

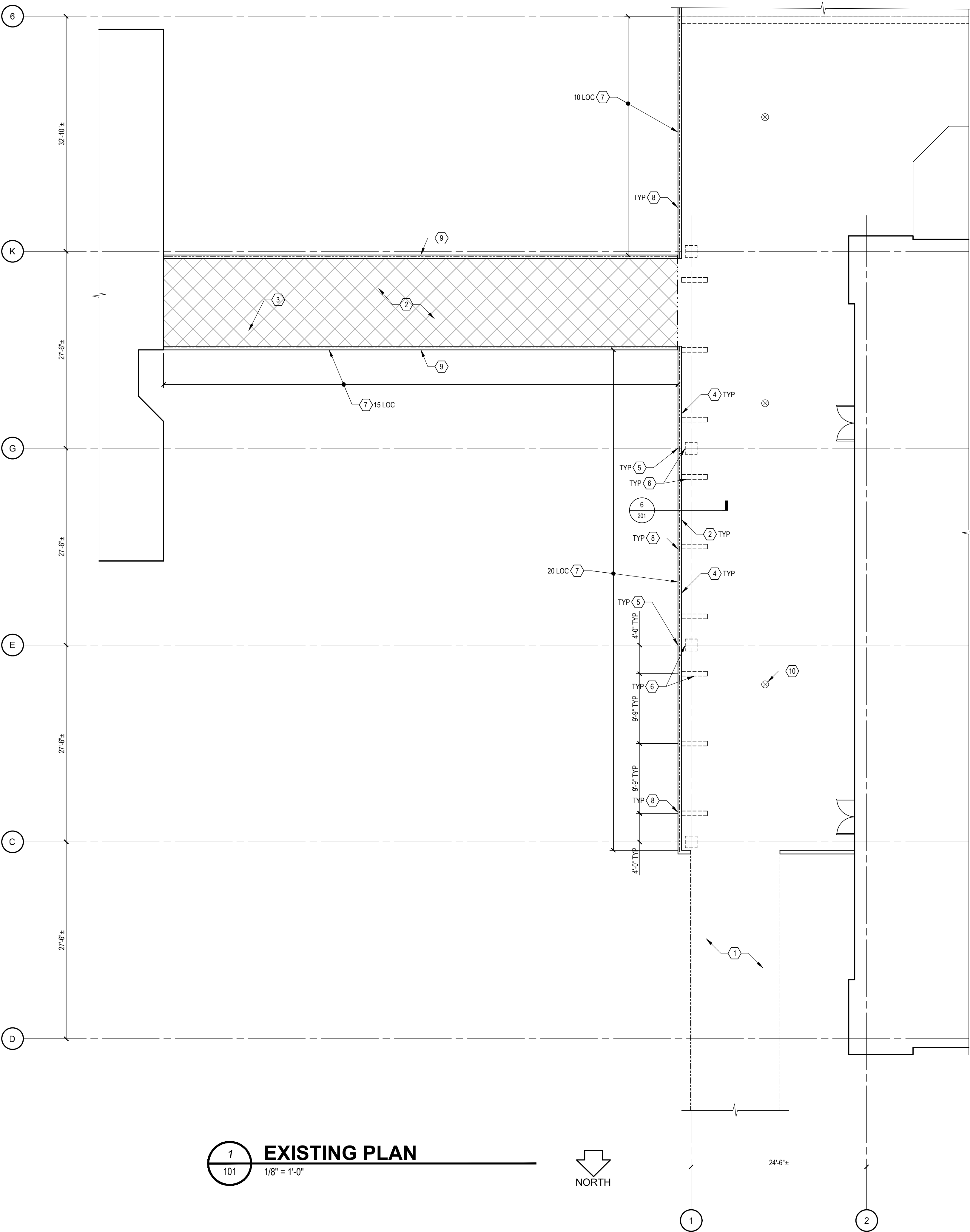
NKU-UC PLAZA PRECAST PANEL REPAIR



001	TITLE SHEET
101	EXISTING PLAN
201	CONCRETE & STEEL REPAIR DETAILS
301	DRAIN & WATERPROOFING REPAIR DETAILS

1. THE SPECIFICATIONS AND DRAWINGS COMPLEMENT EACH OTHER. BOTH SHALL BE THOROUGHLY REVIEWED BEFORE PROCEEDING WITH ANY WORK. THE CONTRACTOR SHALL COMPLETE ALL WORK REQUIRED AND NECESSARY FOR THE PROJECT IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, DRAWINGS, AND REFERENCED STANDARDS.

4. THE STRUCTURAL ENGINEER MAY GENERALLY OBSERVE THE PROGRESS OF THE WORK, BUT HIS OBSERVATION SHALL NOT BE CONSTRUED AS INSPECTION.



DRAWING NOTES:

- A. PROVIDE PROFESSIONAL SIGNAGE AND BARRICADES TO CLOSE AND PROTECT WORK AREAS TO VEHICULAR AND PEDESTRIAN TRAFFIC. SIGNAGE SHALL INCLUDE DIRECTIONS TO ROUTE PEOPLE AROUND WORK AREA.
- B. PRIOR TO PERFORMING WORK, LOCATE ALL DRAINS, REVIEW CONDITIONS AND PROTECT DRAINS DURING REPAIRS. DRAINS TO REMAIN OPERATIONAL THROUGHOUT DURATION OF PROJECT. WATER TEST DRAINS AT THE COMPLETION OF THE PROJECT TO ENSURE FLOW.
- C. PROVIDE DUST AND DEBRIS CONTROL MEASURES TO ENSURE ALL DUST AND DEBRIS GENERATED BY WORK REMAINS WITHIN WORK AREA, DOES NOT BECOME AIRBORNE, AND DOES NOT POSE HAZARDOUS OR OBJECTIONABLE CONDITIONS FOR PATRONS AND GENERAL PUBLIC. REFER TO SPECIFICATION SECTION 015600.
- D. CONTRACTOR TO NOTIFY OWNER IF HAZARDOUS MATERIALS ARE ENCOUNTERED. REMOVAL OF ALL HAZARDOUS ITEMS MUST BE COORDINATED WITH OWNER. OWNER WILL PAY THE ADDITIONAL COST FOR ABATEMENT.
- E. CONTRACTOR TO PROTECT EXISTING RAILING SYSTEM DURING ALL REPAIR WORK. ANY DAMAGE TO THE EXISTING RAILING SYSTEM OR TO THE EXISTING COATING SYSTEM SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- F. CONTRACTOR TO PERFORM A WASH DOWN OF THE WORK AREAS AT THE COMPLETION OF THE PROJECT.

KEY NOTES: (7)

1. EXISTING PEDESTRIAN BRIDGE TO THE NORTH OF THE PLAZA AREA. THIS BRIDGE IS NOT APART OF THIS PROJECT SCOPE OF WORK DO NOT DAMAGE.
2. CONTRACTOR AND ENGINEER TO VISUALLY SURVEY THE WORK AREAS FOR VERTICAL SURFACE, WALL, BOTTOM, AND MISCELLANEOUS CONCRETE DETERIORATION. AS A UNIT PRICE REPAIR, PERFORM VERTICAL SURFACE CONCRETE REPAIR, VERTICAL WALL CONCRETE REPAIR OR WALL BOTTOM CONCRETE REPAIR. REFER TO DETAILS 2, 3, AND 4 ON DRAWING 201.
3. CONTRACTOR AND ENGINEER TO SURVEY THE PEDESTRIAN BRIDGE TO THE MATHEMATICS EDUCATION PSYCHOLOGY CENTER FOR PONDING WATER. AS A UNIT PRICE REPAIR, INSTALL A SUPPLEMENTAL DRAIN. REFER TO DETAIL 1 ON DRAWING 301.
4. PREPARE CONCRETE SURFACES AND INSTALL COVE SEALANT AT ALL VERTICAL SURFACES INCLUDING WALLS AND CURBS. REFER TO DETAIL 3 ON DRAWING 301.
5. EXISTING ISOLATION JOINT BETWEEN THE PRECAST WALL PANELS. AT ALL JOINTS PREPARE CONCRETE SURFACES AND INSTALL NEW ISOLATION JOINT SEALANT. ENTIRE JOINT TO SILICONE SEALANT. INSTALL ALL HIGH PERFORMANCE COATING SYSTEMS PRIOR TO INSTALLATION OF SILICONE SEALANT. REFER TO DETAIL 2 ON DRAWING 301.
6. EXISTING PRECAST WALL PANEL WITH DETERIORATED CONNECTIONS. CONTRACTOR TO INSTALL A NEW CONCRETE HAUNCH (4 LOC.) AND SUPPLEMENTAL STEEL REINFORCING (9 LOC.) PER DETAILS 5 AND 6 ON DRAWING 201.
7. EXISTING SEALANT INSTALLED AT OLD EMBEDMENT PLATES ON TOP OF WALL. REMOVE SEALANT AND INSTALL AN EPOXY SAND MIXTURE PRIOR TO INSTALLATION OF A HIGH PERFORMANCE COATING SYSTEM. REFER TO SPECIFICATION SECTION 030100.
8. EXISTING PRECAST CONCRETE WALL PANEL. PREPARE SURFACES AND INSTALL A HIGH PERFORMANCE COATING SYSTEM ON THE EAST, BOTTOM, AND TOP FACES ON THE PANEL. PERFORM MOCK-UP FOR COLOR SELECTION BY OWNER. REFER TO SPECIFICATION SECTION 099100.
9. EXISTING PEDESTRIAN BRIDGE TO THE MATHEMATICS EDUCATION PSYCHOLOGY CENTER. PREPARE SURFACES AND INSTALL A HIGH PERFORMANCE COATING SYSTEM ON THE EXTERIOR VERTICAL, BOTTOM, AND TOP FACES OF THE BRIDGE. REFER TO SPECIFICATION SECTION 099100.
10. ALTERNATE NO. 1: EXISTING DETERIORATED DRAIN LINE. CONTRACTOR TO REMOVE 20 SQUARE FEET OF CONCRETE AROUND THE DRAIN GRATING TO INVESTIGATE WATERPROOFING BENEATH THE TOPPING SLAB. REVIEW REPAIR AREA WITH ENGINEER AND OWNER. REMOVE AND REPLACE SECTION OF DETERIORATED DRAIN LINE. FOR BIDDING ASSUME 10 LF FEET OF DRAIN LINE REPLACEMENT. REPAIRS OF SLAB WATERPROOFING TO BE PAID OUT ON A TIME AND MATERIAL BASIS. REINSTALL TOPPING SLAB AROUND THE DRAIN LINE. NEW TOPPING SLAB REPAIR TO MATCH EXIST COLOR. REFER TO DETAIL 1 ON DRAWING 201 AND SPECIFICATION SECTION 030100 AND 221400.

LEGEND:

- EXISTING EXPANSION JOINT
- EXISTING CONSTRUCTION JOINT
- ⊙ EXISTING FLOOR DRAIN
- EXISTING MEMBRANE SYSTEM
- EXISTING CONCRETE
- (X) QUANTITY (X) QUANTITY

REVISIONS

ISSUES
1
9/7/2020
BID SET

DRAWN BY: J.A. LACY
PROJECT MANAGER: Z.S. WOLCOTT
CHECKED BY: W.M. JUDD

NKU

NKU-UC PLAZA
PRECAST PANEL
REPAIRS

DRAWING TITLE

EXISTING PLAN

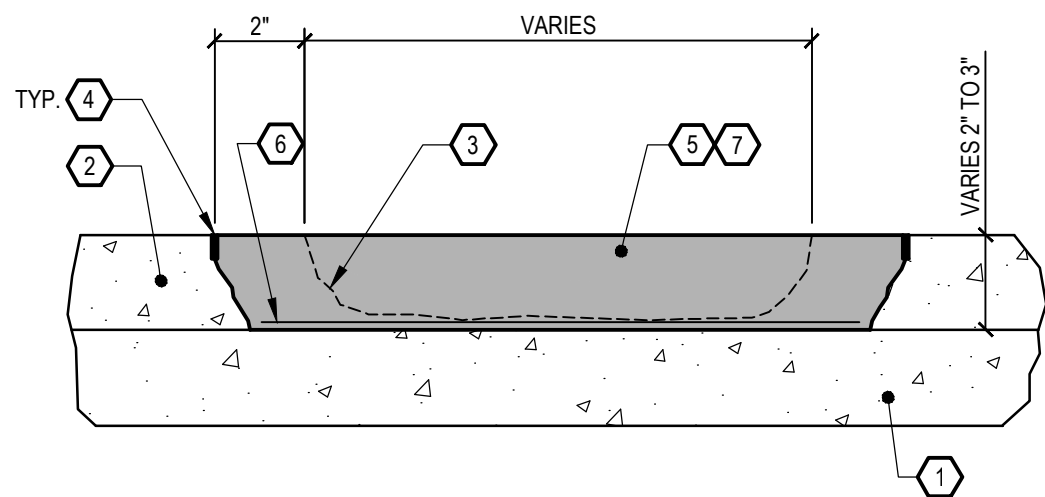
JOB NUMBER DATE
20005.00 09/07/2020
DRAWING NUMBER

NOTES

NKU

NKU-UC PLAZA PRECAST PANEL REPAIRS

DRAWING NUMBER



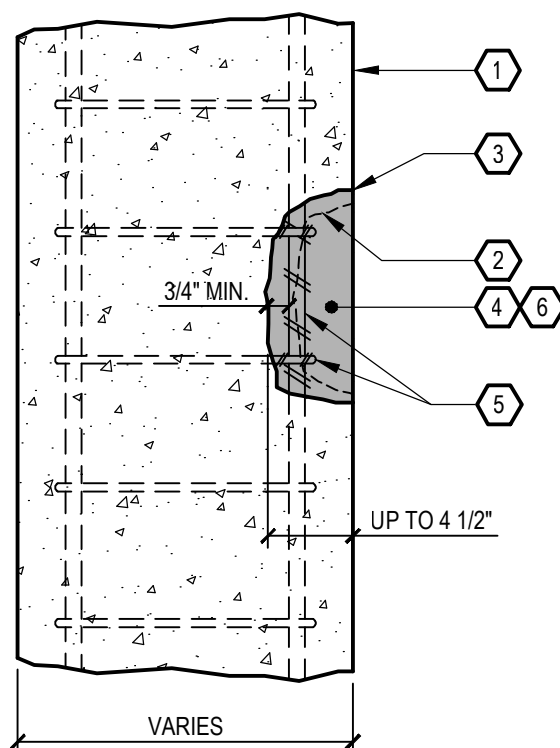
- ① EXISTING HOLLOW CORE PLANK BELOW. DO NOT DAMAGE.
- ② EXISTING CONCRETE TOPPING SLAB.
- ③ EXISTING DELAMINATION PLANE.
- ④ PROVIDE 3/4" SAWCUT APPROXIMATELY 2" BEYOND LIMITS OF DETERIORATED AREAS. REFER TO SPECIFICATION SECTION 030100.
- ⑤ REMOVE ALL SOUND AND UNSOUND CONCRETE IN SHADED AREA. PREPARE CAVITY SURFACES. REFER TO SPECIFICATION SECTION 030100.
- ⑥ POSSIBLE EXISTING WATERPROOFING MEMBRANE. INSPECT FOR DAMAGE AND NOTIFY OWNER IF FOUND. PATCH MEMBRANE AS REQUIRED WITHIN DETERIORATED CONCRETE AREA. INSTALL MEMBRANE PATCH PER MANUFACTURER'S RECOMMENDATIONS WITH WATERPROOFING MEMBRANE MATERIALS APPROVED BY ENGINEER.
- ⑦ PROVIDE NEW CONCRETE PATCH MATERIAL WITH (1) LAYER OF 6x6 - W/2.9% W2.9 (42#) MESH CENTERED IN SLAB WITH CHAIRS. REFER TO SPECIFICATION SECTION 030100.

TOPPING SLAB REPAIR

DETAIL

1 DET.
201 NO SCALE

ALTERNATE NO.1
PAY UNIT PER SQUARE FOOT



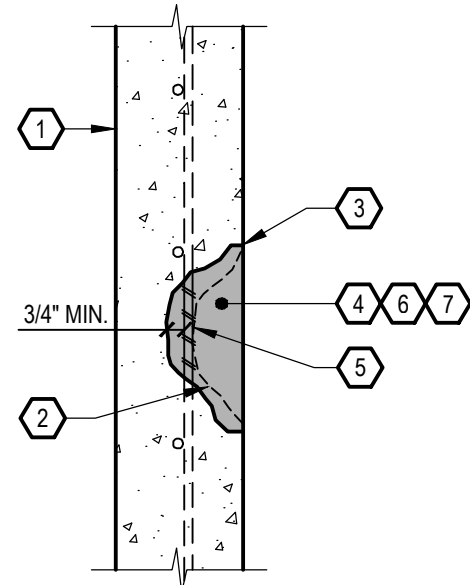
- ① EXISTING CONCRETE COLUMN OR WALL.
- ② EXISTING DELAMINATION PLANE.
- ③ PROVIDE 1/2" SAWCUT AROUND PERIMETER OF REPAIR AREA.
- ④ REMOVE ALL SOUND AND UNSOUND CONCRETE WITHIN SHADED AREA. REFER TO SPECIFICATION SECTION 030100.
- ⑤ EXCAVATE 3/4" AROUND ALL REINFORCING. PREPARE AND EPOXY COAT. REFER TO SPECIFICATION SECTION 030100.
- ⑥ PREPARE CAVITY SURFACES AND INSTALL PATCH MATERIAL. REFER TO SPECIFICATION SECTION 030100.

COLUMN/VERTICAL SURFACE REPAIR

DETAIL

$$\frac{2}{201}$$

PAY UNIT PER SQUARE FOOT



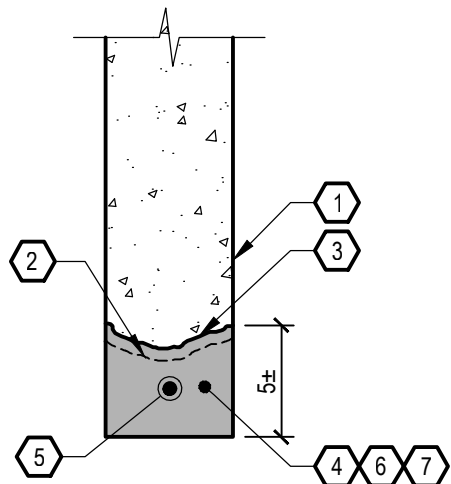
- 1 EXISTING CONCRETE PARAPET WALL.
- 2 EXISTING DELAMINATION PLANE.
- 3 PROVIDE 1/2" SAWCUT AROUND PERIMETER OF REPAIR AREA.
- 4 REMOVE ALL SOUND AND UNSOUND CONCRETE WITHIN SHADED AREA. REFER TO SPECIFICATION SECTION 030100.
- 5 EXCAVATE 3/4" AROUND ALL REINFORCING. PREPARE AND EPOXY COAT. REFER TO SPECIFICATION SECTION 030100.
- 6 PREPARE CAVITY SURFACES AND INSTALL PATCH MATERIAL. REFER TO SPECIFICATION SECTION 030100.
- 7 FINISH PATCH SURFACE TO MATCH EXISTING TEXTURE IF PRESENT.

SHALLOW WALL REPAIR

DETAIL

3
201

PAY UNIT PER SQUARE FOOT



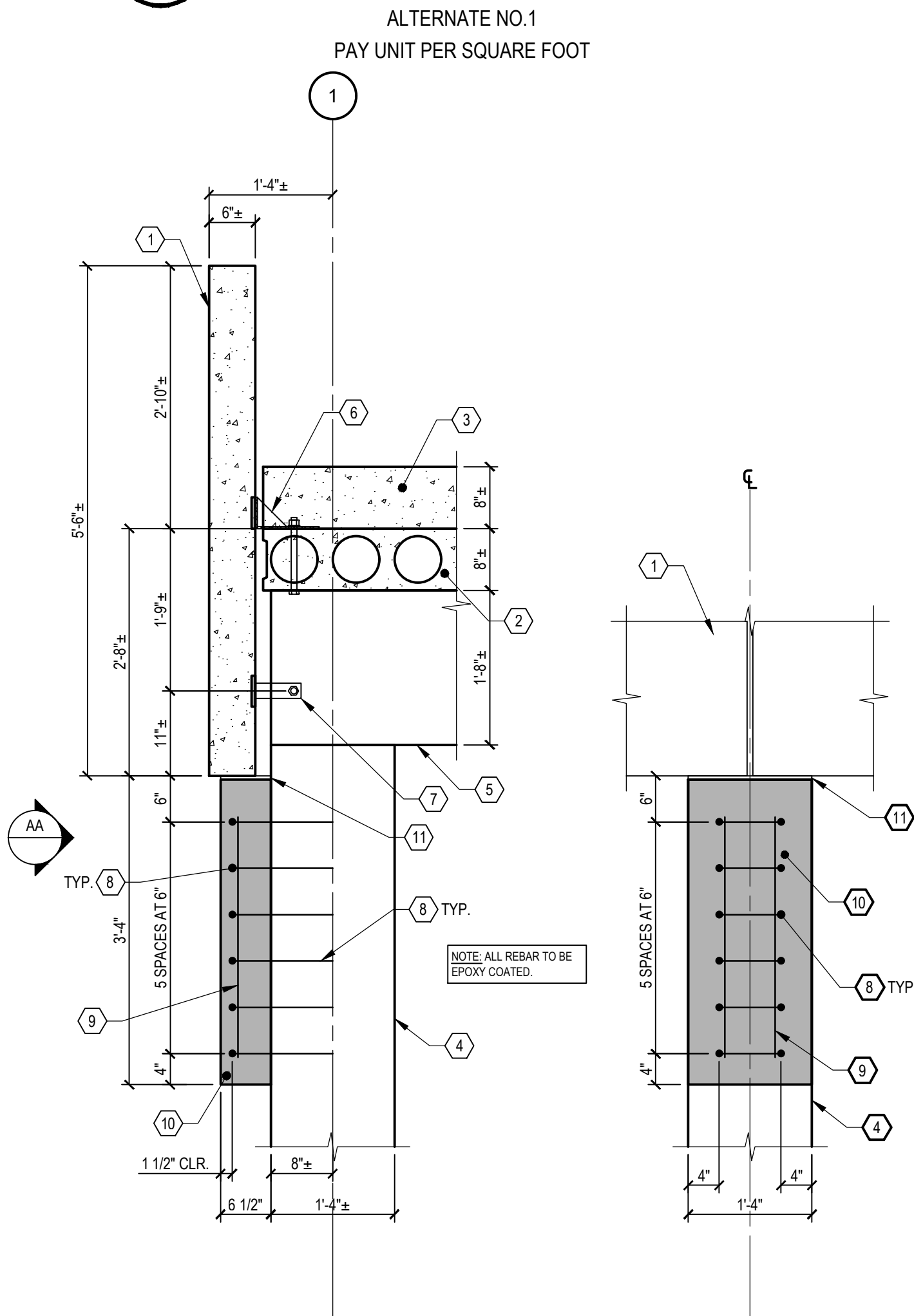
- 1 EXISTING PRECAST CONCRETE WALL PANEL.
- 2 EXISTING DELAMINATION PLANE.
- 3 PROVIDE 1/2" SAWCUT AROUND PERIMETER OF REPAIR AREA.
- 4 REMOVE ALL SOUND AND UNSOUND CONCRETE WITHIN SHADED AREA. REFER TO SPECIFICATION SECTION 030100.
- 5 EXCAVATE 3/4" AROUND ALL REINFORCING. PREPARE AND EPOXY COAT. REFER TO SPECIFICATION SECTION 030100.
- 6 PREPARE CAVITY SURFACES AND INSTALL PATCH MATERIAL. REFER TO SPECIFICATION SECTION 030100.
- 7 FINISH PATCH SURFACE TO MATCH EXISTING TEXTURE IF PRESENT.

WALL BOTTOM REPAIR

DETAIL

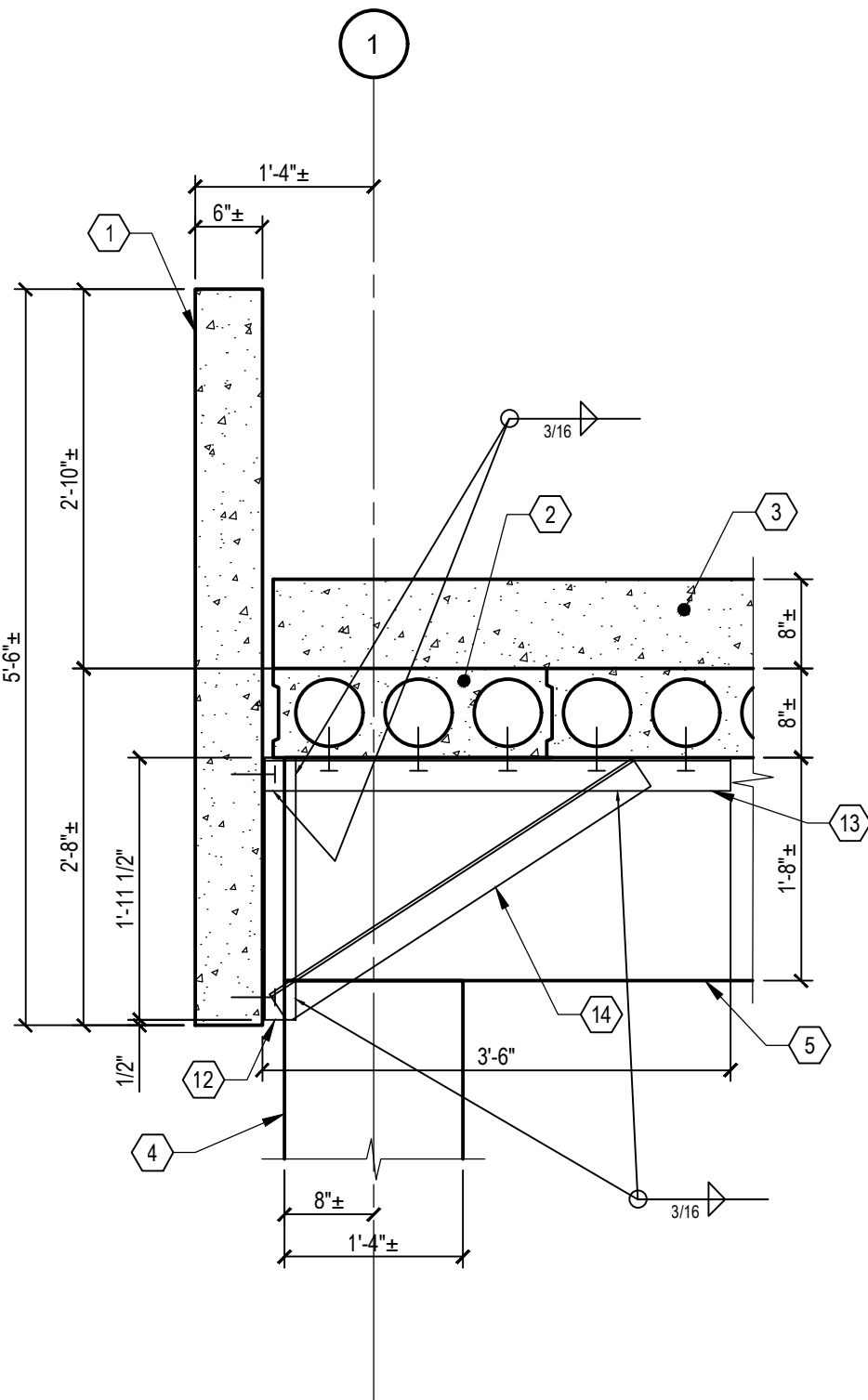
$$\frac{4}{201}$$

PAY UNIT PER LINEAR FOOT



ELEVATION AA

- 5** **DETAIL**
201 NO SCALE



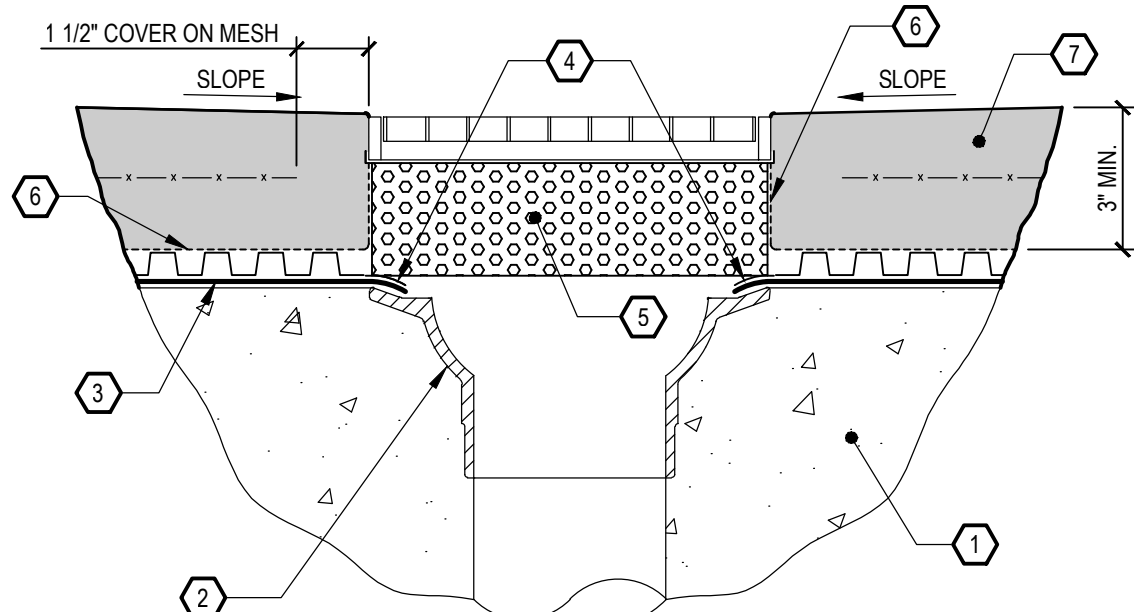
DETAIL

NO SCALE

$$\frac{6}{201}$$

DETAIL 5 AND 6 NOTES:

1. EXISTING PRECAST CONCRETE WALL PANEL. CONTRACTOR TO SURVEY PANEL AND PERFORM VERTICAL WALL AND WALL BOTTOM REPAIRS PER DETAILS 3 AND 4 ON THIS SHEET.
2. EXISTING HOLLOW CORE CONCRETE PLANK. DO NOT DAMAGE.
3. EXISTING TOPPING SLAB. DO NOT DAMAGE.
4. EXISTING CONCRETE COLUMN. DO NOT DAMAGE.
5. EXISTING CONCRETE BEAM. DO NOT DAMAGE
6. EXISTING ANGLE AND BOLTED CONNECTION INTO HOLLOW CORE PLANK TO REMAIN.
7. EXISTING ANGLE BOLTED INTO CONCRETE BEAM. CLEAN ANGLE AND REVIEW ANGLE FOR BROKEN WELDS. REPAIR WELDS ON A TIME AND MATERIAL BASIS. CLEAN AND COAT THE ANGLE WITH A NEW HIGH PERFORMANCE COATING SYSTEM. REFER TO SPECIFICATIONS SECTION 099100.
8. PROVIDE AND INSTALL #4 "U" BARS AT 6" O.C. VERTICAL. DRILL AND EPOXY "8" INTO EXISTING COLUMN. FIELD VERTICAL BARS DO NOT INTERFERE WITH EXISTING REBAR IN THE COLUMN.
9. PROVIDE AND INSTALL TWO (2) CONTINUOUS #6 BARS.
10. AFTER INSTALLATION OF "U" BARS FORM HAUNCH AND INSTALL PATCH MATERIAL TYPE "B". REFER TO SPECIFICATIONS SECTION 03100.
11. PROVIDE AND INSTALL A BEARING PAD BETWEEN THE EXISTING PRECAST CONCRETE WALL AND NEW HAUNCH. BASIS OF DESIGN MASTICORD STRUCTURAL BEARING PAD BY JVI.
12. NEW WT 4x15 MEMBER. INSTALL MEMBER TO PRECAST CONCRETE PANEL UTILIZING 4 ANCHORS, 2 IN EACH FLANGE AT THE LOCATION SHOWN. DRILL AND EPOXY HILTI HIT-HY-200 3/8" DIA. ANCHORS MAX. 4.5" INTO CONCRETE PANEL. REFER TO SPECIFICATION SECTION 055000.
13. NEW WT 4x15 MEMBER. INSTALL MEMBER TO HOLLOW CORE CONCRETE PLANK UTILIZING 10 ANCHORS, 2 IN EACH FLANGE AT THE LOCATION SHOWN. BASIS OF DESIGN IS HILTI HIT-HY 70 ANCHOR SYSTEM. FIELD VERIFY LOCATION OF HOLLOW CORE PLANK OPENINGS AND INSTALL ANCHORS PER MANUFACTURERS STANDARD PROCEDURES. REFER TO SPECIFICATION SECTION 055000.
14. NEW 3"x3"x1/4" STEEL ANGLE. COPE ENDS AS REQUIRED TO WELD TO ADJACENT MEMBERS. REFER TO SPECIFICATION SECTION 055000.



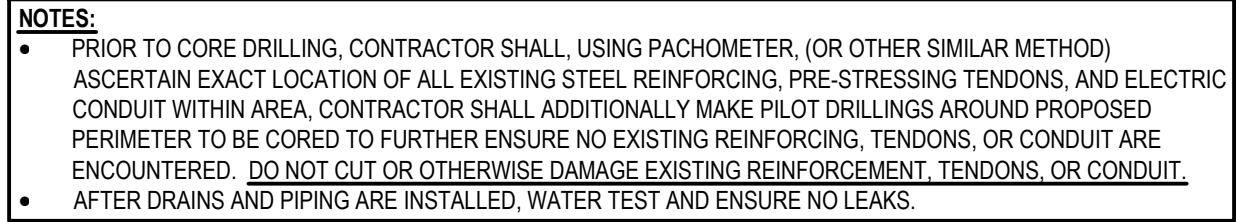
- 1 EXISTING CONCRETE BELOW SLAB TO REMAIN.
- 2 EXISTING DECK DRAIN BODY WITH DRAIN OUTLET PIPE TO BE REPLACED.
- 3 PROVIDE NEW WATERPROOFING MEMBRANE. REFER TO SPECIFICATION SECTION 071400. THE MEMBRANE INTO DRAIN PER MEMBRANE MANUFACTURER'S REQUIREMENTS.
- 4 PROVIDE CLAMPING RING TO SECURE WATERPROOFING MEMBRANE TO DRAIN BODY.
- 5 PROVIDE STAINLESS STEEL PERFORATED EXTENSION RING. REFER TO SPECIFICATION SECTION 221400.
- 6 PROVIDE NEW DRAINAGE COMPOSITE. REFER TO SPECIFICATION SECTION 071400. FIT DRAINAGE COMPOSITE TIGHT TO PERFORATED EXTENSION RING. INSTALL FILTER FABRIC FROM DRAINAGE COMPOSITE ONTO EXTENSION RINGS TO COMPLETELY COVER FACE OF RING. SECURE FABRIC TO RING AND TOP OF DRAINAGE COMPOSITE. EXTEND FABRIC MINIMUM 3" ONTO DRAINAGE COMPOSITE.
- 7 PROVIDE NEW CONCRETE SLAB. REFER TO DETAIL 1 ON THIS SHEET AND SPECIFICATION SECTION 033000.

DECK DRAIN AT WATERPROOFING MEMBRANE

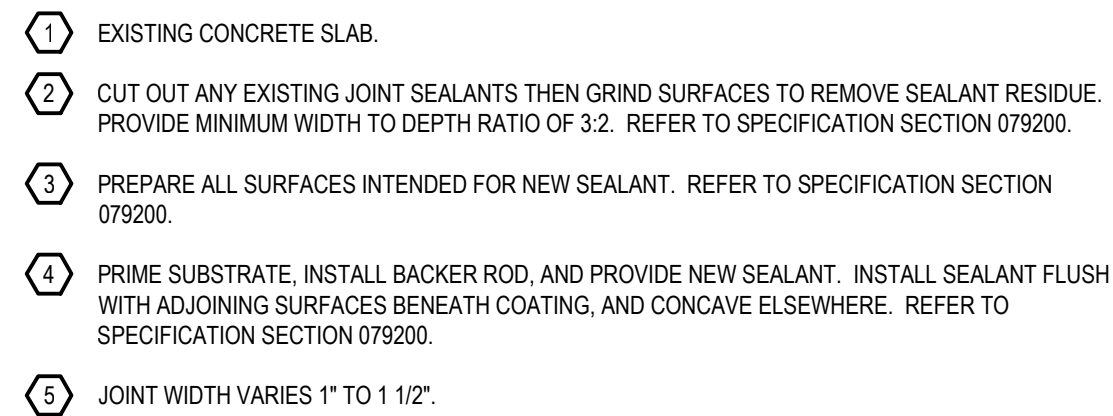
DETAIL

7
201

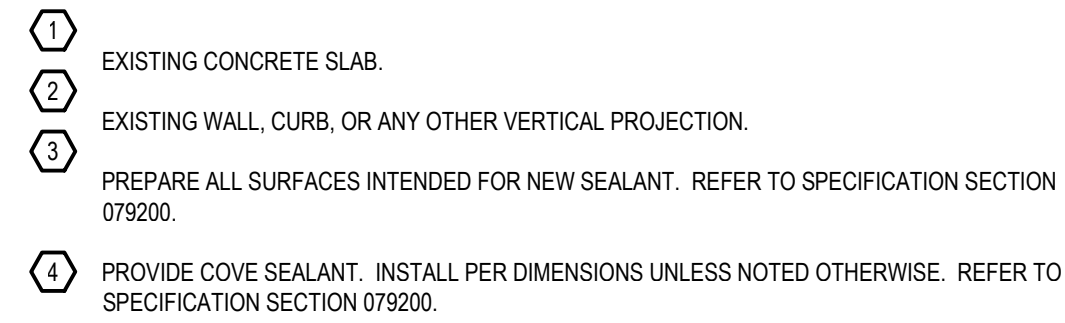
ALTERNATE NO.1



- 1
301
- SUPPLEMENTAL FLOOR DRAIN
DETAIL
NO SCALE



- ISOLATION JOINT SEALANT
DETAIL
NO SCALE



- 3
301
- COVE SEALANT
DETAIL
NO SCALE

[illegible][illegible]

OWN BY: J.A. LAC
PROJECT MANAGER: Z.S. WOLCOT
CHECKED BY: W.M. JUD

NKU

NKU-UC PLAZA PRECAST PANEL REPAIRS

DRAIN & WATERPROOFING REPAIR DETAILS

3 NUMBER	DATE
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005.00 09/07/202

DRAWING NUMBER