

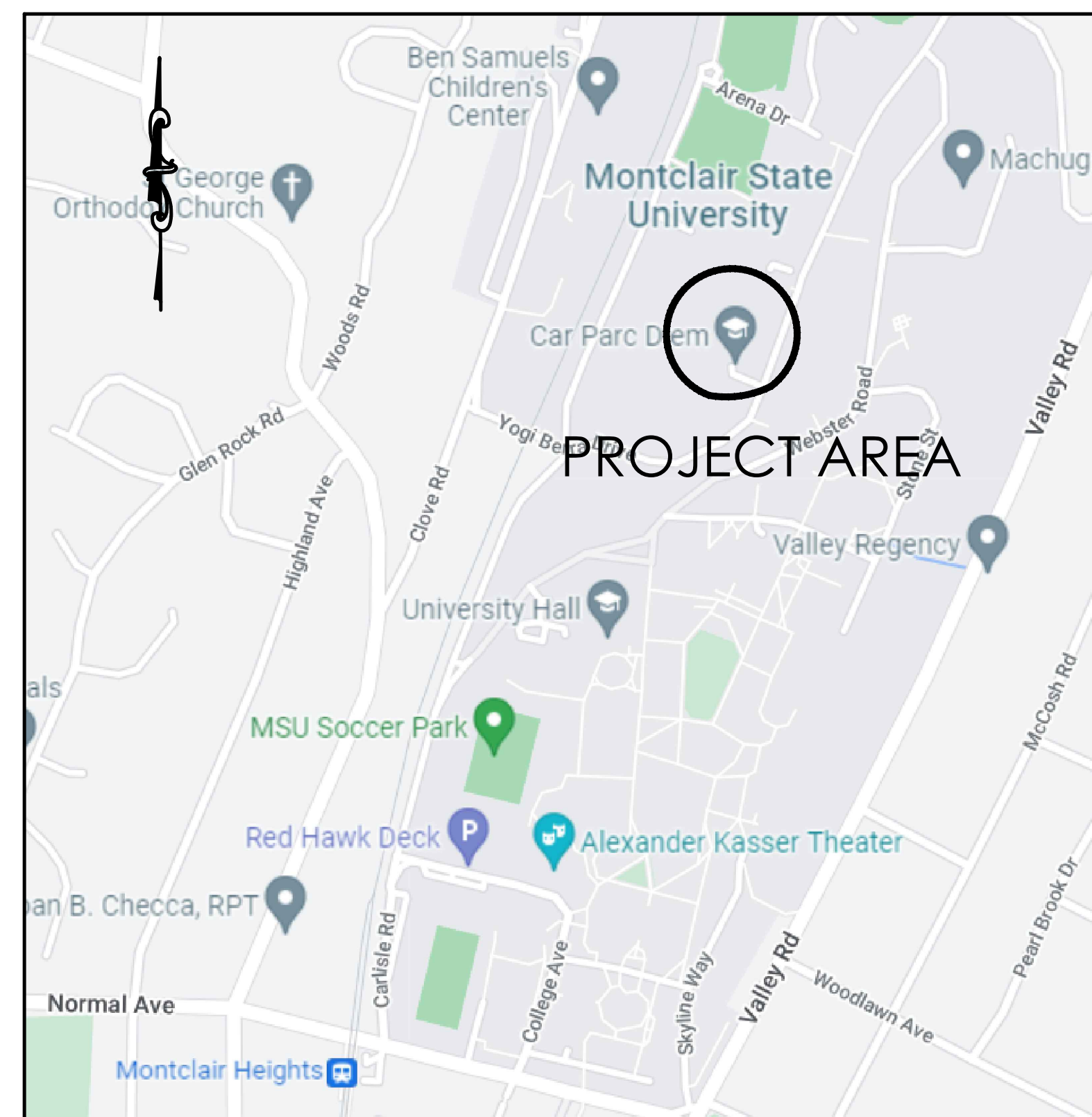
CARPARC DIEM GARAGE REPAIRS

MONTCLAIR STATE UNIVERSITY

TOWNSHIP OF LITTLE FALLS

PASSAIC COUNTY, NEW JERSEY

PROJECT NO. 23C058



[MAP COURTESY OF GOOGLE MAPS, 2022]
PROJECT LOCATION MAP
N.T.S.

PUBLIC UTILITIES

GAS: PUBLIC SERVICE ELECTRIC AND GAS (GAS)
 ELECTRIC: PUBLIC SERVICE ELECTRIC AND GAS (ELECTRIC)
 CABLE: CABLEVISION
 TELEPHONE: VERIZON
 WATER: NEW JERSEY AMERICAN WATER

| INDEX OF SHEETS | |
|-----------------|--------------------|
| SHEET NO. | DESCRIPTION |
| 1 | TITLE SHEET |
| 2 | ROOF PLAN |
| 3 | REPAIR DETAILS - 1 |
| 4 | REPAIR DETAILS - 2 |

| ESTIMATED CONSTRUCTION QUANTITIES - BASE BID | | | | | |
|--|--------------------------|------|----------|----------|-------|
| ITEM NO. | DESCRIPTION | UNIT | QUANTITY | IF/WHERE | TOTAL |
| 1 | CRACK REPAIR | L.F. | 530 | 100 | 630 |
| 2 | CONCRETE REPAIR TYPE 1 | S.F. | 50 | 50 | 100 |
| 3 | CONCRETE REPAIR TYPE 2 | S.F. | 50 | 50 | 100 |
| 4 | EXPANSION JOINT | L.F. | 181 | 0 | 181 |
| 5 | ELASTOMERIC JOINT TYPE 1 | L.F. | 7,400 | 0 | 7,400 |
| 6 | ELASTOMERIC JOINT TYPE 2 | L.F. | 2,500 | 0 | 2,500 |
| 7 | ELASTOMERIC JOINT TYPE 3 | L.F. | 168 | 0 | 168 |
| 8 | RESET BOLLARD | UNIT | 8 | 2 | 10 |
| 9 | FENCE PANEL | UNIT | 6 | 2 | 8 |

| ESTIMATED CONSTRUCTION QUANTITIES - ADD ALTERNATIVE 1 | | | | | |
|---|---------------------------------|------|----------|----------|-------|
| ITEM NO. | DESCRIPTION | UNIT | QUANTITY | IF/WHERE | TOTAL |
| 10 | POWER WASHING (GARAGE EXTERIOR) | L.S. | 1 | 0 | 1 |



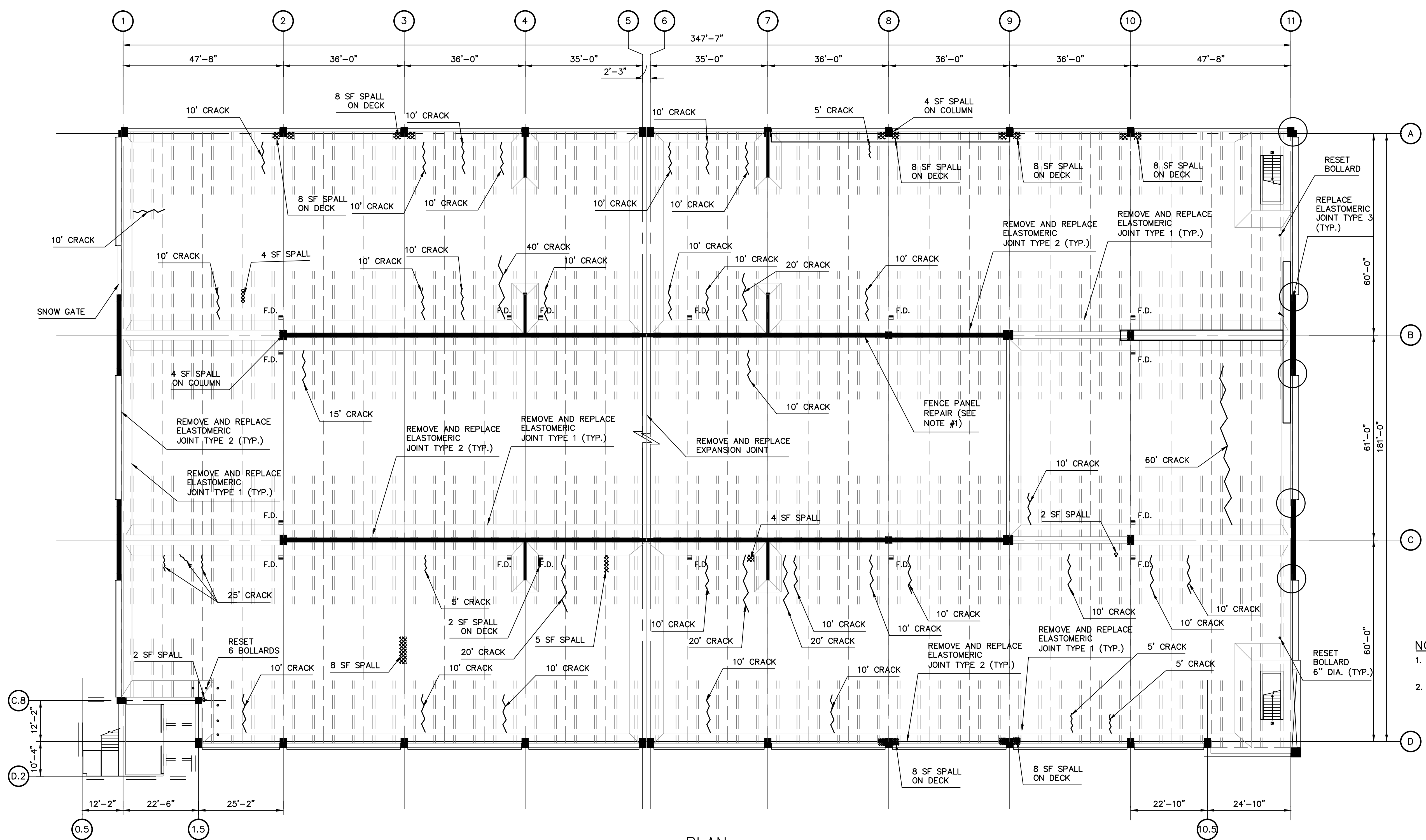
Plans prepared by:
BOSWELL ENGINEERING

330 PHILLIPS AVENUE
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 Tel (201) 641-0770 . Fax (201) 641-1831
 NJ Certificate of Authorization No. 24GA27958000

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CHRISTOPHER J. NASH
 PROFESSIONAL ENGINEER N.J. LIC. 31605

JOB NO. 22-319
 DECEMBER 13, 2023
 SHEET 1 OF 4



PLAN
SCALE: 1/16" = 1'-0"

- NOTES**
1. THE EXACT LOCATIONS OF FENCE PANEL REPAIR SHALL BE DIRECTED BY RESIDENT ENGINEER.
 2. STAGING AREA WILL BE LOCATED ON THE FIRST FLOOR OF THE PARKING GARAGE AND THE LOCATION OF THIS AREA WILL BE COORDINATED WITH THE OWNER.

- LEGEND:**
- ⊗ SPALL
 - ~ CRACK

| NO. | DATE | DESCRIPTION | SURVEYED BY | DRAWN BY | DESIGNED BY | CHECKED BY |
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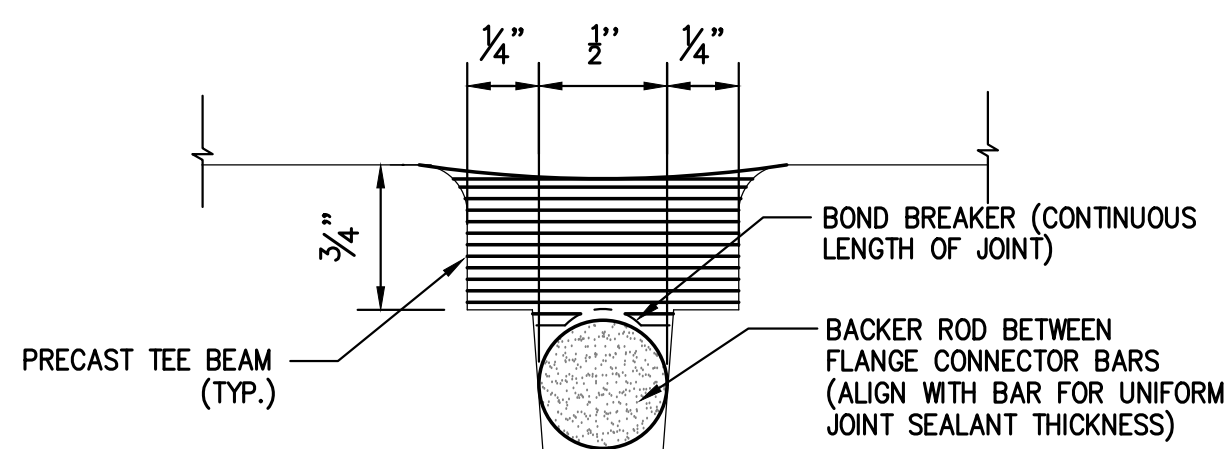
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CARPARC DIEM GARAGE REPAIRS
 MONTCLAIR STATE UNIVERSITY (PROJECT NO. 23C058)
ROOF REPAIR PLAN
 TOWNSHIP OF LITTLE FALLS

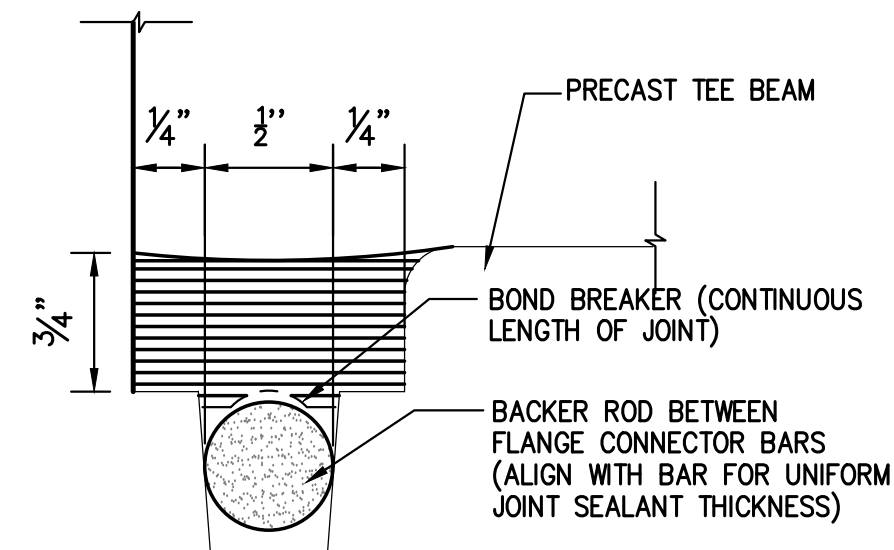
PASSAIC COUNTY NEW JERSEY

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| SURVEYED BY: RRR | DESIGNED BY: YG | SCALE: AS NOTED | JOB NO. 22-319 | DATE: 12/13/23 |
| DRAWN BY: YG | CHECKED BY: TWO | | | |

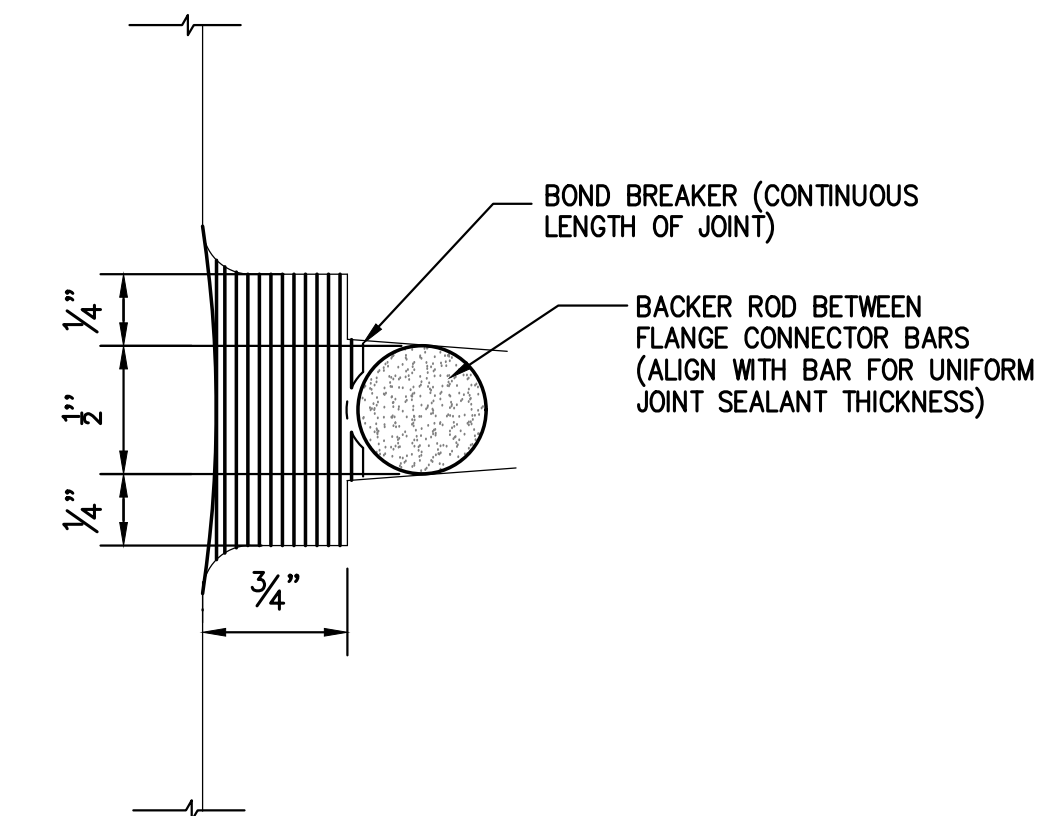
CADD FILE: 22-319 - ROOF PLAN.DWG SHEET 2 OF 4



ELASTOMERIC JOINT TYPE 1 DETAIL
TEE TO TEE
SCALE: N.T.S.



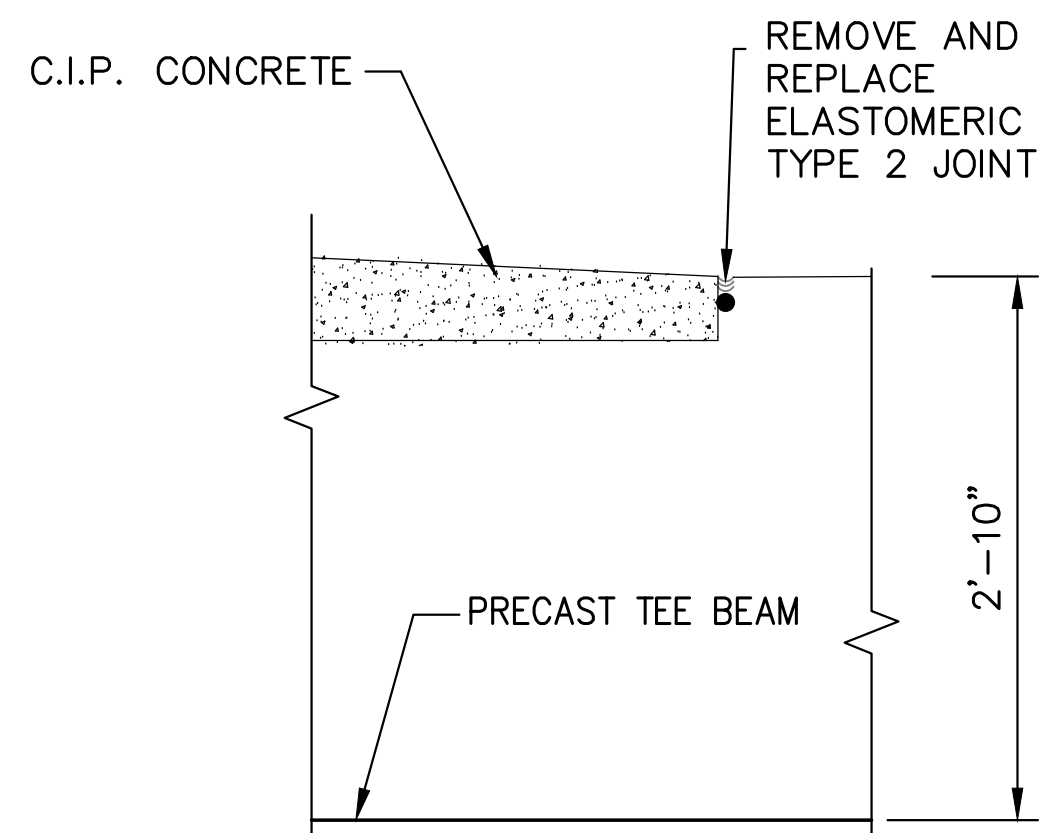
ELASTOMERIC JOINT TYPE 2 DETAIL
TEE TO WALL
SCALE: N.T.S.



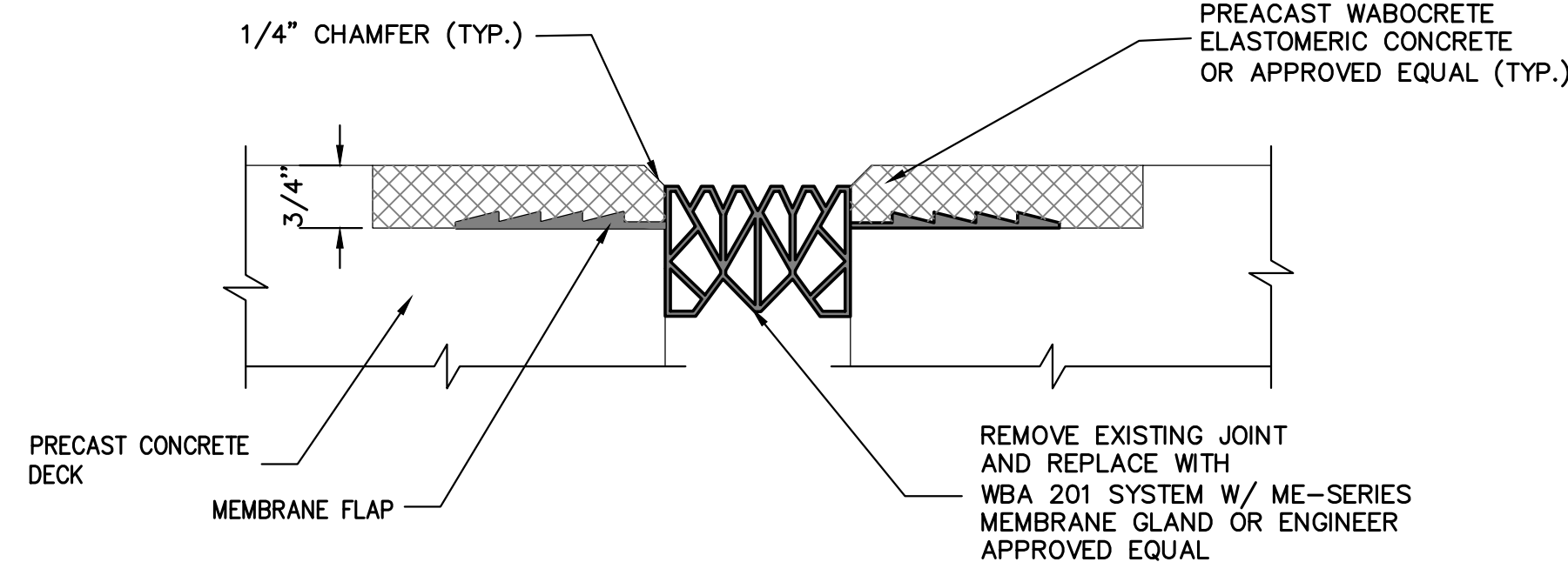
ELASTOMERIC JOINT TYPE 3 DETAIL
WALL TO WALL
SCALE: N.T.S.

NOTES:

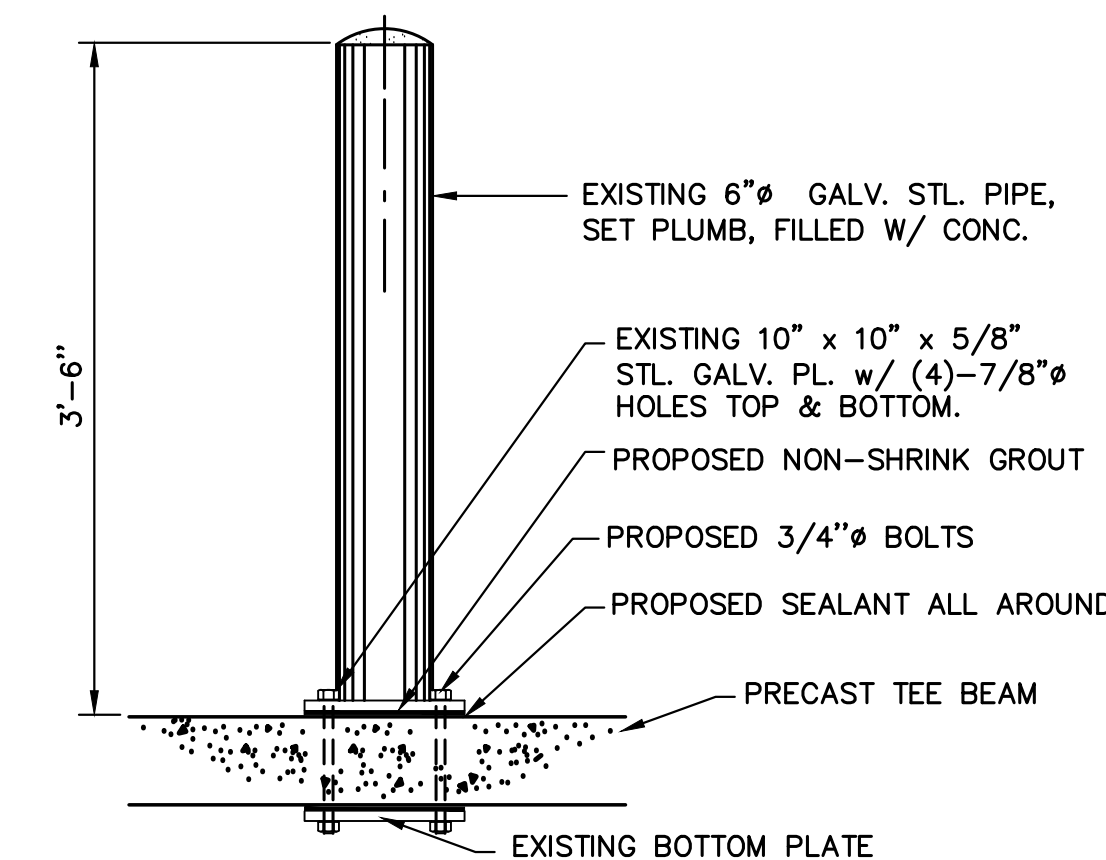
1. ELASTOMERIC JOINT TYPE 1 SHALL BE FOR ALL JOINTS BETWEEN PRECAST TEE TO TEE AND PRECAST TEE TO C.I.P. CONCRETE.
2. ELASTOMERIC JOINT TYPE 2 SHALL BE FOR ALL DECK JOINTS BETWEEN C.I.P. AND WALL.
3. ELASTOMERIC JOINT TYPE 3 SHALL BE BETWEEN PARAPET WALL PANELS.



ELASTOMERIC JOINT TYPE 2 DETAIL
SCALE: N.T.S.



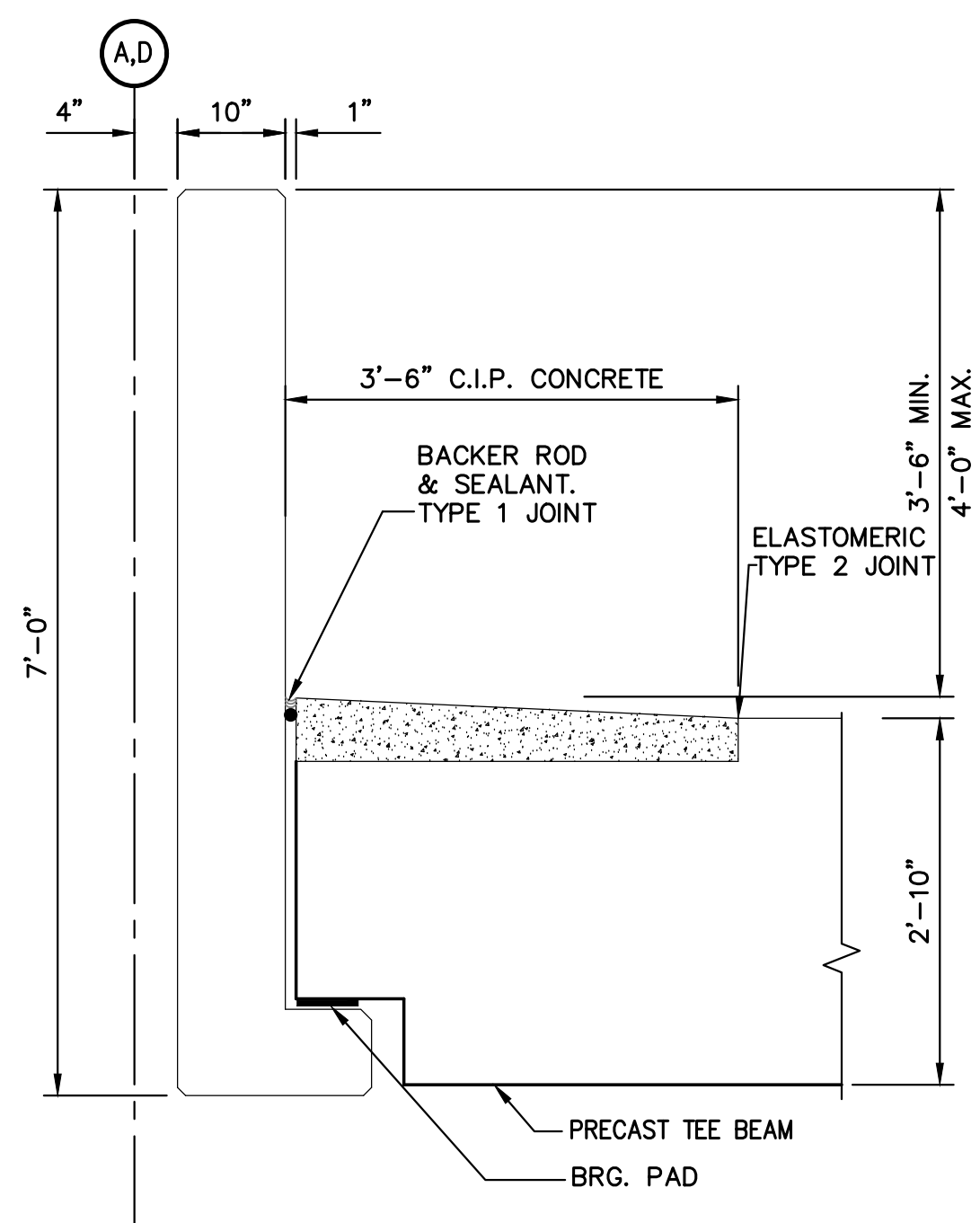
EXPANSION JOINT REPAIR DETAIL
SCALE: N.T.S.



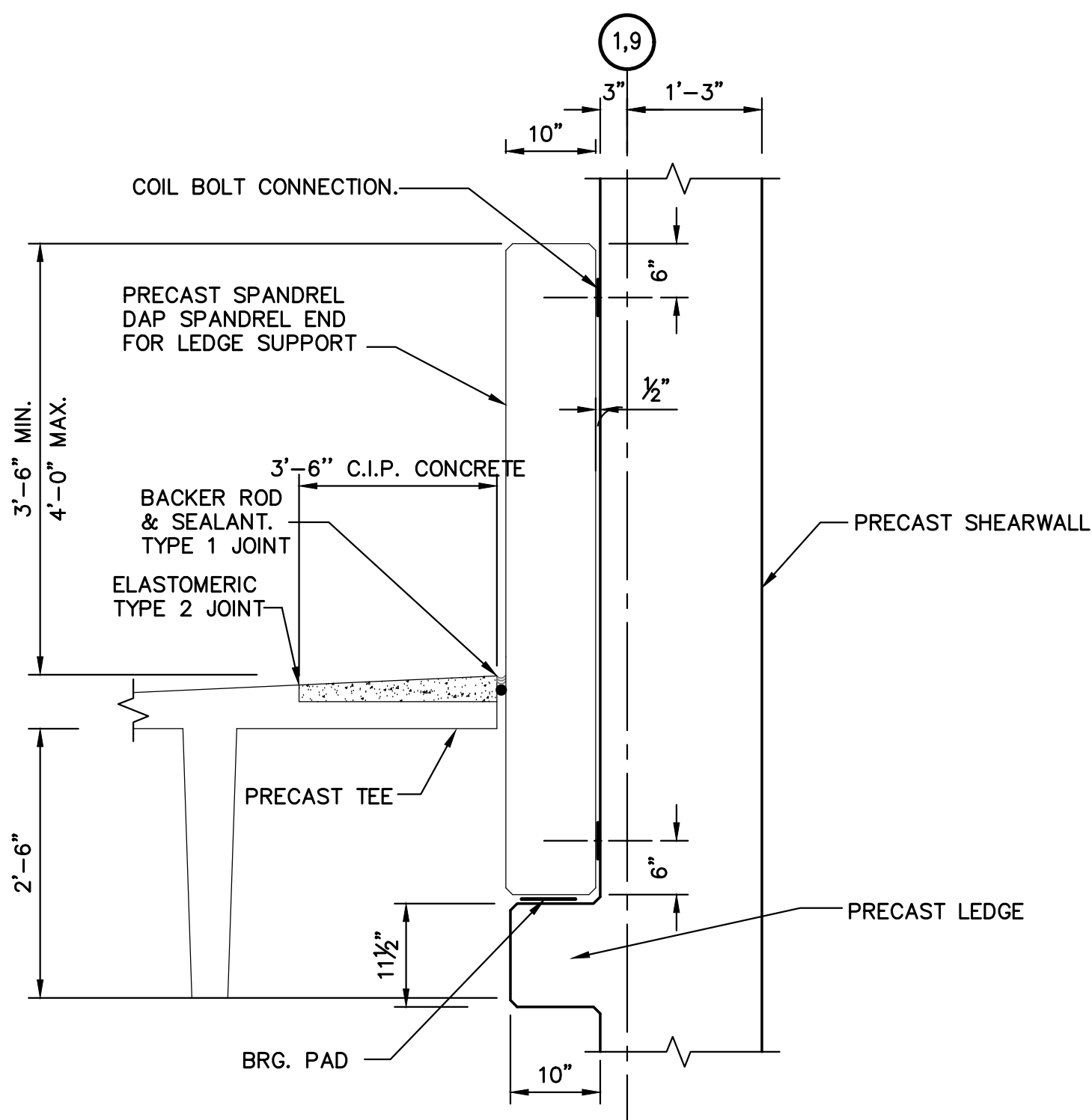
NOTE:

- 1) AT ALL BOLLARDS, PROVIDE 1" THICK MIN. LEVELING NON-SHRINK GROUT.
- 2) ALL RESET BOLLARDS SHALL FOLLOW "PIPE BOLLARD DETAIL 1", IF THIS CONDITION ARE FEASIBLE, "PIPE BOLLARD DETAIL 2" SHALL BE USED AS AN ALTERNATE AS NECESSARY.

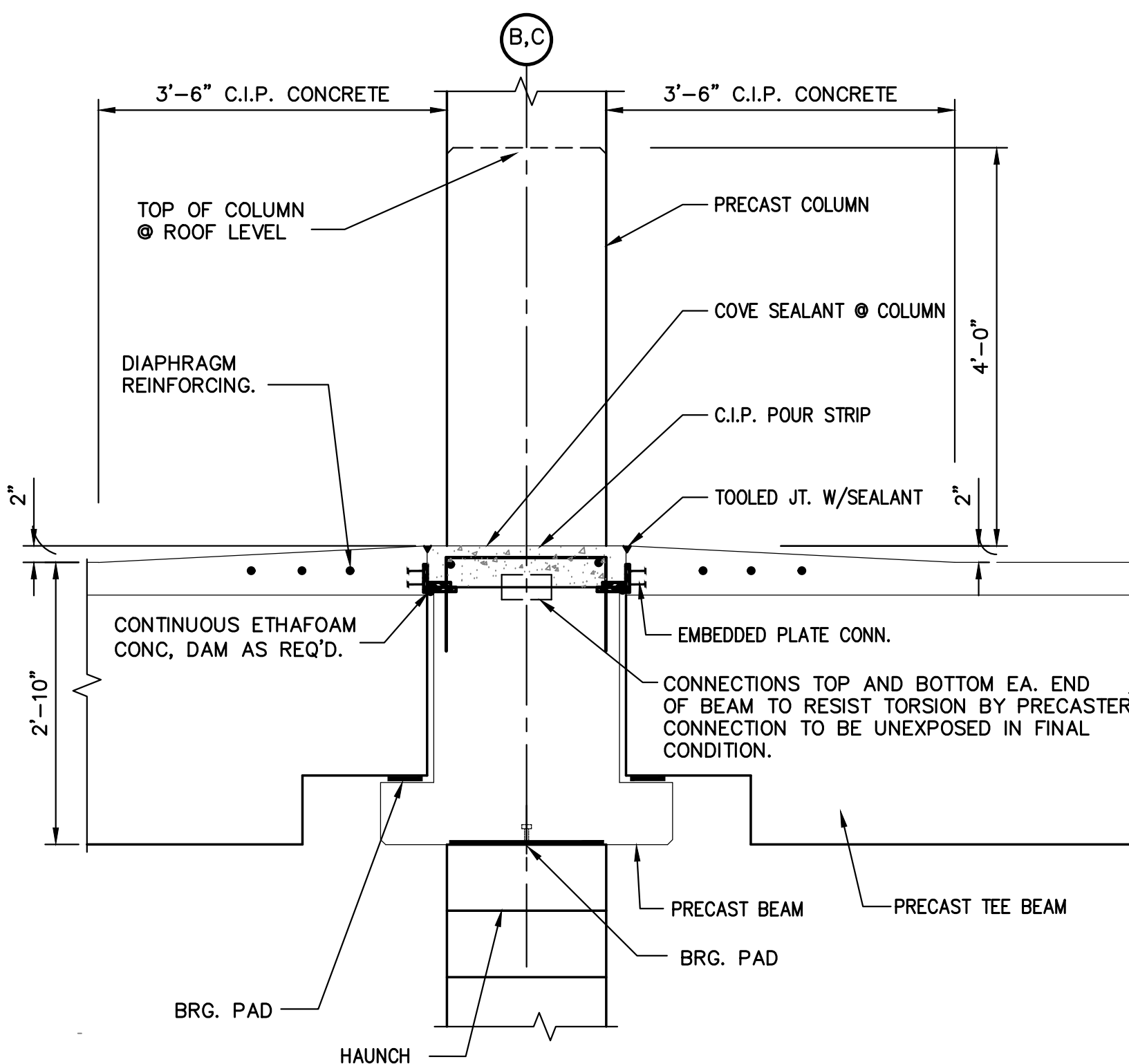
PIPE BOLLARD DETAIL 1
SCALE: N.T.S.



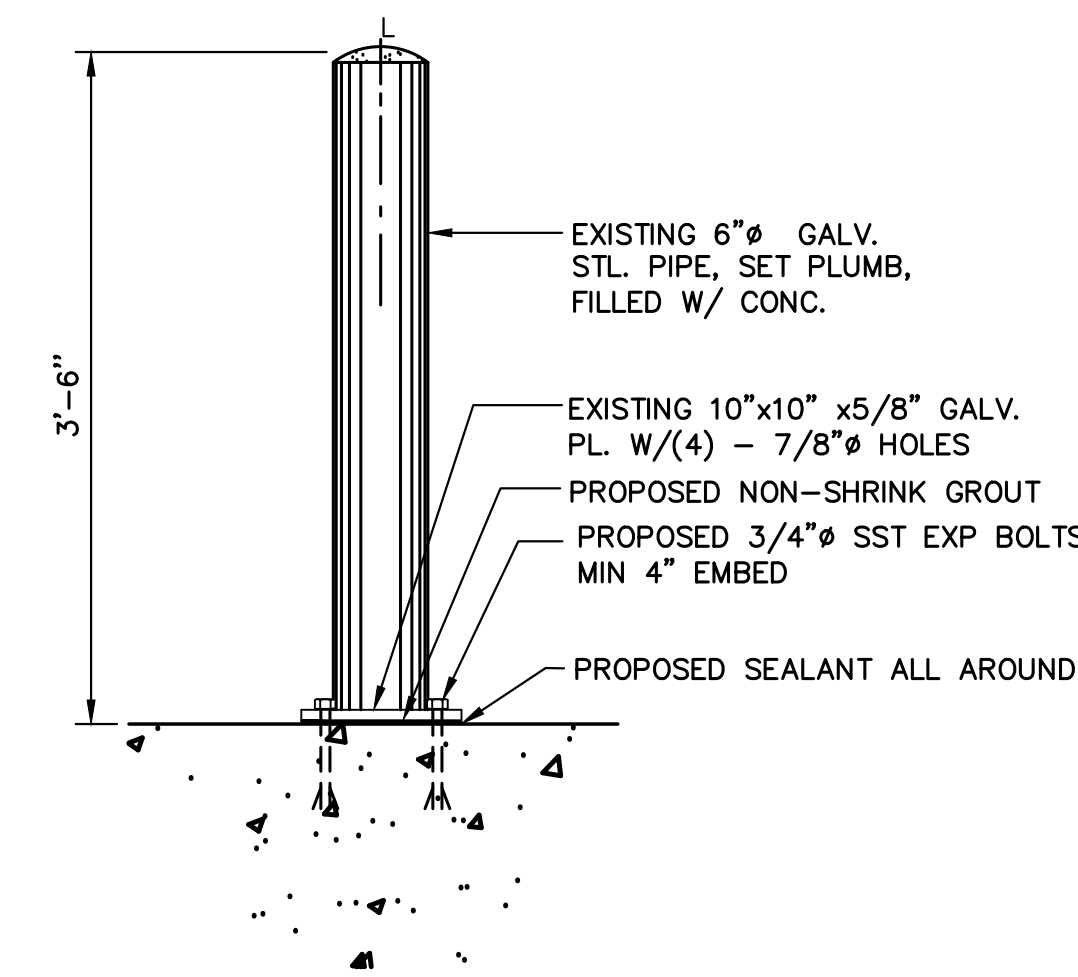
BEAM WALL CONNECT DETAIL 1
SCALE: N.T.S.



BEAM WALL CONNECT DETAIL 2
SCALE: N.T.S.



BEAM WALL CONNECT DETAIL 3
SCALE: N.T.S.



PIPE BOLLARD DETAIL 2
SCALE: N.T.S.

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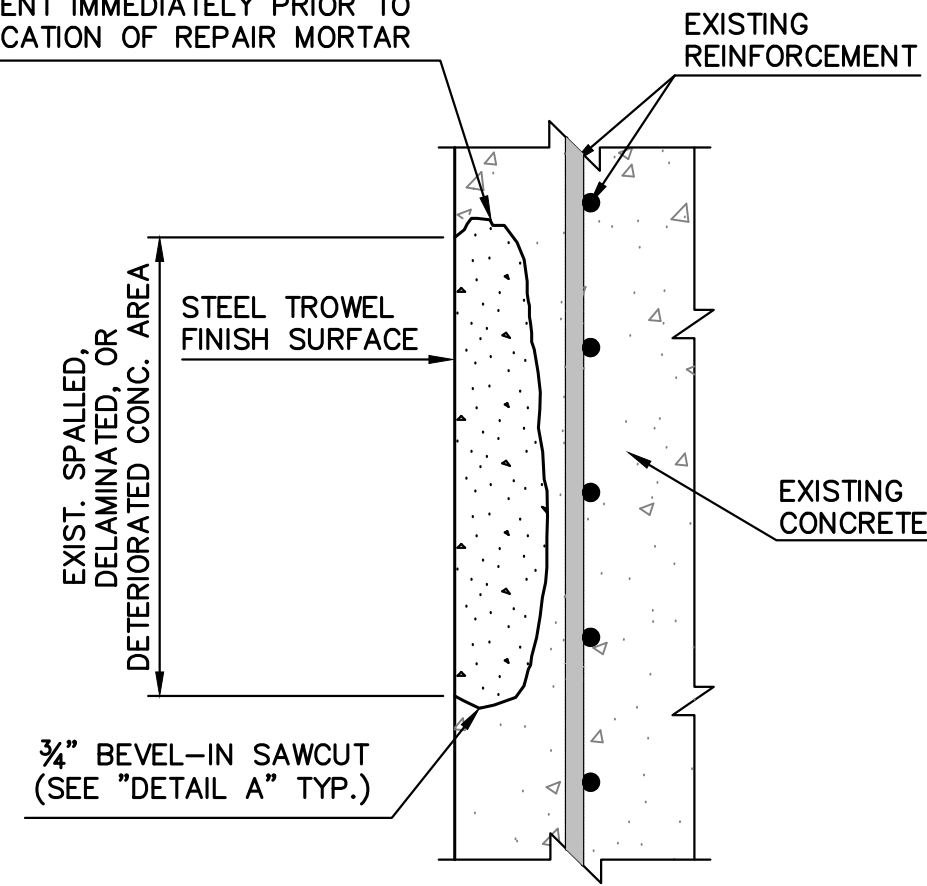
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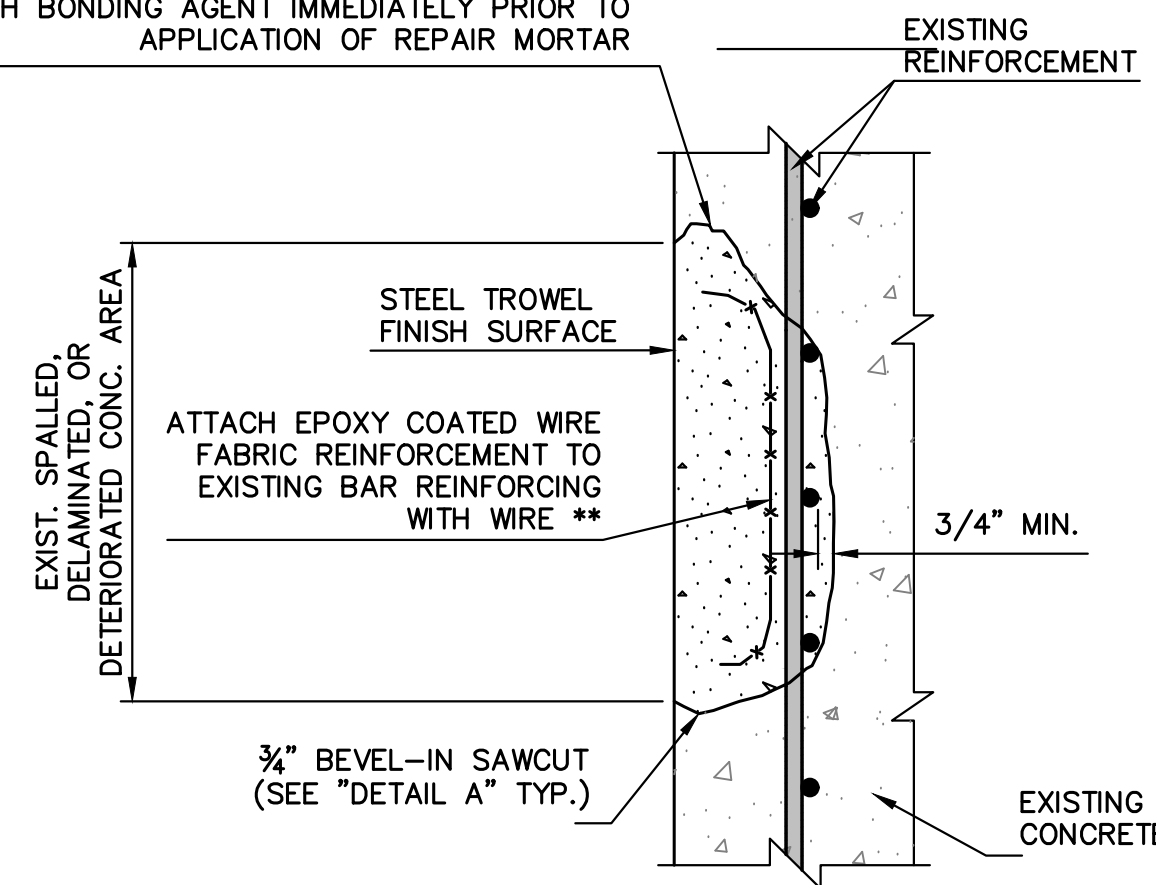
CARPARC DIEM GARAGE REPAIRS
MONTCLAIR STATE UNIVERSITY (PROJECT NO. 23C058)
REPAIR DETAILS - 1
TOWNSHIP OF LITTLE FALLS
PASSAIC COUNTY NEW JERSEY
SURVEYED BY: RRR DESIGNED BY: YG SCALE: N.T.S. JOB NO. 22-319 DATE: 12/13/23
DRAWN BY: YG CHECKED BY: TWO
CADD FILE: 22-319 - ROOF PLAN.DWG SHEET 3 OF 4

REMOVE DETERIORATED MATERIAL TO SOUND CONC. LEAVING NO OFFSET OR ABRUPT CHANGES IN CONTOUR. FINAL SOUND SURFACE SHALL BE SANDBLASTED, CLEANED, AIR-BLOWN AND COATED WITH BONDING AGENT IMMEDIATELY PRIOR TO APPLICATION OF REPAIR MORTAR

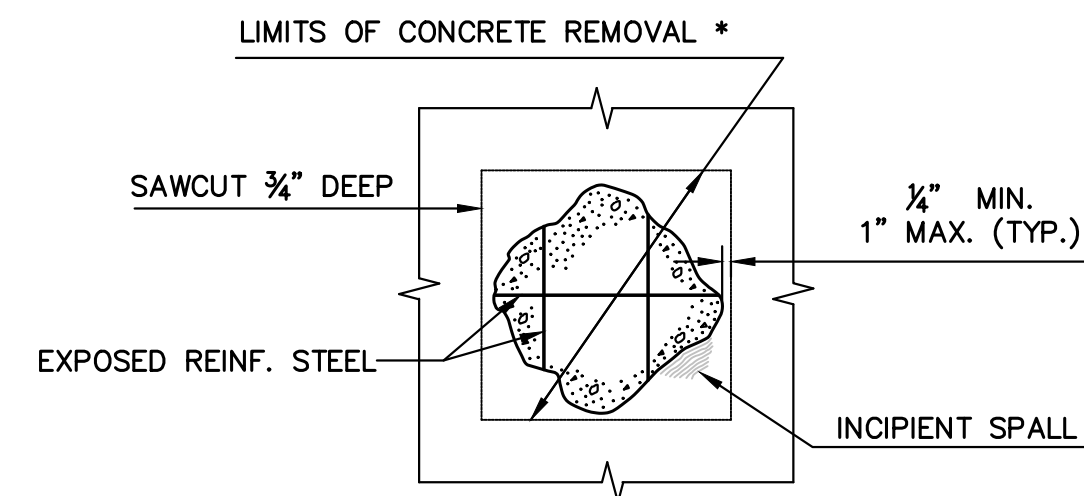


REPAIR OF CONCRETE, TYPE 1
SCALE: N.T.S.

REMOVE DETERIORATED MATERIAL TO SOUND CONC. LEAVING NO OFFSET OR ABRUPT CHANGES IN CONTOUR. FINAL SOUND SURFACE SHALL BE SANDBLASTED, CLEANED, AIR-BLOWN AND COATED WITH BONDING AGENT IMMEDIATELY PRIOR TO APPLICATION OF REPAIR MORTAR



REPAIR OF CONCRETE, TYPE 2
N.T.S.
** WIRE FABRIC SHALL BE 6" X 6" W2.9 XW2.9



LIMITS OF REPAIR AREA (PLAN VIEW)
"DETAIL A"
N.T.S.

* EXTEND LIMITS OF CONCRETE REMOVAL WHEN ADDITIONAL REINFORCEMENT IS REQUIRED PER REPAIR TYPE 2.

CONCRETE REPAIR GENERAL NOTES:

1. REINFORCEMENT BAR DETAILS SHOWN ARE GENERAL. ACTUAL REINFORCEMENT BAR SPACINGS AND LOCATIONS WILL VARY FROM LOCATION TO LOCATION.
2. SQUARE CUT OR UNDERCUT THE PERIMETER OF THE AREA BEING PATCHED TO PREVENT FEATHEREDGES. DO NOT CUT REINFORCEMENT OR PRESTRESSING STRANDS UNLESS REQUIRED AFTER THE ASSESSMENT OF THE STEEL REINFORCEMENT AS INDICATED UNDER REPAIR TYPE 2.
3. AFTER CONCRETE REMOVAL, THOROUGHLY ABRASE THE ROUGHENED SURFACE AND EXPOSED REINFORCEMENT TO REMOVE ALL BOND-INHIBITING MATERIALS SUCH AS RUST, DIRT, LOOSE CHIPS, DUST, OIL, AND GREASE.
4. SATURATE THE AREA THOROUGHLY WITH WATER FOR SEVERAL HOURS BEFORE PLACING REPAIR MORTAR.
5. IMMEDIATELY BEFORE MIXING, BLOW OFF OR REMOVE ALL EXCESS WATER FROM REPAIR AREA. SURFACE SHOULD HAVE A SATURATED SURFACE WITH NO STANDING WATER DURING REPAIR MORTAR PLACEMENT.
6. SCRUB A BOND COAT OF REPAIR MORTAR INTO THE PREPARED SURFACE WITH A STIFF BRISTLED BROOM OR BRUSH. REPAIR MORTAR MUST BE PLACED BEFORE THE BOND COAT DRIES. DO NOT DILUTE THE BOND COAT WITH WATER.
7. APPLY REPAIR MORTAR WHILE TAKING PROPER CONSIDERATION FOR COMPACTION AROUND REINFORCING STEEL.
8. CUT OFF OR LEVEL AS REQUIRED TO MATCH THE ORIGINAL CONCRETE SURFACE.
9. PROPER CURING IS EXTREMELY IMPORTANT AND SHOULD BE CONDUCTED IN ACCORDANCE WITH ACI 308, "STANDARD PRACTICE FOR CURING CONCRETE."
10. APPLY A CURING COMPOUND THAT COMPLIES WITH THE MOISTURE-RETENTION REQUIREMENTS OF ASTM C 309 OR ASTM C 1315. APPLY CURING MATERIALS AS SOON AS THE SURFACE CANNOT BE MARRED BY THE APPLICATION.
11. SHEETING MATERIAL, WET BURLAP, OR FOG SPRAY MAY BE USED IN PLACE OF CURING COMPOUNDS. MINIMUM WET-CURING TIME IS 2 - 3 DAYS.

CONCRETE REPAIR TYPE 1

THIS REPAIR SHALL BE USED AT ALL AREAS OF DETERIORATION ON THE VERTICAL AND OVERHEAD SURFACES OF BEAMS, SLABS, COLUMNS, AND MISCELLANEOUS CONCRETE WHERE DETERIORATION WITH NO MORE THAN 25% OF REBAR SURFACE IS EXPOSED AND A DEPTH OF 2 INCHES OR LESS.

1. CHIP AND REMOVE UNSOUND AND DELAMINATED CONCRETE TO A MINIMUM DEPTH OF 3/4" OR TO THE ADDITIONAL DEPTH NECESSARY TO REACH SOUND CONCRETE. LIMIT THE SIZE OF CHIPPING HAMMERS TO 15 LBS TO REDUCE MICRO FRACTURES. DO NOT USE A METHOD OF SURFACE PREPARATION THAT WILL FRACTURE THE CONCRETE. VERIFY THE ABSENCE OF MICROCRACKING OR BRUISING IN ACCORDANCE WITH INTERNATIONAL CONCRETE REPAIR INSTITUTE (ICRI) GUIDELINE NO. 03732.
2. ALL EXPOSED STEEL REINFORCING SHALL BE EPOXY COATED.

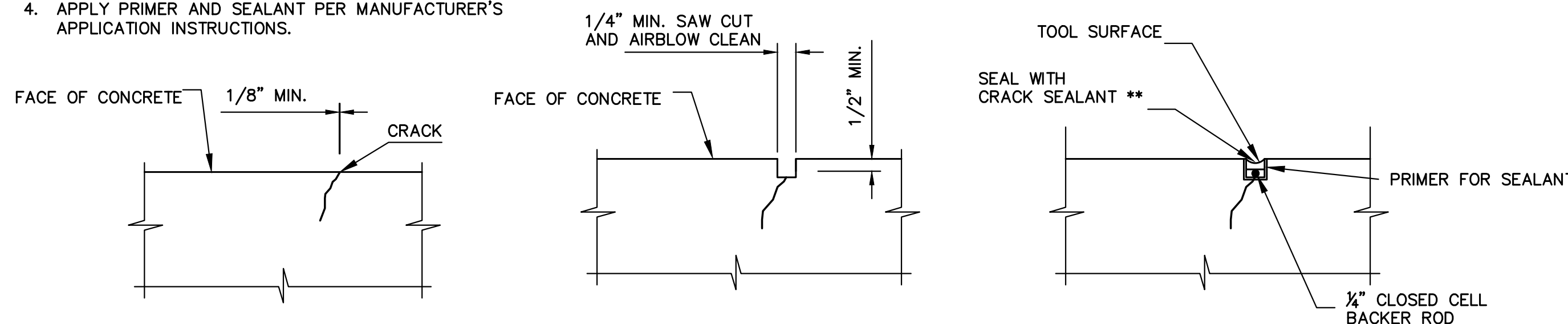
CONCRETE REPAIR TYPE 2

THIS REPAIR SHALL BE USED AT ALL AREAS OF DETERIORATION ON THE VERTICAL AND OVERHEAD SURFACES OF BEAMS, SLABS, COLUMNS, AND MISCELLANEOUS CONCRETE WHERE DETERIORATION WITH MORE THAN 25% OF REBAR SURFACE IS EXPOSED OR A DEPTH OF GREATER THAN 2 INCHES.

1. CHIP AND REMOVE UNSOUND AND DELAMINATED CONCRETE TO A DEPTH MINIMUM DEPTH 3/4" OR TO THE ADDITIONAL DEPTH NECESSARY TO REACH SOUND CONCRETE. WHERE STEEL REINFORCEMENT HAS MORE THAN 25% OF ITS SURFACE ARE EXPOSED THE CONCRETE SHALL BE REMOVED TO 3/4" BELOW THE REINFORCING. LIMIT THE SIZE OF CHIPPING HAMMERS TO 15 LBS TO REDUCE MICRO FRACTURES. DO NOT USE A METHOD OF SURFACE PREPARATION THAT WILL FRACTURE THE CONCRETE. VERIFY THE ABSENCE OF MICROCRACKING OR BRUISING IN ACCORDANCE WITH ICRI GUIDELINE NO. 03732.
2. ALL EXPOSED STEEL REINFORCING SHALL BE EPOXY COATED. ALL DETERIORATED REINFORCEMENT SHALL BE TREATED AS FOLLOWS:
 - A. SECTION LOSS LESS THAN 25%: THE REBAR SHALL BE CLEANED AND EPOXY COATED.
 - B. SECTION LOSS BETWEEN 25% AND 50%: THE REBAR SHALL BE CLEANED AND EPOXY COATED AND LAPPED WITH A SUPPLEMENTARY REBAR OF EQUAL DIAMETER.
 - C. SECTION LOSS MORE THAN 50%: THE REBAR SHALL BE CUT AND REPLACED WITH NEW REINFORCEMENT (NO WELDING ALLOWED ON POST-TENSIONED TENDONS) AS DIRECTED BY THE ENGINEER.
3. THE NEW REINFORCEMENT COULD BE WELDED, LAP SPLICED OR ANCHORED IN THE CONCRETE DEPENDING ON EACH INDIVIDUAL CASE AS DIRECTED BY THE ENGINEER.
4. MAXIMUM REPAIR MORTAR APPLICATION THICKNESS SHALL BE AS RECOMMENDED BY THE MANUFACTURER BUT NOT TO EXCEED 3".

CRACK REPAIR

1. SAW CUT ALONG CRACK, 1/2" WIDE x 1/2" DEEP.
2. PREPARE SURFACE FOR SEALANT BY GRINDING OR WIRE BRUSHING TO EXPOSE A SOUND SURFACE FREE OF CONTAMINATION AND LAITANCE.
3. PLACE BACKER ROD AT BOTTOM OF PREPARED ROUT.
4. APPLY PRIMER AND SEALANT PER MANUFACTURER'S APPLICATION INSTRUCTIONS.



EXISTING CRACK
SCALE: N.T.S.

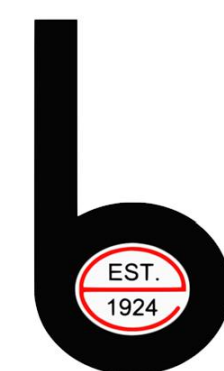
PREPARATION
SCALE: N.T.S.

CRACK SEALING
SCALE: N.T.S.

TYPICAL CRACK REPAIR

** CRACK SEALANT SHALL BE MASTERSEAL SL2 BY BASF BUILDING SYSTEMS OR APPROVED EQUAL.

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| DRAWN BY: YG | CHECKED BY: TMO | | | |

CADD FILE: 22-319 - ROOF PLAN.DWG SHEET 4 OF 4