

USER: kabogor25 TIME: 01:40 AM
SCALE: \$SCAL\$SHORT\$ PENTABLE: \$PENTABLE\$
FILE: pw:\\transystems-pw.bentley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\General\\G-GEN-006

GUIDEWAY

- THE FOLLOWING NOTES GOVERN THIS PROJECT AND ARE APPLICABLE TO ALL DRAWINGS.
- THE CONSTRUCTION OF THE RAIL GUIDEWAY SHALL BE DONE IN CONFORMANCE WITH THESE DRAWINGS AND SPECIFICATIONS AND STANDARD DRAWINGS AND SPECIFICATIONS INCLUDED HEREIN.
- UNLESS OTHERWISE NOTED THE WORK INVOLVING DRAINAGE FACILITIES AND STREET RECONSTRUCTION OR IMPROVEMENTS WITHIN THE PUBLIC RIGHTS-OF-WAY SHALL BE DONE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS AND STANDARD CONSTRUCTION DETAILS OF THE JURISDICTIONAL AUTHORITIES
- SUBSURFACE INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE HIS OWN DETERMINATION AS TO ALL SUBSURFACE CONDITIONS.
- CONTRACTOR SHALL CONSTRUCT ALL WORK RELATED TO RAIL GUIDEWAY AS INDICATED ON THE PLANS IN REFERENCE TO THE FINAL TOP OF RAIL ELEVATIONS, INCLUDING THE SUB-BALLAST. IF THE BALLAST, TIES, RAIL, AND SPECIAL TRACKWORK ARE UNDER SEPARATE CONTRACT, THE CONTRACTOR SHALL COORDINATE WORK WITH THE TRACK CONTRACTOR AS DIRECTED BY THE AUTHORITY. TRACKWORK STANDARD DRAWINGS ARE PROVIDED FOR INFORMATION ONLY.
- ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS SHALL BE SEEDED OR SODDED IN ACCORDANCE WITH THE SPECIFICATIONS UNLESS INDICATED OTHERWISE IN THE PLANS.
- TRINITY METRO HAS ADOPTED THE Texas State Plane Coordinates (North Central Zone), NAD 1983, 2007 ADJUSTMENT AS THE BASIS FOR ITS HORIZONTAL SYSTEM AND NATIONAL GEODETIC VERTICAL DATUM OF 1988 (NGVD 1988) AS THE BASIS FOR ITS VERTICAL SYSTEM. THE OFFICIAL COMBINED SCALE FACTOR IS ESTABLISHED SYSTEM WIDE AS 1.000120, TO CONVERT FROM GRID TO SURFACE. ALL COORDINATES AND DISTANCES WILL BE PUBLISHED AS SURFACE VALUES.
- CONTRACTORS MUST MAINTAIN AT ALL TIMES, FENCING, SIGNS, DETOURS, FLAGMEN, SIGNALS, ETC. FOR ANY OPEN TRENCH OR HOLE AND SHALL CONFORM WITH ALL THE LOCAL JURISDICTIONAL AUTHORITY'S RULES AND REGULATIONS FOR LANE AND STREET CLOSURES WITH PROPER PERMITS AND NOTIFICATIONS. (REFER TO CONSTRUCTION STAGING/SEQUENCING PLANS)
- DUE TO EXCESSIVE CONGESTION AND CONFLICTS BETWEEN EXISTING AND PROPOSED FEATURES OF THIS CONSTRUCTION, THE LINES AND GRADES SHOWN ON THE PLANS ARE, IN MOST INSTANCES, EXTREMELY CRITICAL. THE CONTRACTOR MAY NOT ADJUST ANY LINE, GRADE OR LOCATION IN THE FIELD WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE AUTHORITY AND CONSULTATION WITH THE DESIGN ENGINEER, EVEN IF NO CONFLICT IS APPARENT.
- THE RETAINING WALL LOCATIONS ARE DETAILED IN THESE GUIDEWAY PLANS AND THEIR HEIGHT IS ESTABLISHED ON THE RETAINING WALL PLAN & PROFILE SHEETS. THE STATION AND OFFSET CALLOUTS FOR THE RETAINING WALL LOCATIONS ARE TO THE FACE OF THE WALL.

STORM DRAINAGE

- BASIS OF DRAINAGE DESIGN IS THE LOCAL JURISDICTIONAL AUTHORITY'S DRAINAGE MANUAL, USING A 100 YEAR FREQUENCY STORM EVENT.
- ALL PIPES ON SLOPES OF 10.00% AND GREATER SHALL BE BEDDED IN AND BACKFILLED TO ONE FOOT ABOVE THE TOP OF PIPE WITH CEMENT STABILIZED SAND BACKFILL.

TELECOMMUNICATIONS

- CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY ONE WEEK PRIOR TO COMMENCEMENT OF ACTUAL CONSTRUCTION OF THEIR FACILITIES. THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO HAVE AN INSPECTOR ON THE JOB SITE WHEN WORK BEGINS.
- THESE NOTES SUPPLEMENT AND DO NOT SUPPLANT THE STANDARD PRACTICES OF THE TELECOMMUNICATIONS COMPANIES.
- ALL DUCT SYSTEM CONSTRUCTION SHALL CONFORM TO THE STANDARD PRACTICES AND SPECIFICATIONS OF THE APPROPRIATE TELECOMMUNICATION COMPANY. PRIOR TO STARTING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE TELECOMMUNICATION UTILITY TO DEFINE STANDARD PRACTICES AND MAX CONDUIT BEND RADIUS AS WELL TO OBTAIN STANDARD SPECIFICATIONS.
- ALL DUCT SYSTEM CONSTRUCTION, INCLUDING BACKFILL, SHALL BE IN ACCORDANCE WITH THE MOST STRINGENT OF APPLICABLE CITY, COUNTY, STATE OR FEDERAL REQUIREMENTS AND THESE SPECIFICATIONS.
- UNLESS OTHERWISE INDICATED ON THE PLANS, SUBSIDIARY DUCTS AND LATERALS SHALL HAVE A MINIMUM COVER OF 3.5 FEET FROM FINISHED GRADE.
- ALL PLASTIC BENDS AND SWEEPS SHALL BE ENCASED IN CONCRETE WITH A MINIMUM 3 INCH COVER.
- THE MANHOLE NUMBER (IF DESIGNATED ON THESE PLANS) IS TO BE WELDED ON EACH MANHOLE COVER. IN ADDITION, A TAG BEARING THE MANHOLE NUMBER AND ITS VOLUME SHALL BE PLACED IN THE NECK OF EACH MANHOLE SO THAT IT CAN BE READ WITHOUT ENTERING THE MANHOLE
- THE CONTRACTOR SHALL EQUIP ALL TELECOMMUNICATIONS MANHOLES WITH MANHOLE LADDERS AND HARDWARE PER UTILITY COMPANY'S SPECIFICATIONS.
- THE CONTRACTOR SHALL PULL A SLUG THROUGH AT LEAST ONE CONDUIT IN EACH DUCT BANK SECTION FOR THE PURPOSE OF PROVIDING WALL-TO-WALL DUCT MEASUREMENTS TO THE AFFECTED UTILITY COMPANIES FOR THEIR CABLE PULLING OPERATIONS.
- A NYLON PULL STRING SHALL BE PLACED IN EACH CONDUIT OF EACH UTILITY DUCT BANK. NYLON STRING SHALL HAVE A MINIMUM TENSILE STRENGTH OF 500 POUNDS. AT EACH TERMINATION, DOUBLE BACK 2- FEET OF PULL STRING COVER CONDUIT ENDS TO PREVENT FOREIGN MATERIAL FROM ENTERING CONDUIT.
- ELEVATIONS AT POINTS OF INTERCEPTION OF EXISTING CONDUIT RUNS AND BUILDING SERVICES MAY REQUIRE FIELD ADJUSTMENT DUE TO THE LACK OF COMPLETE RECORDS.
- THE FOLLOWING CLEARANCES SHALL BE MAINTAINED BETWEEN TELEPHONE CONDUIT AND POWER OR OTHER FOREIGN CONDUIT:
3" CONCRETE ENCASEMENT OR
4" MASONRY ENCASEMENT OR
12" EARTH SEPARATION, NON-ENCASED
- THE FOLLOWING CLEARANCES SHALL BE MAINTAINED BETWEEN TELEPHONE CONDUIT AND OIL, GAS, WATER OR OTHER PIPELINES:
6 INCHES WHEN CROSSING
12 INCHES WHEN PARALLEL
- DUE TO THE COMPLEXITY OF THE DUCT SYSTEM, IT MAY NOT BE READILY APPARENT WHICH EXISTING DUCTS ARE TO BE ABANDONED AND WHICH ARE TO REMAIN UNTIL THE UTILITY COMPANIES HAVE PULLED THEIR CABLE. THEREFORE, THE CONTRACTOR SHOULD EXERCISE CAUTION AND CAREFULLY COORDINATE WITH THE UTILITY COMPANIES PRIOR TO REMOVING ANY PORTION OF AN EXISTING DUCT.
- TRAFFIC SIGNAL INTERCONNECT CABLES MAKE USE OF THE TELEPHONE CONDUIT SYSTEM. COORDINATE REMOVAL OF EXISTING DUCTS AND PLACEMENT OF NEW CABLES WITH THE TRAFFIC SIGNALIZATION PLANS. (DART CONTRACTOR INSTALLS INTERCONNECT CABLES.)

UTILITIES

- THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING HIS CONSTRUCTION OPERATIONS TO ENSURE THAT THERE ARE NO INTERRUPTIONS IN SERVICE. TEMPORARY RE-ROUTES OF MAINS AND SERVICES MAY BE REQUIRED.
- PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY IN ANY AREA OF THE PROJECT, THE CONTRACTOR SHALL CONTACT ALL COMPANIES KNOWN TO OPERATE UTILITY SYSTEMS IN THE AREA AND SHALL HAVE THEIR FACILITIES PHYSICALLY LOCATED.
- UTILITY INFORMATION IS BASED UPON FIELD MEASUREMENTS AND THE AVAILABLE RECORDS. FIELD DATA IS LIMITED TO THAT WHICH IS VISIBLE AND CAN BE MEASURED. THIS DOES NOT PRECLUDE THE EXISTENCE OF OTHER UNDERGROUND ITEMS. RECORD INFORMATION IS BASED UPON DATA COLLECTED FROM BOTH PUBLIC AND PRIVATE SOURCES. THE COMPLETENESS AND/OR ACCURACY OF THESE RECORDS CANNOT BE GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UNCOVER AND VERIFY THE ACTUAL DEPTH AND CONDITION OF ALL AFFECTED UNDERGROUND UTILITIES WITHIN THE AREA AND SHALL PROTECT EACH UTILITY FROM DAMAGE DURING TEMPORARY OR PERMANENT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES AND COSTS OF REPAIR THEREOF.

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REV	DATE	DESCRIPTION	BY	ENG	CHK	APP	



TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	N/A	TRINITY METRO DOUBLE TRACKING GENERAL NOTES SHEET 1 OF 2		
DRAWN	JEM			
DESIGNED	ATA			
CHECKED	KMA			
IN CHARGE	CGG			
DATE	12/19/2025			
		SHEET No. 7	DWG No. G-107	REV

USER: kabbagan25 TIME: 12/01/25 PM SCALE: 1/8"=1'-0" PLOT FILE: pw:\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\General\\G-GEN-008

GENERAL NOTES:

1. THE FOLLOWING NOTES GOVERN TRINITY METRO PROJECTS AND ARE APPLICABLE TO ALL DRAWINGS.
2. THE CONSTRUCTION OF THE TRACK INSTALLATION SHALL BE DONE IN CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS. WHEN APPLICABLE, LINE SECTION CONTRACT DRAWINGS WILL BE PROVIDED TO THE TRACKWORK CONTRACTOR FOR REFERENCE.
3. ALL COORDINATES, BEARINGS OR AZIMUTHS AND DISTANCES SHOWN IN THE PLANS ARE ON THE TEXAS PLANE COORDINATE SYSTEM, NORTH CENTRAL ZONE (LAMBERT GRID) BASED UPON U.S. COAST AND GEODETIC SURVEY, EXCEPT OTHERWISE NOTED. ANY DISCREPANCY NOTED BY THE CONTRACTOR BETWEEN ACTUAL FIELD CONDITIONS AND THAT SHOWN ON THE PLANS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE AUTHORITY FOR RESOLUTION. ANY AND ALL COST INCURRED FOR LOST OR DAMAGED MONUMENTS CAUSED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. TRACKWORK INSTALLATION SHALL GENERALLY MEAN THE INSTALLATION OF BALLAST, CONCRETE TIES, RAIL AND FASTENERS, INSULATED JOINTS, WELDED JOINTS, EXPRESS CABLE TROUGH, BALLAST DRAINAGE ON BALLAST DECK BRIDGES, BALLAST DRAINS AT DRILLED SHAFT WALLS, WATER PROOFING ON BALLAST DECK BRIDGES, GRADE CROSSING PANELS AT ROAD CROSSINGS, PEDESTRIAN GRADE CROSSINGS, SPECIAL TRACKWORK, AND THE CONSTRUCTION OF CONCRETE PLINTHS AND INSTALLATION OF RAIL AND FASTENERS ON DIRECT FIXATION STRUCTURES, EXCEPT AS NOTED.
5. THE CONTRACTOR SHALL NOTIFY THE LOCAL JURISDICTIONAL CHIEF OF POLICE, FIRE CHIEF, LOCAL AMBULANCE SERVICE, TRAFFIC ENGINEER AND TRE DISPATCHER IN WRITING AT LEAST FIVE (5) WORKING DAYS PRIOR TO CLOSING AND OPENING OF STREETS. A COPY OF THE NOTIFICATION SHALL BE SUBMITTED TO THE CONTRACTING OFFICER.
6. AT ROAD CROSSINGS, THE RAIL BOOT SHALL EXTEND 8 INCHES BEYOND THE EDGE OF THE PANEL, AND INTO THE BALLAST AREA OF THE TRACK. THE CROSSING PANEL SYSTEM SHALL EXTEND BEYOND THE EDGE OF THE CONCRETE HEADER. THE PANELS MAY BE LONGER THAN THE HEADER, BUT THE PAYMENT ITEM FOR CROSSING PANELS IS BASED ON THE LENGTH OF THE CROSSING AS IDENTIFIED IN THE SPECIFICATIONS.
7. ALL BALLAST DECK BRIDGES REQUIRE WATERPROOFING MEMBRANE PLACEMENT.
8. TYPICAL BRIDGE SECTIONS SHOW BALLAST DRAINS ON BALLAST DECK BRIDGES, AT DRILLED SHAFT WALLS AND AT POURED IN PLACE RETAINING WALLS. REFER TO THE DRAINAGE PROFILE DRAWINGS FOR SIZE AND LENGTH OF PIPE, CLEANOUTS LOCATIONS, AND PROFILE, AND EXISTING CONNECTION POINTS TO THE LINE SECTION WORK. STANDARD DRAWINGS INDICATE CONNECTION DETAILS.
9. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXPRESS CABLE TROUGHS, INCLUDING REMOVAL OF ANY AND ALL OBJECTIONABLE MATERIAL INTRODUCED INTO TROUGH OR CONDUIT STUBUPS.
10. SOME WORK CAN BE PARALLEL TO FREIGHT/COMMUTER TRACK. WORK IN THESE AREAS SHALL MAINTAIN SAFE WORKING DISTANCES FROM ACTIVE FREIGHT TRACK AND IF NOT POSSIBLE, WORK SHALL BE DONE WITH THE FULL KNOWLEDGE AND APPROVAL OF THE OPERATING RAILROAD AND UTILIZE AN OPERATING RAILROAD FLAGMAN AS REQUIRED. ALL WORK WITHIN AN OPERATING FREIGHT/ COMMUTER CORRIDOR SHALL BE IN ACCORDANCE WITH FEDERAL RAILROAD ADMINISTRATION 49CFR214, RAILROAD WORKPLACE SAFETY.
11. EROSION CONTROL MEASURES SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR IN EACH LINE SECTION, AS REQUIRED
12. TRACK CHARTS PROVIDE APPROXIMATE STATION LOCATIONS FOR INSULATED JOINTS WHICH MAY BE MODIFIED AT A LATER DATE. THE JOINTS AT EACH STATION POINT ON THE TRACK SHALL BE INSTALLED WITH A STAGGER AS INDICATED.
13. UNDERDRAINS IN THE BALLAST CORRESPOND WITH THE UNDERDRAIN PROFILE DRAWINGS. LINE SECTION WORK INCLUDES UNDERDRAINS IN THE SUBGRADE THAT WILL HAVE BEEN PREVIOUSLY INSTALLED. ALL UNDERDRAIN WORK APPLICABLE TO TRACKWORK SHALL BE DRAIN PIPE IN THE BALLAST ONLY.
14. SPECIAL TRACKWORK DRAWINGS ARE SHOWN FOR INFORMATION AND ARE SUBJECT TO CHANGE BASED ON SPECIAL TRACKWORK MATERIAL SUPPLIED BY THE MANUFACTURER. REFERENCES TO AREMA STANDARD PLANS SHALL BE TO THE 2024 PORTFOLIO OF TRACKWORK PLANS EDITION.
15. THE CONTRACTOR SHALL RESTRICT ALL OF THE TRACKWORK TO THE LIMITS OF WORK WITHIN THE WIDTH OF THE SUBBALLAST AS DESIGNATED. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGES TO PROPERTY OUTSIDE, AS WELL AS WITHIN THE TRACKWORK LIMITS AT NO ADDITIONAL COST TO TRE.
16. ALL MATERIAL REMOVED FROM THE SITE SHALL BE TRANSPORTED AND DISPOSED OF IN A LEGAL MANNER. ALL PERMITS REQUIRED FOR REMOVAL, TRANSPORT AND DISPOSAL SHALL BE THE RESPONSIBILITY AND AT THE EXPENSE OF THE CONTRACTOR.

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REV	DATE	DESCRIPTION	BY	ENG	CHK	APP



TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
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FIRM REG. #: 3557



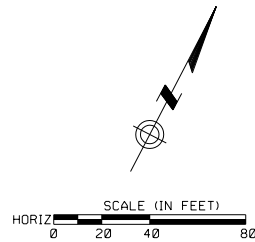
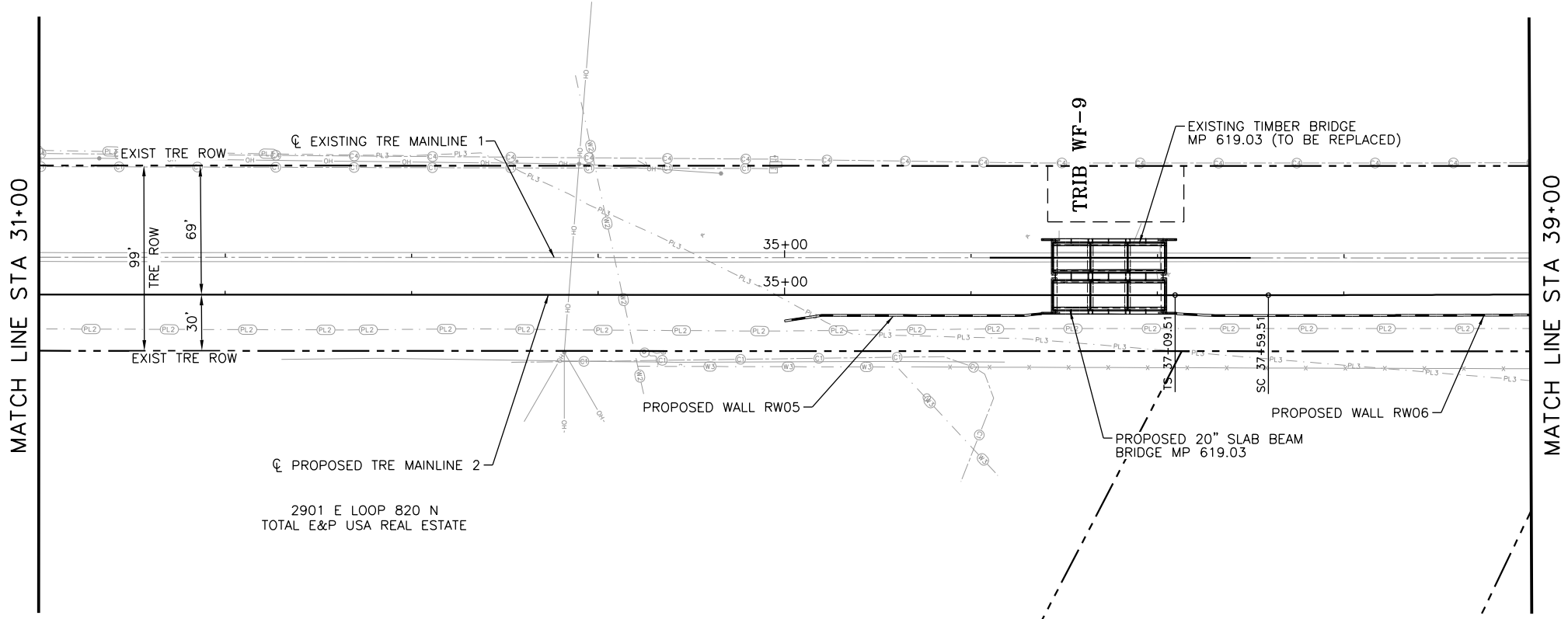
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DESIGNED	ATA
CHECKED	KMA
IN CHARGE	CGG
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
GENERAL NOTES TRACKWORK
SHEET 2 OF 2



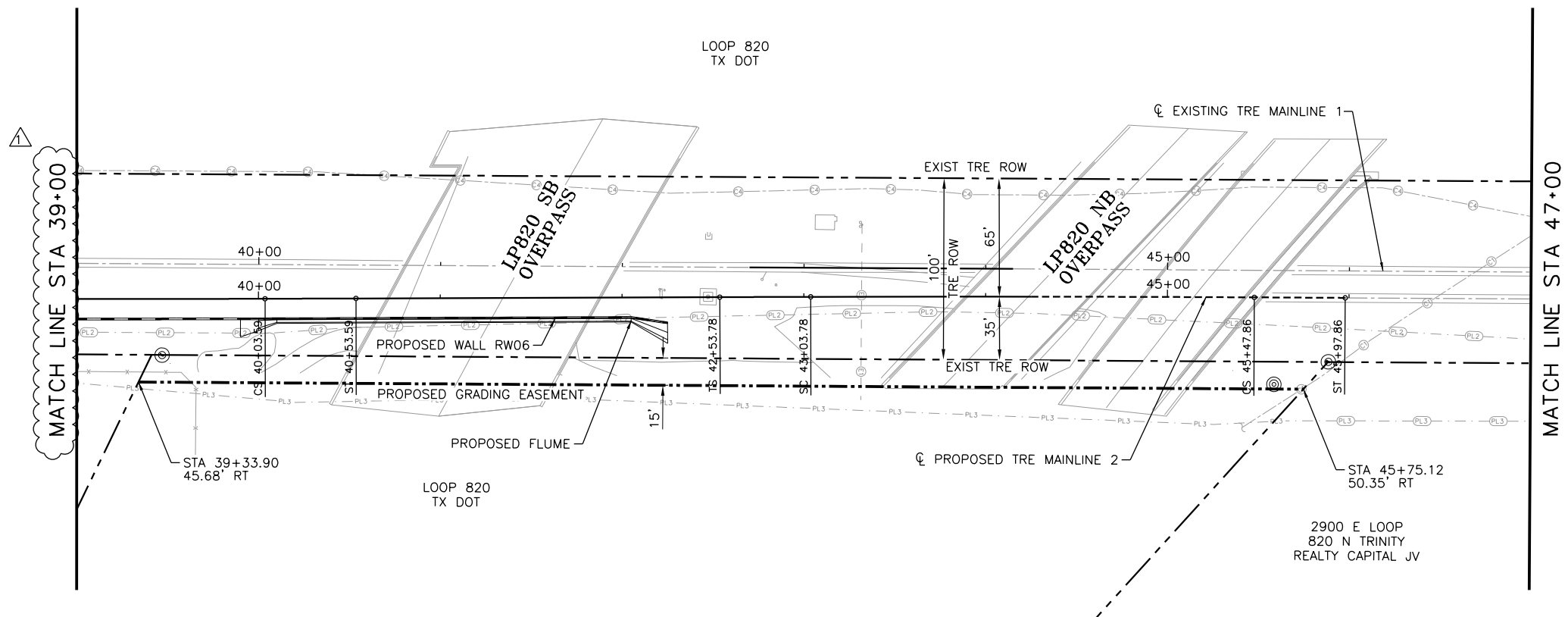
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LEGEND

- EXISTING ROW
- EXISTING EASEMENT
- .-.- PROPOSED GRADING EASEMENT



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△	12/19/2025	REVISED MATCH LINE STATION	KAB	KAB	BES	BES			
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP			



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FIRM REG. #: 3557

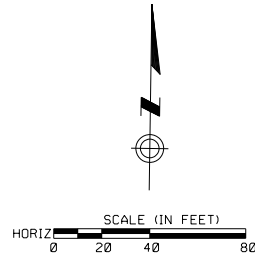
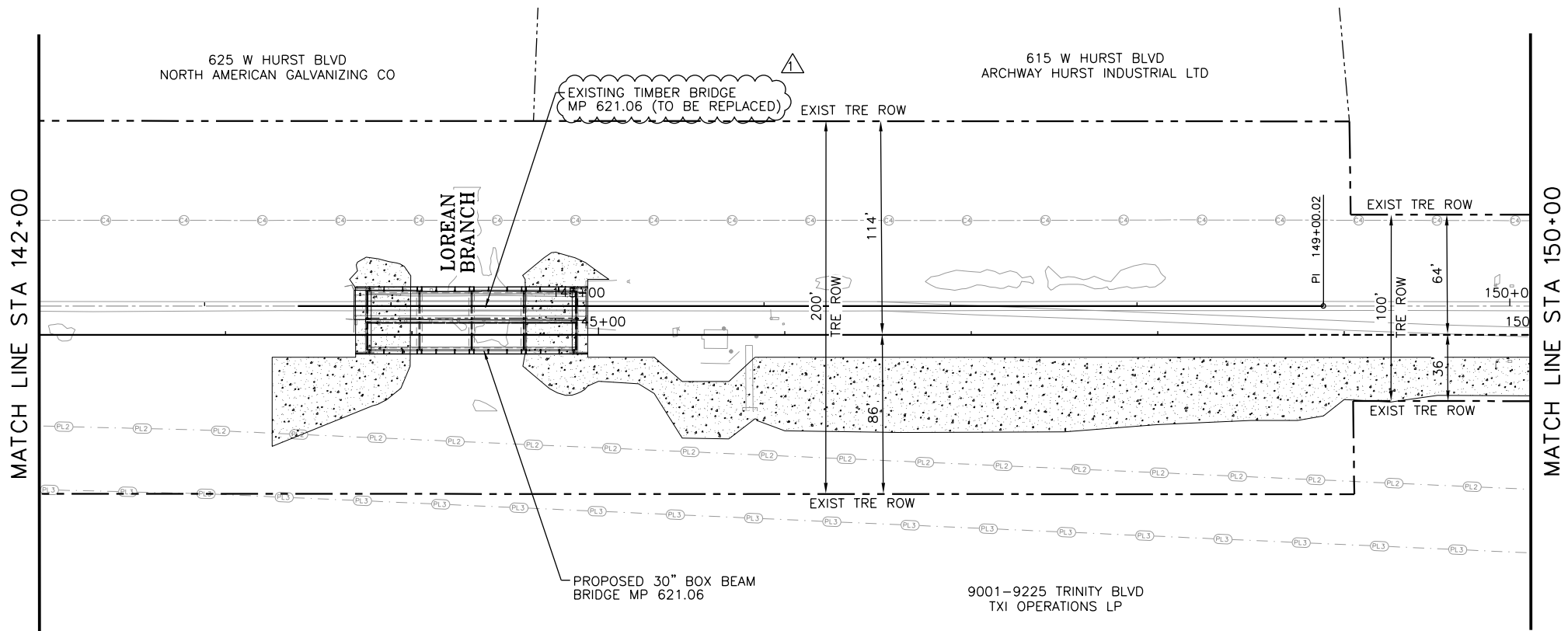


SCALE	H: 1"=40' V: 1"=5'
DRAWN	LAM
DESIGNED	MMZ
CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
TRE RIGHT OF WAY PLAN
STA 31+00 TO STA 47+00

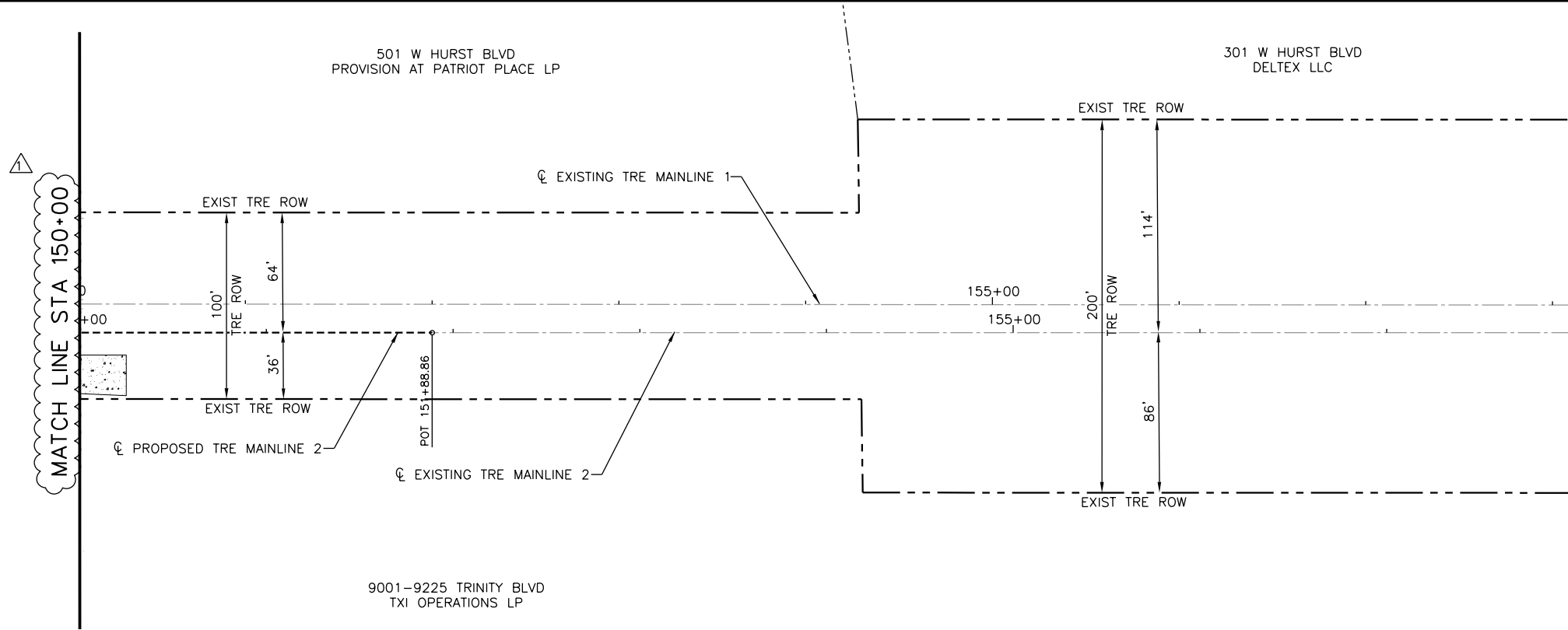
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LEGEND

- EXISTING ROW
- EXISTING EASEMENT
- PROPOSED GRADING EASEMENT



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△	12/19/2025	REVISED MATCH LINE STATION & REVISED CALLOUT	KAB	KAB	BES	BES			
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP			



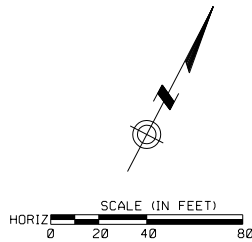
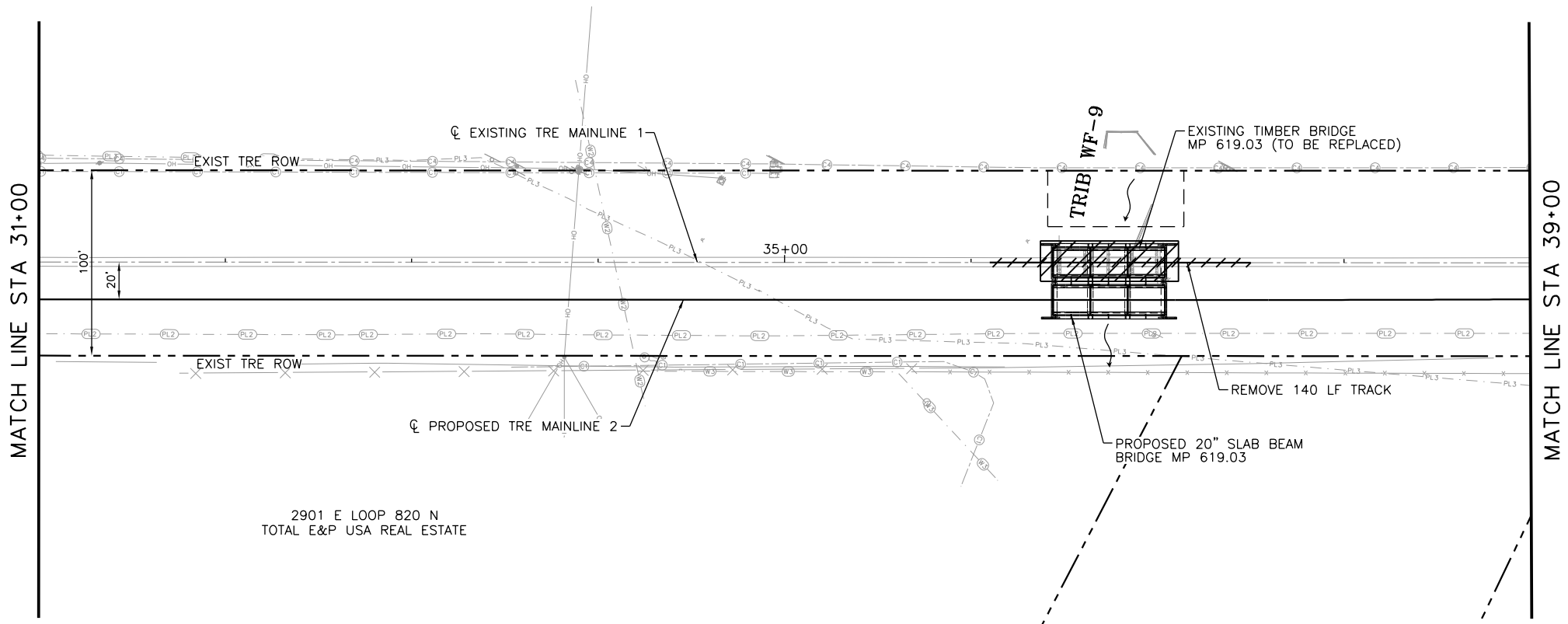
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500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557

TRINITY  **METRO**SM

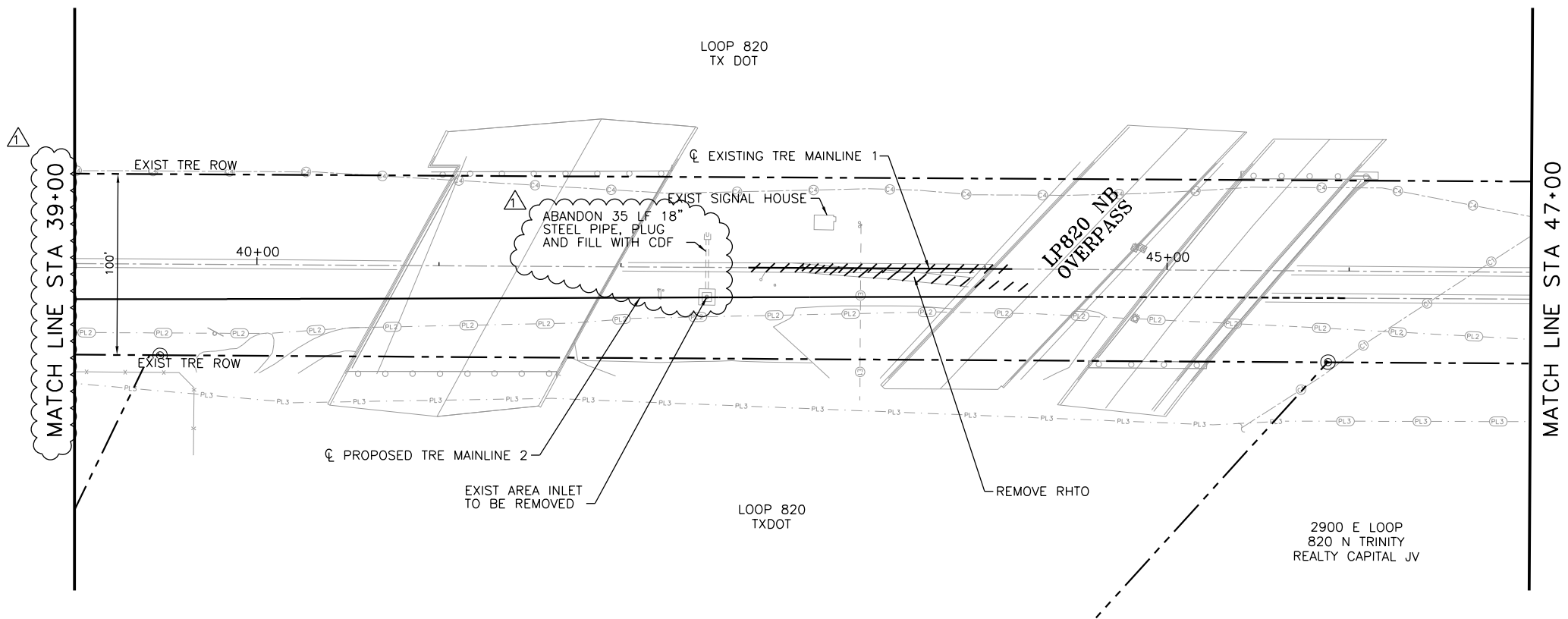
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DESIGNED	MMZ			
CHECKED	BES			
IN CHARGE	MRH			
DATE	12/19/2025			
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USER: kbbagp025 TIME: 7:31:00 AM
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FILE: pw:\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Rail\\C-REM-103



LEGEND

- STATION PLATFORM & PEDESTRIAN PANEL CROSSING REMOVAL
- TRACK REMOVAL
- BRIDGE REMOVAL



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△	12/19/2025	REVISED MATCH LINE STATION & ADDED EXIST STORM DRAIN	KAB	KAB	BES	BES	
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP	



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FIRM REG. #: 3557

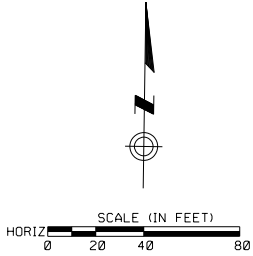
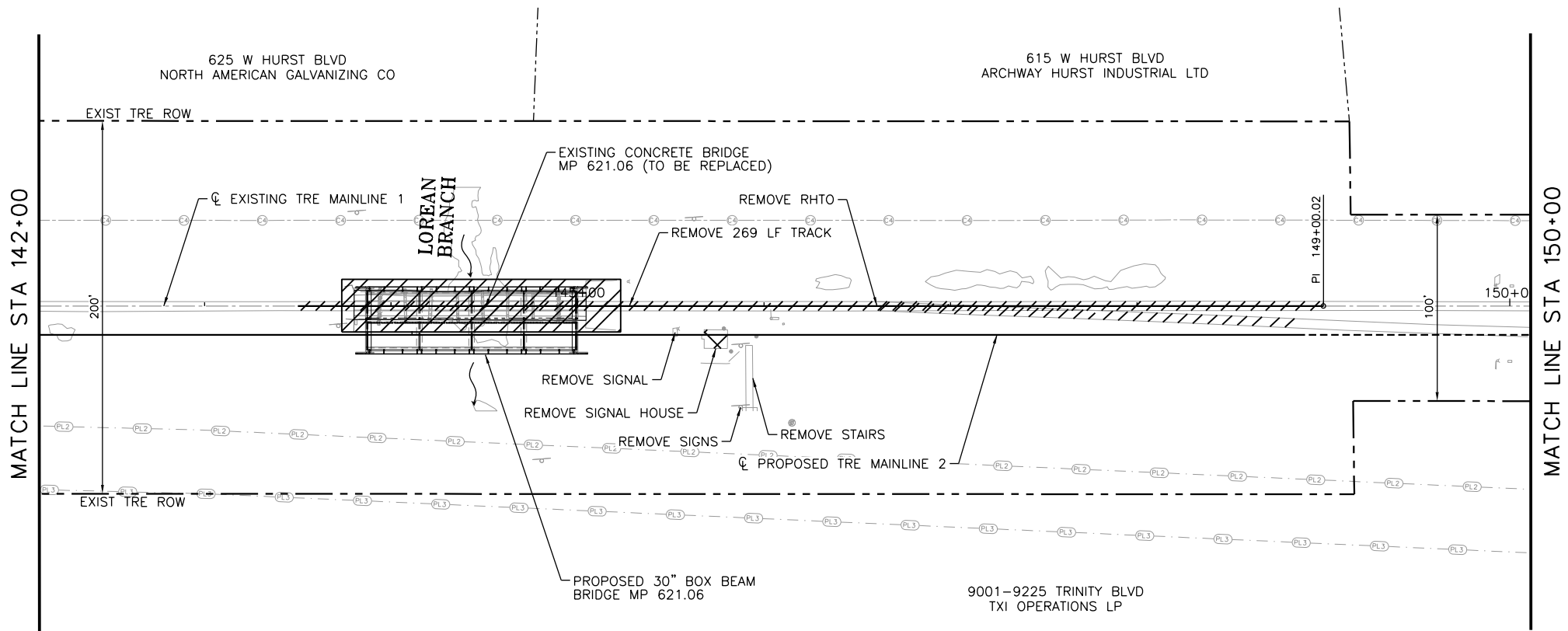


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CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
REMOVAL PLAN
STA 31+00 TO STA 47+00

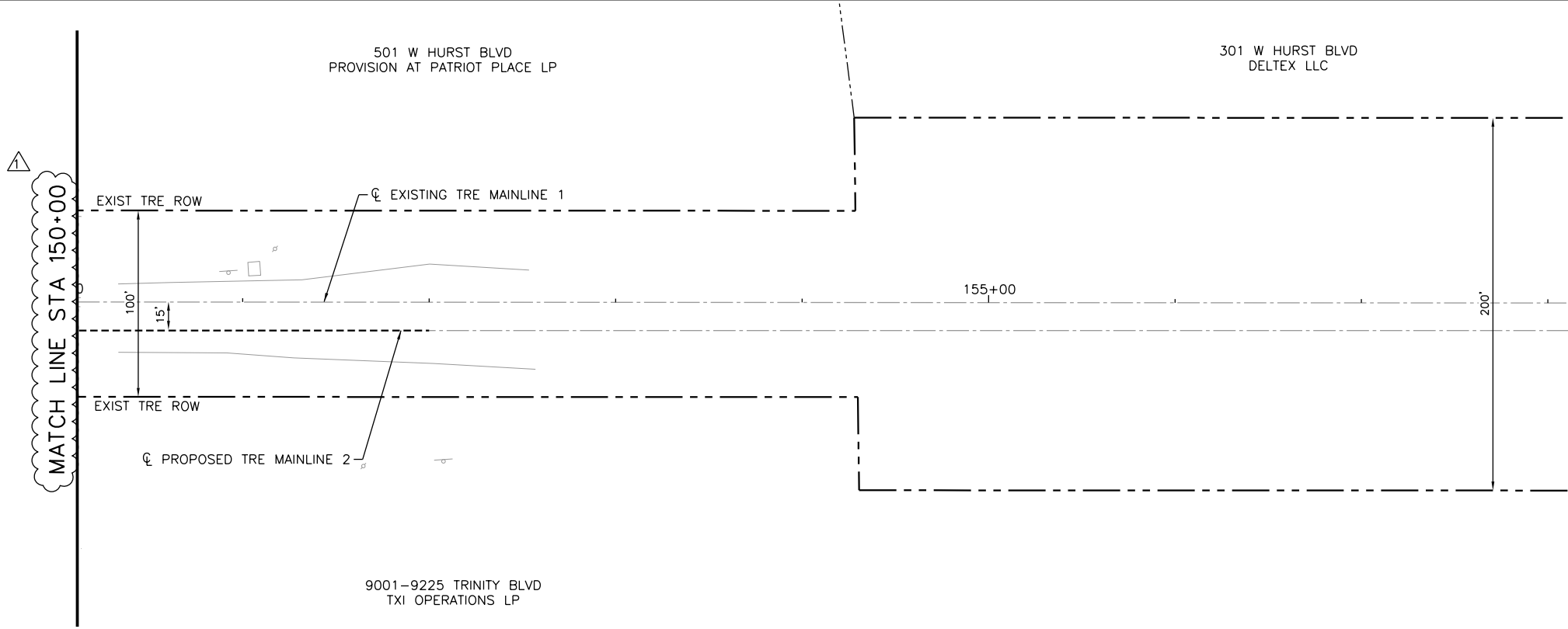
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LEGEND

- STATION PLATFORM & PEDESTRIAN PANEL CROSSING REMOVAL
- TRACK REMOVAL
- BRIDGE REMOVAL



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△	12/19/2025	REVISED MATCH LINE STATION	KAB	KAB	BES	BES			
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP			



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FIRM REG. #: 3557



SCALE	H: 1"=40'
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IN CHARGE	MRH
DATE	12/19/2025

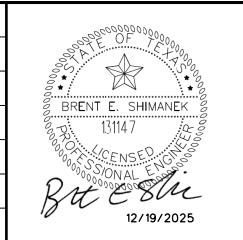
TRINITY METRO
DOUBLE TRACKING
REMOVAL PLAN
STA 142+00 TO STA 158+00

SHEET No. 32	DWG No. C-120	REV
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12/19/2025
12/19/2025

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
1	12/19/2025	REVISED STATION RANGES	KAB	KAB	BES	BES



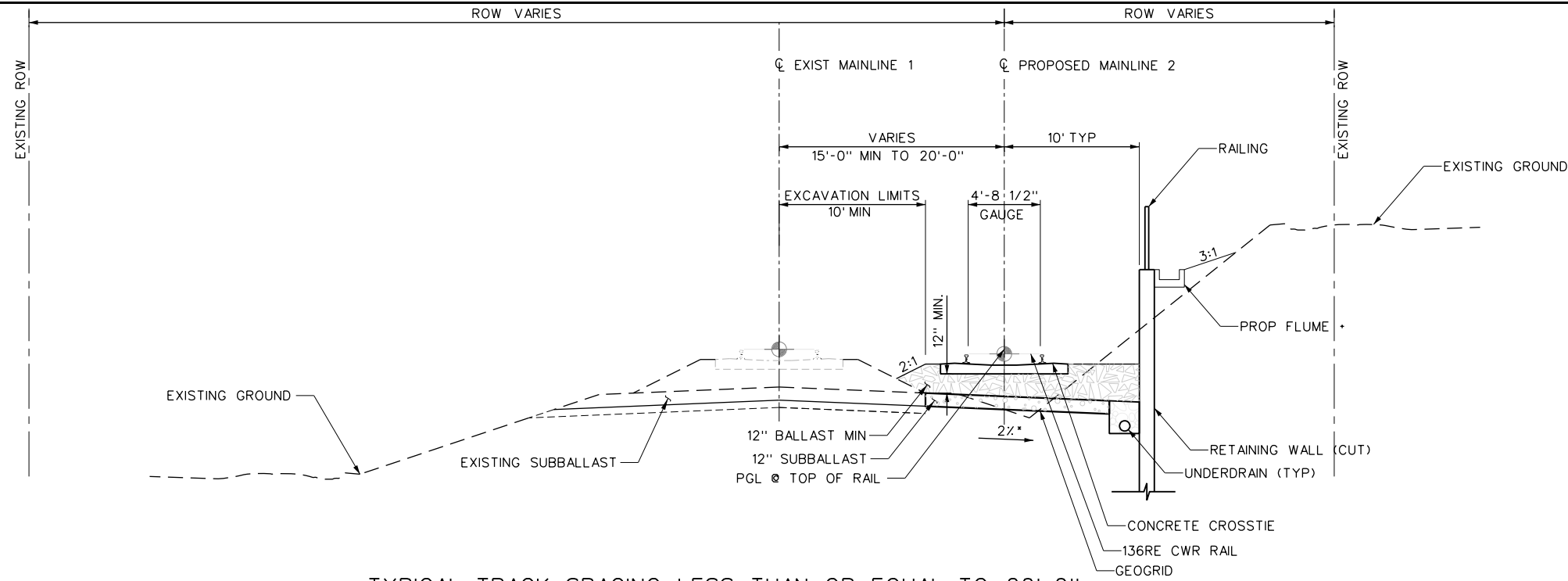
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500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557

TRINITY

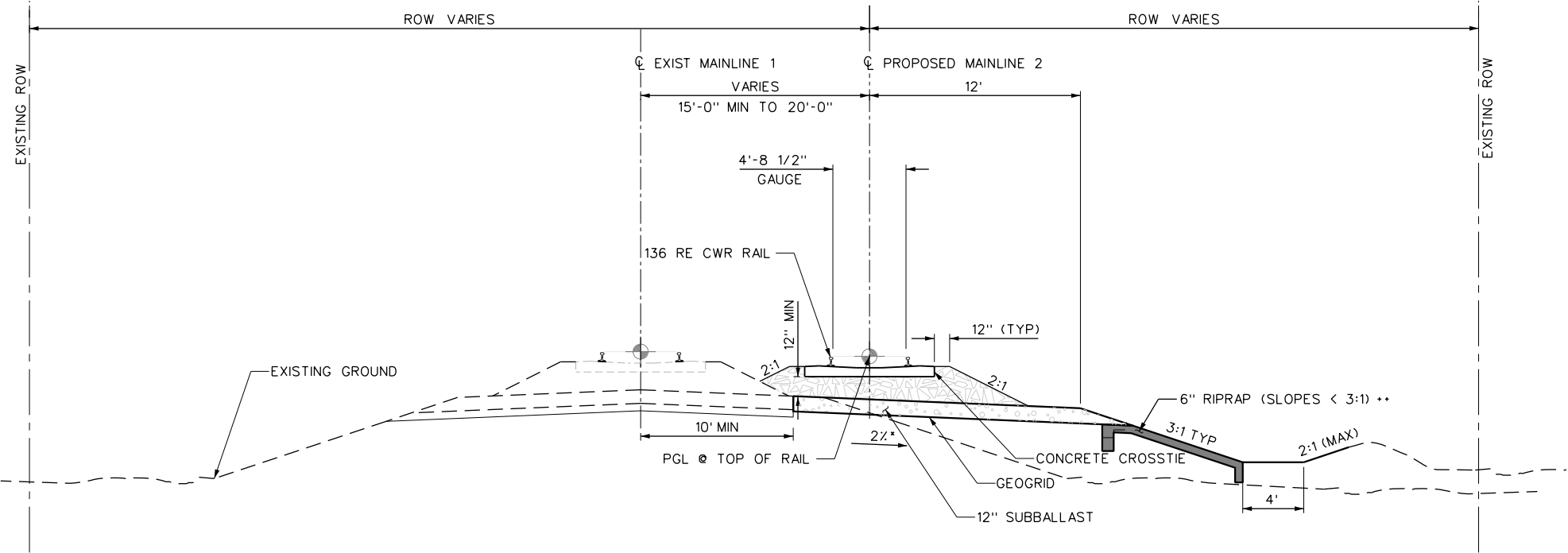
METROSM

SCALE	TRINITY METRO DOUBLE TRACKING TYPICAL SECTIONS SHEET 1 OF 3		
DRAWN	JEM	SHEET No.	37
DESIGNED	ATA	DWG No.	C-125
CHECKED	KMA	REV	
IN CHARGE	CGG		
DATE	12/19/2025		



TYPICAL TRACK SPACING LESS THAN OR EQUAL TO 20'-0"

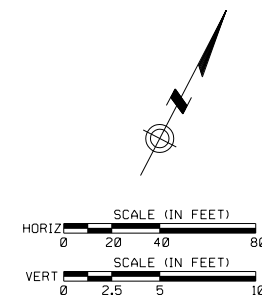
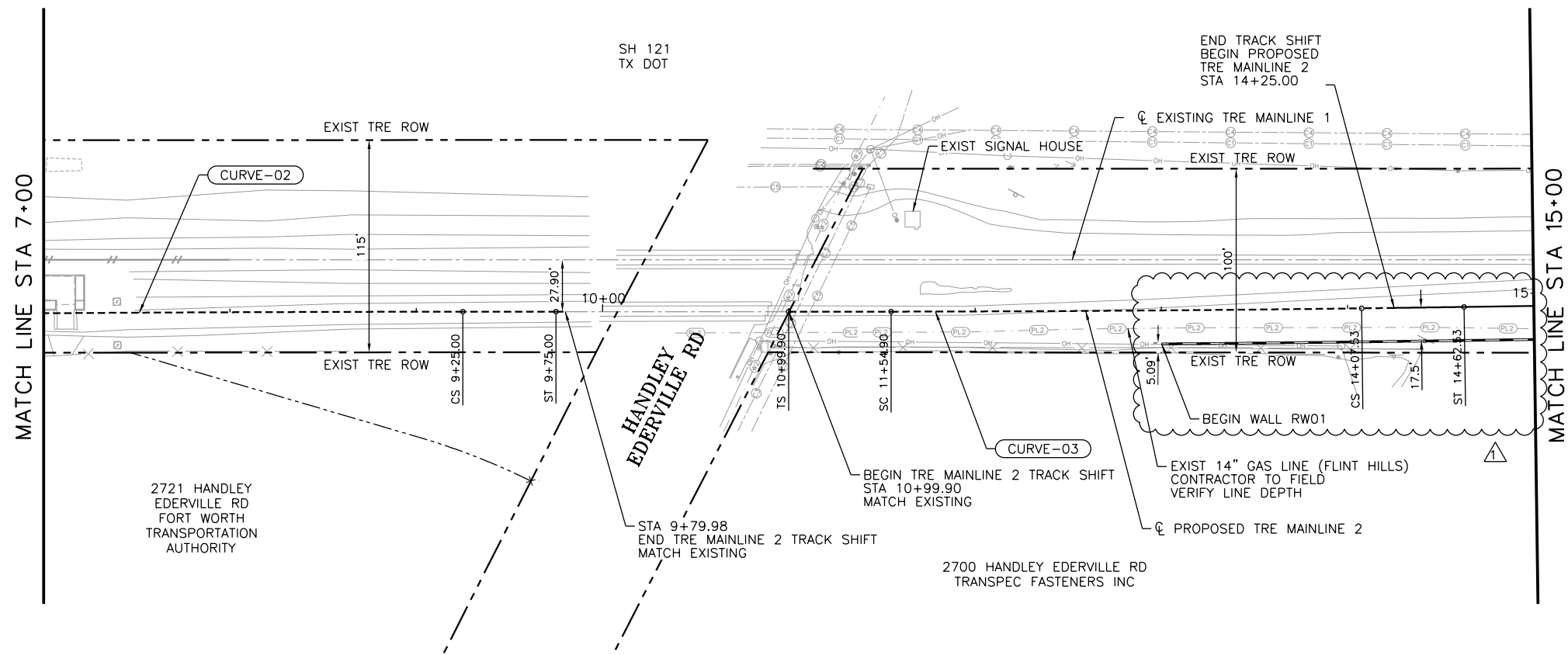
1 STA 24+00.00 TO STA 30+00.00
STA 40+00.00 TO STA 42+25.00
STA 123+00.00 TO STA 125+11.84
STA 126+00.00 TO STA 131+35.00
STA 133+55.00 TO STA 138+50.00



TYPICAL TRACK SPACING LESS THAN OR EQUAL TO 20'-0"

1 STA 22+50.00 TO STA 24+00.00
STA 30+00.00 TO STA 35+00.00
STA 42+25.00 TO STA 45+97.86
STA 71+44.46 TO STA 106+00
STA 121+50 TO STA 126+00
STA 138+50.00 STA 151+88.86

- NOTE:
- CONTRACTOR TO INSTALL CONCRETE RIPRAP ALONG 2:1 EMBANKMENT SLOPES. SEE RANGE BELOW.
 - REFER TO THE GEOTECHNICAL REPORT FOR MORE INFORMATION REGARDING THE TRACK SUBSTRUCTURE REQUIREMENTS.
- 2% USUAL, 0.5% MIN, 4% MAX
 - FLUME STATION RANGE
STA 25+80 TO STA 28+50
STA 40+00 TO STA 42+25
STA 126+05 TO STA 131+50
STA 133+50 TO STA 137+00
 - RIPRAP STATION RANGE
STA 60+75 TO STA 78+50
STA 122+98 TO STA 126+00
STA 143+76 TO STA 150+25

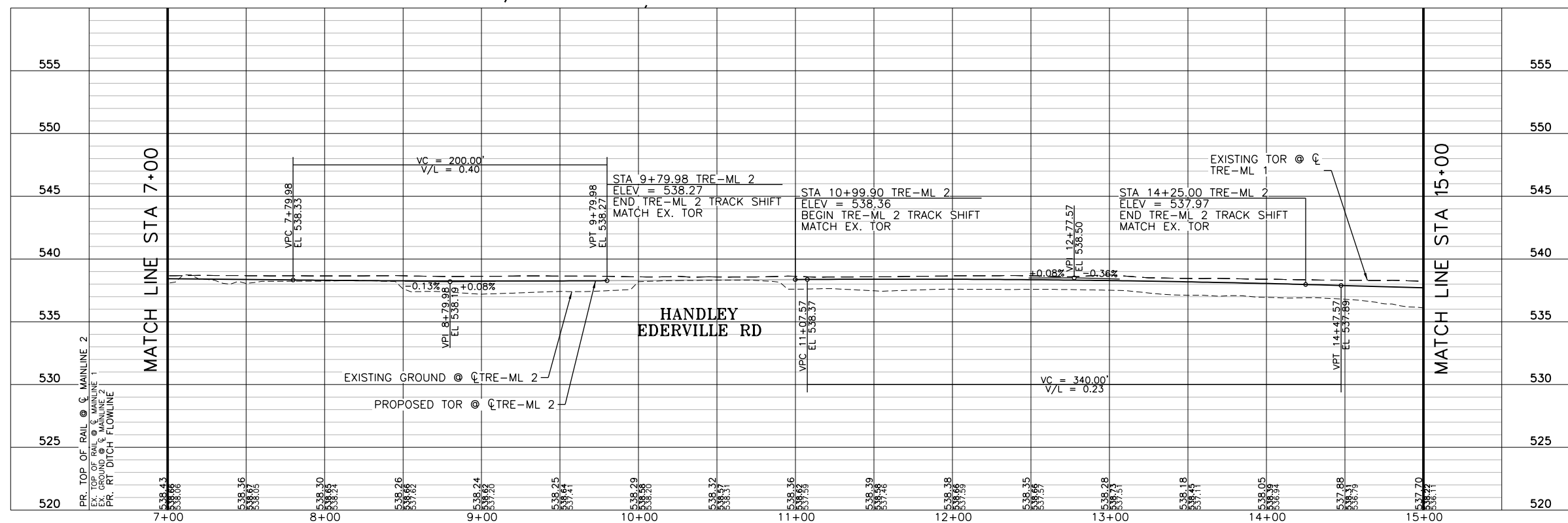


LEGEND

- | | |
|---|--|
|  | PROPOSED TRACK |
|  | SHIFT TRACK |
|  | EXISTING TRACK TO BE
LINED AND TAMPED |
|  | DITCH FLOWLINE |

NOTES:

1. REFER TO SYSTEMS PLANS FOR INSULATED JOINT LOCATIONS.



CURVE-02

Dc = 0° 09' 20.00"
Rc = 36,833.01'
Lc = 241.17'
Ea = 0.50"
Eu pass = 0.18"
Eu frt = -0.11"
Ls = 50.00'
V pass = 79 MPH
V frt = 60 MPH

CURVE-03

Dc = 0° 15' 40.00"
Rc = 21,943.08'
Lc = 252.62'
Ea = 0.75"
Eu pass = 0.39"
Eu frt = -0.09"
Ls = 55.00'
V pass = 79 MPH
V frt = 60 MPH

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△	12/19/2025	REVISED PROP RETAINING WALL LOCATION & CALLOUTS	KAB	KAB	BES BES
REV	DATE	DESCRIPTION	BY	ENG	CHK APP



TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	H: 1"=4' V: 1"=4'
DRAWN	LA
DESIGNED	MM
CHECKED	BE
IN CHARGE	MR
DATE	12/19/202

TRINITY METRO
DOUBLE TRACKING
TRE MAINLINE 2 PLAN & PROFILE
STA 7+00 TO STA 15+00

SHEET No. 41	DWG No. C-129	REV
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USER: kaboggon
TIME: 2:00:43 PM
DATE: 12/19/2025
PENTABLE: \$PENTBL\$
\$SCALE: \$SCALESHORT\$
FILE: pw\\transysystems-pw.bentley.com:transyscorp-pw1-hosted\Documents\Projects_2024\FW202_202240018\Rail\C-RRD-102

USER: k00000025 TIME: 2/03/22 12:00 PM
SCALE: 1"=40' HORIZONTAL 1"=5' VERTICAL
FILE: \\transystems-pw-bentley.com\transystems\Projects_2024\FW202_202240018\Rail\NC-RRD-103

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
1	12/19/2025	REVISED PROP RETAINING WALL LOCATION & CALLOUTS	KAB	KAB	BES	BES



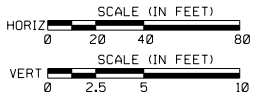
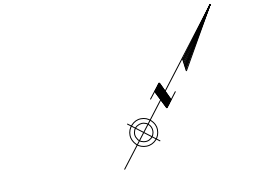
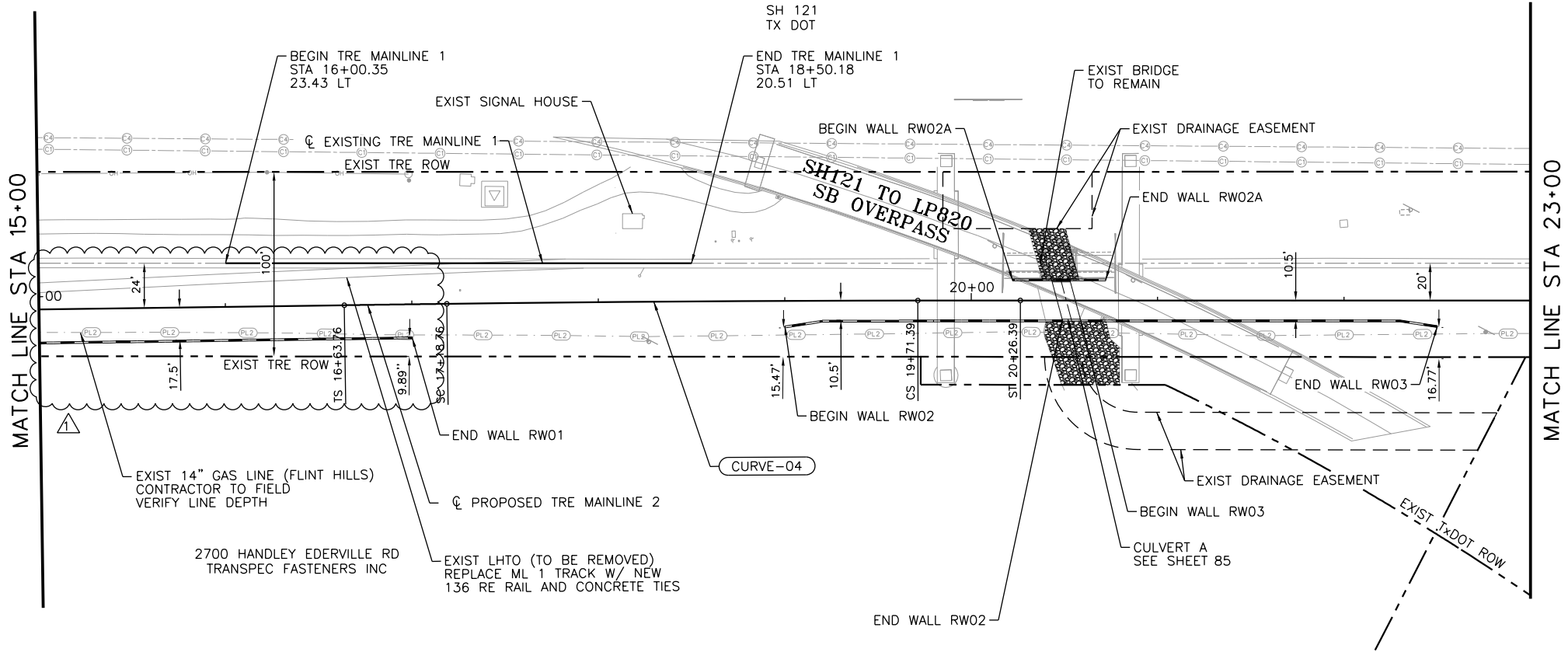
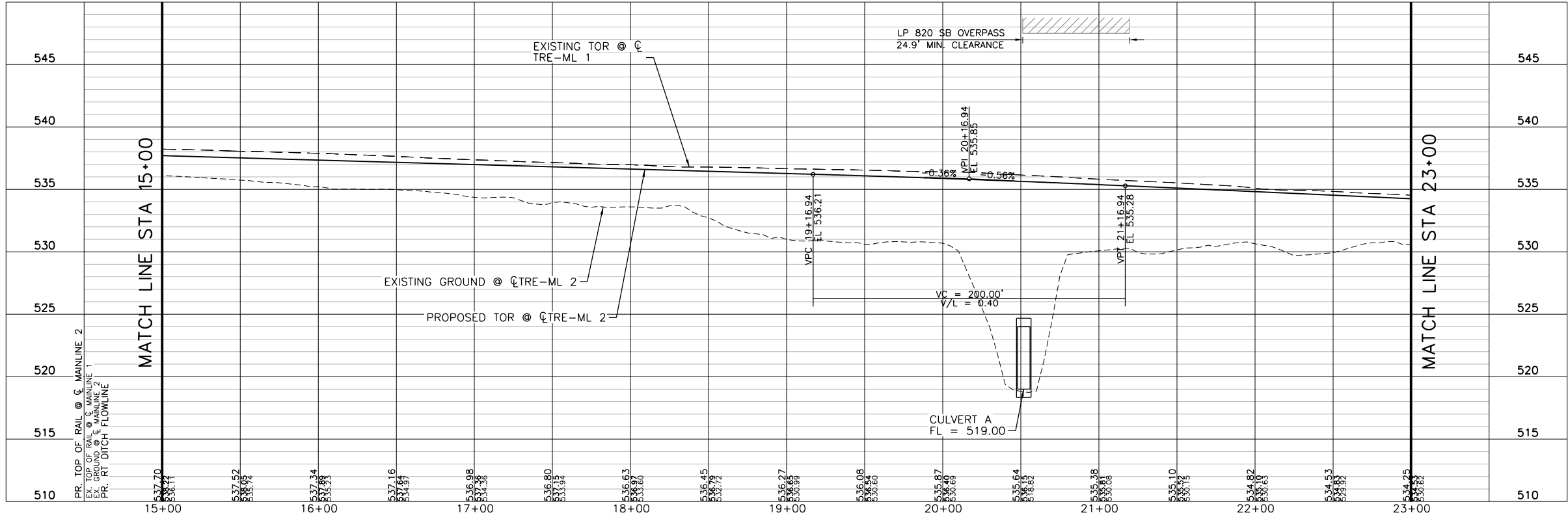
TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557

TRINITY METRO

SM

SCALE	H: 1"=40'	TRINITY METRO DOUBLE TRACKING TRE MAINLINE 2 PLAN & PROFILE STA 15+00 TO STA 23+00		
DRAWN	LAM			
DESIGNED	MMZ			
CHECKED	BES			
IN CHARGE	MRH			
DATE	12/19/2025	SHEET No.	DWG No.	REV
		42	C-130	



LEGEND

- PROPOSED TRACK
- SHIFT TRACK
- EXISTING TRACK TO BE LINED AND TAMPED
- DITCH FLOWLINE

- NOTES:
- REFER TO SYSTEMS PLANS FOR INSULATED JOINT LOCATIONS.

CURVE-04

Dc = 0' 15' 40.00"
Rc = 21,943.08
Lc = 252.62
Ea = 0.75"
Ea poss = 0.39"
Ea frt = -0.09"
Ls = 55'
V poss = 79 MPH
V frt = 60 MPH

USER: kbbogdan25 TIME: 7/4/2025 7:49:04 AM
SCALE: \$SCAL\$ SHORT \$PENTABLE\$ PENTABLE: \$PENTABLE\$
FILE: pw:\\transysystems-pw\\benley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_2022240018\\Rail\\C-GRD-101

△							
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△	12/19/2025	CLEANED UP GRADING LABELS	KAB	KAB	BES	BES	
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP	

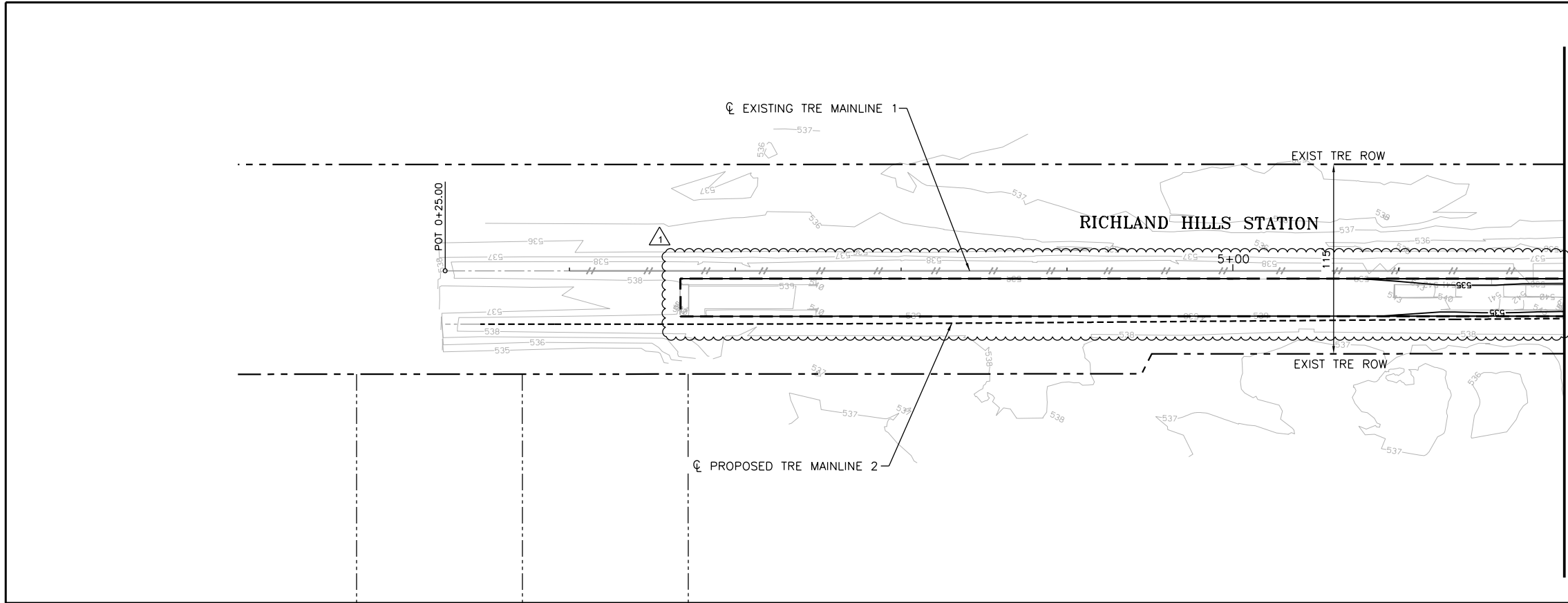
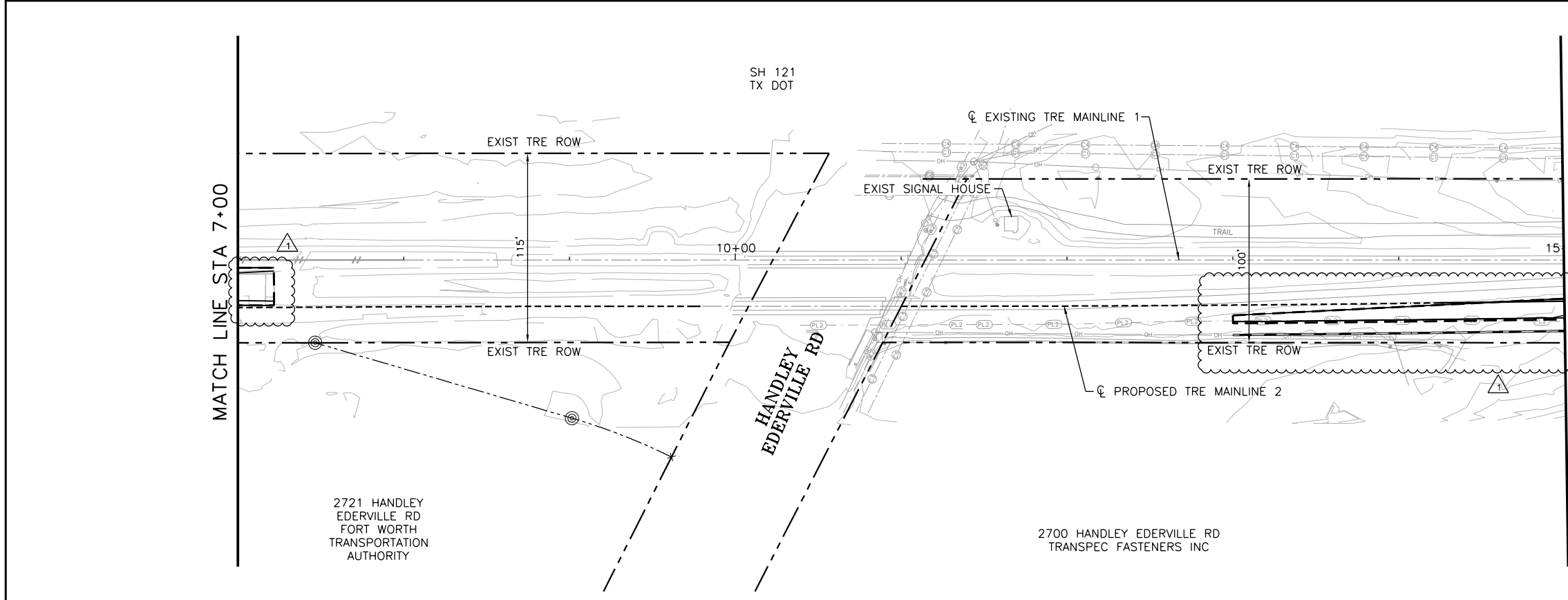


TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557

TRINITY  **METRO** SM

SCALE	H: 1"=40'	TRINITY METRO DOUBLE TRACKING GRADING PLAN BEGIN TO STA 15+00		
DRAWN	LAM			
DESIGNED	MMZ			
CHECKED	BES			
IN CHARGE	MRH			
DATE	12/19/2025			
		SHEET No. 64	DWG No. C-152	REV




SCALE (IN FEET)
0 20 40 80
HORIZ

LEGEND

- 510 PROPOSED CONTOURS
- 509 EXISTING CONTOURS
- GRADING LIMITS
- DITCH FLOWLINE

NOTES:

- PROPOSED CONTOURS REPRESENT PROPOSED TOP OF SUBGRADE/BOTTOM OF SUBBALLAST WITHIN TRACK BED LIMITS AND PROPOSED TOP OF SURFACE OUTSIDE OF TRACK BED LIMITS.
- CONTRACTOR SHALL COORDINATE AND OBTAIN TEMPORARY ACCESS FOR GRADING ALONG THE NORTH R.O.W. FOR TRACK 1 FROM PRIVATE PROPERTY OWNER(S).

USER: kbbg00025 TIME: 7/4/2025 4:18 AM
SCALE: 1"=40' PENTABLE: 4PENTABLE.S5
FILE: pw:\\transysystems-pw\\benley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Rail\\C-GRD-102

△									
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△	12/19/2025	CLEANED UP GRADING LABELS	KAB	KAB	BES	BES			
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP			



TRANSYSTEMS

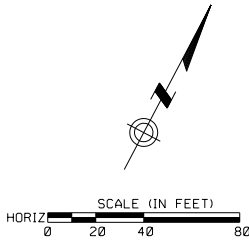
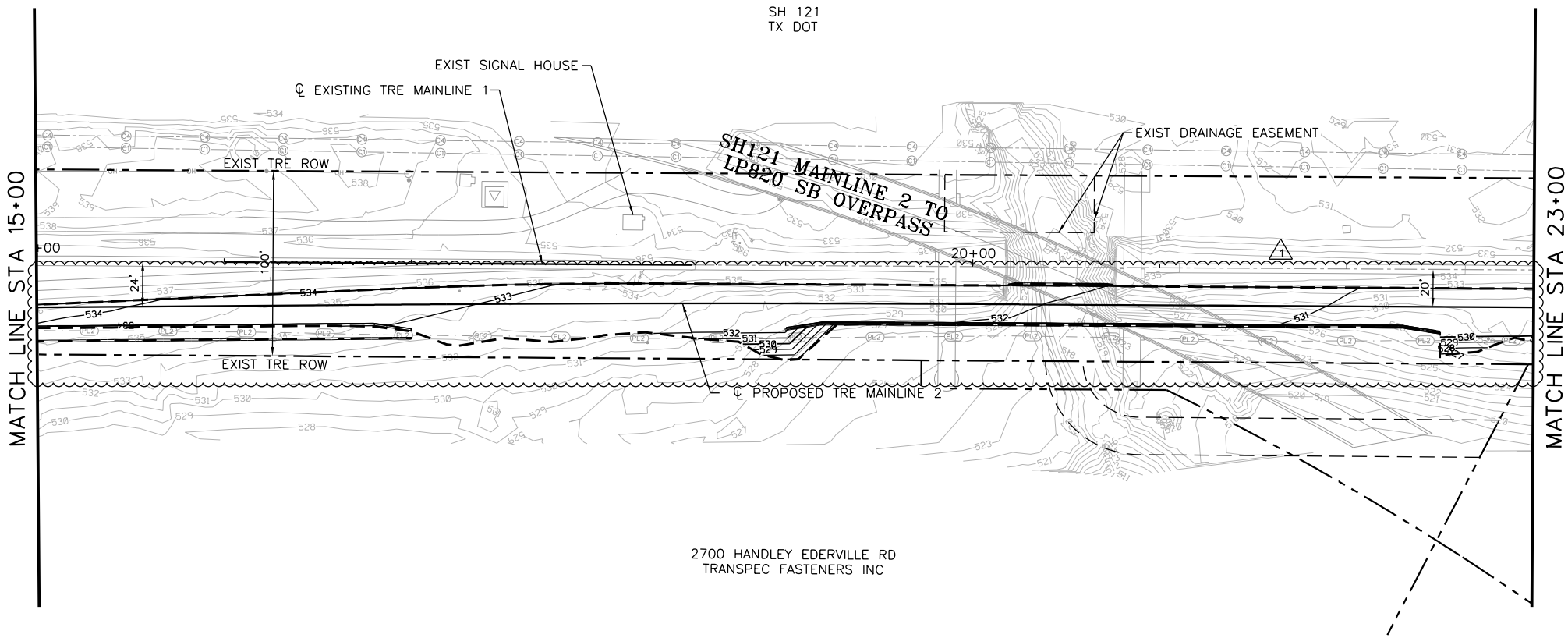
500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	H: 1"=40'
DRAWN	LAM
DESIGNED	MMZ
CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
GRADING PLAN
STA 15+00 TO STA 31+00

SHEET No. 65	DWG No. C-153	REV
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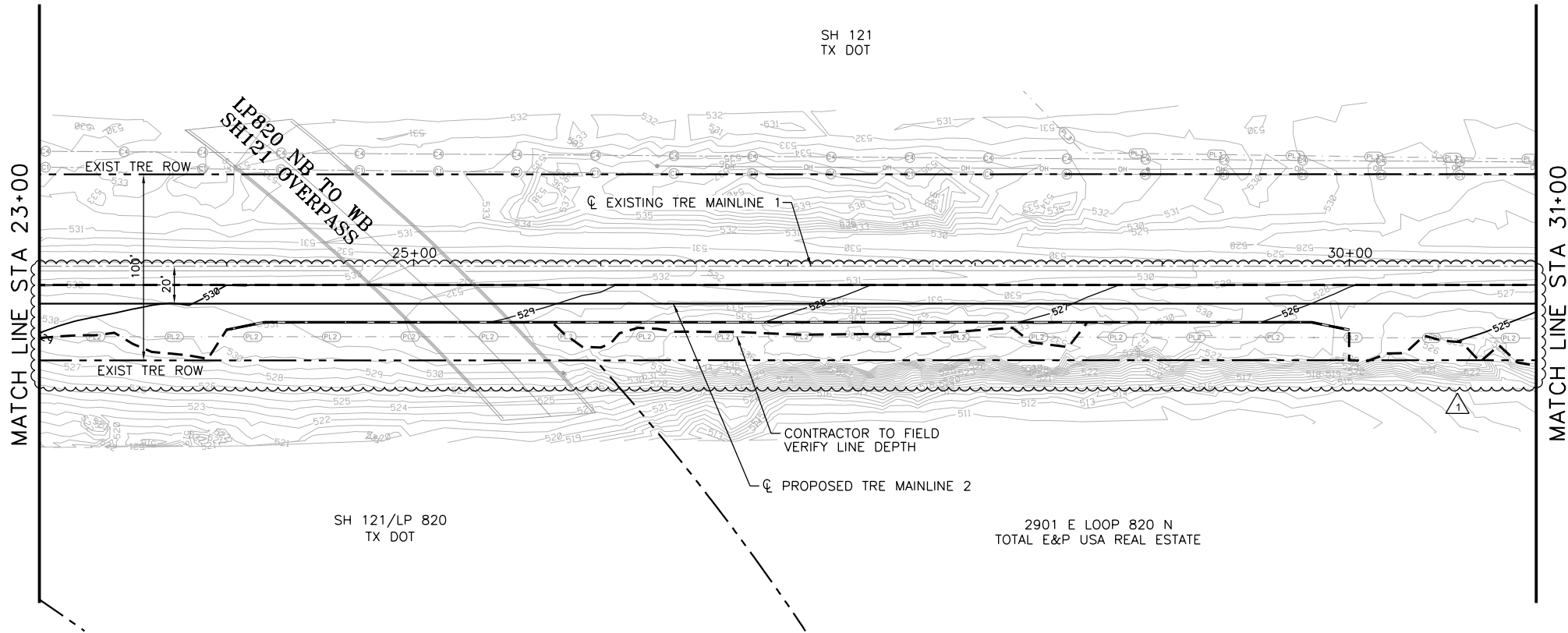


LEGEND

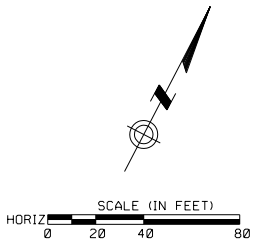
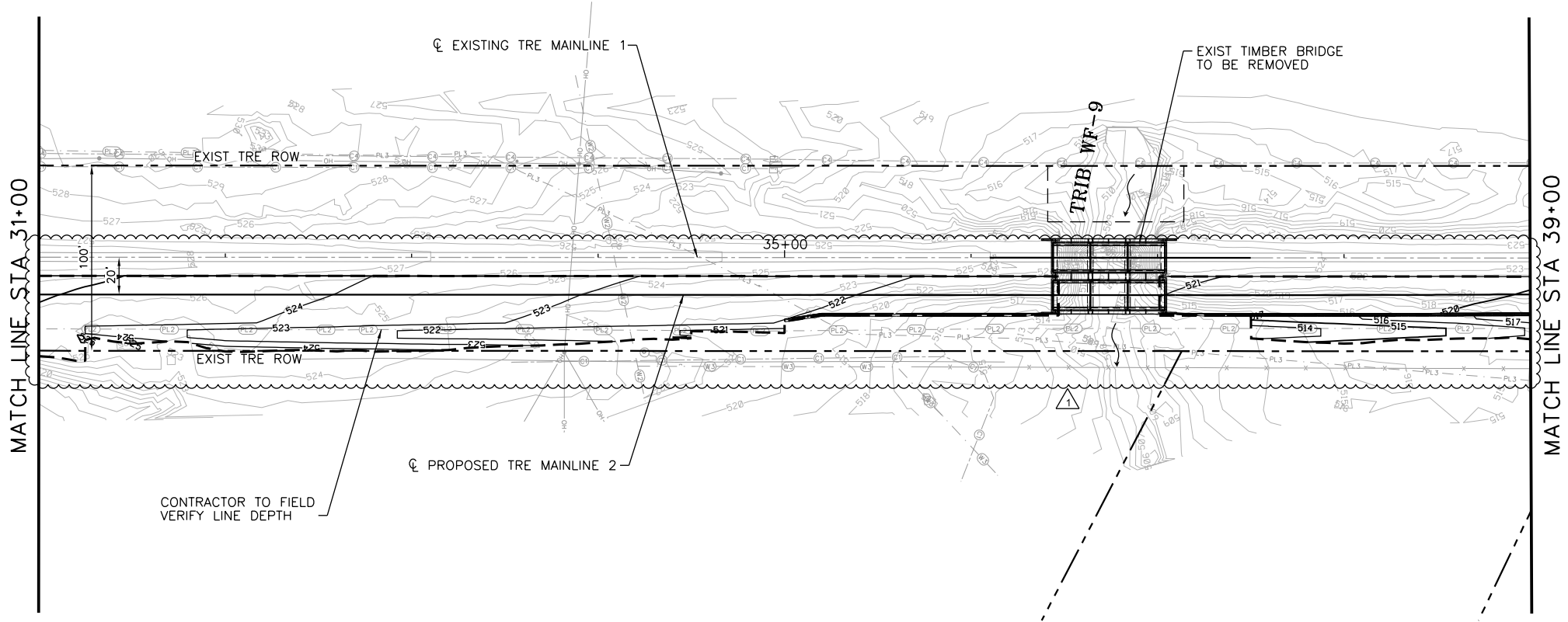
- 510 PROPOSED CONTOURS
- 509 EXISTING CONTOURS
- GRADING LIMITS
- DITCH FLOWLINE

NOTES:

- PROPOSED CONTOURS REPRESENT PROPOSED TOP OF SUBGRADE/BOTTOM OF SUBBALLAST WITHIN TRACK BED LIMITS AND PROPOSED TOP OF SURFACE OUTSIDE OF TRACK BED LIMITS.
- CONTRACTOR SHALL COORDINATE AND OBTAIN TEMPORARY ACCESS FOR GRADING ALONG THE NORTH R.O.W. FOR TRACK 1 FROM PRIVATE PROPERTY OWNER(S).



USER: kbbogard@trinitymetro.com TIME: 7:50:36 AM
SCALE: 1"=40' PENTABLE: 3PENTABLE.SS
FILE: pw:\\transystems-pw\\bentley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Rail\\C-GRD-103

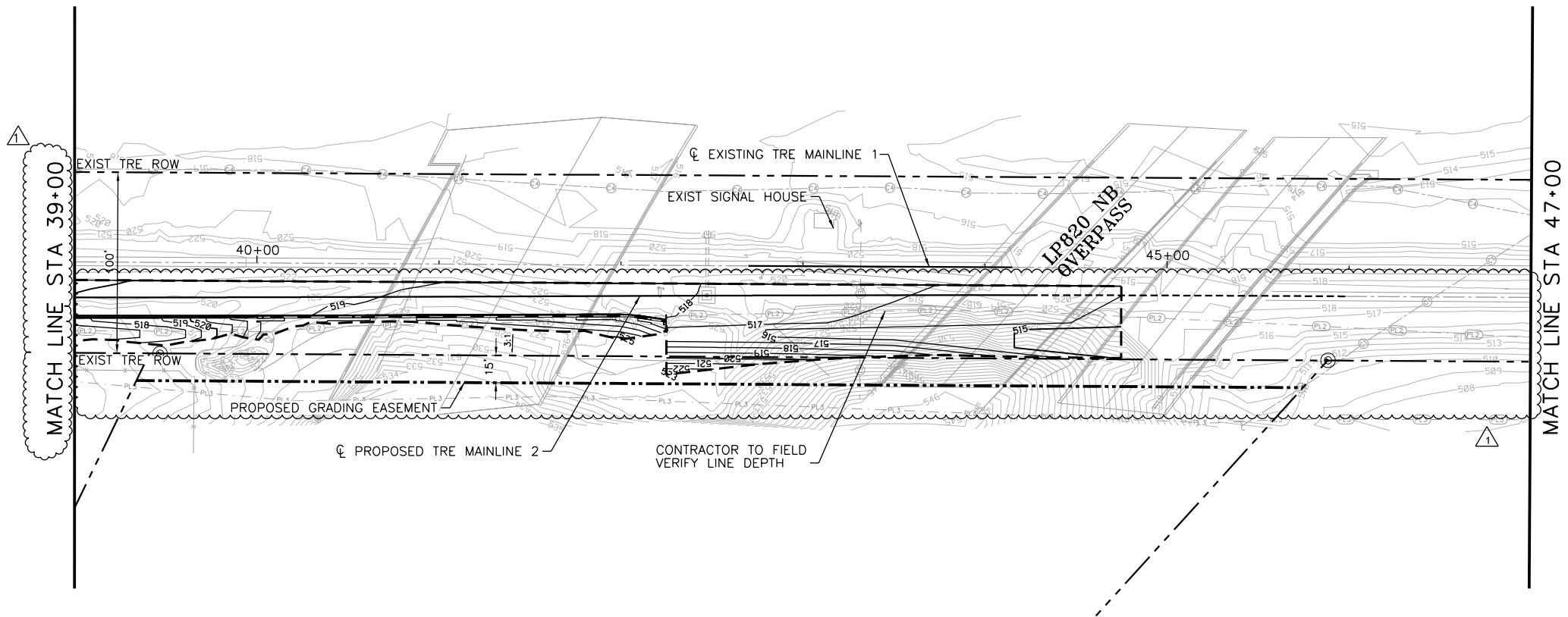


LEGEND

- 510 PROPOSED CONTOURS
- 509 EXISTING CONTOURS
- GRADING LIMITS
- DITCH FLOWLINE

NOTES:

- PROPOSED CONTOURS REPRESENT PROPOSED TOP OF SUBGRADE/BOTTOM OF SUBBALLAST WITHIN TRACK BED LIMITS AND PROPOSED TOP OF SURFACE OUTSIDE OF TRACK BED LIMITS.
- CONTRACTOR SHALL COORDINATE AND OBTAIN TEMPORARY ACCESS FOR GRADING ALONG THE NORTH R.O.W. FOR TRACK 1 FROM PRIVATE PROPERTY OWNER(S).



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△	12/19/2025	REVISED MATCH LINE STATION & CLEANED UP GRADING LABELS	KAB	KAB	BES	BES			
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP			



TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3657

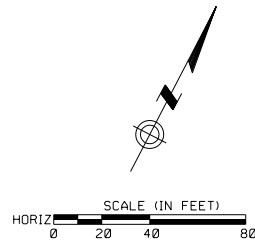
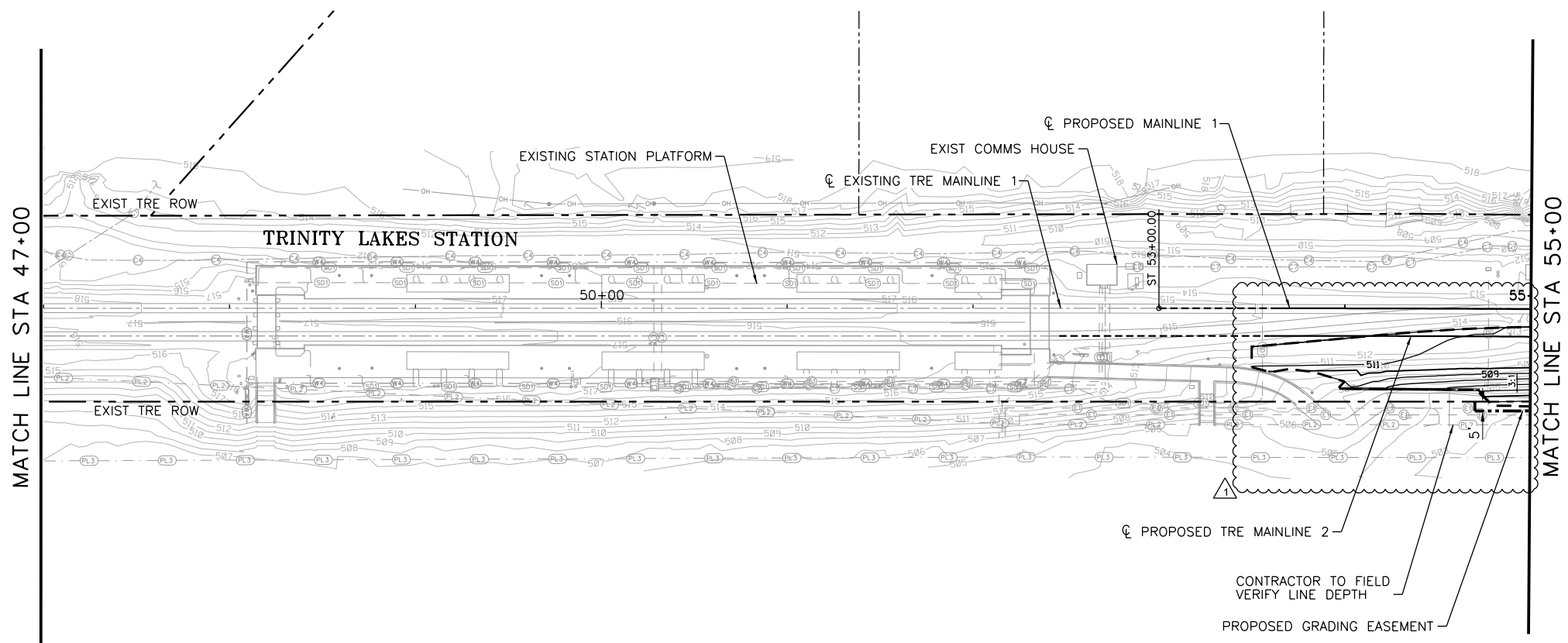


SCALE	H: 1"=40'
DRAWN	LAM
DESIGNED	MMZ
CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
GRADING PLAN
STA 31+00 TO STA 47+00

SHEET No. 66	DWG No. C-154	REV
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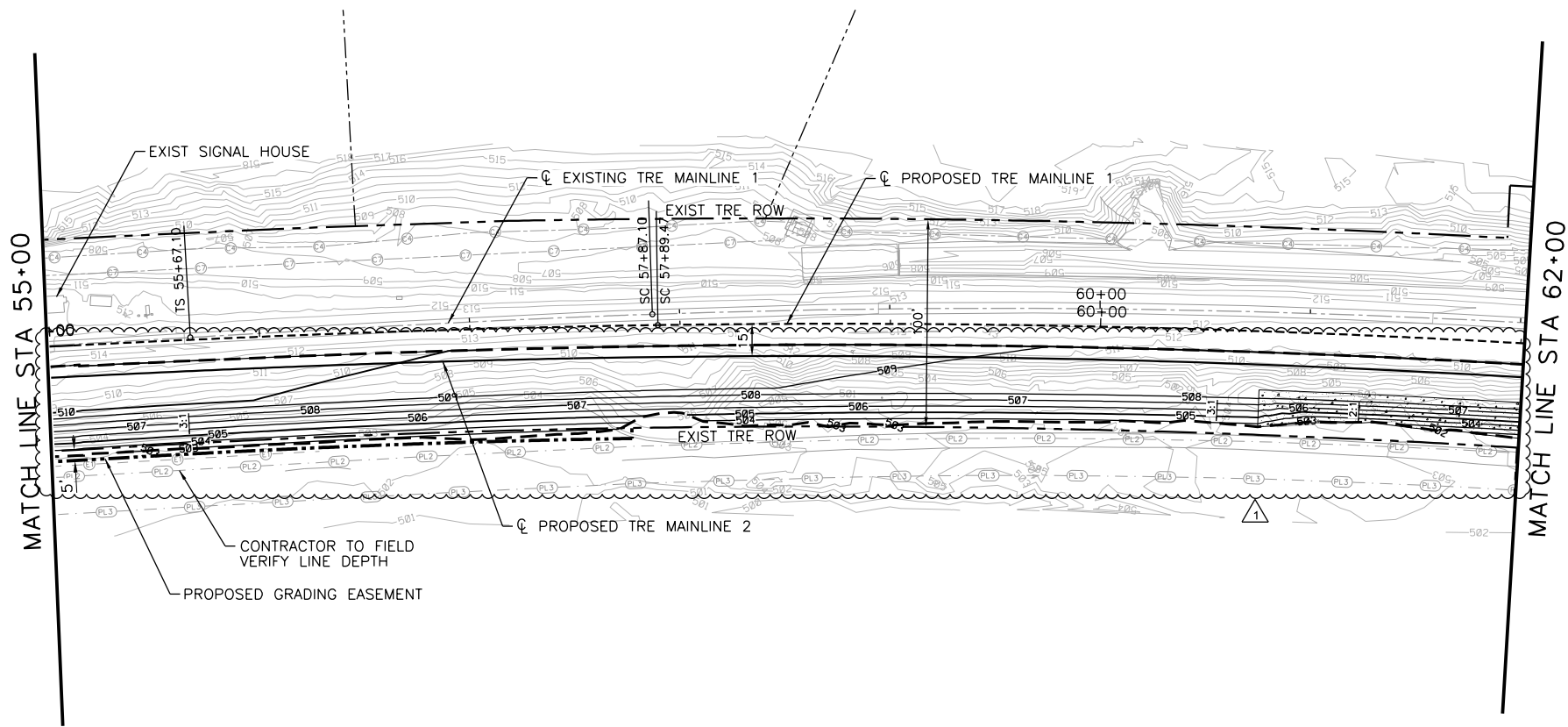
USER: k06090025 TIME: 7:51:17 AM
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FILE: pw:\\transystems-pw\\bentley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Rail\\C-GRD-104



LEGEND

- 510 PROPOSED CONTOURS
- 509 EXISTING CONTOURS
- GRADING LIMITS
- >->- DITCH FLOWLINE

- NOTES:
- PROPOSED CONTOURS REPRESENT PROPOSED TOP OF SUBGRADE/BOTTOM OF SUBBALLAST WITHIN TRACK BED LIMITS AND PROPOSED TOP OF SURFACE OUTSIDE OF TRACK BED LIMITS.
 - CONTRACTOR SHALL COORDINATE AND OBTAIN TEMPORARY ACCESS FOR GRADING ALONG THE NORTH R.O.W. FOR TRACK 1 FROM PRIVATE PROPERTY OWNER(S).



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△	12/19/2025	CLEANED UP GRADING LABELS	KAB	KAB	BES	BES	
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP	



TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	H: 1"=40'
DRAWN	LAM
DESIGNED	MMZ
CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
GRADING PLAN
STA 47+00 TO STA 62+00

SHEET No. 67	DWG No. C-155	REV
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USER: k06090025 TIME: 7:51:56 AM
SCALE: \$SCAL\$ SHORT \$PENTABLE\$
FILE: pw:\\transystems-pw\\bentley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Rail\\C-GRD-105

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△	12/19/2025	CLEANED UP GRADING LABELS	KAB	KAB	BES	BES			
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP			



TRANSYSTEMS

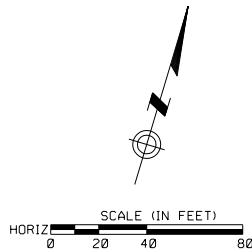
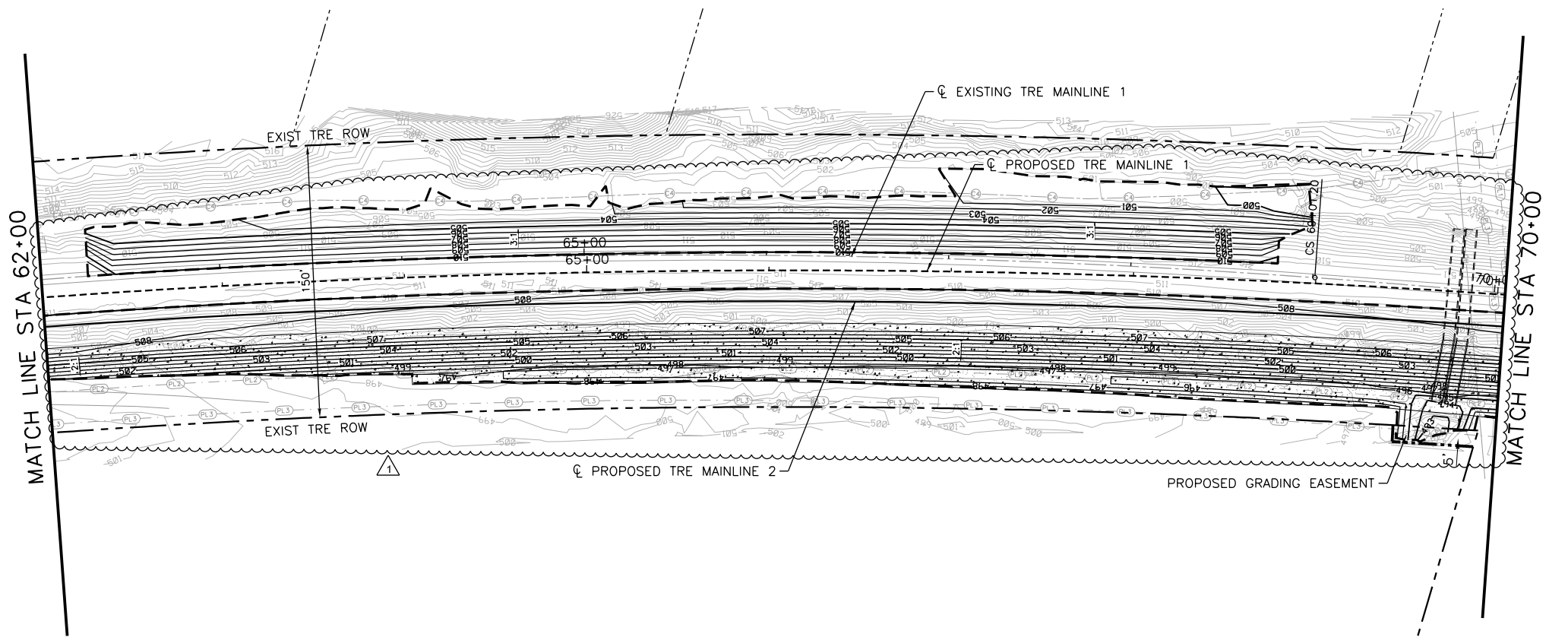
500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	H: 1"=40'
DRAWN	LAM
DESIGNED	MMZ
CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
GRADING PLAN
STA 62+00 TO STA 78+00

SHEET No. 68	DWG No. C-156	REV
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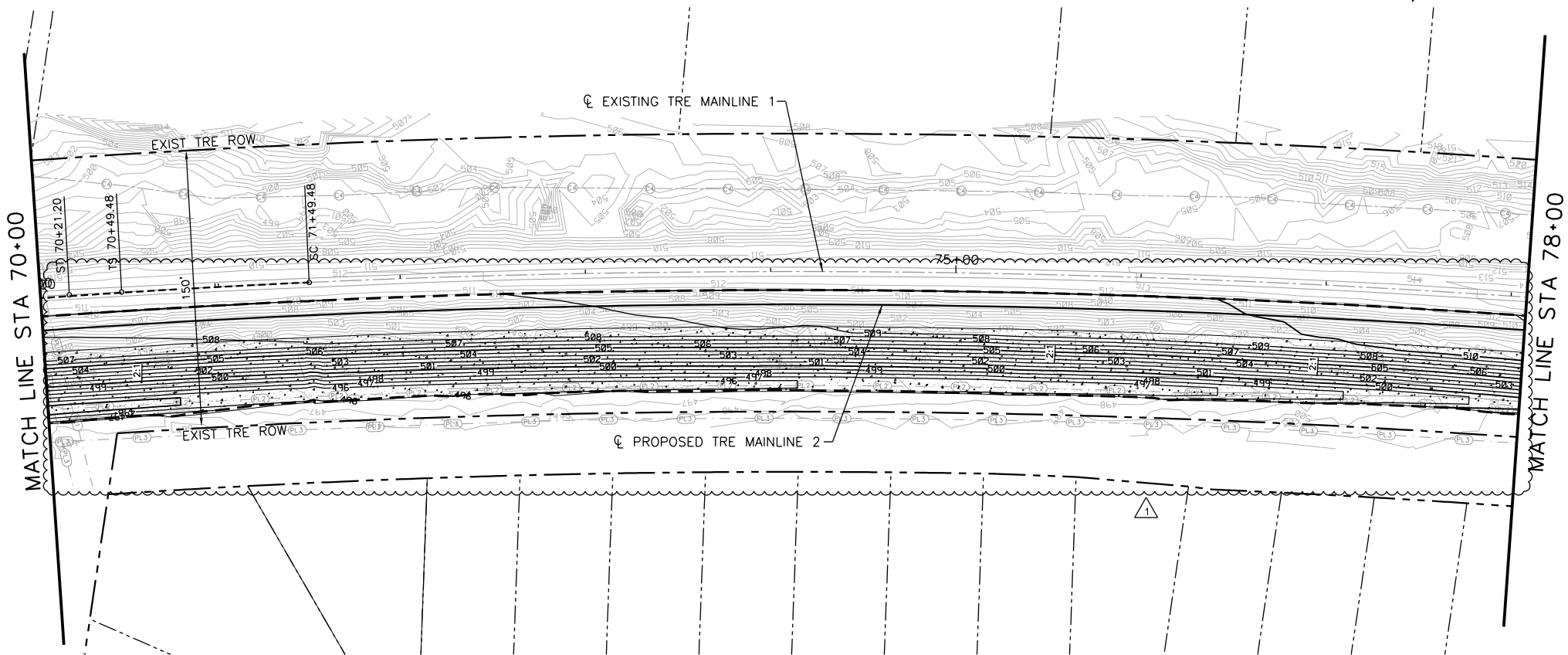


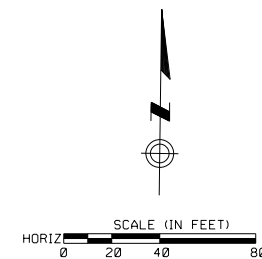
LEGEND

- 510 PROPOSED CONTOURS
- 509 EXISTING CONTOURS
- GRADING LIMITS
- >->- DITCH FLOWLINE

NOTES:

- PROPOSED CONTOURS REPRESENT PROPOSED TOP OF SUBGRADE/BOTTOM OF SUBBALLAST WITHIN TRACK BED LIMITS AND PROPOSED TOP OF SURFACE OUTSIDE OF TRACK BED LIMITS.
- CONTRACTOR SHALL COORDINATE AND OBTAIN TEMPORARY ACCESS FOR GRADING ALONG THE NORTH R.O.W. FOR TRACK 1 FROM PRIVATE PROPERTY OWNER(S).





	510	PROPOSED CONTOURS
	509	EXISTING CONTOURS
		GRADING LIMITS
		DITCH FLOWLINE

1. PROPOSED CONTOURS REPRESENT PROPOSED TOP OF SUBGRADE/BOTTOM OF SUBBALLAST WITHIN TRACK BED LIMITS AND PROPOSED TOP OF SURFACE OUTSIDE OF TRACK BED LIMITS.
2. CONTRACTOR SHALL COORDINATE AND OBTAIN TEMPORARY ACCESS FOR GRADING ALONG THE NORTH R.O.W. FOR TRACK 1 FROM PRIVATE PROPERTY OWNER(S).



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△	12/19/2025	CLEANED UP GRADING LABELS	KAB	KAB	BES BES
REV	DATE	DESCRIPTION	BY	ENG	CHK APP



TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	H: 1"=40'
DRAWN	LAM
DESIGNED	MMZ
CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
GRADING PLAN
STA 78+00 TO STA 94+00

SHEET No.	DWG No.	RE
69	C-157	

USER: kaboggon TIME: 7:52:36 AM
DATE: 12/19/2025 SCALE: \$\$\$CALESHORT\$ PENTABLE: \$PENTBL\$
FILE: pw:\\transystems-pw.bentley.com:transyscorp-pw1-hosted\Documents\Projects-2024\FW202_202240018\Rail\C-GRD-106

USER: k0b0g0n025 TIME: 7:53:15 AM
SCALE: \$SCAL\$ SHORT\$ PENTABLE\$ PENTABLE\$
FILE: pw:\\transysystems-pw\\benley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Rail\\C-GRD-107

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△	12/19/2025	CLEANED UP GRADING LABELS	KAB	KAB	BES	BES			
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP			



TRANSYSTEMS

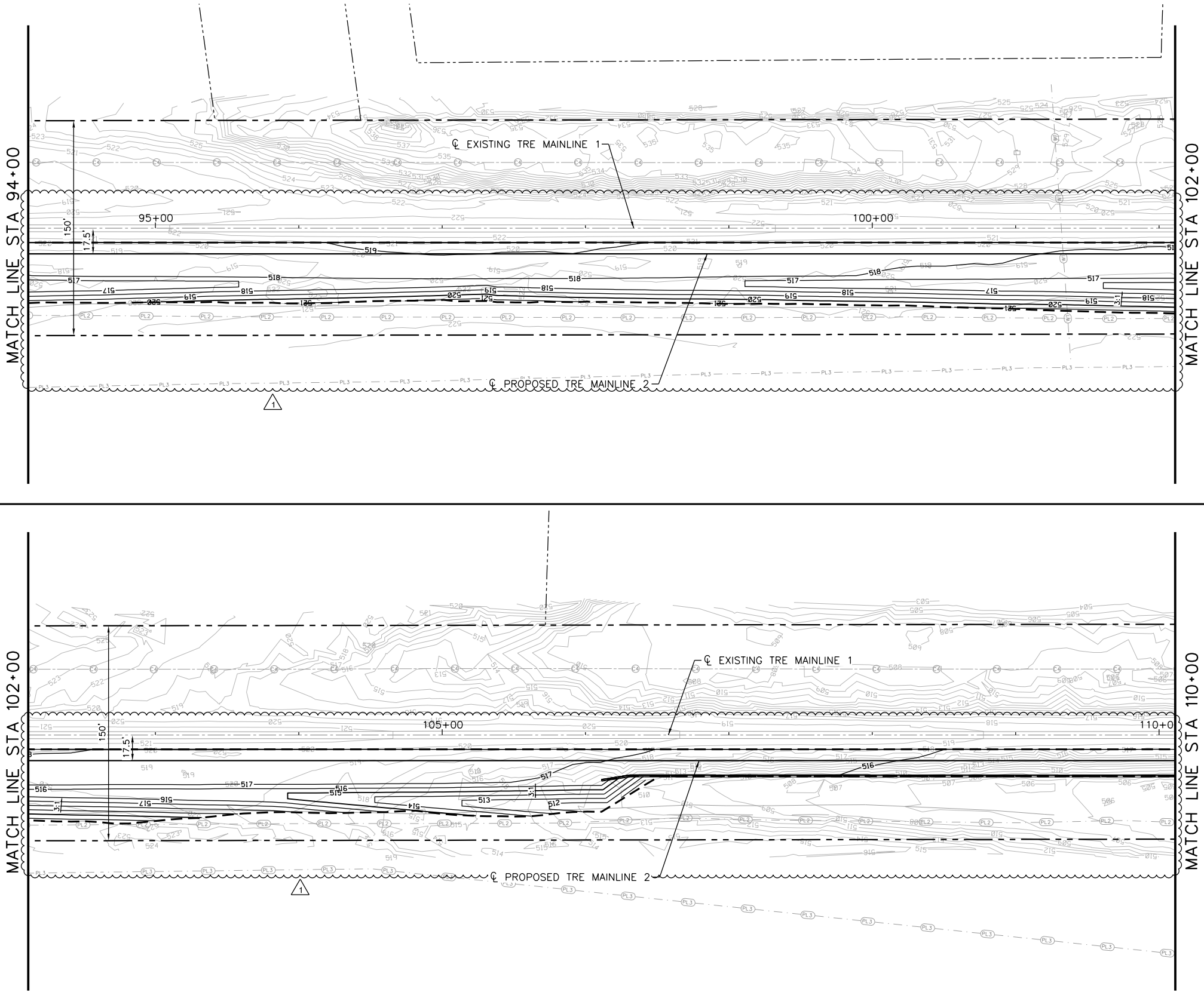
500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	H: 1"=40'
DRAWN	LAM
DESIGNED	MMZ
CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
GRADING PLAN
STA 94+00 TO STA 110+00

SHEET No. 70	DWG No. C-158	REV
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LEGEND

- 510 PROPOSED CONTOURS
- 509 EXISTING CONTOURS
- GRADING LIMITS
- DITCH FLOWLINE

NOTES:

- PROPOSED CONTOURS REPRESENT PROPOSED TOP OF SUBGRADE/BOTTOM OF SUBBALLAST WITHIN TRACK BED LIMITS AND PROPOSED TOP OF SURFACE OUTSIDE OF TRACK BED LIMITS.
- CONTRACTOR SHALL COORDINATE AND OBTAIN TEMPORARY ACCESS FOR GRADING ALONG THE NORTH R.O.W. FOR TRACK 1 FROM PRIVATE PROPERTY OWNER(S).

USER: k0b0g0n05 TIME: 7:53:58 AM
SCALE: \$SCAL\$ SHORT \$PENTABLE\$ PENTABLE\$
FILE: pw:\\transystems-pw\\benley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Rail\\C-GRD-108

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△	12/19/2025	CLEANED UP GRADING LABELS	KAB	KAB	BES	BES			
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP			



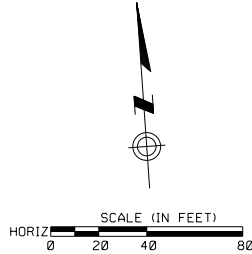
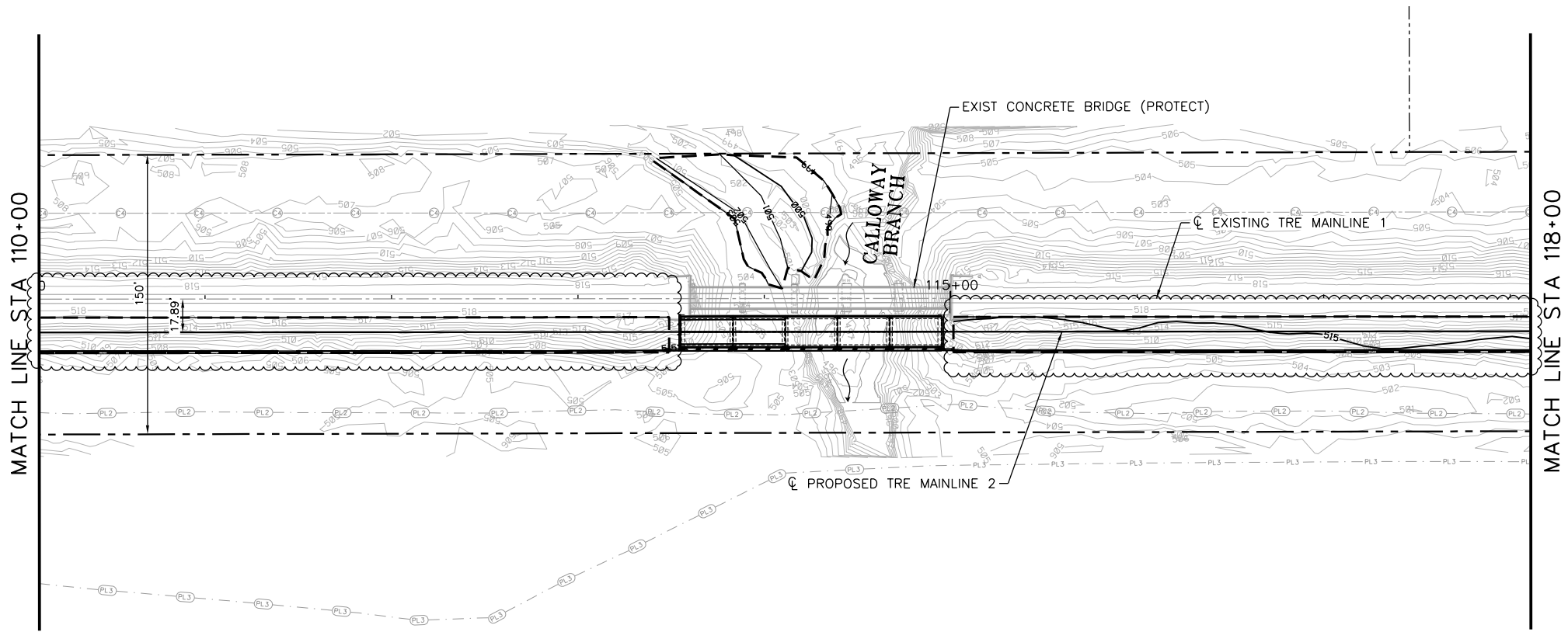
TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	H: 1"=40'
DRAWN	LAM
DESIGNED	MMZ
CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO DOUBLE TRACKING GRADING PLAN STA 110+00 TO STA 126+00		
SHEET No. 71	DWG No. C-159	REV

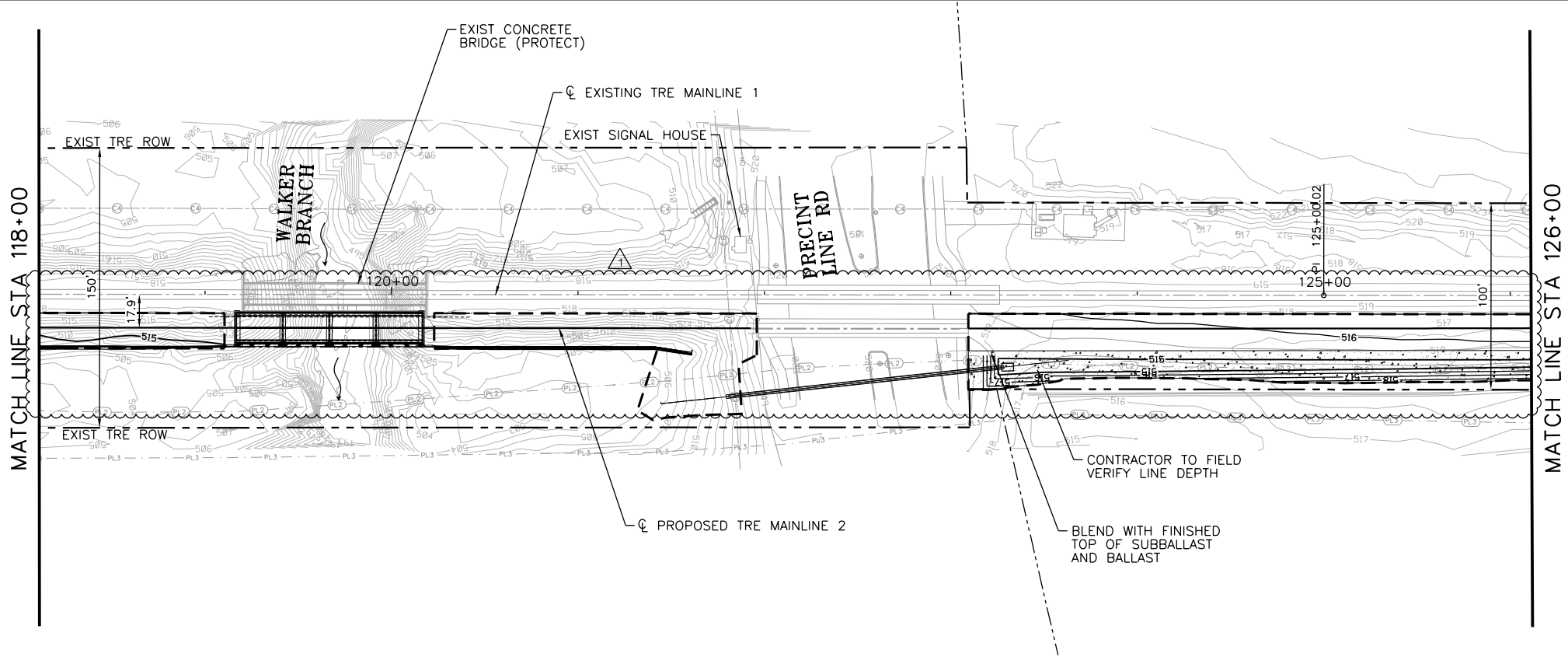


LEGEND

- 510 PROPOSED CONTOURS
- 509 EXISTING CONTOURS
- GRADING LIMITS
- >->- DITCH FLOWLINE

NOTES:

- PROPOSED CONTOURS REPRESENT PROPOSED TOP OF SUBGRADE/BOTTOM OF SUBBALLAST WITHIN TRACK BED LIMITS AND PROPOSED TOP OF SURFACE OUTSIDE OF TRACK BED LIMITS.
- CONTRACTOR SHALL COORDINATE AND OBTAIN TEMPORARY ACCESS FOR GRADING ALONG THE NORTH R.O.W. FOR TRACK 1 FROM PRIVATE PROPERTY OWNER(S).



USER: kbbg00025 TIME: 7:54:47 AM
SCALE: \$SCAL\$ SHORT \$PENTABLE\$ FILE: pw:\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Rail\\C-GRD-109

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△	12/19/2025	CLEANED UP GRADING LABELS	KAB	KAB	BES	BES			
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP			

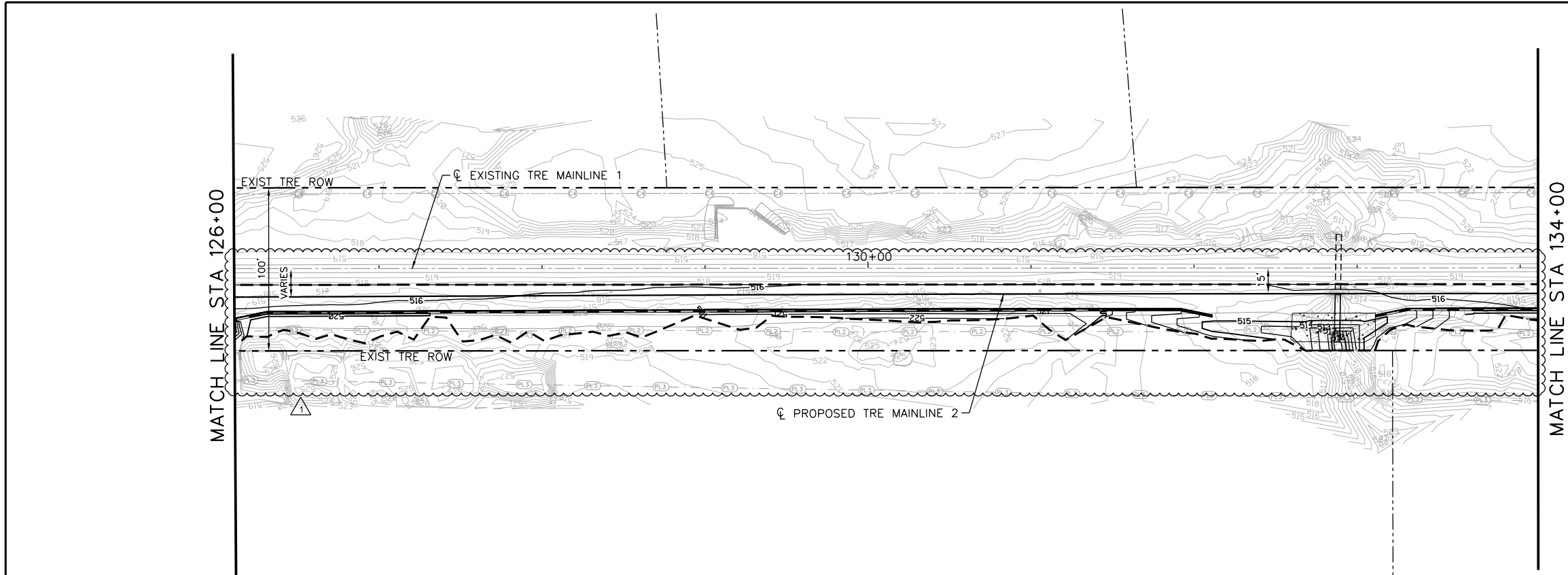
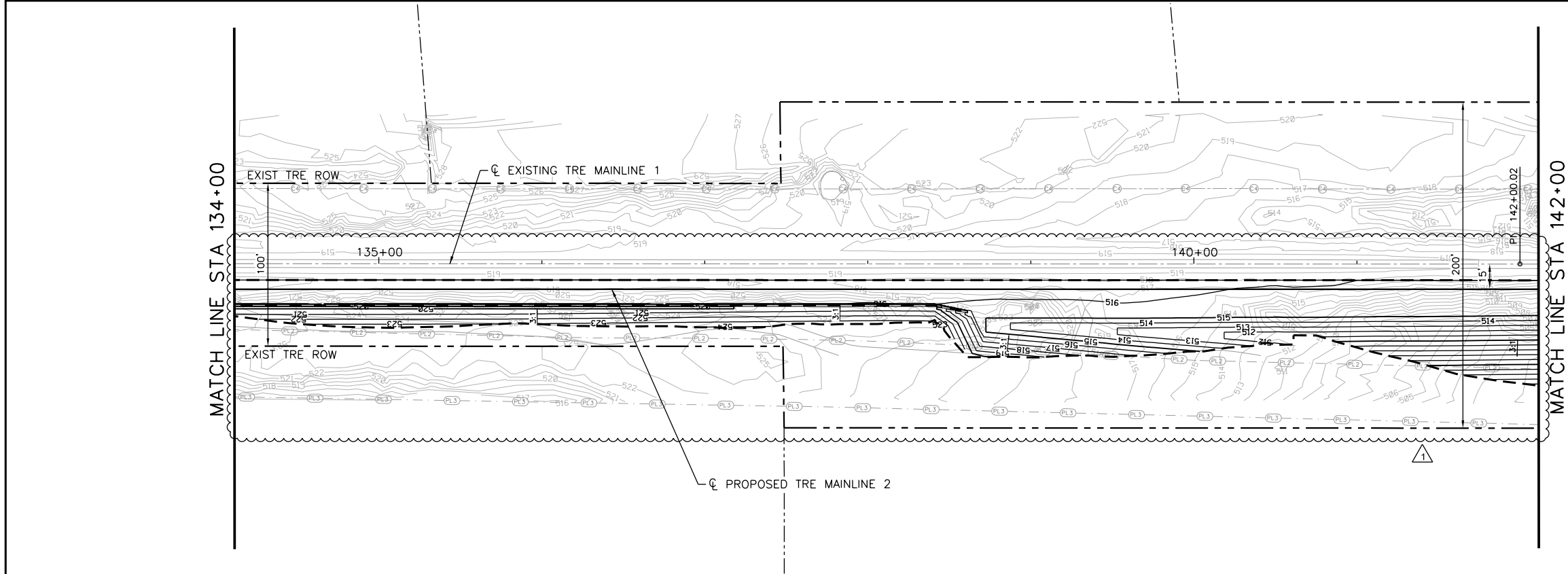


TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3657

TRINITY  **METRO**SM

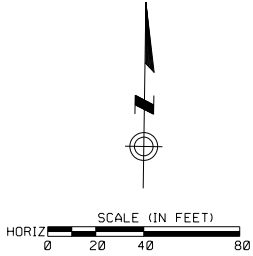
SCALE	H: 1"=40'	TRINITY METRO DOUBLE TRACKING GRADING PLAN STA 126+00 TO STA 142+00		
DRAWN	LAM			
DESIGNED	MMZ			
CHECKED	BES			
IN CHARGE	MRH			
DATE	12/19/2025	SHEET No. 72	DWG No. C-160	REV



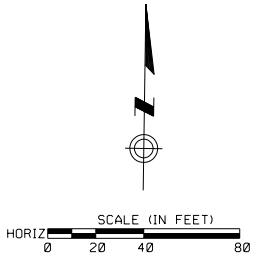
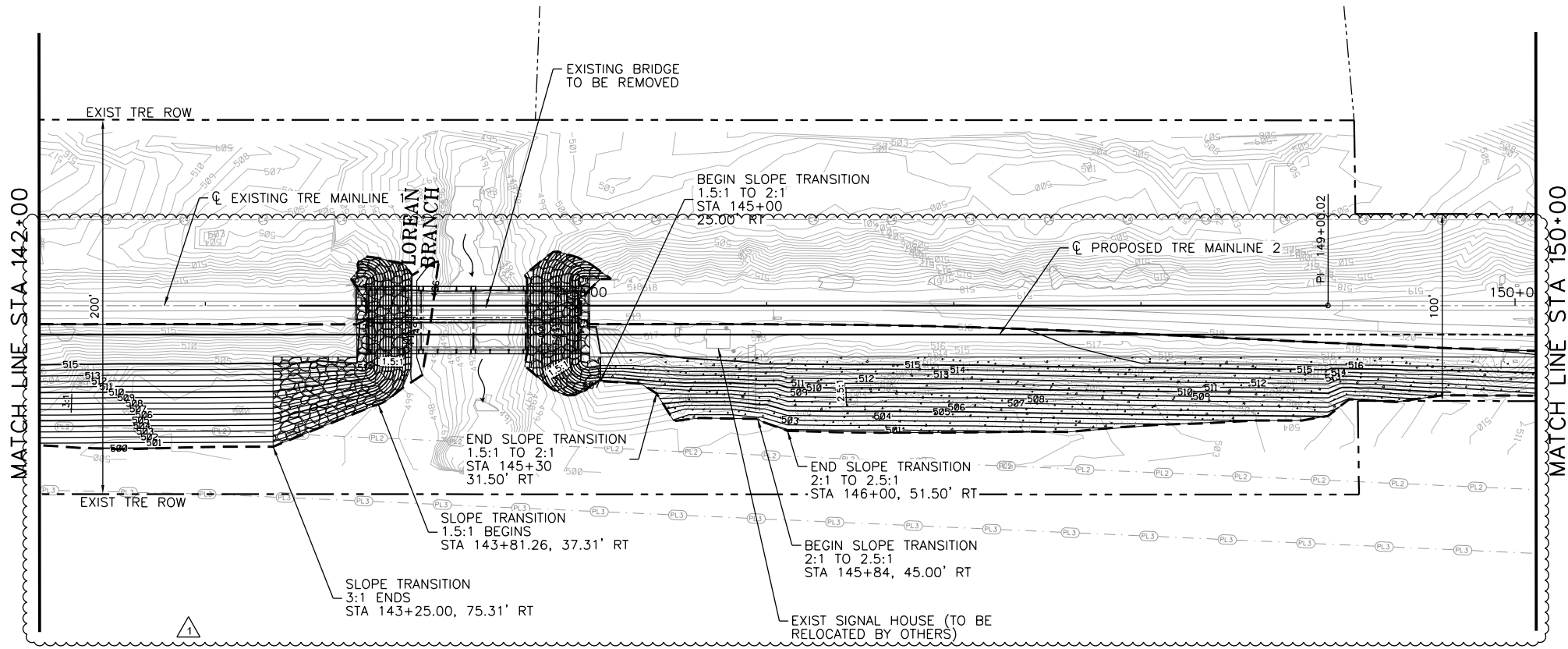
- NOTES:
1. PROPOSED CONTOURS REPRESENT PROPOSED TOP OF SUBGRADE/BOTTOM OF SUBBALLAST WITHIN TRACK BED LIMITS AND PROPOSED TOP OF SURFACE OUTSIDE OF TRACK BED LIMITS.
 2. CONTRACTOR SHALL COORDINATE AND OBTAIN TEMPORARY ACCESS FOR GRADING ALONG THE NORTH R.O.W. FOR TRACK 1 FROM PRIVATE PROPERTY OWNER(S).

LEGEND

- 510 PROPOSED CONTOURS
- 509 EXISTING CONTOURS
- GRADING LIMITS
- DITCH FLOWLINE



USER: kbbogdan25 TIME: 7:55:30 AM
SCALE: 1"=40' PENTABLE
FILE: pw:\\transysystems-pw\\bentley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Rail\\C-GRD-10

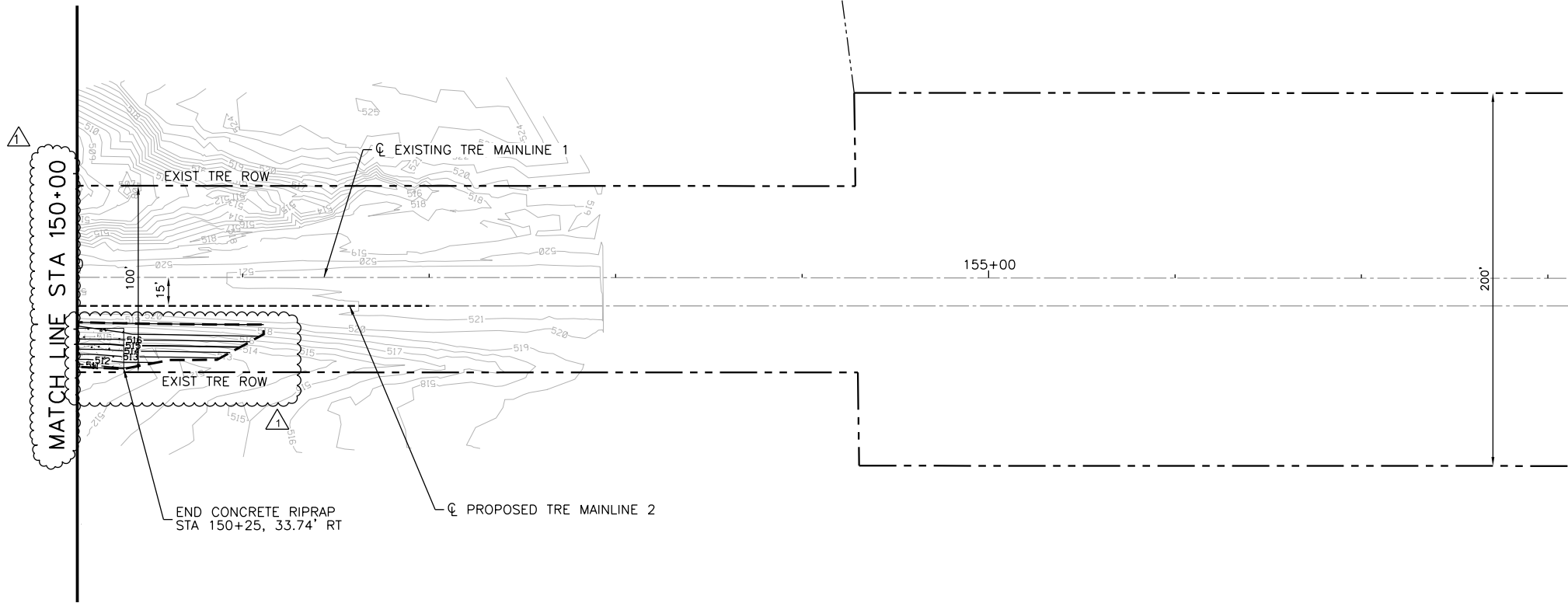


LEGEND

- 510 PROPOSED CONTOURS
- 509 EXISTING CONTOURS
- GRADING LIMITS
- > DITCH FLOWLINE

NOTES:

- PROPOSED CONTOURS REPRESENT PROPOSED TOP OF SUBGRADE/BOTTOM OF SUBBALLAST WITHIN TRACK BED LIMITS AND PROPOSED TOP OF SURFACE OUTSIDE OF TRACK BED LIMITS.
- CONTRACTOR SHALL COORDINATE AND OBTAIN TEMPORARY ACCESS FOR GRADING ALONG THE NORTH R.O.W. FOR TRACK 1 FROM PRIVATE PROPERTY OWNER(S).



REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
1	12/19/2025	REVISED MATCH LINE STATION, REMOVED SIGNAL PAD & STAIRS, CLEANED UP GRADING LABELS	KAB	KAB	BES	BES



TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	H: 1"=40'
DRAWN	LAM
DESIGNED	MMZ
CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
GRADING PLAN
STA 142+00 TO STA 158+00

SHEET No. 73	DWG No. C-161	REV
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USER: kdobson025 TIME: 11/12/27 AM
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FILE: pw:\\transystems-pw\\bentley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018_Hydraulics\\Sheet\\Files\\C-DAM-203

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△	12/19/2025	REVISED MATCH LINE STATION	KAB	KAB	BES	BES			
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP			



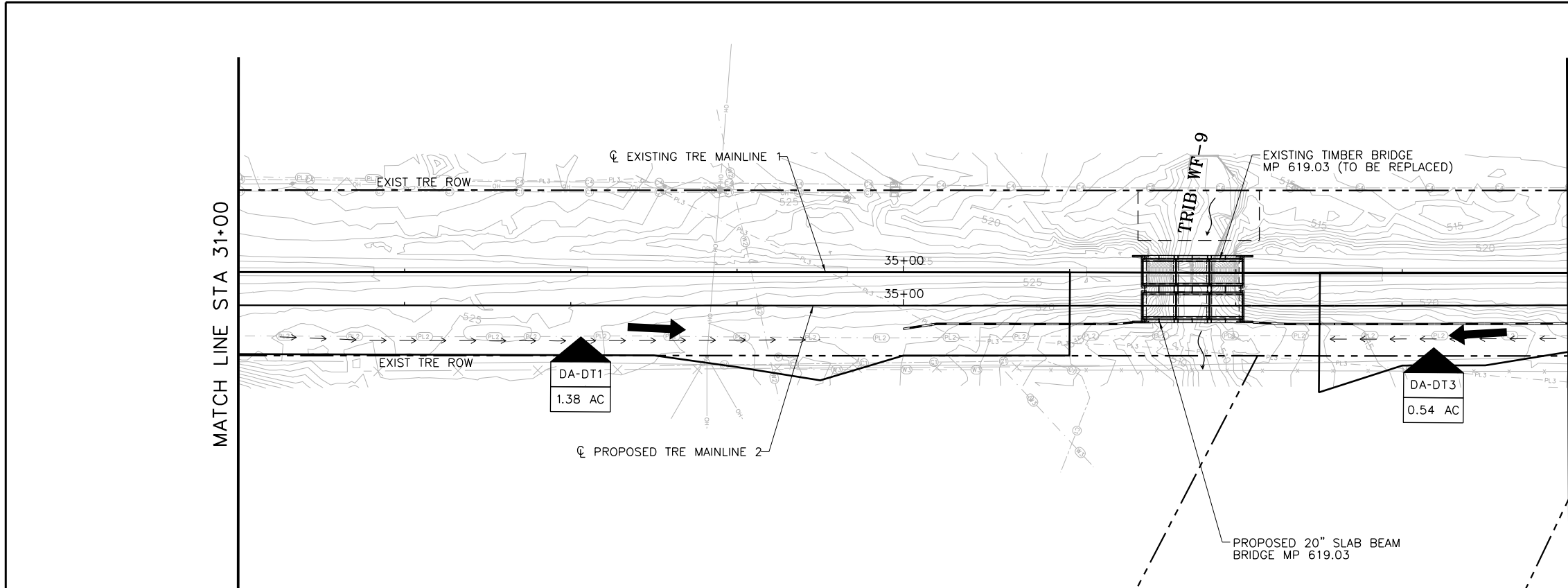
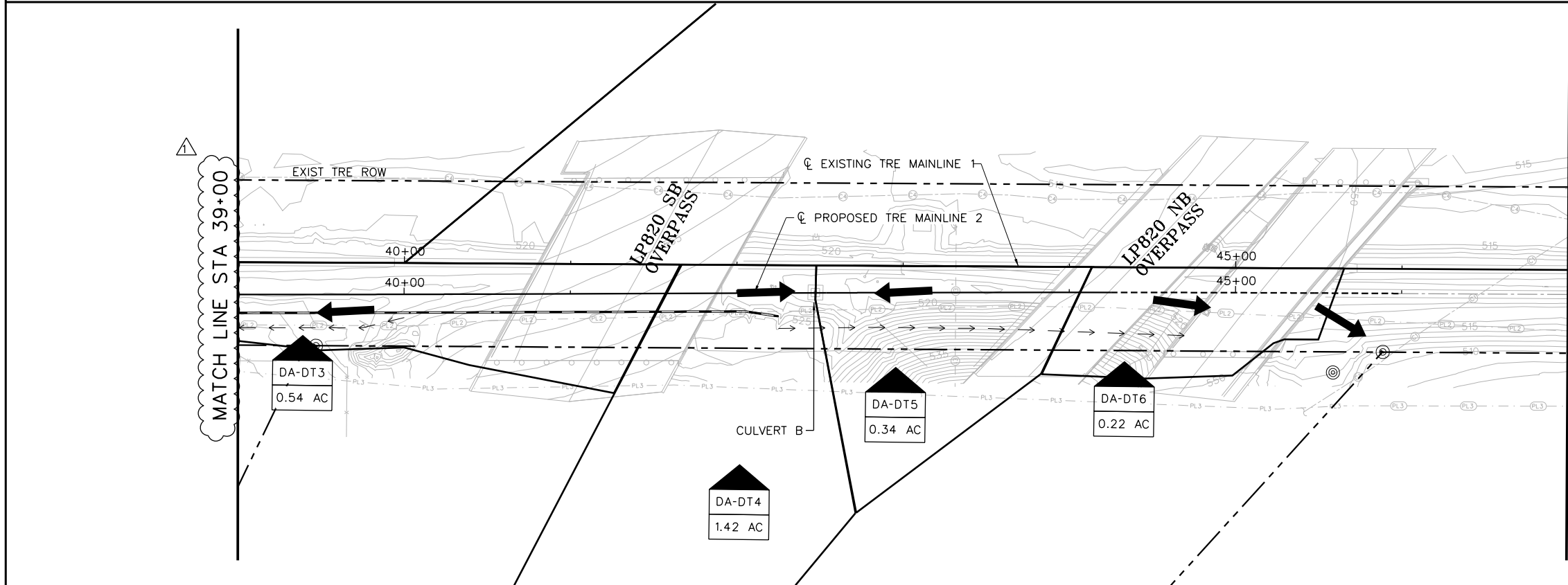
TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557

TRINITY METRO

SM

SCALE	H: 1"=40'	TRINITY METRO DOUBLE TRACKING DRAINAGE AREAS STA 31+00 TO STA 47+00		
DRAWN	LAM			
DESIGNED	MMZ			
CHECKED	BES			
IN CHARGE	MRH			
DATE	12/19/2025			
		SHEET No. 77	DWG No. C-165	REV



LEGEND

PROP FLOW DIRECTION

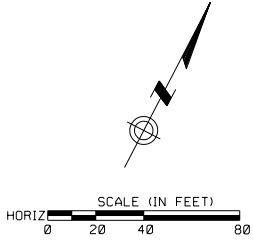
EXIST FLOW DIRECTION

PROP DITCH FLOWLINE

EXIST CONTOUR

XX-XX
X.XX

DRAINAGE AREA ID
DRAINAGE AREA (ACRE)



USER: kbbogdanos TIME: 11/13/25, AM
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FILE: pw:\\transystems-pw\\bentley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018_Hydraulics\\Sheet\\Files\\C-DAM-210

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REV	DATE	DESCRIPTION	BY	ENG	CHK	APP	



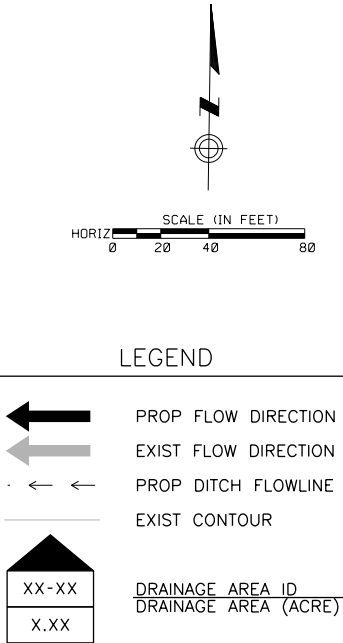
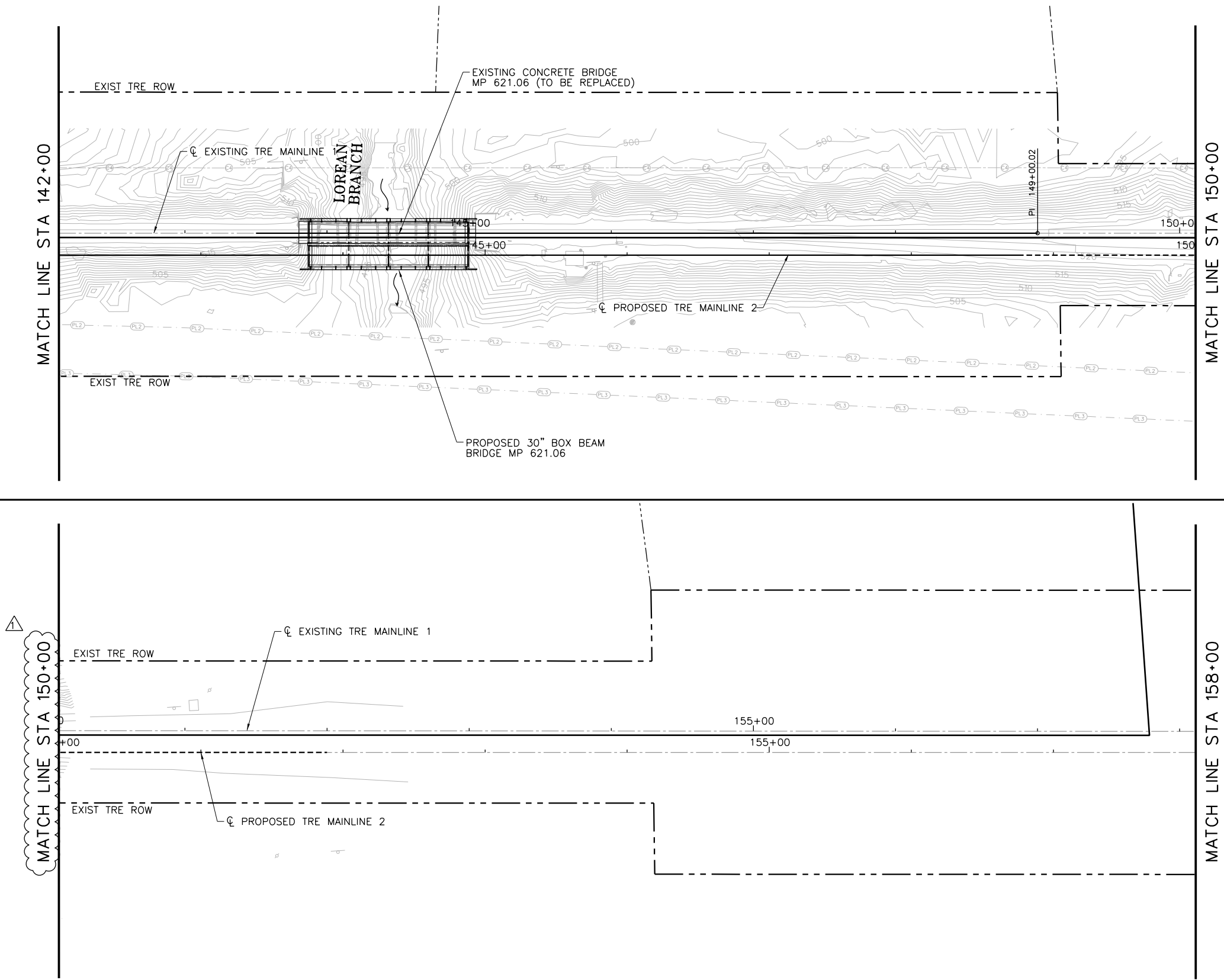
TRANSYSTEMS

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FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	H: 1"=40'
DRAWN	LAM
DESIGNED	MMZ
CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO DOUBLE TRACKING DRAINAGE AREAS STA 142+00 TO STA 158+00		
SHEET No. 84	DWG No. C-172	REV



USER: kabbagap025 TIME: 10:58:12 AM
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FILE: pw:\\transysystems-pw\\bentley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Rail\\C-SGN-110

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△	12/19/2025	REVISED MATCH LINE STATION	KAB	KAB	BES	BES			
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP			



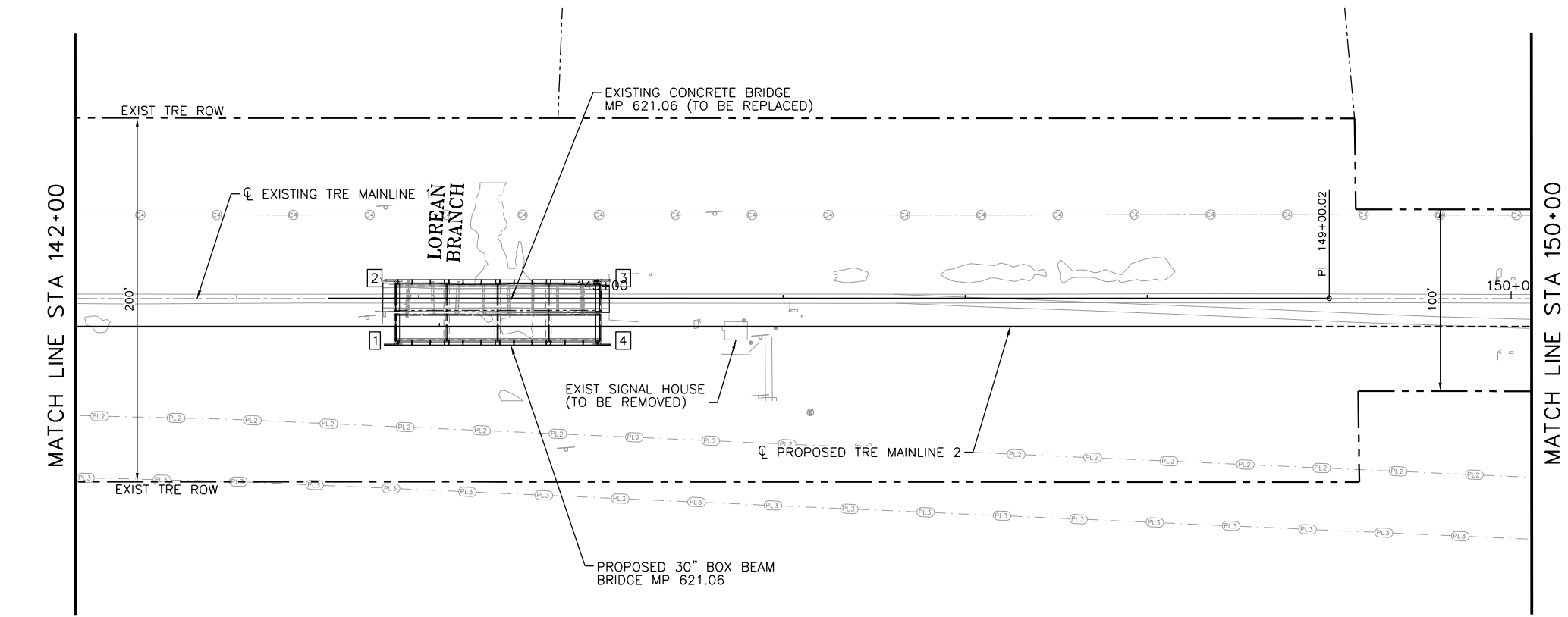
TRANSYSTEMS

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FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



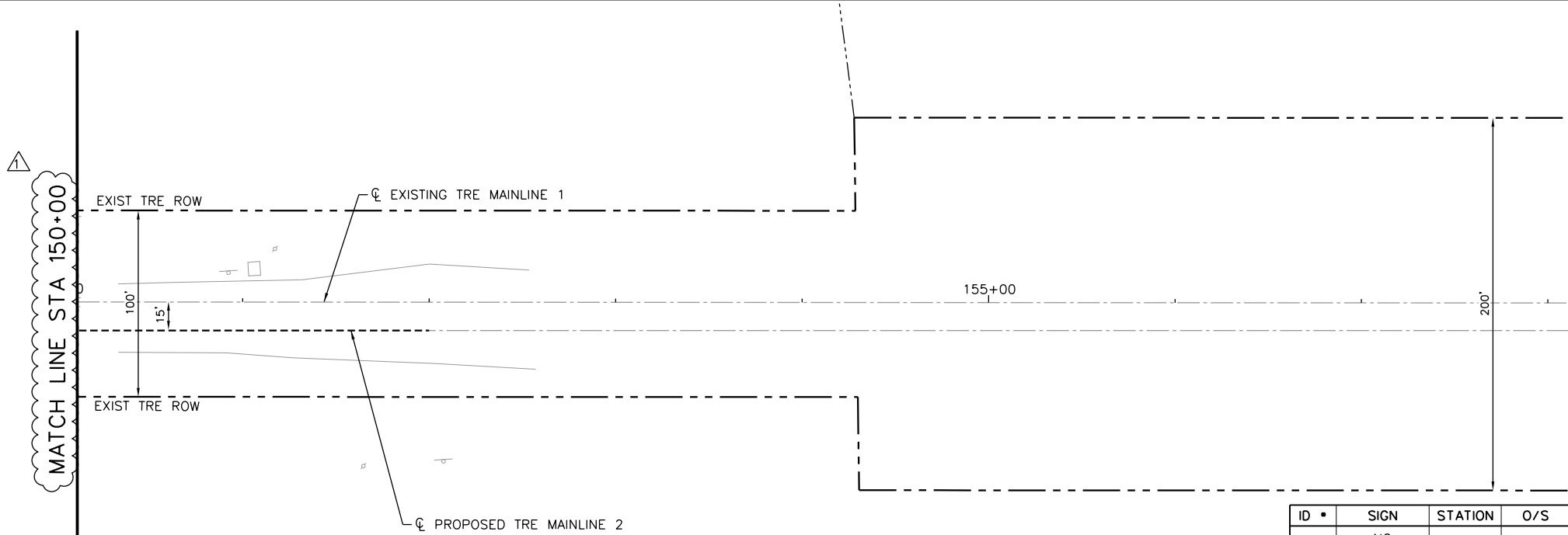
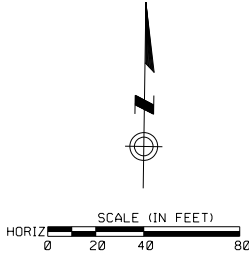
SCALE	H: 1"=40'
DRAWN	LAM
DESIGNED	MMZ
CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO DOUBLE TRACKING SIGNAGE PLAN STA 142+00 TO STA 158+00		
SHEET No. 103	DWG No. C-191	REV

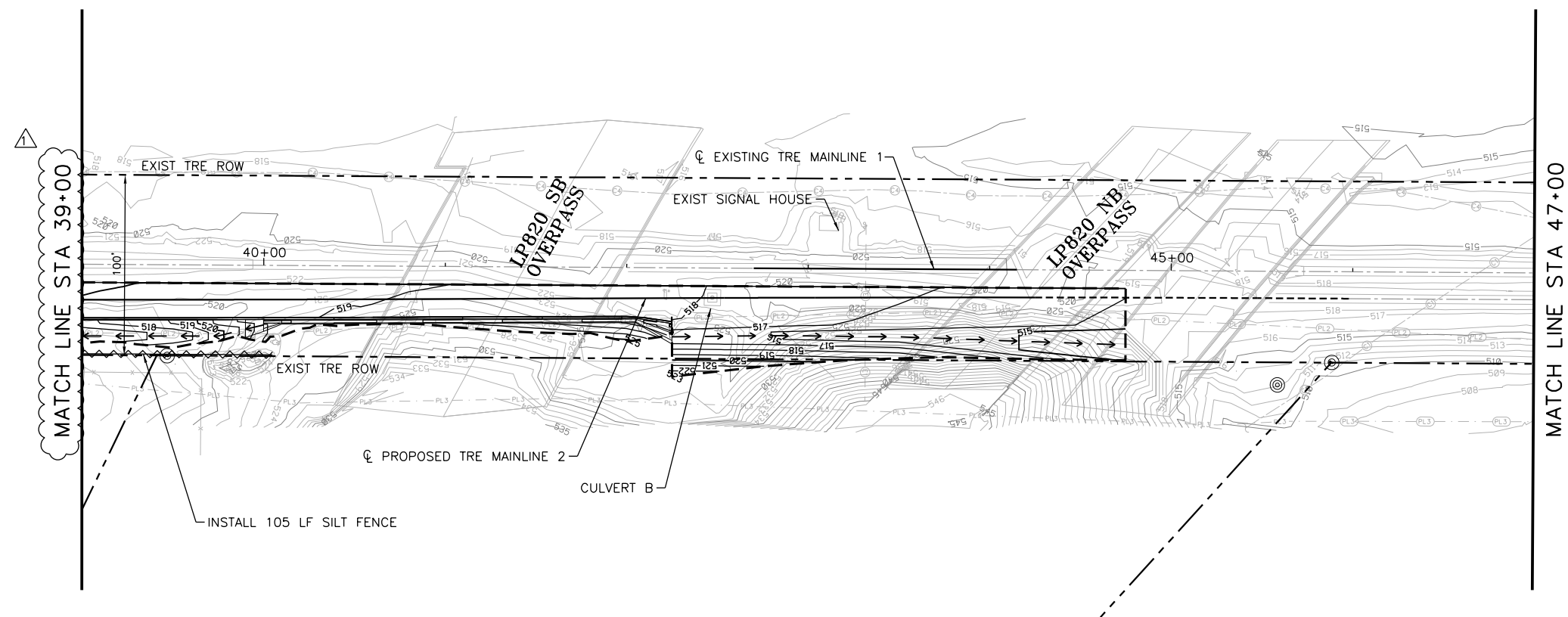
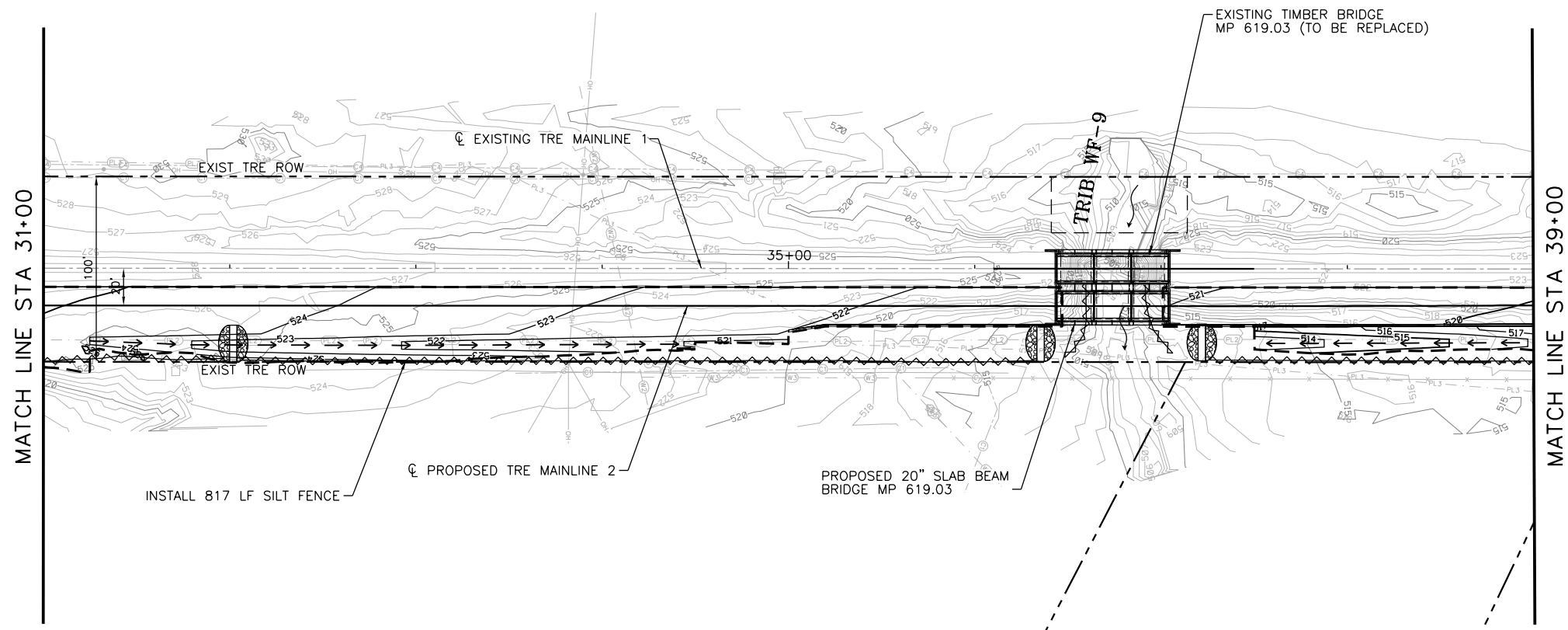


- NOTES:
- CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO SIGN INSTALLATION.
 - REFER TO DETAIL SHEET NUMBERS LISTED IN THE TABLE BELOW FOR ADDITIONAL NOTES AND DETAILS.
 - REFER TO SHEET \$C-SGN-101A FOR SIGNAGE INFORMATION.
 - CONTRACTOR SHALL MATCH "NO TRESPASSING" SIGN PLAQUES FOUND ALONG TRE CORRIDOR.

- # PERMANENT SIGNAGE / LOCATION
- ◇ # MILE POST SIGNAGE / LOCATION



ID	SIGN	STATION	O/S	SIGN DESC.	FASTENER/MOUNTING TYPE	ALIGNMENT	DETAIL SHEET NO.	BNSF DWG NO.
1	NO TRESPASSING	143+60.55	14.00 RT		FASTEN TO CHANNEL STEEL POST.	PROPOSED MAINLINE 2	105	
2	NO TRESPASSING	143+60.55	14.00 LT		FASTEN TO CHANNEL STEEL POST.	PROPOSED MAINLINE 2	105	
3	NO TRESPASSING	145+03.66	14.00 RT		FASTEN TO CHANNEL STEEL POST.	PROPOSED MAINLINE 2	105	
4	NO TRESPASSING	145+03.66	14.00 LT		FASTEN TO CHANNEL STEEL POST.	PROPOSED MAINLINE 2	105	



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△	12/19/2025	REVISED MATCH LINE STATION	KAB	KAB	BES
REV	DATE	DESCRIPTION	BY	ENG	CHK
			APP		



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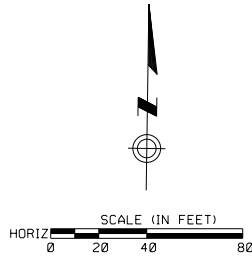
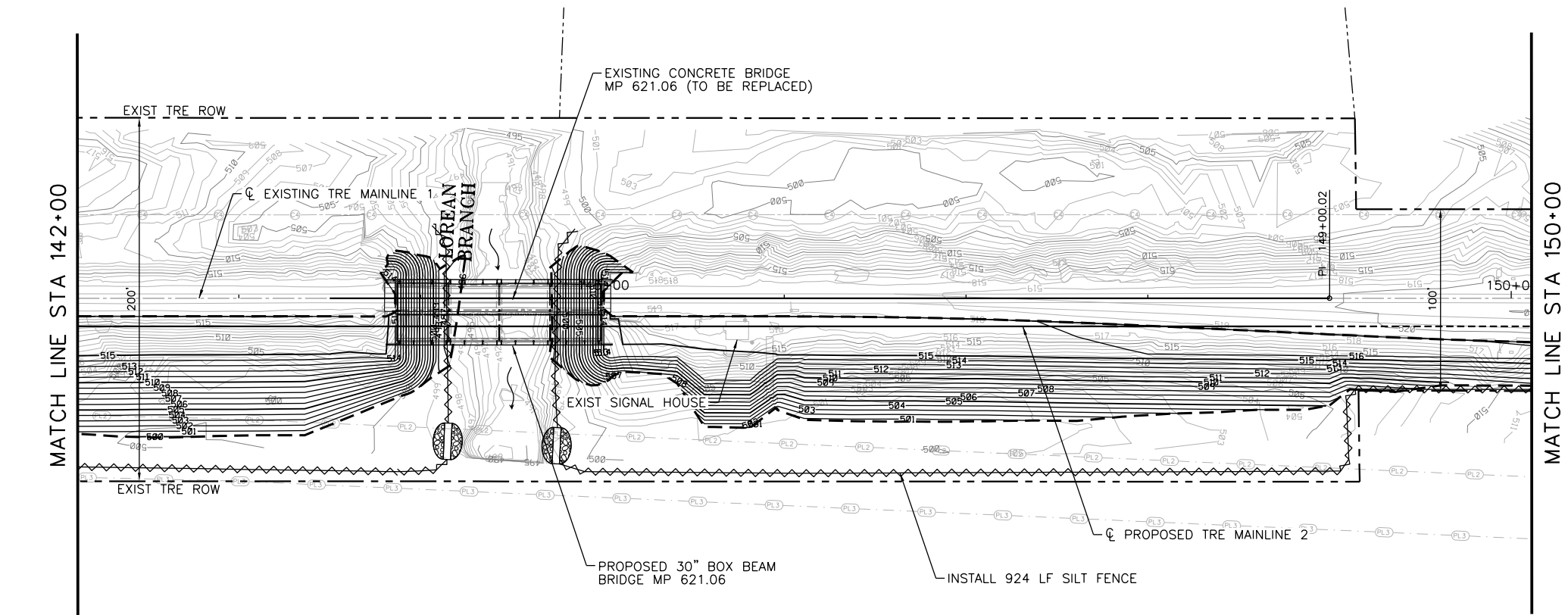


SCALE	H: 1"=40'
DRAWN	LAM
DESIGNED	MMZ
CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
EROSION CONTROL PLAN
STA 31+00 TO STA 47+00

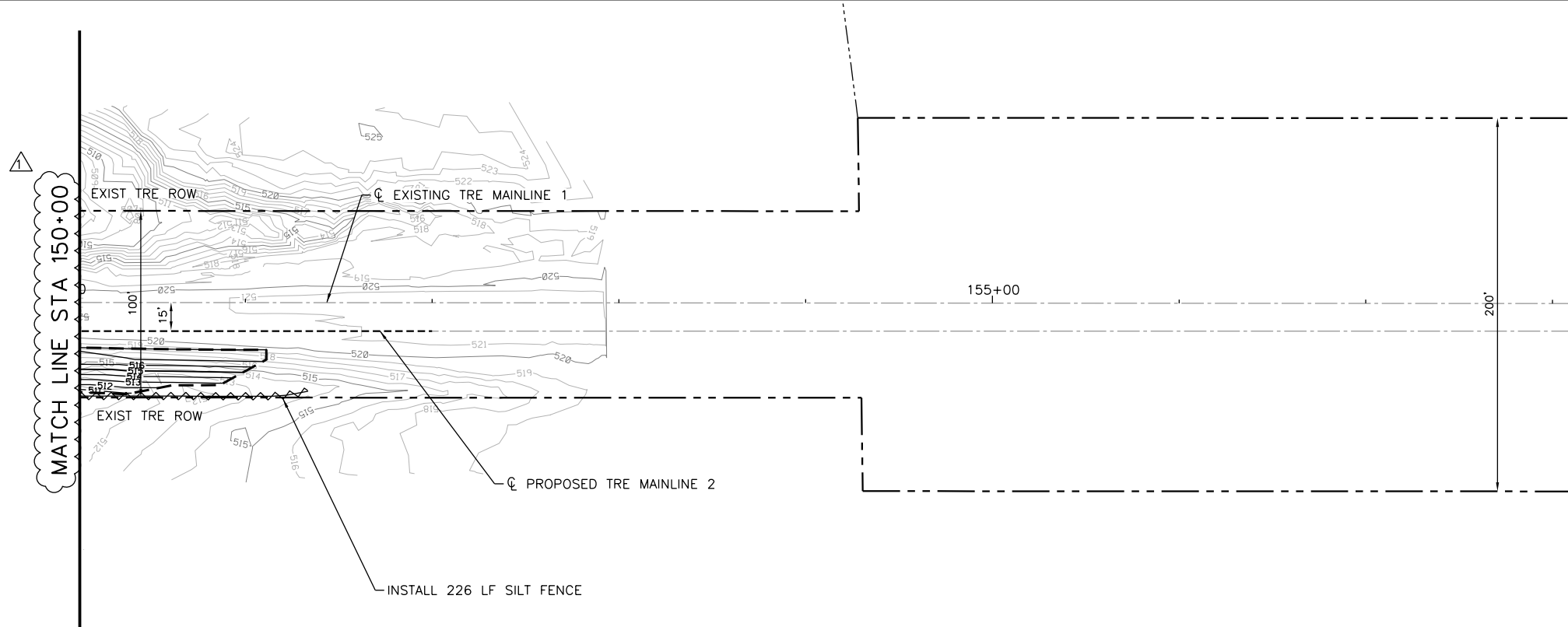
SHEET No. 109	DWG No. C-197	REV
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LEGEND

- SILT FENCE
- ROCK FILTER DAM
- PROPOSED GRADING LIMITS
- PROPOSED CONTOURS
- EXISTING CONTOURS
- CONSTRUCTION ENTRANCE



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△	12/19/2025	REVISED MATCH LINE STATION	KAB	KAB	BES	BES			
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP			



TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557

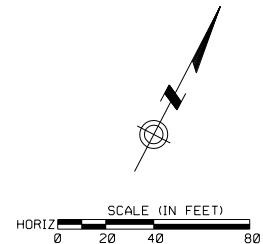
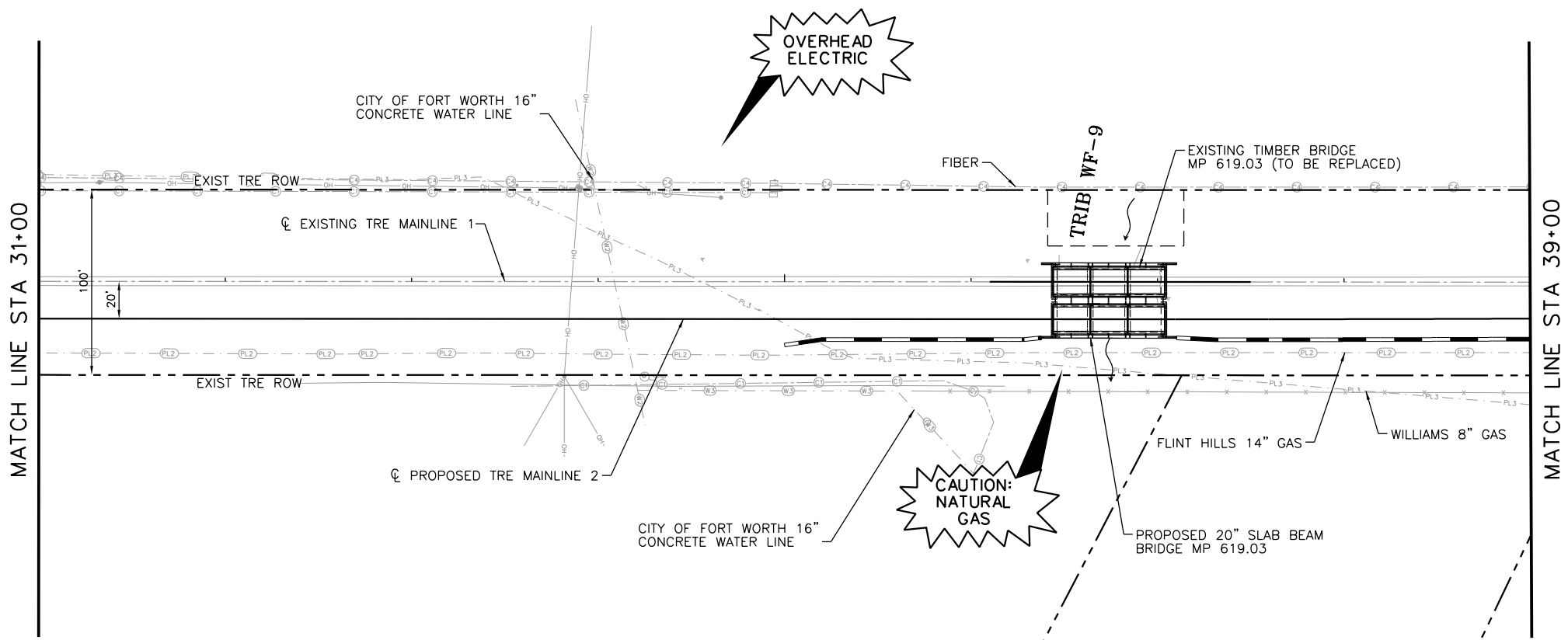


SCALE	H: 1"=40'
DRAWN	LAM
DESIGNED	MMZ
CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

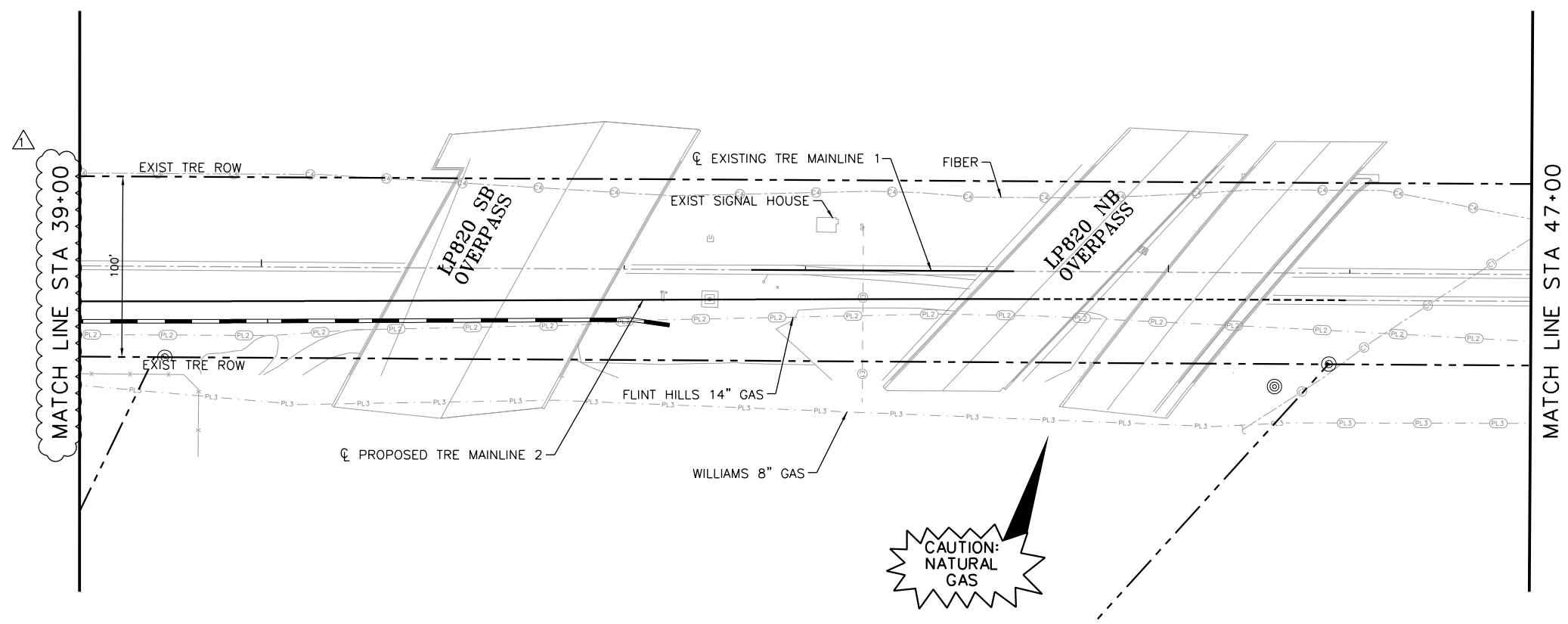
TRINITY METRO
DOUBLE TRACKING
EROSION CONTROL PLAN
STA 142+00 TO STA 158+00

SHEET No. 116	DWG No. C-204	REV
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USER: kbbg00025 TIME: 10/47:00 AM
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LEGEND	
ABANDONED UTILITY	---
PROPOSED UTILITY	---
UNKNOWN UTILITY	---
COMMUNICATIONS	
LOGIX COMM (FO/DUCT)	QL "C"/QL "D" ①
LUMEN (FO/DUCT)	②
VERIZON (FO/DUCT)	③
ZAYO (FO/DUCT)	④
ELECTRIC / POWER	
OWNER	QL "C"/QL "D" ①
OWNER	②
GAS / PETROLEUM	
ENERGY TRANSFER	QL "C"/QL "D" ①
FLINT HILLS	②
WILLIAMS OPERATING	③



LEGEND	
SANITARY SEWER	
OWNER	QL "C"/QL "D" ①
OWNER (FORCE MAIN)	②
STORM DRAIN	
OWNER	QL "C"/QL "D" ①
OWNER	②
POTABLE WATER	
CITY OF HURST	QL "C"/QL "D" ①
CITY OF NRH	②
CITY OF FT WORTH	③

NOTES:
1. REFER TO 4 FOR FULL UTILITY LEGEND

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
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△	12/19/2025	REVISED MATCH LINE STATION	KAB	KAB	BES	BES



TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	H: 1"=40'
DRAWN	LAM
DESIGNED	MMZ
CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
EXISTING UTILITY PLAN
STA 31+00 TO STA 47+00

SHEET No. 125	DWG No. C-213	REV
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USER: kbbogdan25 TIME: 10/4/2025 1:13 AM
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REV	DATE	DESCRIPTION	BY	ENG	CHK	APP			



TRANSYSTEMS

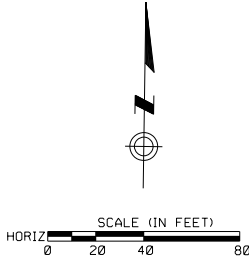
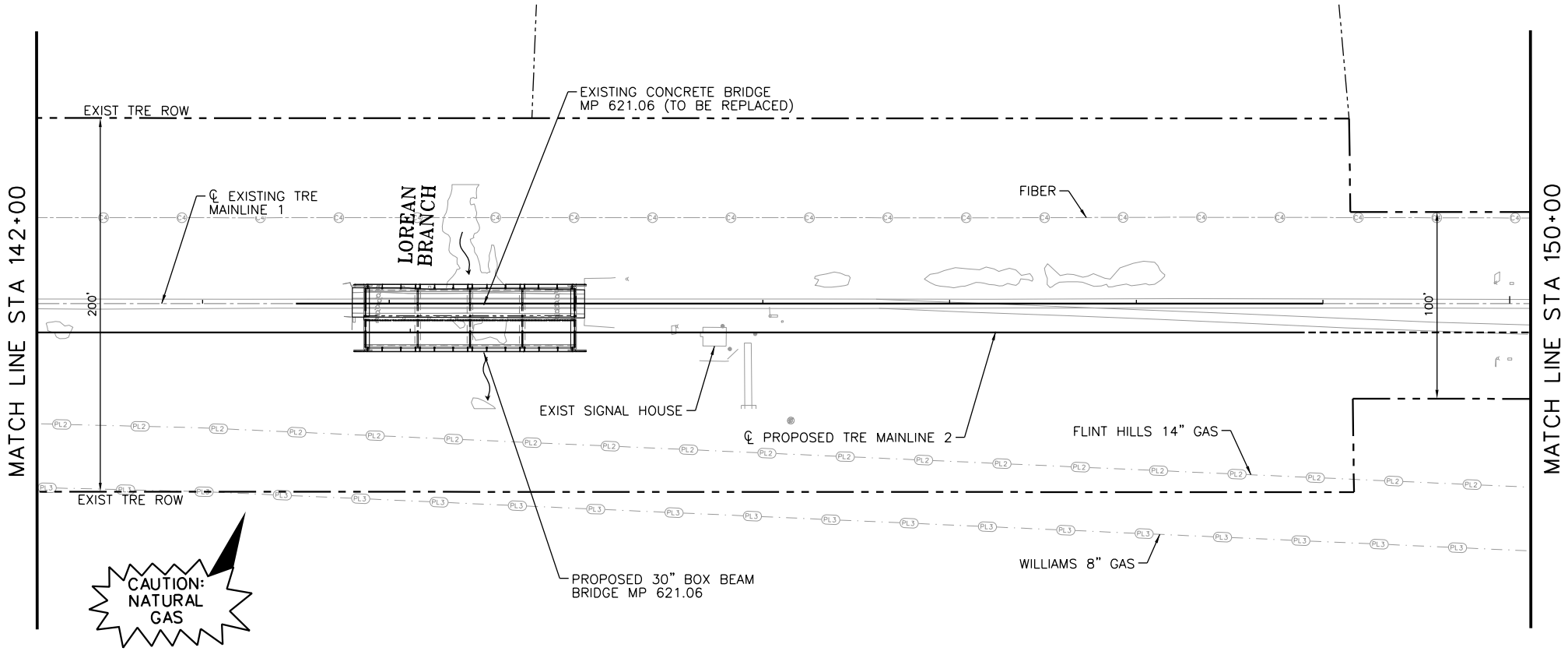
500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



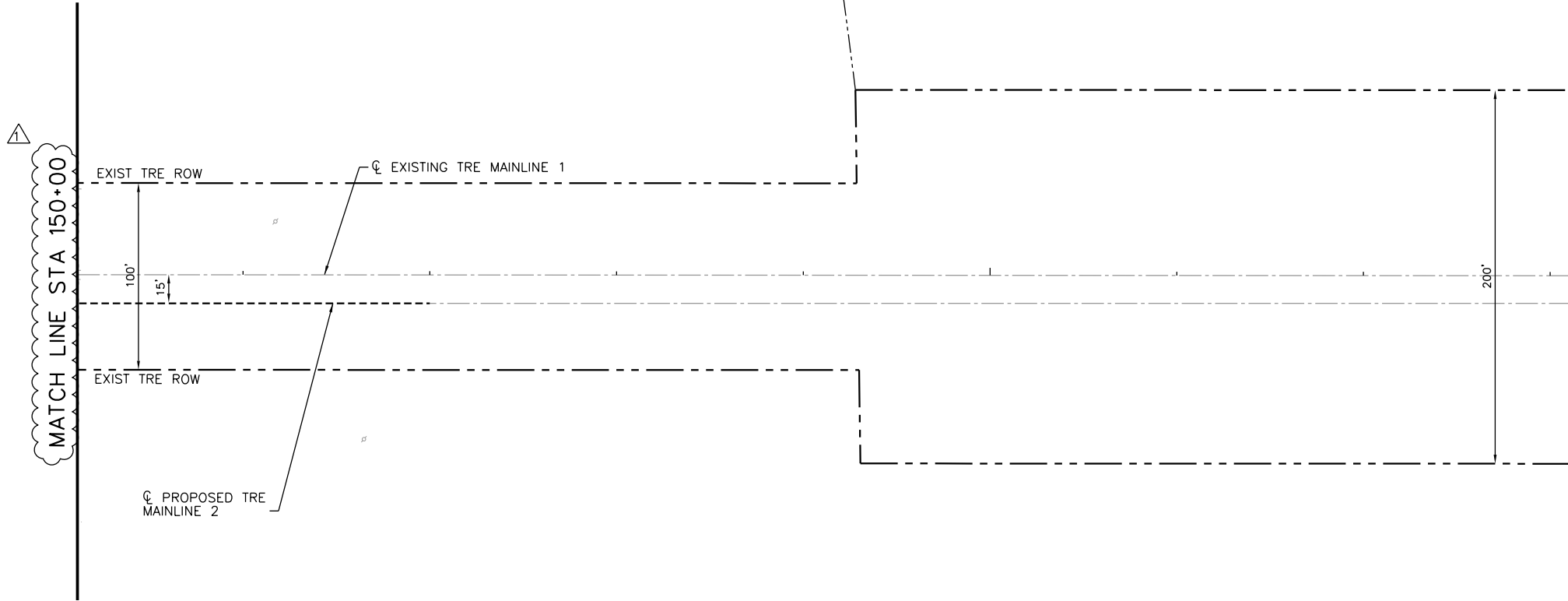
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CHECKED	BES
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
EXISTING UTILITY PLAN
STA 142+00 TO STA 158+00

SHEET No. 132	DWG No. C-220	REV
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LEGEND	
ABANDONED UTILITY	---
PROPOSED UTILITY	---
UNKNOWN UTILITY	---
COMMUNICATIONS	
LOGIX COMM (FO/DUCT)	QL "C"/QL "D" --- (1) --- (1)
LUMEN (FO/DUCT)	---
VERIZON (FO/DUCT)	---
ZAYO (FO/DUCT)	---
ELECTRIC / POWER	
OWNER	QL "C"/QL "D" --- (1) --- (1)
OWNER	---
GAS / PETROLEUM	
ENERGY TRANSFER	QL "C"/QL "D" --- (1) --- (1)
FLINT HILLS	---
WILLIAMS OPERATING	---



LEGEND	
SANITARY SEWER	
OWNER	QL "C"/QL "D" --- (WW1) --- (WW1)
OWNER (FORCE MAIN)	---
STORM DRAIN	
OWNER	QL "C"/QL "D" --- (SD1) --- (SD1)
OWNER	---
POTABLE WATER	
CITY OF HURST	QL "C"/QL "D" --- (W1) --- (W1)
CITY OF NRH	---
CITY OF FT WORTH	---

NOTES:
1. REFER TO 4 FOR FULL UTILITY LEGEND

USER: kbbg00025 TIME: 8:07:48 AM
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FILE: pw:\\transysystems-pw\\bentley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Bridge\\WP_619.03\\S-BRC-510



REV 1 CHANGES ONLY IDENTIFIED BY REVISION CLOUDS ARE MADE UNDER SUPERVISION AND AUTHORITY OF BRENT E. SHIMANEK, P.E., TX PE #131147 TO ACCOMMODATE BIDDING OF THIS PROJECT.

ISSUED FOR BID – NOT FOR CONSTRUCTION

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REV	DATE	DESCRIPTION	BY	ENG	CHK	APP				



TRANSYSTEMS

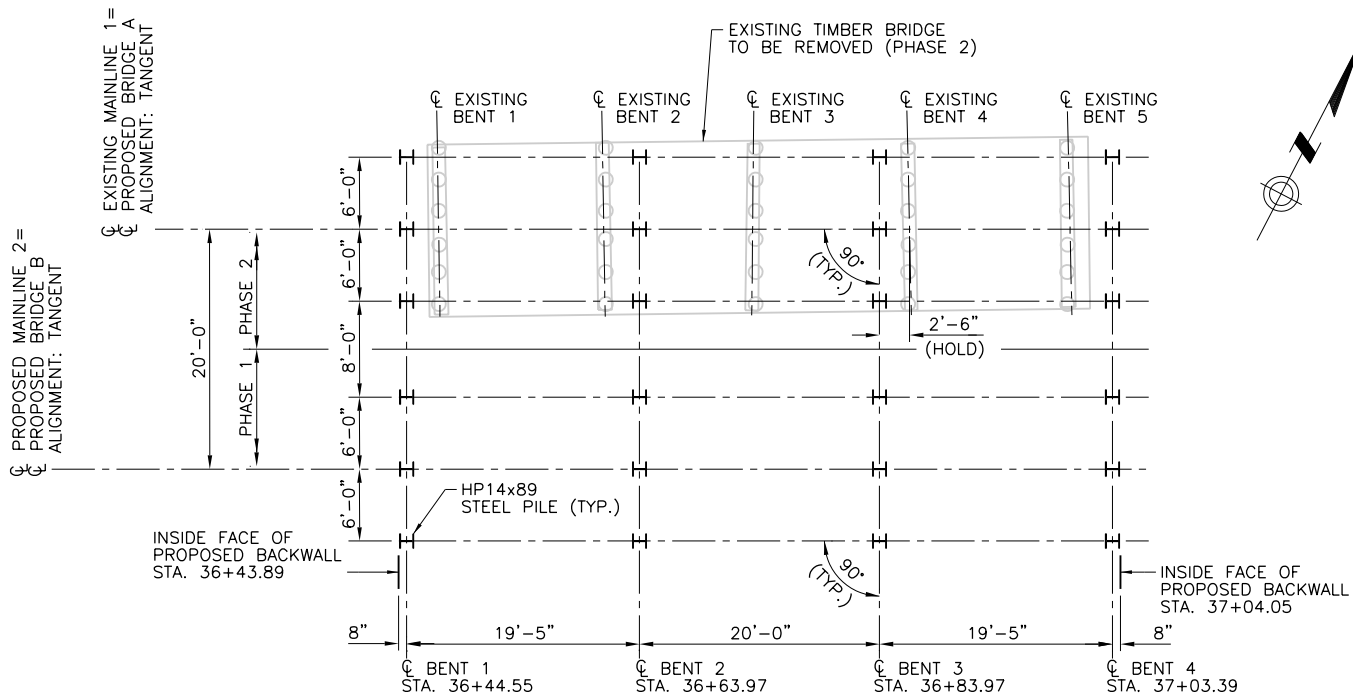
500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	AS SHOWN
DRAWN	AB
DESIGNED	EMO
CHECKED	NJS
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO DOUBLE TRACKING BRIDGE 619.03 STA 36+43.89 TO STA 37+04.05 FOUNDATION AND PILE DETAILS		
SHEET No. 216	DWG No. S-027	REV

TABLE OF ELEVATIONS										
Location	Mainline Track 1 (Bridge A)				Mainline Track 2 (Bridge B)				Pile Cutoff Elev. A	Pile TIP Elev. B
	T/R Elev.	Ballast Depth Dim. A	T/R to T/Cap Dim. B	T/R to Pile Cutoff Dim. C	T/R Elev.	Ballast Depth Dim. A	T/R to T/Cap Dim. B	T/R to Pile Cutoff Dim. C		
Bent #1	525.57	1'-4 5/8"	4'-5 3/4"	7'-1 3/4"	525.182	1'-0"	4'-1 1/8"	6'-9 1/8"	518.43	473.00
Bent #2	525.47	1'-4 5/8"	4'-5 3/4"	7'-1 3/4"	525.078	1'-0"	4'-1"	6'-9"	518.32	473.00
Bent #3	525.36	1'-4 5/8"	4'-5 3/4"	7'-1 3/4"	524.973	1'-0"	4'-1"	6'-9"	518.22	473.00
Bent #4	525.25	1'-4 1/2"	4'-5 5/8"	7'-1 5/8"	524.872	1'-0"	4'-1 1/8"	6'-9 1/8"	518.12	473.00



PILE PLAN
SCALE: 1/8" = 1'-0"

GENERAL

- PILE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE INDICATED IN PLAN NOTES ON SHEET S-049 CURRENT AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER 8, PART 4: PILE FOUNDATIONS, AND SPECIFICATIONS SECTION 02360-DRIVEN PILES.

- IF ACTUAL SUBSURFACE CONDITIONS DIFFER SUBSTANTIALLY FROM THOSE ANTICIPATED, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

PILE DRIVING

- PILES SHALL BE DRIVEN TO THE FOLLOWING ALLOWABLE CAPACITY:
ABUTMENTS = 95 TON
BENTS = 145 TON
- IF ANY NUMBERED PILE CANNOT BE DRIVEN TO THESE CAPACITIES, THE ENGINEER SHALL BE NOTIFIED.
- VIBRATORY HAMMERS SHALL NOT BE PERMITTED TO DRIVE ANY PORTION OF ANY BEARING PILES

NOTE:
ALL STATIONS ARE RESPECT TO
PROPOSED MAIN TRACK 2.

DESIGN NOTES:

- DEISGN IS IN ACCORDANCE WITH THE 2024 AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION (AREMA) MANUAL FOR RAILWAY ENGINEERING.
- THIS STRUCTURE HAS BEEN DESIGNED FOR COOPER E-80 LIVE LOAD PLUS IMPACT WITH A 30" MAXIMUM TOTAL DEPTH OF BALLAST.
- THIS DRAWING WAS PREPARED USING 12" (MIN.) BALLAST UNDER CONCRETE TIES.
- TEMPORARY SHORING BY THE CONTRACTOR IS TO BE DESIGNED PER THE UPRR & BNSF GUIDELINES FOR TEMPORARY SHORING DATED 12/7/2021 AND APPROVED BY TRE.

DESIGN REFERENCES:

- 2024 AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION (AREMA), CHAPTER 8 AND CHAPTER 15.
- TRINITY RAILWAY EXPRESS (TRE) – DOUBLE TRACKING HANDLEY EDERVILLE TO PRECINT LINE ROAD – 100% SUBMITAL DATED FEBRUARY, 2025.
- SURVEY BY PJB SURVEYING, LATEST UPDATE ON AUGUST 29, 2024: ADDITIONAL PHOTOS AND UPDATED SURVEY.
- HYDROLOGIC AND HYDRUALIC REPORT BY KIMLEY-HORN, DATED FEBRUARY 18, 2025.
- FINAL GEOTECHNICAL EVALUATION REPORT BY BRAUN INTERTEC CORPORATION, DATED JANUARY 23, 2025.

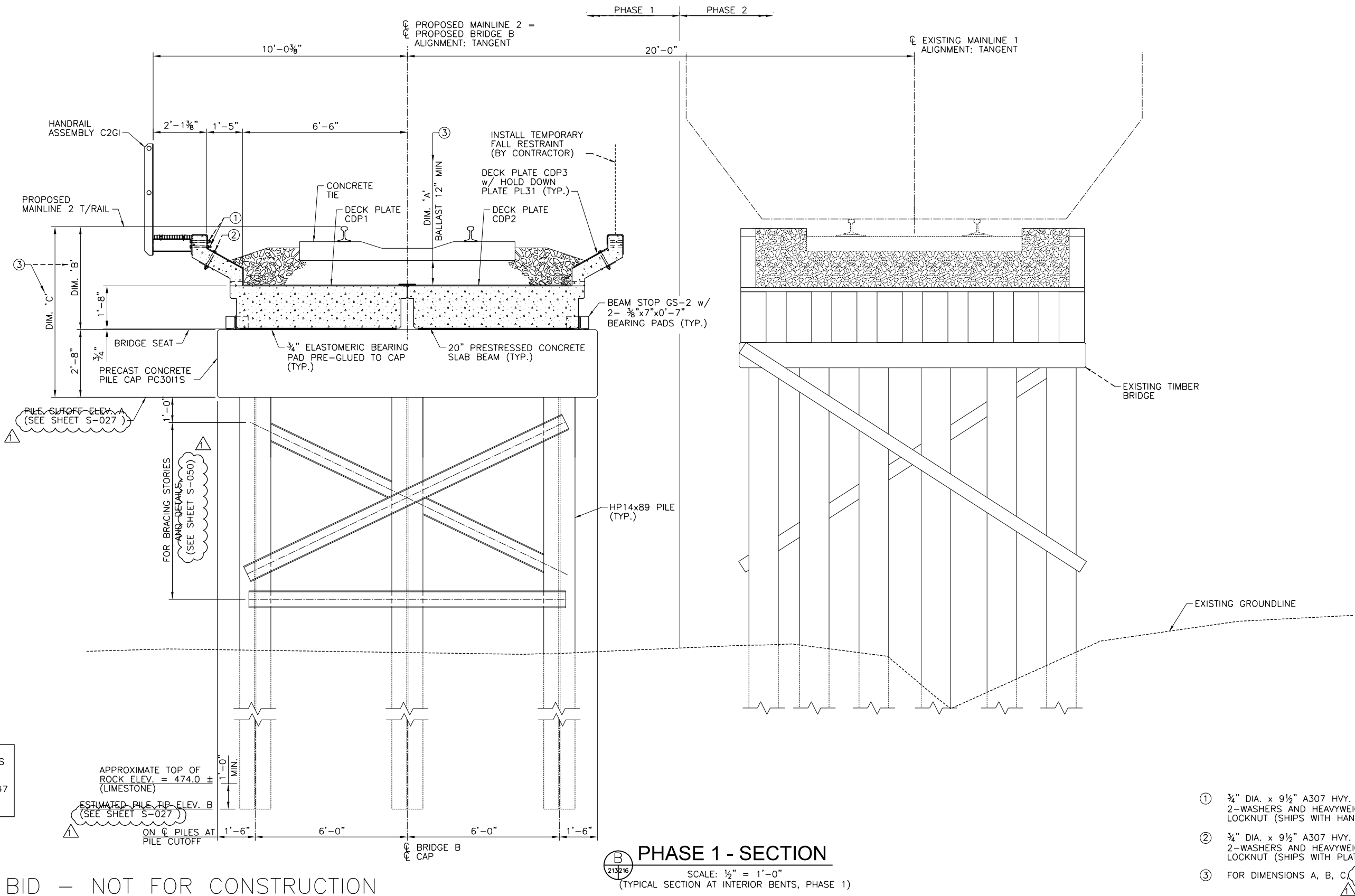
CONSTRUCTION SEQUENCE:

- PHASE 1. WITHOUT INTERRUPTING TRAFFIC ON EXISTING MAINLINE 1, UNLESS APPROVED BY TRE:
 - DRIVE STEEL PILES AND CUT THEM OFF TO PROPER ELEVATION PER THESE PLANS .
 - INSTALL TEMPORARY SHORING (DESIGNED BY CONTRACTOR), AS NECESSARY TO INSTALL END CAPS AND WINGWALLS.
 - EXCAVATE AND PARTIALLY REMOVE EXISTING WINGWALLS IF NEEDED. EXCAVATE AS NEEDED, REMOVE PORTION OF TEMPORARY SHORING IN FRONT OF PHASING 1 ABUTMENT CAPS, AND INSTALL IN CAPS AND WINGWALLS.
 - INSTALL END CAPS, WINGWALLS, AND END FILLER ASSEMBLIES, AND IMMEDIATELY BACKFILL BEHIND END CAPS PER (SHEET S-048.) ENSURE PROPER SEALING BETWEEN TEMPORARY SHORING AND END FILLER ASSEMBLIES PRIOR TO PLACE BACKFILL.
 - COMPLETE INSTALLATION OF PIER CAPS AND PILE BRACING.
 - INSTALL BEAMS AND MISCELLANEOUS BRIDGE COMPONENTS.
 - INSTALL TRACK ON PROPOSED MAINLINE 2 BRIDGE.
- PHASE 2. PRIOR TO CONDUCTING THE FOLLOWING WORK, SWITCH TRAFFIC FROM EXISTING MAINLINE 1 TO PROPOSED MAINLINE 2, UNLESS APPROVED BY TRE:
 - IF NEEDED, CUT AND REMOVE ENOUGH OF EXISTING MAINLINE 1 TRACK, AND REMOVE EXISTING BRIDGE.
 - DRIVE STEEL PILES AND CUT THEM OFF TO PROPER ELEVATION PER THESE PLANS .
 - EXCAVATE AS NEEDED, REMOVE PORTION OF TEMPORARY SHORING IN FRONT OF PHASE 1 ABUTMENT CAPS, AND INSTALL END CAPS AND WINGWALLS.
 - BACKFILL BEHIND END CAPS PER (SHEET S-048.) AND REMOVE TEMPORARY SHORING.
 - COMPLETE INSTALLATION OF PIER CAPS AND PILE BRACING.
 - INSTALL BEAMS AND MISCELLANEOUS BRIDGE COMPONENTS.
 - INSTALL TRACK WITH CONCRETE TIES ON PROPOSED MAINLINE 1 BRIDGE.

USER: kbbg00025 TIME: 8/12/25, AM SCALE: 1/2" = 1'-0" PENTABLE: S-027 FILE: pw:\\transyscorps-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Bridge\\WP_619.03\\S-BRC-811

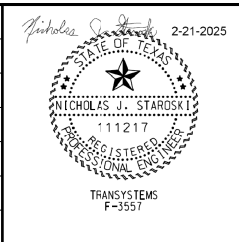


REV 1 CHANGES ONLY IDENTIFIED BY REVISION CLOUDS ARE MADE UNDER SUPERVISION AND AUTHORITY OF BRENT E. SHIMANEK, P.E., TX PE #131147 TO ACCOMMODATE BIDDING OF THIS PROJECT.



ISSUED FOR BID – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
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△	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES	BES



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500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
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FIRM REG. #: 3557



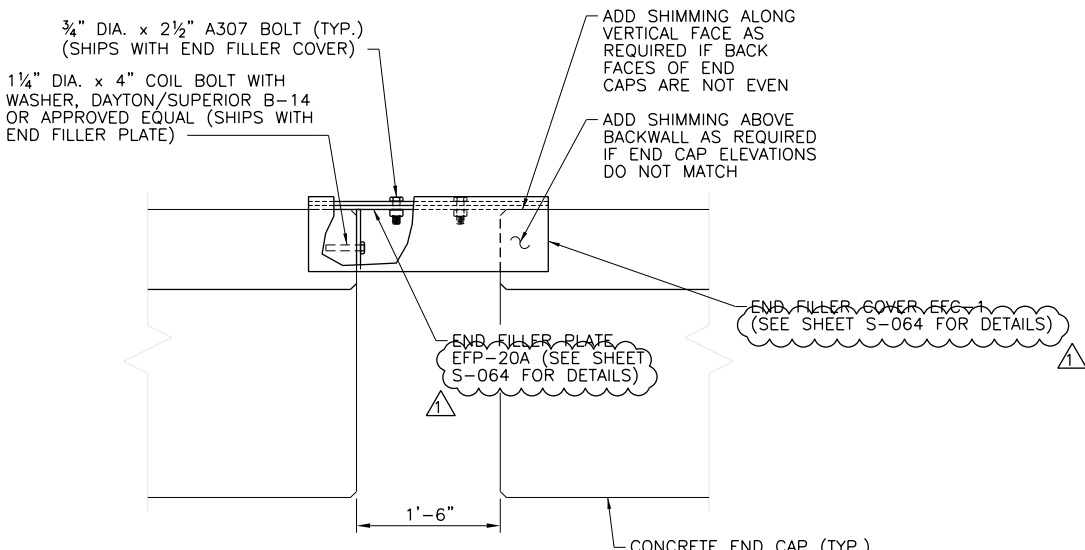
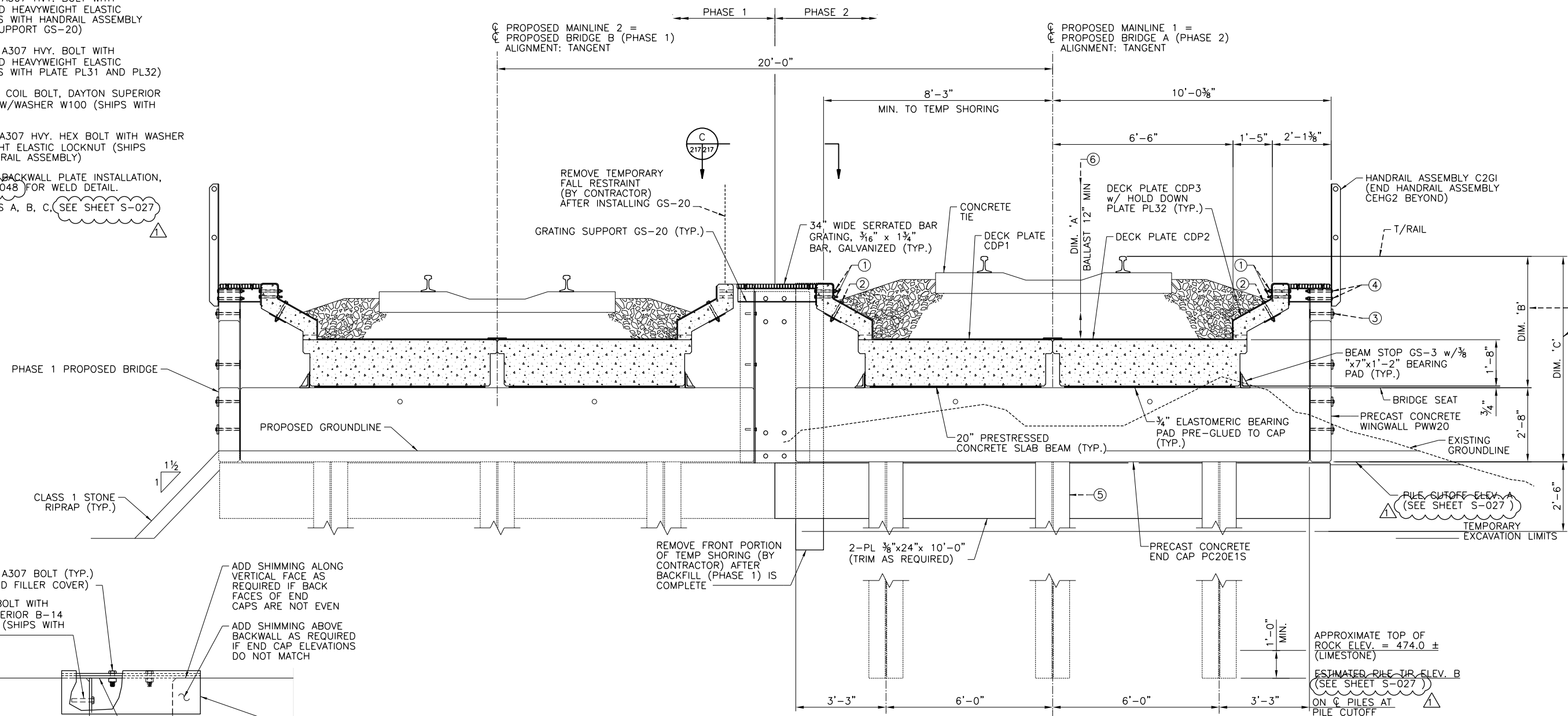
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DRAWN	AB
DESIGNED	EMO
CHECKED	NJS
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
BRIDGE 619.03
STA 36+43.89 TO STA 37+04.05
PHASE 1, TYPICAL SECTIONS (2 OF 2)

SHEET No. 218	DWG No. S-029	REV
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USER: k06090025 TIME: 8:13:15 AM
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FILE: pw:\\transystems-pw\\bentley.com\\transcorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Bridge\\WP_619.03\\S-BRC-812

- ① ¾" DIA. x 9½" A307 HVY. BOLT WITH 2-WASHERS AND HEAVYWEIGHT ELASTIC LOCKNUT (SHIPS WITH HANDRAIL ASSEMBLY AND GRATING SUPPORT GS-20)
- ② ¾" DIA. x 9½" A307 HVY. BOLT WITH 2-WASHERS AND HEAVYWEIGHT ELASTIC LOCKNUT (SHIPS WITH PLATE PL31 AND PL32)
- ③ 1¼" DIA. x 13" COIL BOLT, DAYTON SUPERIOR B-14 OR EQ., W/WASHER W100 (SHIPS WITH WINGWALL)
- ④ ¾" DIA. x 11" A307 HVY. HEX BOLT WITH WASHER AND HEAVYWEIGHT ELASTIC LOCKNUT (SHIPS WITH END HANDRAIL ASSEMBLY)
- ⑤ FOR ADJUTMENT BACKWALL PLATE INSTALLATION, SEE SHEET S-048 FOR WELD DETAIL.
- ⑥ FOR DIMENSIONS A, B, C, (SEE SHEET S-027)



SECTION
SCALE: ½" = 1'-0"

END FILLER ASSEMBLY EFA-20
BEAMS AND WALKWAY GRATING NOT SHOWN FOR CLARITY.
END FILLER PLATE SHALL BE INSTALLED ON EITHER END CAP.

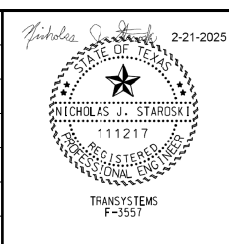
PHASE 2 - SECTION
SCALE: ½" = 1'-0"
BENT #1 SHOWN, BENT #4 SIMILAR (PHASE 1)



REV 1 CHANGES ONLY IDENTIFIED BY REVISION CLOUDS ARE MADE UNDER SUPERVISION AND AUTHORITY OF BRENT E. SHIMANEK, P.E., TX PE #131147 TO ACCOMMODATE BIDDING OF THIS PROJECT.

ISSUED FOR BID – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
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△						
△	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES	BES



TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557

TRINITY METRO

SCALE: AS SHOWN

DRAWN: AB

DESIGNED: EMO

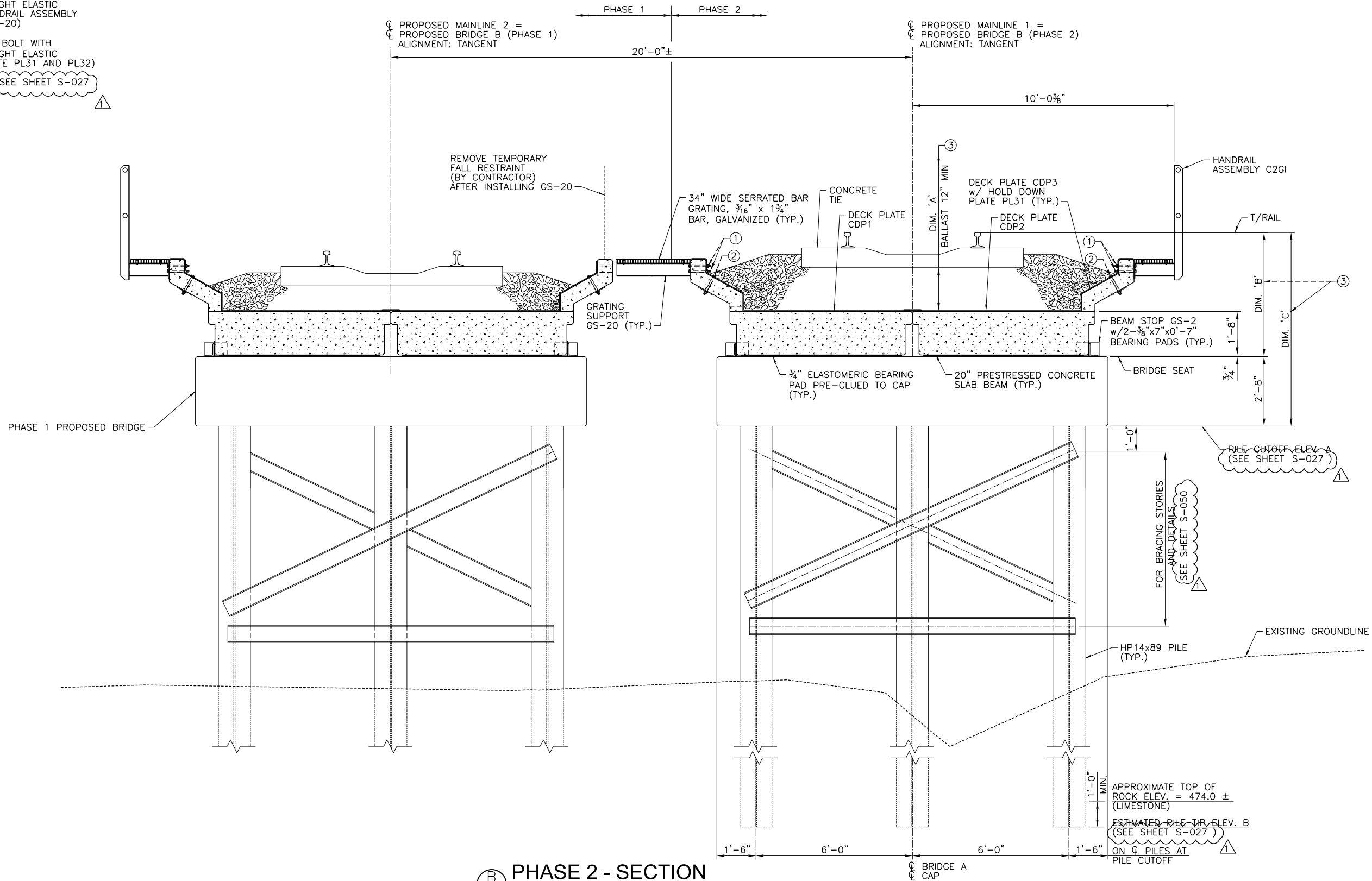
CHECKED: NJS

IN CHARGE: MRH

DATE: 12/19/2025

TRINITY METRO DOUBLE TRACKING		
BRIDGE 619.03 STA 36+43.89 TO STA 37+04.05 PHASE 2, TYPICAL SECTIONS (1 OF 2)		
SHEET No. 219	DWG No. S-030	REV

- ① ¾" DIA. x 9½" A307 HVY. BOLT WITH 2-WASHERS AND HEAVYWEIGHT ELASTIC LOCKNUT (SHIPS WITH HANDRAIL ASSEMBLY AND GRATING SUPPORT GS-20)
- ② ¾" DIA. x 9½" A307 HVY. BOLT WITH 2-WASHERS AND HEAVYWEIGHT ELASTIC LOCKNUT (SHIPS WITH PLATE PL31 AND PL32)
- ③ FOR DIMENSIONS A, B, C, SEE SHEET S-027



PHASE 2 - SECTION

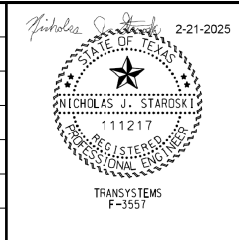
SCALE: 1/2" = 1'-0"

(TYPICAL SECTION AT INTERIOR BENTS, PHASE 2)

REV 1 CHANGES ONLY IDENTIFIED BY REVISION CLOUDS ARE MADE UNDER SUPERVISION AND AUTHORITY OF BRENT E. SHIMANEK, P.E., TX PE #131147 TO ACCOMMODATE BIDDING OF THIS PROJECT.

ISSUED FOR BID – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
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△	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES	BES



TRANSYSTEMS

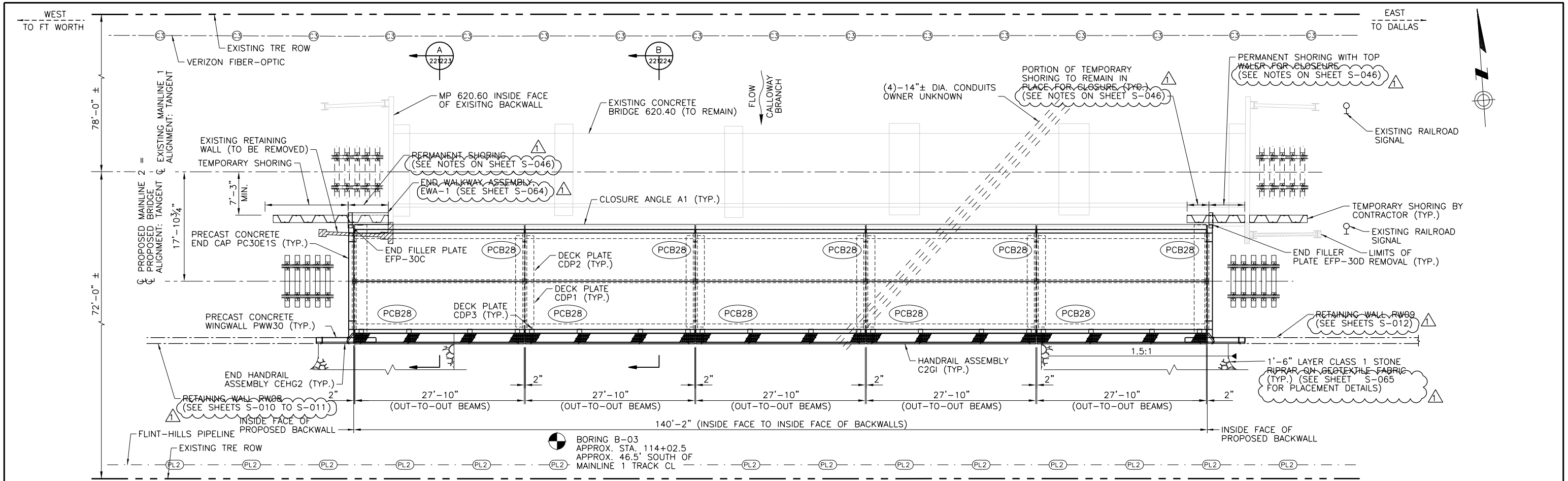
500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	AS SHOWN
DRAWN	AB
DESIGNED	EMO
CHECKED	NJS
IN CHARGE	MRH
DATE	12/19/2025

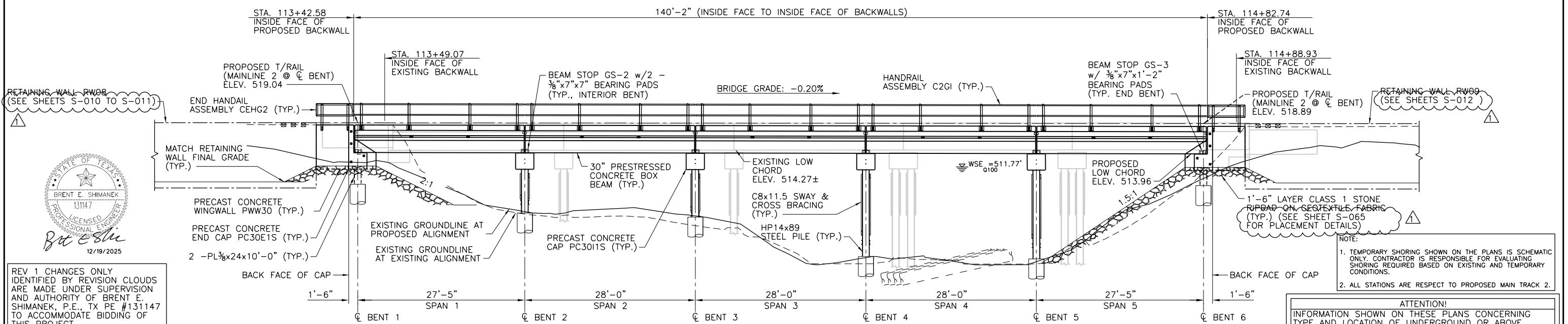
**TRINITY METRO
DOUBLE TRACKING**
BRIDGE 619.03
STA 36+43.89 TO STA 37+04.05
PHASE 2, TYPICAL SECTIONS (2 OF 2)

SHEET No. 220	DWG No. S-031	REV
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PLAN

SCALE: 1/8" = 1'-0"

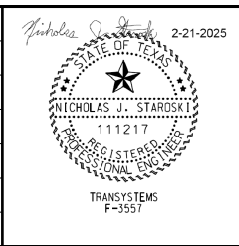


ELEVATION

SCALE: 1/8" = 1'-0"

ISSUED FOR BID - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
1	12/19/2025	REVISED SHEET REFERENCES	KAB	KAB	BES	BES

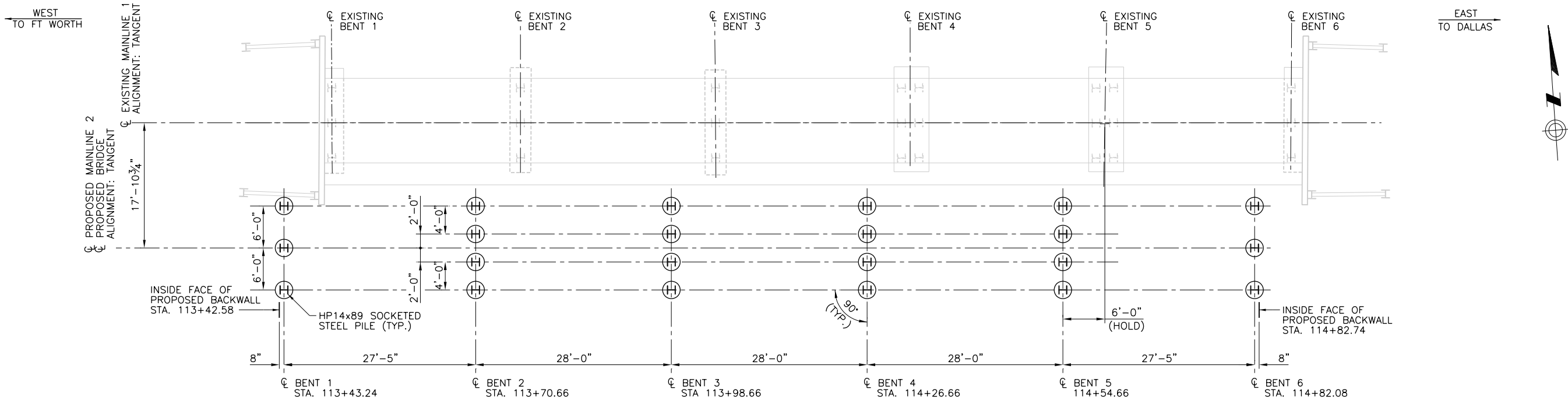


TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	AS SHOWN	TRINITY METRO DOUBLE TRACKING BRIDGE 620.40 STA 113+42.58 TO 114+82.74 LAYOUT	
DRAWN	AB	SHEET No.	221
DESIGNED	EMO	DWG No.	S-032
CHECKED	NJS	REV	
IN CHARGE	MRH		
DATE	12/19/2025		



PILE PLAN
SCALE: 1/8" = 1'-0"

DESIGN NOTES:

- 1. DEISGN IS IN ACCORDANCE WITH THE 2024 AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION (AREMA) MANUAL FOR RAILWAY ENGINEERING.
- 2. THIS STRUCTURE HAS BEEN DESIGNED FOR COOPER E-80 LIVE LOAD PLUS IMPACT WITH A 30" MAXIMUM TOTAL DEPTH OF BALLAST.
- 3. THIS DRAWING WAS PREPARED USING 12" (MIN.) BALLAST UNDER CONCRETE TIES.
- 4. TEMPORARY SHORING BY THE CONTRACTOR IS TO BE DESIGNED PER THE UPRR & BNSF GUIDELINES FOR TEMPORARY SHORING DATED 12/7/2021 AND APPROVED BY TRE.

DESIGN REFERENCES:

- 1. 2024 AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION (AREMA), CHAPTER 8 AND CHAPTER 15.
- 2. TRINITY RAILWAY EXPRESS - DOUBLE TRACKING HANDLEY EDERVILLE TO PRECINT LINE ROAD - 100% SUBMITAL DATED FEBRUARY, 2025.
- 3. SURVEY BY PJB SURVEYING, LATEST UPDATE ON AUGUST 29, 2024: ADDITIONAL PHOTOS AND UPDATED SURVEY.
- 4. HYDROLOGIC AND HYDRUALIC REPORT BY KIMLEY-HORN, DATED FEBRUARY 18, 2025
- 5. FINAL GEOTECHNICAL EVALUATION REPORT BY BRAUN INTERTEC CORPORATION, DATED JANUARY 23, 2025.

GENERAL

- 1. PILE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE INDICATED IN PLAN NOTES ON SHEET S-049 CURRENET AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER 8, PART 4: PILE FOUNDATIONS, AND SPECIFICATION SECTION 02360-DRIVEN PILES.
- 2. IF ACTUAL SUBSURFACE CONDITIONS DIFFER SUBSTANTIALLY FROM THOSE ANTICIPATED, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

PILE DRIVING

- 1. PILES SHALL BE DRIVEN TO THE FOLLOWING ALLOWABLE CAPACITY:
ABUTMENTS = 120 TON
BENTS = 145 TON
- 2. IF ANY NUMBERED PILE CANNOT BE DRIVEN TO THESE CAPACITIES, THE ENGINEER SHALL BE NOTIFIED.
- 3. VIBRATORY HAMMERS SHALL NOT BE PERMITTED TO DRIVE ANY PORTION OF ANY BEARING PILES

CONSTRUCTION SEQUENCE

- WITHOUT INTERRUPTING TRAFFIC ON EXISTING MAINLINE 1, UNLESS APPROVED BY TRE:
- A. INSTALL AND CUTOFF TO DESIGN ELEVATIONS ALL PILES THAT DO NOT REQUIRE PARTIAL REMOVAL OF EXISTING WINGWALLS.
 - B. IF NEEDED, PARTIALLY REMOCE EXISTING WALKWAY FOR TEMPORARY SHORING INSTALLATION, AND INSTALL APPROPRIATE FALL RESTRAINT (BY CONTRACTOR)
 - C. INSTALL TEMPORARY SHORING (DESIGNED BY CONTRACTOR), AS NECESSARY TO INSTALL REMAINING CORED PILES (BENT 1), END CAPS, AND END FILLER ASSEMBLIES.
 - D. REMOVE EXISTING WINGWALL AT BENT/ABUTMENT 1, AND COMPLETE INSTALLATION OF CORED STEEL PILES.
 - E. EXCAVATE, COMPLETE PARTIAL REMOVAL OF EXISTING BACKWALLS, INSTALL END CAPS, WINGWALLS, AND END FILLER ASSEMBLIES, AND IMMEDIATELY BACKFILL BEHIND END CAPS PER SHEET S-048.
 - F. REMOVE ANY PORTION OF TEMPORARY SHORING NOT REMAINING AND PROPERLY SECURE/CONNECT THE REMAINDER TO EXISTING AND NEW BACKWALLS.
 - G. COMPLETE INSTALLATION OF PIER CAPS AND PILE BRACING.
 - H. INSTALL BEAMS AND MISCELLANEOUS BRIDGE COMPONENTS.
 - J. INSTALL TRACK ON PROPOSED MAINLINE 2 BRIDGE.



NOTE:
ALL STATIONS ARE RESPECT TO
PROPOSED MAIN TRACK 2.

REV 1 CHANGES ONLY
IDENTIFIED BY REVISION CLOUDS
ARE MADE UNDER SUPERVISION
AND AUTHORITY OF BRENT E.
SHIMANEK, P.E., TX PE #131147
TO ACCOMMODATE BIDDING OF
THIS PROJECT.

TABLE OF ELEVATIONS: MAINLINE TRACK 2 BRIDGE							
Location	T/R Elev.	Ballast Depth Dim. A	T/R to T/Cap Dim. B	T/R to Pile Cutoff Dim. C	Pile Cutoff Elev. A	Pile TIP Elev. B	Approx. T/Casing Elev. C
Bent #1	519.04	1'-0"	4'-11"	7'-7"	511.45	475.00	508.95
Bent #2	519.01	1'-0 1/4"	4'-11 3/8"	7'-7 3/8"	511.40	475.00	503.50
Bent #3	518.97	1'-0 1/2"	4'-11 1/2"	7'-7 1/2"	511.34	475.00	501.50
Bent #4	518.94	1'-0 3/4"	4'-11 7/8"	7'-7 7/8"	511.29	475.00	495.50
Bent #5	518.92	1'-1 1/4"	5'-0 1/4"	7'-8 1/4"	511.23	475.00	495.50
Bent #6	518.89	1'-1 1/2"	5'-0 5/8"	7'-8 5/8"	511.18	475.00	508.68

ISSUED FOR BID – NOT FOR CONSTRUCTION

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FILE: pw:\\transystems-pw\\bentley.com\\transyscorp-pw\\1-hosted\\Documents\\Projects_2024\\FW202_202240018\\Bridge MP 620.40\\S-BRG-520

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△	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES	BES			
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP			



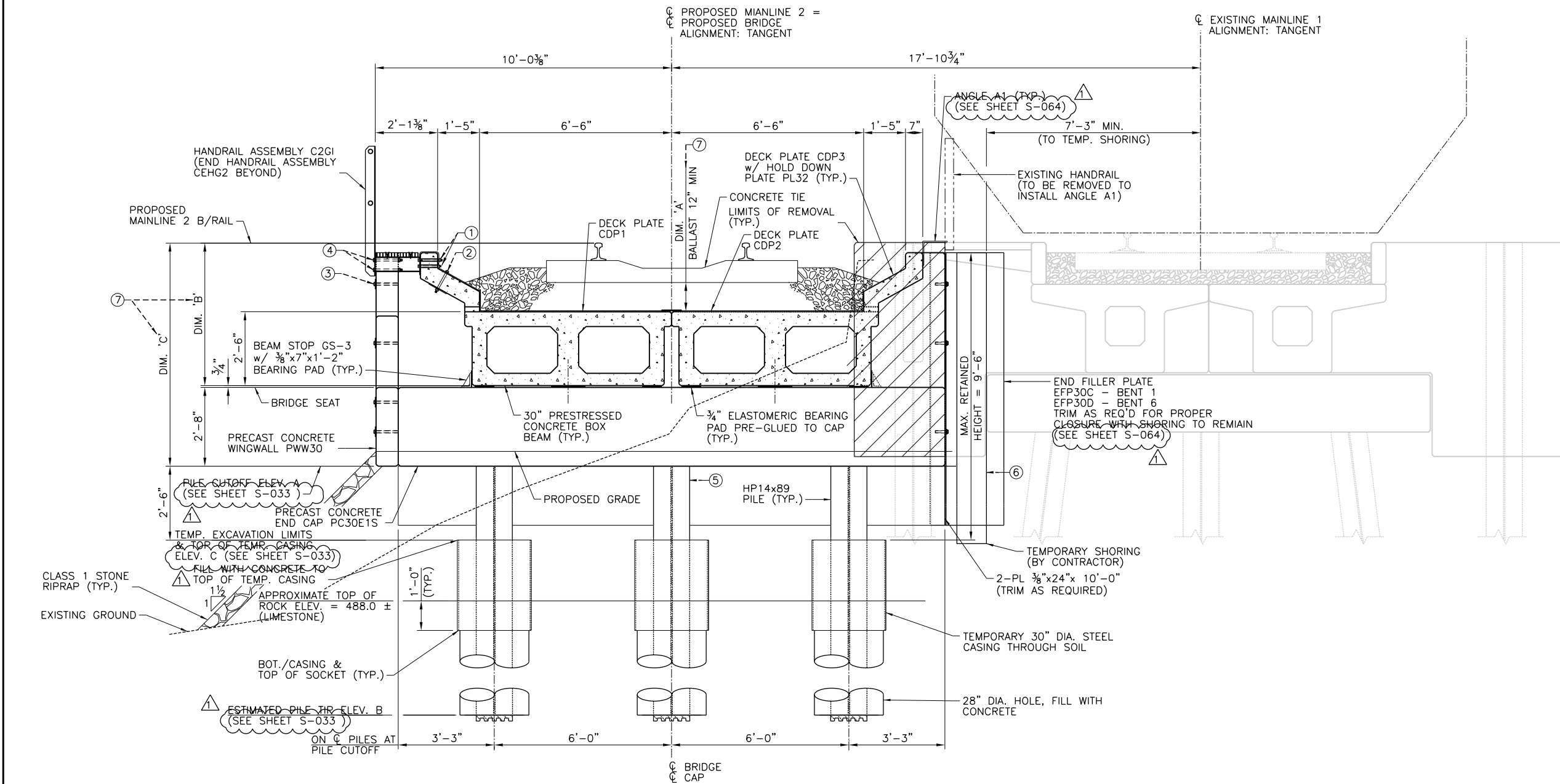
TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE AS SHOWN		TRINITY METRO DOUBLE TRACKING BRIDGE 620.40 STA 113+42.58 TO STA 114+82.74 FOUNDATION AND PILE DETAILS	
DRAWN	AB		
DESIGNED	EMO		
CHECKED	NJS		
IN CHARGE	MRH		
DATE	12/19/2025		
		SHEET No. 222	DWG No. S-033
			REV

USER: k0809025 TIME: 8:16:58 AM
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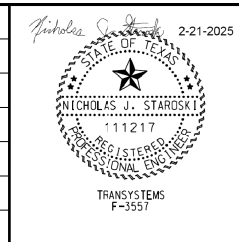
REV 1 CHANGES ONLY
IDENTIFIED BY REVISION CLOUDS
ARE MADE UNDER SUPERVISION
AND AUTHORITY OF BRENT E.
SHIMANEK, P.E., TX PE #131147
TO ACCOMMODATE BIDDING OF
THIS PROJECT.

- ① 3/4" DIA. x 9 1/2" A307 HVY. BOLT WITH
2-WASHERS AND HEAVYWEIGHT ELASTIC
LOCKNUT (SHIPS WITH HANDRAIL ASSEMBLY)
- ② 3/4" DIA. x 9 1/2" A307 HVY. BOLT WITH
2-WASHERS AND HEAVYWEIGHT ELASTIC
LOCKNUT (SHIPS WITH PLATE PL31 AND PL32)
- ③ 1 1/4" DIA. x 13" COIL BOLT, DAYTON SUPERIOR
B-14 OR EQ., W/WASHER W100 (SHIPS WITH
WINGWALL)
- ④ 3/4" DIA. x 11" A307 HVY. HEX BOLT WITH WASHER
AND HEAVYWEIGHT ELASTIC LOCKNUT (SHIPS
WITH END HANDRAIL ASSEMBLY)
- ⑤ FOR ABUTMENT PILING PLATE INSTALLATION,
SEE SHEET S-048 FOR WELD DETAIL
- ⑥ SEAL ANY GAPS BETWEEN TEMPORARY SHORING
AND FILLER ASSEMBLY PRIOR TO PLACE BACKFILL.
- ⑦ FOR DIMENSIONS A, B, C, SEE SHEET S-033

SECTION
SCALE: 1/2" = 1'-0"
BENT #1 SHOWN, BENT #6 SIMILAR

ISSUED FOR BID - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
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△	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES	BES



TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557

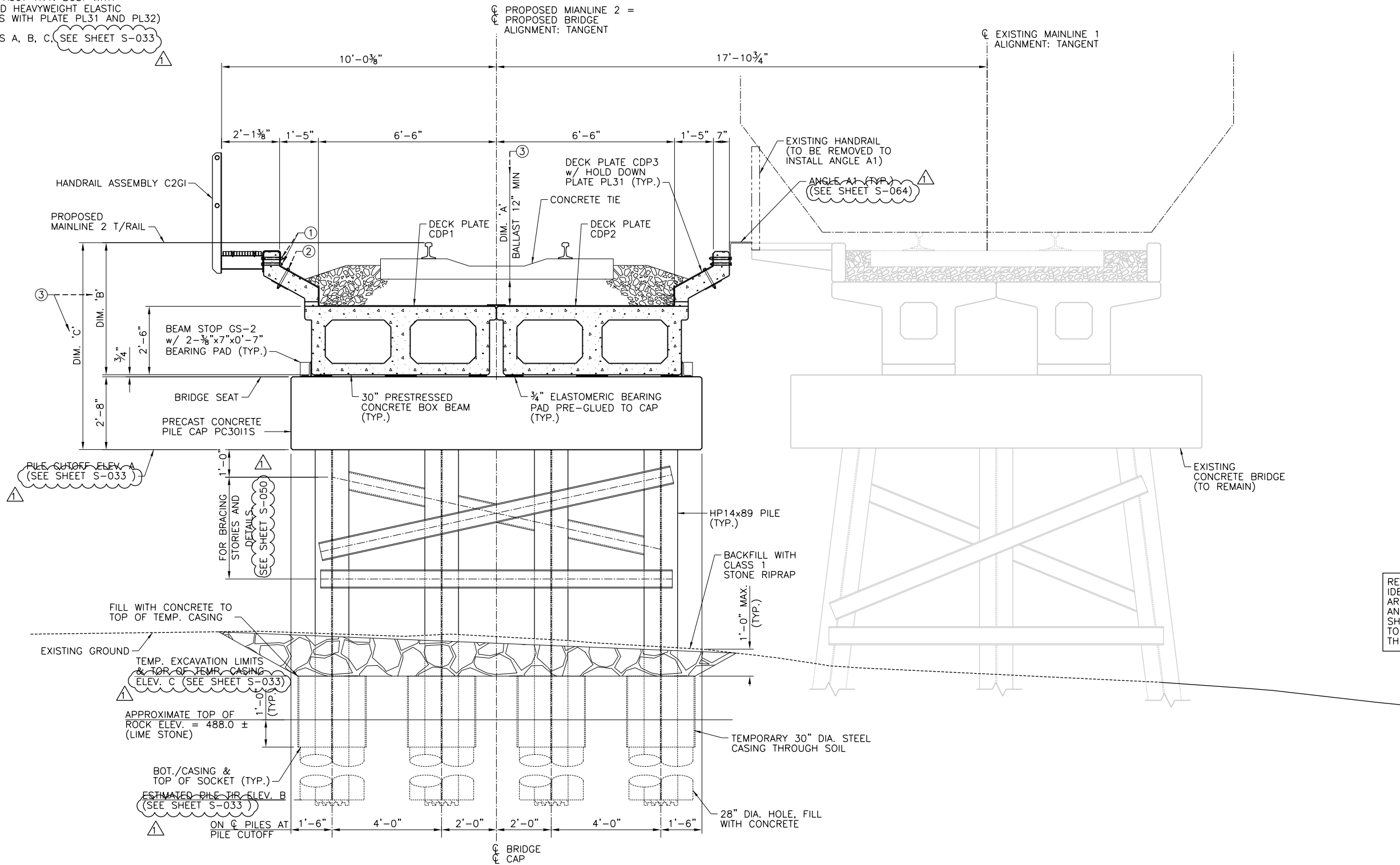


SCALE	AS SHOWN
DRAWN	AB
DESIGNED	EMO
CHECKED	NJS
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
BRIDGE 620.40
STA 113+42.58 TO STA 114+82.74
TYPICAL SECTIONS (1 OF 2)

SHEET No. 223	DWG No. S-034	REV
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- ① ¾" DIA. x 9½" A307 HVY. BOLT WITH 2-WASHERS AND HEAVYWEIGHT ELASTIC LOCKNUT (SHIPS WITH HANDRAIL ASSEMBLY)
- ② ¾" DIA. x 9½" A307 HVY. BOLT WITH 2-WASHERS AND HEAVYWEIGHT ELASTIC LOCKNUT (SHIPS WITH PLATE PL31 AND PL32)
- ③ FOR DIMENSIONS A, B, C, SEE SHEET S-033

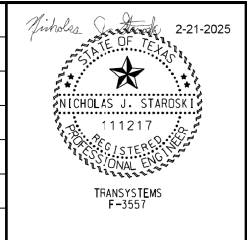


REV 1 CHANGES ONLY IDENTIFIED BY REVISION CLOUDS ARE MADE UNDER SUPERVISION AND AUTHORITY OF BRENT E. SHIMANEK, P.E., TX PE #131147 TO ACCOMMODATE BIDDING OF THIS PROJECT.

SECTION
SCALE: ½" = 1'-0"
(TYPICAL SECTION AT INTERIOR BENTS)

ISSUED FOR BID – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
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△	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES	BES



TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557

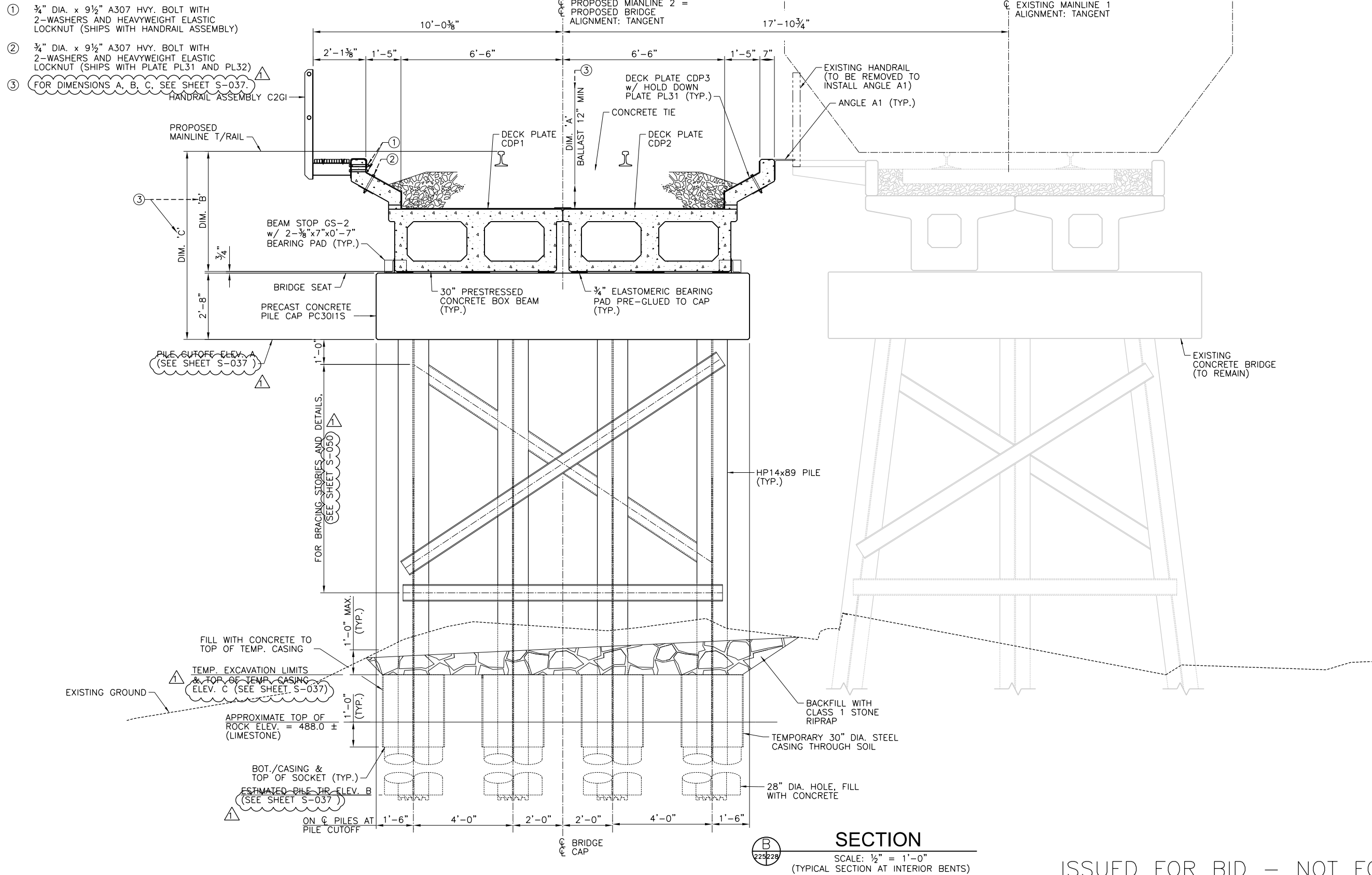


SCALE	AS SHOWN
DRAWN	AB
DESIGNED	EMO
CHECKED	NJS
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
BRIDGE 620.40
STA 113+42.58 TO STA 114+82.74
TYPICAL SECTION (2 OF 2)

SHEET No. 224	DWG No. S-035	REV
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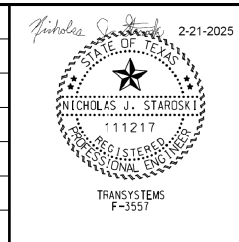
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REV 1 CHANGES ONLY IDENTIFIED BY REVISION CLOUDS ARE MADE UNDER SUPERVISION AND AUTHORITY OF BRENT E. SHIMANEK, P.E., TX PE #131147 TO ACCOMMODATE BIDDING OF THIS PROJECT.

ISSUED FOR BID – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
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△	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES	BES



TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557

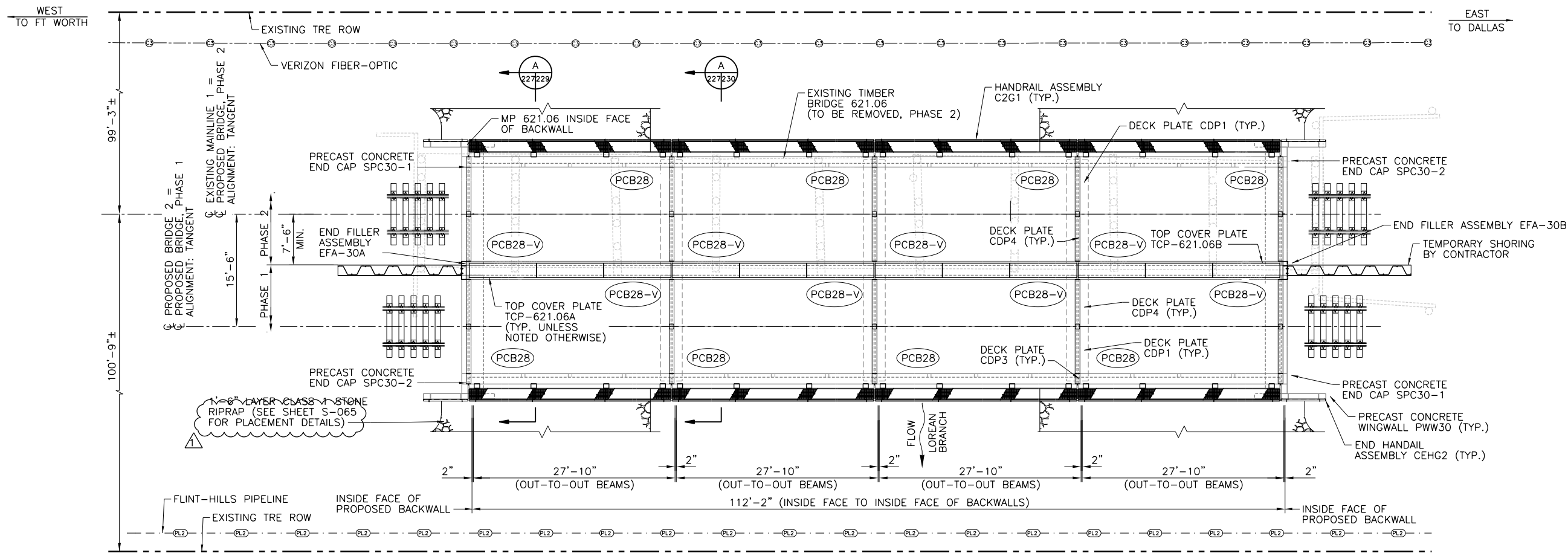


SCALE	AS SHOWN
DRAWN	AB
DESIGNED	EMO
CHECKED	NJS
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
BRIDGE 620.60
STA 119+04.98 TO STA 120+05.14
TYPICAL SECTIONS (2 OF 2)

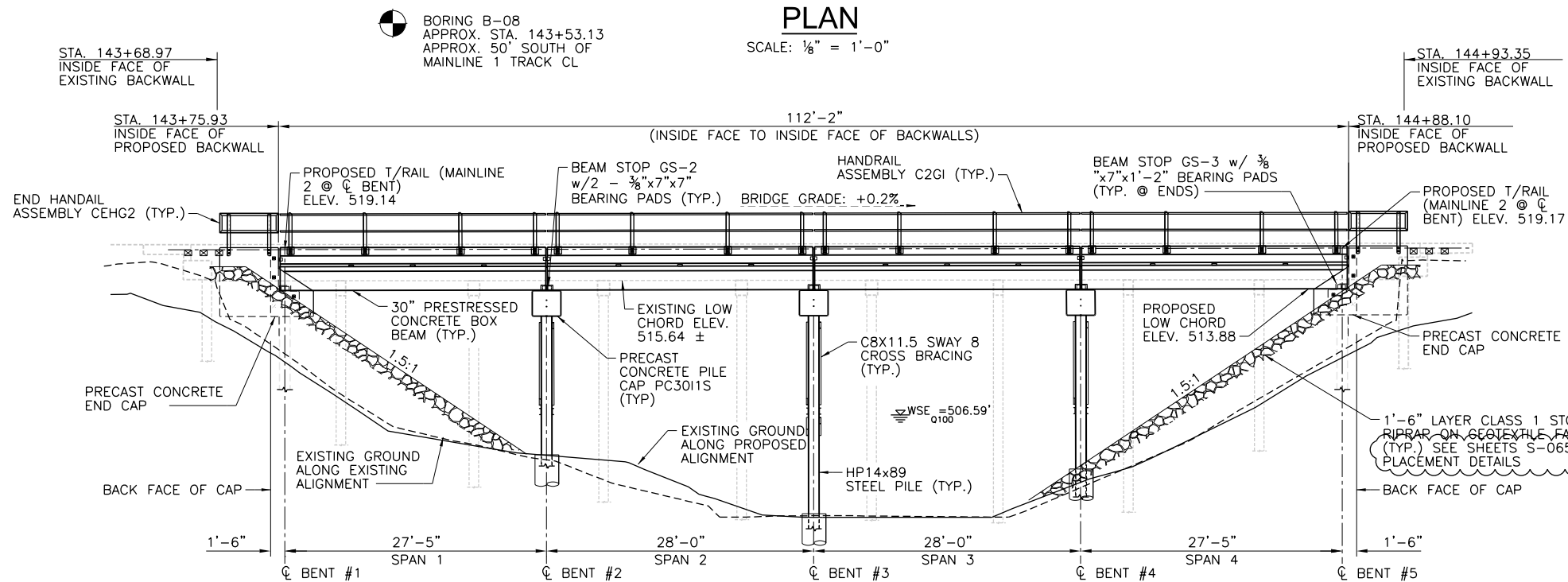
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PLAN

SCALE: 1/8" = 1'-0"

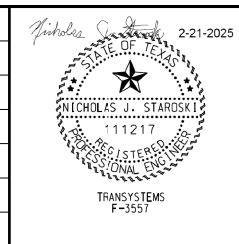


ELEVATION

SCALE: 1/8" = 1'-0"

ISSUED FOR BID - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
1	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES	BES



TRANSYSTEMS

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	AS SHOWN
DRAWN	AB
DESIGNED	EMO
CHECKED	NJS
IN CHARGE	MRH
DATE	12/19/2025

**TRINITY METRO
DOUBLE TRACKING**
BRIDGE 621.06
STA 143+75.93 TO STA 144+88.09
LAYOUT

SHEET No.	229	DWG No.	S-040	REV	
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REV 1 CHANGES ONLY
IDENTIFIED BY REVISION CLOUDS
ARE MADE UNDER SUPERVISION
AND AUTHORITY OF BRENT E.
SHIMANEK, P.E., TX PE #131147
TO ACCOMMODATE BIDDING OF
THIS PROJECT.

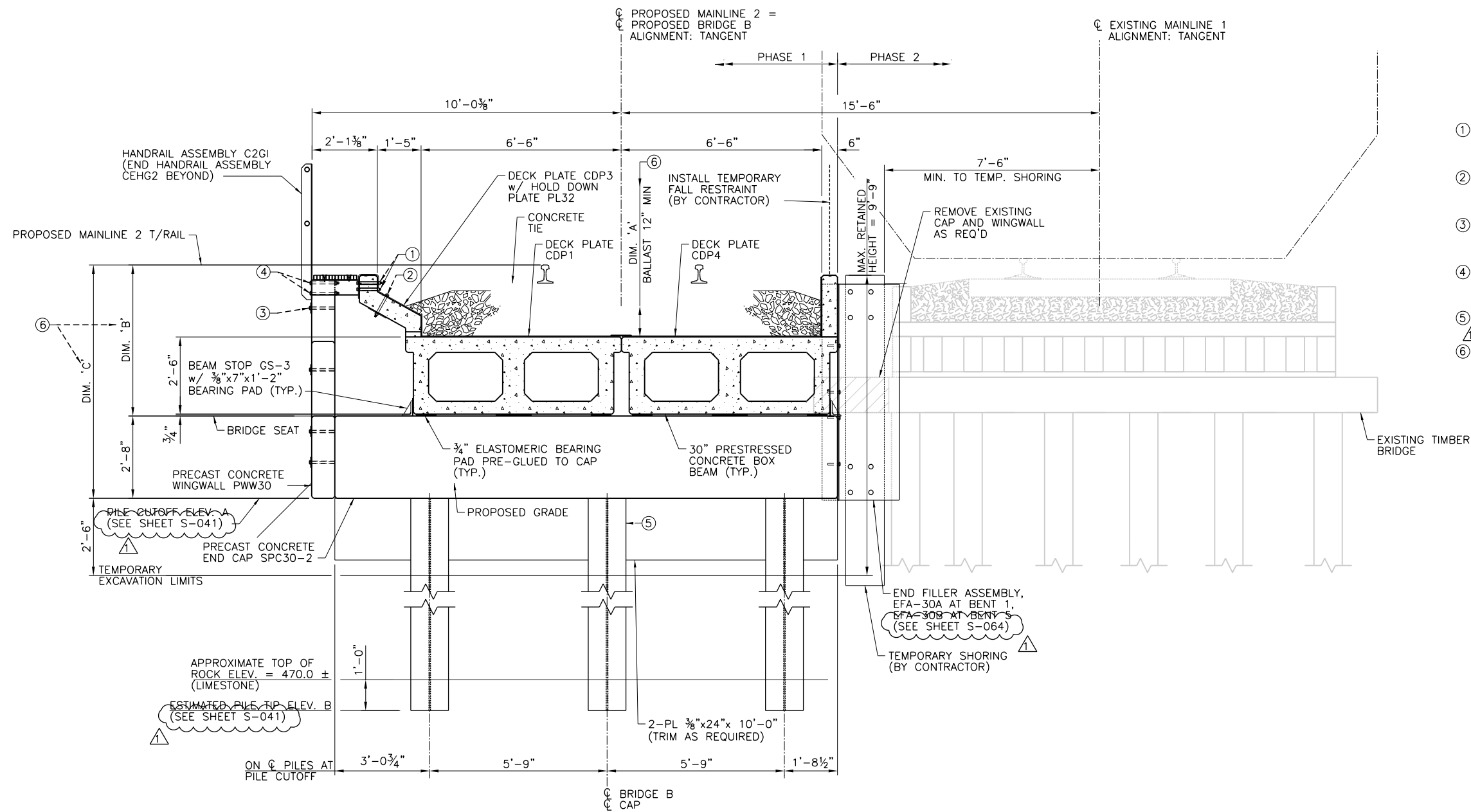
NOTE:

- TEMPORARY SHORING SHOWN ON THE PLANS IS SCHEMATIC ONLY. CONTRACTOR IS RESPONSIBLE FOR EVALUATING SHORING REQUIRED BASED ON EXISTING AND TEMPORARY CONDITIONS.
- ALL STATIONS ARE RESPECT TO PROPOSED MAIN TRACK 2.

ATTENTION!

INFORMATION SHOWN ON THESE PLANS CONCERNING TYPE AND LOCATION OF UNDERGROUND OR ABOVE GROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR WILL VERIFY THE LOCATION OF THE UNDERGROUND AND OVERHEAD UTILITIES BEFORE CONSTRUCTION.

USER: kbbg00025 TIME: 8/24/17 AM
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FILE: pw:\\transyscorps-pw\\bentley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Bridge WP 621.06\\S-BRC-840



- ① 3/4" DIA. x 9 1/2" A307 HVY. BOLT WITH 2-WASHERS AND HEAVYWEIGHT ELASTIC LOCKNUT (SHIPS WITH HANDRAIL ASSEMBLY)
- ② 3/4" DIA. x 9 1/2" A307 HVY. BOLT WITH 2-WASHERS AND HEAVYWEIGHT ELASTIC LOCKNUT (SHIPS WITH PLATE PL31 AND PL32)
- ③ 1 1/4" DIA. x 13" COIL BOLT, DAYTON SUPERIOR B-14 OR EQ., W/WASHER W100 (SHIPS WITH WINGWALL)
- ④ 3/4" DIA. x 11" A307 HVY. HEX BOLT WITH WASHER AND HEAVYWEIGHT ELASTIC LOCKNUT (SHIPS WITH END HANDRAIL ASSEMBLY)
- ⑤ FOR ABUTMENT PILING PLATE INSTALLATION, SEE SHEET S-048 FOR WELD DETAIL.
- ⑥ FOR DIMENSIONS A, B, C, SHEET S-041

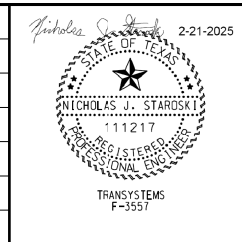


REV 1 CHANGES ONLY IDENTIFIED BY REVISION CLOUDS ARE MADE UNDER SUPERVISION AND AUTHORITY OF BRENT E. SHIMANEK, P.E., TX PE #131147 TO ACCOMMODATE BIDDING OF THIS PROJECT.

PHASE 1 - SECTION
SCALE: 1/2" = 1'-0"
BENT #1 SHOWN, BENT #5 SIMILAR (PHASE 1)

ISSUED FOR BID – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
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△	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES	BES



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(817) 339-8950
FIRM REG. #: 3557

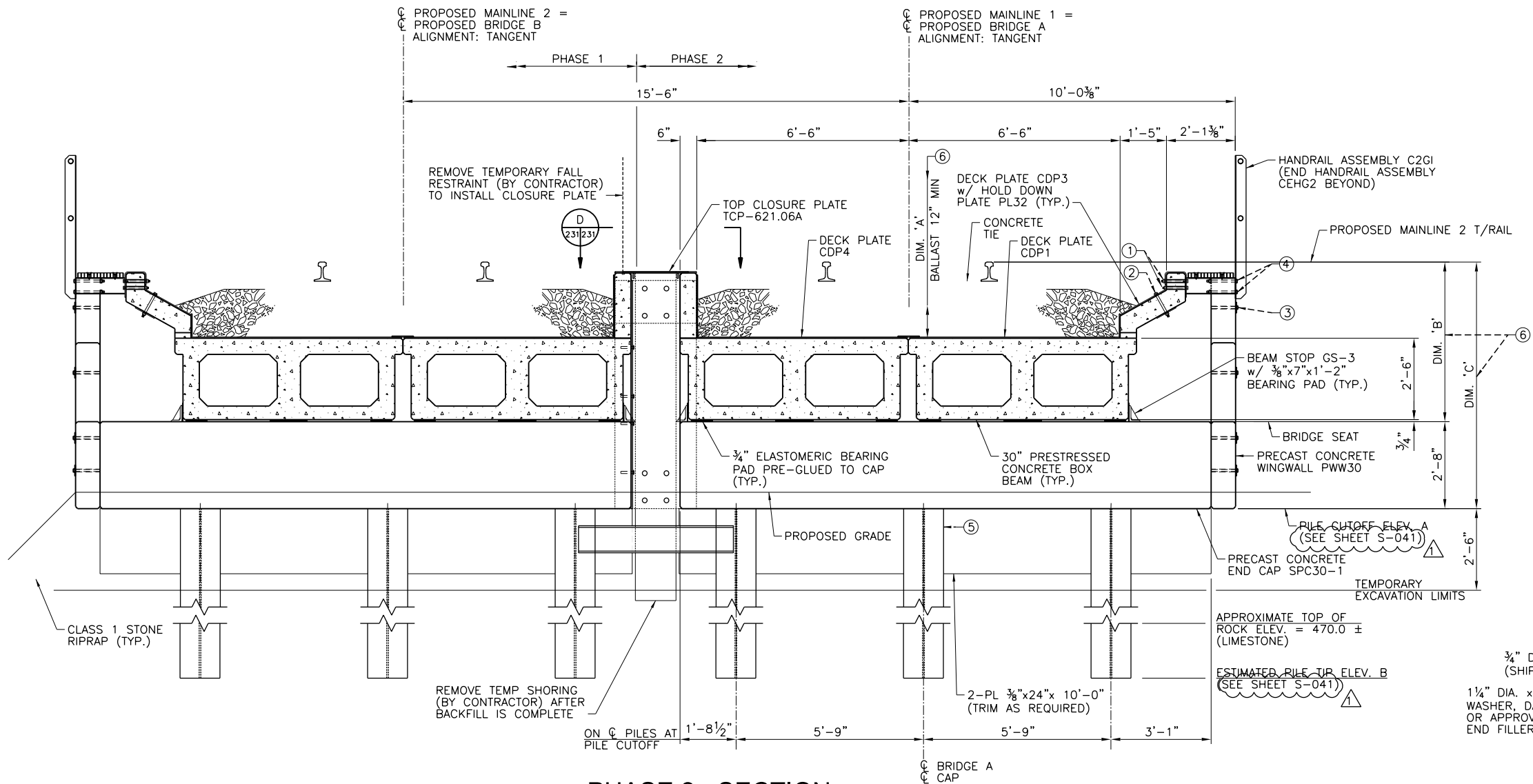


SCALE	AS SHOWN
DRAWN	AB
DESIGNED	EMO
CHECKED	NJS
IN CHARGE	MRH
DATE	12/19/2025

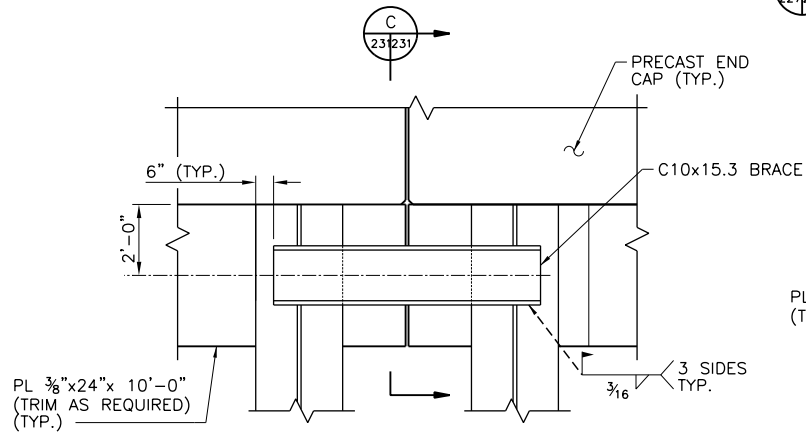
**TRINITY METRO
DOUBLE TRACKING**
BRIDGE 621.06
STA 143+75.93 TO STA 144+88.09
PHASE 1, TYPICAL SECTION (1 OF 2)

SHEET No. 231	DWG No. S-042	REV
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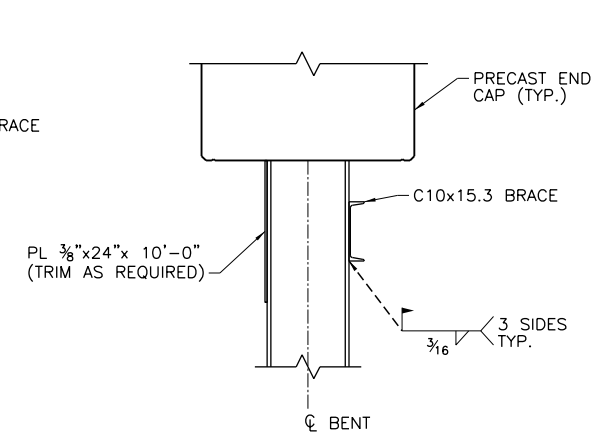
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PHASE 2 - SECTION
SCALE: 1/2" = 1'-0"
BENT #1 SHOWN, BENT #5 SIMILAR (PHASE 2)



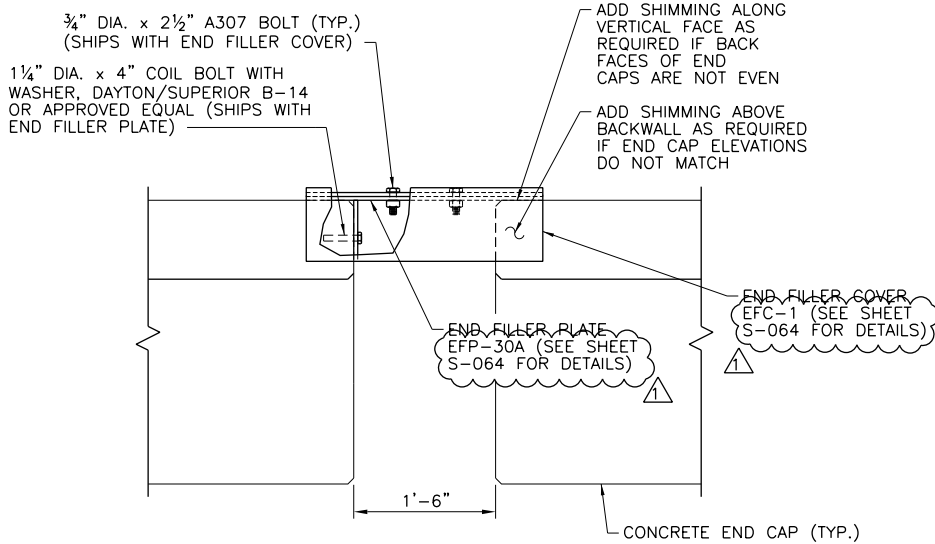
BRACE INSTALLATION DETAIL AT END BENT
SCALE: NTS



SECTION
SCALE: NTS

REV. 1 CHANGES ONLY
IDENTIFIED BY REVISION CLOUDS
ARE MADE UNDER SUPERVISION
AND AUTHORITY OF BRENT E.
SHIMANEK, P.E., TX PE #131147
TO ACCOMMODATE BIDDING OF
THIS PROJECT.

- ① 3/4" DIA. x 9 1/2" A307 HVY. BOLT WITH 2-WASHERS AND HEAVYWEIGHT ELASTIC LOCKNUT (SHIPS WITH HANDRAIL ASSEMBLY)
- ② 3/4" DIA. x 9 1/2" A307 HVY. BOLT WITH 2-WASHERS AND HEAVYWEIGHT ELASTIC LOCKNUT (SHIPS WITH PLATE PL31 AND PL32)
- ③ 1 1/4" DIA. x 13" COIL BOLT, DAYTON SUPERIOR B-14 OR EQ., W/WASHER W100 (SHIPS WITH WINGWALL)
- ④ 3/4" DIA. x 11" A307 HVY. HEX BOLT WITH WASHER AND HEAVYWEIGHT ELASTIC LOCKNUT (SHIPS WITH END HANDRAIL ASSEMBLY)
- ⑤ FOR ABUTMENT PILING PLATE INSTALLATION, SEE SHEET S-048 FOR WELD DETAIL.
- ⑥ FOR DIMENSIONS A, B, C, SEE SHEET S-041



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

END FILLER ASSEMBLY EFA-20A SHOWN,
EFA-20B MIRRORIED.

ISSUED FOR BID – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
△						
△						
△						
△						
△						
△	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES	BES



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FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	AS SHOWN	TRINITY METRO DOUBLE TRACKING BRIDGE 621.06 STA 143+75.93 TO STA 144+88.09 PHASE 2, TYPICAL SECTION (1 OF 2)		
DRAWN	AB	SHEET No.	DWG No.	REV
DESIGNED	EMO	233	S-043	
CHECKED	NJS			
IN CHARGE	MRH			
DATE	12/19/2025			



- ① $\frac{3}{4}$ " DIA. x $9\frac{1}{2}$ " A307 HVY. BOLT WITH
2-WASHERS AND HEAVYWEIGHT ELASTIC
LOCKNUT (SHIPS WITH HANDRAIL ASSEMBLY)
- ② $\frac{3}{4}$ " DIA. x $9\frac{1}{2}$ " A307 HVY. BOLT WITH
2-WASHERS AND HEAVYWEIGHT ELASTIC
LOCKNUT (SHIPS WITH PLATE PL31 AND PL32)
- ③ FOR DIMENSIONS A, B, C, SHEET S-041

PHASE 1 - SECTION
SCALE: $\frac{1}{2}" = 1'-0"$
(TYPICAL SECTION AT INTERIOR BENTS PHASE 1)

TRINITY  **METROSM**

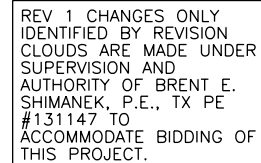
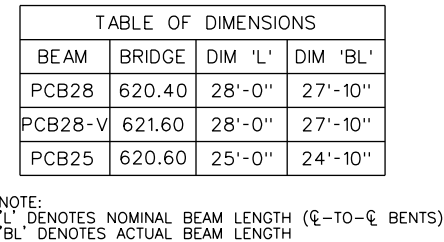
SCALE	AS SHOWN	TRINITY METRO DOUBLE TRACKING BRIDGE 621.06 STA 143+75.93 TO STA 144+88.09 PHASE 1, TYPICAL SECTION (2 OF 2)		
DRAWN	AB			
DESIGNED	EMO			
CHECKED	NJS			
IN CHARGE	MRH			
DATE	12/19/2025			
		SHEET No. 232	DWG No. S-044	REV



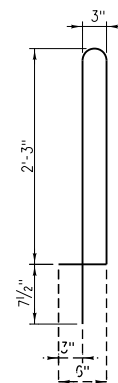
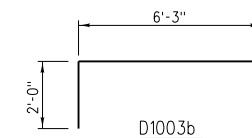
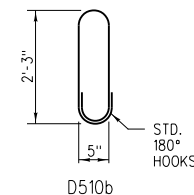
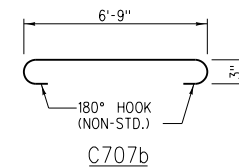
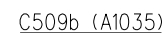
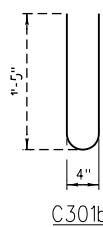
SCALE	AS SHOWN	TRINITY METRO DOUBLE TRACKING BRIDGE 621.06 STA 143+75.93 TO STA 144+88.09 PHASE 2, TYPICAL SECTION (2 OF 2)		
DRAWN	AB			
DESIGNED	EMO			
CHECKED	NJS			
IN CHARGE	MRH			
DATE	12/19/2025			
		SHEET No. 234	DWG No. S-045	REV

ISSUED FOR BID – NOT FOR CONSTRUCTION

USER: kaboggon
TIME: 8:27:21 AM
DATE: 12/19/2025
PENTABLE: \$PENTBL\$
SCALE: \$SCALE\$
FILE: pw:\transystems-pw.bentley.com\transyscorp-pw\hosted\Documents\Projects_2024\FW202_202240018\Bridge.WP 62106.S-BRG-84.3



SCALE: $\frac{3}{4}" = 1'-0"$
(FABRICATOR IS RESPONSIBLE FOR ADEQUACY
OF LIFTING LOOPS, SEE NOTE, SHEET S-047)



C511b
(ONLY FOR GIRDERS OF BRIDGE 621.06)

• (7 - #6 REINFORCING BARS)

Nicholas J. Starks 2-21-2025

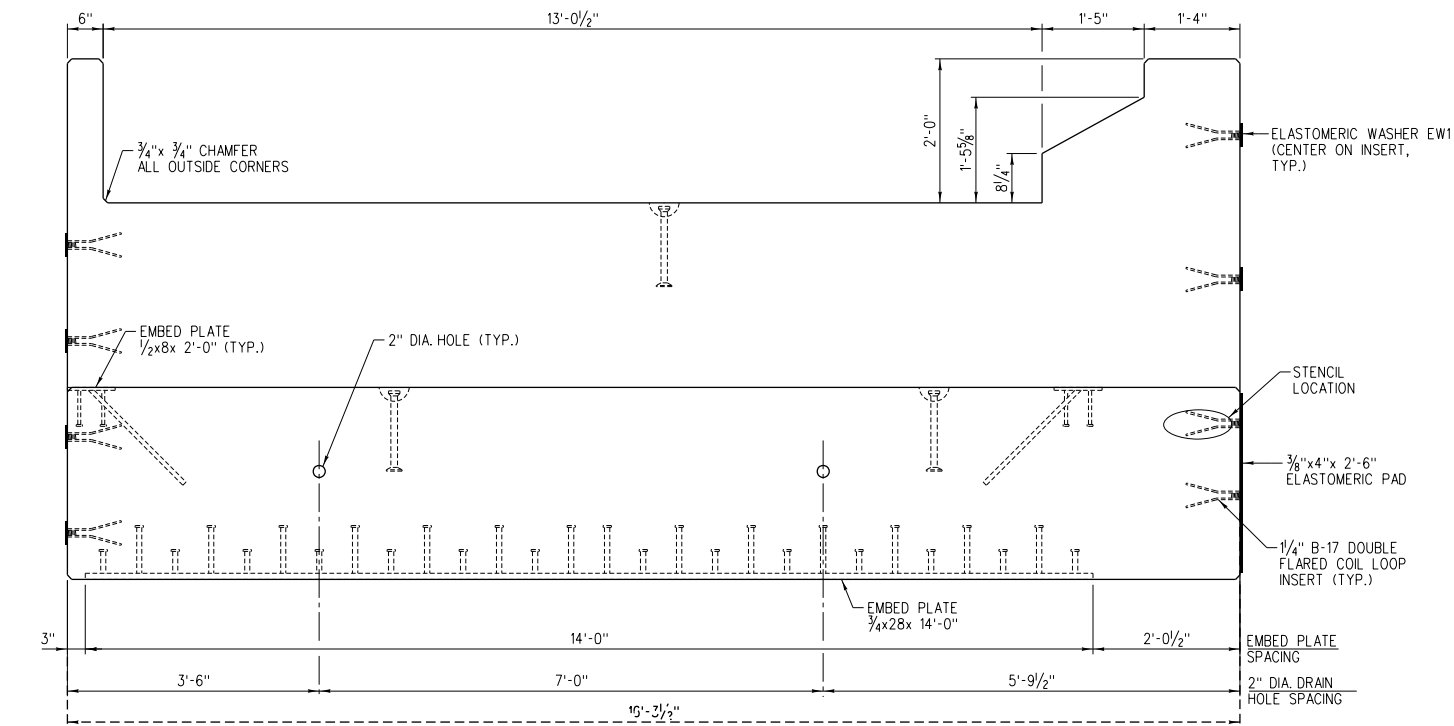
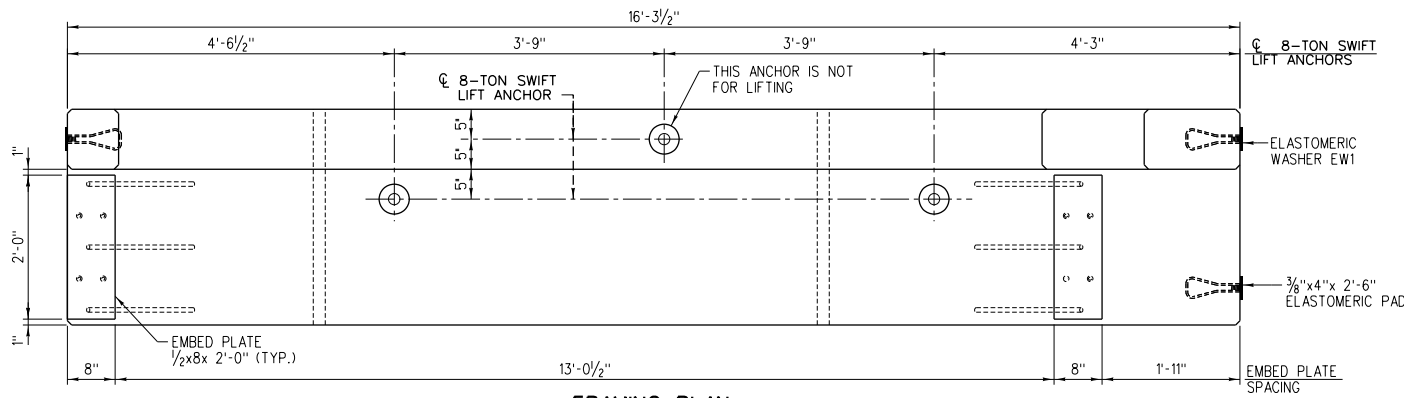
STATE OF TEXAS
★
NICHOLAS J. STARKS
111217
REGISTERED PROFESSIONAL ENGINEER
TRANSYSTEMS
F-3557

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	AS SHOWN	TRINITY METRO DOUBLE TRACKING PCB25, PCB28, PCB28-V		
DRAWN	AB			
DESIGNED	EMO			
CHECKED	NJS			
IN CHARGE	MRH			
DATE	12/19/2025			
		SHEET No. 241	DWG No. S-052	REV

USER: k06090025 TIME: 8/4/21 AM
SCALE: \$SCAL\$ SHORT \$PENTABLE\$ \$PENTBL\$ \$S\$
FILE: pw:\\transystems-pw\\benley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\NW202_202240018\\Bridge\\Standard Sheets\\S-BRG-570



MATERIAL SCHEDULE		
REQ'D	UNIT	DESCRIPTION
6.2	CU.YD.	4000 PSICONCRETE (PER NOTES, SHEET S-047)
1	LOT	REINFORCING STEEL (SCHEDULE, THIS SHEET AND PER NOTES, SHEET S-047)
2	EA.	EMBED PLATE 1/2x8x 2'-0" (PER NOTES, SHEET S-047 AND DETAIL, SHEET S-060)
1	EA.	EMBED PLATE 3/4x28x 14'-0" (PER NOTES, SHEET S-047 AND DETAIL, SHEET S-060)
4	EA.	1/4" B-17 DOUBLE FLARED COIL LOOP INSERT, ELECTRO-GALVANIZED
3	EA.	8-TON SWIFT LIFT ANCHOR (PER NOTES, SHEET S-047)
2	EA.	3/4"x10"x 1'-2" BEARING PAD, RANDOM ORIENTED FIBER MATERIAL (PER NOTES, SHEET S-047 AND DETAIL, SHEET S-061)
4	EA.	3/4"x8"x 0'-10" BEARING PAD, RANDOM ORIENTED FIBER MATERIAL (PER NOTES, SHEET S-047 AND DETAIL, SHEET S-061)
7	LIN.FT.	2" DIA. PVC PIPE, SCHEDULE 40
2	EA.	4" SQUARE ALUMINUM #4 WIRE MESH HARDWARE CLOTH
1	EA.	3/8"x4"x 2'-6" ELASTOMERIC BEARING PAD (60 DUROMETER)
3	EA.	ELASTOMERIC WASHER EW1 (PER DETAIL, SHEET S-060)

REINFORCING SCHEDULE				
(QUANTITY PER CAP)				
REQ'D	MARK	SIZE	LENGTH	SHAPE
2	D100	#5	1'-0"	—
2	D209	#5	2'-9"	—
1	D303b	#5	3'-3"	⌋
4	D401b	#5	4'-1"	⌋
1	D407b	#5	4'-7"	⌋
3	D501b	#5	5'-1"	⌋
27	D701b	#5	7'-1"	⌋
1	D807b	#5	8'-7"	⌋
64	D901b	#5	9'-1"	⌋
1	D903b	#5	9'-3"	⌋
1	D911b	#5	9'-11"	⌋
2	D1101b	#5	11'-1"	⌋
10	D1511	#5	15'-11"	—
6	F1511	#7	15'-11"	—
6	G1511	#8	15'-11"	—

EST. WT. OF REINFORCING STEEL FOR CAP = 1,525 LB.

- NOTES:
- MINIMALLY ADJUST REINFORCING TO CLEAR EMBEDDED ITEMS.
 - CHAMFERS NOT REQUIRED AT EMBEDDED PLATES.
 - STENCIL INFORMATION SHALL INCLUDE THE FOLLOWING:
ITEM NAME, DATE MANUFACTURED,
NAME OF MANUFACTURER AND ACTUAL LIFTING WEIGHT.
 - B-17 SHALL BE CLEAN AND FREE OF DEBRIS PRIOR TO SHIPPING.
 - GLUE ELASTOMERIC PADS AND WASHERS TO CAP WITH PL-400 ADHESIVE OR APPROVED EQUAL.
 - FOR BEARING PAD PLACEMENT (SEE SHEET S-061)
 - EF = EACH FACE

ISSUED FOR BID - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	KAB	KAB	BES	BES
12/19/2025		REVISED SHEET REFERENCE	KAB	KAB	BES	BES
			BY	ENG	CHK	APP



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FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557

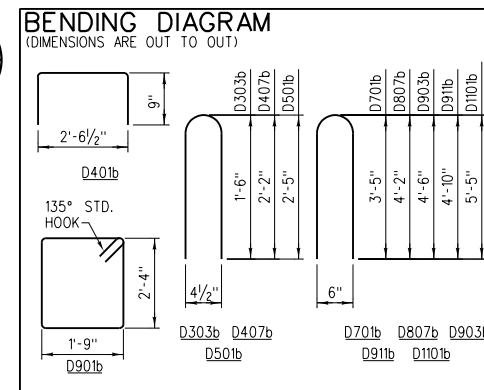
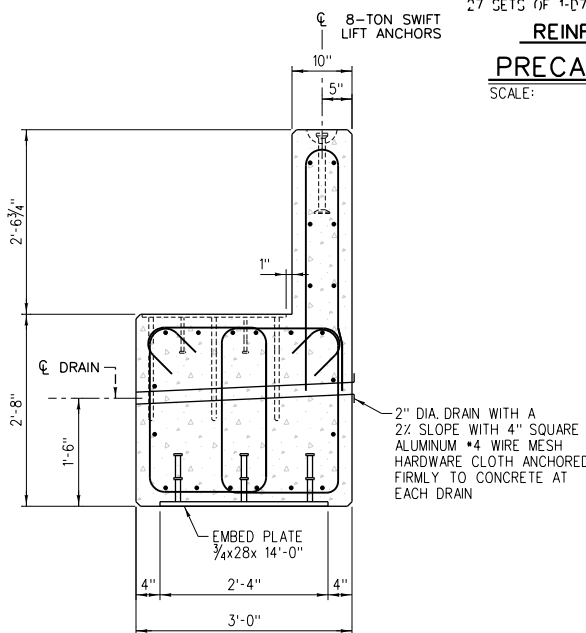
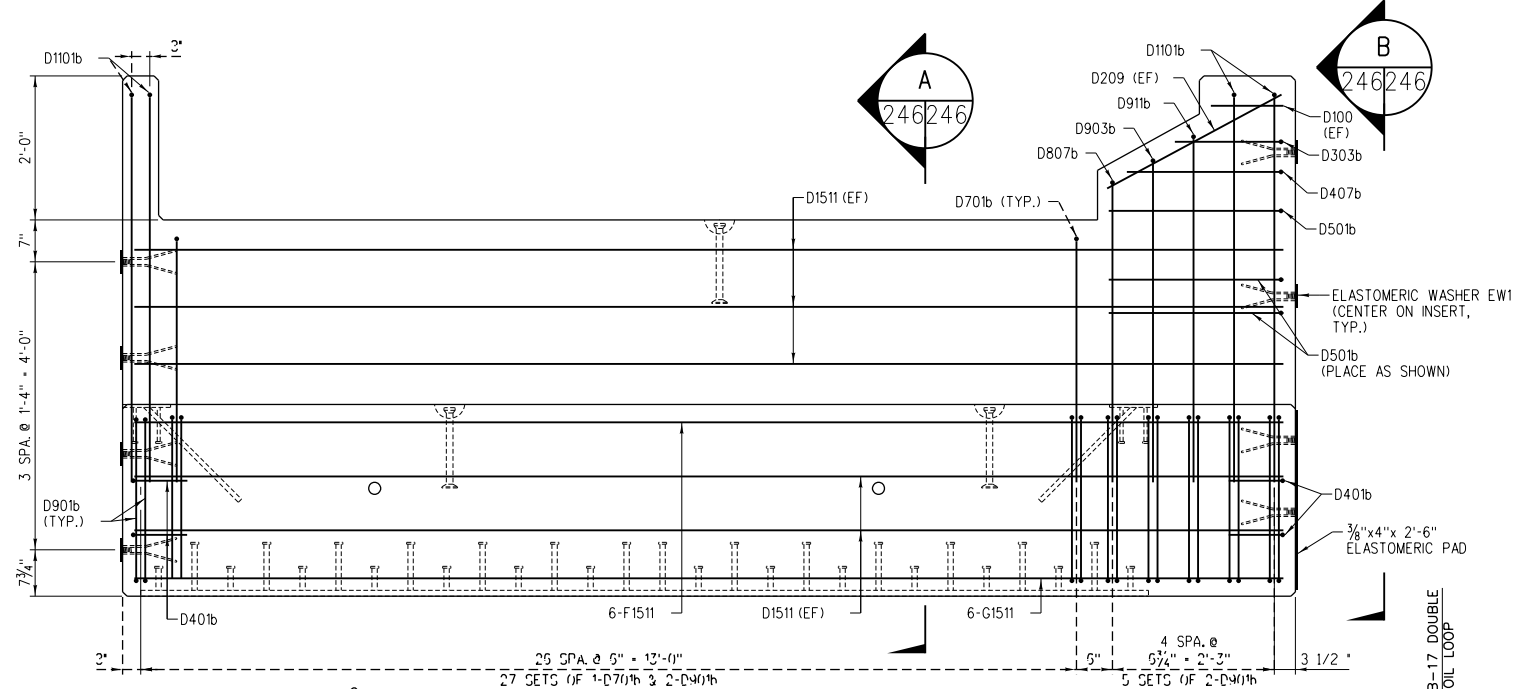


SCALE	AS SHOWN
DRAWN	AB
DESIGNED	EMO
CHECKED	NJS
IN CHARGE	MRH
DATE	12/19/2025

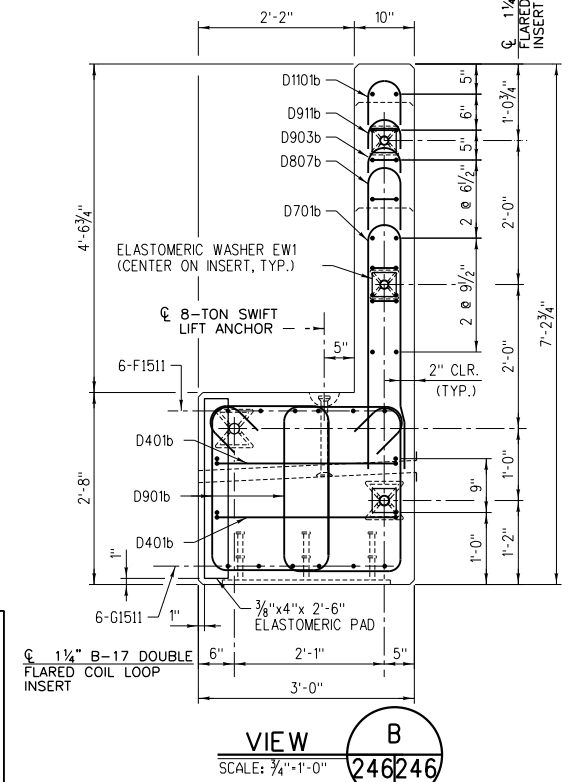
EST. WT. OF PRECAST CONCRETE
PRECAST CAP SPC30-1 = 26,200 LB. (13.1 TON)

TRINITY METRO
DOUBLE TRACKING
END CAP SPC30-1
FRAMING AND REINFORCING

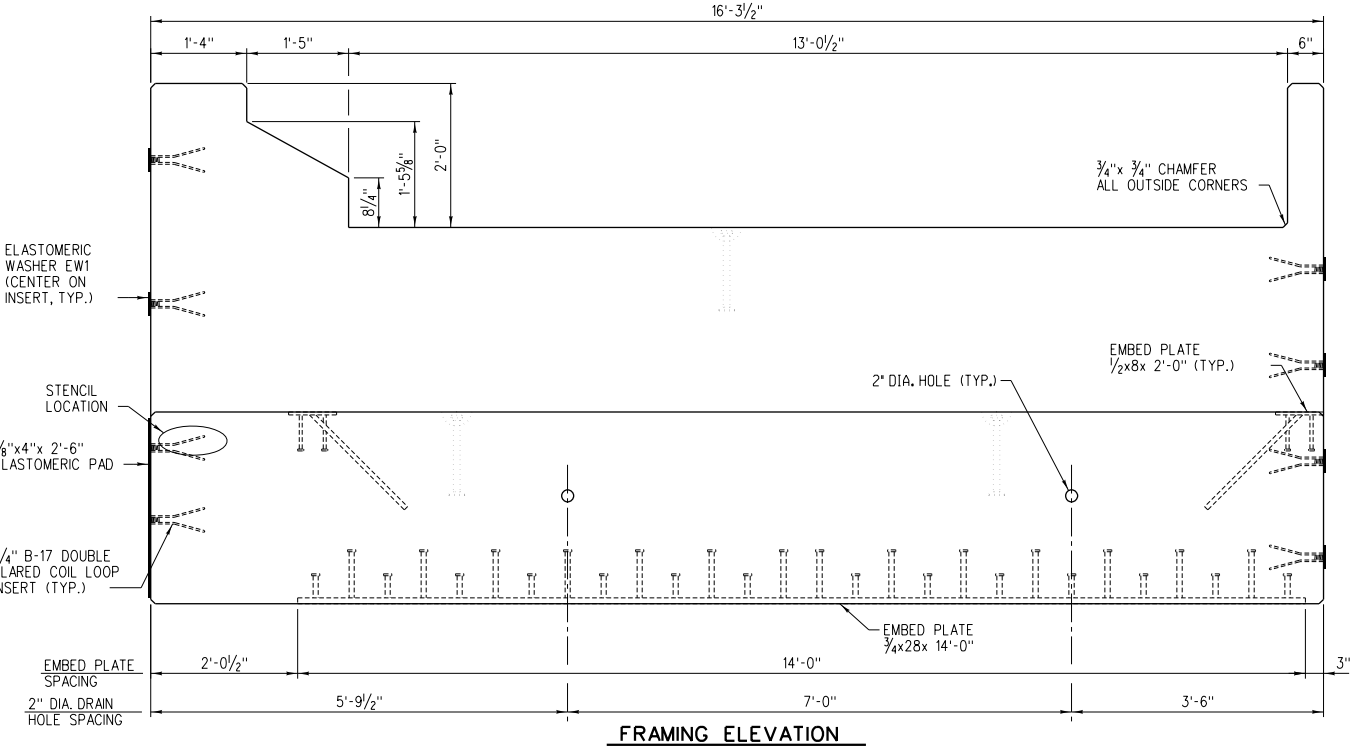
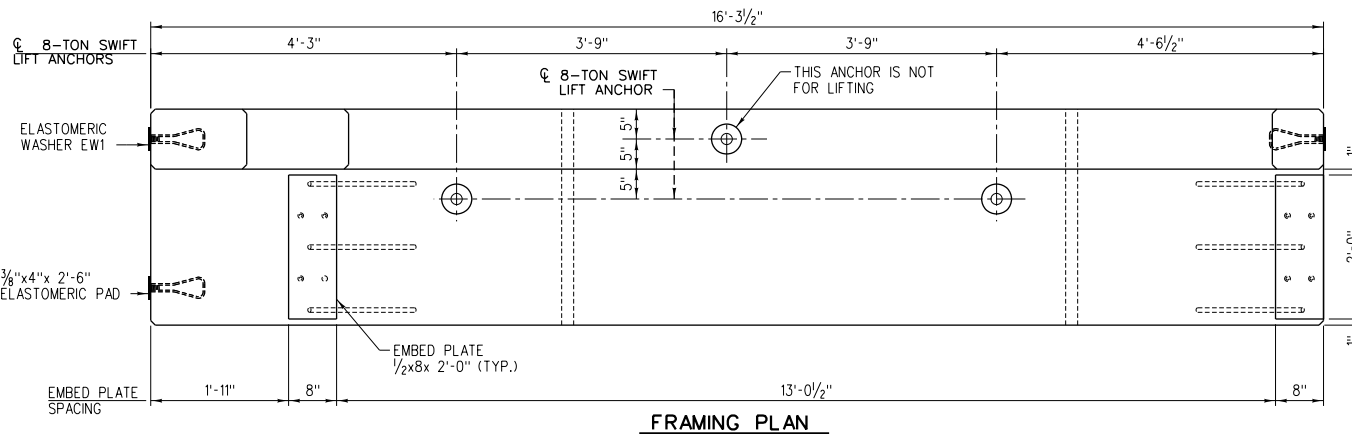
SHEET No. 246	DWG No. S-057	REV
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NOTE:
BAR DESIGNATIONS CONSIST OF BAR SIZE & LENGTH FOLLOWED BY THE LETTER "b" IF BENT. BAR SIZES ARE REPRESENTED BY THE LETTERS A THROUGH L CORRESPONDING TO BAR SIZE #2 THROUGH #18. BAR LENGTHS ARE GIVEN IN FEET AND INCHES; THE LAST TWO DIGITS ARE INCHES.



USER: k08090025 TIME: 8/4/17 AM
SCALE: \$SCAL\$ SHORT\$ PENTABE\$ \$PENTABE\$
FILE: pw:\\transystems-pw\\bentley.com\\transyscorp-pw\\hosted\\Documents\\Projects_2024\\FW202_202240018\\Bridge\\Standard Sheets\\S-BRG-571



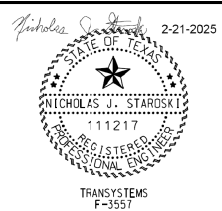
MATERIAL SCHEDULE		
REQ'D	UNIT	DESCRIPTION
6.2	CU.YD.	4000 PSICONCRETE (PER NOTES, SHEET S-047)
1	LOT	REINFORCING STEEL (SCHEDULE, THIS SHEET AND PER NOTES, SHEET S-047)
2	EA.	EMBED PLATE 1/2x8x 2'-0" (PER NOTES, SHEET S-047 AND DETAIL, SHEET S-060)
1	EA.	EMBED PLATE 3/4x28x 14'-0" (PER NOTES, SHEET S-047 AND DETAIL, SHEET S-060)
4	EA.	1/4" B-17 DOUBLE FLARED COIL LOOP INSERT, ELECTRO-GALVANIZED
3	EA.	8-TON SWIFT LIFT ANCHOR (PER NOTES, SHEET S-047)
2	EA.	3/4"x10"x 1'-2" BEARING PAD, RANDOM ORIENTED FIBER MATERIAL (PER NOTES, SHEET S-047 AND DETAIL, SHEET S-061)
4	EA.	3/4"x8"x 0'-10" BEARING PAD, RANDOM ORIENTED FIBER MATERIAL (PER NOTES, SHEET S-047 AND DETAIL, SHEET S-061)
7	LN.FT.	2" DIA. PVC PIPE, SCHEDULE 40
2	EA.	4" SQUARE ALUMINUM #4 WIRE MESH HARDWARE CLOTH
1	EA.	3/8"x4"x 2'-6" ELASTOMERIC BEARING PAD (60 DUROMETER)
3	EA.	ELASTOMERIC WASHER EW1 (PER DETAIL, SHEET S-060)

REINFORCING SCHEDULE				
REQ'D	MARK	SIZE	LENGTH	SHAPE
2	D100	#5	1'-0"	—
2	D209	#5	2'-9"	—
1	D303b	#5	3'-3"	⌋
4	D401b	#5	4'-1"	⌋
1	D407b	#5	4'-7"	⌋
3	D501b	#5	5'-1"	⌋
27	D701b	#5	7'-1"	⌋
1	D807b	#5	8'-7"	⌋
64	D901b	#5	9'-1"	⌋
1	D903b	#5	9'-3"	⌋
1	D911b	#5	9'-11"	⌋
2	D1101b	#5	11'-1"	⌋
10	D1511	#5	15'-11"	—
6	F1511	#7	15'-11"	—
6	G1511	#8	15'-11"	—

EST. WT. OF REINFORCING STEEL FOR CAP = 1,525 LB.

ISSUED FOR BID - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
1	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES	BES



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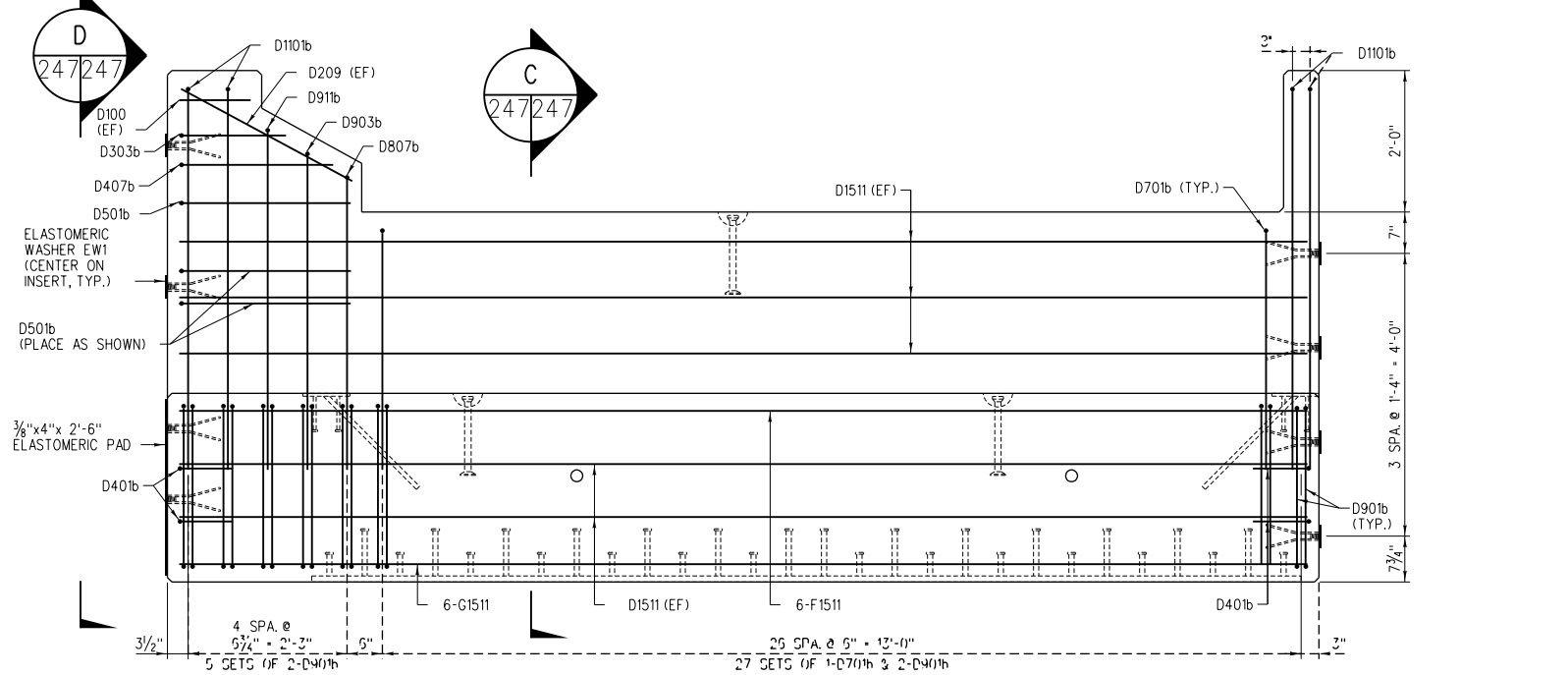


SCALE	AS SHOWN
DRAWN	AB
DESIGNED	EMO
CHECKED	NJS
IN CHARGE	MRH
DATE	12/19/2025

EST. WT. OF PRECAST CONCRETE
PRECAST CAP SPC30-2 = 26,200 LB. (13.1 TON)

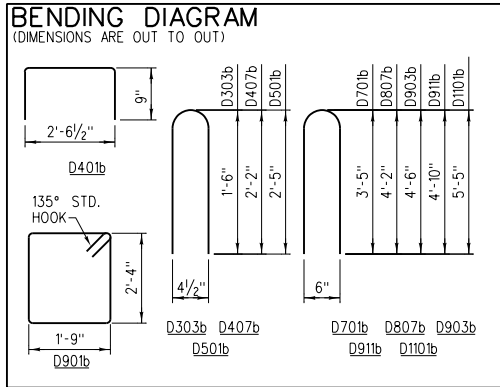
TRINITY METRO
DOUBLE TRACKING
END CAP SPC30-2
FRAMING AND REINFORCING

SHEET No.	DWG No.	REV
247	S-058	



2" DIA. DRAIN WITH
A 2% SLOPE TO 4"
SQUARE ALUMINUM
#4 WIRE MESH HARDWARE
CLOTH ANCHORED FIRMLY
TO CONCRETE AT EACH DRAIN

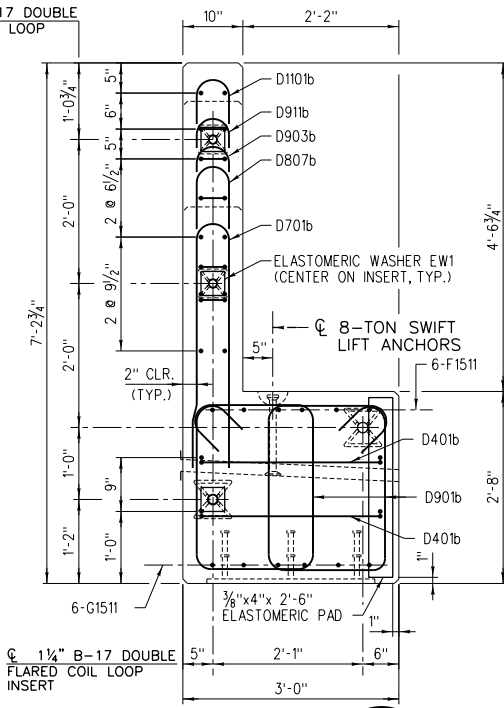
SECTION C
SCALE: 3/4"=1'-0"



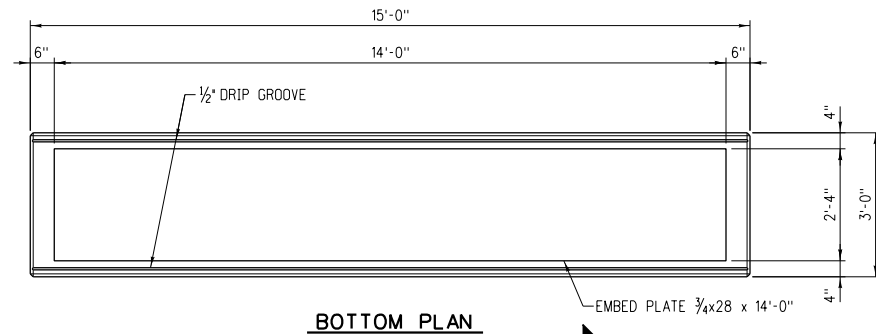
- NOTES:
- MINIMALLY ADJUST REINFORCING TO CLEAR EMBEDDED ITEMS.
 - CHAMFERS NOT REQUIRED AT EMBEDDED PLATES.
 - STENCIL INFORMATION SHALL INCLUDE THE FOLLOWING:
ITEM NAME, DATE MANUFACTURED,
NAME OF MANUFACTURER AND ACTUAL LIFTING WEIGHT.
 - B-17 SHALL BE CLEAN AND FREE OF DEBRIS PRIOR TO SHIPPING.
 - GLUE ELASTOMERIC PADS AND WASHERS TO CAP WITH PL-400 ADHESIVE OR APPROVED EQUAL.
 - FOR BEARING PAD PLACEMENT SEE SHEET S-061
 - EF = EACH FACE



REV 1 CHANGES ONLY
IDENTIFIED BY REVISION
CLOUDS ARE MADE UNDER
SUPERVISION AND
AUTHORITY OF BRENT E.
SHIMANEK, P.E., TX PE
#131147 TO
ACCOMMODATE BIDDING OF
THIS PROJECT.



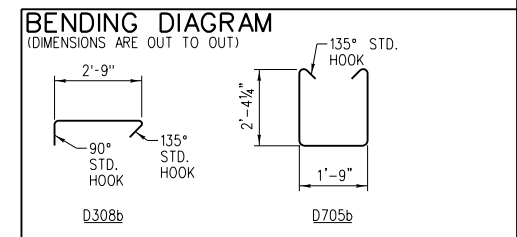
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SCALE: 3/4"=1'-0"



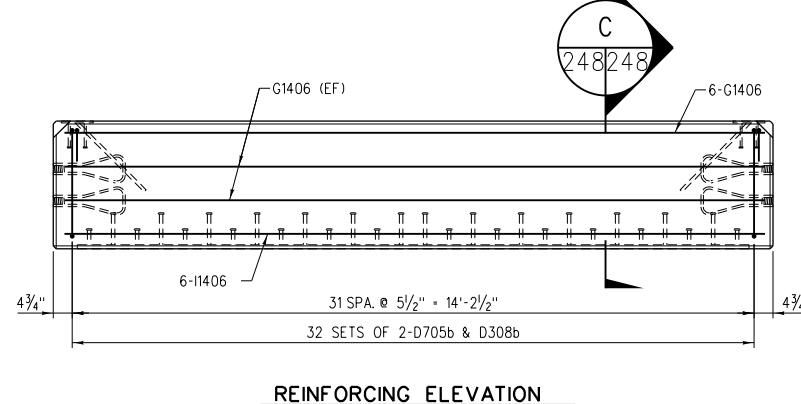
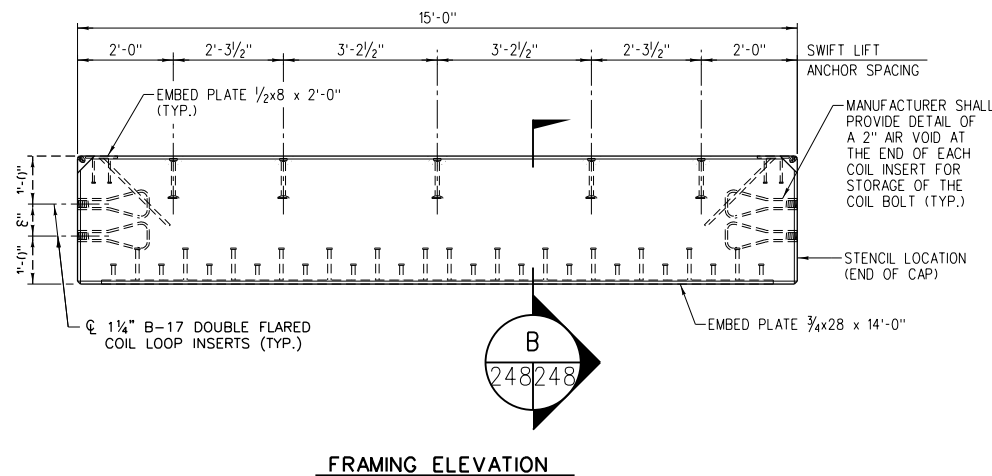
BILL OF MATERIAL (QUANTITY PER CAP)			
PILE CAP PC301TS (BOX BEAMS)	PILE CAP PC301TS SLAB BEAMS	UNIT	DESCRIPTION
4.4	4.4	CU.YD.	4000 PSICONCRETE (PER NOTES, SHEET S-047)
1	1	LOT	REINFORCING STEEL (SCHEDULE, THIS SHEET AND PER NOTES, SHEET S-047)
1	1	EA.	EMBED PLATE 3/4"x28"x 14'-0" (PER NOTES, SHEET S-047 AND DETAIL, SHEET S-060)
2	2	EA.	EMBED PLATE 1/2"x8"x 2'-0" (PER NOTES, SHEET S-047 AND DETAIL, SHEET S-060)
	6	EA.	8-TON SWIFT LIFT ANCHOR (PER NOTES, SHEET S-047)
8	-	EA.	3/4"x8"x 0'-10" ELASTOMERIC BEARING PAD, RANDOM ORIENTED FIBER MATERIAL (PER NOTES, SHEET S-047 AND DETAIL, SHEET S-061)
4	-	EA.	3/4"x10"x 1'-2" ELASTOMERIC BEARING PAD, RANDOM ORIENTED FIBER MATERIAL (PER NOTES, SHEET S-047 AND DETAIL SHEET S-061)
-	4	EA.	3/4"x10"x 6'-2" ELASTOMERIC BEARING PAD, RANDOM ORIENTED FIBER MATERIAL (PER NOTES, SHEET S-047 AND DETAIL SHEET S-061)
4	4	EA.	8" T-BAR ANCHOR (PER NOTES SHEET S-047)
4	4	EA.	1/4" B-17 DOUBLE FLARED COIL LOOP INSERT, ELECTRO-GALVANIZED
4	4	EA.	STEEL WASHER W100, GALVANIZED (PER NOTES SHEET S-047 AND DETAIL SHEET S-061)
4	4	EA.	1 1/4" DIA. x 9/16" COIL BOLT DAYTON SUPERIOR B-14

REINFORCING SCHEDULE				
(QUANTITY PER CAP)				
REQ'D	MARK	SIZE	LENGTH	SHAPE
32	D308b	#5	3'-8"	
64	D705b	#5	7'-5"	
10	G1406	#8	14'-6"	—
6	I1406	#10	14'-6"	—

EST. WT. OF REINFORCING STEEL = 1,380 LB.



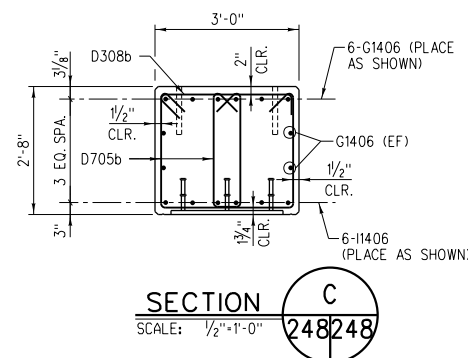
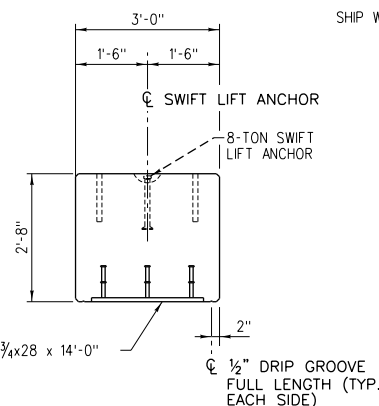
NOTE:
BAR DESIGNATIONS CONSIST OF BAR SIZE & LENGTH FOLLOWED BY THE LETTER "b" IF BENT. BAR SIZES ARE REPRESENTED BY THE LETTERS A THROUGH L CORRESPONDING TO BAR SIZE #2 THROUGH #18. BAR LENGTHS ARE GIVEN IN FEET AND INCHES; THE LAST TWO DIGITS ARE INCHES.



REINFORCING ELEVATION

PILE CAP PC30I1S

SCALE: $\frac{1}{2}"=1'-0"$
SHIP WITH B-14 COIL BOLTS AND W100 STEEL WASHERS
PER TABLE THIS SHEET.



REV 1 CHANGES ONLY
IDENTIFIED BY REVISION
CLOUDS ARE MADE UNDER
SUPERVISION AND
AUTHORITY OF BRENT E.
SHIMANEK, P.E., TX PE
#131147 TO
ACCOMMODATE BIDDING OF
THIS PROJECT.

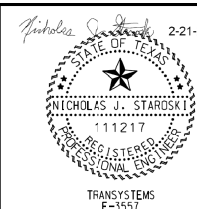
NOTES:

1. FOR PRECAST CONCRETE NOTES, EMBEDDED STEEL ~~NOTES AND BEARING PAD NOTES~~, SEE SHEET S-047.  
2. FOR BEARING PAD DETAILS, SEE SHEET S-061. 
3. MANUFACTURER SHALL SHIP CAP WITH COIL BOLT AND WASHER FULLY INSTALLED IN EACH INSERT. PROVIDE SUFFICIENT VENT IN EACH INSERT FOR POST-INSTALLATION STORAGE OF COIL BOLT.
4. AFTER PILE CAP IS SET, REMOVE THE COIL BOLTS AND FILL WITH CONSTRUCTION FOAM INSULATION. SCREED OFF EXCESS AFTER SETTING TO LEAVE FOAM FLUSH WITH CAP FACE.
5. EF = EACH FACE

EST. WT. OF PRECAST CONCRETE
PILE CAP PC3011S = 19,700 LB. (9.9 TON)

ISSUED FOR BID - NOT FOR CONSTRUCTION

△					
△					
△					
△					
△					
△	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES
REV	DATE	DESCRIPTION	BY	ENG	CHK
			APP		



TRANSYSTEMS

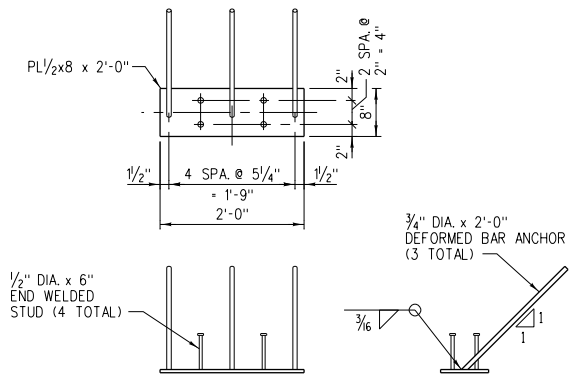
500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557

TRINITY  METROSM

SCALE	AS SHOWN	TRINITY METRO DOUBLE TRACKING PILE CAP PC3011S FRAMING AND REINFORCING		
DRAWN	AB			
DESIGNED	EMO			
CHECKED	NJS			
IN CHARGE	MRH			
DATE	12/19/2025			
		SHEET No. 248	DWG No. S-059	REV

USER: kshannon
DATE: 12/19/2025
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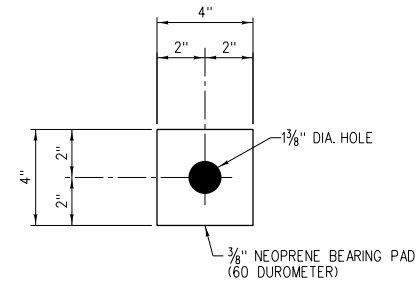
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EMBED PLATE 1/2x8 x 2'-0"

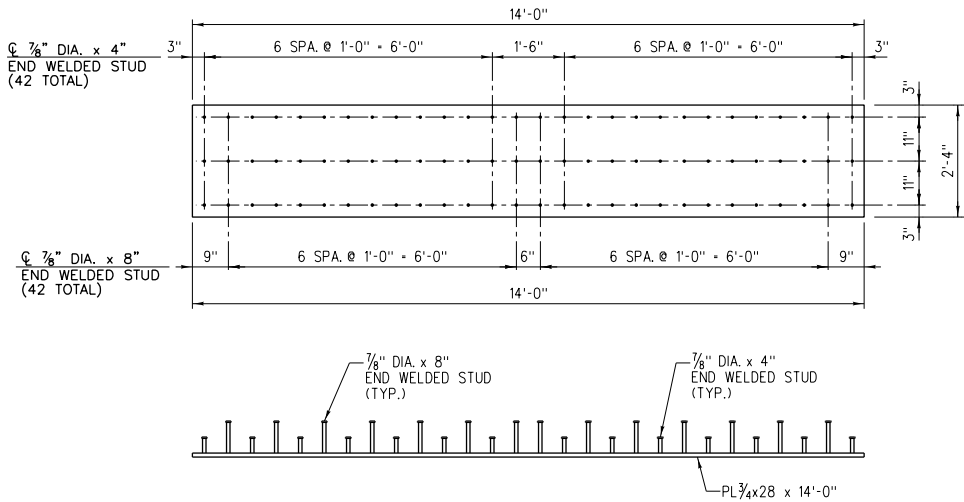
SCALE: 3/4"=1'-0"

EST. WT. = 37.8 LB.



ELASTOMERIC WASHER EW1

SCALE: 3"=1'-0"



EMBED PLATE 3/4x28 x 14'-0"

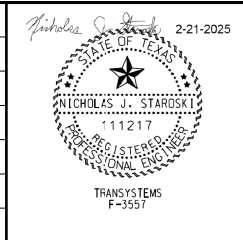
SCALE: 1/2"=1'-0"

EST. WT. = 1,087 LB.

NOTES:
1. FOR EMBEDDED STEEL NOTES, SEE PLAN SHEET S-047.
2. DO NOT PAINT OR GALVANIZE PLATES.

ISSUED FOR BID - NOT FOR CONSTRUCTION

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△	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES	BES
REV	DATE	DESCRIPTION	BY	ENG	CHK	APP



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FIRM REG. #: 3557

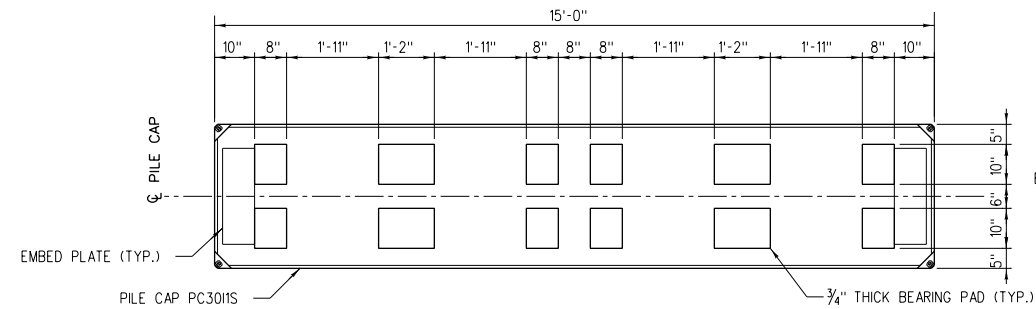


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AUTHORITY OF BRENT E.
SHIMANEK, P.E., TX PE
#131147 TO
ACCOMMODATE BIDDING OF
THIS PROJECT.

SCALE	AS SHOWN
DRAWN	AB
DESIGNED	EMO
CHECKED	NJS
IN CHARGE	MRH
DATE	12/19/2025

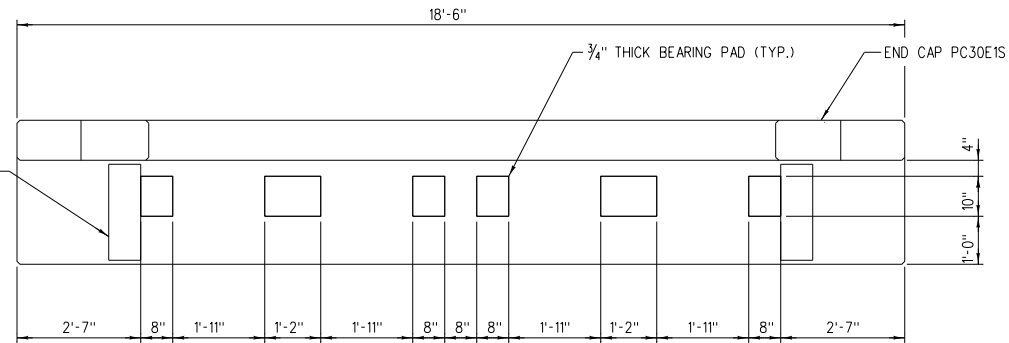
TRINITY METRO DOUBLE TRACKING EMBED STEEL FOR PRECAST CONCRETE CAPS		
SHEET No. 249	DWG No. S-060	REV

1



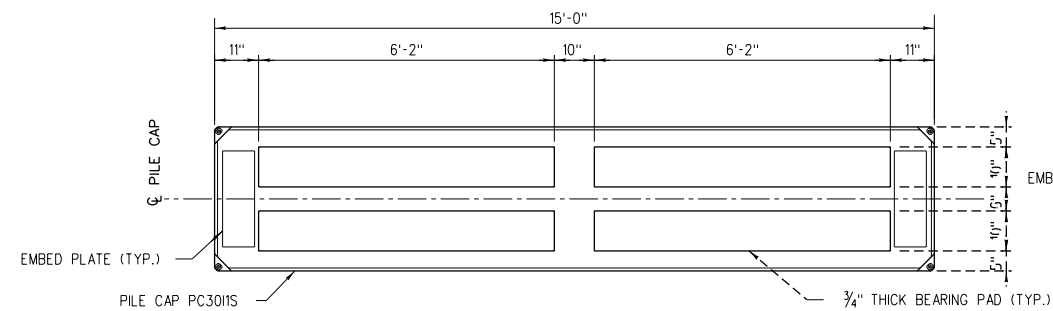
BEARING PAD PLACEMENT AT PILE CAP (PC3011S) - BOX BEAM

SCALE:

$$\frac{1}{2}'' = 1' - 0''$$


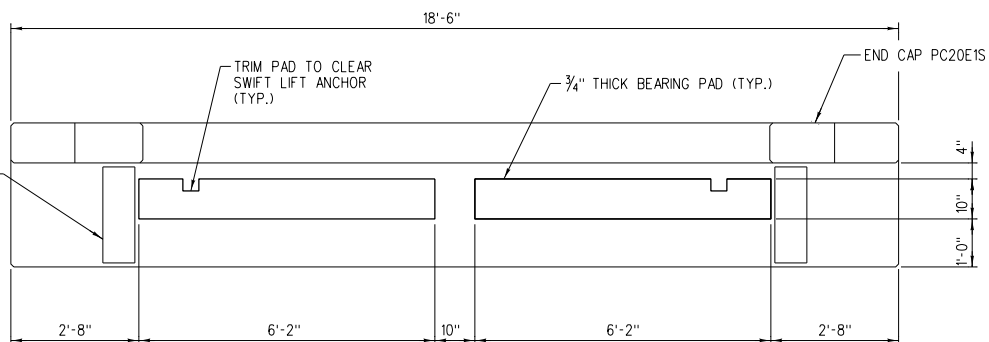
BEARING PAD PLACEMENT AT END BENT (PC30E1S) - BOX BEAM

SCALE:

$$\frac{1}{2}'' = 1' - 0''$$


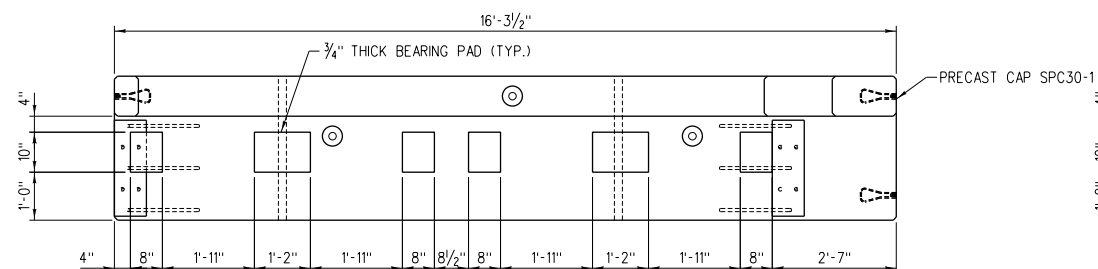
BEARING PAD PLACEMENT AT PILE CAP (PC3011S) - SLAB BEAM

SCALE:

$$\frac{1}{2}'' = 1' - 0''$$


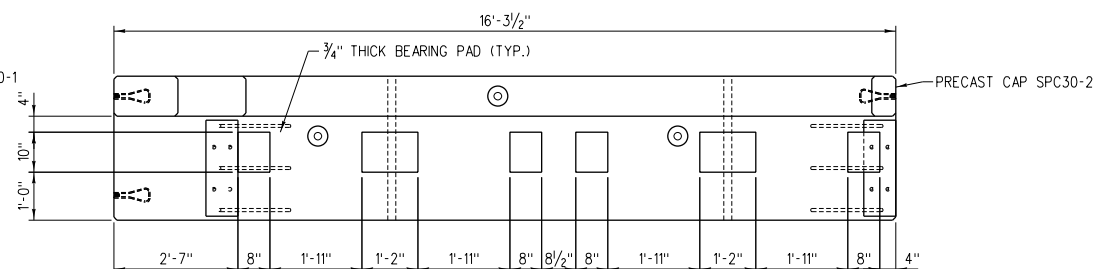
BEARING PAD PLACEMENT AT END BENT (PS20E1S) - SLAB BEAM

SCALE:

$$\frac{1}{2}'' = 1' - 0''$$


BEARING PAD PLACEMENT AT PRECAST CAP (SPC30-1) - BOX BEAM

SCALE:

$$\frac{1}{2}'' = 1' - 0''$$


BEARING PAD PLACEMENT AT PRECAST CAP (SPC30-2) - BOX BEAM

SCALE:

$$\frac{1}{2}'' = 1' - 0''$$

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△	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES BES
REV	DATE	DESCRIPTION	BY	ENG	CHK APP



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TRINITY  METROSM

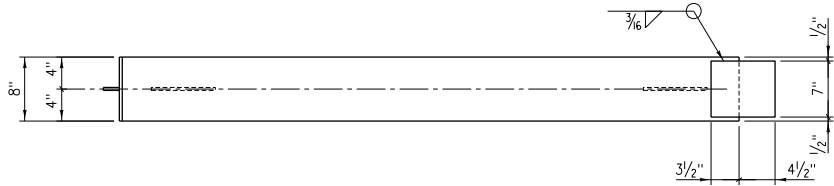


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AUTHORITY OF BRENT E.
SHIMANEK, P.E., TX PE
#131147 TO
ACCOMMODATE BIDDING OF
THIS PROJECT.

SCALE	AS SHOWN	TRINITY METRO DOUBLE TRACKING PRECAST CONCRETE PILE CAP BEARING PADS		
DRAWN	AB			
DESIGNED	EMO			
CHECKED	NJS			
IN CHARGE	MRH			
DATE	12/19/2025			
		SHEET No. 250	DWG No. S-061	REV

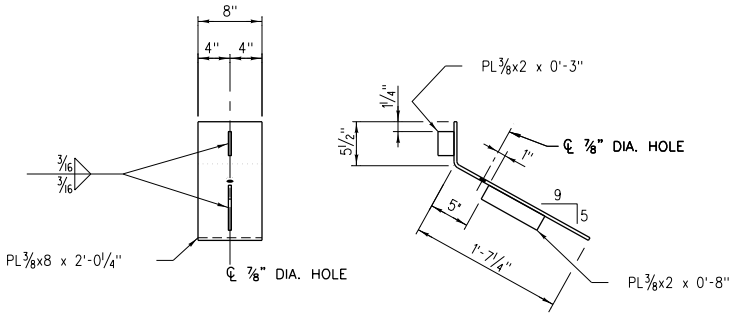
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TIME: 8:42:45 AM
SCALE: \$SCAL\$
FILE: pw:\transystems\pw\hosted\Documents\Projects_2024\FW202_202240018\Bridg\Standard Sheets\S-BRG-563



DECK PLATE CDP1

SCALE: 1"=1'-0"
EST. WT. = 83.6 LB. EA.
GALVANIZE AFTER FABRICATION



DECK PLATE CDP3

SCALE: 1"=1'-0"
EST. WT. = 23.0 LB. EA.
GALVANIZE AFTER FABRICATION

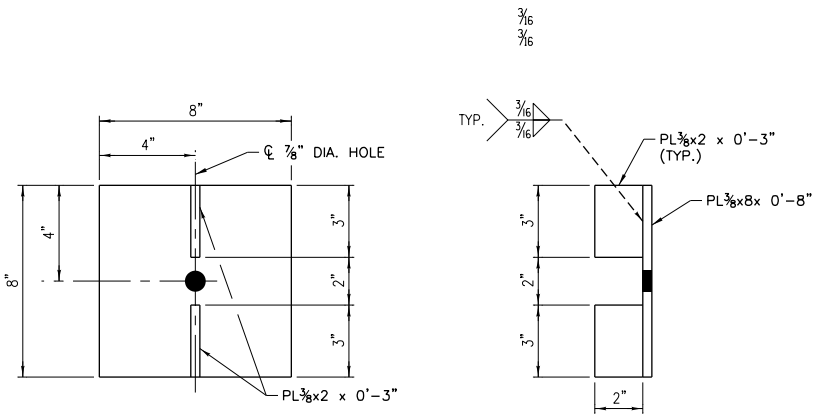
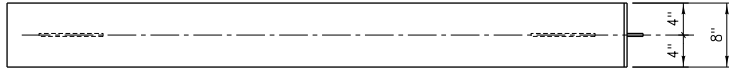


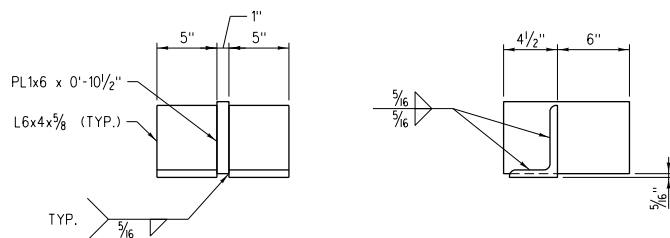
PLATE PL31

SCALE: 3"=1'-0"
EST. WT. = 8.1 LB. EA.
GALVANIZE AFTER FABRICATION
SHIP WITH 3/4" DIA. x 9 1/2" BOLT WITH LOCKNUT AND TWO WASHERS
STORE ITEM NO. 510-0005



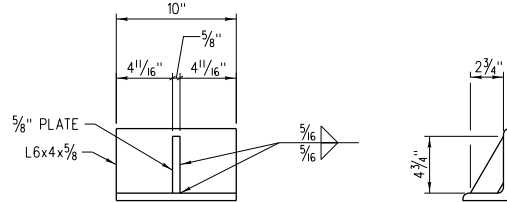
DECK PLATE CDP2

SCALE: 1"=1'-0"
EST. WT. = 77.6 LB. EA.
GALVANIZE AFTER FABRICATION



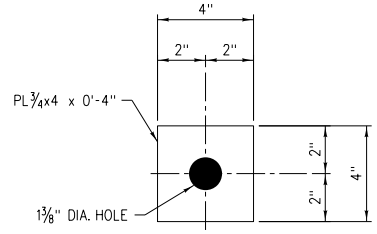
BEAM STOP GS-2

SCALE: 1/2"=1'-0"
EST. WT. = 34.5 LB. EA.



BEAM STOP GS-3

SCALE: 1/2"=1'-0"
EST. WT. = 18.6 LB. EA.



WASHER W100

SCALE: 3"=1'-0"
EST. WT. = 3.4 LB. EA.
GALVANIZE AFTER FABRICATION

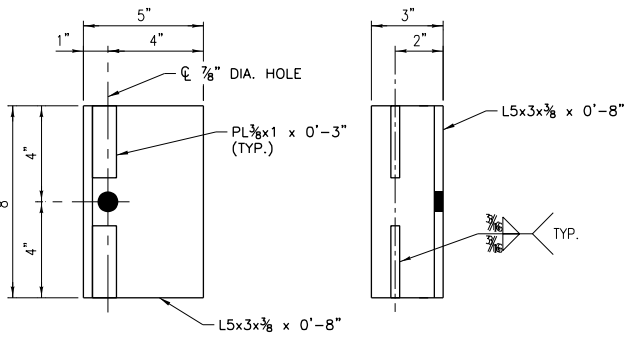


PLATE PL32

SCALE: 3"=1'-0"
EST. WT. = 7.2 LB. EA.
GALVANIZE AFTER FABRICATION
SHIP WITH 3/4" DIA. x 9 1/2" BOLT WITH LOCKNUT AND TWO WASHERS
STORE ITEM NO. 510-0006

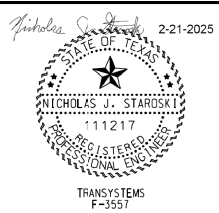


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AUTHORITY OF BRENT E.
SHIMANEK, P.E., TX PE
#131147 TO
ACCOMMODATE BIDDING OF
THIS PROJECT.

NOTE:
FOR MISCELLANEOUS STEEL NOTES,
SEE SHEET S-047

ISSUED FOR BID - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
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△						
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△	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES	BES



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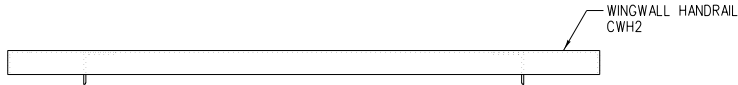


SCALE	AS SHOWN
DRAWN	AB
DESIGNED	EMO
CHECKED	NJS
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO
DOUBLE TRACKING
DECK PLATES AND STOPS
STEEL DETAILS

SHEET No. 251	DWG No. S-062	REV
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USER: k0b0g0r025
TIME: 00656 AM
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FILE: \\transyscorp-pw\hosted\Documents\Projects_2024\FW202_202240018\Bridge\Standard Sheets\S-BRG-564

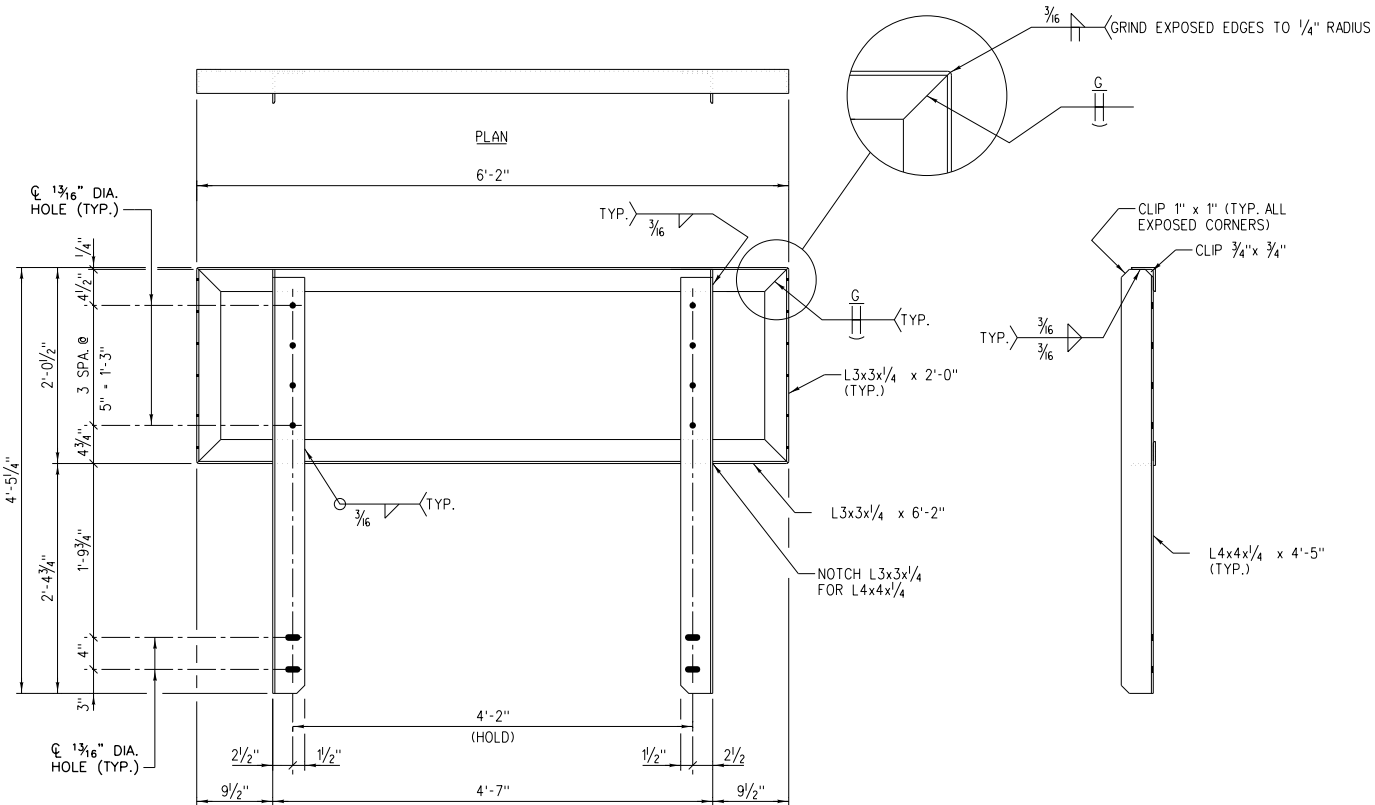


PLAN

END HANDRAIL ASSEMBLY CEHG2 (WITH GRATING)

SCALE:

EST. WT. = 139 LB. EA.
(SHOP ASSEMBLED)
SHIP WITH 3/4" DIA. x 11" BOLTS WITH LOCKNUT AND WASHER PER SCHEDULE, THIS SHEET



ELEVATION

SECTION

TYPICAL END VIEW
(RIGHT END SHOWN, LEFT END SIMILAR)

WINGWALL HANDRAIL CWH2

SCALE:

EST. WT. = 139 LB. EA.
GALVANIZE AFTER FABRICATION

NOTES:

- FOR MISCELLANEOUS STEEL NOTES, SEE DWG. NO. S-047
- GRATING, WHERE REQUIRED, SHALL BE FASTENED TO ASSEMBLY IN SHOP AFTER GALVANIZING.
- WELDING PIPE RAILS TO POSTS: THREE WELDS FOR EACH ASSEMBLY SHALL BE ALL-AROUND, BOTH SIDES; REMAINING WELDS SHALL BE ONE INCH LONG, ONE SIDE, ON TOP OF PIPE ONLY. LOCATE FULL WELDS AS FOLLOWS:

INTERIOR SPAN - BOTH WELDS ON ONE POST AT OR NEAR CENTER; TOP WELD ONLY ON ADJACENT POST.

END SPAN - BOTH WELDS ON END POST; TOP WELD ONLY ON POST AT OPPOSITE END.

MATERIAL SCHEDULE

(QUANTITY PER END HANDRAIL ASSEMBLY CEHG2)

REQ'D.	UNIT	DESCRIPTION
1	EA.	WINGWALL HANDRAIL CWH2
5	EA.	3/4" DIA. x 11" A307 GRADE A HVY. HEX BOLT W/ HVY. ELASTIC LOCKNUT (MIL-DTL-32258) & FLAT CIRCULAR WASHER (F436), GALVANIZED

REV 1 CHANGES ONLY IDENTIFIED BY REVISION CLOUDS ARE MADE UNDER SUPERVISION AND AUTHORITY OF BRENT E. SHIMANEK, P.E., TX PE #131147 TO ACCOMMODATE BIDDING OF THIS PROJECT.



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REV	DATE	DESCRIPTION	BY	ENG	CHK	APP
1	12/19/2025	REVISED SHEET REFERENCE	KAB	KAB	BES	BES



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SCALE	AS SHOWN
DRAWN	AB
DESIGNED	EMO
CHECKED	NJS
IN CHARGE	MRH
DATE	12/19/2025

TRINITY METRO DOUBLE TRACKING HANDRAILS ASSEMBLY DETAILS		
SHEET No. 252	DWG No. S-063	REV

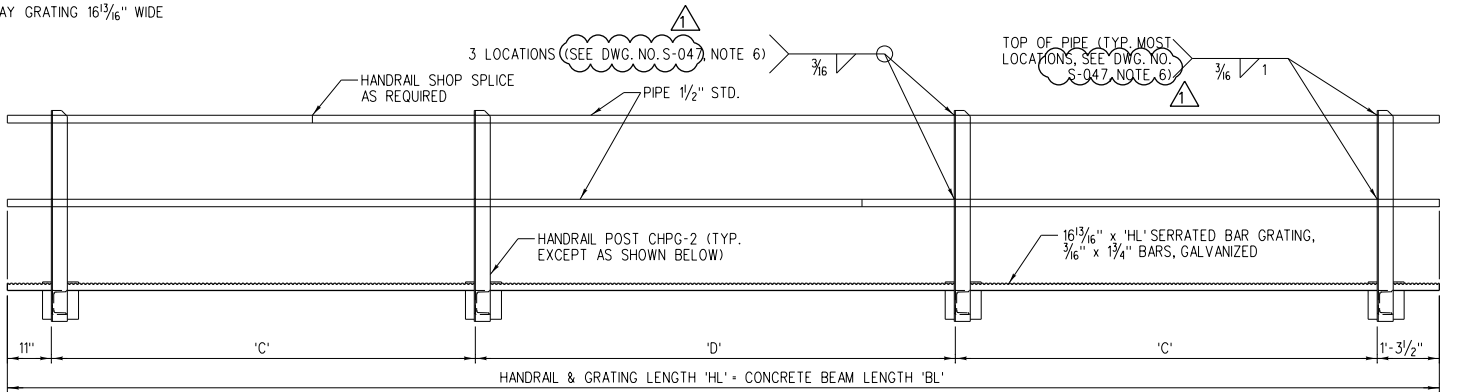
DIMENSION, WEIGHT AND ORDER DATA

BEAM LENGTH		HANDRAIL (PIPE) LENGTH		GRATING LENGTH 'HL' ALL SPANS	HANDRAIL POST SPACINGS				EST. WEIGHT (LB., NO GRATING)		EST. WEIGHT (LB., WITH GRATING)		SHIP WITH: 3/4" DIA. x 9/2" BOLT W/ ELASTIC LOCKNUT AND 2 FLAT CIRCULAR WASHERS	
NOMINAL 'L'	ACTUAL 'BL'	INTERIOR SPAN 'HL'	END SPAN		INTERIOR 'C'	END OR SINGLE 'C'	ALL 'D'		INTERIOR SPAN	END SPAN	INTERIOR SPAN	END SPAN	INTERIOR SPAN	END SPAN
20'	19'-10"	19'-10"	19'-1"	19'-10"	8'-9 3/4"	8'-9 3/4"	9'-2 1/4"	N/A	195.2	269.4	682.3	756.5	7	9
25'	24'-10"	24'-10"	24'-1"	24'-10"	6'-3 3/4"	6'-3 3/4"	6'-8 1/4"	10'-0"	251.5	325.7	870.7	944.9	9	11
28'	27'-10"	27'-10"	27'-1"	27'-10"	7'-9 3/4"	7'-9 3/4"	8'-2 1/4"	10'-0"	267.8	342.0	943.3	1017.5	9	11

• (SPACING FOR ASSEMBLY WITH GRATING IS IDENTICAL; ASSEMBLY MARK INCLUDES "G" AND USE "G" POSTS FOR HANDRAIL WITH GRATING)

'C' DIMENSION IS C/C OF HOLES PER DWG. NO. S-054

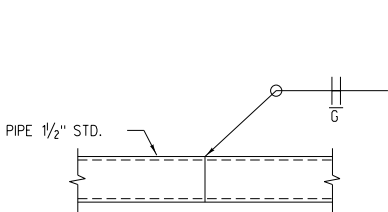
STEEL WALKWAY GRATING 16 3/16" WIDE



HANDRAIL ASSEMBLY - W/ GRATING

SCALE:

ASSEMBLY C2G1 FOR INTERIOR SPAN OR SINGLE SPAN WHEN USED IN CONJUNCTION WITH END HANDRAIL ASSEMBLY CEHG2
SHIP WITH 3/4" DIA. x 9/2" BOLTS WITH LOCKNUT AND 2 WASHERS PER TABLE, THIS SHEET

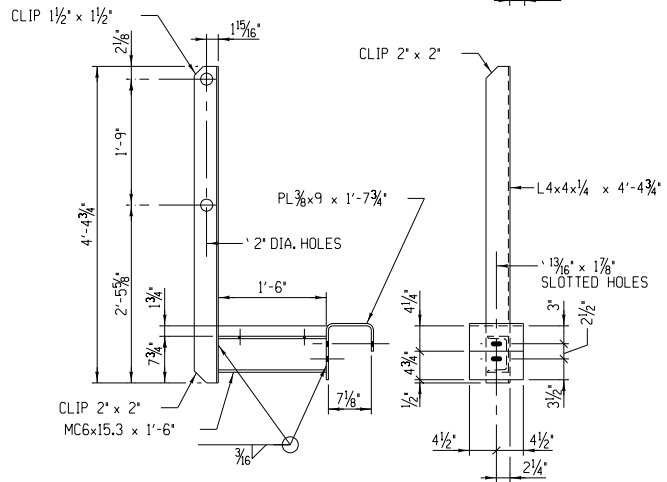
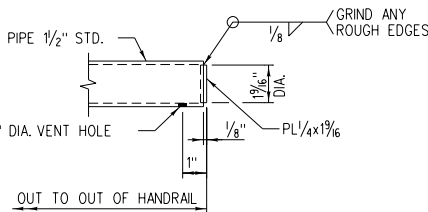


HANDRAIL SHOP SPLICE

SCALE:

END CLOSURE DETAIL

SCALE:



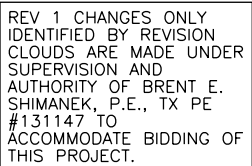
HANDRAIL POST CHPG-2

SCALE:

EST. WT. = 67.5 LB. EA.

CONTRACTORCONTRACTOR

1. ITEMS LISTED IN THE BILL OF MATERIAL ARE FOR INFORMATION ONLY. CONTRACTOR TO VERIFY AND SUPPLY ALL FINAL QUANTITIES AS REQUIRED.
2. ANY UNLISTED MISCELLANEOUS ITEMS ARE TO BE INCLUDED AS PART OF THE BID ITEM.
3. PAYMENT OF PILES IS FROM CUTOFF ELEVATION TO TIP. ANY ADDITIONAL PILE LENGTHS REQUIRED FOR DRIVING PURPOSES ARE NOT INCLUDED IN THE QUANTITIES.

CONTRACTORCONTRACTOR

}

Nicholas J. Staroski 2-21-2025

STATE OF TEXAS
NICHOLAS J. STAROSKI
111217
REGISTERED
PROFESSIONAL ENGINEER
TRANSYSTEMS
F-3557

holes. J. Staroski 2-21



SEAL OF THE STATE OF TEXAS
NICHOLAS J. STAROSKI
111217
REGISTERED PROFESSIONAL ENGINEER

TRANSYSTEMS
F-3557

500 W. 7th ST. SUITE 1100
FORT WORTH, TX 76102
(817) 339-8950
FIRM REG. #: 3557



SCALE	AS SHOWN	TRINITY METRO DOUBLE TRACKING BILL OF MATERIALS		
DRAWN	AB			
DESIGNED	EMO			
CHECKED	NJS			
IN CHARGE	MRH			
DATE	12/19/2025			
		SHEET No. 255	DWG No. S-066	REV