

COUNTY OF SANTA CRUZ
PLANNING DEPARTMENT
701 Ocean Street, 4th Floor
Santa Cruz, CA 95060
(831) 454-2580

NOTICE OF PENDING ACTION

The Planning Department has received the following application. The identified planner may be contacted for specific information on this application.

APPLICATION NUMBER: 261092 APN: 084-141-25
SITUS: 151015 Two Bar Road

Proposal to construct 3- to 9-foot-tall retaining walls to support new driveway access with grading.

Requires a Site Development Permit for an over height fence.

Property is located on the western side of Two Bar Road (15015 Two Bar Road), approximately 450 feet north from intersection with Fern Avenue.

OWNER: James Zaun

APPLICANT: James Zaun

SUPERVISORIAL DISTRICT: 5

PLANNER: Alexandra Corvello, (831) 454 -3209

EMAIL: Alexandra.Corvello @santacruzcountyca.gov

Public comments must be received by 5:00 p.m. 10/6/2026. A decision will be made on or shortly after 10/7/2026.

Appeals of the decision will be accepted until 5:00 p.m. two weeks after the decision date. Planner will provide notification of decision to any requesting party.

Information regarding the appeal process, including required fees, may be obtained by phoning (831) 454-2130.

IMPROVEMENT PLANS

FOR

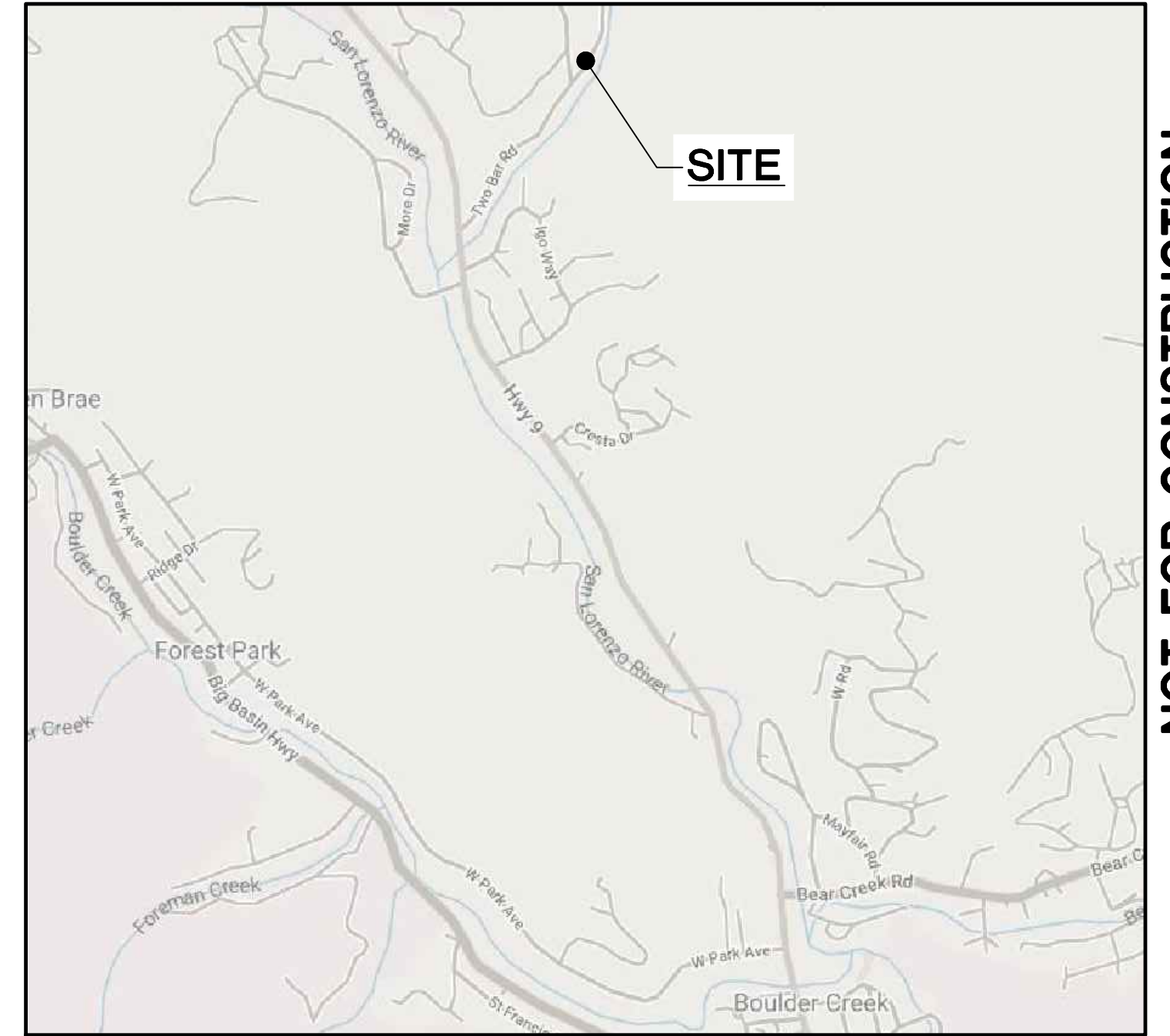
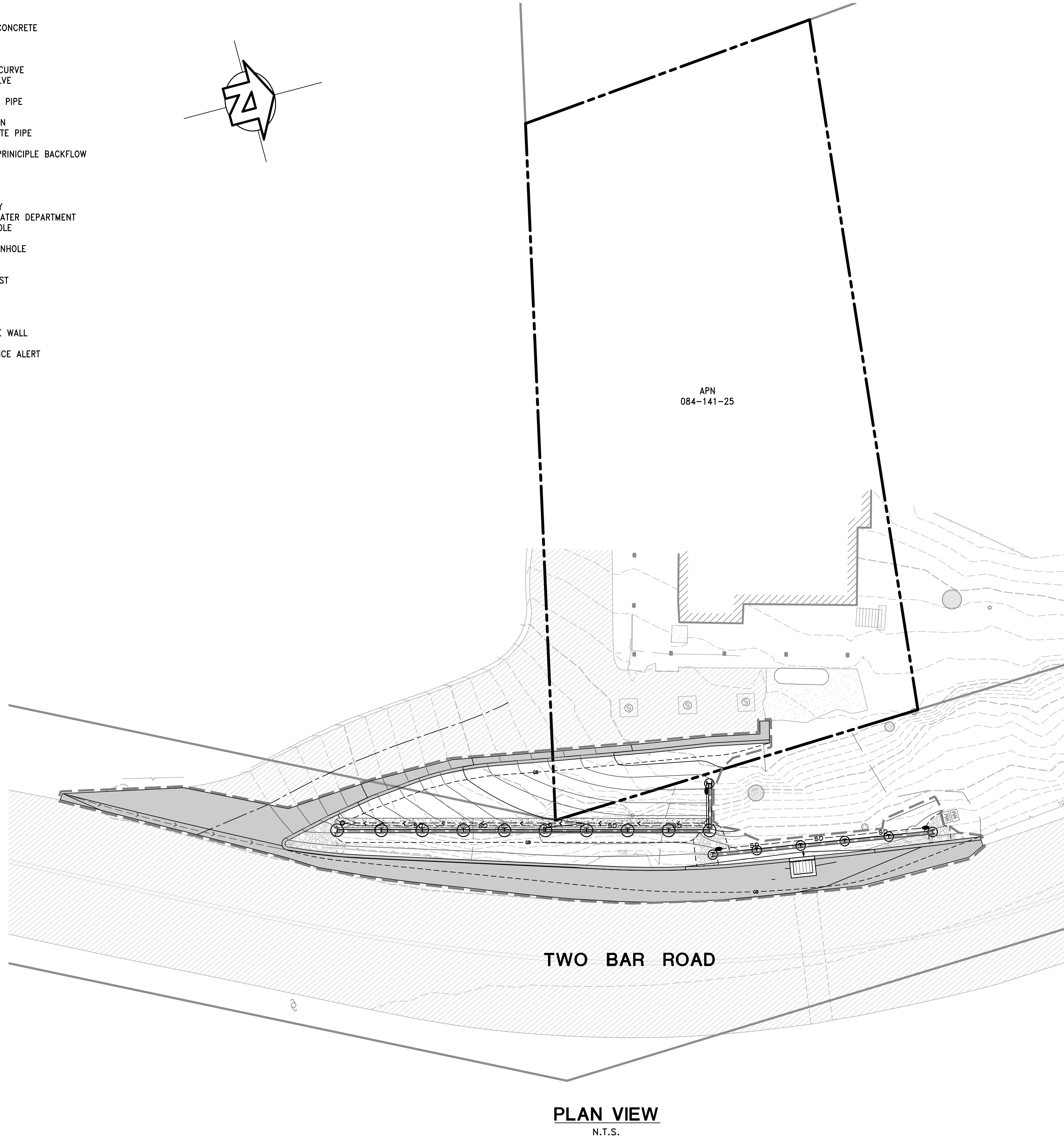
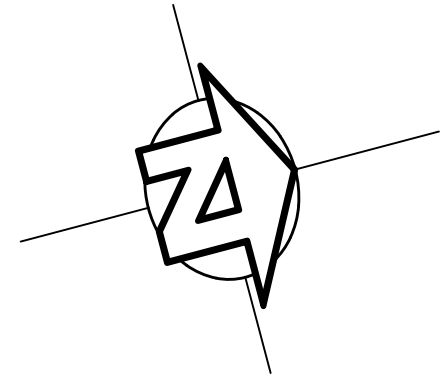
ZAUN RESIDENCE RETAINING WALL

15015 TWO BAR ROAD
BOULDER CREEK, CALIFORNIA

AB	AGGREGATE BASE	JB	JUNCTION BOX
AGG	AGGREGATE	JB	JOINT TRENCH
ARV	AIR-RELEASE VALVE	LF	LINEAR FOOT
BFP	BACKFLOW PREVENTER	LIP	LIP OF GUTTER
BO	BLOW-OFF VALVE	LOG	LIMIT OF GRADING
BRW	FINISH GRADE BELOW WALL	LP	LOW POINT
BSW	BACK OF SIDEWALK	MFS	MECHANICAL FILTRATION SYSTEM
BVC	BEGIN VERTICAL CURVE	MH	MANHOLE
BW	BOTTOM OF WALL	N	NORTH
CATV	CABLE TELEVISION	NE	NORTHEAST
CB	CATCH BASIN	NW	NORTHWEST
CI	CURB INLET	OH	OVERHEAD
CIP	CAST IRON PIPE	PCC	PORTLAND CEMENT CONCRETE
CL	CENTERLINE	PE	POLYETHYLENE
CMP	CORRUGATED METAL PIPE	PP	PROPERTY POLE
CMU	CONCRETE MASONRY UNIT	PL	PROPERTY LINE
CO	CLEANOUT	PRC	POINT OF REVERSE CURVE
COMM	COMMERCIAL	PVC	POST-INDICATOR VALVE
CONC	CONCRETE	PV	PAVEMENT
COTG	CLEANOUT TO GRADE	PVC	POLYVINYL CHLORIDE PIPE
DIP	DUCTILE IRON PIPE	R	RADIUS
DOM	DOMESTIC	RC	RELATIVE COMPACTION
DTL	DETAIL	RCP	REINFORCED CONCRETE PIPE
DWG	DRAWING	ROW	RIGHT-OF-WAY
DWY	DRIVEWAY	RPPB	REDUCE PRESSURE PRINCIPLE BACKFLOW
E	EAST, ELECTRICAL	RW	RECYCLED WATER
EG	EXISTING GROUND	S	SOUTH, SLOPE
EP	EDGE OF PAVEMENT	SD	STORM DRAIN
(E)	EXISTING	SE	SOUTHEAST
EX	EXISTING	SCC	SANTA CRUZ COUNTY
FC	FACE OF CURB	SCWD	SANTA CRUZ CITY WATER DEPARTMENT
FDC	FIRE DEPARTMENT CONNECTION	SDMH	STORM DRAIN MANHOLE
FG	FINISH GRADE	SS	SANITARY SEWER
FF	FINISH FLOOR	SSMH	SANITARY SEWER MANHOLE
FI	FIRE HYDRANT	STA	STATION
FL	FLOWLINE	STD	STANDARD
FENC	FENCE	SW	SIDEWALK, SOUTHWEST
FO	FIBER OPTIC	T	TELEPHONE
FT	FOOT/FEET	TC	TOP OF CURB
FW	FIRE WATER	TF	TOP OF FOOTING
G	GAS	TRAN	TRANSFORMER
GB	GRADE BREAK	TRW	FINISH GRADE ABOVE WALL
HT	HEIGHT	TW	TOP OF WALL
HDPE	HIGH-DENSITY POLYETHYLENE	USA	UNDERGROUND SERVICE ALERT
HP	HIGH POINT	VG	VALLEY GUTTER
INT	INTERSECTION	W	WEST, WATER
INV	INVERT	WD	WALL DRAIN
IRR	IRRIGATION	WM	WATER METER
		WV	WATER VALVE

LEGEND

DESCRIPTION	PROPOSED
AIR RELEASE VALVE	
AREA DRAIN	
BLOW-OFF VALVE	
CATCH BASIN	
CURB INLET	
CLEANOUT STRUCTURE	
FIRE HYDRANT	
GUY ANCHOR	
MANHOLE STRUCTURE	
WATER THRUST BLOCK	
WATER METER	
WATER VALVE	
COMMUNICATION LINE	_____ COMM _____
ELECTRICAL LINE	_____ E _____
FIBER OPTIC LINE	_____ FO _____
FIRE WATER LINE	_____ FW _____
GAS LINE	_____ G _____
IRRIGATION LINE	_____ IRR _____
JOINT TRENCH LINE	_____ JT _____
OVERHEAD LINE	_____ OH _____
RECYCLED WATER LINE	_____ RW _____
STORM DRAIN LINE	_____ SD _____
SANITARY SEWER LINE	_____ SS _____
TELEPHONE LINE	_____ T _____
CABLE TV LINE	_____ TV _____
WATER LINE	_____ W _____



VICINITY MAP

APPLICABLE CODES

THE FOLLOWING CODES SHALL APPLY WHERE APPLICABLE – 2022 CALIFORNIA BUILDING CODE, 2022 CALIFORNIA FIRE CODE, 2022 CALIFORNIA PLUMBING CODE, 2022 CALIFORNIA MECHANICAL CODE, 2022 CALIFORNIA ELECTRIC CODE, 2022 CALIFORNIA ENERGY STANDARDS, 2022 CALIFORNIA GREEN BUILDING CODE, 2022 CALIFORNIA RESIDENTIAL CODE AND SANTA CRUZ COUNTY AMENDMENTS.

CAL GREEN RESIDENTIAL CODE NOTE

PER THE 2022 CALIFORNIA GREEN BUILDING CODE (CGBC 4.408.1), A MINIMUM OF 65% OF THE CONSTRUCTION AND DEMOLITION WASTE SHALL BE RECYCLED, REUSED ON THE PROJECT, OR SALVAGED FOR LATER USE, OR SALE.

CALIFORNIA RESIDENTIAL CODE NOTE

PER THE 2022 CALIFORNIA RESIDENTIAL CODE (CRC R314.3, R315.3), SMOKE DETECTORS ARE REQUIRED IN EACH SLEEPING ROOM, AND SMOKE AND CARBON MONOXIDE ALARMS ARE REQUIRED OUTSIDE OF EACH SLEEPING AREA, ON EACH FLOOR LEVEL. COMBINATION ALARMS ARE PERMITTED.

GEOTECHNICAL ENGINEER

GEOTECHNICAL INVESTIGATIVE REPORT FOR THIS PROJECT WAS OBTAINED FROM HARO, KASUNICH AND ASSOCIATES, INC. PROJECT NO. SC12388, APRIL 2024, REVISED MAY 2025.

SURVEY

BOUNDARY AND TOPOGRAPHIC SURVEY WAS OBTAINED FROM GV LAND SURVEYING, PROJECT NO. V23094, 12/14/23

BENCHMARK

BENCHMARK FOR THIS SURVEY IS BASED ON NAVD88 DATUM DERIVED FROM GPS OBSERVATIONS AND COMPUTED USING GEOIE18. MAG NAIL & SHINER IN AC, ALONG TWO BAR ROAD ACROSS FROM 15015 TWO BAR ROAD, NORTHERLY OF THE UTILITY POLE.

ELEVATION= 536.56 FEET (NAVD88)

BASIS OF BEARINGS

BASIS OF BEARINGS FOR THIS SURVEY IS BETWEEN MONUMENTS FOUND ALONG THE SUBDIVIDED LOT 4 AND TWO BAR ROAD AS SHOWN ON THAT MAP FILED IN VOLUME 25 MAPS, AT PAGE 34, SANTA CRUZ COUNTY RECORDS.

BASIS OF BEARING = N05°49'58"W

INDEX OF SHEETS

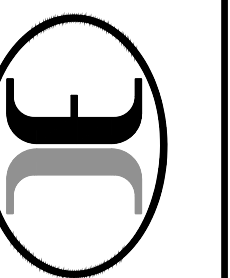
<u>SHEET NO.</u>	<u>DESCRIPTION</u>
C0.0	COVER SHEET
C1.0	NOTES
C2.0	AGENCY STANDARD DETAILS
C2.1	STANDARD DETAILS
C3.0	GRADING & DRAINAGE PLAN
C3.1	ROAD PLAN & PROFILE, WALL PROFILES
C3.2	SITE SECTIONS
C4.0	EROSION CONTROL NOTES & DETAILS
C4.1	EROSION CONTROL PLAN
S1.0	RETAINING WALL DETAILS & SPECS
TS-1	RECORD BOUNDARY & TOPOGRAPHIC SURVEY



NOT FOR CONSTRUCTION

			
FOR PLAN REVIEW ONLY			
DATE OF CALLING			DATE
JAI	3	COUNTY REVIEW COMMENT REVISIONS	7/20/2026
DD	72	COUNTY REVIEW COMMENT REVISIONS	2/12/2026
BY		REVISION	

THE LAND ENGINEERS
CIVIL ENGINEERING ■ LAND PLANNING ■ STRUCTURAL DESIGN
www.iflandengineers.com
SANTA CRUZ, CA 95061
TEL. (831) 426-5313



COVER SHEET
ZAUN RETAINING WALL
15015, TWO BAR ROAD, BOULDER CREEK, CALIFORNIA

DATE	DESIGN	DRAWING
03/14/2025	DD	DD

ET
C0.0

IB NO. 23042

1. ALL GRADING WORK AND CONSTRUCTION OF IMPROVEMENTS SHALL BE DONE IN ACCORDANCE WITH RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND ANY ADDENDUM LETTERS PREPARED FOR THIS PROJECT. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE COMPLETED PROJECT AND VERIFY IN WRITING THAT ALL GRADING AND COMPACTION OPERATIONS HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE GEOTECHNICAL REPORT. THE GEOTECHNICAL ENGINEER SHALL ALSO INSPECT AND VERIFY ALL STORMWATER GRAVEL STORAGE PITS.
2. ALL ORGANIC MATERIAL COVERING THE SITE SHALL BE STRIPPED AND STOCKPILED. THE STRIPPINGS SHALL BE USED TO BACKFILL ALL ROUGH GRADED MOUND AREAS OR LANDSCAPE PLANTERS AS APPROVED BY THE LANDSCAPE ARCHITECT, TO WITHIN 0.1' OF GRADES SHOWN. EXCESS STRIPPINGS AND EXCAVATED MATERIALS SHALL BE REMOVED FROM THE SITE BY THE GRADING CONTRACTOR IF EARTHWORK BALANCE CANNOT BE ACHIEVED.
3. COMPACTION TO BE DETERMINED USING THE LATEST EDITION OF ASTM D1557.
4. THE TYPES, LOCATIONS, SIZES, AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THE IMPROVEMENT PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. (A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES). HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE DELINEATION OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS. CONTRACTOR TO CONTACT USA AT 811 PRIOR TO START OF WORK.
5. CONTRACTOR TO VERIFY ALL EXISTING INVERT ELEVATIONS FOR STORM DRAIN AND SANITARY SEWER CONSTRUCTION PRIOR TO ANY SITE WORK. ALL WORK FOR STORM AND SANITARY INSTALLATION SHALL BEGIN AT THE DOWNSTREAM CONNECTION POINT. ALLOW FOR ANY NECESSARY ADJUSTMENTS TO BE MADE PRIOR TO THE INSTALLATION OF THE ENTIRE LINE.
6. SHOULD DISCREPANCIES EXIST BETWEEN THE ACTUAL ELEVATIONS AND LOCATIONS OF EXISTING UTILITY CONNECTIONS AND THOSE AS SHOWN ON THESE PLANS, THE CONTRACTOR SHALL NOTIFY IFLAND ENGINEERS BEFORE ADJUSTING THE UTILITY DESIGN.
7. CONTRACTOR SHALL UNCOVER AND EXPOSE ALL EXISTING UTILITY LINES WHERE THEY ARE TO BE CROSSED ABOVE OR BELOW BY THE NEW UTILITY LINE BEING CONSTRUCTED IN ORDER TO VERIFY THE GRADES AND DEPTHS. IF ASSISTANCE IS REQUIRED, CONTRACTOR SHALL ARRANGE FOR A SURVEY CREW TO VERIFY THE ELEVATIONS AT THE CROSSINGS. PIPE SHALL NOT BE STRUNG NOR TRENCHING COMMENCED UNTIL ALL CROSSINGS HAVE BEEN VERIFIED FOR CLEARANCE.
8. CONTRACTOR SHALL SET HIS STRING OR WIRE THROUGH AT LEAST THREE GRADE STAKES TO VERIFY THE UTILITY GRADES. IF THE STAKES DO NOT PRODUCE A UNIFORM GRADE, NOTIFY THE ENGINEER IMMEDIATELY AND HAVE THE GRADES CHECKED PRIOR TO TRENCHING.
9. ALL UTILITY STRUCTURES TO REMAIN, INCLUDING BUT NOT LIMITED TO MANHOLES, CATCH BASINS, WATER VALVES, FIRE HYDRANTS, TELEPHONE AND ELECTRICAL VAULTS, AND PULL BOXES THAT REMAIN WITHIN AREAS EFFECTED BY THE CONSTRUCTION WORK ON THIS PROJECT SHALL BE ADJUSTED TO GRADE BY THE CONTRACTOR OR THE RESPECTIVE UTILITY COMPANY WHETHER SHOWN ON THESE PLANS OR NOT. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ALL PUBLIC OR PRIVATE UTILITY COMPANIES.
10. STORM DRAIN PIPES DESIGNATED AS "SD" FROM 4" TO 24" IN DIAMETER SHALL BE SDR-35 P.V.C. OR APPROVED ALTERNATIVE, HDPE STORM DRAIN PIPE WITH SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS, MEETING AASHTO M252, TYPE S; AASHTO M294, TYPE S, OR ASTM F2306 SPECIFICATIONS, WITH WATER-TIGHT INTEGRATED BELL JOINTS PER ASTM D3212 OR APPROVED ALTERNATIVE WITH CLASS 3 BACKFILL, OR D.I.P. (DUCTILE IRON PIPE) IF SPECIFIED ON THE PLANS. NO MATERIAL SUBSTITUTION SHALL BE ALLOWED FOR DUCTILE IRON PIPE IF DESIGNATED ON THE PLANS. ANY PIPES LARGER THAN 24" IN DIAMETER SHALL BE CLASS III REINFORCED CONCRETE PIPE (RCP). HDPE AND PVC PIPES SHALL ONLY BE USED IF DESIGNATED ON THE PLANS. NO OTHER PIPE MATERIALS MAY BE USED UNLESS APPROVED BY THE ENGINEER.
11. ALL AREAS TO BE GRADED ACCORDING TO THE GRADES SHOWN ON THESE PLANS. A 1% MINIMUM SLOPE FOR DRAINAGE SHALL BE APPLIED IF NO GRADES ARE SHOWN, SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER. FLOWLINE OF CURBS AND VALLEY GUTTERS MAY BE GRADED AT LESS THAN 1% IF SLOPES ARE DESIGNATED ON THESE PLANS.
12. CONTRACTOR SHALL GRADE EVENLY BETWEEN SPOT ELEVATIONS.
13. PROPOSED SPOT GRADES (ELEVATIONS) SHOWN HEREON ARE FINISHED PAVEMENT GRADES OR FINISHED SURFACE GRADES, NOT TOP OF CURB GRADES, UNLESS NOTED OTHERWISE.
14. WHEN A GRADING PERMIT IS ISSUED ON THIS PROJECT, THE AGENCY APPROVAL APPLIES ONLY TO GRADING. THE CONTRACTOR IS RESPONSIBLE FOR SECURING ALL OTHER NECESSARY PERMITS TO CONSTRUCT THE PROPOSED SITE WORK.
15. ESTIMATED EARTHWORK QUANTITIES SHOWN WITHIN THIS PLAN SET ARE APPROXIMATE ONLY AND SHOWN FOR THE PURPOSES OF CALCULATING GRADING PERMIT FEES. CONTRACTOR IS RESPONSIBLE FOR VERIFYING INDEPENDENTLY BOTH CUT AND FILL QUANTITIES. IFLAND ENGINEERS ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THESE NUMBERS.
16. ALL GRADING, TRENCHING, SHORING, PAVING, AND CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE O.S.H.A REGULATIONS.
17. CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONNEL AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. CONTRACTOR AGREES TO DEFEND, INDEMNIFY, AND HOLD DESIGN PROFESSIONALS AND CITY REPRESENTATIVES HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.
18. WHERE DRIVEWAY APPROACHES ARE TO BE CONSTRUCTED, DRIVEWAY SHALL NOT BE CONSTRUCTED UNTIL THE OFF-SITE IMPROVEMENTS ARE INSTALLED. THE ON-SITE DRIVEWAY SHALL CONFORM TO THE COMPLETED OFF-SITE DRIVEWAY APPROACH.
19. NO CHANGES ON THESE PLANS SHALL BE MADE WITHOUT PRIOR APPROVAL OF IFLAND ENGINEERS AND THE CITY/COUNTY ENGINEER.
20. THE CONTRACTOR SHALL APPLY WATER TO ALL EXPOSED EARTH SURFACES AT INTERVALS SUFFICIENT TO PREVENT AIRBORNE DUST FROM LEAVING THE PROJECT SITE. ALL EXPOSED EARTH SHALL BE WATERED DOWN AT THE END OF THE WORK DAY.
21. WHILE IN TRANSIT TO AND FROM THE PROJECT SITE, ALL TRUCKS TRANSPORTING FILL MATERIAL SHALL BE COVERED WITH TARPS.
22. IF AT ANY TIME DURING SITE PREPARATION, EXCAVATION, OR OTHER GROUND DISTURBANCE ASSOCIATED WITH THIS DEVELOPMENT, ANY ARTIFACT OR OTHER EVIDENCE OF AN HISTORIC ARCHEOLOGICAL RESOURCE OR A NATIVE AMERICAN CULTURAL SITE IS DISCOVERED, THE RESPONSIBLE PERSONS SHALL IMMEDIATELY CEASE AND DESIST FROM ALL FURTHER SITE EXCAVATION AND NOTIFY THE SHERIFF-CORONER IF THE DISCOVERY CONTAINS HUMAN REMAINS, OR THE PLANNING DIRECTOR IF THE DISCOVERY CONTAINS NO HUMAN REMAINS.
23. THE DIRECTOR OF PUBLIC WORKS AND CHIEF BUILDING OFFICIAL, OR THEIR AUTHORIZED REPRESENTATIVE, SHALL HAVE THE AUTHORITY TO "STOP WORK" IF THE WORK IS NOT BEING DONE IN ACCORDANCE WITH THE APPROVED PLANS.
24. THE CONTRACTOR SHALL NOTIFY THE COUNTY ENGINEER 24 HOURS PRIOR TO START OF CONSTRUCTION.
25. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO, OR USES OF, THESE PLANS. ALL CHANGES MUST BE IN WRITING AND MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
26. EROSION CONTROL PLANS SHALL BE PERMITTED AND FILED WITH THE APPLICABLE AGENCIES PRIOR TO ANY CONSTRUCTION OR GRADING OPERATIONS.
27. CONSTRUCTION REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO ENGINEER IN WRITING AND ALLOW FOR A MINIMUM OF 3 WORKING DAYS FOR RESPONSE TIME.

1. ALL CONSTRUCTION SHALL COMPLY WITH APPLICABLE REQUIREMENTS IN THE CURRENT EDITION OF THE "COUNTY OF SANTA CRUZ DESIGN CRITERIA."
2. DESIGNATE A "DISTURBANCE COORDINATOR" TO RESPOND TO CITIZEN COMPLAINTS AND INQUIRIES REGARDING CONSTRUCTION NOISE AND DUST. THE NAME, PURPOSE, AND TELEPHONE NUMBER OF THE DISTURBANCE COORDINATOR SHALL BE POSTED ON A SIGN EASILY VISIBLE FROM OFF-SITE DURING THE ENTIRE TIME PROJECT GRADING AND CONSTRUCTION OCCURS. THE DISTURBANCE COORDINATOR SHALL INVESTIGATE THE CONCERN AND TAKE REMEDIAL ACTION, IF NECESSARY, WITHIN 24 HOURS OF RECEIVING A COMPLAINT OR INQUIRY.
3. ALL FIGURE (FIG.) REFERENCES, UNLESS OTHERWISE SPECIFIED, REFER TO STANDARD DRAWINGS IN THE CURRENT EDITION OF THE "COUNTY OF SANTA CRUZ DESIGN CRITERIA".
4. NO CHANGES IN THE APPROVED IMPROVEMENT PLANS SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE DEPARTMENT OF PUBLIC WORKS.
5. NO LAND CLEARING, GRADING OR EXCAVATING SHALL TAKE PLACE BETWEEN OCTOBER 15 AND APRIL 15 UNLESS A SEPARATE WINTER EROSION CONTROL PLAN IS APPROVED BY THE PLANNING DIRECTOR.
6. BETWEEN OCTOBER 15 AND APRIL 15, EXPOSED SOIL SHALL BE PROTECTED FROM EROSION AT ALL TIMES. DURING CONSTRUCTION SUCH PROTECTION MAY CONSIST OF MULCHING AND/OR PLANTING OF NATIVE VEGETATION OF ADEQUATE DENSITY. BEFORE COMPLETION OF THE PROJECT, ANY EXPOSED SOIL ON DISTURBED SLOPES SHALL BE PERMANENTLY PROTECTED FROM EROSION.
7. NO LAND DISTURBANCE SHALL TAKE PLACE PRIOR TO THE ISSUANCE OF BUILDING PERMITS, EXCEPT THE MINIMUM REQUIRED TO INSTALL STREET IMPROVEMENTS. PROVIDE ACCESS FOR COUNTY REQUIRED TESTS OR TO CARRY OUT OTHER WORK SPECIFICALLY REQUIRED BY ANOTHER OF THESE CONDITIONS. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A NPDES PERMIT FROM THE REGIONAL WATER QUALITY CONTROL BOARD PRIOR TO GRADING.
8. THE CONTRACTOR SHALL APPLY WATER TO ALL EXPOSED EARTH SURFACES AT INTERVALS SUFFICIENT TO PREVENT AIRBORNE DUST FROM LEAVING THE PROJECT SITE. ALL EXPOSED EARTH SHALL BE WATERED DOWN AT THE END OF THE WORK DAY.
9. WHILE IN TRANSIT TO AND FROM THE PROJECT SITE, ALL TRUCKS TRANSPORTING FILL SHALL BE EQUIPPED WITH TARPS.
10. ALL CONSTRUCTION STAKING FOR CURB, GUTTER, SIDEWALK, SANITARY SEWER, STORM DRAINS AND WATER LINES SHALL BE DONE UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER.
11. FOR DESIGN AND CONSTRUCTION PURPOSES, "FACE OF CURB" AS SHOWN ON THESE PLANS SHALL BE DEFINED AS THE CONTROL LINE FROM WHICH THE LOCAL AGENCY REQUIRES THE STREET WIDTH TO BE DETERMINED.
12. THE DIRECTOR OF PUBLIC WORKS, OR HIS AUTHORIZED REPRESENTATIVE, SHALL HAVE THE AUTHORITY TO "STOP WORK" IF THE WORK IS NOT BEING DONE IN ACCORDANCE WITH THE APPROVED IMPROVEMENT PLANS.
13. THE CONTRACTOR SHALL NOTIFY THE COUNTY CONSTRUCTION ENGINEER (831-454-2160) 24 HOURS PRIOR TO START OF CONSTRUCTION.
14. THE CONTRACTOR SHALL NOTIFY THE SANITATION DISTRICT INSPECTOR (831-454-2160), OR LEAVE MESSAGE AT 831-458-2895 BEFORE 9:00 A.M. AT LEAST 24 HOURS PRIOR TO THE CONNECTION OF ANY BUILDING SEWER TO THE SEWER LATERAL, OR TO THE ABANDONMENT THEREOF. (IN THE CASE OF ABANDONMENTS, NO DEMOLITION PERMITS WILL BE ISSUED UNTIL SAID SEWER LINE HAS BEEN ABANDONED.)
15. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND.
16. IF SIDEWALK IS NOT PLACED MONOLITHICALLY WITH CURB AND GUTTER, PLACE #4 DOWELS 18" LONG AT 4' O.C. IN BACK OF CURB 3" BELOW TOP OF CURB, 6" INTO CONCRETE, AS PER STANDARD FIG. ST-4A.
17. CONTRACTOR SHALL FIELD VERIFY ALL UNDERGROUND UTILITIES AND SUBSTRUCTURES. PRIOR TO FURTHER CONSTRUCTION, THE ENGINEER MUST BE NOTIFIED, IN WRITING, OF ANY DISCREPANCIES THAT MAY EXIST.
18. ALL REQUIREMENTS OF THE BOULDER CREEK FPD FIRE PROTECTION DISTRICT SHALL BE MET. THIS SHALL INCLUDE ALL REQUIREMENTS RELATING TO SMOKE DETECTORS, ADDRESS NUMBERS, FIRE ALARM, AUTOMATIC SPRINKLER SYSTEM, ACCESS WIDTHS AND TURNAROUNDS, AND FIRE HYDRANTS.
19. PRIOR TO CONSIDERATION FOR FORMAL COUNTY ACCEPTANCE OF THE IMPROVEMENTS, AS-BUILT PLANS WILL BE PREPARED BY COUNTY STAFF. ANY CHANGES FROM THE IMPROVEMENT PLANS NOT PREVIOUSLY APPROVED BY THE DEPARTMENT OF PUBLIC WORKS WILL REQUIRE NEGOTIATION AND ADJUSTMENT TO THE SATISFACTION OF THE COUNTY.
20. MAILBOXES SHALL BE PROVIDED PER U.S. POSTAL SERVICE REQUIREMENTS.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF CONSTRUCTION QUANTITIES PRIOR TO BIDDING ON ANY ITEM. QUANTITY REFERENCES SHOWN ON THESE PLANS, OR ENGINEER'S ESTIMATES ARE FOR ESTIMATING PURPOSES ONLY AND SHALL NOT BE CONSIDERED AS A BASIS FOR CONTRACTOR PAYMENT. CONSULTANT SHALL NOT BE RESPONSIBLE FOR ANY FLUCTUATIONS IN SUCH QUANTITIES AND ESTIMATES.
22. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO, OR USES OF, THESE PLANS. ALL CHANGES MUST BE IN WRITING AND MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
23. UNLESS OTHERWISE NOTED, THE TERMS "INSTALL" AND "CONSTRUCT" MEAN THAT THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIALS, PRODUCTS, EQUIPMENT, AND LABOR FOR SAID INSTALLATION AND CONSTRUCTION.
24. STATIONS AND DIMENSIONED LOCATIONS OF ALL SEWER AND STORM DRAIN MANHOLES AND RELATED STRUCTURES AND THEIR GRATE, RIM, FLOWLINE OR INVERT ELEVATIONS SHALL TAKE PRECEDENCE OVER ANY PIPE LENGTHS OR SLOPES SHOWN ON THE PLAN AND PROFILE DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY SUCH SLOPES AND LENGTHS TO BE IN AGREEMENT WITH SURVEY LAYOUT PRIOR TO CONSTRUCTION.
25. ALL WORK ADJACENT TO OR WITHIN A COUNTY ROAD SHALL BE SUBJECT TO THE PROVISIONS OF CHAPTER 9.70 OF THE COUNTY CODE, INCLUDING OBTAINING AN ENCROACHMENT PERMIT WHERE REQUIRED. WHERE FEASIBLE, ALL IMPROVEMENTS ADJACENT TO OR AFFECTING A COUNTY ROAD SHALL BE COORDINATED WITH ANY PLANNED COUNTY SPONSORED CONSTRUCTION ON THAT ROAD.
26. FOR ROAD WORK INVOLVING A PAVEMENT CONSECTION BETWEEN THE LIP OF GUTTER AND THE EXISTING PAVED ROAD, THE CONFORM SHALL BE EXTENDED AS FAR AS NECESSARY TO ACHIEVE A STREET CROSS SLOPE OF 2%-4%.
27. MONUMENTATION WILL BE VERIFIED BY THE COUNTY CONSTRUCTION ENGINEER. LOCATION OF EXTERNAL MONUMENTS WILL BE VERIFIED FOR ALL TRACTS. LOCATION OF OTHER MONUMENTATION WILL BE VERIFIED AT RANDOM.

APN 084-141-25
CONSTRUCTION DOCUMENTS

C1.0

JOB NO. 23042

NOT FOR CONSTRUCTION

IFLAND ENGINEERS
CIVIL ENGINEERING • LAND, PI ANNING • STRUCTURAL DESIGN
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TEL 1831 428-5313
www.iflandengineers.com

ZAUN RETAINING WALL

15015, TWO BAR ROAD, BOULDER CREEK, CALIFORNIA

RAWN
DD

DD
DESIGN

1/2025

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I:_PROJECTS\2023\23042 ZAUN\DWGS\3 - CONSTRUCTION_BUILDING PERMIT SET\C1.0-NOTE.dwg 20Jul26 12:54:25 PM JimIfland © IFLAND ENGINEERS, INC.

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DISCRETIONARY PERMIT APPLICATION SET

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NOTE: THE STANDARD DETAILS ON THIS PAGE ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER DOES NOT ACCEPT RESPONSIBILITY FOR THE CURRENCY OF THE DATA CONTAINED ON SAID DETAILS AND ENCOURAGES THE CONTRACTOR TO OBTAIN CURRENT COPIES FOR USE ON THE PROJECT. SHOULD ANY DISCREPANCIES BECOME EVIDENT BETWEEN THESE PLANS AND THE CURRENT DETAIL, THE ENGINEER SHALL BE CONSULTED PRIOR TO CONSTRUCTION.

JOB NO. 23042

SHEET
C2.0

DATE
03/14/2025

DESIGN
DD

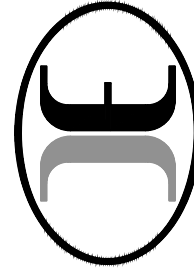
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APN 084-141-25
CONSTRUCTION DOCUMENTS

AGENCY STANDARD DETAILS

ZAUN RETAINING WALL

15015, TWO BAR ROAD, BOULDER CREEK, CALIFORNIA



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REVISION

BY

DATE

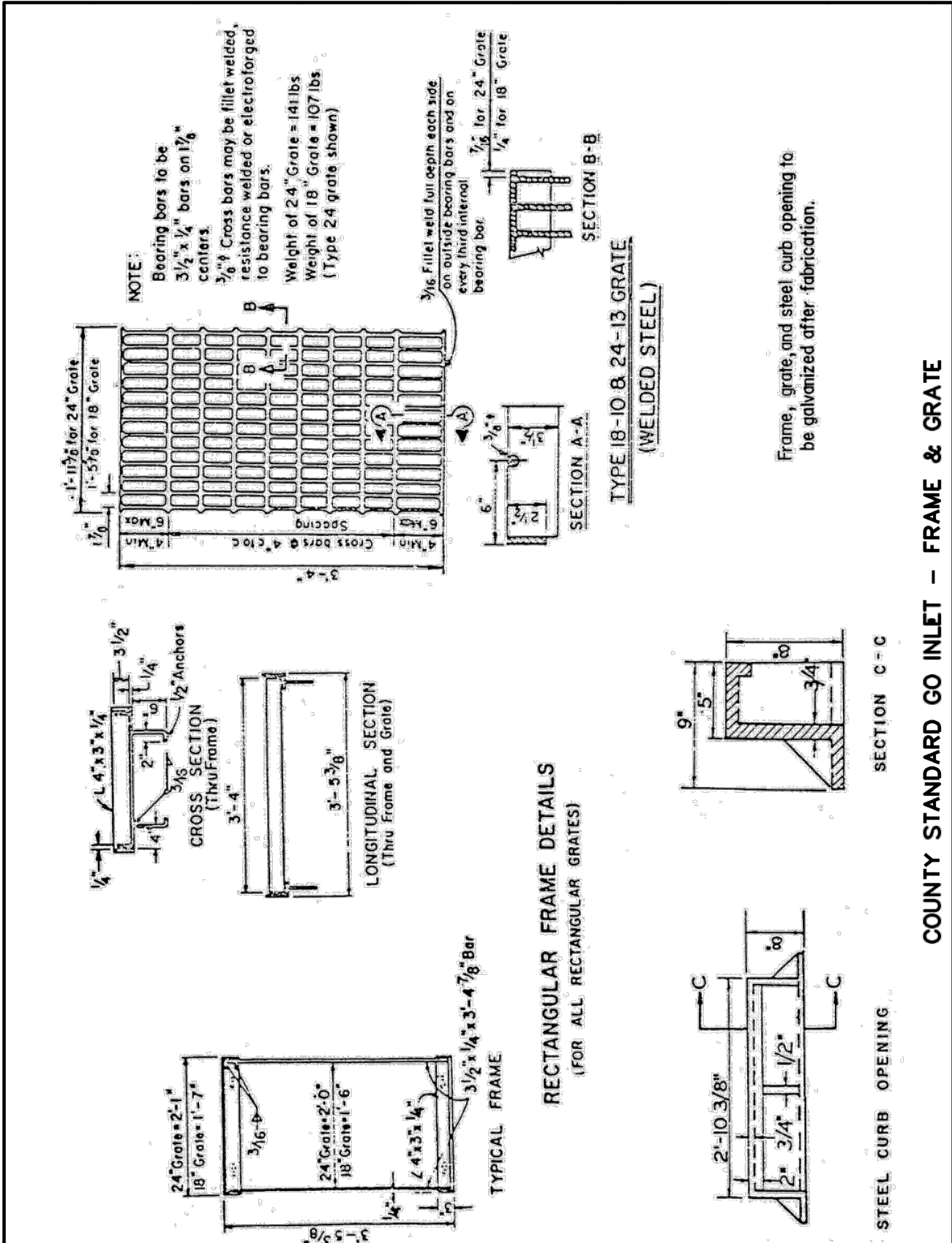
REVISION

DATE

FOR PLAN
REVIEW
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Figure SWM-8b: Frame & Grate for GO Inlet

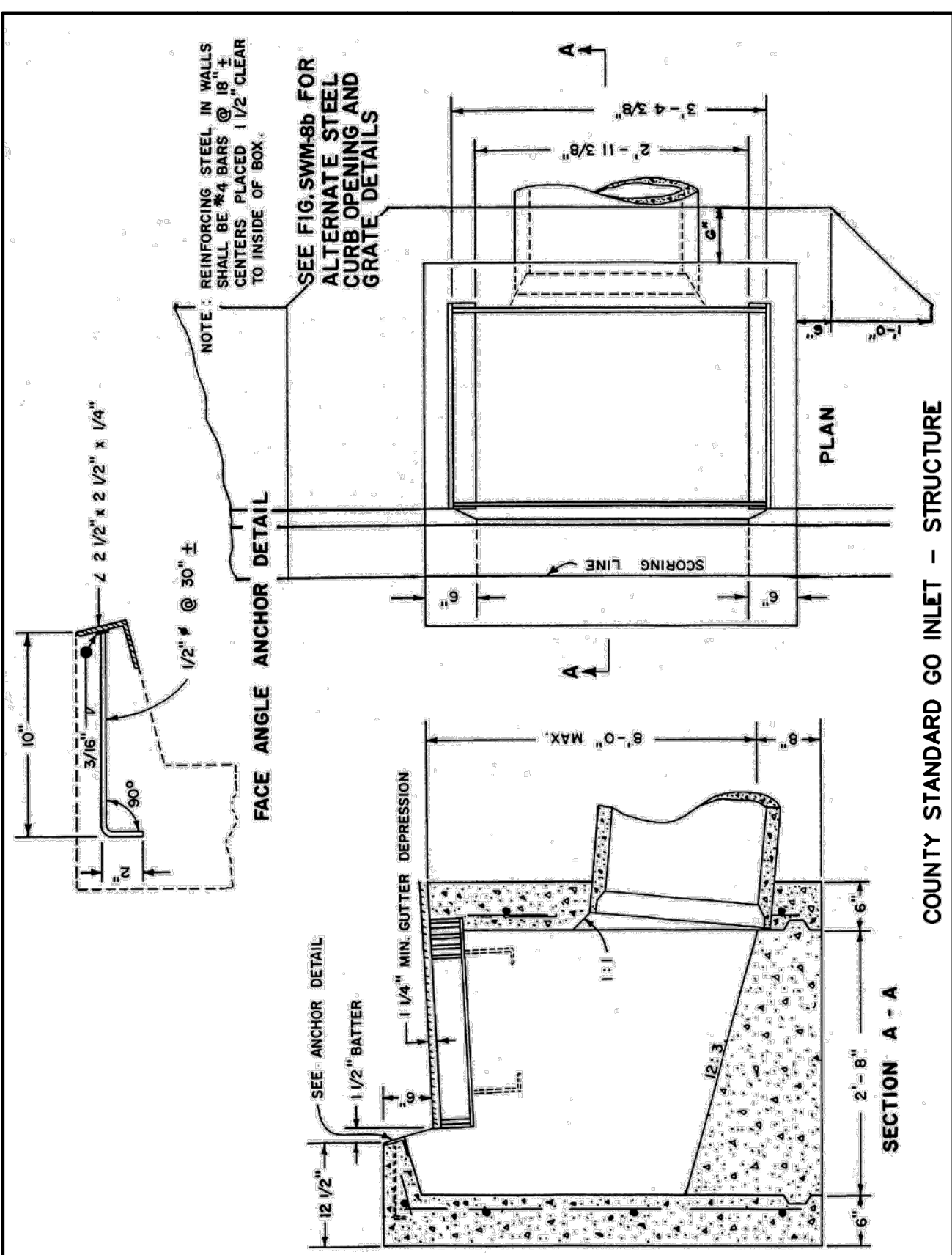


REV 5/84

FIG. SWM-8b

97

Figure SWM-8a: County Standard GO Inlet



REV 6/93

FIG. SWM-8a

96

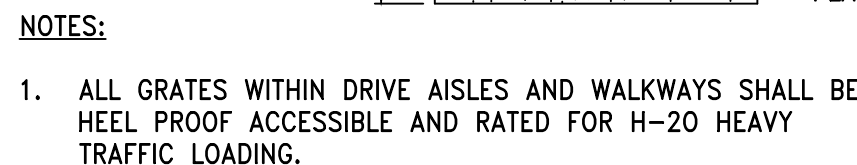
DISCRETIONARY PERMIT APPLICATION SET



4



5



CATCH BASIN

NTS

3



1. RECTANGULAR OR CIRCULAR BOXES ARE PERMITTED.
2. BOXES INSTALLED IN SIDEWALK AREAS SHALL HAVE SOLID COVERS WITHOUT HOLES.
3. APPROVED RECTANGULAR BOXES:
 - a. CHRISTY 83 BOX WITH B3C OR B3D LID.
 - b. BROOKS NO.3 BOX WITH NO. 3 LID.
4. CONCRETE/FIBERGLITE LIDS ARE ACCEPTABLE IN NON-VEHICULAR AREAS. H-20 CAST IRON TRAFFIC LIDS AND BOXES IN VEHICULAR AREAS.
5. ALL CLEANOUT LIDS SHALL BE MARKED WITH AN "S" OR THE WORD "SEWER".
6. CLEANOUT PIPE SHALL BE THE SAME DIAMETER AS THE CONNECTED SIDE PIPE.
7. TERMINATE C.O. AT CLOSEST JOINT TO SURFACE WITH TEMPORARY PLUG. AFTER ALL BACKFILL IS COMPLETE AND SUB-GRADE MADE IN AREAS TO BE PAVED, THE FINAL RISER SHALL BE SET IN PLACE AND COVERED AS SHOWN.
8. INSTALL #8 COPPER TRACER WIRE FROM MAIN TO CLEANOUT. EXTEND WIRE UP RISER AND COIL TWO FEET INSIDE BOX.

CLEANOUT TO GRADE

NTS

2

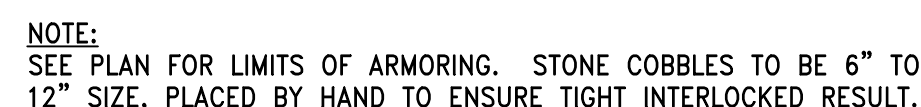


1. TRENCH BEDDING AND SHADING MATERIAL SHALL BE 3/8" DIAMETER OR GREATER CRUSHED ROCK OR WELL GRADED SAND & GRAVEL MATERIALS CONFORMING TO THE PIPE MANUFACTURER'S REQUIREMENTS. IF A SOILS REPORT DIFFERS FROM ABOVE, THE SOILS REPORT SHALL GOVERN.
2. USE 90% RELATIVE COMPACTION IF NO SOILS REPORT EXISTS. IF SOILS REPORT EXISTS, COMPACTION REQUIREMENTS IN THE REPORT SHALL GOVERN OVER THIS DETAIL.

TRENCH DETAIL

NTS

1



COBBLE ARMORING

NTS

10



AC PAVEMENT

NTS

9



NTS

8



NTS



AC BERM

NTS

7

ESTIMATED EARTHWORK QUANTITIES

60	CUBIC YARDS CUT
48	CUBIC YARDS FILL
12	CUBIC YARDS OFF-HAUL

NOTES:

- ESTIMATE DOES NOT INCLUDE UTILITY TRENCH VOLUMES OR ANY OVEREXCAVATION, IF REQUIRED BY SITE CONDITIONS.
- ESTIMATE ASSUMES A 15% COMPACTION FACTOR ON ALL FILL MATERIAL AND A 0% EXPANSION FACTOR ON ALL CUT MATERIAL.
- ESTIMATE INCLUDES ASSUMED RETAINING WALL STRUCTURAL AND BACK DRAIN VOLUMES.
- PRIOR TO COMMENCEMENT OF WORK CONTRACTOR SHALL CONFIRM THAT ESTIMATES ARE CORRECT .

SURFACING LEGEND

	AC PAVEMENT 13" AC / 9" CLASS 2 AB (MINIMUM), 12" COMP. SUB-GRADE, DTL 11, C3.1
	CONCRETE SWALE PER RETAINING WALL DETAILS, S1.0
	COBBLE ARMORING PER DTL 10, C2.1

STORMWATER OPERATIONS & MAINTENANCE PLAN

- REFER TO THE RECORDED STORMWATER MAINTENANCE AGREEMENT FOR ADDITIONAL SITE/PROJECT INFORMATION AND REQUIREMENTS, AS WELL AS RESPONSIBLE PARTY AGREEMENT.
- STORMWATER MAINTENANCE AGREEMENT SHALL TRANSFER WITH OWNERSHIP
- BELOW MAINTENANCE SPECIFICATIONS REFER TO POST-CONSTRUCTION REQUIREMENTS, REFER TO THE PROJECT EROSION CONTROL PLAN (C4.1) FOR MAINTENANCE REQUIREMENTS DURING THE CONSTRUCTION PHASE OF THE PROJECT.
- MAINTENANCE AGREEMENT REFERS TO ALL DRAINAGE IMPROVEMENTS CONSTRUCTED AS PART OF THIS PROJECT THAT ARE LOCATED WEST OF TWO BAR ROAD, INCLUDING DRAINAGE IMPROVEMENTS WITHIN THE ROAD RIGHT-OF-WAY.
- SUMMARIZED MAINTENANCE REQUIREMENTS FOR DRAINAGE FACILITIES:
 - DRAIN INLETS:
 - ALL DRAIN INLETS SHALL BE INSPECTED BI-ANNUALLY FOR SEDIMENT AND/OR TRASH BUILD-UP. ALL SEDIMENT AND TRASH SHALL BE REMOVED AND PROPERLY DISPOSED OF.
 - DRAIN INLET GRATES SHALL BE CLEANED AND FREE OF DEBRIS AS NEEDED.
 - CONCRETE V-DITCHES & ROCK-LINED SWALES:
 - ROUTINE MAINTENANCE ON A BI-ANNUAL BASIS SHALL INCLUDE TRASH AND DEBRIS REMOVAL, AND REMOVAL OF LEAVES DURING AND AFTER FALL LEAF DROP.
 - RECOMMENDED INSPECTIONS ON AN ANNUAL BASIS INCLUDE:
 - ENSURE INFLOW AND OUTFLOW AREAS ARE SECURE AND NO EROSION HAS OCCURRED. ADD ROCK DISSIPATION PADS OR CHECK DAMS AS NECESSARY TO REDUCE FLOWS AND ELIMINATE EROSION.
 - IF VISIBLE SEDIMENT EXIST AT BOTTOM OF FACILITY, SEDIMENT SHALL BE REMOVED TO ENSURE PROPER FLOW THROUGH.
 - IF EXCESSIVE PONDING OF WATER IS OCCURRING (2-3 DAYS AFTER THE END OF A STORM) CONFIRM LEAF, DEBRIS OR SEDIMENT BUILD-UP IS NOT IMPEDING FLOW, REMOVE AS NECESSARY.
 - ENSURE ALL INLET AND OUTLET PIPES ARE CLEAR OF SEDIMENT AND DEBRIS REMOVE AND CLEAN

NOTES:

- ALL COMPACTION AND GRADING SHALL BE PERFORMED UNDER THE STRICT SUPERVISION OF THE GEOTECHNICAL ENGINEER.
- CONTRACTOR TO VERIFY WITH THE GEOTECHNICAL REPORT AND ANY SUBSEQUENT ADDENDUM LETTERS FOR FINAL RETAINING WALL, GRADING AND DRAINAGE INSTALLATIONS PRIOR TO CONSTRUCTION.
- EXISTING CULVERT WILL BE EXTENDED "IN-KIND" AS NEEDED TO CONNECT WITH NEW CURB INLET, AND A DUAL WALL HDPE COUPLER SHALL BE UTILIZED FOR THE CONNECTION AND ENCASED IN SLURRY.

AS NECESSARY TO ENSURE PROPER FLOW.

SOURCE CONTROL MEASURES:
BELOW ARE THE MEANS AND METHODS TO CONTROLLING POLLUTING ACTIVITIES:

- ACCIDENTAL SPILLS & LEAKS - DURING CONSTRUCTION THE CONTRACTOR SHALL HAVE A SPILL RESPONSE KIT ONSITE AT ALL TIMES AS WELL AS A TRAINED SPILL RESPONSE TEAM.
- PARKING/STORAGE AREA MAINTENANCE - DURING CONSTRUCTION, EQUIPMENT STORAGE AREA SHALL BE PROTECTED WITH A 30 MIL PLASTIC LINER AS WELL AS WATTLES ON THE DOWNHILL SIDE AREA.
- INDOOR & STRUCTURAL PEST CONTROL - ALL PEST CONTROL MEASURES SHALL BE PERFORMED TO PREVENT ANY DISCHARGES INTO THE STORM DRAIN SYSTEM.
- LANDSCAPE/OUTDOOR PESTICIDE USE - PESTICIDES SHALL BE USED ONLY IF NECESSARY AND SHALL BE LIMITED TO REQUIRED TREATMENT AREA. SPOT TREATMENT WITH HANDHELD SPRAYER SHALL BE USED IN LOW QUANTITIES.
- OUTDOOR STORAGE OF EQUIPMENT OR MATERIALS - ALL MATERIALS, CONSTRUCTION OR OTHER, SHALL BE STORED INDOORS OR WITHIN A COVERED (PROTECTED) AREA.
- VEHICLE & EQUIPMENT CLEANING - ALL CONSTRUCTION EQUIPMENT AND VEHICLES SHALL BE CLEANED OFFSITE.
- VEHICLE & EQUIPMENT REPAIR & MAINTENANCE - ALL CONSTRUCTION VEHICLES AND EQUIPMENT SHALL BE REPAIRED AND MAINTAINED OFFSITE AT THE CONTRACTOR'S YARD.
- FIRE SPRINKLER TEST WATER - ANY WATER FROM FIRE SPRINKLER TESTING SHALL BE DIRECTED TO THE SANITARY SEWER SYSTEM.
- DRAIN OR WASH WATER FROM BOILER DRAIN LINES, CONDENSATE DRAIN LINES, ROOF TOP EQUIPMENT, DRAINAGE SUMPS & OTHER SOURCES - NO DRAINAGE SUMPS ARE PROPOSED ONSITE. ALL DRAINAGE FROM OTHER DESCRIBED AREAS SHALL BE DIRECTED TO THE SANITARY SEWER LINE.
- UNAUTHORIZED NON-STORMWATER DISCHARGES - ALL UNAUTHORIZED NON-STORMWATER DISCHARGES, DURING AND AFTER CONSTRUCTION, SHALL BE REPORTED TO THE COUNTY OF SANTA CRUZ. DISCHARGES SHALL BE MITIGATED PER COUNTY GUIDANCE.
- BUILDING & GROUND MAINTENANCE - ANY ROUTINE MAINTENANCE PERFORMED SHALL BE COMPLETED TO REDUCE OR ELIMINATE ANY NON-STORMWATER DISCHARGES FROM THE SITE.

STORMWATER MITIGATION

EXISTING IMPERVIOUS SURFACES TO BE MAINTAINED (WITHIN "WORK AREA" ONLY): 395 FT²

NEW/REPLACED IMPERVIOUS SURFACES (WITHIN "WORK AREA" ONLY): 471 FT²

PER PART 3, SECTION D.1 OF THE SANTA CRUZ COUNTY DESIGN CRITERIA (CDC), THIS PROJECT IS CONSIDERED A "SMALL" PROJECT, AND IS EXEMPT FROM SPECIFIC QUANTITATIVE REQUIREMENTS. THE CDC RECOMMENDS THAT SMALL PROJECTS INCORPORATE BMPs TO MINIMIZE AND MITIGATE POLLUTANT AND HYDROLOGIC IMPACTS DUE TO DEVELOPMENT. THIS PROJECT IS MAINTAINING THE ORIGINAL LINE/GRADE OF THE EXISTING DRIVEWAY AND IS THEREFORE CONSIDERED MAINTENANCE PER PART 3, SECTION C, OF THE CDC.

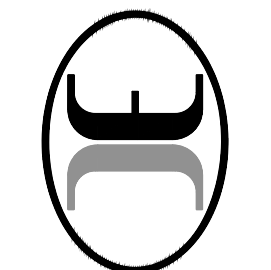
LID/BMPs IMPLEMENTED:

- MINIMIZE COMPACTION OF SOILS TO ONLY WHERE REQUIRED FOR CONSTRUCTION OF NEW IMPROVEMENTS.
- ROOF RUN-OFF IS HARD-PIPED VIA A SD SYSTEM AND DISCHARGED INTO THE ROCK-LINED SWALE.
- SURFACE RUN-OFF FROM DRIVEWAY IS CONTAINED BY EDGE CURB AND NOT ALLOWED TO DRAIN OVER SLOPE.
- SURFACE RUN-OFF FROM SLOPE IS CONVEYED TO CONCRETE V-DITCH AND DISCHARGED INTO THE ROCK-LINED SWALE VIA CATCH BASINS AND SD PIPING.
- ROCK-LINED SWALE DISCHARGES INTO EXISTING CULVERT UNDER TWO BAR ROAD.

NOT FOR CONSTRUCTION



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GRADING AND DRAINAGE PLAN
ZAUN RETAINING WALL
15015, TWO BAR ROAD, BOULDER CREEK, CALIFORNIA

APN 084-141-25
CONSTRUCTION DOCUMENTS
DATE 03/14/2025
DESIGN DD
DRAWN DD

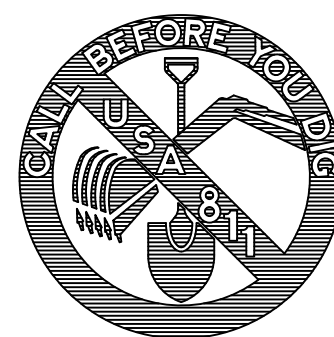
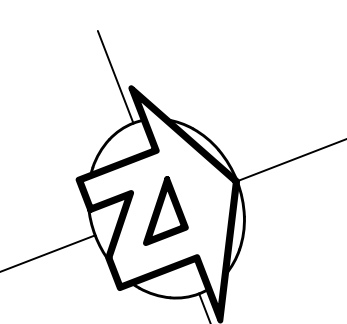
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JOB NO. 23042

CAUTION! - DUE TO CLOSE PROXIMITY TO EX WATER METERS & WATER LINES, DURING GRADING OPERATIONS IN THIS AREA THE CONTRACTOR IS TO PROTECT THE BOXES IN PLACE & HAND-DIG ONLY AS NEEDED TO AVOID DAMAGING THE BOXES & LINES

CAUTION! - CONTRACTOR TO REROUTE EX SD LINE AROUND PIER AS NEEDED, OUTLET INTO NEW CURB INLET, INV 533.00

PADDLE MARKER SHALL BE INSTALLED BEHIND THE CURB ADJACENT TO THE INLET. IF THE OLD PADDLE MARKER CAN BE FOUND, PLEASE REINSTALL IT. IF A NEW MARKER IS NEEDED, PLEASE CONTACT STORMWATER MANAGEMENT



CAUTION OVERHEAD LINES: CONTRACTOR TO PLACE OVERHEAD WIRE CAUTION SIGNS BELOW WIRES WITHIN WORK AREA DURING COURSE OF CONSTRUCTION

TIE EX. SD INTO 6"SD: CONTRACTOR TOO COORDINATE WITH OWNER TO VERIFY WHICH EX. LINES ARE SD. EX. GRAY WATER LINES TO BE ABANDONED AND NOT CONNECTED TO SD SYSTEM

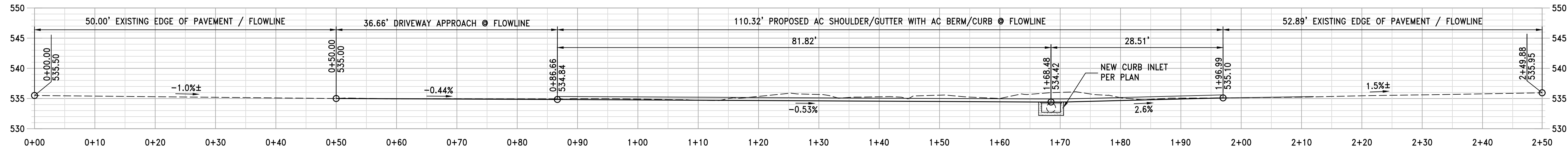
EASEMENT FOR DRIVEWAY ACROSS ADJACENT PARCEL 084-141-03 PER DEED 2013-0031938 AND ORIGINAL DEED OFFICIAL RECORD VOLUME 347, PAGE 314

EXISTING NEIGHBORING PROPERTY LINE, TYP

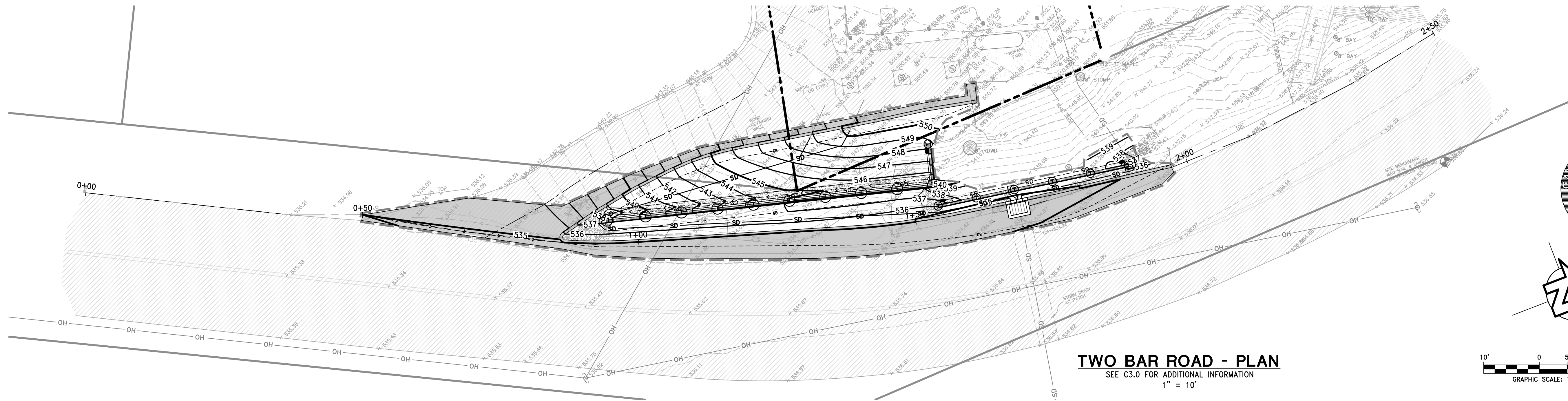
LIMITS OF DISTURBANCE ("WORK AREA") USED FOR THRESHOLD DETERMINATION FORM CALCULATIONS)

PROJECT HAS A HOLD FOR INSPECTION BY DPW CONTACT DPW ONE WEEK BEFORE BEGINNING WORK IN COUNTY RIGHT OF WAY CONTACT DPW ENCROACHMENTS AT (831)454-2160, dpwencroachments@santacruzcountyca.gov

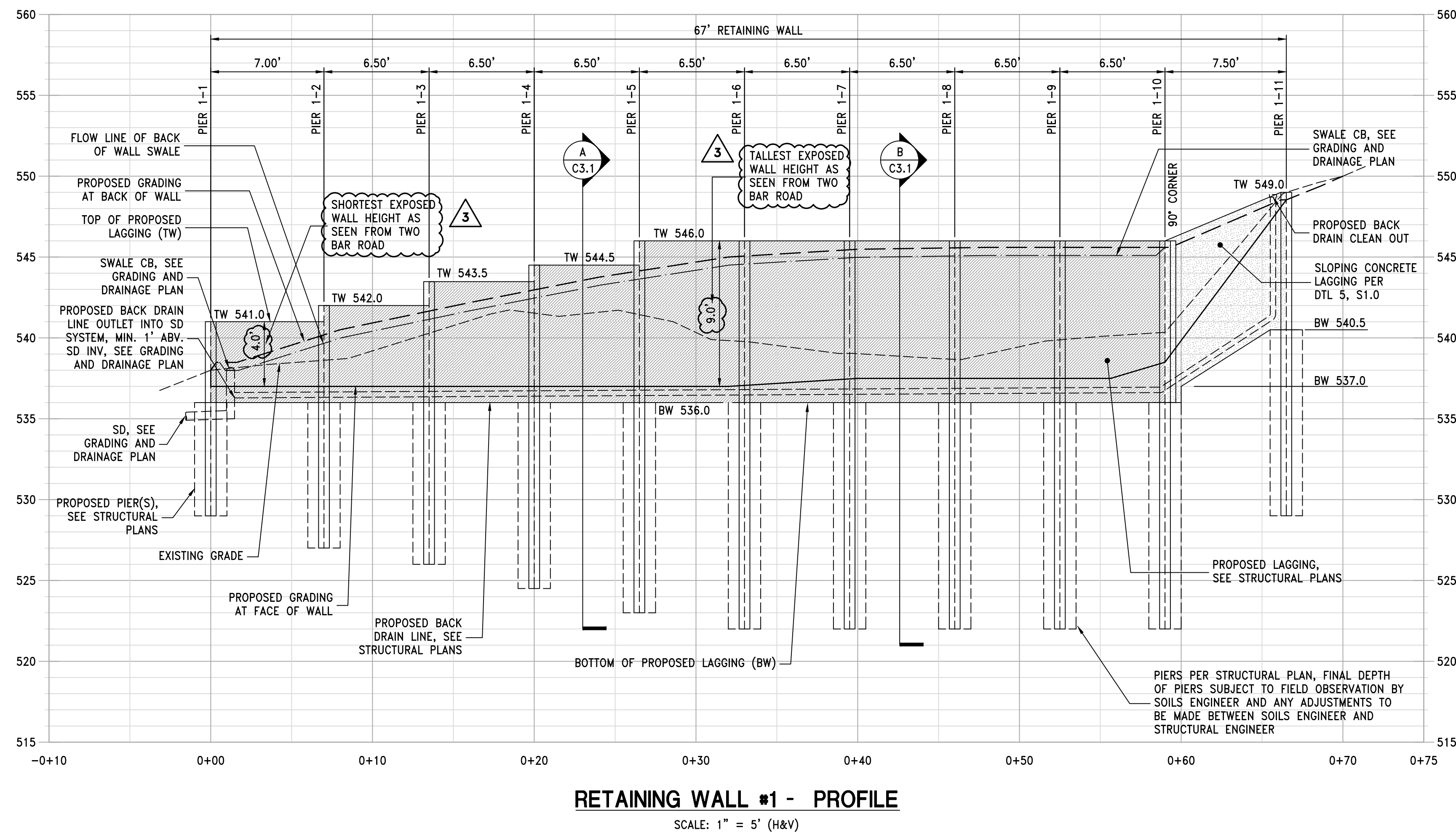
PRIOR TO CLEARING HOLD PROJECT CIVIL ENGINEERING CONSULTANTS SHALL INSPECT ALL COMPLETED DRAINAGE IMPROVEMENTS AND PROVIDE A REPORT INDICATING ALL WORK WAS COMPLETED PER THESE PLANS.



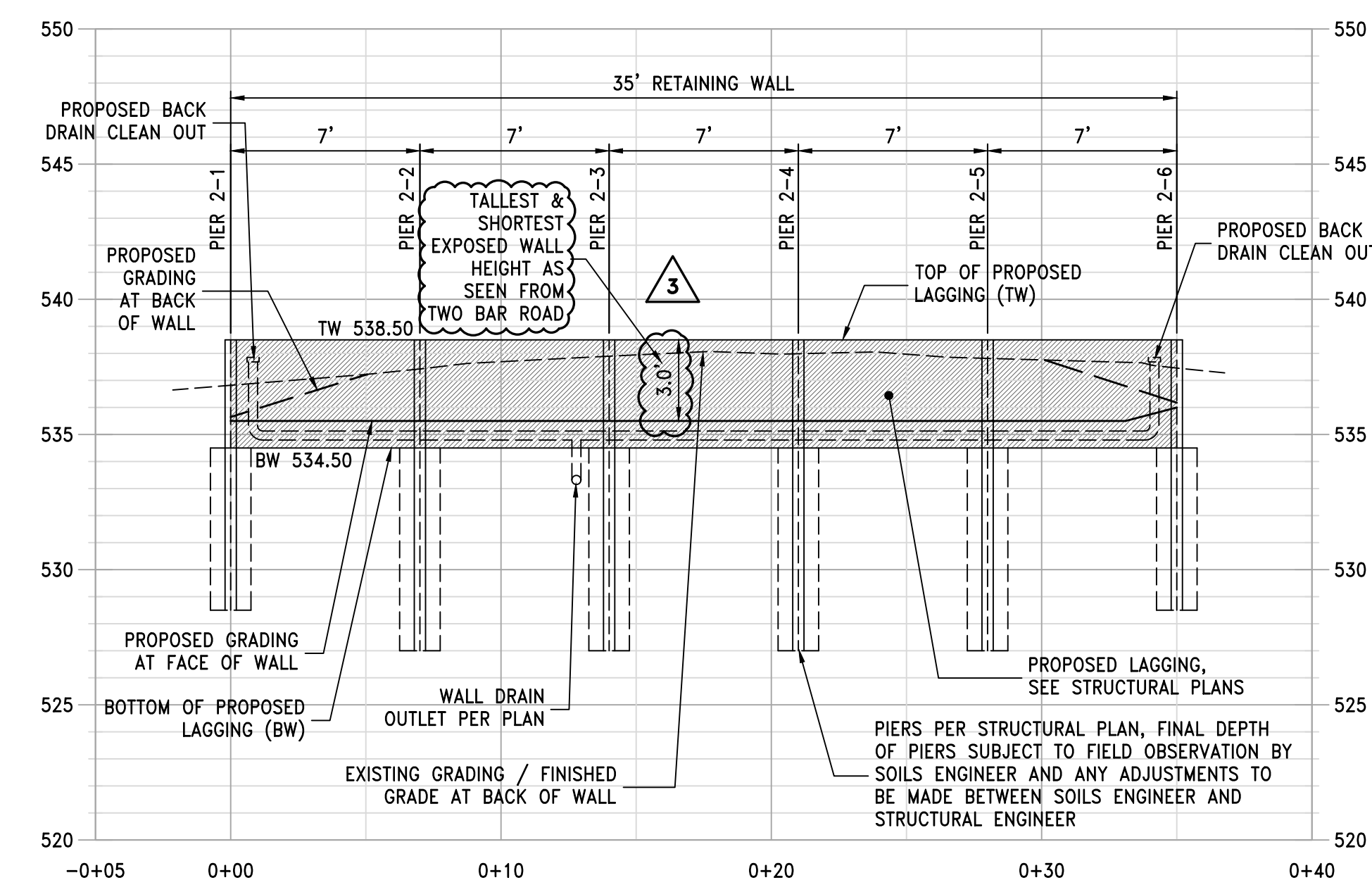
TWO BAR ROAD - GUTTER FLOW LINE - PROFILE
SCALE: 1" = 10' (H&V)



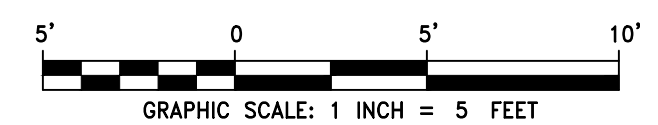
TWO BAR ROAD - PLAN
SEE C3.0 FOR ADDITIONAL INFORMATION
1" = 10'



RETAINING WALL #1 - PROFILE
SCALE: 1" = 5' (H&V)



RETAINING WALL #2 - PROFILE
SCALE: 1" = 5' (H&V)



NOT FOR CONSTRUCTION

FOR PLAN REVIEW ONLY			
DATE	BY	REVISION	DATE
7/25/2025	JM	COUNT REVIEW COMMENT REVISIONS	
7/17/2025	JM	COUNT REVIEW COMMENT REVISIONS	

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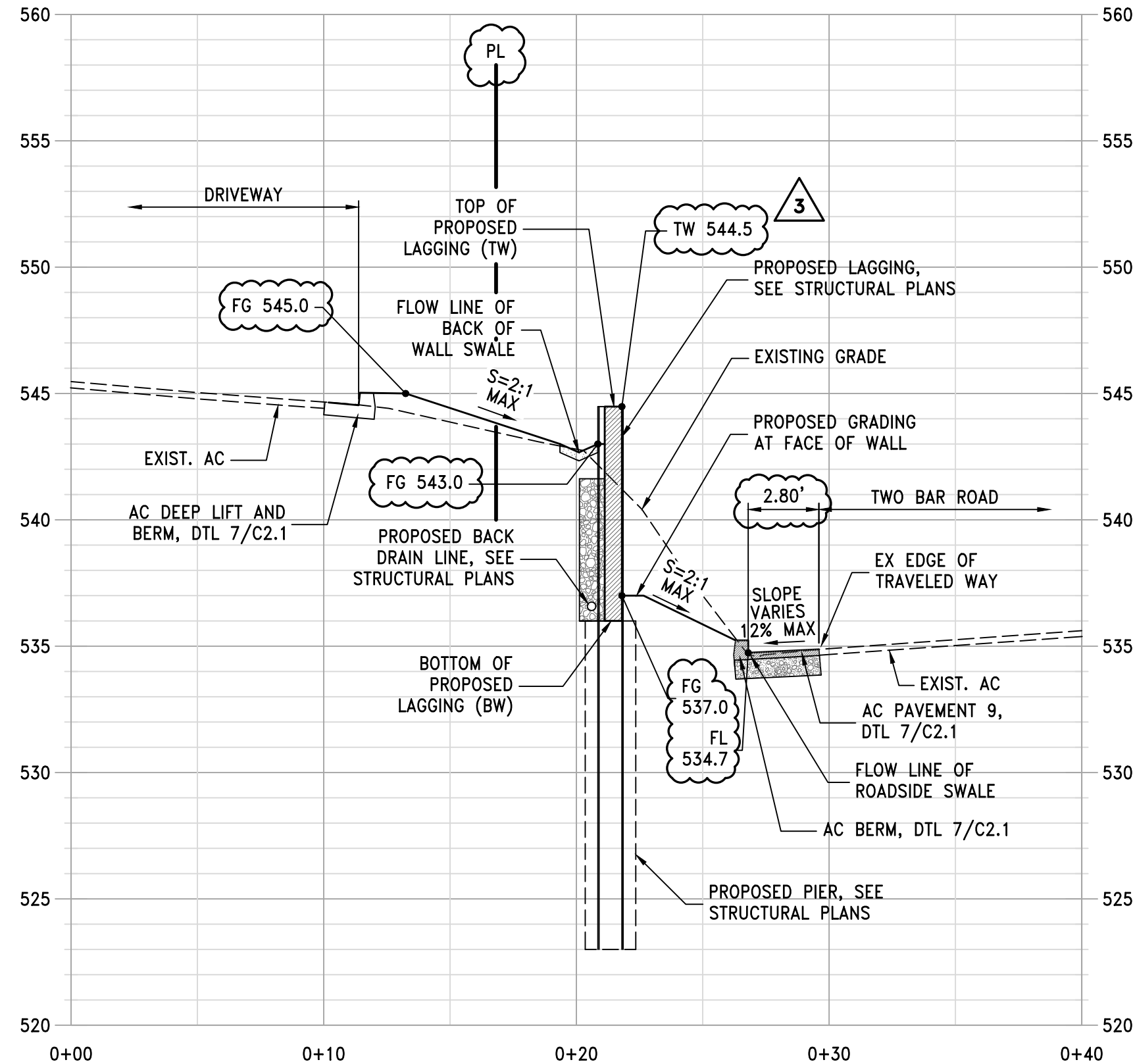
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ROAD PLAN & PROFILE, WALL PROFILES
ZAUN RETAINING WALL
15015, TWO BAR ROAD, BOULDER CREEK, CALIFORNIA

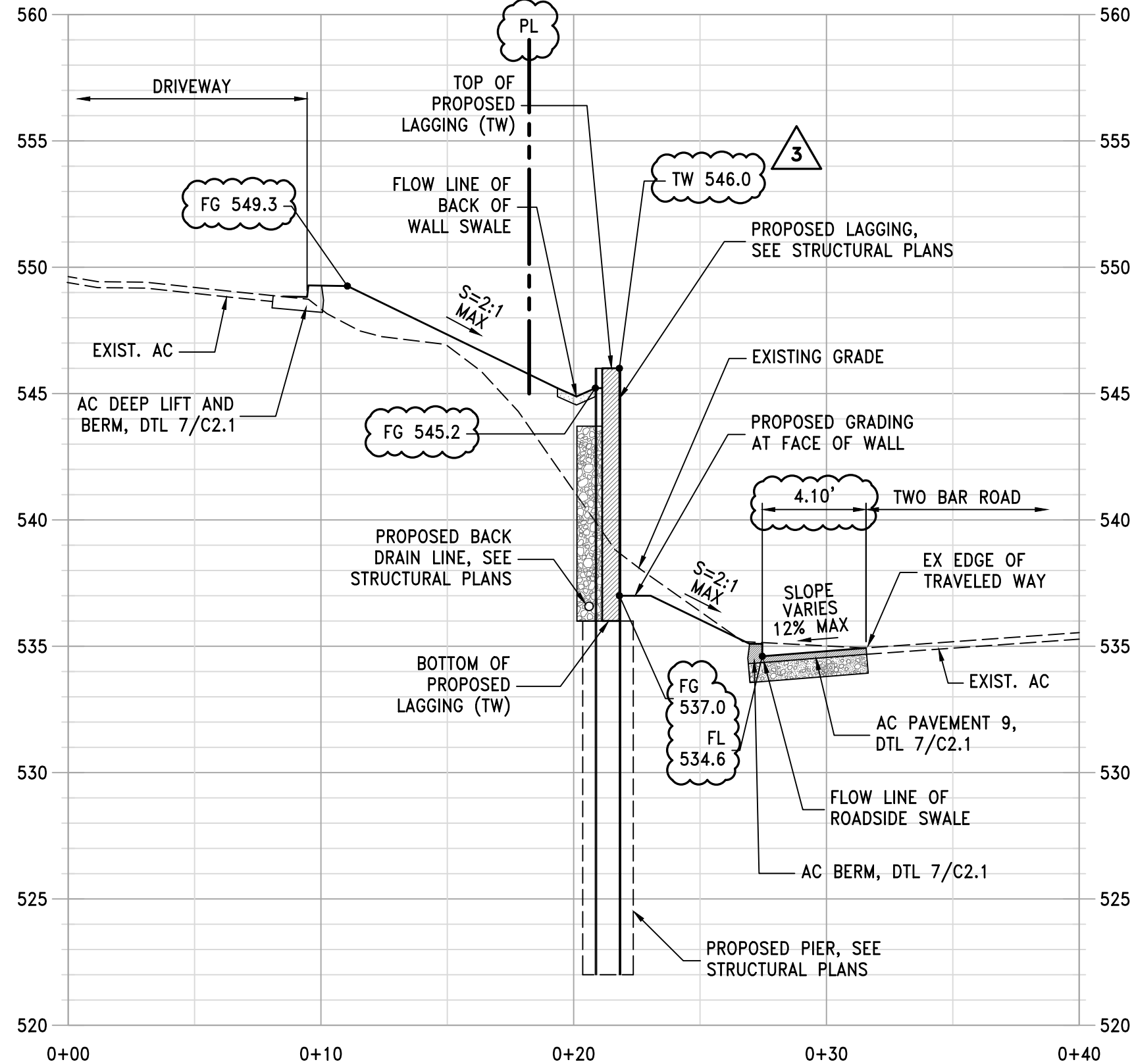
APN 084-141-25	DRAWN DD
CONSTRUCTION DOCUMENTS	DESIGN DD
DATE 03/14/2025	

SHEET
C3.1
JOB NO. 23042

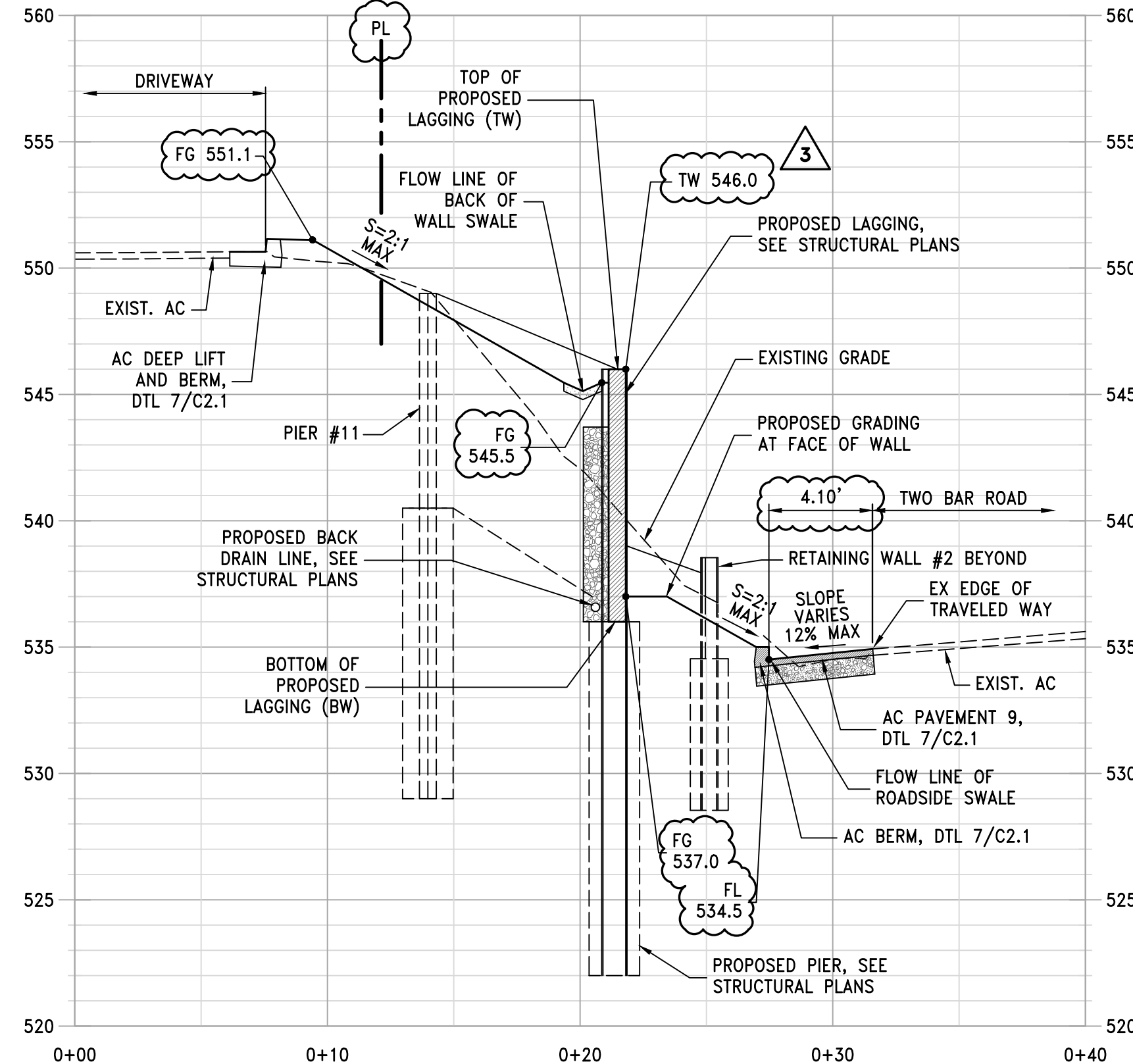
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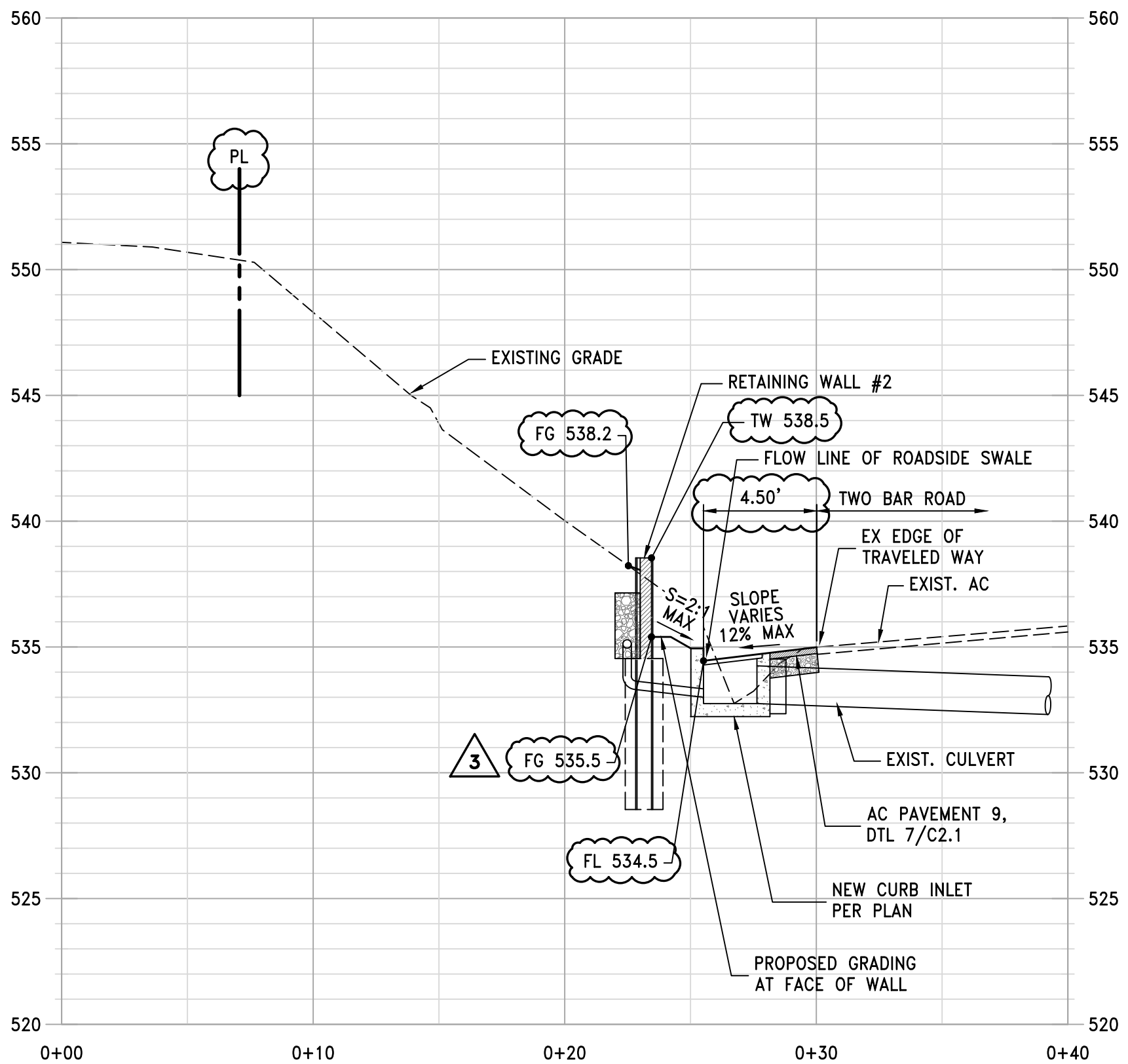
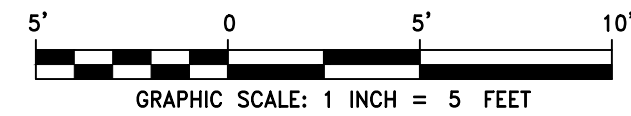
SECTION A
SCALE: 1" = 5' (H&V)



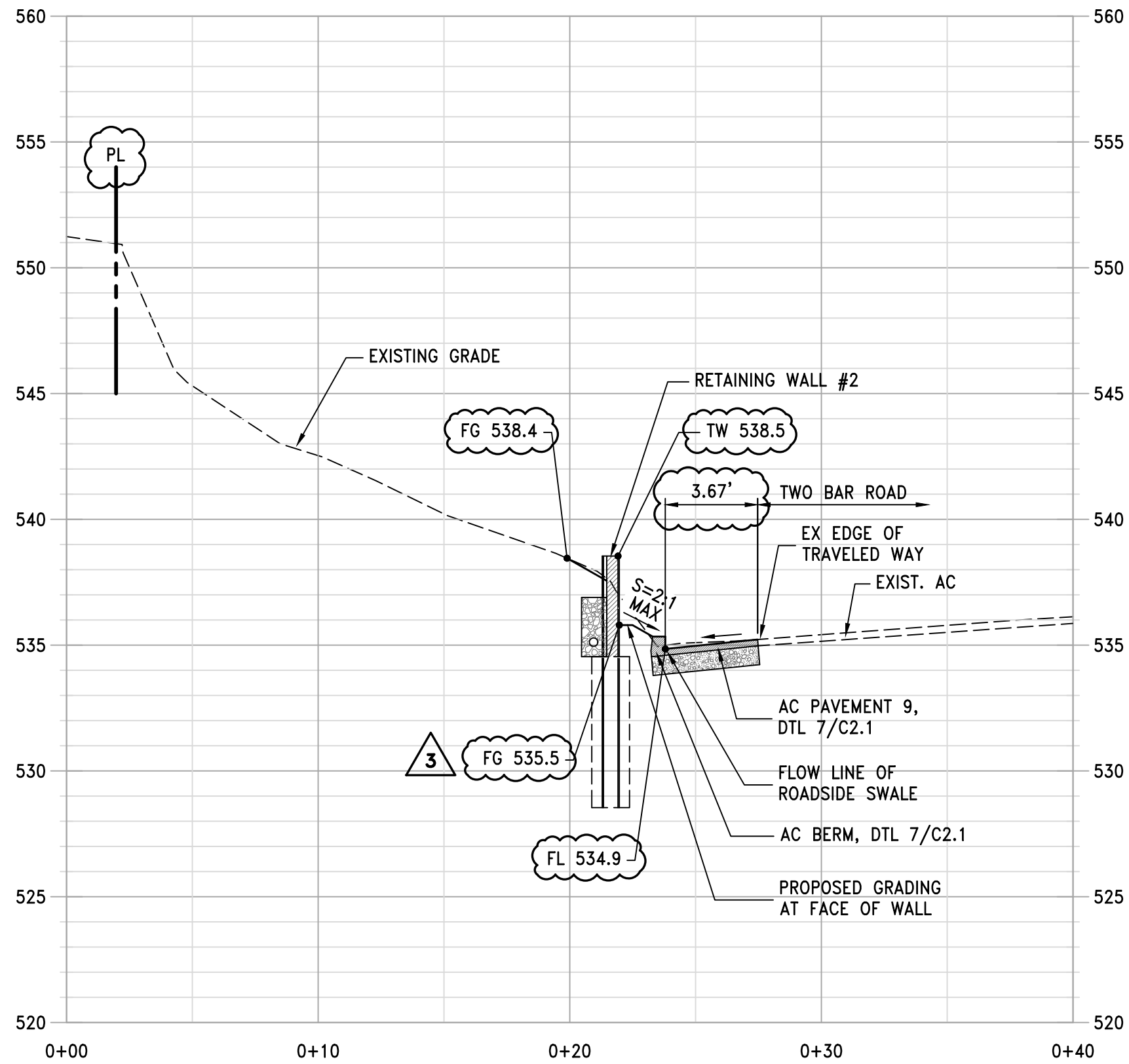
SECTION B
SCALE: 1" = 5' (H&V)



SECTION C
SCALE: 1" = 5' (H&V)



SECTION D
SCALE: 1" = 5' (H&V)



SECTION E
SCALE: 1" = 5' (H&V)

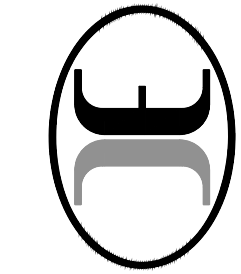


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DATE	REVISION	BY
2/26/2023	2/17/2023	
JAN	COUNTY REVIEW COMMENT REVISIONS	
FEB	COUNTY REVIEW COMMENT REVISIONS	

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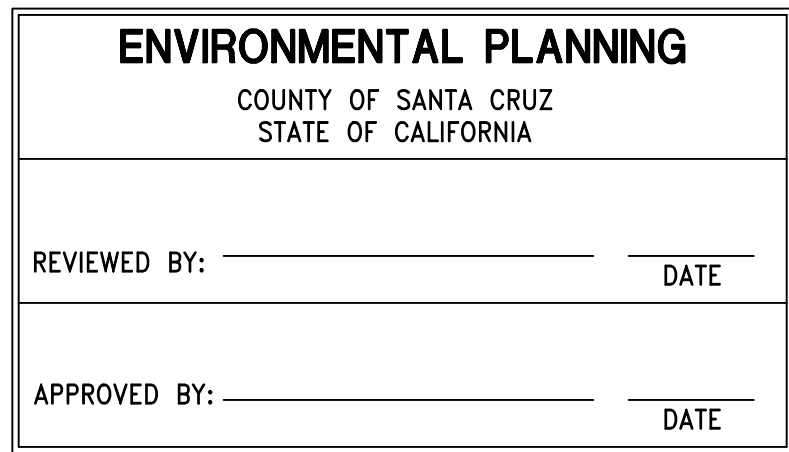
SITE SECTIONS
ZAUN RETAINING WALL
15015, TWO BAR ROAD, BOULDER CREEK, CALIFORNIA

APN 084-141-25
CONSTRUCTION DOCUMENTS
DATE 03/14/2025
DESIGN DD
DRAWN DD

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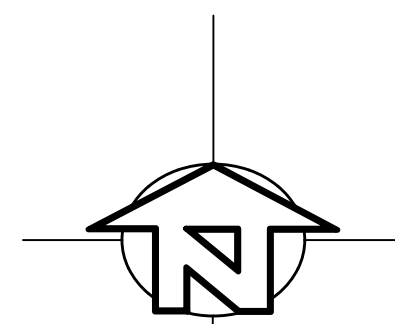
JOB NO. 23042

DISCRETIONARY PERMIT APPLICATION SET



1. SEE EROSION CONTROL NOTES AND DETAILS SHEET AS PART OF THIS PLAN SET.
2. PROJECT ACCESS VIA EXISTING PAVED DRIVEWAY, STABILIZED CONSTRUCTION ACCESS NOT REQUIRED

	FIBER ROLLS PER NOTE 1		
	DIRT STOCKPILE LOCATION PER NOTE 1		CATCH BASIN PROTECTION PER NOTE 1
	PORTABLE TOILET		CURB INLET PROTECTION PER NOTE 1
			STABILIZED CONSTRUCTION ENTRANCE PER NOTE 2



GRAPHIC SCALE: 1 INCH = 5 FEET

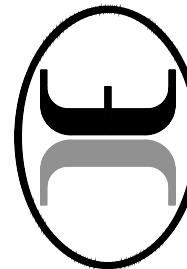
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EROSION CONTROL PLAN

ZAUN RETAINING WALL

15015, TWO BAR ROAD, BOULDER CREEK, CALIFORNIA

APN 084-141-25
CONSTRUCTION DOCUMENTS

SHEET

C4.1

JOB NO. 23042

D:\Hand Work\2024 Projects\23042_15015 Two Bar Road\dwg\S1.0 RETAINING WALL DETAILS & SPECS.dwg 07Feb25 03:37:12 PM jdc © IFLAND ENGINEERS, INC.

GENERAL NOTES

- ANY FEATURE OF CONSTRUCTION NOT FULLY SHOWN OR DETAILED SHALL BE OF THE SAME TYPE AS SHOWN ON THE PLANS FOR SIMILAR CONDITIONS.
- THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY DISCREPANCY OCCURRING ON THE DRAWINGS OR FOUND IN HIS COORDINATION OF WORK. NO CHANGES IN APPROVED PLANS SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF THE ENGINEER.
- ANY REQUEST FOR ALTERATIONS OR SUBSTITUTIONS MUST BE PRESENTED DIRECTLY TO THE ENGINEER, ACCOMPANIED BY A DETAILED SKETCH FOR REVIEW BEFORE AN APPROVAL WILL BE GIVEN, AND BEFORE PROCEEDING WITH THE WORK.
- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE APPLICABLE PORTIONS OF THE 2022 CALIFORNIA BUILDING CODE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION, AND TO NOTIFY THE ENGINEER IN THE EVENT OF A CONFLICT.
- THE CONTRACTOR SHALL SECURE ALL REQUIRED CONSTRUCTION PERMITS FROM THE BUILDING DEPARTMENT PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY THE BUILDING INSPECTOR PRIOR TO POURING ANY CONCRETE.

CONCRETE NOTES:

- THE CONCRETE FOR THE RETAINING WALL FOUNDATION SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2500 PSI. THE CONCRETE FOR THE LAGGING SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.
- THE USE OF ANY ADMIXTURE SHALL BE APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HRS PRIOR TO PLACING CONCRETE FOR THE PIERS.
- ALL CONCRETE WORK SHALL BE DONE IN CONFORMANCE WITH THE LATEST EDITION OF THE ACI BUILDING CODE (ACI 318-19) AND THE LATEST EDITION OF THE ACI MANUALS OF CONCRETE PRACTICE.
- MAXIMUM AGGREGATE SIZE SHALL BE 1 1/2" (5/4" FOR PUMP DELIVERED CONCRETE).
- REINFORCEMENT, ANCHOR BOLTS, PIPE SLEEVES, AND OTHER INSERTS SHALL BE POSITIVELY SECURED IN PLACE BEFORE CONCRETE IS PLACED.
- PIER CONCRETE SHALL BE PUMPED AND NOT PERMITTED TO FREE FALL MORE THAN 4 FEET.
- CONCRETE SHALL BE ALLOWED TO CURE FOR 7 DAYS MIN BEFORE BACKFILLING BEHIND THE WALL.

REINFORCING STEEL:

- REINFORCING STEEL SHALL COMPLY WITH ASTM A615, GRADE 40 FOR #3 AND SMALLER BARS, GRADE 60 FOR #4 AND LARGER BARS. SPLICES SHALL BE STAGGERED WHERE POSSIBLE. SPLICE BARS 40 BAR DIAMETERS, MINIMUM.
- SUPPORTING DEVICES FOR THE REINFORCEMENT SHALL BE SPACED SUFFICIENTLY TO PROPERLY SUPPORT THE REINFORCEMENT AND PREVENT EXCESSIVE DEFLECTION THAT MAY RESULT IN IMPROPER BAR PLACEMENT.
- THE FOLLOWING MINIMUM BAR COVERS SHALL BE MAINTAINED: CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ---3 INCHES
CONCRETE EXPOSED TO EARTH OR WEATHER ---1 1/2" INCHES

STRUCTURAL STEEL:

- ALL WORK DONE UNDER THIS SECTION SHALL CONFORM TO THE REQUIREMENTS OF THE AISC SPECIFICATIONS (AISC 360) AND THE CODE OF STANDARD PRACTICE, OR THE PWS SPECIFICATIONS FOR WELDING (AWS D1.1-15)
- STRUCTURAL STEEL WIDE FLANGE BEAMS AND CHANNELS SHALL CONFORM TO ASTM A992.
- STRUCTURAL STEEL PLATES AND BARS SHALL CONFORM TO ASTM A36.
- STRUCTURAL PIPE SHALL CONFORM TO ASTM A53, GRADE B.
- STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500, GRADE B.
- ALL BOLTS SHALL CONFORM TO ASTM A307 OR BETTER, UNLESS NOTED OTHERWISE.
- ALL STEEL FASTENERS EXPOSED TO THE WEATHER SHALL BE HOT-DIPPED GALVANIZED AS SPECIFIED IN SECTION 75-01.05, 'GALVANIZING', OF THE CALTRANS STANDARD SPECIFICATIONS.
- ALL STRUCTURAL STEEL MEMBERS INCLUDING, BUT NOT LIMITED TO, STEEL SOLDIER PILES, STEEL CHANNEL WALKERS AND L-ANGLE ASSEMBLIES SHALL BE PAINTED WITH A ZINC RICH RUST INHIBITING PRIMER SUCH A TNEEC BRAND TNEC-ZINC, OR THE EQUIVALENT.
- ALL STRUCTURAL STEEL MEMBERS, INCLUDING, BUT NOT LIMITED TO, STEEL SOLDIER PILES, STEEL CHANNEL WALKERS AND L-ANGLE ASSEMBLIES SHALL BE PAINTED WITH A CORROSION RESISTANT PAINT SUCH AS SHER-CRYL HPA HIGH PERFORMANCE ACRYLIC PAINT BY SHERWIN WILLIAMS OR APPROVED EQUIVALENT.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO FABRICATING THE STEEL MEMBERS. IN THE EVENT OF A DISCREPANCY, NOTIFY THE ENGINEER PRIOR TO PROCEEDING.
- ANY FASTENERS AND/OR CONNECTORS WHICH COME IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL IN ACCORDANCE WITH ASTM A-153, OR OF STAINLESS STEEL PER THE CBC, SEC. 2304.9.5. ALL BOLTS AND NUTS SHALL HAVE STANDARD CUT WASHERS WHEN IN CONTACT WITH WOOD.

TREATED WOOD LAGGING:

- TREATED WOOD LAGGING SHALL BE PRESERVATIVE TREATED DOUG FIR NO. 1.
- ALL LUMBER AND TIMBERS SHALL BE FULL LENGTH PRESSURE-TREATED, CONFORMING TO AWPAS STANDARDS U1 AND M4 FOR SPECIES, PRODUCT, PRESERVATIVE AND END USE. PRESERVATIVES SHALL BE LISTED IN SECTION 4 OF AWPAS U1.
- PER THE CBC, SECTION 2303.1.8.1, PRESERVATIVE TREATED WOOD SHALL BEAR THE QUALITY MARK OF AN INSPECTION AGENCY THAT MAINTAINS CONTINUING SUPERVISION, TESTING AND INSPECTION OVER THE QUALITY OF THE PRESERVATIVE-TREATED WOOD. INSPECTION AGENCIES FOR PRESERVATIVE-TREATED WOOD SHALL BE LISTED BY AN ACCREDITATION BODY THAT COMPLIES WITH THE REQUIREMENTS OF THE AMERICAN LUMBER STANDARDS TREATED WOOD PROGRAM, OR EQUIVALENT. THE QUALITY MARK SHALL BE ON A STAMP OR LABEL AFFIXED TO THE PRESERVATIVE-TREATED WOOD, AND SHALL INCLUDE THE FOLLOWING INFORMATION:
A. IDENTIFICATION OF TREATING MANUFACTURER.
B. TYPE OF PRESERVATIVE USED.
C. MINIMUM PRESERVATIVE RETENTION (PCF).
D. END USE FOR WHICH THE PRODUCT IS TREATED.
E. AWPAS STANDARD TO WHICH THE PRODUCT WAS TREATED.
F. IDENTITY OF THE ACCREDITED INSPECTION AGENCY.
- ALL FIELD CUT ENDS, NOTCHES, OR BORED HOLES OF THE TREATED LUMBER SHALL BE FIELD TREATED TO MEET AWPAS U1 STANDARDS, AND BE INSPECTED AND APPROVED BY A COUNTY BUILDING INSPECTOR OR THE ENGINEER OF RECORD PRIOR TO BEING PLACED IN THE SOLDIER PILES.

SUBDRAINS:

- ALL PERFORATED PVC RETAINING WALL SUBDRAINS SHALL BE SDR35 OR APPROVED EQUIVALENT PLACED WITH PERFORATIONS DOWN.
- SUBDRAIN SHALL BE INSTALLED 1"± ABOVE THE BOTTOM OF GRANULAR BACKFILL WITH A SLOPE OF 1% MIN TO DRAIN.
- USE PERMEABLE DRAIN MATERIAL CONFORMING TO SECTION 68-1.025, CLASS 1, TYPE A OF THE CALTRANS STANDARD SPECIFICATIONS. PERMEABLE MATERIAL SHALL EXTEND A WIDTH OF 12" BEHIND THE WALL, AND TO WITHIN 12" OF GROUND SURFACE. PERMEABLE DRAIN MATERIAL SHALL BE COVERED WITH MIRAFI 140N OR AN APPROVED EQUIVALENT. SUBDRAIN SHALL BE DISCHARGED TO A SUITABLE LOCATION AS APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER OR AS SHOWN ON THE PLANS. COMPACT A 12" THICK LAYER OVER TOP OF FILTER FABRIC.

EARTHWORK AND GRADING NOTES:

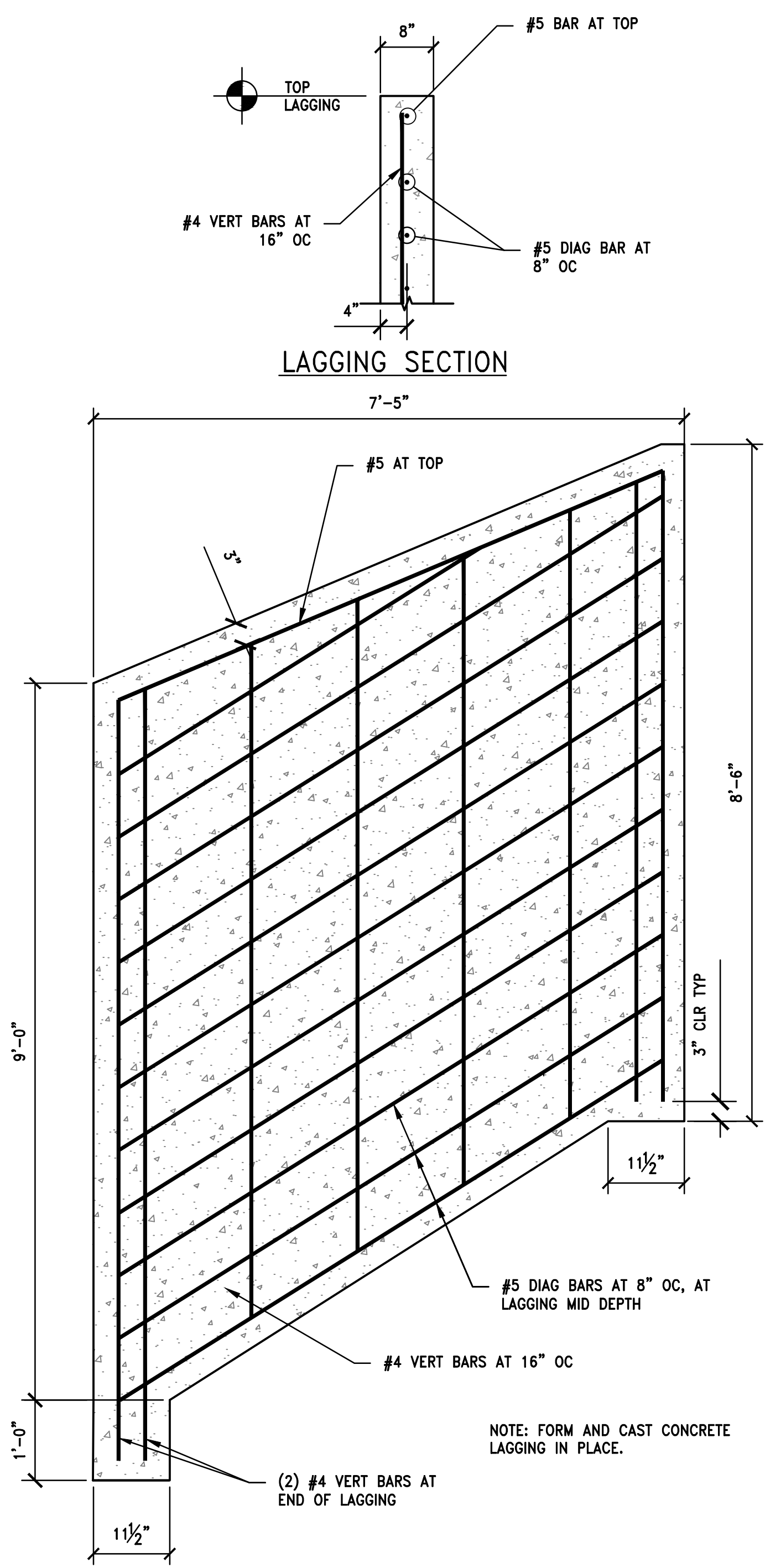
- ALL EARTHWORK SHALL BE DONE IN ACCORDANCE GEOTECHNICAL INVESTIGATION REPORT PREPARED BY HARO, KASUNICH & ASSOCIATES, DATED APRIL 30, 2024 AND REVISED SEPTEMBER 27, 2024, PROJECT NO. SC12388.
- PRIOR TO BACKFILLING FOR THE RETAINING WALLS THE GEOTECHNICAL ENGINEER SHALL OBSERVE THE INSTALLATION OF THE SUBDRAINAGE SYSTEM.

NOTES REGARDING SPECIAL INSPECTION AND TESTING:

- ALL STRUCTURAL STEEL WELDING SHALL BE DONE WITH SPECIAL INSPECTION PER SECTION 1704.3 OF THE 2022 CBC.
- THE CONTRACTOR SHALL OBTAIN THE NECESSARY FORMS FROM THE COUNTY OF SANTA CRUZ PRIOR TO PERFORMING ANY WELDING. THESE FORMS SHALL INCLUDE THE INFORMATION REGARDING THE INSPECTING AGENCY AS WELL AS THE SIGNATURE OF THE ENGINEER OF RECORD. THESE FORMS SHALL THEN BE SUBMITTED TO THE COUNTY OF SANTA CRUZ FOR APPROVAL.
- SPECIAL INSPECTION IS REQUIRED FOR THE DRILLED PIERS PER TABLE 1705.8 OF THE 2022 CBC. THE PROJECT GEOTECHNICAL ENGINEER SHALL OBSERVE THE PLACEMENT LOCATIONS, PLUMBNESS, PIER DIAMETER, AND EMBEDMENT DEPTH.

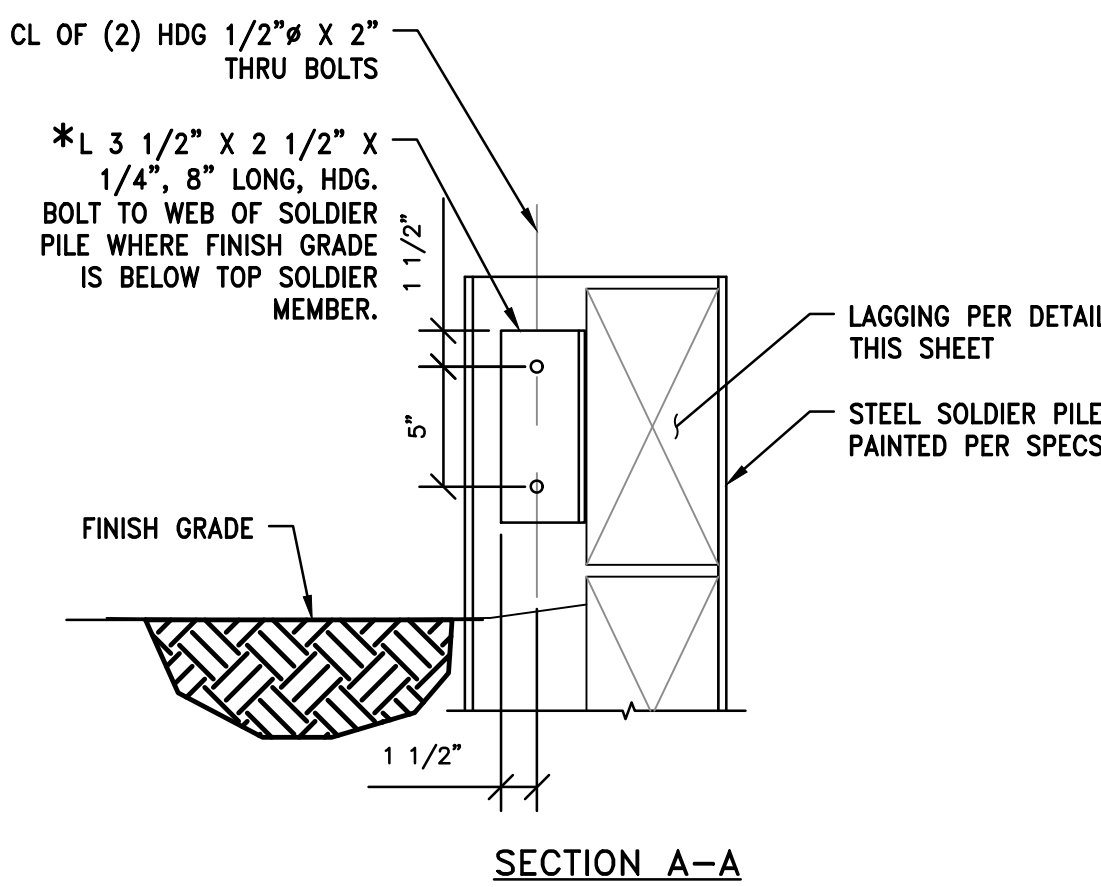
ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE	OC	ON CENTER
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	LONG'L	LONGITUDINAL
ASS'Y	ASSEMBLY	MIN	MINIMUM
CBC	CALIFORNIA BUILDING CODE	OC	ON CENTER
CIP	CAST-IN-PLACE	PLF	POUNDS PER LINEAL FOOT
CLR	CLEAR	PERF	PERFORATED
CONC	CONCRETE	PSF	POUNDS PER SQUARE FOOT
CL	CENTER LINE	REINF	REINFORCEMENT
DBL	DOUBLE	SCH	SCHEDULE
DIA	DIAMETER	STD	STANDARD
DWG	DRAWING	TS	TUBE STEEL
(E)	EXISTING	TW	TOP OF WALL
EA	EACH	TP	TOP OF PIER
EQ	EQUAL	TYP	TYPICAL
GALV	GALVANIZED	UNO	UNLESS NOTED OTHERWISE
HDG	HOT DIPPED GALVANIZED	VERT	VERTICAL
HORIZ	HORIZONTAL		



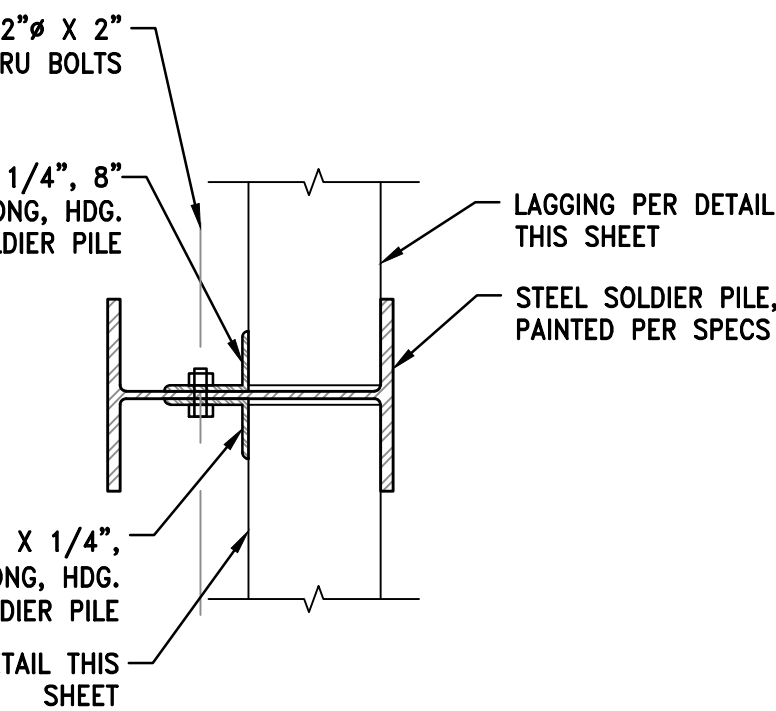
5 SLOPING CONCRETE LAGGING DETAIL

SCALE: 3/4" = 1'-0"



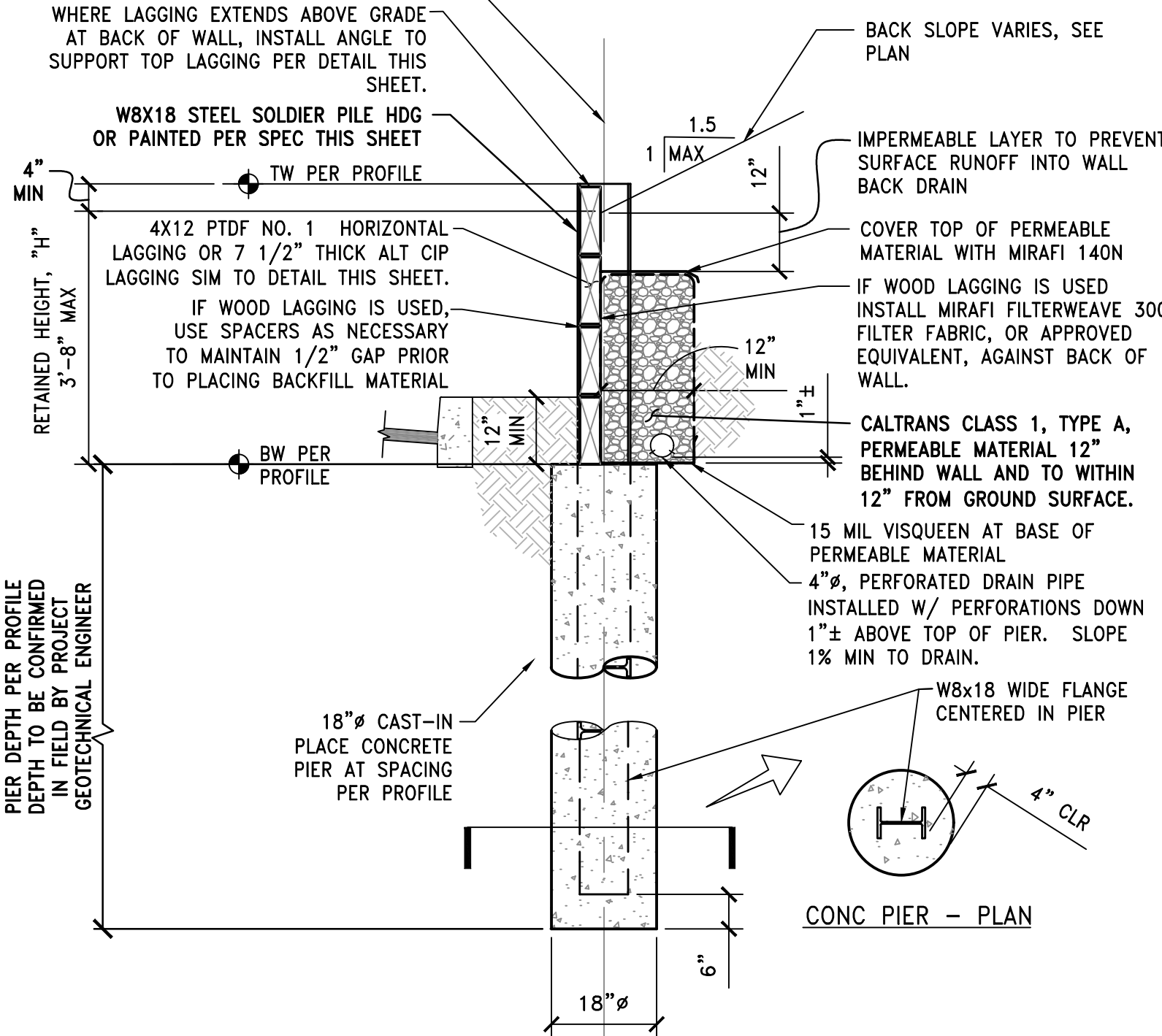
6 ANGLE TO SUPPORT TOP LAGGING

SCALE: 1 1/2" = 1'-0"



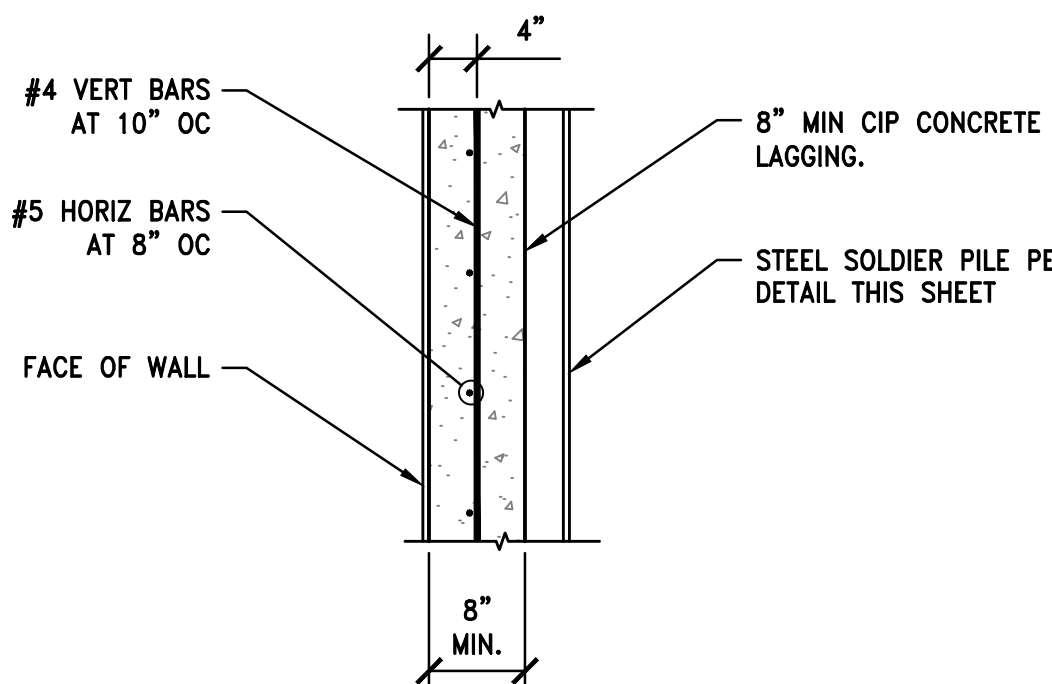
4 ALT CIP CONCRETE LAGGING DETAIL

SCALE: 3/4" = 1'-0"



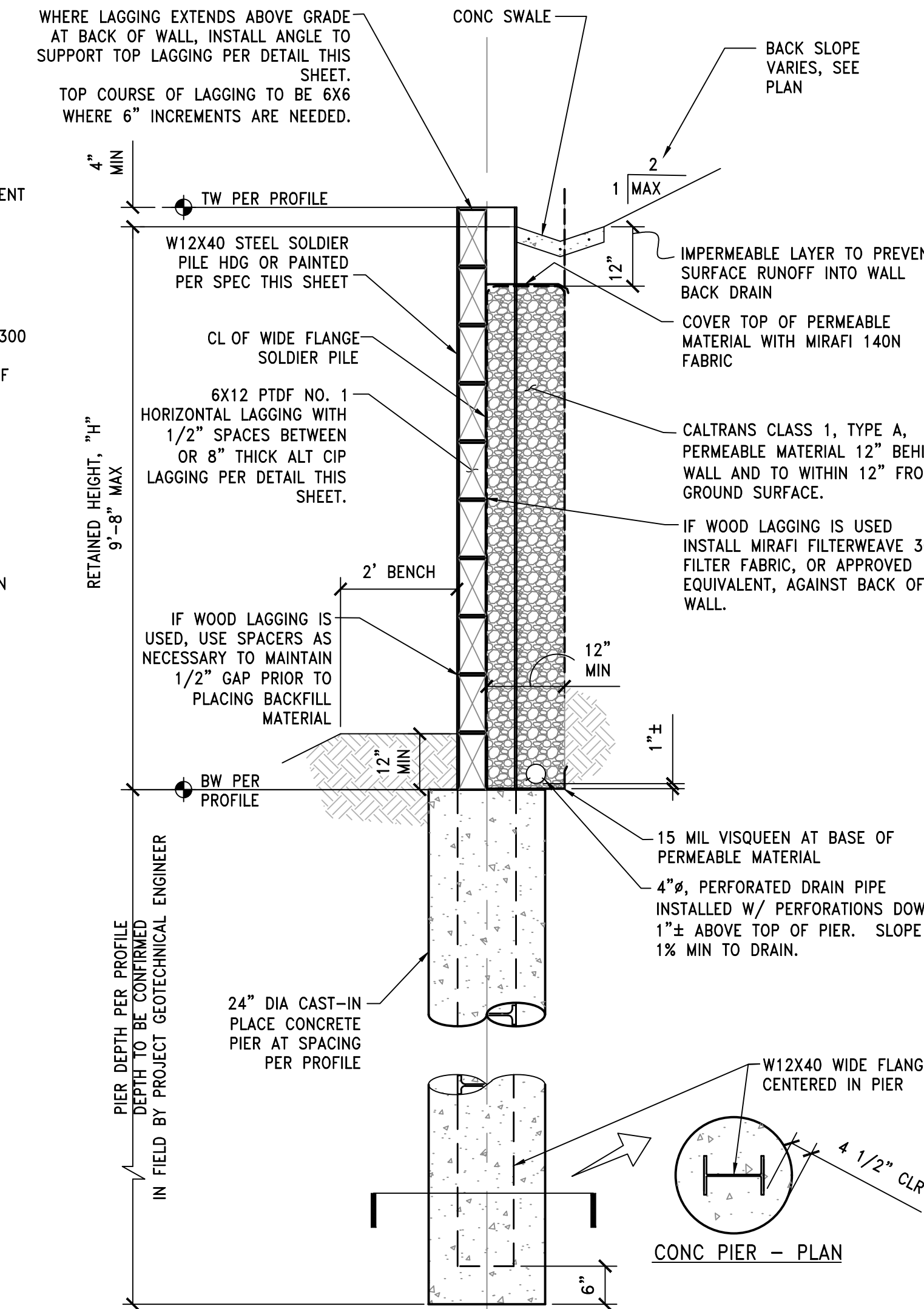
3 STEEL SOLDIER PILE RETAINING WALL 2

SCALE: 1/2" = 1'-0"



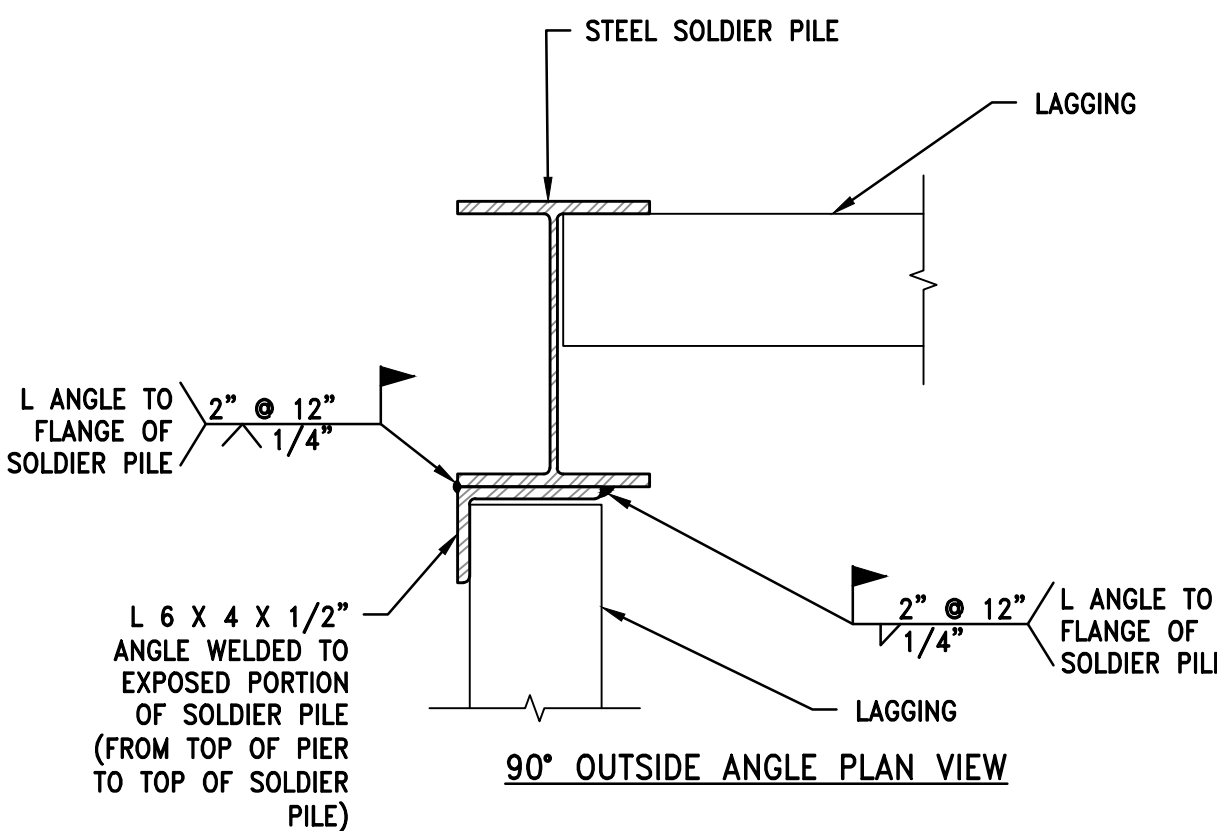
1 STEEL SOLDIER PILE RETAINING WALL 1

SCALE: 1/2" = 1'-0"



2 ANGLE POINT DETAILS

SCALE: 1 1/2" = 1'-0"



NOTE: SOLDIER PILES, ANGLES AND PLATES SHALL BE PAINTED PER THE SPECIFICATIONS THIS SHEET AFTER WELDING IS COMPLETED AND PRIOR TO THE INSTALLATION OF THE LAGGING.

NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
NO. C06954
CIVIL
STATE OF CALIFORNIA

REVISION

BY

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IFLAND ENGINEERS
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RETAINING WALL DETAILS & SPECS
ZAUN RETAINING WALL

15015 TWO BAR ROAD, BOULDER CREEK, CALIFORNIA

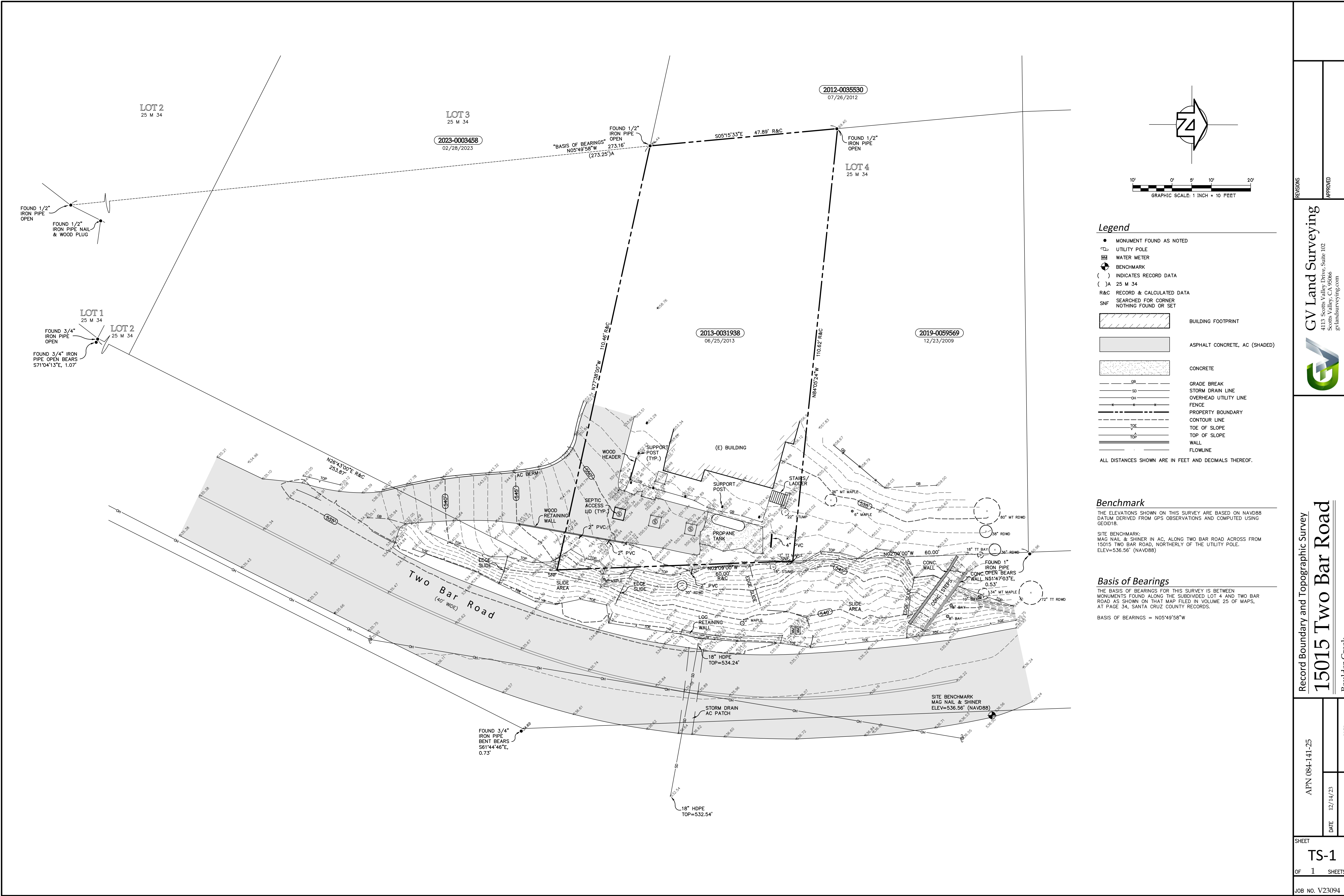
APN 084-141-25
CONSTRUCTION DOCUMENTS

DRAWN JCH
DESIGN JCH
DATE 02/07/25

SHEET
S1.0

JOB NO. 23042

DISCRETIONARY PERMIT APPLICATION PLAN SET



REVISIONS		APPROVED	
GV Land Surveying 4113 Scotts Valley Drive Suite 102 Scotts Valley, CA 95066 gvlandsurveying.com		GV	
Record Boundary and Topographic Survey 15015 Two Bar Road Boulder Creek			
APN 084-141-25		VCL	
DATE 12/14/23	DRAWN		
SCALE 1"=10'	SHEET		
TS-1			
OF 1 SHEETS			
JOB NO. V23094			