

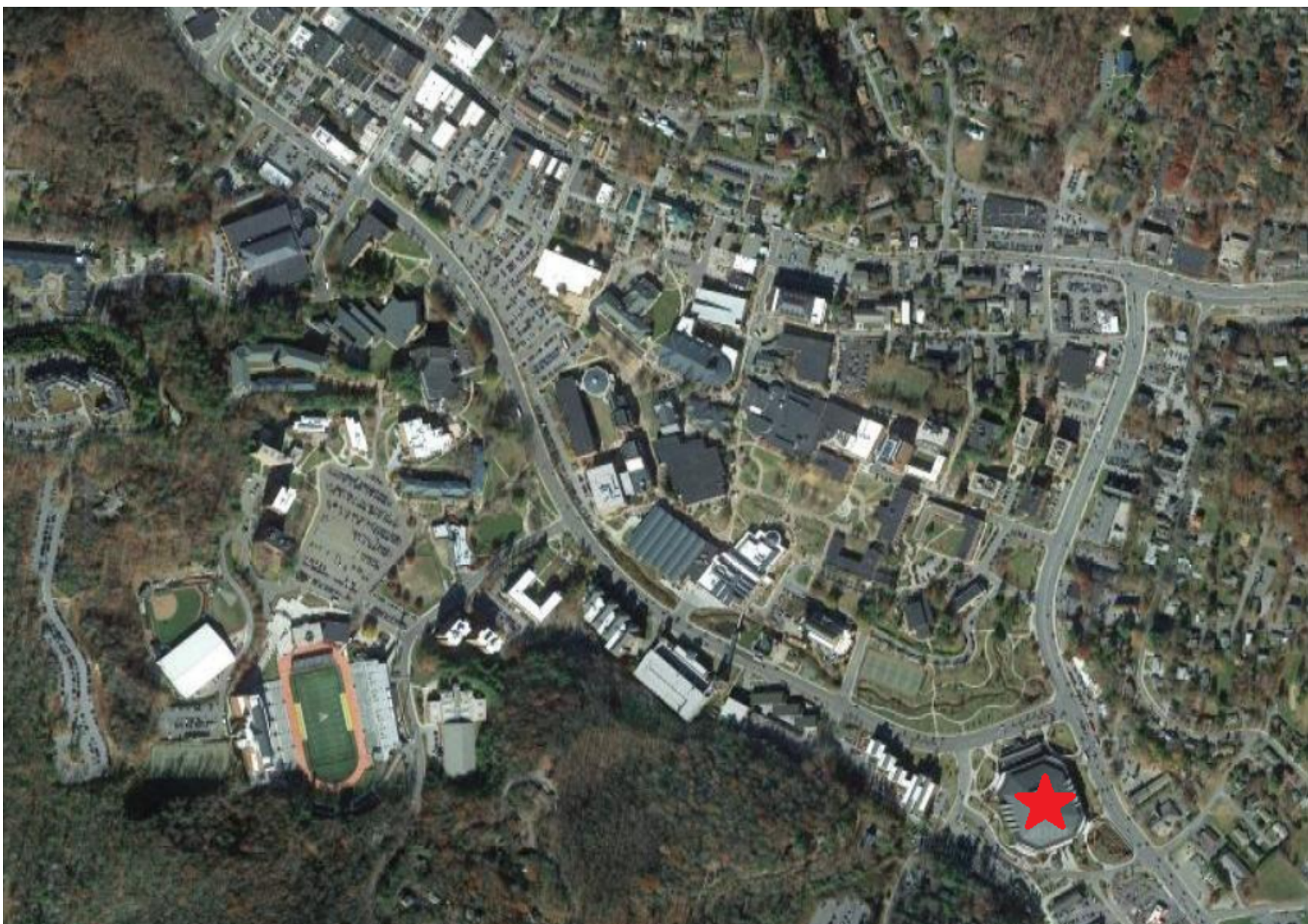
HOLMES CONVOCATION CENTER STAIR REPAIRS

111 RIVERS ST, BOONE, NC 28608

SCO-PROJECT ID CODE 42130 ITEM 305-4A05

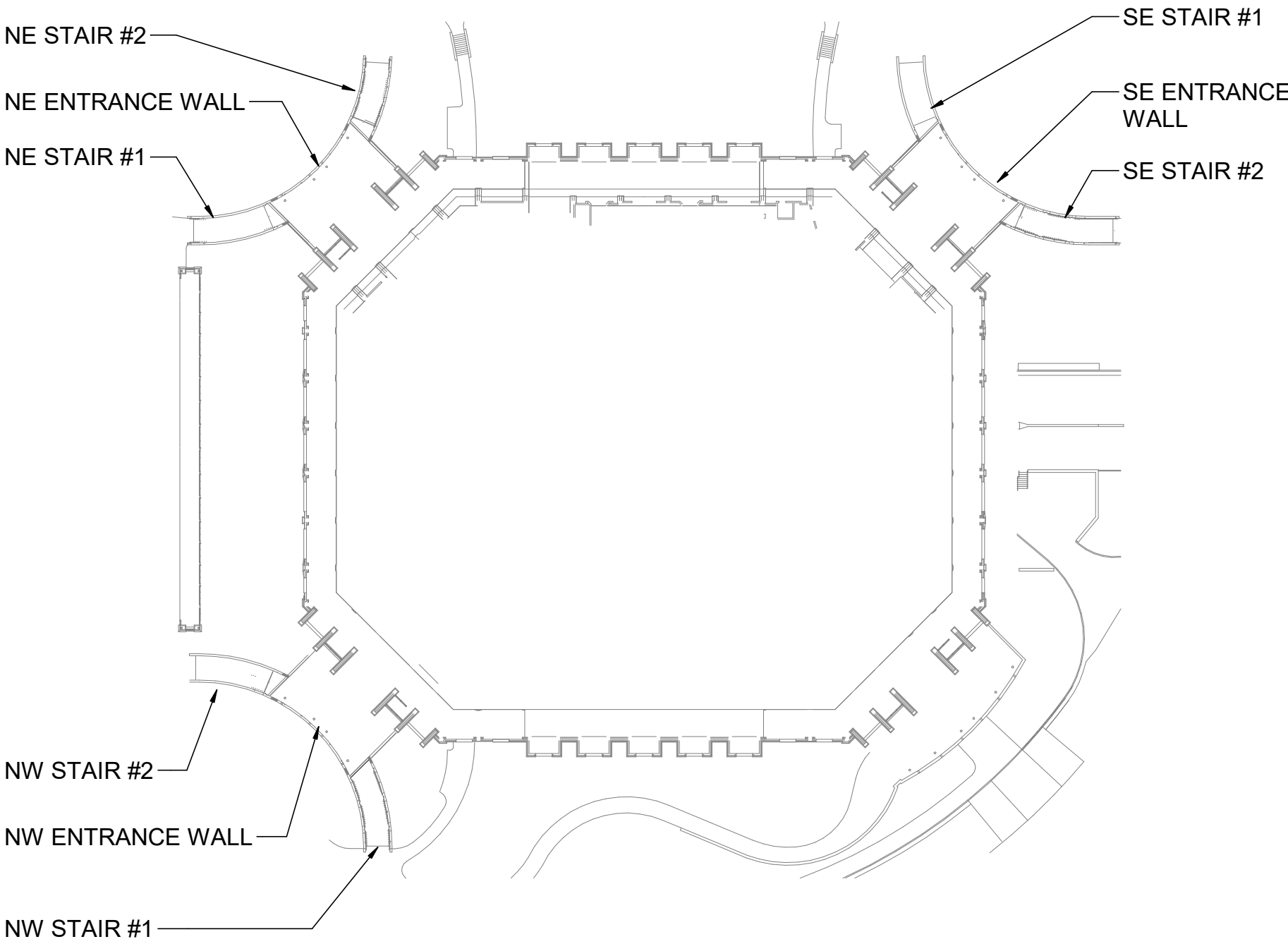
APPALACHIAN STATE UNIVERSITY

CONSTRUCTION DOCUMENTS
JULY 11, 2022



VICINITY MAP
NOT TO SCALE

| INDEX OF DRAWINGS | |
|-------------------|--|
| SHEET NUMBER | SHEET NAME |
| G-001 | COVER SHEET |
| S-001 | STRUCTURAL GENERAL NOTES |
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| S-102 | NORTHWEST ENTRANCE - STAIR 2 PLAN |
| S-103 | NORTHEAST ENTRANCE - STAIR 1 PLAN |
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| S-201 | NORTHWEST ENTRANCE - STAIR 1 NORTH & SOUTH WALL ELEVATIONS |
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| S-207 | NW, NE, & SE ENTRANCES - PLAZA BACK WALL ELEVATIONS |
| S-501 | TYPICAL STRUCTURAL DETAILS |
| S-502 | TYPICAL STRUCTURAL DETAILS |
| S-601 | NORTHWEST STAIR PHOTOS |
| S-602 | NORTHEAST STAIR PHOTOS |
| S-603 | SOUTHEAST STAIR PHOTOS |



LOCATION MAP
NOT TO SCALE

GENERAL

2. GRAVITY DESIGN LOADS ARE AS FOLLOWS: EXISTING
STAIR DEAD LOADS STAIRS SELF WEIGHT
EXISTING STAIR LIVE LOADS 100 PSF
3. IMPOSED CONSTRUCTION LOADS, INCLUDING CRANE LOADS DURING FUTURE CONSTRUCTION PROJECTS UNRELATED TO THIS ONE, IN EXCESS OF STATED DESIGN LOADS MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO THE IMPOSITION OF SUCH LOADS.
4. THE REPRODUCTION OF THE STRUCTURAL CONTRACT DOCUMENTS IN ANY FASHION AS STRUCTURAL SHOP DRAWING DOCUMENTS IS PROHIBITED.
5. SCALES NOTED ON THE DRAWINGS ARE FOR GENERAL INFORMATION ONLY. NO DIMENSIONAL INFORMATION SHALL BE OBTAINED BY DIRECT SCALING OF THE DRAWINGS.
6. DETAILS, SECTIONS, AND NOTES SHOWN ON THESE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR CONDITIONS ELSEWHERE UNLESS OTHERWISE SHOWN OR NOTED.
7. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL RESULTING REVISIONS TO THE STRUCTURAL SYSTEM AS A RESULT OF ACCEPTANCE OF CONTRACTOR PROPOSED ALTERNATIVES OR SUBSTITUTIONS.
8. THE GENERAL CONTRACTOR (OR CONSTRUCTION MANAGER) SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS FOR APPROVAL. THE STRUCTURAL ENGINEER WILL NOT BE RESPONSIBLE FOR THE STRUCTURAL CERTIFICATION AND DESIGN OF THE PROJECT IF THE GENERAL CONTRACTOR FAILS TO OBTAIN APPROVAL OF THE SHOP DRAWINGS. SHOP DRAWINGS ARE REVIEWED AS A CONVENIENCE TO THE GENERAL CONTRACTOR AND ARE NOT A CONTRACT DOCUMENT. THE GENERAL CONTRACTOR SHALL STATE ON THE SHOP DRAWINGS THAT CONTRACT DOCUMENT REQUIREMENTS HAVE BEEN MET AND THAT ALL DIMENSIONS, CONDITIONS AND QUANTITIES HAVE BEEN REVIEWED AND VERIFIED AS SHOWN AND/OR CORRECTED ON THE SHOP DRAWINGS.
9. INFORMATION SHOWN REGARDING EXISTING CONDITIONS HAS BEEN OBTAINED BY LIMITED OBSERVATIONS. AREAS NOT VISIBLE HAVE BEEN ASSUMED TYPICAL WITH OBSERVED EXISTING CONDITIONS.
10. THE CONTRACTOR SHALL MEASURE AND PROVIDE ALL DIMENSIONS, ELEVATIONS AND CONDITIONS AT THE JOB SITE PRIOR TO CONSTRUCTION AND THE SUBMISSION OF SHOP DRAWINGS AND SHALL NOTIFY THE ARCHITECT AND/OR STRUCTURAL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
11. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR FITTING NEW WORK WITH EXISTING CONSTRUCTION. INFORMATION ON EXISTING BUILDING SHOWN IN THESE DRAWINGS WAS BASED UPON THE INFORMATION SUPPLIED TO WILEY WILSON, INC. THIS INFORMATION IS NOT AS-BUILT DATA AND THE ACTUAL AS-BUILT CONSTRUCTION MAY DIFFER FROM THAT REPRESENTED IN THE DRAWINGS. CONTRACTOR SHALL VERIFY ALL INFORMATION. VARIATIONS FROM THE DIMENSIONS INDICATED ON THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER.
12. THE STRUCTURE HAS BEEN DESIGNED FOR THE IN-SERVICE LOADS ONLY. THE METHODS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUPPORTING FORMWORK FOR THE CONCRETE CONSTRUCTION SHALL NOT BE REMOVED BEFORE THE CONCRETE HAS GAINED SUFFICIENT STRENGTH TO SAFELY SUPPORT THE DEAD AND SUPERIMPOSED LOADS WHICH WOULD BE SUBSEQUENTLY APPLIED. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.
13. METHODS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.
14. PRODUCTS LISTED IN DRAWINGS ARE THE BASIS OF DESIGN. AT CONTRACTOR OPTION, ALTERNATIVE PRODUCTS MAY BE SUBMITTED FOR REVIEW AND APPROVAL AS AN EQUAL SUBSTITUTE.

1. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AT THE JOB SITE PRIOR TO CONSTRUCTION AND THE SUBMISSION OF SHOP DRAWINGS AND SHALL NOTIFY THE STRUCTURAL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. VERIFICATIONS AND NOTIFICATION SHALL PROCEED 4 WEEKS PRIOR TO THE START OF WORK SO THAT ANY NECESSARY CHANGES CAN BE MADE WITHOUT DELAYING THE PROJECT SCHEDULE.
2. CONTRACTOR SHALL LOCATE AND VERIFY EXISTING TOP AND BOTTOM REINFORCING STEEL WITH PACHOMETER PRIOR TO DEMOLITION.
3. CONTRACTOR SHALL SAW-CUT CONCRETE WHERE NOTED IN PLANS. CONTRACTOR SHALL MINIMIZE DAMAGE TO THE EXISTING STRUCTURE. NO OVER-CUTTING AT CORNERS IS PERMITTED.
4. DEMOLITION EQUIPMENT SHALL BE LIMITED TO POWER SAWS, CORE DRILLS AND SMALL CHIPPING HAMMERS (#5).

1. CONCRETE MAY BE USED IN LIEU OF PATCHING MORTAR AT STAIR NOSING REMOVAL WHERE DEPTH IS GREATER THAN 2 INCHES AND TOTAL AREA IS GREATER THAN 10 SQUARE FEET.
2. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 301, ACI 318 AND ACI 302.
3. PROVIDE CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 5000 PSI AT 28 DAYS AND A MAXIMUM WATER/CEMENT RATIO OF 0.40. CONCRETE MIX SHALL INCLUDE CORROSION-INHIBITING ADMIXTURE, SUCH AS DCl S OR SIMILAR.

CONCRETE CONT.

5. FLY ASH CONFORMING TO ASTM C618, TYPE C OR F MAY BE USED AS TO REPLACE A PORTION OF THE PORTLAND CEMENT IN A CONCRETE MIX. THE AMOUNT OF PORTLAND CEMENT CONTENT SHALL NOT BE LESS THAN 70 PERCENT OF THE TOTAL AMOUNT OF CEMENTITIOUS MATERIAL IN THE MIX.
6. GROUND GRANULATED BLAST-FURNACE SLAG CONFORMING TO ASTM C989, MAY BE USED AS TO REPLACE A PORTION OF THE PORTLAND CEMENT IN A CONCRETE MIX. THE AMOUNT OF PORTLAND CEMENT CONTENT SHALL NOT BE LESS THAN 70 PERCENT OF THE TOTAL AMOUNT OF CEMENTITIOUS MATERIAL IN THE MIX.
7. CONCRETE REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60. REINFORCEMENT BARS SHALL NOT BE TACK WELDED, WELDED, HEATED OR CUT UNLESS INDICATED ON THE CONTRACT DOCUMENTS OR APPROVED BY THE STRUCTURAL ENGINEER.
8. DETAILING OF CONCRETE REINFORCEMENT BARS AND ACCESSORIES SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" AND ACI SP-66 "DETAILING MANUAL". PLACING OF REINFORCING BARS SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 315R "MANUAL OF ENGINEERING AND PLACING DRAWINGS FOR REINFORCED CONCRETE STRUCTURES" AND CRSI "MANUAL OF STANDARD PRACTICE".
9. MIX, TRANSPORT AND PLACE CONCRETE PER THE RECOMMENDATIONS OF ACI 301.
10. PROVIDE CONCRETE COVER PROTECTION OF REINFORCEMENT PER ACI 318 SECTION 7.7 WITH STANDARD BAR CHAIRS AND SPACERS REQUIRED TO MAINTAIN MINIMUM CONCRETE PROTECTION. COMMON MINIMUM CONCRETE COVERS APPLYING TO THIS PROJECT:
 - a. CAST AGAINST AND PERMANENTLY EXPOSED EARTH 3 INCHES
 - b. CONCRETE EXPOSED TO EARTH OR WEATHER
 1. #6 BARS AND LARGER 2 INCHES
 2. #5 BARS AND SMALLER 1 ½ INCHES
 - c. CONCRETE NOT EXPOSED TO WEATHER OR GROUND CONTACT
 1. SLABS OR WALLS
 - #14 BARS AND LARGER 1 ½ INCHES
 - #11 BARS AND SMALLER ¾ INCHES
11. THE DOWELS IN PLACE BEFORE PLACING CONCRETE. DO NOT STAB OR "WET-SET" DOWELS.

SPECIAL INSPECTIONS

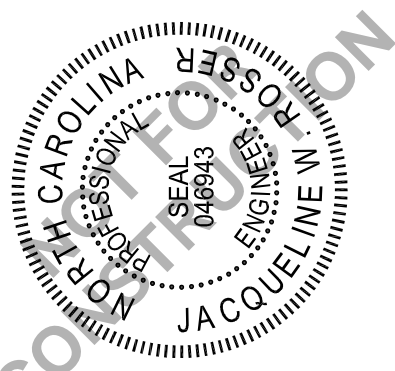
1. AN INDEPENDENT AGENCY SHALL PERFORM SPECIAL INSPECTIONS PER THE NORTH CAROLINA STATE BUILDING CODE (2018 EDITION) SECTION 111.2 AND THE INTERNATIONAL BUILDING CODE 2015. IN ACCORDANCE WITH INTERNATIONAL BUILDING CODE SECTION 1704.0, THE RESPONSIBLE INSPECTOR SHALL BE A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE CONSTRUCTION TAKES PLACE. THESE INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS SPECIFIED IN SECTION 110. THE INSPECTING AGENCY SHALL PROVIDE REPORTS OF THE SPECIAL INSPECTIONS DIRECTLY TO THE OWNER.
2. WRITTEN REPORTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AND REGISTERED DESIGN PROFESSIONAL STATING COMPLIANCE OR NON-COMPLIANCE WITH DESIGN DOCUMENTS AND SPECIFICATIONS. ALL REPORTS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE CONSTRUCTION TAKES PLACE.
3. CONTINUOUS: THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR HIRED BY THE OWNER WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED.
4. PERIODIC: THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK.
5. FAILURE TO RETAIN AN INDEPENDENT TESTING AGENCY TO PERFORM THE REQUIRED SERVICES SPECIFIED ABOVE, OR FAILURE TO SUBMIT SIGNED AND SEALED REPORTS, INDICATES NON-COMPLIANCE WITH THE CONTRACT DOCUMENTS.

| SPECIAL INSPECTION REQUIRED Y/N | VERIFICATION AND INSPECTION TASK | INSPECTION FREQUENCY | | CRITERIA REFERENCE | |
|---------------------------------|--|-------------------------------|---------------------------------|------------------------|---|
| | | CONTINUOUS DURING TASK LISTED | PERIODICAL Y DURING TASK LISTED | IBC REFERENCE | REFERENCED STANDARD |
| Y | 1. INSPECT REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT | --- | X | 1913.4 | ACI 318: 3.5, 7.1-7.7 |
| N | 2. INSPECT REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1704.3, ITEM 5B. | --- | --- | --- | AWS D1.4, ACI 318: 3.5.2 |
| N | 3. INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED. | X | --- | 1911.5, 1912.1 | ACI 318: 8.1.3, 21.2.8 |
| Y | 4. INSPECT ANCHORS INSTALLED IN HARDENED CONCRETE. | --- | X | 1912.1 | ACI 318: 3.8.6, 8.1.3, 21.2.8 |
| Y | 5. VERIFY USE OF REQUIRED DESIGN MIX. | --- | X | 1904.3, 1913.2, 1913.3 | ACI 318: CH. 4, 5.2-5.4 |
| Y | 6. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE. | X | --- | 1913.10 | ASTM C 172, ASTM C31, ACI 318: 5.6, 5.8 |
| Y | 7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES. | X | --- | 1913.6, 1913.7, 1913.8 | ACI 318: 5.9, 5.10 |
| Y | 8. INSPECT MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES. | --- | X | 1913.9 | ACI 318: 5.11-5.13 |
| N | 9. INSPECT PRESTRESSED CONCRETE | | | | |
| | A. APPLICATION OF PRESTRESSING FORCES | X | --- | --- | ACI 318: 18.20 |
| | B. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-FORCE-RESISTING SYSTEM. | X | --- | --- | ACI 318: 18.18.4 |
| N | 10. ERECTION OF PRECAST CONCRETE MEMBERS | --- | X | --- | ACI 318: CH. 16 |
| N | 11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS. | --- | X | --- | ACI 318: 6.2 |
| Y | 12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED | --- | X | --- | ACI 318: 6.1.1 |

| | | | | | |
|--------|-------------------------|-------|---------------------|-------|------------------------|
| APPROX | APPROXIMATELY | EXT | EXTERIOR | PL | PLATE |
| ARCH | ARCHITECT/ARCHITECTURAL | EXY | EPOXY | REINF | REINFORCED |
| BOTT | BOTTOM | FS | FOOTING STEP | REQ'D | REQUIRED |
| CFS | COLD FORMED STEEL | FTG | FOOTING | SCHED | SCHEDULE |
| CMU | CONCRETE MASONRY UNIT | HORIZ | HORIZONTAL | SOG | SLAB ON GRADE |
| CJ | CONSTRUCTION JOINT | INT | INTERIOR | SPL | SPECIAL |
| CLR | CLEAR | JT | JOINT | SSL | SHORT-SLOT |
| COL | COLUMN | LLH | LONG LEG HORIZONTAL | STL | STEEL |
| CONC | CONCRETE | LLV | LONG LEG VERTICAL | T/ | TOP OF |
| CONT | CONTINUOUS | LONG | LONGITUDINAL | TYP | TYPICAL |
| DIA | DIAMETER | LP | LOW POINT | UNO | UNLESS NOTED OTHERWISE |
| EA | EACH | LSL | LONG-SLOT | VERT | VERTICAL |
| EOD | EDGE OF DECK | OC | ON CENTER | W/ | WITH |
| EOS | EDGE OF SLAB | OPNG | OPENING | WP | WORKING POINT |
| EX | EXISTING | | | WWF | WELDED WIRE FABRIC |
| | | | | Ø | DIAMETER |



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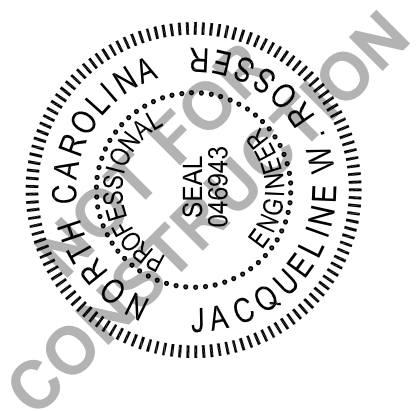
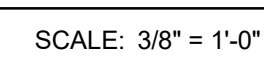
HOLMES CONVOCATION
CENTER STAIR REPAIRS

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| COMM NO: 222079 | |
| DATE: 07/11/2022 | |
| DRAWN: CAW | DESIGN: JWR |
| CHECK: JMC | |
| SHEET TITLE | |
| STRUCTURAL GENERAL NOTES | |
| SHT. NO. S-001 | REV. NO. |



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CENTER STAIR REPAIRS

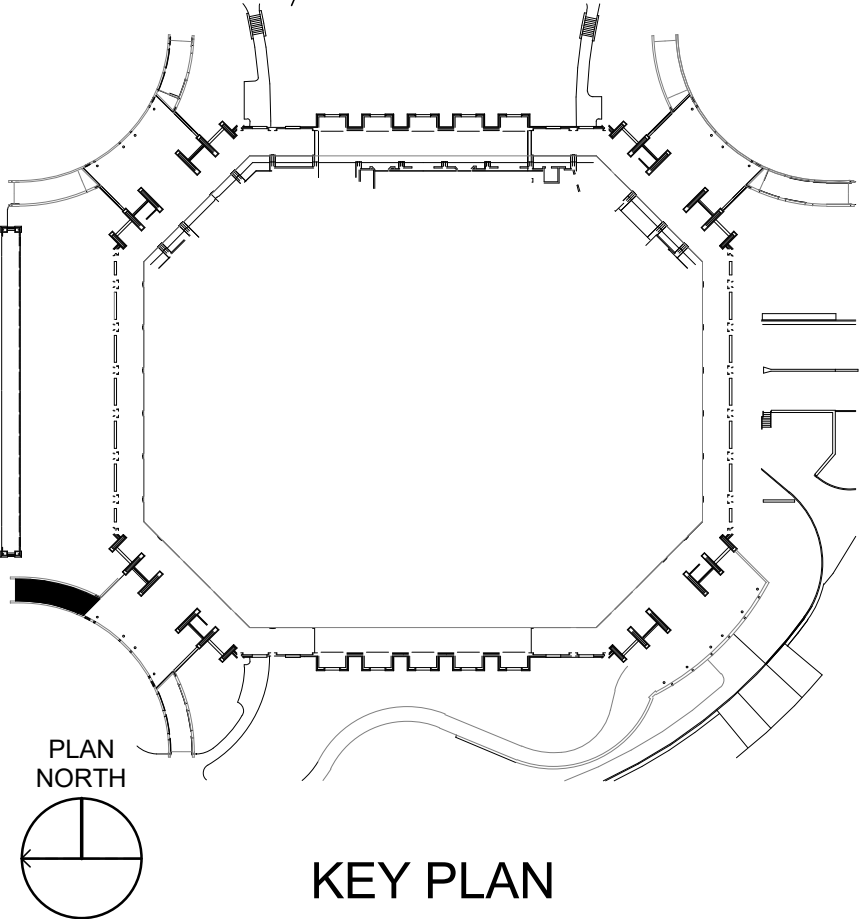
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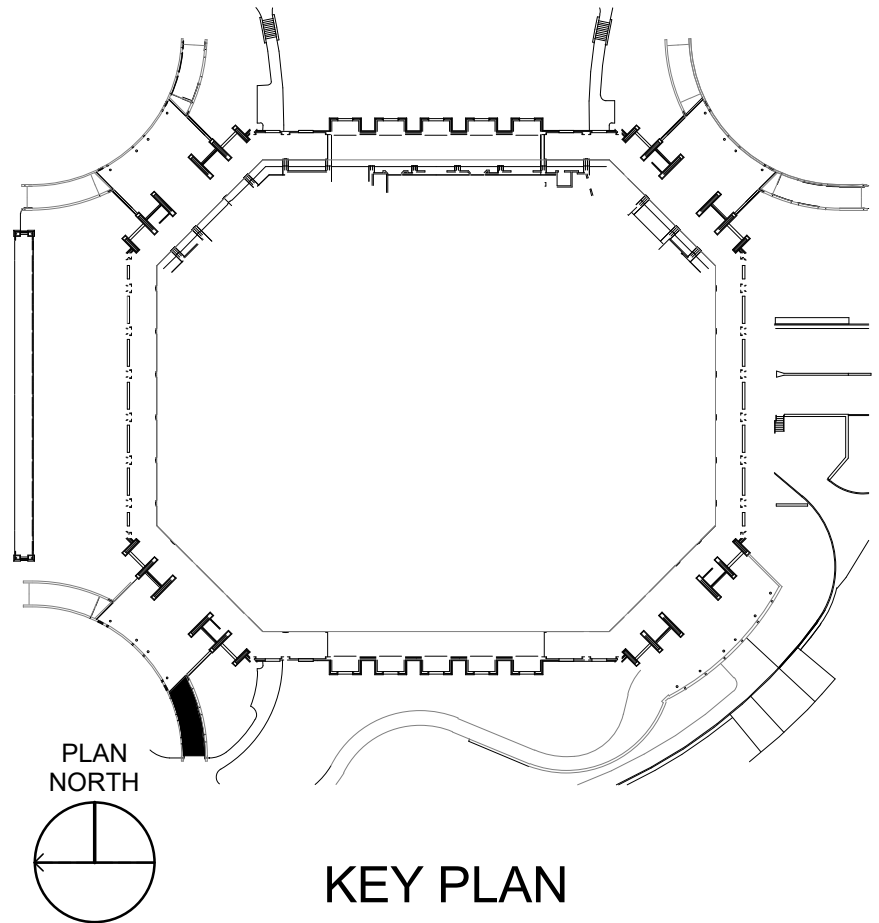
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| CHECK: JMC | |
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| NORTHWEST ENTRANCE - STAIR 1 PLAN | |
| SHT. NO. S-101 | REV. NO. |

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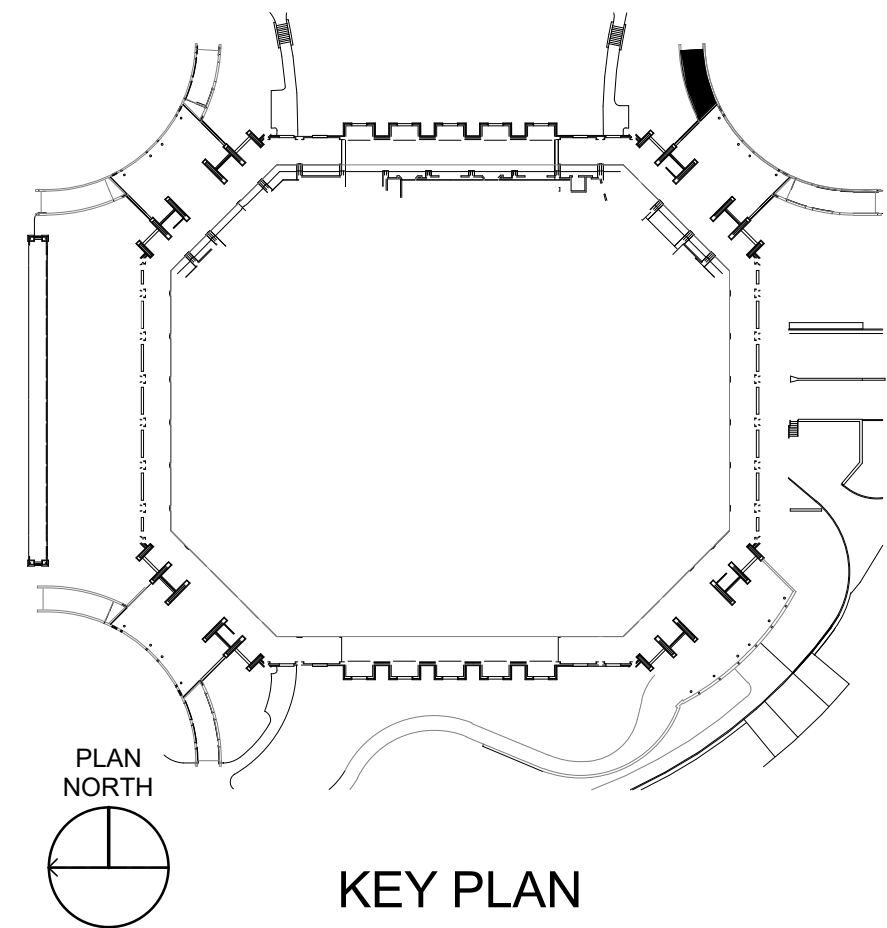
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PLAN NORTH

KEY PLAN



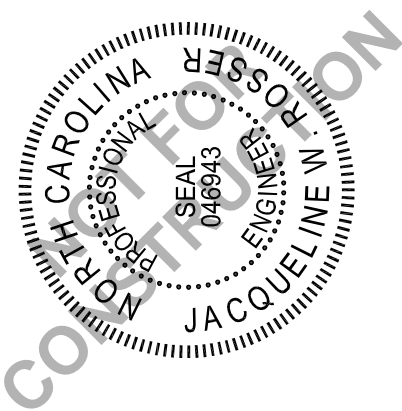
SCALE: 3/8" = 1'-0"



| KEYNOTE LEGEND | | |
|----------------|----------------------------|--|
| MARK | DISTRESS DESCRIPTION | REPAIR |
| 1 | COATING DELAMINATION | SEE DETAIL A&B/S-501 |
| 2 | STEEL RAILING CORROSION | CLEAN WITH WIRE BRUSH AND REPAINT TO MATCH EXISTING |
| 3 | CRACKING | SEE DETAIL D/S-501 |
| 4 | BRICK AND MORTAR DAMAGE | REPLACE DAMAGED BRICK AND SURROUNDING MORTAR. BID ALTERNATE: REPLACE ALL BRICK WITH NEW PRECAST COPING. SEE DETAIL E/S-501 |
| 5 | DAMAGED RAILING CONNECTION | STRAIGHTEN EXISTING RAILING |
| 6 | JOINT SEALANT DAMAGE | REMOVE ALL EXISTING JOINT SEALANT AND CLEAN. RESEAL WITH SIKAFLEX 1A URETHANE SEALANT WITH CLOSED CELL BACKER ROD. |
| 7 | SPALLING | SAW CUT EDGES AND CHIP OUT TO 1/2" MIN DEPTH. REPAIR WITH SIKAQUICK 1000 MORTAR. SEE A/S-502. |



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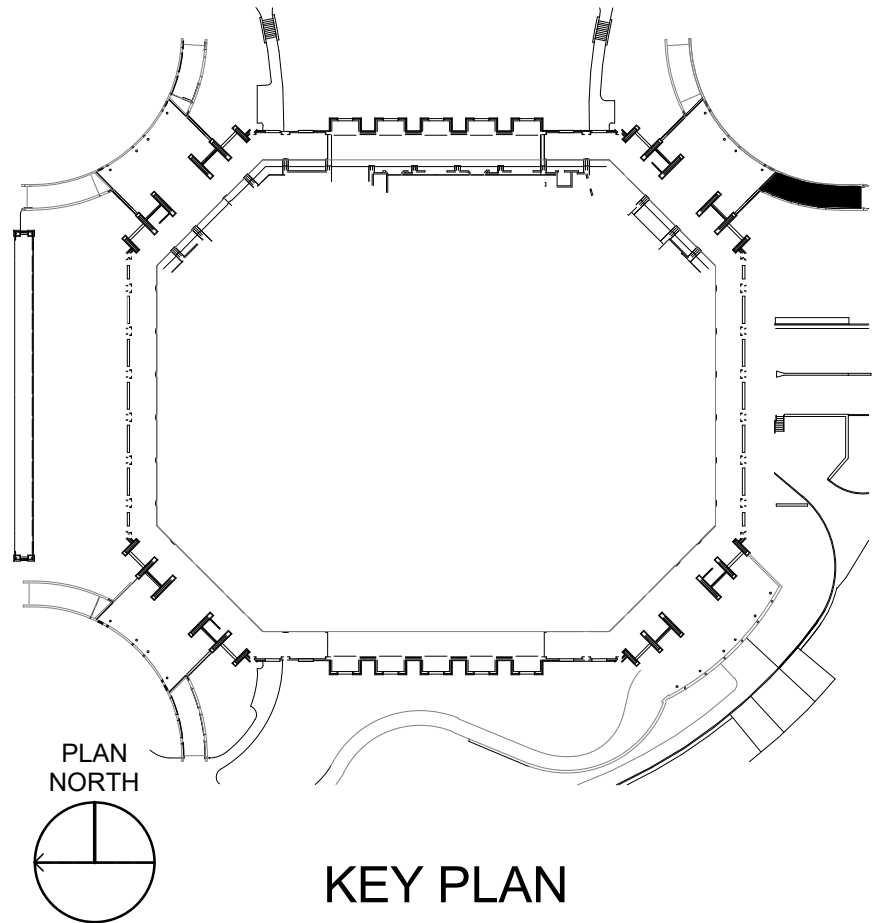
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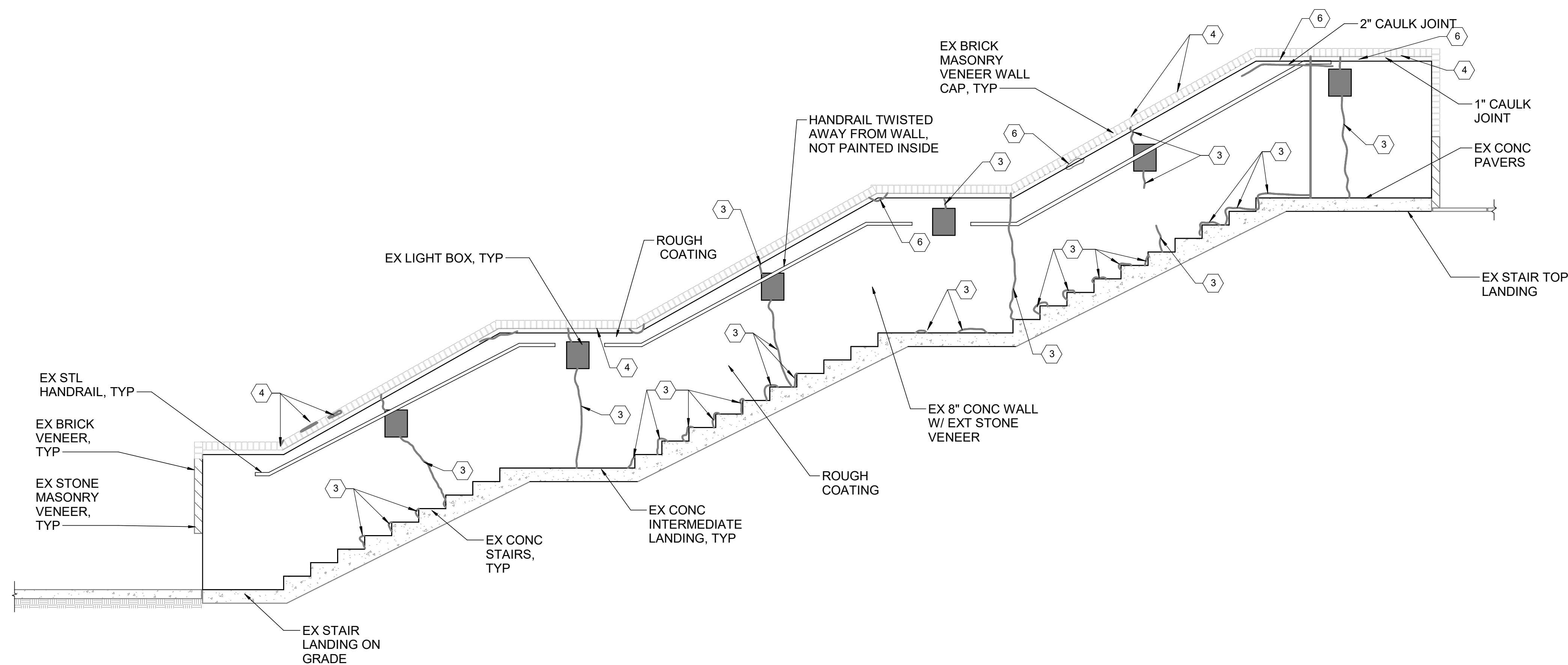
Architectural drawing of a curved concrete structure, likely a bridge or walkway, showing various components and repair areas. The drawing includes a curved concrete wall with a stone veneer, concrete stairs, and concrete landings. Annotations include:

- EX TOP CONC LANDING MILDLY SCALED, DELAMINATED, AND CRACKED
- EX WALL EXPANSION JT
- SCALING AROUND STL NOSING PLATES AS SHOWN, THIS STAIR FLIGHT, SEE DETAIL F/S-501
- EX CONC EXPANSION JT
- EX TOP CONC LANDING
- EX CONC PAVERS
- EX STL LIGHT POLE AND BASE COVER
- EX STL RAILING
- EX CONC CURB
- EX CONC STAIRS, TYP
- EX INTERMEDIATE CONC LANDING MODERATE DELAMINATION & CRACKS
- EX INTERMEDIATE CONC LANDING SEVERE DELAMINATION & CRACKS
- EX 8" CONC WALL W/ STONE VENEER, TYP
- EX INTERMEDIATE CONC LANDING SEVERE DELAMINATION
- EX CONC EXPANSION JT
- EX BOTT STAIR LANDING SEVERE DELAMINATION & CRACKS
- EX CONC SIDEWALK

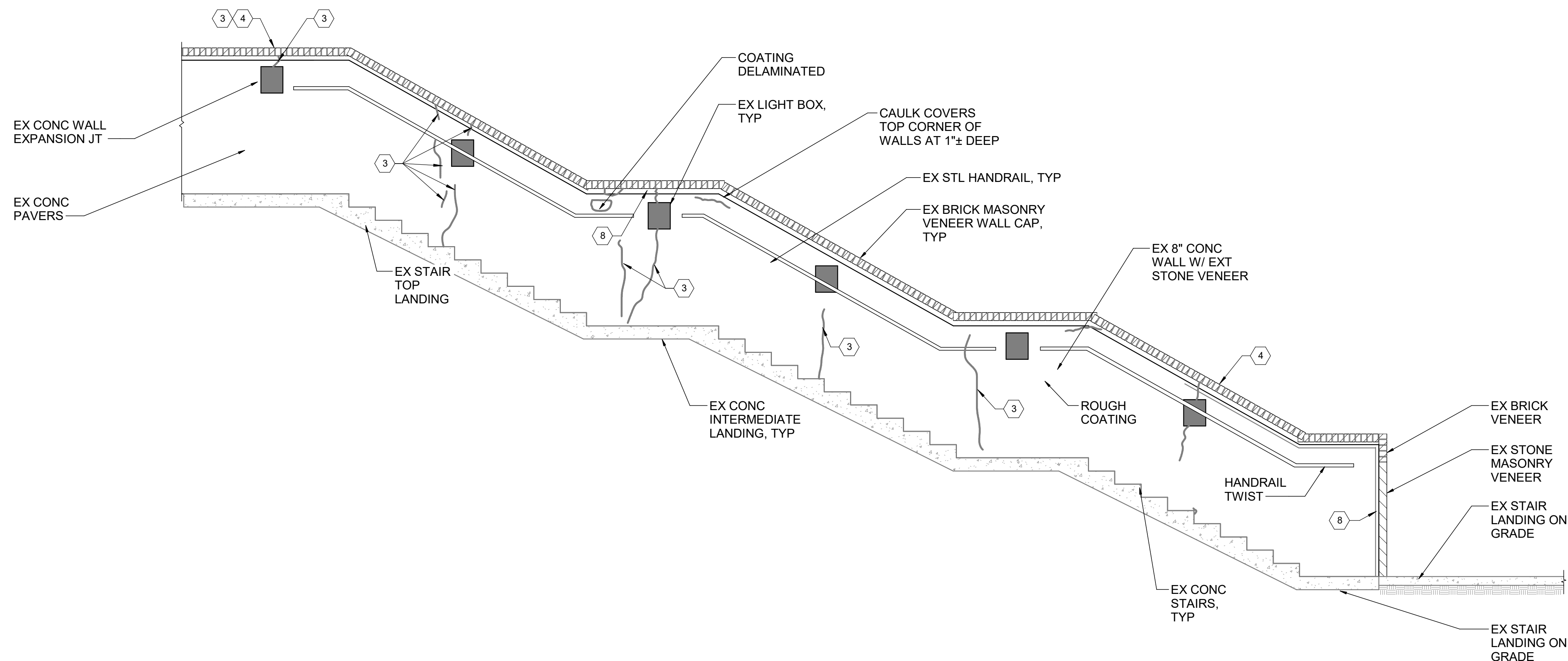
The drawing also includes a table with the following content:

| | | |
|---|----------------------|--|
| 5 | CONNECTION | STRAIGHTEN EXISTING RAILING |
| 6 | JOINT SEALANT DAMAGE | REMOVE ALL EXISTING JOINT SEALANT. RESEAL WITH SIKAFLEX 1A URETHANE WITH CLOSED CELL BACKER ROD. |
| 7 | SPALLING | SAW CUT EDGES AND CHIP OUT TO 1/2" REPAIR WITH SIKAGUICK 1000 MORTAR A/S-502. |





C1 NORTHWEST ENTRANCE STAIR 2 ELEVATION - NORTH WALL
SCALE: 3/8" = 1'-0"

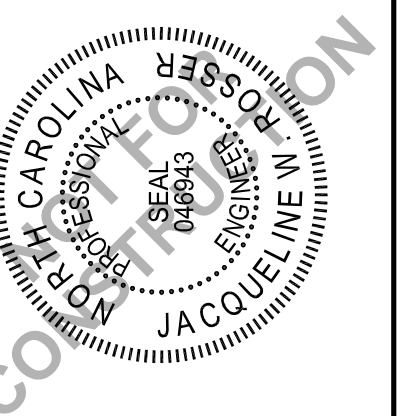


A1 NORTHWEST ENTRANCE STAIR 2 ELEVATION - SOUTH WALL
SCALE: 3/8" = 1'-0"

| KEYNOTE LEGEND | | |
|----------------|----------------------------|--|
| MARK | DISTRESS DESCRIPTION | REPAIR |
| 1 | COATING DELAMINATION | SEE DETAIL A&B/S-501 |
| 2 | STEEL RAILING CORROSION | CLEAN WITH WIRE BRUSH AND REPAINT TO MATCH EXISTING |
| 3 | CRACKING | SEE DETAIL D/S-501 |
| 4 | BRICK AND MORTAR DAMAGE | REPLACE DAMAGED BRICK AND SURROUNDING MORTAR. BID ALTERNATE: REPLACE ALL BRICK WITH NEW PRECAST COPING. SEE DETAIL E/S-501 |
| 5 | DAMAGED RAILING CONNECTION | STRAIGHTEN EXISTING RAILING |
| 6 | JOINT SEALANT DAMAGE | REMOVE ALL EXISTING JOINT SEALANT AND CLEAN. RESEAL WITH SIKAFLEX 1A URETHANE SEALANT WITH CLOSED CELL BACKER ROD. |
| 7 | SPALLING | SAW CUT EDGES AND CHIP OUT TO 1/2" MIN DEPTH. REPAIR WITH SIKAGUICK 1000 MORTAR. SEE A/S-502. |



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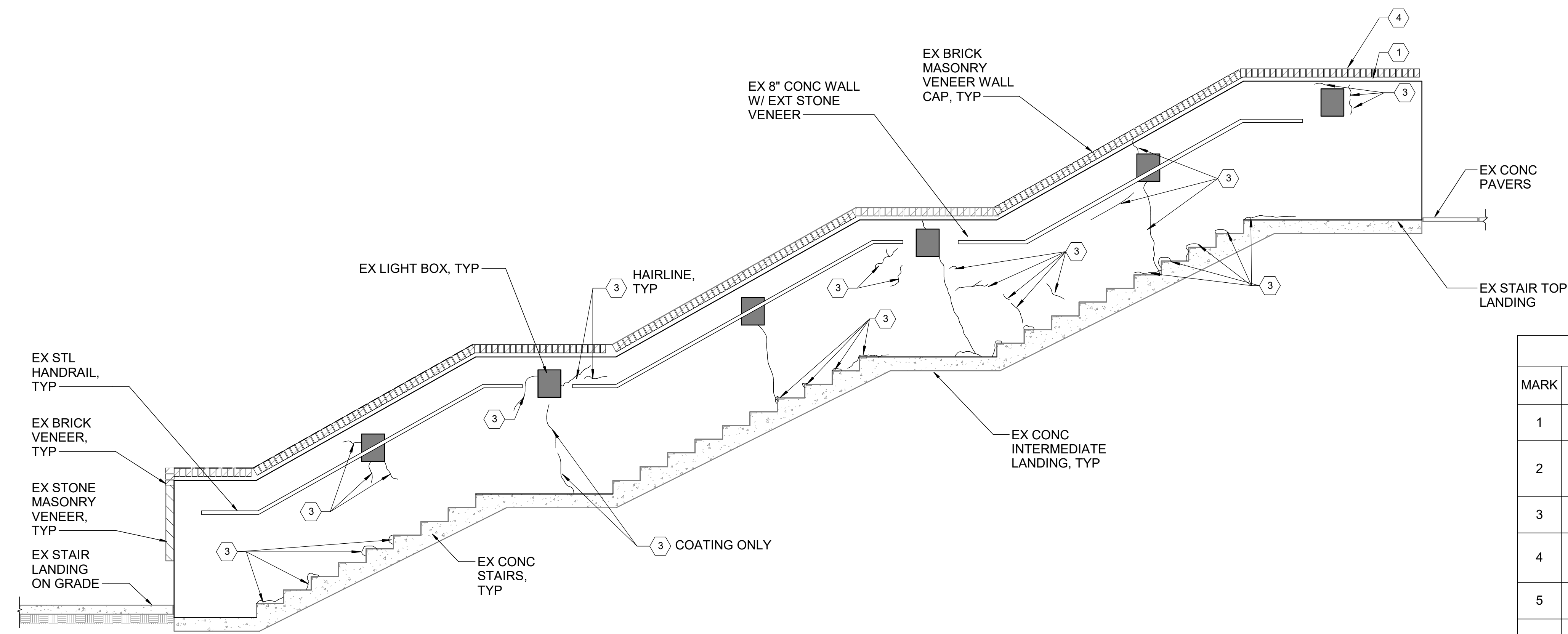
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| DATE: | | 07/11/2022 | |
| DRAWN: | CAW | DESIGN: | JWR |
| CHECK: | | | JMC |

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| SHEET TITLE |
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NORTHWEST ENTRANCE -
STAIR 2 NORTH & SOUTH
WALL ELEVATIONS

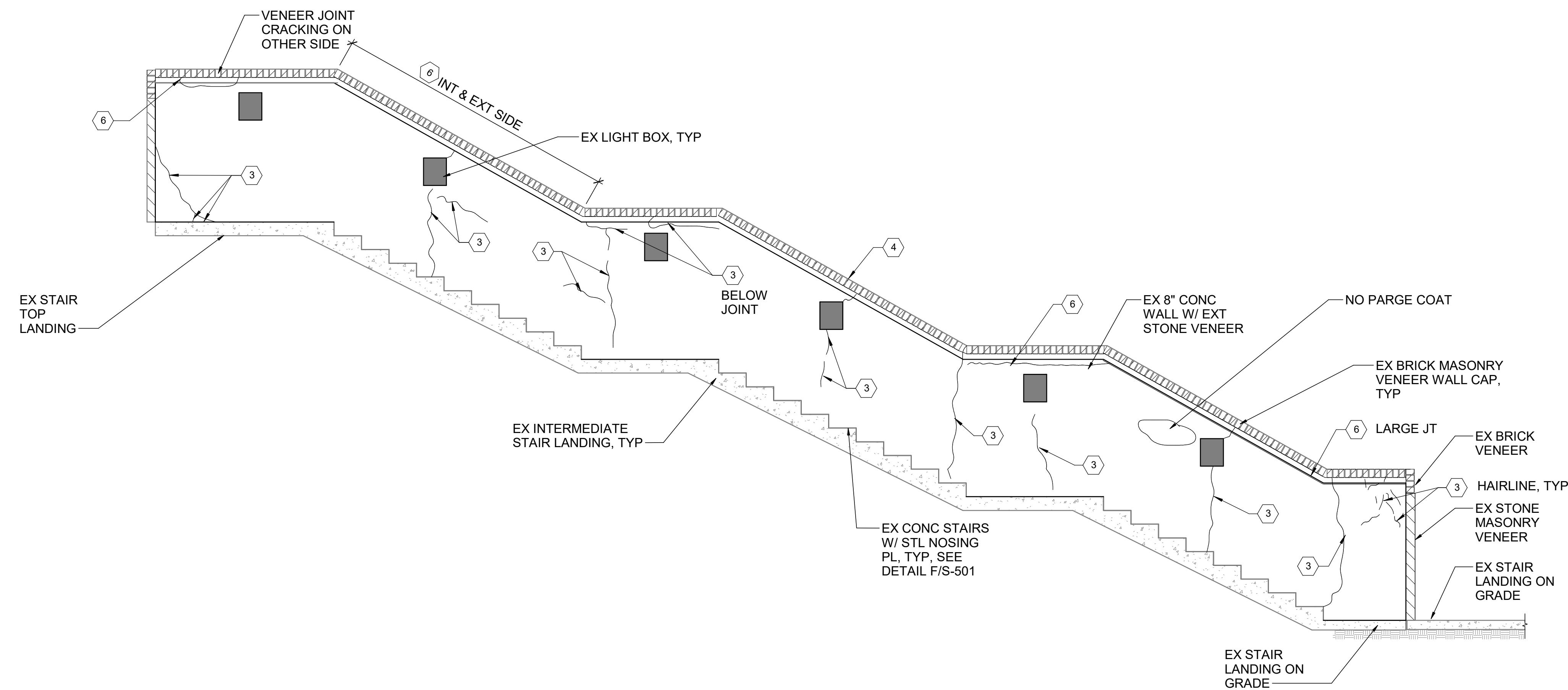
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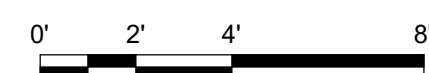


C1 NORTHEAST ENTRANCE STAIR 1 SECTION-NORTH WALL
SCALE: 3/8" = 1'-0"

| KEYNOTE LEGEND | | |
|----------------|----------------------------|--|
| MARK | DISTRESS DESCRIPTION | REPAIR |
| 1 | COATING DELAMINATION | SEE DETAIL A&B/S-501 |
| 2 | STEEL RAILING CORROSION | CLEAN WITH WIRE BRUSH AND REPAINT TO MATCH EXISTING |
| 3 | CRACKING | SEE DETAIL D/S-501 |
| 4 | BRICK AND MORTAR DAMAGE | REPLACE DAMAGED BRICK AND SURROUNDING MORTAR. BID ALTERNATE: REPLACE ALL BRICK WITH NEW PRECAST COPING. SEE DETAIL E/S-501 |
| 5 | DAMAGED RAILING CONNECTION | STRAIGHTEN EXISTING RAILING |
| 6 | JOINT SEALANT DAMAGE | REMOVE ALL EXISTING JOINT SEALANT AND CLEAN. RESEAL WITH SIKAFLEX 1A URETHANE SEALANT WITH CLOSED CELL BACKER ROD. |
| 7 | SPALLING | SAW CUT EDGES AND CHIP OUT TO 1/2" MIN DEPTH. REPAIR WITH SIKAQUICK 1000 MORTAR. SEE A/S-502. |



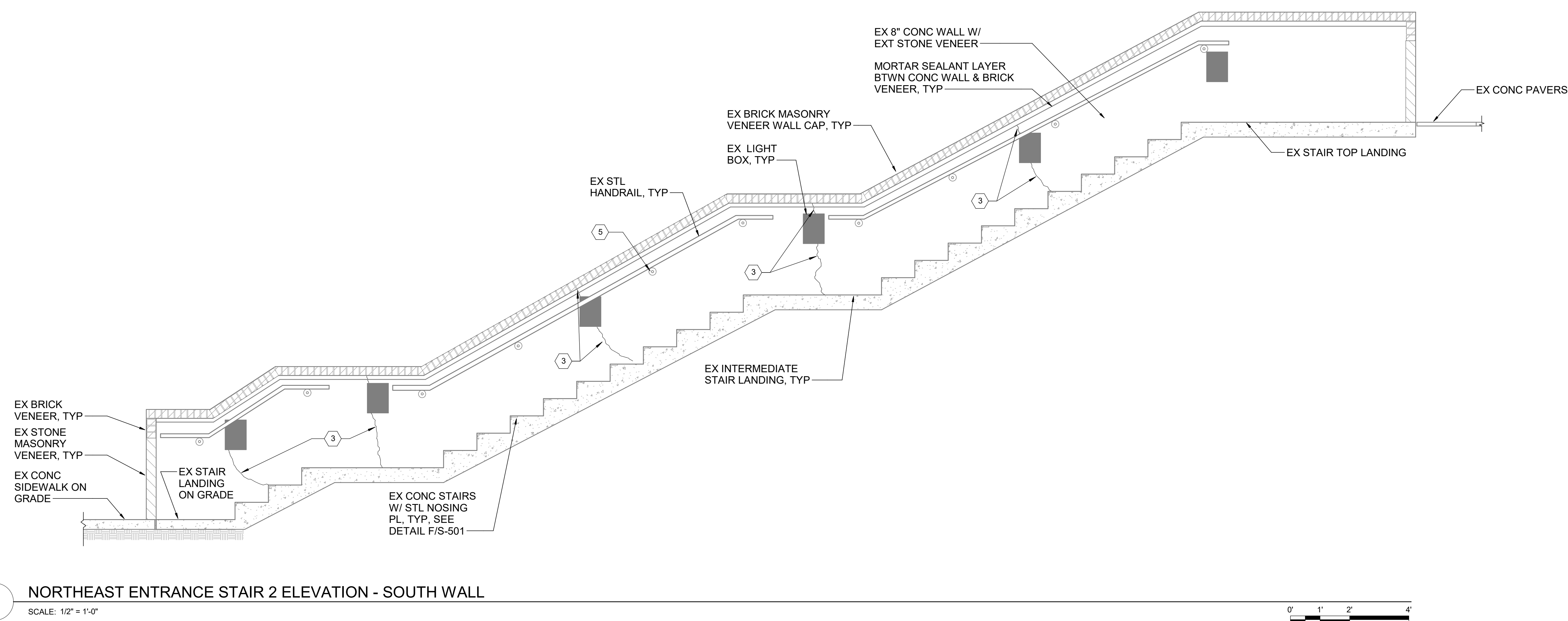
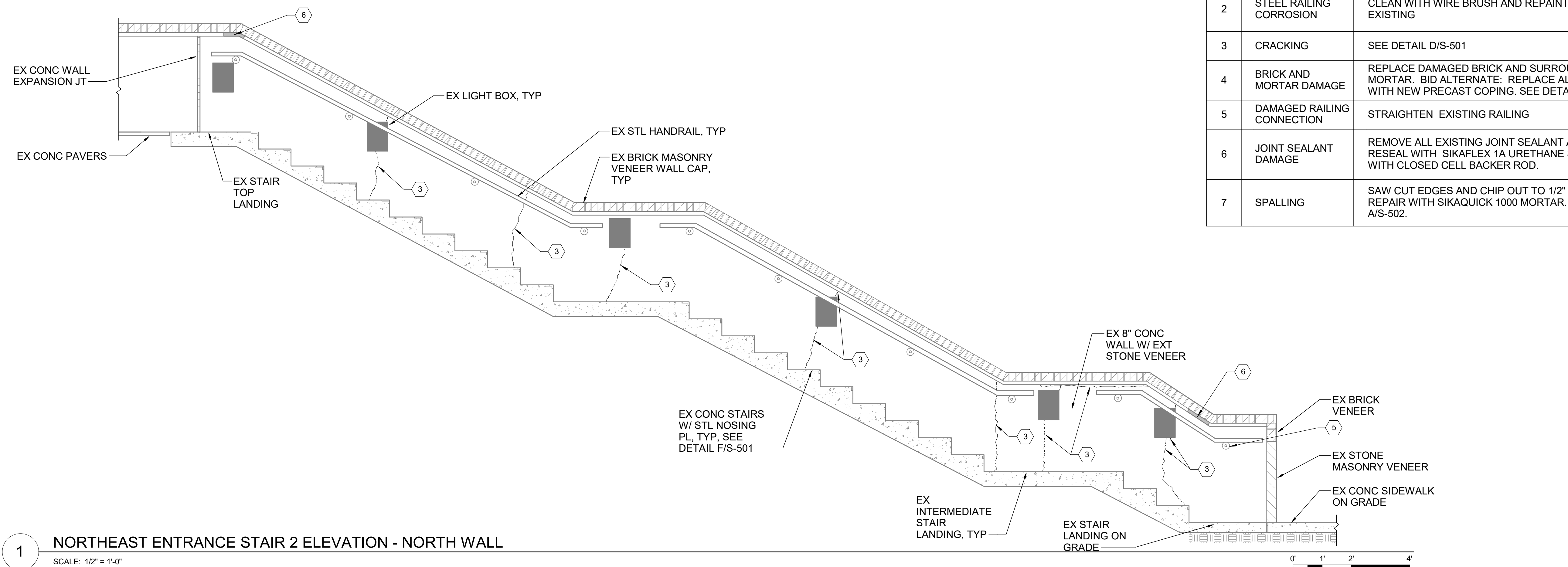
A1 NORTHEAST ENTRANCE STAIR 1 SECTION-SOUTH WALL
SCALE: 3/8" = 1'-0"

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| COMM NO: | | 222079 | |
| DATE: | | 07/11/2022 | |
| DRAWN: | CAW | DESIGN: | JWR |
| CHECK: | | | JMC |

SHEET TITLE

NORTHEAST ENTRANCE -
STAIR 1 NORTH & SOUTH
WALL ELEVATIONS



| KEYNOTE LEGEND | | |
|----------------|----------------------------|--|
| MARK | DISTRESS DESCRIPTION | REPAIR |
| 1 | COATING DELAMINATION | SEE DETAIL A&B/S-501 |
| 2 | STEEL RAILING CORROSION | CLEAN WITH WIRE BRUSH AND REPAINT TO MATCH EXISTING |
| 3 | CRACKING | SEE DETAIL D/S-501 |
| 4 | BRICK AND MORTAR DAMAGE | REPLACE DAMAGED BRICK AND SURROUNDING MORTAR. BID ALTERNATE: REPLACE ALL BRICK WITH NEW PRECAST COPING. SEE DETAIL E/S-501 |
| 5 | DAMAGED RAILING CONNECTION | STRAIGHTEN EXISTING RAILING |
| 6 | JOINT SEALANT DAMAGE | REMOVE ALL EXISTING JOINT SEALANT AND CLEAN. RESEAL WITH SIKAFLEX 1A URETHANE SEALANT WITH CLOSED CELL BACKER ROD. |
| 7 | SPALLING | SAW CUT EDGES AND CHIP OUT TO 1/2" MIN DEPTH. REPAIR WITH SIKAGUICK 1000 MORTAR. SEE A/S-502. |

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SHEET TITLE

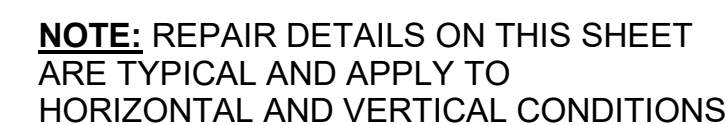
SOUTHEAST ENTRANCE -
STAIR 1 NORTH & SOUTH
WALL ELEVATIONS (BID
ALTERNATE G-1)

SOUTHEAST ENTRANCE STAIR 1 ELEVATION- NORTH WALL
BID ALTERNATE G-1

SCALE: 3/8" = 1'-0"

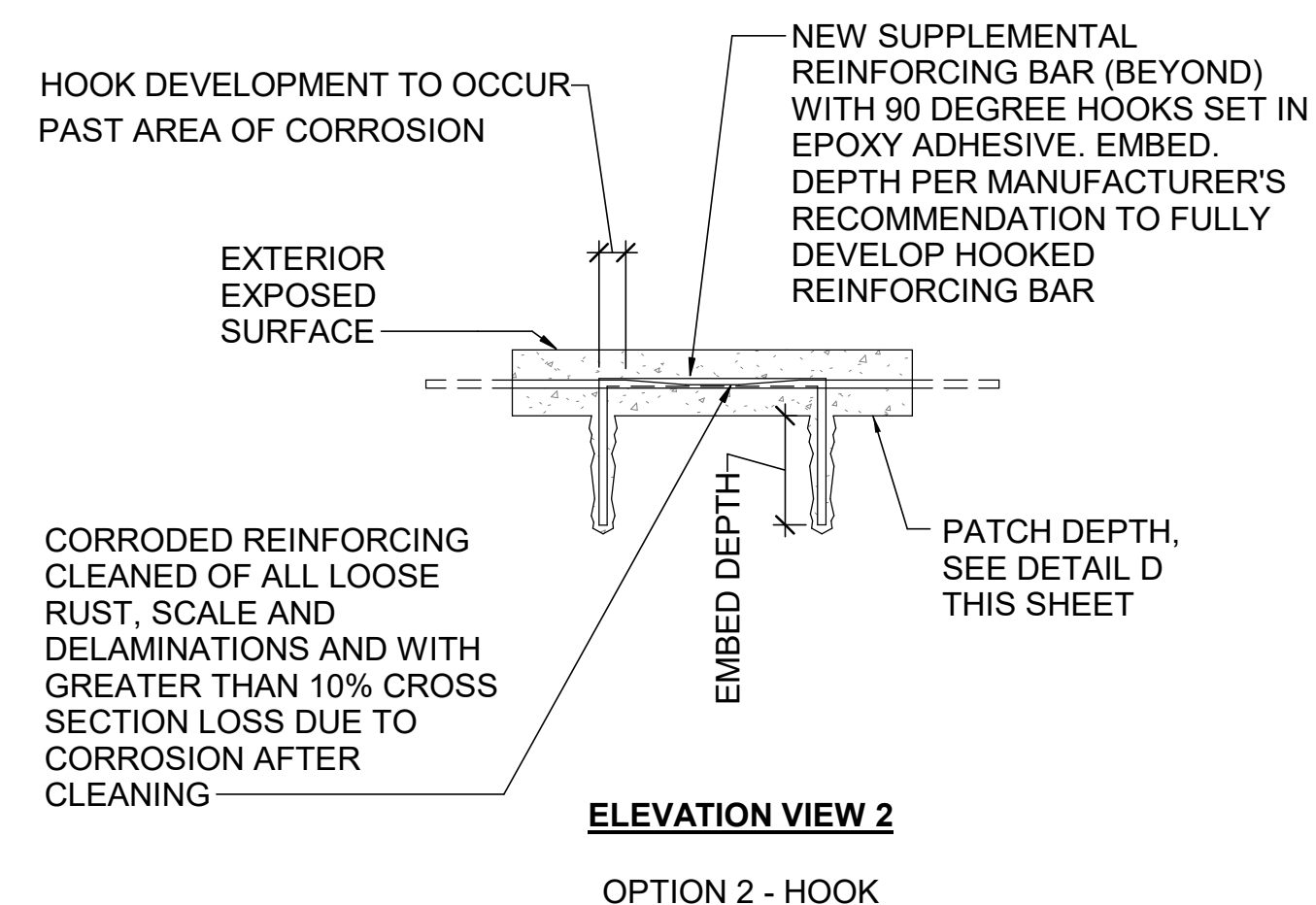


1. THE BOUNDING PERIMETER OF THE DISTRESSED AREA SHALL BE MARKED TO IDENTIFY THE FIRST AND SECOND CUT LINES. FOR A DELAMINATED SURFACE, HAMMER SOUND AREA TO ESTIMATE THE APPROXIMATE BOUNDARIES OF THE DELAMINATION. THE BOUNDING PERIMETER OF WORN CONCRETE SURFACE SHALL BE THE LARGEST RECTANGLE THAT ENCOMPASSES THE ENTIRE WORN AREA.
2. REINFORCING DEPTH AND LOCATION SHALL BE DETERMINED PRIOR TO ANY SAW CUTTING TO AVOID CUTTING REINFORCING. SAW CUT (FIRST CUT) PERIMETER OF REPAIR FORMING A RECTANGLE AROUND THE AREA OF DELAMINATION MAINTAINING A MINIMUM OF 1" FROM EDGE OF CONCRETE DISTRESS. CORE DRILL CORNERS 1" DEEP WITH 2" DIA MIN BIT TO PREVENT OVER-CUTTING. DEPTH OF THE FIRST SAW CUT SHALL BE NO MORE THAN HALF OF THE DETERMINED CLEAR COVER OF EXISTING STEEL.
3. AT THE CONTRACTOR'S DISCRETION, TO ASSIST IN CONTAINING ANY RESIDUAL DAMAGE FROM REMOVING THE DISTRESSED CONCRETE INSIDE THE FIRST CUT, SAW CUT AN OPTIONAL SECOND CUT OUTSIDE OF PERIMETER OF FIRST CUT A MINIMUM 1" FROM FIRST CUT. CORE DRILL CORNERS 1" DEEP WITH 2" DIA MIN BIT TO PREVENT OVER-CUTTING. DEPTH OF SECOND SAW CUT SHALL MATCH FIRST CUT. IF OPTIONAL SECOND CUT IS NOT USED, RE-CUT PATCH EDGES IF CHIPPING OR SPALLING OCCURS DURING REMOVAL.
4. REMOVE DISTRESSED CONCRETE WITHIN FIRST SAW CUT BY APPROVED METHODS (HYDRODEMOLITION AND OR 15 LB HAMMER) CREATING THE SURFACE PROFILE AS RECOMMENDED BY THE REPAIR PRODUCT MANUFACTURER.
5. REMOVE CONCRETE BETWEEN FIRST AND SECOND SAW CUT. CAUTION SHALL BE TAKEN NOT TO DAMAGE EDGE OF "SOUND" CONCRETE. NOT APPLICABLE IF SECOND CUT IS NOT USED.
6. PREPARE AND CLEAN CONCRETE CAVITY USING HIGH-PRESSURE WATER OR ABRASIVE BLASTING TO REMOVE LOOSE AND BOND INHIBITING MATERIALS AND GENERATE/MAINTAIN THE SPECIFIED SURFACE PROFILE AS RECOMMENDED BY THE REPAIR PRODUCT MANUFACTURER.
7. APPLY PRIMER OR BONDING AGENT AS SPECIFIED OR REQUIRED BY MATERIAL MANUFACTURER.
8. INSTALL REPAIR MATERIAL WITH CORROSION INHIBITOR PER REPAIR PRODUCT MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
9. INSTALL REPAIR MATERIAL INTO PREPARED AND APPROVED CAVITY. FINISH SURFACE PER COATING PRODUCT MANUFACTURER'S RECOMMENDATIONS OR TO MATCH EXISTING HIGH PROFILES.
10. CURE REPAIR IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS SPECIFIED. WATER CURING IS REQUIRED, SEE SPECIFICATION.
11. AFTER ADEQUATE CURING TIME, HAMMER SOUND REPAIR/PATCH MATERIAL TO ENSURE BONDING TO SUBSTRATE. IF PATCH IS "SOUNDED HOLLOW" INDICATING DEBONDING FROM THE SUBSTRATE, REMOVE AREA OF DELAMINATION AND RE-PATCH BEGINNING WITH STEP 1.

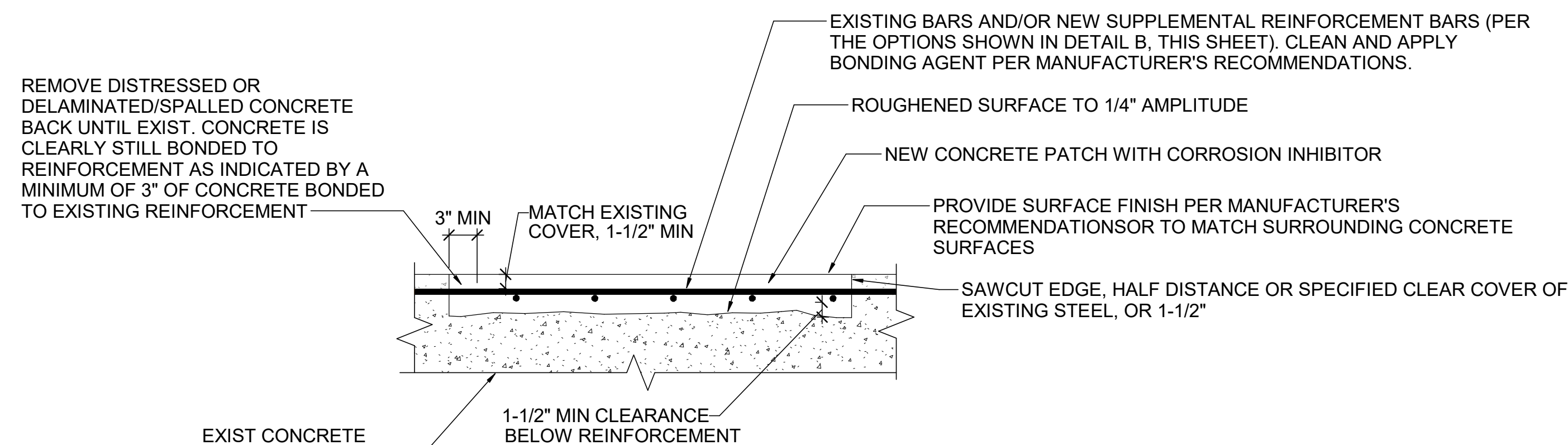


1. PREPARE PATCH IN ACCORDANCE WITH DETAIL A.
2. CLEAN REINFORCEMENT AND MEASURE THE AMOUNT OF CROSS SECTIONAL AREA LOSS. IF THE AMOUNT IS GREATER THAN 10% ADD SUPPLEMENTAL REINFORCING.
3. SUPPLEMENTAL REINFORCING BARS SHALL BE SIZED TO PROVIDE AT LEAST 20% MORE AREA THAN THE ESTIMATED LOSS IN CROSS SECTIONAL AREA.
4. SPLICE NEW REINFORCING BAR TO REPLACE CORRODED REINFORCING BAR PER ONE OF THE METHODS IN THE REINFORCING BAR SPLICE DETAILS. PROVIDE THE MINIMUM LAP LENGTHS AS REQUIRED PER ACI 318.
5. WHEN FEASIBLE, SETTING THE SUPPLEMENTAL REINFORCING BARS WITH 90 DEGREE DOWEL BARS WILL REDUCE THE REQUIRED SIZE OF THE PATCH AREA.

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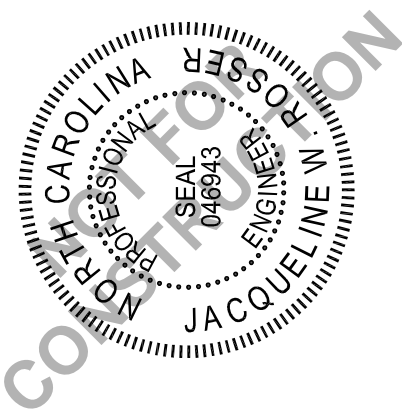
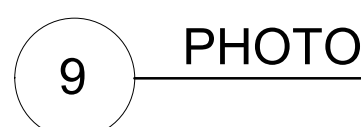
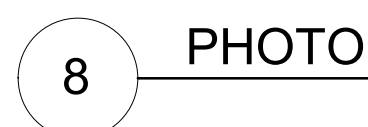
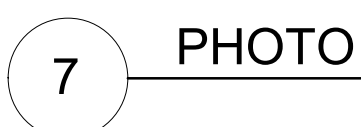
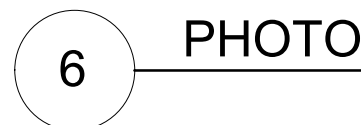
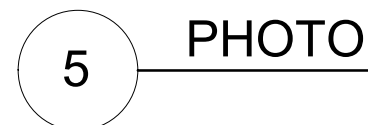
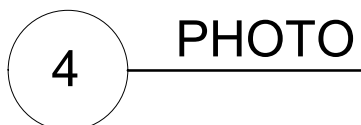
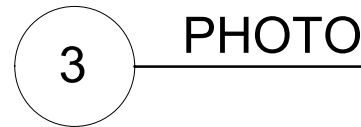
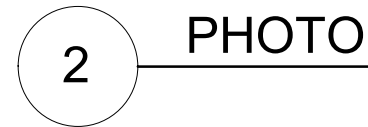
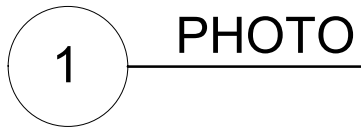


HOLMES CONVOCATION
CENTER STAIR REPAIRS

APPALACHIAN STATE
UNIVERSITY

IFB #00612761
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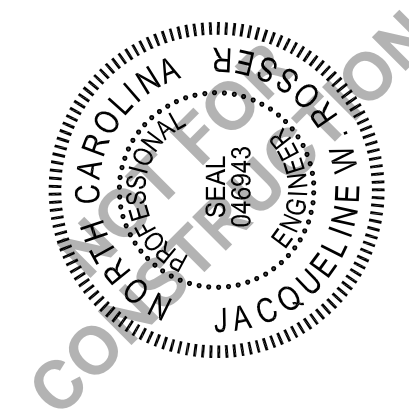
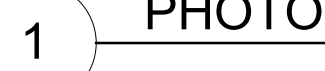


HOLMES CONVOCATION
CENTER STAIR REPAIRS

APPALACHIAN STATE
UNIVERSITY

111 RIVERS ST BOONE NC 28608

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| REVISION DESCRIPTION | | MRK | DATE |
|------------------------|----------|-----|------|
| COMM NO: 222079 | | | |
| DATE: 07/11/2022 | | | |
| DRAWN: CAW DESIGN: JWR | | | |
| CHECK: JMC | | | |
| SHEET TITLE | | | |
| SOUTHEAST STAIR PHOTOS | | | |
| SHT. NO. | REV. NO. | | |
| S-603 | | | |