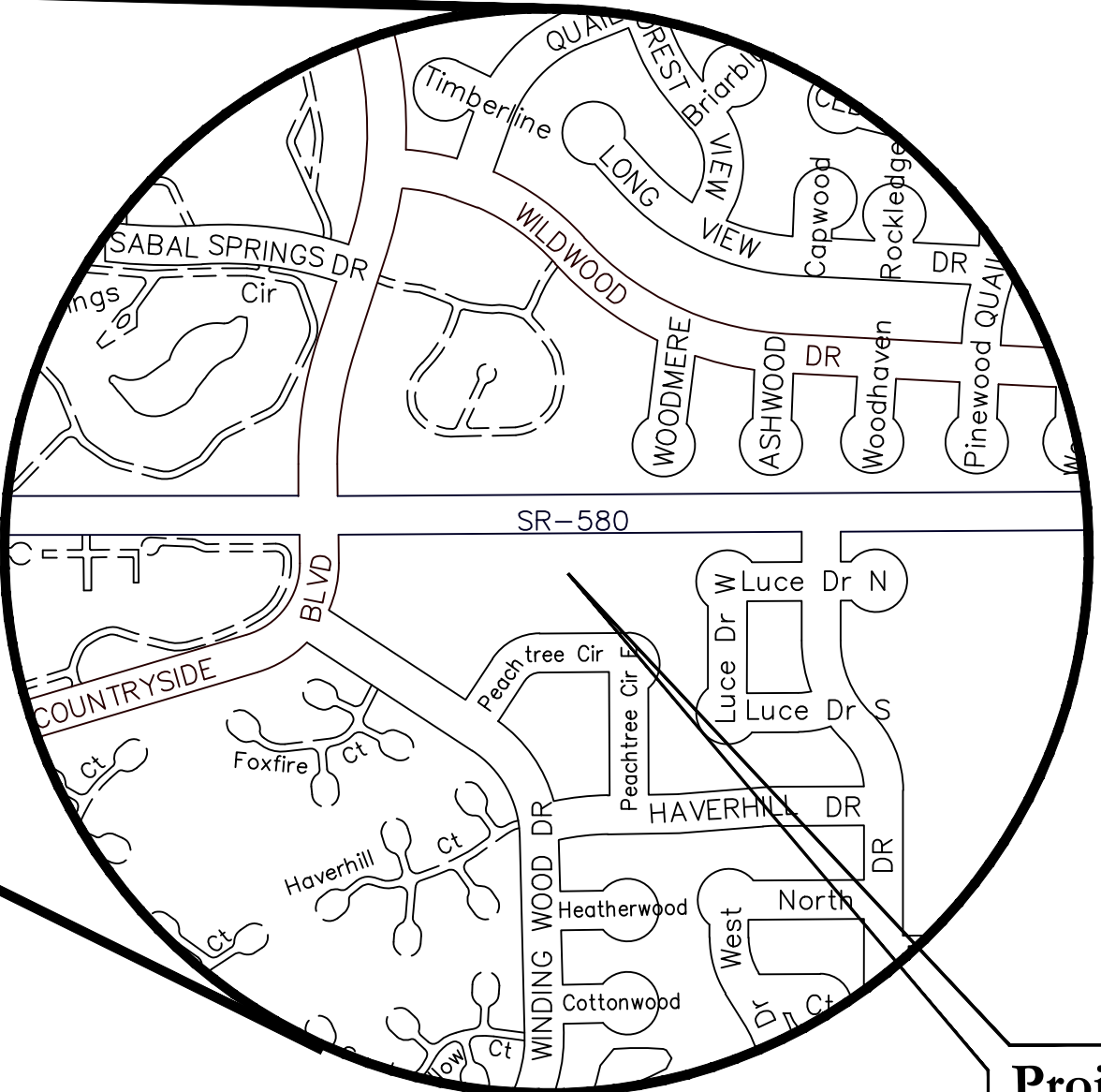
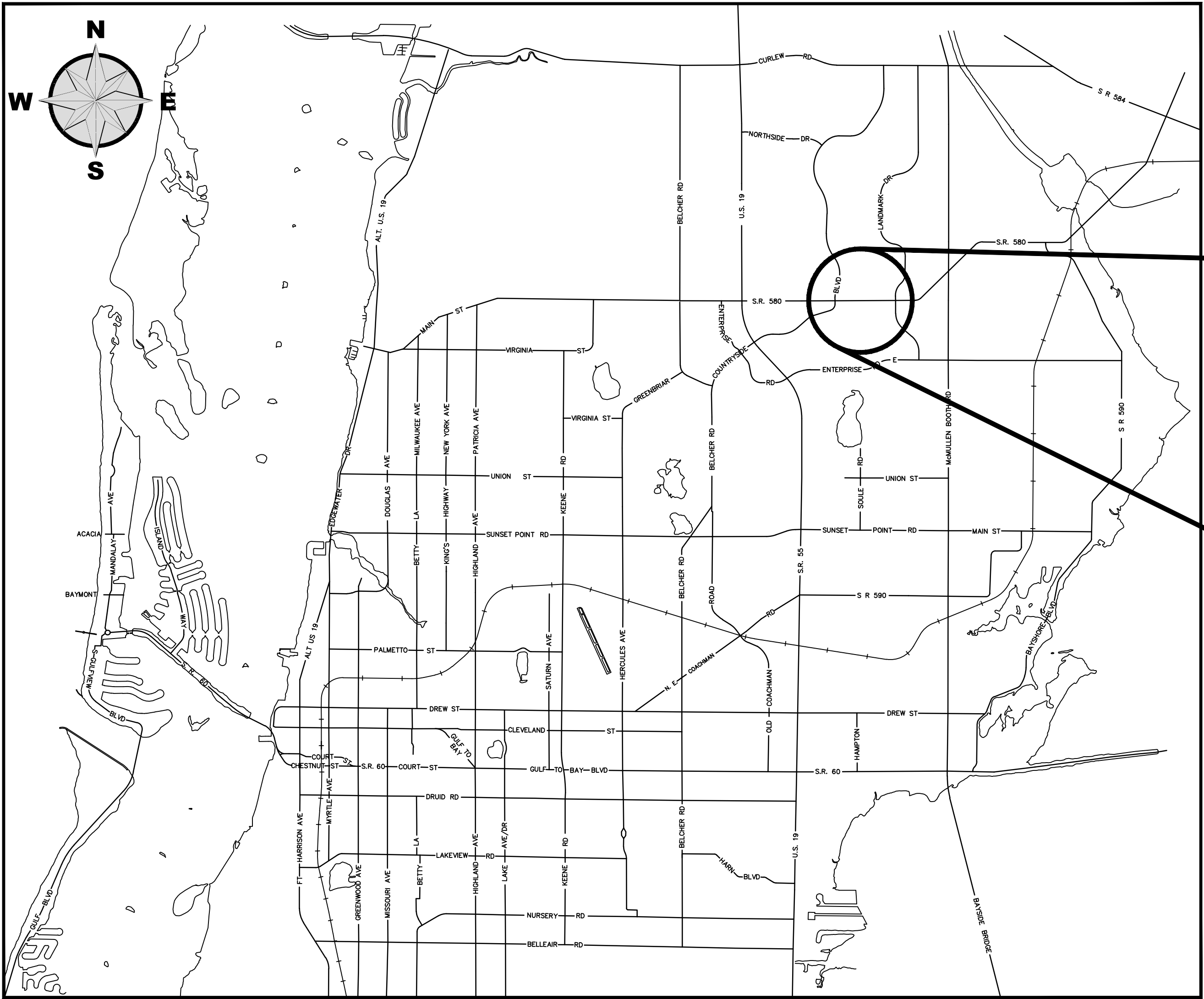


SHEET INDEX

SHEET #	SHEET DESCRIPTION
S1.0	COVER SHEET
S1.1	EAST AND WEST TANK PLANS
S2.1	EAST TANK ELEVATIONS
S2.2	WEST TANK ELEVATIONS
S3.1	CONCRETE REPAIR DETAILS



Water Treatment Plant 3 (WTP 3)
East Dome and Aerator and Miscellaneous Improvements
2775 SR 580, Clearwater, Florida 33761



Project
Location

CITY OFFICIALS

<i>Frank Hibbard</i>	<i>Mayor</i>
<i>Mark Bunker</i>	<i>Councilmember</i>
<i>Kathleen Beckman</i>	<i>Councilmember</i>
<i>David Allbritton</i>	<i>Councilmember</i>
<i>Hoyt Hamilton</i>	<i>Councilmember</i>
<i>Jon Jennings</i>	<i>City Manager</i>

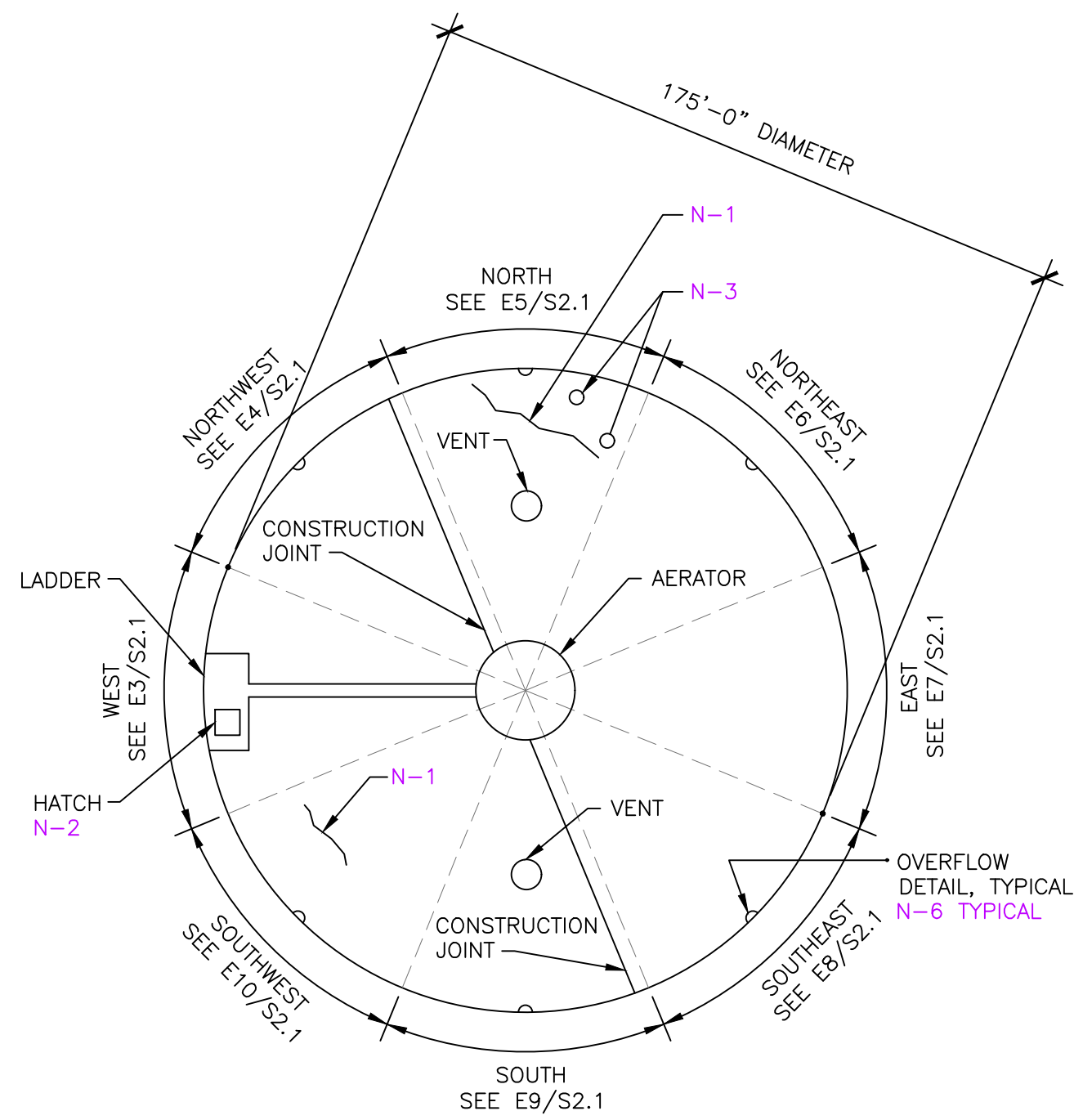
Tara L. Kivett, P.E.
City Engineer

**Approved For
Construction**

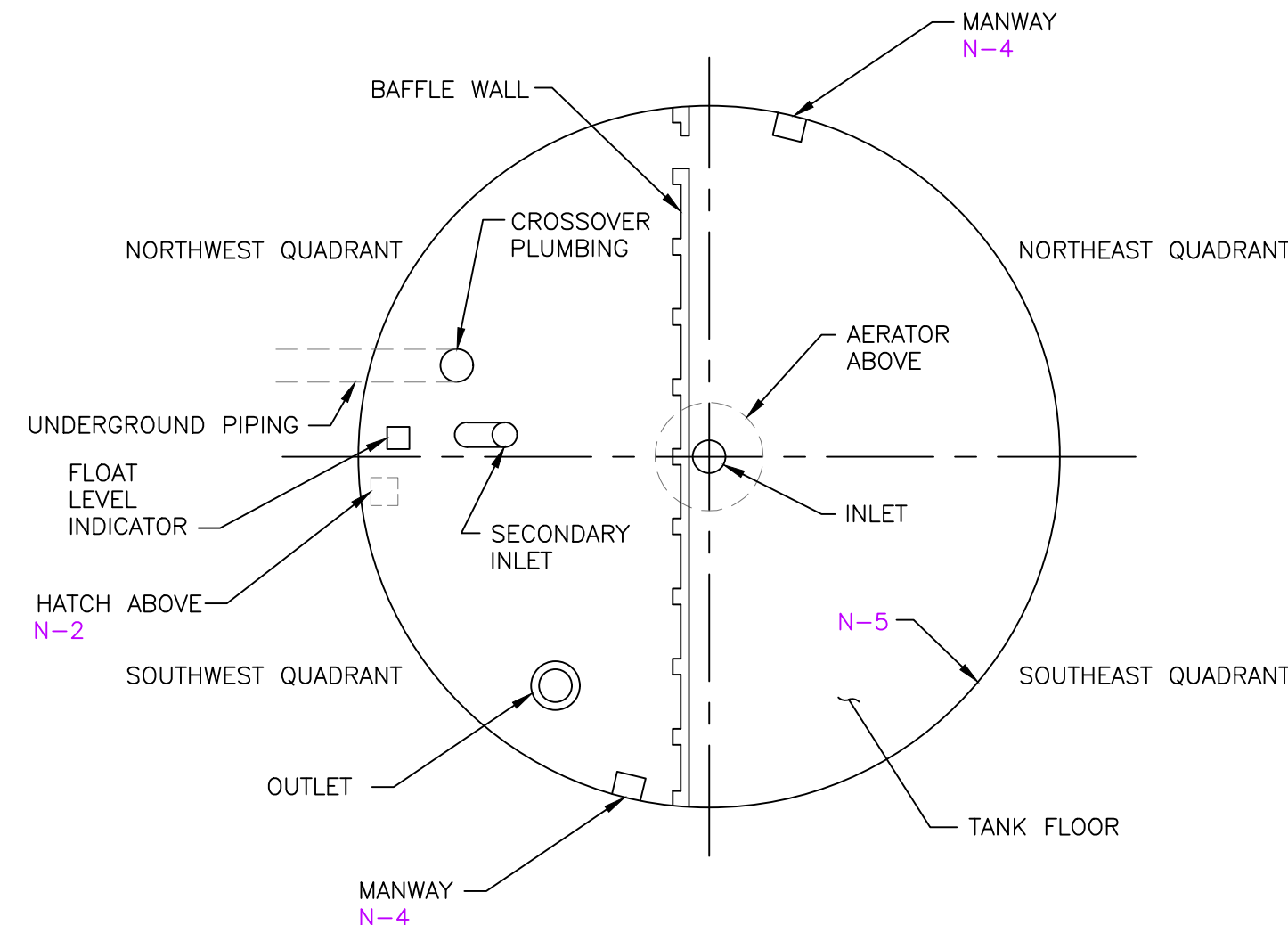
CITY ENGINEER Tara L. Kivett, P.E. #86611

Date Approved

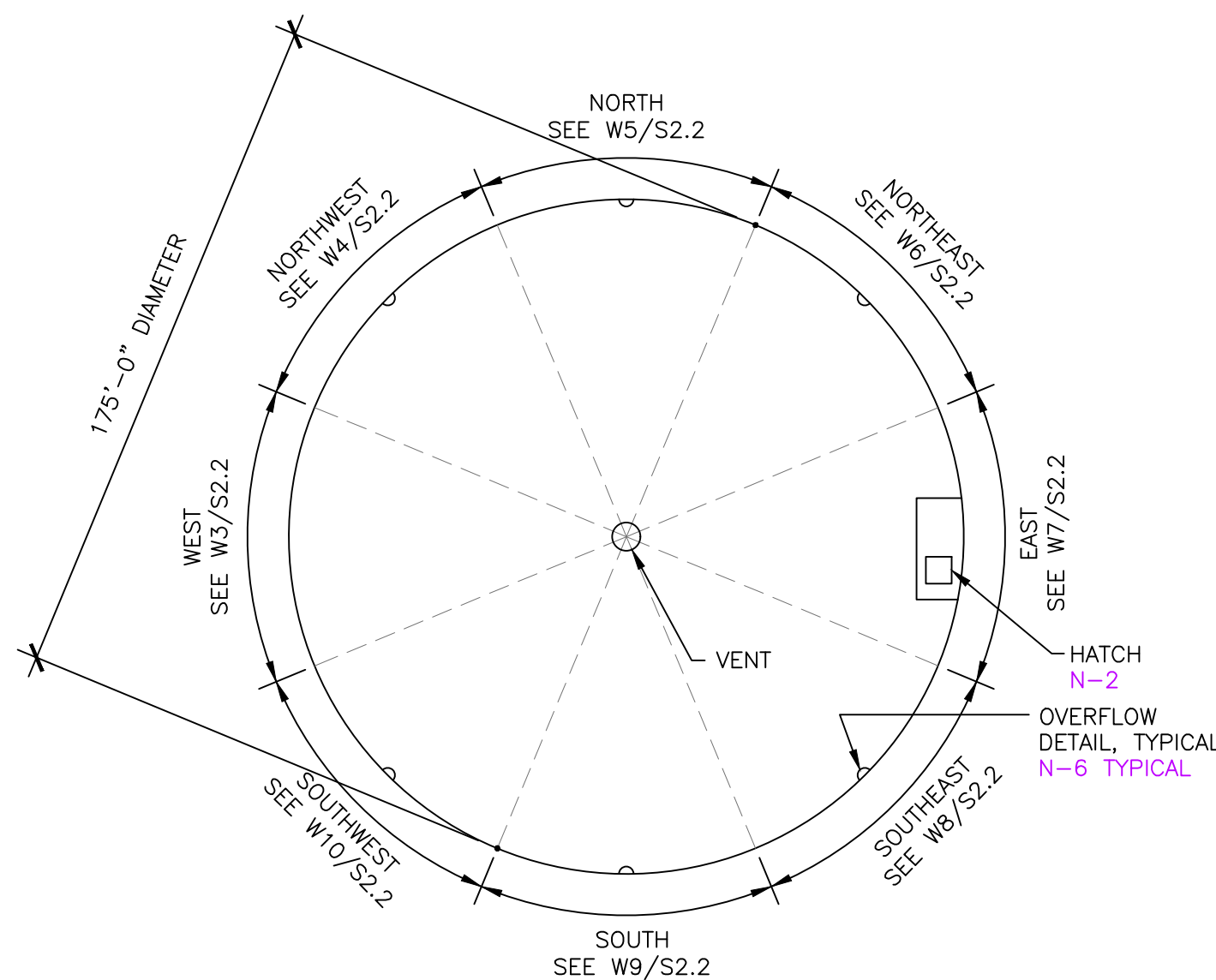
City Project No. 20-0012-UT
City Plan Set No. 2020026



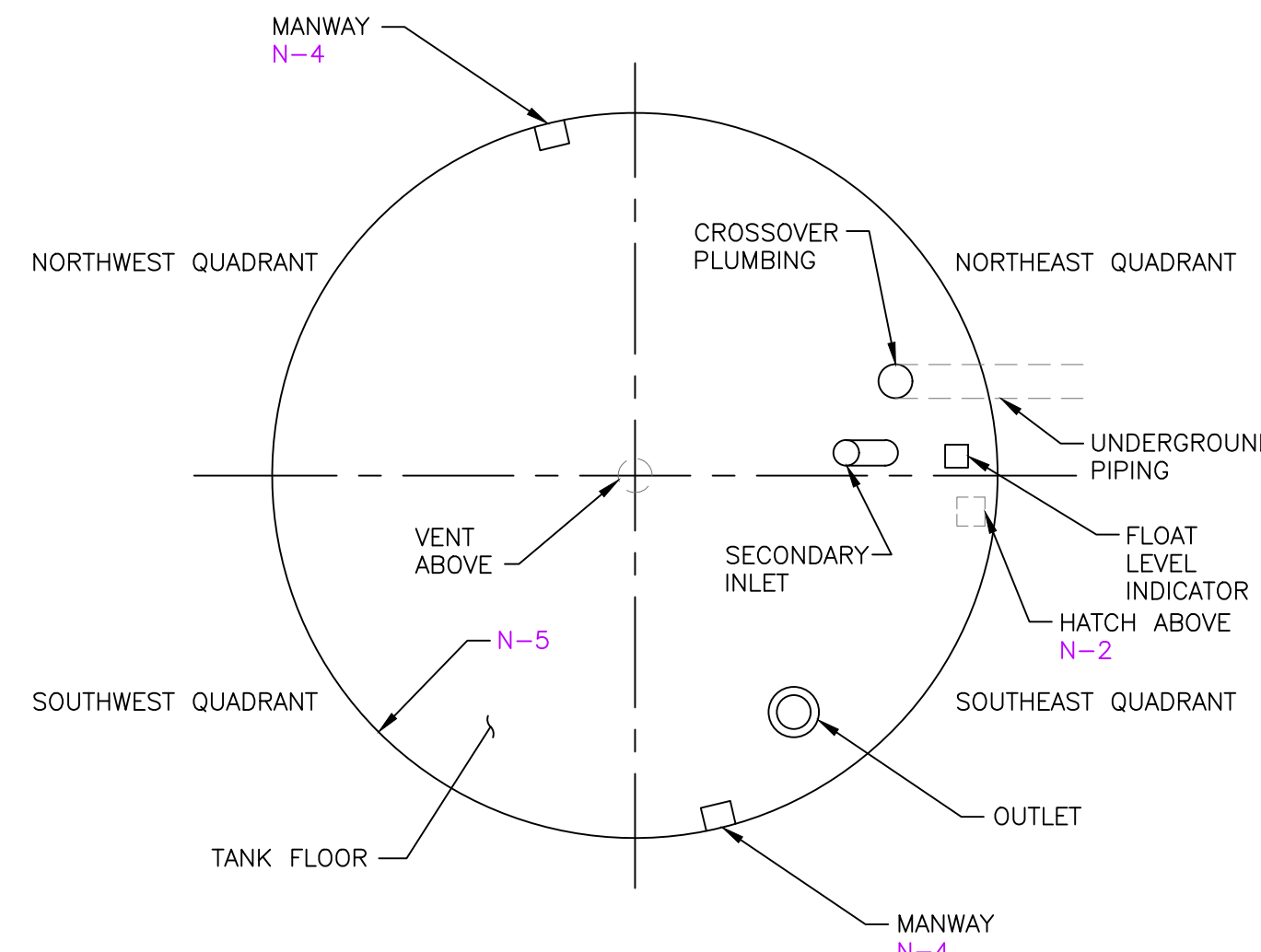
E1 EAST TANK ROOF PLAN
S1.1 NOT TO SCALE



E2 EAST TANK INTERIOR PLAN
S1.1 NOT TO SCALE



W1 WEST TANK ROOF PLAN
S1.1 NOT TO SCALE



W2 WEST TANK INTERIOR PLAN
S1.1 NOT TO SCALE

GENERAL REPAIR NOTES:

- 1 REFER TO SPECIFICATION 01 01 00 FOR GENERAL SUMMARY OF WORK FOR PROJECT.
- 2 REMOVE THE EXISTING COATING FROM ALL INTERIOR TANK SURFACES PER SPECIFICATION 09 96 00 (BOTH METAL AND CONCRETE) AND ALLOW ENGINEER TO REVIEW EXISTING CONDITION OF UNDERLYING ELEMENTS/SURFACES.
- 3 REPAIR AREAS OF CONCRETE DAMAGE. REFER TO SPECIFICATION 03 72 00.
- 4 REFER TO DETAILS 1 THRU 5 ON SHEETS S3.1 FOR STANDARD CONCRETE REPAIR DETAILS.
- 5 PERFORM SURFACE PREPARATIONS AND COAT THE TANK AND ASSOCIATED EQUIPMENT PER SPECIFICATION 09 96 00, INCLUDING ALL EXISTING COATED INTERIOR AND EXTERIOR SURFACES (BOTH METAL AND CONCRETE SURFACES).

SPECIFIC REPAIR NOTES:

- N-1 TREAT CRACK PER SPECIFICATION 09 96 00.
N-2 RESTORE HATCH TO ORIGINAL CONDITION. REFER TO SPECIFICATION 03 72 00 AND 5/53.1.
N-3 TREAT AREAS OF DELAMINATING EXISTING COATING PER SPECIFICATION 09 96 00.
N-4 REMOVE EXISTING GASKET OF MANWAY COVER AND REPLACE WITH NEW GASKET.
N-5 REMOVE EXISTING JOINT SEALANT AND REPLACE WITH NEW JOINT SEALANT AT TANK FLOOR TO WALL INTERFACE. REFER TO SPECIFICATION 07 92 00.
N-6 REPAIR AREAS OF CONCRETE DAMAGE AROUND OVERFLOW DETAIL. REFER TO SPECIFICATION 03 72 00 AND 4/53.1.
N-7 TREAT AREAS OF MINOR SURFACE DEFECTS PER SPECIFICATION 09 96 00.
N-8 REPAIR AREAS OF CONCRETE DAMAGE, SUCH AS SPALLS AND DELAMINATING CONCRETE, PER SPECIFICATION 03 72 00.

LEGEND:

N-# - INDICATES SPECIFIC REPAIR NOTE, REFER TO ABOVE FOR SPECIFIC REPAIR NOTES.

For Bid

EAST TANK ELEVATIONS

GENERAL REPAIR NOTES:

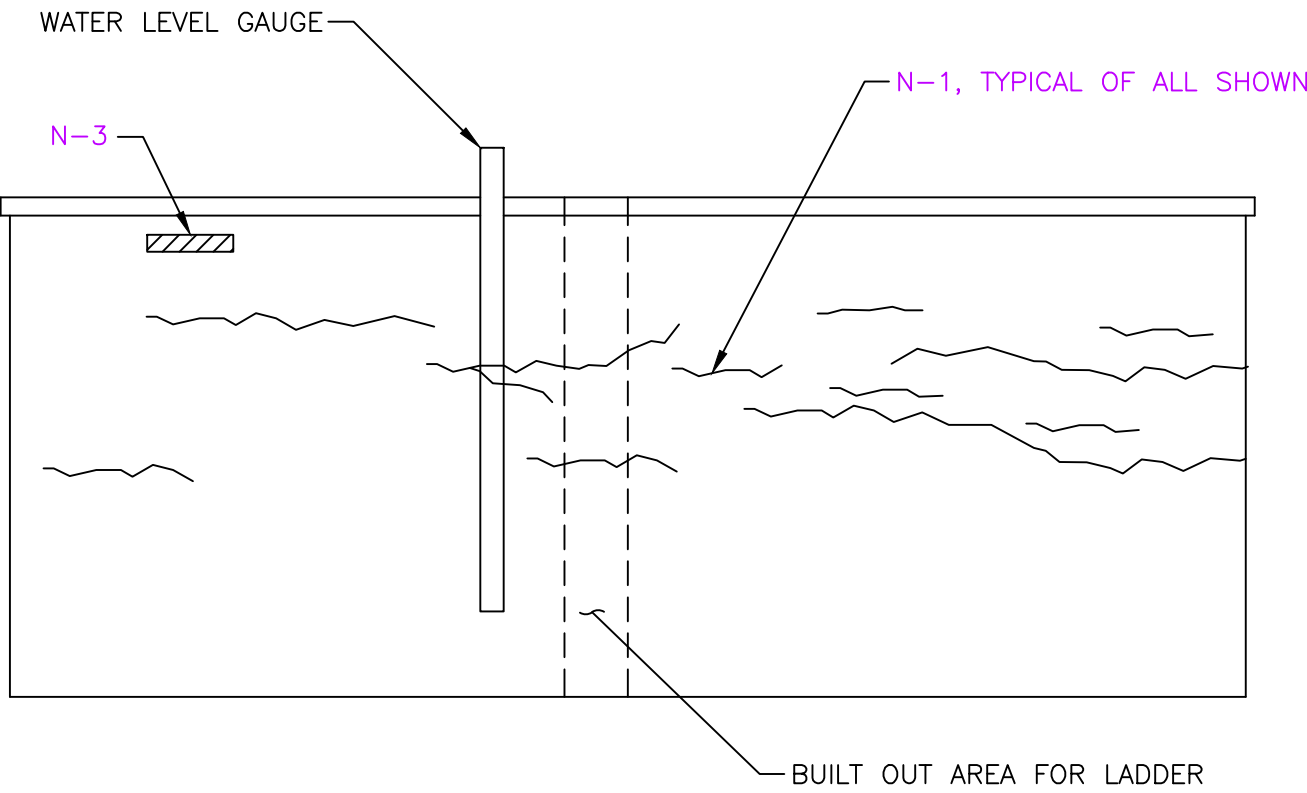
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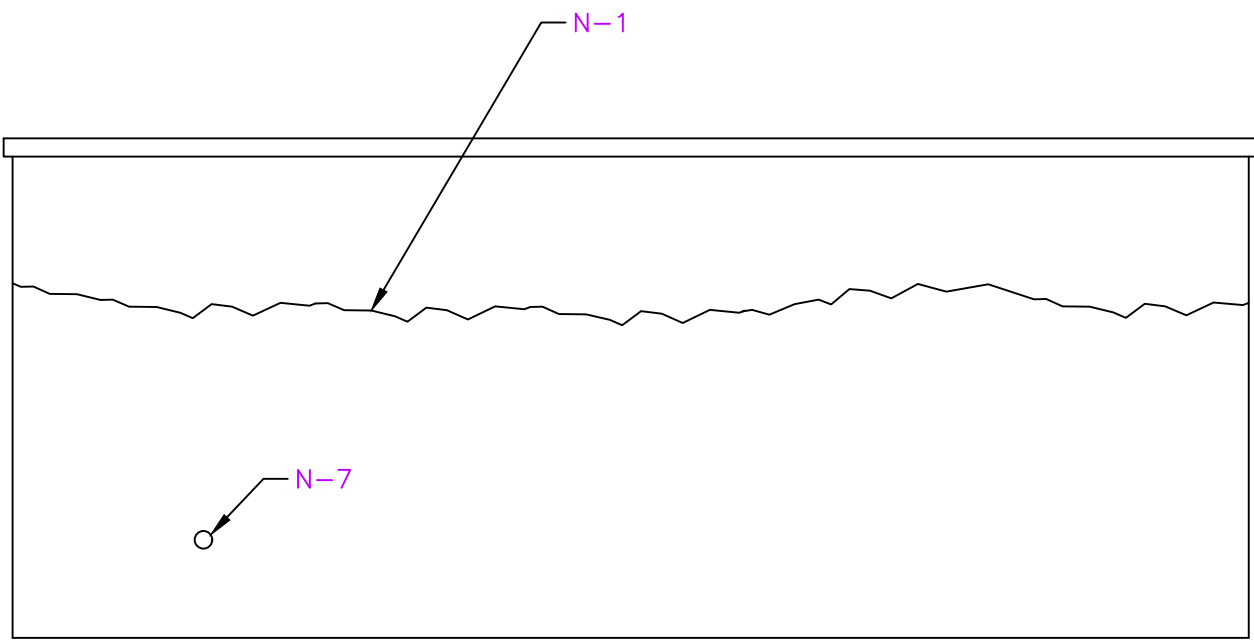
- N-1
- TREAT CRACK PER SPECIFICATION 09 96 00.
- N-2
- RESTORE HATCH TO ORIGINAL CONDITION. REFER TO SPECIFICATION 03 72 00 AND 5/S3.1.
- N-3
- TREAT AREAS OF DELAMINATING EXISTING COATING PER SPECIFICATION 09 96 00.
- N-4
- REMOVE EXISTING GASKET OF MANWAY COVER AND REPLACE WITH NEW GASKET.
- N-5
- REMOVE EXISTING JOINT SEALANT AND REPLACE WITH NEW JOINT SEALANT AT TANK FLOOR TO WALL INTERFACE. REFER TO SPECIFICATION 07 92 00.
- N-6
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- N-8
- REPAIR AREAS OF CONCRETE DAMAGE, SUCH AS SPALLS AND DELAMINATING CONCRETE, PER SPECIFICATION 03 72 00.

LEGEND:

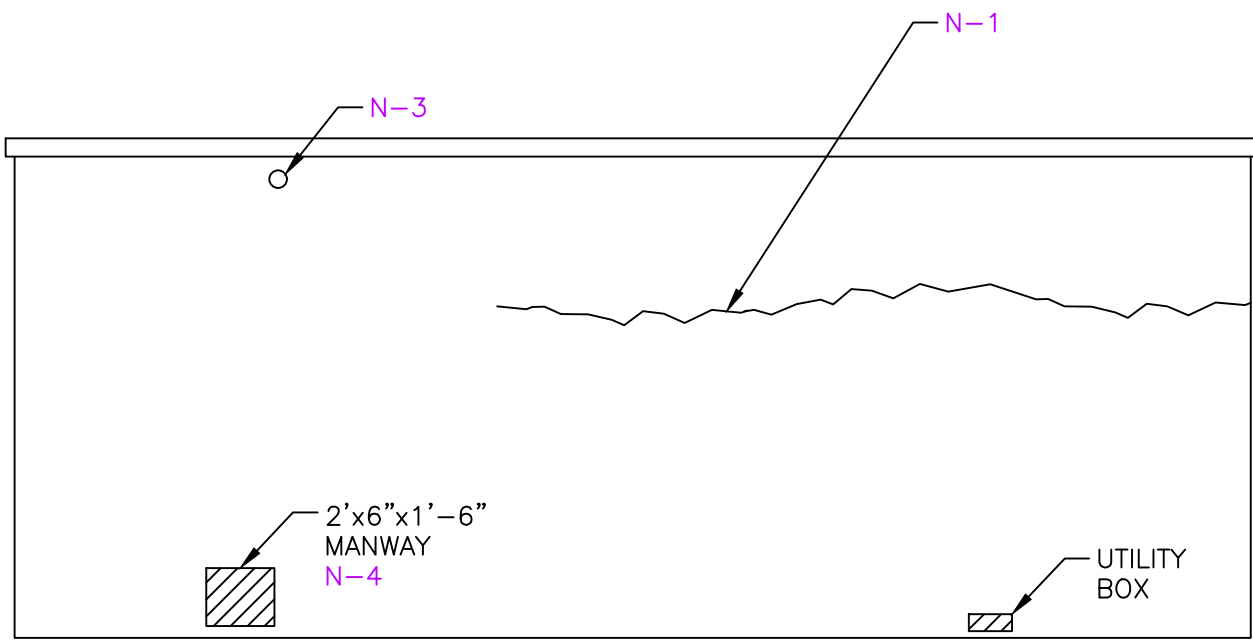
N-# - INDICATES SPECIFIC REPAIR NOTE. REFER TO ABOVE FOR SPECIFIC REPAIR NOTES.



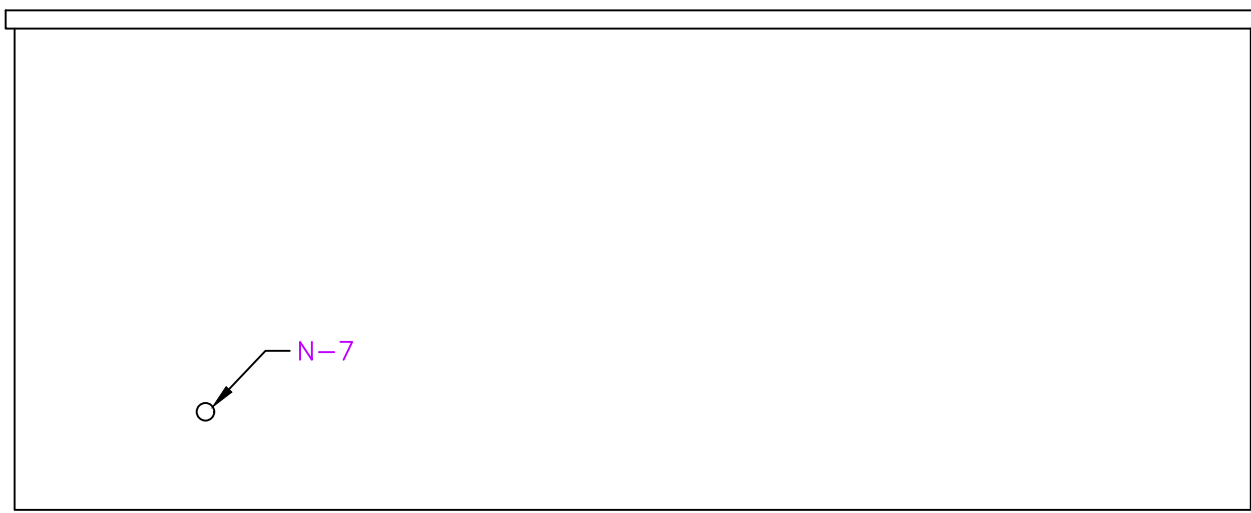
E3
S2.1 WEST SECTOR ELEVATION



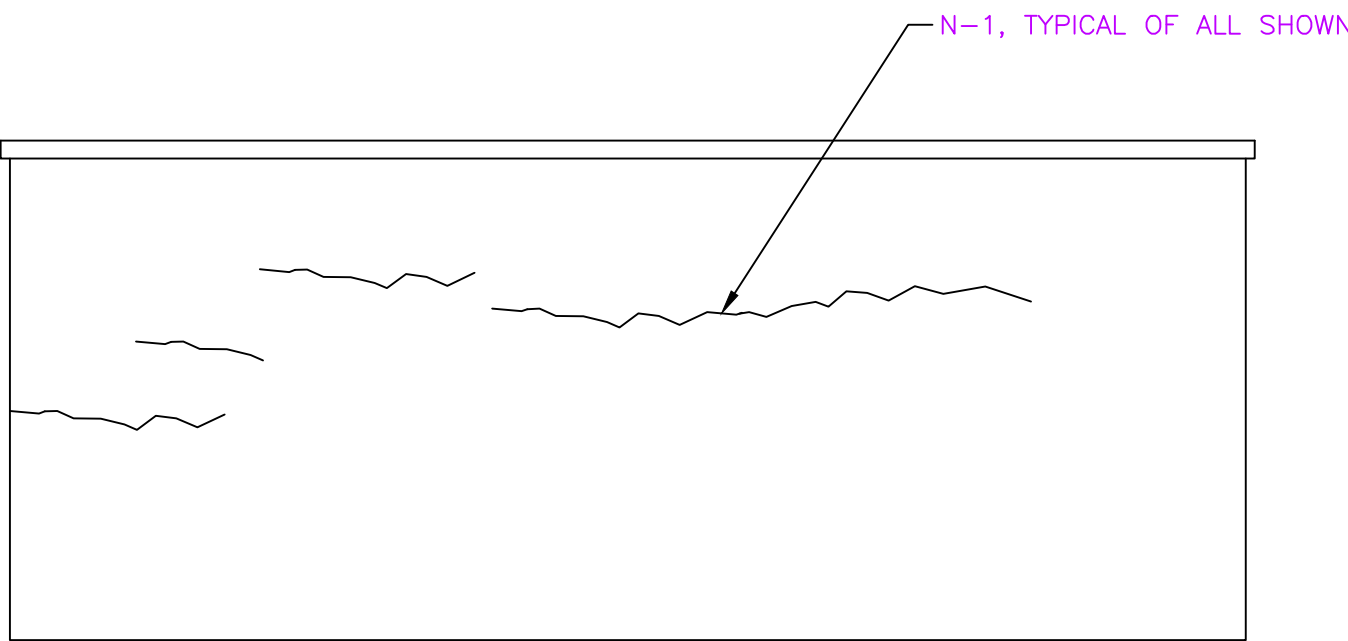
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S2.1 NORTHWEST SECTOR ELEVATION



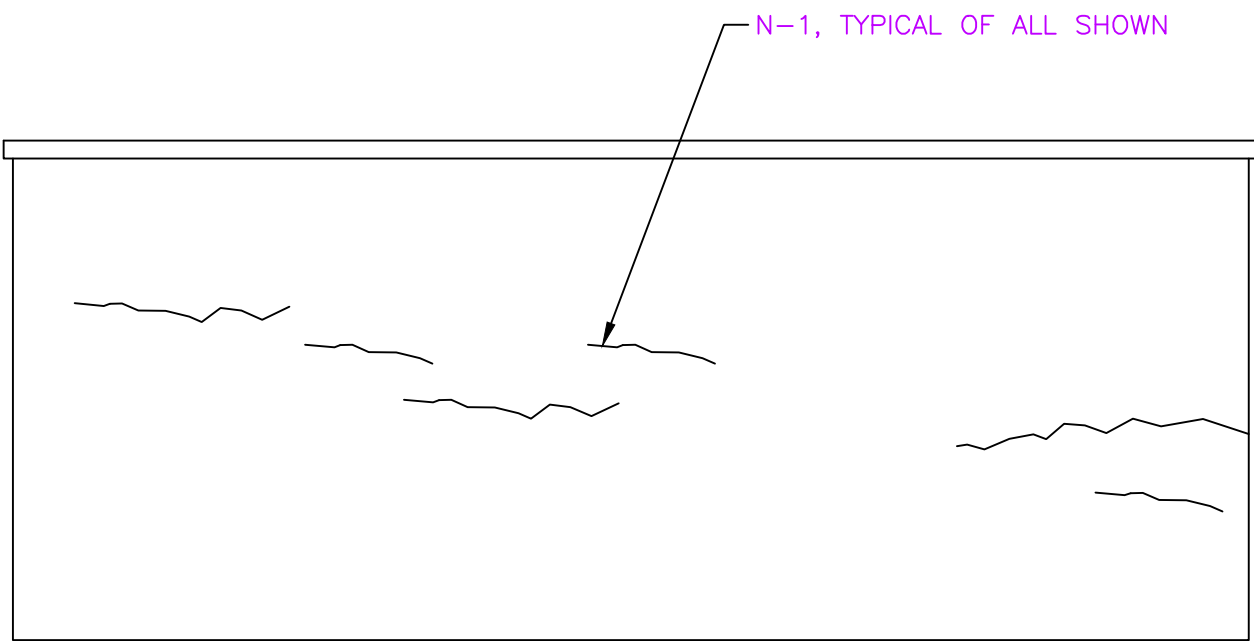
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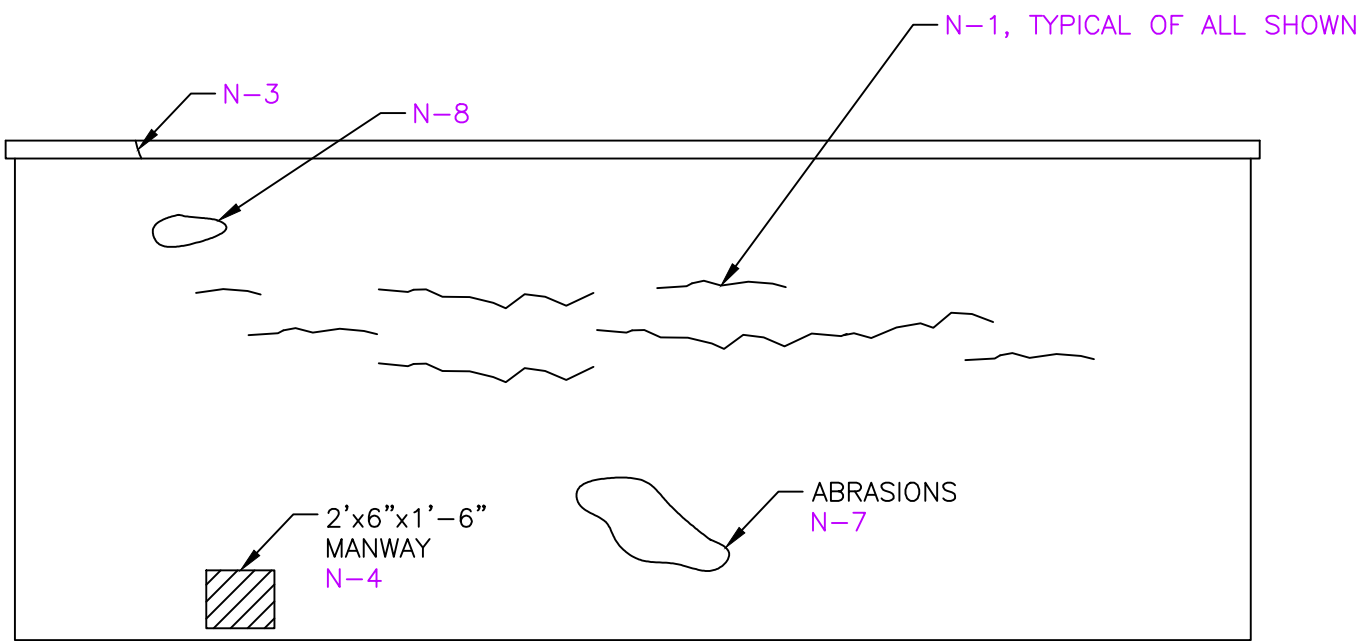
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S2.1 NORTHEAST SECTOR ELEVATION



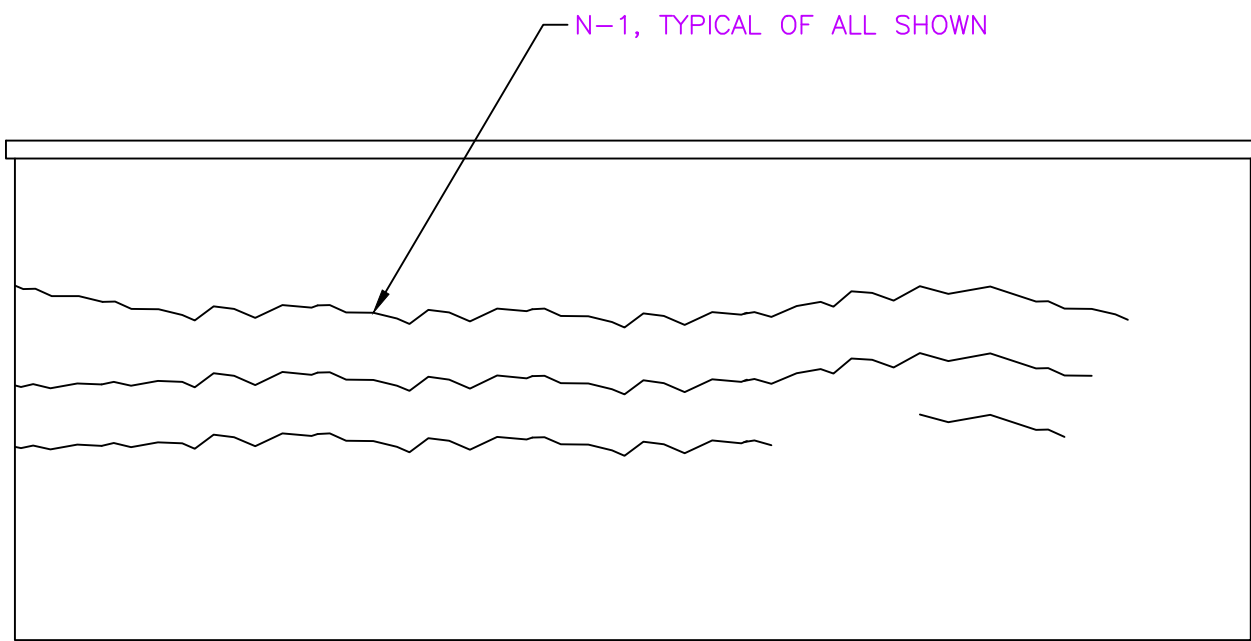
E7
S2.1 EAST SECTOR ELEVATION



E8
S2.1 SOUTHEAST SECTOR ELEVATION



E9
S2.1 SOUTH SECTOR ELEVATION

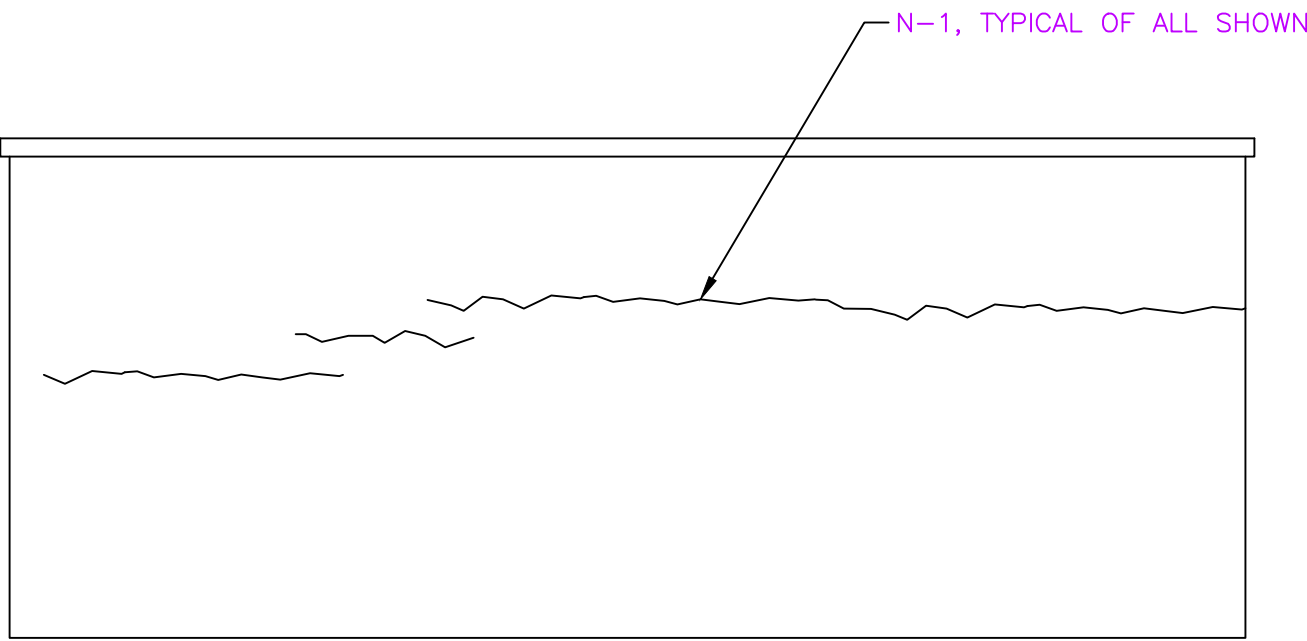


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S2.1 SOUTHWEST SECTOR ELEVATION

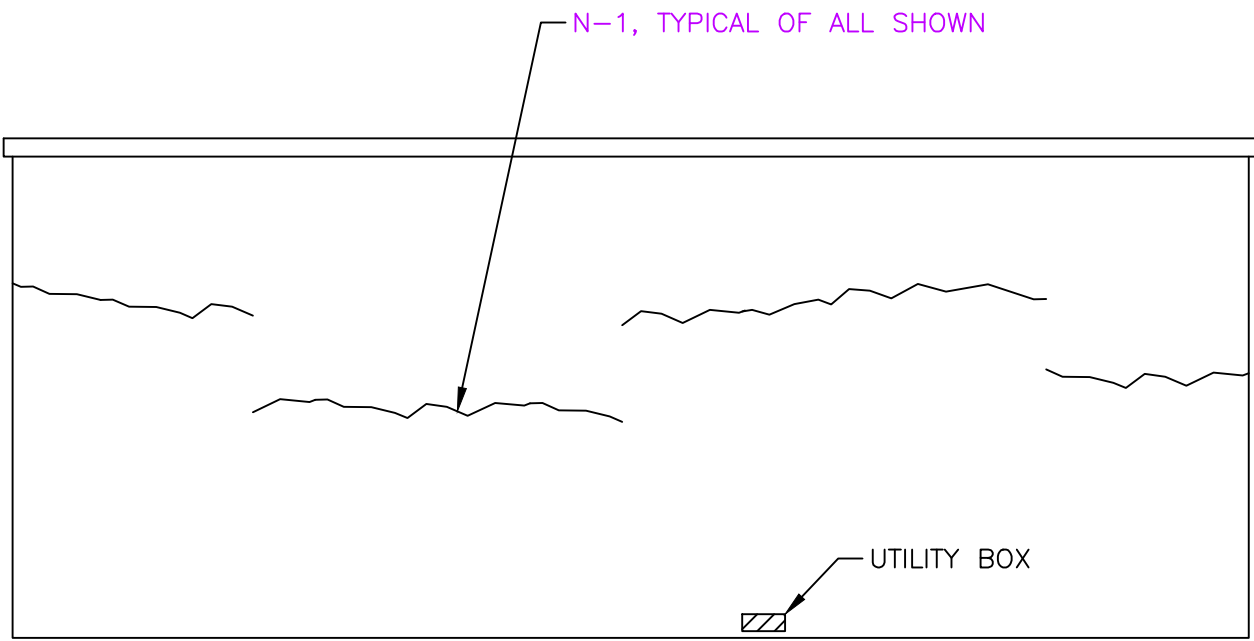
For Bid

WEST TANK ELEVATIONS

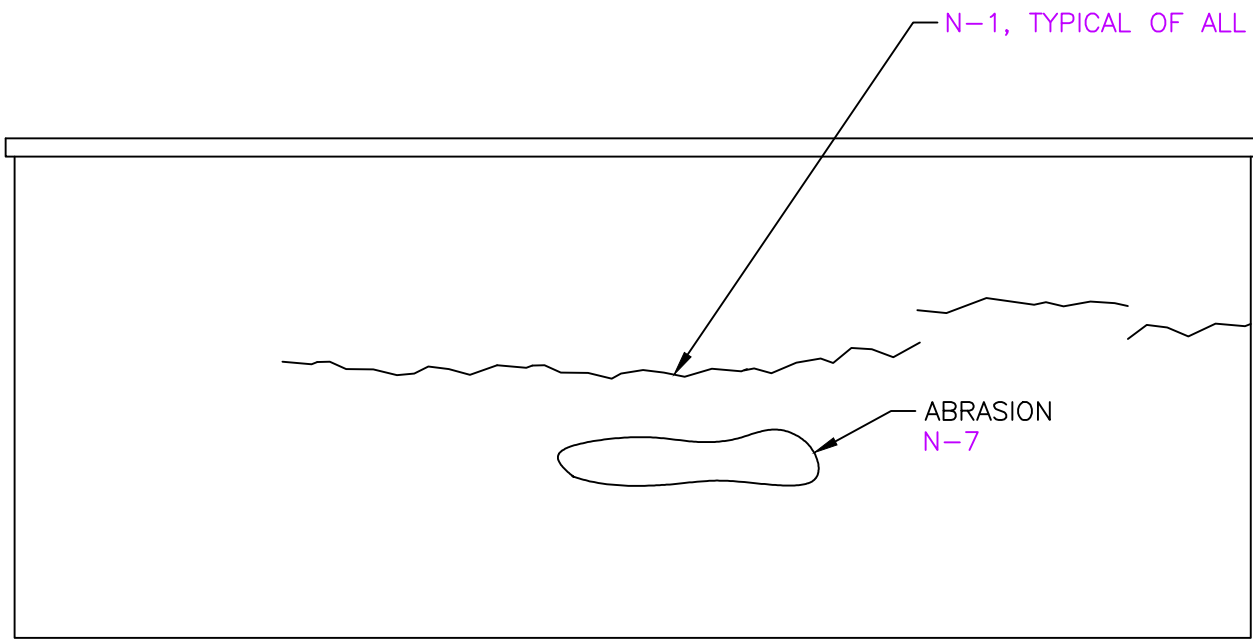
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- LEGEND:
- N-# - INDICATES SPECIFIC REPAIR NOTE. REFER TO ABOVE FOR SPECIFIC REPAIR NOTES.



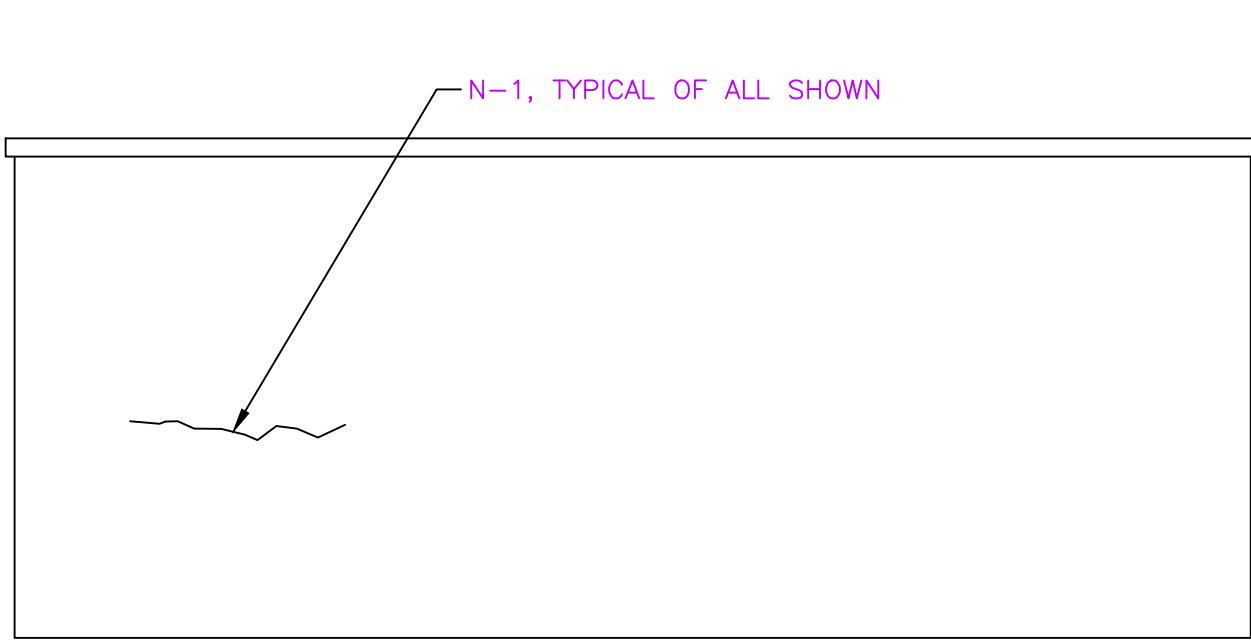
W3
S2.2 WEST SECTOR ELEVATION



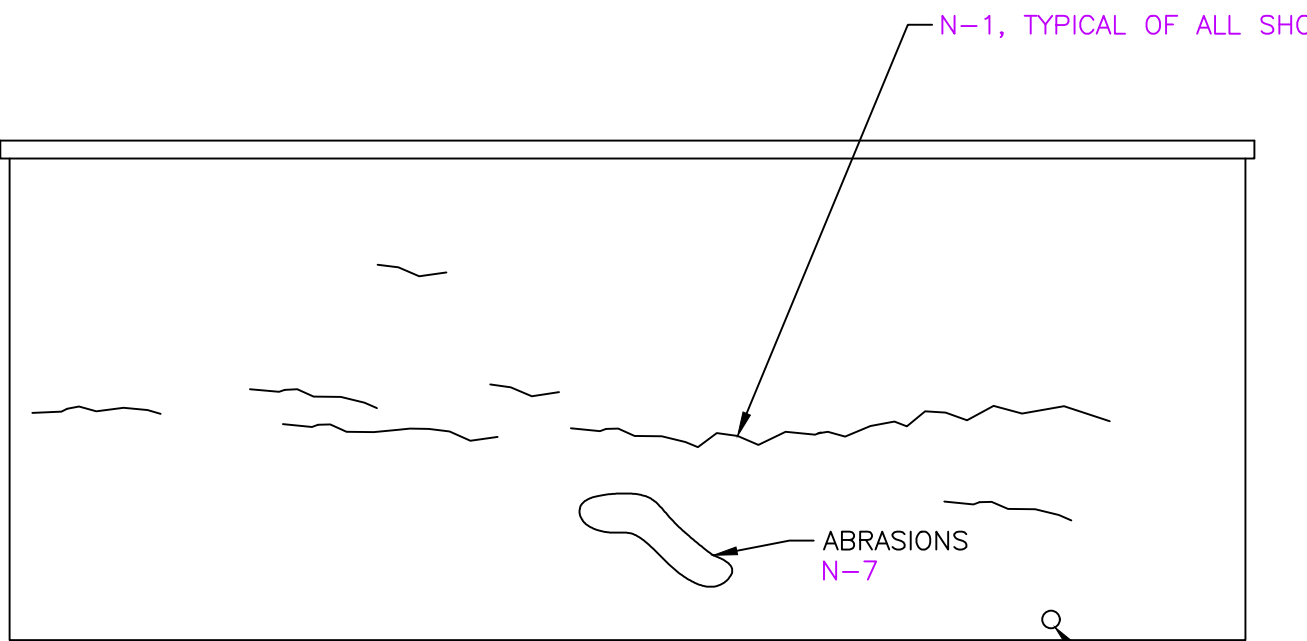
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S2.2 NORTHWEST SECTOR ELEVATION



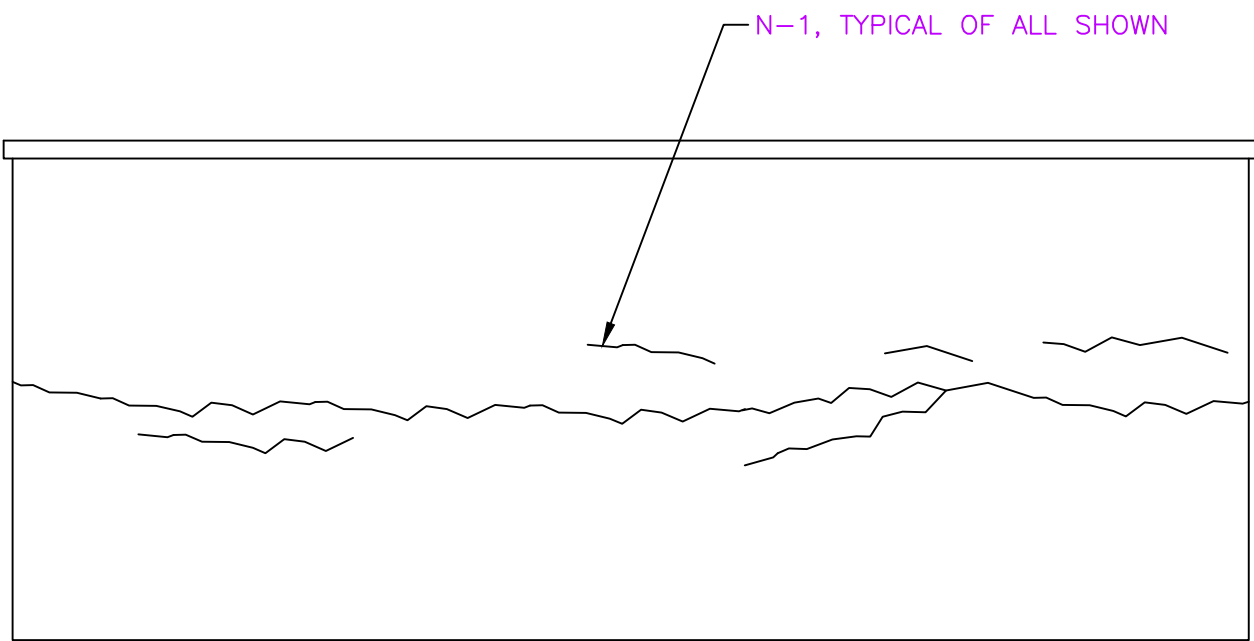
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S2.2 NORTH SECTOR ELEVATION



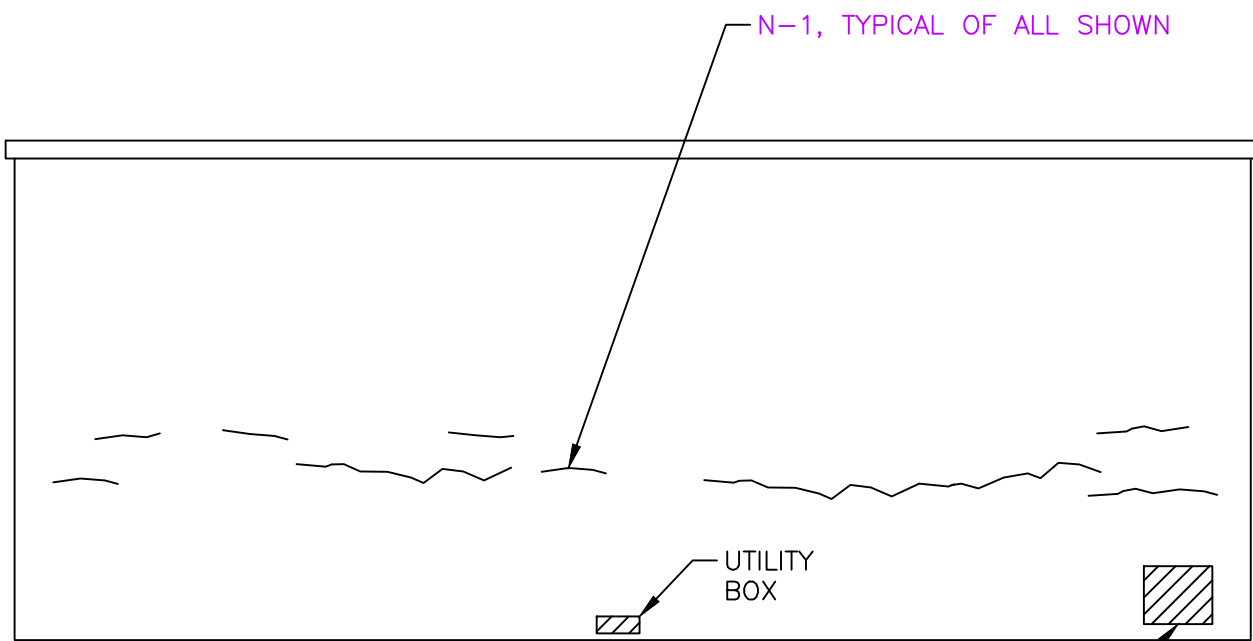
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S2.2 NORTHEAST SECTOR ELEVATION



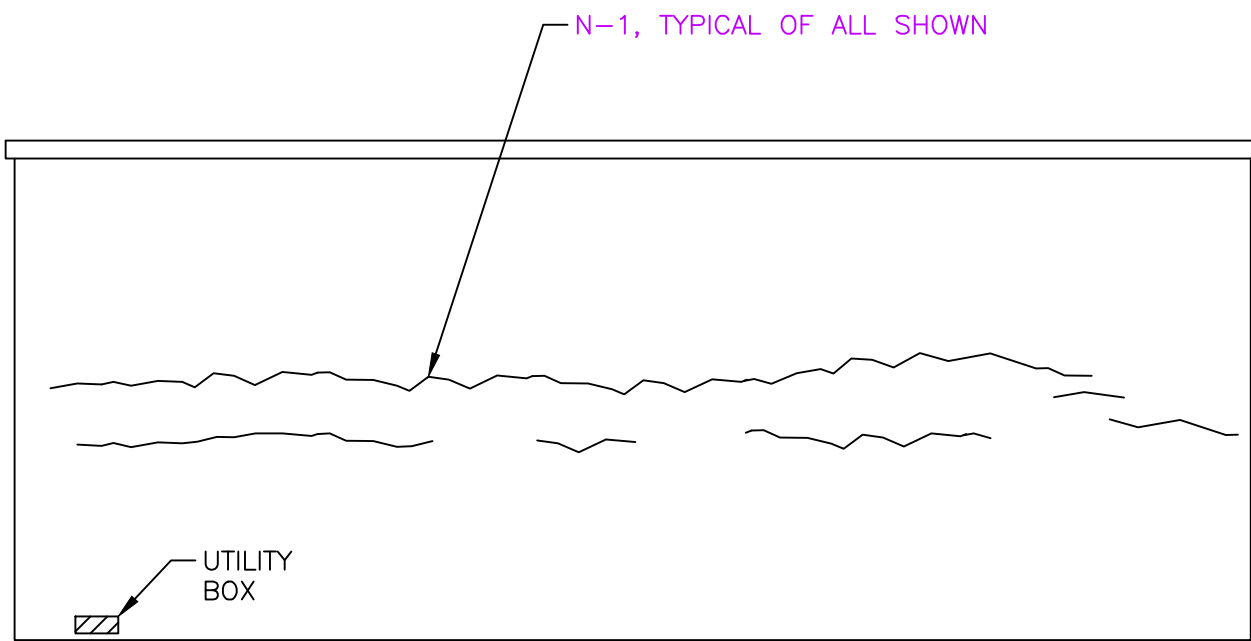
W7
S2.2 EAST SECTOR ELEVATION



W8
S2.2 SOUTHEAST SECTOR ELEVATION



W9
S2.2 SOUTH SECTOR ELEVATION



W10
S2.2 SOUTHWEST SECTOR ELEVATION

For Bid

billerreinhardt
ENGINEERING GROUP INC.
3434 colwell avenue suite 100, tampa, florida 33614
telephone : 813.908.7203 fax : 813.931.5200
email : info@billerreinhardt.com
State of Florida Certificate of Authorization No. 9149

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE
PLANS AND SPECIFICATIONS COMPLY WITH THE
APPLICABLE MINIMUM BUILDING CODES
BRIAN E. WALTER
FL P.E. NO. 66538
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REVISION	BY	DATE

CITY OF CLEARWATER, FLORIDA
ENGINEERING DEPARTMENT
100 S. MYRTLE AVE.
CLEARWATER, FL 33756

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Water Treatment Plant 3 (WTP3)
East Dome and Aerator and Miscellaneous Improvements
2775 SR 580, Clearwater, Florida 33761
WEST TANK ELEVATIONS

DWG NAME: S2.2	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT: SEE PLAN
CONTRACT NO.: 20-0012-UT	DATE DRAWN: 10-08-21	DRAWN BY: R.M.	HORIZ: SEE PLAN
JOB NO.: 20-222	DESIGNED BY: B.W.	CHECKED BY: B.W.	SHEET NO.: X OF X
APPROVED FOR CONSTRUCTION CITY ENGINEER TARA L. KIVETT, P.E. DATE			

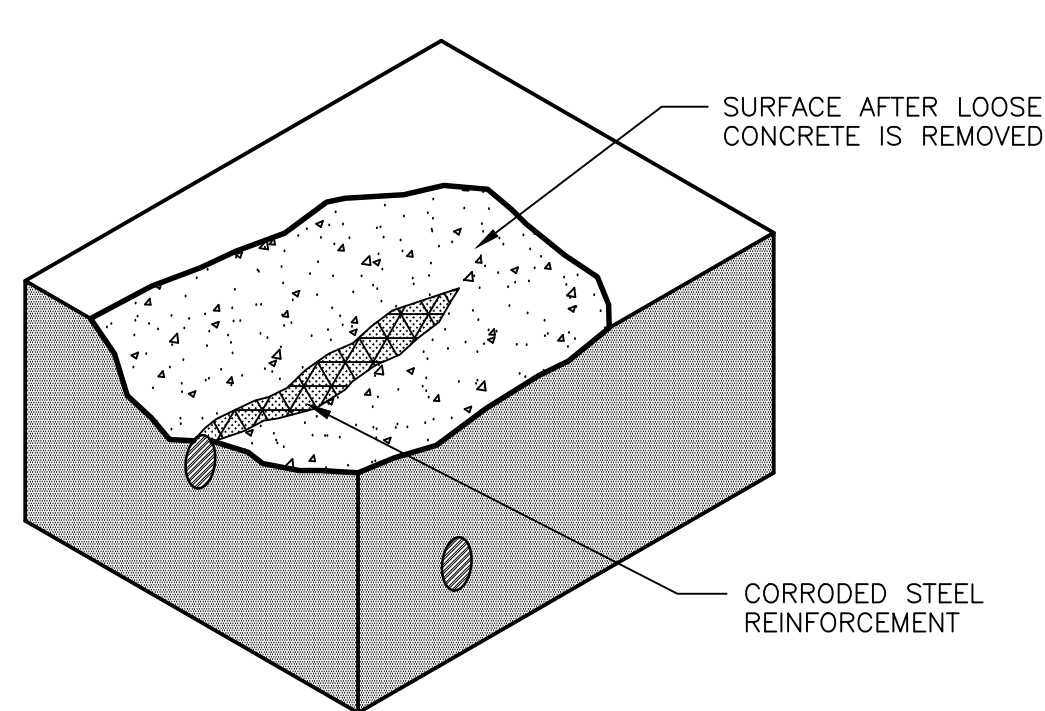


FIGURE 1:
SURFACE PREPARATION WHEN CORRODED REINFORCEMENT IS ENCOUNTERED. REFER TO FIGURES 2 AND 3.

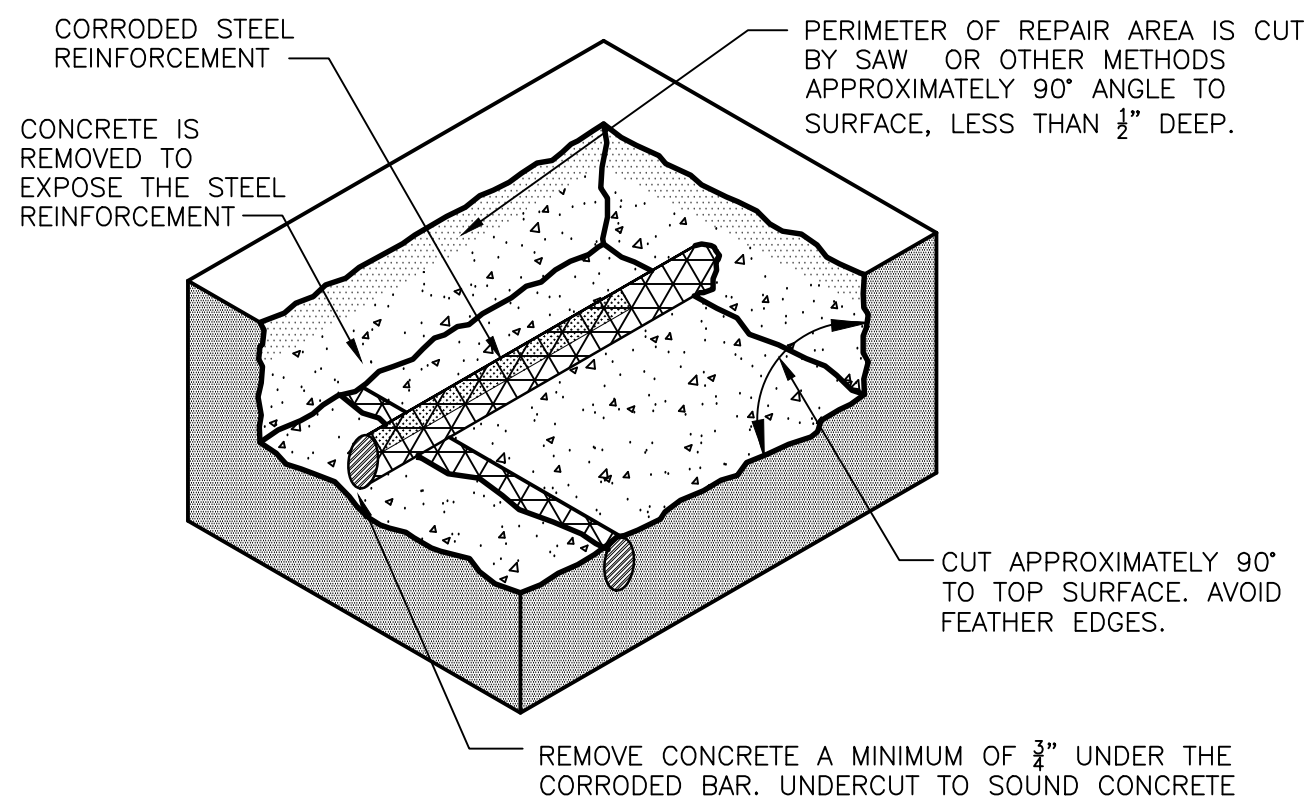


FIGURE 2:
SURFACE PREPARATION WHEN CORRODED REINFORCEMENT IS ENCOUNTERED AT TOP BARS ONLY. REFER TO FIGURE 4

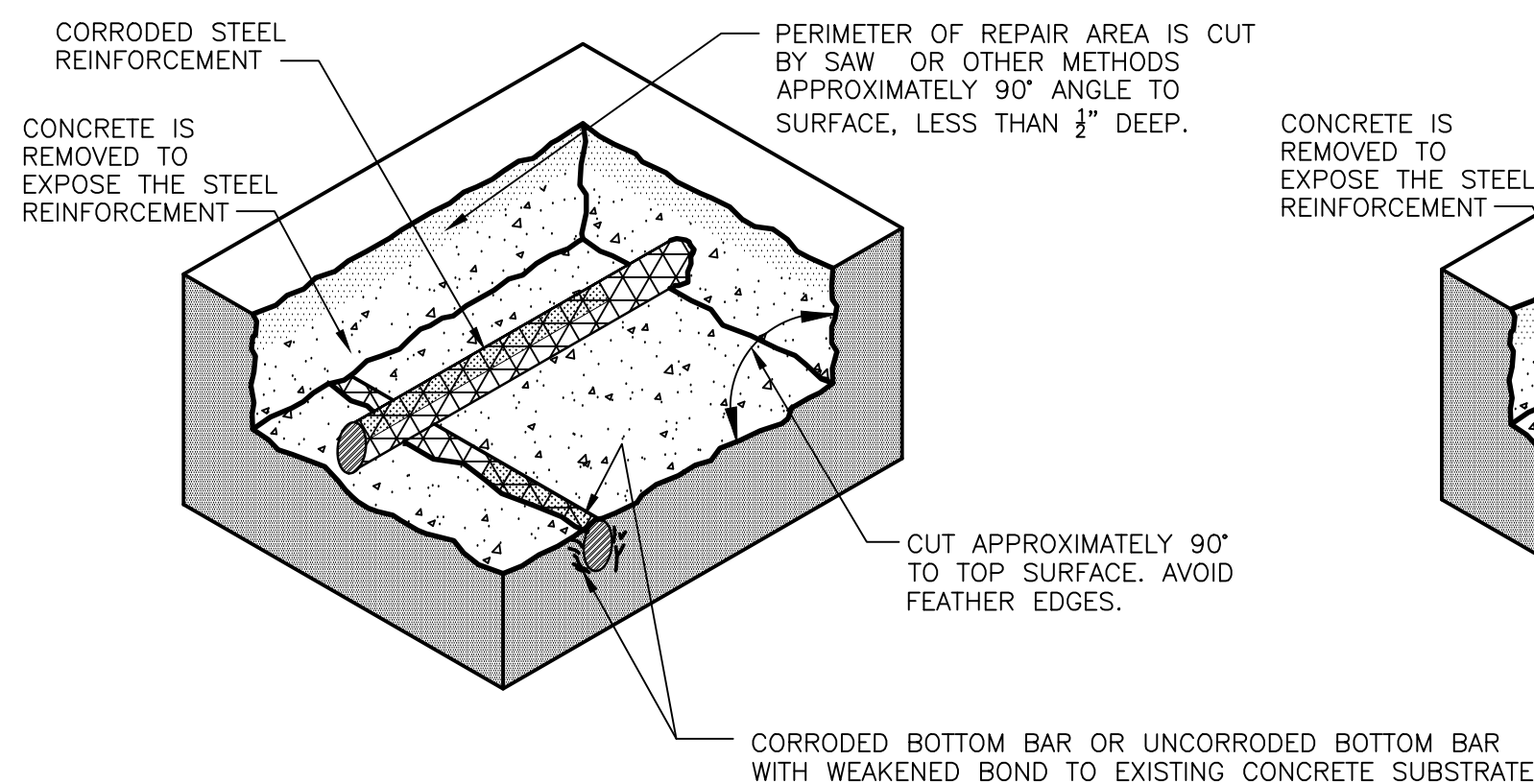


FIGURE 3:
SURFACE PREPARATION WHEN CORRODED REINFORCEMENT IS ENCOUNTERED AT TOP AND BOTTOM BARS. REFER TO

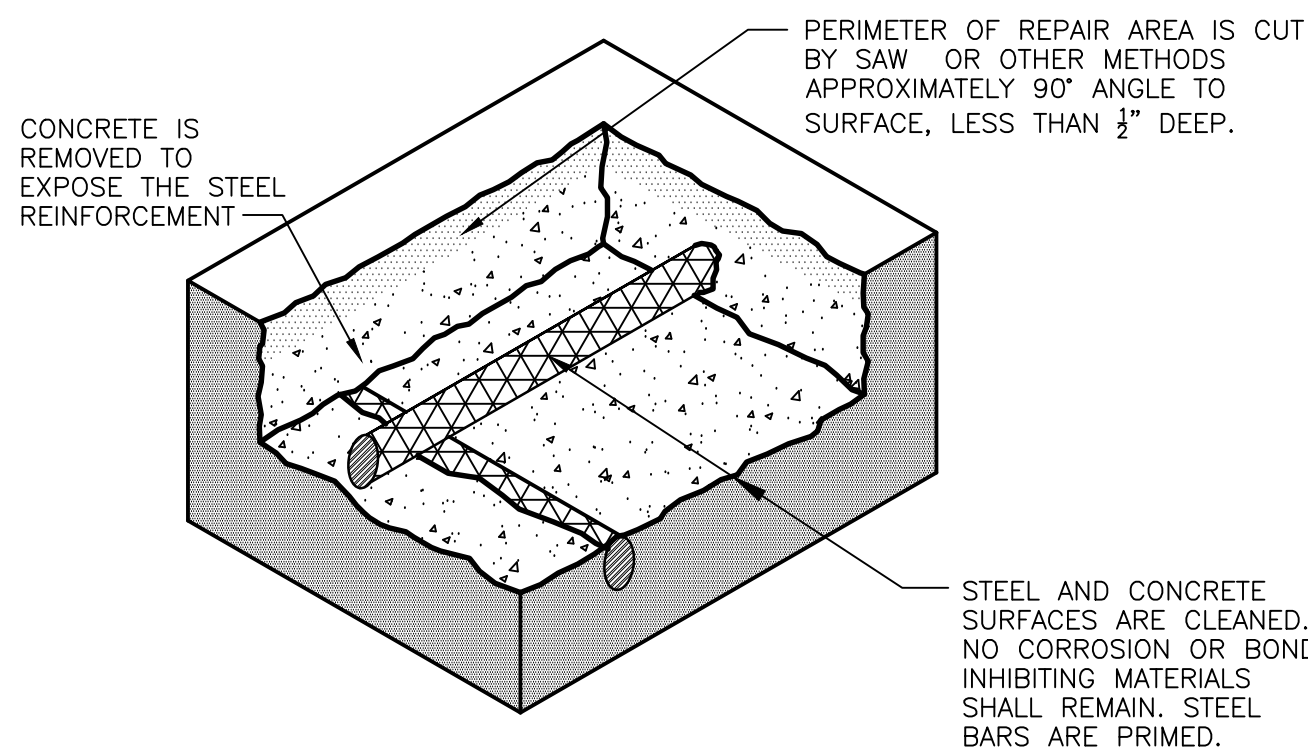


FIGURE 4:
SURFACE PREPARATION WHEN CORRODED REINFORCEMENT IS ENCOUNTERED AT TOP BARS ONLY.

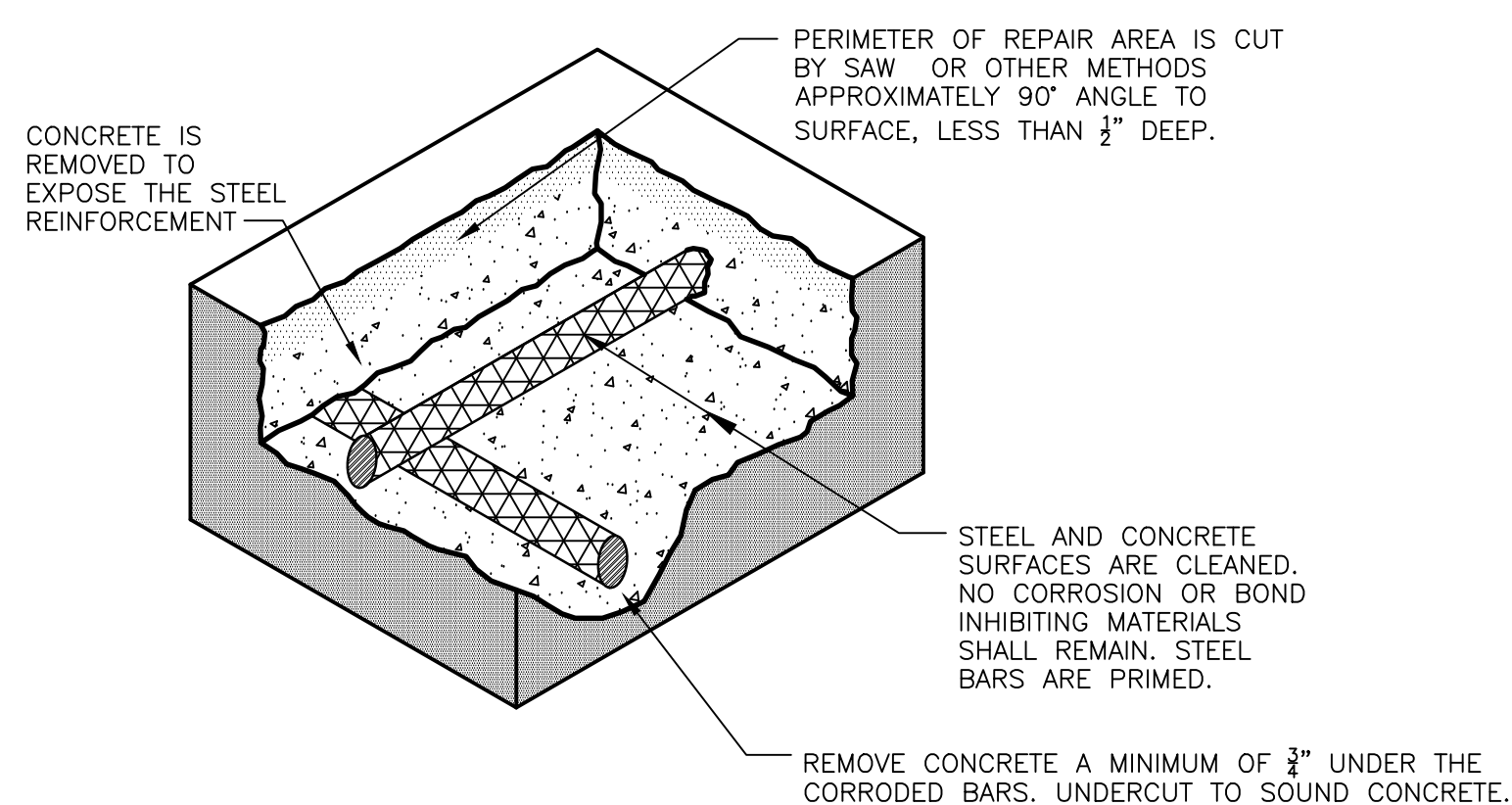
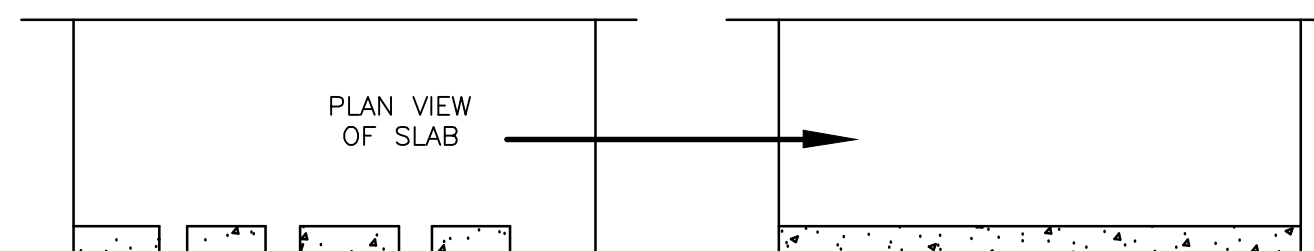
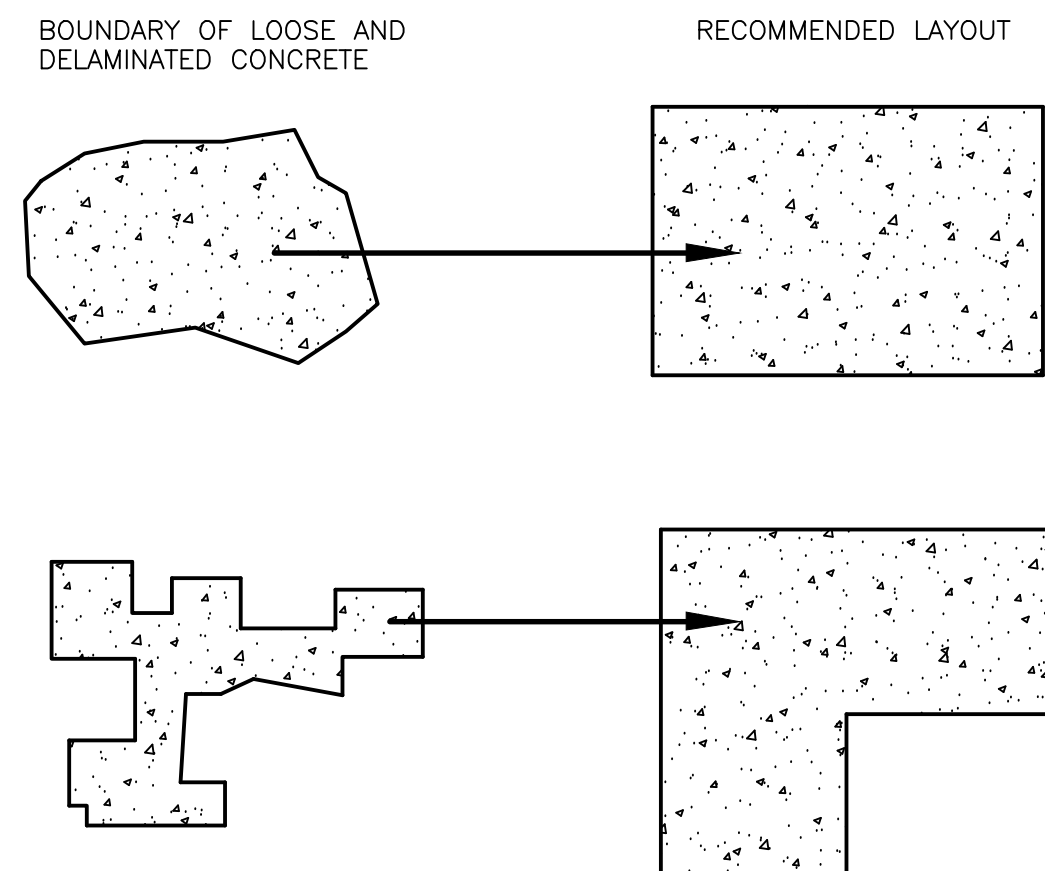


FIGURE 5:
SURFACE PREPARATION WHEN CORRODED REINFORCEMENT IS ENCOUNTERED AT TOP AND BOTTOM BARS.

1 SURFACE PREPARATION DETAILS
S3.1 SCALE: N.T.S.

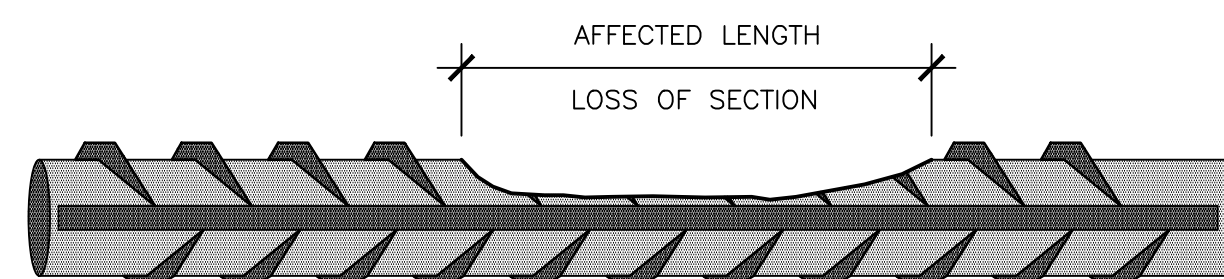
NOTES FOR FIGURES 1-5:

1. EXPOSE CORRODED STEEL REINFORCEMENT UNTIL UNOXIDIZED, UNCORRODED STEEL WITH SOUND BOND TO THE EXISTING CONCRETE SUBSTRATE IS ENCOUNTERED.
2. CLEARANCE BETWEEN UNDERCUT STEEL REINFORCEMENT AND SOUND CONCRETE SUBSTRATE SHALL BE 3/4" MINIMUM OR 1" LARGER THAN THE LARGEST AGGREGATE IN THE CONCRETE REPAIR MORTAR.
3. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING PRIOR TO CONCRETE DEMOLITION.

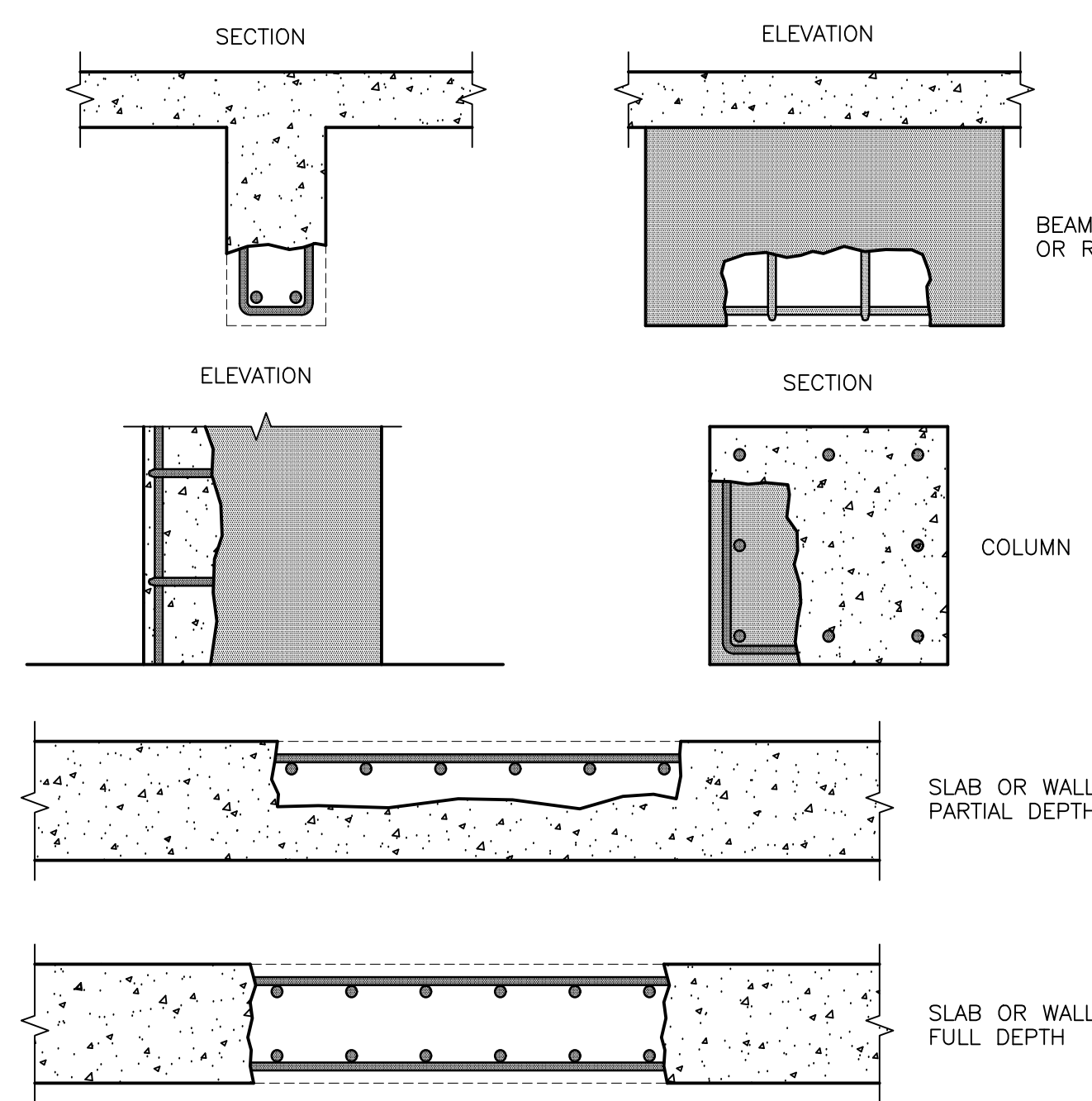


PLAN VIEW

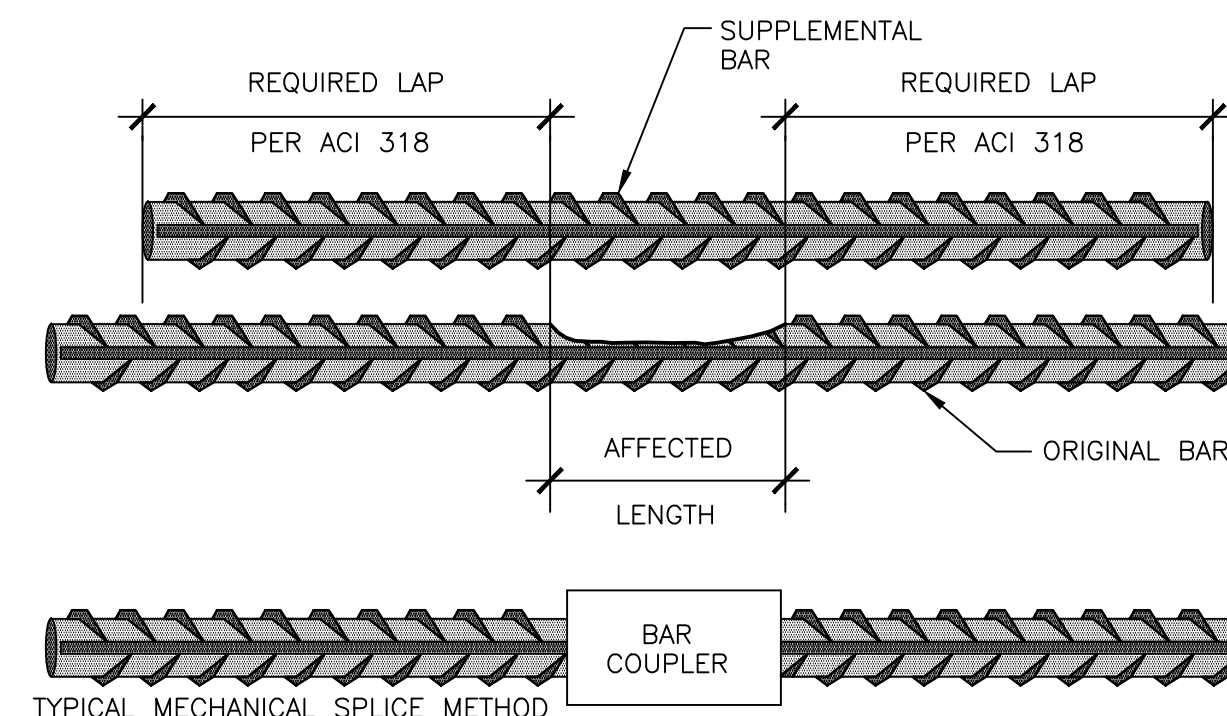
2 GEOMETRY OF CONCRETE REPAIRS
S3.1 SCALE: N.T.S.



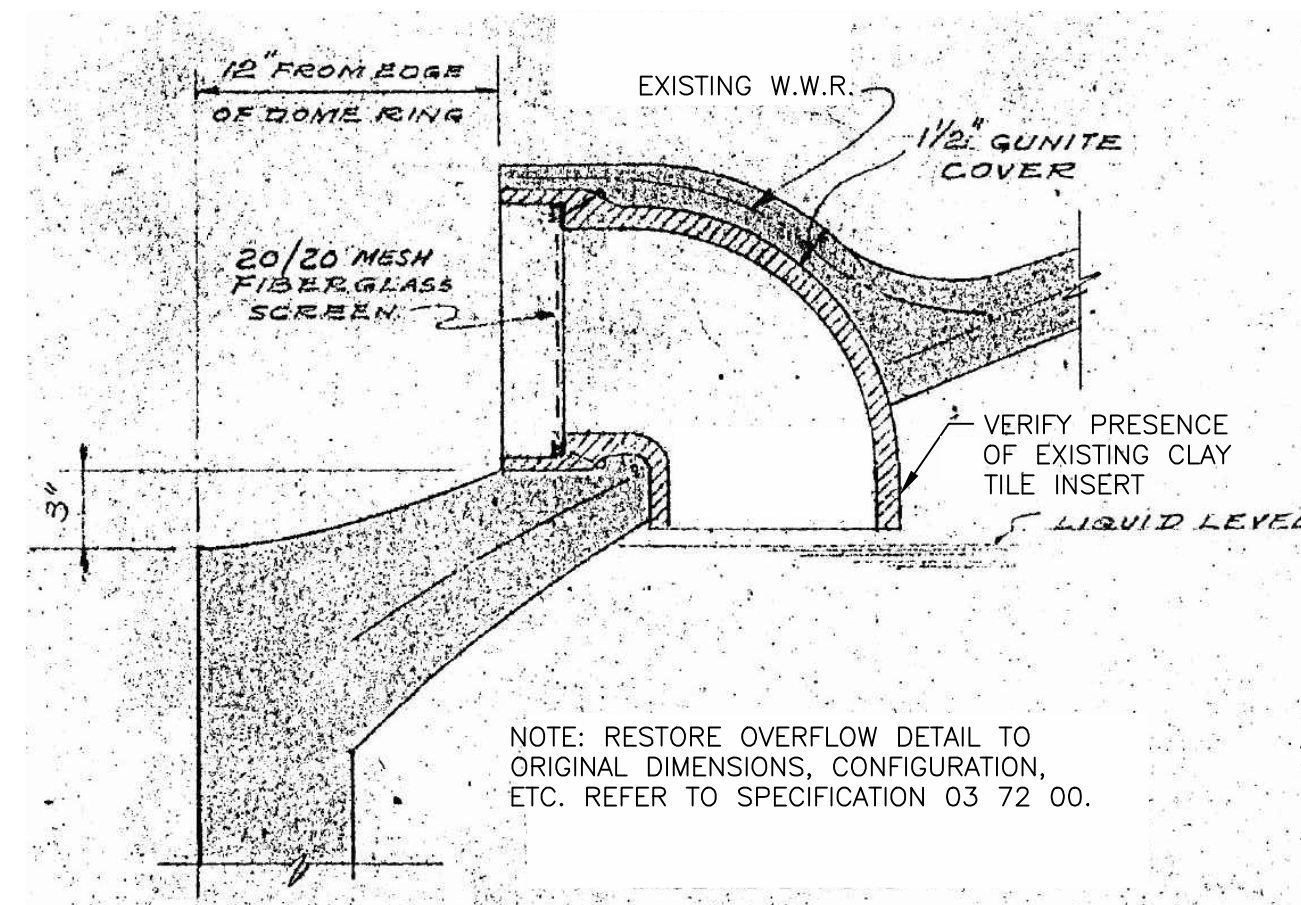
1. IF THE REINFORCING STEEL HAS LOST MORE THAN 25% OF ITS CROSS SECTION (OR 20% IF TWO OR MORE ADJACENT BARS ARE AFFECTED), THEN REINFORCING STEEL REPAIR IS REQUIRED.
2. WHEN DAMAGE TO REINFORCING STEEL IS UNCOVERED, CONSULT WITH THE STRUCTURAL ENGINEER.
3. IF REPAIRS ARE REQUIRED FOR THE REINFORCING STEEL, ONE OF THE FOLLOWING METHODS SHOULD BE USED:
A. SUPPLEMENTAL BAR OVER AFFECTED LENGTH. NEW BAR MAY BE MECHANICALLY SPLICED TO AFFECTED BAR OR PLACED PARALLEL TO EXISTING BAR.
B. COMPLETE BAR REPLACEMENT.



ELEVATION & SECTION VIEW

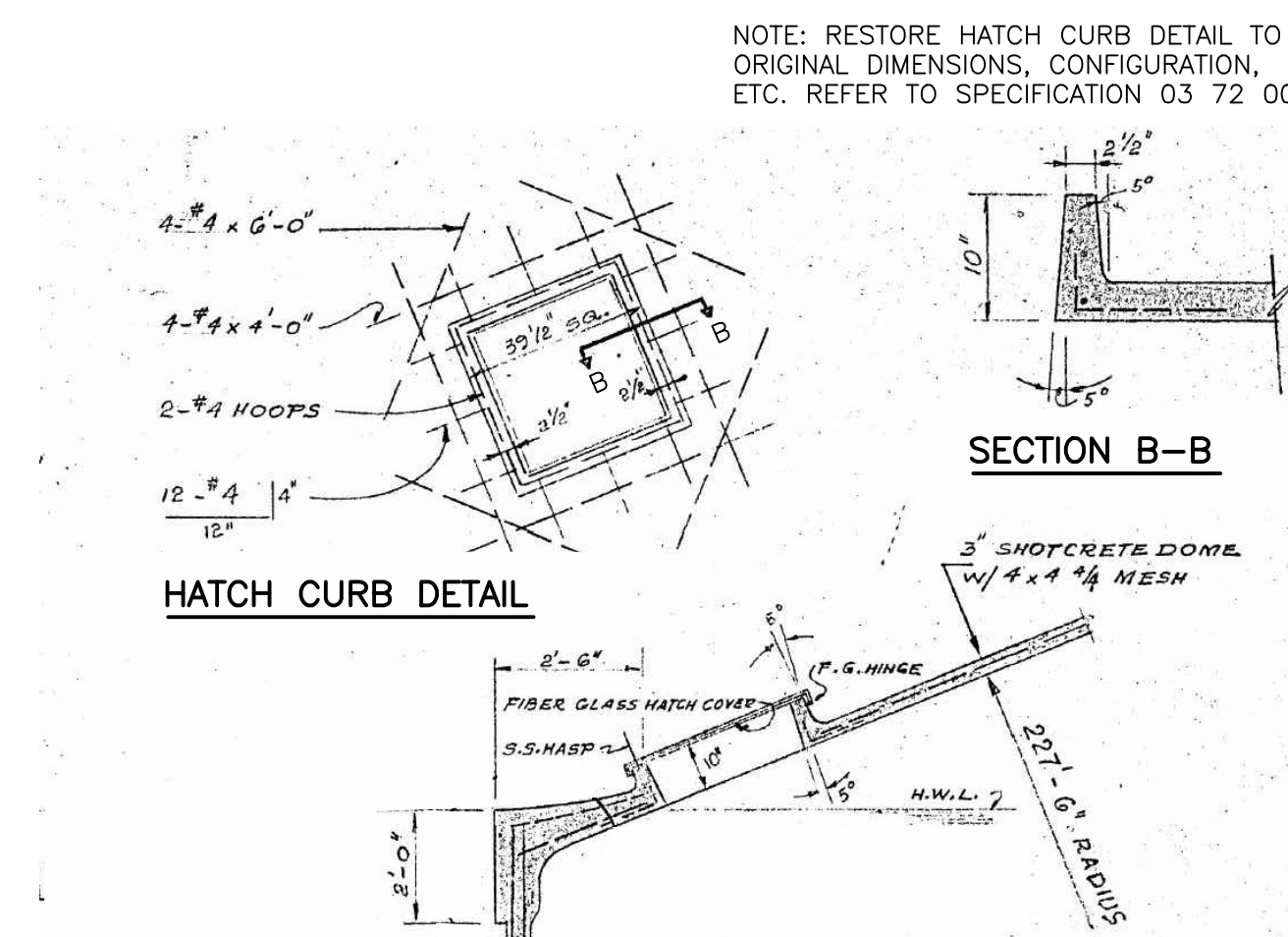


3 REINFORCING STEEL REPAIR - SECTION LOSS DETAIL
S3.1 SCALE: N.T.S.



OVERFLOW DETAIL

4 OVERFLOW SCUPPER REPAIR DETAIL
S3.1 SCALE: N.T.S.



5 HATCH REPAIR DETAIL
S3.1 SCALE: N.T.S.

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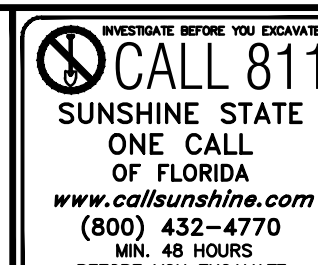


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REVISION	BY	DATE

CITY OF CLEARWATER, FLORIDA
ENGINEERING DEPARTMENT
100 S. MYRTLE AVE.
CLEARWATER, FL 33756



Water Treatment Plant 3 (WTP3)
East Dome and Aerator and Miscellaneous Improvements
2775 SR 580, Clearwater, Florida 33761
CONCRETE REPAIR DETAILS

DWG NAME: S3.1	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: SEE PLAN
CONTRACT NO.: 20-0012-UT	DATE DRAWN: 10-08-21	DRAWN BY: R.M.	HORIZ. SEE PLAN
JOB NO.: 20-222	DESIGNED BY: B.W.	CHECKED BY: B.W.	SHEET NO.: X OF X
APPROVED FOR CONSTRUCTION	CITY ENGINEER TARA L. KIVETT, P.E.	DATE	