

MECHANICS ROW PARKING GARAGE PHASE 6 REPAIRS

• AUBURN, MAINE •



ENGINEER:

Thornton Tomasetti

DRAWING LIST:

- S1.0 GENERAL NOTES
- S1.1 GROUND LEVEL PLAN
- S1.2 LEVEL 1
- S1.3 LEVEL 2
- S1.4 LEVEL 3
- S1.5 LEVEL 4
- S2.1 REPAIR SECTIONS AND DETAILS
- S2.2 REPAIR SECTIONS AND DETAILS
- S2.3 REPAIR SECTIONS AND DETAILS

ISSUED FOR BIDDING
JANUARY 5, 2022

GENERAL NOTES:

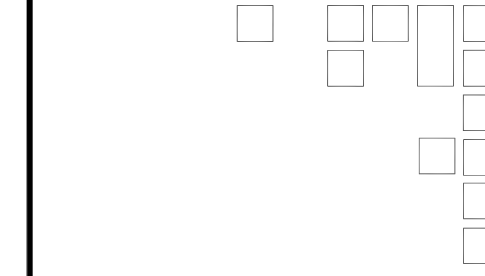
- THE NOTES ON THESE DRAWINGS ARE NOT INTENDED TO REPLACE THE SPECIFICATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO THE GENERAL NOTES. INCONSISTENCIES BETWEEN THE DRAWINGS AND THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
- ALL WORK SHALL COMPLY WITH THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC) AND 2015 INTERNATIONAL EXISTING BUILDING CODE (IEBC). THE SCOPE OF WORK OUTLINED HAS BEEN EVALUATED AS A REPAIR WITH LESS THAN SUBSTANTIAL STRUCTURAL DAMAGE PER THE IEBC.
 - ORIGINAL DESIGN LOADS (CODE): 50 PSF (BOCA 1990)
 - CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL EQUIPMENT USED DOES NOT EXCEED EXISTING BUILDING DESIGN LOADS.
- ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS.
- THE REPAIRS TO THIS STRUCTURE HAVE BEEN DESIGNED TO RE-ESTABLISH THE STRUCTURAL INTEGRITY OF THE STRUCTURE AFTER THE REPAIRS ARE COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING THE RESTORATION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, TEMPORARY PARTITIONS, VEHICLE AND PEDESTRIAN PROTECTION, GUYS OR TIE DOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF PROJECT.
- SECTIONS AND DETAILS SHOWN SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS AS DETERMINED BY THE STRUCTURAL ENGINEER.
- THE CONTRACTOR SHALL SUBMIT COMPLETE SUBMITTALS (AS NOTED IN THE SPECIFICATIONS) FOR ALL PARTS OF THE WORK INCLUDING DESCRIPTION OF SHORING AND CONSTRUCTION METHODS AND SEQUENCING, WHERE APPLICABLE. NO PERFORMANCE OF THE WORK INCLUDING, BUT NOT LIMITED TO, DEMOLITION OF EXISTING STRUCTURE OR FABRICATION OR ERECTION OF NEW STRUCTURAL ELEMENTS, SHALL COMMENCE WITHOUT REVIEW OF THE SHOP DRAWINGS BY THE STRUCTURAL ENGINEER
- ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO VEHICLES, PROPERTY AND PUBLIC CAUSED BY THEIR WORK.
- CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, LICENSES AND GOVERNMENT FEES AS REQUIRED. THE CONTRACTOR SHALL COMPLY WITH CODES, ORDINANCES, RULES, REGULATIONS, ORDERS AND OTHER LEGAL REQUIREMENTS OF THE PUBLIC AUTHORITY, WHICH BEAR ON THE PERFORMANCE OF THE WORK.
- CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL DURING THE PROJECT. A SCHEDULE FOR SPACES REQUIRED SHALL BE PRESENTED TO THE OWNER OR GARAGE MANAGER ONE WEEK IN ADVANCE AND UPDATED WEEKLY DURING THE PROJECT.
- THE EXISTING BUILDING SHALL REMAIN IN OPERATION FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY CONTROLS NECESSARY TO ALLOW FOR THE BUILDING OPERATIONS.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN REQUIRED DUST BARRIERS, BARRICADES, PROTECTION AND WARNING LIGHTS IN GOOD WORKING CONDITION UNTIL COMPLETION OF WORK REQUIRING SUCH PROTECTION AND THEN REMOVE THE SAME. ALL SIGNS, BARRIERS, AND BARRICADES SHALL COMPLY WITH FEDERAL STATE AND LOCAL LAWS AND REGULATIONS. ALL DUST AND DEBRIS MUST BE CONTAINED WITHIN THE WORK AREA, PROVIDE DUST BARRIERS/CONTAINMENT AS REQUIRED.
- CONTRACTOR SHALL MAINTAIN PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIAL AND RUBBISH. PRECAUTIONS SHOULD BE TAKEN TO MINIMIZE DUST FROM ENTERING THE BUILDING. ALL DUST AND DEBRIS CREATED BY THE WORK WITHIN THE BUILDING SHALL BE REMOVED AND THE WORK AREAS CLEANED.
- CONTRACTOR SHALL DETERMINE THE NEED FOR ALL DISCONNECTION AND/OR TEMPORARY OR PERMANENT REROUTING OF EXISTING UTILITIES, INCLUDING ELECTRICAL AND PLUMBING AND COORDINATE WITH THE GARAGE OWNER/MANAGER.
- IF WORK RESTRICTS ACCESS TO ANY MEANS OF EGRESS CONTRACTOR SHALL SUPPLY ALL TEMPORARY SIGNAGE, BARRIERS TO REDIRECT PATRONS TO THE NEAREST EXIT OR DOWN THE RAMP. A MINIMUM OF ONE STAIR TOWER MUST REMAIN COMPLETELY ACCESSIBLE DURING THE WORK. IF ACCESS TO THE ELEVATOR IS RESTRICTED AT ANY LEVEL PROVIDE SIGNAGE INDICATING NO ACCESSIBLE PARKING ON THAT LEVEL.
- 50 PARKING SPACES WILL BE AVAILABLE TO THE CONTRACTOR MONDAY THROUGH FRIDAY. ADDITIONAL PARKING SPACES ARE AVAILABLE ON THE WEEKEND OR AFTER NORMAL BUSINESS HOURS. CONTRACTOR TO PROVIDE ALL TRAFFIC CONTROL DURING CONSTRUCTION.

CONCRETE NOTES

- CONCRETE WORK SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318, LATEST EDITION)," AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301, LATEST EDITION)."
- GENERAL CONTRACTOR, CONSTRUCTION MANAGER OR OWNER'S CLERK OF THE WORKS SHALL HAVE AVAILABLE ON SITE AT ALL TIMES A COPY OF ACI "FIELD REFERENCE MANUAL SP-15".
- CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.
- REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS AND SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI 315, LATEST EDITION.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND BE PROVIDED IN FLAT SHEETS.
- MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
 A) CONCRETE SLABS: 1.5"
- WELDING OF REINFORCEMENT IS NOT PERMITTED.

ABBREVIATIONS:

- CIP - CAST IN PLACE CONCRETE
- CJ - CONTROL/CONSTRUCTION JOINT
- DT - PRECAST DOUBLE TEE
- EJ - EXPANSION JOINT
- FD - FLOOR DRAIN
- IT BM - PRECAST INVERTED TEE BEAM
- LBS - PRECAST LOAD BEARING SPANDREL
- LW - PRECAST LITWALL
- NLBS - PRECAST NON LOAD BEARING SPANDREL
- PC - PRECAST
- SOG - SLAB ON GRADE
- SW - PRECAST SHEAR WALL
- REPAIR WORK CODES
- XM - MISSING OVERHEAD CONNECTION
- XR - RUSTED OVERHEAD CONNECTION
- XS - JOINT SEALANT REPLACEMENT SPOT REPAIRS

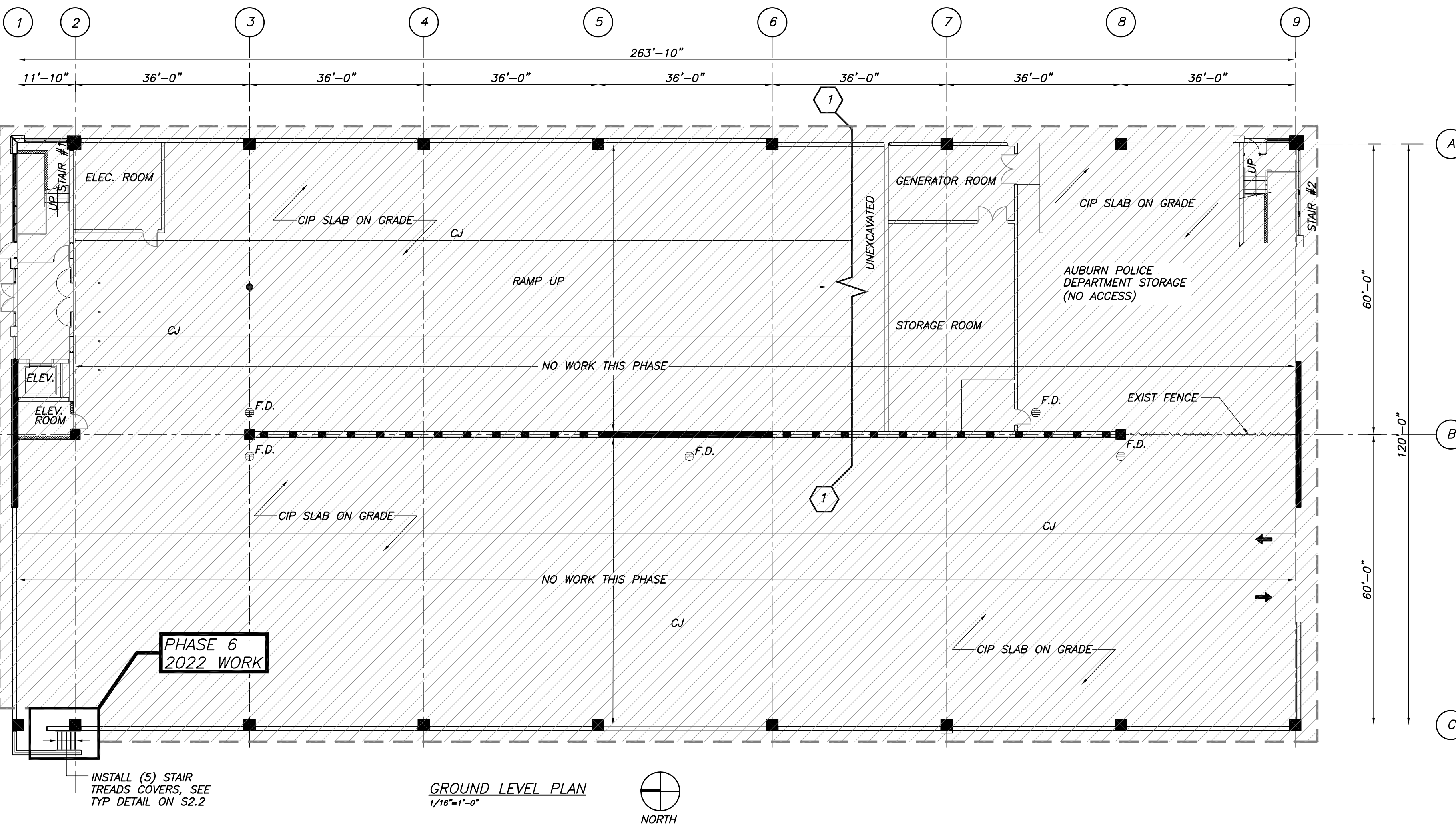


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**MECHANICS ROW PARKING GARAGE
 PHASE 6 REPAIRS**
 AUBURN ME

TITLE
GENERAL NOTES

| | |
|-----------------------------------|-----------------------------|
| PROJECT P21612 | SHEET NUMBER S1.0 |
| SCALE AS NOTED | |
| DRAWN BY ATS | |
| DATE 25-Jan-06 | |
| Copyright Thornton Tomasetti 2011 | |

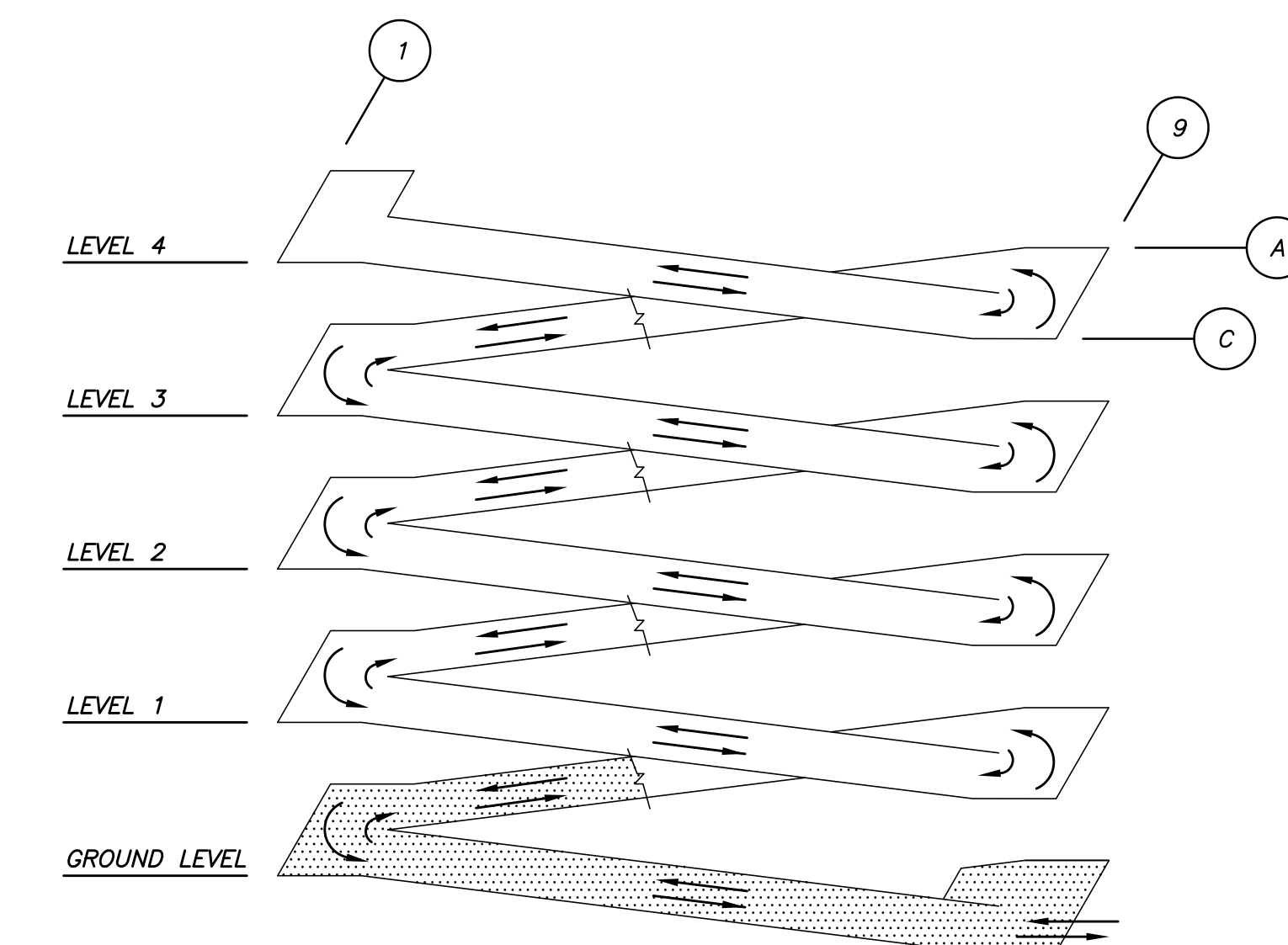


SCOPE OF WORK GROUND LEVEL - PHASE 6

| ITEM | WORKCODE | DESCRIPTION | QUANTITY | UNIT | NOTES |
|------|----------|-------------------------|----------|------|-------|
| 1 | | TREAD COVER REPLACEMENT | 5 | EA | |

- KEY**
- F.D. FLOOR DRAIN
 - CONCRETE REPAIR
 - DT TO DT SHEAR CONNECTION
 - DT TO DT CHORD TIE CONNECTION
 - DT TO SW/LW/IT BM/LB SPANDREL CONNECTION
 - DT TO SW/STAIR/NLB SPANDREL CONNECTION (UNDERSIDE OF DT)
 - EXPOSED REINFORCEMENT REPAIR AT DT FLANGE
 - CRACK CHASE REPAIR
 - JOINT SEALANT REPLACEMENT
 - TRAFFIC MEMBRANE RECOAT
 - NOT IN CONTRACT
 - PHASE 6 REPAIR SCOPE OF WORK
 - EJ - EXPANSION JOINT
 - DT - PRECAST DOUBLE TEE
 - PC - PRECAST
 - LW - PRECAST LITEWALL
 - SW - PRECAST SHEARWALL
 - CJ - CONTROL/CONSTRUCTION JOINT
 - CIP - CAST IN PLACE CONCRETE
 - SOG - SLAB ON GRADE
 - IT BM - PRECAST INVERTED TEE BEAM
 - LBS - PRECAST LOAD BEARING SPANDREL
 - NLBS - PRECAST NON-LOAD BEARING SPANDREL

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MECHANICS ROW PARKING GARAGE
 PHASE 6 REPAIRS
 AUBURN ME

TITLE
 GROUND LEVEL

PROJECT
 P21612
 SCALE
 AS NOTED
 DRAWN BY
 ATB
 5-JAN-22

SHEET NUMBER
S1.1

SCOPE OF WORK LEVEL 1 - PHASE 6

| ITEM | WORKCODE | DESCRIPTION | QUANTITY | UNIT |
|------|----------|---|----------|------|
| 1 | | FLOOR DRAIN REPLACEMENT | 1 | EA |
| 2 | XR | OVERHEAD CONNECTION REPAIR | 30 | EA |
| 3 | | OVERHEAD SPALL KNOCKDOWN | 1 | EA |
| 4 | | CHORD CONNECTION REPAIR (FULL DEPTH REPAIR) | 8 | SF |

REPAIR WORK CODES
 REF DWG S2.1, S2.2 & S2.3
 XM - MISSING OVERHEAD CONNECTION

XR - RUSTED OVERHEAD CONNECTION
 XS - JOINT SEALANT REPLACEMENT SPOT REPAIRS

KEY

F.D. FLOOR DRAIN

CONCRETE REPAIR

DT TO DT SHEAR CONNECTION

DT TO DT CHORD TIE CONNECTION

DT TO SW/LW/IT BM/LB SPANDREL CONNECTION

DT TO SW/STAIR/NLB SPANDREL CONNECTION (UNDERSIDE OF DT)

EXPOSED REINFORCEMENT REPAIR AT DT FLANGE

CRACK CHASE REPAIR

JOINT SEALANT REPLACEMENT

TRAFFIC MEMBRANE RECOAT

NOT IN CONTRACT

PHASE 6 REPAIR SCOPE OF WORK

EJ - EXPANSION JOINT

DT - PRECAST DOUBLE TEE

PC - PRECAST

LW - PRECAST LITEWALL

SW - PRECAST SHEARWALL

CJ - CONTROL/CONSTRUCTION JOINT

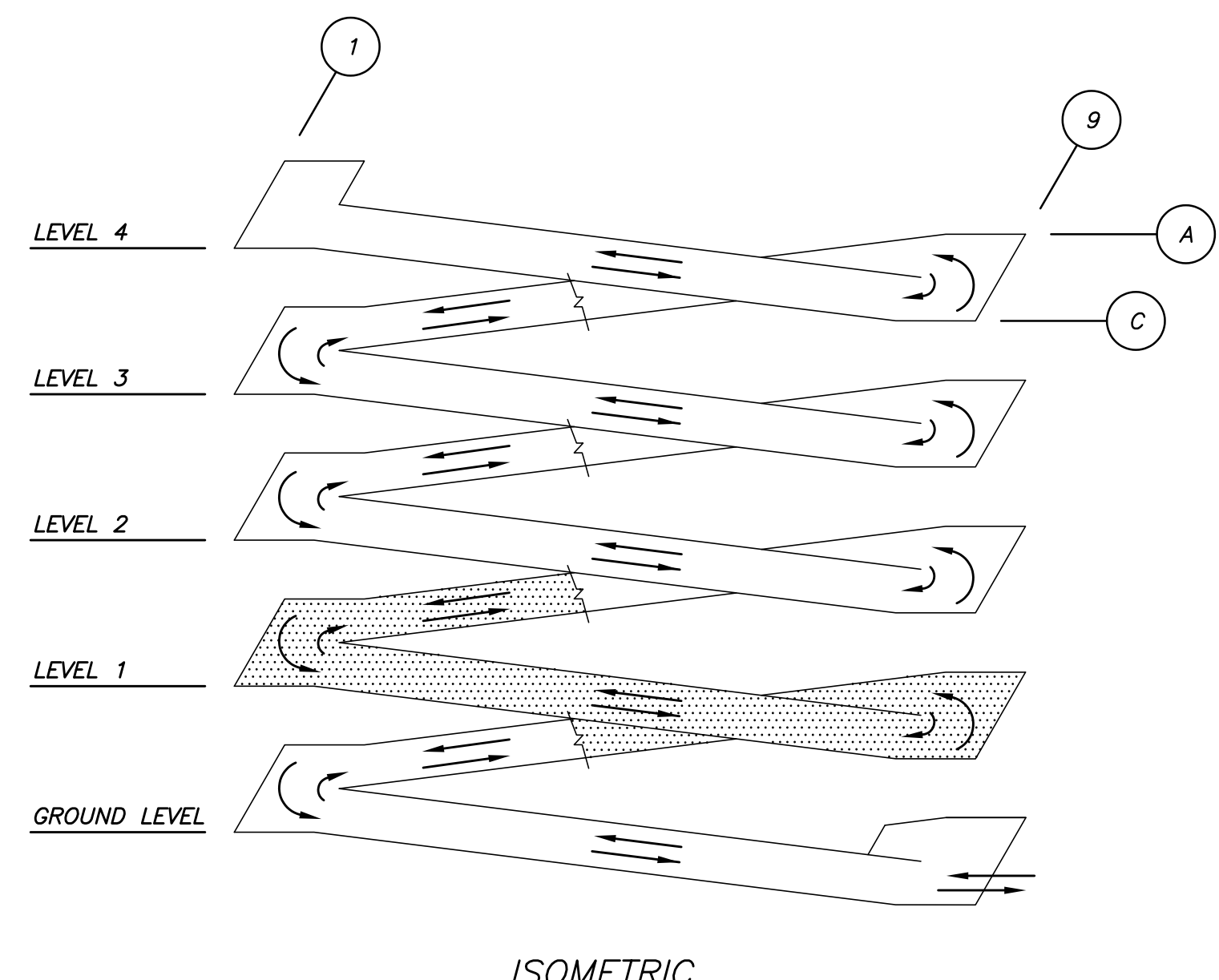
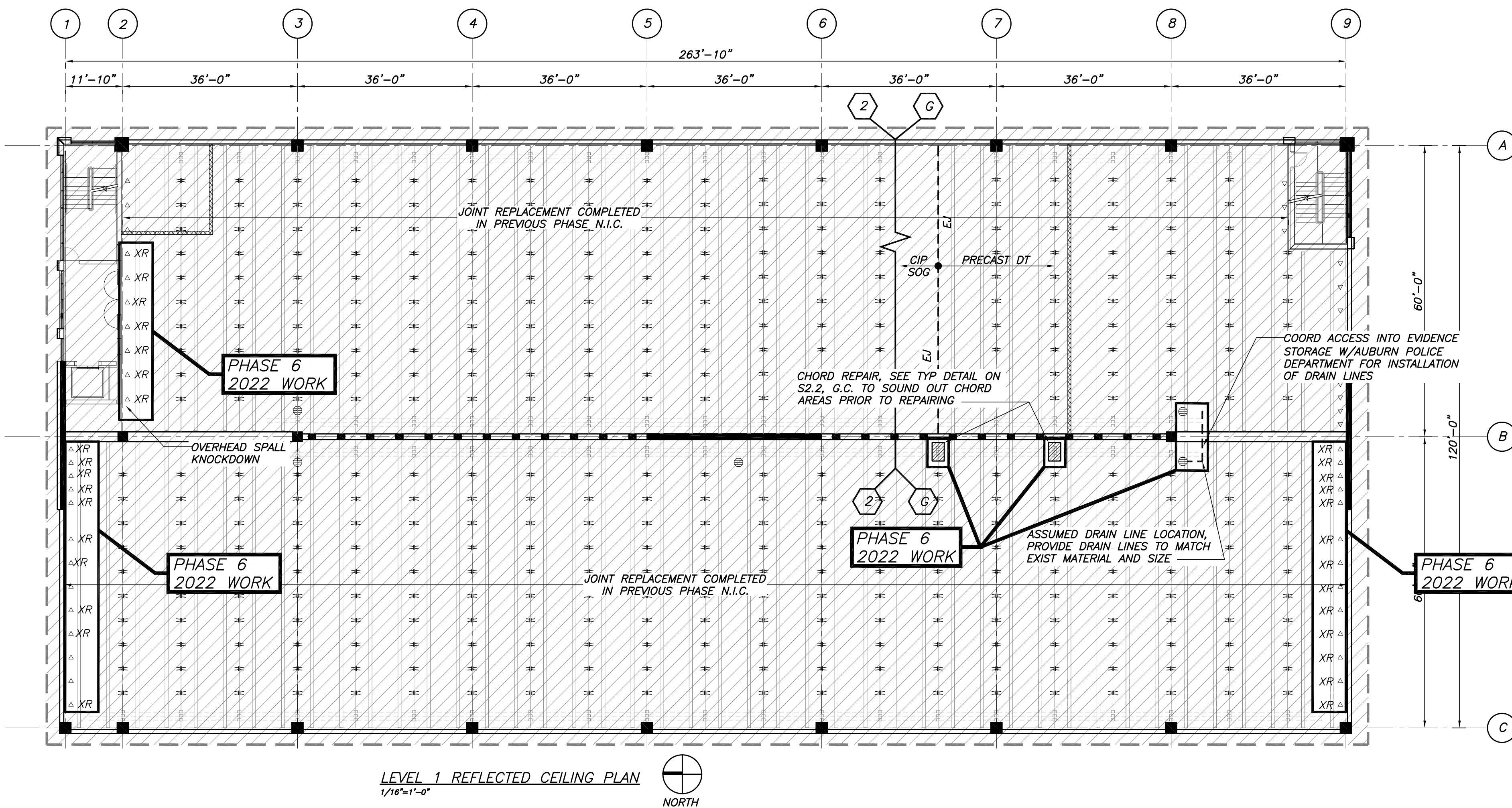
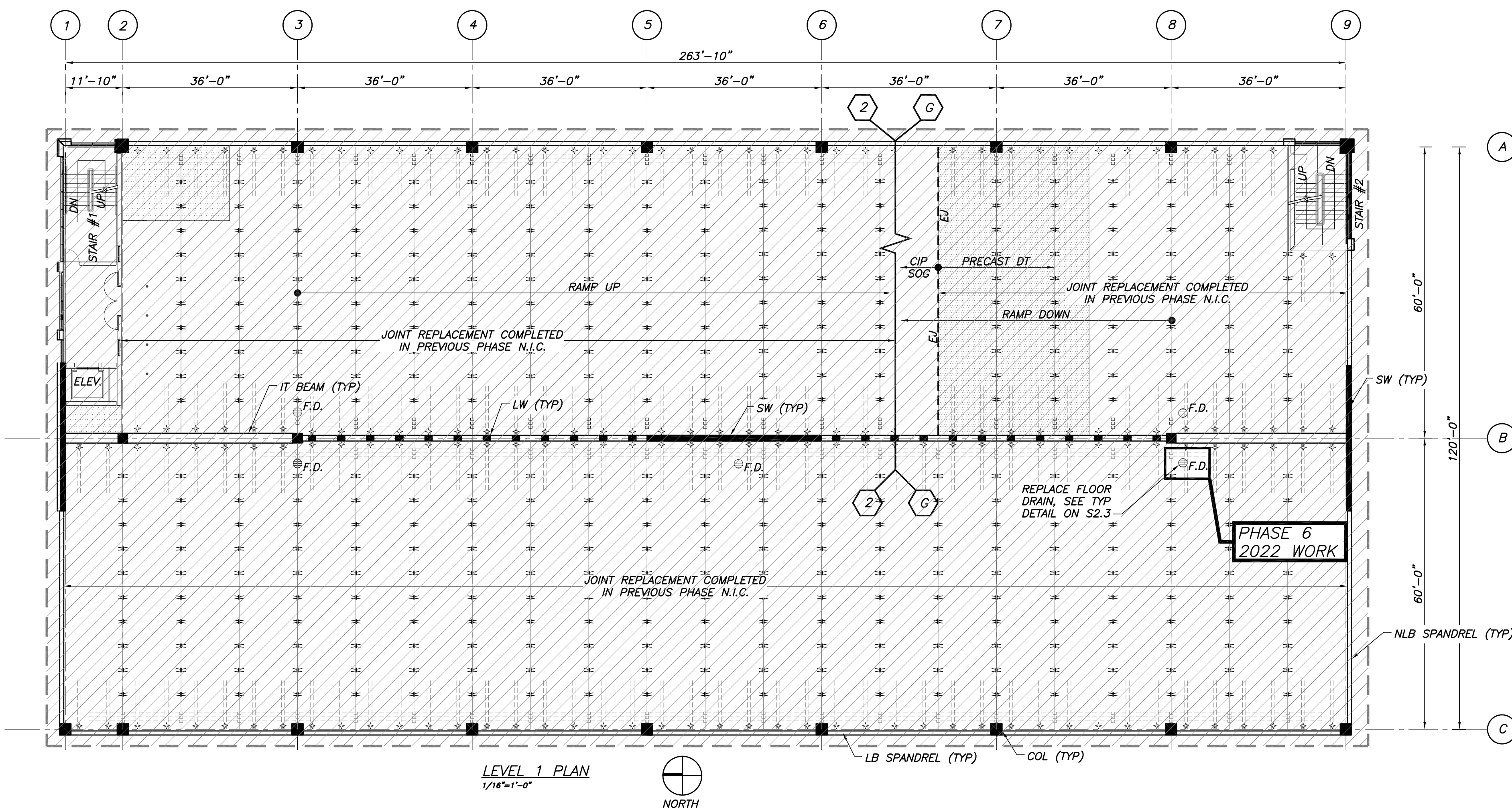
CIP - CAST IN PLACE CONCRETE

SOG - SLAB ON GRADE

IT BM - PRECAST INVERTED TEE BEAM

LBS - PRECAST LOAD BEARING SPANDREL

NLBS - PRECAST NON-LOAD BEARING SPANDREL



MECHANICS ROW PARKING GARAGE
 PHASE 6 REPAIRS
 AUBURN, ME

TITLE
 LEVEL 1

PROJECT
 P21612
 SCALE
 AS NOTED
 DRAWN BY
 ATB
 5-JAN-22

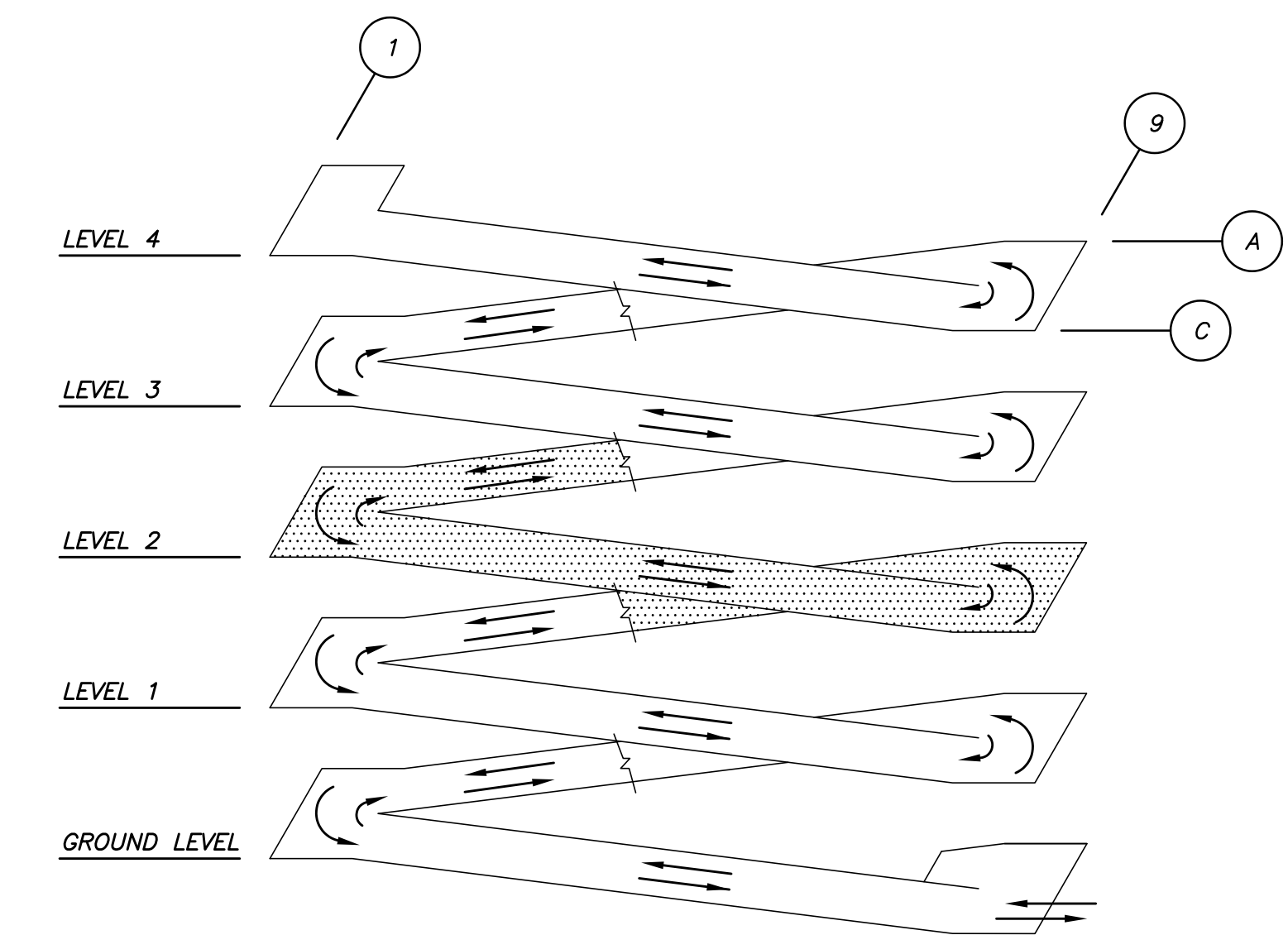
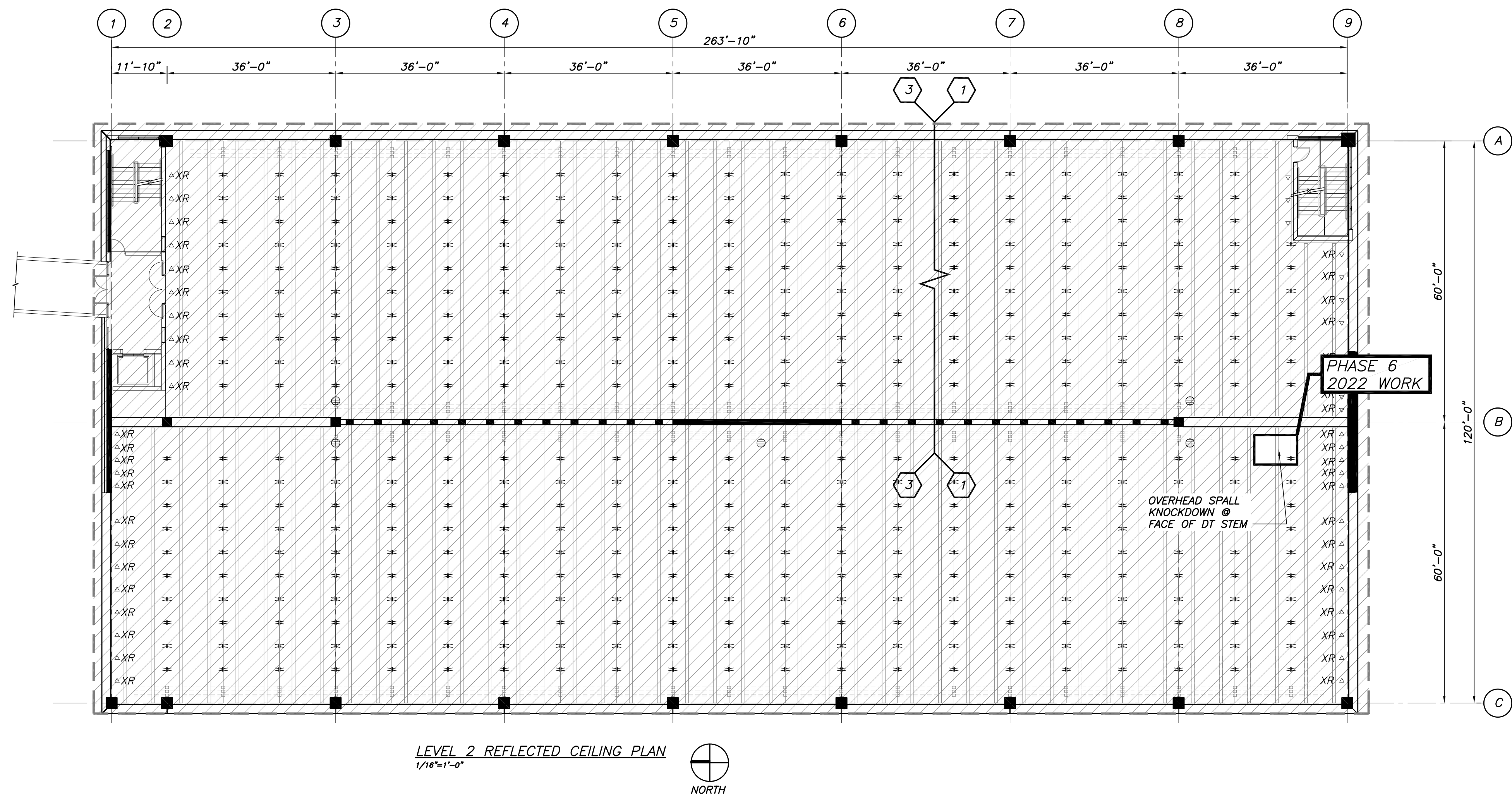
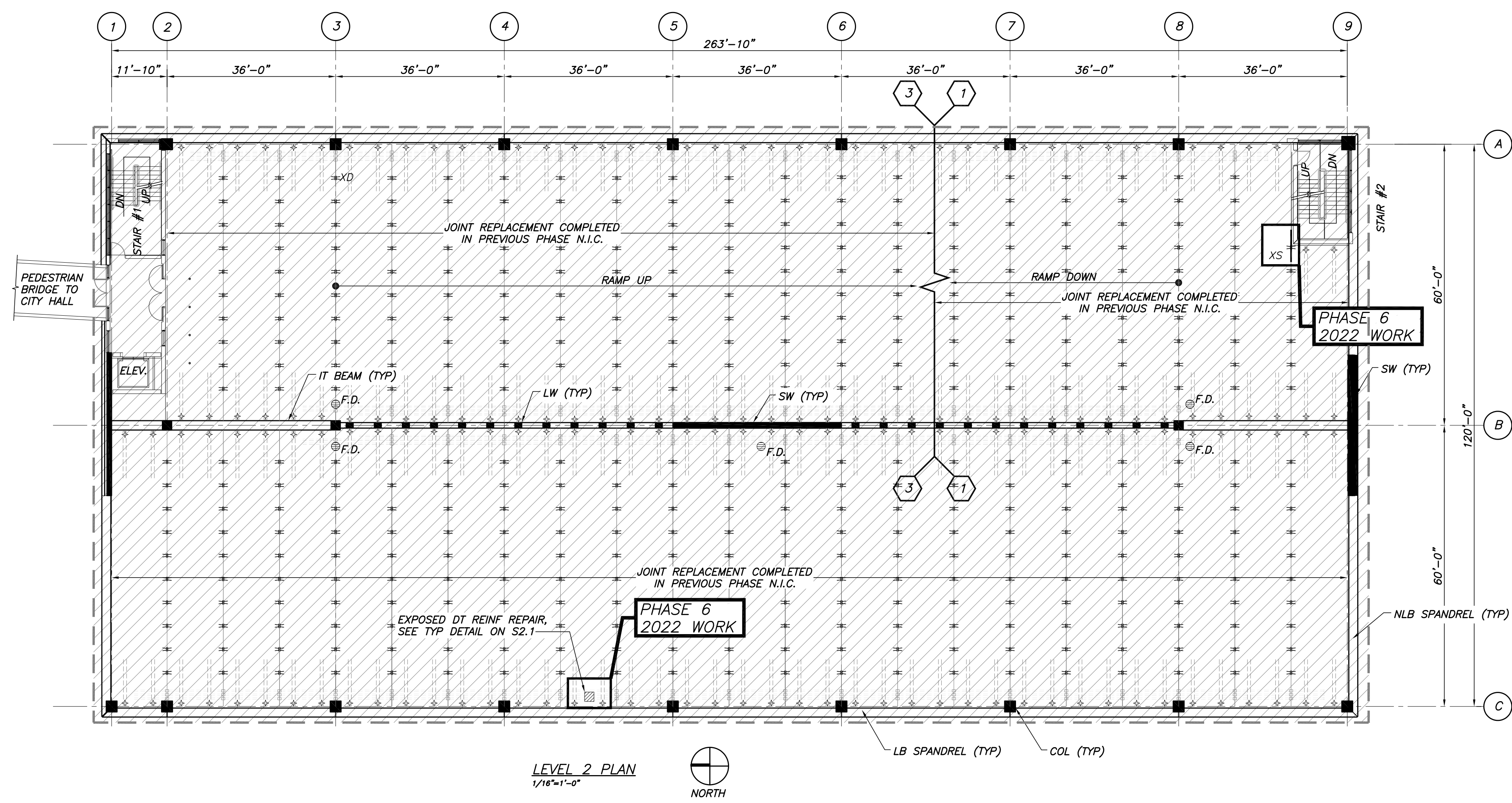
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| SCOPE OF WORK LEVEL 2 – PHASE 6 | | | | | |
|---------------------------------|----------|---------------------------------|----------|------|-------|
| ITEM | WORKCODE | DESCRIPTION | QUANTITY | UNIT | NOTES |
| 1 | XS | JOINT SEALANT REPLACEMENT | 10 | LF | |
| 2 | | EXPOSED DT REINFORCEMENT REPAIR | 4 | SF | |
| 3 | | OVERHEAD SPALL KNOCKDOWN | 1 | EA | |

REPAIR WORK CODES
 REF DWG S2.1, S2.2 & S2.3
 XM – MISSING OVERHEAD CONNECTION

KEY

- XR – RUSTED OVERHEAD CONNECTION
- XS – JOINT SEALANT REPLACEMENT SPOT REPAIRS
- F.D. – FLOOR DRAIN
- CONCRETE REPAIR
- DT TO DT SHEAR CONNECTION
- DT TO DT CHORD TIE CONNECTION
- DT TO SW/LW/IT BM/LB SPANDREL CONNECTION
- DT TO SW/STAIR/NLB SPANDREL CONNECTION (UNDERSIDE OF DT)
- EXPOSED REINFORCEMENT REPAIR AT DT FLANGE
- CRACK CHASE REPAIR
- JOINT SEALANT REPLACEMENT
- TRAFFIC MEMBRANE RECOAT
- NOT IN CONTRACT
- PHASE 6 REPAIR SCOPE OF WORK
- EJ – EXPANSION JOINT
- DT – PRECAST DOUBLE TEE
- PC – PRECAST
- LW – PRECAST LITEWALL
- SW – PRECAST SHEARWALL
- CJ – CONTROL/CONSTRUCTION JOINT
- CIP – CAST IN PLACE CONCRETE
- SOG – SLAB ON GRADE
- IT BM – PRECAST INVERTED TEE BEAM
- LBS – PRECAST LOAD BEARING SPANDREL
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MECHANICS ROW PARKING GARAGE
 PHASE 6 REPAIRS
 AUBURN, ME

TITLE
LEVEL 2

PROJECT
 P21612
 SCALE
 AS NOTED
 DRAWN BY
 ATB
 5-JAN-22

SHEET NUMBER
S1.3

SCOPE OF WORK LEVEL 3 – PHASE 6

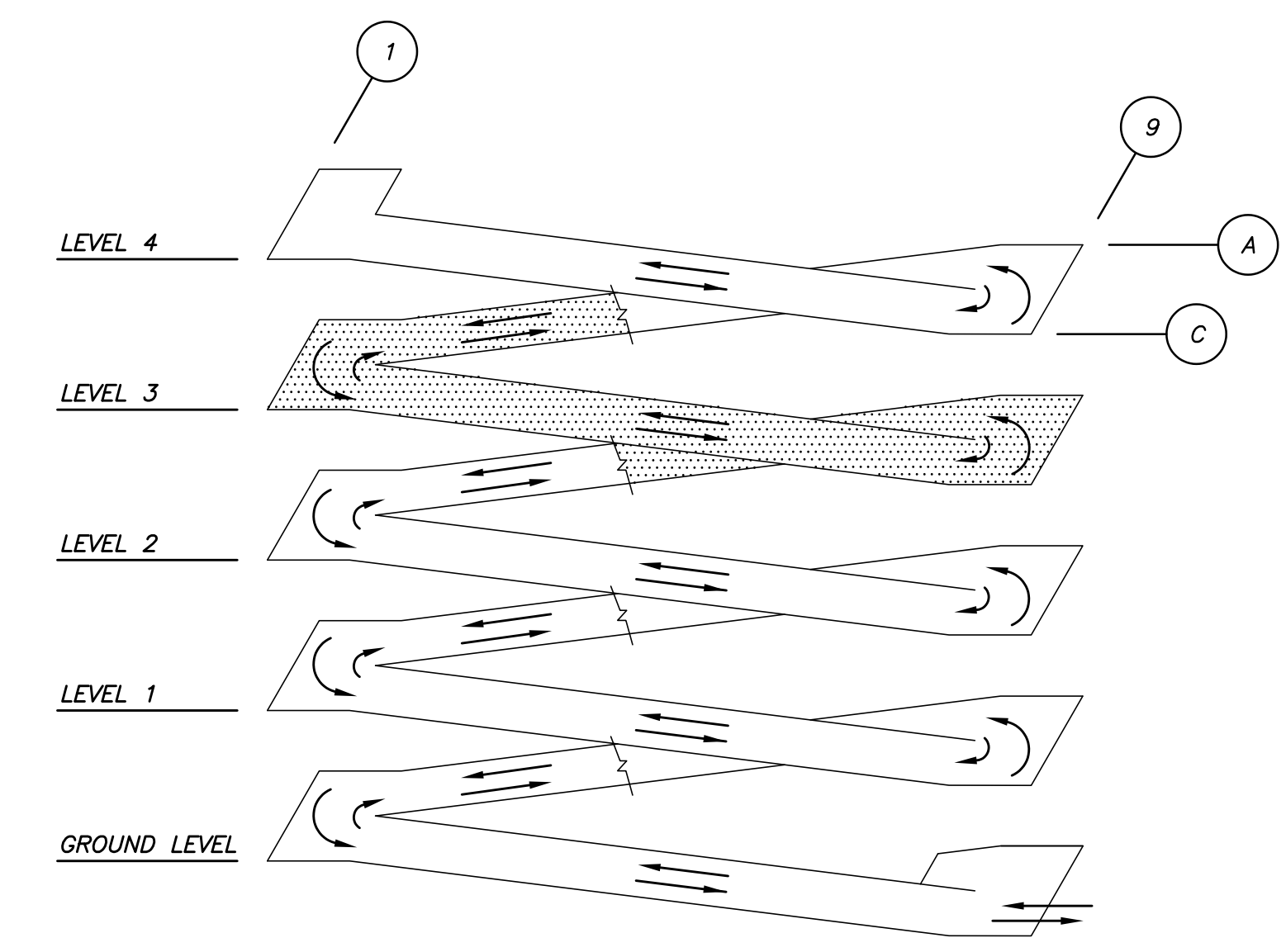
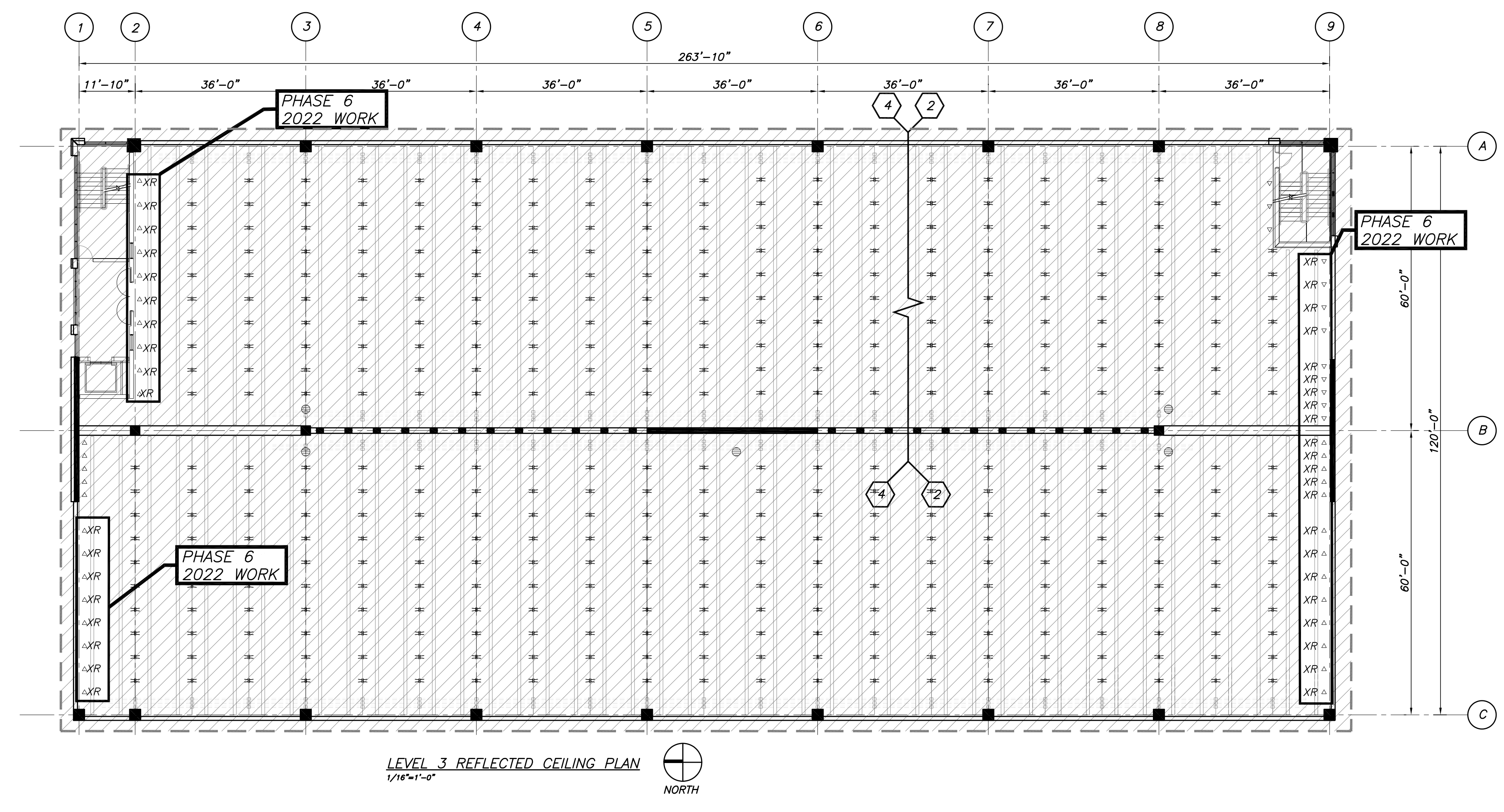
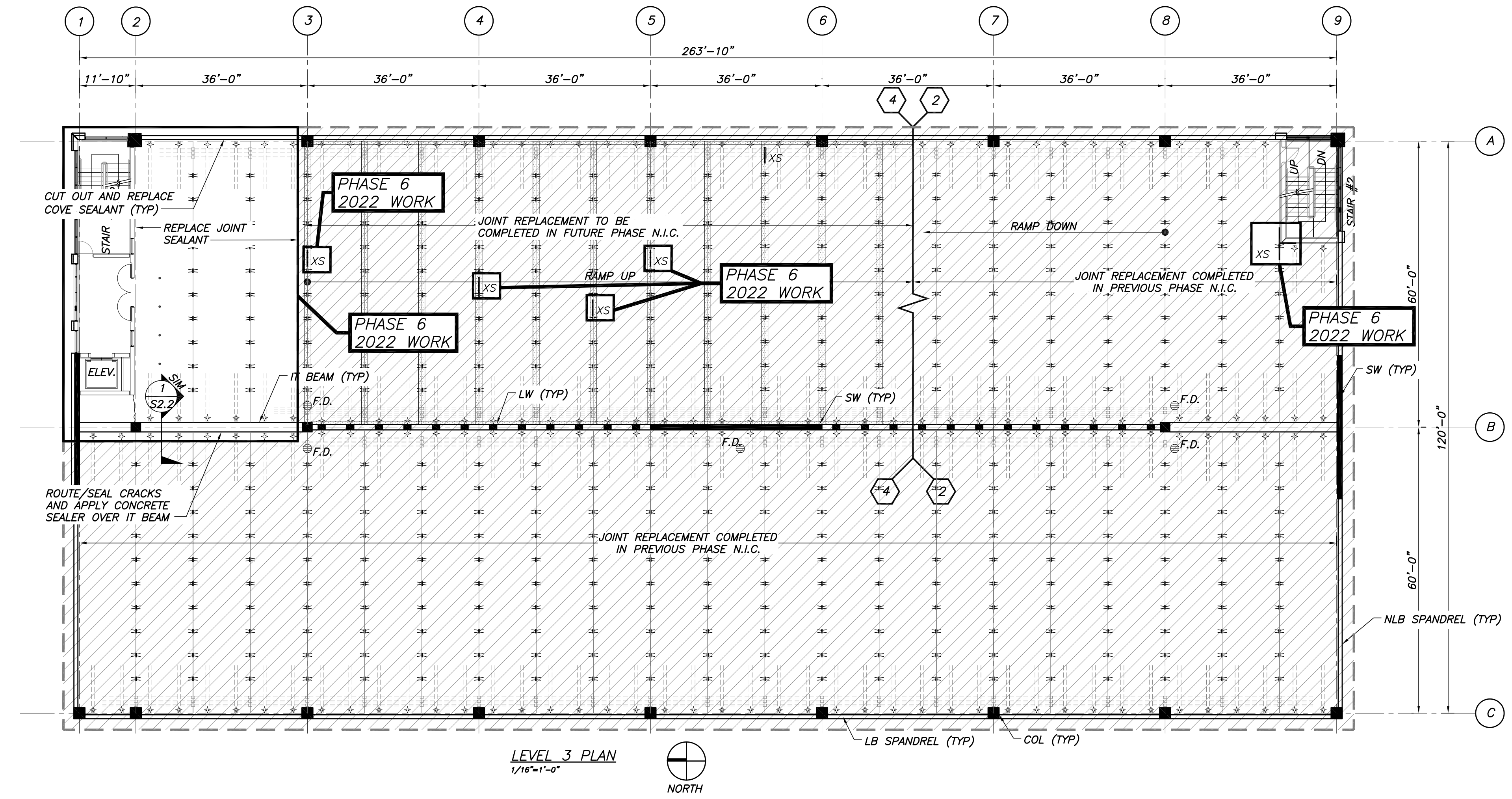
| ITEM | WORKCODE | DESCRIPTION | QUANTITY | UNIT | NOTES |
|------|----------|----------------------------------|----------|------|---|
| 1 | | JOINT & COVE SEALANT REPLACEMENT | 350 | EA | INCLUDES AROUND DRAINS AND CIP JOINTS |
| 2 | | DT-DT SHEAR CONNECTION REPAIR | 4 | EA | ESTIMATED QUANTITY |
| 3 | | DT CONNECTION POCKET REPAIR | 12 | EA | |
| 4 | | CRACK CHASE | 50 | LF | ESTIMATED QUANTITY |
| 5 | | OVERHEAD SUPPLEMENTAL STEEL | 1 | EA | ESTIMATED QUANTITY, DO NOT FABRICATE UNTIL INSTRUCT |
| 6 | XR | OVERHEAD CONNECTION REPAIR | 40 | EA | |

NOTE:
 A. NOT ALL DT-DT SHEAR CONNECTION REPAIR LOCATIONS ARE IDENTIFIED ON THE DRAWINGS. CONTRACTOR IS REQUIRED TO INSPECT EACH EXPOSED DT-DT SHEAR CONNECTION. REFERENCE DT-DT SHEAR CONNECTION REPAIR DETAIL ON DWG S2.1 FOR CONNECTION CONDITIONS THAT REQUIRE REPAIR.
 B. CONTRACTOR IS REQUIRED TO PROVIDE AS-BUILT DRAWINGS AND DOCUMENT WHERE SHEAR CONNECTIONS HAVE BEEN REPAIRED. SUBMIT AS-BUILT DRAWINGS TO THE CITY AND CITY'S REPRESENTATIVE AT THE CONCLUSION OF THE PROJECT.

REPAIR WORK CODES
 REF DWG S2.1, S2.2 & S2.3
 XD – DOUBLE BAR SHEAR CONNECTION
 XM – MISSING OVERHEAD CONNECTION
 XR – RUSTED OVERHEAD CONNECTION
 XS – JOINT SEALANT REPLACEMENT SPOT REPAIRS

KEY

- F.D. FLOOR DRAIN
- CONCRETE REPAIR
- DT TO DT SHEAR CONNECTION
- DT TO DT CHORD TIE CONNECTION
- DT TO SW/LW/IT BM/LB SPANDREL CONNECTION
- DT TO SW/STAIR/NLB SPANDREL CONNECTION (UNDERSIDE OF DT)
- EXPOSED REINFORCEMENT REPAIR AT DT FLANGE
- CRACK CHASE REPAIR
- JOINT SEALANT REPLACEMENT
- TRAFFIC MEMBRANE RECOAT
- NOT IN CONTRACT
- PHASE 6 REPAIR SCOPE OF WORK
- EJ – EXPANSION JOINT
- DT – PRECAST DOUBLE TEE
- PC – PRECAST
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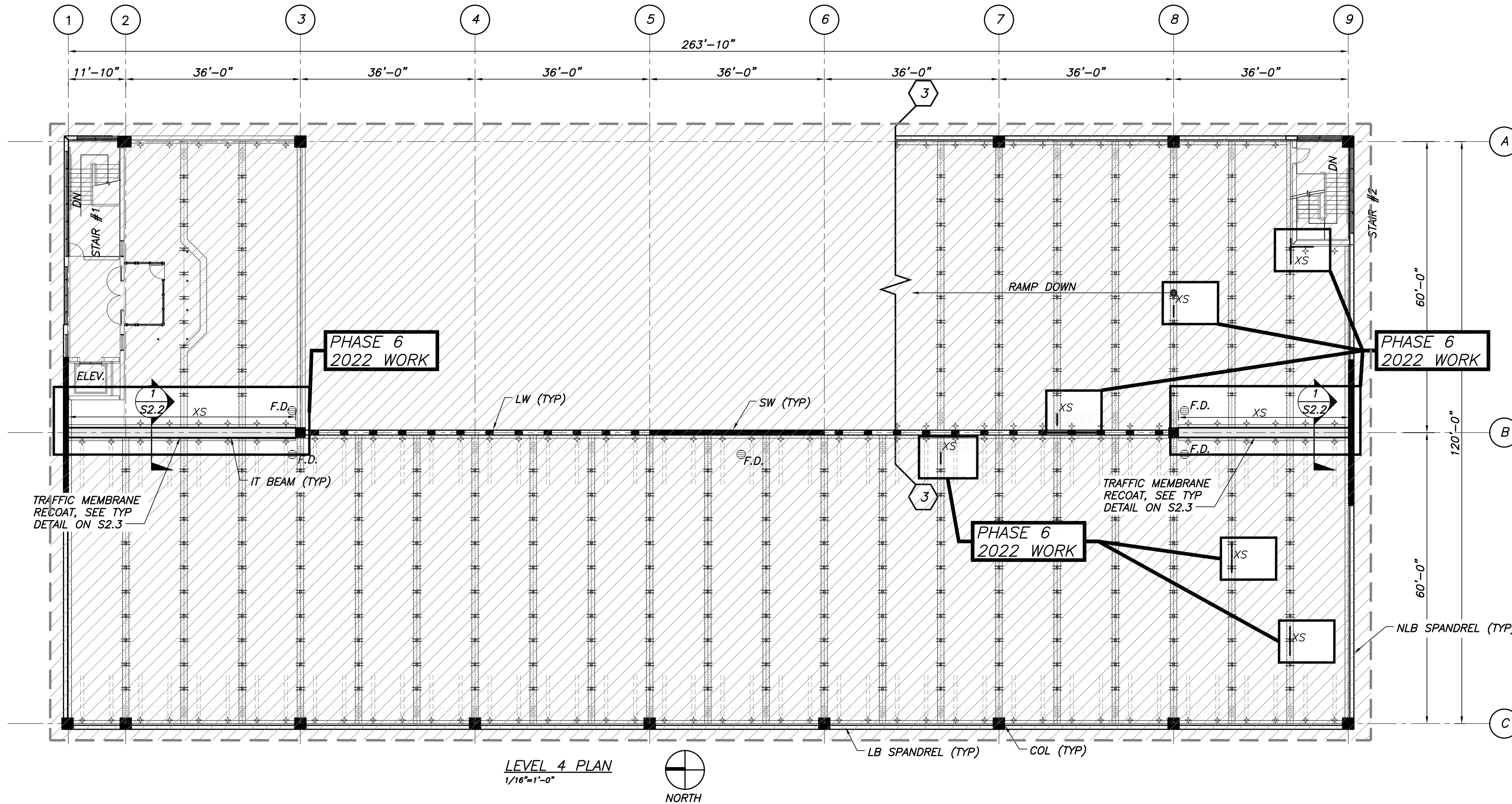


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MECHANICS ROW PARKING GARAGE
PHASE 6 REPAIRS
 AUBURN, ME

TITLE
 LEVEL 3

PROJECT
 P21612
SCALE
 AS NOTED
DRAWN BY
 ATB
 5-JAN-22
SHEET NUMBER
 S1.4



LEVEL 4 PLAN
 1/16"=1'-0"
 NORTH

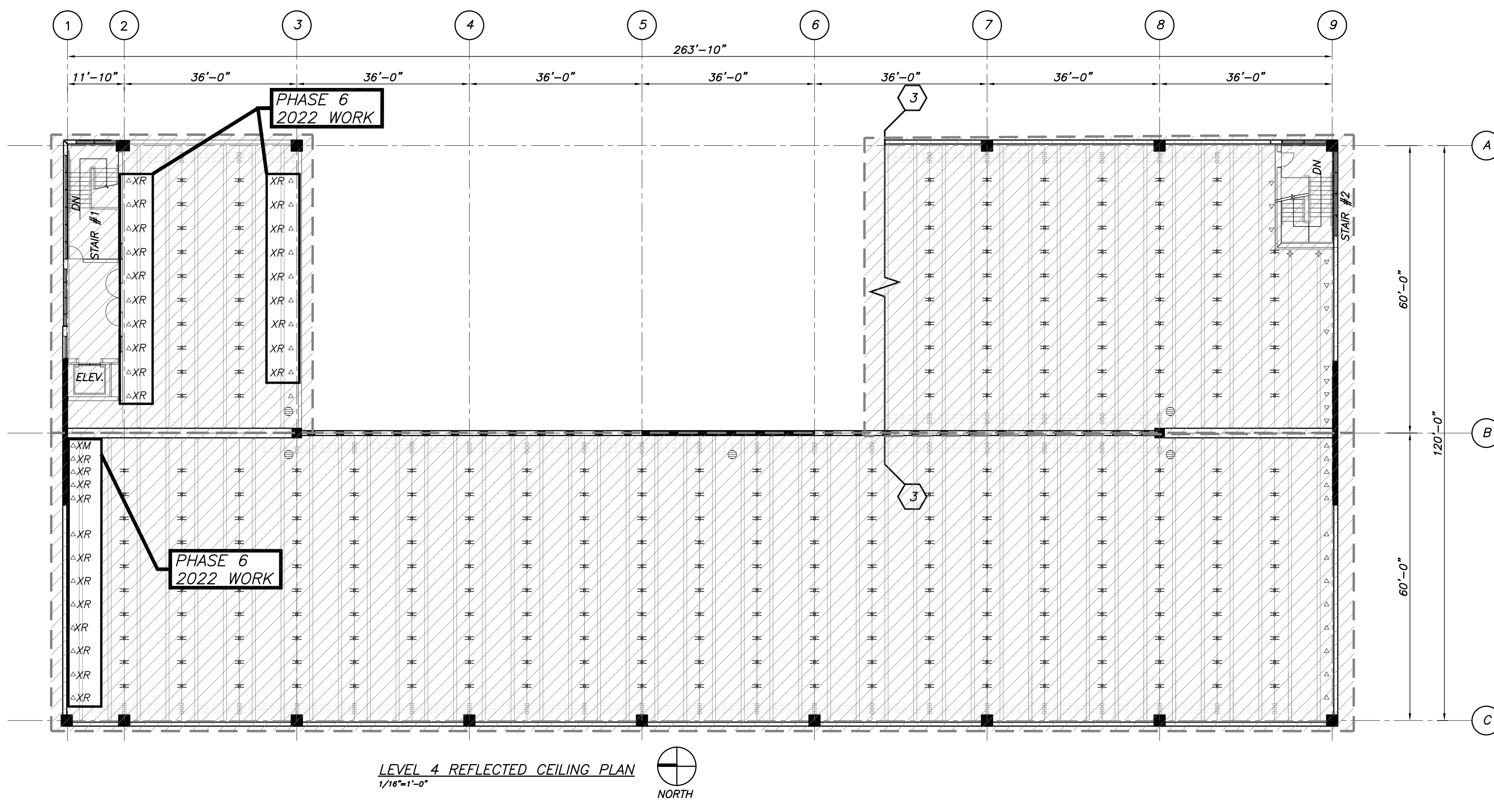
SCOPE OF WORK LEVEL 4 – PHASE 6

| ITEM | DESCRIPTION | WORKCODE | QUANTITY | UNIT | NOTES |
|------|------------------------------|----------|----------|------|-------|
| 1 | JOINT SEALANT REPLACEMENT | XS | 240 | LF | |
| 2 | DT CONNECTION POCKET REPAIR | | 26 | EA | |
| 3 | TRAFFIC MEMBRANE RECOAT | | 200 | SF | |
| 4 | TRAFFIC MEMBRANE FULL SYSTEM | | 75 | SF | |
| 5 | OVERHEAD CONNECTION REPAIR | XR | 31 | EA | |
| 6 | OVERHEAD CONNECTION REPAIR | XM | 1 | EA | |

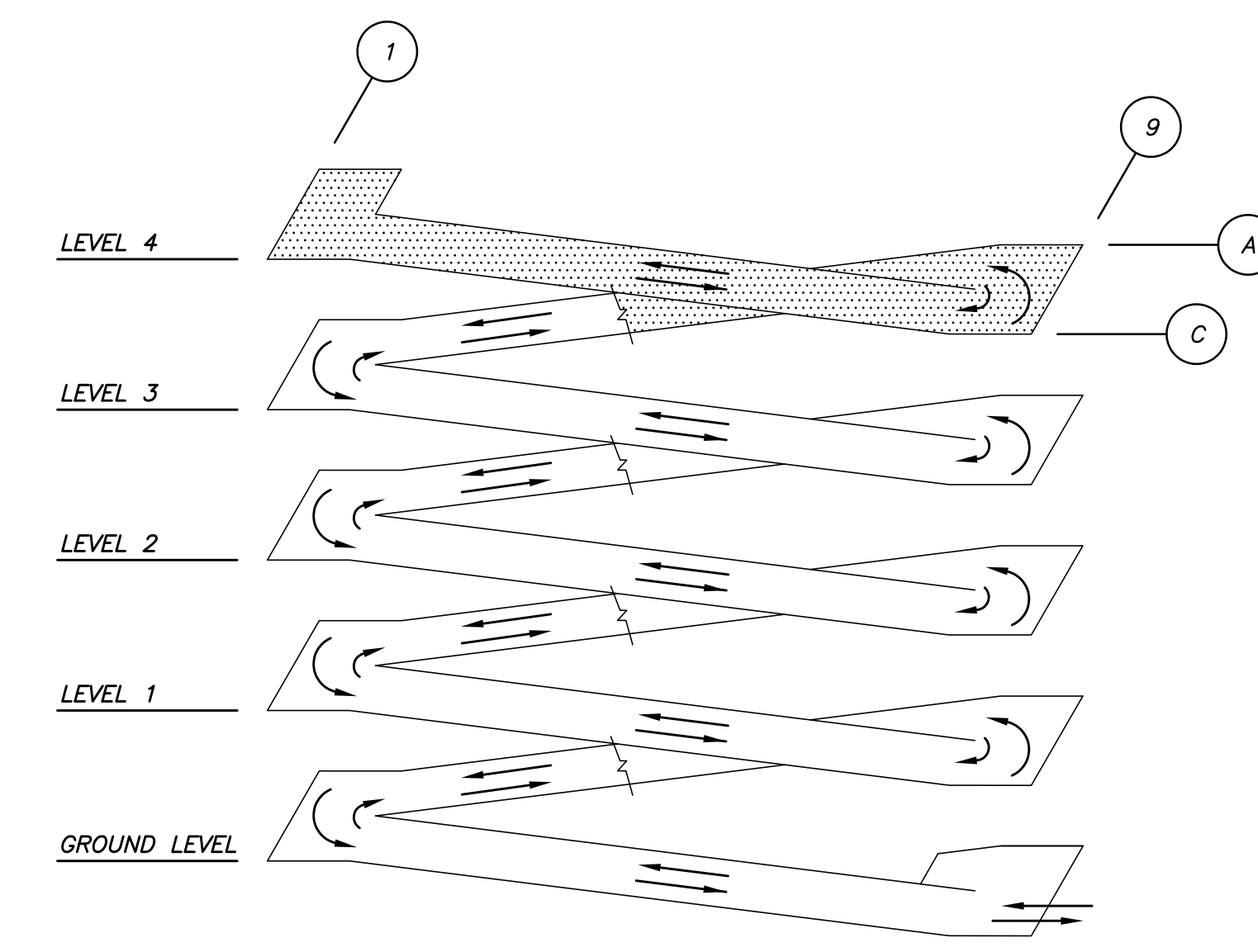
REPAIR WORK CODES
 REF DWG S2.1, S2.2 & S2.3
 XD – DOUBLE BAR SHEAR CONNECTION

XM – MISSING OVERHEAD CONNECTION
 XR – RUSTED OVERHEAD CONNECTION
 XS – JOINT SEALANT REPLACEMENT SPOT REPAIRS

- KEY**
- F.D. = FLOOR DRAIN
 - [Diagonal Hatching] = CONCRETE REPAIR
 - + = DT TO DT SHEAR CONNECTION
 - = = DT TO DT CHORD TIE CONNECTION
 - + = DT TO SW/LW/IT BM/LB SPANDREL CONNECTION
 - △ = DT TO SW/STAIR/NLB SPANDREL CONNECTION (UNDERSIDE OF DT)
 - [Double Line] = EXPOSED REINFORCEMENT REPAIR AT DT FLANGE
 - [Wavy Line] = CRACK CHASE REPAIR
 - [Thick Line] = JOINT SEALANT REPLACEMENT
 - [Hatched Box] = TRAFFIC MEMBRANE RECOAT
 - [Diagonal Dotted] = NOT IN CONTRACT
 - [Thick Solid Box] = PHASE 6 REPAIR SCOPE OF WORK
- EJ – EXPANSION JOINT
 DT – PRECAST DOUBLE TEE
 PC – PRECAST
 LW – PRECAST LITEWALL
 SW – PRECAST SHEARWALL
 CJ – CONTROL/CONSTRUCTION JOINT
 CIP – CAST IN PLACE CONCRETE
 SOG – SLAB ON GRADE
 IT BM – PRECAST INVERTED TEE BEAM
 LBS – PRECAST LOAD BEARING SPANDREL
 NLBS – PRECAST NON-LOAD BEARING SPANDREL



LEVEL 4 REFLECTED CEILING PLAN
 1/16"=1'-0"
 NORTH



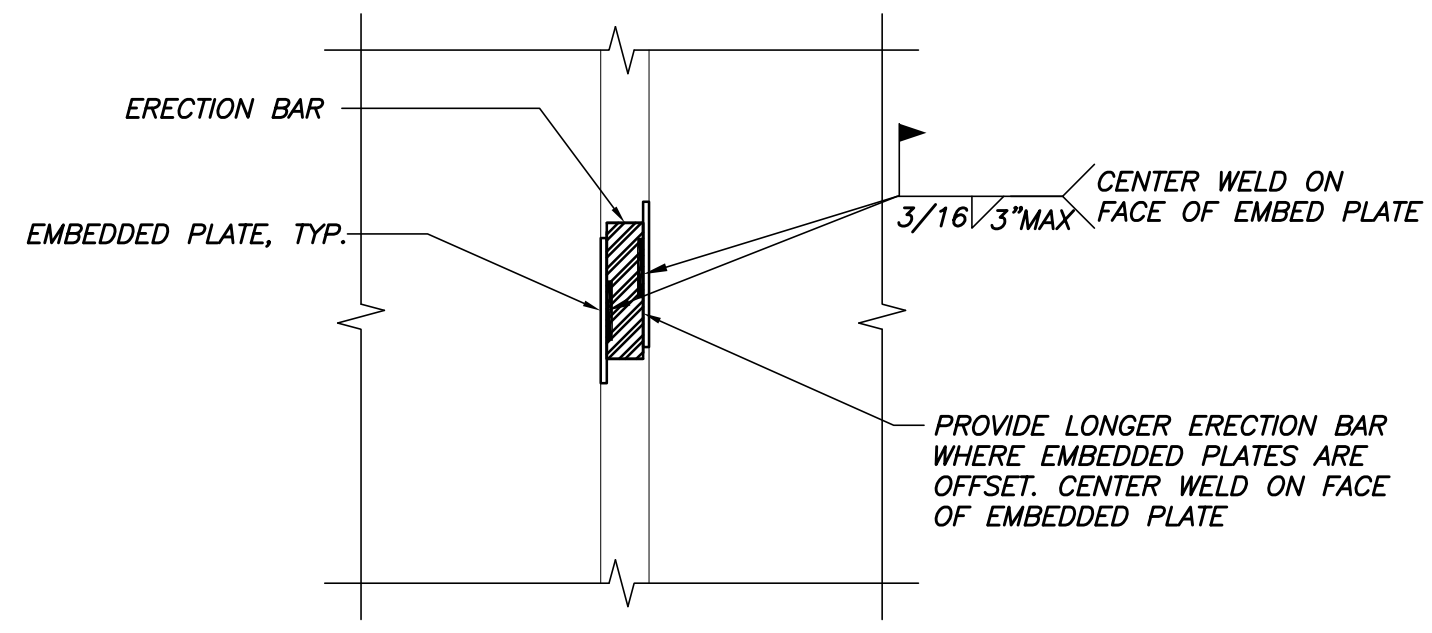
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MECHANICS ROW PARKING GARAGE
 PHASE 6 REPAIRS
 AUBURN ME

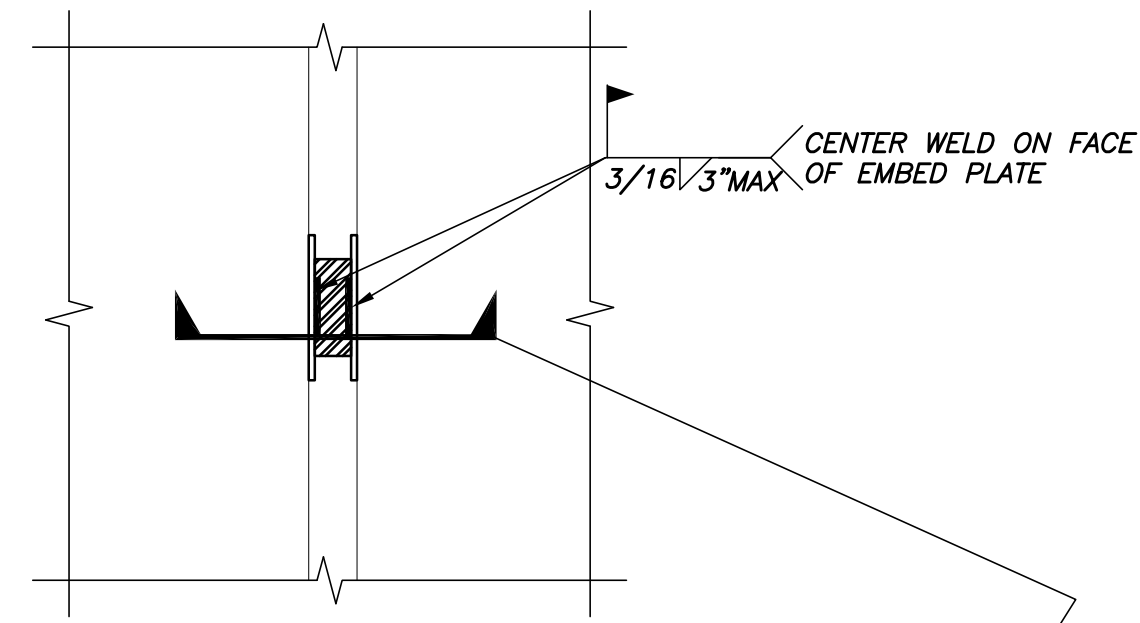
TITLE
 LEVEL 4

PROJECT
 P21612
 SCALE
 AS NOTED
 DRAWN BY
 ATB
 5-JAN-22

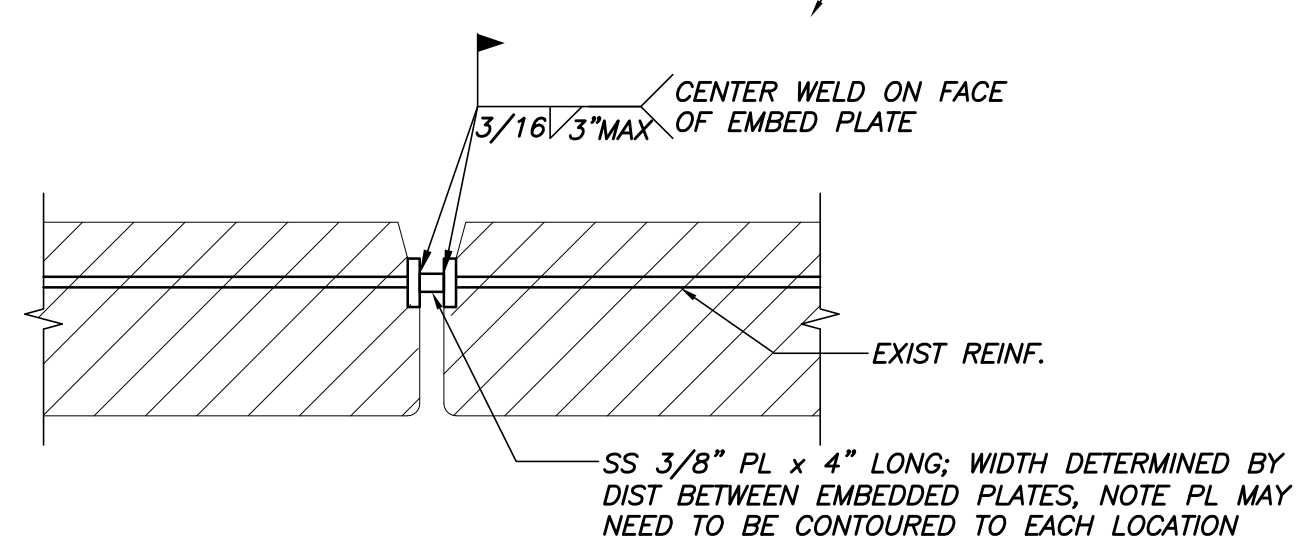
SHEET NUMBER
S1.5



OFFSET EMBEDDED PLATE



ALIGNED EMBEDDED PLATE

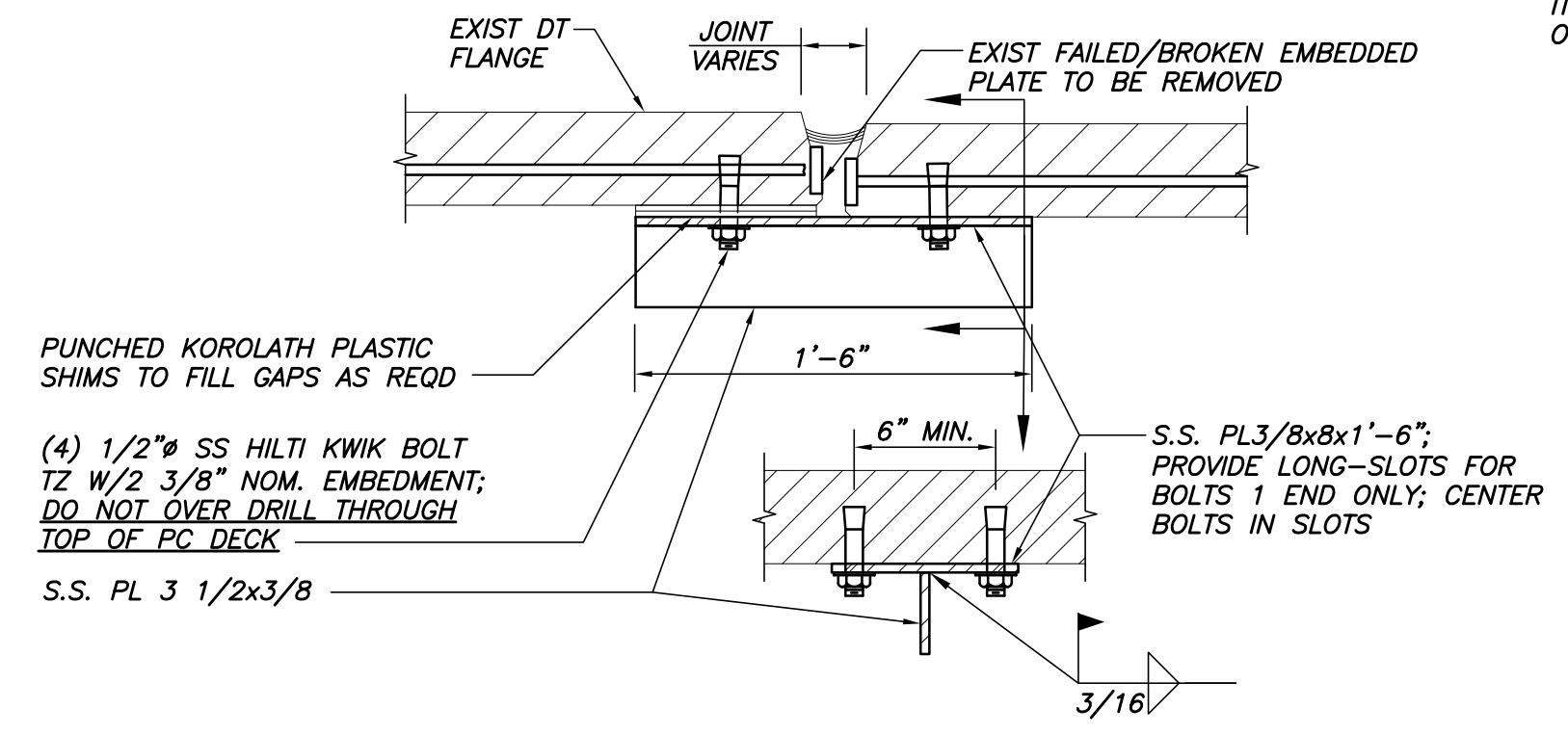


DT-DT SHEAR CONNECTION REPAIR

N.T.S.
 NOTES:
PREPARATION/INSPECTION:
 1. CUT SEALANT FROM JOINT AND ALLOW ENGINEER TO INSPECT CONNECTION.
 2. CONTRACTOR IS REQUIRED TO PROVIDE AS-BUILT DRAWINGS INDICATING WHERE SHEAR CONNECTIONS HAVE BEEN REPAIRED.

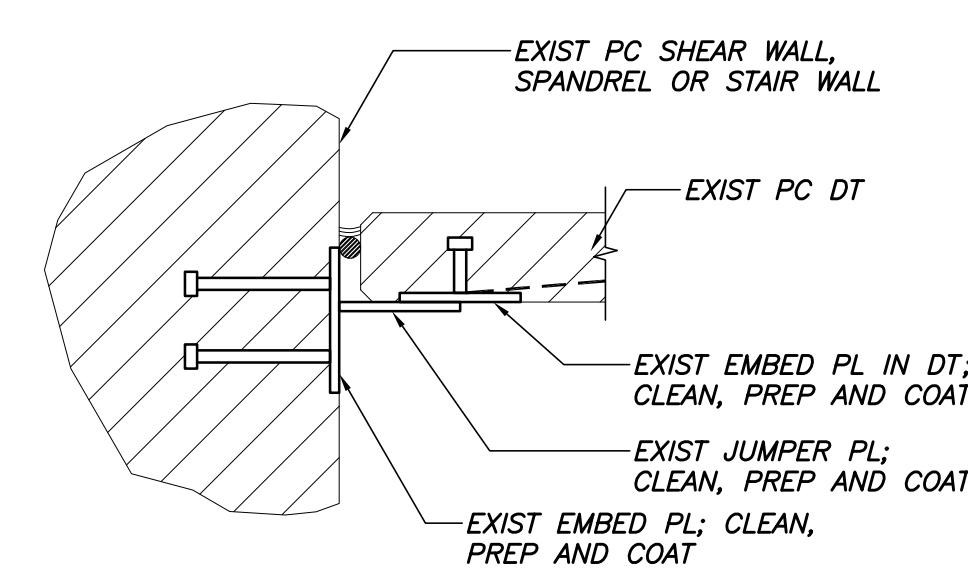
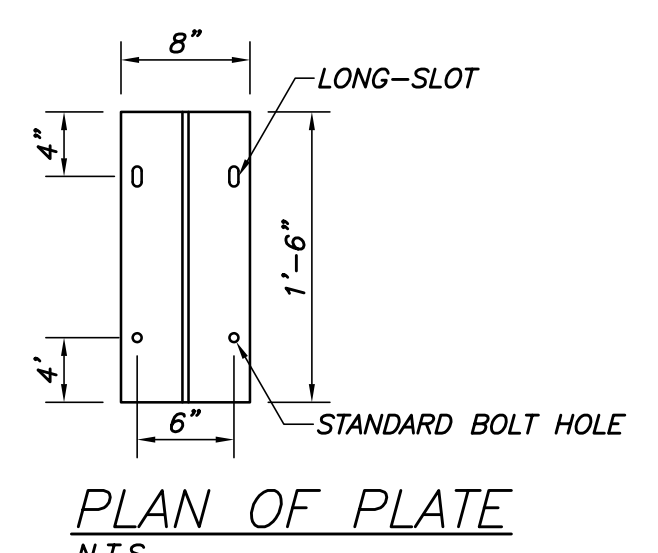
CONNECTION CONDITIONS THAT REQUIRE REPAIR:
 NOTE: NOT ALL REPAIR LOCATIONS ARE IDENTIFIED ON THE DRAWINGS.
 1. XD - DOUBLE ERECTION BAR
 2. XM - MISSING ERECTION BAR
 3. ANY BROKEN OR LOOSE ERECTION BARS.
 4. UNDERSIZED ERECTION BAR (OVER 1/16" GAP BETWEEN ERECTION BAR AND EMBEDDED STEEL)

REPAIR:
 1. REMOVE ERECTION BAR AND WELDS FROM EMBEDDED PLATE WITH GRINDER. AVOID GOUGING THE EMBEDDED CONNECTION. DO NOT USE A TORCH.
 2. CENTER WELD AND ERECTION BAR BETWEEN EMBEDDED PLATES.
 3. DO NOT OVER WELD; 3" MAXIMUM WELD LENGTH. DO NOT WELD WITHIN 3/4" OF THE EMBEDDED PLATE END.
 4. WHERE EMBEDDED PLATES DO NOT ALIGN, PROVIDE LONGER ERECTION BAR.
 5. USE A304 STAINLESS STEEL ERECTION BAR AND USE WELDING ELECTRODE E308.
 6. USE PROPER ERECTION BAR WIDTH AS DETERMINED BY WIDTH BETWEEN EMBEDDED PLATES.
 7. A MAXIMUM GAP OF 1/16" BETWEEN THE ERECTION BAR AND EMBEDDED PLATE ALLOWED.
 8. AFTER WELDING THE REPLACEMENT PLATE, CLEAN WELDED AREA BY REMOVING WELD SLAG WITH STIFF WIRE BRUSH, GRINDING ANY WELD SPLATTER AND SHARP SURFACE TEXTURES SMOOTH, ABRASIVE BLASTING AND WIPING WITH SOLVENT TO BE SURE NO OIL, DUST OR GREASE REMAINS.
 9. DO NOT INSTALL SEALANT IN JOINT UNTIL ENGINEER OR OWNERS REPRESENTATIVE HAS INSPECTED THE CONNECTIONS.
 10. EACH DT-DT CONNECTION WIDTH VARIES. EACH JUMPER PLATE MAY NEED TO BE CONTOURED SPECIFICALLY TO THE EXISTING CONDITION.



OVERHEAD SUPPLEMENTAL STEEL CONNECTION REPAIR

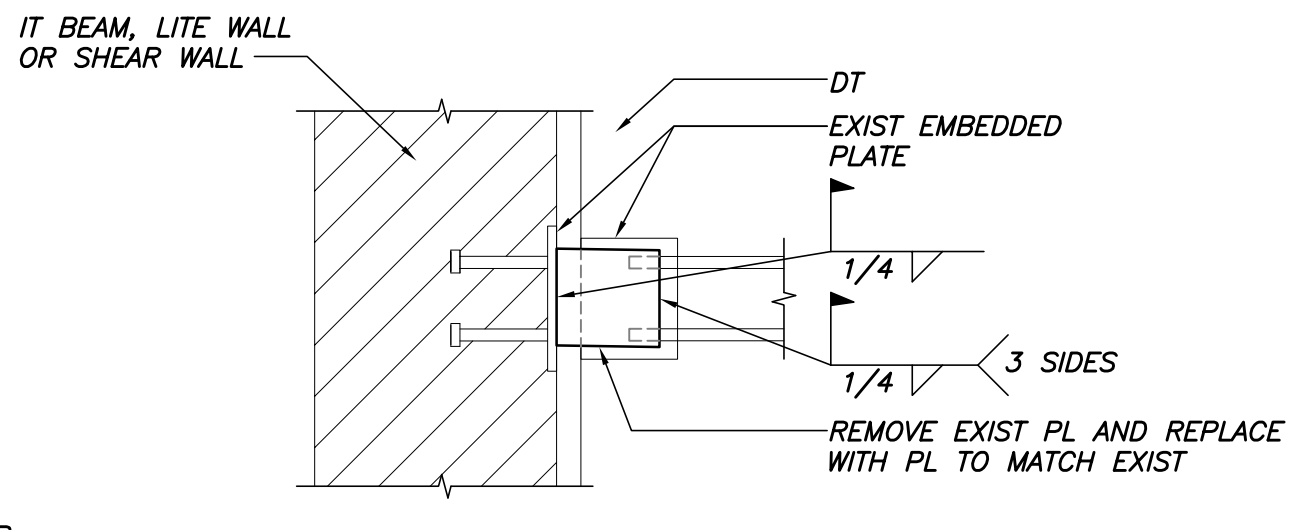
N.T.S.
 NOTES:
 1. INSPECT EXISTING DT-DT SHEAR CONNECTIONS. NOTIFY ENGINEER OF CONDITION AND ALLOW ENGINEER TO INSPECT PRIOR TO INSTALLATION OF SEALANT.
 2. CONTRACTOR TO DOCUMENT LOCATIONS WHERE SUPPLEMENTAL STEEL IS TO BE INSTALLED.
 3. INSTALL REPLACEMENT CONNECTION AS DETAILED ABOVE. ANCHOR BOLTS TO AVOID EXISTING REINFORCING. NOTIFY OWNER IF ELECTRICAL CONDUIT OR OTHER ELEMENTS ARE OBSTRUCTING INSTALLATION.
 4. IF THE ELEVATION OF THE TWO DT'S ARE DIFFERENT, PROVIDE PUNCHED PLASTIC SHIMS CENTERED OVER BOLT. PROVIDE LONGER ANCHOR BOLTS TO ACQUIRE 2 3/8" EMBEDMENT.



DT-SPANDREL, SHEAR AND STAIR WALL OVERHEAD CONNECTION REPAIR

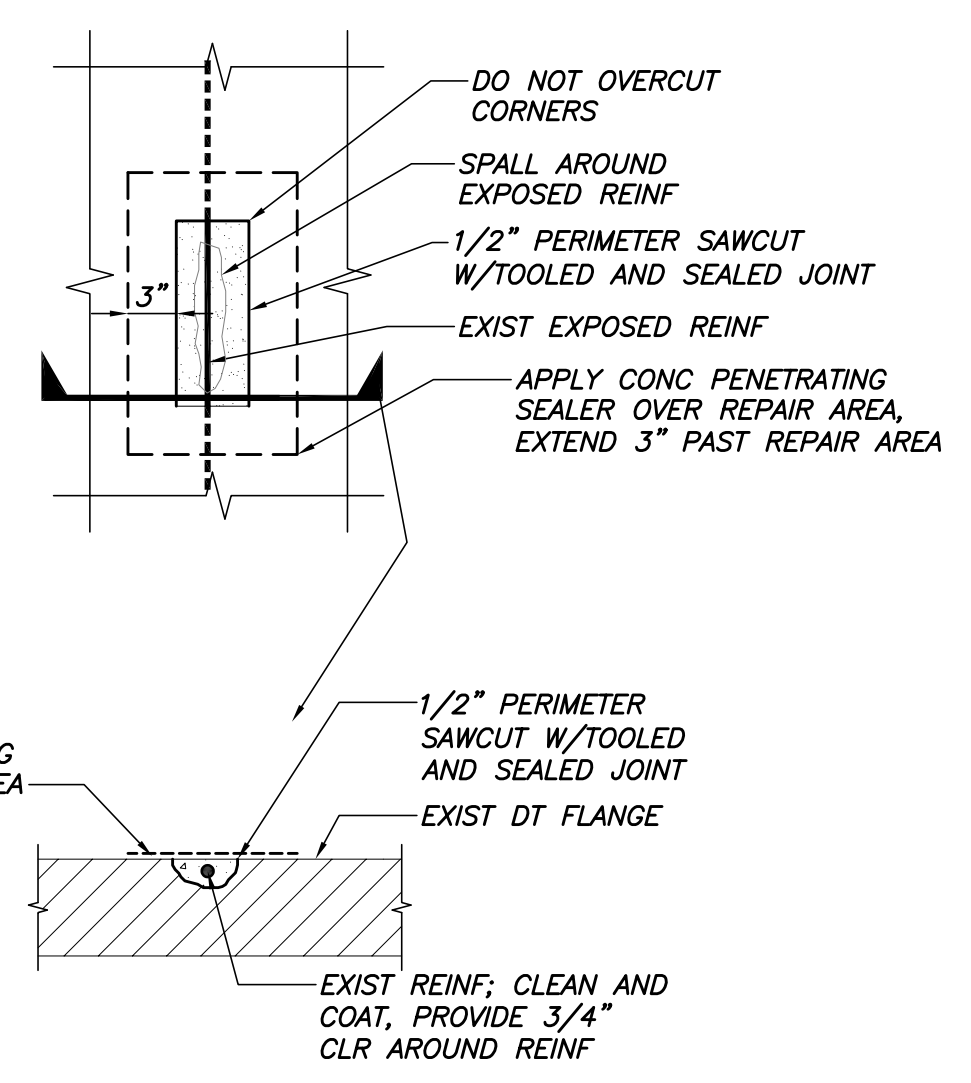
N.T.S.
DT-SPANDREL SHEAR AND STAIR WALL CONNECTION REPAIR NOTES
PREPARATION/INSPECTION:
 1. INSPECT EXISTING PL'S AND WELDS. NOTIFY ENGINEER IF THERE IS ANY VISIBLE DAMAGE. IF REPLACEMENT IS REQUIRED, REFERENCE "TYPICAL DT CONNECTION JUMPER PLATE REPLACEMENT DETAIL", THIS DWG.

REPAIR:
 1. CLEAN ALL STEEL SURFACES REMOVING ALL RUST, SCALE AND DETERIORATED COATING TO SSPC-SP3 (POWER TOOL CLEAN).
 2. IMMEDIATELY COAT ALL EXPOSED STEEL SURFACES WITH (2) COATS OF ZINC-RICH COLD GALVANIZING COATING PER MANUFACTURERS' RECOMMENDATIONS. APPLY AT MINIMUM DRY FILM BUILD OF 1.5 MILS PER COAT.



TYPICAL DT CONNECTION JUMPER PLATE REPLACEMENT DETAIL (XM)

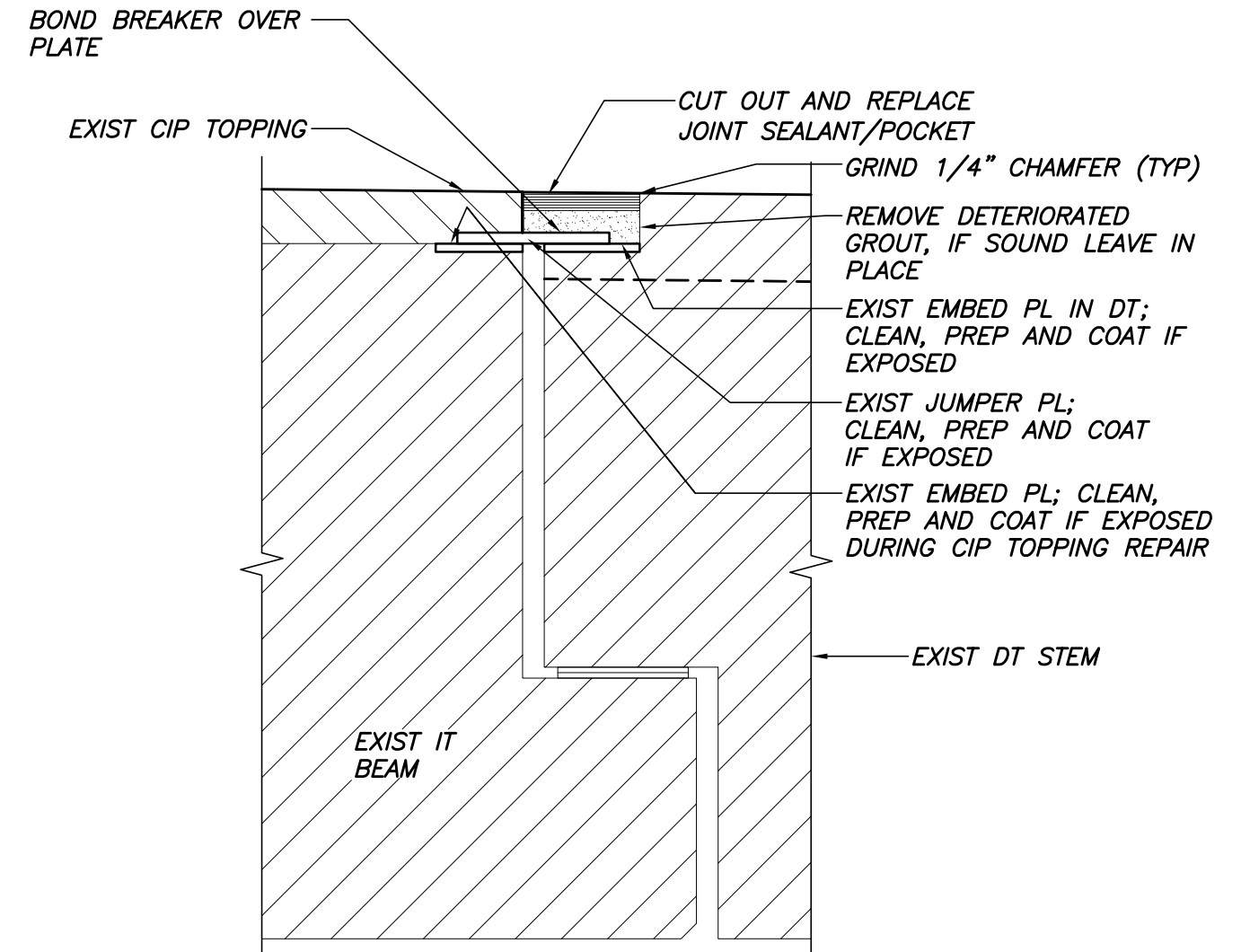
N.T.S.
PLATE REPLACEMENT NOTES:
 1. GRIND THE WELDS AROUND THE JUMPER PLATE. AVOID GOUGING THE EMBEDDED STEEL.
 2. GRIND THE WELDING SURFACE OF THE EMBEDDED ANGLE SMOOTH TO REMOVE THE REMNANT OF THE WELD.
 3. ABRASIVE BLAST THE HORIZONTAL AND VERTICAL SURFACES OF THE EMBEDDED ANGLE AND ALL SURFACES OF THE REPLACEMENT PLATE TO SSPC-SP3 (POWER TOOL CLEAN).
 4. AFTER WELDING THE REPLACEMENT PLATE, CLEAN WELDED AREA BY REMOVING WELD SLAG WITH STIFF WIRE BRUSH, GRINDING ANY WELD SPLATTER AND SHARP SURFACE TEXTURES SMOOTH, ABRASIVE BLASTING AND WIPING WITH SOLVENT TO BE SURE NO OIL, DUST OR GREASE REMAINS.
 5. IMMEDIATELY COAT ALL EXPOSED STEEL SURFACES WITH (2) COATS OF ZINC-RICH COLD GALVANIZING COATING PER MANUFACTURERS' RECOMMENDATIONS. APPLY AT MINIMUM DRY FILM BUILD OF 1.5 MILS PER COAT.
 9. REFERENCE CONNECTION REPAIR DETAIL FOR CONCRETE REPAIRS AND SEALANT INSTALLATION.



DT FLANGE EXPOSED REINFORCEMENT REPAIR

N.T.S.
NOTES:
PREPARATION/INSPECTION:
 1. SOUND OUT DETERIORATED CONCRETE.
 2. PROVIDE 1/2" DEEP SAWCUT ALONG PERIMETER OF REMOVAL AREA.
 3. REMOVE DETERIORATED CONCRETE UNTIL SOUND CONCRETE IS REACHED.
 4. EXTENTS OF EXISTING FLANGE REINFORCEMENT IS UNKNOWN. PROTECT EXISTING REINFORCEMENT AGAINST DAMAGE DURING DEMOLITION INCLUDING WELDED WIRE REINFORCEMENT.

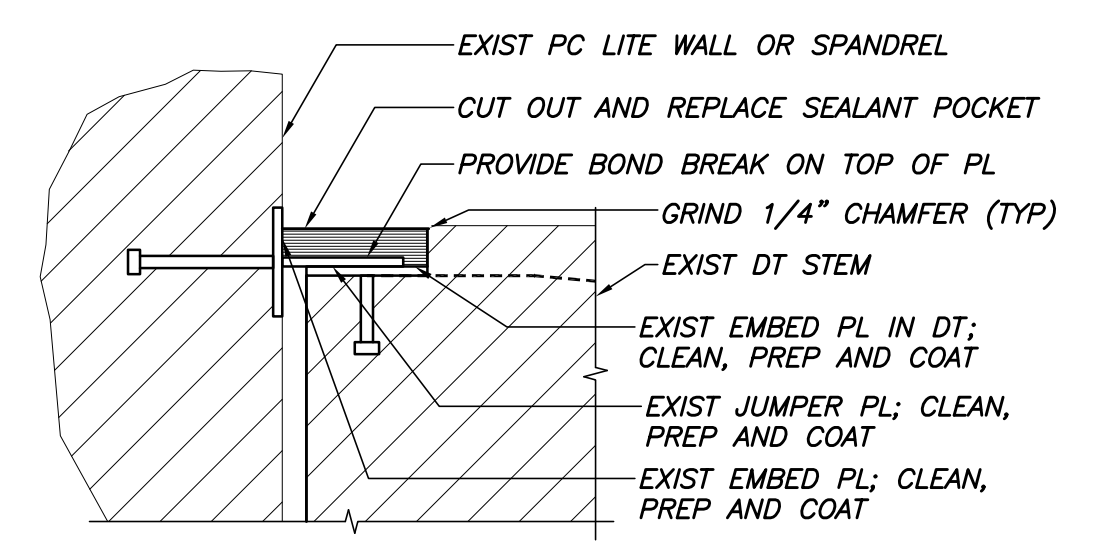
REPAIR:
 1. EXTEND REPAIR UNTIL NO RUST OR SCALE IS OBSERVED ON THE REINFORCEMENT.
 2. CLEAN ALL STEEL SURFACES REMOVING ALL RUST, SCALE AND DETERIORATED COATING TO SSPC-SP3 (POWER TOOL CLEAN).
 3. ALL NON-STAINLESS STEEL REINFORCEMENT SHALL BE PRIMED OR EPOXY COATED WITH A PRODUCT COMPATIBLE WITH THE CONCRETE REPAIR MATERIAL. REPAIR AREA SHALL BE COMPLETED WITH A PRE-PACKAGED MATERIAL WITH SHRINKING COMPENSATING AND CORROSION INHIBITING ADDITIVES.
 4. PROVIDE TOOLED JOINT AROUND REPAIR PERIMETER AREA AND SEAL WITH SEALANT.
 5. MATERIAL SHALL BE PLACED AS PER SPECIFICATIONS AND PER MANUFACTURERS' RECOMMENDATIONS.
 6. FORM WORK, SHORING AND TEMPORARY PROTECTION SHALL REMAIN IN-PLACE UNTIL MATERIAL ACHIEVES A MINIMUM STRENGTH OF f'c=4,000 PSI MIN.
 7. CURE REPAIR ACCORDING TO PRE-PACKAGED CONCRETE MANUFACTURER.
 8. APPLY CONCRETE PENETRATING SEALER OVER REPAIR AREA, EXTEND 3" PAST EXTENTS OF REPAIR.



DT-IT BEAM CONNECTION POCKET REPAIR

N.T.S.
DT-IT BEAM CONNECTION REPAIR NOTES
PREPARATION/INSPECTION:
 1. REMOVE ALL EXISTING SEALANT FROM JOINT AND CONNECTION POCKET.
 2. INSPECT EXISTING PL'S AND WELDS. NOTIFY ENGINEER IF THERE IS ANY VISIBLE DAMAGE. IF REPLACEMENT IS REQUIRED, REFERENCE SIMILAR DETAIL "TYPICAL DT CONNECTION JUMPER PLATE REPLACEMENT DETAIL", THIS DWG.
 3. INSPECT ALL CONCRETE SURFACES PRIOR TO APPLICATION OF PRIMERS/ADHESIVES TO INSURE PROPER PREPARATION AND SURFACE DRYING.
 4. GRIND END OF DT AND CIP TOPPING AND ALL EDGES OF THE CONNECTION POCKET.

REPAIR:
 1. CLEAN ALL PL SURFACES REMOVING ALL RUST, SCALE AND DETERIORATED COATING TO SSPC-SP3 (POWER TOOL CLEAN).
 2. IMMEDIATELY COAT ALL EXPOSED STEEL SURFACES WITH (2) COATS OF ZRC COLD GALVANIZING PER MANUFACTURERS' RECOMMENDATIONS.
 3. INSTALL BOND BREAKER OVER CONNECTION PL.
 4. INSTALL SEALANT, REFERENCE TYPICAL DETAIL DWG S2.3 FOR JOINT.



DT-SPANDREL AND LITEWALL CONNECTION POCKET REPAIR

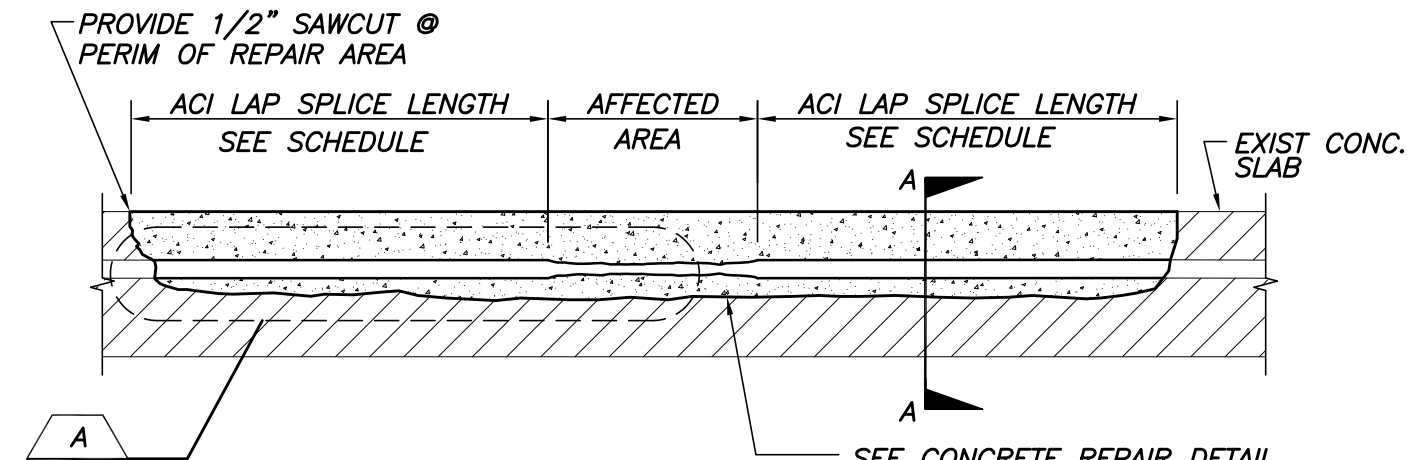
N.T.S.
DT-SPANDREL & LITEWALL CONNECTION REPAIR NOTES
PREPARATION/INSPECTION:
 1. REMOVE ALL EXISTING SEALANT FROM JOINT AND CONNECTION POCKET.
 2. INSPECT EXISTING PL'S AND WELDS. NOTIFY ENGINEER IF THERE IS ANY VISIBLE DAMAGE. IF REPLACEMENT IS REQUIRED, REFERENCE "TYPICAL DT CONNECTION JUMPER PLATE REPLACEMENT DETAIL", THIS DWG.
 3. GRIND END OF DT AND ALL EDGES OF THE CONNECTION POCKET.

REPAIR:
 1. CLEAN ALL PL SURFACES REMOVING ALL RUST, SCALE AND DETERIORATED COATING TO SSPC-SP3 (POWER TOOL CLEAN).
 2. IMMEDIATELY COAT ALL EXPOSED STEEL SURFACES WITH (2) COATS OF ZRC COLD GALVANIZING PER MANUFACTURERS' RECOMMENDATIONS.
 3. INSTALL BOND BREAKER OVER CONNECTION PL. FOR DEEPER POCKETS INSTALL GROUT CAP OVER CONNECTION TO WITHIN 1/2" OF TOP SURFACE.
 4. INSTALL SEALANT, REFERENCE TYPICAL DETAIL DWG S2.3 FOR JOINT.

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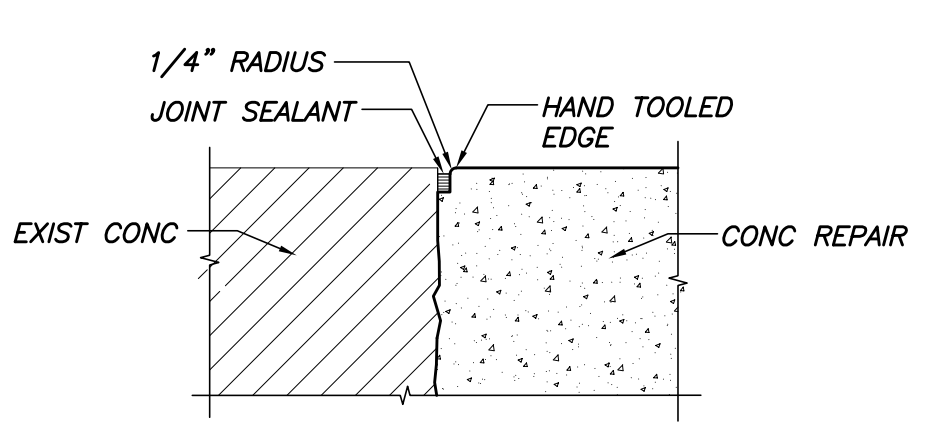
MECHANICS ROW PARKING GARAGE
 PHASE 6 REPAIRS
 AUBURN, ME

TITLE REPAIR SECTIONS AND DETAILS
 PROJECT P21612
 DATE AS NOTED
 DRAWN BY ATB
 5-JAN-22
 SHEET NUMBER S2.1



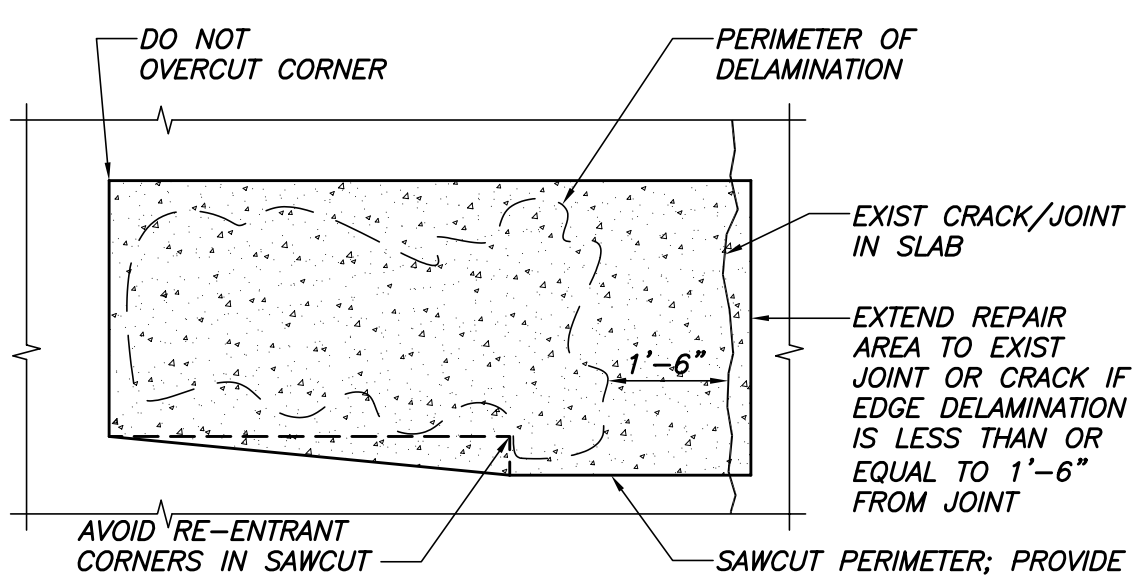
TYPICAL REINFORCEMENT REPAIR

- N.T.S.*
- PREPARATION:**
 1. SEE TYPICAL CONCRETE REPAIR FOR REMOVAL/REPLACEMENT OF CONCRETE.
- INSPECTION:**
 1. IF REINFORCEMENT HAS LOST MORE THAN 25% OF ITS CROSS SECTIONAL AREA, NOTIFY STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH REPAIR.
- REPAIR:**
 1. LAP BARS AS NOTED ABOVE.
 2. SEE TYPICAL CONCRETE REPAIR.



TYPICAL TOOLED JOINT DETAIL

N.T.S.



PARTIAL SLAB PLAN

N.T.S.
 □ INDICATES AREA OF CONCRETE REPAIR

SLAB REPAIR NOTES

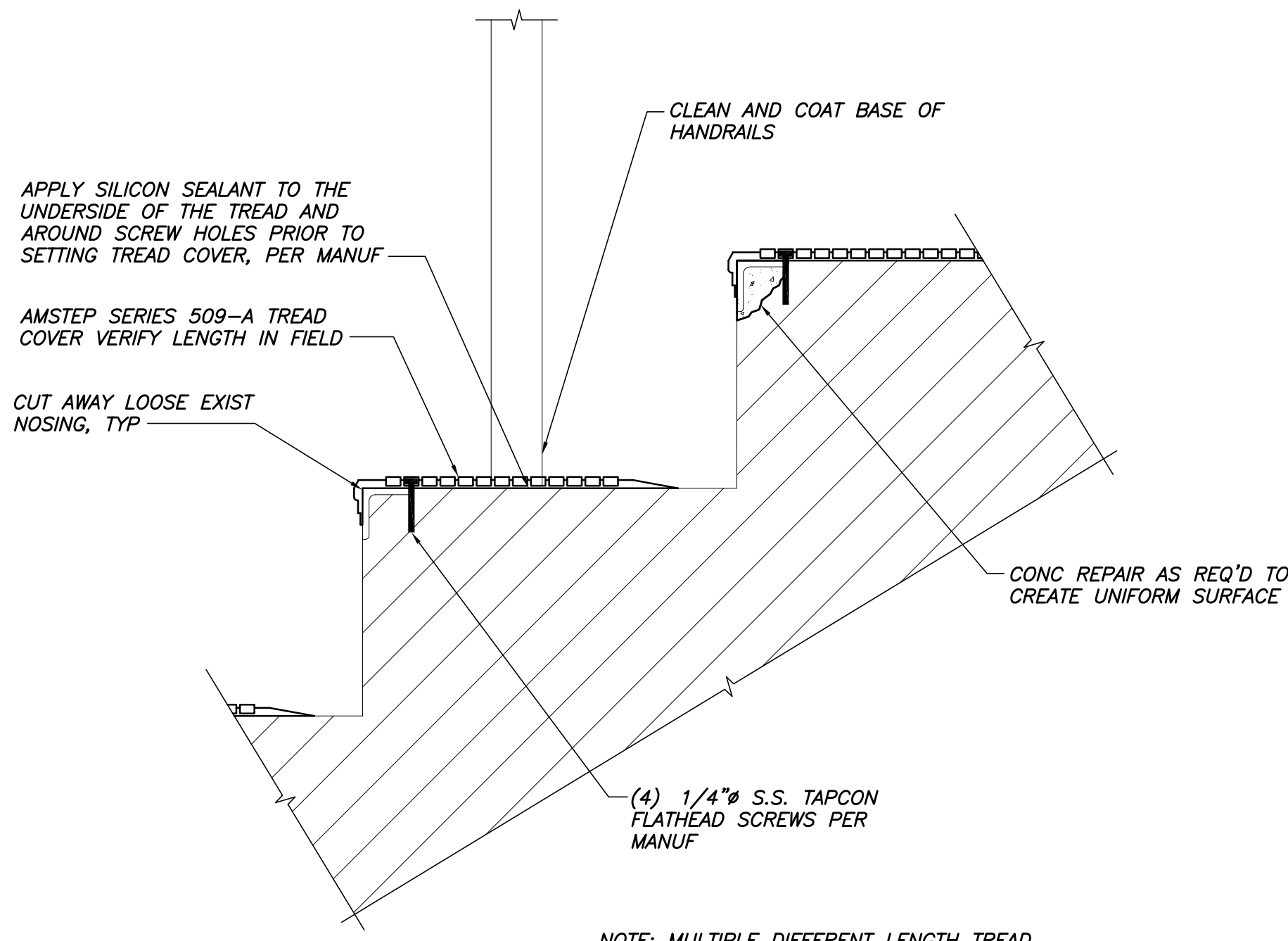
- GENERAL:**
- ALL PRECAST DECK REPAIRS ARE ASSUMED TO BE FULL DEPTH AND CIP REPAIRS ARE ASSUMED TO BE TO 3" DEEP, UNLESS NOTED OTHERWISE.
 - DUST AND MOISTURE PROTECTION SHALL BE PROVIDED AT AND BELOW THE LEVELS OF REPAIR.
 - AT CIP Topping REMOVING TOPPING COMPLETELY DOWN TO PC SUBSTRATE.
- CONCRETE REMOVAL:**
- REFERENCES: ICRI 03730, 03732, ACI 546R.
 - AT EACH REPAIR AREA, REMOVE SMALL AREA OF CONCRETE TO CONFIRM DEPTH OF REINFORCEMENT PRIOR TO CUTTING.
 - SAW CUT PERIMETER OF REPAIR AREA TO A DEPTH OF 1/2". REFERENCE PARTIAL SLAB PLAN THIS SHEET FOR ADDITIONAL INFORMATION. NOTE THAT PERIMETER MAY NEED TO BE EXTENDED TO CREATE A RECTANGULAR AREA.
 - REMOVE ALL DETERIORATED, DELAMINATED AND UNSOUND CONCRETE. CONCRETE SHALL BE REMOVED BY A METHOD THAT LIMITS THE DAMAGE TO SURROUNDING SOUND CONCRETE AND WITH MINIMAL DAMAGE TO EXISTING PRECAST/PRESTRESSED UNITS. REMOVAL METHOD SHALL BE SUBMITTED FOR REVIEW.
 - CONTINUOUS MATERIAL REMOVAL SHALL CONTINUE UNTIL AGGREGATE PARTICLES ARE BEING BROKEN RATHER THAN BEING REMOVED FROM THE CEMENT MATRIX.
 - USE OF MECHANICAL IMPACT CHIPPING HAMMERS SHALL BE LIMITED TO 30lb WITH A 15lb RECOMMENDED. ALL NECESSARY PRECAUTIONS MUST BE TAKEN TO AVOID MICRO CRACKING (BRUISING) OF THE PRECAST/PRESTRESSED UNITS.

PREPARATION:

- REMOVE ALL RUST AND SCALE.
- ALL EXPOSED REINFORCEMENT SHALL BE PRIMED OR EPOXY COATED WITH A PRODUCT COMPATIBLE WITH THE CONCRETE REPAIR MATERIAL.
- BEFORE PROCEEDING WITH REPAIR, INSPECT ALL CONCRETE SURFACES. INSTALLATION OF REPAIR MATERIAL INDICATES ACCEPTANCE OF ALL SUBSTRATE CONDITIONS.
- INSTALL GALVANIC ANODE AT LOCATIONS SHOWN ON DRAWINGS. ATTACH ANODE TO CLEAN REINFORCING STEEL. LOCATE THE ANODE ON THE SIDE OR BENEATH THE REINFORCING STEEL PROVIDING MINIMUM 3/4" COVER AND 1/4" CLEARANCE TO SUBSTRATE CONCRETE.
- APPLY POLYMER ADHESIVE/BONDING AGENT TO ALL CONCRETE SURFACES.
- REPAIR MATERIAL FOR LARGE AREAS (TOTAL PLACEMENTS OVER 1 YARD)
 COMPRESSIVE STRENGTH (f'c) = 5,000 PSI (MIN)
 AIR CONTENT = 6 1/2 ±2%
 WATER/CEMENT RATIO (W/C) = 0.40 (MAX)
 AGGREGATE = 3/8" MIN
- REPAIR MATERIAL FOR SMALL PLACEMENTS (PLACEMENT LESS THAN 1 YARD) SHALL BE A ONE-COMPONENT, EARLY STRENGTH GAINING, CEMENTITIOUS REPAIR MATERIAL WITH THE FOLLOWING PROPERTIES (REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION):
 COMPRESSIVE STRENGTH: = 5,000 PSI (MIN)
AD MIXTURES:
 SHRINKAGE REDUCER = AS PER MANUFACTURER
 CORROSION INHIBITOR = AS PER MANUFACTURER

CONCRETE CURING:

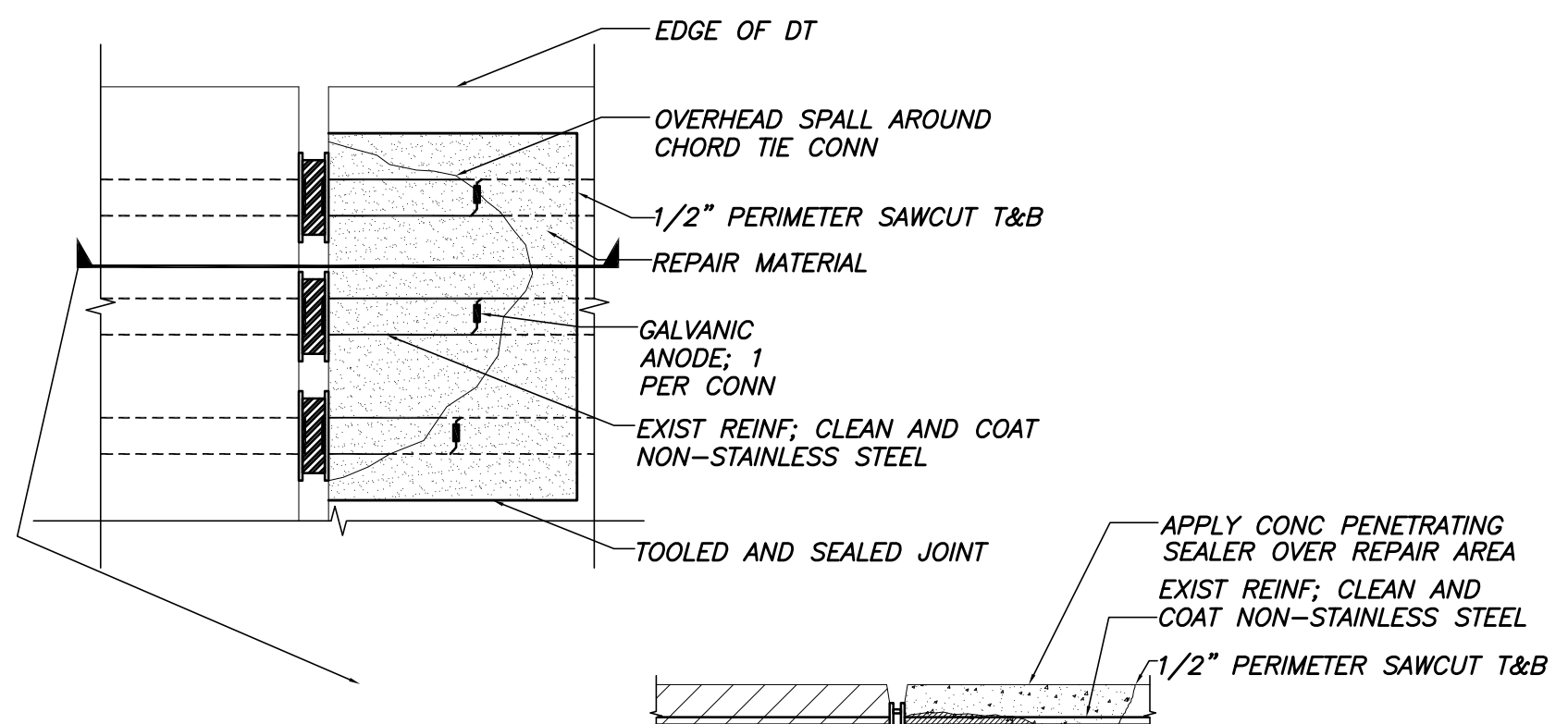
- WET CURE FOR MINIMUM OF 3 DAYS (72 HOURS). REFERENCE THE SPECIFICATIONS FOR FURTHER CURING INFORMATION.



TREAD COVER DETAIL

N.T.S.

- SEAL JOINT BETWEEN EXISTING PAN NOSING AND CONCRETE TREAD PRIOR TO INSTALLING TREAD COVER.
- COLOR: BLACK WITH YELLOW SITE LINE.
- MANUFACTURER: AMSTEP PRODUCTS LLC (OR PRE-APPROVED EQUAL) WWW.AMSTEP.COM.



TYPICAL CHORD CONNECTION REPAIR

N.T.S.

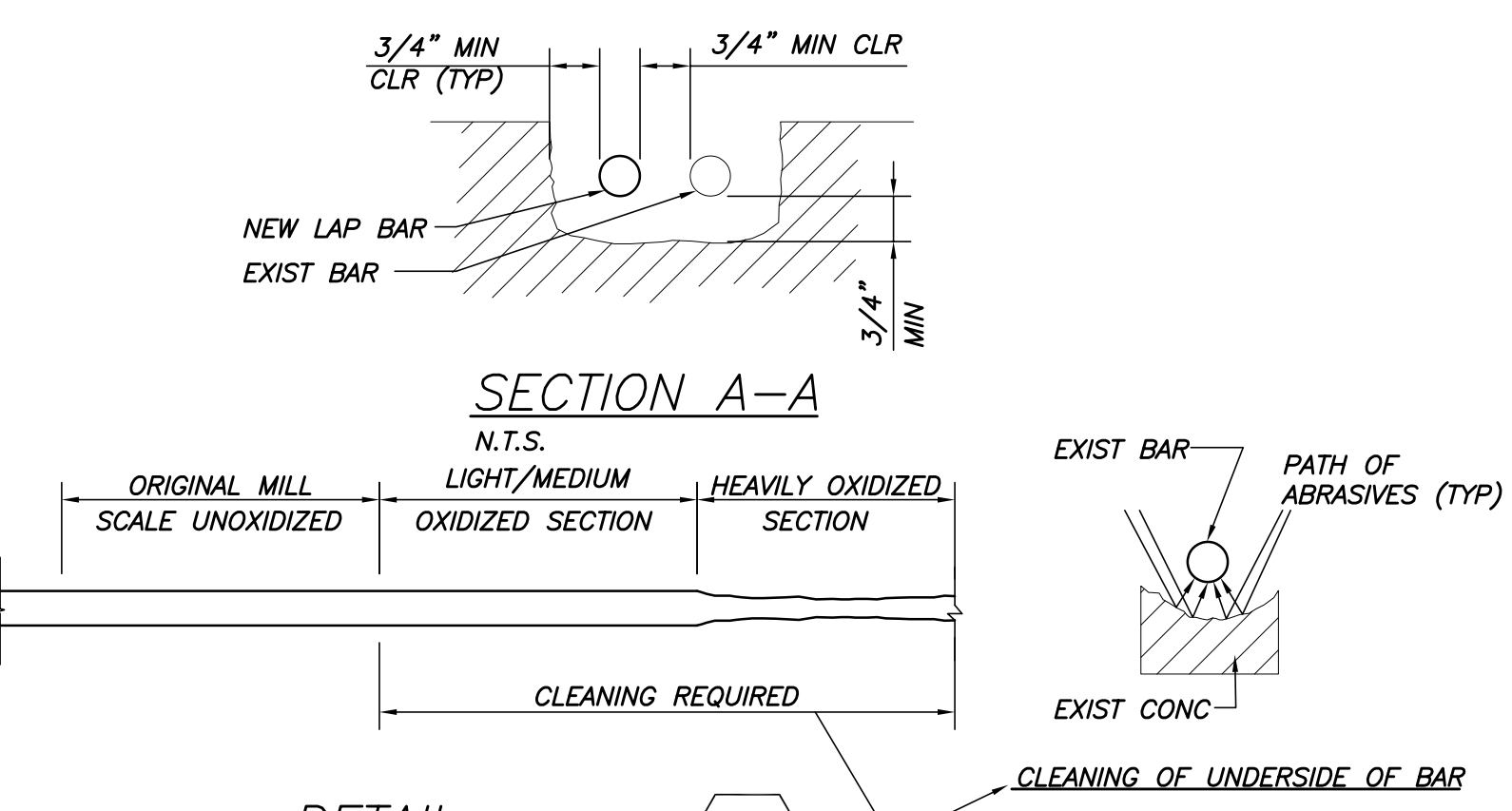
NOTES:

PREPARATION/INSPECTION:

- SOUND OUT DETERIORATED CONCRETE.
- PROVIDE 1/2" DEEP SAWCUT ALONG PERIMETER OF REMOVAL AREA AT TOP AND BOTTOM OF PRECAST FLANGE.
- REMOVE DETERIORATED CONCRETE UNTIL SOUND CONCRETE IS REACHED AND CORROSION ON REINFORCEMENT IS NOT VISIBLE.
- ALLOW ENGINEER TO REVIEW EXPOSED CONDITION PRIOR TO FORMWORK BEING INSTALLED.

REPAIR:

- CLEAN ALL STEEL SURFACES REMOVING ALL RUST, SCALE AND DETERIORATED COATING TO SSPC-SP3 (POWER TOOL CLEAN).
- ALL NON-STAINLESS STEEL REINFORCEMENT SHALL BE PRIMED OR EPOXY COATED WITH A PRODUCT COMPATIBLE WITH THE CONCRETE REPAIR MATERIAL.
- FORM WORK SHALL BE DESIGNED AND CONSTRUCTED TO SUPPORT THE REPAIR MATERIALS AND VEHICLE LOADS IF REQ'D.
- FORMS SHALL BE CONSTRUCTED TO FIT TIGHTLY AGAINST EXISTING CONCRETE SURFACES.
- REPAIR AREA SHALL BE COMPLETED WITH A PRE-PACKAGED MATERIAL WITH SHRINKING COMPENSATING AND CORROSION INHIBITING ADDITIVES.
- PROVIDE TOOLED JOINT AROUND REPAIR PERIMETER AREA AND SEAL WITH SEALANT.
- MATERIAL SHALL BE PLACED AS PER SPECIFICATIONS AND PER MANUFACTURERS RECOMMENDATIONS.
- FORM WORK, SHORING AND TEMPORARY PROTECTION SHALL REMAIN IN-PLACE UNTIL MATERIAL ACHIEVES A MINIMUM STRENGTH OF f'c=4,000 PSI MIN.



DETAIL

N.T.S.

REBAR LAP SPLICE TABLE

| BAR SIZE | LAP LENGTH |
|----------|------------|
| #3 | 30" |
| #4 | 36" |
| #5 | 48" |
| #6 | 56" |
| #7 | 81" |

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MECHANICS ROW PARKING GARAGE PHASE 6 REPAIRS
 AUBURN ME

TITLE REPAIR SECTIONS AND DETAILS

