPRR	M	VGC	VGE	UPRR	M
PLATFORM CONSTRUCTION								
PLATFORM DEMOLITION			X				X	
CONSTRUCTION OF NEW CAST-IN-PLACE PLATFORMS WITH CANTILEVERS				X			X	
PLATFORM SUBGRADE INSTALLATION INCLUDING EXCAVATION AND COMPACTION (MINUS 2-INCHES TO FINAL SUBGRADE LEVEL)	X				X			
PLATFORM SUBGRADE INSTALLATION INCLUDING EXCAVATION AND COMPACTION (TO FINAL SUBGRADE LEVEL)	X						X	
REQUIRED PLATFORM HARDWARE, JOINT FILLER, SEALANT ETC.				X			X	
TRACK DRAINAGE (UNDER PLATFORM CANTILEVER 18-INCHES BELOW BALLAST)			X				X	
CONNECTION OF TRACK DRAINAGE PIPE TO LATERALS OR STORM DRAIN	X				X			
PLATFORM TRENCH DRAINS	X				X			
ASSOCIATED PIPING FOR TRENCH DRAINS	X				X			
FOUNDATIONS AND ANCHOR BOLTS (FOR STANDARD UPRR LIGHT POLES)			X		X		X	
FOUNDATIONS AND ANCHOR BOLTS (FOR VILLAGE SELECTED SPECIAL LIGHT POLES)	X				X			
PLATFORM LIGHTS, LIGHT POLES, WIRING (FOR STANDARD UPRR LIGHT POLES)				X			X	
PLATFORM LIGHTS, LIGHT POLES, WIRING (FOR VILLAGE SELECTED SPECIAL LIGHT POLES)	X						X	
PLATFORM LOW VOLTAGE CONDUIT AND PULL STRINGS (VOM, PIDS, CAMERAS)	X				X			
PLATFORM LOW VOLTAGE WIRING (VOM, PIDS)	X							X
PLATFORM SECURITY CAMERAS AND WIRING	X				X			
EARTH RETENTION SYSTEMS FOR RETAINING WALLS	X				X			
PLATFORM GUARD RAILINGS & FENCING	X				X			
PLATFORM SIGNAGE - GENERAL EXTERIOR METRA SIGNS (REGULATORY, CODE RELATED)	X				X			
PLATFORM SIGNAGE - EXTERIOR ORNAMENTAL, OTHER	X				X			
PLATFORM DIGITAL 'VIS' SIGNAGE				X	X			
PLATFORM DIGITAL 'VIS' SIGNAGE POLES	X				X			
STATION AND WARMING SHELTERS								
PLATFORM DEMOLITION	X				X			
STATION CONSTRUCTION (U.N.O.)	X				X			
WARMER SHELTER CONSTRUCTION	X				X			
STATION LOW VOLTAGE CONDUIT AND PULL STRINGS (CAMERAS)	X				X			
STATION SECURITY CAMERAS AND WIRING	X				X			
METRA TICKET VENDING MACHINES (TVM)				X				X
PROTECT AND STORE EXISTING METRA TICKET VENDING MACHINES	X				X			
CONDUITS AND PULL STRINGS FOR METRA TICKET VENDING MACHINES	X				X			
COMMUNICATION WIRNING AND TERMINATIONS FOR METRA TICKET VENDING MACHINES				X				X
POWER WIRING FOR METRA TICKET VENDING MACHINES				X				X
VOICE OF METRA AND METRA INFORMATIONAL SCREEN EQUIPMENT AND SYSTEMS				X				X
CONDUIT AND PULL STRINGS FOR THE VOICE OF METRA AND METRA INFORMATIONAL SCREENS	X				X			
POWER & COMMS WIRING FOR THE VOICE OF METRA AND METRA INFORMATIONAL SCREENS				X				X
STATION SERVER RACKS AND INTRENET TERMINATIONS	X				X			
COMMUNICATIONS WIRING AND TERMINATIONS FOR THE TVM SYSTEM IN THE SERVER RACK(S)				X				X
STATION SIGNAGE - EXTERIOR METRA SIGNAGE (EXTERIOR STATION NAME)				X	X			
STATION SIGNAGE - GENERAL INTERIOR (RESTROOMS/ROOM NAMES, ETC.)	X				X			
STATION DIGITAL 'VIS' SIGNAGE				X	X			
BLOCKING AND BACKING FOR ALL SIGNAGE AND EQUIPMENT	X				X			
SITE CONSTRUCTION								
DEMOLITION OF SIDEWALK, ROADWAY AND ULTILITY ELEMNTS TO WITHIN 15-FEET OF THE UPRR ROW	X				X			
DEMOLITION OF SIDEWALK, ROADWAY AND ULTILITY ELEMNTS TO WITHIN 15-FEET OF THE UPRR ROW	X				X			
JACK AND BORE OF NEW UTILITIES UNDER UPRR ROW AT NORTH PARK AVENUE	X				X			
PEDESTRIAN TUNNEL, RETAINING WALLS, STAIRS & ADA RAMPS	X				X			
PEDESTRIAN TUNNEL DRAINAGE	X				X			
TRAIN STTAION SITE LANDSCAPING	X				X			
UPRR ROW FENCING	X				X			
UNDERGROUNDING OVERHEAD UTILITIES (ALONG DUANCE STREET AND NEAR US BANK PARK)	X				X			
GENERAL CONDITIONS								
TEMPORARY UTILITY INSTALLATION AND REMOVAL (AS REQUIRED)	X				X			
COORDINATION OF RELOACTION OF FIBER OPTIC CABLE AND TELEPHONE LINES	X				X			
FLAGGING OPERATIONS			X				X	
JOB TRAILERS	X				X			
MAINTENANCE OF TRAFFIC	X				X			
TRACK SETTLEMENT AND MONITORING	X				X			

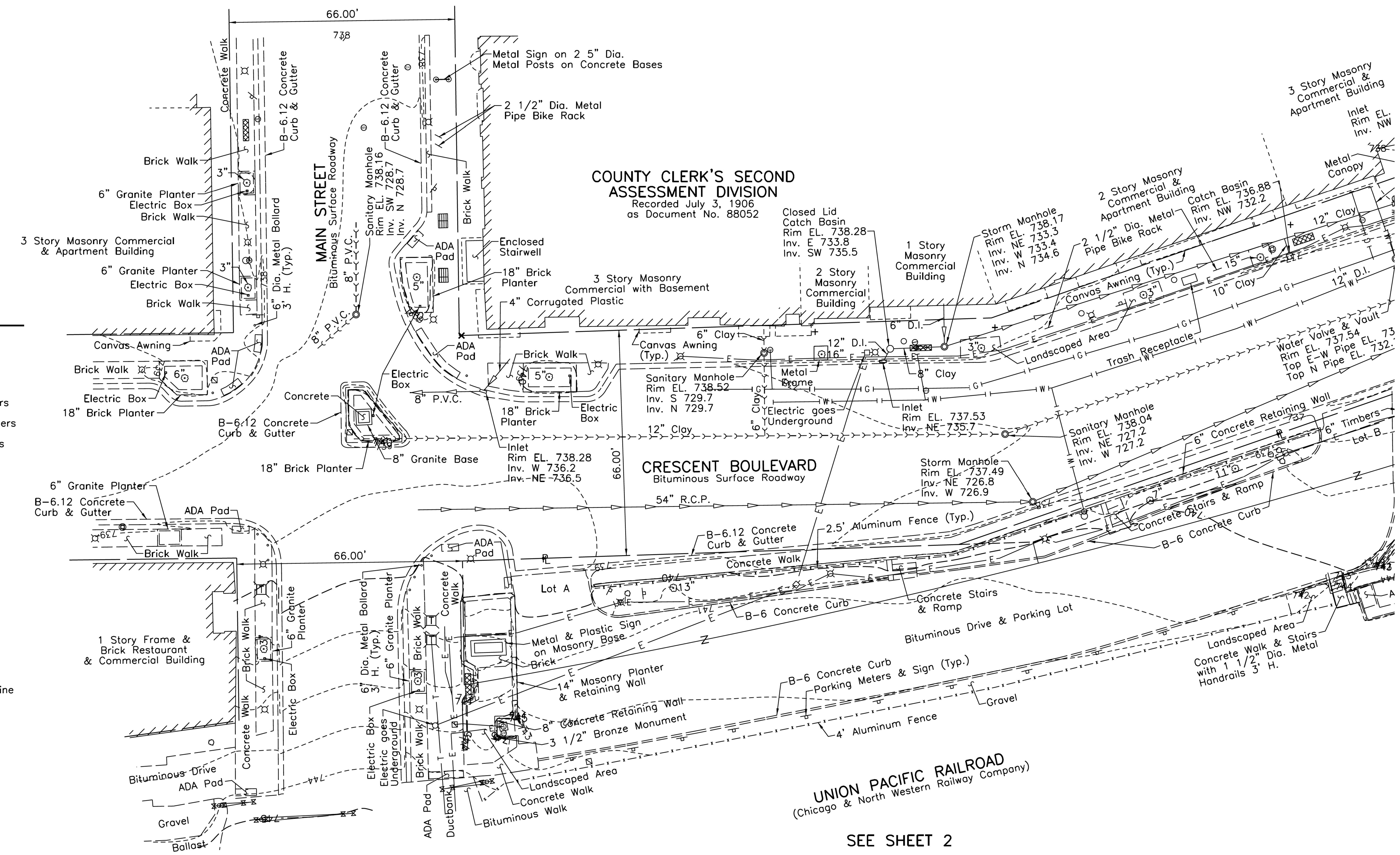
JORGENSEN & ASSOCIATES, INC.
(847) 356-3371

TOPOGRAPHIC SURVEY
OF

120 PARK AVENUE
LAKE VILLA, ILLINOIS 60046

Lots A and B in County Clerk?s Second Assessment Division, according to the plat thereof recorded July 3, 1906 as document number 88052, part of Lot 1 in Block 9 in County Clerk?s Fifth Assessment Division, according to the plat thereof recorded July 3, 1906 as document number 88055, vacated Crescent Boulevard recorded September 17, 1926 as document number 221535, part of Main Street, part of Forest Avenue, part of Park Boulevard, part of Duane Street, part of Illinois Prairie Path recorded March 19, 1991 as document number R91-0258150, part of Stuart Avenue, part of the Chicago and North Western Railway Company right of way and part of Crescent Boulevard, all in Section 11, Township 39 North, Range 10 East of the Third Principal Meridian, in DuPage County, Illinois.





SEE SHEET 2

LEGEND

Symbol	Line Type
Deciduous Tree	Gas Line as Marked by Others
Coniferous Tree	Petroleum Line as Marked by Others
Deciduous Bush	Underground Electric as Marked by Others
Coniferous Bush	Underground Telephone as Marked by Others
Stump	Underground Fiber Optic as Marked by Others
Sign	Underground Cable TV as Marked by Others
Metal Frame & Grate	Water Main as Marked by Others
2' Dia. Metal Trash Receptacle	Storm Sewer
Metal Park Bench	Sanitary Sewer
Spotlight	Fence
Light Pole	Guardrail
Power Pole	Overhead Electric
Power Pole	Overhead Telephone
Guy Wire	Overhead Cable TV
Railroad Signal with Mast Arm	Overhead Electric & Telephone Line
Handhole	Overhead Electric & Cable TV Line
Street Lighting Control Box	Overhead Telephone & Cable TV Line
Electric Pedestal	Overhead Electric, Telephone & Cable TV Line
Cable TV Pedestal	Edge of Trees & Brush
Telephone Pedestal	Edge of Bushes
Telephone Vault	Existing R.O.W. Line
Gas Valve	Property (Deed) Line
Utility Junction Box	Same Ownership
Fiber Optic Vault	Existing Easement Line
Electric Transformer	Found Iron Pipe or Iron Rod
In-Ground Sprinkler (Others may Exist)	Found "PK" Nail or "MAG" Nail
Sprinkler Control Valve	Found Cross Cut
Monitoring Well	Existing Building
Cleanout	
Buffalo Box/Water Valve	
Fire Hydrant	
Inlet	
Catch Basin	
Manhole/Water Valve & Vault	
Boring	

Basis of Elevations

NGS Bench Mark 0105, P.I.D. DK3188
3 1/2" Brass Disk on Top of a 3 Foot High Concrete Retaining Wall Surrounding an Electrical Control Box, stamped "DuPage County Geodetic Survey Monument, Height Modernization Program 2006, 0105".
Published NAVD '88 Elevation 745.28

Bearings and Coordinates are referenced to the Illinois Coordinate System NAD 83(2011) East Zone.

All measured and computed distances are grid not ground. To obtain ground distances, divide grid distances shown by the combined factor of 0.999950799.

STATE OF ILLINOIS)
) S.S.
COUNTY OF LAKE)

TO: THE VILLAGE OF GLEN ELLYN, AN ILLINOIS MUNICIPAL CORPORATION

WE, JORGENSEN & ASSOCIATES, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, DO HEREBY CERTIFY THAT WE SURVEYED THE AREA SHOWN HEREON AND PREPARED A TOPOGRAPHIC SURVEY, WHICH IS A TRUE REPRESENTATION OF SAID SURVEY.

DIMENSIONS ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF AND ARE CORRECTED TO A TEMPERATURE OF 68 DEGREES FAHRENHEIT.

LAKE VILLA, ILLINOIS THIS ______ DAY OF __________, A.D., 20 ___

FOR REVIEW PURPOSES ONLY

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797
LICENSE EXPIRATION DATE: NOVEMBER 30, 2024

SHEET 1 OF 6

SHEET 1.DGN 4/8/2024

MODEL: Topographic Survey 1
FILE NAME: pw://cdmsmith-az02-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-Survey-30pct

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -
ISSUED FOR 30 PCT	DRAWN -	REVISED -
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOPOGRAPHIC SURVEY

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	______	DUPAGE		3
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		

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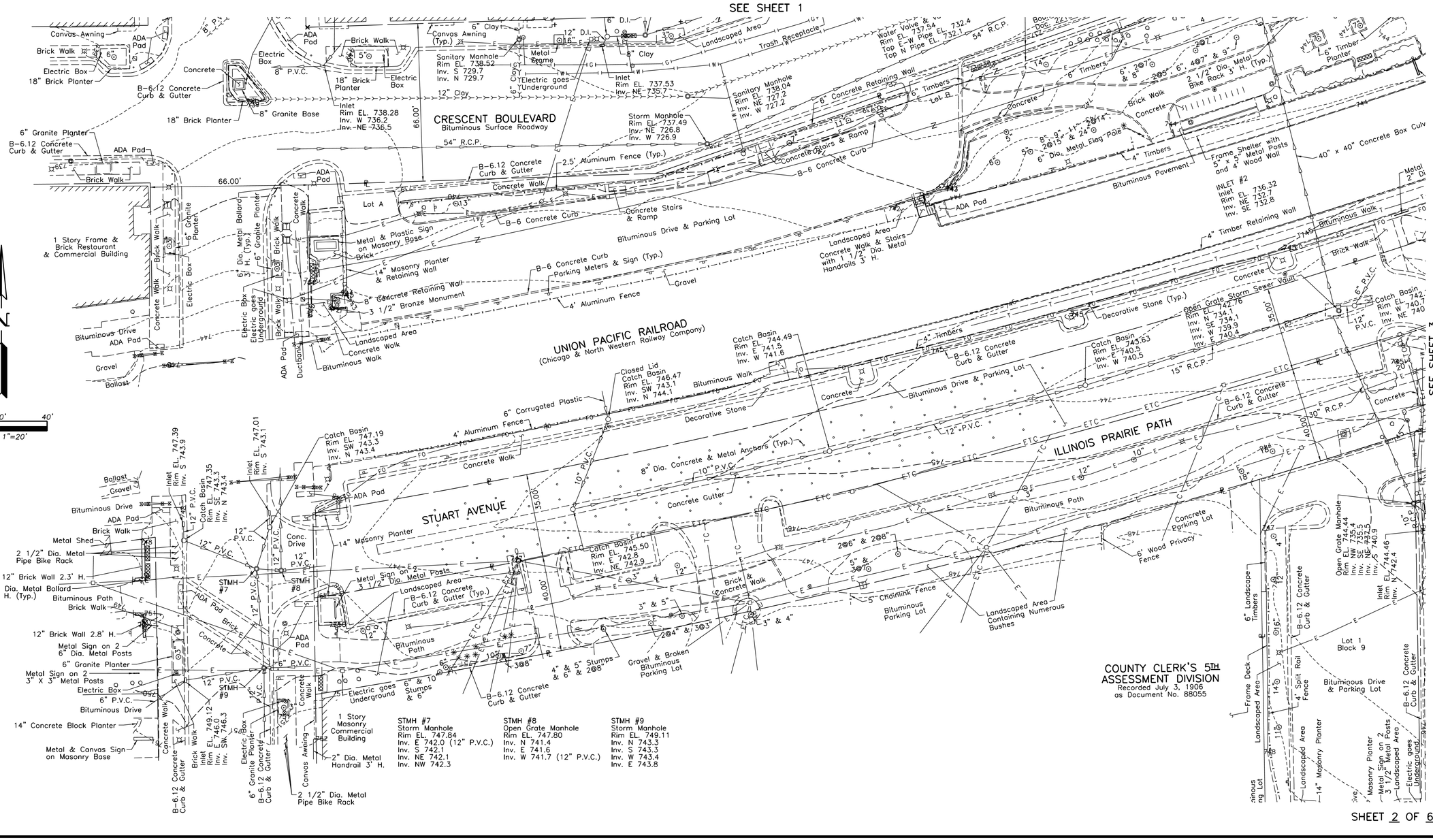

STMH #7
Storm Manhole
Rim EL. 747.84
Inv. E 742.0 (12" P.V.C.)
Inv. S 742.1
Inv. NE 742.1
Inv. NW 742.3

STMH #8
Open Grate Manhole
Rim EL. 747.80
Inv. N 741.4
Inv. E 741.6
Inv. W 741.7 (12" P.V.C.)

STMH #9
Storm Manhole
Rim EL. 749.11
Inv. N 743.3
Inv. S 743.3
Inv. W 743.4
Inv. E 743.8

SHEET 2 OF 6

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TOPOGRAPHIC SURVEY

SCALE: SHEET 4 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		4
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		

MODEL: Topographic Survey 2
FILE NAME: pw://cdmsmith-sa02-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/01284380-sht-Survey-30pct

SHEET 2JDN 4/8/2024

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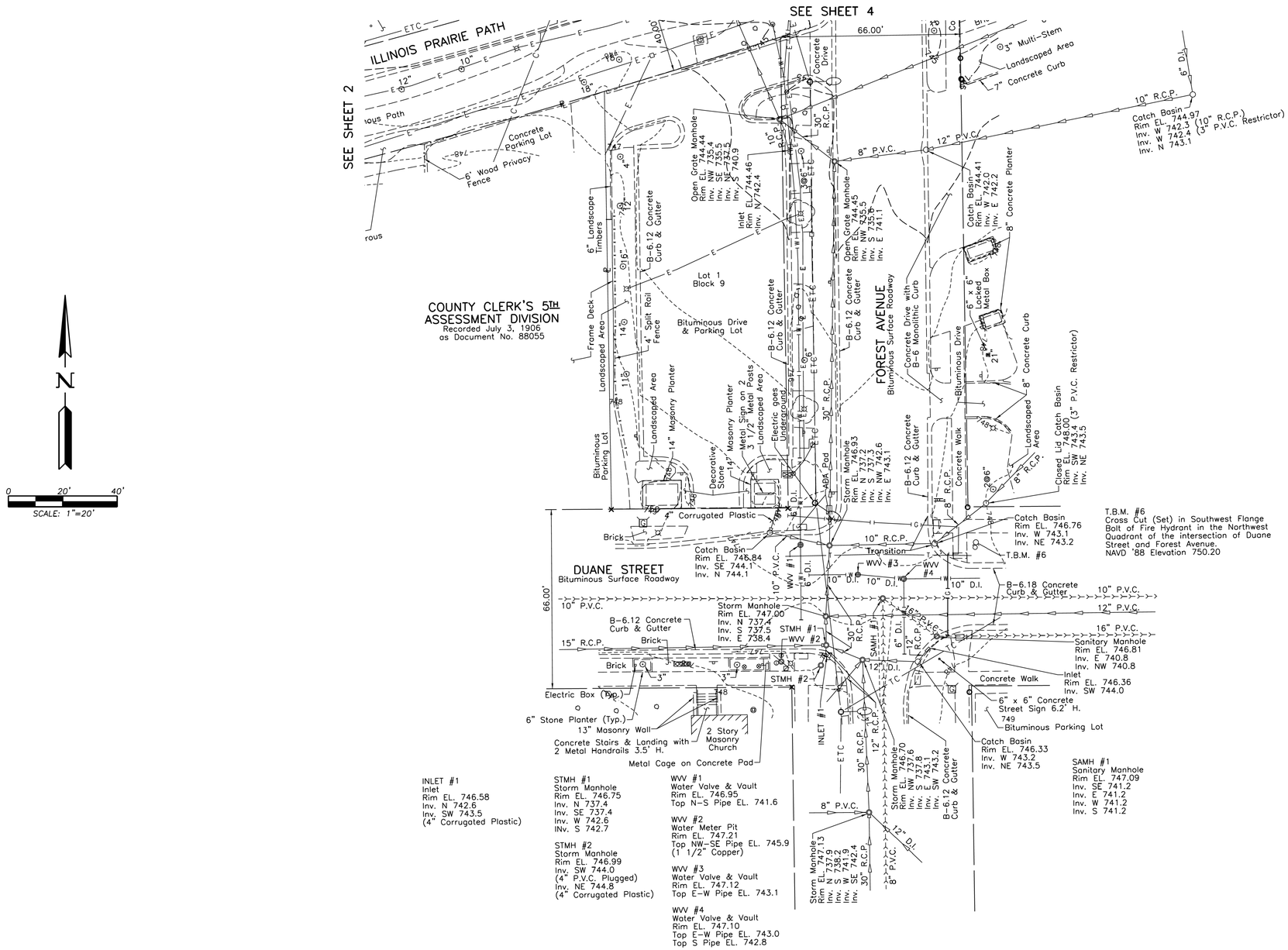

SHEET 3 OF 6

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
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TOPOGRAPHIC SURVEY

SCALE: SHEET 5 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		5
		CONTRACT NO. 284380		
		ILLINOIS FED. AID PROJECT		

MODEL: Topographic Survey 3
FILE NAME: pw://cdmsmith-sz02-pw.bentley.com:pw_ext/Documents/258021284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-Survey-3tpct

SHEET 3JGN 4/8/2024

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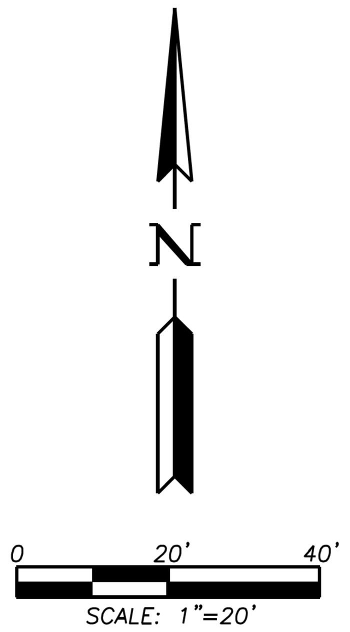
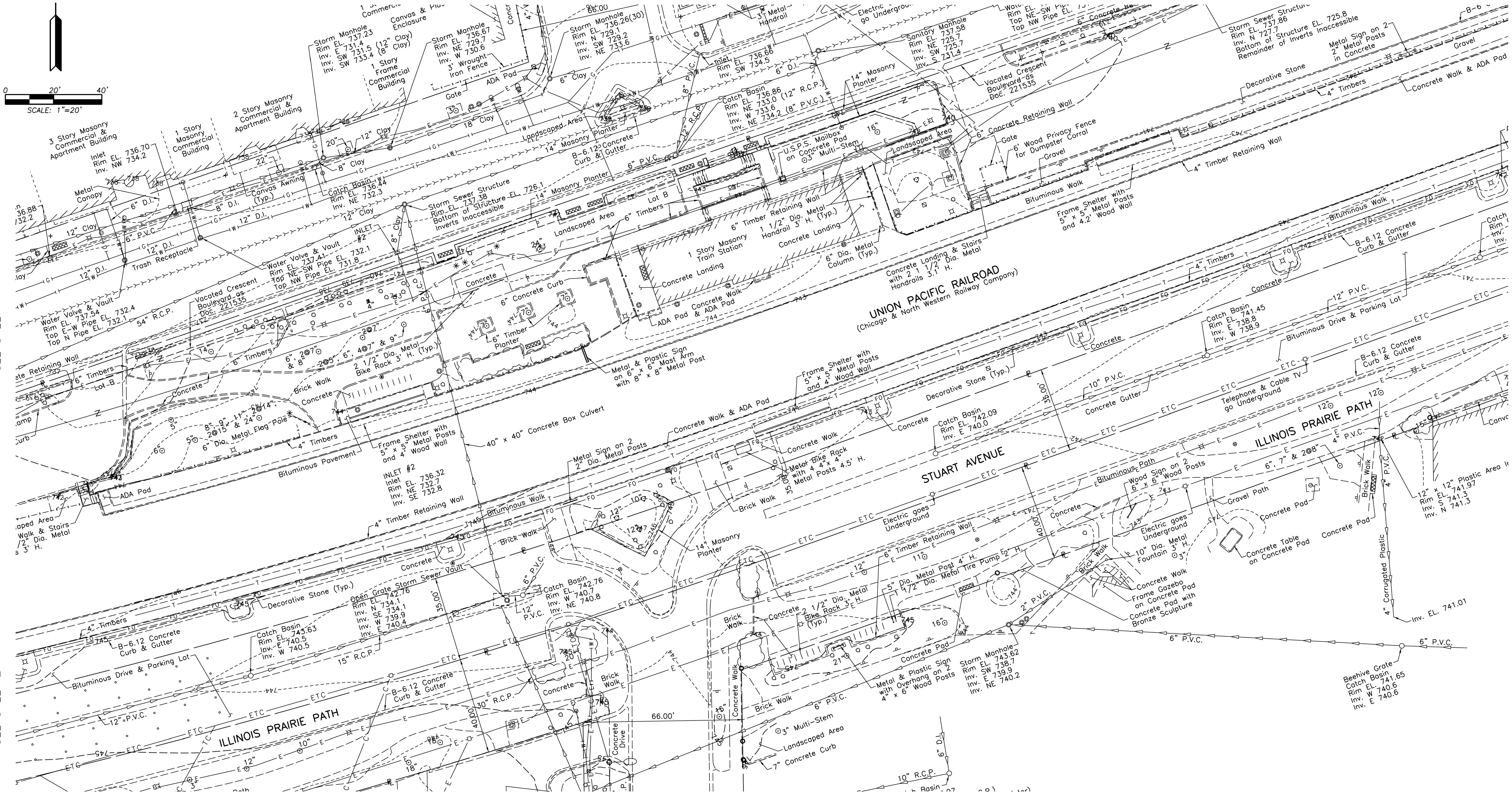


SEE SHEET 5



SEE SHEET 3

SHEET 4 OF 6

SHEET 4.DGN 4/8/2024

MODEL: Topographic Survey 4
FILE NAME: pw://cdmsmith-az02-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-Survey-30pct

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TOPOGRAPHIC SURVEY		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		—	________	DUPAGE		6
				CONTRACT NO. 284380		
SCALE:	SHEET 6 OF SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT			

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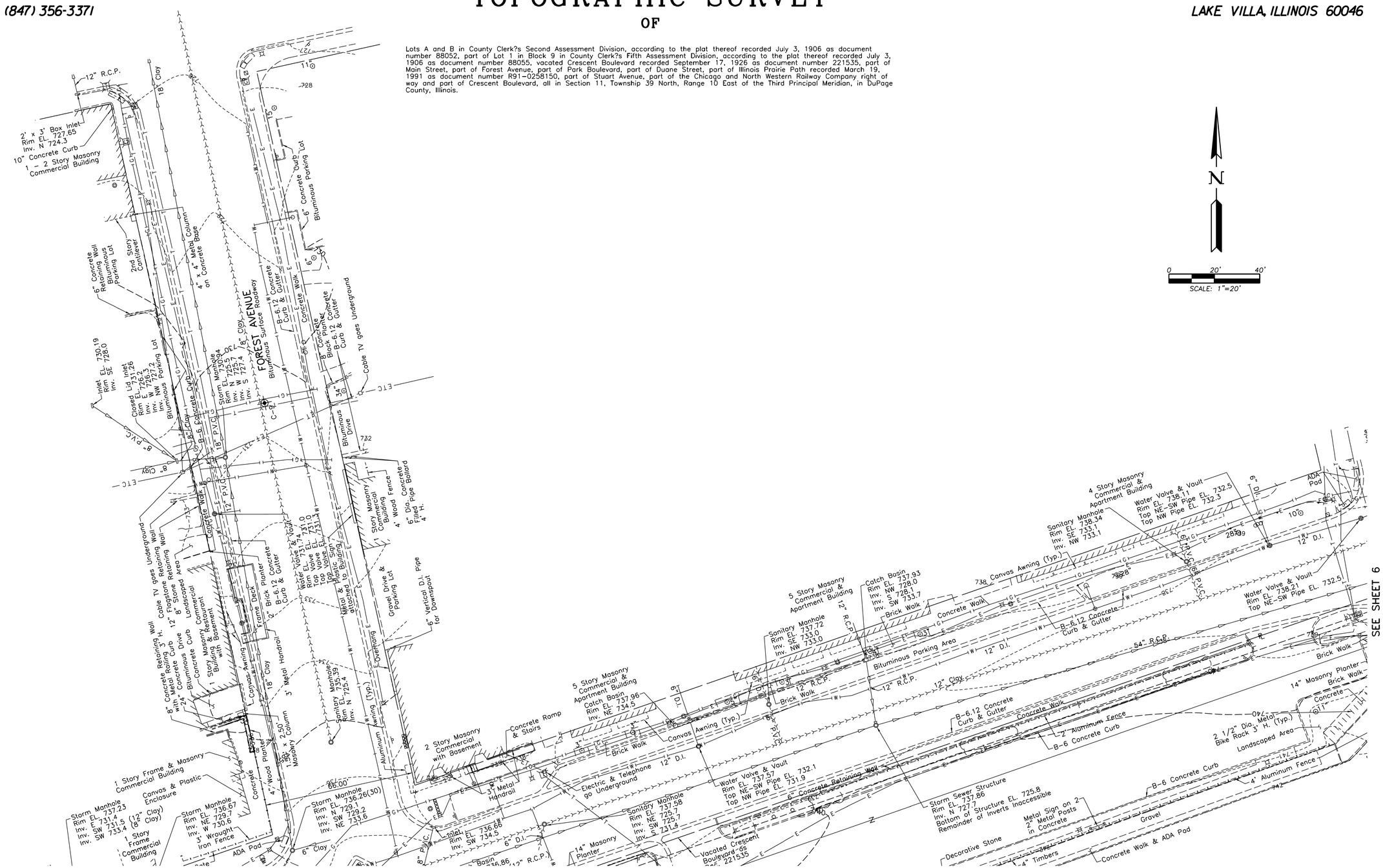

SEE SHEET 4

SHEET 5 OF 6

SHEET 5.DGN 4/8/2024

MODEL: Topographic Survey 5
FILE NAME: pw://cdmsmith-sz02-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D284380-sht-Survey.3dpct

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOPOGRAPHIC SURVEY

SCALE: | SHEET 7 OF SHEETS | STA. | TO STA.

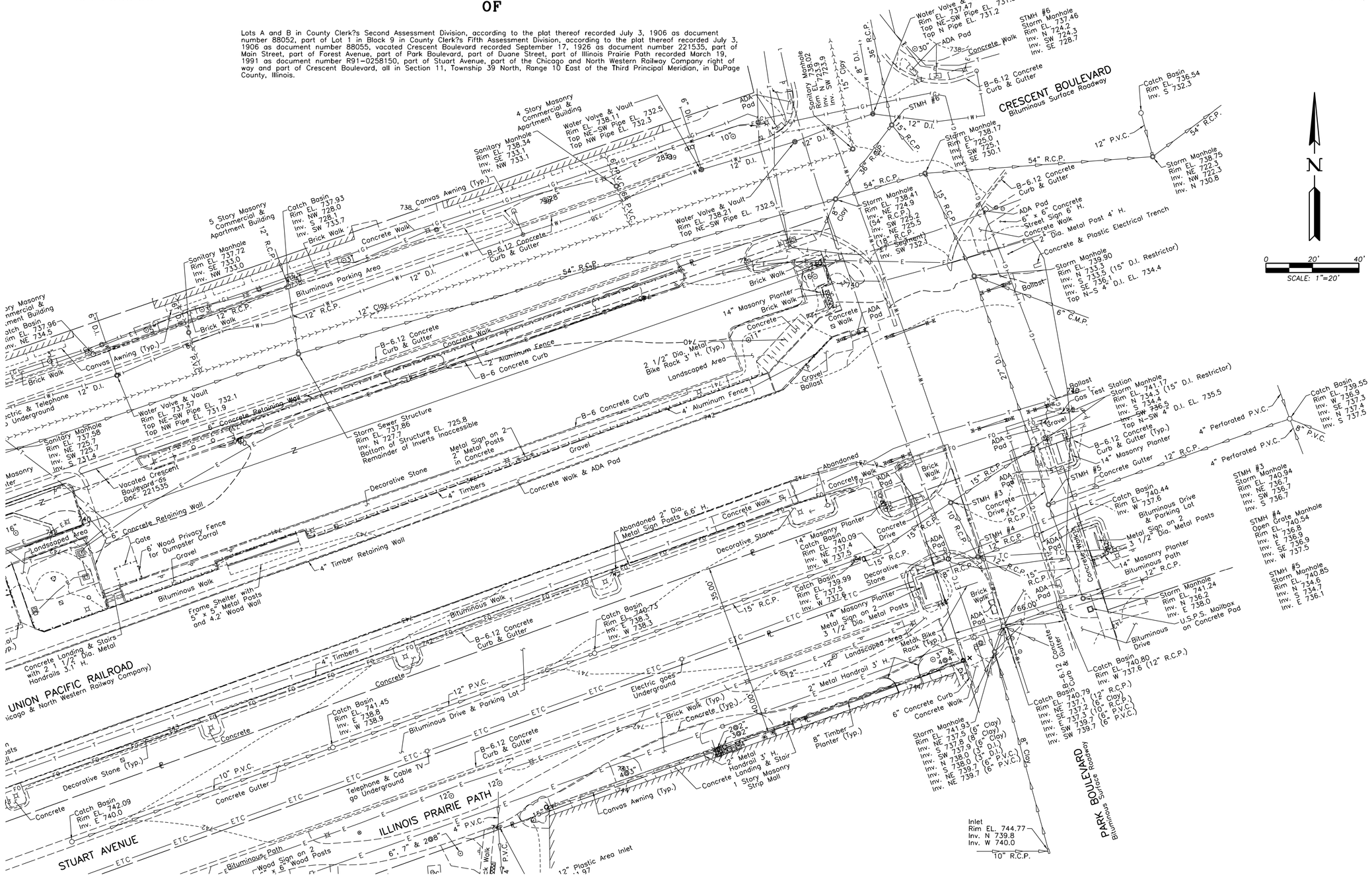
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		7
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	

JORGENSEN & ASSOCIATES, INC.
(847) 356-3371

TOPOGRAPHIC SURVEY
OF

120 PARK AVENUE
LAKE VILLA, ILLINOIS 60046

Lots A and B in County Clerk?s Second Assessment Division, according to the plat thereof recorded July 3, 1906 as document number 88052, part of Lot 1 in Block 9 in County Clerk?s Fifth Assessment Division, according to the plat thereof recorded July 3, 1906 as document number 88055, vacated Crescent Boulevard recorded September 17, 1926 as document number 221535, part of Main Street, part of Forest Avenue, part of Park Boulevard, part of Duane Street, part of Illinois Prairie Path recorded March 19, 1991 as document number R91-0258150, part of Stuart Avenue, part of the Chicago and North Western Railway Company right of way and part of Crescent Boulevard, all in Section 11, Township 39 North, Range 10 East of the Third Principal Meridian, in DuPage County, Illinois.



SHEET 6 OF 6

SHEET 6.DGN 4/8/2024

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN -	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

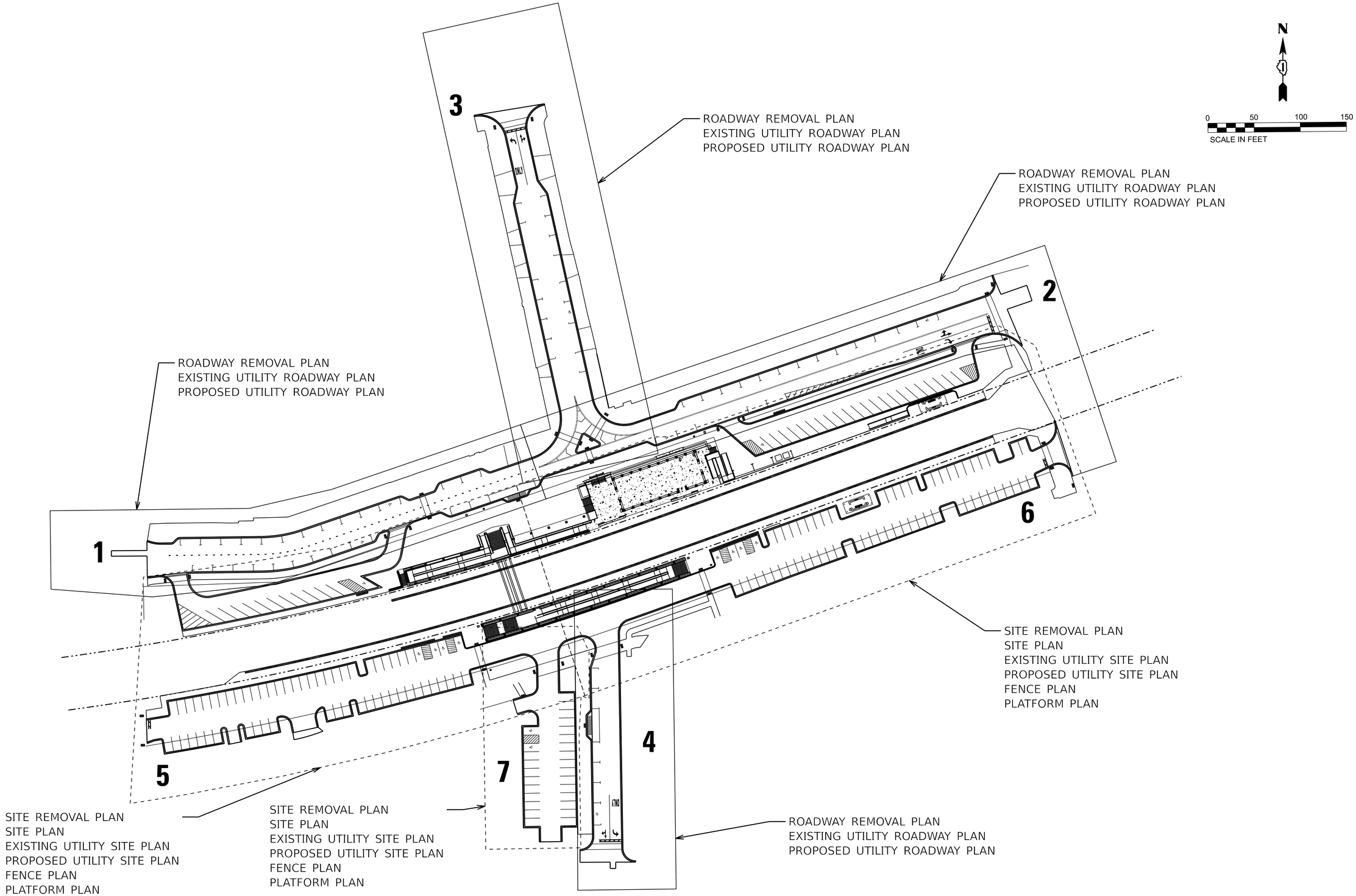
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOPOGRAPHIC SURVEY

SCALE: | SHEET 8 OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		8
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	

MODEL: Topographic Survey 6
FILE NAME: pw://dtmsmlln-as02.bw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-Survey-3dpct



MODEL: 2D Sheet H
FILE NAME: pw://cdmsmith-ad2-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-Key-Plan

CDM Smith

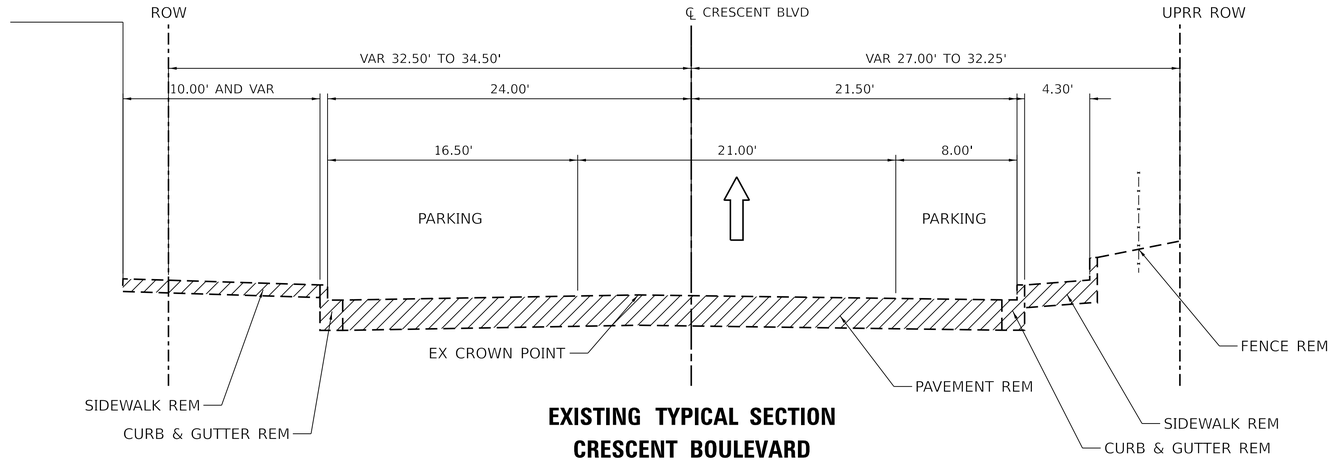
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL KEY PLAN

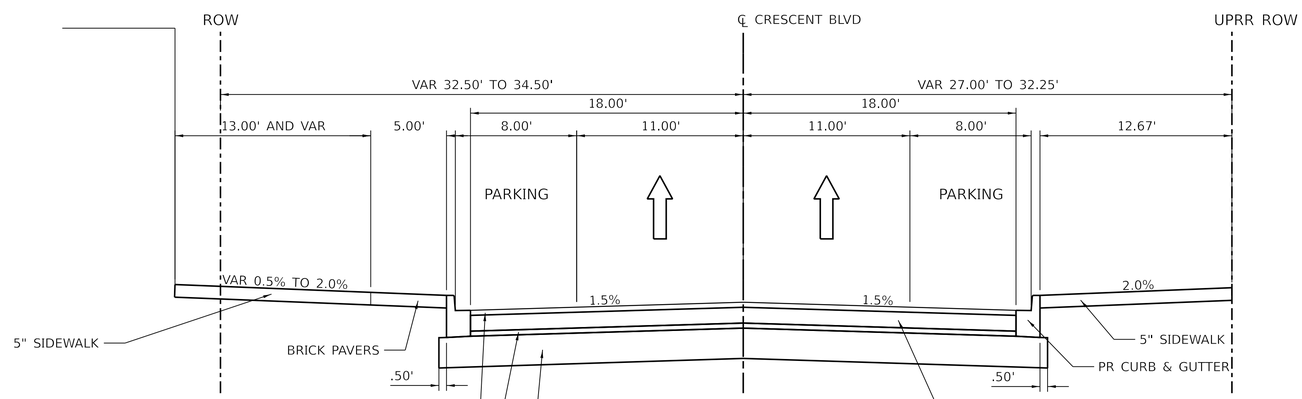
SCALE: | SHEET 101 OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		101
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



EXISTING TYPICAL SECTION
CRESCENT BOULEVARD

STA. 100+39.42 TO STA. 105+33.62



PROPOSED TYPICAL SECTION
CRESCENT BOULEVARD

STA. 100+39.42 TO STA. 105+33.62

HMA MIXTURE REQUIREMENT TABLE

LOCATION:
MIXTURE USE(S):
BINDER GRADE (PG):
DESIGN AIR VOIDS:
MIXTURE COMPOSITION: (MIXTURE GRADATION)
FRICTION AGGREGATE:
MIXTURE WEIGHT:
QUALITY MANAGEMENT PROGRAM:
SUBLOT SIZE:
DENSITY TEST METHOD:
MATERIAL TRANSFER DEVICE (REQUIRED):
THICKNESS:

REMOVAL LEGEND

REMOVAL ITEMS

MODEL: Typical Sections 1
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_ext/Documents/258021284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM, CADD/Sheet/D1284380-sht-typical

CDM Smith

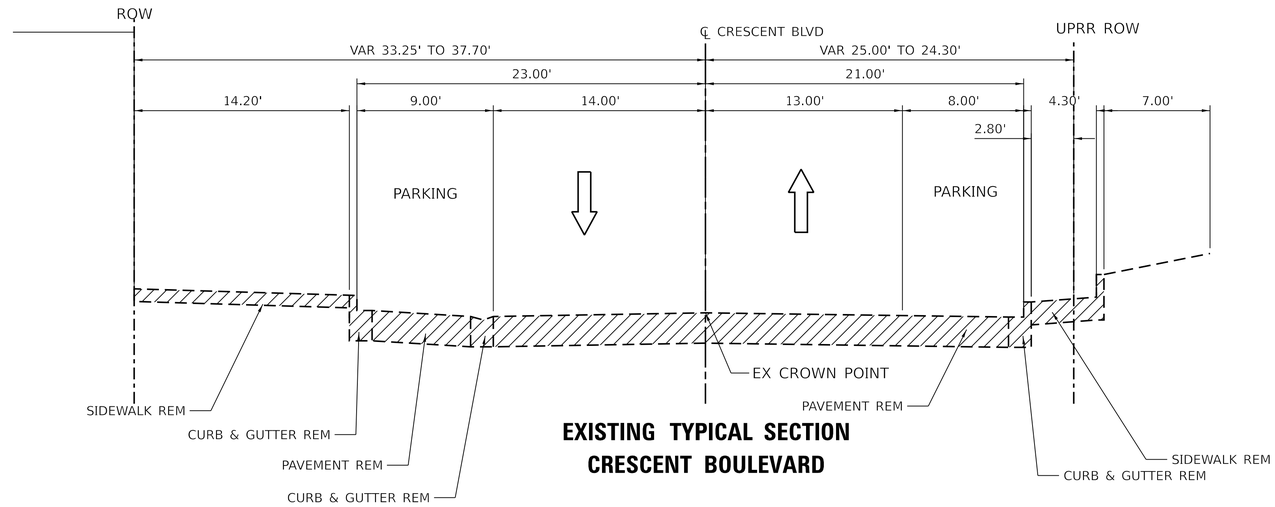
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL ROADWAY TYPICAL SECTIONS
CRESCENT BOULEVARD

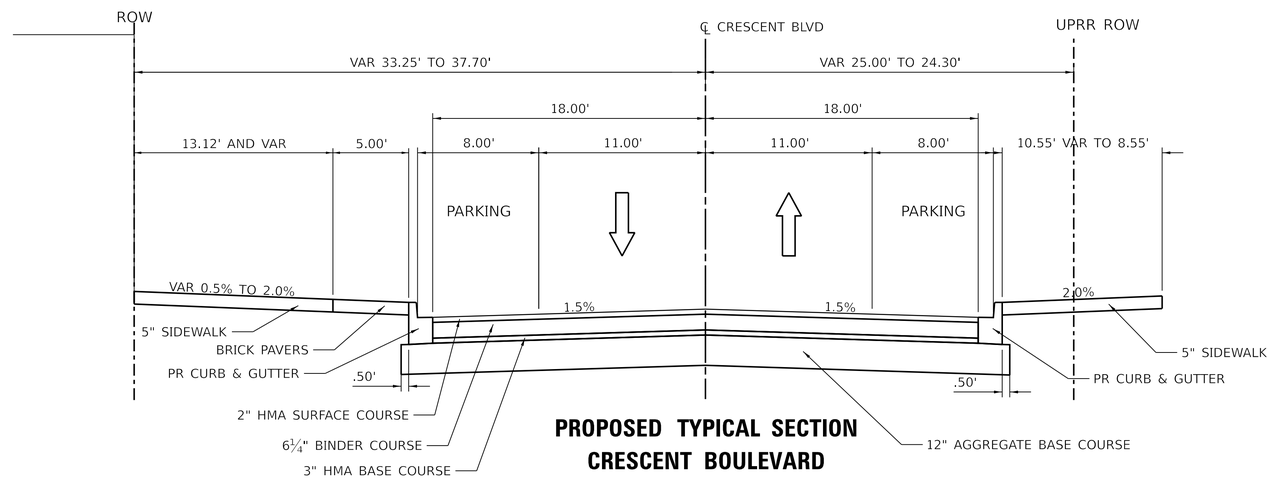
SCALE: | SHEET 102 OF SHEETS | STA. 100+36.39 TO STA. 105+03.82

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		102
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



EXISTING TYPICAL SECTION
CRESCENT BOULEVARD

STA. 105+33.62 TO STA. 110+13.97



PROPOSED TYPICAL SECTION
CRESCENT BOULEVARD

STA. 105+33.62 TO STA. 110+13.97

HMA MIXTURE REQUIREMENT TABLE

LOCATION:
MIXTURE USE(S):
BINDER GRADE (PG):
DESIGN AIR VOIDS:
MIXTURE COMPOSITION: (MIXTURE GRADATION)
FRICTION AGGREGATE:
MIXTURE WEIGHT:
QUALITY MANAGEMENT PROGRAM:
SUBLOT SIZE:
DENSITY TEST METHOD:
MATERIAL TRANSFER DEVICE (REQUIRED):
THICKNESS:

REMOVAL LEGEND

REMOVAL ITEMS

MODEL: Typical Sections 2
FILE NAME: pw://cdmsmith-az02-pw.bentley.com:pw_ext/Documents/258921/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet(D)284380-sht-typical

CDM Smith

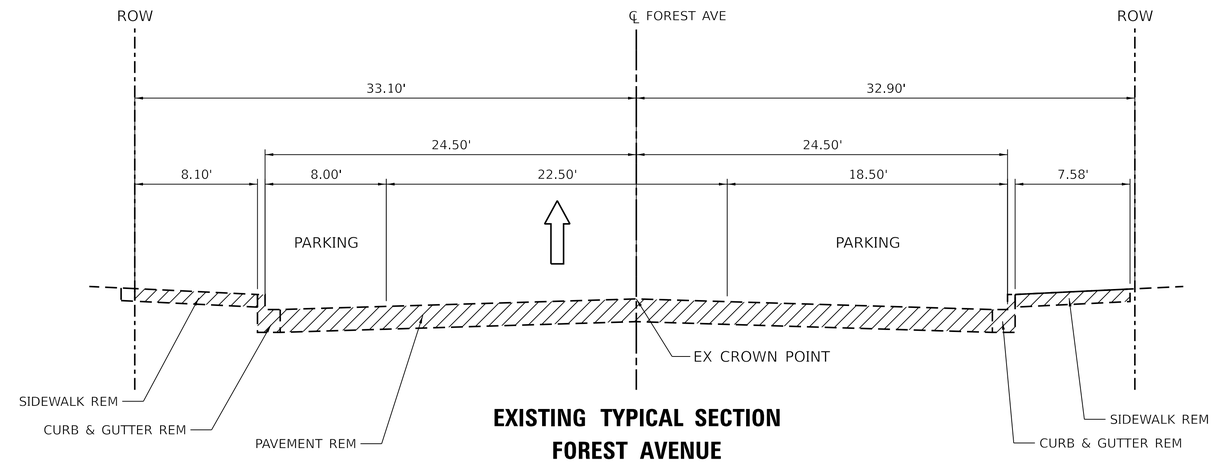
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

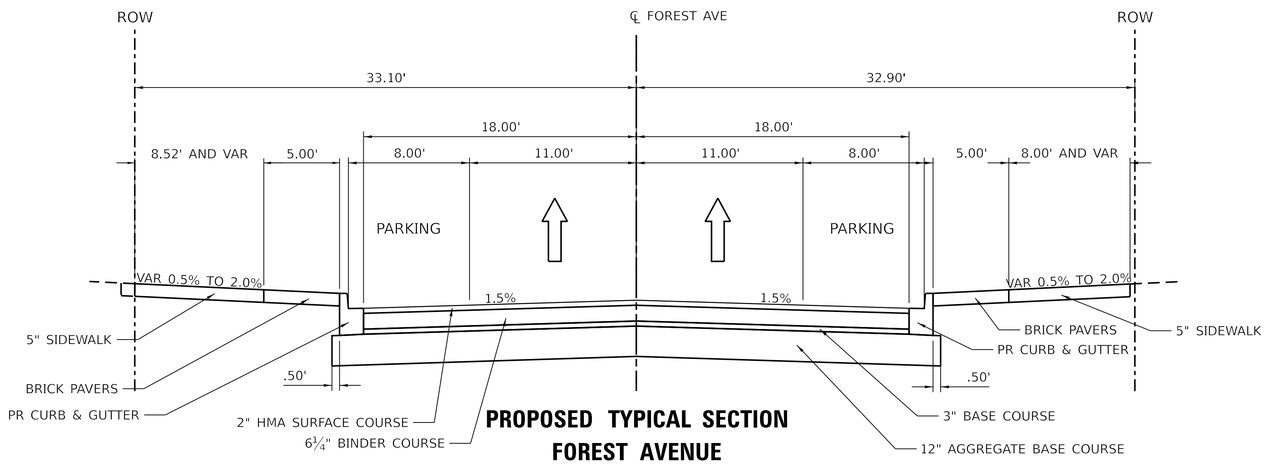
CIVIL ROADWAY TYPICAL SECTIONS
CRESCENT BOULEVARD

SCALE: SHEET 103 OF SHEETS STA. 105+62.42 TO STA. 110+13.47

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	_____	DUPAGE		103
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



EXISTING TYPICAL SECTION
FOREST AVENUE
NORTH OF CRESCENT BLVD
STA. 600+50.00 TO STA. 603+79.16



PROPOSED TYPICAL SECTION
FOREST AVENUE
NORTH OF CRESCENT BLVD
STA. 600+50.00 TO STA. 603+79.16

HMA MIXTURE REQUIREMENT TABLE

LOCATION:
MIXTURE USE(S):
BINDER GRADE (PG):
DESIGN AIR VOIDS:
MIXTURE COMPOSITION: (MIXTURE GRADATION)
FRICTION AGGREGATE:
MIXTURE WEIGHT:
QUALITY MANAGEMENT PROGRAM:
SUBLOT SIZE:
DENSITY TEST METHOD:
MATERIAL TRANSFER DEVICE (REQUIRED):
THICKNESS:

REMOVAL LEGEND

REMOVAL ITEMS

MODEL: Typical Sections 3
FILE NAME: pw://cdmsmith-aa02-pw.bentley.com:pw_ext/Documents/258921/1284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-typical

CDM Smith

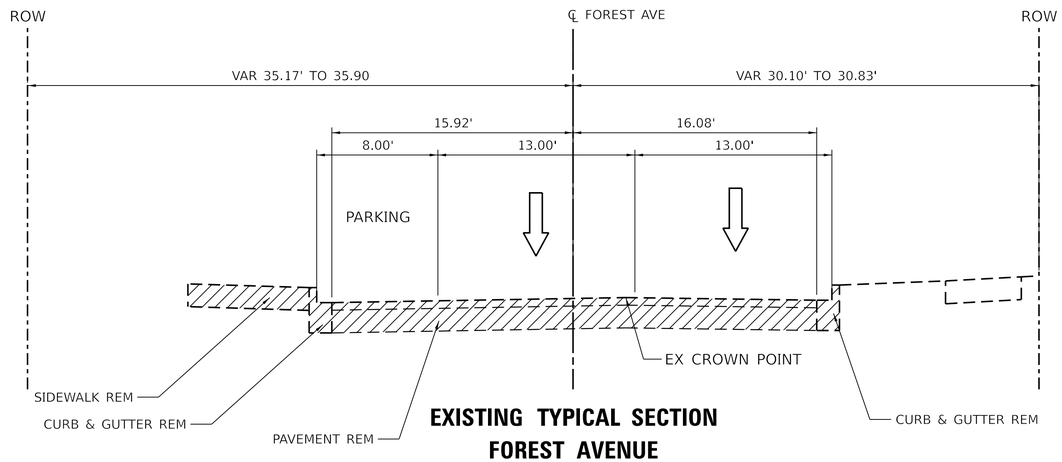
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

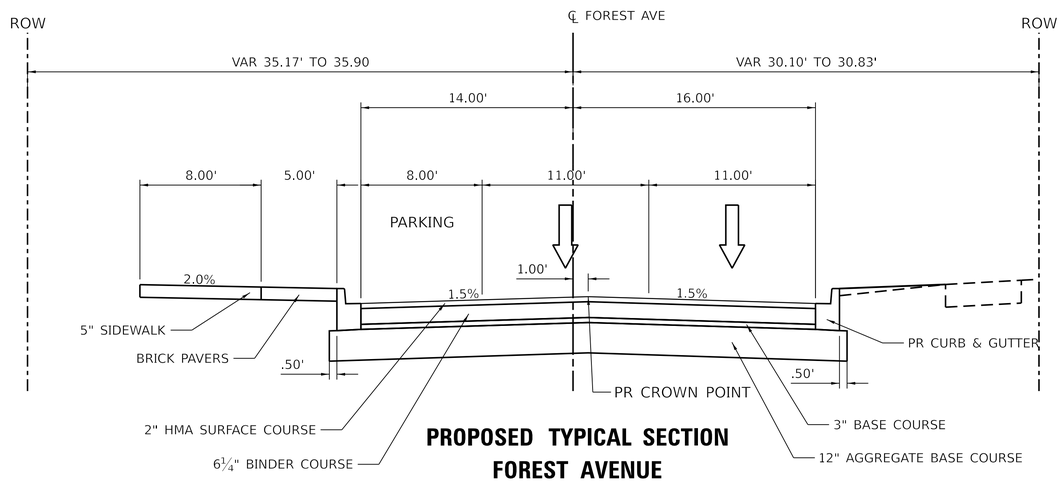
CIVIL ROADWAY TYPICAL SECTIONS
FOREST AVENUE NORTH

SCALE: | SHEET 104 OF SHEETS | STA. 600+15.21 TO STA. 603+68.29

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		104
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



EXISTING TYPICAL SECTION
FOREST AVENUE
NORTH OF DUANE ST
STA. 510+00.00 TO STA. 502+36.26



PROPOSED TYPICAL SECTION
FOREST AVENUE
NORTH OF DUANE ST
STA. 510+00.00 TO STA. 502+36.26

HMA MIXTURE REQUIREMENT TABLE

LOCATION:
MIXTURE USE(S):
BINDER GRADE (PG):
DESIGN AIR VOIDS:
MIXTURE COMPOSITION: (MIXTURE GRADATION)
FRICTION AGGREGATE:
MIXTURE WEIGHT:
QUALITY MANAGEMENT PROGRAM:
SUBLOT SIZE:
DENSITY TEST METHOD:
MATERIAL TRANSFER DEVICE (REQUIRED):
THICKNESS:

REMOVAL LEGEND

REMOVAL ITEMS

MODEL: Typical Sections 4
FILE NAME: pw://cdmsmith-az02-pw.bentley.com:pw_ext/Documents/258921/1284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-typical

CDM Smith

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL ROADWAY TYPICAL SECTION
FOREST AVENUE SOUTH

SCALE: | SHEET 105 OF SHEETS | STA. 500+02.34 TO STA. 502+31.76

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	_____	DUPAGE		105
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	

ALIGNMENT COORDINATES - CRESCENT BLVD

	STATION	N	E
POB	100+00.00	1897665.324	1056859.878
PC	101+63.28	1897667.269	1057023.151
PI	101+88.94	1897667.575	1057048.801
PT	102+14.15	1897675.884	1057073.070
POT	110+66.56	1897951.980	1057879.521

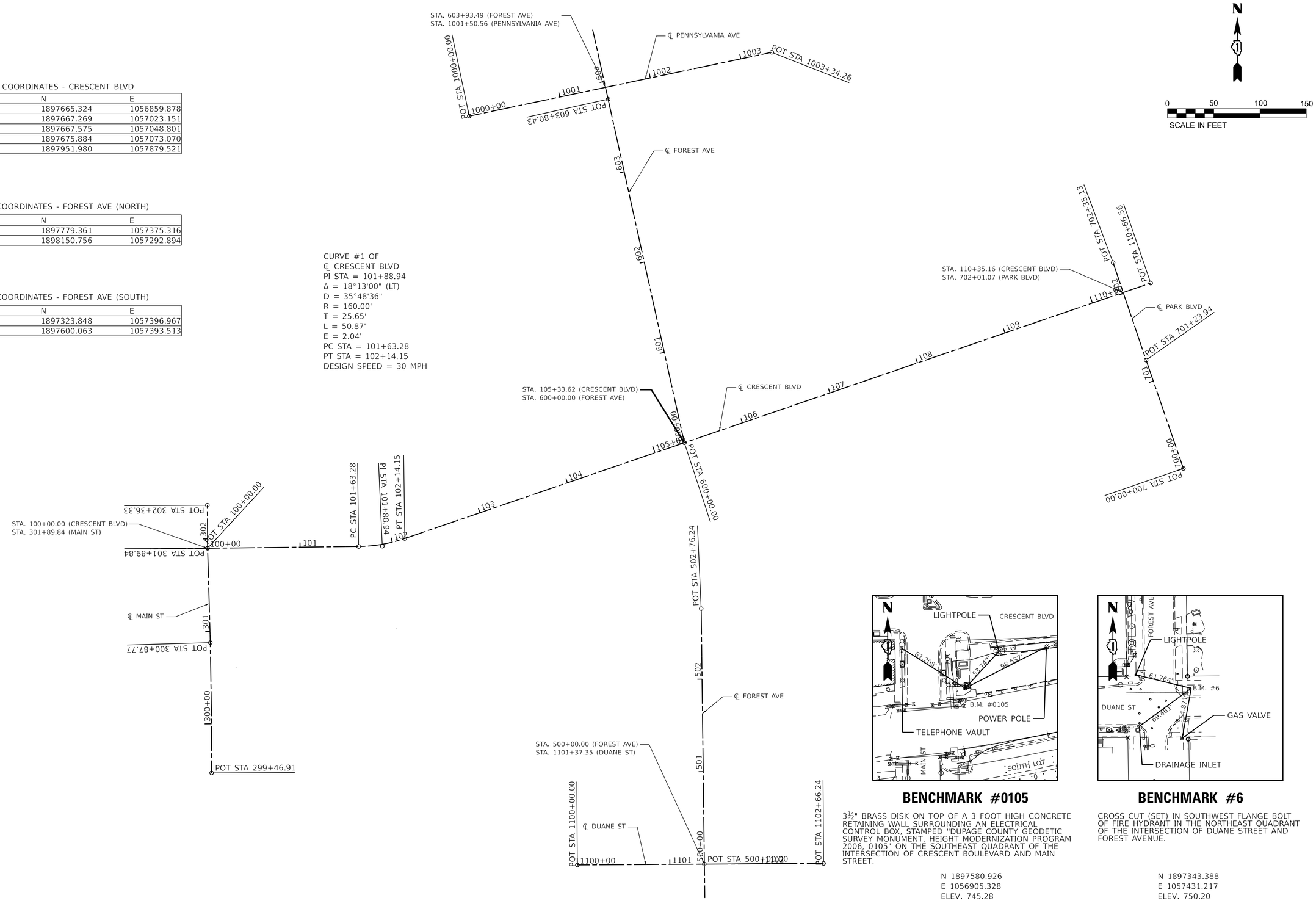
ALIGNMENT COORDINATES - FOREST AVE (NORTH)

	STATION	N	E
POT	600+00.00	1897779.361	1057375.316
POT	603+80.43	1898150.756	1057292.894

ALIGNMENT COORDINATES - FOREST AVE (SOUTH)

	STATION	N	E
POT	500+00.00	1897323.848	1057396.967
POT	502+76.24	1897600.063	1057393.513

CURVE #1 OF
℄ CRESCENT BLVD
PI STA = 101+88.94
Δ = 18°13'00" (LT)
D = 35°48'36"
R = 160.00'
T = 25.65'
L = 50.87'
E = 2.04'
PC STA = 101+63.28
PT STA = 102+14.15
DESIGN SPEED = 30 MPH



BENCHMARK #0105

3½" BRASS DISK ON TOP OF A 3 FOOT HIGH CONCRETE RETAINING WALL SURROUNDING AN ELECTRICAL CONTROL BOX, STAMPED "DUPAGE COUNTY GEODETIC SURVEY MONUMENT, HEIGHT MODERNIZATION PROGRAM 2006, 0105" ON THE SOUTHEAST QUADRANT OF THE INTERSECTION OF CRESCENT BOULEVARD AND MAIN STREET.

N 1897580.926
E 1056905.328
ELEV. 745.28

BENCHMARK #6

CROSS CUT (SET) IN SOUTHWEST FLANGE BOLT OF FIRE HYDRANT IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF DUANE STREET AND FOREST AVENUE.

N 1897343.388
E 1057431.217
ELEV. 750.20

MODEL: 2D Sheet H
FILE NAME: pw://cdmsmith-sa02-pw.bentley.com:pw_ext/Documents/258921/1284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht.ATB

CDM Smith

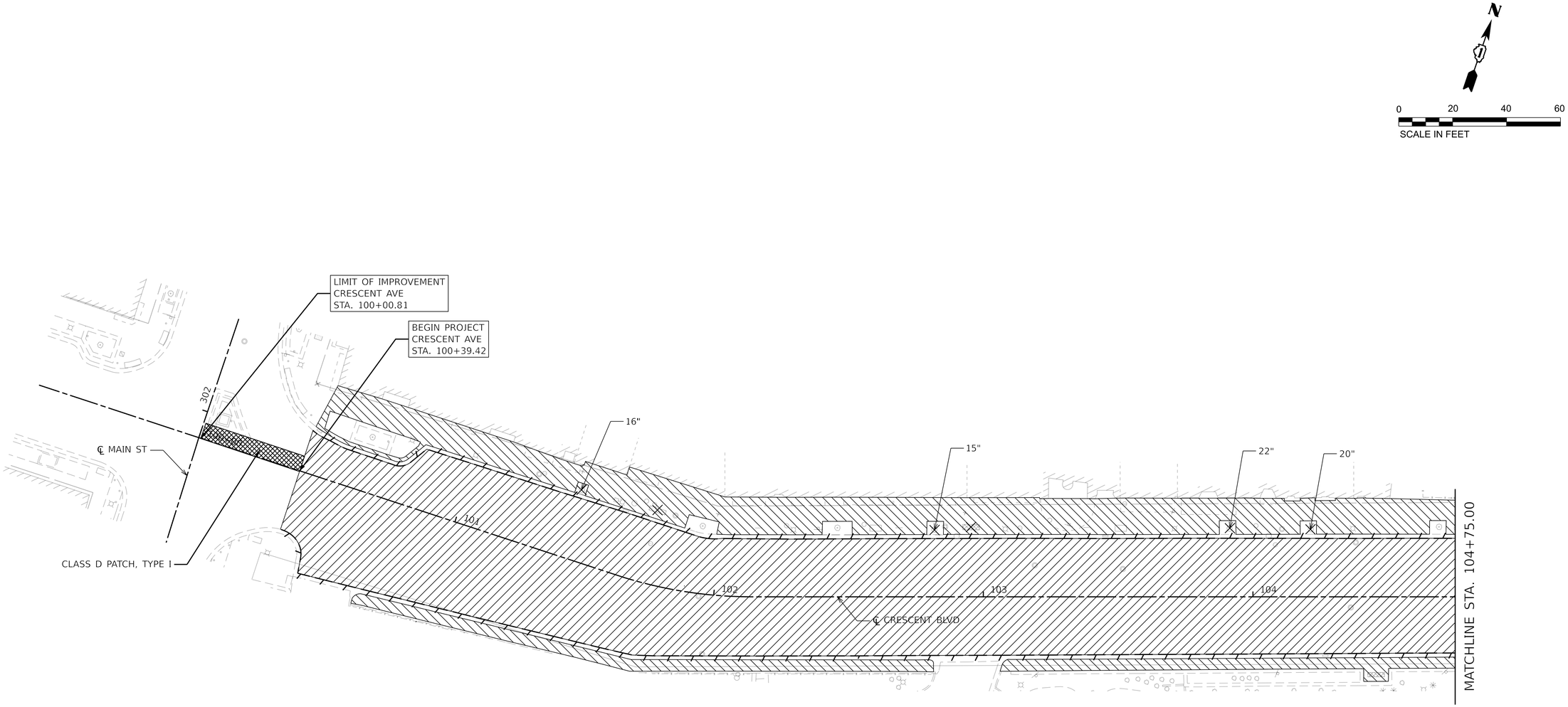
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL ALIGNMENT, TIES, AND BENCHMARKS

SCALE: SHEET 106 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		106
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



REMOVAL LEGEND

- PAVEMENT REMOVAL
- SIDEWALK REMOVAL
- CURB AND GUTTER REMOVAL
- BENCH REMOVAL
- TREE REMOVAL
- CLASS D PAVEMENT PATCHING

MODEL: Crescent [Sheet]
FILE NAME: pw://cdmsmith-azl2-pw.bentley.com:pw_ent/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-removal-Rdwy

CDM Smith

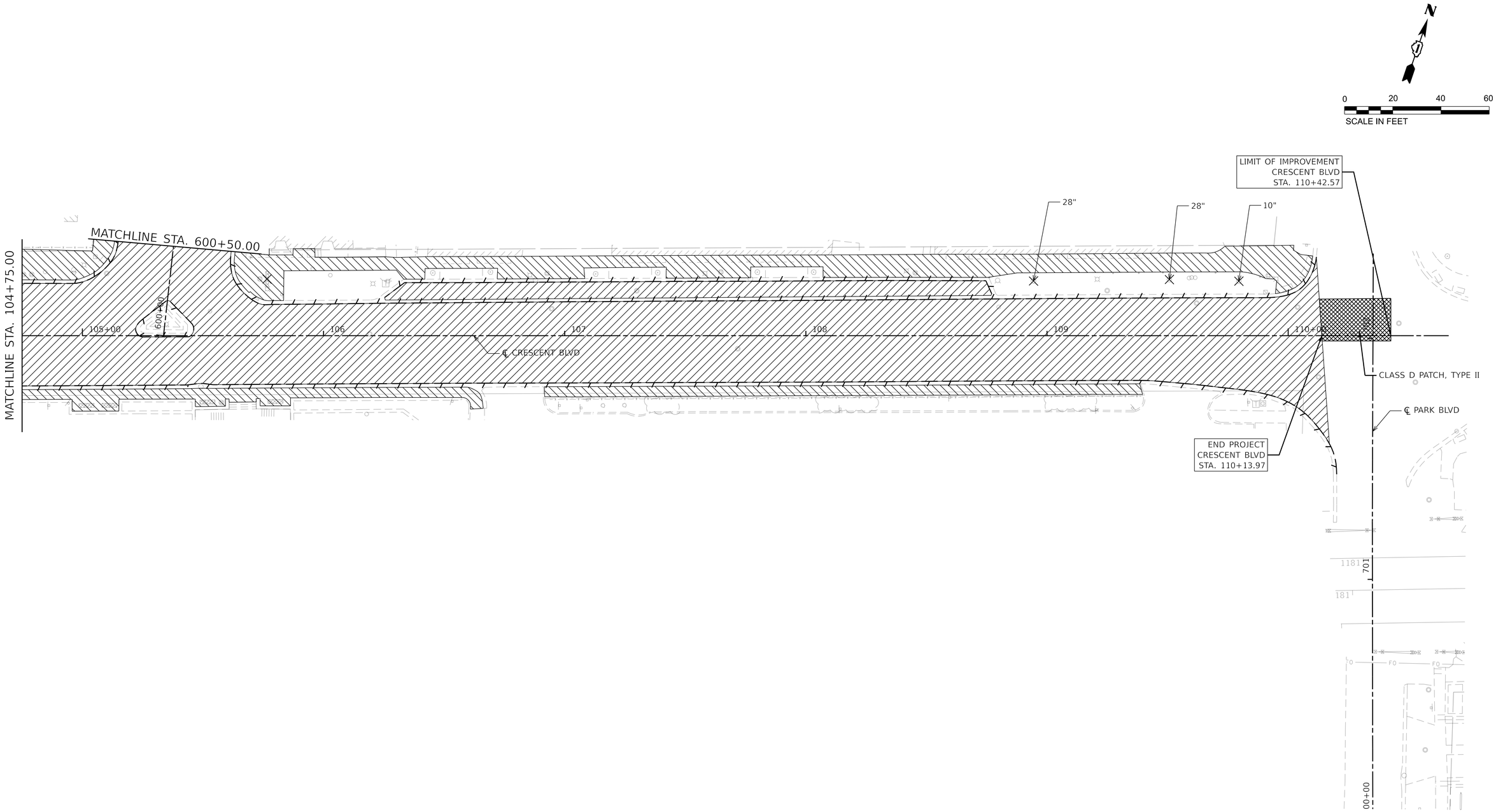
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL ROADWAY REMOVAL
PLAN

SCALE: SHEET 107 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	_____	DUPAGE		107
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



REMOVAL LEGEND

- PAVEMENT REMOVAL
- SIDEWALK REMOVAL
- CURB AND GUTTER REMOVAL
- BENCH REMOVAL
- TREE REMOVAL
- CLASS D PAVEMENT PATCHING

MODEL: Crescent2 [Sheet]
FILE NAME: pw://cdmsmith-as02-pw.bentley.com:pw_as/Documents/259021 (284380)/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-removal-Rdwy

CDM Smith

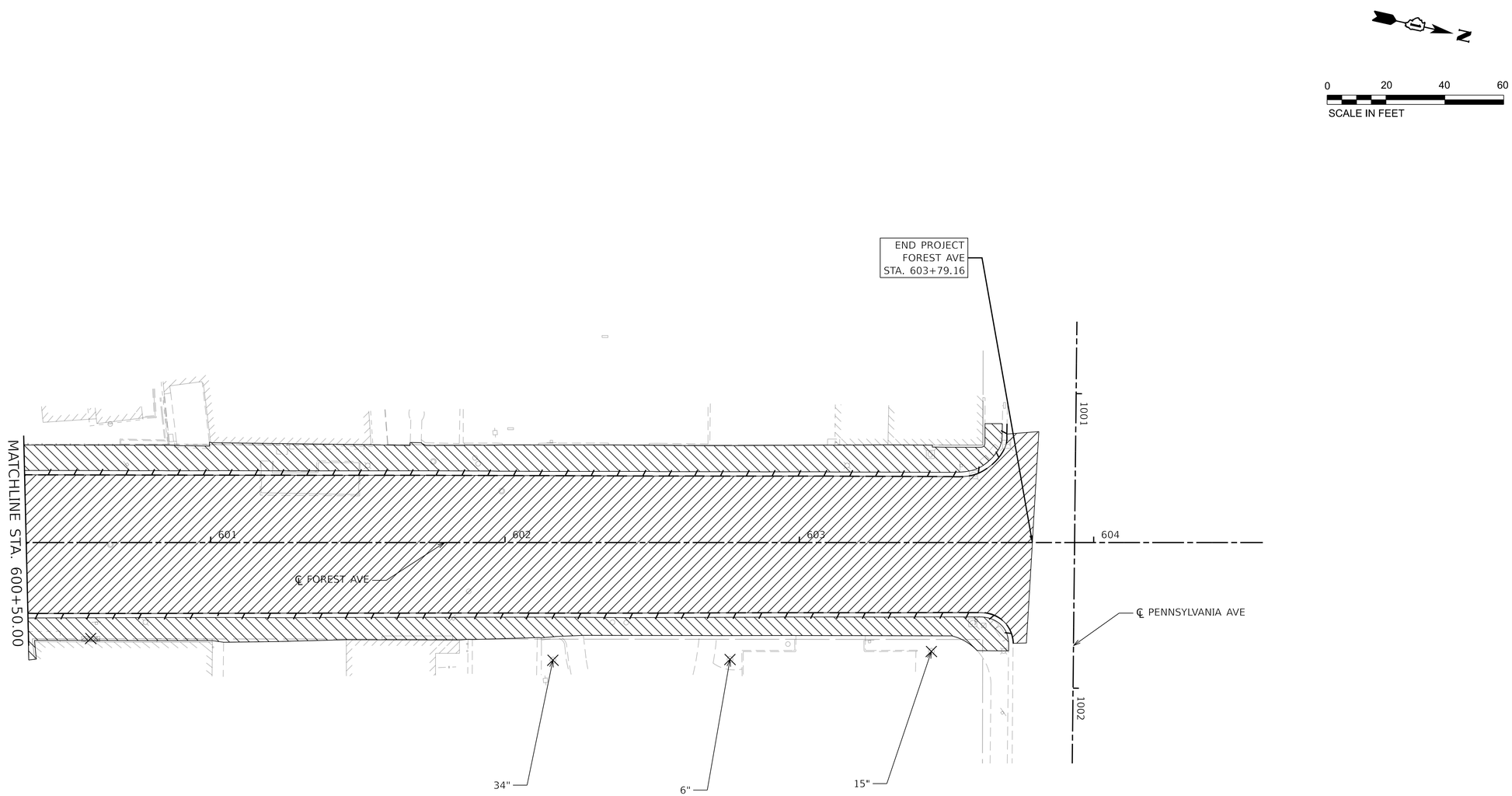
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL ROADWAY REMOVAL PLAN

SCALE: SHEET 108 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		108
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



REMOVAL LEGEND

- PAVEMENT REMOVAL
- SIDEWALK REMOVAL
- CURB AND GUTTER REMOVAL
- BENCH REMOVAL
- TREE REMOVAL
- CLASS D PAVEMENT PATCHING

MODEL: Forest N [Sheet]
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-alt-removal-Rdwy

CDM Smith

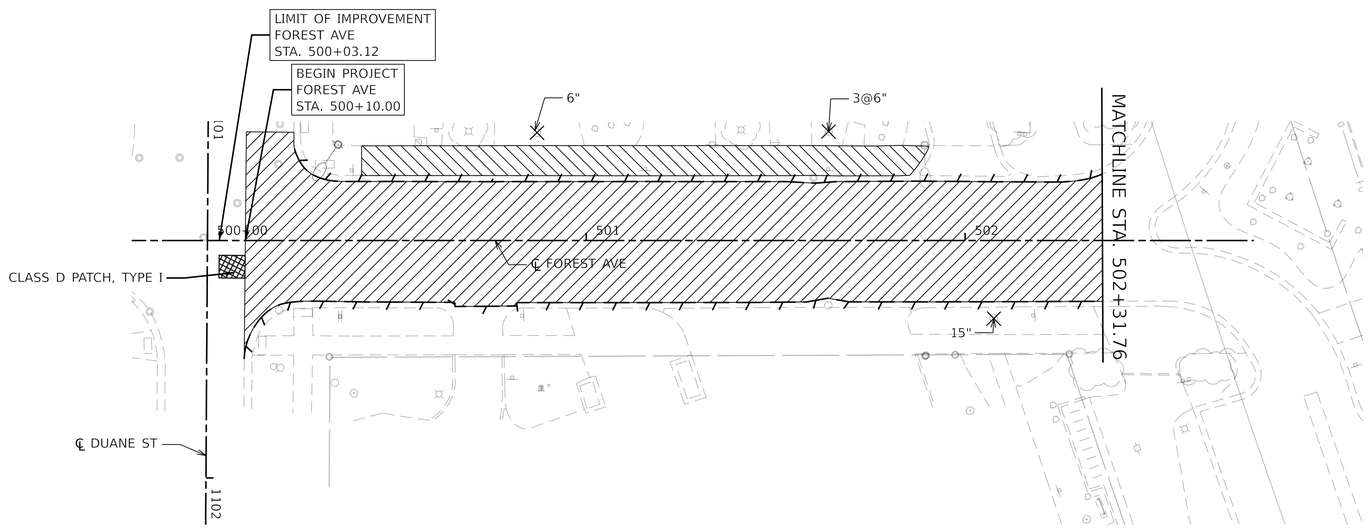
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL ROADWAY REMOVAL
PLAN

SCALE: SHEET 109 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	_____	DUPAGE		109
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



0 20 40 60
SCALE IN FEET

REMOVAL LEGEND

- PAVEMENT REMOVAL
- SIDEWALK REMOVAL
- CURB AND GUTTER REMOVAL
- BENCH REMOVAL
- TREE REMOVAL
- CLASS D PAVEMENT PATCHING

MODEL: Forest S [Sheet]
FILE NAME: pw://cdmsmith-as02-pw.bentley.com:pw_as/Documents/258021/284380/10 Transportation\02 Engineering Services\01 Roadway\10 BIM_CADD\Sheet\D284380-sht-removal-Rdwy

CDM Smith	USER NAME = CONNOLLYJG	DESIGNED -	REVISED -
	ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -
	PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL ROADWAY REMOVAL PLAN

SCALE: SHEET 110 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		110
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		

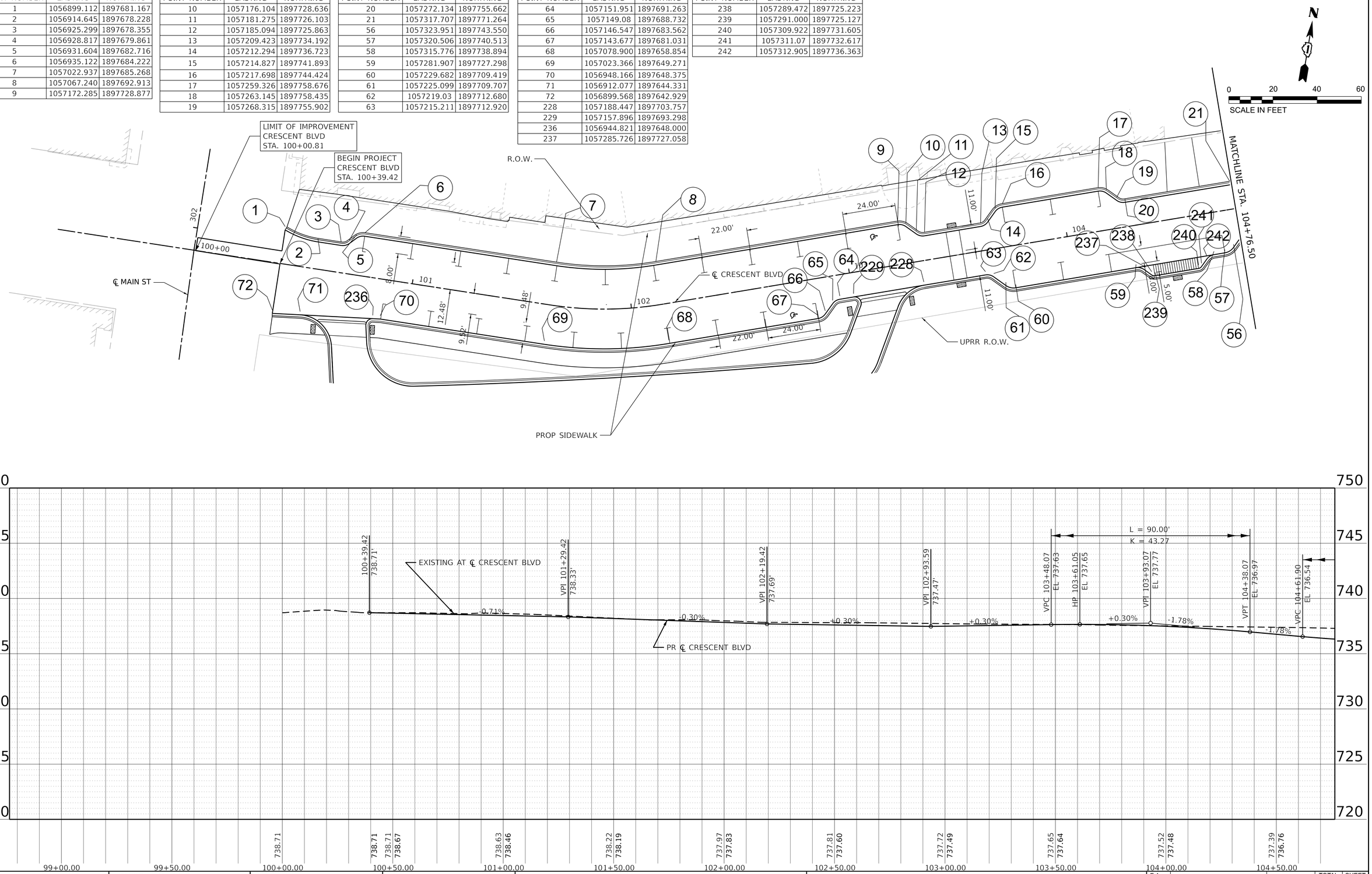
POINT NUMBER	EASTING	NORTHING
1	1056899.112	1897681.167
2	1056914.645	1897678.228
3	1056925.299	1897678.355
4	1056928.817	1897679.861
5	1056931.604	1897682.716
6	1056935.122	1897684.222
7	1057022.937	1897685.268
8	1057067.240	1897692.913
9	1057172.285	1897728.877

POINT NUMBER	EASTING	NORTHING
10	1057176.104	1897728.636
11	1057181.275	1897726.103
12	1057185.094	1897725.863
13	1057209.423	1897734.192
14	1057212.294	1897736.723
15	1057214.827	1897741.893
16	1057217.698	1897744.424
17	1057259.326	1897758.676
18	1057263.145	1897758.435
19	1057268.315	1897755.902

POINT NUMBER	EASTING	NORTHING
20	1057272.134	1897755.662
21	1057317.707	1897771.264
56	1057323.951	1897743.550
57	1057320.506	1897740.513
58	1057315.776	1897738.894
59	1057281.907	1897727.298
60	1057229.682	1897709.419
61	1057225.099	1897709.707
62	1057219.03	1897712.680
63	1057215.211	1897712.920

POINT NUMBER	EASTING	NORTHING
64	1057151.951	1897691.263
65	1057149.08	1897688.732
66	1057146.547	1897683.562
67	1057143.677	1897681.031
68	1057078.900	1897658.854
69	1057023.366	1897649.271
70	1056948.166	1897648.375
71	1056912.077	1897644.331
72	1056899.568	1897642.929
228	1057188.447	1897703.757
229	1057157.896	1897693.298
236	1056944.821	1897648.000
237	1057285.726	1897727.058

POINT NUMBER	EASTING	NORTHING
238	1057289.472	1897725.223
239	1057291.000	1897725.127
240	1057309.922	1897731.605
241	1057311.07	1897732.617
242	1057312.905	1897736.363



MODEL: Crescent - Crescent [Sheet]
FILE NAME: pw://cdmsmith-as02-pw.bentley.com:pw_eat/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D284380-alt.pnp

CDM Smith

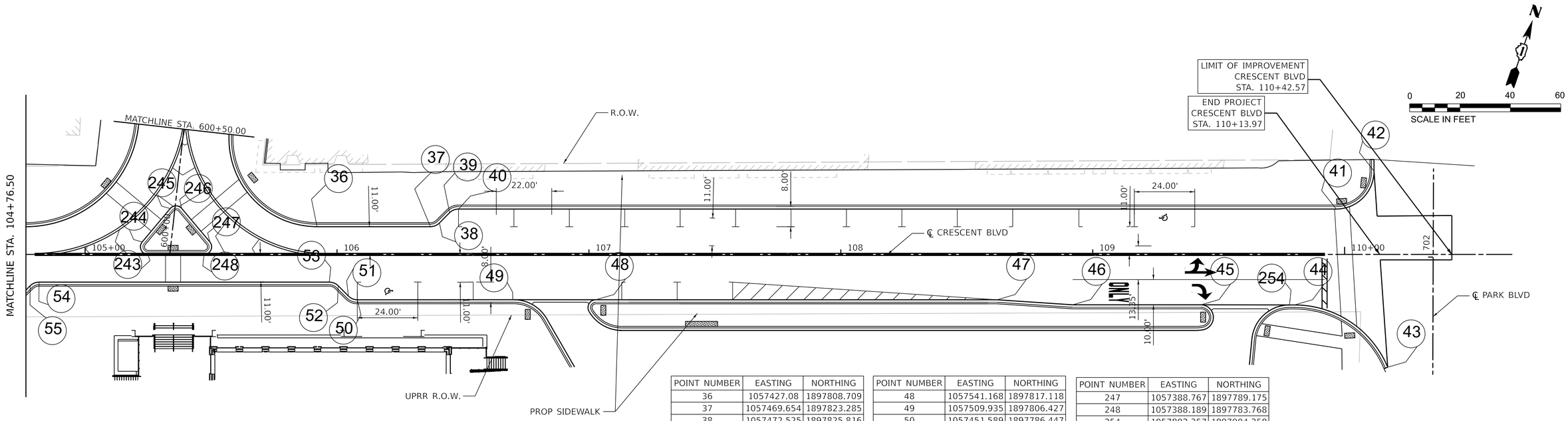
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PLAN AND PROFILE
CRESCENT BLVD

SCALE: | SHEET 111 OF SHEETS | STA. TO STA.

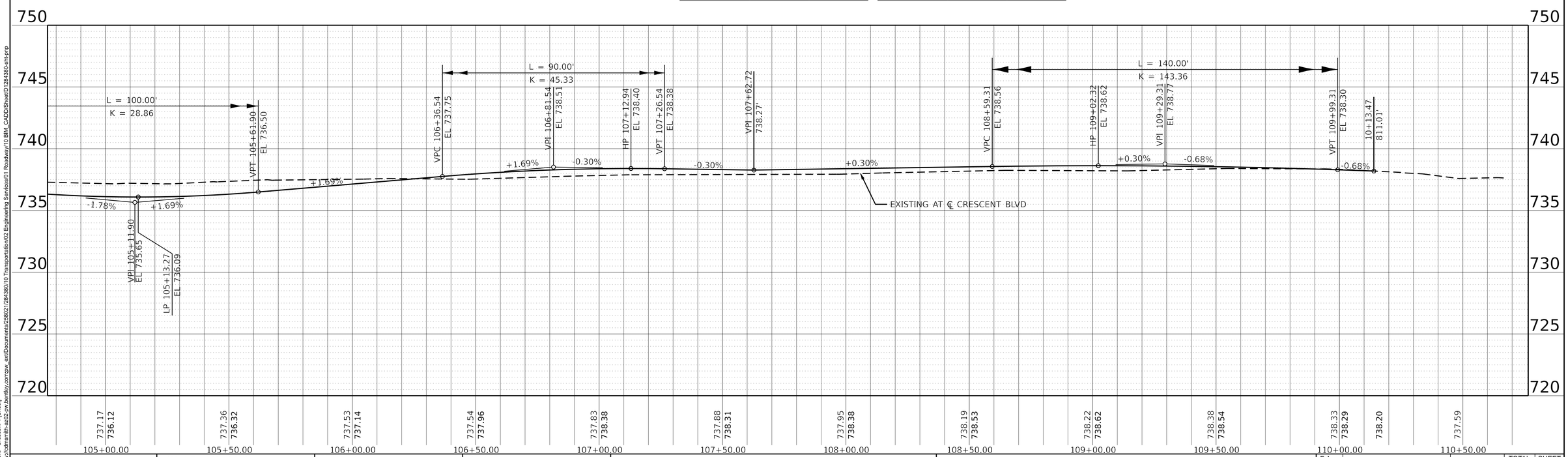
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		111
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



POINT NUMBER	EASTING	NORTHING
36	1057427.08	1897808.709
37	1057469.654	1897823.285
38	1057472.525	1897825.816
39	1057475.058	1897830.986
40	1057477.928	1897833.517
41	1057807.566	1897946.371
42	1057816.874	1897965.491
43	1057847.214	1897893.595
44	1057804.229	1897904.996
45	1057769.096	1897893.036
46	1057720.88	1897876.528
47	1057691.85	1897868.704

POINT NUMBER	EASTING	NORTHING
48	1057541.168	1897817.118
49	1057509.935	1897806.427
50	1057451.589	1897786.447
51	1057447.769	1897786.687
52	1057442.598	1897789.221
53	1057438.779	1897789.461
54	1057329.795	1897752.149
55	1057326.924	1897749.618
243	1057367.131	1897776.558
244	1057363.361	1897780.477
245	1057369.594	1897796.629
246	1057373.942	1897798.118

POINT NUMBER	EASTING	NORTHING
247	1057388.767	1897789.175
248	1057388.189	1897783.768
254	1057802.357	1897904.358



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FILE NAME: pw://cdmsmith-azc02-pw.bentley.com:pw_wsf/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-pnp

CDM Smith

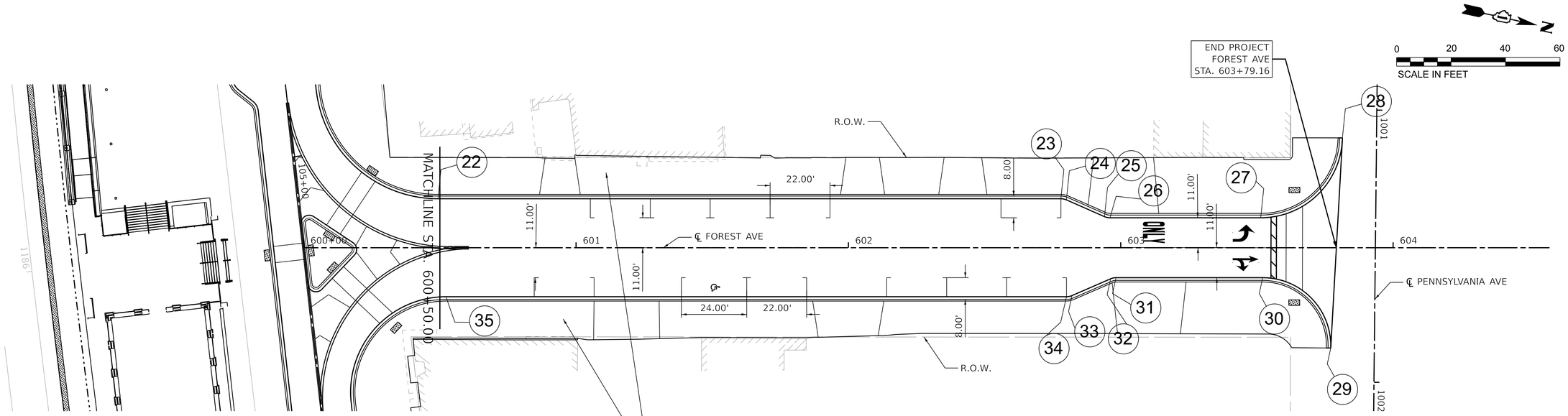
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PLAN AND PROFILE
CRESCENT BLVD

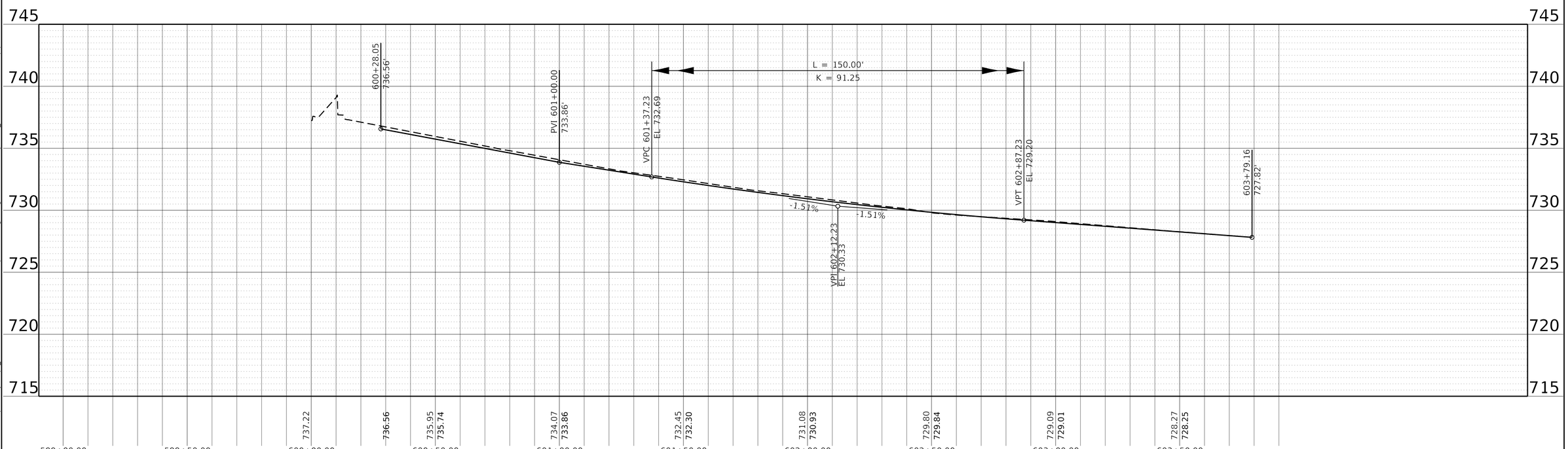
SCALE: SHEET 112 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		112
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



POINT NUMBER	EASTING	NORTHING
22	1057347.063	1897823.588
23	1057297.507	1898046.888
24	1057297.484	1898048.944
25	1057300.46	1898063.938
26	1057300.437	1898065.995
27	1057288.445	1898120.030
28	1057253.297	1898142.952

POINT NUMBER	EASTING	NORTHING
29	1057329.606	1898155.496
30	1057309.766	1898125.500
31	1057321.435	1898072.923
32	1057322.272	1898071.065
33	1057331.366	1898058.563
34	1057332.204	1898056.705
35	1057381.575	1897834.240



MODEL: Pr_ForestNorth - Forest N [Sheet]
FILE NAME: pw://cdmsmith-az02-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-alt.dgn

CDM Smith

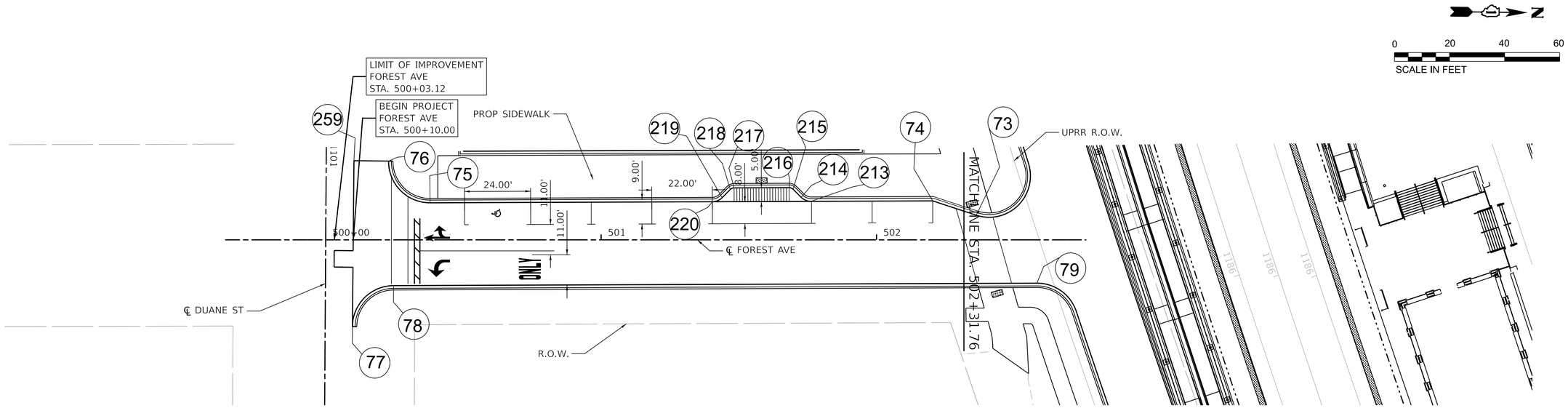
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PLAN AND PROFILE
FOREST AVE

SCALE: | SHEET 113 OF SHEETS | STA. | TO STA.

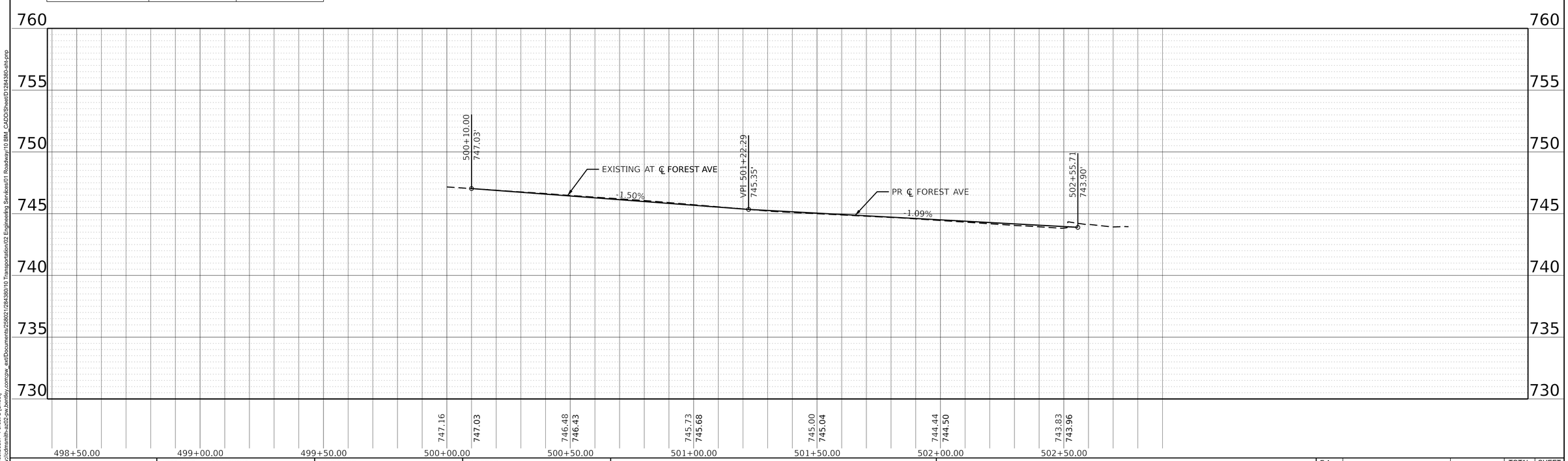
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		113
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



POINT NUMBER	EASTING	NORTHING
73	1057385.081	1897559.940
74	1057380.078	1897544.073
75	1057383.053	1897361.574
76	1057368.100	1897346.330
77	1057428.357	1897333.942
78	1057413.267	1897348.697

POINT NUMBER	EASTING	NORTHING
79	1057409.459	1897582.297
213	1057380.798	1897499.878
214	1057379.392	1897496.319
215	1057376.490	1897493.321
216	1057375.928	1897491.898

POINT NUMBER	EASTING	NORTHING
217	1057376.254	1897471.900
218	1057376.862	1897470.496
219	1057379.86	1897467.595
220	1057381.382	1897464.083
259	1057368.137	1897333.762



MODEL: P:_ForestSouth - Forest S [Sheet]
FILE NAME: pw://cdmsmith-as02-pw.bentley.com:pw_as02/Documents/259021/284380/10 Transportation\02 Engineering Services\01 Roadway\10 BIM_CADD\Sheet\D1284380-sht-prp

CDM Smith

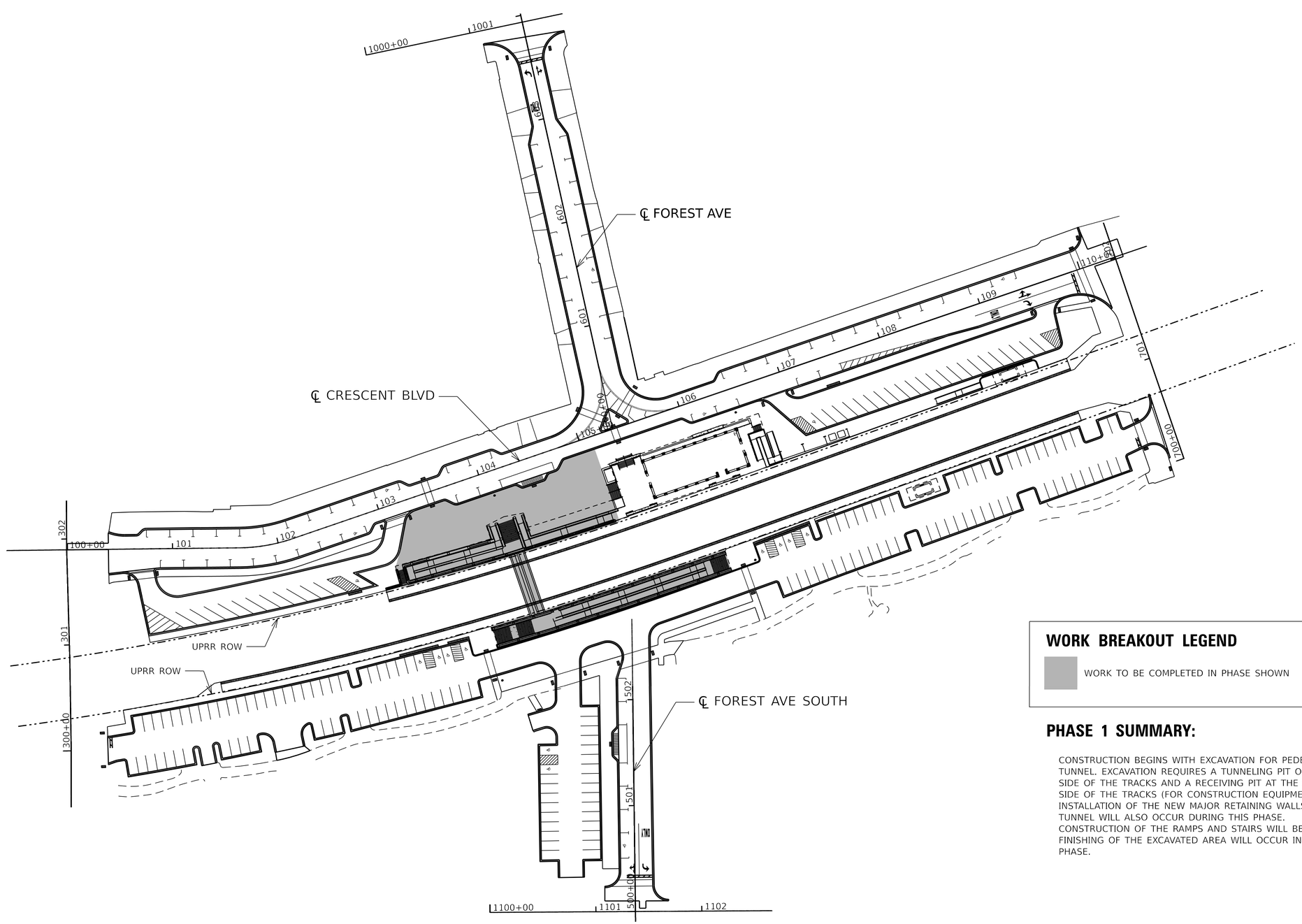
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PLAN AND PROFILE
FOREST AVE

SCALE: SHEET 114 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		114
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



WORK BREAKOUT LEGEND

WORK TO BE COMPLETED IN PHASE SHOWN

PHASE 1 SUMMARY:

CONSTRUCTION BEGINS WITH EXCAVATION FOR PEDESTRIAN TUNNEL. EXCAVATION REQUIRES A TUNNELING PIT ON NORTH SIDE OF THE TRACKS AND A RECEIVING PIT AT THE SOUTH SIDE OF THE TRACKS (FOR CONSTRUCTION EQUIPMENT). INSTALLATION OF THE NEW MAJOR RETAINING WALLS AT THE TUNNEL WILL ALSO OCCUR DURING THIS PHASE. CONSTRUCTION OF THE RAMPS AND STAIRS WILL BEGIN. FINISHING OF THE EXCAVATED AREA WILL OCCUR IN A LATER PHASE.

MODEL: Phasing 1
FILE NAME: pw://cdmsmith-sct02-pw.bentley.com:pw_ent/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-construction-phasing

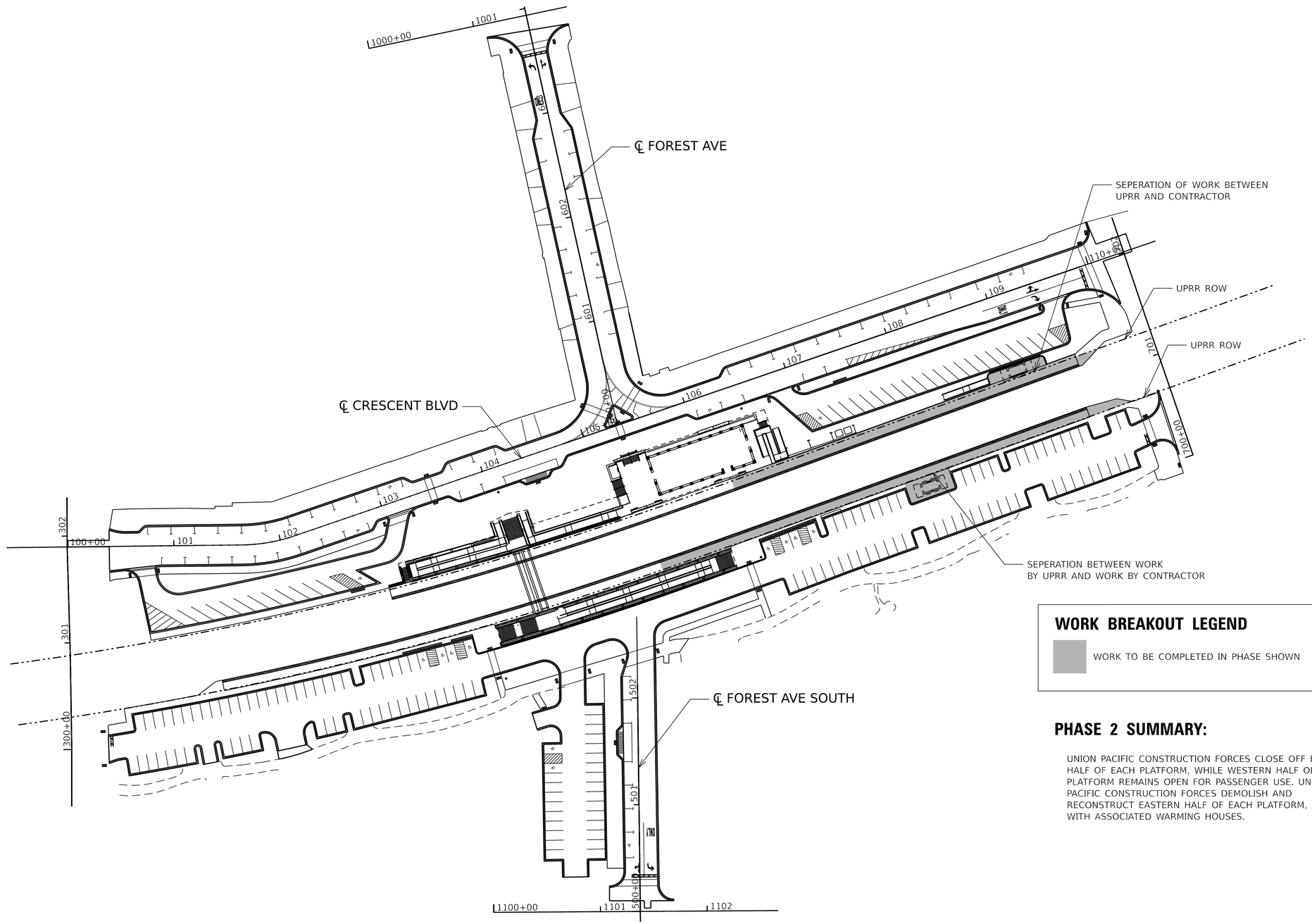
CDM Smith

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

CIVIL SUGGESTED PHASES OF CONSTRUCTION
PHASE 1

SCALE: SHEET 115 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	_____	DUPAGE		115
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



WORK BREAKOUT LEGEND

WORK TO BE COMPLETED IN PHASE SHOWN

PHASE 2 SUMMARY:

UNION PACIFIC CONSTRUCTION FORCES CLOSE OFF EASTERN HALF OF EACH PLATFORM, WHILE WESTERN HALF OF EACH PLATFORM REMAINS OPEN FOR PASSENGER USE. UNION PACIFIC CONSTRUCTION FORCES DEMOLISH AND RECONSTRUCT EASTERN HALF OF EACH PLATFORM, ALONG WITH ASSOCIATED WARMING HOUSES.

MODEL: Phasing 2
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_eat/Documents/258021284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-construction-phasing

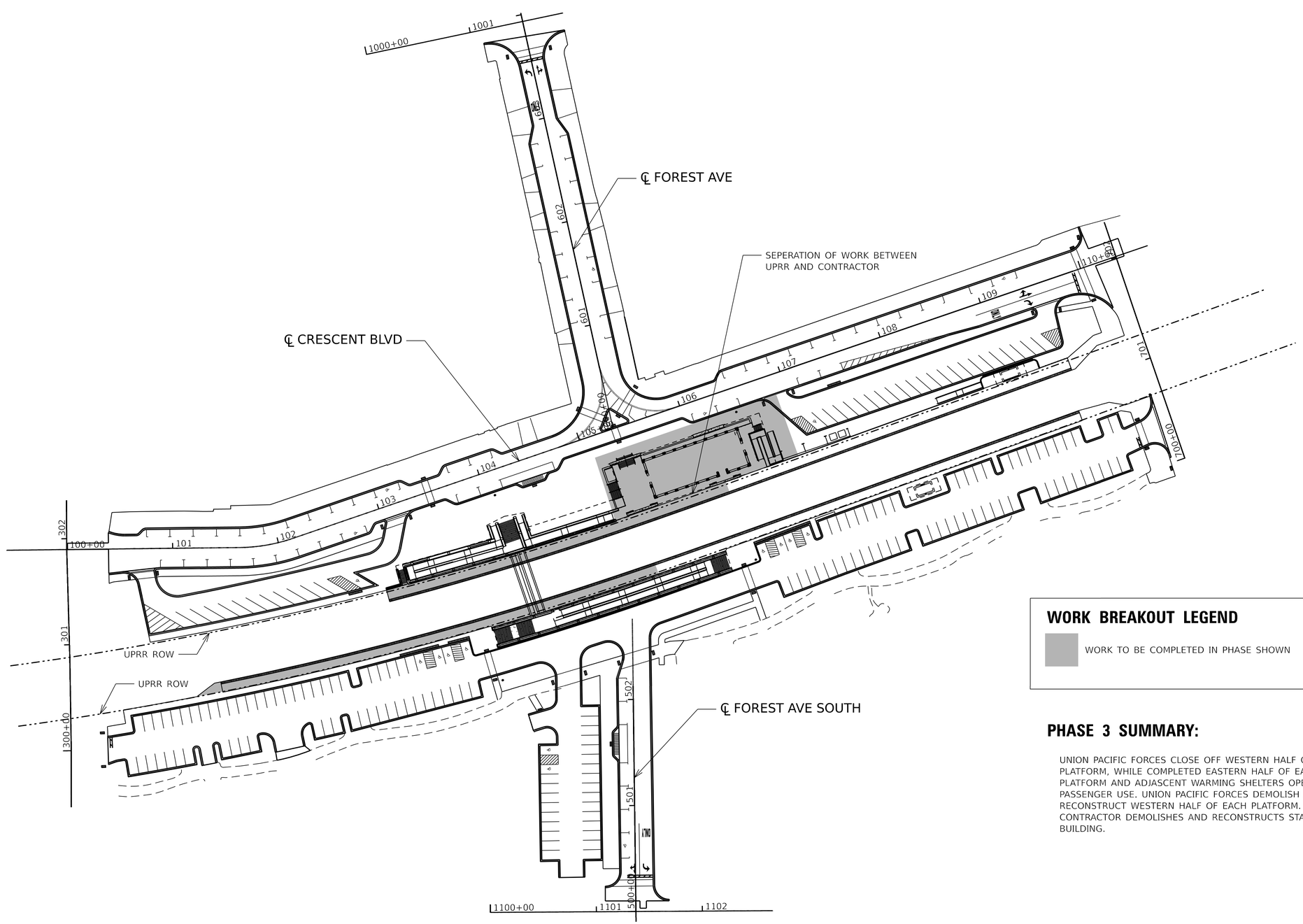
CDM Smith	USER NAME = CONNOLLYJG	DESIGNED -	REVISED -
	ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -
	PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL SUGGESTED PHASES OF CONSTRUCTION
PHASE 2

SCALE: | SHEET 116 OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		116
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



WORK BREAKOUT LEGEND

WORK TO BE COMPLETED IN PHASE SHOWN

PHASE 3 SUMMARY:

UNION PACIFIC FORCES CLOSE OFF WESTERN HALF OF EACH PLATFORM, WHILE COMPLETED EASTERN HALF OF EACH PLATFORM AND ADJASCENT WARMING SHELTERS OPEN FOR PASSENGER USE. UNION PACIFIC FORCES DEMOLISH AND RECONSTRUCT WESTERN HALF OF EACH PLATFORM. CONTRACTOR DEMOLISHES AND RECONSTRUCTS STATION BUILDING.

MODEL: Phasing 3
FILE NAME: pw://cdmsmith-sd02-pw.bentley.com:pw_ent/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-construction-phasing

CDM Smith

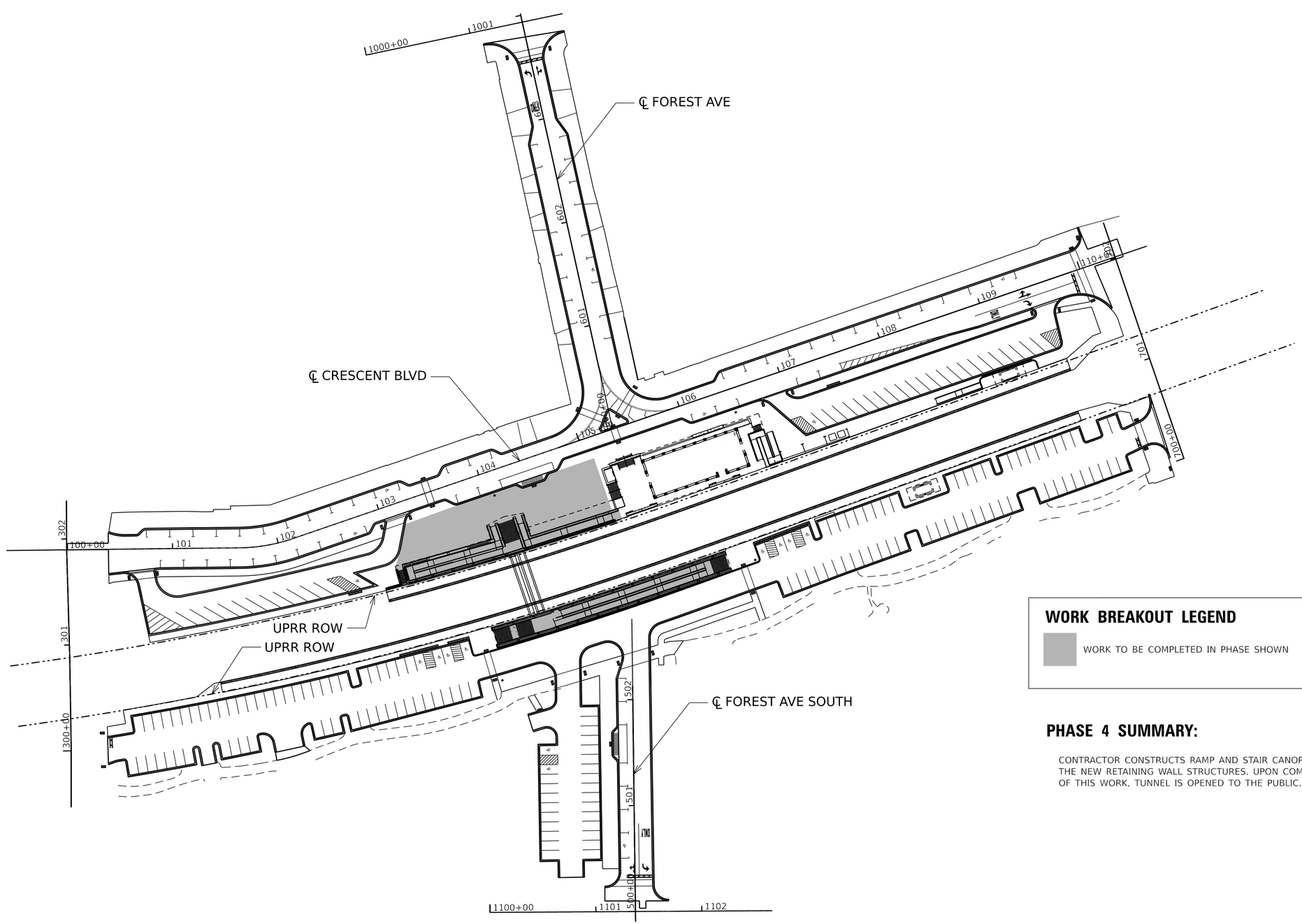
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL SUGGESTED PHASES OF CONSTRUCTION
PHASE 3

SCALE: SHEET 117 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		117
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



N

0 50 100 150

SCALE IN FEET

WORK BREAKOUT LEGEND

WORK TO BE COMPLETED IN PHASE SHOWN

PHASE 4 SUMMARY:

CONTRACTOR CONSTRUCTS RAMP AND STAIR CANOPIES ATOP THE NEW RETAINING WALL STRUCTURES. UPON COMPLETION OF THIS WORK, TUNNEL IS OPENED TO THE PUBLIC.

MODEL: Phasing 4
FILE NAME: pw://cdmsmith-sa02-pw.bentley.com:pw_wsf/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-construction-phasing

CDM Smith

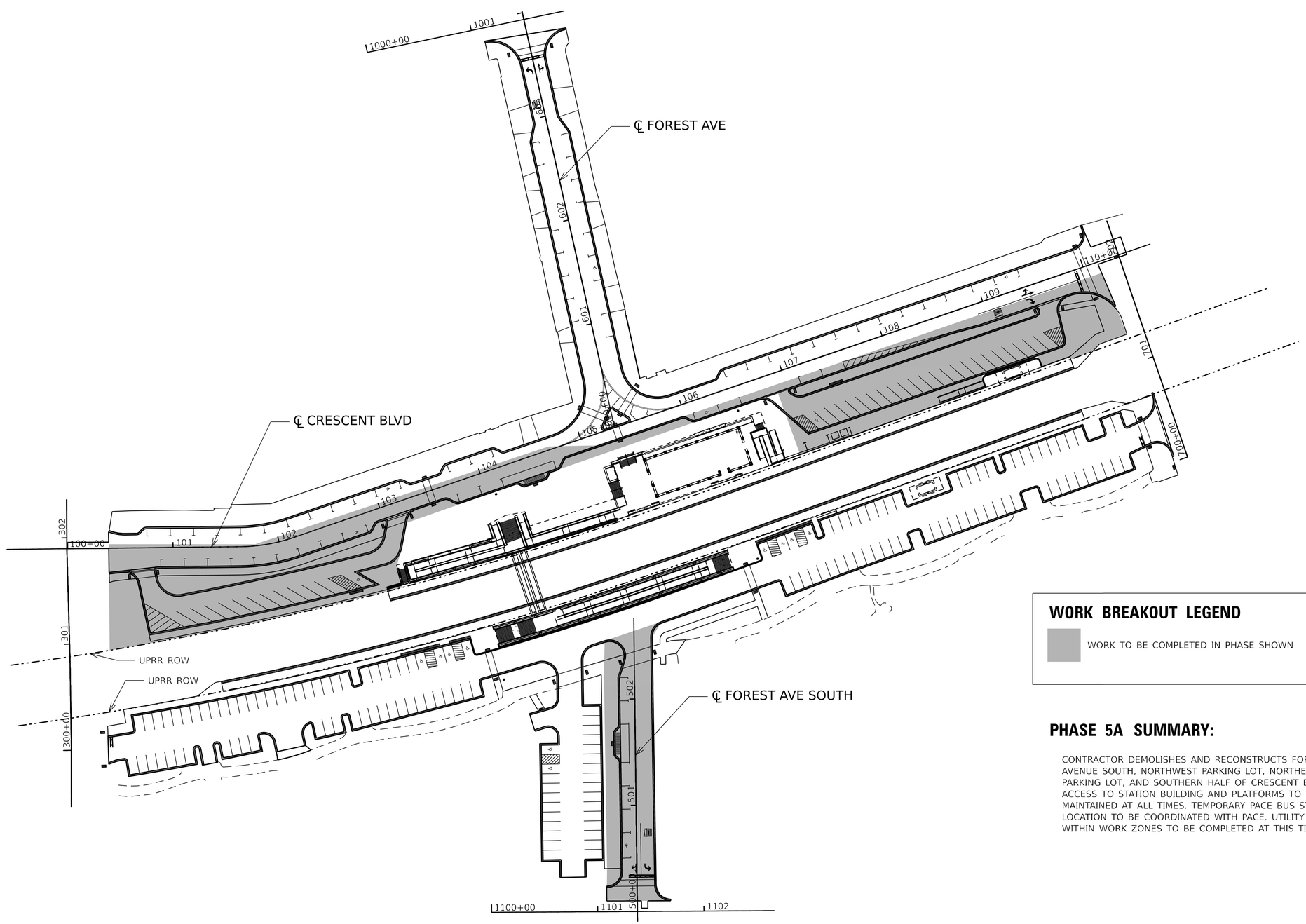
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL SUGGESTED PHASES OF CONSTRUCTION
PHASE 4

SCALE: SHEET 118 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		118
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



WORK BREAKOUT LEGEND

WORK TO BE COMPLETED IN PHASE SHOWN

PHASE 5A SUMMARY:

CONTRACTOR DEMOLISHES AND RECONSTRUCTS FOREST AVENUE SOUTH, NORTHWEST PARKING LOT, NORTHEAST PARKING LOT, AND SOUTHERN HALF OF CRESCENT BLVD. ACCESS TO STATION BUILDING AND PLATFORMS TO BE MAINTAINED AT ALL TIMES. TEMPORARY PACE BUS STOP LOCATION TO BE COORDINATED WITH PACE. UTILITY WORK WITHIN WORK ZONES TO BE COMPLETED AT THIS TIME.

MODEL: Phasing 5A
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_eat/Documents/258021284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-construction-phasing

CDM Smith

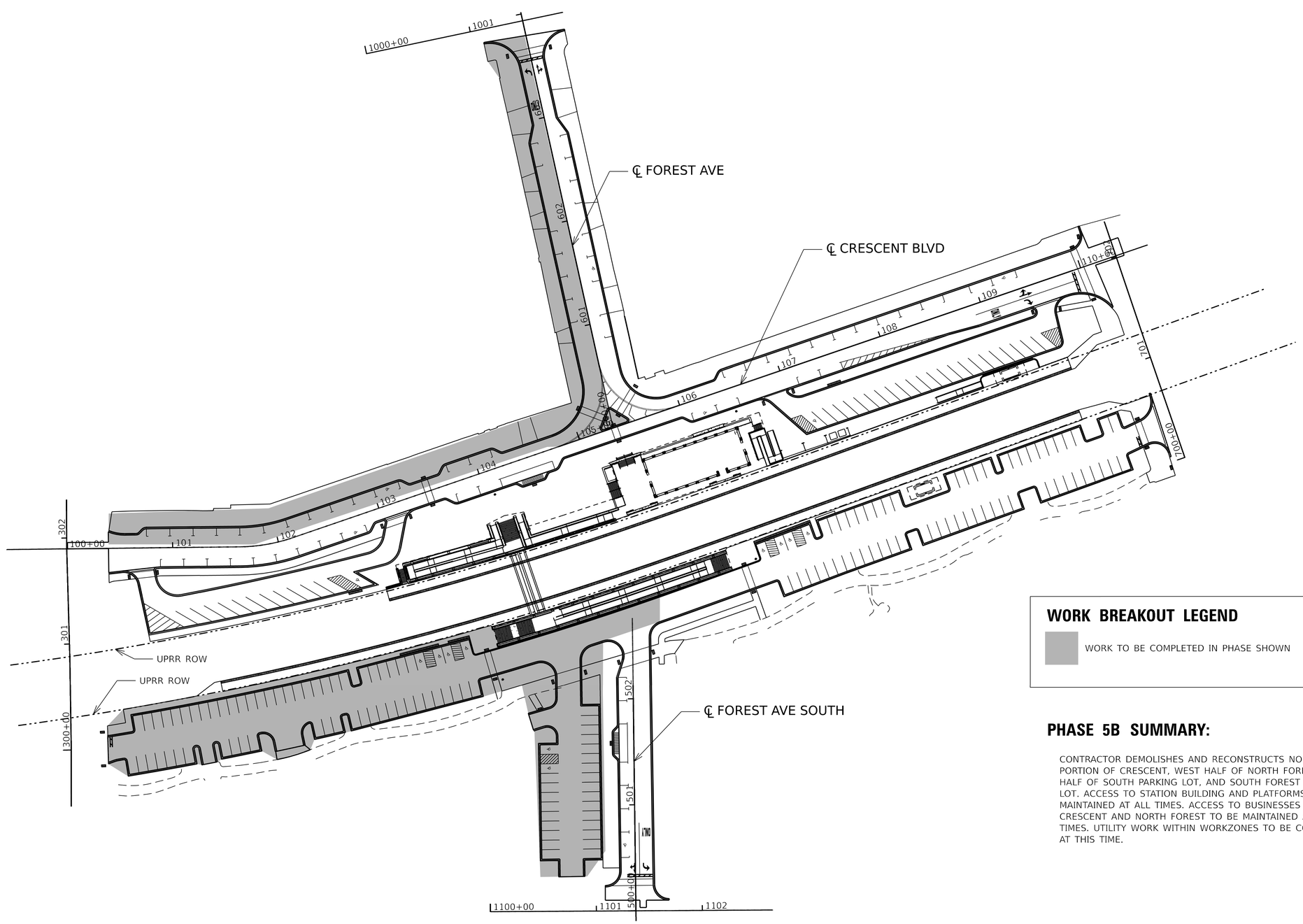
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL SUGGESTED PHASES OF CONSTRUCTION
PHASE 5A

SCALE: | SHEET 119 OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		119
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



WORK BREAKOUT LEGEND

WORK TO BE COMPLETED IN PHASE SHOWN

PHASE 5B SUMMARY:

CONTRACTOR DEMOLISHES AND RECONSTRUCTS NORTHWEST PORTION OF CRESCENT, WEST HALF OF NORTH FOREST, WEST HALF OF SOUTH PARKING LOT, AND SOUTH FOREST PARKING LOT. ACCESS TO STATION BUILDING AND PLATFORMS TO BE MAINTAINED AT ALL TIMES. ACCESS TO BUSINESSES ALONG CRESCENT AND NORTH FOREST TO BE MAINTAINED AT ALL TIMES. UTILITY WORK WITHIN WORKZONES TO BE COMPLETED AT THIS TIME.

MODEL: Phasing 5B
FILE NAME: pw://cdmsmith-us02-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation\02 Engineering Services\01 Roadway\10 BIM_CADD\Sheet\D284380-sht-construction-phasing

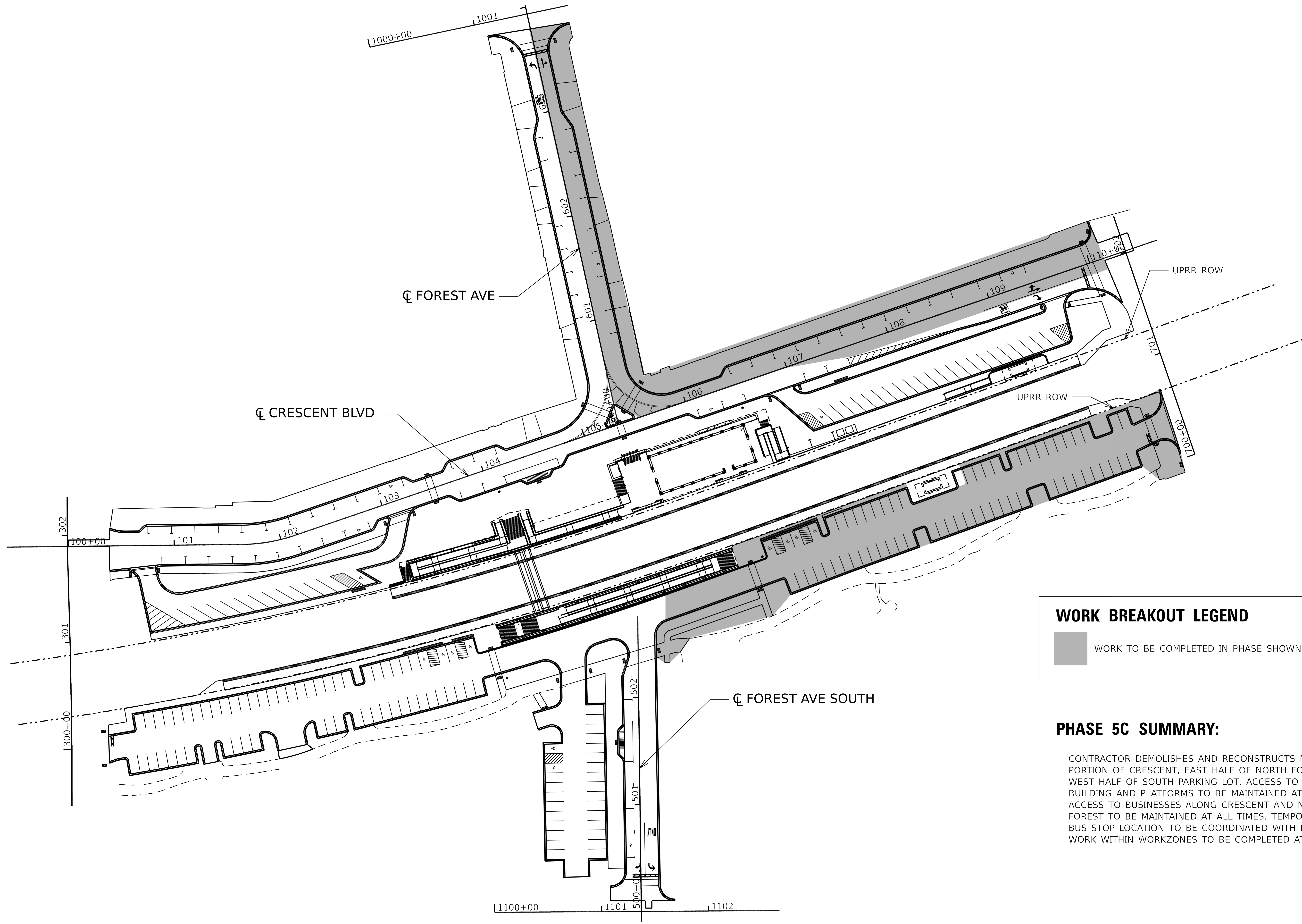
CDM Smith

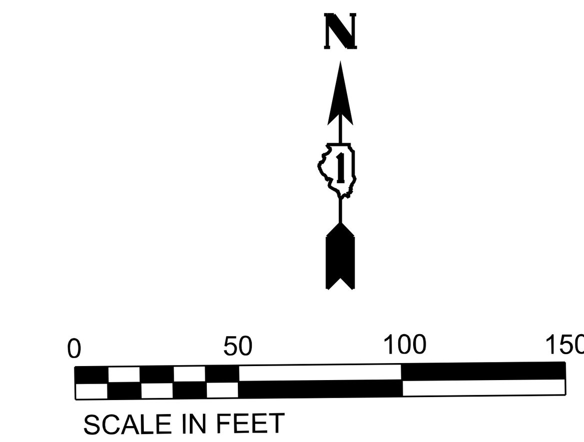
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

CIVIL SUGGESTED PHASES OF CONSTRUCTION
PHASE 5B

SCALE: SHEET 120 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		120
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		





WORK BREAKOUT LEGEND

WORK TO BE COMPLETED IN PHASE SHOWN

PHASE 5C SUMMARY:

CONTRACTOR DEMOLISHES AND RECONSTRUCTS NORTHEAST PORTION OF CRESCENT, EAST HALF OF NORTH FOREST, AND WEST HALF OF SOUTH PARKING LOT. ACCESS TO STATION BUILDING AND PLATFORMS TO BE MAINTAINED AT ALL TIMES. ACCESS TO BUSINESSES ALONG CRESCENT AND NORTH FOREST TO BE MAINTAINED AT ALL TIMES. TEMPORARY PACE BUS STOP LOCATION TO BE COORDINATED WITH PACE. UTILITY WORK WITHIN WORKZONES TO BE COMPLETED AT THIS TIME.

MODEL: Phasing 5C
FILE NAME: pw://cdmsmith-az02-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-construction-phasing

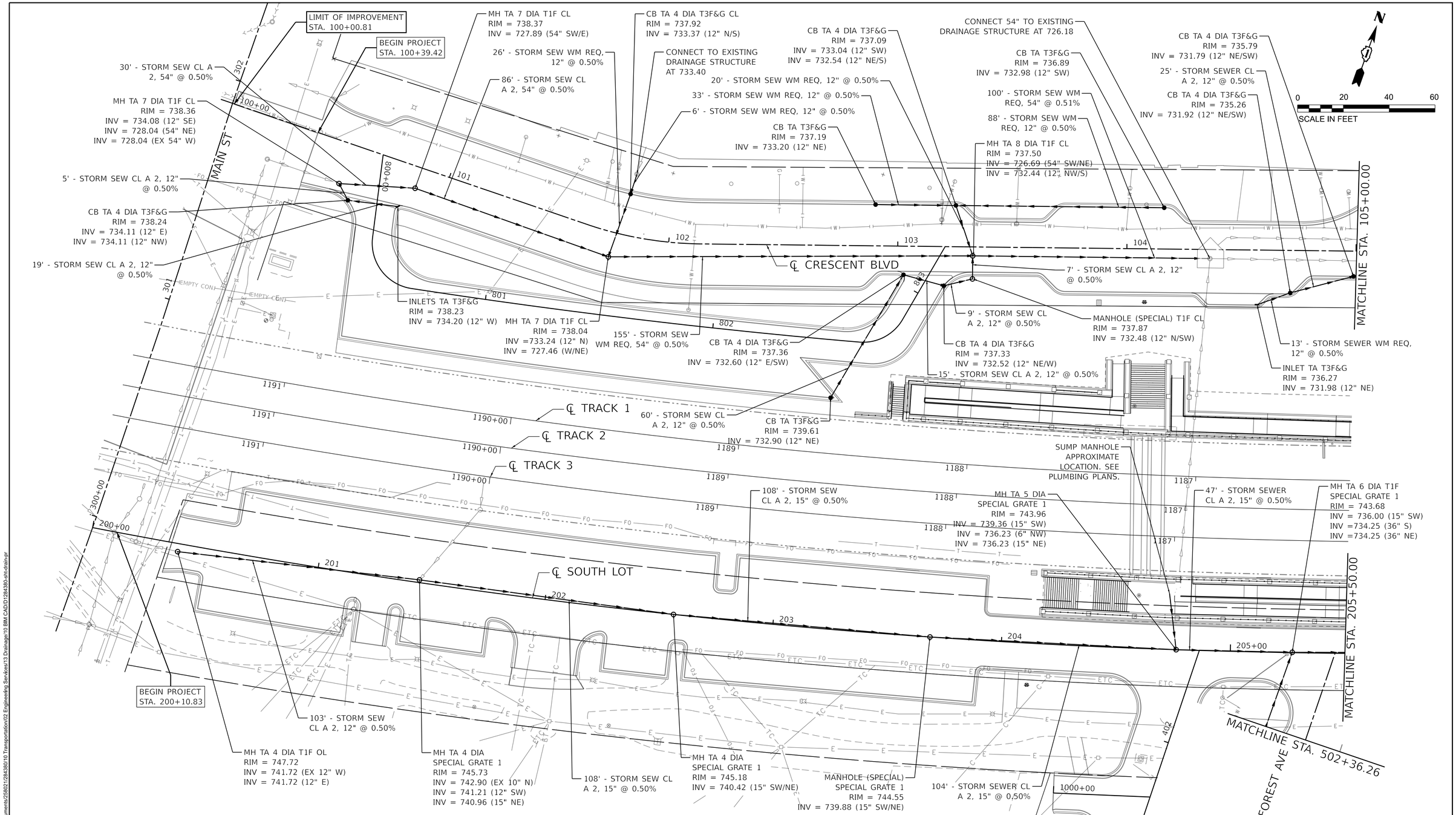
CDM Smith

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

CIVIL SUGGESTED PHASES OF CONSTRUCTION
PHASE 5C

SCALE: | SHEET 121 OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	________	DUPAGE		121
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	

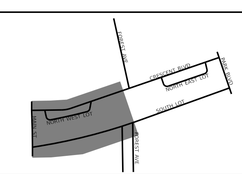


PROPOSED LEGEND

- STORM SEWER (DIA. AS SHOWN)
- MANHOLE
- CATCH BASIN
- INLET

NOTES

1. SPECIAL GRATE 1 TO BE NEENAH R-3350, EJIW 5225M, OR EQUIVALENT.
2. MANHOLE (SPECIAL) IS A WATER QUALITY MANHOLE MEETING THE POLLUTANT REMOVAL PERFORMANCE OF A CONTECH CDS4040-8-C, STORMTRAP STORMSETTLER 5, OR EQUIVALENT.
3. APPROXIMATE JACKING AND RECEIVING PIT DIMENSIONS ARE SHOWN. CONTRACTOR IS RESPONSIBLE FOR DESIGNING THE JACKING AND RECEIVING PITS, INCLUDING THE REQUIRED SHORING, AS REQUIRED BY THEIR MACHINERY. CONTRACTOR MUST COORDINATE WITH ALL UTILITY OWNERS TO ENSURE ALL CONFLICTS ARE ADDRESSED.



MODEL: Utilities 1
FILE NAME: pw://cdmsmith-sa02-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation\02 Engineering Services\13 Drainage\10 BIM CAD\D1284380-sht-drain.pr

CDM Smith

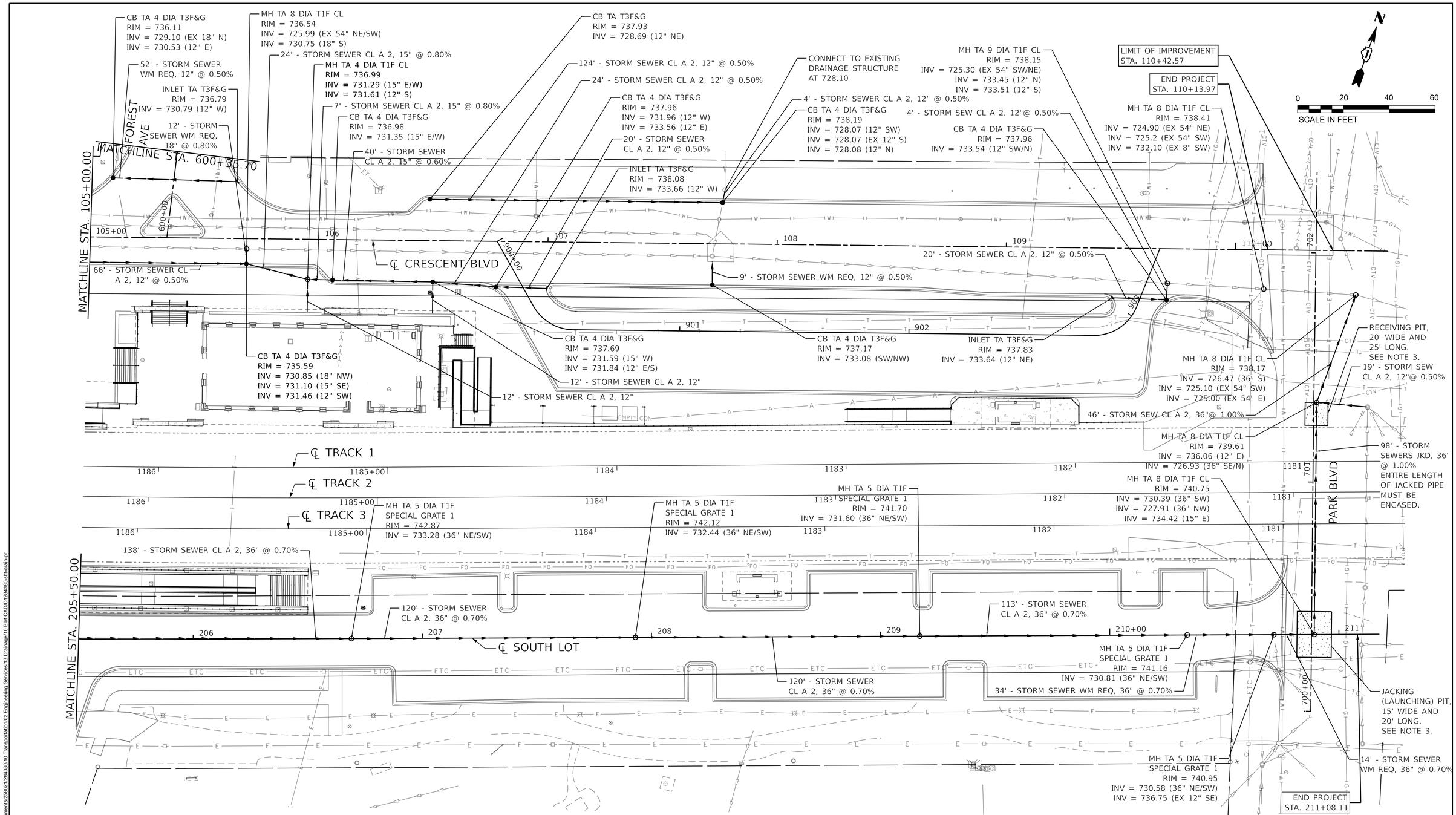
USER NAME = CONNOLLYJG	DESIGNED - JHA	REVISED -	
ISSUED FOR 30 PCT	DRAWN - EML	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED - JHA	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PROPOSED DRAINAGE
SITE PLAN

SCALE: 1" = 20' | SHEET 122 OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		122
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		

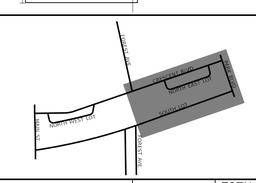


PROPOSED LEGEND

- STORM SEWER (DIA. AS SHOWN)
- MANHOLE
- CATCH BASIN
- INLET

NOTES

1. SPECIAL GRATE 1 TO BE NEENAH R-3350, EJIW 5225M, OR EQUIVALENT.
2. MANHOLE (SPECIAL) IS A WATER QUALITY MANHOLE MEETING THE POLLUTANT REMOVAL PERFORMANCE OF A CONTECH CDS4040-8-C, STORMTRAP STORMSETTLER 5, OR EQUIVALENT.
3. APPROXIMATE JACKING AND RECEIVING PIT DIMENSIONS ARE SHOWN. CONTRACTOR IS RESPONSIBLE FOR DESIGNING THE JACKING AND RECEIVING PITS, INCLUDING THE REQUIRED SHORING, AS REQUIRED BY THEIR MACHINERY. CONTRACTOR MUST COORDINATE WITH ALL UTILITY OWNERS TO ENSURE ALL CONFLICTS ARE ADDRESSED.



MODEL: Utilities 2
FILE NAME: pw://cdmsmith-as02-pw.bentley.com:pw_eat/Documents/258021/284380/10 Transportation/02 Engineering Services/13 Drainage/10 BIM CAD/D128438O-sht-drain-pr

CDM Smith

USER NAME = CONNOLLYJG	DESIGNED - JHA	REVISED -	
ISSUED FOR 30 PCT	DRAWN - EML	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED - JHA	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

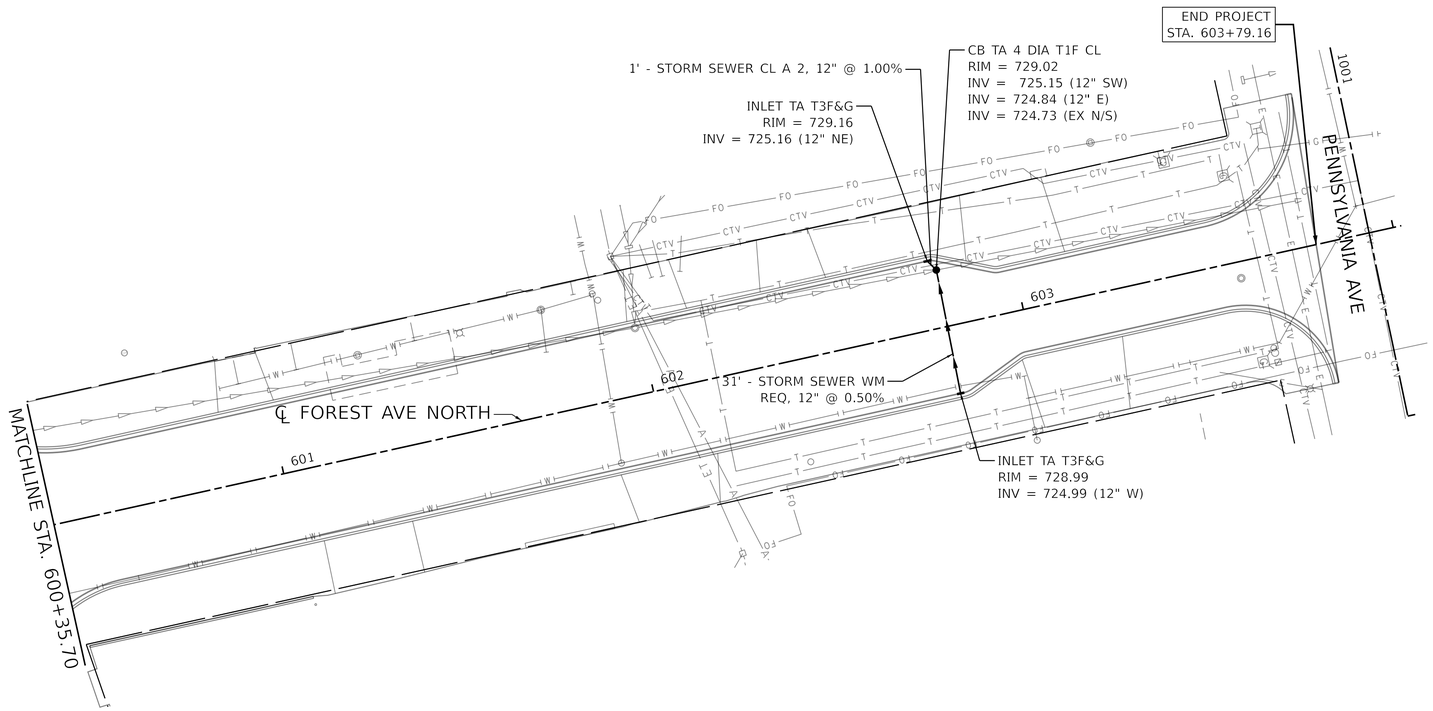
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PROPOSED DRAINAGE
SITE PLAN

SCALE: 1" = 20' | SHEET 123 OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		123

CONTRACT NO. 284380
ILLINOIS | FED. AID PROJECT



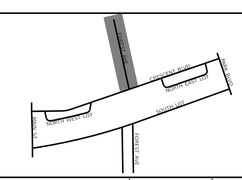
0 20 40 60
SCALE IN FEET

PROPOSED LEGEND

- STORM SEWER (DIA. AS SHOWN)
- MANHOLE
- CATCH BASIN
- INLET

NOTES

1. SPECIAL GRATE 1 TO BE NEENAH R-3350, EJIW 5225M, OR EQUIVALENT.
2. MANHOLE (SPECIAL) IS A WATER QUALITY MANHOLE MEETING THE POLLUTANT REMOVAL PERFORMANCE OF A CONTECH CDS4040-8-C, STORMTRAP STORMSETTLER 5, OR EQUIVALENT.
3. APPROXIMATE JACKING AND RECEIVING PIT DIMENSIONS ARE SHOWN. CONTRACTOR IS RESPONSIBLE FOR DESIGNING THE JACKING AND RECEIVING PITS, INCLUDING THE REQUIRED SHORING, AS REQUIRED BY THEIR MACHINERY. CONTRACTOR MUST COORDINATE WITH ALL UTILITY OWNERS TO ENSURE ALL CONFLICTS ARE ADDRESSED.



MODEL: Utilities 3
FILE NAME: pw://cdmsmith-sz02-pw.bentley.com:pw_ent/Documents/258021/284380/10 Transportation/02 Engineering Services/13 Drainage/10 BIM CAD/D128438O-sht-drain.pr

CDM Smith

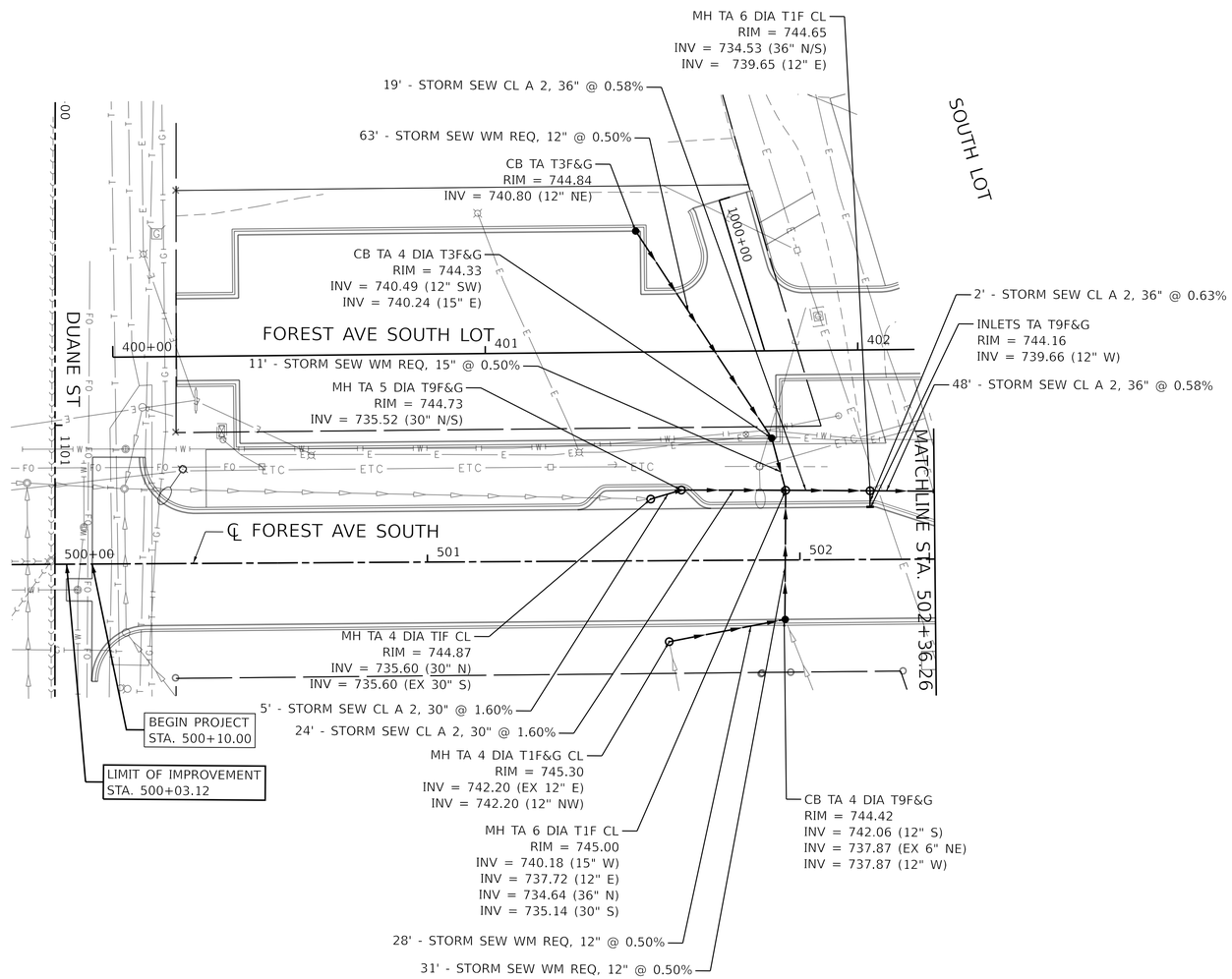
USER NAME = CONNOLLYJG	DESIGNED - JHA	REVISED -	
ISSUED FOR 30 PCT	DRAWN - EML	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED - JHA	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PROPOSED DRAINAGE
SITE PLAN

SCALE: 1" = 20' | SHEET 124 OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		124
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		

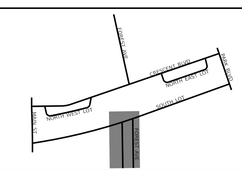


PROPOSED LEGEND

- STORM SEWER (DIA. AS SHOWN)
- MANHOLE
- CATCH BASIN
- INLET

NOTES

1. SPECIAL GRATE 1 TO BE NEENAH R-3350, EJIW 5225M, OR EQUIVALENT.
2. MANHOLE (SPECIAL) IS A WATER QUALITY MANHOLE MEETING THE POLLUTANT REMOVAL PERFORMANCE OF A CONTECH CDS4040-8-C, STORMTRAP STORMSETTLER 5, OR EQUIVALENT.
3. APPROXIMATE JACKING AND RECEIVING PIT DIMENSIONS ARE SHOWN. CONTRACTOR IS RESPONSIBLE FOR DESIGNING THE JACKING AND RECEIVING PITS, INCLUDING THE REQUIRED SHORING, AS REQUIRED BY THEIR MACHINERY. CONTRACTOR MUST COORDINATE WITH ALL UTILITY OWNERS TO ENSURE ALL CONFLICTS ARE ADDRESSED.



CDM Smith

USER NAME = CONNOLLYJG	DESIGNED - JHA	REVISED -	
ISSUED FOR 30 PCT	DRAWN - EML	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED - JHA	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

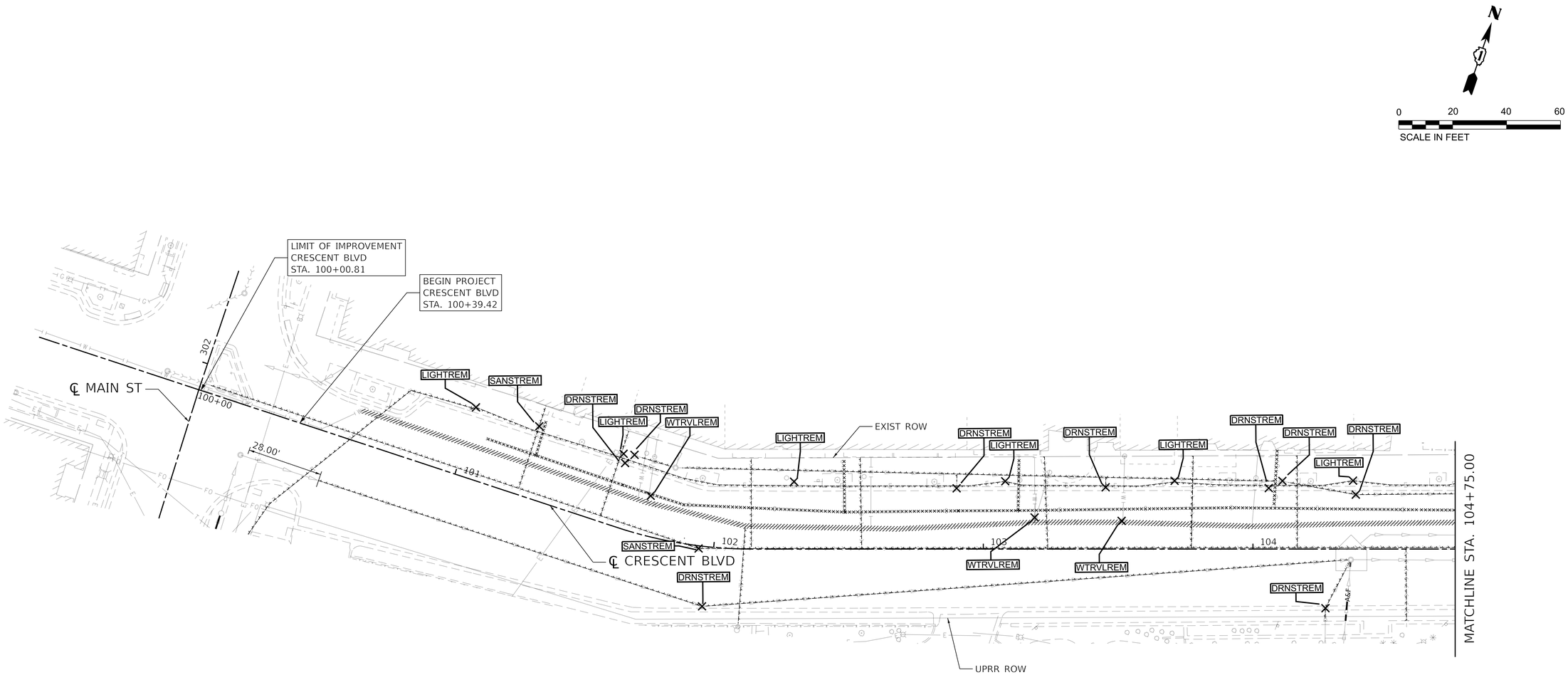
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PROPOSED DRAINAGE
SITE PLAN

SCALE: 1" = 20' | SHEET 125 OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		125
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		

MODEL: Utilities 4
FILE NAME: pw://cdmsmith-sa02-pw.bentley.com:pw_ext/Documents/258921/284380/10 Transportation/02 Engineering Services/13 Drainage/10 BIM CAD/D1284380-sht-drain.pr



REMOVAL LEGEND

- SANITARY SEWER REMOVAL
- SANITARY STRUCTURE REMOVAL
- WATER MAIN REMOVAL
- ABANDON WATER MAIN AND APPURTENANCES
- FIRE HYDRANT REMOVAL
- WATER VALVE REMOVAL
- STORM SEWER REMOVAL
- ABANDON AND FILL EXISTING STORM SEWER
- DRAINAGE STRUCTURE REMOVAL
- ELECTRIC REMOVAL
- LIGHT POLE REMOVAL
- CABLE/INTERNET/TELECOM REMOVAL (BY OTHERS)
- FIBER OPTIC REMOVAL (BY OTHERS)
- GAS REMOVAL (BY OTHERS)
- ABANDON EMPTY CONDUIT (CONDUIT OWNED BY ASTOUND)

NOTES

1. SEE SHEET 1 (INDEX OF SHEETS) FOR UTILITY REMOVAL GENERAL NOTES
2. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS.
3. EXISTING LIGHT POLES SHOWN FOR REMOVAL ARE TO BE REPURPOSED FOR THE NEW UTILITY SITE PLAN.
4. WITHIN PROJECT LIMITS, CONTRACTOR MUST PROTECT IN PLACE ALL EXISTING UTILITY POLES NOT SCHEDULED FOR REMOVAL.

MODEL: Crescent [Sheet]
FILE NAME: pw://cdmsmith-as02-pw.bentley.com:pw_as/Documents/258921 I284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-utl-ex_RDWY

CDM Smith

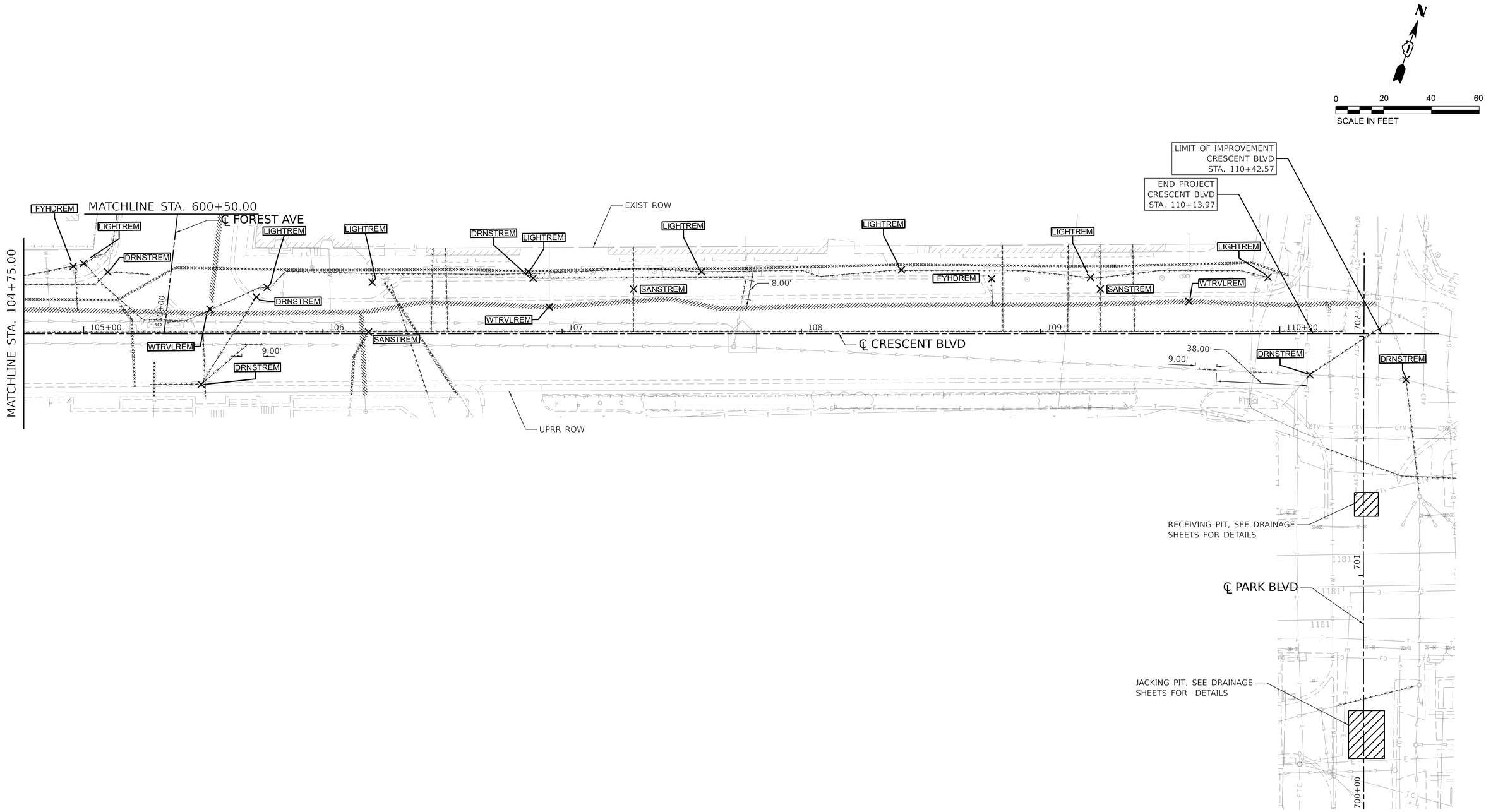
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL EXISTING UTILITY
ROADWAY PLAN

SCALE: SHEET 126 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		126
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



REMOVAL LEGEND

- SANITARY SEWER REMOVAL
- SANSTREM — SANITARY STRUCTURE REMOVAL
- WATER MAIN REMOVAL
- ABANDON WATER MAIN AND APPURTENANCES
- FHYDREM — FIRE HYDRANT REMOVAL
- WTRVLREM — WATER VALVE REMOVAL
- STORM SEWER REMOVAL
- ABANDON AND FILL EXISTING STORM SEWER
- DRNSTREM — DRAINAGE STRUCTURE REMOVAL
- ELECTRIC REMOVAL
- LIGHTREM — LIGHT POLE REMOVAL
- CABLE/INTERNET/TELECOM REMOVAL (BY OTHERS)
- FIBER OPTIC REMOVAL (BY OTHERS)
- GAS REMOVAL (BY OTHERS)
- ABANDON EMPTY CONDUIT (CONDUIT OWNED BY ASTOUND)

NOTES

1. SEE SHEET 1 (INDEX OF SHEETS) FOR UTILITY REMOVAL GENERAL NOTES
2. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS.
3. EXISTING LIGHT POLES SHOWN FOR REMOVAL ARE TO BE REPURPOSED FOR THE NEW UTILITY SITE PLAN.
4. WITHIN PROJECT LIMITS, CONTRACTOR MUST PROTECT IN PLACE ALL EXISTING UTILITY POLES NOT SCHEDULED FOR REMOVAL.

MODEL: Crescent2 [Sheet]
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CDM Smith

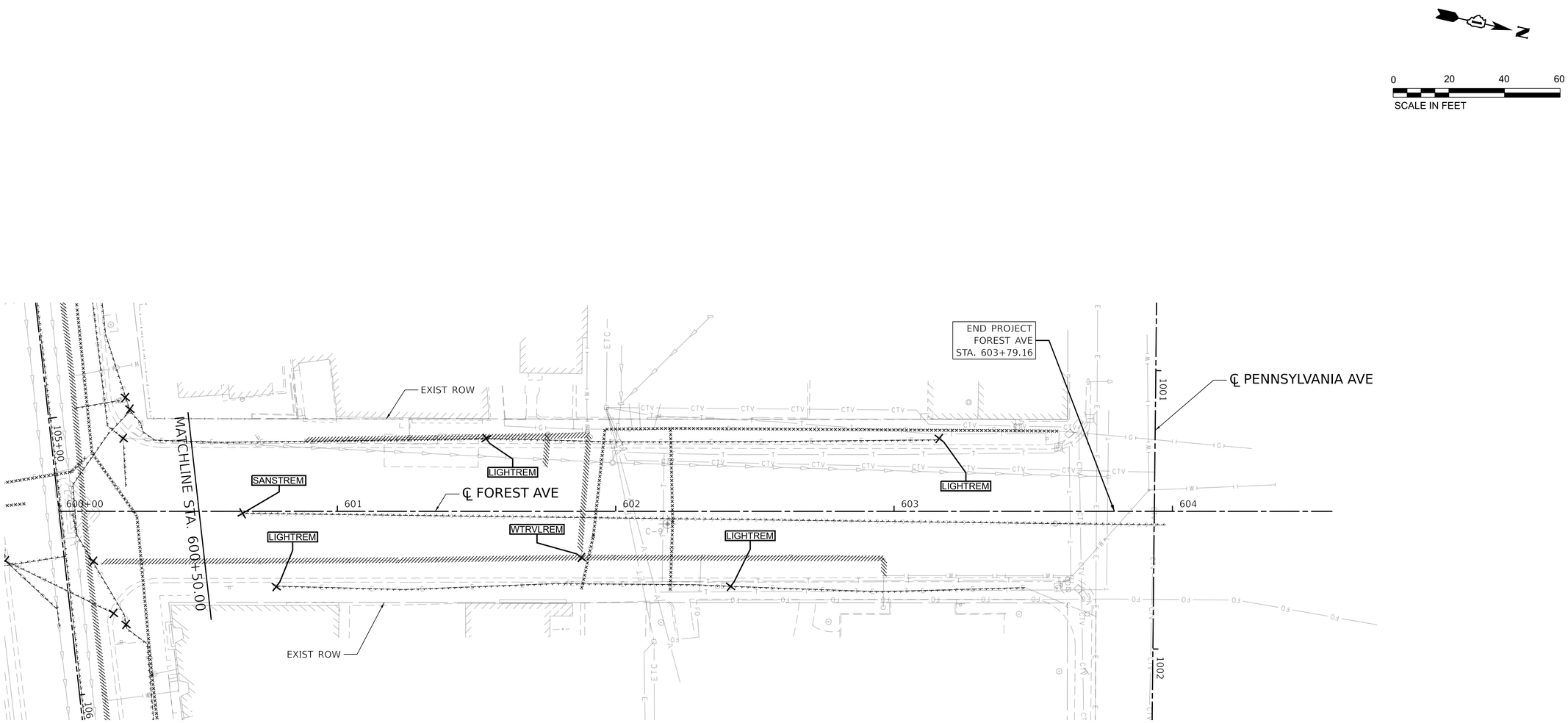
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL EXISTING UTILITY
ROADWAY PLAN

SCALE: SHEET 127 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		127
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



REMOVAL LEGEND

- SANITARY SEWER REMOVAL
- SANITARY STRUCTURE REMOVAL (SANSTREM)
- WATER MAIN REMOVAL
- ABANDON WATER MAIN AND APPURTENANCES
- FIRE HYDRANT REMOVAL (FHYDREM)
- WATER VALVE REMOVAL (WTRVLREM)
- STORM SEWER REMOVAL
- ABANDON AND FILL EXISTING STORM SEWER
- DRAINAGE STRUCTURE REMOVAL (DRNSTREM)
- ELECTRIC REMOVAL
- LIGHT POLE REMOVAL (LIGHTREM)
- CABLE/INTERNET/TELECOM REMOVAL (BY OTHERS)
- FIBER OPTIC REMOVAL (BY OTHERS)
- GAS REMOVAL (BY OTHERS)
- ABANDON EMPTY CONDUIT (CONDUIT OWNED BY ASTOUND)

NOTES

1. SEE SHEET 1 (INDEX OF SHEETS) FOR UTILITY REMOVAL GENERAL NOTES
2. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS.
3. EXISTING LIGHT POLES SHOWN FOR REMOVAL ARE TO BE REPURPOSED FOR THE NEW UTILITY SITE PLAN.
4. WITHIN PROJECT LIMITS, CONTRACTOR MUST PROTECT IN PLACE ALL EXISTING UTILITY POLES NOT SCHEDULED FOR REMOVAL.

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CDM Smith

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

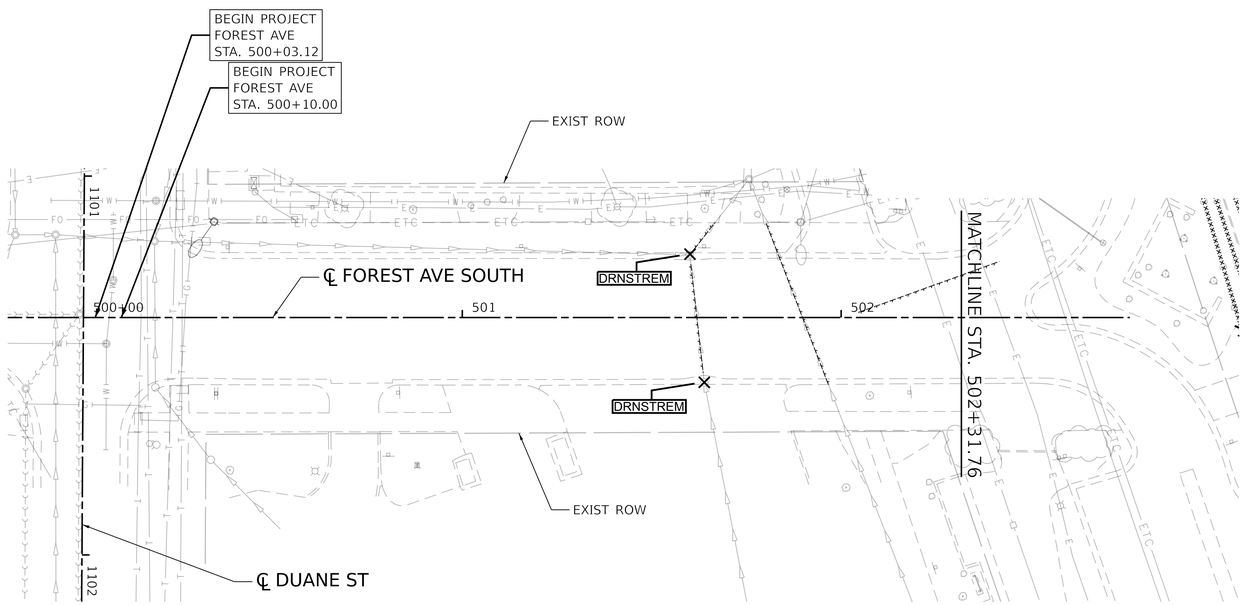
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL EXISTING UTILITY
ROADWAY PLAN

SCALE: SHEET 128 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		128
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		

0 20 40 60
SCALE IN FEET



REMOVAL LEGEND

- SANITARY SEWER REMOVAL
- SANSTREM — SANITARY STRUCTURE REMOVAL
- WATER MAIN REMOVAL
- ABANDON WATER MAIN AND APPURTENANCES
- FHYDREM — FIRE HYDRANT REMOVAL
- WTRVLREM — WATER VALVE REMOVAL
- STORM SEWER REMOVAL
- A&F — ABANDON AND FILL EXISTING STORM SEWER
- DRNSTREM — DRAINAGE STRUCTURE REMOVAL
- ELECTRIC REMOVAL
- LIGHTREM — LIGHT POLE REMOVAL
- CABLE/INTERNET/TELECOM REMOVAL (BY OTHERS)
- FIBER OPTIC REMOVAL (BY OTHERS)
- GAS REMOVAL (BY OTHERS)
- ABANDON EMPTY CONDUIT (CONDUIT OWNED BY ASTOUND)

NOTES

1. SEE SHEET 1 (INDEX OF SHEETS) FOR UTILITY REMOVAL GENERAL NOTES
2. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS.
3. EXISTING LIGHT POLES SHOWN FOR REMOVAL ARE TO BE REPURPOSED FOR THE NEW UTILITY SITE PLAN.
4. WITHIN PROJECT LIMITS, CONTRACTOR MUST PROTECT IN PLACE ALL EXISTING UTILITY POLES NOT SCHEDULED FOR REMOVAL.

MODEL: Forest S [Sheet]
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CDM Smith

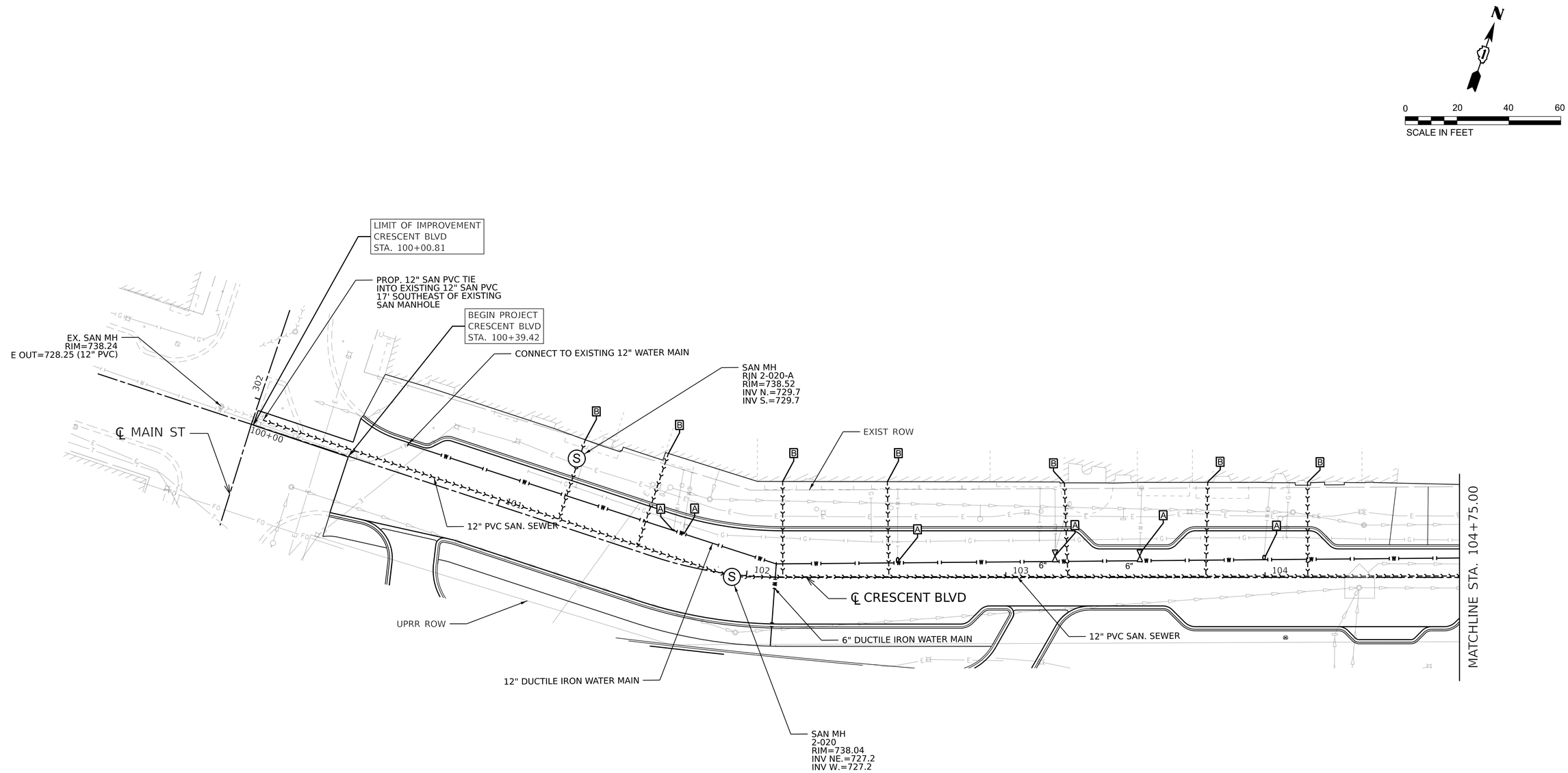
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL EXISTING UTILITY
ROADWAY PLAN

SCALE: | SHEET 129 OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		129
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



PROPOSED LEGEND

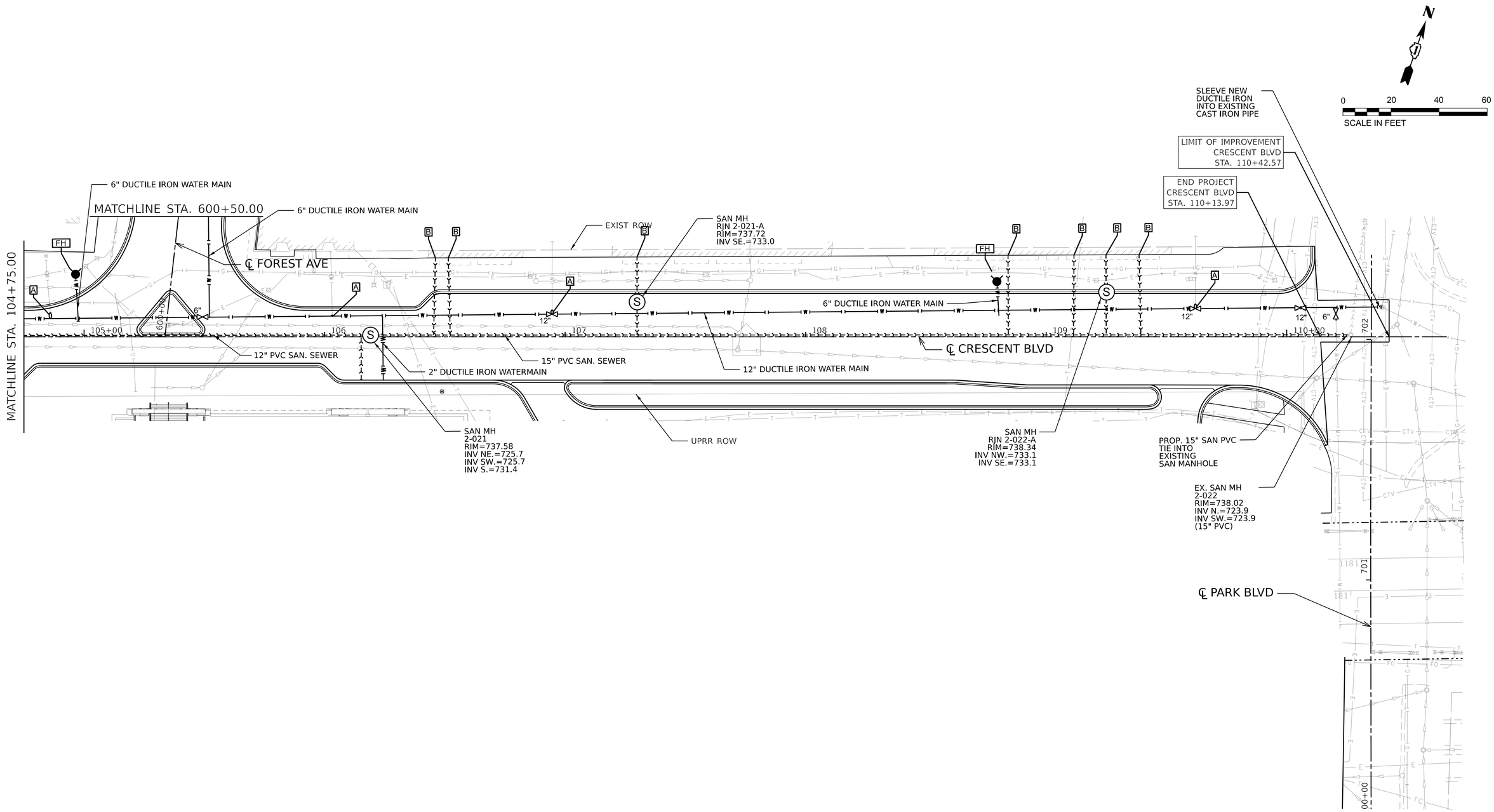
- DUCTILE IRON WATER MAIN (DIA. AS SHOWN)
- WATER VALVE AND VAULT (SIZE AS SHOWN)
- A — ADJUSTING WATER SERVICE LINES
- FH — FIRE HYDRANT ASSEMBLY
- B — SANITARY SEWER SERVICE CONNECTION, SEE CIVIL UTILITY DETAILS
- SANITARY SEWER (DIA. AND MATERIAL AS SHOWN)
- S — SANITARY MANHOLE (DETAILS AS SHOWN)
- EXISTING STORM SEWERS
- E — EXISTING ELECTRIC
- T — EXISTING CABLE/INTERNET/TELECOM - TO BE RELOCATED BY OTHERS
- FO — EXISTING FIBER OPTIC - TO BE RELOCATED BY OTHERS
- G — EXISTING GAS - TO BE RELOCATED BY OTHERS

NOTES

1. SEE SHEET 1 (INDEX OF SHEETS) FOR PROPOSED UTILITY GENERAL NOTES.
2. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS. IF IT IS REVEALED DURING A FUTURE DESIGN PHASE THAT ANY WATER SERVICE LINE IS MADE OF LEAD MATERIAL, THAT WATER SERVICE LINE WILL BE RECOMMENDED FOR REMOVAL AND REPLACEMENT.
3. SEE PROPOSED DRAINAGE SHEETS FOR PROPOSED DRAINAGE WORK.
4. SEE PROPOSED ELECTRICAL SHEETS FOR PROPOSED ELECTRICAL WORK.
5. ALL NON-LEAD EXISTING WATER SERVICE LINES TO BE RECONNECTED TO PROPOSED DUCTILE IRON WATER MAIN AS DESCRIBED IN THE SPECIAL PROVISION FOR ADJUSTING WATER SERVICE LINES.
6. IT IS ASSUMED ALL PROPOSED SANITARY LATERALS ARE 6" PVC UNLESS NOTED OTHERWISE.

MODEL: Crescent [Sheet]
FILE NAME: pw://cdmsmith-sa02-pw.bentley.com:pw_ext/Documents/258921/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-util-pr_RDWY

CDM Smith	USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CIVIL PROPOSED UTILITY ROADWAY PLAN	F.A. RTE. –	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -			—	———	DUPAGE	130
	PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 284380	
	PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -		SCALE: SHEET 130 OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT	



PROPOSED LEGEND

- DUCTILE IRON WATER MAIN (DIA. AS SHOWN)
- WATER VALVE AND VAULT (SIZE AS SHOWN)
- ADJUSTING WATER SERVICE LINES
- FIRE HYDRANT ASSEMBLY
- SANITARY SEWER SERVICE CONNECTION, SEE CIVIL UTILITY DETAILS
- SANITARY SEWER (DIA. AND MATERIAL AS SHOWN)
- SANITARY MANHOLE (DETAILS AS SHOWN)
- EXISTING STORM SEWERS
- EXISTING ELECTRIC
- EXISTING CABLE/INTERNET/TELECOM - TO BE RELOCATED BY OTHERS
- EXISTING FIBER OPTIC - TO BE RELOCATED BY OTHERS
- EXISTING GAS - TO BE RELOCATED BY OTHERS

NOTES

1. SEE SHEET 1 (INDEX OF SHEETS) FOR PROPOSED UTILITY GENERAL NOTES.
2. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS. IF IT IS REVEALED DURING A FUTURE DESIGN PHASE THAT ANY WATER SERVICE LINE IS MADE OF LEAD MATERIAL, THAT WATER SERVICE LINE WILL BE RECOMMENDED FOR REMOVAL AND REPLACEMENT.
3. SEE PROPOSED DRAINAGE SHEETS FOR PROPOSED DRAINAGE WORK.
4. SEE PROPOSED ELECTRICAL SHEETS FOR PROPOSED ELECTRICAL WORK.
5. ALL NON-LEAD EXISTING WATER SERVICE LINES TO BE RECONNECTED TO PROPOSED DUCTILE IRON WATER MAIN AS DESCRIBED IN THE SPECIAL PROVISION FOR ADJUSTING WATER SERVICE LINES.
6. IT IS ASSUMED ALL PROPOSED SANITARY LATERALS ARE 6" PVC UNLESS NOTED OTHERWISE.

MODEL: Crescent2 [Sheet]
FILE NAME: pw://cdmsmith-as02-pw.bentley.com:pw_ent/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D128438O-sht-util-pr_RDWY

CDM Smith

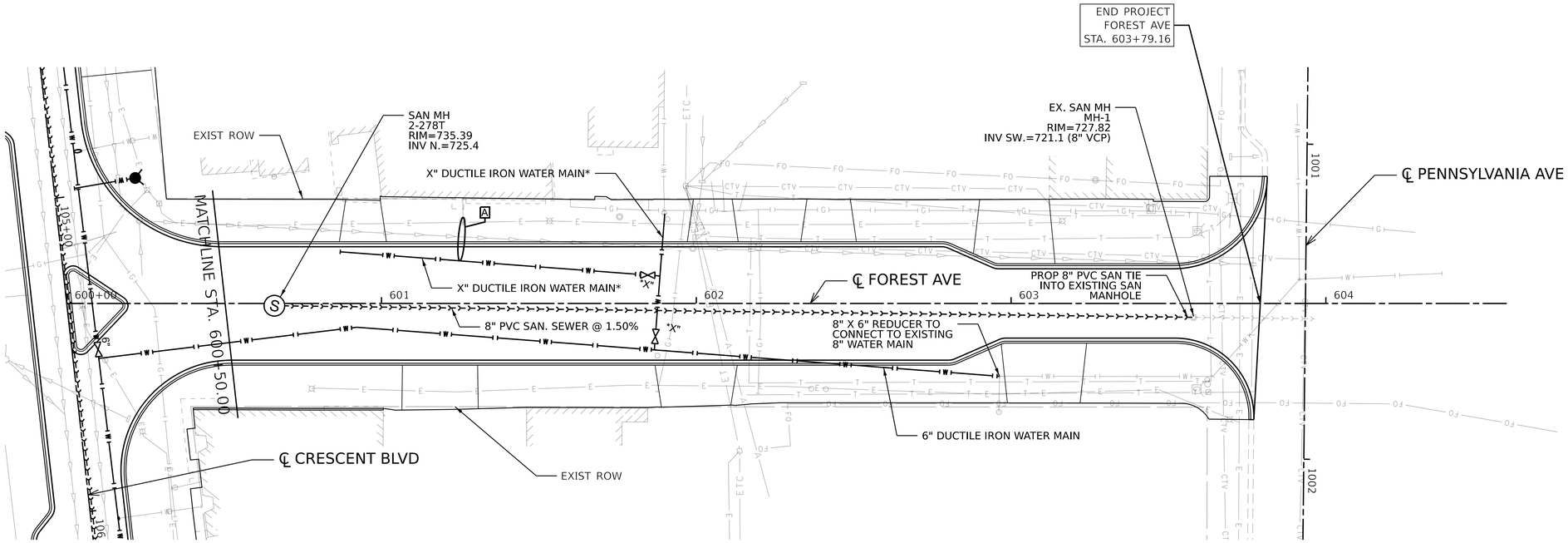
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PROPOSED UTILITY
ROADWAY PLAN

SCALE: | SHEET 131 OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		131
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



0 20 40 60
SCALE IN FEET

* EXISTING WATER MAIN DIAMETER REMAINS UNKNOWN AT THIS TIME. PROPOSED IN-KIND REPLACEMENT WATER MAIN DIAMETER TO BE DETERMINED DURING THE NEXT DESIGN PHASE. PROPOSED WATER VALVE AND VAULT SIZE WILL BE BASED UPON THIS FINDING.

PROPOSED LEGEND

- DUCTILE IRON WATER MAIN (DIA. AS SHOWN)
- WATER VALVE AND VAULT (SIZE AS SHOWN)
- ADJUSTING WATER SERVICE LINES
- FIRE HYDRANT ASSEMBLY
- SANITARY SEWER SERVICE CONNECTION, SEE CIVIL UTILITY DETAILS
- SANITARY SEWER (DIA. AND MATERIAL AS SHOWN)
- SANITARY MANHOLE (DETAILS AS SHOWN)
- EXISTING STORM SEWERS
- EXISTING ELECTRIC
- EXISTING CABLE/INTERNET/TELECOM - TO BE RELOCATED BY OTHERS
- EXISTING FIBER OPTIC - TO BE RELOCATED BY OTHERS
- EXISTING GAS - TO BE RELOCATED BY OTHERS

NOTES

1. SEE SHEET 1 (INDEX OF SHEETS) FOR PROPOSED UTILITY GENERAL NOTES.
2. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS. IF IT IS REVEALED DURING A FUTURE DESIGN PHASE THAT ANY WATER SERVICE LINE IS MADE OF LEAD MATERIAL, THAT WATER SERVICE LINE WILL BE RECOMMENDED FOR REMOVAL AND REPLACEMENT.
3. SEE PROPOSED DRAINAGE SHEETS FOR PROPOSED DRAINAGE WORK.
4. SEE PROPOSED ELECTRICAL SHEETS FOR PROPOSED ELECTRICAL WORK.
5. ALL NON-LEAD EXISTING WATER SERVICE LINES TO BE RECONNECTED TO PROPOSED DUCTILE IRON WATER MAIN AS DESCRIBED IN THE SPECIAL PROVISION FOR ADJUSTING WATER SERVICE LINES.
6. IT IS ASSUMED ALL PROPOSED SANITARY LATERALS ARE 6" PVC UNLESS NOTED OTHERWISE.

MODEL: Forest N [Sheet]
FILE NAME: pw://cdmsmith-sa02-pw.bentley.com:pw_ext/Documents/258921/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D128438O-sht-util-pp_RDWY

CDM Smith

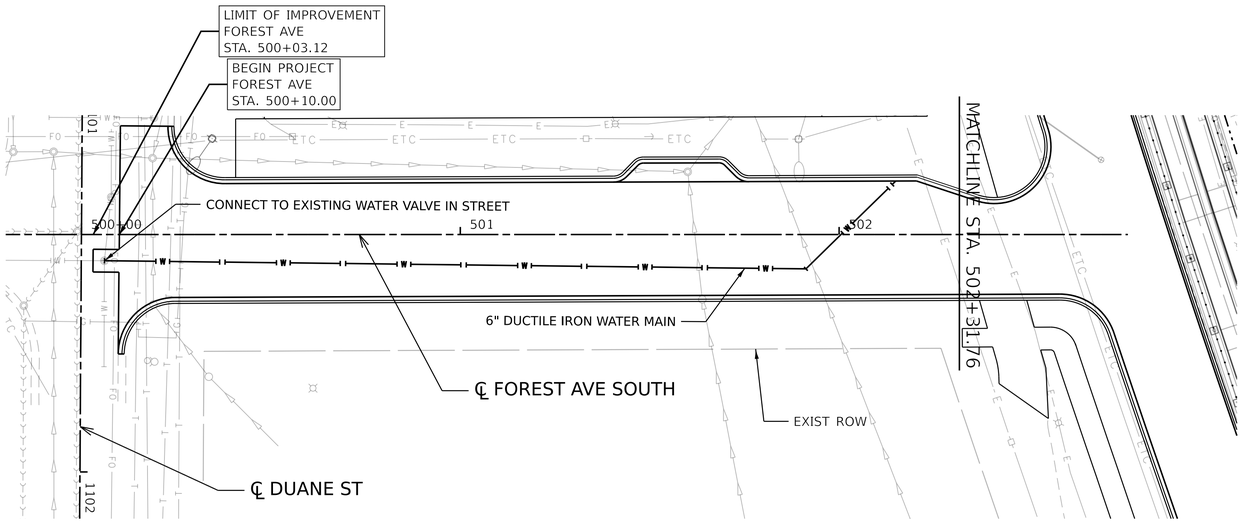
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PROPOSED UTILITY
ROADWAY PLAN

SCALE: SHEET 132 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		132
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



0 20 40 60
SCALE IN FEET

PROPOSED LEGEND

- DUCTILE IRON WATER MAIN (DIA. AS SHOWN)
- WATER VALVE AND VAULT (SIZE AS SHOWN)
- A — ADJUSTING WATER SERVICE LINES
- FH — FIRE HYDRANT ASSEMBLY
- B — SANITARY SEWER SERVICE CONNECTION, SEE CIVIL UTILITY DETAILS
- SANITARY SEWER (DIA. AND MATERIAL AS SHOWN)
- S — SANITARY MANHOLE (DETAILS AS SHOWN)
- EXISTING STORM SEWERS
- E — EXISTING ELECTRIC
- T — EXISTING CABLE/INTERNET/TELECOM - TO BE RELOCATED BY OTHERS
- FO — EXISTING FIBER OPTIC - TO BE RELOCATED BY OTHERS
- G — EXISTING GAS - TO BE RELOCATED BY OTHERS

NOTES

1. SEE SHEET 1 (INDEX OF SHEETS) FOR PROPOSED UTILITY GENERAL NOTES.
2. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS. IF IT IS REVEALED DURING A FUTURE DESIGN PHASE THAT ANY WATER SERVICE LINE IS MADE OF LEAD MATERIAL, THAT WATER SERVICE LINE WILL BE RECOMMENDED FOR REMOVAL AND REPLACEMENT.
3. SEE PROPOSED DRAINAGE SHEETS FOR PROPOSED DRAINAGE WORK.
4. SEE PROPOSED ELECTRICAL SHEETS FOR PROPOSED ELECTRICAL WORK.
5. ALL NON-LEAD EXISTING WATER SERVICE LINES TO BE RECONNECTED TO PROPOSED DUCTILE IRON WATER MAIN AS DESCRIBED IN THE SPECIAL PROVISION FOR ADJUSTING WATER SERVICE LINES.
6. IT IS ASSUMED ALL PROPOSED SANITARY LATERALS ARE 6" PVC UNLESS NOTED OTHERWISE.

MODEL: Forest S [Sheet]
FILE NAME: pw://cdmsmith-azl2-pw.bentley.com:pw_ent/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-utlfpr_RDWY

CDM Smith

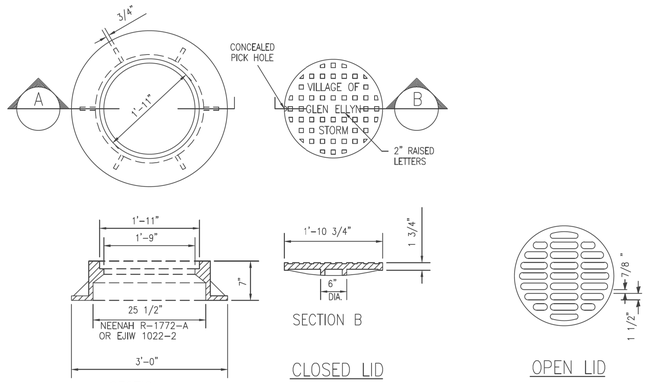
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PROPOSED UTILITY
ROADWAY PLAN

SCALE: SHEET 133 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		133
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



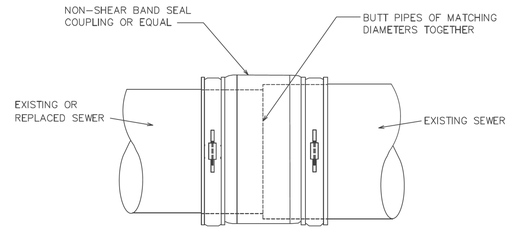
NOTES:

1. DUCTILE IRON CASTING SHALL BE GRADE 60-40-18 AND SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.
2. ALL FRAMES AND LIDS SHALL BE MACHINED.
3. THE MANHOLE LIDS SHALL HAVE RAISED LETTERS AS SHOWN.
4. ALTERNATIVE TO DUCTILE IRON LID, GRAY IRON LID MAY BE USED.
5. FRAME AND LID TO BE EJIW-1022-2 OR NEENAH R-1772-A
6. CLOSED LID SHALL HAVE A CONCEALED PICK HOLE.
7. SANITARY MANHOLE LID SHALL BE " SELF-SEALING".
8. LID SHALL BE IMPRINTED WITH THE DESIGNATION "VILLAGE OF GLEN ELLYN STORM", "VILLAGE OF GLEN ELLYN SANITARY" OR "VILLAGE OF GLEN ELLYN WATER".

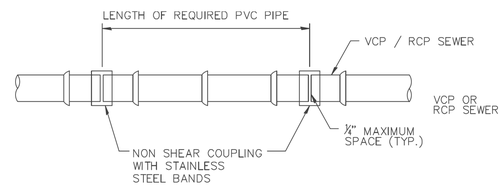
TYPE 1 FRAME & LID

NOT TO SCALE

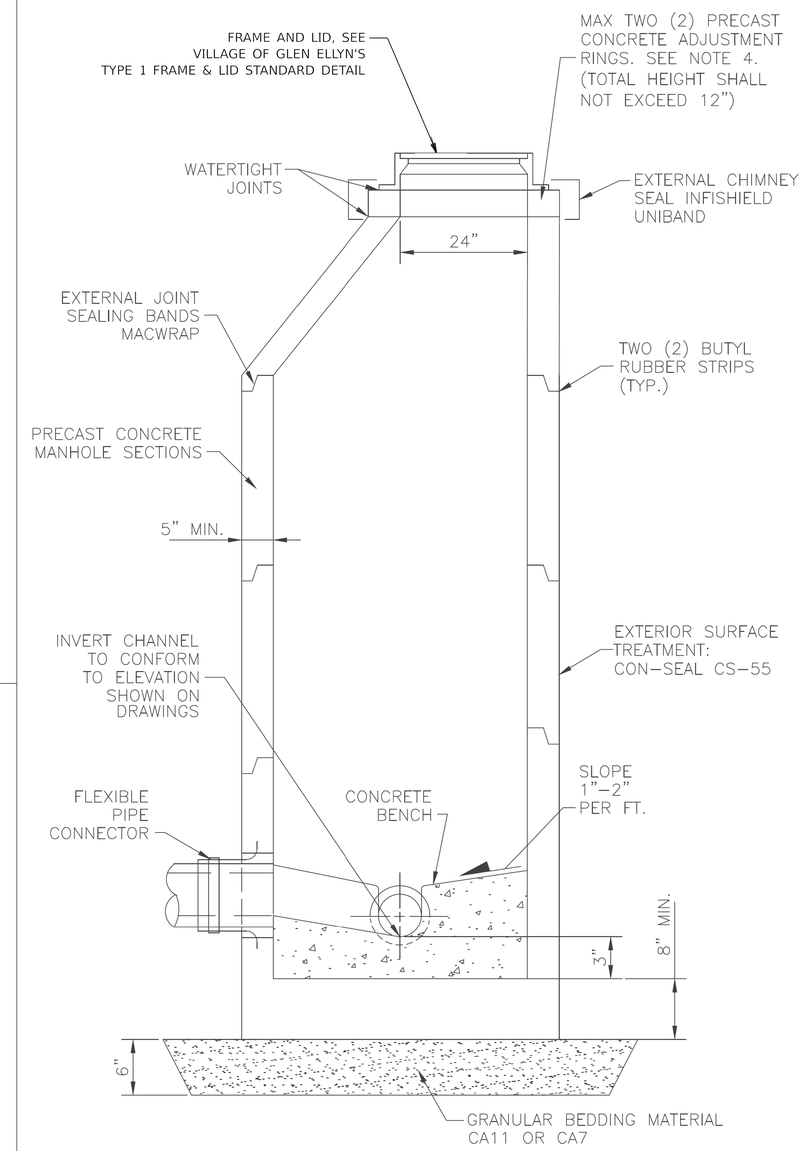
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	01/01/18				TYPE 1 FRAME & LID
	DRAWING NO. SC-14				
	X:\Publcwks\Engineering Library\Details				



PIPE COUPLING DETAIL
NTS



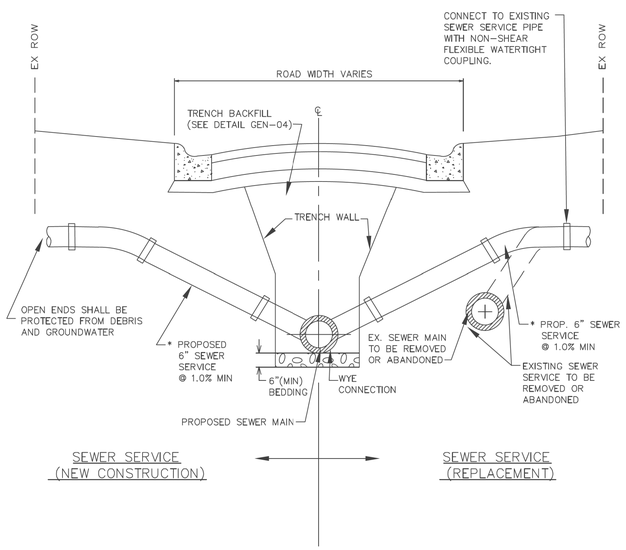
CONNECTING SEWER PIPES OF DISSIMILAR MATERIAL
NTS



NOTE:

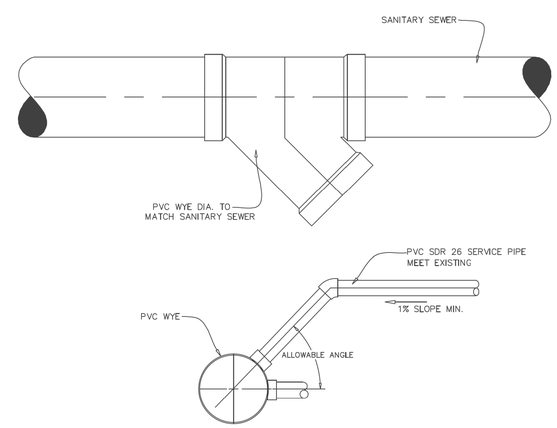
1. ECCENTRIC CONES REQUIRED, FLAT SLAB TOPS PERMITTED ONLY FOR MANHOLES TOO SHALLOW FOR CONES.
2. MANHOLE DIAMETER SHALL BE DETERMINED BY THE SEWER DEPTH, THE SEWER OUTSIDE DIAMETER, RELATIVE ANGLES OF SEWERS TO EACH OTHER, THE SIZE OF HOLES CORED/CAST FOR BOOTS, AND A MINIMUM OF 8" BETWEEN CORED/CAST HOLES. FOR SEWER SIZES 8" THROUGH 15", USE 4'-0" DIAMETER. FOR SEWER DEPTHS 15' AND GREATER, USE 5'-0" DIAMETER.
3. ALL LIFT HOLES ARE TO BE GROUTED FROM THE INSIDE AND OUTSIDE BEFORE BACKFILLING.
4. FOR MANHOLES INSTALLED IN PAVEMENT, PROVIDE ONE RUBBER COMPOSITE ADJUSTMENT RING DIRECTLY UNDER FRAME. EJ INFRA-RISER OR APPROVED EQUAL.

SANITARY MANHOLE
NTS



* SERVICE PIPE MATERIAL: PVC SDR 26, ASTM D2241

SANITARY SEWER SERVICE
NTS



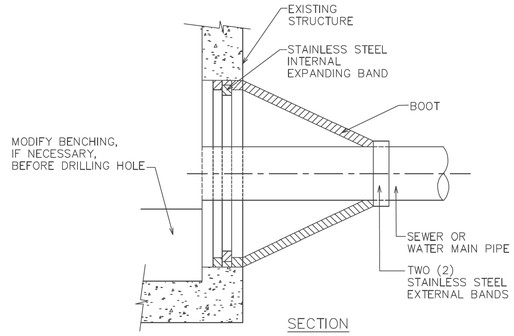
GENERAL NOTES:

1. WYE CAN BE INSTALLED ONLY DURING NEW SEWER INSTALLATION
2. ALL FITTINGS MUST MEET OR EXCEED:
   FITTINGS: ASTM F1336
   MATERIALS: ASTM D1784
   JOINTS: ASTM D3212
   GASKETS: ASTM F477
   INSTALLATION: ASTM D2321
3. FITTINGS SHALL BE HARCO SDR-26 AS MANUFACTURED BY HARRINGTON CORPORATION, OR APPROVED EQUAL

SANITARY SERVICE CONNECTION WYE
NTS

MODEL: Utility Details 1
FILE NAME: pw://cdmsmith-uc02-pw.bentley.com:pw_wut/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D128438b-sht-Utility-Details

CDM Smith	USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CIVIL UTILITY DETAILS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -			—	—	DUPAGE		134
	PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 284380		
	PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -		SCALE: SHEET 134 OF SHEETS STA. 100+36.39 TO STA. 105+03.82		ILLINOIS	FED. AID PROJECT		



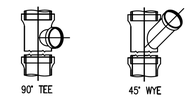
NOTES:

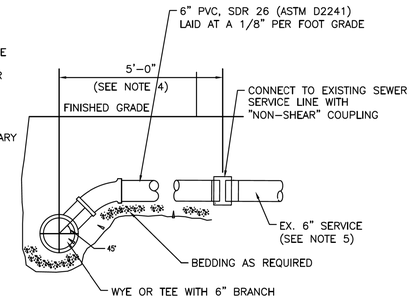
1. CORE-DRILL CIRCULAR OPENING IN STRUCTURE WALL OF DIAMETER TO FIT THE REQUIRED BOOT SIZE.
2. KOR-N SEAL FLEXIBLE RUBBER BOOT (MANUFACTURED BY NATIONAL POLLUTION CONTROL SYSTEMS, INC. OR AS APPROVED BY CITY ENGINEERING SHALL BE USED FOR WATERTIGHT CONNECTION.
3. CUT, SHAPE AND SLOPE NEW INVERT CHANNEL IN THE EXISTING CONCRETE BENCH FOR SMOOTH FLOW FROM NEW CONNECTION.
4. CLEAN EXISTING STRUCTURE AND SEWER PIPE OF ANY DIRT, CONCRETE OR DEBRIS WHICH MAY ACCUMULATE DURING THE CONSTRUCTION PROCESS.
5. CONNECTION SHALL CONFORM TO ASTM C-923.

PIPE CONNECTION TO EXISTING STRUCTURE
NTS

NOTES:

1. THE WYE OR TEE SHALL BE INSTALLED AT A 45° ANGLE TO THE HORIZONTAL AXIS OF THE PUBLIC SEWER.
2. THE MINIMUM SLOPE ON A SANITARY SEWER
3. SERVICE SHALL BE 1/8" PER FOOT. WITHIN THE RIGHT-OF-WAY, THE BEDDING, HAUNCHING, INITIAL BACKFILL, AND TRENCH
4. BACKFILL FOR THE SERVICE SHALL MATCH THE REQUIREMENT FOR THE MAIN LINE. SANITARY SEWER SERVICE RECONNECTION FOR
5. SANITARY SEWER SPOT REPAIRS SHALL BE LIMITED TO 5' FROM THE SEWER MAIN (SEE SPECIFICATIONS). REPAIR ADDITIONAL LENGTH OF SEWER AS DIRECTED BY ENGINEER. PAID FOR AS "SANITARY SEWER, 6"PVC, SDR26".





SANITARY SEWER SERVICE CONNECTION
(AT "RESURFACING" STREETS) NOT TO SCALE

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
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	DRAWING NO. SC-19				
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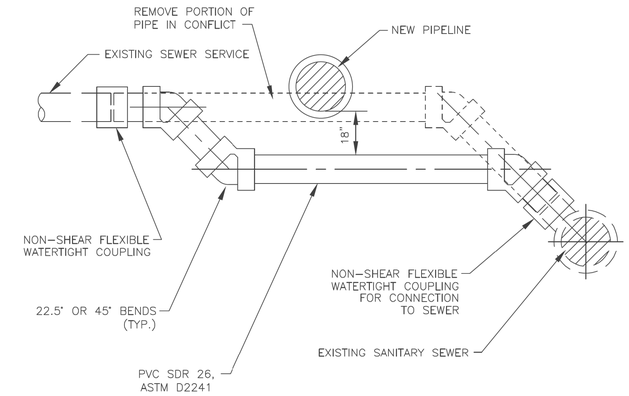
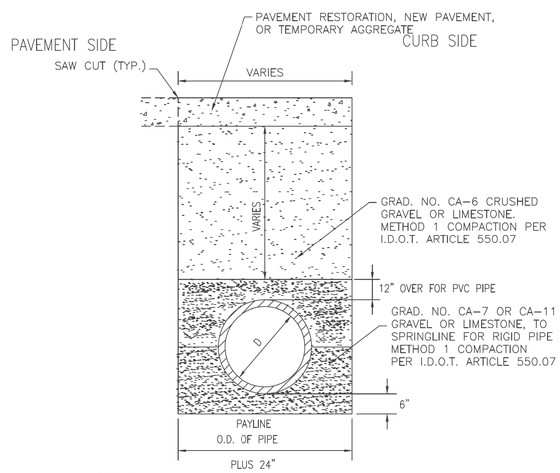


SANITARY SEWER SERVICE RELOCATION
NTS



NOTES:

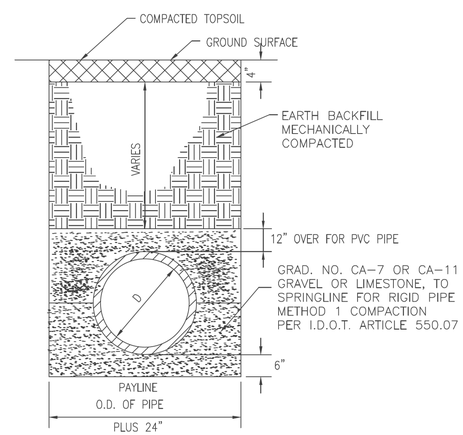
TRENCH BACKFILL IS INCLUDED IN THE COST OF THE PIPE BEING REPLACED.

ALL TRENCHES SHALL BE SAWCUT AND THE COST SHALL BE INCLUDED IN THE COST OF THE PIPE.

REMOVE ONLY SUFFICIENT PAVEMENT TO PERFORM PIPE INSTALLATION AND COORDINATE WITH ENGINEER.

TRENCH SECTION IN PAVED AREAS
NOT TO SCALE

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	01/01/18				TRENCH SECTION IN PAVED AREAS
	DRAWING NO. SC-15				
	X:\Publcwks\Engineering Library\Details				



TRENCH SECTION IN UNPAVED AREAS
NOT TO SCALE

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	01/01/18				TRENCH SECTION IN UNPAVED AREAS
	DRAWING NO. SC-16				
	X:\Publcwks\Engineering Library\Details				

MODEL: Utility Details 2
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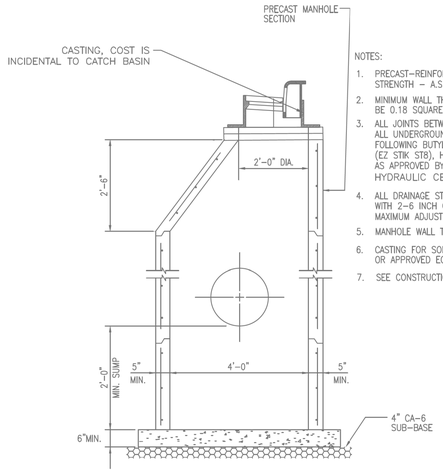
CDM Smith	USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CIVIL UTILITY DETAILS	F.A. RTE. –	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -			—	_____	DUPAGE	135
	PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 284380	
	PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -		SCALE: SHEET 135 OF SHEETS STA. 100+36.39 TO STA. 105+03.82			ILLINOIS FED. AID PROJECT	



NOTES:

1. PRECAST-REINFORCED CONCRETE RISER RINGS AND CONES SHALL COMPLY WITH TEST STRENGTH – A.S.T.M. C-39. ADJUSTMENT RINGS SHALL NOT EXCEED 8" IN HEIGHT.
2. MINIMUM WALL THICKNESS SHALL BE 5" AND MINIMUM CIRCULAR REINFORCEMENT SHALL BE 0.18 SQUARE INCH PER FOOT.
3. ALL JOINTS BETWEEN PRE-CAST ELEMENTS, ADJUSTING RINGS AND MANHOLE FRAMES ON ALL UNDERGROUND STRUCTURES, SHALL BE SET IN PLACE WITH TWO ROWS OF ONE OF THE FOLLOWING BUTYL RUBBER JOINT SEALANTS: CONCRETE PRODUCTS SUPPLY CO. (EZ STIK ST8), HAMILTON-KENT GASKET CO, – (KENT SEAL), OR EQUAL, AS APPROVED BY VILLAGE ENGINEER, AND ALL JOINTS TO BE TUCKPOINTED WITH HYDRAULIC CEMENT.
4. ALL DRAINAGE STRUCTURES LOCATED IN REAR OR SIDE YARD AREAS SHALL BE INSTALLED WITH 2-6 INCH OR 3-4 INCH ADJUSTING RINGS. THIS WILL PROVIDE FOR A FUTURE MAXIMUM ADJUSTMENT OF 12 INCHES.
5. MANHOLE WALL THICKNESS "T" SHALL BE AS SHOWN IN THE LIST BELOW.
6. CASTING FOR SOME SLOPE CONDITIONS, USE EJIW V-4010-2 (NEENAH R-3065-2) OR APPROVED EQUAL.
7. SEE CONSTRUCTION PLANS FOR ACTUAL TYPE OF CASTING SPECIFIED.

D	T
3'-0"	3"
4'-0"	5"
5'-0"	6"
6'-0"	7"
7'-0"	8"
8'-0"	9"

CATCH BASIN, TYPE A

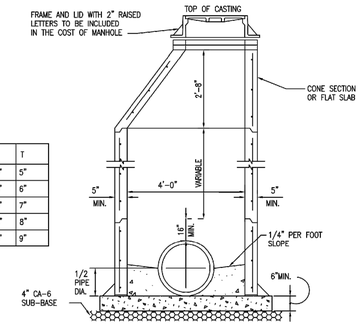
NOT TO SCALE

TYPE "C" CATCH BASIN IS WITHOUT CONE SECTION AND HAVING PRECAST FLAT TOP (IDOT STD. 602601).

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
VILLAGE OF GLEN ELLYN 1854	01/01/18				CATCH BASIN TYPE A
	DRAWING NO. SC-12				
	X:\Publcwks\Engineering Library\Details				

NOTES:

1. PRECAST-REINFORCED CONCRETE RISER RINGS AND CONES SHALL COMPLY WITH TEST STRENGTH – A.S.T.M. C-39. ADJUSTMENT RINGS SHALL NOT EXCEED 8" IN HEIGHT.
2. MINIMUM WALL THICKNESS SHALL BE 5" AND MINIMUM CIRCULAR REINFORCEMENT SHALL BE 0.18 SQUARE INCH PER FOOT.
3. THE BOTTOM MAY BE EITHER PRECAST WITH INVERTS AS INTEGRAL PART OR CAST IN PLACE WITH CLASS "SI" CONCRETE.
4. MANHOLE WALL THICKNESS "T" SHALL BE AS SHOWN IN THE LIST BELOW.
5. ALL JOINTS BETWEEN PRE-CAST ELEMENTS, ADJUSTING RINGS AND MANHOLE FRAMES ON ALL UNDERGROUND STRUCTURES, SHALL BE SET IN PLACE WITH TWO ROWS OF ONE OF THE FOLLOWING BUTYL RUBBER JOINT SEALANTS: CONCRETE PRODUCTS SUPPLY CO. – EZ STIK ST8, HAMILTON-KENT GASKET CO. – KENT SEAL, OR EQUAL, AS APPROVED BY VILLAGE ENGINEERS, AND ALL JOINTS TO BE TUCKPOINTED WITH HYDRAULIC CEMENT.
7. SEE CONSTRUCTION PLANS FOR ACTUAL TYPE OF CASTING SPECIFIED.



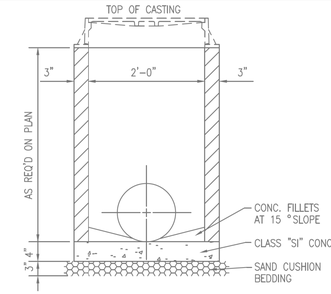
D	T
4'-0"	5"
5'-0"	6"
6'-0"	7"
7'-0"	8"
8'-0"	9"

STORM SEWER MANHOLE, TYPE A

NOT TO SCALE

TYPE "C" MANHOLE IS WITHOUT CONE SECTION AND HAVING PRECAST FLAT TOP (IDOT STD. 602601).

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
VILLAGE OF GLEN ELLYN 1854	01/01/18				STORM SEWER MANHOLE TYPE A
	DRAWING NO. SC-11				
	X:\Publcwks\Engineering Library\Details				



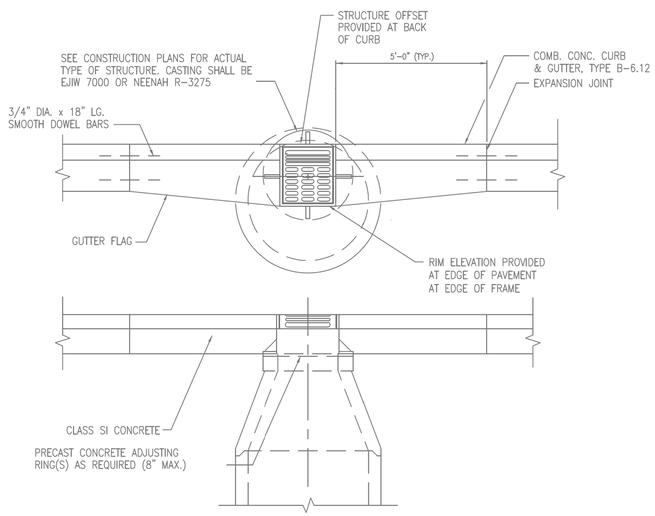
NOTES:

1. MINIMUM WALL THICKNESS SHALL BE 3" AND MINIMUM CIRCULAR REINFORCEMENT SHALL BE 0.18 SQUARE INCH PER FOOT.
2. THE BOTTOM MAY BE EITHER PRECAST WITH INVERTS AS INTEGRAL PART OR CAST IN PLACE WITH CLASS "SI" CONCRETE.
3. ALL JOINTS BETWEEN PRE-CAST ELEMENTS, ADJUSTING RINGS AND FRAMES ON ALL UNDERGROUND STRUCTURES, SHALL BE SET IN PLACE WITH TWO ROWS OF ONE OF THE FOLLOWING BUTYL RUBBER JOINT SEALANTS: CONCRETE PRODUCTS SUPPLY CO. – EZ STIK ST8, HAMILTON – KENT GASKET CO. – KENT SEAL, OR EQUAL, AS APPROVED BY THE VILLAGE ENGINEERS, AND ALL JOINTS TO BE TUCKPOINTED WITH HYDRAULIC CEMENT.
4. DRAINAGE STRUCTURES LOCATED IN REAR OR SIDE YARD AREAS SHALL BE INSTALLED WITH 2-6 INCH OR 3-4 INCH ADJUSTING RINGS. THIS WILL PROVIDE FOR A FUTURE MAXIMUM ADJUSTMENT OF 12 INCHES.
5. CASTING FOR SOME SLOPE CONDITIONS, USE EJIW V-4010-2 (NEENAH R-3065-2) OR APPROVED EQUAL.
6. SEE CONSTRUCTION PLANS FOR ACTUAL TYPE OF CASTING SPECIFIED.

INLET, TYPE A

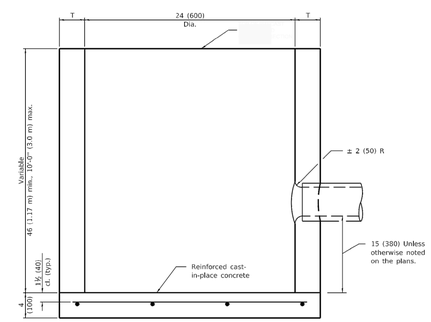
NOT TO SCALE

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
VILLAGE OF GLEN ELLYN 1854	01/01/18				INLET TYPE A
	DRAWING NO. SC-13				
	X:\Publcwks\Engineering Library\Details				



TYPICAL CURB DETAIL AT STORM STRUCTURE

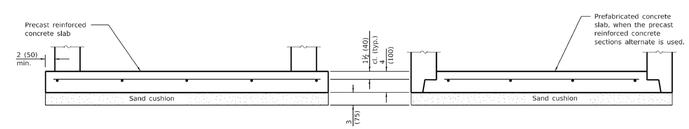
NOT TO SCALE



ELEVATION

ALTERNATE MATERIALS FOR WALLS	T (min)
Precast Reinforced Concrete Section	3 (75)
Concrete Masonry Unit	5 (125)
Cast-in-Place Concrete	6 (150)
Brick Masonry	8 (200)

PRECAST REINFORCED CONCRETE RISER RINGS AND CONES SHALL COMPLY WITH TEST STRENGTH – A.S.T.M. C-39. ADJUSTMENT RINGS SHALL NOT EXCEED 8" IN HEIGHT. MINIMUM WALL THICKNESS SHALL BE 5" AND MINIMUM CIRCULAR REINFORCEMENT SHALL BE 0.18 SQUARE INCH PER FOOT. ALL JOINTS BETWEEN PRE-CAST ELEMENTS, ADJUSTING RINGS AND MANHOLE FRAMES ON ALL UNDERGROUND STRUCTURES, SHALL BE SET IN PLACE WITH TWO ROWS OF ONE OF THE FOLLOWING BUTYL RUBBER JOINT SEALANTS: CONCRETE PRODUCTS SUPPLY CO. – EZ STIK ST8, HAMILTON – KENT GASKET CO. – KENT SEAL, OR EQUAL, AS APPROVED BY THE VILLAGE ENGINEERS, AND ALL JOINTS TO BE TUCKPOINTED WITH HYDRAULIC CEMENT.



ALTERNATE BOTTOM SLAB

GENERAL NOTES

Bottom slabs shall be reinforced with a minimum of 0.27 sq. in./ft. (570 sq. mm/m) in both directions with a maximum spacing of 9 (230).

Bottom slabs may be connected to the riser as determined by the fabricator; however, only a single row of reinforcement around the perimeter may be utilized.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2011
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-11	Detailed rein. in slabs.
	Added max. limit to height.
	Added general notes.
1-1-09	Switched units to
	English (metric).

CATCH BASIN TYPE C

STANDARD 602011-02

MODEL: Utility Details 3
FILE NAME: pw://cdmsmith-as22-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D128438O-sht-Utility-Details

CDM Smith

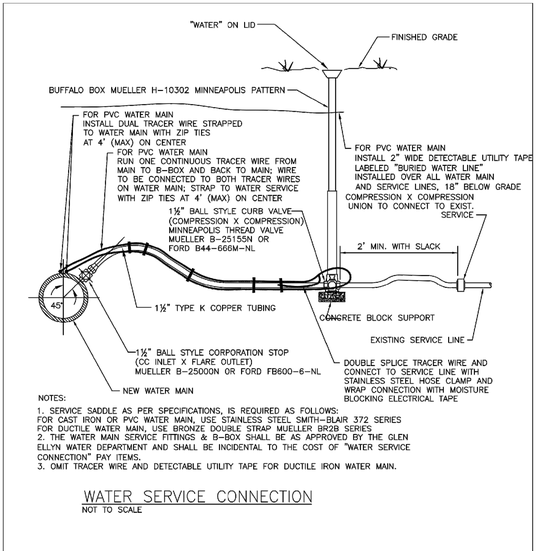
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL UTILITY DETAILS

SCALE: | SHEET 136 OF SHEETS | STA. 100+36.39 TO STA. 105+03.82

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		136
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



NOTES:

1. SERVICE SADDLE AS PER SPECIFICATIONS, IS REQUIRED AS FOLLOWS: FOR CAST IRON OR PVC WATER MAIN, USE STAINLESS STEEL SMITH-BLAIR 372 SERIES FOR DUCTILE WATER MAIN, USE BRONZE DOUBLE STRAP MUELLER BR2B SERIES
2. THE WATER MAIN SERVICE FITTINGS & B-BOX SHALL BE AS APPROVED BY THE GLEN ELLYN WATER DEPARTMENT AND SHALL BE INCIDENTAL TO THE COST OF "WATER SERVICE CONNECTION" PAY ITEMS.
3. OMIT TRACER WIRE AND DETECTABLE UTILITY TAPE FOR DUCTILE IRON WATER MAIN.

WATER SERVICE CONNECTION

NOT TO SCALE

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
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	DRAWING NO. SC-09				
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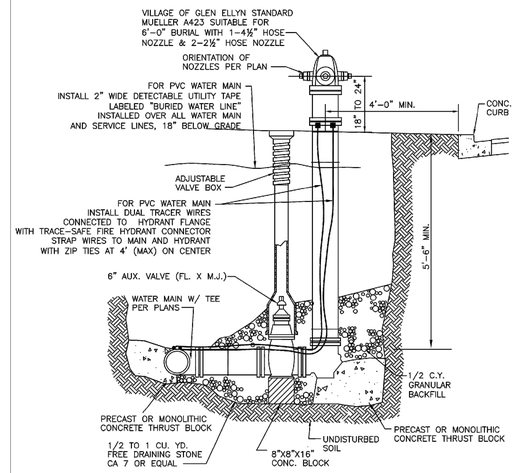

FIRE HYDRANT

NOT TO SCALE

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
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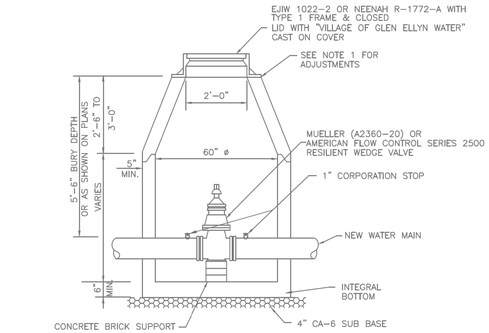
	DRAWING NO. SC-08				
	X:\Publcwks\Engineering Library\Details				



NOTES:

1. PRECAST-REINFORCED CONCRETE RISER RINGS AND CONES SHALL COMPLY WITH TEST STRENGTH - A.S.T.M. C-39. ADJUSTMENT RINGS SHALL NOT EXCEED 8" IN HEIGHT.
2. WALL THICKNESS SHALL BE - 5" FOR 4' DIA. & 6" FOR 5' DIA. MANHOLE. MINIMUM CIRCULAR REINFORCEMENT SHALL BE 0.18 SQUARE INCH PER FOOT.
3. PRECAST ADJUSTMENT RINGS WILL BE REQUIRED FOR ALL ADJUSTMENTS WITH MAX. ADJUSTMENT EQUAL TO 1 1/2".
4. ALL VALVES SHALL BE ENCLOSED IN A VAULT UNLESS OTHERWISE SPECIFIED.
5. VALVE WITH VAULT INCLUDING FRAME AND LID SHALL BE PAID FOR AS ITEM "VALVE AND VAULT" OF THE SIZE SPECIFIED IN THE PLANS AND SHALL INCLUDE CORPORATION STOP AS SHOWN.
6. ALL JOINTS BETWEEN PRE-CAST ELEMENTS, ADJUSTING RINGS AND MANHOLE FRAMES ON ALL UNDERGROUND STRUCTURES, SHALL BE SET IN PLACE WITH ONE OF THE FOLLOWING: BUTYL RUBBER JOINT SEALANTS AS MANUFACTURED BY CONCRETE PRODUCTS SUPPLY CO. - EZ STIK ST8, HAMILTON-KENT GASKET CO. - KENT SEAL, OR EQUAL, AS APPROVED BY THE VILLAGE ENGINEER, AND ALL JOINTS TO BE TUCKPOINTED W/ ANTI-HYDRAULIC CEMENT.

VALVE VAULT TYPE A

NOT TO SCALE

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
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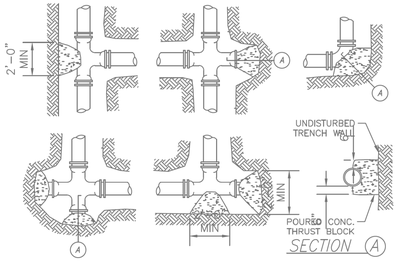
	DRAWING NO. SC-04				
	X:\Publcwks\Engineering Library\Details				



THRUST BLOCK DETAIL

NOT TO SCALE

SIZE (DIA. IN INCH.)	DEAD END OR TEE (SQ. FT.)	1/4 BEND 90 BEND (SQ. FT.)	1/8 BEND 45 BEND (SQ. FT.)	1/16 BEND 22.5 BEND (SQ. FT.)	1/32 BEND 11.25 BEND (SQ. FT.)
6	3.9	5.5	3.0	1.5	1.5
8	6.7	9.4	5.1	2.6	2.6
10	10.9	15.4	8.4	4.3	4.3
12	15.5	21.8	11.9	6.1	6.1
14	21.0	29.6	16.1	8.2	8.2
16	28.5	37.9	20.6	12.5	12.5
18	38.6	54.4	29.7	14.9	14.9
20	47.8	67.4	36.7	18.6	18.6
24	69.0	97.2	52.9	26.8	26.8

NOTES:

1. THE ABOVE TABLE IS BASED ON 2,000 PSF SOIL BEARING AGAINST THE UNDISTURBED TRENCH WALL AND ARE TO REPRESENT THE MINIMUM VERTICAL AREA OF THE THRUST BLOCK PERPENDICULAR TO THE FITTING INCLUDING THE ANGLE OF THE FITTING.
2. THRUST BLOCKING TO PREVENT MOVEMENT OF LINES UNDER PRESSURE AT BENDS, TEES, CAPS, VALVES, HYDRANTS AND AT POINTS SPECIFIED SHALL BE CLASS "SI" CONCRETE. A MIN. OF 12" THICK, PLACED BETWEEN SOLID GROUND AND FITTING, AND SHALL BE ANCHORED IN SUCH A MANNER THAT PIPE AND FITTING WILL BE ACCESSIBLE FOR REPAIRS. TRUST BLOCK SHALL BE PLACED AT BENDS OF 11 1/4° OR MORE. RETAINER GLANDS MAY BE USED IN PLACE OF THRUST BLOCKS. THE COST OF THRUST BLOCKS OR RETAINER GLANDS SHALL BE INCLUDED IN THE COST OF THE FITTING.
3. PROVIDE POLYETHYLENE ENCASEMENT THROUGHOUT THE ENTIRE LENGTH OF THE WATERMAIN.

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
VILLAGE OF GLEN ELLYN 1854	01/01/18				THRUST BLOCK DETAIL
	DRAWING NO. SC-07				
	X:\Publcwks\Engineering Library\Details				

MODEL: Utility Details 4
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CDM Smith	USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CIVIL UTILITY DETAILS	F.A. RTE. –	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -			—	_____	DUPAGE		137
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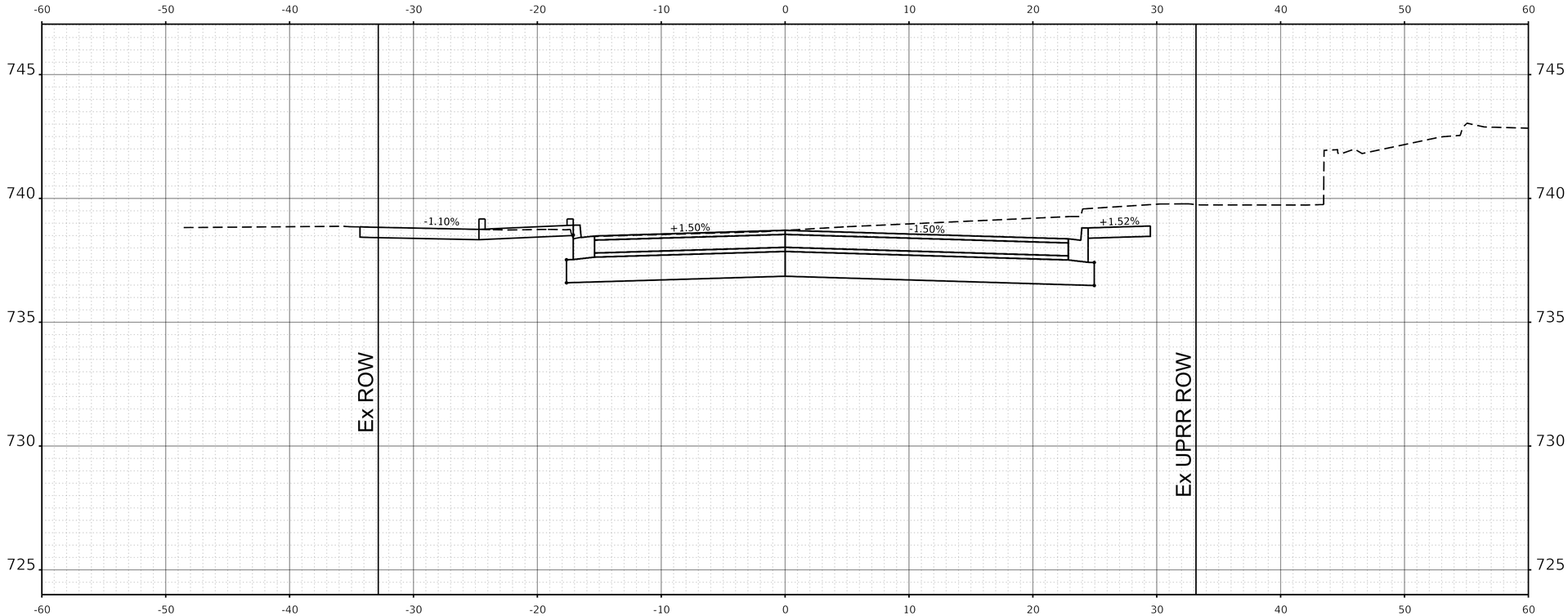
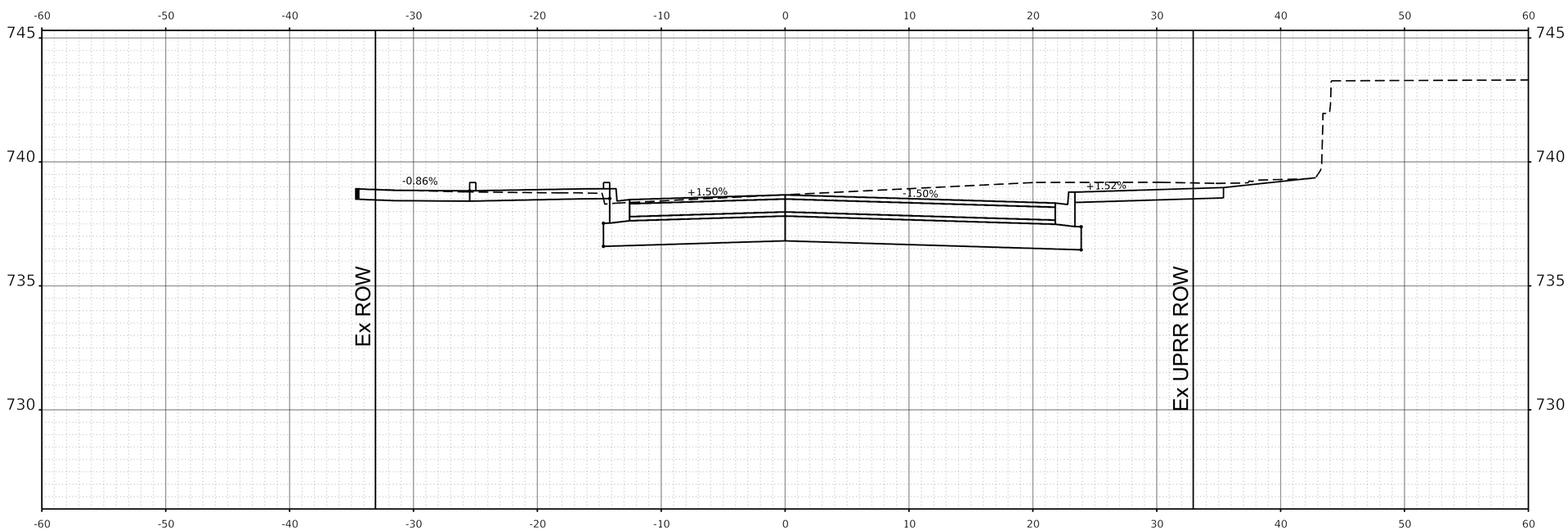
	PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -		SCALE: SHEET 137 OF SHEETS STA. 100+36.39 TO STA. 105+03.82			ILLINOIS FED. AID PROJECT		



STA 100+39.42



STA 100+50.00

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CDM Smith

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
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PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL CROSS SECTIONS
CRESCENT BLVD

SCALE: | SHEET 138 OF SHEETS | STA. | TO STA.

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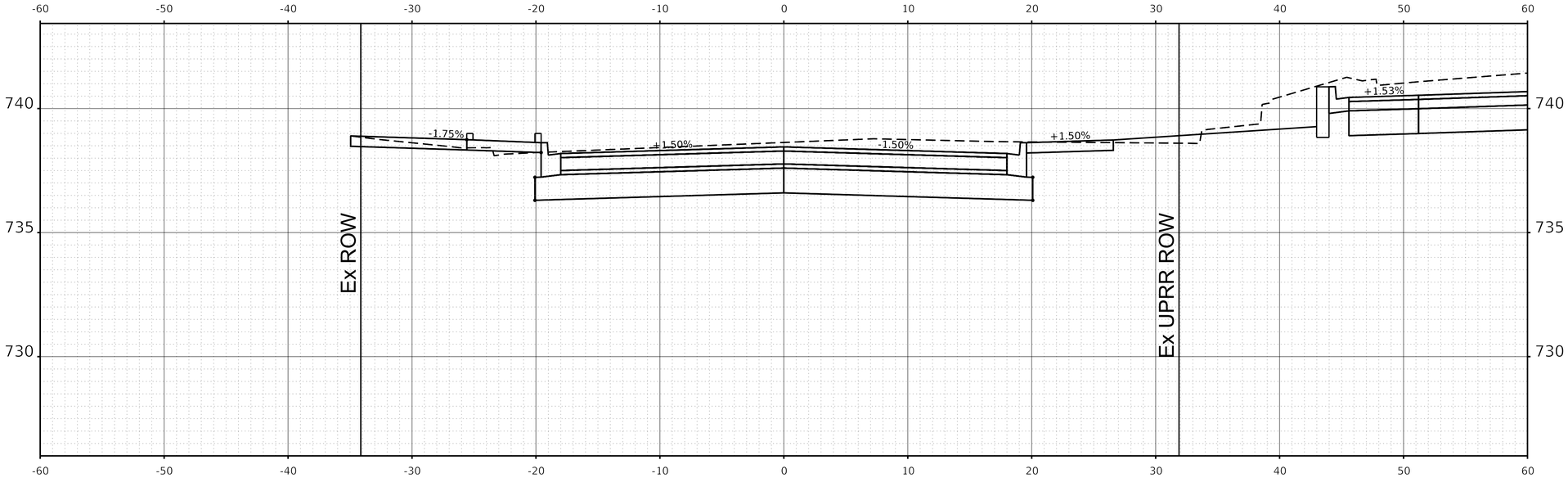
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



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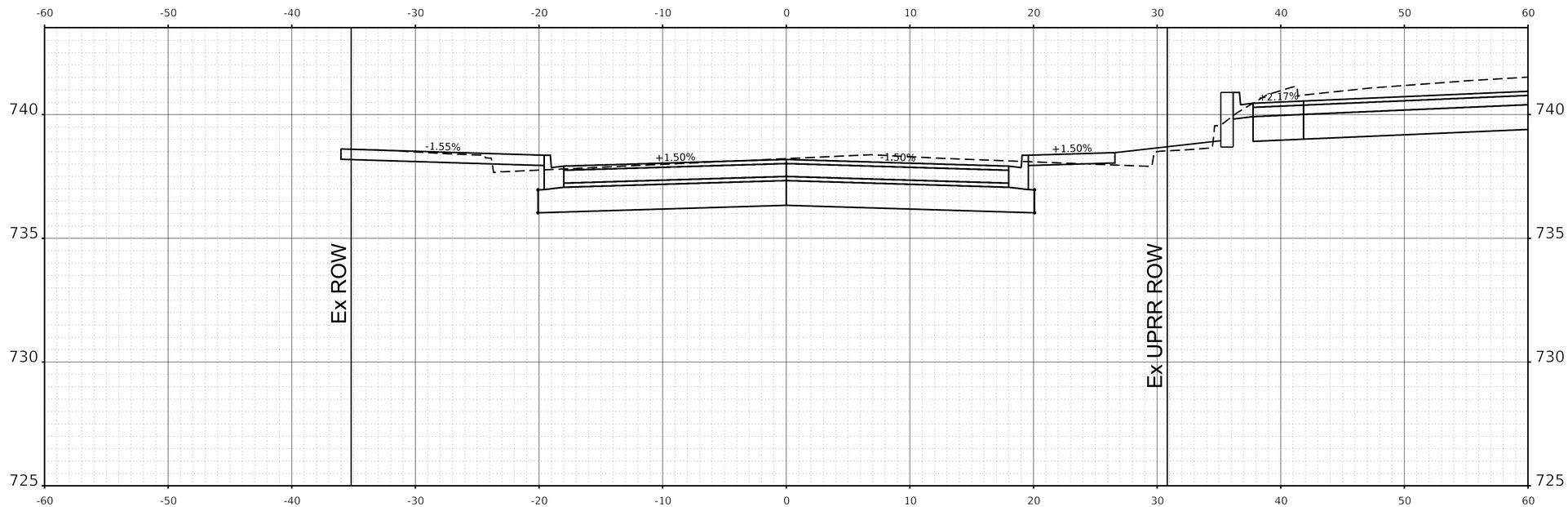

STA 101+50.00

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CDM Smith

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ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
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PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL CROSS SECTIONS
CRESCENT BLVD

SCALE: | SHEET 139 OF SHEETS | STA. TO STA.

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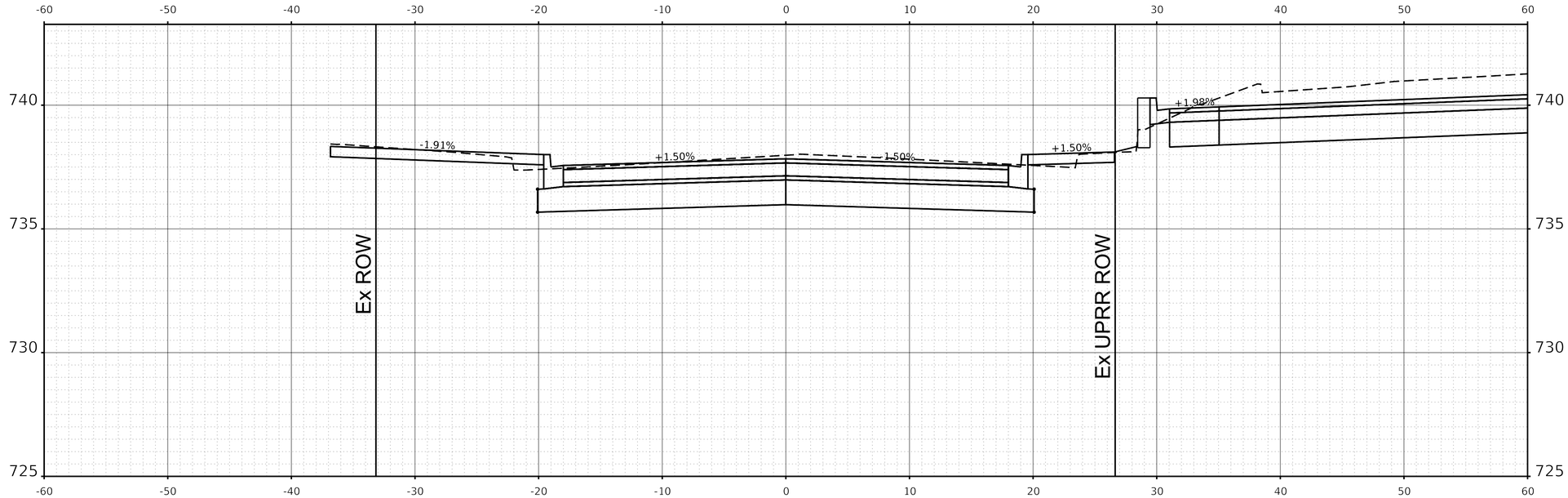
	ILLINOIS	FED. AID PROJECT		



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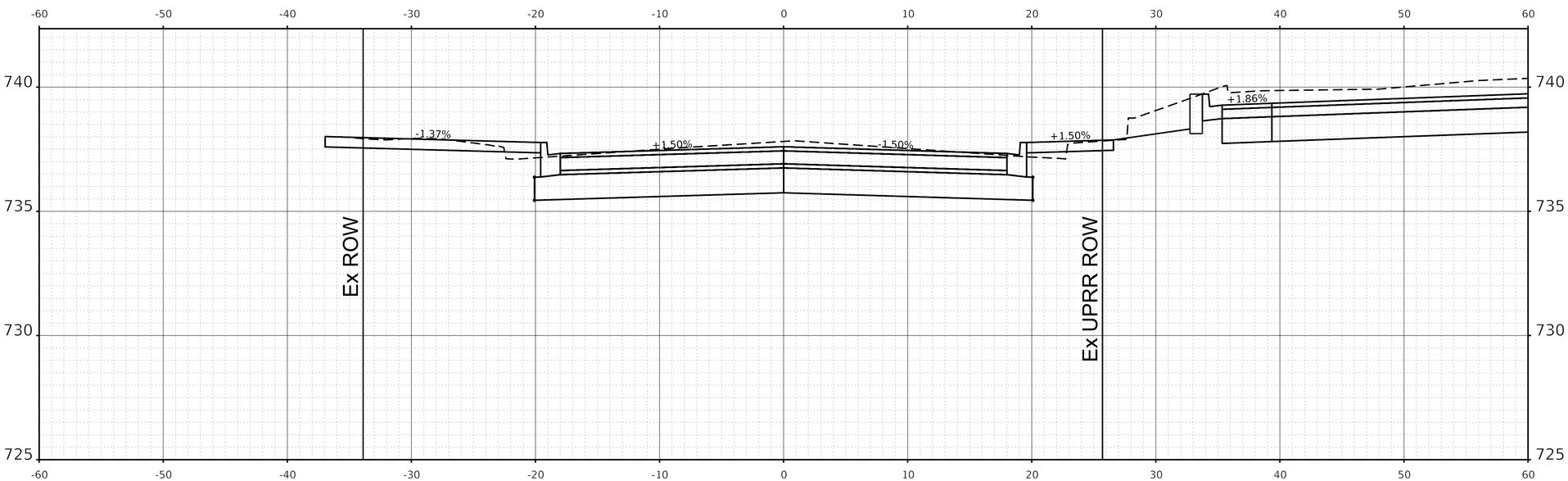

STA 102+50.00

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CDM Smith

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PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL CROSS SECTIONS
CRESCENT BLVD

SCALE: | SHEET 140 OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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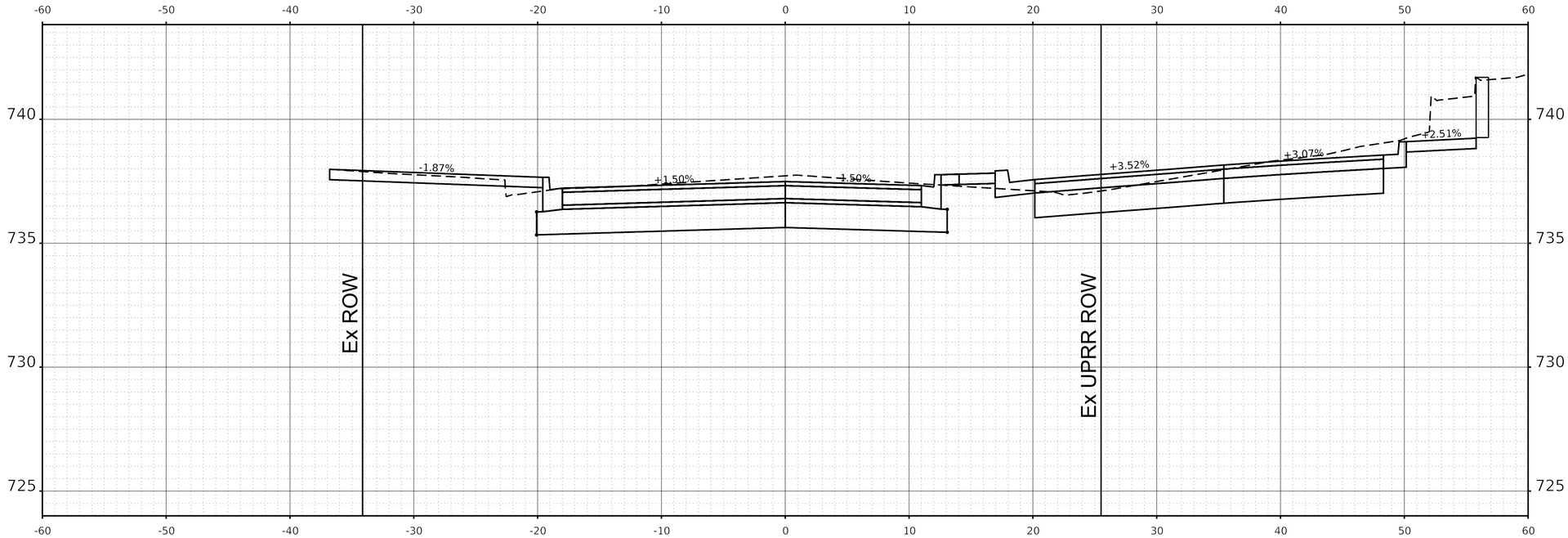
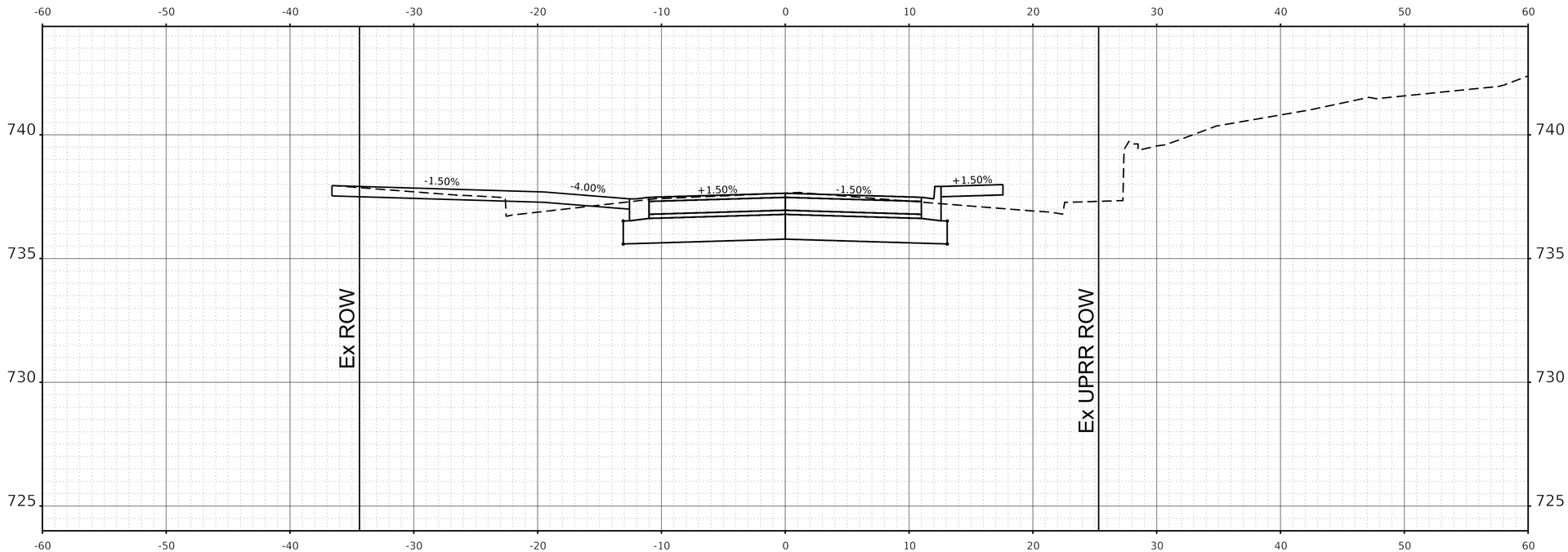


STA 103+00.00



STA 103+50.00

MODEL: Crescent 4
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CDM Smith

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PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL CROSS SECTIONS
CRESCENT BLVD

SCALE: | SHEET 141 OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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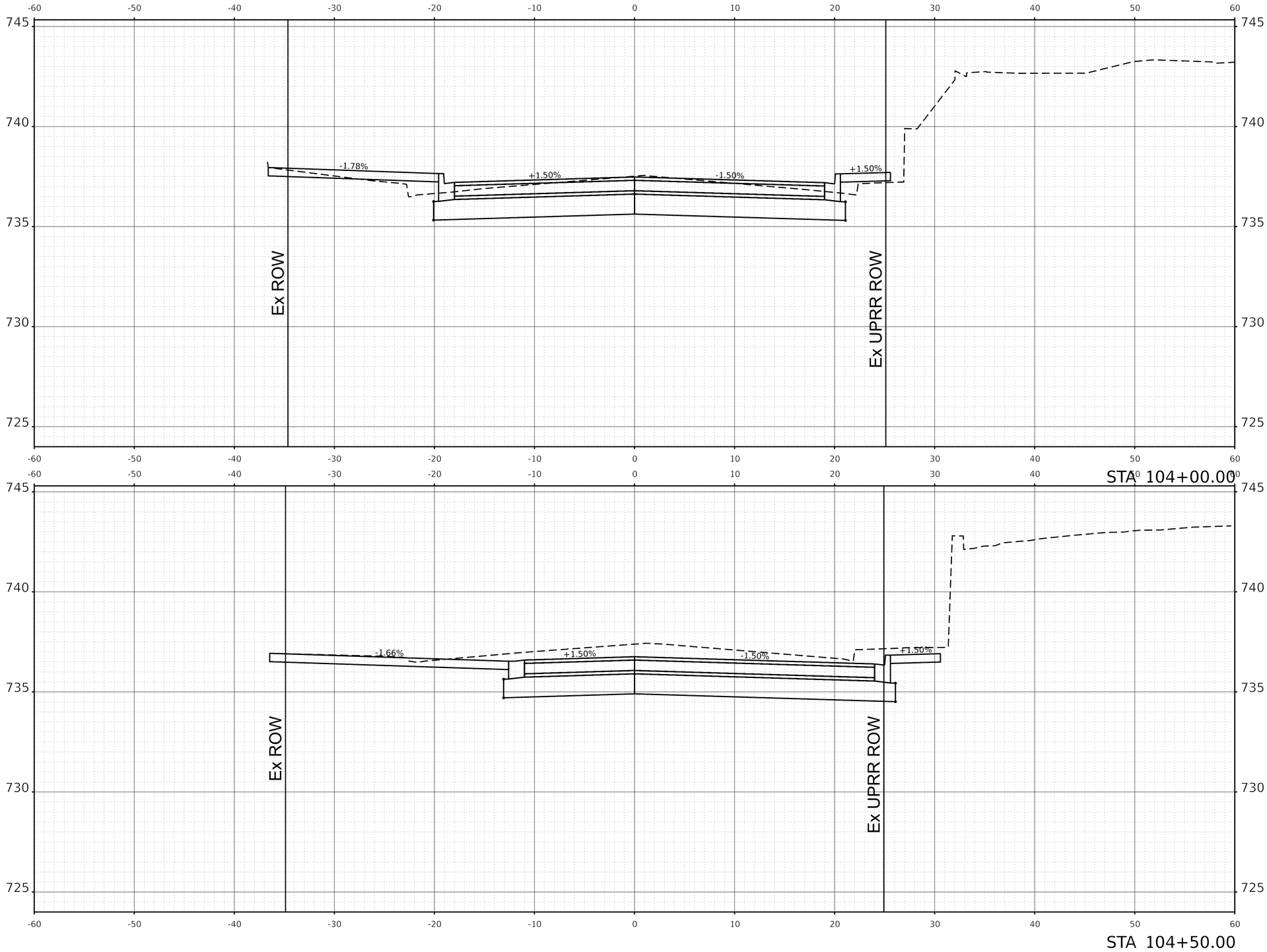

MODEL: Crescent 5
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CDM Smith

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ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
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PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL CROSS SECTIONS
CRESCENT BLVD

SCALE: SHEET 142 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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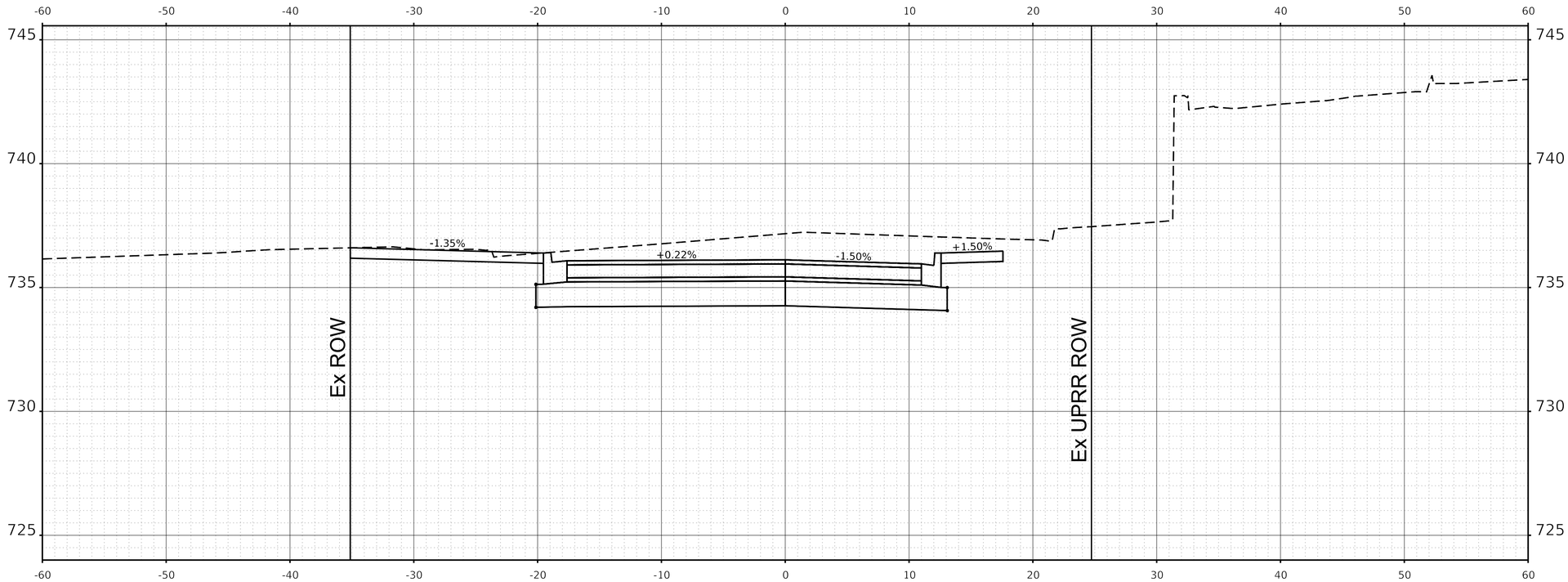

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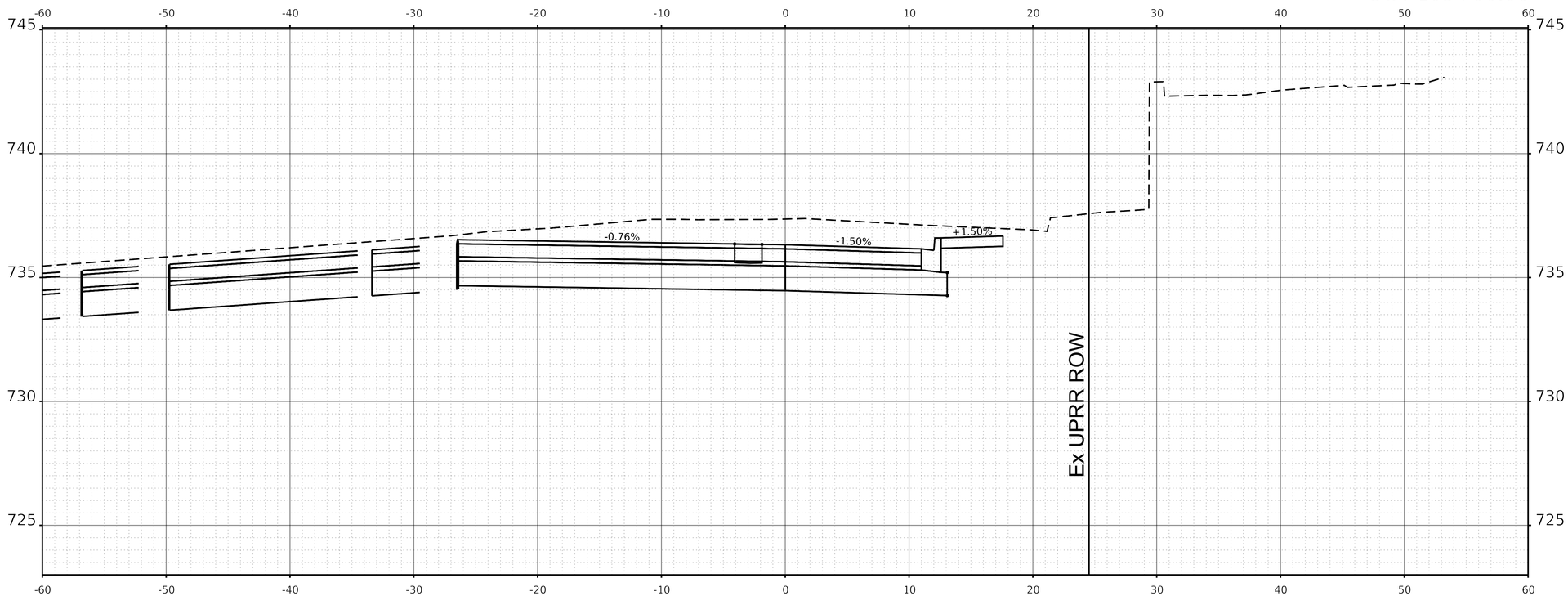

STA 105+50.00

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CDM Smith

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL CROSS SECTIONS
CRESCENT BLVD

SCALE: | SHEET 143 OF SHEETS | STA. | TO STA.

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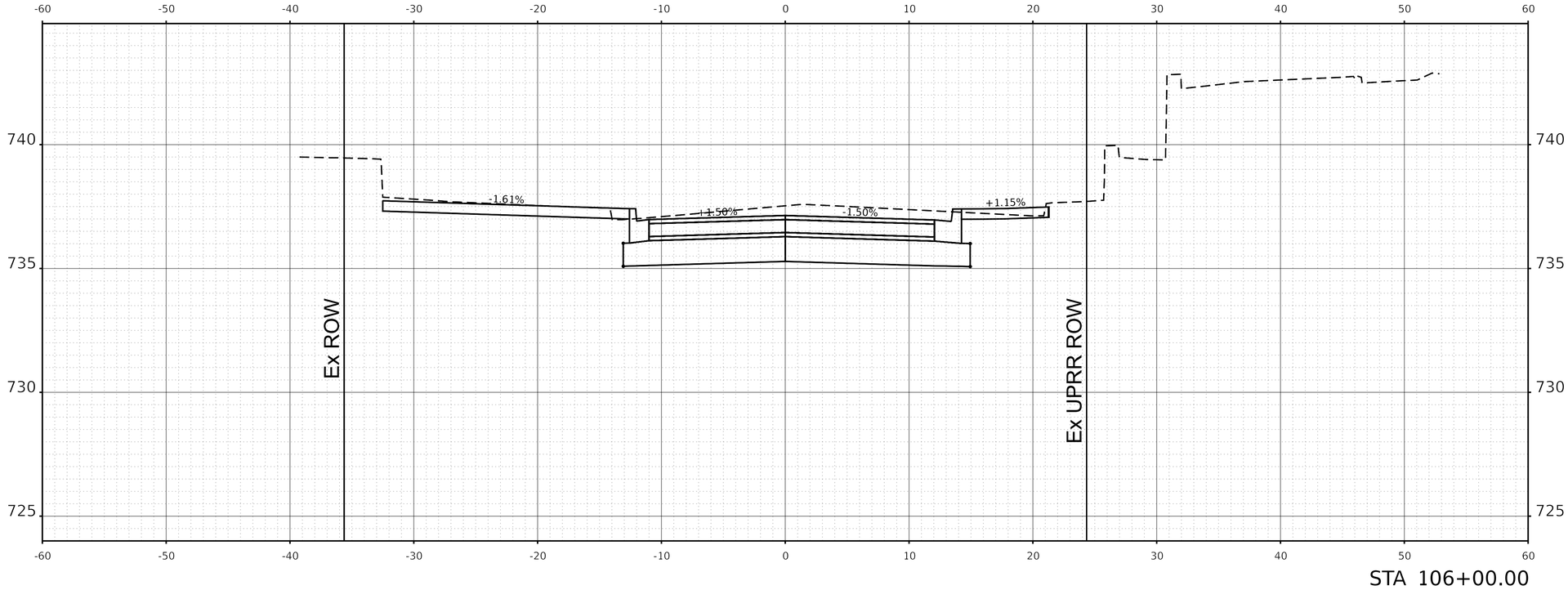
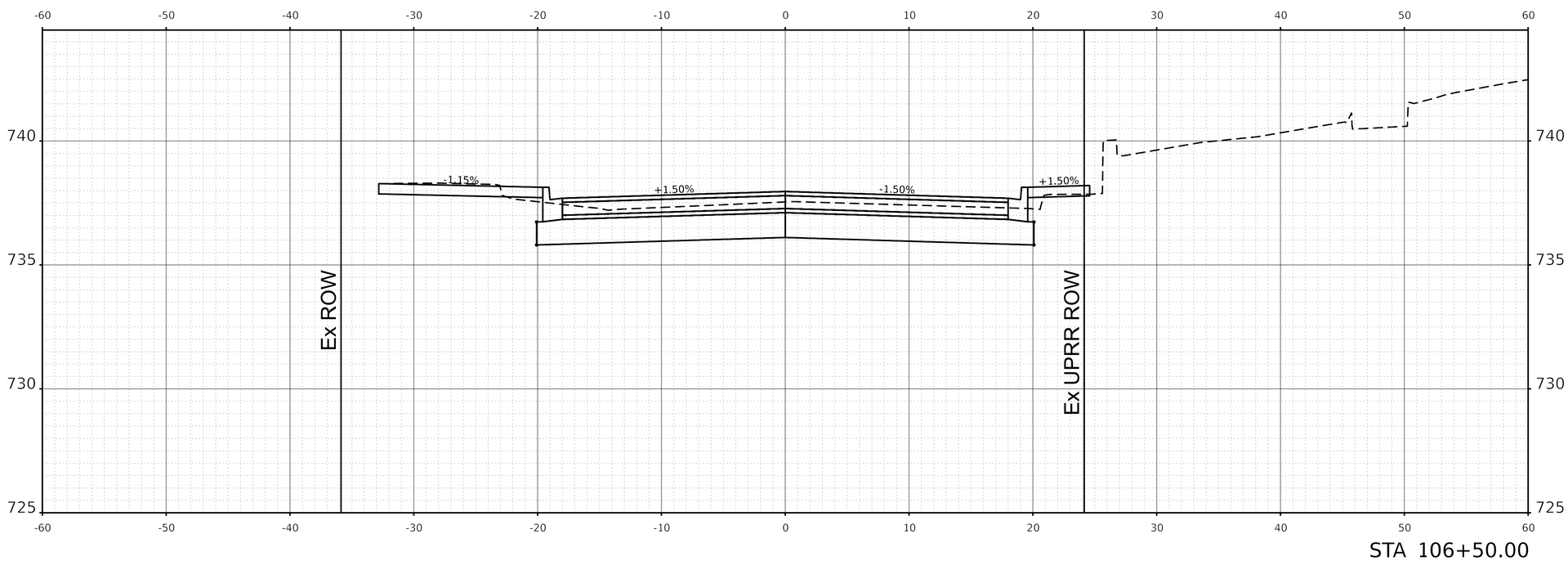
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		





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CDM Smith

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL CROSS SECTIONS
CRESCENT BLVD

SCALE: | SHEET 144 OF SHEETS | STA. TO STA.

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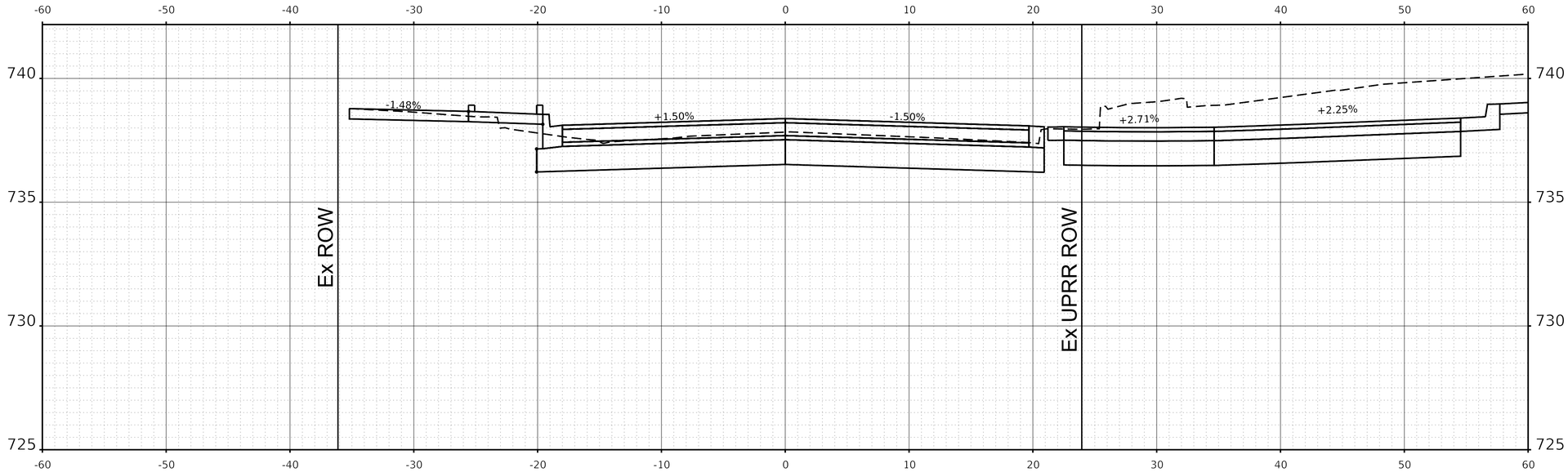
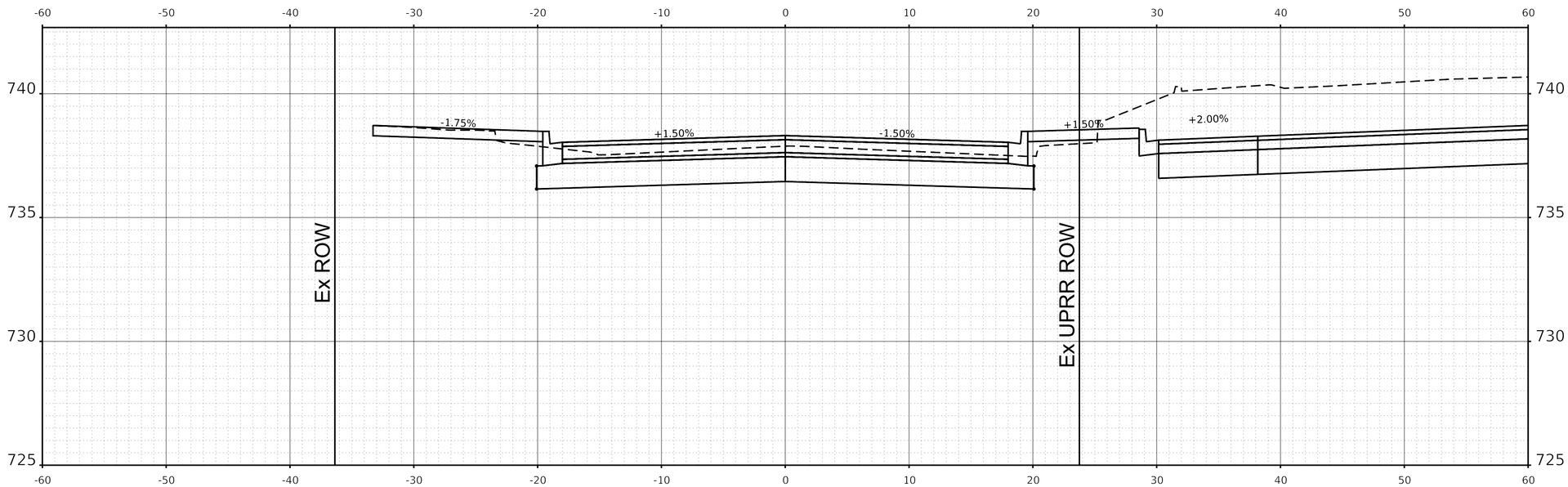
	ILLINOIS	FED. AID PROJECT		



STA 107+00.00



STA 107+50.00

MODEL: Crescent 8
FILE NAME: pw://cdmsmith-azl2-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-xsht.dgn

CDM Smith

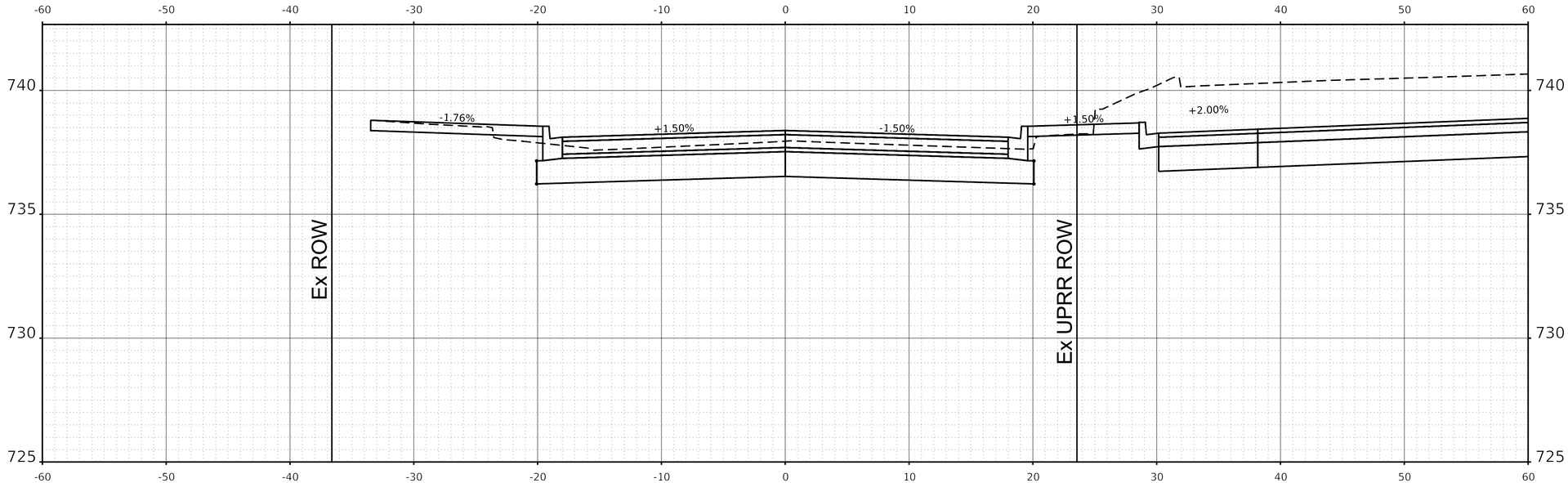
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

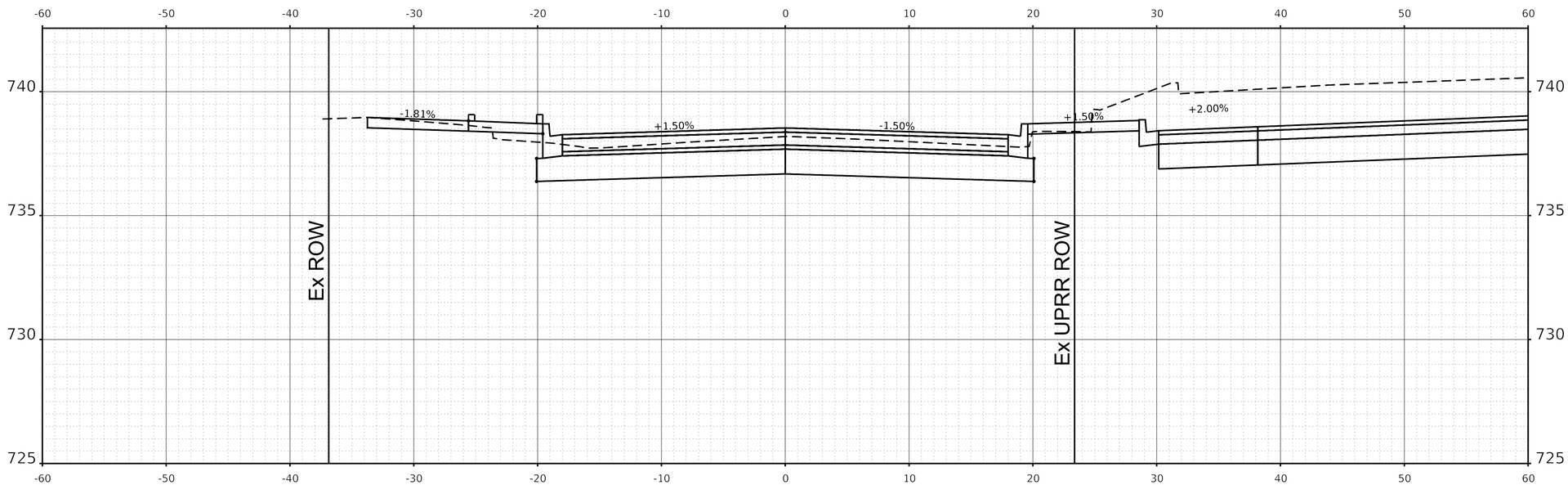
CIVIL CROSS SECTIONS
CRESCENT BLVD

SCALE: SHEET 145 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	_____	DUPAGE		145
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



STA 108+00.00



STA 108+50.00

MODEL: Crescent 9
FILE NAME: pw://cdmsmith-wa02-pw.bentley.com:pw_ext/Documents/258921/1284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-xsshl.dgn

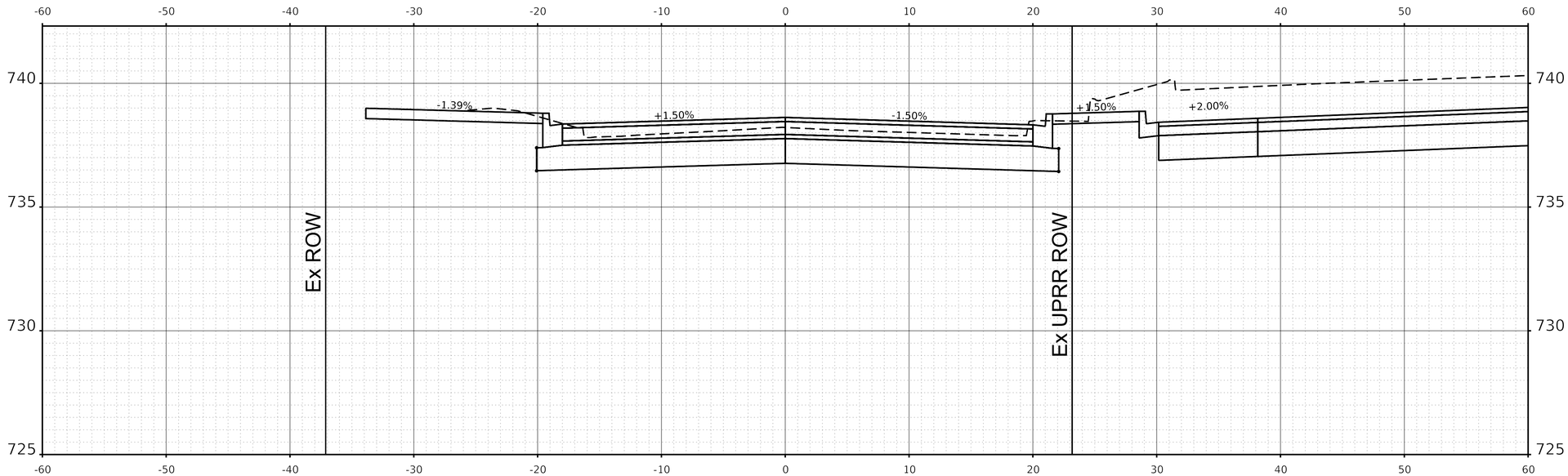
CDM Smith	USER NAME = CONNOLLYJG	DESIGNED -	REVISED -
	ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -
	PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

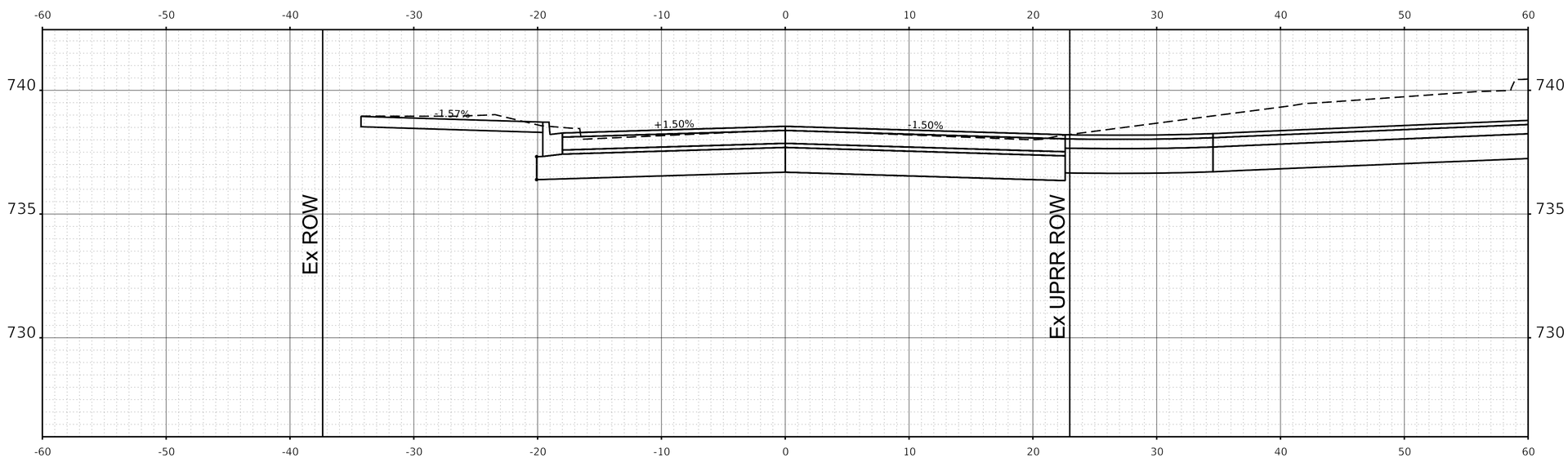
CIVIL CROSS SECTIONS
CRESCENT BLVD

SCALE: | SHEET 146 OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
–		DUPAGE		146
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



STA 109+00.00



STA 109+50.00

MODEL: Crescent 10
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_ext/Documents/258021284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM, CADD/Sheet/D1284380-sht-xssht.dgn

CDM Smith

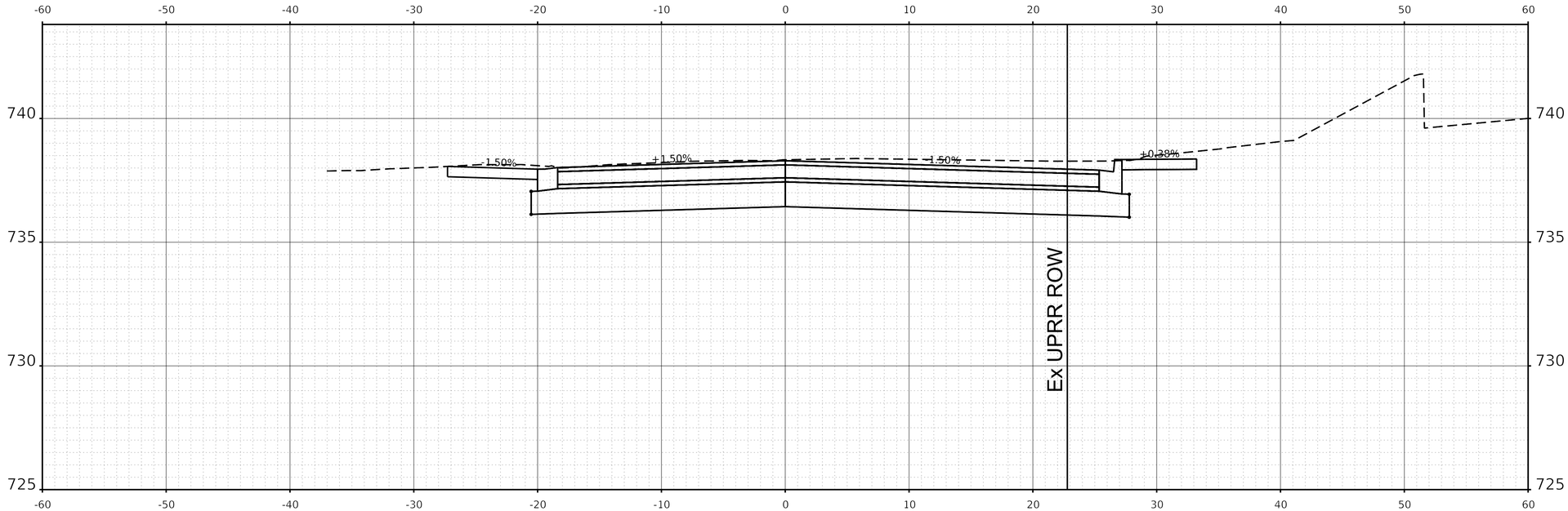
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

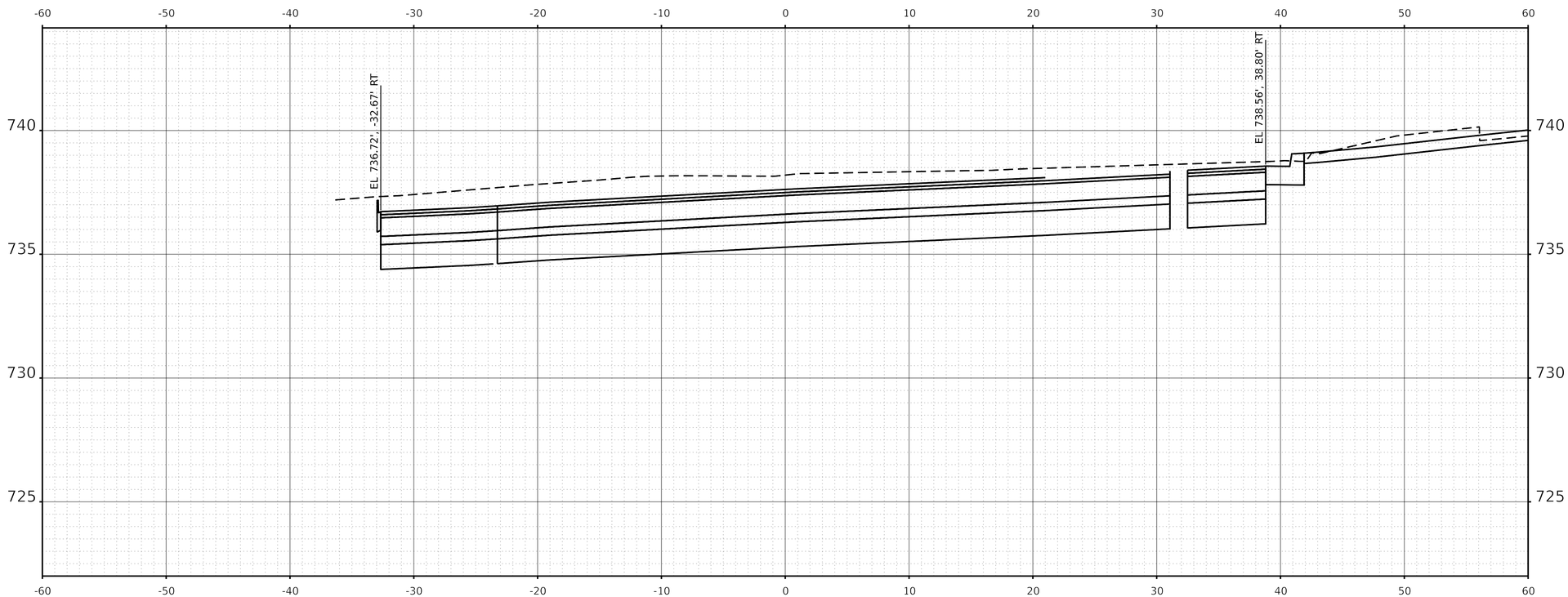
CIVIL CROSS SECTIONS
CRESCENT BLVD

SCALE: SHEET 147 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	_____	DUPAGE		147
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



STA 110+00.00



STA 110+13.97

MODEL: Crescent 11
FILE NAME: pw://cdmsmith-azl2-pw.bentley.com:pw_ent/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-xsht.dgn

CDM Smith

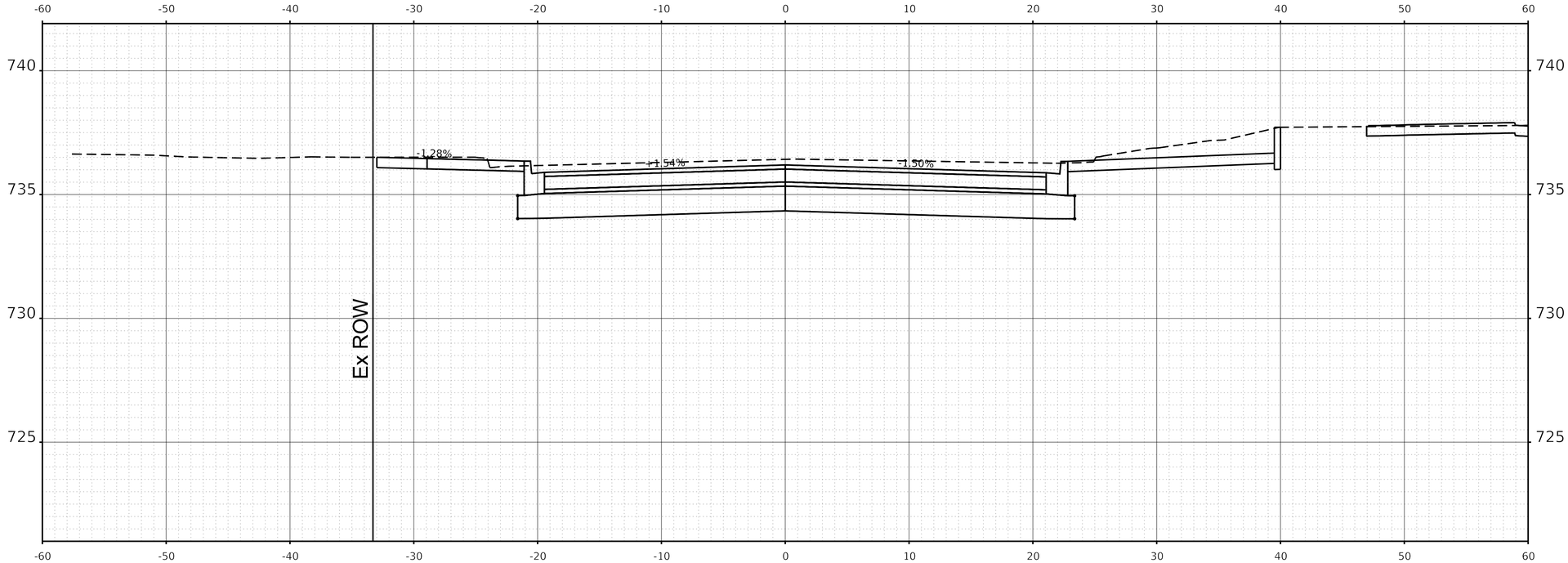
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

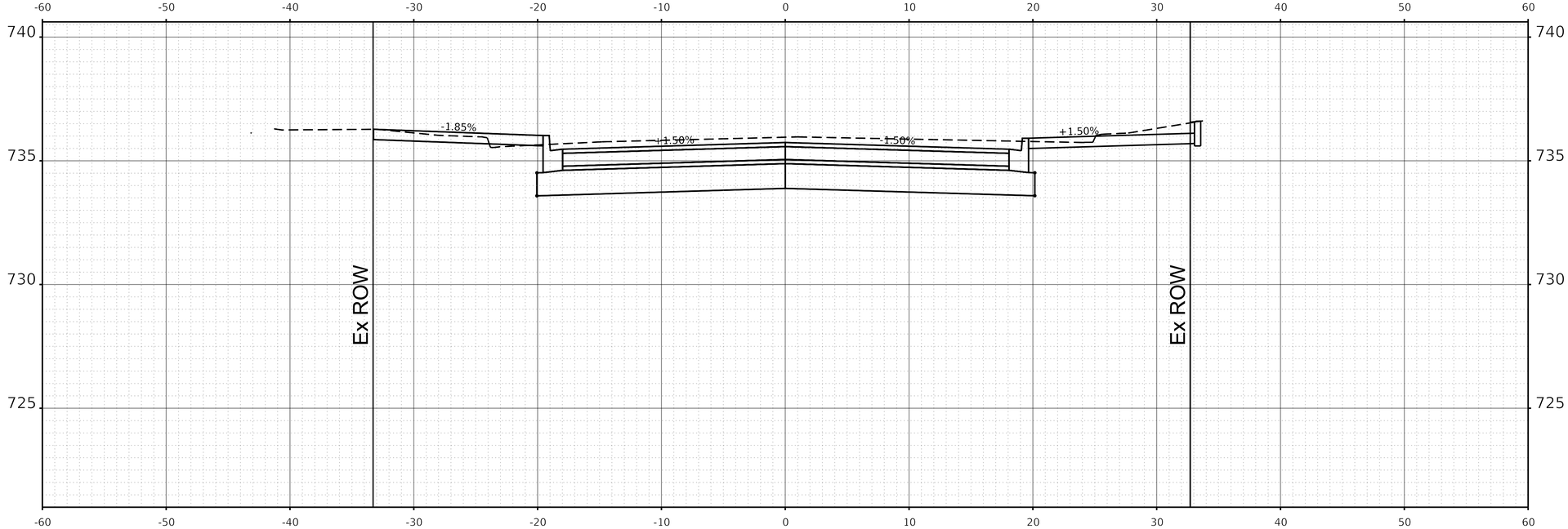
CIVIL CROSS SECTIONS
CRESCENT BLVD

SCALE: SHEET 148 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	_____	DUPAGE		148
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



STA 600+37.89



STA 600+50.00

MODEL: Forest N 1
FILE NAME: pw://cdmsmith-as02-pw.bentley.com:pw_as02/Documents/259021/284380/10 Transportation\02 Engineering Services\01 Roadway\10 BIM_CADD\Sheet\D1284380-sht-xsalt.dgn

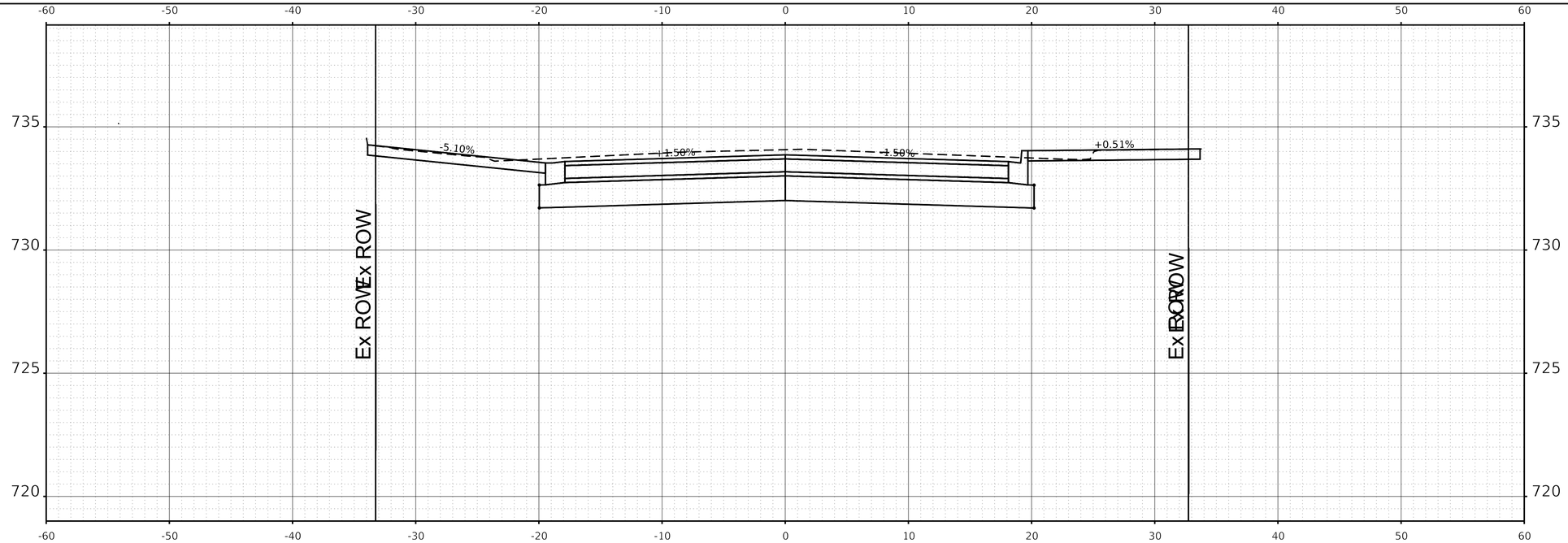
CDM Smith

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

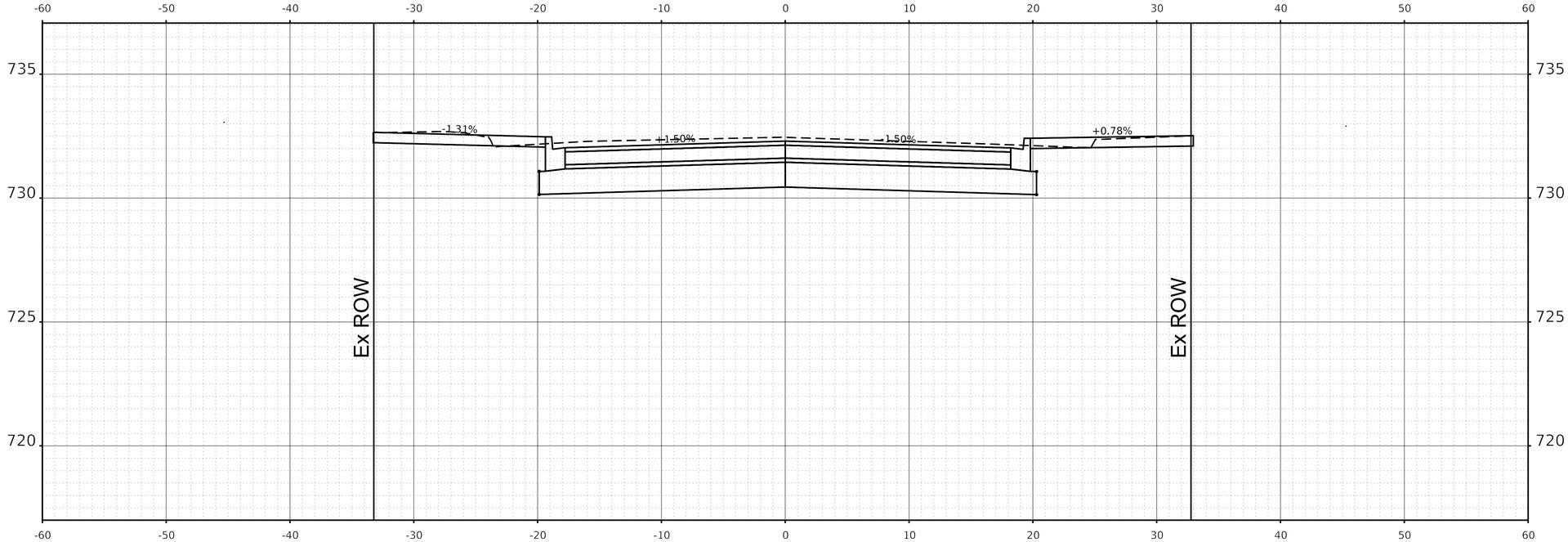
CIVIL CROSS SECTIONS
FOREST AVE NORTH

SCALE: | SHEET 149 OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		149
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



STA 601+00.00



STA 601+50.00

MODEL: Forest N 2
FILE NAME: pw://cdmsmith-az02-pw.bentley.com:pw_ext/Documents/258021284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM, CADD/Sheet/D1284380-sht-xssht.dgn

CDM Smith

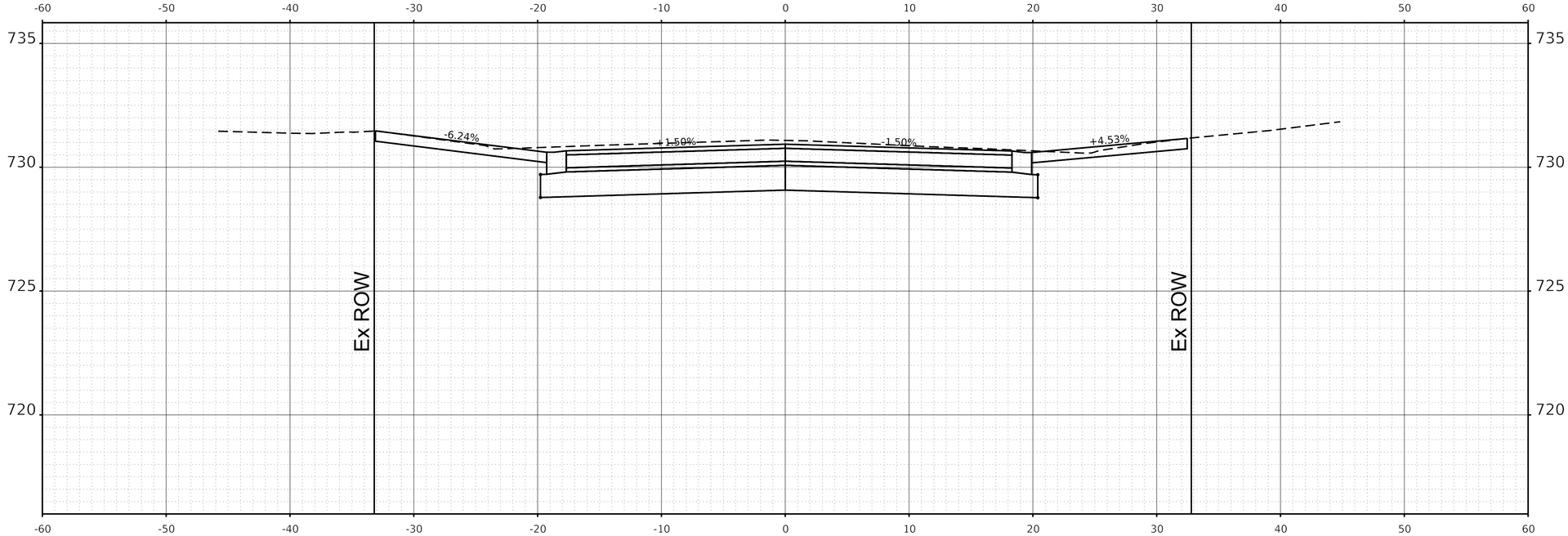
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

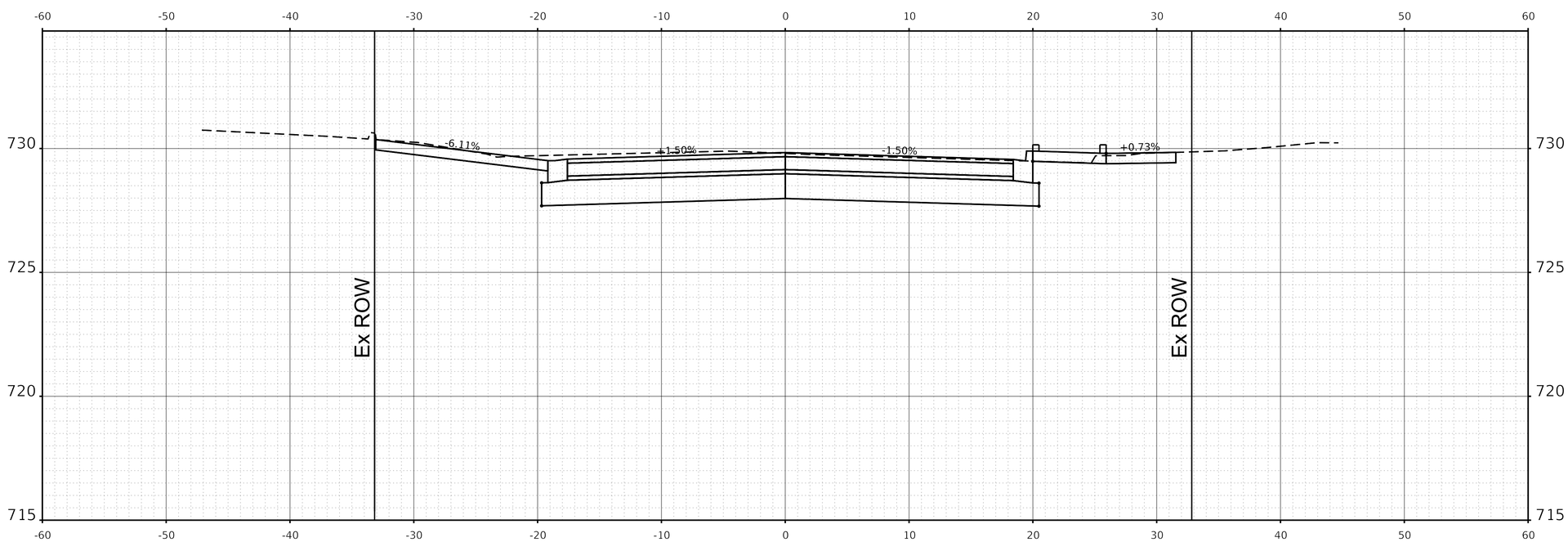
CIVIL CROSS SECTIONS
FOREST AVE NORTH

SCALE: | SHEET 150 OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		150
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



STA 602+00.00



STA 602+50.00

MODEL: Forest N 3
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_eat/Documents/258021284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM, CADD/Sheet/D1284380-sht-xssht.dgn

CDM Smith

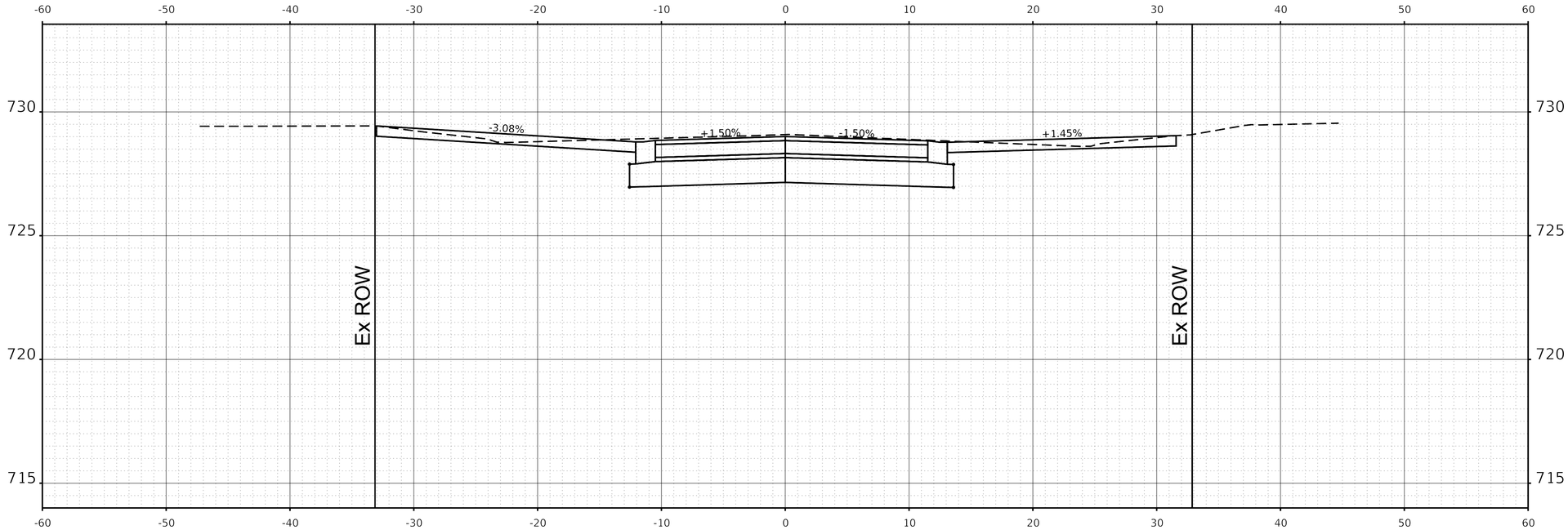
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

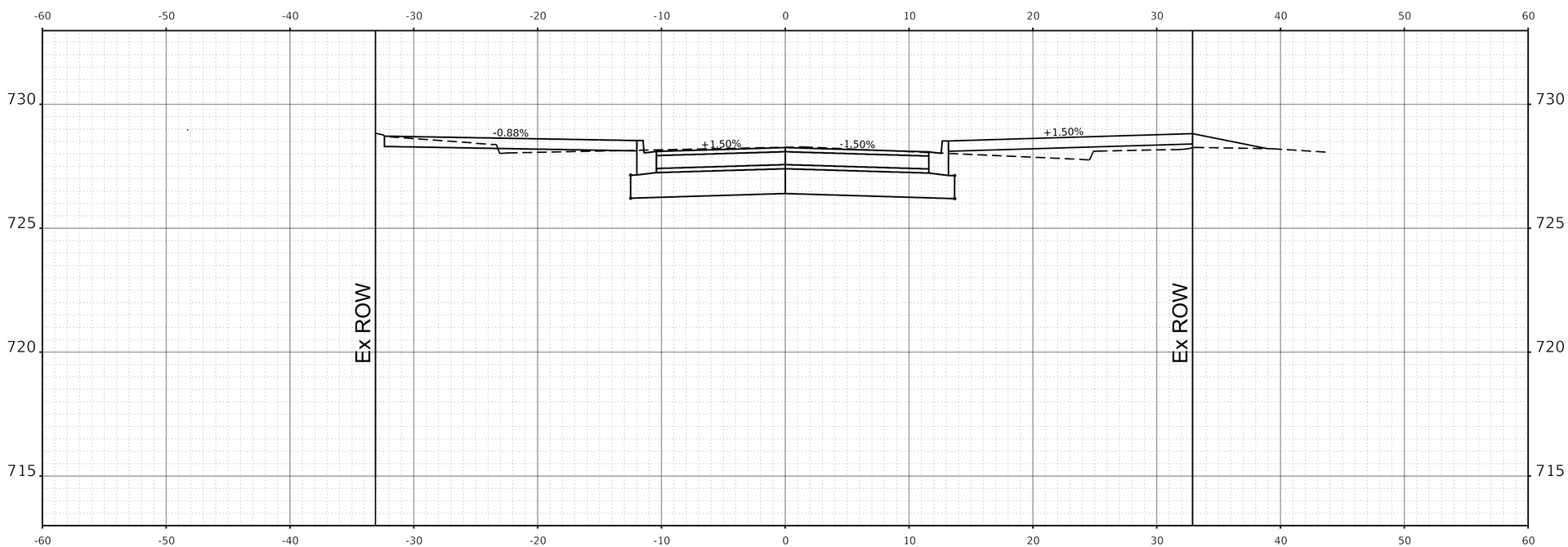
CIVIL CROSS SECTIONS
FOREST AVE NORTH

SCALE: SHEET 151 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	_____	DUPAGE		151
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



STA 603+00.00



STA 603+50.00

MODEL: Forest N 4
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_eat/Documents/258021284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM, CADD/Sheet/D1284380-sht-xssht.dgn

CDM Smith

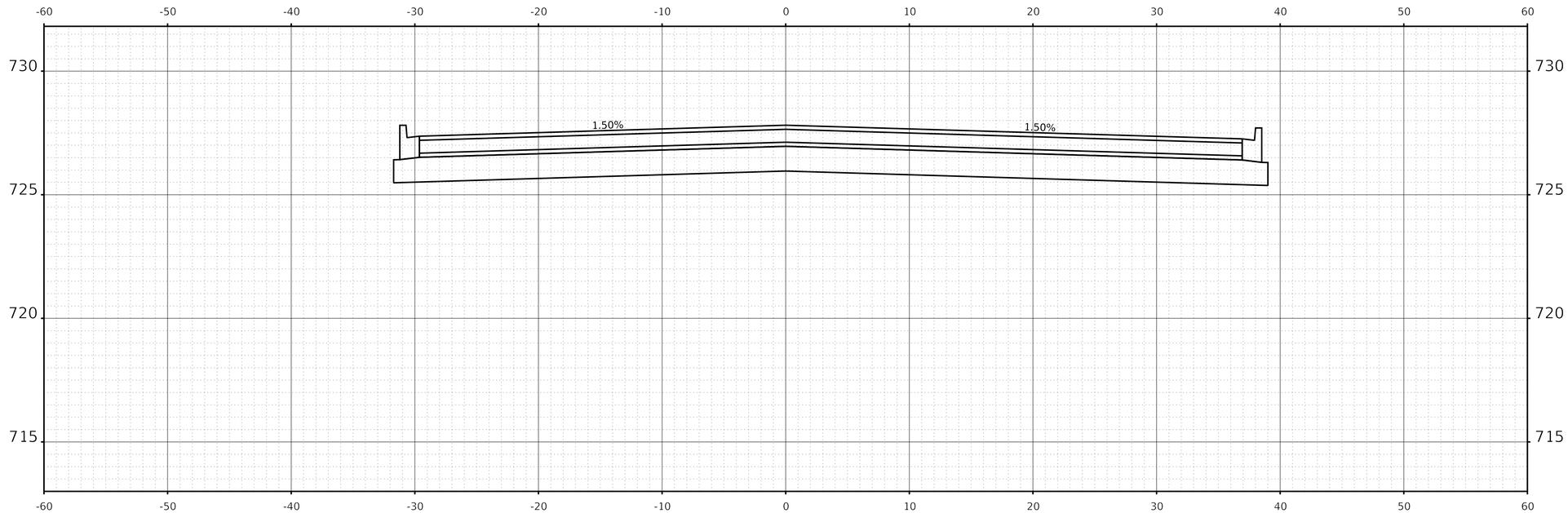
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL CROSS SECTIONS
FOREST AVE NORTH

SCALE: SHEET 152 OF SHEETS STA. TO STA.

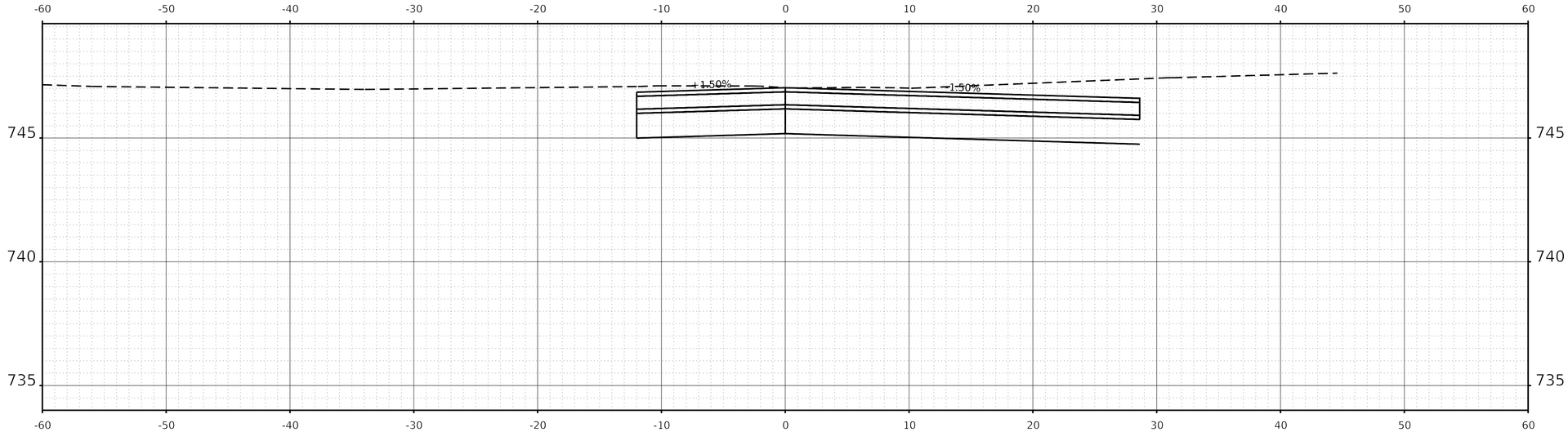
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		152
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



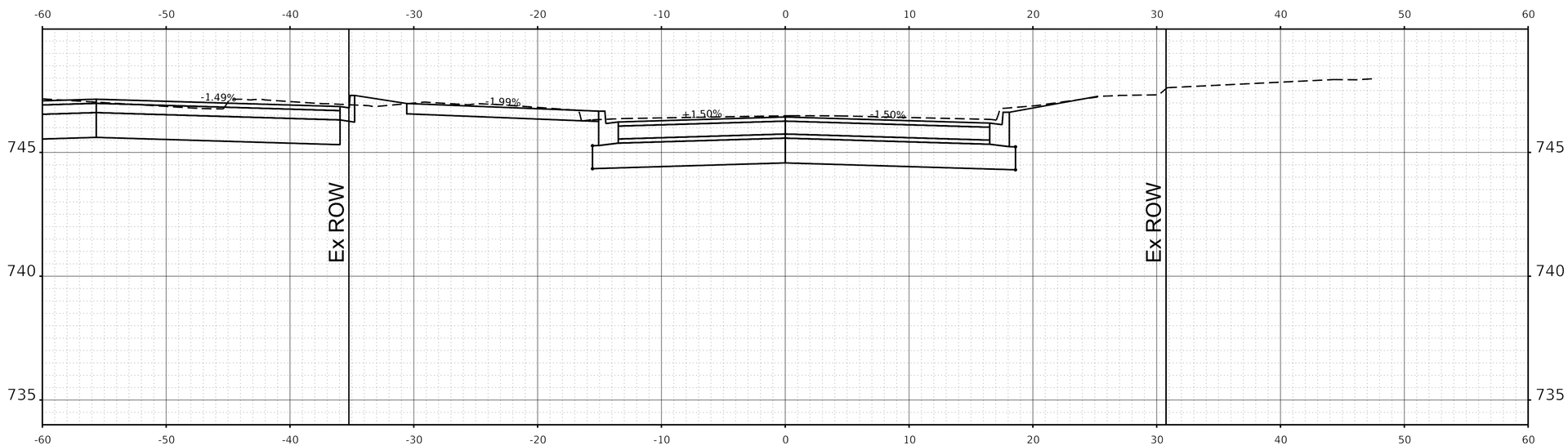
STA 603+79.16

MODEL: Forest N 5
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_eat/Documents/258021284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM, CADD/Sheet/D1284380-sht-xssht.dgn

CDM Smith	USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CIVIL CROSS SECTIONS FOREST AVE NORTH	F.A. RTE. –	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -			—	_____	DUPAGE	153
	PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 284380	
	PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -		SCALE: SHEET 153 OF SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT	



STA 500+10.00



STA 500+50.00

MODEL: Forest S 1
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_ext/Documents/258021284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM, CADD/Sheet/D1284380-sht-xssht.dgn

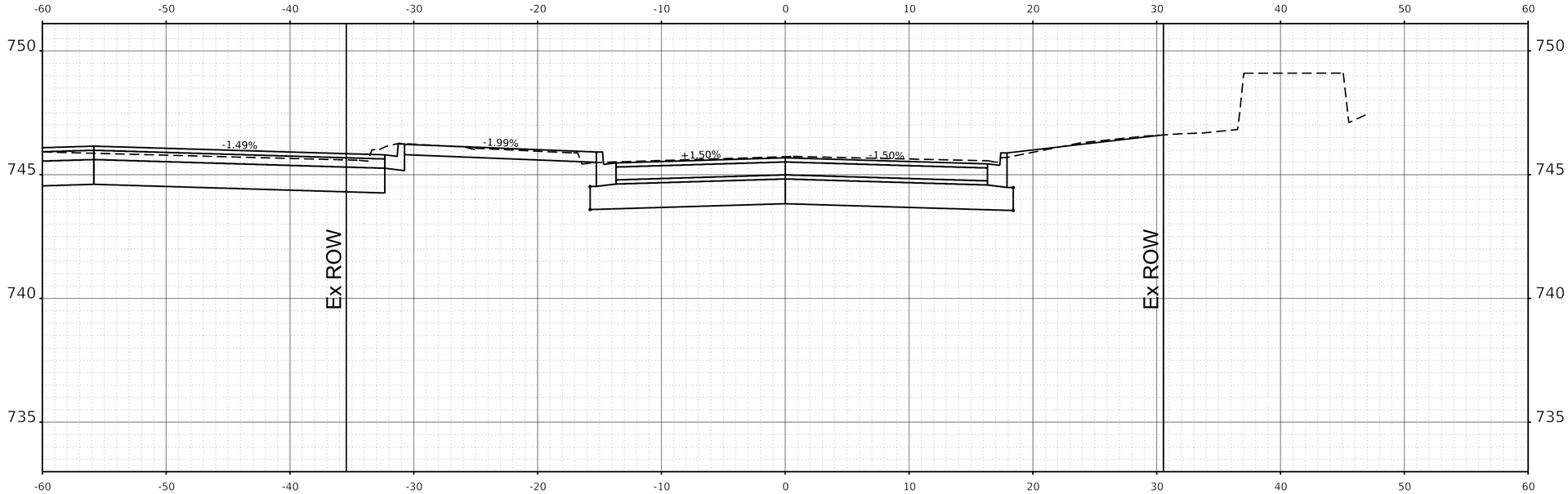
CDM Smith	USER NAME = CONNOLLYJG	DESIGNED -	REVISED -
	ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -
	PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

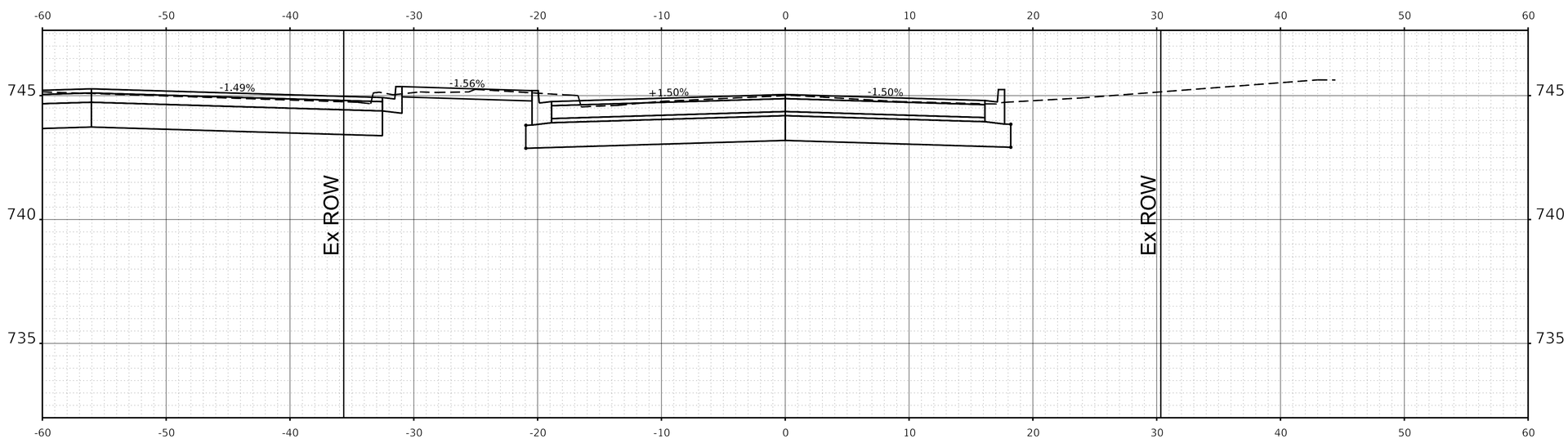
CIVIL CROSS SECTIONS
FOREST AVE SOUTH

SCALE: SHEET 154 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		154
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



STA 501+00.00



STA 501+50.00

MODEL: Forest S 2
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_eat/Documents/258021284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM, CADD/Sheet/D1284380-alt-xssfrl.dgn

CDM Smith

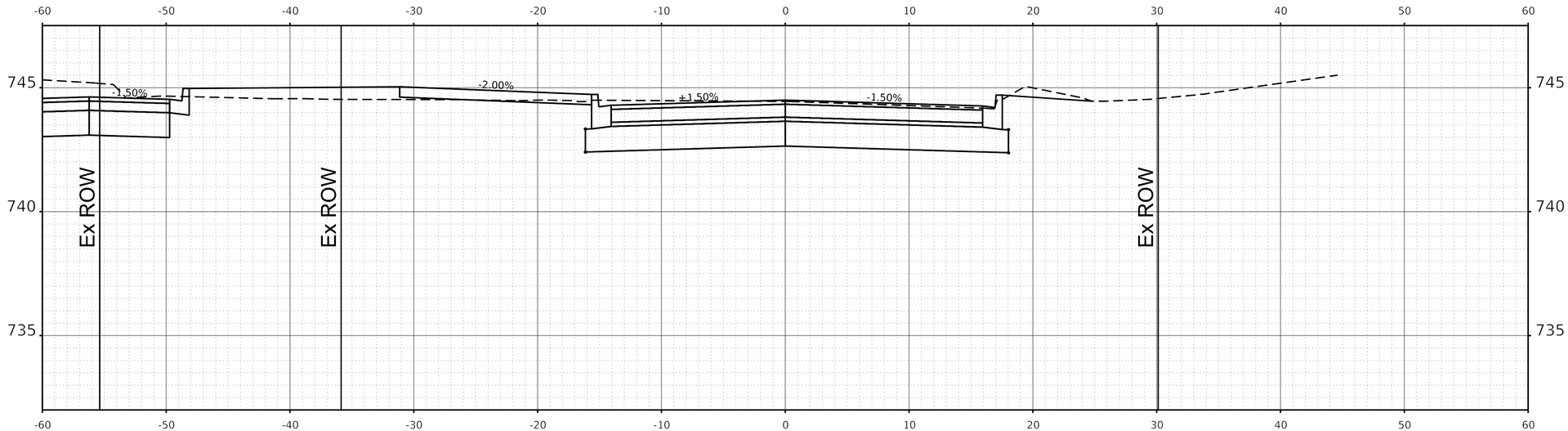
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

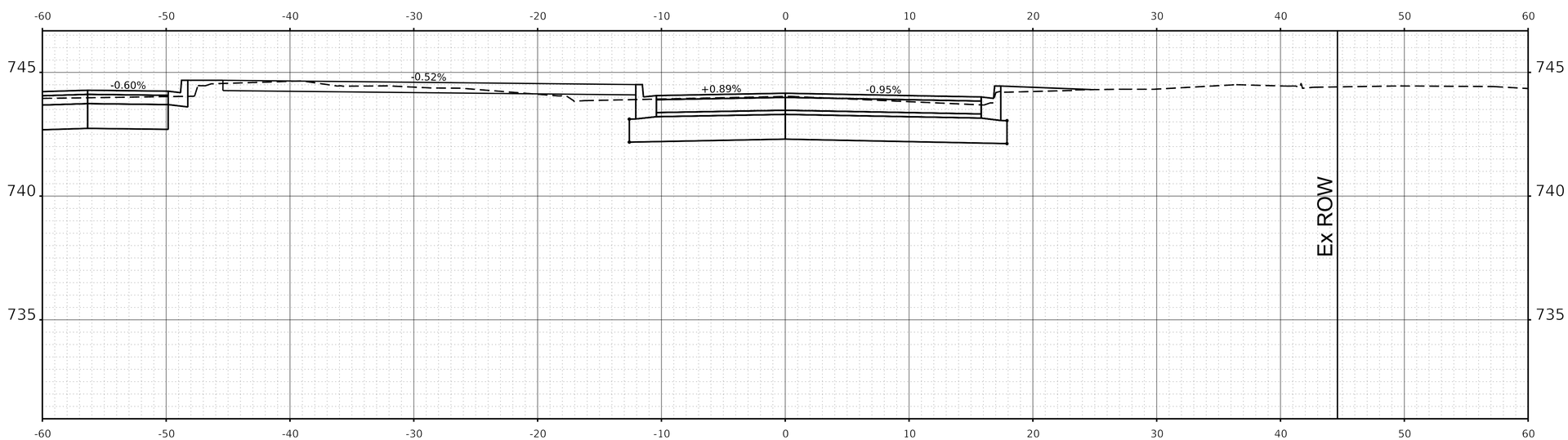
CIVIL CROSS SECTIONS
FOREST AVE SOUTH

SCALE: SHEET 155 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	_____	DUPAGE		155
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



STA 502+00.00



STA 502+31.76

MODEL: Forest S 3
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_ext/Documents/258021284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-xssht.dgn

CDM Smith

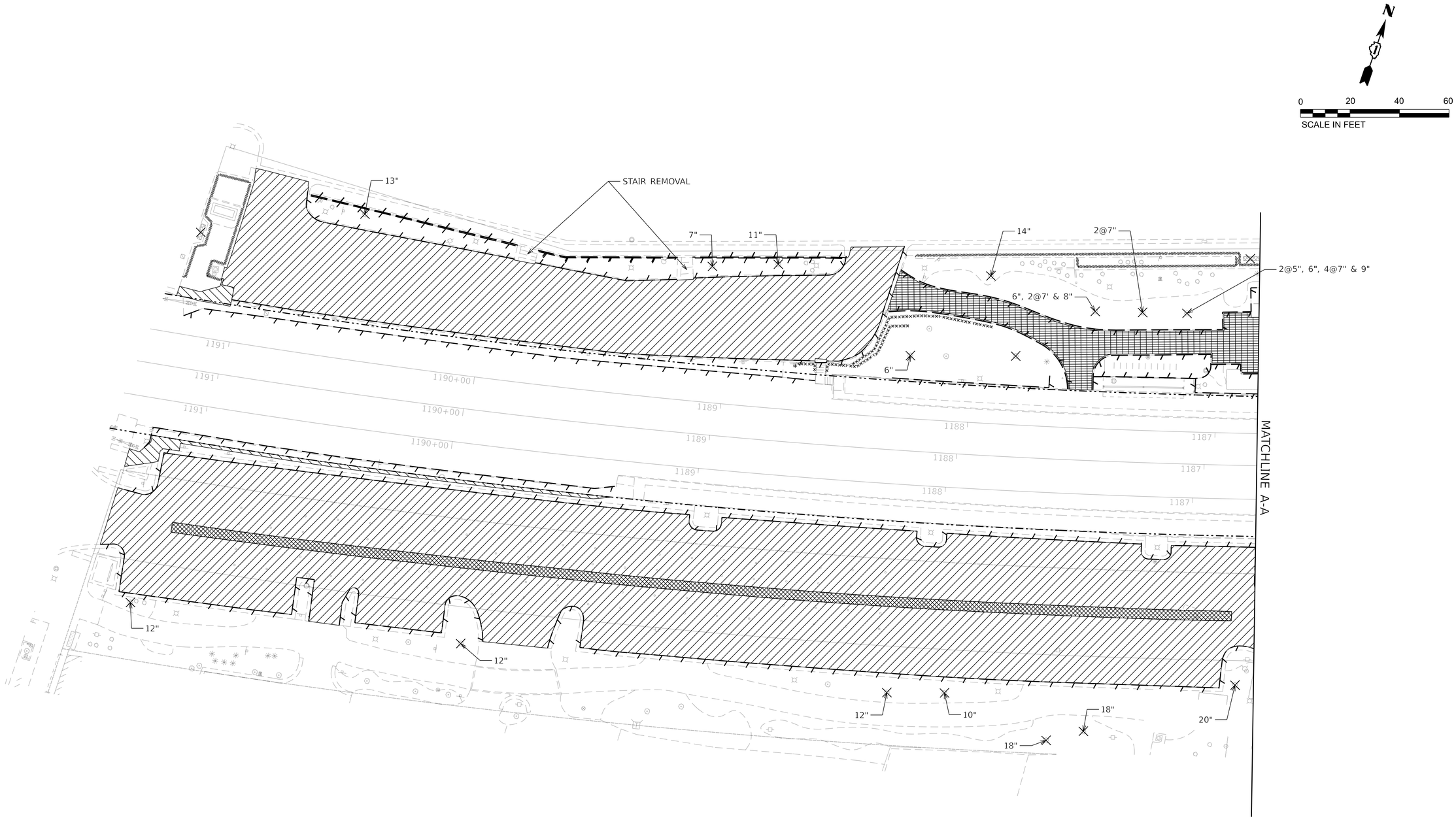
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL CROSS SECTIONS
FOREST AVE SOUTH

SCALE: | SHEET 156 OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		156
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



REMOVAL LEGEND

- PAVEMENT REMOVAL
- SIDEWALK REMOVAL
- GUTTER REMOVAL
- BRICK PAVERS REMOVAL
- CURB AND GUTTER REMOVAL
- FENCE REMOVAL
- BRICK WALL REMOVAL
- WOOD RETAINING WALL REMOVAL
- CONCRETE RETAINING WALL REMOVAL
- BENCH REMOVAL
- TREE REMOVAL

MODEL: South Lot [Sheet]
FILE NAME: pw://cdmsmith-az02-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation\02 Engineering Services\01 Roadway\10 BIM_CADD\Sheet\D1284380-sht-removal-Site

CDM Smith

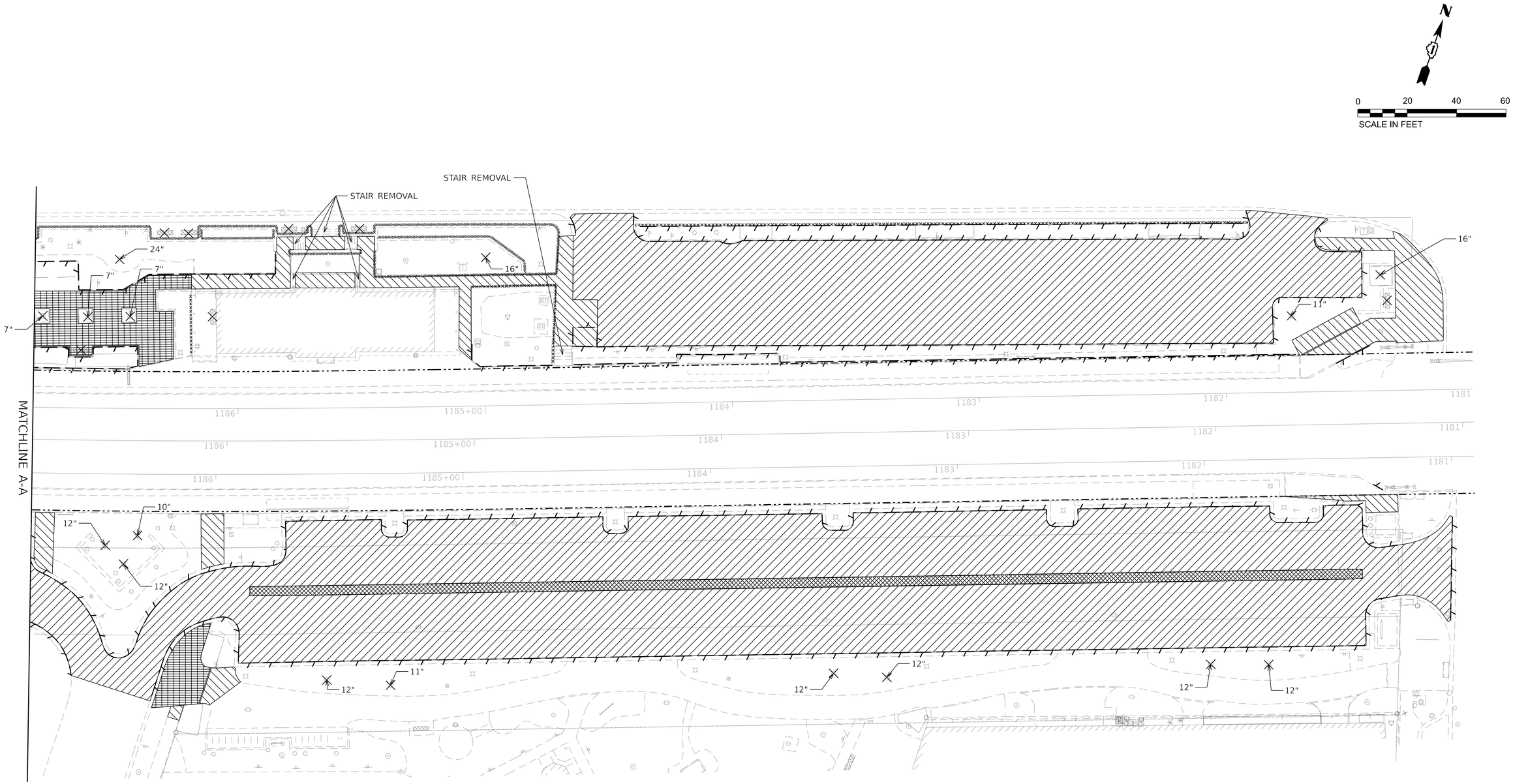
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL SITE REMOVAL
PLAN

SCALE: SHEET 157 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		157
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



REMOVAL LEGEND

- PAVEMENT REMOVAL
- SIDEWALK REMOVAL
- GUTTER REMOVAL
- BRICK PAVERS REMOVAL
- CURB AND GUTTER REMOVAL
- FENCE REMOVAL
- BRICK WALL REMOVAL
- WOOD RETAINING WALL REMOVAL
- CONCRETE RETAINING WALL REMOVAL
- BENCH REMOVAL
- TREE REMOVAL

MODEL: South Lot 2 [Sheet]
FILE NAME: pw://cdmsmith-wi202-pw.bentley.com:pw_ext/Documents/258921/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-removal-Site

CDM Smith

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

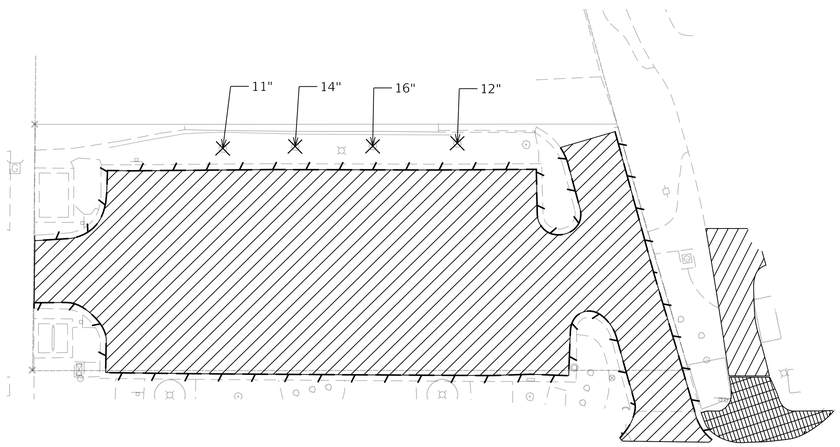
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL SITE REMOVAL
PLAN

SCALE: SHEET 158 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		158
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		

0 20 40 60
SCALE IN FEET



REMOVAL LEGEND

- PAVEMENT REMOVAL
- SIDEWALK REMOVAL
- GUTTER REMOVAL
- BRICK PAVERS REMOVAL
- CURB AND GUTTER REMOVAL
- FENCE REMOVAL
- BRICK WALL REMOVAL
- WOOD RETAINING WALL REMOVAL
- CONCRETE RETAINING WALL REMOVAL
- BENCH REMOVAL
- TREE REMOVAL

MODEL: Forest Ave South Lot [Sheet]
FILE NAME: pw://cdmsmith-sa02-pw.bentley.com:pw_ext/Documents/258921/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D128438O-sht-removal-Site

CDM Smith

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

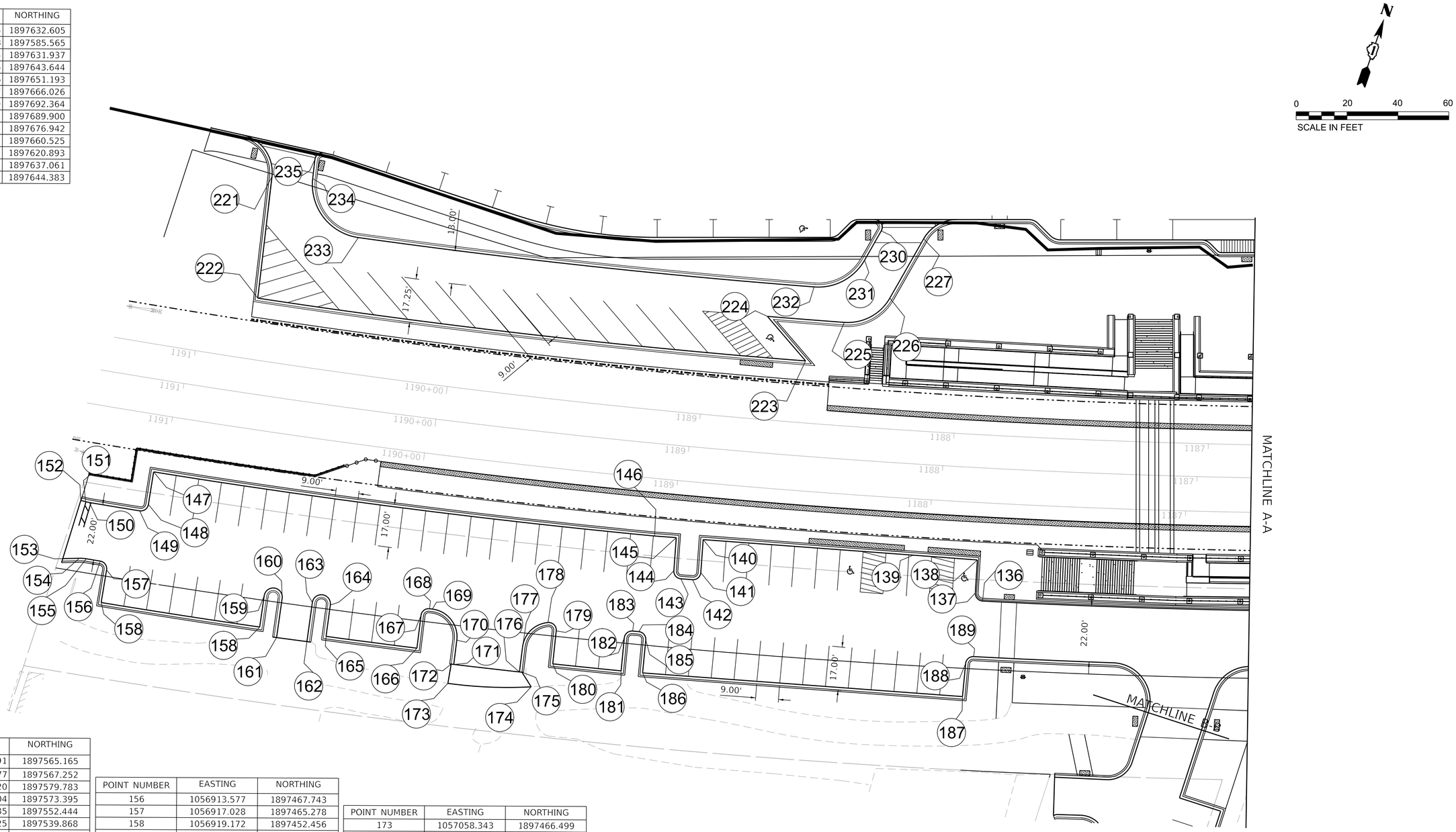
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL SITE REMOVAL
PLAN

SCALE: SHEET 159 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		159
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		

POINT NUMBER	EASTING	NORTHING
221	1056928.406	1897632.605
222	1056938.613	1897585.565
223	1057150.244	1897631.937
224	1057130.365	1897643.644
225	1057159.726	1897651.193
226	1057173.567	1897666.026
227	1057178.569	1897692.364
230	1057161.815	1897689.900
231	1057159.354	1897676.942
232	1057143.967	1897660.525
233	1056968.307	1897620.893
234	1056943.812	1897637.061
235	1056942.223	1897644.383



POINT NUMBER	EASTING	NORTHING
136	1057246.591	1897565.165
137	1057242.877	1897567.252
138	1057239.420	1897579.783
139	1057215.004	1897573.395
140	1057134.935	1897552.444
141	1057138.225	1897539.868
142	1057136.083	1897536.206
143	1057131.621	1897535.039
144	1057127.96	1897537.182
145	1057124.669	1897549.758
146	1057116.428	1897547.602
147	1056922.032	1897507.711
148	1056924.230	1897494.900
149	1056921.777	1897491.435
150	1056902.049	1897488.137
151	1056900.544	1897487.968
152	1056898.599	1897487.849
153	1056899.281	1897463.898
154	1056905.368	1897466.121
155	1056908.078	1897466.833

POINT NUMBER	EASTING	NORTHING
156	1056913.577	1897467.743
157	1056917.028	1897465.278
158	1056919.172	1897452.456
159	1056981.196	1897463.493
160	1056985.864	1897477.253
161	1056988.827	1897461.735
162	1057000.603	1897464.093
163	1056997.648	1897479.326
164	1057004.661	1897480.656
165	1057007.073	1897468.483
166	1057042.352	1897475.654
167	1057039.677	1897488.374
168	1057041.996	1897491.927
169	1057043.133	1897492.167
170	1057056.158	1897483.703
171	1057058.089	1897474.302
172	1057057.101	1897474.091

POINT NUMBER	EASTING	NORTHING
173	1057058.343	1897466.499
174	1057089.74	1897475.81
175	1057084.454	1897480.074
176	1057083.485	1897479.858
177	1057081.45	1897489.526
178	1057087.806	1897501.87
179	1057091.934	1897499.786
180	1057094.812	1897487.108
181	1057121.113	1897493.209
182	1057118.125	1897505.864
183	1057120.351	1897509.472
184	1057122.746	1897510.042
185	1057126.36	1897507.822
186	1057129.383	1897495.178
187	1057251.28	1897527.068

POINT NUMBER	EASTING	NORTHING
188	1057248.242	1897539.775
189	1057250.340	1897543.359

MODEL: South Lot [Sheet]
FILE NAME: pw://cdmsmith-az02-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D128380-sht-plan-site

CDM Smith

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL SITE PLAN

SCALE: SHEET 160 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		160
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	

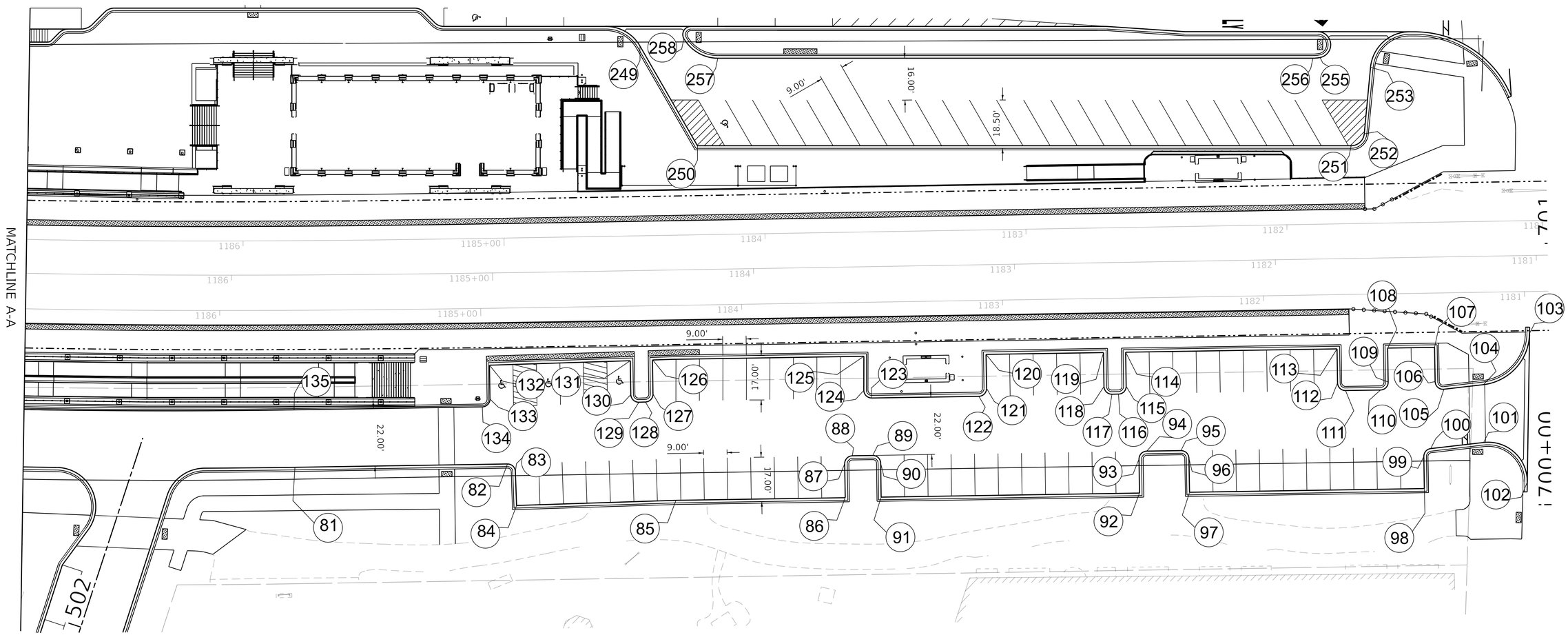
POINT NUMBER	EASTING	NORTHING
81	1057452.296	1897608.292
82	1057528.919	1897635.864
83	1057532.739	1897634.105
84	1057537.342	1897621.966
85	1057594.507	1897643.600
86	1057655.550	1897665.576
87	1057651.140	1897677.803
88	1057652.946	1897681.643
89	1057660.270	1897684.280
90	1057664.111	1897682.469
91	1057668.491	1897670.235
92	1057761.639	1897703.767
93	1057757.259	1897716.002

POINT NUMBER	EASTING	NORTHING
94	1057759.063	1897719.845
95	1057771.419	1897724.293
96	1057775.257	1897722.489
97	1057779.669	1897710.258
98	1057864.349	1897740.743
99	1057860.183	1897752.292
100	1057861.712	1897756.017
101	1057880.116	1897764.806
102	1057900.845	1897755.906
103	1057883.255	1897809.979
104	1057872.862	1897785.722
105	1057859.109	1897779.154
106	1057854.994	1897780.843

POINT NUMBER	EASTING	NORTHING
107	1057850.549	1897793.167
108	1057833.613	1897787.070
109	1057838.023	1897774.843
110	1057836.217	1897771.002
111	1057823.612	1897766.465
112	1057819.773	1897768.273
113	1057815.377	1897780.505
114	1057739.165	1897753.069
115	1057743.562	1897740.834
116	1057741.755	1897736.996
117	1057739.403	1897736.150
118	1057735.563	1897737.958
119	1057731.167	1897750.190

POINT NUMBER	EASTING	NORTHING
120	1057688.827	1897734.948
121	1057693.223	1897722.717
122	1057691.417	1897718.875
123	1057652.796	1897704.972
124	1057648.94	1897706.827
125	1057644.765	1897719.086
126	1057568.554	1897691.650
127	1057573.005	1897679.245
128	1057571.243	1897675.426
129	1057568.904	1897674.541
130	1057565.019	1897676.334
131	1057560.646	1897688.523
132	1057510.141	1897669.410

POINT NUMBER	EASTING	NORTHING
133	1057514.515	1897657.221
134	1057512.698	1897653.408
135	1057444.847	1897628.993
249	1057525.114	1897803.695
250	1057558.326	1897774.721
251	1057795.32	1897855.859
252	1057798.563	1897861.752
253	1057792.602	1897886.669
255	1057773.078	1897883.917
256	1057770.579	1897882.797
257	1057554.849	1897808.940
258	1057540.130	1897811.828



MODEL: South Lot 2 [Sheet]
FILE NAME: pw://cdmsmith-sz02-pw.bentley.com:pw_ext/Documents/25802/1284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-plan-site

CDM Smith

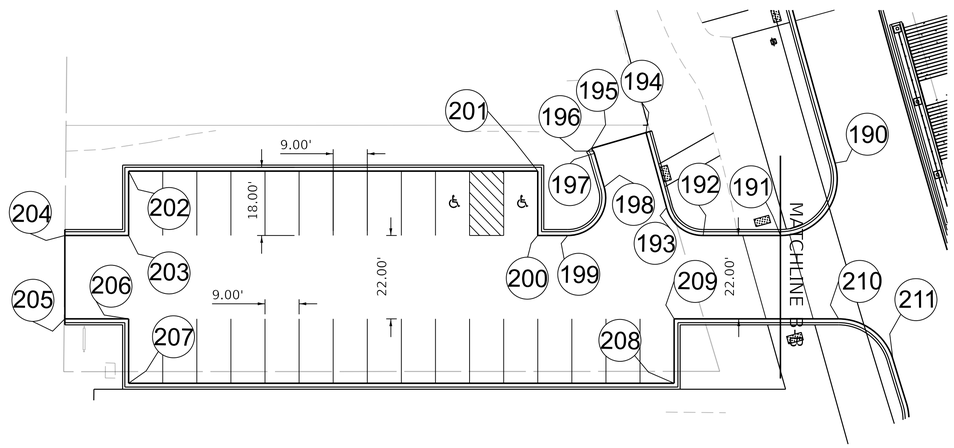
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL SITE PLAN

SCALE: SHEET 161 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		161
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



POINT NUMBER	EASTING	NORTHING
190	1057303.041	1897558.835
191	1057322.393	1897544.726
192	1057322.726	1897524.316
193	1057315.520	1897514.551
194	1057295.804	1897508.817
195	1057300.237	1897494.457
196	1057300.899	1897494.952
197	1057301.506	1897495.261
198	1057310.360	1897497.994
199	1057323.308	1897488.602
200	1057323.438	1897480.661
201	1057306.440	1897480.384
202	1057308.200	1897372.398
203	1057325.198	1897372.675
204	1057325.472	1897355.868
205	1057347.469	1897356.227
206	1057347.195	1897373.034
207	1057364.193	1897373.311
208	1057361.846	1897517.292
209	1057344.848	1897517.015
210	1057344.14	1897560.428
211	1057354.534	1897574.948

MODEL: Forest Ave South Lot [Sheet]
FILE NAME: pw://cdmsmith-as02-pw.bentley.com:pw_as/Documents/258021/284380/10 Transportation\02 Engineering Services\01 Roadway\10 BIM_CADD\Sheet\D1284380-sht-plan-site

CDM Smith

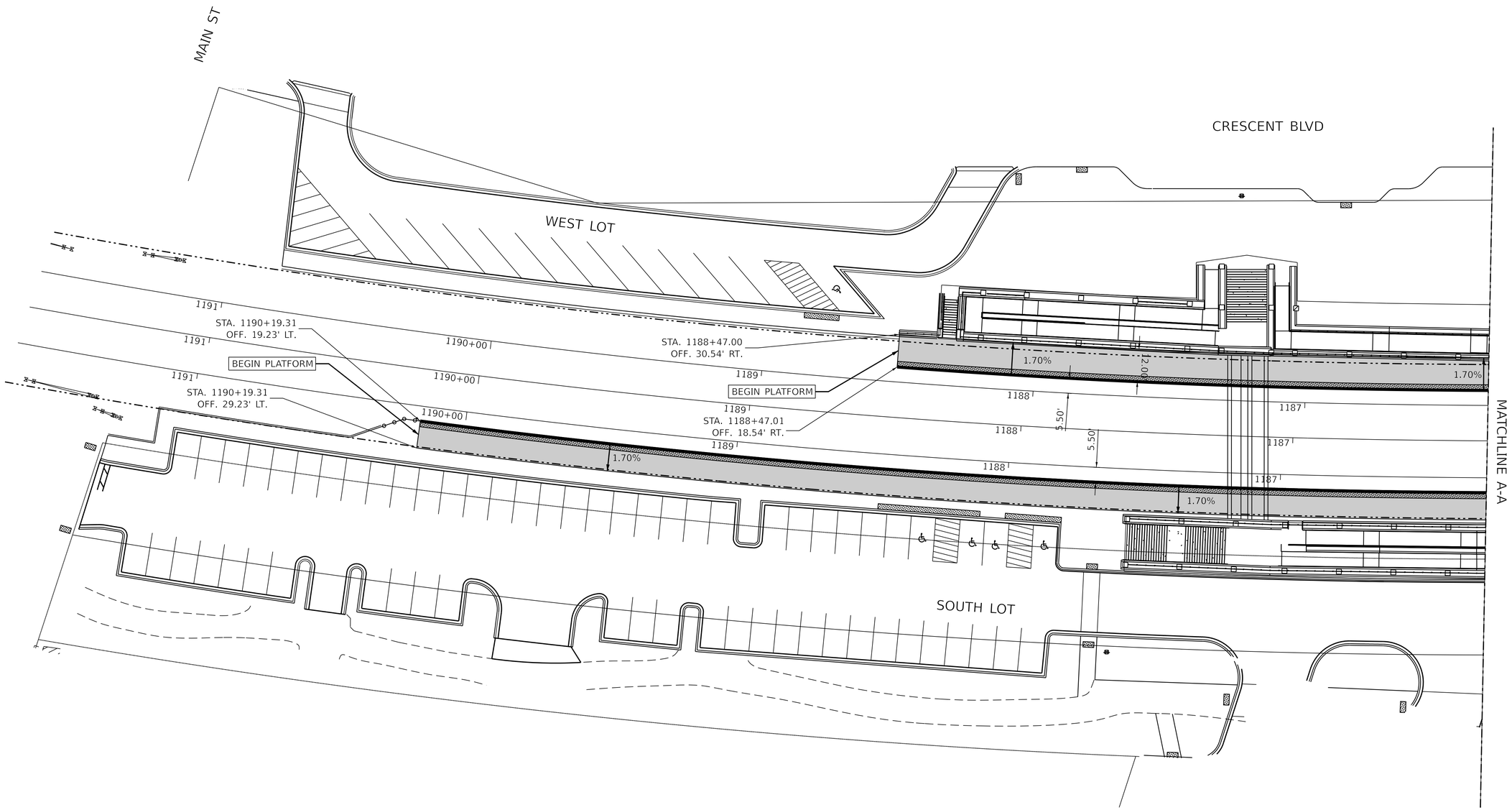
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL SITE PLAN

SCALE: SHEET 162 OF SHEETS STA. TO STA.

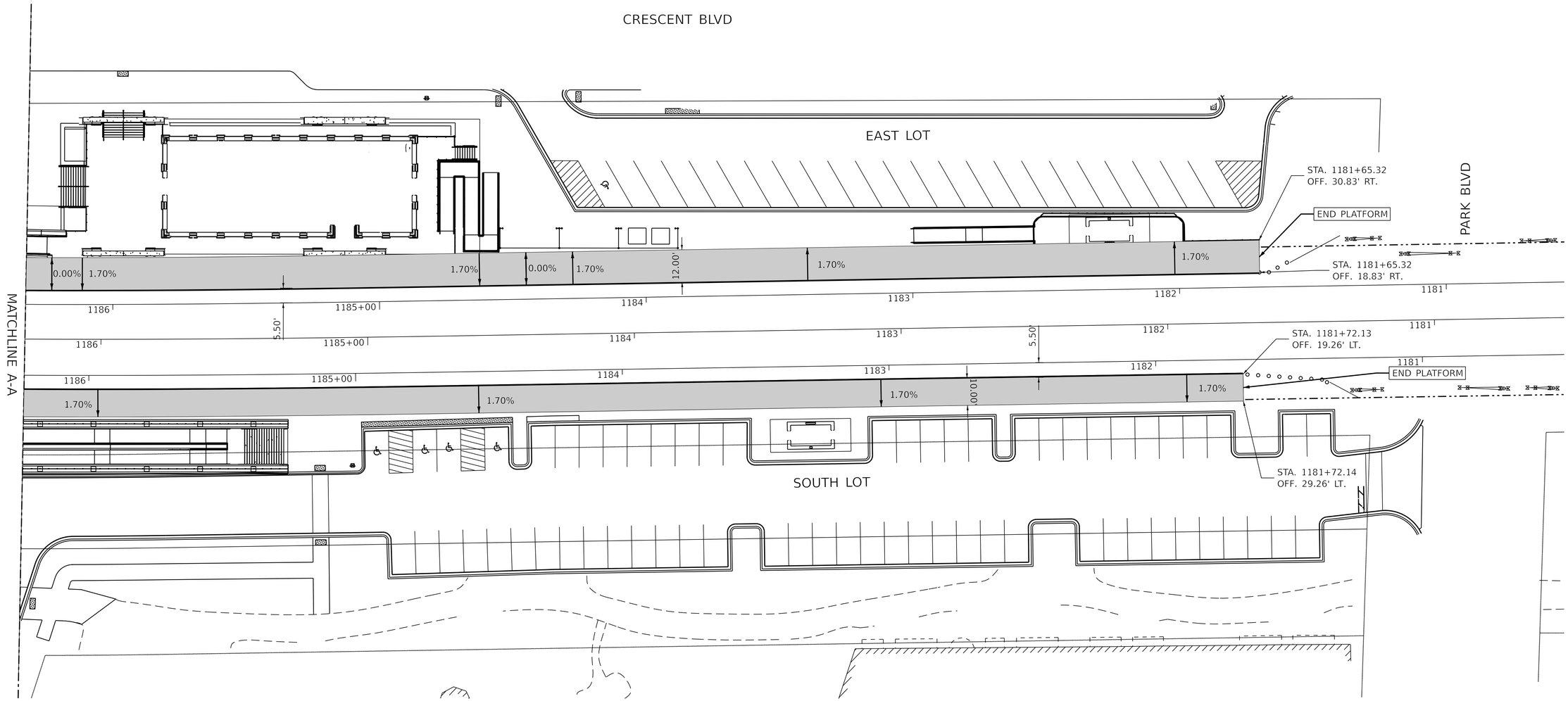
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		162
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



MODEL: Platform Plan
FILE NAME: pw://cdmsmith-sa02-pw.bentley.com:pw_eat/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-plan-platform

CDM Smith	USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CIVIL PLATFORM PLAN
	ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -		
	PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -		
	PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -		SCALE: SHEET 163 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		163
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



MODEL: Platform Plan 2
FILE NAME: pw://cdmsmith-as02-pw.bentley.com:pw_ent/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D128438O-sht-plan-platform

CDM Smith

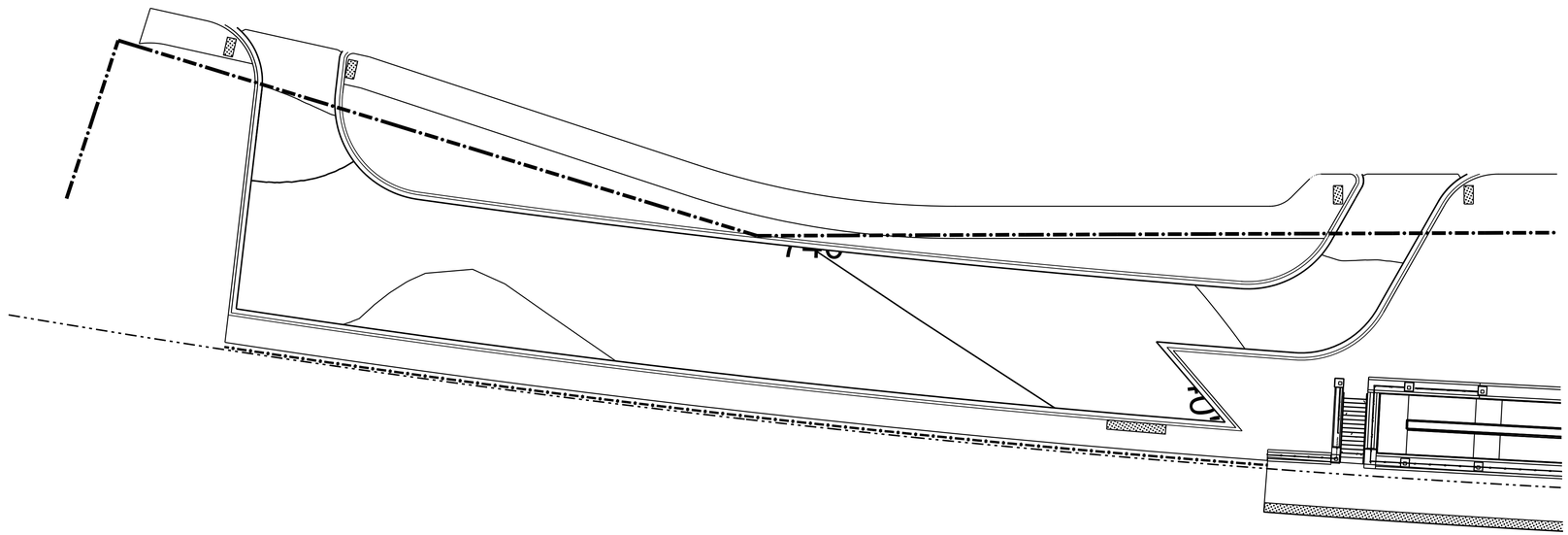
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

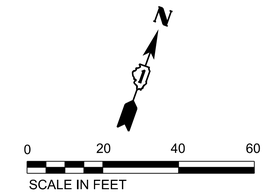
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PLATFORM PLAN

SCALE: SHEET 164 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		164
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	





PARKING LOT PAVEMENT DESIGN

PER SECTION 9.21.3 PAVEMENT DESIGN OF METRA'S "STATION AND PARKING DESIGN GUIDELINES (FEBRUARY 2022)"
- 1½" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50.
- 2¼" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50.
- 8" AGGREGATE BASE COURSE, TYPE B.
- MIRAFI 140N SEPARATION GEOTEXTILE

MODEL: WestLot [Sheet]
FILE NAME: pw://cdmsmith-sa02-pw.bentley.com:pw_ext/Documents/258921/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-grading.dgn

CDM Smith

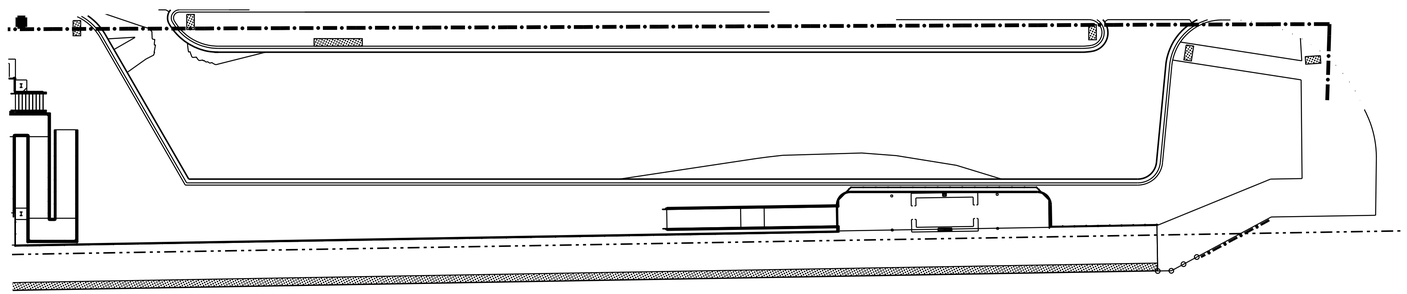
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

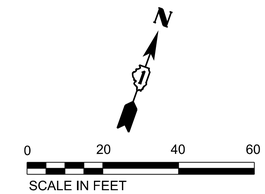
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL WEST LOT
GRADING PLAN

SCALE: SHEET 165 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		165
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	





PARKING LOT PAVEMENT DESIGN

PER SECTION 9.21.3 PAVEMENT DESIGN OF METRA'S "STATION AND PARKING DESIGN GUIDELINES (FEBRUARY 2022)"
- 1½" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50.
- 2¼" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50.
- 8" AGGREGATE BASE COURSE, TYPE B.
- MIRAFI 140N SEPARATION GEOTEXTILE

MODEL: EastLot [Sheet]
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_ent/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D128438b-sht-grading.dgn

CDM Smith

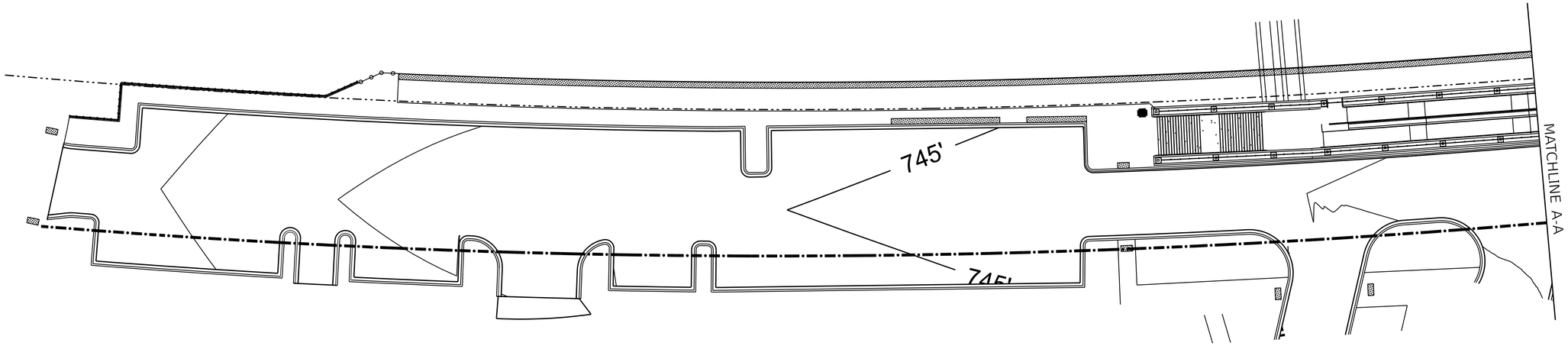
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

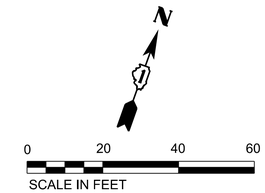
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL EAST LOT
GRADING PLAN

SCALE: SHEET 166 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		166
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		





PARKING LOT PAVEMENT DESIGN

PER SECTION 9.21.3 PAVEMENT DESIGN OF METRA'S "STATION AND PARKING DESIGN GUIDELINES (FEBRUARY 2022)"
- 1½" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50.
- 2¼" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50.
- 8" AGGREGATE BASE COURSE, TYPE B.
- MIRAFI 140N SEPARATION GEOTEXTILE

MODEL: Pr_TrailLot - SouthLot [Sheet]
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_ent/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-grading.dgn

CDM Smith

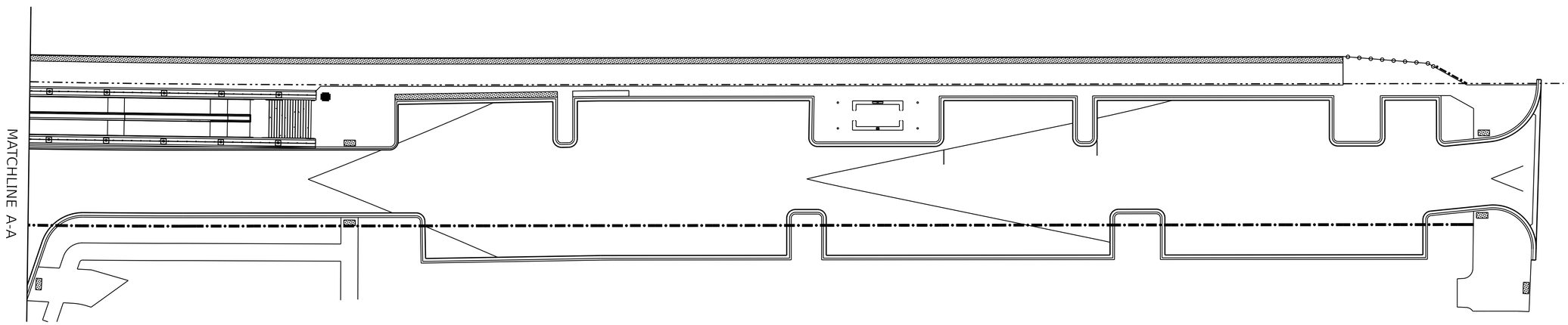
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

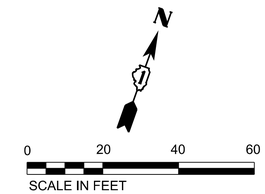
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL SOUTH LOT
GRADING PLAN

SCALE: SHEET 167 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	_____	DUPAGE		167
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	





PARKING LOT PAVEMENT DESIGN

PER SECTION 9.21.3 PAVEMENT DESIGN OF METRA'S "STATION AND PARKING DESIGN GUIDELINES (FEBRUARY 2022)"
- 1½" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50.
- 2¼" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50.
- 8" AGGREGATE BASE COURSE, TYPE B.
- MIRAFI 140N SEPARATION GEOTEXTILE

MODEL: Pr_TrailLot - SouthLot-1 [Sheet]
FILE NAME: pw://cdmsmith-sz02-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-grading.dgn

CDM Smith

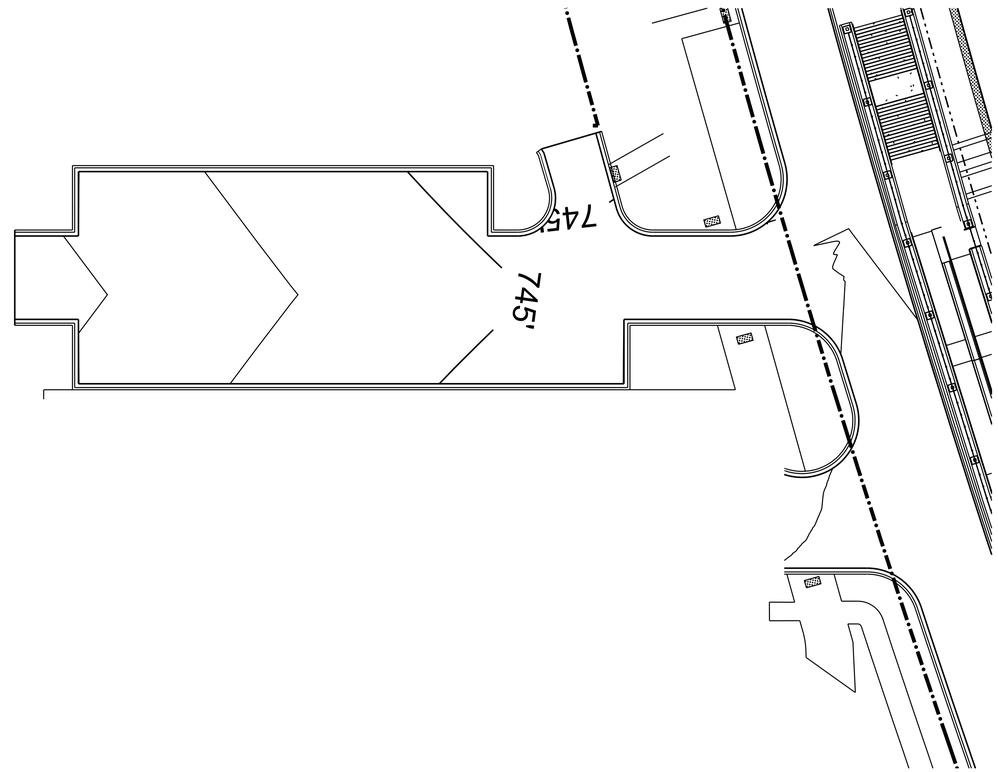
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL SOUTH LOT
GRADING PLAN

SCALE: SHEET 168 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	_____	DUPAGE		168
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



0 20 40 60
SCALE IN FEET

PARKING LOT PAVEMENT DESIGN

PER SECTION 9.21.3 PAVEMENT DESIGN OF METRA'S "STATION AND PARKING DESIGN GUIDELINES (FEBRUARY 2022)"
- 1½" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50.
- 2¼" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50.
- 8" AGGREGATE BASE COURSE, TYPE B.
- MIRAFI 140N SEPARATION GEOTEXTILE

MODEL: Pr_SouthLot - Forest South Lot [Sheet]
FILE NAME: pw://cdmsmith-az02-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM - CADD/Sheet/D1284380-aht-grading.dgn

CDM Smith

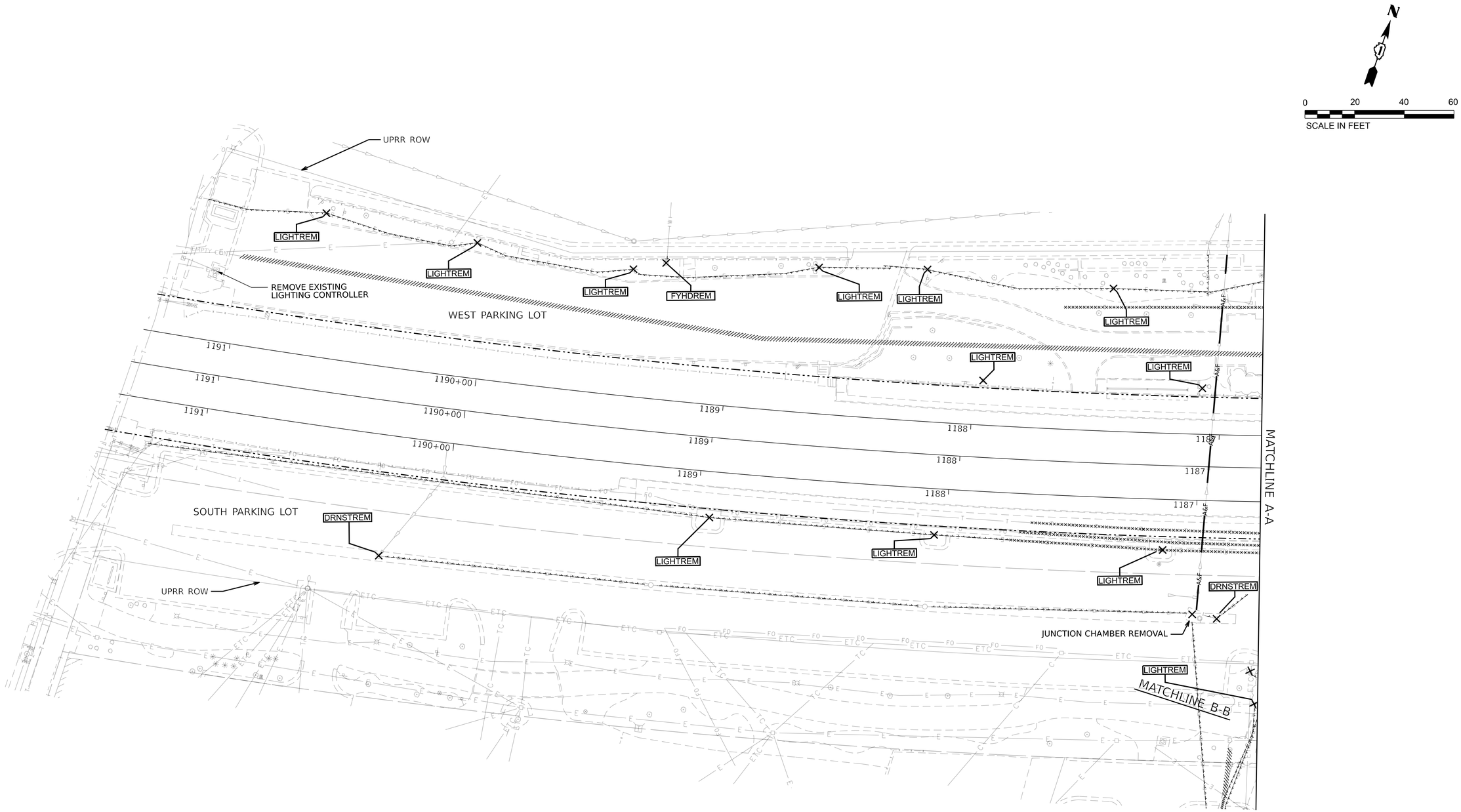
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL FOREST SOUTH LOT
GRADING PLAN

SCALE: SHEET 169 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	_____	DUPAGE		169
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



REMOVAL LEGEND

- SANITARY SEWER REMOVAL
- SANITARY STRUCTURE REMOVAL (SANSTREM)
- WATER MAIN REMOVAL
- ABANDON WATER MAIN AND APPURTENANCES
- FIRE HYDRANT REMOVAL (FHYDREM)
- WATER VALVE REMOVAL (WTRVLREM)
- STORM SEWER REMOVAL
- ABANDON AND FILL EXISTING STORM SEWER
- DRAINAGE STRUCTURE REMOVAL (DRNSTREM)
- ELECTRIC REMOVAL
- LIGHT POLE REMOVAL (LIGHTREM)
- CABLE/INTERNET/TELECOM REMOVAL (BY OTHERS)
- FIBER OPTIC REMOVAL (BY OTHERS)
- GAS REMOVAL (BY OTHERS)
- ABANDON EMPTY CONDUIT (CONDUIT OWNED BY ASTOUND)

NOTES

1. SEE SHEET 1 (INDEX OF SHEETS) FOR UTILITY REMOVAL GENERAL NOTES
2. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS.
3. EXISTING LIGHT POLES SHOWN FOR REMOVAL ARE TO BE REPURPOSED FOR THE NEW UTILITY SITE PLAN.
4. WITHIN PROJECT LIMITS, CONTRACTOR MUST PROTECT IN PLACE ALL EXISTING UTILITY POLES NOT SCHEDULED FOR REMOVAL.

MODEL: South Lot [Sheet]
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_eu/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-utl-ex_SITE

CDM Smith

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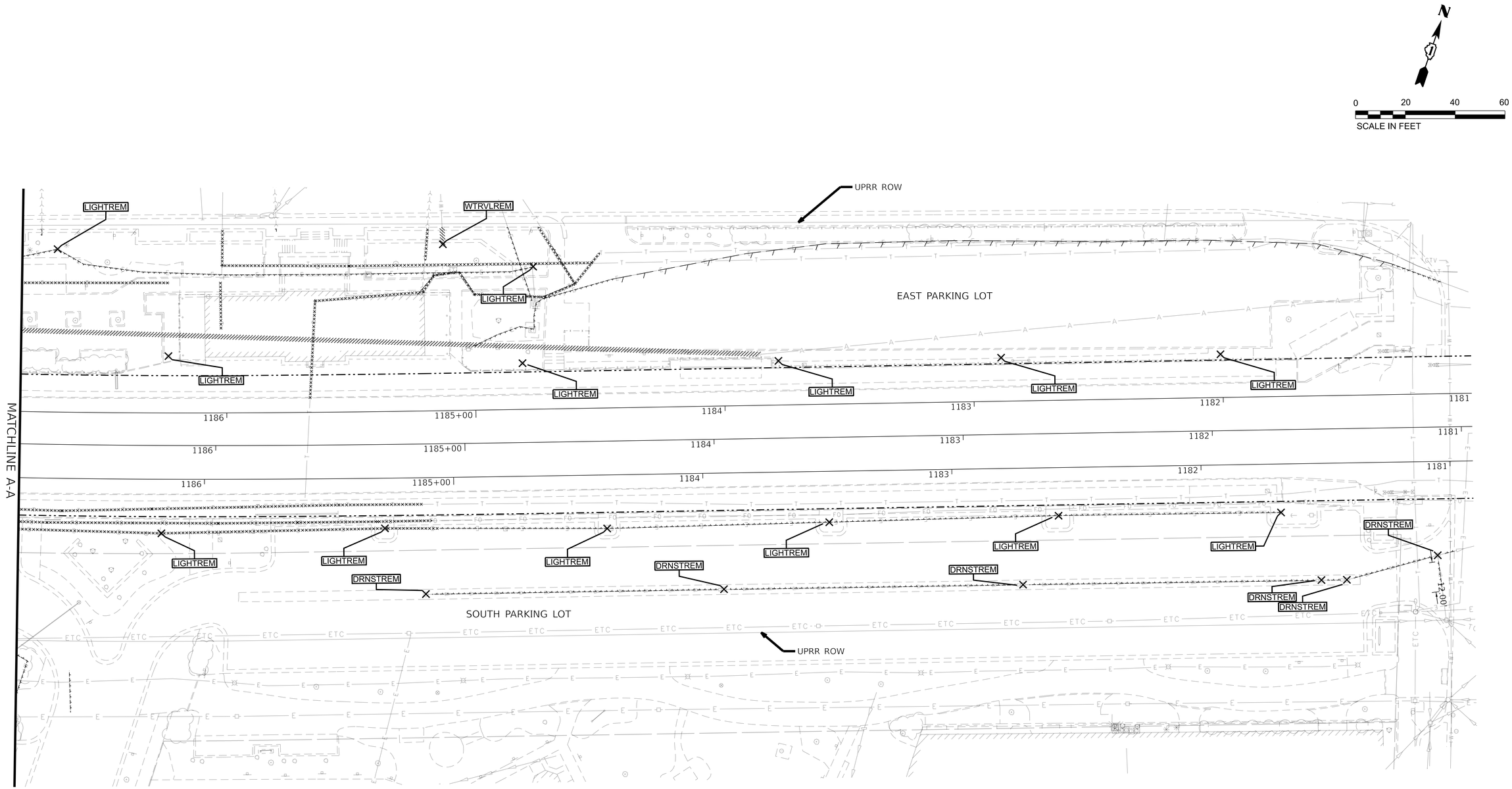
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL EXISTING UTILITY
SITE PLAN

SCALE: SHEET 170 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		170
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



REMOVAL LEGEND

- SANITARY SEWER REMOVAL
- SANSTREM — SANITARY STRUCTURE REMOVAL
- WATER MAIN REMOVAL
- ABANDON WATER MAIN AND APPURTENANCES
- FHYDREM — FIRE HYDRANT REMOVAL
- WTRVLREM — WATER VALVE REMOVAL
- STORM SEWER REMOVAL
- ABANDON AND FILL EXISTING STORM SEWER
- DRNSTREM — DRAINAGE STRUCTURE REMOVAL
- ELECTRIC REMOVAL
- LIGHTREM — LIGHT POLE REMOVAL
- CABLE/INTERNET/TELECOM REMOVAL (BY OTHERS)
- FIBER OPTIC REMOVAL (BY OTHERS)
- GAS REMOVAL (BY OTHERS)
- ABANDON EMPTY CONDUIT (CONDUIT OWNED BY ASTOUND)

NOTES

1. SEE SHEET 1 (INDEX OF SHEETS) FOR UTILITY REMOVAL GENERAL NOTES
2. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS.
3. EXISTING LIGHT POLES SHOWN FOR REMOVAL ARE TO BE REPURPOSED FOR THE NEW UTILITY SITE PLAN.
4. WITHIN PROJECT LIMITS, CONTRACTOR MUST PROTECT IN PLACE ALL EXISTING UTILITY POLES NOT SCHEDULED FOR REMOVAL.

MODEL: South Lot 2 [Sheet]
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_ent/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-utilex_SITE

CDM Smith

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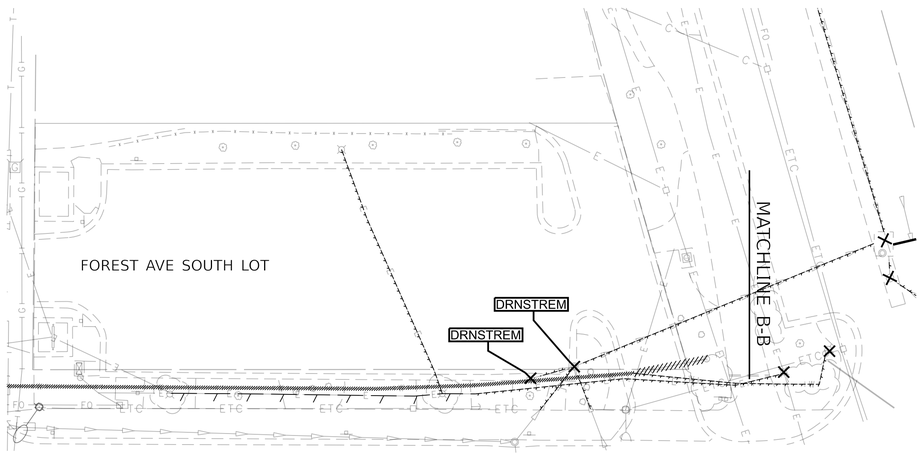
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL EXISTING UTILITY
SITE PLAN

SCALE: SHEET 171 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		171
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



0 20 40 60
SCALE IN FEET

REMOVAL LEGEND

- SANITARY SEWER REMOVAL
- SANITARY STRUCTURE REMOVAL
- WATER MAIN REMOVAL
- ABANDON WATER MAIN AND APPURTENANCES
- FIRE HYDRANT REMOVAL
- WATER VALVE REMOVAL
- STORM SEWER REMOVAL
- ABANDON AND FILL EXISTING STORM SEWER
- DRAINAGE STRUCTURE REMOVAL
- ELECTRIC REMOVAL
- LIGHT POLE REMOVAL
- CABLE/INTERNET/TELECOM REMOVAL (BY OTHERS)
- FIBER OPTIC REMOVAL (BY OTHERS)
- GAS REMOVAL (BY OTHERS)
- ABANDON EMPTY CONDUIT (CONDUIT OWNED BY ASTOUND)

NOTES

1. SEE SHEET 1 (INDEX OF SHEETS) FOR UTILITY REMOVAL GENERAL NOTES
2. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS.
3. EXISTING LIGHT POLES SHOWN FOR REMOVAL ARE TO BE REPURPOSED FOR THE NEW UTILITY SITE PLAN.
4. WITHIN PROJECT LIMITS, CONTRACTOR MUST PROTECT IN PLACE ALL EXISTING UTILITY POLES NOT SCHEDULED FOR REMOVAL.

MODEL: Forest Ave South Lot [Sheet]
FILE NAME: pw://cdmsmith-wi02-pw.bentley.com:pw_wi/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-utl-ex_SITE

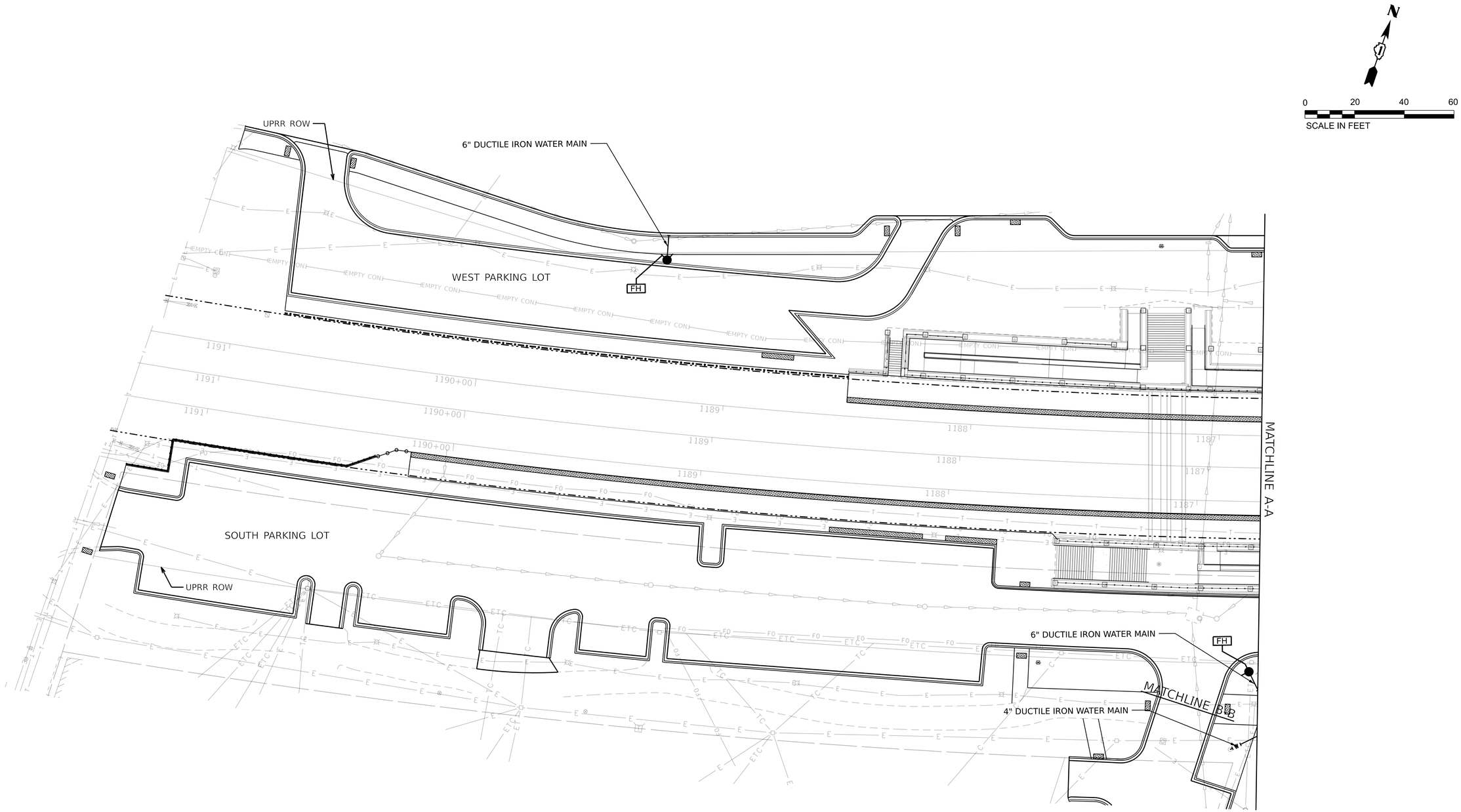
CDM Smith

USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

CIVIL EXISTING UTILITY SITE PLAN

SCALE: SHEET 172 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		172
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



PROPOSED LEGEND

- DUCTILE IRON WATER MAIN (DIA. AS SHOWN)
- WATER VALVE AND VAULT (SIZE AS SHOWN)
- A — ADJUSTING WATER SERVICE LINES
- FH — FIRE HYDRANT ASSEMBLY
- B — SANITARY SEWER SERVICE CONNECTION, SEE CIVIL UTILITY DETAILS
- SANITARY SEWER (DIA. AND MATERIAL AS SHOWN)
- S — SANITARY MANHOLE (DETAILS AS SHOWN)
- EXISTING STORM SEWERS
- E — EXISTING ELECTRIC
- T — EXISTING CABLE/INTERNET/TELECOM - TO BE RELOCATED BY OTHERS
- FO — EXISTING FIBER OPTIC - TO BE RELOCATED BY OTHERS
- G — EXISTING GAS - TO BE RELOCATED BY OTHERS

NOTES

1. SEE SHEET 1 (INDEX OF SHEETS) FOR PROPOSED UTILITY GENERAL NOTES.
2. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS. IF IT IS REVEALED DURING A FUTURE DESIGN PHASE THAT ANY WATER SERVICE LINE IS MADE OF LEAD MATERIAL, THAT WATER SERVICE LINE WILL BE RECOMMENDED FOR REMOVAL AND REPLACEMENT.
3. SEE PROPOSED DRAINAGE SHEETS FOR PROPOSED DRAINAGE WORK.
4. SEE PROPOSED ELECTRICAL SHEETS FOR PROPOSED ELECTRICAL WORK.
5. ALL NON-LEAD EXISTING WATER SERVICE LINES TO BE RECONNECTED TO PROPOSED DUCTILE IRON WATER MAIN AS DESCRIBED IN THE SPECIAL PROVISION FOR ADJUSTING WATER SERVICE LINES.
6. IT IS ASSUMED ALL PROPOSED SANITARY LATERALS ARE 6" PVC UNLESS NOTED OTHERWISE.

MODEL: South Lot [Sheet]
FILE NAME: pw://cdmsmith-as02-pw.bentley.com:pw_as/Documents/258021/284380/10 Transportation\02 Engineering Services\01 Roadway\10 BIM_CADD\Sheet\D284380-sht-utl.dgn SITE

CDM Smith

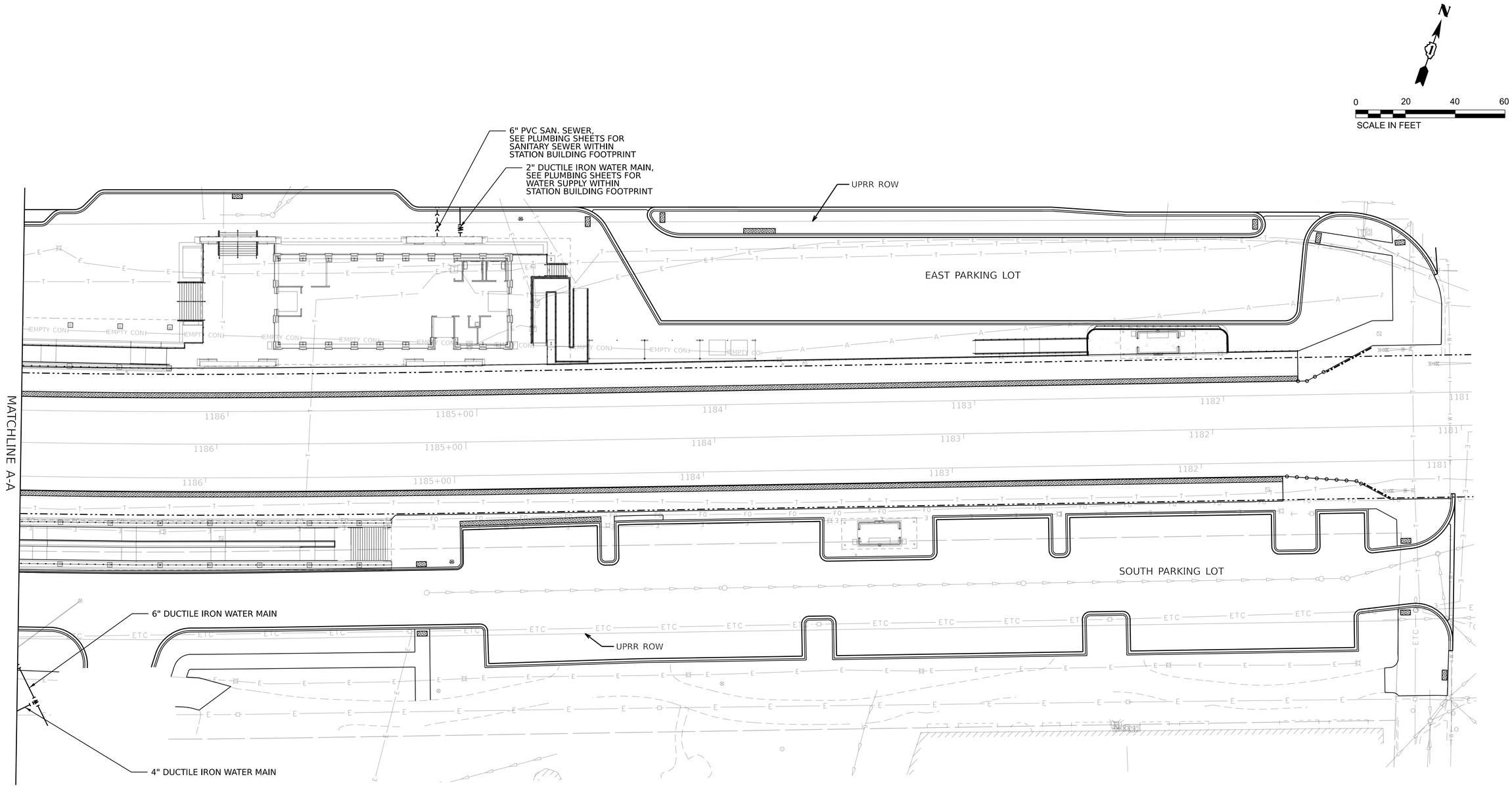
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PROPOSED UTILITY
SITE PLAN

SCALE: SHEET 173 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		173
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



PROPOSED LEGEND

- DUCTILE IRON WATER MAIN (DIA. AS SHOWN)
- WATER VALVE AND VAULT (SIZE AS SHOWN)
- A — ADJUSTING WATER SERVICE LINES
- FH — FIRE HYDRANT ASSEMBLY
- B — SANITARY SEWER SERVICE CONNECTION, SEE CIVIL UTILITY DETAILS
- SANITARY SEWER (DIA. AND MATERIAL AS SHOWN)
- S — SANITARY MANHOLE (DETAILS AS SHOWN)
- EXISTING STORM SEWERS
- E — EXISTING ELECTRIC
- T — EXISTING CABLE/INTERNET/TELECOM - TO BE RELOCATED BY OTHERS
- FO — EXISTING FIBER OPTIC - TO BE RELOCATED BY OTHERS
- G — EXISTING GAS - TO BE RELOCATED BY OTHERS

NOTES

1. SEE SHEET 1 (INDEX OF SHEETS) FOR PROPOSED UTILITY GENERAL NOTES.
2. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS. IF IT IS REVEALED DURING A FUTURE DESIGN PHASE THAT ANY WATER SERVICE LINE IS MADE OF LEAD MATERIAL, THAT WATER SERVICE LINE WILL BE RECOMMENDED FOR REMOVAL AND REPLACEMENT.
3. SEE PROPOSED DRAINAGE SHEETS FOR PROPOSED DRAINAGE WORK.
4. SEE PROPOSED ELECTRICAL SHEETS FOR PROPOSED ELECTRICAL WORK.
5. ALL NON-LEAD EXISTING WATER SERVICE LINES TO BE RECONNECTED TO PROPOSED DUCTILE IRON WATER MAIN AS DESCRIBED IN THE SPECIAL PROVISION FOR ADJUSTING WATER SERVICE LINES.
6. IT IS ASSUMED ALL PROPOSED SANITARY LATERALS ARE 6" PVC UNLESS NOTED OTHERWISE.

MODEL: South Lot 2 [Sheet]
FILE NAME: pw://cdmsmith-sz02-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-sht-utlpr_SITE

CDM Smith

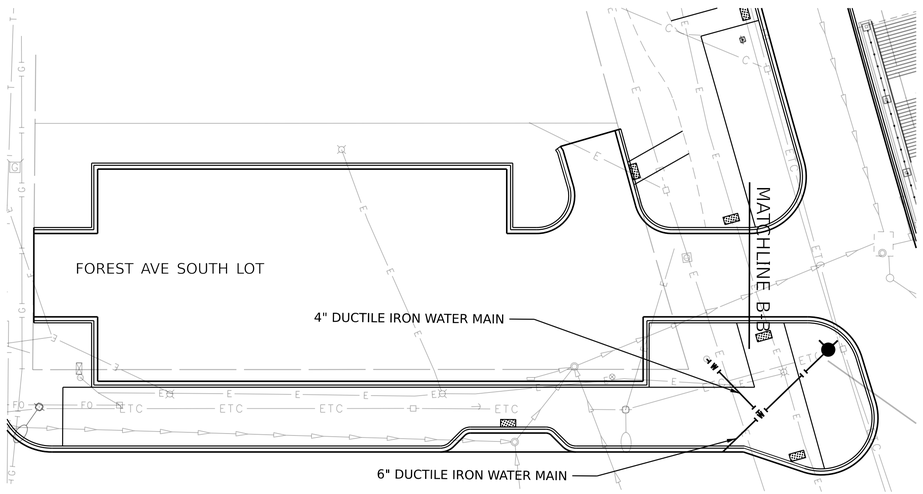
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PROPOSED UTILITY
SITE PLAN

SCALE: SHEET 174 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		174
		CONTRACT NO. 284380		
		ILLINOIS	FED. AID PROJECT	



0 20 40 60
SCALE IN FEET

PROPOSED LEGEND

- DUCTILE IRON WATER MAIN (DIA. AS SHOWN)
- WATER VALVE AND VAULT (SIZE AS SHOWN)
- ADJUSTING WATER SERVICE LINES
- FIRE HYDRANT ASSEMBLY
- SANITARY SEWER SERVICE CONNECTION, SEE CIVIL UTILITY DETAILS
- SANITARY SEWER (DIA. AND MATERIAL AS SHOWN)
- SANITARY MANHOLE (DETAILS AS SHOWN)
- EXISTING STORM SEWERS
- EXISTING ELECTRIC
- EXISTING CABLE/INTERNET/TELECOM - TO BE RELOCATED BY OTHERS
- EXISTING FIBER OPTIC - TO BE RELOCATED BY OTHERS
- EXISTING GAS - TO BE RELOCATED BY OTHERS

NOTES

1. SEE SHEET 1 (INDEX OF SHEETS) FOR PROPOSED UTILITY GENERAL NOTES.
2. IT IS ASSUMED ALL EXISTING WATER SERVICE LINES AND MAINS ARE NOT MADE OF LEAD MATERIALS. IF IT IS REVEALED DURING A FUTURE DESIGN PHASE THAT ANY WATER SERVICE LINE IS MADE OF LEAD MATERIAL, THAT WATER SERVICE LINE WILL BE RECOMMENDED FOR REMOVAL AND REPLACEMENT.
3. SEE PROPOSED DRAINAGE SHEETS FOR PROPOSED DRAINAGE WORK.
4. SEE PROPOSED ELECTRICAL SHEETS FOR PROPOSED ELECTRICAL WORK.
5. ALL NON-LEAD EXISTING WATER SERVICE LINES TO BE RECONNECTED TO PROPOSED DUCTILE IRON WATER MAIN AS DESCRIBED IN THE SPECIAL PROVISION FOR ADJUSTING WATER SERVICE LINES.
6. IT IS ASSUMED ALL PROPOSED SANITARY LATERALS ARE 6" PVC UNLESS NOTED OTHERWISE.

MODEL: Forest Ave South Lot [Sheet]
FILE NAME: pw://cdmsmith-as02-pw.bentley.com:pw_ent/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D128438o-sht-util.gr_SITE

CDM Smith

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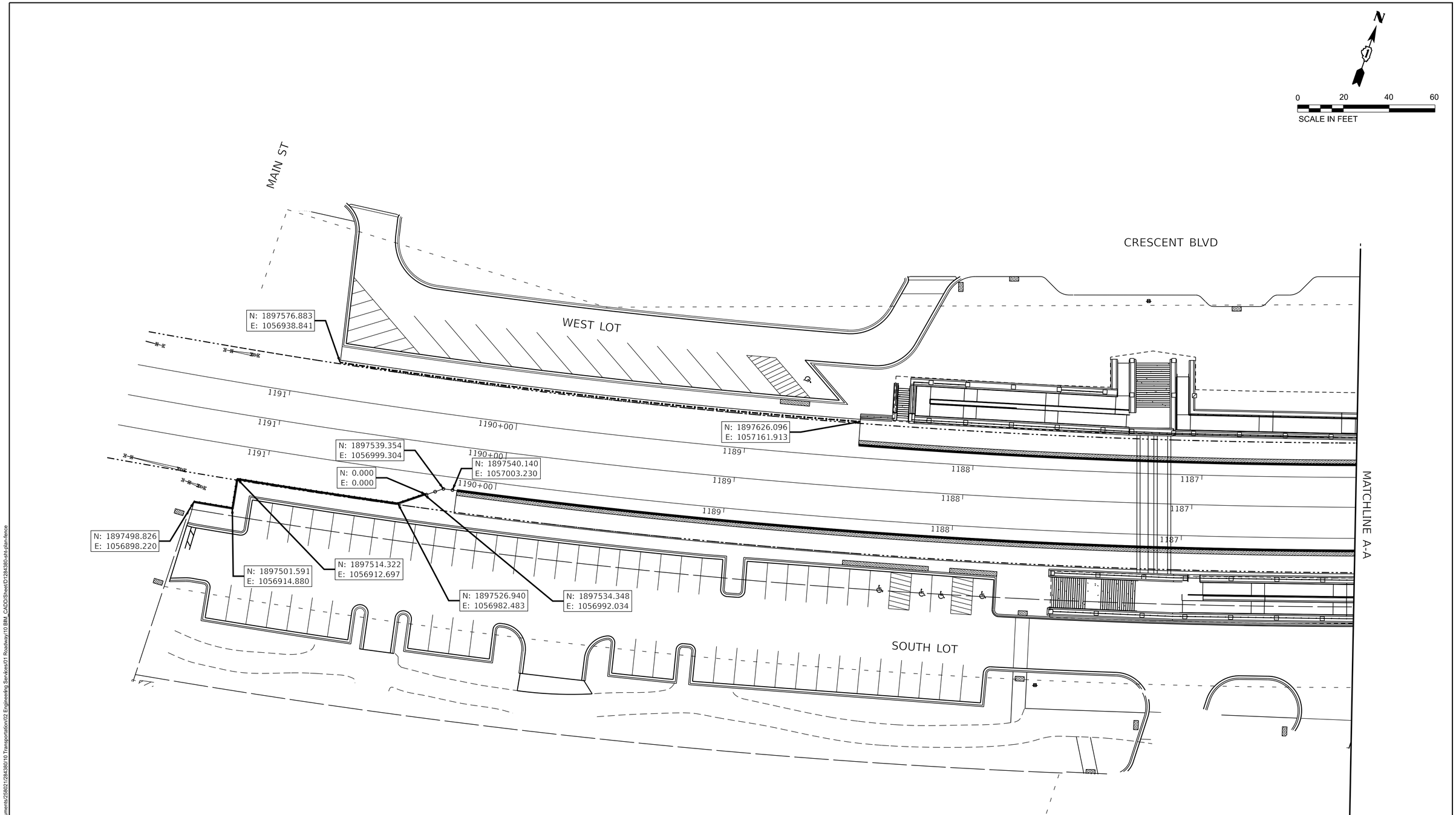
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL PROPOSED UTILITY
SITE PLAN

SCALE: SHEET 175 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		175
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



FENCE LEGEND

ORNAMENTAL FENCE

FLEXIBLE DELINEATORS, SPACED 4' CENTER TO CENTER, OR AS SHOWN ABOVE

MODEL: Platform Plan
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM_CADD/Sheet/D1284380-alt-plan-fence

CDM Smith

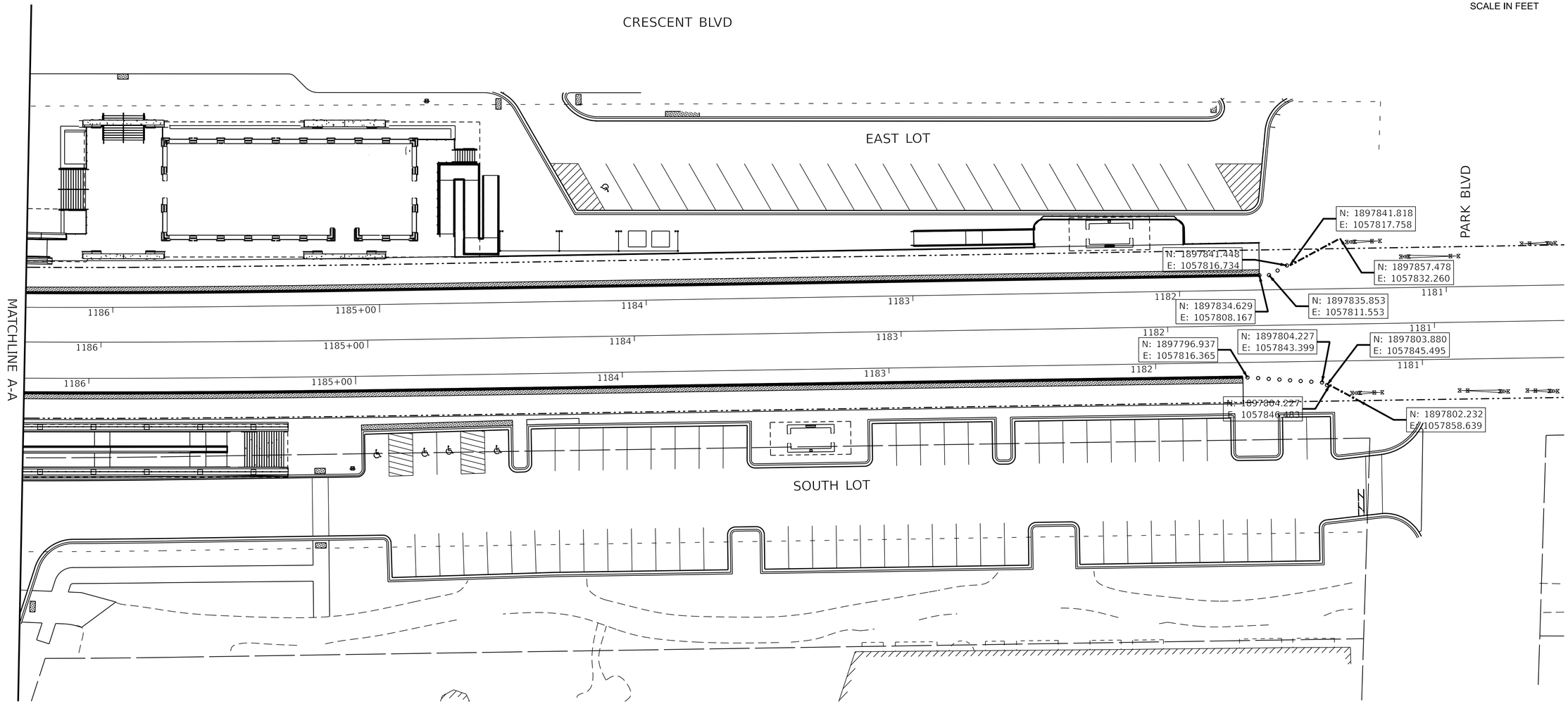
USER NAME = CONNOLLYJG	DESIGNED -	REVISED -	
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL FENCE PLAN

SCALE: SHEET 176 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	—	DUPAGE		176
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



FENCE LEGEND

ORNAMENTAL FENCE

FLEXIBLE DELINEATORS, SPACED 4' CENTER TO CENTER, OR AS SHOWN ABOVE

MODEL: Platform Plan 2
FILE NAME: pw://cdmsmith-azd2-pw.bentley.com:pw_ext/Documents/258021/284380/10 Transportation/02 Engineering Services/01 Roadway/10 BIM, CADD/Sheet/D1284380-sht-plan-fence

CDM Smith

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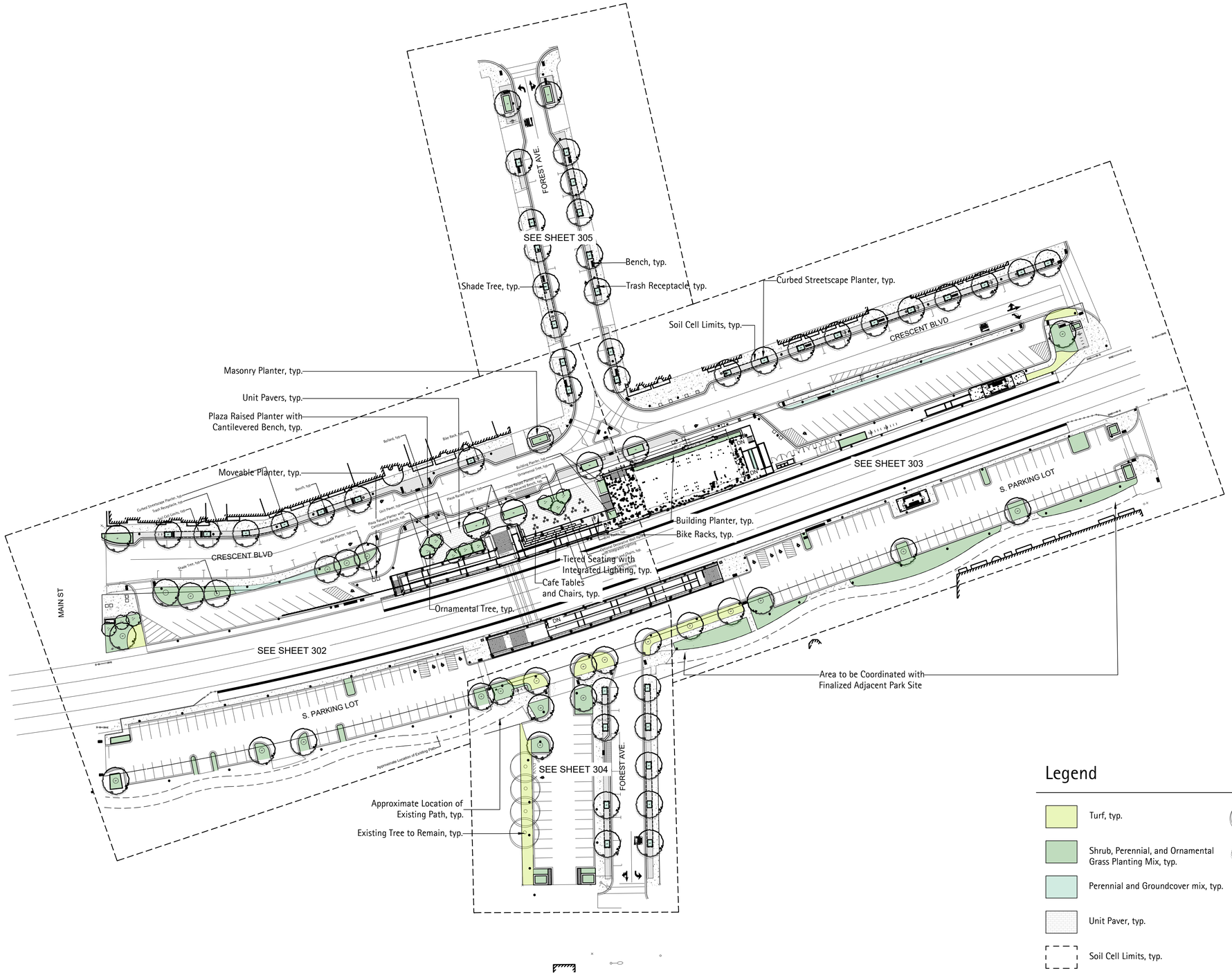
ISSUED FOR 30 PCT	DRAWN - JGC	REVISED -	
PLOT SCALE = 0.08333317 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/28/2024	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIVIL FENCE PLAN

SCALE: SHEET 177 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
—	———	DUPAGE		177
		CONTRACT NO. 284380		
	ILLINOIS	FED. AID PROJECT		



Legend

- Turf, typ.
- Shrub, Perennial, and Ornamental Grass Planting Mix, typ.
- Perennial and Groundcover mix, typ.
- Unit Paver, typ.
- Soil Cell Limits, typ.
- Curbed Streetscape Planter, typ.
- Existing Tree to Remain, typ.
- Shade Tree, typ.
- Ornamental Tree, typ.
- Cafe Tables and Chairs, typ.
- Bench, typ.
- Trash Receptacle, typ.
- Moveable Planter, typ.
- Bike Racks, typ.

N

CDM Smith

USER NAME =	DESIGNED - KC / KD	REVISED -	
ISSUED FOR 30 PCT	DRAWN - KD	REVISED -	
PLOT SCALE =	CHECKED - MC	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

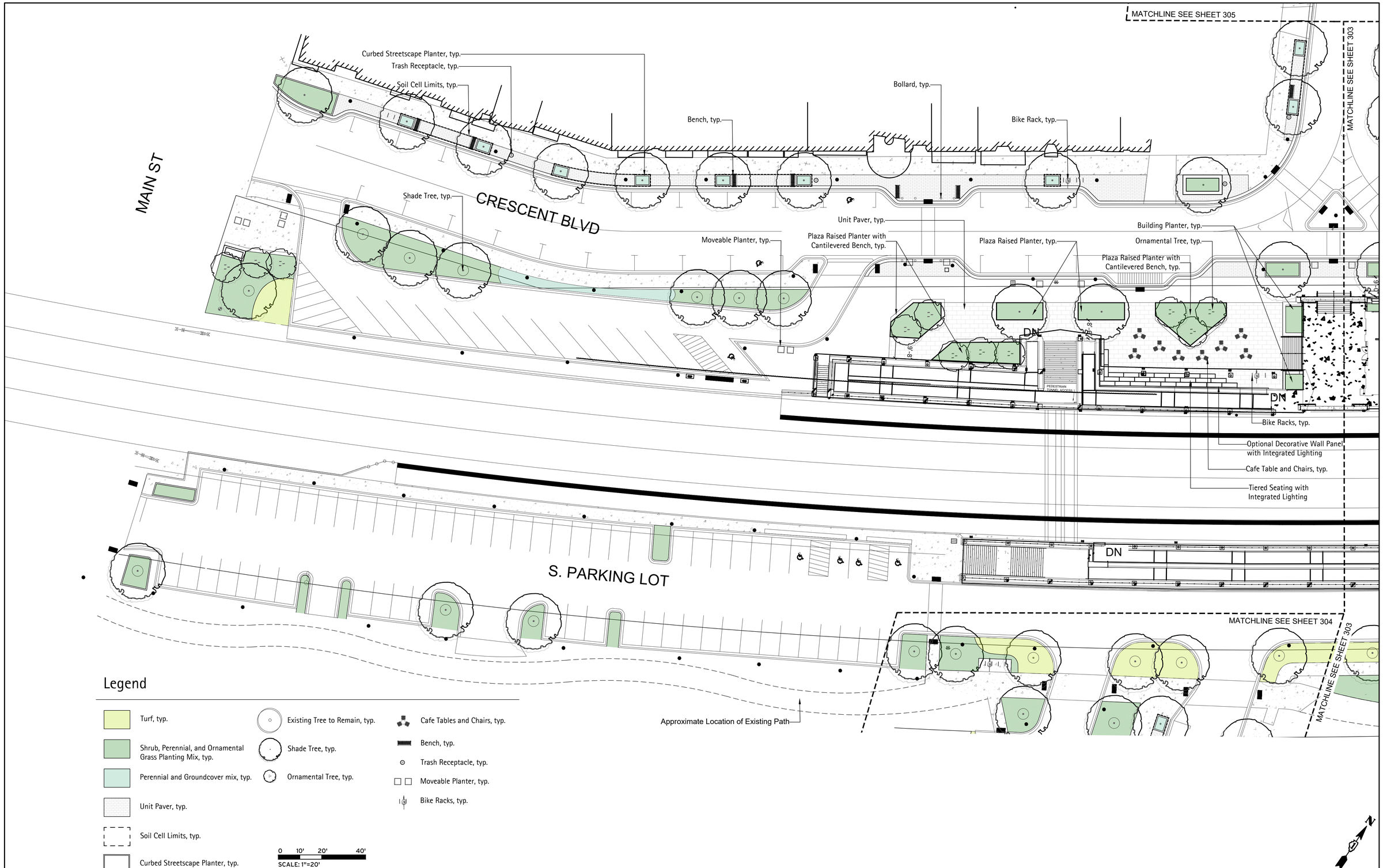
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPE - FULL SITE PLAN

SCALE: 1:50 | SHEET 301 OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	-	DUPAGE		301
		CONTRACT NO. _		

ILLINOIS FED. AID PROJECT



CDM Smith

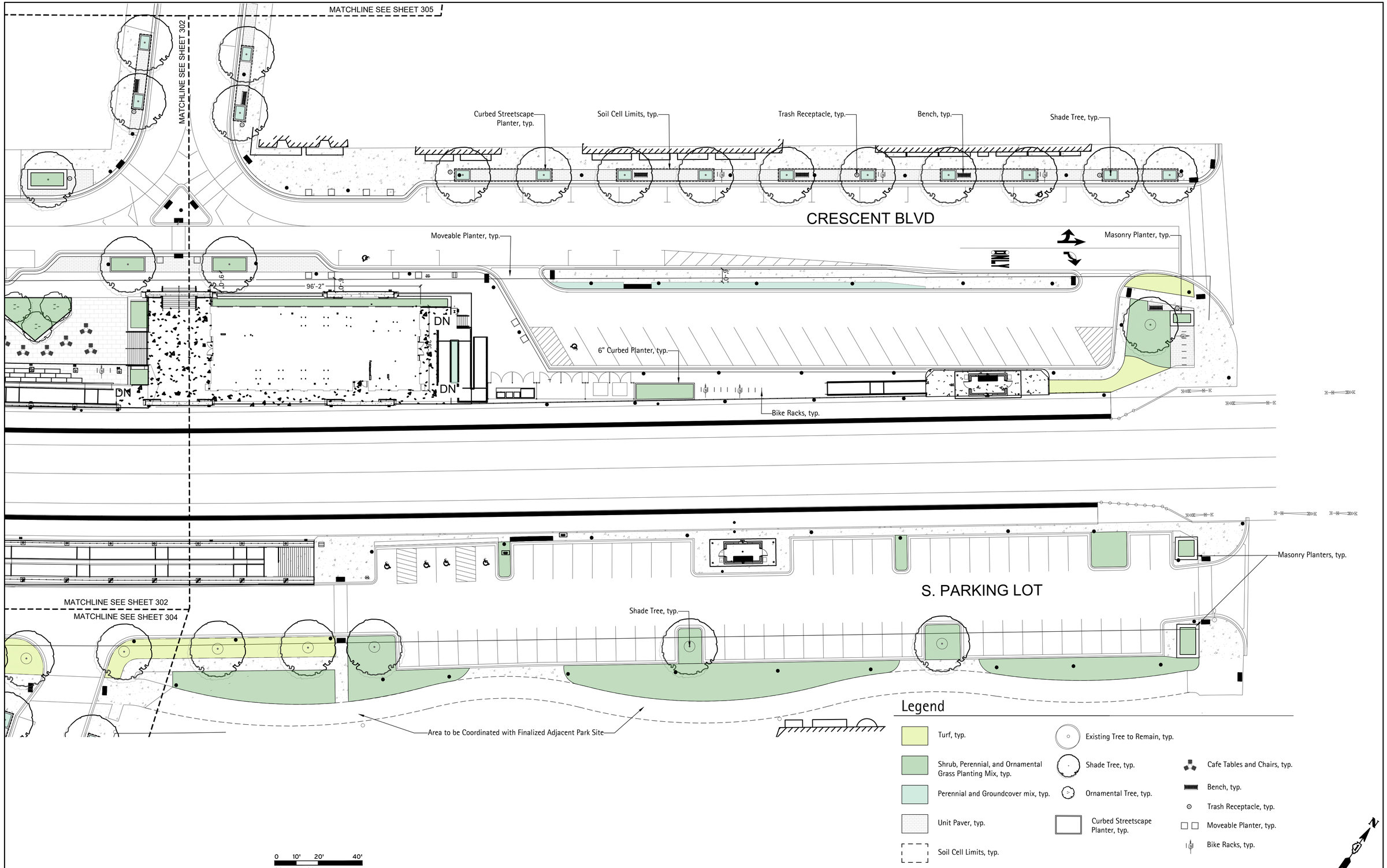
USER NAME =	DESIGNED - KC / KD	REVISED -
ISSUED FOR 30 PCT	DRAWN - KD	REVISED -
PLOT SCALE =	CHECKED - MC	REVISED -
PLOT DATE =	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPE - ENLARGEMENT PLAN A

SCALE: **1:20** | SHEET **302** OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	-	DUPAGE		302
		CONTRACT NO. _		
	ILLINOIS FED. AID PROJECT			



CDM Smith

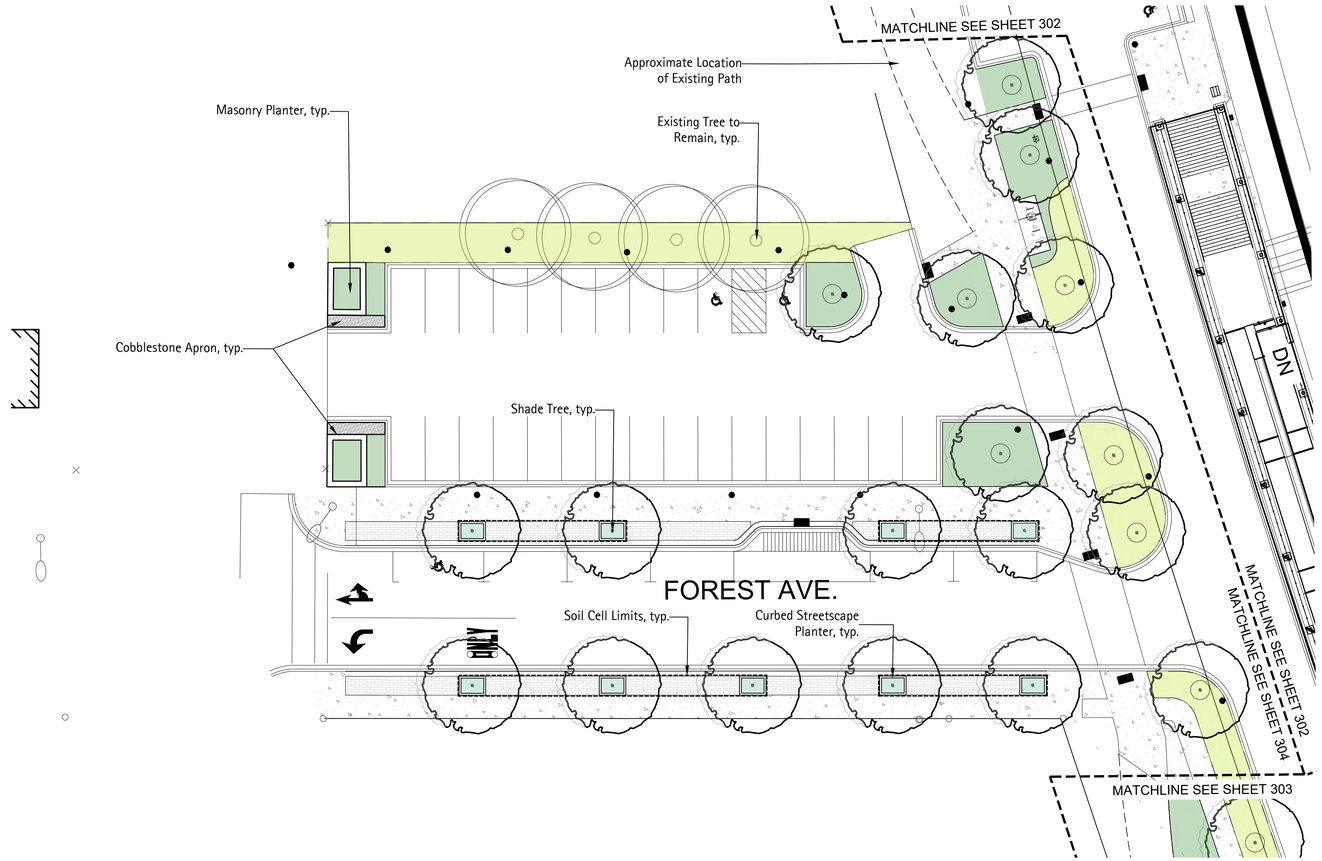
USER NAME =	DESIGNED - KC / KD	REVISED -	
ISSUED FOR 30 PCT	DRAWN - KD	REVISED -	
PLOT SCALE =	CHECKED - MC	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPE - ENLARGEMENT PLAN B

SCALE: **1:20** | SHEET **303** OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	-	DUPAGE		303
		CONTRACT NO. _		
		ILLINOIS FED. AID PROJECT		



Legend

- Turf, typ.
- Shrub, Perennial, and Ornamental Grass Planting Mix, typ.
- Perennial and Groundcover mix, typ.
- Unit Paver, typ.
- Soil Cell Limits, typ.
- Curbed Streetscape Planter, typ.
- Existing Tree to Remain, typ.
- Shade Tree, typ.
- Ornamental Tree, typ.
- Cafe Tables and Chairs, typ.
- Bench, typ.
- Trash Receptacle, typ.
- Moveable Planter, typ.
- Bike Racks, typ.

0 10' 20' 40'
SCALE: 1"=20'

N

CDM Smith

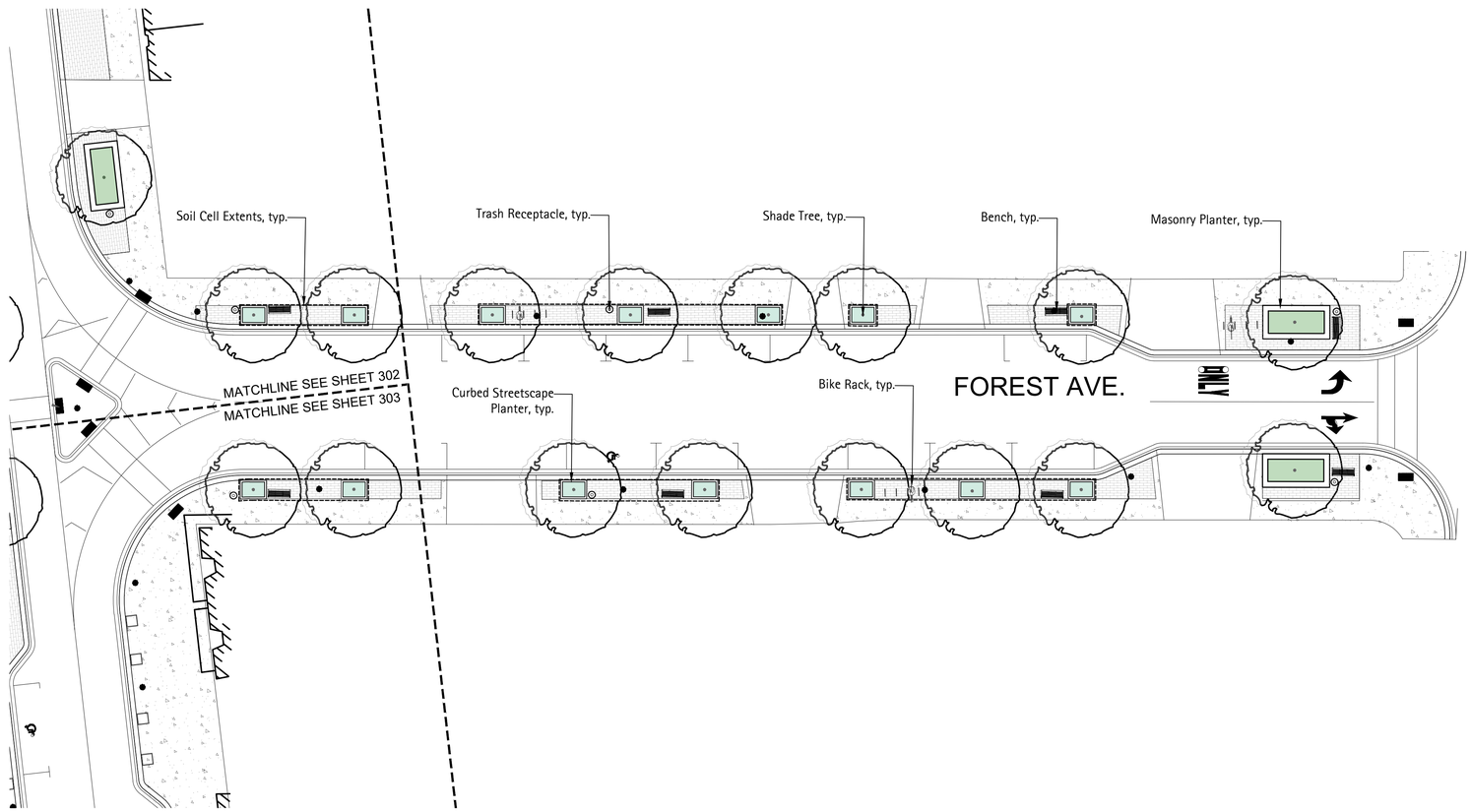
USER NAME =	DESIGNED - KC / KD	REVISED -	
ISSUED FOR 30 PCT	DRAWN - KD	REVISED -	
PLOT SCALE =	CHECKED - MC	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPE - ENLARGEMENT PLAN C

SCALE: 1:20 | SHEET 304 OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	-	DUPAGE		304
		CONTRACT NO. _		
		ILLINOIS FED. AID PROJECT		



Legend

- Turf, typ.
- Shrub, Perennial, and Ornamental Grass Planting Mix, typ.
- Perennial and Groundcover mix, typ.
- Unit Paver, typ.
- Soil Cell Limits, typ.
- Curbed Streetscape Planter, typ.
- Existing Tree to Remain, typ.
- Shade Tree, typ.
- Ornamental Tree, typ.
- Cafe Tables and Chairs, typ.
- Bench, typ.
- Trash Receptacle, typ.
- Moveable Planter, typ.
- Bike Racks, typ.

0 10' 20' 40'
SCALE: 1"=20'

CDM Smith

USER NAME =	DESIGNED - KC / KD	REVISED -	
ISSUED FOR 30 PCT	DRAWN - KD	REVISED -	
PLOT SCALE =	CHECKED - MC	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPE - ENLARGEMENT PLAN D

SCALE: 1:20 | SHEET 305 OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	-	DUPAGE		304
		CONTRACT NO. _		

ILLINOIS FED. AID PROJECT

Shade Trees

Acer x freemanii 'Autumn Blaze'
Freeman Maple

Platanus x acerifloia 'Morton Circle'
Exclamation London Plane Tree

Celtis occidentalis
Common Hackberry

Tilia americana 'McSentry'
American Sentry Linden

Acer Rubrum 'Frank Jr.'
Red Pointe Maple

Gymnocladus dioica
Kentucky Coffee Tree

Quercus bicolor
Swamp White Oak

Ornamental Trees

Carpinus caroliniana 'Native Flame'
American Hornbeam

Amelanchier x grandiflora 'Autumn Brilliance'
Autumn Brilliance Serviceberry

Cercis canadensis
Eastern Redbud

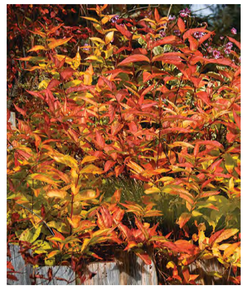
Deciduous Shrubs

Hydrangea paniculata 'Little Quick Fire'
Little Quick Fire Hydrangea

Cotinus coggrygria
Smoke Tree

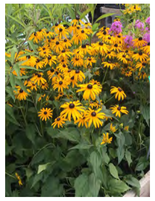
Aronia melanocarpa 'Iriquois Beauty'
Black Chokeberry

Hamamelis virginiana
Common Witch Hazel


Diervilla 'Kodiak Orange
Bush Honeysuckle

Perennials

Asclepias tuberosa
Swamp Milkweed

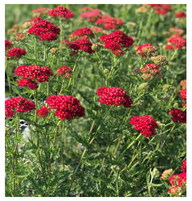

Rudbeckia hirta
Black-eyed Susan

Allium lusitanicum 'Summer Beauty'
Summer Beauty Allium

Echinacea purpurea 'Powpow'
White Coneflower

Nepeta faasenii 'Walker's Low'
Walker's Low Nepeta

Liatris spicata
Dense Blazing Star


Achillea millefolium 'Paprika'
Paprika Yarrow

Evergreen Shrubs

Juniperus horizontalis 'Witoni'
Blue Rug Juniper

Taxus media 'Densiformis'
Dense Yew

Ornamental Grasses

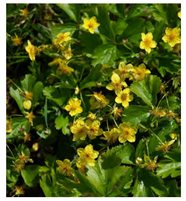
Schizachyrium scoparium
Little Bluestem

Sporobolous heterolepis
Prairie Dropseed

Seslaria autumnalis
Autumn Moor Grass

Deschampsia cepitosa
Tufted Hair Grass

Groundcover & Bulbs


Waldsteinia ternata
Barren Strawberry

Adiantum pedatum
Northern Maidenhair Fern

Liriope spicata
Lillyturf

Narcissus 'Ice Follies'
Large-cupped Daffodil

Muscari armeniacum
Grape Hyacinth

1 Plaza Paver - Artline in Fossil by Unilock

REGIMENTAL FULL RANGE PAVERS

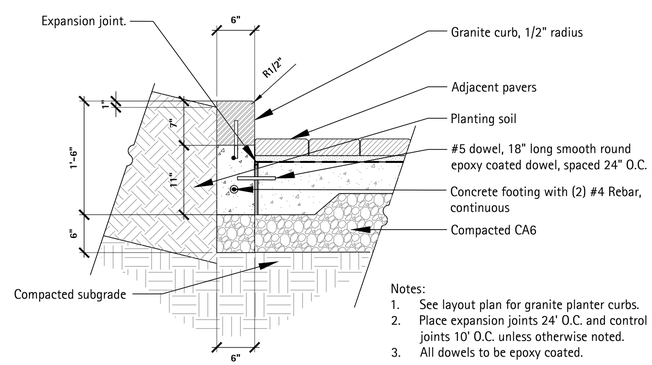
Type	Paver
Color	Red
Texture	Wire Cut
Plant	Plant 2
Manufacturing Method	Extruded
Series	City Line

Standards / Value		
	C1272 Application	PX
	C1272 Type	R:2.25/R&F:2.75
	C902 Abrasion Type	I
	C902 Application	PX
	C902 Weather Class	SX

Size	Standard Paver
Avg. Comp. (PSI)	25,419
Avg. 24 Hr. Cold Water Absor.	0.37
Avg. 5 Hr. Boil Absor.	0.49
Avg. Saturation Coeff.	0.76

2 Streetscape Paver in North Shore Blend- to match existing Streetscape

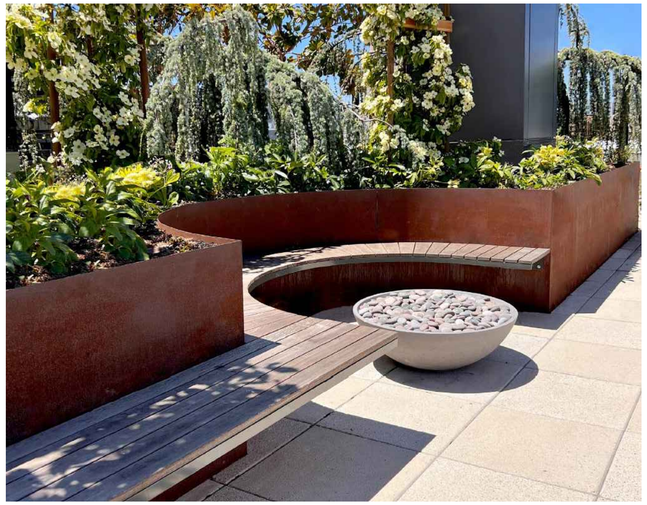
3 Paver Banding - to match existing Streetscape



Notes:
1. See layout plan for granite planter curbs.
2. Place expansion joints 24' O.C. and control joints 10' O.C. unless otherwise noted.
3. All dowels to be epoxy coated.

4 6" Granite Planter Curb - to match existing Streetscape

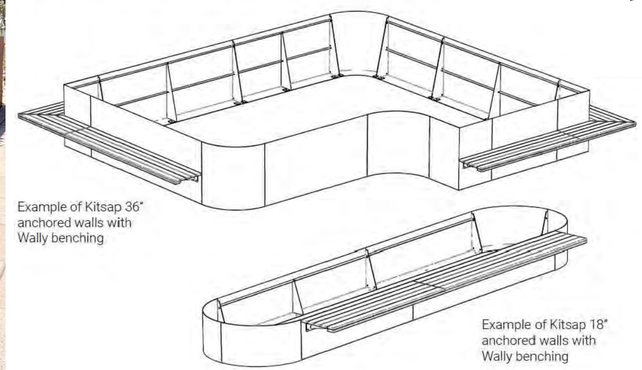
Scale: 1" = 1'-0"



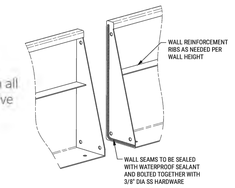
POWDER-COATED STEEL

Mild steel planter walls are typically powder-coated for a durable and long-lasting finish. We clean all metal products before coating with a shot blasting process, apply a zinc-rich primer for a protective layer base, then coat with a high-quality polyester powder-coat.

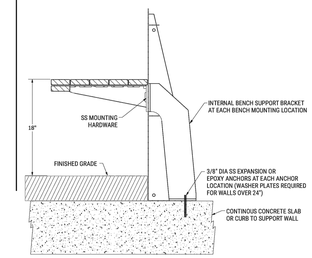
SAMPLE ANCHORED CONFIGURATIONS

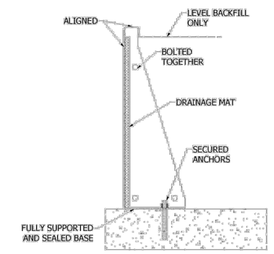


SEGMENT ATTACHMENT DETAILS



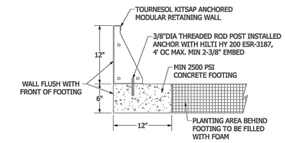
CANTILEVERED MOUNTING





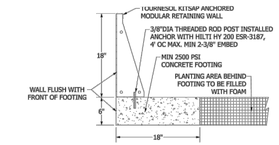
***Mounting/anchoring method to be confirmed.**

SUGGESTED CURB FOOTING FOR 12" TALL TOURNESOL KITSAP ANCHORED WALL

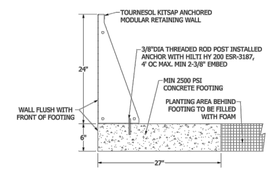


SUGGESTED CURB FOOTING FOR 18" TALL TOURNESOL KITSAP ANCHORED WALL

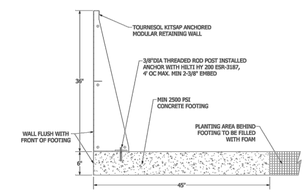
- POURED DIRECTLY ONTO ROOF MEMBRANE



SUGGESTED CURB FOOTING FOR 24" TALL TOURNESOL KITSAP ANCHORED WALL



SUGGESTED CURB FOOTING FOR 36" TALL TOURNESOL KITSAP ANCHORED WALL



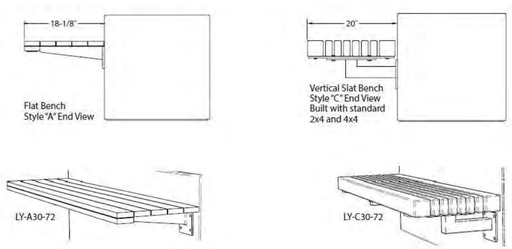
1 Kitsap Modular Planter by Tournesol

Wally Collection - Wall-Hung Benches - The "A" style can be used as a counter as well

Part. No.	Description	Size	Weight (Lbs.)
LY-A30-48	Wally Collection "A" Wood and Steel Wall-Hung flat bench	48"L x 18-1/8"W nominal	55-70
LY-A30-72	Wally Collection "A" Wood and Steel Wall-Hung flat bench	72"L x 18-1/8"W nominal	75-95
LY-A30-96	Wally Collection "A" Wood and Steel Wall-Hung flat bench	96"L x 18-1/8"W nominal	95-120
LY-C30-48	Wally Collection "C" Wood and Steel Wall-Hung vertical slat bench	48"L x 20"W nominal	125
LY-C30-72	Wally Collection "C" Wood and Steel Wall-Hung vertical slat bench	72"L x 20"W nominal	175
LY-C30-96	Wally Collection "C" Wood and Steel Wall-Hung vertical slat bench	96"L x 20"W nominal	240

Note: Weight varies depending on material used. Planters used with Wally Collection benches should be GFRC lightweight concrete or steel and require additional reinforcement of the planter wall. Planters that will have a Wally Bench attached must be anchored if they are smaller than 30"W or taller than 30"H. For example, if a planter is 48"W and 24"H, then it would not need to be anchored. Check with your salesperson for details.

Wally Collection benches can be mounted at any height but we recommend between 17" to 19" for seating. The "A" style can be used as a counter as well. Recommended height is 35" for café style and 40" for bar. Mounting hardware not included. Optional skate deterrents may be installed in the field as required. Please contact your salesperson for samples or details.

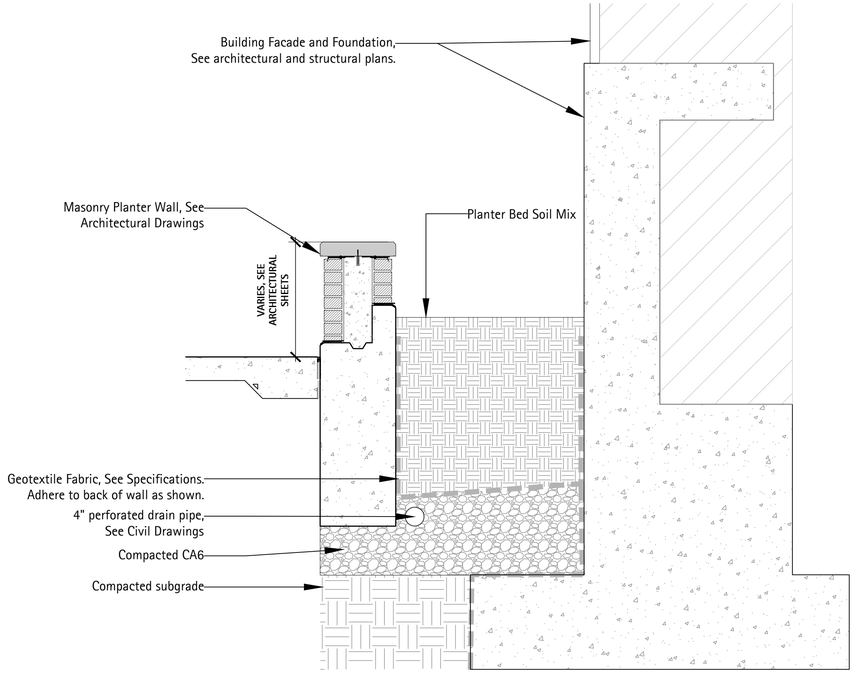


LY932

Tournesol SITEWORKS

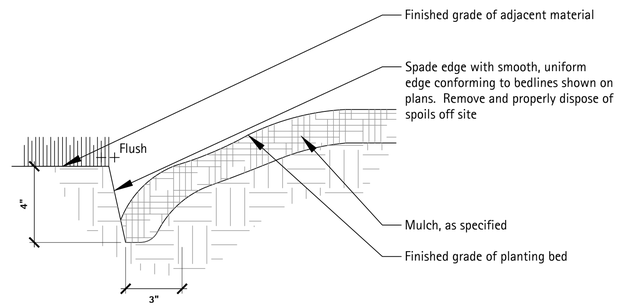
2 Wally Bench by Tournesol

CDM Smith	USER NAME =	DESIGNED - KC / KD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LANDSCAPE - SITE FURNISHINGS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - KD	REVISED -				-	DUPAGE		308
	PLOT SCALE =	CHECKED - MC	REVISED -					CONTRACT NO. _		
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: SHEET 308 OF SHEETS STA. TO STA.	ILLINOIS FED. AID PROJECT				



1 Building Planter

Scale: $\frac{3}{4}$" = 1'-0"



3 Section - Spade Edge

Scale: 3" = 1'-0"

2 Masonry Planter - to match existing Streetscape

CDM Smith	USER NAME =	DESIGNED - KC / KD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LANDSCAPE - SITE FURNISHINGS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
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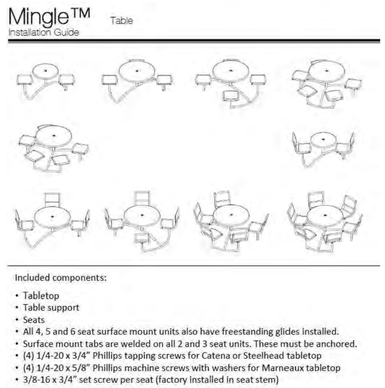
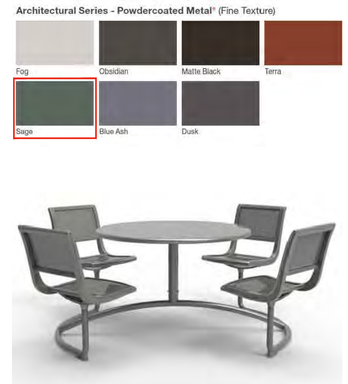
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: SHEET 309 OF SHEETS STA. TO STA.	ILLINOIS FED. AID PROJECT			



Mingle™ Table
Installation Guide

Included components:

- Tabletop
- Table support
- Seats
- All 4, 5 and 6 seat surface mount units also have freestanding glides installed.
- Surface mount tabs are welded on all 2 and 3 seat units. These must be anchored.
- (4) 1/4-20 x 3/4" Phillips tapping screws for Catena or Steelhead tabletop
- (4) 1/4-20 x 5/8" Phillips machine screws with washers for Marneaux tabletop
- 3/8-16 x 3/4" set screw per seat (factory installed in seat stem)



1 Mingle Cafe Table by Landscape Forms in Sage color

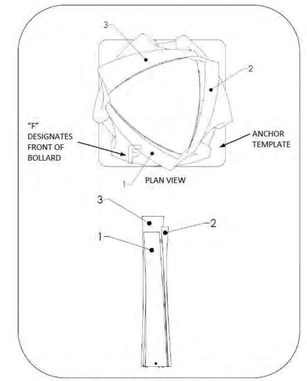
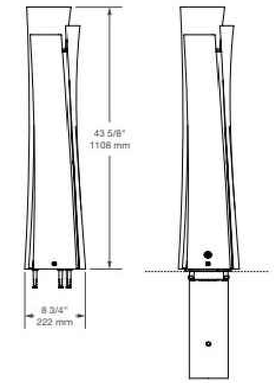
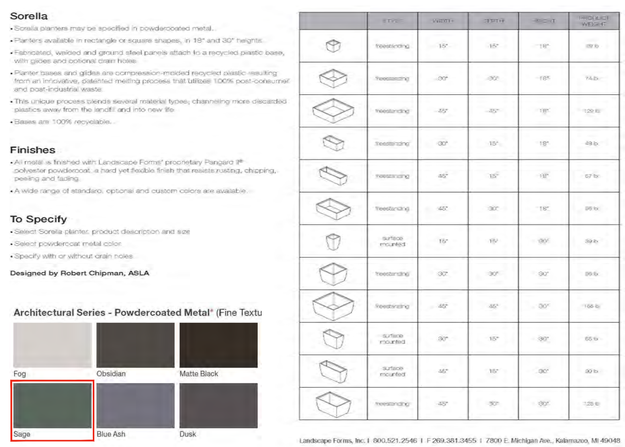


FIG. 1 – ORIENTATION OF BOLLARD AND DRILL TEMPLATE



3 Bollard Option 1 - "Guide" by Landscape Forms (43.75" H)



Sorella

- Sorella planters may be specified in powdercoated metal.
- Planters available in rectangle or square shapes, in 18" and 30" heights.
- Fabricated, welded and ground steel panels attach to a recycled plastic base, with glides and optional drain holes.
- Planter bases and glides are compression-molded recycled plastic resulting from an innovative, patented melting process that utilizes 100% post-consumer and post-industrial waste.
- This unique process blends several material types, channeling more discarded plastics away from the landfill and into new life.
- Bases are 100% recyclable.

Finishes

- All metal is finished with Landscape Forms® proprietary Pangard II® polyester powdercoat, a hard yet flexible finish that resists rusting, chipping, peeling and fading.
- A wide range of standard, optional and custom colors are available.

To Specify

- Select Sorella planter, product description and size
- Select powdercoat metal color
- Specify with or without drain holes

Designed by Robert Chipman, ASLA

Architectural Series - Powdercoated Metal® (Fine Textu

Fog, Obsidian, Matte Black, Sage, Blue Ash, Dusk

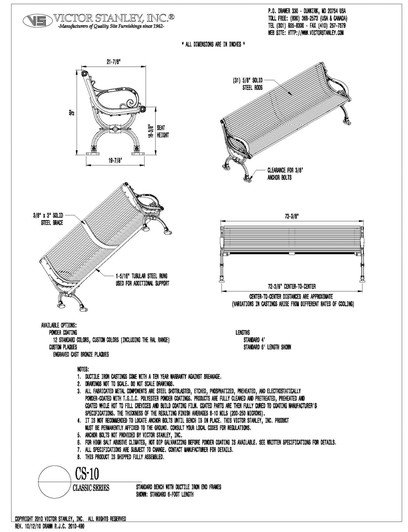
	TYPE	WIDTH	DEPTH	HEIGHT	PRODUCT WEIGHT
	freestanding	15"	15"	18"	29 lb
	freestanding	30"	30"	18"	74 lb
	freestanding	45"	45"	18"	129 lb
	freestanding	30"	15"	18"	49 lb
	freestanding	45"	15"	18"	67 lb
	freestanding	45"	30"	18"	99 lb
	surface mounted	15"	15"	30"	39 lb
	freestanding	30"	30"	30"	99 lb
	freestanding	45"	45"	30"	168 lb
	surface mounted	30"	15"	30"	65 lb
	surface mounted	45"	15"	30"	90 lb
	freestanding	45"	30"	30"	128 lb

Landscape Forms, Inc. | 800.521.2546 | F 269.381.3455 | 7800 E. Michigan Ave., Kalamazoo, MI 49048

2 Sorella Planter by Landscape Forms in Sage color

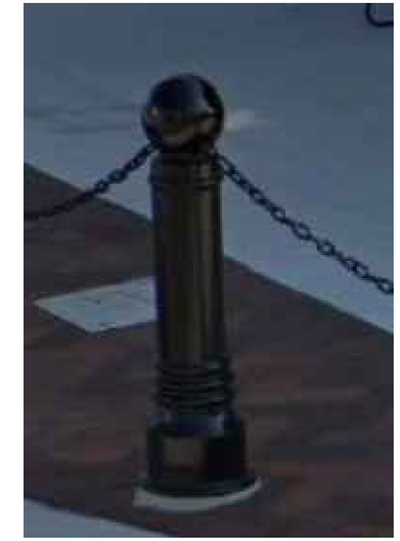
4 Bollard Option 2: Deco Drive 42" 12V LED Silhouette Bollard by Dauer Manufacturing

CDM Smith	USER NAME =	DESIGNED - KC / KD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LANDSCAPE - SITE FURNISHINGS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - KD	REVISED -				-	DUPAGE	310
	PLOT SCALE =	CHECKED - MC	REVISED -					CONTRACT NO. _	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: SHEET 310 OF SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	

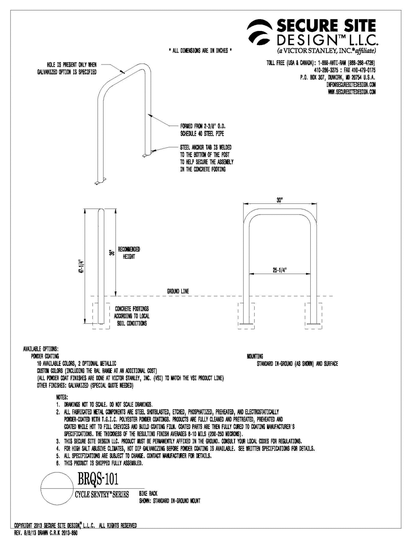


1 Streetscape Benches - CS-10 by Victor Stanley, to match existing

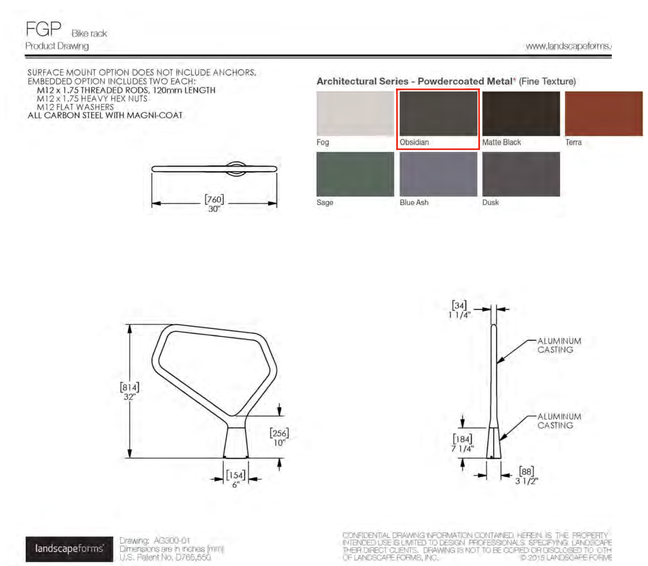
2 Streetscape Trash Receptacles - to match existing



3 Streetscape Bollard - to match existing



4 Streetscape Bike Racks - BRQS-101 by Victor Stanley, to match existing

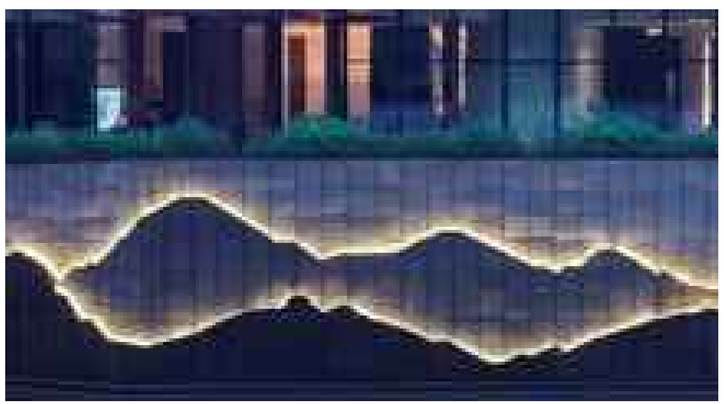


5 Plaza Bike Racks - AG300 by Landscape Forms

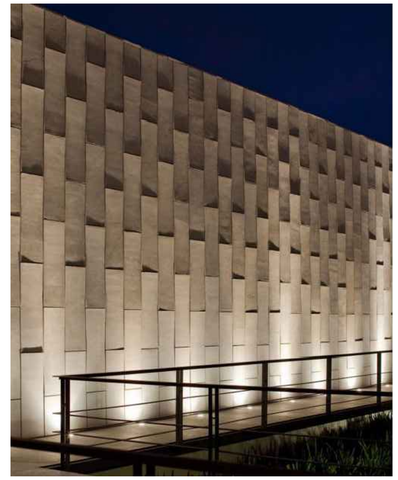
CDM Smith	USER NAME =	DESIGNED - KC / KD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LANDSCAPE - SITE FURNISHINGS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - KD	REVISED -				-	DUPAGE	311
	PLOT SCALE =	CHECKED - MC	REVISED -					CONTRACT NO. _	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: SHEET 311 OF SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT		

1 Tiered Concrete Wall with Toekick Lighting Option

2 Tiered Concrete Wall with Uplighting Option



3 Decorative Wall Panel Option - Metal with Backlight



4 Decorative Wall Panel Option - Concrete Pattern with Uplight

CDM Smith	USER NAME =	DESIGNED - KC / KD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LANDSCAPE - TIERED WALL	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - KD	REVISED -				-	DUPAGE	312
	PLOT SCALE =	CHECKED - MC	REVISED -					CONTRACT NO. _	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: SHEET 312 OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT	

ABBREVIATIONS

&	AND
<	ANGLE
@	AT
AB	ANCHOR BOLT
ABV	ABOVE
ACMU	ACOUSTICAL CONCRETE MASONRY UNIT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL, ALUM	ALUMINUM
AMP	ACOUSTICAL METAL PANELS
ANOD	ANODIZE(D)
ASSY	ASSEMBLY
BBT	BIOBASED TILE
BD	BOARD
BEV	BEVEL(ED)
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BRG	BEARING
BRK	BRICK
BRS	BRASS
BRZ	BRONZE
BTM	BOTTOM
C TO C	CENTER TO CENTER
CAB	CABINET
CEM	CEMENT
CF	COMPRESSIBLE FILLER
CGFB	CEMENTITIOUS GLASS FIBER BOARD
CH	CONCRETE HARDENER
CHAM	CHAMFER
CHAN	CHANNEL
CIP	CAST IN PLACE
CJ	CONTROL JOINT
CL OR	CENTERLINE
CLG	CEILING
CLKG	CAULKING
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMP	COMPRESSIBLE
CONC	CONCRETE
CONT	CONTINUOUS
CRPT	CARPET, CARPET TILE
CRS	COURSE(S)
CT	CERAMIC TILE
CET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DISP	DISPENSER
DN	DOWN
DP	DAMPPROOFING
DR	DRAIN
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL(LY)
EQPT	EQUIPMENT
EWC	ELECTRICAL WATER COOLER
EXP	EXPOSED
EJ	EXPANSION JOINT
EXIST, (E)	EXISTING
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FF	FACTORY FINISH
FGL	FIBERGLASS
FIN	FINISH(ED)
FLG	FLASHING
FL	FLOOR(ING)
FLR	FILLER
FR	FRAME
FRP	FIBERGLASS REINFORCED PLASTIC
FO	FRAME OPENING
FV	FIELD VERIFY
FXD	FIXED
GA	GAGE, GAUGE
GALV	GALVANIZED
GL	GLASS
GB	GLASS BLOCK
GRT	GRATING
GYP	GYPSUM
GWB	GYPSUM WALL BOARD
HARD	HARDENER
HD	HEAVY DUTY
HDWD	HARDWOOD
HDWR	HARDWARE
HGR	HANGER
HGT	HEIGHT
HM	HOLLOW METAL
HOR	HORIZONTAL
HP	HIGH POINT
HR	HANDRAIL
IN	INCH
INST	INSTRUMENTATION
INSUL	ISULATION
JC	JANITOR'S CLOSET
JT	JOINT
JT FLR	JOINT FILLER
L	LINE OF STRUCTURAL ANGLE DESIGNATION
LAB	LABORATORY
LAD	LADDER
LAM	LAMINIATED
LAV	LAVATORY
LG	LAMINATED GLASS
LINO	LINOLEUM
LKR	LOCKER
LNTL	LINTEL
LP	LOW POINT
LT	LIGHT(S)
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MEMB	MEMBRANE
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MR	MOISTURE RESISTANT
MRAT	MOISTURE RESISTANT ACOUSTICAL TILE
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
NIC	NOT IN CONTRACT
NOM	MONINAL
NTS	NOT TO SCALE
OC	ON CENTER
OH	OVERHANG
OPNG	OPENING
OPP HD	OPPOSITE HAND
ORD	OVERFLOW ROOF DRAIN
OSB	ORIENTED STRAND BOARD
OV	OVER
OVHD	OVERHEAD
PERIM	PERIMETER
PL	PLATE
PL	PROPERTY LINE
PLAS	PLASTER
PLK	PLANK
PLYWD	PLYWOOD
PM	PRESSED METAL
PR	PAIR
PRD	PROMENADE ROOF DRAIN
PRCST	PRECAST
PREFAB	PRE-FABRICATED
PT	PREASSURE TREATED
PRMLD	PREMOLDED
PSF	POUNDS PER SQUARE FOOT
PTD	PAINTED
QT	QUARRY TILE
QTB	QUARRY TILE BASE
R	RISER(S)
R+S	BACKER ROD & SEALANT
RB	RUBBER BASE
RD	ROOF DRAIN
RECT	RECEPTACLE
REF	ROOF EXHAUST FAN
REINF	REINFORCE (D, ING)
REQ'D	REQUIRED
REV	REVISED
RF	ROOF FAN
RFG	ROOFING
RGH	ROUGH
RJ	REVEAL/RUSTICATION JOINT
RL	RAIN LEADER
RLG	RAILING
RM	ROOM
RO	ROUGH OPENING
RT	RUBBER TILE
RWL	RAIN WATER LEADER
S	STEEL S-SHAPED DESIGNATION
SAT	SUSPENDED ACOUSTICAL TILE
SB	SEAMLESS BASE
SCHD	SCHEDULE
SCRN	SCREEN(ED, ING)
SECT	SECTION
SF	SEAMLESS FLOORING
SGFT	STRUCTURAL GLAZED FACING TILE
SHT	SHEET
SIM	SIMILAR
SK	SINK
SL	SLOPE
SLNT	SEALANT
SPEC	SPECIFICATION, SPECIFIED
SST	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRU	STRUCTURE(S, URAL)
STWY	STAIRWAY
SUPT	SUPERINTENDENT
SUSP	SUSPENDED
T	TREAD(S)
TBM	TRAFFIC BEARING MEMBRANE
T&G	TONGUE AND GROOVE
TEMP	TEMPERATURE
TEMP	TEMPERED
TEMP	TEMPORARY
TER	TERRAZZO
TERB	TERRAZZO BASE
THK	THICK(NESS)
THR	THRESHOLD
TKBD	TACKBOARD
TOB	TOP OF BRICK
TOC	TOP OF CONCRETE
TOIL	TOILET
TOM	TOP OF MASONRY
TOPG	TOPPING
TOS	TOP OF STEEL
TS	STRUCTURAL TUBING (STEEL UNLESS NOTED)
TSL	TOP OF SLAB
TWF	THROUGH WALL FLASHING
TYP	TYPICAL
UC	UNDERCUT
UON	UNLESS OTHERWISE NOTED
UR	URINAL
VB	VAPOR BARRIER
VCT	VINYL COMPOSITE TILE
VERT	VERTICAL
VEST	VESTIBULE
VTR	VENT THRU ROOF
W	WITH
W/	WITH
W/A	WHERE APPLICABLE
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WF	WIDE FLANGE
WPG	WATERPROOFING
WT	STEEL TEE-SHAPE DESIGNATION
WWF	WELDED WIRE FABRIC

GENERAL NOTES

HEIGHT OF INTERIOR STUD AND CMU PARTITIONS ARE FROM FLOOR TO THE UNDERSIDE OF ROOF DECK UNLESS OTHERWISE NOTED. PROVIDE DEFLECTION HEADS AT TOP OF WALL (TYPICAL).

NOT ALL EQUIPMENT IS SHOWN FOR CLARITY. REFER TO THE APPROPRIATE DISCIPLINE SHEETS FOR SPECIFIC EQUIPMENT LAYOUT AND OTHER REQUIREMENTS

SEE CIVIL SHEETS FOR SIDEWALK, ROAD PAVING AND FINISH GRADE ELEVATIONS.

SEE STRUCTURAL SHEETS FOR SIZE AND LOCATION OF CONCRETE PADS, TRENCHES, VAULTS, SUMPS, ETC

SEE STRUCTURAL SHEETS FOR CONCRETE AND MASONRY REINFORCEMENT

ALL INTERIOR CMU WALLS SHALL BE PROVIDED WITH INSULATION INSERTS (SEE SPEC 04200)

PATCH AND REPAIR ANY MATERIALS OR SURFACES DAMAGED DURING THE CONSTRUCTION PROCESS TO MATCH THE EXISTING ADJACENT SURFACES.

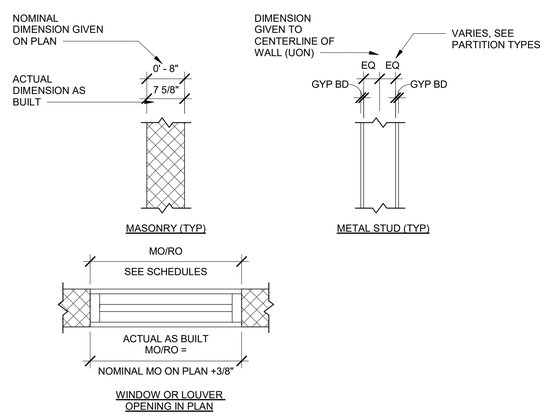
ALL ITEMS TO BE NEW UNLESS SPECIFICALLY NOTED OTHERWISE.

ALL JOINTS, VOIDS AND PENETRATIONS THROUGH FIRE-RATED WALL SYSTEMS ARE TO BE FILLED/SEALED WITH UL APPROVED FIRESAFING/FIRESTOPPING MATERIALS TO ACHIEVE THE REQUIRED FIRE-RATING (REFER TO CODE DRAWINGS FOR LOCATIONS).

DO NOT SCALE FROM THE DRAWINGS

NOTIFY ARCHITECT IF CONSTRUCTION DOCUMENTS DIFFER FROM ACTUAL FIELD CONDITIONS PRIOR TO FABRICATION OR NEW CONSTRUCTION

THIS DRAWING CONTAINS A GENERAL LIST OF SYMBOLS AND ABBREVIATIONS. NOT ALL ITEMS SHOWN HERE APPEAR ON THE CONTRACT DRAWINGS.



LINE TYPES (UNLESS OTHERWISE NOTED)

CONTINUOUS - NEW CONSTRUCTION

DASHED ON CONSTRUCTION PLAN/SHEETS - HIDDEN ELEMENTS BEYOND, ABOVE OR BELOW

MATERIAL SYMBOLS

EARTH

GRAVEL

BRICK

CONCRETE MASONRY UNIT (CMU)

PRECAST CONCRETE

CAST-IN-PLACE CONCRETE

WOOD BLOCKING

WOOD FINISH

PLYWOOD

RIGID INSULATION

BLANKET INSULATION

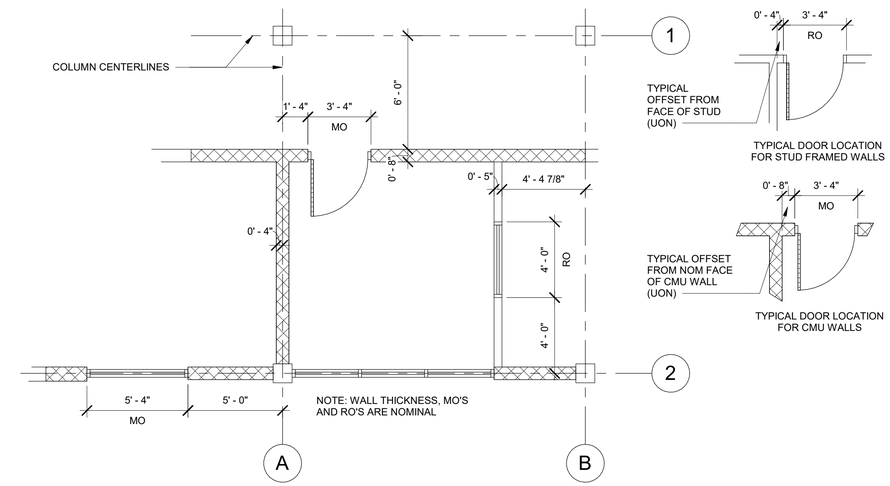
STEEL

ALUMINUM

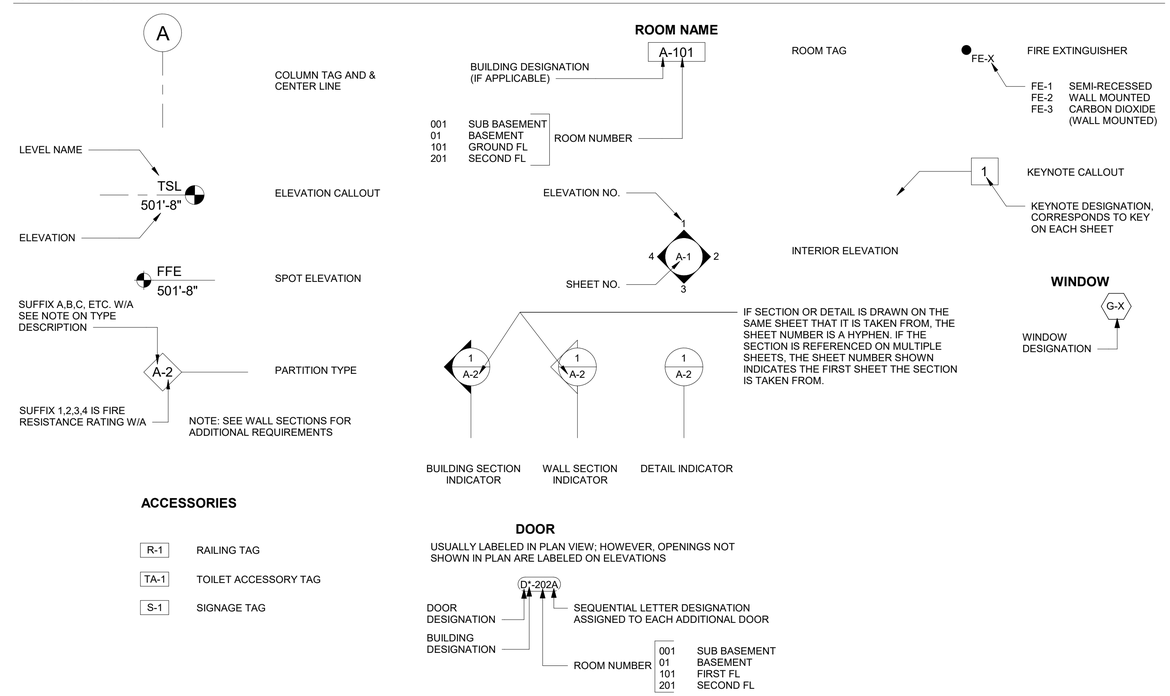
STUCCO / GROUT

CAULK

DIMENSIONING SYSTEM



SYMBOLS



ACCESSORIES

R-1	RAILING TAG
TA-1	TOILET ACCESSORY TAG
S-1	SIGNAGE TAG

DOOR

USUALLY LABELED IN PLAN VIEW; HOWEVER, OPENINGS NOT SHOWN IN PLAN ARE LABELED ON ELEVATIONS

CDM Smith

USER NAME =	DESIGNED - MZ	REVISED -	
ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -	
PLOT SCALE =	CHECKED - SJS	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL GENERAL NOTES AND ABBREVIATIONS

SCALE: AS NOTED | SHEET 401 OF SHEETS

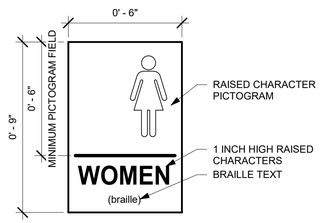
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		401
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

SIGN SCHEDULE

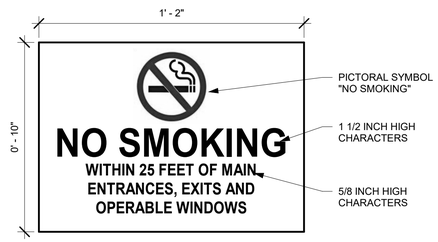
FLOOR NUMBER	ROOM NUMBER	ROOM NAME	SIGN DETAIL	ADDITIONAL COMMENTS
Ground Floor		Fire Riser Room	5	Common Room
		Electrical Room	5	Common Room
		Utility Room	5	Common Room
		Restroom	1	Public Restroom
		Restroom	1	Public Restroom
Mechanical Mezzanine		Roof Access	5	Common Room

SIGN GENERAL NOTES:

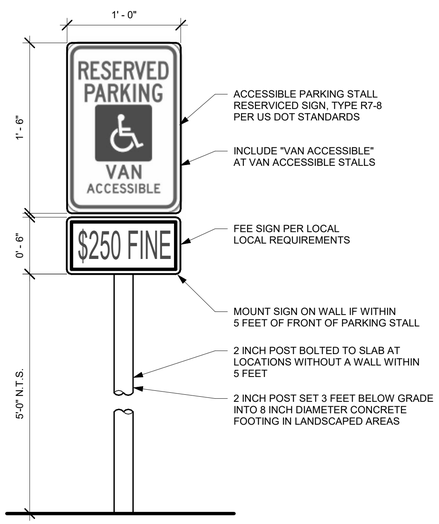
A. GRAPHICS SHOWN ARE DIAGRAMMATIC. SIGN SUPPLIER TO COORDINATE WITH THE CLIENT TO DEVELOP A PROJECT SPECIFIC COLORS, FONTS, AND GRAPHICS.
B. ROOM SIGNS ARE TO BE CENTERED 11 INCHES TO THE SIDE OF THE LATCH SIDE OF THE DOOR UNLESS NOTED OTHERWISE
C. MOUNT SIGNS WITH TOP OF SIGN AT 60 INCHES ABOVE THE FLOOR UNLESS NOTED OTHERWISE
D. COMPLY WITH THE BUILDING CODE AND 2010 ADA FOR REQUIRED SIGNS
E. IMMEDIATELY REPORT ANY CONFLICTS THAT WOULD INTERFERE WITH THE SIGN INSTALLATION LOCATION



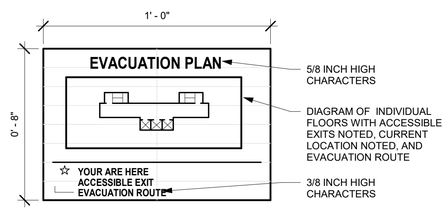
1 PUBLIC RESTROOMS
3" = 1'-0"



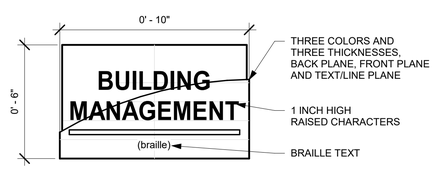
2 NO SMOKING SIGN
3" = 1'-0"



3 PARKING SIGN
1 1/2" = 1'-0"



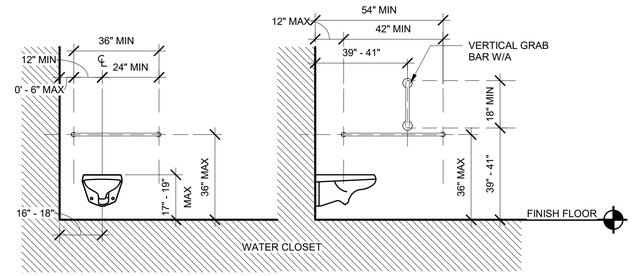
4 EVACUATION PLAN
3" = 1'-0"

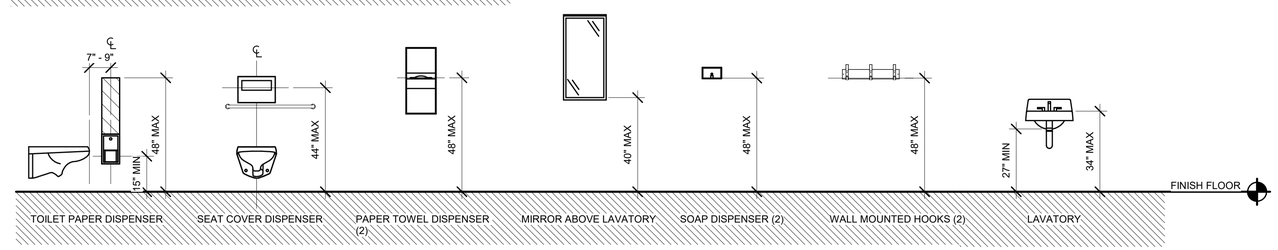


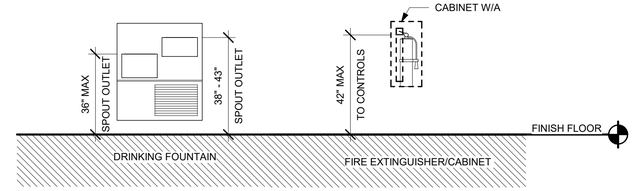
5 COMMON ROOM
3" = 1'-0"

TYPICAL MOUNTING LOCATIONS

GENERAL NOTES:
1. PROVIDE WOOD BLOCKING AS REQUIRED FOR ALL TOILET ACCESSORIES.
2. WALL MOUNTED ACCESSORIES SHALL BE MOUNTED IN ACCORDANCE WITH REACH LIMITS APPLICABLE TO INSTALLATION LOCATION:
- MAXIMUM UNOBSTRUCTED FORWARD OR SIDE REACH IS 48".
- MAXIMUM OBSTRUCTED FORWARD REACH IS 44".
- MAXIMUM OBSTRUCTED SIDE REACH IS 46".



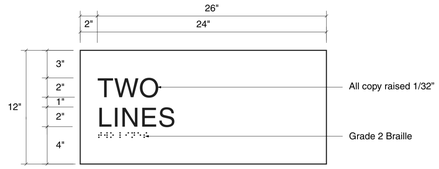




GENERAL NOTE: OBJECTS PROJECTING FROM WALLS (FOR EXAMPLE, TELEPHONES) WITH THEIR LEADING EDGES BETWEEN 27 IN AND 80 IN ABOVE THE FINISHED FLOOR SHALL PROTRUDE NO MORE THAN 4 IN INTO WALKS, HALLS, CORRIDORS, PASSAGEWAYS, OR AISLES.

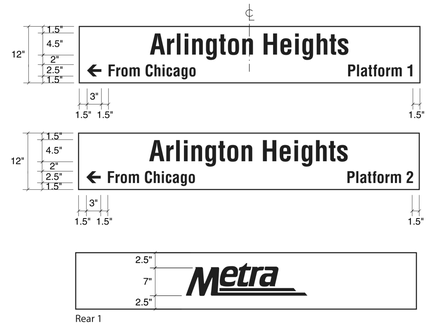
S-1

EAVE-MOUNTED MAJOR
STATION IDENTIFIER



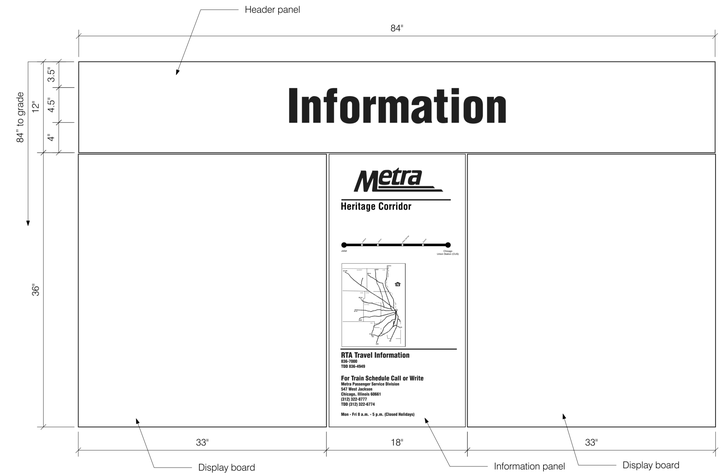
S-1D

WALL-MOUNTED MINOR
STATION IDENTIFIER



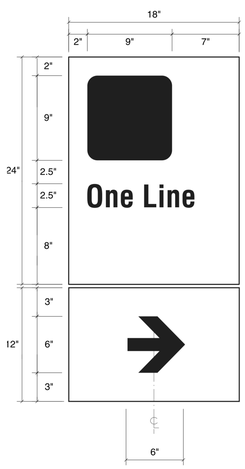
S-2

POST-MOUNTED PLATFORM IDENTIFIER



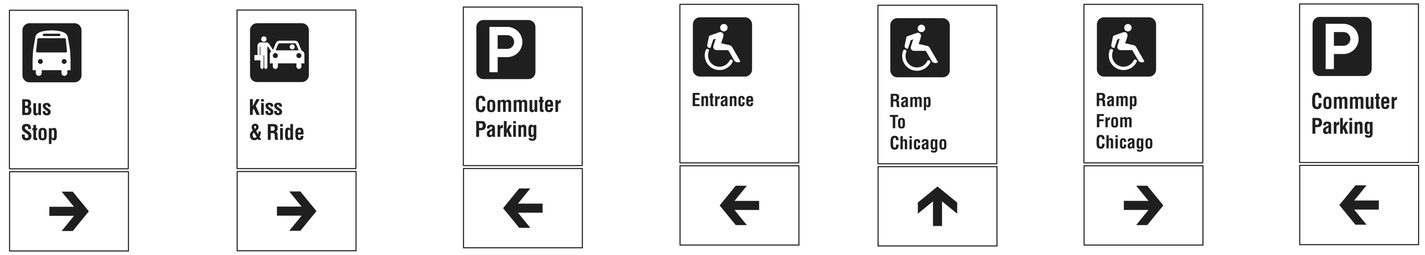
S-3

WALL-MOUNTED INFORMATIONAL SIGNAGE



S-4

EXTERIOR POST-MOUNTED
DIRECTIONAL SIGNS



S-5

FLUSH-MOUNTED
DIRECTIONAL SIGNS

SITE SIGNAGE INSTALLATION NOTES

A. 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.

B. 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.

C. PLATE AND BOLT MOUNTING REQUIREMENTS:
WELDED ALUMINUM FLANGE PLATES ARE MECHANICALLY FASTENED TO J-BOLTS OR ANCHOR
BOLTS EMBEDDED INTO CONCRETE FOOTINGS.

D. WALL MOUNTING REQUIREMENTS:
EXTRUDED ALUMINUM END SECTIONS ARE MECHANICALLY FASTENED TO WALL WITH ANCHOR BOLTS.

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

CDM Smith

USER NAME =	DESIGNED - MZ	REVISED -
ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -
PLOT SCALE =	CHECKED - SJS	REVISED -
PLOT DATE =	DATE - JUNE 2024	REVISED -

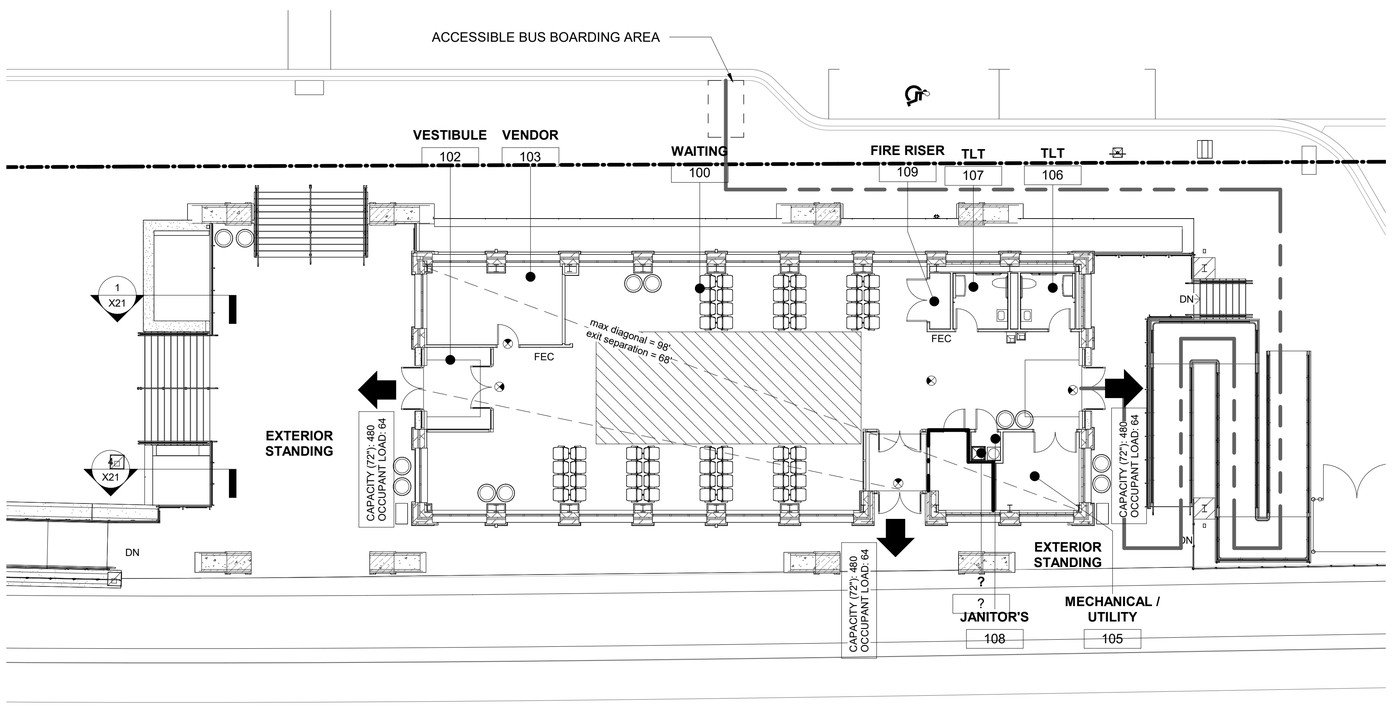
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL SITE SIGNAGE TYPES

SCALE: AS NOTED | SHEET 403 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		403
		CONTRACT NO.		

ILLINOIS FED. AID PROJECT



INBOUND GROUND LIFE SAFETY PLAN

3/32" = 1'-0"

BUILDING CODE SUMMARY

APPLICABLE CODES

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

KEY CODE DETERMINATIONS

BUILDING CLASSIFICATION
OCCUPANCY - SECTION 303 GROUP A-3 ASSEMBLY
CONSTRUCTION - SECTION 602.2 TYPE II B

BUILDING HEIGHTS AND AREAS TABLE 503*	MAX AREA	9,500 SF PER FLOOR	ACTUAL	3,480 GSF
	MAX HEIGHT	55 FEET	ACTUAL	34 FEET
	MAX STORES	2	ACTUAL	1
FIRE SEPARATION DISTANCE	TYPE II B > 30 FEET FROM BLDGS & PROPERTY LINE - 0 HR			
FIRE RESISTANCE RATING	ACTUAL = >30 FOOT SEPARATION 0 HR			
STAIRS	MIN WIDTH	44" CLEAR	ACTUAL	MIN 5'-0" CLEAR
	MIN RISER HEIGHT	7"	ACTUAL	7"
	MIN TREAD DEPTH	11"	ACTUAL	11"
AREA OF REFUGE	NOT REQ'D IN A FULLY SPRINKLERED BUILDING			
RAMPS	I:13 TYP (MAX 1:12)			
SPRINKLERS REQUIRED	NO	PROVIDED:	YES	
FIRE ALARM REQUIRED	NO	PROVIDED:	YES	

PLUMBING FIXTURES	WATER CLOSETS REQ'D	1 PER 100 (1M/1F)	PROVIDED	1M/1F
	LAVATORIES REQ'D	1 PER 200 (2)	PROVIDED	2
	DRINKING FOUNTAIN REQ'D	1	PROVIDED	1
	SERVICE SINK REQ'D	1	PROVIDED	1

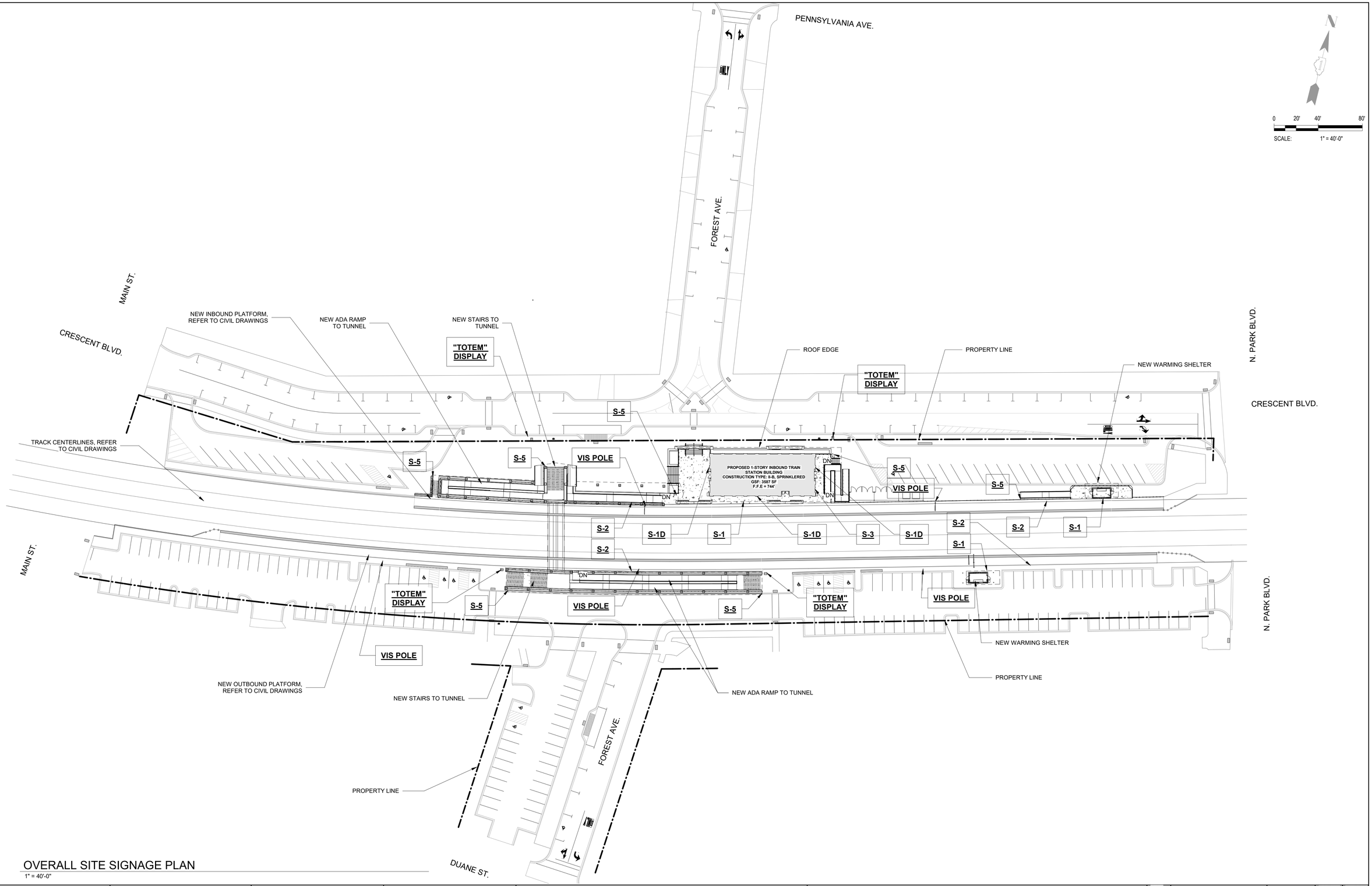
GROUP A-3 ASSEMBLY

OCCUPANT LOAD	ROOM	AREA	LOAD FACTOR	MAX OCCUPANT LOAD
	WAITING 100	54 SEATS	1 PER SEAT	54
	WAITING 100	705 SF	5 NET	141
	VENDOR 103	220 SF	200 GROSS	2
	RESTROOMS		UNOCCUPIED	0
	ELECTRICAL		UNOCCUPIED	0
	MECHANICAL		UNOCCUPIED	0
	FIRE RISER		UNOCCUPIED	0
	CIRCULATION		UNOCCUPIED	0
			191 OCCUPANTS (96 M / 96F)	

EGRESS WIDTH	REQUIRED	191 OCCUPANTS X 0.15 IN = 28.65 IN	ACTUAL	216 IN PROVIDED
EXITS PER SPACE TABLE 1015	REQUIRED	2	ACTUAL	3
MAX TRAVEL DISTANCE TABLE 1016.1	MAXIMUM	200 FEET	ACTUAL	MAX 66 FEET
HAZARDOUS CHEMICALS	NO INTERIOR BULK CHEMICAL STORAGE			

LIFE SAFETY LEGEND

- EXIT DISCHARGE
- AREA OR SPACE EXIT
- EXIT SIGN
- FE — FIRE EXTINGUISHER TYPE C
- FEC — FIRE EXTINGUISHER CABINET FE TYPE A-2
- KB — FIRE DEPARTMENT KEY BOX
- EGRESS PATH
- X — TRAVEL DISTANCE (FEET)
- X — COMMON PATH OF TRAVEL (FEET)
- ASSEMBLY STANDING SPACE
- 1-HR FIRE SEPARATION
- ACCESSIBLE SITE PATH OF TRAVEL



OVERALL SITE SIGNAGE PLAN

1" = 40'-0"

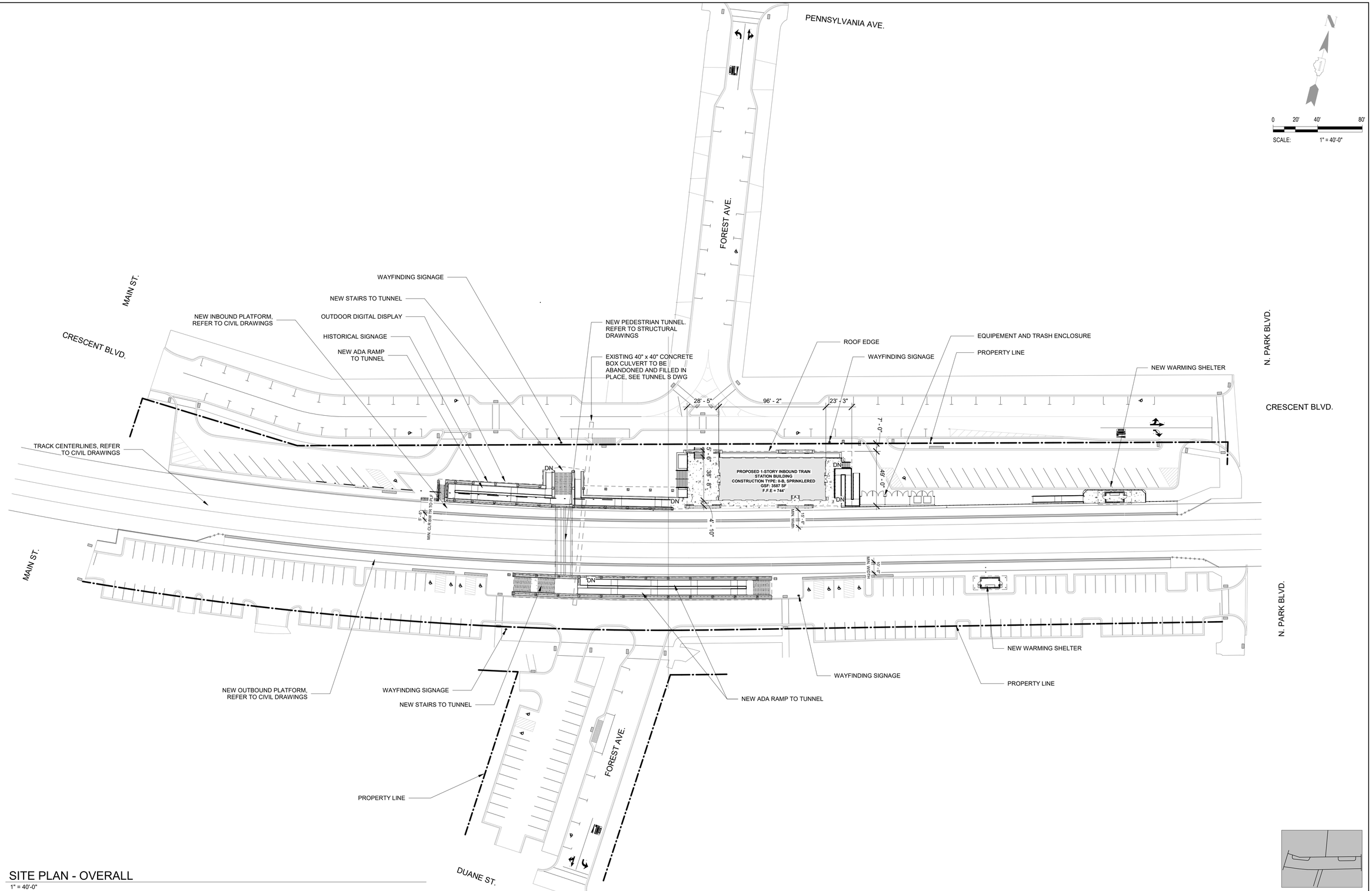
CDM Smith	USER NAME =	DESIGNED - MZ	REVISED -
	ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -
	PLOT SCALE =	CHECKED - SJS	REVISED -
	PLOT DATE =	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL METRA SITE SIGNAGE PLAN

SCALE: AS NOTED | SHEET 405 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		405
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		



SITE PLAN - OVERALL

1" = 40'-0"

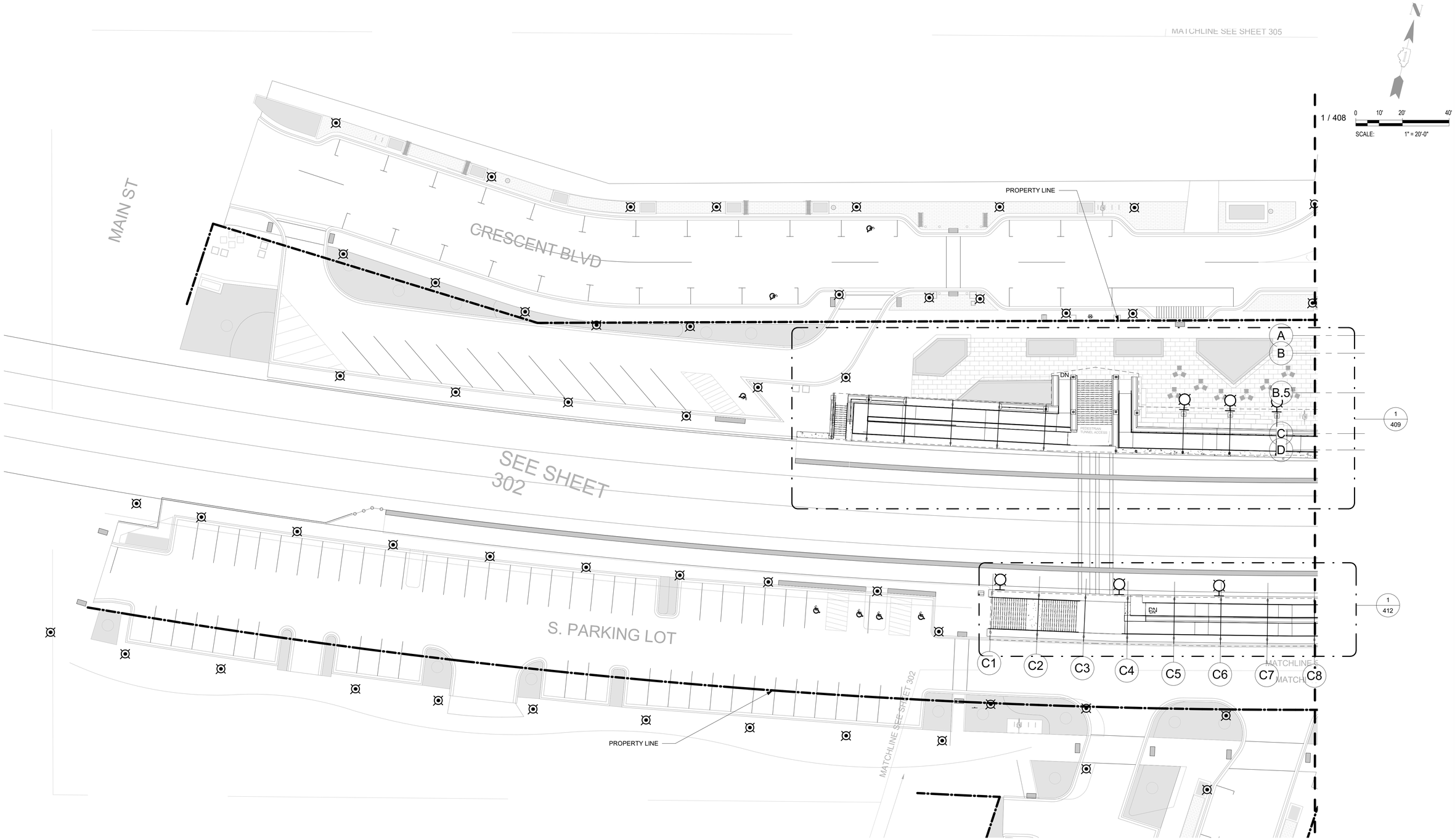
CDM Smith	USER NAME =	DESIGNED - MZ	REVISED -
	ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -
	PLOT SCALE =	CHECKED - SJS	REVISED -
	PLOT DATE =	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL SITE PLAN

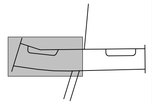
SCALE: AS NOTED | SHEET 406 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		406
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

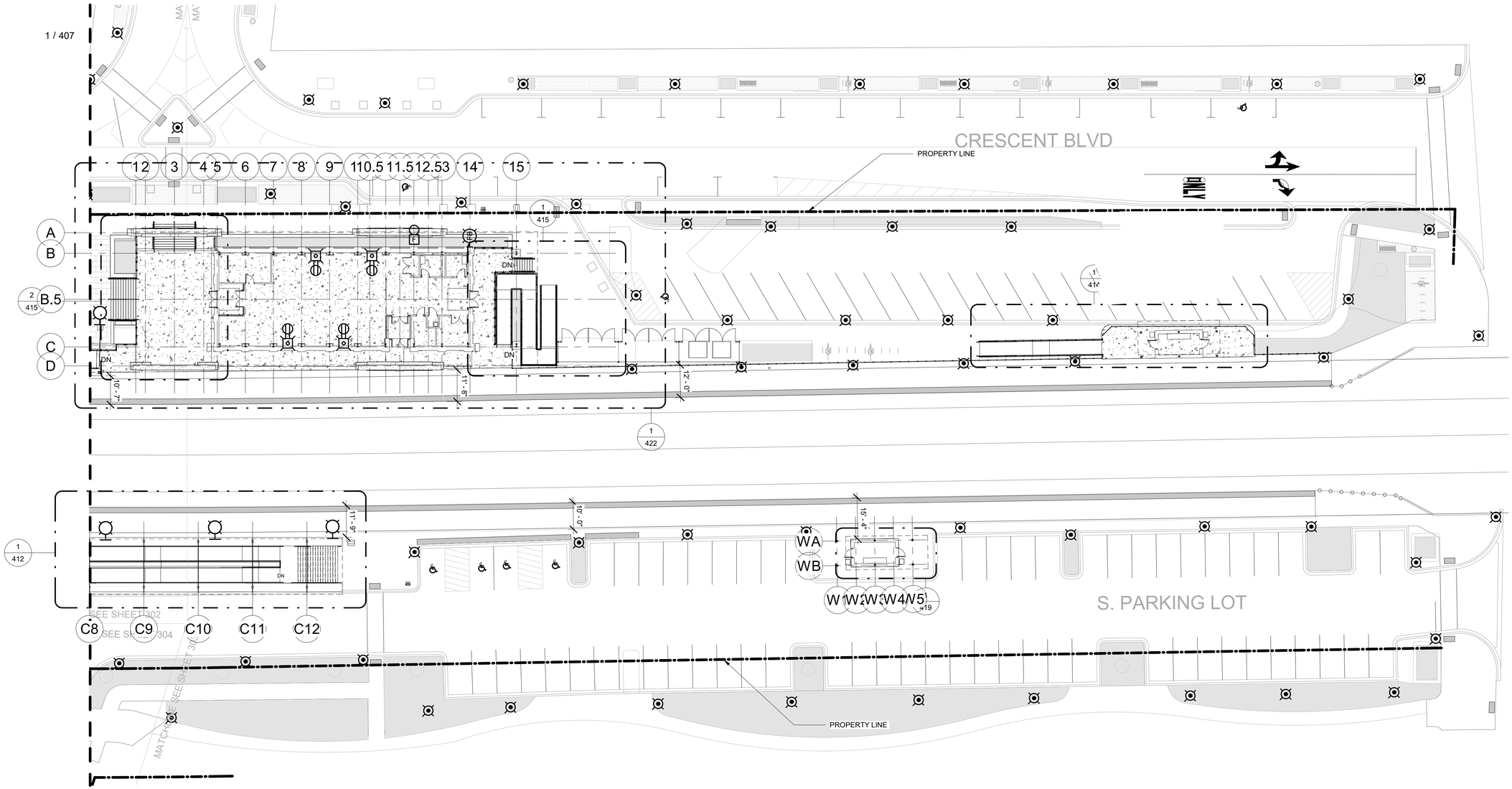


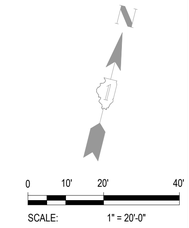
SITE PLAN - PART A

1" = 20'-0"



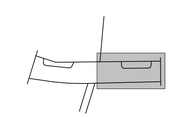
CDM Smith	USER NAME =	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL SITE PLAN - PART A	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -					DUPAGE		407
	PLOT SCALE =	CHECKED - SJS	REVISED -					CONTRACT NO.		
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 407 OF SHEETS	ILLINOIS FED. AID PROJECT				



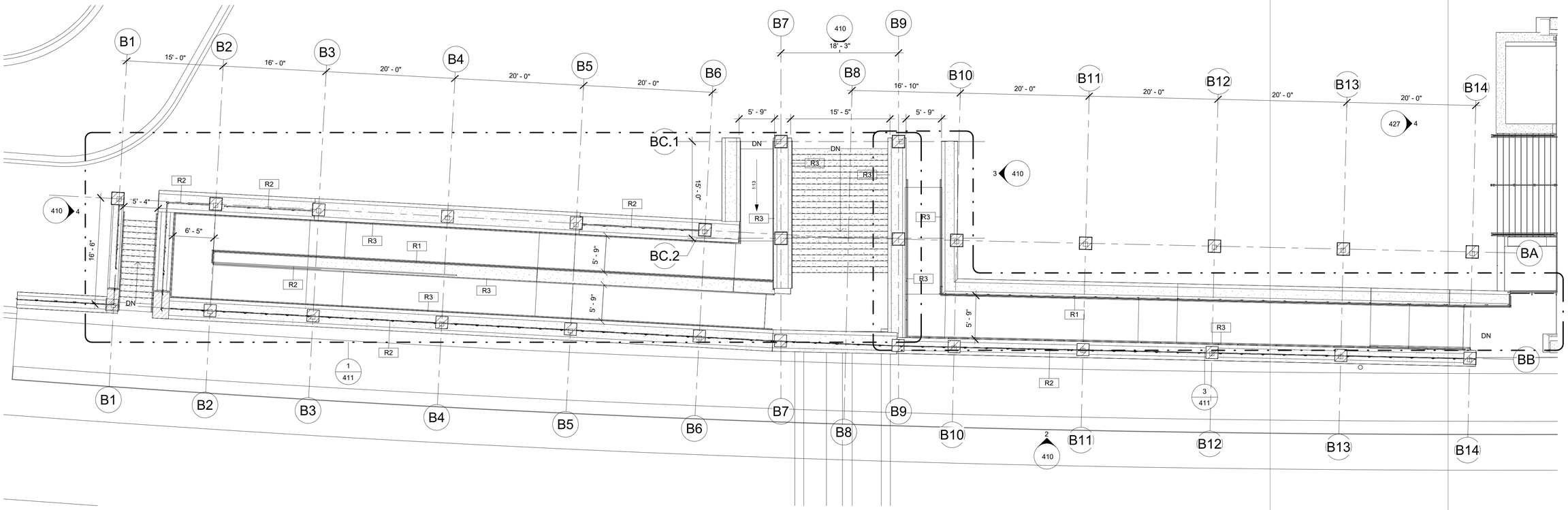


SITE PLAN - PART B

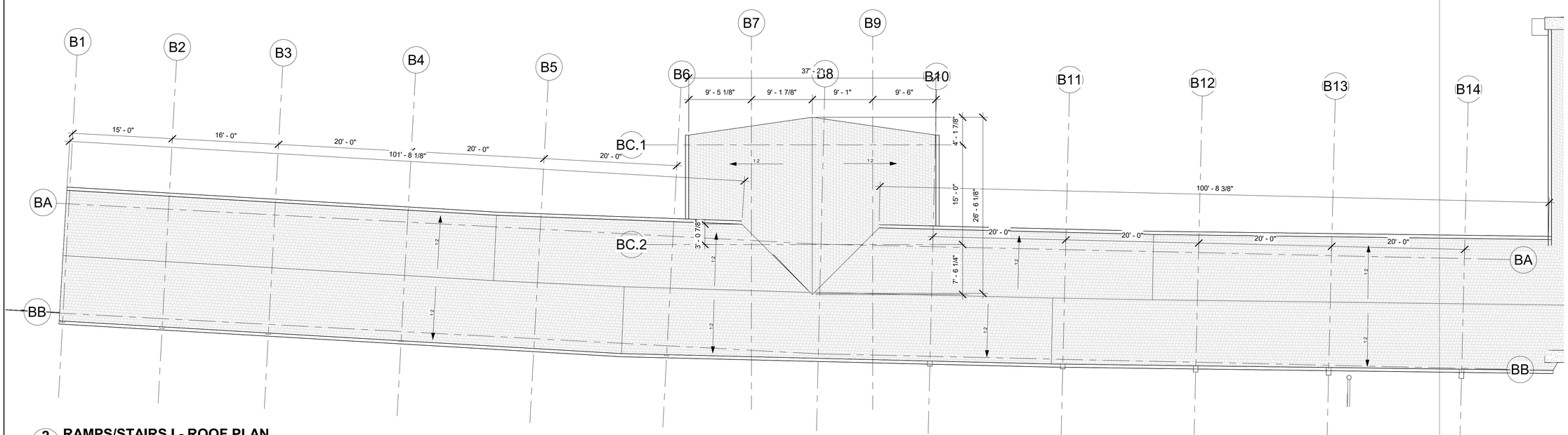
1" = 20'-0"



CDM Smith	USER NAME =	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL SITE PLAN - PART B	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -					DUPAGE	408
	PLOT SCALE =	CHECKED - SJS	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED / SHEET 408 OF SHEETS	ILLINOIS FED. AID PROJECT			

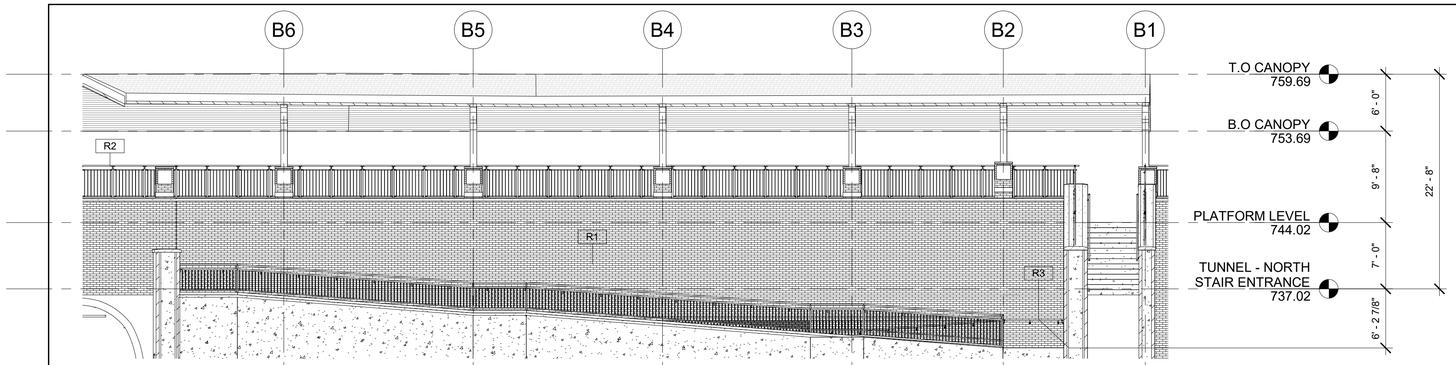


1 407 **RAMPS/STAIRS I - SITE PLAN**
1/8" = 1'-0"



2 427 **RAMPS/STAIRS I - ROOF PLAN**
1/8" = 1'-0"

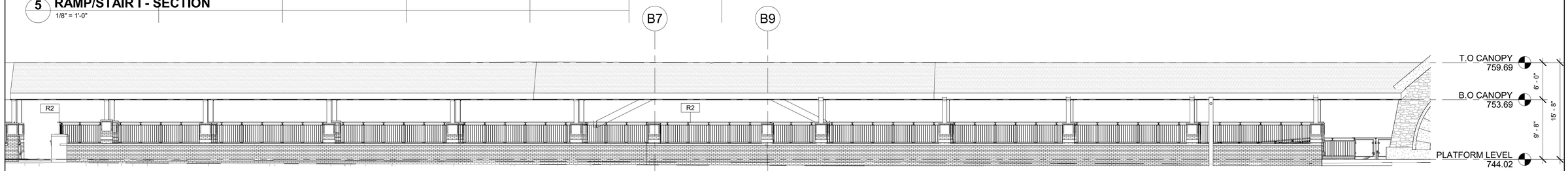
CDM Smith	USER NAME =	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL RAMP/STAIRS I - ENLARGED PLANS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -					DUPAGE	409
	PLOT SCALE =	CHECKED - SJS	REVISED -			CONTRACT NO.			
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED / SHEET 409 OF SHEETS	ILLINOIS FED. AID PROJECT			



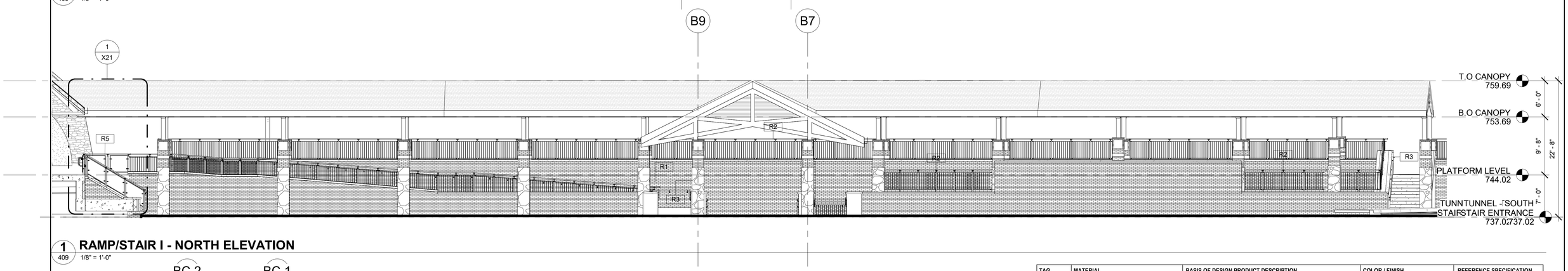
5 **RAMP/STAIR I - SECTION**
1/8" = 1'-0"

EXTERIOR MATERIAL LEGEND

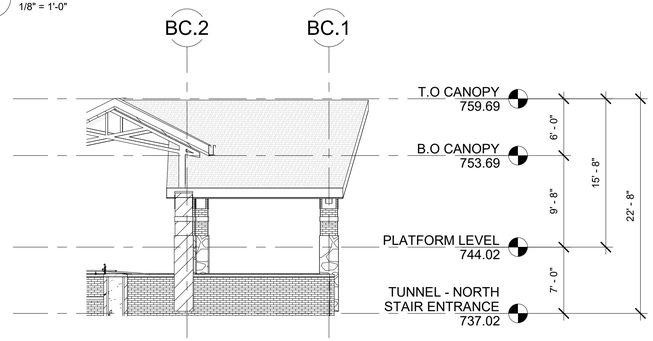
- NSULATED GLASS UNIT - VISION
- INSULATED GLASS UNIT - SPANDREL
- BRICK
- CAST STONE
- CULTURED STONE
- PREFINISHED METAL
- ASPHALT SHINGLE



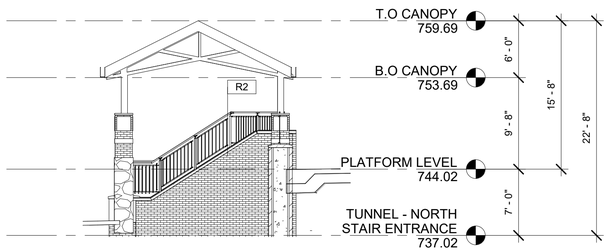
2 409 **RAMP/STAIR I - SOUTH ELEVATION**
1/8" = 1'-0"



1 409 **RAMP/STAIR I - NORTH ELEVATION**
1/8" = 1'-0"



3 409 **RAMP/STAIR I - EAST ELEVATION**
1/8" = 1'-0"



4 409 **RAMP/STAIR I - WEST ELEVATION**
1/8" = 1'-0"

TAG	MATERIAL	BASIS OF DESIGN PRODUCT DESCRIPTION	COLOR / FINISH	REFERENCE SPECIFICATION
E-PNT-01	HIGH PERFORMANCE COATING	PPG CORAFLON POWDER COATINGS	SW 7068 - IRON ORE	09 91 13
E-MTL-01	PREFINISHED ALUMINUM COPING	COPING	MATCH E-PNT-01	07 71 00
E-DWS-01	PREFINISHED ALUMINUM DOWNSPOUT	DOWNSPOUT	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 ANNODIZED / 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 ANNODIZED FRAMES AND BACK PAN / SNX51/23 WITH MEDIUM GRAY SPANDREL	08 41 10 AND 08 80 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	ROUGHCUT; 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

CDM Smith

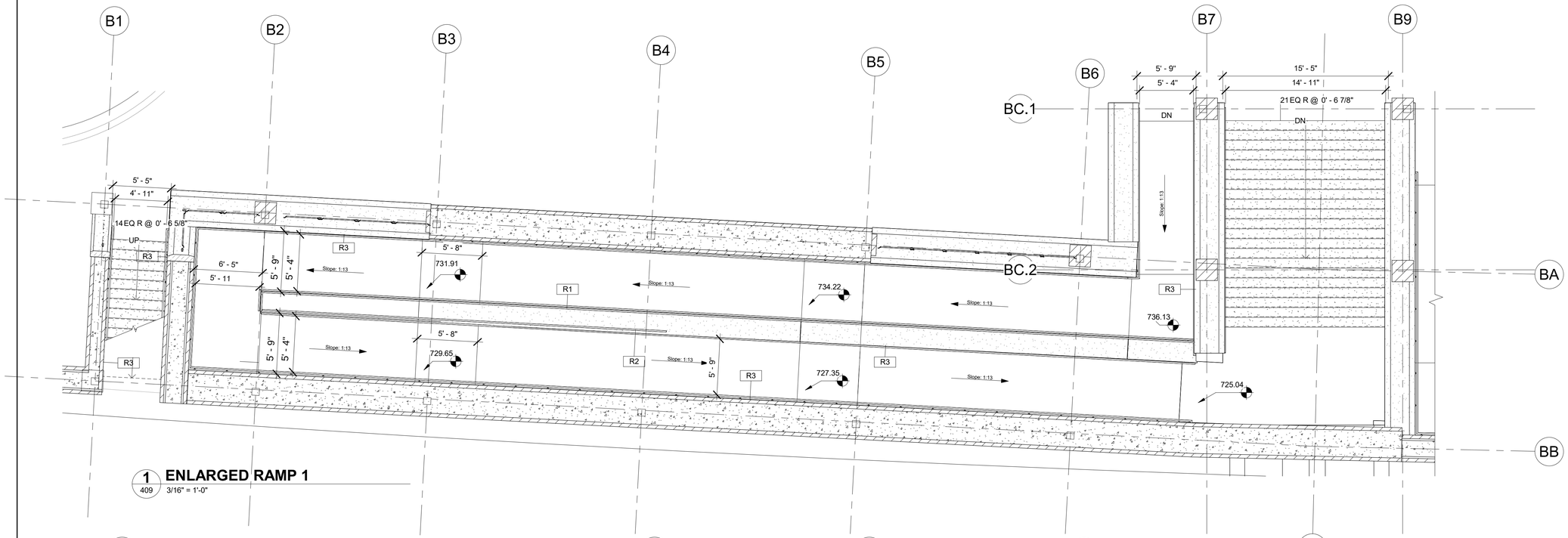
USER NAME =	DESIGNED - MZ	REVISED -	
ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -	
PLOT SCALE =	CHECKED - SJS	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

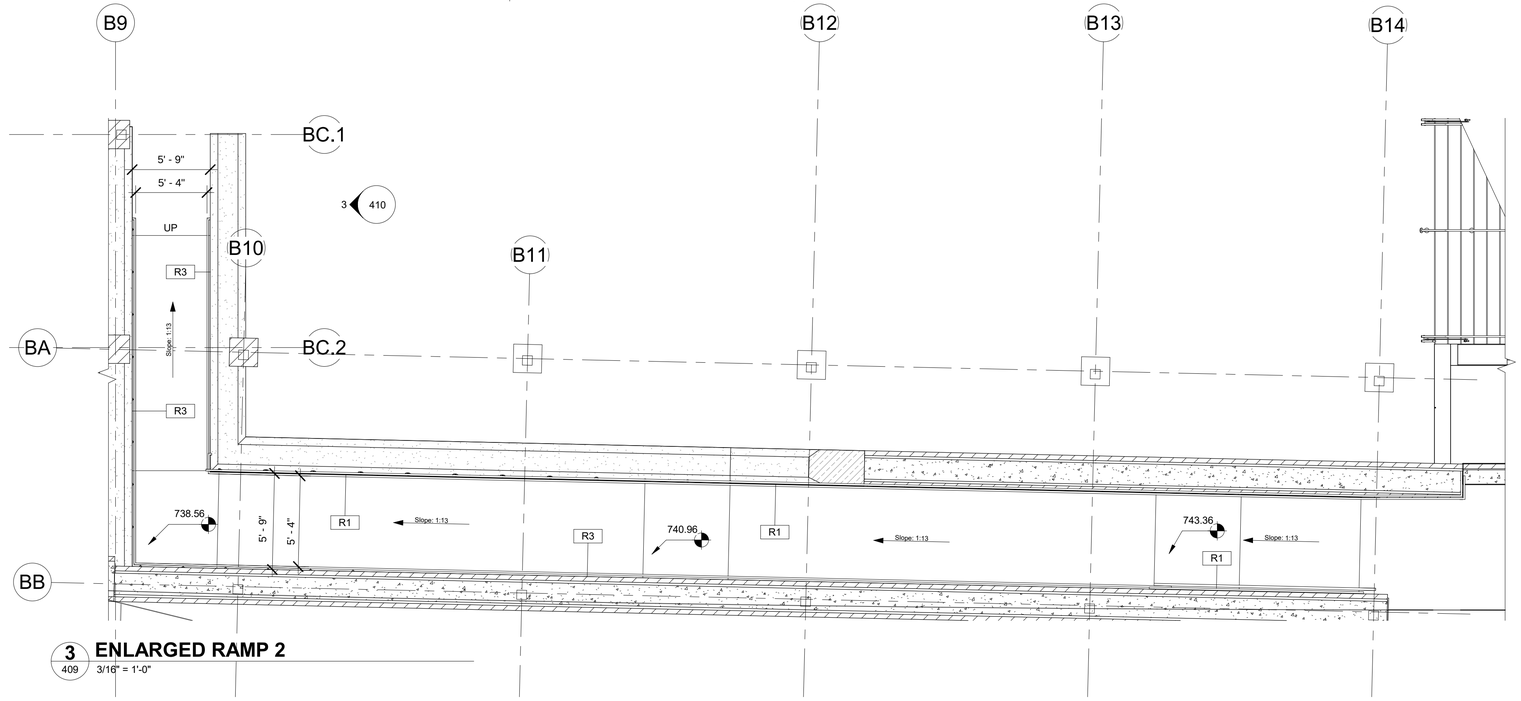
ARCHITECTURAL RAMP/STAIRS I - ELEVATIONS & SECTIONS

SCALE: AS NOTED | SHEET 410 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		410
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

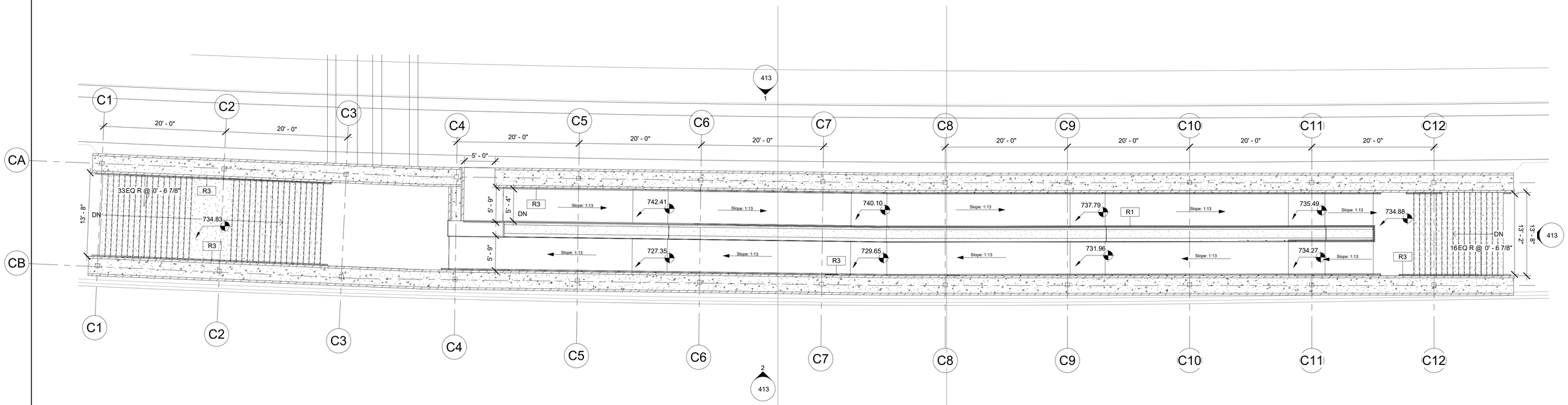


1 409 **ENLARGED RAMP 1**
3/16" = 1'-0"



3 409 **ENLARGED RAMP 2**
3/16" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL RAMP/STAIRS I - ENLARGED PLANS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -					DUPAGE	411
	PLOT SCALE =	CHECKED - SJS	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 411 OF SHEETS	ILLINOIS FED. AID PROJECT			



1 RAMPS/STAIRS II - SITE PLAN

407 1/8" = 1'-0"

2 RAMPS/STAIRS II - ROOF PLAN

427 1/8" = 1'-0"

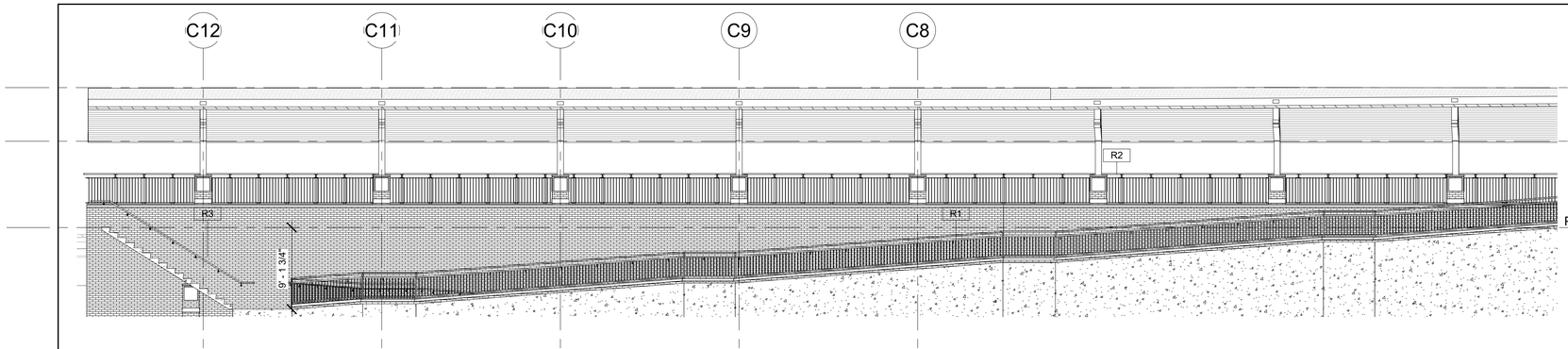
CDM Smith	USER NAME =	DESIGNED - MZ	REVISED -
	ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -
	PLOT SCALE =	CHECKED - SJS	REVISED -
	PLOT DATE =	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL RAMP/STAIRS II - ENLARGED PLANS

SCALE: AS NOTED | SHEET 412 OF SHEETS

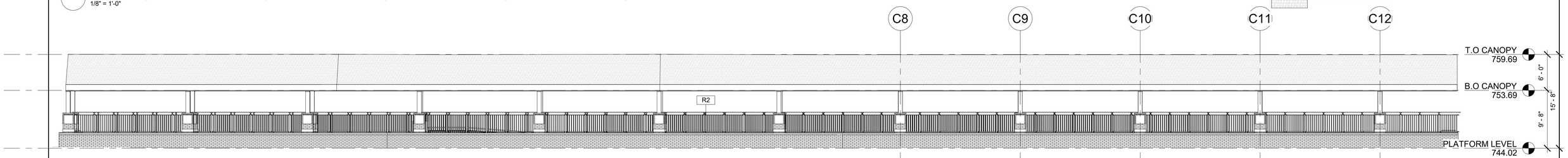
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		412
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		



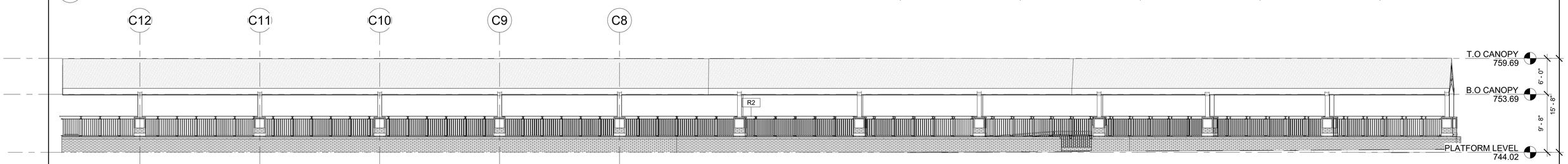
5 RAMP/STAIR II - SECTION
1/8" = 1'-0"

EXTERIOR MATERIAL LEGEND

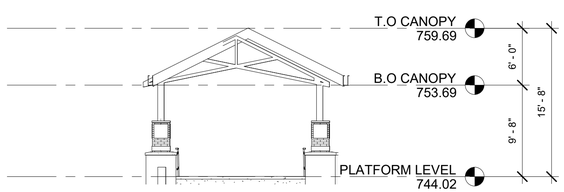
- NSULATED GLASS UNIT - VISION
- INSULATED GLASS UNIT - SPANDREL
- BRICK
- CAST STONE
- CULTURED STONE
- PREFINISHED METAL
- ASPHALT SHINGLE



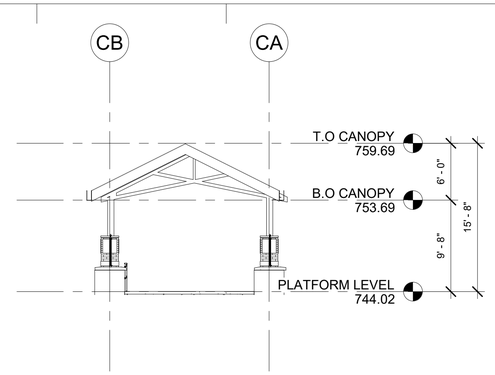
2 412 RAMP/STAIR II - SOUTH ELEVATION
1/8" = 1'-0"



1 412 RAMP/STAIR II - NORTH ELEVATION
1/8" = 1'-0"



4 RAMP/STAIR II - WEST ELEVATION
1/8" = 1'-0"



3 412 RAMP/STAIR II - EAST ELEVATION
1/8" = 1'-0"

TAG	MATERIAL	BASIS OF DESIGN PRODUCT DESCRIPTION	COLOR / FINISH	REFERENCE SPECIFICATION
E-PNT-01	HIGH PERFORMANCE COATING	PPG CORAFLON POWDER COATINGS	SW 7068 - IRON ORE	09 91 13
E-MTL-01	PREFINISHED ALUMINUM COPING	COPING	MATCH E-PNT-01	07 71 00
E-DWS-01	PREFINISHED ALUMINUM DOWNSPOUT	DOWNSPOUT	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 ANNODIZED / 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 ANNODIZED FRAMES AND BACK PAN / SNX51/23 WITH MEDIUM GRAY SPANDREL	08 41 10 AND 08 80 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	ROUGHCUT; CASA BLANCA	04 43 13.16
E-BRK-01	UNIT BRICK	SUMMT 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

CDM Smith

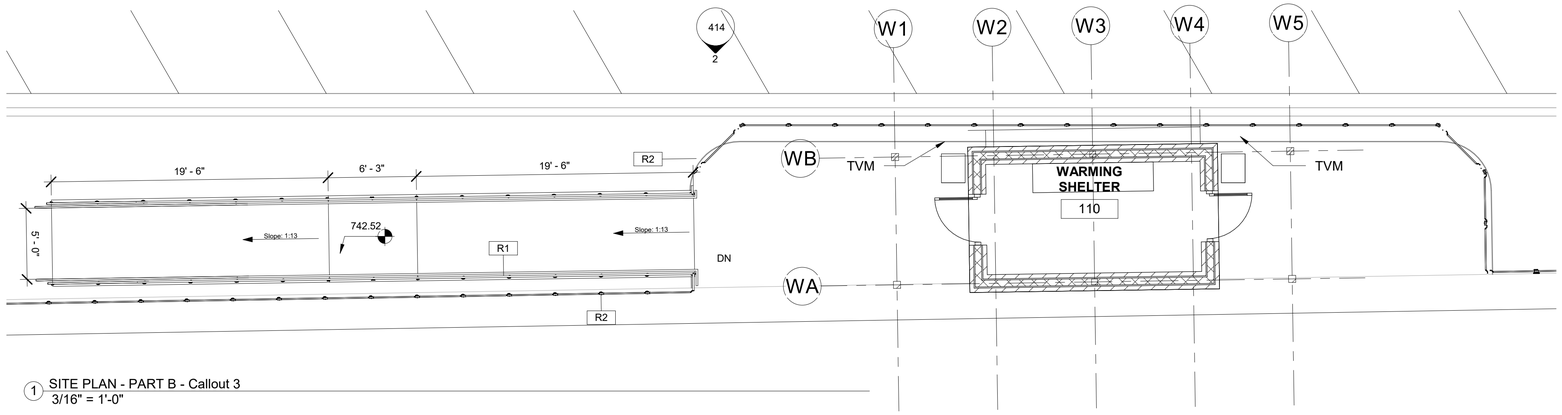
USER NAME =	DESIGNED - MZ	REVISED -
ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -
PLOT SCALE =	CHECKED - SJS	REVISED -
PLOT DATE =	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

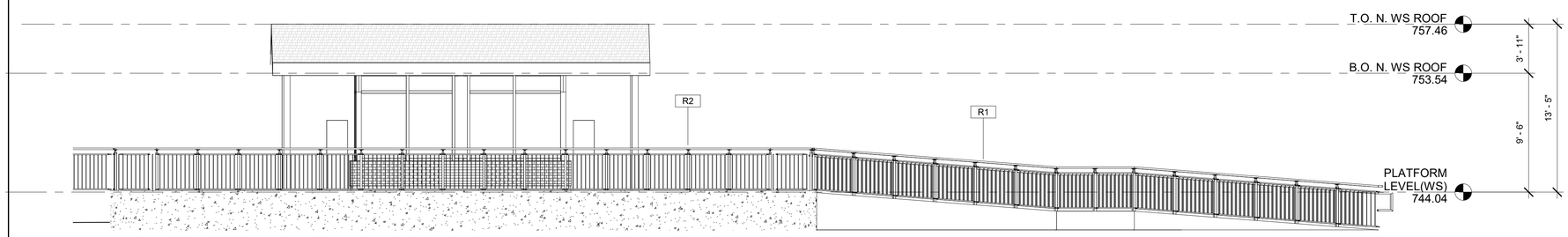
ARCHITECTURAL RAMP/STAIRS II - ELEVATIONS & SECTIONS

SCALE: AS NOTED | SHEET 413 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		413
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		



1 SITE PLAN - PART B - Callout 3
3/16" = 1'-0"



2 RAMP III - NORTH ELEVATION
3/16" = 1'-0"

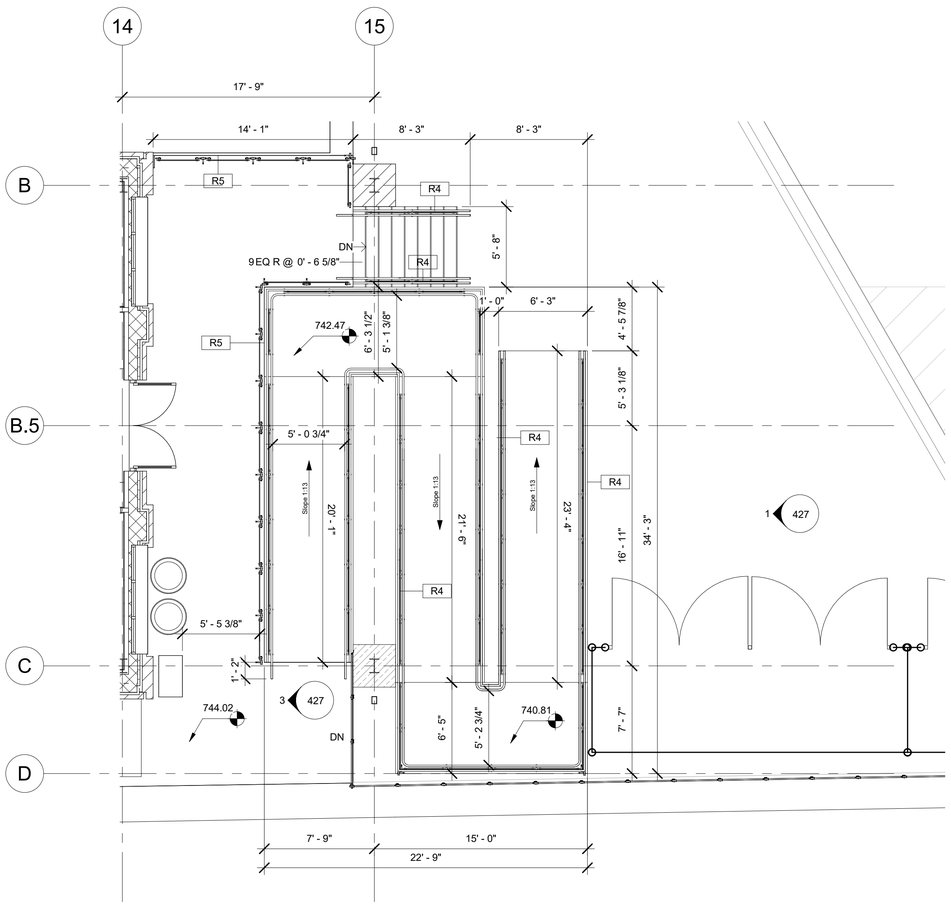
CDM Smith	USER NAME =	DESIGNED - MZ	REVISED -
	ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -
	PLOT SCALE =	CHECKED - SJS	REVISED -
	PLOT DATE =	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

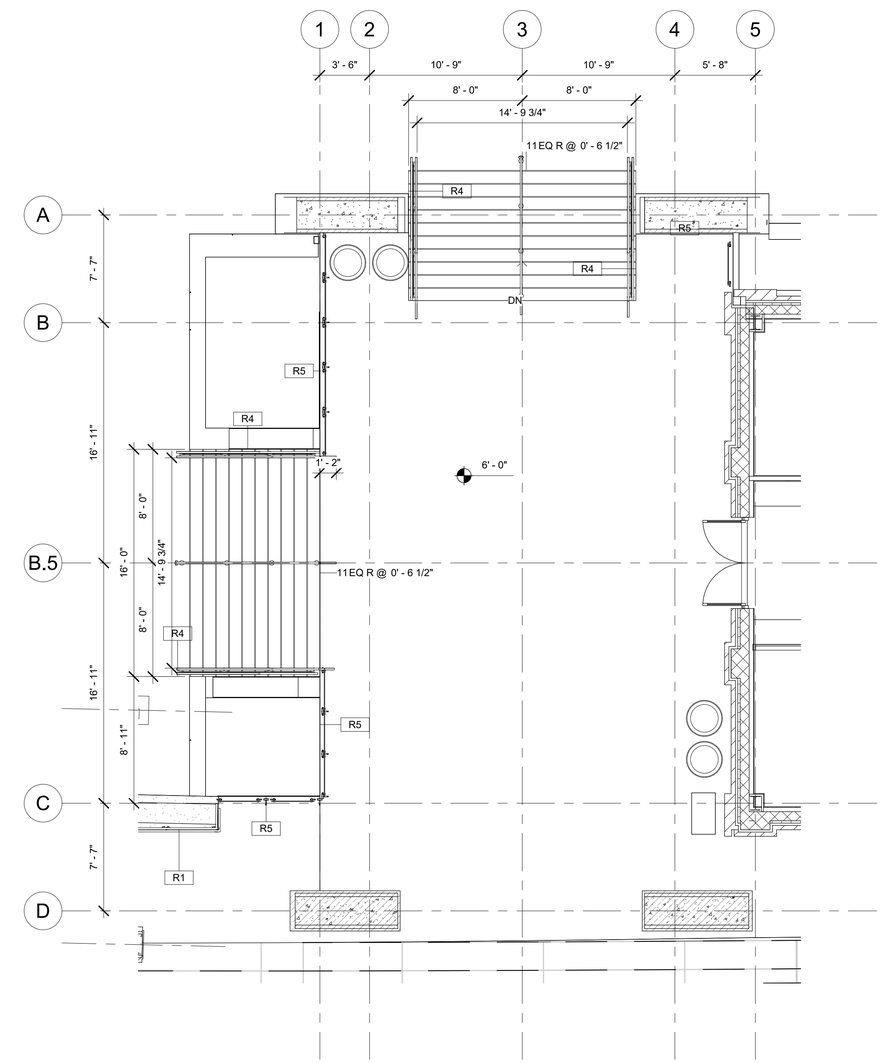
ARCHITECTURAL RAMP/STAIRS III - ENLARGED PLANS

SCALE: AS NOTED | SHEET 414 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		414
		CONTRACT NO.		
ILLINOIS FED. AID PROJECT				

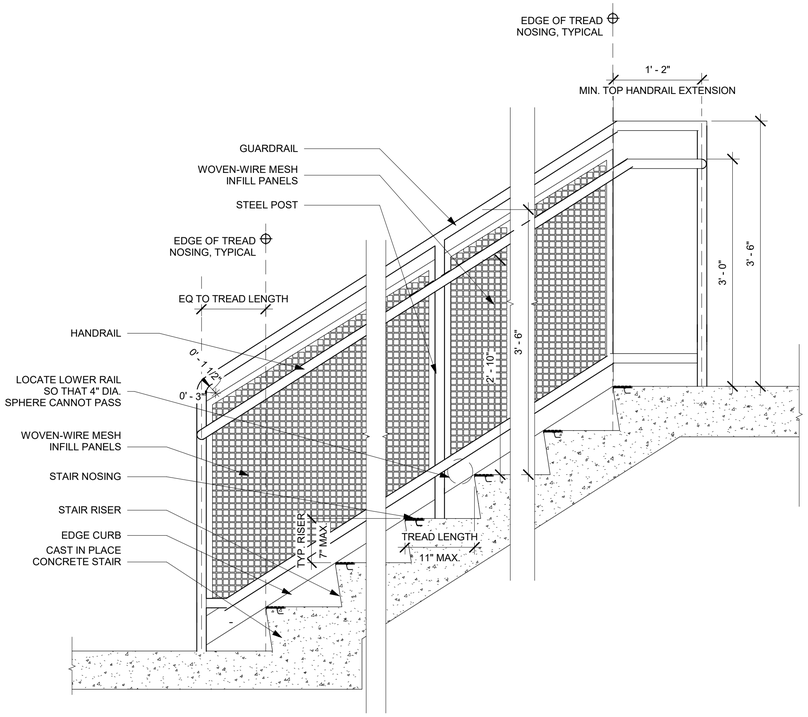


1 SITE PLAN - PART B - Callout 1
3/16" = 1'-0"



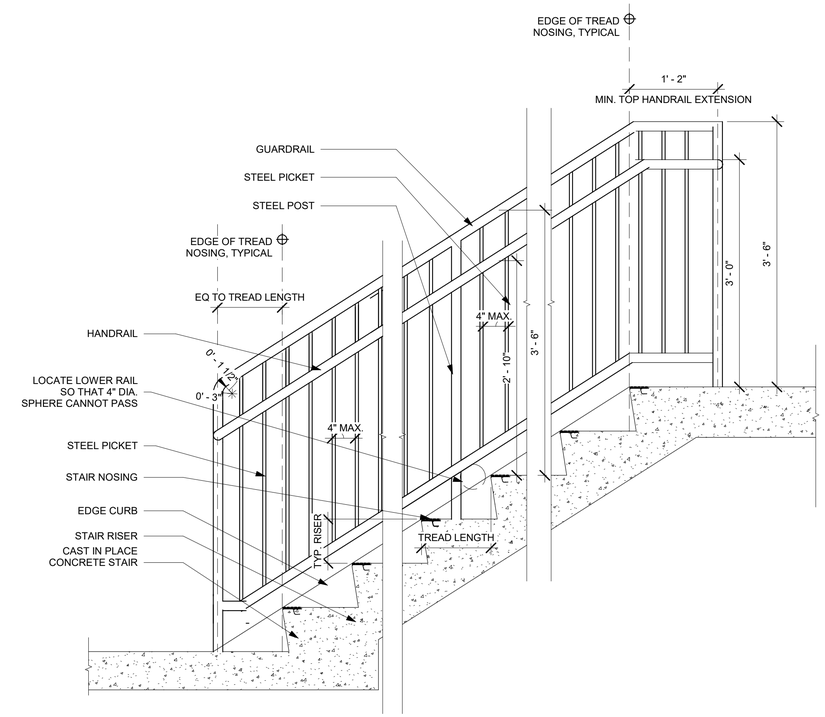
2 SITE PLAN - PART B - Callout 2
3/16" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL STATION RAMP/STAIRS - ENLARGED PLANS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -					DUPAGE	415
	PLOT SCALE =	CHECKED - SJS	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED / SHEET 415 OF SHEETS	ILLINOIS FED. AID PROJECT			



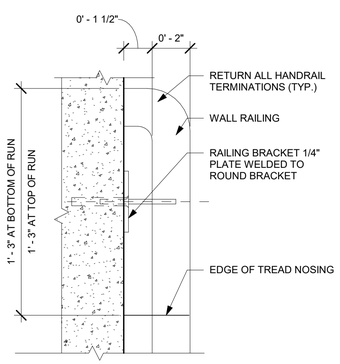
2 STAIR DETAIL - SECTION WITH R4/5 RAILINGS

1" = 1'-0"



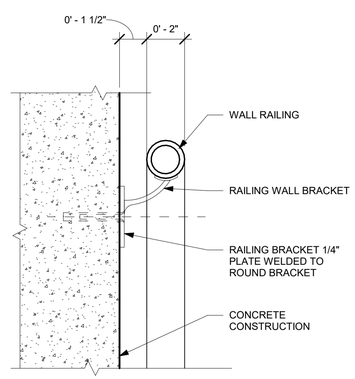
1 STAIR DETAIL - SECTION WITH R1/2 RAILINGS

1" = 1'-0"



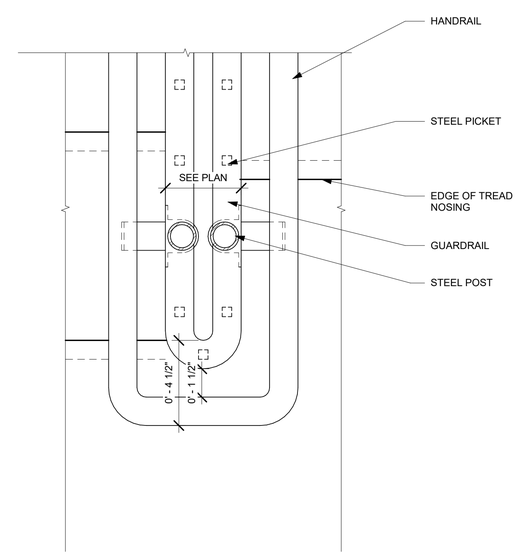
4 WALL - MOUNTED HANDRAIL R3 DETAIL - PLAN

3" = 1'-0"



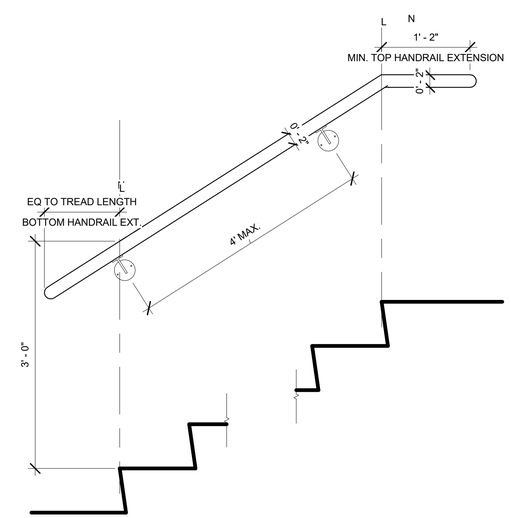
5 WALL - MOUNTED HANDRAIL R3 DETAIL - SECTION

3" = 1'-0"



6 R1/2 R4/5 RAILING DETAIL - PLAN

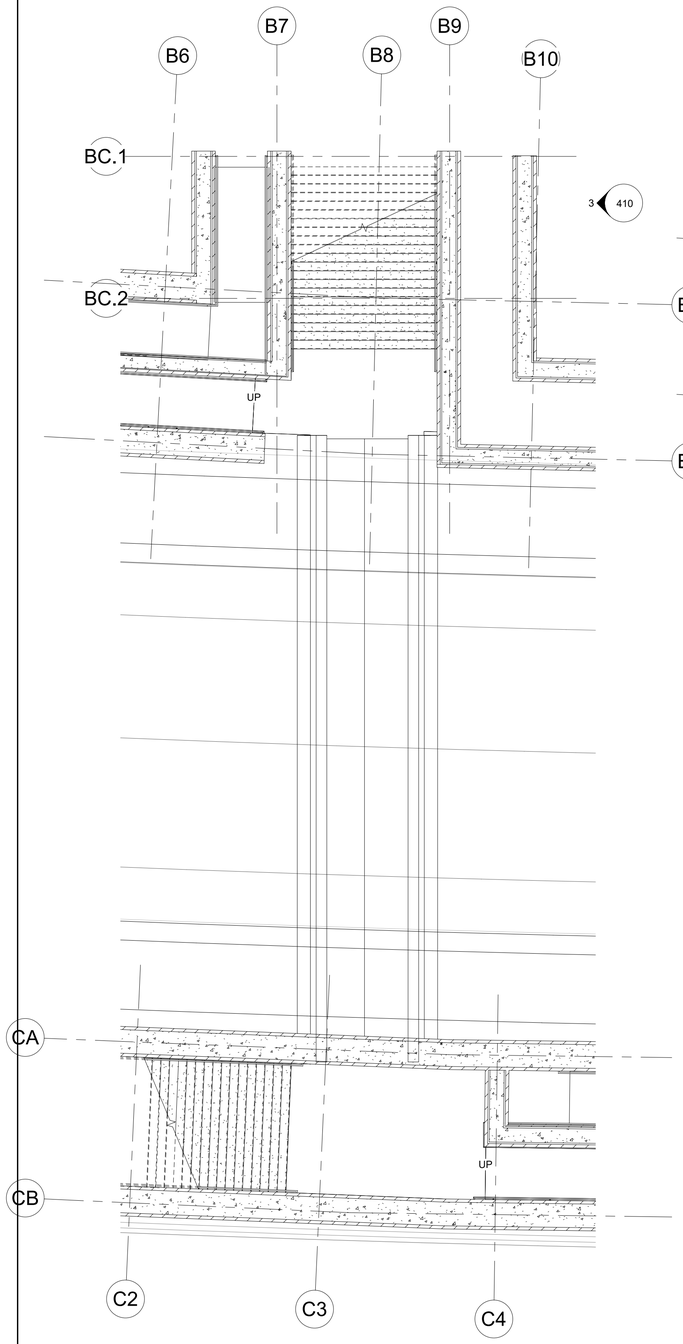
3" = 1'-0"



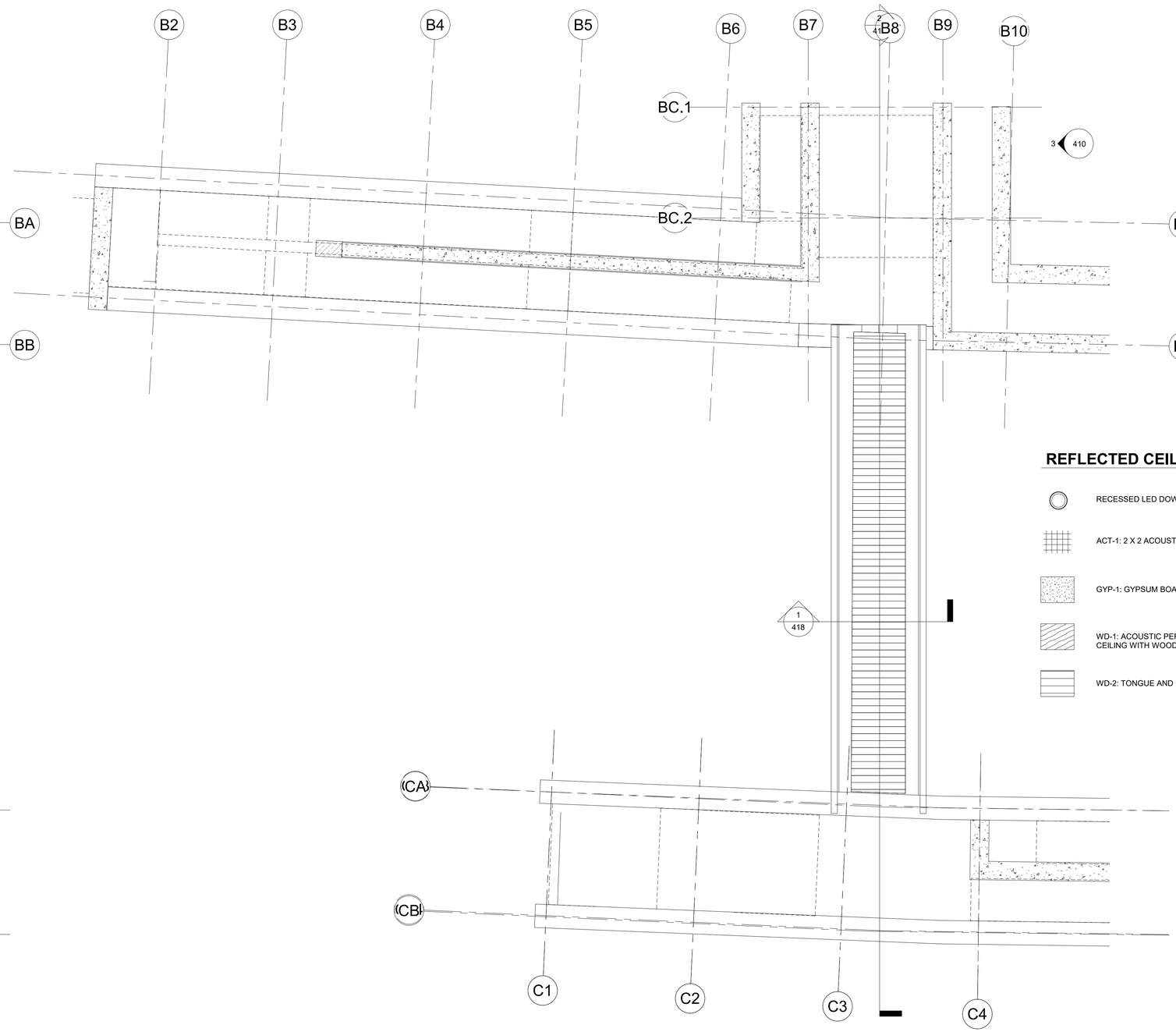
7 TYPICAL WALL - MOUNTED HANDRAIL ELEVATION

1" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL SITE STAIR DETAILS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -					DUPAGE		416
	PLOT SCALE =	CHECKED - SJS	REVISED -					CONTRACT NO.		
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 416 OF SHEETS			ILLINOIS FED. AID PROJECT		



TUNNEL FLOOR PLAN
1/8" = 1'-0"



2 TUNNEL
1/8" = 1'-0"

REFLECTED CEILING PLAN LEGEND

- RECESSED LED DOWNLIGHT
- ACT-1: 2 X 2 ACOUSTIC PERFORATED METAL CEILING
- GYP-1: GYPSUM BOARD CEILING
- WD-1: ACOUSTIC PERFORATED METAL PLANK CEILING WITH WOOD FINISH
- WD-2: TONGUE AND GROOVE WOOD ROOF DECKING

CDM Smith

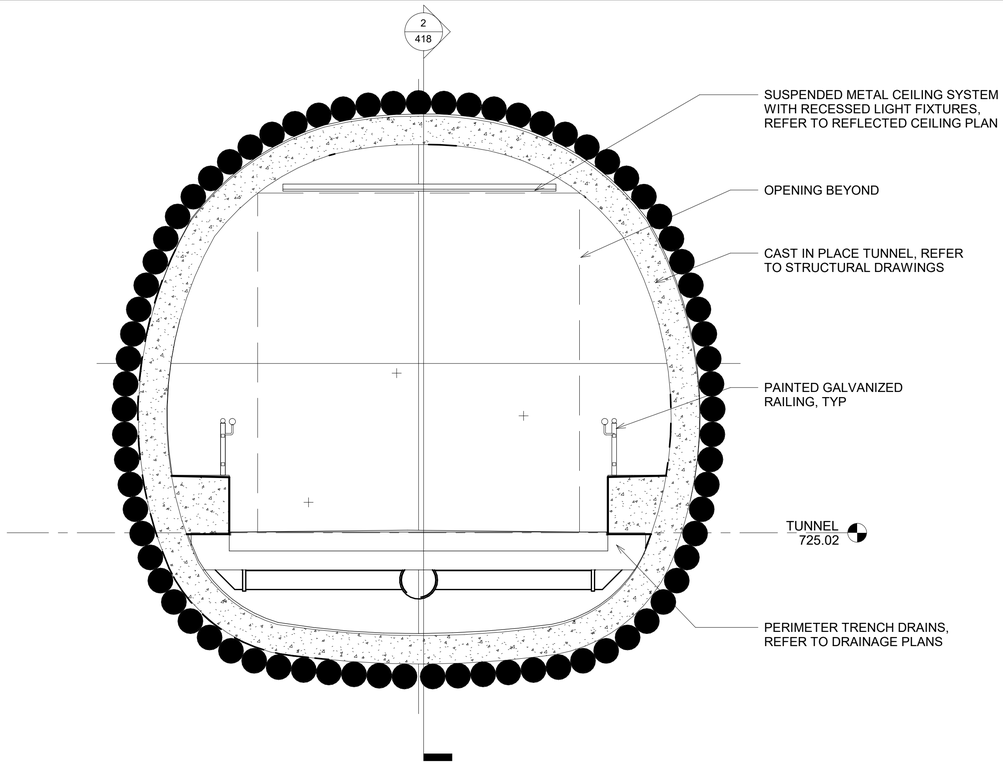
USER NAME =	DESIGNED - MZ	REVISED -	
ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -	
PLOT SCALE =	CHECKED - SJS	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL TUNNEL FLOOR PLAN AND REFLECTED CEILING PLAN

SCALE: AS NOTED | SHEET 417 OF SHEETS

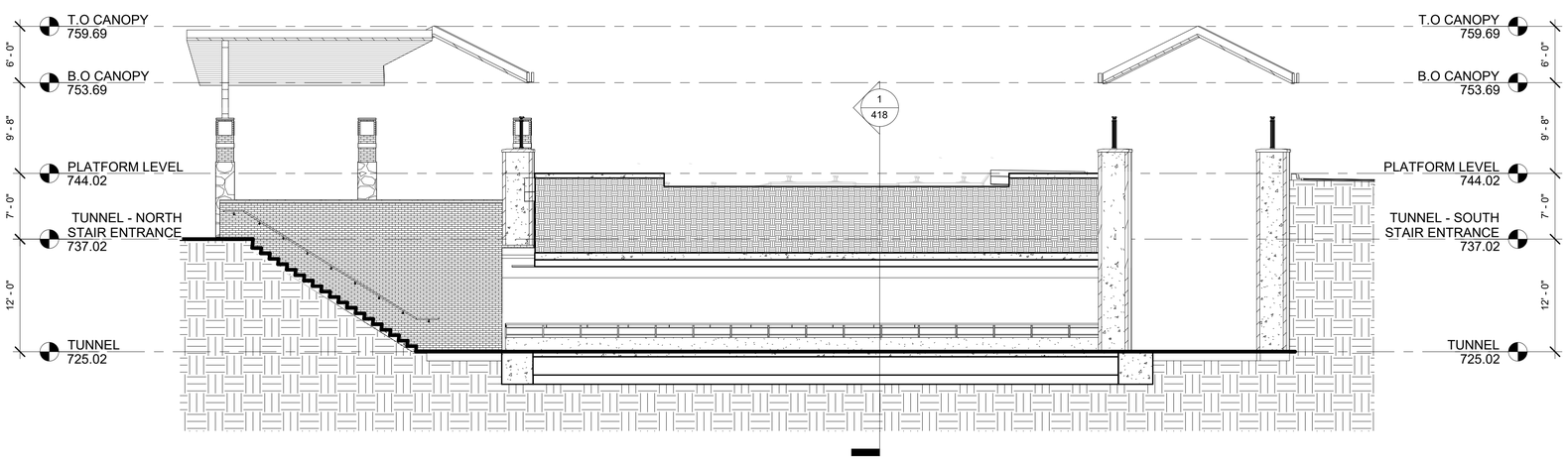
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		417
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		



1
418

TUNNEL SECTION W-E

1/2" = 1'-0"

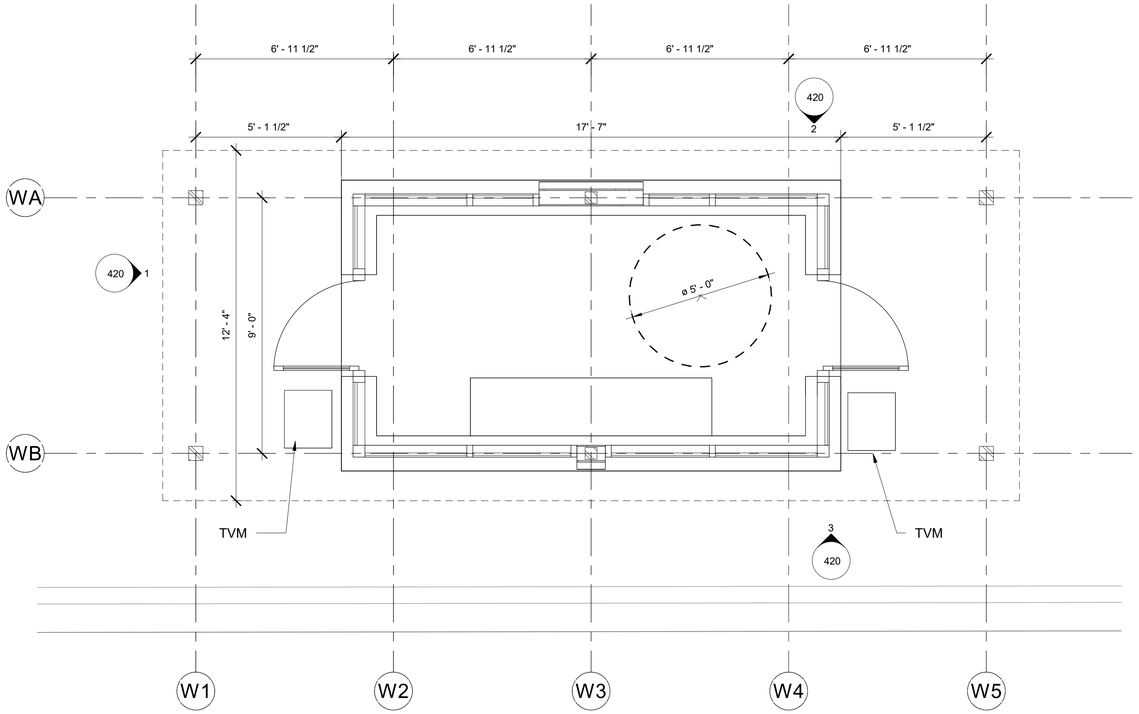


2
418

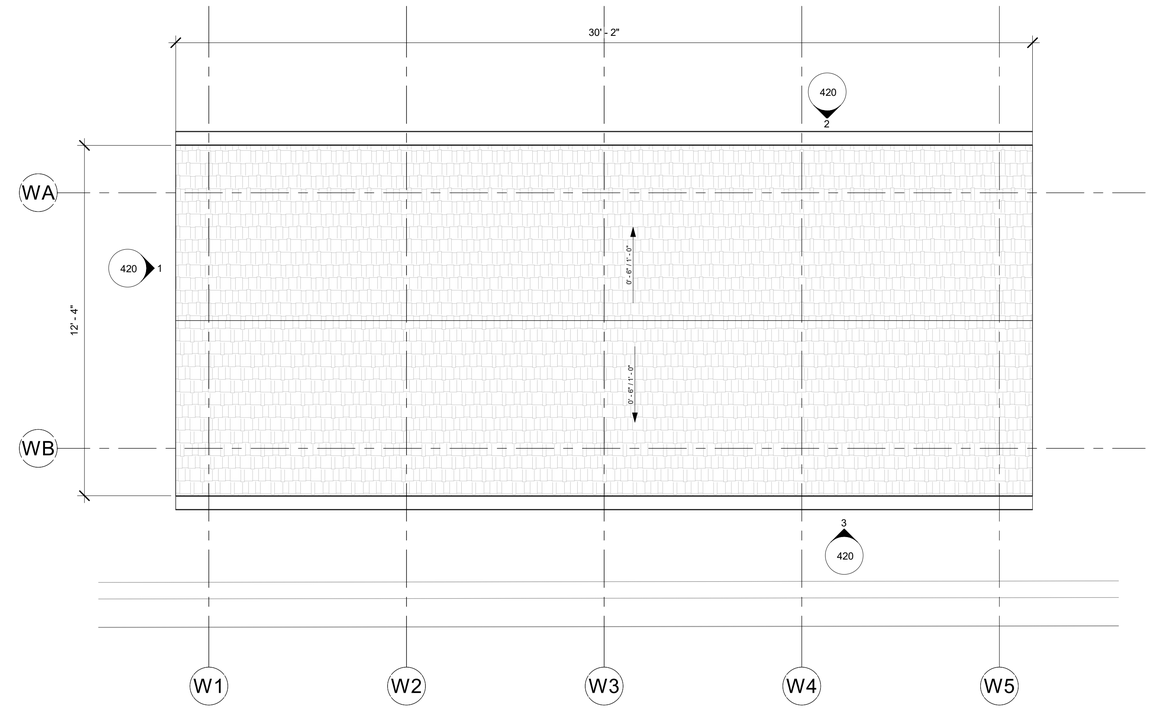
TUNNEL SECTION N-S

1/8" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL TUNNEL SECTION AND ELEVATION	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -					DUPAGE	418
	PLOT SCALE =	CHECKED - SJS	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED / SHEET 418 OF SHEETS	ILLINOIS FED. AID PROJECT			

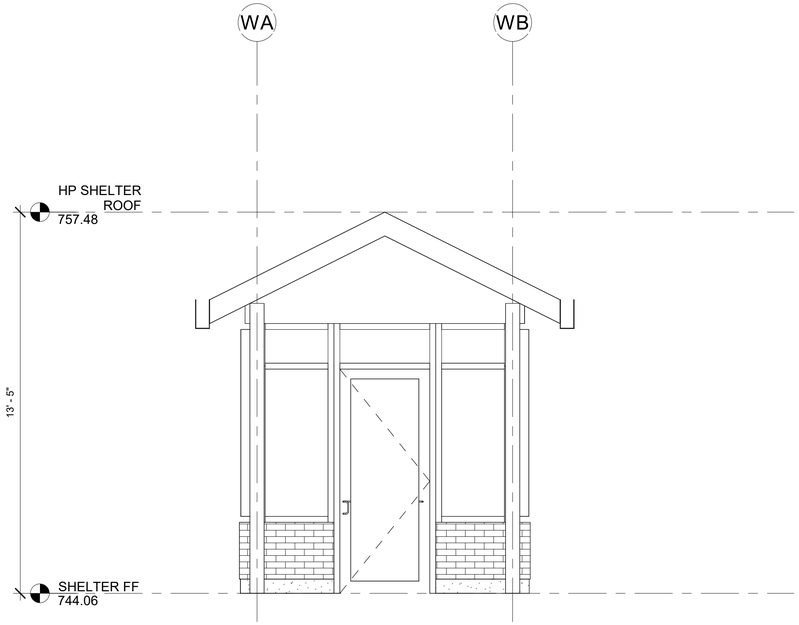


1 408 **SHELTER FLOOR PLAN**
3/8" = 1'-0"

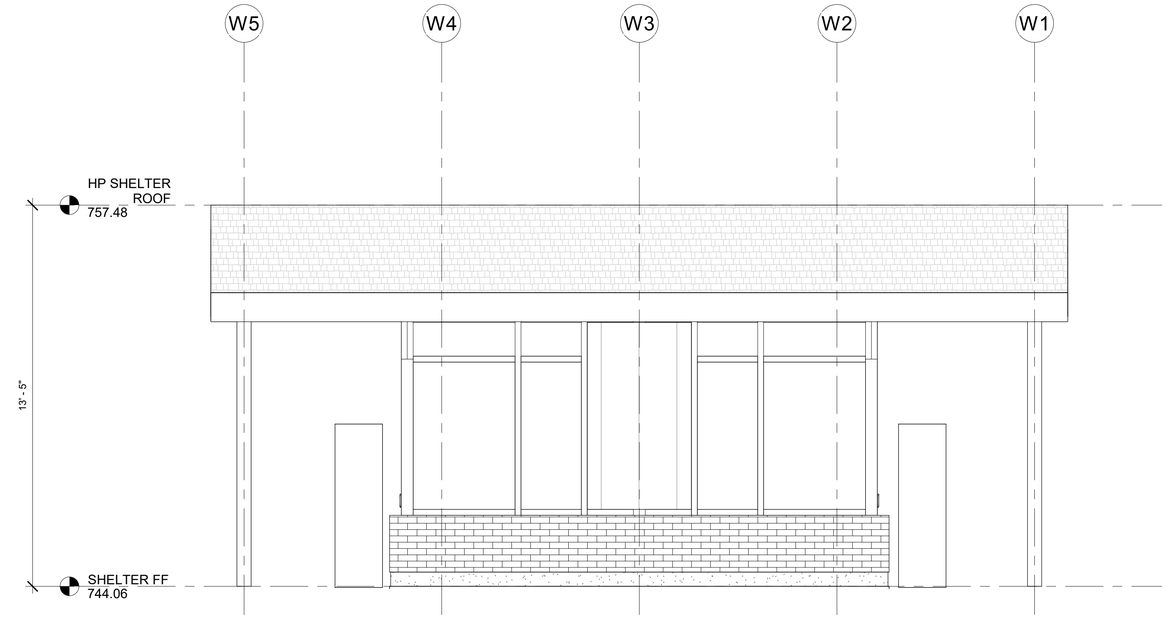


2 **SHELTER ROOF PLAN**
3/8" = 1'-0"

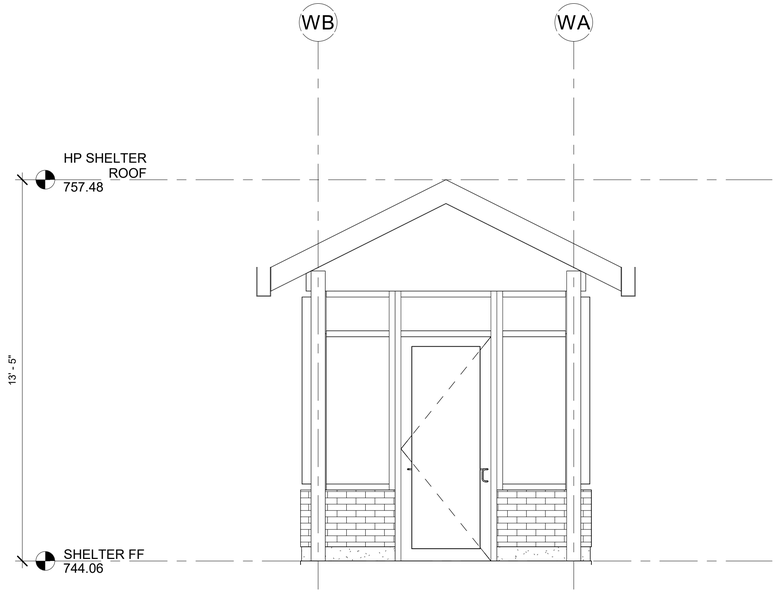
CDM Smith	USER NAME =	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL SHELTER - FLOOR, CEILING, AND ROOF PLANS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -					DUPAGE	419
	PLOT SCALE =	CHECKED - SJS	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 419 OF SHEETS	ILLINOIS FED. AID PROJECT			



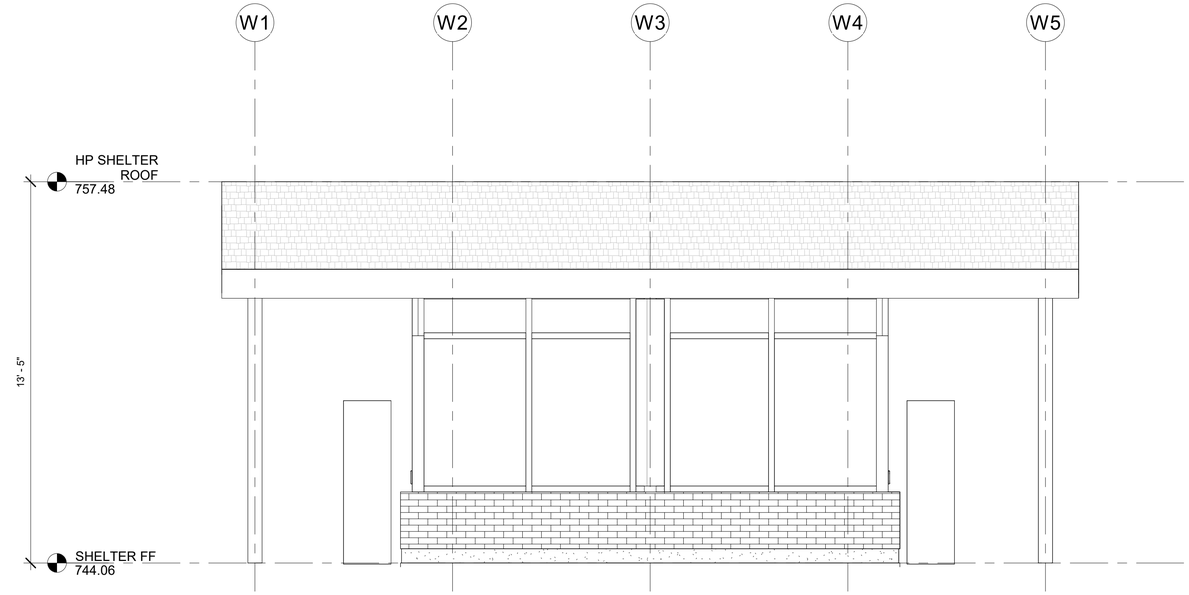
1 / 420 SHELTER ELEVATION
3/8" = 1'-0"



2 / 420 SHELTER ELEVATION
3/8" = 1'-0"



4 / 420 SHELTER ELEVATION
3/8" = 1'-0"



3 / 420 SHELTER ELEVATION
3/8" = 1'-0"

CDM Smith

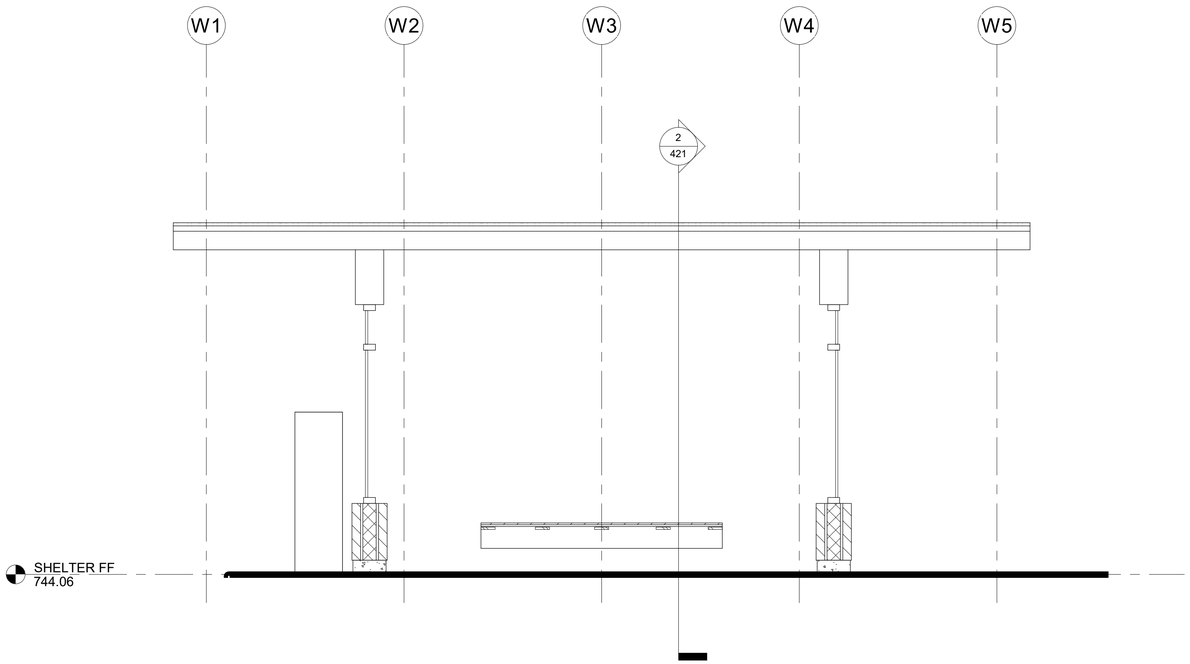
USER NAME =	DESIGNED - MZ	REVISED -	
ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -	
PLOT SCALE =	CHECKED - SJS	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

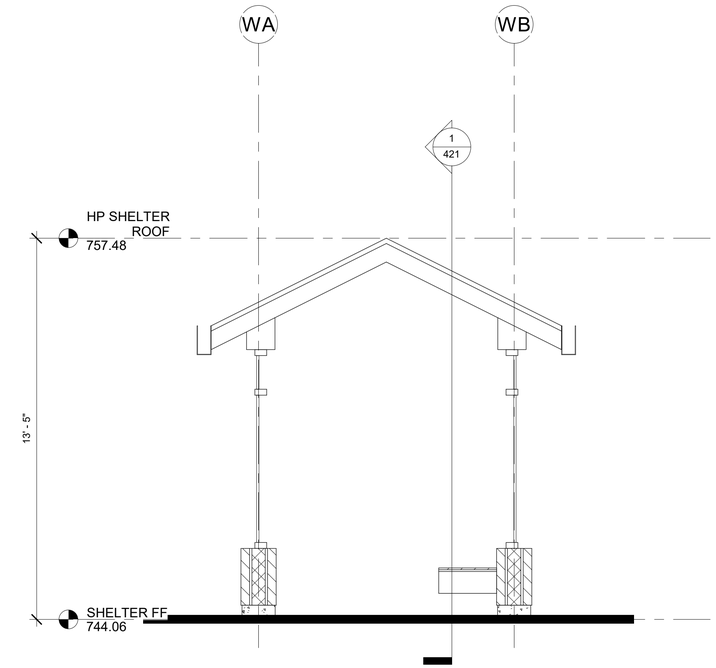
ARCHITECTURAL SHELTER - EXTERIOR ELEVATIONS

SCALE: AS NOTED | SHEET 420 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		420
		CONTRACT NO.		
ILLINOIS FED. AID PROJECT				

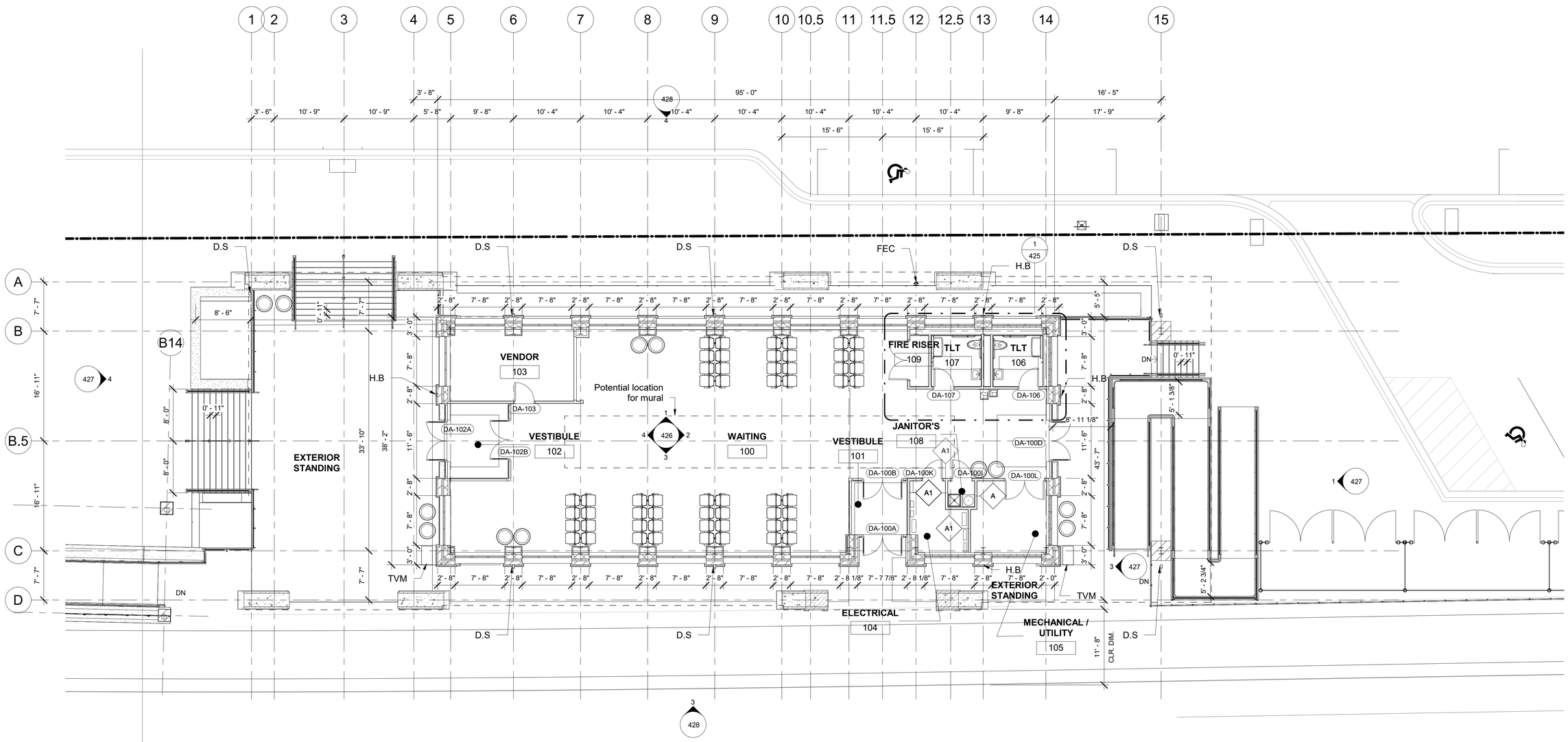


1
421
SHELTER SECTION
3/8" = 1'-0"



2
421
SHELTER SECTION
3/8" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - MZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL SHELTER - BUILDING SECTIONS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - MZ	REVISED -					DUPAGE	421
	PLOT SCALE =	CHECKED - SJS	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED / SHEET 421 OF SHEETS		ILLINOIS FED. AID PROJECT		



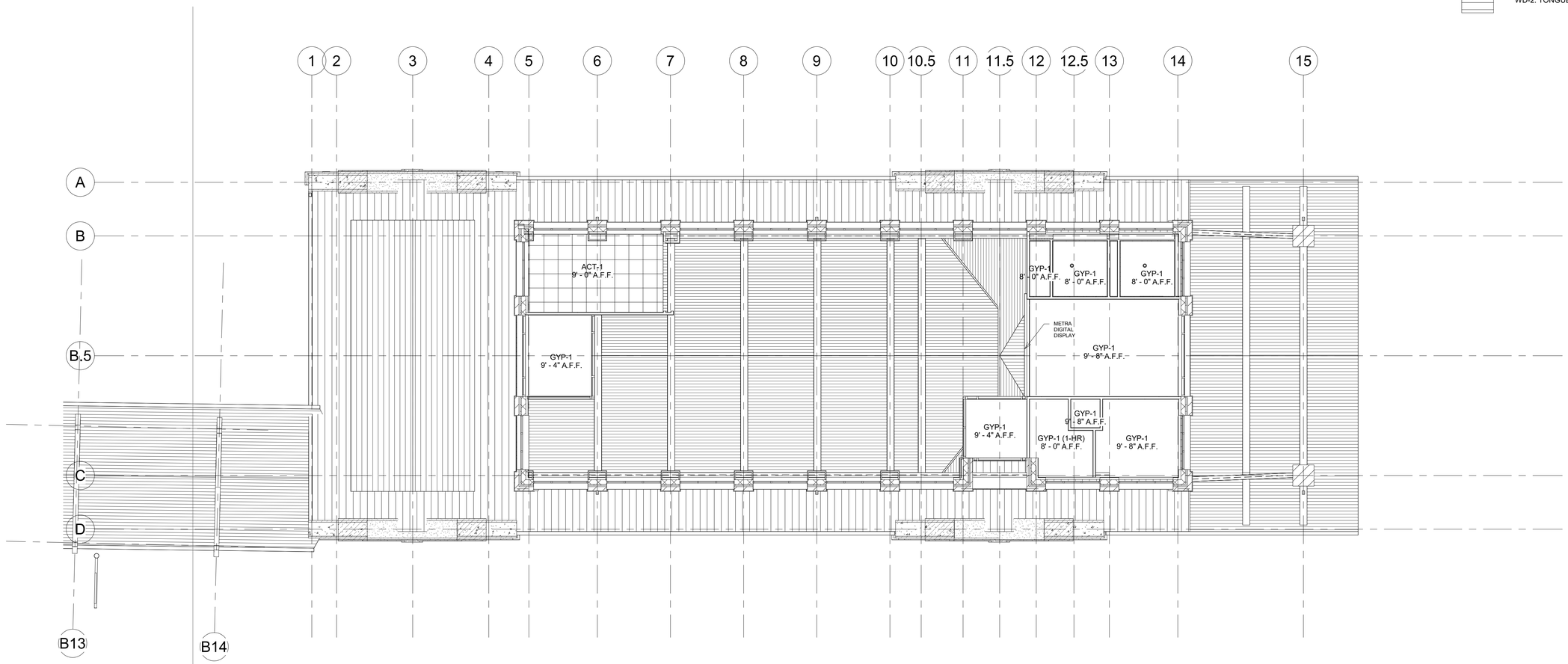
1 / 422 INBOUND GROUND FLOOR PLAN

1/8" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - CP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL FLOOR PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - CP	REVISED -					DUPAGE	422
	PLOT SCALE =	CHECKED - SJS	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED / SHEET 422 OF SHEETS			ILLINOIS FED. AID PROJECT	

REFLECTED CEILING PLAN LEGEND

- RECESSED LED DOWNLIGHT
- ACT-1: 2 X 2 ACOUSTIC PERFORATED METAL CEILING
- GYP-1: GYPSUM BOARD CEILING
- WD-1: ACOUSTIC PERFORATED METAL PLANK CEILING WITH WOOD FINISH
- WD-2: TONGUE AND GROOVE WOOD ROOF DECKING



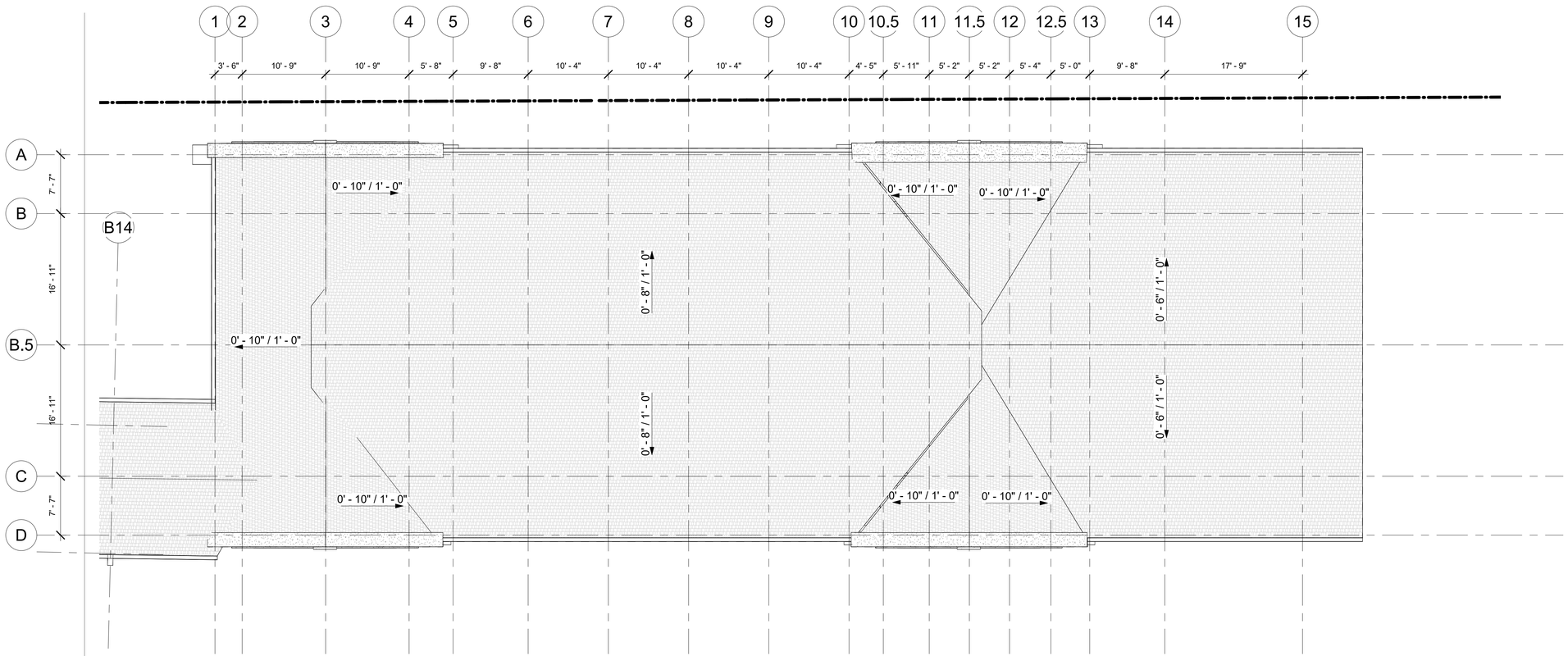
FIRST FLOOR

1/8" = 1'-0"

0 4' 8' 16'

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

CDM Smith	USER NAME =	DESIGNED - CP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL REFLECTED CEILING PLANS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - CP	REVISED -					DUPAGE	423
	PLOT SCALE =	CHECKED - SJS	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 423 OF SHEETS	ILLINOIS FED. AID PROJECT			



ROOF PLAN

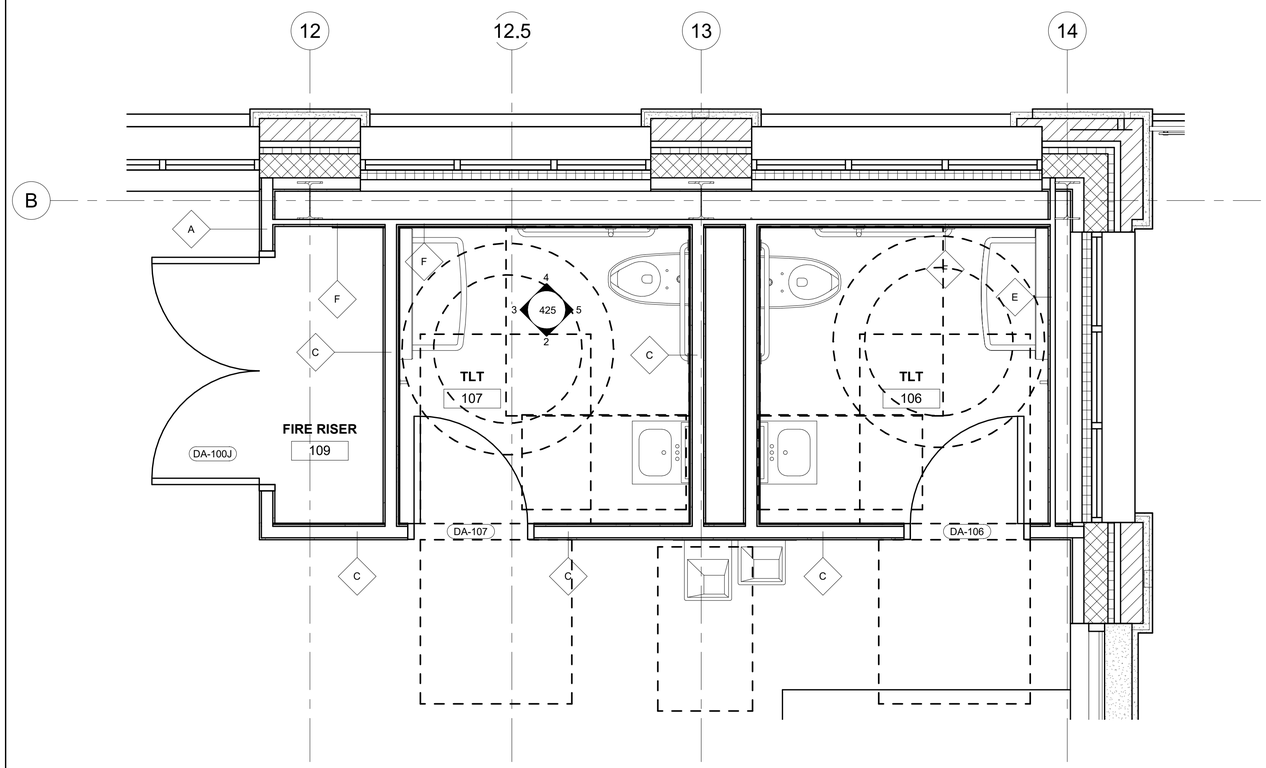
1/8" = 1'-0"

0 4' 8' 16'

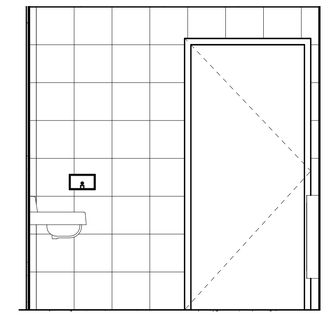
SCALE: 1/8" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - CP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL ROOF PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - CP	REVISED -					DUPAGE	424
	PLOT SCALE =	CHECKED - SJS	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED / SHEET 424 OF SHEETS	ILLINOIS FED. AID PROJECT			

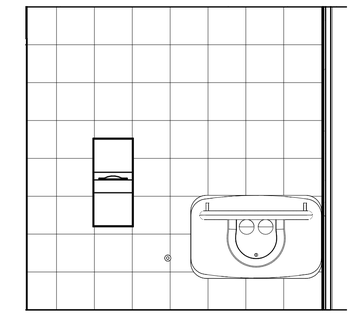
TOILET ACCESSORY SCHEDULE					
TAG	ITEM NAME	BOD MANUFACTURER	BOD MODEL	MATERIAL/FINISH	COMMENTS
TA-01	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL	BOBRICK	B-270	STAINLESS STEEL	
TA-02	SURFACE MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER	BOBRICK	B-4288	STAINLESS STEEL	
TA-03	18" GRAB BAR (VERTICAL)	BOBRICK	B-5806X18	STAINLESS STEEL	
TA-04	36" GRAB BAR	BOBRICK	B-5806X36	STAINLESS STEEL	
TA-05	42" GRAB BAR	BOBRICK	B-5806X42	STAINLESS STEEL	
TA-06	22X48 MIRROR	BOBRICK	B-290	N/A	SEE ELEVATIONS
TA-07	PAPER TOWEL DISPENSER AND WASTE RECEPTACLE	BOBRICK	B-3942	STAINLESS STEEL	
TA-09	WALL MOUNTED SOAP DISPENSER		B-4112	STAINLESS STEEL	
TA-10	BABY CHANGING STATION				



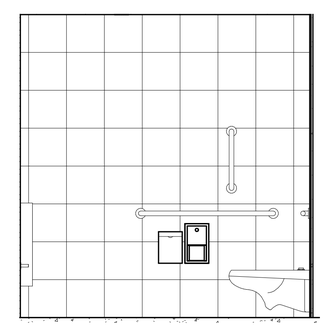
1 422 ENLARGED TOILET
1/2" = 1'-0"



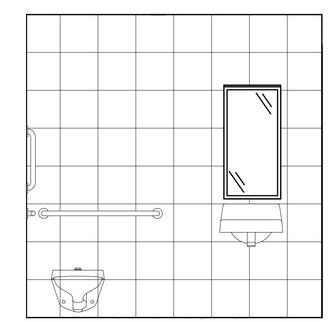
2 425 TOILET ROOM INTERIOR ELEVATION
1/2" = 1'-0"



3 425 TOILET ROOM INTERIOR ELEVATION
1/2" = 1'-0"



4 425 TOILET ROOM INTERIOR ELEVATION
1/2" = 1'-0"



5 425 TOILET ROOM INTERIOR ELEVATION
1/2" = 1'-0"

CDM Smith

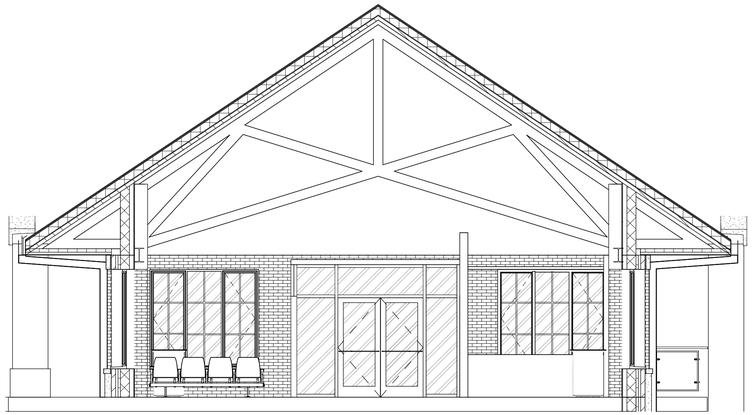
USER NAME =	DESIGNED - CP	REVISED -
ISSUED FOR 30 PCT	DRAWN - CP	REVISED -
PLOT SCALE =	CHECKED - SJS	REVISED -
PLOT DATE =	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL ENLARGED FLOOR PLAN AND ELEVATIONS

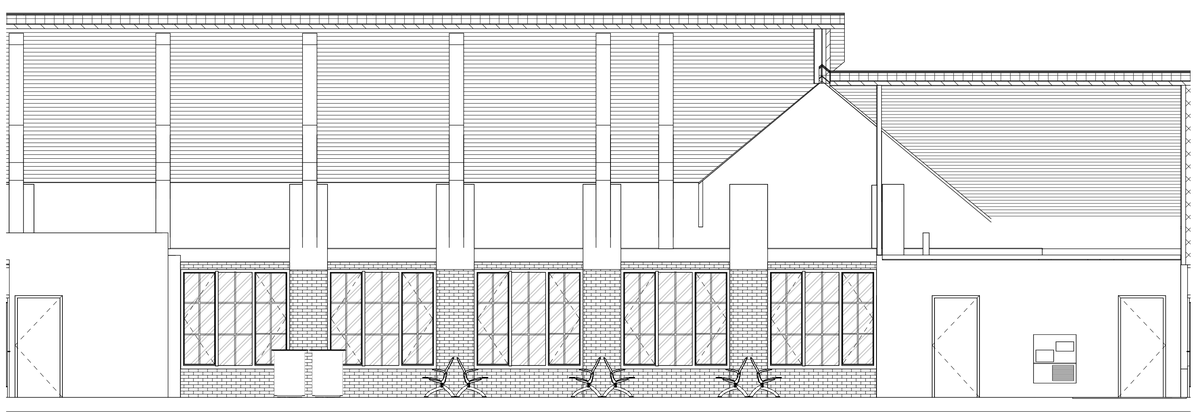
SCALE: AS NOTED | SHEET 425 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		425
		CONTRACT NO.		
ILLINOIS FED. AID PROJECT				

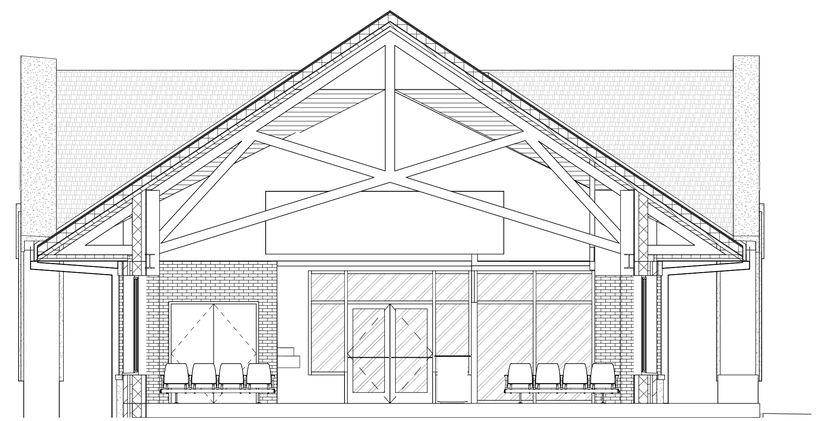


4 422 **WAITING INTERIOR ELEVATION**
3/16" = 1'-0"

3 415 **WAITING INTERIOR ELEVATION**
3/16" = 1'-0"



1 415 **WAITING INTERIOR ELEVATION**
3/16" = 1'-0"



2 422 **WAITING INTERIOR ELEVATION**
3/16" = 1'-0"

CDM Smith

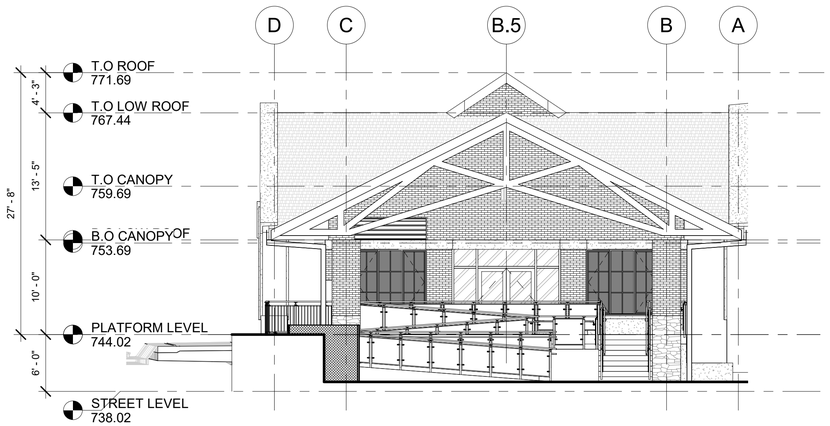
USER NAME =	DESIGNED - CP	REVISED -	
ISSUED FOR 30 PCT	DRAWN - CP	REVISED -	
PLOT SCALE =	CHECKED - SJS	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

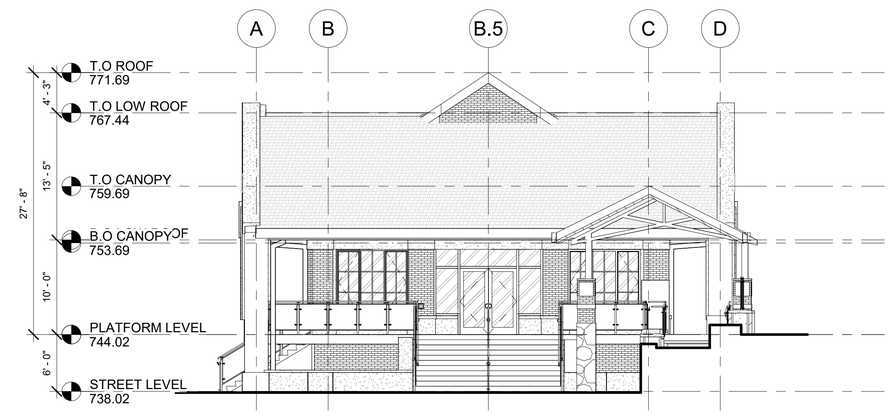
ARCHITECTURAL INTERIOR ELEVATIONS

SCALE: AS NOTED | SHEET 426 OF SHEETS

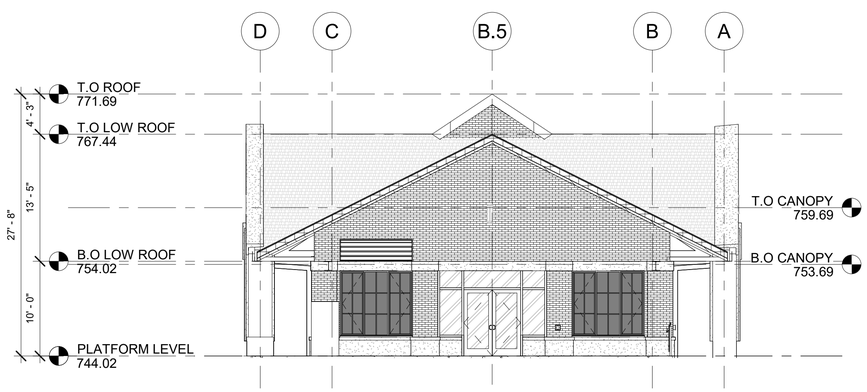
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		426
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		



1 415 **EAST EXTERIOR ELEVATION**
1/8" = 1'-0"



4 409 **WEST EXTERIOR ELEVATION**
1/8" = 1'-0"



3 415 **EAST HIDDEN EXTERIOR ELEVATION**
1/8" = 1'-0"

EXTERIOR MATERIAL LEGEND

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

TAG	MATERIAL	BASIS OF DESIGN PRODUCT DESCRIPTION	COLOR / FINISH	REFERENCE SPECIFICATION
E-PNT-01	HIGH PERFORMANCE COATING	PPG CORAFLON POWDER COATINGS	SW 7068 - IRON ORE	09 91 13
E-MTL-01	PREFINISHED ALUMINUM COPING	COPING	MATCH E-PNT-01	07 71 00
E-DWS-01	PREFINISHED ALUMINUM DOWNSPOUT	DOWNSPOUT	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 ANNODIZED / 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 ANNODIZED FRAMES AND BACK PAN / SNX51/23 WITH MEDIUM GRAY SPANDREL	08 41 10 AND 08 80 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	ROUGHCUT; CASA BLANCA	04 43 13.16
E-BRK-01	UNIT BRICK	SUMMT 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

0 4' 8' 16'
SCALE: 1/8" = 1'-0"

CDM Smith

USER NAME =	DESIGNED - CP	REVISED -
ISSUED FOR 30 PCT	DRAWN - CP	REVISED -
PLOT SCALE =	CHECKED - SJS	REVISED -
PLOT DATE =	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

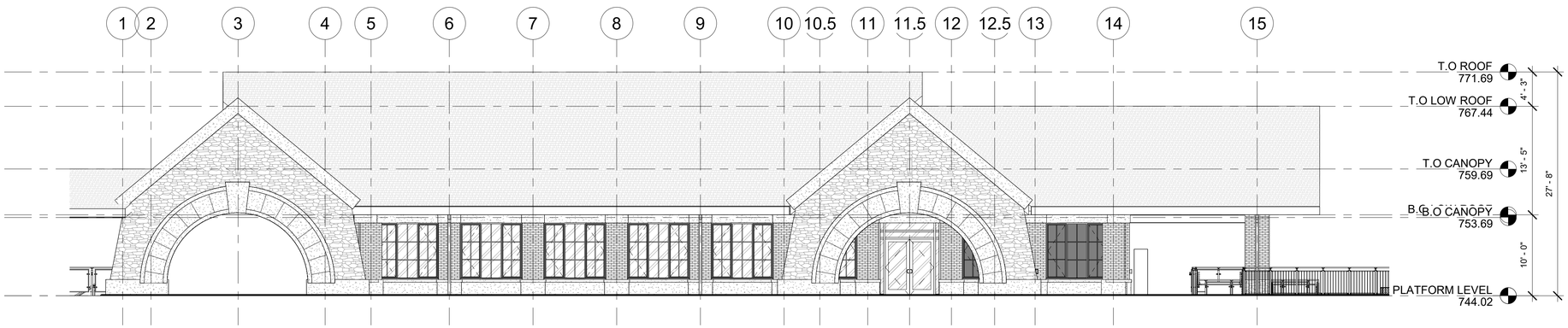
ARCHITECTURAL BUILDING ELEVATIONS

SCALE: AS NOTED | SHEET 427 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		427
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

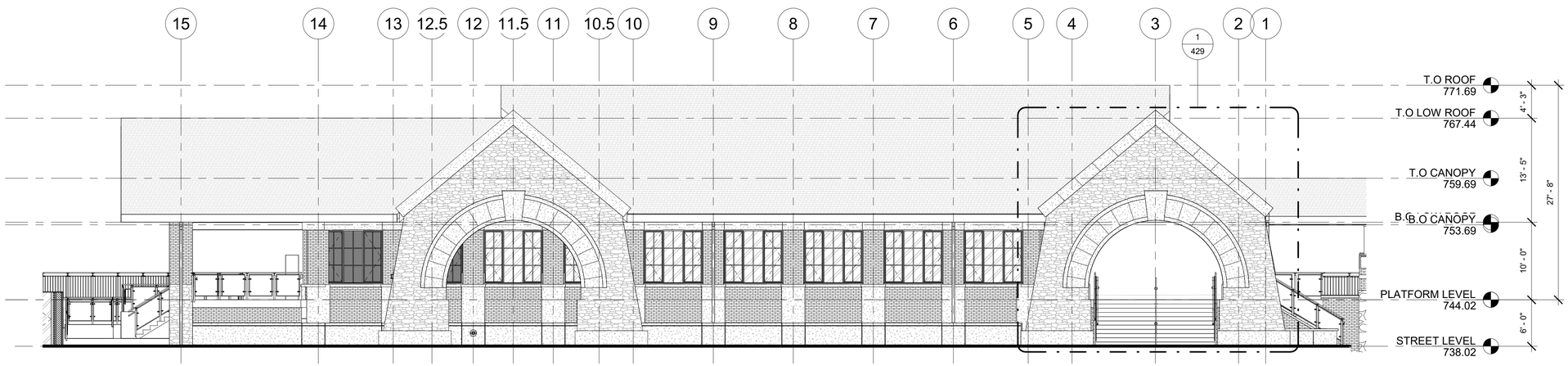
EXTERIOR MATERIAL LEGEND

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



3 / 409 SOUTH EXTERIOR ELEVATION

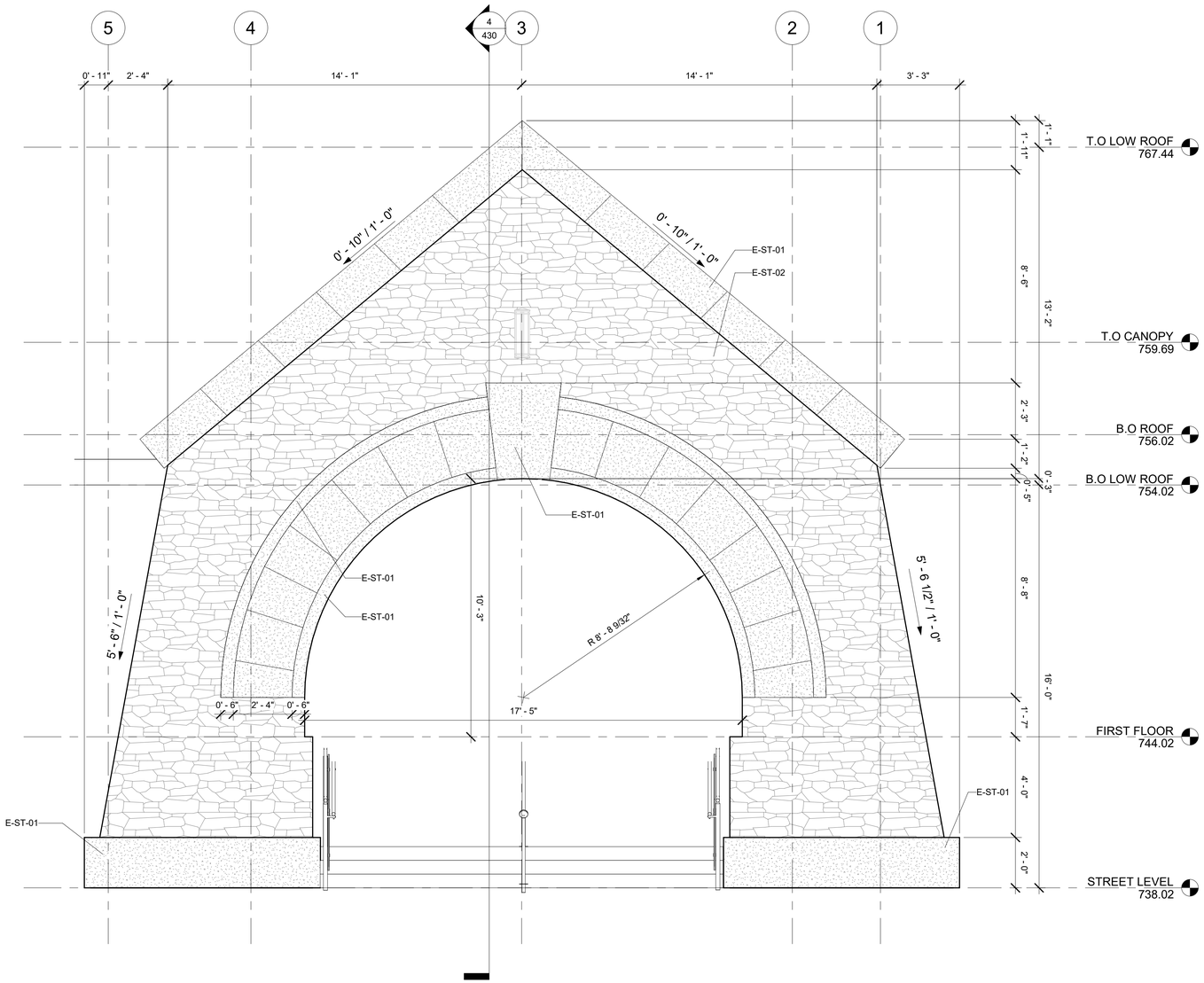
1/8" = 1'-0"



4 / 415 NORTH EXTERIOR ELEVATION

1/8" = 1'-0"

TAG	MATERIAL	BASIS OF DESIGN PRODUCT DESCRIPTION	COLOR / FINISH	REFERENCE SPECIFICATION
E-PNT-01	HIGH PERFORMANCE COATING	PPG CORAFLON POWDER COATINGS	SW 7068 - IRON ORE	09 91 13
E-MTL-01	PREFINISHED ALUMINUM COPING	COPING	MATCH E-PNT-01	07 71 00
E-DWS-01	PREFINISHED ALUMINUM DOWNSPOUT	DOWNSPOUT	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 ANNODIZED / 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 ANNODIZED FRAMES AND BACK PAN / SNX51/23 WITH MEDIUM GRAY SPANDREL	08 41 10 AND 08 80 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	ROUGHCUT; CASA BLANCA	04 43 13.16
E-BRK-01	UNIT BRICK	SUMMT 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



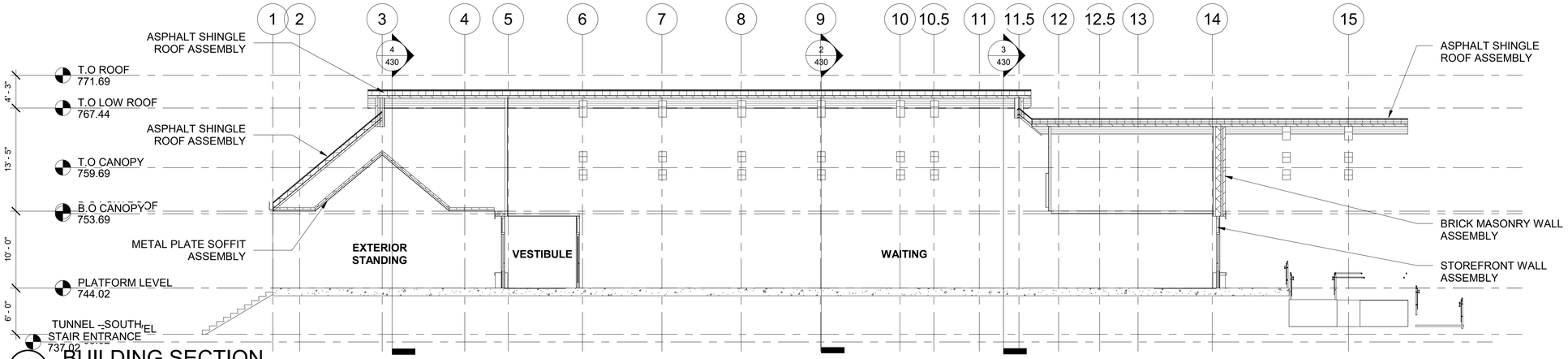
1 TYPICAL ARCH EXTERIOR ELEVATION

428 3/8" = 1'-0"

EXTERIOR MATERIAL LEGEND

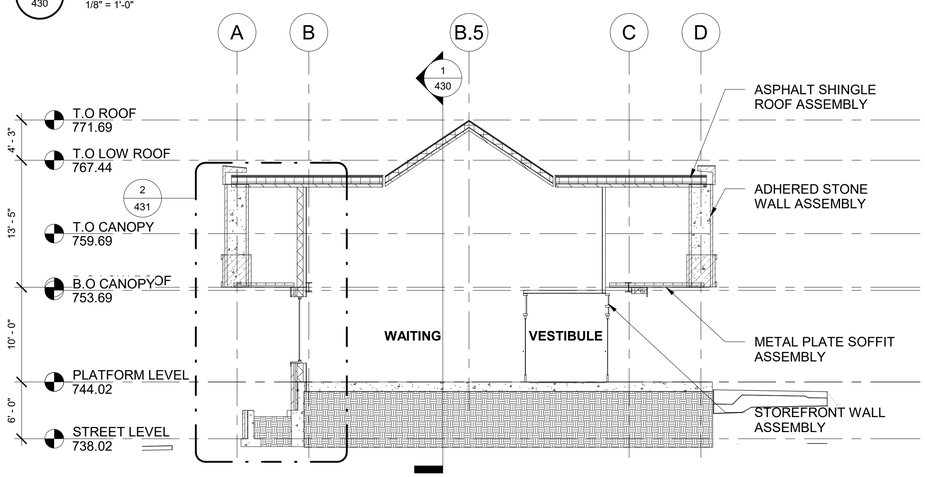
- NSULATED GLASS UNIT - VISION
- INSULATED GLASS UNIT - SPANDREL
- BRICK
- CAST STONE
- CULTURED STONE
- PREFINISHED METAL
- ASPHALT SHINGLE

TAG	MATERIAL	BASIS OF DESIGN PRODUCT DESCRIPTION	COLOR / FINISH	REFERENCE SPECIFICATION
E-PNT-01	HIGH PERFORMANCE COATING	PPG CORAFLON POWDER COATINGS	SW 7068 - IRON ORE	09 91 13
E-MTL-01	PREFINISHED ALUMINUM COPING	COPING	MATCH E-PNT-01	07 71 00
E-DWS-01	PREFINISHED ALUMINUM DOWNSPOUT	DOWNSPOUT	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 ANNODIZED / 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 ANNODIZED FRAMES AND BACK PAN / SNX51/23 WITH MEDIUM GRAY SPANDREL	08 41 10 AND 08 80 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	ROUGHCUT; CASA BLANCA	04 43 13.16
E-BRK-01	UNIT BRICK	SUMMT 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



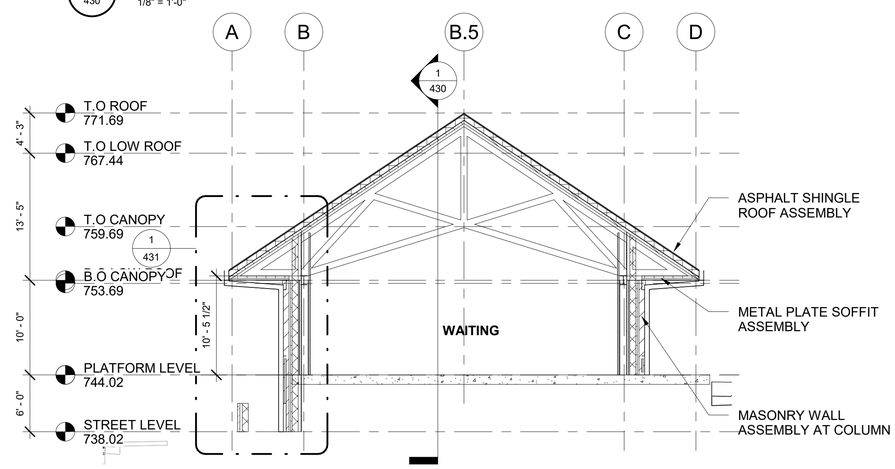
1 / 430 BUILDING SECTION

1/8" = 1'-0"



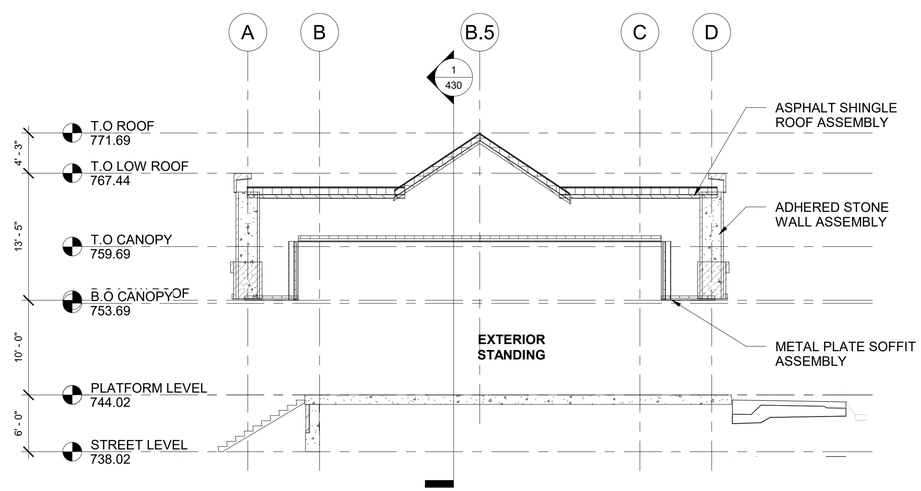
3 / 430 BUILDING SECTION

1/8" = 1'-0"



2 / 430 BUILDING SECTION

1/8" = 1'-0"



4 / 430 BUILDING SECTION

1/8" = 1'-0"

0 4' 8' 16'

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

CDM Smith

USER NAME =	DESIGNED - CP	REVISED -	
ISSUED FOR 30 PCT	DRAWN - CP	REVISED -	
PLOT SCALE =	CHECKED - SJS	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

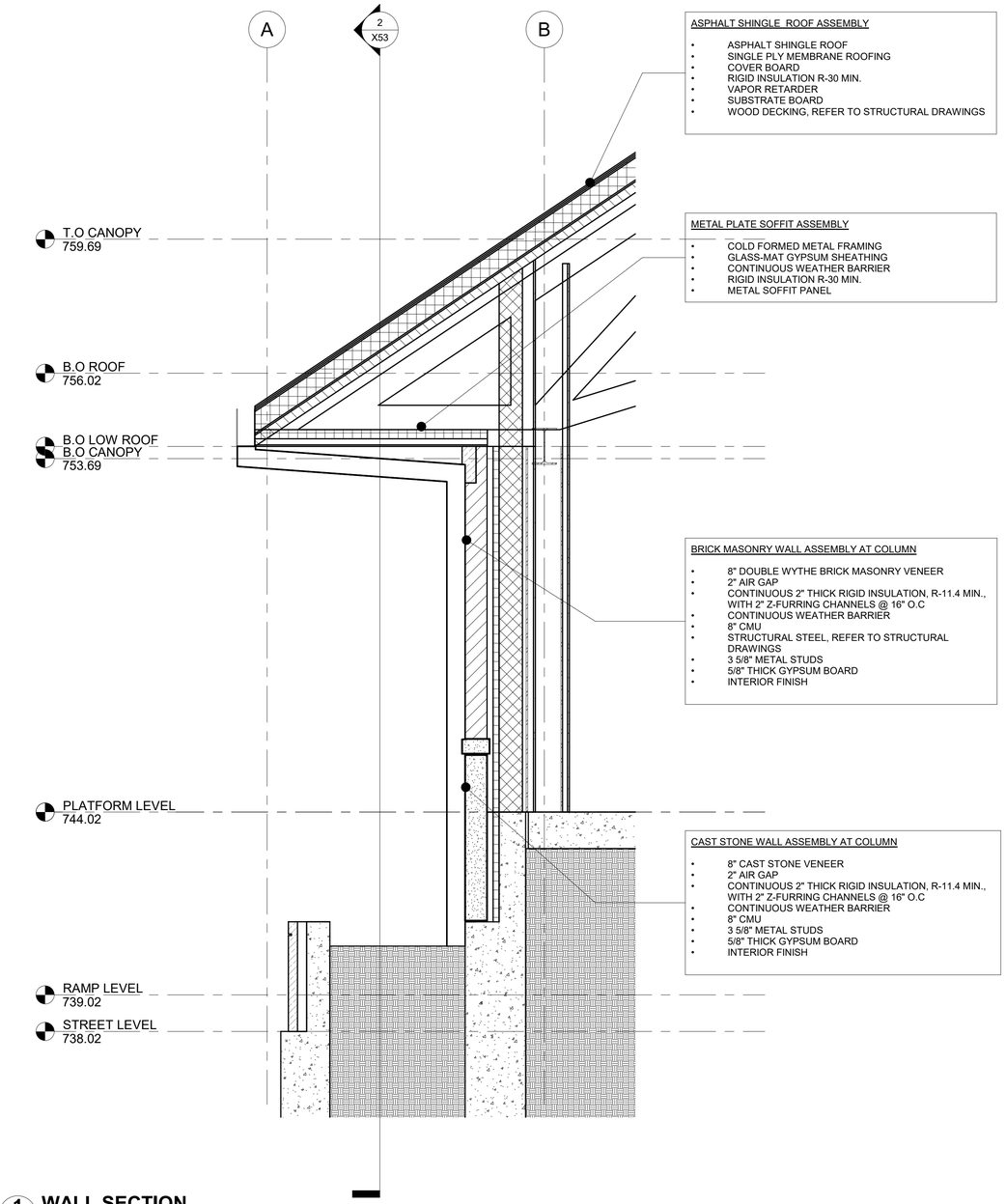
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL BUILDING SECTIONS

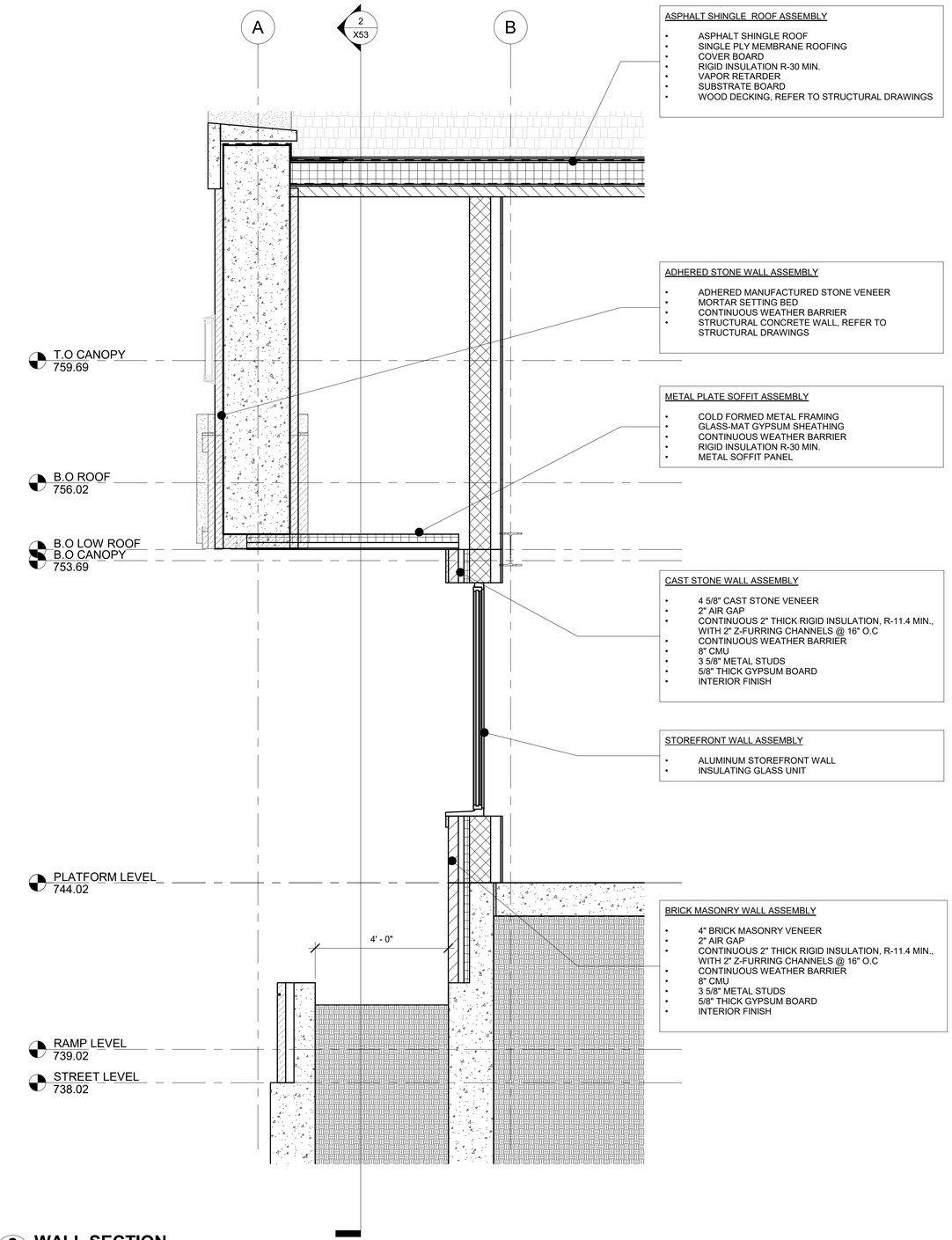
SCALE: AS NOTED | SHEET 430 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		430
		CONTRACT NO.		

ILLINOIS FED. AID PROJECT

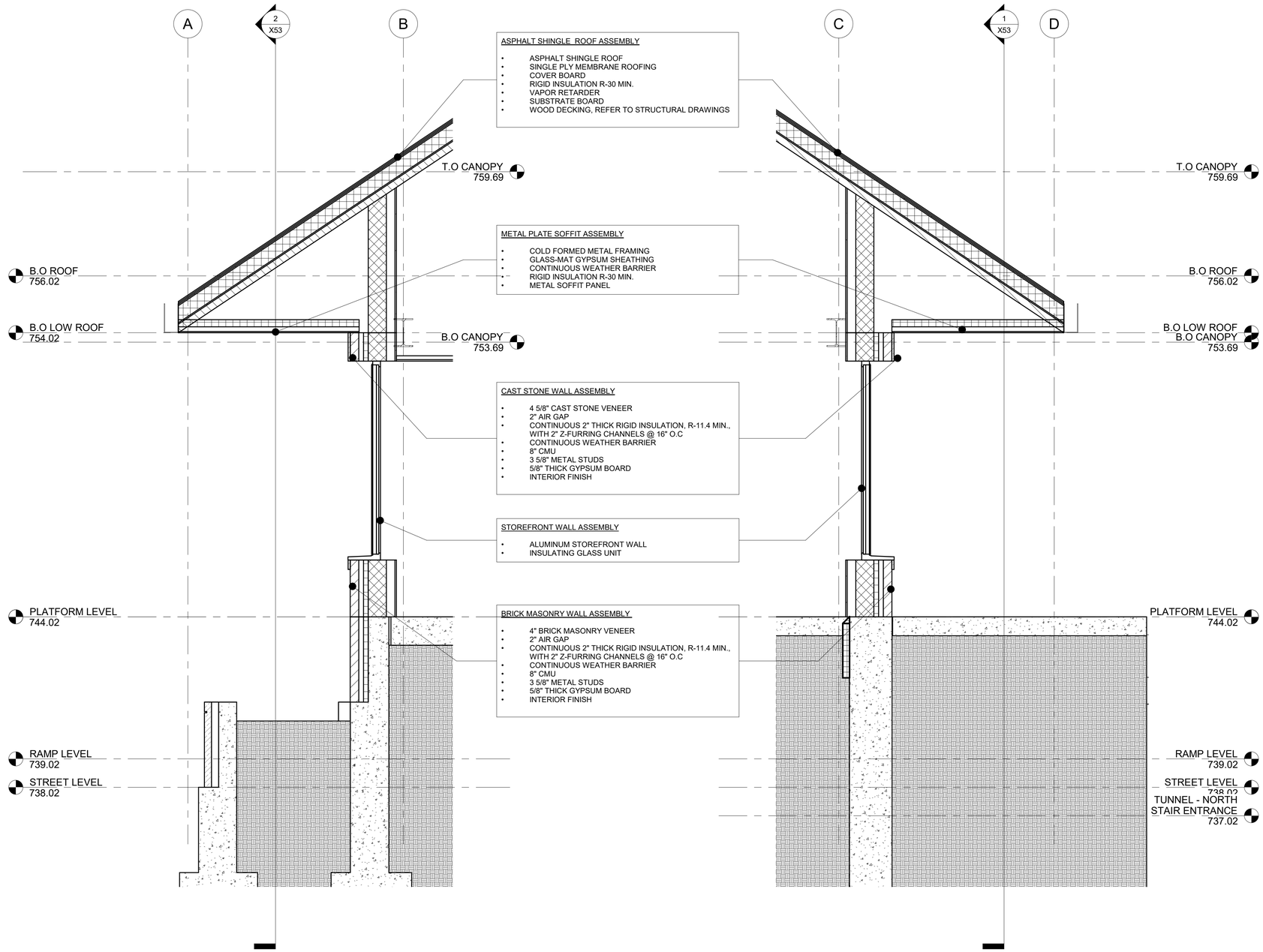


1 / 430 **WALL SECTION**
1/2" = 1'-0"



2 / 430 **WALL SECTION**
1/2" = 1'-0"

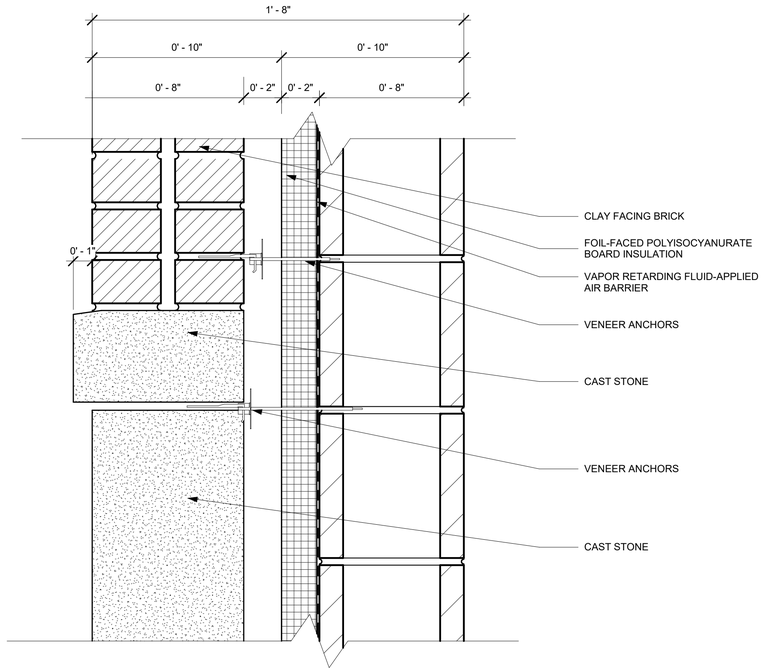
CDM Smith	USER NAME =	DESIGNED - CP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL WALL SECTIONS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - CP	REVISED -					DUPAGE	431
	PLOT SCALE =	CHECKED - SJS	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED / SHEET 431 OF SHEETS		ILLINOIS FED. AID PROJECT		



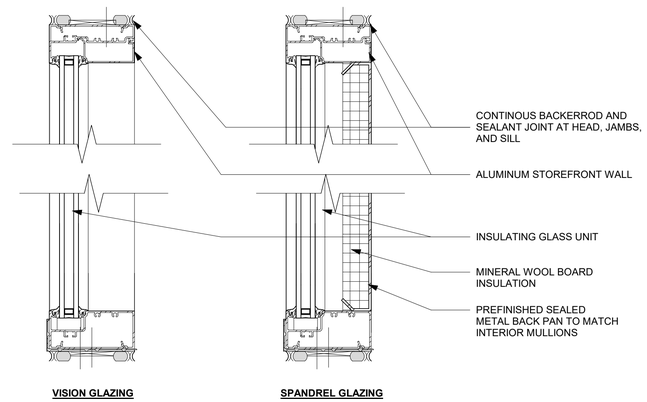
1 X52 **WALL SECTION**
1/2" = 1'-0"

2 X52 **WALL SECTION**
1/2" = 1'-0"

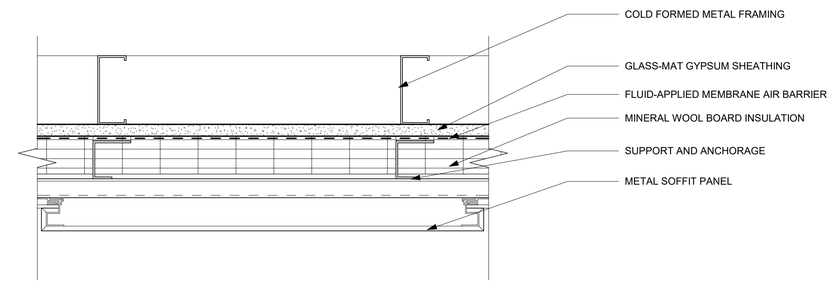
CDM Smith	USER NAME =	DESIGNED - CP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL WALL SECTIONS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - CP	REVISED -					DUPAGE	432
	PLOT SCALE =	CHECKED - SJS	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED / SHEET 432 OF SHEETS		ILLINOIS FED. AID PROJECT		



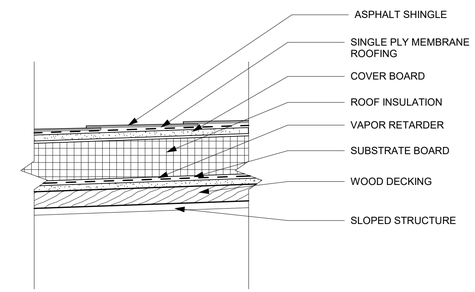
6 MASONRY WALL ASSEMBLY AT COLUMN
3" = 1'-0"



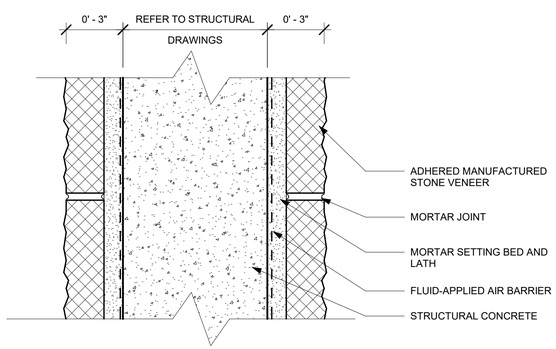
7 STOREFRONT WALL ASSEMBLY
3" = 1'-0"



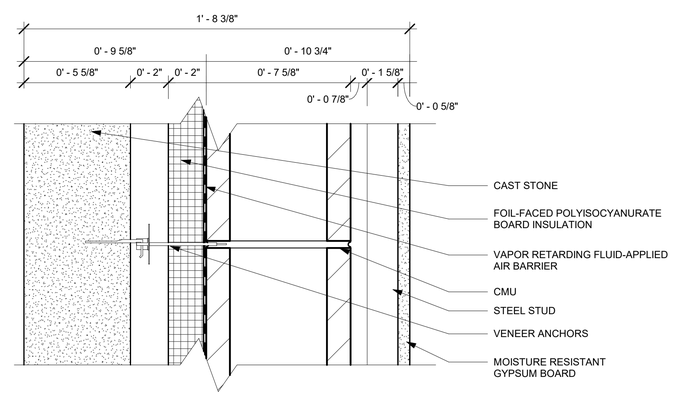
3 METAL PLATE SOFFIT ASSEMBLY
3" = 1'-0"



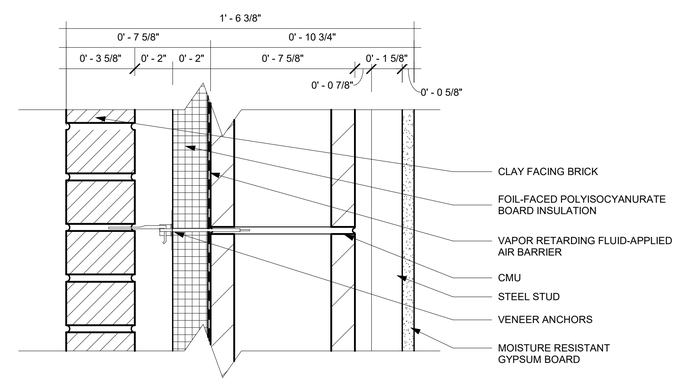
2 ASPHALT SHINGLE ROOF ASSEMBLY
1 1/2" = 1'-0"



5 ADHERED STONE WALL ASSEMBLY
3" = 1'-0"



4 CAST STONE WALL ASSEMBLY
3" = 1'-0"



1 BRICK MASONRY WALL ASSEMBLY
3" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - CP	REVISED -
	ISSUED FOR 30 PCT	DRAWN - CP	REVISED -
	PLOT SCALE =	CHECKED - SJS	REVISED -
	PLOT DATE =	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL ASSEMBLY SECTION DETAILS

SCALE: AS NOTED | SHEET 433 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		433
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

A. GENERAL NOTES

1. ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE OTHER PROJECT DRAWINGS AND SPECIFICATIONS.
2. SEE CIVIL, ELECTRICAL, ARCHITECTURAL, MECHANICAL, HEATING AND VENTILATING, AND PLUMBING DRAWINGS FOR ANCHORS, PIPE SLEEVES, CONDUITS OR OTHER ITEMS TO BE EMBEDDED OR PASSED THROUGH THE CONCRETE.
3. SEE CIVIL SITE PLANS FOR STRUCTURE LOCATION COORDINATES AND GRADING PLAN FOR FINISHED GRADE ELEVATIONS.
4. THE CONTRACTOR SHALL REVIEW AND VERIFY DIMENSIONS SHOWN IN ALL DRAWINGS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT THE INSTALLATION OF THE STRUCTURES. SHOULD DISCREPANCIES APPEAR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING TO OBTAIN ENGINEER'S CLARIFICATION BEFORE COMMENCING THE WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STRUCTURAL STABILITY DURING CONSTRUCTION. THE STRUCTURE SHOWN ON THE DRAWINGS HAS BEEN DESIGNED FOR STABILITY UNDER THE FINAL CONFIGURATION ONLY.
6. SEE CIVIL SITE PLANS FOR STRUCTURE LOCATION COORDINATES AND GRADING PLAN FOR FINISHED GRADE ELEVATIONS.
7. NO BACKFILL SHALL BE PLACED AGAINST WALLS UNTIL DESIGN STRENGTH HAS BEEN ATTAINED.

B. DESIGN CRITERIA

1. CODES AND STANDARDS:
   - A. 2021 INTERNATIONAL BUILDING CODE WITH VILLAGE OF GLEN ELLYN AMENDMENTS
   - B. ASCE 7-16 MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES
   - C. ACI 318-19 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   - D. ANSI/AISC 360-16 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
   - E. ANSI/AWC NDS 2018 NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH SUPPLEMENT
   - F. ANSI/AWC SDPWS 2021 SPECIAL PROVISION FOR WIND AND SEISMIC
   - G. TMS 402-16 BUILDING CODE FOR MASONRY STRUCTURES
   - H. AREMA MANUAL FOR RAILWAY ENGINEERING 2021
   - I. 2020 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
2. FLOOR LIVE LOADS:
   ROOF AREA = 20 PSF OR CONCENTRATED EQUIPMENT LOAD
3. SNOW LOADS:
   GROUND SNOW LOAD = 25 PSF
   IMPORTANCE FACTOR, Is = 1.1
   EXPOSURE FACTOR, Ce= 1.0
   THERMAL FACTOR, Ct = 1.2
   SLOPE FACTOR, Cs = 1.0
   FLAT ROOF SNOW LOAD, Pf = 23.1 PSF
4. WIND LOADS:
   BASIC DESIGN WIND SPEED, V = 114 MPH
   ALLOWABLE STRESS DESIGN WIND SPEED, Vasd = 88.3 MPH
   EXPOSURE CATEGORY = C
   RISK CATEGORY = III
   ENCLOSURE CLASSIFICATION = PARTIALLY ENCLOSED
   INTERNAL DESIGN PRESSURE COEFFICIENT = +/- 0.55
5. SEISMIC LOADS:
   RISK CATEGORY = III
   SITE CLASS = D
   SEISMIC DESIGN CATEGORY = B
   S_S = 0.129
   S_1 = 0.064
   S_{DS} = 0.137
   S_{D1} = 0.103
   IMPORTANCE FACTOR, Ie = 1.25
   STATION:
   EAST-WEST:
   BASIC SEISMIC FORCE RESISTING SYSTEM: ORDINARY REINFORCED CONCRETE SHEAR WALL
   RESPONSE MODIFICATION COEFFICIENT, R = 4
   SEISMIC RESPONSE COEFFICIENT, CS =
   DESIGN BASE SHEAR, V =
   NORTH-SOUTH:
   BASIC SEISMIC FORCE RESISTING SYSTEM: STEEL AND CONCRETE COMPOSITE ORDINARY MOMENT FRAMES AND STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
   RESPONSE MODIFICATION COEFFICIENT, R = 3
   SEISMIC RESPONSE COEFFICIENT, CS =
   DESIGN BASE SHEAR, V =
   WARMING SHELTER:
   BASIC SEISMIC FORCE RESISTING SYSTEM: STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
   RESPONSE MODIFICATION COEFFICIENT, R = 3
   SEISMIC RESPONSE COEFFICIENT, CS =
   DESIGN BASE SHEAR, V =
   ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE (ELF)

TENSION DEVELOPMENT LENGTHS IN WALL AND SLABS (INCHES)

f'c=4500 PSI		
BAR SIZE	TOP BARS	OTHER BARS
3	12	12
4	15	12
5	23	17
6	31	24
7	50	38
7*	33	25
8	62	48
8*	37	29
9*	46	36
10*	57	44

CLASS B TENSION LAP SPLICE LENGTHS IN WALLS AND SLABS (INCHES)

f'c=4500 PSI		
BAR SIZE	TOP BARS	OTHER BARS
3	16	16
4	20	16
5	29	23
6	40	31
7	65	50
7*	43	33
8	81	62
8*	49	37
9*	60	46
10*	74	57

NOTES:

1. MINIMUM BAR SPACING = 6 INCHES ON CENTER
2. A TOP BAR IS HORIZONTAL BAR WHERE MORE THAN 12" OF FRESH CONCRETE IS CAST DIRECTLY BELOW THE BAR. WHERE HORIZONTAL WALL REINFORCEMENT IS UNIFORMLY SPACED IN A VERTICAL PLANE AT 12" MAXIMUM SPACINGN, LENGTHS MAY BE AS FOR "OTHER BARS".
3. LENGTHS FOR BEAMS AND COLUMNS SHALL BE AS SHOWN ON THE DRAWINGS.

C. CAST IN PLACE CONCRETE NOTES:

1. REINFORCED CONCRETE SHALL COMPY WITH ACI 318 AND ACI 350.
2. MINIMUM CONCRETE STRENGTH AT 28 DAYS:
   STRUCTURAL CONCRETE f'c = 4500psi
   PIPE ENCASEMENT, ELECTRICAL RACEWAY
   ENCASEMENT, CONCRETE FILL f'c = 2500psi
3. REINFORCING STEEL SHALL BE NEW STEEL CONFORMING TO ASTM SPECIFICATION A615 GRADE 60.
4. REINFORCING STEEL FABRICATION SHALL BE IN COMPLIANCE WITH THE CRSI MANUAL OF STANDARD PRACTICE.
5. DETERMINE CLEAR CONCRETE COVER BASED ON EXPOSURE TO THE ENVIRONMENT. REINFORCING STEEL SHALL HAVE THE FOLOWING MINIMUM CLEAR CONCRETE COVER UNLESS OTHERWISE NOTES:

   CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 IN.
   CONCRETE SURFACES IN CONTACT WITH SOIL, WATER, SEWAGE, SLUDGE OR EXPOSED TO WEATHER (INCLUDING BOTTOM COVER OVER LIQUID RETAINING STRUCTURES):
   BEAMS AND COLUMNS (TIES AND STIRRUPS): 2 IN.
   WALLS AND TOP AND BOTTOM OF SLABS: 2 IN.

   CONCRETE SURFACES NOT IN CONTACT WITH SOIL, WATER, SEWAGE, SLUDGE OR EXPOSED TO WEATHER:
   BEAMS AND COLUMNS (TIES AND STIRRUPS): 1 1/2 IN.
   WALLS AND TOP AND BOTTOM OF SLABS: 1 IN.
6. SPLICED BARS SHALL HAVE A MINIMUM LAP OF CLASS B TENSION LAP SPLICE UNLESS OTHERWISE NOTED.
7. IN CONCRETE BEAMS 30" OR DEEPER, PROVIDE CONTINUOUS #5 @ 12"o.c. EACH SIDE BETWEEN MAIN REINFORCING.
8. CONSTRUCTION JOINTS SHALL NOT BE PLACED AT LOCATION OTHER THAN THOSE SHOWN ON THE DRAWINGS WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER.
9. SIZE AND LOCATION OF EQUIPMENT PADS AND ANCHOR BOLTS SHALL BE AS REQUIRED BY THE EQUIPMENT MANUFACTURER.
10. ALL EXPOSED CORNERS OF CONCRETE TO HAVE A 3/4" MINIMUM CHAMFER UNLESS OTHERWISE NOTED.
11. REINFORCING BARS TO EXTEND 12 BAR DIAMETERS BUT NOT LESS THAN 12" BEYOND BEND UNLESS OTHERWISE NOTED.
12. IN ELEVATED SLABS, LAP CONTINUOUS BOTTOM REINFORCEMENT AT SUPPORTS AND CONTINUOUS TOP REINFORCEMENT AT THE CENTER OF A SPAN, UNLESS OTHERWISE NOTED.
13. IN BASE SLABS, LAP CONTINUOUS BOTTOM REINFORCEMENT AT THE CENTER OF A SPAN AND CONTINOUS TOP REINFORCEMENT AT SUPPORTS, UNLESS OTHERWISE NOTED.

D. FOUNDATION SUBSURFACE PREPARATION:

1. IN PREPARATION OF THE FOUNDATION DESIGN, DRAWINGS, AND SPECIFICATIONS, THE ENGINEER HAS RELIED UPON THE GEOTECHNICAL DATA REPORT FILE NO. 81.0220460.05 FROM FROM GZA GEOENVIRONMENTAL, INC. DATED JUNE 7, 2021.
2. ALL BEARING SURFACES FOR FOUNDATIONS SHOULD BE FREE OF DELETERIOUS, LOOSE, FROZEN, CRUSTED OR SATURATED MATERIALS PRIOR TO THE PLACEMENT OF STRUCTURAL CONCRETE. IF THE GEOTECHNICAL ENGINEER DETERMINES THAT A SATURATED OR CRUSTED SURFACE DEVELOPS WITHIN FOUNDATION EXCAVATIONS PRIOR TO PLACEMENT OF STRUCTURAL CONCRETE THE REINFORCING STEEL SHALL BE REMOVED AND THE SUBGRADE BEARING SURFACE SHALL BE PREPARED TO PROVIDE A SUITABLE BEARING SURFACE. REMOVAL OF THE REINFORCING STEEL AND BEARING SURFACE PREPARATION SHALL BE COMPLETED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE. ALL COSTS RELATED TO THIS EFFORT SHALL BE AT THE CONTRACTOR'S SOLE EXPENSE.
3. ALL FOOTINGS, MAT FOUNDATIONS, AND SLAB-ON-GRADE SHALL BEAR ON MINIMUM 12" THICK COMPACTED STRUCTURAL FILL OR CONTROLLED LOW-STRENGTH MATERIAL (CLSM) PLACED OVER SUITABLE BEARING SOILS. SUITABLE BEARING SOILS CONSIST OF NATURALLY DEPOSITED, INORGANIC CLAY/SILT, SILTY/CLAY SAND, WEATHERED ROCK OR BEDROCK. ON-SITE TESTS SHALL BE PERFORMED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN, HIRED BY THE CONTRACTOR , TO CONFIRM SOIL BEARING CAPACITY (NOTE 10 BELOW), PRIOR TO PLACING ALL FOUNDATIONS.
4. PRIOR TO PLACING CONCRETE FOR FOUNDATION AND SLAB, THE SUBGRADE PREPARATION AND THE COMPACTION OF STRUCTURAL FILL SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN THE SECTION 312000. I
5. IF UNSUITABLE SOIL IS DISCOVERED AT THE FOOTING ELEVATIONS SPECIFIED, THE CONTRACTOR SHALL EXCAVATE THE UNSUITABLE SOIL TO A DEPTH WHERE SUITABLE BEARING MATERIAL IS FOUND. THE UNSUITABLE SOIL REMOVED SHALL BE REPLACED WITH PROPERLY COMPACTED STRUCTURAL FILL OR CLSM UP TO THE FOOTING ELEVATION.
6. ALL SUBGRADES SHALL BE EVALUATED BY A GEOTECHNICAL ENGINEER OR QUALIFIED TESTING AGENCY FOR SUITABILITY TO RECEIVE ENGINEERED FILL.
7. THE BOTTOMS OF EXTERIOR FOOTINGS SHALL BE AT LEAST 4'-0" BELOW FINAL ADJACENT GRADE.
8. SHORE ALL EXCAVATIONS AS REQUIRED TO PREVENT SUBSIDENCE OR DAMAGE TO ADJACENT EXISTING STRUCTURES, STREETS, UTILITIES, ETC. DESIGN OF SHORING IS CONTRACTOR'S RESPONSIBILITY AND SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
9. FOR GENERAL SUBSURFACE CONDITION AND GROUNDWATER INFORMATION, SEE THE GEOTECHNICAL DATA REPORT.
10. THE GEOTECHNICAL ENGINEER SHALL VERIFY AND CONFIRM THE NET ALLOWABLE SOIL BEARING CAPACITY OF 3000 PSF AT SUBGRADE FOR STRUCTURES PRIOR TO CONCRETE PLACEMENT.
11. MODULUS OF SUBGRADE REACTION (k) USED IN THE SHOREWELL DESIGN IS 90 PCI.

ABBREVIATIONS

#	NUMBER	INT	INTERIOR
&	AND	INV	INVERT
@	AT	JT	JOINT
AB	ANCHOR BOLT	KO	KNOCKOUT
AB	ABOVE	LG	LENGTH
ACC	ACCELERATION	LLH	LONG LEG HORIZONTAL
ADDL	ADDITIONAL	LLV	LONG LEG VERTICAL
ALUM/AL	ALUMINUM	LNTL	LINTEL
ALT	ALTERNATE (ING)	LOC(S)	LOCATION(S)/LOCATED
APPROX	APPROXIMATELY	LONG.	LONGITUDINAL
B TO B	BACK TO BACK	LP	LOW POINT
BEV	BEVEL (ED)	LT	LEFT
BLK	BLOCKING	LW	LIGHTWEIGHT
BOT	BOTTOM	MAS	MASONRY
BRG	BEARING	MAX	MAXIMUM
B/W	BETWEEN	MB	MACHINE BOLTS
CIRC	CIRCUMFERENTIAL	MCJ	MASONRY CONTROL JOINT
CJ	CONSTRUCTION JOINT	MFR	MANUFACTURER
CL	CENTERLINE	MIN	MINIMUM
CLJ	CONTROL JOINT	MO	MASONRY OPENING
CLR	CLEAR	NF	NEAR FACE
CMU	CONCRETE MASONRY UNITS	NS	NON-SHRINK
COL	COLUMN	NTS	NOT TO SCALE
CONC	CONCRETE	OC	ON CENTER
CONN	CONNECTION	OD	OUTSIDE DIAMETER
CONT	CONTINUOUS	OF.	OUTSIDE FACE
CPLG	COUPLING	OPNG	OPENING
CRS	COURSE (S)	OPP	OPPOSITE
CSK	COUNTERSINK	OPT	OPTIONAL
CTR	CENTER(ED)	PCJ	PARTIAL CONTRACTION JOINT
d	PENNY	PJF	PREMOLDED JOINT FILLER
DET	DETAIL	PLYWD	PLYWOOD
DIA	DIAMETER	PREFAB	PREFABRICATED
DIAG	DIAGONAL	PROJ	PROJECTION
DIR	DIRECTION	PVMT	PAVEMENT
DL	DEAD LOAD	R	RISER(S)
DO.	DITTO	RAD	RADIUS
DWG	DRAWING	RC	REINFORCED CONCRETE
DWL	DOWEL	REF	REFERENCE/REFER
EA	EACH	REINF	REINFORCE (D, ING)
EB	EXPANSION BOLT	REQD	REQUIRED
EF	EACH FACE	REV	REVISION
EL	ELEVATION	RLG	RAILING
EMBED	EMBEDMENT	RO	ROUGH OPENING
EQ	EQUAL (LY)	RT	RIGHT
EQUIP	EQUIPMENT	SCJ	SLAB CONTROL JOINT
ES	EACH SIDE	SECT	SECTION
EW	EACH WAY	SIM	SIMILAR
EXIST	EXISTING	SP	SPACE (S, ED)
EXP JT	EXPANSION JOINT	SQ	SQUARE
EXT	EXTERIOR	SS	STAINLESS STEEL
f'c	CONCRETE COMPRESSION STRESS	STD	STANDARD
f'm	MASONRY PRISM STRESS	STIF	STIFFENER
FAB	FABRICATE (OR, ED)	STIR	STIRRUP (S)
FDN	FOUNDATION	STL	STEEL
FF	FAR FACE	SYM	SYMMETRICAL
FHMS	FLATHEAD MACHINE SCREW	T	TREAD(S)
FHWS	FLATHEAD WOOD SCREW	T/	TOP OF
FL	FLOOR	T&B	TOP AND BOTTOM
FRP	FIBERGLASS REINFORCED PLASTIC	TF	TOP FACE
FTG	FOOTING	THD	THREADED
GALV	GALVANIZED	TOC	TOP OF CONCRETE
GBT	GRAVITY BELT THICKENER	TRNSV	TRANSVERSE
GLB	GLASS BLOCK	TYP	TYPICAL
GR	GRADE	UNO	UNLESS NOTED OTHERWISE
GRTG	GRATING	VB	VAPOR BARRIER
H	HIGH	VIF	VERIFY IN FIELD
HAS.	HEADED ANCHOR STUD	W	WIDE
HDR	HEADER	W/	WITH
HOR	HORIZONTAL	W/O	WITHOUT
HP	HIGH POINT	WD	DRIFT WIDTH
ID	INSIDE	WP	WORKING POINT
I.E.	INVERT ELEVATION	WSTP	WATERSTOP
IF.	INSIDE FACE	WWF	WELDED WIRE FABRIC

ABBREVIATION NOTES:

1. ABBREVIATIONS AND DESIGNATIONS FOR STEEL MEMBERS MAY BE FOUND IN THE CURRENT MANUAL OF STEEL CONSTRUCTION BY AISC.
2. ABBREVIATIONS OF TECHNICAL SOCIETIES AND TRADE ASSOCIATIONS MAY BE FOUND IN THE SPECIFICATIONS.
3. WELDING SYMBOLS AND ABBREVIATIONS MAY BE FOUND IN AWS 2.4.

INDICATES EQUIPMENT PAD. COORDINATE SIZE W/ EQUIP REQUIREMENTS.

GRATING SPAN DIRECTION

EARTH FILL

CONCRETE MASONRY

UNDISTURBED EARTH

GROUT

STRUCTURAL FILL

GRATING

CONCRETE

CHECKERED PLATE

E. 8" CMU MASONRY NOTES

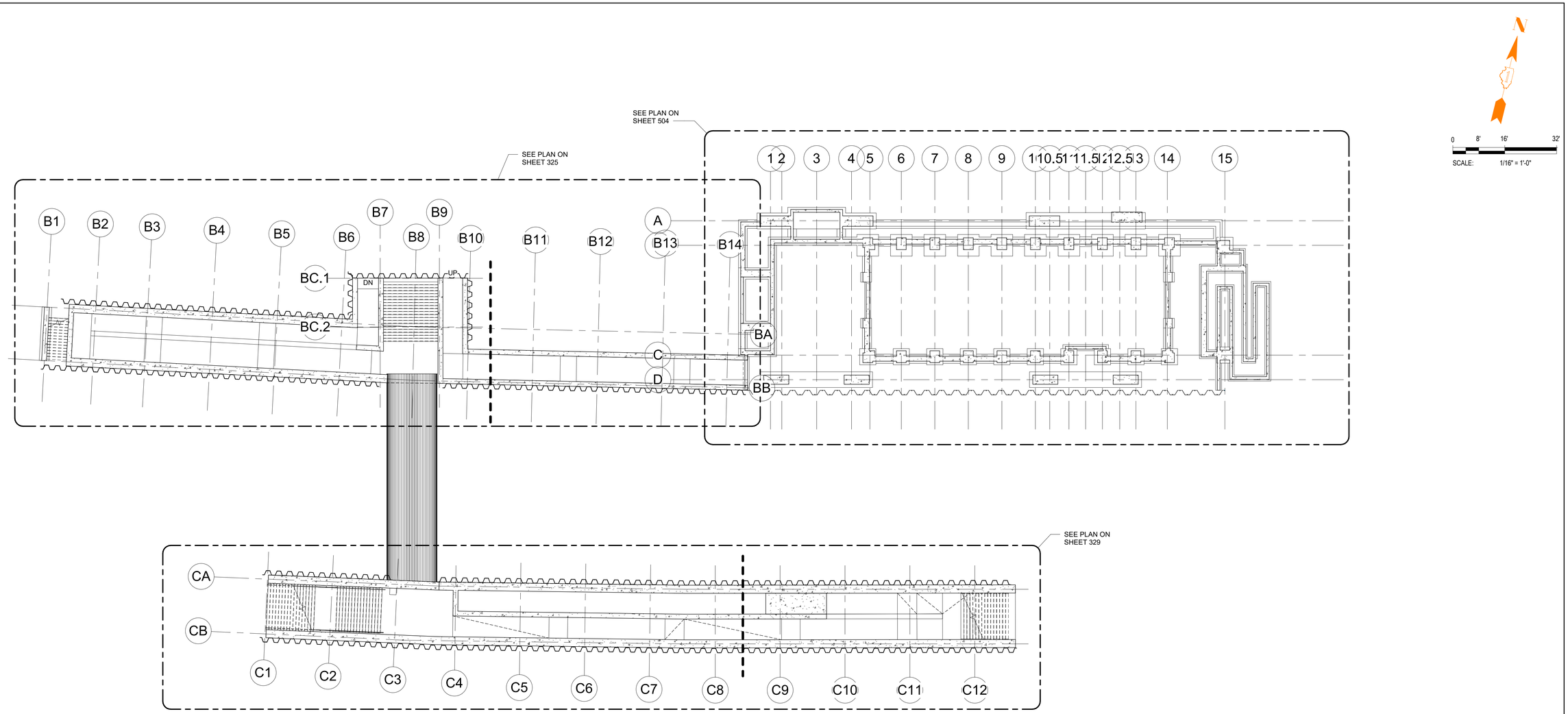
1. f'm = 2000 psi.
2. CMU MASONRY DETAILS, ELEVATIONS AND NOTES ON THIS SHEET APPLY TO ALL NEW 8" CMU EXTERIOR AND INTERIOR WALLS UON. (EXTERIOR WALLS CONSIST OF A CMU WYTHE AND ONE OR MORE BRICK WYTHES. INTERIOR WALLS CONSIST OF A SINGLE CMU WYTHE.)
3. WALLS CONSISTING OF AN EXTERIOR PORTION AND AN INTERIOR PORTION SHALLBE REINFORCED AS EXTERIOR WALLS OVER THEIR FULL HEIGHT.
4. LOAD BEARING WALLS ARE WALLS UPON WHICH A CONCRETE SLAB IS CAST. ALL OTHER WALLS ARE NON-LOAD BEARING WALLS.
5. ALL HORIZONTAL REINFORCING, EXCEPT IN THE LINTELS, SHALL BE PLACED IN A CMU BOND BEAM BLOCK. PROVIDE GALVANIZED METAL LATH IN THE HORIZONTAL JOINT BELOW THE BLOCK TO RETAIN THE GROUT.
6. FULLY GROUT ALL CELLS AND COURSES WITH VERTICAL OR HORIZONTAL REINFORCING. PROVIDE 2" MINIMUM CLEAR COVER TO THE REINFORCING (UON). HORIZONTAL JOINT BELOW THE BLOCK TO RETAIN THE GROUT.
7. VERTICAL REINFORCING SHALL EXTEND TO 2" BELOW THE TOP OF THE CMU WALL OR PARAPET.
8. PROVIDE A CONTINUOUS BOND BEAM WITH 2-#5 CONTINUOUS HORIZONTAL BARS AT THE TOP OF ALL WALLS.
9. PROVIDE 1-#6 CONTINUOUS VERTICAL BAR ADDITIONAL WITH MATCHING DOWELS EACH SIDE OF ALL BUILDING COLUMNS UON.
10. PROVIDE HORIZONTAL JOINT REINFORCING AS SPECIFIED.
11. REINFORCING BARS TO EXTEND 12 BAR DIAMETERS BUT NOT LESS THAN 12" BEYOND BEND UON.
12. TYPICAL VERTICAL WALL REINFORCING ABOVE STEEL LINTELS SHALL BE LAP SPLICED TO MATCHING DOWELS WHICH ARE FIELD WELDED TO THE STEEL LINTEL WITH 1/4" FILLET WELD ALL AROUND.
13. AT LOOSE STEEL LINTELS ONLY, DRILL 1" (MAXIMUM) DIAMETER HOLES (1 PER BAR) IN LINTEL FLANGES TO ALLOW CONTINUOUS REINFORCING AT JAMBS TO PASS THROUGH. INSTALL GROUT DAMS IN/ON LINTEL AS REQUIRED, AND GROUT REINFORCING SOLID CONTINUOUS.
14. FOR PLAN LOCATION OF MASONRY WALLS AND OTHER MASONRY DETAILS SEE ARCHITECTURAL DRAWINGS.

F. STRUCTURAL STEEL NOTES

1. ALL STRUCTURAL STEEL SHALL BE FABRICATED, ERECTED AND CONNECTED IN COMPLIANCE WITH THE AISC MANUAL OF STEEL CONSTRUCTION 15TH EDITION.
2. MATERIALS:
   - A. WIDE FLANGES SHALL CONFORM TO ASTM A992
   - B. ALL OTHER STRUCTURAL SHAPES, PLATES AND BARS SHALL CONFORM TO ASTM A36.
   - C. HOLLOW STRUCTURAL SHAPES (HSS) SHALL CONFORM TO ASTM A500 GRADE B.
3. ALL BEAM CONNECTIONS SHALL BE DESIGNED FOR ONE HALF OF THE MAXIMUM TOTAL UNIFORM LOAD TABULATED IN TABLE3-6, PART 3 OF THE AISC MANUAL FOR DESIGN REACTION SHOWN, PLUS AXIAL LOAD (#K T/C) WHERE INDICAZTED ON THE DRAWINGS, U.O.N. ALL CLIP ANGLES SHALL BE 3/8" MINIMUM THICKNESS.
4. ALL BOLTED CONNECTIONS SHALL BE SNUG-TIGHT BEARING BOLT U.O.N.
5. FIELD CONNECTIONS SHALL BE BY ASTM F3125 GRADE A325 BOLTS HIGH STRENGTH BOLTS, U.O.N. BOLTS SHALL BE 3/4" DIAMETER IN 13/16" DIAMETER HOLES, U.O.N. WHERE CONNECTION ARE TO EXISTING MEMBERS, HOLES SHALL BE FIELD DRILLED.
6. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH THE LATEST EDITION OF THE STRUCTURAL WELDING CODE, AWS D1.1. WELDING FILLER METAL SHALL BE AWS A5.1 E70XX ELECTRODES. SURFACES TO BE WELDED SHALL BE WIRE BRUSHED CLEAN SURFACE BEFORE WELDING. THE AREA TO BE FIELD WELDED SHALL BE CLEANED FREE OF PAINT, DIRT, RUST, GREASE AND OTHER FOREIGN MATTER PRIOR TO WELDING.

G. WOOD FRAMING NOTES

1. WOOD FRAMING FABRICATION AND INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF AWC NDS-2018 NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION WITH SUPPLEMENT AND AWC SDPWS-2015 SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC.
2. PROVIDE OSB SHEATHING COMPLYING WITH DOC PS 2 AND CLASSIFIED AS EXPOSURE 1. EACH SHEET OF SHEATHING SHALL BE IDENTIFIED WITH APPROPRIATE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION.
3. ROOF SHEATHING SHALL BE APA RATED 40/20 SHEATHING, 19/32 PERFORMANCE CATEGORY, CONTINUOUS OVER TWO OR MORE SPANS WITH LONG DIMENSION ACROSS SUPPORTS. GLUE AND FASTEN WITH 8d NAILS 6" O.C. AT EDGES AND INTERMEDIATE SUPPORTS, UNBLOCKED. STAGGER PANELS, UNO.
4. ROOF DECKING SHALL BE 3" THICK TONGUE AND GROVE SPRUCE-PINE-FUR SELECT WITH THE FOLLOWING PROPERTIES: Fb = 1,200 PSI AND E = 1,500,000 PSI.



OVERALL PLAN

1/16" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - WCW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERALL PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - NK	REVISED -					DUPAGE	502
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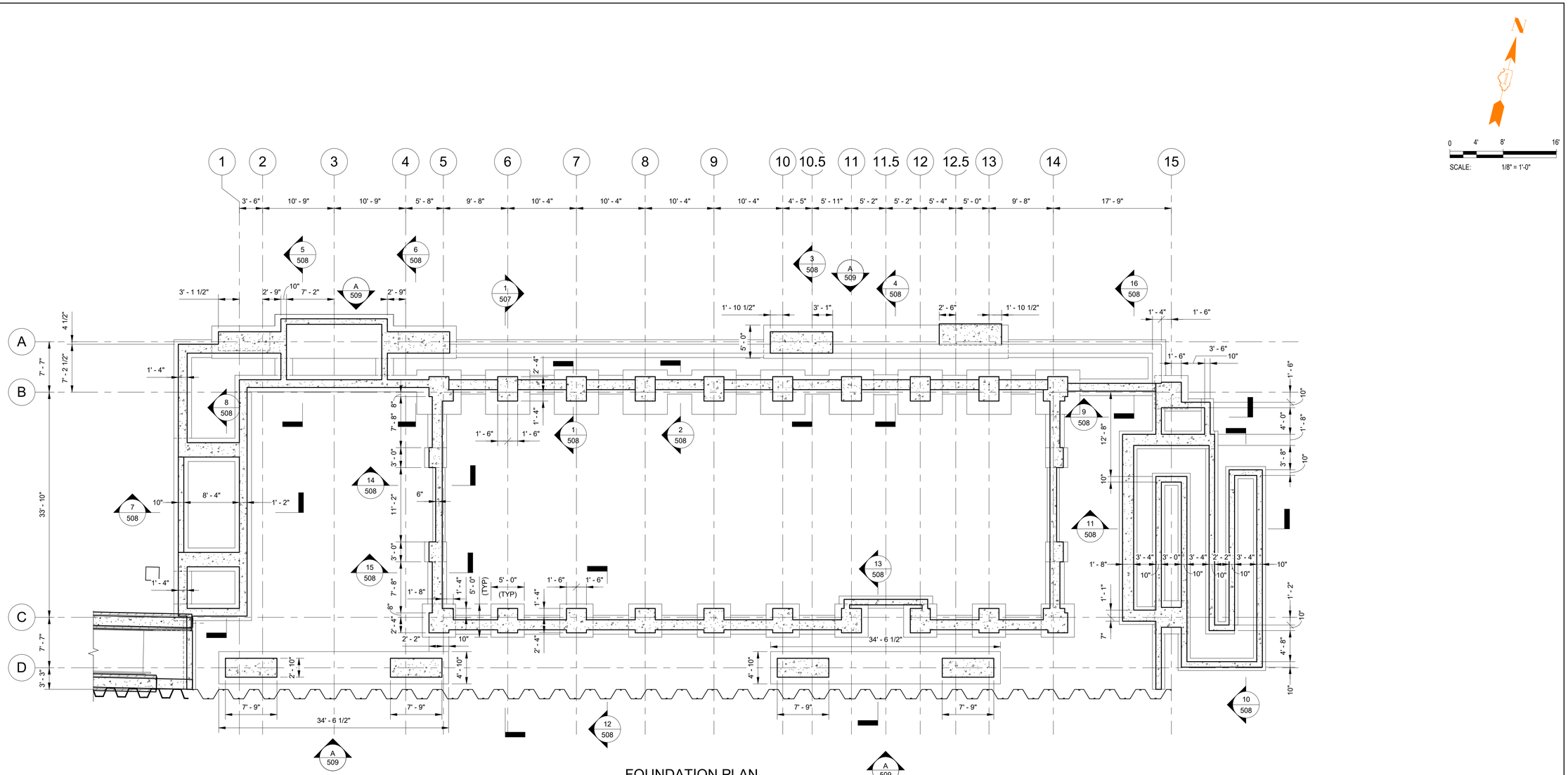

CDM Smith	USER NAME =	DESIGNED - WCW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STATION FOUNDATION PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
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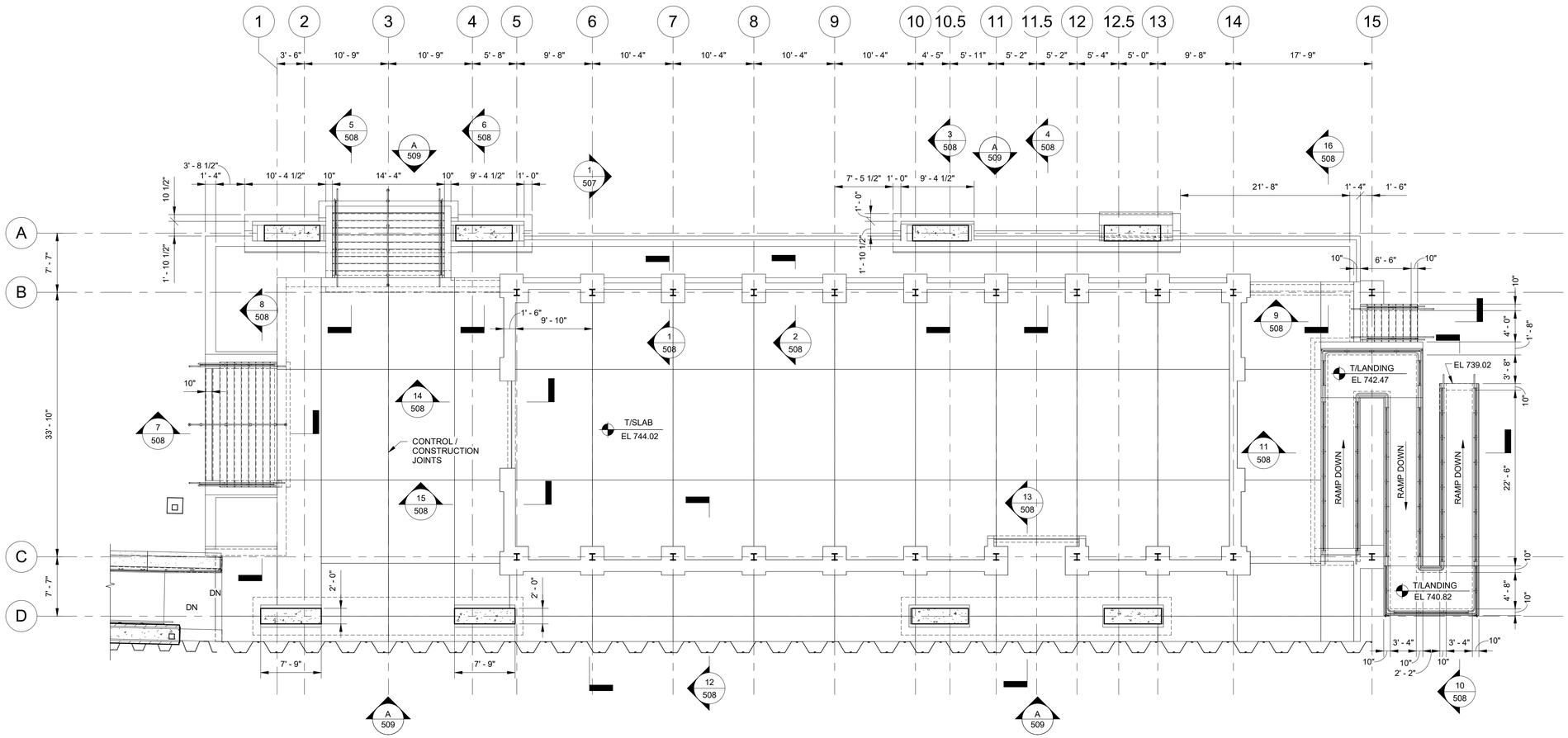
	PLOT SCALE =	CHECKED - WCW	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - MAY 2024	REVISED -		SCALE: WCW SHEET 503 OF SHEETS			ILLINOIS FED. AID PROJECT	



STATION SLAB PLAN / WALL PLAN

1/8" = 1'-0"

N

0 4' 8' 16'

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

CDM Smith	USER NAME =	DESIGNED - WCW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STATION SLAB PLAN / WALL PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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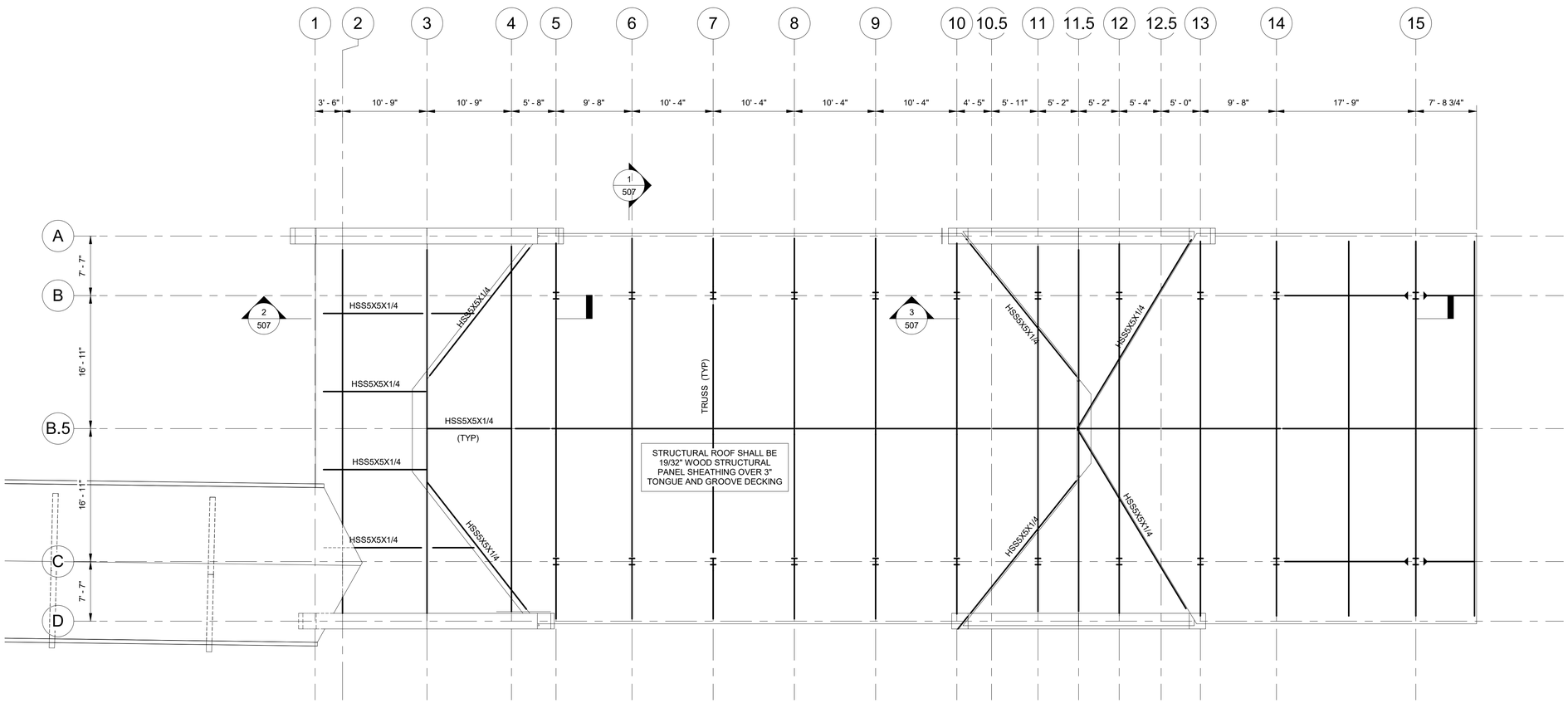

STATION ROOF FRAMING PLAN

1/8" = 1'-0"

N

0 4' 8' 16'

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

CDM Smith	USER NAME =	DESIGNED - WCW	REVISED -
	ISSUED FOR 30 PCT	DRAWN - PdR	REVISED -
	PLOT SCALE =	CHECKED - WCW	REVISED -
	PLOT DATE =	DATE - MAY 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STATION ROOF FRAMING PLAN

SCALE: WCW | SHEET 505 OF SHEETS

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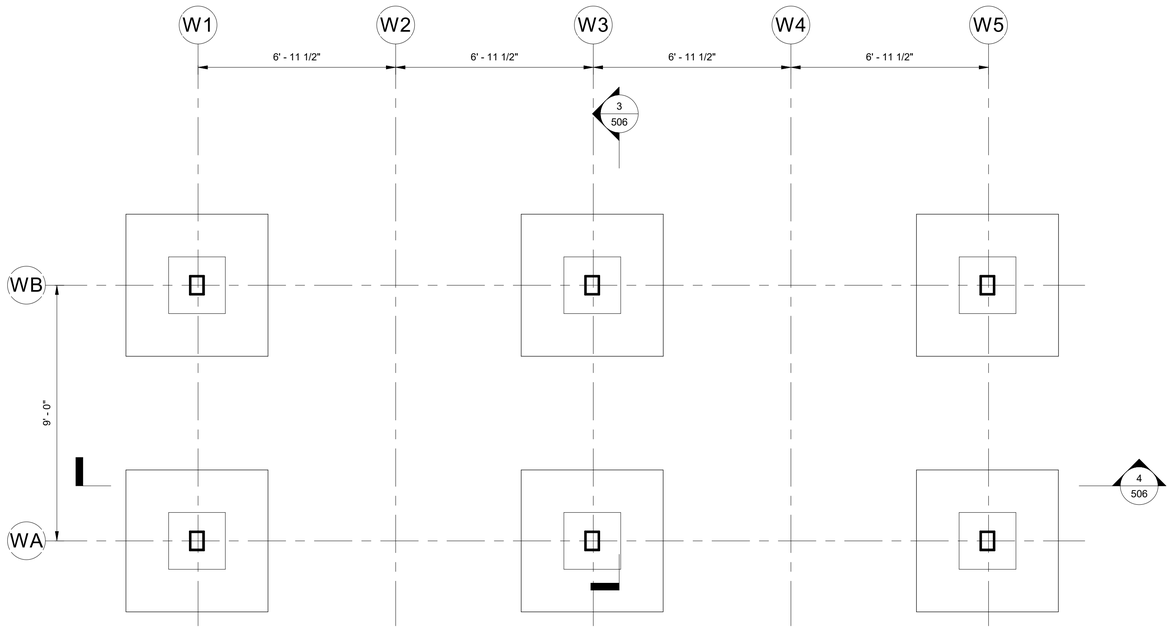
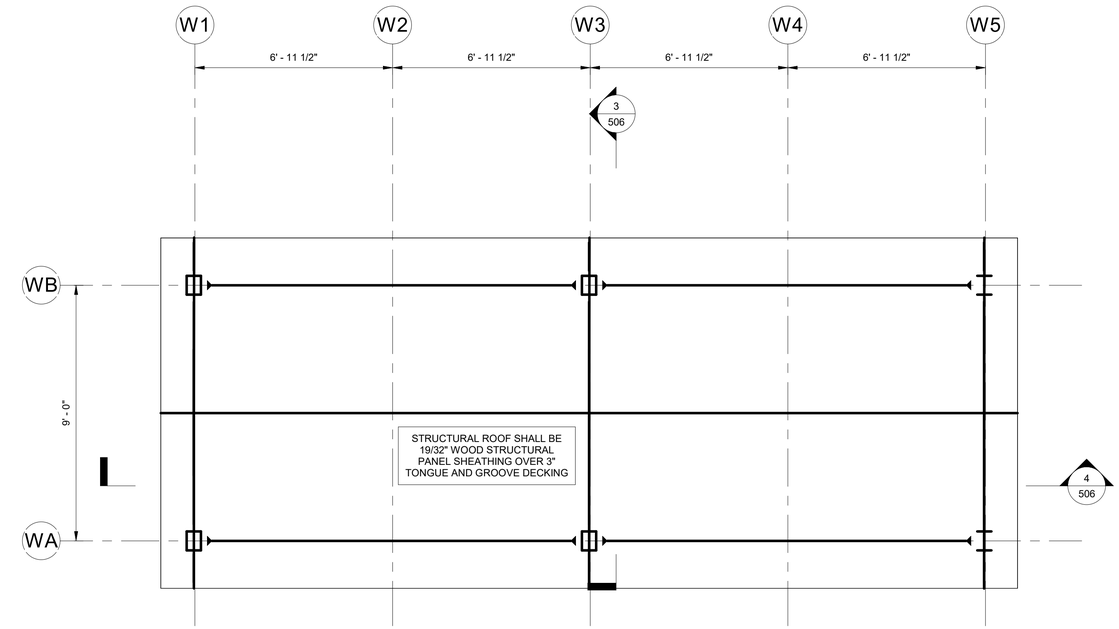
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		



SHELTER FOUNDATION PLAN

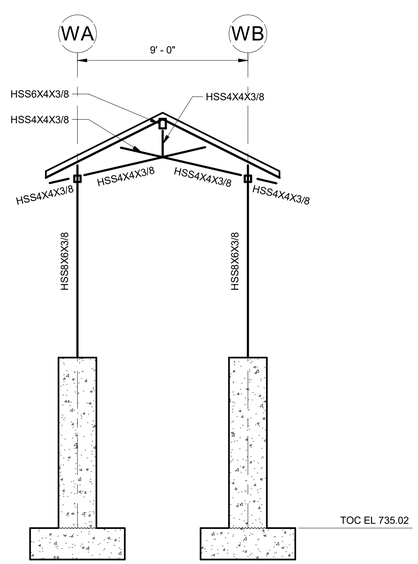
3/8" = 1'-0"



STATION ROOF FRAMING PLAN

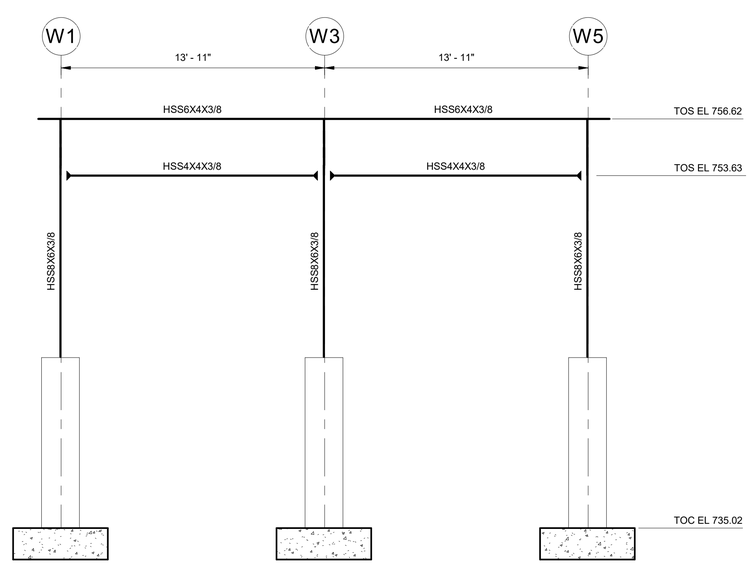
3/8" = 1'-0"

FOOTING SCHEDULE	
Type Mark	Length
	<varies>



ELEVATION

1/4" = 1'-0"



ELEVATION

1/4" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - WCW	REVISED -
	ISSUED FOR 30 PCT	DRAWN - PdR	REVISED -
	PLOT SCALE =	CHECKED - WCW	REVISED -
	PLOT DATE =	DATE - MAY 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STATION SHELTER PLANS

SCALE: WCW | SHEET 506 OF SHEETS

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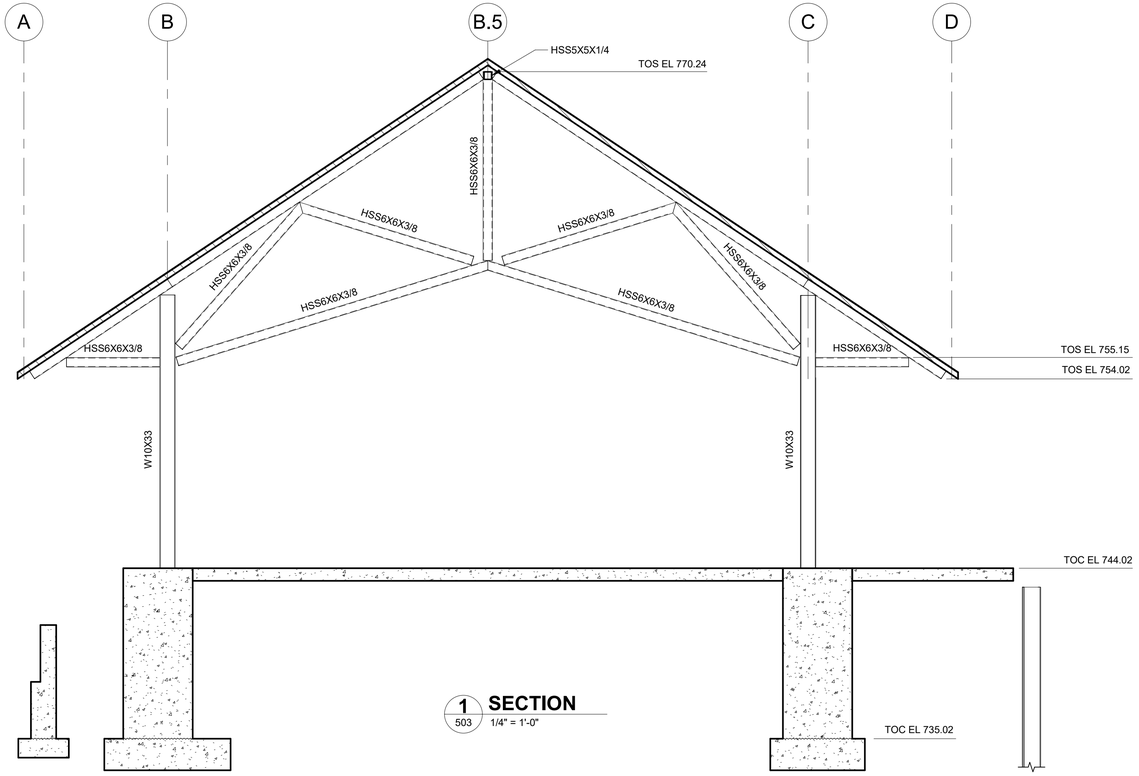
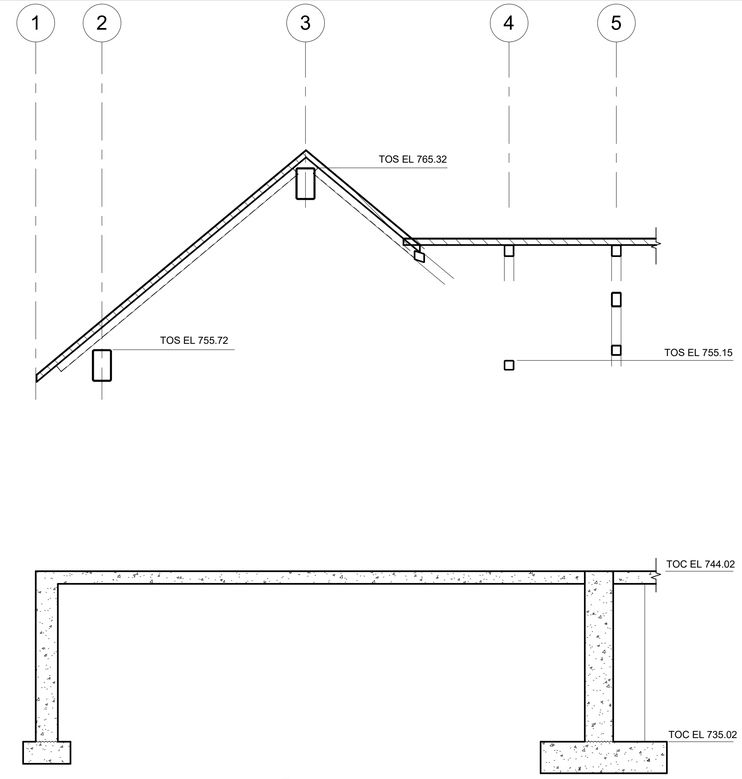
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		



1 503 **SECTION**
1/4" = 1'-0"



2 505 **SECTION**
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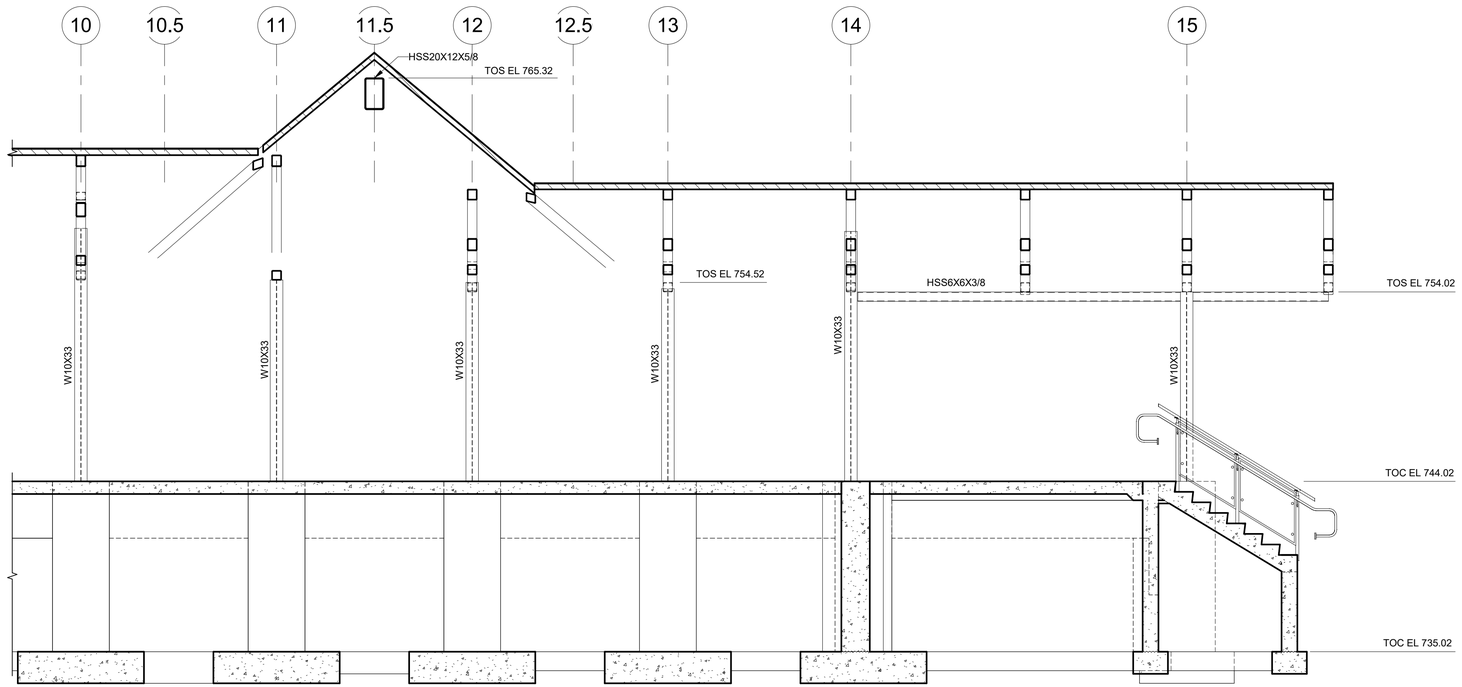


3 505 **SECTION**
1/4" = 1'-0"

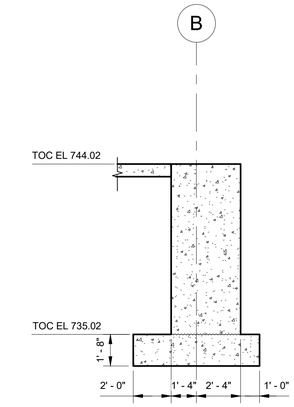
USER NAME =	DESIGNED - WCW	REVISED -	
ISSUED FOR 30 PCT	DRAWN - PdR	REVISED -	
PLOT SCALE =	CHECKED - WCW	REVISED -	
PLOT DATE =	DATE - MAY 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

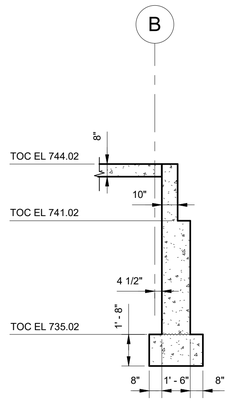
SECTIONS

SCALE: WCW | SHEET 507 OF SHEETS

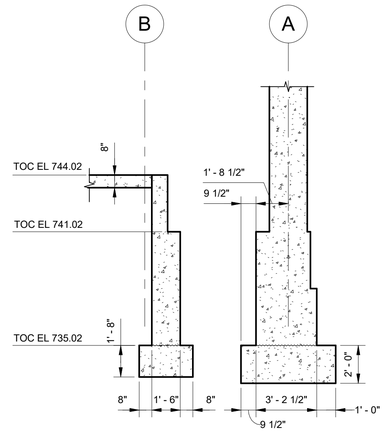
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		507
		CONTRACT NO.		
ILLINOIS FED. AID PROJECT				



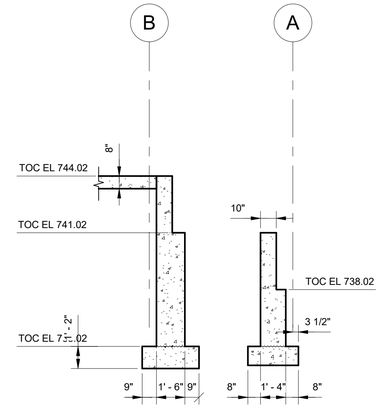
1 503 **SECTION** 1/4" = 1'-0"



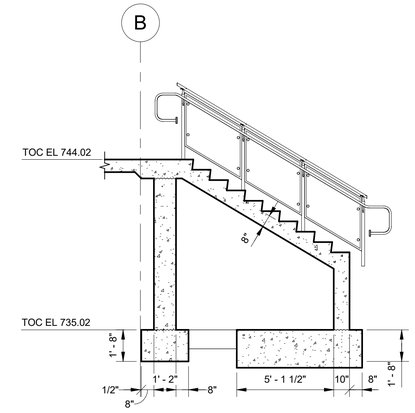
2 503 **SECTION** 1/4" = 1'-0"



3 503 **SECTION** 1/4" = 1'-0"



4 503 **SECTION** 1/4" = 1'-0"



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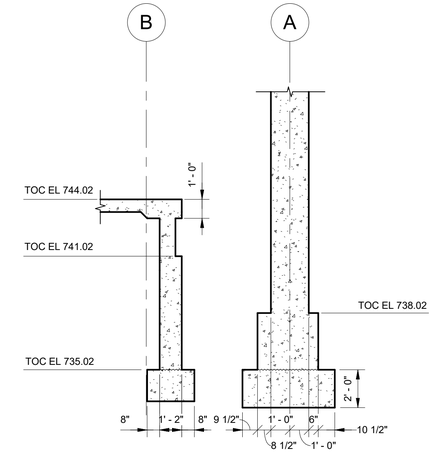
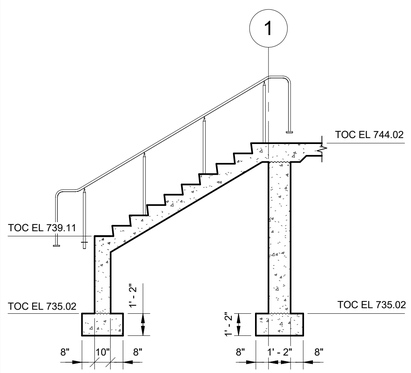


6 503 **SECTION** 1/4" = 1'-0"



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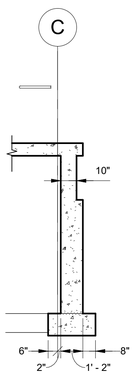

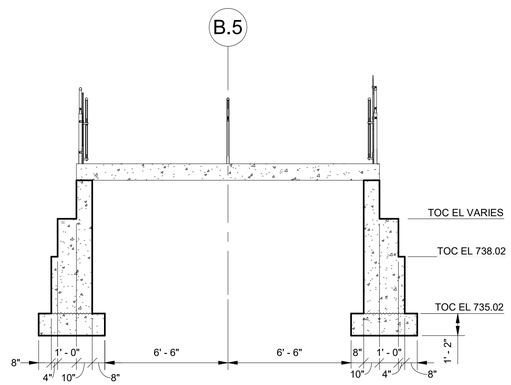

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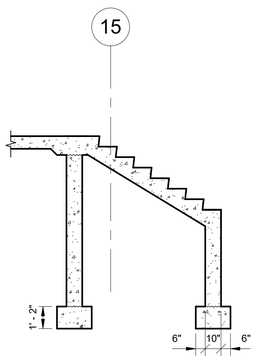

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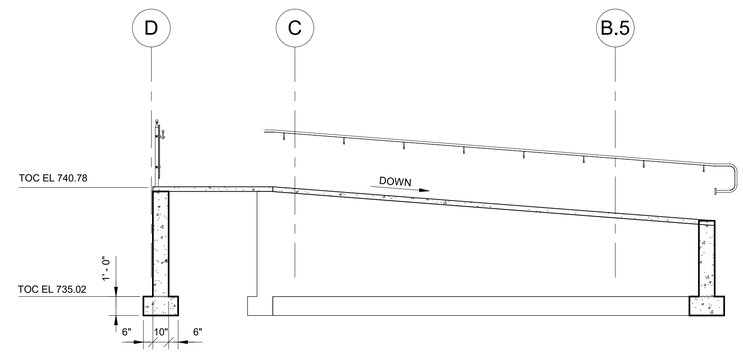

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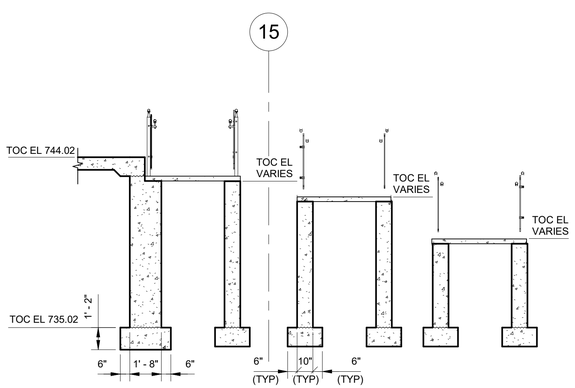

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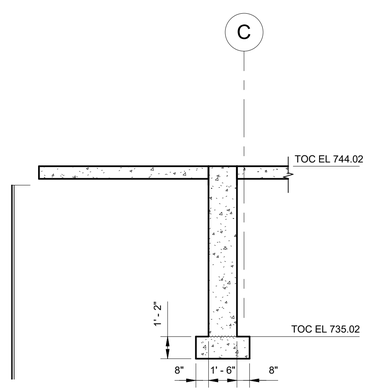

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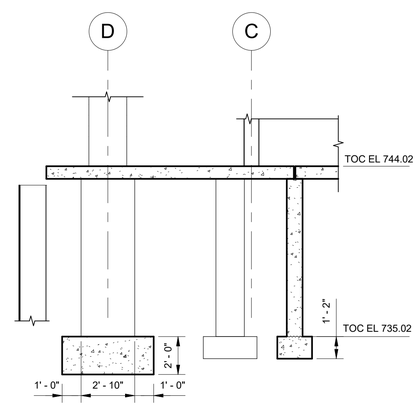

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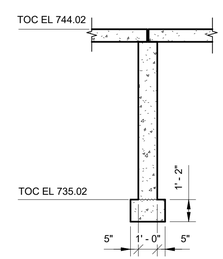

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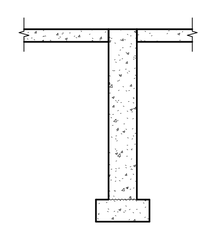
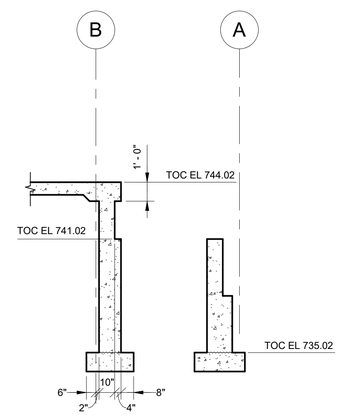
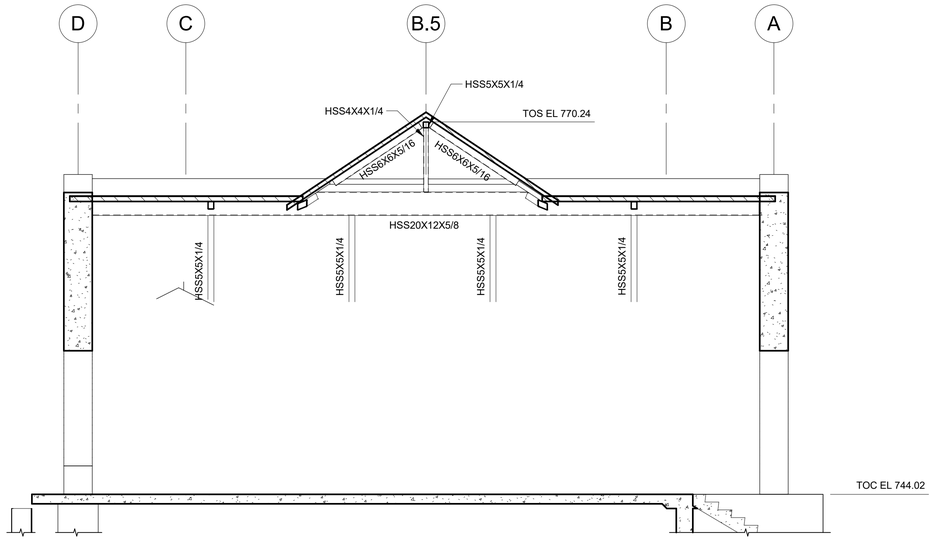


15 503 **SECTION** 1/4" = 1'-0"



16 503 **SECTION** 1/4" = 1'-0"

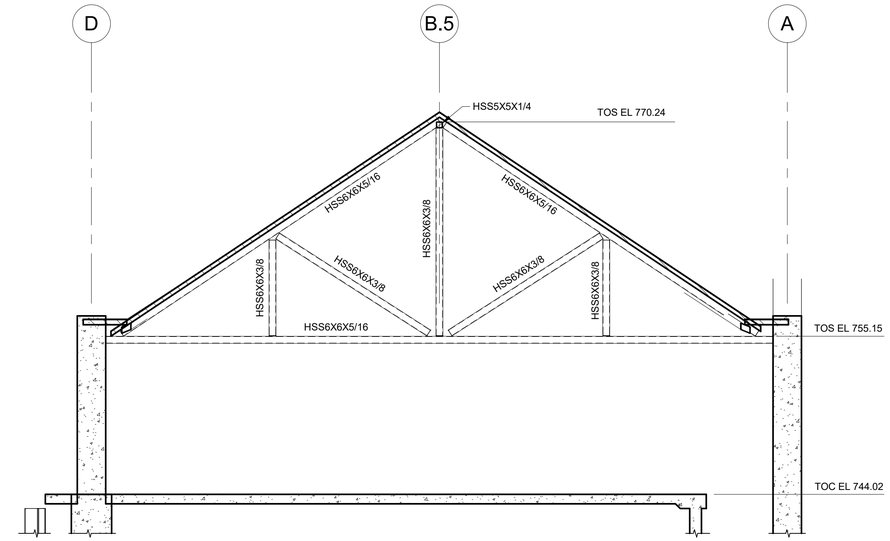
CDM Smith	USER NAME =	DESIGNED - WCW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STATION SECTIONS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - PdR	REVISED -					DUPAGE	508
	PLOT SCALE =	CHECKED - WCW	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - MAY 2024	REVISED -		SCALE: WCW SHEET 508 OF SHEETS			ILLINOIS FED. AID PROJECT	



LINE 3 & 11.5 (SIM)

FRAMING ELEVATION

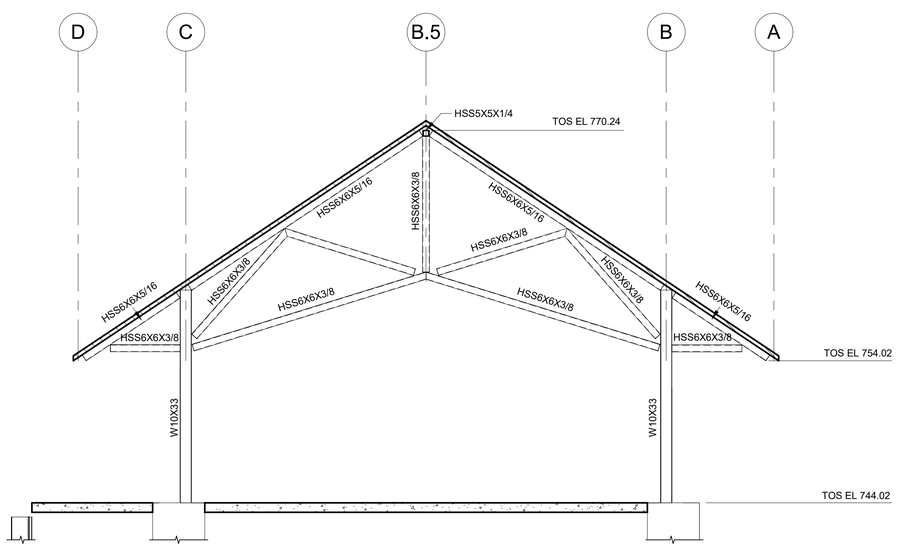
3/16" = 1'-0"



LINE 4

FRAMING ELEVATION

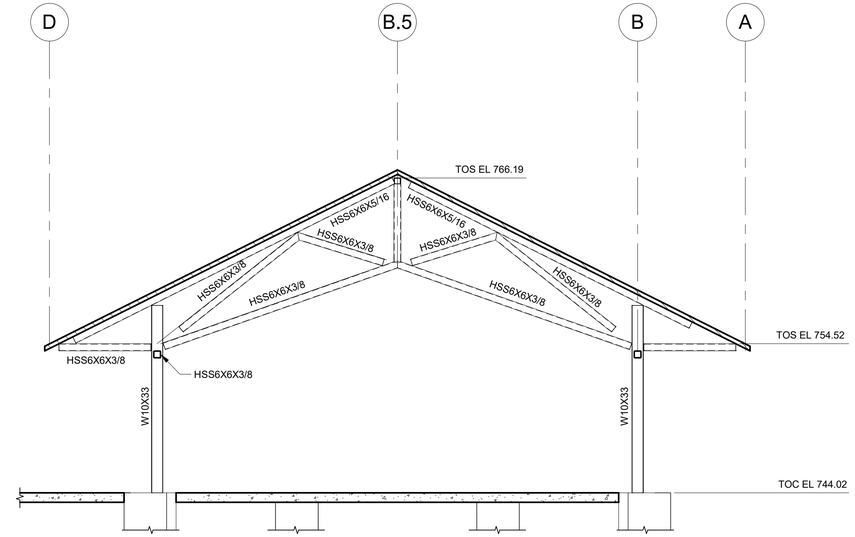
3/16" = 1'-0"



LINE 5, 6, 7, 8, 9 & 10

FRAMING ELEVATION

3/16" = 1'-0"



LINE 12, 13, 14 & 15

FRAMING ELEVATION

3/16" = 1'-0"

CDM Smith

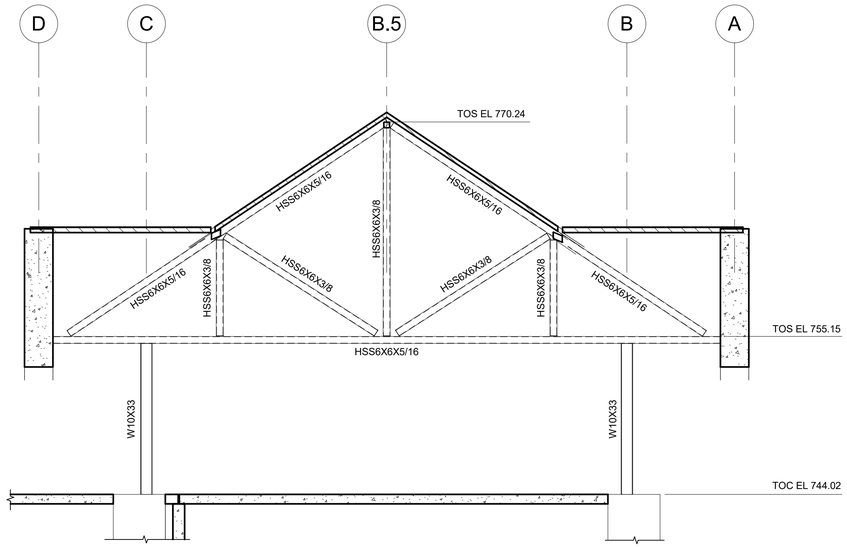
USER NAME =	DESIGNED - WCW	REVISED -
ISSUED FOR 30 PCT	DRAWN - PdR	REVISED -
PLOT SCALE =	CHECKED - WCW	REVISED -
PLOT DATE =	DATE - MAY 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

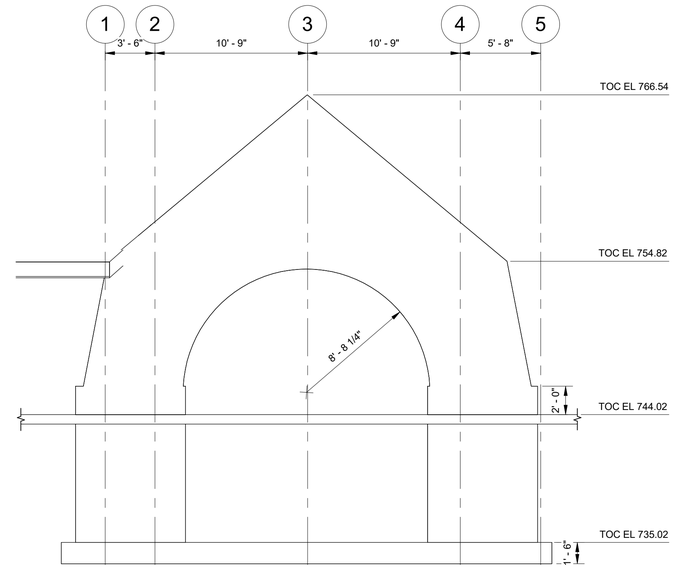
STATION FRAMING ELEVATIONS I

SCALE: WCW | SHEET 509 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		509
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		



LINE 11
FRAMING ELEVATION
3/16" = 1'-0"



ELEVATION A
FRAMING ELEVATION
3/16" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - WCW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STATION FRAMING ELEVATIONS II	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - PdR	REVISED -					DUPAGE		510
	PLOT SCALE =	CHECKED - WCW	REVISED -					CONTRACT NO.		
	PLOT DATE =	DATE - MAY 2024	REVISED -		SCALE: WCW SHEET 510 OF SHEETS	ILLINOIS FED. AID PROJECT				

A. GENERAL

1. CONTRACTOR SHALL READ THE TUNNEL DRAWINGS IN CONJUNCTION WITH OTHER DISCIPLINE DRAWINGS AND PROJECT CONTRACT DOCUMENTS. ANY DISCREPANCIES IDENTIFIED SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE FOR RESOLUTION.

2. FOR VERTICAL AND HORIZONTAL DATUM, REFERENCES AND COORDINATE SYSTEM, SEE SHEET 106.

3. THE PLANS SHOW KNOWN SUBSURFACE STRUCTURES, ABOVE GROUND STRUCTURES, AND/OR KNOWN UTILITIES WITHIN THE LIMITS OF THE WORKING AREA. CONTRACTOR IS WARNED THAT THE EXACT LOCATION OF SUCH MAY BE DIFFERENT FROM THAT SHOWN. OTHER UTILITIES AND UNDERGROUND STRUCTURES MAY EXIST. THE CONTRACTOR SHALL PROCEED WITH CARE IN EXECUTING ANY WORK.

4. PRIOR TO EXCAVATING, THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF UTILITIES. SEE NOTE 7.

5. CONTRACTOR SHALL PROTECT ALL UTILITIES TO REMAIN THROUGHOUT THE DURATION OF CONSTRUCTION.

6. IF THE CONTRACTOR PLANS TO SUPPORT ANY EXISTING UTILITIES DURING CONSTRUCTIONS, THE CONTRACTOR SHALL PROVIDE TO THE OWNER, ENGINEER, AND THE IMPACTED UTILITY COMPANIES A STAMPED AND SIGNED UTILITY SUPPORT PLAN BY THE ILLINOIS STATE LICENSED ENGINEER FOR REVIEW, PRIOR TO START OF CONSTRUCTION.

7. THE CONTRACTOR SHALL CALL JULIE @ 1-800-892-0123 OR 811 TO VERIFY UTILITY LOCATIONS.

8. CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER AVAILABLE INFORMATION. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH FIELD CONDITIONS.

9. ALL PHYSICAL FEATURES, INDIVIDUAL TREES, LANDSCAPING OR UTILITY LOCATIONS ARE NOT SHOWN ON THE CONTRACT DRAWINGS. CONTRACTOR SHALL INSPECT ALL AREAS OF PROPOSED WORK, IN ORDER TO ENSURE THAT THEY ARE FAMILIAR WITH THE PHYSICAL LAYOUT OF THE AREA AND THE REQUIREMENTS OF THE WORK.

10. CONTRACTOR SHALL BE RESPONSIBLE TO EXAMINE ALL PLAN SHEETS AND COORDINATE WORK WITH ALL DISCIPLINES.

11. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND INCURRING THE COST OF ALL REQUIRED PERMIT, INSPECTIONS, CERTIFICATES, ETC.

12. COORDINATE TUNNEL DRAWINGS AND SPECIFICATIONS WITH DRAWINGS AND SPECIFICATIONS OF ALL OTHER PROJECT DISCIPLINES BEFORE COMMENCING THE WORK. NOTIFY ENGINEER OF ANY DISCREPANCIES AND DO NOT PROCEED WITH AFFECTED WORK UNTIL RESOLVED.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF WORK. MANAGEMENT OF FLOWS FROM DEWATERING OPERATIONS SHALL SPECIFICALLY REQUIRE APPROVAL BY THE VILLAGE OF GLEN ELLYN DEPARTMENT OF WATER AND WATER SUPPLY. WORK SHALL COMPLY WITH THE ILLINOIS STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.

14. ALL EROSION CONTROL MEASURES SHALL BE PUT INTO PLACE PRIOR TO BEGINNING CONSTRUCTION OR DISTURBANCE.

15. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKE OUT.

16. CONTRACTOR SHALL OBTAIN AUTHORIZATION FROM THE OWNERS ON-SITE REPRESENTATIVE FOR ANY WORK REQUIRING FIELD MODIFICATIONS.

17. CONTRACTOR SHALL PREPARE A MAINTENANCE AND PROTECTION OF TRAFFIC PLAN THAT INCLUDES BUT NOT LIMITED TO, AN ADVANCED WARNING SIGN LAYOUT PLAN, AND A CONSTRUCTION SEQUENCING PLAN BASED ON THEIR PROPOSED WORK PLAN TO EXECUTE THE PROJECT. THE PLAN SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE OWNER PRIOR TO COMMENCING CONSTRUCTION. THE PLAN SHALL INCLUDE PROVISIONS FOR BOTH LOCAL TRAFFIC AND PEDESTRIAN MOVEMENTS AND ANY REQUIRED DETOURS.

18. THE CONTRACTOR SHALL NOT MEASURE BY SCALING DRAWINGS.

19. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.

20. AT ALL TIMES, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF PERSONNEL AND PROPERTY. THE ENGINEERS PRESENCE OR REVIEW OF THE WORK SHALL NOT RELEASE THE RESPONSIBILITY OF THE CONTRACTOR TO FINISH THE WORK ACCORDING TO THE CONTRACT PLANS, SPECIFICATIONS, CURRENT CODES AND INDUSTRY STANDARDS AND PRACTICES.

21. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES DURING THE CONSTRUCTION SO AS NOT TO ENDANGER OR DAMAGE THE EXISTING STRUCTURES/FACILITIES. CONTRACTOR SHALL SUBMIT REMEDIAL PROPOSAL FOR ANY DAMAGED STRUCTURES TO THE ENGINEER FOR APPROVAL. CONTRACTOR SHALL REPAIR THE DAMAGED STRUCTURES TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE VILLAGE.

22. CONTRACTOR PROPOSED CHANGES TO FINAL TUNNEL STRUCTURES SHALL CONFORM TO DESIGN INTENT REQUIREMENTS AND MEET 100-YEAR SERVICE/DESIGN LIFE REQUIREMENT. PRIOR TO DEVELOPING PROPOSED CHANGES TO THE FINAL STRUCTURE, THE CONTRACTOR SHALL REQUEST COMPLETE DESIGN INTENT REQUIREMENTS. ALL MODIFICATIONS TO THE PERMANENT WORKS SHALL BE SUBJECT TO ENGINEER'S REVIEW AND APPROVAL.

B. CONCRETE WORK

1. THE NOTES UNDER CONCRETE WORK APPLY TO TUNNEL CONCRETE WORKS.

2. FORMS SHALL BE PROPERLY CONSTRUCTED CONFORMING TO CONCRETE SURFACES AS SHOWN ON THE DRAWINGS, SUFFICIENTLY TIGHT TO PREVENT LEAKAGE, SUFFICIENTLY STRONG AND BRACED TO MAINTAIN THEIR SHAPE AND ALIGNMENT UNTIL NO LONGER NEEDED FOR SUPPORT. THE CONCRETE FORMS AND SHORING SHALL NOT BE REMOVED UNTIL THE CONCRETE HAS ATTAINED SUFFICIENT STRENGTH TO WITHSTAND ALL LOADS TO BE IMPOSED WITHOUT EXCESSIVE STRESS, CREEP OR DEFLECTION.

3. ALL CODES AND REGULATIONS OF ACI MANUAL OF CONCRETE PRACTICE SHALL BE USED, UNLESS NOTED OTHERWISE.

4. CONCRETE PROPORTIONING, MIXING, TRANSPORTING, PLACING AND CURING SHALL BE PER ACI-301, UNLESS NOTED OTHERWISE.

5. UNLESS NOTED OTHERWISE. CONCRETE SURFACES SHALL CONFORM TO TOLERANCE LIMITS PER ACI-117.

6. CONCRETE FOR THE APPLICATIONS SHOWN BELOW SHALL ATTAIN THE SPECIFIED COMPRESSIVE STRENGTH, UNLESS NOTED OTHERWISE ON THE DRAWINGS:

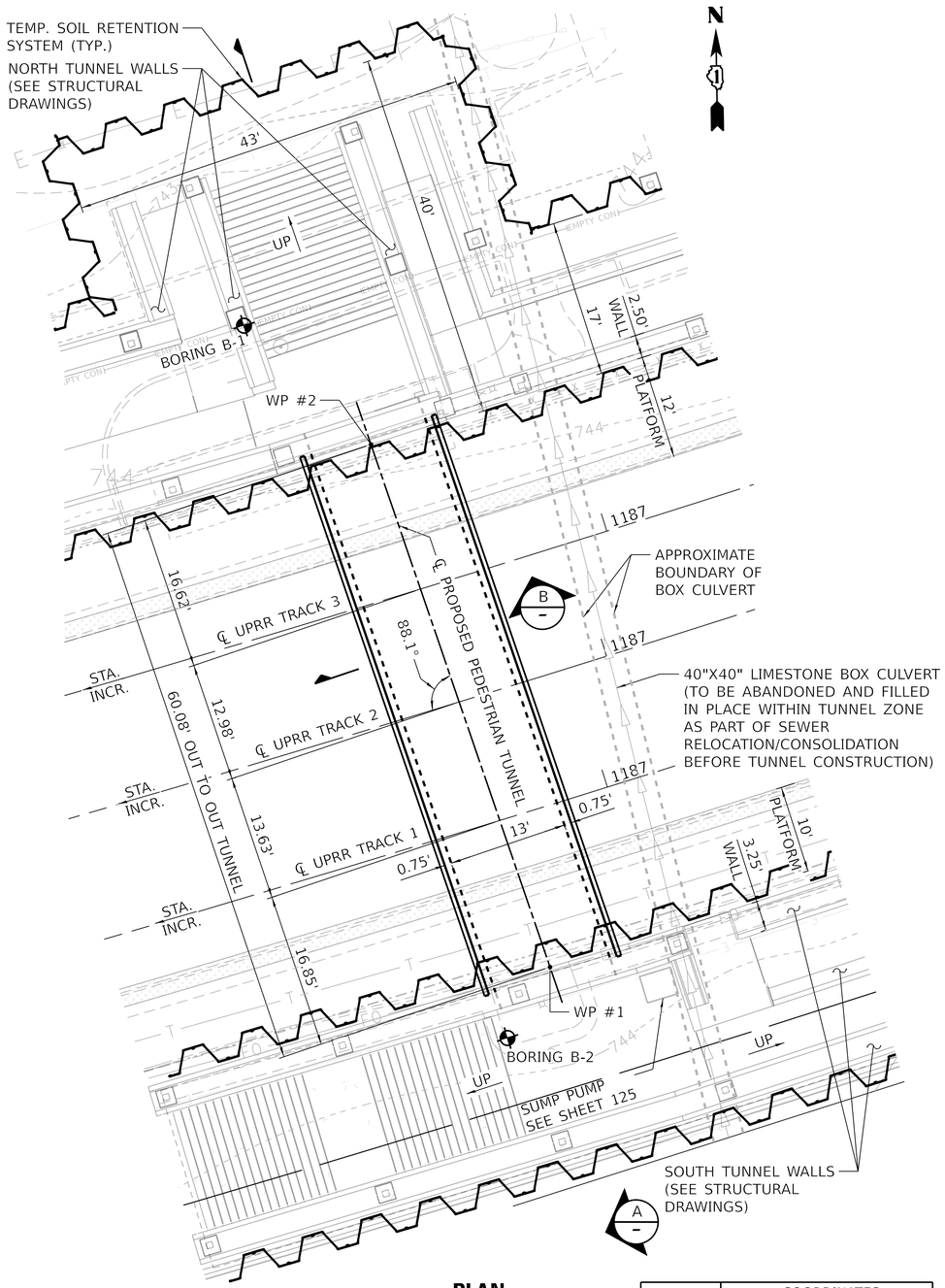
	28-DAY	12-HR
FIBER REINFORCED SHOTCRETE	5,000 PSI	1000 PSI
BACKFILL CONCRETE	2,000 PSI	N/A

C. TUNNEL CONSTRUCTION

1. PRE-EXCAVATION GROUTING FROM THE EXCAVATION FACE MAY BE REQUIRED DURING TUNNEL EXCAVATION.

2. INITIAL SUPPORTS FOR TUNNEL EXCAVATIONS SHOWN ON THE DRAWINGS ARE DESIGNED SPECIFICALLY FOR THE SIZE AND GEOMETRY IDENTIFIED AND SHOWN ON THE DRAWINGS FOR BIDDING PURPOSES ONLY.

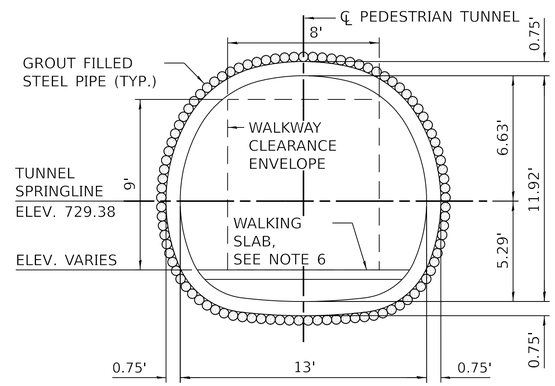
3. CONTRACTOR SHALL SUBMIT THE INITIAL SUPPORT DESIGN DRAWINGS AND CALCULATIONS FOR HIS PROPOSED TUNNEL DIMENSIONS TO ENGINEER FOR REVIEW AND APPROVAL WITHOUT ADDITIONAL COST TO THE VILLAGE. THE CALCULATIONS AND DRAWINGS SHALL BE STAMPED BY A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF ILLINOIS, WHO SHALL HAVE INITIAL SUPPORT DESIGN EXPERIENCE SIMILAR TO THAT OF THIS PROJECT AND MEET OTHER QUALIFICATIONS AS SPECIFIED. CONTRACTOR SHALL MAINTAIN ALL WORK (ABOVE AND BELOW GROUND) WITHIN PUBLIC RIGHT-OF-WAY.



PLAN

SCALE 1/32" = 1'-0"

POINT	COORDINATES	
	NORTH	EAST
WP #1	1897604.9549	1057304.3221
WP #2	1897661.7858	1057284.8361



SECTION

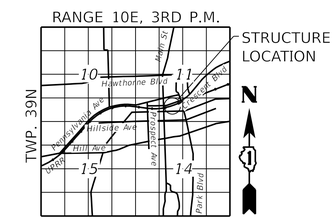
SCALE 1/4" = 1'-0"

NOTES

1. FOR PROJECT GENERAL NOTES SEE SHEET 101. FOR TUNNEL GENERAL NOTES, SEE SHEET 511.
2. FOR TEMPORARY WORKS, SEE GENERAL NOTES SHEETS.
3. FOR PERMANENT STRUCTURAL ELEMENTS INTERFACING WITH THE TUNNEL, SEE SHEET 505.
4. SEE EXISTING UTILITY PLAN AND UTILITY REMOVAL/RELOCATION PLAN SHEET 129 FOR ADDITIONAL INFORMATION.
5. SEE PROPOSED UTILITY PLAN SHEET 133 FOR ADDITIONAL INFORMATION.
6. SOIL BORING SHOWN APPROXIMATELY. FOR ADDITIONAL INFORMATION, SEE GEOTECHNICAL DATA REPORT.
7. NON-TUNNEL ELEMENTS ARE SHOWN FOR REFERENCE ONLY. SEE RESPECTIVE DISCIPLINE SHEETS.

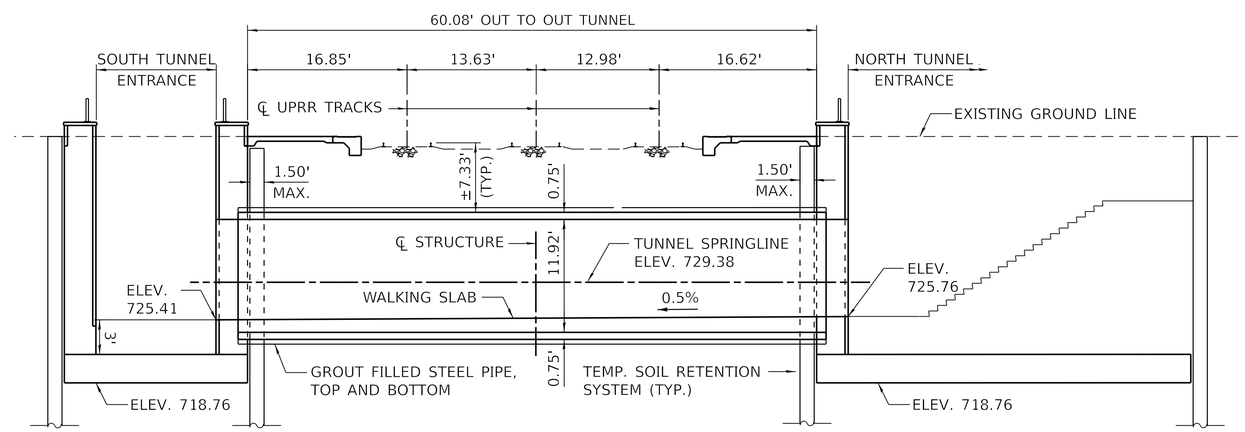
LEGEND

- FO — EXIST. FIBER OPTIC
- T — EXIST. TELEPHONE
- TEMP. SOIL RETENTION SYSTEM
- SOIL BORING LOG
- 744 — EXIST. GROUND ELEVATION



LOCATION SKETCH MAP

NOT TO SCALE



SECTION

SCALE 1/32" = 1'-0"

RR MILEPOST NO.: XX.XX
RR SUBDIVISION: XXXX

LATITUDE: XX.XXXXXX
LONGITUDE: XX.XXXXXX

CDM Smith

USER NAME =	DESIGNED - SMK	REVISED -	
ISSUED FOR 30 PCT	DRAWN - AMP	REVISED -	
PLOT SCALE =	CHECKED - GS	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TUNNEL GENERAL PLAN, ELEVATION, AND SECTION
STRUCTURAL

SCALE: SHEET 512 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		512
		CONTRACT NO. _		
		ILLINOIS FED. AID PROJECT		

MODEL: Default
FILE NAME: pw://cdmsmith-sa02-pw.bentley.com:pw_wa/Documents/258021/28438010 Transportation/02 Engineering Services/02 Structures/10 BIM_CADD/05 Sheets/02_Sheet.dgn

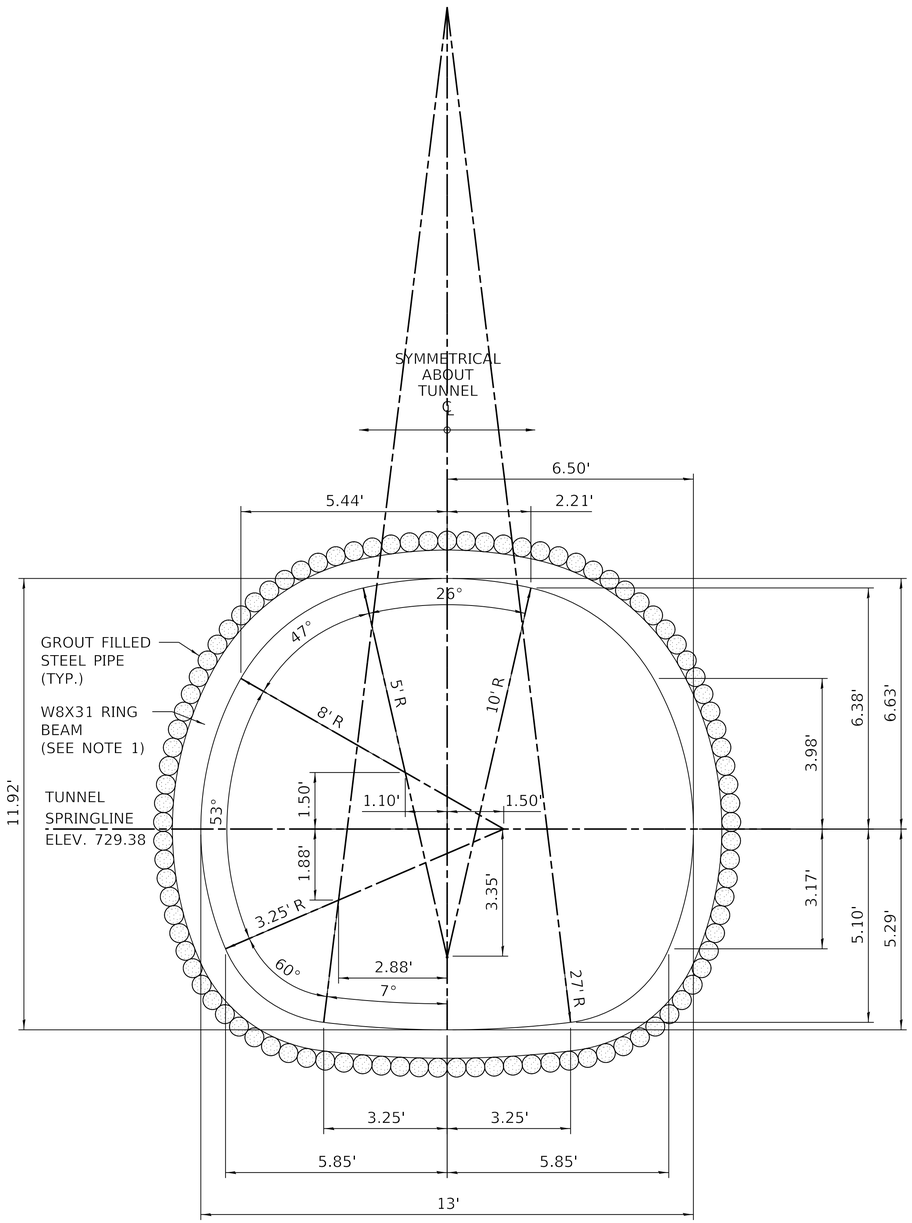
NOTES

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR RING BEAMS FOR APPROVAL, SHOWING DETAILS OF EACH SEGMENT, DETAILS OF CONNECTIONS, AND METHODS FOR INSTALLATION.

2. MINIMUM SERVICE DESIGN LOADS FOR CONNECTIONS FOR THE RING BEAM SEGMENTS SHALL INCLUDE:

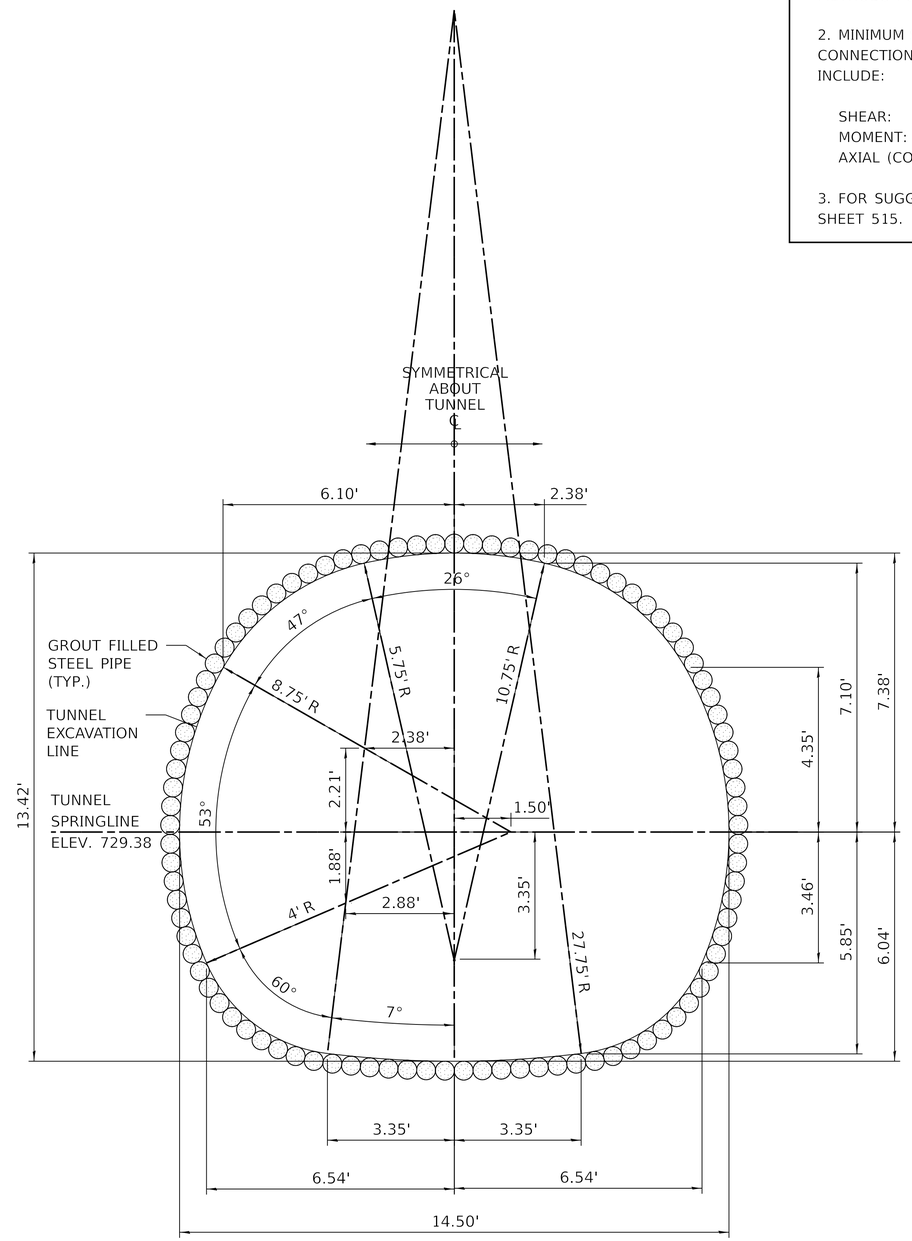
SHEAR:	8 KIPS
MOMENT:	8 KIP-FEET
AXIAL (COMPRESSION):	35 KIPS

3. FOR SUGGESTED EXCAVATION APPROACH, SEE SHEET 515.



W8X31 RING BEAM BEND GEOMETRY

SCALE ½" = 1'-0"



TUNNEL EXCAVATION GEOMETRY

SCALE ½" = 1'-0"

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CDM Smith

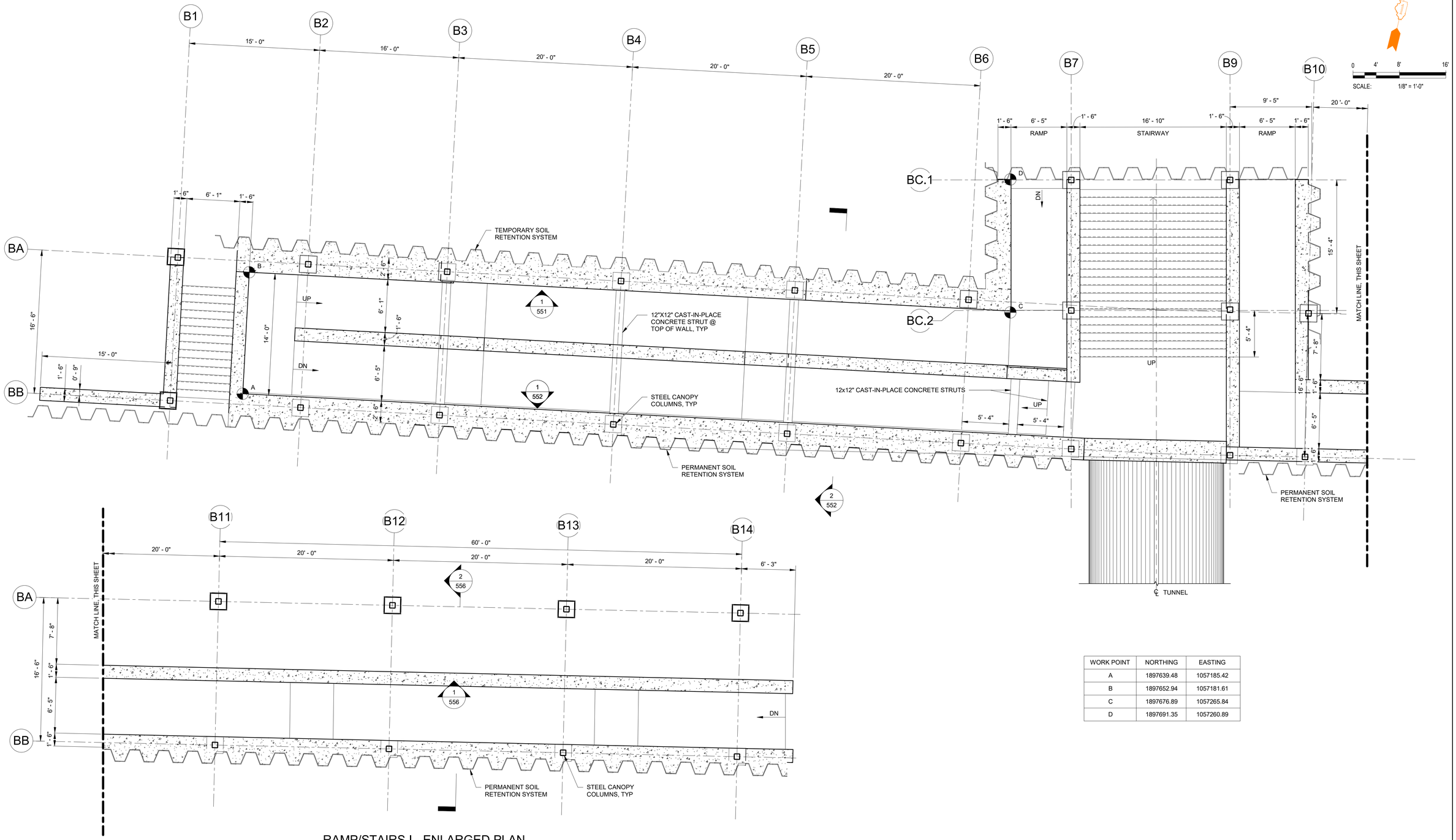
USER NAME =	DESIGNED - SMK	REVISED -
ISSUED FOR 30 PCT	DRAWN - AMP	REVISED -
PLOT SCALE =	CHECKED - GS	REVISED -
PLOT DATE =	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TUNNEL CROSS SECTION GEOMETRY

SCALE: | SHEET 513 OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		513
		CONTRACT NO. _		
		ILLINOIS FED. AID PROJECT		



WORK POINT	NORTHING	EASTING
A	1897639.48	1057185.42
B	1897652.94	1057181.61
C	1897676.89	1057265.84
D	1897691.35	1057260.89

RAMP/STAIRS I - ENLARGED PLAN

3/16" = 1'-0"

USER NAME =	DESIGNED - BC	REVISED -	
ISSUED FOR 30%	DRAWN - NK	REVISED -	
PLOT SCALE =	CHECKED - BC	REVISED -	
PLOT DATE =	DATE - MAY 2024	REVISED -	

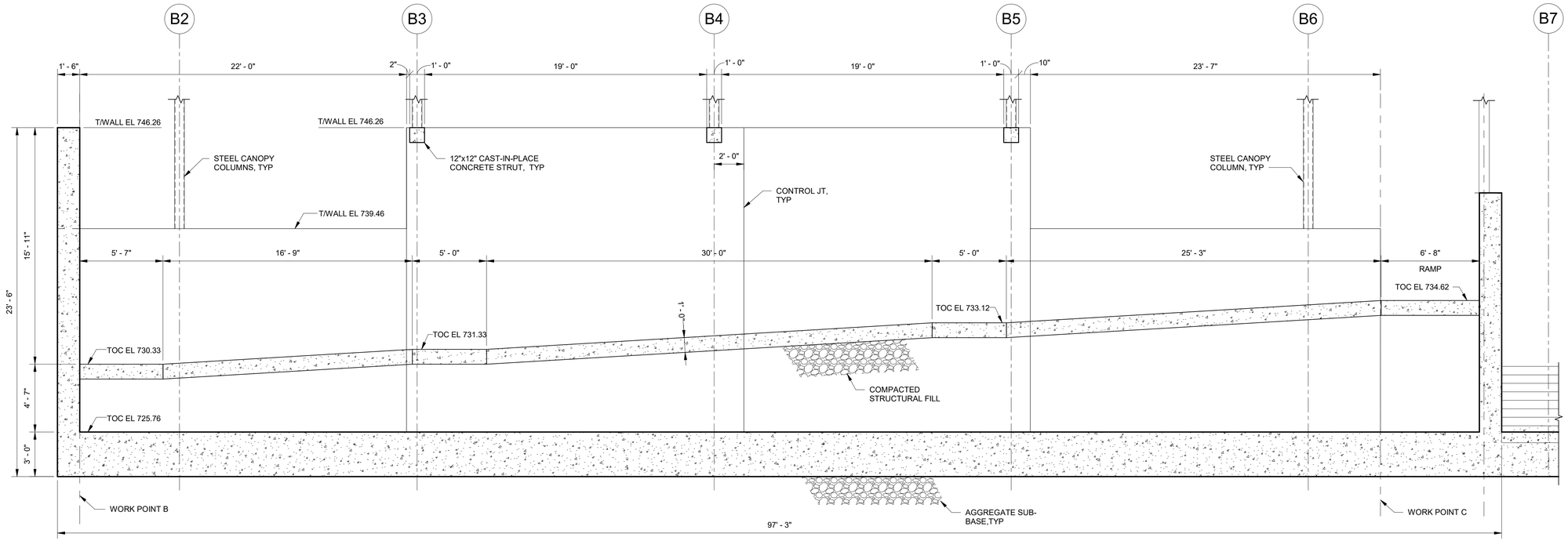
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL - RAMP/STAIRS I
PLAN

SCALE: BC | SHEET 550 OF SHEETS

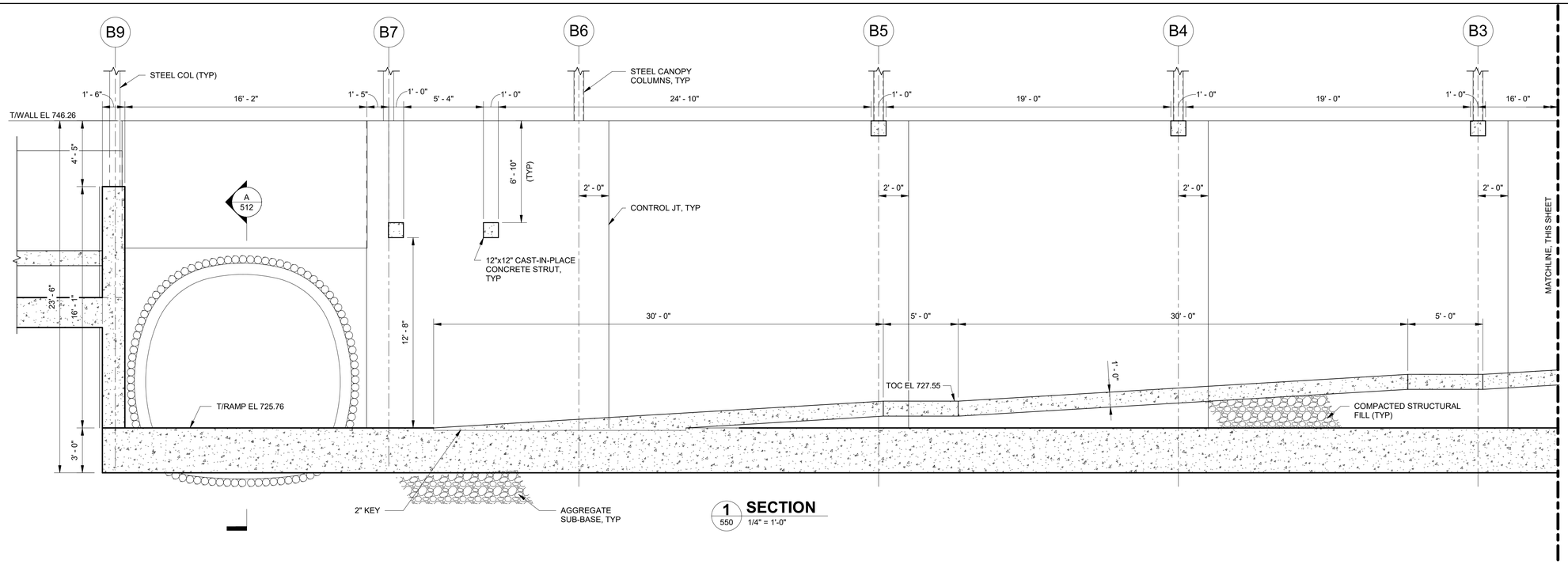
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		550
		CONTRACT NO.		

ILLINOIS FED. AID PROJECT

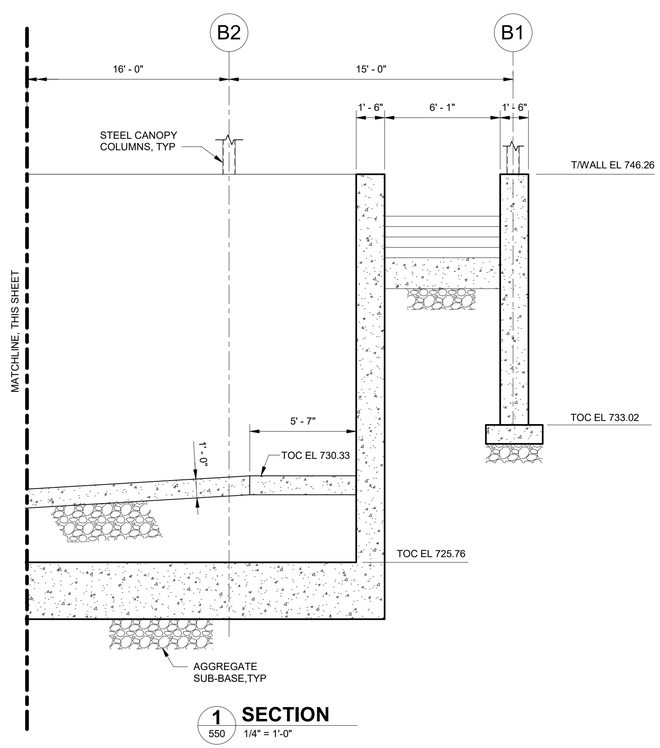


1 / 550 **SECTION**
1/4" = 1'-0"

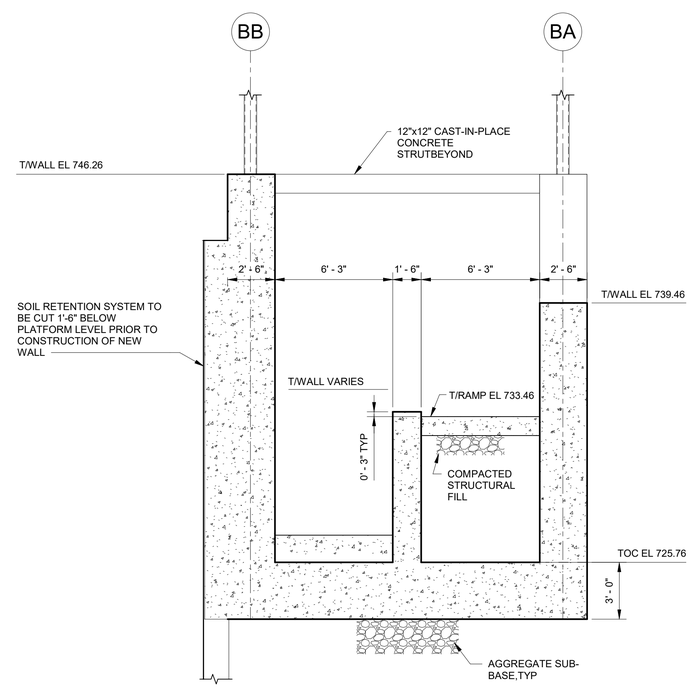
USER NAME =	DESIGNED - BC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL - RAMP/STAIRS I	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ISSUED FOR 30%	DRAWN - NK	REVISED -		SECTIONS I			DUPAGE		551
PLOT SCALE =	CHECKED - BC	REVISED -					CONTRACT NO.		
PLOT DATE =	DATE - MAY 2024	REVISED -		SCALE: BC SHEET 551 OF SHEETS			ILLINOIS FED. AID PROJECT		



1 550 **SECTION**
1/4" = 1'-0"



1 550 **SECTION**
1/4" = 1'-0"



2 550 **SECTION**
1/4" = 1'-0"

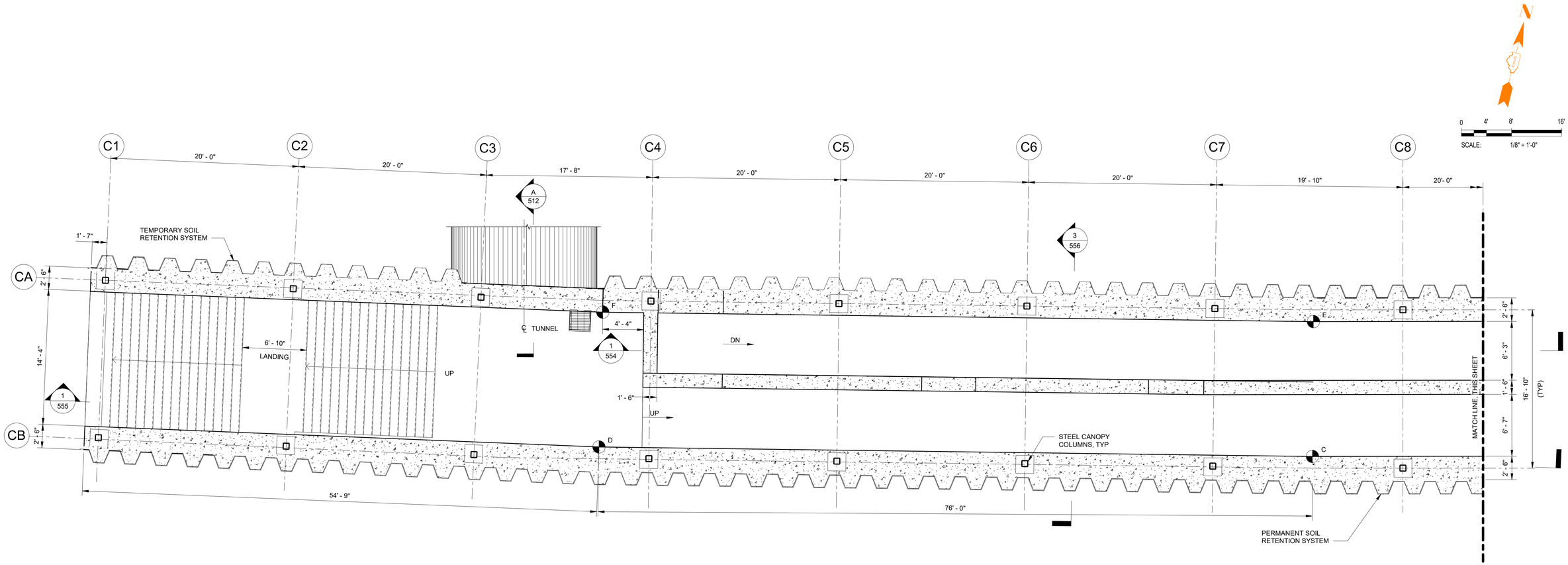
USER NAME =	DESIGNED - BC	REVISED -	
ISSUED FOR 30%	DRAWN - NK	REVISED -	
PLOT SCALE =	CHECKED - BC	REVISED -	
PLOT DATE =	DATE - MAY 2024	REVISED -	

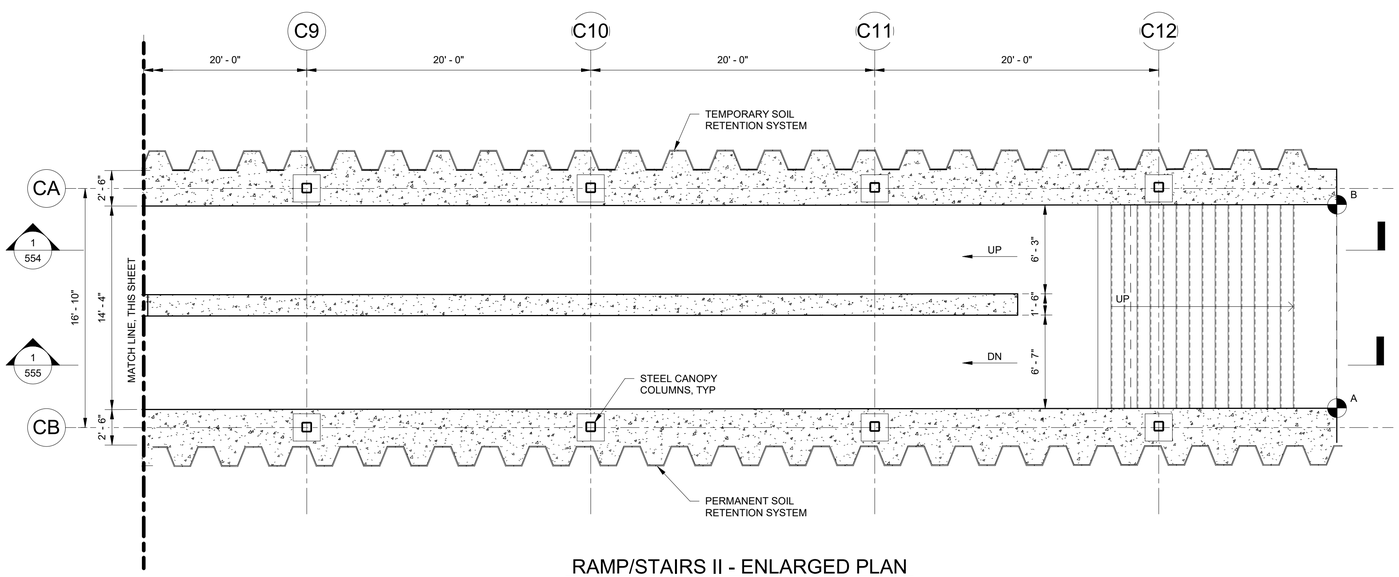
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL - RAMP/STAIRS I
SECTIONS II

SCALE: BC | SHEET 552 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		552
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		





RAMP/STAIRS II - ENLARGED PLAN

3/16" = 1'-0"

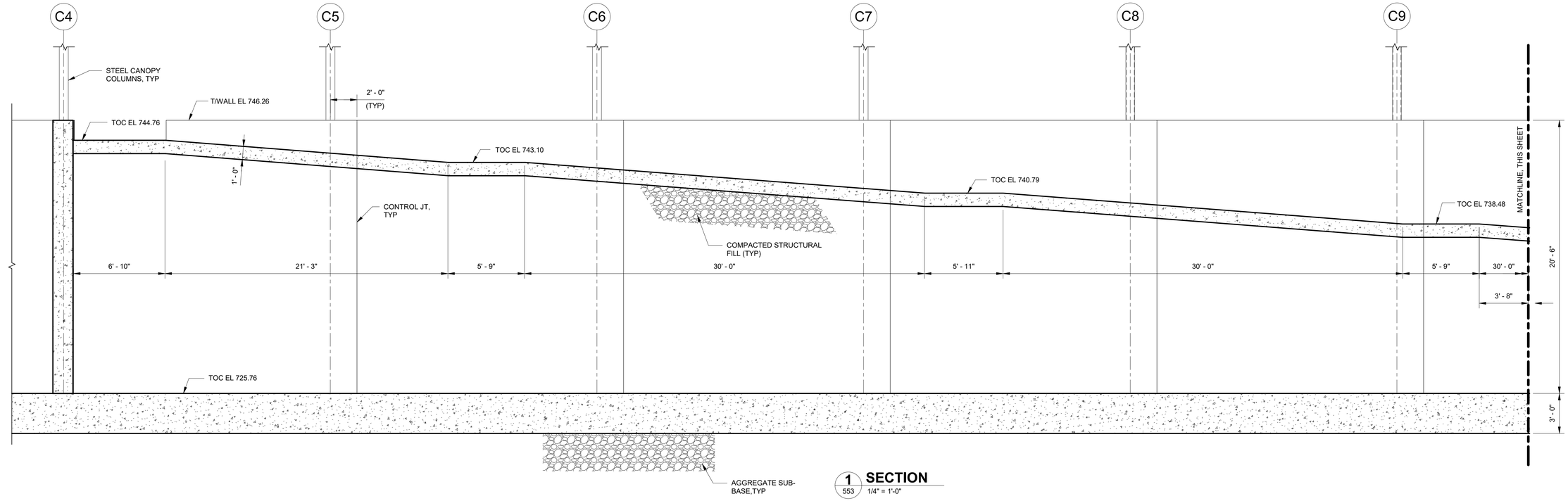
USER NAME =	DESIGNED - BC	REVISED -	
ISSUED FOR 30%	DRAWN - NK	REVISED -	
PLOT SCALE =	CHECKED - BC	REVISED -	
PLOT DATE =	DATE - MAY 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

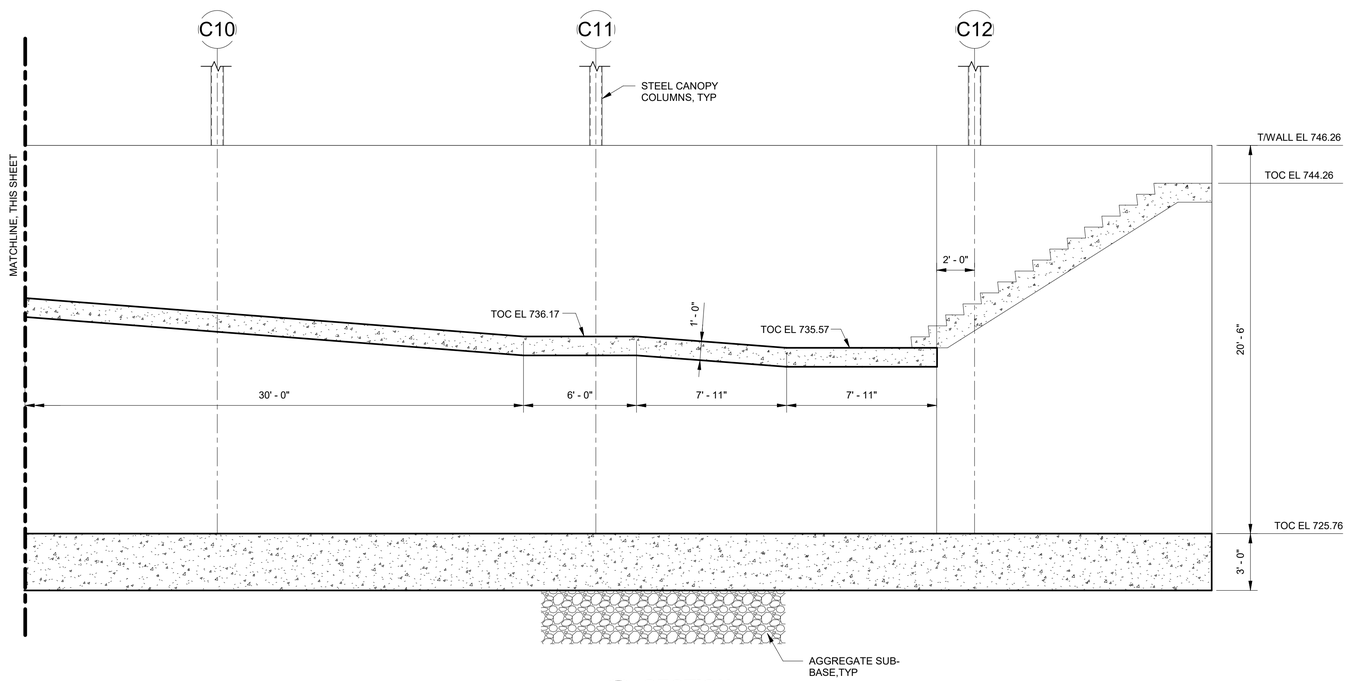
STRUCTURAL - RAMP/STAIRS II
PLAN

SCALE: BC | SHEET 553 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		553
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

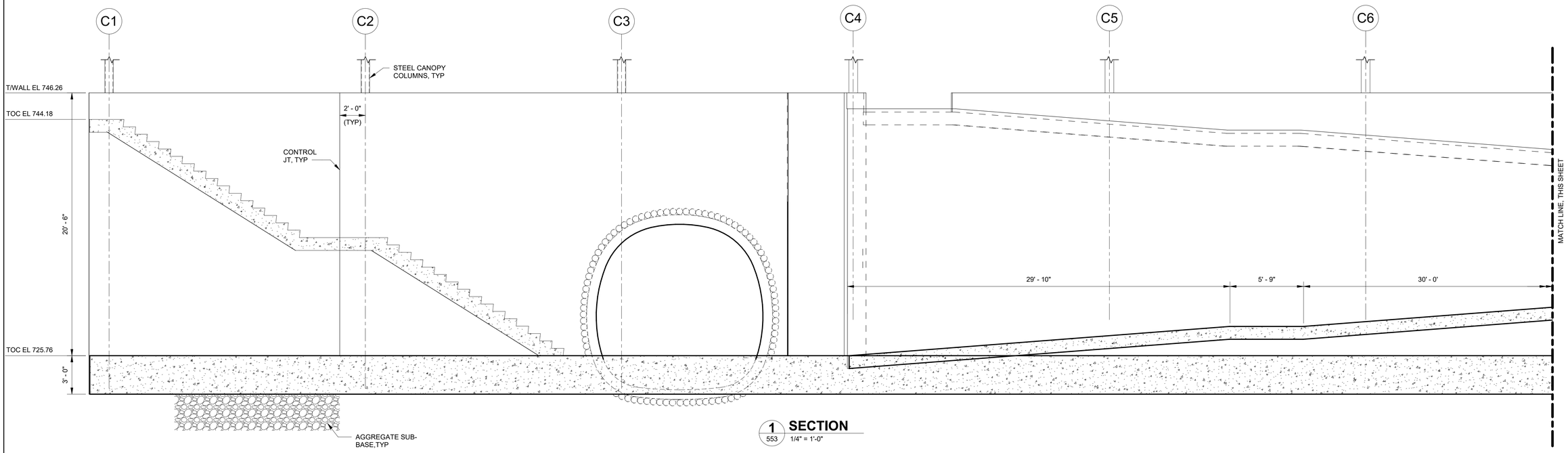


1 553 **SECTION**
1/4" = 1'-0"

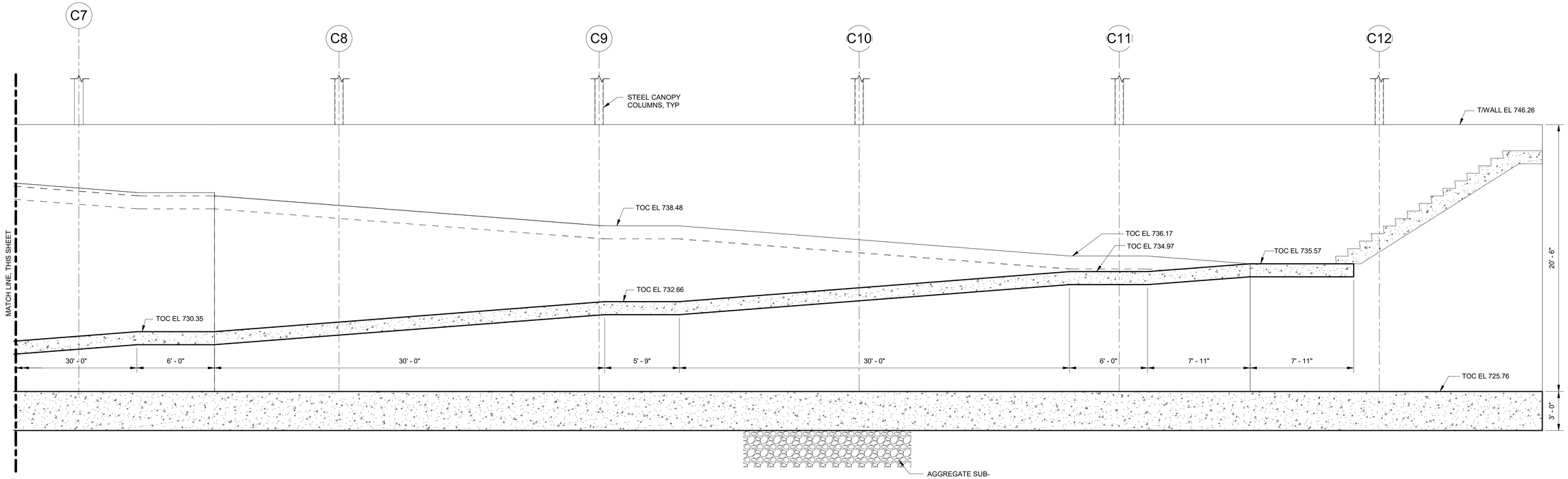


1 554 **SECTION**
1/4" = 1'-0"

USER NAME =	DESIGNED - BC	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**STRUCTURAL - RAMP/STAIRS II**	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
ISSUED FOR 30%	DRAWN - NK	REVISED -		**SECTIONS I**			DUPAGE	554
PLOT SCALE =	CHECKED - BC	REVISED -					CONTRACT NO.	
PLOT DATE =	DATE - MAY 2024	REVISED -		SCALE: BC SHEET 554 OF SHEETS	ILLINOIS FED. AID PROJECT			



1 553 **SECTION**
1/4" = 1'-0"



1 553 **SECTION**
1/4" = 1'-0"

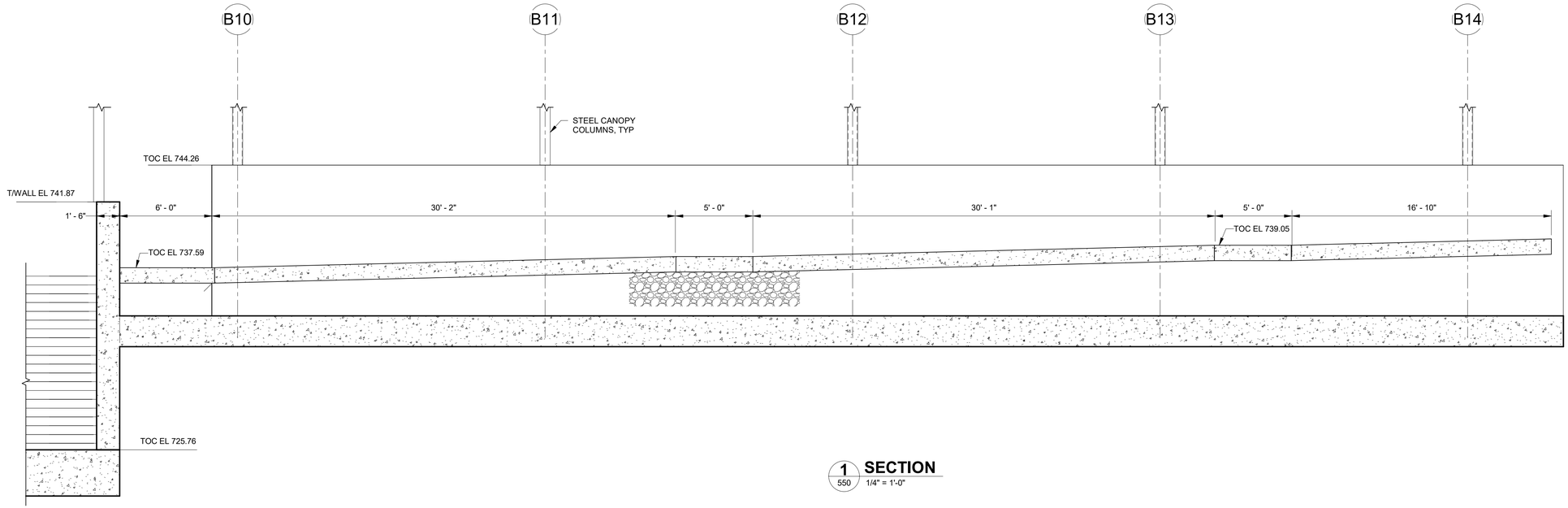
USER NAME =	DESIGNED - BC	REVISED -	
ISSUED FOR 30%	DRAWN - NK	REVISED -	
PLOT SCALE =	CHECKED - BC	REVISED -	
PLOT DATE =	DATE - MAY 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

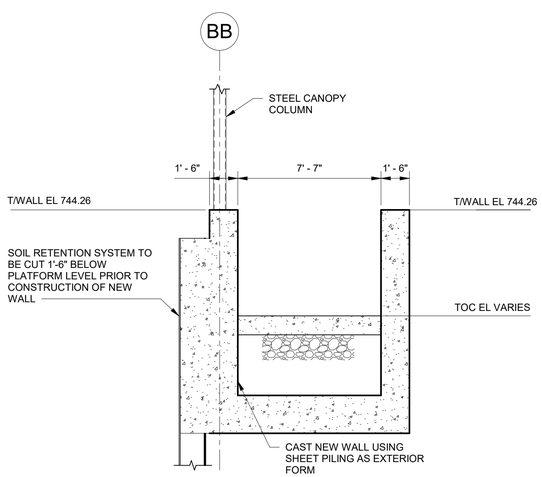
STRUCTURAL - RAMP/STAIRS II
SECTIONS II

SCALE: BC | SHEET 555 OF SHEETS

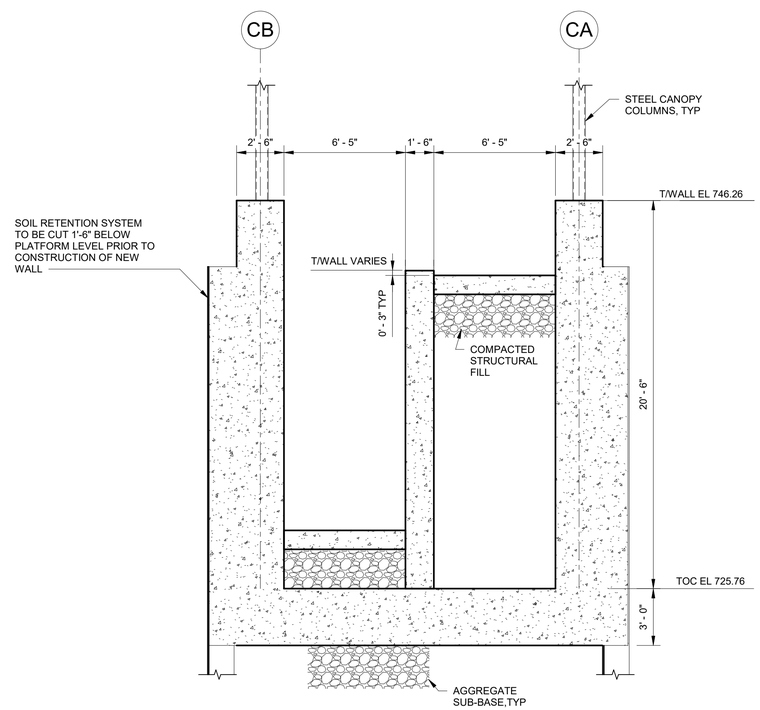
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		555
		CONTRACT NO.		
ILLINOIS FED. AID PROJECT				



1 / 550 **SECTION**
1/4" = 1'-0"



2 / 550 **SECTION**
1/4" = 1'-0"



3 / 553 **SECTION**
1/4" = 1'-0"

USER NAME =	DESIGNED - BC	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**STRUCTURAL - SECTIONS I**	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ISSUED FOR 30%	DRAWN - NK	REVISED -					DUPAGE		556
PLOT SCALE =	CHECKED - BC	REVISED -					CONTRACT NO.		
PLOT DATE =	DATE - MAY 2024	REVISED -		SCALE: BC SHEET 556 OF SHEETS	ILLINOIS FED. AID PROJECT				

LEGEND

D	DRAIN PIPING
	PIPE TURNING DOWN
	PIPE TURNING UP
M	MOTORIZED DAMPER
BD	BALANCING DAMPER
T	THERMOSTAT
TSL	LOW TEMPERATURE SENSOR
TSH	HIGH TEMPERATURE SENSOR
SD	SMOKE DETECTOR
	BACKFLOW PREVENTER
	PRESSURE GAUGE AND COCK
	THERMOMETER
LF	LOW FLOW SWITCH
	EQUIPMENT CLEARANCE SPACE

ABBREVATIONS

ABBR	ABBREVIATION
ACC	AIR COOLED CONDENSING UNIT
ACH	AIR CHANGES PER HOUR
ACU	AIR CONDITIONING UNIT
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AL	ALUMINUM
ATC	AUTOMATIC TEMPERATURE CONTROL
BD	BALANCING DAMPER
BF	BLIND FLANG
BHP	BRAKE HORSE POWER
BI	BACKWARD INCLINED
BOD	BOTTOM OF DUCT
BMS	BUILDING MANAGEMENT SYSTEM
BTUH	BRITISH THERMAL UNITS PER HOUR
COND	CONDENSATE DRAIN
CFM	CHILLED WATER RETURN
CHWR	
CMU	CONCRETE MASONRY UNIT
CR	CONDENSATE RETURN
CU. FT.	CUBIC FEET
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL
DIA	DIAMETER
DIV	DIVISION
DN	DOWN
(E)	EXISTING
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
EL	ELEVATION
EWT	ENTERING WATER TEMPERATURE
°F	DEGREES FAHRENHEIT
FLA	FULL LOAD AMPS
FPM	FEET PER MINUTE
FS	FLOW SWITCH
FT	FEET
GA	U.S. GAUGE
GAL	GALLON
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GI	GALVANIZED IRON
GPM	GALLONS PER MINUTE
HHWS	HEATING HOT WATER SUPPLY
HHWR	HEATING HOT WATER RETURN
HP	HORSE POWER
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HZ	HERTZ
IN.WG	INCHES WATER GAUGE
KW	KILO WATTS
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LV	LOUVER
LWT	LEAVING WATER TEMPERATURE
M	MOTOR
MAU	MAKEUP AIR UNIT
MAX	MAXIMUM
MBH	1000 BTUH
MCA	MINIMUM CIRCUIT AMPACITY
MOD	MODULATING
MOP	MINIMUM OVERCURRENT PROTECTION
(N)	NEW
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NO.	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAT	OUTSIDE AIR TEMPERATURE
OBD	OPPOSED BLADE DAMPER
PD	PRESSURE DROP
PH	PHASE
POC	POINT OF CONNECTION
PRV	PRESSURE REGULATOR VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
RG	RETURN GRILLE
RL	REFRIGERANT LIQUID
RLA	RUNNING LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
SA	SUPPLY AIR
SENS	SENSIBLE
SF	SUPPLY FAN
SQ. FT	SQUARE FEET
SR	SUPPLY REGISTER
SS	STAINLESS STEEL
TON	TONNAGE
TSP	TOTAL STATIC PRESSURE
TT	TEMPERATURE TRANSMITTER
TYP	TYPICAL
V	VOLTS
W/	WITH
WB	WET BULB
WC	WATER CLOSET
WG	WATER GAUGE
WMS	WIRE MESH SCREEN

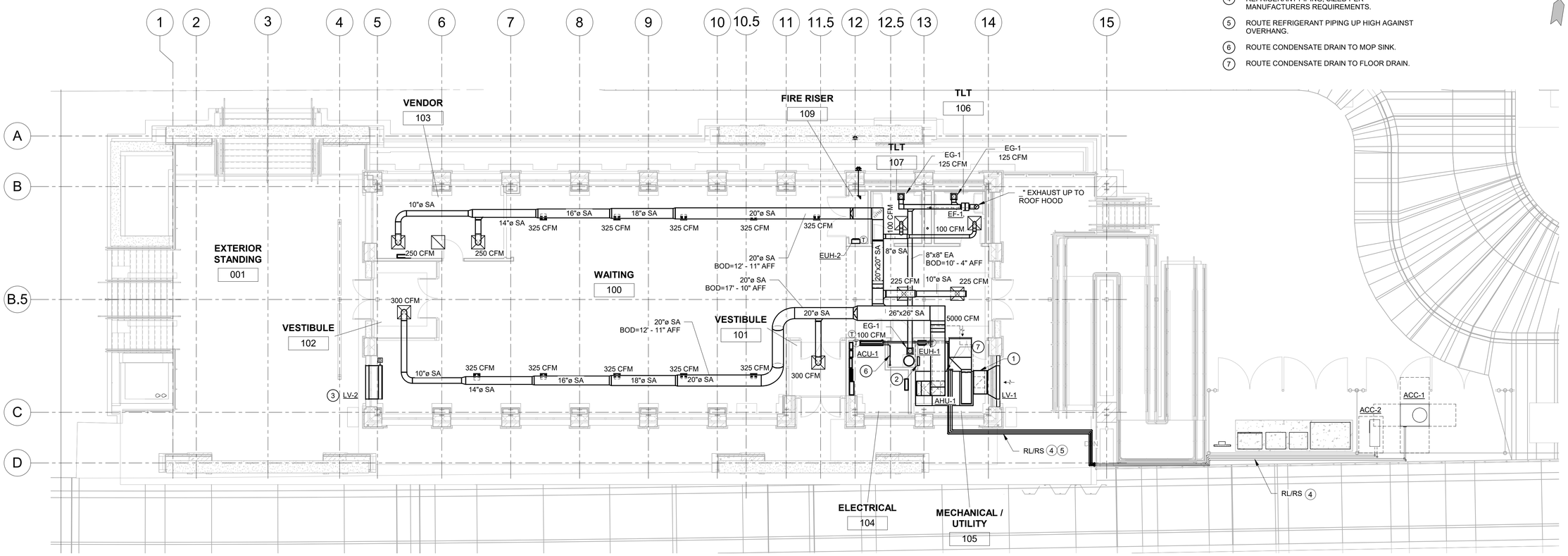
HVAC GENERAL NOTES

1. HVAC EQUIPMENT DIMENSIONS, LOCATIONS, DUCTWORK AND PIPING SYSTEM LAYOUTS ARE BASED ON EQUIPMENT SELECTED BY THE ENGINEER. IF THE CONTRACTOR PROPOSES TO FURNISH EQUIPMENT THAT REQUIRES AN ARRANGEMENT OR SPACE DIFFERING FROM THAT INDICATED ON THE DRAWINGS OR SPECIFIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER FOR APPROVAL, DETAILED ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, INSTRUMENTATION, HVAC AND ELECTRICAL DRAWINGS AND EQUIPMENT LISTS SHOWING ALL NECESSARY CHANGES AND EMBODYING ALL FEATURES OF THE EQUIPMENT HE/SHE/THEY PROPOSES TO FURNISH. THIS INFORMATION SHALL INCLUDE BUT NOT BE LIMITED TO PLANS, SECTIONS, DETAILS, AND SCHEMATICS OF ALL SUCH CHANGES. IF APPROVED BY THE ENGINEER. APPURTENANCES REQUIRED SHALL BE AT NO EXTRA COST TO THE OWNER. THE CONTRACTOR SHALL ASSUME THE COST OF, AND THE RESPONSIBILITY FOR SATISFACTORILY ACCOMPLISHING ALL THE NECESSARY CHANGES CORRESPONDING TO THE DIMENSIONS AND CHARACTERISTICS OF THE EQUIPMENT SUBMITTED AND APPROVED BY THE ENGINEER. INCLUDING COORDINATION AND COSTS TO OTHER BUILDING SYSTEMS AND SERVICES CREATED BY THE PROPOSED CHANGES. ALL PROPOSED CHANGES SHALL PERMIT ACCESS FOR EQUIPMENT SERVICE AND MAINTENANCE. REFER TO SPECIFICATIONS FOR FURTHER DETAILS.
2. DIELECTRIC COUPLINGS, FLANGES OR UNIONS SHALL BE INSTALLED AT ALL CONNECTIONS OF COPPER PIPE TO OTHER TYPES OF METALLIC PIPING.
3. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, ALL FLOOR SLAB AND WALL PENETRATIONS SHALL BE AS SHOWN ON THE WALL PENETRATION DETAILS. IF APPROVED BY THE ENGINEER, THE CONTRACTOR MAY SUBSTITUTE ALTERNATE METHODS PROVIDING THEY MEET INTENDED DESIGN REQUIREMENTS.
4. NOT ALL AND ONLY CERTAIN TYPES OF SUPPORTS ARE SHOWN ON THE HVAC DRAWINGS. UNLESS OTHERWISE DETAILED ON THE DRAWINGS ALL PIPE AND DUCT SUPPORTS SHALL BE DESIGNED, FURNISHED AND INSTALLED BY THE CONTRACTOR AS SPECIFIED AND TO THE APPROVAL OF THE ENGINEER. SEE ALSO SPECIFICATION 230529 "HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT".
5. COORDINATE ROUTING OF WATER PIPING WITH BUILDING STRUCTURAL CONSTRAINTS. DO NOT ROUTE WATER PIPING ABOVE ELECTRICAL EQUIPMENT.

NOTE: THIS IS A GENERAL LIST OF SYMBOLS AND ABBREVIATIONS. NOT ALL ITEMS SHOWN HERE APPEAR ON THE CONTRACT DRAWINGS

KEY NOTES:

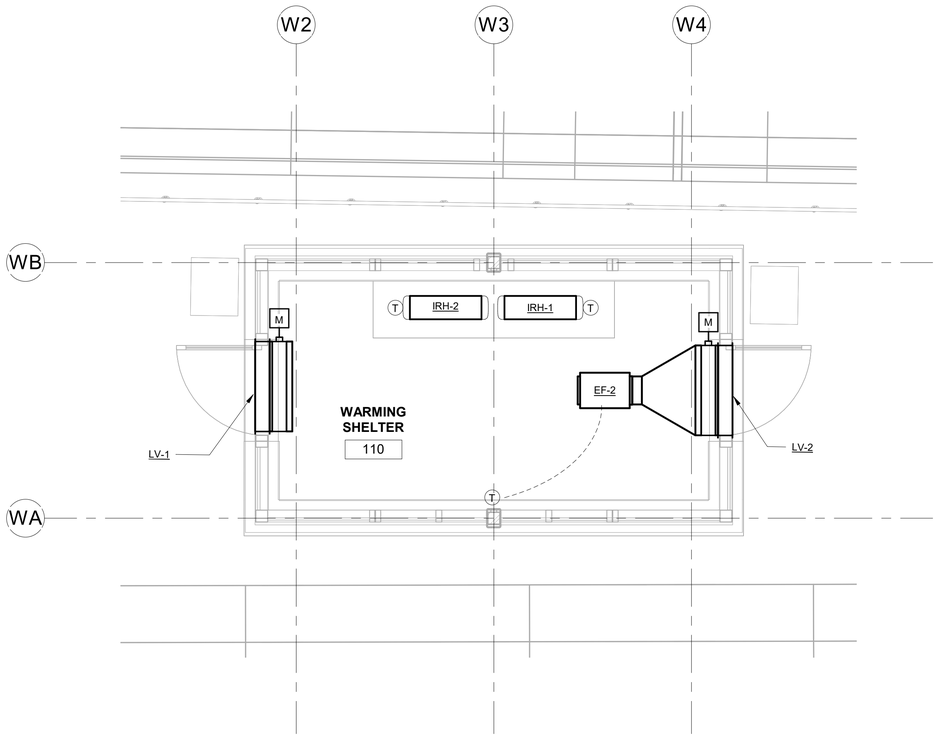
1. UP TO INTAKE AIR LOUVER.
2. HVAC CONTROL PANEL.
3. RELIEF AIR LOUVER.
4. REFRIGERANT PIPING, SIZED PER MANUFACTURERS REQUIREMENTS.
5. ROUTE REFRIGERANT PIPING UP HIGH AGAINST OVERHANG.
6. ROUTE CONDENSATE DRAIN TO MOP SINK.
7. ROUTE CONDENSATE DRAIN TO FLOOR DRAIN.



1 HVAC STATION FLOOR PLAN

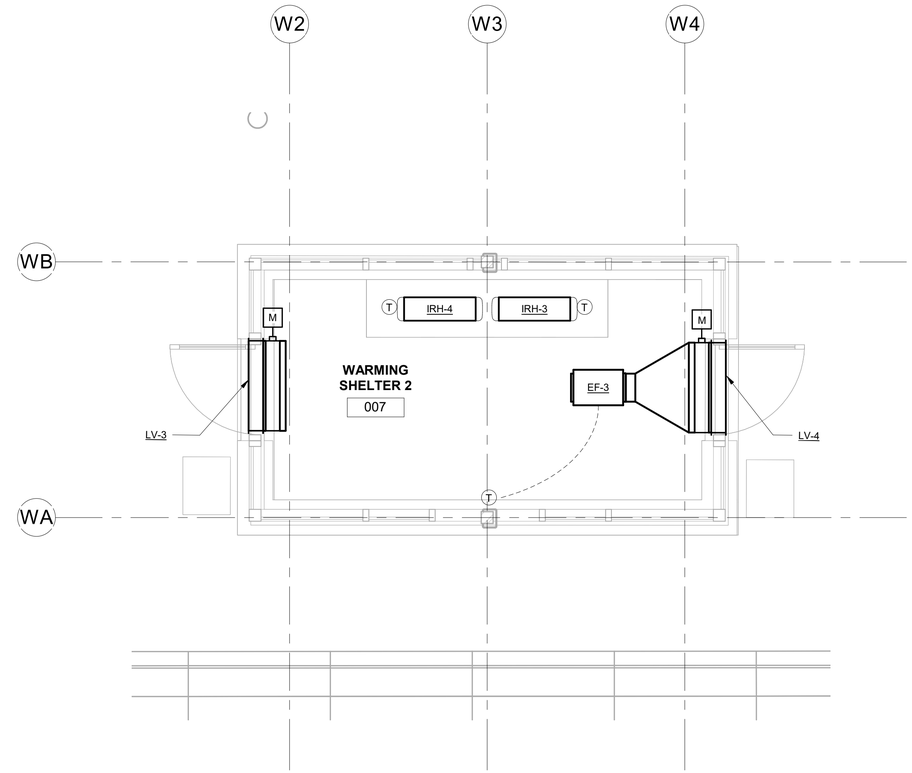
602 1/8" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - EP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HVAC STATION FLOOR PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - GVL	REVISED -					DUPAGE	602
	PLOT SCALE =	CHECKED - ALR	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED / SHEET 602 OF SHEETS			ILLINOIS FED. AID PROJECT	



HVAC SHELTER 1 FLOOR PLAN

3/8" = 1'-0"



HVAC SHELTER 2 FLOOR PLAN

3/8" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - EP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HVAC WARMING SHELTER FLOOR PLANS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - GVL	REVISED -					DUPAGE	603
	PLOT SCALE =	CHECKED - ALR	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED / SHEET 603 OF SHEETS	ILLINOIS FED. AID PROJECT			

SPLIT SYSTEM HEAT PUMP AIR HANDLING UNIT SCHEDULE

TAG	LOCATION	AREA SERVED	OUTSIDE AIR FLOW CFM	SUPPLY FAN					HEAT PUMP COOLING COIL							HEAT PUMP HEATING (MBH)		REFRIGERATION CIRCUIT	COMPRESSOR PER CIRCUIT	REFRIGERANT		FILTER SECTION		ELECTRICAL							COOLING EFF. (AT AHRI COND.)		APPROX. OPERATIONAL WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES
				CFM	ESP (IN W.G)	RPM	BHP	MOTOR HP	GROSS TOTAL (MBH)	GROSS SENS (MBH)	OUTDOOR AMBIENT TEMPERATURE	EAT - DB (°F)	EAT - WB (°F)	LAT - DB (°F)	LAT - WB (°F)	TOTAL HEATING (MBH)	SUPPLEMENTAL ELECTRIC HEAT (KW)			TYPE	QTY (LB)	MERV	TYPE	CIRCIUT 1 - SUPPLY FAN FLA	CIRCIUT 1 - SUPPLY FAN MCA	CIRCUIT 2 - ELECTRIC HEAT MCA	CIRCUIT 2 - ELECTRIC HEAT FLA	V	P	HZ	EER	IEER				
AHU-1	MECHANICAL/ UTILITY 105	INBOUND STATION	570	5000	-	-	-	5	117.2	81.9	-	-	-	-	-	109.9	-	-	-	R-410A	-	-	-	-	-	-	-	208	3	60	-	-	1300	TRANE	CSAA010	1,2,3,4,5

NOTES:

1. PROVIDE WITH MANUFACTURER-SUPPLIED ELECTRICAL DISCONNECT.
2. PROVIDE WITH AIR MIXING BOX WITH MOTORIZED DAMPERS AT OUTSIDE AIR AND RETURN AIR CONNECTIONS.
3. PROVIDE WITH INTERNAL VIBRATION ISOLATION.
4. PROVIDE WITH ALL CONTROL COMPONENTS AS REQUIRED BY THE CONTROL SEQUENCES.
5. OR APPROVED EQUAL THAT MEETS THE STATED SALIENT CHARACTERISTICS. ALL PRODUCTS, INCLUDING THE NAMED BRANDS, MUST SATISFY THE SALIENT CHARACTERISTICS.

AIR COOLED HEAT PUMP CONDENSING UNIT SCHEDULE

TAG	LOCATION	UNIT SERVED	NOMINAL TONNAGE	REFRIGERANT	ELECTRICAL						EER	APPROX. OPERATIONAL WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES
					V	PH	HZ	MOCP	MCA	SEER					
ACC-1	EQUIPMENT YARD	AHU-1	10.0	R-410A	208	3	60	-	-	-	-	450.00	TRANE	TWA120	1,2

NOTES:

1. PROVIDE UNIT WITH THE FOLLOWING FEATURES: UL, ETL, OR CSA LISTED; MANUFACTURER'S STANDARD FINISH FOR OUTDOOR INSTALLATION; HINGED OR REMOVABLE ACCESS DOORS; LOUVERED CABINET, EXPANDED METAL, OR WIRE GRILLE FOR COIL PHYSICAL PROTECTION; COPPER TUBE AND ALUMINUM FIN COIL MATERIALS; BELT DRIVE OR DIRECT DRIVE PROPELLER FAN WITH VIBRATION ISOLATION; HAIL GUARD; FAN MOTOR THERMAL OVERLOAD PROTECTION; PERMANENTLY LUBRICATED FAN BEARINGS; POLYESTER BAKED COATING ON THE UNIT CABINET TO PROVIDE A SURFACE THAT DOES NOT INDICATE VISIBLE SIGNS OF CORROSION AFTER 1500 HOURS OF AN ASTM B117 SALT SPRAY TEST.
2. OR APPROVED EQUAL THAT MEETS THE STATED SALIENT CHARACTERISTICS. ALL PRODUCTS, INCLUDING THE NAMED BRANDS, MUST SATISFY THE SALIENT CHARACTERISTICS.

FAN SCHEDULE

TAG	AREA SERVED	FAN DATA									ELECTRICAL			FLA	APPROX. OPERATIONAL WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES
		FAN TYPE	DRIVE TYPE	BLADE TYPE	AIR FLOW (CFM)	ESP (IN W.G.)	FAN RPM	BHP	MOTOR HP	MOTOR ENCLOSURE	V	PH	HZ					
EF-1	TLT 106/TLT 107/JAN 108	INLINE CENT.	-	-	350	-	-	-	1/4	-	115	1	60	-	0	GREENHECK	-	
EF-2	SHELTER 1	INLINE CENT.	-	-	750	-	-	-	1/2	-	115	1	60	-	0	GREENHECK	-	
EF-3	SHELTER 2	INLINE CENT.	-	-	750	-	-	-	1/2	-	115	1	60	-	0	GREENHECK	-	

NOTES:

1. PROVIDE WITH WALL HOUSING AND INLET GUARD.
2. PROVIDE WITH SPARE BELT.
3. PROVIDE WITH BAROMETRIC DAMPER.
4. PROVIDE WITH ECM MOTOR WITH FAN-MOUNTED SPEED CONTROL.
5. PROVIDE WITH HOODED WALL CAP FOR EXHAUST.
6. OR APPROVED EQUAL THAT MEETS THE STATED SALIENT CHARACTERISTICS. ALL PRODUCTS, INCLUDING THE NAMED BRANDS, MUST SATISFY THE SALIENT CHARACTERISTICS.

INFRARED HEATER SCHEDULE

TAG	AREA SERVED	MINIMUM CAPACITY (KW)	TOTAL ENCLOSURE LENGTH (IN)	VOLT/PH/HZ	MANUFACTURER	MODEL	NOTES
IRH-1	SHELTER 1	4.25	33	208/1/60	DELTA-THERM	-	1,2
IRH-2	SHELTER 1	4.25	33	208/1/60	DELTA-THERM	-	1,2
IRH-3	SHELTER 2	4.25	33	208/1/60	DELTA-THERM	-	1,2
IRH-4	SHELTER 2	4.25	33	208/1/60	DELTA-THERM	-	1,2

NOTES:

1. PROVIDE WITH MOUNTING BRACKETS.
2. OR APPROVED EQUAL THAT MEETS THE STATED SALIENT CHARACTERISTICS. ALL PRODUCTS, INCLUDING THE NAMED BRANDS, MUST SATISFY THE SALIENT CHARACTERISTICS.

GRILLE, REGISTER, AND DIFFUSER SCHEDULE

TAG	FACE SIZE	DESCRIPTION	FACE MATERIAL	FINISH	MANUFACTURER/ MODEL	OBD	NOTES
RG-1	36X36	RETURN AIR GRILLE, SIDEWALL	ALUMINUM	PER ARCH	TITUS 355FL	NO	1
RG-2	24X24	RETURN AIR GRILLE, CEILING	ALUMINUM	PER ARCH	TITUS 50F	NO	1
RL-1	PER PLANS	RELIEF AIR GRILLE, CEILING	ALUMINUM	PER ARCH	TITUS 50F	NO	1
SG-1	24X12	SUPPLY AIR GRILLE, SIDEWALL	ALUMINUM	PER ARCH	TITUS 301FL	YES	1
SG-2	24X24	SUPPLY AIR DIFFUSER, CEILING	ALUMINUM	PER ARCH	TITUS OMNI-AA	NO	1
SG-3	12X12	SUPPLY AIR DIFFUSER, CEILING	ALUMINUM	PER ARCH	TITUS OMNI-AA	NO	1
SG-4	18X12	SUPPLY AIR GRILLE, SIDEWALL	ALUMINUM	PER ARCH	TITUS 301FL	YES	1

NOTES:

1. OR APPROVED EQUAL THAT MEETS THE STATED SALIENT CHARACTERISTICS. ALL PRODUCTS, INCLUDING THE NAMED BRANDS, MUST SATISFY THE SALIENT CHARACTERISTICS.

DUCTLESS SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE

TAG	AREA SERVED	FAN			SENSIBLE COOLING CAPACITY (MBH)	HEATING (MBH)		EVAPORATOR UNIT - ACU	AIR COOLED - ACC					MANUFACTURER	MODEL	NOTES
		AIR FLOW (CFM)	TOTAL COOLING (MBH)	MCA		HEAT AT 47 F	HEAT AT 17 F	OPERATING WEIGHT (LBS)	REFRIGERANT	ELECTRICAL MCA	ELECTRICAL V	ELECTRICAL PH	OPERATING WEIGHT (LBS)			
ACU-1 & ACC-2	ELECTRICAL ROOM	316	12.0	-	-	-	-	-	R-440A	-	208	3	-	DAIKEN	-	1,2,3,4,5

NOTES:

1. INDOOR UNIT TO BE WALL-MOUNTED. CFM LISTED IS AT MEDIUM SPEED.
2. PROVIDE WITH MANUFACTURER SUPPLIED WIRED THERMOSTAT AND CONTROLS.
3. OUTDOOR UNIT TO POWER INDOOR UNIT.
4. LOW AMBIENT COOLING WITH WIND BAFFLE.
5. OR APPROVED EQUAL THAT MEETS THE STATED SALIENT CHARACTERISTICS. ALL PRODUCTS, INCLUDING THE NAMED BRANDS, MUST SATISFY THE SALIENT CHARACTERISTICS.

LOUVER SCHEDULE

TAG	AREA SERVED	TYPE	W (IN)	H (IN)	BLADE DEPTH (IN)	AIR FLOW (CFM)	MINIMUM FREE AREA (SQ.FT)	FREE AREA VELOCITY (FPM)	MAXIMUM PRESSURE DROP (IN. W.G)	MANUFACTURER	MODEL	NOTES
LV-1		STATIONARY	-	-	6	-	-	-	-	GREENHECK	ESD-635	1,2,3,4
LV-2		STATIONARY	-	-	6	-	-	-	-	GREENHECK	ESD-635	1,2,3,4
LV-3		STATIONARY	-	-	6	-	-	-	-	GREENHECK	ESD-635	1,2,3,4
LV-4		STATIONARY	-	-	6	-	-	-	-	GREENHECK	ESD-635	1,2,3,4
LV-5		STATIONARY	-	-	6	-	-	-	-	GREENHECK	ESD-635	1,2,3,4
LV-6		STATIONARY	-	-	6	-	-	-	-	GREENHECK	ESD-635	1,2,3,4

NOTES:

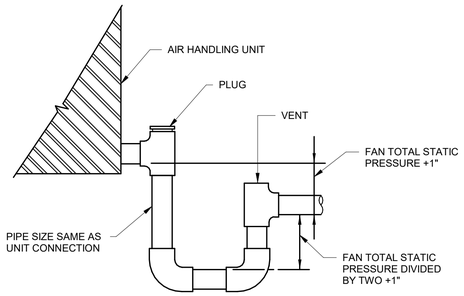
1. PROVIDE WITH THE FOLLOWING FEATURES: ALUMINUM BIRDSCREEN ON THE INSIDE FACE; DRAINABLE STYLE FIXED BLADES.
2. REFER TO SECTION 089119 FIXED LOUVERS FOR ADDITIONAL DETAILS.
3. COORDINATE LOUVER COLOR WITH ARCHITECT.
4. OR APPROVED EQUAL THAT MEETS THE STATED SALIENT CHARACTERISTICS. ALL PRODUCTS, INCLUDING THE NAMED BRANDS, MUST SATISFY THE SALIENT CHARACTERISTICS.

ELECTRIC UNIT HEATER SCHEDULE

TAG	AREA SERVED	HEATING CAPACITY (KW)	V	PH	HZ	OPERATING WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES
EUH-1	MECHANICAL/UTILITY 105	1.5	120	1	60	-	TRANE	UHAA	1,2
EUH-2	FIRE RISER RM 109	1.5	120	1	60	-	TRANE	UHAA	1,2

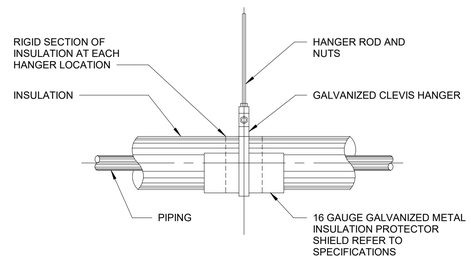
NOTES:

1. PROVIDE UNIT WITH THE FOLLOWING FEATURES: RUGGED GRILLE, FACTORY MOUNTED AND WIRED 24V TRANSFORMER AND CONTROL CIRCUIT RELAY, UNIT MOUNTED THERMOSTAT, FACTORY MOUNTED AND WIRED DISCONNECT SWITCH, INTEGRAL SUPPLY FAN THERMAL OVERLOAD PROTECTION, INTEGRAL ELECTRIC HEAT THERMAL SWITCH. MOUNTING BRACKET AND HARDWARE.
2. OR APPROVED EQUAL THAT MEETS THE STATED SALIENT CHARACTERISTICS. ALL PRODUCTS, INCLUDING THE NAMED BRANDS, MUST SATISFY THE SALIENT CHARACTERISTICS.



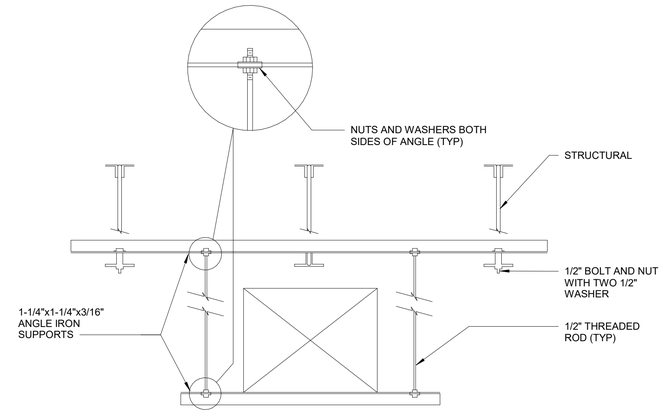
CONDENSATE DRAIN - COOLING COIL

A DETAIL
NTS



HANGER SUPPORT SYSTEM INSULATED HORIZONTAL PIPING

B DETAIL
NTS



DUCT HANGER

C DETAIL
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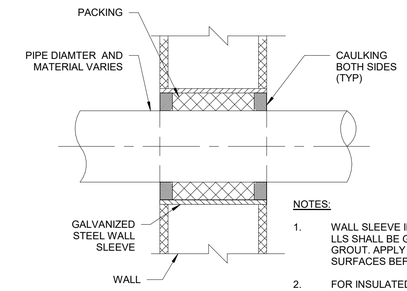
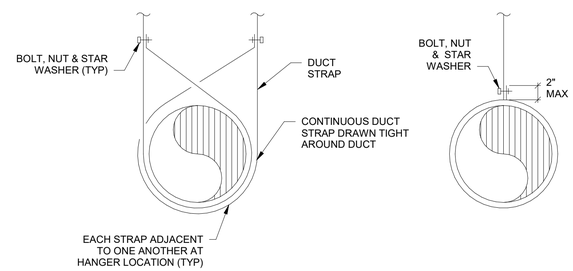


NOTES:

1. WALL SLEEVE IN BRICK, CMU OR CAVITY WALLS SHALL BE GROUTED WITH NON-SHRINK GROUT. APPLY BONDING AGENT TO CLEAN DRY SURFACES BEFORE PLACING GROUT.
2. FOR INSULATED PIPING; INTERRUPT INSULATION ON BOTH SIDES OF SLEEVE, SEAL VAPOR BARRIER TO SLEEVE.

WALL PENETRATION

D DETAIL
NTS



ROUND DUCT HANGER

E DETAIL
NTS

CDM Smith	USER NAME =	DESIGNED - EP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HVAC DETAILS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - GVL	REVISED -					DUPAGE	605
	PLOT SCALE =	CHECKED - ALR	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 605 OF SHEETS			ILLINOIS FED. AID PROJECT	

PLUMBING LEGEND

SYMBOL	ABBR.	DESCRIPTION
CW	CW	DOMESTIC COLD WATER
PW	PW	PROTECTED WATER
HW	HW	DOMESTIC HOT WATER
TW	TW	TEMPERED WATER
V	V	PLUMBING VENT
F	F	FIRE SYSTEM PIPING
SAN	SAN	SANITARY WASTE
SPD	SPD	SUMP PUMP DISCHARGE
	S.O.V.	SHUTOFF VALVE
	B.V.	BALL VALVE
		CHECK VALVE
		PRESSURE RELIEF VALVE
		TEE
		UNION
		TEE UP
		TEE DOWN
		ELBOW TURNING DOWN
		ELBOW TURNING UP
		WASH HOSE STATION
	HB	HOSE BIBB
	FD	FLOOR DRAIN
	HD	HUB DRAIN
		PIPE TO FLOOR DRAIN WITH P-TRAP
FCO	FCO	FLOOR CLEAN OUT
WCO	WCO	WALL CLEANOUT
WHA	WHA	WATER HAMMER ARRESTOR
	BFP	BACKFLOW PREVENTER
		2-WAY SURFACE CLEANOUT

ABBREVIATIONS

ABBR	ABBREVIATION
AFF	ABOVE FINISHED FLOOR
APPROX	APPROXIMATELY
&	AND
BETW	BETWEEN
BLDG	BUILDING
BOP	BOTTOM OF PIPE
COND	CONDENSATE DRAIN
CFH	CUBIC FEET PER HOUR
CHEM	CHEMICAL
℄	CENTERLINE
CO	CLEAN OUT
CMU	CONCRETE MASONRY UNIT
CU	COPPER
CW	COLD WATER (DOMESTIC)
DCVA	DOUBLE CHECK VALVE ASSEMBLY
DCO	DUAL CLEANOUT
DET	DETAIL
DWG	DRAWING
DN	DOWN
EA	EACH
EL	ELEVATION
EQ	EQUIPMENT
ET	EXPANSION TANK
EWH	ELECTRIC WATER HEATER
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
GALV	GALVANIZED
GPM	GALLON PER MINUTE
GWH	GAS-FIRED WATER HEATER
HB	HOSE BIBB
HD	HUB DRAIN
HP	HORSE POWER
HW	HOT WATER (DOMESTIC)
IE	INVERT ELEVATION
IN	INCHES
INSUL	INSULATION
MAX	MAXIMUM
MECH	MECHANICAL
MIN	MINIMUM
MISC	MISCELLANEOUS
MS	MOP SINK
LBS	POUNDS
NO.	NUMBER
O.C.	ON CENTER
ORD	OVERFLOW ROOF DRAIN
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PW	PROTECTED WATER
RD	ROOF DRAIN
RPZ	REDUCED PRESSURE ZONE VALVE ASSEMBLY
SD	SANITARY DRAIN
SHT	SHEET
SP	SUMP PUMP
SPD	SUMP PUMP DISCHARGE
SPECS	SPECIFICATIONS
STD	STANDARD
TYP	TYPICAL
TOC	TOP OF CONCRETE
THRU	THROUGH
TMV	THERMOSTATIC MIXING VALVE
TW	TEPID WATER
UNO	UNLESS NOTED OTHERWISE
V	VENT
VTR	VENT RISER
W	WASTE / SOIL
WCO	WALL CLEAN OUT
WH	WALL HYDRANT
WHA	WATER HAMMER ARRESTER
WHS	WASH HOSE STATION

PLUMBING GENERAL NOTES

1. ALL NEW EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND TO THE INDUSTRY STANDARDS FOR THE WORK, UNLESS A HIGHER STANDARD IS SPECIFIED IN THE DOCUMENTS.
2. ACCESS AND WORKING SPACE SHALL BE PROVIDED AND MAINTAINED AROUND ALL MECHANICAL, ELECTRICAL, CONTROL EQUIPMENT PER LATEST EDITION OF THE MECHANICAL, ELECTRICAL AND BUILDING CODES TO PERMIT READY AND SAFE OPERATION, EXAMINATION AND MAINTENANCE.
3. OFFSETS IN VERTICAL DRAINAGE AND VENT LINES SHALL BE MADE AT 45° WHEREVER POSSIBLE.
4. FOR PIPING SIZES NOT INDICATED ON FLOOR PLAN, REFER TO APPLICABLE PIPING DIAGRAMS.
5. DRAWINGS ARE DIAGRAMATIC AND DO NOT NECESSARILY SHOW ALL OFFSETS OF FITTINGS REQUIRED. PLUMBING CONTRACTOR IS TO COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS WITH DUCTS, LIGHT FIXTURES, PIPES, ETC.
6. INSTALL HORIZONTAL DRAINAGE LINES WITH 1/4" PER FOOT SLOPE FOR 2-1/2" OR LESS AND 1/8" PER FOOT SLOPE FOR 3 TO 6 INCHES UNLESS OTHERWISE NOTED.
7. PLUMBING VENT-THRU-ROOF SHALL EXTEND A MINIMUM OF 12" ABOVE ROOF.
8. REFER ALSO TO PLUMBING SECTIONS IN DIVISION 22 SPECIFICATIONS.
9. COORDINATE ROUTING OF WATER PIPING AND SANITARY PIPING WITH BUILDING STRUCTURAL CONSTRAINTS. DO NOT ROUTE WATER PIPING ABOVE ELECTRICAL EQUIPMENT.

NOTES: THIS IS A GENERAL LIST OF SYMBOLS AND ABBREVIATIONS. NOT ALL ITEMS SHOWN HERE APPEAR ON THE CONTRACT DRAWINGS.

WATER HEATER SCHEDULE

TAG	LOCATION	TYPE	SERVES	CAPACITY (KW)	WATER TEMPERATURE RISE (°F)	TANK SIZE (GAL)	RECOVERY (GPH)	FLOW (GPM)	VOLT/ PH	HW AND CW CONNECTIONS (NPT)	WEIGHT (LBS)	BASIS OF DESIGN	NOTES
EWH-1	JANITOR 108	ELECTRIC TANK	MOP SINK	1.5	100	15	-	-	208/1	-	-	AO SMITH DEL	1,4
EWH-2	TLT 107	ELECTRIC - INSTANTANEOUS	LAVATORY	5.0	68	N/A	-	-	208/1	-	-	EEMAX	2,3,4
EWH-3	TLT 106	ELECTRIC - INSTANTANEOUS	LAVATORY	5.0	68	N/A	-	-	208/1	-	-	EEMAX	2,3,4

NOTES:

1. PROVIDE ASME-RATED TEMPERATURE AND PRESSURE RELIEVE VALVE. PIPE VALVE DISCHARGE TO WITHIN 12 INCHES OF FINISHED FLOOR.
2. WATER HEATER SHALL HAVE TURN-ON FLOW RATE OF 0.3 GPM.
3. WATER HEATER SHALL BE FACTORY SET TO PROVIDED TEMPERED WATER REQUIREMENTS OF 105 °F.
4. OR APPROVED EQUAL THAT MEETS THE STATED SALIENT CHARACTERISTICS. ALL PRODUCTS, INCLUDING THE NAMED BRANDS, MUST SATISFY THE SALIENT CHARACTERISTICS.

EXPANSION TANK SCHEDULE

TAG	LOCATION	TYPE	PRECHARGE (PSIG)	VOLUME (GALLONS)		DIAMETER	HEIGHT	OPERATING WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES
				TANK	ACCEPTANCE						
ET-1	JANITOR 108	DIAPHRAGM		2.0	0.9	-	-	-	THERM-X-TROL	-	1

NOTES:

1. OR APPROVED EQUAL THAT MEETS THE STATED SALIENT CHARACTERISTICS. ALL PRODUCTS, INCLUDING THE NAMED BRANDS, MUST SATISFY THE SALIENT CHARACTERISTICS.

SUMP PUMP SCHEDULE

TAG	LOCATION	TYPE	DISCHARGE PIPE SIZE (IN)	FLOW (GPM)	HEAD (FT)	MOTOR HP	ELECTRICAL CHARACTERISTICS				MANUFACTURER	MODEL	NOTES
							V	PH	HZ	RPM			
SP-1		SUBMERSIBLE	-	0	0.00	0	0	0	0	0	WEIL	-	1,2
SP-2		SUBMERSIBLE	-	0	0.00	0	0	0	0	0	WEIL	-	1,2

NOTES:

1. PROVIDE COMPLETE PACKAGED DUPLEX SYSTEM WITH THE FOLLOWING FEATURES: CONTROL PANEL, OIL DETECTION, MOISTURE DETECTION, SLIDE RAIL SYSTEM, ELECTRICAL DISCONNECTS, PLUG-IN READY WIRING, AND ALL CONTROL COMPONENTS AS REQUIRED BY THE CONTROL SEQUENCES.
2. OR APPROVED EQUAL THAT MEETS THE STATED SALIENT CHARACTERISTICS. ALL PRODUCTS, INCLUDING THE NAMED BRANDS, MUST SATISFY THE SALIENT CHARACTERISTICS.

PLUMBING FIXTURE CONNECTION SCHEDULES

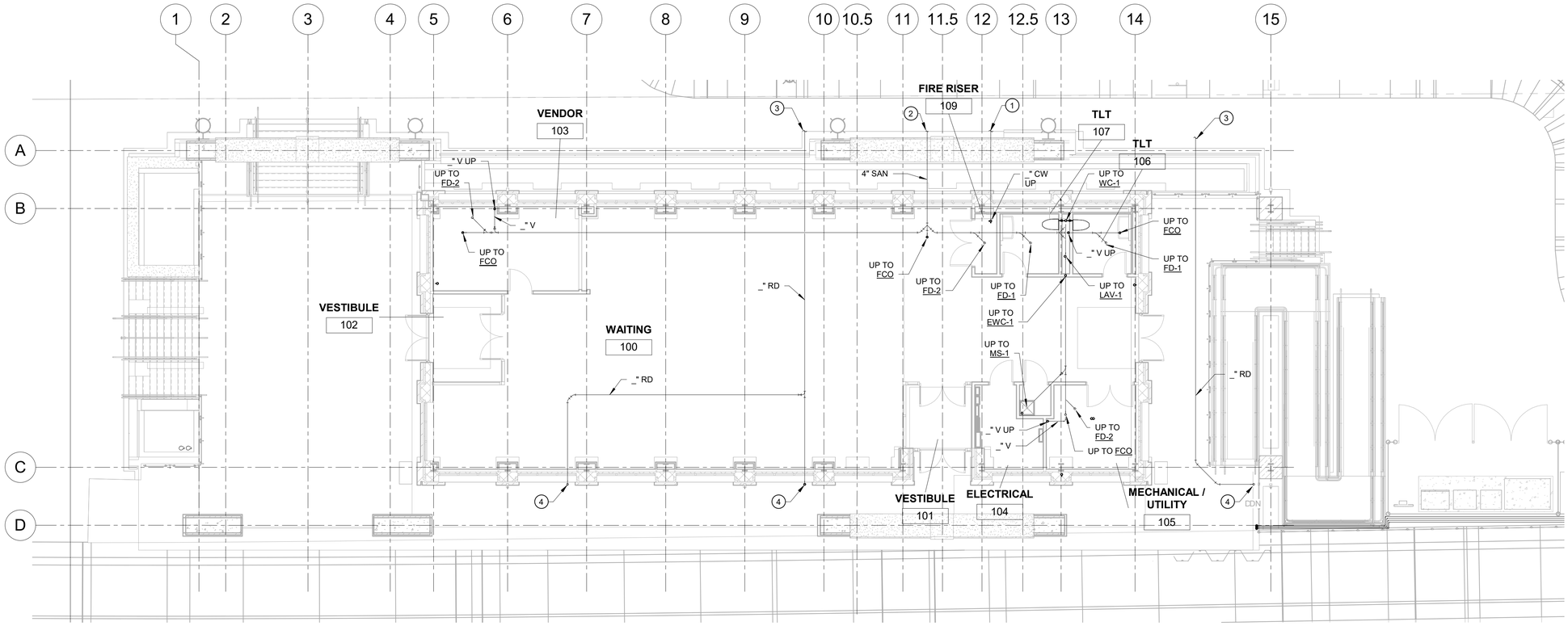
TAG	LOCATIONS	DESCRIPTION	WASTE (IN.) MIN.	VENT (IN.) MIN.	TRAP (IN.) MIN.	CW (IN.) MIN.	HW (IN.) MIN.	BASIS OF DESIGN	REMARKS
HB-1	REFER TO DRAWINGS	EXTERIOR HOSE BIBB	-	-	-	3/4	-	PER ARCH	FREEZE PROOF
WC-1	REFER TO DRAWINGS	WATER CLOSET	4	2	-	1	-	PER ARCH	HANDICAP
LAV-1	REFER TO DRAWINGS	LAVATORY	2	1-1/2	1-1/4	1/2	1/2	PER ARCH	HANDICAP
MS-1	REFER TO DRAWINGS	MOP SINK	3	2	3	3/4	3/4	PER ARCH	-
EWC-1	REFER TO DRAWINGS	WATER COOLER	1-1/2	1-1/4	1-1/2	1/2	-	PER ARCH	BOTTLE FILLING STATION, 120V POWER SUPPLY
FD-1	REFER TO DRAWINGS	FLOOR DRAIN	2	1-1/2	2	-	-	PER ARCH	PROVIDE WITH TRAP PRIMER CONNECTION
FD-2	REFER TO DRAWINGS	FLOOR DRAIN	4	2	2	-	-	PER ARCH	PROVIDE WITH TRAP PRIMER CONNECTION

BACKFLOW PREVENTER SCHEDULE

TAG	LOCATION	SIZE (IN)	MANUFACTURER	MODEL	NOTES
RPZ-1	JANITORS 108	2	WATTS	LF009	1,2
RPZ-2	JANITORS 108	3/4	WATTS	LF009	1,2

NOTES:

1. PROVIDE DISCHARGE AIR GAP, STRAINER, QUARTER TURN BALL VALVES.
2. OR APPROVED EQUAL THAT MEETS THE STATED SALIENT CHARACTERISTICS. ALL PRODUCTS, INCLUDING THE NAMED BRANDS, MUST SATISFY THE SALIENT CHARACTERISTICS.



KEY NOTES (#)

1. COMBINED 4" DOMESTIC AND FIRE WATER SERVICE. SEE CIVIL PLANS FOR CONTINUATION.
2. 4" SANITARY DRAIN TO SANITARY SEWER. SEE CIVIL PLANS FOR CONTINUATION.
3. ROOF DRAIN PIPING TO STORM SEWER. SEE CIVIL PLANS FOR CONTINUATION.
4. ROUT ROOF DRAIN PIPE TO 6" ABOVE PLATFORM HEIGHT. PROVICE TRANSITION BOOT TO CONNECT TO GUTTER DOWNSPOUT. REFER TO ARCHITECTURAL PLANS FOR GUTTER AND DOWNSPOUT SYSTEM.

1 / 622 PLUMBING STATION BELOW GRADE FLOOR PLAN

1/8" = 1'-0"

CDM Smith

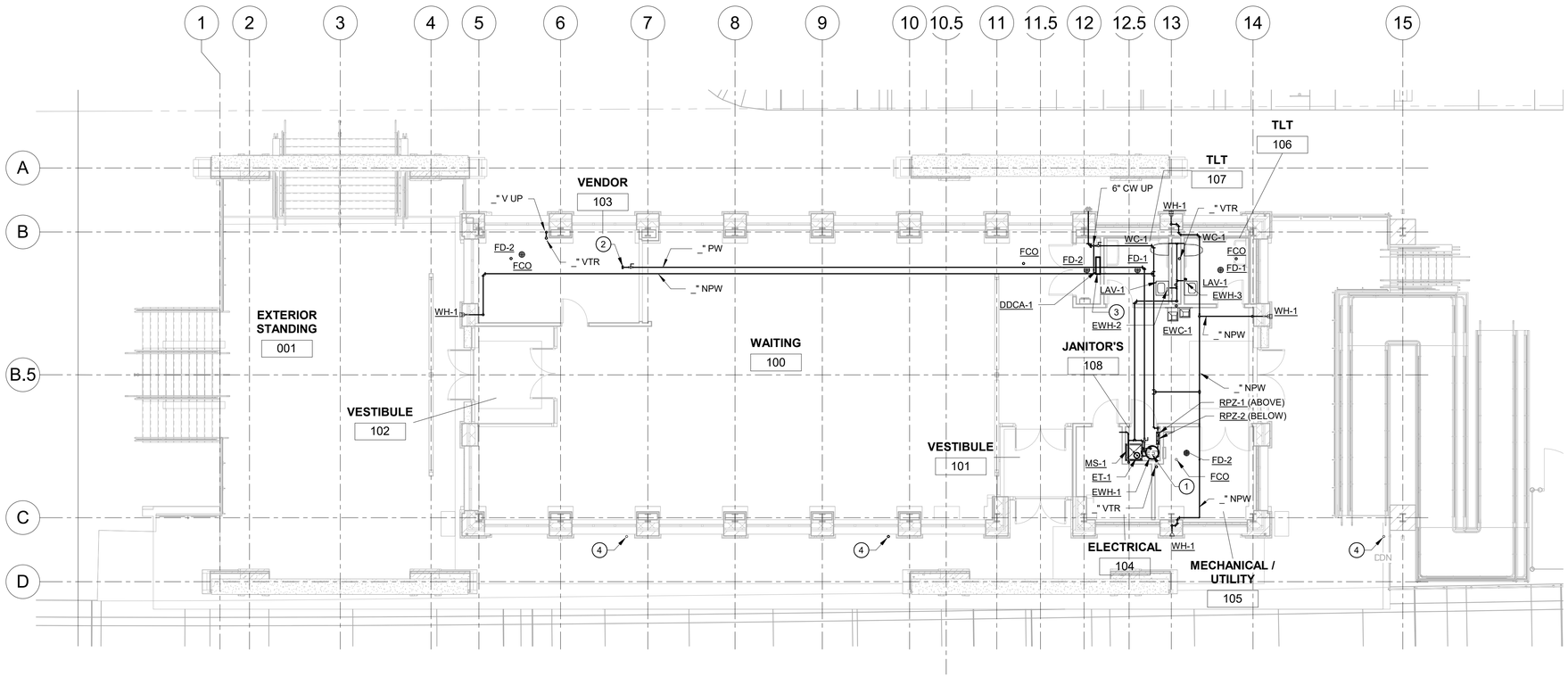
USER NAME =	DESIGNED - EP	REVISED -	
ISSUED FOR 30 PCT	DRAWN - GVL	REVISED -	
PLOT SCALE =	CHECKED - ALR	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLUMBING STATION BELOW GRADE FLOOR PLAN

SCALE: AS NOTED | SHEET 622 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		622
		CONTRACT NO.		
ILLINOIS FED. AID PROJECT				



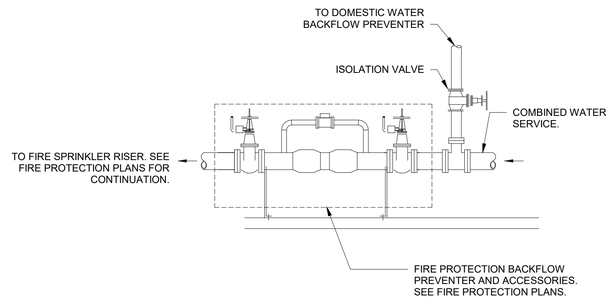
KEY NOTES (#)

1. WATER SUB-METER FOR VENDOR SPACE TENANT.
2. CAP POTABLE WATER LINE AND PREPARE FOR FUTURE BUILD-OUT.
3. TO FIRE SPRINKLER RISER. SEE FIRE PROTECTION PLANS FOR CONTINUATION.
4. ROUTE ROOF DRAIN PIPE TO 6" ABOVE PLATFORM HEIGHT. PROVIDE TRANSTION BOOT TO CONNECT TO GUTTER DOWNSPOUT. REFER TO ARCHITECTURAL PLANS FOR GUTTER AND DOWNSPOUT SYSTEM.

1 / 623 PLUMBING STATION FLOOR PLAN

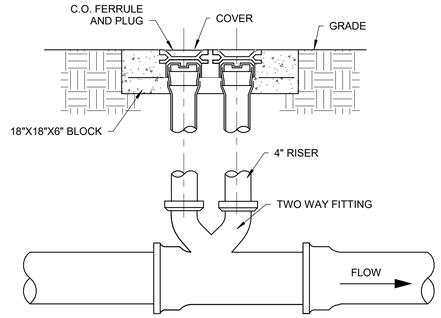
1/8" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - EP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLUMBING STATION FLOOR PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - GVL	REVISED -					DUPAGE		623
	PLOT SCALE =	CHECKED - ALR	REVISED -					CONTRACT NO.		
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 623 OF SHEETS	ILLINOIS FED. AID PROJECT				



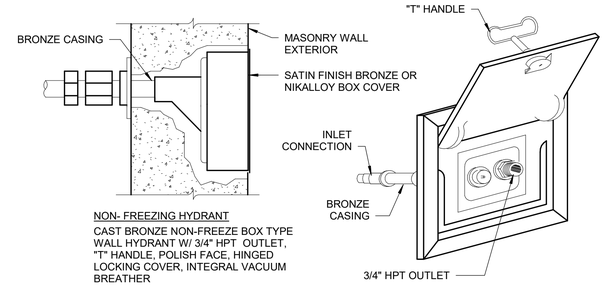
DOMESTIC WATER CONNECTION TO COMBINED WATER SERVICE

A DETAIL
NTS



DOUBLE CLEANOUT

B DETAIL
NTS

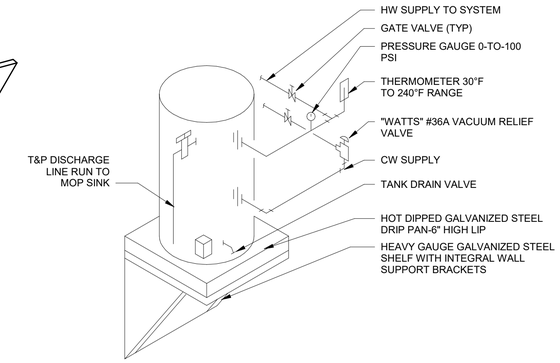


NON- FREEZING HYDRANT

CAST BRONZE NON-FREEZE BOX TYPE WALL HYDRANT W/ 3/4" HPT OUTLET, "T" HANDLE, POLISH FACE, HINGED LOCKING COVER, INTEGRAL VACUUM BREATHER

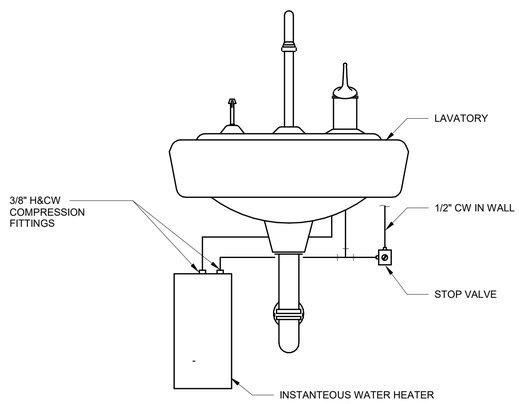
NON-FREEZE HOSE STATION

C DETAIL
NTS



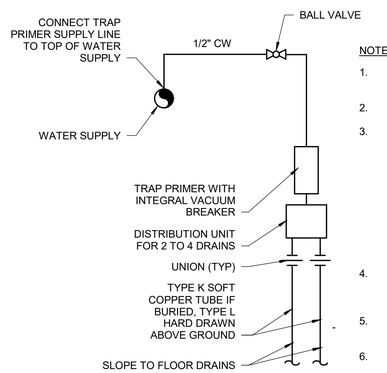
ELECTRIC TANK TYPE WATER HEATER

D DETAIL
NTS



INSTANTEOUS WATER HEATER

E DETAIL
NTS

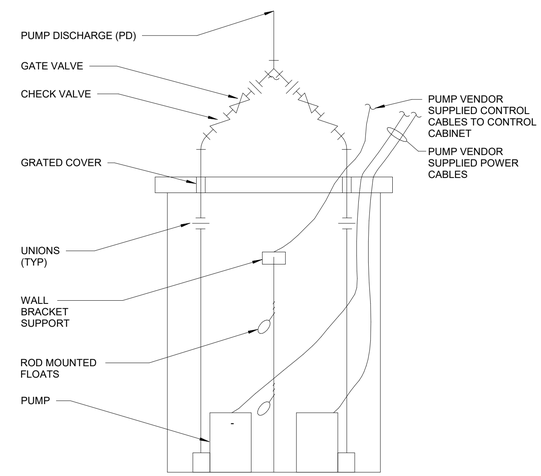


NOTES:

1. INSTALL TRAP PRIMER ASSEMBLY PER MFG. RECOMMENDATIONS.
2. REFER TO LOCAL PLUMBING CODE REQUIREMENTS.
3. WHERE PRACTICAL, CONNECT TRAP PRIMER WATER SUPPLY TO FREQUENTLY IN-USE WATER LINE, IE.,WATER BRANCH SUPPLY TO RESTROOMS NEAR WATER CLOSETS.IN AREAS NOT CLOSE TO CW LINE. CONNECT TO NEAREST UTILITY WATER LINE. PREFERABLY FROM WATER LINE UP STREAM OF SINKS.
4. LOCATE TRAP PRIMER ASSEMBLY IN AN ACCESSIBLE AREA FOR MAINTENANCE PURPOSES.
5. TRAP PRIME SHALL BE PRECISION PLUMBING PRODUCTS OR EQUAL.
6. PROVIDE REQUIRED NUMBER OF TRAP PRIMERS AND DISTRIBUTION UNITS FOR NUMBER OF DRAINS.

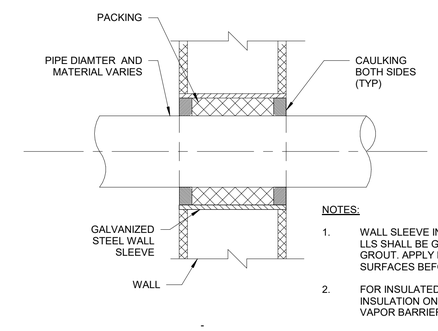
TRAP PRIMER

F DETAIL
NTS



DUPLEX SUMP PUMP

G DETAIL
NTS

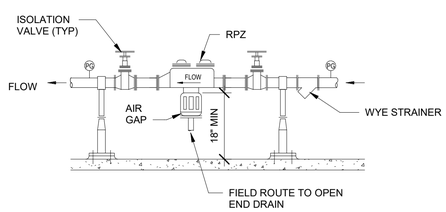


NOTES:

1. WALL SLEEVE IN BRICK, CMU OR CAVITY WA LLS SHALL BE GROUTED WITH NON-SHRINK GROUT. APPLY BONDING AGENT TO CLEAN DRY SURFACES BEFORE PLACING GROUT.
2. FOR INSULATED PIPING; INTERRUPT INSULATION ON BOTH SIDES OF SLEEVE, SEAL VAPOR BARRIER TO SLEEVE.

WALL PENETRATION1

H DETAIL
NTS



REDUCED PRESSURE ZONE BACKFLOW PREVENTER

I DETAIL
NTS

CDM Smith	USER NAME =	DESIGNED - EP	REVISED -
	ISSUED FOR 30 PCT	DRAWN - GVL	REVISED -
	PLOT SCALE =	CHECKED - ALR	REVISED -
	PLOT DATE =	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLUMBING DETAILS I

SCALE: AS NOTED | SHEET 625 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		625
		CONTRACT NO.		
ILLINOIS FED. AID PROJECT				

FIRE PROTECTION LEGEND

SYMBOL	DESCRIPTION
—F—	FIRE SPRINKLER PIPING
	CHECK VALVE
FS	FLOW SWITCH WITH ADJUSTABLE RETARD
	ANGLE VALVE
	FLANGED OR GROOVED CONNECTION
	BACKFLOW PREVENTER
	PRESSURE GAUGE WITH COCK
	OS&Y VALVE WITH TAMPER SWITCH
	RISER CHECK WITH INTEGRAL MAIN DRAIN AND PRESSURE GAUGE TAPPINGS
	REDUCER
AHJ	AUTHORITY HAVING JURISDICTION
FDC	FIRE DEPARTMENT CONNECTION
SPDT	SINGLE POLE DOUBLE THROW
FM	FACTORY MUTUAL
UL	UNDERWRITERS LABORATORY
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
IN	INCHES
PSI	POUNDS PER SQUARE INCH
GPM	GALLONS PER MINUTE
TS	TAMPER SWITCH

FIRE PROTECTION GENERAL NOTES

A. INSTALL SYSTEM IN ACCORDANCE WITH NFPA 13 & 24, INTERNATIONAL FIRE CODE AND THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION. ALL MATERIALS SHALL BE FM/UL LISTED FOR USE IN FIRE PROTECTION SYSTEMS.

B. ABOVE GROUND PIPING SHALL BE SCHEDULE 40 BLACK STEEL.

C. HANGER LOCATIONS SHALL BE COORDINATED WITH THE BUILDING STRUCTURAL STEEL. SUPPORT PIPING IN ACCORDANCE WITH NFPA-13, PROVIDE ALL MISCELLANEOUS STEEL FRAMING AS REQUIRED TO SUPPORT PIPING FROM STRUCTURE. HANG ALL PIPING TIGHT TO STRUCTURE FOR MAXIMUM WORKING CLEARANCE IN SPACE.

D. PROVIDE CHROME ESCUTCHEONS WHERE PIPING PENETRATES WALLS IN EXPOSED AREAS.

E. SPRINKLERS SHALL BE FROM A SINGLE MANUFACTURER.

F. ALL MEASUREMENTS AND ELEVATIONS SHALL BE ESTABLISHED BY THE CONTRACTOR PRIOR TO FABRICATION OF PIPE AND COORDINATED WITH THE BUILDING STRUCTURE, DUCTWORK SHOP DRAWINGS AND THE WORK OF OTHER TRADES. PROVIDE OFFSETS WHERE REQUIRED DUE TO OBSTRUCTIONS OR INTERFERENCE AT NO ADDITIONAL COST TO THE OWNER.

G. THE CONTRACTOR SHALL PREPARE FABRICATION / WORKING PLANS AS DEFINED BY NFPA-13 WHICH CLEARLY INDICATE ALL CUT PIPE DIMENSIONS, HANGER TYPES AND LOCATIONS, ANY TRAPPED SECTIONS OF PIPING, AND DEVIATIONS FROM THIS LAYOUT REQUIRED FOR COORDINATION. PROVIDE AUXILIARY DRAINS FOR ANY TRAPPED PIPING.

H. TIE-IN OF FLOW SWITCH AND TAMPER SWITCHES TO FIRE ALARM SYSTEM SHALL BE PERFORMED UNDER DIVISION 26.

I. SYSTEMS SHALL BE HYDRAULICALLY DESIGNED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF ILLINOIS OR NICET LEVEL IV. REFER TO THE NOTES ON THE DRAWINGS FOR DENSITIES AND AREA OF APPLICATION.

J. ALL EXPOSED SPRINKLER PIPING SHALL BE PAINTED RED, WITH ONE PRIMER COAT AND TWO ADDITIONAL COATS OF PAINT. REFER TO DIVISION 9.

K. TEST SYSTEMS IN ACCORDANCE WITH NFPA 13 AND NFPA 24 AND REQUIREMENTS OF AUTHORITY HAVING JURISDICTION (AHJ) AND PREPARE "CONTRACTORS MATERIAL AND TEST CERTIFICATE "AS PRESCRIBED BY NFPA-13 AND NFPA-24.

L. PERFORM FIRE-HYDRANT FLOW TEST IN ACCORDANCE WITH NFPA 13 AND NFPA 291. REPORT TEST RESULTS TO THE ENGINEER.

M. PROVIDE SPRINKLER HEAD CABINET WITH EACH TYPE AND TEMPERATURE RATING USED ON THE PROJECT, MINIMUM QUANTITY AS PER NFPA-13.

N. LABEL DRAIN PIPING, INSPECTOR'S TEST, MAIN DRAIN, FIRE DEPARTMENT CONNECTION, RISER SHUT-OFF VALVE AND SIMILAR COMPONENTS.

O. ALL PIPE SIZES ARE INDUSTRY STANDARD ASTM A53 PIPE DESIGNATED BY THEIR NOMINAL DIAMETER.

P. PIPE SIZES INDICATED ARE THE MINIMUM ALLOWABLE. ACTUAL SIZES TO BE BASED UPON HYDRAULIC CALCULATIONS.

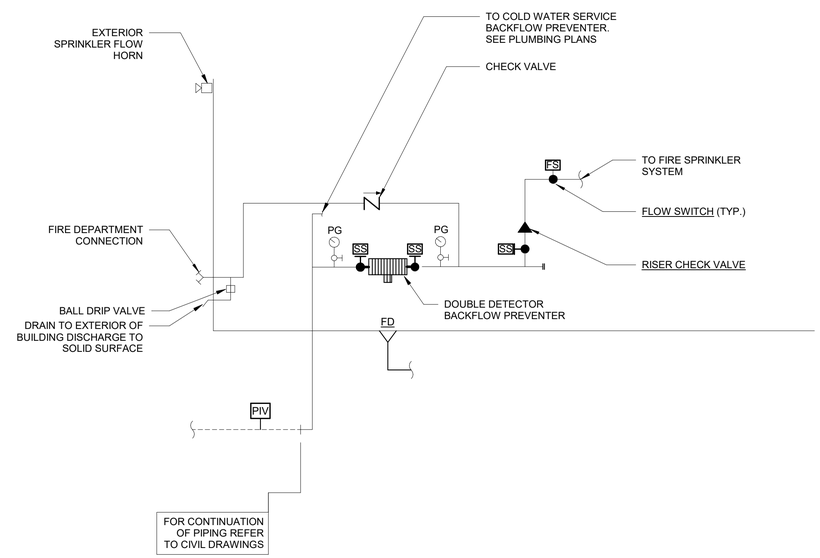
Q. COORDINATE ROUTING OF FIRE SPRINKLER PIPING WITH BUILDING STRUCTURAL CONSTRAINTS. DO NOT ROUTE WATER PIPING ABOVE ELECTRICAL EQUIPMENT.

FIRE SUPPRESSION SYSTEM SCHEDULE

SUPPRESSION SYSTEM ZONE NO.	BUILDING DESCRIPTION	SYSTEM TYPE	OCCUPANCY HAZARD CLASSIFICATION	WATER APPLICATION DENSITY	MINIMUM CALCULATED AREA	COMBINED HOSE STREAM (SEE NOTE 3)
1	INBOUND STATION	WET SPRINKLER	LIGHT HAZARD	0.10 GPM/SQ FT	1500 SQ FT	100 GPM
2	MECHANICAL ROOM, ELECTRICAL ROOM, FIRE RISER ROOM	WET SPRINKLER	ORDINARY HAZARD - GROUP 1	0.15 GPM/SQ FT	1500 SQ FT	250 GPM
3	VENDOR	WET SPRINKLER	ORDINARY HAZARD - GROUP 2	0.20 GPM/SQ FT	1500 SQ FT	250 GPM

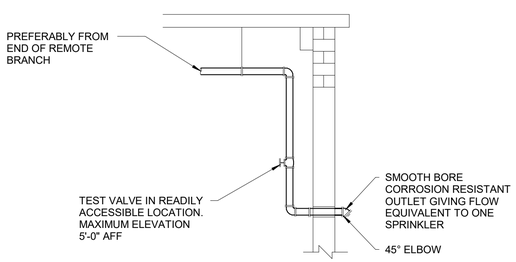
NOTES:

1. LOCATE FIRE DEPARTMENT CONNECTIONS PER THE REQUIREMENTS OF THE LOCAL FIRE DEPARTMENT. PROPOSED LOCATION IS SHOWN ON THE FIRE PROTECTION DRAWINGS. VERIFY SIZE AND THREADS OF THE FDC REQUIRED BY THE AHJ.
2. CONTRACTOR SHALL VERIFY WITH THE AUTHORITY HAVING JURISDICTION AND THE OWNER'S INSURANCE CARRIER (IF APPLICABLE) THE DENSITIES AND OCCUPANCY CLASSIFICATIONS IN THIS BUILDING.
3. HOSE STREAM ALLOWANCE SHALL BE APPLIED AT EACH RISER. TOTALS ARE NOT CUMULATIVE.
4. HAZARD OCCUPANCY AND HOSE STREAM DEMANDS LISTED ARE ESTIMATIONS. ACTUAL CRITERIA TO BE DETERMINED BY THE FIRE SPRINKLER SYSTEM DESIGNER PER NFPA 13 REQUIREMENTS.



FIRE RISER - WET TYPE SCHEMATIC

B – DETAIL
NTS



SYSTEM TEST CONNECTION

A – DETAIL
NTS

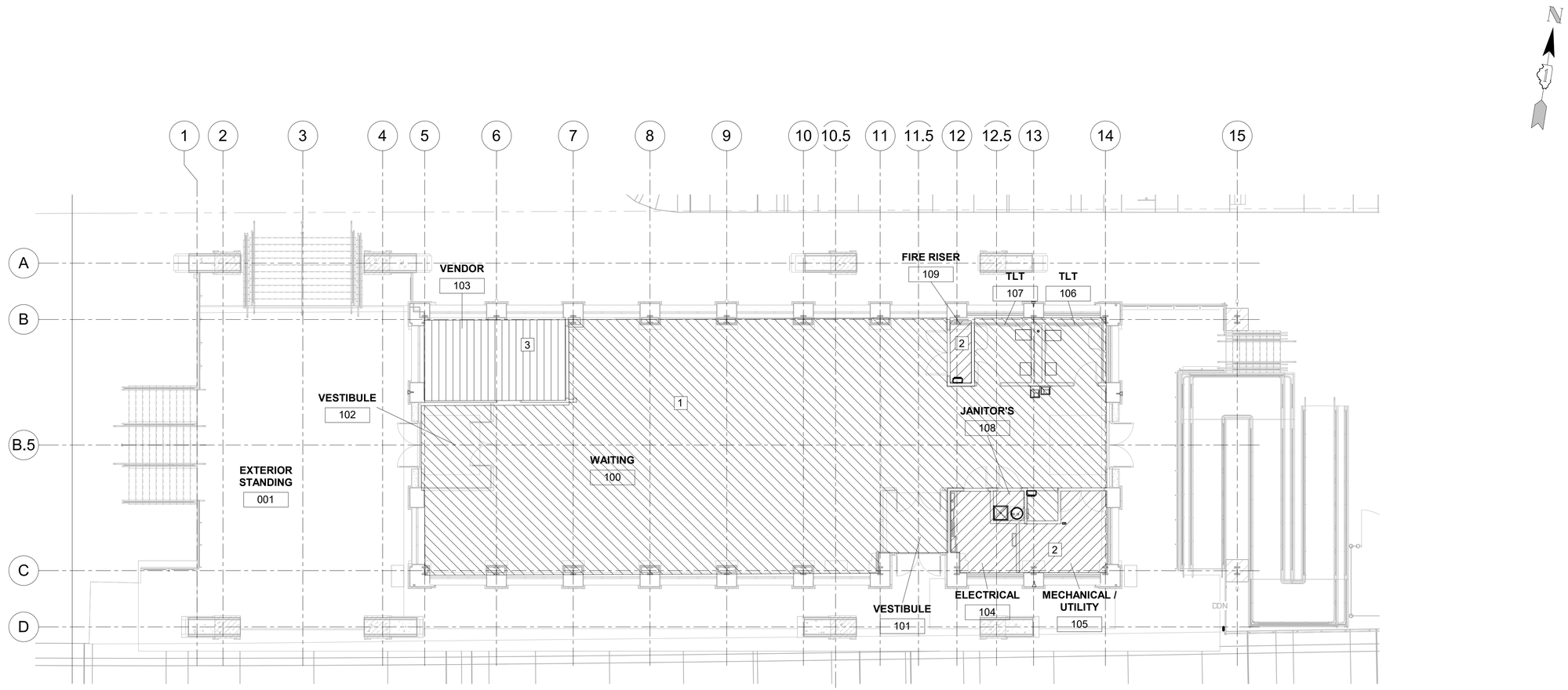
CDM Smith	USER NAME =	DESIGNED - EP	REVISED -
	ISSUED FOR 30 PCT	DRAWN - GVL	REVISED -
	PLOT SCALE =	CHECKED - ALR	REVISED -
	PLOT DATE =	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIRE PROTECTION LEGENDS, ABBREVATION,SYMBOLS AND NOTES

SCALE: AS NOTED | SHEET 641 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		641
		CONTRACT NO.		
ILLINOIS FED. AID PROJECT				



1 FIRE PROTECTION STATION FLOOR PLAN

642 1/8" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - EP	REVISED -
	ISSUED FOR 30 PCT	DRAWN - GVL	REVISED -
	PLOT SCALE =	CHECKED - ALR	REVISED -
	PLOT DATE =	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIRE PROTECTION STATION FLOOR PLAN

SCALE: AS NOTED | SHEET 642 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		642
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
52 CS	—	MEDIUM VOLTAGE DRAWOUT TYPE POWER CIRCUIT BREAKER CS=CONTROL SWITCH
FRAME TRIP	CB	LOW VOLTAGE AIR OR MOLDED CASE CIRCUIT BREAKER, 3 POLE UNLESS OTHERWISE NOTED.
SIZE # AMPS TYPE *		COMBINATION MOTOR CIRCUIT PROTECTOR AND MAGNETIC MOTOR STARTER, FULL VOLTAGE NON-REVERSING UNLESS OTHERWISE NOTED: * FVR – FULL VOLTAGE REVERSING RVNR – REDUCED VOLTAGE NON-REVERSING RVAT – REDUCED VOLTAGE AUTOTRANSFORMER RVSS – REDUCED VOLTAGE SOLID STATE 2S1W – TWO SPEED, ONE WINDING 2S2W – TWO SPEED, TWO WINDING (DIAGRAMMATICALLY SHOWN, CONTRACTOR SHALL FIELD LOCATE)
		NON-FUSIBLE DISCONNECT SWITCH, 600 VOLT, 3 POLE * AMPERE RATING NOTED IF OTHER THAN 30A (DIAGRAMMATICALLY SHOWN, CONTRACTOR SHALL FIELD LOCATE)
* *	F	FUSIBLE DISCONNECT SWITCH, 600 VOLT, 3 POLE, * AMPERE RATING AND FUSE SIZE AS NOTED * AMPERE RATING NOTED IF OTHER THAN 30A FUSE RATING (DIAGRAMMATICALLY SHOWN, CONTRACTOR SHALL FIELD LOCATE)
	P 2	MANUAL MOTOR STARTER WITH THERMAL OVERLOAD HEATER, 1 POLE UNLESS OTHERWISE NOTED "P" INDICATES WITH PILOT LIGHT "2" INDICATES TWO POLE (DIAGRAMMATICALLY SHOWN, CONTRACTOR SHALL FIELD LOCATE)
	—	DRAWOUT TYPE EQUIPMENT OR DEVICE
	—	MEDIUM VOLTAGE CABLE TERMINATION
	—	MEDIUM VOLTAGE AIR INTERRUPTER SWITCH
*	—	MEDIUM VOLTAGE FUSED AIR INTERRUPTER SWITCH * FUSE RATING
	—	MEDIUM VOLTAGE FUSED MOTOR CONTROLLER
XFMR NO. 1 480V KVA 120/208V 3P, 4W	T	TRANSFORMER, RATINGS AND CONNECTIONS AS NOTED. UNLESS OTHERWISE NOTED ON THE SINGLE LINE DIAGRAMS, ALL DRY TYPE TRANSFORMERS SERVICING ADMINISTRATIVE AND LABORATORY SPACES SHALL HAVE A K FACTOR OF 4. ISOLATION TRANSFORMERS SHALL HAVE A K-20 RATING
* A TO 5	—	CURRENT TRANSFORMER * QUANTITY A = PRIMARY AMPERES
* V TO 120	—	POTENTIAL TRANSFORMER * QUANTITY V = PRIMARY VOLTAGE
	G	GENERATOR, RATINGS AND CONNECTIONS AS NOTED
ATS N S 100A	—	AUTOMATIC OR MANUAL TRANSFER SWITCH NO.1 (ATS-1), (MTS-1) "N" INDICATES NORMAL OR PREFERRED SOURCE "S" INDICATES STANDBY OR ALTERNATE SOURCE 100A INDICATES CONTINUOUS CURRENT RATING
*	*	VARIABLE SPEED DRIVE CONTROLLER * D.C. = D.C. DRIVE CONTROLLER SCR = SILICON CONTROLLED RECTIFIER VFD = VARIABLE FREQUENCY DRIVE
#KW	E	UNIT HEATER – ELECTRIC HEATING COIL AND FAN # – RATING
—	U	UNIT HEATER – GAS FIRED, STEAM OR WATER HEATING COIL AND FAN
5	M	MOTOR, NUMERAL INDICATES HORSEPOWER
VS VM *	—	VOLTMETER WITH SWITCH, 3 PHASE
AS AM *	—	AMMETER WITH SWITCH, 3 PHASE

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
*	—	METER * WM – WATTMETER WHM – WATTHOUR METER WHDM – WATTHOUR DEMAND METER WHDR – WATTHOUR DEMAND RECORDER PF – POWER FACTOR METER DMU – DIGITAL METERING UNIT TRANSDUCER AX – CURRENT TRANSDUCER WX – WATT TRANSDUCER WHX – WATTHOUR TRANSDUCER
*	*	RELAY, NO. AS INDICATED 25 – SYNCHRONISM CHECK RELAY 27 – UNDERVOLTAGE RELAY 32 – DIRECTIONAL POWER RELAY 38 – BEARING PROTECTIVE DEVICE 40 – LOSS OF EXCITATION RELAY 42 – RUNNING CONTACTOR/PILOT RELAY 46 – REVERSE PHASE/PHASE BALANCE/CURRENT RELAY 47 – PHASE SEQUENCE VOLTAGE RELAY 49 – MACHINE OR TRANSFORMER THERMAL RELAY 50/51 – INSTANTANEOUS/TIME OVERCURRENT RELAY 50G – INSTANTANEOUS GROUND 51 – TIME OVERCURRENT RELAY 51G – TIME OVERCURRENT RELAY, GROUNDING RESISTOR TYPE 51N – TIME OVERCURRENT RELAY, RESIDUAL TYPE 51V – TIME OVERCURRENT RELAY WITH VOLTAGE RESTRAINT 51X – AUXILIARY RELAY (TRIPS CB AND ALARMS) 59 – OVERVOLTAGE RELAY 60 – NEGATIVE SEQUENCE VOLTAGE RELAY 62 – TIME DELAY RELAY 63 – OVERPRESSURE RELAY 64 – GENERATOR FIELD GROUND RELAY 67 – AC DIRECTIONAL OVERCURRENT RELAY 74 – ALARM LATCHING RELAY 83 – AUTOMATIC SELECTIVE CONTROL OR TRANSFER RELAY 86 – LOCKING-OUT RELAY 87 – DIFFERENTIAL PROTECTIVE RELAY B – SUFFIX INDICATES "BUS" G – SUFFIX INDICATES "GENERATOR" GF – GROUND FAULT ST – SHUNT TRIP T – SUFFIX INDICATES "TRANSFORMER" X – SUFFIX INDICATES "AUXILIARY"
*	—	SPECIAL CAPACITOR * SC – SURGE CAPACITOR PF – POWER FACTOR CORRECTION CAPACITOR
*	—	TUNED POWER FACTOR CORRECTION CAPACITOR
	—	PUSHBUTTON, MOMENTARY CONTACT, SPRING RETURN, NORMALLY CLOSED
	—	PUSHBUTTON, MOMENTARY CONTACT, SPRING RETURN, NORMALLY OPEN
	ES	EMERGENCY STOP PUSHBUTTON WITH RED MUSHROOM HEAD OPERATOR (MAINTAINED CONTACT)
STOP START	PBL	START-STOP PUSHBUTTON CONTROL STATION (MOMENTARY CONTACT) WITH LOCKOUT DEVICE ON STOP
	PBM	START-STOP PUSHBUTTON CONTROL STATION, MAINTAINED CONTACT WITH LOCKOUT DEVICE ON STOP
OFF ON	S/S	OFF/ON SELECTOR SWITCH
L R (XO) (OX)	LR	LOCAL/REMOTE SELECTOR SWITCH
A B C* (XOO) (OXO) (OOX)	*	3 POSITION SELECTOR SWITCH, MAINTAINED CONTACT O-OPEN X-CLOSED POSITION / TOP CONTACT / MIDDLE CONTACT / BOTTOM CONTACT A / X / O / O B / O / X / O C / O / O / X NAMEPLATE (A/B/C) HOA – HAND/OFF/AUTO HOR – HAND/OFF/REMOTE LOR – LOCAL/OFF/REMOTE RSL – RAISE/STOP/LOWER TOA – TEST/OFF/AUTO

GD/VF #	GD/VF #	GAS DETECTOR / VENTILATION FAILURE ALARM
		# INDICATES TYPE OF UNIT
		1=MASTER, 2=REMOTE

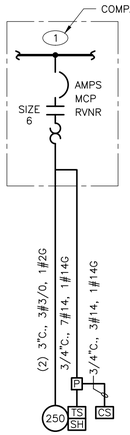
42 #	—	MOTOR STARTER COIL, NUMBER AS INDICATED TO DENOTE INTERLOCKING ONLY
CR #	—	CONTROL RELAY COIL, NUMBER AS INDICATED

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
*	—	PILOT LIGHT, COLOR AS NOTED * R – RED G – GREEN B – BLUE W – WHITE A – AMBER
*	—	PILOT LIGHT, PUSH-TO-TEST TYPE, COLOR AS NOTED ABOVE.
* # RANGE SETPOINT * NOTC NCTO NOTO NCTC		TIME DELAY RELAY RANGE AS NOTED SETPOINT AS NOTED # NUMBER AS INDICATED * TDE – TIME DELAY AFTER ENERGIZATION ON DELAY TDD – TIME DELAY AFTER DE-ENERGIZATION OFF DELAY NOTC– NORMALLY OPEN, TIMED CLOSING WHEN ENERGIZED NCTO– NORMALLY CLOSED, TIMED OPENING WHEN ENERGIZED NOTO– NORMALLY OPEN, TIMED OPENING WHEN DE-ENERGIZED NCTC– NORMALLY CLOSED, TIMED CLOSING WHEN DE-ENERGIZED
—	* – ##	FIELD INSTRUMENT, TAG NO. AS INDICATED * INDICATES INSTRUMENT TYPE DEFINED ON LOOP SHEETS OR P & ID ## INDICATES LOOP NO.
	LS OR ■	LIQUID LEVEL (FLOAT) SWITCH NORMALLY OPEN, CLOSES ON RISING LEVEL NORMALLY CLOSED, OPENS ON RISING LEVEL
	PS OR ■	PRESSURE OR VACUUM SWITCH NORMALLY OPEN, CLOSES ON RISING PRESSURE NORMALLY OPEN, CLOSES ON DROPPING PRESSURE NORMALLY CLOSED, OPENS ON RISING PRESSURE NORMALLY CLOSED, OPENS ON DROPPING PRESSURE
	TS OR T OR ■	TEMPERATURE SWITCH OR THERMOSTAT NORMALLY OPEN, CLOSES ON RISING TEMPERATURE NORMALLY OPEN, CLOSES ON DROPPING TEMPERATURE NORMALLY CLOSED, OPENS ON RISING TEMPERATURE NORMALLY CLOSED, OPENS ON DROPPING TEMPERATURE
	FS OR ■	FLOW SWITCH (AIR, WATER, ETC.) NORMALLY OPEN, CLOSES ON INCREASED FLOW NORMALLY CLOSED, OPENS ON INCREASED FLOW
	ZS OR ■	POSITION (LIMIT) SWITCH NORMALLY OPEN NORMALLY OPEN – HELD CLOSED NORMALLY CLOSED NORMALLY CLOSED – HELD OPEN
	WS OR ■	TORQUE SWITCH NORMALLY OPEN, CLOSES ON HIGH TORQUE NORMALLY CLOSED, OPENS ON HIGH TORQUE
#	—	UTILIZED IN CONJUNCTION WITH OTHER CONTROL SCHEMATIC SYMBOLS TO DEPICT THE PHYSICAL LOCATION OF THE DEVICE # REPRESENTS LOCATION SEE LOCATION LEGEND ON DRAWING
	—	CONDUCTORS OR CONDUITS CROSSING PATHS BUT NOT CONNECTED
	—	CONDUCTORS ELECTRICALLY CONNECTED
	S	SOLENOID VALVE

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
LA	—	LIGHTNING ARRESTER
		GROUND OR GROUND ROD
30A	—	FUSE, AMPERE RATING AS NOTED
	HTR	STRIP HEATER OR HEATING ELEMENT
	—	INDUCTOR
TG	TG	TACHOMETER GENERATOR
	—	CONTACT, NORMALLY OPEN (NO)
	—	CONTACT, NORMALLY CLOSED (NC)
	—	OVERLOAD RELAY HEATER
	—	* K = KEY INTERLOCK E = ELECTRICAL INTERLOCK
TB	—	TERMINAL OR TEST BLOCK
RTD	—	RESISTANCE TEMPERATURE DETECTOR
VE OR VE	—	VIBRATION DETECTOR
DM	DM	DAMPER MOTOR
ETM	—	ELAPSED TIME METER
M	M	MOTOR OPERATED VALVE OR GATE
	—	INDICATES LIMITS OF ELECTRICAL EQUIPMENT OR WIRING ENCLOSURE

EXISTING WORK | NEW WORK | FUTURE EXPANSION

EXISTING, NEW OR FUTURE CONDITION DESIGNATION



INDICATES CONDUIT IS ALL OR PARTIALLY LOCATED UNDERGROUND. CONDUIT SIZE SHOWN INDICATES THE SIZE WITHIN STRUCTURE. UNDERGROUND CONDUIT SIZE IS SHOWN ON DUCT BANK SECTIONS.

(2) 3"C., 3#3/0, 1#2G DENOTES A QUANTITY OF TWO (2) 3-INCH CONDUITS EACH CONTAINING THREE NO. 3/0 AWG CONDUCTORS AND 1 NO. 2 AWG GROUND CONDUCTOR, FROM NEMA SIZE 6 STARTER IN MCC-1 TO 250HP MOTOR LOAD.

3/4"C., 7#14, 1#14G DENOTES ONE 3/4-INCH CONDUIT CONTAINING SEVEN NO. 14 AWG CONTROL CONDUCTORS AND 1 NO. 14 AWG GROUND CONDUCTOR.

NOTES:
1. PROTECTIVE/CONTROL DEVICE AS SHOWN.
2. CONTROL/AUXILIARY DEVICES AT OR NEAR EQUIPMENT. EQUIPMENT SHALL BE INSTALLED AND WIRED AS REQUIRED BY EQUIPMENT FURNISHED AND/OR CONTROL DIAGRAM.

TYPICAL ONE LINE DIAGRAM SHOWING POWER AND CONTROL TO EQUIPMENT

NOTES:

1. IN GENERAL CONDUIT ROUTING FOR EQUIPMENT AND DEVICES IS NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING ALL CONDUITS WHICH SHALL INCLUDE CONDUITS SHOWN ON ONE-LINE AND RISER DIAGRAMS AND HOME-RUNS SHOWN ON PLAN DRAWINGS. REFER TO SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS.
2. THE WIRING DIAGRAMS, QUANTITY AND SIZE OF WIRES AND CONDUITS REPRESENT A SUGGESTED ARRANGEMENT BASED UPON SELECTED STANDARD COMPONENTS OF ELECTRICAL EQUIPMENT. MODIFICATIONS ACCEPTABLE TO THE ENGINEER MAY BE MADE BY THE CONTRACTOR TO ACCOMMODATE EQUIPMENT ACTUALLY PURCHASED. THE BASIC SEQUENCE AND METHOD OF CONTROL MUST BE MAINTAINED AS INDICATED ON THE DRAWINGS AND/OR SPECIFICATIONS.
3. SWITCHGEAR AND MOTOR CONTROL CENTER COMPARTMENT DESIGNATIONS AS INDICATED BELOW:
   - BLANK: NOT INTENDED FOR USE. PLATE ONLY
   - SPACE: EQUIPPED WITH REQUIRED BUS AND HARDWARE FOR THE FUTURE ADDITION OF BREAKERS AND/OR STARTERS WITHIN THE SIZE AND RANGE SHOWN
   - SPARE: CONTAINS A COMPLETELY INSTALLED BREAKER AND/OR STARTER OF SIZE AND TYPE INDICATED FOR FUTURE USE.
4. INTERPRETATION OF ELECTRICAL DRAWINGS: CIRCUIT IDENTIFICATION, ROUTING, AND SIZES OF CONDUITS AND WIRES ARE SHOWN ON THE FOLLOWING DRAWINGS:

A. ONE LINE POWER DIAGRAMS: POWER, CONTROL AND SIGNAL WIRING REQUIREMENTS FOR ELECTRICAL DISTRIBUTION EQUIPMENT AND UTILIZATION EQUIPMENT POWERED FROM SWITCHGEAR, SWITCHBOARDS, MOTOR CONTROL CENTERS AND MAJOR POWER DISTRIBUTION PANELBOARDS ARE TYPICALLY SHOWN ON THE ONE LINE DIAGRAMS. THE PARAMETERS IDENTIFIED ON THE ONE LINE DIAGRAMS ARE: CIRCUIT IDENTIFICATION, CIRCUIT ORIGIN AND DESTINATION, CONDUIT SIZE, WIRE SIZE AND QUANTITY FOR COMPLETE CIRCUIT LENGTH, AND AUXILIARY DEVICES ASSOCIATED WITH THE CONTROL/PROTECTION OF THE POWERED EQUIPMENT, AND SIZE OF THE GROUNDING ELECTRODE CONDUCTORS.

B. INSTRUMENTATION AND CONTROL RISER DIAGRAMS: POWER, CONTROL, SIGNAL AND DATA HIGHWAY WIRING REQUIREMENTS FOR INSTRUMENTS AND CONTROL DEVICES CONTROLLED/MONITORED FROM INSTRUMENTATION AND CONTROL PANELS SUCH AS RTUS, PLCS, TERMINAL CABINETS, AND REMOTE I/O PANELS ARE TYPICALLY SHOWN ON THE INSTRUMENTATION AND CONTROL ONE LINE DIAGRAMS. THE PARAMETERS IDENTIFIED ON THE ONE LINE DIAGRAMS ARE: CIRCUIT IDENTIFICATION, CIRCUIT ORIGIN AND DESTINATION, CONDUIT SIZE, WIRE SIZE, QUANTITY AND TYPE FOR COMPLETE CIRCUIT LENGTH, AND AUXILIARY DEVICES ASSOCIATED WITH THE CONTROL/PROTECTION OF THE POWERED EQUIPMENT.

C. FLOOR PLANS: FOR DETERMINING THE LENGTH OF CIRCUITS LOCATED WITHIN STRUCTURES, FLOOR PLANS SHOW THE LOCATION OF ELECTRICAL DISTRIBUTION EQUIPMENT, CONTROL PANELS, UTILIZATION EQUIPMENT, INSTRUMENTS, ANCILLARY EQUIPMENT AND DEVICES AND THE ANTICIPATED PENETRATION LOCATIONS WHERE CONDUITS EXIT/ENTER THE STRUCTURE. HOMERUNS MAY ALSO BE SHOWN FROM MISCELLANEOUS EQUIPMENT NOT SHOWN ON A ONE LINE OR RISER DIAGRAM.

D. SITE PLANS: FOR DETERMINING THE LENGTH OF CIRCUITS EXTERIOR TO STRUCTURES AND TO IDENTIFY THE SPECIFIC REQUIREMENTS OF THE UNDERGROUND CONDUITS OR DUCT BANKS, SITE PLANS SHOW THE GENERAL ROUTING OF UNDERGROUND CONDUITS AND DUCT BANKS WITH SECTIONS INDICATING THE CONDUIT SIZE, ARRANGEMENT AND CIRCUIT ROUTING.

E. NOTE THAT CONDUIT SIZE WITHIN THE STRUCTURE IS INDICATED ON ONE-LINE DIAGRAM AND UNDERGROUND SIZE IS INDICATED ON DUCT BANK SECTIONS.

GENERAL NOTE
THIS IS A STANDARD LEGEND. SOME SYMBOLS MAY NOT APPEAR ON THE DRAWINGS.

CDM Smith

USER NAME = -	DESIGNED - JD	REVISED -
ISSUED FOR 30 PCT	DRAWN - NM	REVISED -
PLOT SCALE = -	CHECKED - JD	REVISED -
PLOT DATE = -	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRICAL LEGEND SHEET I

SCALE: SHEET 701 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	-	DUPAGE		701
		CONTRACT NO. _		

ILLINOIS FED. AID PROJECT

SYMBOL	DESCRIPTION
A 3 b	LIGHTING FIXTURE "A" – FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE) "b" – CONTROLLED BY SWITCH "b" "3" – CIRCUIT NUMBER
A 3 b	LIGHTING FIXTURE, NOTATIONS SAME AS ABOVE
A 3 b	WALL MOUNTED TYPE LIGHTING FIXTURE, NOTATIONS SAME AS ABOVE
A 3 OR A 3	CROSS HATCH INDICATES LIGHTING FIXTURE THAT IS UNSWITCHED AND SHALL REMAIN ON AT ALL TIMES. NOTATIONS SAME AS ABOVE.
A 3 b OR A 3 b	SHADED AREA INDICATES LIGHTING FIXTURE THAT IS EQUIPPED WITH EMERGENCY BACKUP POWER SOURCE. NOTATIONS SAME AS ABOVE.
A 3 OR E	POLE MOUNTED AREA TYPE LIGHTING FIXTURE, NOTATIONS SAME AS ABOVE
A 3	POLE MOUNTED ROADWAY TYPE LIGHTING FIXTURE, NOTATIONS SAME AS ABOVE
EM 3 (*)	EMERGENCY LIGHTING BATTERY UNIT WITH TWO LAMP HEADS "EM" – FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE) "3" – SUPERVISORY CIRCUIT * – FIXTURE TAG #
R–2 BU–1(*)	REMOTE EMERGENCY ADJUSTABLE WALL LIGHTING FIXTURE WITH TWO LAMP HEADS "R–2" – FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE) * – HOME RUN TO BATTERY UNIT INDICATED. CONDUIT SHALL BE 3/4" AND CONTAIN (2) NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND (1) NO. 12 AWG GROUND CONDUCTOR UNLESS OTHERWISE INDICATED.
A 3	COMBINATION BATTERY UNIT AND EXIT SIGN. FILLED QUADRANT REPRESENTS FACE SIDE OF SIGN.
A 3	CEILING MOUNTED EXIT SIGN, NOTATIONS SAME AS ABOVE. WHEN USED, ARROW INDICATES DIRECTION OF EGRESS. FILLED QUADRANT REPRESENTS FACE SIDE OF SIGN. (DOUBLE FACE DOUBLE CHEVRONS SHOWN)
A 3	WALL MOUNTED EXIT SIGN, NOTATIONS SAME AS ABOVE. WHEN USED, ARROW INDICATES DIRECTION OF EGRESS. FILLED QUADRANT REPRESENTS FACE SIDE OF SIGN.
RH–3 E 3 BU–1(*)	REMOTE EMERGENCY CEILING LIGHTING FIXTURE. "RH–3" – FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE) "3" – SUPERVISORY CIRCUIT * – HOME RUN TO BATTERY UNIT INDICATED. CONDUIT SHALL BE 3/4" AND CONTAIN 2 NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND 1 NO. 12 AWG GROUND CONDUCTOR UNLESS OTHERWISE INDICATED.
	HOME RUN TO DESIGNATED EQUIPMENT. BRANCH CIRCUIT CONDUIT WITH 2 NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND 1 NO. 12 AWG GROUND CONDUCTOR UNLESS OTHERWISE NOTED. NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS. FOR MINIMUM SIZE CONDUIT PERMITTED REFER TO THE SPECIFICATIONS.
	CONDUIT CONCEALED IN WALL, IN SLAB ABOVE, OR ABOVE CEILING.
	CONDUIT CONCEALED IN OR BELOW FLOOR OR UNDERGROUND.
	CONDUIT RUN EXPOSED. RUN PARALLEL OR PERPENDICULAR TO STRUCTURE OR WALL.
	'X' INDICATES EXPLOSION PROOF CONDUIT SEAL FITTING.
	CONCRETE ENCASED DUCTBANK. WIDTH VARIES, SEE DUCTBANK SECTION/DETAILS FOR REQUIREMENTS AND WIDTH
	CONDUIT STUBBED OUT AND CAPPED
(2) 3"C., 3#3/0, 1#2G	DENOTES A QUANTITY OF TWO (2) 3–INCH CONDUITS EACH CONTAINING THREE NO. 3/0 AWG CONDUCTORS AND 1 NO. 2 AWG GROUND CONDUCTOR.
2–2/C#16 SH	DENOTES A QUANTITY OF TWO INSTRUMENT CABLES. EACH CABLE TO CONSIST OF TWO NO. 16 AWG CONDUCTORS TWISTED TOGETHER AND COVERED WITH A METALLIC SHIELD AND AN OVERALL PROTECTIVE JACKET. REFER TO THE SPECIFICATIONS FOR THE EXACT CABLE TO BE PROVIDED.
2–3/C#16 SH	SAME AS ABOVE EXCEPT CABLE TO CONSIST OF THREE NO. 16 AWG CONDUCTORS TWISTED, SHIELDED AND COVERED WITH AN OVERALL PROTECTIVE JACKET. REFER TO THE SPECIFICATIONS FOR THE EXACT CABLE TO BE PROVIDED.
(3) 4"C.	THREE 4–INCH CONDUITS
	FLEXIBLE METAL CONDUIT "WHIP" (3/4"C., 2#12, 1#12G UNLESS OTHERWISE NOTED) FOR LIQUID TIGHT MOTOR CONNECTIONS
	'X' INDICATES CONDUIT SEAL FITTING IN OTHER THAN CODE REQUIRED LOCATIONS.
⊠	INDICATES MOTOR STARTER AND/OR MOTOR CONTROL EQUIPMENT WITHIN THE ENCLOSURE.

SYMBOL	DESCRIPTION
$a	SINGLE POLE SWITCH "a" INDICATES FIXTURES CONTROLLED.
$a 2	DOUBLE POLE SWITCH "a" INDICATES FIXTURES CONTROLLED.
$c 3	THREE WAY SWITCH "c" INDICATES FIXTURES CONTROLLED.
$a 4	FOUR WAY SWITCH "a" INDICATES FIXTURES CONTROLLED.
$a D	DIMMER SWITCH "a" INDICATES FIXTURES CONTROLLED
$OS	SINGLE POLE SWITCH "OS" INDICATES A PASSIVE INFRARED OCCUPANCY SENSOR
$OS 2	DOUBLE POLE SWITCH "OS" INDICATES PROGRAMMABLE OCCUPANCY SENSOR CAPABLE OF INBOARD/OUTBOARD SWITCHING
$DT	SINGLE POLE SWITCH "DT" INDICATES DUAL TECHNOLOGY PROGRAMMABLE OCCUPANCY SENSOR CAPABLE OF SENSING MOTION AND SOUND
C 3	LIGHTING CONTACTOR WITH NUMBER OF POLES AS INDICATED
TM	TIME SWITCH
	PUSH BUTTON STATION
TYPE A	INDICATES ALL LIGHTING FIXTURES WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE TYPE "A" UNLESS OTHERWISE NOTED. SEE LIGHTING FIXTURE SCHEDULE FOR TYPES
	LIGHTING PANELBOARD (LP–#) SHOWN ON PLAN PER ACTUAL PANEL DIMENSIONS
	POWER PANELBOARD (PP–#) OR DISTRIBUTION PANELBOARD (DP–#) SHOWN ON PLAN PER ACTUAL PANEL DIMENSIONS
	LIGHTING CONTACTOR PANELBOARD (LCP–#) SHOWN ON PLAN PER ACTUAL PANEL DIMENSIONS
* 4	DUPLEX RECEPTACLE, 20A, 120V, 2P, 3W * – GFCI – GROUND FAULT CIRCUIT INTERRUPTER TYPE WP – WEATHERPROOF XP – EXPLOSION PROOF T – TRANSIENT VOLTAGE SURGE SUPPRESSOR IC – ISOLATED GROUND 4 – CIRCUIT NUMBER
* 4	DUPLEX RECEPTACLE, 20A, 120V, 2P, 3W MOUNTED ABOVE COUNTER–TOP OR 42" AFF * NOTATIONS SAME AS ABOVE
* 60 3 4W	SPECIAL PURPOSE RECEPTACLE * – VOLT RATING "3" – NUMBER OF POLES "60" – AMPERE RATING "4W" – 4 WIRES IN ADDITION TO GROUND
	MULTI–OUTLET ASSEMBLY, SYMBOL DENOTES RECEPTACLE TYPE
	FLUSH FLOOR OUTLET BOX WITH TYPE OUTLET INDICATED
	UNDER FLOOR DUCT SYSTEM WITH TYPE OUTLETS INDICATED
	THREE CELL UNDER FLOOR DUCT SYSTEM JUNCTION BOX
J OR J	JUNCTION BOX
P	PULL BOX
XX	HANDHOLE LH – LIGHTING POLE HANDHOLE HH – ELECTRICAL POWER HANDHOLE
TC	TERMINAL CABINET
OS	OCCUPANCY SENSOR
PC	PHOTOCELL
ESA	EMERGENCY EYEWASH/SHOWER ALARM STATION WITH FLOW SWITCH(ES)
	INDICATED EQUIPMENT AND MATERIALS TO BE DEMOLISHED
DUST	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF NEMA 12 CONSTRUCTION (OR GASKETED AND SUITABLE FOR USE IN A WET LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.
DAMP OR WET	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF NEMA 4X CONSTRUCTION (OR GASKETED AND SUITABLE FOR USE IN A WET LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.
CORROSIVE	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL BE OF NEMA 4X CONSTRUCTION (OR CORROSION RESISTANT CONSTRUCTION SUITABLE FOR USE IN A WET LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.
CLASS I, DIV. 1 GROUP D	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS SHALL CONFORM TO N.E.C. REQUIREMENTS FOR THE HAZARDOUS AREA CLASSIFICATION SHOWN.

SYMBOL	DESCRIPTION
	GROUND SYSTEM GRID OR LOOP, 36" BELOW FINISHED GRADE UNLESS OTHERWISE NOTED.
	EXOTHERMIC WELD CONNECTION
	3/4" x 10'–0" GROUND ROD. UNLESS SPECIFIED OTHERWISE.
	GROUND ROD TEST WELL STATION (SEE DETAIL SHEET FOR REQUIREMENTS)
	COMMUNICATION SYSTEMS
K	TELEPHONE OUTLET FOR DESK TYPE HANDSET K = KEY SYSTEM
K	TELEPHONE OUTLET FOR WALL TYPE HANDSET (MOUNT UP 4'–6") K = KEY SYSTEM
	PAGE/PARTY TELEPHONE OUTLET FOR DESK TYPE HANDSET
	PAGE/PARTY TELEPHONE OUTLET FOR WALL TYPE HANDSET, MOUNT UP 4'–6"
S H W	PAGING SPEAKER, WALL MOUNTED H = HORN TYPE W = WIDE ANGLE TYPE
S W	PAGING SPEAKER, WALL MOUNTED, BI–DIRECTIONAL, HORN TYPE W = WIDE ANGLE TYPE
S	PAGING SPEAKER, FLUSH MOUNTED CEILING TYPE
S	PAGING SPEAKER, SURFACE MOUNTED CEILING TYPE
VC	REMOTE WALL MOUNTED VOLUME CONTROL FOR CEILING SPEAKER, MOUNT UP 5'–0"
A	PAGING SPEAKER AMPLIFIER ASSEMBLY
P OR C	"C" – DATA INPUT/OUTPUT CABLE OUTLET "P" – PROCESS COMPUTER SYSTEM (CAT6 RJ–45 JACK)

GD/VF #	GAS DETECTOR/VENTILATION FAILURE ALARM,
	# INDICATES TYPE OF UNIT.
	1 = MASTER, 2 = REMOTE

GB	GAS DETECTION/VENTILATION FAILURE WEATHERPROOF DUAL–LITE BEACON MOUNT TOP OF DEVICE UP 6'–8" A.F.F.
15 G	GAS DETECTION/VENTILATION FAILURE HORN/STROBE MOUNT TOP OF DEVICE UP 6'–8" A.F.F.
G	GAS DETECTION/VENTILATION FAILURE HORN, MOUNT TOP OF DEVICE UP 6'–8" A.F.F.
G	GAS DETECTION/VENTILATION FAILURE STROBE, MOUNT TOP OF DEVICE UP 6'–8" A.F.F.
	SECURITY SYSTEMS
SACP	SECURITY ALARM CONTROL PANEL
PO	POLICE ALARM BUTTON
DS	SECURITY ALARM DOOR SWITCH
K	SECURITY ALARM KEY PAD
R	SECURITY SYSTEM CARD ACCESS READER
WS	SECURITY ALARM WINDOW SWITCH
	SECURITY ALARM MOTION DETECTOR
CCTV ### XXX	IP BASED CAMERA DOME STYLE XXX – DEGREE OF VISIBILTY ### – CAMERA ID
PTZ	PAN, TILT, ZOOM CAMERA LENS CONTROLS
GB	GLASS BREAK DETECTOR
	FIRE ALARM SYSTEMS
H 200 R	FIRE ALARM HEAT DETECTOR 135 FIXED TEMPERATURE UNLESS OTHERWISE NOTED. "200" – 200 FIXED TEMPERATURE "R" – FIXED TEMPERATURE RATE–OF–RISE TYPE "co" – CARBON MONOXIDE HEAT DETECTOR
I	FIRE ALARM SMOKE DETECTOR PHOTOELECTRIC TYPE UNLESS OTHERWISE NOTED. "I" – IONIZATION TYPE.
D	FIRE ALARM DUCT SMOKE DETECTOR
FACP	FIRE ALARM CONTROL PANEL
FV	FIRE ALARM VENTILATION PANEL WITH GRAPHIC PANEL
FA	REMOTE FIRE ALARM ANNUNCIATOR PANEL

SYMBOL	DESCRIPTION
F	FIRE ALARM MASTER BOX
F	FIRE ALARM HORN, MOUNT UP 7'–6"
15 F	FIRE ALARM STROBE, MOUNT UP 6'–8" 15 = CANDELA RATING
15 F	FIRE ALARM HORN AND STROBE LIGHT COMBINATION, MOUNT UP 6'–8" 15 = CANDELA RATING
F	FIRE ALARM MANUAL PULL STATION, MOUNT UP 4'–0"
VSS	SPRINKLER VALVE SUPERVISORY SWITCH
SFS	SPRINKLER FLOW ALARM SWITCH
F	FIRE ALARM BELL
FB	WEATHERPROOF HI–INTENSITY FIRE ALARM STROBE LIGHT WITH HORN
PIR	PASSIVE INFRARED DETECTOR
R	SMOKE BEAM DETECTOR (RECEIVER)
T	SMOKE BEAM DETECTOR (TRANSMITTER)
	FIRE ALARM SMOKE DETECTOR REMOTE INDICATOR AND TEST SWITCH
IAM	INDIVIDUAL ADDRESSABLE MODULE

ABBREVIATIONS	
A	AMPS
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
AIC	AMPERE INTERRUPTING CAPACITY
AMP	AMPERE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CGD	COMBUSTIBLE GAS DETECTOR
CKT	CIRCUIT
CLB	CURRENT LIMITING BREAKER
CLF	CURRENT LIMITING FUSE
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CS	CONTROL SWITCH/CONTROL STATION
CT	CURRENT TRANSFORMER
CU	COPPER
CWS	CONDUIT WALL SEAL
DC	DIRECT CURRENT
DIA	DIAMETER
DMU	DIGITAL METERING UNIT
DN	DOWN

ABBREVIATIONS (CONTINUED)	
EM	EMERGENCY
ENCL	ENCLOSURE OR ENCLOSED
EQUIP	EQUIPMENT
ES	EMERGENCY STOP
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EX	EXISTING
FO	FIBER OPTIC
FU	FUSE
GCP	GENERATOR CONTROL PANEL
GEN	GENERATOR
G, GND	GROUND
GFI	GROUND FAULT INTERRUPTER
GRS	GALVANIZED RIGID STEEL
HACR	HEATING & AIR CONDITIONING RATED
HH	HANDHOLE
HT	HEIGHT
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HZ	HERTZ
ID	IDENTIFICATION
INSTR	INSTRUMENT
K	KILO (PREFIX)
kcmil	1000 CIRCULAR MILS
KVA	KILOVOLT AMPERES
KW	KILOWATTS
LA	LIGHTNING ARRESTER
LTG	LIGHTING
LP	LIGHTING PANEL
LV	LOW VOLTAGE
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
N	NEUTRAL
NC	NORMALLY CLOSED
NO	NORMALLY OPEN OR NUMBER
NTS	NOT TO SCALE
OH	OVERHEAD
OL	OVERLOAD
PB	PULL BOX
PCP	PUMP CONTROL PANEL
PH	PHASE
PMH	POWER MANHOLE
PNL	PANEL OR PANELBOARD
PR	PAIR
PRI	PRIMARY
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
RECPT	RECEPTACLE
REQD	REQUIRED
QTY	QUANTITY
SA	SURGE ARRESTER
SEC	SECONDS OR SECONDARY
SH	SHIELDED OR SPACE HEATER
SHH	SIGNAL HANDHOLE
SPD	SURGE PROTECTIVE DEVICE
SS	STAINLESS STEEL
SV	SOLENOID VALVE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME TO CLOSE OR TRAY CABLE
TEL	TELEPHONE
TO	TIME TO OPEN
TS	TWISTED SHIELDED OR THERMAL SWITCH
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VA	VOLT AMPS
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS, WIDTH, WITH, WIRE
WP	WEATHERPROOF
XP	EXPLOSION PROOF
XFMR	TRANSFORMER

A E–4 — SHEET NO. WHERE DETAIL IS DRAWN

SYMBOL WHERE THERE IS A DETAIL

DETAIL 1/4" = 1'–0" — A E–3 — SHEET NO. WHERE THERE IS A DETAIL

SYMBOL WHERE DETAIL IS DRAWN

DETAIL SYMBOL

1 E–4 — SHEET NO. WHERE SECTION IS DRAWN

SYMBOL WHERE THERE IS A SECTION

SECTION 1/4" = 1'–0" — 1 E–3 — SHEET NO. WHERE SECTION IS TAKEN

SYMBOL WHERE SECTION IS DRAWN

SECTION SYMBOL

GENERAL NOTE
THIS IS A STANDARD LEGEND. SOME SYMBOLS MAY NOT APPEAR ON THE DRAWINGS.

CDM Smith

USER NAME = -	DESIGNED - JD	REVISED -	
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PLOT DATE = -	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRICAL LEGEND SHEET II

SCALE: SHEET 702 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	-	DUPAGE		702
		CONTRACT NO. _		

ILLINOIS FED. AID PROJECT

ELECTRICAL

SCOPE OF WORK:

1. DEMOLISH AND REMOVE EXISTING ELECTRICAL EQUIPMENT AT THE GLEN ELLYN METRA TRAIN STATION INCLUDING BUT NOT LIMITED TO EXISTING COMED SERVICE BACK TO UTILITY TRANSFORMER, PANELBOARDS, INTERIOR AND EXTERIOR BUILDING MOUNTED LIGHTING, RECEPTACLES, WIRING/CONDUIT/DUCTBANK, FIRE ALARM, SECURITY EQUIPMENT, SERVICE METER, AND VOICE OF METRA EQUIPMENT.
2. PROJECT PROVIDES NEW ELECTRICAL EQUIPMENT AT THE NEW GLEN ELLYN METRA TRAIN STATION INCLUDING BUT NOT LIMITED NEW COMED SERVICE FROM UTILITY TRANSFORMER, 208/120V 3 PHASE DISTRIBUTION AND LIGHTING PANELS, INTERIOR AND EXTERIOR LIGHTING, RECEPTACLES, WIRING/CONDUIT/DUCTBANK, FIRE ALARM, SECURITY EQUIPMENT, AND VOICE OF METRA EQUIPMENT.
3. PROVIDE CONDUIT, WIRE, AND TERMINATIONS FOR MOTORS, MOTOR CONTROLLERS, CONTROL DEVICES, CONTROL PANELS AND ELECTRICAL EQUIPMENT FURNISHED BY OTHER DIVISIONS.
4. PROVIDE CONDUIT, WIRE AND TERMINATIONS FOR ALL DEVICES FURNISHED AND MOUNTED BY OTHER DIVISIONS.
5. PROVIDE CONDUIT, WIRE, AND TERMINATIONS FOR VOICE OF METRA (VOM), FIBER OPTIC, FIRE ALARM, AND SECURITY SYSTEMS.
6. PROVIDE ELECTRICAL SYSTEM COMPONENTS: HANDHOLES, LIGHT POLE BASES, ETC.
7. PROVIDE EXCAVATION, CONCRETE, AND BACKFILL FOR ELECTRICAL SYSTEM COMPONENTS INCLUDING DUCTBANKS IN ACCORDANCE WITH DIVISIONS 31 AND 03.

GENERAL NOTES:

1. ELECTRICAL DRAWINGS ARE INTENDED TO SHOW THE GENERAL LAYOUT OF WORK TO BE INSTALLED UNDER THIS CONTRACT WITHOUT ATTEMPTING TO SHOW ALL DETAILS. FURNISH LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM AS SHOWN ON THE CONTRACT DOCUMENTS.
2. COORDINATE WORK WITH OTHER TRADES AND THE OWNER.
3. MAINTAIN EXISTING PROCESS OPERATIONS. POWER INTERRUPTIONS TO ELECTRICAL EQUIPMENT SHALL BE AT OWNER'S CONVENIENCE WITH 72 HOURS MINIMUM NOTICE. EACH INTERRUPTION SHALL HAVE PRIOR WRITTEN APPROVAL.
4. FIELD VERIFY EXISTING UNDERGROUND ELECTRICAL CONDUIT, CONCRETE DUCT BANKS, MANHOLES, PULL BOXES, ETC. CONTRACTOR SHALL INCLUDE IN BID COSTS ASSOCIATED WITH RELOCATION OR REMOVAL OF UNDERGROUND EQUIPMENT AS REQUIRED BY THIS CONTRACT. USE DUE CARE IN CONGESTED AREAS TO AVOID DAMAGE TO EXISTING UNDERGROUND UTILITIES.
5. CONTRACTOR'S WORK SHALL INCLUDE COMPLETE TESTING OF EQUIPMENT AND WIRING INCLUDING MAKING MINOR CORRECTIONS, CHANGES, OR ADJUSTMENTS NECESSARY FOR THE PROPER FUNCTIONING OF THE SYSTEM AND EQUIPMENT. WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY; SUBSTANDARD WORK WILL BE REJECTED.
6. DO NOT SCALE ELECTRICAL DRAWINGS. REFER TO CIVIL, MECHANICAL, STRUCTURAL DRAWINGS, AND APPROVED MANUFACTURER'S SHOP DRAWINGS FOR EXACT LOCATION OF EQUIPMENT. EXCEPT WHERE DIMENSIONS ARE SHOWN, LOCATIONS OF EQUIPMENT, FIXTURES, OUTLETS, AND SIMILAR DEVICES ARE APPROXIMATE.
7. WORK SHALL COMPLY WITH NEC AND LOCAL CODES.
8. DO NOT SPLICE CONDUCTORS EXCEPT AS NOTED.
9. POWER AND CONTROL CONDUITS SHALL HAVE AN EQUIPMENT GROUNDING CONDUCTOR WIRE SIZED PER TABLE 250.122 OF THE NEC (UON).
10. COORDINATE SEQUENCE OF CONSTRUCTION WITH CIVIL, ARCHITECTURAL, MECHANICAL, AND STRUCTURAL DISCIPLINES. PROVIDE TEMPORARY POWER AND CONTROL CIRCUITS AS REQUIRED. VERIFY EXISTING UTILITIES IN AREA OF CONSTRUCTION. REFER TO CIVIL DRAWINGS FOR ADDITIONAL UNDERGROUND INFORMATION.
11. REPAIR, IN ACCORDANCE WITH SPECIFICATIONS, SIDEWALKS, WALLS, ROADWAYS, ETC. DISTURBED BY CONSTRUCTION ACTIVITIES WHETHER OR NOT SHOWN FOR REPAIR/REPAVING ON CIVIL DRAWINGS.
12. CONCEAL CONDUITS TO GREATEST EXTENT PRACTICABLE.
13. WHERE LOCAL DISCONNECTS AND CONTROL PANELS ARE SHOWN ON PLAN VIEWS, LOCATIONS ARE APPROXIMATE. ADJUST LOCATION AS REQUIRED TO COMPLY WITH NEC ARTICLE 110 FOR WORKING CLEARANCES.
14. DO NOT INSTALL MAJOR CONDUIT RUNS THROUGH AREAS DESIGNATED FOR FUTURE STRUCTURES.

INTERPRETATION OF CONTRACT DOCUMENTS:

1. SEE ADDITIONAL NOTES ON ELECTRICAL LEGEND I SHEET.

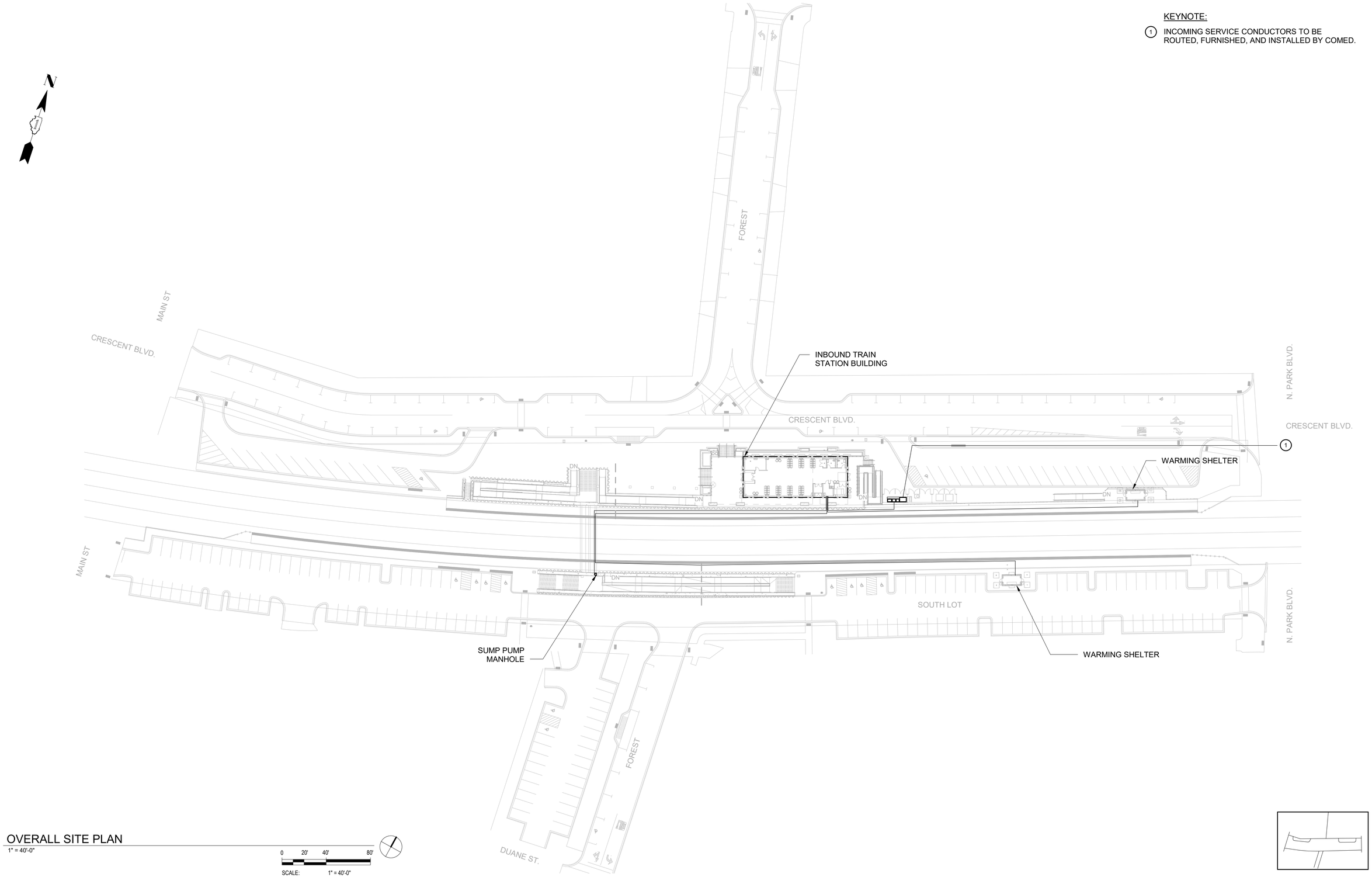
ENCLOSURE TYPES:

PROVIDE THE FOLLOWING NEMA TYPE ELECTRICAL ENCLOSURES, UNLESS OTHERWISE NOTED:

1. NEMA 1 IN DRY, INDOOR LOCATIONS.
2. NEMA 12 IN DAMP LOCATIONS.
3. NEMA 3R IN OUTDOOR LOCATIONS.

KEYNOTE:

1. INCOMING SERVICE CONDUCTORS TO BE ROUTED, FURNISHED, AND INSTALLED BY COMED.



OVERALL SITE PLAN

1" = 40'-0"

0 20' 40' 80'

SCALE: 1" = 40'-0"

CDM Smith

USER NAME =	DESIGNED - JD	REVISED -
ISSUED FOR 30 PCT	DRAWN - NM	REVISED -
PLOT SCALE =	CHECKED - JD	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

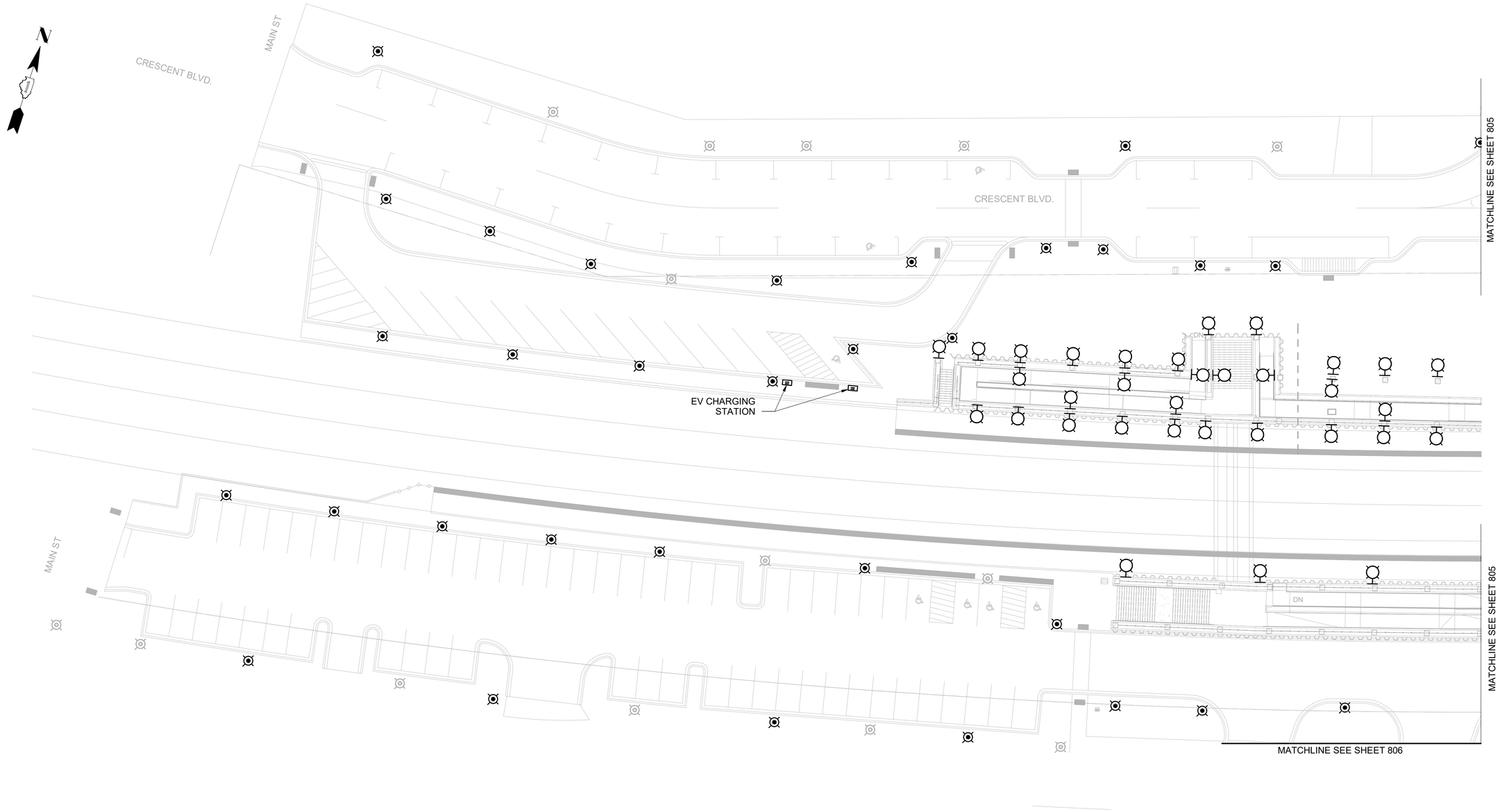
ELECTRICAL OVERALL SITE PLAN

SCALE: AS NOTED | SHEET 704 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		704
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

GENERAL NOTES:

1. EXISTING LIGHT POLES NOTED TO BE REUSED. ADDITIONAL LIGHT POLES ARE ADDED PER PHOTOMETRIC CALCULATIONS.

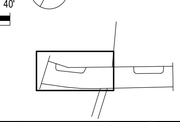


ELECTRICAL SITE PLAN - PART A

1" = 20'-0"

0 10' 20' 40'

SCALE: 1" = 20'-0"



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

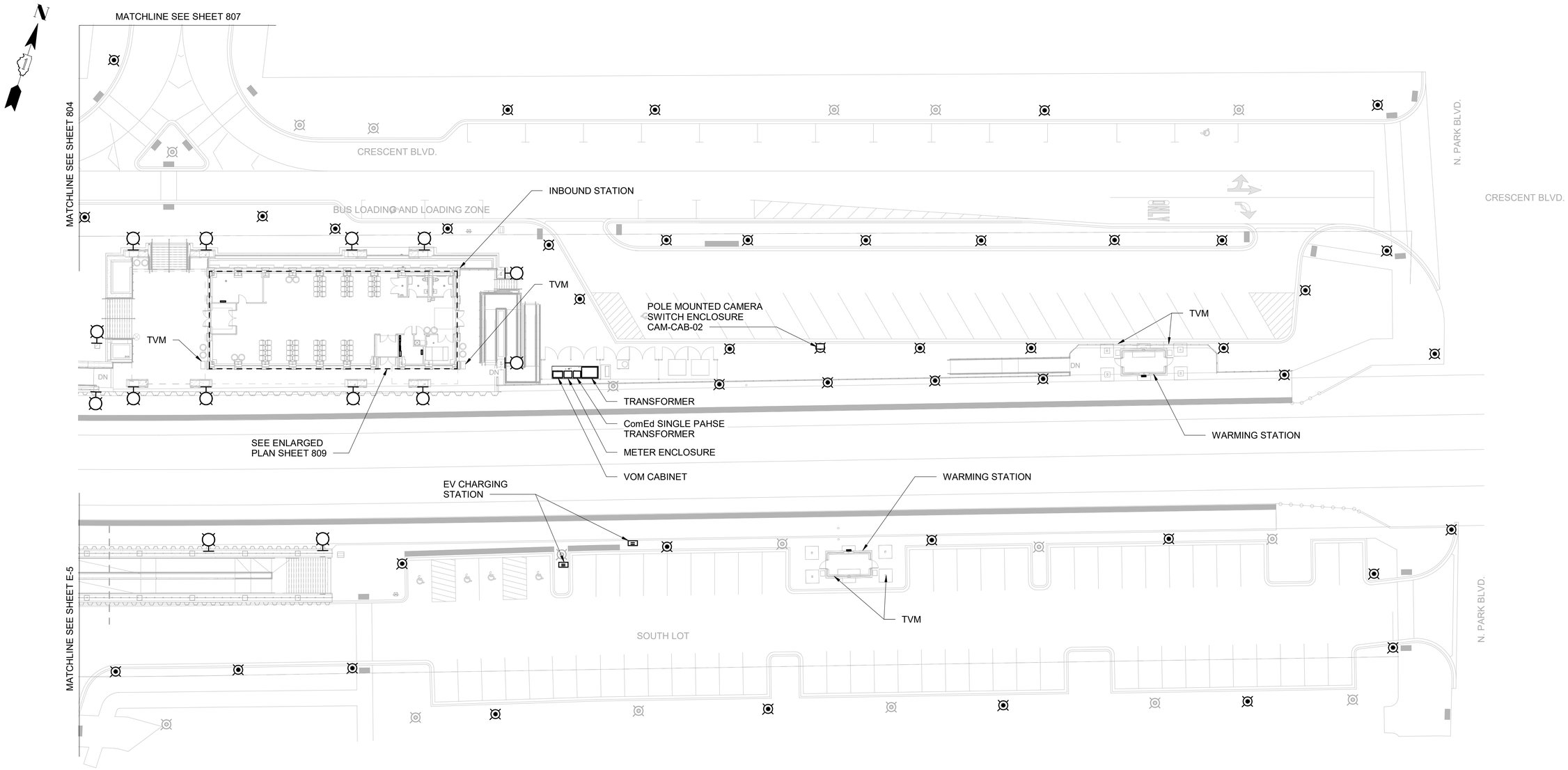
ELECTRICAL SITE PLAN - PART A

SCALE: AS NOTED | SHEET 705 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		705
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

GENERAL NOTES:

1. EXISTING LIGHT POLES NOTED TO BE REUSED. ADDITIONAL LIGHT POLES ARE ADDED PER PHOTOMETRIC CALCULATIONS.

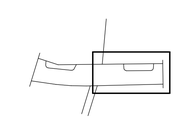


ELECTRICAL SITE PLAN - PART B

1" = 20'-0"

0 10' 20' 40'

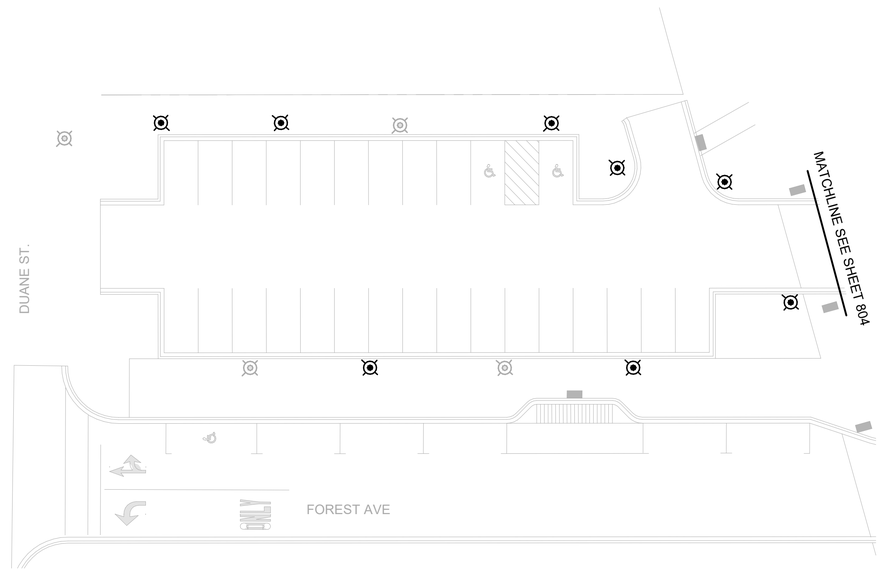
SCALE: 1" = 20'-0"



CDM Smith	USER NAME =	DESIGNED - JD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRICAL SITE PLAN - PART B	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - NM	REVISED -					DUPAGE	706
	PLOT SCALE =	CHECKED - JD	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 706 OF SHEETS			ILLINOIS FED. AID PROJECT	

GENERAL NOTES:

1. EXISTING LIGHT POLES NOTED TO BE REUSED. ADDITIONAL LIGHT POLES ARE ADDED PER PHOTOMETRIC CALCULATIONS.



ELECTRICAL SITE PLAN - PART C

1" = 20'-0"

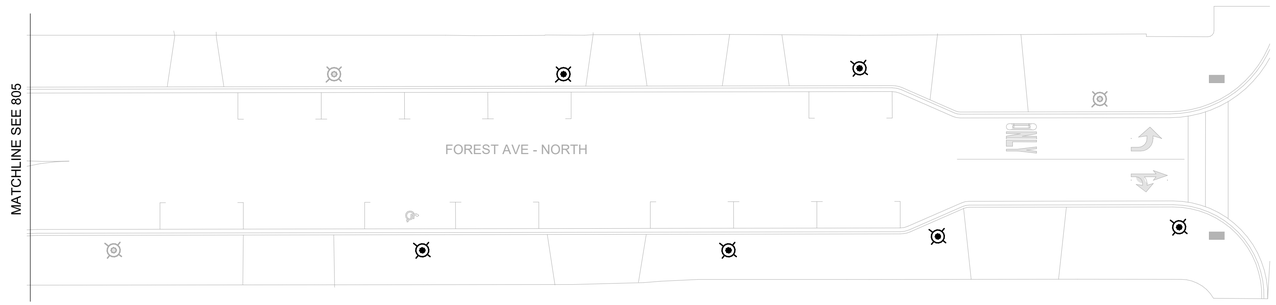
0 10' 20' 40'

SCALE: 1" = 20'-0"

CDM Smith	USER NAME =	DESIGNED - JD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRICAL SITE PLAN - PART C	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - NM	REVISED -					DUPAGE	707
	PLOT SCALE =	CHECKED - JD	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 707 OF SHEETS	ILLINOIS FED. AID PROJECT			

GENERAL NOTES:

1. EXISTING LIGHT POLES NOTED TO BE REUSED. ADDITIONAL LIGHT POLES ARE ADDED PER PHOTOMETRIC CALCULATIONS.

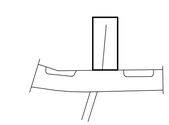


ELECTRICAL SITE PLAN - PART D

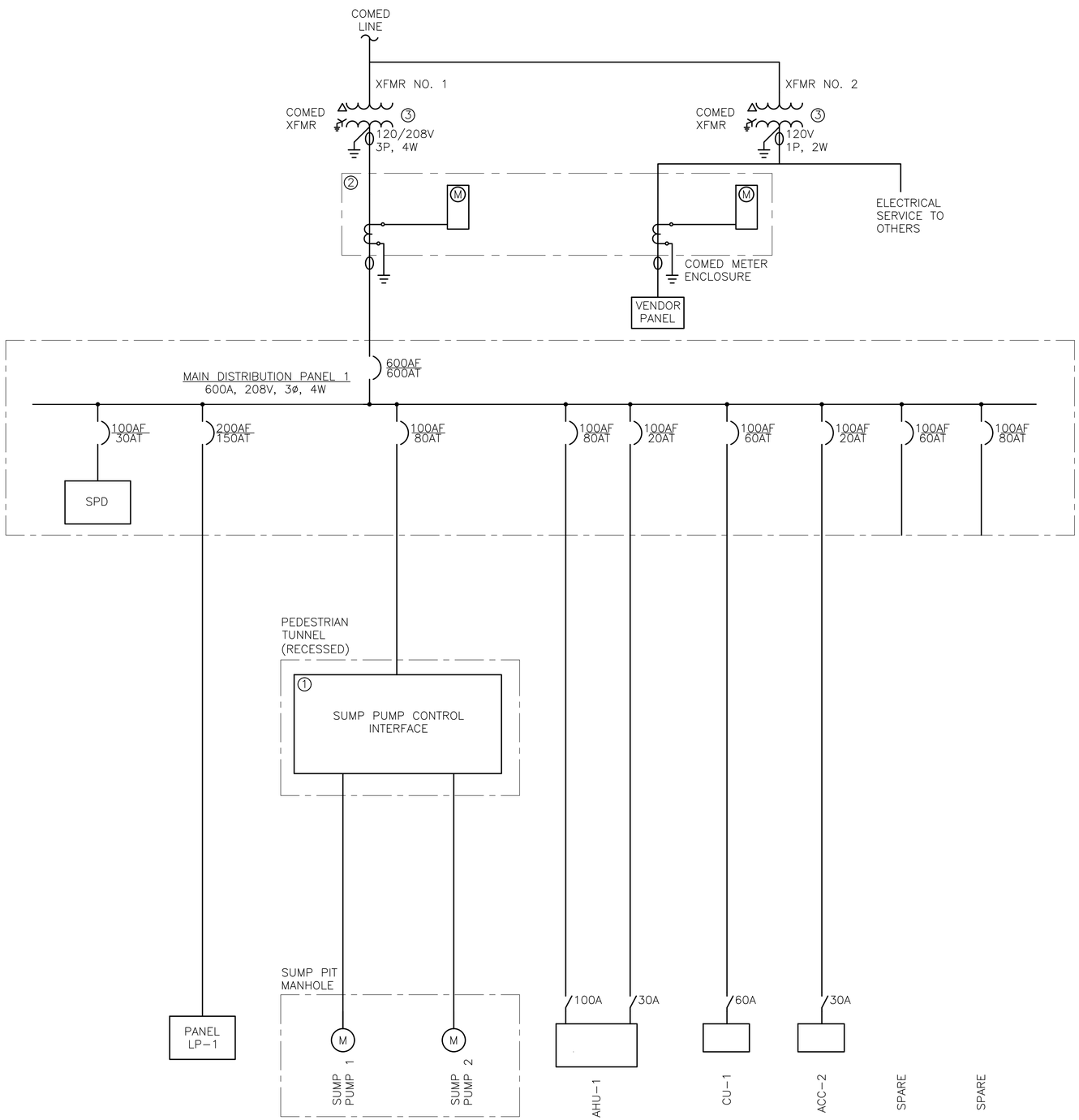
1" = 20'-0"

0 10' 20' 40'

SCALE: 1" = 20'-0"



CDM Smith	USER NAME =	DESIGNED - JD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRICAL SITE PLAN - PART D	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - NM	REVISED -					DUPAGE	708
	PLOT SCALE =	CHECKED - JD	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 708 OF SHEETS	ILLINOIS FED. AID PROJECT			



MAIN DISTRIBUTION PANEL MDP-1

ONE-LINE DIAGRAM

NTS

KEY NOTES:

1. FURNISHED WITH EQUIPMENT.
2. CONTRACTOR TO PROVIDE METER ENCLOSURE AND METER SOCKETS. COMED TO PROVIDE CTS AND METERS.
3. COMED TO SIZE AND PROVIDE TRANSFORMERS.
4. TYPICAL FOR LP-3.

225 AMP MAIN LUG ONLY
225 AMP BUS RATING **42** POLES
208/120 VOLTS **3** PHASE **4** WIRE **60 Hz.**

LIGHTING PANEL LP-1
22 KA SHORT CIRCUIT RATING
ELECTRONIC GRADE: **NO**

LOCATION: **ELECTRICAL ROOM**
ENCLOSURE RATING: **NEMA 1 ,**
MOUNTING: **SURFACE**

CIRCUIT NO.	DESCRIPTION	LOAD KVA PHASE A	LOAD KVA PHASE B	LOAD KVA PHASE C	BREAKER AMPS/ POLES	NOTES	CIRCUIT NO.	DESCRIPTION	LOAD KVA PHASE A	LOAD KVA PHASE B	LOAD KVA PHASE C	BREAKER AMPS/ POLES	NOTES
1	WAITING 100 SW OUTLET BOX	1.44			20 /1	2,7	2	WAITING 100 S OUTLET BOX	1.44			20 /1	2,7
3	WAITING 100 N OUTLET BOX		0.72		20 /1	2,7	4	WAITING 100 NE OUTLET BOX		1.44		20 /1	2,7
5	RM 104, 105 RECEPT			1.08	20 /1	7	6	TLT 106, 107 RECEPT			0.72	20 /1	7
7	WAITING 100 NW RECEPT	0.36			20 /1	7	8	EXTERIOR SOUTH RECEPT	0.72			20 /1	2,7
9	WAITING 100 SW RECEPT		0.36		20 /1		10	TVM KIOSK 1		1.2		20 /1	
11	TVM KIOSK 2			1.2	20 /1		12	TVM KIOSK 3			1.2	20 /1	
13	TVM KIOSK 4	1.2			20 /1		14	TVM KIOSK 5	1.2			20 /1	
15	TVM KIOSK 6		1.2		20 /1		16	EF-1		0.115		20 /1	
17	EUH-1			1.875	20 /1		18	FIRE ALARM PANEL			0.5	20 /1	
19	STATION LIGHTING 1 (106, 107)	0.5			20 /1		20	STATION DISPLAYS	0.72			20 /1	
21	CAMERA SYSTEM PANEL		1		20 /1		22	EWH-1		1.2		20 /1	
23	INTERNET SYSTEM PANEL			1	20 /1		24	LCP-1			0.5	20 /2	
25		4.9					26		0.5				
27	LP-2 (IRH 1, 2, VOM, STATION DISPLAY, C/		4.935		20 /3		28			4.935			
29				0.72			30	LP-3 (IRH 3, 4, VOM, STATION DISPLAY, C/			0.72	20 /3	
31	STATION LIGHTING 2 (104, 105)	0.5			20 /1		32		4.9				
33	EWH-2		2		20 /2		34	STATION LIGHTING ROOM 100		1		20 /1	
35				2			36	EWH-3			2	20 /2	
37	VOM CABINET 1				20 /1		38		2				
39	SPARE				20 /1		40	VOM CABINET 2				20 /1	
41	SPARE				20 /1		42	SPARE				20 /1	
	TOTAL PHASE KVA THIS SIDE	8.9	10.215	7.875				TOTAL PHASE KVA THIS SIDE	11.48	9.89	5.64		
								TOTAL KVA PER PHASE	20.38	20.105	13.515		
								TOTAL THREE PHASE KVA		54			

NOTES:
1. PROVIDE LOCKING HARDWARE
3. 30 ma GFI CIRCUIT BREAKER FOR EQUIPMENT PROTECTION ONLY (HEAT TRACE)
5. BRANCH CIRCUIT WIRING: 3/4"C, 3#12 & 1#12G
7. BRANCH CIRCUIT WIRING: 3/4"C, 2#12 & 1#12G

NOTES CONT.:
2. 5 ma GROUND FAULT INTERRUPTER (GFI) CIRCUIT BREAKER
4. PROVIDE LOCKING HARDWARE & PAINT BREAKER HANDLE RED (FACP)
6. BRANCH CIRCUIT WIRING: 3/4"C, 3#10 & 1#10G
8.

LP-1

PANELBOARD SCHEDULE

NTS

40 AMP MAIN BREAKER
100 AMP BUS RATING **24** POLES
208/120 VOLTS **3** PHASE **4** WIRE **60 Hz.**

LIGHTING PANEL LP-2
22 KA SHORT CIRCUIT RATING
ELECTRONIC GRADE: **NO**

LOCATION: **ELECTRICAL ROOM**
ENCLOSURE RATING: **NEMA 1 ,**
MOUNTING: **SURFACE**

CIRCUIT NO.	DESCRIPTION	LOAD KVA PHASE A	LOAD KVA PHASE B	LOAD KVA PHASE C	BREAKER AMPS/ POLES	NOTES	CIRCUIT NO.	DESCRIPTION	LOAD KVA PHASE A	LOAD KVA PHASE B	LOAD KVA PHASE C	BREAKER AMPS/ POLES	NOTES
1	IRH 1	1.7			20 /2	2,7	2	IRH 2	1.7			20 /2	2,7
3			1.7		20	2,7	4			1.7		20	2,7
5	VOM				20 /1	7	6	STATION DISPLAY			0.72	20 /1	7
7	CAM-CAB-02	1			20 /1	7	8	LIGHTING SHELTER	0.5			20 /1	2,7
9	FIRE ALARM		0.5		20 /1		10	EF-2		1.035		20 /1	
11	SPARE				20 /1		12	SPARE				20 /1	
13	SPARE				20 /1		14	SPARE				20 /1	
15	SPARE				20 /1		16	SPARE				20 /1	
17	SPARE				20 /1		18	SPARE				20 /1	
19	SPARE				20 /1		20	SPARE				20 /1	
21	SPARE				20 /1		22	SPARE				20 /1	
23	SPARE				20 /1		24	SPARE				20 /1	
					20 /1							/1	
					20 /1							/1	
					20 /1							20 /1	
					20 /1							/1	
					20 /1							20 /1	
					20 /1							20 /1	
					20 /1							/1	
					20 /1							20 /1	
					20 /1							20 /1	
	TOTAL PHASE KVA THIS SIDE	2.7	2.2	0				TOTAL PHASE KVA THIS SIDE	2.2	2.735	0.72		
								TOTAL KVA PER PHASE	4.9	4.935	0.72		
								TOTAL THREE PHASE KVA		10.555			

NOTES:
1. PROVIDE LOCKING HARDWARE
3. 30 ma GFI CIRCUIT BREAKER FOR EQUIPMENT PROTECTION ONLY (HEAT TRACE)
5. BRANCH CIRCUIT WIRING: 3/4"C, 3#12 & 1#12G
7. BRANCH CIRCUIT WIRING: 3/4"C, 2#12 & 1#12G

NOTES CONT.:
2. 5 ma GROUND FAULT INTERRUPTER (GFI) CIRCUIT BREAKER
4. PROVIDE LOCKING HARDWARE & PAINT BREAKER HANDLE RED (FACP)
6. BRANCH CIRCUIT WIRING: 3/4"C, 3#10 & 1#10G
8.

④ LP-2

PANELBOARD SCHEDULE

NTS

CDM Smith

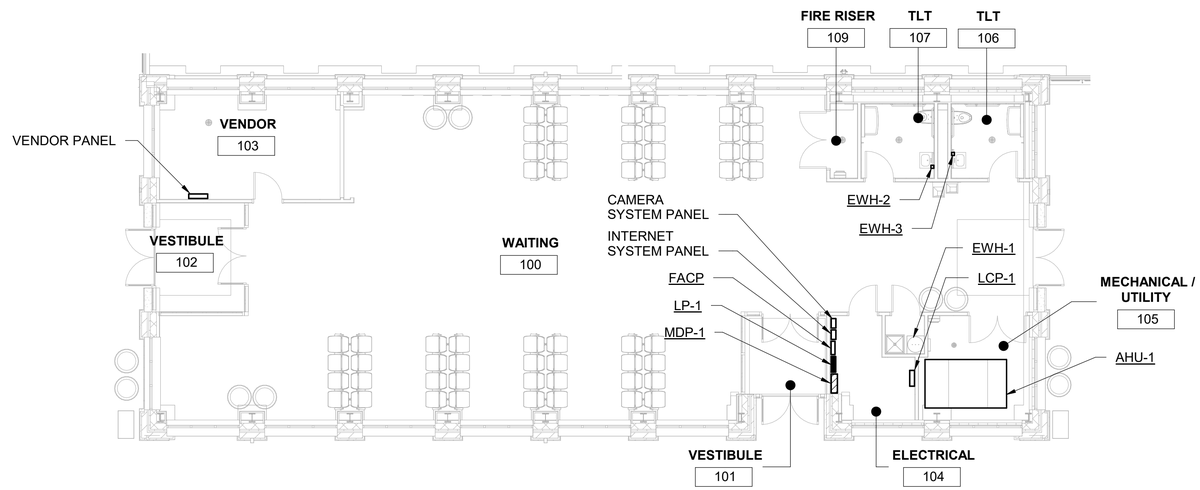
USER NAME = -	DESIGNED - JD	REVISED -
ISSUED FOR 30 PCT	DRAWN - NM	REVISED -
PLOT SCALE = -	CHECKED - JD	REVISED -
PLOT DATE = -	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRICAL ONE - LINE DIAGRAM AND PANELBOARD SCHEDULE

SCALE: SHEET 709 OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	-	DUPAGE		709
		CONTRACT NO. _		
		ILLINOIS FED. AID PROJECT		



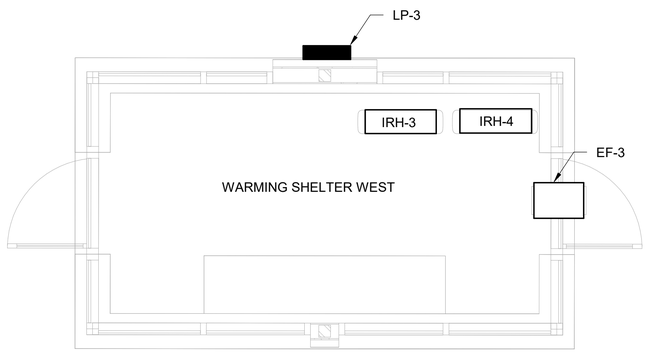
INBOUND GROUND FLOOR POWER PLAN

1/8" = 1'-0"

0 4' 8' 16'

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

CDM Smith	USER NAME =	DESIGNED - JD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRICAL INBOUND GROUND FLOOR POWER PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - NM	REVISED -					DUPAGE	710
	PLOT SCALE =	CHECKED - JD	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 710 OF SHEETS	ILLINOIS FED. AID PROJECT			

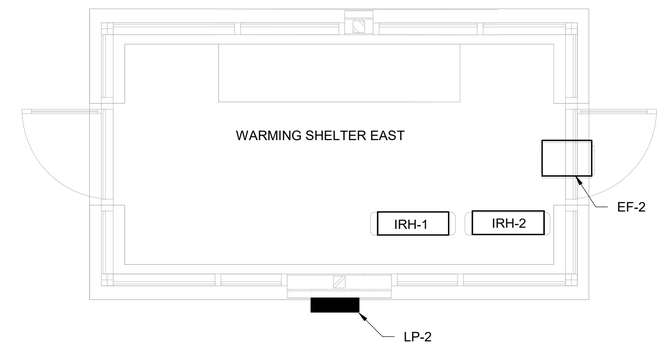


WARMING SHELTER OUTBOUND POWER PLAN

3/8" = 1'-0"

0 1' 2' 3' 5'

SCALE: 3/8" = 1'-0"



WARMING SHELTER INBOUND POWER PLAN

3/8" = 1'-0"

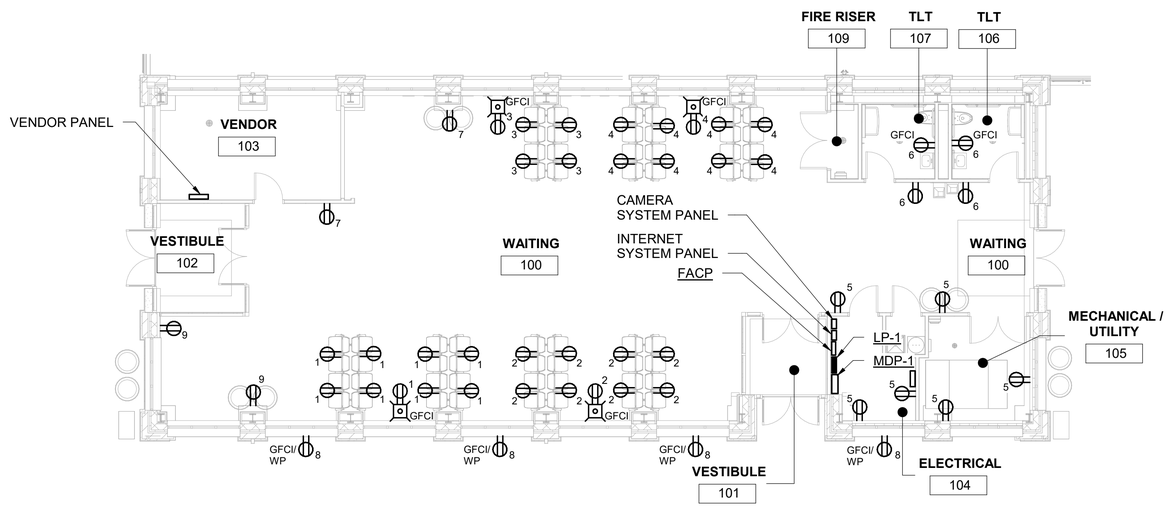
0 1' 2' 3' 5'

SCALE: 3/8" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - JD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRICAL WARMING SHELTER POWER PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - NM	REVISED -					DUPAGE	711
	PLOT SCALE =	CHECKED - JD	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 711 OF SHEETS	ILLINOIS FED. AID PROJECT			

GENERAL NOTES:

1. OUTLETS EMBEDDED IN CHAIR TO CHAIR TO INCLUDE USB CHARGING.



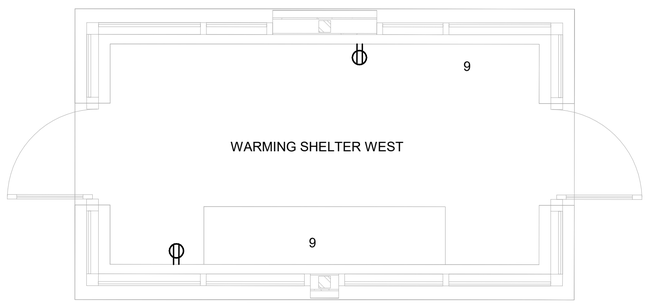
INBOUND GROUND FLOOR LIGHTING AND RECEPTACLE PLAN

1/8" = 1'-0"

0 4' 8' 16'

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

CDM Smith	USER NAME =	DESIGNED - JD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRICAL INBOUND GROUND FLOOR LIGHTING AND RECEPTACLE PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - NM	REVISED -					DUPAGE	712
	PLOT SCALE =	CHECKED - JD	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 712 OF SHEETS			ILLINOIS FED. AID PROJECT	

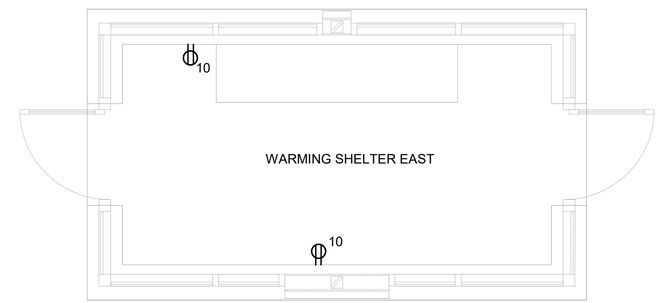


WARMING SHELTER OUTBOUND LIGHTING AND RECEPTACLE PLAN

3/8" = 1'-0"

0 1' 2' 3' 5'

SCALE: 3/8" = 1'-0"



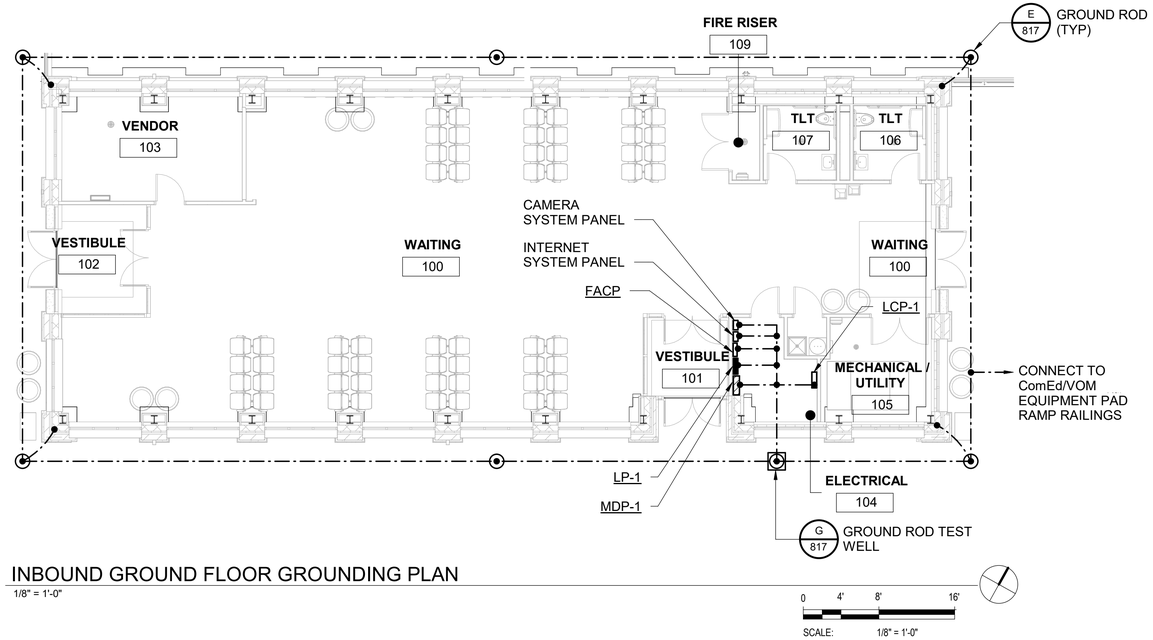
WARMING SHELTER INBOUND LIGHTING AND RECEPTACLE PLAN

3/8" = 1'-0"

0 1' 2' 3' 5'

SCALE: 3/8" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - JD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRICAL WARMING SHELTER LIGHTING AND RECEPTACLE PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - NM	REVISED -					DUPAGE	713
	PLOT SCALE =	CHECKED - JD	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 713 OF SHEETS	ILLINOIS FED. AID PROJECT			



INBOUND GROUND FLOOR GROUNDING PLAN

1/8" = 1'-0"

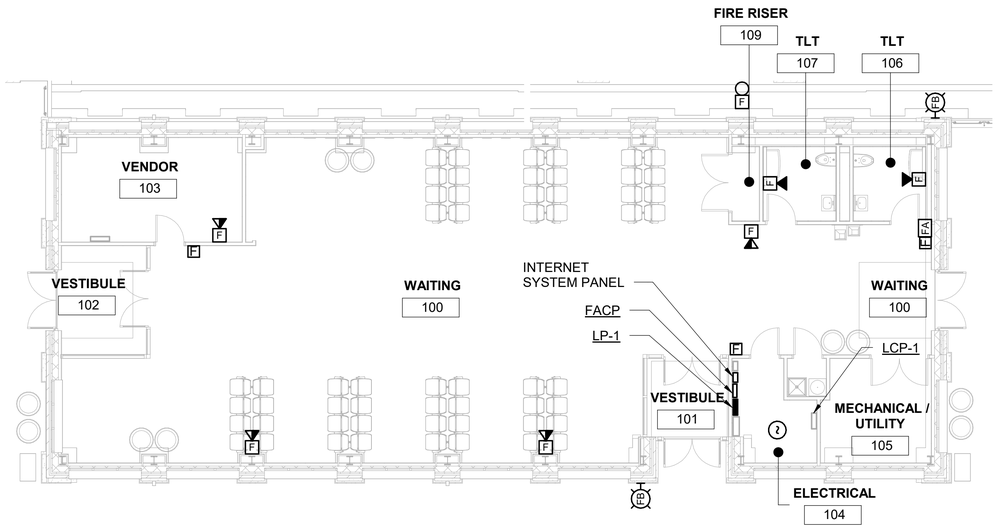
0 4' 8' 16'

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

CDM Smith	USER NAME =	DESIGNED - JD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRICAL INBOUND GROUND FLOOR GROUNDING PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - NM	REVISED -					DUPAGE	714
	PLOT SCALE =	CHECKED - JD	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 714 OF SHEETS	ILLINOIS FED. AID PROJECT			

NOT USED

CDM Smith	USER NAME =	DESIGNED - JD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRICAL WARMING SHELTER GROUND PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - NM	REVISED -					DUPAGE		715
	PLOT SCALE =	CHECKED - JD	REVISED -					CONTRACT NO.		
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 715 OF SHEETS	ILLINOIS FED. AID PROJECT				



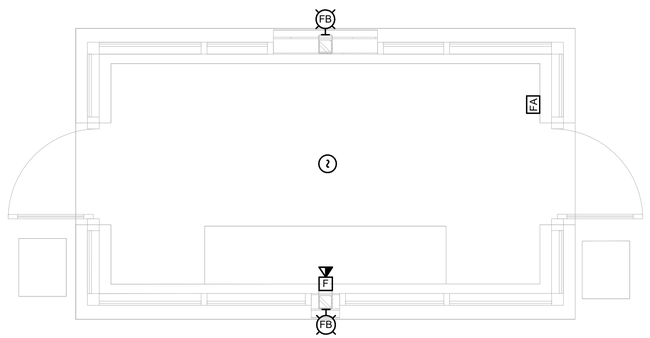
INBOUND GROUND FLOOR FIRE ALARM PLAN

1/8" = 1'-0"

0 4' 8' 16'

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

CDM Smith	USER NAME =	DESIGNED - JD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRICAL INBOUND GROUND FLOOR FIRE ALARM PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - NM	REVISED -					DUPAGE	716
	PLOT SCALE =	CHECKED - JD	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 716 OF SHEETS	ILLINOIS FED. AID PROJECT			

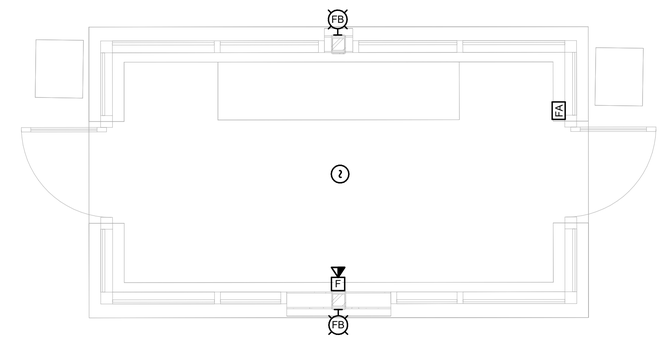


WARMING SHELTER OUTBOUND FIRE ALARM PLAN

3/8" = 1'-0"

0 1' 2' 3' 5'

SCALE: 3/8" = 1'-0"



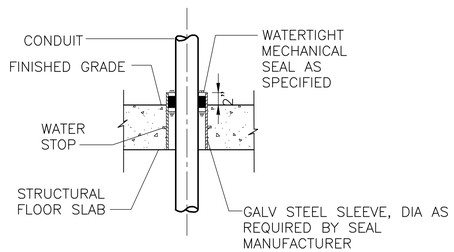
WARMING SHELTER INBOUND FIRE ALARM PLAN

3/8" = 1'-0"

0 1' 2' 3' 5'

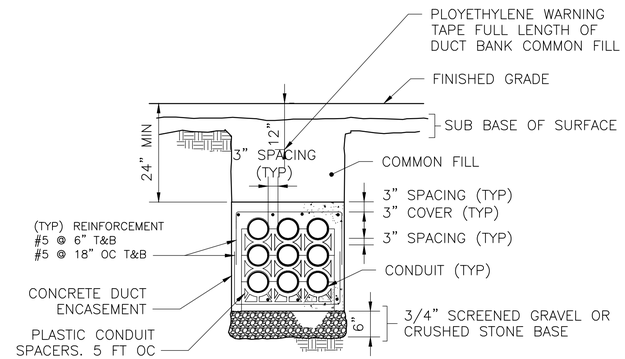
SCALE: 3/8" = 1'-0"

CDM Smith	USER NAME =	DESIGNED - JD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRICAL WARMING SHELTER FIRE ALARM PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - NM	REVISED -					DUPAGE	717
	PLOT SCALE =	CHECKED - JD	REVISED -					CONTRACT NO.	
	PLOT DATE =	DATE - JUNE 2024	REVISED -		SCALE: AS NOTED SHEET 717 OF SHEETS	ILLINOIS FED. AID PROJECT			



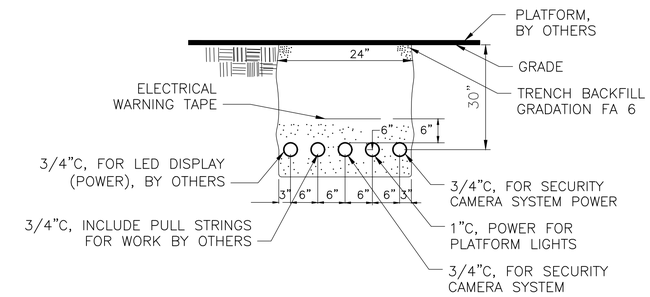
CONDUIT PENETRATION

DETAIL A
NTS –



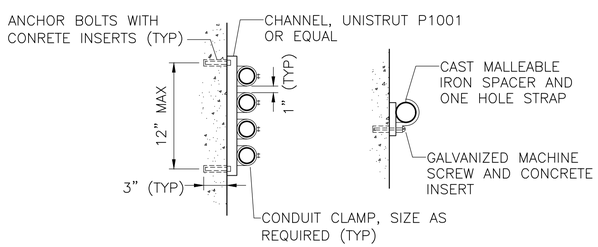
UNDERGROUND DUCT BANK

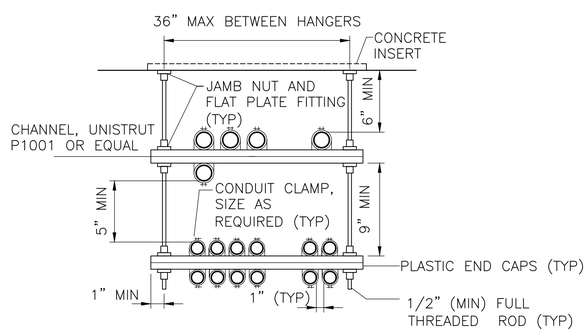
DETAIL B
NTS –



POWER AND CONTROL CONDUITS TRENCH DETAIL

DETAIL C
NTS –

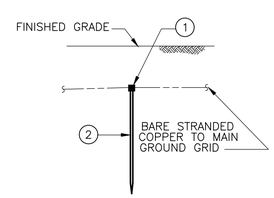




CONDUIT MOUNTED

DETAIL D
NTS –

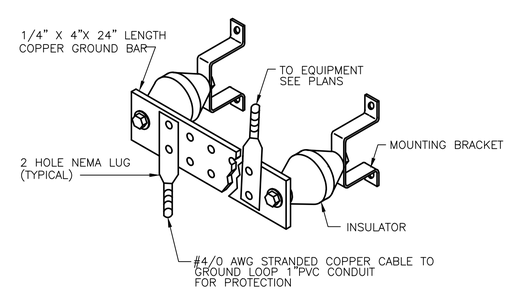
ITEM NUMBER	QUANTITY	DESCRIPTION	MANUFACTURER	CAT #
1	1	CADWELD CABLE TO ROD	CADWELD	TYPE GT
2	1	GROUND ROD, COPPER CLAD, 8 FT MIN.	ERITECH	



NORMAL INSTALLATION

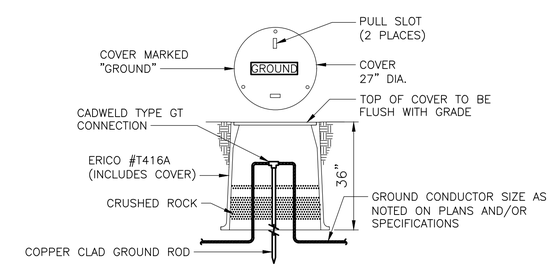
GROUND ROD INSTALLATIONS

DETAIL E
N.T.S. –



TYPICAL GROUND BAR

DETAIL F
N.T.S. –



NOTE:

1. TO IMPROVE SYSTEM RESISTANCE, ERICO GEM MAY BE USED AS A BACKFILL MATERIAL IN AN AUGERED HOLE

GROUND ROD TEST WELL

DETAIL G
N.T.S. –

CDM Smith

USER NAME = -	DESIGNED - JD	REVISED -
ISSUED FOR 30 PCT	DRAWN - NM	REVISED -
PLOT SCALE = -	CHECKED - JD	REVISED -
PLOT DATE = -	DATE - JUNE 2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRICAL STANDARD DETAILS I

SCALE: SHEET 718 OF SHEETS STA. TO STA.

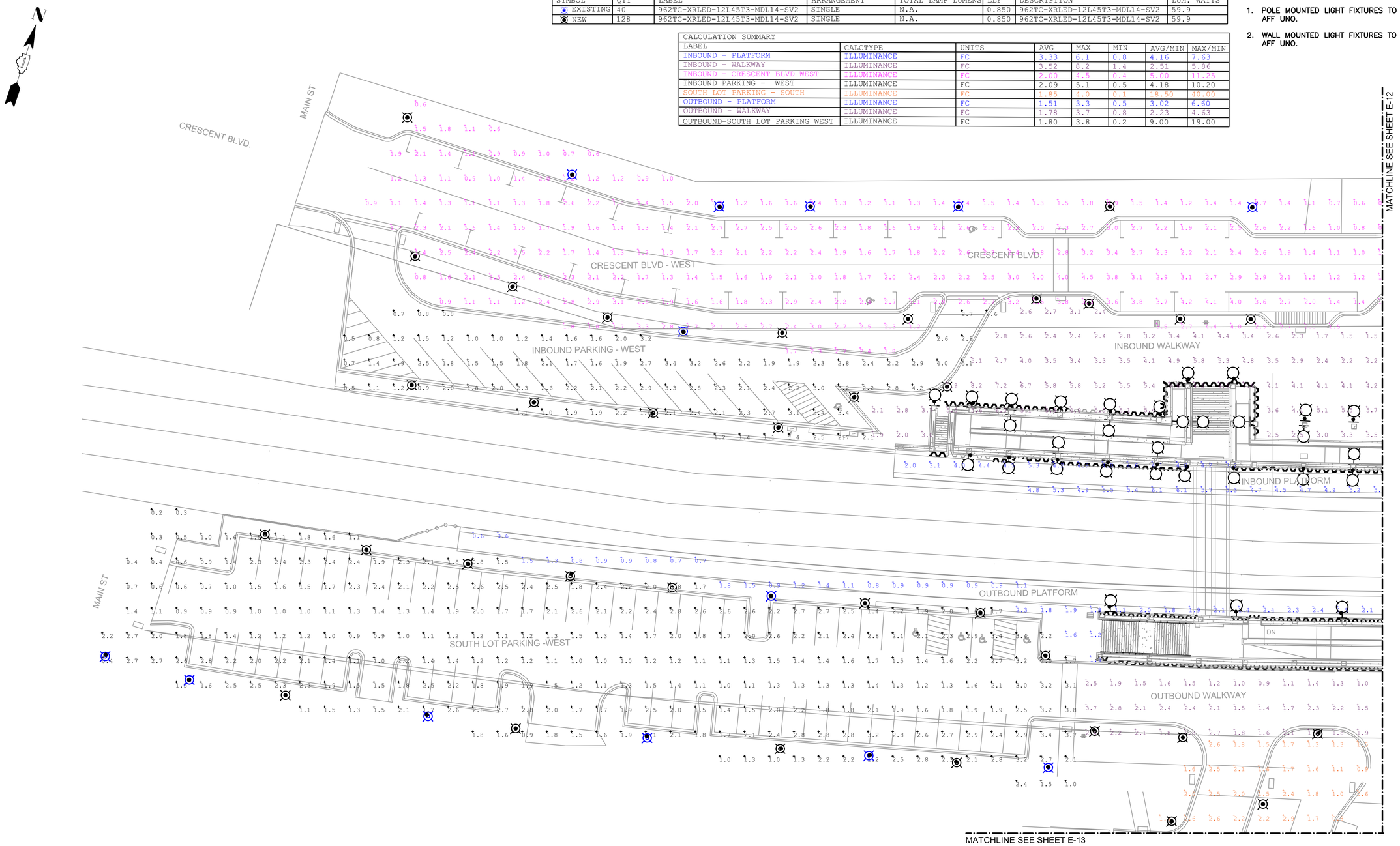
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	-	DUPAGE		718
		CONTRACT NO. _		
		ILLINOIS FED. AID PROJECT		

LUMINAIRE SCHEDULE							
SYMBOL	QTY	LABEL	ARRANGEMENT	TOTAL LAMP LUMENS	LLF	DESCRIPTION	LUM. WATTS
EXISTING	40	962TC-XRLED-12L45T3-MDL14-SV2	SINGLE	N.A.	0.850	962TC-XRLED-12L45T3-MDL14-SV2	59.9
NEW	128	962TC-XRLED-12L45T3-MDL14-SV2	SINGLE	N.A.	0.850	962TC-XRLED-12L45T3-MDL14-SV2	59.9

CALCULATION SUMMARY							
LABEL	CALCTYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
INBOUND - PLATFORM	ILLUMINANCE	FC	3.33	6.1	0.8	4.16	7.63
INBOUND - WALKWAY	ILLUMINANCE	FC	3.52	8.2	1.4	2.51	5.86
INBOUND - CRESCENT BLVD WEST	ILLUMINANCE	FC	2.00	4.5	0.4	5.00	11.25
INBOUND PARKING - WEST	ILLUMINANCE	FC	2.09	5.1	0.5	4.18	10.20
SOUTH LOT PARKING - SOUTH	ILLUMINANCE	FC	1.85	4.0	0.1	18.50	40.00
OUTBOUND - PLATFORM	ILLUMINANCE	FC	1.51	3.3	0.5	3.02	6.60
OUTBOUND - WALKWAY	ILLUMINANCE	FC	1.78	3.7	0.8	2.23	4.63
OUTBOUND-SOUTH LOT PARKING WEST	ILLUMINANCE	FC	1.80	3.8	0.2	9.00	19.00

GENERAL NOTES:

1. POLE MOUNTED LIGHT FIXTURES TO BE MOUNTED AT 12' AFF UNO.
2. WALL MOUNTED LIGHT FIXTURES TO BE MOUNTED AT 11' AFF UNO.



SITE PLAN - LIGHTING CALCULATION 1

1" = 20'-0"

0 10' 20' 40'

SCALE: 1" = 20'-0"

CDM Smith

USER NAME =	DESIGNED - WO	REVISED -	
ISSUED FOR 30 PCT	DRAWN - WO	REVISED -	
PLOT SCALE =	CHECKED - WO	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SITE PLAN - LIGHTING CALC 1

SCALE: SHEET 719 OF SHEETS

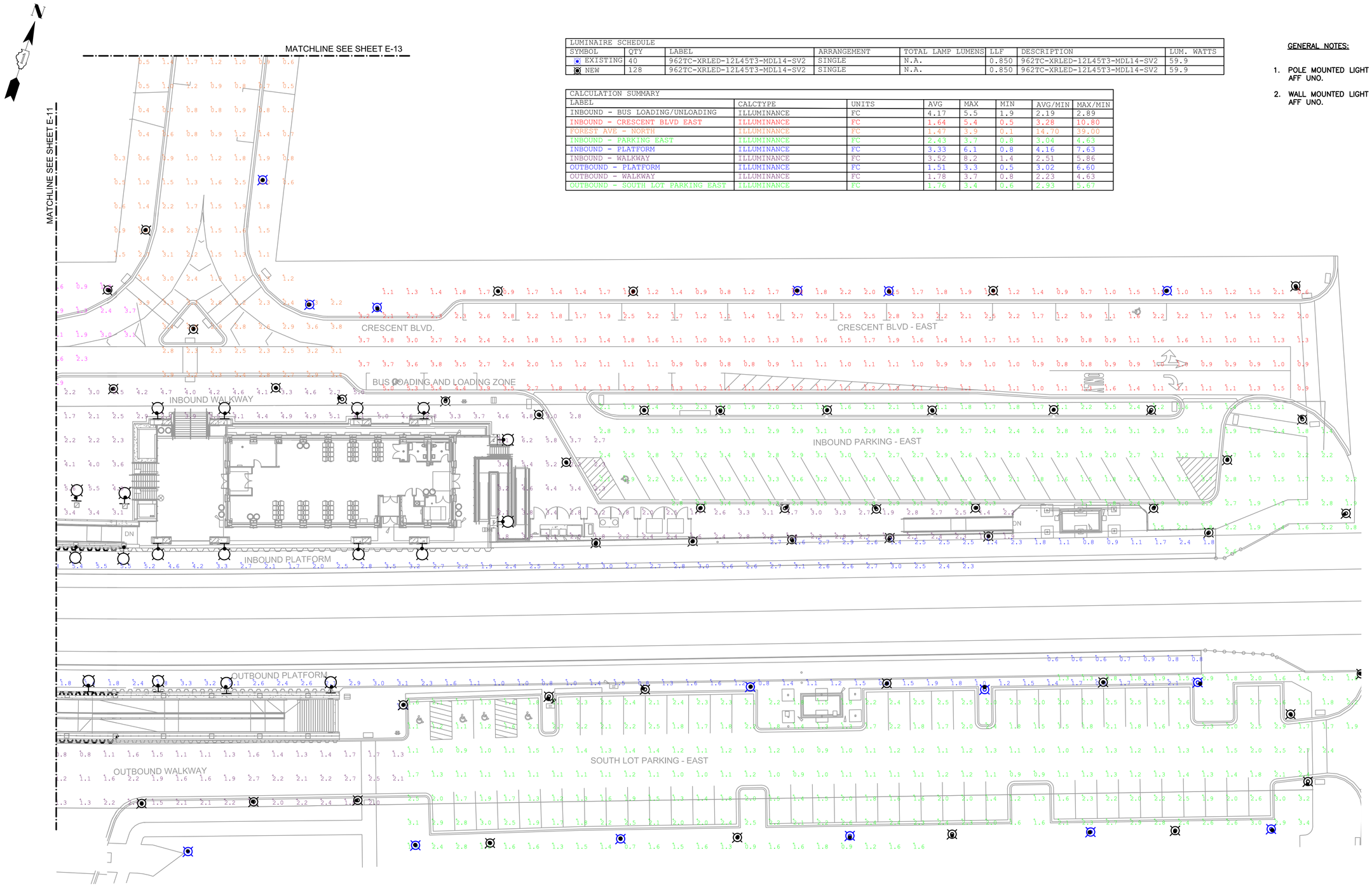
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		719
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

LUMINAIRE SCHEDULE								
SYMBOL	QTY	LABEL	ARRANGEMENT	TOTAL LAMP LUMENS	LLF	DESCRIPTION	LUM. WATTS
EXISTING	40	962TC-XRLED-12L45T3-MDL14-SV2	SINGLE	N.A.	0.850	962TC-XRLED-12L45T3-MDL14-SV2	59.9
NEW	128	962TC-XRLED-12L45T3-MDL14-SV2	SINGLE	N.A.	0.850	962TC-XRLED-12L45T3-MDL14-SV2	59.9

CALCULATION SUMMARY							
LABEL	CALCTYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
INBOUND - BUS LOADING/UNLOADING	ILLUMINANCE	FC	4.17	5.5	1.9	2.19	2.89
INBOUND - CRESCENT BLVD EAST	ILLUMINANCE	FC	1.64	5.4	0.5	3.28	10.80
FOREST AVE - NORTH	ILLUMINANCE	FC	1.47	3.9	0.1	14.70	39.00
INBOUND - PARKING EAST	ILLUMINANCE	FC	2.43	3.7	0.8	3.04	4.63
INBOUND - PLATFORM	ILLUMINANCE	FC	3.33	6.1	0.8	4.16	7.63
INBOUND - WALKWAY	ILLUMINANCE	FC	3.52	8.2	1.4	2.51	5.86
OUTBOUND - PLATFORM	ILLUMINANCE	FC	1.51	3.3	0.5	3.02	6.60
OUTBOUND - WALKWAY	ILLUMINANCE	FC	1.78	3.7	0.8	2.23	4.63
OUTBOUND - SOUTH LOT PARKING EAST	ILLUMINANCE	FC	1.76	3.4	0.6	2.93	5.67

GENERAL NOTES:

1. POLE MOUNTED LIGHT FIXTURES TO BE MOUNTED AT 12' AFF UNO.
2. WALL MOUNTED LIGHT FIXTURES TO BE MOUNTED AT 11' AFF UNO.



SITE PLAN - LIGHTING CALCULATION 2

1" = 20'-0"

0 10' 20' 40'

SCALE: 1" = 20'-0"

USER NAME =	DESIGNED - WO	REVISED -	
ISSUED FOR 30 PCT	DRAWN - WO	REVISED -	
PLOT SCALE =	CHECKED - WO	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

CDM Smith

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SITE PLAN - LIGHITNG CALC 2

SCALE: SHEET 720 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		720
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

N

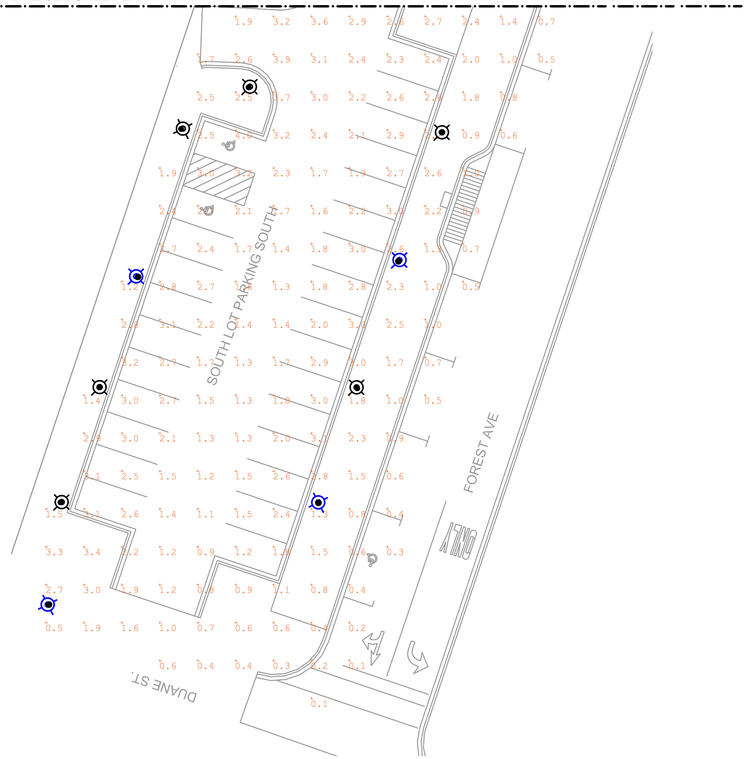
LUMINAIRE SCHEDULE							
SYMBOL	QTY	LABEL	ARRANGEMENT	TOTAL LAMP LUMENS	LLF	DESCRIPTION	LUM. WATTS
EXISTING	40	962TC-XRLED-12L45T3-MDL14-SV2	SINGLE	N.A.	0.850	962TC-XRLED-12L45T3-MDL14-SV2	59.9
NEW	128	962TC-XRLED-12L45T3-MDL14-SV2	SINGLE	N.A.	0.850	962TC-XRLED-12L45T3-MDL14-SV2	59.9

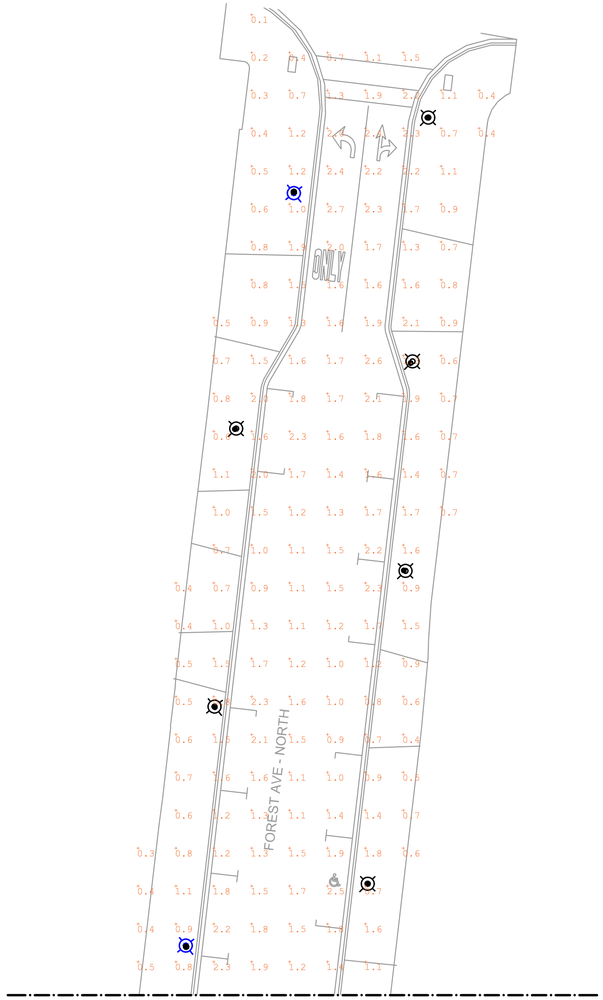
CALCULATION SUMMARY							
LABEL	CALCTYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
FOREST AVE - NORTH	ILLUMINANCE	FC	1.47	3.9	0.1	14.70	39.00
SOUTH LOT PARKING - SOUTH	ILLUMINANCE	FC	1.85	4.0	0.1	18.50	40.00

GENERAL NOTES:

1. POLE MOUNTED LIGHT FIXTURES TO BE MOUNTED AT 12' AFF UNO.
2. WALL MOUNTED LIGHT FIXTURES TO BE MOUNTED AT 11' AFF UNO.

MATCHLINE SEE SHEET E-11





MATCHLINE SEE SHEET E-11

SITE PLAN - LIGHTING CALCULATION 3

1" = 20'-0"

0 10' 20' 40'

SCALE: 1" = 20'-0"

CDM Smith

USER NAME =	DESIGNED - WO	REVISED -	
ISSUED FOR 30 PCT	DRAWN - WO	REVISED -	
PLOT SCALE =	CHECKED - WO	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SITE PLAN - LIGHTING CALC 3

SCALE: SHEET 721 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		721
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

SYMBOL	DESCRIPTION
	COMMUNICATION SYSTEMS
K	TELEPHONE OUTLET FOR DESK TYPE HANDSET K = KEY SYSTEM
K	TELEPHONE OUTLET FOR WALL TYPE HANDSET (MOUNT UP 4'–6") K = KEY SYSTEM
	PAGE/PARTY TELEPHONE OUTLET FOR DESK TYPE HANDSET
	PAGE/PARTY TELEPHONE OUTLET FOR WALL TYPE HANDSET, MOUNT UP 4'–6"
S H W	PAGING SPEAKER, WALL MOUNTED H = HORN TYPE W = WIDE ANGLE TYPE
S W	PAGING SPEAKER, WALL MOUNTED, BI–DIRECTIONAL, HORN TYPE W = WIDE ANGLE TYPE
S	PAGING SPEAKER, FLUSH MOUNTED CEILING TYPE
S	PAGING SPEAKER, SURFACE MOUNTED CEILING TYPE
VC	REMOTE WALL MOUNTED VOLUME CONTROL FOR CEILING SPEAKER, MOUNT UP 5'–0"
A	PAGING SPEAKER AMPLIFIER ASSEMBLY
P OR C	"C" – DATA INPUT/OUTPUT CABLE OUTLET "P" – PROCESS COMPUTER SYSTEM (CAT6 RJ–45 JACK)

GD/VF #	GAS DETECTOR/VENTILATION FAILURE ALARM,
	# INDICATES TYPE OF UNIT.
	1 = MASTER, 2 = REMOTE

GB	GAS DETECTION/VENTILATION FAILURE WEATHERPROOF DUAL–LITE BEACON MOUNT TOP OF DEVICE UP 6'–8" A.F.F.
15 G	GAS DETECTION/VENTILATION FAILURE HORN/STROBE MOUNT TOP OF DEVICE UP 6'–8" A.F.F.
G	GAS DETECTION/VENTILATION FAILURE HORN, MOUNT TOP OF DEVICE UP 6'–8" A.F.F.
G	GAS DETECTION/VENTILATION FAILURE STROBE, MOUNT TOP OF DEVICE UP 6'–8" A.F.F.
	SECURITY SYSTEMS
SACP	SECURITY ALARM CONTROL PANEL
PO	POLICE ALARM BUTTON
DS	SECURITY ALARM DOOR SWITCH
K	SECURITY ALARM KEY PAD
R	SECURITY SYSTEM CARD ACCESS READER
WS	SECURITY ALARM WINDOW SWITCH
	SECURITY ALARM MOTION DETECTOR
CCTV	IP BASED CAMERA BULLET STYLE
CCTV XXX	IP BASED CAMERA DOME STYLE XXX – DEGREE OF VISIBILTY
PTZ	PAN, TILT, ZOOM CAMERA LENS CONTROLS
GB	GLASS BREAK DETECTOR

A / E–4 — SHEET NO. WHERE DETAIL IS DRAWN

SYMBOL WHERE THERE IS A DETAIL

DETAIL A / E–3 — SHEET NO. WHERE THERE IS A DETAIL

1/4" = 1'–0"

SYMBOL WHERE DETAIL IS DRAWN

DETAIL SYMBOL

1 / E–4 — SHEET NO. WHERE SECTION IS DRAWN

SYMBOL WHERE THERE IS A SECTION

SECTION 1 / E–3 — SHEET NO. WHERE SECTION IS TAKEN

1/4" = 1'–0"

SYMBOL WHERE SECTION IS DRAWN

SECTION SYMBOL

GENERAL NOTE

THIS IS A STANDARD LEGEND. SOME SYMBOLS MAY NOT APPEAR ON THE DRAWINGS.

ABBREVIATIONS	
A	AMPS
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
AIC	AMPERE INTERRUPTING CAPACITY
AMP	AMPERE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CGD	COMBUSTIBLE GAS DETECTOR
CKT	CIRCUIT
CLB	CURRENT LIMITING BREAKER
CLF	CURRENT LIMITING FUSE
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CS	CONTROL SWITCH/CONTROL STATION
CT	CURRENT TRANSFORMER
CU	COPPER
CWS	CONDUIT WALL SEAL
DC	DIRECT CURRENT
DIA	DIAMETER
DMU	DIGITAL METERING UNIT
DN	DOWN
EC	EMPTY CONDUIT
ELEC	ELECTRICAL
ELEV	ELEVATION

ABBREVIATIONS (CONTINUED)	
EM	EMERGENCY
ENCL	ENCLOSURE OR ENCLOSED
EQUIP	EQUIPMENT
ES	EMERGENCY STOP
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EX	EXISTING
FO	FIBER OPTIC
FU	FUSE
GCP	GENERATOR CONTROL PANEL
GEN	GENERATOR
G, GND	GROUND
GFI	GROUND FAULT INTERRUPTER
GRS	GALVANIZED RIGID STEEL
HACR	HEATING & AIR CONDITIONING RATED
HH	HANDHOLE
HT	HEIGHT
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HZ	HERTZ
ID	IDENTIFICATION
INSTR	INSTRUMENT
K	KILO (PREFIX)
kcmil	1000 CIRCULAR MILS
KVA	KILOVOLT AMPERES
KW	KILOWATTS
LA	LIGHTNING ARRESTER
LTG	LIGHTING
LP	LIGHTING PANEL
LV	LOW VOLTAGE
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
N	NEUTRAL
NC	NORMALLY CLOSED
NO	NORMALLY OPEN OR NUMBER
NTS	NOT TO SCALE
OH	OVERHEAD
OL	OVERLOAD
PB	PULL BOX
PCP	PUMP CONTROL PANEL
PH	PHASE
PMH	POWER MANHOLE
PNL	PANEL OR PANELBOARD
PR	PAIR
PRI	PRIMARY
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
RECPT	RECEPTACLE
REQD	REQUIRED
QTY	QUANTITY
SA	SURGE ARRESTER
SEC	SECONDS OR SECONDARY
SH	SHIELDED OR SPACE HEATER
SHH	SIGNAL HANDHOLE
SPD	SURGE PROTECTIVE DEVICE
SS	STAINLESS STEEL
SV	SOLENOID VALVE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME TO CLOSE OR TRAY CABLE
TEL	TELEPHONE
TO	TIME TO OPEN
TS	TWISTED SHIELDED OR THERMAL SWITCH
TVM	TICKET VENDING MACHINE
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VA	VOLT AMPS
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS, WIDTH, WITH, WIRE
WP	WEATHERPROOF
XP	EXPLOSION PROOF
XFMR	TRANSFORMER

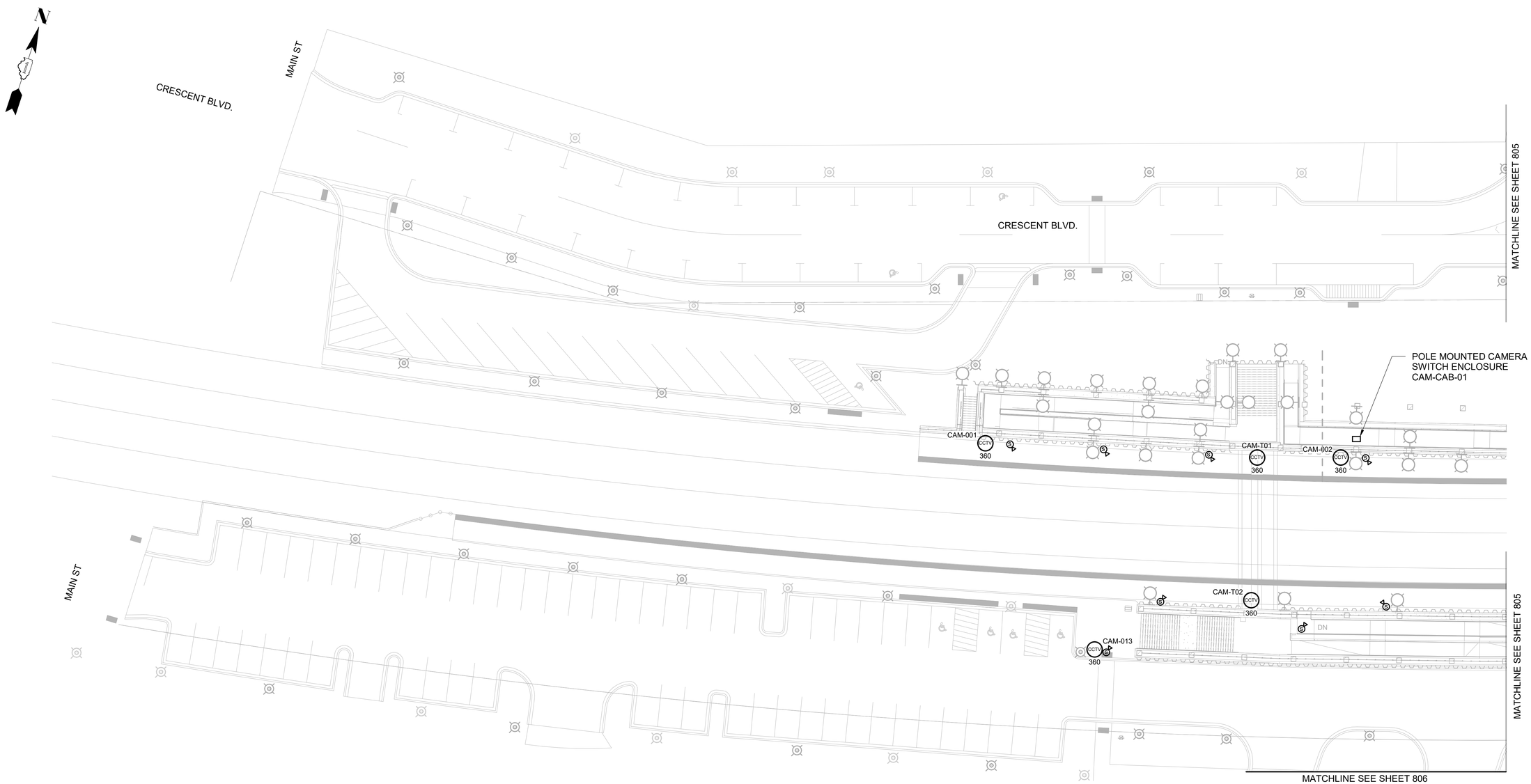
GENERAL NOTES:

1. COMMUNICATIONS DRAWINGS ARE INTENDED TO SHOW THE GENERAL LAYOUT OF WORK TO BE INSTALLED UNDER THIS CONTRACT WITHOUT ATTEMPTING TO SHOW ALL DETAILS. FURNISH LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM AS SHOWN ON THE CONTRACT DOCUMENTS.
2. COORDINATE WORK WITH OTHER TRADES AND THE OWNER.
3. MAINTAIN EXISTING PROCESS OPERATIONS. POWER INTERRUPTIONS TO ELECTRICAL EQUIPMENT SHALL BE AT OWNER'S CONVENIENCE WITH 72 HOURS MINIMUM NOTICE. EACH INTERRUPTION SHALL HAVE PRIOR WRITTEN APPROVAL.
4. FIELD VERIFY EXISTING UNDERGROUND ELECTRICAL CONDUIT, CONCRETE DUCT BANKS, MANHOLES, PULL BOXES, ETC. CONTRACTOR SHALL INCLUDE IN BID COSTS ASSOCIATED WITH RELOCATION OR REMOVAL OF UNDERGROUND EQUIPMENT AS REQUIRED BY THIS CONTRACT. USE DUE CARE IN CONGESTED AREAS TO AVOID DAMAGE TO EXISTING UNDERGROUND UTILITIES.
5. CONTRACTOR'S WORK SHALL INCLUDE COMPLETE TESTING OF EQUIPMENT AND WIRING INCLUDING MAKING MINOR CORRECTIONS, CHANGES, OR ADJUSTMENTS NECESSARY FOR THE PROPER FUNCTIONING OF THE SYSTEM AND EQUIPMENT. WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY; SUBSTANDARD WORK WILL BE REJECTED.
6. DO NOT SCALE COMMUNICATIONS DRAWINGS. REFER TO CIVIL, MECHANICAL, STRUCTURAL DRAWINGS, AND APPROVED MANUFACTURER'S SHOP DRAWINGS FOR EXACT LOCATION OF EQUIPMENT. EXCEPT WHERE DIMENSIONS ARE SHOWN, LOCATIONS OF EQUIPMENT, FIXTURES, OUTLETS, AND SIMILAR DEVICES ARE APPROXIMATE.
7. WORK SHALL COMPLY WITH NEC AND LOCAL CODES.
8. DO NOT SPLICE CONDUCTORS EXCEPT AS NOTED.
9. POWER AND CONTROL CONDUITS SHALL HAVE AN EQUIPMENT GROUNDING CONDUCTOR WIRE SIZED PER TABLE 250.122 OF THE NEC (UON).
10. COORDINATE SEQUENCE OF CONSTRUCTION WITH CIVIL, ARCHITECTURAL, MECHANICAL, AND STRUCTURAL DISCIPLINES. PROVIDE TEMPORARY POWER AND CONTROL CIRCUITS AS REQUIRED. VERIFY EXISTING UTILITIES IN AREA OF CONSTRUCTION. REFER TO CIVIL DRAWINGS FOR ADDITIONAL UNDERGROUND INFORMATION.
11. REPAIR, IN ACCORDANCE WITH SPECIFICATIONS, SIDEWALKS, WALLS, ROADWAYS, ETC. DISTURBED BY CONSTRUCTION ACTIVITIES WHETHER OR NOT SHOWN FOR REPAIR/REPAVING ON CIVIL DRAWINGS.
12. CONCEAL CONDUITS TO GREATEST EXTENT PRACTICABLE.
13. WHERE LOCAL DISCONNECTS AND CONTROL PANELS ARE SHOWN ON PLAN VIEWS, LOCATIONS ARE APPROXIMATE. ADJUST LOCATION AS REQUIRED TO COMPLY WITH NEC ARTICLE 110 FOR WORKING CLEARANCES.
14. DO NOT INSTALL MAJOR CONDUIT RUNS THROUGH AREAS DESIGNATED FOR FUTURE STRUCTURES.

ENCLOSURE TYPES:

PROVIDE THE FOLLOWING NEMA TYPE ELECTRICAL ENCLOSURES, UNLESS OTHERWISE NOTED:

1. NEMA 1 IN DRY, INDOOR LOCATIONS.
2. NEMA 12 IN DAMP LOCATIONS.
3. NEMA 3R IN OUTDOOR LOCATIONS.

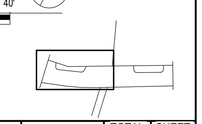


COMMUNICATIONS SITE PLAN - PART A

1" = 20'-0"

0 10' 20' 40'

SCALE: 1" = 20'-0"



CDM Smith

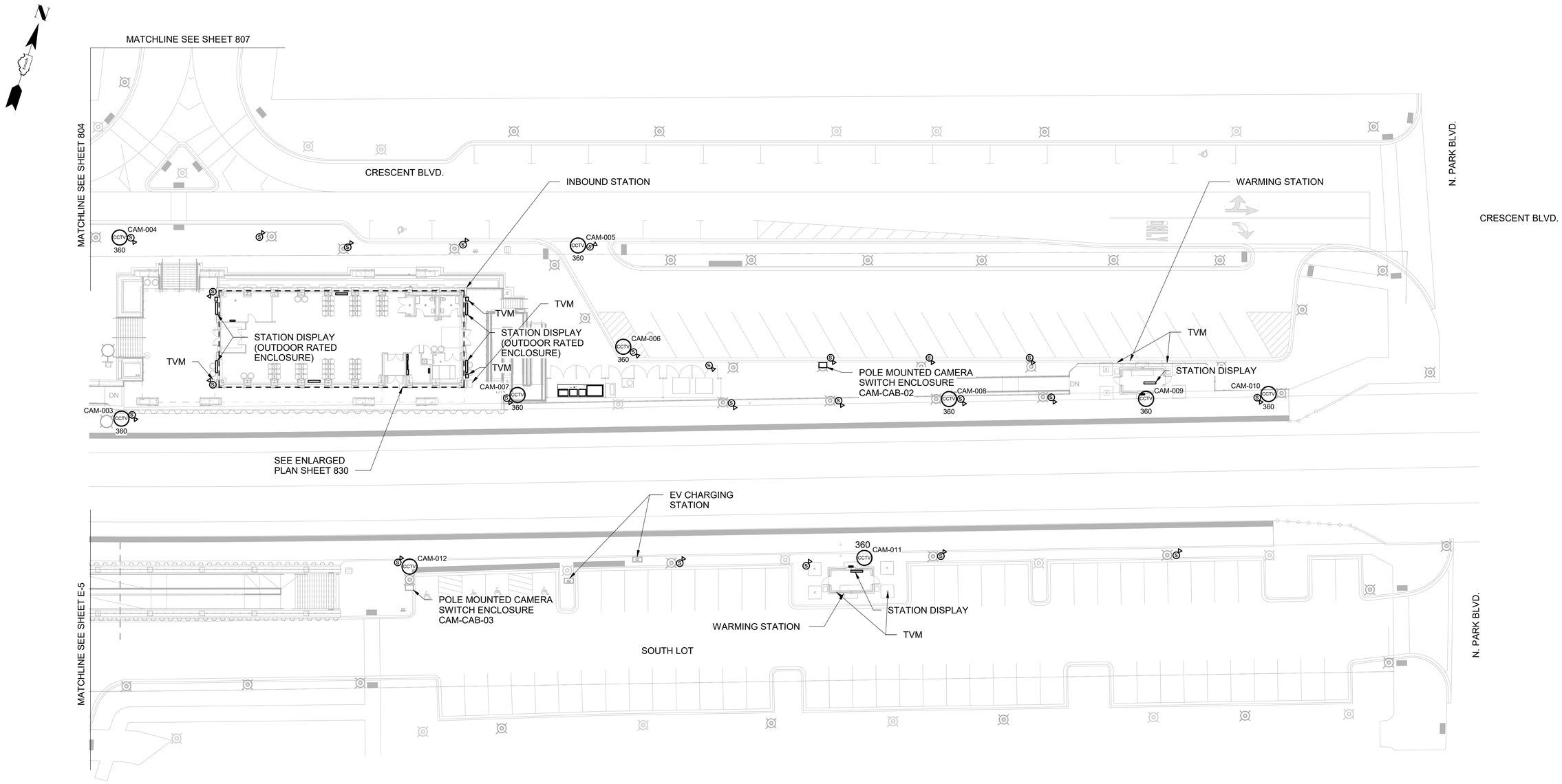
USER NAME =	DESIGNED - ES	REVISED -	
ISSUED FOR 30 PCT	DRAWN - NM	REVISED -	
PLOT SCALE =	CHECKED - ES	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COMMUNICATIONS SITE PLAN - PART A

SCALE: AS NOTED SHEET 724 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		724
		CONTRACT NO.		
ILLINOIS FED. AID PROJECT				



COMMUNICATIONS SITE PLAN - PART B

1" = 20'-0"

0 10' 20' 40'

SCALE: 1" = 20'-0"

CDM Smith

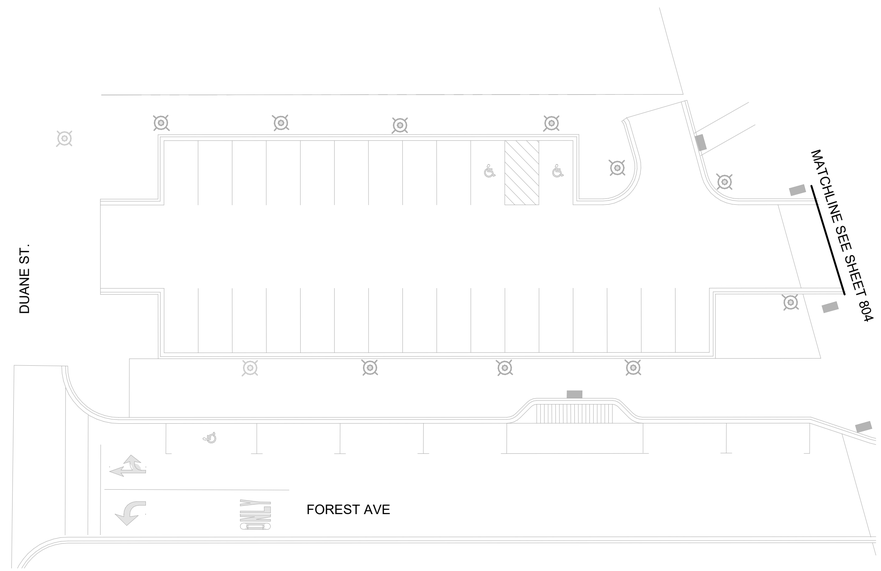
USER NAME =	DESIGNED - ES	REVISED -	
ISSUED FOR 30 PCT	DRAWN - NM	REVISED -	
PLOT SCALE =	CHECKED - ES	REVISED -	
PLOT DATE =	DATE - JUNE 2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COMMUNICATIONS SITE PLAN - PART B

SCALE: AS NOTED SHEET 725 OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE		725
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		



COMMUNICATIONS SITE PLAN - PART C

1" = 20'-0"

0 10' 20' 40'

SCALE: 1" = 20'-0"

CDM Smith	USER NAME =	DESIGNED - ES	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	COMMUNICATIONS SITE PLAN - PART C	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	ISSUED FOR 30 PCT	DRAWN - NM	REVISED -					DUPAGE	726
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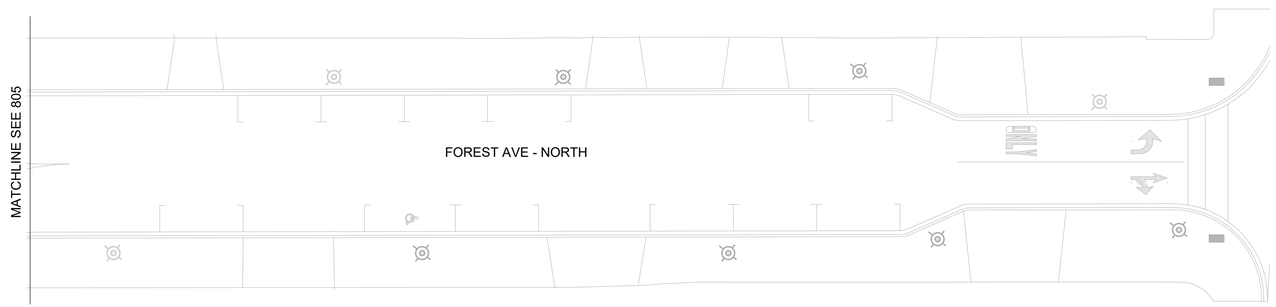
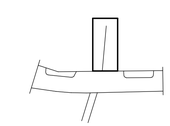


COMMUNICATIONS SITE PLAN - PART D

1" = 20'-0"

0 10' 20' 40'

SCALE: 1" = 20'-0"



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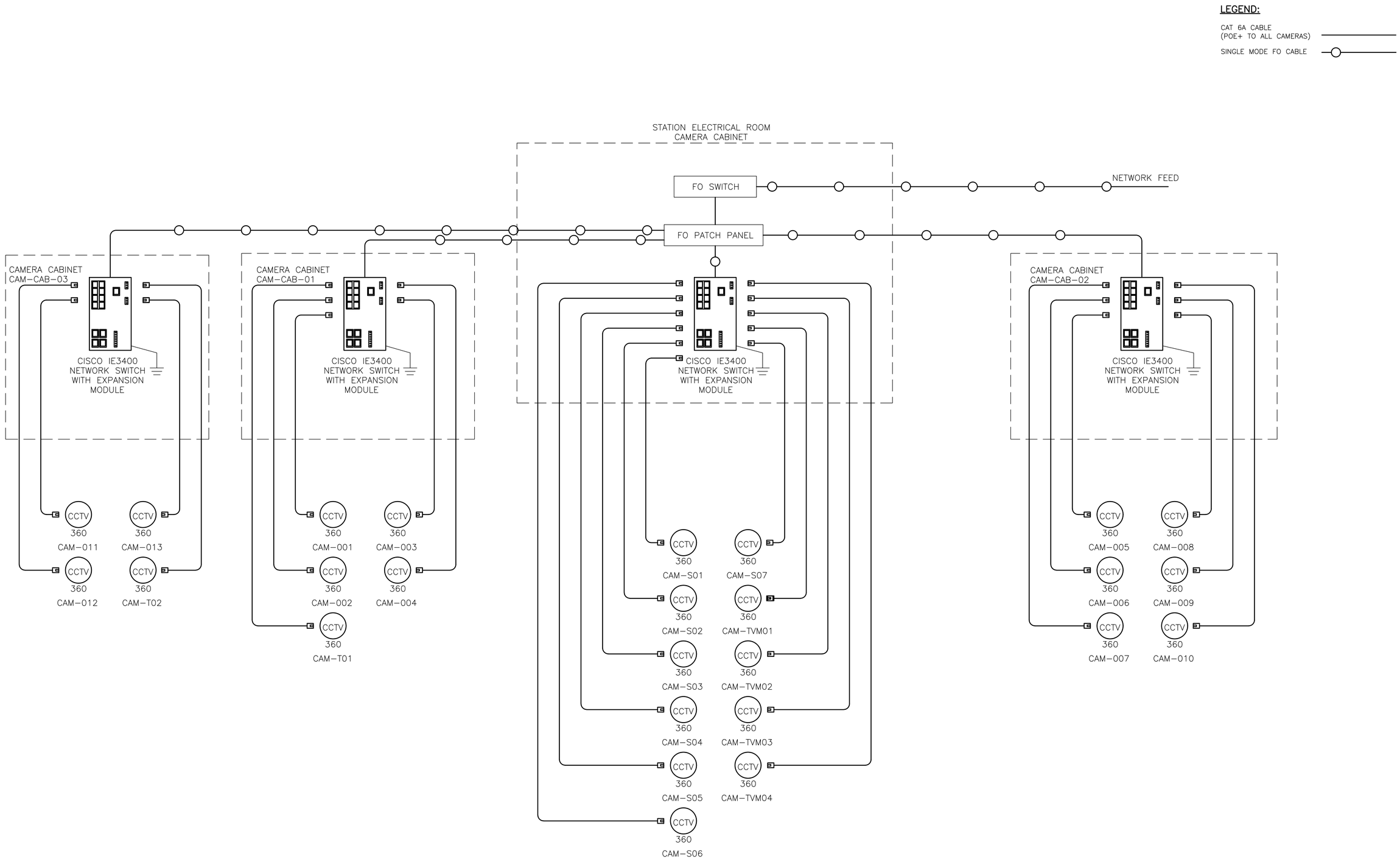

CAMERA SYSTEM RISER DIAGRAM

NTS

CDM Smith	USER NAME = -	DESIGNED - ES	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	COMMUNICATIONS CCTV SECURITY SYSTEM RISER DIAGRAM	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
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	PLOT SCALE = -	CHECKED - ES	REVISED -					CONTRACT NO. _	
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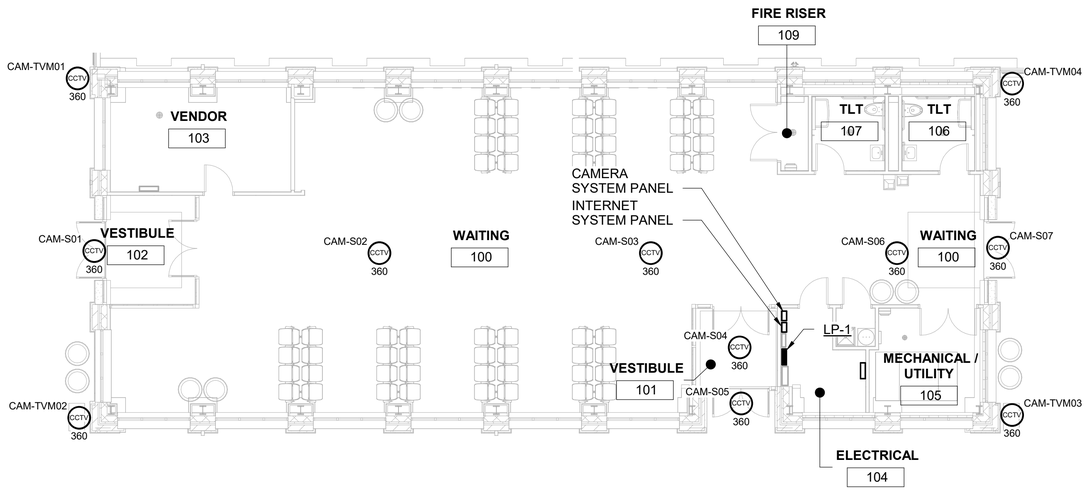

INBOUND GROUND FLOOR COMMUNICATIONS PLAN

1/8" = 1'-0"

0 4' 8' 16'

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

CDM Smith	USER NAME =	DESIGNED - ES	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	COMMUNICATIONS INBOUND GROUND FLOOR COMMUNICATIONS PLAN	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
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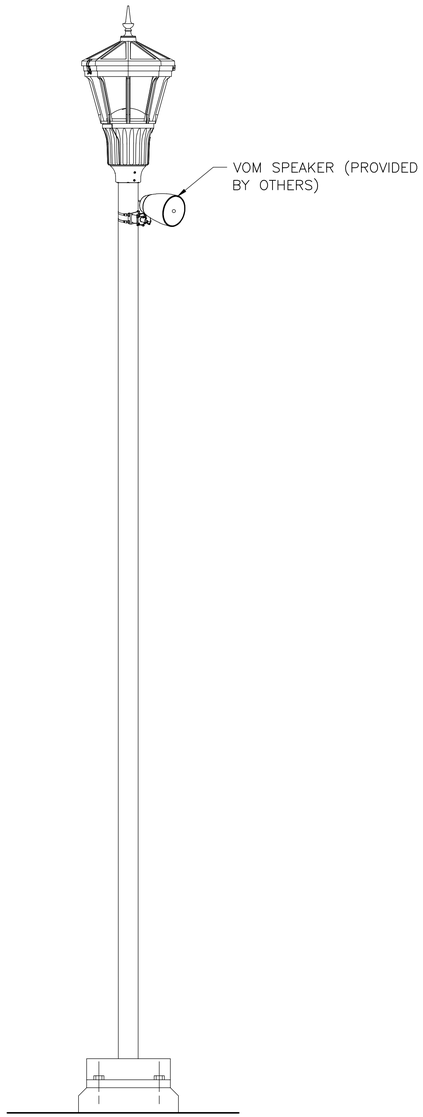
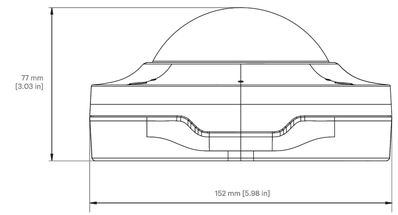


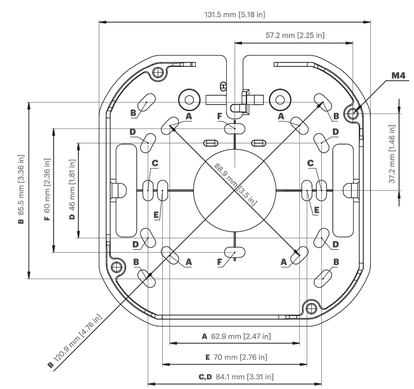
POLE WITH SPEAKER MOUNTED

DETAIL A

NTS –

CAMERA WITH WALL MOUNT BRACKET





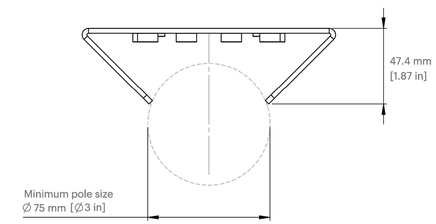
	Designation	Dimension (mm)	Dimension (inch)
A	Octagon	62.9 x 62.9 (88.9 diagonal)	2.47 x 2.47 (3.50 diagonal)
B	4" Square Box	85.5 x 85.5 (120.9 diagonal)	3.36 x 3.36 (4.76 diagonal)
C	Single Gang	84.1	3.31
D	Double Gang	84.1 x 46	3.31 x 1.81
E	EU Ceiling Box	70	2.76
F	EU Outlet Box	60	2.36

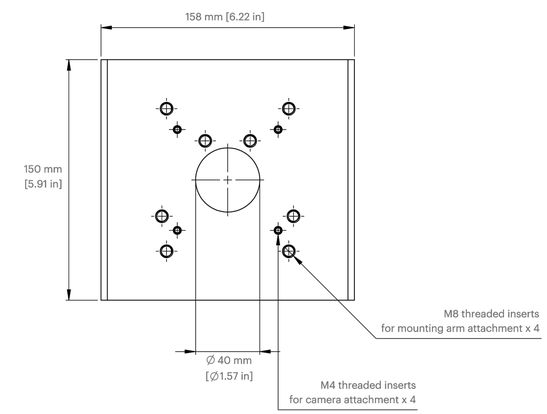
CAMERA WALL MOUNT

DETAIL B

NTS –

CAMERA POLE MOUNT BRACKET





CAMERA WALL MOUNT

DETAIL C

NTS –

Preliminary Design Report

Glen Ellyn Metra Station and Multimodal Access Improvements Project

Village of Glen Ellyn

10% Design January 2024

Rev. 4/12/2024

CDM Smith

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 Passengers[2]	**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 Passengers[2]	**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”	

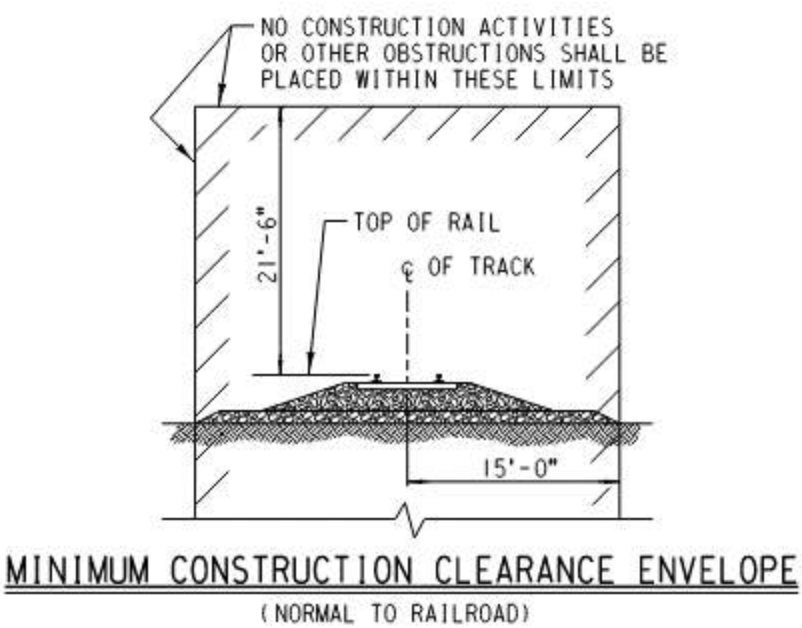
2.2.2 UPRR Standards

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 ant 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”	

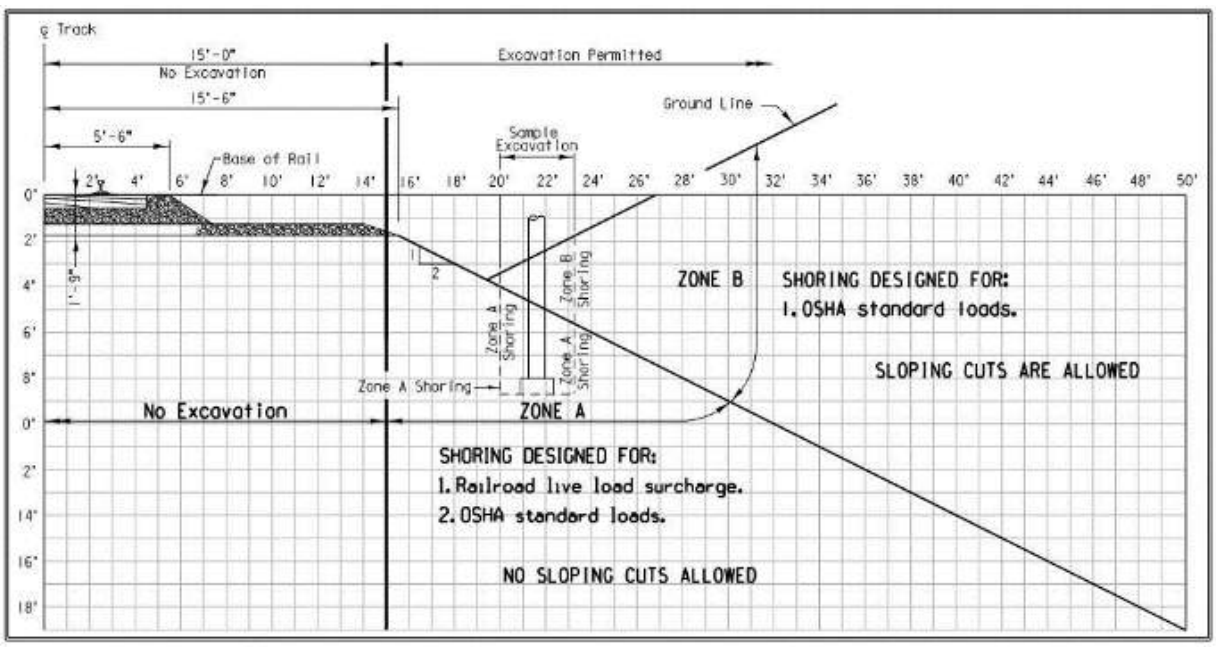
Figure 2.1 - UPRR/BNSF Bridge Standards – Temporary Clearance Envelope



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

Project Name: Glen Ellyn Metra Station and Multimodal Improvements Pr
Date: 1/5/2024

Y	?	N			
			Credit	Integrative Process	1

13	0	0	**Location and Transportation**		16
			Credit	LEED for Neighborhood Development Location	16
1			Credit	Sensitive Land Protection	1
			Credit	High Priority Site and Equitable Development	2
5			Credit	Surrounding Density and Diverse Uses	5
5			Credit	Access to Quality Transit	5
1			Credit	Bicycle Facilities	1
			Credit	Reduced Parking Footprint	1
1			Credit	Electric Vehicles	1

4	3	0	**Sustainable Sites**		10
Y			Prereq	Construction Activity Pollution Prevention	Required
1			Credit	Site Assessment	1
			Credit	Protect or Restore Habitat	2
1			Credit	Open Space	1
	3		Credit	Rainwater Management	3
1			Credit	Heat Island Reduction	2
1			Credit	Light Pollution Reduction	1

3	0	0	**Water Efficiency**		11
Y			Prereq	Outdoor Water Use Reduction	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering	Required
1			Credit	Outdoor Water Use Reduction	2
2			Credit	Indoor Water Use Reduction	6
			Credit	Optimize Process Water Use	2
			Credit	Water Metering	1

9	0	0	**Energy and Atmosphere**		33
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering	Required
Y			Prereq	Fundamental Refrigerant Management	Required
3			Credit	Enhanced Commissioning	6
5	?		Credit	Optimize Energy Performance	18
			Credit	Advanced Energy Metering	1
			Credit	Grid Harmonization	2
			Credit	Renewable Energy	5
1			Credit	Enhanced Refrigerant Management	1

2	11	0	**Materials and Resources**		13
Y			Prereq	Storage and Collection of Recyclables	Required
	5		Credit	Building Life-Cycle Impact Reduction	5
	2		Credit	Environmental Product Declarations	2
	2		Credit	Sourcing of Raw Materials	2
	2		Credit	Material Ingredients	2
2			Credit	Construction and Demolition Waste Management	2

11	2	0	**Indoor Environmental Quality**		16
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
1			Credit	Enhanced Indoor Air Quality Strategies	2
2			Credit	Low-Emitting Materials	3
	1		Credit	Construction Indoor Air Quality Management Plan	1
2			Credit	Indoor Air Quality Assessment	2
1			Credit	Thermal Comfort	1
2			Credit	Interior Lighting	2
2			Credit	Daylight	3
1			Credit	Quality Views	1
	1		Credit	Acoustic Performance	1

1	0	0	**Innovation**		6
			Credit	Innovation	5
1			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

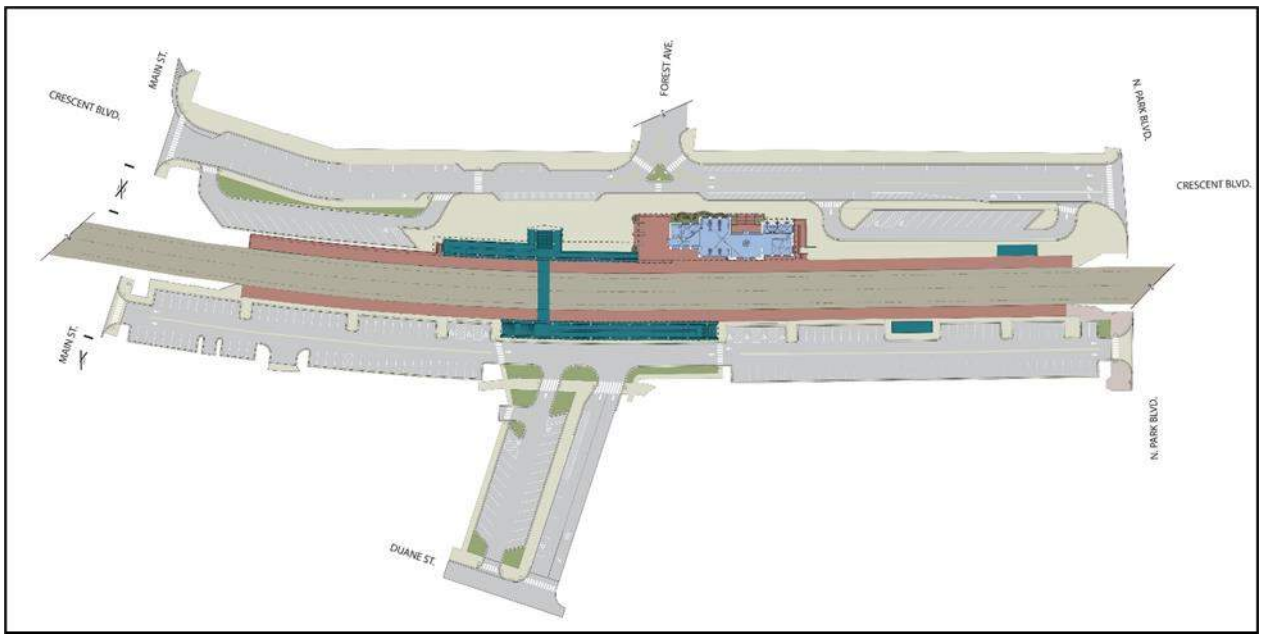
Pedestrian Tunnel Design

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 is 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

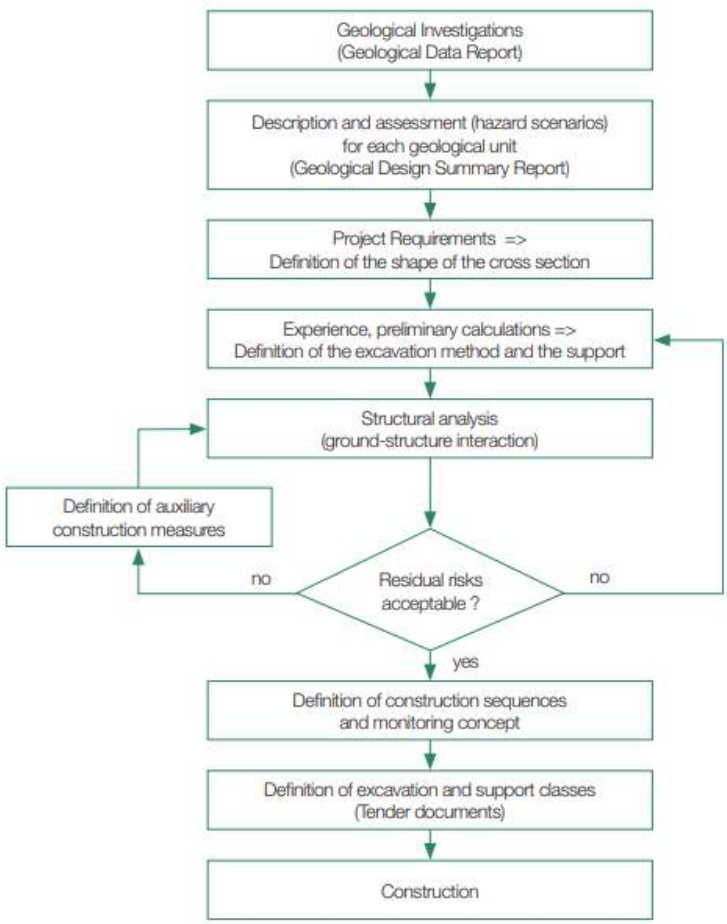
installed. Following completion, each pipe will be filled with grout and allowed to cure before any excavation via SEM takes place.

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, Fy=42 ksi, Fu=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 cladded 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 deign 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 with 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 appliable 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 2026-2028l

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 refence 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.

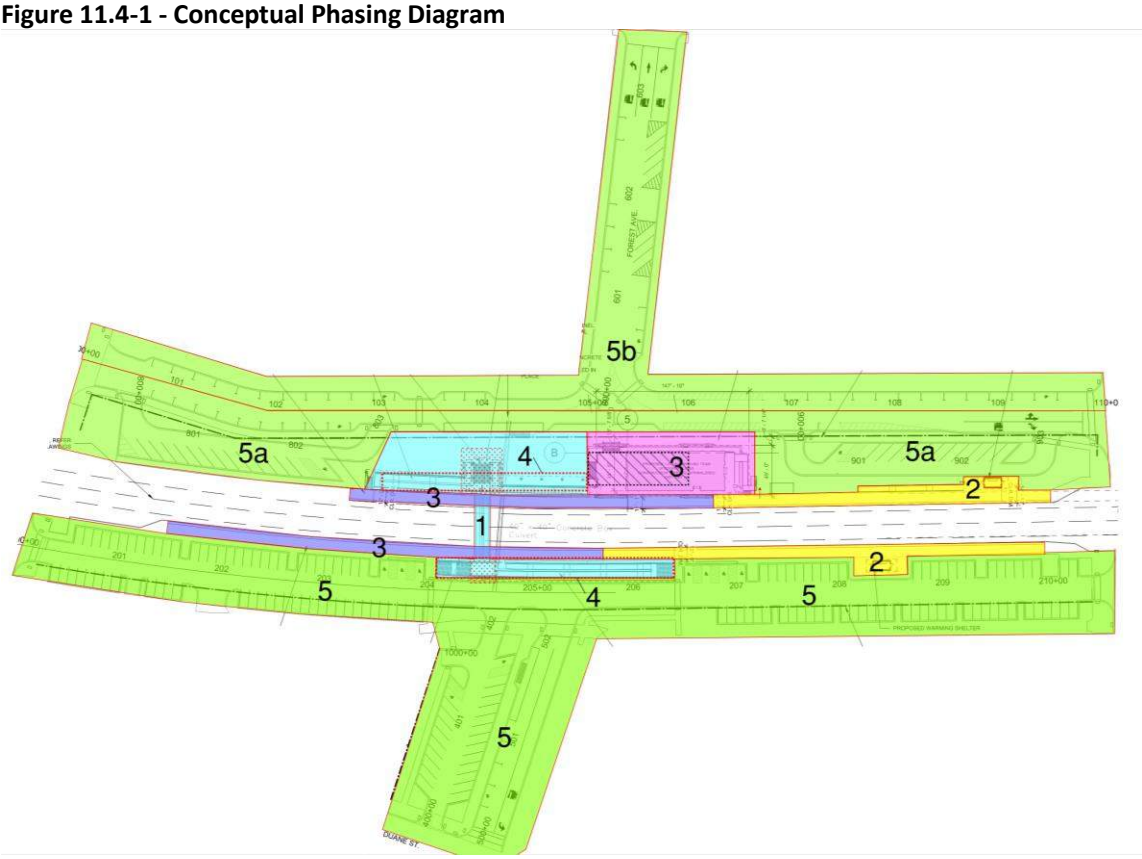
2. Each platform (inbound and outbound) will close and be construction one half of its length at a time, to allow for use of half of the platform at any one time. Construction of the platforms will be the responsibility of UPRR and its construction forces. According to early coordination with UPRR, each 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



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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.

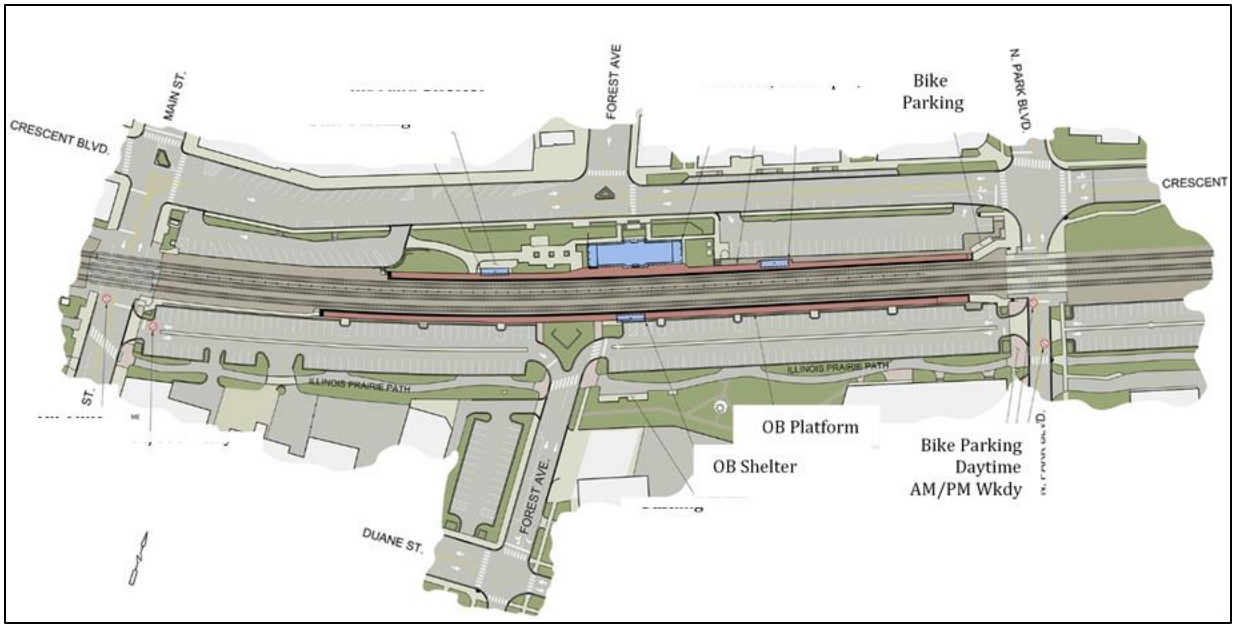


Figure 2-1 Existing Site Plan of the Station and Site Improvements

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

Section 3

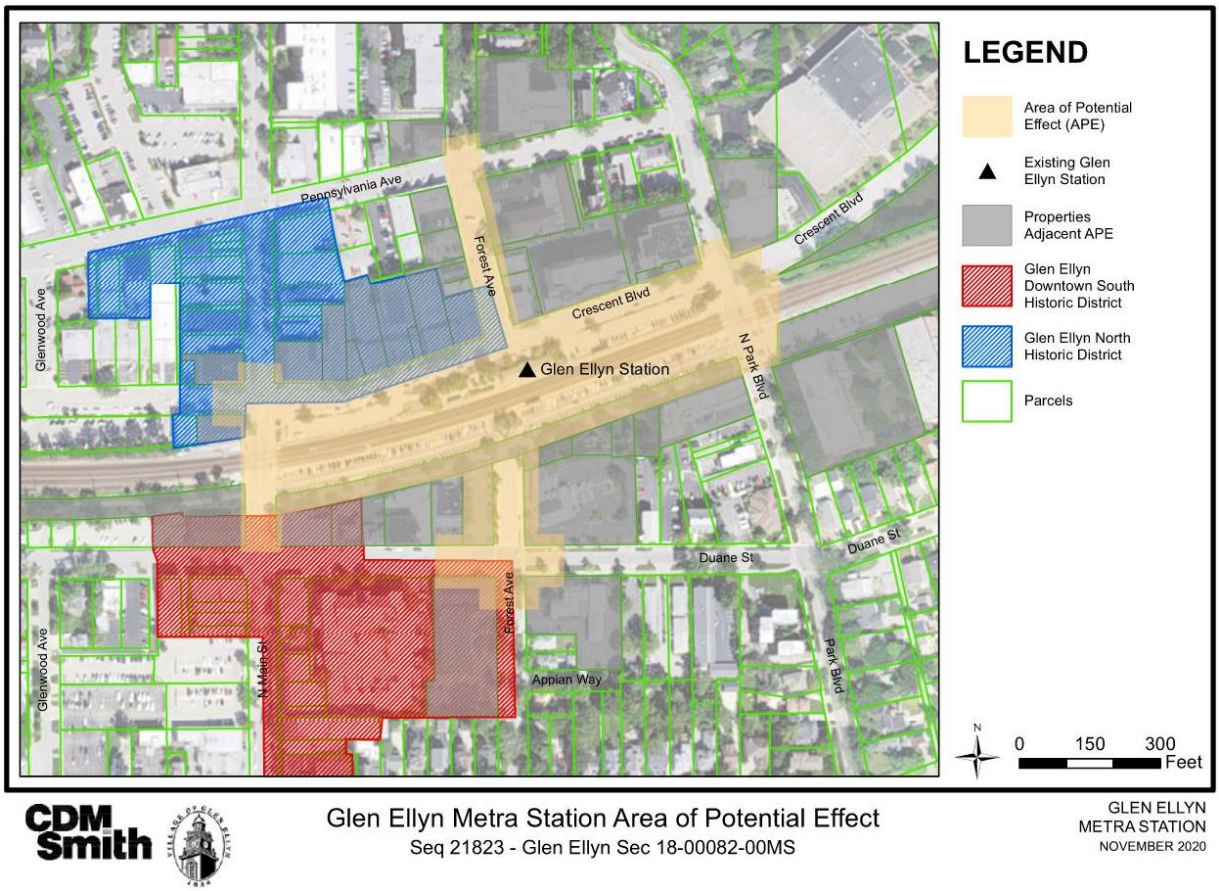
Area of Potential Effects

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



CDM Smith

Glen Ellyn Metra Station Area of Potential Effect
Seq 21823 - Glen Ellyn Sec 18-00082-00MS

GLEN ELLYN
METRA STATION
NOVEMBER 2020

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

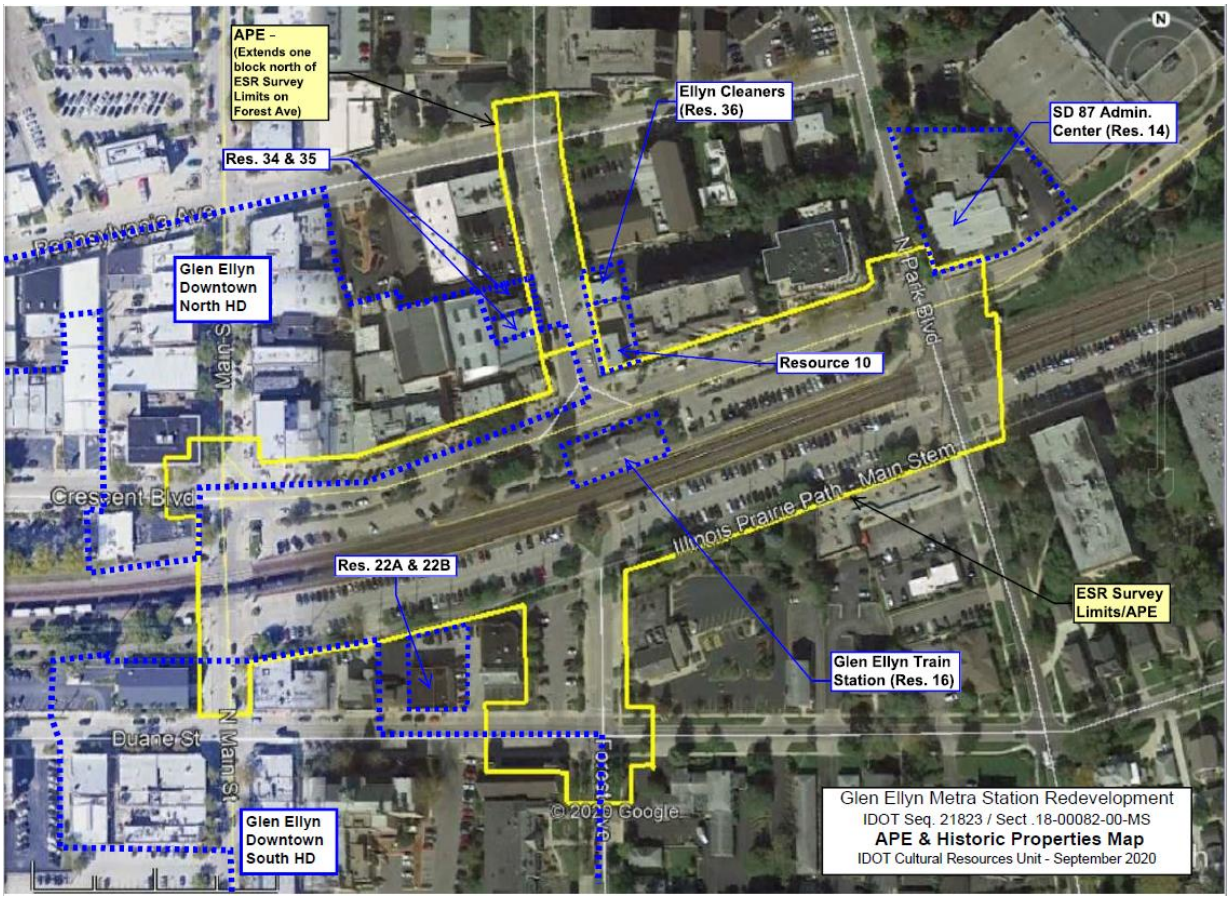


Figure 4-1 APE and Historic Properties Map

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.

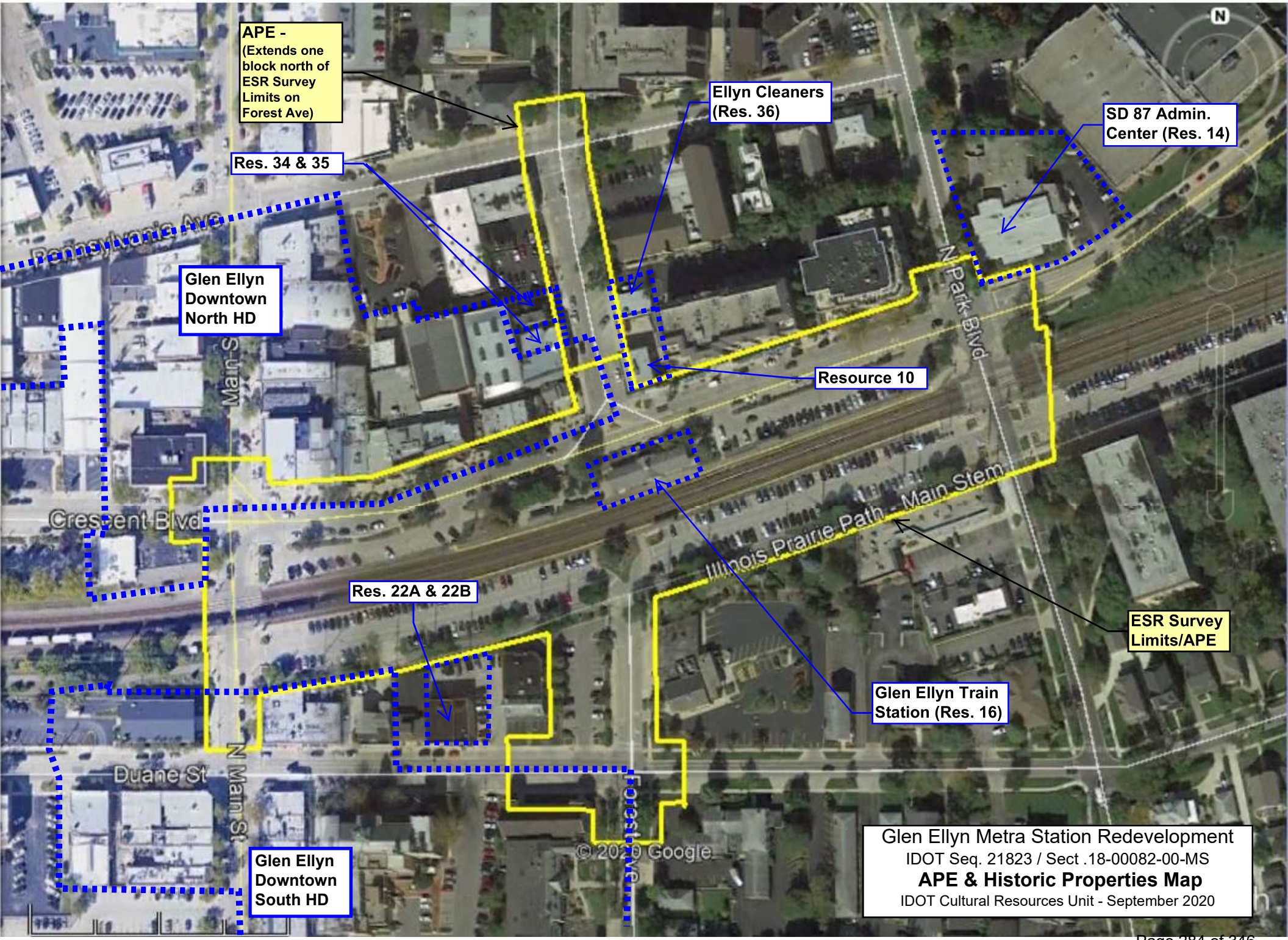
Based on a review of the project files, the edited Photo Log, Google Earth Streetviews, and histories of Glen Ellyn and the western suburbs available in the NRHP district nomination forms and online, a total of 9 above-ground historic properties have been identified in the APE. Excepting the three known 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)
Ellyn Cleaners (Res. 36)
SD 87 Admin. Center (Res. 14)
Res. 34 & 35
Pennsylvania Ave
Glen Ellyn Downtown North HD
S Main St
N Park Blvd
Resource 10
Crescent Blvd
Illinois Prairie Path - Main Stem
Res. 22A & 22B
ESR Survey Limits/APE
Glen Ellyn Train Station (Res. 16)
Duane St
N Main St
Forest Ave
© 2020 Google
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
Preservation Services

IHPA REVIEW
H/A _____
AC _____
AR _____
File _____

September 18, 2020

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

FEDERAL – SECTION 106 PROJECT

Identification of Architectural Historic Properties

Concur except property #8 is already listed
RB 10/1/2020

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

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 of 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: 10/1/2020

Appendix C

2019 Illinois Historic Preservation Office Eligibility Concurrence

Illinois Department of Transportation
2300 South Dirksen Parkway / Springfield, Illinois / 62764

RECEIVED
JAN 18 2019
00701819
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

January 18, 2019

IHPA REVIEW
H/A Concur SH 2/5/19
AC
AR
File DuFCC

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 Koldehoff

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

BK:br

CONCUR
By: Robert Appleman
Deputy State Historic Preservation Officer
Date: 2/5/19

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 are 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 in 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

Illinois Department of Transportation

Memorandum

To:	Maureen Kastl	Attn:	William Raffensperger
From:	Jack Elston	By:	Brad Koldehoff
Subject:	Historic Property Avoidance - Adverse Effect		
Date:	January 18, 2019		

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

We have received an Environmental Survey Request (ESR) for the above-referenced project involving 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 Glen Ellyn Train Station has been determined eligible for listing on the National Register of Historic Places (NRHP) (see attached), and is therefore accorded protection under and Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800) and the Illinois State Agency Historic Resources Preservation Act of 1989 (Public Act 86-707).

Demolition of the Glen Ellyn Train Station building would constitute an Adverse Effect to this historic property. **36 CFR 800, P.A. 86-070, and Federal Highway Administration (FHWA) policy that all reasonable measures be taken to avoid this demolition of this historic building**. Rehabilitation of the train station building must be considered. FHWA policy under Section 4(f) of the U.S. Department of Transportation Act of 1966 requires that there be no feasible and prudent alternative to replacement of the train station, and that the project include all possible planning to minimize harm to the historic property.

Please do not hesitate to contact IDOT Architectural Historian Elizabeth (Becky) Roman with any questions. She can be reached by email at elizabeth.roman@illinois.gov or by phone at (217) 558-4752.

Sincerely,

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

BK:br

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' 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. Brain 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 Railraod 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 to 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 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,

Karen G. Hall

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,
William 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 I Community Development Department
Village of Glen Ellyn I 535 Duane Street Glen Ellyn, IL 60137
Ph: 630-547-5371 I 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 Facebook Twitter
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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.

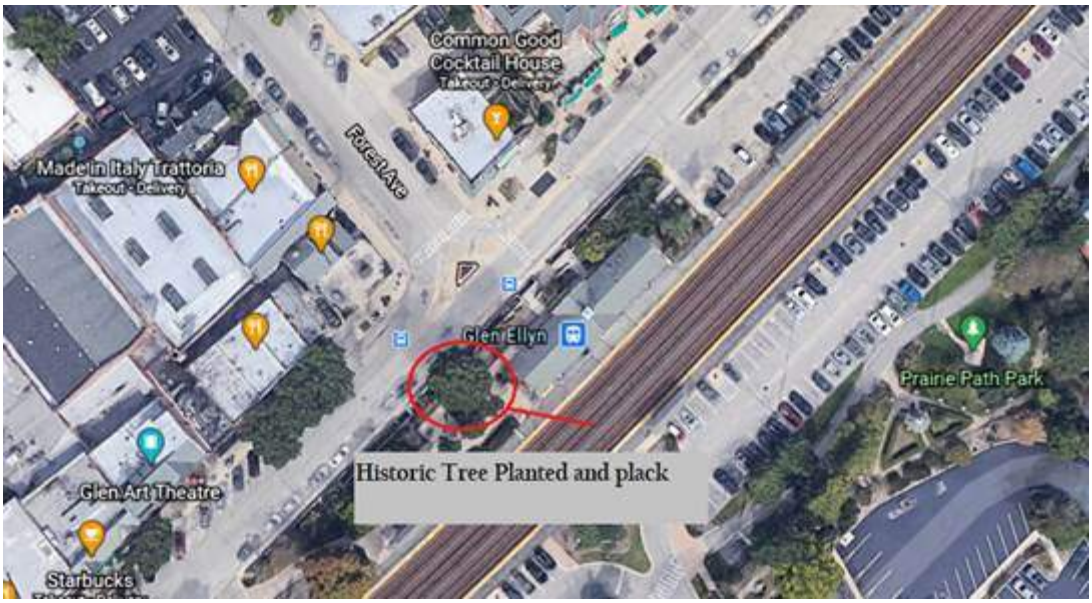
Train Station and Platform Area
Bicycle parking will be affected on the platform no matter how the construction phases go. Is there a possibility of utilizing putting in temporary parking for motorcycles and bicycles behind the now empty building where the Dog Treats store was on Park Boulevard?

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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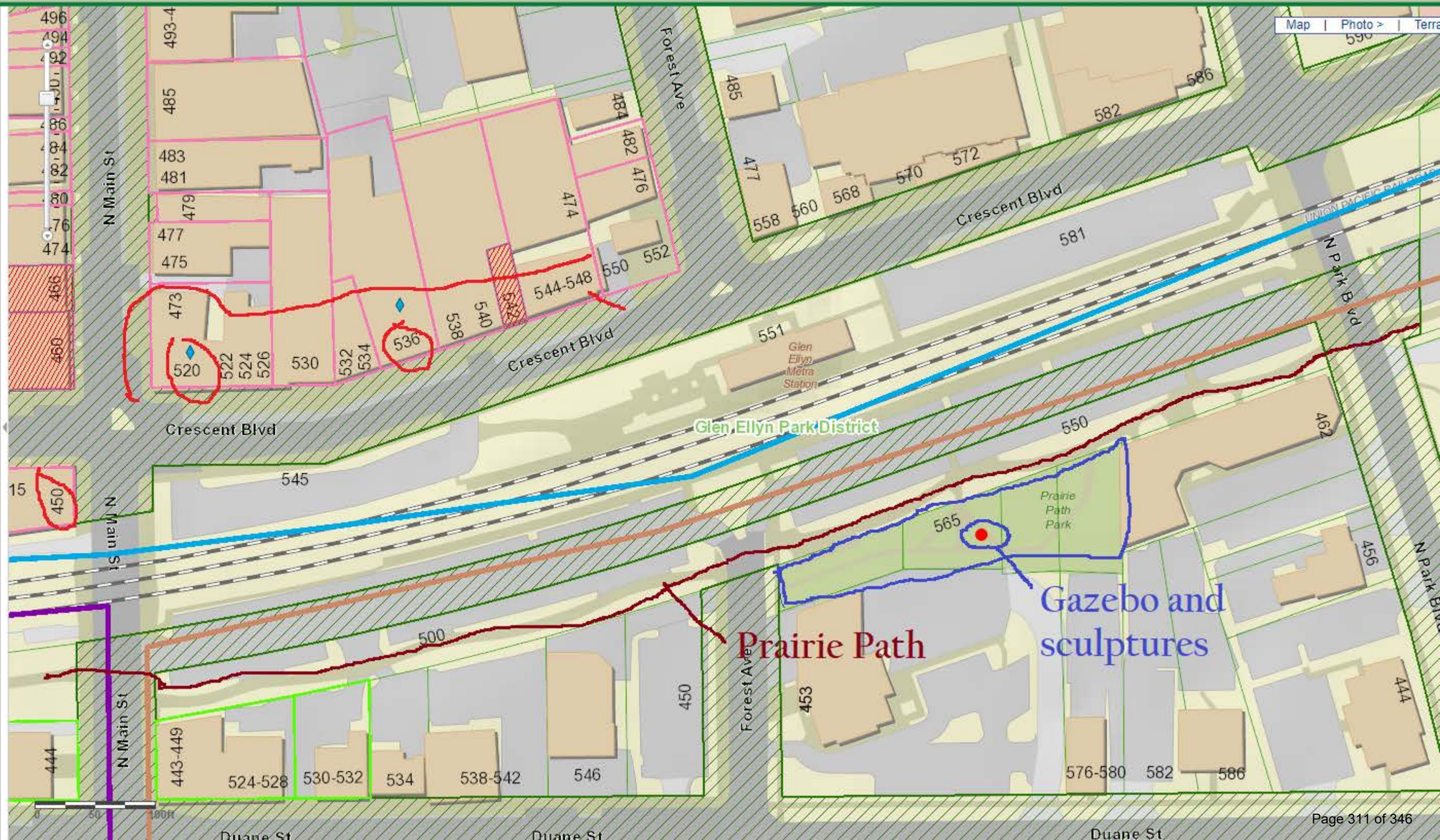

Walsh, Kevin J.

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.

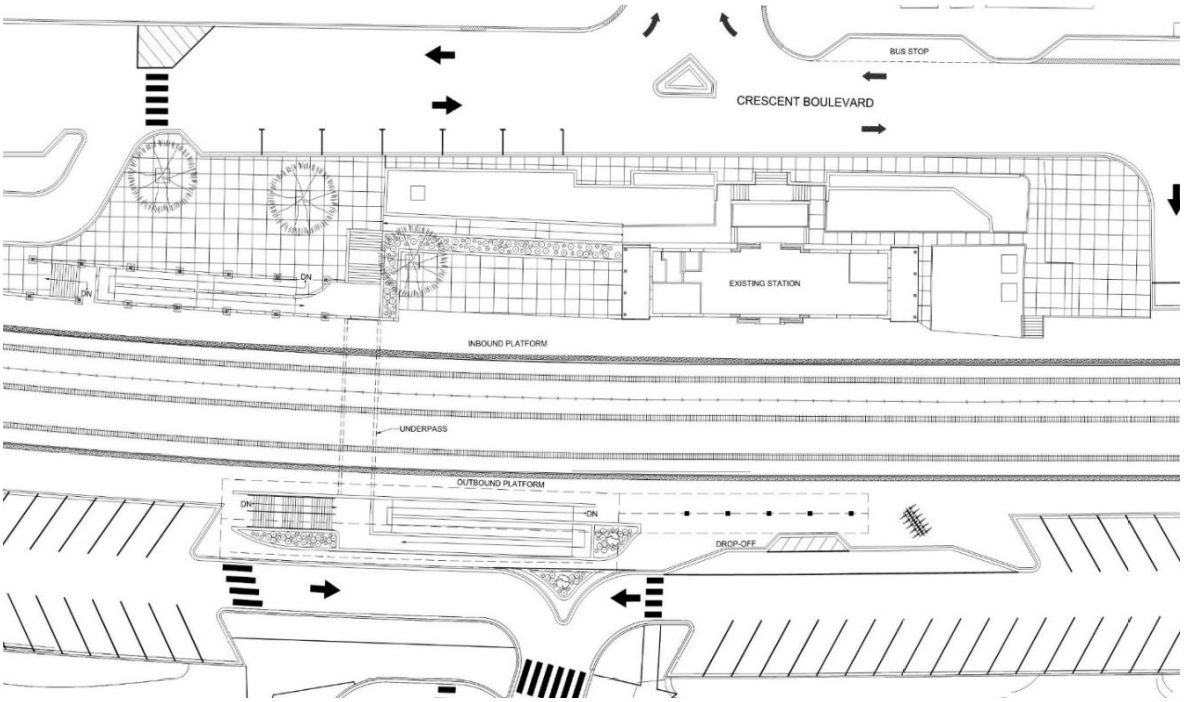


Figure 2 Rehabilitate the Existing Station Alternative – Site Plan

Error! Reference source not found.

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.

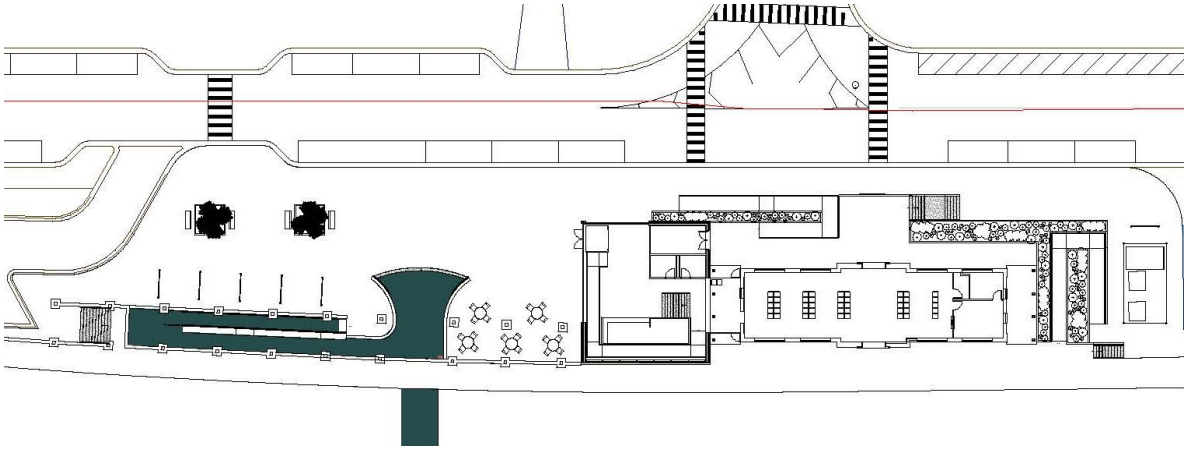


Figure 4 Rehabilitate and Expand the Existing Station Alternative – Site Plan

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.

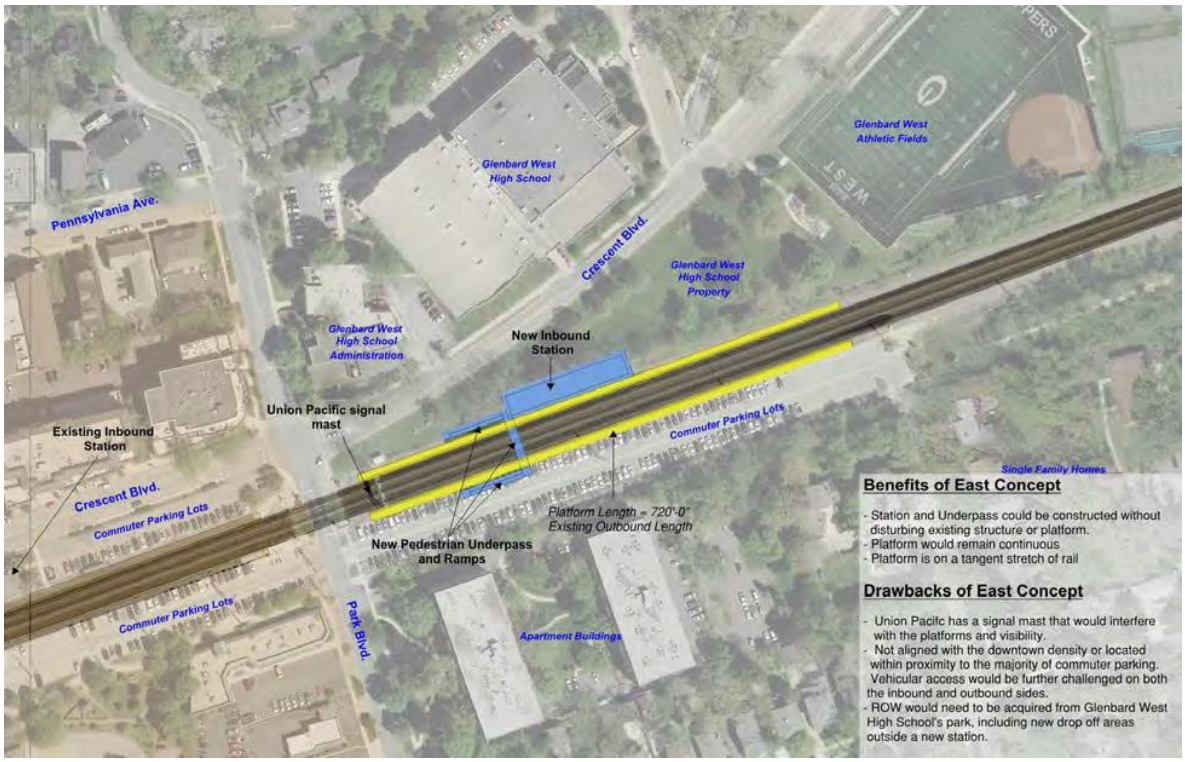


Figure 6 New Station Location – East Alternative

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.

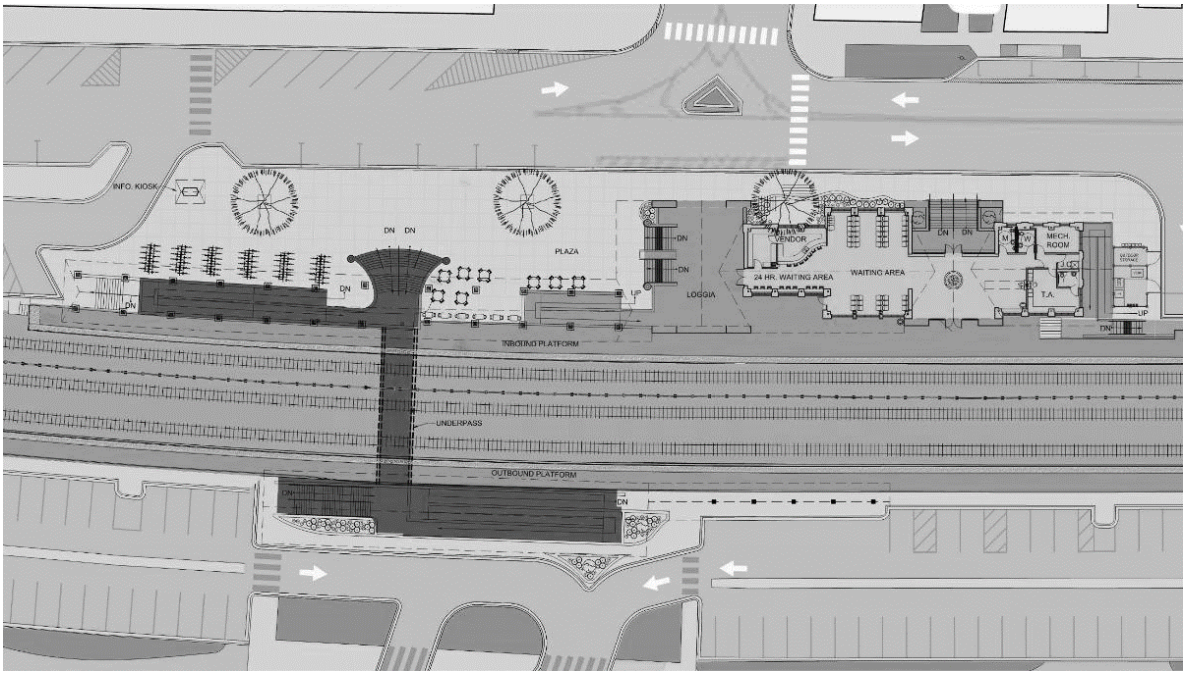


Figure 7 New Construction, Same Location Alternative – Site Plan

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.

Figure 1: Existing Aerial of the Station and Surrounding Site

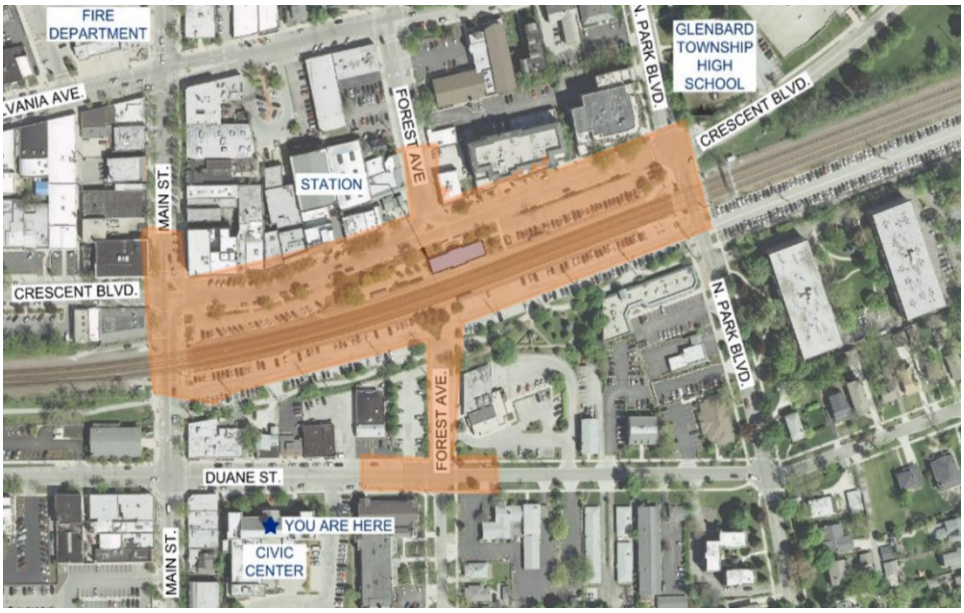


Figure 2: Existing Site Plan of the Station and Site Improvements

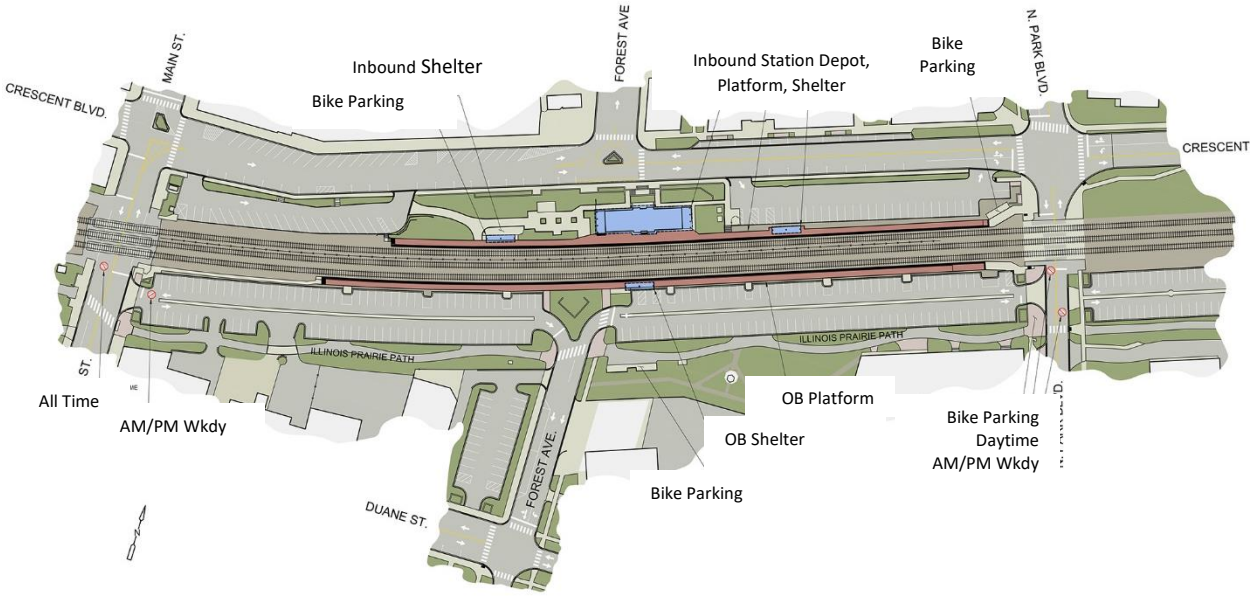


Figure 3: Existing Station Elevation from north looking south

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:

- 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.

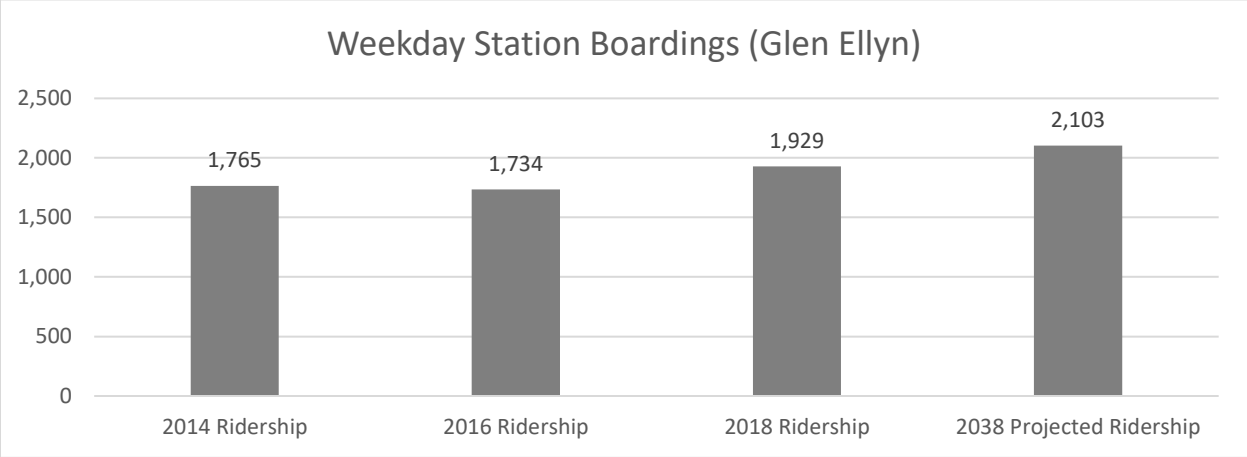
E. The current station, tracks, and facilities create a barrier separating the north and south areas of Downtown Glen Ellyn and the existing building architecture is not compatible with the adjacent Historic Districts.
   - While located in the center of Downtown Glen Ellyn, the current Metra station 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 boarding's 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%.

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.

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

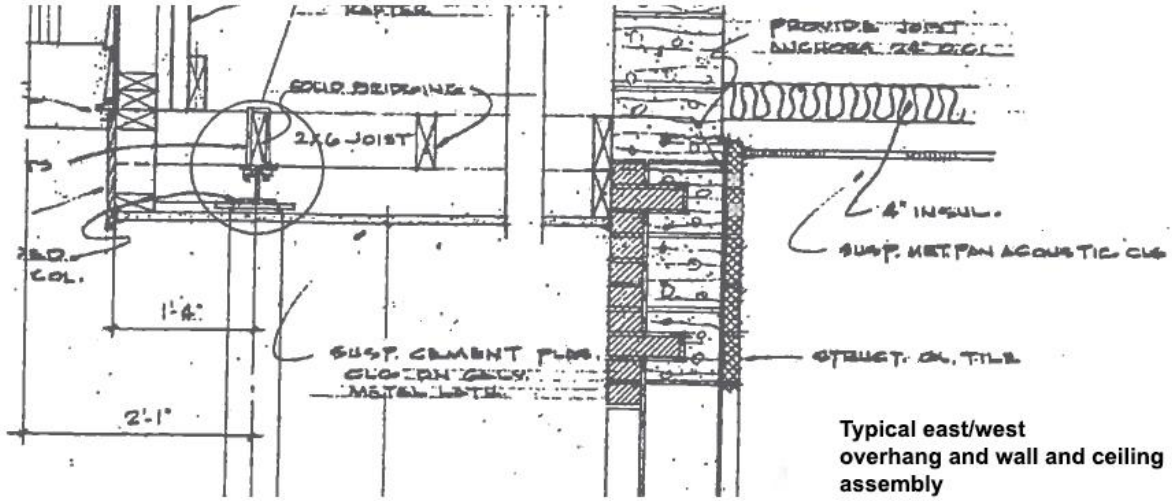
Based on the 1966 design drawings, the building exterior walls are constructed of a single layer of 4-inch nominal face brick, typically with an 8-inch nominal concrete block and vermiculite filled interlayer, and a single layer of structural glazed tile in the interior of the station. **Figure 5** shows 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

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.

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

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.

Figure 9: Rusted Lally Column (L), Rusted 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.

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)

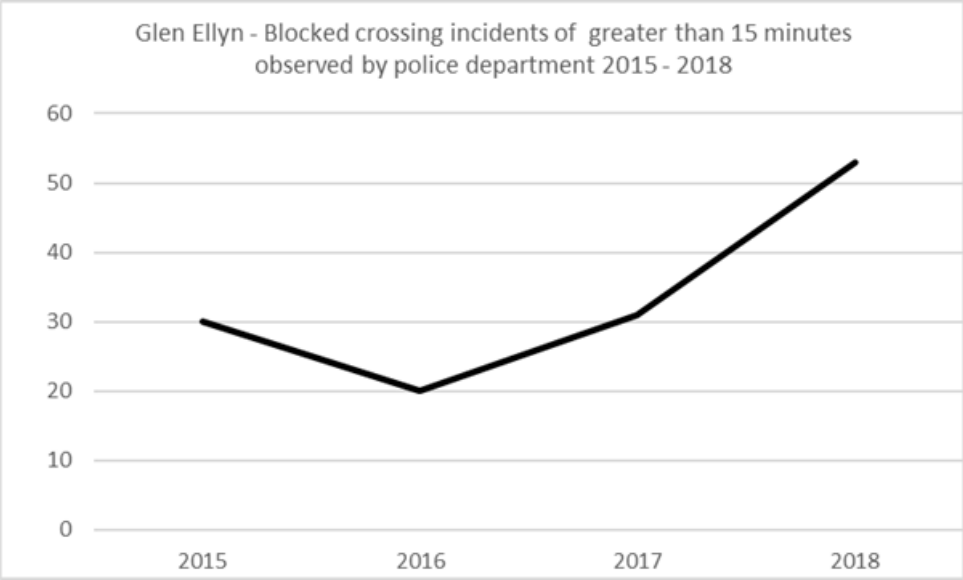
Locations	**Existing Commuter Parking Spots**
Southwest Lot	81
South Lot	25
Southeast Lot	87
Northeast Lot	30
Total	**223**

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 difficult 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

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

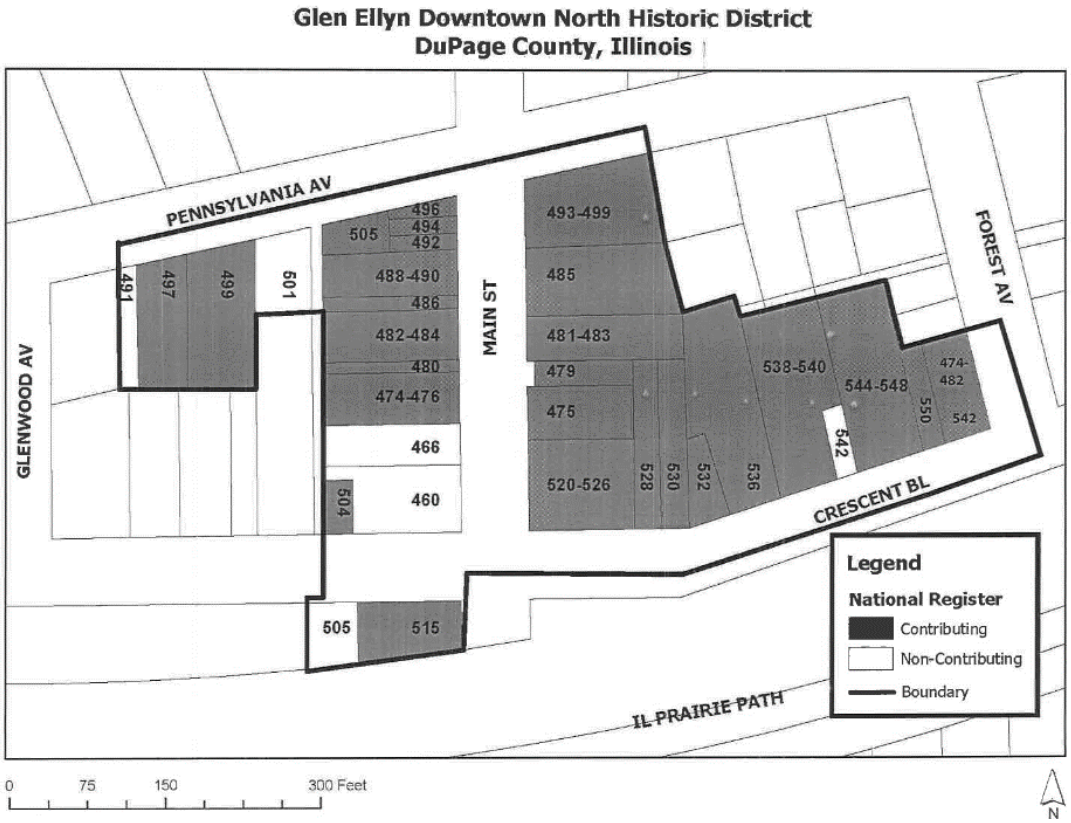
Figure 14: Main Street (View north) Showing Traffic Queuing

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:

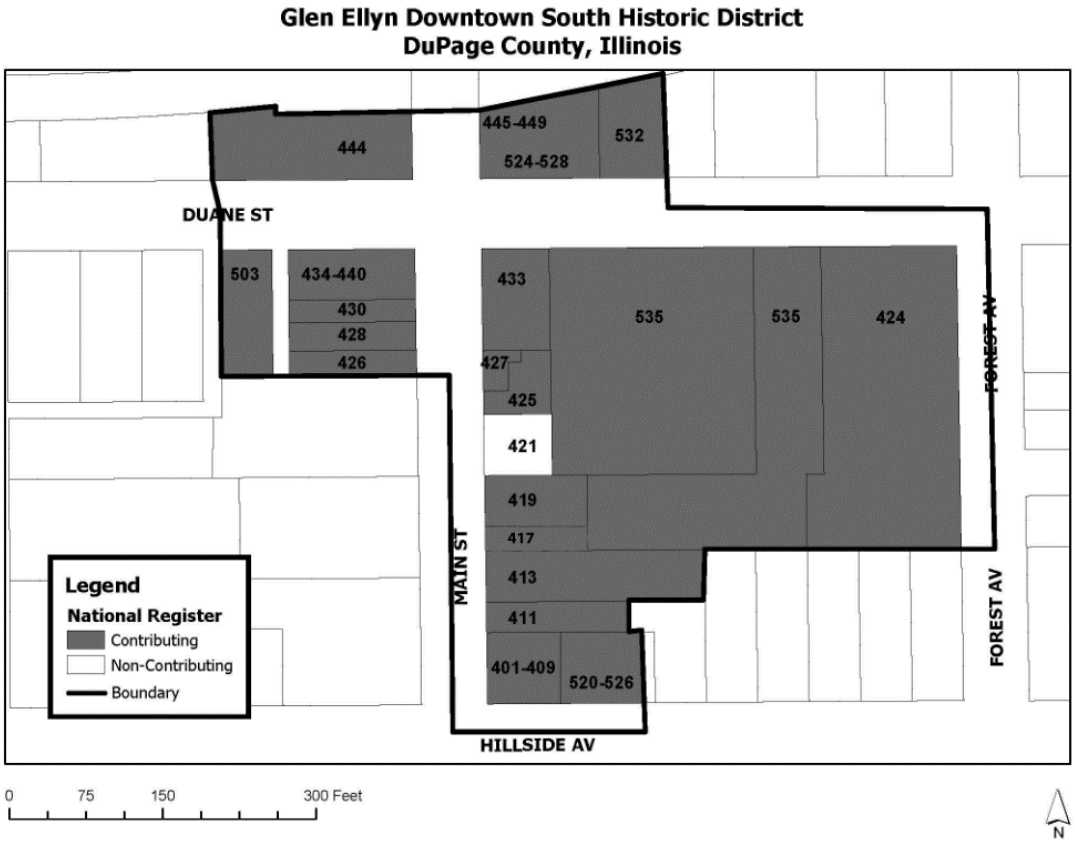
- **Glen Ellyn Downtown North Historic District:**
  - Period of Significance 1890-1963
  - Contributing Buildings: 28
  - Non-Contributing Buildings: 6
  - Of the 28 contributing structures, 26 (92%) were built before 1930
  - The common architectural styles identified:
    - Late 19th and 20th Century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



- **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

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

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

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