



**New Jersey Sports & Exposition Authority**  
Lyndhurst, New Jersey

# PROJECT MANUAL

for

## **NJSEA Arena Stair and Ramp Repairs**

Contract No.CN-303

**Book 4 of 4**  
**DESIGN DOCUMENTS**  
**January 13, 2026**

**Project CN-303 NJSEA Arena Stair and Ramp Repairs**  
**DESIGN DOCUMENTS**

**Drawings**

<b>DRAWING NO.</b>	<b>Title</b>	<b>DATE</b>
S-001	General Notes and Key Plan	12-01-25
S-101	Existing Top and Underside Plan Gate A	12-01-25
S-102	Existing Top and Underside Plan Gate B	12-01-25
S-103	Existing Top and Underside Plan Gate C	12-01-25
S-104	Existing Top and Underside Plan Gate D	12-01-25
S-201	Existing Sections and Repair Details	12-01-25
S-202	Proposed Sections and Repair Details	12-01-25
E-001	Electrical Lead Sheet	12-01-25
E-002	Electrical Specifications	12-01-25

Project CN-303 NJSEA Arena Stair and Ramp Repairs  
DESIGN DOCUMENTS

Site Map





1. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE 2021 NEW JERSEY STATE BUILDING CODE AS AMENDED BY THE SPECIFICATIONS.
2. THE CONTRACTOR SHALL EXAMINE AND VERIFY IN THE FIELD ALL EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS WITH THOSE SHOWN ON THE PLANS. IF FIELD CONDITIONS AND DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL PUBLIC AND PRIVATE UNDERGROUND AND SURFACE UTILITIES AND THE STRUCTURES AT OR NEARBY THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE TO PAY FOR HIS OWN EXPENSE TO REPAIR OR REPLACE ANYTHING THAT THE CONTRACTOR DAMAGES.
4. LIMITS OF DETERIORATED CONCRETE ARE APPROXIMATED FROM FIELD CONDITIONS AT THE TIME OF INSPECTION AND ARE NOT TO SCALE.
5. THE COST FOR THE REMOVAL OF ALL ITEMS NECESSARY TO COMPLETE THE PROJECT AND NOT OTHERWISE INDICATED, SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR THE ITEM "CLEARING SITE".
6. ALL AREA DISTURBED BY THE CONTRACTOR WITHOUT AUTHORIZATION BY THE OWNER SHALL BE RESTORED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
7. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT DUE TO THE NATURE OF THE RECONSTRUCTION PROJECT, THE EXACT EXTENT OF THE RECONSTRUCTION WORK CANNOT BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR HAS BEEN ADVISED THAT THERE MAY BE CHANGES TO THE PLAN INFORMATION AND OTHER INFORMATION AVAILABLE AT THE TIME OF DESIGN. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH THE GENERAL INTENT AND DIRECTION OF THE RESIDENT ENGINEER WITH RESPECT TO THE PRESENT FIELD CONDITIONS.

1. ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION OF THE A.C.I. "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318). SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

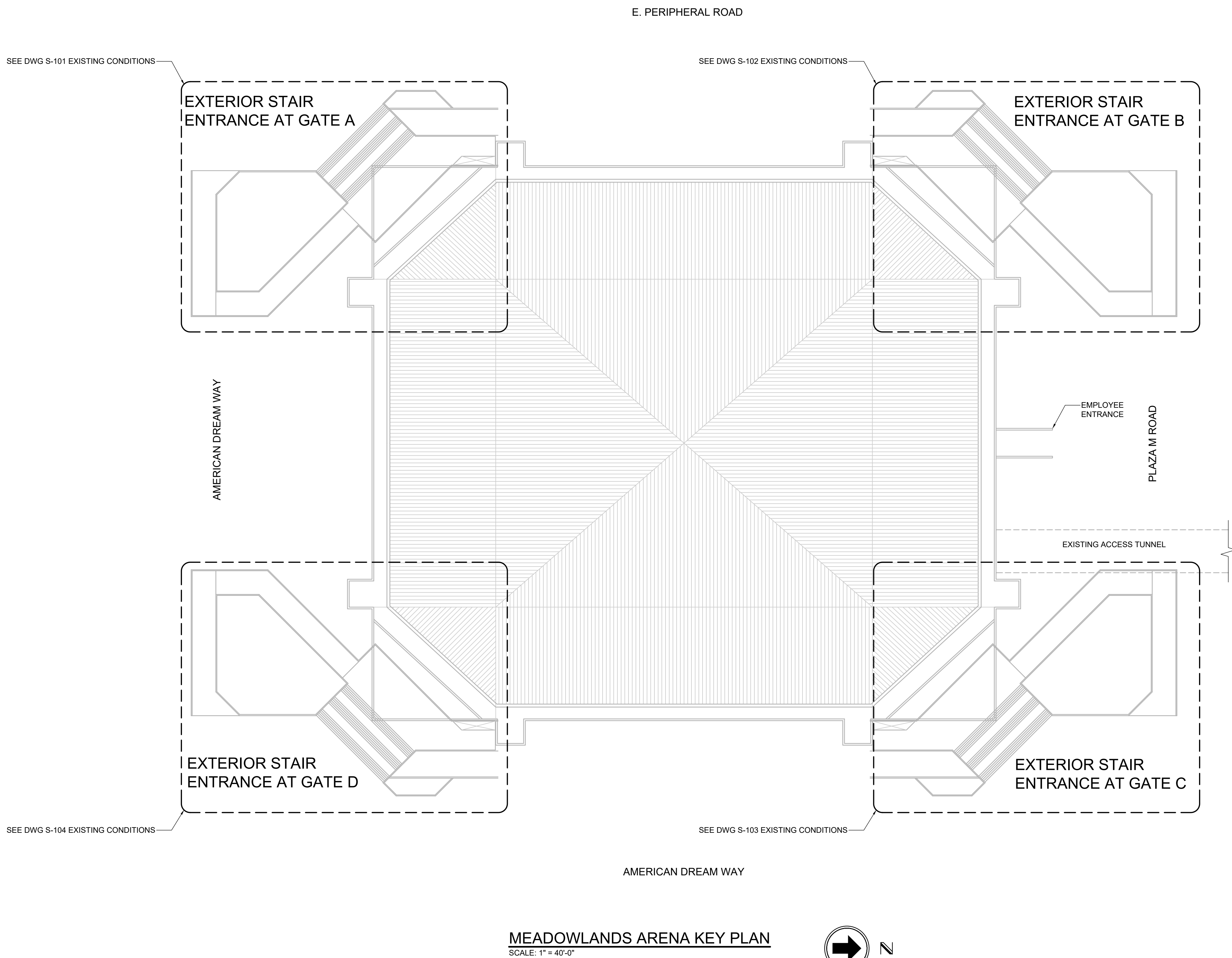
- |                   |                |             |                                |
|-------------------|----------------|-------------|--------------------------------|
| CONCRETE STRENGTH | TYPE AGGREGATE | AIR CONTENT | WHERE USED                     |
| 5000 PSI          | STONE          | 5 - 7%      | FOUNDATIONS, EXTERIOR CONCRETE |
|                   |                |             |                                |

1. UNLESS OTHERWISE NOTED, HANDRAIL, GUARDRAIL, AND MOUNTING APPURTENANCES SHALL BE STAINLESS STEEL SCHEDULE 40 STANDARD PIPE.
2. ALL FASTENERS SHALL BE STAINLESS STEEL, TYPE 316.
3. NUMBER OF ANCHORS AND SIZE OF ANCHORS ARE MINIMUM. PROVIDE LARGER ANCHOR SIZE IF NECESSARY TO MEET LOAD REQUIREMENTS. CONTRACTOR'S SUPPLIER AND ENGINEER ARE RESPONSIBLE FOR PROVIDING BASE BRACKET AND STAINLESS STEEL ANCHOR BOLT SIZE AND EMBEDMENT DEPTH INTO CONCRETE TO RESIST LOADS TAKING INTO ACCOUNT ANCHOR EDGE DISTANCES AND CONCRETE STRENGTHS AT THE POINT OF ATTACHMENT.
4. UNLESS SPECIFICALLY INDICATED OTHERWISE, GUARDRAIL MOUNTING MAY BE ANY SHOWN METHOD AS APPLICABLE.
5. POST LOCATION SHALL BE FIELD MEASURED AND RAILING FABRICATED TO FIT.
6. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE, GROUT, OR DISSIMILAR METALS SHALL HAVE CONTACT SURFACE PROTECTED IN ACCORDANCE WITH SPECIFICATIONS.

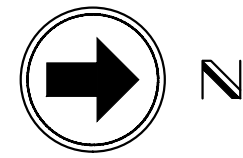
1) EXCEPT WHERE INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES OR APPROVED EQUAL AND INSTALLED IN ACCORDANCE WITH THEIR RESPECTIVE ICC-ES REPORT AND MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS:

APPLICATION	ANCHORING SYSTEM	ICC-ES REPORT
ANCHORAGE TO CONCRETE	HILTI HY 200 V3 ADHESIVE W SAFE SET INSTALLATION	ESR-4868
	HILTI RE 500 V3 ADHESIVE W SAFE SET INSTALLATION	ESR-3814
	HILTI KWIK-X ADHESIVE	ESR-5065
	HILTI KWIK BOLT TZ2	ESR-4266
	HILTI KWIK HUS EZ	ESR-3027
	HILTI HSL-4	ESR-4386
REBAR DOWELING	HILTI HDA	ESR-1546
	HILTI RE 500 V3 ADHESIVE W SAFE SET	ESR-3814
	HILTI HY 200 V3 ADHESIVE W SAFE SET INSTALLATION	ESR-4868
	HILTI HY 270 ADHESIVE	ESR-4143
	HILTI KWIK BOLT TZ 2	ESR-4561
ANCHORAGE TO SOLID GROUTED MASONRY	HILTI HY 270 ADHESIVE WITH SCREEN TUBE	ESR-4143, ESR-4144

- 2) ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY HLTI OR SUCH OTHER METHOD AS APPROVED BY THE STRUCTURAL ENGINEER. THE RECORD SUBMITTAL FOR ALL ANCHOR PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTE PRODUCT IS EQUIVARIANT TO THE ANCHORANCE VOLUMES OF THE SPECIFIED PRODUCT IN BOTH DRY AND WATER SATURATED CONCRETE, INCLUDING AN ICC-ES REPORT SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE, SEISMIC UOE, LOAD RESISTANCE, INSTALLATION CATEGORY, IN-SERVICE TEMPERATURE, INSTALLATION TEMPERATURE, ETC.
- 3) USE OF DIAMOND CORE BIT WITH ROUGHENING TOOL, REQUIRES APPROVAL FROM ENGINEER OF RECORD PRIOR TO DRILLING. UNLESS OTHERWISE SHOWN IN THE DRAWINGS, ALL HOLES SHALL BE DRILLED PERPENDICULAR TO THE CONCRETE SURFACE.
- 4) FOR PROJECTS MEETING IBC 2012 OR LATER, AC/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION IS REQUIRED FOR ALL INSTALLERS OF ADHESIVE ANCHORS IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATION. THE HLTI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM (HAAICP) IS AN APPROVED EQUIVALENT.
- 5) CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO CONDUCT AN ANCHOR FIELD INSPECTION OF THE PROJECT PRIOR TO BEGINNING PROJECTS SPECIFIED. CONTRACTOR SHALL SUBMIT DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL INSTALLING ANCHORS HAVE RECEIVED THE REQUIRED TRAINING PRIOR TO THE COMMENCEMENT OF WORK.
- 6) ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
- 7) CONTINUOUS OR PERIODIC SPECIAL INSPECTION FOR POST INSTALLED ANCHORS SHALL BE REQUIRED IN AN ORDER OF PRIORITY AS FOLLOWS:  
A) THE STRUCTURAL ENGINEER OF RECORD SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF WORK TO COORDINATE INSPECTION EFFORTS.
- 8) THE DESIGN OF STRAIGHT POST-INSTALLED REINFORCING BARS SHALL BE PERFORMED PER THE DEVELOPMENT AND SPICE REQUIREMENTS OF THE ACI 318 BUILDING CODE. HOWEVER, THE POST-INSTALLED REINFORCING BARS MAY BE SUBSTITUTED TO CAST-IN-PLACE REINFORCING BARS GOVERNED BY ACI 318 AND IBC CHAPTER 19. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. THE ADHESIVE SYSTEM SHALL BE QUALIFIED FOR DEVELOPMENT LENGTH APPLICATION.
- 9) EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH THE LOCATION OF THE ANCHOR LOCATIONS. THE CONTRACTOR SHALL DETERMINE THAT THE BARS CAN BE CUT. THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE ANCHOR LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE BARS USING GPR, X-RAY, CHIPPING OR OTHER MEANS.



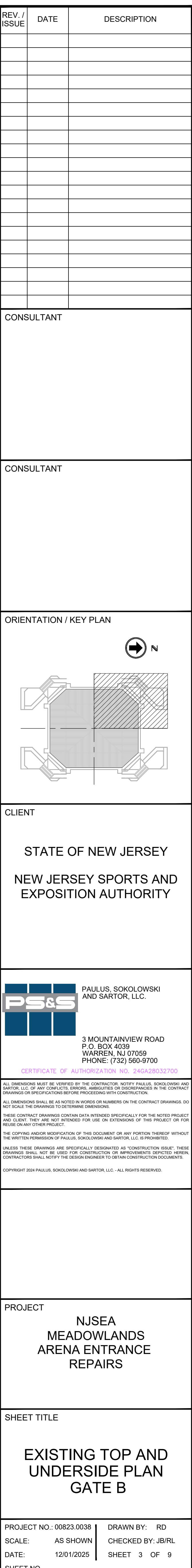
SCALE: 1" = 40'-0"











DEFECT ID	DESCRIPTION	UNIT	QUANTITY
A1	SPALLS	SF	89
A2	CRACKS	LF	101
A3	DELAMINATION	SF	28
A4	JOINT MATERIAL DAMAGE	LF	66
A5	CLOGGED DRAIN WITH VEGETATION GROWTH	EA	2
A6	STAIR NOSING REPAIR	LF	22
B1	OVERHEAD SPALLS	SF	111
B2	OVERHEAD CRACKS	LF	10
B3	OVERHEAD DELAMINATION	SF	97
C1	OVERHEAD/VERTICAL SPALLS	SF	7
C2	OVERHEAD CRACKS	LF	81
C3	OVERHEAD DELAMINATION	SF	178

SEE NOTE 3.

LEGEND:

PREVIOUS PATCH REPAIR

EXISTING JOINT TO BE REMOVED AND REPLACED



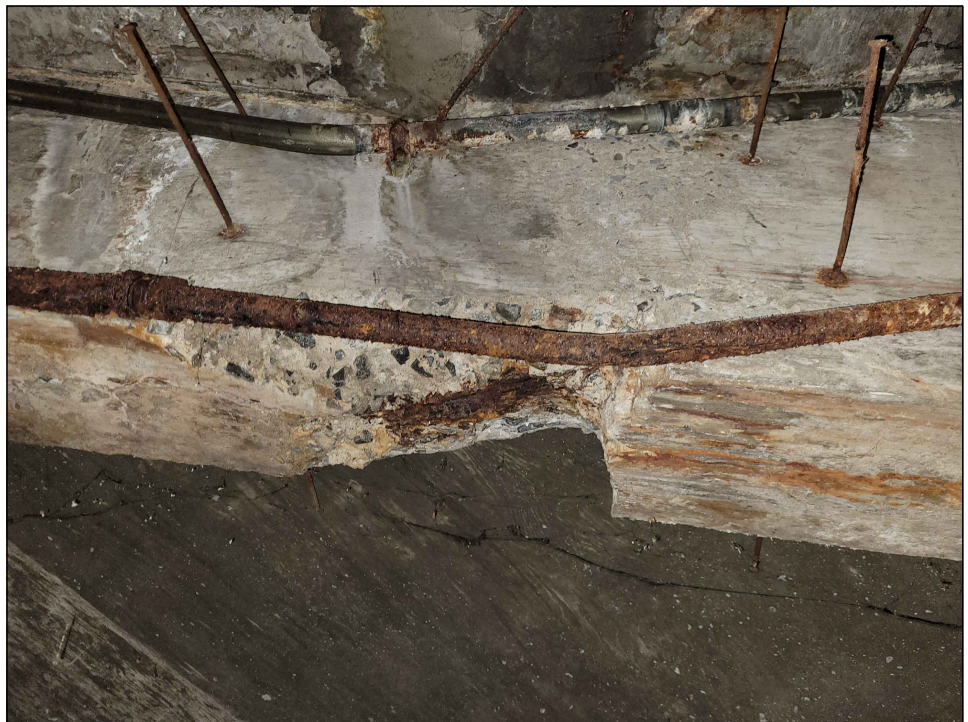
### 100% CLOGGED RAIN (RAMP)



EXISTING WALL EXHIBITS CRACK/  
EFFLORESCENCE/STAINING



RAMP EXHIBITS CRACKS/LEAKS  
WITH EFFLORESCENCE (UNDERSIDE RAMP)



BEAM EXHIBITS SPALL WITH EXPOSED  
CORRODED REBAR (UNDERSIDE STAIR)



### TYPICAL SPALL AT PARAPET WALL RAMP STRUCTURE

## NOTES

1. FOR REPAIR DETAILS SEE DRAWING NOS. S-201 AND S-202.
2. FOR ADDITIONAL NOTES SEE DRAWING NO. S-001.
3. QUANTITY SHOWN IN TABLE IS FOR ALL STRUCTURAL DEFECTS SHOWN IN THE PLAN.
4. EXISTING RAILINGS, POSTS, AND POSTS WITH ENCASEMENT AT STAIRS TO BE REMOVED AND REPLACED WITH NEW RAILINGS AND POSTS.





DEFECT ID	DESCRIPTION	UNIT	QUANTITY
A1	SPALLS	SF	117
A2	CRACKS	LF	357
A3	DELAMINATION	SF	52
A4	JOINT MATERIAL DAMAGE	LF	57
A5	CLOGGED DRAIN WITH VEGETATION GROWTH	EA	3
A6	STAIR NOSING REPAIR	LF	6
B1	OVERHEAD SPALLS	SF	181
B2	OVERHEAD CRACKS	LF	58
B3	OVERHEAD DELAMINATION	SF	48
C1	OVERHEAD SPALLS	SF	175
C2	OVERHEAD CRACKS	LF	166
C3	OVERHEAD DELAMINATION	SF	54

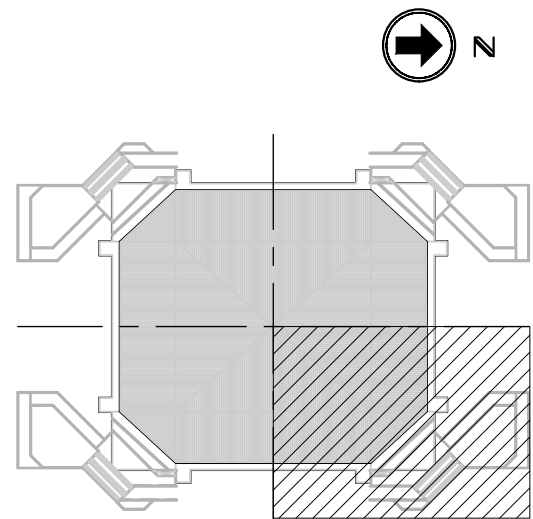
SEE NOTE 3.

[illegible]

CONSULTANT

CONSULTANT

## ORIENTATION / KEY PLAN



CLIENT

STATE OF NEW JERSEY  
NEW JERSEY SPORTS AND  
EXPOSITION AUTHORITY



3 MOUNTAINVIEW ROAD  
P.O. BOX 4039  
WARREN, NJ 07059  
PHONE: (732) 560-9700

CERTIFICATE OF AUTHORIZATION NO. 24GA28032700

ALL DIMENSIONS MUST BE VERIFIED BY THE CONTRACTOR. NOTIFY PAJLUS, SOKOLOWSKI  
SAYTOR, LLC, OF ANY CONFLICTS, ERRORS, AMBIGUITIES OR DISCREPANCIES IN THE CONTRACT  
DRAWINGS OR SPECIFICATIONS BEFORE PROCEEDING WITH CONSTRUCTION.

ALL DIMENSIONS SHALL BE AS NOTED IN WORDS OR NUMBERS ON THE CONTRACT DRAWING.  
DO NOT SCALE THE DRAWINGS TO DETERMINE DIMENSIONS.

THE COPYING AND/OR MODIFICATION OF THIS DOCUMENT OR ANY PORTION THEREOF WITHOUT THE WRITTEN PERMISSION OF PAULUS, SONKOWSKI AND SARTOR, LLC, IS PROHIBITED.

UNLESS THESE DRAWINGS ARE SPECIFICALLY DESIGNATED AS "CONSTRUCTION ISSUE", THE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION OR IMPROVEMENTS DEPICTED HEREON. CONTRACTORS SHALL NOTIFY THE DESIGN ENGINEER TO OBTAIN CONSTRUCTION DOCUMENTS.

PROJECT

NJSEA  
MEADOWLANDS  
ARENA ENTRANCE  
REPAIRS

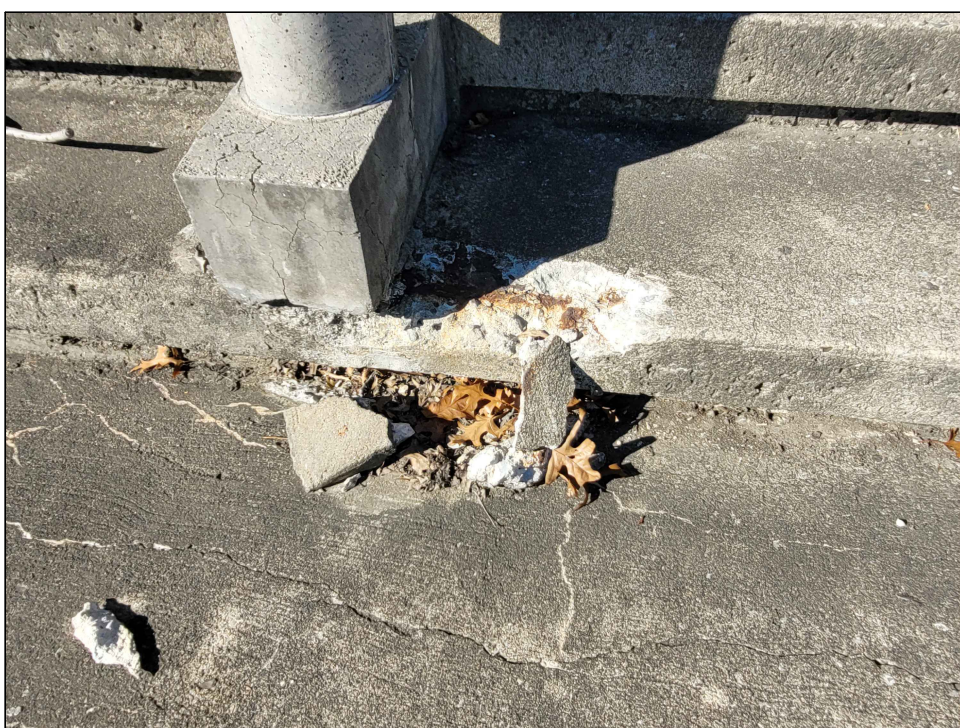
SHEET TITLE

EXISTING TOP AND  
UNDERSIDE PLAN  
GATE C

PROJECT NO.: 00823.003

SCALE: AS SHOWN CHECKED BY: JB/R  
DATE: 12/01/2025 SHEET 4 OF 9

S-103



SPALL ON STEP  
AT STAIRS



## DELAMINATION AND JOINT MATERIAL FAILURE



SPALL ON PARAPET WALL  
AT RAMP



SPALL WITH EXPOSED REBAR  
AT UNDERSIDE OF STAIRS



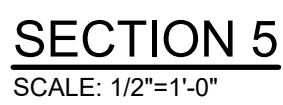
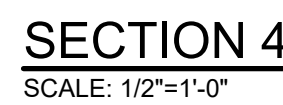
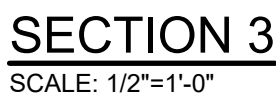
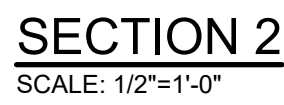
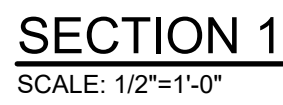
SPALL WITH EXPOSED REBAR  
AT UNDERSIDE OF PLAZA

- NOTES:
1. FOR REPAIR DETAILS SEE DRAWING NOS. S-201 AND S-202.
  2. FOR ADDITIONAL NOTES SEE DRAWING NO. S-001.
  3. QUANTITY SHOWN IN TABLE IS FOR ALL STRUCTURAL DEFECTS SHOWN IN THE PLAN.
  4. EXISTING RAILINGS, POSTS, AND POSTS WITH ENCASEMENT AT STAIRS TO BE REMOVED AND REPLACED WITH NEW RAILINGS AND POSTS.









-  **DETAIL B**

-  **DETAIL C**

-  **DETAIL D**  
HORIZONTAL SECTION

-  **DETAIL E**  
OVERHEAD SIGN

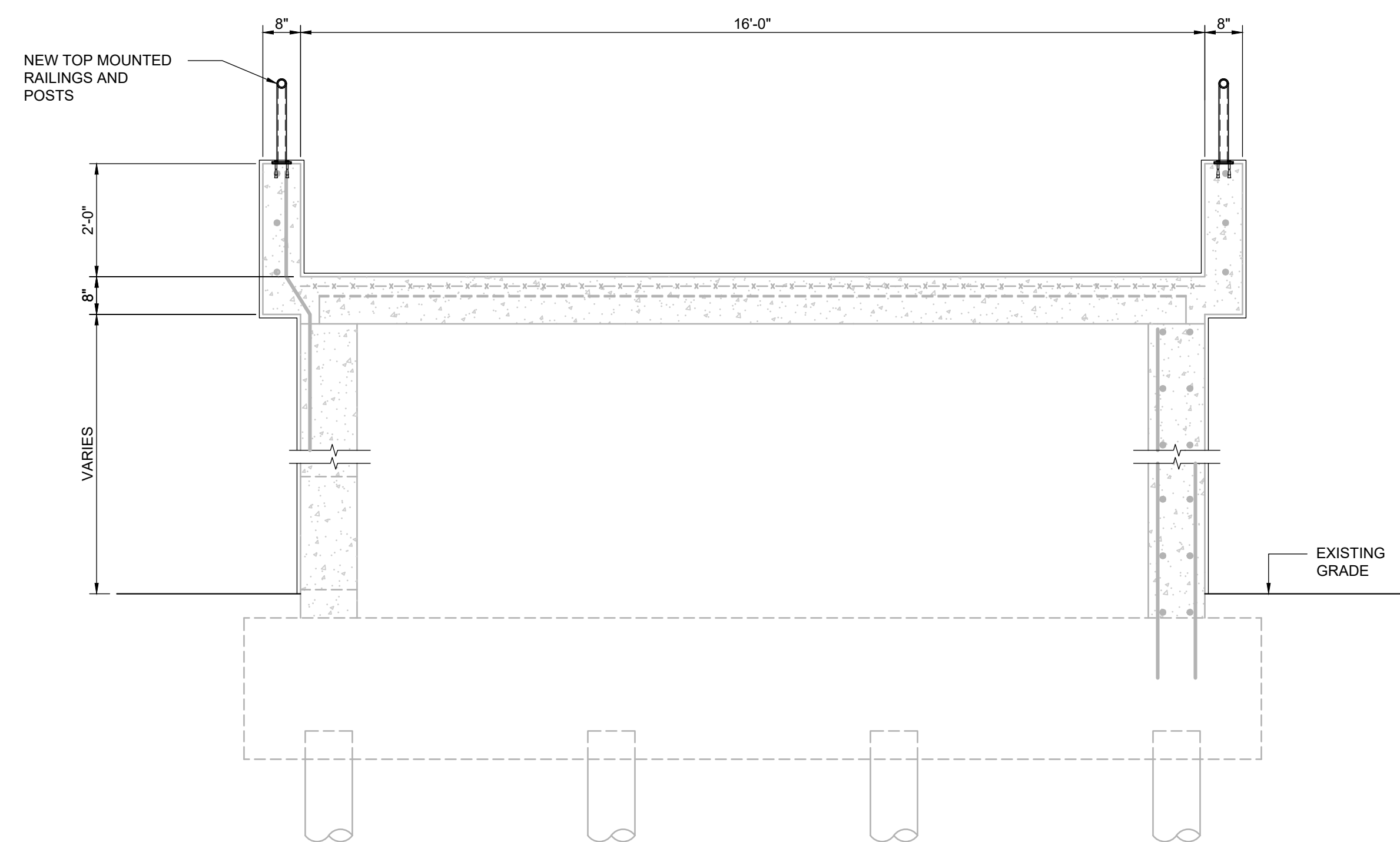
- DETAIL F**  
VERTICAL SECTION

1. REMOVE DEFECTIVE CONCRETE AS REQUIRED.
2. SAWCUT  $\frac{1}{2}$ " DEEP AROUND PERIMETER OF VOID. REMOVE REMAINING CONCRETE WITHIN CUT LINES.
3. BLAST CLEAN THE SURFACE AND COAT ALL EXPOSED REBARS WITH SIKKA ARMATEC-110 OR APPROVED EQUIV.
4. IF THE THICKNESS OF THE REPLACEMENT CONCRETE IS EQUAL TO OR GREATER THAN 3", INSTALL  $\frac{1}{2}$ " DIA. STAINLESS STEEL ANCHOR PINS IN CONCRETE @12" O.C. EACH WAY AND THE GALVANIZED WIRE FABRIC 2X2-W0.9XW0 TO THE SAME.
5. APPLY REPAIRING MORTAR SIKATOP 123-PLUS (OR APPROVED EQUIV.).
6. FINISH TO MATCH ADJOINING SURFACES.
7. FOLLOW ALL MANUFACTURER'S RECOMMENDED PROCEDURES FOR SIKATOP PRODUCTS.

1. FOR ADDITIONAL NOTES SEE DRAWING NO. S-001.

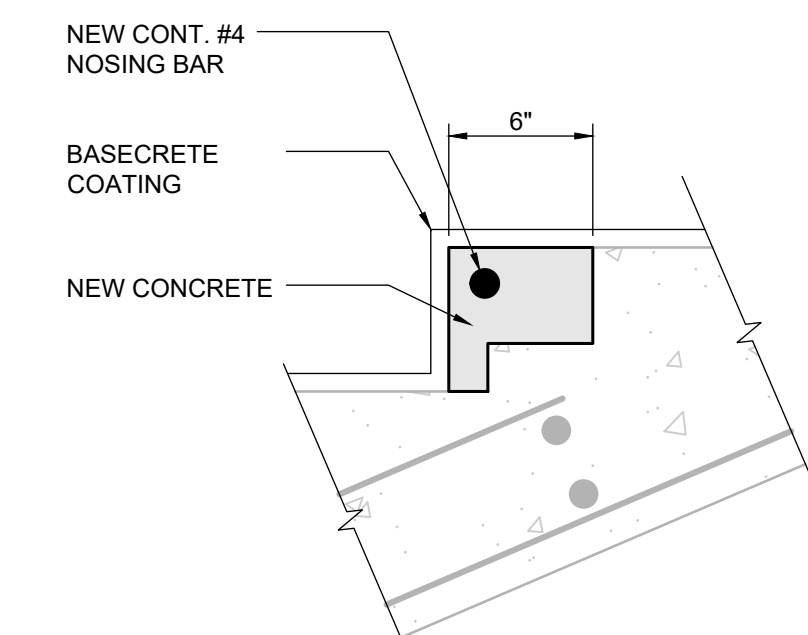
PROJECT NO.: 00823.0038	DRAWN BY: RD
SCALE: AS SHOWN	CHECKED BY: RL
DATE: 12/01/2025	SHEET 6 OF 9
SHEET NO.	





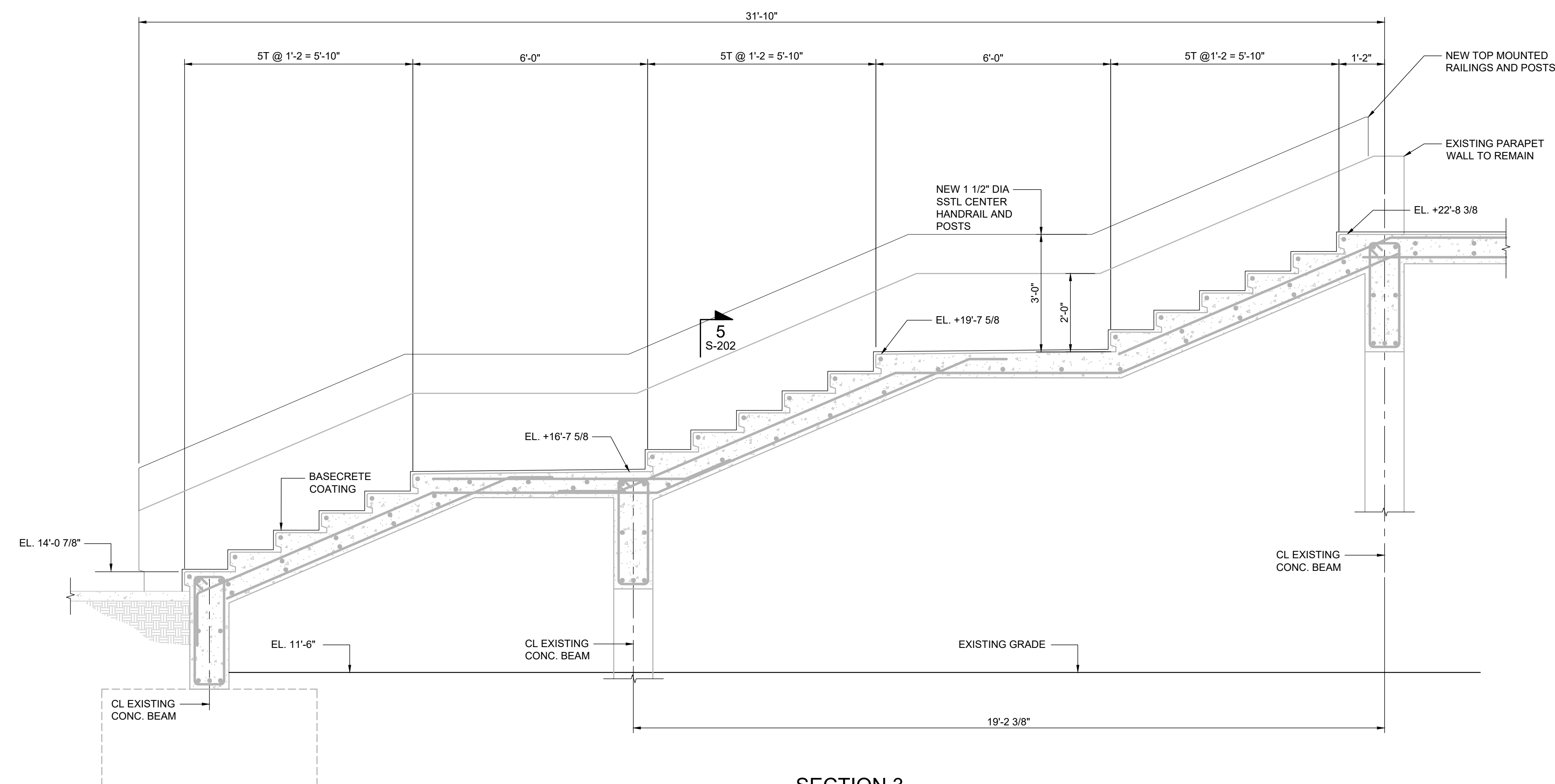
**SECTION 2**  
SCALE: 1/2"=1'-0"

TO BE CONSTRUCTED	UNIT	PLAN SHEET TOTAL	AS-BUILT QUANTITY
NEW RAILING	LF	2734	
NEW JOINT FILLER MATERIAL	LF	249	
BASECRETE COATING	SF	55133	
LIGHT POLE FOUNDATION	EA	20	

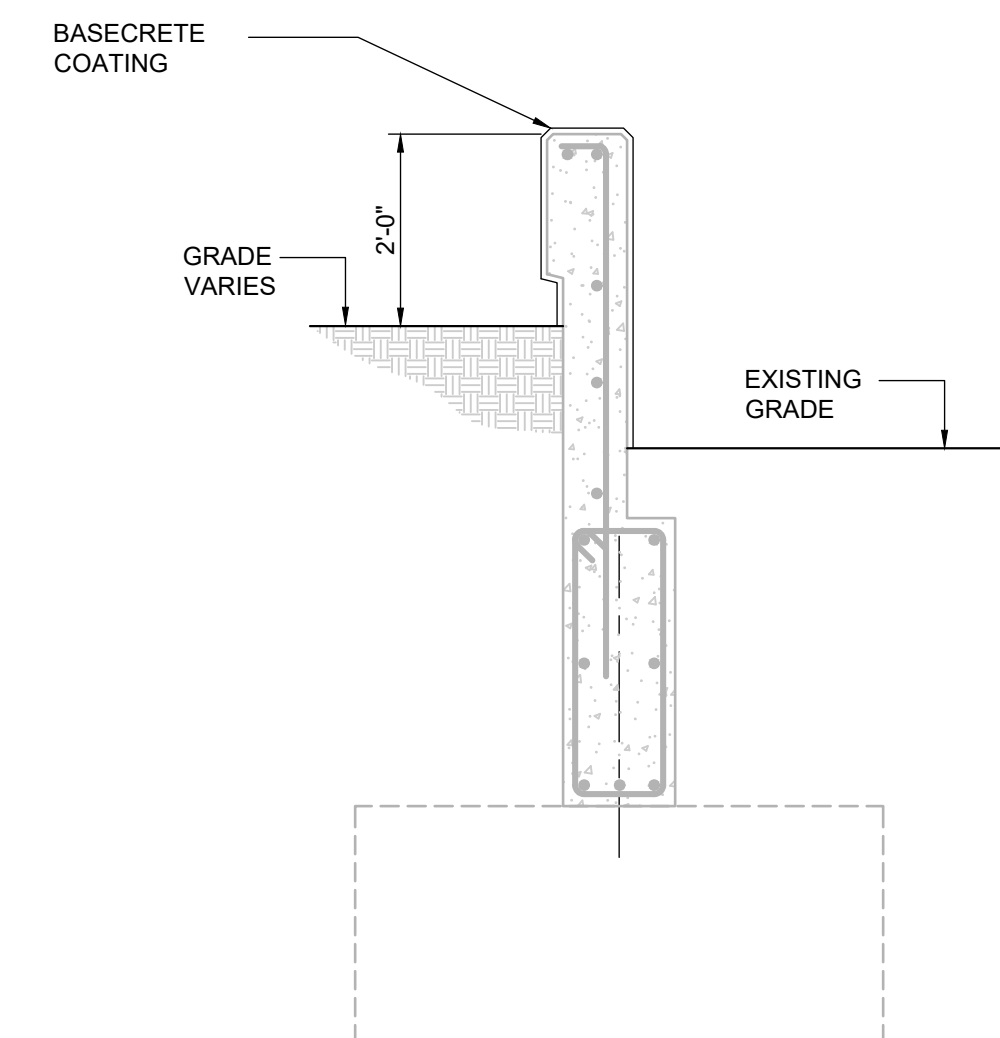


### STAIR NOSING REPAIR DETAIL

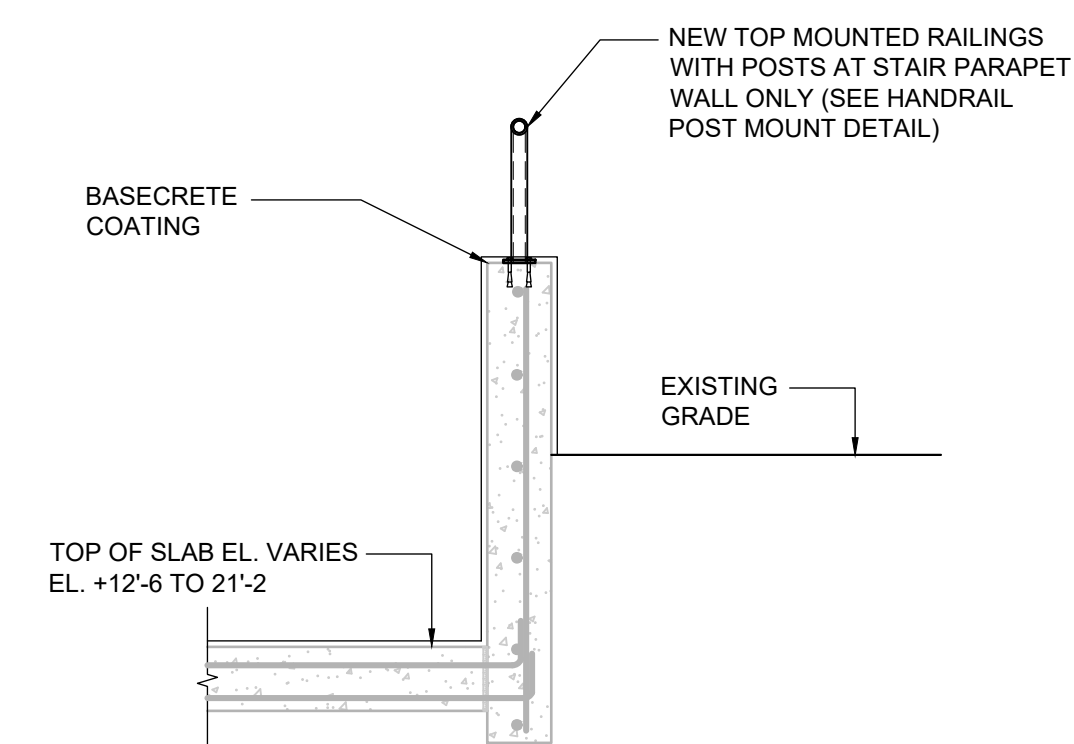
SCALE: 1 1/2" = 1'-0"



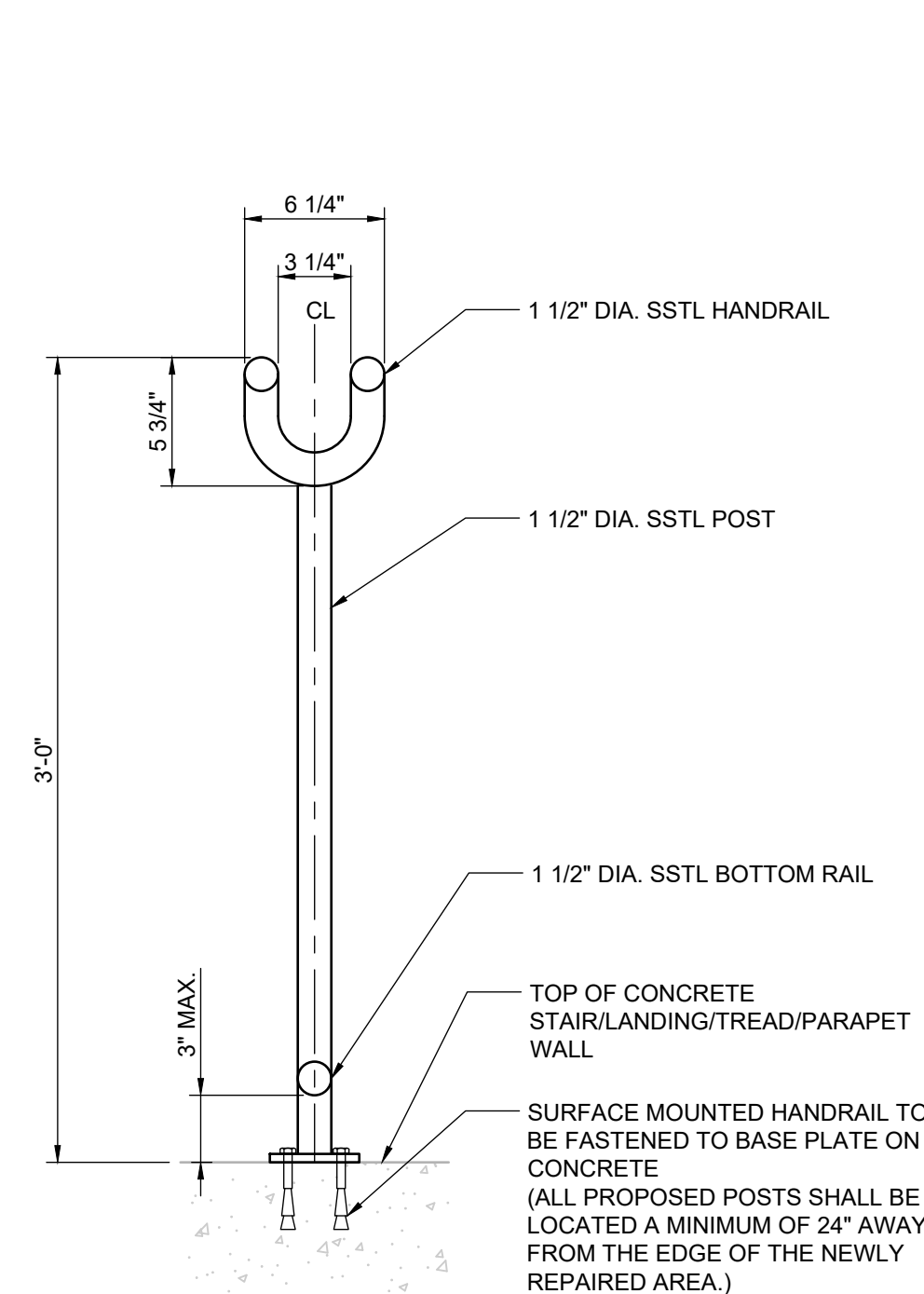
**SECTION 3**  
SCALE: 1/2"=1'-0"



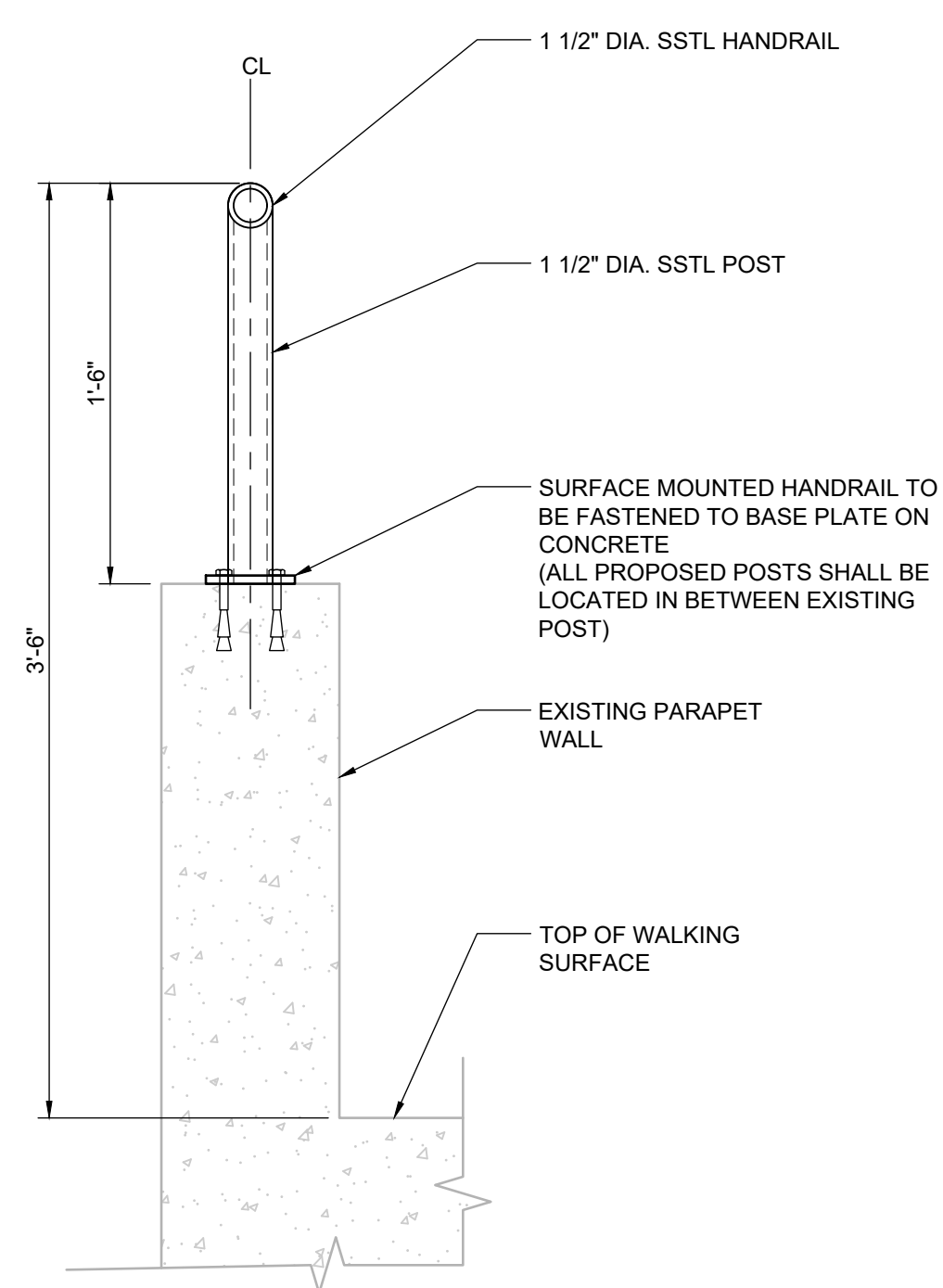
**SECTION 4**  
**SCALE: 1/2"=1'-0"**



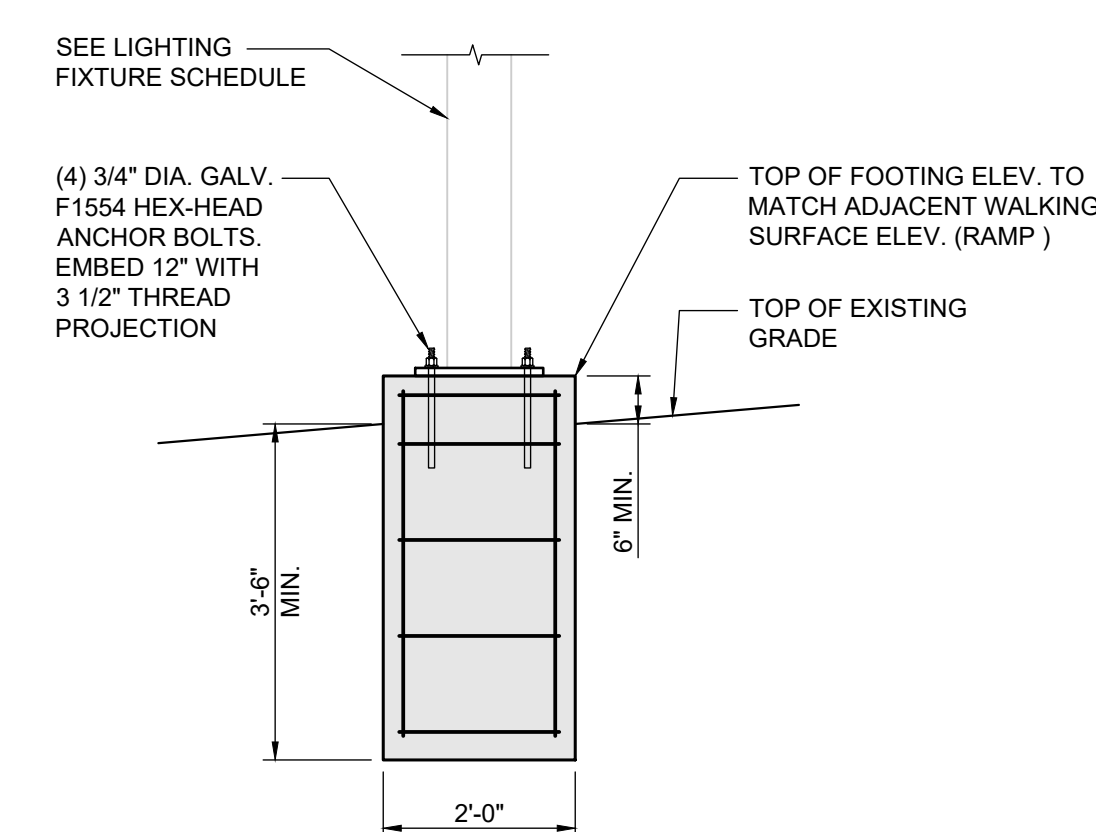
**SECTION 5**  
**SCALE: 1/2"=1'-0"**



**CENTER HANDRAIL POST MOUNT DETAIL**  
SCALE: 1 1/2"=1'-0"



**NEW TOP MOUNTED RAILING AND POST DETAIL**  
SCALE: 1 1/2"=1'-0"



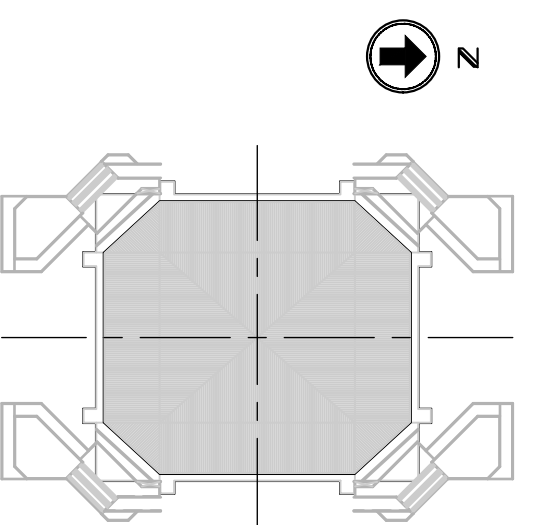
**TYPICAL LIGHT POLE FOUNDATION**  
SCALE: 1/2"=1'-0"

[illegible]

CONSULTANT

CONSULTANT

## ORIENTATION / KEY PLAN



CLIENT

STATE OF NEW JERSEY  
NEW JERSEY SPORTS AND  
EXPOSITION AUTHORITY



PAULUS, SOKOLOWSKI  
AND SARTOR, LLC.

3 MOUNTAINVIEW ROAD  
P.O. BOX 4039  
WARREN, NJ 07059  
PHONE: (732) 560-9700

CERTIFICATE OF AUTHORIZATION NO. 24GA28032700

ALL DIMENSIONS SHALL BE AS NOTED IN WORDS OR NUMBERS ON THE CONTRACT DRAWINGS. DO NOT SCALE THE DRAWINGS TO DETERMINE DIMENSIONS.

THESE CONTRACT DRAWINGS CONTAIN DATA INTENDED SPECIFICALLY FOR THE NOTED PROJECT AND CLIENT. THEY ARE NOT INTENDED FOR USE ON EXTENSIONS OF THIS PROJECT OR FOR REUSE ON ANY OTHER PROJECT.

THE COPYING AND/OR MODIFICATION OF THIS DOCUMENT OR ANY PORTION THEREOF WITHOUT THE WRITTEN PERMISSION OF PAULUS, SOKOLOWSKI AND SARTOR, LLC, IS PROHIBITED.

UNLESS THESE DRAWINGS ARE SPECIFICALLY DESIGNATED AS "CONSTRUCTION ISSUE", THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION OR IMPROVEMENTS DEPICTED HEREIN. CONTRACTORS SHALL NOTIFY THE DESIGN ENGINEER TO OBTAIN CONSTRUCTION DOCUMENTS.

COPYRIGHT 2024 PAULUS, SOKOLOWSKI AND SARTOR, LLC. - ALL RIGHTS RESERVED.

PROJECT

NJSEA  
MEADOWLANDS  
ARENA ENTRANCE  
REPAIRS

SHEET TITLE

## PROPOSED SECTIONS AND REPAIR DETAILS

PROJECT NO.: 00823.0038	DRAWN BY: RD
SCALE: AS SHOWN	CHECKED BY: RL
DATE: 12/01/2025	SHEET 7 OF 9
SHEET NO.	

S-202







