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.

APPLICATON NUMBER: 251184 APN: 057-141-08
SITUS ADDRESS: 308 Swanton Road, Davenport CA 95017

Proposal to construct a new bridge over Big Creek to replace a 50' x 17'4" temporary boxcar bridge installed as a result of damage sustained during the CZU Fire. Proposed bridge would consist of new abutments, new approach ramps, and 90' x 20' railcar bridge.

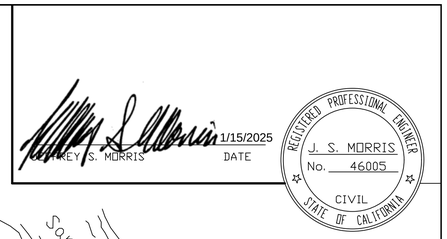
Property located on the southeast corner of the intersection of Swanton Road and Big Creek Road approximately 2.5 miles northeast of the intersection with Highway 1 in the North Coast planning area (308 Swanton Road).

OWNER: Big Creek Timber LLC/ Ken McCray
APPLICANT: Big Creek Timber LLC/ Ken McCray
SUPERVISORIAL DISTRICT: 3
PLANNER: Nathan MacBeth, (831) 454-3118
EMAIL: Nathan.MacBeth@santacruzcountyca.gov

Public comments must be received by 5:00 p.m. February 13, 2026.A decision will be made on or shortly after February 16, 2026.

Appeals of the decision will be accepted until 5:00 p.m. two weeks after the decision date. If you would like to request a public hearing be held for this item, please contact the project planner listed on this notice.
Information regarding the appeal process, including required fees, may be obtained by phoning (831) 454-2130.
For more information, contact the project planner identified above.

MCCRARY BRIDGE OVER BIG CREEK



BRIDGE GENERAL CONSTRUCTION NOTES

1. BASIS OF BEARINGS AND CONSTRUCTION ELEVATIONS SHALL BE AS SHOWN ON PLANS. CONSTRUCTION SURVEYING SHALL BE A COOPERATIVE EFFORT AS REQUESTED BY CONTRACTOR TO MORRIS ENGINEERING.

2. ALL REFERENCES TO "CONTRACTOR" SHALL BE DEEMED TO MEAN: CONTRACTOR CHOSEN BY OWNER.

3. REFERENCES TO "GENERAL OWNER" SHALL BE DEEMED TO MEAN:

Ken McCrary, Owner
316 Swanton Rd.
Davenport, CA 95017
(831) 359-2324 Cell
(831) 423-4774 Phone
ken mccrary@yahoo.com

4. REFERENCES TO "GEOTECHNICAL ENGINEER" SHALL BE DEEMED TO MEAN: GEOTECHNICAL ENGINEER AT ADDRESS SHOWN BELOW IN "SPECIAL INSPECTIONS" SECTION, THIS SHEET.

5. REFERENCES TO "BRIDGE DESIGN ENGINEER" SHALL BE DEEMED TO MEAN:

MORRIS ENGINEERING
1451 RIDGEVIEW DR.
UKIAH, CA. 95482
(707) 472-0504 PHONE
morbridges@saber.net
ATTN: JEFFREY S. MORRIS, P.E.

6. THE CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS, AND IF DISCREPANCIES WITH THE PLANS AND/OR SPECIFICATIONS ARE NOTED, SHALL NOTIFY MORRIS ENGINEERING IMMEDIATELY.

GENERAL STRUCTURAL NOTES

1. DESIGN REFERENCES

A. AASHTO SEVENTEENTH EDITION (AASHTO 17TH ED., AS APPLIED TO THIS BRIDGE).

B. AISC MANUAL OF STEEL CONSTRUCTION, (ASD) 9th ED.

C. ACI BUILDING CODE REQ'MTS FOR REINF. CONCRETE (ACI 318) & COMMENTARY

2. LATERAL LIVE LOADING: CONTROLLING OF (1):SEISMIC - SEE NOTE 4 OR (2). WIND (25 PSF)

3. GRAVITY LIVE LOADING: CONTROLLING OF HS20-44 LANE OR TRUCK LOADING (NO P-LOADS, S-OVER INCREASES, FATIGUE OR FRACTURE CRITICAL DECREASES UNLESS SPECIFICALLY NOTED IN CALCULATIONS. BRIDGE IS ANTICIPATED TO BE CAPABLE OF OCCASIONAL SIGNIFICANTLY HEAVIER LOADING THAN HS20-44 (OVERLOADING), TO BE ADDRESSED IN STURCTURAL CALCULATIONS.

4. SEISMIC LATERAL LOADING: PER AASHTO HB17

5. CONCRETE AND REINFORCEMENT STRESSES (LOAD FACTOR DESIGN):
   - Concrete: See "Concrete type and Strength Limits" on General Plan Sheet.
   - Reinforcing steel is grade 60

6. DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS.

EXISTING UTILITIES:

THESE PLANS ARE NOT INTENDED TO ADDRESS EXISTING UTILITY LOCATIONS. CALL UTILITY LOCATING SERVICE (USA) FOR PRECISE UTILITY ALERT LOCATIONS BEFORE BEGINNING ANY WORK. UNDERGROUND SERVICE ALERT.

ALTERNATE CONSTRUCTION DETAILS:

THESE PLANS ARE INTENDED TO SHOW REASONABLE, CONSTRUCTABLE AND FEASIBLE DETAILS FOR BRIDGE AND ABUTMENT CONSTRUCTION. REASONABLE ALTERNATE METHODS, PROPOSED BY THE CONTRACTOR, MAY BE REVIEWED BY THE ENGINEER FOR APPROPRIATENESS IN THE CURRENT PROJECT, AND MAY BE INCORPORATED INTO THE PROJECT IF FOUND APPROPRIATE. HOWEVER, THE CONTRACTOR SHALL NOT ASSUME THAT ANY SUBMITTED DETAIL, MATERIAL OR METHOD, NOT SHOWN ON THESE PLANS OR SPECIFIED HEREIN, WILL BE INCORPORATED INTO THE WORK.

REQUIRED SPECIAL INSPECTIONS:

A. WELDING: WELDING INSPECTION SHALL BE AS FOLLOWS:
   1. THE FIRST DAY OF SHOP OR FIELD WELDING, THE INSPECTOR SHALL REVIEW WELDERS AND WELDING.
   2. AT TIMES DURING WELDING, AT LEAST ONCE IN THE FIELD, INSPECTOR SHALL REVIEW WELDING.
   3. AFTER COMPLETION OF FIELD WELDING, INSPECTOR SHALL REVIEW WELDING AND ALL SPECIFIED WELDS.

   WELD INSPECTOR SHALL BE:

Korbmacher Engineering, Inc.
480 Preston Ct. Suite B
Livermore, CA 94551
(925) 454-9033 Office
ATTN: Ryan Dean
ryan@korbmacherinc.com

B. SOIL AND FOUNDATIONS: DURING PILE DRIVING AND DURING SOILS-RELATED CONSTRUCTION BY GEOTECHNICAL ENGINEER AS FOLLOWS:

ROCK SOLID ENGINEERING
1100 MAIN STREET, SUITE A
WATSONVILLE, CA. 95076
(831) 724-5868 Office
(831) 763-1578 FAX
ATTN: YVETTE WILSON
yvette@rocksolidengineers.com

C. WELDING PROCEEDURE SPECIFICATIONS AND SPECIAL INSPECTION: WELDING SHALL BE GENERALLY PER STANDARD SPECIFICATIONS, AS APPROPRIATE FOR RAILCAR BRIDGES AND THIS BRIDGE DESIGN. ELECTRODES SHALL BE 70 KSI MIN. WELDERS SHALL BE FAMILIAR WITH RAILCAR BRIDGES, AND RAILCAR BRIDGE WELDING PROCEEDURES. DETAILS SHOWN ARE FOR SINGLE-PASS FILLET WELDS UNLESS SHOWN OR NOTED OTHERWISE.

STEEL PIPE PILE FOUNDATION NOTES:

1. STEEL PIPE PILES SHALL BE ASTM A36 OR A53 GRADE "A" OR "B" STEEL, OR AS PROPOSED BY THE CONTRACTOR AND REVIEWED FAVORABLY BY THE ENGINEER.

2. ALL PILES SHALL BE DRIVEN TO THE REQUIRED BEARING PER PILE SHOWN UNDER THE HEADING "PILE DATA" ON THE GENERAL PLAN SHEET.

3. BEARING CAPACITY OF THE PILES SHALL BE DETERMINED BY THE FOLLOWING FORMULA FOR PILES DRIVEN BY A MKT 9B3 AIR/STEAM PILE HAMMER. THE SAFE BEARING VALUE SHALL BE (SEE CALTRANS STANDARD SPECIFICATIONS, SECTION 49-1.08, PILE DRIVING ACCEPTANCE CRITERIA):

$$R_u = (1.83 * (E_r)^{0.5} * LOG_{10}(0.83 * N)) - 124$$

WHERE:
R_u = NOMINAL RESISTANCE IN KIPS
E_r = MANUFACTURERS RATING OF ENERGY DEVELOPED BY THE HAMMER IN FOOT-POUNDS.
N = PENETRATION OF THE PILE INTO THE GROUND IN THE LAST FOOT (MAX N = 100)

FOR A MKT 9B3 AIR HAMMER RATED AT 8750 FT-LB ENERGY AT REFUSAL (N=100),
R_u = 204.5 KIPS (100 TONS)

FOR A DAWSON 2500 HAMMER RATED AT 18,439 FT-LB ENERGY AT REFUSAL (N=100),
R_u = 352.8 KIPS (176 TONS)

4. PILES DRIVEN TO 45 TON NOMINAL RESISTANCE AS SHOWN ABOVE WILL BE GIVEN AN ACTUAL ALLOWABLE BEARING VALUE OF 25 TONS (50,000 LBS.) FOR THE PURPOSES OF THIS PROJECT.

5. ABOVE PILE DRIVING FORMUAL SHALL BE USED AS A GUIDE FOR PILE INSTALLATION. RECOGNIZING THAT PILE DRIVING IS BOTH AN ART AND A SCIENCE, THE CONTRACTOR SHALL DISCUSS WITH THE ENGINEER THE ANTICIPATED PILE DRIVING PLAN. THE APPROACH USED SHALL USE POSITIVE METHODS TO MINIMIZE PILE WANDER DURING DRIVING (SUCH AS PREDRILLED HOLES 3' - 4' DEEP TYPICAL) THESE SPECIAL PROVISIONS SHALL TAKE PRECEDENCE OVER STANDARD SPECIFICATIONS.

SOIL COMPACTION IN FILLS:

SEE GEOTECHNICAL REPORT

STANDARD SPECIFICATIONS:

STANDARD SPECIFICATIONS FOR THE PROJECT SHALL BE "CALTRANS STANDARD SPECIFICATIONS", CURRENT EDITION. SPECIAL PROVISIONS SHALL BE AS SHOWN ON THE PLANS AND AS DESCRIBED IN SPECIAL PROVISIONS IN THESE PLANS.

RAILCAR BRIDGE FABRICATION:

PRE-FABRICATED RAILCAR BRIDGE SHALL BE AS GENERALLY SHOWN ON DRAWINGS.

WELDING SPECIFICATIONS:

WELDING SHALL BE GENERALLY PER STRUCTURAL WELDING CODE, D1.1, AS APPROPRIATE FOR RAILCAR BRIDGES CONSTRUCTED IN THE AREA. ELECTRODES SHALL BE 70 KSI MIN. WELDERS SHALL BE FAMILIAR WITH RAILCAR BRIDGES, AND RAILCAR BRIDGE WELDING PROCEEDURES. DETAILS SHOWN ARE GENERALLY FOR SINGLE-PASS FILLET WELDS.

CONTRACTOR'S SUBMITTALS:

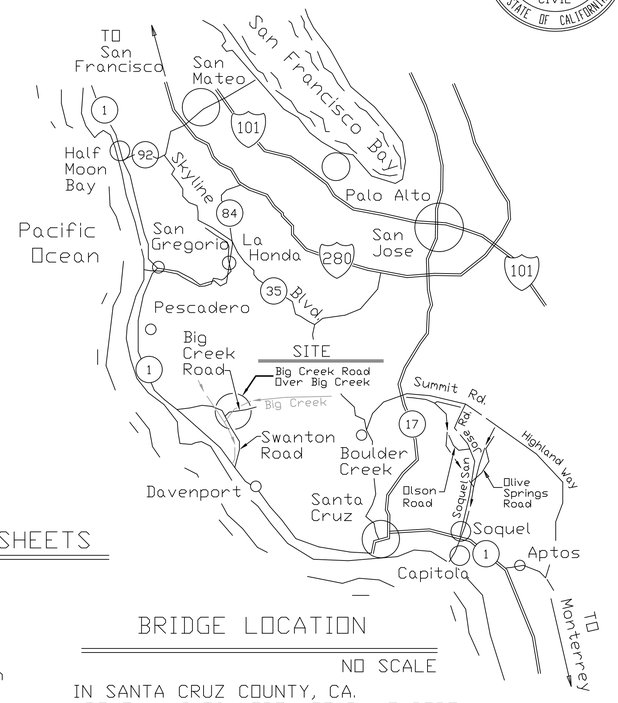
THE FOLLOWING SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER FOR REVIEW WITH SUFFICIENT TIME FOR REVIEW AND REVISION (IF NECESSARY):

1. WELD PROCEEDURE SPECIFICATIONS (IF DIFFERENT FROM THAT SHOWN).

INDEX OF BRIDGE STRUCTURAL SHEETS

TEMPORARY BRIDGE DRAWINGS (BY OTHERS)

C-1.0
C-1.1
S1
S2
S3

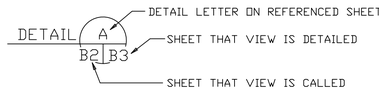


BRIDGE LOCATION

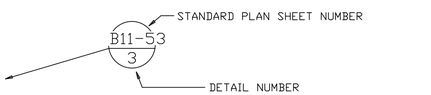
NO SCALE

IN SANTA CRUZ COUNTY, CA.
ABOUT 4 MILES NORTH OF DAVENPORT

DETAIL - THESE PLANS



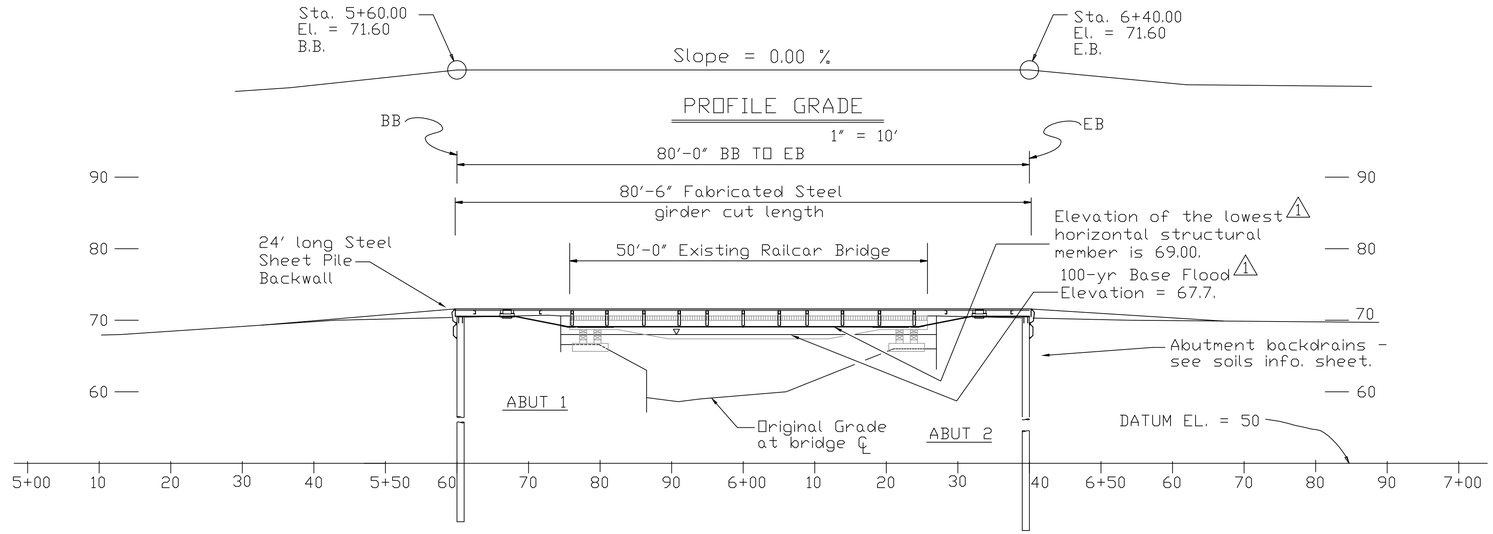
CALTRANS STANDARD PLAN DETAIL

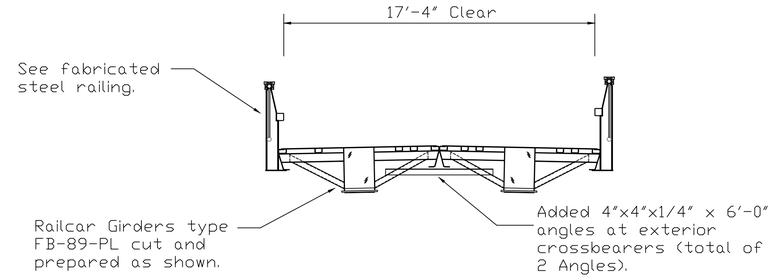


CALTRANS STANDARD PLANS

A62C	EXC. & BACKFILL - BRIDGE
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS

REFERENCES	DATE : 7/15/25	MORRIS ENGINEERING		BRIDGE NO.	BIG CREEK BRIDGE REHABILITATION
1 .	SCALE : SHOWN	1451 RIDGEVIEW DRIVE UKIAH, CA 95482			
	DRAWN : JSM	morbridges@saber.net www.jhstructures.com		POST MILE	TITLE SHEET
	CHECKED: CNM				
	M.E. JOB NO : 23-130				
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3		Disregard prints bearing earlier revision dates →	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET B1 OF 9



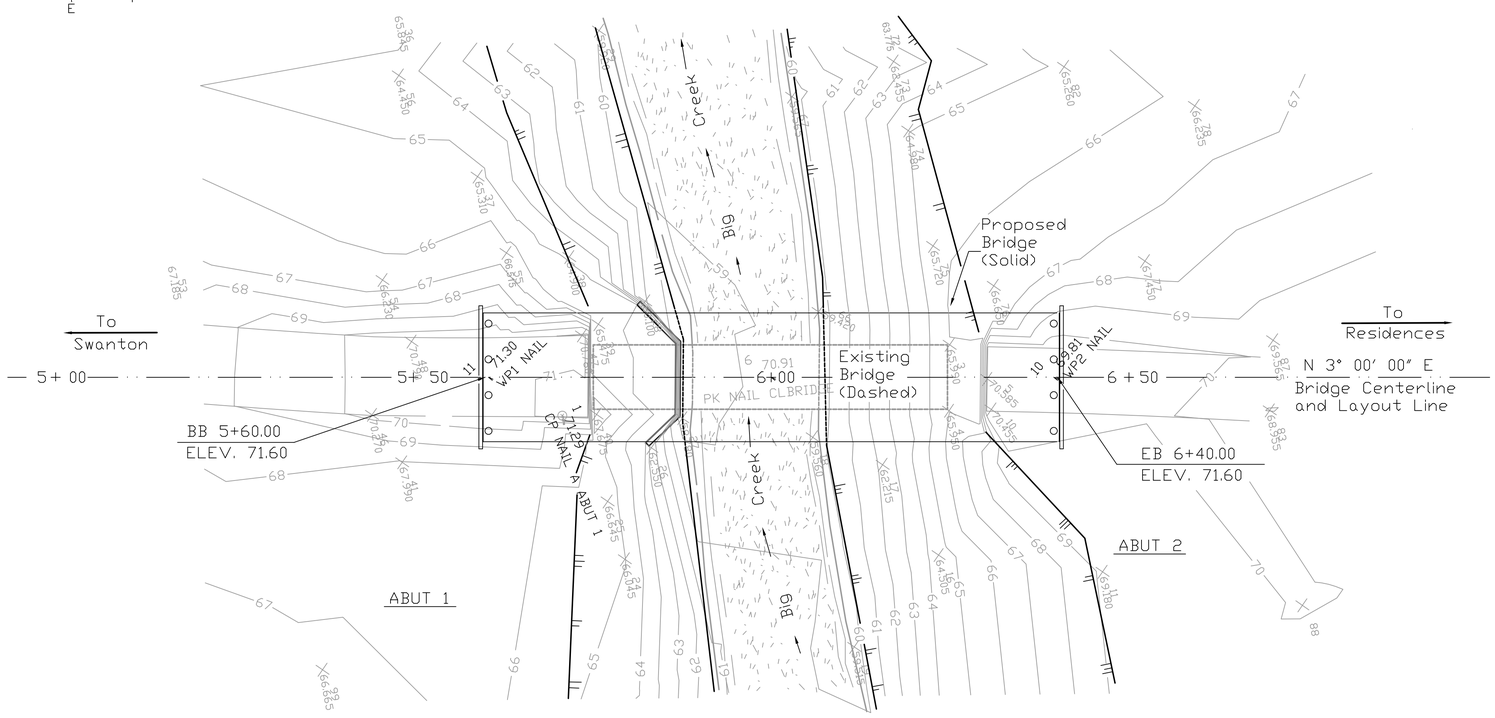


TYPICAL SECTION

Section is taken looking Downstation 1" = 4'

ELEVATION ◇1

1" = 10'-0"



GENERAL PLAN ◇1 ◇2

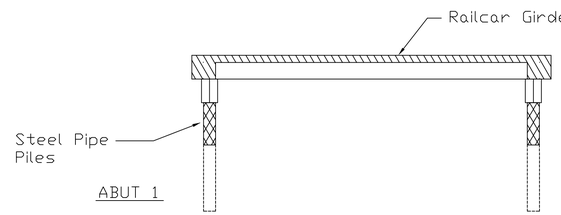
1" = 10'-0"

PILE NOTE: OWNER AND CONTRACTOR SHALL HAVE REACHED A MUTUALLY ACCEPTABLE AGREEMENT FOR THE POSSIBLE EVENT THAT THE ACTUAL DRIVEN PILE TIP ELEVATION EXCEEDS THE PROBABLE TIP ELEVATION SHOWN IN THIS TABLE. PILES THAT HAVE AT LEAST 10 FT. OF PENETRATION AND REACH BEARING BEFORE THE TIP SHOWN IN THIS TABLE WILL BE CONSIDERED ACCEPTABLE.

PILE DATA - 12 INCH DIAMETER BY .25" WALL PIPE PILES

LOCATION	PILE TYPE	DESIGN LOADING (SERVICE LOAD)	PROBABLE TIP ELEVATION
1 - 4	PP 12 x .25	25 Tons	26.00
5 - 8	PP 12 x .25	25 Tons	15.00

PRE-DRILL NOTE: ALL PILE LOCATIONS MAY BE PRE-DRILLED UP TO 10'-0" INTO EXISTING SOIL BEFORE DRIVING PILES.



Steel pile cap (Tee cut from W21x44).

Recycled Railcar Girders (ACF Flush Decks)

Steel Pipe Piles as shown in table.

MATERIAL STRENGTH AND TYPE LIMITS

NO SCALE

REFERENCES

◇1 .
◇2 .
◇3 .

DATE : 7/15/25
SCALE : SHOWN
DRAWN : JSM
CHECKED: CNM
M.E. JOB NO : 23-130

MORRIS ENGINEERING
1431 RIDGEVIEW DRIVE
UKIAH, CA 95482
norbridges@saber.net www.jnstructures.com

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

Disregard prints bearing earlier revision dates →

BRIDGE NO.

POST MILE

BIG CREEK BRIDGE REHABILITATION

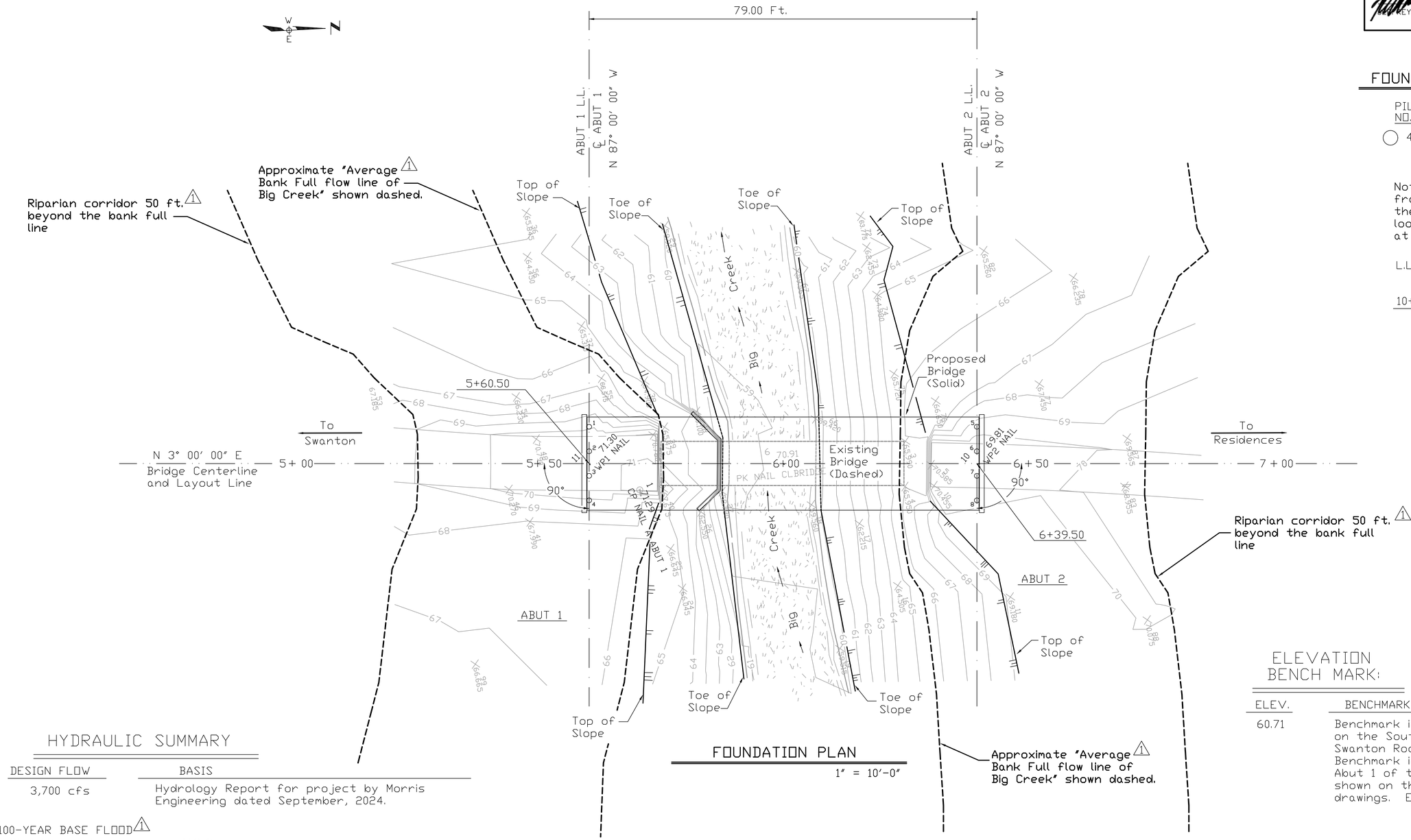
GENERAL PLAN

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET B2 OF 8

JEFFREY S. MORRIS 7/15/2025 DATE

REGISTERED PROFESSIONAL ENGINEER
J. S. MORRIS
No. 46005
CIVIL
STATE OF CALIFORNIA



FOUNDATION PLAN

1" = 10'-0"

HYDRAULIC SUMMARY

DESIGN FLOW	BASIS
3,700 cfs	Hydrology Report for project by Morris Engineering dated September, 2024.

100-YEAR BASE FLOOD 1

SURFACE ELEV.	BASIS
67.7	Hydraulic Report for project by Morris Engineering dated September, 2024.

DESIGN FLOOD 1

SURFACE ELEV.	
68.7	(Design flood elevation is Base Flood Elevation + 1.0 ft (BFE + 1ft)).

1 Note: Elevation of the bottom of the lowest structural member for the bridge is 69.0 (0.3 ft. above Design Flood Surface Elevation, 1.3 feet above Base Flood Surface Elevation).

7/15/2025
JEREY S. MORRIS — DATE

REGISTERED PROFESSIONAL ENGINEER
J. S. MORRIS
No. 46005
CIVIL
STATE OF CALIFORNIA

FOUNDATION PLAN LEGEND

PILE NO.	DESCRIPTION
◯ 4	Driven Pipe Pile as shown on General Plan sheet

Note: Piles are numbered from top of this sheet to the bottom (left to right looking up-station) at each abutment and bent.

L.L. - Layout Line

10+74.00 → Work Point station (intersection of bridge LL and Abut LL).

ELEVATION BENCH MARK:

ELEV.	BENCHMARK
60.71	Benchmark is existing County Benchmark disc on the Southwest Abutment Wall of the Swanton Road bridge over Big Creek. Benchmark is approx 775 feet Southwest of Abut 1 of the proposed bridge. Location is shown on the overall site plan of these drawings. Elevation Basis is NAVD88. 1

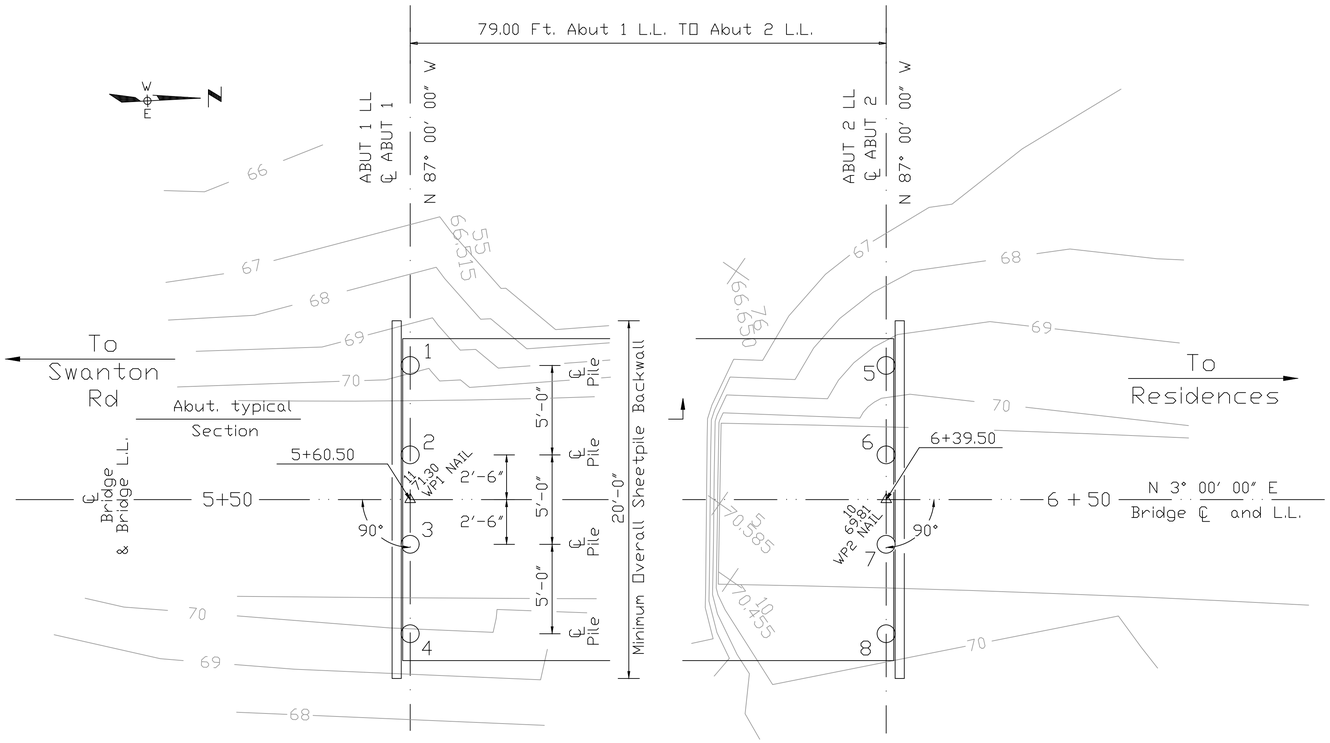
HORIZONTAL BASIS:

Overall Site Plan shown in these drawings, as well as the overall Site Basis, is based on information provided by the Owner for other projects on the same property.

REFERENCES	DATE : 7/15/25 SCALE : SHOWN DRAWN : JSM CHECKED: CNM M.E. JOB NO : 23-130	MORRIS ENGINEERING 1451 RIDGEVIEW DRIVE, UKIAH, CA 95482 norbridges@saber.net www.jnstructures.com	BRIDGE NO. POST MILE
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	Disregard prints bearing earlier revision dates →	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET B3 OF 9

BIG CREEK BRIDGE REHABILITATION

FOUNDATION PLAN

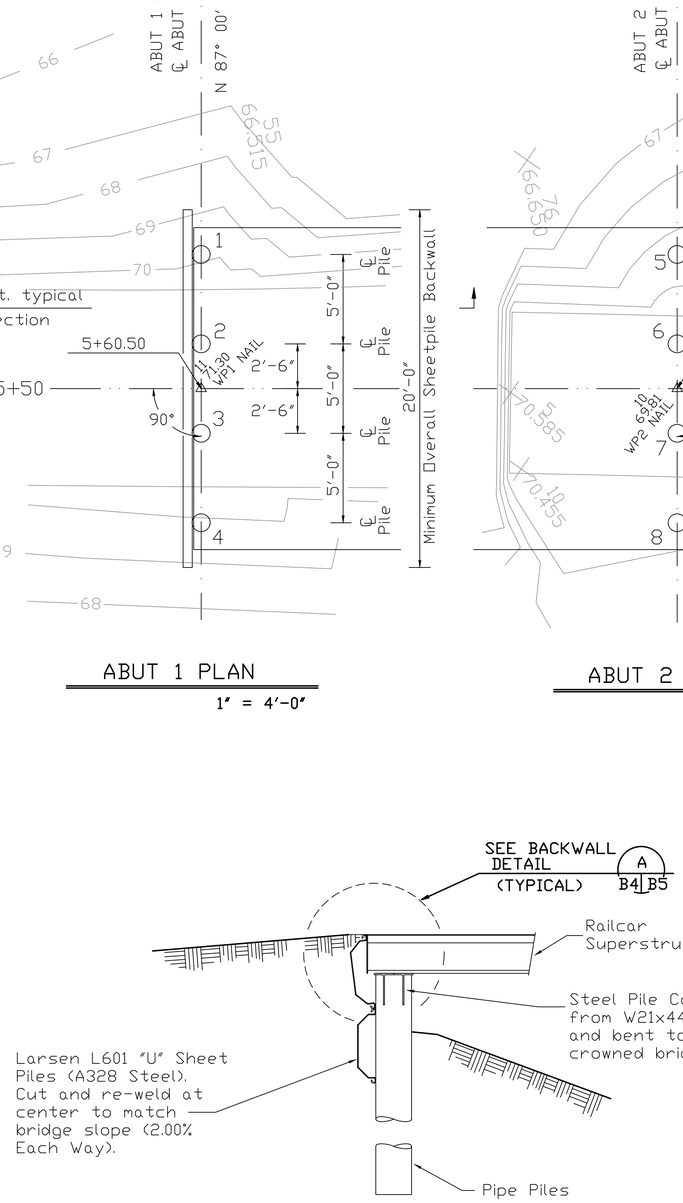


ABUT 1 PLAN

1" = 4'-0"

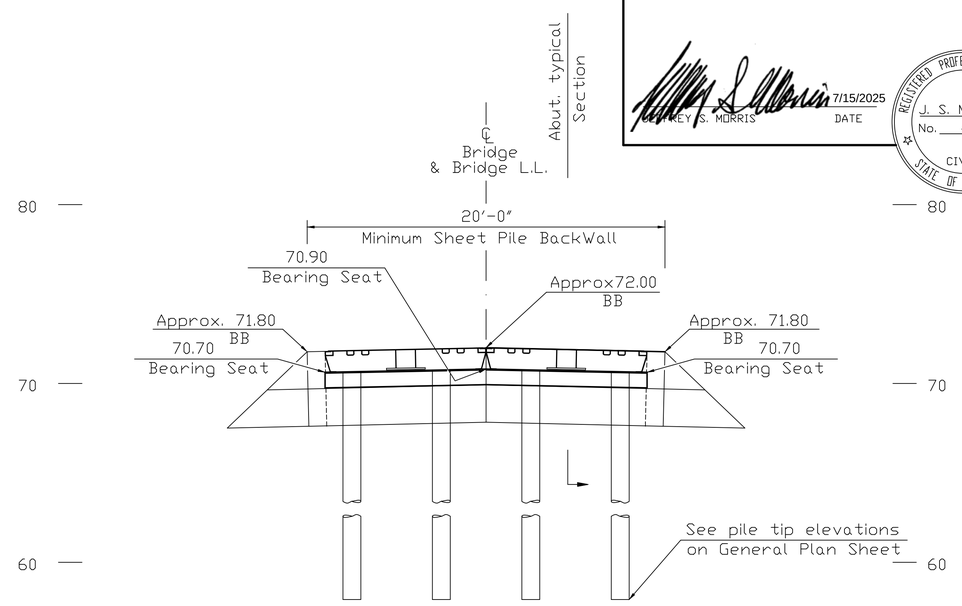
ABUT 2 PLAN

1" = 4'-0"



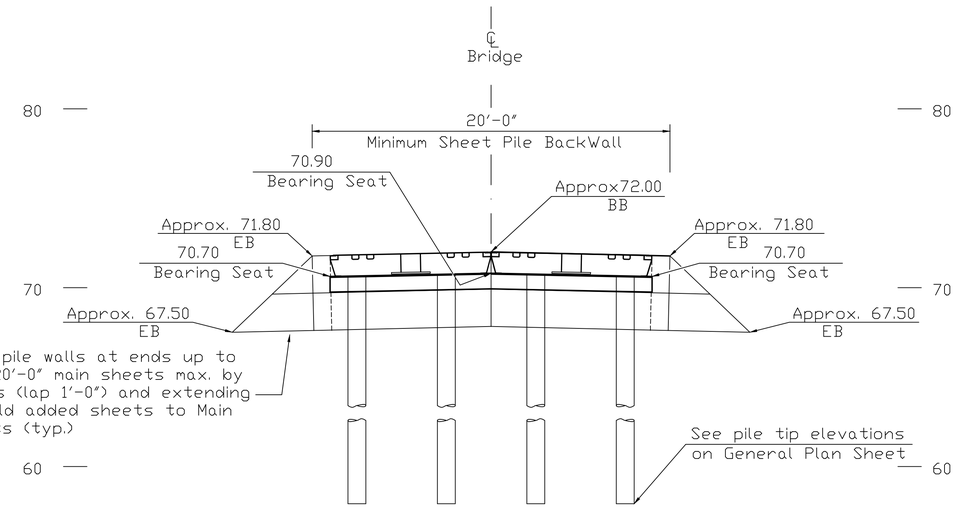
ABUT TYPICAL SECTION

1" = 2'-0"



ABUT 1 FRONT VIEW

1" = 4'-0"



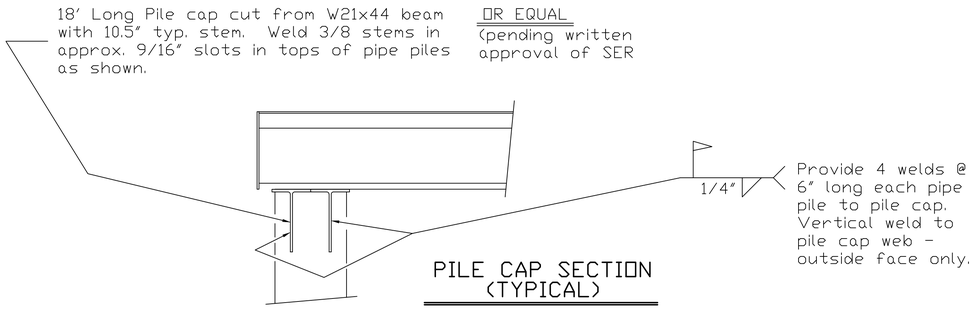
ABUT 2 FRONT VIEW

1" = 4'-0"

JEFFREY S. MORRIS 7/15/2025 DATE

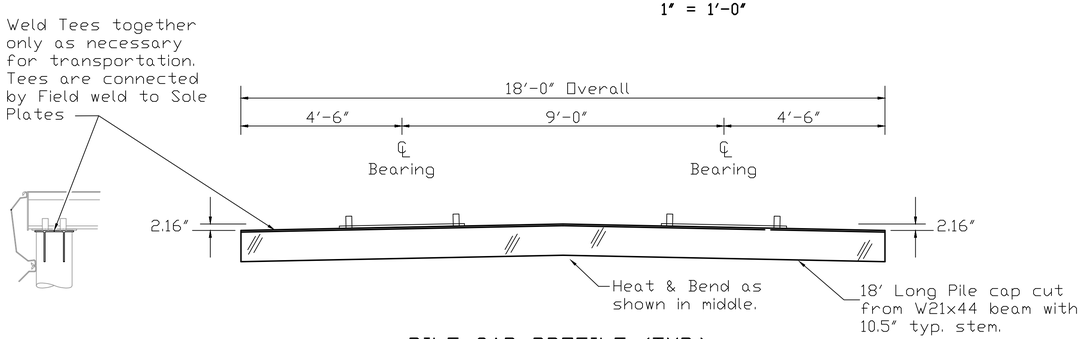
REGISTERED PROFESSIONAL ENGINEER
J. S. MORRIS
No. 46005
CIVIL
STATE OF CALIFORNIA

REFERENCES	DATE : 7/15/25 SCALE : SHOWN DRAWN : JSM CHECKED: CNM M.E. JOB NO : 23-130	MORRIS ENGINEERING 1451 RIDGEVIEW DRIVE, UKIAH, CA 95482 norbridges@sbcglobal.net www.jmstructures.com		BRIDGE NO.	BIG CREEK BRIDGE REHABILITATION
				POST MILE	ABUTMENTS PLAN AND ELEVATION
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3			Disregard prints bearing earlier revision dates →	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET B4 OF 9



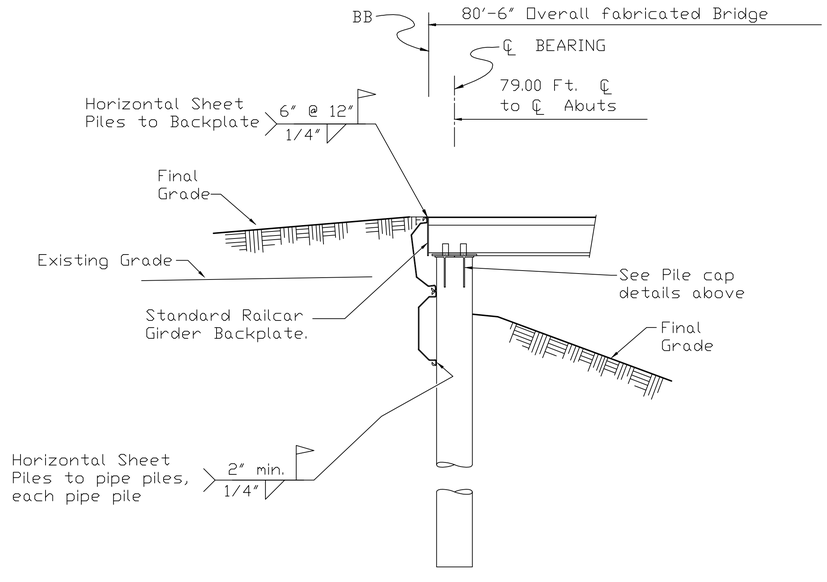
PILE CAP SECTION (TYPICAL)

1" = 1'-0"



PILE CAP PROFILE (TYP.)

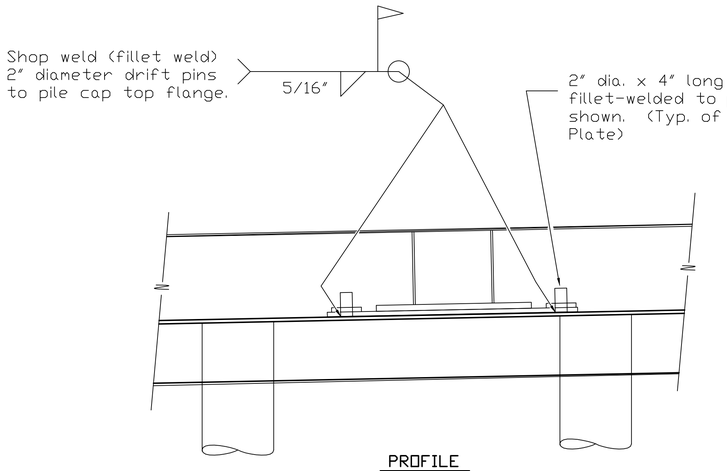
1" = 2'-0"



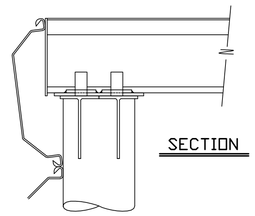
BRIDGE BACKWALL (TYPICAL)

D

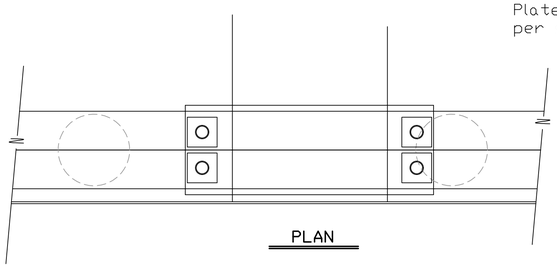
1" = 2'-0" B4 | B5



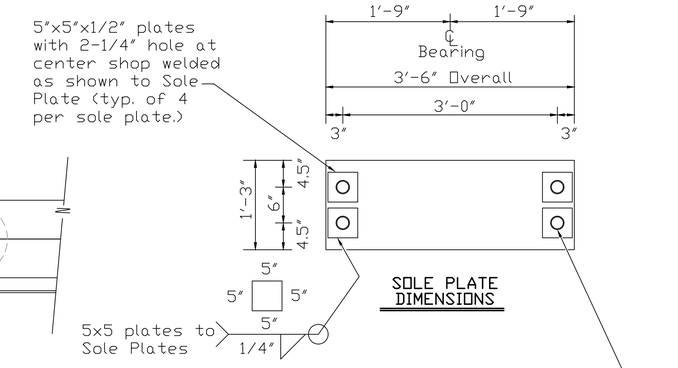
PROFILE



SECTION



PLAN

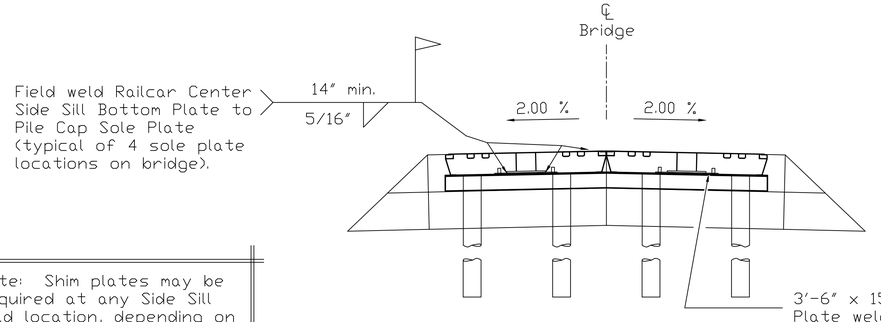


PILE CAP SOLE PLATE PLAN, PROFILE AND SECTION

C

1" = 1'-0" B5

Provide 2-1/4" holes in Sole Plates as shown. Provide approx. 3/8" chamfer at bottom of holes so plate does not conflict with welds. Chamfer may be ground or cleanly flame-cut.



Note: Shim plates may be required at any Side Sill weld location, depending on the elevation and condition of the Side Sill at that location.

FIELD WELDING GIRDERS TO PILE CAP SOLE PLATE

1" = 4'-0"

7/15/2025
JEFFREY S. MORRIS DATE

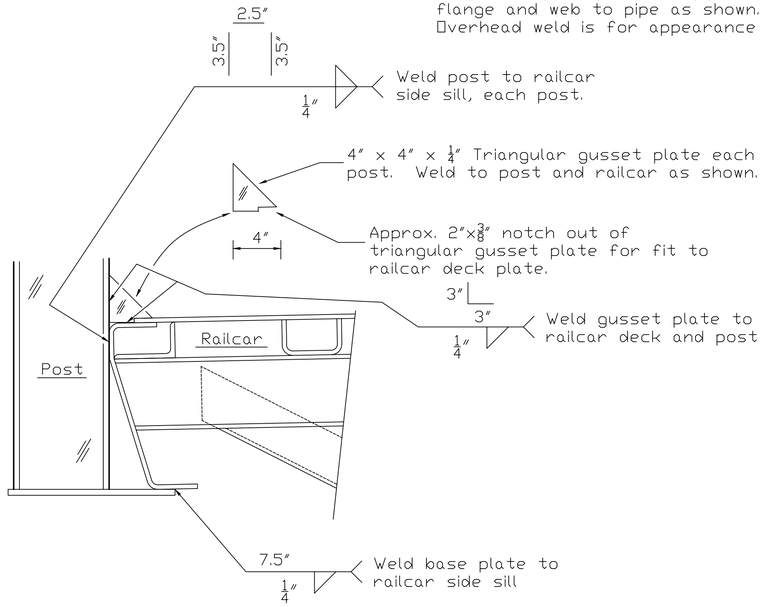
REGISTERED PROFESSIONAL ENGINEER
J. S. MORRIS
No. 46005
CIVIL
STATE OF CALIFORNIA

REFERENCES	DATE : 7/15/25	MORRIS ENGINEERING	BRIDGE NO.	BIG CREEK BRIDGE REHABILITATION
1.	SCALE : SHOWN	1451 RIDGEVIEW DRIVE, UKIAH, CA 95482		
	DRAWN : JSM		POST MILE	ABUTMENT TYPICAL SECTION
	CHECKED: CNM			
	M.E. JOB NO : 23-130	norbridges@sbcglobal.net www.jmstructures.com		

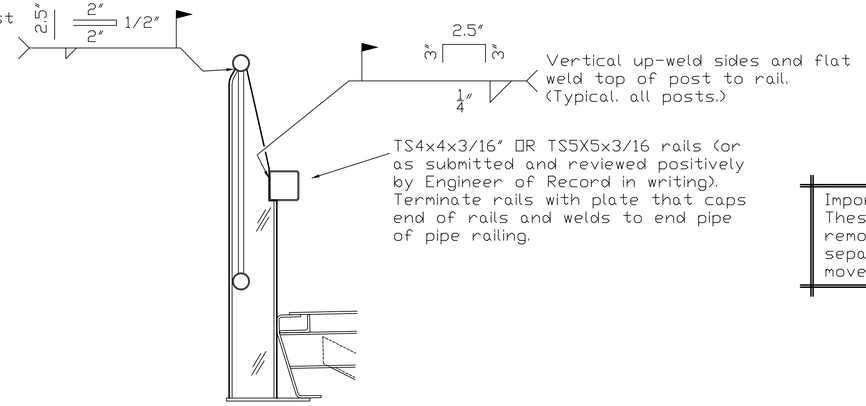
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

Disregard prints bearing earlier revision dates →

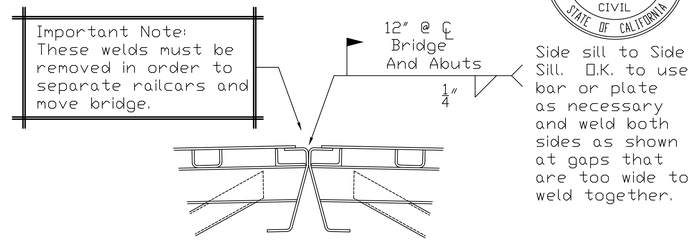
REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF
	B5	9



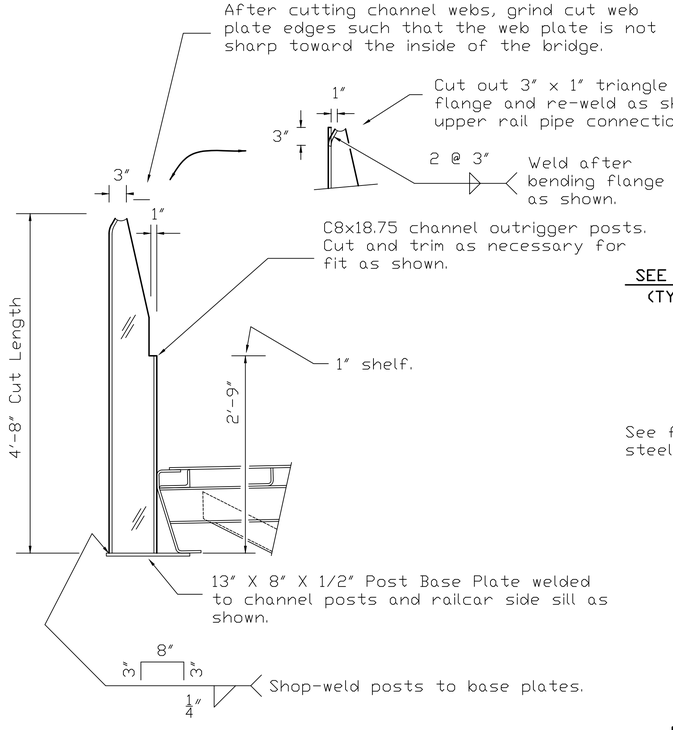
POST CONNECTION D
No Scale B6 B6



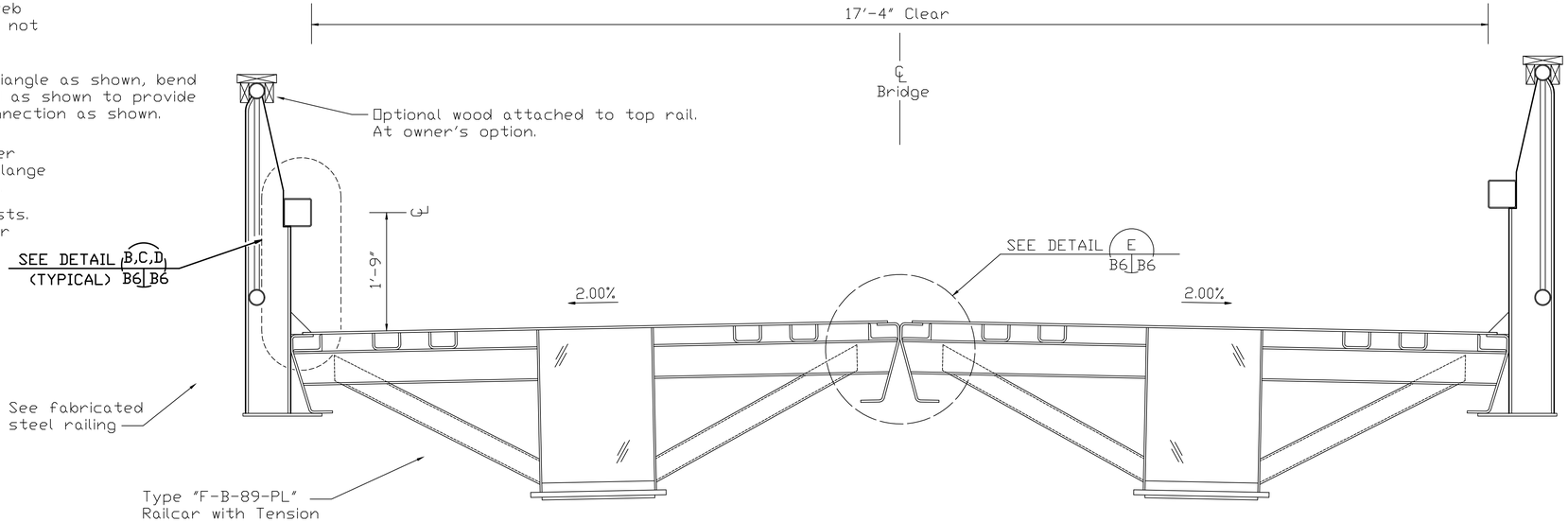
RAILING WELDING TYPICAL SECTION C
1″ = 1′-0″ B6



DECK CENTER CONNECTION DETAIL E
1″ = 1′-0″ B6 B6



POST ELEMENTS TYPICAL SECTION B
1″ = 1′-0″ B6



FULL SECTION A
1″ = 1′-0″ B6

WELDING GENERAL NOTES:

1. Fillet welds with sizes not shown on this sheet shall be 1/4″ fillet welds (typ).

2. Details shown this sheet are generally typical details.

J. S. MORRIS 7/15/2025
JEFFREY S. MORRIS DATE

REGISTERED PROFESSIONAL ENGINEER
J. S. MORRIS
No. 46005
CIVIL
STATE OF CALIFORNIA

REFERENCES	DATE : 7/15/25	MORRIS ENGINEERING	BRIDGE NO.	BIG CREEK BRIDGE REHABILITATION
1. .	SCALE : SHOWN	1451 RIDGEVIEW DRIVE, UKIAH, CA 95482		
	DRAWN : JSM	norbridges@saber.net www.jnstructures.com	POST MILE	SECTION
	CHECKED: CNM			
	M.E. JOB NO : 23-130			

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

Disregard prints bearing earlier revision dates →

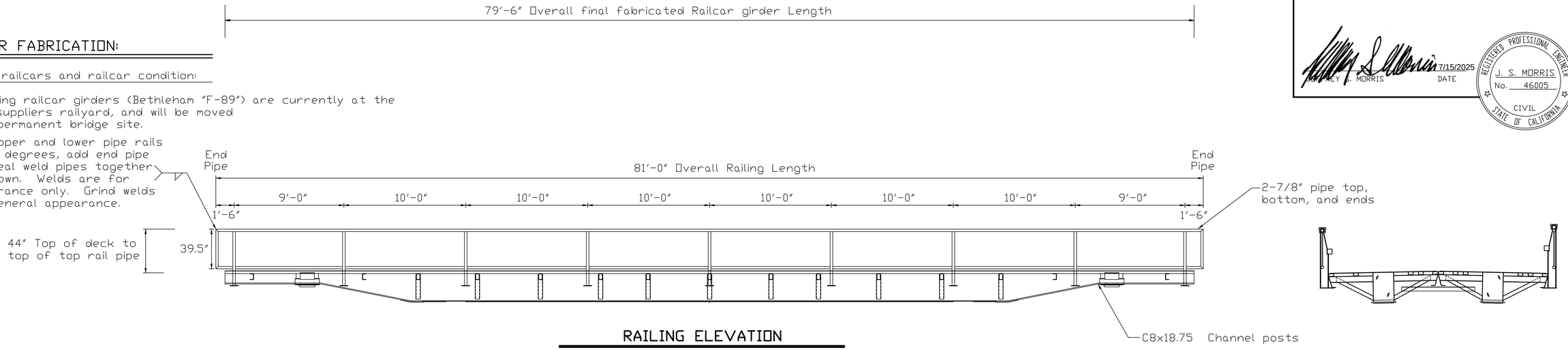
REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF
	B6	8

RAILCAR FABRICATION:

Existing railcars and railcar condition:

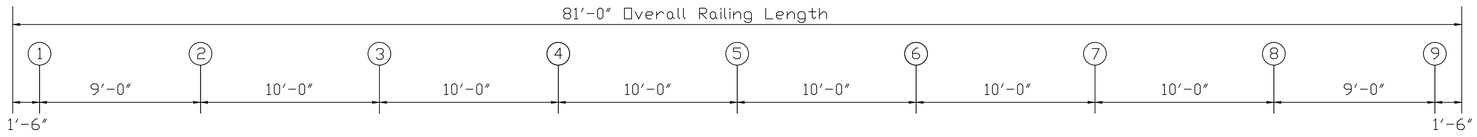
1. Existing railcar girders (Bethleham "F-89") are currently at the railcar suppliers railyard, and will be moved to the permanent bridge site.

Cut upper and lower pipe rails at 45 degrees, add end pipe and seal weld pipes together as shown. Welds are for appearance only. Grind welds for general appearance.

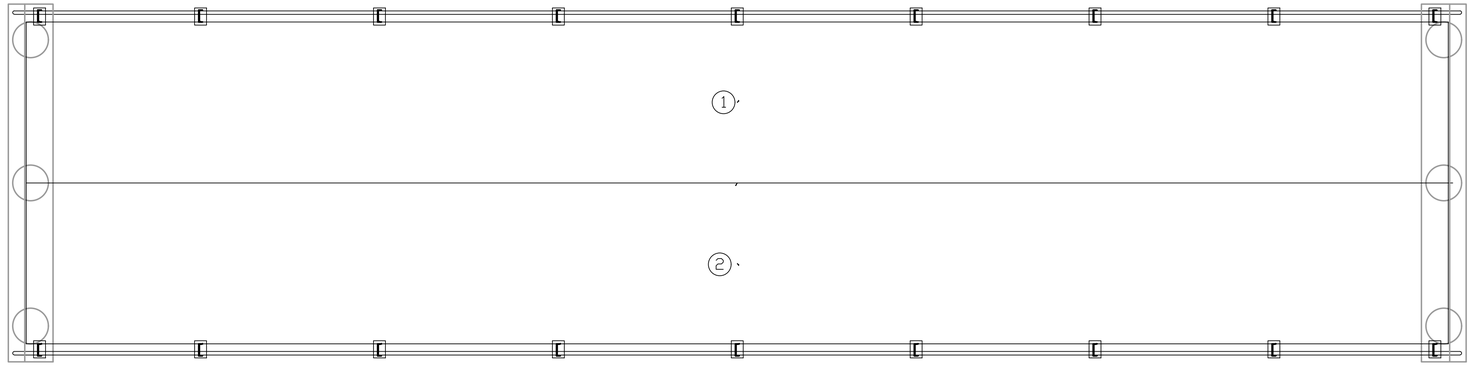


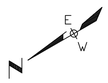
RAILING ELEVATION

1" = 4'-0"

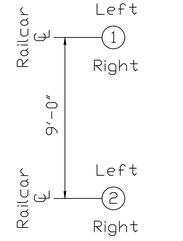


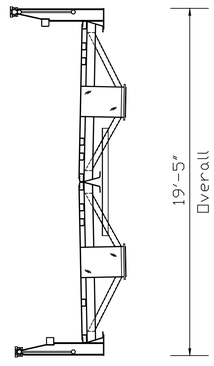
SECTION





RAILCAR GIRDER NUMBERING





SECTION

Railing Elements and Welding:

Traffic Rails:	TS 4 x 4 x 1/4 or 5 x 5 x 3/16" Square Tube
Top, End Rails:	2-7/8" (OD) x 3/16" pipe
Posts:	C8 x 13.75 A36

- Rail pipes shall be match-cut at 90 degree intersections and welded all-around.
- Railing welds and details are "appearance" welds and details, yet have significant structural strength.
- Terminate 4x4 or 5x5 Traffic Rails at end pipe posts with a 6" x 8" x 1/4" plate welded to the ends of the 4x4 rails at 45 degrees (in plan view) and terminated by welding end of plate to posts

RAILING LAYOUT PLAN

1" = 4'

Railing may be pre-fabricated or built at the site at contractor's option.

J. S. MORRIS 7/15/2025
JEFFREY S. MORRIS DATE

REGISTERED PROFESSIONAL ENGINEER
J. S. MORRIS
No. 46005
CIVIL
STATE OF CALIFORNIA

REFERENCES	DATE : 7/15/25 SCALE : SHOWN DRAWN : JSM CHECKED: CNM M.E. JOB NO : 23-130	MORRIS ENGINEERING 1451 RIDGEVIEW DRIVE, UKIAH, CA 95482 norbridges@sbcglobal.net www.jmstructures.com	BRIDGE NO.	BIG CREEK BRIDGE REHABILITATION
			POST MILE	DETAILS SHEET NO. 1

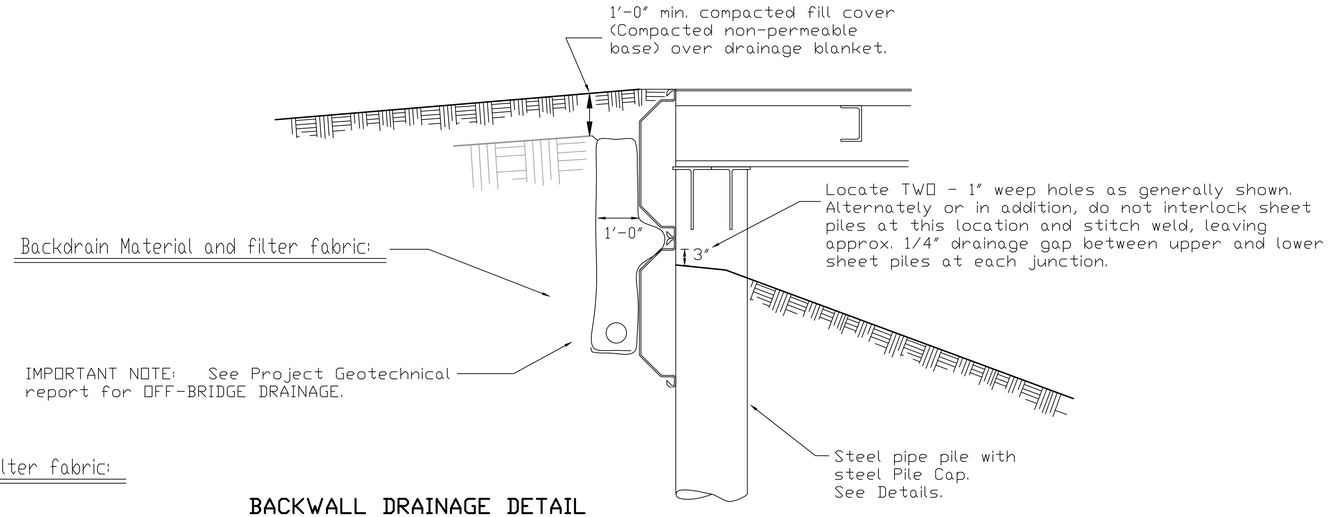
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

Disregard prints bearing earlier revision dates

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET B7 OF 9

Note: This diagram and all details shown on these plans regarding soils are approximate only. See Soils investigation and report for recommendations and actual soils information.



Backdrain Material and filter fabric:

See Geotechnical Report

BACKWALL DRAINAGE DETAIL

NO SCALE

IMPORTANT NOTE: FOR THIS PROJECT, WITH MINIMAL FILL AT THE BRIDGE SITE, GENERALLY ALL COMPACTED FILL IS ANTICIPATED TO BE FREE-DRAINING SPECIAL BACKFILL, COMPACTED AS A BACKDRAIN AND AS A ROADWAY. THE SHEET PILE WALLS SHOWN ARE VERY PERMEABLE (SHEET PILES ARE NOT INTERLOCKED, AND DRAIN AT ALL JOINTS). AS SUCH, THE BACKDRAIN FABRIC, ETC SHOWN GENERALLY MAY NOT BE NECESSARY IF ALL BACKFILL IS GRANULAR - PERMEABLE WHERE APPROPRIATE, NON-PERMEABLE WHERE APPROPRIATE. SEE GEOTECHNICAL REPORT AND INSTALL ANY ADDITIONAL MATERIAL SHOWN OR NOT SHOWN IN THIS DETAIL AT THE DIRECTION OF THE GEOTECHNICAL ENGINEER.

JEFFREY S. MORRIS 7/15/2025 DATE

REGISTERED PROFESSIONAL ENGINEER — J. S. MORRIS — No. 46005 — CIVIL — STATE OF CALIFORNIA

County of Santa Cruz Community Development & Infrastructure — **Special Inspections** — Form PLG-240 1 of 7 Rev 10/2024

PLG-240 must be on the plan sheets. Documents cannot be restricted by digital signatures or otherwise.

A. Statement of Special Inspections

Permit No.:
APN: 057-141-108
Project Address: Big Creek Road, Davenport, CA 95017

Reserved for County Stamp

Form Submittal
The Owner or Owner's Agent, on the advice of the Registered Design Professional in Responsible Charge, must complete this form, secure signatures by ***all parties***, and incorporate *all pages onto the plan sheets.*

2022 California Building Code
This form lists aspects of the project that require special inspection and testing as indicated in the California Building Code Section 1704 and 1705 and defines duties and responsibilities of parties involved in the project.

Duties & Responsibilities. The Owner and Contractor acknowledge assignment of the following duties, responsibilities, and conditions applicable to special inspection or testing:

Owner
1. Ensures that construction complies with the approved permit documents and implements the program of special inspections.

Contractor
1. Ensures proper notification to the special inspection or testing agency for items listed herein.
2. Reviews the Building Division approved permit documents for additional inspection or testing requirements. A pre-construction conference at the job site is recommended to review special inspection procedures.

Special Inspection/Testing Agency
1. Provides copies of all laboratory reports and inspections to the Building Division and Registered Design Professional in Responsible Charge on a weekly basis. Only the testing laboratory may take samples and transport them to their laboratory.
2. Submits for the Building Division's approval an Inspector List that shows the names and qualifications of on-site special inspectors who are NOT on the County's pre-approved list.
3. Provides each special inspector with an identification badge that includes:
   → Name and photograph
   → Areas that the Inspector is qualified to inspect
   → An authorization signature by the Registered Engineer who is a full-time employee of the agency
4. Provides the Final Report of Special Inspections that documents required special inspections and correction of discrepancies noted in inspections. A copy of this report must be kept at the job site for review by the County Inspector prior to final inspections. Per CBC section 1704.2.4 this report is required before an occupancy permit can be issued.

Special Inspectors
1. Must have their badge visible when performing their duties.
2. Must immediately notify the County Building Division upon encountering any concerns or problems.
3. Must use only the County Building Division's approved permit documents.

Acknowledgements Please print name, sign, & enter date

Registered Design Professional in Responsible Charge			
Name: Jeff Morris/Morris Engineering	Signature:		Date: 3/3/2025
Claiming Authority			
Name: Ken McClary	Signature:	Kenneth McClary	Date: 3/3/2025
Contractor			
Name: Jeff Morris/J.S. Morris Construction, Inc.	Signature:		Date: 3/3/2025

701 Ocean Street 4th Floor, Santa Cruz, CA 95060 | www.co.santacruz.county.ca.gov

County of Santa Cruz Community Development & Infrastructure — **Special Inspections** — Form PLG-240 2 of 7 Rev 10/2024

B. Special Inspection Agency, Material Testing Lab, Geotechnical

Firm Name: Kormacher Engineering, Inc.	Responsibility:	Shop and Field Welding Inspections
Person Name: Darwin Zachary or Stanley Chapmas		
Phone: (925) 454-9023		
Email: darwin@kormacheine.com		
Firm Name: Rock Solid Engineers, Inc.	Responsibility:	
Person Name: Yvette Wilson		Foundation Inspection
Phone: (831) 724-5868		
Email: yvette@rocksolidengineers.com		
Firm Name:	Responsibility:	
Person Name:		
Phone:		
Email:		

C. Contractor's Statement of Responsibility – CBC 1704.4

California Building Code (CBC) Section 1704.4 requires the Contractor responsible for the construction of a main wind or seismic force resisting system, designated seismic system, or a wind or seismic resisting components to submit a written statement of responsibility to the Building Official and the Owner prior to the commencement of work on the system or component. **The Contractor hereby acknowledges this responsibility regarding special requirements as described in the Summary of Special Inspections & Tests, Inspection Schedule, and County issued documentation and as prepared by the engineer of record or the registered design professional per the requirements of California Building Code Section 1704.3.**

Acknowledgement

Contractor: License No: 901643
Name: Jeffrey S. Morris Signature: Date: 3/3/2025

Special Inspections and Testing will be performed in accordance with the approved plans and specifications, the statement and CBC Sections 1704 and 1705. The Summary of Special Inspections & Tests summarizes the Special Inspections and tests required. Special Inspectors will refer to the approved plans and specifications for detailed special inspection requirements. Any additional tests and inspections required by the approved plans and specifications will also be performed.

Seismic Requirements – CBC 1704.3.2
The extent of the seismic-force-resisting system is defined in more detail in the construction documents:

Describe seismic-force-resisting system and designated seismic systems subject to special inspections per Section 1705.13:
N/A

Wind Requirements – CBC 1704.3.3
The extent of the main wind force-resisting system and wind resisting components is defined in more detail in the construction.

Describe wind-force-resisting system & designated wind resisting components subject to special inspections per Section 1705.12:
N/A

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County of Santa Cruz Community Development & Infrastructure — **Special Inspections** — Form PLG-240 3 of 7 Rev 10/2024

D. Summary Of Special Inspections & Tests

Identify special inspections/tests required by CBC chapter 17 for this project.
Additional detail regarding inspections and tests is provided in the project specifications or notes on the drawings. Describe and mark each required inspection/test as "C" or "P" or both as appropriate.

Inspection/Test Categories	Inspection/Test Descriptions	C	P
Special Cases – 1705.1.1		☐	☐
		☐	☐
Structural Steel – 1705.2.1	Kormacher / Shop and Field Weld Inspections for Bridge	☐	☒
	Kormacher / Field Weld Inspections for Piles	☐	☒
Cold-Formed Steel Deck – 1705.2.2		☐	☐
Open-Web Steel Joists & Joist Girders – 1705.2.3		☐	☐
Cold-Formed Steel Trusses Span ≥ 60 feet – 1705.2.4		☐	☐
Concrete – 1705.3		☐	☐
		☐	☐
		☐	☐
Masonry – 1705.4 (Level 1 TMS 602 Tables 3, Level 2 or 3 TMS 602 Tables 3, 4)		☐	☐

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County of Santa Cruz Community Development & Infrastructure — **Special Inspections** — Form PLG-240 4 of 7 Rev 10/2024

D. Summary Of Special Inspections & Tests

Identify special inspections/tests required by CBC chapter 17 for this project.
Additional detail regarding inspections and tests is provided in the project specifications or notes on the drawings. Describe and mark each required inspection/test as "C" or "P" or both as appropriate.

Inspection/Test Categories	Inspection/Test Descriptions	C	P
Wood – 1705.5		☐	☐
		☐	☐
Soils – 1705.6		☐	☐
		☐	☐
Driven Deep Foundation Elements – 1705.7	Rock Solid Engineers / Inspection of driven steel piles	☐	☒
Cast-in-Place Deep Foundation Elements – 1705.8		☐	☐
Helical Pile Foundations – 1705.9		☐	☐
		☐	☐
Wind Resistance – 1705.12		☐	☐
		☐	☐

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County of Santa Cruz Community Development & Infrastructure — **Special Inspections** — Form PLG-240 5 of 7 Rev 10/2024

D. Summary Of Special Inspections & Tests

Identify special inspections/tests required by CBC chapter 17 for this project.
Additional detail regarding inspections and tests is provided in the project specifications or notes on the drawings. Describe and mark each required inspection/test as "C" or "P" or both as appropriate.

Inspection/Test Categories	Inspection/Test Descriptions	C	P
Seismic Resistance – 1705.13		☐	☐
		☐	☐
Testing for Seismic Resistance – 1705.14		☐	☐
Sprayed Fire-Resistant Materials – 1705.15		☐	☐
Mastic & Intumescent Coatings – 1705.16		☐	☐
Exterior Insulation & Finish Systems (EIFS) – 1705.17		☐	☐
Fire-Resistant Penetrations & Joints – 1705.18		☐	☐
Smoke Control Systems – 1705.19		☐	☐
Sealing of Mass Timber – 1705.20		☐	☐
Other tests, inspections, or special instructions:		☐	☐

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REFERENCES

DATE	7/15/25
SCALE	SHOWN
DRAWN	JSM
CHECKED	CNM
M.E. JOB NO	23-130

MORRIS ENGINEERING
1451 RIDGEVIEW DRIVE — UKIAH, CA 95482
norbridges@saber.net www.jnstructures.com

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

Disregard prints bearing earlier revision dates

BRIDGE NO.

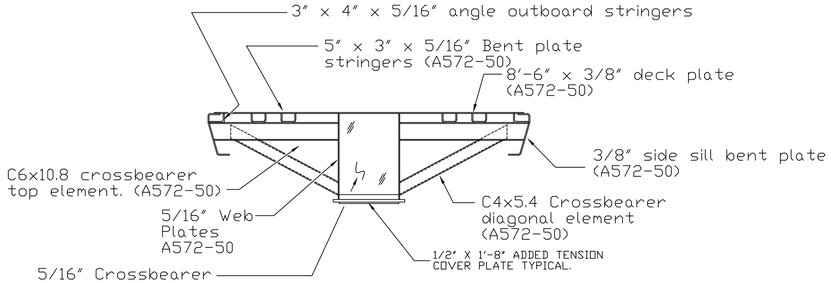
POST MILE

BIG CREEK BRIDGE REHABILITATION

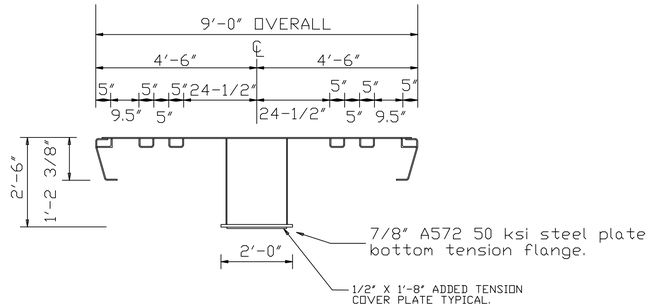
DETAILS SHEET NO. 2

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET B8 OF 9



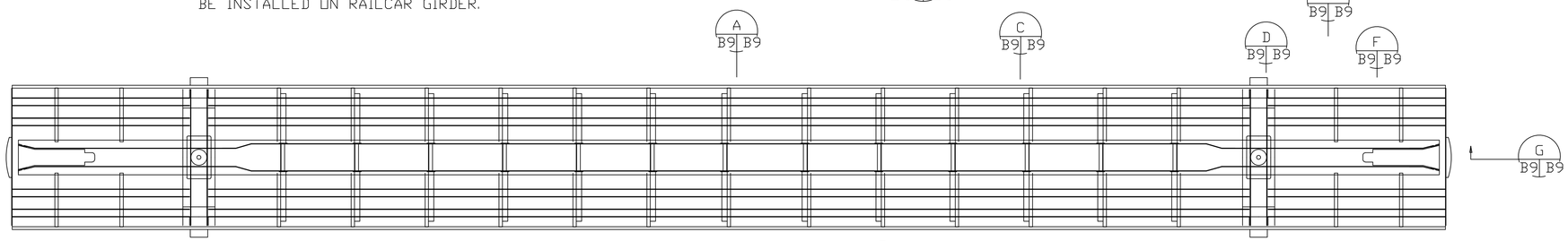
CROSSBEARER SECTION A
1" = 2'-0" B9 B9



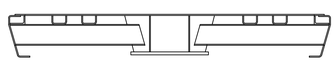
FULL DEPTH SECTION C
1" = 2'-0" B9 B9

RAILCAR PROFILE G
1" = 4'-0" B9 B9

ADDED TENSION COVER PLATE N
1/4" = 1'-0" B9 B9

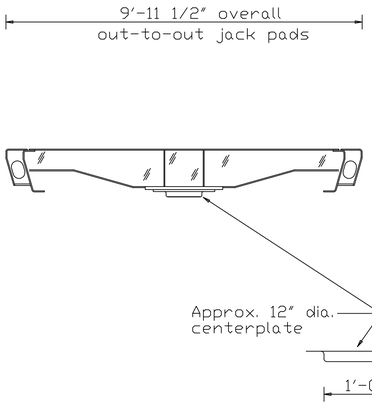


RAILCAR PLAN H
1" = 4'-0" B9 B9



END CROSSTIE SECTION E
1" = 2'-0" B9 B9

REDUCED SECTION F
1" = 2'-0" B9 B9



BOLSTER SECTION D
1" = 2'-0" B9 B9

RAILCAR INFORMATION NOTE:

THE INFORMATION SHOWN ON THIS SHEET IS FROM MANY VARIOUS SOURCES, AND IS NOT INTENDED TO EXACTLY REPRESENT EACH TYPE "FB" RAILCAR. EACH TYPE "FB" RAILCAR IS EXPECTED TO VARY SLIGHTLY OR POSSIBLY SIGNIFICANTLY FROM THE DETAILS SHOWN DUE TO FABRICATION DIFFERENCES, DESIGN REVISIONS, ETC. ACTUAL DESIGN WILL BE BASED ON THE ACTUAL GIRDER SUPPLIED. ALL INFORMATION SHOWN ON THIS PLAN IS:

JEFFREY S. MORRIS 7/15/2025 DATE

REGISTERED PROFESSIONAL ENGINEER
J. S. MORRIS
No. 46005
CIVIL
STATE OF CALIFORNIA

REFERENCES	DATE : 7/15/25	MORRIS ENGINEERING	BRIDGE NO.	BIG CREEK BRIDGE REHABILITATION
1. .	SCALE : SHOWN	1451 RIDGEVIEW DRIVE, UKIAH, CA 95482	POST MILE	RAILCAR GIRDER TYPE FB-89-PL
	DRAWN : JSM	norbridges@saber.net www.jmstructures.com		
	CHECKED: CNM			
	M.E. JOB NO : 23-130			

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

Disregard prints bearing earlier revision dates →

REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF
	B9	9

BRIDGE SPECIAL DESIGN AND CONSTRUCTION PROVISIONS:

General:

The Big Creek Bridge is a Railcar Bridge replacement for an existing temporary railcar bridge. The existing temporary bridge replaced a permanent bridge that was damaged in the August 2020 CZU Lightning fires.

The bridge will be used to access a few residences on Big Creek Road. It is also expected to be used for logging access. With the completion of the bridge to the fish hatchery, which is located about 1/2 mi. upstream, traffic to the fish hatchery is expected.

This sheet of the drawings is intended to address the Special Bridge Design and Construction issues with notes that apply to this particular bridge at this particular site.

1. Debris flow (Scour / Rootballs / Log Jams):

Some of the bridges Morris Engineering has designed over the years in the Santa Cruz area include:

1. Soquel State Forest Crossing 17 (Soquel Creek at Amaya Creek -1995)
2. Soquel State Forest Crossing 16 (Not built)
3. La Honda Road Bridge over San Gregorio Creek - Built 1999
4. Redwood Empire Logging Bridge over Soquel Creek - Built 2010
5. Girl Scout Camp Bridge over Butano Creek - Built 2019
6. Logging Bridge over West Branch Soquel Creek - (Burton, Design 2023)
7. McCrary Bridge over Big Creek - (Design 2023)

This is in addition to hundreds of other bridges in San Mateo, Santa Clara, Marin, Sonoma, Mendocino and many other counties in Southern California and other states. In addition to providing the original Hydraulic and Hydrologic design of these bridges, this has allowed us over 30 years of watching each site and working with the owners, as well as other sites, for Debris Flow, Scour, and other related problems. While the recent fires present a fresh challenge, it is not a new challenge, and each of the above bridges has had, or will have an extreme event story.

There is a new report available (Atkins Study) to consider for design of all of Santa Cruz County including the current Bridge (Mc Crary Bridge over Big Creek). We have reviewed the general report, and reviewed the specific predictions in the Big Creek Bridge general area.

We have increased the clear-span width of the bridge from about 50 feet to about 80 feet. We have designed the bridge with driven pipe pile foundations (driven deep, ductile pipe and far back from the current channel). The bridge is an all-steel, orthotropic deck steel box girder bridge, so our span-to-depth ratio is far better than any other bridge type. We have located the bridge above the 100-year Water Surface. However, if we increase the height of the bridge higher than it is, the approach fills will significantly block the overbank of the Big Creek area, which is a worse condition than increasing the bridge height. Based on observations, as well as discussions with Ken McCrary, Big Creek has wandered across the valley in many locations over the past few decades. That natural tendency of the Creek to find a different course will be preferred over raising the bridge higher than above the 100-year water surface. In order to allow this natural process to continue, we have minimized the approach fills and designed the bridge superstructure to be simple to remove, if necessary. Since the bridge is an orthotropic-deck all-steel box girder bridge, it is perfectly suited for this. In the Appendix of the Structural Calculations for this bridge is a description of a similar removable bridge over the Sacramento River in Colusa California, as well as a brief explanation of how it works.

2. Welding and Welding Inspection:

Superstructure Welding:

The simplicity of the Railcar Bridge generally allows all welds on the bridge Superstructure to be simple single-pass fillet welds. As such, the finished welds will be generally reviewed by the Welding Inspector after the superstructure is fabricated.

The Pile Cap and Sole Plates are also fabricated with single-pass fillet welds, to be inspected when the Superstructure is inspected.

Pipe Pile Welding:

The pipe piles are best joined with a full-penetration groove weld as shown. The overall length of the pipe piles, as well as other important pile-driving parameters, will determine the number of splices that will be needed. That overall length will be determined during driving.

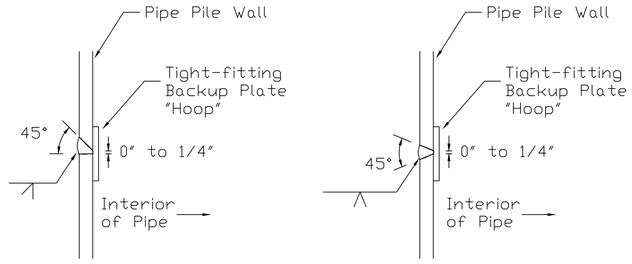
The splice shown is the standard for J.S. Morris Construction, Inc. for 12" pipe pile splices. In the past few years, many similar splices (on the order of 100) have been performed on similar projects. Splices are generally performed as shown in the drawings. As a minimum, the following is included on the drawings for weld inspection.

A. WELDING: WELDING INSPECTION SHALL BE AS FOLLOWS:
1. THE FIRST DAY OF SHOP OR FIELD WELDING, THE INSPECTOR SHALL REVIEW WELDERS AND WELDING.
2. AT TIMES DURING WELDING, AT LEAST ONCE IN THE FIELD, INSPECTOR SHALL REVIEW WELDING.
3. AFTER COMPLETION OF FIELD WELDING, INSPECTOR SHALL REVIEW WELDING AND ALL SPECIFIED WELDS.

WELD INSPECTOR SHALL BE:

Korbmacher Engineering, Inc.
480 Preston Ct. Suite B
Livermore, CA 94551
(925) 454-9033 Office
ATTN: Ryan Dean
ryan@korbmacherinc.com

The Pipe Pile weld inspections will be provided by the Weld Inspector. However, the Owner (McCrary) and Structural Engineer of Record (Morris) will also be involved. Record Photographs and/or Videos of the prepared joint before splicing, as well as after welding, are anticipated. All photographs of joints will be Labeled as follows: (First = Pile Number (#) from Foundation Plan (B3 of the Drawings)). (Second = Joint number from tip (tip = "0")) (Third = view of joint ("Front", "Left", "Back", "Right"). "Front" is looking upstation (from Abut 1 toward Abut 2), "Left" is the left side looking upstation, and so forth. The Label should be printed with a paint crayon (Red, Green, Blue), and should be clearly readable in the photograph. An example is Label is "1-3-Front". (Pile #1, Joint #3, Front).



Single Bevel-Groove Single Vee-Groove

Note: Either of the above-shown weld details is acceptable for pipe pile butt joint welded splices.

1. Single Vee-Groove permitted for all positions.
2. Single Bevel-Groove permitted for Horizontal Joints only.

PIPE PILE WELDING DETAIL - BUTT JOINTS

No Scale

3. Pile Driving and Pile Driving Inspection:

Soil borings for the project generally show layers, with significant changes at each layer. Two soil borings have been provided: Boring_1 (B1 - at Abut 1) and Boring_2 (B2 - at Abut 2). B1 encountered various layers, with blow counts (SPT "n" value) of about 25, although there are blow counts as high as 50 in layers, until about 42 feet, where the beginning of dense sands (consistent blow count of 50) were encountered. The sand appears to get slightly denser with depth to the end of the boring at about 51 feet. Abutment 2 boring (B2) appears to generally have lower blow counts than B1 in the various layers (Typically about 10, but with some at 23 to 28 and as high as 31), but without the dense sands at the end of the boring at about 55 feet. The material is generally consistently loose to medium-dense sands, less dense than B1.

These soils are difficult for any structure, and prone to liquefaction in a seismic event. Based on discussions with the Geotechnical Engineer and as generally described in the Geotechnical Report, the piles will be driven to bearing using blow counts at the completion of driving (see Structural Calculations, Shts. PG1 - PG5). However, in addition to the blow count requirement is a general requirement for Embedment Depth. Generally as discussed and as shown in the Structural Calculations, it is expected that the tip of the piles, after driving, will be at a minimum of 45 feet Below Ground Surface (BGS) at Abut 1 (TIP EL = 26.00) and 55 feet BGS at Abut. 2 (TIP EL. E 15.00). These recommendations, as well as the capacities in the table, work well for the number of piles at each abutment, as well as necessary capacities. The tip requirement is based on embedment in a dense layer at the tip, together with downdrag that may occur, will minimize settlement due to liquefaction. As shown in the report, the densification expected is an estimate only. Further, the capacity of the actual piles will be verified by actual driving records. Videos of pile driving are anticipated.

In order to generally meet the above criteria, The contractor is expected to begin driving with an MKT 9B3 Impact Air Hammer (Energy 8750 ft-lbs, pile capacity at refusal = 102 tons). It is expected that the piles will be finished at some point with a Dawson 2500 impact Hydraulic Hammer (Energy 18,439 ft-lbs, pile capacity at refusal = 176 tons).

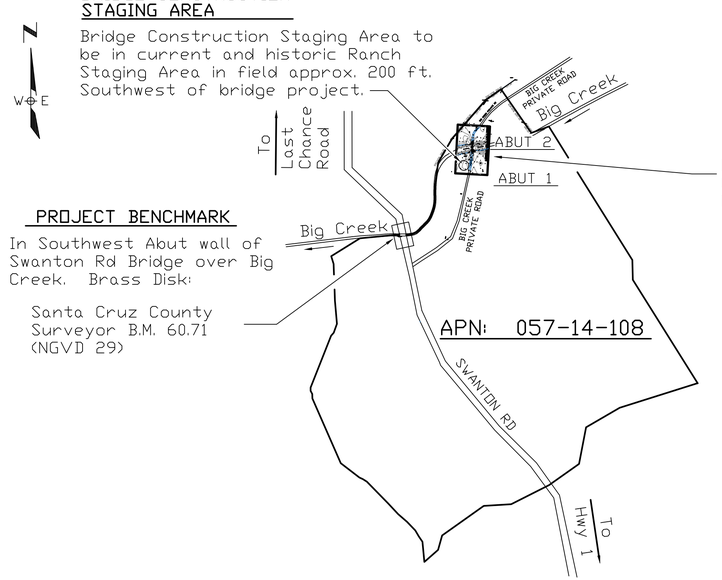
The pile driving and construction review is expected to be a cooperative effort of the Owner, Geotechnical Engineer, Structural Engineer of Record, and the construction Contractor.

JEREY S. MORRIS 7/15/2025 DATE

REFERENCES	DATE : 7/15/25	MORRIS ENGINEERING		BRIDGE NO.	BIG CREEK BRIDGE REHABILITATION
1. .	SCALE : SHOWN	1451 RIDGEVIEW DRIVE, UKIAH, CA 95482		POST MILE	CLARIFICATIONS, SPECIAL PROVISIONS, AND CHANGES TO THE DRAWINGS
	DRAWN : JSM	norbridges@saber.net www.jnstructures.com			
	CHECKED: CNM				
	M.E. JOB NO : 23-130				
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3			Disregard prints bearing earlier revision dates →	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET X1 OF 1

BRIDGE CONSTRUCTION STAGING AREA

Bridge Construction Staging Area to be in current and historic Ranch Staging Area in field approx. 200 ft. Southwest of bridge project.



Existing Temporary Bridge over Big Creek, to be replaced by permanent Railcar Bridge shown in these Plans.

PROJECT BENCHMARK

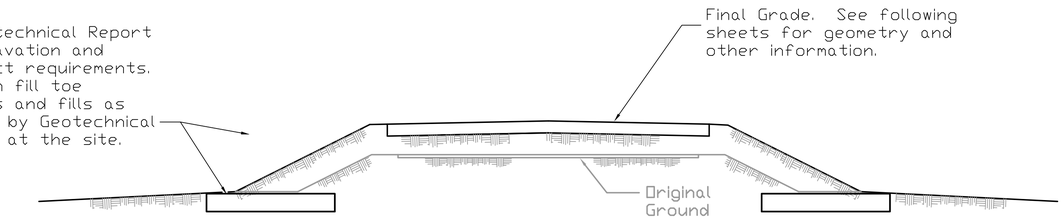
In Southwest Abut wall of Swanton Rd Bridge over Big Creek. Brass Disk:

Santa Cruz County Surveyor B.M. 60.71 (NGVD 29)

BRIDGE LOCATION ON PROPERTY

1" = 500'

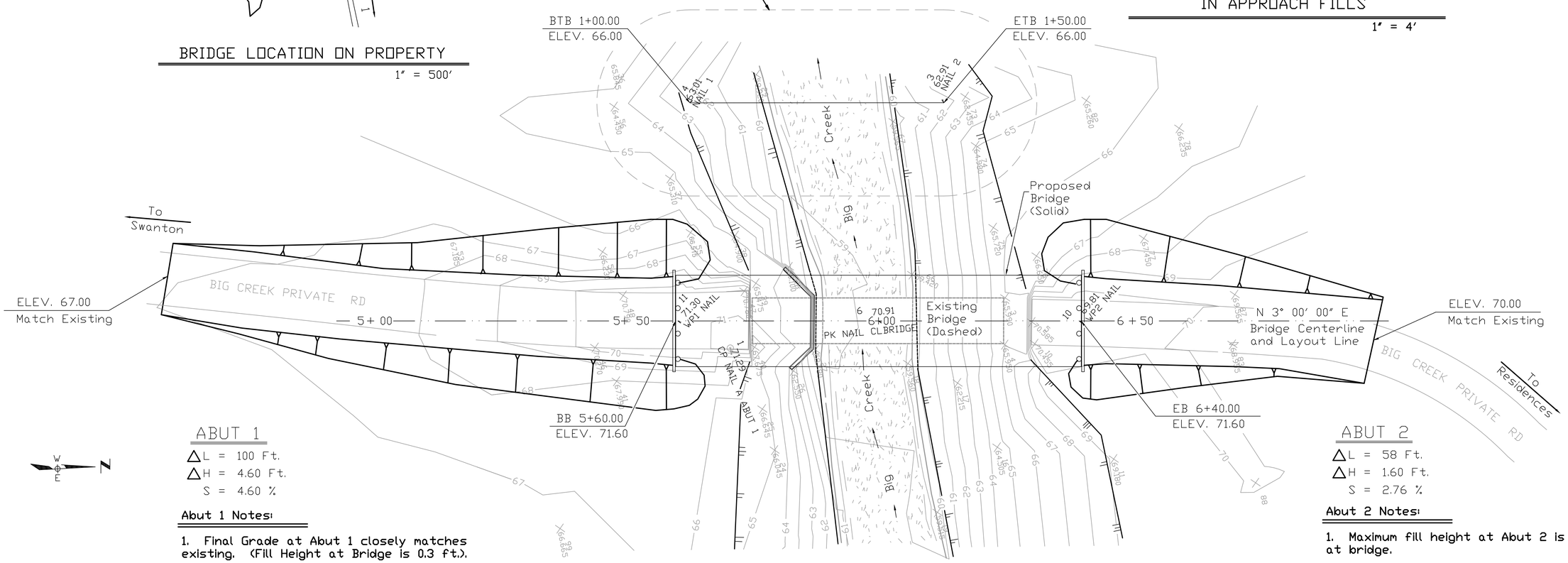
See Geotechnical Report for excavation and recompact requirements. Approach fill toe trenches and fills as directed by Geotechnical Engineer at the site.



EXCAVATE AND RECOMPACT REQUIREMENTS IN APPROACH FILLS

1" = 4'

SEE DETAIL A (TEMPORARY BRIDGE) C1 C3



APPROACH GRADING PLAN

1" = 10'-0"

ABUT 1

△L = 100 Ft.
△H = 4.60 Ft.
S = 4.60 %

Abut 1 Notes:

1. Final Grade at Abut 1 closely matches existing. (Fill Height at Bridge is 0.3 ft.).
2. Provide minor vertical curve at Bridge and at Conform to existing road to match existing.

ABUT 2

△L = 58 Ft.
△H = 1.60 Ft.
S = 2.76 %

Abut 2 Notes:

1. Maximum fill height at Abut 2 is 1.8 Ft. at bridge.
2. Provide minor vertical curve at Bridge and at Conform to existing road to match existing.

JEFFREY S. MORRIS 7/15/2025 DATE

REGISTERED PROFESSIONAL ENGINEER — J. S. MORRIS No. 46005 CIVIL — STATE OF CALIFORNIA

REFERENCES

DATE : 7/15/25
SCALE : SHOWN
DRAWN : JSM
CHECKED: CNM
M.E. JOB NO : 23-130

MORRIS ENGINEERING
1451 RIDGEVIEW DRIVE — UKIAH, CA 95482
norbridges@saber.net www.jnstructures.com

BRIDGE NO.
POST MILE

BIG CREEK BRIDGE REHABILITATION

BRIDGE ON SITE

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

Disregard prints bearing earlier revision dates

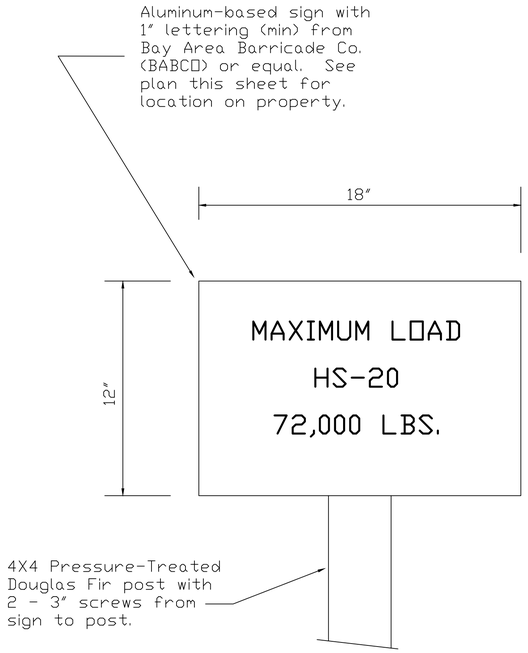
REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF
	C1	3

APPROXIMATE QUANTITIES- EXCAVATION AND BACKFILL

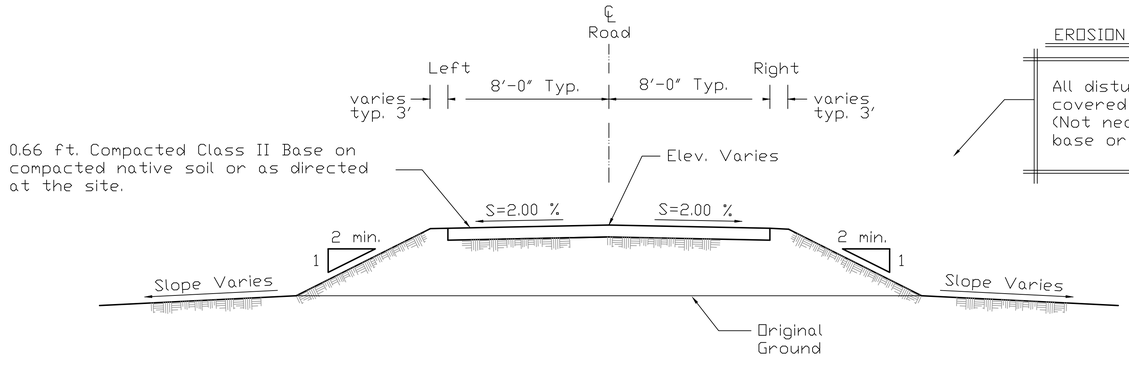
IMPORTANT NOTE: UNLESS AGREED OTHERWISE WITH OWNER, OWNER SHALL PROVIDE EXCAVATION AND BACKFILL. CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT OWNER AND ARRANGE FOR ANY EQUIPMENT NECESSARY FOR EXCAVATION AND BACKFILL OPERATIONS THAT WILL AFFECT CONTRACTOR'S OPERATIONS.

DESCRIPTION	APPROXIMATE QUANTITY
EXCAVATION - ABOVE TRENCH ELEVATION	None
ABUTMENT BACKFILL:	300 CY (Very Approximate - Owner / Contractor should anticipate 500 CY or more depending on actual removal of existing material, etc.
CLASS II BASE - SEE DETAIL IN BRIDGE PLANS (both abuts)	AS REQ'D
APPROACH ROCK BARRIER	AS SHOWN

Important Note: Contractor responsible for grading shall understand that the above quantity is very approximate, and may vary significantly. Grading shall be as needed, and may require additional work depending on actual site conditions. Contractor and Owner shall expect as-needed contingencies in the grading.



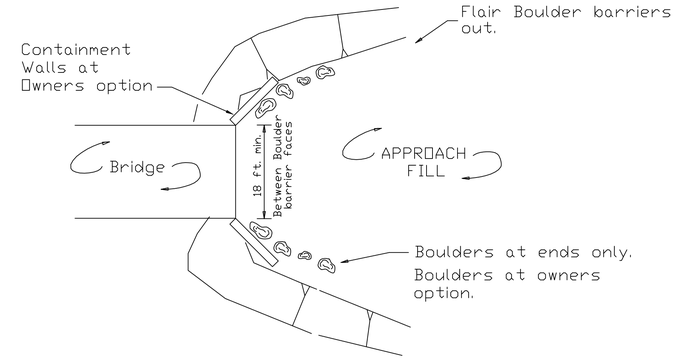
BRIDGE WEIGHT LIMIT SIGN
No Scale



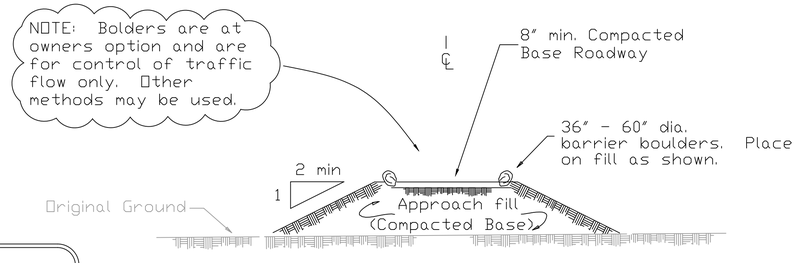
TYPICAL ROADWAY SECTION THROUGH FILL
1" = 4'

EROSION PROTECTION:

All disturbed soil shall be covered with hay straw or equal. (Not necessary to cover road base or gravel).



BOULDER APPROACH BARRIER PLAN
No Scale



OPTIONAL BOLDERS ON APPROACH FILL
No Scale

Approximate limits of re-grading and demolition shall be approximately at toes of fills. Grading shall be done as generally shown this sheet unless directed otherwise at the site due to site conditions.

J. S. MORRIS 7/15/2025
JEFFREY S. MORRIS DATE

REGISTERED PROFESSIONAL ENGINEER
J. S. MORRIS
No. 46005
CIVIL
STATE OF CALIFORNIA

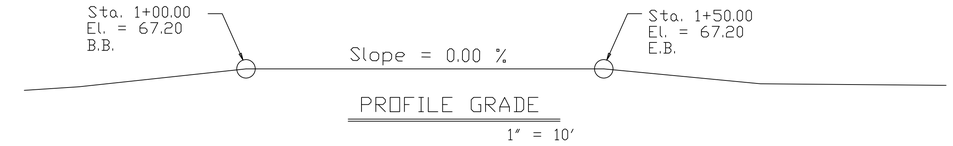
REFERENCES	DATE : 7/15/25	MORRIS ENGINEERING	BRIDGE NO.	BIG CREEK BRIDGE REHABILITATION
1.	SCALE : SHOWN	1451 RIDGEVIEW DRIVE, UKIAH, CA 95482	POST MILE	GRADING DETAILS 1
	DRAWN : JSM	norbridges@sbcglobal.net www.jmstructures.com		
	CHECKED: CNM			
	M.E. JOB NO : 23-130			

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

Disregard prints bearing earlier revision dates

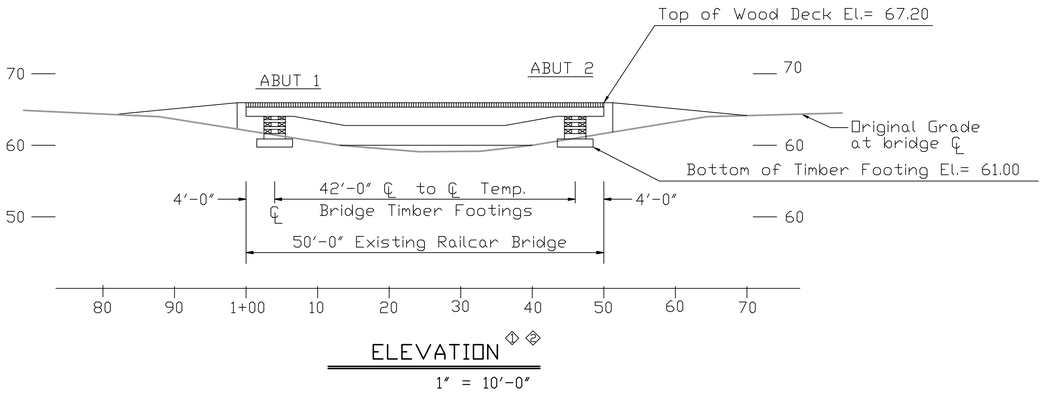
REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET	OF
C2	3



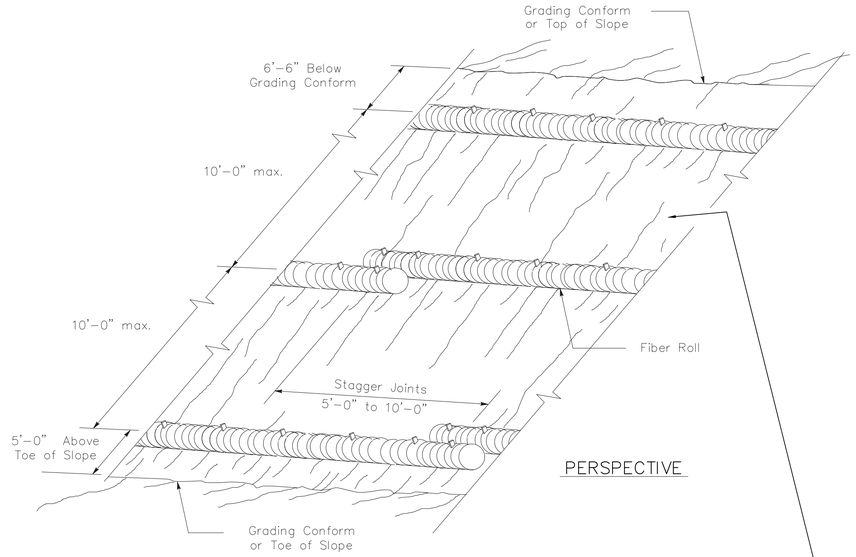
PROFILE GRADE

1" = 10'



ELEVATION ◇ ◇

1" = 10'-0"



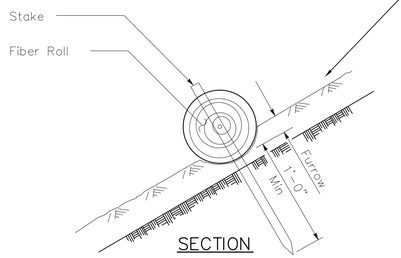
PERSPECTIVE

FIBER ROLL (TYPE 1)

TYPE 1 SLOPE PROTECTION

No Scale

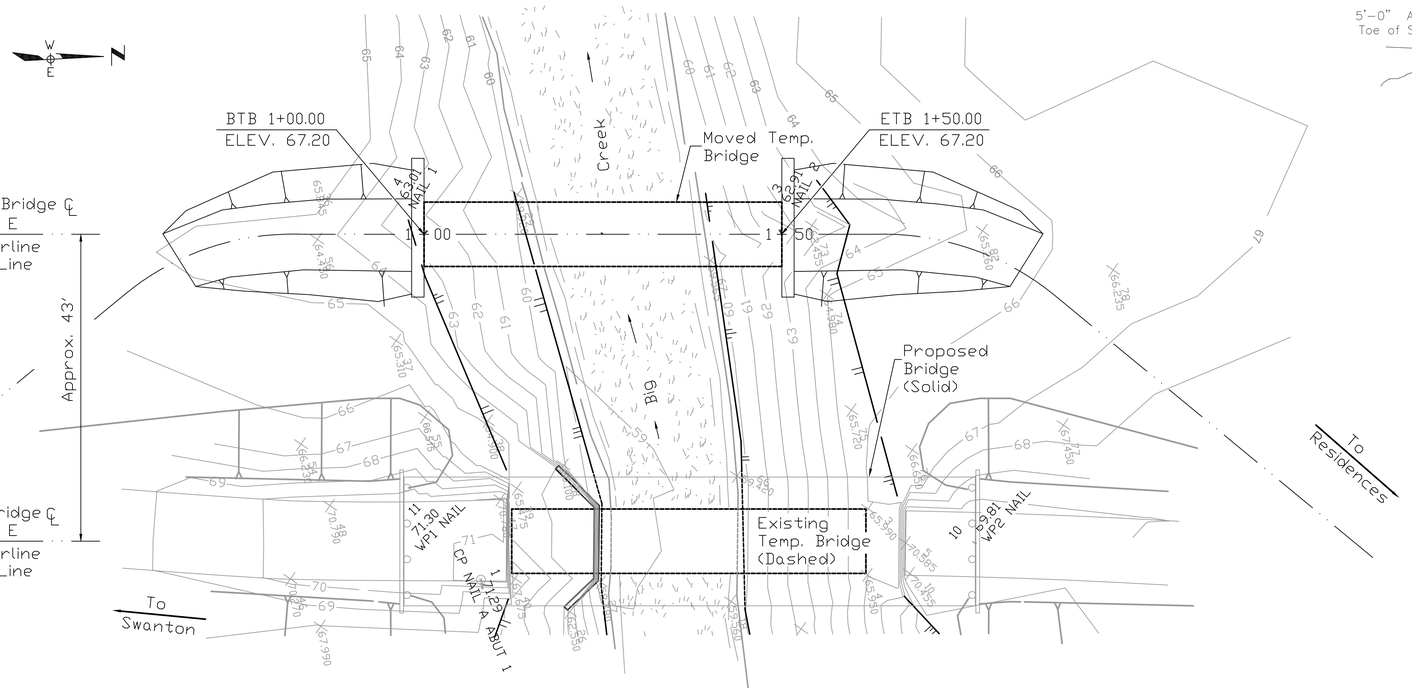
Straw on Topsoil on cut or fill slope. See Standard Specifications for direction on providing, preparing and placing topsoil and straw.



SECTION

FIBER ROLL - TYPE 1

No Scale



MOVED TEMPORARY BRIDGE PLAN A

1" = 1'-0" C1 C3

REFERENCES	DATE : 7/15/25	MORRIS ENGINEERING	BRIDGE NO.	BIG CREEK BRIDGE REHABILITATION
◇ Temp. Bridge Design by others.	SCALE : SHOWN	1451 RIDGEVIEW DRIVE, UKIAH, CA 95482		
◇ Topo, Staking, and other Design by Morris Engineering	DRAWN : JSM	norbridges@sbcernet www.jnstructures.com	POST MILE	GRADING DETAILS 2
	CHECKED: CNM			
	M.E. JOB NO : 23-130			

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

Disregard prints bearing earlier revision dates →

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET	OF
C3	3

JEFFREY S. MORRIS 7/15/2025 DATE

REGISTERED PROFESSIONAL ENGINEER
J. S. MORRIS
No. 46005
CIVIL
STATE OF CALIFORNIA

STOP WORK WITHIN 50 meters (165 feet) OF UNCOVERED RESOURCE AND CONTACT THE MONTEREY COUNTY RMA–PLANNING DEPARTMENT AND A QUALIFIED ARCHAEOLOGIST IMMEDIATELY IF CULTURAL, ARCHAEOLOGICAL, HISTORICAL OR PALEONTOLOGICAL RESOURCES ARE UNCOVERED.

LEGEND

- EXISTING MAJOR CONTOURS @ 5' INTERVAL
- EXISTING MINOR CONTOURS @ 1' INTERVAL
- EASEMENT
- SURVEY POINTS

TOPOGRAPHIC SURVEY

308 SWANTON RD.,
DAVENPORT, CA

NOTES:

1. BOUNDARY LOCATIONS SHOWN HEREON WHERE DETERMINED WITH THE BENEFIT OF A FIELD SURVEY SUPPLEMENTED BY RECORD DATA. ALL BOUNDARY SHOWN ARE FROM THE RECORDS
2. DISTANCES SHOWN ARE IN FEET AND DECIMALS THEREOF
3. ELEVATIONS SHOWN ARE BASED ON ASSUMED BENCHMARK
4.. CONTOUR INTERVAL = 1 FT
5. X89.50 DENOTES GROUND ELEVATIONS AS SHOWN
6. TREE TYPES ARE INDICATED WHERE KNOWN. DIAMETER OF TREES ARE SHOWN IN INCHES

BASIS OF ELEVATIONS

THE ELEVATIONS SHOWN ON THIS MAP ARE BASED ON

ELEVATION = 60.71 (NGVD29)
BM: 60.71

EARTHWORK:
CUT: 0 CY
FILL: 0 CY
NET: 0

SANTA CRUZ COUNTY SURVEYOR B.M 60.71

(N) TEMPORARY FLATCAR BRIDGE

BIG CREEK

BIG CREEK PRIVATE RD

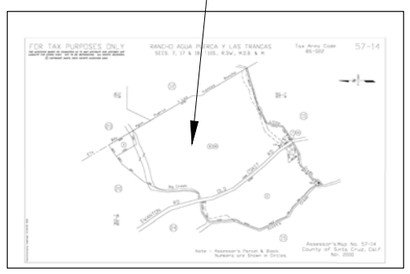
SWANTON RD

PROPERTY BOUNDARY

APN: 05714108

LOCATION MAP
NTS

SUBJECT PROPERTY



ASSESSORS MAP
NTS

PROJECT DATA

INFORMATION	308 SWANTON RD, DAVENPORT, CA APN: 05714108	
	OCCUPANCY GROUP:	R–3 / U
	TYPE OF CONSTRUCTION:	V–B
	ZONING:	TP
SCOPE OF WORK	1. NEW TEMPORARY FLATCAR BRIDGE	
REGULATIONS	ENGINEERING CALCS:	YES
	GEOTECHNICAL REPORT:	NO

SHEET INDEX

DIRECTORY

EIT: JAIME BARCELOS	
TELEPHONE NUMBER	831–756 03 24
E–MAIL	barceloscruz@gmail.com
OWNER	
TELEPHONE NUMBER	---
E–MAIL	----

DESIGN PARAMETERS

GENERAL PARAMETERS:
DESIGN CODE AASHTO LRFD 2018
BRIDGE LOADS:
LIVE LOADS:
HS-20 TRUCK: DESIGN TANDEM
AXLE LOAD:.....25 KIPS
WHEEL LOAD:.....12.5 KIPS

LANE LOAD:.....0.64 KLF

DEAD LOADS
SELF WEIGTHT
INTERIOR BEAM.....0.287 KLF
EXTERIOR BEAM.....0.120 KLF
TIMBER DECKING.....20 PSF

WEARING SURFACE:..... 0.00 PSF

SPECIAL INSPECTION:

STRUCTURAL STEEL:
1. SHOP IDENTIFICATION & WELDING INSPECTION
2. FIELD WELDING INSPECTION
3. FIELD BOLTING INSPECTION

SOILS:
1. EXCAVATION DEPTHS AND MATERIAL DETERMINATION
2. CLASSIFICATION AND TESTING OF COMPACTED FILL
3. FIELD DENSITY, MATERIALS AND LIFT THICKNESS DURING PLACEMENT AND COMPACTED FILL
4. INSPECTION OF SUBGRADE AND SITE PREPARATION PRIOR TO FILL

N

SITE PLAN
SCALE 1"=150'

NO.	REVISIONS

Geri M. Daliva
ENGINEERS & DESIGNS
1 West Laurel Dr. Suite 225,
Salinas, CA 93906
Tel: (831) 840-4284,
(831) 800-7671
gmd.engr3@gmail.com

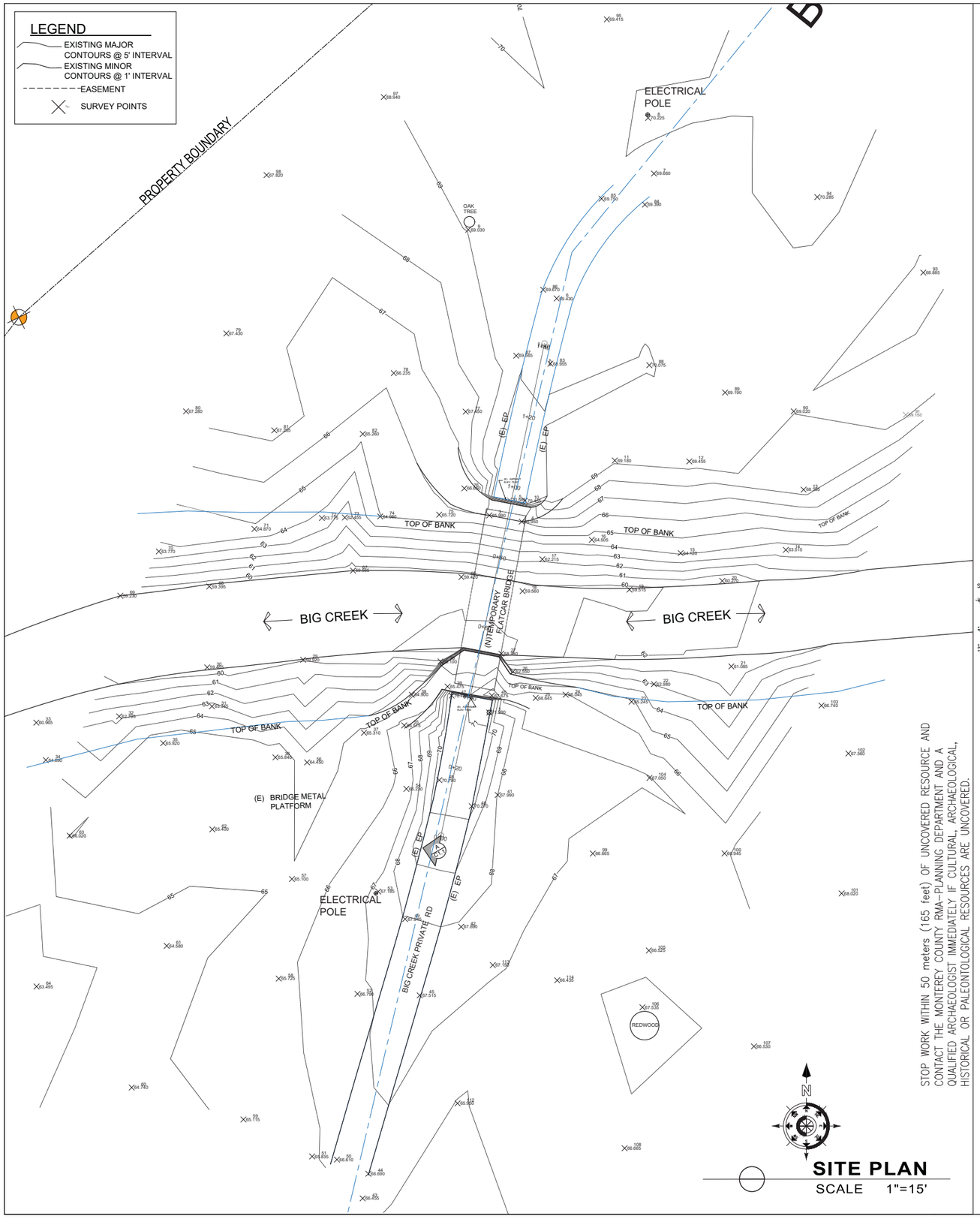
Geri Martin Daliva
Engineers & Designs
(831) 800-7671 / (831) 840-4284

Project: NEW FLATCAR BRIDGE
Address: 308 SWANTON RD., DAVENPORT, CA
Owner: ----

Sheet Content: SITE PLAN

Drawn: JAIME BARCELOS

C-1.0
SHEET # ____ OF ____

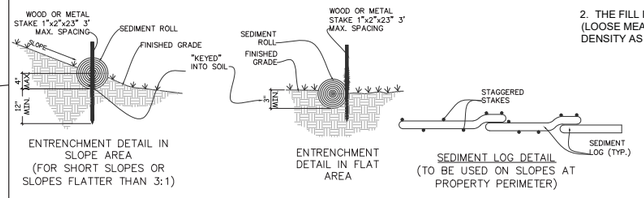


STOP WORK WITHIN 50 meters (165 feet) OF UNCOVERED RESOURCE AND CONTACT THE MONTEREY COUNTY RMA-PLANNING DEPARTMENT AND A QUALIFIED ARCHAEOLOGIST IMMEDIATELY IF CULTURAL, ARCHAEOLOGICAL, HISTORICAL OR PALEONTOLOGICAL RESOURCES ARE UNCOVERED.

SITE PLAN
SCALE 1"=15'

EROSION AND SEDIMENT CONTROL

1. Erosion and sediment control measures shafl be in effect for any construction during the rainy season (october 1 to april 30).
2. All cut and fill slopes shall be protected with straw mulch or similar measures to protect against erosion until such slopes are permanently stabilized.
3. Revegetation shall consist of a mechanically applied hydromulch slurry or hand seeded with a straw mulch cover, mulch shall be anchored by an approved method such as punching, tacking, or the use of jute netting, as deemed necessary for the site conditions to allow for germination and enable adequate growth to be established.
4. Check dams, silt fences, fiber rolls or other designs shall be incorporated to catch any sediment until after the newly exposed areas are revegetated sufficiently to control erosion. Erosion control plantings and mulch shall be closely monitored throughout the winter and any runoff problems shall be corrected promptly. all erosion and/or slippage of the newly exposed areas shall be repaired by the permittee at their expense.
5. The grass seed shall be properly irrigated until adequate growth is established and maintained to protect the site from future erosion damage. All newly exposed (disturbed) areas shall be seeded with the following erosion control mix:bromus carinatus(californflha brome), vulpia microstachys(nuttatls fescue), elmius glacucus(blue wild rye), hordeum brachyantherum(meadovi barley), festuco rubra'molate blue'and a mixture of locally native wildflowers.
6. Natural features, including vegetation, terrain, watercourse, and similar resources shall be preserved, where possible.
During the Rainy season (October 1 to April 30):
Grading activities must be scheduled to minimize bare graded areas
Sufficient quantities of erosion control materials shall be kept on site at all times to be installed as soon as possible and prior to likely precipitation events.
7. Effective soil cover shall be provided on all finished slopes, open space, utility backfill and completed lots that are not scheduled to be re-disturbed for minimally 14 days.
8. Minimize soil compaction for areas that will remain pervious or used for LID measures.
9. Where feasible, top soil shall be stockpiled and reapplied upon completion of grading on slopes of less than twenty percent.
10. Access roads shall be cleaned/swept daily as required and prior to any rain event.
11. Waste material dumpster shall be covered nightly and protected from rain.
12. All construction materials that are not actively being used must be raised and covered.



ENTRENCHMENT DETAIL IN SLOPE AREA (FOR SHORT SLOPES OR SLOPES FLATTER THAN 3:1)

ENTRENCHMENT DETAIL IN FLAT AREA

SEDIMENT LOG DETAIL (TO BE USED ON SLOPES AT PROPERTY PERIMETER)

GOOD SITE MANAGEMENT BMP'S

WM-1Materials Delivery and Storage
The discharge of stormwater pollutants from construction material delivery and storage areas can be prevented or reduced by minimizing the storage of hazardous materials onsite, storing materials in watertight containers and/or containing the storage area with a berm or on an enclosed pad, and conducting regular inspections.

WM-3 Stockpile Management
All stockpiles of construction materials (such as soil, soil amendments, sand, pressure treated wood, and paving materials such as Portland cement concrete rubble, asphalt concrete, asphalt concrete rubble, aggregate base, aggregate sub-base or pre-mixed aggregate, and asphalt binder) should be covered with
a tarp and protected with a temporary linear sediment barrier prior to the onset of precipitation.

Waste Management
Waste management includes storing materials properly to reduce the possibility of spills, stopping the source of spills, and the immediate containment, clean-up and proper disposal of spilled materials. Solid, liquid and sanitary waste should be properly disposed. Designated waste collection areas and containers should be provided and regular disposal services arranged. All waste containers should be covered. Temporary sanitary facilities should be located away from storm drains and traffic areas.

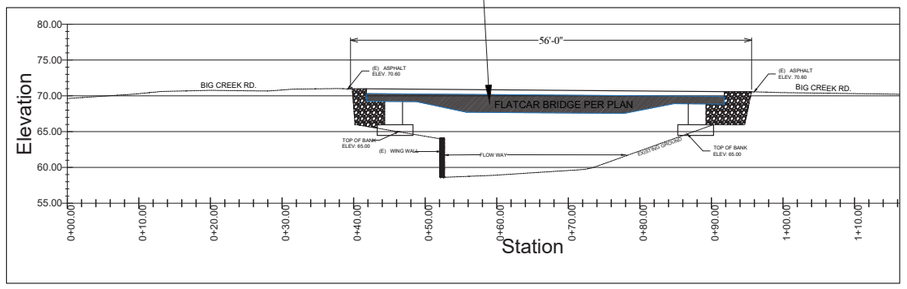
WM-8 Concrete Waste Management
Stockpile management BMPs should be used to ensure that construction materials, including mortar, concrete, stucco, cement and block, and their associated wastes do not come into contact with stormwate flows. Concrete trucks should be washed only in contained concrete washout areas so that there is no discharge of concrete waste onto site soils or into storm drain

BACKFILL AND COMPACTION NOTES

1. THE BACKFILLED PORTION OF THE REINFORCED MATERIALS SHALL BE FREE OF ORGANIC AND OTHER DELETERIOUS MATTER AND SHALL CONFORM WITH THE FOLLOWING GRADATION LIMITS AS DETERMINED BY ASTM D-422; (100 PERCENT PASSING THE 3/4 IN SIEVE, 0 TO 50 PERCENT PASSING THE NO. 40 SIEVE, 0 TO 30 PERCENT PASSING THE NO. 200 SIEVE). THE PERCENT PASSING THE NO. 200 SIEVE SHALL ALSO HAVE A PLASTICITY INDEX OF LESS THAN 5. IN ADDITION, THE "INFILL MATERIALS" SHALL HAVE A PH BETWEEN 3 AND 9 AND AN ORGANIC CONTENT LESS THAN 5%.

2. THE FILL IN THE BACKFILL ZONE SHALL BE PLACED IN A MAXIMUM 8-INCH LIFTS (LOOSE MEASURE) AND UNIFORMLY COMPACTED TO 90% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD COMPACTION TEST (D-698).

SEE STRUCTURAL PLANS S-1 THROUGH S-3 FOR CROSS SECTIONS AND DETAILS



SECTION A-A
SCALE: HORIZ: 1"=10'-0" VERT: 1" = 10'-0"

NO.	REVISIONS

GMD
Geri M. Daliva
ENGINEERS & DESIGNS
11 West Laurel Dr. Suite 225, Salinas, CA 93906
Tel: (831) 840-4284, (831) 800-7671
gmd.engr3@gmail.com

Geri Martin Daliva
Engineers & Designs
(831) 800-7671 / (831) 840-4284

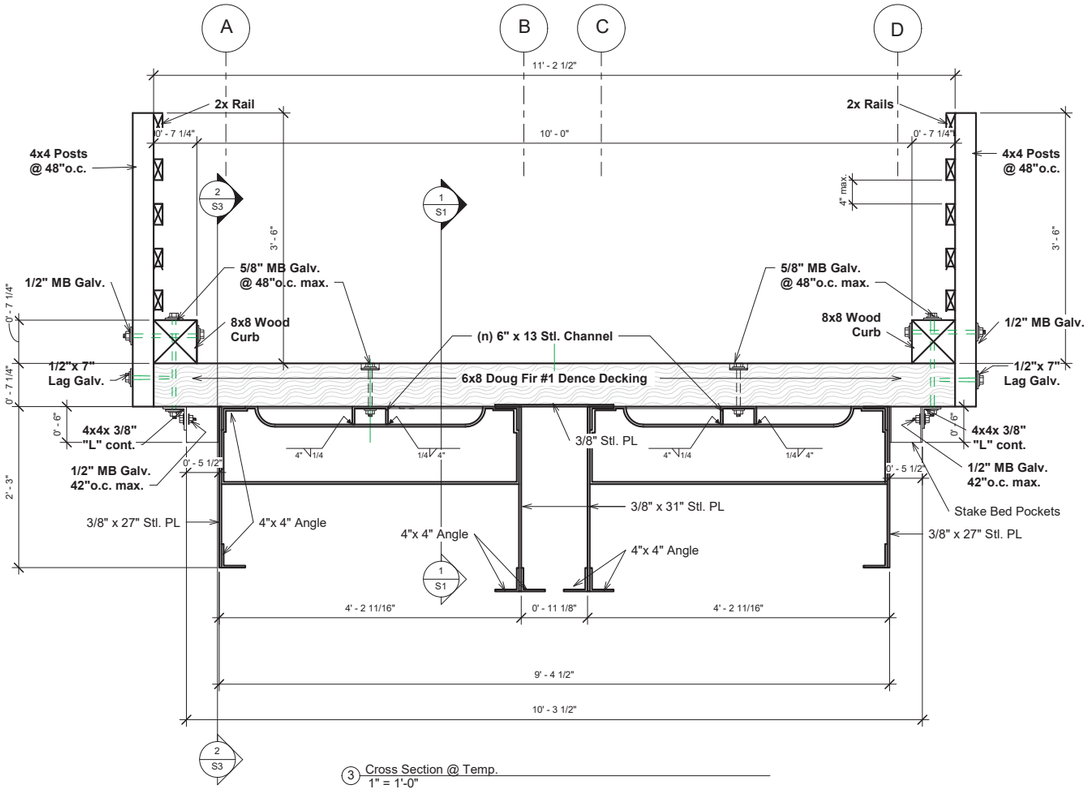
Project: NEW FLATCAR BRIDGE
Address: 308 SWANTON RD., DAVENPORT, CA
Owner: ----

Sheet Content: SITE PLAN

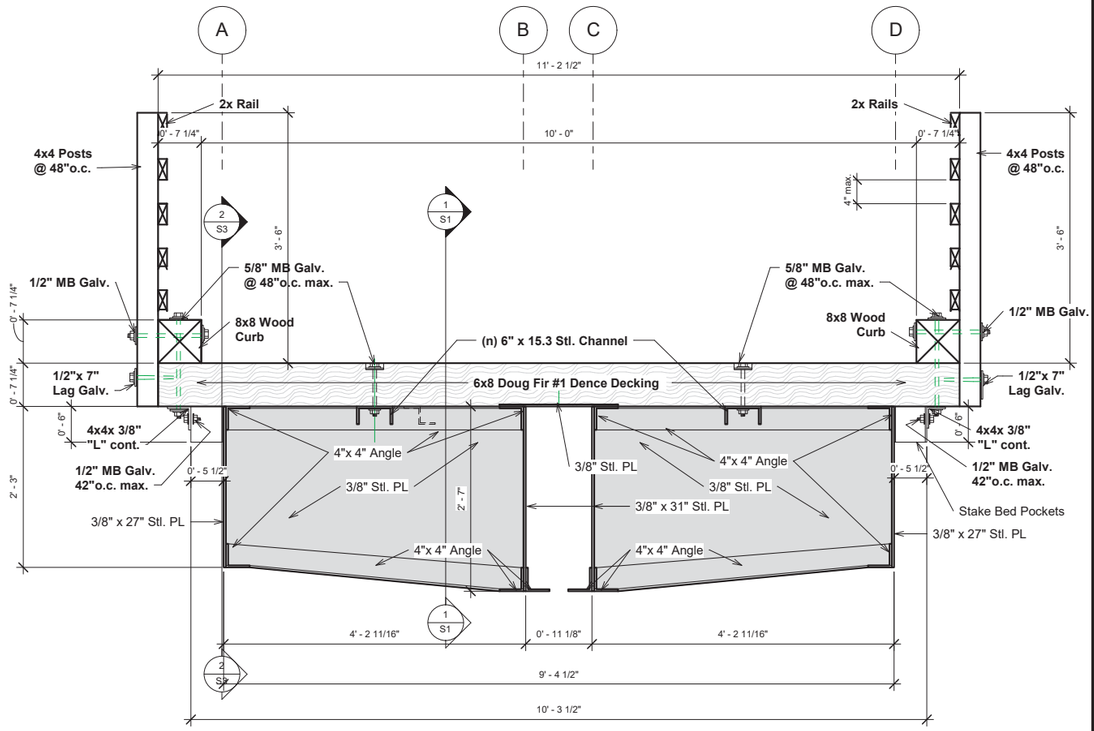
Drawn:JAIME BARCELOS

08

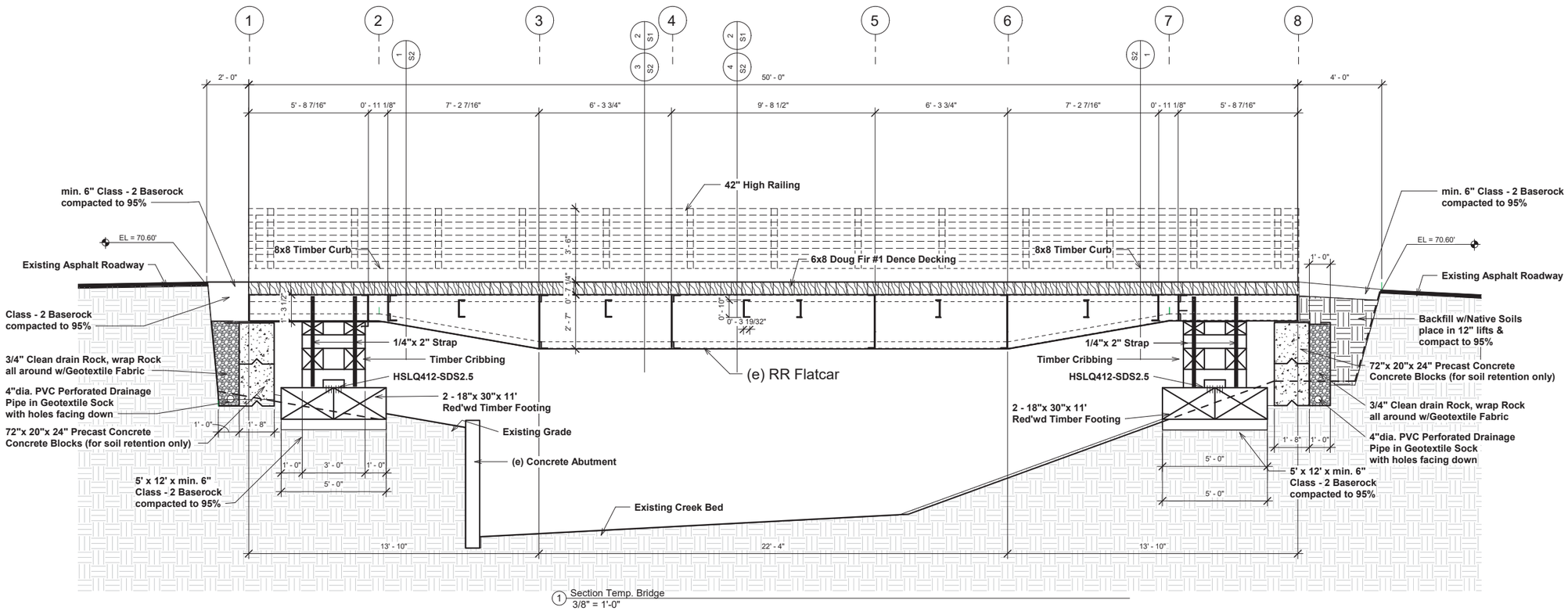
C-1.1
SHEET # ____ OF ____



3 Cross Section @ Temp.
1" = 1'-0"



2 Cross Section @ Temp
1" = 1'-0"



1 Section Temp. Bridge
3/8" = 1'-0"

revisions:	by:
1	
2	
3	
4	
5	
6	

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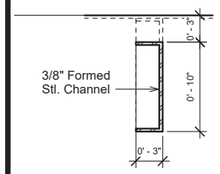
REGISTERED PROFESSIONAL ENGINEER GERI M. DALIVA No. C65185 EXPIRES 09-30-21 CIVIL STATE OF CALIFORNIA

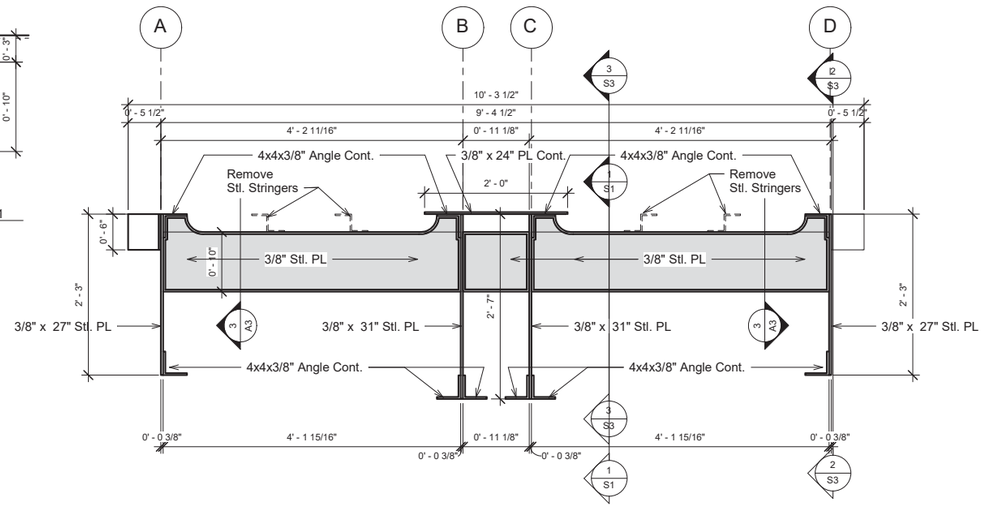
Temporary Bridge @ Big Creek
308 Swanton Rd., Davenport , CA
APN # 057-141-08

DRAWN BY:	MLC
CHECKED:	
DATE:	11-23-2020
SCALE:	as noted
JOB NO.	2011-1
SHEET:	

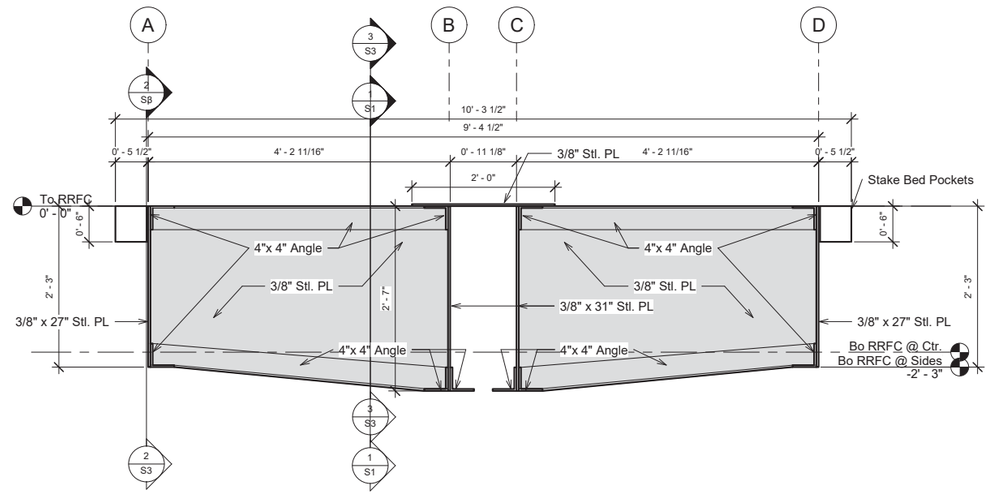
S-1



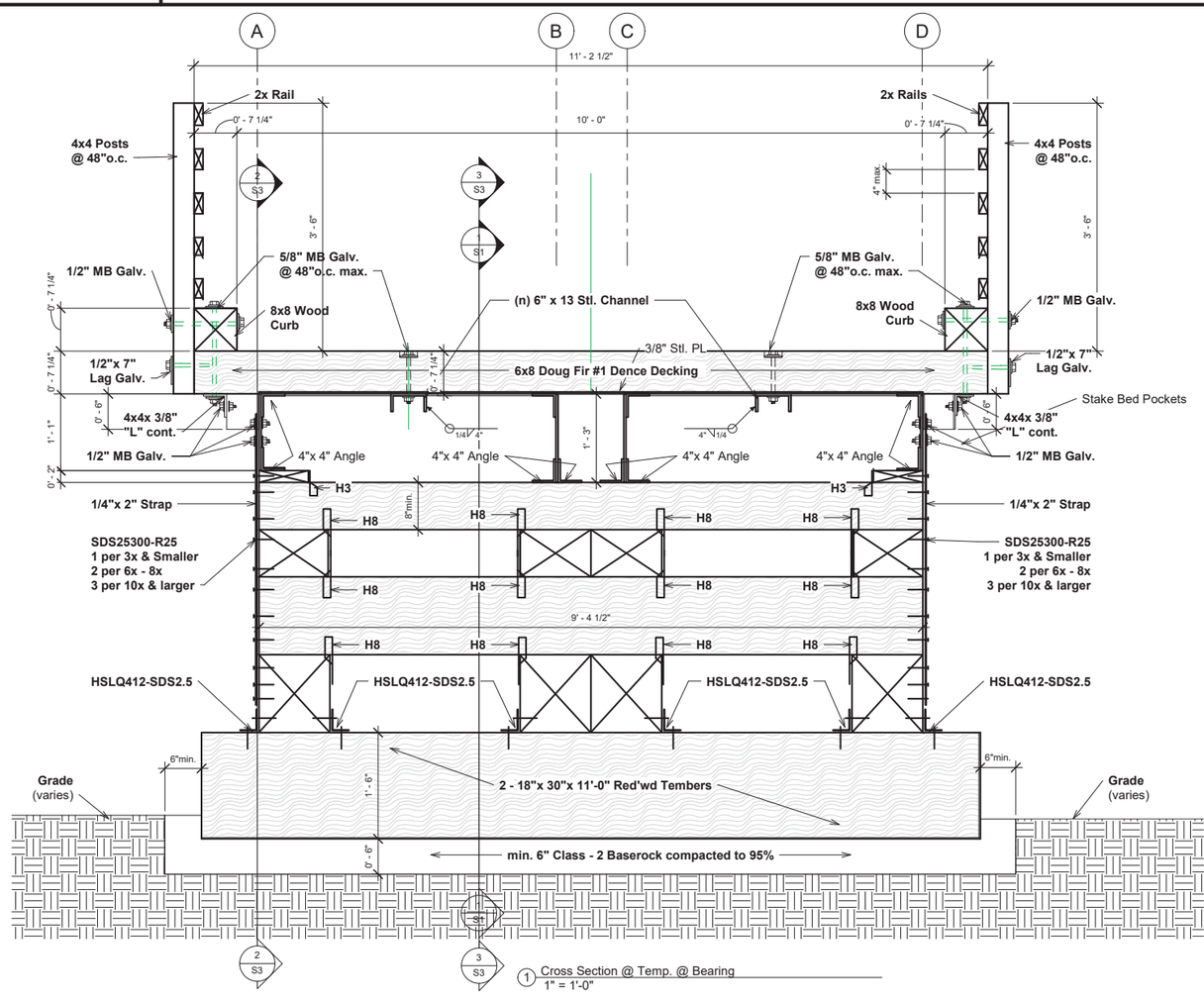
2 Section 6 - Callout 1
1 1/2" = 1'-0"



4 Section 8 (e) Flatcar
1" = 1'-0"



3 Section 7 (e) Flatcar
1" = 1'-0"



1 Cross Section @ Temp. @ Bearing
1" = 1'-0"

revisions:	by:

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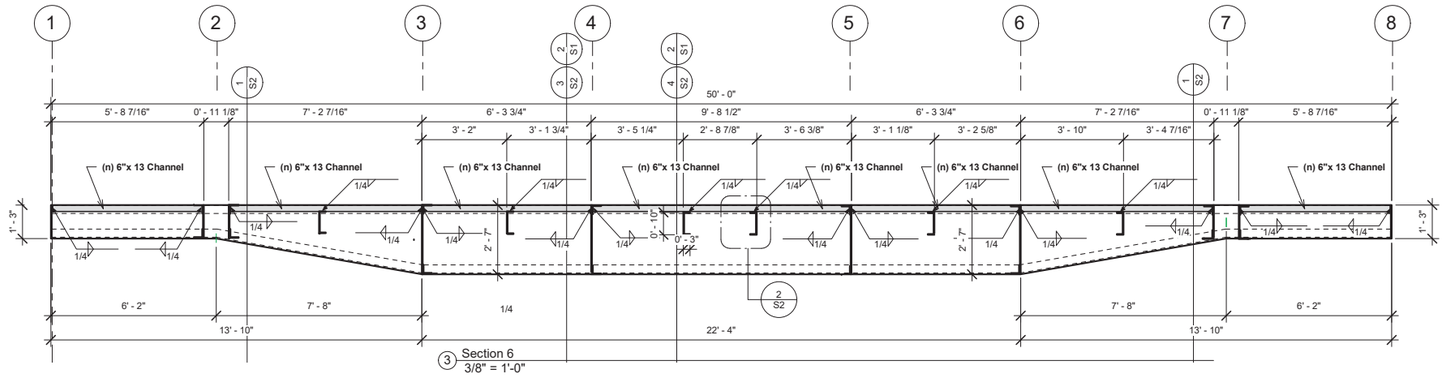
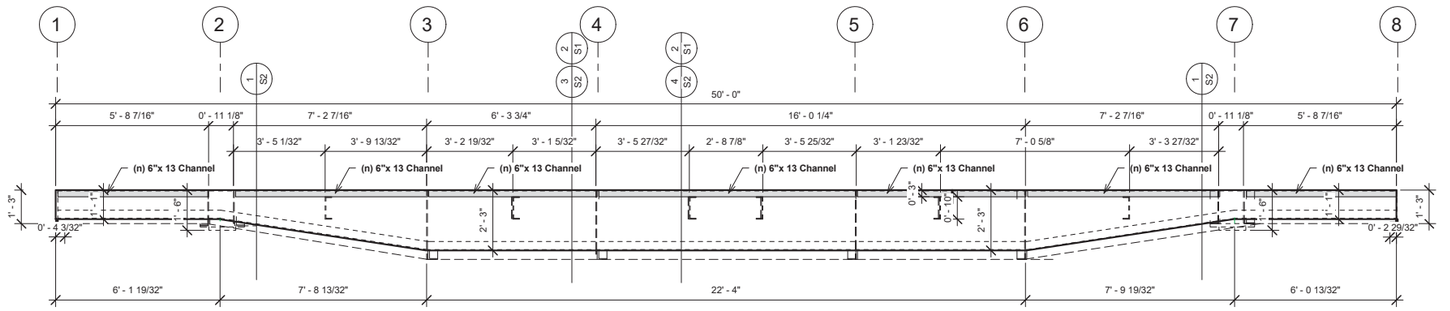
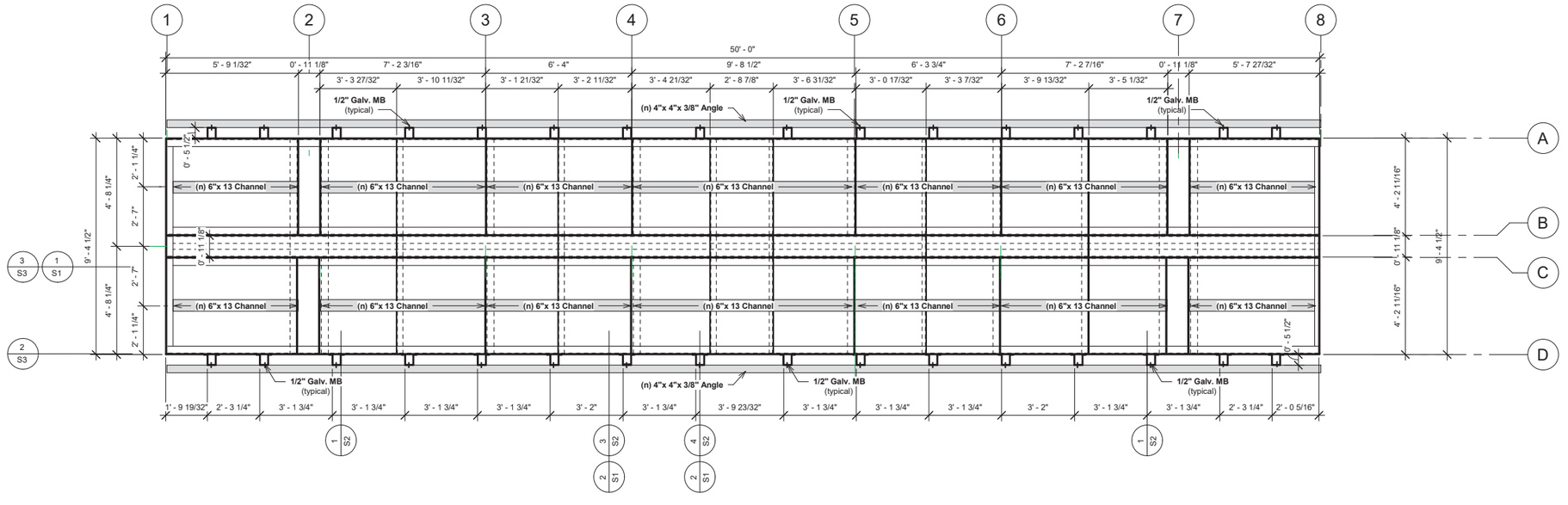
S-2



3 Section 6
3/8" = 1'-0"



2 Section 5
3/8" = 1'-0"



1 Flatcar Frame Layout
3/8" = 1'-0"

revisions:	by:

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SHEET:	

S-3