

**ISSUE:** Certificate of Appropriateness for new construction

**APPLICANT:** City of Alexandria and Washington Metropolitan Area Transit Authority (WMATA)

**LOCATION:** Old and Historic Alexandria District  
2500 Potomac Greens Drive (2405, 2501, 3701 Potomac Avenue, 3251 Potomac Avenue [Parcel ID 016.04-01-01], 700 Carpenter Road, 1702 and 1880 Potomac Greens Drive) 2901 Potomac Avenue (2405, 2501, 3701 Potomac Avenue, 3251 Potomac Avenue [Parcel ID 016.04-01-01], 700 Carpenter Road, 1702 and 1880 Potomac Greens Drive)

**ZONE:** CDD#19, CDD#10, UT/Utilities and transportation

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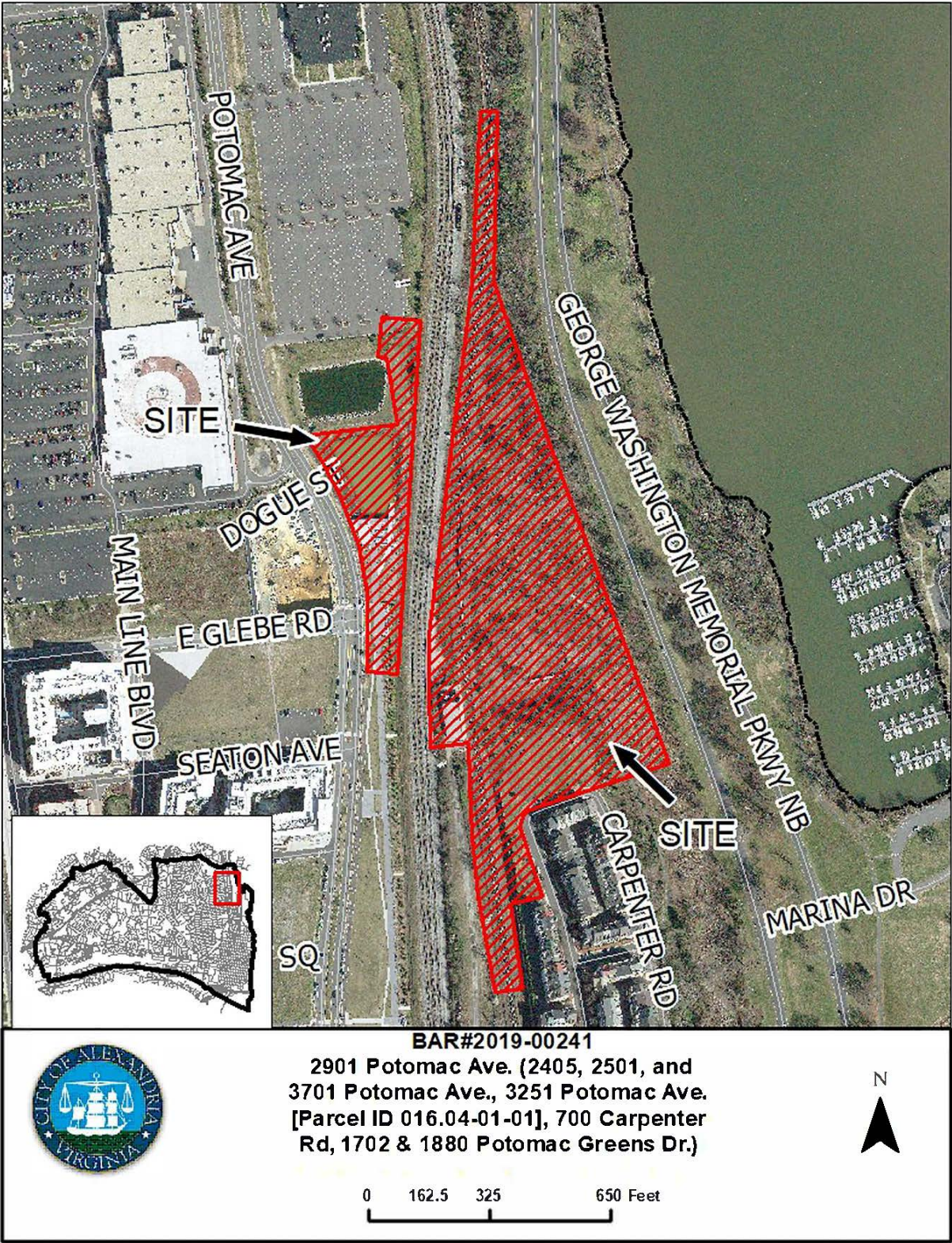
**STAFF RECOMMENDATION**

Staff recommends approval of portions and deferral of portions of the station for restudy, as follows:

1. Staff recommends approval of the downspout locations, the pedestrian bridge design details and of the architectural lighting of the station and pedestrian bridges but will closely follow the final light fixture details through the building permit process to ensure that they comply with the BAR's design intent to minimize glare toward the George Washington Memorial Parkway.
2. Staff recommends restudy of the shape and connection details of the downspouts.

**GENERAL NOTES TO THE APPLICANT**

1. **APPEAL OF DECISION:** In accordance with the Zoning Ordinance, if the Board of Architectural Review denies or approves an application in whole or in part, the applicant or opponent may appeal the Board's decision to City Council on or before 14 days after the decision of the Board.
2. **COMPLIANCE WITH BAR POLICIES:** All materials must comply with the BAR's adopted policies unless otherwise specifically approved.
3. **BUILDING PERMITS:** Most projects approved by the Board of Architectural Review require the issuance of one or more construction permits by Department of Code Administration (including signs). The applicant is responsible for obtaining all necessary construction permits after receiving Board of Architectural Review approval. Contact Code Administration, Room 4200, City Hall, 703-746-4200 for further information.
4. **ISSUANCE OF CERTIFICATES OF APPROPRIATENESS AND PERMITS TO DEMOLISH:** Applicants must obtain a copy of the Certificate of Appropriateness or Permit to Demolish PRIOR to applying for a building permit. Contact BAR Staff, Room 2100, City Hall, 703-746-3833, or [preservation@alexandriava.gov](mailto:preservation@alexandriava.gov) for further information.
5. **EXPIRATION OF APPROVALS NOTE:** In accordance with Sections 10-106(B), 10-206(B) and 10-307 of the Zoning Ordinance, any Board of Architectural Review approval will expire 12 months from the date of issuance if the work is not commenced and diligently and substantially pursued by the end of that 12-month period.
6. **HISTORIC PROPERTY TAX CREDITS:** Applicants performing extensive, certified rehabilitations of historic properties may separately be eligible for state and/or federal tax credits. Consult with the Virginia Department of Historic Resources (VDHR) prior to initiating any work to determine whether the proposed project may qualify for such credits.





## **UPDATE**

At the **July 10, 2019** BAR hearing, the BAR approved the following elements:

- Height
- Scale
- Station Footprint
- Overall Architectural Character

At the **July 24, 2019** BAR hearing, the applicant returned with refined designs requested by the Board and the BAR approved the following items:

- Mass and scale of Pier Option #1 (stone base with Y-shape)
- Mass and scale of roofs at mezzanine and platform, including the platform canopy length per the WMATA specification

At the **September 4, 2019** BAR hearing, the BAR approved or partially approved a number of items which were listed in the memo to the BAR and reflected in the approved minutes of September 4. The applicant has included the status of these items in a table in their present application graphics and a partial response to the BAR's previous concerns and comments.

At the **October 16, 2019** BAR hearing, the Board approved portions and deferred portions, as noted below:

1. Approval of the footprint, scale, mass and architectural character and materials of the pedestrian bridge, ramp and entrance pavilion with a restudy of:
  - a. The lighting and handrails in the pedestrian bridge; and
  - b. The architectural details of the entry pavilion to include, at a minimum, lintels over the fenestration, caps at the stone walls, the color, material and design of the window wall framing members.
2. Approval of the rafters of the pedestrian bridge with a restudy of:
  - a. The number and method of attachment of the handrail/guardrail system; and
  - b. The lighting fixture location and any visible utility conduit must be shown in the renderings.
3. Approval of the architectural lighting with final review by staff to confirm that it is:
  - a. Directed away from the GW Parkway;
  - b. That the color is 3,000 Kelvin or warmer.

## **I. ISSUE**

The BAR has been reviewing this enormous project through an iterative, cumulative process. The applicant has requested approval of the following three items at this hearing. The remaining items will be brought forward on December 18, or whenever they are ready. Item numbers below reference a spreadsheet that the applicant has used at the past several hearings and is included in the linked staff report of October 16, 2019.

1. Item 3 – Provide details of the drainage/gutters/downspouts of the Station;



2. Item 7b - Restudy the guardrails throughout the station and pedestrian bridges. The wire mesh fencing was approved to be located on the interior of the trusses but the mesh fence connection details, the handrails and guardrails should be as simple as possible; and
3. Item 9 - Restudy the visibility of the light fixture lenses from the Parkway, the intensity of the light at the north end of the station and the illumination of the skylights from below to minimize its impact on dark sky requirements.

## II. ANALYSIS

### Item 3: Gutters and Downspouts

Having demonstrated that it was not possible to conceal the roof drainage system, the applicant has been working with staff to integrate the location of the downspouts into the overall architectural character of the station, as previously directed by the BAR. The downspout pipes have been grouped and aligned with truss extensions, the platform columns and the mezzanine exoskeleton framing. In some locations, this required pairing two downspouts to receive water draining in the gutter from two directions. While the final locations are now generally resolved, the architectural design of the downspouts themselves need additional refinement.

Staff recommends that there be a custom designed leader head at the drop from the gutter that combines both drains into a single rectangular downspout that can closely follow the truss extension and extend down to the rectangular reveal, or notch, in the fieldstone base. The stone base should have a metal cover plate that conceals the cleanout and the transition from the downspout into the underground stormwater system pipes. The design/build team concurs with this recommendation but did not have time to amend the illustrations for the December 4, 2019 hearing. Staff recommends approval of the general location of the downspouts with restudy of their shape and connection details.

### Item 7b: Pedestrian Bridge Handrail/Guardrails

At the previous hearing, the BAR approved simplified, curved rafters for the pedestrian bridges and the installation of the woven metal mesh “fence” on the inside of the truss, with a request to restudy the number of handrails required by code and how they will attach to the floor and/or truss – the design goal of the BAR being to visually simplify the construction details, similar to other recent WMATA stations. The design/build team has submitted engineering calculations to the City and WMATA to confirm that the 2” x 2” stainless steel woven metal mesh held by a perimeter frame secured to the truss will itself meet the code requirements for a guard rail, so that one of the two previously shown horizontal handrails may be eliminated. The handrail stanchions at the vertical truss chord locations have also been eliminated and a simple bracket, shown in detail 4/13-A-502, is being used at all vertical chords and on handrail supports inside the station. This eliminates one-third of the vertical stanchions in the walkway. In addition, the base of the stanchions supporting the handrail have been angled so that they may be welded to the bottom chord of the truss for constructability and maintenance reasons. This is similar to the stanchion base used at the Silver Line Metro station that the BAR saw at a previous hearing. Staff recommends approval of the revised handrail design.

Item 9: Architectural Lighting

The applicant has revised their lighting renderings of the overall station to show as accurately as possible the conditions as viewed from the GW Parkway – with and without vegetation. The station lighting engineering photometrics have been reviewed by WMATA to confirm minimum safety standards. The photometric plans have been revised and labeled to show that the mezzanine and platform have the same number of lumens at the floor level and that the mezzanine will not be brighter, as it appeared in some of the previous illustrations.

The BAR also asked for confirmation that the platform and mezzanine lighting would comply with the Dark-Sky recommendations of LEED. The design/build team has provided drawings to confirm that no light will be directed up through the skylight and will explain their renderings at the hearing.

Finally, the applicant has removed the surface mounted light fixtures from the side of the truss of the pedestrian bridge and located them in a trough the center of the arched ceiling. This significant improvement has the positive effect of balancing the intensity of the light that washes both sides of the bridge ceiling. Some linear light fixtures will also direct illumination down toward the floor from the bottom of the trough. Light will be directed so that no light spills through the sides of the pedestrian bridge. Speakers will also be installed in the bottom of the trough. Equally important, removing all of the random conduit and pull boxes that were previously attached to the interior and exterior surfaces of the truss produces a much simpler and cleaner overall design.

Summary

Staff recommends approval of the downspout locations, the pedestrian bridge design details and the architectural lighting of the station and pedestrian bridges but will closely follow the light fixture final details through the building permit process to ensure that they comply with the BAR's design intent. Other station elements noted on the applicant's approval tracking spreadsheet, including final approval of the entrance pavilion on the west side of the tracks, will return to the BAR when they are ready for review.

**STAFF**

Al Cox, FAIA, Historic Preservation Manager, Planning & Zoning

**III. CITY DEPARTMENT COMMENTS**

Legend: C- code requirement R- recommendation S- suggestion F- finding

**Development Division Comments**

C-1 Comply with all requirements of DSUP2018-00017.

**Code Administration**

- C-1 A building permit, plan review and inspections are required prior to the start of construction.

**Transportation and Environmental Services**

- C-1 Comply with all requirements of DSP2018-00017. (T&ES)
- R-1 The Final Site Plan must be approved and released and a copy of that plan must be attached to the demolition permit application. No demolition permit will be issued in advance of the building permit unless the Final Site Plan includes a demolition plan which clearly represents the demolished condition. (T&ES)

**Alexandria Archaeology**

- F-1 Alexandria Archaeology concurs with the findings and recommendations in the Phase I Archaeological Survey Report dated 2015 for this project. No further archaeological action is necessary at this time.
- R-1 The statements below shall appear in the General Notes of all site plans and on all site plan sheets that involve demolition or ground disturbance (including Basement/Foundation Plans, Demolition, Erosion and Sediment Control, Grading, Landscaping, Utilities, and Sheeting and Shoring) so that on-site contractors are aware of the requirements:
- a. The applicant/developer shall call Alexandria Archaeology immediately (703-746-4399) if any buried structural remains (wall foundations, wells, privies, cisterns, etc.) or concentrations of artifacts are discovered during development. Work must cease in the area of the discovery until a City archaeologist comes to the site and records the finds.
  - b. The applicant/developer shall not allow any metal detection to be conducted on the property, unless authorized by Alexandria Archaeology.

**IV. ATTACHMENTS**

- 1 – *Supplemental Materials*
- 2 – *Staff Report of July 10, 2019 with Board Action*
- 3 – *Memo of July 24, 2019 with Board Action*
- 4 – *Memo of September 4, 2019 with Board Action*
- 5 – *BAR Concept Approval presentation, May 18, 2016*
- 6 – *Staff Report of October 16, 2019 with Board Action*



Potomac Yard Metrorail Station  
BAR Approval Tracker

11/27/2019

	Item	Open/ Closed	Current Status	Origin	Planned BAR Meeting
1	Restudy the height of the stone base (make more substantial) and increase the thickness of the sill and incorporate curvature into Y-shaped form.	Closed	Approved as shown at the 9/4/19 BAR Meeting	July 28, 2019 BAR Meeting	
2	Refine the sloped roof over the escalator/stair connecting the mezzanine and platform to promote further "disengagement" between the two elements.	Closed	Approved as shown at the 9/4/19 BAR Meeting	July 28, 2019 BAR Meeting	
3	Provide details of the drainage/gutters/downspouts of the station	Open	Not approved;	July 28, 2019 BAR Meeting	12/18/2019
4	Provide the view from the mezzanine looking down the tracks.	Closed	Approved as shown at the 9/4/19 BAR Meeting	July 14, 2019 Staff Report	
5	Provide a walk-through video showing roof details	Closed	Approved as shown at the 9/4/19 BAR Meeting	July 14, 2019 Staff Report	
6	Provide more information on the proposed MT3 Simulated Weathered Steel, CorTen like finish to confirm its durability and constructability.	Open	Restudy: paint colors and finish as well as materials ; WMATA and CoA staff have put forward a preference for the Gordon product; Meeting with SW on 9/19; samples accepted by PYC; need additional shades, examples where used, maint info	July 14, 2019 Staff Report	Later
7.a.	Restudy the proportions, connections and construction details of the following: The roof structure above the pedestrian bridge trusses;	Closed	Approved as shown at 10/16/19 BAR Meeting	July 14, 2019 Staff Report	
7.b.	Restudy the proportions, connections and construction details of the following: The visual transparency of the guard fencing on the pedestrian bridges and whether this should be installed on the inside or the outside of the bridge truss elements;	Open	Type of mesh approved. Re-study the installation of the mesh inset into the structure. Handrail and mesh connection details need to be submitted	July 14, 2019 Staff Report	12/4/2019
7.c.	Restudy the proportions, connections and construction details of the following: The detailing of the roof structure above the platform, including the fabrication details and the height of the steel columns and the trapezoidal shaped longitudinal beam cover at the side of the pedestrian platform;	Closed	Approved as shown at the 9/4/19 BAR Meeting	July 14, 2019 Staff Report	
7.d.	Restudy the proportions, connections and construction details of the following: Glass handrail details at the station platform;	Open	Bracket concept was not rejected but BAR chose to differ approval pending a detail being reviewed	July 14, 2019 Staff Report	Later
7.e.	Restudy the proportions, connections and construction details of the following: Metal louver connection details;	Open	Connection concept was not rejected but BAR chose to differ approval to finalization of the exoskeleton finish	July 14, 2019 Staff Report	Later
7.f.	Restudy the proportions, connections and construction details of the following: Security fence/barrier facing the George Washington Memorial Parkway;	Open	Split rail not accepted; WMATA standard pipe railing not accepted; Stone wall dismissed; Action was to investigate a barrier that would acceptable to WMATA and NPS "more in line" with the station aesthetic;  Last meeting with CoA is that NPS is asking for entire slope and barrier concept to be revised; requested sections sent to CoA;  Design of this was deferred by CofA to WMATA. Awaiting input from WMATA.	July 14, 2019 Staff Report	Later
8	Provide detailed information on the size, materials and lighting of the proposed signs.	Closed	Per BAR meeting minutes 10.16.2019 "Staff further explained that a determination had been made that Metro directional signs were considered governmental signs in the zoning ordinance and were, therefore, exempt from BAR review"	July 14, 2019 Staff Report	

Potomac Yard Metrorail Station  
BAR Approval Tracker

11/27/2019

9	Provide detailed information on the color, lumens and type of overall architectural and pedestrian lighting, including advertising displays, to assess their impact on views from the Parkway.	Open	Overall concept of the lighting approved. However, the lumens exhibit brought out a lot of questions as to the amount of light for the mezzanine and how that light could be minimized from spilling outside the building through the norther glass wall and sky light.	July 14, 2019 Staff Report	12/4/2019
10	Provide plans, exterior elevations and design details to evaluate the ramps and pavilions on the west side of the rail tracks.	Closed	Item closed at the 9/4/19 BAR meeting; See item 19 for the specific items for re-study on the Pavilion;	July 14, 2019 Staff Report	
11	Provide a materials sample board for BAR review with all materials that are visible from the Parkway.	Closed	Approved except for the exoskeleton finishes and the mesh on the platform (both carried in other items).	July 14, 2019 Staff Report	
12	Provide full size wall mock-up panels per the DSUP condition for final approval by City staff.	Closed	Approved as shown at the 9/4/19 BAR Meeting	July 14, 2019 Staff Report	
13	Restudy paving material options on walkway/emergency vehicle path on east side of station.	Closed	Approved as shown at the 9/4/19 BAR Meeting	July 14, 2019 Staff Report	
14	Select a mesh that is as open and visually light as possible.	Closed	Approved as shown at the 9/4/19 BAR Meeting	July 14, 2019 Staff Report	
15	Provide additional views from the Parkway and from Potomac Greens. If possible, bring a live model to allow the BAR to explore to the project more fully at subsequent public hearing	Closed	Approved as shown at the 9/4/19 BAR Meeting	July 14, 2019 Staff Report	
16	Provide a site section to demonstrate changing grades and the relationship of the berm and landscaping to station design.	Closed	Approved as shown at the 9/4/19 BAR Meeting	July 14, 2019 Staff Report	
17	Restudy platform mesh to a style with a heavier horizontal wire or extend the glass curtain wall	Closed	Approved as shown at 10/16/19 BAR Meeting	*New item raised at the 9/4 BAR meeting	
18	Provide more information on the Entrance Pavillion	Open	<p>Building Shape, Architectural character, height, and materials approved.</p> <p>The following details were asked to be restudied and brought back to the board.</p> <p><b>1) Lintels over the doorways and caps on the stonework; preference from the BAR was to match the cap on the stonework on the station for both.</b></p> <p><b>2) Details of the wall glazing system and how that will affect the interaction of the glass to the stonework.</b></p> <p>3) BAR recommended that we look into changing sidewalk colors to help dim the lights and create better sense of entry. Need to verify that the rendering is representative of the civil package design. BAR minutes: " Staff noted that the paving at the entrance will be coordinated with the public plaza paving in the future North Potomac Yard plan."</p> <p>4) Present options for the façade on the front of the building.</p> <p>a. Stone Façade: Current plan is to have the stone follow the angle of the escalators. Proposal was to eliminate the angle and present the transition of the stone to the glass vertically either at the base or the top of the escalator</p> <p>b. Stone Façade: Align End of Stone Façade with column on south side to match how the stone is terminated on the north side of the elevator for even proportions (independent of the stone wall shape in "a" above.)</p> <p>c. Glass Façade: Provide images showing the extension of the glass sections to the south of the entry portal to match the top of glass of the elevator shaft for even proportions</p>	*New item raised at the 9/4 BAR meeting	Later
19	Provide retaining wall at east access road	Open	New item to be brought up. Introduced by NPS		Later

ADDRESS OF PROJECT: Potomac Yard Metrorail StationDISTRICT: ☒ Old & Historic Alexandria ☐ Parker – Gray ☐ 100 Year Old Building

TAX MAP AND PARCEL: \_\_\_\_\_ ZONING: \_\_\_\_\_

APPLICATION FOR: *(Please check all that apply)*☒ CERTIFICATE OF APPROPRIATENESS☐ PERMIT TO MOVE, REMOVE, ENCAPSULATE OR DEMOLISH  
*(Required if more than 25 square feet of a structure is to be demolished/impacted)*☐ WAIVER OF VISION CLEARANCE REQUIREMENT and/or YARD REQUIREMENTS IN A VISION  
CLEARANCE AREA (Section 7-802, Alexandria 1992 Zoning Ordinance)☐ WAIVER OF ROOFTOP HVAC SCREENING REQUIREMENT  
*(Section 6-403(B)(3), Alexandria 1992 Zoning Ordinance)*Applicant: ☒ Property Owner ☐ Business *(Please provide business name & contact person)*Name: City of Alexandria / WMATAAddress: 2500 Potomac Greens DriveCity: Alexandria State: VA Zip: 22314 - 6256Phone: (703) 746-4055 E-mail: Daphne.Kott@alexandriava.govAuthorized Agent *(if applicable)*: ☐ Attorney ☐ Architect ☒ Design BuilderName: Potomac Yard Constructors Phone: (845) 735-3511E-mail: jwood@halmarinternational.com**Legal Property Owner:**Name: City of Alexandria / WMATAAddress: 2500 Potomac Greens DriveCity: Alexandria State: VA Zip: 22314 - 6256Phone: (703) 746-4055 E-mail: Daphne.Kott@alexandriava.gov

- ☐ Yes ☒ No Is there an historic preservation easement on this property?
- ☐ Yes ☒ No If yes, has the easement holder agreed to the proposed alterations?
- ☐ Yes ☒ No Is there a homeowner's association for this property?
- ☐ Yes ☐ No If yes, has the homeowner's association approved the proposed alterations?

If you answered yes to any of the above, please attach a copy of the letter approving the project.



**NATURE OF PROPOSED WORK:** *Please check all that apply*

- ☒ NEW CONSTRUCTION  
☐ EXTERIOR ALTERATION: *Please check all that apply.*  
     ☐ awning                      ☐ fence, gate or garden wall    ☐ HVAC equipment                      ☐ shutters  
     ☐ doors                        ☐ windows                              ☐ siding                                      ☐ shed  
     ☐ lighting                      ☐ pergola/trellis                      ☐ painting unpainted masonry  
     ☐ other \_\_\_\_\_  
☐ ADDITION  
☐ DEMOLITION/ENCAPSULATION  
☐ SIGNAGE

**DESCRIPTION OF PROPOSED WORK:** *Please describe the proposed work in detail (Additional pages may be attached).*

THE PROJECT CONSISTS OF CONSTRUCTION OF A NEW METRORAIL STATION AND ANCILLARY FACILITIES LOCATED AT POTOMAC YARD WITHIN THE CITY OF ALEXANDRIA ALONG THE EXISTING METRORAIL BLUE AND YELLOW LINES BETWEEN THE RONALD REAGAN WASHINGTON NATIONAL AIRPORT STATION AND THE BRADDOCK ROAD STATION. THE PROJECT WILL INCLUDE THE METRORAIL STATION, A PEDESTRIAN AND BICYCLE BRIDGE WITH ACCOMPANYING ACCESSIBLE RAMP, AND AN ENTRY PAVILLION. THE PROJECT WOULD SERVE EXISTING NEIGHBORHOODS AND RETAIL CENTERS AS WELL AS HIGH-DENSITY, TRANSIT-ORIENTED DEVELOPMENT PLANNED BY THE CITY OF ALEXANDRIA. THE PROJECT WOULD PROVIDE ACCESS TO THE REGIONAL METRORAIL SYSTEM FOR THE U.S. ROUTE 1 CORRIDOR OF NORTH ALEXANDRIA.

**SUBMITTAL REQUIREMENTS:**

Items listed below comprise the **minimum supporting materials** for BAR applications. Staff may request additional information during application review. Please refer to the relevant section of the *Design Guidelines* for further information on appropriate treatments.

Applicants must use the checklist below to ensure the application is complete. Include all information and material that are necessary to thoroughly describe the project. Incomplete applications will delay the docketing of the application for review. Pre-application meetings are required for all proposed additions. All applicants are encouraged to meet with staff prior to submission of a completed application.

Electronic copies of submission materials should be submitted whenever possible.

**Demolition/Encapsulation :** *All applicants requesting 25 square feet or more of demolition/encapsulation must complete this section. Check N/A if an item in this section does not apply to your project.*

- N/A
- ☐ ☐ Survey plat showing the extent of the proposed demolition/encapsulation.  
☐ ☐ Existing elevation drawings clearly showing all elements proposed for demolition/encapsulation.  
☐ ☐ Clear and labeled photographs of all elevations of the building if the entire structure is proposed to be demolished.  
☐ ☐ Description of the reason for demolition/encapsulation.  
☐ ☐ Description of the alternatives to demolition/encapsulation and why such alternatives are not considered feasible.

**Additions & New Construction:** *Drawings must be to scale and should not exceed 11" x 17" unless approved by staff. All plans must be folded and collated into 3 complete 8 1/2" x 11" sets. Additional copies may be requested by staff for large-scale development projects or projects fronting Washington Street. Check N/A if an item in this section does not apply to your project.*

- ☒ ☐ <sup>N/A</sup> Scaled survey plat showing dimensions of lot and location of existing building and other structures on the lot, location of proposed structure or addition, dimensions of existing structure(s), proposed addition or new construction, and all exterior, ground and roof mounted equipment.
- ☒ ☐ FAR & Open Space calculation form.
- ☒ ☐ Clear and labeled photographs of the site, surrounding properties and existing structures, if applicable.
- ☒ ☐ Existing elevations must be scaled and include dimensions.
- ☒ ☐ Proposed elevations must be scaled and include dimensions. Include the relationship to adjacent structures in plan and elevations.
- ☒ ☐ Materials and colors to be used must be specified and delineated on the drawings. Actual samples may be provided or required.
- ☒ ☐ Manufacturer's specifications for materials to include, but not limited to: roofing, siding, windows, doors, lighting, fencing, HVAC equipment and walls.
- ☒ ☐ For development site plan projects, a model showing mass relationships to adjacent properties and structures.

**Signs & Awnings:** *One sign per building under one square foot does not require BAR approval unless illuminated. All other signs including window signs require BAR approval. Check N/A if an item in this section does not apply to your project.*

- ☐ ☐ <sup>N/A</sup> Linear feet of building: Front: \_\_\_\_\_ Secondary front (if corner lot): \_\_\_\_\_.
- ☐ ☐ Square feet of existing signs to remain: \_\_\_\_\_.
- ☐ ☐ Photograph of building showing existing conditions.
- ☐ ☐ Dimensioned drawings of proposed sign identifying materials, color, lettering style and text.
- ☐ ☐ Location of sign (show exact location on building including the height above sidewalk).
- ☐ ☐ Means of attachment (drawing or manufacturer's cut sheet of bracket if applicable).
- ☐ ☐ Description of lighting (if applicable). Include manufacturer's cut sheet for any new lighting fixtures and information detailing how it will be attached to the building's facade.

**Alterations:** *Check N/A if an item in this section does not apply to your project.*


- ☐ ☐ <sup>N/A</sup> Clear and labeled photographs of the site, especially the area being impacted by the alterations, all sides of the building and any pertinent details.
- ☐ ☐ Manufacturer's specifications for materials to include, but not limited to: roofing, siding, windows, doors, lighting, fencing, HVAC equipment and walls.
- ☐ ☐ Drawings accurately representing the changes to the proposed structure, including materials and overall dimensions. Drawings must be to scale.
- ☐ ☐ An official survey plat showing the proposed locations of HVAC units, fences, and sheds.
- ☐ ☐ Historic elevations or photographs should accompany any request to return a structure to an earlier appearance.

**ALL APPLICATIONS:** *Please read and check that you have read and understand the following items:*

- N/A ☐ I have submitted a filing fee with this application. (Checks should be made payable to the City of Alexandria. Please contact staff for assistance in determining the appropriate fee.)
- ☒ I understand the notice requirements and will return a copy of the three respective notice forms to BAR staff at least five days prior to the hearing. If I am unsure to whom I should send notice I will contact Planning and Zoning staff for assistance in identifying adjacent parcels.
- ☒ I, the applicant, or an authorized representative will be present at the public hearing.
- ☒ I understand that any revisions to this initial application submission (including applications deferred for restudy) must be accompanied by the BAR Supplemental form and 3 sets of revised materials.

The undersigned hereby attests that all of the information herein provided including the site plan, building elevations, prospective drawings of the project, and written descriptive information are true, correct and accurate. The undersigned further understands that, should such information be found incorrect, any action taken by the Board based on such information may be invalidated. The undersigned also hereby grants the City of Alexandria permission to post placard notice as required by Article XI, Division A, Section 11-301(B) of the 1992 Alexandria City Zoning Ordinance, on the property which is the subject of this application. The undersigned also hereby authorizes the City staff and members of the BAR to inspect this site as necessary in the course of research and evaluating the application. The applicant, if other than the property owner, also attests that he/she has obtained permission from the property owner to make this application.

**APPLICANT OR AUTHORIZED AGENT:**Signature: Daphne KottPrinted Name: Daphne KottDate: 9.3.19

  
FRED ROBERTSON  
9/6/19



Your ref  
Our ref 254922-00/MC/krs  
File ref 1-09

# ARUP

Jeff Wood  
Project Manager  
Potomac Yard Constructors  
421 E. Route 59  
Nanuet, NY 10954

77 Water Street  
New York  
NY 10005  
United States of America  
t +1 212 896 3000  
d +1 202 836 3288  
Stephen.Lasser@arup.com  
www.arup.com

November 20, 2019

Dear Jeff,

**Contract No. FQ16146 - Washington Metropolitan Area Transit Authority  
(WMATA) Potomac Yards Metrorail Station  
LTR-0103-PM-City of Alexandria December 4th, 2019 BAR Submission**

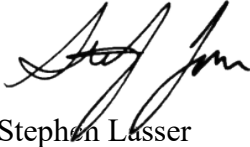
Please accept this correspondence as the application to present to the December 4, 2019 City of Alexandria ("CoA") Board of Architectural Review ("BAR") hearing. The purpose of this submission is to continue the process to receive a Certificate of Appropriateness for the Potomac Yard Metrorail Station to facilitate approval of a building permit for vertical construction above grade.

The following is a summary of the approvals requested for this hearing:

1. Item 3 – Provide details of the drainage/gutters/downspouts of the Station;
2. Item 7b - Restudy the guardrails throughout the station and pedestrian bridges.  
The wire mesh fencing was approved to be located on the interior of the trusses but the mesh fence connection details, the handrails and guardrails should be as simple as possible; and
3. Item 9 - Restudy the visibility of the light fixture lenses from the Parkway, the intensity of the light at the north end of the station and the illumination of the skylights from below to minimize its impact on dark sky requirements.

Please let me know if you have any questions or need more information.

Yours sincerely



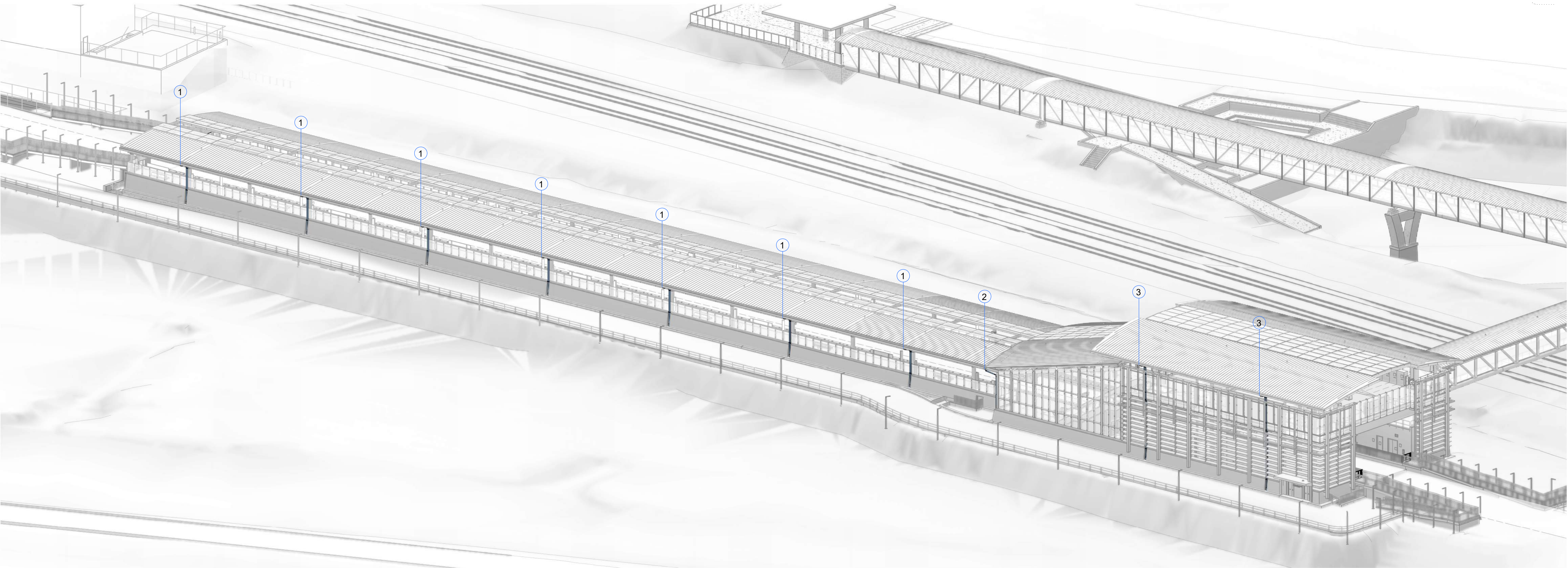
Stephen Lasser  
Associate Principal

Enc      Item 3 - 19-1119 - BAR Downspout  
            Item 7b - 19-1107 - Bridge Mesh & Guardrail- Detail + Memo  
            Item 9 - BAR Pedestrian Bridge Conduit Cover Sheet 4  
            Item 9 - Lighting Slides  
cc        Matt Carter  
            May ElKhatab  
            Tommy Garcia  
            Eric Carter  
            Yves Rugasaguhunga  
            Graham Thomas



DOWNSPOUT TYPES

- 1
 DOWNSPOUT AT PLATFORM
- 2
 DOWNSPOUT AT ESCALATOR ROOF
- 3
 DOWNSPOUT AT MEZZANINE



1 DOWNSPOUT AERIAL DIAGRAM

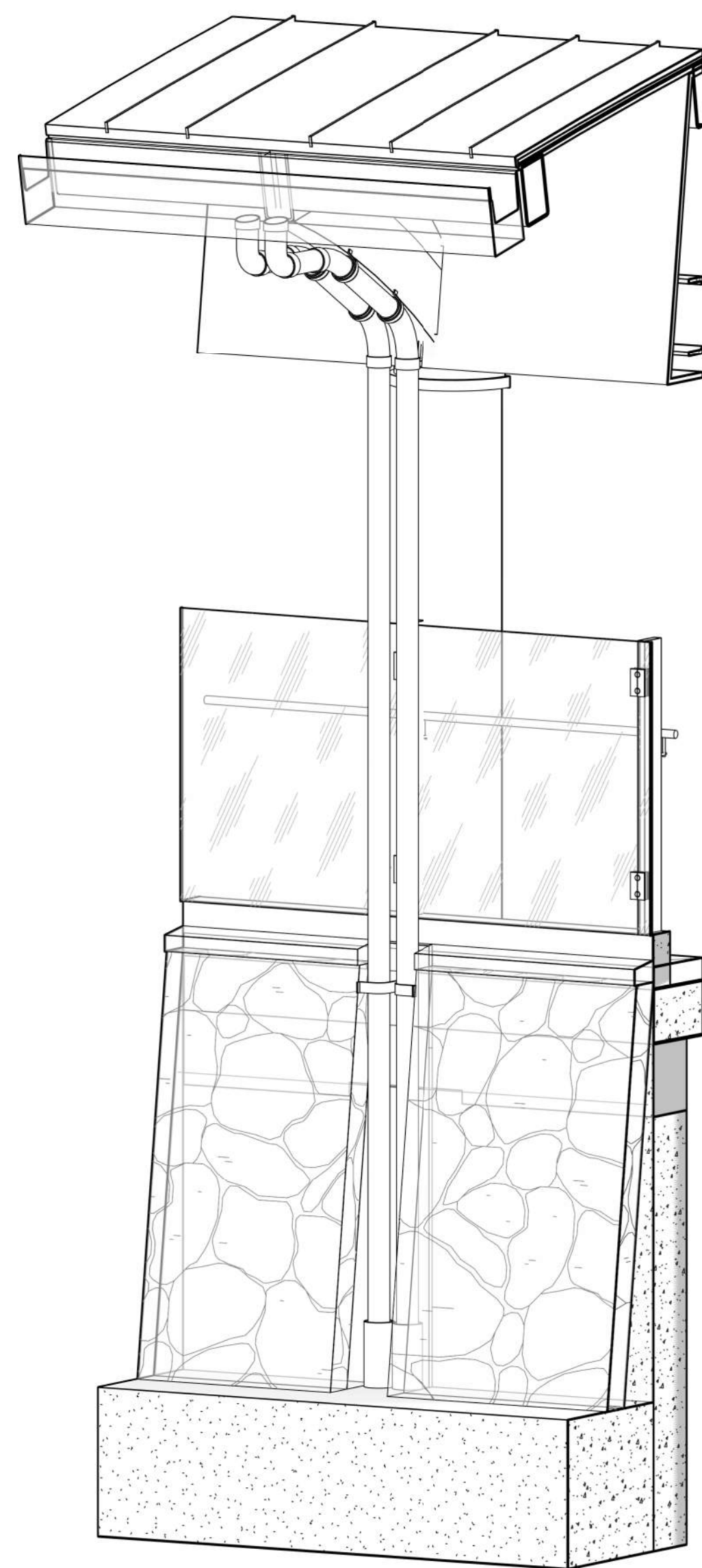
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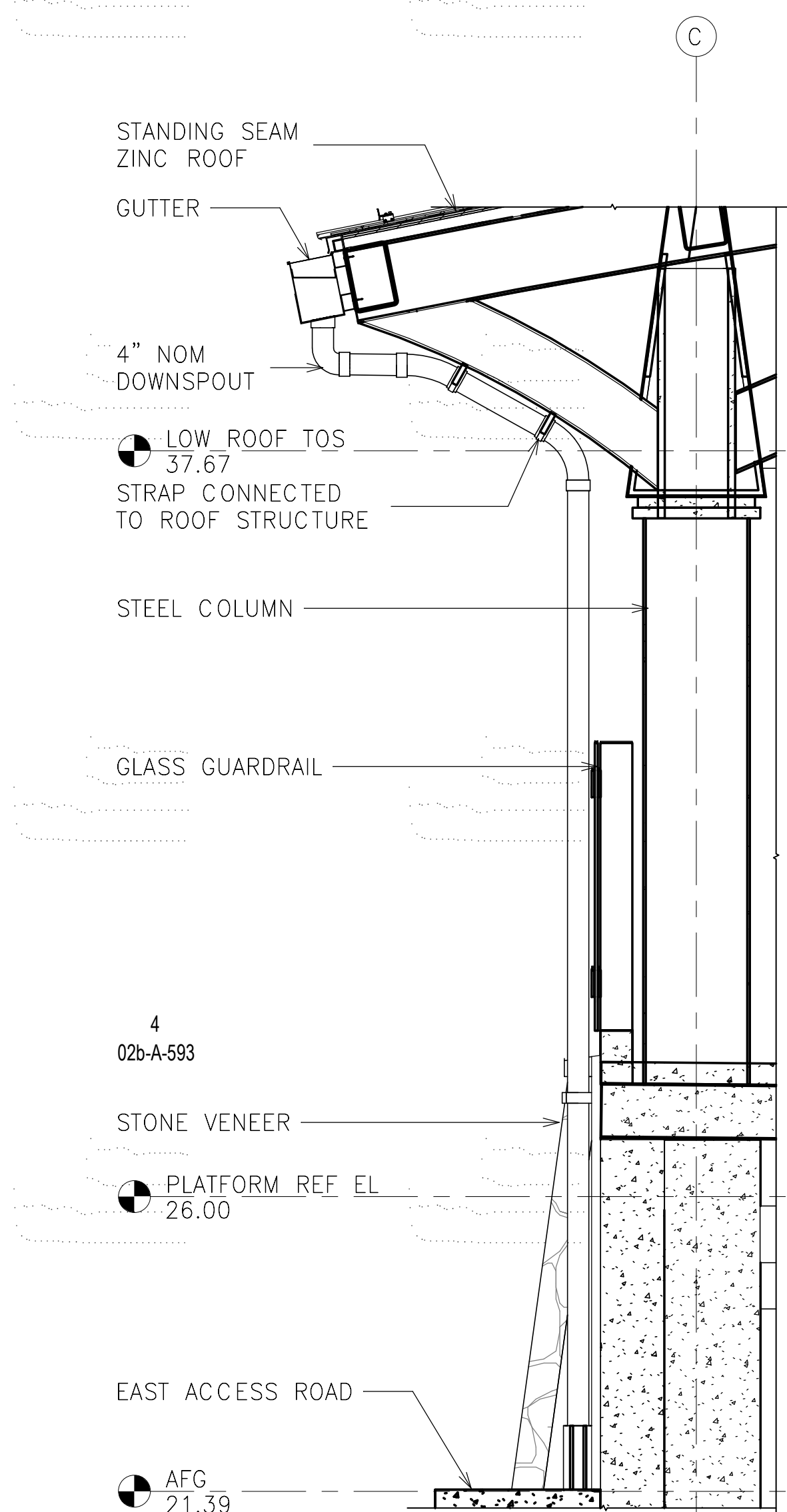
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DRAWN Author 11/18/19			NUMBER DESCRIPTION				DATE NUM DESCRIPTION				DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES				ARCHITECTURAL			
CHECKED Checker 11/18/19											OFFICE OF THE CHIEF ENGINEER, INFRASTRUCTURE				BAR SUBMISSION			
APPROVED Approver 11/18/19											SUBMITTED				DOWNSPOUT OVERALL DIAGRAM			
											APPROVED				M NO.		CONTRACT NO.	
											DIRECTOR				M1316		FQ16146	
															SCALE:		DRAWING NO.	
																	A-592	
																	SHEET NO.	
																	OF 143	



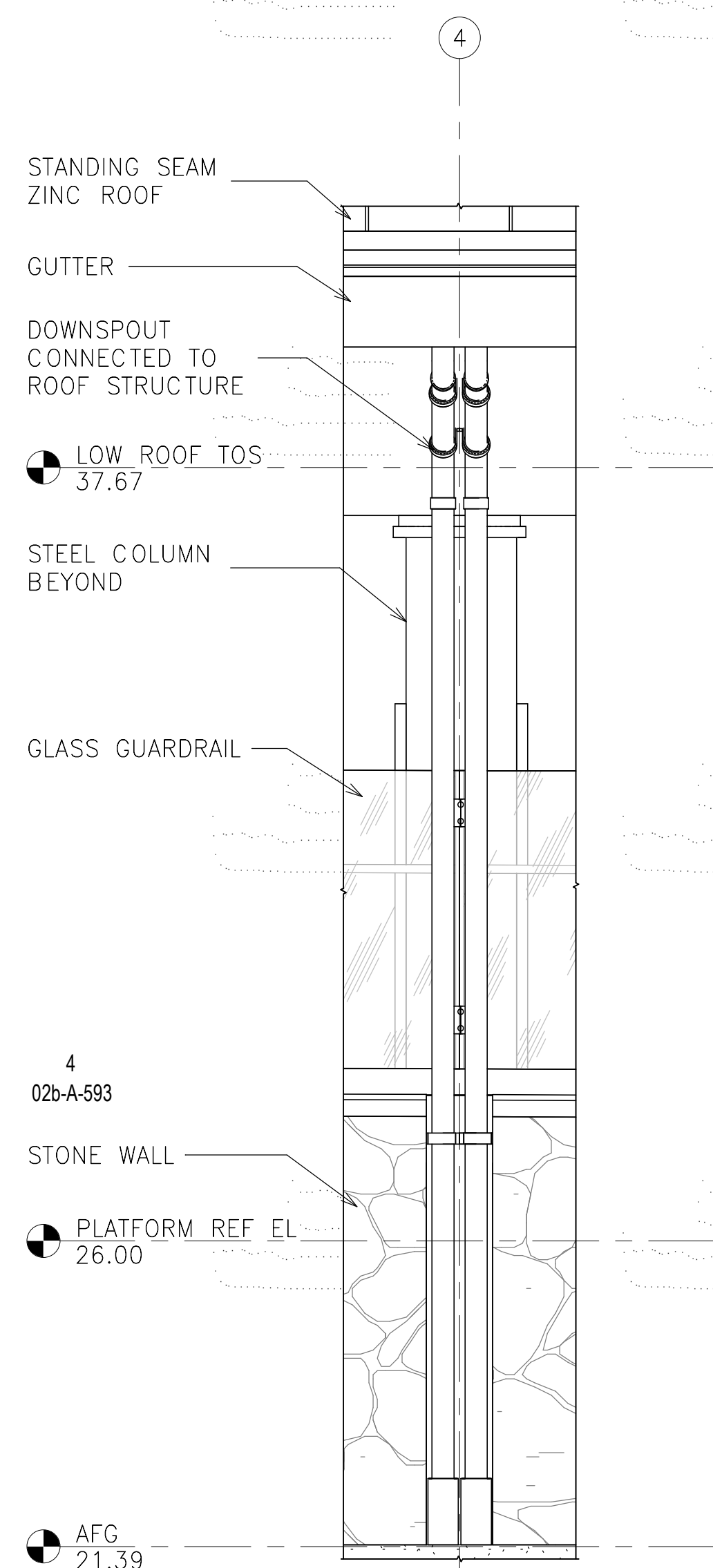
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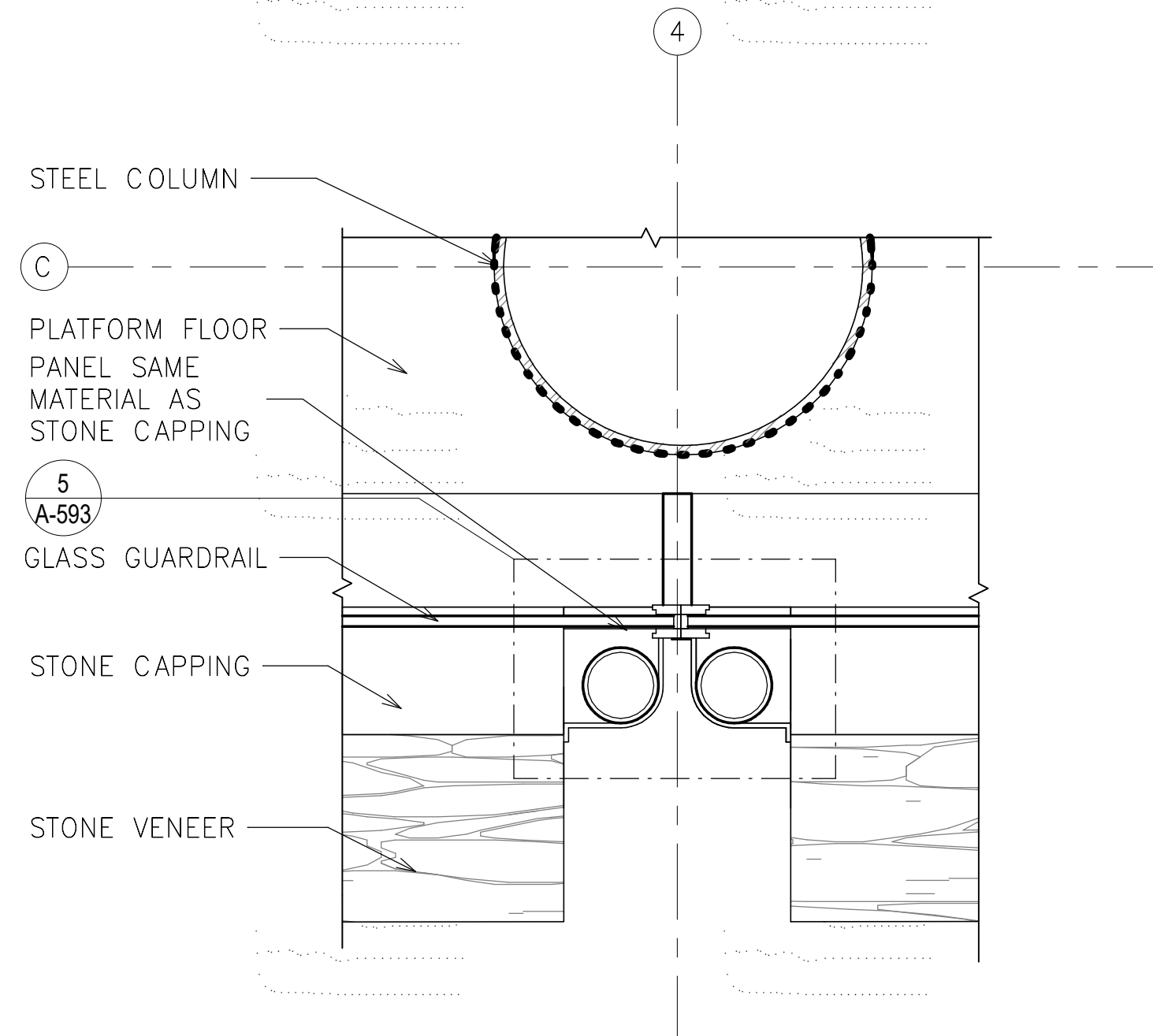
1 DOWNSPOUT PLATFORM AXON



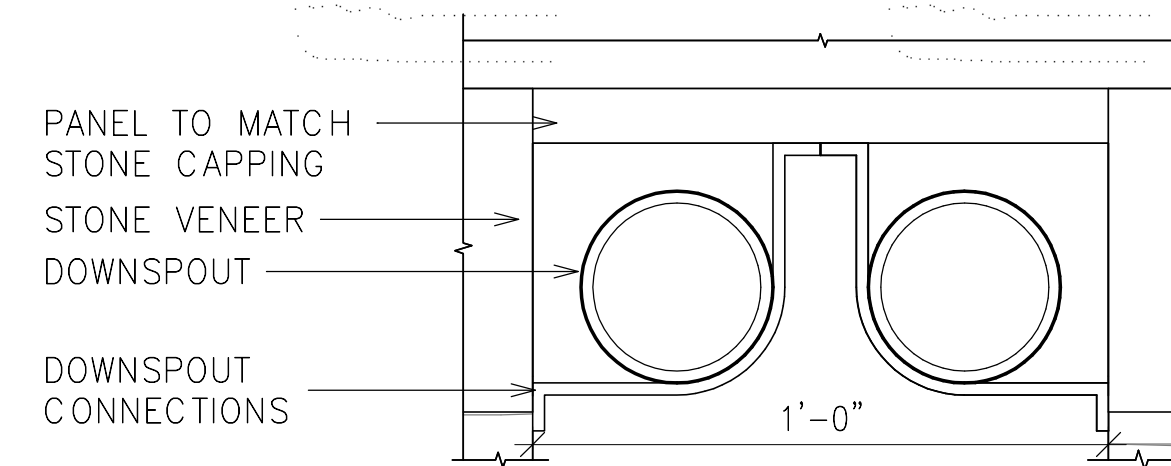
2 DOWNSPOUT PLATFORM SECTION  
1/2" = 1'-0"



3 DOWNSPOUT PLATFORM ELEVATION  
1/2" = 1'-0"



4 DOWNSPOUT PLATFORM PLAN  
1 1/2" = 1'-0"



5 TYP. DOWNSPOUT DETAIL AT EAST STONE WALL  
3" = 1'-0"

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APPROVED	G. THOMAS	11/11/19						

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APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
DIRECTOR



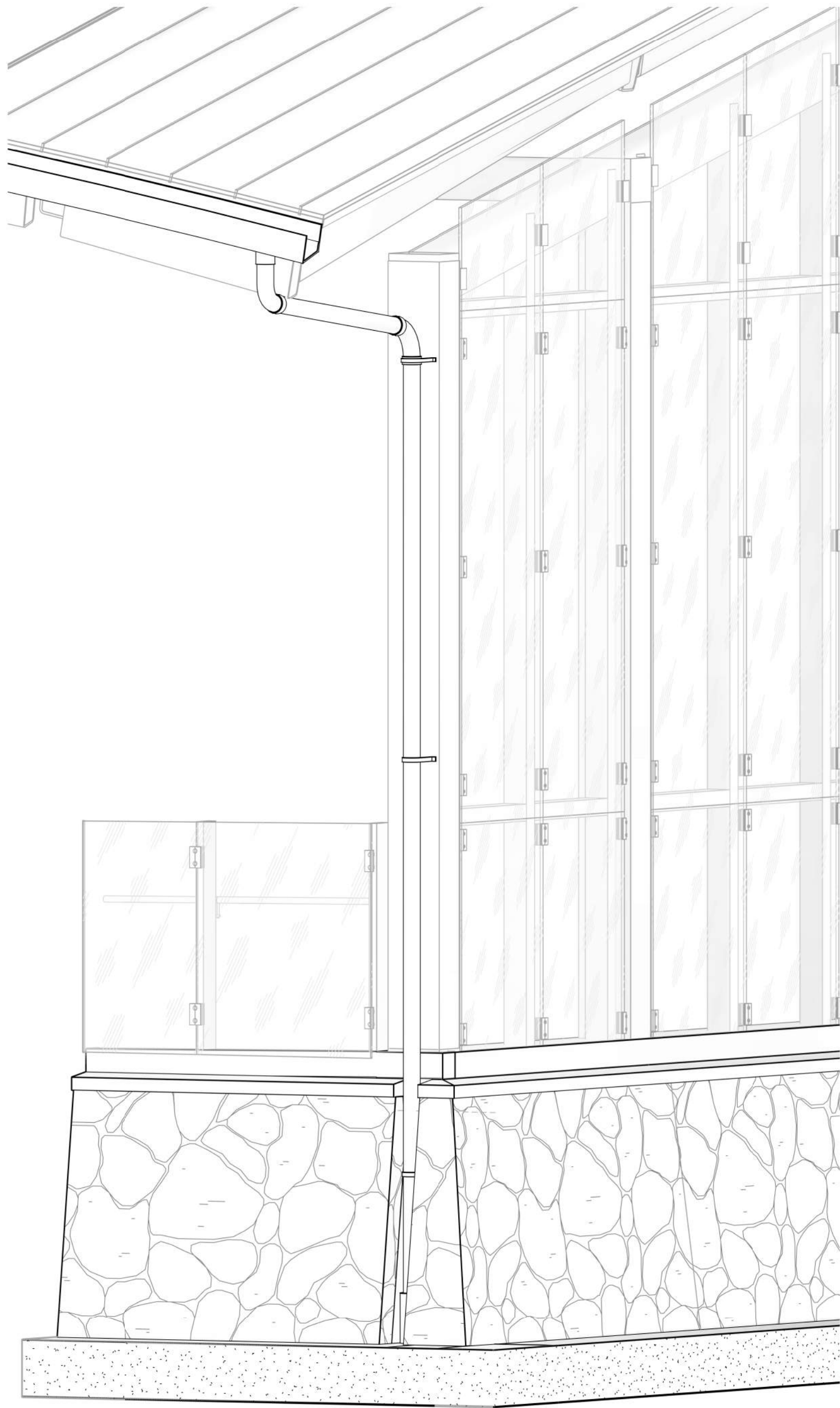
ARUP

WMATA POTOMAC YARD METRORAIL STATION  
ARCHITECTURAL  
BAR SUBMISSION  
DOWNSPOUT AND GUTTER DETAILS - PLATFORM

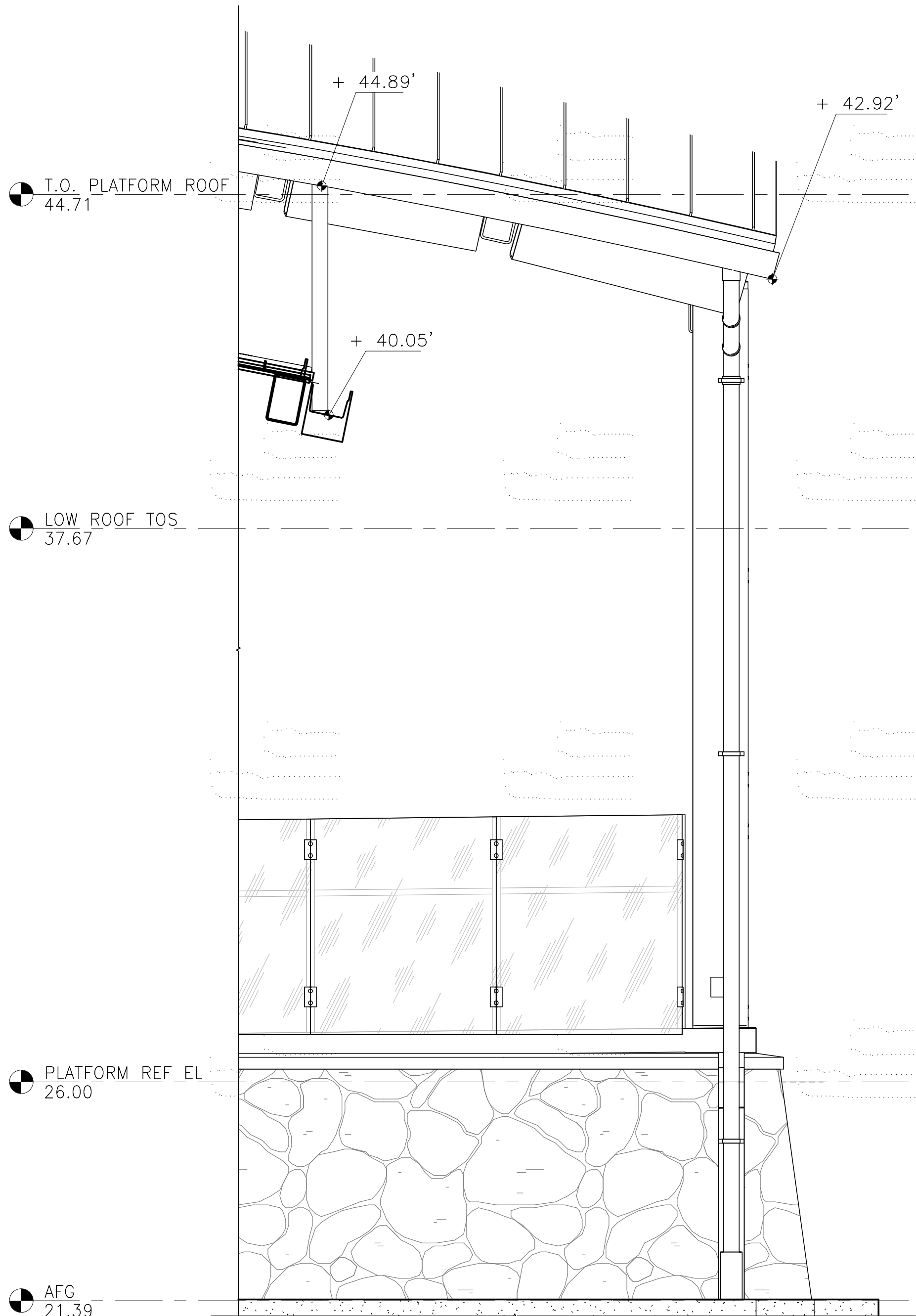
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M1316	FQ16146		A-593	OF 143



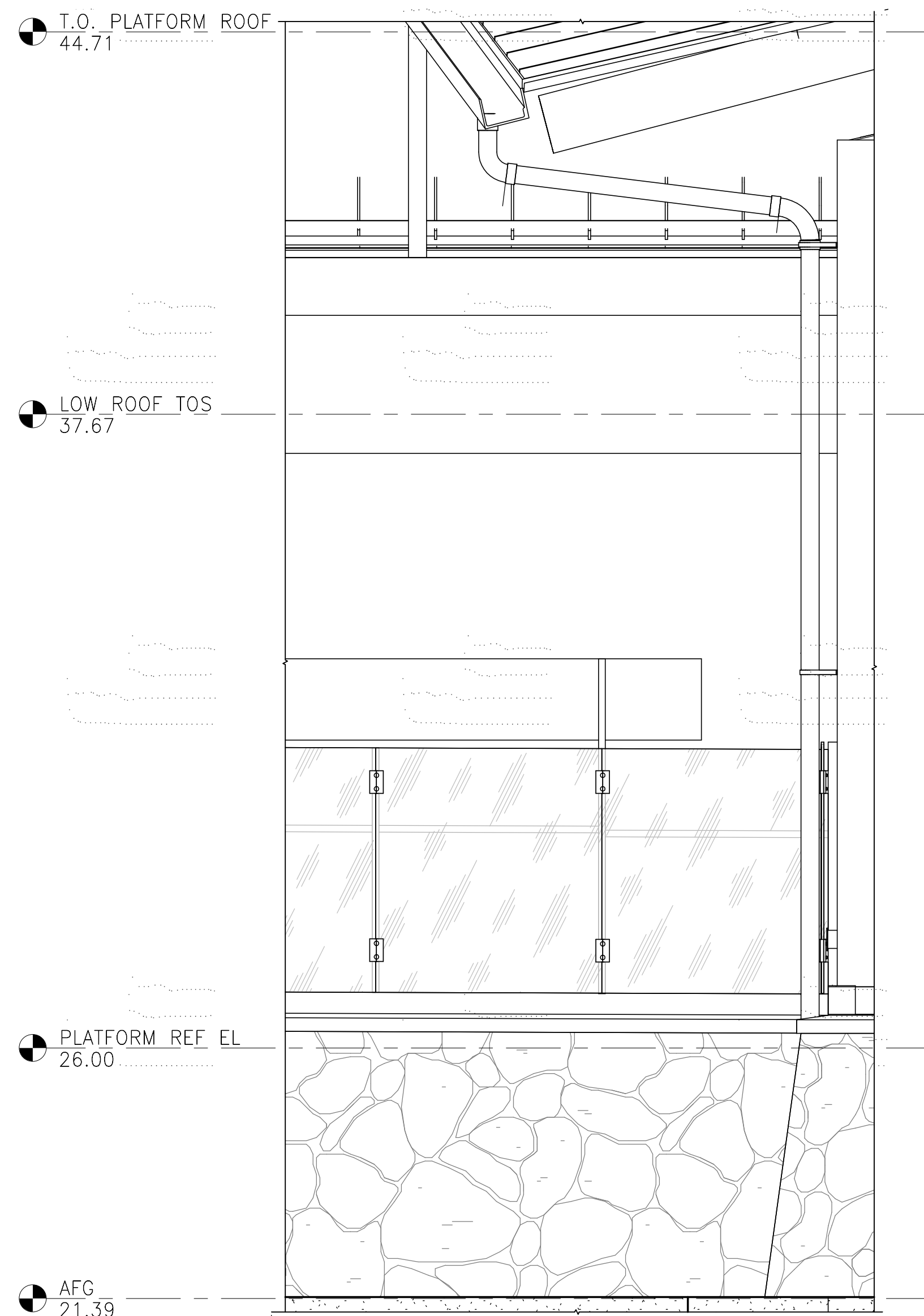
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3 DOWNSPOUT ESCALATOR AXON



1 GUTTER SLOPING ROOF SECTION  
1/2" = 1'-0"



2 GUTTER SLOPING ROOF ELEVATION  
1/2" = 1'-0"

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DIRECTOR

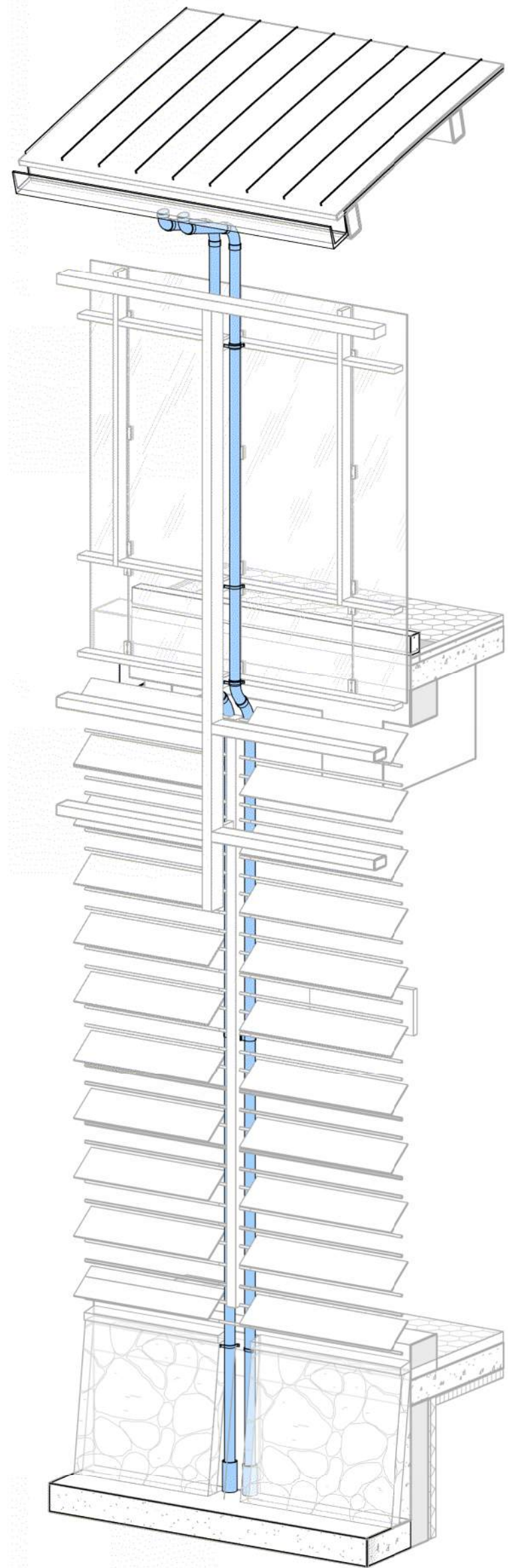


WMATA POTOMAC YARD METRORAIL STATION  
ARCHITECTURAL  
BAR SUBMISSION  
DOWNSPOUT AND GUTTER DETAILS - ESCALATOR ROOF

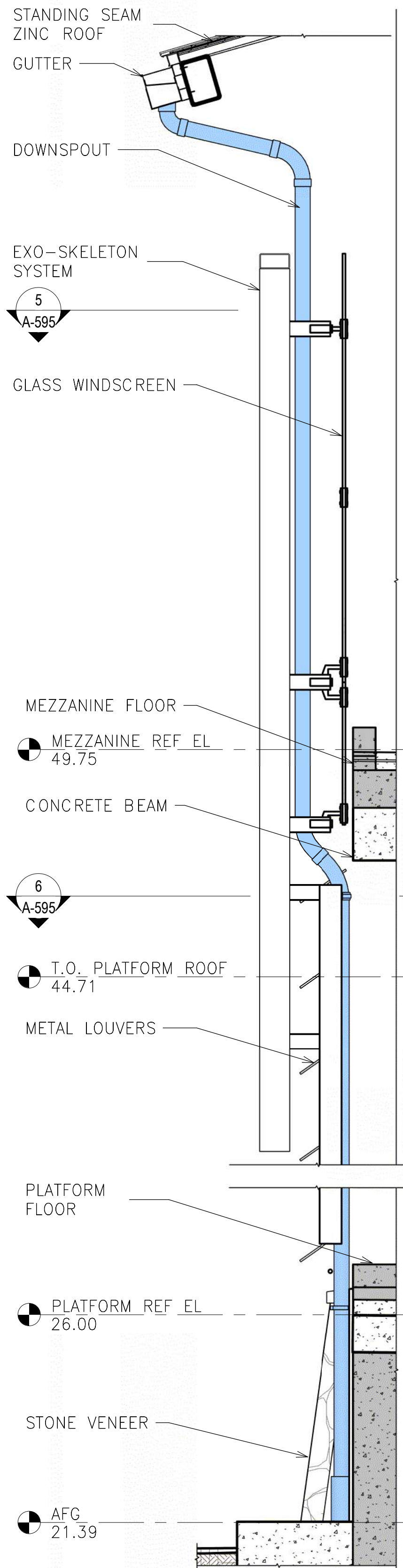
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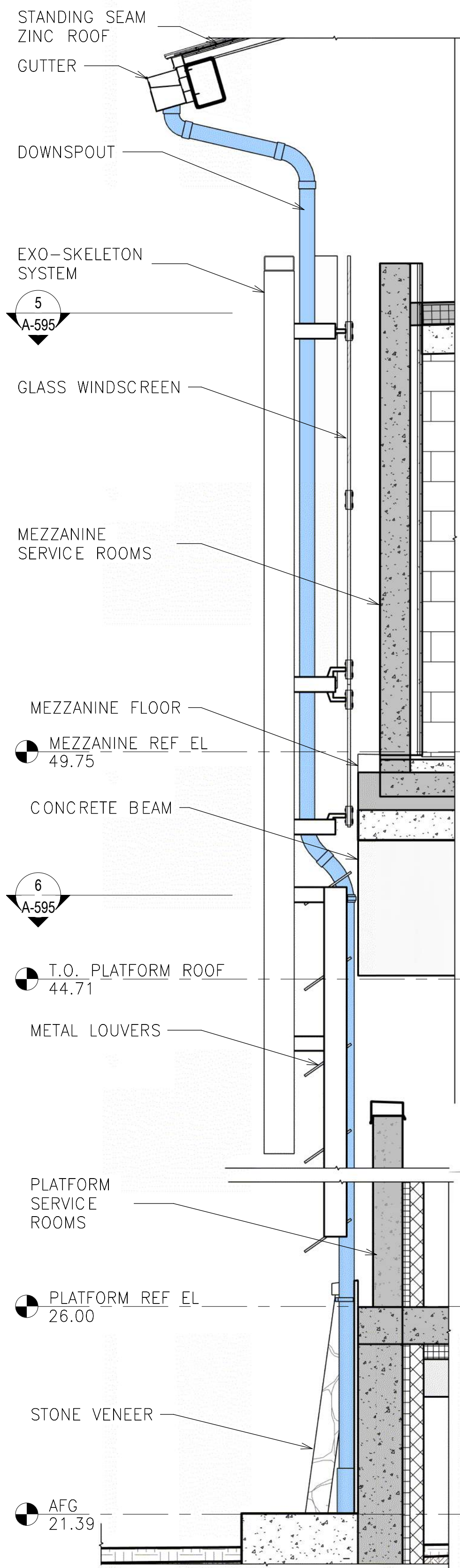
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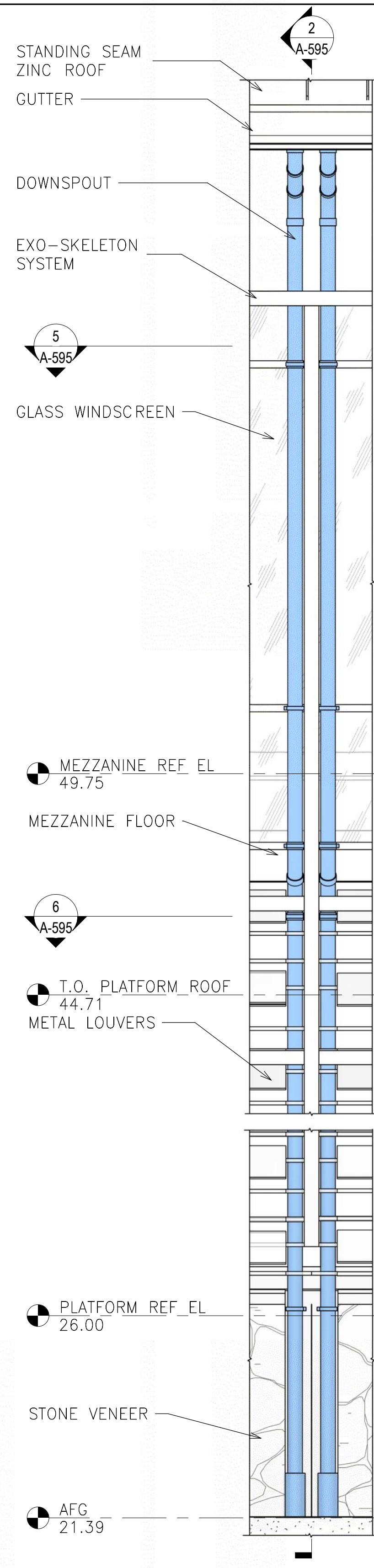
1 DOWNSPOUT MEZZ. AXON



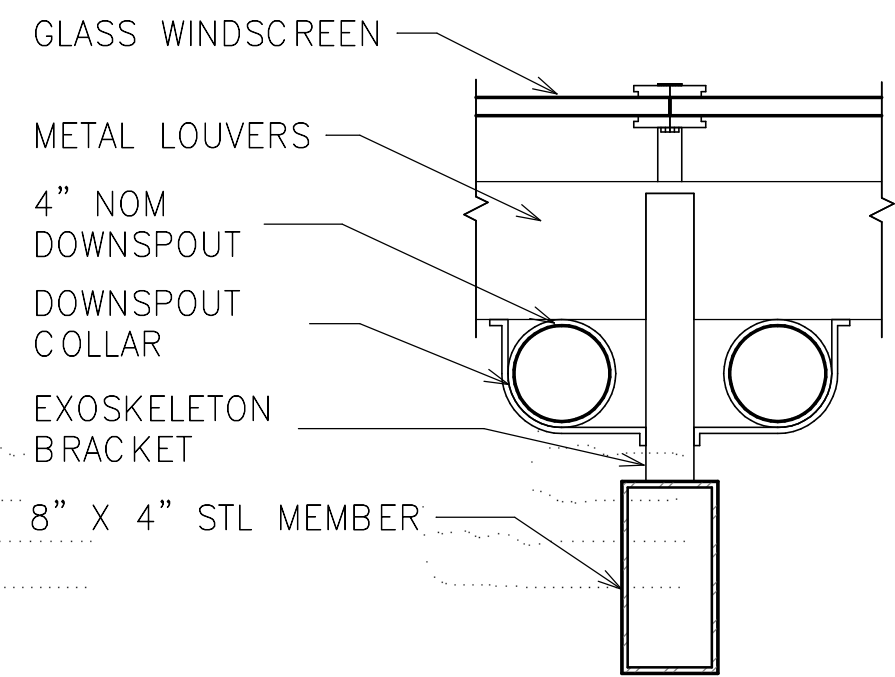
2 DOWNSPOUT S MEZZ. SECTION  
1/2" = 1'-0"



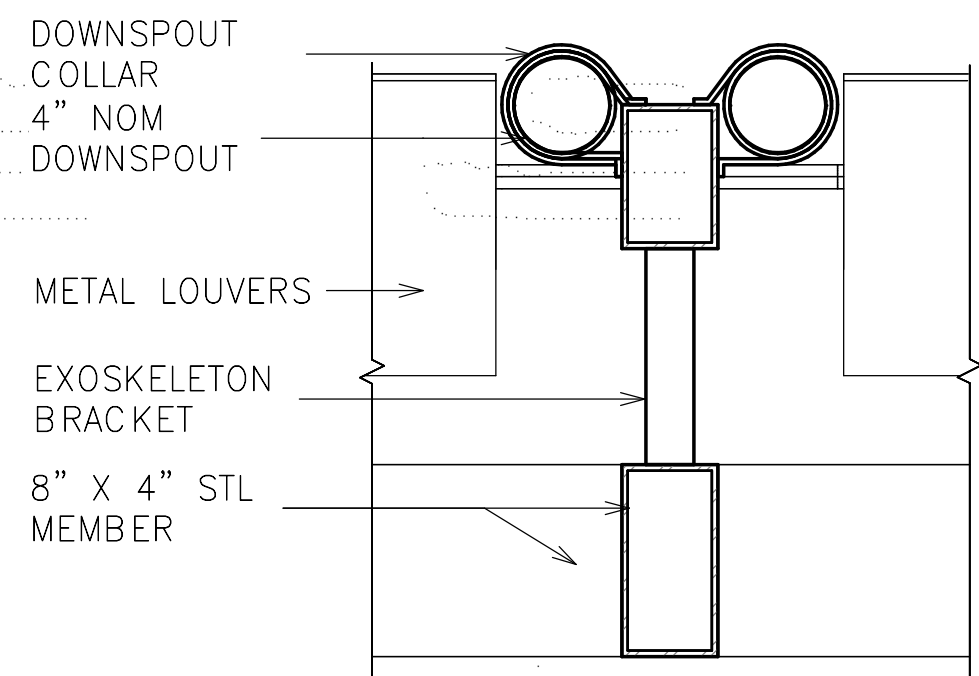
3 DOWNSPOUT N MEZZ. SECTION  
1/2" = 1'-0"



4 TYP DOWNSPOUT MEZZ. ELEVATION  
1/2" = 1'-0"



5 DOWNSPOUT MEZZANINE PLAN  
1 1/2" = 1'-0"



6 DOWNSPOUT MEZZANINE PLAN 2  
1 1/2" = 1'-0"

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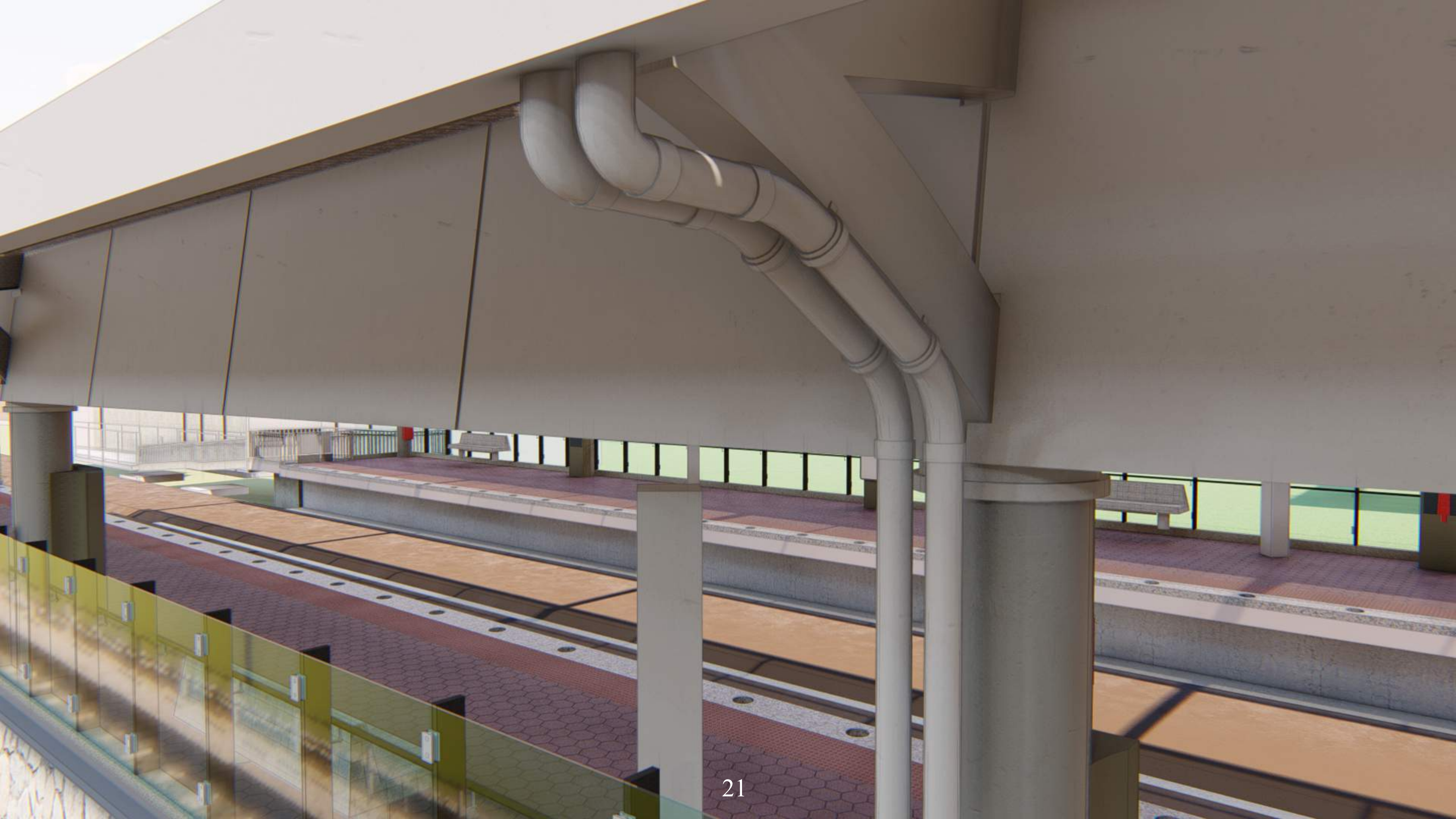
WMATA POTOMAC YARD METRORAIL STATION  
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BAR SUBMISSION  
DOWNSPOUT AND GUTTER DETAILS - MEZZANINE

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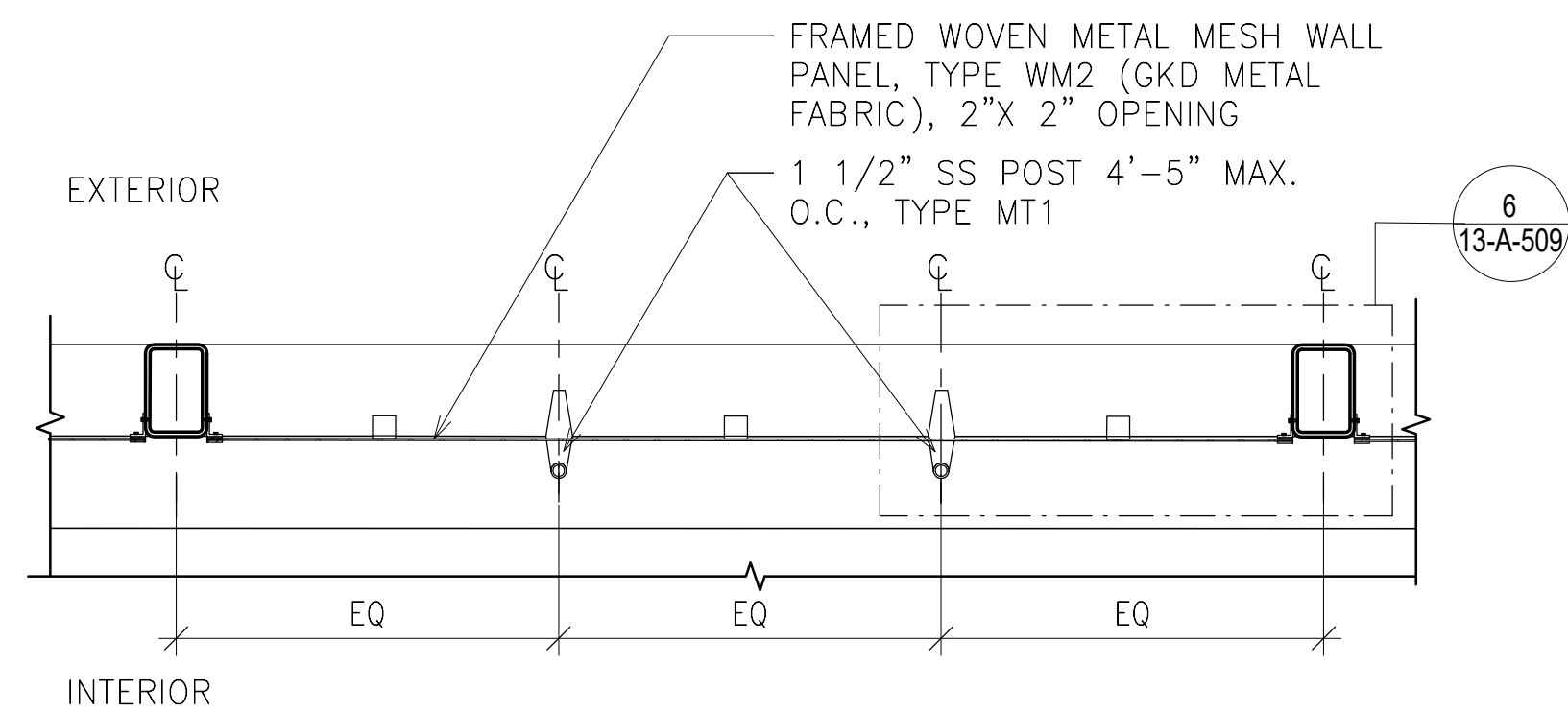




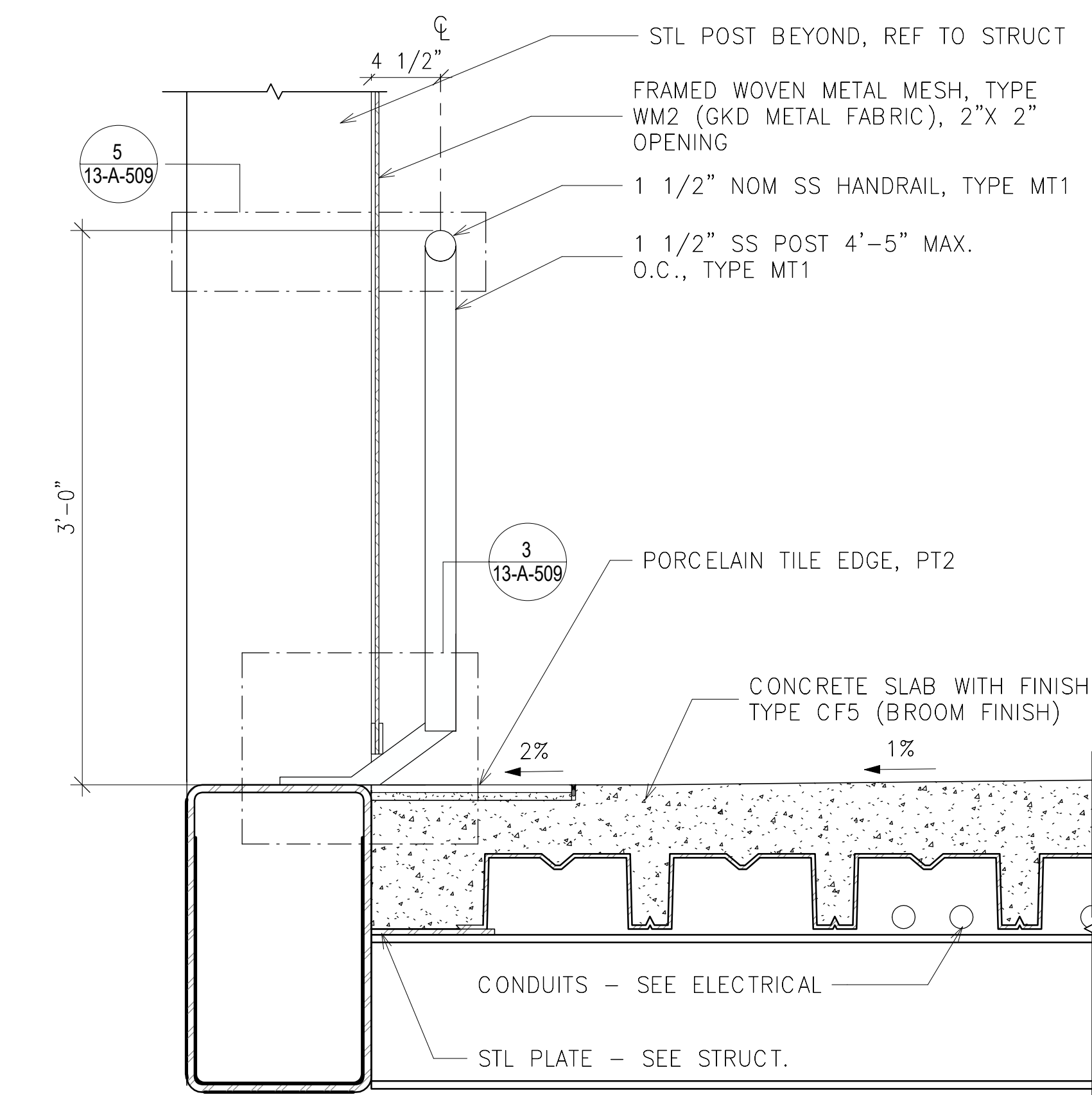




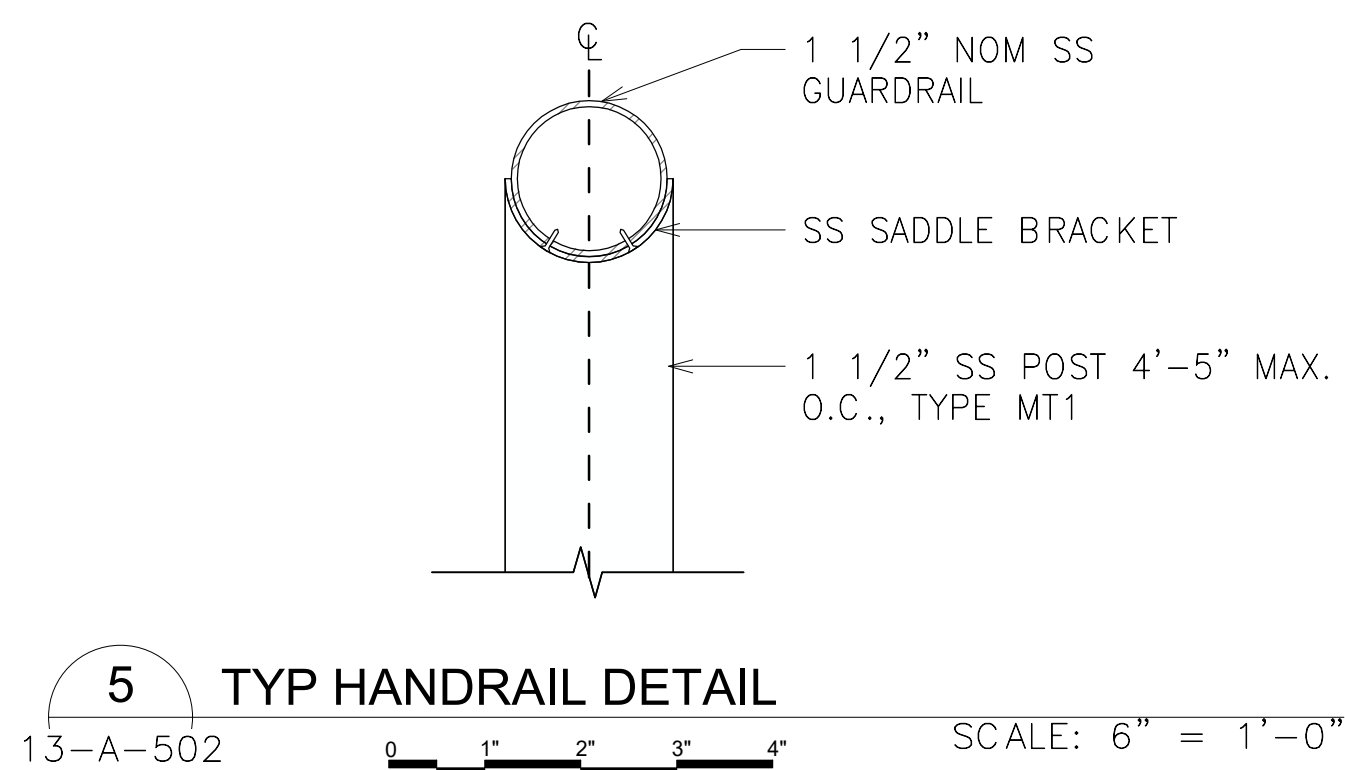
BRIDGE HANDRAIL AND MESH DETAILS



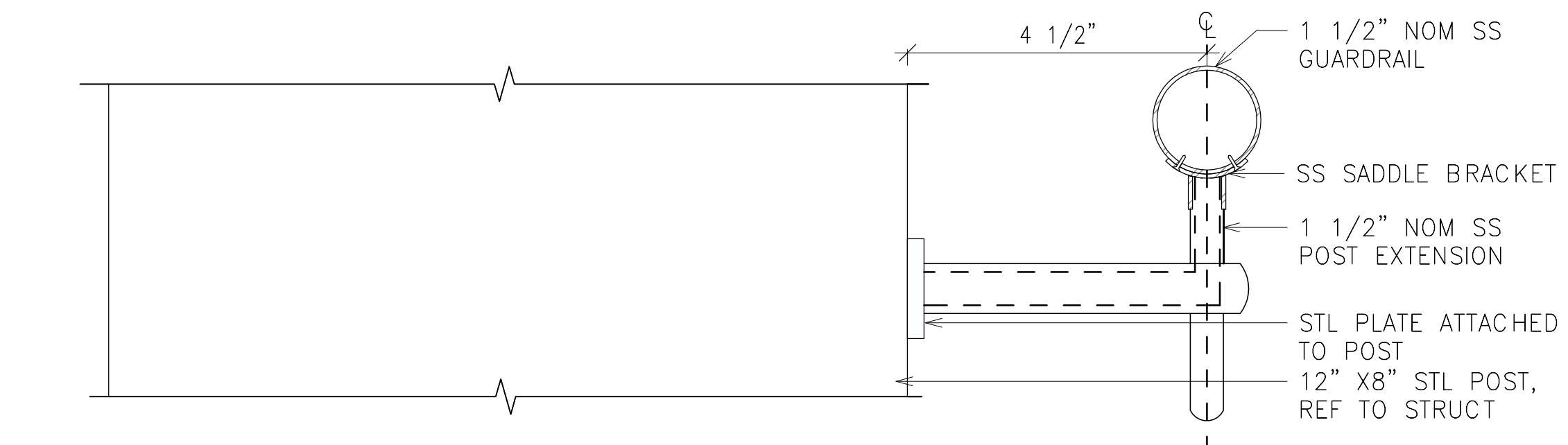
2 PEDESTRIAN BRIDGE HANDRAIL PLAN DETAIL  
13-A-101 SCALE: 1/2" = 1'-0"



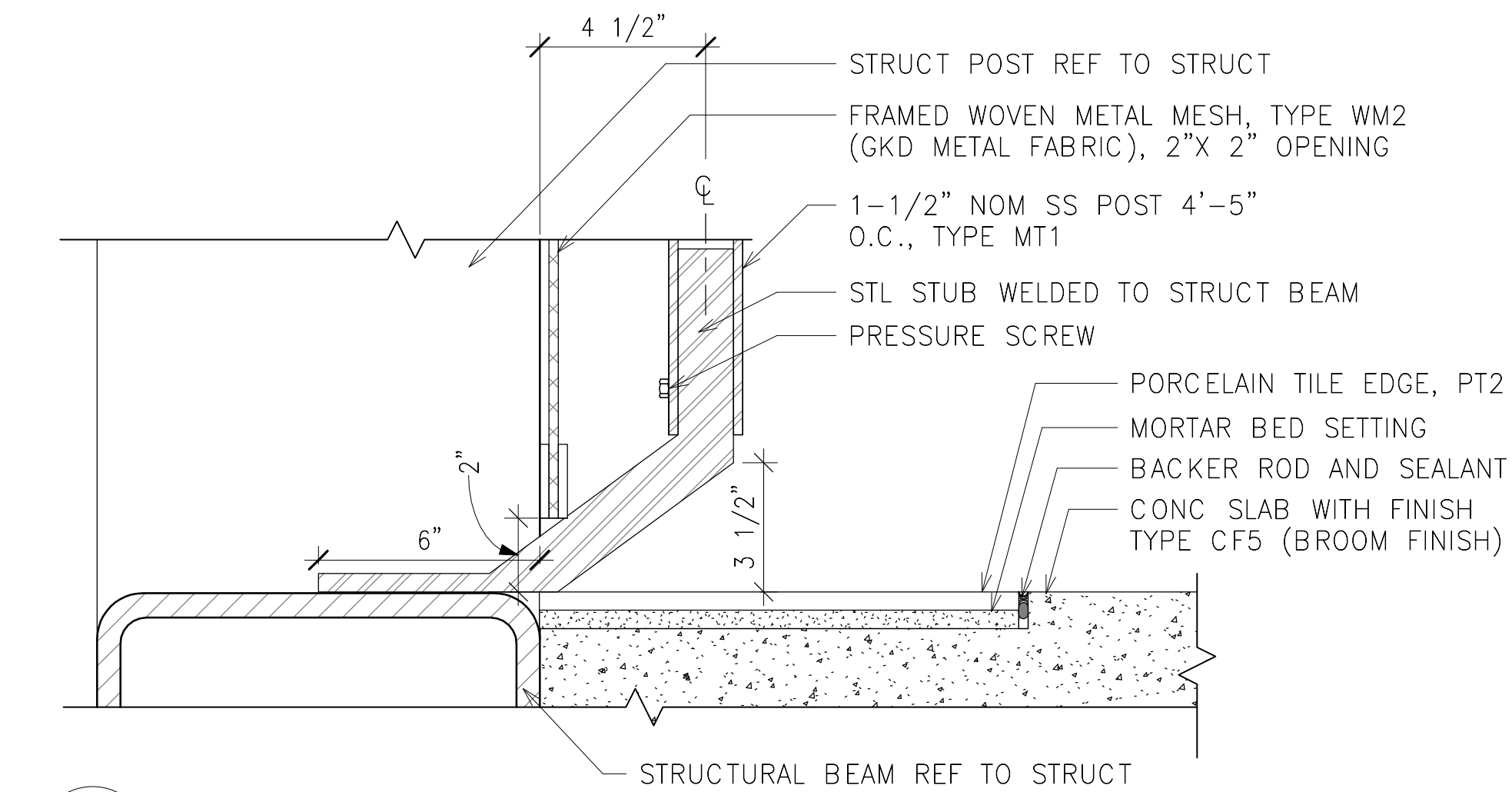
1 PEDESTRIAN BRIDGE SECTION - DESIGN OPTION  
13-A-301 SCALE: 1 1/2" = 1'-0"



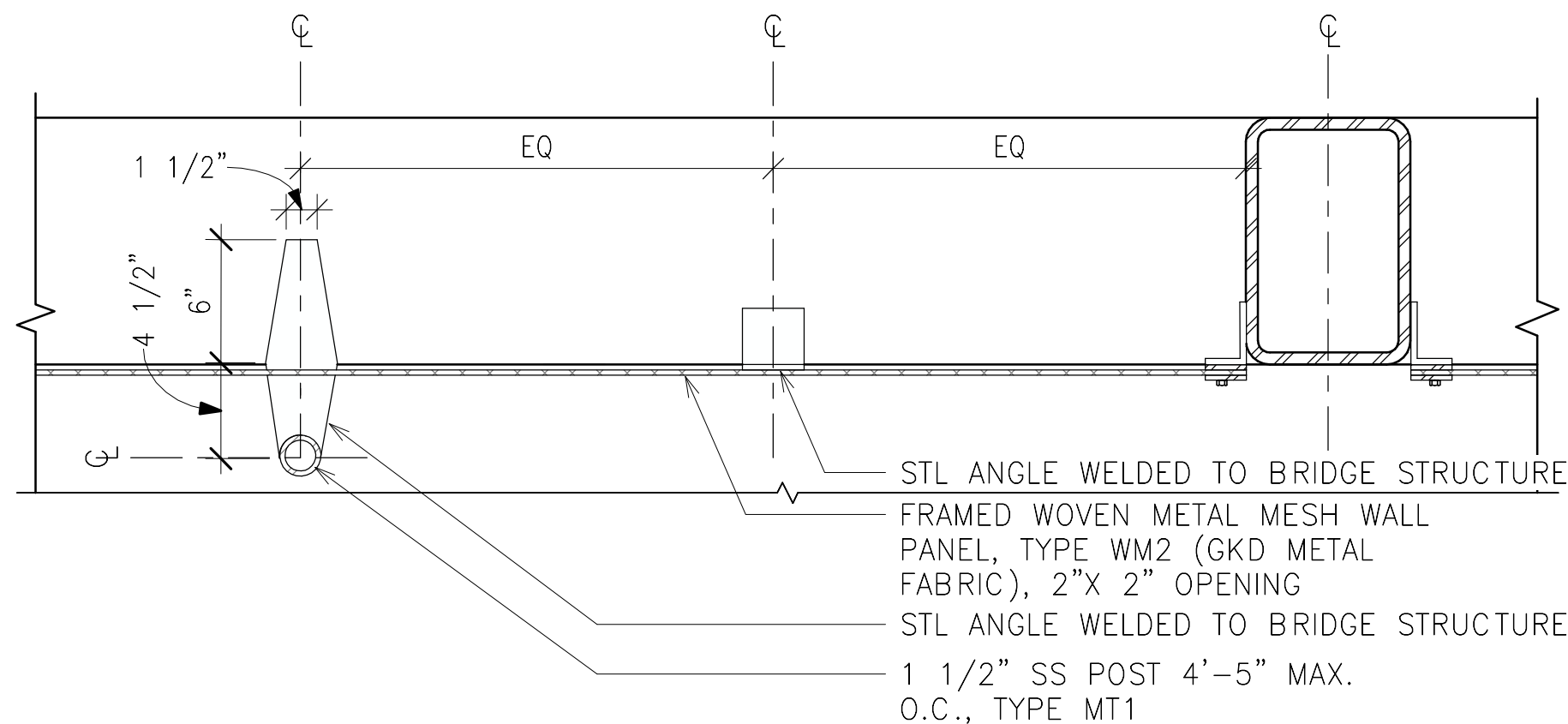
5 TYP HANDRAIL DETAIL  
13-A-502 SCALE: 6" = 1'-0"



4 TYP HANDRAIL DETAIL AT VERTICAL POST  
13-A-502 SCALE: 6" = 1'-0"



3 HANDRAIL BASE DETAIL - DESIGN OPTION  
13-A-502 SCALE: 3" = 1'-0"



6 HANDRAIL PLAN DETAIL ENLARGED  
13-A-509 SCALE: 1 1/2" = 1'-0"

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APPROVED	DATE
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WMATA POTOMAC YARD METRORAIL STATION				
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PEDESTRIAN BRIDGE AND RAMP				
HANDRAIL DETAILS - DESIGN OPTION				
M NO.	CONTRACT NO.	SCALE:	DRAWING NO.	SHEET NO.
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## Guardrail Along Pedestrian Bridge – Supporting Materials

### Mesh as a guardrail

Using a mesh as the guardrail is a typical solution that has been used on many projects around the USA. Locally it has been used in Tysons corner. See below for images of the Tysons Corner Pedestrian Bridge:

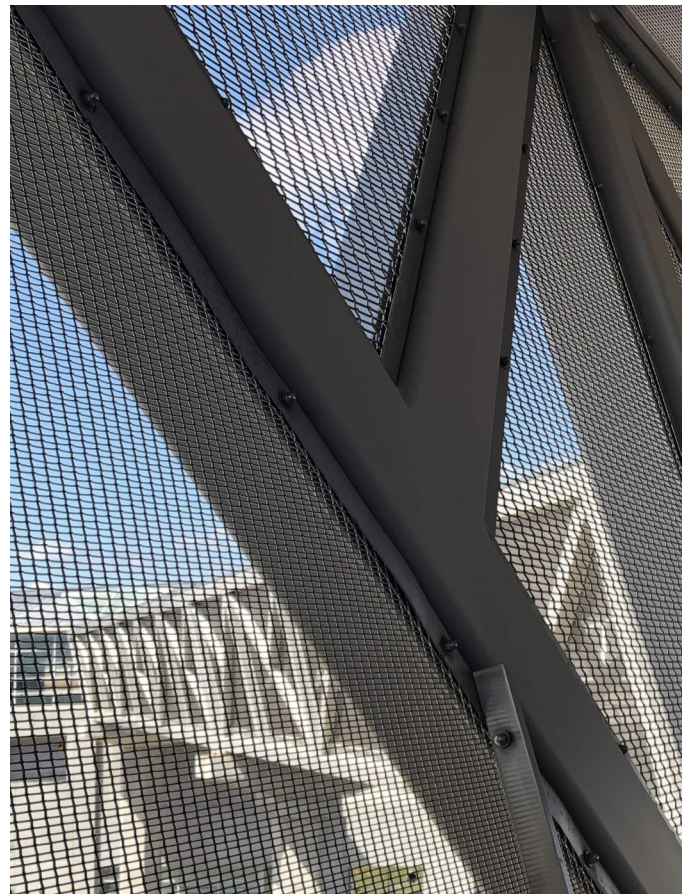


### Tysons Corner Pedestrian Bridge -

In this example, a woven metal mesh has been used as a guardrail, and is located between the structural members of the bridge truss. The mesh is attached around the perimeter with an angle, flat bar, and fasteners.

The handrail is separate and is attached directly to the steel truss of the bridge, and to the floor of the walkway.

The mesh shown at Tysons Corner was produced by GKD Metal Fabrics. The material is similar to that of the proposed 'Potomac' model included in this document by GKD. It will be 316 stainless steel, albeit it has different dimensions & pattern.



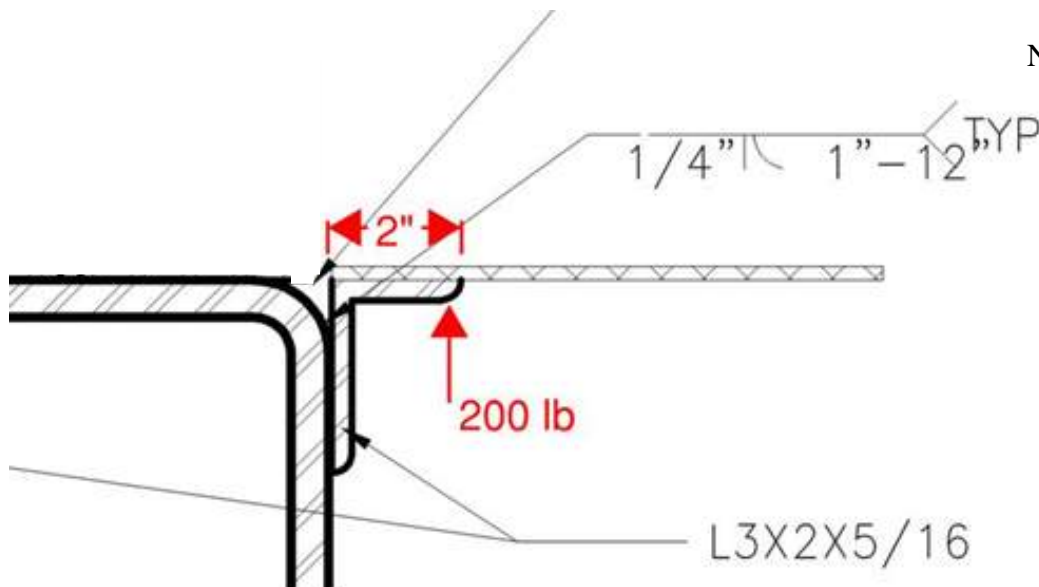
### Checking of bridge structure

To ensure that the structure is capable of supporting the mesh, Arup, the structural engineer has provided the following supporting calculation for the angle connecting the mesh system to the bridge as part of the stamped and sealed calculation package "Pedestrian Bridge and Ramp Structural and Geotechnical Calculation Report". Refer to that document for additional information.

The angle clamping the mesh to the Chords and Verticals is design for a 200 lb point load.



November 20, 2019



$$P = 200 \text{ lb}$$

$$P_u = 1.6(200) = 0.32 \text{ kips}$$

L3x2x5/16 angle is used with it's 2" leg being bent about the weak axis. Assuming a 45 degree force distribution, a 4" wide strip of the angle is assumed to resist the bending moment.

$$b = 4"$$

$$t = 5/16"$$

Check that elastic stress is below allowable

$$\sigma_u = \frac{M_u}{S_x} = \frac{(2)(0.32)}{\frac{4\left(\frac{5}{16}\right)^2}{6}} = 9.83 \text{ ksi}$$

$$\sigma_{all} = 0.9(36) = 32.4 \text{ ksi} \gg \sigma_u$$

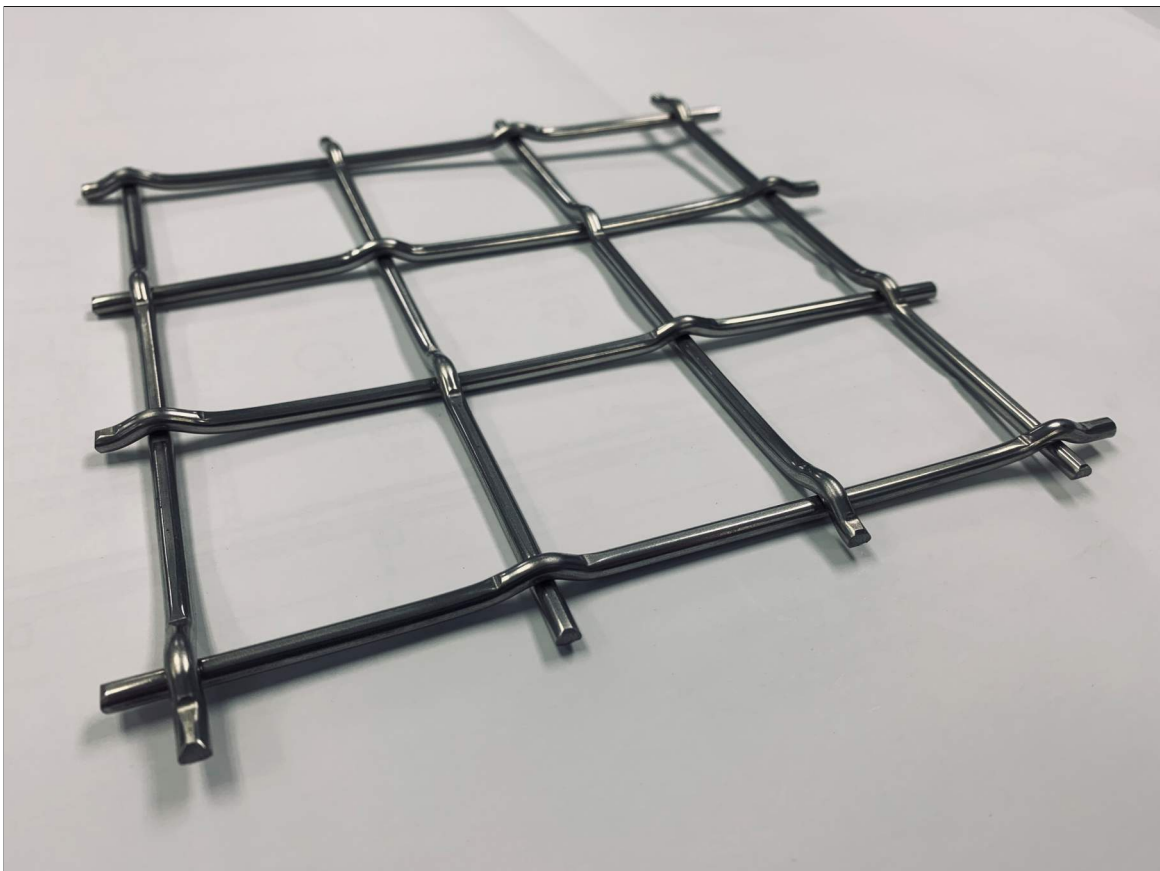


**Specification of mesh**

As is typical in the AEC industry, the Architect provides a performance specification for the mesh and then the mesh supplier will produce shop drawings and supporting calculations showing how their mesh meets the performance specification. On the Potomac Yard project, Leuterio Thomas has consulted GKD throughout the design process to ensure that the solution proposed is feasible.

To assist in the approval of the mesh in the pedestrian bridge, conceptual calculations showing the mesh can work for the Potomac Yard arrangement have been included below. Stamped and sealed calculations will be provided during the shop drawings process.

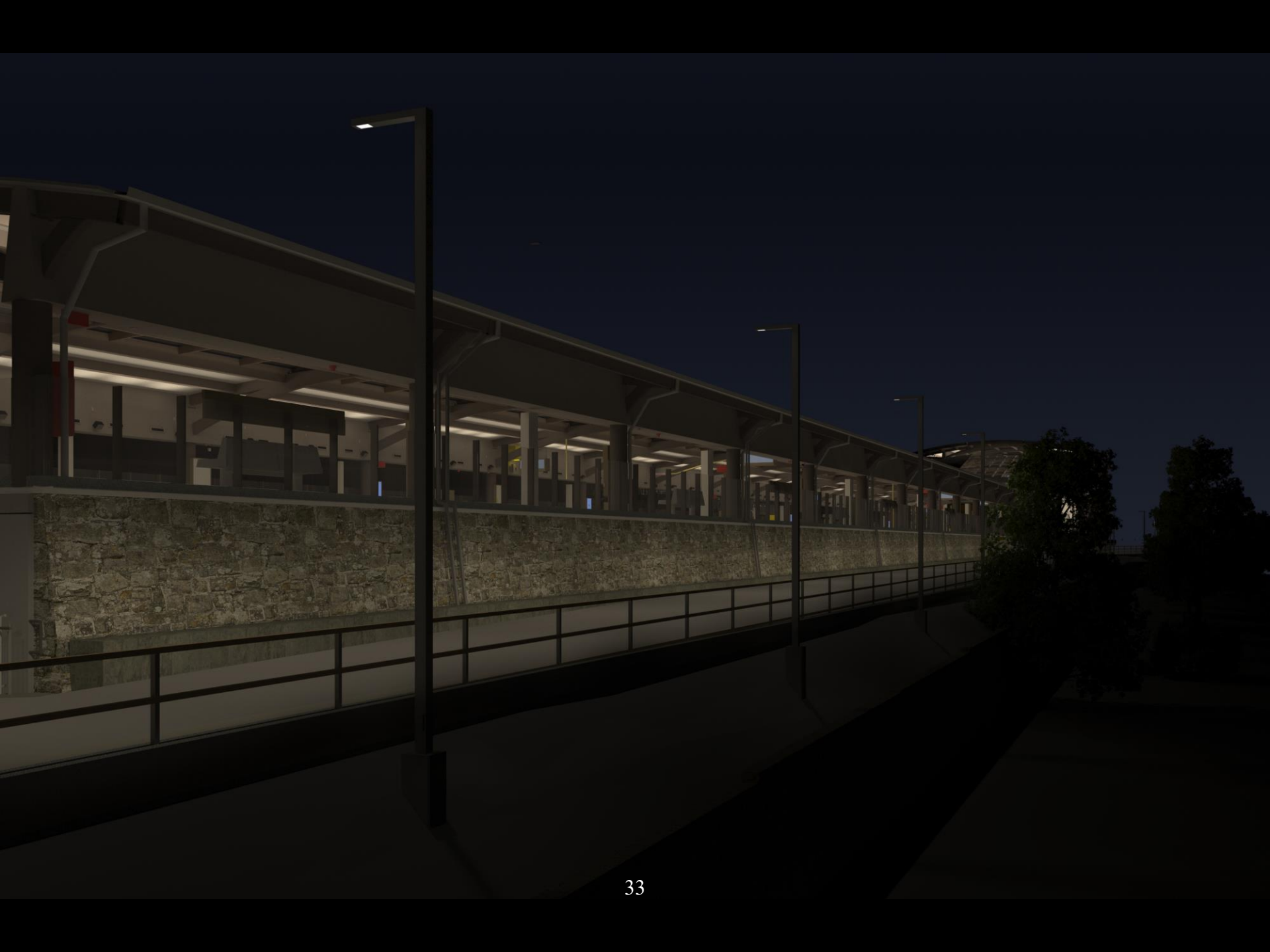
**SEE THE FOLLOWING (4) SHEETS FOR GKD  
PRELIMINARY CALCULATIONS (PERFORMED ON  
THEIR BEHALF BY RICE ENGINEERING).**

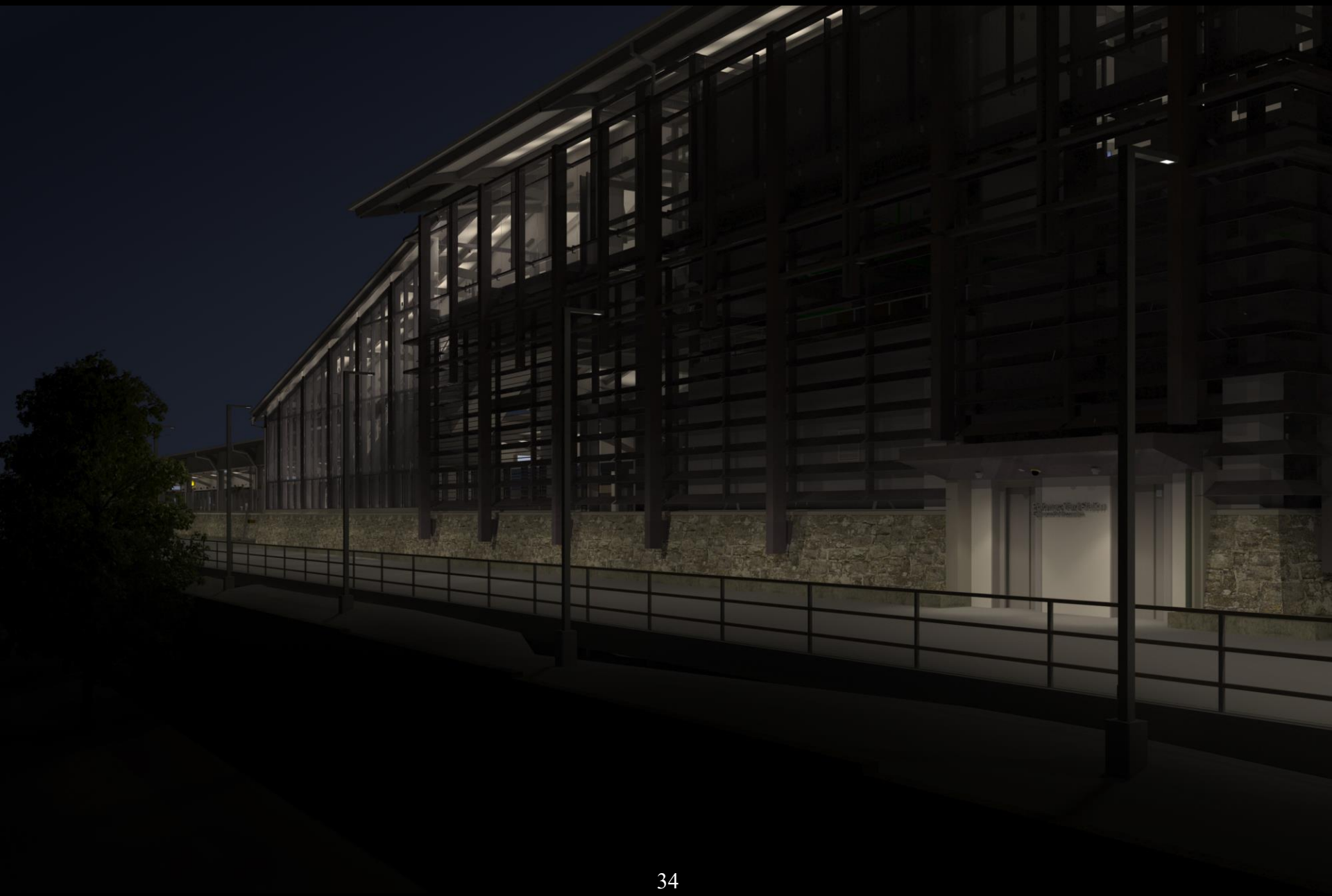
**IMAGE OF THE 'POTOMAC' CUSTOM MESH PATTERN:**

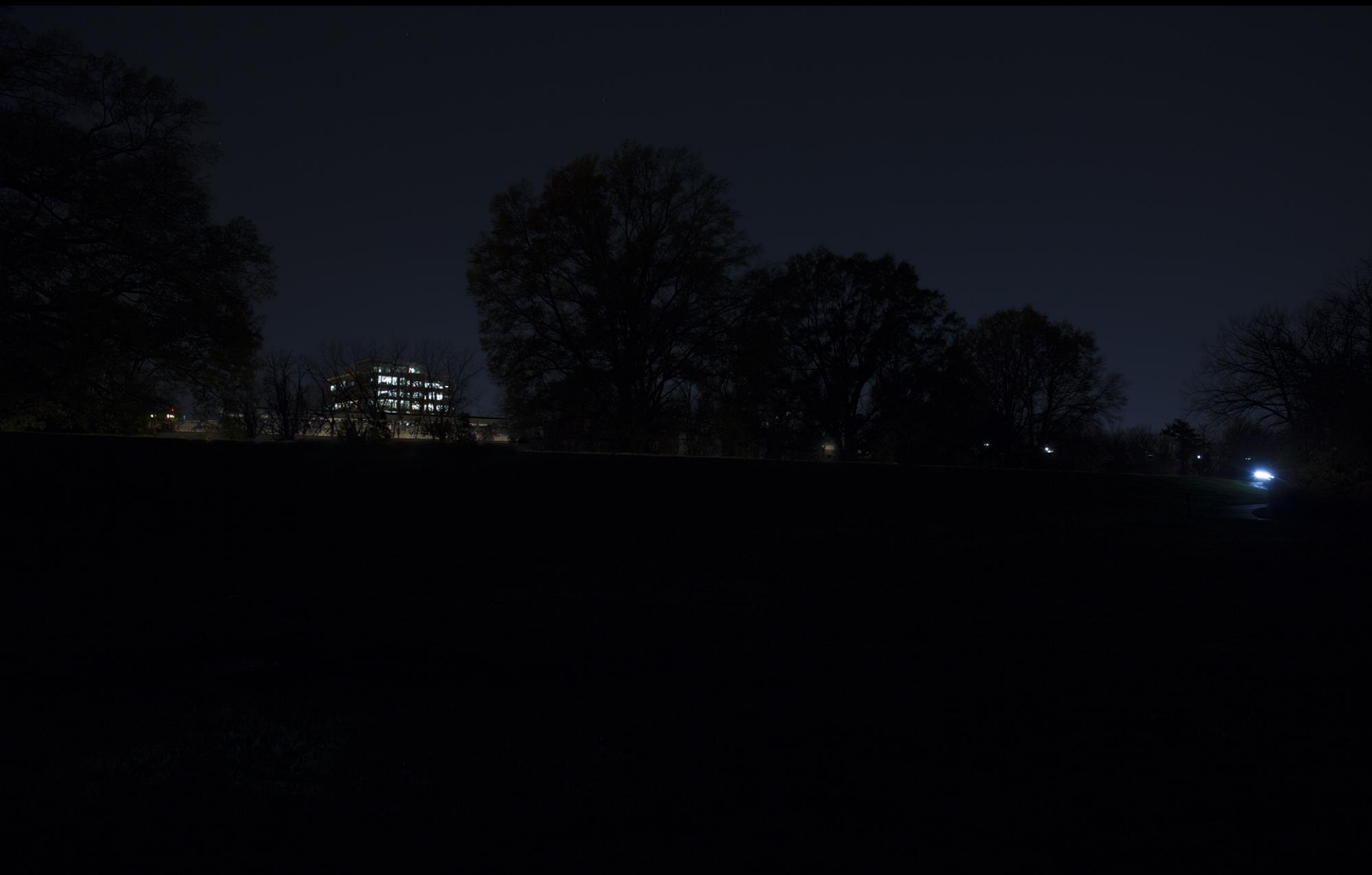


# Lighting Render Updates















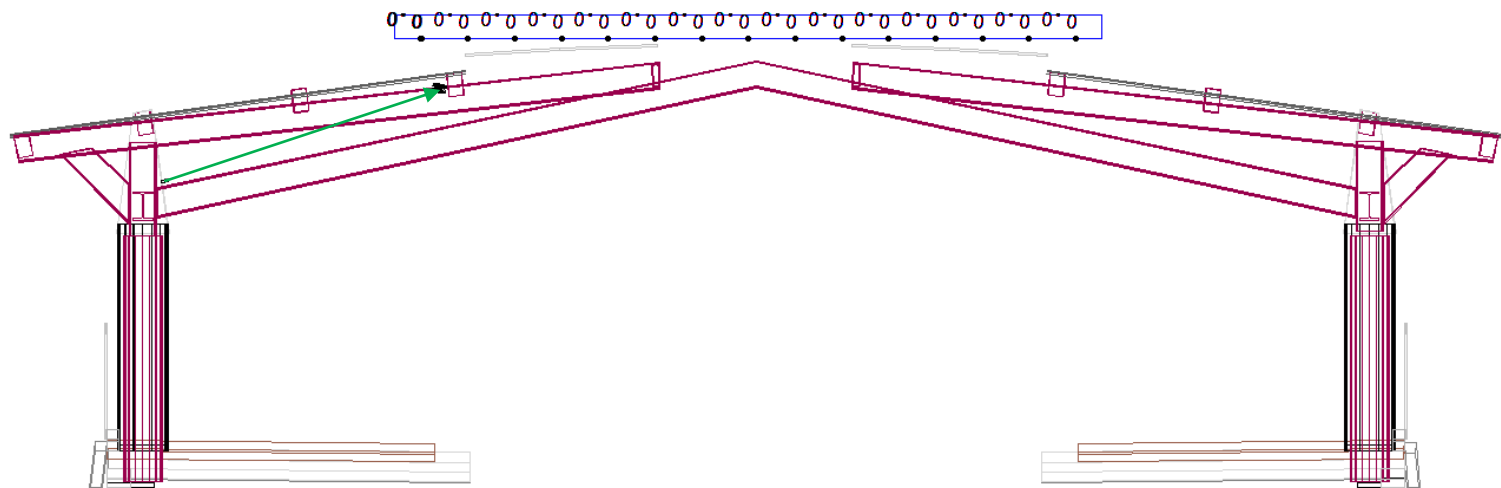
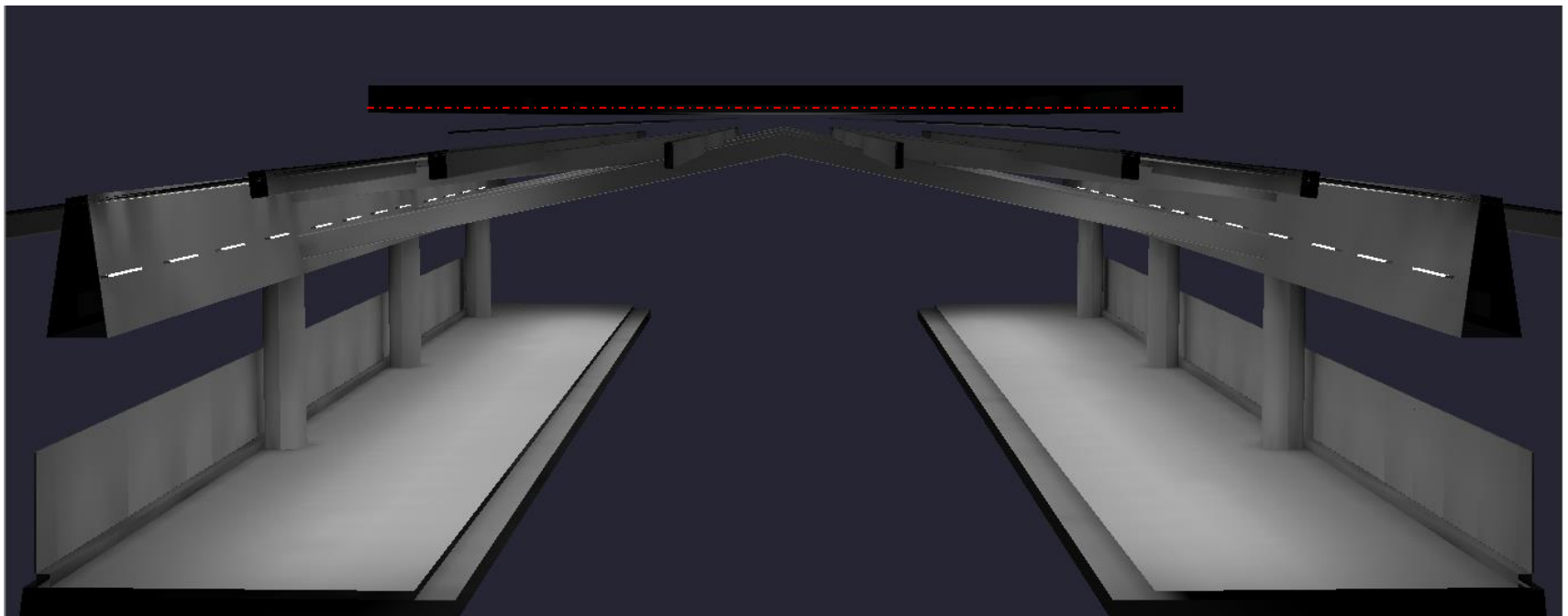




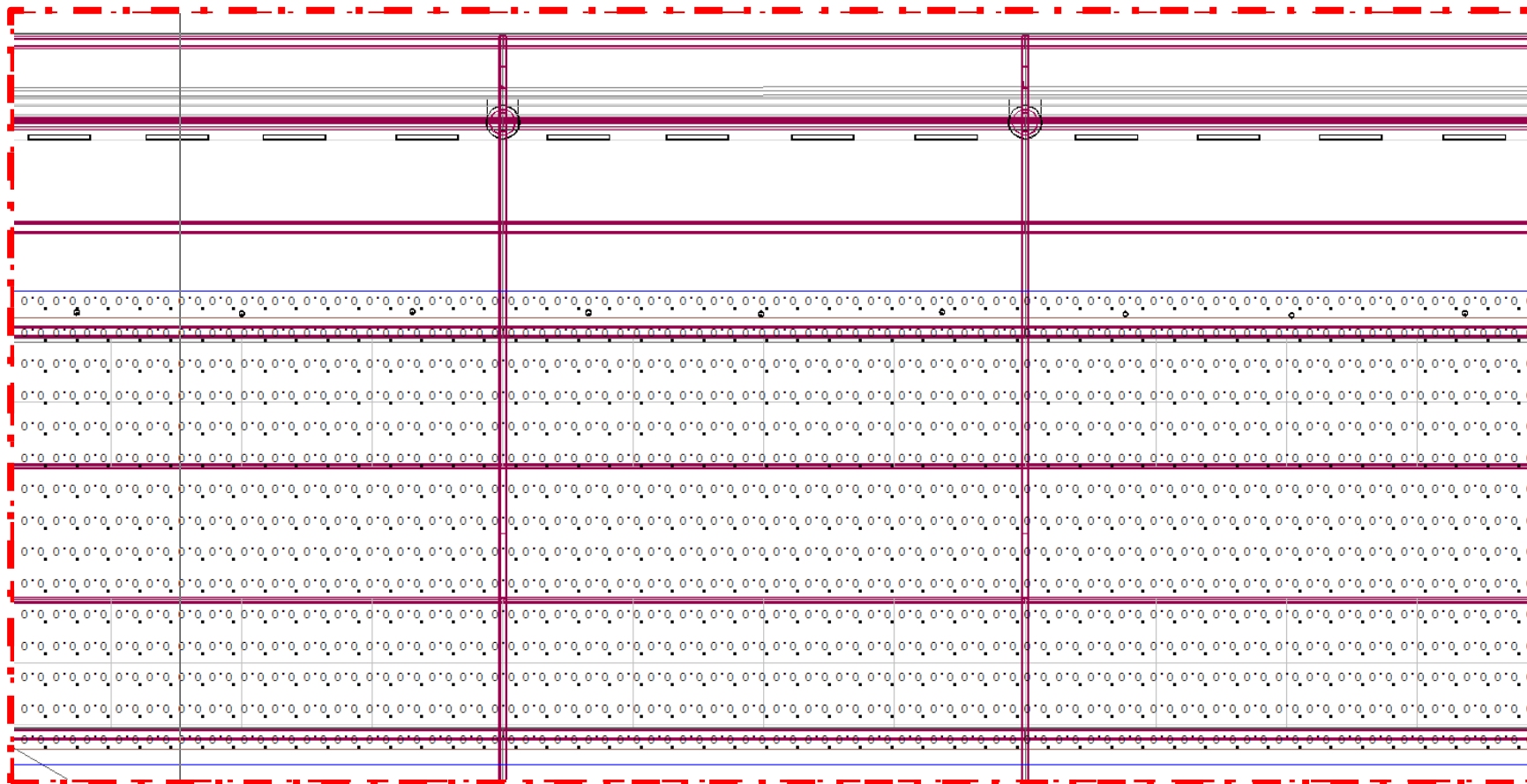
# Station Dark Skies Check

- ✓ Fixture design that limits light trespass
- ✓ Light curfew for lighting that is not under a canopy or required by code for steps, stairs, walkways and building entrances
- ✓ Ambient light levels

We confirm and demonstrate in this document that the lighting design for the station meets the WMATA requirements and is not overdesigned.

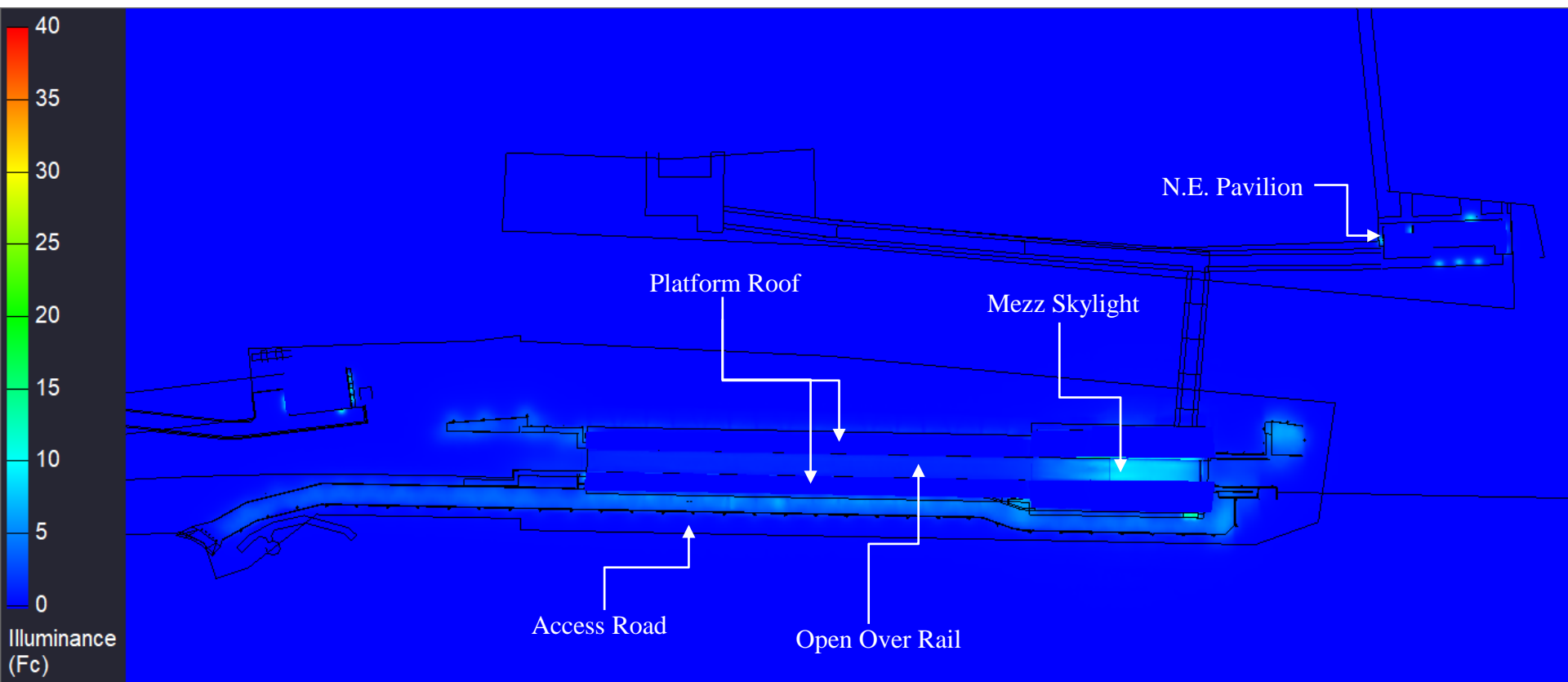


If any direct light did hit the calculation plane, then the light levels would be  $>0$  fc at any point.

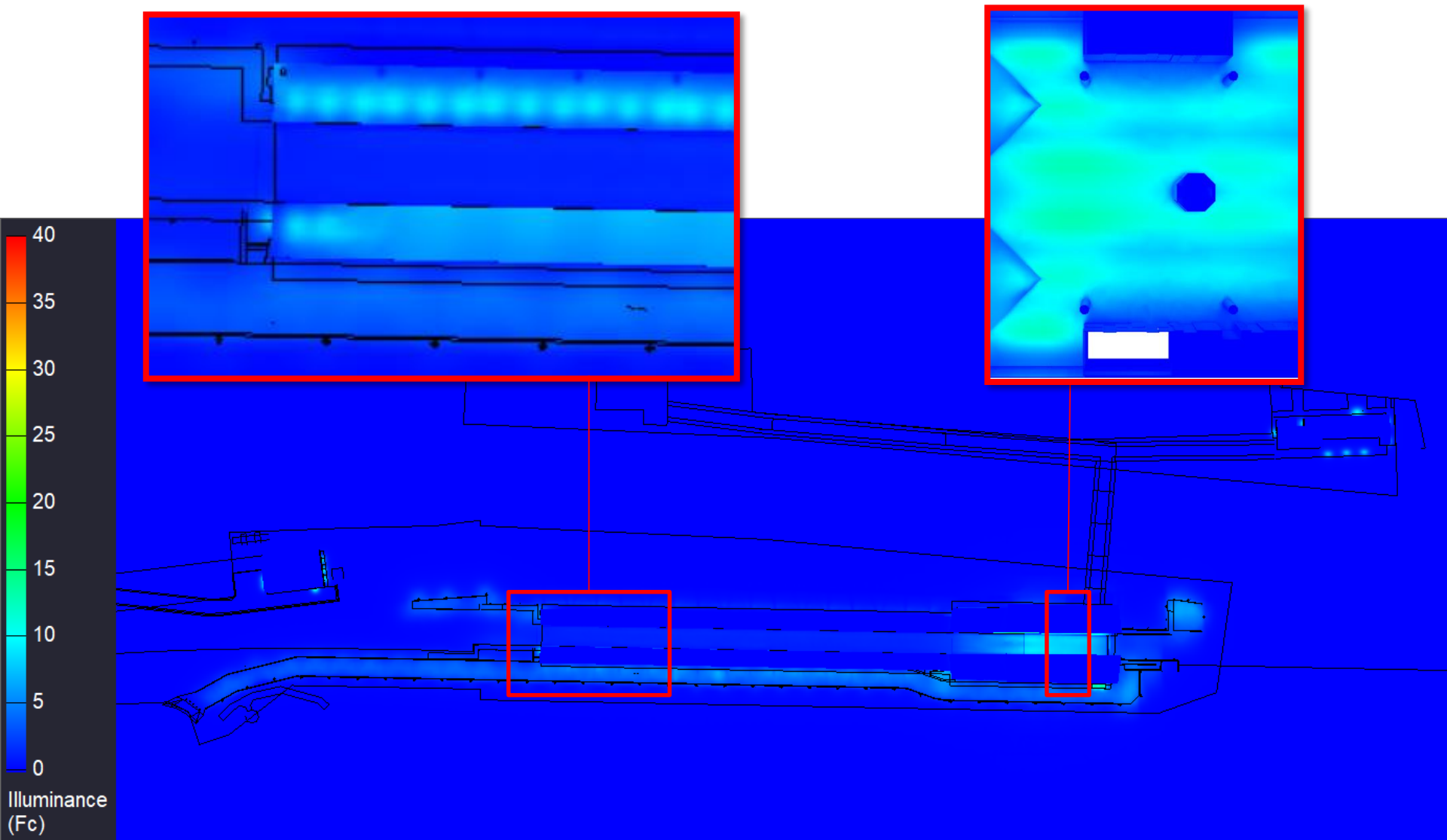


Illuminance (Fc)  
 Average=0.00 Maximum=0.0 Minimum=0.0  
 Avg/Min=N.A. Max/Min=N.A.

All calculations points yielded a light level of 0 thereby confirming that no direct light is cast beyond the roof structure.

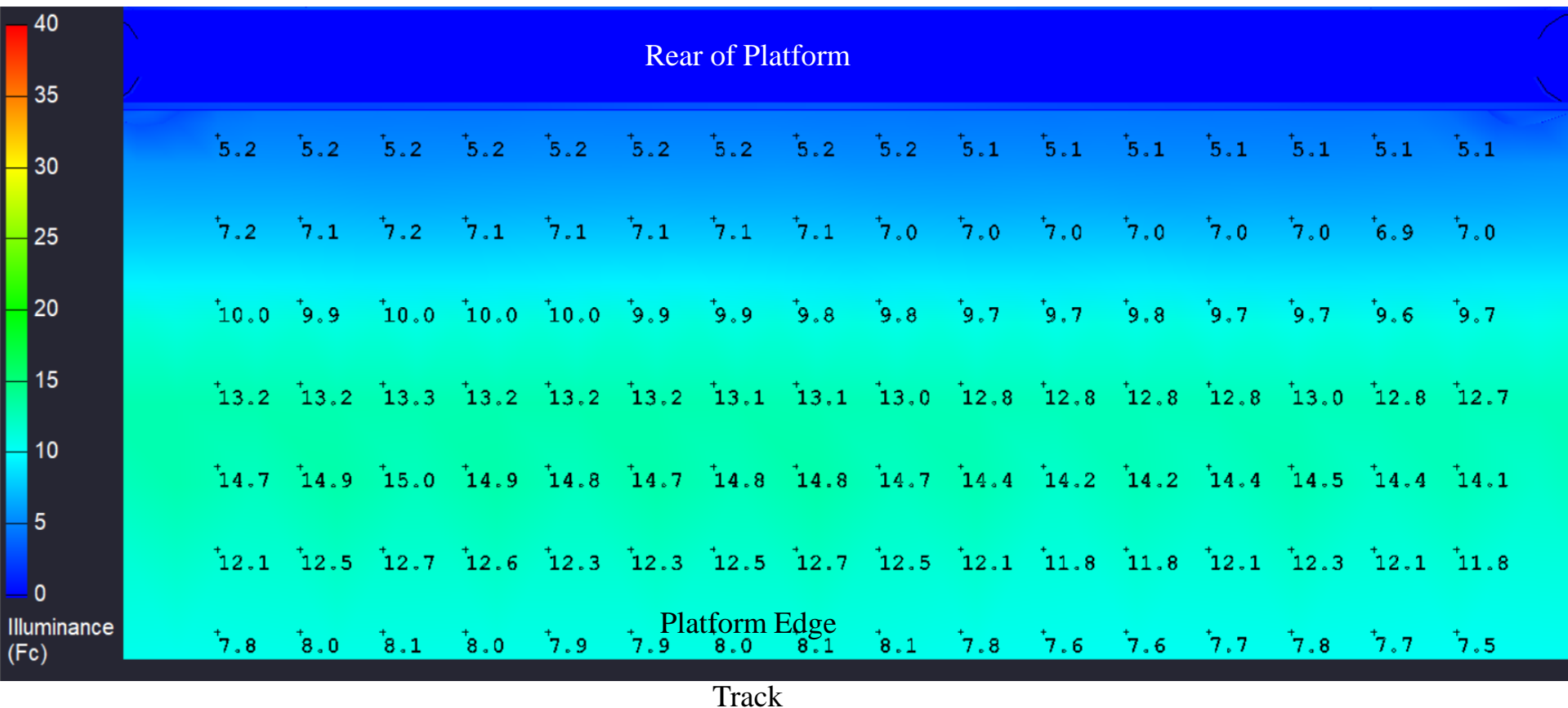


Site Plan - Birds Eye View



Site Plan indicating light levels (illuminance) on floor surfaces  
– zoomed in to indicate light levels under roof canopies





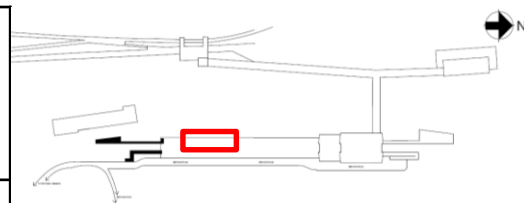
## Station Platform - floor level illuminance under roof

WMATA requirements

Design

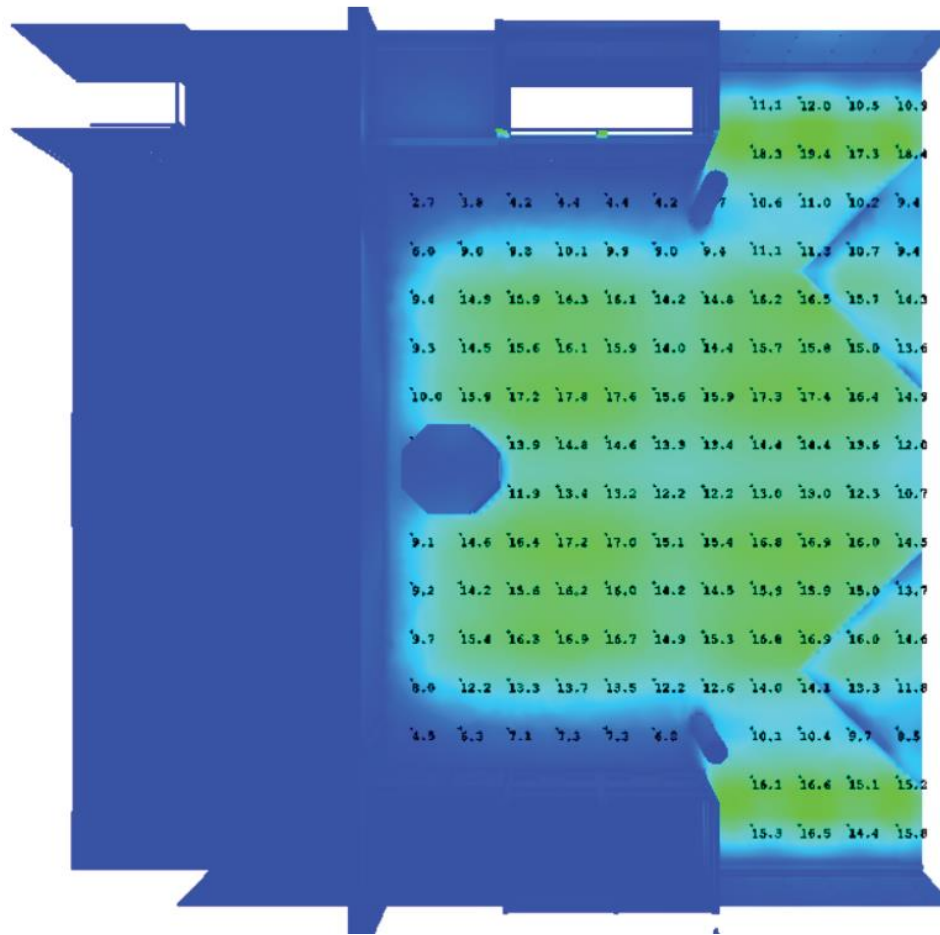
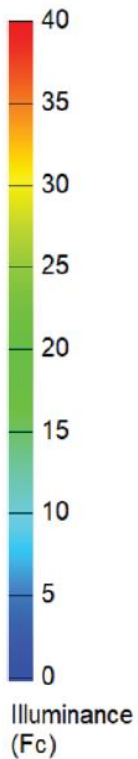
10 FC average maintained

10 FC average maintained



KEY PLAN

ARUP



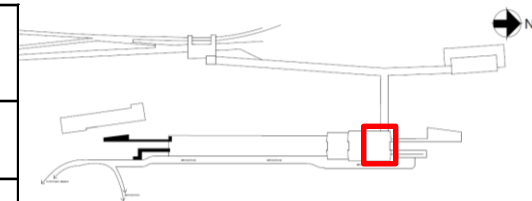
## Mezzanine Under Canopy

WMATA requirements

Design

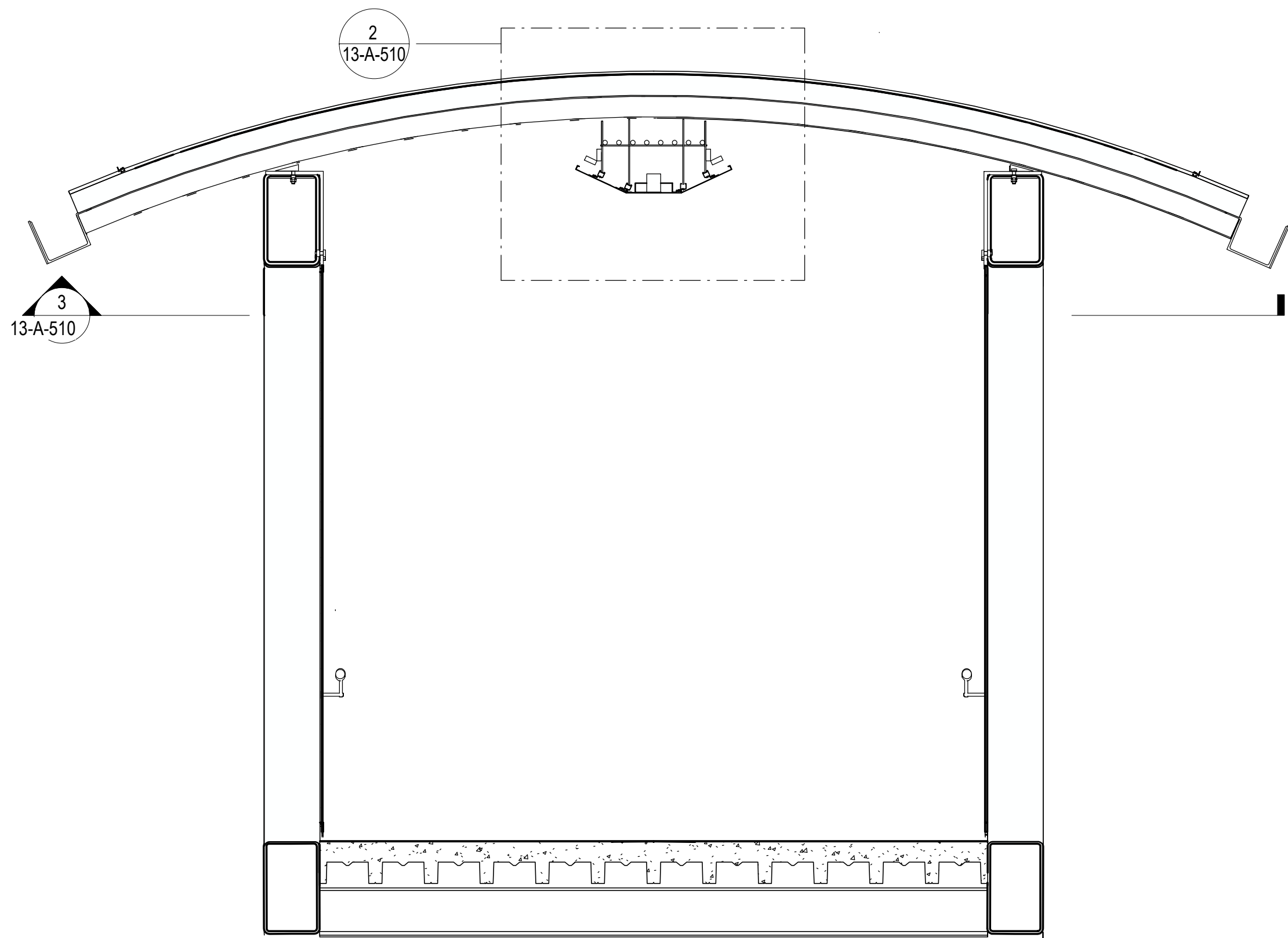
10fc average maintained  
20fc Faregates & Vendors

13fc average maintained

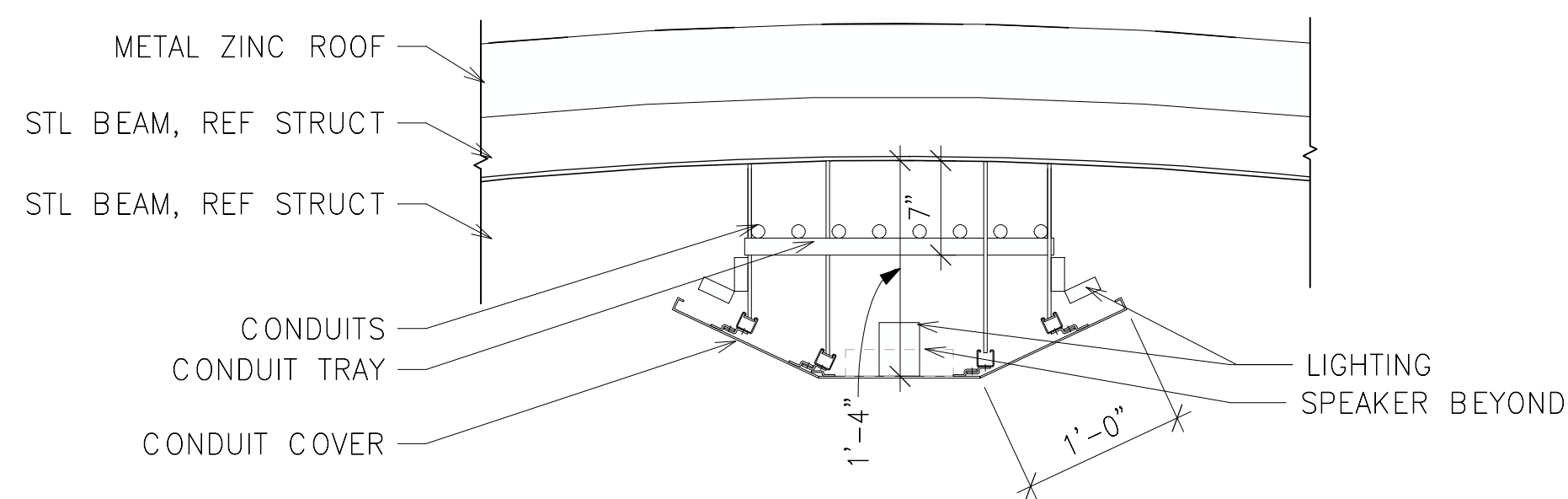


KEY PLAN

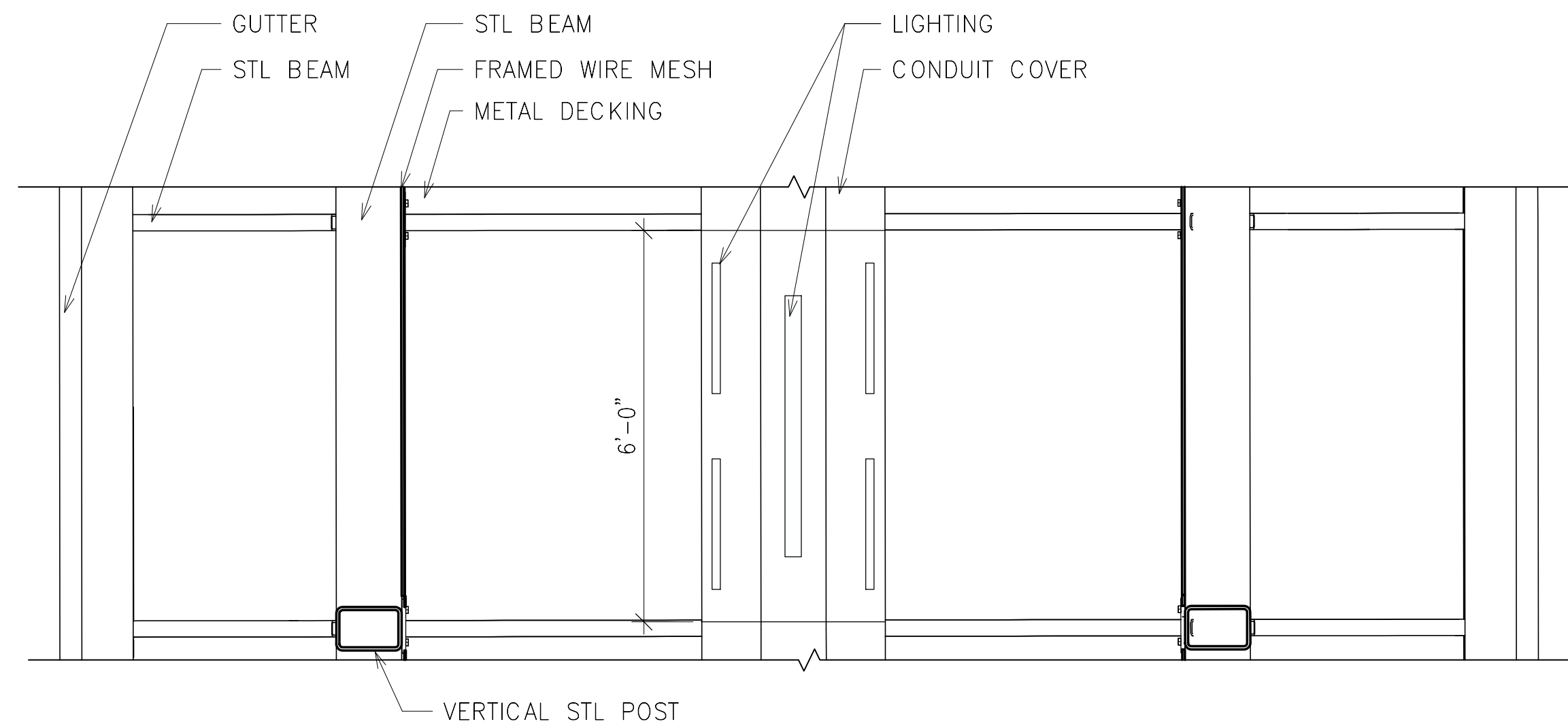




**1** PEDESTRIAN BRIDGE CROSS SECTION - CONDUIT COVER  
1/2" = 1'-0"



**2** CONDUIT COVER ENALRGED DETAIL  
1" = 1'-0"



**3** BRIDGE REFLECTED CEILING PLAN  
1/2" = 1'-0"

# Bridge Lighting Updates

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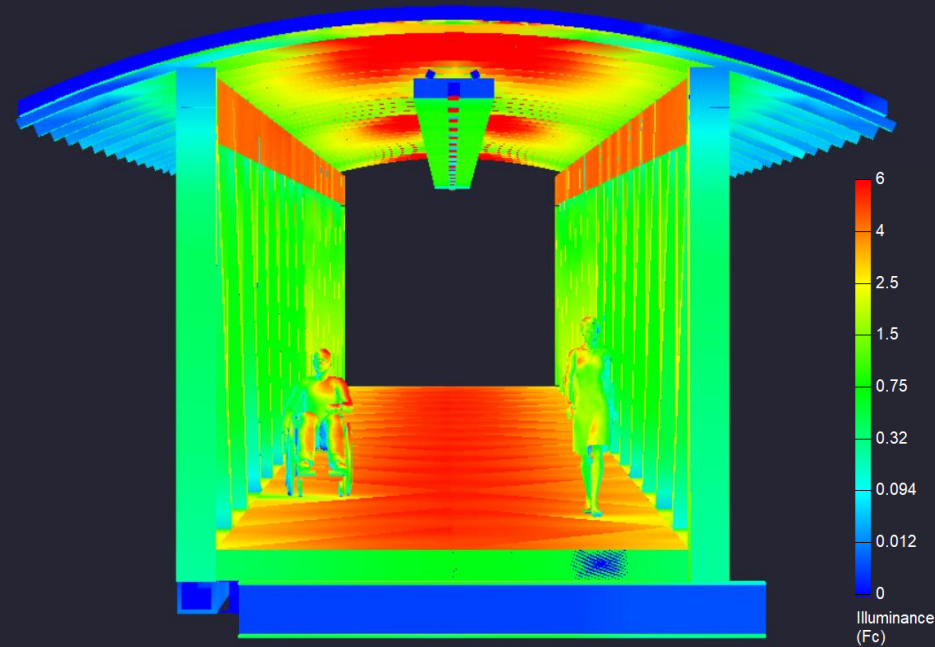
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CHECKED	Checker	11/19/19						SUBMITTED			PEDESTRIAN BRIDGE AND RAMP CONDUIT COVER				
APPROVED	Approver	11/19/19						APPROVED			M NO.	CONTRACT NO.	SCALE:	DRAWING NO.	SHEET NO.
		DATE						DIRECTOR			M1316	FQ16146		13-A-510	



# Bridge Updates – Central Raceway

## Uplight + Downlight



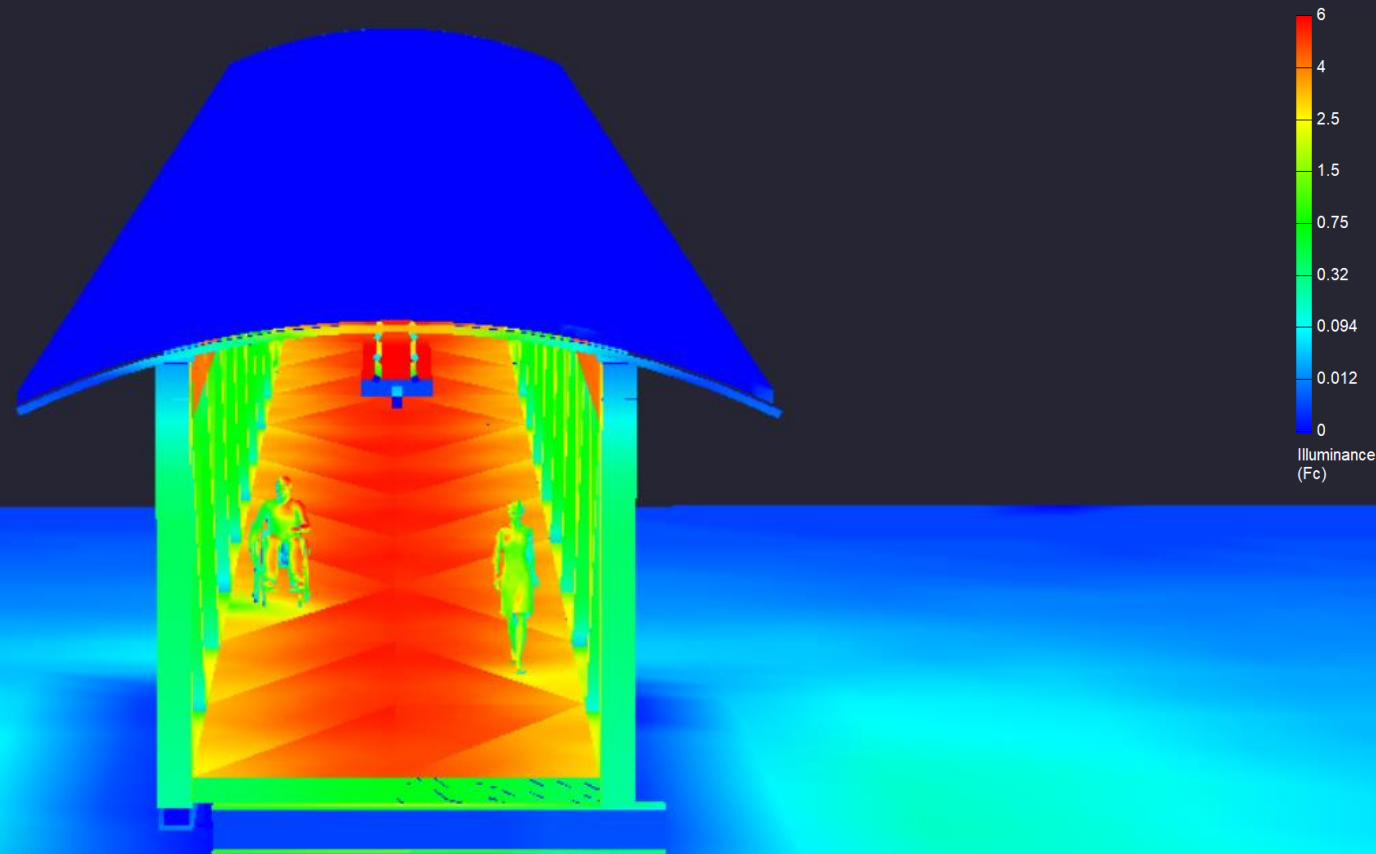
Solution removes side conduit

# Bridge Updates – Light Spill from Central Raceway





# Bridge Updates – Light Spill from Central Raceway



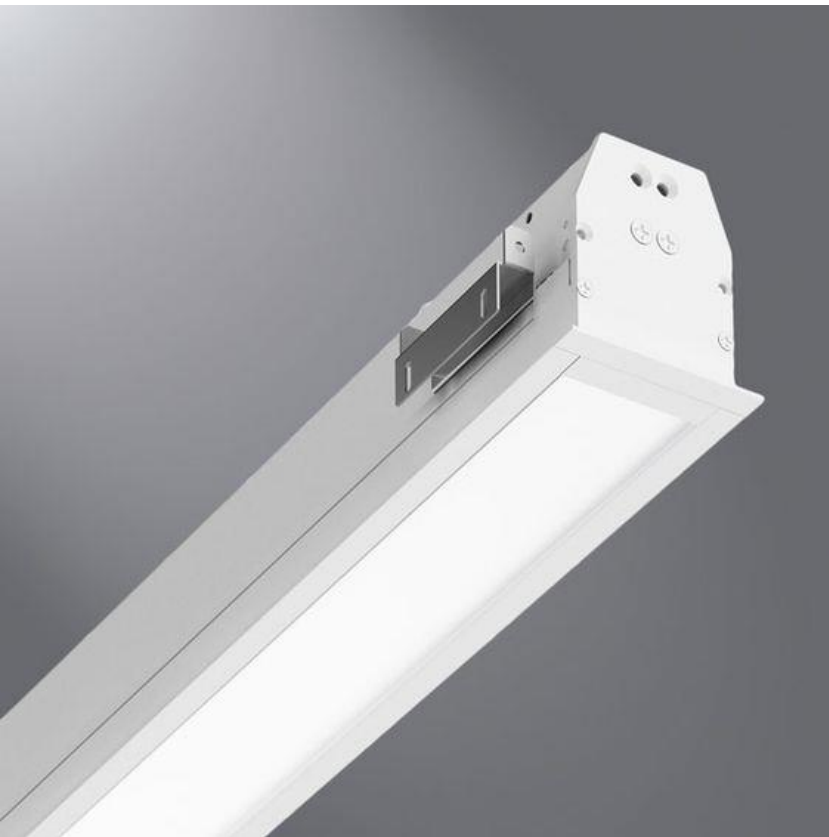


Figure 1 – Fluorescent Fixture

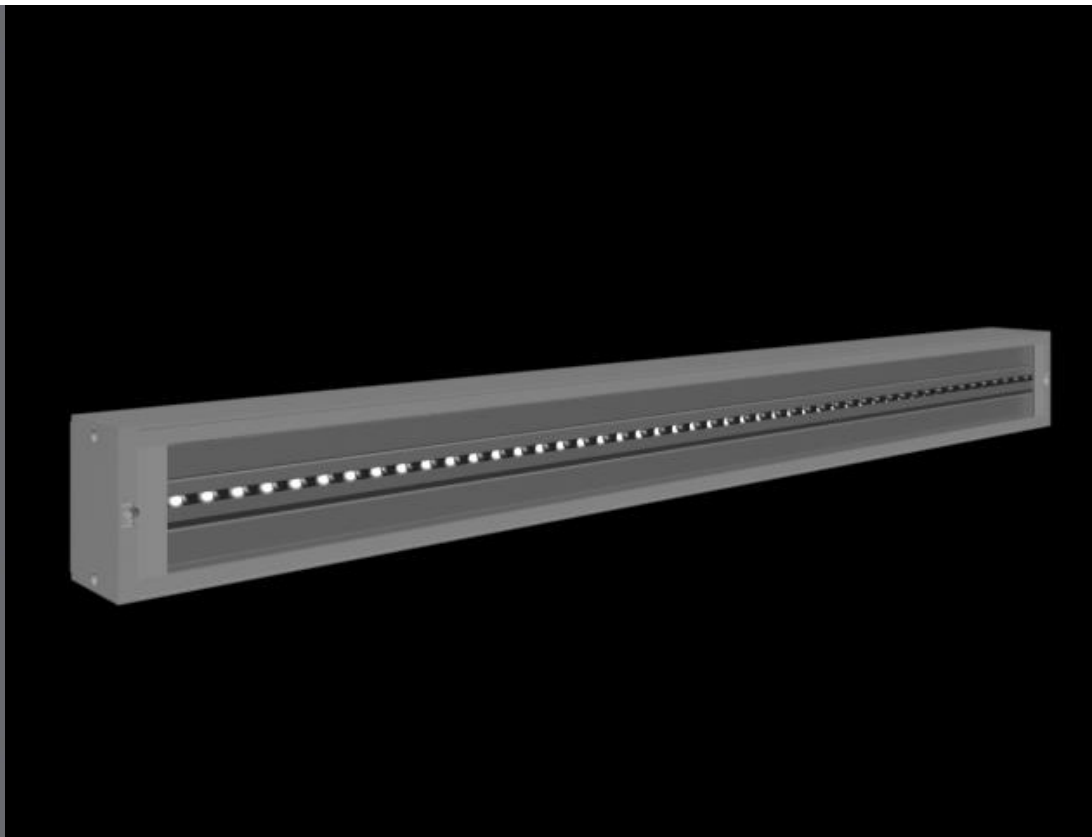


Figure 2 – LED Fixture

With the optical technology afforded by LED fixtures, the selected fixture is designed to direct light only where desired.