

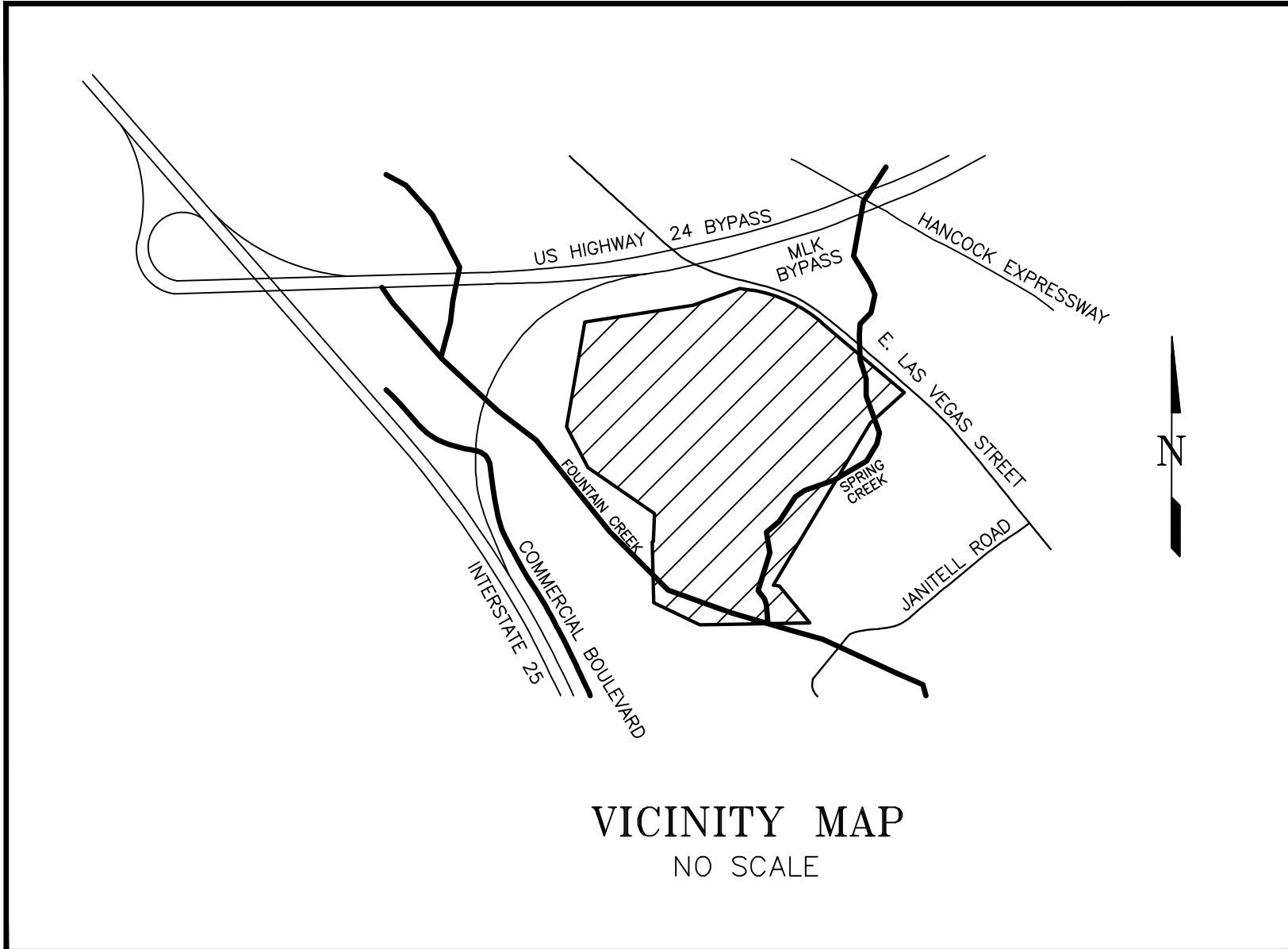
ROCKY TOP RESOURCES
EXTENDED DETENTION BASIN AND
GRADING & EROSION CONTROL PLAN
ENGINEERING RECORD DRAWINGS
TRACT 7 VALLEY GARDEN SUBDIVISION
COLORADO SPRINGS, COLORADO

GENERAL NOTES

1. ALL NEW CONSTRUCTION TO CONFORM TO THE SPECIFICATIONS OF THE EL PASO COUNTY DEPARTMENT OF PUBLIC SERVICES. ANY ASPHALT REMOVED IS TO BE REPLACED TO MEET THE SPECIFICATIONS OF THE EL PASO COUNTY DEPARTMENT OF PUBLIC SERVICES.
2. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE EL PASO COUNTY DEPARTMENT OF DEVELOPMENT SERVICES PRIOR TO ANY CONSTRUCTION.
3. APPROVED PLANS, EL PASO COUNTY ENGINEERING CRITERIA MANUAL, ETC. IS REQUIRED TO BE ON-SITE AT ALL TIMES.
4. ALL NECESSARY PERMITS, SUCH AS WORKING IN THE RIGHT-OF-WAY, SWMP, FUGITIVE DUST, ESQCP, ACCESS, C.O.E. 404, ETC. SHALL BE OBTAINED PRIOR TO CONSTRUCTION.
5. PROFILE DESIGN LINES AND HORIZONTAL STATIONING ARE BASED ON CENTERLINE, AS SHOWN, UNLESS OTHERWISE NOTED.
6. FOR CENTERLINE DESIGN, CURB AND GUTTER, ROAD SIDE DITCH LOCATIONS AND SIDEWALK SEE INDIVIDUAL PLAN AND PROFILE SHEETS. PAVEMENT DESIGN TO BE BASED ON RESISTANCE VALUE "R" DERIVED FROM HVEEM TESTS AND ARE TO BE APPROVED BY THE EL PASO COUNTY DEPARTMENT OF DEVELOPMENT SERVICES PRIOR TO WORK ABOVE SUBGRADE.
7. ALL VERTICAL DESIGN AND TOP OF CURB ARE BASED ON THE DESIGN POINT AS SHOWN IN THE TYPICAL CROSS SECTION.
8. AT INTERSECTIONS, ALL RADII TO EDGE OF ASPHALT SHALL BE 20-FOOT UNLESS OTHERWISE NOTED.
9. THE LOCATIONS OF THE EXISTING UTILITIES HAVE BEEN SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATION AND VERIFICATION OF EXISTING UTILITIES PRIOR TO BEGINNING WORK. IF IT APPEARS THAT THERE COULD BE A CONFLICT WITH ANY UTILITIES, WHETHER INDICATED ON THE PLANS OR NOT, THE CONTRACTOR IS TO NOTIFY THE ENGINEER AND OWNER IMMEDIATELY. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND REPAIR (IF NECESSARY) OF ALL UTILITIES.
10. WHERE APPROPRIATE, NEATLY SAW CUT ALL EXISTING CONCRETE AND ASPHALT. REPAIR/REPLACE ALL DISTURBED EXISTING ITEMS WITH LIKE MATERIALS AND THICKNESSES. MINIMUM ASPHALT THICKNESS SHALL BE 4-INCHES.
11. ALL DISTURBED AREAS SHALL BE REVEGETATED WITH NATIVE GRASSES WITHIN 21 DAYS OF EXCAVATION PER EROSION CONTROL PLAN.
12. THE PREPARED EROSION/SEDIMENT CONTROL PLAN IS TO BE CONSIDERED A PART OF THESE PLANS AND ITS REQUIREMENTS ADHERED TO DURING THE CONSTRUCTION OF THIS PROJECT.
13. ALL STORM AND SANITARY SEWER PIPE LENGTHS AND SLOPES ARE FIGURED FROM CENTER OF MANHOLE OR BEND. CULVERT PIPE LENGTHS ARE DETERMINED FROM THE END OF THE FLARED END SECTIONS. PIPE LENGTHS ARE GIVEN AS A HORIZONTAL LENGTH.
14. ALL STORM SEWER BEDDING TO BE PER CDOT STANDARDS.
15. ALL STORM SEWER PIPE CLASS AND TYPE IS CALLED OUT ON THE PLAN AND PROFILE SHEETS.
16. CONCRETE PIPE JOINT FASTENERS ARE REQUIRED ON THE FIRST TWO PIPE JOINTS FROM THE DOWNSTREAM FLARED END SECTION OF A DRAINAGE PIPE.
17. ALL WYES AND BENDS USED IN CONSTRUCTION OF STORM SEWER FACILITIES SHALL BE FACTORY FABRICATED, UNLESS APPROVED BY THE EL PASO COUNTY DEPARTMENT OF DEVELOPMENT SERVICES.
18. CONSTRUCTION AND MATERIALS USED IN ALL STORM AND SANITARY SEWER MANHOLES SHALL BE PER SPECIFICATIONS. STORM SEWER RADIAL DEFLECTIONS TO BE GROUTED OR INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
19. STORM SEWER MANHOLE SIZES AS FOLLOWS UNLESS OTHERWISE SHOWN:
18" THRU 36" USE 48" I.D. MANHOLE
42" THRU 48" USE 60" I.D. MANHOLE
54" THRU 60" USE 72" I.D. MANHOLE
NOTE: MANHOLE SIZES TABULATED HERE SHALL BE INCREASED, IF NECESSARY, TO ACCOMMODATE INCOMING LATERALS.
20. ALL EARTHWORK, MATERIALS AND INSTALLATION ASSOCIATED WITH THE EXCAVATION, EMBANKMENT AND ASPHALT PAVING TO BE CARRIED OUT IN THIS PROJECT ARE TO BE COMPLETED IN CONFORMANCE WITH THE EL PASO COUNTY ECM AND THE PIKES PEAK ASPHALT PAVING SPECIFICATIONS.

BENCHMARK: FIMS Monument Z-395 is a stainless steel rod inside an aluminum flange stamped "Z 395 1983" set by the NGS 335 feet Northwest of the center of Royer Street, 50 feet Northeast of the center of E. Las Vegas Street, 27 feet Southwest of the rear rail of the Denver and Rio Grande Western tracks, 3 feet Northwest of a utility pole with 1 guy wire, 1 foot Southeast of a witness post, 4 feet below the tracks; Elevation = 5914.77 (FIMS datum) plus 3.465 foot adjustment to NAVD 88 datum per VERTCON adjustment = 5918.23.

BASIS OF BEARING: THE BEARINGS & DISTANCES SHOWN ON SITE DEVELOPMENT PLAN



VICINITY MAP
NO SCALE

INDEX OF SHEETS

1	COVER SHEET	RECORD DRAWING
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4	EXTENDED DETENTION BASIN OUTLET PLAN & DETAILS	RECORD DRAWING
5	EXTENDED DETENTION BASIN DETAILS	RECORD DRAWING
6	MISCELLANEOUS & STANDARD DETAILS	RECORD DRAWING
7	EROSION CONTROL DETAILS	RECORD DRAWING
8	EROSION CONTROL DETAILS	RECORD DRAWING
9	EROSION CONTROL DETAILS	RECORD DRAWING
10	EROSION CONTROL DETAILS	RECORD DRAWING
11	GRADING PLAN	RECORD DRAWING

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON A SITE VISIT AND THE AS-BUILT SURVEY COMPLETED BY POLARIS SURVEYING, INC ON 2/12/24 AND 7/14/26. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THE ENGINEER IS NOT RESPONSIBLE FOR ITS ACCURACY, NOR FOR ERRORS OR OMISSIONS, WHICH MAY HAVE BEEN INCORPORATED INTO THESE DOCUMENTS AS A RESULT.

ABBREVIATIONS

ASSY = ASSEMBLY	MH = MANHOLE
BNDY = BOUNDARY	MIN. = MINIMUM
B.O.P. = BOTTOM OF PIPE	NTS = NOT TO SCALE
CL = CENTERLINE	O.D. = OUTSIDE DIAMETER
CL = CLASS	PC = POINT OF HORIZONTAL CURVATURE
CRA = CONCRETE REVERSE ANCHOR	PCHC = POINT OF CURVATURE ON HORIZ. CURVE
CTRB = CONCRETE THRUST BLOCK	PP = PROPOSED
CR = POINT OF CURB RETURN	PT = POINT OF HORIZONTAL TANGENCY
DIP = DUCTILE IRON PIPE	PTHU = POINT OF TANGENCY ON HORIZ. CURVE
EL = ELEVATION	PVC = POLY VINYL CHLORIDE PIPE
ESMT = EASEMENT	PVC = POINT OF VERTICAL CURVATURE
EX = EXISTING	PVI = POINT OF VERTICAL INTERSECTION
FC = FACE OF CURB	PVT = POINT OF VERTICAL TANGENCY
FES = FLARED END SECTION	RCB = REINFORCED CONCRETE BOX
FLG = FLANGE	RCP = REINFORCED CONCRETE PIPE
FL = FLOWLINE	ROW = RIGHT OF WAY
GB = GRADE BREAK	RT = RIGHT
HP = HIGH POINT	SHT = SHEET
HORIZ = HORIZONTAL	SS = SANITARY SEWER
HYD = HYDRANT	STA = STATION
I.D. = INSIDE DIAMETER	STD. = STANDARD
LT = LEFT	T.O.P. = TOP OF PIPE
LF = LINEAR FEET	THP = TYPICAL
LP = LOW POINT	VC = VERTICAL CURVE
MAX. = MAXIMUM	VERT. = VERTICAL

PREPARED BY:

Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

DEVELOPER:

ROCKY TOP RESOURCES, INC.
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1755 E. LAS VEGAS STREET
COLORADO SPRINGS, CO 80903-4323
(719) 579-9103

Kiowa Project No. 17066
FEBRUARY 2020
REVISED SEPTEMBER 2022

RECORD DRAWINGS SEPTEMBER 14, 2026

STANDARD CONSTRUCTION NOTES

1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
 - a. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
 - b. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
 - c. CDOT M & S STANDARDS
4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PUBLIC SERVICES DEPARTMENT - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS—ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND DSD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER OR THE AUTHORITY HAVING JURISDICTION IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY DSD.
10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY DSD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
12. SIGHT-VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DOT AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY PUBLIC SERVICES DEPARTMENT, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.

THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

STATEMENTS

Design Engineer's Statement:

These detailed plans and specifications were prepared under my direction and supervision. Said plans and specifications have been prepared according to the criteria established by the County for detailed roadway, drainage, grading and erosion control plans and specifications, and said plans and specifications are in conformity with applicable master drainage plans and master transportation plans. Said plans and specifications meet the purposes for which the particular roadway and drainage facilities are designed and are correct to the best of my knowledge and belief. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparation of these detailed plans and specifications.


Richard N. Wray, P.E. #19310
For and on behalf of Kiowa Engineering Corp.

4/15/2020
Date

Owner/Developer's Statement:

I, the owner/developer have read and will comply with all of the requirements specified in these detailed plans and specifications.


Frederick Martin
Rocky Top Resources
1755 E. Las Vegas Street
Colorado Springs, Colorado 80903

4/15/20
Date

El Paso County:

County plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/or elevations which shall be confirmed at the job site. The County through the approval of this document assumes no responsibility for completeness and/or accuracy of this document.

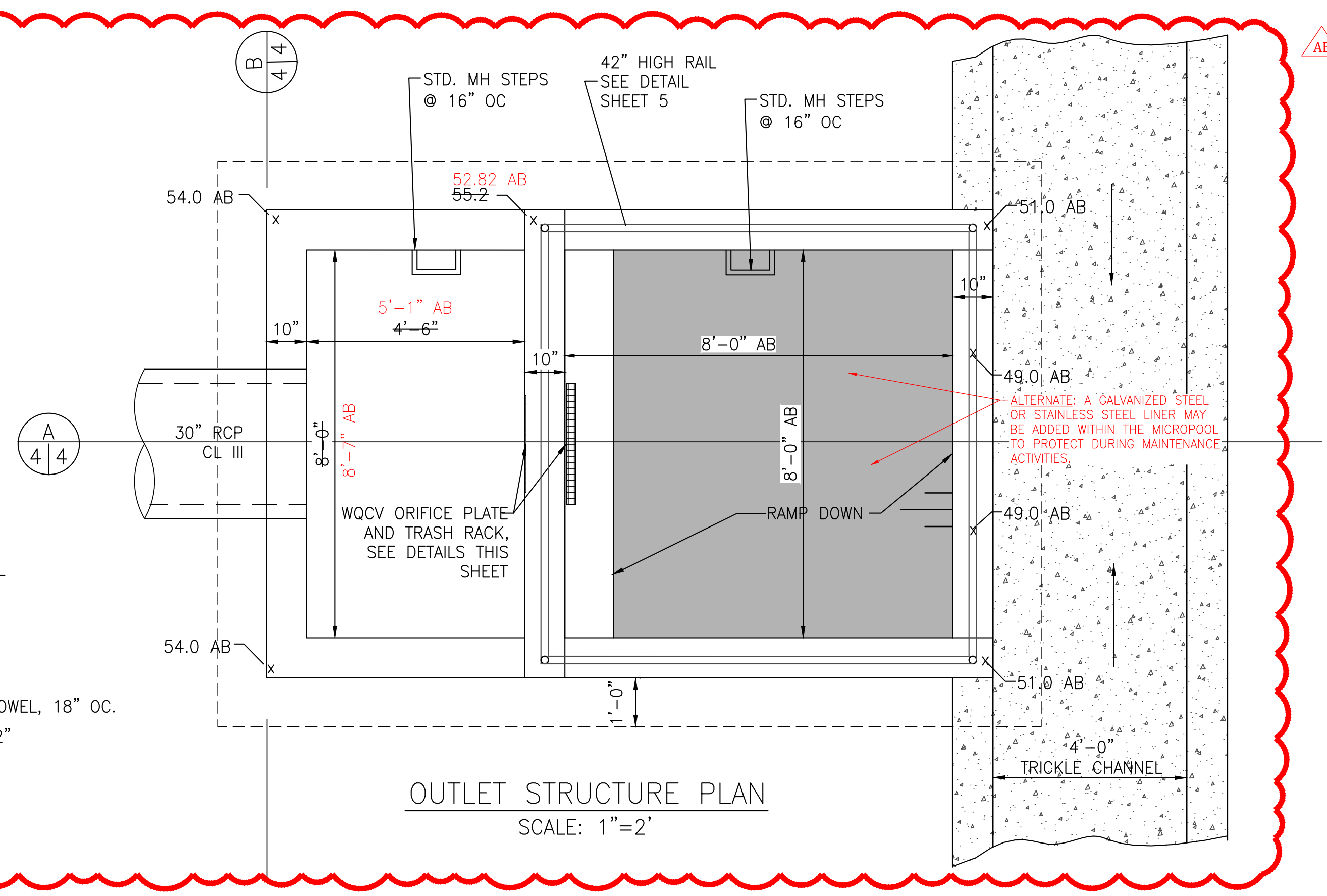
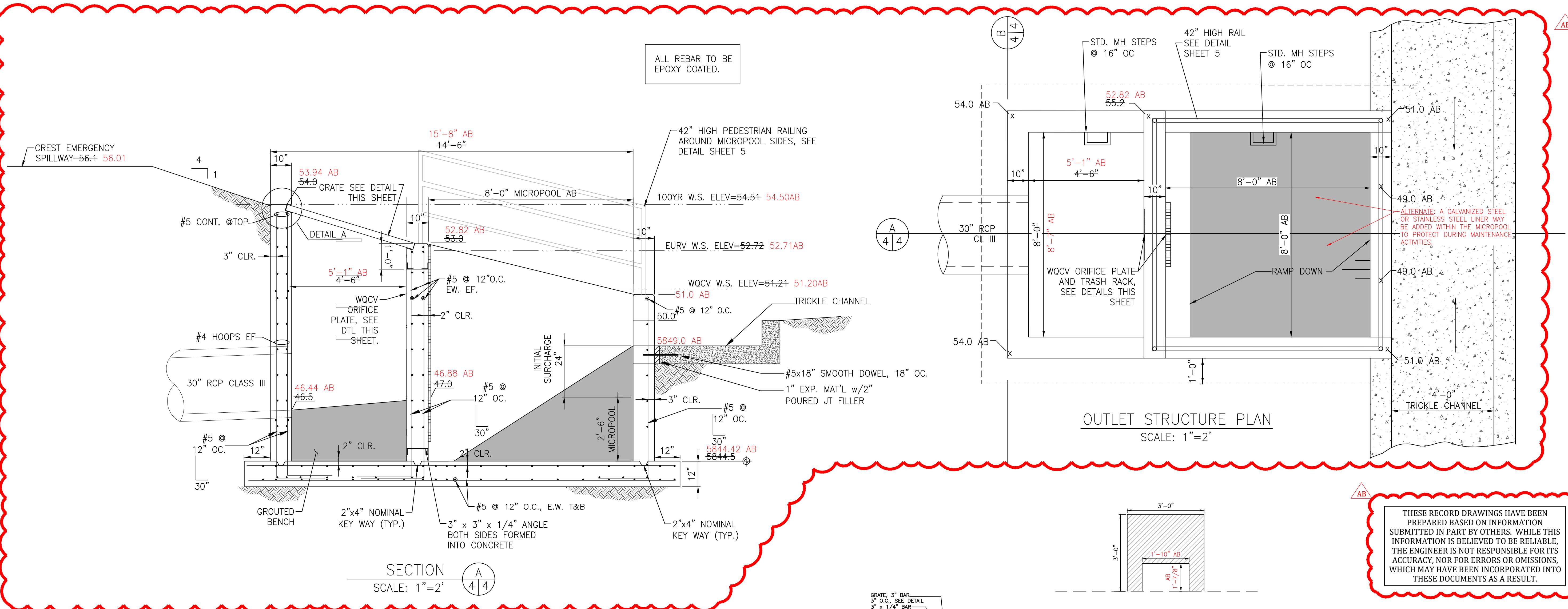
Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual, and Engineering Criteria Manual as amended.

In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years the plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Directors discretion.

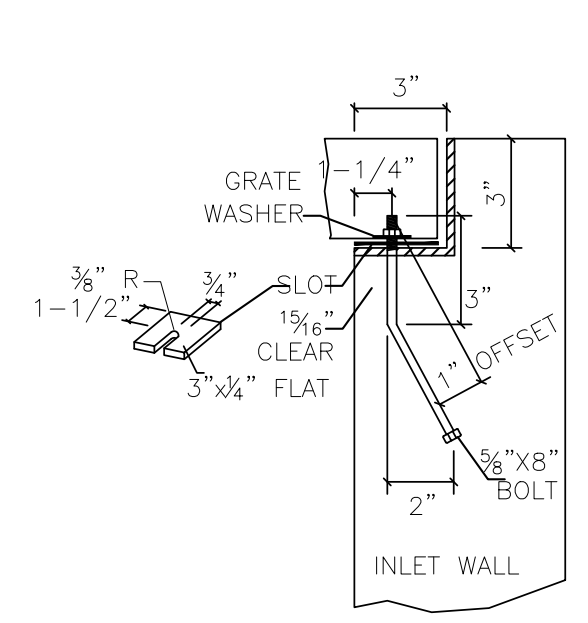
Jennifer Irvine, P.E.,
County Engineer / ECM Administrator

Approved
By: Elizabeth Nijkamp
Date: 06/23/2020
El Paso County Planning & Community Development

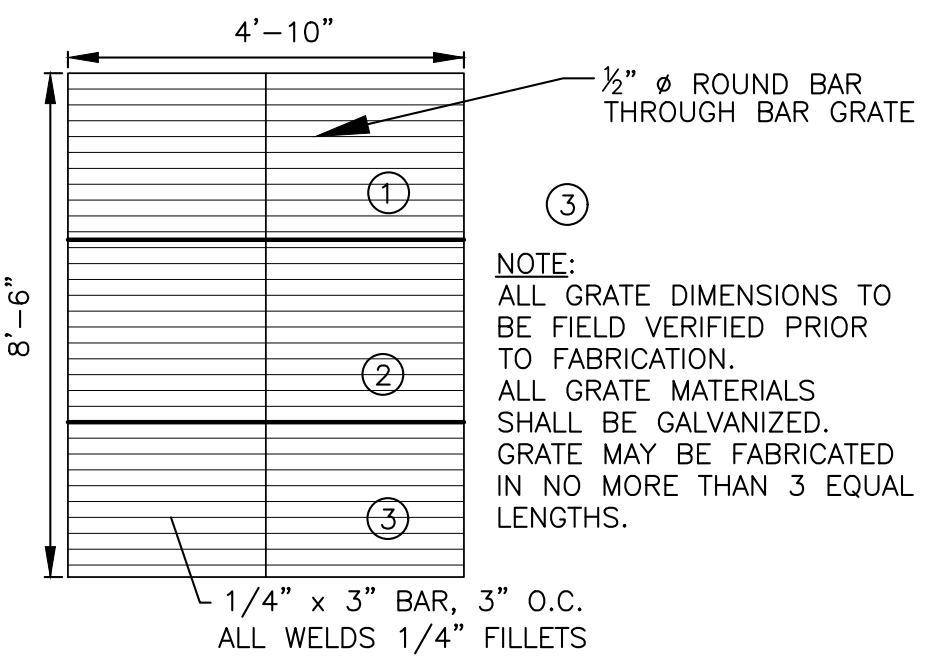
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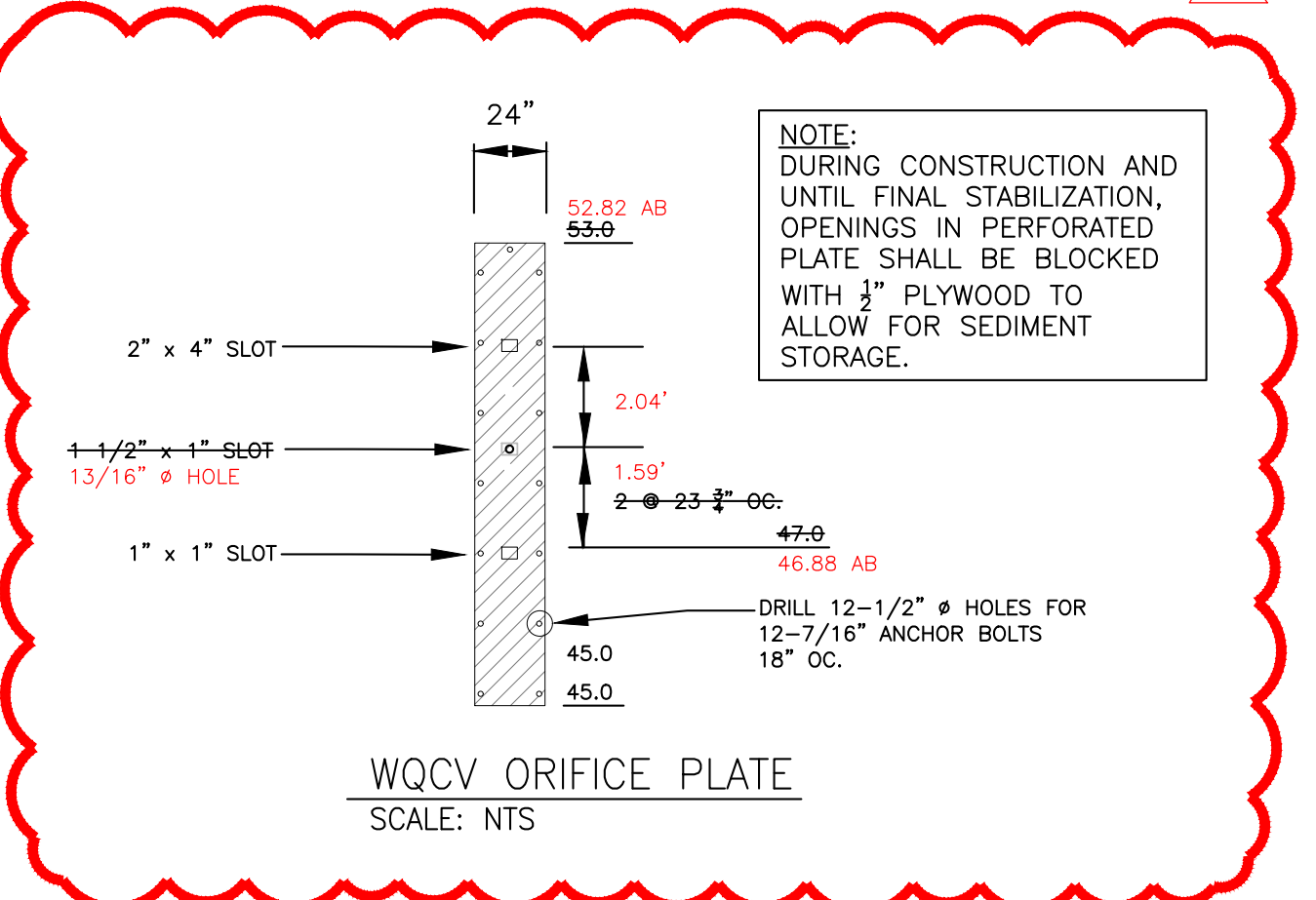
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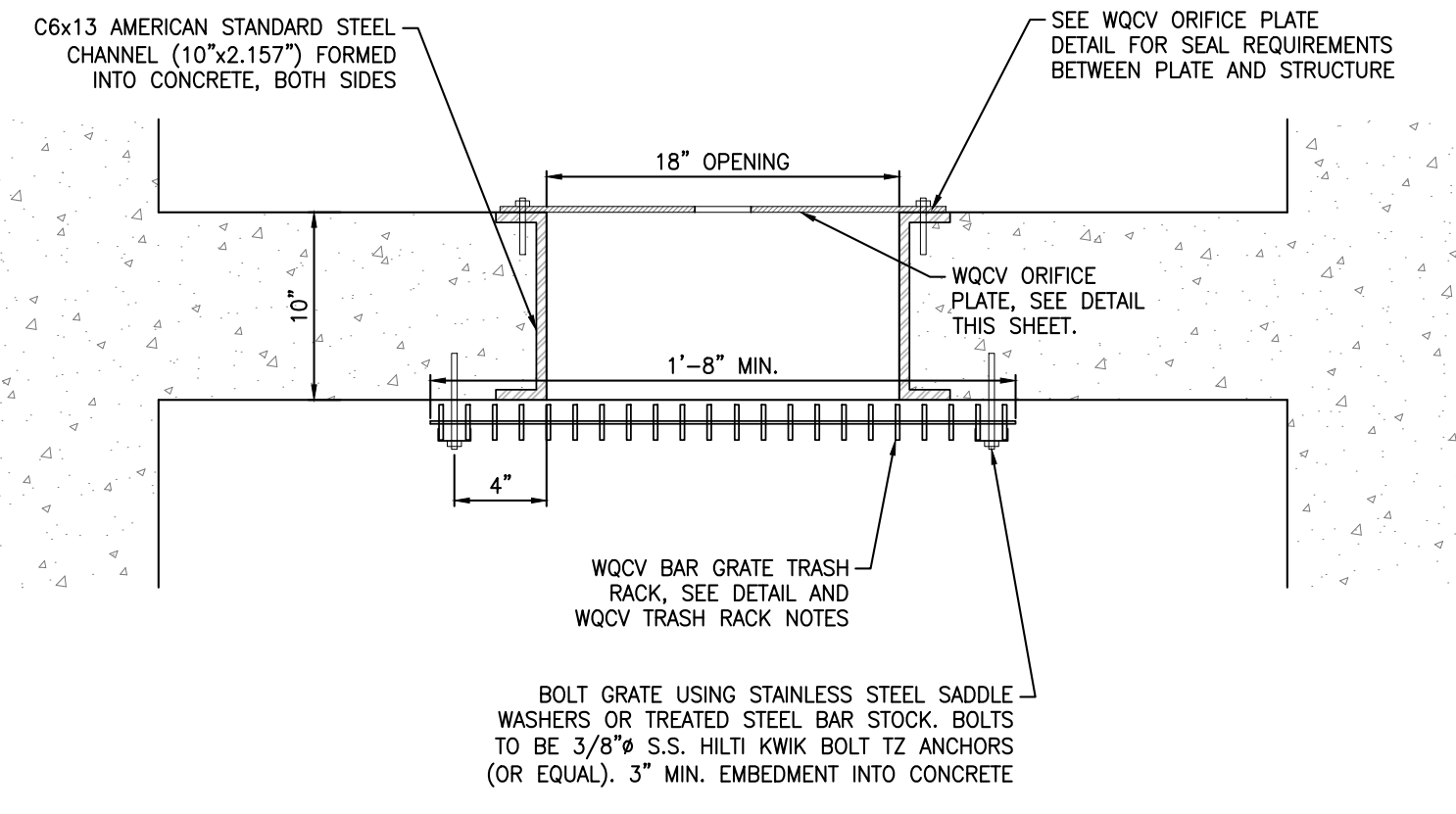
BOLT DOWN GRATE DETAIL
SCALE: NTS



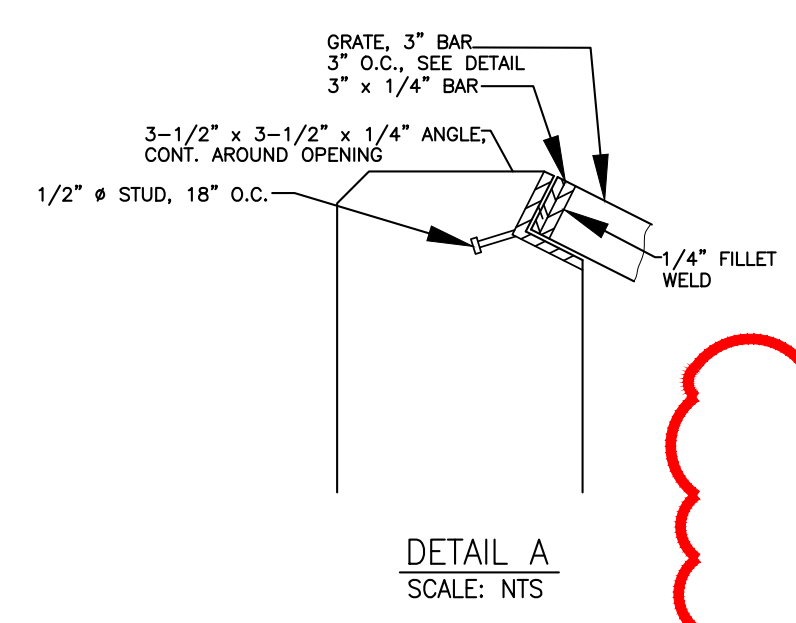
MAJOR STORM GRATE DETAIL
SCALE: NTS



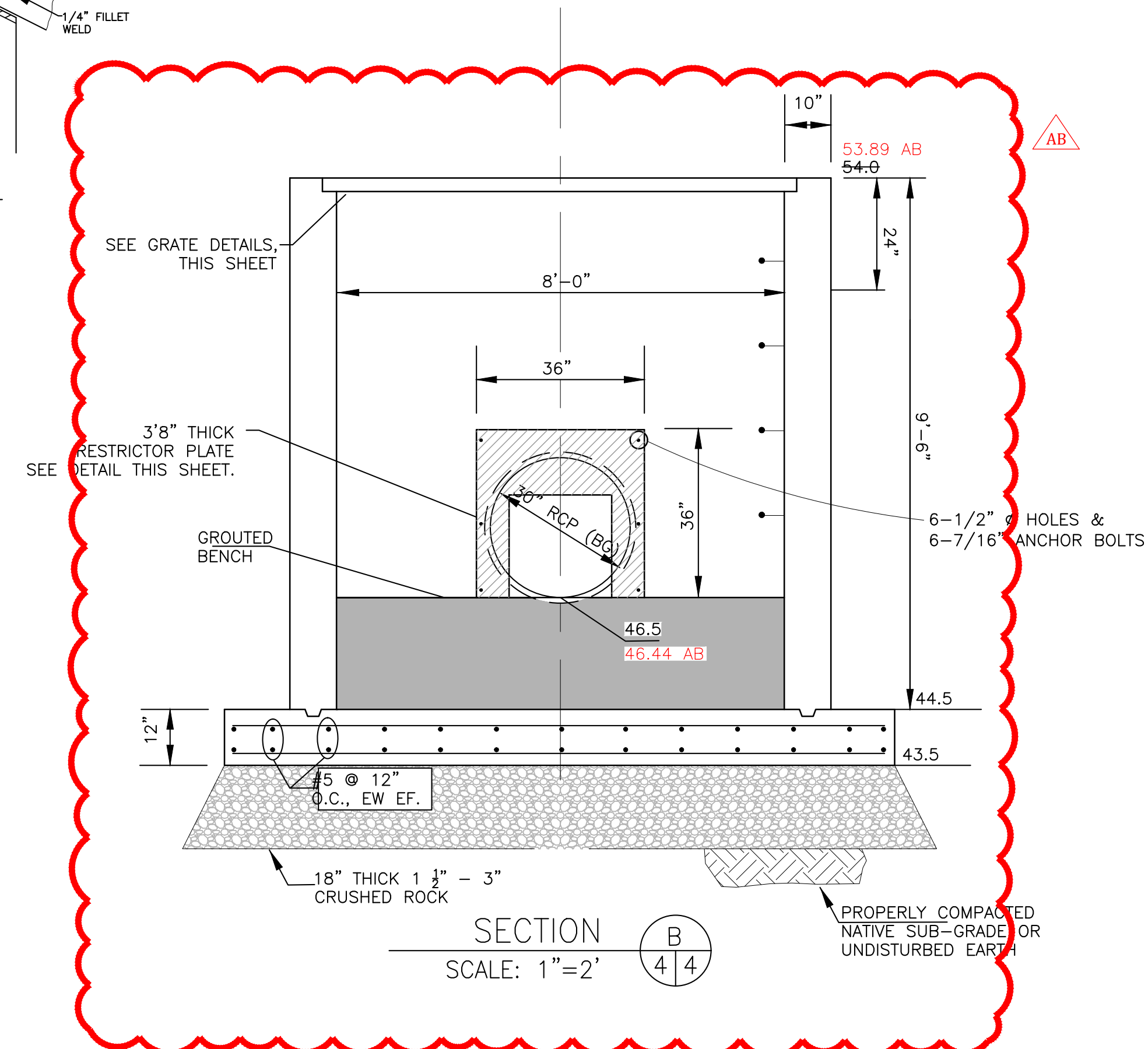
WQCV ORIFICE PLATE
SCALE: NTS



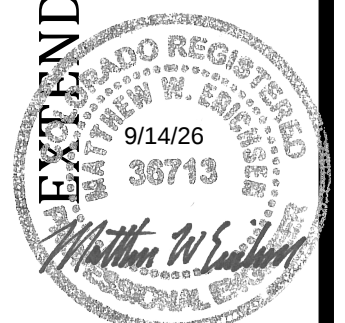
WQCV ORIFICE PLATE AND TRASH RACK
SCALE: NTS



DETAIL A
SCALE: NTS

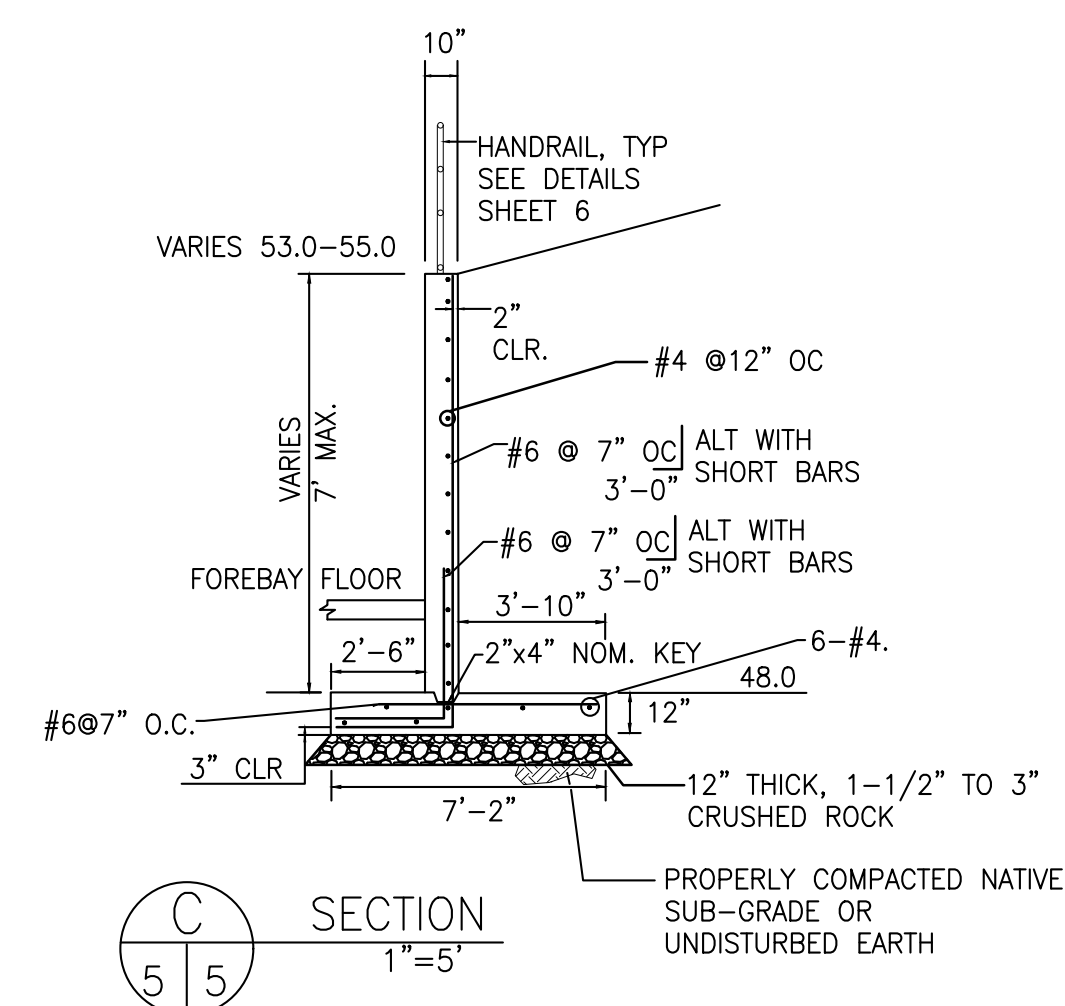
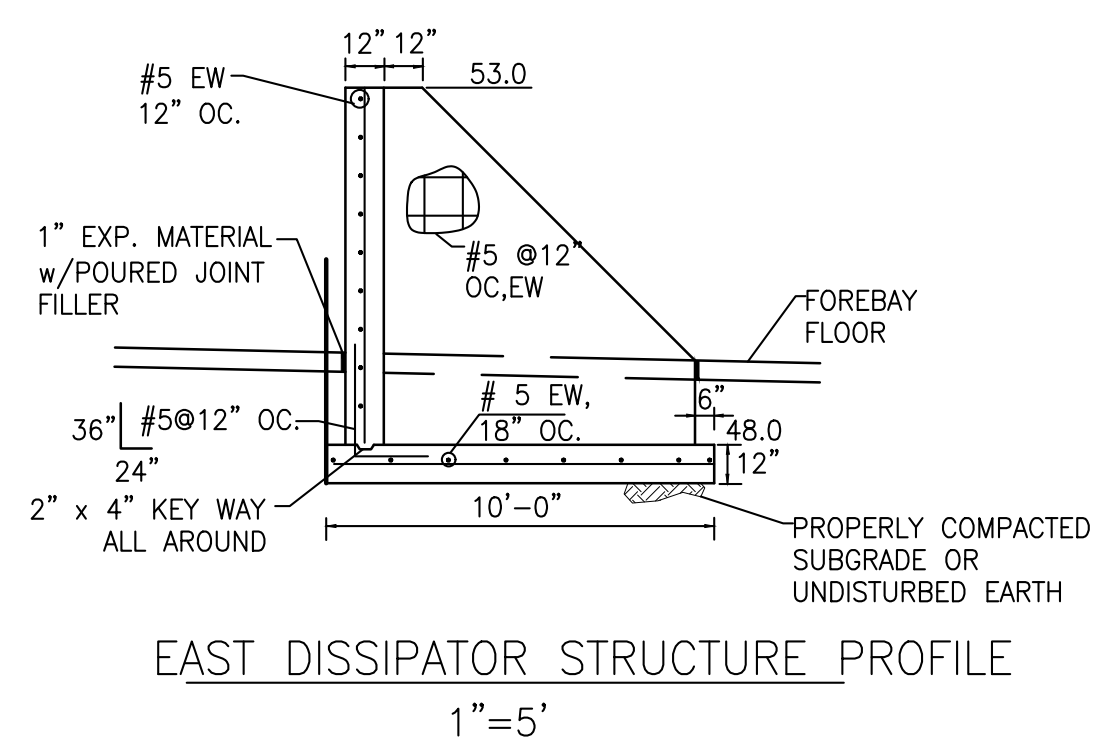
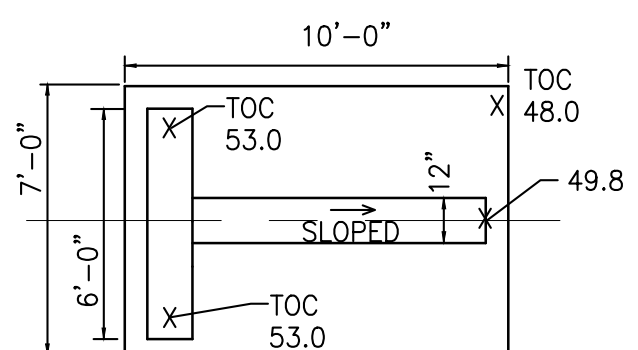
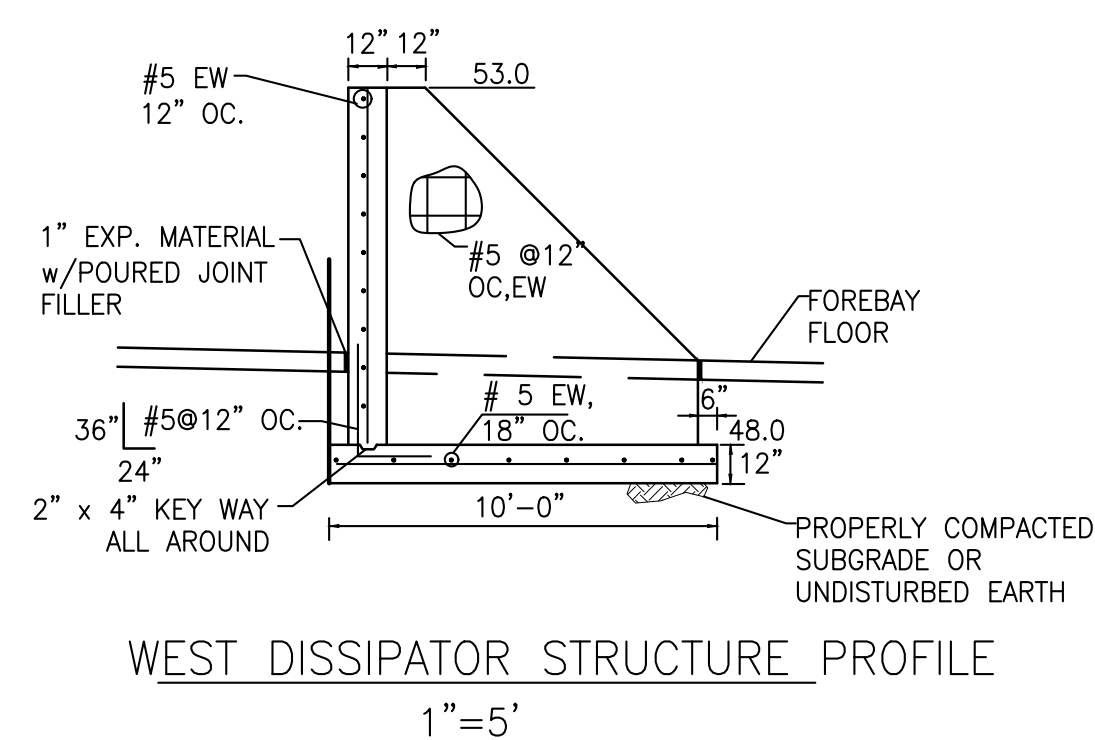
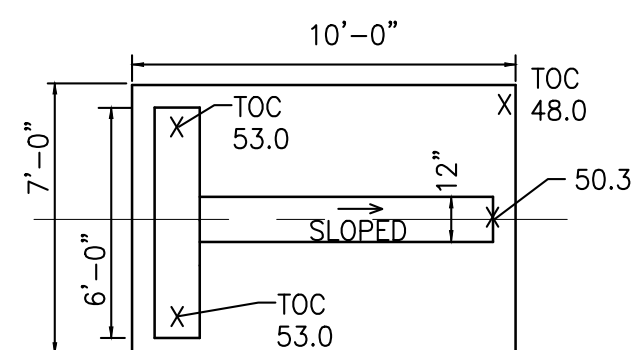
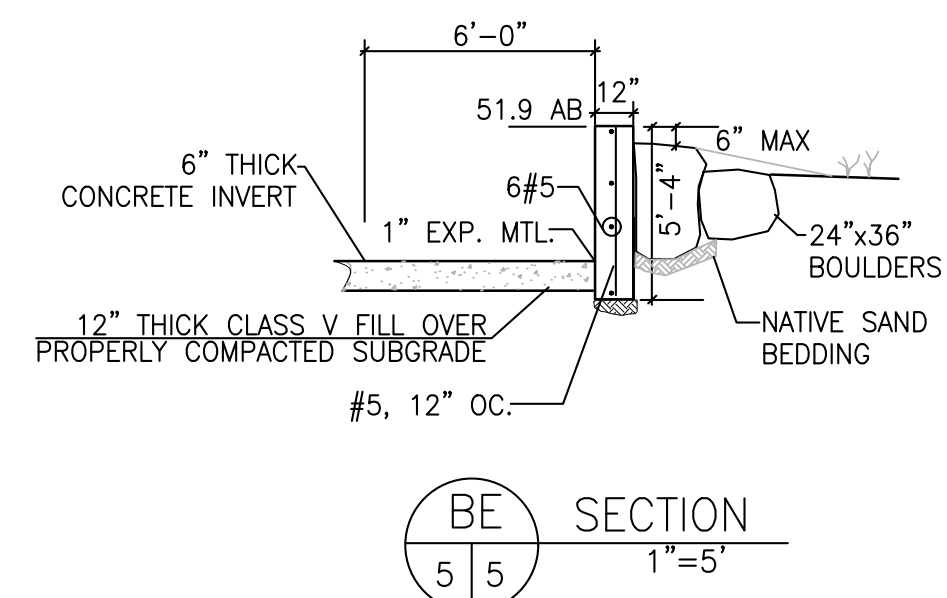
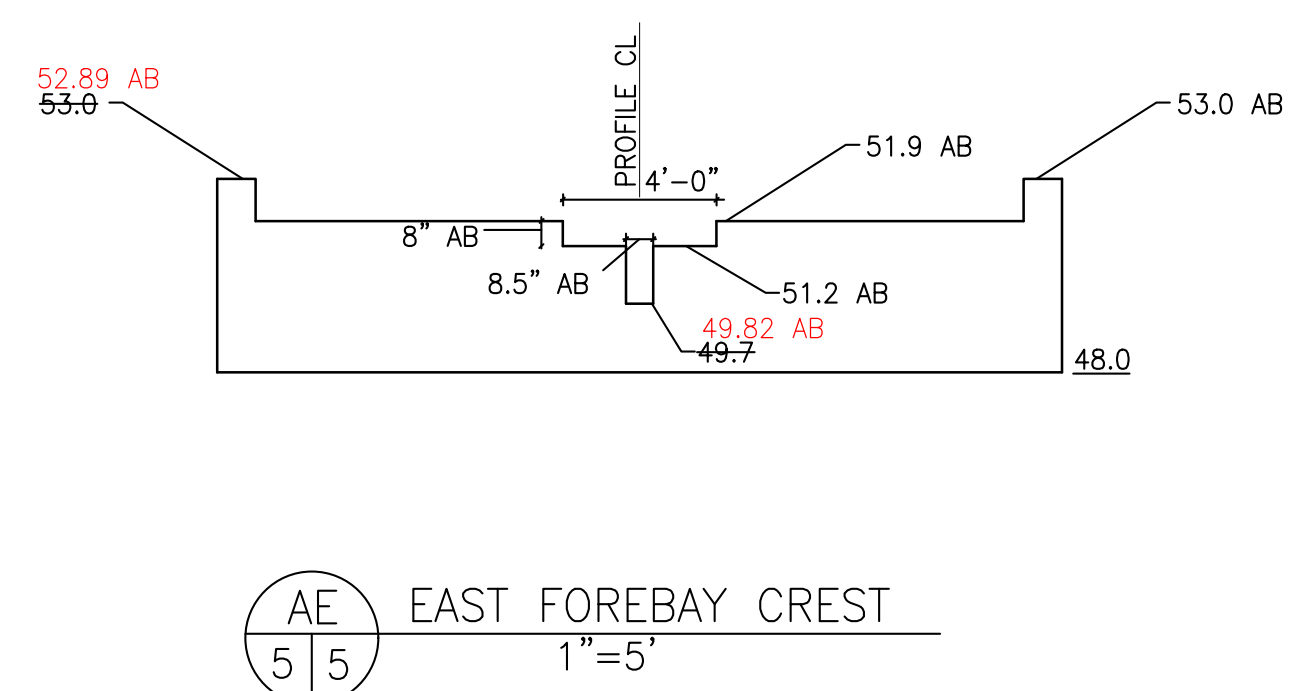
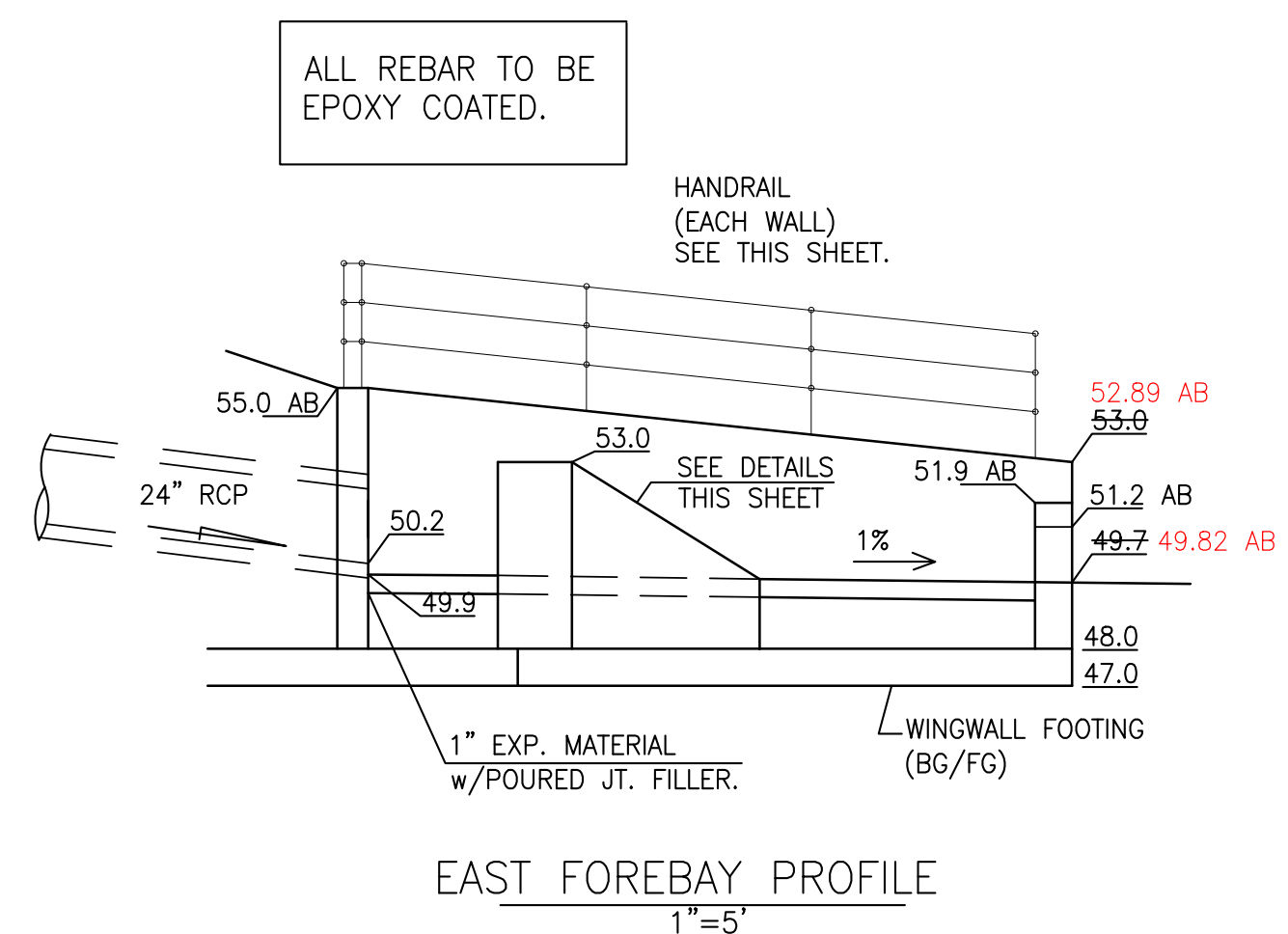
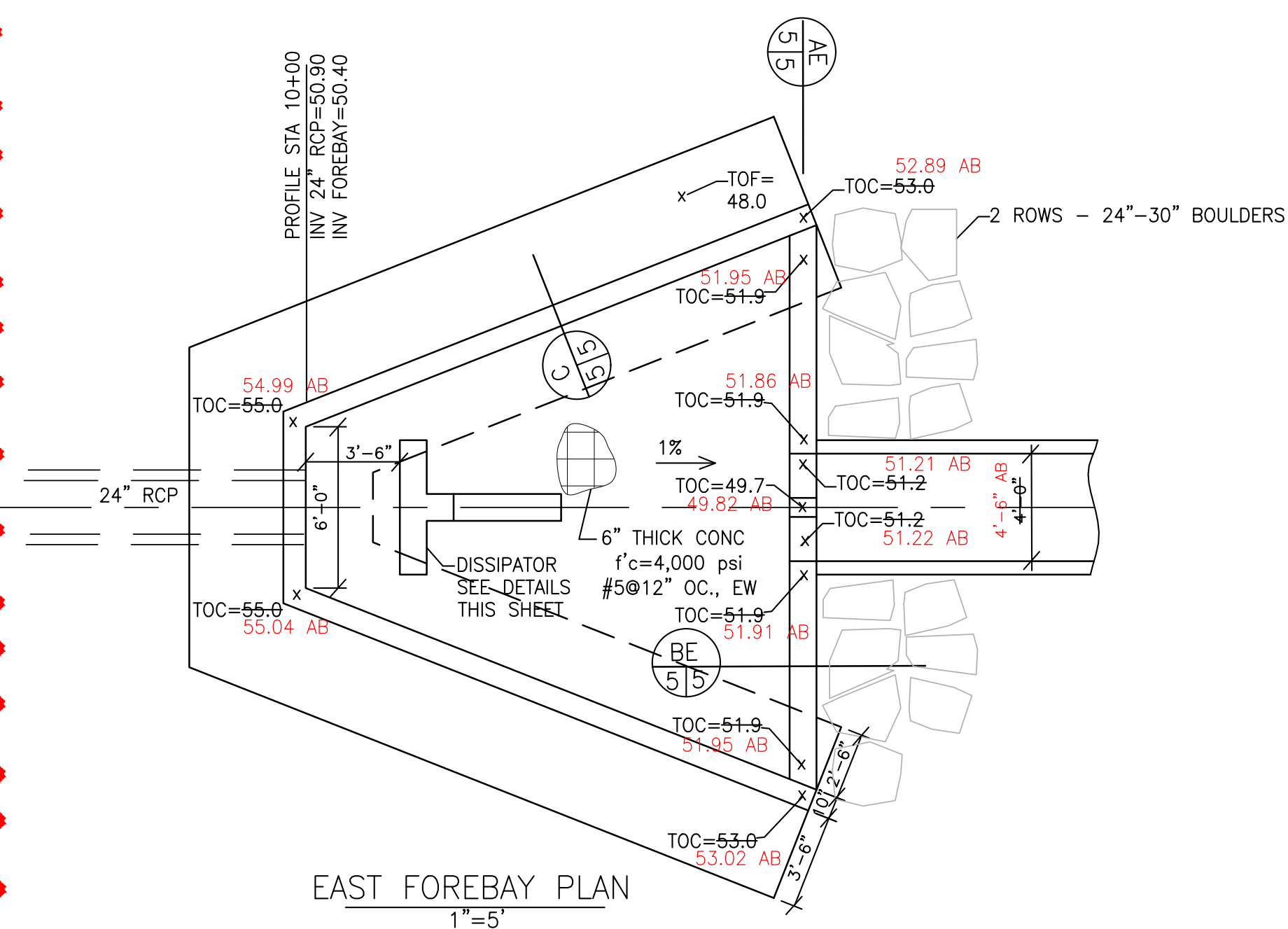
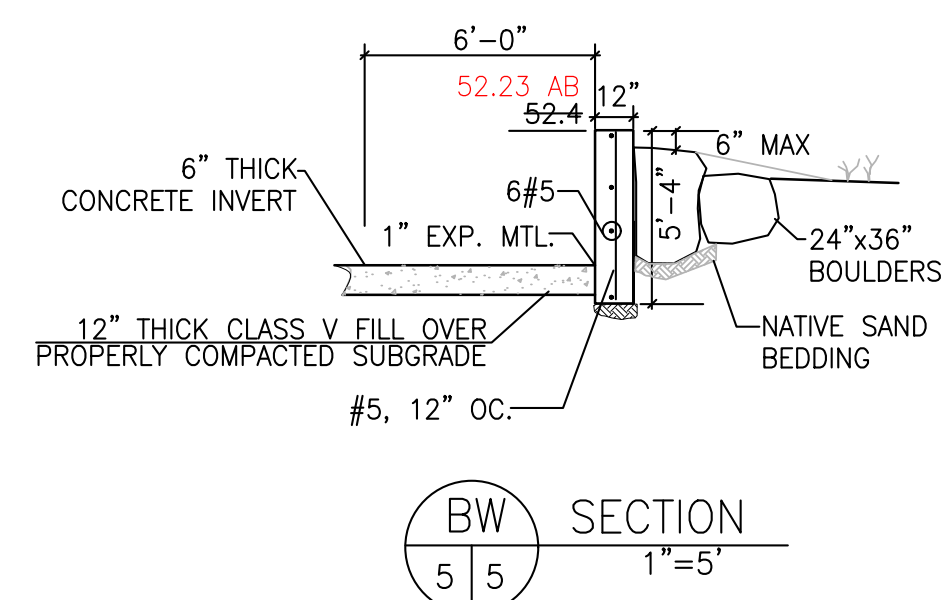
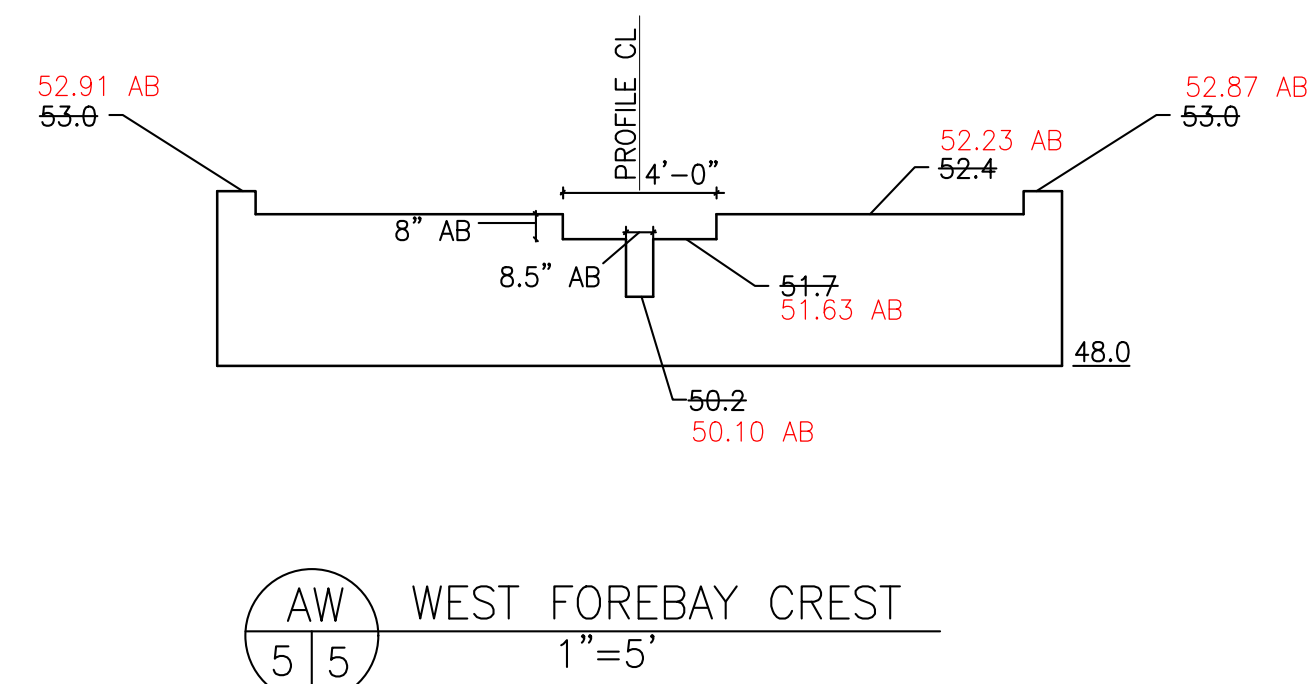
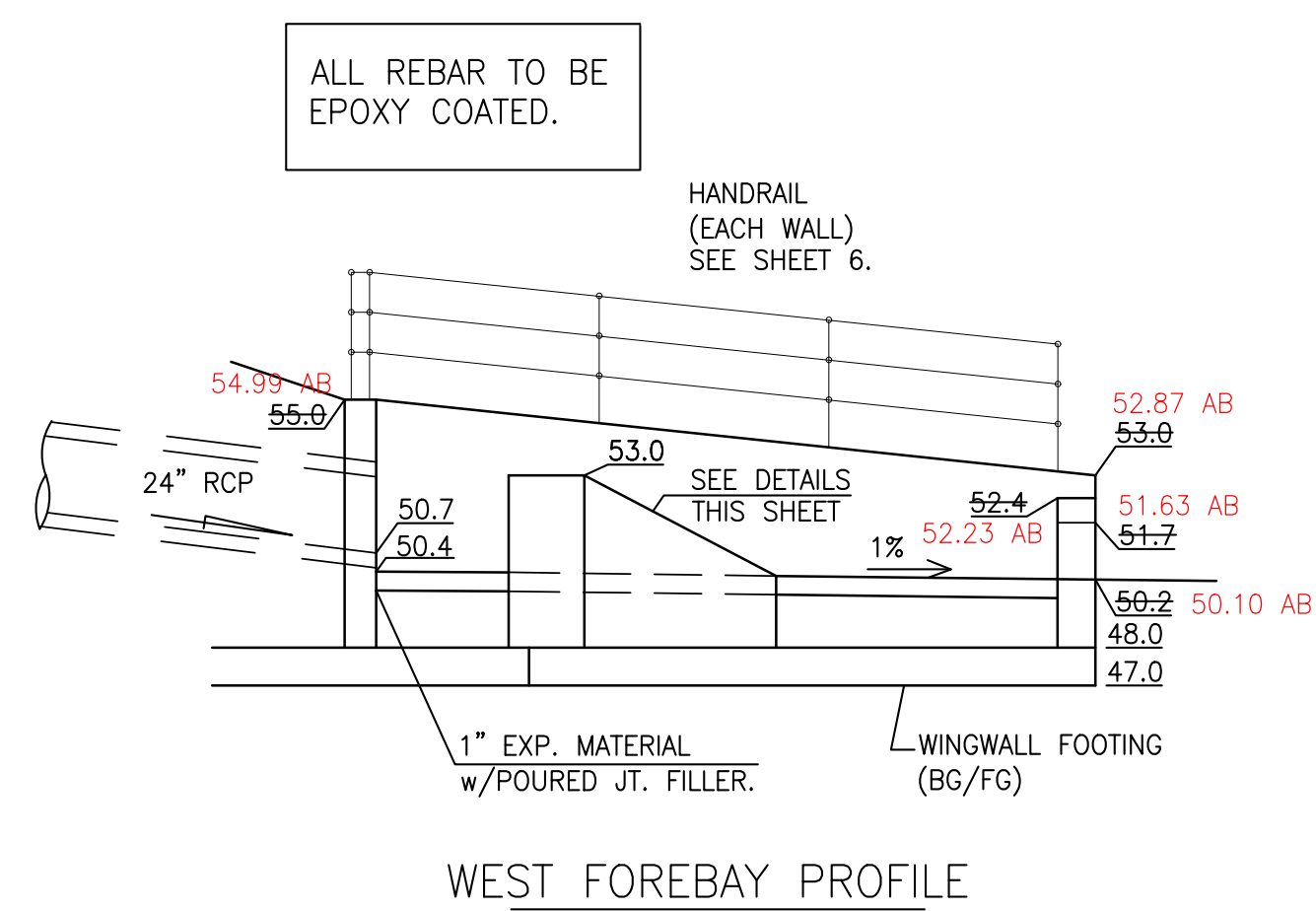
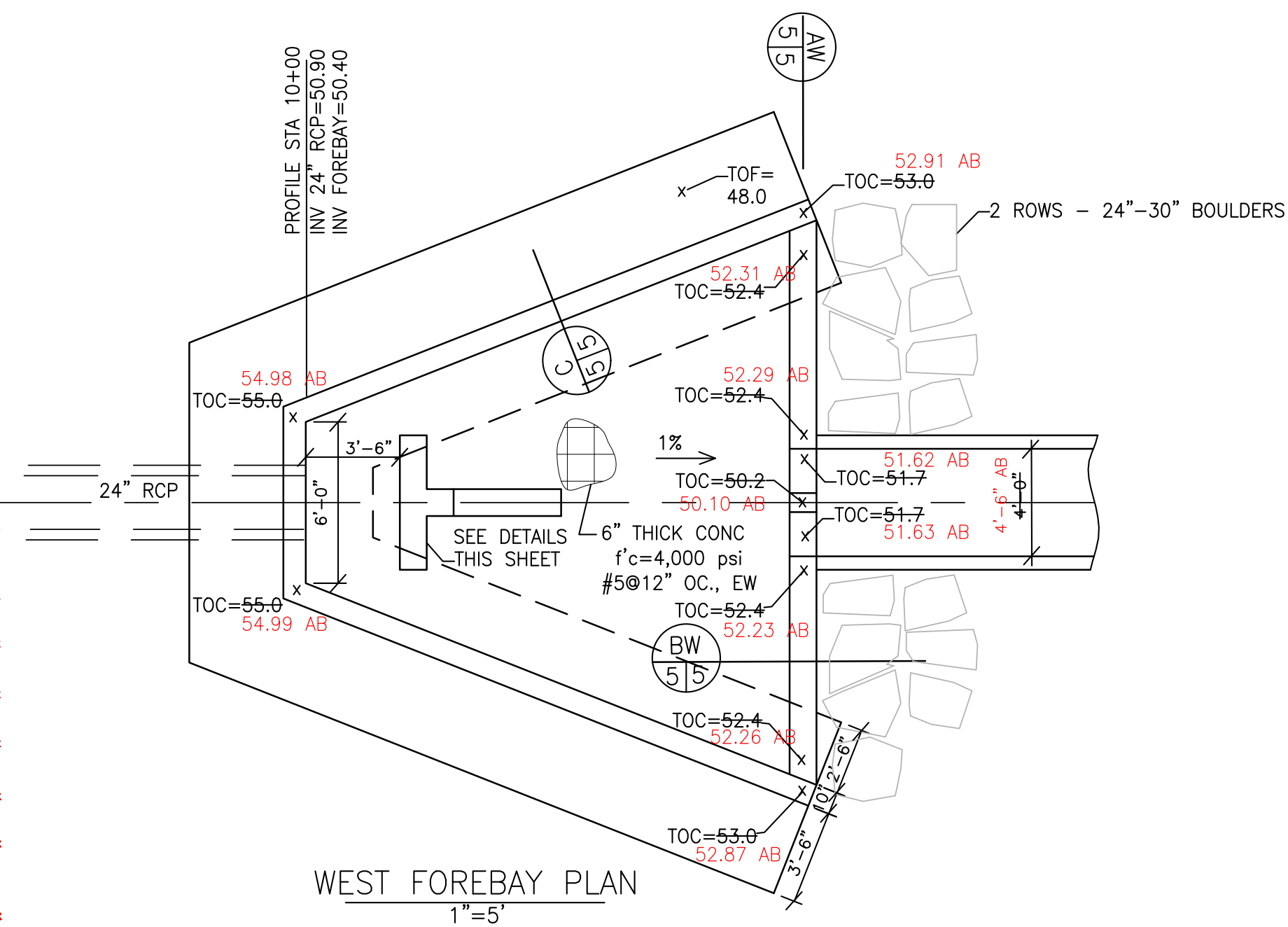


SECTION B-B
SCALE: 1"=2'



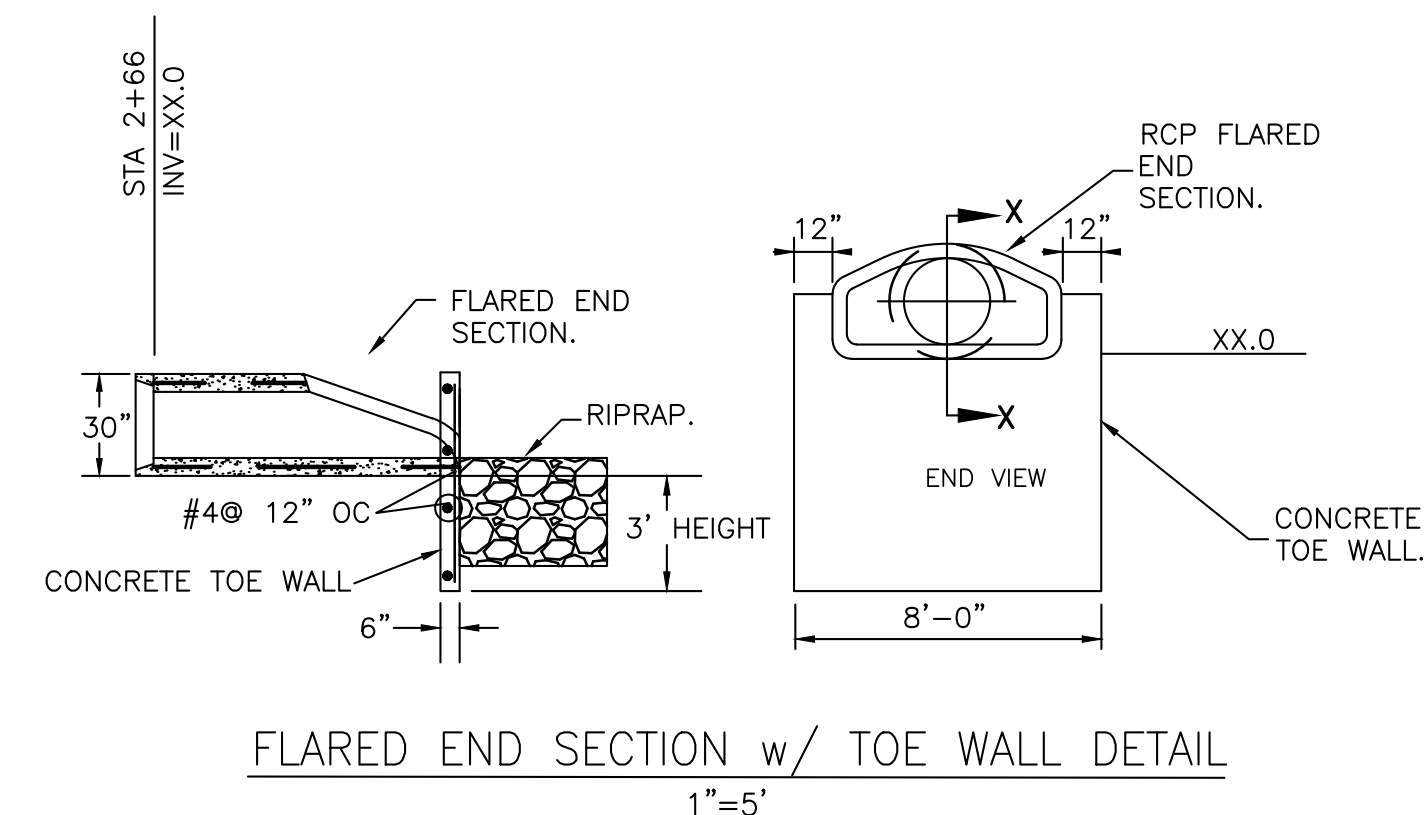
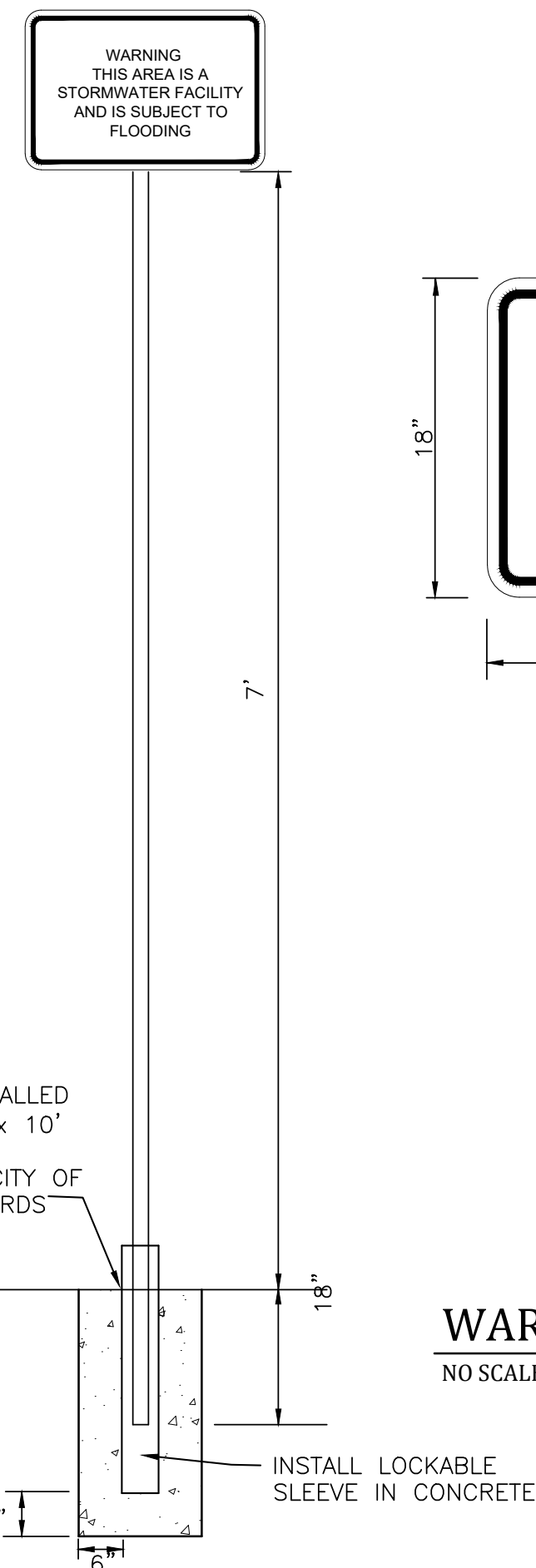
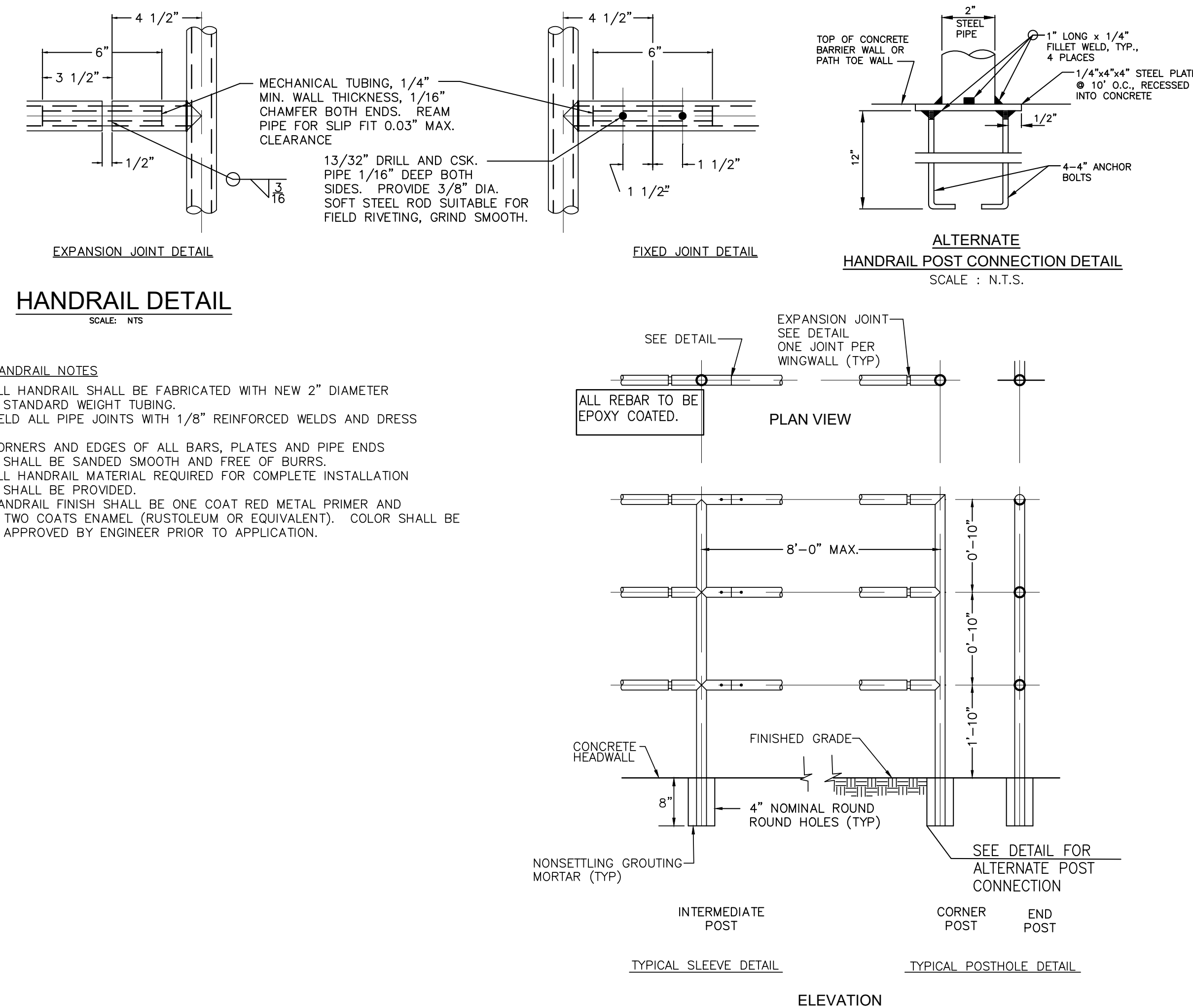
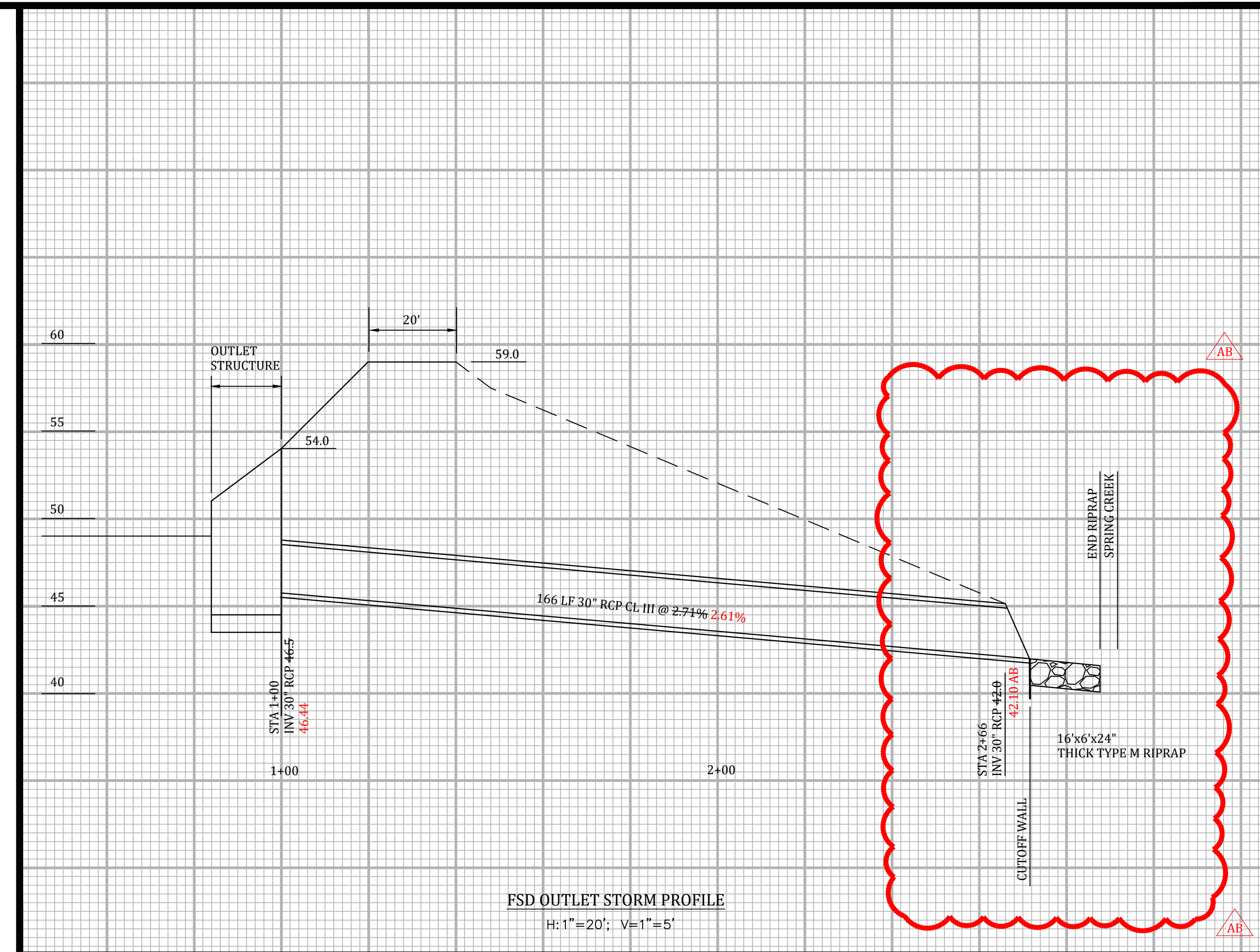
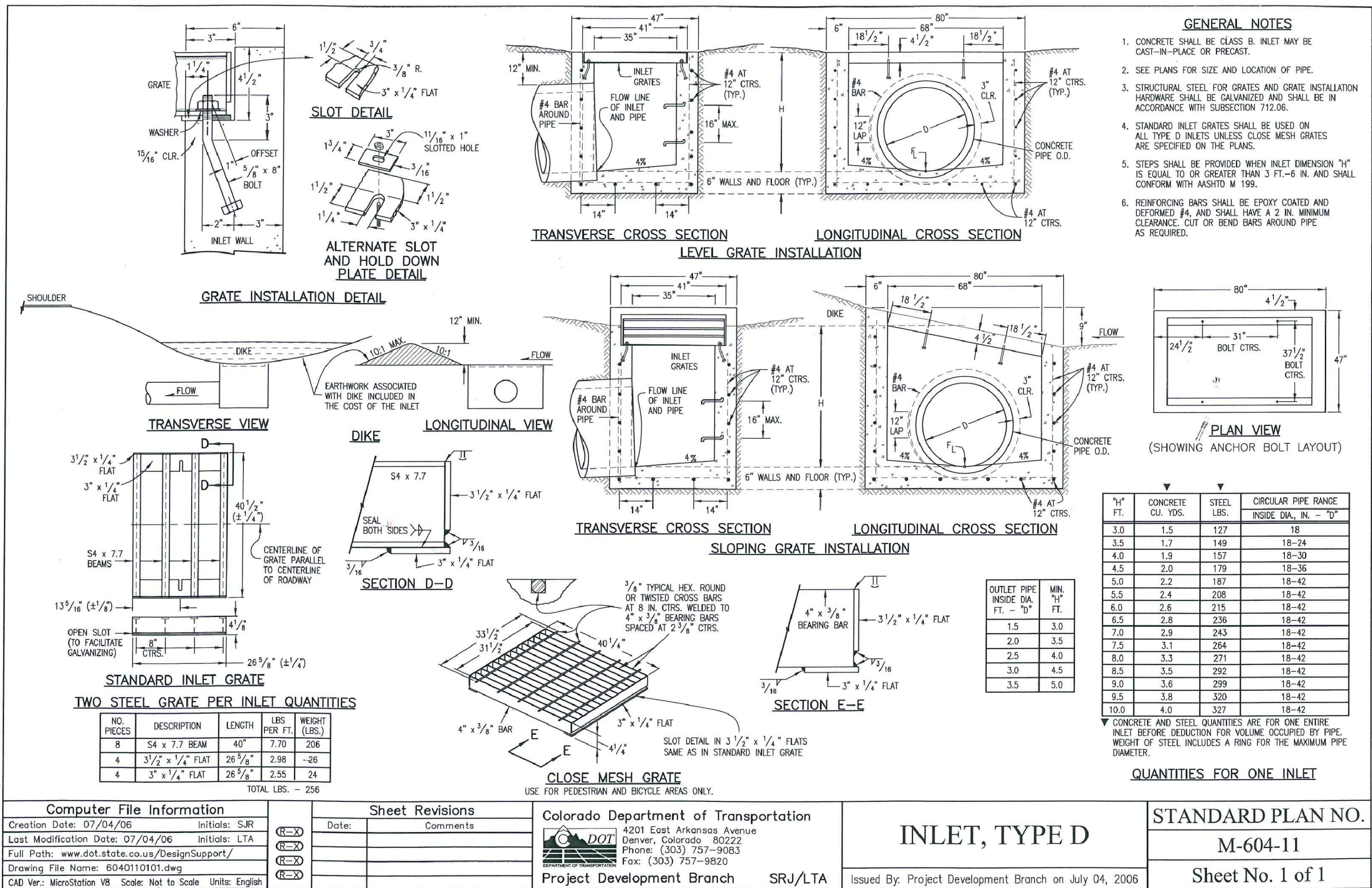
ENGINEERING
RECORD
DRAWINGS

Project No.:	17066
Date:	2/2020
Design:	RNW
Drawn:	EAK
Check:	RNW
Revisions:	
	AB RECORD DWGS 9/14/26



AB

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