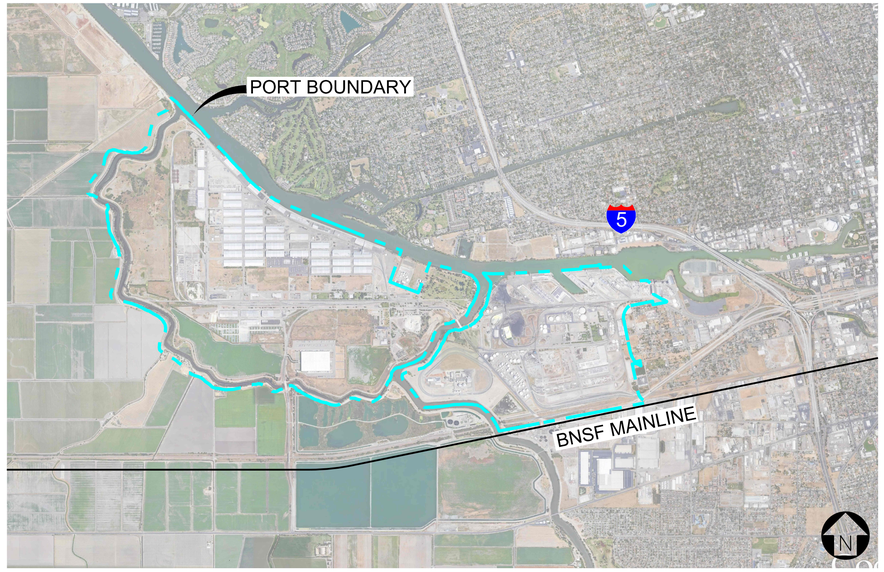
PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS

315 W FYFFE STREET
STOCKTON, CA 95203



VICINITY MAP
SCALE: NTS



LOCATION MAP
SCALE: N.T.S.

POINTS OF CONTACT:

1. OWNER: PORT OF STOCKTON, JASON KATINDOY; 315 W FYFFE STREET, STOCKTON, CA–95203. TELEPHONE: (209) 946–0246.
2. PRIME CONSULTANT: HDR, INC., MATTHEW ARCHER, PE; 2379 GATEWAY OAKS, SUITE 200, SACRAMENTO, CA–95833; TELEPHONE: (916) 679–8700.
3. CIVIL ENGINEER: JMA CIVIL, ARKA GHOSH, PE; 383 4TH STREET, SUITE. 201, OAKLAND, CA 94607; TELEPHONE: (925) 400–4356.
4. LAND SURVEYOR: CINQUINI & PASSARINO, JAMES DICKEY, PLS; 1630 N DUTTON AVE., #150, SANTA ROSA, CA–95401; TELEPHONE: (707) 542–6268.
5. GEOTECHNICAL ENGINEER: KLEINFELDER, INC., NATHAN L. DAHLEN PE; 2001 ARCH AIRPORT RD., STE #150, STOCKTON, CA–95206; TELEPHONE: (209) 948–1345.
6. RAILROAD: BURLINGTON NORTHERN SANTA FE RAILWAY (BNSF), DIONISIO MARTINEZ; 740 EAST CARNEGIE DRIVE, SAN BERNARDINO, CA 92408; TELEPHONE: (800) 795–2673.
7. OPERATOR: CENTRAL CALIFORNIA TRACTION COMPANY (CCTC), RAMIRO BARBA, 2201 WEST WASHINGTON ROAD SUITE #12., STOCKTON, CA–95203; TELEPHONE: (209) 466–6927.

PROJECT DOCUMENTS:

1. PROJECT DOCUMENTS: THE FOLLOWING DOCUMENTS ARE INCLUDED IN THE SCOPE OF THE PROJECT:
   - A. BASIS OF DESIGN MEMORANDUM DATED 08/31/2026;
   - B. SPECIAL CONDITIONS DATED 08/31/2026
   - C. STORM WATER REPORT DATED 08/31/2026.
   - D. 100% GEOTECHNICAL REPORT DATED 08/14/2026.

CODES AND STANDARDS:

1. GOVERNING CODES AND STANDARDS: THE CURRENT VERSIONS OF THE FOLLOWING STANDARDS, GOVERN THE CONSTRUCTION OF THE WORK EXCEPT AS NOTED OTHERWISE.
   - A. CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (CALTRANS)
   - B. 2019 CALIFORNIA BUILDING CODE
   - C. THE UNION PACIFIC RAILROAD/ BNSF RAILWAY COMPANY TECHNICAL SPECIFICATIONS FOR CONSTRUCTION OF INDUSTRIAL TRACKS
   - D. AMERICAN RAILWAY ENGINEERING AND MAINTENANCE–OF–WAY ASSOCIATION (AREMA) MANUAL FOR RAILWAY ENGINEERING
   - E. THE CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC) GENERAL ORDERS
   - F. FEDERAL RAILROAD ADMINISTRATION (FRA) RAILROAD SAFETY STANDARDS
   - G. UPRR/ BNSF GUIDELINES FOR RAILROAD GRADE SEPARATION PROJECTS
   - H. CITY OF STOCKTON DESIGN STANDARDS
   - I. CITY OF STOCKTON MUNICIPAL CODE
   - J. PORT OF STOCKTON TRACK DESIGN STANDARDS
   - K. CAMUTCD 2026 CHAPTER 8B

   IN THE EVENT OF A CONFLICT BETWEEN THE REFERENCED STANDARDS, FOR RAILROAD WORK: PORT OF STOCKTON STANDARDS SHALL GOVERN. IN ADDITION, CONSTRUCTION MUST ADHERE TO ALL FEDERAL RAILWAY ADMINISTRATION (FRA), STATE, AND LOCAL REQUIREMENTS. FOR ROADWAY WORK: CALTRANS SPECIFICATIONS SHALL GOVERN.

   FOR UTILITY WORK: THE CITY OF STOCKTON STANDARD DETAILS AND SPECIFICATIONS SHALL GOVERN.

DESCRIPTION OF WORK:

1. FINAL ISSUED FOR CONSTRUCTION PLANS: CONSTRUCTION OR PROCUREMENT OF MATERIALS FROM PLANS NOT MARKED "ISSUED FOR CONSTRUCTION" IS AT THE OWNER AND/OR CONTRACTOR'S RISK. ONLY PLANS MARKED "ISSUED FOR CONSTRUCTION" ARE DEEMED COMPLETE AND READY FOR CONSTRUCTION.
2. THE FOLLOWING SCOPE OF WORK IS INCLUDED IN THIS PACKAGE:
   - A. SITE CLEARING AND GRUBBING, DEMOLITION, STAKING, ROUGH GRADING, FINAL GRADING, INSTALLATION OF DITCHES AND DRAINAGE FACILITIES AND FINAL PREPARATION OF SUBGRADE.
   - B. PROCUREMENT OF TRACK MATERIALS FOR BNSF TRACK CONSTRUCTION.
3. CONTRACTOR RESPONSIBILITIES:

   CONTRACTOR SHALL BE RESPONSIBLE FOR ALL GRADING AND SUBBALLAST WITHIN AND OUTSIDE EXISTING RAILROAD RIGHT–OF–WAY WHICH IS BEYOND THE 10' CLEARANCE OF THE EXISTING TRACK. CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS, INCLUDING BNSF TRACK MATERIALS, FOR CONSTRUCTION WITHIN CONTRACTOR'S LIMITS OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING ALL WORK FOR THE PROJECT, INCLUDING ALL WORK TO BE CONSTRUCTED BY THE RAILROAD.
4. RELATED WORK:
   THE FOLLOWING WORK PACKAGES ARE PART OF THE BID DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE SCOPE OF WORK AND SCHEDULE OF THIS WORK WITH ALL OTHER PACKAGES. SEE TABLE 1 OF THE PROJECT MANUAL FOR ALL APPLICABLE SPECIFICATIONS:
   - A. PORT OF STOCKTON RAIL IMPROVEMENTS PROJECT LONG LEAD DOUBLE TRACK IN PORT RIGH–OF–WAY
   - B. PORT OF STOCKTON RAIL IMPROVEMENTS PROJECT SR–4 RETAINING WALL (WALL NO. 1).
   - C. PORT OF STOCKTON RAIL IMPROVEMENTS PROJECT BRIDGE 1122.60 STOCKTON SUB OVER FRESNO AVENUE (FRESNO AVE. UNDERPASS).
   - D. PORT OF STOCKTON RAIL IMPROVEMENTS PROJECT SR4 CROSSTOWN VIADUCT BENT 9 COLUMN STEEL ISOLATION CASING (CASING EXTENSION PLANS).
5. DESIGN WORK BY OTHERS:
   THE OWNER WILL BE PROVIDED THE FOLLOWING ADDITIONAL WORK IN A SEPARATE PACKAGE, PREPARED BY OTHERS:
   - A. PG&E TRANSMISSION GAS LINE RELOCATION.
6. CONTRACTOR DELEGATED SUBMITTAL:
   CONTRACTOR SHALL PERFORM DETAILED DESIGN AND OBTAIN BNSF AND CITY OF STOCKTON APPROVAL FOR THE FOLLOWING:
   - A. BRIDGING SLAB FOR PROTECTION OF CITY SEWER MAINS
6. CONSTRUCTION BY THE RAILROAD:
   ALL TRACK WORK IN THE RAILROAD RIGHT–OF–WAY FROM THE MAINLINE TO THE RIGHT OF WAY WILL BE CONSTRUCTED BY THE RAILROAD. THE LIMITS OF WORK ARE FROM STA. 107+52.89 PROPOSED LD02 TO STA. 130+19.41 PROPOSED LD02. CONTRACTOR SHALL FURNISH ALL MATERIALS, INCLUDING MAIN LINE TURNOUT BALLAST, FOR BNSF INSTALLATION AND CONSTRUCTION WITHIN RAILROAD'S LIMITS OF WORK.

CAUTION BEFORE EXCAVATION:

1. UNDERGROUND UTILITY IDENTIFICATION: SECTION 4216 / 4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A PERMIT TO EXCAVATE WILL BE VALID. FOR YOUR DIG ALERT IDENTIFICATION NUMBER, CALL UNDERGROUND SERVICE ALERT 1–800–422–4133 (CENTRAL/NORTHERN CA & NEVADA) FOR UNDERGROUND LOCATING AT LEAST TWO (2) WORKING DAYS BEFORE YOU DIG.

SURVEY NOTES:

1. SURVEY NOTES: SURVEY DETAILS AND SURVEY CONTROL ARE SHOWN ON SHEET G–100.
2. BASE SURVEY: SEE SHEET G–100.
3. PROJECT BENCHMARK: SEE SHEET G–100.
4. BASIS OF BEARING: BEING NORTH 10°02'25.4" EAST BETWEEN CORS STATION P257 AND P273, BASED ON COORDINATES PROVIDED BY THE CALIFORNIA SPATIAL REFERENCE CENTER. PROJECT IS BASED ON CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3, EPOCH 2017.50.
5. VERTICAL DATUM: SEE SHEET G–100.
6. HORIZONTAL DATUM: SEE SHEET G–100.
7. GRID TO GROUND CONVERSION: ALL COORDINATES SHOWN ON THE DRAWINGS ARE "GRID". THE MEAN COMBINATION FACTOR = 0.9999402009. TO CONVERT FROM GRID TO GROUND, DIVIDE BY THE MEAN COMBINATION FACTOR.
8. PROPERTY LINES: ALL PROPERTY AND RIGHT–OF–WAY LINES DEPICTED ON PLANS ARE FOR INFORMATION ONLY. RIGHT–OF–WAY BOUNDARY DATA IN THE FORM OF DRAWINGS AND LEGAL DESCRIPTIONS, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER, WILL BE PROVIDED BY THE OWNER PRIOR TO CONSTRUCTION STAKING.
9. ELECTRONIC FILE DATA: MICROSTATION CAD FILES OF THE PLAN VIEW DRAWINGS ONLY WILL BE PROVIDED BY THE ENGINEER ALONG WITH ONE SET OF HARD COPY DRAWINGS. CONVERSION OF DRAWINGS TO OTHER FORMATS IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL ROAD AND RAIL STAKING SHALL BE BASED ON COORDINATE GEOMETRY TABLES, WHEN PROVIDED, VERSUS FROM CAD FILES. IN THE EVENT OF DISCREPANCY BETWEEN CAD FILES AND HARD COPY DRAWINGS, THE HARD COPY DRAWINGS SHALL GOVERN. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY OF ANY DISCREPANCIES. BOUNDARY STAKING SHALL BE BASED ON SIGNED AND STAMPED HARD COPY DRAWINGS ONLY.

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY / SUB	APP
0	08/31/26	ISSUED FOR BID		

PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

Information is confidential on all plans, drawings, specifications, and/or information furnished here in shall remain the property of the Burlington Northern Santa Fe Railway and shall be held confidential and shall not be used for any purpose not provided for in agreements with the Burlington Northern Santa Fe Railway

DESIGNED BY	A. GHOSH
DRAWN BY	H.SADIQ
CHECKED BY	A. RIEGER
APPROVED BY	A. GHOSH
DATE	08/31/2026

JMA CIVIL
5250 Claremont Ave, Ste. 227
Stockton, CA 95207
T: 925.400.4356
www.jmacivil.com

HDR
2379 Gateway Oaks, Ste. 200
Sacramento, CA 95833
T: 916.679.8700
www.hdrinc.com

ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER – ARKAPRABHA GHOSH – C91571 – Exp. 09/30/28 – CIVIL ENGINEER – CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

TITLE SHEET

CONTRACT NO.	60657603
DRAWING NO.	G-001
REVISION	0
SHEET NO.	1
SCALE	NA

G-001 Title Sheet.dgn
$projectdate$
BY: ArkaGhosh
TIME: 5:18:55 PM
$TODAY$
$colorlabel$

G-002 index of Drawings.dgn

$penlabel$

$colortable$

BY: AnaGhosh

TIME: 5:30:28 PM

$TODAY$

INDEX OF DRAWINGS

1	G-001	TITLE SHEET
2	G-002	DRAWING INDEX
3	G-003	LEGENDS & ABBREVIATIONS
4	G-004	BNSF GENERAL NOTES
5	G-005	PROJECT GENERAL NOTES
6	G-006	GEOMETRY SHEET
7	G-007	TRACK GEOMETRY TABLE
8	G-008	QUANTITY SUMMARY TABLE
9	G-100	SURVEY CONTROL AND KEY MAP
10	G-301	TRACK TYPICAL SECTIONS BNSF ROW
11	G-302	TRACK TYPICAL SECTIONS BNSF ROW
12	G-303	TRACK TYPICAL SECTIONS BNSF ROW
13	CT-101	LD02 TRACK PLAN AND PROFILE
14	CT-102	LD02 TRACK PLAN AND PROFILE
15	CT-103	LD02 TRACK PLAN AND PROFILE
16	CT-201	LD01 TRACK PLAN AND PROFILE
17	CT-301	BNSF SPUR PLAN AND PROFILE
18	CT-401	CITY 27-INCH SEWER MAIN PLAN AND PROFILE
19	CT-402	CITY 36-INCH SEWER MAIN PLAN AND PROFILE
20	CT-403	CITY 24-INCH SEWER MAIN PLAN AND PROFILE
21	CG-101	LD01 & LD02 GRADING AND DRAINAGE SHEET
22	CG-102	LD02 GRADING AND DRAINAGE SHEET
23	CG-103	LD02 GRADING AND DRAINAGE SHEET
24	CT-501	TRACK DETAILS
25	CT-502	UTILITY AND DRAINAGE DETAILS
26	CT-600	PROJECT SCHEMATIC MAP
27	CT-601	DOUBLE TRACK LONG LEAD PHASING PLAN – SHEET 1
28	CT-602	DOUBLE TRACK LONG LEAD PHASING PLAN – SHEET 2
29	CT-801	TRACK LD02 CROSS SECTIONS
30	CT-802	TRACK LD01 & LD02 CROSS SECTIONS
31	CT-803	TRACK LD01 & LD02 CROSS SECTIONS
32	CT-804	TRACK LD02 CROSS SECTIONS
33	CT-805	TRACK LD02 CROSS SECTIONS
34	CT-806	TRACK LD02 CROSS SECTIONS
35	CT-807	TRACK LD02 CROSS SECTIONS
36	CT-808	TRACK LD02 & BNSF SPUR CROSS SECTIONS
37	CT-809	TRACK LD02 CROSS SECTIONS
38	CT-810	TRACK LD02 CROSS SECTIONS
39	CT-811	TRACK LD02 CROSS SECTIONS

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DESIGNED BY	A. GHOSH
DRAWN BY	H.SADIQ
CHECKED BY	A. RIEGER
APPROVED BY	A. GHOSH
DATE	08/31/2026

BNSF RAILWAY

JMA CIVIL
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STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
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DRAWING INDEX

CONTRACT NO.	60657603
DRAWING NO.	G-002
REVISION	E
SHEET NO.	2
SCALE	NA

ABBREVIATIONS

Abbreviation	Meaning
&	AND
AREMA	AMERICAN RAILWAY ENGINEERING AND MAINTENANCE–OF–WAY ASSOCIATION
@	AT
°	DEGREE(S)
'	FOOT or FEET or MINUTE(S)
"	INCH or INCHES or SECOND(S)
%	PERCENT
#	POUND or NUMBER
	CENTRAL ANGLE OF CIRCULAR CURVE
AC.	ASPHALT CONCRETE
AP.	ANGLE POINT
APE.	AREA OF POTENTIAL EFFECT
APPROX.	APPROXIMATELY
APWA.	AMERICAN PUBLIC WORKS ASSOCIATION
AVE.	AVENUE
BC.	BEGINNING OF CURVE
BLVD.	BOULEVARD
BM.	BENCHMARK
BR.	BRIDGE
BXC.	CONCRETE BOX
BXC2.	CONCRETE DOUBLE BOX
BXC3.	CONCRETE TRIPLE BOX
BXCM.	CONCRETE MULT–OPENING BOX
BXM.	MASONARY BOX
BXM2.	MASONRY DOUBLE BOX
BXMM.	MASONRY MULTI–OPENING BOX
BXT.	TIMBER BOX
BXT2.	TIMBER DOUBLE BOX
BXTM.	TIMBER MULTI–OPENING BOX
CAPA.	CORRUGATED ARCH PIPE – ALUMINUM
CAPS.	CORRUGATED ARCH PIPE – STEEL
CB.	CATCH BASIN
CC.	CENTER OF CURVE
CIP.	CAST IRON PIPE OR CAST IN PLACE
C/L.	CENTERLINE
CLR.	CLEAR
CONC.	CONCRETE
CP.	CONCRETE PIPE OR CONTROL POINT
CPA.	CORRUGATED PIPE – ALUMINUM
CPP.	CORRUGATED PIPE – PLASTIC
CPS.	CORRUGATED PIPE–STEEL
CS.	CURVE TO SPIRAL
CT.	CONCRETE TIES
CTLVR.	CANTILEVER
CY.	CUBIC YARD
DOC.	DEGREE OF CURVE
DESC.	DESCRIPTION
DI.	DUCTILE IRON
DIP.	DUCTILE IRON PIPE
DIV.	DIVISION
DOT.	DEPARTMENT OF TRANSPORTATION
DR.	DRIVE
DU.	DUCT
DWG.	DRAWING
E.	EAST or EASTERLY or EASTING
(E), EX.,	EXIST, EXISTING
Ea.	SUPERELEVATION, ACTUAL
EC.	END OF CURVE
EF.	EACH FACE
EG	EXISTING GROUND/GRADE
EGL.	ENERGY GRADE LINE
EL. OR ELEV.	ELEVATION
EPC.	ELIPTICAL PIPE – CONCRETE
EQ.	EQUAL or EQUATION
EQNAHD.	EQUATION AHEAD
EQNBK.	EQUATION BACK
EW.	EACH WAY
Eu.	SUPERELEVATION, UNBALANCED
F.	FREIGHT
FH.	FIRE HYDRANT
FL.	FLOWLINE
FS.	FINISHED SURFACE
FT.	FOOT or FEET
G.	GRADE
ga.	GAGE
GB.	GRADE BREAK
GM.	GAS METER
GRD.	GROUND
GV.	GAS VALVE
HGL.	HYDRAULIC GRADE LINE
HORIZ.	HORIZONTAL
HP.	HIGH POINT or HIGH PRESSURE
HSR.	HIGH SPEED RAIL
HST.	HIGH SPEED TRAIN
HWY.	HIGHWAY
I.	TOTAL INTERSECTION ANGLE
INV.	INVERT
IPB.	INTRUSION PROTECTION BARRIER
JTD.	JOINTED
L.	LENGTH
Lc.	LENGTH OF CURVE (CIRCULAR)
LF.	LINEAR FOOT or LINEAR FEET
LH.	LEFT HAND
LP.	LOW POINT
Ls or LS.	LENGTH OF SPIRAL
LT.	LEFT
MAIN.	MAIN TRACK
MAX.	MAXIMUM
MH.	MANHOLE
MHW.	MEAN HIGH WATER (TIDAL)
MLW.	MEAN LOW WATER (TIDAL)
MIN.	MINIMUM
MP.	MASONRY PIPE or MILEPOST or MEDIUM PRESSURE
	MAIN
N.	NORTH or NORTHERLY or NORTHING
NO.	NUMBER or NORTHERN
NSR.	NORFOLK SOUTHERN RAILWAY
NTS.	NOT TO SCALE
NW.	NORTHWEST
OD.	OUTSIDE DIAMETER
OFF. or O/S	OFFSET
OG.	ORIGINAL GROUND
OH.	OVERHEAD
OHW.	ORDINARY HIGH WATER (NON–TIDAL WATERS)
OP.	OVERPASS
OPP.	OPPOSITE
OTM.	OTHER TRACK MATERIAL
O. TO O.	OUT TO OUT
(P) or PROP.	PROPOSED
P. or PSGR.	PASSENGER
PAC.	CONCRETE ARCH PIPE
PB.	PULLBOX
PC	POINT OF CURVE
PCC.	POINT OF COMPOUND CURVATURE or PORTLAND CEMENT CONCRETE
PI	POINT OF INTERSECTION
PIP.	PROTECT IN PLACE
PL.	CLAYTILE PIPE
POB.	POINT OF BEGINNING
POE.	POINT OF ENDING
PT	POINT ON TANGENT
PP.	PLASTIC PIPE (smooth wall)
PRC.	POINT OF REVERSE CURVATURE
PS.	POINT OF SWITCH or STEEL PIPE (smooth wall)
PSP.	STRUCTURAL STEEL PLATE PIPE
PSAP.	STRUCTURAL STEEL ARCH PLATE PIPE
PT	POINT OF TANGENT or POINT
PV.	VITREOUS PIPE (smooth wall)
PVC	POINT OF VERTICAL CURVE or POLYVINYL CHLORIDE (PIPE)
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R.	RADIUS or RATE OF CHANGE
ROW	RIGHT–OF–WAY
CP.	REINFORCED CONCRETE PIPE
RD.	ROAD
RH.	RIGHT HAND
RPM.	RAISED PAVEMENT MARKER
RR.	RAILROAD
RT.	RIGHT
S	SOUTH or SOUTHERLY orSLOPE
SC.	SPIRAL TO CURVE
SDMH.	STORM DRAIN MANHOLE
SF.	SQUARE FOOT or SQUARE FEET
SIG.	SIGNAL
SO.	SOUTHERN
SMH. or SSMH	SANITARY SEWER MANHOLE
STA.	STATION
STD.	STANDARD
ST.	STREET or SPIRAL TO TANGENT or SIDING TRACK or STAGING TRACK
SUB.	SUBDIVISION
SW.	SOUTHWEST
T.	TANGENT or TALGO
TC.	TRACK CENTER(S) or TOP OF CURB
TCE.	TEMPORARY CONSTRUCTION EASEMENT
T.O. or TO.	TURNOUT
T/R or TOR.	TOP OF RAIL
TF.	TRACK FOOT or TRACK FEET
TN.	TONS
TRK.	TRACK
TS.	TANGENT TO SPIRAL
TT.	TIMBER TRANSITION TIES
TYP.	TYPICAL
UD.	UNDERDRAIN
UDG. or UG.	UNDERGROUND
UNO.	UNLESS NOTED OTHERWISE
UP.	UNDERPASS
UPRR	UNION PACIFIC RAILROAD
V	VELOCITY/VERTICAL
VAR.	VARIES
VERT.	VERTICAL
W.	WEST or WESTERLY
WM.	WATER METER
WV.	WATER VALVE
XING.	CROSSING
XO.	CROSSOVER

SYMBOLS

TRACK

- EXISTING
- PROPOSED
- RELOCATE FROM
- RELOCATE TO
- REMOVE
- FOREIGN RAILROAD OR INDUSTRY
- MANUAL TURNOUT
- POWER TURNOUT
- DERAIL

PROPERTY

- ROW — BNSF RIGHT OF WAY
- PORT PROPERTY

UTILITIES

- FO — FIBER OPTIC CABLE
- G — GAS PIPELINE
- OHU — OVERHEAD POWER LINE
- SS — SANITARY SEWER
- S — STORM SEWER
- (oh) t — OVERHEAD TELEPHONE
- T — TELEPHONE
- TC — UNDERGROUND TELECOM
- UGE — UNDERGROUND ELECTRIC
- W — WATER MAIN
- V. — VALVE
- M.H. — MANHOLE
- C.B. — CATCH BASIN
- F.H. — FIRE HYDRANT

OTHER

- MILEPOST
- 15 — CONTROL POINT
- 1 — REVISION NUMBER
- REVISION CLOUD
- SIGN

Section Sheet No.
Section Number
Section Description
Scale
Section From Sheet No.

ROAD CROSSING WARNING DEVICES

- CROSSBUCK SIGN
- FLASHING LIGHT WARNING DEVICE
- FLASHING LIGHT WARNING DEVICE WITH GATE
- CANTILEVER FLASHING LIGHT WARNING DEVICE
- CANTILEVER FLASHING LIGHT SIGNAL WITH GATE

SIGNAL

- ABSOLUTE SIGNAL
- SIGNAL BRIDGE
- CANTILEVER SIGNAL
- ACS OR CTC SIGNAL
- DWARF SIGNAL
- BEGIN CTC
- 3 LIGHT SIGNAL

STRUCTURES

- CULVERT
- CULVERT WITH HEADWALLS
- DOUBLE CULVERT
- RAILROAD BRIDGE
- BUILDING

CURVE DATA

CURVE ###	CURVE NUMBER
DOC=1°00'00"	DEGREE OF CURVE
R=1000.00'	CURVE RADIUS
L=100'	CURVE LENGTH
Ls=80'	LENGTH OF SPIRAL
Ea=1.5"	ACTUAL SUPERELEVATION
Eu=1"	IMBALANCE SUPERELEVATION
DESIGN SPEED= 70F MPH	TIMETABLE SPEED

PROFILE DATA

- 300 — PROPOSED TOP OF RAIL ELEVATION
- 300 — EXISTING TOP OF RAIL ELEVATION
- 299 — EXISTING GROUND ELEVATION
- 3636+00 — PROPOSED TRACK STATIONING

CIVIL

- EXISTING
- PROPOSED

GRADING

- CUT LINES
- FILL LINES
- DITCH FLOW LINE
- 380 — PROPOSED CONTOURS
- 380 — EXISTING CONTOURS
- GRADING EASEMENT
- STORM/SEWER (NEW)
- X(H):Y(V) — PROPOSED DRAINAGE FLOW
- EXISTING DRAINAGE FLOW

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY / SUB	APP
0	08/31/26	ISSUED FOR BID		

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DESIGNED BY	A. GHOSH
DRAWN BY	H.SADIQ
CHECKED BY	A. RIEGER
APPROVED BY	A. GHOSH
DATE	08/31/2026

BNSF RAILWAY

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LEGEND & ABBREVIATIONS

CONTRACT NO.	60657603
DRAWING NO.	G-003
REVISION	E
SHEET NO.	3
SCALE	NA

WORK ELEMENT	
PHYSICAL ENTITY	
CONTRACT DESIGNATOR	
LINE ITEM	
COST ELEMENT	
PROJECT NUMBER	

G-003 Legend and Abbreviations.dgn
$pentable$
$colortable$
BY: ArkaGhosh
TIME: 12:58:13 PM
$TODAY$

G-004, G-005 GeneralNotes.dgn
$personalo$
$colortable$
BY: ArkaGhosh
TIME: 11:36:36 AM
$TODAY$

GENERAL NOTES

1. ENGINEER SHALL REFER TO THE BNSF ENGINEER OR BNSF'S DULY AUTHORIZED ENGINEERING REPRESENTATIVE RESPONSIBLE FOR THE MONITORING OF THE INTERESTS OF BNSF DURING CONSTRUCTION.
2. CONTRACTOR SHALL COMPLY WITH ALL THE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS AND THE SPECIFICATIONS FOR THE CONTRACT.
3. ALL CONSTRUCTION ACTIVITIES SHALL BE SCHEDULED AND COORDINATED THROUGH THE ENGINEER, INCLUDING THE VARIOUS COMPANIES, AGENCIES AND OTHER CONTRACTORS WHO MAY BE AFFECTED BY THIS WORK. ALL REQUIRED PERMITS NEEDED FOR THE WORK SHALL BE OBTAINED BY THE CONTRACTOR UNLESS OTHERWISE NOTED. CONTRACTOR SHALL COMPLY WITH ALL RAILROAD OCCUPANCY REQUIREMENTS INCLUDING INSURANCE REQUIREMENTS.
4. PRIOR TO COMMENCING WORK, ALL EXISTING SITE CONDITIONS SHALL BE FIELD VERIFIED WITH THE ENGINEER TO ASCERTAIN THE LIMITS OF WORK ACTIVITIES. THE CONTRACTOR SHALL SUBMIT AND RECEIVE THE ENGINEER'S APPROVAL OF THE CONTRACTORS PROJECT SCHEDULE AND OPERATIONS PLAN. EACH ITEM OF WORK SHALL BE DESCRIBED AND ACCOUNTED FOR IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR FURTHER INFORMATION REGARDING SUBMITTAL REQUIREMENTS.

MAINTENANCE OF RAILROAD & ROADS

1. THE SAFETY AND CONTINUITY OF OPERATIONS FOR BNSF TRAIN TRAFFIC AND SIGNAL EQUIPMENT SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR AND ITS SUBCONTRACTOR(S) SHALL PERFORM THE WORK FOR THE PROJECT ACCORDINGLY. MINIMUM BNSF OPERATING CLEARANCES SHALL BE MAINTAINED UNLESS APPROVED IN WRITING BY THE RAILROAD. WHENEVER THE WORK FOR THE PROJECT MAY AFFECT THE SAFETY OF THE TRAINS OR HAS THE POTENTIAL TO DELAY TRAIN TRAFFIC, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING THE WORK. A FORMAL SUBMITTAL DOCUMENTING THE METHODS OF DOING SUCH WORK MAY BE REQUIRED.
2. EXISTING RAILROAD SIGNAGE (INCLUDING SPEED SIGNS) SHALL BE MAINTAINED DURING CONSTRUCTION UNLESS OTHERWISE APPROVED IN WRITING. ALL RAILROAD SIGNAGE SHALL BE FULLY RESTORED UPON COMPLETION OF EACH DAY'S WORK IN ACCORDANCE WITH BNSF ENGINEERING STANDARDS.
3. ON-SITE CONSTRUCTION BY OTHERS, INCLUDING ROUTINE MAINTENANCE WORK (BNSF FORCES, BNSF SIGNAL CONTRACTOR, FIBER OPTIC, UTILITIES, ETC.) MAY OCCUR AT THE SAME TIME AS THE WORK INDICATED IN THESE PLANS. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES THOUGH THE ENGINEER SO AS TO MINIMIZE INTERFERENCE WITH EACH OTHER.
4. ROADWAY DISRUPTIONS SHALL BE KEPT TO A MINIMUM. ALL LANE CLOSURES AT GRADE CROSSINGS SHALL BE COORDINATED BEFOREHAND WITH THE CITY AND/OR AGENCIES HAVING JURISDICTION. THE ENGINEER SHALL BE INFORMED AS TO SUCH REQUESTS FOR CLOSURE.

DISCREPANCIES

1. IN THE EVENT THE CONTRACTOR, AS THE WORK PROGRESSES, FINDS ANY DISCREPANCIES BETWEEN THESE PLANS AND PHYSICAL CONDITION OR ANY ERRORS IN THE PLANS OR LAYOUTS AS GIVEN BY STAKING OR INSTRUCTIONS IT SHALL BE THE CONTRACTOR'S DUTY TO INFORM THE ENGINEER IN WRITING.

UTILITIES

1. UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE LOCATIONS OF BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE, AND SUBJECT TO FIELD VERIFICATION. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY OWNER PRIOR TO CONSTRUCTION MOBILIZATION. NO WORK IN PROXIMITY TO EXISTING UTILITIES SHALL BE PERFORMED WITHOUT OWNER APPROVAL.PRIMARY SOURCES OF UTILITY INFORMATION INCLUDE:

A. THE PORT OF STOCKTON GIS DATA DATED 06/04/2020
B. AERIAL SURVEY PERFORMED IN APRIL 2023

2. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. THE LOCATION AND DEPTH OF ALL UTILITIES IN THE VICINITY OF NEW CONSTRUCTION IS TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IF CONFLICTS ARE FOUND.
3. ALL UTILITIES WITHIN THE PROJECT LIMITS SHALL EITHER REMAIN IN PLACE AND SHALL BE PROTECTED BY THE CONTRACTOR WHILE THE WORK CAPTURED IN THESE PLANS IS IN-PROGRESS OR BE RELOCATED, MODIFIED OR REMOVED IN ACCORDANCE WITH THE CONSTRUCTION DRAWINGS AND AGREEMENTS BETWEEN BNSF AND THE INDIVIDUAL UTILITY AGENCIES. MODIFICATIONS TO OR RELOCATIONS OF EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE UTILITY OWNER, WHERE NOTED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOTIFY THE UTILITY OWNER SUFFICIENTLY IN ADVANCE OF THE SCHEDULE FOR SUCH REMOVALS OR RELOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREMIUM COSTS WHICH BECOME NECESSARY AS A RESULT OF THE CONTRACTOR'S FAILURE TO NOTIFY THE UTILITY COMPANY. ALL OTHER UTILITIES NOTED ON THE PLANS TO BE RELOCATED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. CONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE UTILITY NOTIFICATION AND LOCATING REQUIREMENTS. THE CONTRACTOR SHALL ENSURE THAT REQUIRED NOTIFICATION IS PROVIDED TO APPROPRIATE UTILITY COMPANIES PRIOR TO EXCAVATION OR OTHER WORK WHICH MAY AFFECT UTILITY COMPANY FACILITIES. BURIED AND ABOVE GROUND UTILITY LOCATION, IDENTIFICATION AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. (REFERENCE 2023 BNSF STANDARD CONSTRUCTION SPECIFICATION, PARTS 1300(1.21), 1300(1.22)(B), 1600(1.6)(G), 1600(1.10)(A)(4)(C), 1700(1.1)(C)(46 & 47), AND THE 2023 BNSF UTILITY ACCOMMODATION POLICY).
5. THE CONTRACTOR SHALL BECOME FAMILIAR WITH LEGISLATION OUTLINING PROCEDURES FOR LOCATING UTILITIES BY HAND EXCAVATION AND COMPLY WITH ITS DIRECTIVE. ALL CABLES OR OTHER EXISTING UTILITY LINES THAT ARE DAMAGED SHALL BE REPAIRED IMMEDIATELY, UNDER THE UTILITY OWNER'S DIRECTION AND AT THE CONTRACTOR'S EXPENSE. DURING THE PERIOD OF TIME THAT EXISTING CABLES OR UTILITIES ARE OUT OF SERVICE, DUE TO THE CONTRACTOR'S OPERATIONS, ALL CONTRACT WORK SHALL BE SUSPENDED UNLESS OTHERWISE DIRECTED BY THE OWNER. THE CONTRACTOR SHALL NOT BE ALLOWED TO MAKE CLAIMS FOR EXTRA COSTS OR TIME EXTENSIONS DUE TO SUCH STOPPAGES OF WORK. CONTRACTOR IS TO COORDINATE WITH BNSF REGARDING THE RELOCATION OF ANY UTILITIES THAT REQUIRE RELOCATION.
6. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH THE BURIED AND ABOVE GROUND UTILITIES REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
7. EXISTING UTILITY POINTS OF CONNECTION AND CROSSINGS: CONTRACTOR SHALL POTHOLE AND SURVEY THE LOCATION OF ALL UTILITY POINTS OF CONNECTION AND CROSSING UTILITIES INCLUDING SIZE, MATERIAL AND INVERT ELEVATIONS, AND PROVIDE TO OWNER PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE UTILITY OWNER PRIOR TO PERFORMING ANY POTHOLE WORK.

BNSF SIGNAL AND TELECOM

1. CALL 1-800-533-2891 TO ARRANGE FOR A BNSF UNDERGROUND CABLE LOCATE. BNSF FORM 'UNDERGROUND CABLE LOCATION AND ACKNOWLEDGEMENT' WILL BE COMPLETED BY A BNSF REPRESENTATIVE AND A COPY PROVIDED TO THE CONTRACTOR. THE CONTRACTOR MUST HAVE THIS FORM IN POSSESSION AT THE JOB SITE AT ALL TIMES. (REFERENCE 2023 BNSF STANDARD CONSTRUCTION SPECIFICATION, PARTS 1300(1.21), 1300(1.22)(B), 1600(1.6)(G), 1600(1.10)(A)(4)(C), 1700(1.1)(C)(46 & 47), AND THE 2023 BNSF UTILITY ACCOMMODATION POLICY).

SURVEY

1. SURVEY NOTES: SURVEY DETAILS AND SURVEY CONTROL ARE SHOWN ON SHEET G-100.
2. BASE SURVEY: TOPOGRAPHIC GROUND SURVEY PREPARED BY CINQUINI & PASSARINO, INC., BASED UPON FIELD SURVEY PERFORMED ON APRIL 2023.
3. PROJECT BENCHMARK: CITY OF STOCKTON BENCHMARK NO. 305, ELEVATION= 4.69 FT. NAVD 88.
4. BASIS OF BEARING: BEING NORTH 10°02'25.4" EAST BETWEEN CORS STATION P257 AND P273, BASED ON COORDINATES PROVIDED BY THE CALIFORNIA SPATIAL REFERENCE CENTER. PROJECT IS BASED ON CALIFORNIA.
5. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).
6. HORIZONTAL DATUM: NORTH AMERICAN DATUM 1983 (NAD83) COORDINATE ZONE 3. POINTS ESTABLISHED FROM USGS MONUMENT STAMPED '10S-1' ON NORTH SIDE OF WASHINGTON STREET NEAR ENTRANCE TO PORT OF STOCKTON MAIN OFFICES.
7. ALL MAPPING AND SURVEY INFORMATION WAS DEVELOPED OR CONVERTED TO THE STATE PLANE COORDINATE SYSTEM. HORIZONTAL DATUM IS BASED ON NAD 83 AND VERTICAL DATUM IS BASED ON NAVD 88.
8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE PROVIDED HORIZONTAL AND VERTICAL CONTROL POINTS TO ASSURE THAT ALL PROJECT ELEMENTS ARE CONSTRUCTED AT THE CORRECT VERTICAL AND HORIZONTAL LOCATIONS.

RIGHT-OF-WAY

1. RIGHT-OF-WAY AND PARCEL BOUNDARY INFORMATION REPRESENTED ON THESE DRAWINGS IS BASED SURVEY PERFORMED IN APRIL 2023.

GENERAL EARTHWORK

1. EMBANKMENT QUANTITIES SHOWN ON THE PLANS ARE MEASURED TO THE NEAT LINES AS COMPACTED QUANTITIES, NO ADJUSTMENTS TO GRADING QUANTITIES HAVE BEEN MADE FOR COMPACTION, SHRINKAGE, SWELLING, OR CLEARING AND GRUBBING, REFER TO THE 2023 BNSF STANDARD CONSTRUCTION SPECIFICATION, PART 3200(4.3)(A).
2. MAINTAIN A DRY, SUBGRADE CONDITION DURING PREPARATION. GRADE SURFACE AWAY FROM ANY EXCAVATION.
3. DURING BENCHING, THE EXISTING EMBANKMENT MATERIAL SHALL BE FIELD CLASSIFIED FOR COMPATIBILITY WITH THE NEW EMBANKMENT SOIL TO BE PLACED AGAINST THE SLOPE. IT IS NOT RECOMMENDED THAT THE NEW EMBANKMENT FILL HAVE A PERMEABILITY LESS THAN THE EXISTING EMBANKMENT SOIL IN ORDER TO PREVENT TRAPPING WATER WITHIN THE EXISTING EMBANKMENT.
4. SUBGRADE AND EMBANKMENT SOILS MAY REQUIRE MOISTURE CONDITIONING TO ACHIEVE ADEQUATE COMPACTION.
5. LIMITS OF GRADING AS SHOWN ON THE PLANS ARE APPROXIMATE. WHERE LIMIT OF GRADING IS ADJACENT TO A BRIDGE, CROSSING OR OTHER FACILITY, GRADING SHALL PROVIDE FOR A CONTINUOUS GRADE SO THAT THE RAILROAD CAN SUBSEQUENTLY LAY TRACK WITH NO ADDITIONAL GRADING WORK.

EXCAVATED MATERIAL

1. ALL EXCAVATED MATERIAL SHALL REMAIN ONSITE UNLESS ARRANGEMENTS HAVE BEEN MADE TO TRANSPORT THE MATERIAL TO AN APPROVED DISPOSAL SITE.
2. SUBGRADE AND EMBANKMENT SOILS MAY REQUIRE MOISTURE CONDITIONING TO ACHIEVE ADEQUATE COMPACTION. LIMITS OF GRADING AS SHOWN ON THE PLANS ARE APPROXIMATE. WHERE LIMIT OF GRADING IS ADJACENT TO A BRIDGE, CROSSING OR OTHER FACILITY, GRADING SHALL PROVIDE FOR A CONTINUOUS GRADE SO THAT THE RAILROAD CAN SUBSEQUENTLY LAY TRACK WITH NO ADDITIONAL GRADING WORK. ALL EXCESS MATERIALS GOING TO AN APPROVED DISPOSAL SITE SHALL BE TESTED BEFORE LEAVING THE BNSF ROW. CONTAMINATED OR OTHERWISE UNSAFE EXCAVATED MATERIALS SHALL BE HANDLED ACCORDING TO THE ENGINEER.

TRACK

1. RAIL, BALLAST, TIES, AND SIGNAL WORK WILL BE INSTALLED BY BNSF UNLESS OTHERWISE SPECIFIED.

BASIS OF MILEPOST AND TRACK STATIONING

1. MILEPOST LOCATIONS AND TRACK STATIONING WERE ESTABLISHED FROM BNSF VALUATION MAP NO. 509306.

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	SUB	APP
0	08/31/26	ISSUED FOR BID			

WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER

Information is confidential on all plans, drawings, specifications, and/or information furnished here in shall remain the property of the Burlington Northern Santa Fe Railway and shall be held confidential and shall not be used for any purpose not provided for in agreements with the Burlington Northern Santa Fe Railway

DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/2026

BNSF RAILWAY
JMA CIVIL — 5250 Claremont Ave, Ste. 227, Stockton, CA 95207, T: 925.400.4356, www.jmacivil.com
CITY OF STOCKTON CALIFORNIA
HDR — 2379 Gateway Oaks, Ste. 200, Sacramento, CA 95833, T: 916.679.8700, www.hdrinc.com

ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER — ARKAPRABHA GHOSH — C91571 — Exp. 09/30/28 — CIVIL ENGINEER — STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

BNSF GENERAL NOTES

CONTRACT NO. 60657603
DRAWING NO. G-004
REVISION E
SHEET NO. 4
SCALE NA

G-004, G-005 GeneralNotes.dgn
$scentables
BY: AkashGhosh
TIME: 8:26:43 AM
$TODAY$

CONSTRUCTION PHASING NOTES:

1. WORKING IN CONCERT WITH BNSF, DEVELOP A DETAILED PROPOSED CRITICAL PATH METHOD (CPM) CONSTRUCTION SCHEDULE PRIOR TO STARTING WORK AND SUBMIT TO OWNER FOR REVIEW. SCHEDULE SHALL COMPLY WITH REQUIREMENTS OF THE CONTRACT DOCUMENTS, SHALL BE IN MICROSOFT PROJECT FORMAT. SCHEDULE SHALL INDICATE CONCURRENT RELATED WORK BY OTHERS. BNSF'S COMMENTS ON THE SCHEDULE SHALL BE INCORPORATED INTO A FINAL SCHEDULE. SCHEDULE SHALL BE UPDATED AND RESUBMITTED TO REFLECT ANTICIPATED CHANGES THAT OCCUR DURING CONSTRUCTION.

2. CONTRACTOR TO PROVIDE BNSF WITH A PHASING PLAN FOR TRACK EMBANKMENT CONSTRUCTION, INDICATING THE SCHEDULE AND DURATION FOR ANY TRACK OUTAGES. THE MAXIMUM ALLOWABLE CUTOVER WINDOW SHALL BE 8 HOURS AND IS CONTINGENT ON WRITTEN RAILROAD APPROVAL.

3. THE CONSTRUCTION SEQUENCE DESCRIBED BELOW IS INTENDED AS A GENERAL DESCRIPTION OF ACTIVITIES AND TIMEFRAMES. ACTUAL OPERATING CONDITIONS AND PROGRESS OF OTHER CONSTRUCTION CONTRACTS MAY DICTATE ADJUSTMENTS TO THE PLANNED CONSTRUCTION SEQUENCE. ITEMS NOTED IN PARENTHESES ARE ACTIVITIES BY OTHERS THAT MAY AFFECT THE TIMING OF CONSTRUCTION UNDER THIS CONTRACT.

   A. CONSTRUCT TRACK EMBANKMENT AND DRAINAGE WITHIN 10' (BNSF RIGHT OF WAY) CLEAR OF EXISTING ADJACENT TRACK AND ROADWAYS.
   B. ESTABLISH TRAFFIC CONTROL BEFORE COMMENCING WORK WHEN IMPACTING ROADWAYS.

EROSION CONTROL PRE-CONSTRUCTION NOTES:

1. PRE-CONSTRUCTION INSPECTION: CONDUCT A PRE-CONSTRUCTION INSPECTION AND BECOME FAMILIAR WITH EXISTING CONDITIONS.

2. STORM WATER NOTICE OF INTENT (NOI): THE CONTRACTOR SHALL FILE THE NOI AND OBTAIN A WDID NUMBER FROM THE STATE. MAINTAIN A COPY OF THE NOI ON-SITE AT ALL TIMES DURING ANY EARTH MOVING ACTIVITIES.

3. STORM WATER POLLUTION PREVENTION PLAN (SWPPP): THIS WORK SHALL COVERED UNDER THE MASTER STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED BY THE CONTRACTOR FOR ALL WORK PACKAGES COVERED IN THE PORT'S BID DOCUMENTS, BASED ON A PERMIT RISK LEVEL 1 AND SUBMITTED TO OWNER FOR REVIEW. THE SWPPP SHALL BE PREPARED BY A QUALIFIED SWPPP DEVELOPER (QSD). MAINTAIN A COPY OF THE SWPPP ON-SITE AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.

4. QUALIFIED SWPPP PRACTITIONER (QSP): THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A STATE-CERTIFIED QSP TO ADMINISTER THE SWPPP AND PERFORM ALL INSPECTIONS, SAMPLING AND REPORTS REQUIRED BY THE STATE WATER BOARD.

5. EMERGENCY CONTACT INFORMATION: POST ALL CONTRACTOR'S EMERGENCY CONTACT INFORMATION AT THE CONSTRUCTION SITE AND PROVIDE TO OWNER FOR USE IN CASE OF EMERGENCY.

6. ESTABLISHMENT OF WORK AREAS: BORROW PITS, EQUIPMENT STORAGE SITES, PLANT SITES, HAUL ROADS, WASH-DOWN AREAS AND OTHER SPECIAL WORK AREAS SHALL BE INSTALLED BY THE CONTRACTOR AND APPROVED BY THE OWNER PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES AT THE SITE.

7. ESTABLISHMENT OF EMERGENCY RESOURCES: EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE READILY AVAILABLE AT ALL TIMES DURING THE RAINY SEASONS. STOCKPILE EXTRA MATERIALS AT ACCESSIBLE LOCATIONS ON-SITE TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.

EROSION CONTROL NOTES:

1. CONTRACTOR SHALL PREPARE AN EROSION CONTROL PLAN AND SUBMIT TO OWNER FOR APPROVAL PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES FOR GRADING YEAR-ROUND.

2. END OF DAY PROCEDURES: AT THE END OF EACH WORKING DAY WHEN THE TWO (2) DAY RAIN PROBABILITY FORECAST EXCEEDS FIFTY (50) PERCENT, VERIFY THAT ALL REMOVABLE PROTECTIVE DEVICES ARE IN PLACE.

3. CLEARING OF DEBRIS AFTER RAIN: REMOVE ALL SILT AND DEBRIS FROM EROSION CONTROL DEVICES AFTER EACH RAIN EVENT.

4. PERIMETER GRADING: VERIFY THAT AREAS AROUND THE PERIMETER OF THE WORK AREA ARE GRADED TO DRAIN AWAY FROM DISTURBED AREAS AT THE CONCLUSION OF EACH WORKING DAY.

5. PUBLIC PROTECTION: TAKE ALL NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER COULD CREATE HAZARDOUS CONDITIONS.

6. WEEKLY INSPECTION: INSPECT EROSION CONTROL FACILITIES AT LEAST WEEKLY, AND AFTER EVERY RAINFALL EVENT GREATER THAN 0.5 INCHES.

7. MAINTENANCE OF TEMPORARY EROSION CONTROL FACILITIES: MAINTAIN ALL TEMPORARY EROSION CONTROL FACILITIES TO PREVENT EROSION AND TO CONTROL SILTATION AT ALL TIMES DURING CONSTRUCTION. MAKE REPAIRS WHEN NEEDED AND REMOVE TRAPPED SEDIMENT AT ANY TIME THE FACILITY'S CAPACITY IS REDUCED BY 25%.

8. STORM DRAIN STRUCTURE PROTECTION: PROMPTLY PROTECT ALL EXISTING AND NEW STORM DRAIN STRUCTURES WITH SILT FENCE OR OTHER INLET PROTECTION. DEVICES SHALL BE MAINTAINED UNTIL TRUCKING, EARTHWORK AND PAVING OPERATIONS ARE COMPLETED. PLACE ROCK CHANNEL PROTECTION AT THE ENDS OF ALL STORM DRAIN INLETS UPON COMPLETION OF INSTALLATION.

9. OWNER, ENGINEER AND PERMIT AGENCY MODIFICATIONS: THE OWNER, ENGINEER AND LOCAL AGENCY REPRESENTATIVES RESERVE THE RIGHT TO DIRECT CHANGES OR MODIFICATIONS TO EROSION AND SEDIMENTATION FACILITIES AND PROCEDURES AS DEEMED NECESSARY.

10. MANUFACTURED SLOPES: PROVIDE TEMPORARY EROSION PROTECTION AT ALL MANUFACTURED SLOPES PRIOR TO PERMANENT PLANTING.

11. MAINTAIN EXISTING DRAINAGE FEATURES: NO OBSTRUCTION OR DISTURBANCE OF NATURAL DRAINAGE COURSES OR EXISTING STORM DRAIN INLETS SHALL OCCUR DURING THE RAINY SEASON, UNLESS ADEQUATE TEMPORARY/ PERMANENT DRAINAGE FACILITIES HAVE BEEN APPROVED AND INSTALLED TO CARRY SURFACE WATER TO THE NEAREST PRACTICAL STREET, STORM DRAIN OR NATURAL WATER COURSE.

12. CONTROL OF RUNOFF: THE CONTRACTOR SHALL CONDUCT OPERATIONS IN SUCH A MANNER THAT STORM RUNOFF WILL BE CONTAINED WITHIN THE PROJECT OR CHANNELED INTO THE STORM DRAIN SYSTEM WHICH SERVES THE RUNOFF AREA. STORM RUNOFF FROM ONE AREA SHALL NOT BE ALLOWED TO DIVERT TO ANOTHER RUNOFF AREA.

13. THE CONTRACTOR'S VEHICLES LEAVING THE SITE AT ANY TIME SHALL BE HOSED AND WASHED CLEAN OF MUD AND DIRT CLINGING TO WHEELS AND EXTERIOR BODY SURFACE.

14. ALL TRUCKS LEAVING THE SITE SHALL BE LOADED IN A MANNER THAT WILL PREVENT DROPPING OF MATERIALS ON THE STREETS AND, WHEN NECESSARY, SHALL HAVE SUITABLE TARPAULINS FASTENED OVER THE LOAD BEFORE ENTERING SURROUNDING PAVED STREETS. TRUCKS BRINGING MATERIAL OVER PAVED STREETS TO THE SITE SHALL BE SIMILARLY LOADED AND COVERED.

15. CONTRACTOR SHALL MAINTAIN ADJACENT STREETS CONTINUOUSLY FREE OF DIRT AND DEBRIS RESULTING FROM THEIR OPERATIONS AND MUST PROVIDE STREET CLEANING AS NECESSARY AS DIRECTED BY THE OWNER.

16. ALL SURPLUS OR REJECTED MATERIAL, REFUSE TOOLS, AND DEBRIS THAT MAY ACCUMULATE ON THE PREMISES DURING THE CONSTRUCTION PERIOD SHALL BE REMOVED FROM TIME TO TIME, AND ON COMPLETION OF WORKS ALL DEBRIS SHALL SE REMOVED AND THE PREMISES THOROUGHLY BROOM-CLEANED.

17. CONFORMANCE WITH THE REQUIREMENTS OF THIS PLAN SHALL IN NO WAY RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITIES TO THIS SITE AND ADJACENT PROPERTIES. TEMPORARY EROSION CONTROL SHALL CONSIST OF, BUT NOT LIMITED TO, CONSTRUCTING SUCH FACILITIES AND TAKING SUCH MEASURES AS DEEMED NECESSARY TO PREVENT, CONTROL AND ABATE WATER, MUD AND EROSION DAMAGE TO PUBLIC AND PRIVATE PROPERTY AS A RESULT OF THE CONSTRUCTION OF THIS PROJECT.

18. SLOPES CONSTRUCTED PRIOR TO OCTOBER 1 SHALL BE TREATED FOR EROSION CONTROL, SLOPES CONSTRUCTED AFTER OCTOBER 1 SHALL BE TREATED FOR EROSION CONTROL IN INCREMENTS OF 25 FEET OR LESS MEASURED VERTICALLY. AS THE CONSTRUCTION OF SLOPE PROGRESSES.

19. FILL AREAS, WHILE BEING BROUGHT UP TO GRADE AND DURING PERIODS OF COMPLETIONS PRIOR TO FINAL GRADE, SHALL BE PROTECTED BY VARIOUS MEASURES TO ELIMINATE EROSION AND THE SILTATION OF DOWNSTREAM FACILITIES AND ADJACENT AREAS. THESE MEASURES MAY INCLUDE BUT SHALL NOT BE LIMITED TO:

   A. TEMPORARY DOWNDRAINS, EITHER IN THE FORM OF PIPES OR PAVED DITCHES WITH PROTECTED OUTFALL AREAS;
   B. GRADED BERMS AROUND AREAS TO ELIMINATE EROSION OF FILL SLOPES BY SURFACE RUNOFF;
   C. CONFINED PONDING AREAS TO DESILT RUNOFF;
   D. TEMPORARY CHECKS DAMS IN TOE OF SLOPE DITCHES TO DESILT RUNOFF;
   E. PROTECTIONS SUCH AS SANDBAGS AROUND INLETS WHICH HAVE NOT BEEN BROUGHT UP TO GRADE; AND
   F. EARTH BERMS AND APPROPRIATE GRADING TO DIRECT DRAINAGE AWAY FROM THE EDGE OF THE TOP OF SLOPES TO BE CONSTRUCTED AND MAINTAINED.

20. CLEARING AND GRUBBING SHOULD BE LIMITED TO AREAS THAT WILL RECEIVE IMMEDIATE GRADING. EROSION CONTROL MEASURES WILL BE REQUIRED TO PROTECT AREAS WHICH HAVE BEEN CLEARED AND GRUBBED PRIOR TO GRADING OPERATION, AND WHICH ARE SUBJECT TO RUNOFF DURING THE PERIOD OF THE RAINY SEASON. THESE MEASURES MAY INCLUDE, BUT SHALL NOT BE LIMITED TO, GRADED DITCHES, BRUSH BARRIERS AND SILT FENCES. CARE SHALL BE EXERCISED TO PRESERVE VEGETATION BEYOND THE LIMITS OF GRADING.

21. THE PERMIT AGENCY APPROVAL OF PLANS DOES NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR THE CORRECTION OF ERRORS AND OMISSIONS DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE REQUIRED PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE PERMIT AGENCY FOR APPROVAL.

22. ALL GRADED SLOPE AREAS SHALL BE HYDROSEEDED UNLESS SUFFICIENT NATURAL VEGETATION HAS BEEN ESTABLISHED AS DETERMINED BY THE PERMIT AGENCY INSPECTOR.

23. SANDBAGS SHALL NOT BE PLACED AT CONTRACTOR'S ACCESS TO THE SITE. CONTRACTOR'S ACCESS LOCATION TO BE APPROVED BY THE PERMIT AGENCY.

RAILROAD OPERATIONS NOTES:

1. MAINTAIN RAILROAD OPERATIONS: THE CONTRACTOR'S WORK SHALL NOT INTERRUPT THE OPERATIONS OF THE RAILROAD WITHOUT PRIOR WRITTEN APPROVAL FROM THE RAILROAD REPRESENTATIVE.

2. RAILROAD SAFETY: COMPLY WITH ALL RAILROAD SAFETY REQUIREMENTS FOR OPERATIONS NEAR LIVE TRACK.

3. CONTRACTOR SAFETY TRAINING: ALL WORK WITHIN RAILROAD RIGHT-OF-WAY IS SUBJECT TO FEDERAL RAILWAY ADMINISTRATION (FRA) JURISDICTION AND HAS SPECIAL TRAINING AND SAFETY REQUIREMENTS. ALL CONSTRUCTION PERSONNEL ON SITE SHALL HAVE SUCCESSFULLY COMPLETED THE RAILROAD ON-LINE SAFETY COURSE. (WWW.CONTRACTORORIENTATION.COM). ALL PERSONNEL SHALL CARRY PAPER RECORD OF COURSE COMPLETION AT ALL TIMES WHILE ON SITE.

4. CONTRACTOR SECURITY CLEARANCE: ALL CONTRACTORS DOING WORK WITHIN THE RAILROAD RIGHT-OF-WAY ARE REQUIRED TO COMPLETE THE E-RAILSAFE SECURITY CLEARANCE PROCESS. CONTRACTORS MUST DISPLAY THEIR VALID ID BADGES AT ALL TIMES WHEN ON RAILROAD PROPERTY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL SUBCONTRACTORS HAVE VALID E-RAILSAFE ID BADGES.

5. FLAGGING: MAKE ARRANGEMENTS FOR FLAGGING WITH THE RAILROAD. FLAGGING IS REQUIRED WHEN PERSONNEL OR EQUIPMENT ARE WORKING WITHIN 25 FEET OF CENTER OF THE MAIN LINE OR ANY OTHER ACTIVE TRACK OR IF A PIECE OF EQUIPMENT LOCATED GREATER THAN 25 FEET HAS THE POTENTIAL TO FOUL THE TRACKS. ALL FLAGGING COSTS ARE AT THE CONTRACTOR'S EXPENSE.

6. RIGHT-OF-ENTRY: WRITTEN RIGHT-OF-ENTRY FROM THE RAILROAD SHALL BE OBTAINED BY THE CONTRACTOR FOR ALL WORK WITHIN RAILROAD RIGHT-OF-WAY PRIOR TO THE START OF CONSTRUCTION.

7. CLEARANCES: MAINTAIN ALL HORIZONTAL AND VERTICAL CLEARANCES IN ACCORDANCE WITH THE RAILROAD AND CALIFORNIA PUBLIC UTILITIES COMMISSION REQUIREMENTS.

8. TRAINMAN'S WALKWAYS: PROVIDE/MAINTAIN ALL WALKWAYS ADJACENT TO TRACKS IN ACCORDANCE WITH RAILROAD REQUIREMENTS AND CALIFORNIA PUBLIC UTILITIES COMMISSION GENERAL ORDER 118. NO OBSTRUCTIONS ARE PERMITTED IN THE WALKWAY WITHIN 8"-6" OF THE TRACK CENTER LINE.

9. PROTECT EXISTING TRACKS: CONTRACTOR SHALL PROVIDE SHORING PER RAILROAD GENERAL SHORING REQUIREMENTS. A SHORING DESIGN PLAN AND CALCULATIONS, SIGNED BY A LICENSED ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED SHALL BE SUBMITTED FOR RAILROAD APPROVAL PRIOR TO START OF THE CONSTRUCTION. NO EXCAVATION SHALL TAKE PLACE CLOSER THAN 15 FEET FROM THE CENTERLINE OF EXISTING TRACKS.

MATERIAL NOTES:

1. OWNER AND RAILROAD SUBMITTALS: SUBMIT PRODUCT DATA AND SHOP DRAWINGS TO OWNER AND RAILROAD FOR APPROVAL PRIOR TO CONSTRUCTION FOR ALL MATERIALS SHOWN ON THE PLANS,

2. TRACK WORK MATERIALS AND CONSTRUCTION: ALL TRACK WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH BNSF STANDARDS.

NOT FOR CONSTRUCTION

PROJECT NUMBER	COST ELEMENT	LINE ITEM	CONTRACT DESIGNATOR	PHYSICAL ENTITY	WORK ELEMENT	REV	DATE	DESCRIPTION	BY	SUB	APP
						0	08/31/26	ISSUED FOR BID			

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DESIGNED BY	A. GHOSH
DRAWN BY	H.SADIQ
CHECKED BY	A. RIEGER
APPROVED BY	A. GHOSH
DATE	08/31/2026

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LICENSED PROFESSIONAL ENGINEER ARAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

PROJECT GENERAL NOTES

CONTRACT NO.	60657603
DRAWING NO.	G-005
REVISION	E
SHEET NO.	5
SCALE	NA

G-006 Control Points and Geometry Sheet.dgn
$$colortable$$
BY: AkashGhosh
TIME: 11:35:32 AM
$$TODAY$$
$$penstable$$

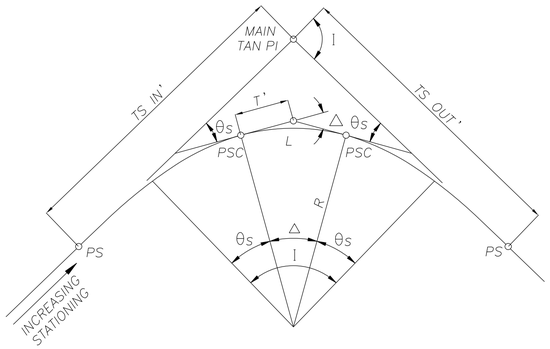


FIGURE A
CIRCULAR CURVES WITH SPIRAL TANSITION

I – TOTAL INTERSECTION ANGLE

θS – SPIRAL ANGLE = $\frac{A L^2}{2}$

Δ – CENTRAL ANGLE OF CIRCULAR CURVE = I – 2θS

Dc – DEGREE OF CURVE

A – RATE OF CHANGE OF DEGREE OF CURVE PER 100–FT. OF LENGTH = $\frac{Dc}{L}$

R – RADIUS OF CIRCULAR CURVE

T – TANGENT LENGTH OF CIRCULAR CURVE = $\frac{\Delta}{2}$

L – LENGTH OF CIRCULAR CURVE = $\frac{\Delta}{Dc}$ x 100

PS – TANGENT TO SPIRAL

PSC – SPIRAL TO CURVE

PCS – CURVE TO SPIRAL

PT – SPIRAL TO TANGENT

MAIN TAN PI – POINT OF INTERSECTION OF MAIN TANGENTS

(TS IN)
(TS OUT) – TANGENT LENGTH OF COMPLETE CURVE = (R+o) TAN $\frac{I}{2}$ +t

(WHEN SPIRALS OF EQUAL LENGTH ARE USED ON BOTH SIDES OF CIRCULAR CURVE, SEE FIGURE C. FOR o AND t)

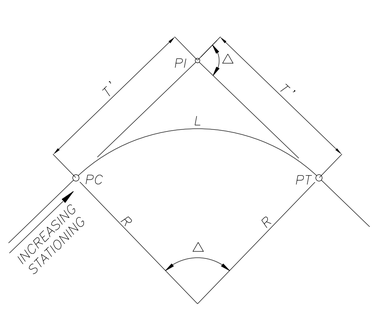


FIGURE B
SIMPLE CIRCULAR CURVE

R = RADIUS OF CIRCULAR CURVE

Δ = CENTRAL ANGLE OF CIRCULAR CURVE

T = R TAN $\frac{\Delta}{2}$

L = $\frac{\Delta}{Dc}$ x 100

Dc = 2 SIN^{-1} (50/R) = DEGREE OF CURVE (CHORD DEFINITION)

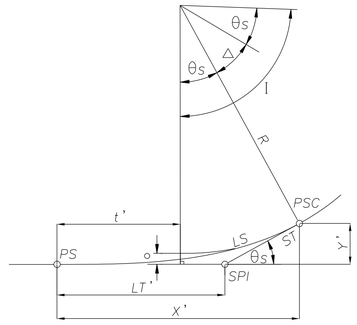


FIGURE C
SPIRAL TRANSITION CURVE

LS = LENGTH OF SPIRAL (TS TO PSC)

θS = $\frac{A L^2}{2}$

X = 100 L_1 –0.000762$A^2 L_1^5$

Y = 0.291AL_1^3 –0.00000158$A^3 L_1^7$

o = 0.0727AL_1^3

t = 50L_1 –0.000127$A^2 L_1^5$

ST = $\frac{Y}{SIN\,\theta S}$

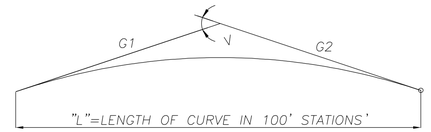
LT = X– $\frac{Y}{TAN\theta S}$

Dc = 2 SIN^{-1} (50/R) = DEGREE OF CURVE (CHORD DEFINITION)

L_1 – TOTAL NO. OF STATIONS IN SPIRAL

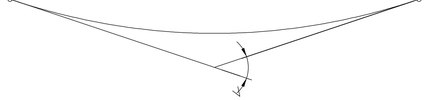
SPI – SPIRAL POINT OF INTERSECTION

NOTE: Dc, θS, Δ, AND I ARE IN DEGREES.
ALL OTHERS DIMENSIONS ARE FEET.



$R = \frac{(G2-G1)}{L}$

G1 AND G2 DESIGNATE GRADES IN PERCENT.
L=LENGTH OF CURVE IN 100' STATIONS.
V=ALGEBRAIC DIFFERENCE IN GRADES IN PERCENT(G2–G1).
R=AVERAGE CHANGE IN GRADIENT PER 100' STATION.



1 / G-005 HORIZONTAL CURVE DEFINITION
SCALE: NTS

2 / G-005 VERTICAL CURVE DEFINITION
SCALE: NTS

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY/SUB	APP
0	08/31/26	ISSUED FOR BID		

WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER

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STATE OF CALIFORNIA

PORT OF STOCKTON
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GEOMETRY SHEET

CONTRACT NO. 60657603
DRAWING NO. G-006
REVISION E
SHEET NO. 6
SCALE NA

PROP. LD02

ELEMENT	CURVE DATA	POINT	STATION	NORTHING	EASTING	BEARING
LINEAR	L=34.01	START	107+57.20	2165818.62	6325987.90	S88.531°E
		PC	107+91.21	2165817.70	6326023.49	S88.531°E
CURVE LD02-10	DELTA = 13°18'29" LEFT DOC = 08°30'00" R = 674.69' L = 156.6' T = 78.65'	PC	107+91.21	2165817.70	6326023.49	S88.531°E
		PI	108+69.67	2165815.69	6326102.12	
		PT	109+47.47	2165831.81	6326179.10	N78.170°E
LINEAR	L=86.14	PT	109+47.47	2165831.81	6326179.10	N78.170°E
		PC	110+33.61	2165849.47	6326263.41	N78.170°E
CURVE LD02-11	DELTA = 06°15'00" RIGHT DOC = 06°00'00" R = 955.37' L = 104.22' T = 52.16'	PC	110+32.99	2165849.47	6326263.41	N78.170°E
		PI	110+85.77	2165860.16	6326314.46	
		PT	111+37.79	2165865.24	6326366.38	N84.421°E
LINEAR	L=236.45	PT	111+37.79	2165865.24	6326366.38	N84.421°E
		PC	113+74.24	2165888.22	6326601.71	N84.421°E
CURVE LD02-12	DELTA = 05°24'58" LEFT DOC = 05°00'00" R = 1146.28' L = 108.41' T = 54.25'	PC	113+74.24	2165888.22	6326601.71	N84.421°E
		PI	114+28.49	2165893.50	6326655.70	
		PT	114+82.62	2165903.85	6326708.95	N79.002°E
LINEAR	L=1952.47	PT	114+82.62	2165903.85	6326708.95	N79.002°E
		PC	134+35.09	2166276.33	6328625.57	N79.002°E
CURVE LD02-13	DELTA = 03°48'55" RIGHT DOC = 03°00'00" R = 1910.08' L = 127.29' T = 63.67'	PC	134+35.09	2166276.33	6328625.57	N79.002°E
		PI	134+98.76	2166288.48	6328688.06	
		PT	135+62.37	2166296.44	6328751.23	N82.820°E
LINEAR	L=376.02	PT	135+62.37	2166296.44	6328751.23	N82.820°E
		PF	138+38+39	2166331.01	6329025.70	N80.228°E
TURNOUT T-33	DELTA =03°49'06.3" LEFT NO. 15	PF	138+38+39	2166331.01	6329025.70	N80.228°E
		PI	139+79.12	2166349.63	6329164.15	
		PT. SW.	140+19.10	2166356.15	6329203.97	N79.013°E

PROP. LD01

ELEMENT	CURVE DATA	POINT	STATION	NORTHING	EASTING	BEARING
CURVE LD01-01	DELTA = 08°23'38.4" RIGHT DOC = 13°04'03" R = 439.41' L = 64.37' T = 32.24'	PC/POB	184+10.55	2165829.91	6326267.577	N78.198°E
		PI	184+61.77	2165840.387	6326317.718	
		PT	185+12.84	2165845.367	6326368.699	S85.349°E
LINEAR	L=364.09	PT	185+12.84	2165845.367	6326368.699	S85.349°E
		PC	188+76.93	2165880.764	6326731.064	S85.349°E
CURVE LD01-02	DELTA = 78°12'14.4" LEFT DOC = 12°30'00" R = 459.276' L = 626.874' T = 373.27'	PC	188+76.93	2165880.764	6326731.064	S85.349°E
		PI	189+31.18	2165886.038	6326785.054	
		PT/POE	189+85.31	2165896.387	6326838.305	N79.002°E

BNSF SPUR TRK

ELEMENT	CURVE DATA	POINT	STATION	NORTHING	EASTING	BEARING
CURVE BNSF SPUR-1	DELTA = 06°39'25.2" LEFT DOC = 06°00'00" R = 955.37' L = 110.99' T = 55.56'	PC	11+64.12	2166318.00	6328485.02	S79.034°W
		PI	12+19.68	2166307.43	6328430.48	
		PT	12+75.06	2166290.61	6328377.52	S72.377°W
LINEAR		START	12+75.06	2166290.61	6328377.52	S72.377°W
		END	14+90.87	2166225.28	6328171.85	S72.377°W

$TODAY$ TIME: 11:34:26 AM BY: Aks@hosh $colortable$ $penstable$ G-007 Track Geometry Table.dgn

PROJECT NUMBER	CONTRACT DESIGNATOR	PHYSICAL ENTITY	WORK ELEMENT

REV	DATE	DESCRIPTION	BY	SUB	APP
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PORT OF STOCKTON
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STOCKTON, CA 95203

TRACK GEOMETRY TABLE

CONTRACT NO.	60657603
DRAWING NO.	G-007
REVISION	E
SHEET NO.	7
SCALE	NA

G-008 Qty Summary Table.dgn

$permissions$

Quantity Summary Table - Work by Contractor				
Phase	**Task/ Item Description**	**Quantity**	**Unit**	**Material Source**
1	Clearing and Grubbing	7	AC	
1	Erosion Control Allowance	1	LS	
1	Traffic Control	1	LS	
1	Remove and Dispose Chain link Fence	290	LF	
1	Tree Removal	20	EA	
Site - Earthwork				
1	Earthwork - Imported Borrow	25,532	CY	Contractor
2	Earthwork - Imported Borrow	86	CY	Contractor
1	Earthwork - Excavation and Off Haul	7,822	CY	Contractor
2	Earthwork - Excavation and Off Haul	2,816	CY	Contractor
1	Aggregate Base - 12" (Railroad Subballast)	3,487	CY	Contractor
2	Aggregate Base - 12" (Railroad Subballast)	554	CY	Contractor
Site - Utilities				
1	Culvert - 36" CMP	92	LF	Contractor
1	Culvert - 24" CMP	32	LF	Contractor
1	Sanitary Sewer - 27" RCP	286	LF	Contractor
1	Split Casing - 42" Steel	35	LF	Contractor
1	Storm Drain Catch Basin	2	EA	Contractor
1	Rip Rap - Class 3	55	CY	Contractor
1	Utility Protection Slab	1275	SF	Contractor

Quantity Summary Table - Work by BNSF				
Phase	**Task/ Item Description**	**Quantity**	**Unit**	**Material Source**
1	Track Removal	348	TF	
2	Track Removal	787	TF	
1	136# CWR	3,005	TF	BNSF
2	136# CWR	80	TF	BNSF
2	141# CWR	576	TF	BNSF
1	136# Jointed Rail	327	TF	BNSF
1	New Track (8.5' Wood Ties at 19.5" TC, Ballast, OTM)	3,332	TF	Contractor
2	New Track (8.5' Wood Ties at 19.5" TC, Ballast, OTM)	80	TF	Contractor
2	Track Relocate/Shift with 30% Tie Replacement	83	TF	Contractor
2	No. 15 Right Hand Hand Thrown Turnout	1	EA	BNSF
2	DSP Derail Hand Thrown	1	EA	Contractor
1	Inner Guard Rail	220	TF	Contractor
1	Earthen Bumper	1	EA	Contractor

$TODAY$ TIME 1:26:49 PM BY Arka2hosh $colortable$

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PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

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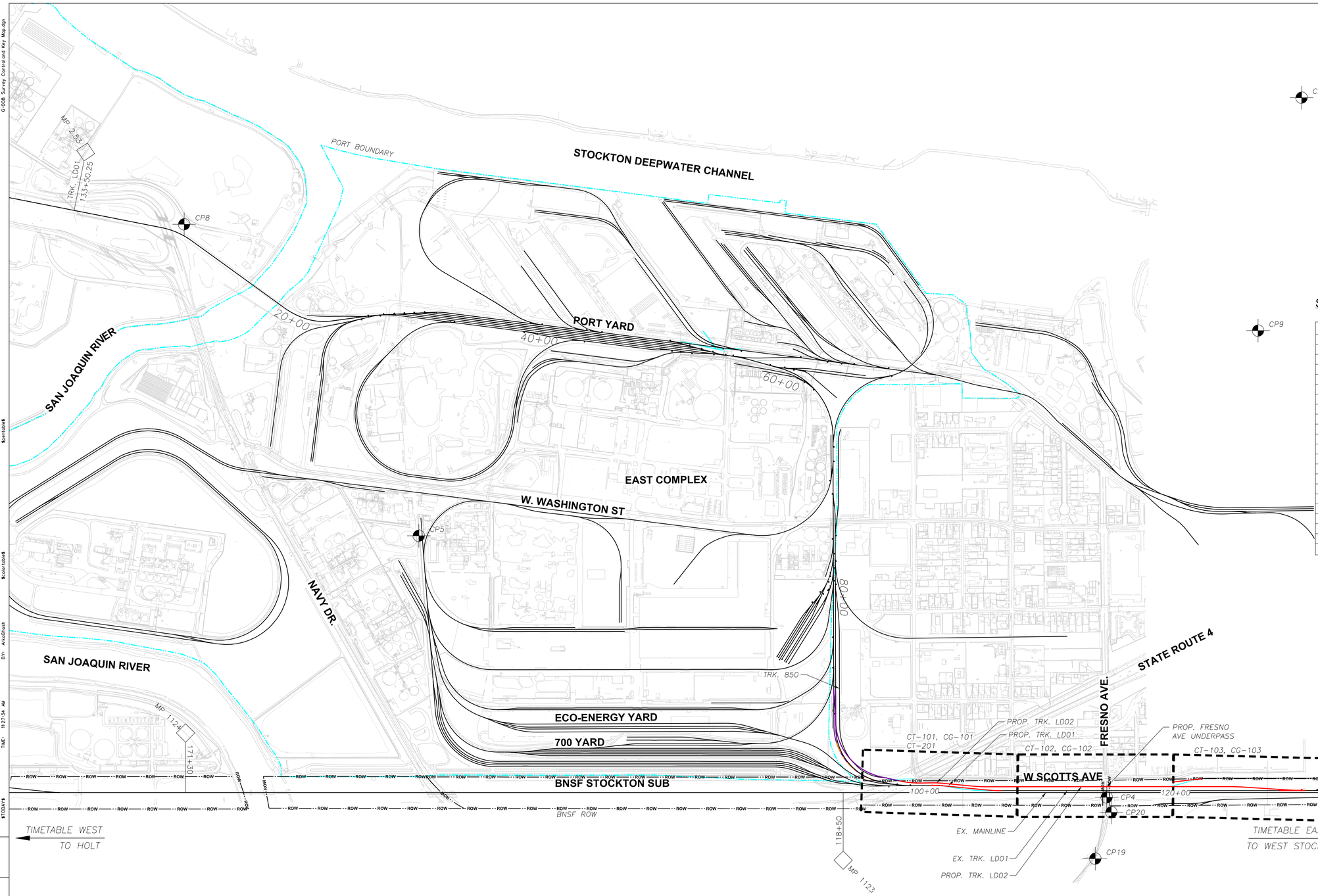
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LICENSED PROFESSIONAL ENGINEER ARNAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
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QUANTITY SUMMARY TABLE

CONTRACT NO. 60657603
DRAWING NO. G-008
REVISION E
SHEET NO. 8
SCALE NA



DESIGN NOTES:

1. SAN JOAQUIN AND FRESNO AVE BRIDGE STRUCTURES ARE BASED ON HDR's CURRENT BRIDGE DESIGN.
2. EXISTING TRACK ALIGNMENTS ARE BASED ON GROUND SURVEY PERFORMED ON 04/24/2023.
3. HORIZONTAL COORDINATES ARE BASED ON CALIFORNIA STATE PLANE COORDINATE SYSTEM ZONE #3, NAVD83.
4. VERTICAL COORDINATES ARE BASED ON NAVD88.
5. BENCHMARK FOR THE SURVEY IS CITY OF STOCKTON NO. 305 BRASS DISK MARKING COS MONUMENT STAMPED "10S-1" IN MONUMENT WELL ON NORTH SIDE OF WASHINGTON STREET NEAR ENTRANCE TO PORT OF STOCKTON MAIN OFFICES, ELEVATION = 4.69 FT (NAVD88).
6. BNSF MILEPOST SHOWN ON PLANS ARE BASED ON BNSF VALMAP# 509306-MP 1121.5 STOCKTON SUB.

SURVEY CONTROL POINTS:

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
CPI 1	6314255.536	2164240.159	1.23	AERIAL TARGET
CPI 2	6306494.172	2163871.719	10.34	AERIAL TARGET
CPI 3	6323774.715	2163869.271	4.49	AERIAL TARGET
CPI 4*	6327467.252	2163862.674	5.38	AERIAL TARGET
CPI 5*	6327677.672	2166005.125	0.56	AERIAL TARGET
CPI 6	6321855.451	2167016.397	4.47	AERIAL TARGET
CPI 7	6309687.501	2166914.894	7.06	AERIAL TARGET
CPI 8*	6308558.558	2169920.601	16.69	AERIAL TARGET
CPI 9*	6319530.188	2169114.180	6.07	AERIAL TARGET
CPI 10*	6328157.367	2169916.513	12.98	AERIAL TARGET
CPI 11	6328144.525	2171819.765	8.90	AERIAL TARGET
CPI 12	6321001.184	2171751.250	3.85	AERIAL TARGET
CPI 13	6315803.731	2173065.702	3.96	AERIAL TARGET
CPI 14	6307966.176	2172846.259	17.41	AERIAL TARGET
CPI 15	6308498.060	2174258.491	16.83	AERIAL TARGET
CPI 16	6312300.489	2175078.187	17.11	AERIAL TARGET
CPI 17	6316483.403	2175280.872	0.75	AERIAL TARGET
CPI 18	6313119.855	2169663.012	0.57	AERIAL TARGET
CPI 19*	6311484.517	2172814.189	5.56	AERIAL TARGET
CPI 20*	6327681.189	2165503.519	6.29	AERIAL TARGET
CPI 21	6327737.122	2165894.000	6.67	AERIAL TARGET
CPI 22	6327617.676	2166116.419	4.46	AERIAL TARGET

* SURVEY CONTROL POINTS SHOWN ON SHEETS

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SURVEY CONTROL AND KEY MAP

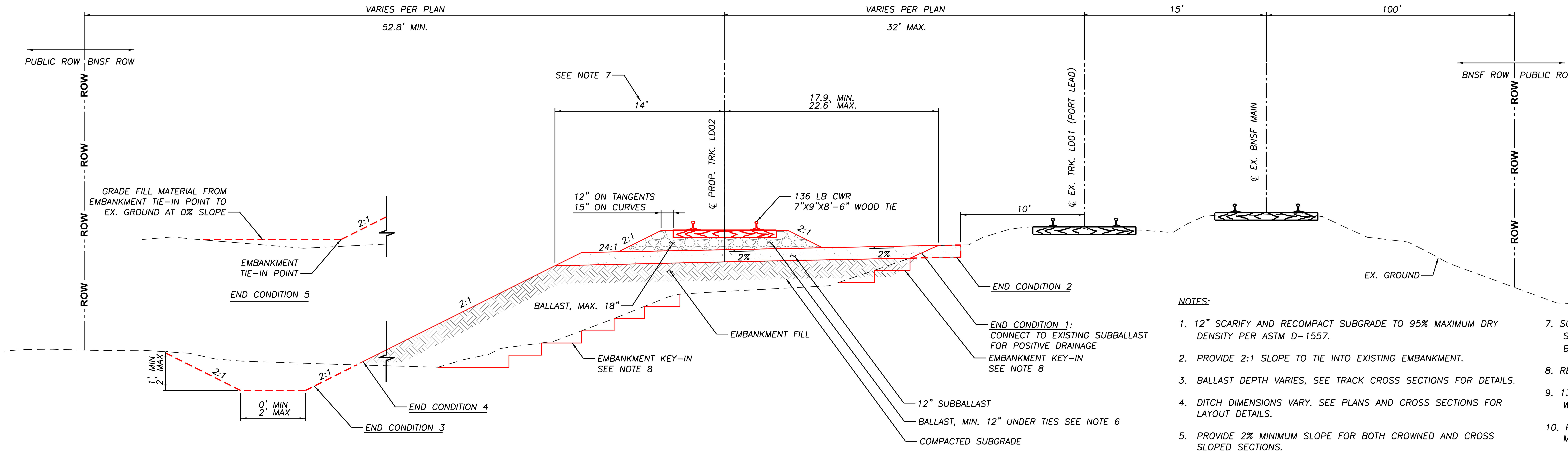
CONTRACT NO.	60657603
DRAWING NO.	G-100
REVISION	E
SHEET NO.	9
SCALE	NA

PROJECT NUMBER | LINE ITEM | COST ELEMENT | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

G-008 Survey Control and Key Map.dgn
$scaletable$
BY: ArkaGhosh
TIME: 11:27:34 AM
$TODAY$

G-301 to G-303 Typical Sections.dgn

$pentable$ $colortable$ BY: ArkaGhosh TIME: 4:32:32 PM $TODAY$



DESIGN NOTES:

1. SEE SHEET G-004, G-005, AND G-100 FOR PROJECT DESIGN NOTES.

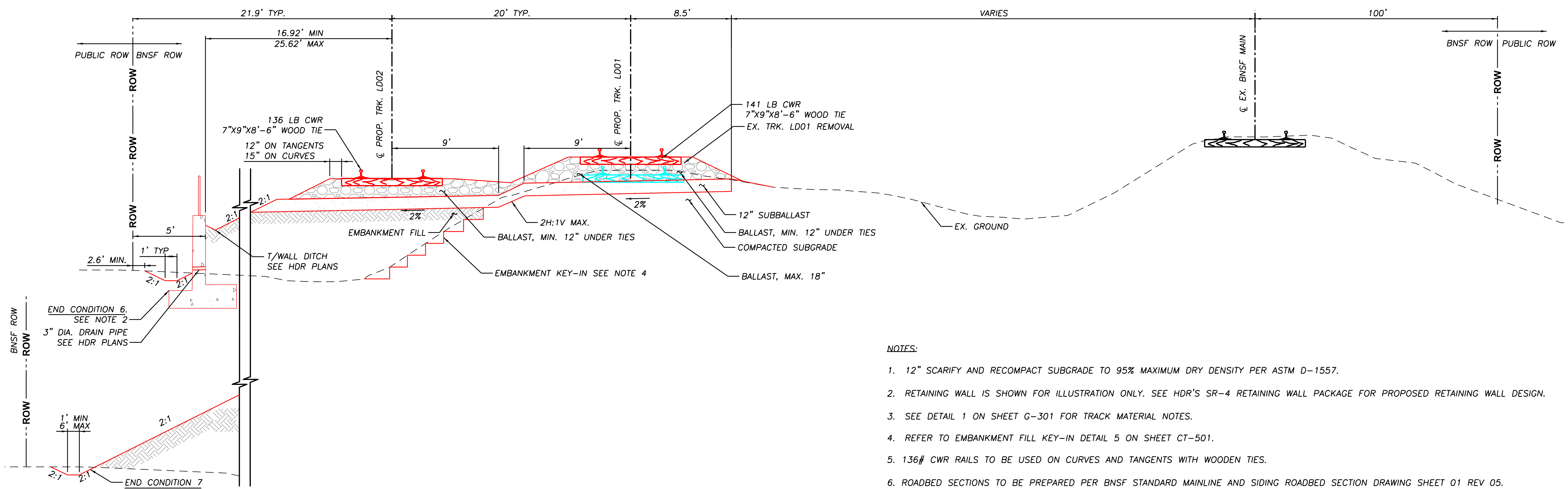
NOTES:

1. 12" SCARIFY AND RECOMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY PER ASTM D-1557.
2. PROVIDE 2:1 SLOPE TO TIE INTO EXISTING EMBANKMENT.
3. BALLAST DEPTH VARIES, SEE TRACK CROSS SECTIONS FOR DETAILS.
4. DITCH DIMENSIONS VARY. SEE PLANS AND CROSS SECTIONS FOR LAYOUT DETAILS.
5. PROVIDE 2% MINIMUM SLOPE FOR BOTH CROWNED AND CROSS SLOPED SECTIONS.
6. MINIMUM BALLAST THICKNESS UNDER TIES IS 12" FROM STA. 107+23-109+33 & 132+71-140+15.
7. SUBBALLAST WIDTH INCREASES TO 45' FROM 14' AND BALLAST SHOULDER WIDTH INCREASES FROM 1' TO 4.25' AT WALKWAY BALLAST LOCATION.
8. REFER TO EMBANKMENT FILL KEY-IN DETAIL 5 ON SHEET CT-501.
9. 136# CWR RAILS TO BE USED ON CURVES AND TANGENTS WITH WOODEN TIES.
10. ROADBED SECTIONS TO BE PREPARED PER BNSF STANDARD MAINLINE AND SIDING ROADBED SECTION DRAWING SHEET 01 REV 05.

1 / G-301 BNSF MAINLINE - TRK. LD02

SCALE: 1"=5'

END CONDITION 2 & 3: STA. 107+59-108+50; END CONDITION 2 & 4: STA. 108+50-109+65; END CONDITION 1 & 3: STA. 113+40-121+50, STA. 128+50-129+80; END CONDITION 1 & 5 STA. 133+04-137+45; END CONDITION 1 & 4: STA. 137+45-140+18



NOTES:

1. 12" SCARIFY AND RECOMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY PER ASTM D-1557.
2. RETAINING WALL IS SHOWN FOR ILLUSTRATION ONLY. SEE HDR'S SR-4 RETAINING WALL PACKAGE FOR PROPOSED RETAINING WALL DESIGN.
3. SEE DETAIL 1 ON SHEET G-301 FOR TRACK MATERIAL NOTES.
4. REFER TO EMBANKMENT FILL KEY-IN DETAIL 5 ON SHEET CT-501.
5. 136# CWR RAILS TO BE USED ON CURVES AND TANGENTS WITH WOODEN TIES.
6. ROADBED SECTIONS TO BE PREPARED PER BNSF STANDARD MAINLINE AND SIDING ROADBED SECTION DRAWING SHEET 01 REV 05.

2 / G-301 BNSF MAINLINE - TRACKS LD01 AND LD02

SCALE: 1"=5'

END CONDITION 6: STA. 110+33-111+83; END CONDITION 7: STA. 111+83-113+40

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0	08/31/26	ISSUED FOR BID		

WORK ELEMENT / PHYSICAL ENTITY / CONTRACT DESIGNATOR / LINE ITEM / COST ELEMENT / PROJECT NUMBER

Information is confidential on all plans, drawings, specifications, and/or information furnished here in shall remain the property of the Burlington Northern Santa Fe Railway and shall be held confidential and shall not be used for any purpose not provided for in agreements with the Burlington Northern Santa Fe Railway

DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/2026

BNSF RAILWAY

JMA CIVIL 5250 Claremont Ave, Ste. 227 Stockton, CA 95207 T: 925.400.4356 www.jmacivil.com

HDR 2379 Gateway Oaks, Ste. 200 Sacramento, CA 95833 T: 916.679.8700 www.hdrinc.com

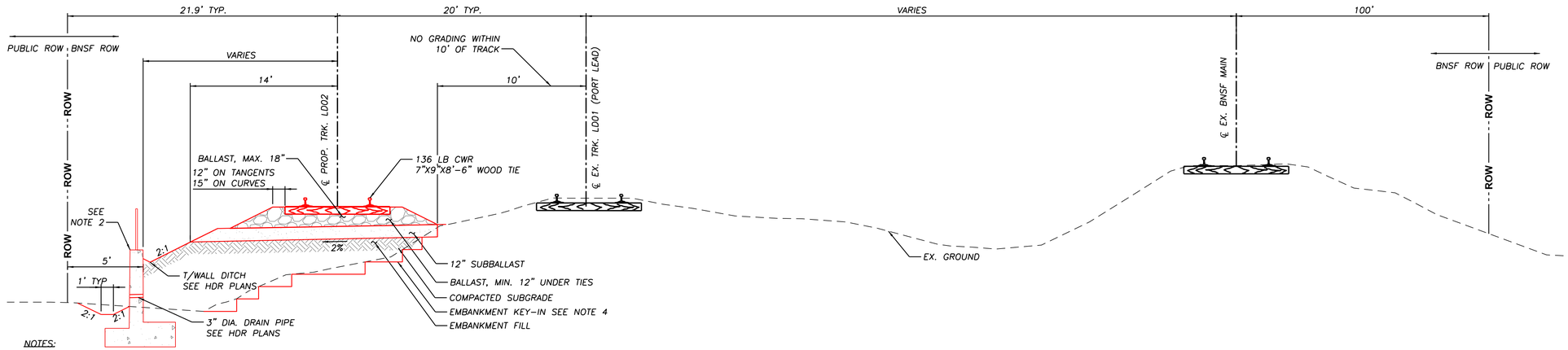
ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER ARKAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

TRACK TYPICAL SECTIONS BNSF ROW

CONTRACT NO. 60657603
DRAWING NO. G-301
REVISION E
SHEET NO. 10
SCALE NA



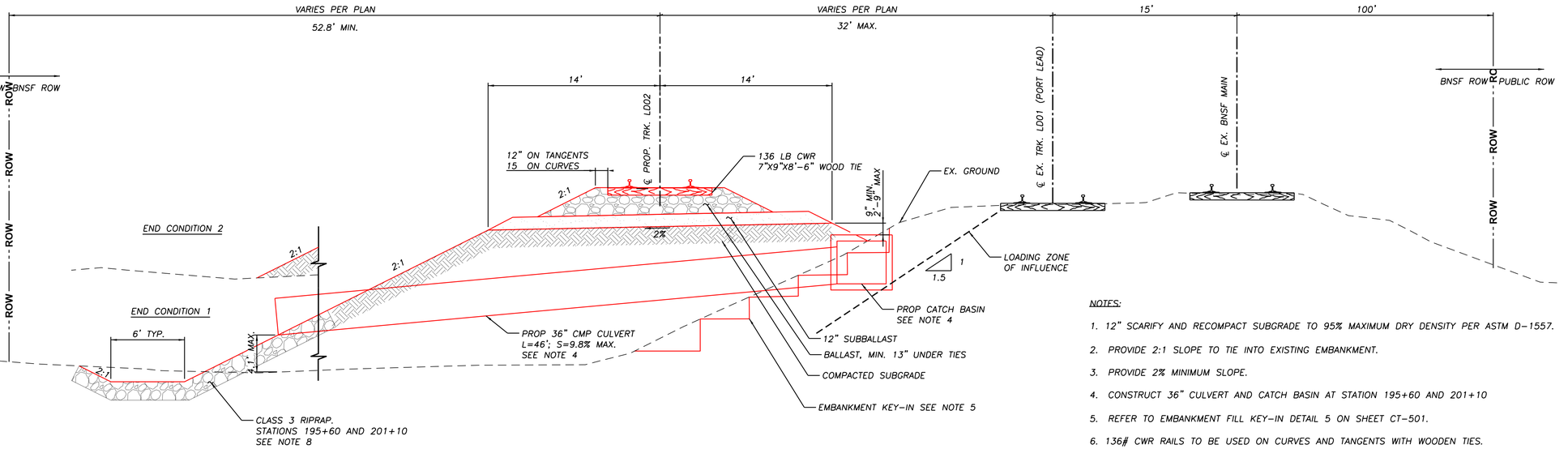
NOTES:

1. 12" SCARIFY AND RECOMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY PER ASTM D-1557.
2. RETAINING WALL IS SHOWN FOR ILLUSTRATION ONLY. SEE HDR'S SR-4 RETAINING WALL PACKAGE FOR PROPOSED RETAINING WALL DESIGN.
3. SEE DETAIL 1 ON SHEET G-301 FOR TRACK MATERIAL NOTES.
4. REFER TO EMBANKMENT FILL KEY-IN DETAIL 5 ON SHEET CT-501.
5. BALLAST DEPTH VARIES, SEE TRACK CROSS SECTIONS FOR DETAILS.
6. 136# CWR RAILS TO BE USED ON CURVES AND TANGENTS WITH WOODEN TIES.
7. ROADBED SECTIONS TO BE PREPARED PER BNSF STANDARD MAINLINE AND SIDING ROADBED SECTION DRAWING SHEET 01 REV 05.

1 / G-302

BNSF MAINLINE RETAINING WALL - TRACK LD02

SCALE: 1"=5'
STA. 109+65-110+33



NOTES:

1. 12" SCARIFY AND RECOMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY PER ASTM D-1557.
2. PROVIDE 2:1 SLOPE TO TIE INTO EXISTING EMBANKMENT.
3. PROVIDE 2% MINIMUM SLOPE.
4. CONSTRUCT 36" CULVERT AND CATCH BASIN AT STATION 195+60 AND 201+10
5. REFER TO EMBANKMENT FILL KEY-IN DETAIL 5 ON SHEET CT-501.
6. 136# CWR RAILS TO BE USED ON CURVES AND TANGENTS WITH WOODEN TIES.
7. ROADBED SECTIONS TO BE PREPARED PER BNSF STANDARD MAINLINE AND SIDING ROADBED SECTION DRAWING SHEET 01 REV 05.
8. PROVIDE RIP RAP PER DETAIL 5 ON SHEET CT-502.

2 / G-302

BNSF MAINLINE - TRK. LD02 NEAR BRIDGE

SCALE: 1"=5'
END CONDITION 1: STA. 121+50-123+78 & STA. 126+57-128+50
END CONDITION 2: STA. 125+25-126+57

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	SUB	APP
0	08/31/26	ISSUED FOR BID			

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DRAWN BY	H.SADIQ
CHECKED BY	A. RIEGER
APPROVED BY	A. GHOSH
DATE	08/31/2026

BNSF RAILWAY
JMA CIVIL
5250 Claremont Ave, Ste. 227
Stockton, CA 95207
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www.jmacivil.com
HDR
2379 Gateway Oaks, Ste. 200
Sacramento, CA 95833
T: 916.679.8700
www.hdrinc.com

ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER - ARGAPRABHA GHOSH - C91571 - Exp. 09/30/28 - CIVIL ENGINEER - SANTEE, CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

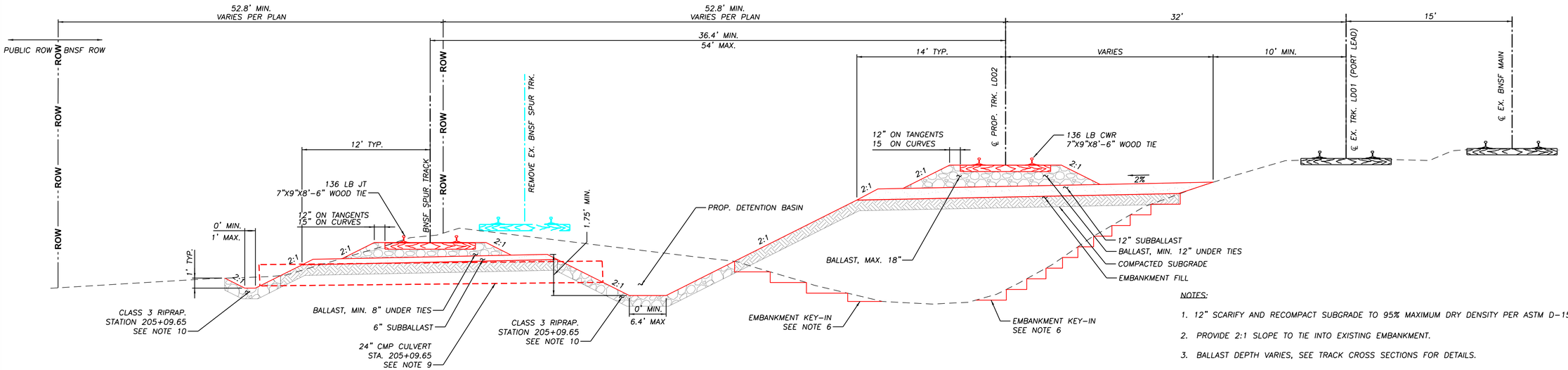
TRACK TYPICAL SECTIONS BNSF ROW

CONTRACT NO.	60657603
DRAWING NO.	G-302
REVISION	E
SHEET NO.	11
SCALE	NA

WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER

G-301 to G-303 TypicalSections.dgn
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$colortable$
BY: AnkaGhosh
TIME: 4:50:32 PM
$TODAY$

G-301 to G-303 TypicalSections.dgn
$pentable$
$colorlabel$
BY: AravGhosh
TIME: 8:17:18 AM
$TODAY$



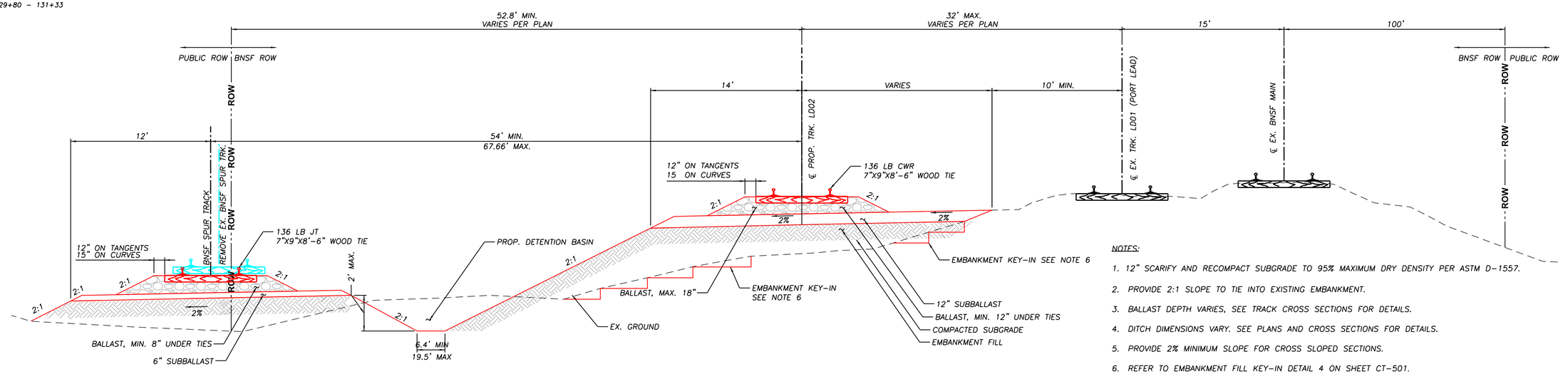
NOTES:

1. 12" SCARIFY AND RECOMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY PER ASTM D-1557.
2. PROVIDE 2:1 SLOPE TO TIE INTO EXISTING EMBANKMENT.
3. BALLAST DEPTH VARIES, SEE TRACK CROSS SECTIONS FOR DETAILS.
4. DITCH DIMENSIONS VARY. SEE PLANS AND CROSS SECTIONS FOR DETAILS.
5. PROVIDE 2% MINIMUM SLOPE FOR CROSS SLOPED SECTIONS.
6. REFER TO EMBANKMENT FILL KEY-IN DETAIL 5 ON SHEET CT-501.
7. 136# CWR RAILS TO BE USED ON CURVES AND TANGENTS WITH WOODEN TIES.
8. ROADBED SECTIONS TO BE PREPARED PER BNSF STANDARD MAINLINE AND SIDING ROADBED SECTION DRAWING SHEET 01 REV 05.
9. PROVIDE CULVERT PER DETAIL 3 ON SHEET CT-502.
10. PROVIDE RIP RAP PER DETAIL 5 ON SHEET CT-502.

1 G-303

BNSF MAINLINE - TRACK LD02 AND BNSF SPUR TRACK WITH DITCH AND CULVERT

SCALE: 1"=5'
STA. 129+80 - 131+33



NOTES:

1. 12" SCARIFY AND RECOMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY PER ASTM D-1557.
2. PROVIDE 2:1 SLOPE TO TIE INTO EXISTING EMBANKMENT.
3. BALLAST DEPTH VARIES, SEE TRACK CROSS SECTIONS FOR DETAILS.
4. DITCH DIMENSIONS VARY. SEE PLANS AND CROSS SECTIONS FOR DETAILS.
5. PROVIDE 2% MINIMUM SLOPE FOR CROSS SLOPED SECTIONS.
6. REFER TO EMBANKMENT FILL KEY-IN DETAIL 4 ON SHEET CT-501.
7. 136# CWR RAILS TO BE USED ON CURVES AND TANGENTS WITH WOODEN TIES.
8. ROADBED SECTIONS TO BE PREPARED PER BNSF STANDARD MAINLINE AND SIDING ROADBED SECTION DRAWING SHEET 01 REV 05.

2 G-303

BNSF MAINLINE - TRACK LD02 AND BNSF SPUR TRACK

SCALE: 1"=5'
STA. 131+33-133+04

NOT FOR CONSTRUCTION

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0	08/31/26	ISSUED FOR BID			

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DESIGNED BY	A. GHOSH
DRAWN BY	H.SADIQ
CHECKED BY	A. RIEGER
APPROVED BY	A. GHOSH
DATE	08/31/2026

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www.jmacivil.com

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www.hdrinc.com

ISSUED FOR BID

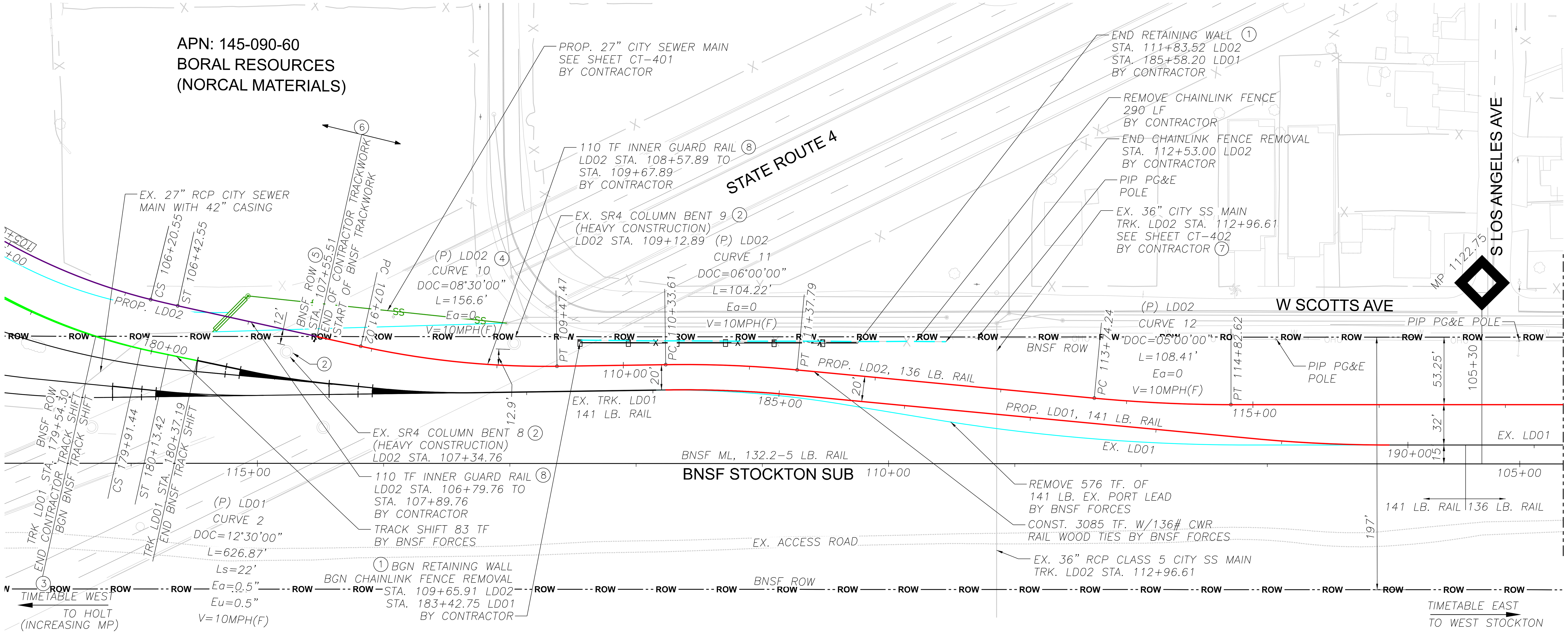
LICENSED PROFESSIONAL ENGINEER ARAVGHOSH GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

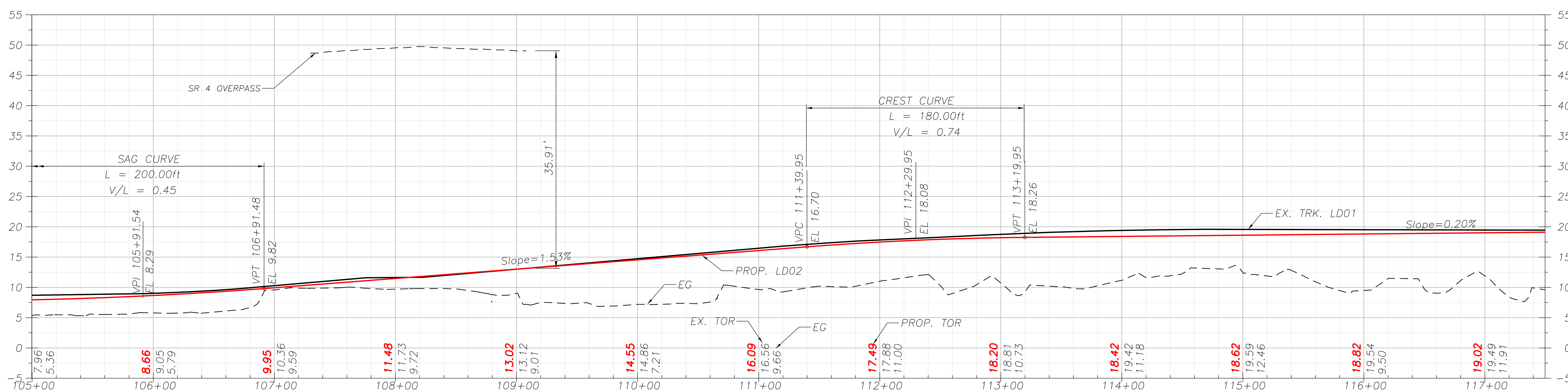
TRACK TYPICAL SECTIONS BNSF ROW

CONTRACT NO.	60657603
DRAWING NO.	G-303
REVISION	E
SHEET NO.	12
SCALE	NA

PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT



PLAN: TRACK LD02 STA. 107+54.72 TO STA 117+50.00



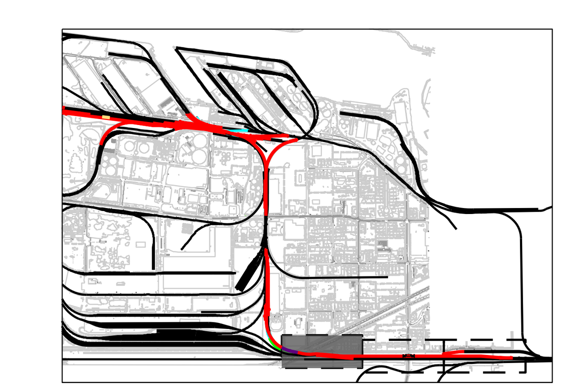
PROFILE: TRACK LD02 STA. 107+54.72 TO STA 117+50.00

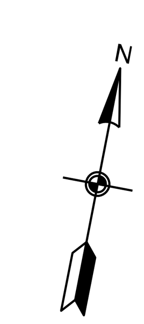
DESIGN NOTES:

1. REFER TO SHEET G-004 & G-005 FOR PROJECT DESIGN NOTES.
2. LEASE LIMITS SHOWN ON THIS SHEET ARE BASED ON PORT PROPERTY SURVEY PERFORMED BY C&P ON 05/01/2023.

SHEET NOTES:

1. CONSTRUCT RETAINING WALL MIN. 5' FROM THE PUBLIC ROW. RETAINING WALL SHALL BE OF TYPE APPROVED BY RAILROAD. SEE HDR's SR-4 RETAINING WALL PLANS FOR STRUCTURAL DESIGN DETAILS.
2. SEE HDR's SR4 CROSSTOWN VIADUCT BENT 9 CASING EXTENSION PLANS FOR DESIGN DETAILS.
3. BNSF TO COORDINATE WITH PROJECT CONTRACTOR TO PERFORM TRACK SHIFT FOR LD01 AND TIE-IN TO THE TRACK SHIFT PERFORMED IN PORT ROW.
4. PREMIUM FASTENERS TO BE USED TO MITIGATE THE DEGREE OF CURVATURE BEING GREATER THAN 7.5 DEGREES.
5. TRACKWORK TO BE PERFORMED BY THE BNSF FORCES WITHIN THE BNSF RIGHT OF WAY AND GRADING PERFORMED BY THE CONTRACTOR TO 10' OF EXISTING TRACK.
6. REFER TO DOUBLE TRACK PLANS FOR PROPOSED IMPROVEMENTS OUTSIDE BNSF ROW.
7. EXISTING AND PROPOSED CITY SEWER MAIN ARE BELOW PROFILE EXTENTS. SEE CT-402 FOR INFORMATION ON SEWER MAIN DEPTH.
8. PROVIDE INNER GUARD RAIL PER BNSF MAINLINE STANDARD DRAWING NO. 2010.





VERTICAL SCALE (0 10 20 30 FEET) 1" = 10'

HORIZONTAL SCALE (0 50 100 150 FEET) 1" = 50'

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY/SUB	APP
0	08/31/26	ISSUED FOR BID		

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DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/26

BNSF RAILWAY

JMA CIVIL 5250 Claremont Ave, Ste. 227 Stockton, CA 95207 T: 925.400.4356 www.jmacivil.com

HDR 2379 Gateway Oaks, Ste. 200 Sacramento, CA 95833 T: 916.679.8700 www.hdrinc.com

ISSUED FOR BID

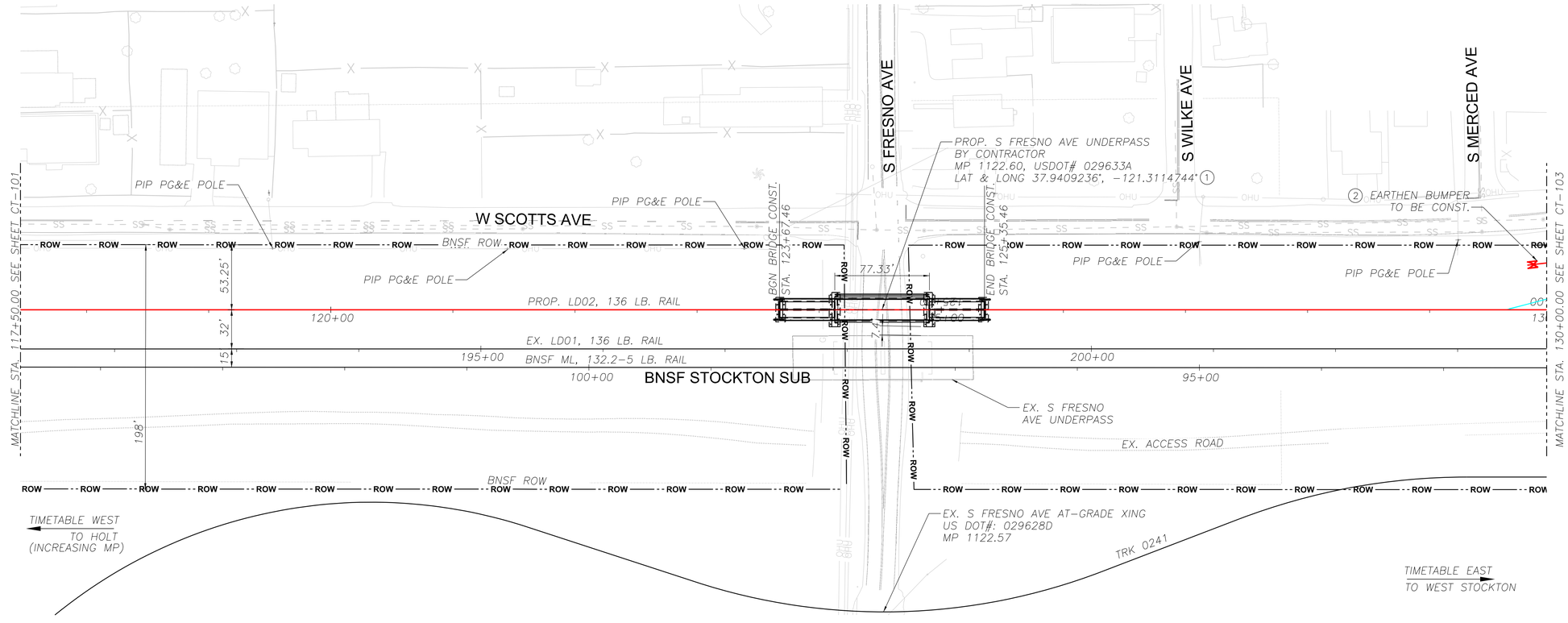
LICENSED PROFESSIONAL ENGINEER ARKAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

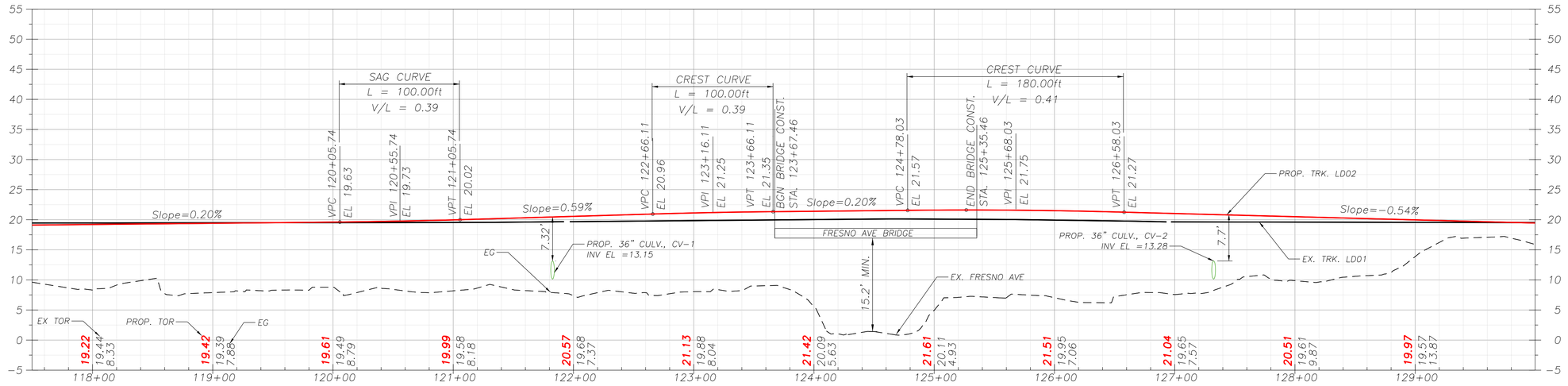
LD02 TRACK PLAN AND PROFILE

CONTRACT NO. 60657603
DRAWING NO. CT-101
REVISION E
SHEET NO. 13
SCALE AS NOTED

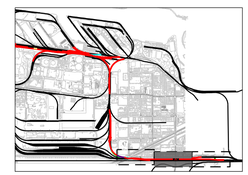
CT-100 to CT-103 LD02 P&P.dgn
$plantable$
$colortable$
BY: AxisGhosh
TIME: 2:48:42 PM
$TODAY$



PLAN: TRACK LD02 STA 117+50.00 TO STA. 130+00.00



PROFILE: TRACK LD02 STA 117+50.00 TO STA. 130+00.00



N

0 10 20 30
VERTICAL SCALE FEET
1" = 10'

0 50 100 150
HORIZONTAL SCALE FEET
1" = 50'

DESIGN NOTES:

1. REFER TO SHEET G-100 FOR PROJECT DESIGN NOTES.
2. LEASE LIMITS SHOWN ON THIS SHEET ARE BASED ON PORT PROPERTY SURVEY PERFORMED BY C&P ON 05/01/2023.

SHEET NOTES:

(1) SEE HDR's FRESNO AVE. UNDERPASS PLANS FOR DETAILS ON PROPOSED STRUCTURAL DESIGN.

(2) REFER TO DETAIL 4 ON SHEET CT-501 FOR EARTHEN BUMPER DETAIL.

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	SUB	APP
0	08/31/26	ISSUED FOR BID			

PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

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DESIGNED BY	A. GHOSH
DRAWN BY	H.SADIQ
CHECKED BY	A. RIEGER
APPROVED BY	A. GHOSH
DATE	08/31/26

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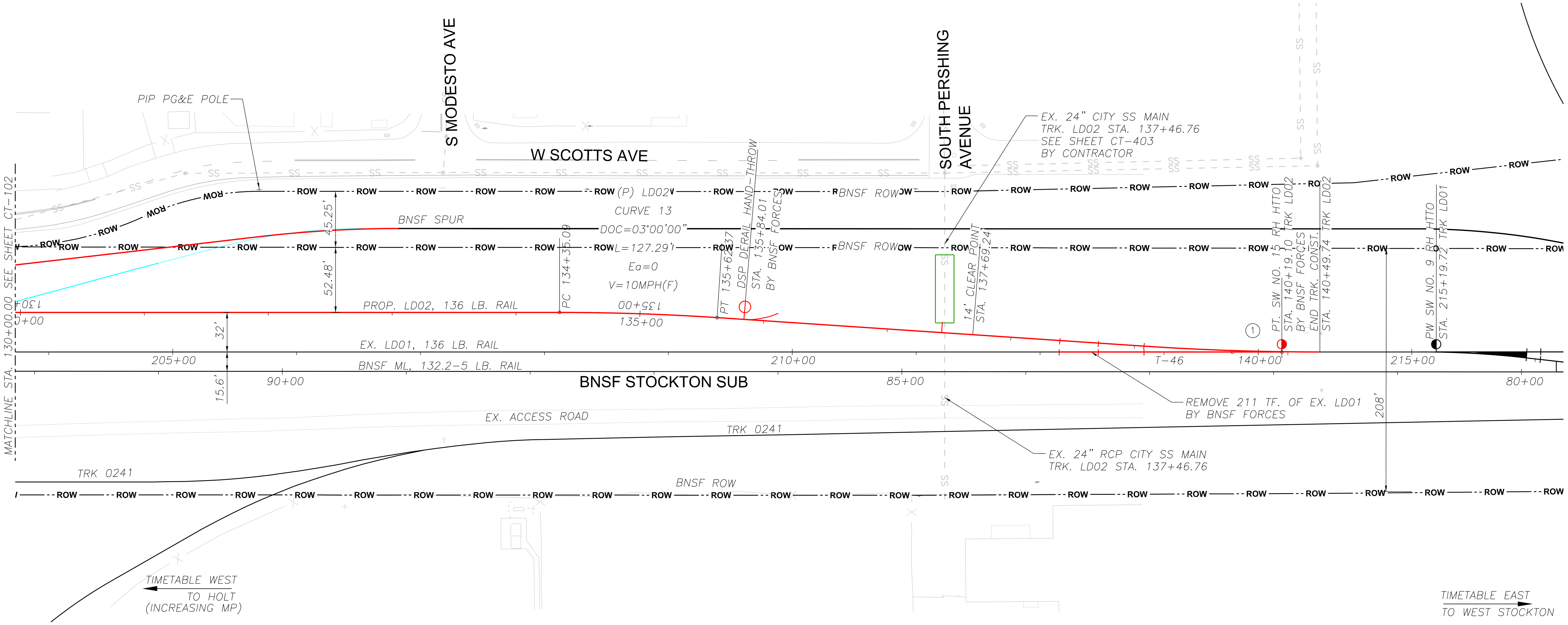
ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER ARNAB PRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER SAN DIEGO, CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

LD02 TRACK PLAN AND PROFILE

CONTRACT NO.	60657603
DRAWING NO.	CT-102
REVISION	E
SHEET NO.	14
SCALE	AS NOTED



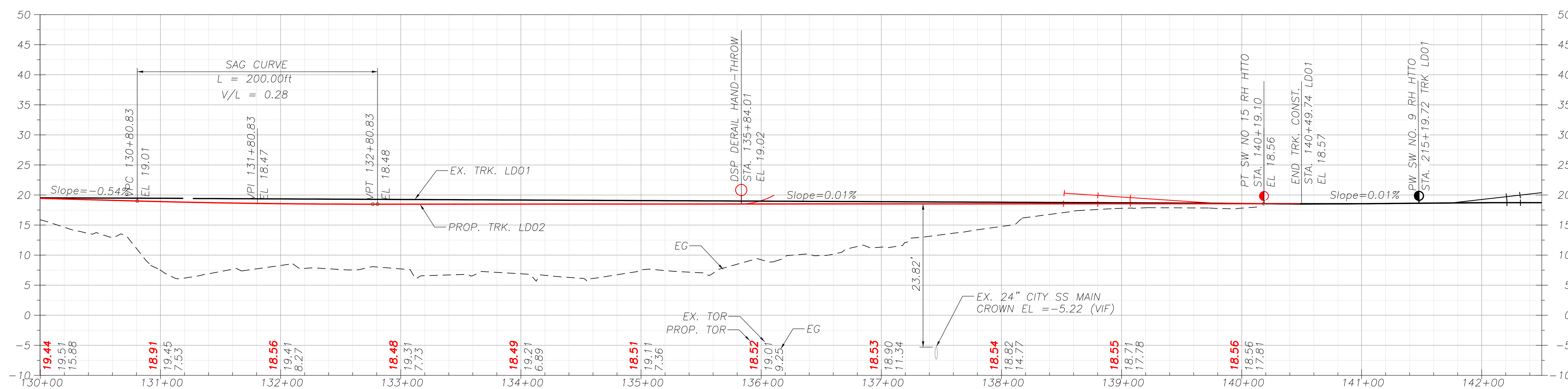
DESIGN NOTES:

1. REFER TO SHEET G-100 FOR PROJECT DESIGN NOTES.
2. LEASE LIMITS SHOWN ON THIS SHEET ARE BASED ON PORT PROPERTY SURVEY PERFORMED BY C&P ON 05/01/2023.

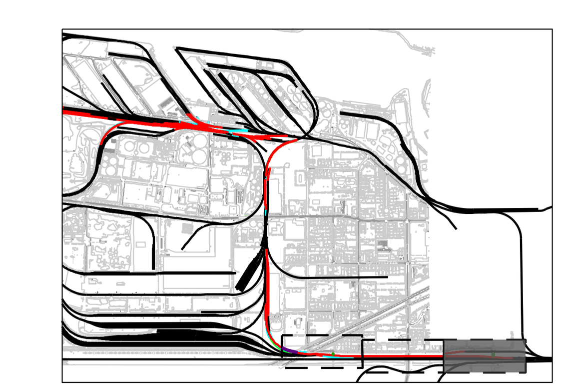
SHEET NOTES:

(1) REFER TO DETAIL 1 ON SHEET CT-501 FOR CPUC STANDARD WALKWAY DETAILS.

PLAN: TRACK LD02 STA. 130+00.00 TO STA 140+48.73



PROFILE: TRACK LD02 STA. 130+00.00 TO STA 140+48.73



VERTICAL SCALE 0 10 20 30 FEET
1" = 10'

HORIZONTAL SCALE 0 50 100 150 FEET
1" = 50'

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DRAWN BY H.SADIQ
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APPROVED BY A. GHOSH
DATE 08/31/26

BNSF RAILWAY

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ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER ARKAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

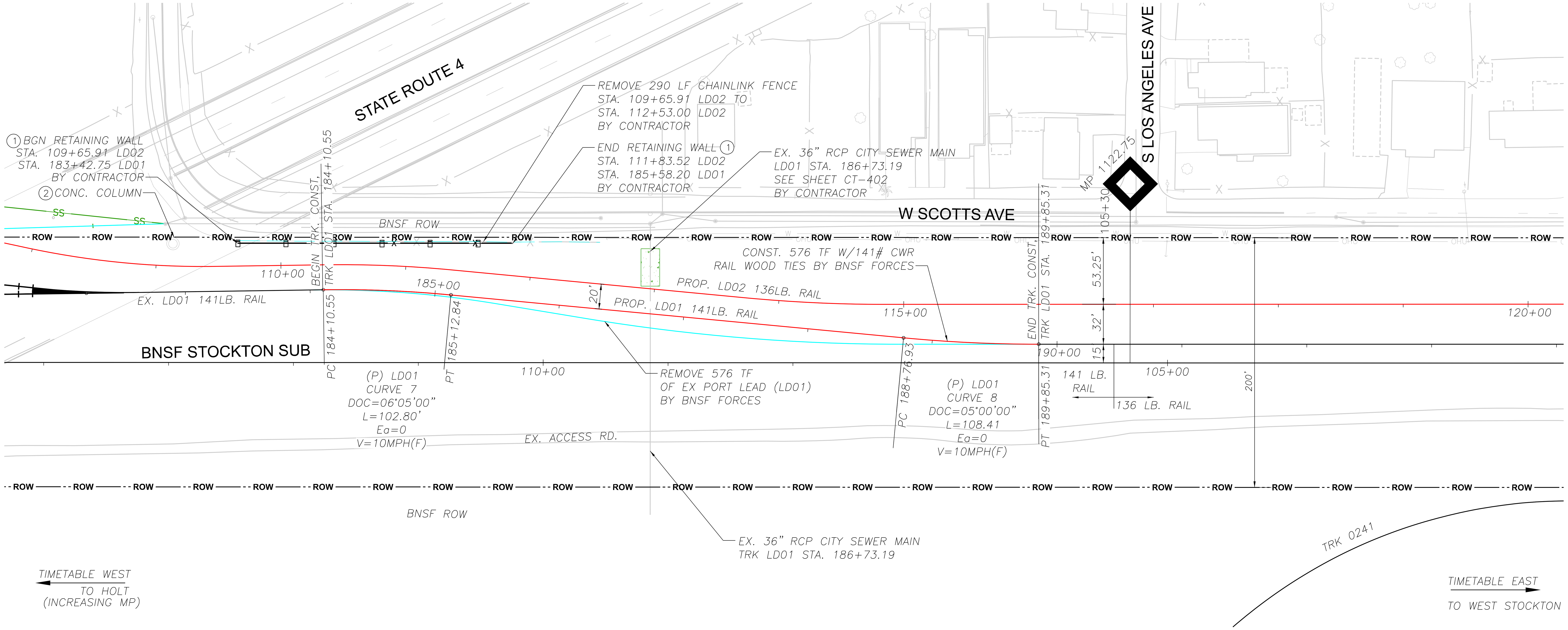
PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

LD02 TRACK PLAN AND PROFILE

CONTRACT NO. 60657603
DRAWING NO. CT-103
REVISION E
SHEET NO. 15
SCALE AS NOTED

WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER

CT-100 to CT-103 LD02 P&P.dgn
$pentable$
$colortable$
BY: ArkaGhosh
TIME: 2:46:20 PM
$TODAY$



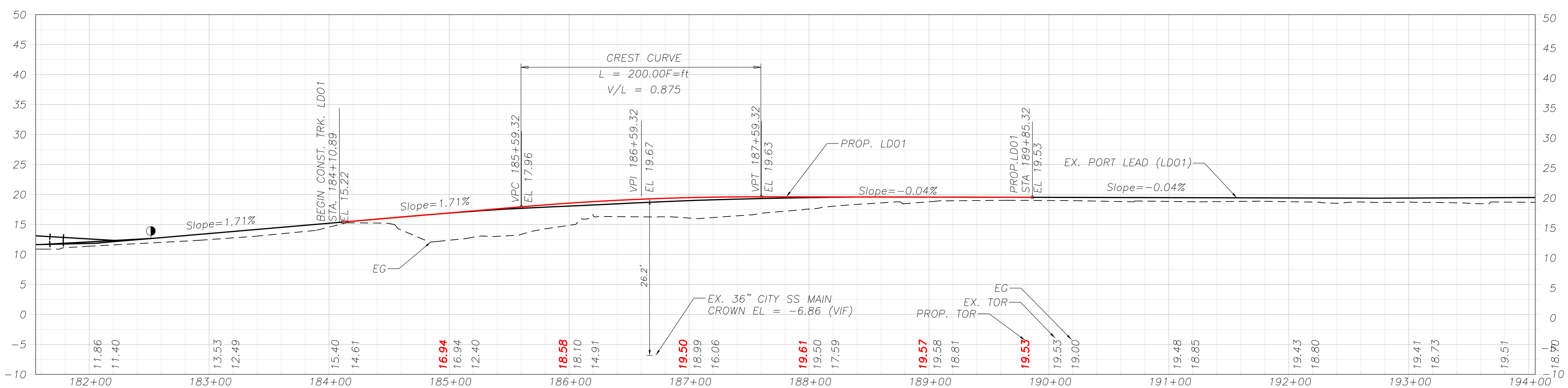
PLAN: TRACK LD01 STA. 184+10.55 TO STA. 189+85.31

DESIGN NOTES:

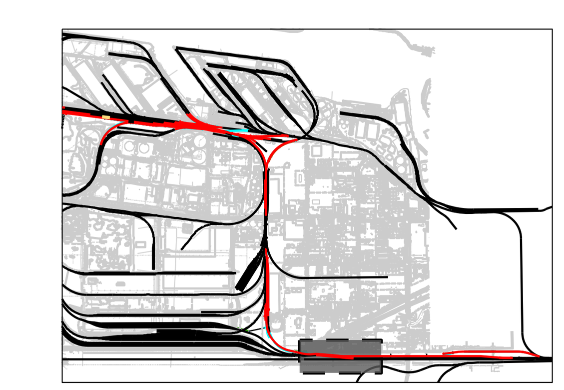
1. REFER TO SHEET G-100 FOR PROJECT DESIGN NOTES.

SHEET NOTES:

1. SEE HDR's SR-4 RETAINING WALL PLANS FOR STRUCTURAL DESIGN DETAILS.
2. SEE HDR's SR4 CROSSTOWN VIADUCT BENT 9 CASING EXTENSION PLANS FOR DESIGN DETAILS.



PROFILE: TRACK LD01 STA. 184+10.55 TO STA. 189+85.31



VERTICAL SCALE 0 10 20 30 FEET
1" = 10'

HORIZONTAL SCALE 0 50 100 150 FEET
1" = 50'

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY/SUB	APP
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HDR — 2379 Gateway Oaks, Ste. 200, Sacramento, CA 95833, T: 916.679.8700, www.hdrinc.com

ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER — ARKAPRABHA GHOSH — C91571 — Exp. 09/30/28 — CIVIL ENGINEER — STATE OF CALIFORNIA

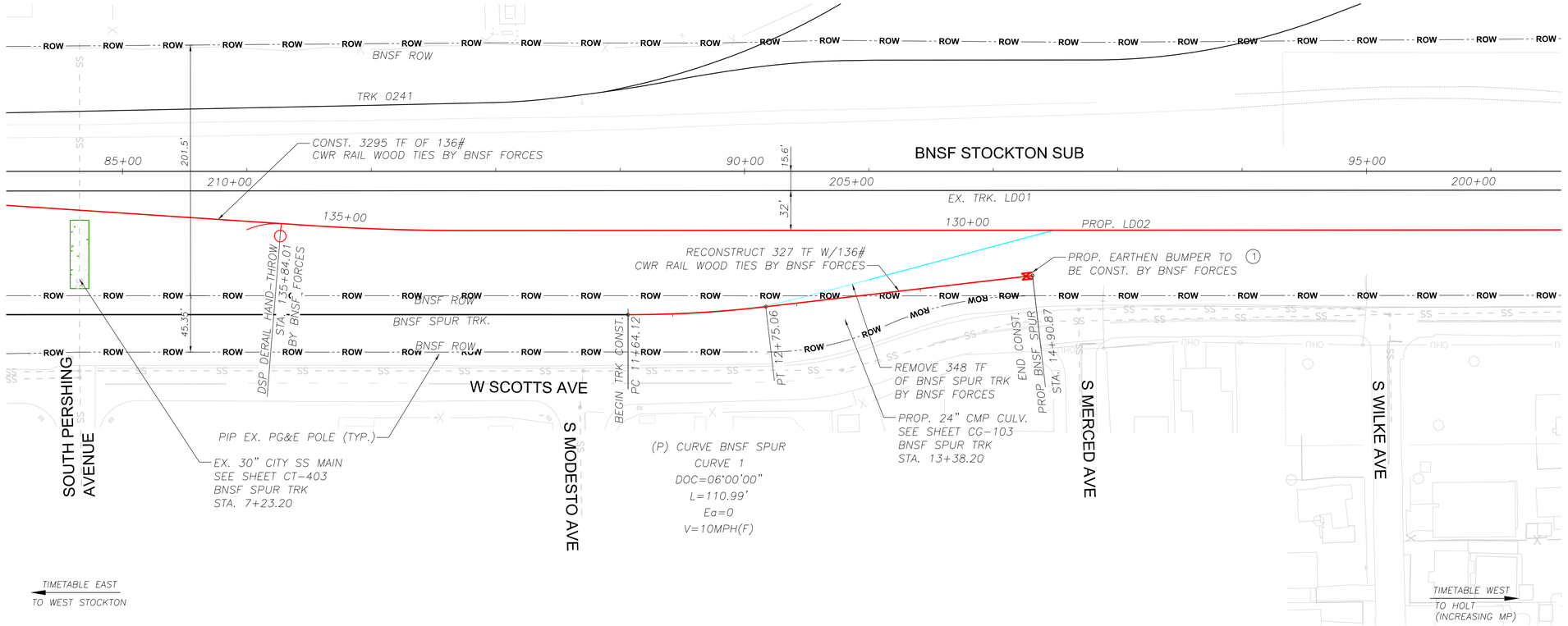
PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

LD01 TRACK PLAN AND PROFILE

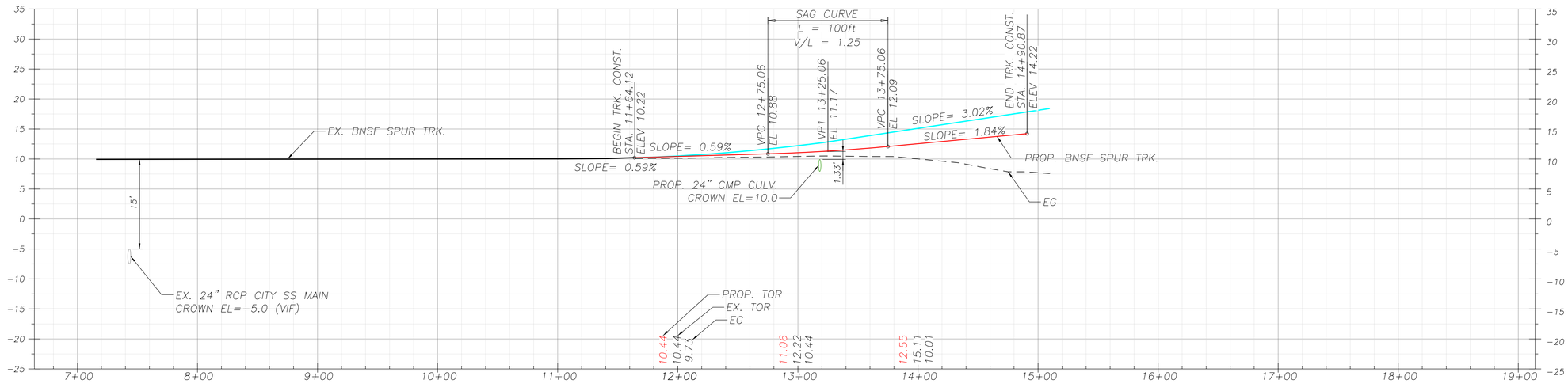
CONTRACT NO. 60657603
DRAWING NO. CT-201
REVISION E
SHEET NO. 16
SCALE AS NOTED

WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER

CT-201 LD01 P&P.dgn $pentable$ $colortable$ BY: ArkaGhosh TIME: 1:23:50 PM $TODAY$



PLAN: BNSF SPUR TRACK STA. 7+15.52 TO STA. 14+90.87



PROFILE: BNSF SPUR TRACK STA. 7+15.52 TO STA. 14+90.87

DESIGN NOTES:

1. REFER TO SHEET G-100 FOR PROJECT DESIGN NOTES.
2. LEASE LIMITS SHOWN ON THIS SHEET ARE BASED ON PORT PROPERTY SURVEY PERFORMED BY C&P ON 05/01/2023.

SHEET NOTES:

(1) REFER TO DETAIL 6 ON SHEET CT-501 FOR EARTHEN BUMPER DETAILS.

VERTICAL SCALE 1" = 10' (0, 10, 20, 30 FEET)
HORIZONTAL SCALE 1" = 50' (0, 50, 100, 150 FEET)
N

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	SUB	APP
0	08/31/26	ISSUED FOR BID			

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CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/26

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Stockton, CA 95207
T: 925.400.4356
www.jmacivil.com
HDR
2379 Gateway Oaks, Ste. 200
Sacramento, CA 95833
T: 916.679.8700
www.hdrinc.com

ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER ARNAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER SAN DIEGO, CALIFORNIA

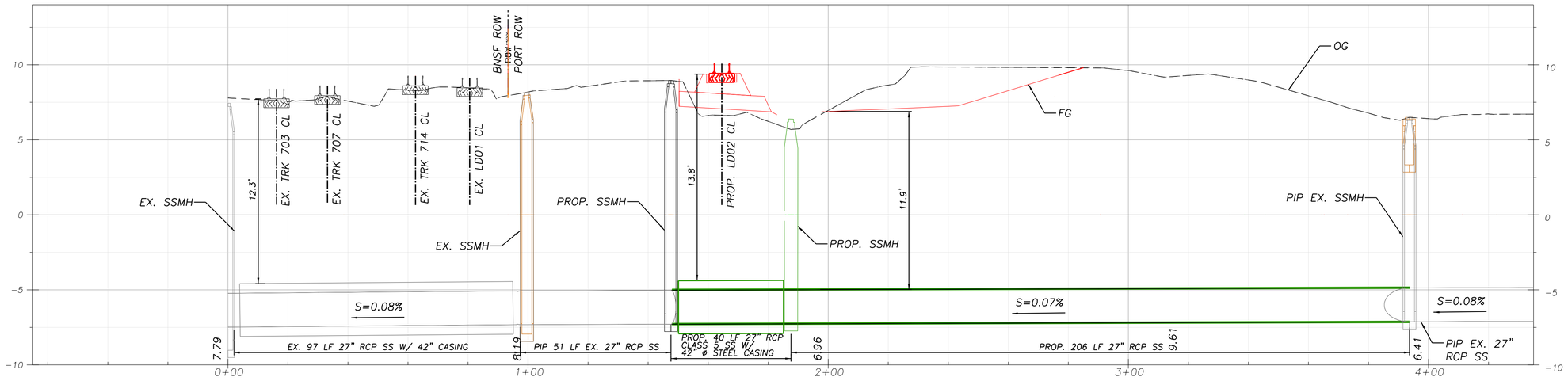
PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

BNSF SPUR PLAN & PROFILE

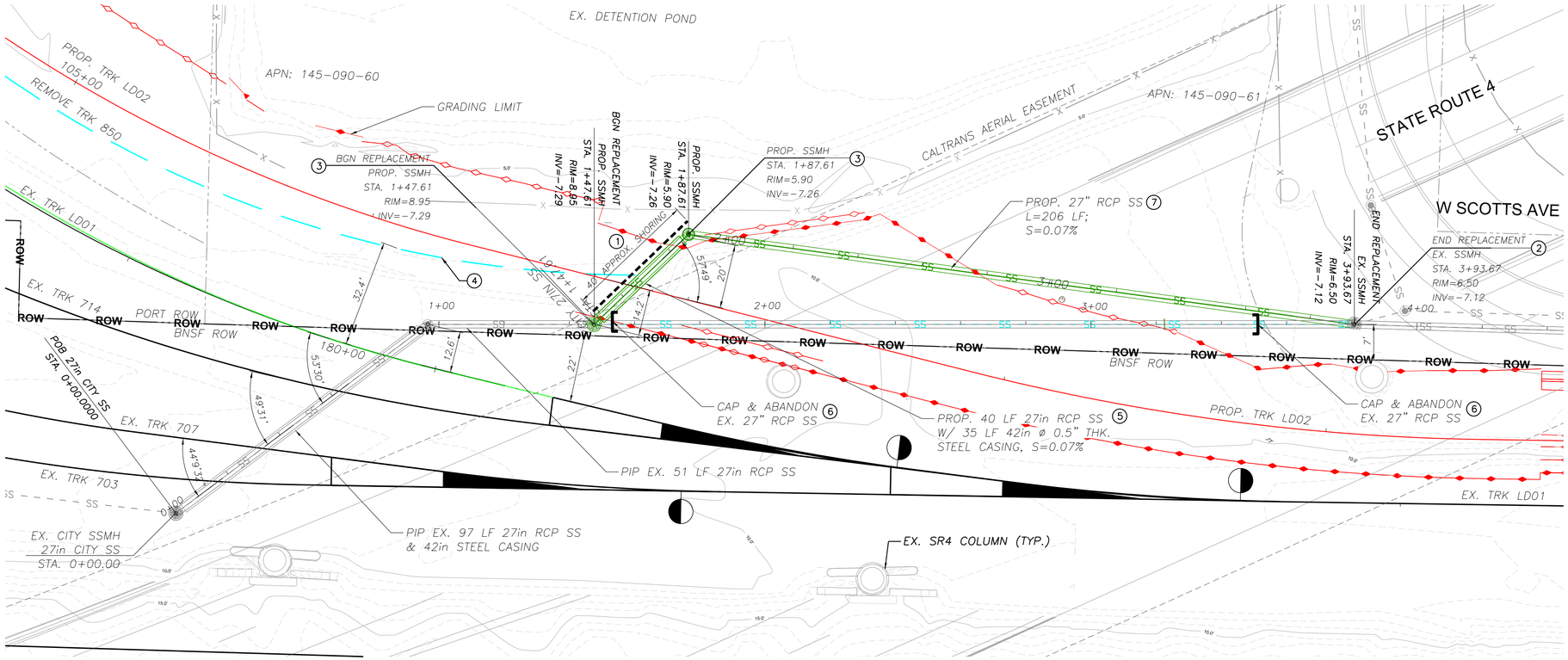
CONTRACT NO. 60657603
DRAWING NO. CT-301
REVISION E
SHEET NO. 17
SCALE AS NOTED

PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

CT-301 BNSF Spur P&P.dgn | $TODAY$ | TIME: 2:51:04 PM | BY: AravGhosh | $colortable$ | $penlabel$



PROFILE: CITY OF STOCKTON 27-INCH SEWER MAIN



PLAN: CITY OF STOCKTON 27-INCH SEWER MAIN

DESIGN NOTES:

1. SEE SHEET G-004, G-005, AND G-100 FOR PROJECT DESIGN NOTES.
2. COMPLY WITH CITY OF STOCKTON SEWER DESIGN DATA SPECIFIED IN THEIR STANDARD DWG #s S-1 AND S-3.
3. UNLESS NOTED OTHERWISE, THE SEWER PIPE REPLACEMENT WORK SHALL BE PERFORMED PRIOR TO PERFORMING EARTHWORK AND CONSTRUCTING THE NEW TRACK ROADBED AND EMBANKMENT. REFER TO SHEETS CT-601 AND CT-602 FOR ADDITIONAL PHASING DETAILS.
4. WELDERS SHALL POSSESS VALID CERTIFICATION.
5. PIPE BEDDING SHALL CONFORM WITH STANDARD BNSF PLANS AND SPECIFICATIONS.
6. ALL PIPING AND CASING MATERIAL SHALL BE DESIGNED FOR COOPER E-80 LIVE LOAD WITH IMPACT.
7. GROUNDWATER WAS NOT ENCOUNTERED DURING THE GEOTECHNICAL INVESTIGATION. IF GROUNDWATER IS FOUND DURING CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF A CONSTRUCTION DEWATERING PLAN IN ACCORDANCE WITH LOCAL REGULATORY REQUIREMENTS.

SHEET NOTES:

1. APPROXIMATE SHORING LIMITS SHALL BE MINIMUM 15' OFFSET FROM CENTERLINE OF NEAREST EXISTING TRACK UNLESS NOTED OTHERWISE. SHORING CONSTRUCTION AND DESIGN SHALL COMPLY WITH UPRR & BNSF GUIDELINES FOR TEMPORARY SHORING. REFER TO SHEETS CT-601 AND CT-602 FOR ADDITIONAL PHASING DETAILS.
2. CONNECT TO EXISTING CITY SEWER MANHOLE PER DETAIL 2 ON C-502. OBTAIN CITY PERMISSION BEFORE CORE DRILLING EXISTING MANHOLE.
3. INSTALL NEW SANITARY SEWER MANHOLE PER CITY OF STOCKTON STANDARD DWG # S-10. PROVIDE MANHOLE FRAME AND COVER PER CITY OF STOCKTON STANDARD DWG # S-8.
4. REMOVE MINIMUM 50 LF OF EX. TRK 850 BEFORE DIGGING THE TRENCH FOR THE NEW SEWER PIPE.
5. PROVIDE CASING PROTECTION FOR SEWER MAIN PER DETAIL 6 ON SHEET CT-501.
6. CAP AND ABANDON CITY SEWER PIPE PER DETAIL 6 ON SHEET CT-502.
7. PROVIDE TRENCH FOR NEW CITY SEWER PER DETAIL 1 ON SHEET CT-502.

0 5 10 15
VERTICAL SCALE FEET
1" = 5'
0 20 40 60
HORIZONTAL SCALE FEET
1" = 20'

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	SUB	APP
0	08/31/26	ISSUED FOR BID			

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DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/2026

BNSF RAILWAY
JMA civil
5250 Claremont Ave, Ste. 227
Stockton, CA 95207
T: 925.400.4356
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HDR
2379 Gateway Oaks, Ste. 200
Sacramento, CA 95833
T: 916.679.8700
www.hdrinc.com

ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER
ARNAB PRABHA GHOSH
C91571
Exp. 09/30/28
CIVIL ENGINEER
STATE OF CALIFORNIA

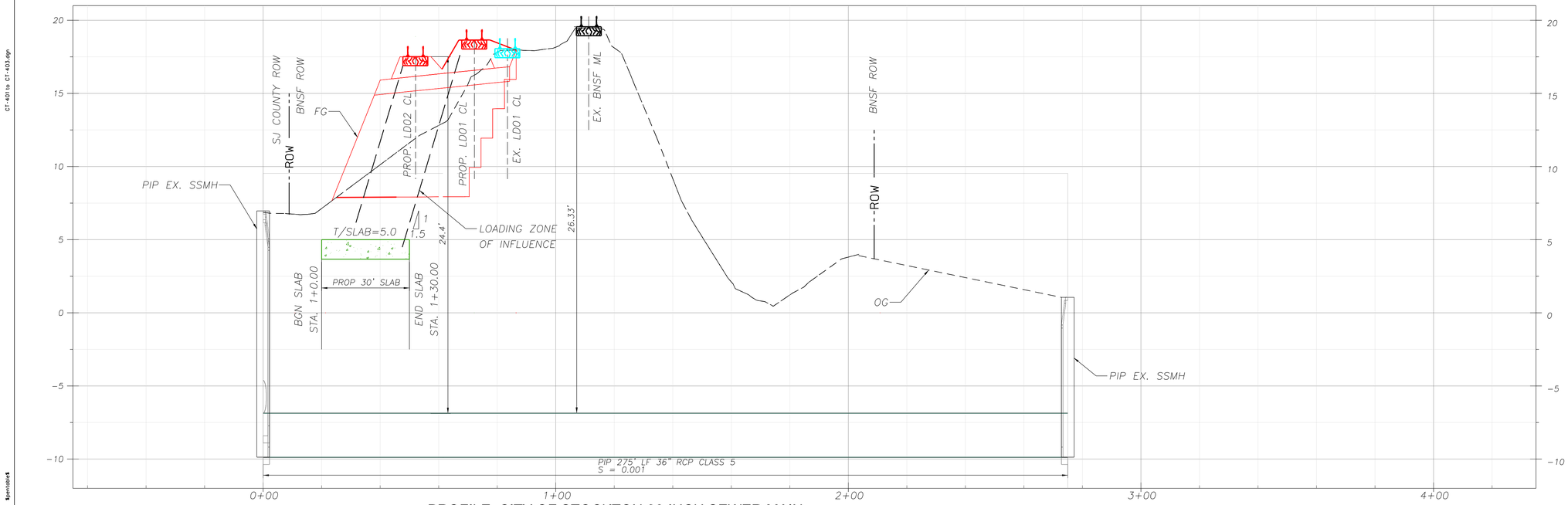
PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

CITY 27-INCH SEWER MAIN PLAN AND PROFILE

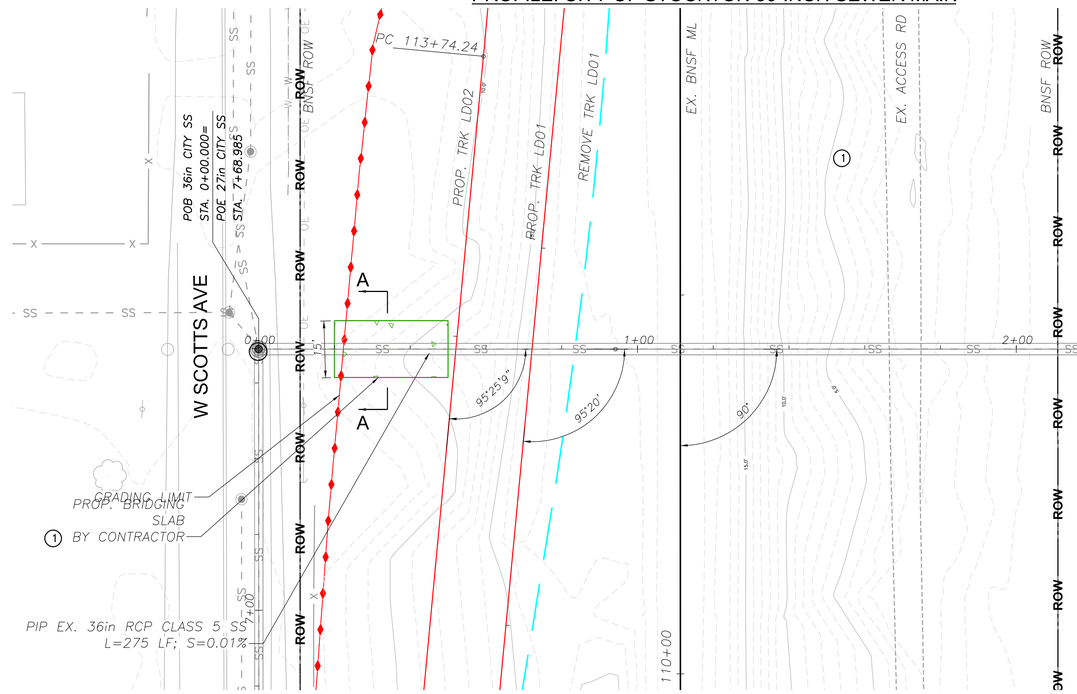
CONTRACT NO. 60657603
DRAWING NO. CT-401
REVISION E
SHEET NO. 18
SCALE NA

PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

CT-401 to CT-403.dgn
$contacts$
BY: AraGhosh
TIME: 4:37:02 PM
$TODAY$



PROFILE: CITY OF STOCKTON 36-INCH SEWER MAIN



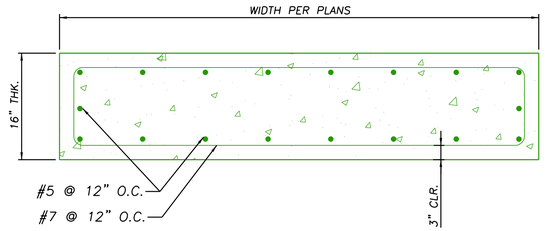
PLAN: CITY OF STOCKTON 36-INCH SEWER MAIN

DESIGN NOTES:

1. SEE SHEET G-004, G-005, AND G-100 FOR PROJECT DESIGN NOTES.
2. THE SEWER PIPE PROTECTION SLAB WORK SHALL BE PERFORMED PRIOR TO PERFORMING EARTHWORK AND CONSTRUCTING THE NEW TRACK ROADBED AND EMBANKMENT. REFER TO SHEETS CT-601 AND CT-602 FOR ADDITIONAL PHASING DETAILS.
3. UTILITY PROTECTION SLAB SHALL BE DESIGNED FOR COOPER E-80 LIVE LOAD WITH IMPACT.
4. GROUNDWATER WAS NOT ENCOUNTERED DURING THE GEOTECHNICAL INVESTIGATION. IF GROUNDWATER IS FOUND DURING CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF A CONSTRUCTION DEWATERING PLAN IN ACCORDANCE WITH LOCAL REGULATORY REQUIREMENTS.

SHEET NOTES:

(1) SLAB DETAILS SHOWN ON PLANS ARE PRELIMINARY. CONTRACTOR SHALL PERFORM DETAILED STRUCTURAL DESIGN FOR A UTILITY PROTECTION BRIDGING SLAB FOR REVIEW AND APPROVAL OF BNSF AND CITY OF STOCKTON.



NOTES:

1. CONCRETE AND REINFORCING SHALL MEET REQUIREMENTS OF BNSF GENERAL CONDITIONS AND SPECIFICATIONS.
2. CONCRETE SHALL TEST AT MINIMUM 4,000 PSI AT 28 DAYS WITH MAXIMUM AGGREGATE SIZE OF 3/4", MINIMUM OF 565 LBS. OF CEMENT PER CUBIC YARD, AND MAXIMUM OF 15% FLY ASH.
3. WATER/CEMENT RATIO SHALL NOT EXCEED 0.50.
4. REINFORCING SHALL BE ASTM A615 GRADE 60.
5. MOISTURE CONDITION AND COMPACT SOIL UNDER FOOTING. NOTIFY GEOTECHNICAL ENGINEER IF SOFT OR YIELDING SOIL IS ENCOUNTERED.
6. DO NOT DISTRUB SOIL WITHIN 48" CLEAR OF EXISTING PIPE.

DETAIL A-A
SCALE: NTS

VERTICAL SCALE 1" = 4'
0 4 8 12 FEET

HORIZONTAL SCALE 1" = 20'
0 20 40 60 FEET

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	SUB	APP
0	08/31/26	ISSUED FOR BID			

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DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/2026

BNSF RAILWAY

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ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER ARAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

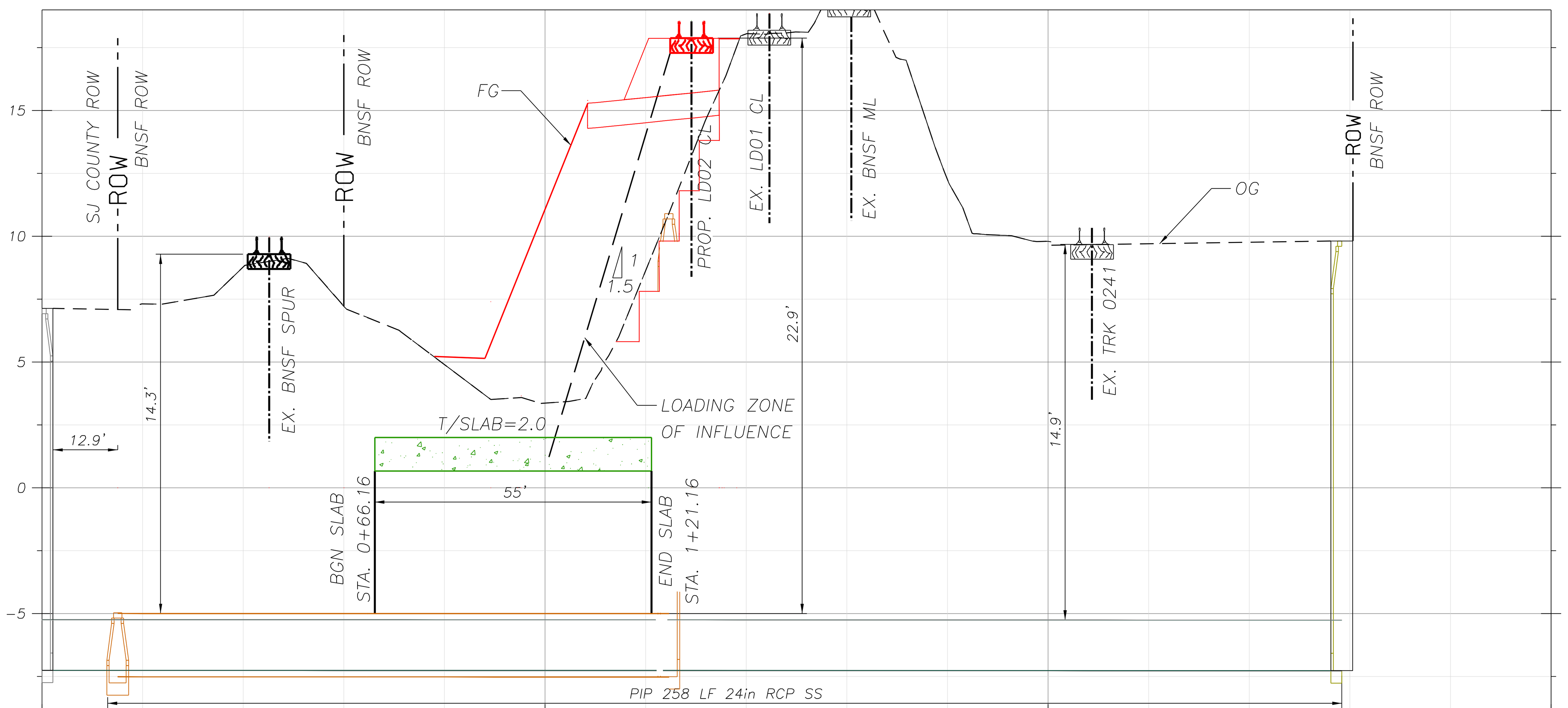
PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

CITY 36-INCH SEWER MAIN PLAN AND PROFILE

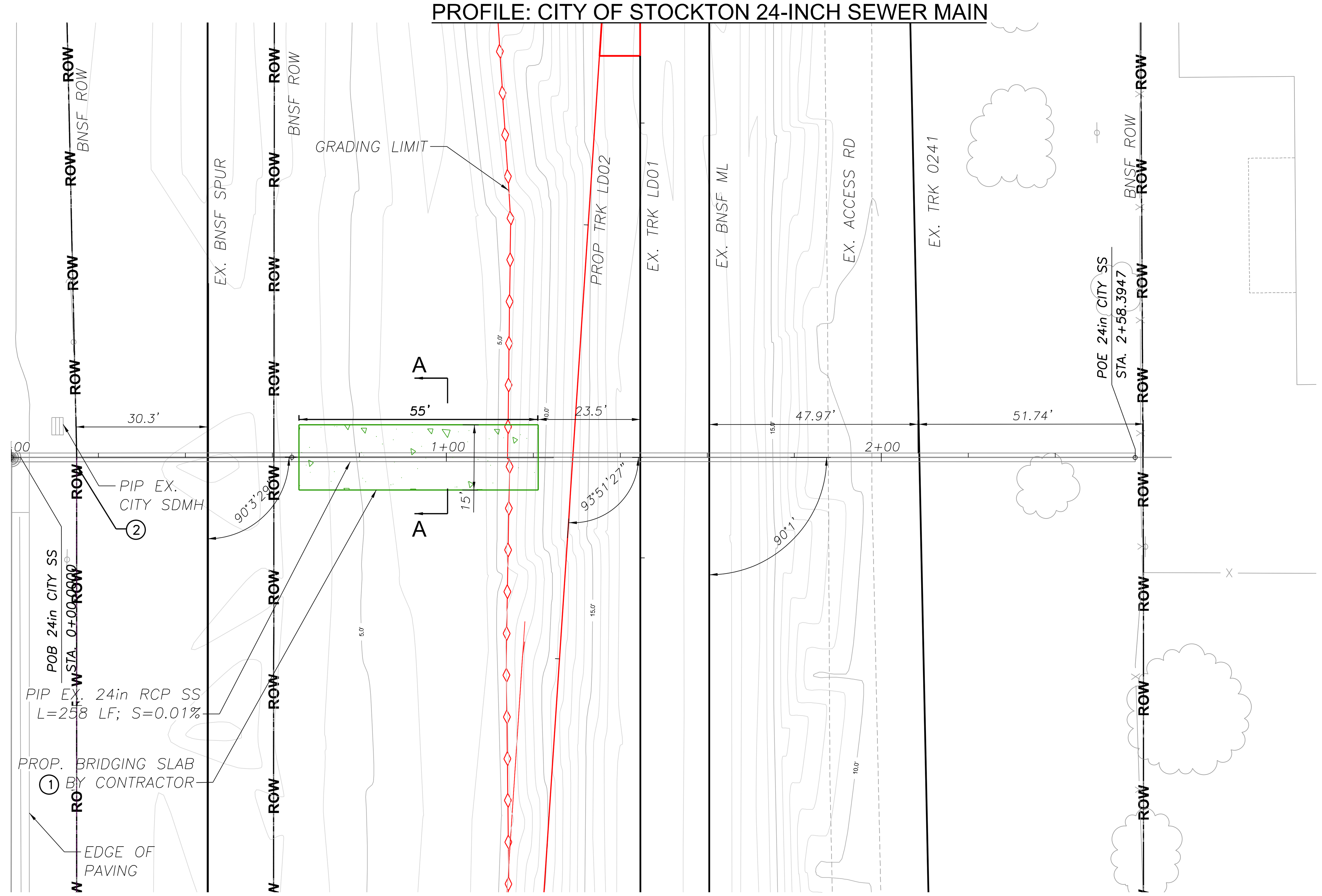
CONTRACT NO. 60657603
DRAWING NO. CT-402
REVISION E
SHEET NO. 19
SCALE NA

PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

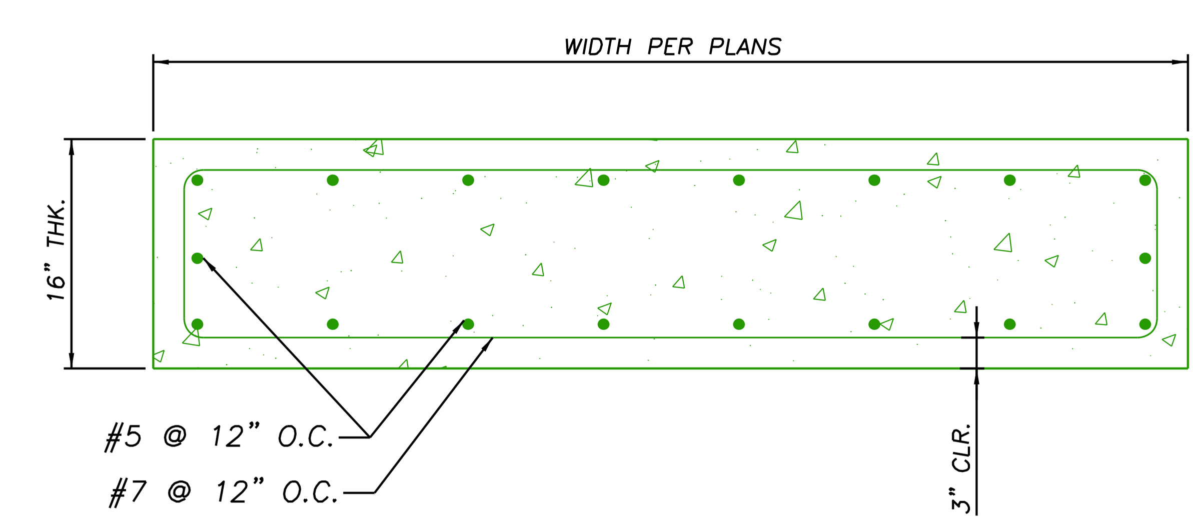
CT-401 to CT-403.dgn
$$colortable$$
BY: AkashGhosh
TIME: 10:24:52 AM
$$TODAY$$



PROFILE: CITY OF STOCKTON 24-INCH SEWER MAIN



PLAN: CITY OF STOCKTON 24-INCH SEWER MAIN



NOTES:

1. CONCRETE AND REINFORCING SHALL MEET REQUIREMENTS OF BNSF GENERAL CONDITIONS AND SPECIFICATIONS.
2. CONCRETE SHALL TEST AT MINIMUM 4,000 PSI AT 28 DAYS WITH MAXIMUM AGGREGATE SIZE OF 3/4", MINIMUM OF 565 LBS. OF CEMENT PER CUBIC YARD, AND MAXIMUM OF 15% FLY ASH.
3. WATER/CEMENT RATIO SHALL NOT EXCEED 0.50.
4. REINFORCING SHALL BE ASTM A615 GRADE 60.
5. MOISTURE CONDITION AND COMPACT SOIL UNDER FOOTING. NOTIFY GEOTECHNICAL ENGINEER IF SOFT OR YIELDING SOIL IS ENCOUNTERED.
6. DO NOT DISTRUB SOIL WITHIN 48" CLEAR OF EXISTING PIPE.

DETAIL A-A

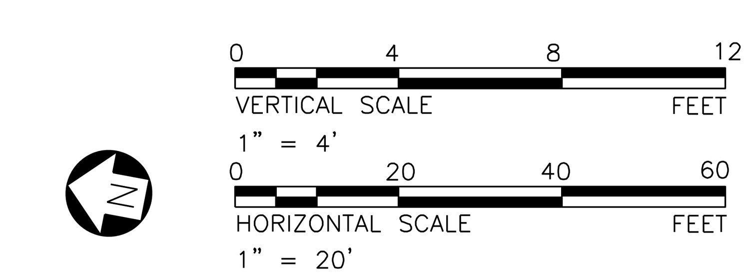
SCALE: NTS

DESIGN NOTES:

1. SEE SHEET G-004, G-005, AND G-100 FOR PROJECT DESIGN NOTES.
2. UNLESS NOTED OTHERWISE, THE SEWER PIPE REPLACEMENT WORK SHALL BE PERFORMED PRIOR TO PERFORMING EARTHWORK AND CONSTRUCTING THE NEW TRACK ROADBED AND EMBANKMENT. REFER TO SHEETS CT-601 AND CT-602 FOR ADDITIONAL PHASING DETAILS.
3. WELDERS SHALL POSSESS VALID CERTIFICATION.
4. PIPE BEDDING SHALL CONFORM WITH STANDARD BNSF PLANS AND SPECIFICATIONS.
5. ALL PIPING AND CASING MATERIAL SHALL BE DESIGNED FOR COOPER E-80 LIVE LOAD WITH IMPACT.
6. GROUNDWATER WAS NOT ENCOUNTERED DURING THE GEOTECHNICAL INVESTIGATION. IF GROUNDWATER IS FOUND DURING CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF A CONSTRUCTION DEWATERING PLAN IN ACCORDANCE WITH LOCAL REGULATORY REQUIREMENTS.

SHEET NOTES:

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REV	DATE	DESCRIPTION	BY/SUB	APP
0	08/31/26	ISSUED FOR BID		

WORK ELEMENT / PHYSICAL ENTITY / CONTRACT DESIGNATOR / LINE ITEM / COST ELEMENT / PROJECT NUMBER

Information is confidential on all plans, drawings, specifications, and/or information furnished here in shall remain the property of the Burlington Northern Santa Fe Railway and shall be held confidential and shall not be used for any purpose not provided for in agreements with the Burlington Northern Santa Fe Railway

DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/2026

BNSF RAILWAY

JMA CIVIL
5250 Claremont Ave, Ste. 227
Stockton, CA 95207
T: 925.400.4356
www.jmacivil.com

HDR
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Sacramento, CA 95833
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ISSUED FOR BID

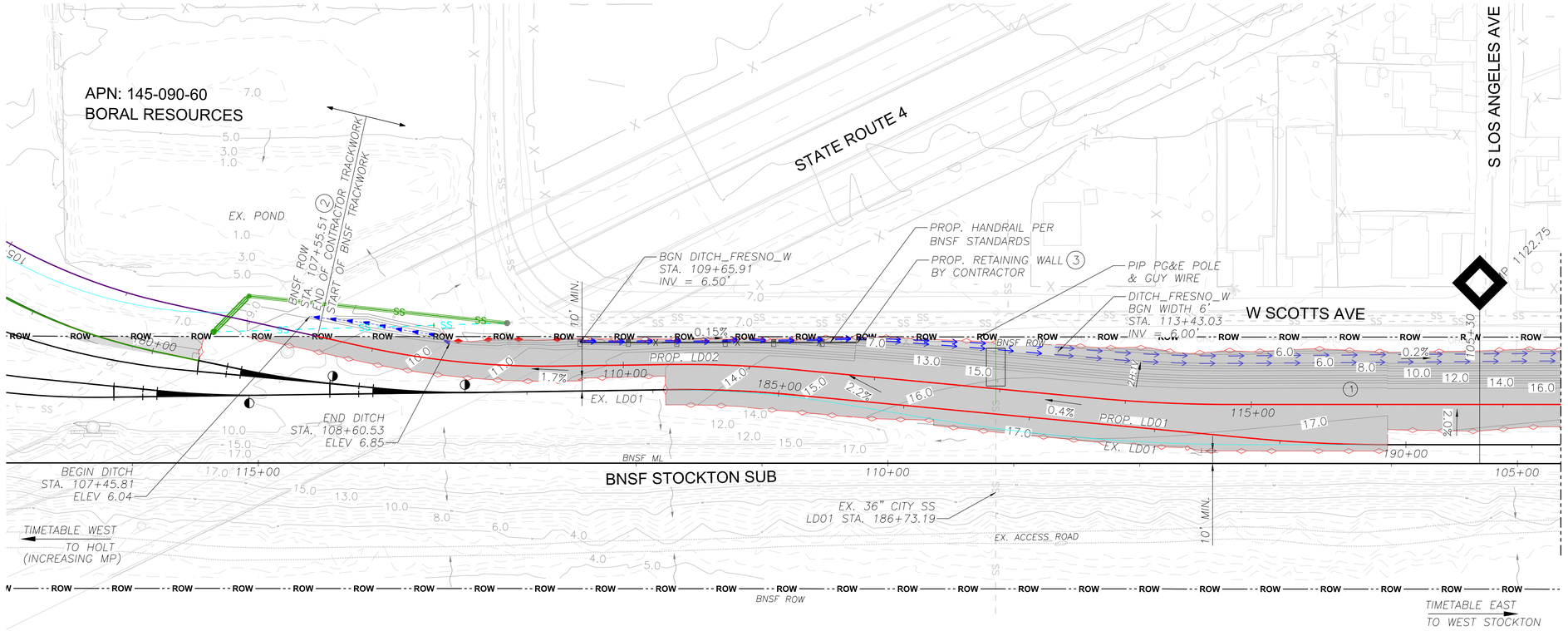
LICENSED PROFESSIONAL ENGINEER ARKAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

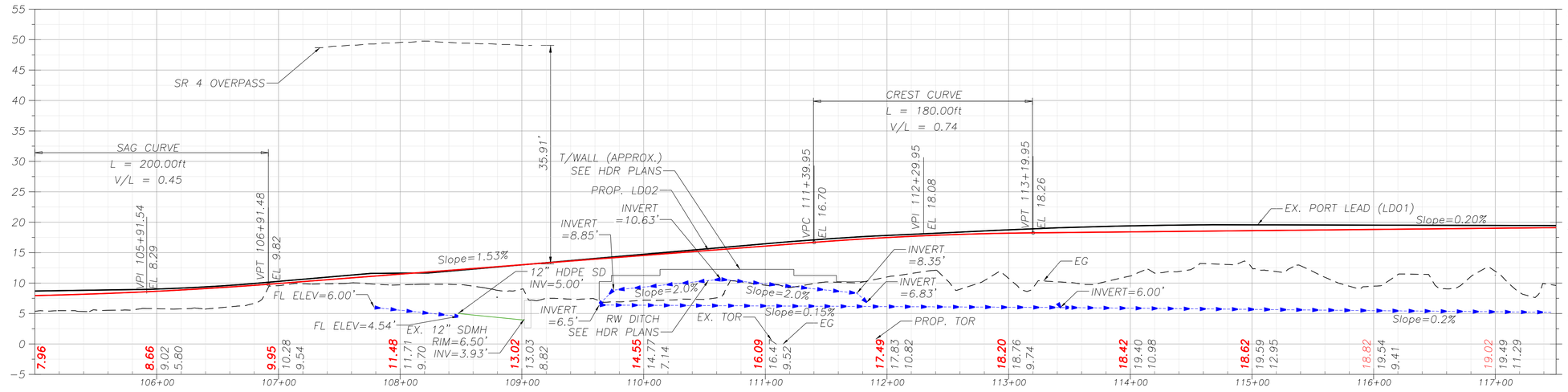
CITY 24-INCH SEWER MAIN PLAN AND PROFILE

CONTRACT NO. 60657603
DRAWING NO. CT-403
REVISION E
SHEET NO. 20
SCALE NA

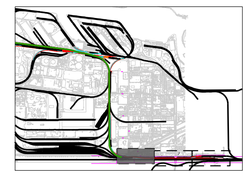
CG-101 to CG-103 LD02 P&P.dgn
$plotdate$
$colortable$
BY: AxaGhosh
TIME: 4:17:46 PM
$TODAY$



PLAN: TRACK LD02 STA. 107+54.72 TO STA. 117+50.00



PROFILE: TRACK LD02 STA. 107+54.72 TO STA. 117+50.00



0 10 20 30
VERTICAL SCALE FEET
1" = 10'

0 50 100 150
HORIZONTAL SCALE FEET
1" = 50'

DESIGN NOTE:

1. OVERHEAD UTILITIES ARE NOT SHOWN ON PLANS FOR CLARITY.
2. GRADING SHALL NOT EXTEND WITHIN 10' OF EXISTING MAIN LINE TRACK CENTERLINE.

SHEET NOTES:

1. REFER TO DETAIL 5 ON SHEET CT-501 FOR ROADBED KEY-IN DETAILS.
2. TRACKWORK TO BE PERFORMED BY THE BNSF FORCES WITHIN THE BNSF RIGHT OF WAY AND GRADING PREFORMED BY THE CONTRACT TO 10' OF EXISTING TRACK.
3. CONSTRUCT RETAINING WALL MIN. 5' FROM THE PUBLIC ROW. RETAINING WALL SHALL BE OF TYPE APPROVED BY RAILROAD. SEE HDR PACKAGE "SR-4 RETAINING WALL (WALL NO. 1)" FOR DETAILS.

NOT FOR CONSTRUCTION

PROJECT NUMBER	LINE ITEM	COST ELEMENT	CONTRACT DESIGNATOR	PHYSICAL ENTITY	WORK ELEMENT	REV	DATE	DESCRIPTION	BY	SUB	APP
						0	08/31/26	ISSUED FOR BID			

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DESIGNED BY	A. GHOSH
DRAWN BY	H.SADIQ
CHECKED BY	A. RIEGER
APPROVED BY	A. GHOSH
DATE	08/31/26

BNSF RAILWAY
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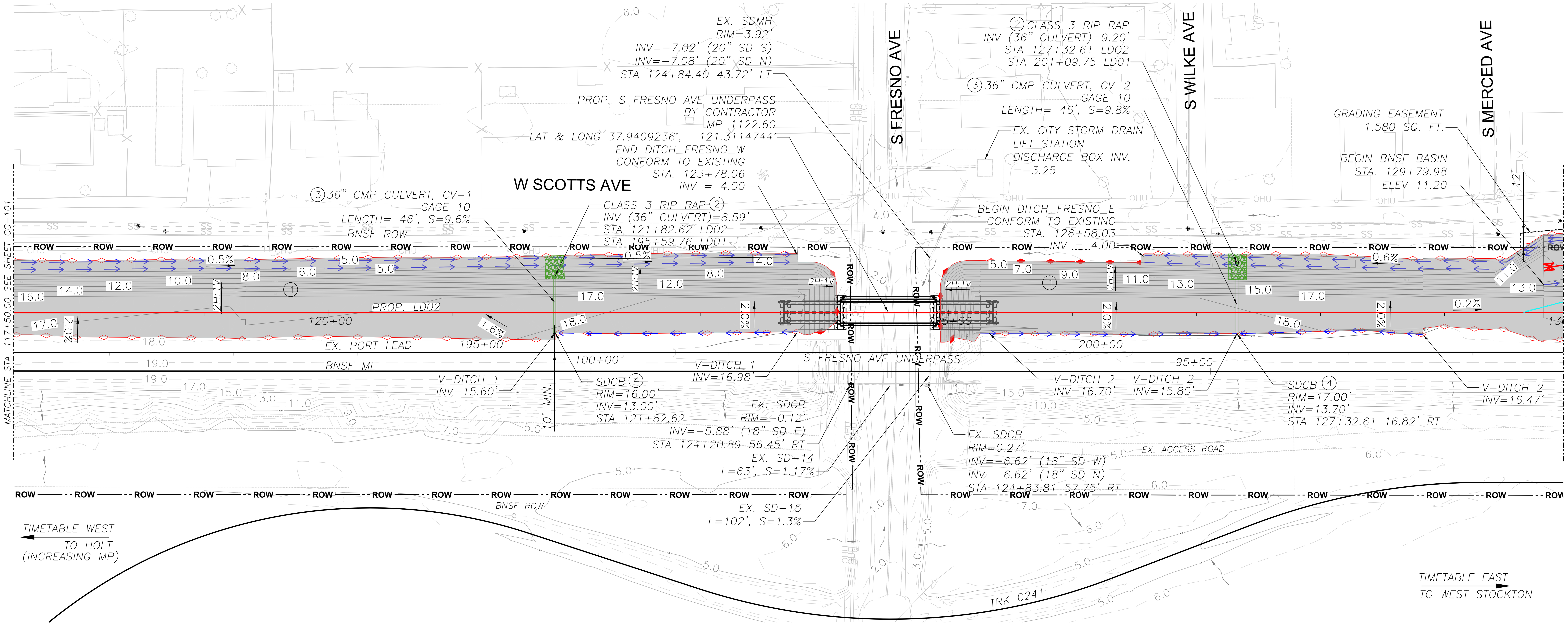
ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER ARNAB PRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

LD01 & LD02 GRADING AND DRAINAGE SHEET

CONTRACT NO.	60657603
DRAWING NO.	CG-101
REVISION	E
SHEET NO.	21
SCALE	AS NOTED



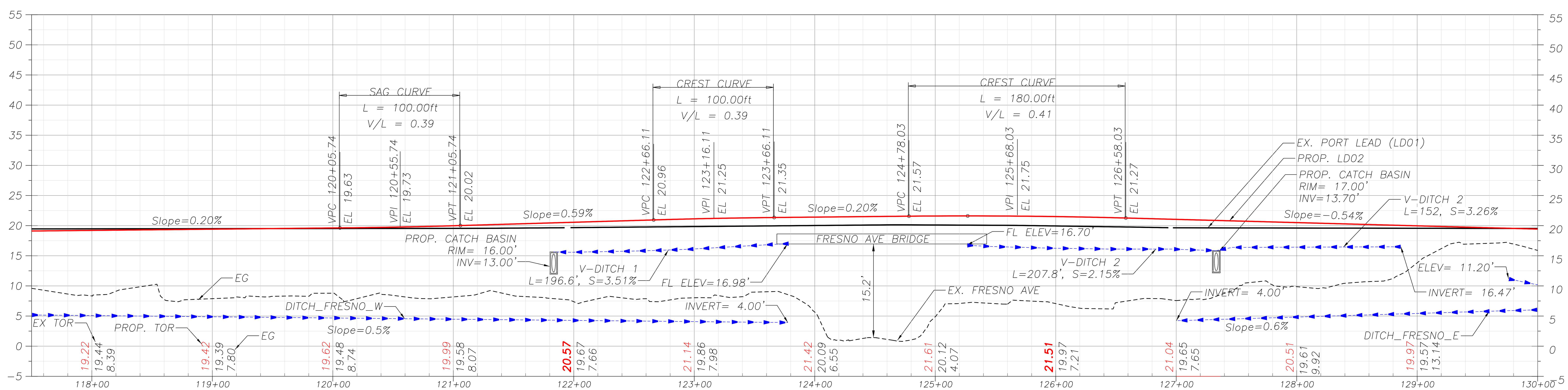
PLAN: TRACK LD02 STA. 117+50.00 TO STA. 130+00.00

DESIGN NOTE:

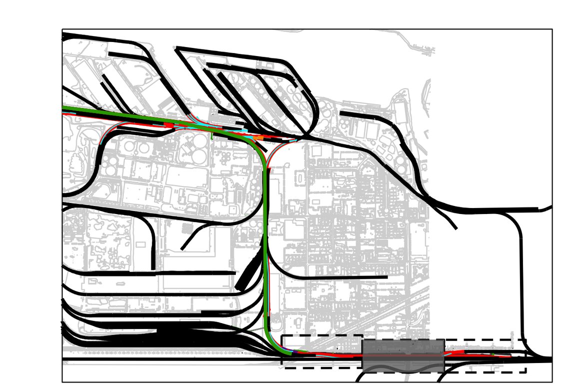
1. OVERHEAD UTILITIES ARE NOT SHOWN ON PLANS FOR CLARITY.
2. GRADING SHALL NOT EXTEND WITHIN 10' OF EXISTING ADJACENT TRACK CENTERLINE.

SHEET NOTES:

1. REFER TO DETAIL 5 ON SHEET CT-501 FOR ROADBED KEY-IN DETAILS.
2. PROVIDE RIPRAP PER DETAIL 5 ON SHEET CT-502.
3. PROVIDE CULVERT PER DETAIL 3 ON SHEET CT-502.
4. PROVIDE CATCH BASIN PER DETAIL 4 ON SHEET CT-502.



PROFILE: TRACK LD02 STA. 117+50.00 TO STA. 130+00.00



VERTICAL SCALE 0 10 20 30 FEET
1" = 10'

HORIZONTAL SCALE 0 50 100 150 FEET
1" = 50'

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY/SUB	APP
E	08/31/26	ISSUED FOR BID		
D	06/27/25	100% DESIGN SUBMITTAL		
C	11/27/24	90% DESIGN SUBMITTAL		
B	04/19/24	60% DESIGN SUBMITTAL		
A	08/11/23	30% DESIGN SUBMITTAL		

WORK ELEMENT / PHYSICAL ENTITY / CONTRACT DESIGNATOR / LINE ITEM / COST ELEMENT / PROJECT NUMBER

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DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/26

BNSF RAILWAY

JMA CIVIL — 5250 Claremont Ave, Ste. 227, Stockton, CA 95207, T: 925.400.4356, www.jmacivil.com

HDR — 2379 Gateway Oaks, Ste. 200, Sacramento, CA 95833, T: 916.679.8700, www.hdrinc.com

ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER ARKAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

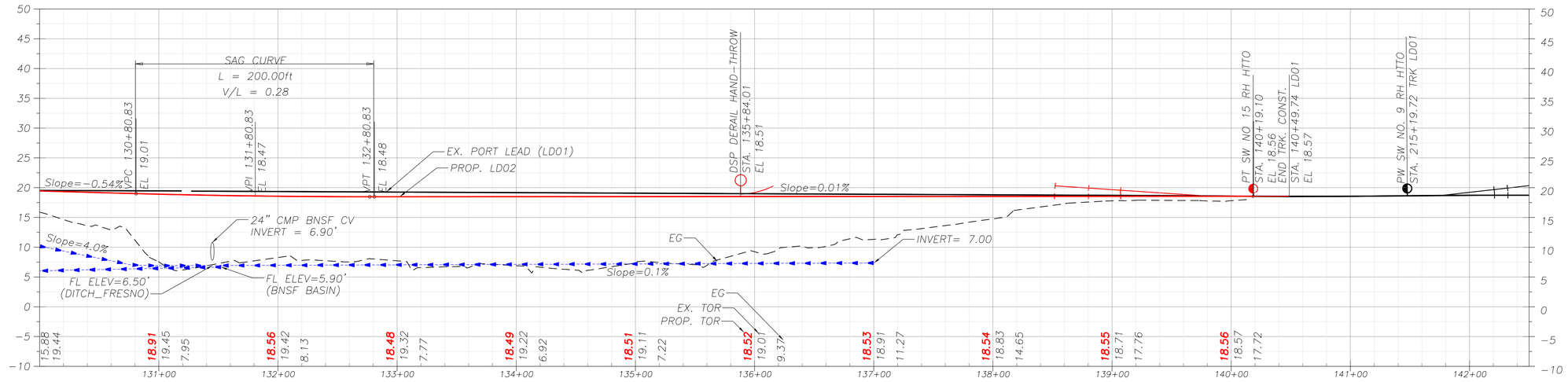
PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

LD02 GRADING AND DRAINAGE SHEET

CONTRACT NO. 60657603
DRAWING NO. CG-102
REVISION E
SHEET NO. 22
SCALE AS NOTED

CG-101 to CG-103 LD02 P&P.dgn
$pentable$
$colortable$
BY: ArkaGhosh
TIME: 6:45:56 PM
$TODAY$

PLAN: TRACK LD02 STA. 130+00.00 TO STA. 140+48.73



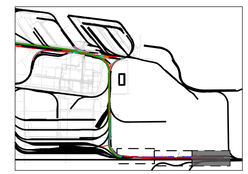
PROFILE: TRACK LD02 STA. 130+00.00 TO STA. 140+48.73

DESIGN NOTE:

1. OVERHEAD UTILITIES ARE NOT SHOWN ON PLANS FOR CLARITY.
2. GRADING SHALL NOT EXTEND WITHIN 10' OF EXISTING MAINLINE TRACK CENTERLINE.

SHEET NOTES:

1. REFER TO DETAIL 5 ON SHEET CT-501 FOR EMBANKMENT FILL KEY-IN DETAILS.
2. CONTRACTOR TO PROVIDE ROUGH GRADING TO TIE IN PROPOSED BASIN TO EXISTING BASIN.
3. PROVIDE CULVERT PER DETAIL 3 ON SHEET CT-502.
4. PROVIDE RIPRAP PER DETAIL 5 ON SHEET CT-502.



VERTICAL SCALE 1" = 10' (0, 10, 20, 30 FEET)

HORIZONTAL SCALE 1" = 50' (0, 50, 100, 150 FEET)

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	SUB	APP
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DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/26

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ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER
ARNAB PRABHA GHOSH
C91571
Exp. 09/30/28
CIVIL ENGINEER
STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

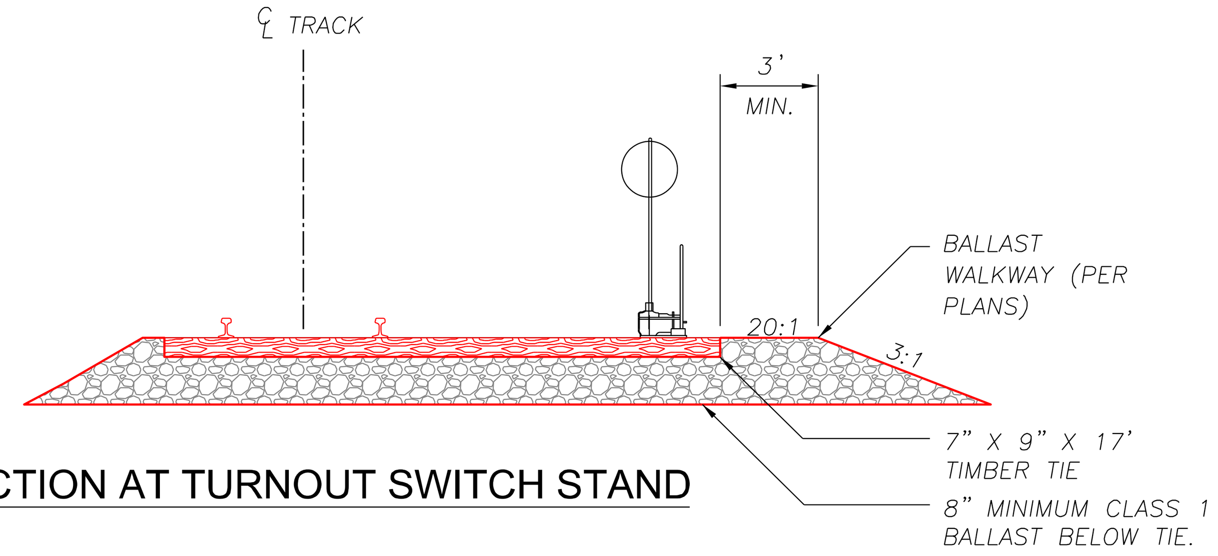
LD02 GRADING AND DRAINAGE SHEET

CONTRACT NO. 60657603
DRAWING NO. CG-103
REVISION E
SHEET NO. 23
SCALE AS NOTED

PROJECT NUMBER | LINE ITEM | COST ELEMENT | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

CG-101 to CG-103 LD02 P&P.dgn $colortable$ BY: AxisDesk TIME: 2:34:35 PM $TODAY$

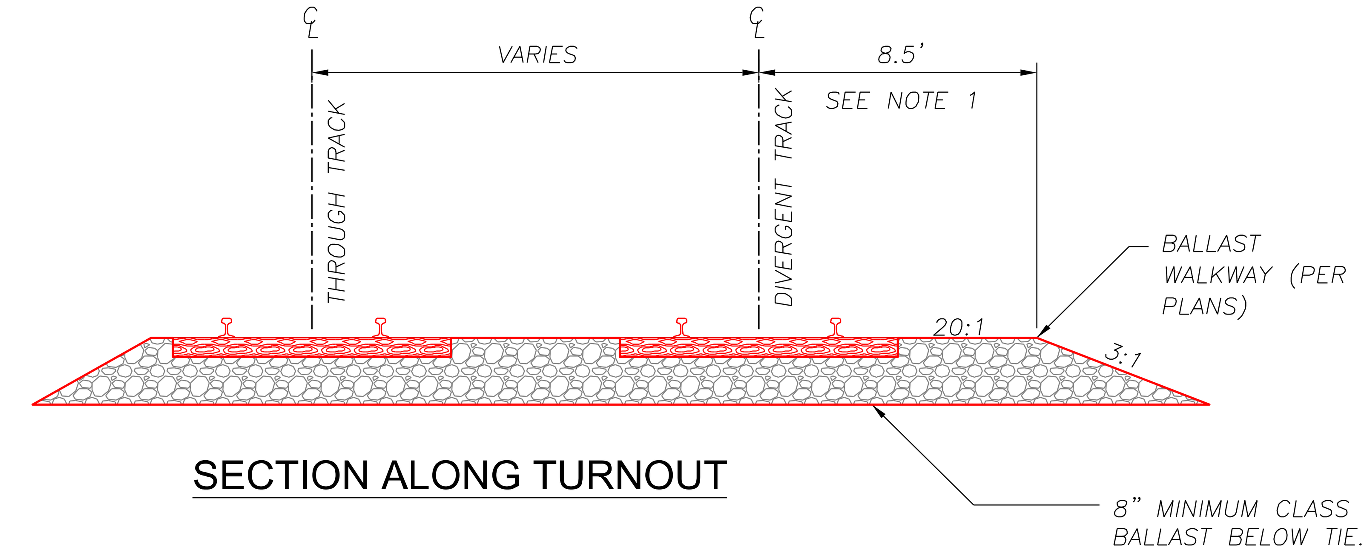
CT-501 & CT-502 Track Details.dgn $pentable$ $colortable$ BY: ArkaGhosh TIME: 3:41:45 PM $TODAY$



SECTION AT TURNOUT SWITCH STAND

NOTE:

1. INSIDE EDGE OF WALKWAY MUST BE BETWEEN THE OUTSIDE EDGE OF THE RAIL AND A POINT THREE FEET FROM CENTERLINE OF THE TRACK.



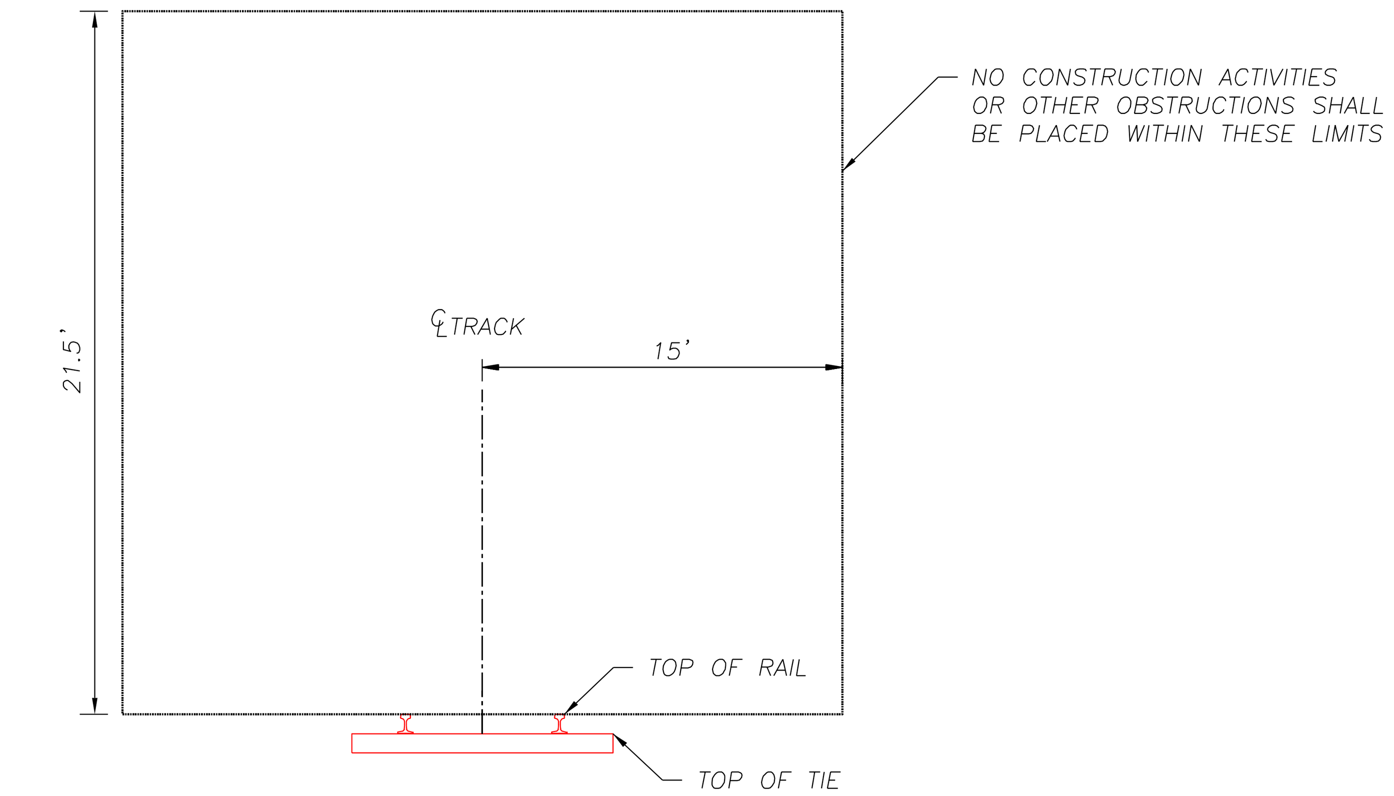
SECTION ALONG TURNOUT

NOTE:

1. WALKWAY LIMIT SHALL EXTEND MINIMUM 50' BEFORE SWITCH STAND TO THE CLEAR POINT BETWEEN THE THROUGH AND DIVERGENT TRACKS PER CPUC GO-118-A STD. NO. 5.

1 (CT-501) RAILROAD/CPUC STANDARD WALKWAY

SCALE: 1" = 2'



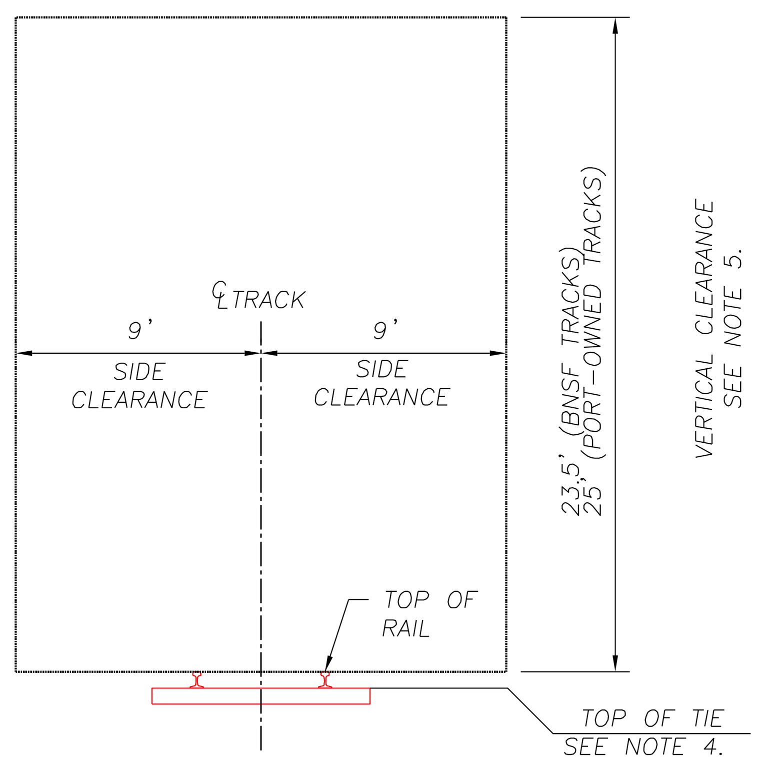
NOTES:

1. ANY SHORING SYSTEM THAT IMPACTS THE RAILROAD'S OPERATION AND/OR SUPPORTS THE RAILROAD EMBANKMENT SHALL BE DESIGNED AND CONSTRUCTED PER RAILROAD GUIDELINES FOR TEMPORARY SHORING.

2. THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.

2 (CT-501) RAILROAD TEMPORARY CLEARANCE

SCALE: NTS



NOTES:

1. ANY FACILITIES FALLING WITHIN THESE DIMENSIONS AND LOCATED ON TANGENT TRACK WILL BE CONSIDERED IMPAIRED CLEARANCE, SUBJECT TO AGREEMENT, AND MUST BE APPROVED PRIOR TO CONSTRUCTION BY THE SERVING RAILROAD.

2. HORIZONTAL CLEARANCES ARE TO BE INCREASED 1 1/2" PER DEGREE OF CURVE WHERE THE FACILITY IS LOCATED ADJACENT TO OR WITHIN 80' OF TURNOUT OR CURVE LIMITS.

3. WHERE PRACTICAL, ALL POSTS, SIGNS, AND OTHER SMALL OBSTRUCTIONS SHALL BE GIVEN A SIDE CLEARANCE OF 10'.

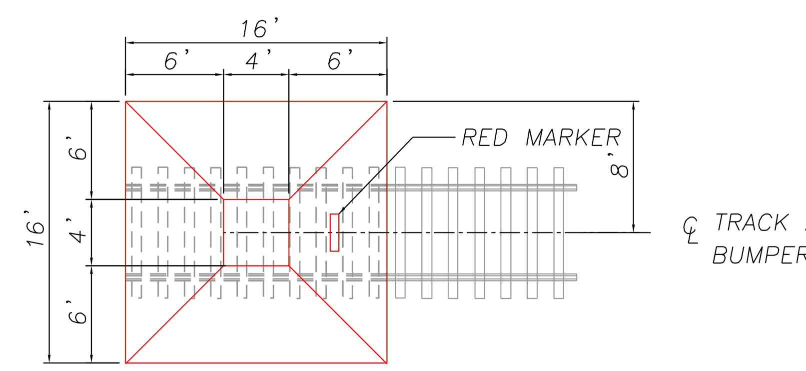
4. NO OBSTRUCTIONS SHALL EXTEND ABOVE THE TOP OF TIE WITHIN 9' FROM THE CENTER LINE OF RAIL.

5. THE PERMANENT VERTICAL CLEARANCE MUST NOT BE VIOLATED DUE TO DEFLECTION OF THE SUPER STRUCTURE.

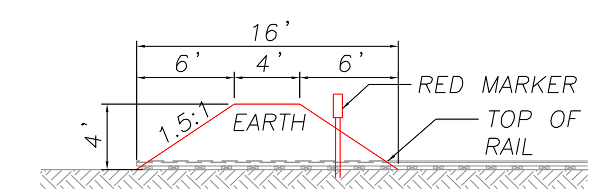
6. ALL PERMANENT CLEARANCES SHALL BE VERIFIED BEFORE PROJECT CLOSEOUT.

3 (CT-501) RAILROAD PERMANENT CLEARANCE

SCALE: NTS



PLAN VIEW



ELEVATION

NOTES:

1. SIZE OF BASE MAY BE REDUCED IN CASES WHERE WIDTH OF ROADBED WILL NOT PERMIT PLAN TO BE FOLLOWED.

2. BUMPER TO BE 4 FEET TALL FROM BASE OF TIE.

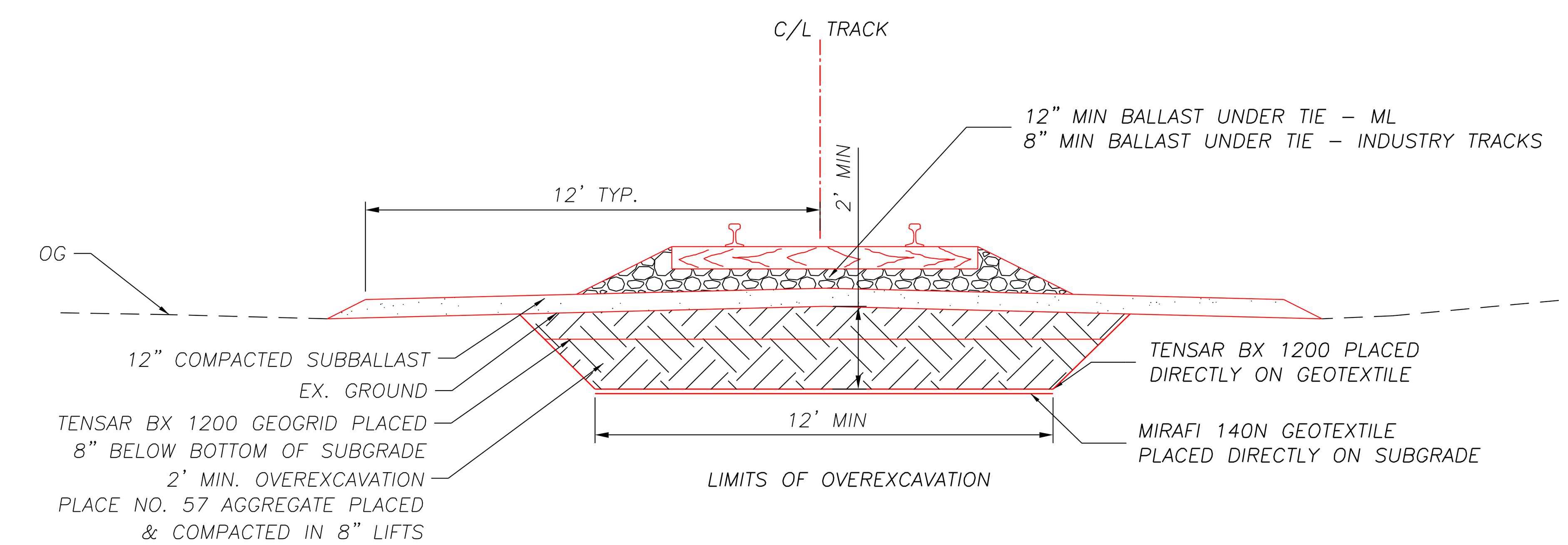
3. IF TRACK CLEARANCE DOES NOT ALLOW, BOTTOMS MAY BE SQUARED OFF.

4. EARTHERN BUMPER SHALL BE USED AT ALL LOCATIONS WHERE BUMPER IS REQUIRED EXCEPT IN LOCATIONS WHERE CLEARANCES WOULD REQUIRE ALTERNATIVE TREATMENT.

5. END OF TRACK SIGN MUST BE USED IN ADDITION TO EARTHERN BUMPER.

4 (CT-501) EARTHEN BUMPER - BNSF

SCALE: 1"=1'



NOTES:

1. SUBGRADE MAY BE STABILIZED WITH LIME, FLY-ASH, OR OTHER ADDITIVES IN ACCORDANCE TO BNSF GENERAL CONDITIONS.

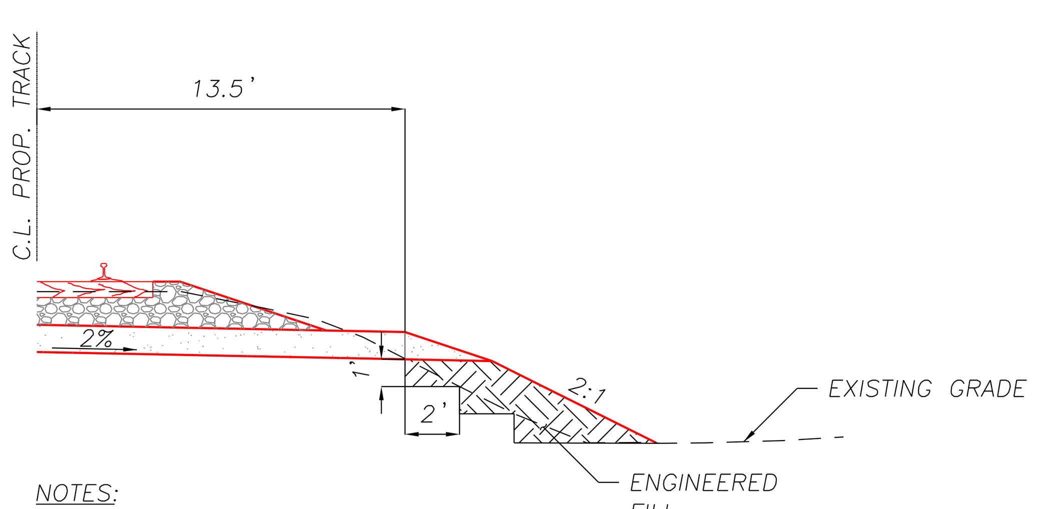
2. TAMPING OF BALLAST MUST NOT DISTURB COMPACTED SUB-BALLAST.

3. BALLAST DEPTH VARIES PER CROSS SECTIONS.

4. OVEREXCAVATION NOT REQUIRED IN FILL SECTIONS, SEE PLANS FOR MORE INFORMATION.

5. SEE CROSS SECTIONS FOR PROPOSED SUBGRADE SLOPES.

6. GEOTEXTILES USED SHALL COMPLY WITH BNSF GENERAL SPECIFICATION SECTION 03400.

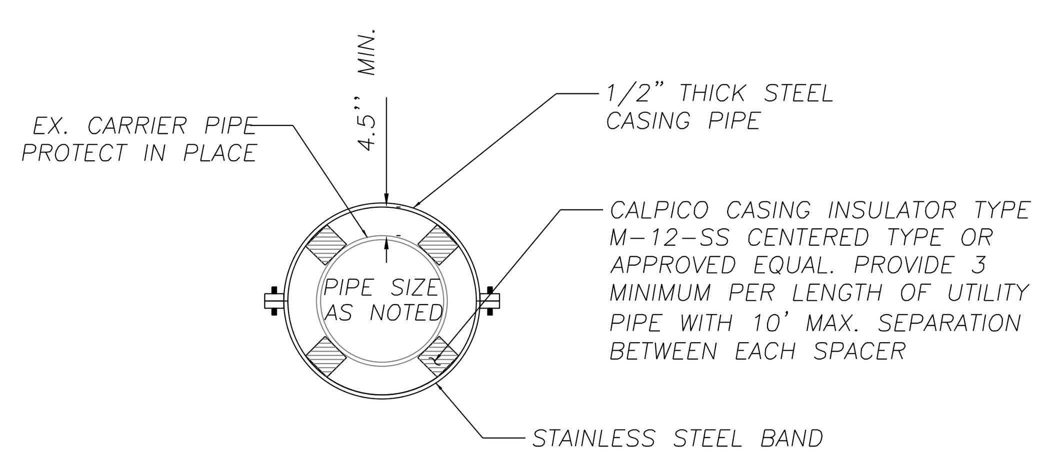


NOTES:

1. FOR SECTIONS WHICH REQUIRE ENGINEERED FILL GREATER THAN 2 FEET.

5 (CT-501) ROADBED KEY-IN

SCALE: NTS



NOTES:

1. REFER TO DETAIL [_], SHEET [_] FOR TRENCH SECTION.

2. MINIMUM YIELD STRENGTH OF CASING PIPE SHALL BE 35,000 PSI.

3. REFER TO AREMA VOLUME 1 PART 5 FOR REQUIREMENTS RELATING TO PIPELINE CROSSINGS.

6 (CT-501) SPLIT CASING

SCALE: 1"=4'

7 (CT-501) TRACK ROADBED EXCAVATION - BID ALTERNATIVE

SCALE: NTS

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY/SUB	APP
0	08/31/26	ISSUED FOR BID		

WORK ELEMENT / PHYSICAL ENTITY / CONTRACT DESIGNATOR / LINE ITEM / COST ELEMENT / PROJECT NUMBER

Information is confidential on all plans, drawings, specifications, and/or information furnished here in shall remain the property of the Burlington Northern Santa Fe Railway and shall be held confidential and shall not be used for any purpose not provided for in agreements with the Burlington Northern Santa Fe Railway

DESIGNED BY	A. GHOSH
DRAWN BY	H.SADIQ
CHECKED BY	A. RIEGER
APPROVED BY	A. GHOSH
DATE	08/31/2026

BNSF RAILWAY

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PORT OF STOCKTON CALIFORNIA

HDR
2379 Gateway Oaks, Ste. 200
Sacramento, CA 95833
T: 916.679.8700
www.hdrinc.com

ISSUED FOR BID

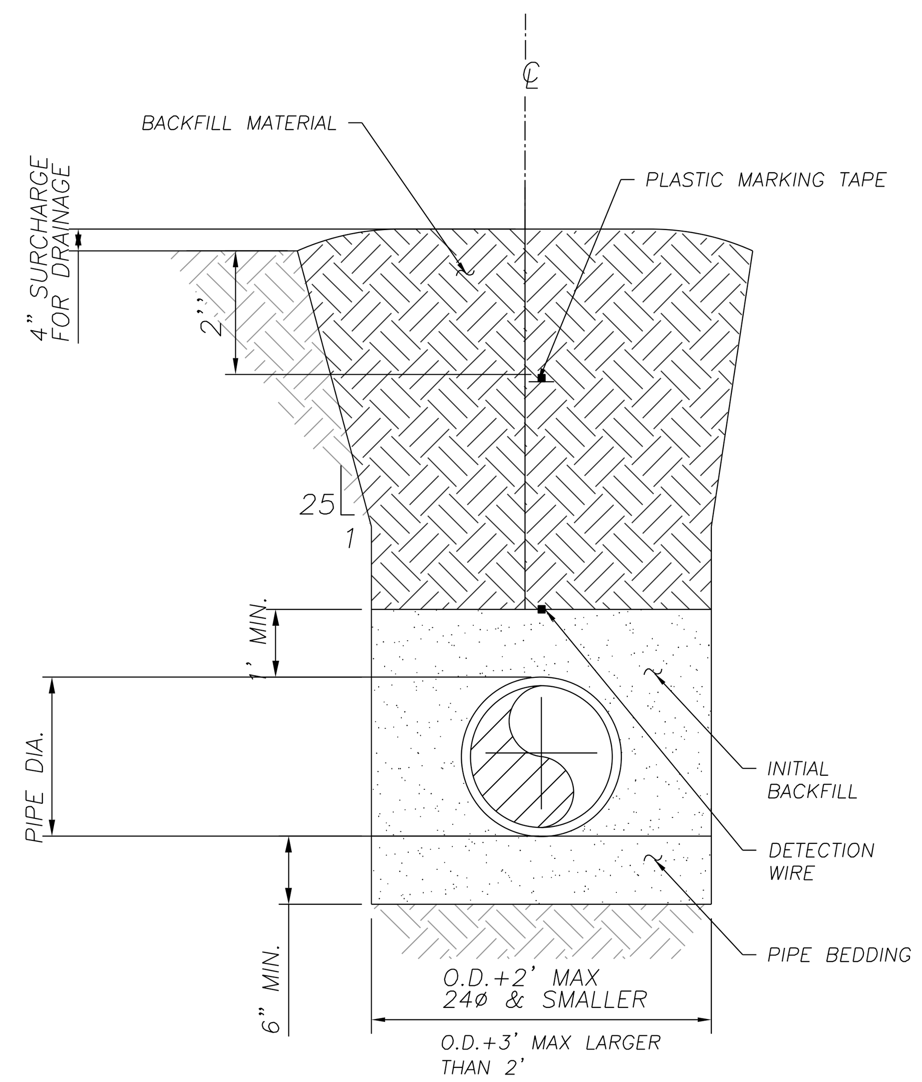
LICENSED PROFESSIONAL ENGINEER ARKAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

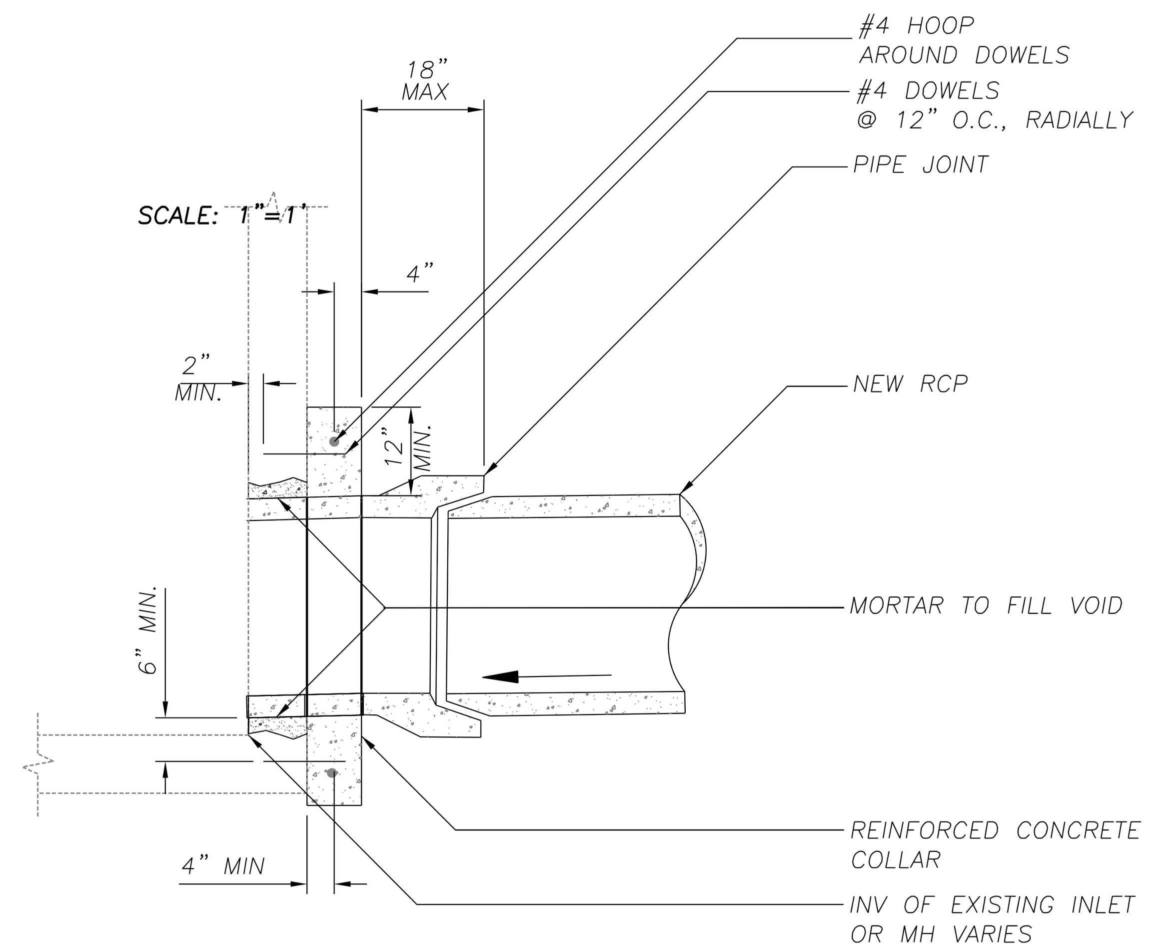
TRACK DETAILS

CONTRACT NO.	60657603
DRAWING NO.	CT-501
REVISION	E
SHEET NO.	24
SCALE	NA

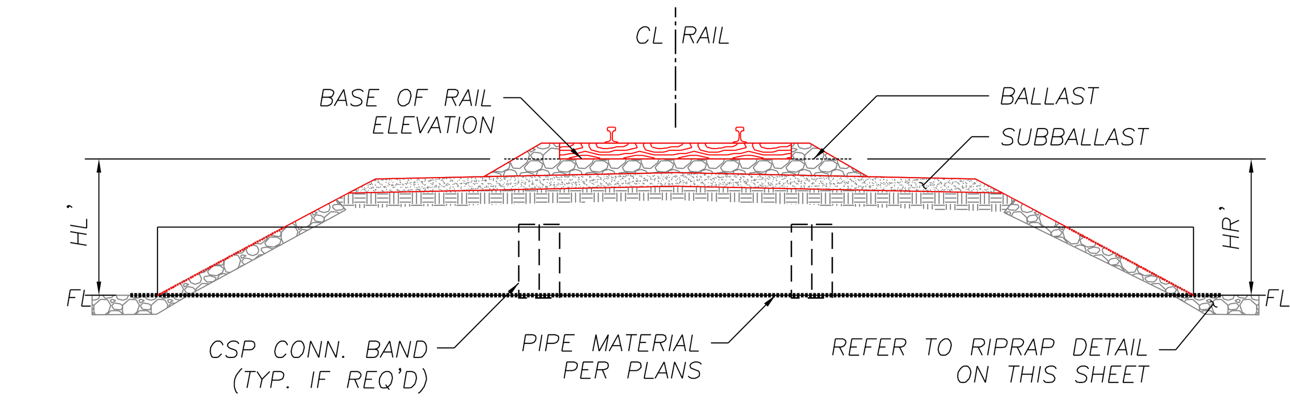
CT-501& CT-502 Track Details.dgn $pentable$ $colortable$ BY: ArkaGhosh TIME: 4:32:39 PM $TODAY$



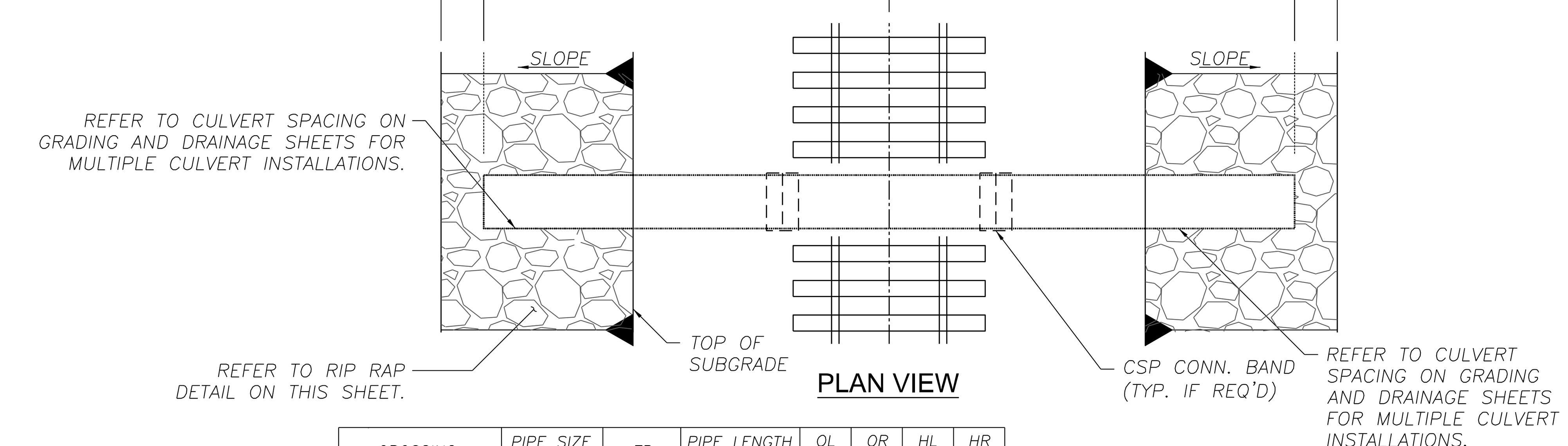
1 PIPE TRENCH
CT-502
SCALE: 1"=2'



2 CONNECT RCP TO EXISTING STRUCTURE
CT-502
SCALE: 1"=2'



SECTION VIEW



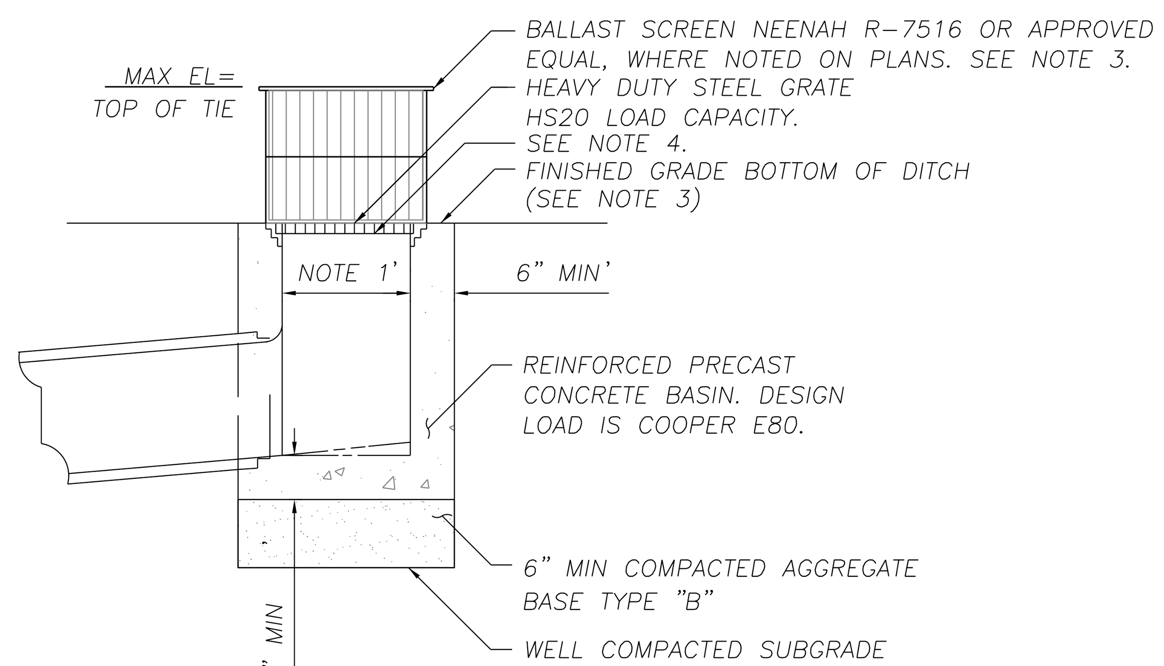
PLAN VIEW

CROSSING	PIPE SIZE (IN)	TR	PIPE LENGTH (FT)	OL (FT)	OR (FT)	HL (FT)	HR (FT)
STA. 121+81.98 LD02	36" CMP CULVERT	SEE PLANS					
STA. 127+31.98 LD02	36" CMP CULVERT	SEE PLANS					
STA. 13+38.19 BNSF SPUR TRK	24" CMP CULVERT	SEE PLANS					

NOTES:

1. ALL CULVERTS SHALL BE COOPER E-80 LOAD RATED.

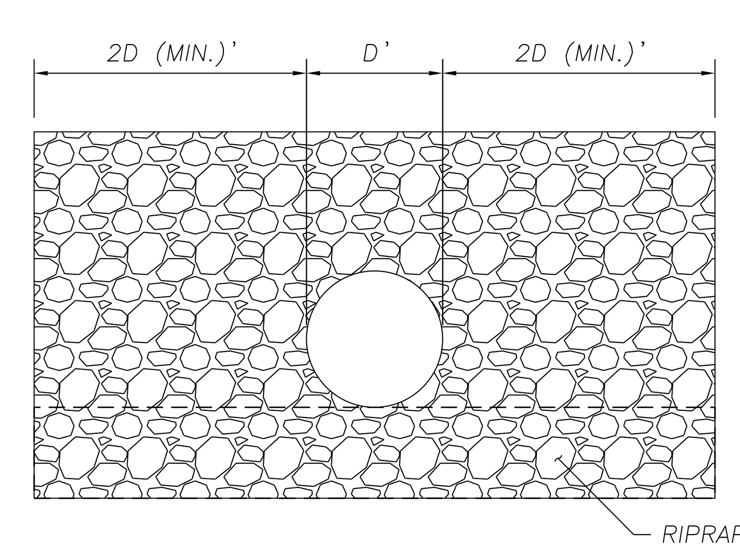
3 CULVERT DETAILS - BNSF
CT-502
SCALE: 1"=5'



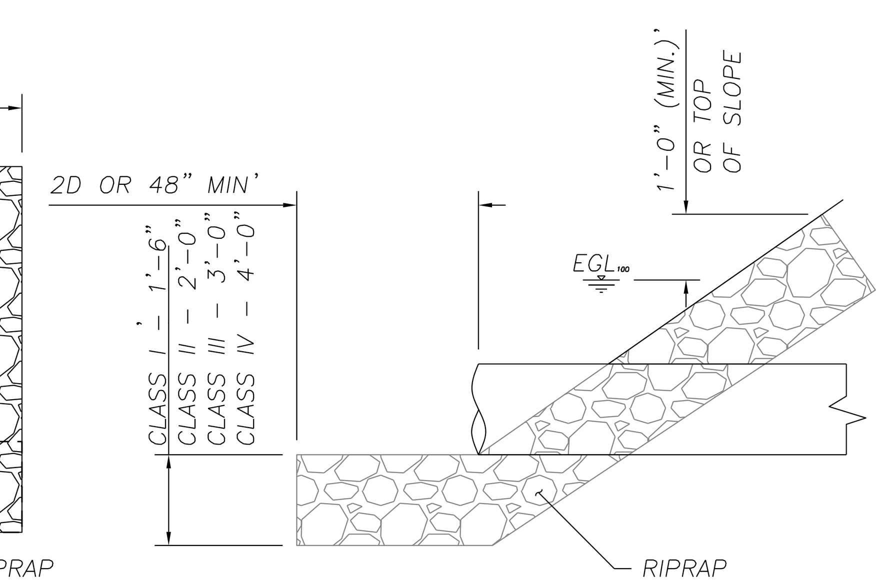
NOTES:

1. INSIDE DIMENSIONS SHALL CONFORM TO PRECAST MANUFACTURER'S RECOMMENDATIONS FOR SIZE, NUMBER AND ANGLE OF CONNECTING PIPES.
2. PRECAST CATCH BASIN SHALL BE JENSEN PRECAST 4848 CAST-IN-FRAME DROP INLET (PART # 100001282) OR SIMILAR.
3. SEE PLANS FOR INLET SIZE AND PIPE, STRUCTURE INVERT ELEVATIONS.
4. INCLUDE BALLAST SCREEN AND SET BASIN RIM ELEVATION AT THE BOTTOM OF THE DITCH.
5. PROVIDE A DROP-IN STYLE SEDIMENT CAPTURE DEVICE WITH OVERFLOW IN ALL INLETS NOT EQUIPPED WITH BALLAST SCREEN. DEVICE SHALL INCLUDE A LIFTING MECHANISM TO FACILITATE MAINTENANCE.

4 STORM DRAIN CATCH BASIN WITH BALLAST SCREEN
CT-502
SCALE: NTS



ELEVATION VIEW

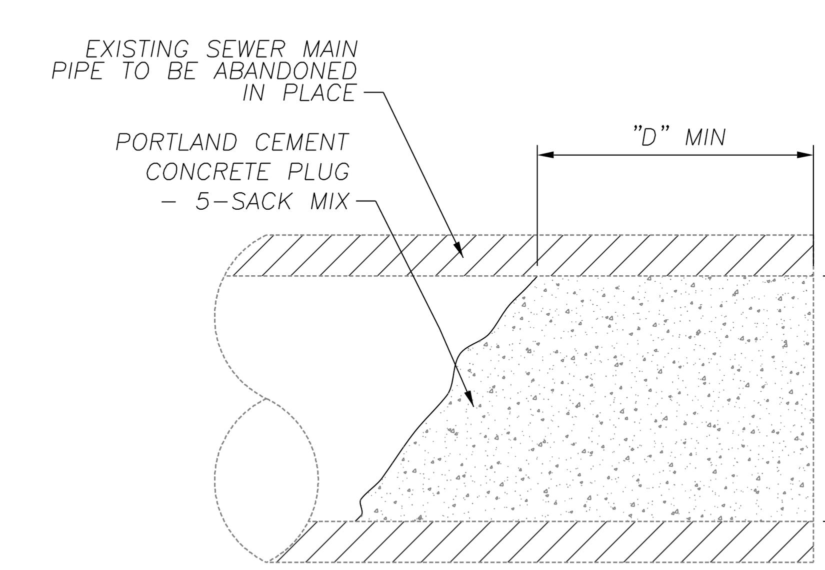


SECTION VIEW

NOTES:

1. ENSURE THAT RIPRAP GRADING AND PLACEMENT COMPLIES WITH BNSF SPECIFICATIONS.
2. RIPRAP SHALL BE CLASS III WITH 24-38 INCHES DIMENSION ROCKS AND AVERAGE WEIGHT 1,000-4,000 LBS.

5 CULVERT RIPRAP PROTECTION
CT-502
SCALE: 1"=3'



NOTE:

1. ABANDONED SEWER MAIN PIPE SHALL BE PLUGGED AT BOTH ENDS.

6 CAP AND ABANDON EXISTING UTILITY
CT-502
SCALE: NTS

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY/SUB	APP
0	08/31/26	ISSUED FOR BID		

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DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/2026

BNSF RAILWAY

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www.jmacivil.com

HDR
2379 Gateway Oaks, Ste. 200
Sacramento, CA 95833
T: 916.679.8700
www.hdrinc.com

ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER ARKAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

UTILITY AND DRAINAGE DETAILS

CONTRACT NO. 60657603
DRAWING NO. CT-502
REVISION E
SHEET NO. 25
SCALE NA

Calwa, CA (EB) -><- (WB) Richmond, CA Line Segment: 7200 Calwa, CA

1126 1125 1124 1123 1122 1121

CT-600 BNSF Schematic.dgn

CTC CTC INTK CTC INTK

70 55 30
79 60 30

70 55 30
79 60 30

1125 1° 1' 1122 0° 11'

11 11 17 23 23 19 19 19 17 17 24

0.000 -0.263 -0.300 0.000 0.219 0.000 0.000 0.147 0.000 -0.313 -0.101

.000 BRI 1126.00 4-28' TDBX

.693 PUB XNG 029638J WOODSBRO RD

.200 BRI 1125.20 95', 145', 95' CEBM
.195 PUB XNG 029637C PORT/STOCKTON EX

.066 NO. 10 T.O. (3301W)

.217 NO. 10 T.O. (3301E)
.198 SIG INTR (2)
.187 PRI XNG 029122P TERTIARY ROAD (PVT)

.900 BRI 1123.90 14' RAIL, 90' TPG; 71'TRT; 110' T
.868 AEI

.636 PUB XNG 029634G NAVY DR
.600 BRI 1123.60 47'; 2-69'; 36' BM

To Port of Stockton

.000 HBD

.900 BRI 1122.90 3-165' PGIR

.600 BRI 1122.60 24', 2-36', 24' CEBM
.587 PUB XNG 029633A FRESNO AVE

.272 SIG ABSL
.218 NO. 10 T.O. (1122E)

.147 NO. 20 T.O. (0002W)
.079 SIG ABSL
.065 SIG ABSL
.058 NO. 11 T.O. (0241)
.054 NO. 11 T.O. (0239)

.924 CUL 48" X 64' CP
.923 CUL 48" X 64' CP
.890 BRI 1121.89 140' CEBM
.880 BRI 1121.88 140' CEBM
.862 NO. 11 T.O. (0235E)
.851 PUB XNG 029618X I-5 (I-5)

.721 NO. 10 T.O. (0226)
.683 PUB XNG 029617R LINCOLN ST

.473 PUB XNG 029614V S MADISON ST
.423 SIG INTR (2)
.402 PUB XNG 029613N COMMERCE ST
.350 BRI 1121.35 16-72' CEBM
.333 PUB XNG 029612G SO CENTER ST
.270 BRI 1121.27 16-72' CEBM
.262 PUB XNG 029611A EL DORADO ST

.121 PUB XNG 029608S SAN JOAQUIN ST
.052 PUB XNG 029607K S SUTTER ST

.982 PUB XNG 029606D S CALIFORNIA ST
.836 PUB XNG 029604P STANISLAUS ST
.817 SIG ABSL (2)
.806 NO. 11 T.O. (1120CW)
.765 NO. 11 T.O. (1120CE)
.734 NO. 11 T.O. (1120BW)
.700 BRI 1120.70 3-35' TDBX (2)
.694 NO. 11 T.O. (1120BE)
.689 NO. 11 T.O. (0123W)
.680 PUB XNG 029603H AURORA ST
.602 DIA BNSF \ UP (2)
.600 DIA BNSF \ UP (2)
.576 SIG ABSL (2)
.552 SIG ABSL
.461 NO. 20 T.O. (9928E)
.452 PUB XNG 029599V PILGRIM ST
.408 NO. 11 T.O. (0126E)
.378 PUB XNG 029598N AIRPORT WAY

MAIN 0 0301 0302 0306 0307 0308 0301 MAIN 0 MAIN 0 MAIN 0 LD01 LD02 BNSF SPUR 0241 0230 0227 0229 0228 0226 0239 0235 0241 0126

WOODSBRO
MP 1125

WEST STOCKTON
MP 1122.2

STOCKTON
MP 1121.4

UP CROSSING
KEDDIE JCT
MP 1120.6 MP 1120.5

SCOPE OF WORK:
CONSTRUCT 5219 TF OF SIDING
REMOVE 902 TF OF SIDING
INSTALL 1 NO.15 TURNOUT
INSTALL 1 DSP DERAIL

LEGEND:
EX. FOREIGN TRK.
CONSTRUCT
REMOVE
BNSF TRK
CULVERT/SEWER

141 2015 141 2015 141 2015 132 1987 132 1987 141 2015 132 1987 136 2000 131 1965

1987 2015 2003

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	SUB	APP
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DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/2026

BNSF RAILWAY

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5250 Claremont Ave, Ste. 227
Stockton, CA 95207
T: 925.400.4356
www.jmacivil.com

HDR
2379 Gateway Oaks, Ste. 200
Sacramento, CA 95833
T: 916.679.8700
www.hdrinc.com

ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER ARKADYADIBHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

PROJECT SCHEMATIC MAP

CONTRACT NO. 60657603
DRAWING NO. CT-600
REVISION E SHEET NO. 26
SCALE 1:2000

$colorlabel$ BY: ArkaGhosh TIME: 1:31:46 PM $TODAY$ $penlabel$

CT-601 BNSF Schematic.dgn

$$colortable$$

BY: ArkaGhosh

TIME: 4:46:44 PM

$$TODAY$$

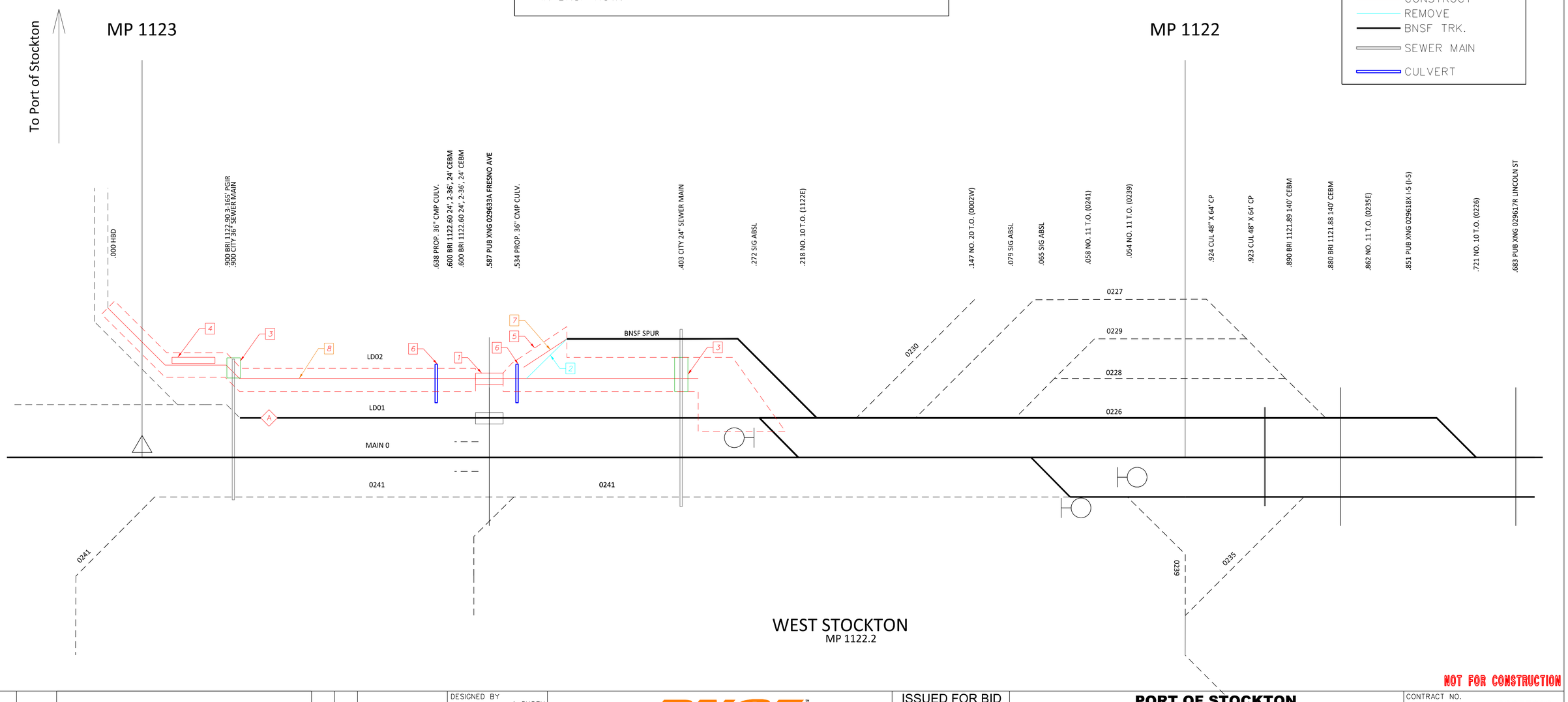
1. CONTRACTOR TO CONSTRUCT FRESNO AVE UNDERPASS IMPLEMENT APPROPRIATE TRAFFIC CONTROL ON FRESNO AVE
2. BNSF TO REMOVE PORTION OF BNSF SPUR TRACK.
3. CONTRACTOR TO EXCAVATE TO SHALLOW DEPTH AND INSTALL BRIDGING SLAB FOR PROTECTING CITY SEWER MAINS.
4. CONTRACTOR TO CONSTRUCT RETAINING WALL
5. CONTRACTOR TO PERFORM GRADING TO PREPARE TRACK ROADBED
6. CONTRACTOR TO INSTALL DRAINAGE CULVERTS
7. BNSF TO RECONSTRUCT BNSF SPUR TRACK
8. BNSF TO CONSTRUCT TRACK LD02 WITHIN 14' OF PORT LEAD IN BNSF ROW.

DESIGN NOTES:

1. REFER TO SHEET G-100 FOR PROJECT DESIGN NOTES.

SCOPE OF WORK:
CONSTRUCT 5219 TF OF SIDING
REMOVE 902 TF OF SIDING
INSTALL 1 NO.15 TURNOUT
INSTALL 1 DSP DERAIL

LEGEND:
- A — ACTIVE LEAD TRACK
- EX. FOREIGN TRK.
- CONSTRUCT
- REMOVE
- BNSF TRK.
- SEWER MAIN
- CULVERT



WEST STOCKTON
MP 1122.2

NOT FOR CONSTRUCTION

PROJECT NUMBER	COST ELEMENT	LINE ITEM	CONTRACT DESIGNATOR	PHYSICAL ENTITY	WORK ELEMENT

REV	DATE	DESCRIPTION	BY	SUB	APP
0	08/31/26	ISSUED FOR BID			

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DESIGNED BY	A. GHOSH
DRAWN BY	H.SADIQ
CHECKED BY	A. RIEGER
APPROVED BY	A. GHOSH
DATE	08/31/2026

BNSF RAILWAY
JMA CIVIL — 5250 Claremont Ave, Ste. 227, Stockton, CA 95207, T: 925.400.4356, www.jmacivil.com
HDR — 2379 Gateway Oaks, Ste. 200, Sacramento, CA 95833, T: 916.679.8700, www.hdrinc.com

ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER — ARKAPRABHA GHOSH — C91571 — Exp. 09/30/28 — CIVIL ENGINEER — STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

DOUBLE TRACK LONG LEAD PHASING PLAN - SHEET 1

CONTRACT NO.	60657603
DRAWING NO.	CT-601
REVISION	E
SHEET NO.	27
SCALE	1:500

CT-602 BNSF Schematic.dgn

$scenario$

$colortable$

BY: ArkaGhosh

TIME: 1:32:56 PM

$TODAY$

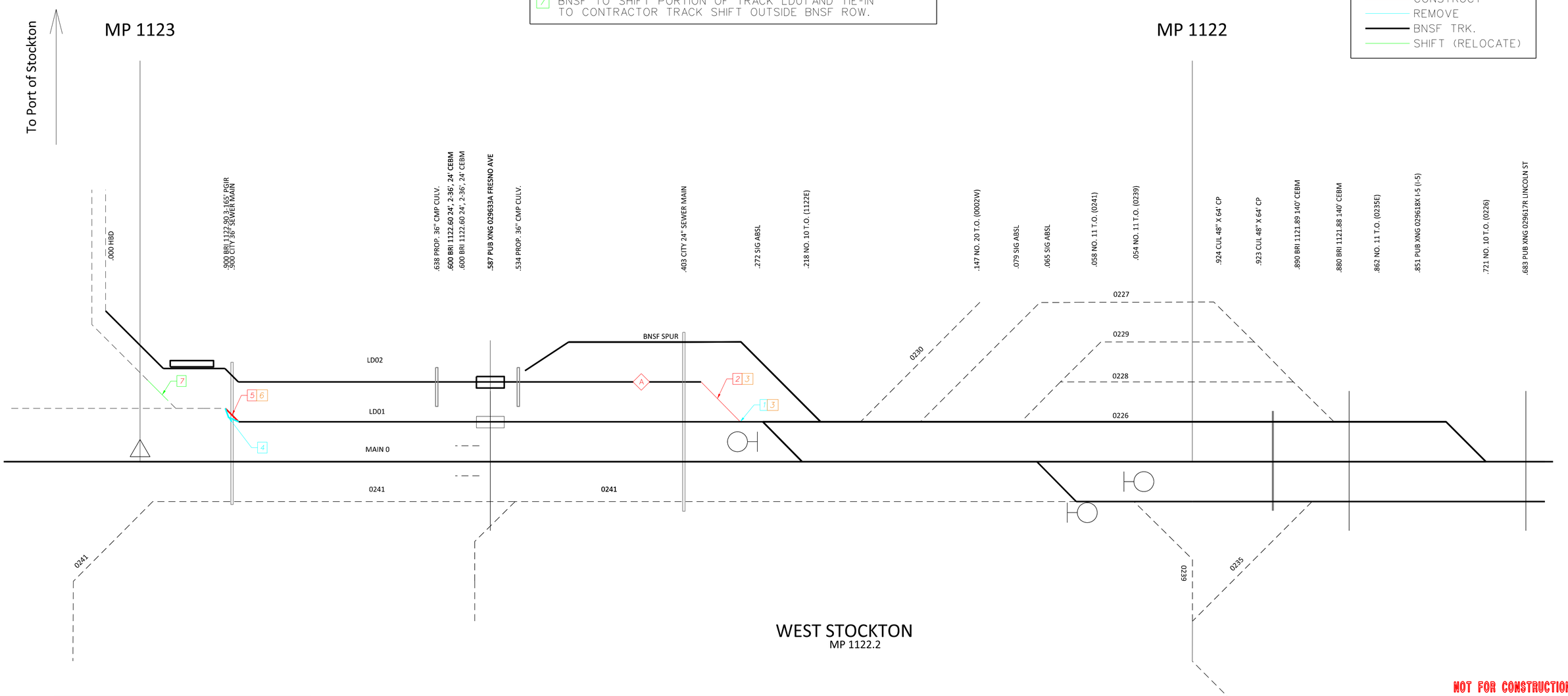
DESIGN NOTES:

1. REFER TO SHEET G-100 FOR PROJECT DESIGN NOTES.

SCOPE OF WORK:
CONSTRUCT 5219 TF OF SIDING
REMOVE 902 TF OF SIDING
INSTALL 1 NO.15 TURNOUT
INSTALL 1 DSP DERAIL

1. BNSF TO REMOVE PORTION OF LEAD TRACK LD01.
2. CONTRACTOR TO PERFORM MINOR EARTHWORK TO REESTABLISH TRACK ROADBED AND TURNOUT PAD.
3. BNSF TO INSTALL NEW TURNOUT AND CONNECT TRACKS LD02 TO LD01. LD02 TO BE USED AS ACTIVE LEAD TRACK.
4. BNSF TO REMOVE PORTION OF TRACK LD01.
5. CONTRACTOR TO PERFORM MINOR EARTHWORK TO RESTABLISH LD01 TRACK ROADBED.
6. BNSF TO RE-ESTABLISH TRACK LD01.
7. BNSF TO SHIFT PORTION OF TRACK LD01 AND TIE-IN TO CONTRACTOR TRACK SHIFT OUTSIDE BNSF ROW.

LEGEND:
- A — ACTIVE LEAD TRACK
- EX. FOREIGN TRK.
- CONSTRUCT
- REMOVE
- BNSF TRK.
- SHIFT (RELOCATE)



WEST STOCKTON
MP 1122.2

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	SUB	APP
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DESIGNED BY	A. GHOSH
DRAWN BY	H.SADIQ
CHECKED BY	A. RIEGER
APPROVED BY	A. GHOSH
DATE	08/31/2026

BNSF RAILWAY

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ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER ARKAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

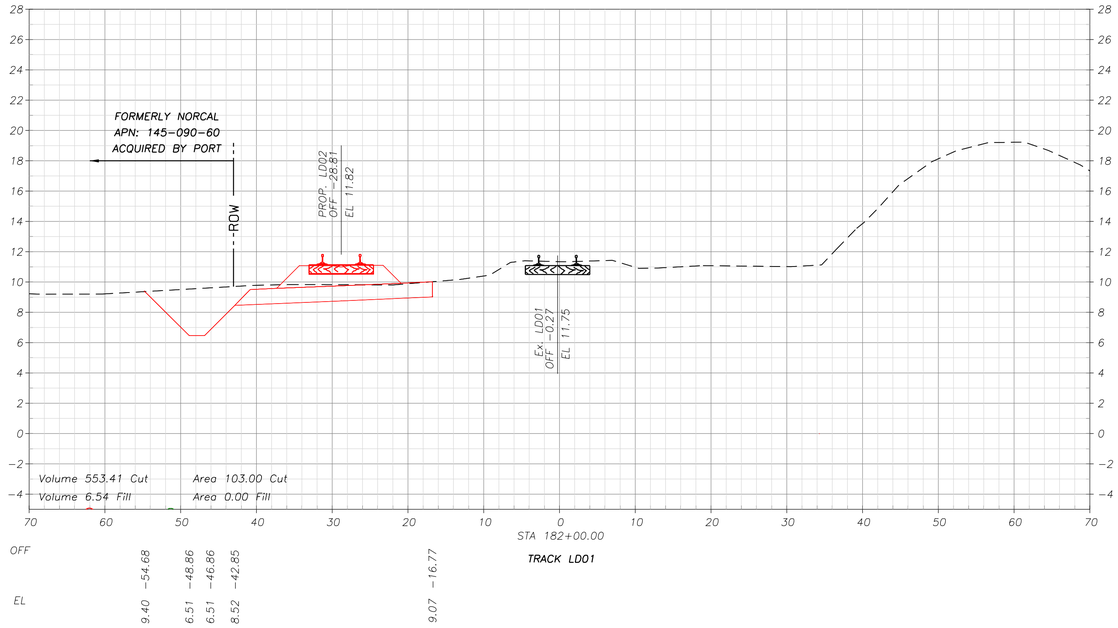
PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

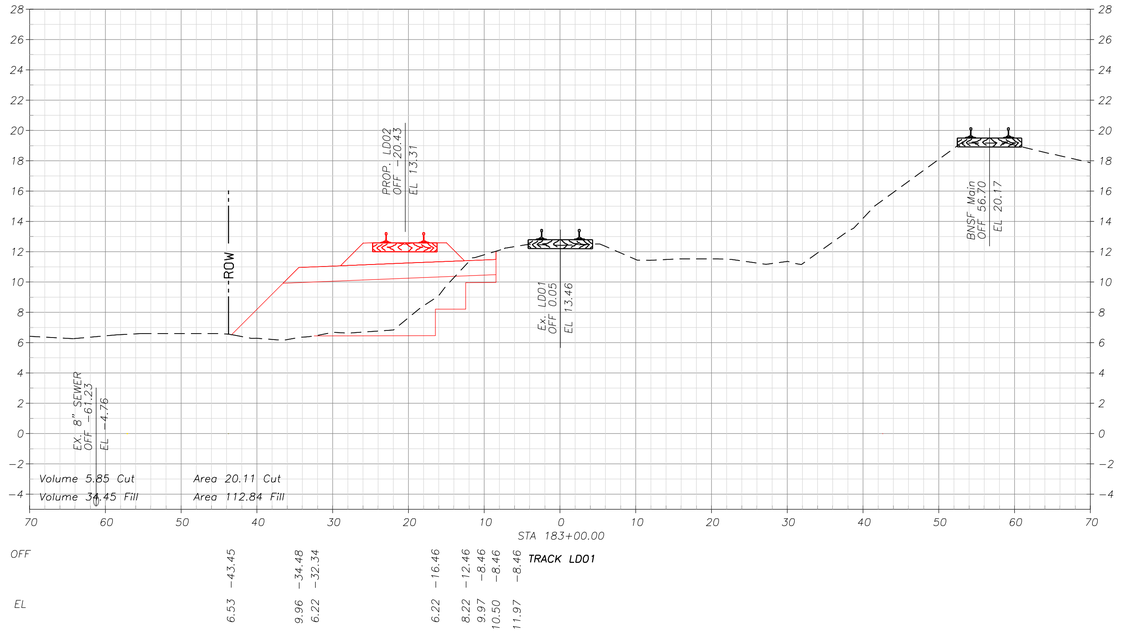
DOUBLE TRACK LONG LEAD PHASING PLAN - SHEET 1

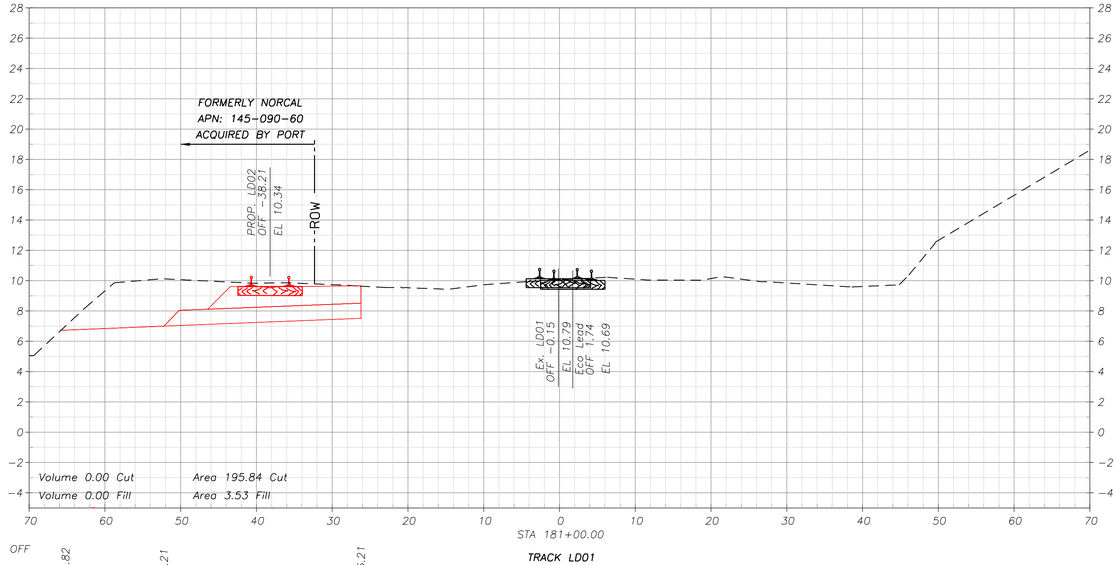
CONTRACT NO.	60657603
DRAWING NO.	CT-602
REVISION	E
SHEET NO.	28
SCALE	1:500

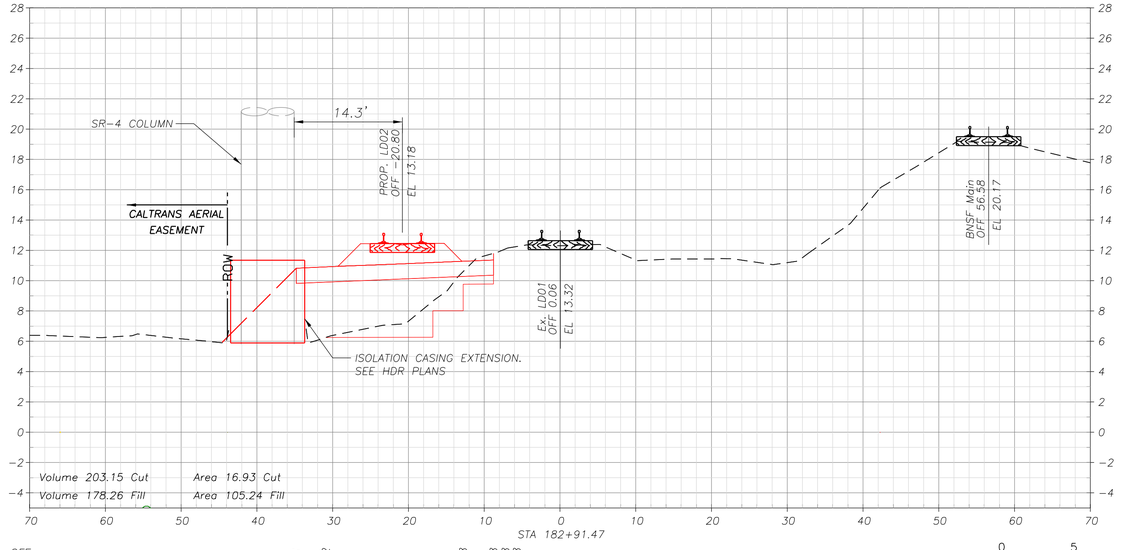
DESIGN NOTE:

1. CUT AND FILL VOLUMES ARE IN CUBIC YARD, CUT AND FILL AREAS ARE IN SQUARE FEET.
2. CONTRACTOR TO CONSTRUCT 2:1 BENCHING BEFORE EMBANKMENT FILL IS PLACED.









VERTICAL SCALE 1" = 5' (0, 5, 10, 15 FEET)

HORIZONTAL SCALE 1" = 10' (0, 10, 20, 30 FEET)

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY / SUB	APP
0	08/31/26	ISSUED FOR BID		

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DESIGNED BY	A. GHOSH
DRAWN BY	H.SADIQ
CHECKED BY	A. RIEGER
APPROVED BY	A. GHOSH
DATE	08/31/2026

BNSF RAILWAY

JMA CIVIL
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HDR
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ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER ARKAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

TRACK LD02 CROSS SECTIONS

CONTRACT NO.	60657603
DRAWING NO.	CT-801
REVISION	E
SHEET NO.	29
SCALE	AS NOTED

WORK ELEMENT	PHYSICAL ENTITY	CONTRACT DESIGNATOR	LINE ITEM	COST ELEMENT	PROJECT NUMBER

CT-800-1.dgn
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BY: ArkaGhosh
TIME: 4:52:06 PM
$TODAY$

CT-800-1.dgn

$scriptdate$

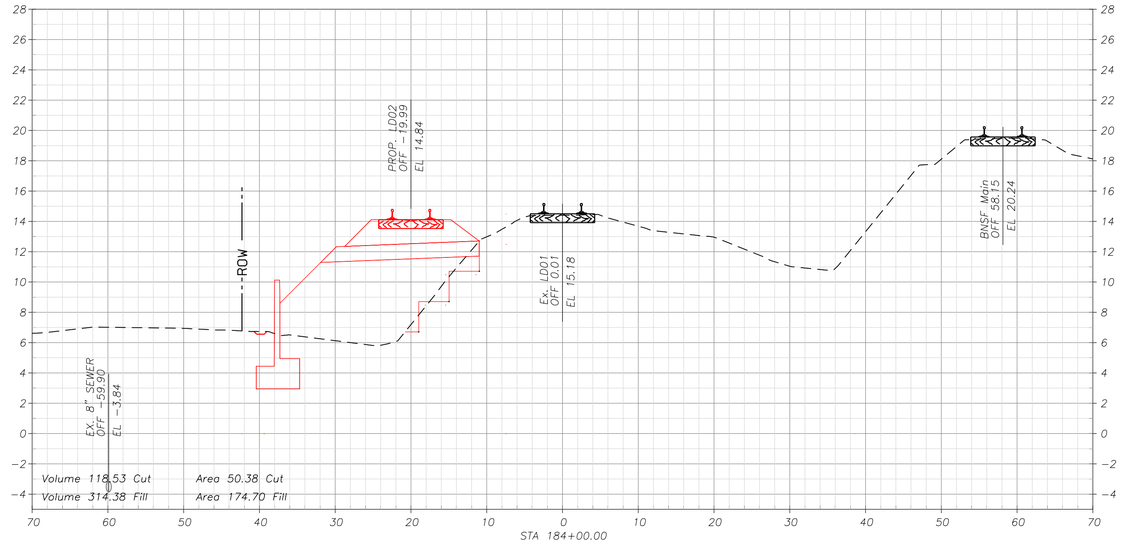
BY: ArkaGhosh

TIME: 4:44:58 PM

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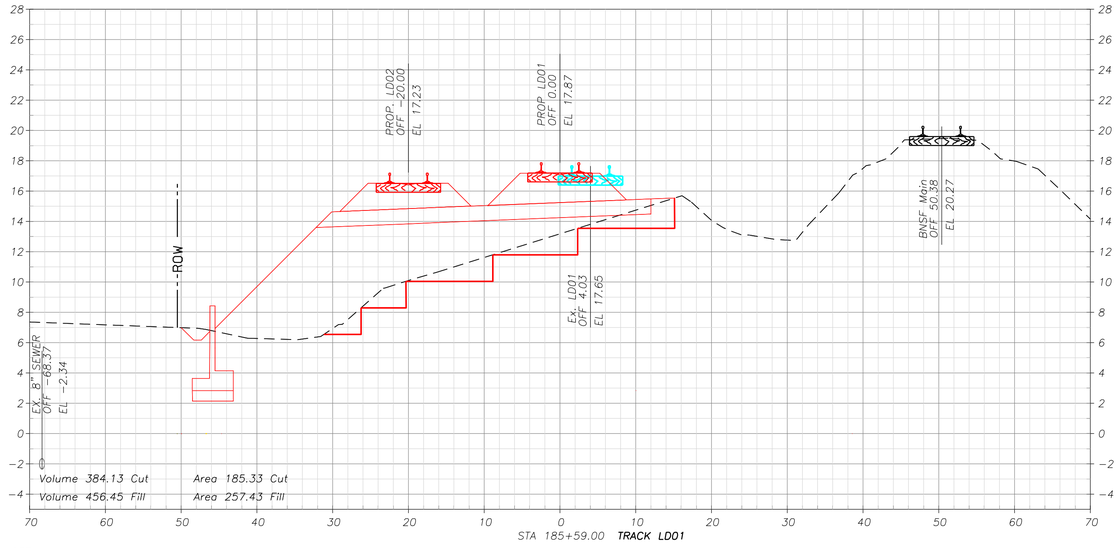
DESIGN NOTE:

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2. CONTRACTOR TO CONSTRUCT 2:1 BENCHING BEFORE EMBANKMENT FILL IS PLACED.



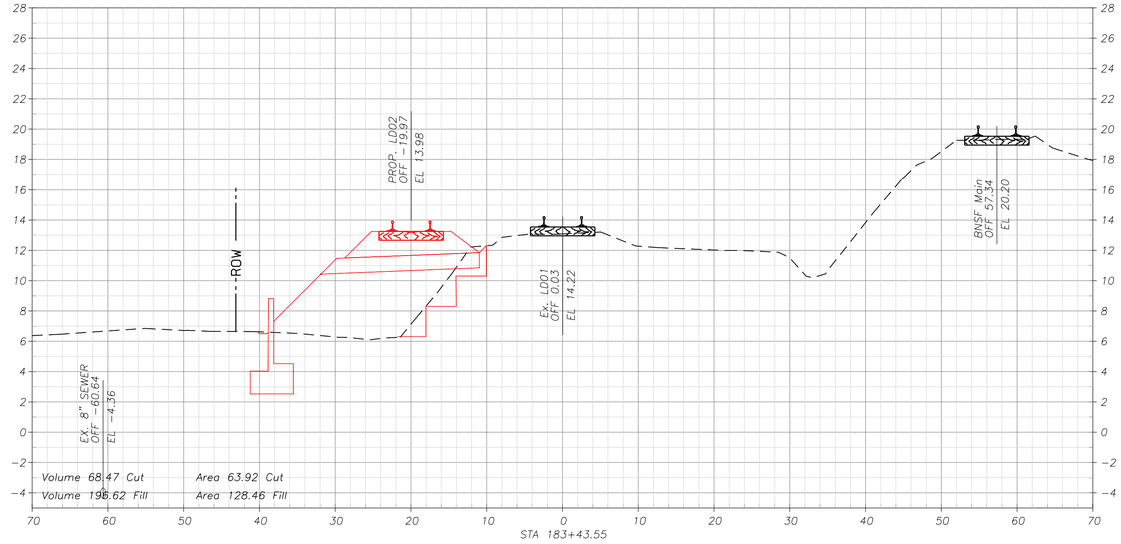
TRACK LD01

OFF	-40.42	-40.42	-34.71	-34.71	-31.93	-31.93	-18.97	14.97	-10.98	-10.97
EL	4.45	2.95	2.95	4.95	11.30	11.30	6.71	8.71	10.71	12.71



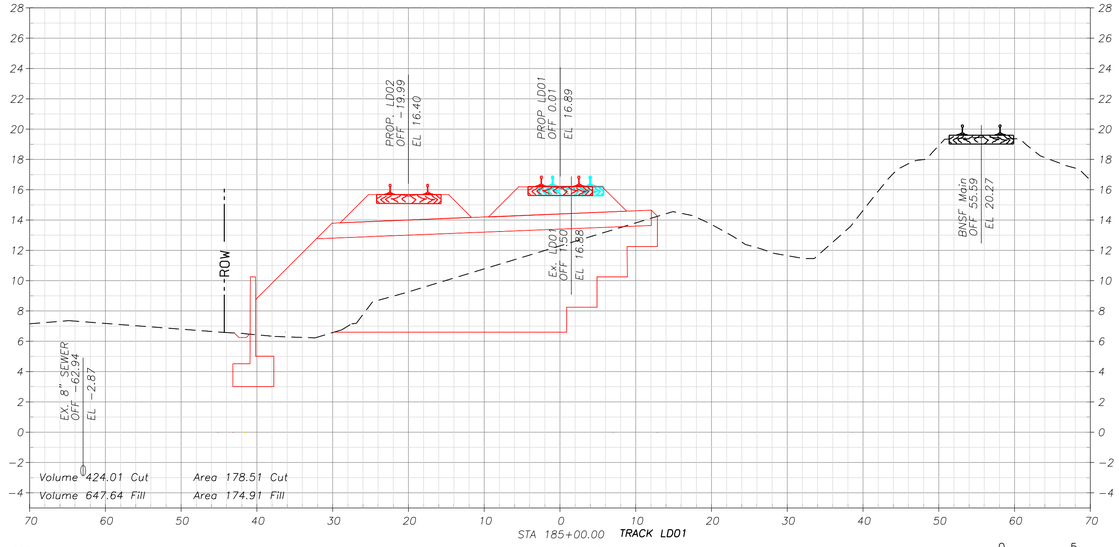
TRACK LD01

OFF	-48.52	-48.52	-43.13	-43.13	-31.50	-31.50	-29.25	-20.00	1.19	5.19	9.18	12.00	13.17
EL	3.65	2.15	2.15	4.15	13.95	13.95	7.24	14.18	7.24	9.24	11.24	14.82	13.24



TRACK LD01

OFF	-41.23	-41.23	-35.52	-35.52	-31.90	-31.90	-21.78	-18.04	-14.04	-10.05
EL	4.03	2.53	2.53	4.53	10.44	10.44	6.31	6.31	8.31	10.31



TRACK LD01

OFF	-43.18	-43.18	-37.79	-37.79	-31.45	-31.45	-29.56	-19.95	1.40	5.40	9.39	12.05	13.38
EL	4.49	2.99	2.99	4.99	13.11	13.11	6.33	13.34	6.33	8.33	10.33	13.98	12.33

0 5 10 15
VERTICAL SCALE FEET
1" = 5'

0 10 20 30
HORIZONTAL SCALE FEET
1" = 10'

NOT FOR CONSTRUCTION

PROJECT NUMBER	COST ELEMENT	LINE ITEM	CONTRACT DESIGNATOR	PHYSICAL ENTITY	WORK ELEMENT

REV	DATE	DESCRIPTION	BY	SUB	APP
0	08/31/26	ISSUED FOR BID			

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DESIGNED BY	A. GHOSH
DRAWN BY	H.SADIQ
CHECKED BY	A. RIEGER
APPROVED BY	A. GHOSH
DATE	08/31/2026

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ISSUED FOR BID

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PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

TRACK LD01 & LD02 CROSS SECTIONS

CONTRACT NO.	60657603
DRAWING NO.	CT-802
REVISION	E
SHEET NO.	30
SCALE	AS NOTED

CT-800-1.dgn

$scriptdate$

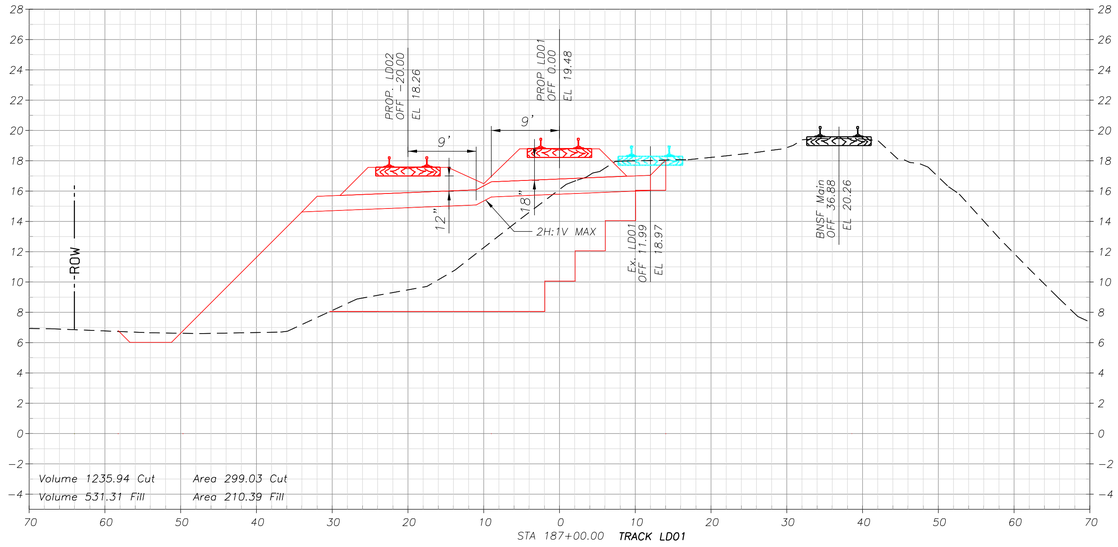
BY: ArkaGhosh

TIME: 4:48:28 PM

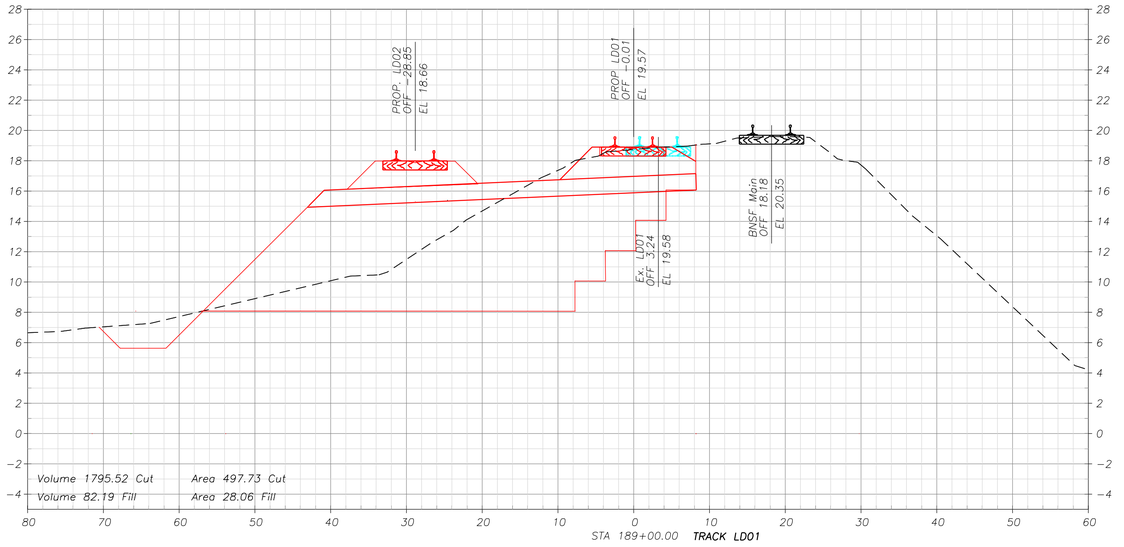
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DESIGN NOTE:

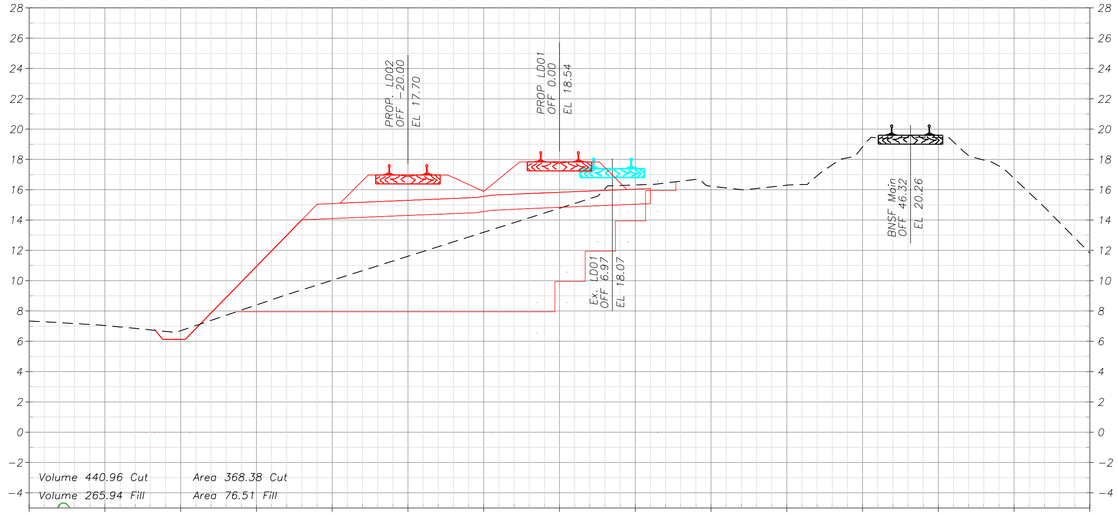
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2. CONTRACTOR TO CONSTRUCT 2:1 BENCHING BEFORE EMBANKMENT FILL IS PLACED.



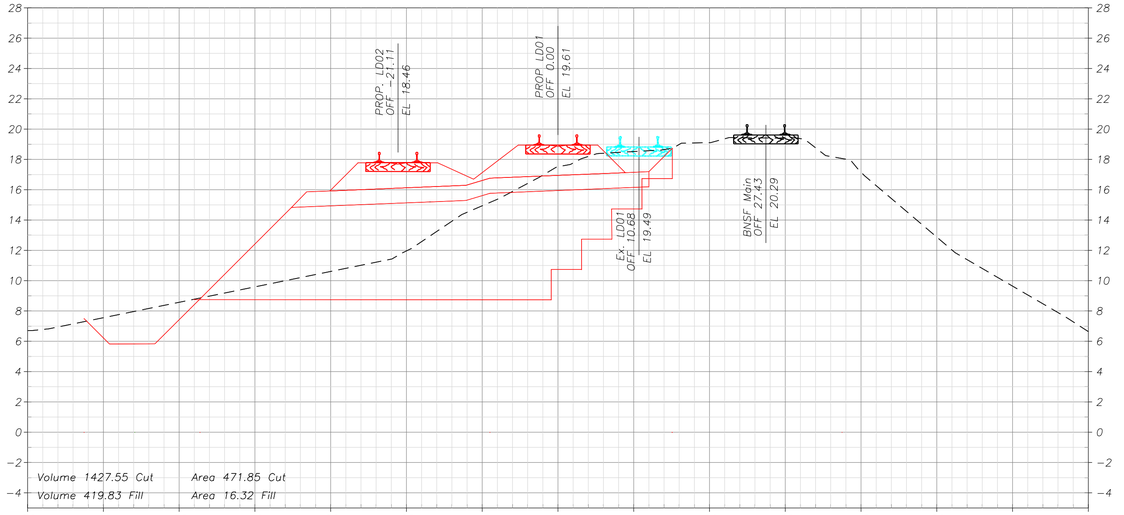
OFF	-50.52	-27.72	-20.00	-1.59	2.42	6.41	10.40	12.00	14.39
EL	6.70	8.07	15.24	8.07	10.07	12.07	14.07	15.88	16.07



OFF	-70.23	-68.44	-62.42	-60.33	-47.30	-42.89	-28.85	-7.85	-3.84	0.16	4.16	8.15	8.16
EL	6.52	5.63	5.63	6.68	8.42	15.37	15.65	9.09	11.09	13.09	15.09	19.09	17.09



OFF	-49.42	-34.68	-34.00	-20.00	-0.63	3.38	7.37	11.36	12.00	15.35
EL	6.65	7.95	14.36	14.64	7.95	9.95	11.95	13.95	15.28	15.95



OFF	-61.05	-59.88	-53.87	-49.84	-39.58	-35.16	-21.15	-0.68	3.32	7.30	11.29	11.99	15.27
EL	6.42	5.83	5.83	7.84	8.77	15.17	15.45	8.75	10.75	12.75	14.75	16.11	16.75

VERTICAL SCALE 1" = 5' (0, 5, 10, 15 FEET)

HORIZONTAL SCALE 1" = 10' (0, 10, 20, 30 FEET)

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REV	DATE	DESCRIPTION	BY	SUB	APP
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DRAWN BY	H.SADIQ
CHECKED BY	A. RIEGER
APPROVED BY	A. GHOSH
DATE	08/31/2026

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PORT OF STOCKTON

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ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER ARKAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

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BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

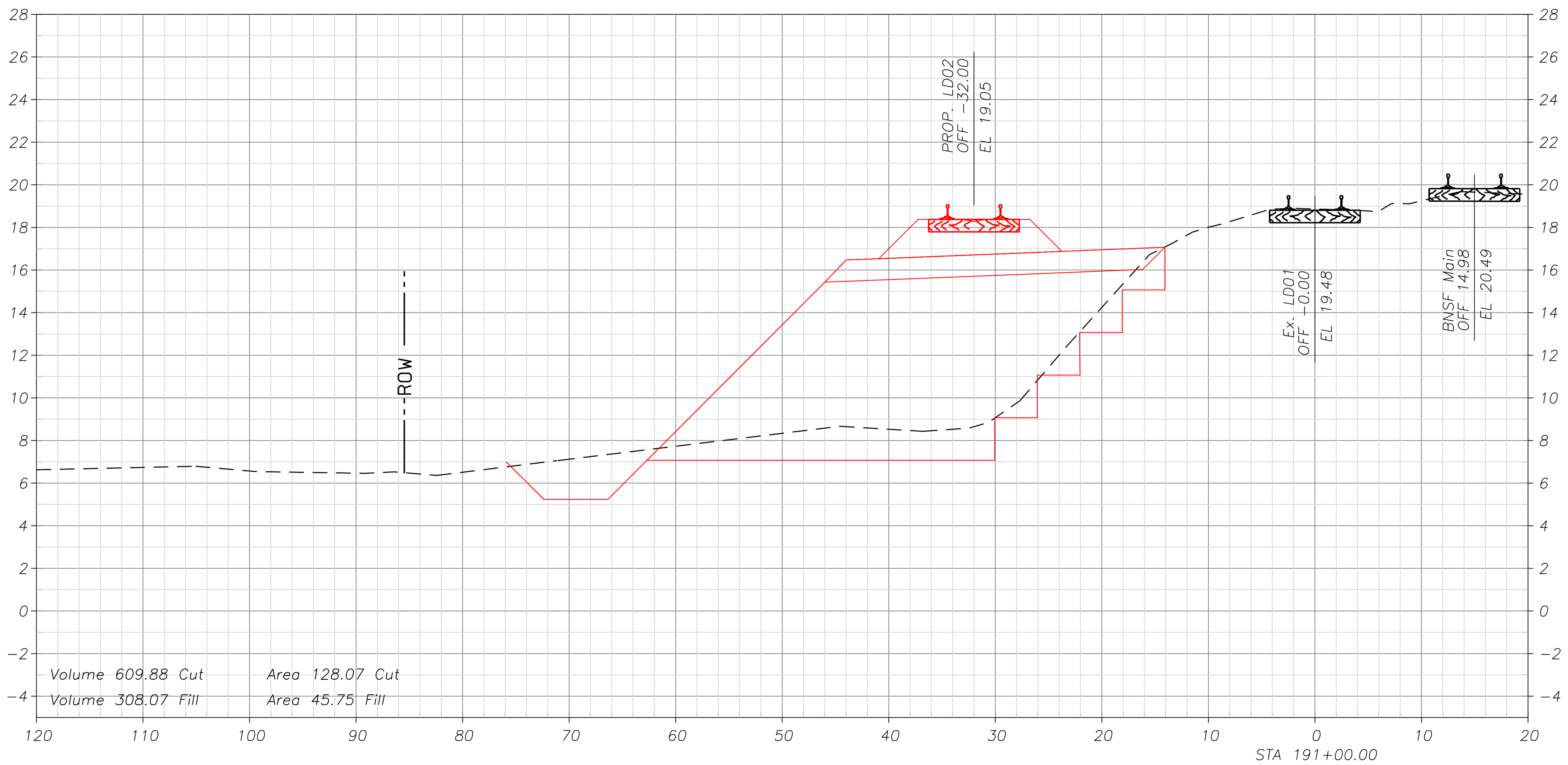
TRACK LD01 & LD02 CROSS SECTIONS

CONTRACT NO.	60657603
DRAWING NO.	CT-803
REVISION	E
SHEET NO.	31
SCALE	AS NOTED

WORK ELEMENT	PHYSICAL ENTITY	CONTRACT DESIGNATOR	LINE ITEM	COST ELEMENT	PROJECT NUMBER

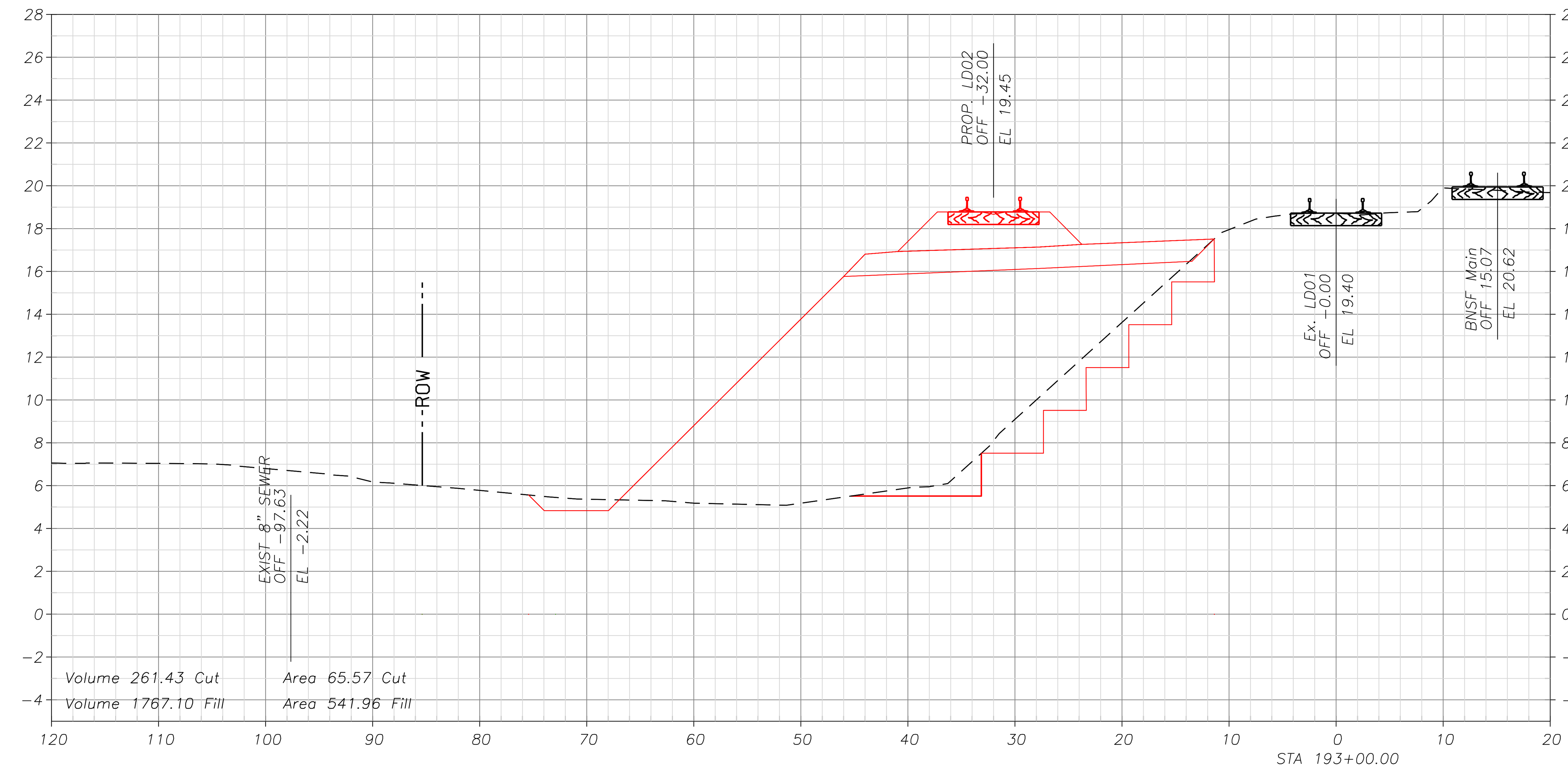
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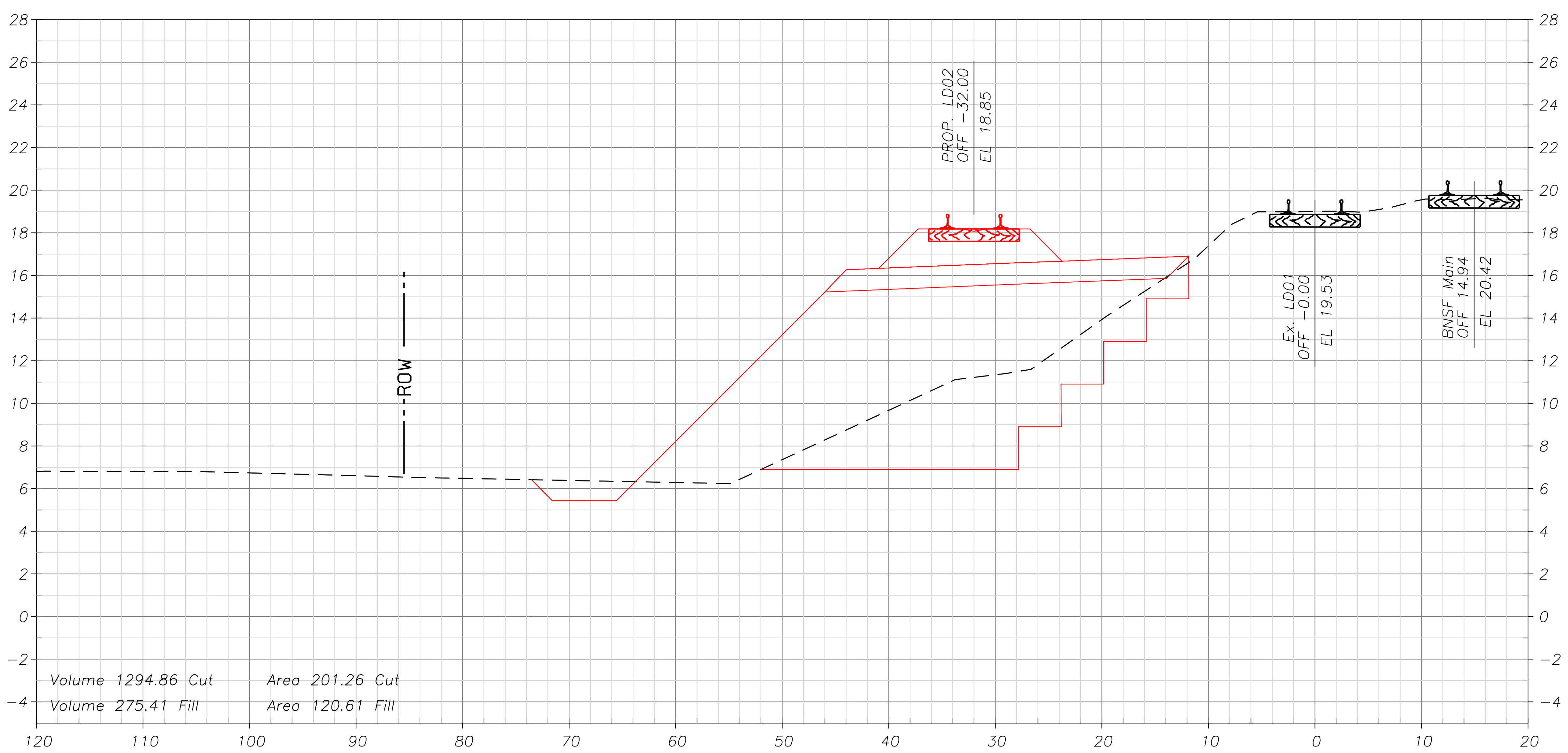
TRACK LD01

OFF	−73.84	−72.38	−66.38	−65.20	−51.16	−46.00	−30.06	−26.06	−22.07	−18.08	−14.09
EL	5.97	5.24	5.24	5.83	7.07	15.43	7.07	9.07	11.07	13.07	15.07



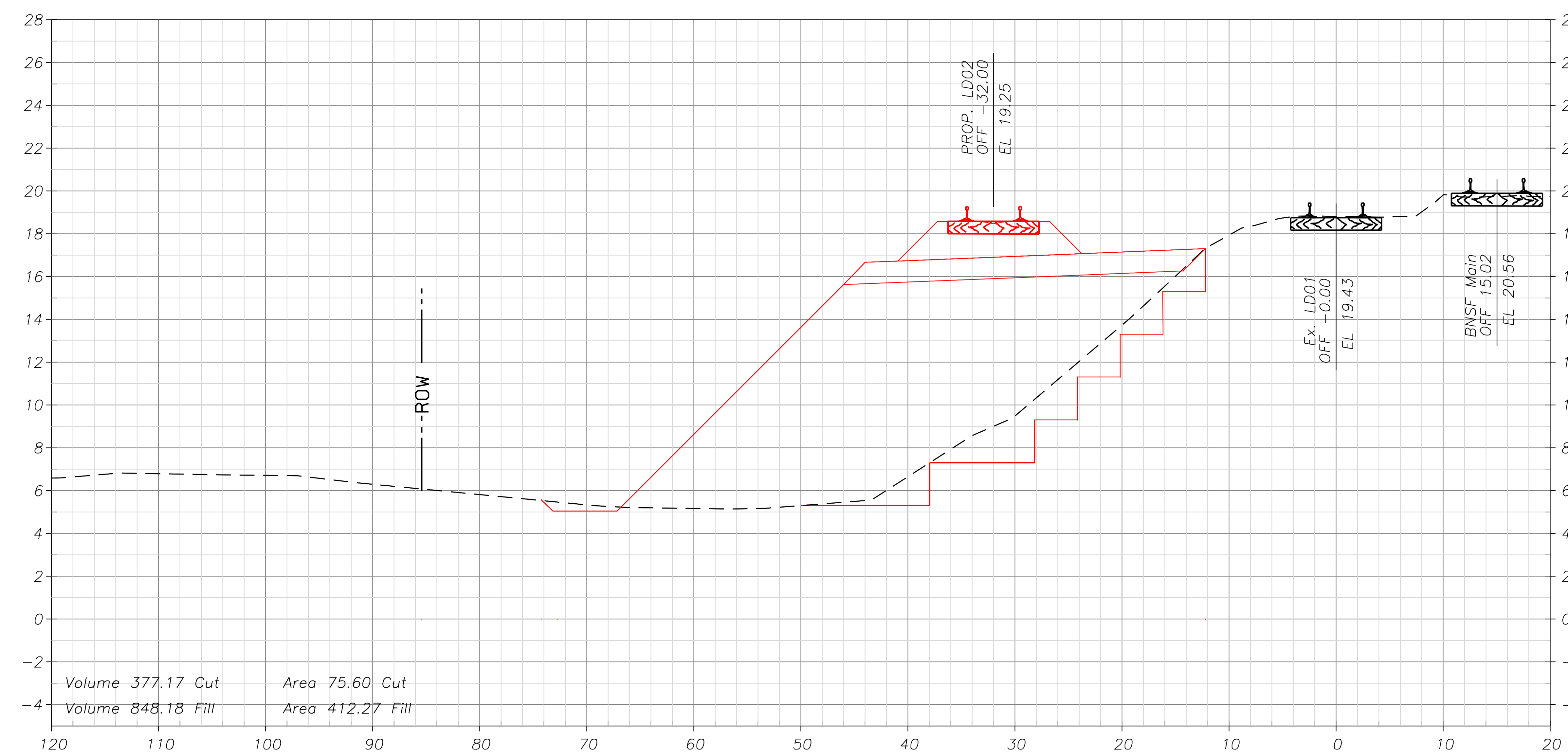
TRACK LD01

OFF	−75.44	−73.98	−67.98	−66.96	−46.00	−33.17	−27.35	−23.35	−19.36	−15.37	−11.38
EL	5.57	4.84	4.84	5.35	15.83	7.52	7.52	9.52	11.52	13.52	15.52



TRACK LD01

OFF	−73.65	−71.58	−65.58	−63.80	−51.94	−46.00	−27.82	−23.82	−19.83	−15.84	−11.85
EL	6.48	5.44	5.44	6.33	6.91	15.23	6.91	8.91	10.91	12.91	14.91



TRACK LD01

OFF	−74.16	−73.18	−67.18	−66.73	−46.00	−37.35	−28.16	−24.16	−20.17	−16.18	−12.19
EL	5.53	5.04	5.04	5.27	15.63	7.31	7.31	9.31	11.31	13.31	15.31

VERTICAL SCALE 0 5 10 15 FEET
1" = 5'
HORIZONTAL SCALE 0 10 20 30 FEET
1" = 10'

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY/SUB	APP
0	08/31/26	ISSUED FOR BID		

WORK ELEMENT · PHYSICAL ENTITY · CONTRACT DESIGNATOR · LINE ITEM · COST ELEMENT · PROJECT NUMBER

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APPROVED BY A. GHOSH
DATE 08/31/2026

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ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER · ARKAPRABHA GHOSH · C91571 · Exp. 09/30/28 · CIVIL ENGINEER · STATE OF CALIFORNIA

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BNSF LEAD IMPROVEMENTS
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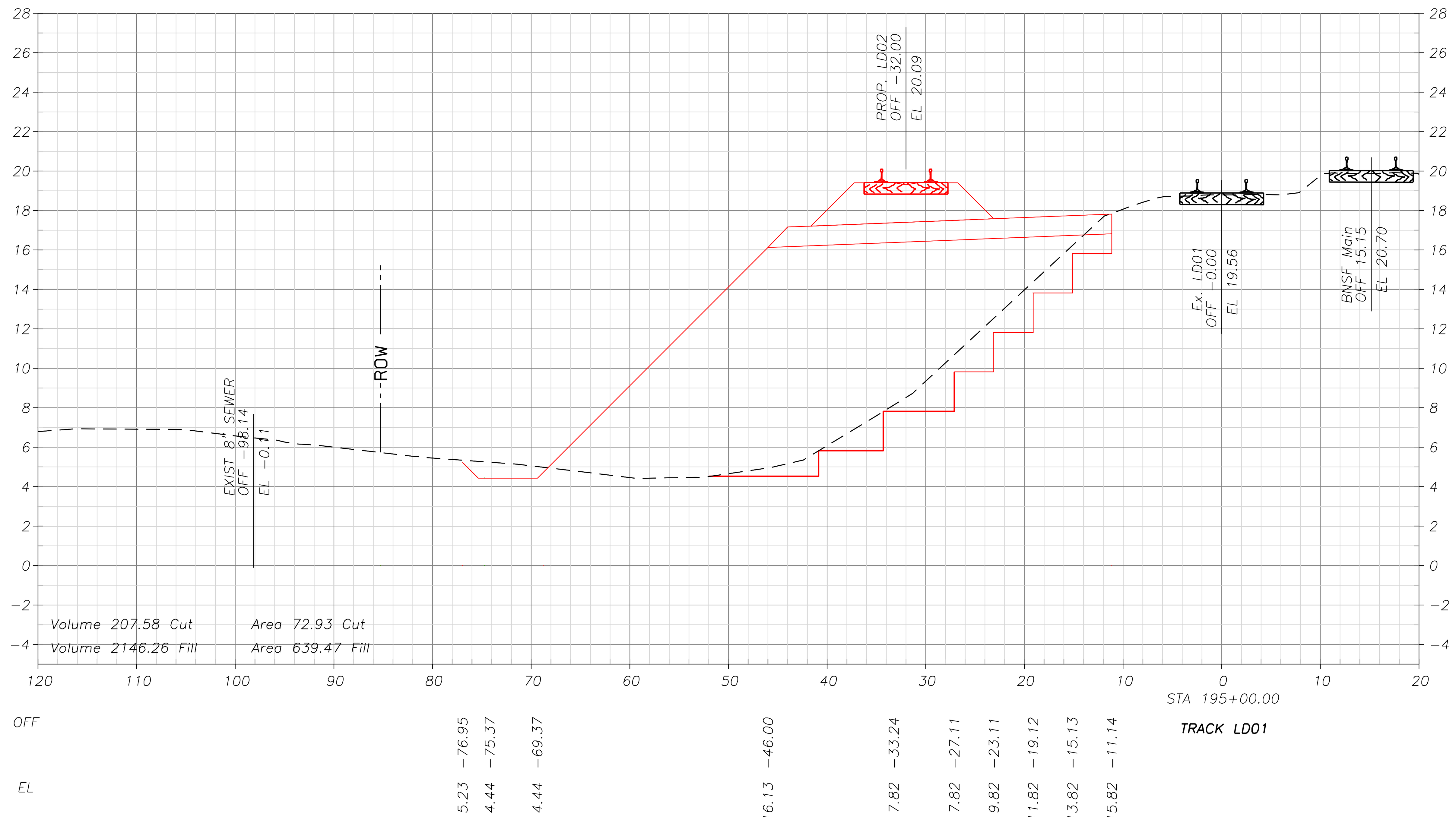
TRACK LD02 CROSS SECTIONS

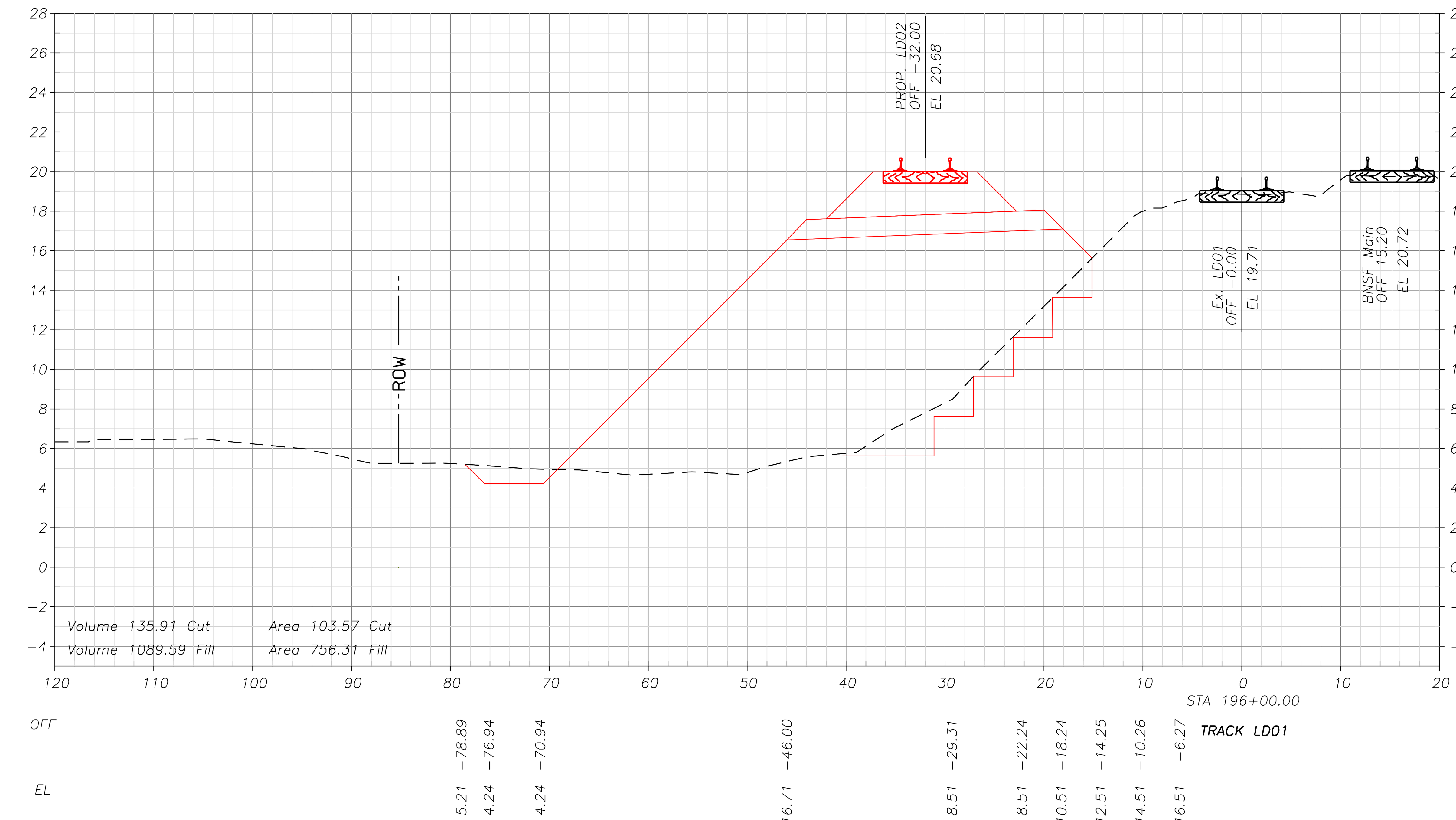
CONTRACT NO. 60657603
DRAWING NO. CT-804
REVISION E
SHEET NO. 32
SCALE AS NOTED

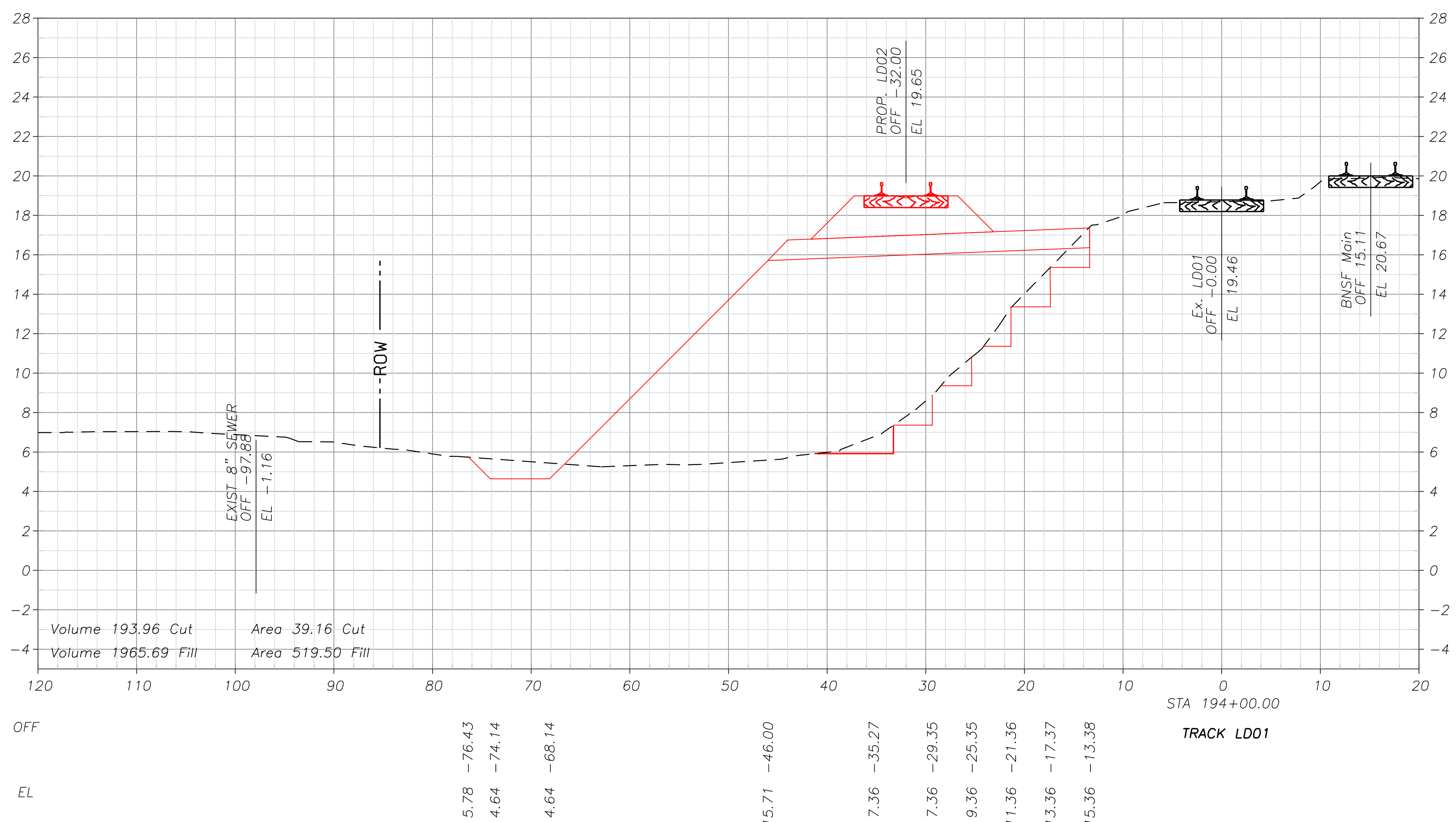
CT-800-1.dgn $pentable$ $colortable$ BY: ArkaGhosh TIME: 5:16:11 PM $TODAY$

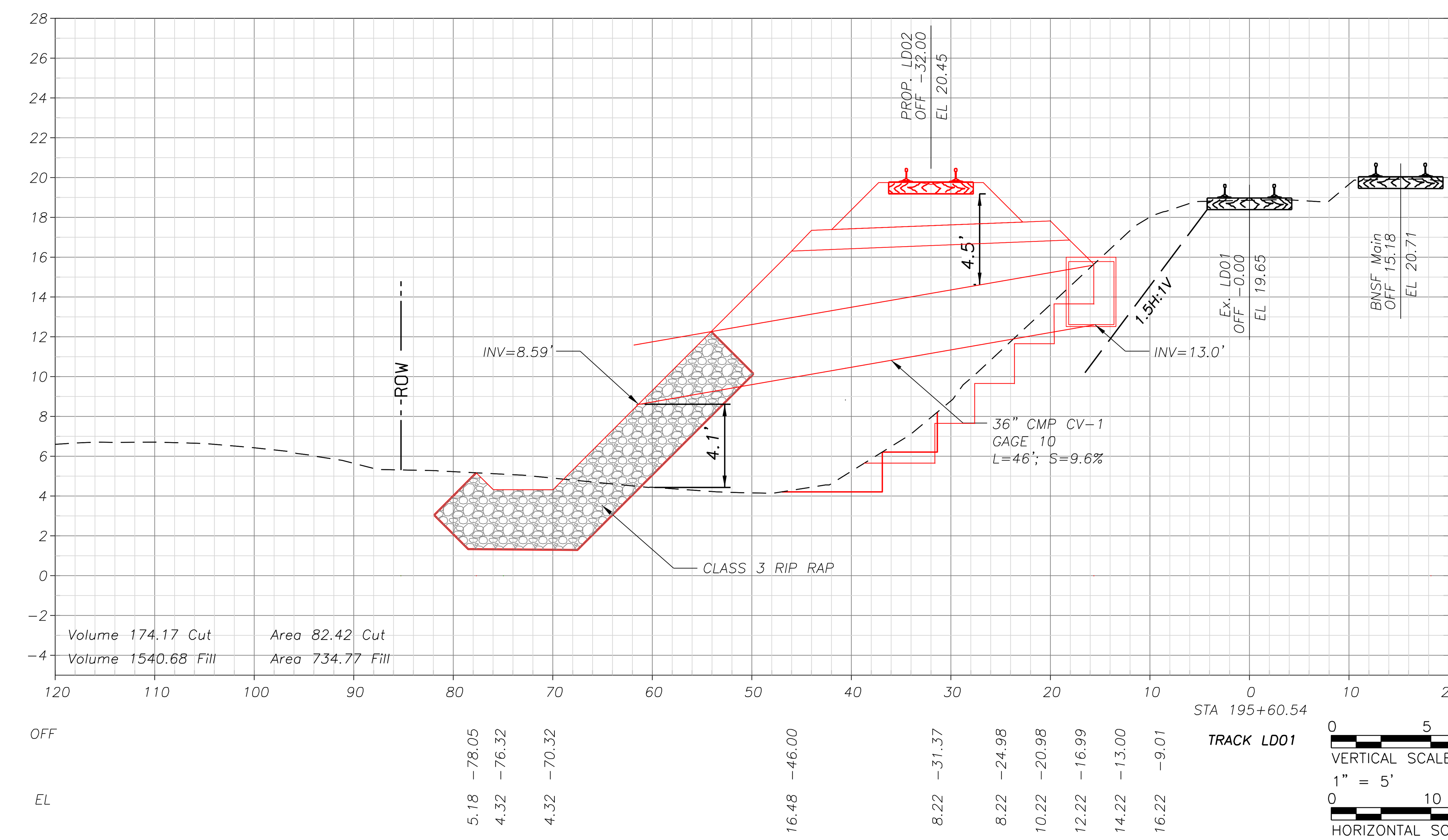
DESIGN NOTE:

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2. CONTRACTOR TO CONSTRUCT 2:1 BENCHING BEFORE EMBANKMENT FILL IS PLACED.









VERTICAL SCALE 0 5 10 15 FEET
1" = 5'

HORIZONTAL SCALE 0 10 20 30 FEET
1" = 10'

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY/SUB	APP
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WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER

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DRAWN BY H.SADIQ
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APPROVED BY A. GHOSH
DATE 08/31/2026

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ARKAPRABHA GHOSH
C91571
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STATE OF CALIFORNIA

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TRACK LD02 CROSS SECTIONS

CONTRACT NO. 60657603
DRAWING NO. CT-805
REVISION E
SHEET NO. 33
SCALE AS NOTED

CT-800-1.dgn

$scriptdate$

BY: AKaGhosh

TIME: 5:17:24 PM

$TODAY$

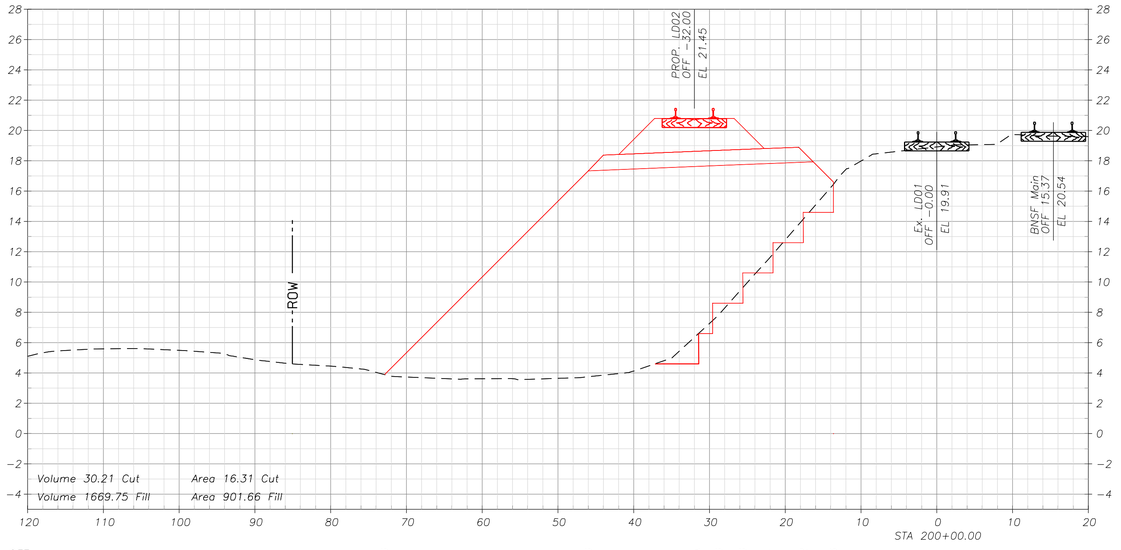
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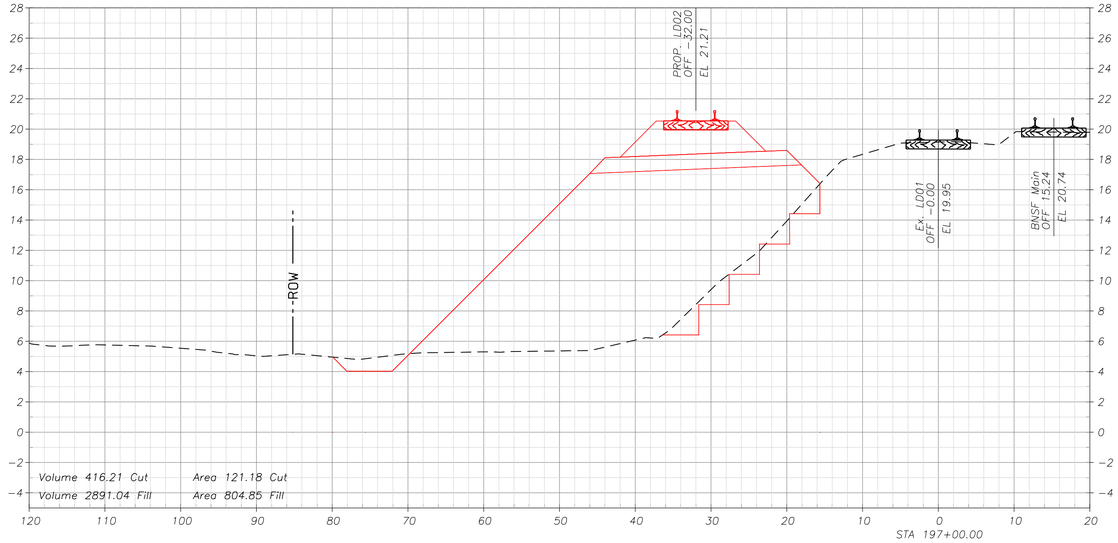
TRACK LD01

OFF	EL
-45.50	18.37
-38.00	18.37
-32.00	18.37
-26.00	18.37
-18.50	18.37



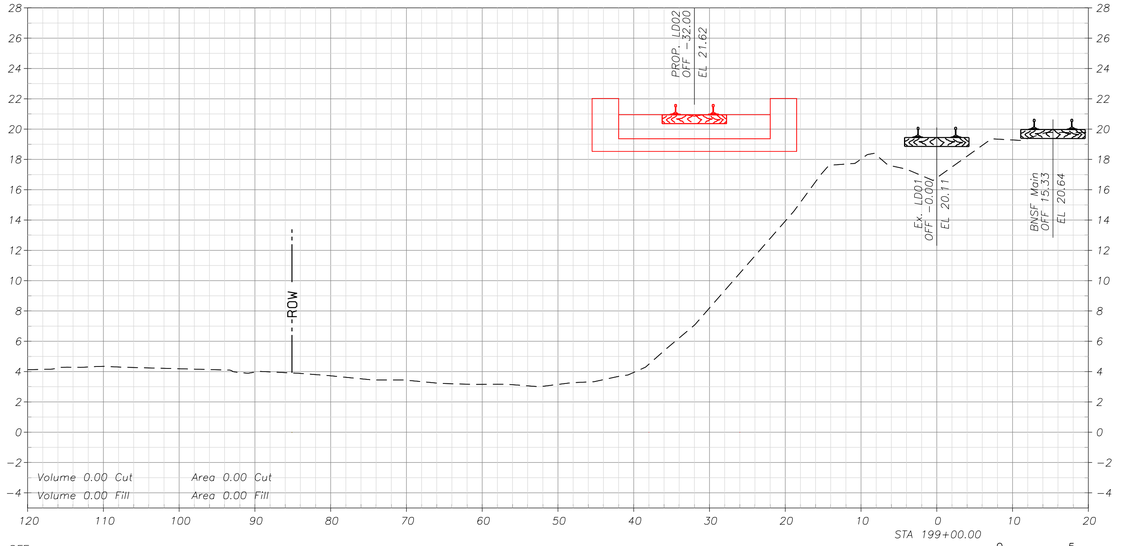
TRACK LD01

OFF	EL
-72.90	3.90
-46.00	17.35
-31.54	6.61
-29.60	6.61
-25.60	8.61
-21.61	10.61
-17.62	12.61
-13.63	14.61



TRACK LD01

OFF	EL
-80.29	4.98
-78.42	4.04
-72.42	4.04
-46.00	17.25
-30.40	9.08
-20.23	9.08
-16.23	11.08
-12.24	13.08
-8.25	15.08
-4.26	17.08



TRACK LD01

OFF	EL
-45.50	18.53
-38.00	18.53
-32.00	18.53
-26.00	18.53
-18.50	18.53

0 5 10 15
VERTICAL SCALE FEET
1" = 5'

0 10 20 30
HORIZONTAL SCALE FEET
1" = 10'

NOT FOR CONSTRUCTION

WORK ELEMENT	PHYSICAL ENTITY	CONTRACT DESIGNATOR	LINE ITEM	COST ELEMENT	PROJECT NUMBER

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CIVIL ENGINEER
STATE OF CALIFORNIA

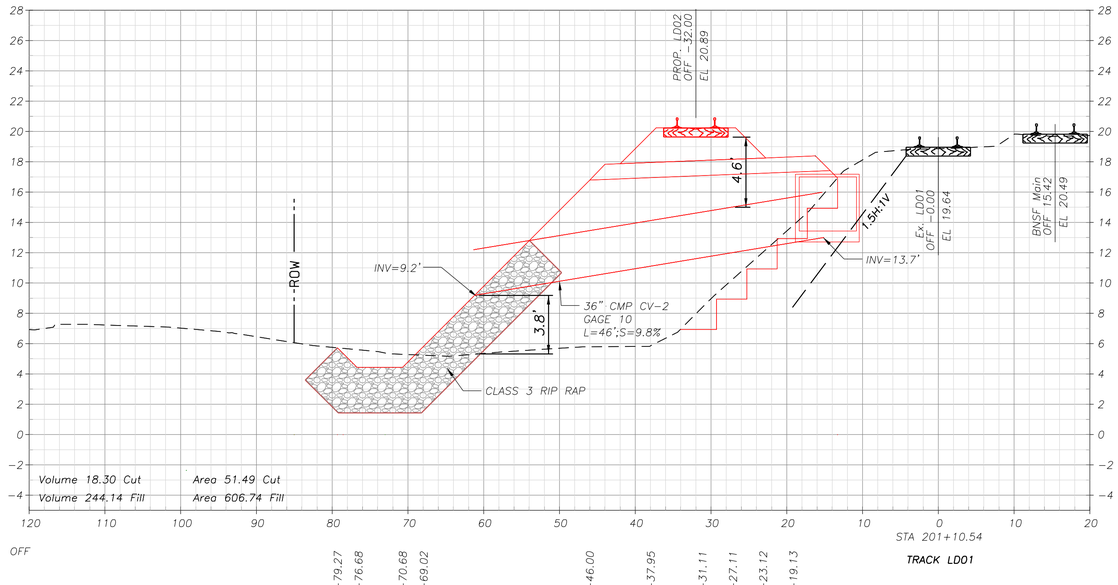
PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

TRACK LD02 CROSS SECTIONS

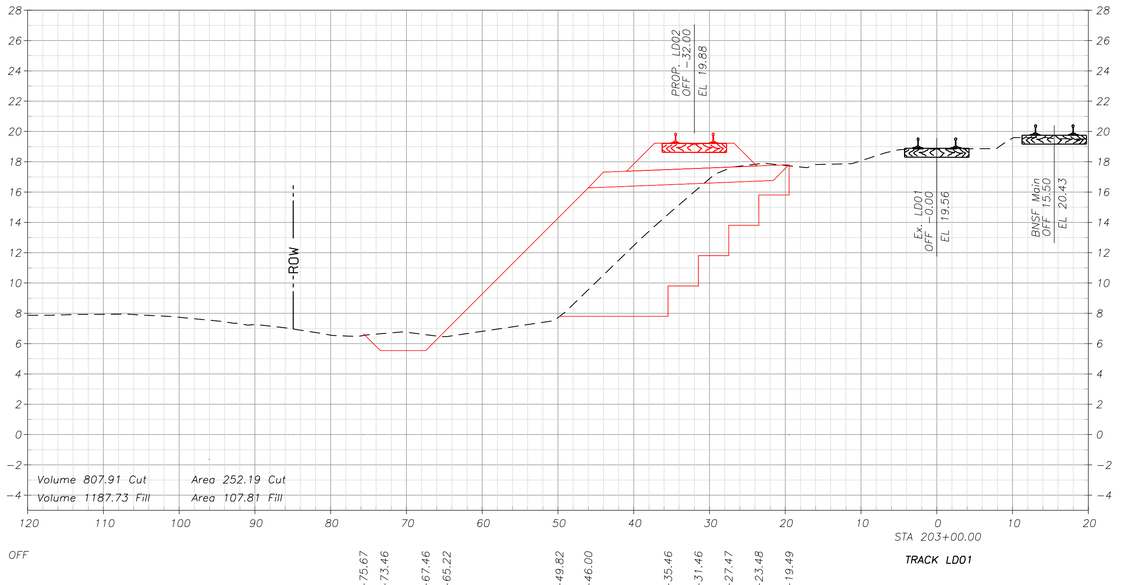
CONTRACT NO.	60657603
DRAWING NO.	CT-806
REVISION	E
SHEET NO.	34
SCALE	AS NOTED

DESIGN NOTE:

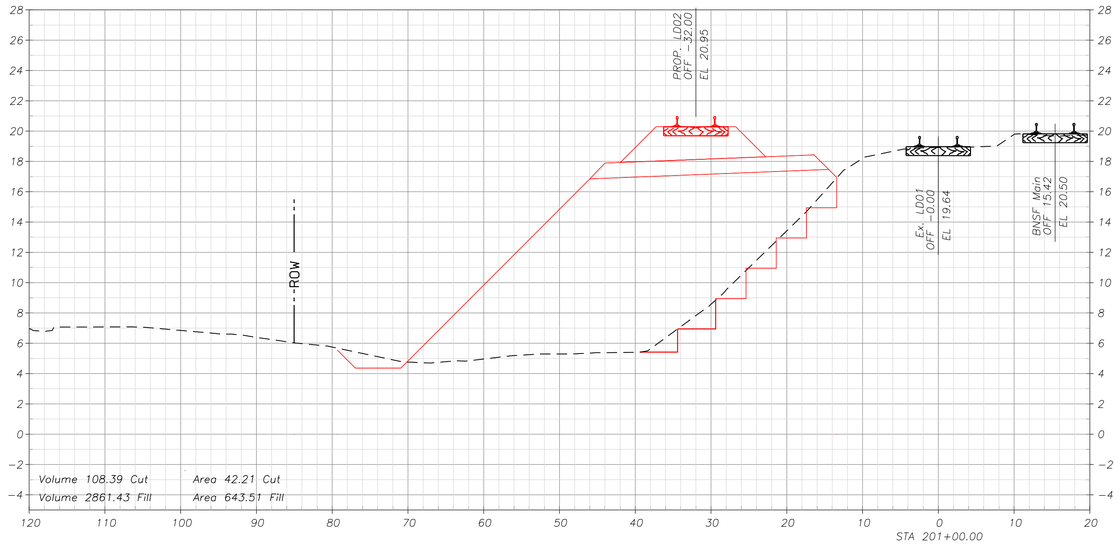
1. CUT AND FILL VOLUMES ARE IN CUBIC YARD, CUT AND FILL AREAS ARE IN SQUARE FEET.
2. CONTRACTOR TO CONSTRUCT 2:1 BENCHING BEFORE EMBANKMENT FILL IS PLACED.



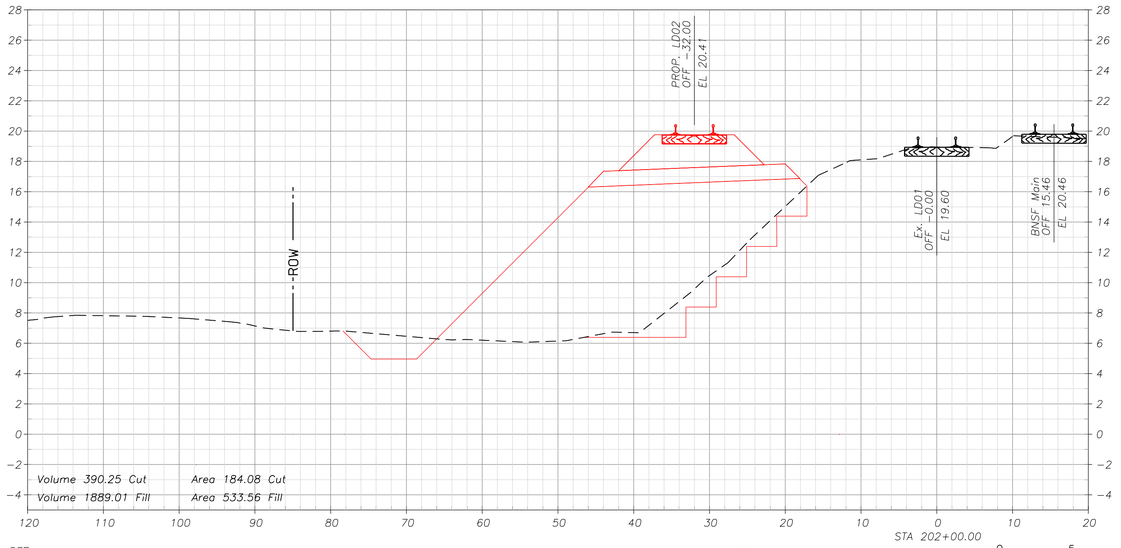
OFF	EL
-79.27	5.73
-76.68	4.43
-70.68	4.43
-69.02	5.26
-46.00	16.77
-37.95	5.87
-31.11	5.87
-27.11	7.87
-23.12	9.87
-19.13	11.87



OFF	EL
-75.67	6.65
-73.46	5.55
-67.46	5.55
-65.22	6.67
-49.82	7.81
-46.00	16.28
-35.46	7.81
-31.46	9.81
-27.47	11.81
-23.48	13.81
-19.49	15.81



OFF	EL
-79.31	5.55
-76.96	4.37
-70.96	4.37
-69.49	5.11
-46.00	16.85
-34.06	6.95
-29.39	6.95
-25.39	8.95
-21.40	10.95
-17.41	12.95
-13.42	14.95



OFF	EL
-78.15	6.71
-74.66	4.96
-68.66	4.96
-65.45	6.57
-46.70	6.39
-46.00	16.30
-33.10	6.39
-29.10	8.39
-25.11	10.39
-21.12	12.39
-18.08	16.85
-17.13	14.39
-17.14	16.39

0 5 10 15
VERTICAL SCALE FEET
1" = 5'

0 10 20 30
HORIZONTAL SCALE FEET
1" = 10'

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY / SUB	APP
0	08/31/26	ISSUED FOR BID		

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DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/2026

BNSF RAILWAY

JMA CIVIL
5250 Claremont Ave., Ste. 227
Stockton, CA 95207
T: 925.400.4356
www.jmaciv.com

PORT OF STOCKTON
CALIFORNIA

HDR
2379 Gateway Oaks, Ste. 200
Sacramento, CA 95833
T: 916.679.8700
www.hdrinc.com

ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER
ARKAPRABHA GHOSH
C91571
Exp. 09/30/28
CIVIL ENGINEER
STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

TRACK LD02 CROSS SECTIONS

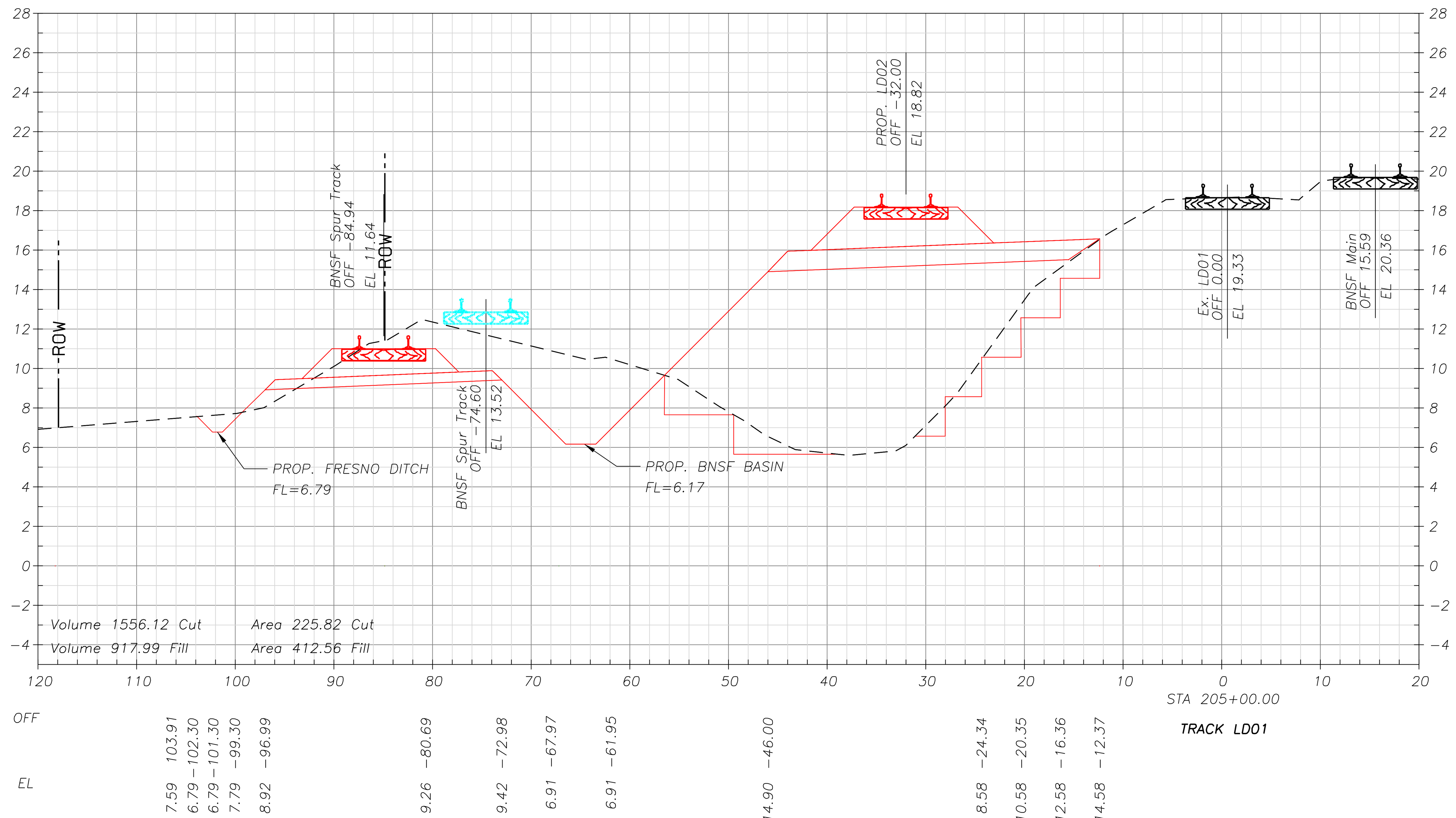
CONTRACT NO.	60657603
DRAWING NO.	CT-807
REVISION	E
SHEET NO.	35
SCALE	AS NOTED

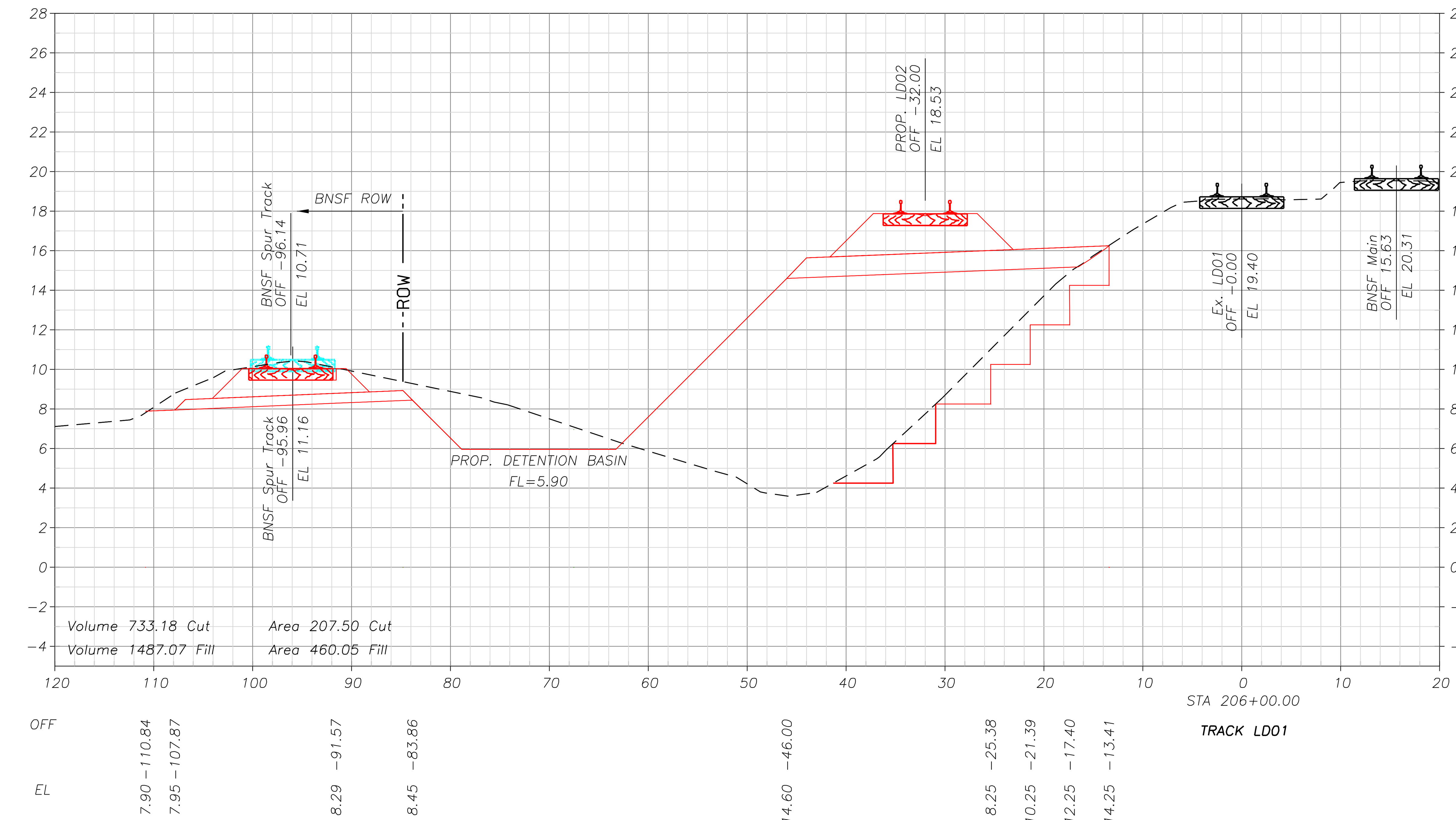
PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

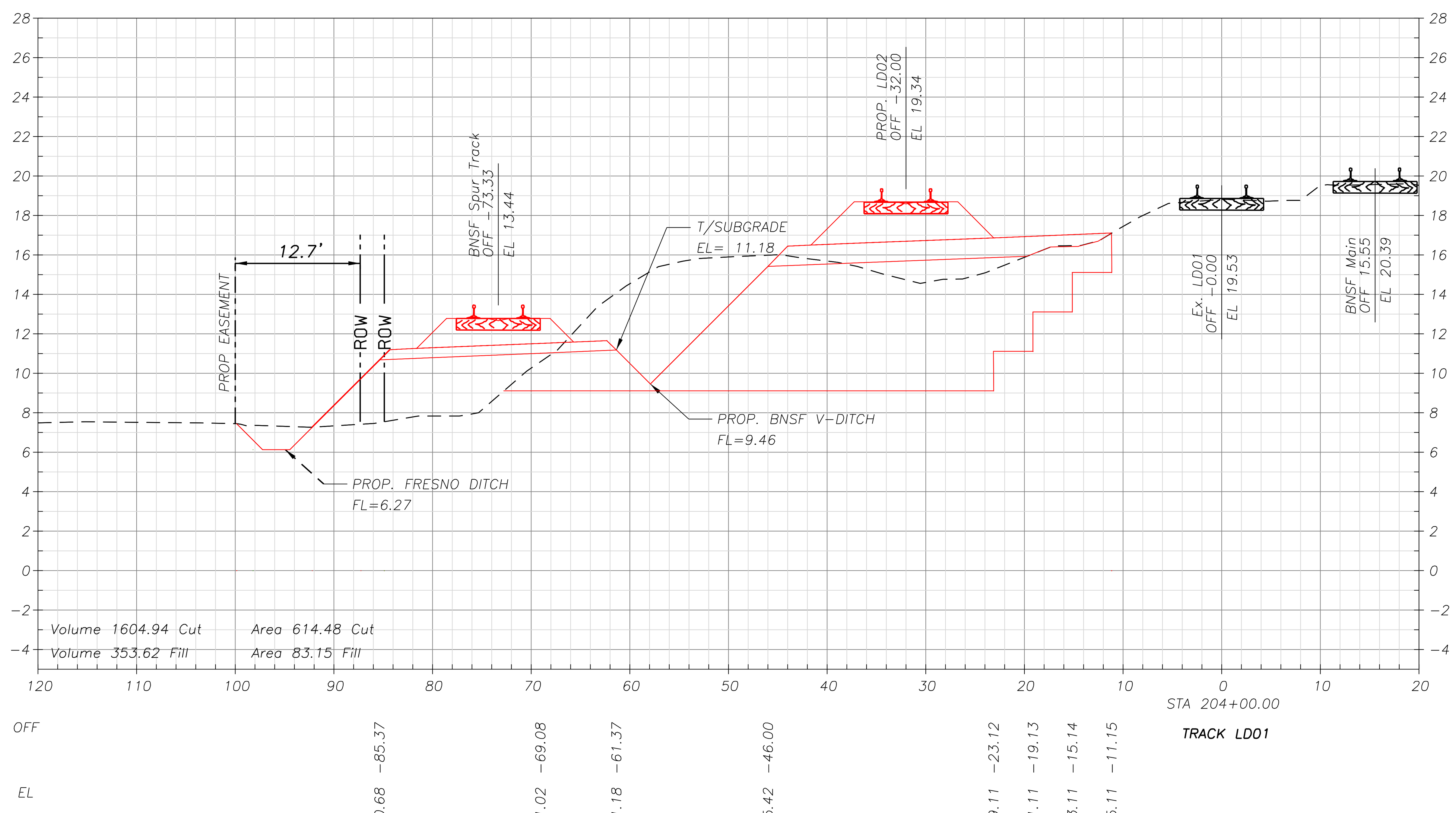
CT-800-1.dgn $scriptdate$ BY: ArkaGhosh TIME: 11:32:24 AM $TODAY$

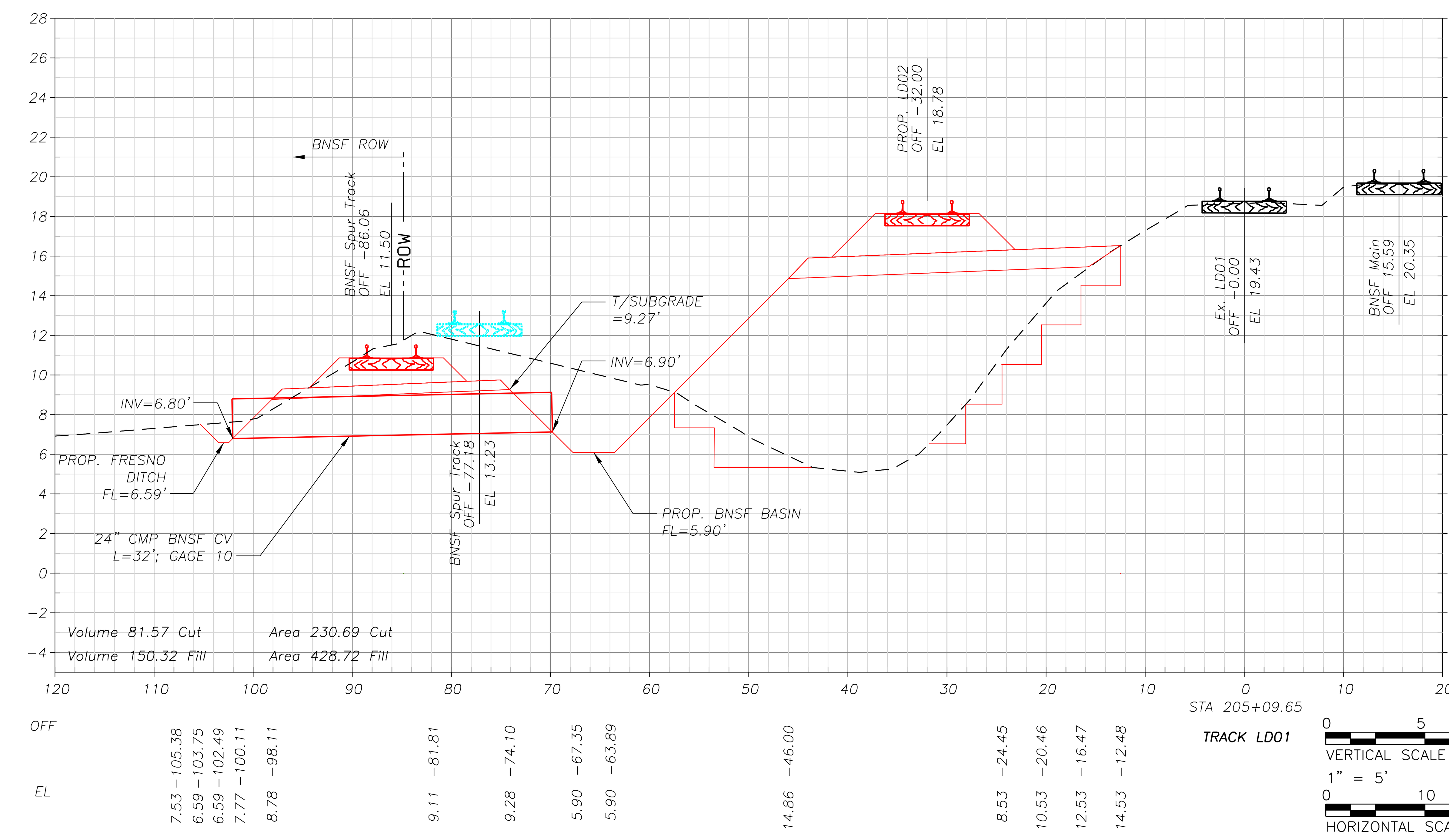
DESIGN NOTE:

1. CUT AND FILL VOLUMES ARE IN CUBIC YARD, CUT AND FILL AREAS ARE IN SQUARE FEET.
2. CONTRACTOR TO CONSTRUCT 2:1 BENCHING BEFORE EMBANKMENT FILL IS PLACED.









VERTICAL SCALE 0 5 10 15 FEET
1" = 5'

HORIZONTAL SCALE 0 10 20 30 FEET
1" = 10'

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY/SUB	APP
0	08/31/26	ISSUED FOR BID		

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DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/2026

BNSF RAILWAY

JMA CIVIL — 5250 Claremont Ave., Ste. 227, Stockton, CA 95207, T: 925.400.4356, www.jmacivil.com

HDR — 2379 Gateway Oaks, Ste. 200, Sacramento, CA 95833, T: 916.679.8700, www.hdrinc.com

ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER — ARKAPRABHA GHOSH — C91571 — Exp. 09/30/28 — CIVIL ENGINEER — STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

TRACK LD02 & BNSF SPUR CROSS SECTIONS

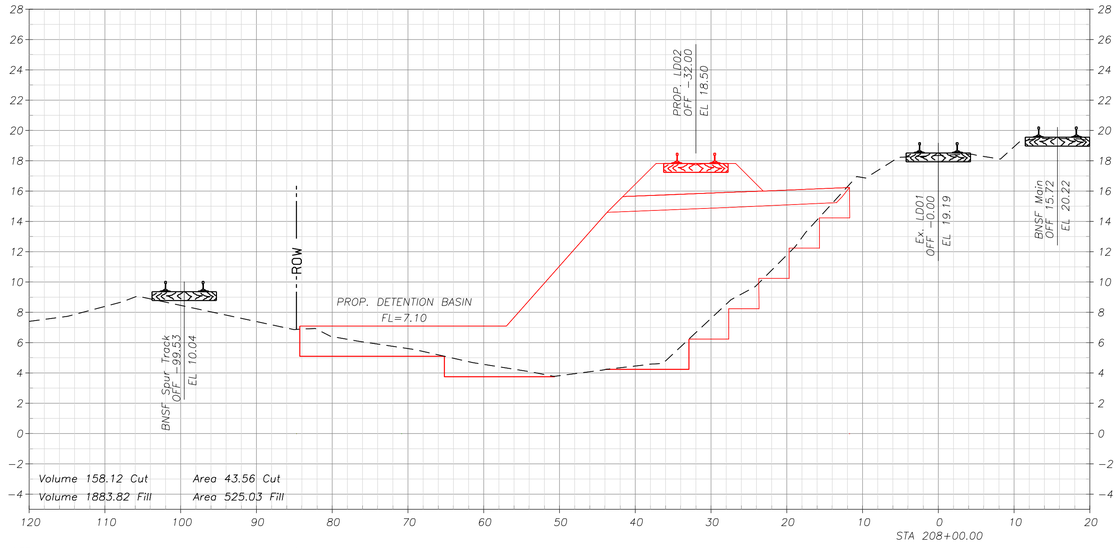
CONTRACT NO. 60657603
DRAWING NO. CT-808
REVISION E
SHEET NO. 36
SCALE AS NOTED

WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER

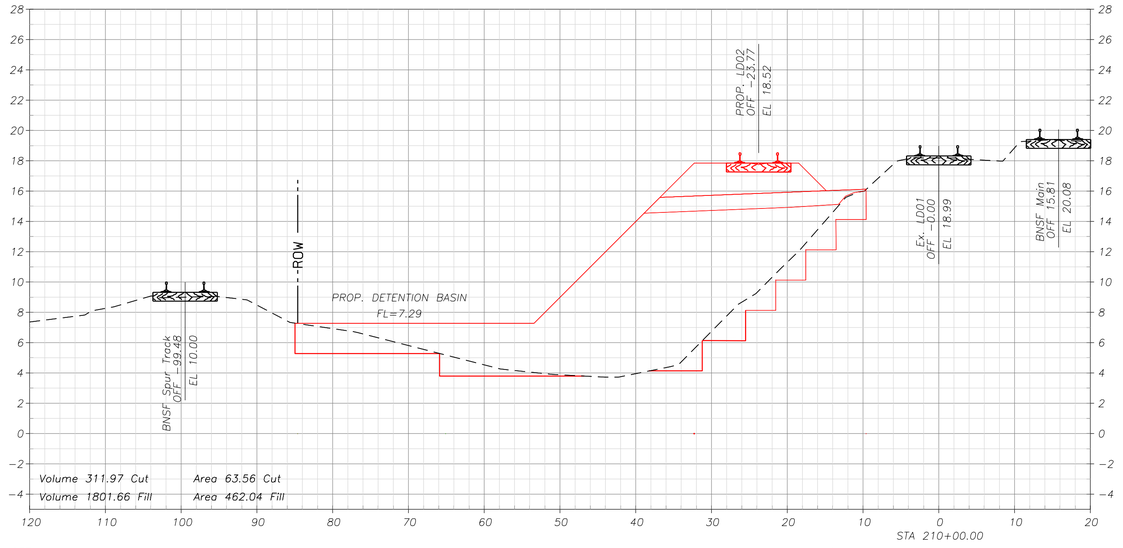
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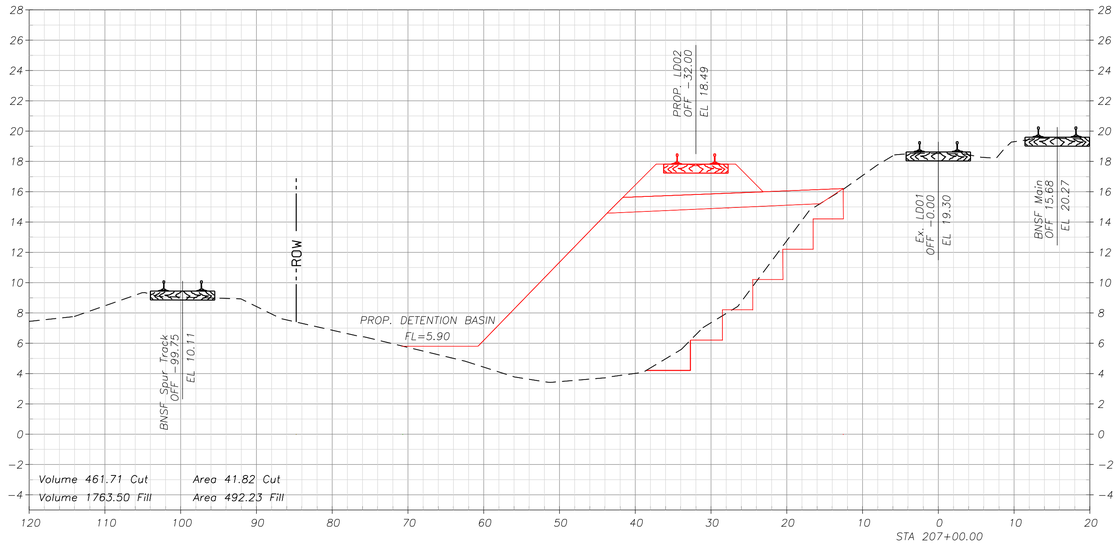
1. CUT AND FILL VOLUMES ARE IN CUBIC YARD, CUT AND FILL AREAS ARE IN SQUARE FEET.
2. CONTRACTOR TO CONSTRUCT 2:1 BENCHING BEFORE EMBANKMENT FILL IS PLACED.



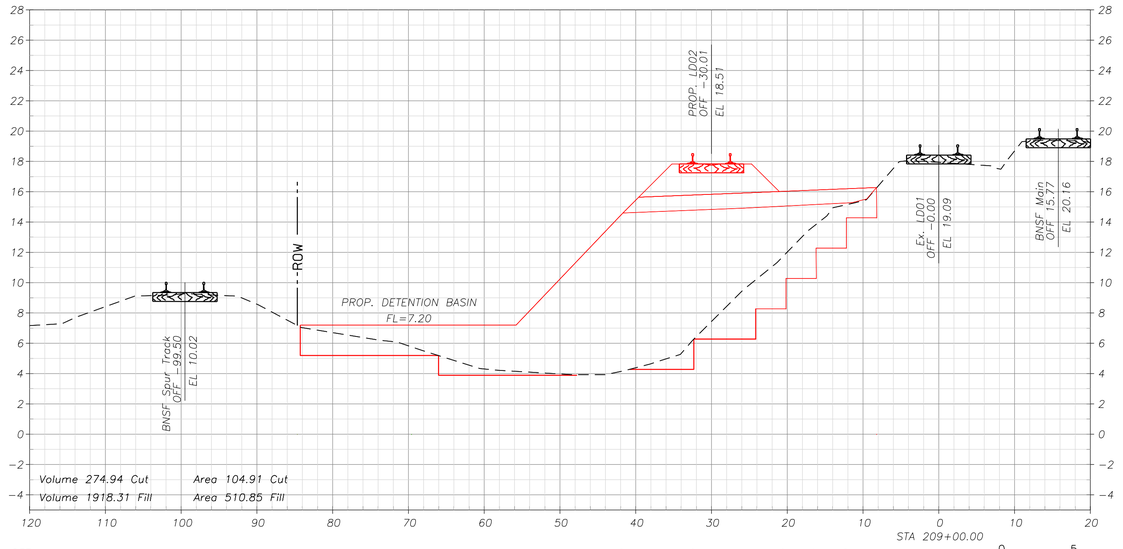
OFF	-84.27	-57.02	-43.72	-32.82	-27.68	-23.68	-19.69	-15.70	-11.71
EL	7.11	7.11	14.60	6.24	6.24	8.24	10.24	12.24	14.24



OFF	-84.95	-53.42	-38.90	-31.05	-25.51	-21.53	-17.55	-13.57	-9.60
EL	7.29	7.29	14.55	6.14	6.14	8.14	10.14	12.14	14.14



OFF	-70.86	-60.75	-43.72	-34.28	-28.51	-24.51	-20.52	-16.53	-12.54
EL	5.81	5.81	14.59	6.21	6.21	8.21	10.21	12.21	14.21



OFF	-84.29	-55.81	-41.70	-32.07	-24.16	-20.17	-16.18	-12.20	-8.21
EL	7.19	7.20	14.61	6.28	6.28	8.28	10.28	12.28	14.28

VERTICAL SCALE 1" = 5' (0, 5, 10, 15 FEET)

HORIZONTAL SCALE 1" = 10' (0, 10, 20, 30 FEET)

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	SUB	APP
0	08/31/26	ISSUED FOR BID			

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DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/2026

BNSF RAILWAY
JMA CIVIL
5250 Claremont Ave., Ste. 227
Stockton, CA 95207
T: 925.400.4356
www.jmacivil.com
HDR
2379 Gateway Oaks, Ste. 200
Sacramento, CA 95833
T: 916.679.8700
www.hdrinc.com

ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER ARKAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

TRACK LD02 CROSS SECTIONS

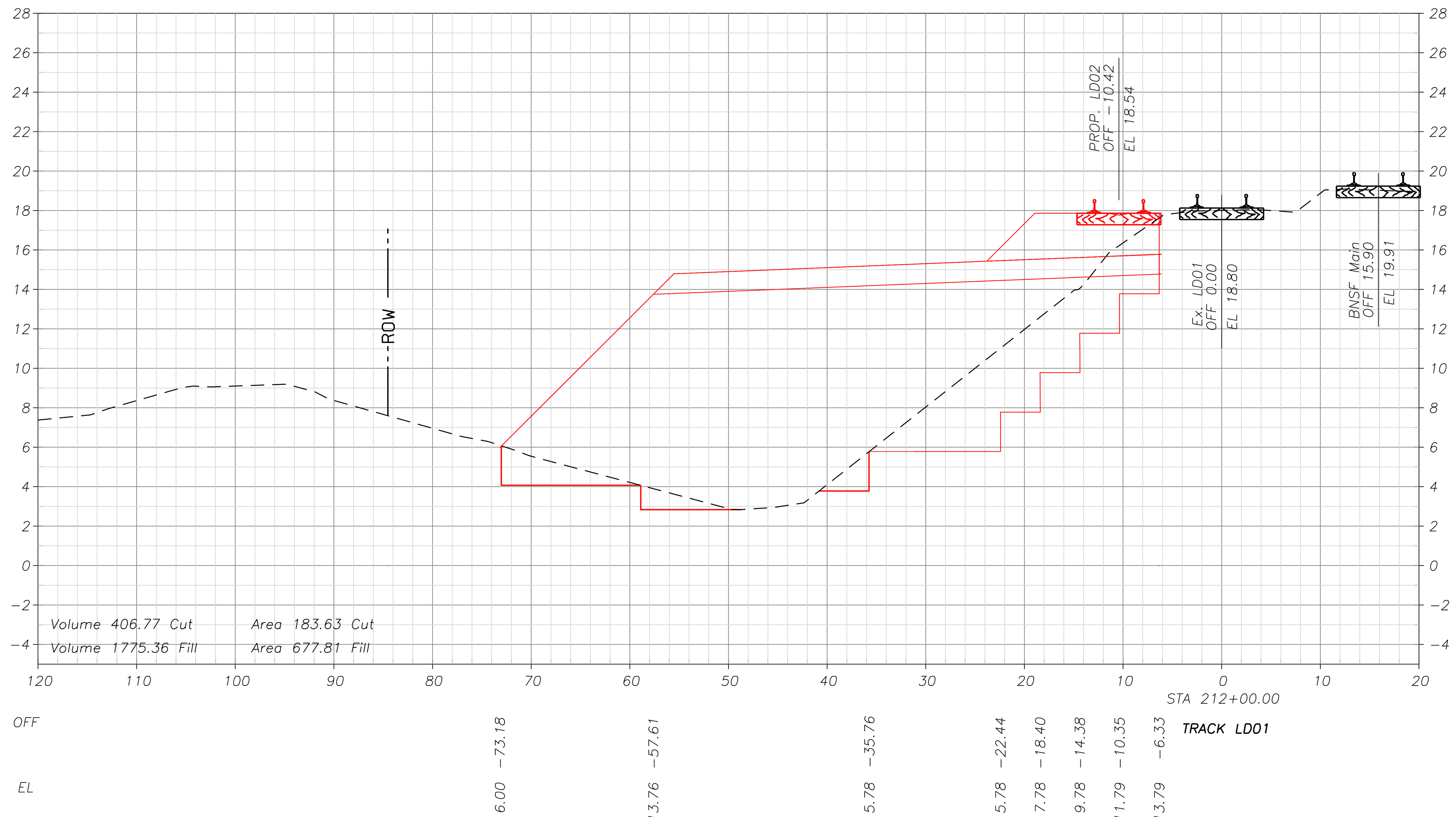
CONTRACT NO. 60657603
DRAWING NO. CT-809
REVISION E
SHEET NO. 37
SCALE AS NOTED

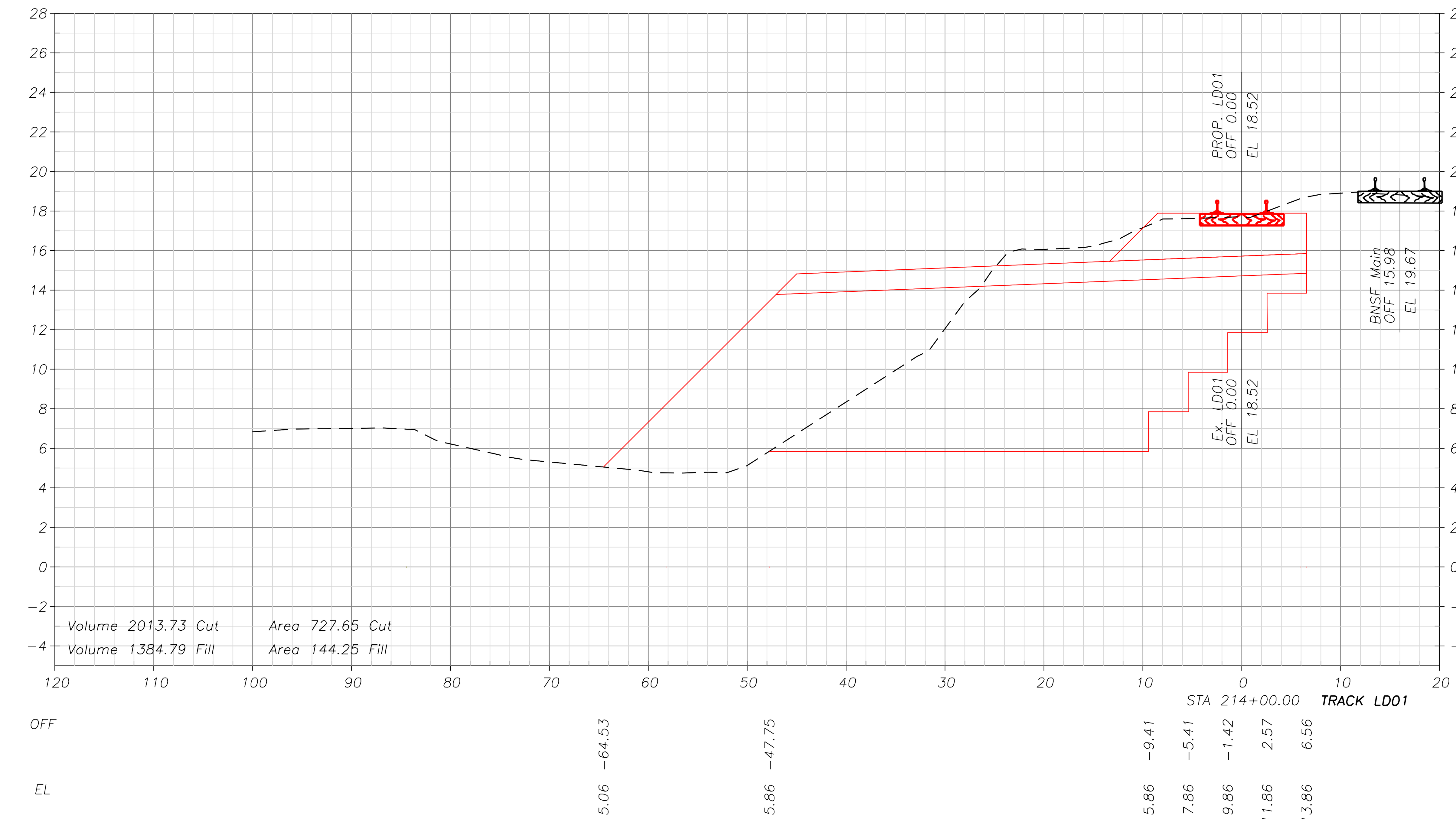
PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

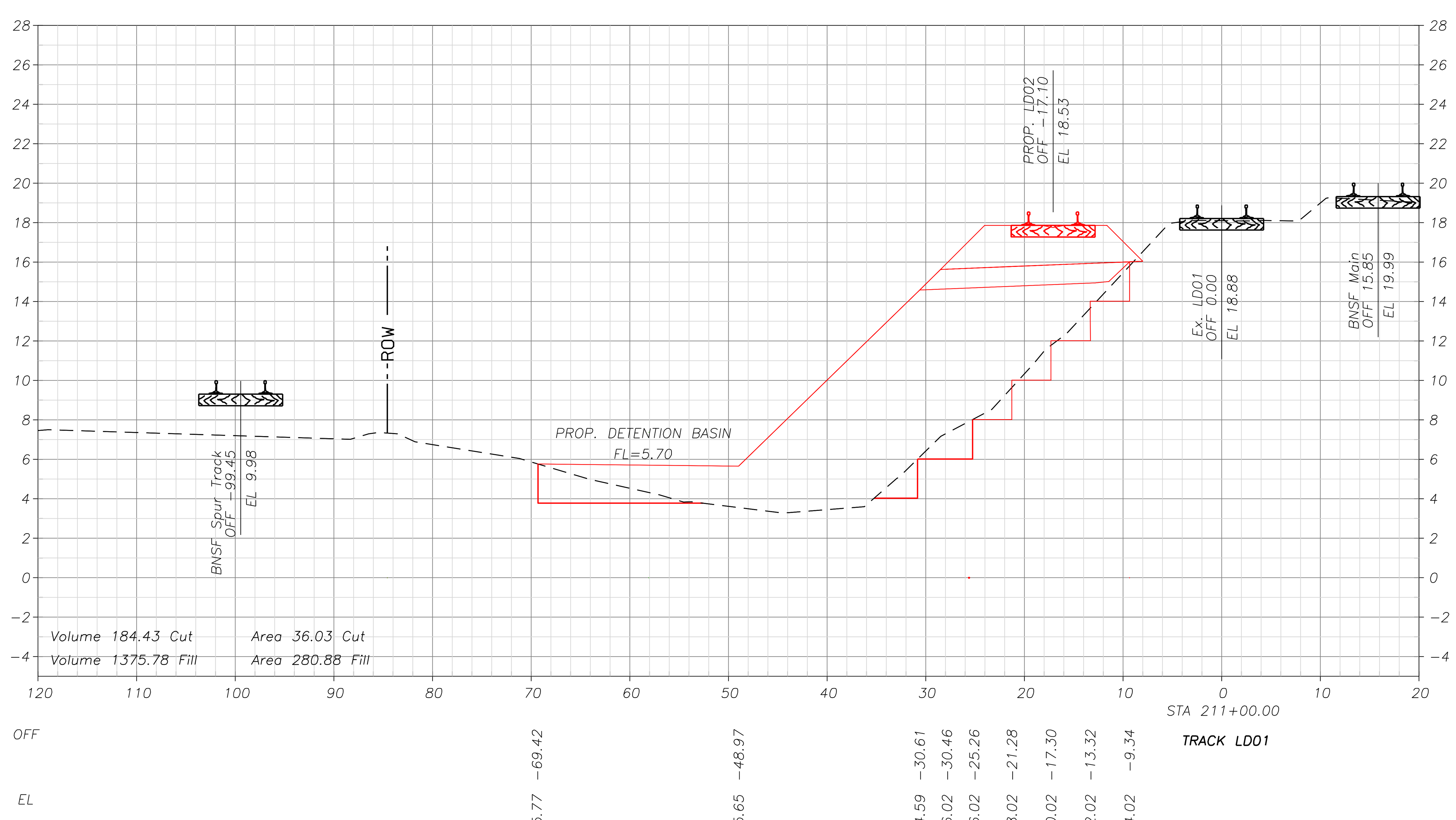
CT-800-1.dgn
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BY: ArkaGhosh
TIME: 5:21:39 PM
$TODAY$

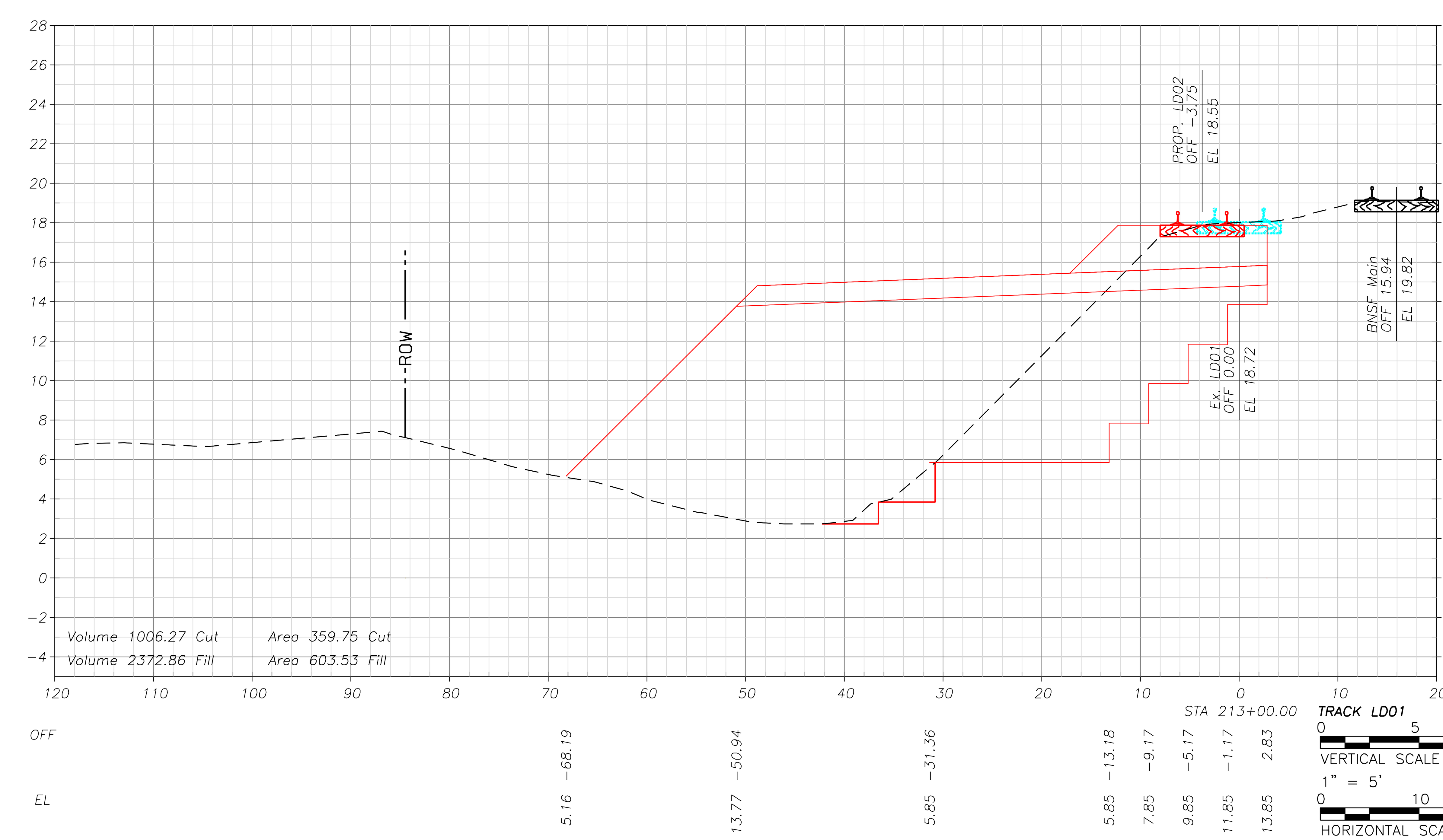
DESIGN NOTE:

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2. CONTRACTOR TO CONSTRUCT 2:1 BENCHING BEFORE EMBANKMENT FILL IS PLACED.









VERTICAL SCALE 0 5 10 15 FEET
1" = 5'

HORIZONTAL SCALE 0 10 20 30 FEET
1" = 10'

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY/SUB	APP
0	08/31/26	ISSUED FOR BID		

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DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/2026

BNSF RAILWAY
JMA CIVIL, 5250 Claremont Ave., Ste. 227, Stockton, CA 95207, T: 925.400.4356, www.jmacivil.com
PORT OF STOCKTON CALIFORNIA
HDR, 2379 Gateway Oaks, Ste. 200, Sacramento, CA 95833, T: 916.679.8700, www.hdrinc.com

ISSUED FOR BID
LICENSED PROFESSIONAL ENGINEER ARKAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

TRACK LD02 CROSS SECTIONS

CONTRACT NO. 60657603
DRAWING NO. CT-810
REVISION E
SHEET NO. 38
SCALE AS NOTED

WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER

CT-800-1.dgn $pentable$ $colortable$ BY: ArkaGhosh TIME: 5:23:20 PM $TODAY$

CT-800-1.dgn

$personalized$

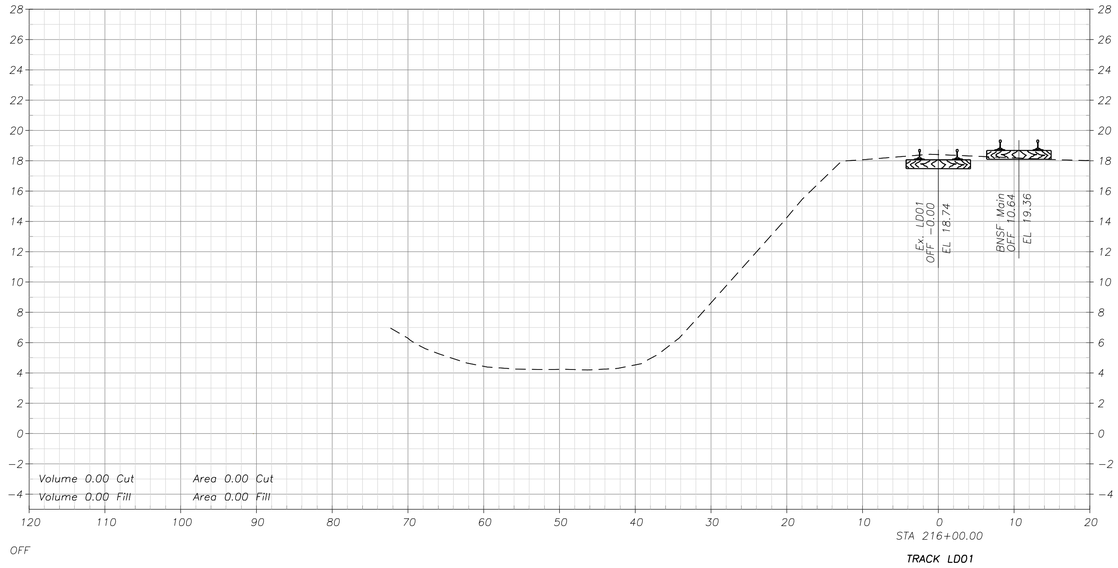
BY: ArkaGhosh

TIME: 5:23:50 PM

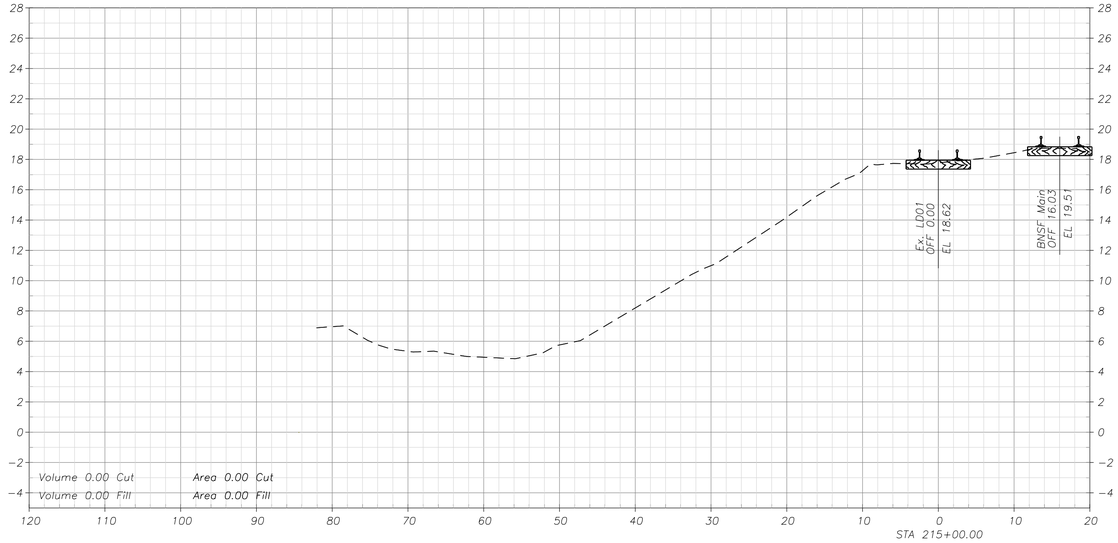
$TODAY$

DESIGN NOTE:

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TRACK LD01



TRACK LD01

VERTICAL SCALE 1" = 5'
0 5 10 15 FEET

HORIZONTAL SCALE 1" = 10'
0 10 20 30 FEET

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	SUB	APP
0	08/31/26	ISSUED FOR BID			

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PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

DESIGNED BY A. GHOSH
DRAWN BY H.SADIQ
CHECKED BY A. RIEGER
APPROVED BY A. GHOSH
DATE 08/31/2026

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ISSUED FOR BID

LICENSED PROFESSIONAL ENGINEER ARKAPRABHA GHOSH C91571 Exp. 09/30/28 CIVIL ENGINEER STATE OF CALIFORNIA

PORT OF STOCKTON
BNSF LEAD IMPROVEMENTS
STOCKTON SUBDIVISION MP 122.587
315 W FYFFE STREET
STOCKTON, CA 95203

TRACK LD02 CROSS SECTIONS

CONTRACT NO. 60657603
DRAWING NO. CT-811
REVISION E
SHEET NO. 39
SCALE AS NOTED