

LAX

PROJECT ID:  
WITH: N/A

5110-06-70

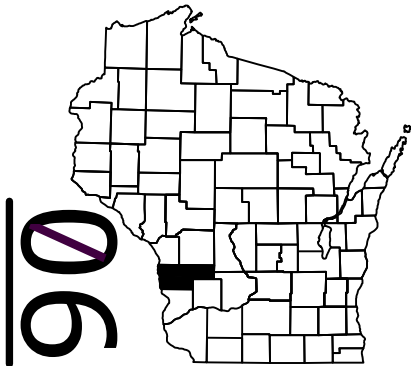
COUNTY:

VERNON

MARCH 2026  
ORDER OF SHEETS

|             |   |                              |
|-------------|---|------------------------------|
| Section No. | 1 | Title                        |
| Section No. | 2 | Typical Sections and Details |
| Section No. | 3 | Estimate of Quantities       |
| Section No. | 3 | Miscellaneous Quantities     |
| Section No. | 4 | Right of Way Plat            |
| Section No. | 5 | Plan and Profile             |
| Section No. | 6 | Standard Detail Drawings     |
| Section No. | 7 | Sign Plates                  |
| Section No. | 8 | Structure Plans              |
| Section No. | 9 | Computer Earthwork Data      |
| Section No. | 9 | Cross Sections               |

TOTAL SHEETS = 504



DESIGN DESIGNATION

|              |      |   |                                                    |
|--------------|------|---|----------------------------------------------------|
| A.A.D.T.     | 2027 | = | 1,100                                              |
| A.A.D.T.     | 2047 | = | 1,100                                              |
| D.H.V.       |      | = | 1,130                                              |
| D.D.         |      | = | 60%/40%                                            |
| T.           |      | = | 16.2%                                              |
| DESIGN SPEED |      | = | 60 MPH (VARIES FROM 35 MPH - 50 MPH IN SOME AREAS) |
| ESALS        |      | = | 250,000                                            |

CONVENTIONAL SYMBOLS

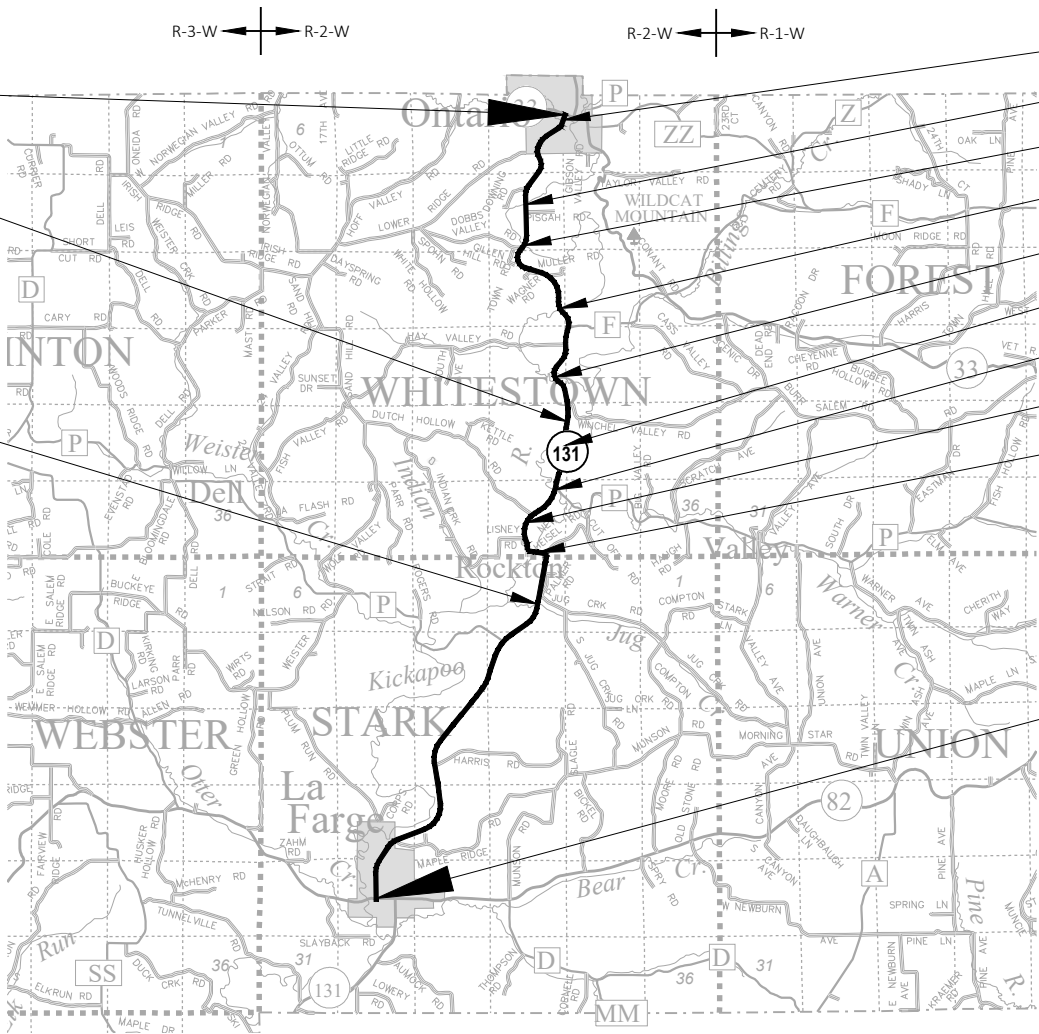
|                                |  |
|--------------------------------|--|
| PLAN                           |  |
| CORPORATE LIMITS               |  |
| PROPERTY LINE                  |  |
| LOT LINE                       |  |
| LIMITED HIGHWAY EASEMENT       |  |
| EXISTING RIGHT OF WAY          |  |
| PROPOSED OR NEW R/W LINE       |  |
| SLOPE INTERCEPT                |  |
| REFERENCE LINE                 |  |
| EXISTING CULVERT               |  |
| PROPOSED CULVERT (Box or Pipe) |  |
| COMBUSTIBLE FLUIDS             |  |
| MARSH AREA                     |  |
| WOODED OR SHRUB AREA           |  |

|                                             |  |
|---------------------------------------------|--|
| PROFILE                                     |  |
| GRADE LINE                                  |  |
| ORIGINAL GROUND                             |  |
| MARSH OR ROCK PROFILE (To be noted as such) |  |
| SPECIAL DITCH                               |  |
| GRADE ELEVATION                             |  |
| CULVERT (Profile View)                      |  |
| UTILITIES                                   |  |
| ELECTRIC                                    |  |
| FIBER OPTIC                                 |  |
| GAS                                         |  |
| SANITARY SEWER                              |  |
| STORM SEWER                                 |  |
| TELEPHONE                                   |  |
| WATER                                       |  |
| UTILITY PEDESTAL                            |  |
| POWER POLE                                  |  |
| TELEPHONE POLE                              |  |

END PROJECT  
STA 659+06.34

STRUCTURE B-62-187  
STA 410+85.70 - STA 413+70.26

STRUCTURE B-62-47  
STA 261+63.13 - STA 263+68.71



LAYOUT  
SCALE 0 2.5 MI

TOTAL NET LENGTH OF CENTERLINE = 11.722 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATE SYSTEM (WCOS), VERNON COUNTY, NAD83 ( 2011 ), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 ( 2012 ). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

READSTOWN - ONTARIO

STH 82 TO STH 33 / B-62-47, -187

STH 131

VERNON COUNTY

STATE PROJECT NUMBER  
5110-06-70

| STATE PROJECT | FEDERAL PROJECT |          |
|---------------|-----------------|----------|
|               | PROJECT         | CONTRACT |
| 5110-06-70    |                 |          |
|               |                 |          |
|               |                 |          |
|               |                 |          |

ORIGINAL PLANS PREPARED BY

Michael Baker

INTERNATIONAL

WISCONSIN  
KAITLYN BRUCKNER  
E-101170  
BROWN DEER  
WI

DATE: 1/20/2026

*Kaitlyn Bruckner*  
(Professional Engineer Signature)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

|                     |                                   |
|---------------------|-----------------------------------|
| PREPARED BY         |                                   |
| Surveyor            | JEWELL ASSOCIATES ENGINEERS, INC. |
| Designer            | MICHAEL BAKER INTERNATIONAL       |
| Project Manager     | PAUL VALENTI                      |
| Regional Examiner   | SW Region                         |
| Regional Supervisor | RANDY BYOM                        |

APPROVED FOR THE DEPARTMENT

DATE: 01/20/2026

*Randy Byom*  
(Signature)

E

GENERAL NOTES

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

PERMANENTLY RESTORE ALL GRADED AREAS WITHIN 5 DAYS OF DISTURBANCE WITH SEED AND EROSION MAT. IF GRADED AREAS WILL NOT BE PERMANENTLY RESTORED WITHIN 5 DAYS, APPLY TEMPORARY SEED AND EROSION MAT WITHIN 24 HOURS OF DISTURBANCE. THIS INCLUDES ALL EQUIPMENT AND MATERIAL STORAGE AREAS.

APPLY TACK COAT AT A RATE OF 0.07 GAL/SY TO MILLED PAVEMENT SURFACES AND 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING OR PARKING LANE.

DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOILED (SALVAGED), FERTILIZED, SEEDED, AND COVERED WITH EROSION MAT OR SODDED AS DIRECTED BY THE ENGINEER.

RESHAPE, RESTORE AND FINISH ALL PREVIOUSLY GRASSED AREAS DISTURBED BY OPERATIONS OUTSIDE OF NORMAL CONSTRUCTION LIMITS AT NO EXPENSE TO THE DEPARTMENT.

STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED AND MULCH.

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES EXCEPT WHEN PIPE LAYING OPERATIONS REQUIRE THE DRIVEWAY TO BE CLOSED. ACCESS TO DRIVEWAY SHALL BE RE-ESTABLISHED IMMEDIATELY AFTER PIPE IN DRIVEWAY AREA IS INSTALLED. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.

PRIOR TO THE PLACEMENT OF MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.

ENSURE THAT GEODETIC SURVEY CONTROL STATIONS ARE NOT DISTURBED, BUMPED OR MOVED DURING THE DURATION OF THE PROJECT. NOTIFY JACOB ROCKWEILER IMMEDIATELY IF GEODETIC SURVEY CONTROL STATIONS ARE DISTURBED, BUMPED OR MOVED DURING CONSTRUCTION OPERATIONS.  
CONTACT: JACOB ROCKWEILER, P.E. WISCONSIN HEIGHT MODERNIZATION PROGRAM MANAGER WITH WISCONSIN DEPARTMENT OF TRANSPORTATION WHOSE PHONE NUMBER IS (608)516-6362 AND EMAIL IS JACOB.ROCKWEILER@DOT.WI.GOV.

HMA TABLE

| PAVEMENT TYPE                     | TOTAL LAYER PAVEMENT THICKNESS | LAYERS                                 |
|-----------------------------------|--------------------------------|----------------------------------------|
| 4 MT 58-28 S OVER<br>3 MT 58-28 S | 4"                             | 1.75" UPPER LAYER<br>2.25" LOWER LAYER |

ORDER OF SECTION 2 DETAIL SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- BORING LOG TABLE
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PERMANENT SIGNING
- TRAFFIC CONTROL
- PERMANENT SIGNING
- TRAFFIC CONTROL
- DETOUR PLAN
- ALIGNMENT DETAIL

ABBREVIATIONS

- AC ACRE
- AGG AGGREGATE
- ∠ ANGLE
- AE, AEW APRON ENDWALL
- ASPH ASPHALTIC
- A.D.T. AVERAGE DAILY TRAFFIC
- A.A.D.T. ANNUAL AVERAGE DAILY TRAFFIC
- B.F. BACK FACE
- BM BENCHMARK
- BTWN BETWEEN
- CTR. CENTER
- C/L CENTER LINE
- Δ CENTRAL ANGLE OR DELTA
- C.E. COMMERCIAL ENTRANCE
- CONST. CONSTRUCTION
- CMCP CORRUGATED METAL CULVERT PIPE
- CMP CORRUGATED METAL PIPE
- CO. COUNTY
- CTH COUNTY TRUNK HIGHWAY
- CR. CREEK
- CABC CRUSHED AGGREGATE BASE COURSE
- CY CUBIC YARD
- CP CONTROL POINT OR CULVERT PIPE
- C & G CURB AND GUTTER
- D DEGREE OF CURVE
- D.H.V. DESIGN HOURLY VOLUME
- DIA. DIAMETER
- D.D. DIRECTIONAL DISTRIBUTION
- DISCH. DISCHARGE
- DMS DYNAMIC MESSAGE SIGN
- EA EACH
- E EAST
- EB EASTBOUND
- ELEC. ELECTRIC (AL), ELEC. CABLE
- EL., ELEV. ELEVATION
- ESALS EQUIVALENT SINGLE AXLE LOADS
- EXC. EXCAVATION
- EXIST EXISTING
- F.F. FACE TO FACE
- FERT. FERTILIZE
- F.E. FIELD ENTRANCE
- F/L, F.L. FLOW LINE
- GALV. GALVANIZE
- H.S. HIGH STRENGTH
- CWT HUNDREDWEIGHT
- INL INLET
- INTER. INTERSECTION
- IH INTERSTATE HIGHWAY
- IRF IRON ROD FOUND
- IRS IRON ROD SET
- JT. JOINT
- LT LEFT
- L.H.F. LEFT HAND FORWARD
- L. LENGTH OF CURVE

- L.F. LINEAR FOOT(FEET)
- L.C. LONG CHORD
- LS LUMP SUM
- M.P. MARKER POST
- MGAL 1000 GALLONS
- N.C. NORMAL CROWN
- N NORTH
- NB NORTHBOUND
- NOR NORMAL
- NO. NUMBER
- PAV'T PAVEMENT
- P.L.E. PERMANENT LIMITED EASEMENT
- P.C. POINT OF CURVATURE
- P.I. POINT OF INTERSECTION
- P.T. POINT OF TANGENCY
- PCC PORTLAND CEMENT CONCRETE
- P.E. PRIVATE ENTRANCE
- PGL PROFILE GRADE LINE
- P.L. PROPERTY LINE
- R RADIUS OR RANGE
- R/L REFERENCE LINE
- R.C.C.P. REINFORCED CONCRETE CULVERT PIPE
- REQ'D REQUIRED
- RT RIGHT
- R.H.F. RIGHT HAND FORWARD
- R/W RIGHT OF WAY
- RD. ROAD
- SHLD. SHOULDER(S)
- SHR. SHRINKAGE
- S SOUTH
- SB SOUTHBOUND
- S.F. SQUARE FOOT (FEET)
- SDD STANDARD DETAIL DRAWINGS
- STH STATE TRUNK HIGHWAY
- STA. STATION
- S.E. SUPERELEVATION
- S/L SURVEY LINE
- SYM SYMMETRICAL
- T. PERCENT TRUCKS
- TEL. TELEPHONE
- TEMP. TEMPORARY
- T.L.E. TEMPORARY LIMITED EASEMENT
- T.O.C. TOP OF CURB
- TYP TYPICAL
- UNCL. UNCLASSIFIED
- U.G. UNDERGROUND (CABLE)
- VAR VARIABLE
- V.C. VERTICAL CURVE
- V.P.C. VERTICAL POINT OF CURVATURE
- V.P.I. VERTICAL POINT OF INTERSECTION
- V.P.T. VERTICAL POINT OF TANGENCY
- WT. WEIGHT
- W WEST
- WB WESTBOUND

UTILITY CONTACTS

ALLIANT ENERGY - ELECTRIC  
WP&L ROAD PLANS  
PETER FRITZ  
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EMAIL: VILLAGEOFONTARIO@CENTURYTEL.NET

BRIGHTSPEED  
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LA FARGE MUNICIPAL ELECTRIC, WATER & SEWER UTILITY  
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AGENCIES

DNR CONTACT

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ENVIRONMENTAL ANALYSIS AND REVIEW SPECIALIST  
WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
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EMAIL: KAREN.KALVELAGE@WISCONSIN.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION

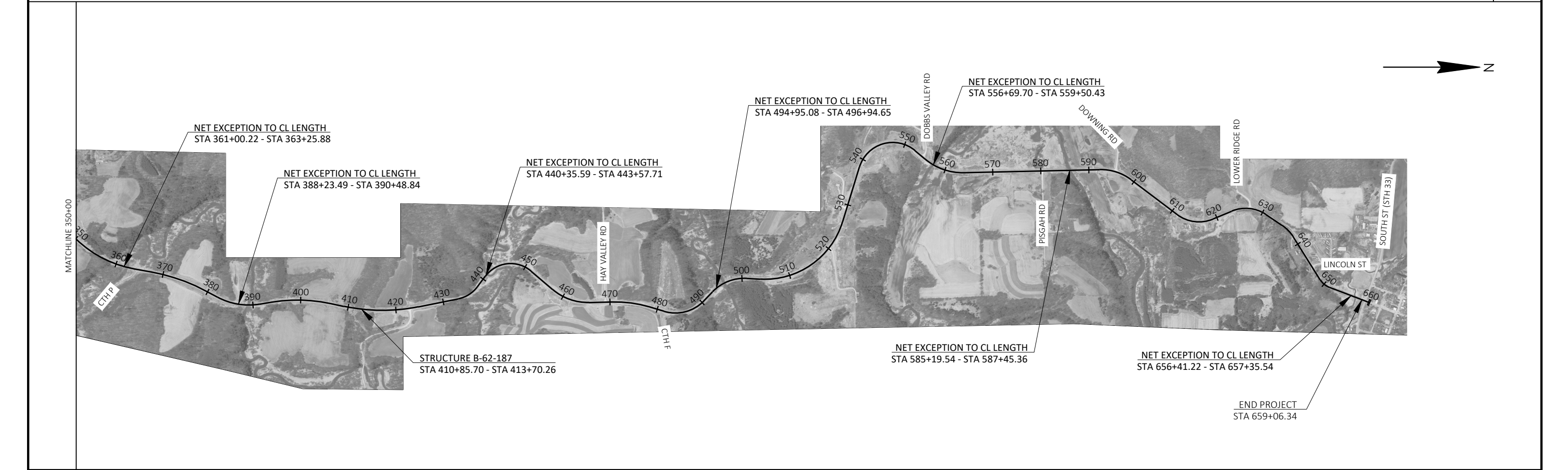
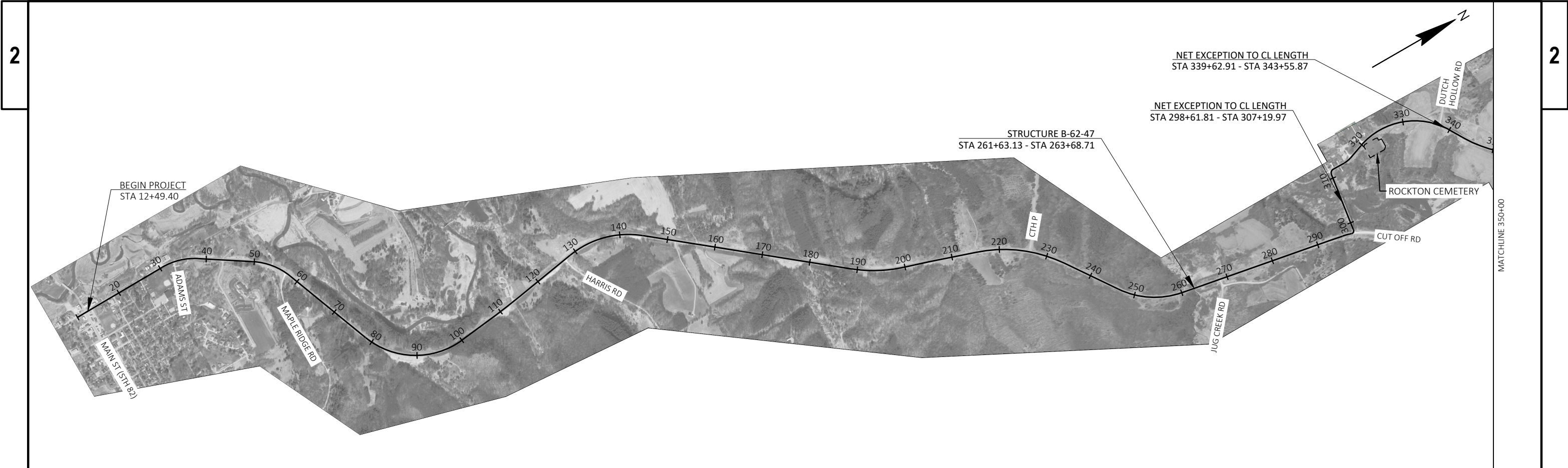
WISDOT SOUTHWEST REGION  
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DESIGN CONTACT

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EMAIL: ALEX.BROMLEY@MBAKERINTL.COM

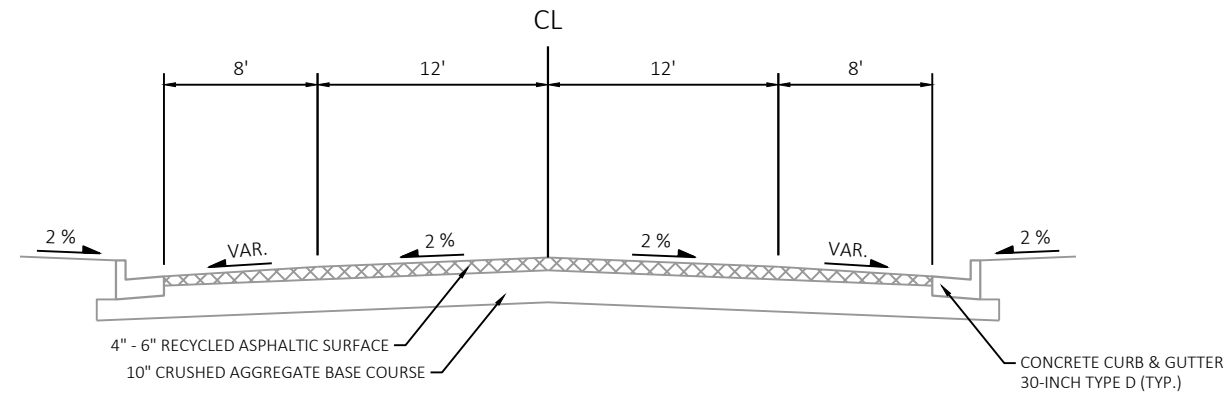




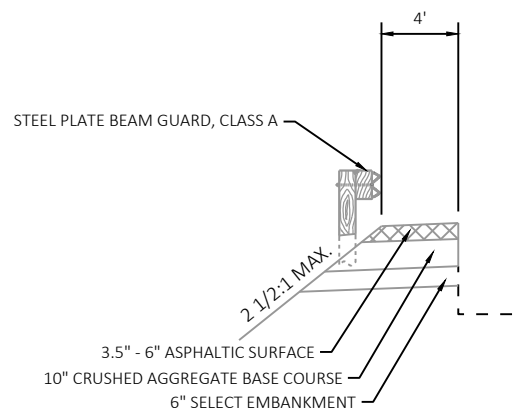


| Boring No. | Log Mile | Offset [ft] | Existing Asphalt Depth [in] | Base Aggregate Depth [in] | Pavement Structure Depth [in] | Subgrade       |                         | Comments         |
|------------|----------|-------------|-----------------------------|---------------------------|-------------------------------|----------------|-------------------------|------------------|
|            |          |             |                             |                           |                               | Type           | Depth Range [in]        |                  |
|            | 0.00     |             |                             |                           |                               |                |                         | STH 82 / STH 131 |
| B-1        | 0.06     | 6 LT        | 6.0                         | 18.0                      | 24.0                          | Clay           | 24-60                   | Cut              |
| B-2        | 0.27     | 9 LT        | 6.0                         | 7.0                       | 13.0                          | Silt Sand      | 13-30<br>30-60          | Cut              |
| B-3        | 0.49     | 3 LT        | 6.0                         | 8.0                       | 14.0                          | Sand           | 14-60                   | Cut              |
| B-4        | 0.75     | 13 LT       | 4.0                         | 8.0                       | 12.0                          | Sand Silt      | 12-48<br>48-60          | Fill             |
|            | 0.85     |             |                             |                           |                               |                |                         | Maple Ridge Rd.  |
| B-5        | 1.01     | 9 RT        | 6.0                         | 3.0                       | 9.0                           | Sand           | 9-60                    | Cut              |
| B-6        | 1.26     | 3 RT        | 7.0                         | 7.0                       | 14.0                          | Sand           | 14-48                   | Cut              |
| B-7        | 1.49     | 6 RT        | 6.0                         | 7.0                       | 13.0                          | Sand           | 13-60                   | Fill             |
| B-8        | 1.75     | 13 RT       | 3.0                         | 4.0                       | 7.0                           | Silt           | 7-60                    | Cut              |
| B-9        | 2.00     | 9 LT        | 7.0                         | 7.0                       | 14.0                          | Sand           | 14-36                   | Cut              |
|            | 2.18     |             |                             |                           |                               |                |                         | Harris Rd.       |
| B-10       | 2.25     | 3 LT        | 8.0                         | 12.0                      | 20.0                          | Clay Silt      | 20-30<br>30-60          | Cut              |
| B-11       | 2.51     | 6 LT        | 6.0                         | 10.0                      | 16.0                          | Sand Silt Clay | 16-34<br>34-46<br>46-60 | Fill             |
| B-12       | 2.75     | 13 LT       | 5.0                         | 10.0                      | 15.0                          | Sand Clay      | 15-36<br>36-60          | Cut              |
| B-13       | 2.98     | 9 RT        | 6.0                         | 6.0                       | 12.0                          | Sand Silt Clay | 12-36<br>36-54<br>54-60 | Fill             |
| B-14       | 3.25     | 3 RT        | 6.0                         | 8.0                       | 14.0                          | Sand           | 14-60                   | Cut              |
| B-15       | 3.50     | 6 RT        | 5.0                         | 8.0                       | 13.0                          | Silt           | 13-60                   | Cut              |
| B-16       | 3.74     | 13 RT       | 5.0                         | 7.0                       | 12.0                          | Silt           | 12-60                   | Cut              |
| B-17       | 3.99     | 9 LT        | 7.0                         | 13.0                      | 20.0                          | Sand Silt      | 20-33<br>33-60          | Cut              |
|            | 4.06     |             |                             |                           |                               |                |                         | CTH P            |
| B-18       | 4.28     | 3 LT        | 8.0                         | 9.0                       | 17.0                          | Sand           | 17-60                   | Cut              |
| B-19       | 4.51     | 6 LT        | 6.0                         | 11.0                      | 17.0                          | Sand Silt      | 17-30<br>30-60          | Cut              |
| B-20       | 4.67     | 13 LT       | 6.0                         | 12.0                      | 18.0                          | Sand           | 18-60                   | Cut              |
|            | 4.85     |             |                             |                           |                               |                |                         | Jug Creek Rd.    |
| B-21       | 4.97     | 9 RT        | 7.0                         | 11.0                      | 18.0                          | Sand Clay      | 18-36<br>36-24          | Cut              |
| B-22       | 5.25     | 3 RT        | 6.0                         | 7.0                       | 13.0                          | Sand Clay      | 13-30<br>30-60          | Fill             |
| B-23       | 5.63     | 6 RT        | 6.0                         | 8.0                       | 14.0                          | Sand           | 14-60                   | Fill             |
| B-24       | 5.78     | 13 RT       | 8.0                         | 12.0                      | 20.0                          | Sand           | 20-60                   | Fill             |
| B-25       | 6.03     | 9 LT        | 6.0                         | 18.0                      | 24.0                          | Clay           | 24-60                   | Fill             |

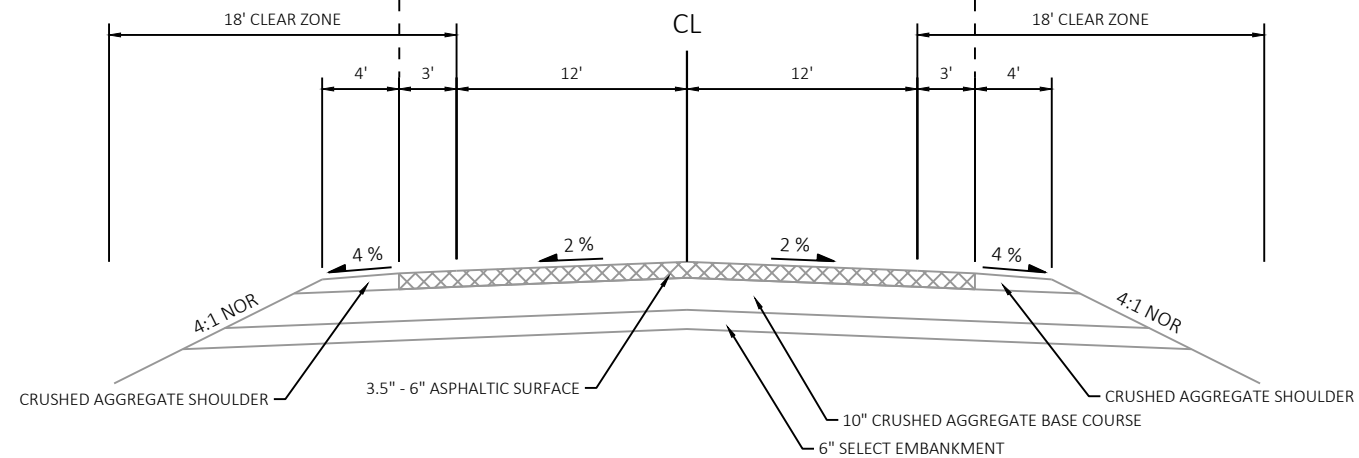
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|------------|----------|-------------|-----------------------------|---------------------------|-------------------------------|-----------|------------------|---------------------------------------------|
|            |          |             |                             |                           |                               | Type      | Depth Range [in] |                                             |
| B-26       | 6.34     | 3 LT        | 6.0                         | 14.0                      | 20.0                          | Sand Clay | 20-48<br>48-60   | Cut                                         |
| B-27       | 6.50     | 6 LT        | 6.0                         | 12.0                      | 18.0                          | Sand      | 18-60            | Cut                                         |
|            | 6.67     |             |                             |                           |                               |           |                  | CTH P                                       |
| B-28       | 6.76     | 13 LT       | 3.0                         | 19.0                      | 22.0                          | Clay Sand | 22-44<br>44-60   | Cut                                         |
| B-29       | 7.00     | 9 RT        | 7.0                         | 22.0                      | 29.0                          | Sand      | 29-60            | Cut                                         |
| B-30       | 7.27     | 3 RT        | 6.0                         | 20.0                      | 26.0                          | Sand Silt | 26-48<br>48-60   | Cut                                         |
| B-31       | 7.49     | 6 RT        | 5.0                         | 10.0                      | 15.0                          | Silt      | 15-60            | Cut                                         |
| B-32       | 7.24     | 13 RT       | 5.0                         | 21.0                      | 26.0                          | Silt      | 26-60            | Cut                                         |
|            | 7.78     |             |                             |                           |                               |           |                  | Winchel Valley Rd.                          |
| B-33       | 7.96     | 9 LT        | 5.0                         | 20.0                      | 25.0                          | Silt      | 25-60            | Cut                                         |
| B-34       | 8.26     | 3 LT        | 6.0                         | 8.0                       | 14.0                          | Sand Silt | 14-48<br>48-60   | Fill                                        |
| B-35       | 8.50     | 6 LT        | 6.0                         | 19.0                      | 25.0                          | Silt Clay | 25-36<br>36-60   | Cut                                         |
| B-36       | 8.76     | 13 LT       | 5.0                         | 55.0                      | 60.0                          | --        | --               | Cut                                         |
|            | 8.89     |             |                             |                           |                               |           |                  | CTH F                                       |
| B-37       | 8.96     | 9 RT        | 6.0                         | 21.0                      | 27.0                          | Sand      | 27-60            | Cut                                         |
| B-38       | 9.35     | 3 RT        | 6.0                         | 16.0                      | 22.0                          | Sand Silt | 22-52<br>52-60   | Fill                                        |
| B-39       | 9.49     | 6 RT        | 6.0                         | 20.0                      | 26.0                          | Sand      | 26-60            | Cut                                         |
| B-40       | 9.77     | 13 RT       | 6.0                         | 21.0                      | 27.0                          | Silt      | 27-60            | Fill                                        |
| B-41       | 10.00    | 9 LT        | 6.0                         | 12.0                      | 18.0                          | Silt      | 18-60            | Cut                                         |
| B-42       | 10.21    | 3 LT        | 6.0                         | 12.0                      | 18.0                          | Silt      | 18-60            | Fill                                        |
| B-43       | 10.51    | 6 LT        | 5.0                         | 12.0                      | 17.0                          | Silt      | 17-60            | Fill                                        |
| B-44       | 10.74    | 13 LT       | 5.0                         | 11.0                      | 16.0                          | Sand      | 16-60            | Fill                                        |
|            | 10.77    |             |                             |                           |                               |           |                  | Pisgah Rd.                                  |
| B-45       | 10.98    | 9 RT        | 5.0                         | 14.0                      | 19.0                          | Silt      | 19-60            | Fill                                        |
| B-46       | 11.27    | 3 RT        | 4.0                         | 26.0                      | 30.0                          | Silt Clay | 30-54<br>54-60   | Cut                                         |
| B-47       | 11.50    | 6 RT        | 5.0                         | 19.0                      | 24.0                          | Silt      | 24-60            | Fill /<br>Fiber mesh at 2 ft. bellow ground |
| B-48       | 11.81    | 6 LT        | 4.0                         | 20.0                      | 24.0                          | Silt      | 24-60            | Fill                                        |
| B-49       | 12.03    | 6 RT        | 5.5                         | 30.5                      | 36.0                          | Clay      | 36-60            | Cut (no lath-wall)                          |
| B-50       | 12.20    | 9 RT        | 5.0                         | 37.0                      | 42.0                          | Silt      | 42-60            | Fill                                        |
|            | 12.26    |             |                             |                           |                               |           |                  | STH 33                                      |

**EXISTING TYPICAL SECTION**

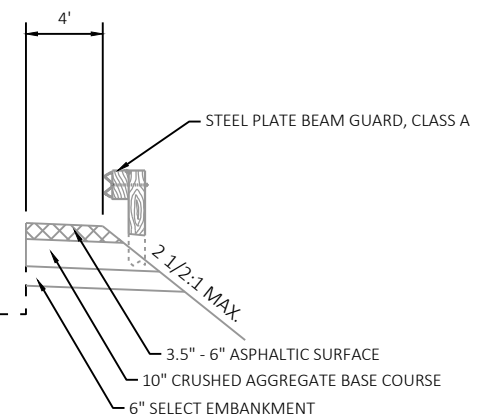
STA 12+49.40 - 19+50 LT  
STA 12+49.40 - 32+99 RT

**BEAMGUARD SECTION**

STA 166+31 - 179+47 LT  
STA 227+90 - 233+52 LT  
STA 257+93 - 261+63 LT  
STA 263+76 - 272+60 LT  
STA 293+36 - 298+51 LT

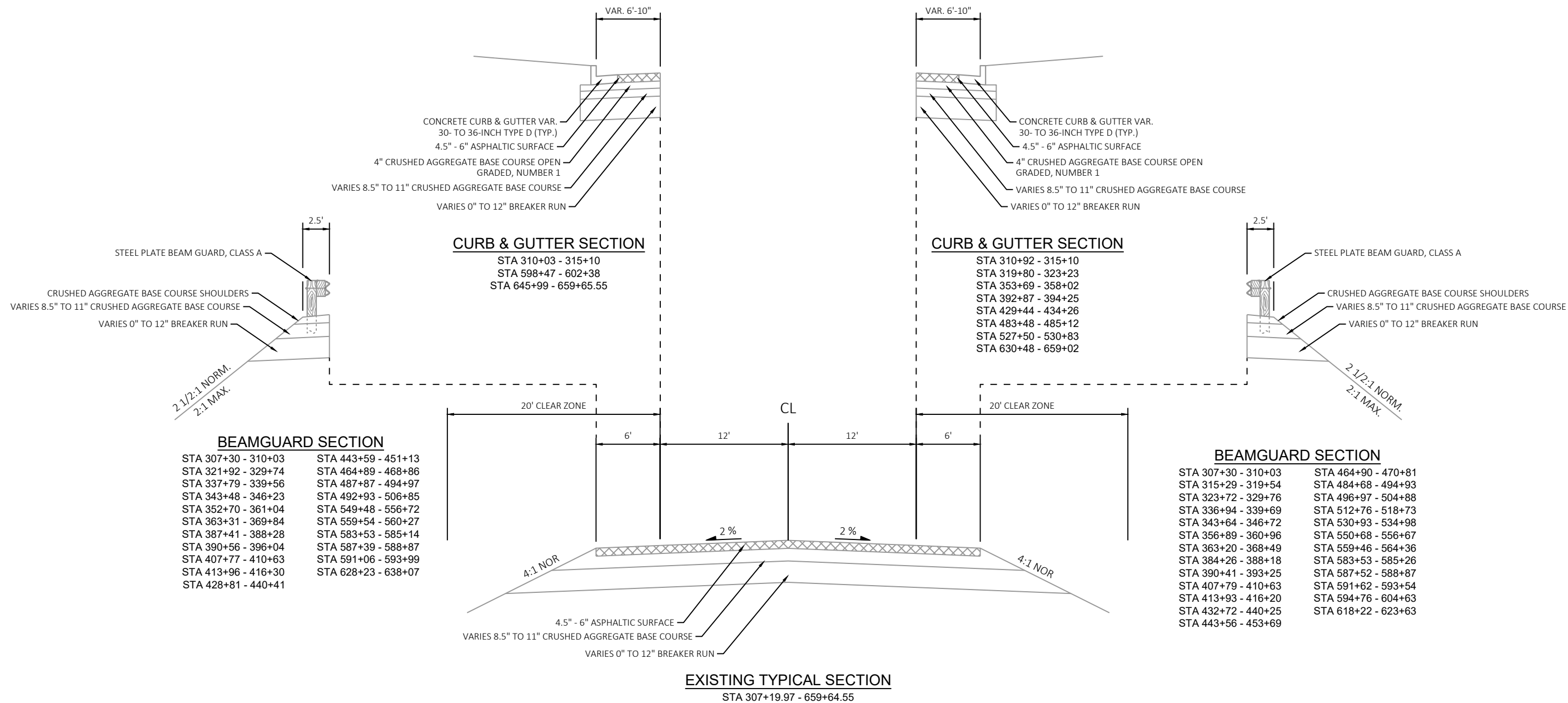
**EXISTING TYPICAL SECTION**

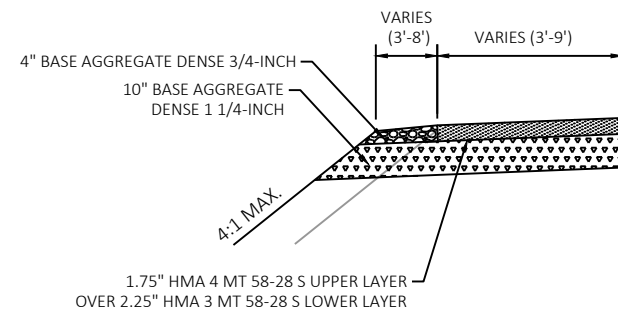
STA 19+50 - 32+99 LT  
STA 32+99 - 298+61.81

**BEAMGUARD SECTION**

STA 139+47 - 179+50 RT  
STA 259+09 - 261+63 RT  
STA 263+76 - 267+04 RT  
STA 292+82 - 297+97 RT  
STA 298+12 - 298+51 RT

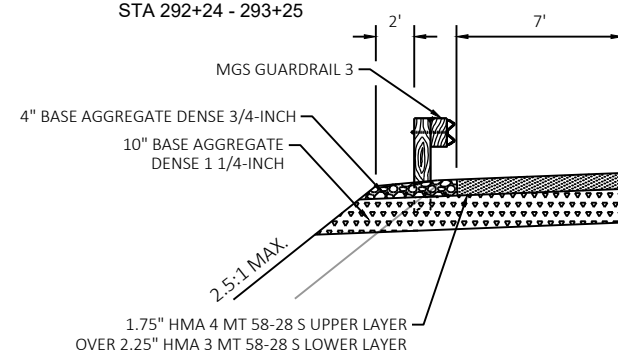






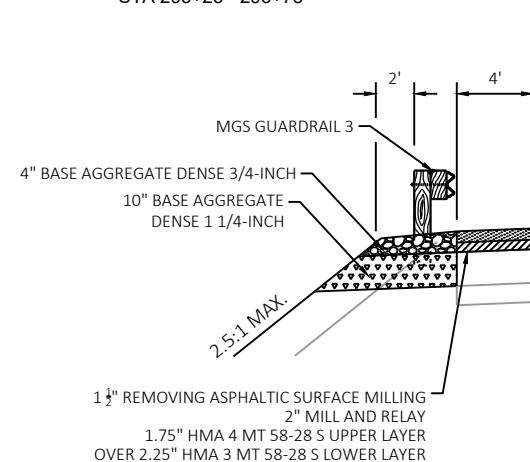
### FULL DEPTH SHOULDER SECTION

STA 164+63 - 165+98  
STA 180+42 - 181+72  
STA 226+87 - 227+88  
STA 233+54 - 234+54  
STA 256+72 - 257+84  
STA 272+56 - 273+76  
STA 292+24 - 293+25



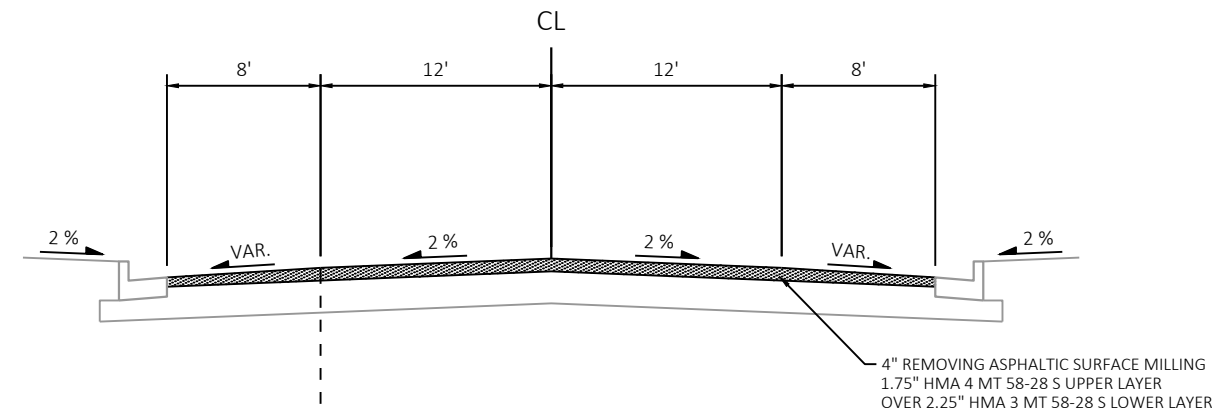
### FULL DEPTH SHOULDER WITH BEAMGUARD SECTION

STA 165+98 - 166+71  
STA 179+07 - 180+42  
STA 227+88 - 228+41  
STA 233+01 - 233+54  
STA 257+83 - 258+38  
STA 272+03 - 272+56  
STA 293+25 - 293+78



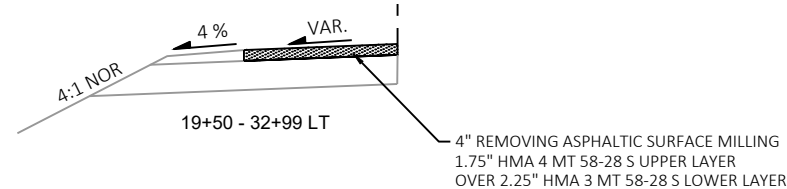
### BEAMGUARD SECTION

STA 166+71 - 179+07  
STA 228+41 - 233+01  
STA 258+38 - 261+54  
STA 263+76 - 272+03  
STA 293+78 - 298+49

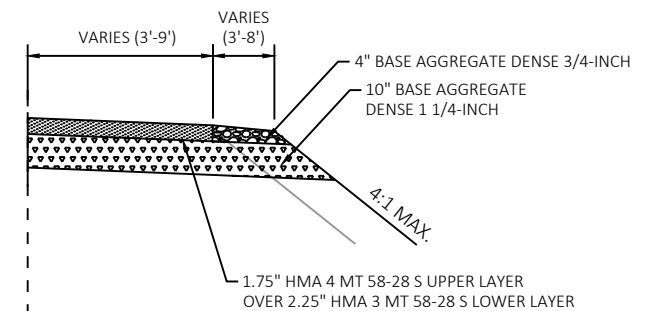


### FINISHED TYPICAL SECTION

STA 12+49.40 - 32+99

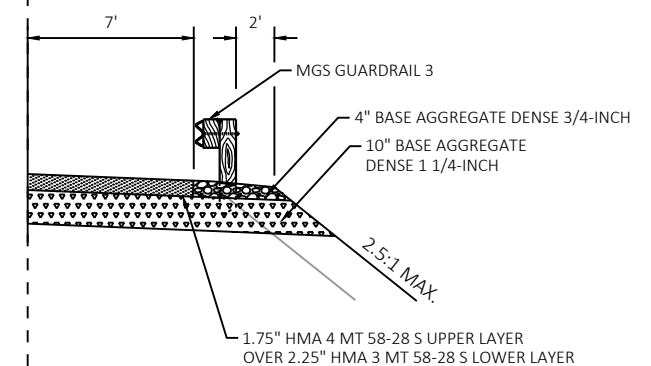


19+50 - 32+99 LT



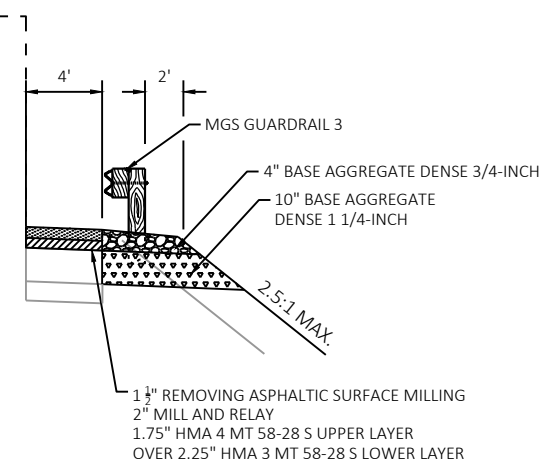
### FULL DEPTH SHOULDER SECTION

STA 168+75 - 169+45  
STA 179+51 - 181+49  
STA 257+70 - 258+56  
STA 291+11 - 292+31



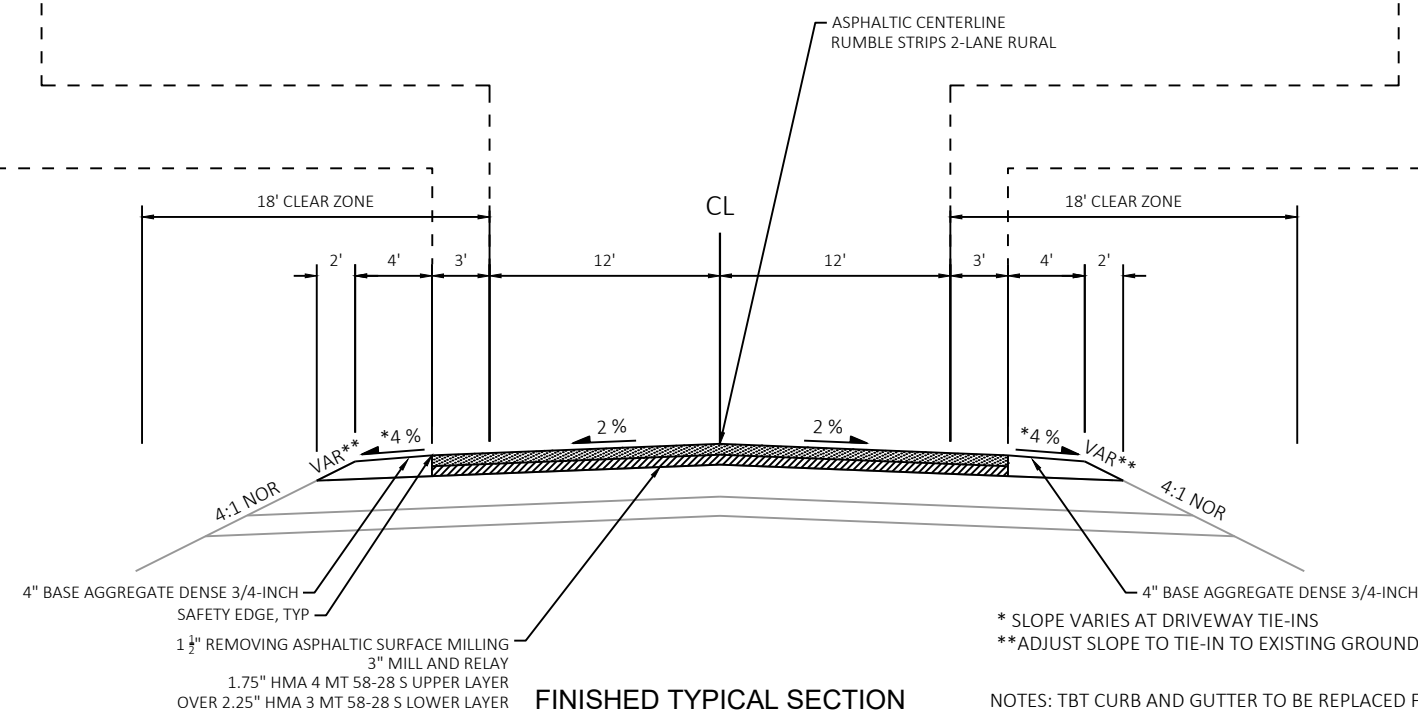
### FULL DEPTH SHOULDER WITH BEAMGUARD SECTION

STA 169+45 - 169+98  
STA 178+98 - 179+51  
STA 292+31 - 293+91



### BEAMGUARD SECTION

STA 169+98 - 178+98  
STA 259+09 - 261+54  
STA 263+76 - 268+24  
STA 293+91 - 297+97  
STA 298+13 - 298+51

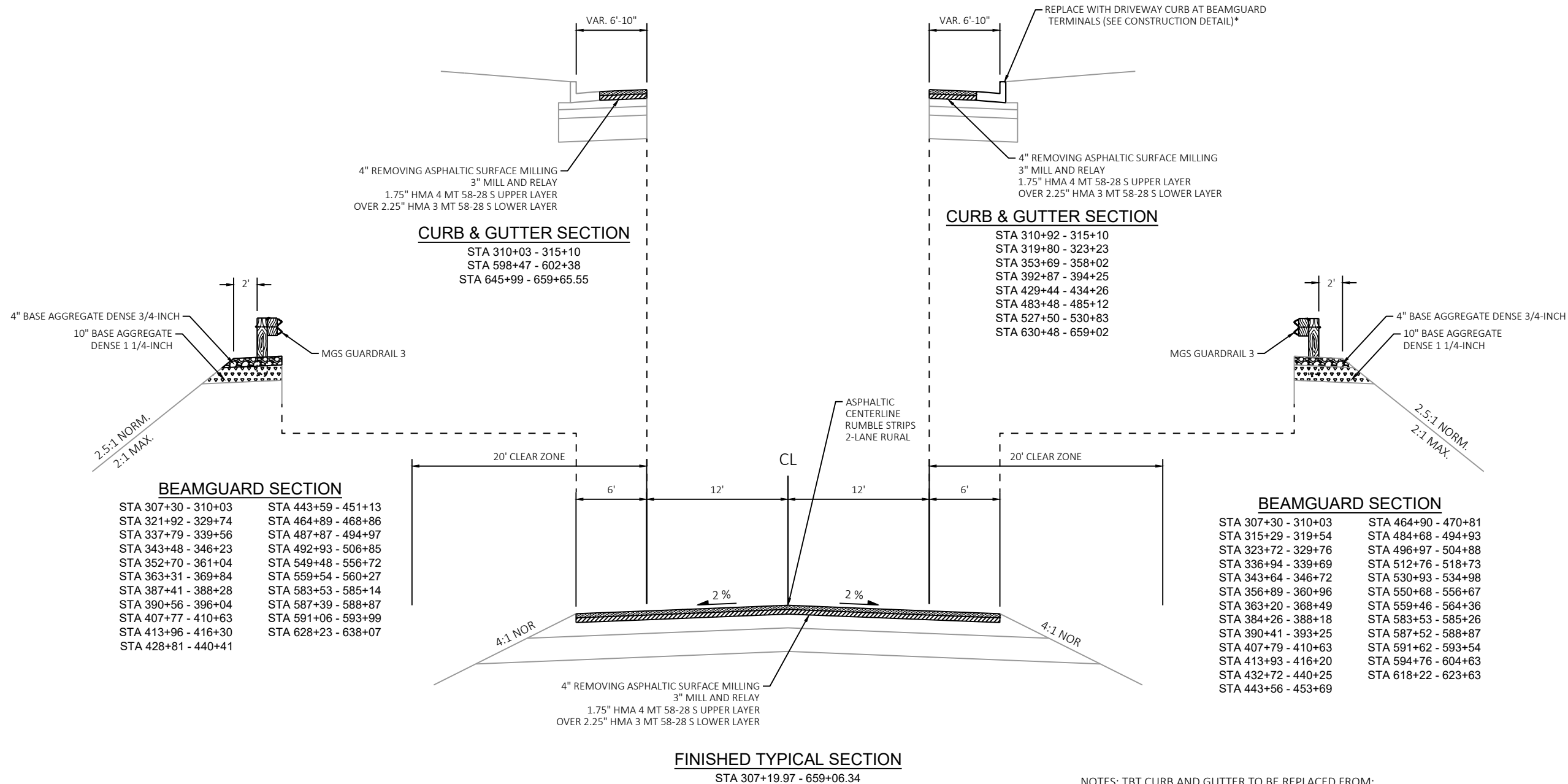


### FINISHED TYPICAL SECTION

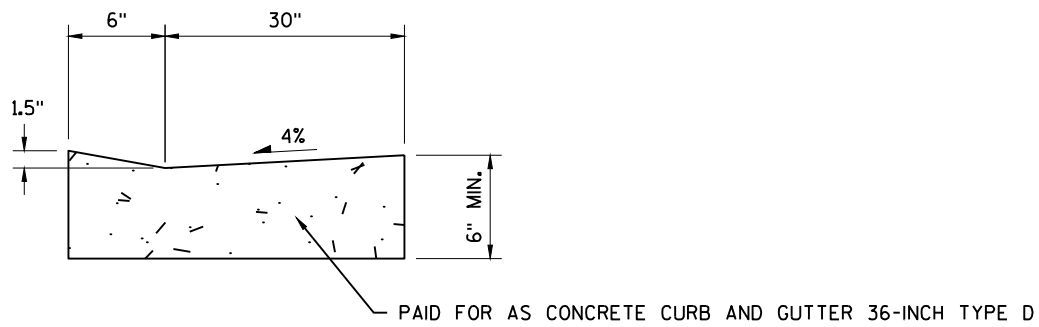
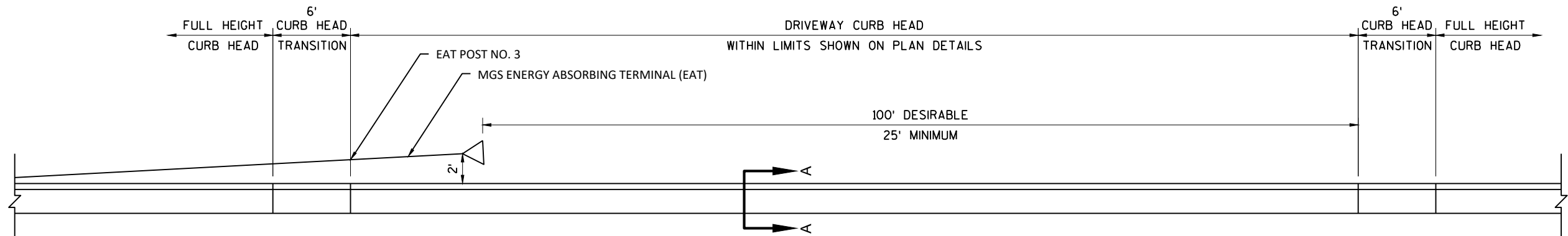
STA 32+99 - 298+61.81

NOTES: TBT CURB AND GUTTER TO BE REPLACED FROM:  
STA 263+78 - 264+19 LT STA 263+78 - 264+18 RT  
STA 299+94 - 298+47 LT STA 298+17 - 298+47 RT

\* SLOPE VARIES AT DRIVEWAY TIE-INS  
\*\* ADJUST SLOPE TO TIE-IN TO EXISTING GROUND

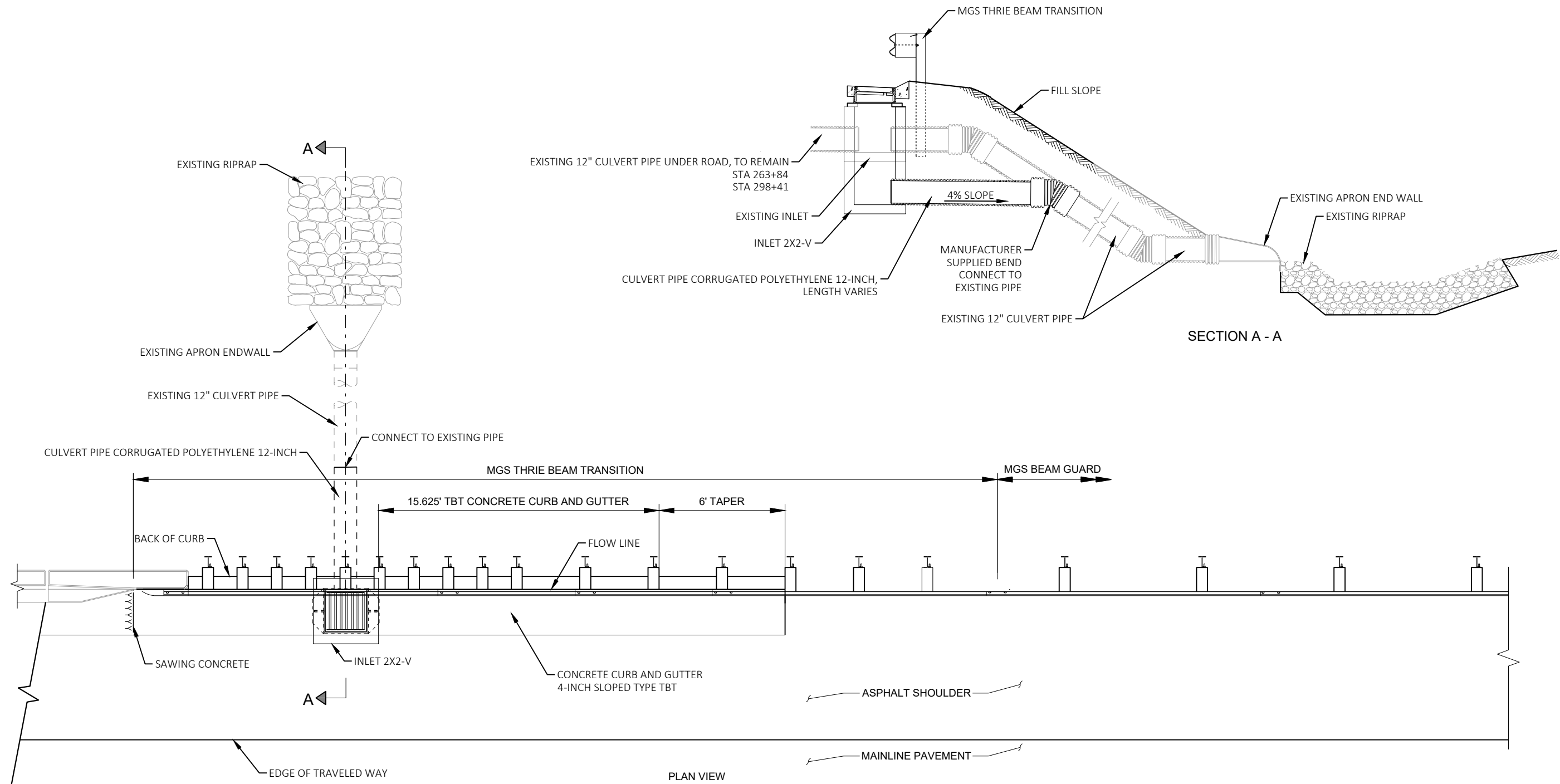






SECTION A-A  
DRIVEWAY CURB

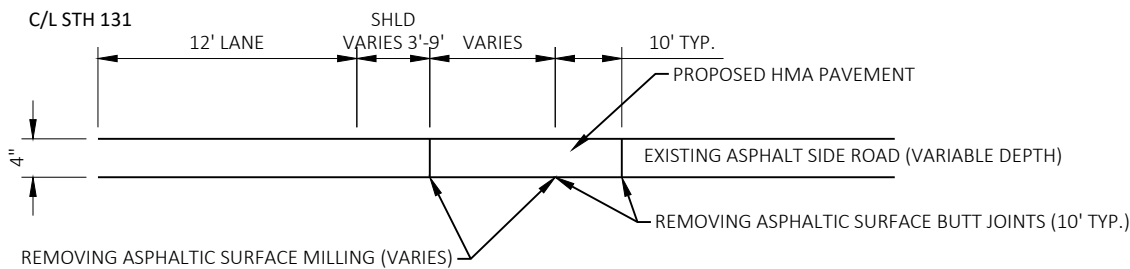
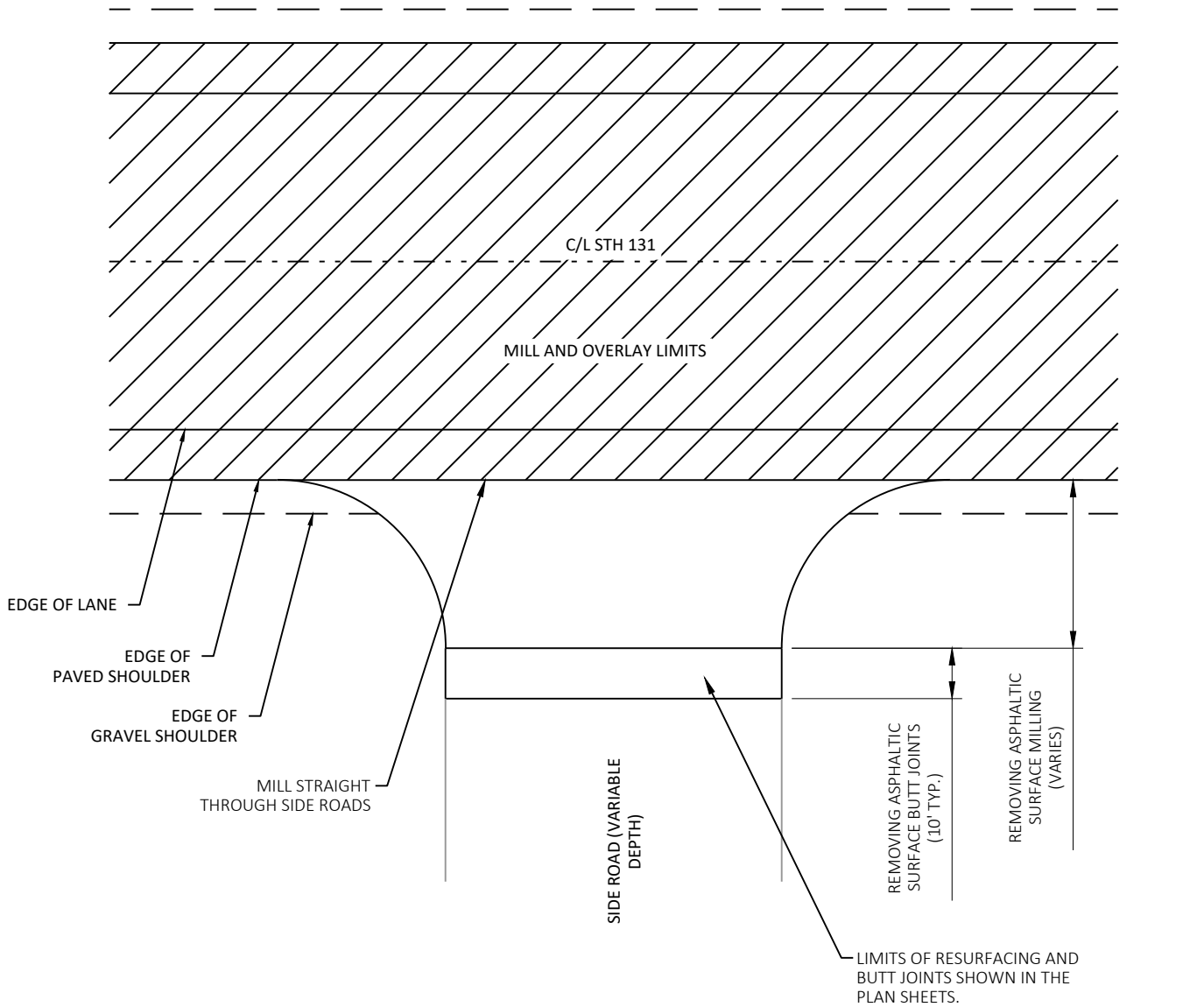
DRIVEWAY CURB HEAD AT BEAM GUARD TERMINAL



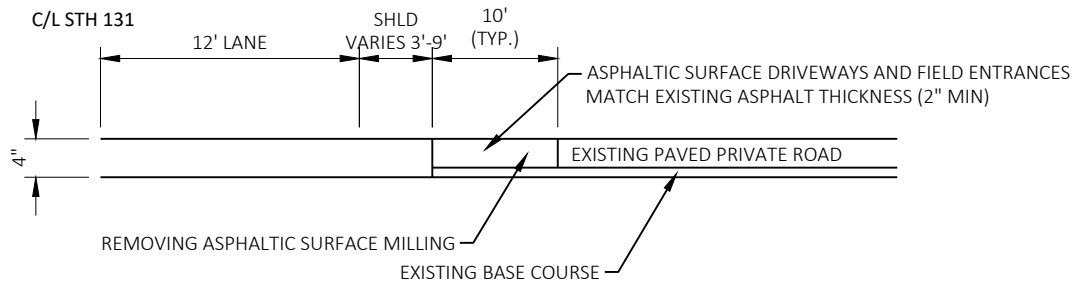
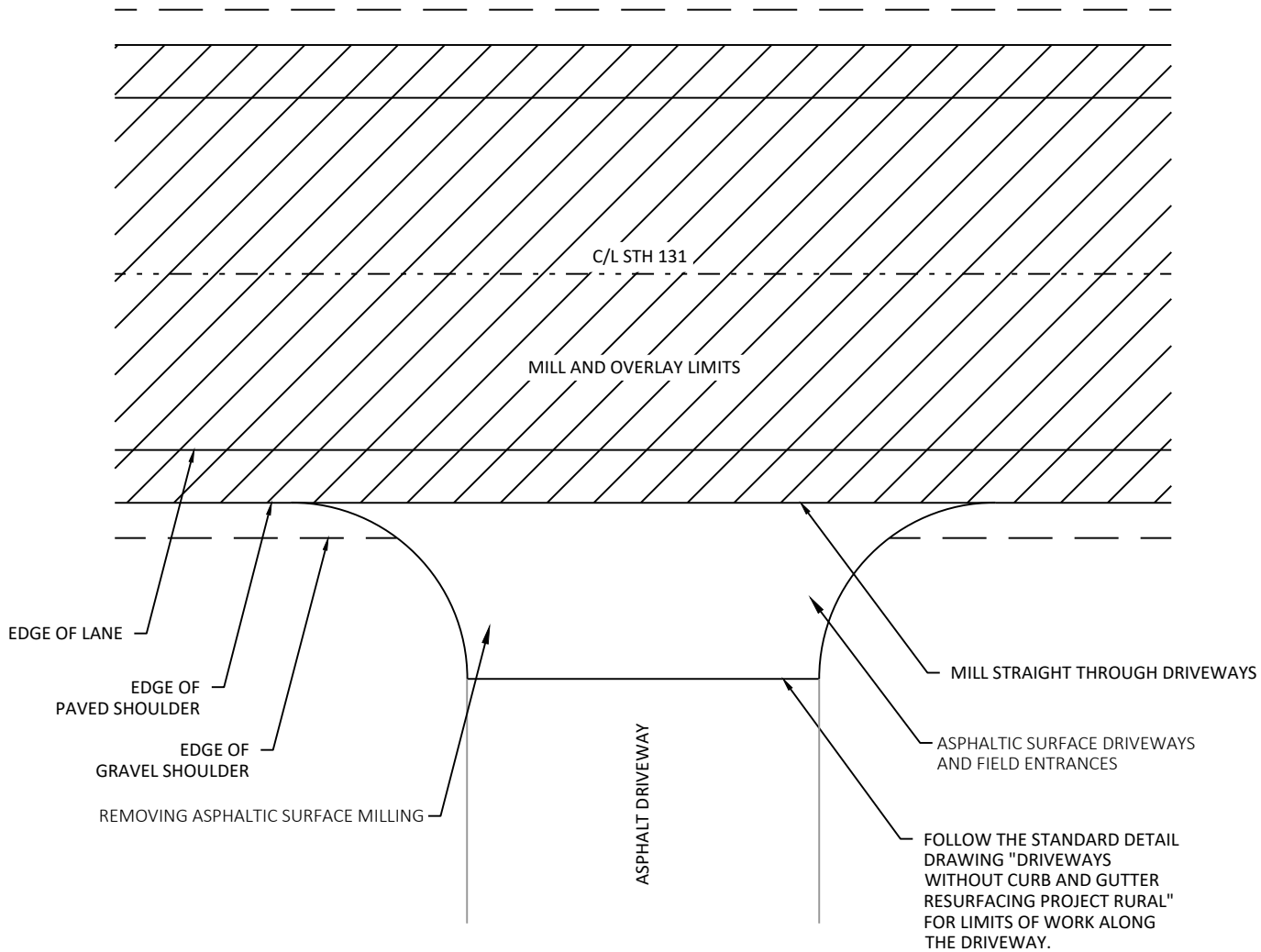
CONCRETE SURFACE DRAINS BELOW THRIE BEAM TRANSITION POSTS DETAIL

|                      |                      |
|----------------------|----------------------|
| STA 263+87, 18.5' LT | STA 390+67, 15.5' LT |
| STA 298+41, 15.5' LT | STA 497+07, 16' RT   |
| STA 298+42, 15.5' RT | STA 585+03, 16' LT   |
| STA 339+61, 17' RT   | STA 585+15, 17' RT   |
| STA 343+59, 17' LT   |                      |

DETAILS NOT TO SCALE

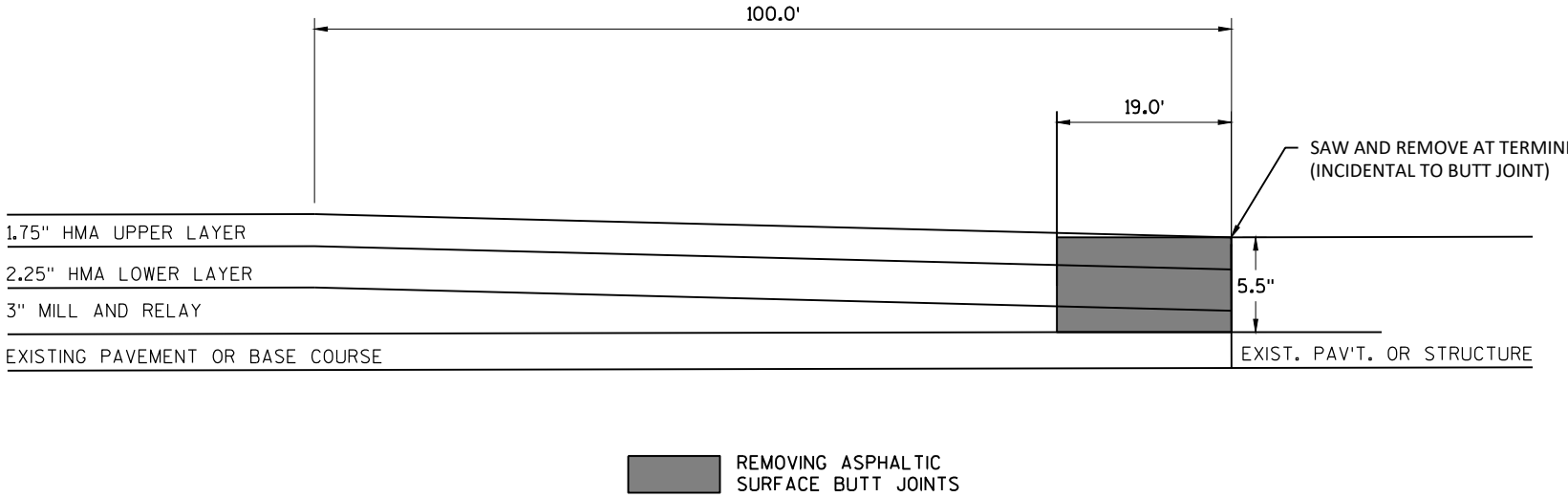


**DETAIL FOR TYPICAL SIDE ROAD MILLING LIMITS**  
STA 307+19.97 - 659+64.55

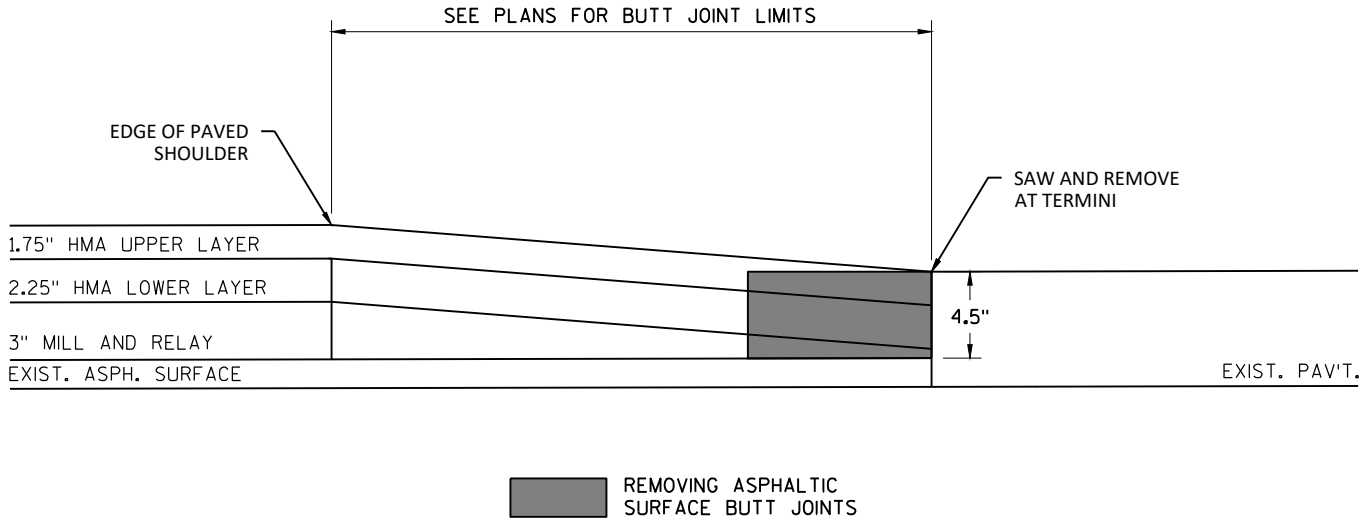


**DETAIL FOR TYPICAL DRIVEWAY MILLING LIMITS**  
STA 307+19.97 - 659+64.55

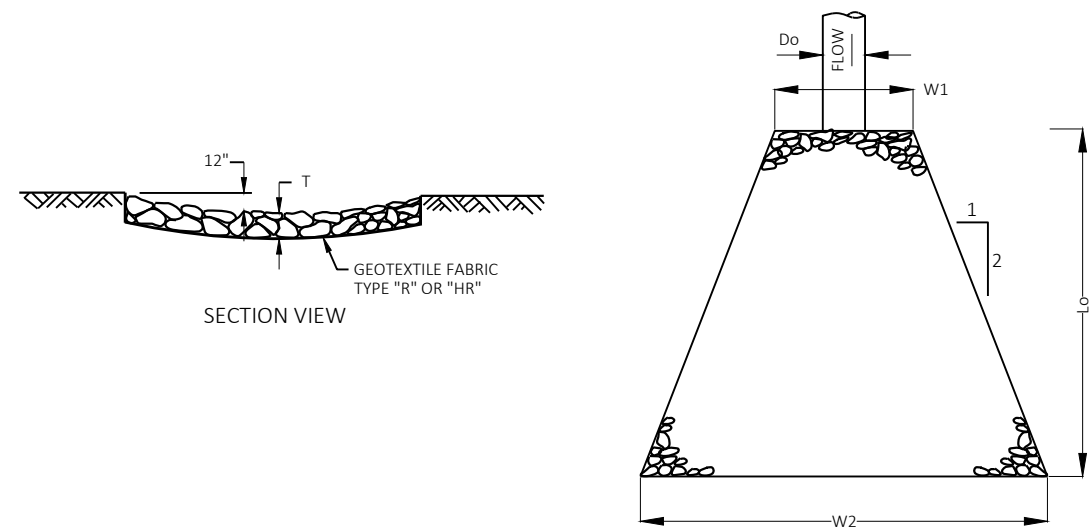
DETAILS NOT TO SCALE



DETAIL FOR MAINLINE OR BRIDGE BUTT JOINTS  
STA 32+99 - 298+61.81 (VERTICAL PROFILE RAISE)



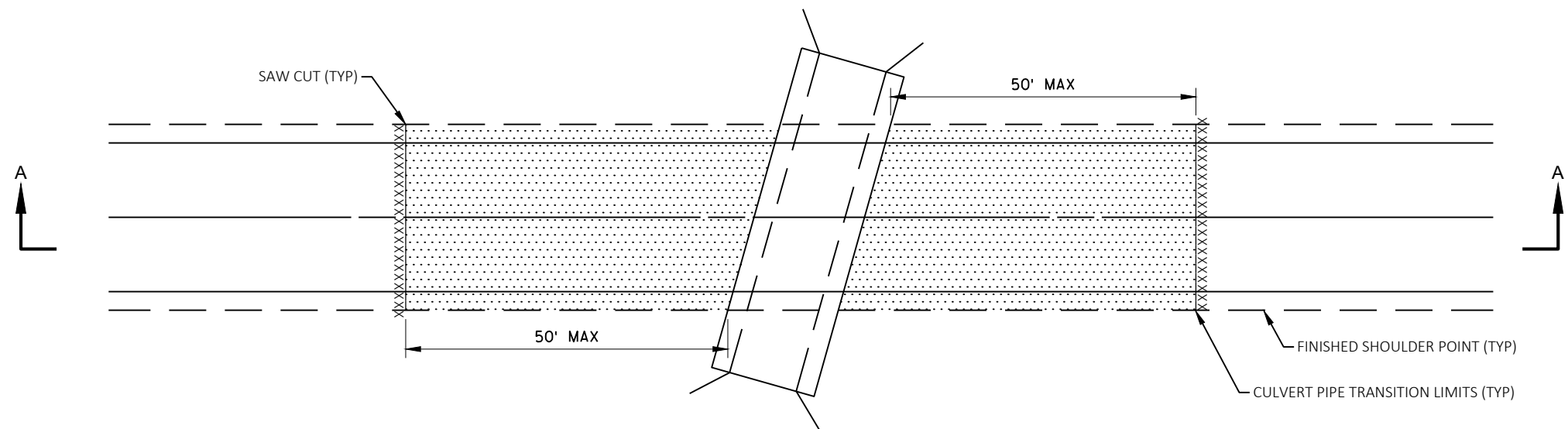
DETAIL FOR SIDEROAD BUTT JOINTS  
STA 19+50 - 307+19.97 (VERTICAL PROFILE RAISE)



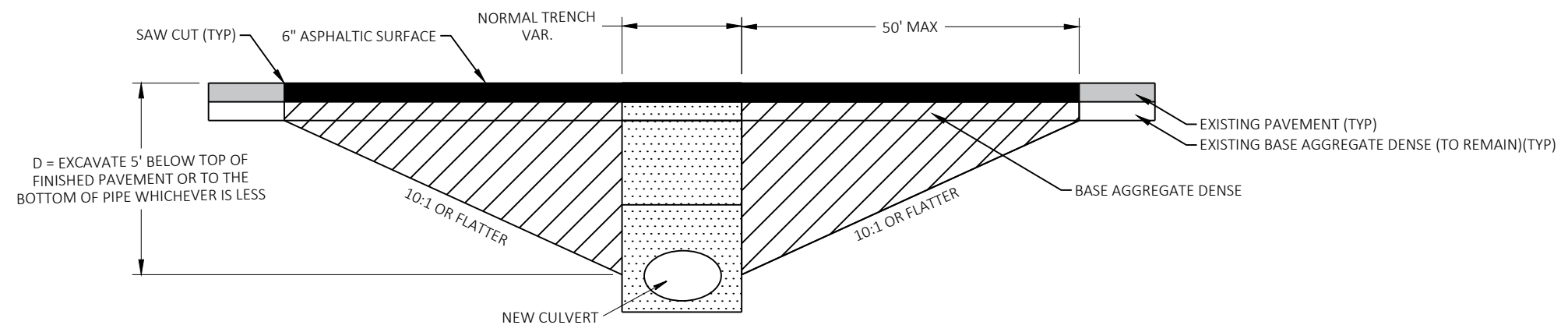
| CULVERT DIMENSIONS                |         |             |                 |         |         |         |         |        |
|-----------------------------------|---------|-------------|-----------------|---------|---------|---------|---------|--------|
| CULVERT ID                        | STATION | RIPRAP TYPE | GEOTEXTILE TYPE | DO (IN) | W1 (FT) | W2 (FT) | LO (FT) | T (IN) |
| PROPOSED<br>STORM AT<br>WAGNER RD | 527+30  | EXTRA LIGHT | TYPE R          | 24      | 6       | 11      | 5       | 9      |

RIPRAP OUTLET PROTECTION AT CULVERTS

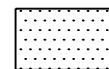




\* SEE MISCELLANEOUS QUANTITIES FOR CULVERT PIPE TRANSITION LIMITS.



SECTION A-A

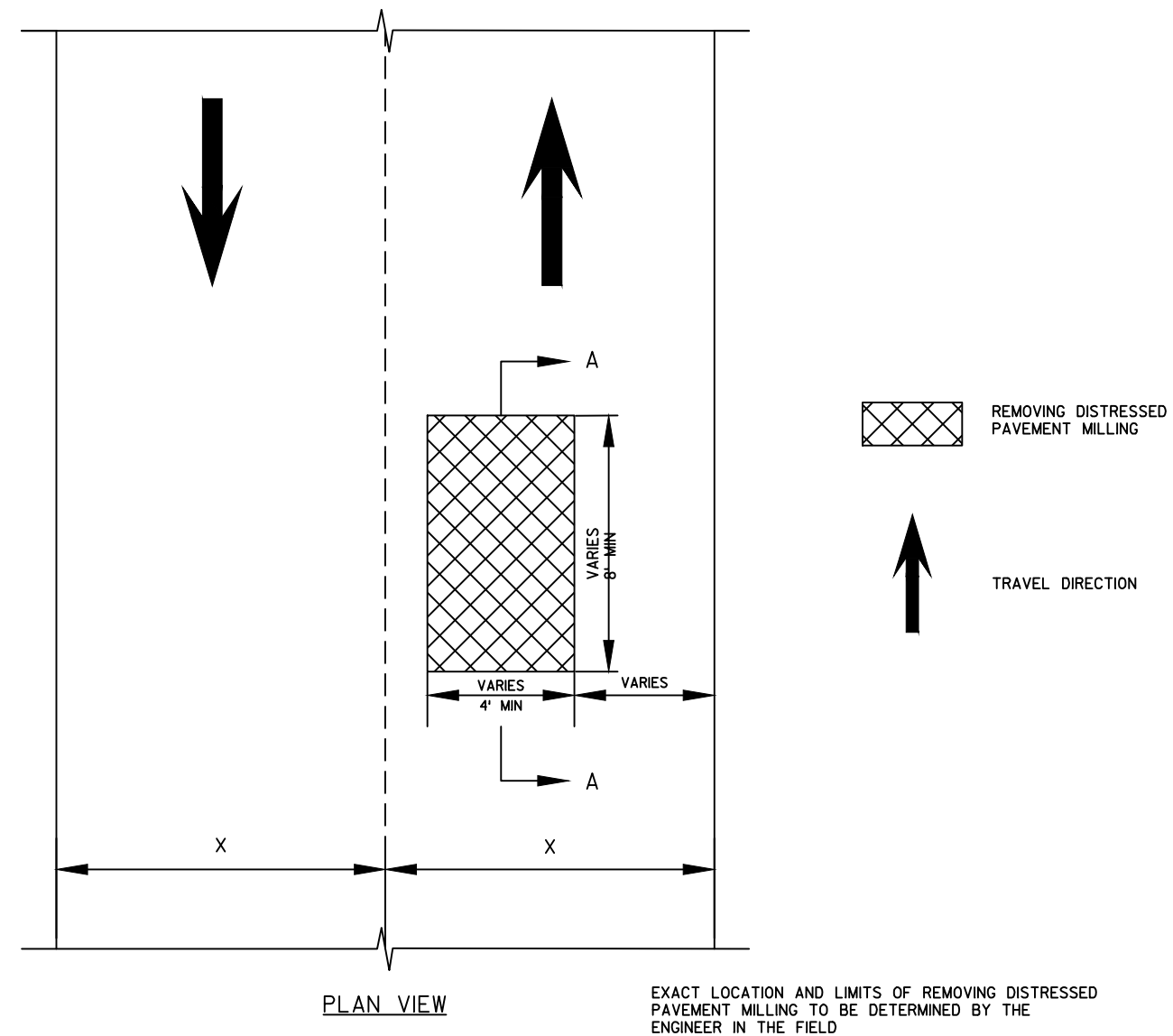
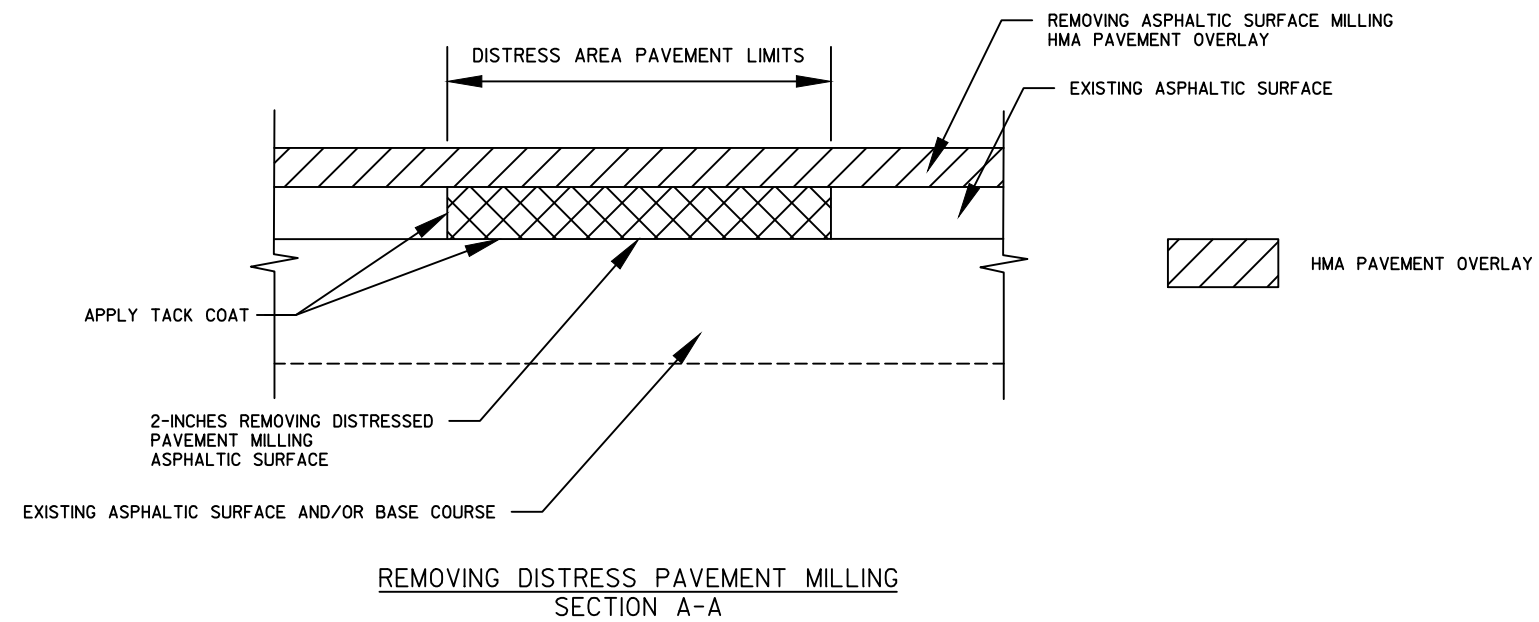


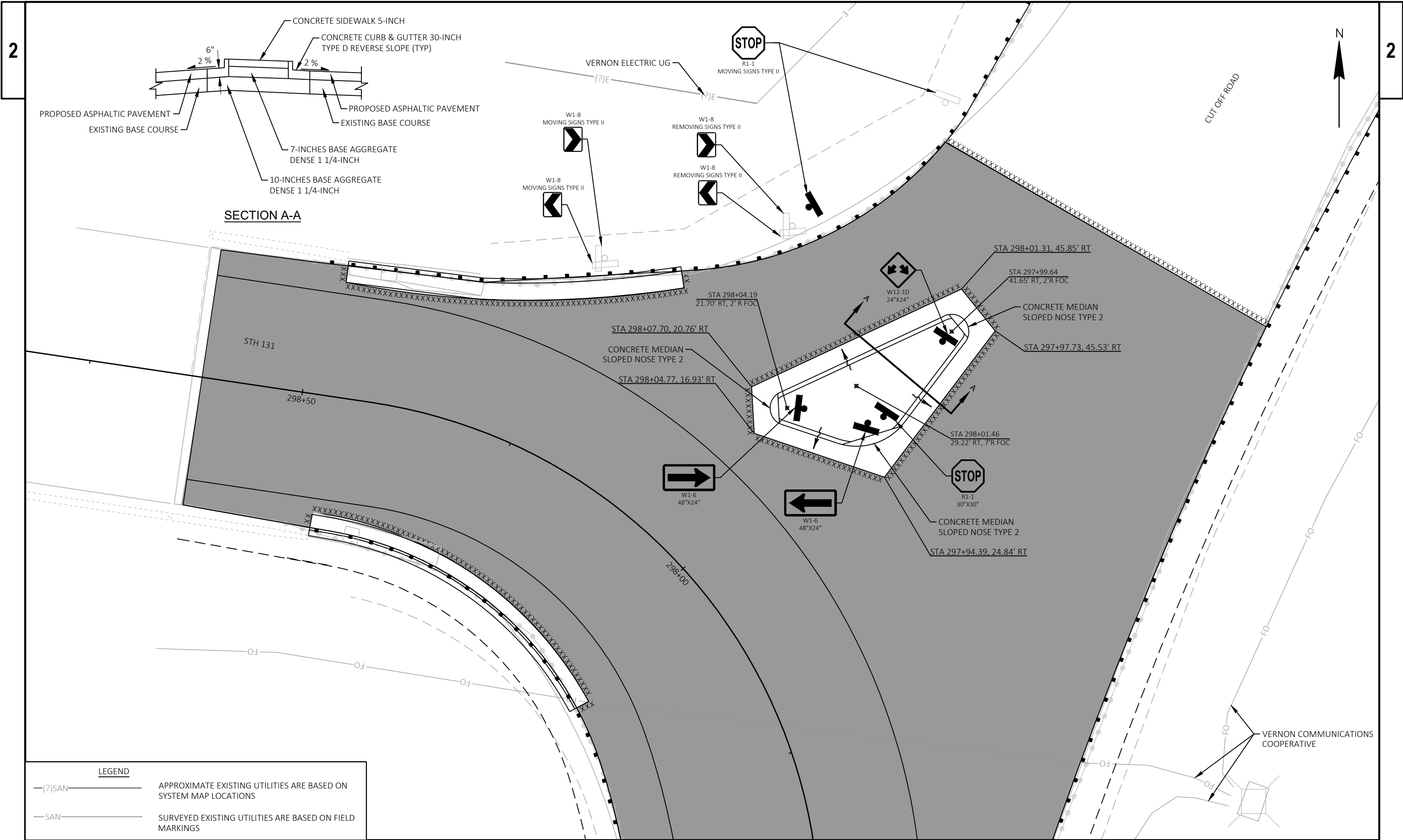
EXCAVATION COMMON AND BACKFILL GRANULAR GRADE 2 INCIDENTAL TO REMOVING SMALL PIPE CULVERT



EXCAVATION COMMON AND BACKFILL GRANULAR GRADE 2 PAID FOR SEPARATELY

CROSS DRAIN INSTALLATION DETAIL





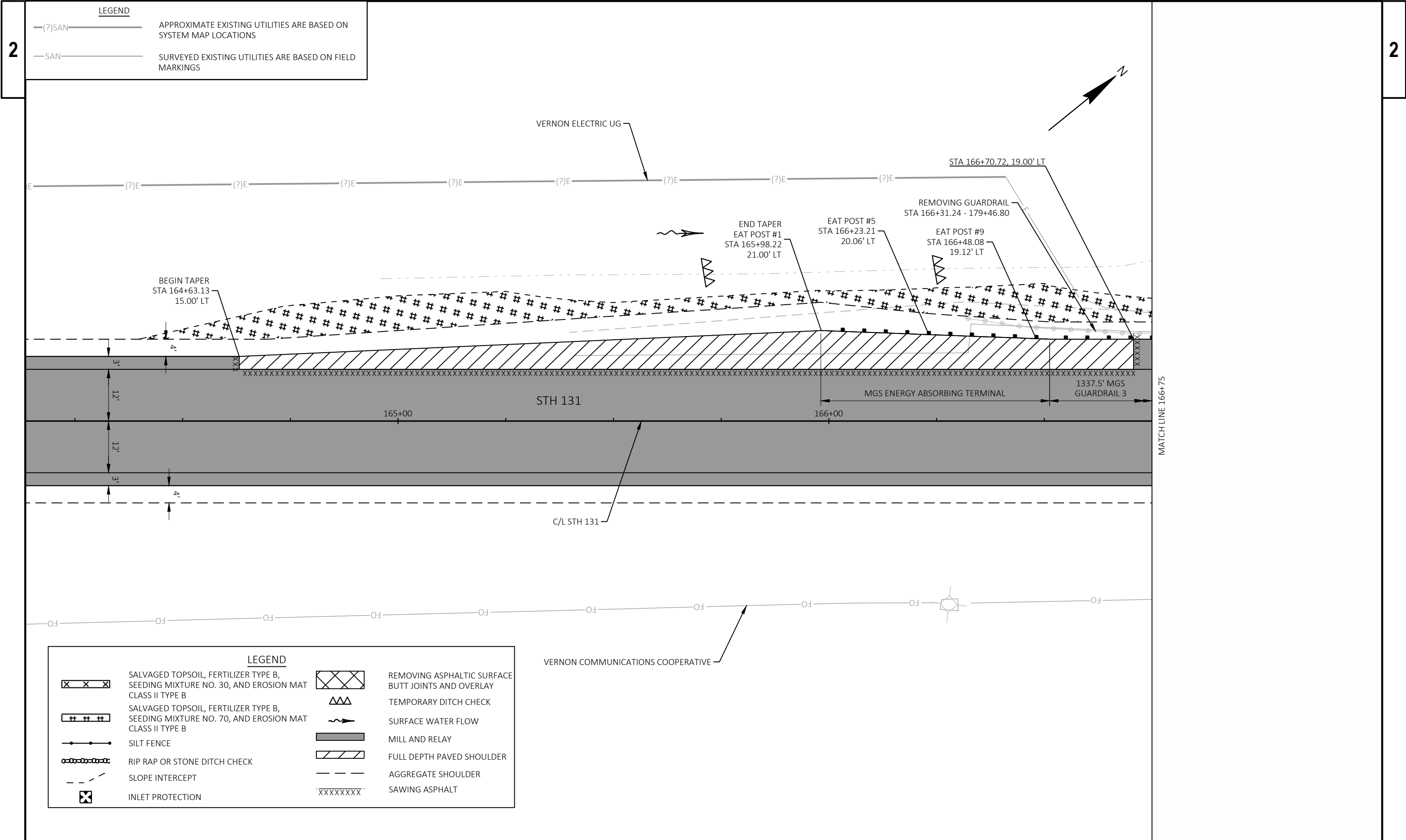
LEGEND

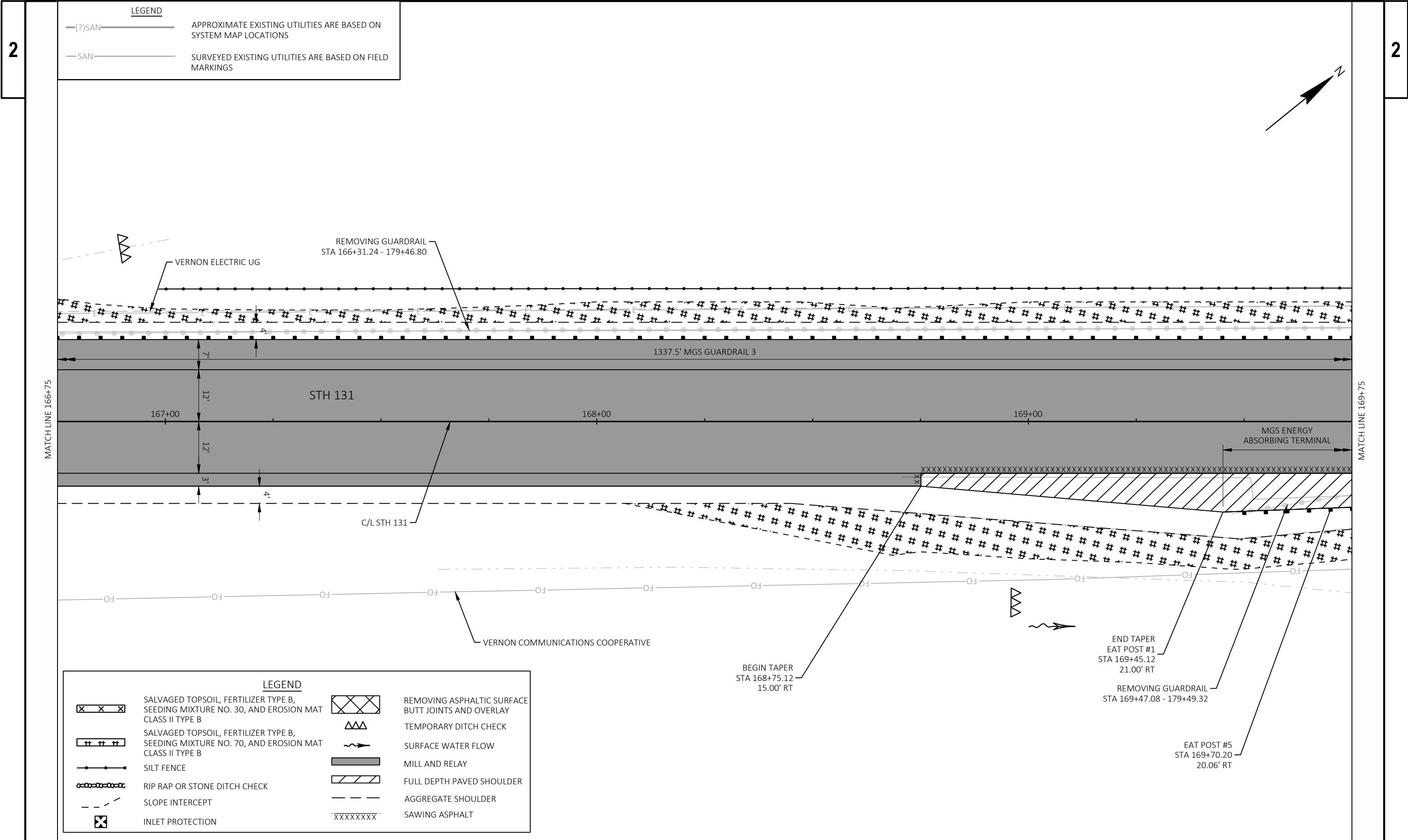
(?)SAN

APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS

SAN

SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS





LEGEND

(?)SAN

SAN

APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS

SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS

LEGEND

X

X

X

SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B

+

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+

SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 70, AND EROSION MAT CLASS II TYPE B

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•

•

SILT FENCE

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○

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RIP RAP OR STONE DITCH CHECK

- - -

SLOPE INTERCEPT

X

X

X

INLET PROTECTION

X

X

X

REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY

△

△

△

TEMPORARY DITCH CHECK

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SURFACE WATER FLOW

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■

■

MILL AND RELAY

▨

▨

▨

FULL DEPTH PAVED SHOULDER

- - -

AGGREGATE SHOULDER

XXXXXXX

XXXXXXX

XXXXXXX

SAWING ASPHALT

PROJECT NO: 5110-06-70

HWY: STH 131

COUNTY: VERNON

CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET 18

E

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\021010-CD.DWG

LAYOUT NAME - 02

PLOT DATE : 1/15/2026 8:39 AM

PLOT BY : WESTERN, JACOB

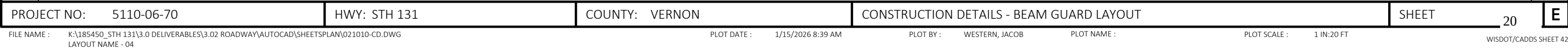
PLOT NAME :

PLOT SCALE : 1 IN:20 FT

WISDOT/CADDs SHEET 42



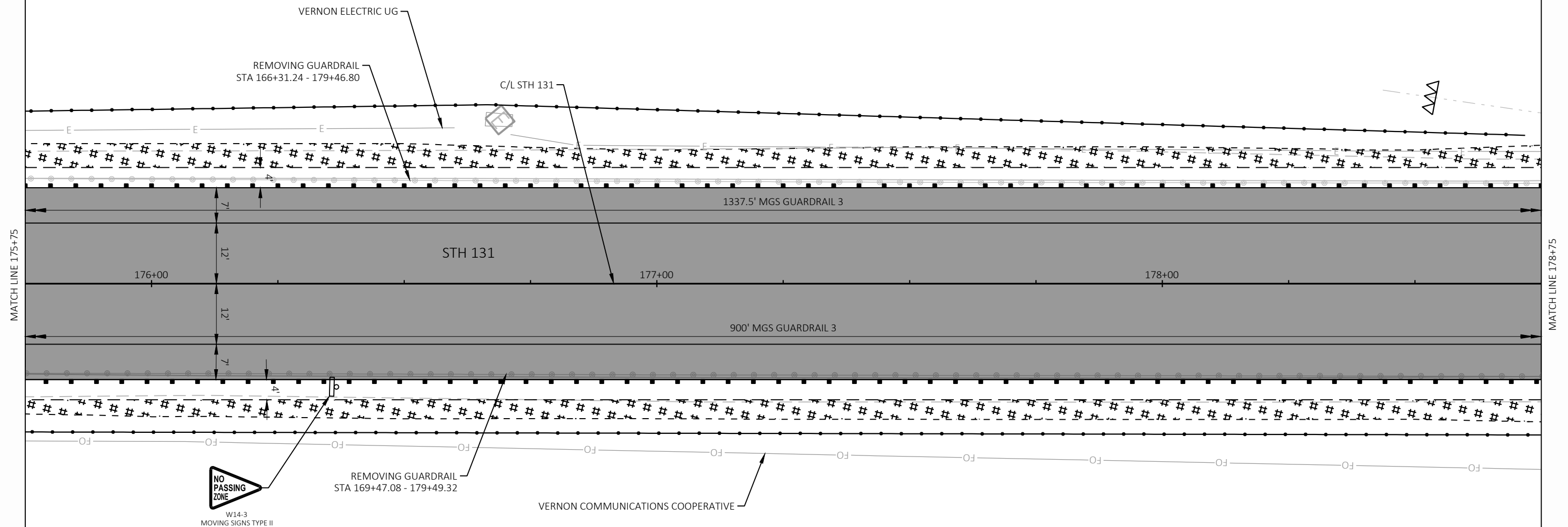






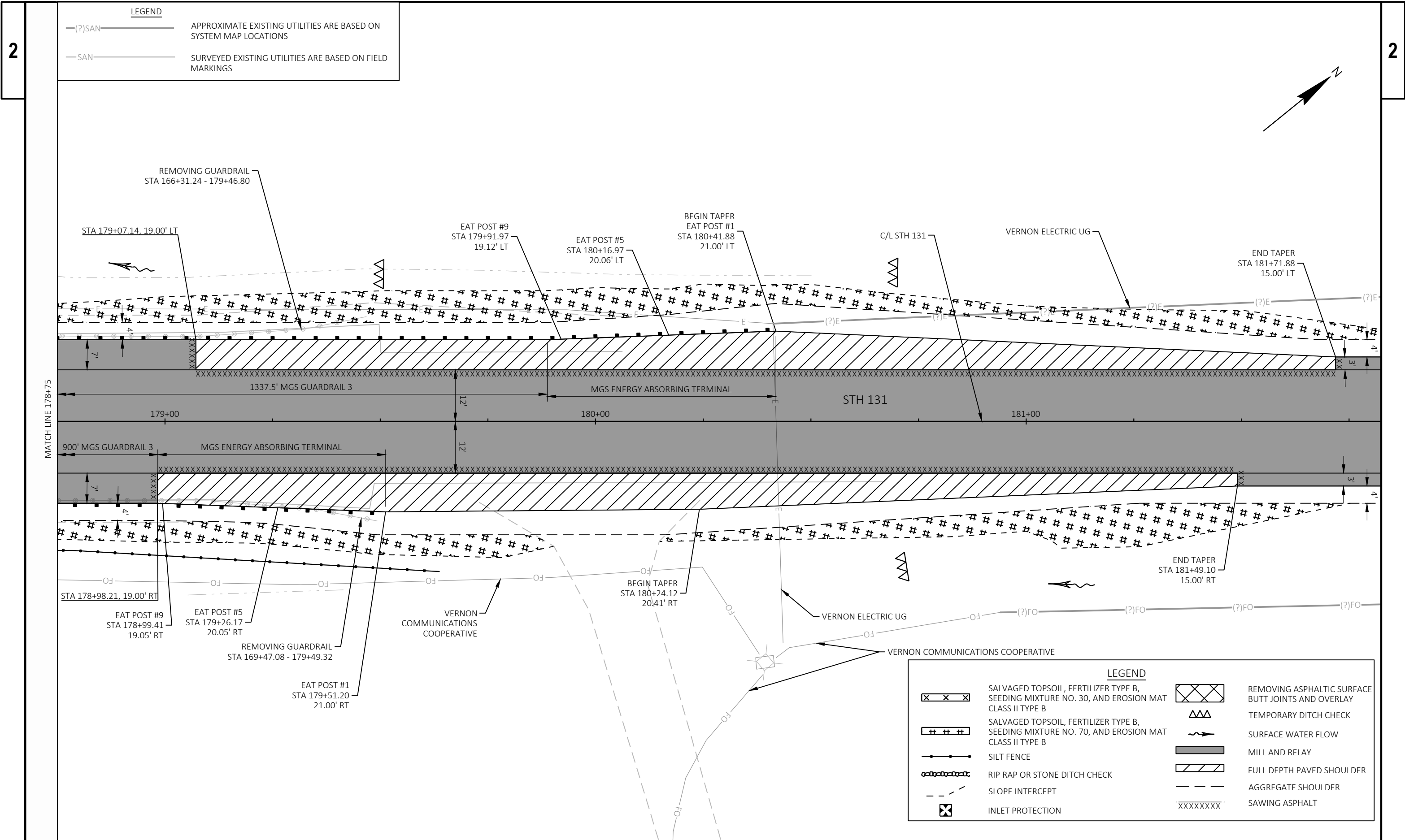
## LEGEND

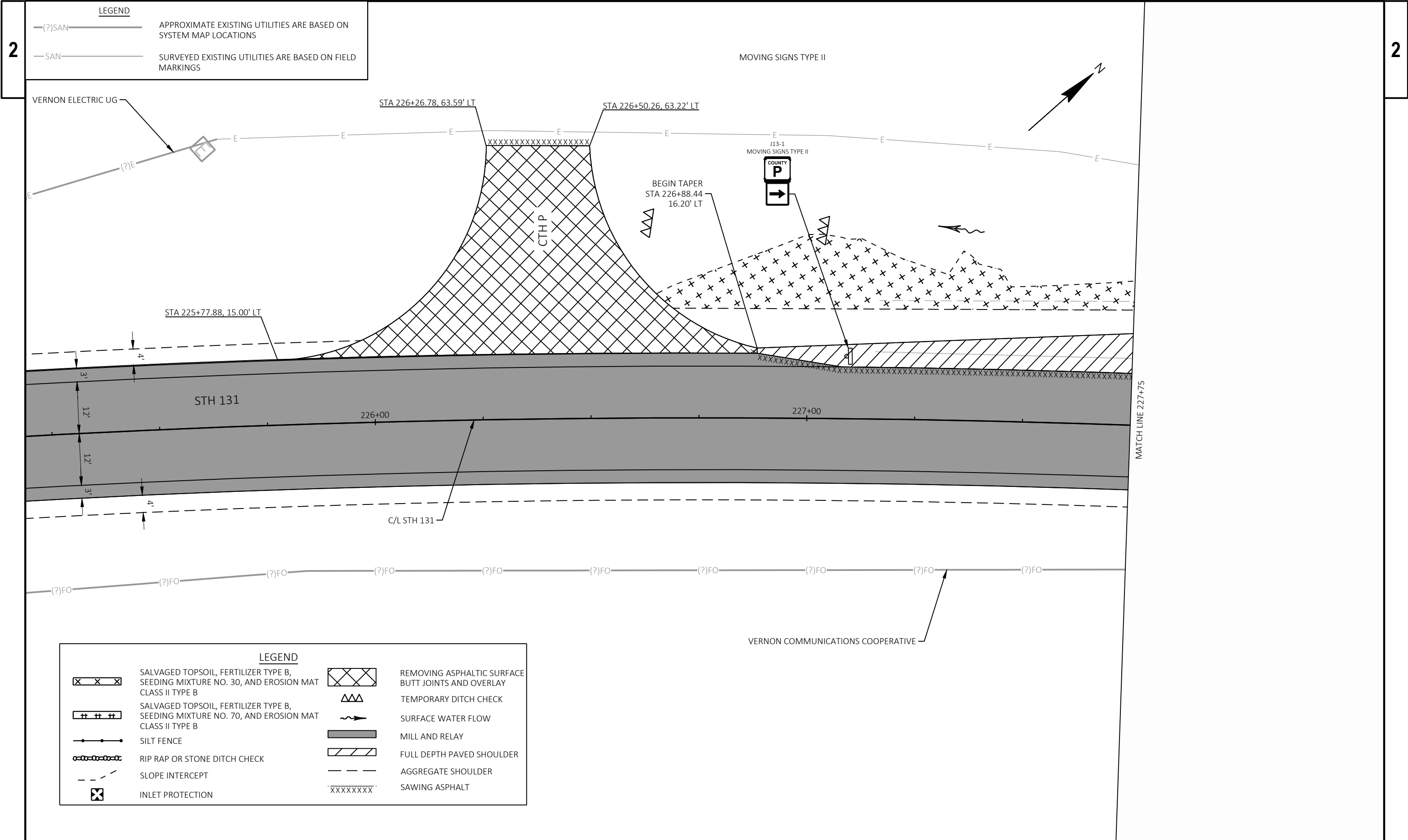
|          |                                                                  |
|----------|------------------------------------------------------------------|
| —(?)SAN— | APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS |
| —SAN—    | SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS          |

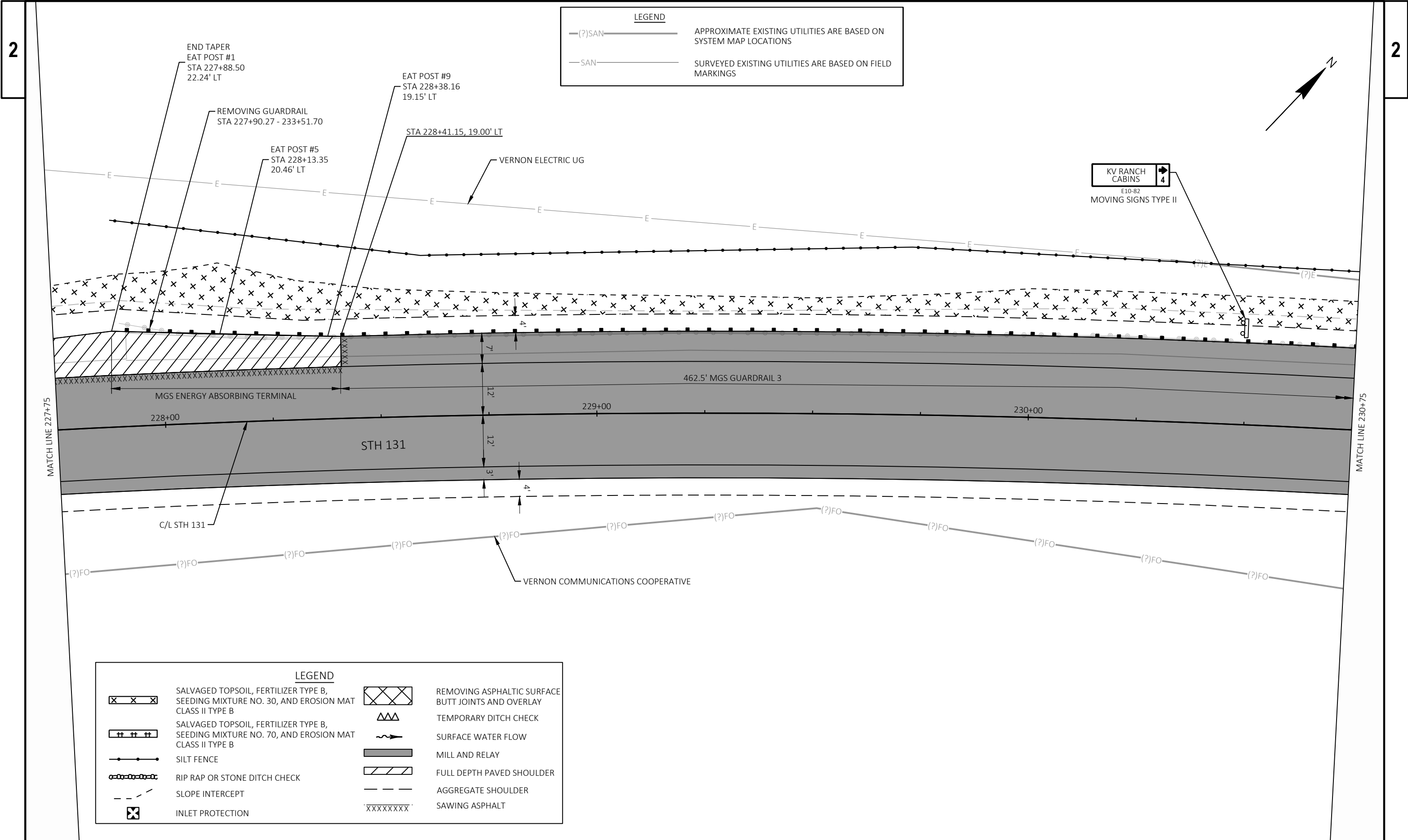


## LEGEND

|  |                                                                                              |  |                                                    |
|--|----------------------------------------------------------------------------------------------|--|----------------------------------------------------|
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY |
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 70, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK                              |
|  | SILT FENCE                                                                                   |  | SURFACE WATER FLOW                                 |
|  | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY                                     |
|  | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER                          |
|  | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER                                 |
|  |                                                                                              |  | SAWING ASPHALT                                     |







LEGEND

(?)SAN

APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS

SAN

SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS

LEGEND

X

X

X

SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B

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+

SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 70, AND EROSION MAT CLASS II TYPE B

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SILT FENCE

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RIP RAP OR STONE DITCH CHECK

-

-

-

SLOPE INTERCEPT

X

INLET PROTECTION

X

X

X

REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY

Δ

Δ

Δ

TEMPORARY DITCH CHECK

~

SURFACE WATER FLOW

MILL AND RELAY

FULL DEPTH PAVED SHOULDER

-

-

-

AGGREGATE SHOULDER

XXXXXXX

SAWING ASPHALT

PROJECT NO: 5110-06-70

HWY: STH 131

COUNTY: VERNON

CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET 24

E

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\021010-CD.DWG

LAYOUT NAME - 08

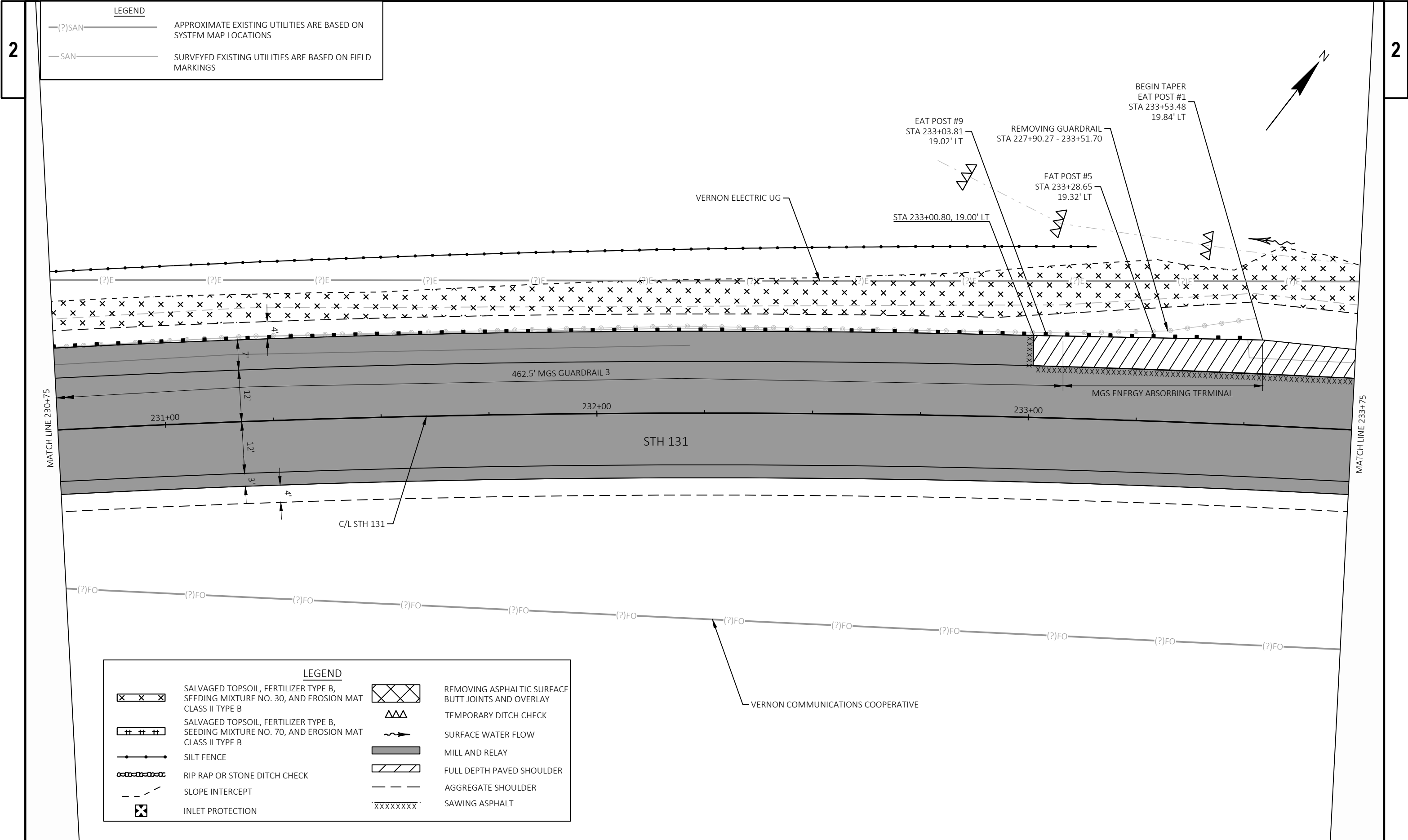
PLOT DATE : 1/15/2026 8:39 AM

PLOT BY : WESTERN, JACOB

PLOT NAME :

PLOT SCALE : 1 IN:20 FT

WISDOT/CADDs SHEET 42



LEGEND

(?)SAN

APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS

SAN

SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS

LEGEND

X

X

X

SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B

+

+

+

SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 70, AND EROSION MAT CLASS II TYPE B

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SILT FENCE

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RIP RAP OR STONE DITCH CHECK

- - -

SLOPE INTERCEPT

X

INLET PROTECTION

X

X

X

REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY

Δ

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Δ

TEMPORARY DITCH CHECK

→

SURFACE WATER FLOW

■

MILL AND RELAY

▨

FULL DEPTH PAVED SHOULDER

- - -

AGGREGATE SHOULDER

XXXXXXX

SAWING ASPHALT

PROJECT NO: 5110-06-70

HWY: STH 131

COUNTY: VERNON

CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET 25

E

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\021010-CD.DWG

LAYOUT NAME - 09

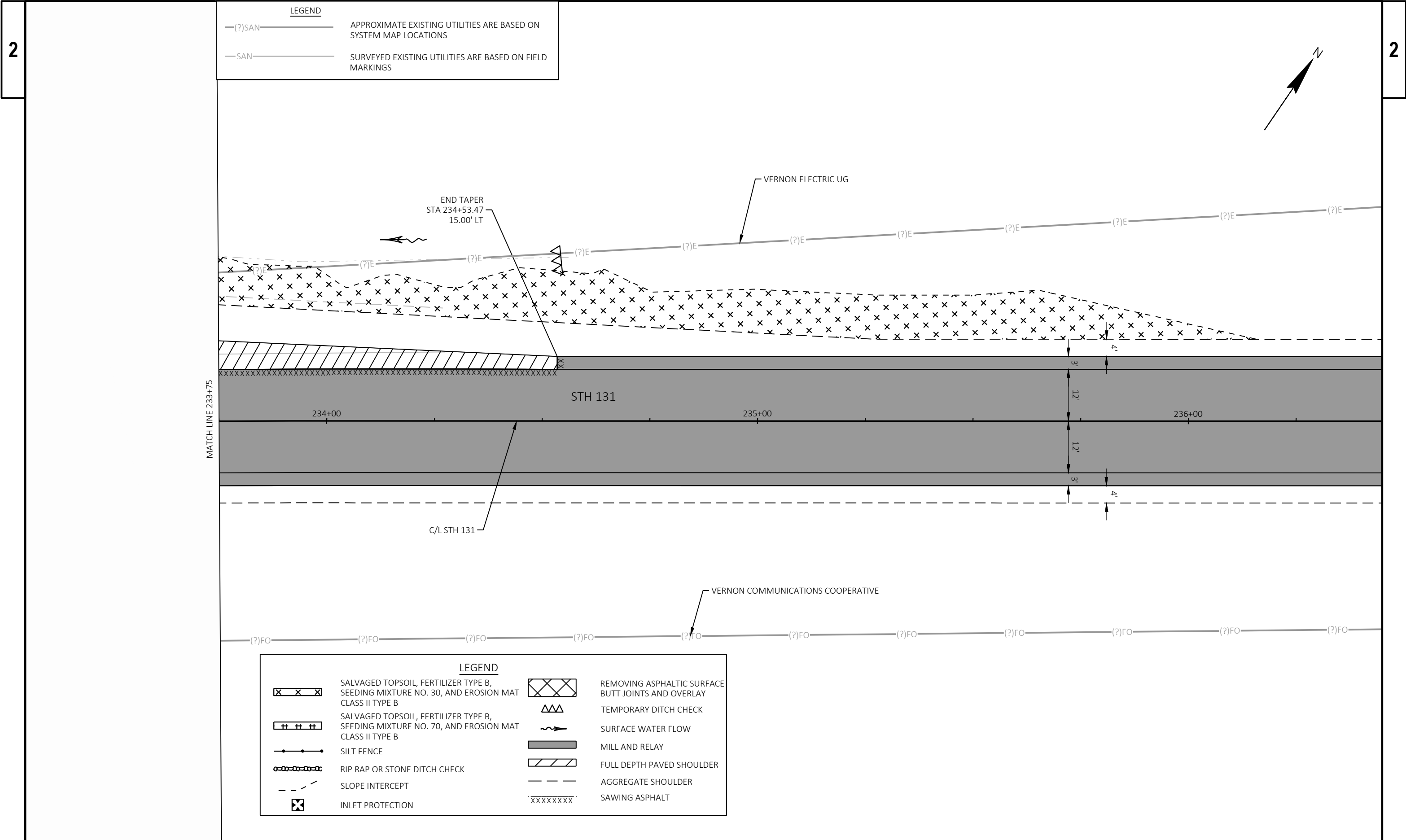
PLOT DATE : 1/15/2026 8:39 AM

PLOT BY : WESTERN, JACOB

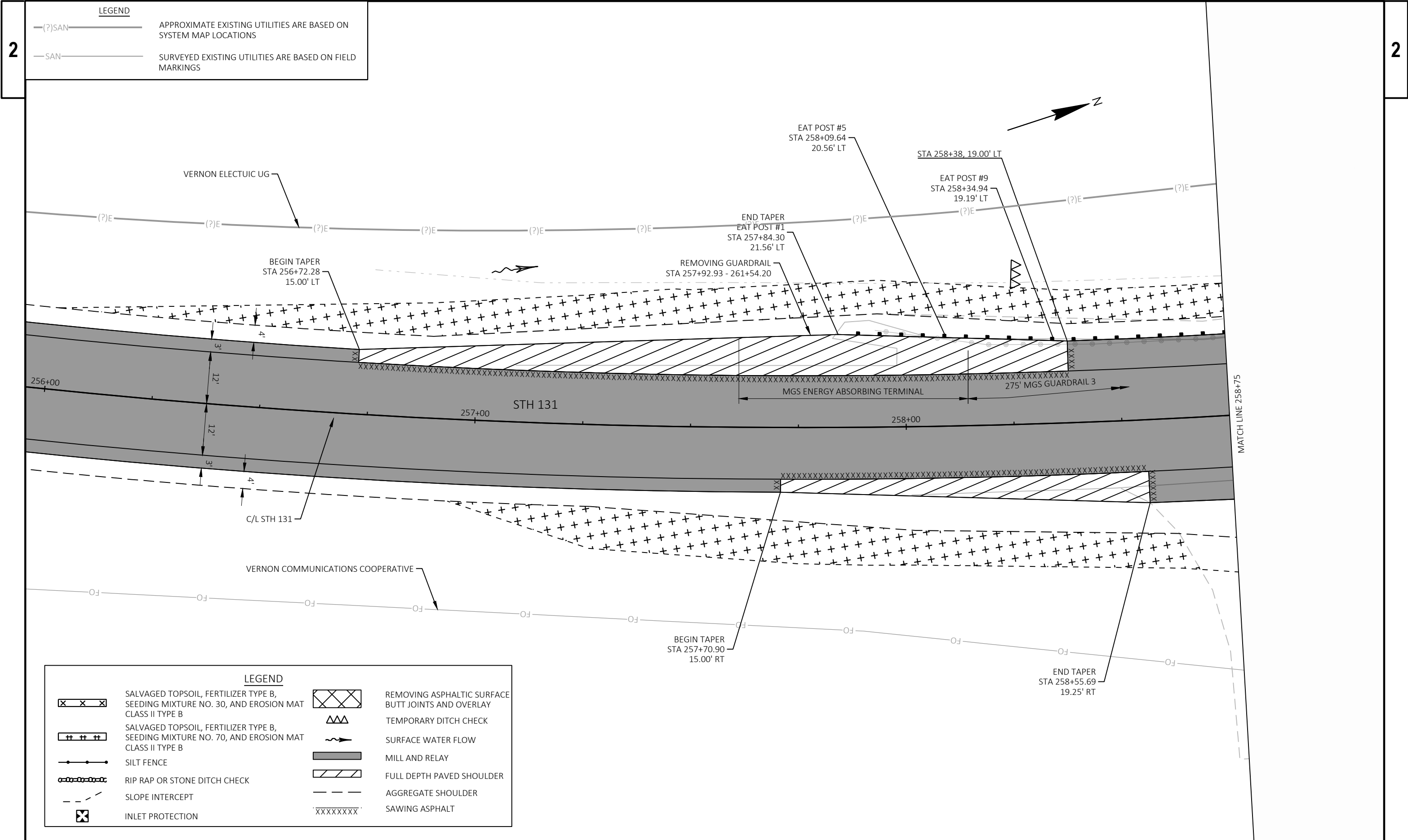
PLOT NAME :

PLOT SCALE : 1 IN:20 FT

WISDOT/CADDs SHEET 42

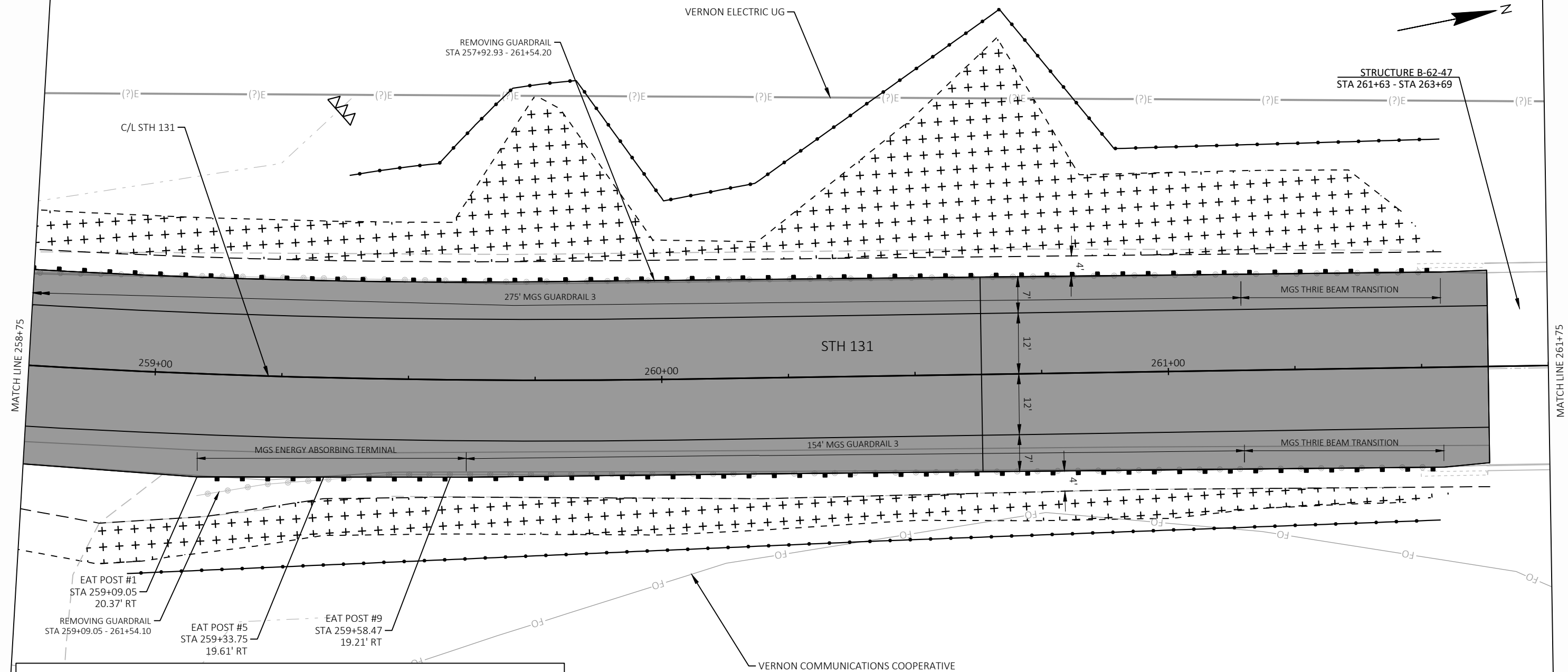






## LEGEND

- (?)SAN— APPROXIMATE EXISTING UTILITIES ARE BASED ON  
SYSTEM MAP LOCATIONS
- SAN— SURVEYED EXISTING UTILITIES ARE BASED ON FIELD  
MARKINGS



## LEGEND

- |  |                                                                                                    |  |                                                       |
|--|----------------------------------------------------------------------------------------------------|--|-------------------------------------------------------|
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B,<br>SEEDING MIXTURE NO. 30, AND EROSION MAT<br>CLASS II TYPE B |  | REMOVING ASPHALTIC SURFACE<br>BUTT JOINTS AND OVERLAY |
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B,<br>SEEDING MIXTURE NO. 70, AND EROSION MAT<br>CLASS II TYPE B |  | TEMPORARY DITCH CHECK                                 |
|  | SILT FENCE                                                                                         |  | SURFACE WATER FLOW                                    |
|  | RIP RAP OR STONE DITCH CHECK                                                                       |  | MILL AND RELAY                                        |
|  | SLOPE INTERCEPT                                                                                    |  | FULL DEPTH PAVED SHOULDER                             |
|  | INLET PROTECTION                                                                                   |  | AGGREGATE SHOULDER                                    |
|  |                                                                                                    |  | SAWING ASPHALT                                        |

PROJECT NO: 5110-06-70

HWY: STH 131

COUNTY: VERNON

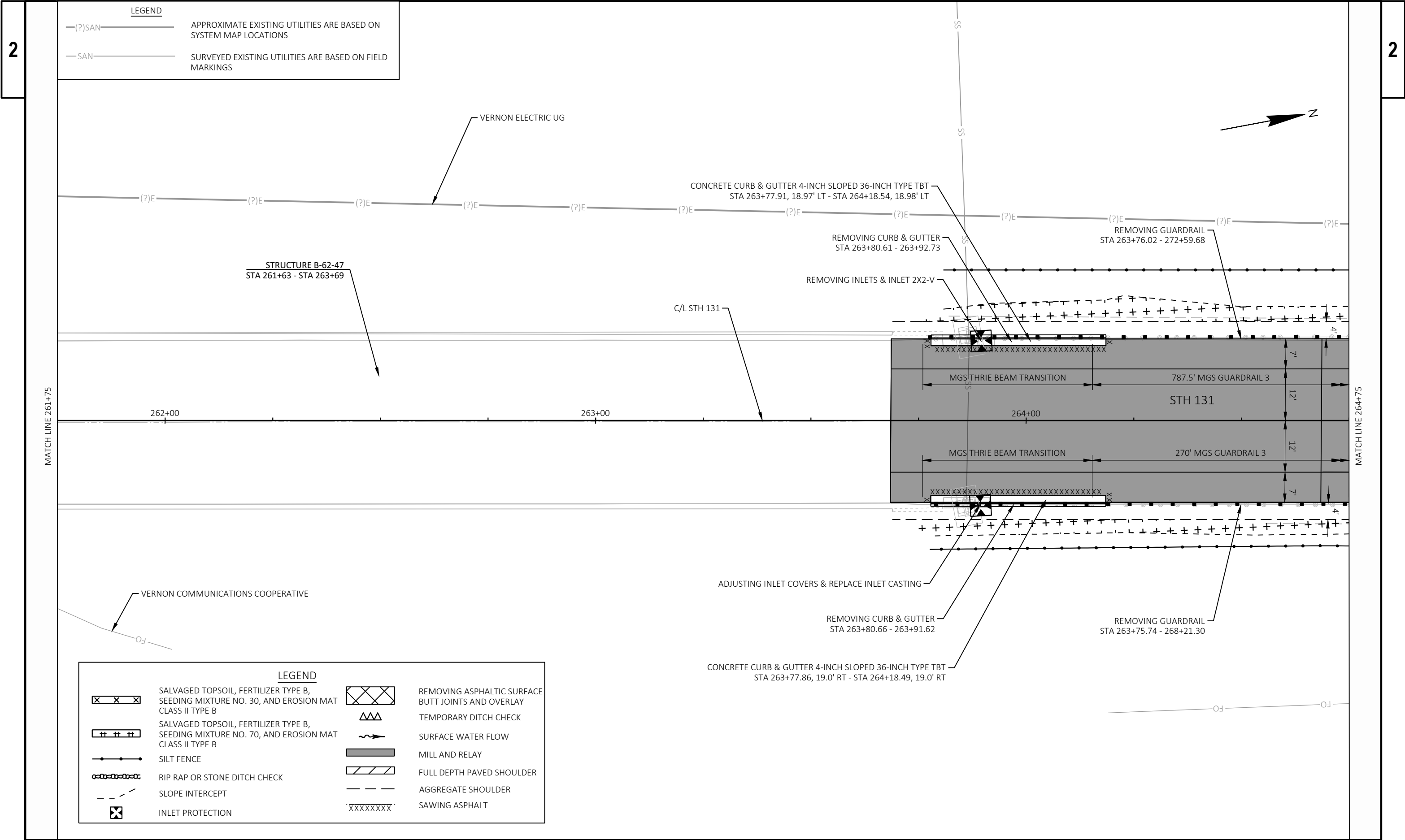
CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET

28

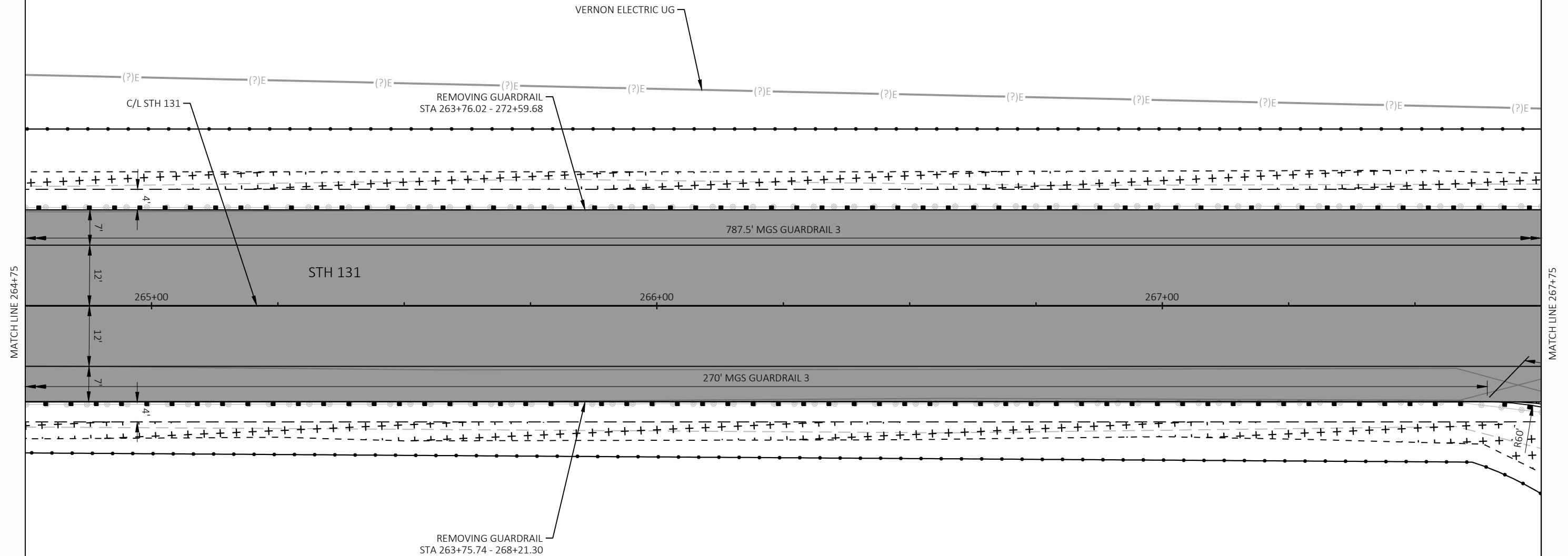
E





## LEGEND

|          |                                                                  |
|----------|------------------------------------------------------------------|
| —(?)SAN— | APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS |
| —SAN—    | SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS          |



## LEGEND

|  |                                                                                              |  |                                                    |
|--|----------------------------------------------------------------------------------------------|--|----------------------------------------------------|
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY |
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 70, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK                              |
|  | SILT FENCE                                                                                   |  | SURFACE WATER FLOW                                 |
|  | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY                                     |
|  | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER                          |
|  | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER                                 |
|  |                                                                                              |  | SAWING ASPHALT                                     |

PROJECT NO: 5110-06-70

HWY: STH 131

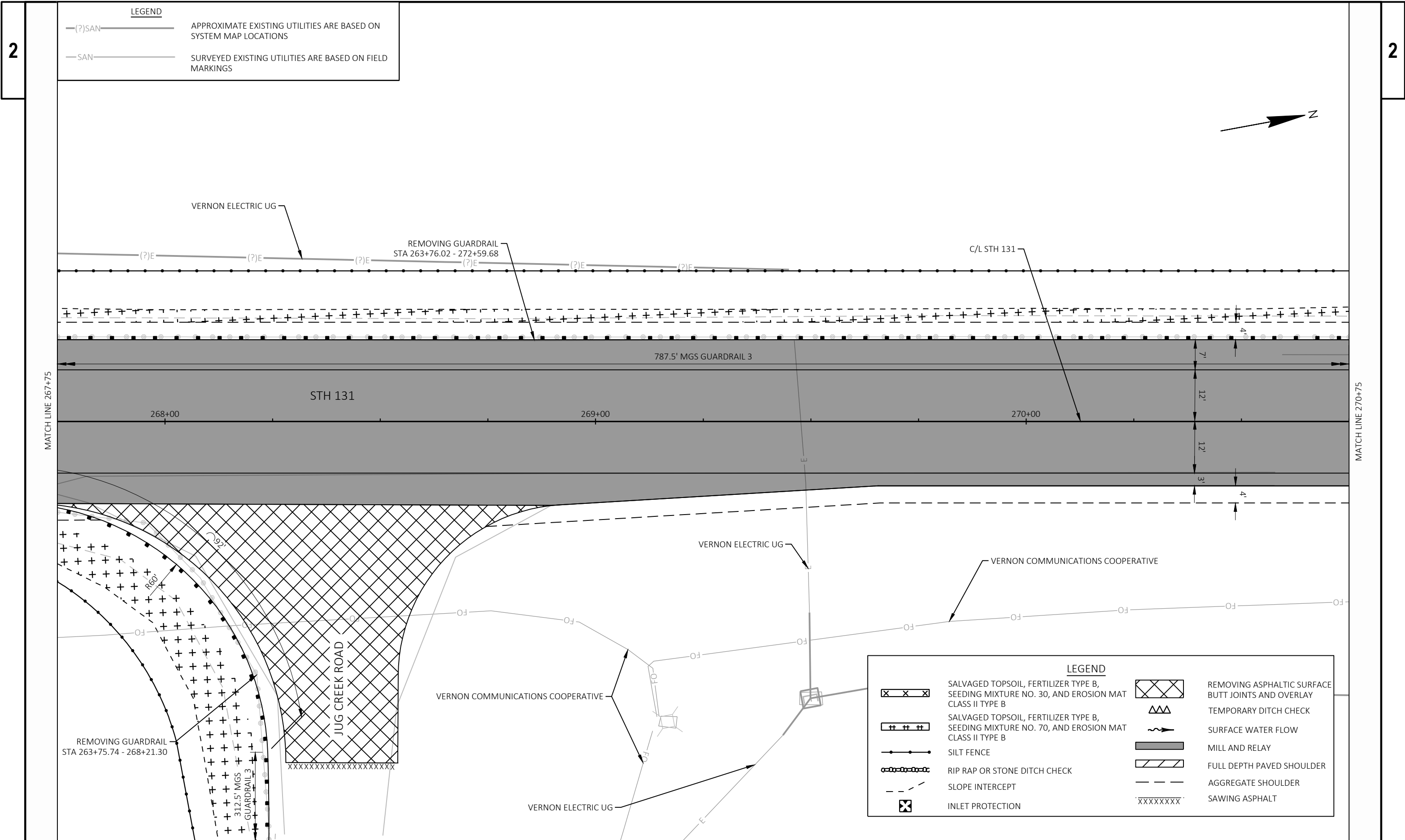
COUNTY: VERNON

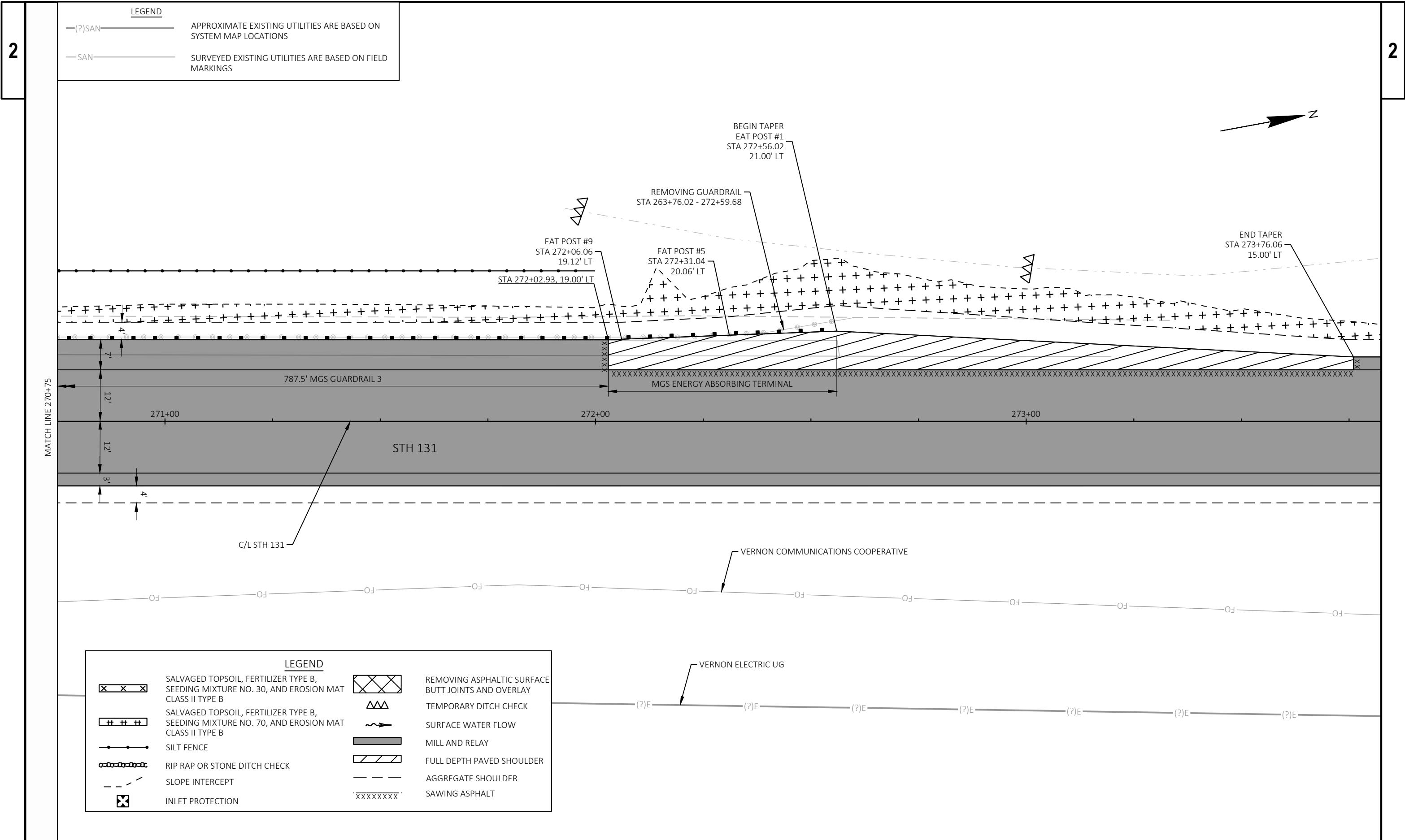
CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET

30

E





LEGEND

- (?)SAN— APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS
- SAN— SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS

LEGEND

- |  |                                                                                              |  |                                                    |
|--|----------------------------------------------------------------------------------------------|--|----------------------------------------------------|
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY |
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 70, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK                              |
|  | SILT FENCE                                                                                   |  | SURFACE WATER FLOW                                 |
|  | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY                                     |
|  | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER                          |
|  | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER                                 |
|  |                                                                                              |  | SAWING ASPHALT                                     |

PROJECT NO: 5110-06-70

HWY: STH 131

COUNTY: VERNON

CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET

32

E

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETSPLAN\021010-CD.DWG  
LAYOUT NAME - 16

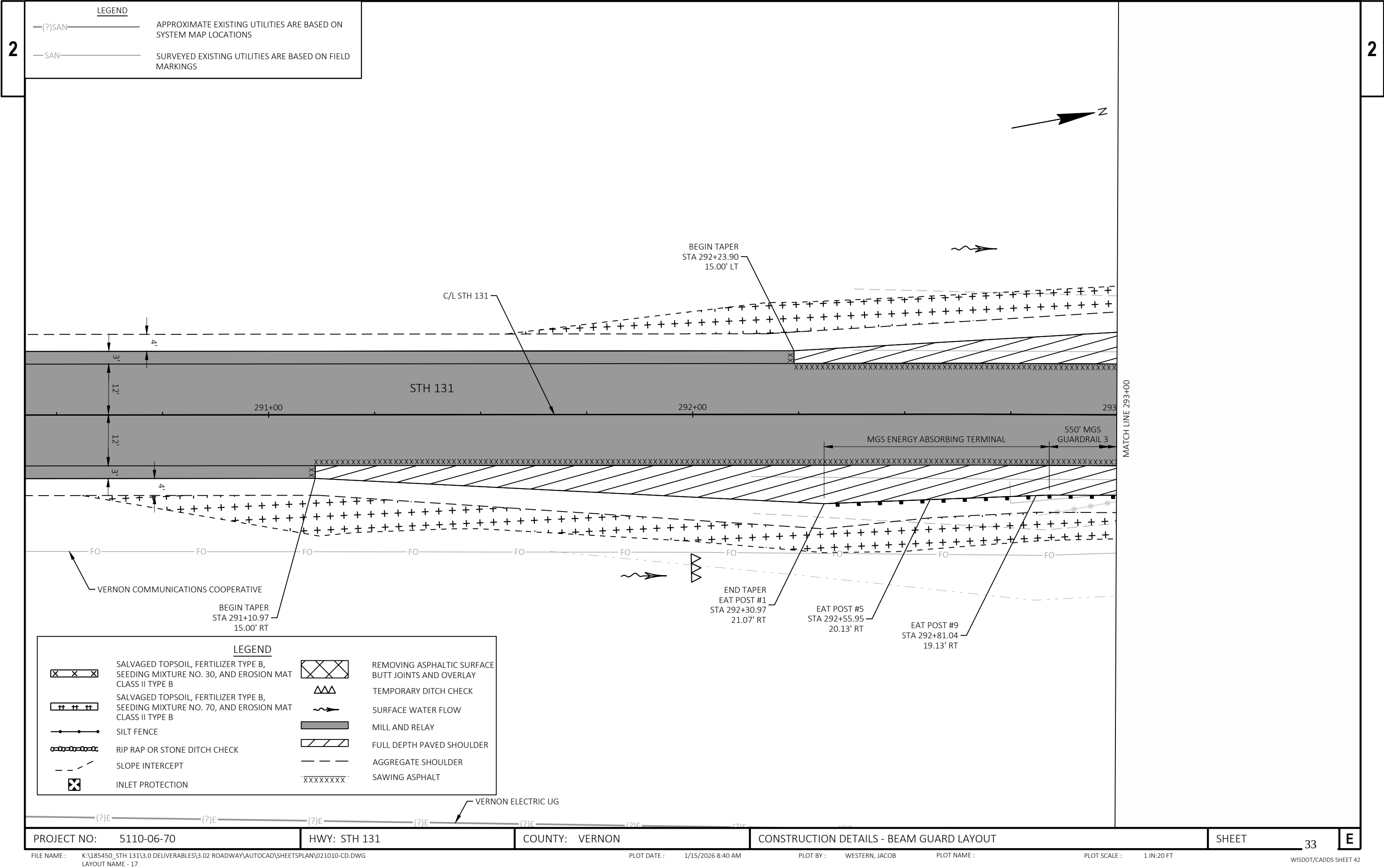
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PLOT BY : WESTERN, JACOB

PLOT NAME :

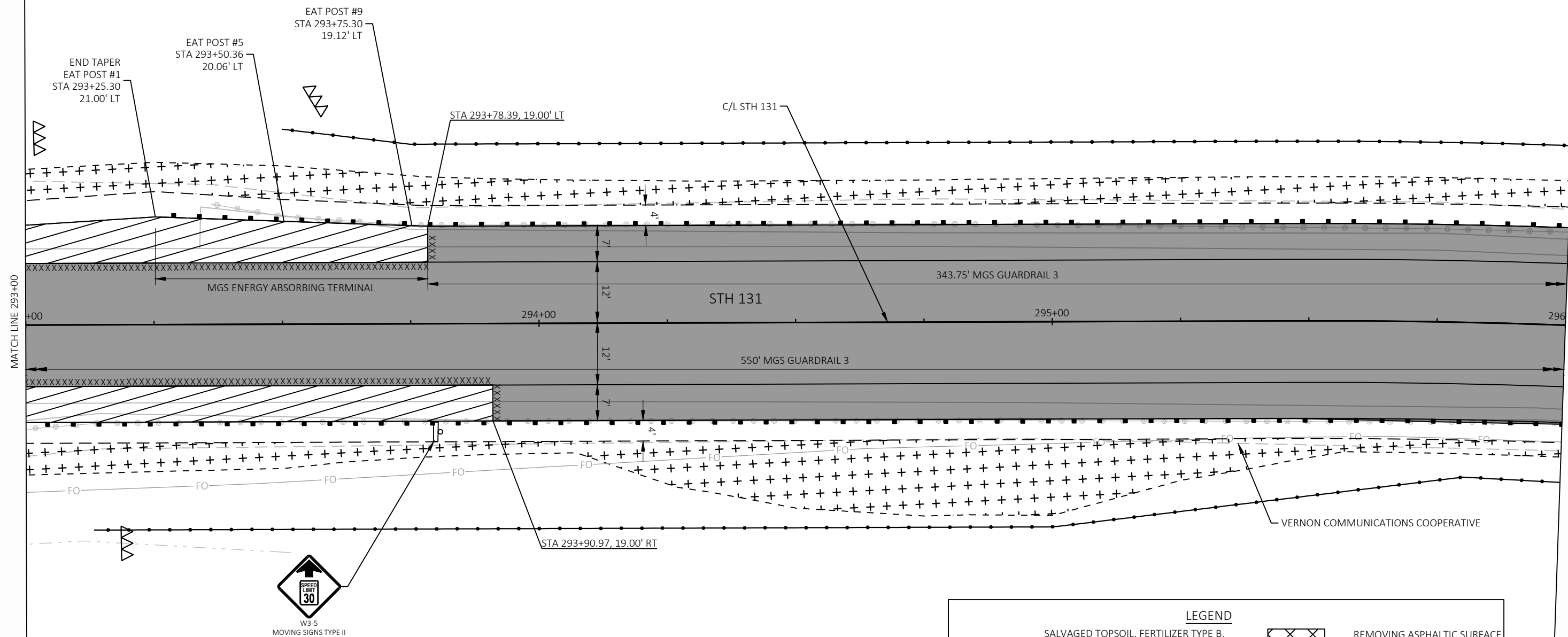
PLOT SCALE : 1 IN:20 FT

WISDOT/CADDs SHEET 42



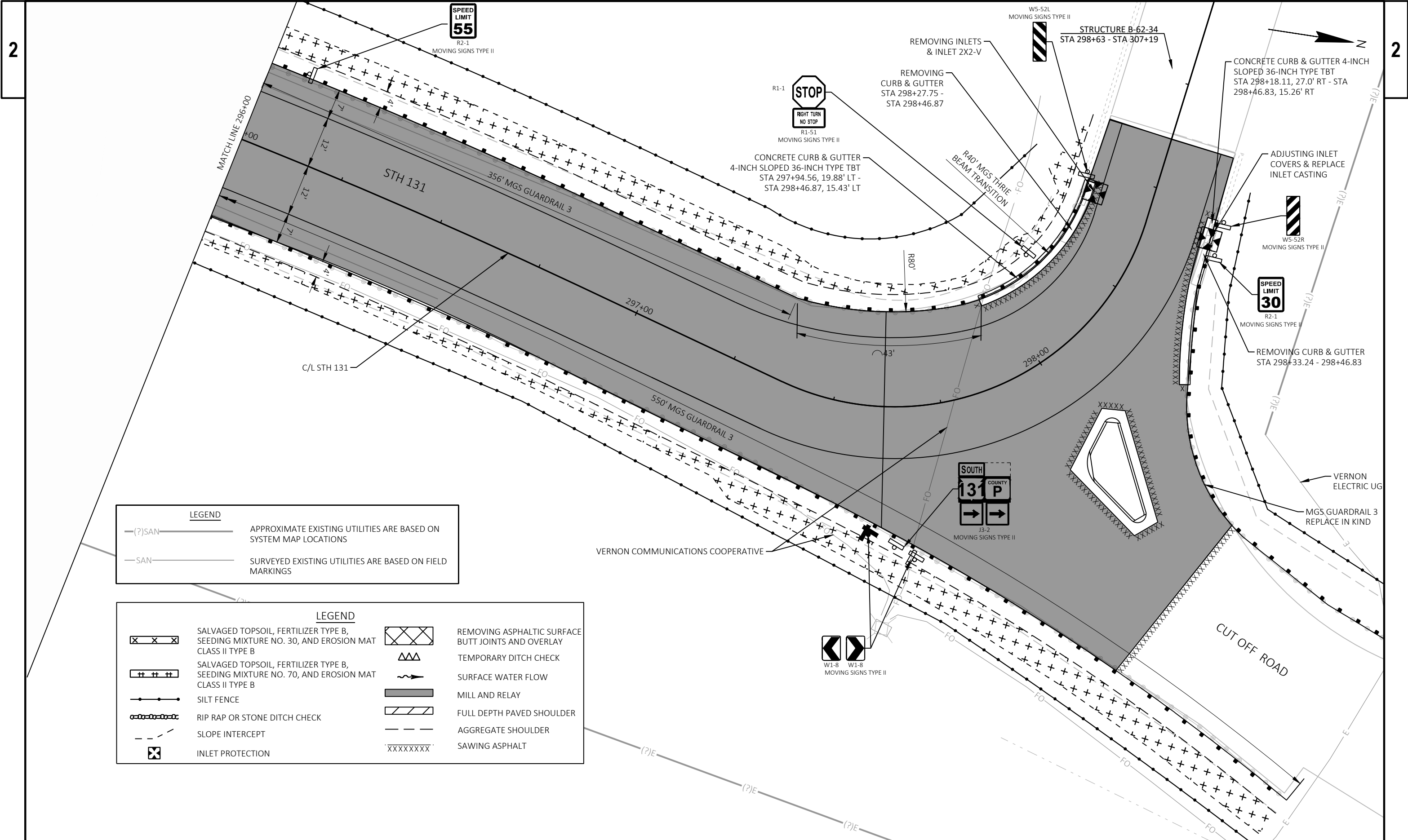
## LEGEND

- (?)SAN— APPROXIMATE EXISTING UTILITIES ARE BASED ON  
SYSTEM MAP LOCATIONS
- SAN— SURVEYED EXISTING UTILITIES ARE BASED ON FIELD  
MARKINGS



| LEGEND |                                                                                              |  |                                                    |
|--------|----------------------------------------------------------------------------------------------|--|----------------------------------------------------|
|        | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY |
|        | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 70, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK                              |
|        | SILT FENCE                                                                                   |  | SURFACE WATER FLOW                                 |
|        | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY                                     |
|        | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER                          |
|        | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER                                 |
|        |                                                                                              |  | SAWING ASPHALT                                     |





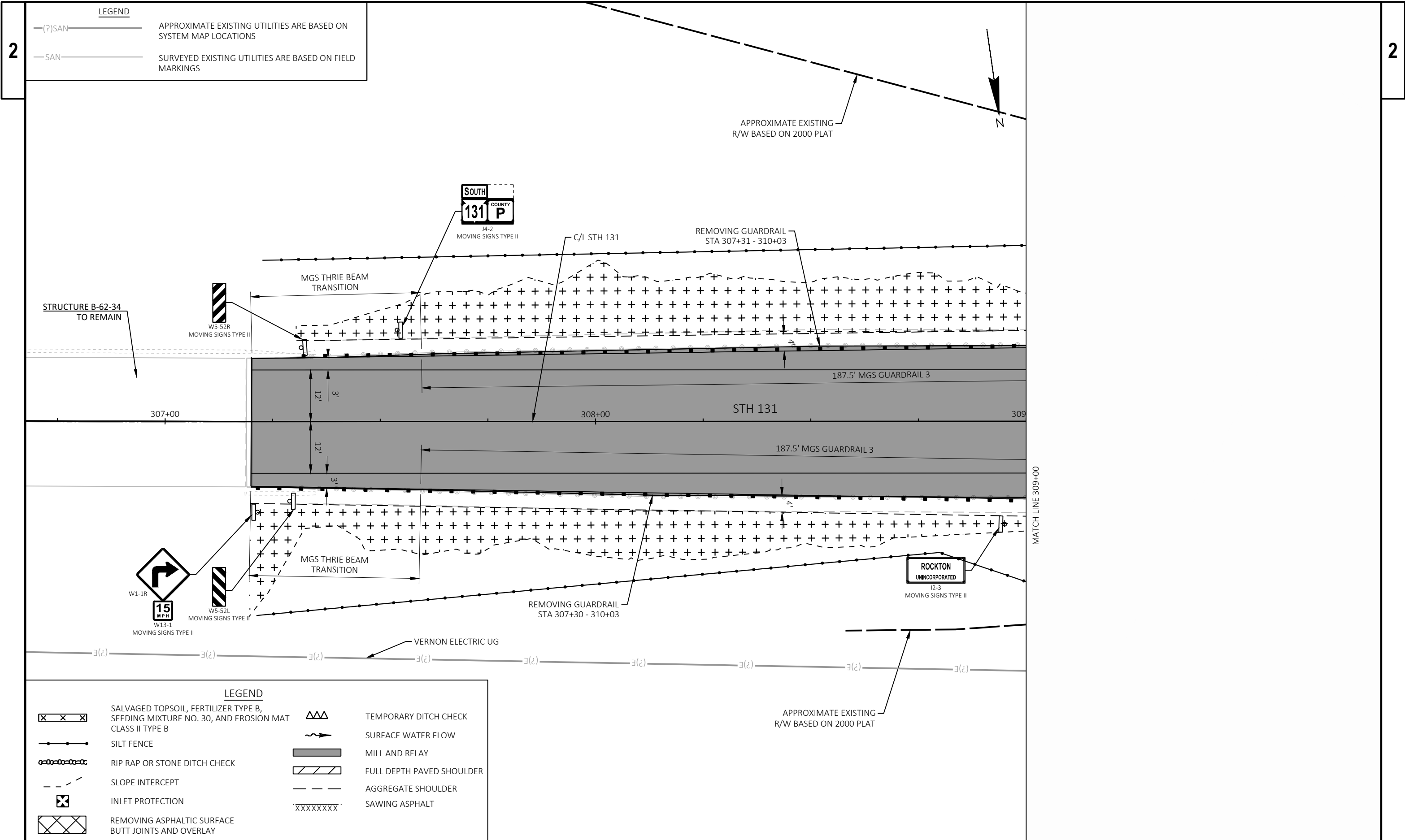
**LEGEND**

—(?)SAN— APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS

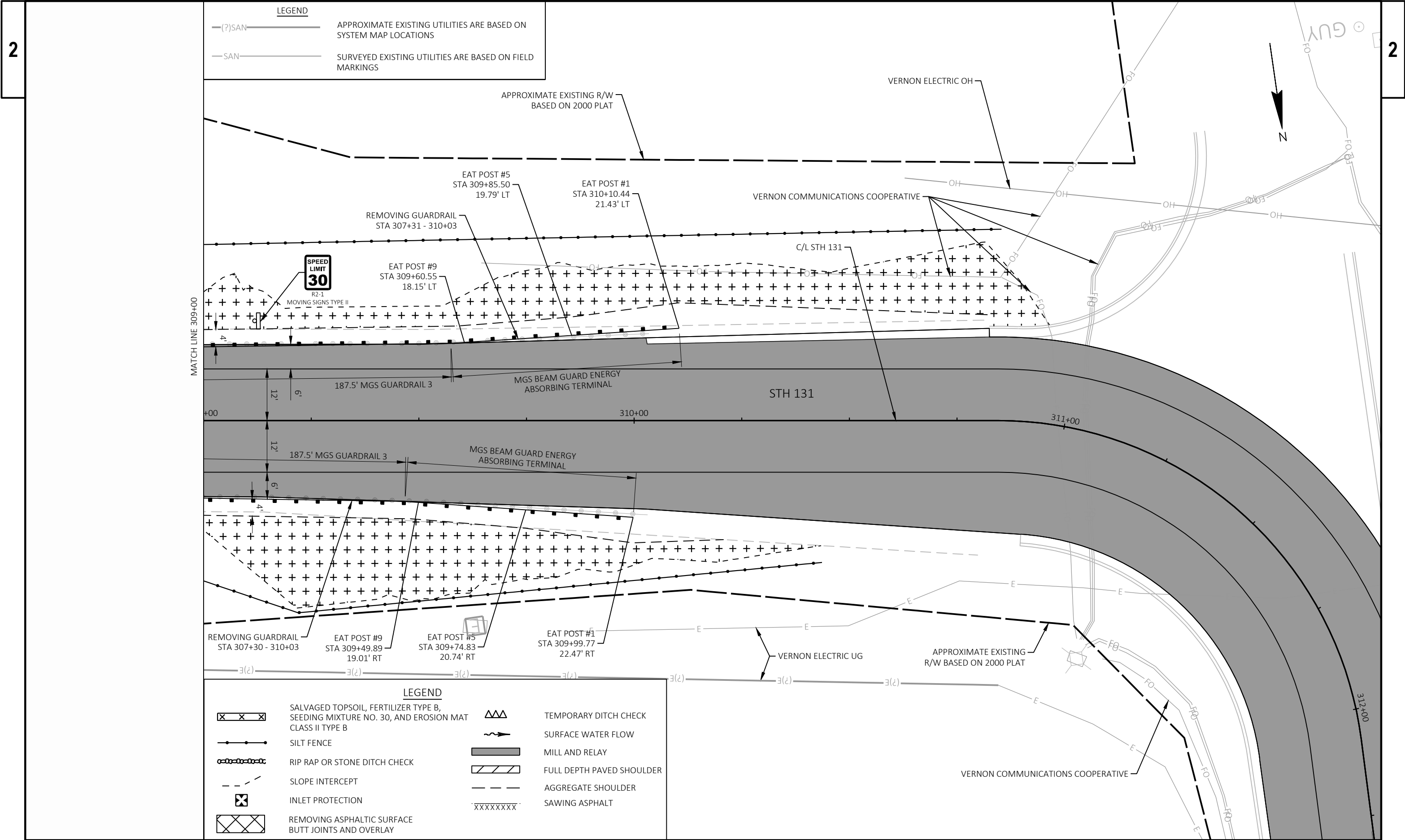
—SAN— SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS

**LEGEND**

|  |                                                                                              |  |                                                    |
|--|----------------------------------------------------------------------------------------------|--|----------------------------------------------------|
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY |
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 70, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK                              |
|  | SILT FENCE                                                                                   |  | SURFACE WATER FLOW                                 |
|  | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY                                     |
|  | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER                          |
|  | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER                                 |
|  |                                                                                              |  | SAWING ASPHALT                                     |







PROJECT NO: 5110-06-70

HWY: STH 131

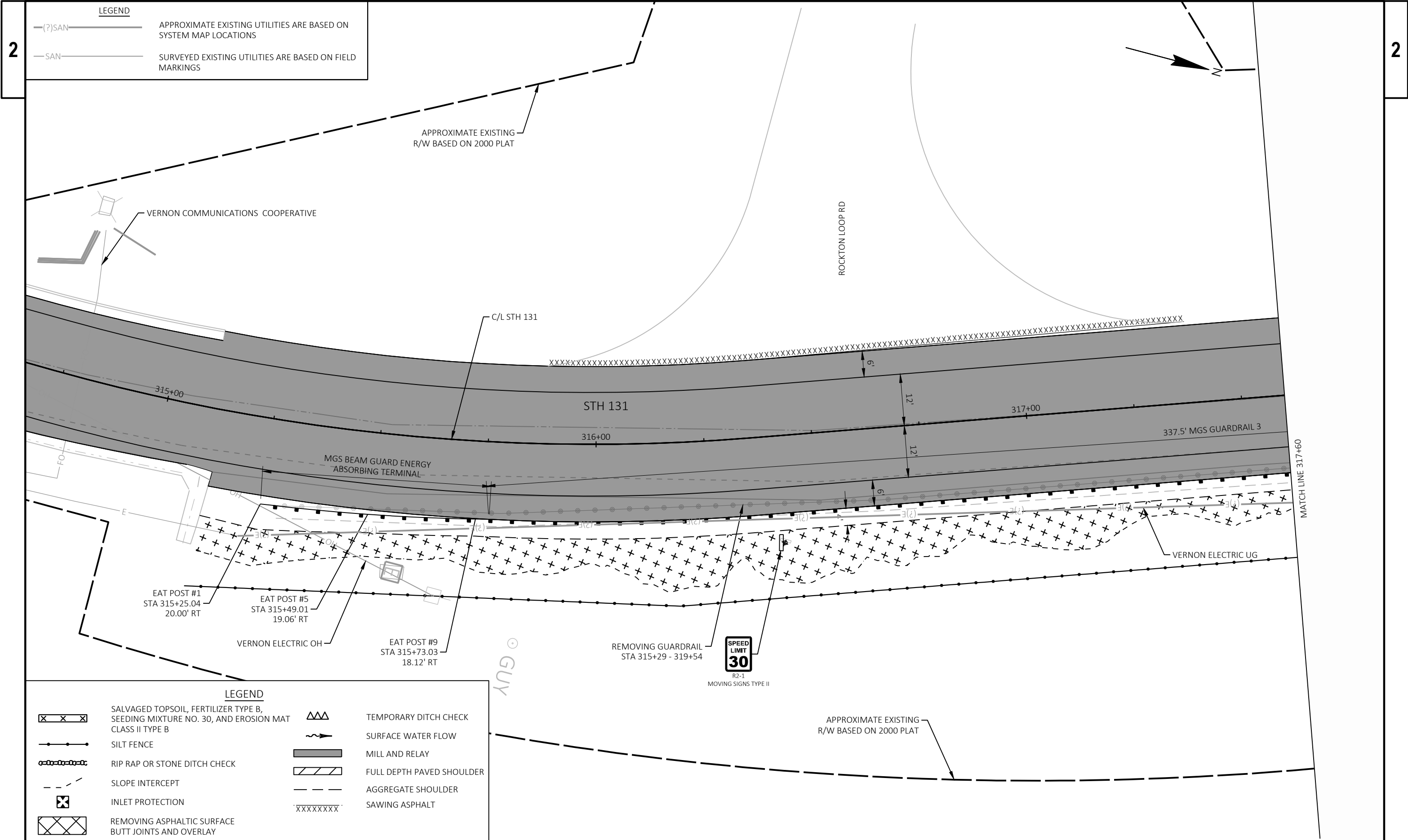
COUNTY: VERNON

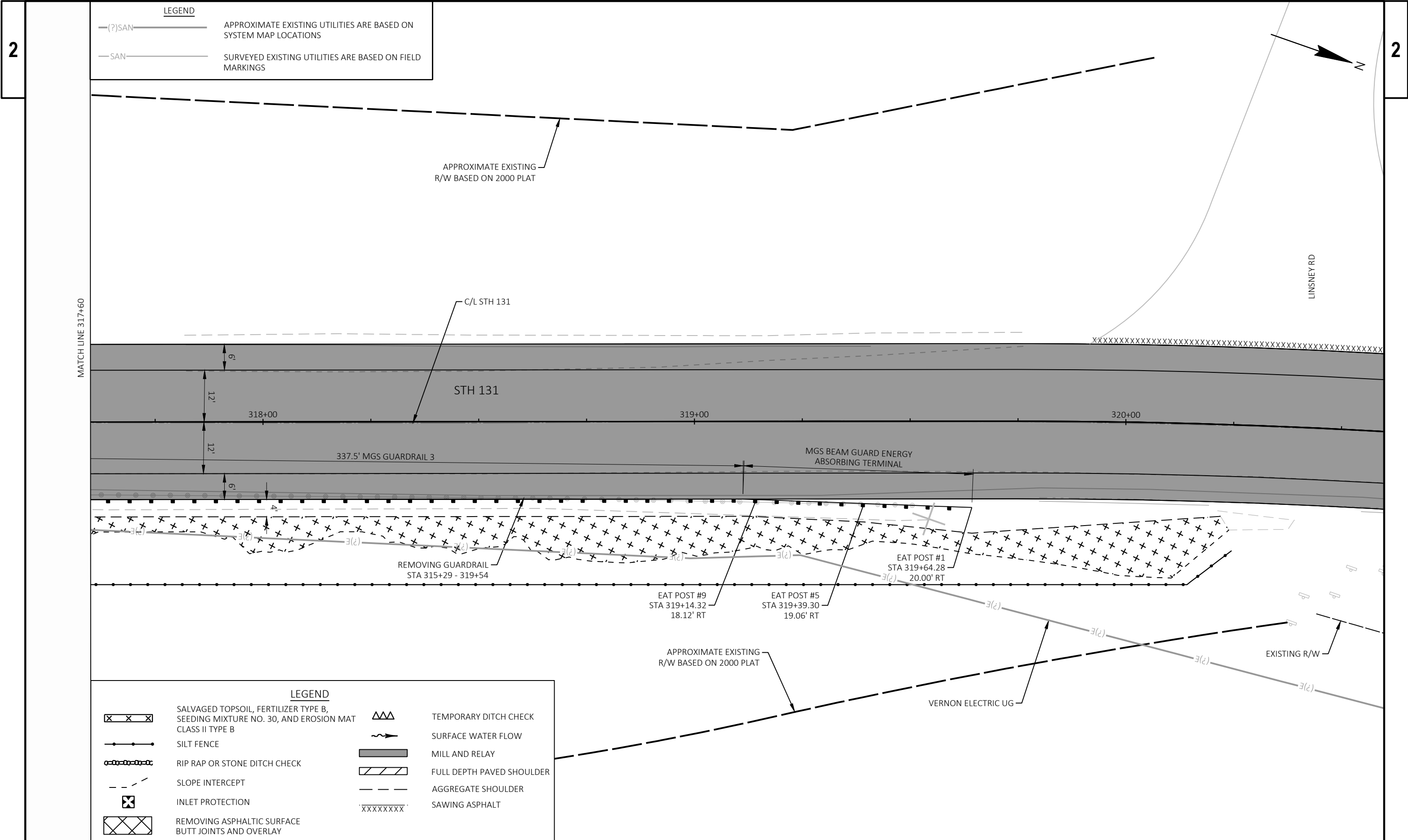
CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

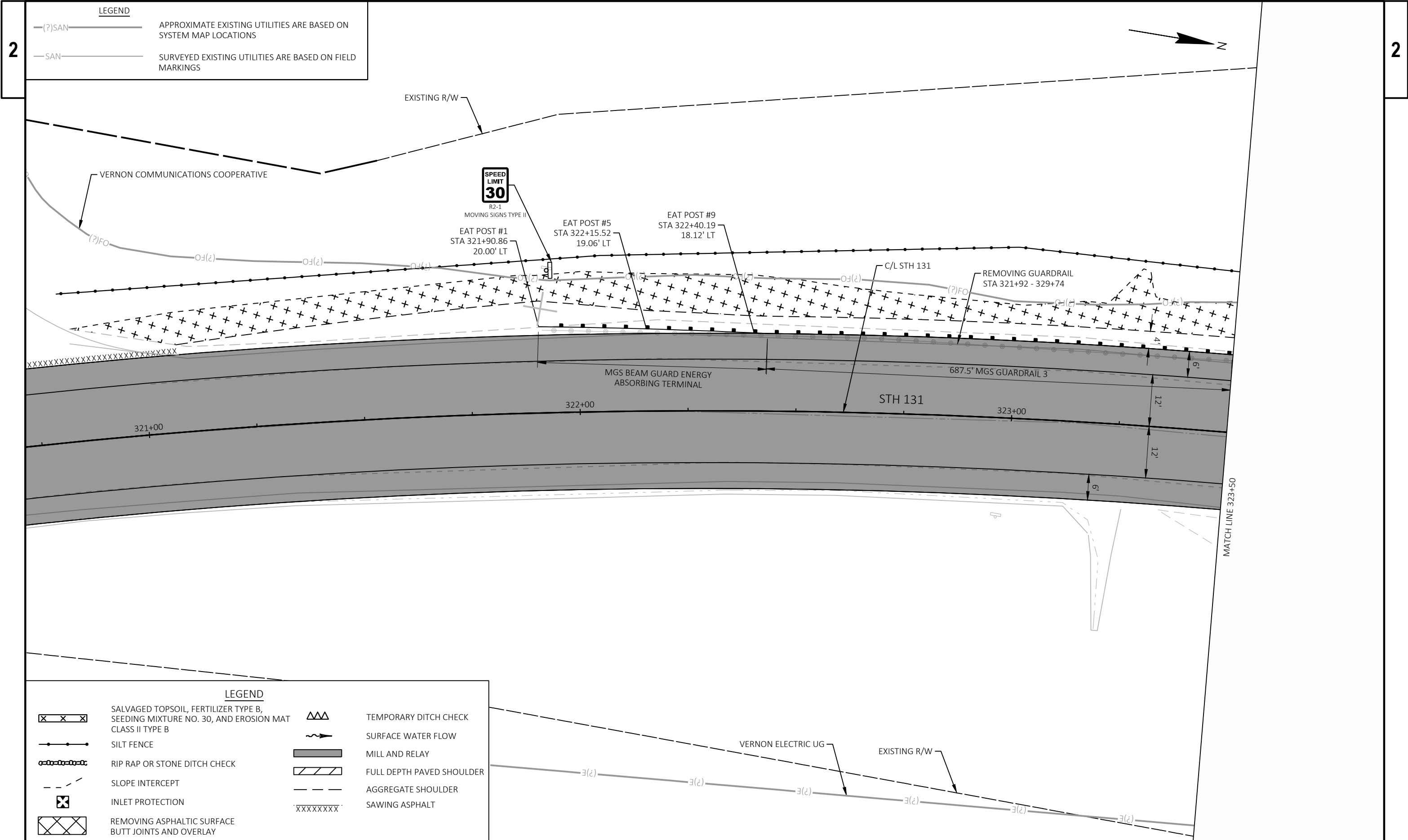
SHEET

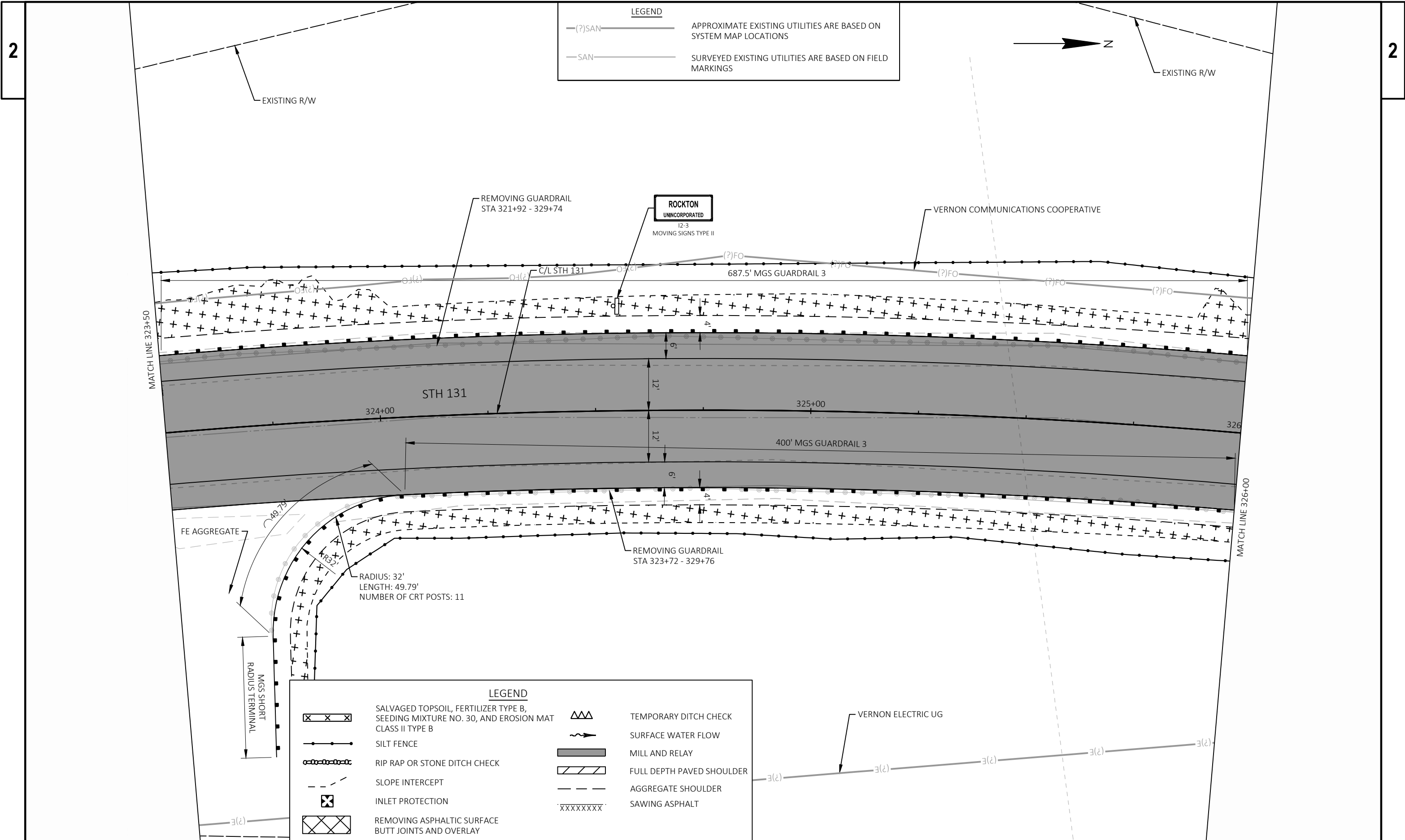
37

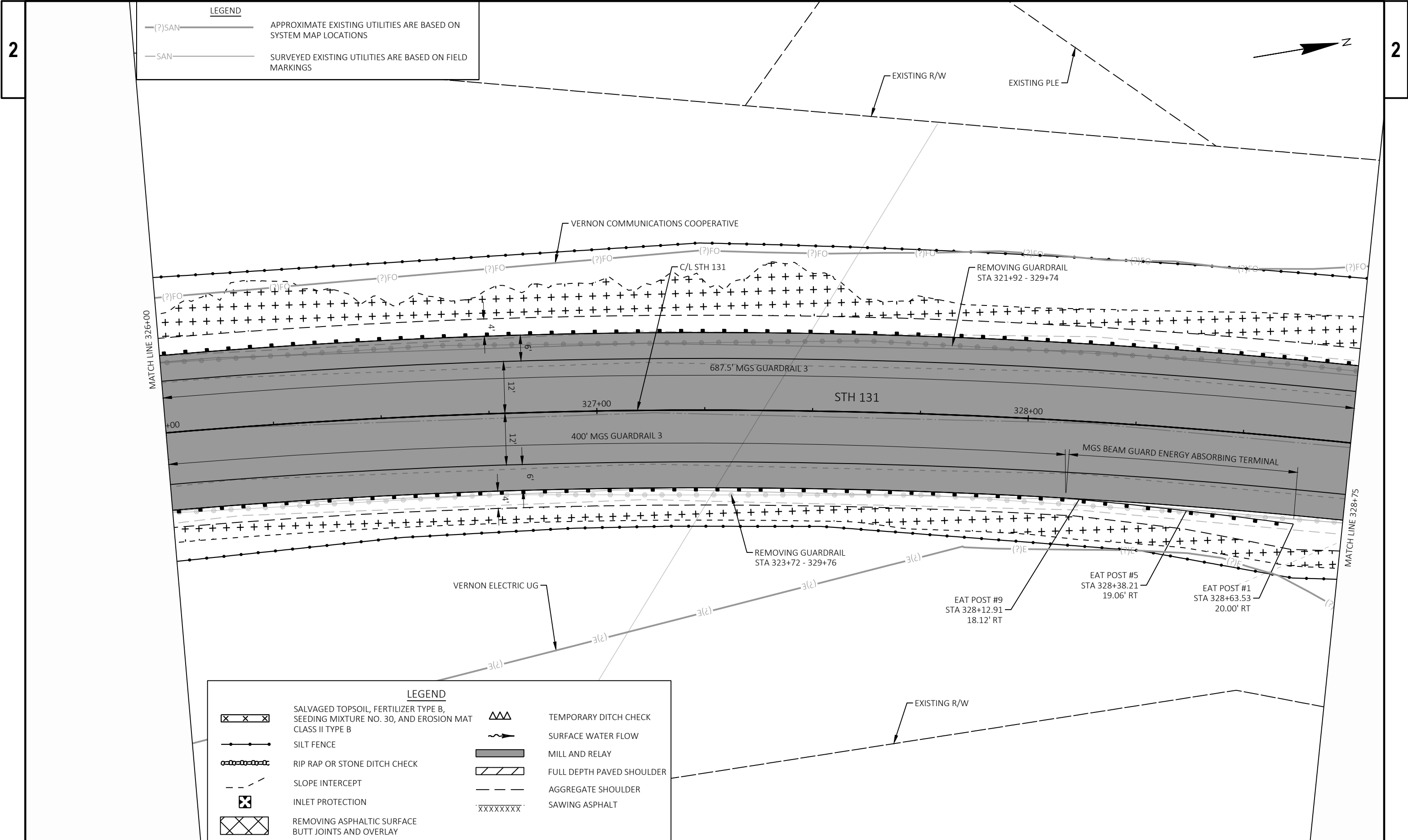
E











LEGEND

(?)SAN

APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS

SAN

SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS

LEGEND

XXXXXX

SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B

-----

SILT FENCE

-----

RIP RAP OR STONE DITCH CHECK

-----

SLOPE INTERCEPT

XXXXXX

INLET PROTECTION

XXXXXX

REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY

-----

TEMPORARY DITCH CHECK

-----

SURFACE WATER FLOW

-----

MILL AND RELAY

-----

FULL DEPTH PAVED SHOULDER

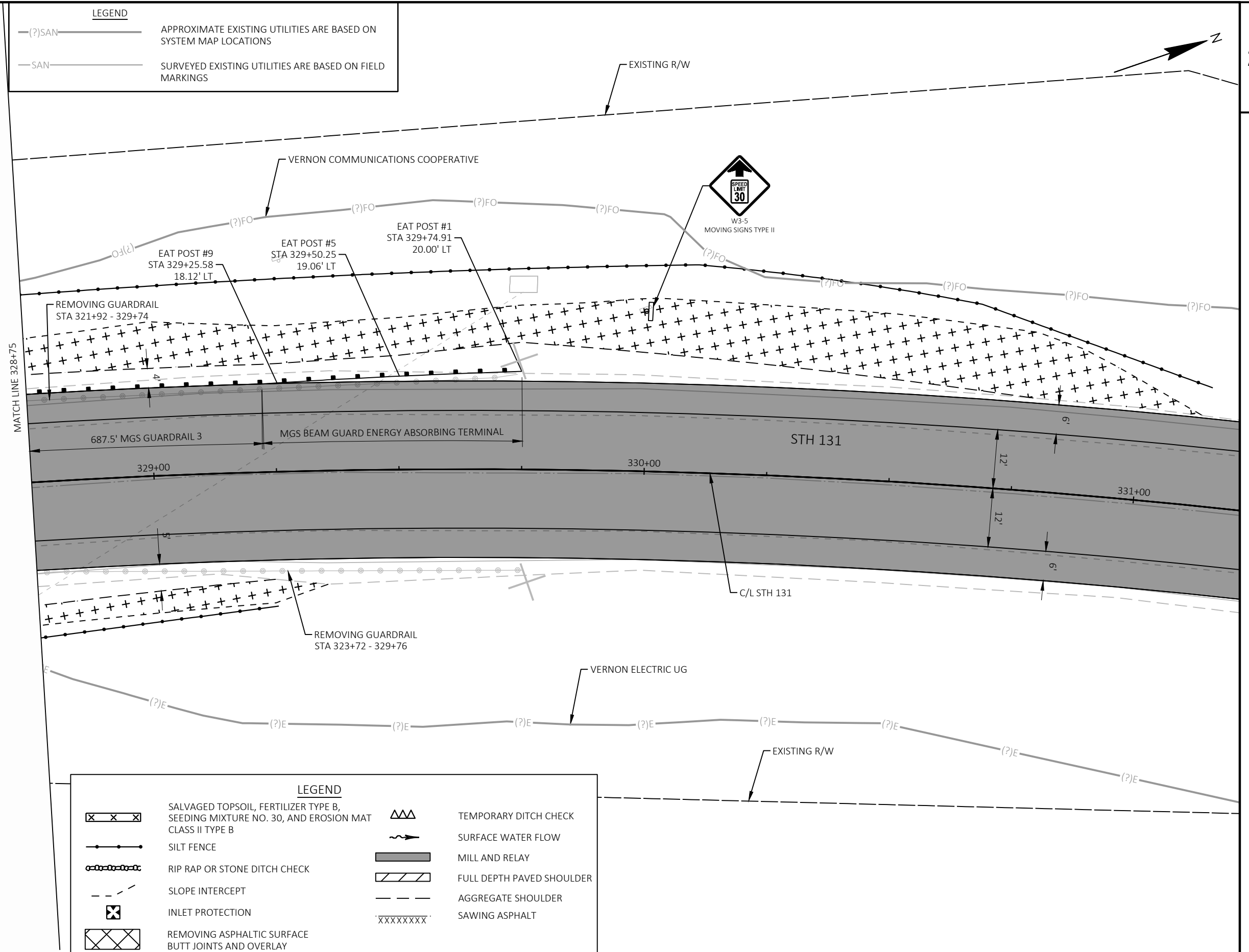
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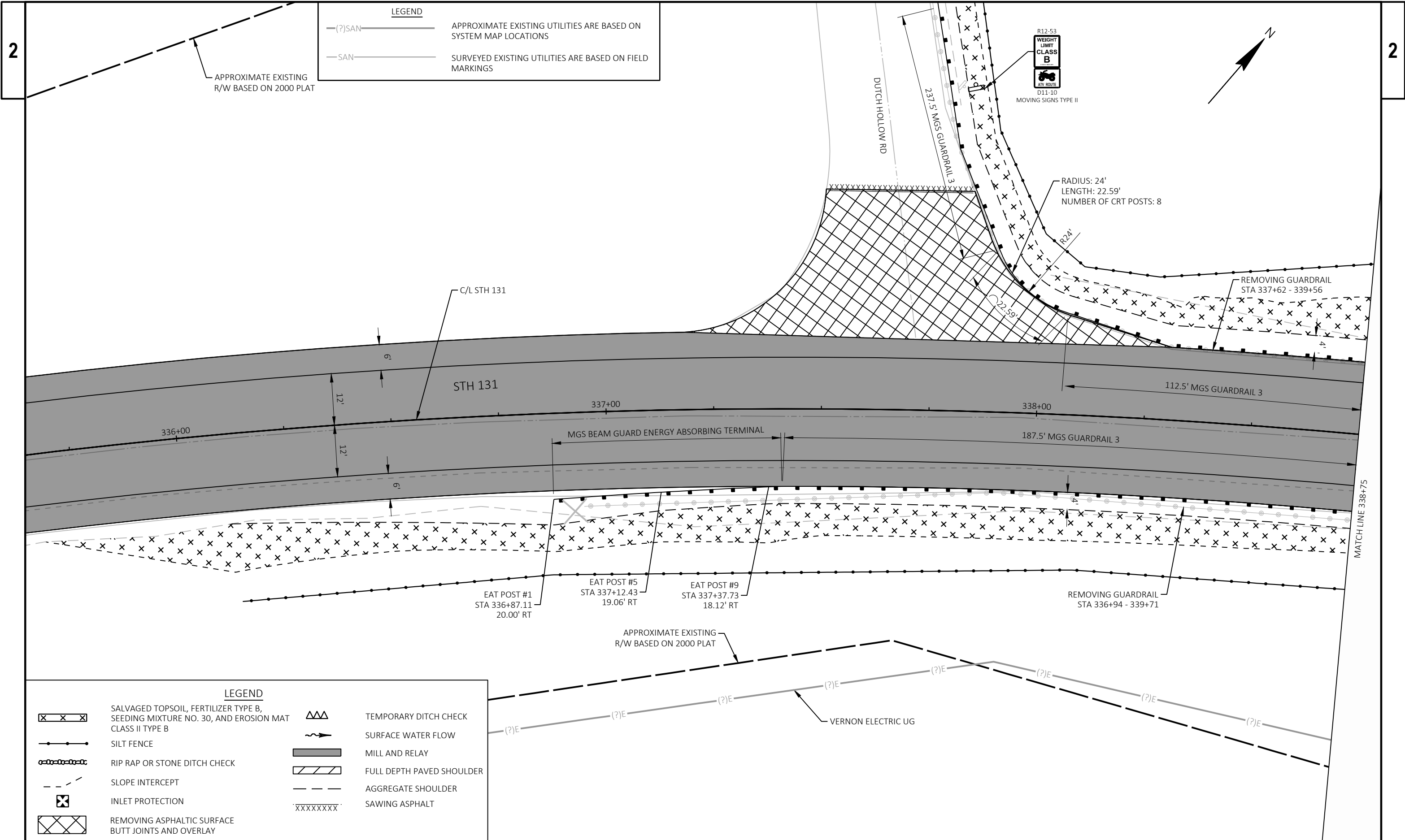
AGGREGATE SHOULDER

XXXXXX

SAWING ASPHALT







**LEGEND**

—(?)SAN— APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS

—SAN— SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS

**LEGEND**

XXXXXX SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B

—●— SILT FENCE

—●— RIP RAP OR STONE DITCH CHECK

— — — SLOPE INTERCEPT

⊗ INLET PROTECTION

XXXXXX REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY

△△△ TEMPORARY DITCH CHECK

—●— SURFACE WATER FLOW

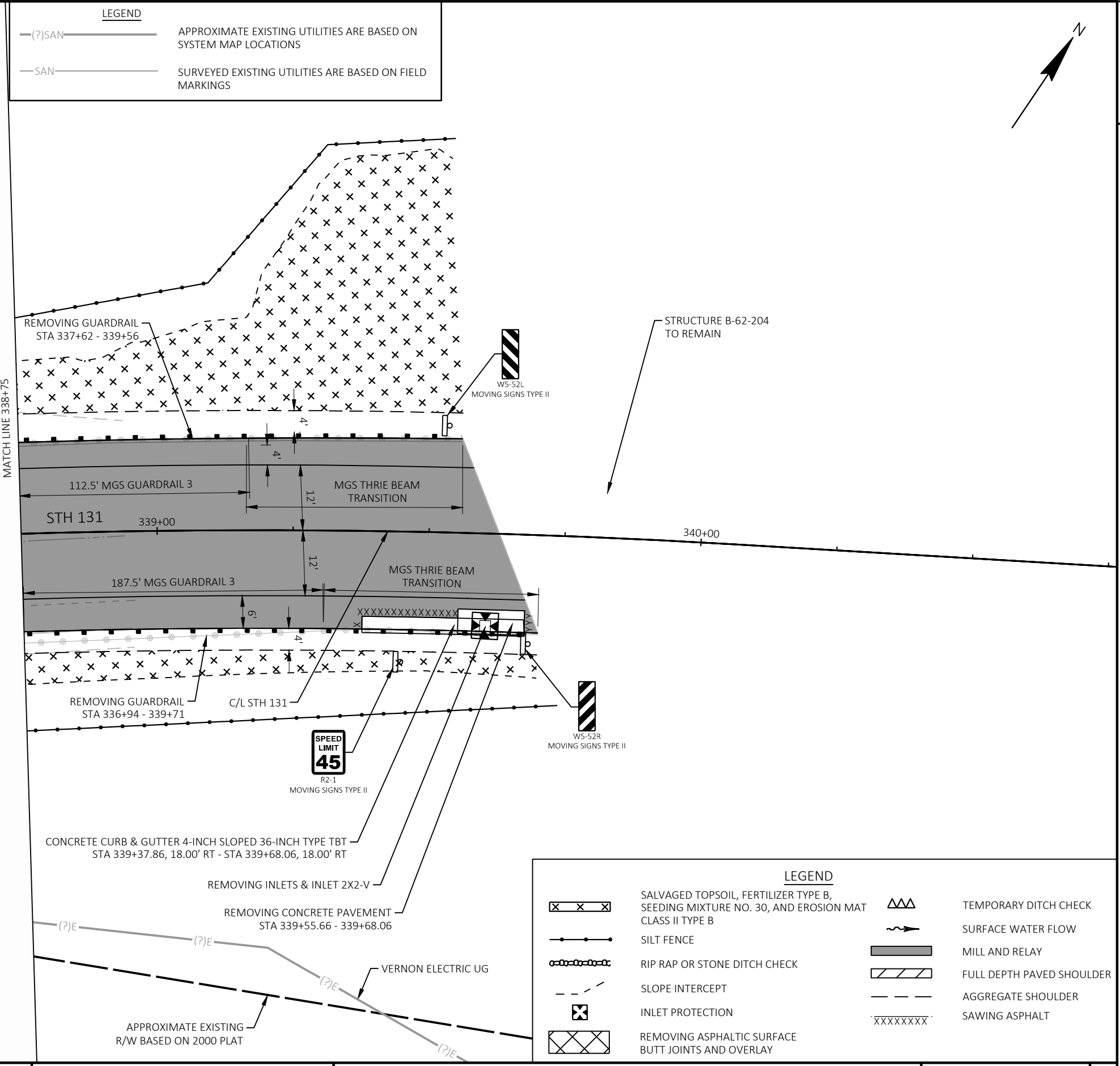
■ MILL AND RELAY

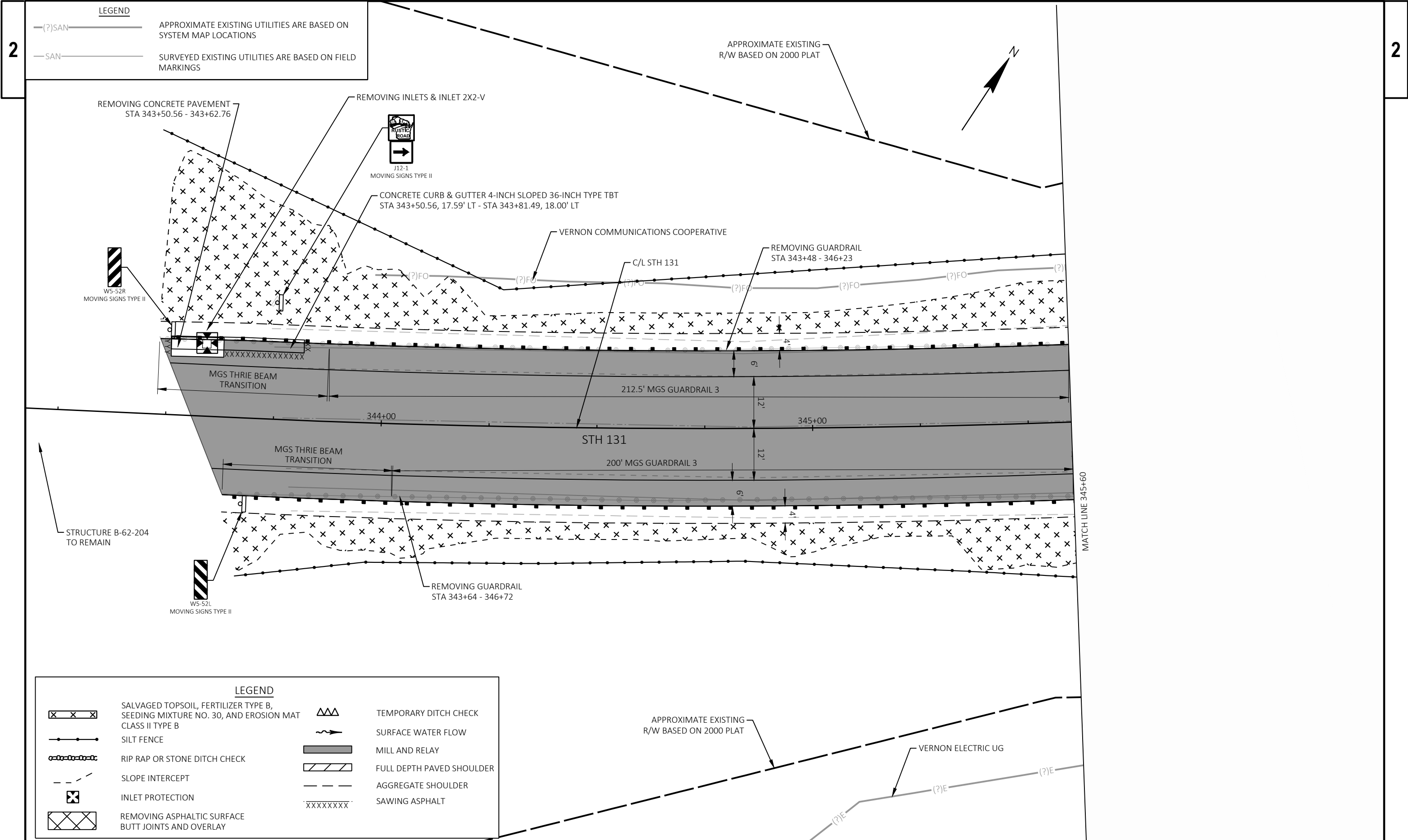
▨ FULL DEPTH PAVED SHOULDER

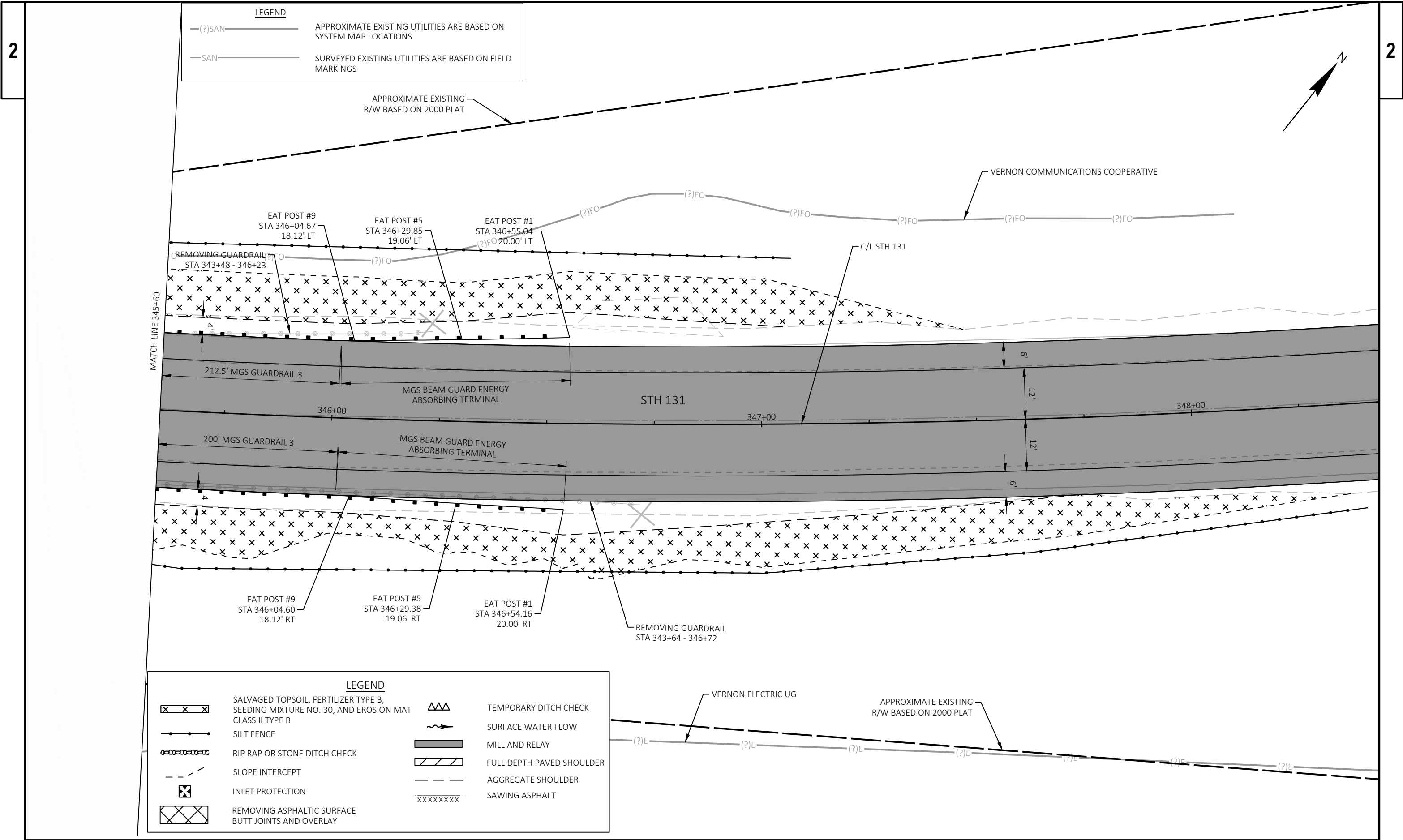
— — — AGGREGATE SHOULDER

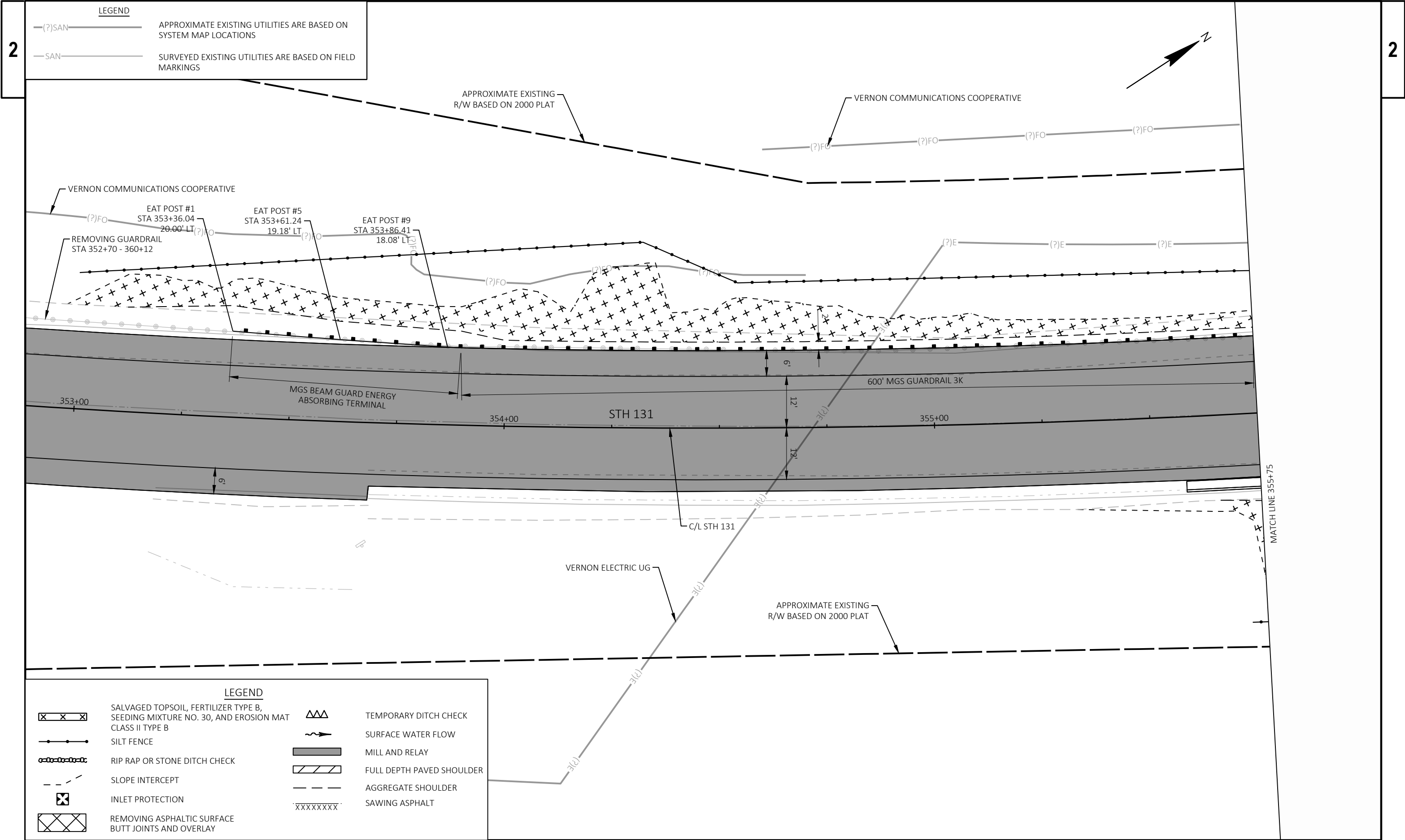
XXXXXX SAWING ASPHALT



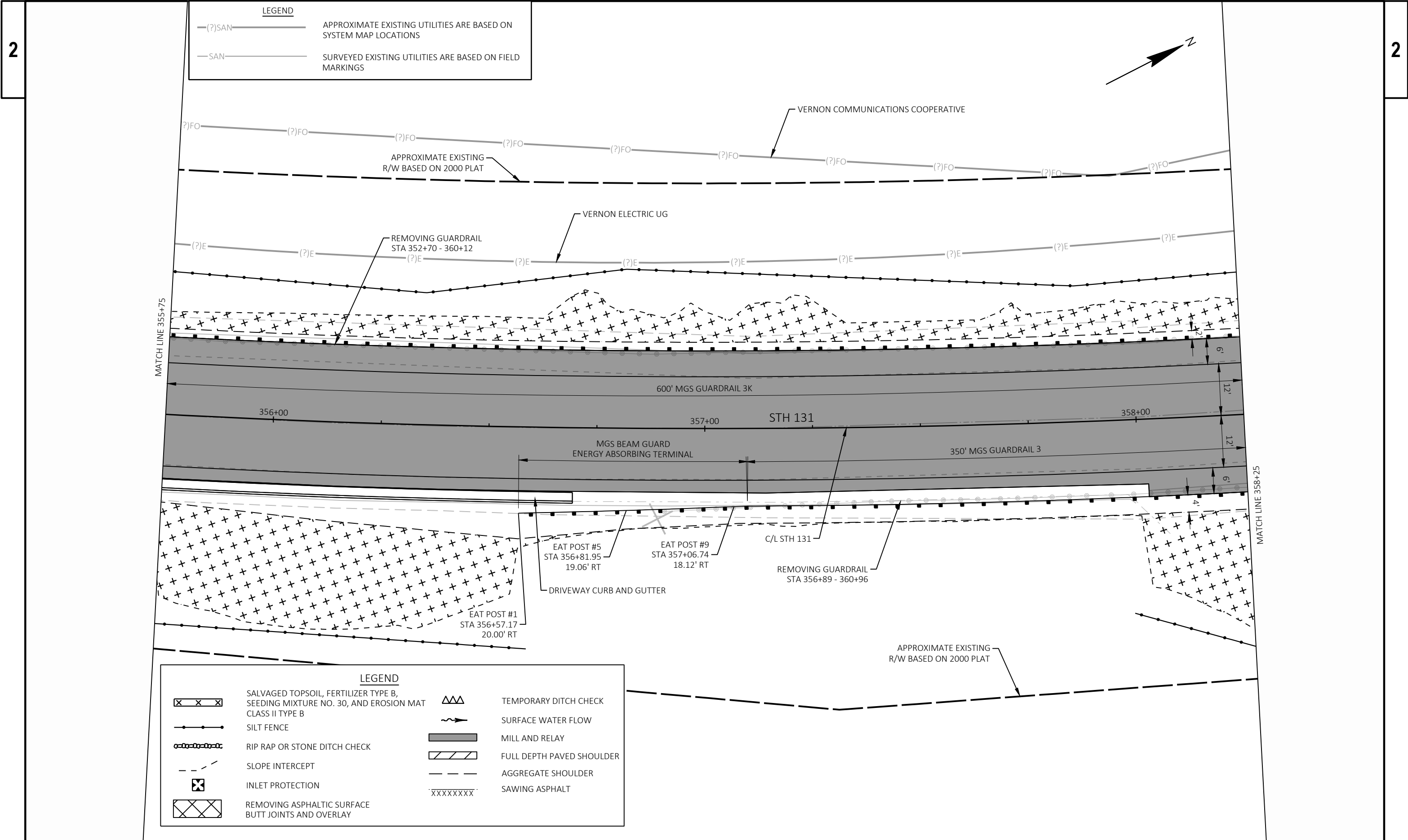


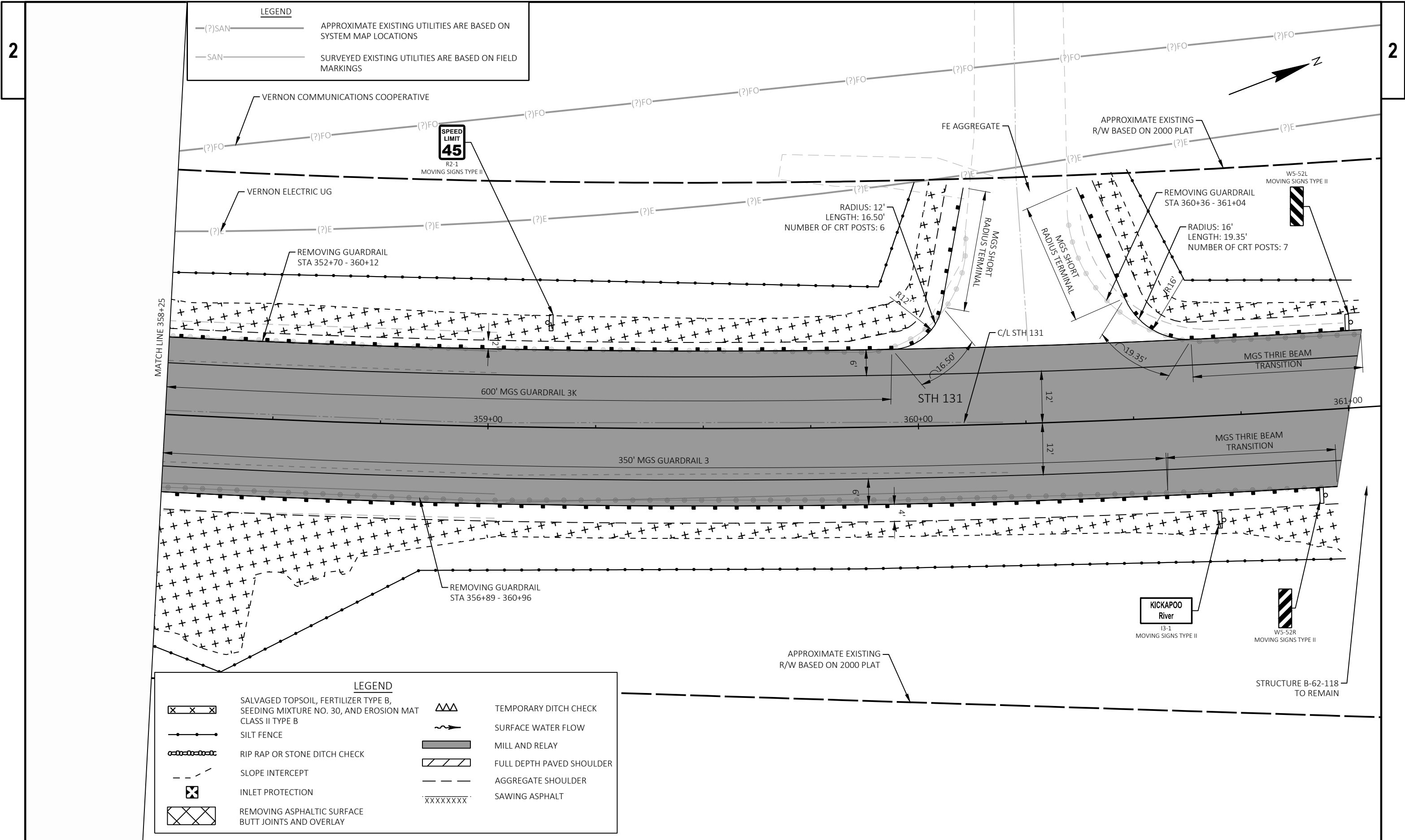




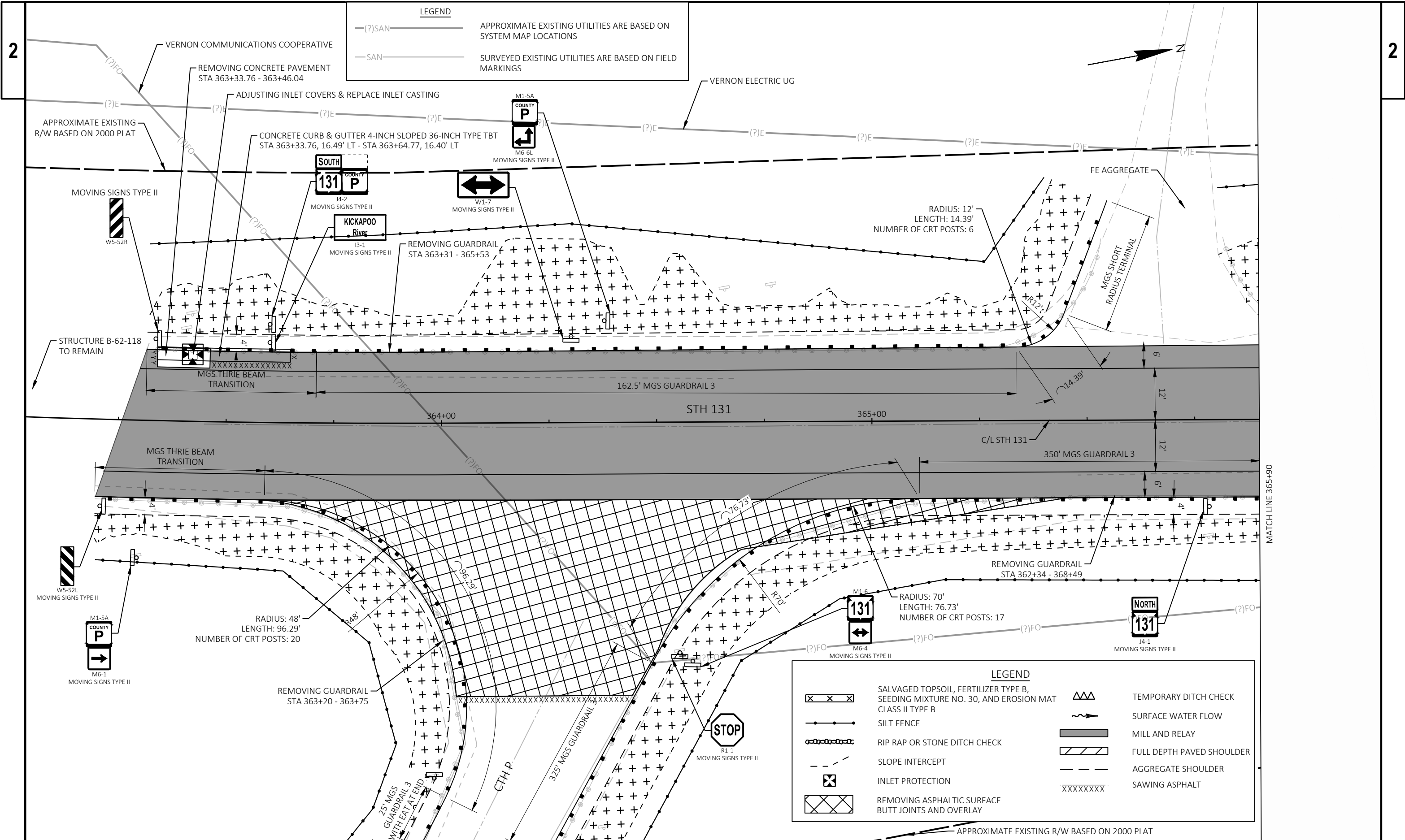


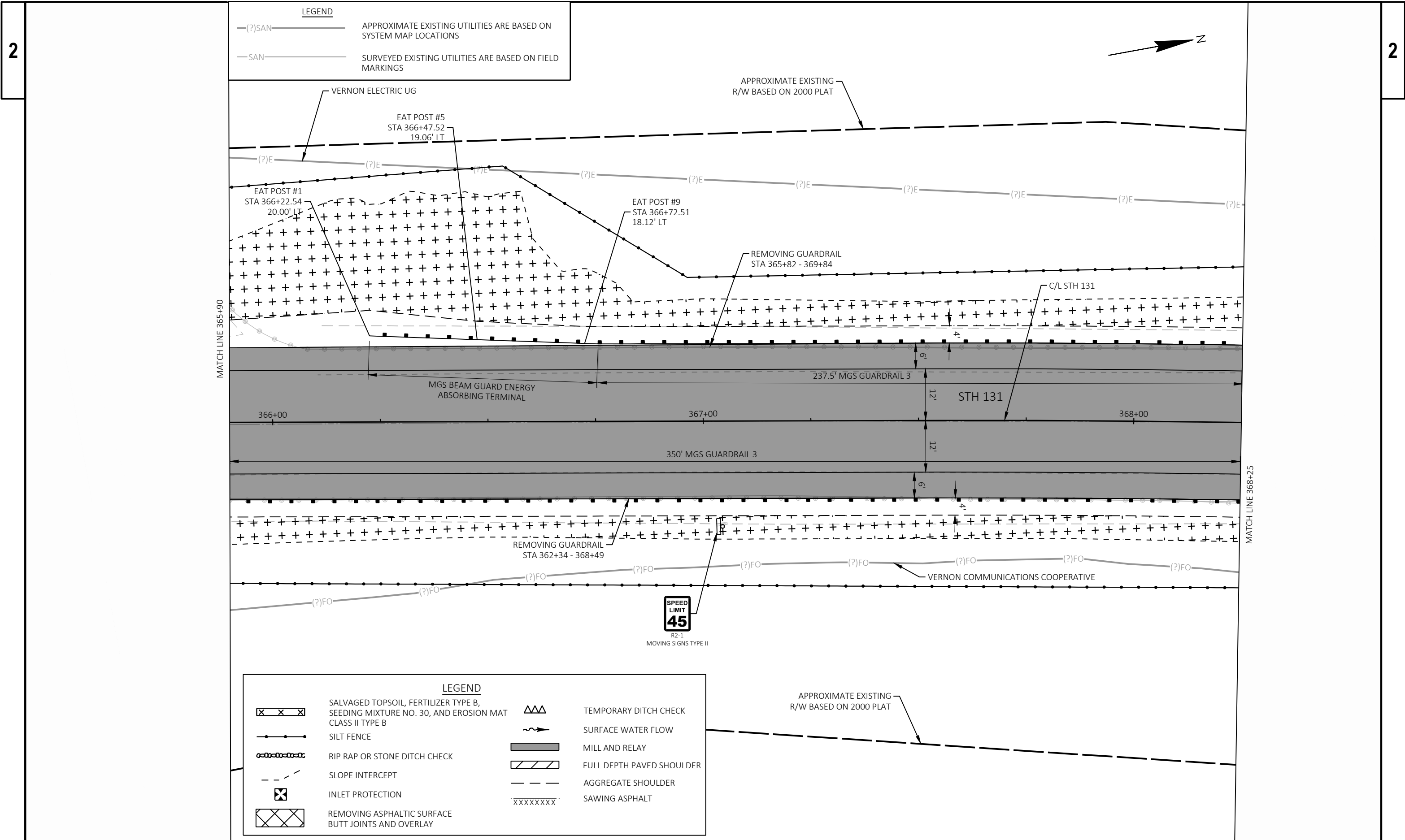
| LEGEND |                                                                                              |  |                           |
|--------|----------------------------------------------------------------------------------------------|--|---------------------------|
|        | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK     |
|        | SILT FENCE                                                                                   |  | SURFACE WATER FLOW        |
|        | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY            |
|        | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER |
|        | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER        |
|        | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY                                           |  | SAWING ASPHALT            |



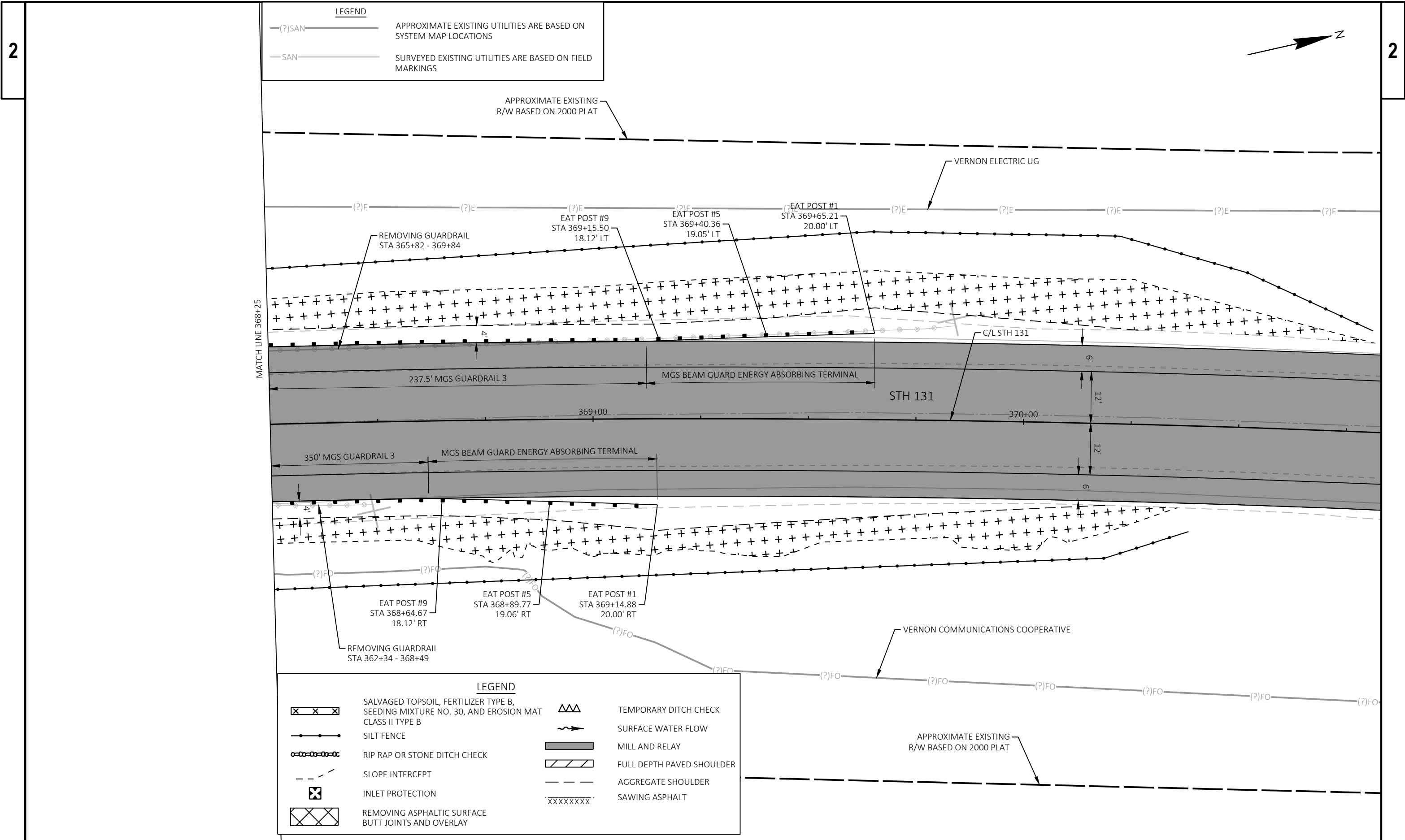




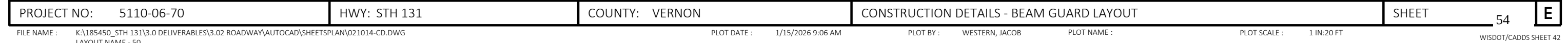


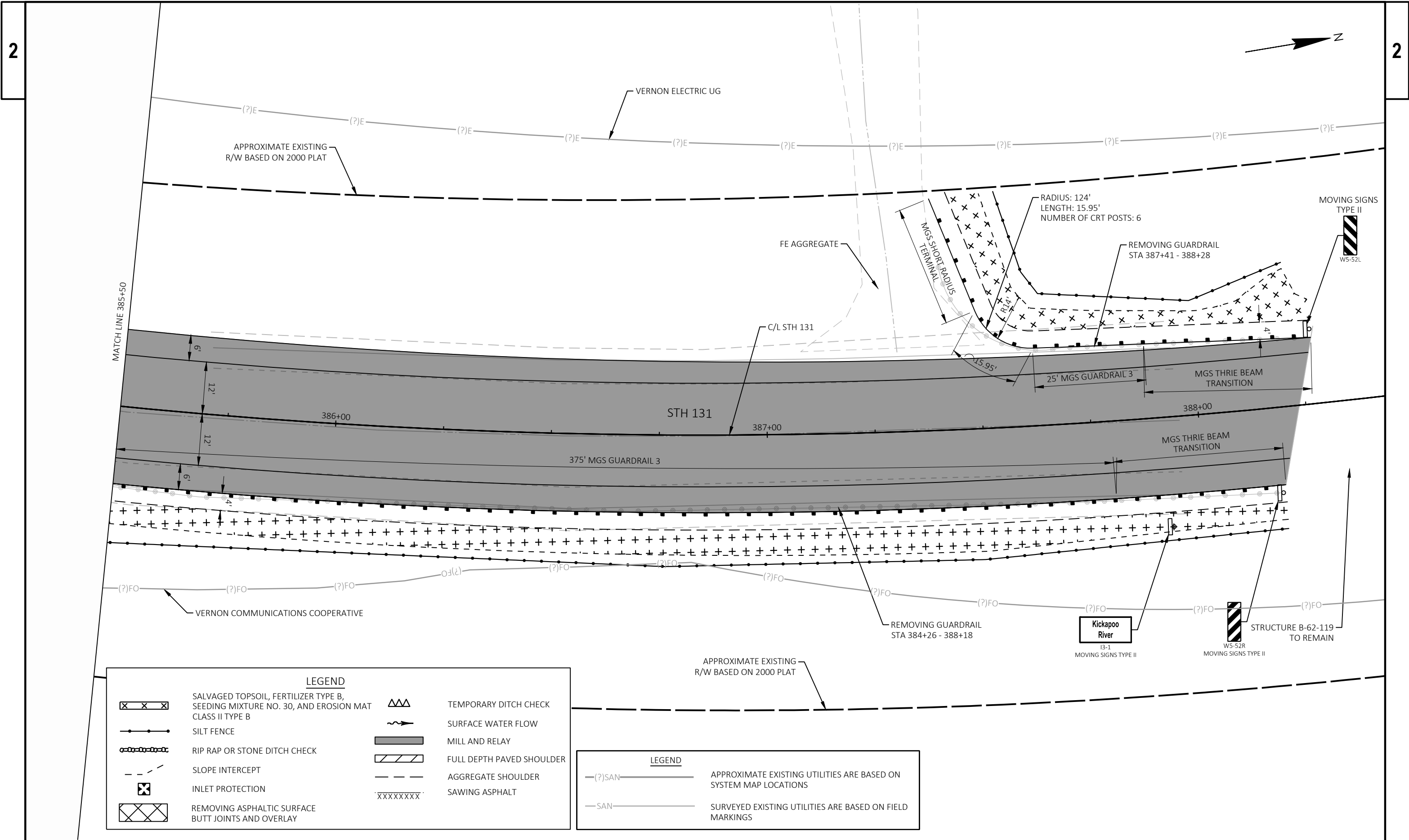


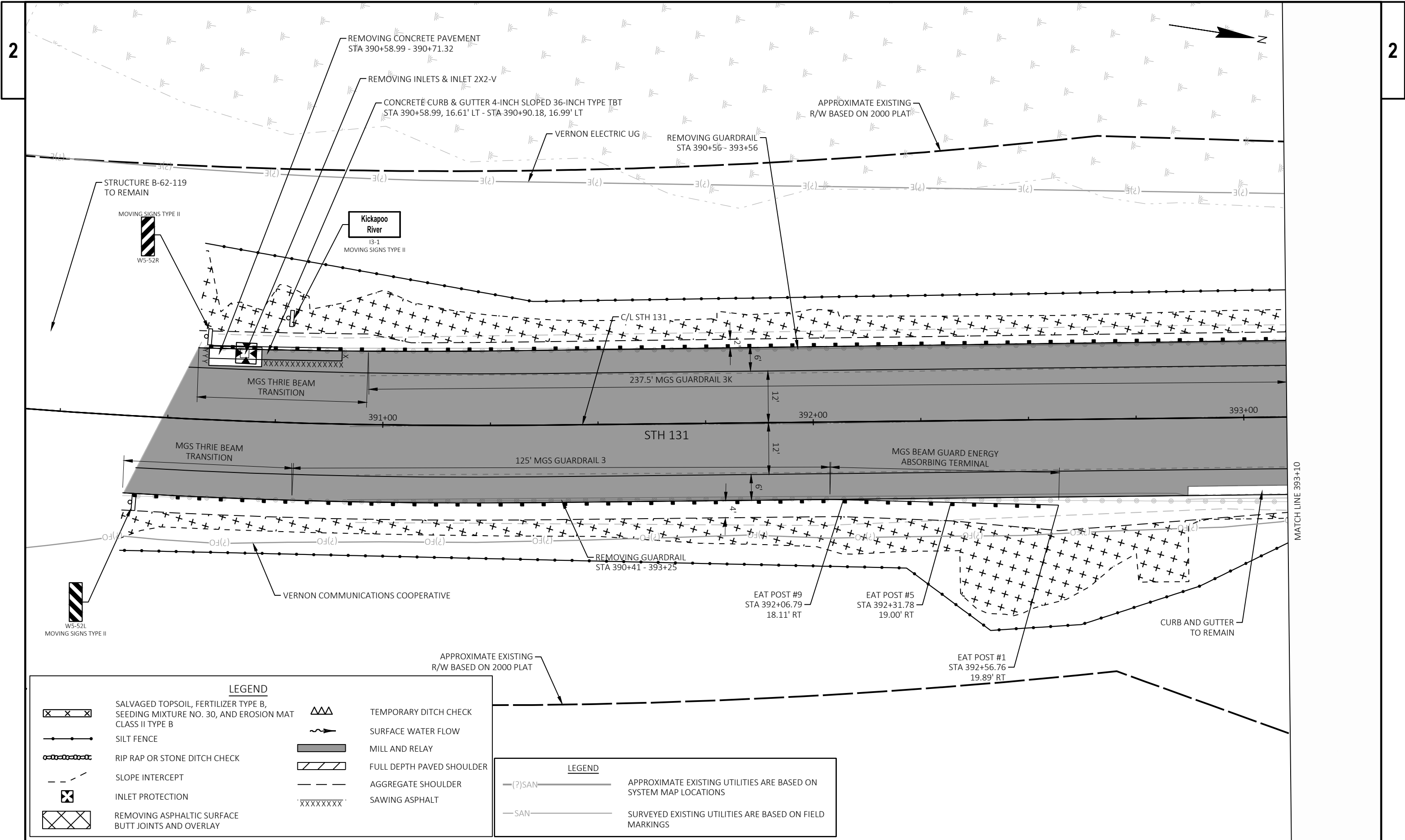




# 2







PROJECT NO: 5110-06-70

HWY: STH 131

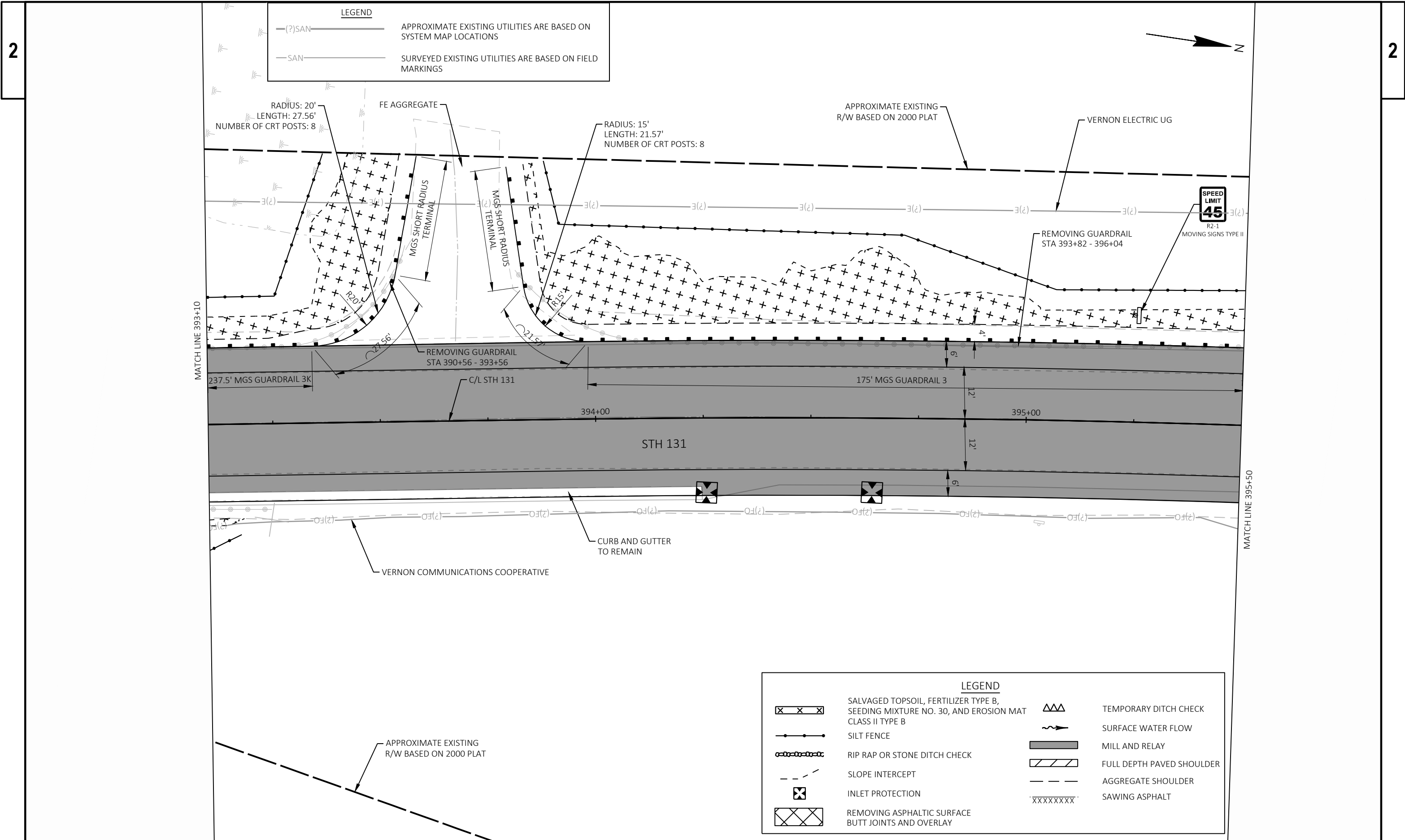
COUNTY: VERNON

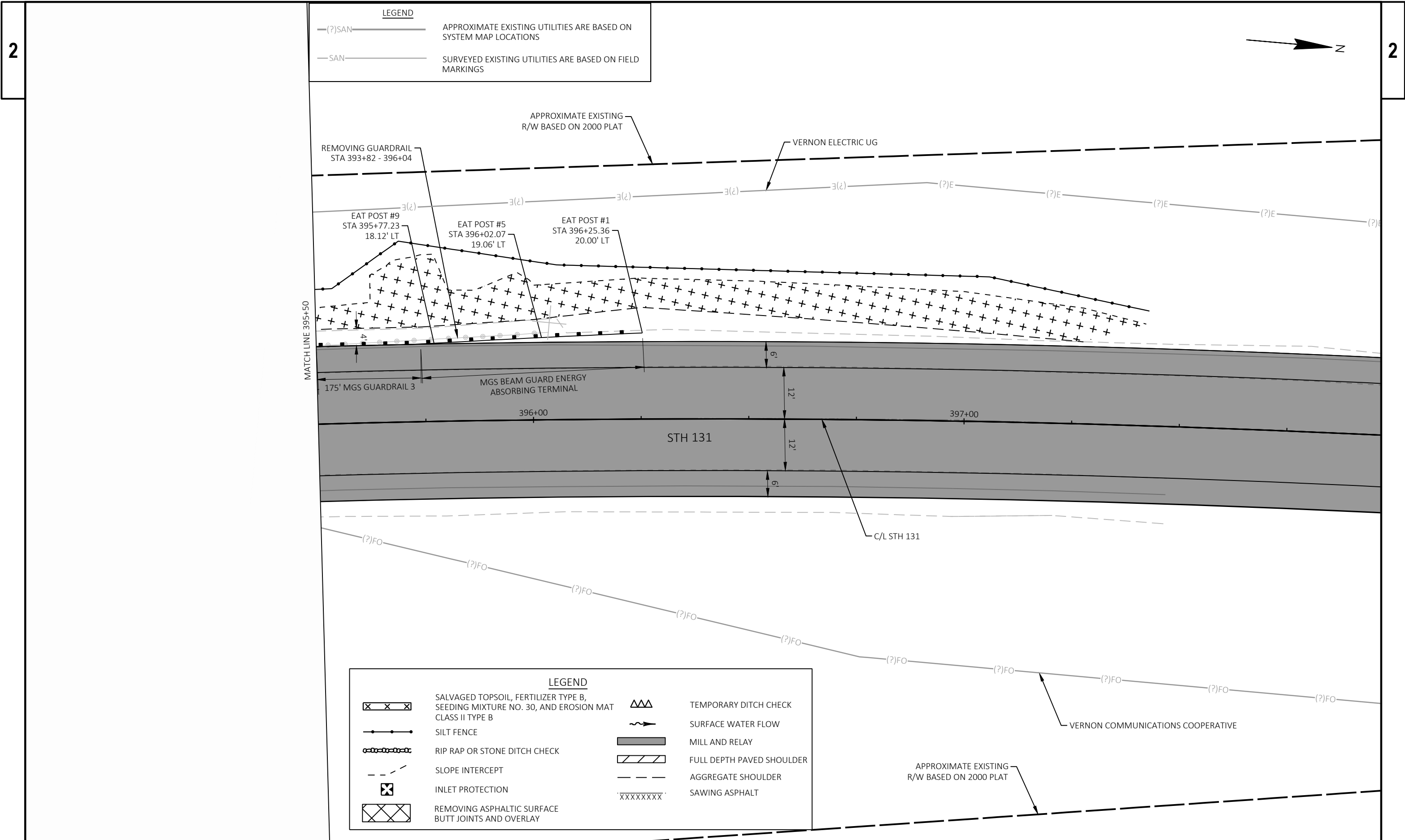
CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET

56

E

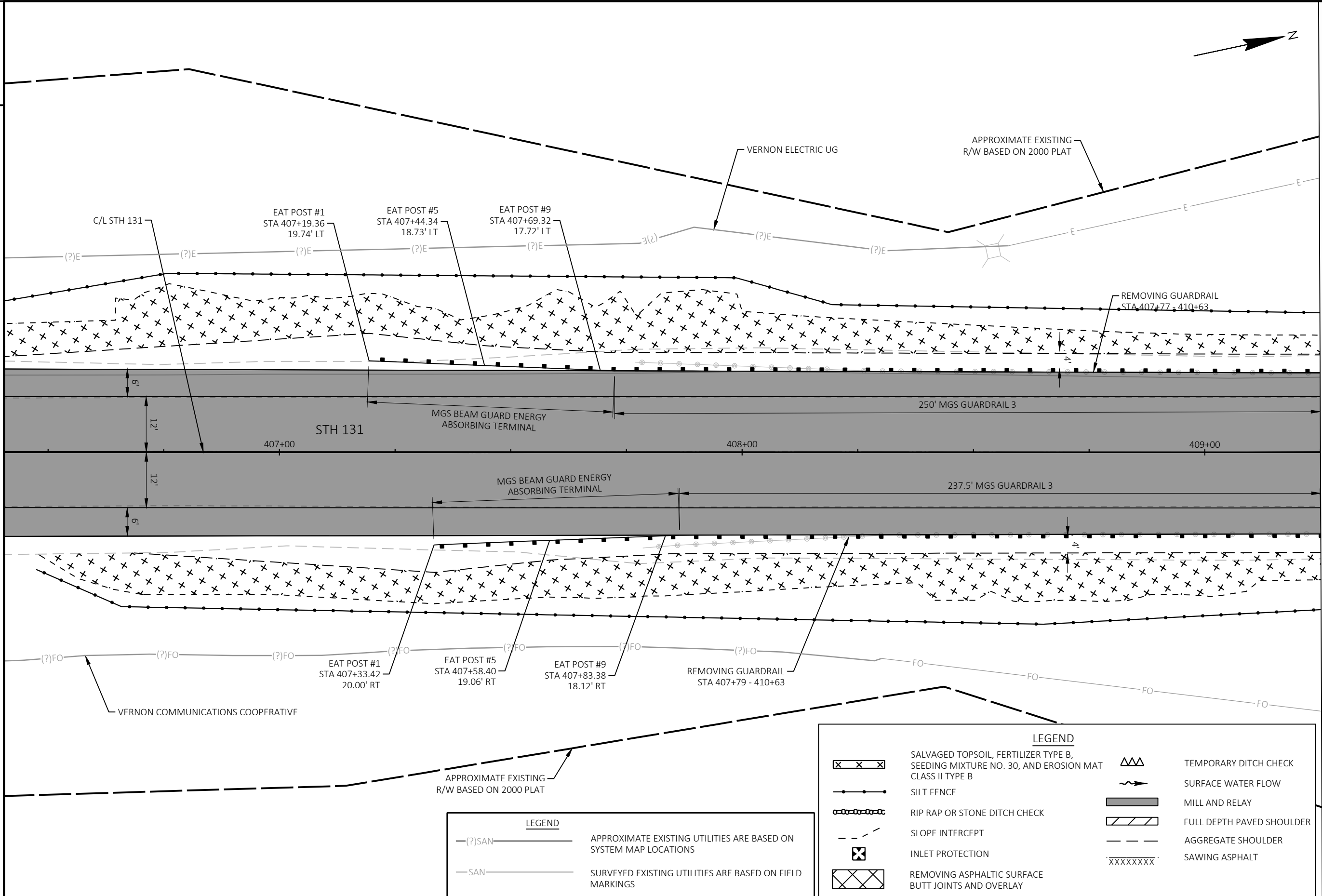






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2



|                        |
|------------------------|
| PROJECT NO: 5110-06-70 |
|------------------------|

|              |
|--------------|
| HWY: STH 131 |
|--------------|

COUNTY: VERNON

## CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET 59

**E**

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\021014-CD.DWG  
LAYOUT NAME - 55

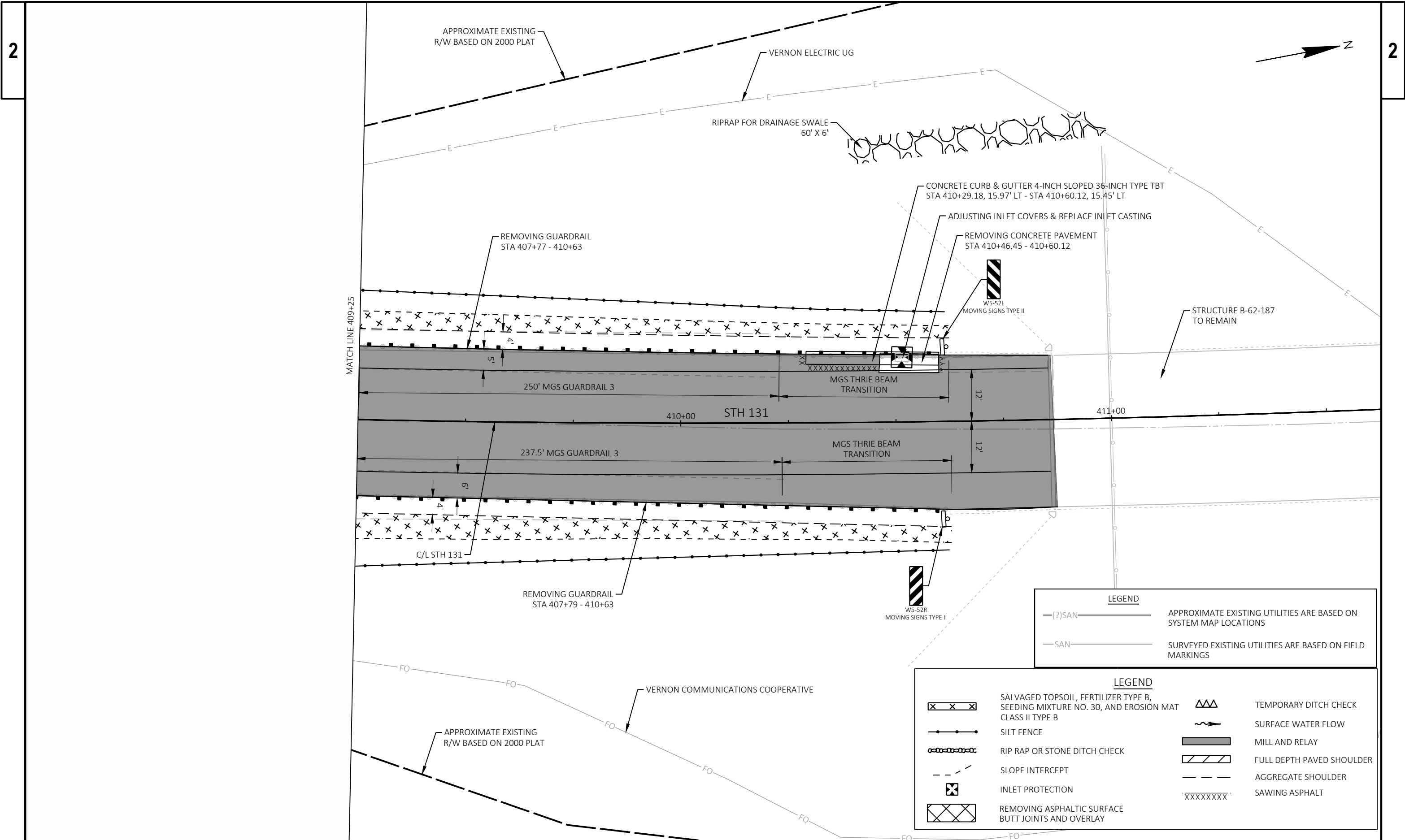
PLOT DATE : 1/15/2026 9:07 AM

PLOT BY : WESTERN, JACOB

PLOT NAME : PLOT SCALE : 1 IN:20 FT

PLOT NAME : PLOT SCALE : 1 IN:20 FT WISDOT/CADD S

WISDOT/CADDS SHEET 42



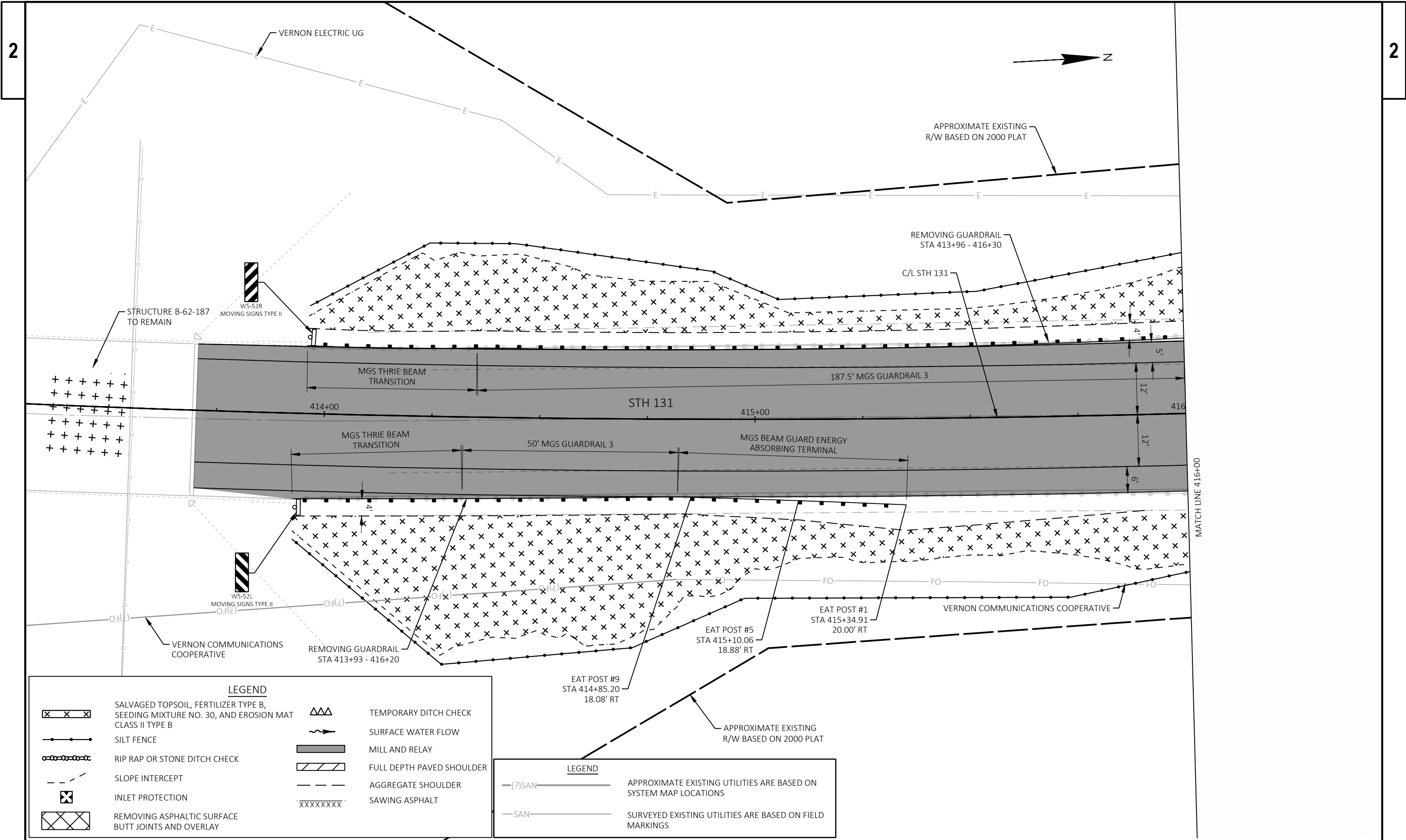
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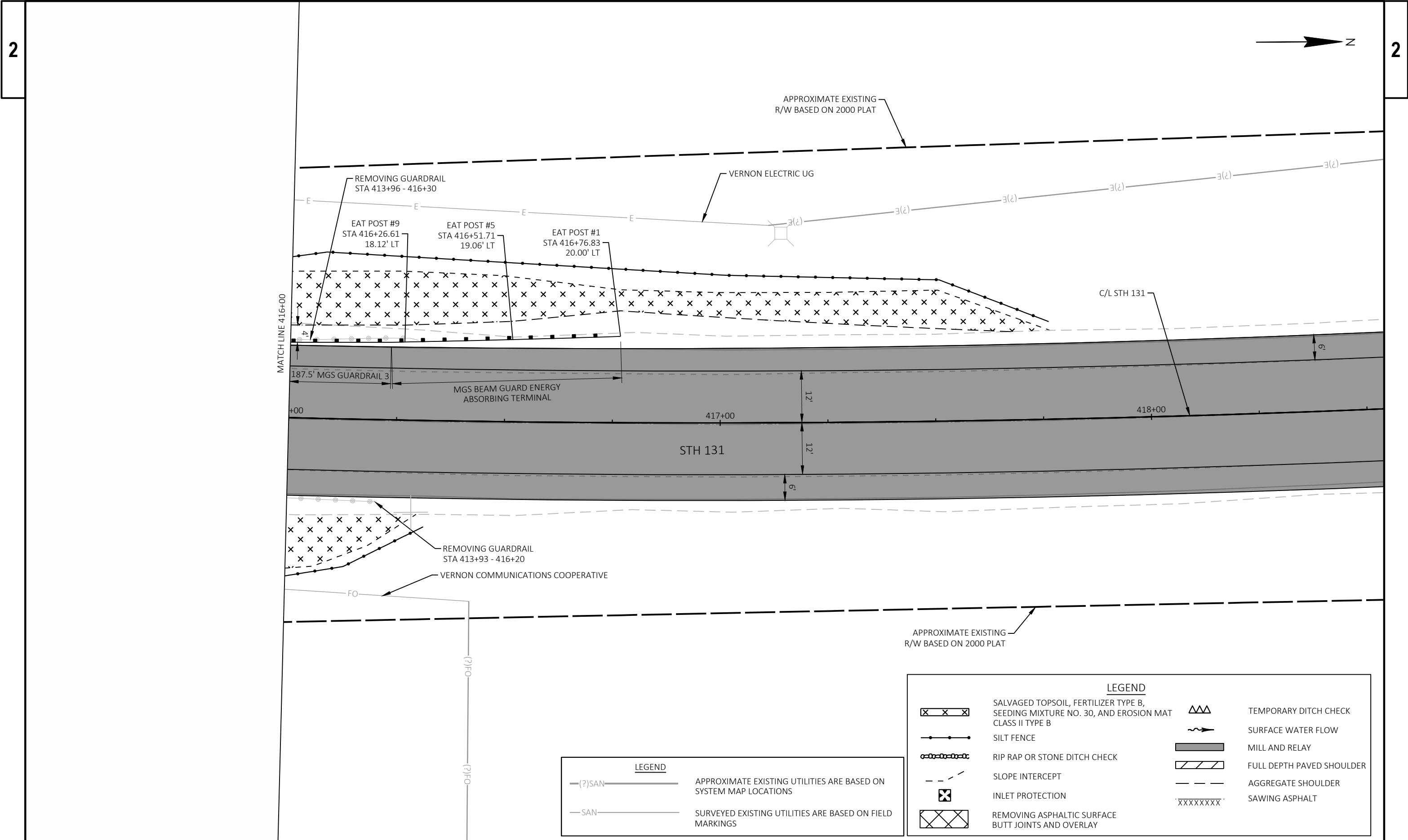
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|----------|------------------------------------------------------------------|
| —(?)SAN— | APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS |
| —SAN—    | SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS          |

**LEGEND**

|  |                                                                                              |  |                           |
|--|----------------------------------------------------------------------------------------------|--|---------------------------|
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK     |
|  | SILT FENCE                                                                                   |  | SURFACE WATER FLOW        |
|  | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY            |
|  | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER |
|  | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER        |
|  | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY                                           |  | SAWING ASPHALT            |







(?)SAN

SAN

APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS

SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS

SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B

SILT FENCE

RIP RAP OR STONE DITCH CHECK

SLOPE INTERCEPT

INLET PROTECTION

REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY

TEMPORARY DITCH CHECK

SURFACE WATER FLOW

MILL AND RELAY

FULL DEPTH PAVED SHOULDER

AGGREGATE SHOULDER

SAWING ASPHALT

PROJECT NO: 5110-06-70

HWY: STH 131

COUNTY: VERNON

CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET 62

E

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETSPLAN\021014-CD.DWG

LAYOUT NAME - 58

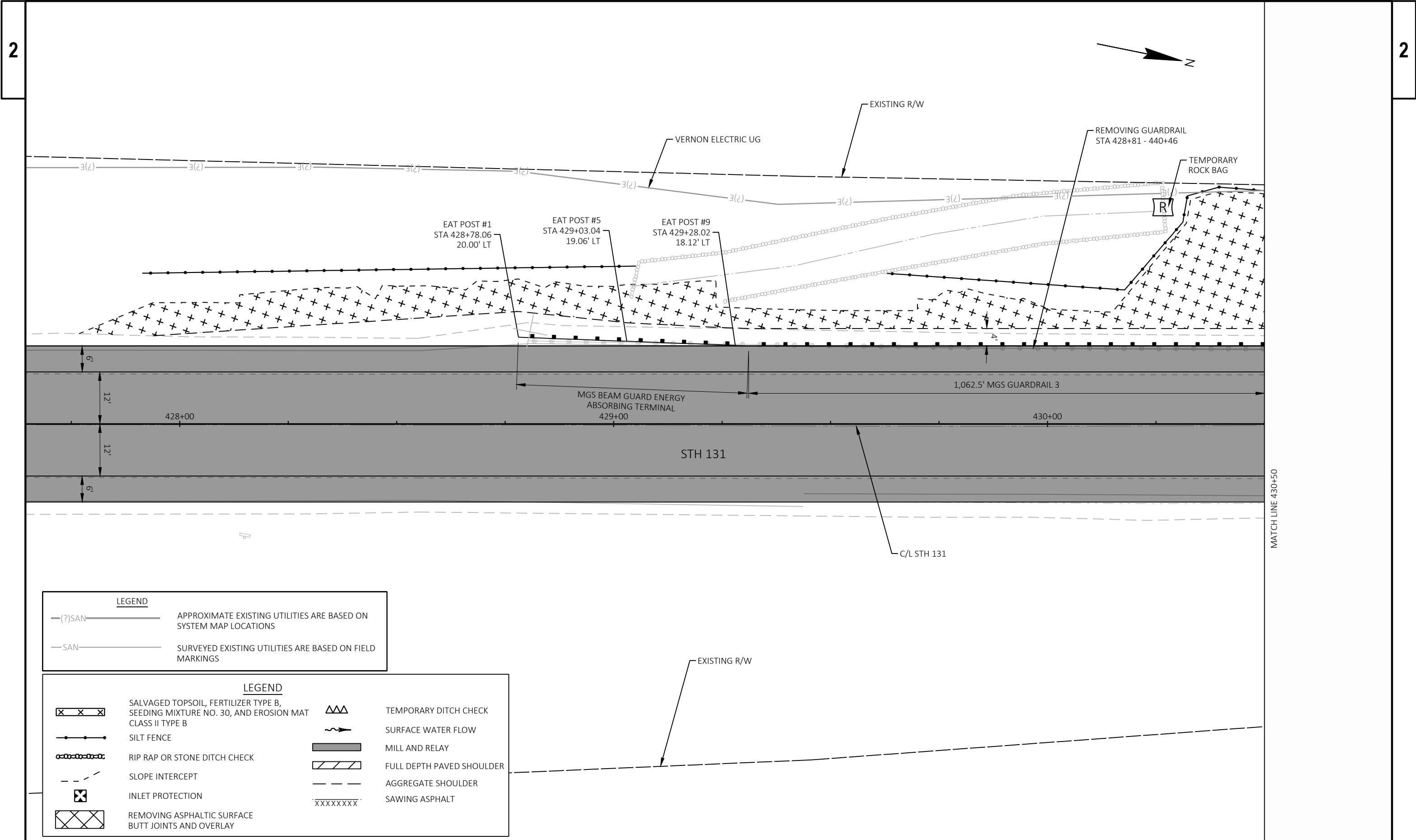
PLOT DATE : 1/15/2026 9:07 AM

PLOT BY : WESTERN, JACOB

PLOT NAME :

PLOT SCALE : 1 IN:20 FT

WISDOT/CADDs SHEET 42



LEGEND

(?)

SAN

APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS

SAN

SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS

LEGEND

X

X

X

SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B

SILT FENCE

RIP RAP OR STONE DITCH CHECK

SLOPE INTERCEPT

INLET PROTECTION

REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY

TEMPORARY DITCH CHECK

SURFACE WATER FLOW

MILL AND RELAY

FULL DEPTH PAVED SHOULDER

AGGREGATE SHOULDER

SAWING ASPHALT

PROJECT NO: 5110-06-70

HWY: STH 131

COUNTY: VERNON

CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET 63

E

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETSPLAN\021014-CD.DWG

LAYOUT NAME - 59

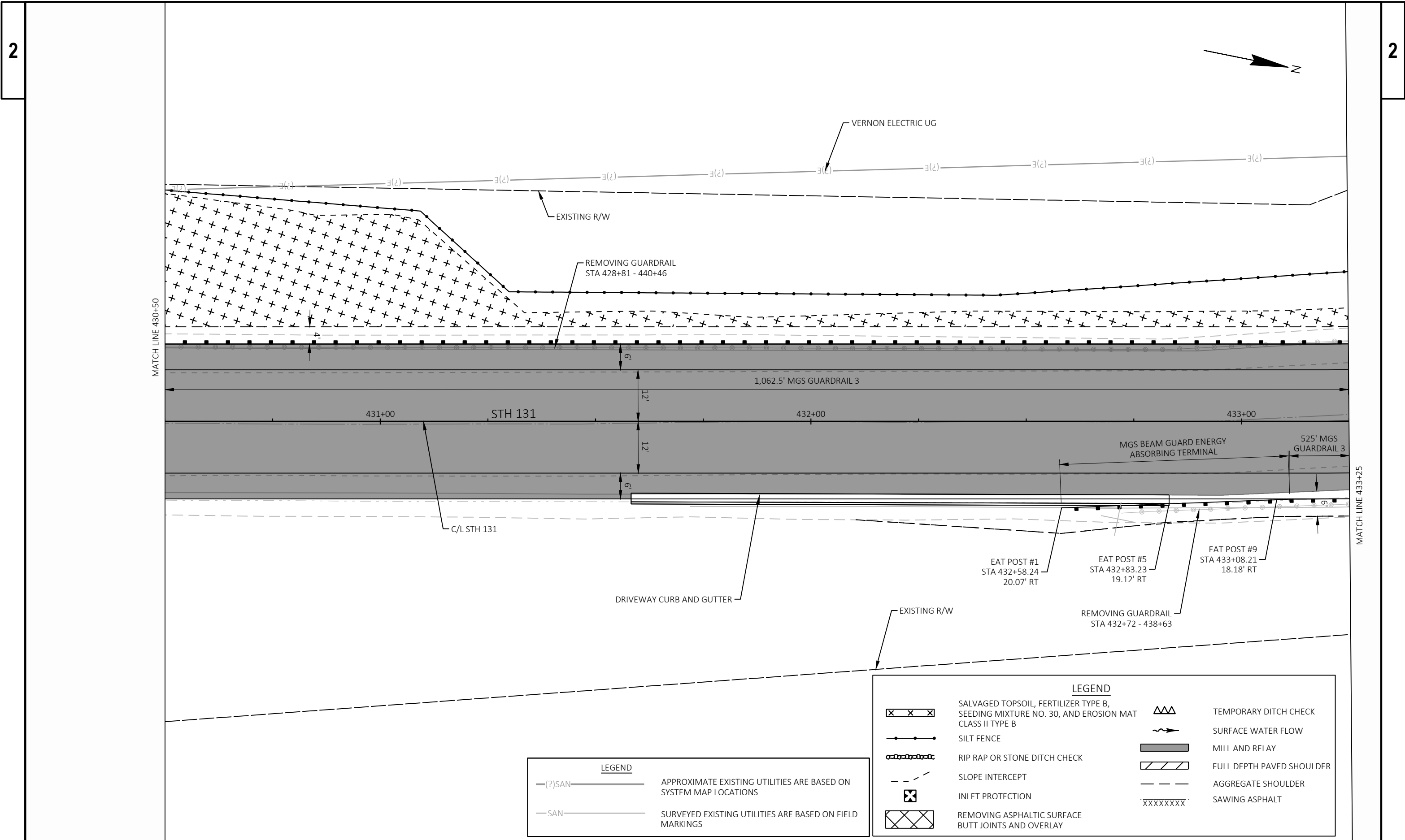
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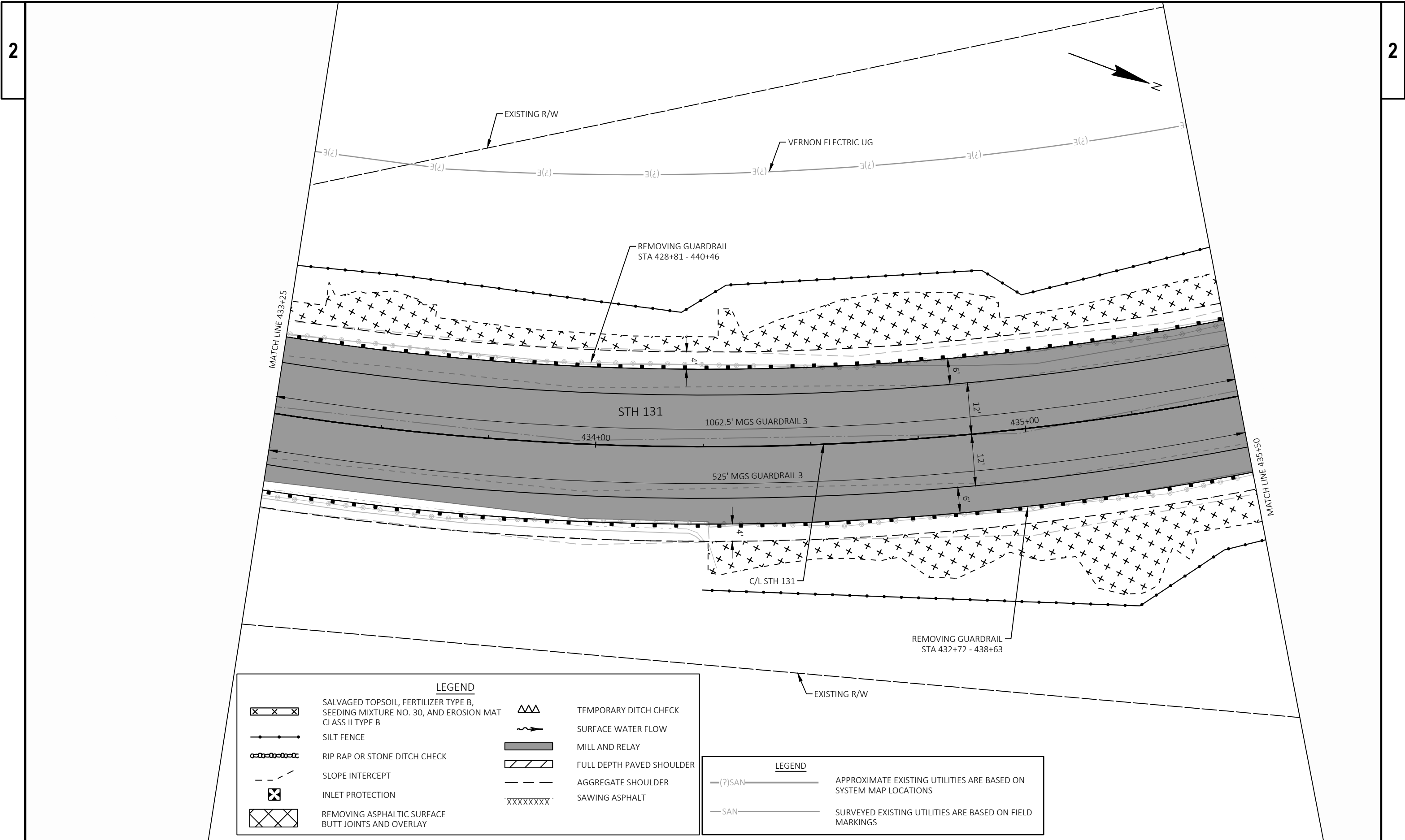
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PLOT NAME :

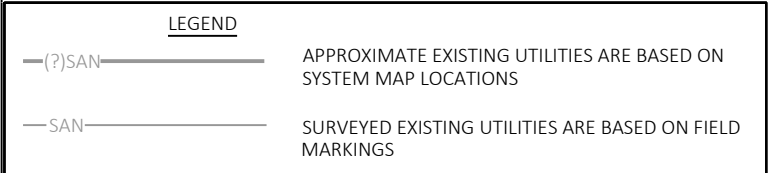
PLOT SCALE : 1 IN:20 FT

WISDOT/CADD SHEET 42

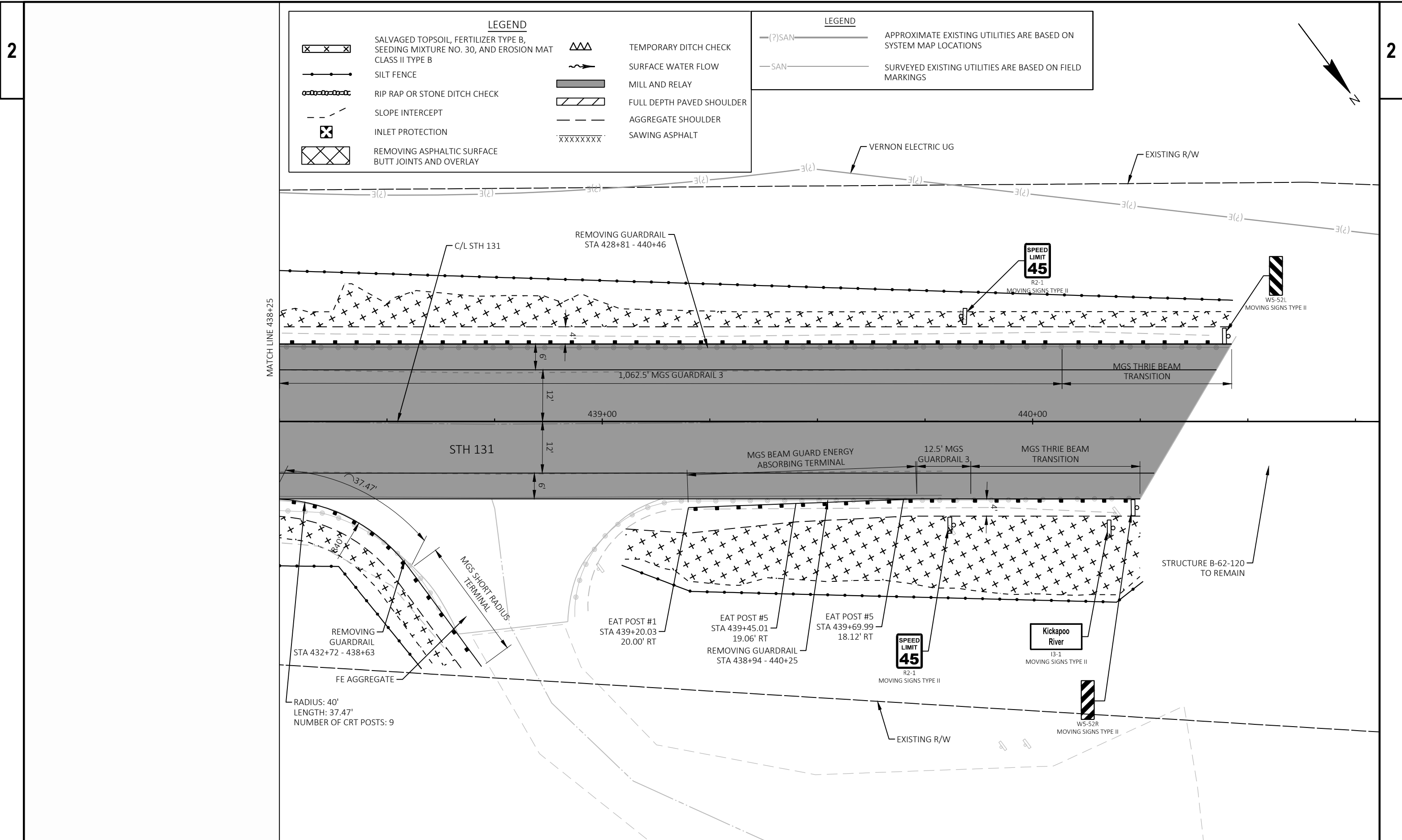


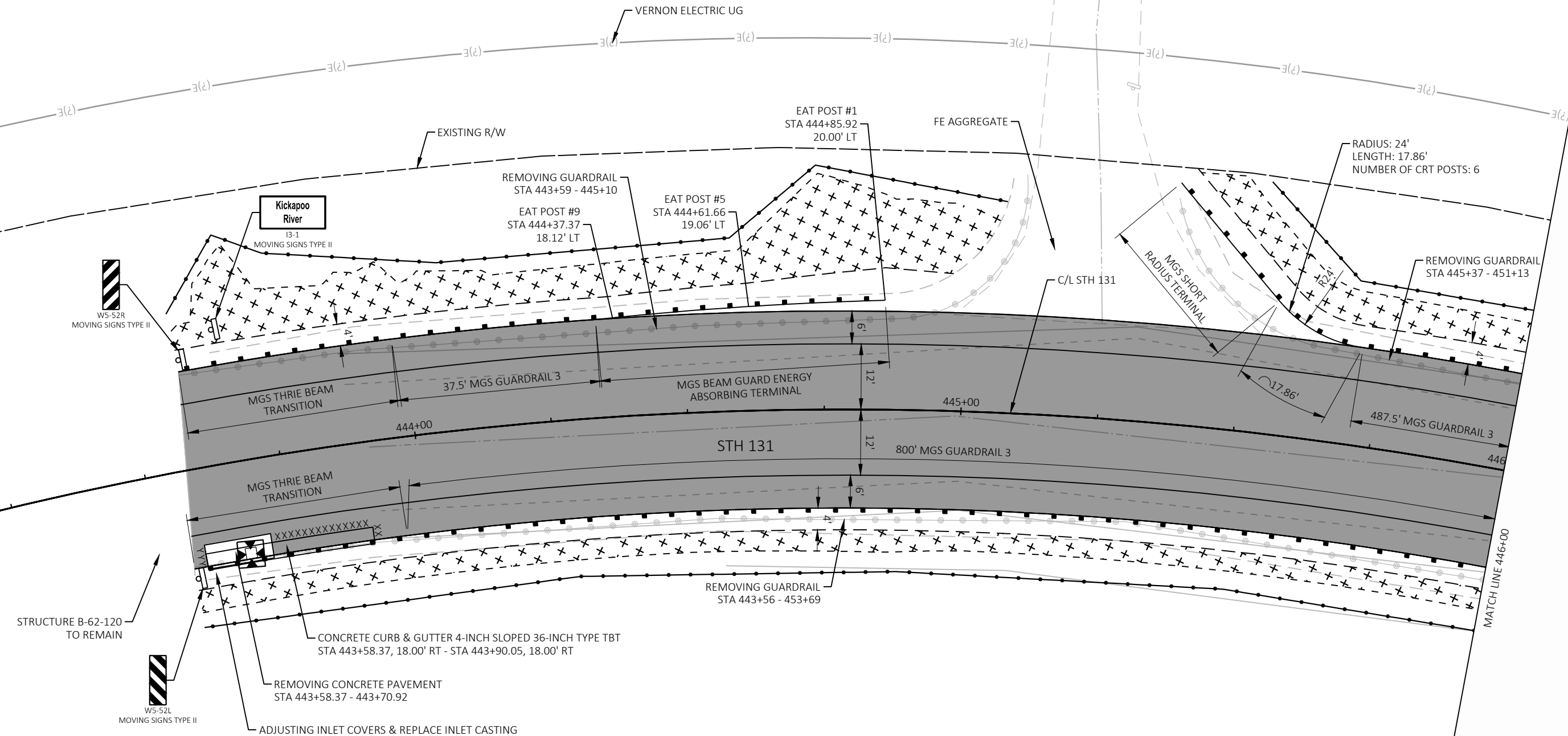


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## LEGEND

|  |                                                                                              |  |                           |
|--|----------------------------------------------------------------------------------------------|--|---------------------------|
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK     |
|  | SILT FENCE                                                                                   |  | SURFACE WATER FLOW        |
|  | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY            |
|  | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER |
|  | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER        |
|  | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY                                           |  | SAWING ASPHALT            |

## LEGEND

|  |                                                                  |
|--|------------------------------------------------------------------|
|  | APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS |
|  | SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS          |

PROJECT NO: 5110-06-70

HWY: STH 131

COUNTY: VERNON

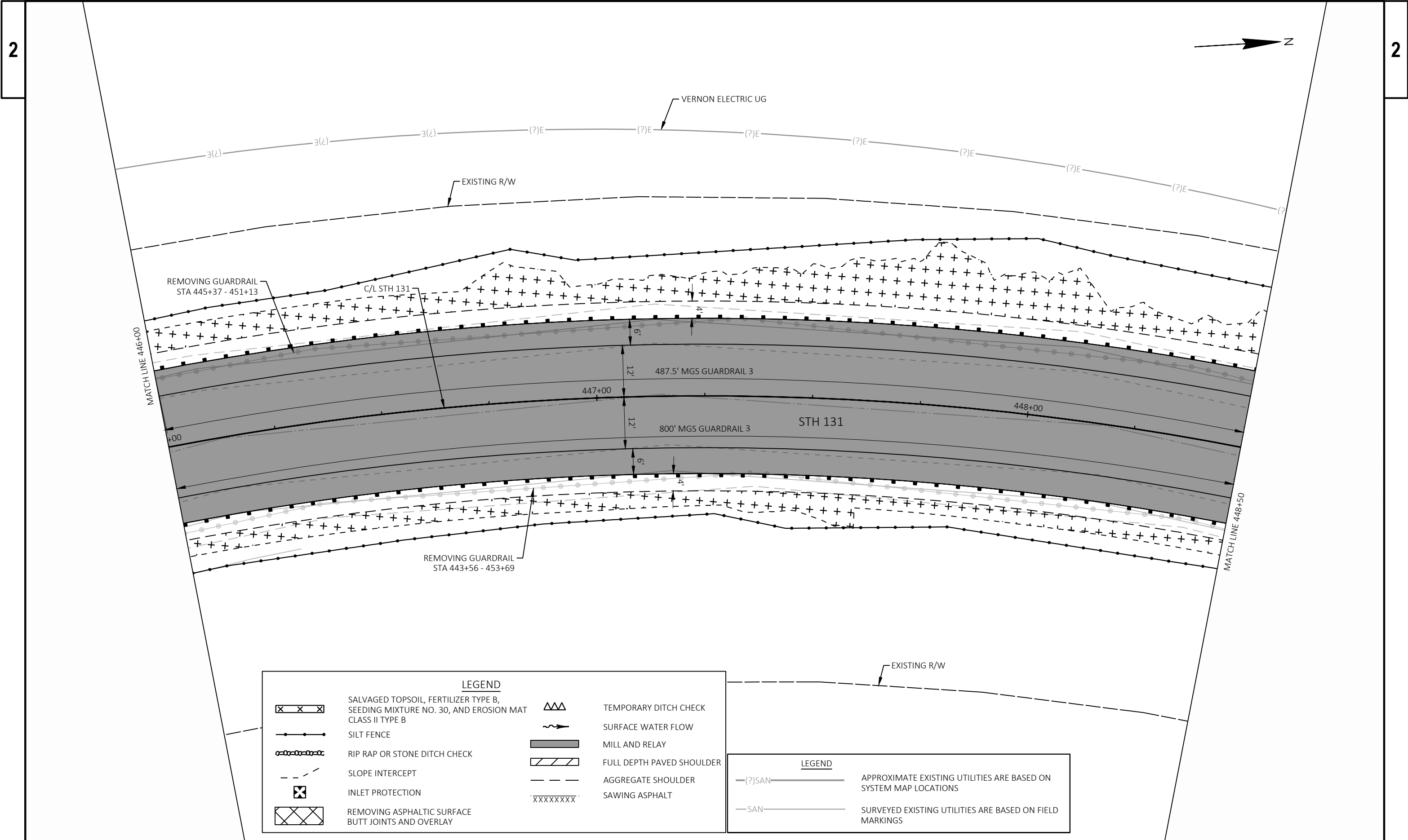
CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET

68

E





LEGEND

|  |                                                                                              |  |                           |
|--|----------------------------------------------------------------------------------------------|--|---------------------------|
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK     |
|  | SILT FENCE                                                                                   |  | SURFACE WATER FLOW        |
|  | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY            |
|  | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER |
|  | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER        |
|  | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY                                           |  | SAWING ASPHALT            |

LEGEND

|  |        |                                                                  |
|--|--------|------------------------------------------------------------------|
|  | (S)SAN | APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS |
|  | SAN    | SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS          |

PROJECT NO: 5110-06-70

HWY: STH 131

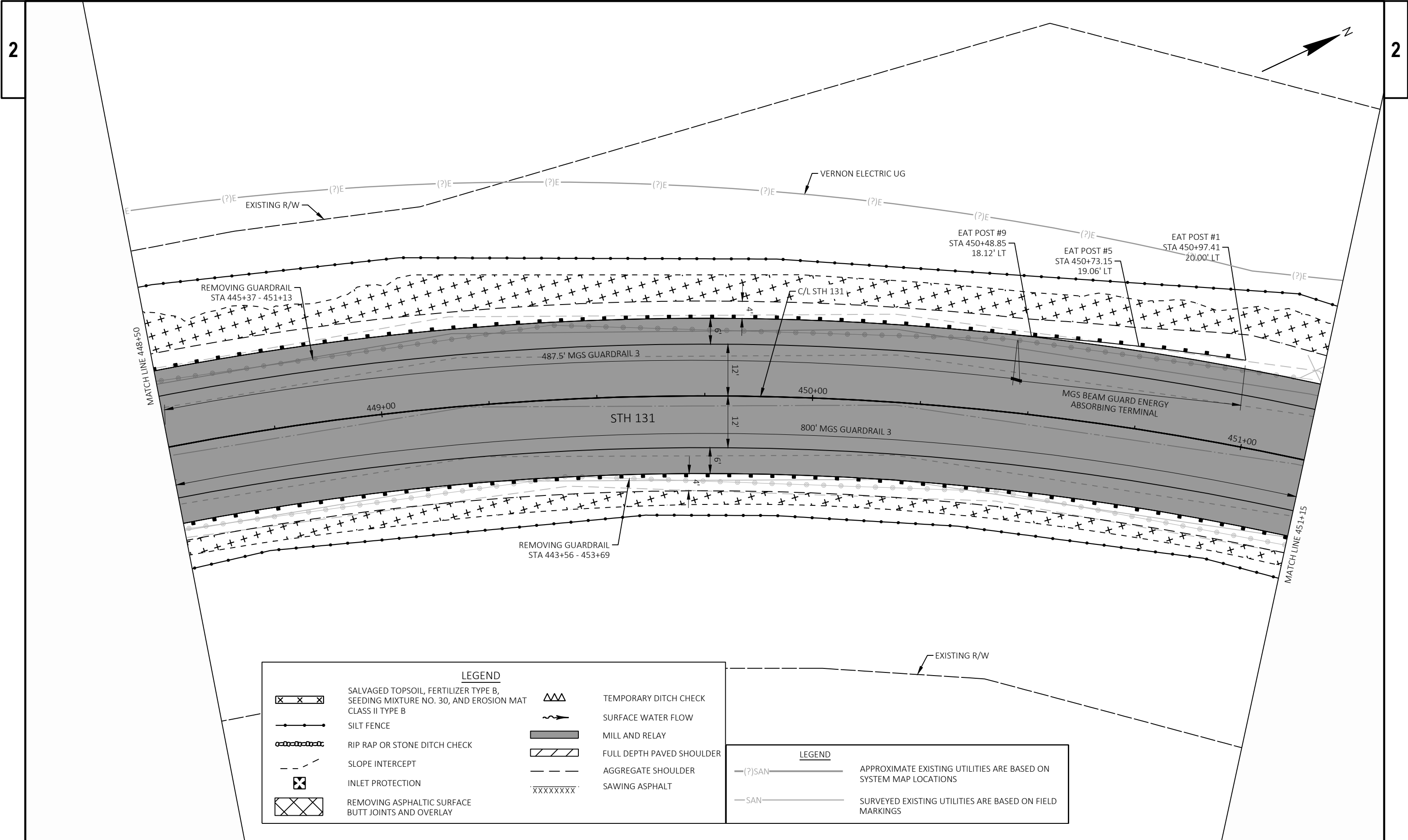
COUNTY: VERNON

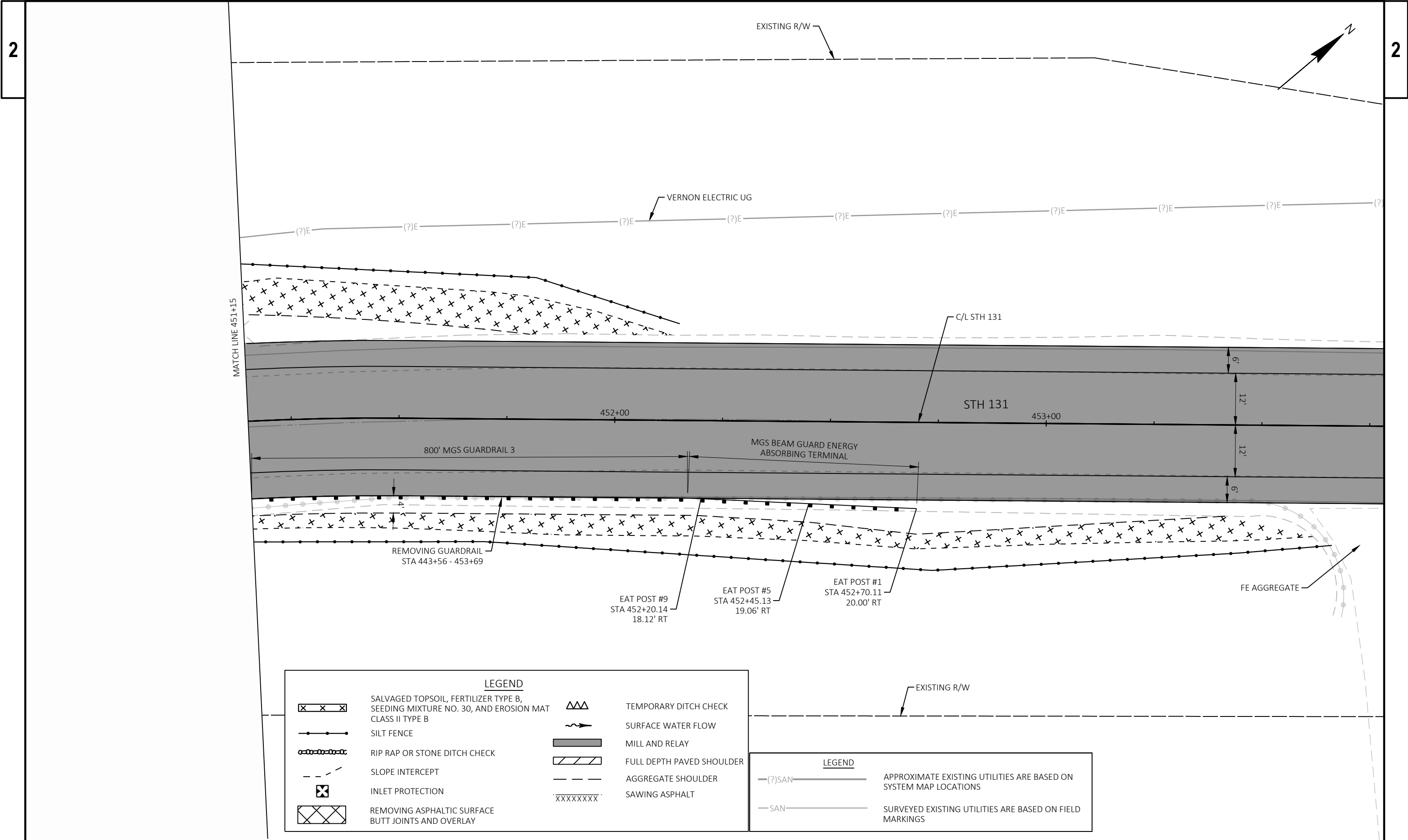
CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET

69

E



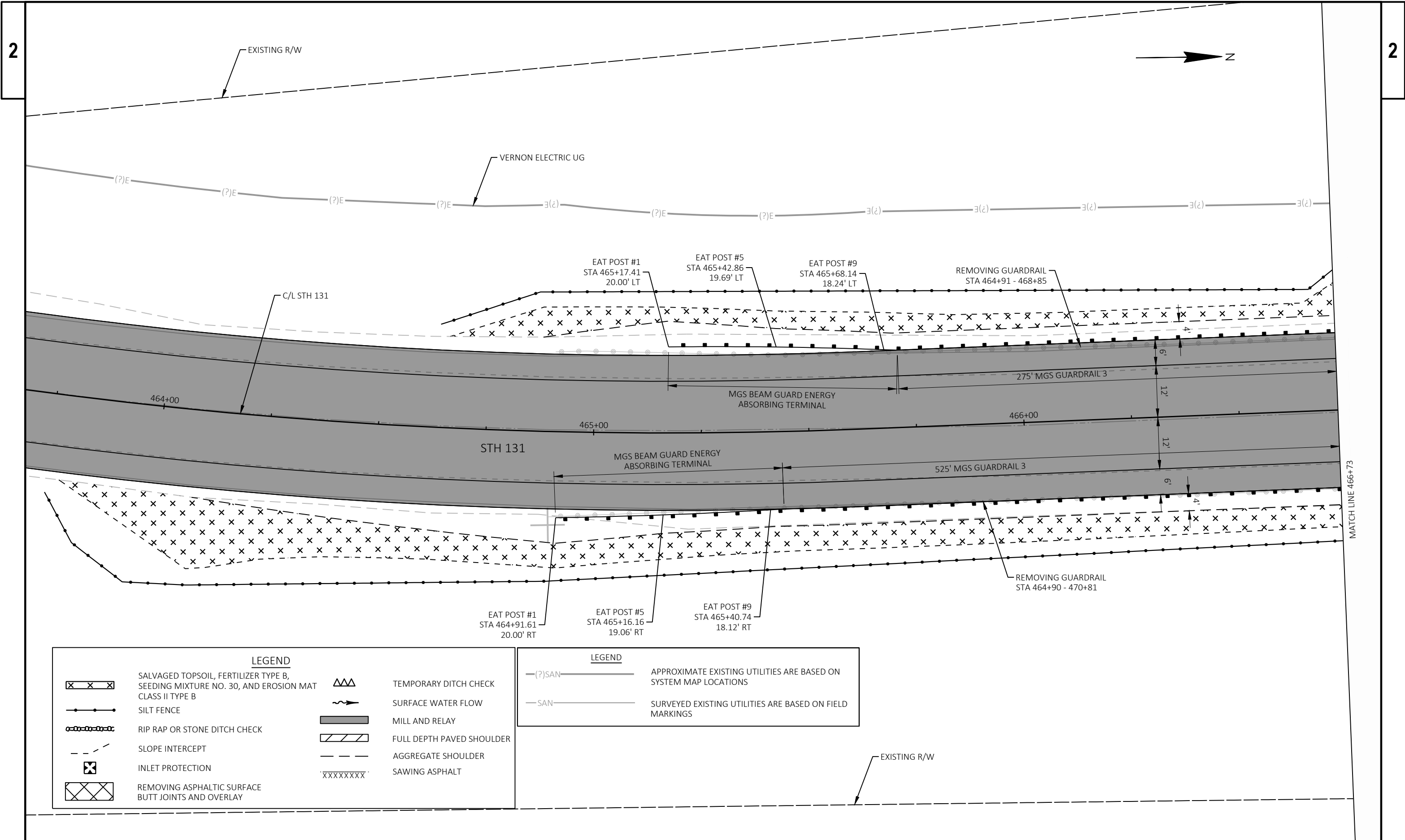


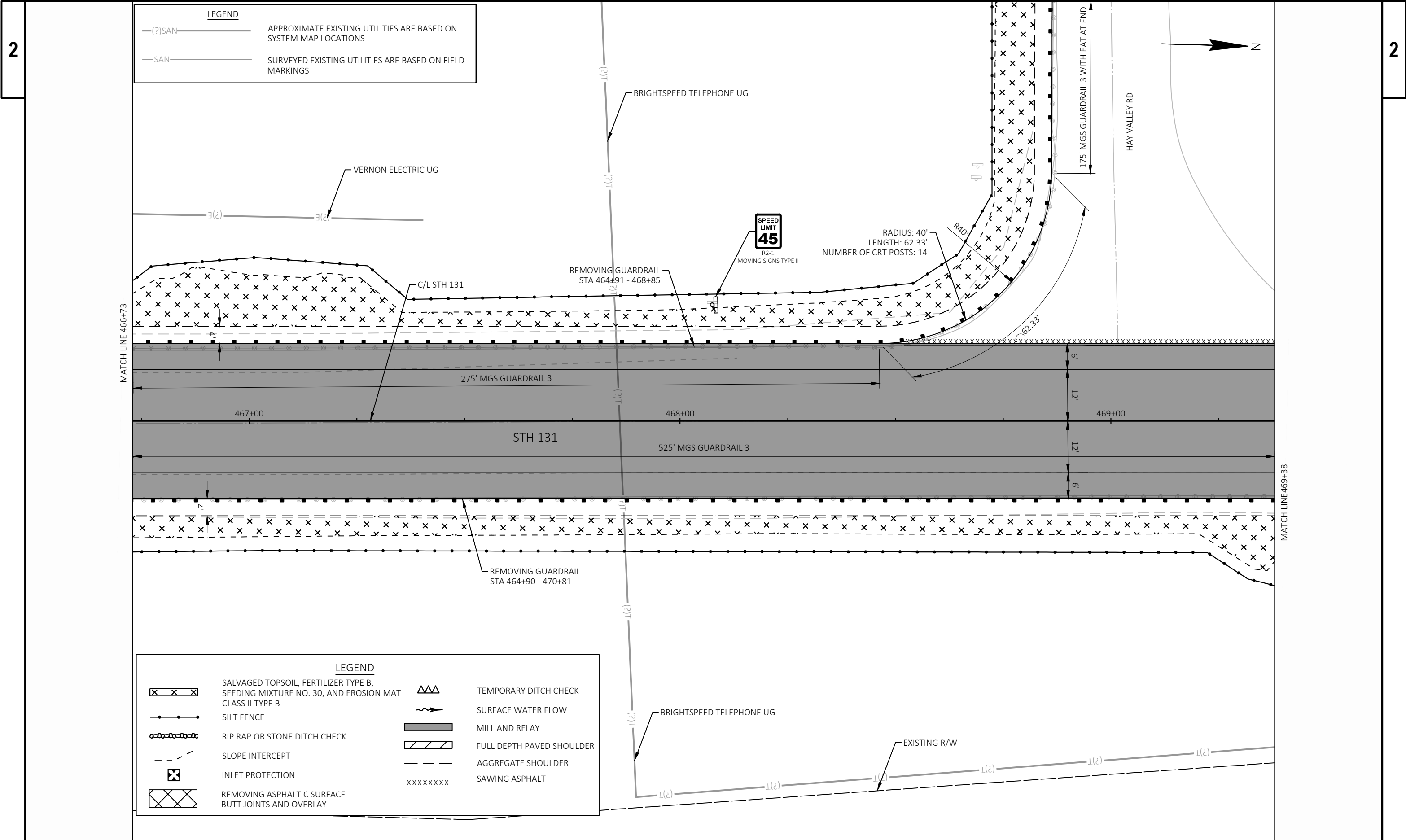
**LEGEND**

|  |                                                                                              |  |                           |
|--|----------------------------------------------------------------------------------------------|--|---------------------------|
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK     |
|  | SILT FENCE                                                                                   |  | SURFACE WATER FLOW        |
|  | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY            |
|  | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER |
|  | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER        |
|  | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY                                           |  | SAWING ASPHALT            |
|  |                                                                                              |  | TEMPORARY DITCH CHECK     |

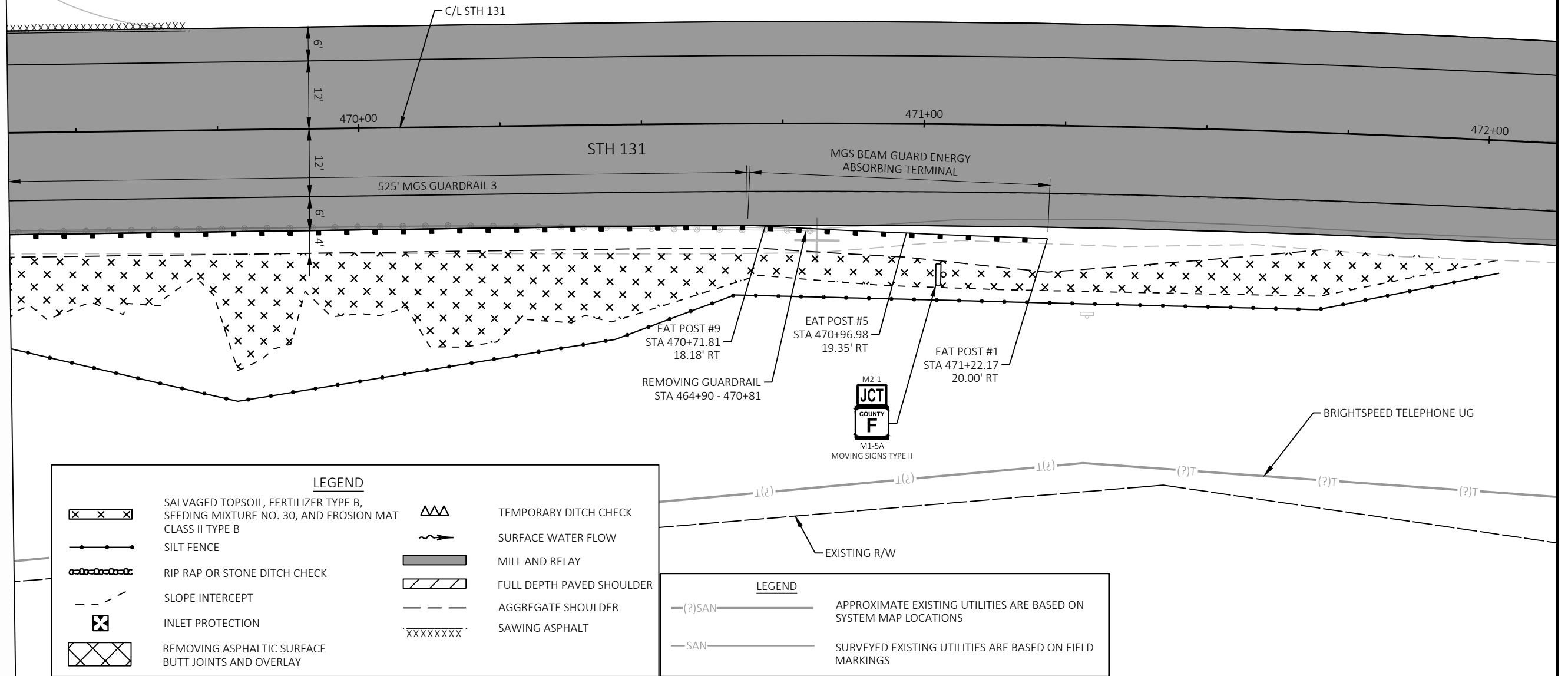
**LEGEND**

|  |                                                                  |
|--|------------------------------------------------------------------|
|  | APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS |
|  | SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS          |

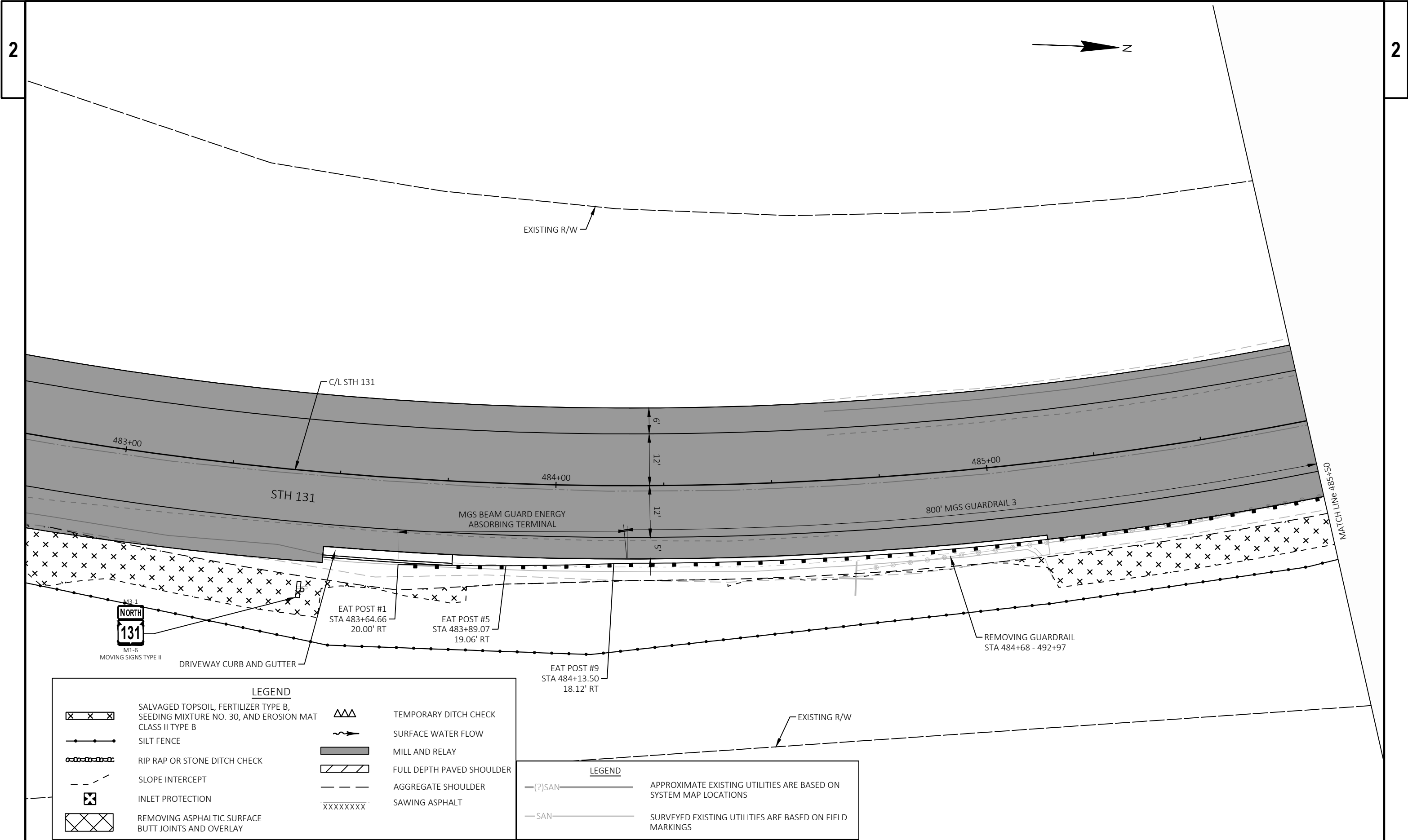


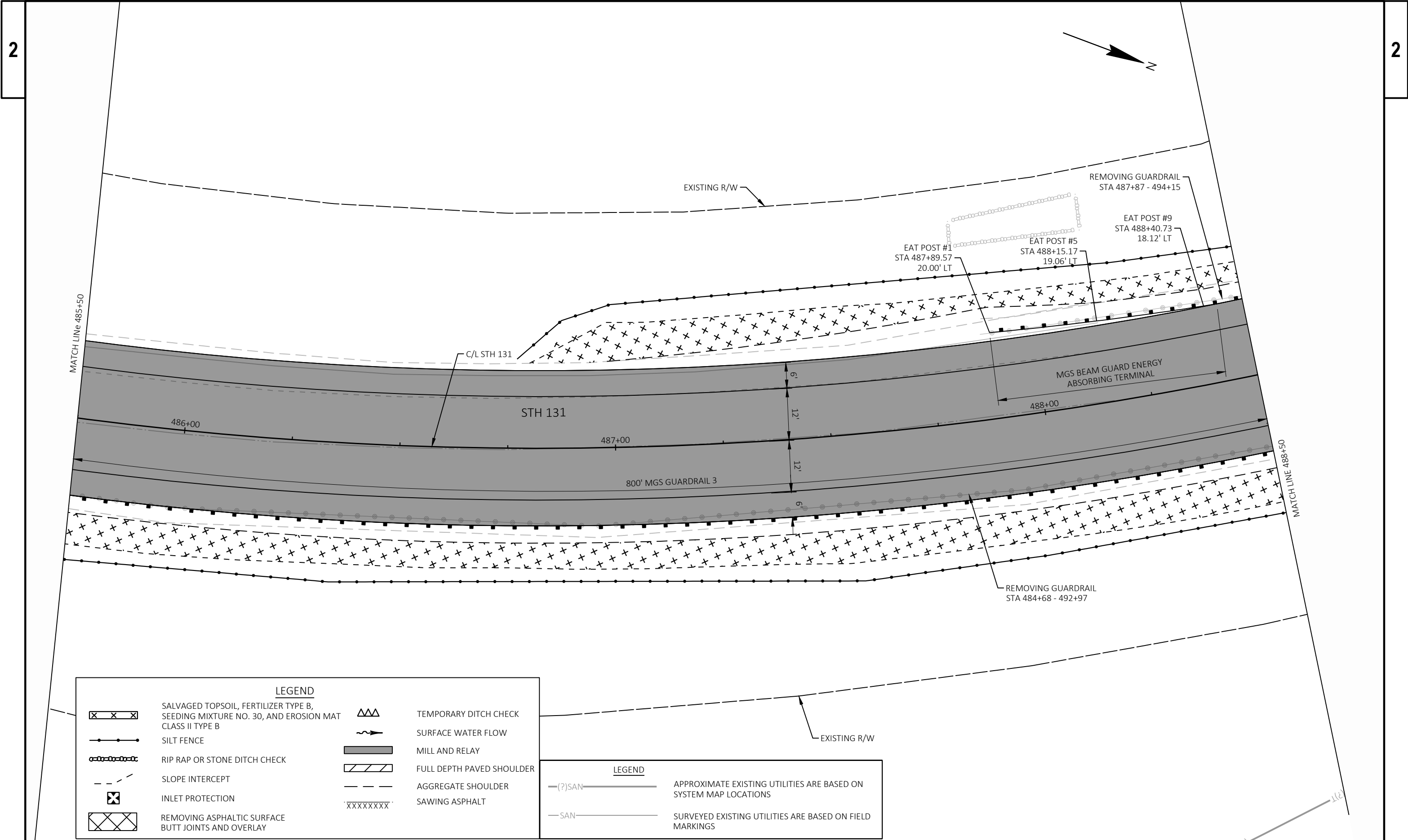


MATCH LINE 469+38







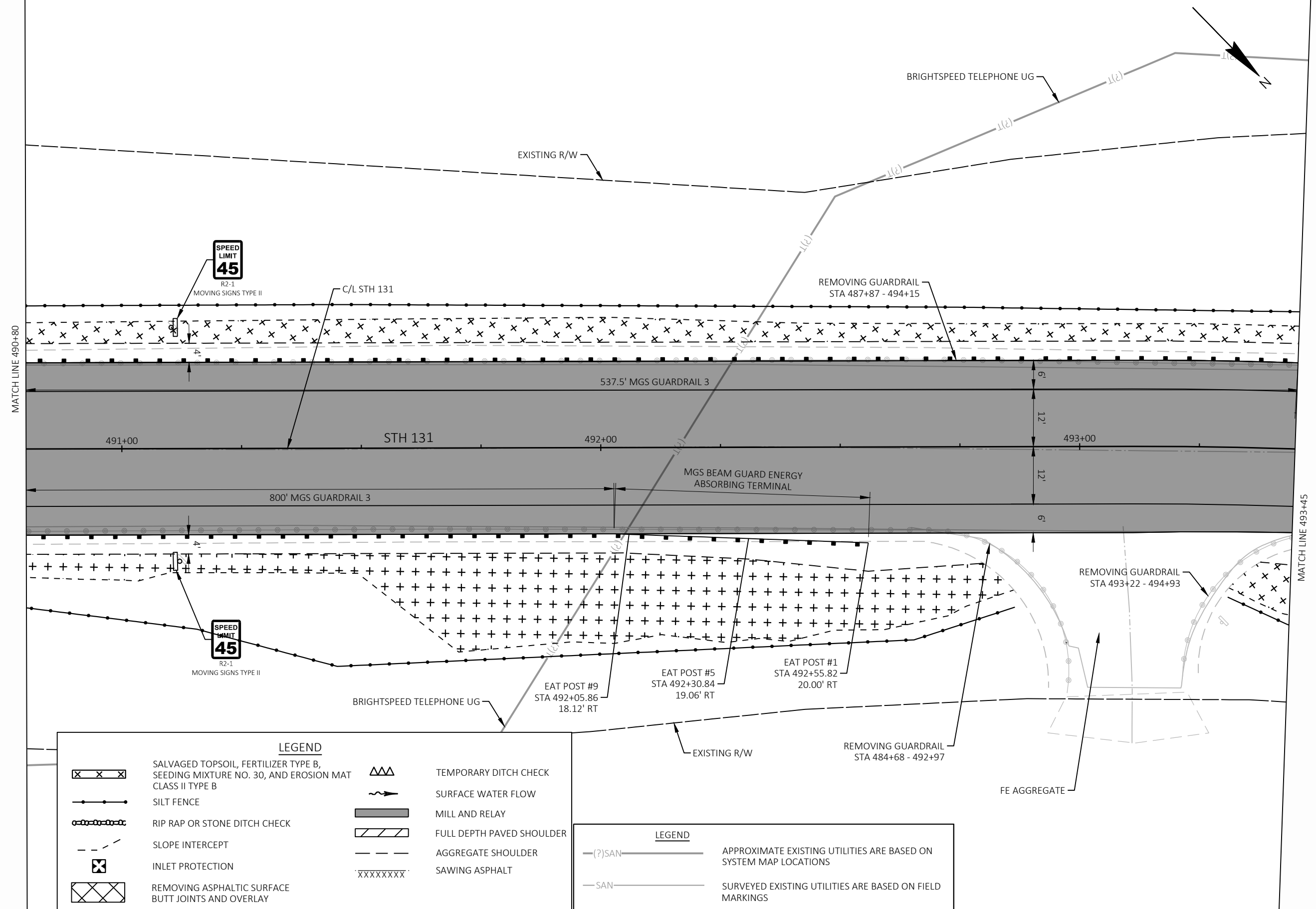






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|             |            |
|-------------|------------|
| PROJECT NO: | 5110-06-70 |
|-------------|------------|

HWY: STH 131

COUNTY: VERNON

## CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET

78

11

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETSPLAN\021015-CD.DWG  
LAYOUT NAME - 74

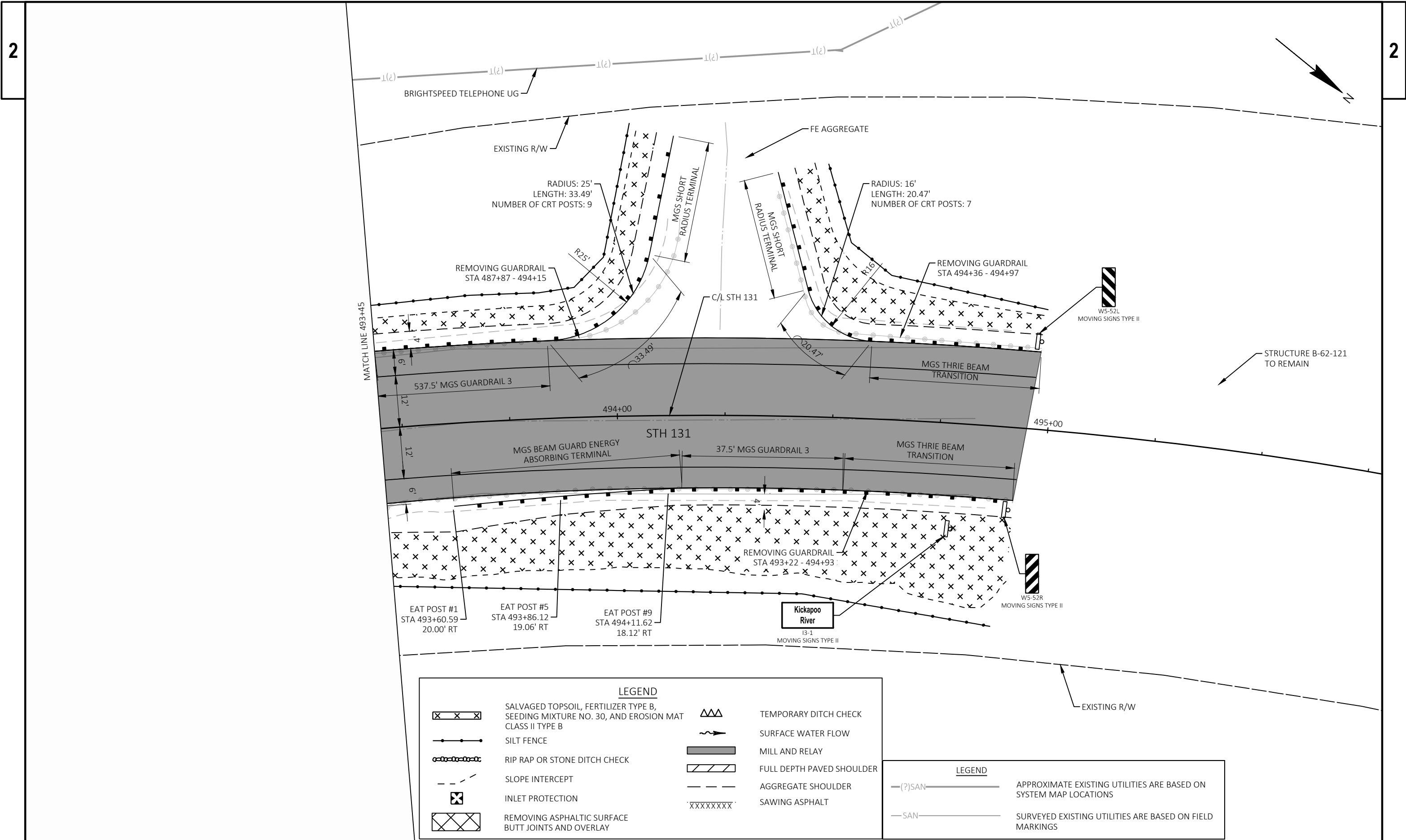
PLOT DATE : 1/15/2026 9:14 AM

PLOT BY : WESTERN, JACOB

PLOT NAME :

PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

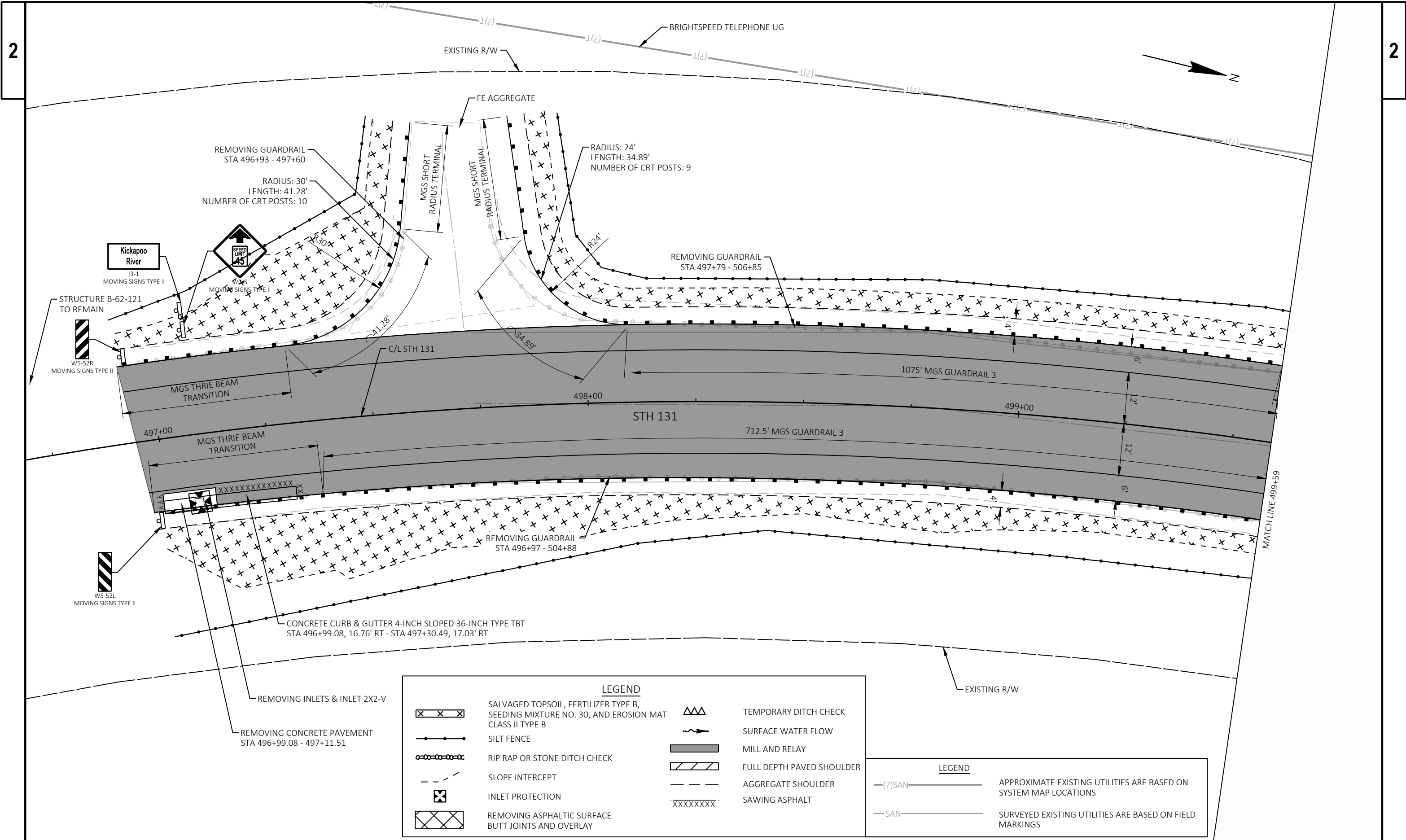


**LEGEND**

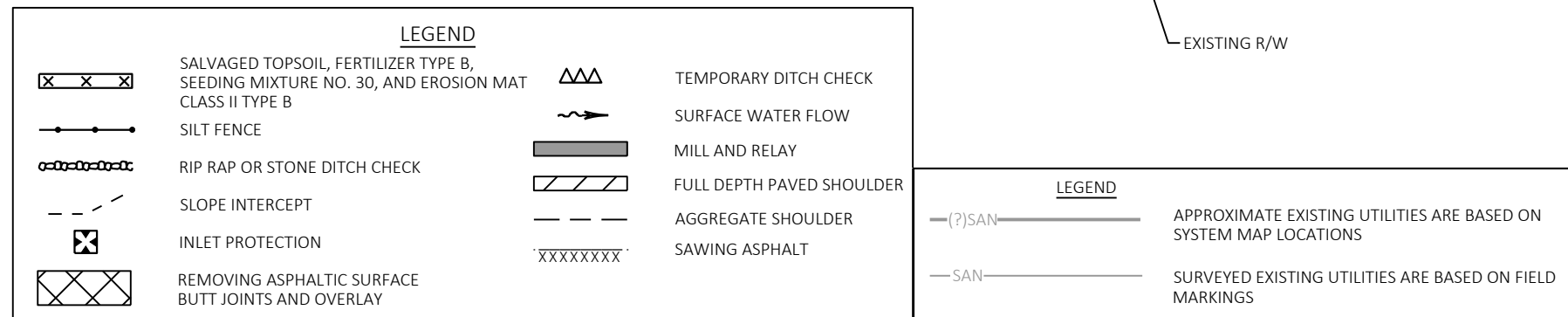
|  |                                                                                              |  |                           |
|--|----------------------------------------------------------------------------------------------|--|---------------------------|
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK     |
|  | SILT FENCE                                                                                   |  | SURFACE WATER FLOW        |
|  | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY            |
|  | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER |
|  | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER        |
|  | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY                                           |  | SAWING ASPHALT            |

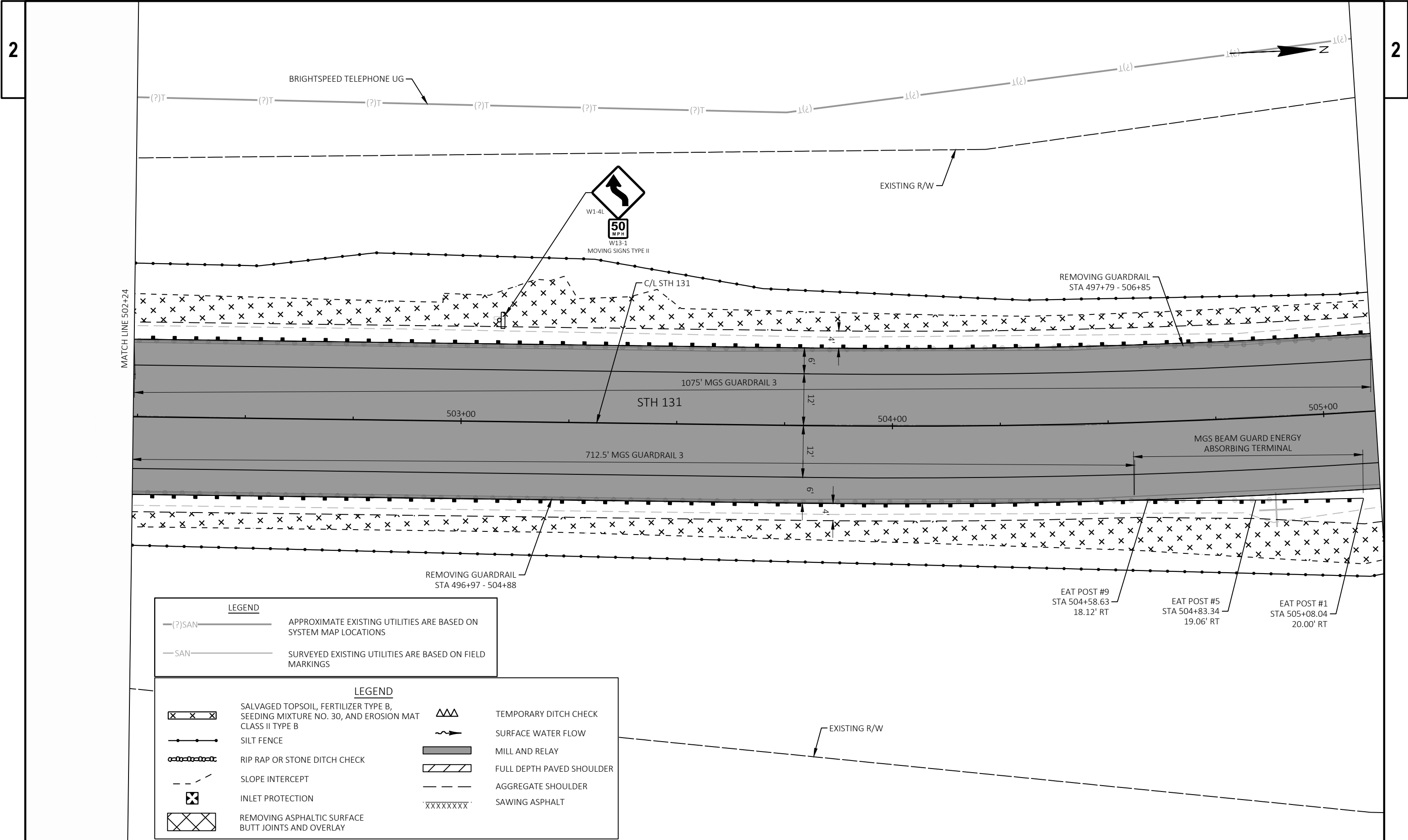
**LEGEND**

|  |                                                                  |
|--|------------------------------------------------------------------|
|  | APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS |
|  | SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS          |

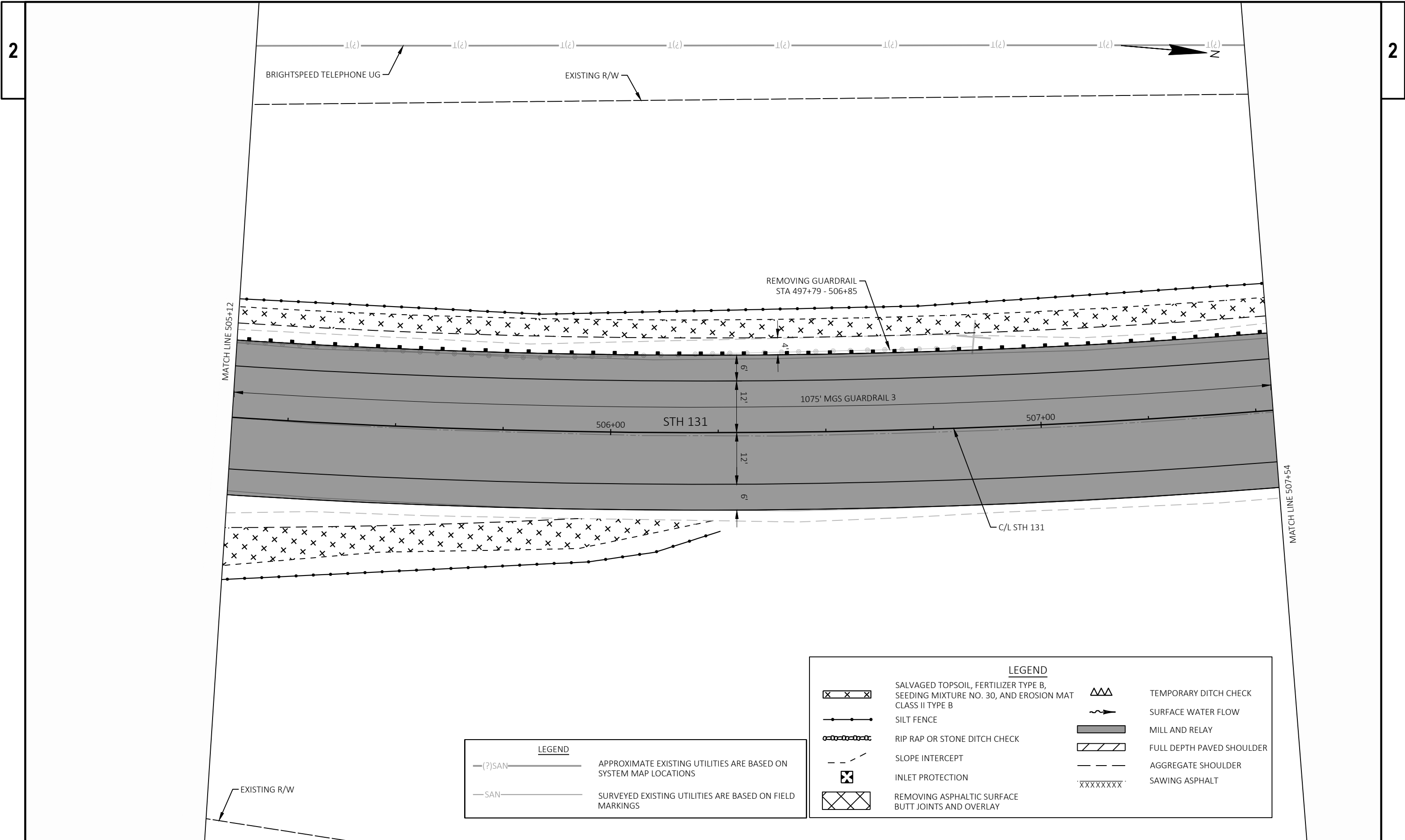


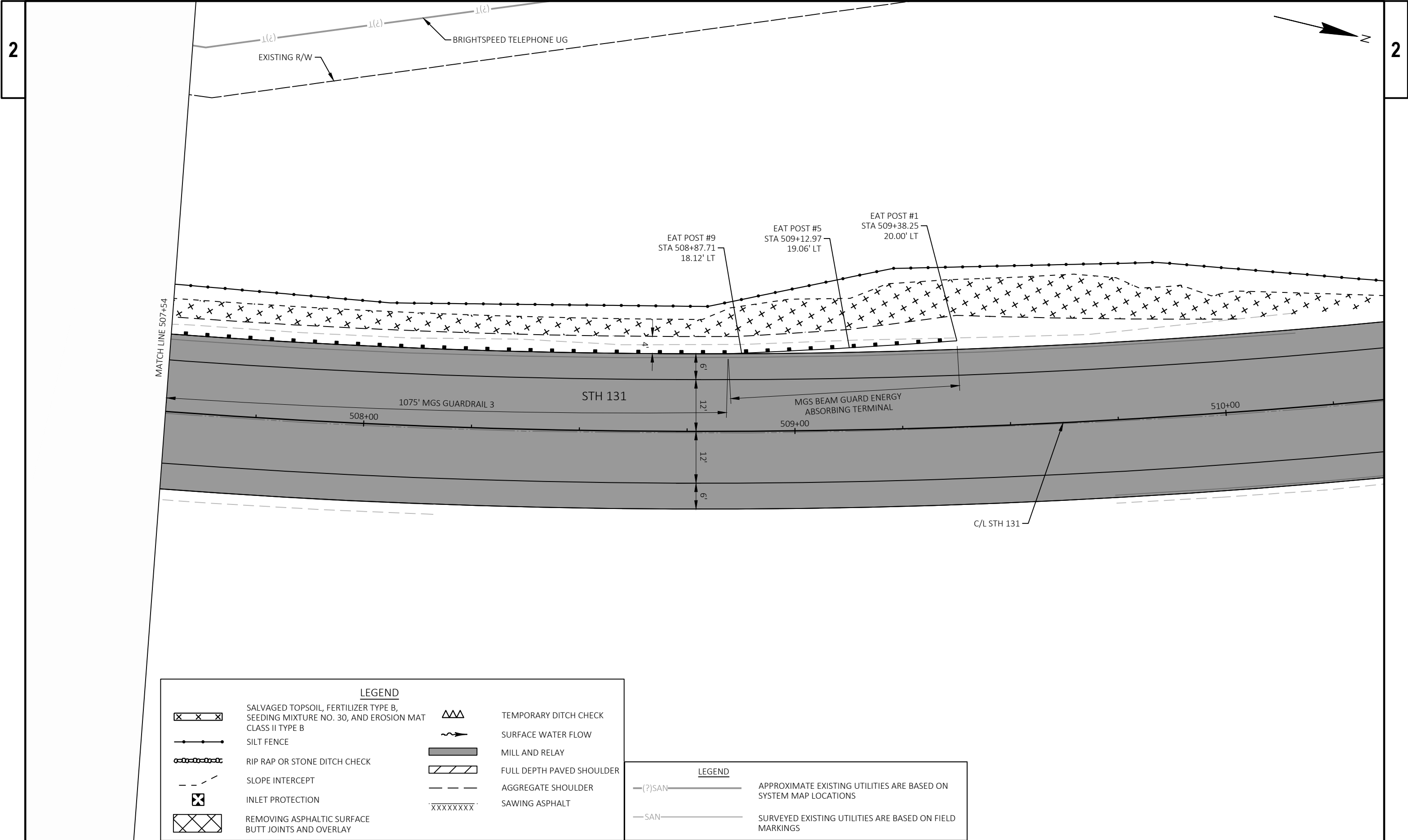
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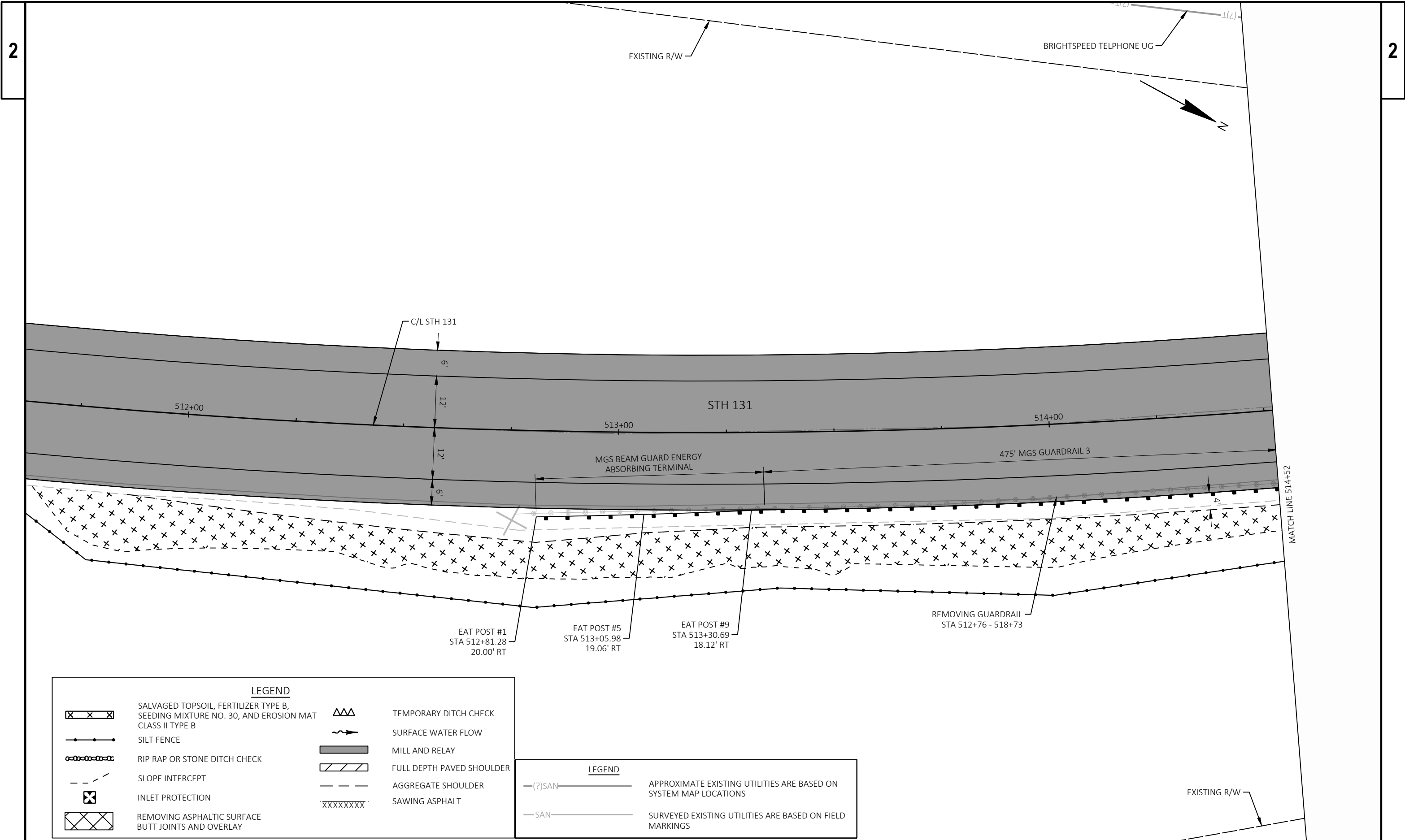


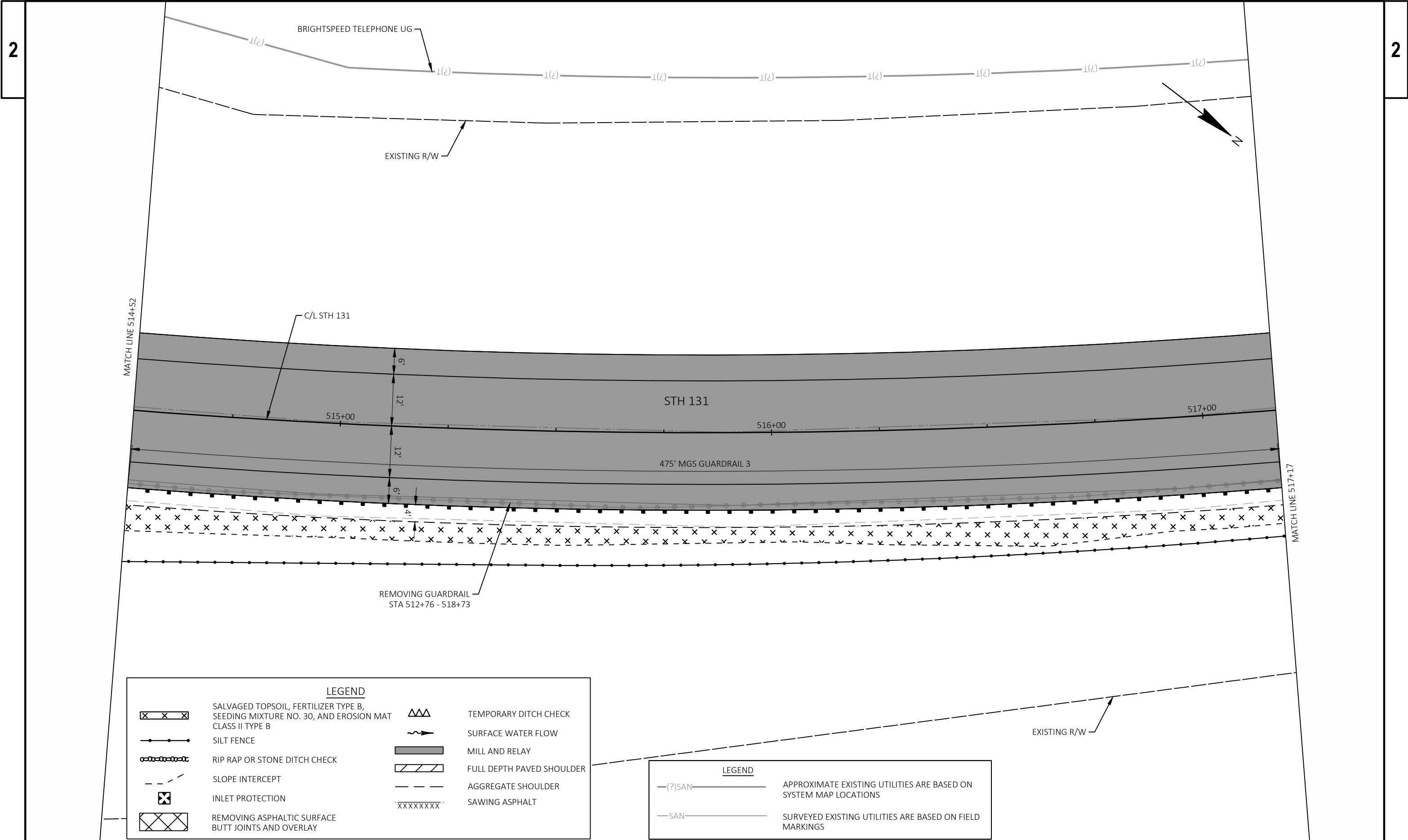


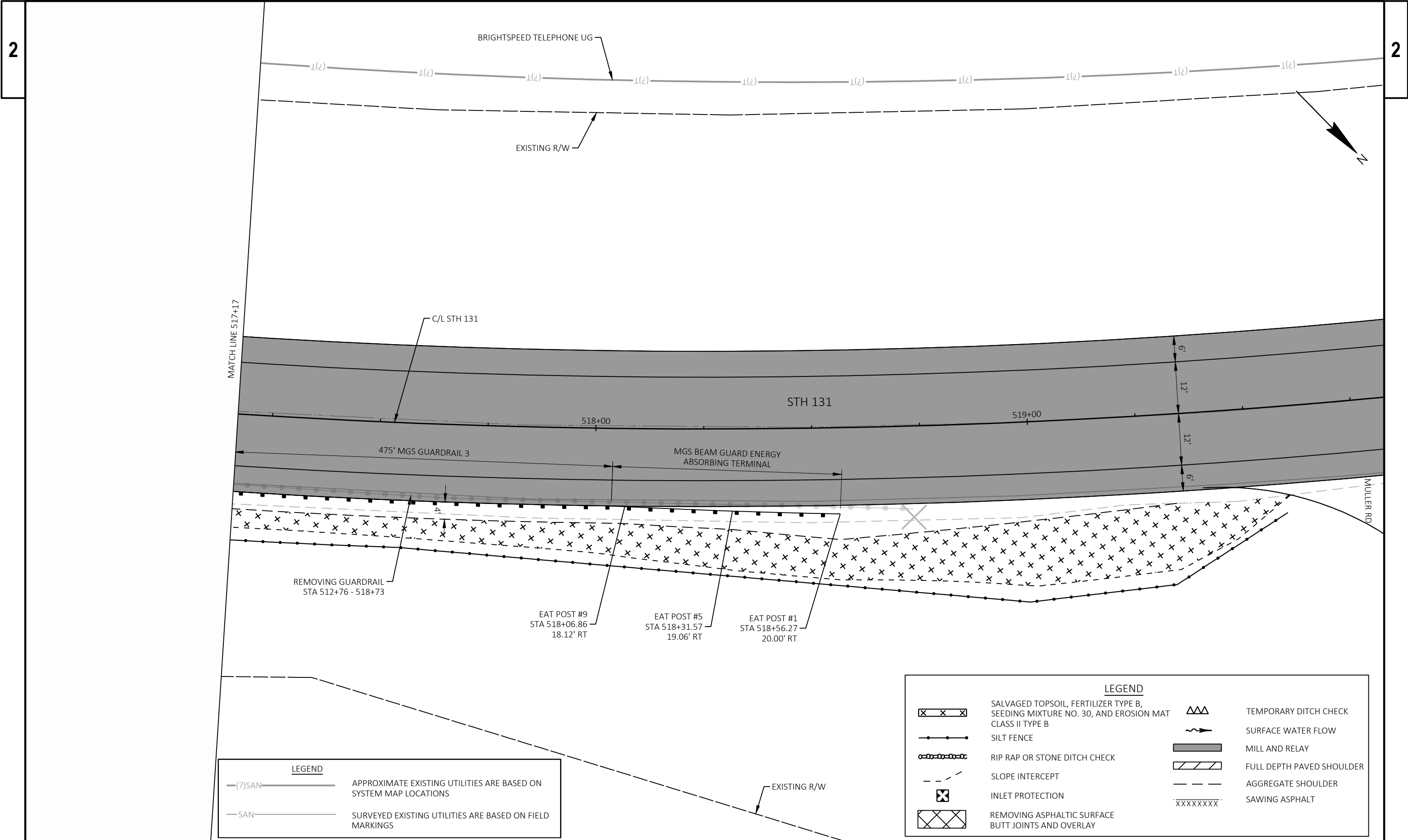












**LEGEND**

—(?)SAN— APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS

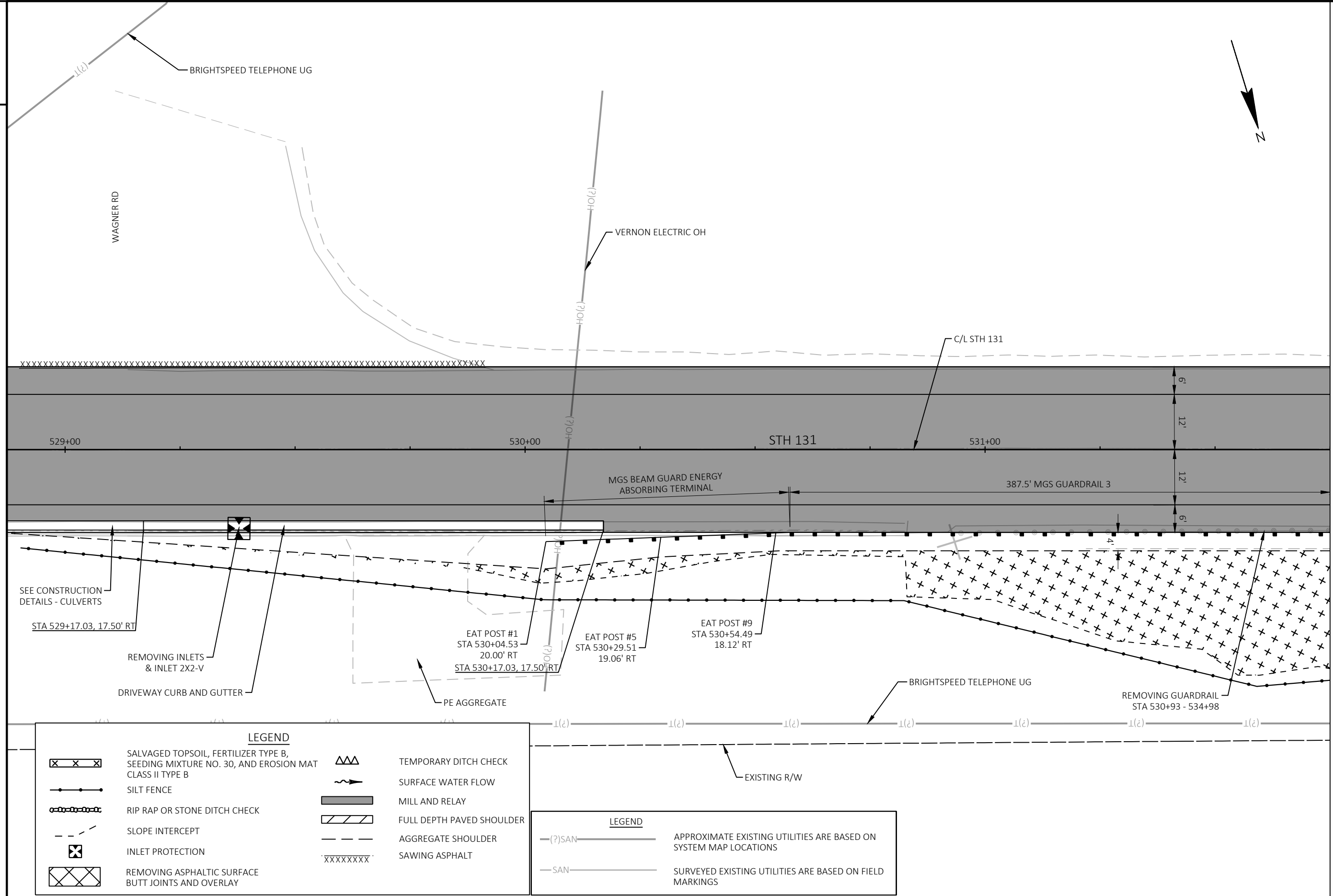
—SAN— SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS

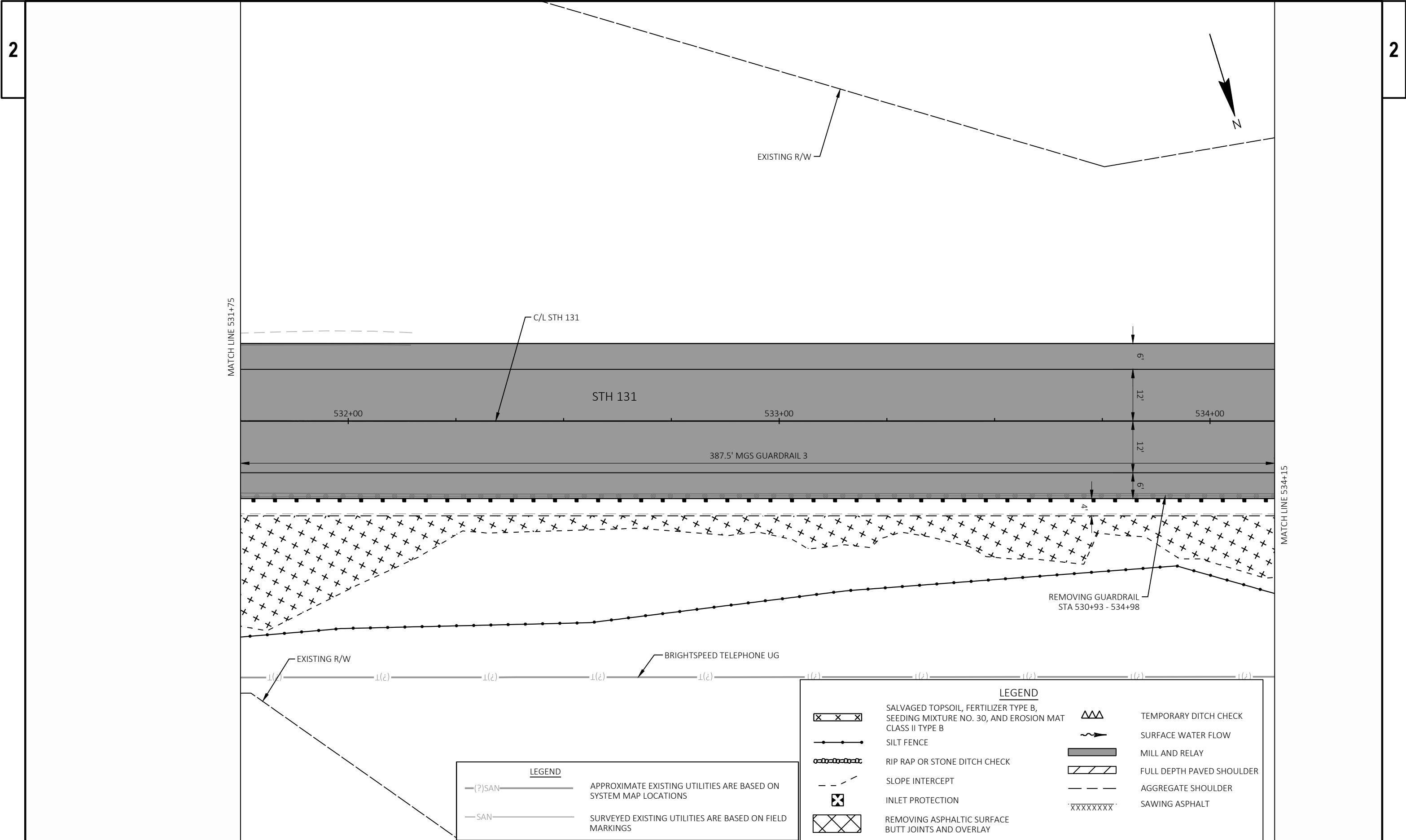
**LEGEND**

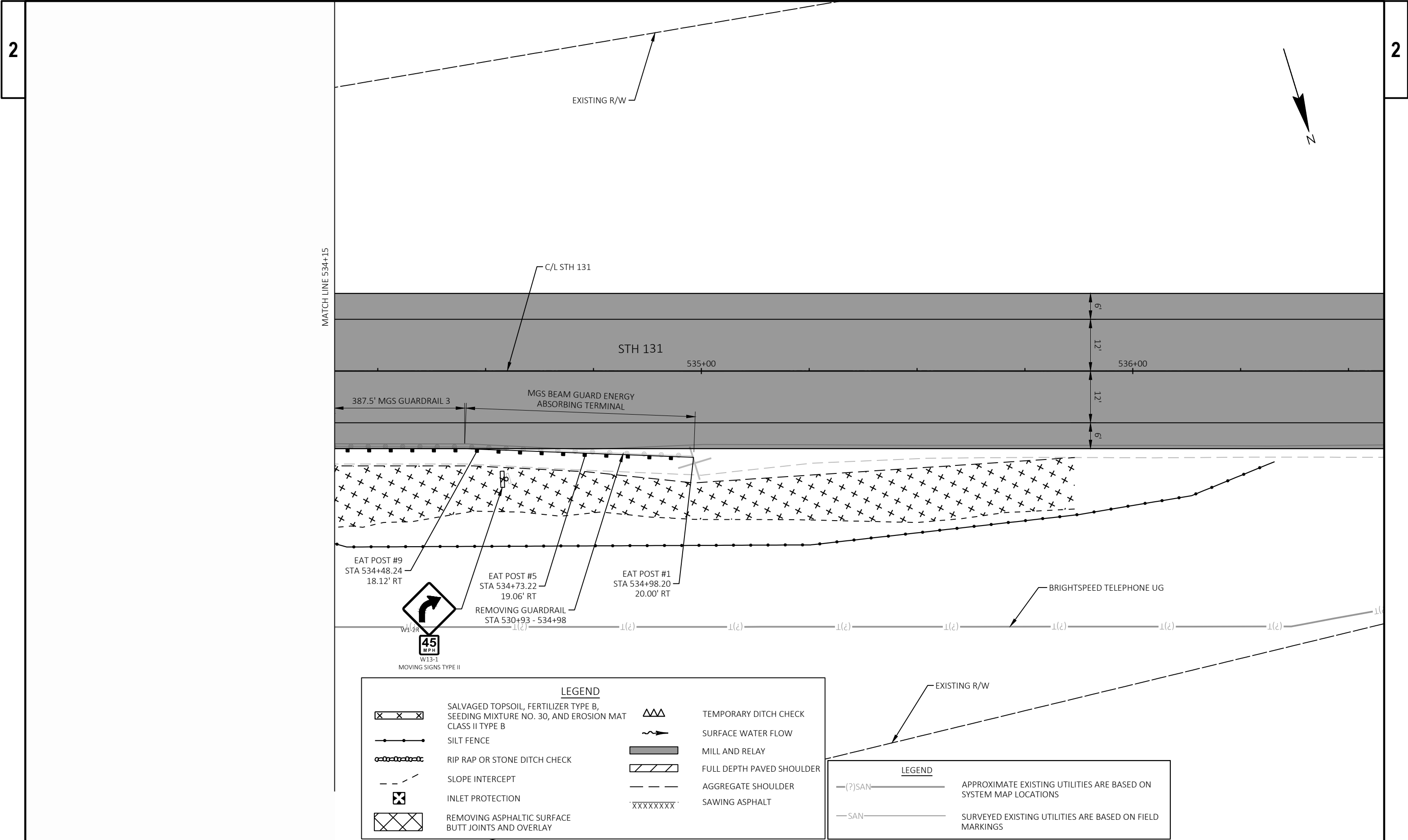
|  |                                                                                              |  |                           |
|--|----------------------------------------------------------------------------------------------|--|---------------------------|
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK     |
|  | SILTY FENCE                                                                                  |  | SURFACE WATER FLOW        |
|  | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY            |
|  | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER |
|  | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER        |
|  | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY                                           |  | SAWING ASPHALT            |

2

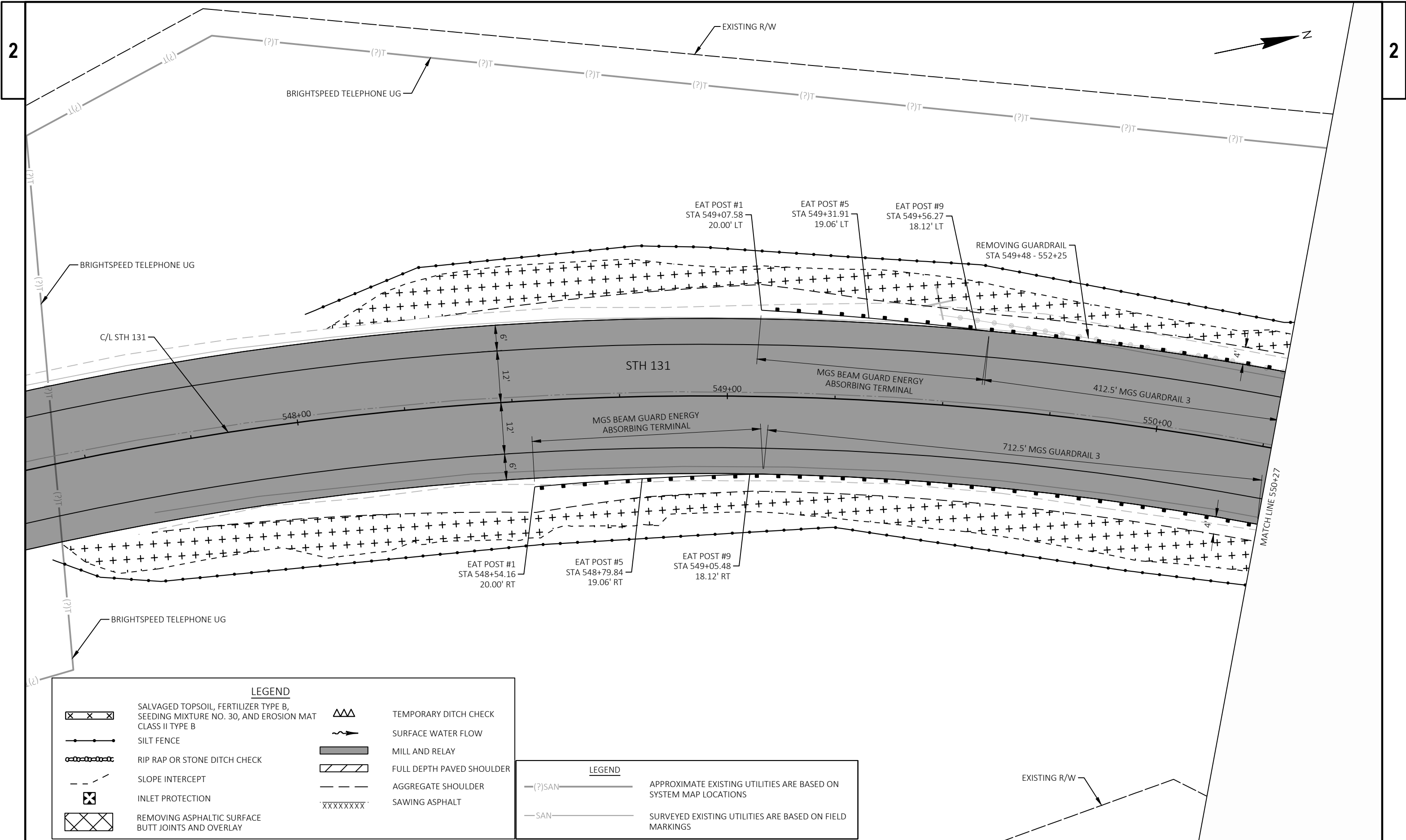
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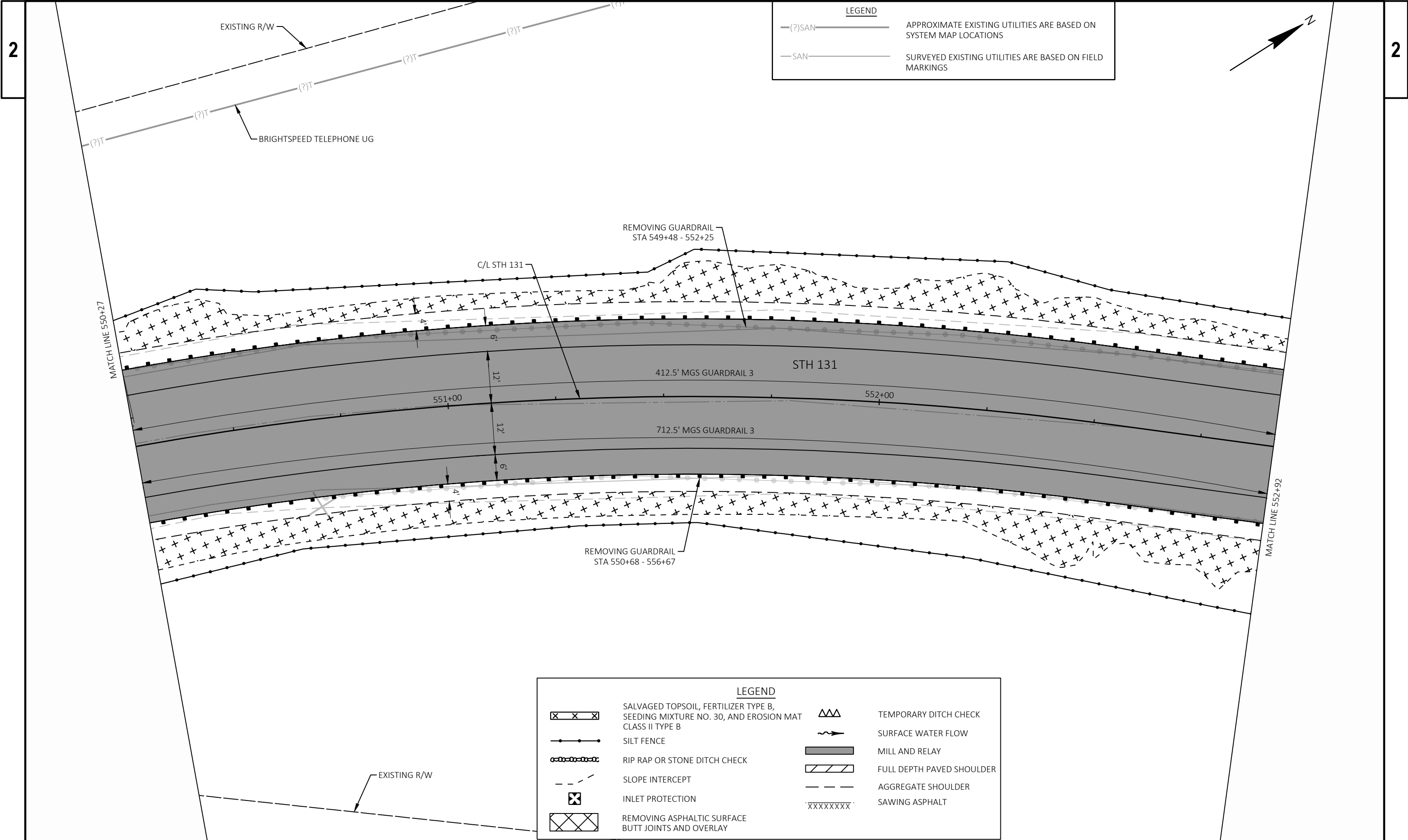




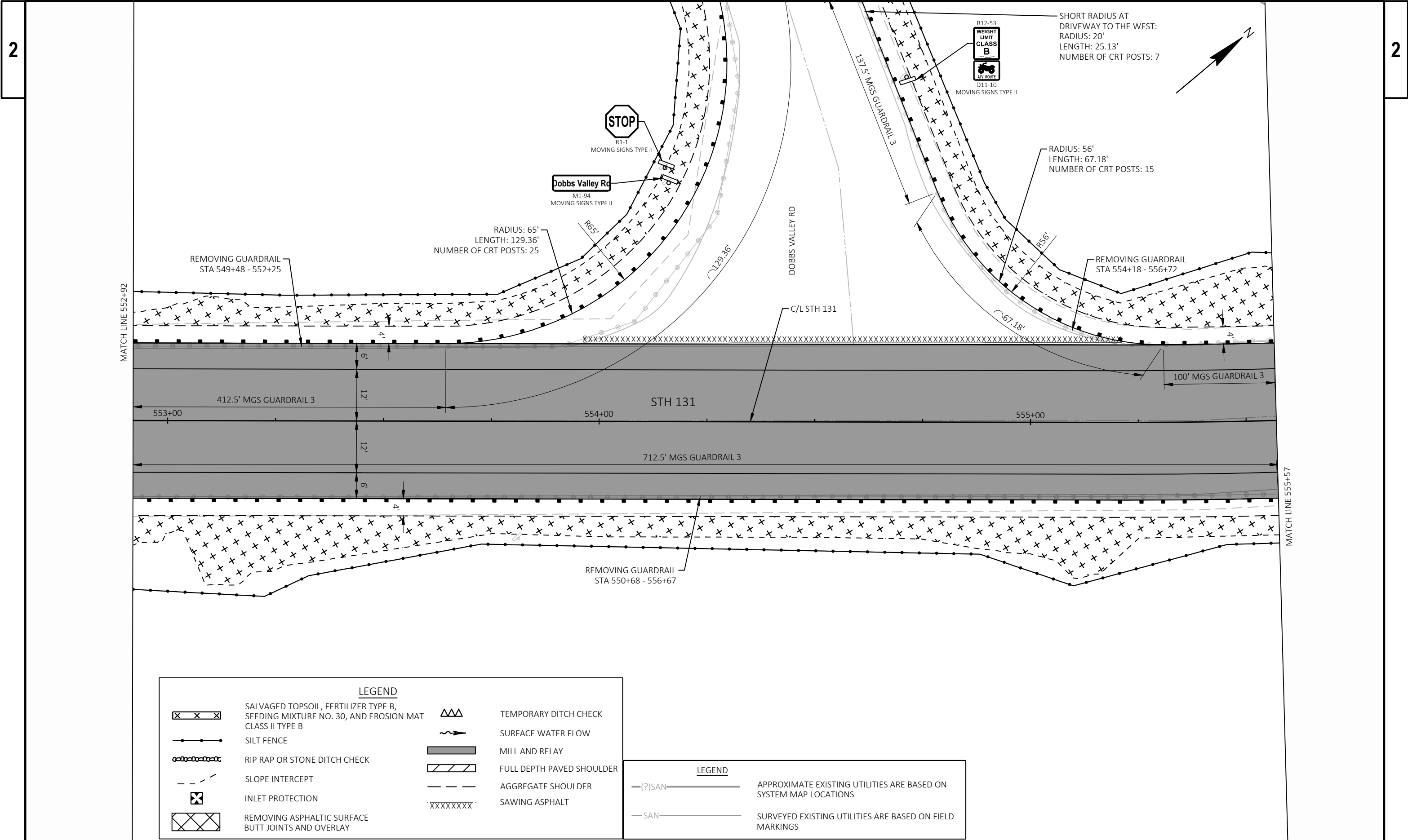


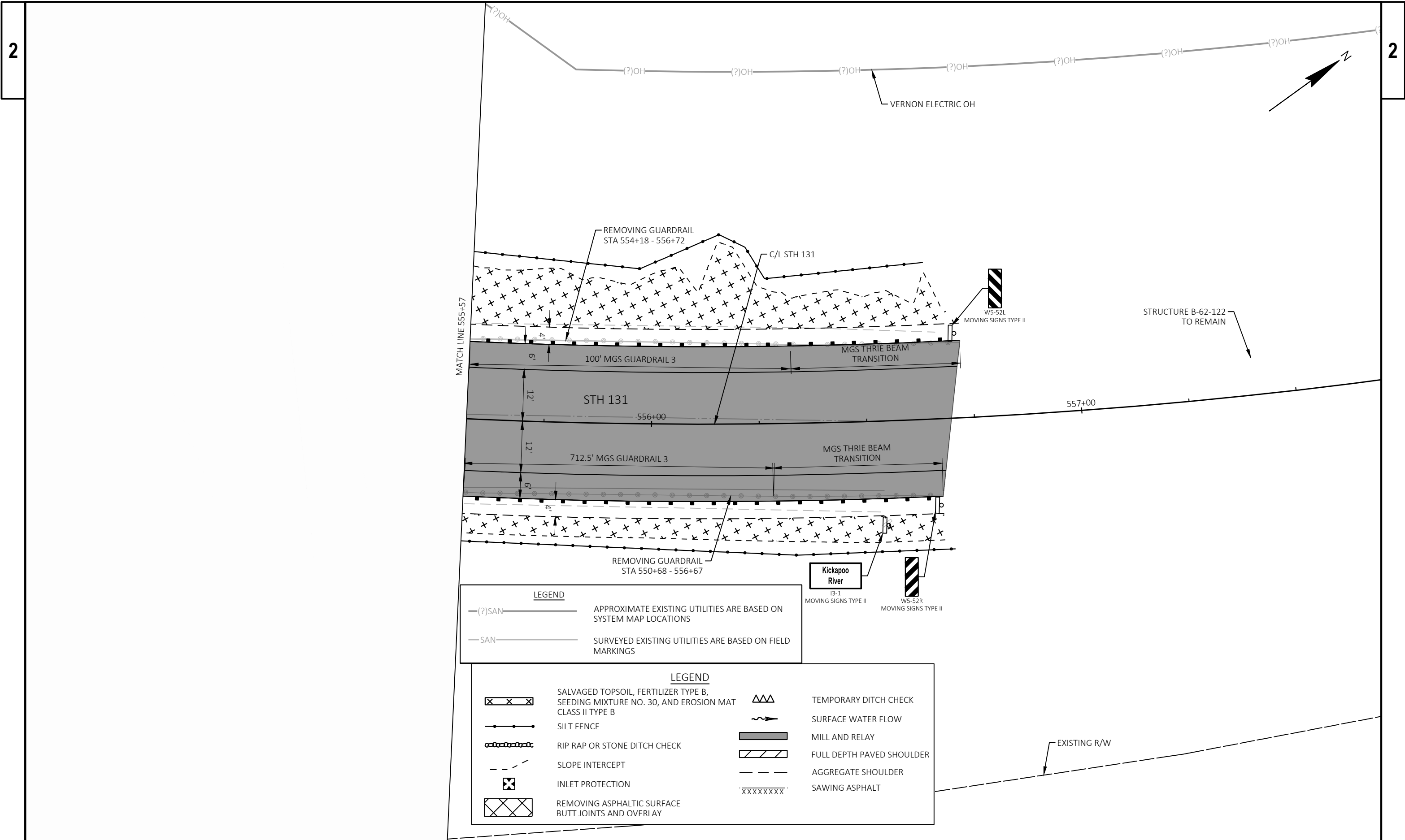


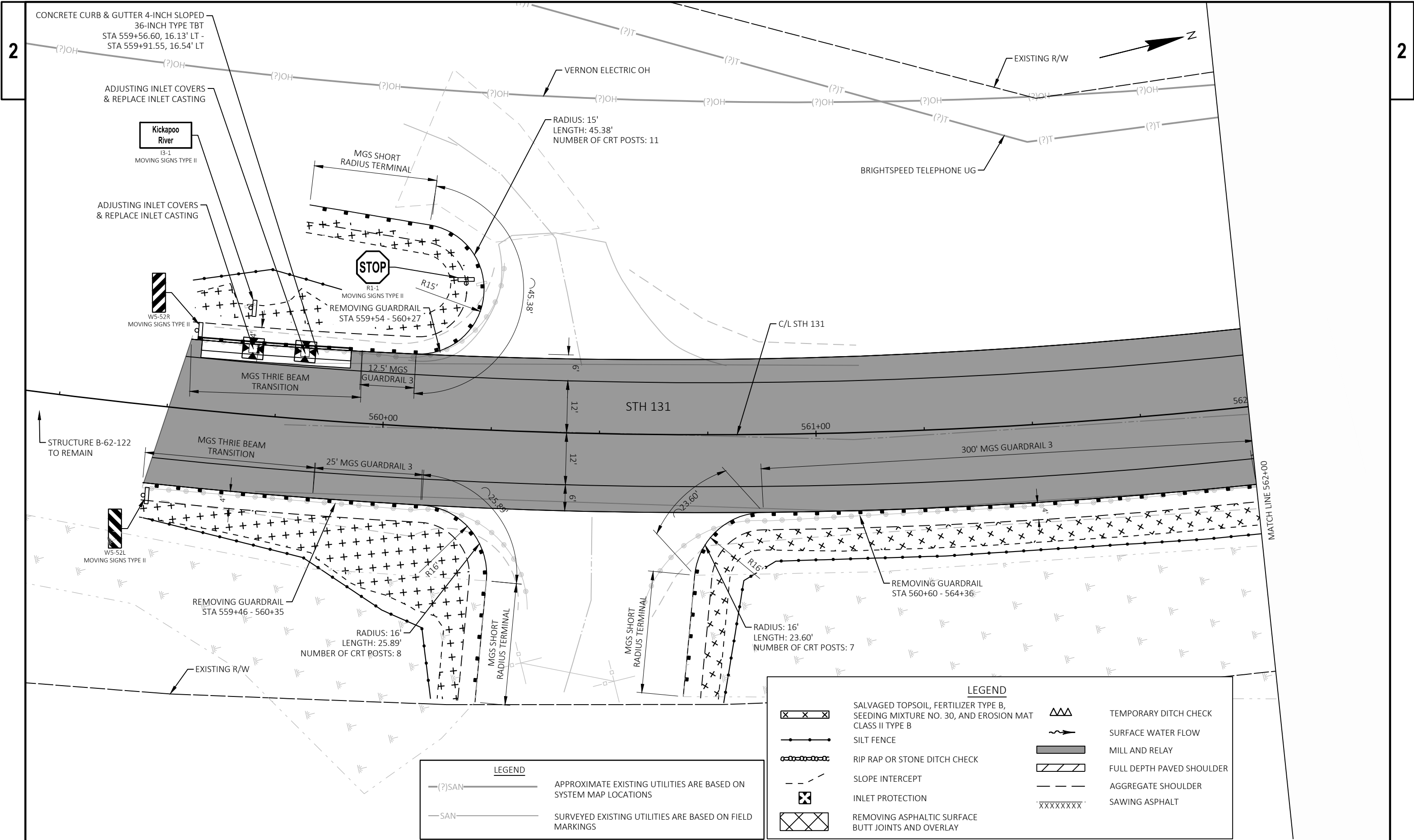


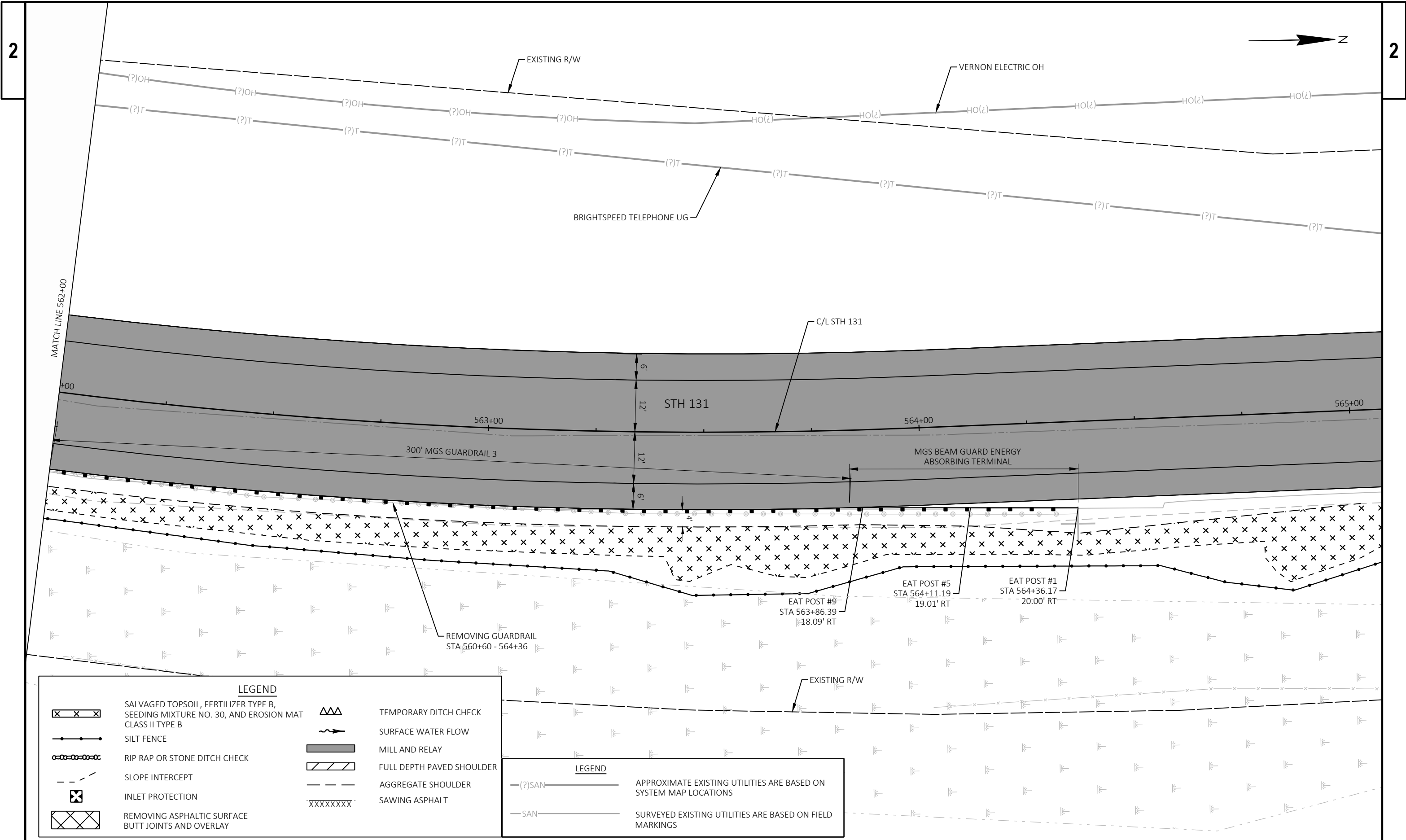


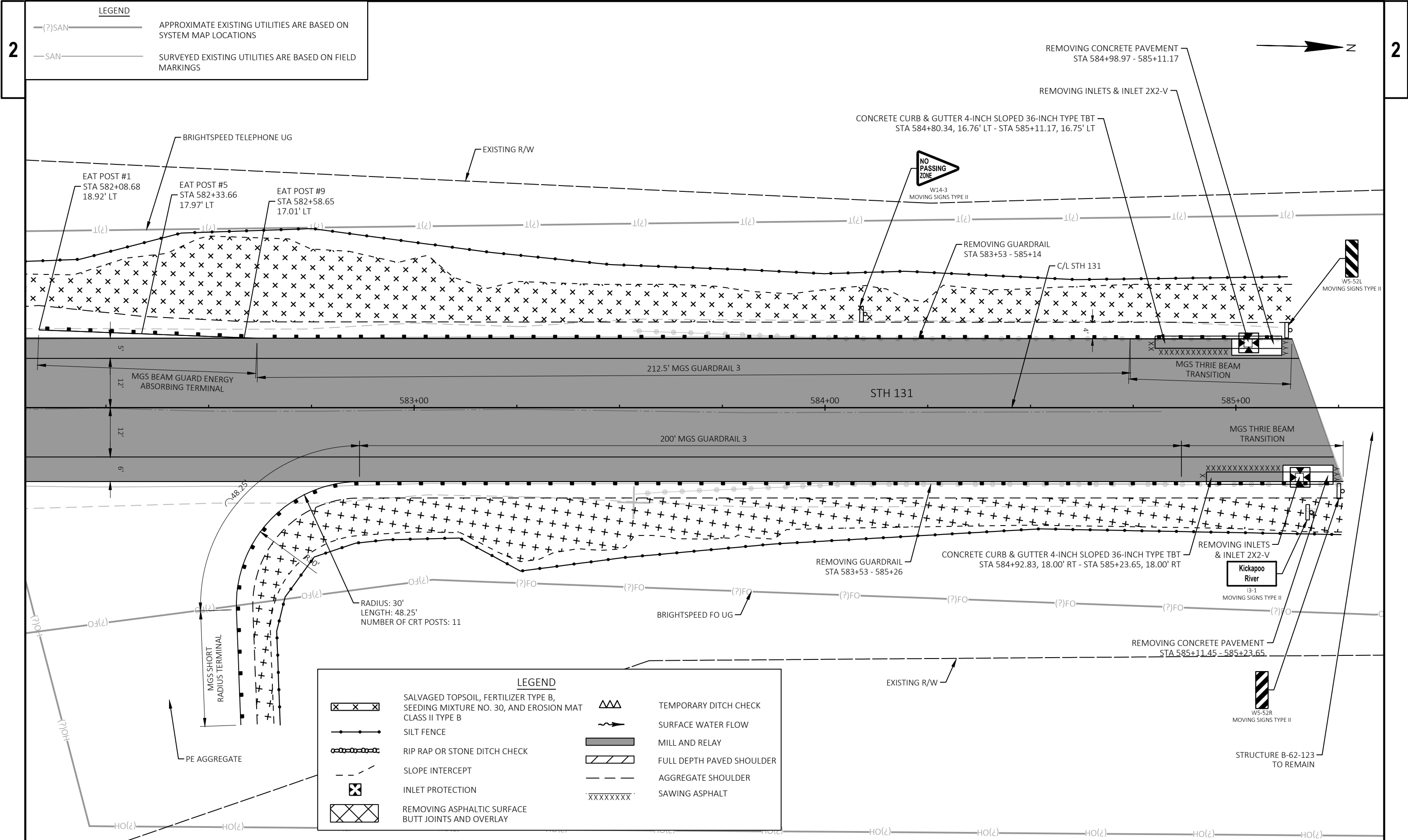












LEGEND

- (?)SAN APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS
- SAN SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS

LEGEND

- |  |                                                                                              |  |                           |
|--|----------------------------------------------------------------------------------------------|--|---------------------------|
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK     |
|  | SILT FENCE                                                                                   |  | SURFACE WATER FLOW        |
|  | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY            |
|  | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER |
|  | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER        |
|  | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY                                           |  | SAWING ASPHALT            |

PROJECT NO: 5110-06-70

HWY: STH 131

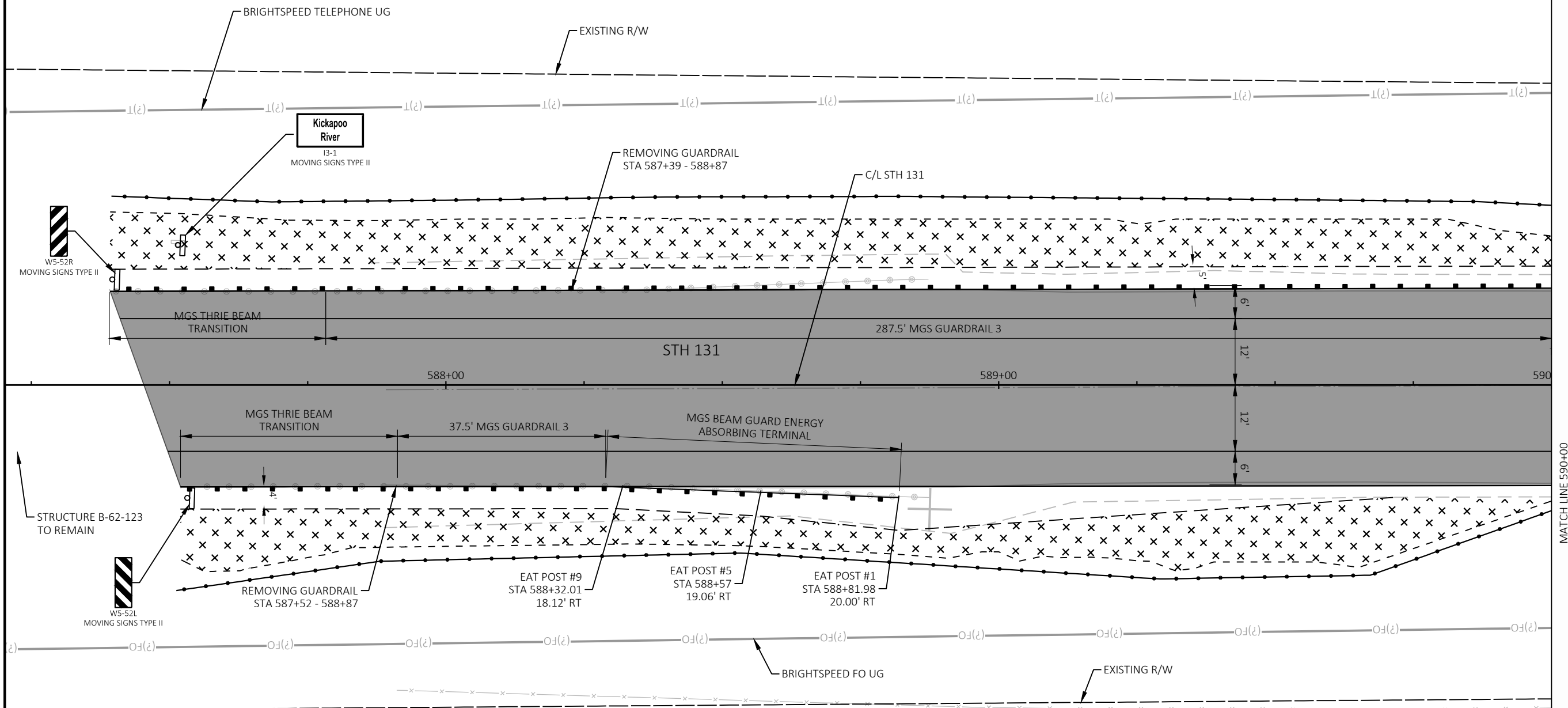
COUNTY: VERNON

CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET

97

E



## LEGEND

|  |                                                                                              |  |                           |
|--|----------------------------------------------------------------------------------------------|--|---------------------------|
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK     |
|  | SILT FENCE                                                                                   |  | SURFACE WATER FLOW        |
|  | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY            |
|  | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER |
|  | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER        |
|  | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY                                           |  | SAWING ASPHALT            |

## LEGEND

|  |                                                                  |
|--|------------------------------------------------------------------|
|  | APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS |
|  | SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS          |

PROJECT NO: 5110-06-70

HWY: STH 131

COUNTY: VERNON

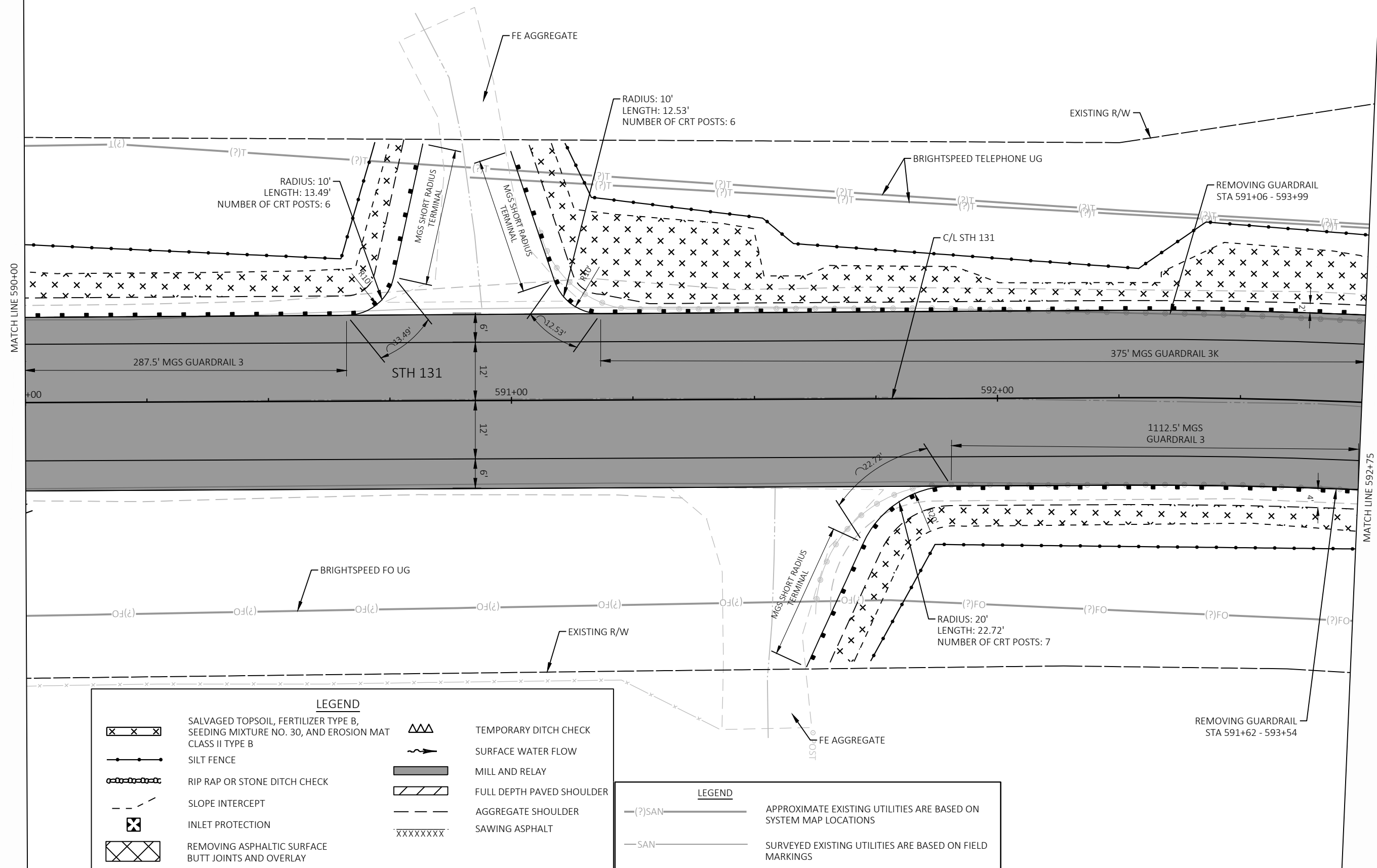
CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

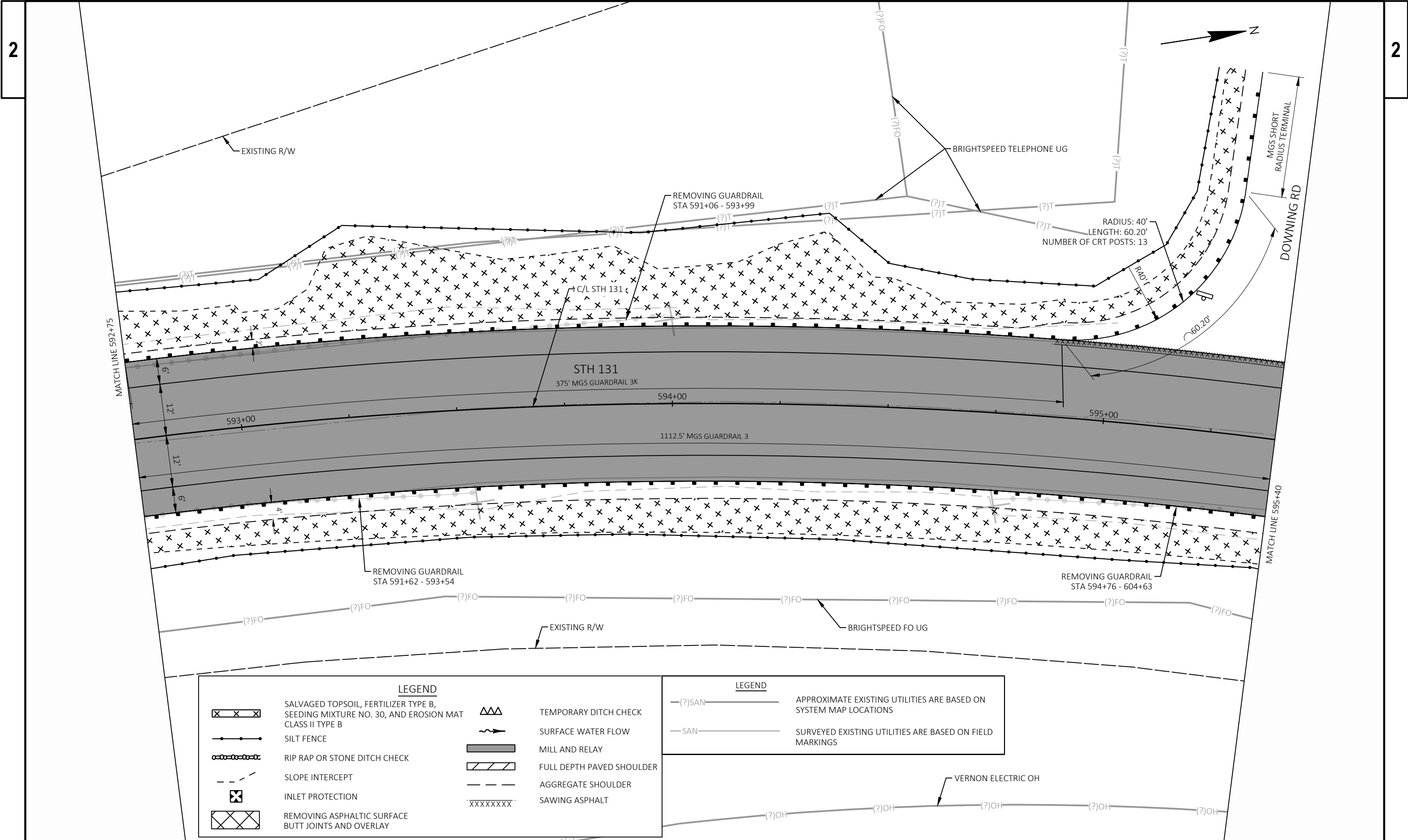
SHEET

98

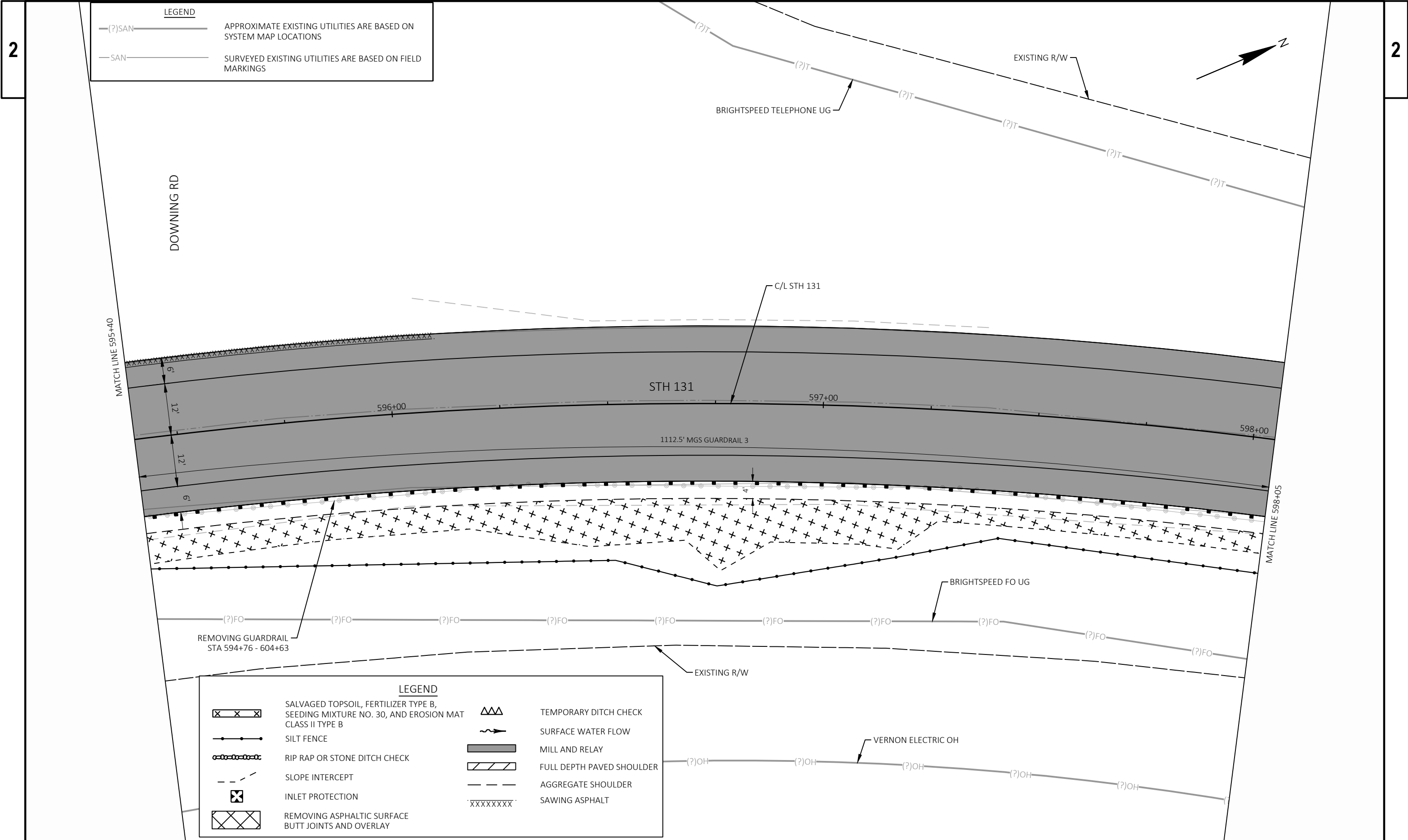
E

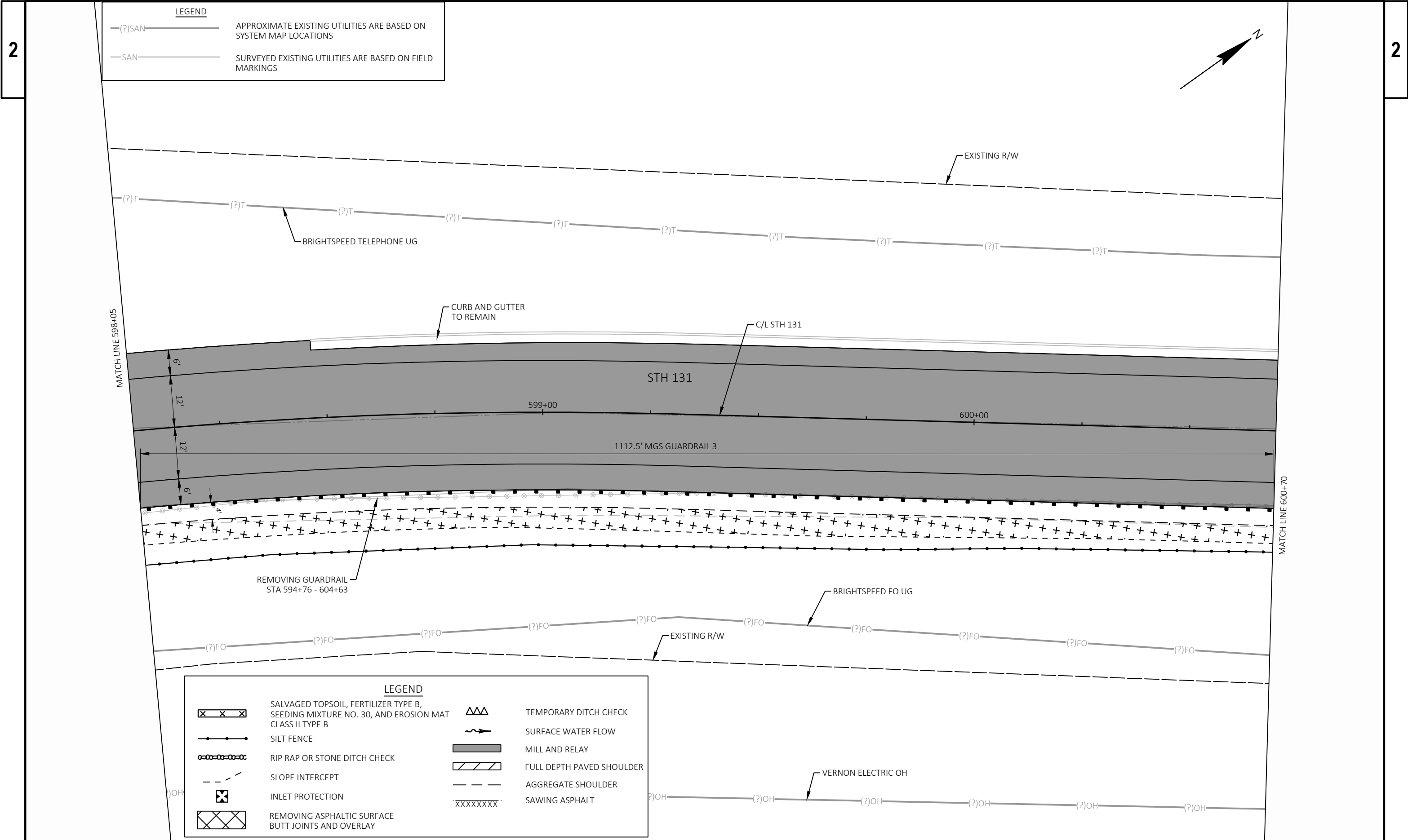


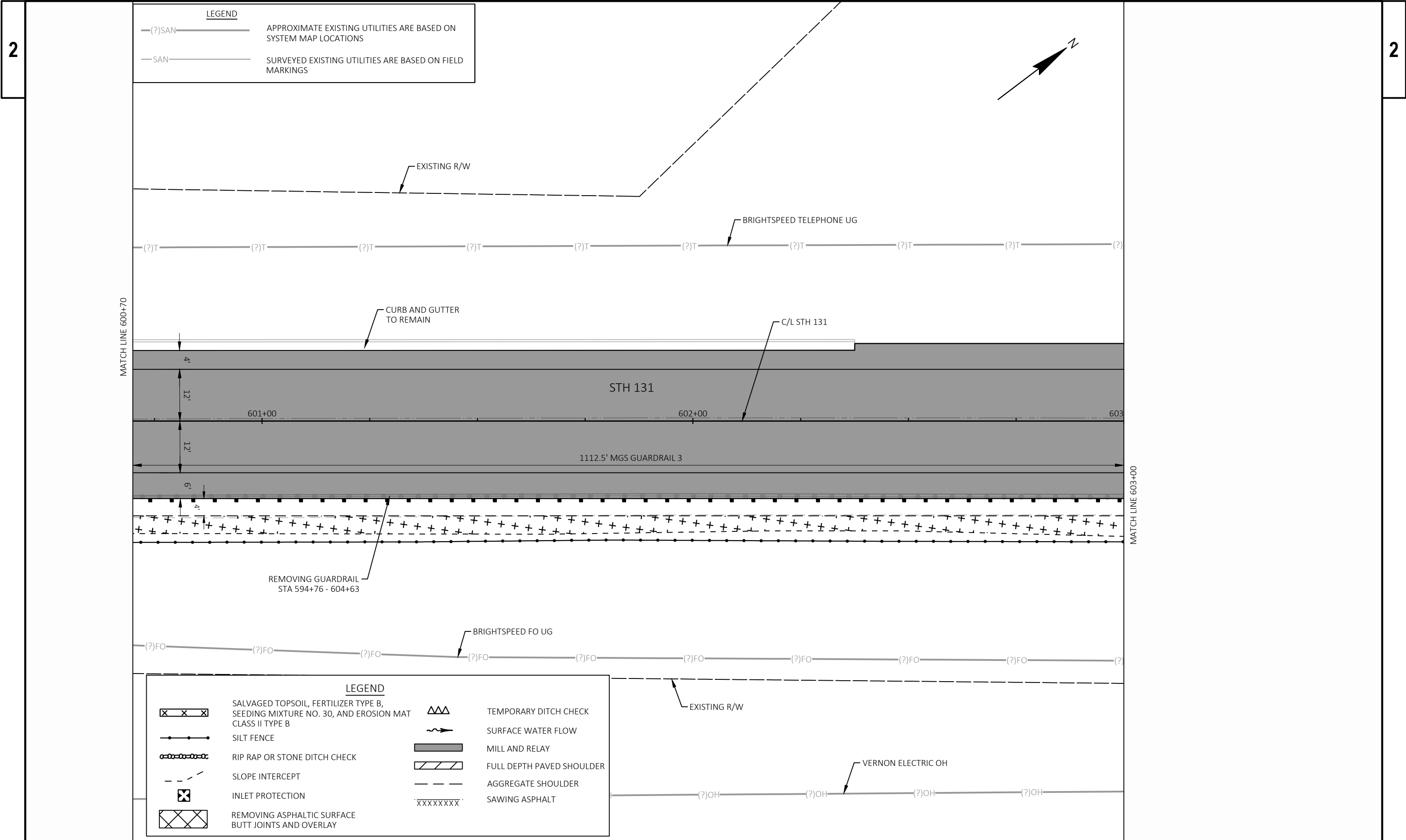


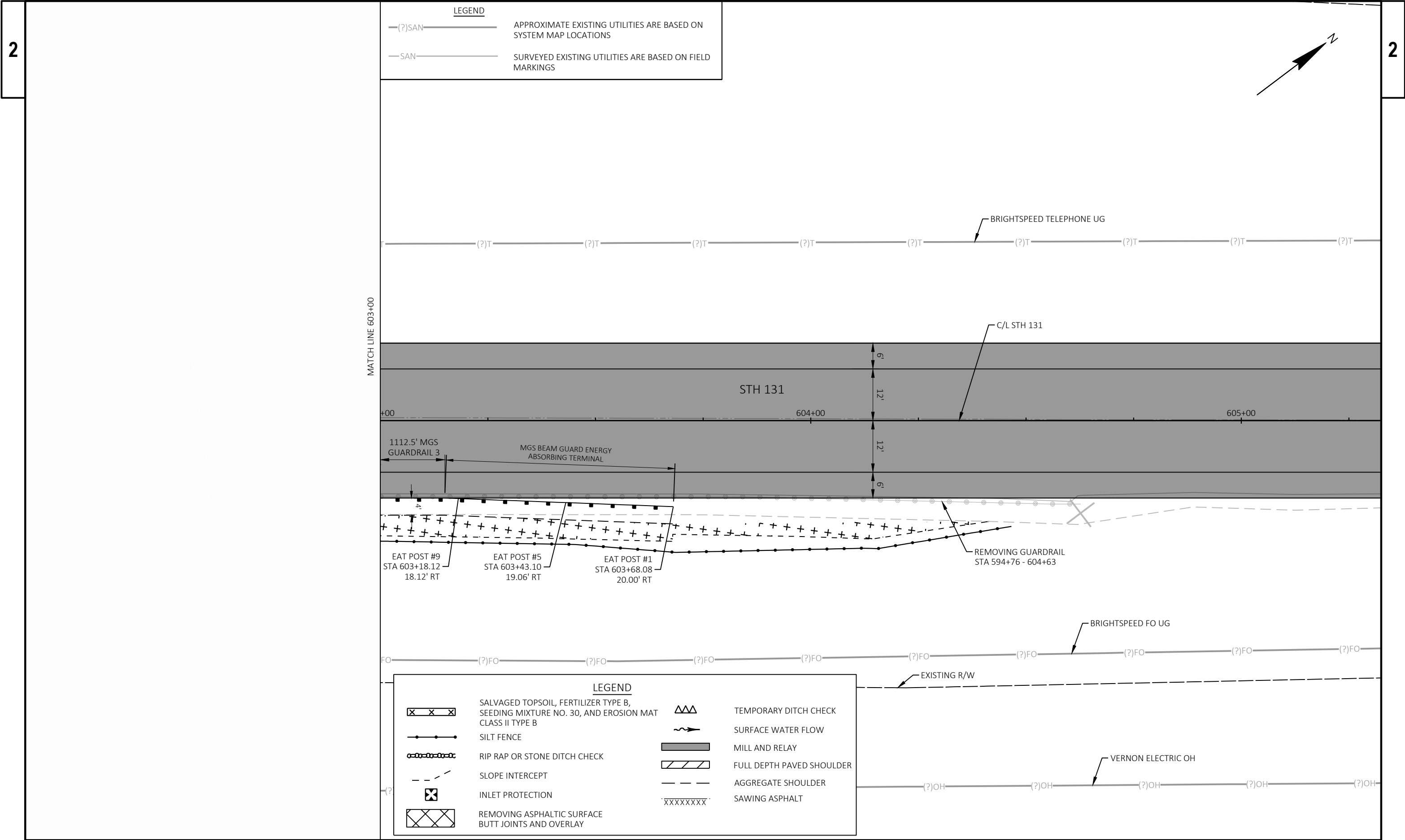


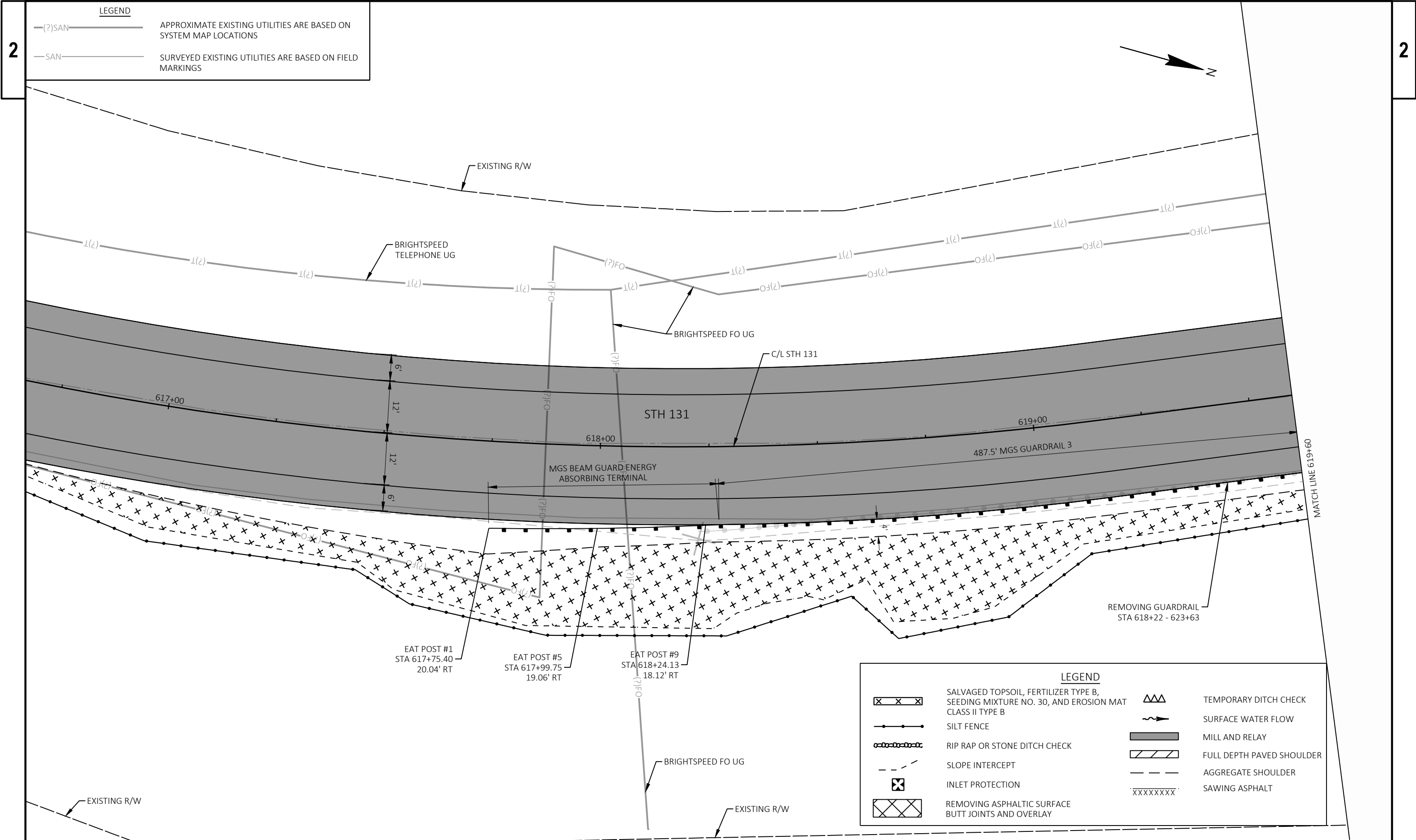












LEGEND

(?)SAN

APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS

SAN

SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS

LEGEND

X X X

SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B

—●—●—●—●—

SILT FENCE

—○—○—○—○—

RIP RAP OR STONE DITCH CHECK

- - -

SLOPE INTERCEPT

⊠

INLET PROTECTION

⊠ ⊠ ⊠

REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY

△△△

TEMPORARY DITCH CHECK

~>

SURFACE WATER FLOW

▬

MILL AND RELAY

▨

FULL DEPTH PAVED SHOULDER

- - -

AGGREGATE SHOULDER

· · · · ·

SAWING ASPHALT

PROJECT NO: 5110-06-70

HWY: STH 131

COUNTY: VERNON

CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

SHEET 105

E

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETSPLAN\021016-CD.DWG

LAYOUT NAME - 99

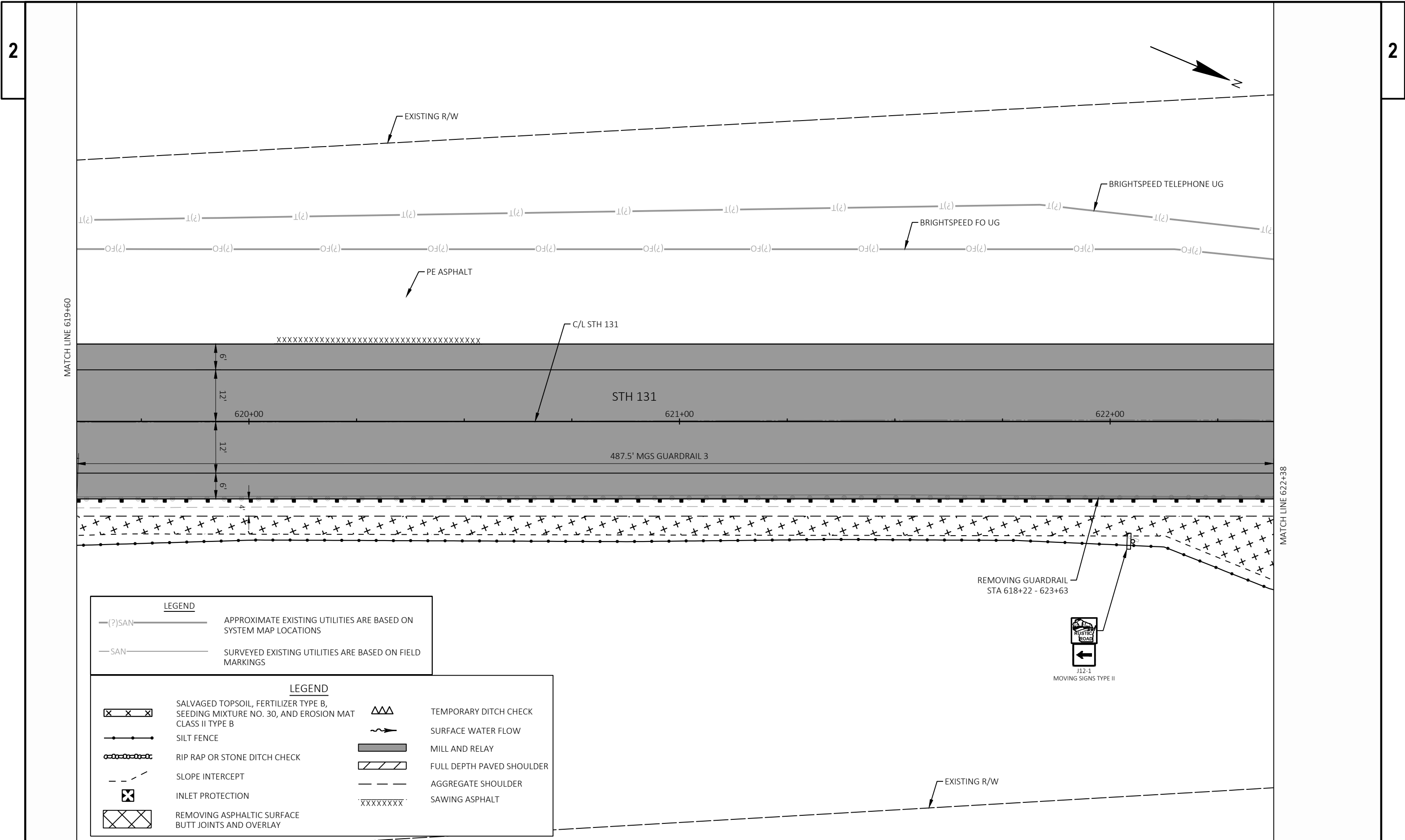
PLOT DATE : 1/15/2026 9:18 AM

PLOT BY : WESTERN, JACOB

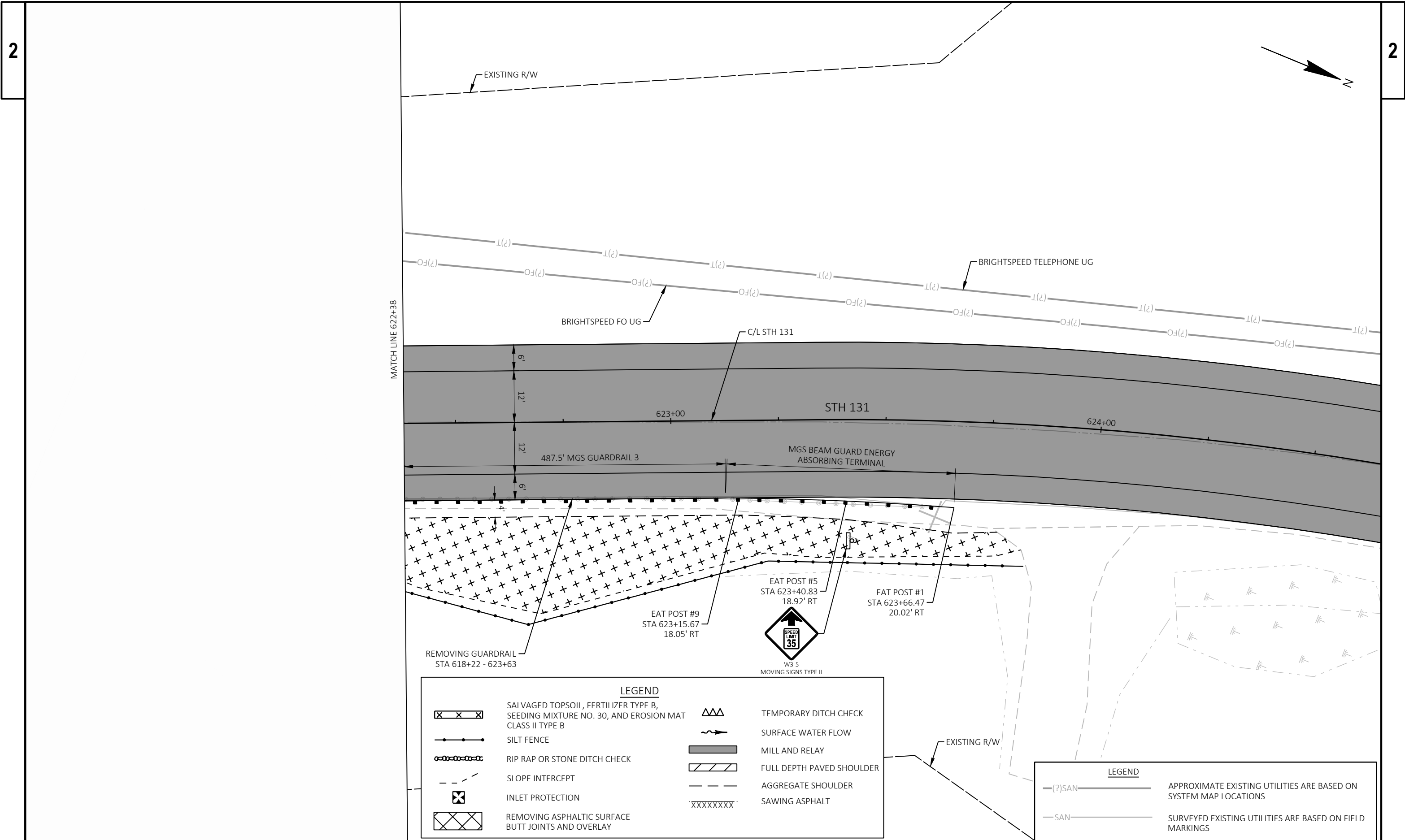
PLOT NAME :

PLOT SCALE : 1 IN:20 FT

WISDOT/CADDs SHEET 42







PROJECT NO: 5110-06-70

HWY: STH 131

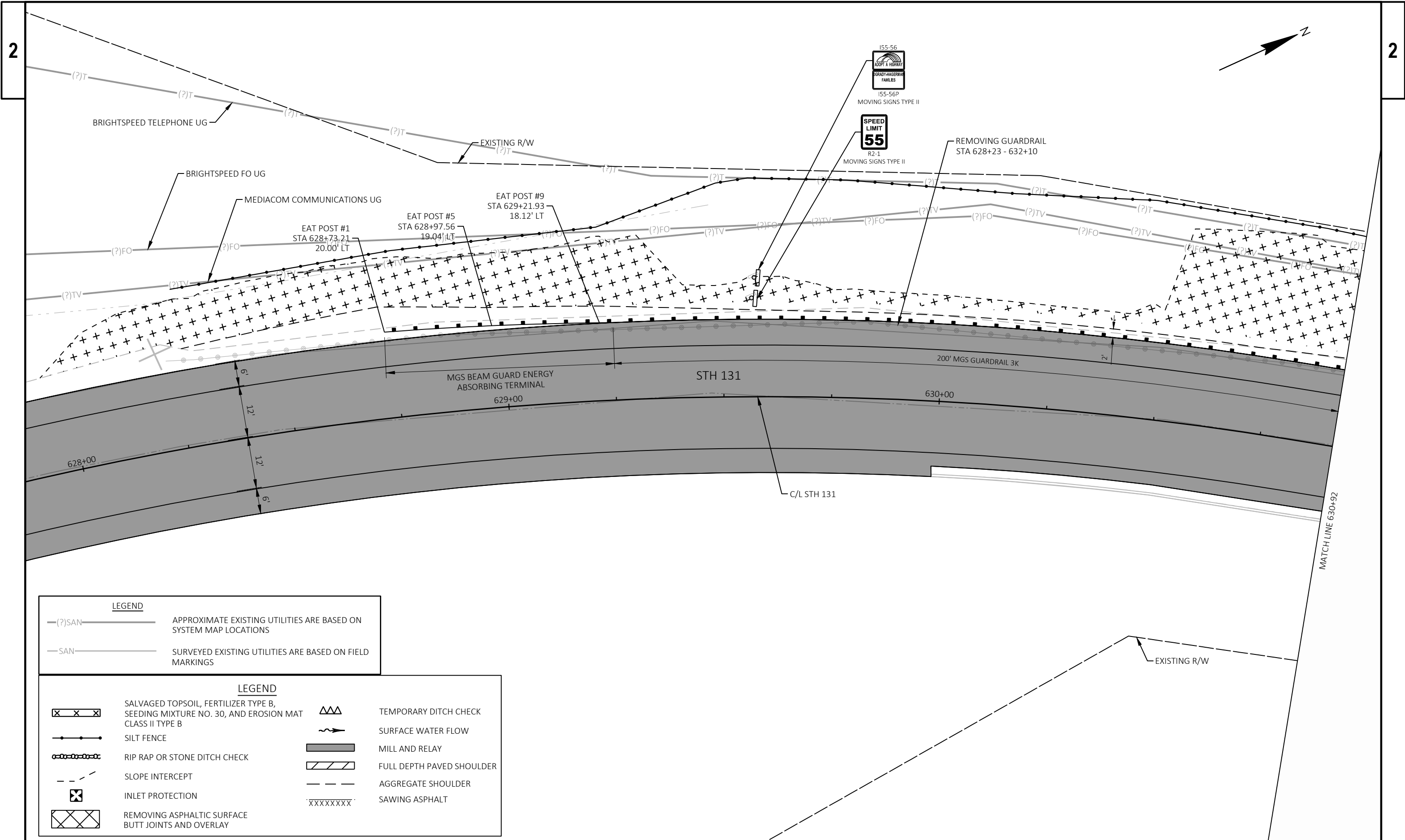
COUNTY: VERNON

CONSTRUCTION DETAILS - BEAM GUARD LAYOUT

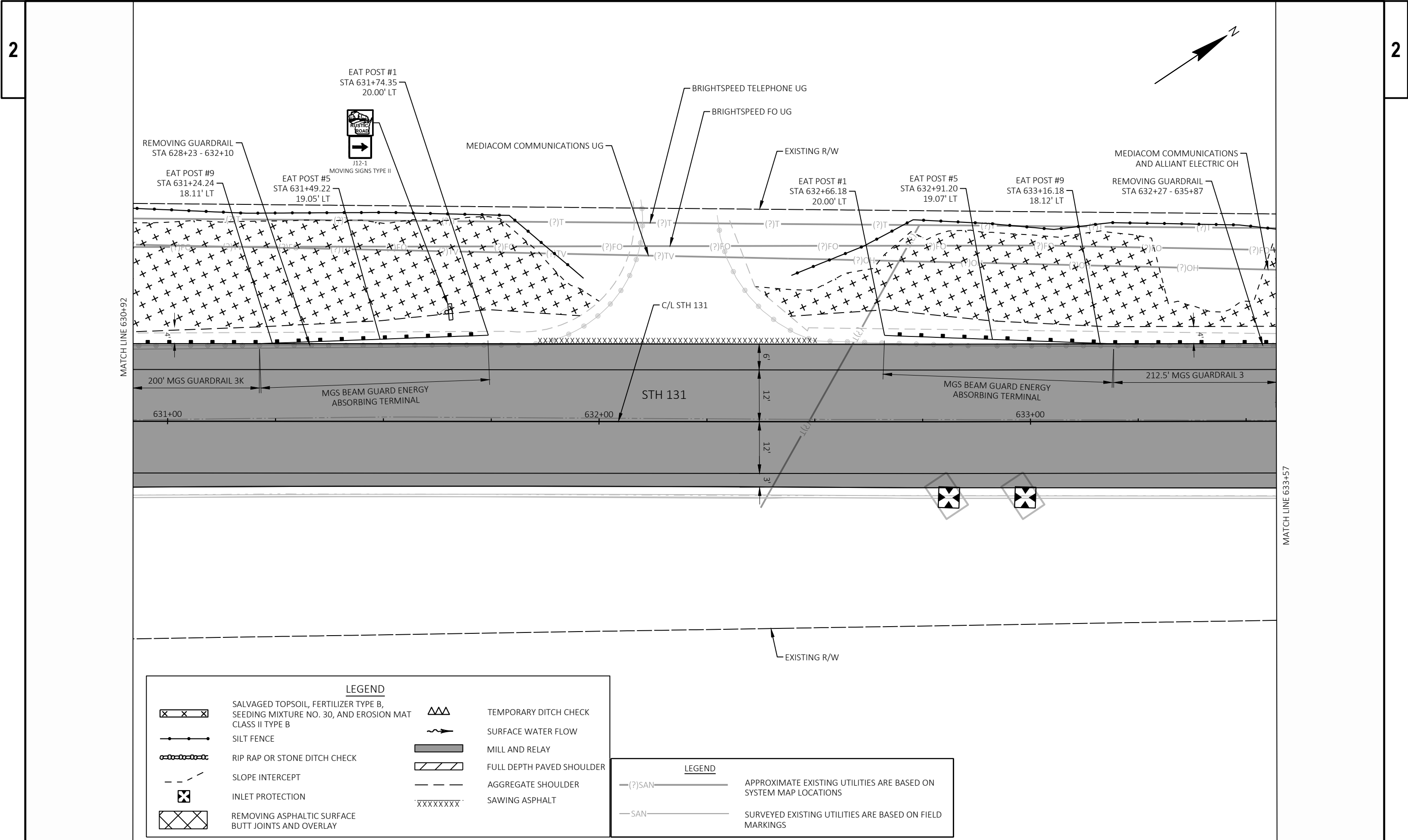
SHEET

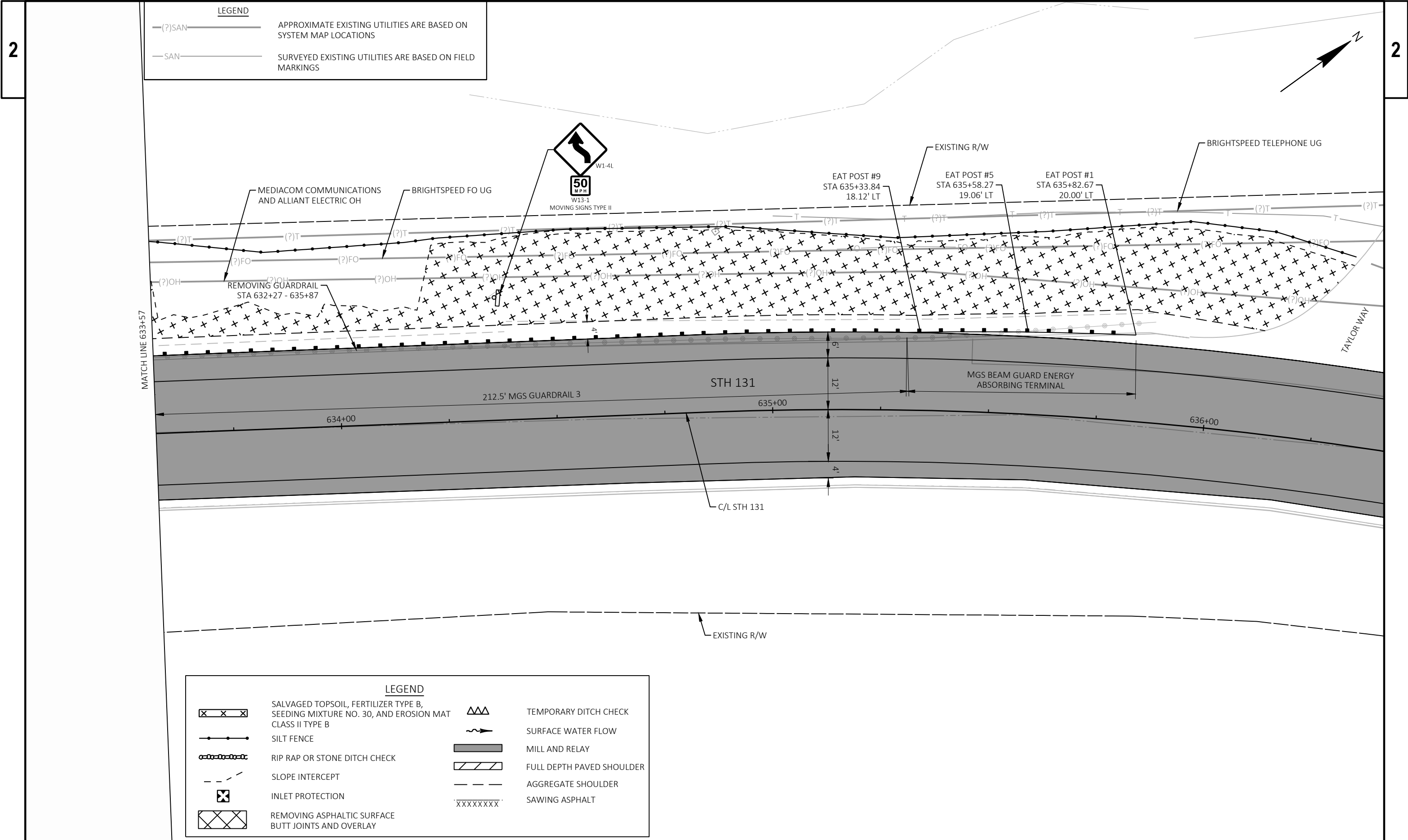
107

E









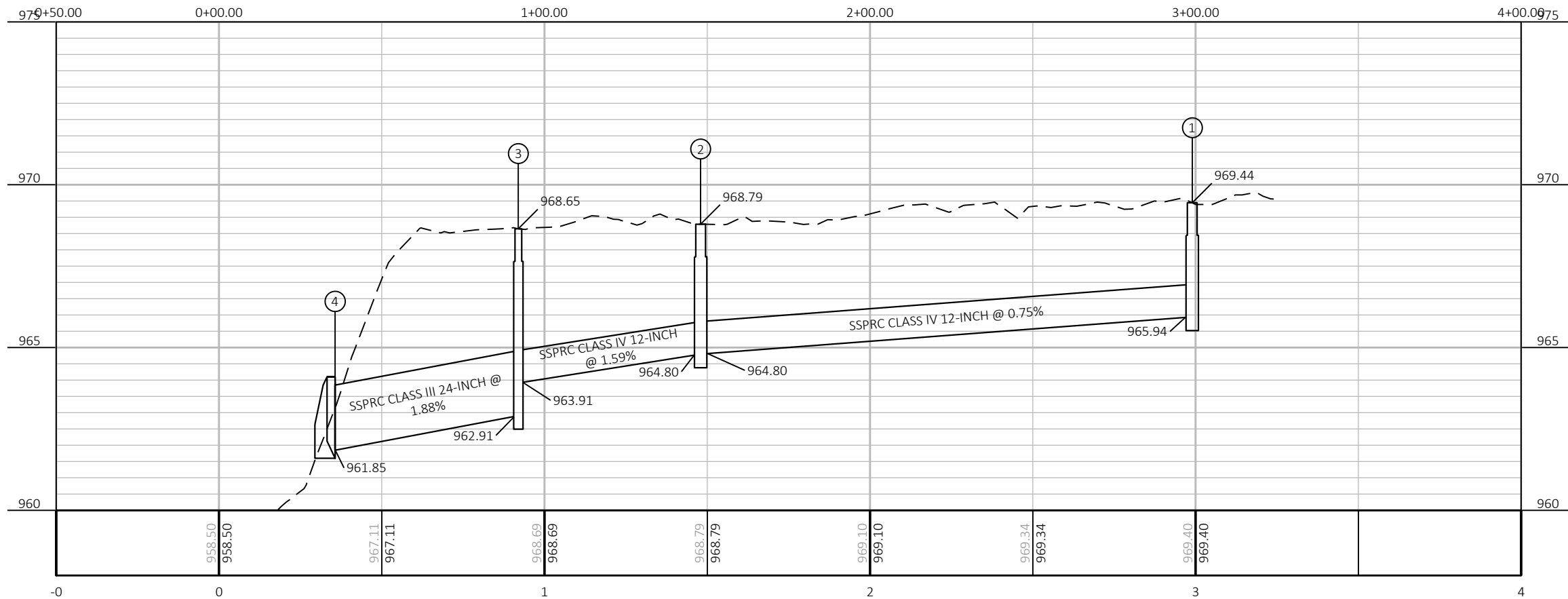
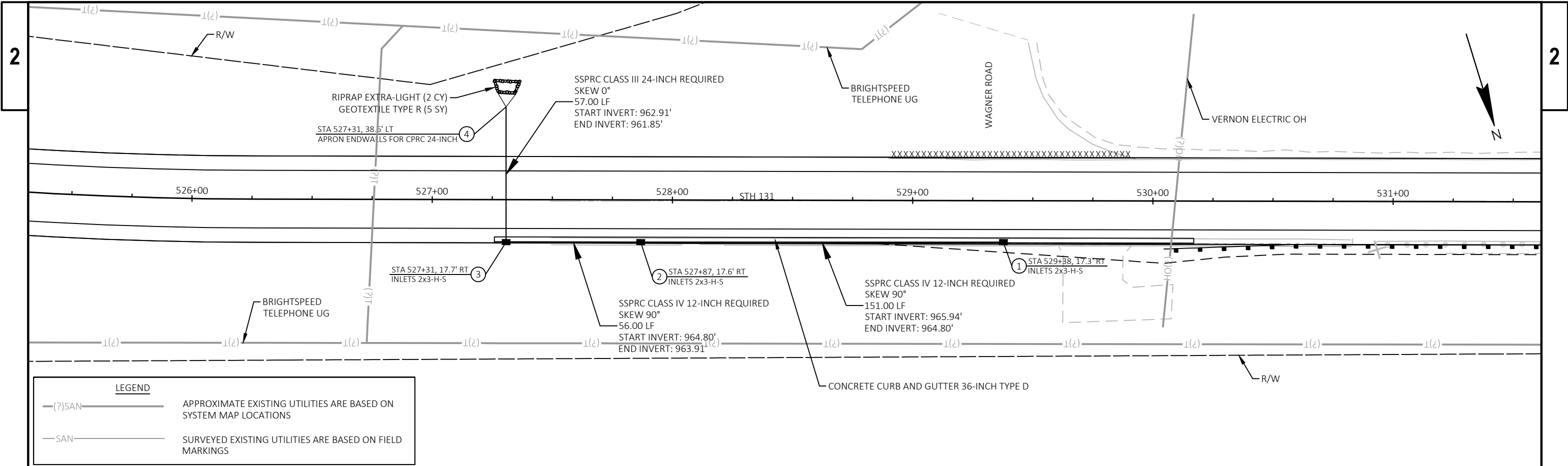
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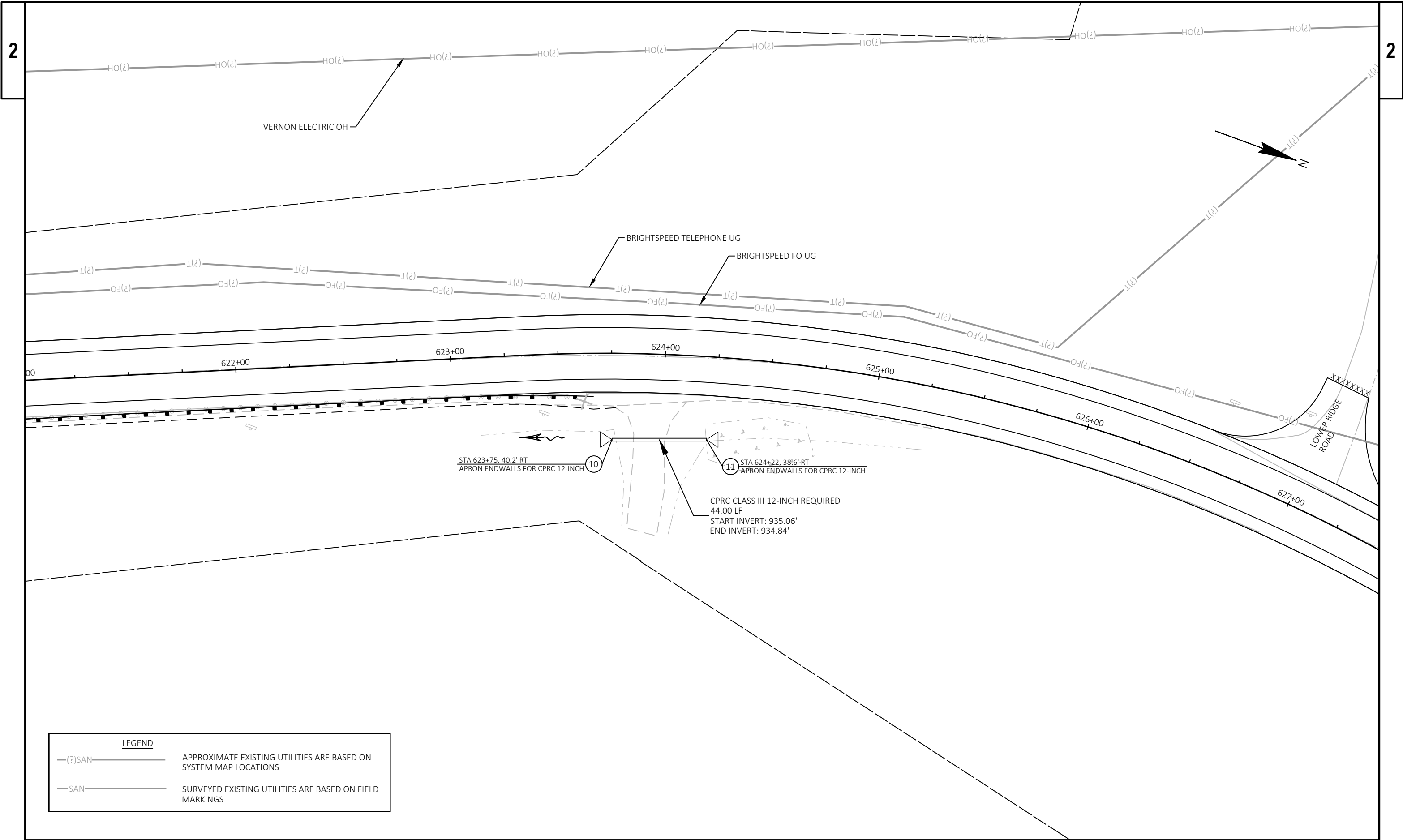
—(?)SAN— APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS

—SAN— SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS

**LEGEND**

|  |                                                                                              |  |                           |
|--|----------------------------------------------------------------------------------------------|--|---------------------------|
|  | SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT CLASS II TYPE B |  | TEMPORARY DITCH CHECK     |
|  | SILT FENCE                                                                                   |  | SURFACE WATER FLOW        |
|  | RIP RAP OR STONE DITCH CHECK                                                                 |  | MILL AND RELAY            |
|  | SLOPE INTERCEPT                                                                              |  | FULL DEPTH PAVED SHOULDER |
|  | INLET PROTECTION                                                                             |  | AGGREGATE SHOULDER        |
|  | REMOVING ASPHALTIC SURFACE BUTT JOINTS AND OVERLAY                                           |  | SAWING ASPHALT            |





LEGEND

(?)SAN

APPROXIMATE EXISTING UTILITIES ARE BASED ON SYSTEM MAP LOCATIONS

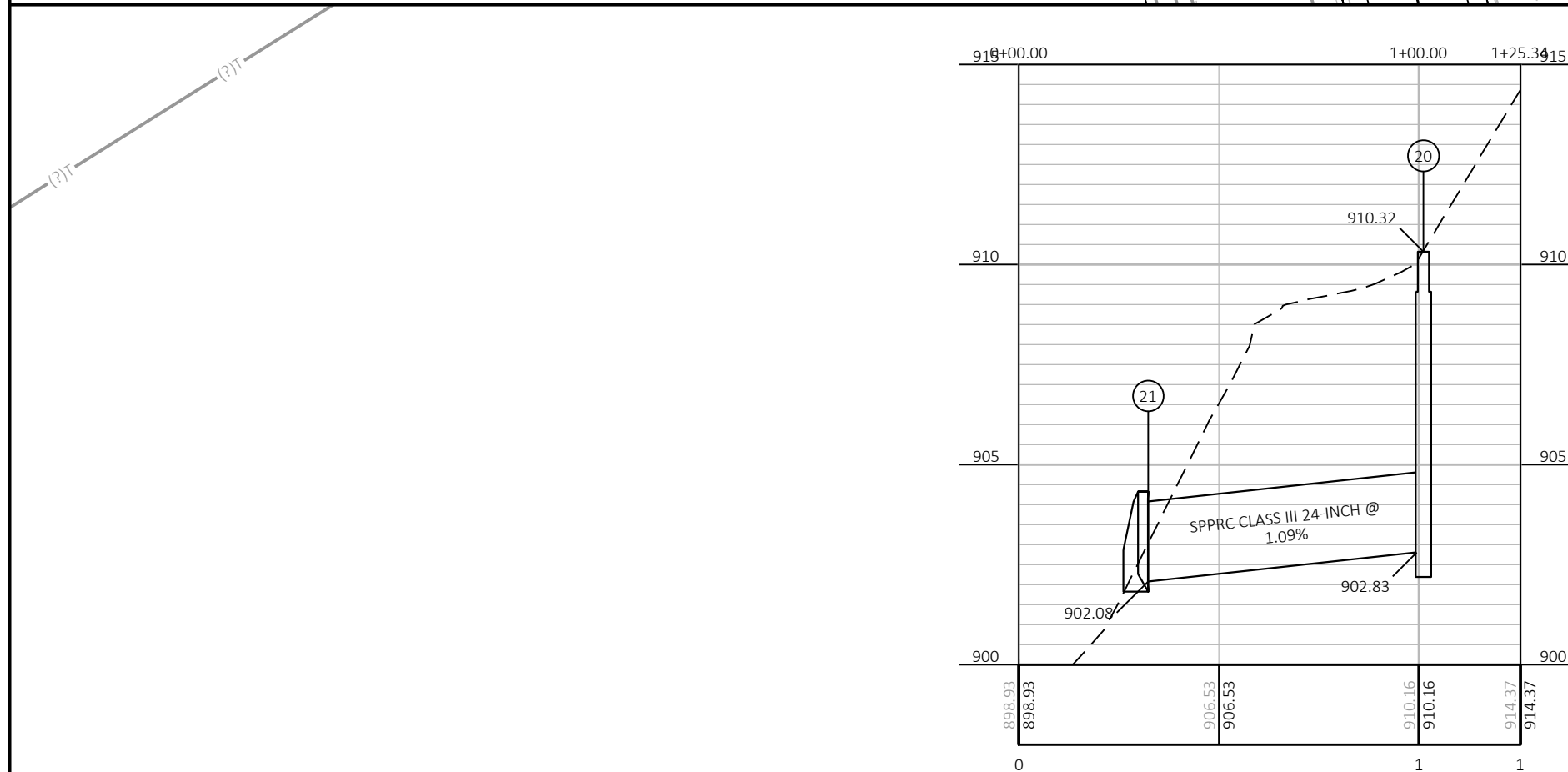
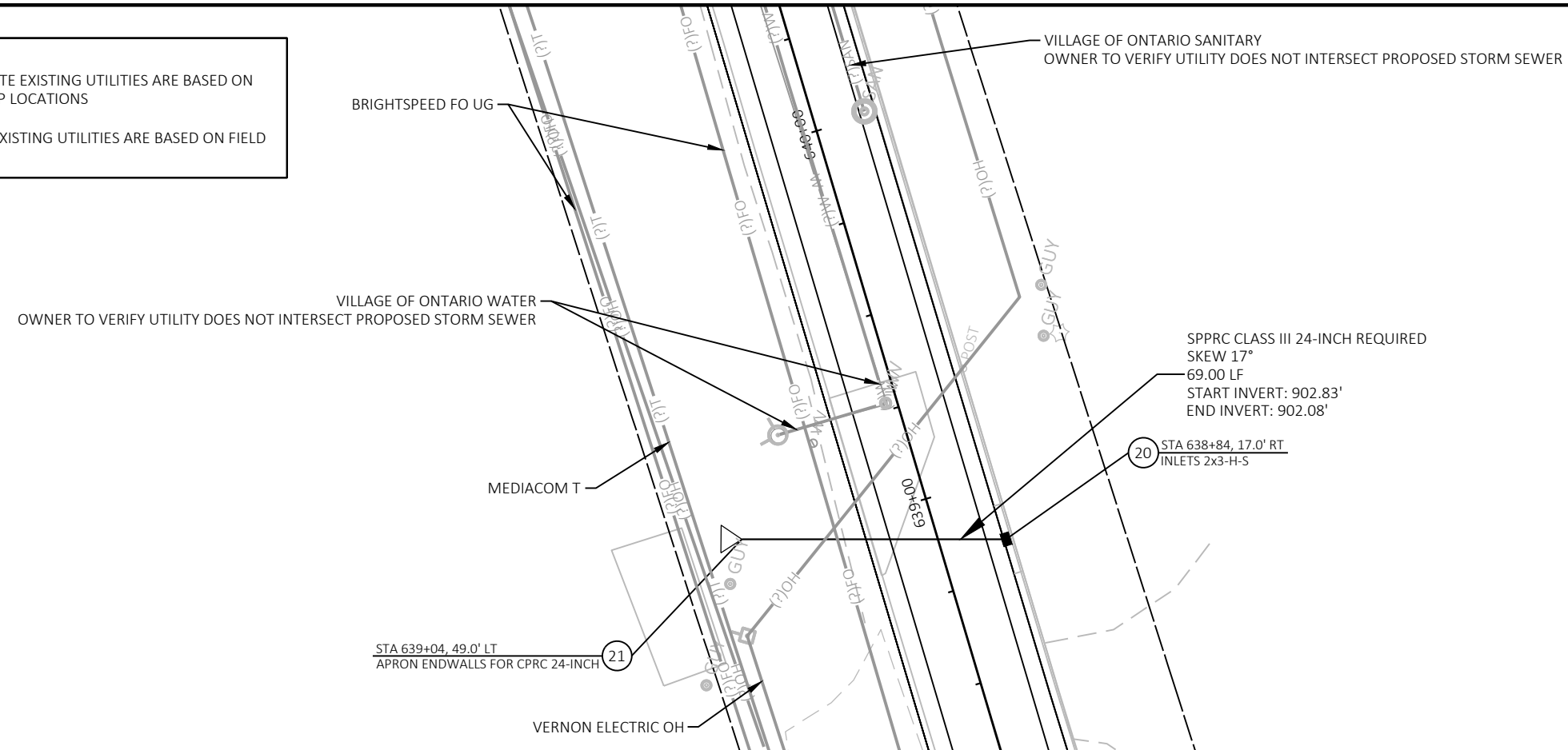
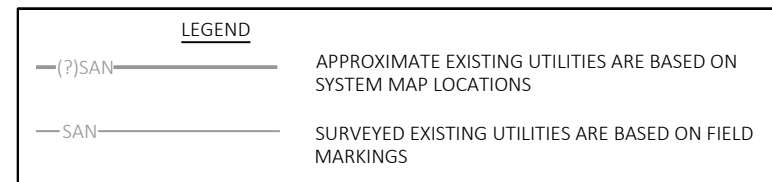
SAN

SURVEYED EXISTING UTILITIES ARE BASED ON FIELD MARKINGS

|                                                                                                                         |              |                                 |                          |                                 |                         |                       |
|-------------------------------------------------------------------------------------------------------------------------|--------------|---------------------------------|--------------------------|---------------------------------|-------------------------|-----------------------|
| PROJECT NO: 5110-06-70                                                                                                  | HWY: STH 131 | COUNTY: VERNON                  | CONSTRUCTION DETAILS     | CONSTRUCTION DETAILS - CULVERTS | SHEET 112               | E                     |
| FILE NAME : K:\185450_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETSPLAN\021020-CD.DWG<br>LAYOUT NAME - 021021-cd |              | PLOT DATE : 11/18/2025 10:50 PM | PLOT BY : WESTERN, JACOB | PLOT NAME :                     | PLOT SCALE : 1 IN=40 FT | WISDOT/CADDs SHEET 44 |

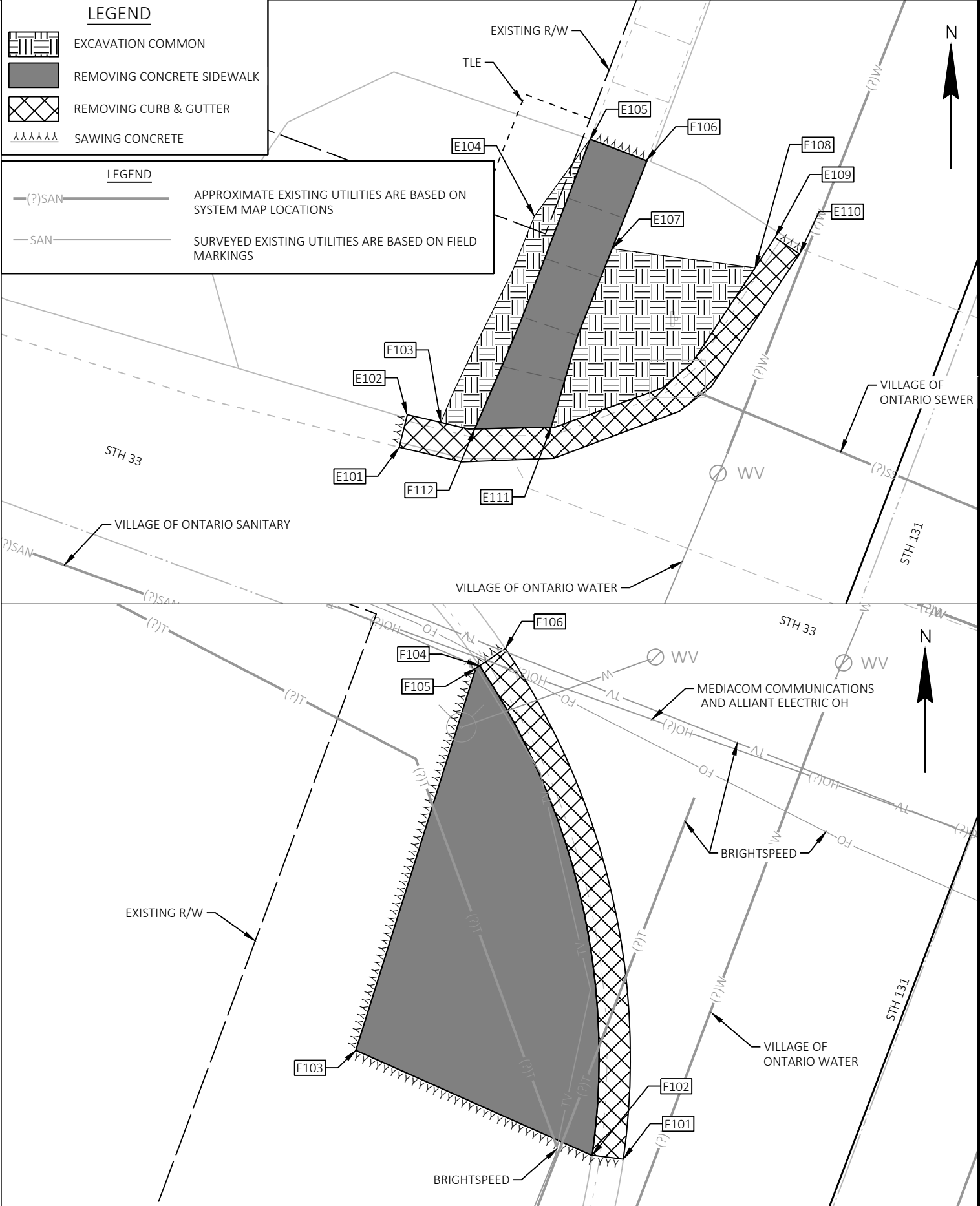
2

2



| STATION & OFFSET TABLE |           |          |            |            |
|------------------------|-----------|----------|------------|------------|
| POINT                  | STATION   | OFFSET   | Y COORDS   | X COORDS   |
| E101                   | 659+35.87 | 38.13 LT | 209666.714 | 780612.301 |
| E102                   | 659+38.55 | 38.48 LT | 209669.343 | 780612.927 |
| E103                   | 659+38.93 | 35.70 LT | 209668.702 | 780615.659 |
| E104                   | 659+57.14 | 34.61 LT | 209685.312 | 780623.192 |
| E105                   | 659+64.42 | 32.63 LT | 209691.404 | 780627.643 |
| E106                   | 659+64.55 | 27.81 LT | 209689.801 | 780632.189 |
| E107                   | 659+56.98 | 27.83 LT | 209682.738 | 780629.470 |
| E108                   | 659+59.63 | 16.53 LT | 209681.172 | 780640.966 |
| E109                   | 659+62.47 | 15.90 LT | 209683.600 | 780642.573 |
| E110                   | 659+61.95 | 13.58 LT | 209682.281 | 780644.552 |
| E111                   | 659+41.86 | 27.27 LT | 209668.418 | 780624.579 |
| E112                   | 659+39.43 | 32.96 LT | 209668.186 | 780618.393 |

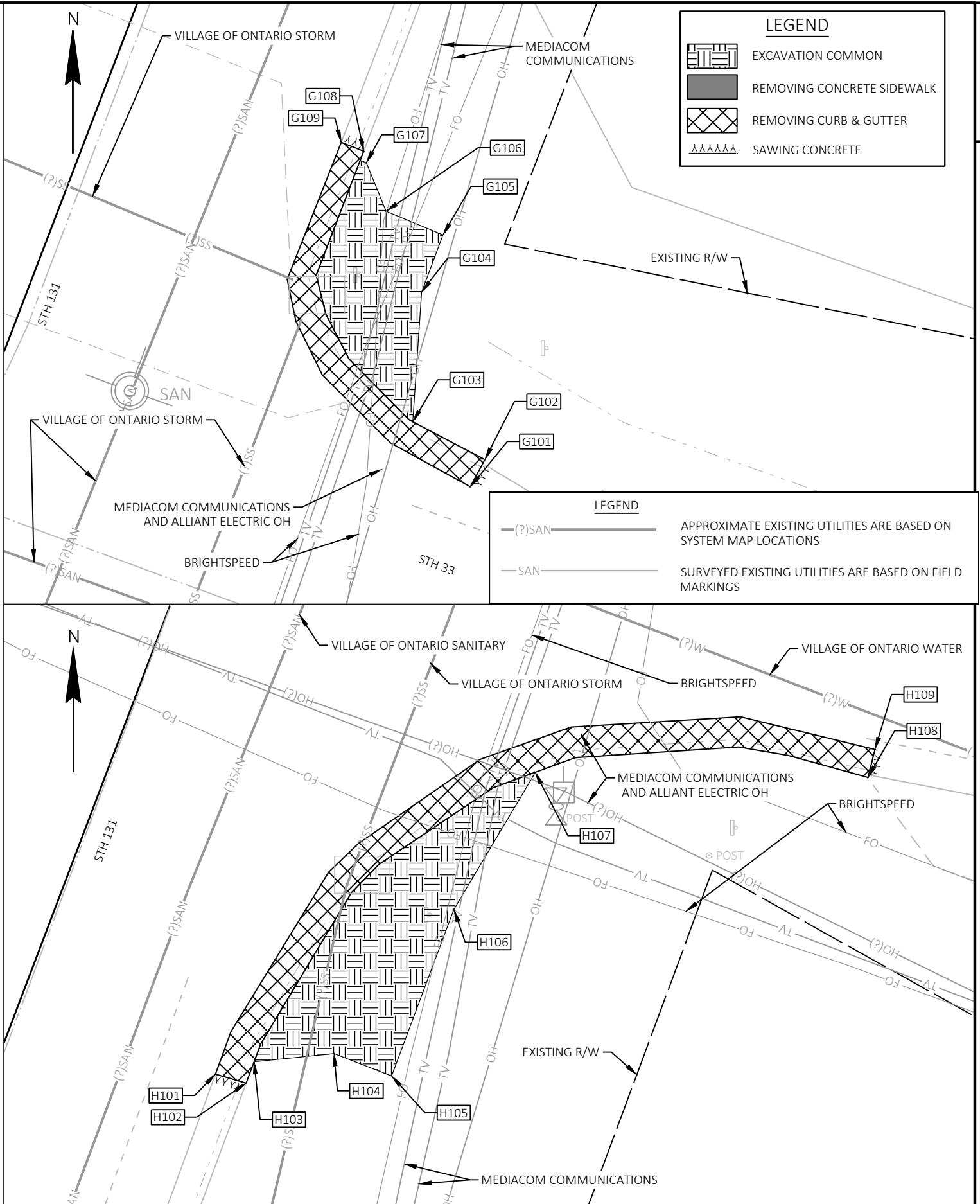
| STATION & OFFSET TABLE |           |          |            |            |
|------------------------|-----------|----------|------------|------------|
| POINT                  | STATION   | OFFSET   | Y COORDS   | X COORDS   |
| F101                   | 658+56.42 | 16.89 LT | 209584.816 | 780603.855 |
| F102                   | 658+55.82 | 19.34 LT | 209585.133 | 780601.350 |
| F103                   | 658+56.96 | 40.14 LT | 209593.584 | 780582.310 |
| F104                   | 658+89.46 | 41.83 LT | 209624.562 | 780592.279 |
| F105                   | 658+89.16 | 42.04 LT | 209624.360 | 780591.977 |
| F106                   | 658+91.49 | 40.39 LT | 209625.947 | 780594.348 |





| STATION & OFFSET TABLE |           |          |            |            |
|------------------------|-----------|----------|------------|------------|
| POINT                  | STATION   | OFFSET   | Y COORDS   | X COORDS   |
| G101                   | 659+37.01 | 39.23 RT | 209640.101 | 780684.946 |
| G102                   | 659+39.49 | 39.55 RT | 209642.305 | 780686.126 |
| G103                   | 659+40.26 | 32.99 RT | 209645.374 | 780680.281 |
| G104                   | 659+50.32 | 29.90 RT | 209655.872 | 780680.998 |
| G105                   | 659+55.27 | 29.87 RT | 209660.507 | 780682.737 |
| G106                   | 659+55.42 | 24.87 RT | 209662.434 | 780678.120 |
| G107                   | 659+58.51 | 21.97 RT | 209666.354 | 780676.517 |
| G108                   | 659+59.32 | 21.44 RT | 209667.297 | 780676.308 |
| G109                   | 659+59.34 | 19.48 RT | 209668.017 | 780674.485 |

| STATION & OFFSET TABLE |           |          |            |            |
|------------------------|-----------|----------|------------|------------|
| POINT                  | STATION   | OFFSET   | Y COORDS   | X COORDS   |
| H101                   | 658+60.21 | 16.94 RT | 209576.343 | 780636.820 |
| H102                   | 658+60.42 | 19.52 RT | 209575.619 | 780639.304 |
| H103                   | 658+62.27 | 19.50 RT | 209577.355 | 780639.951 |
| H104                   | 658+65.18 | 25.33 RT | 209578.010 | 780646.436 |
| H105                   | 658+65.15 | 30.33 RT | 209576.204 | 780651.098 |
| H106                   | 658+79.56 | 30.27 RT | 209589.691 | 780656.160 |
| H107                   | 658+92.29 | 32.48 RT | 209600.807 | 780662.749 |
| H108                   | 659+01.49 | 57.86 RT | 209600.389 | 780689.738 |
| H109                   | 659+03.80 | 57.57 RT | 209602.649 | 780690.291 |

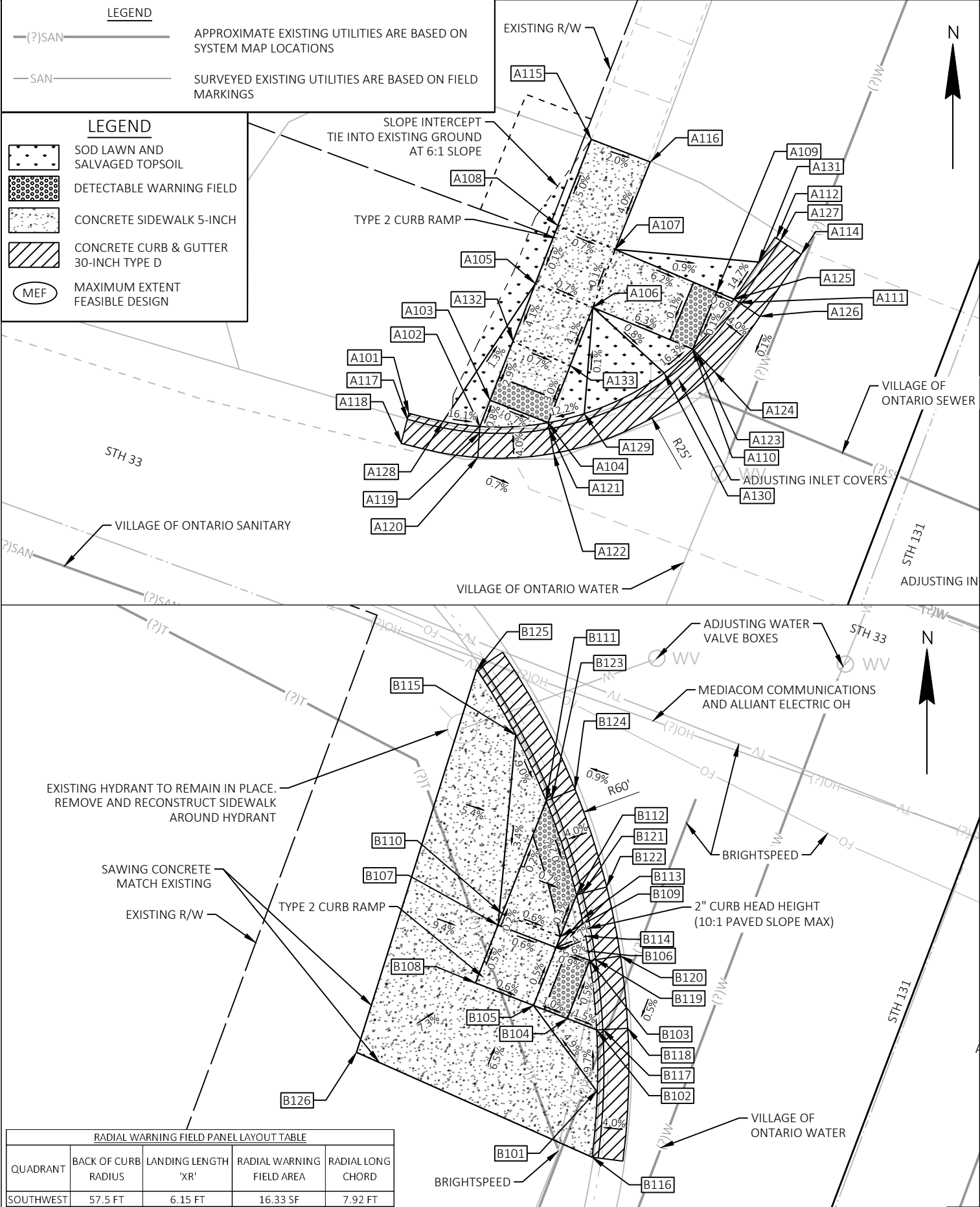


| STATION & OFFSET TABLE |           |          |            |            |           |
|------------------------|-----------|----------|------------|------------|-----------|
| POINT                  | STATION   | OFFSET   | Y COORDS   | X COORDS   | ELEVATION |
| A101                   | 659+38.74 | 38.47 LT | 209669.517 | 780613.009 | 870.64    |
| A102                   | 659+39.79 | 32.75 LT | 209668.446 | 780618.727 | 870.03    |
| A103                   | 659+42.05 | 32.74 LT | 209670.552 | 780619.543 | 870.05    |
| A104                   | 659+42.04 | 27.74 LT | 209668.758 | 780624.210 | 869.98    |
| A105                   | 659+52.12 | 32.70 LT | 209679.944 | 780623.183 | 870.35    |
| A106                   | 659+51.98 | 27.70 LT | 209678.022 | 780627.800 | 870.27    |
| A107                   | 659+56.97 | 27.68 LT | 209682.682 | 780629.605 | 870.35    |
| A108                   | 659+57.12 | 32.68 LT | 209684.608 | 780624.990 | 870.42    |
| A109                   | 659+56.71 | 18.84 LT | 209679.277 | 780637.762 | 869.82    |
| A110                   | 659+51.73 | 18.99 LT | 209674.674 | 780635.841 | 869.78    |
| A111                   | 659+56.56 | 16.85 LT | 209678.418 | 780639.573 | 869.79    |
| A112                   | 659+62.47 | 15.90 LT | 209683.600 | 780642.573 | 869.83    |
| A114                   | 659+61.95 | 13.58 LT | 209682.281 | 780644.552 | 869.91    |
| A115                   | 659+64.53 | 32.63 LT | 209691.513 | 780627.684 | 870.74    |
| A116                   | 659+64.55 | 27.57 LT | 209689.714 | 780632.421 | 870.63    |
| A117                   | 659+38.25 | 38.41 LT | 209669.032 | 780612.887 | 870.14    |

| STATION & OFFSET TABLE |           |          |            |            |           |
|------------------------|-----------|----------|------------|------------|-----------|
| POINT                  | STATION   | OFFSET   | Y COORDS   | X COORDS   | ELEVATION |
| A118                   | 659+36.26 | 38.15 LT | 209667.089 | 780612.415 | 870.22    |
| A119                   | 659+39.31 | 32.60 LT | 209667.947 | 780618.693 | 870.03    |
| A120                   | 659+37.40 | 32.01 LT | 209665.952 | 780618.558 | 870.11    |
| A121                   | 659+41.60 | 27.47 LT | 209668.255 | 780624.300 | 869.93    |
| A122                   | 659+39.89 | 26.44 LT | 209666.286 | 780624.653 | 870.01    |
| A123                   | 659+51.51 | 18.54 LT | 209674.313 | 780636.187 | 869.78    |
| A124                   | 659+50.66 | 16.73 LT | 209672.872 | 780637.573 | 869.86    |
| A125                   | 659+56.67 | 17.33 LT | 209678.695 | 780639.157 | 869.79    |
| A126                   | 659+56.12 | 14.90 LT | 209677.309 | 780641.237 | 869.87    |
| A127                   | 659+62.39 | 15.53 LT | 209683.390 | 780642.887 | 869.83    |
| A128                   | 659+39.10 | 35.66 LT | 209668.848 | 780615.756 | 870.51    |
| A129                   | 659+43.75 | 25.27 LT | 209669.470 | 780627.121 | 870.34    |
| A130                   | 659+49.11 | 20.44 LT | 209672.745 | 780633.546 | 870.26    |
| A131                   | 659+59.60 | 16.67 LT | 209681.673 | 780641.142 | 0.00      |
| A132                   | 659+47.12 | 32.68 LT | 209675.265 | 780621.413 | 870.30    |
| A133                   | 659+46.98 | 27.72 LT | 209673.358 | 780625.994 | 870.22    |

| STATION & OFFSET TABLE |           |          |            |            |           |
|------------------------|-----------|----------|------------|------------|-----------|
| POINT                  | STATION   | OFFSET   | Y COORDS   | X COORDS   | ELEVATION |
| B101                   | 658+60.99 | 20.97 LT | 209590.537 | 780601.661 | 870.45    |
| B102                   | 658+65.50 | 22.73 LT | 209595.377 | 780601.619 | 869.97    |
| B103                   | 658+70.51 | 25.24 LT | 209600.959 | 780601.052 | 870.00    |
| B104                   | 658+65.51 | 25.27 LT | 209596.297 | 780599.246 | 870.01    |
| B105                   | 658+65.53 | 28.18 LT | 209597.346 | 780596.538 | 870.16    |
| B106                   | 658+70.53 | 28.15 LT | 209602.008 | 780598.345 | 870.08    |
| B107                   | 658+70.56 | 33.15 LT | 209603.815 | 780593.682 | 870.16    |
| B108                   | 658+65.56 | 33.18 LT | 209599.152 | 780591.876 | 870.23    |
| B109                   | 658+71.49 | 28.14 LT | 209602.898 | 780598.690 | 870.01    |
| B110                   | 658+71.52 | 33.14 LT | 209604.705 | 780594.027 | 870.09    |
| B111                   | 658+81.28 | 33.08 LT | 209613.803 | 780597.553 | 870.05    |
| B112                   | 658+75.09 | 28.12 LT | 209606.263 | 780599.994 | 870.02    |
| B113                   | 658+73.43 | 27.00 LT | 209604.314 | 780600.443 | 870.18    |

| STATION & OFFSET TABLE |           |          |            |            |           |
|------------------------|-----------|----------|------------|------------|-----------|
| POINT                  | STATION   | OFFSET   | Y COORDS   | X COORDS   | ELEVATION |
| B114                   | 658+72.24 | 26.25 LT | 209602.931 | 780600.719 | 870.17    |
| B115                   | 658+84.79 | 36.61 LT | 209619.108 | 780595.102 | 0.00      |
| B116                   | 658+55.80 | 19.45 LT | 209585.147 | 780601.242 | 870.43    |
| B117                   | 658+65.70 | 22.27 LT | 209595.403 | 780602.118 | 869.97    |
| B118                   | 658+66.50 | 20.44 LT | 209595.508 | 780604.115 | 870.05    |
| B119                   | 658+70.76 | 24.81 LT | 209601.034 | 780601.547 | 870.00    |
| B120                   | 658+71.74 | 23.07 LT | 209601.330 | 780603.520 | 870.08    |
| B121                   | 658+75.38 | 27.71 LT | 209606.384 | 780600.479 | 870.02    |
| B122                   | 658+76.52 | 26.08 LT | 209606.867 | 780602.404 | 870.10    |
| B123                   | 658+81.61 | 32.71 LT | 209613.990 | 780598.017 | 870.05    |
| B124                   | 658+82.97 | 31.24 LT | 209614.735 | 780599.873 | 870.13    |
| B125                   | 658+89.16 | 42.04 LT | 209624.359 | 780591.975 | 870.60    |
| B126                   | 658+56.96 | 40.14 LT | 209593.584 | 780582.310 | 870.82    |



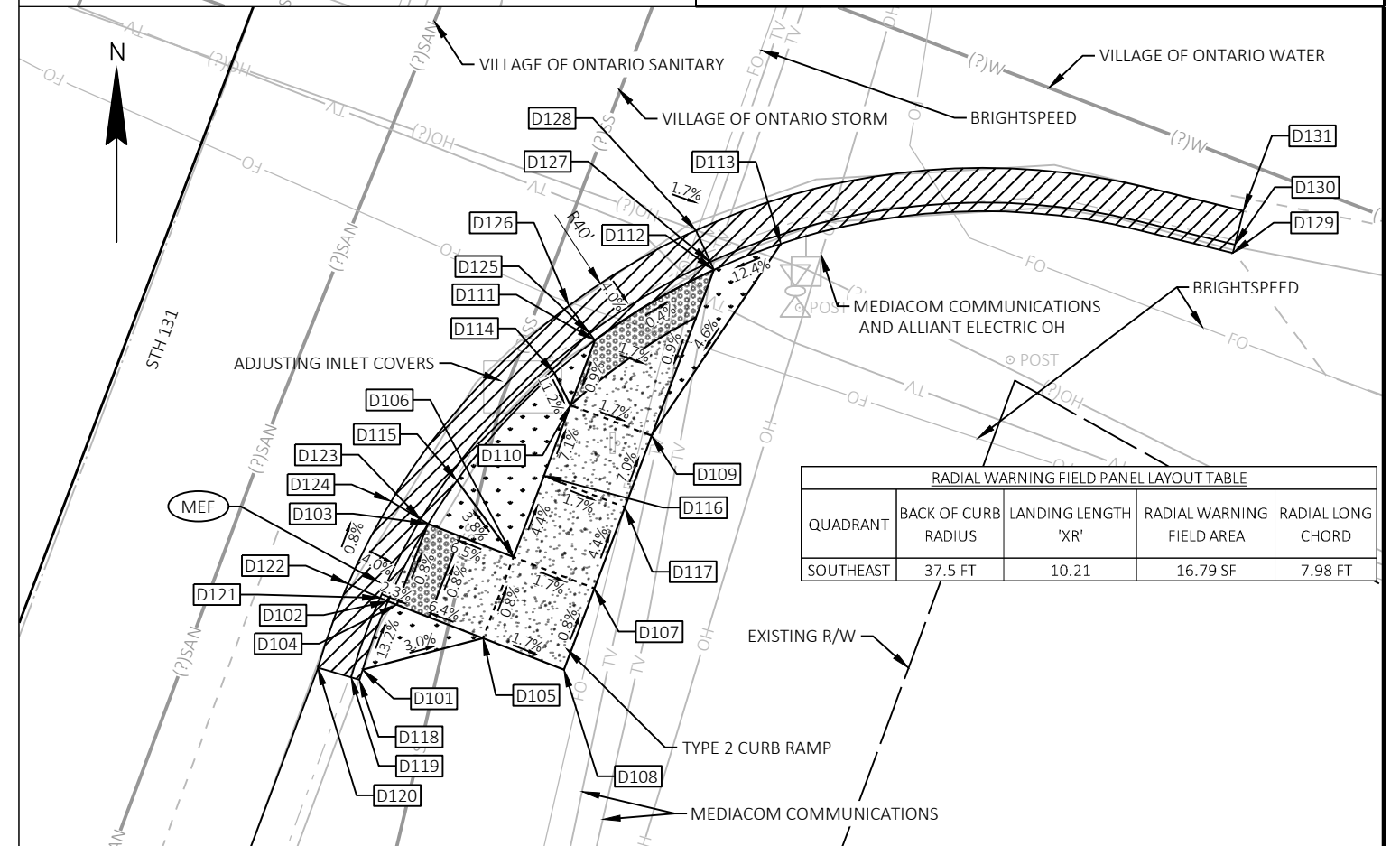
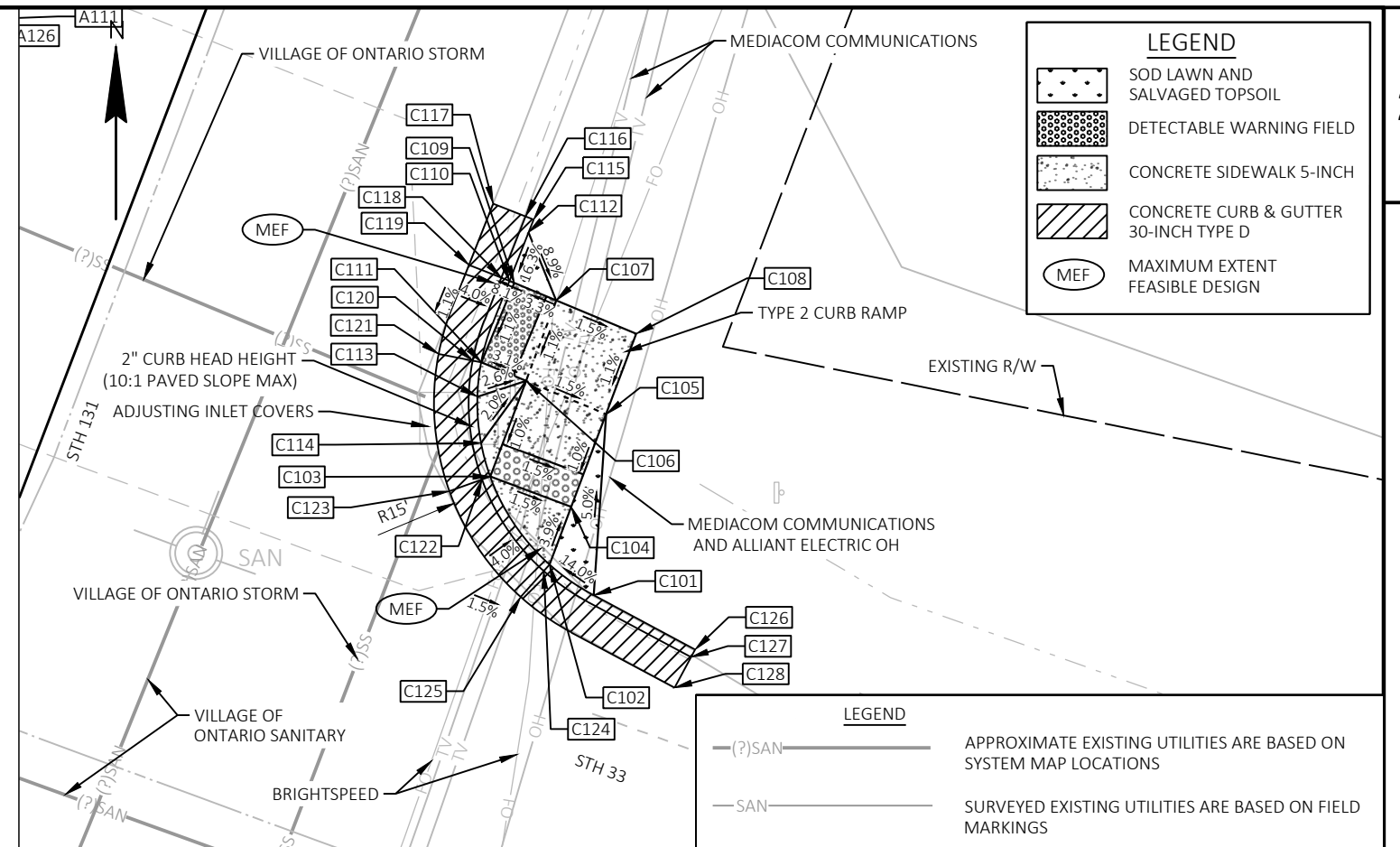


| STATION & OFFSET TABLE |           |          |            |            |           |
|------------------------|-----------|----------|------------|------------|-----------|
| POINT                  | STATION   | OFFSET   | Y COORDS   | X COORDS   | ELEVATION |
| C101                   | 659+40.32 | 32.97 RT | 209645.434 | 780680.285 | 870.28    |
| C102                   | 659+41.06 | 29.97 RT | 209647.195 | 780677.741 | 869.76    |
| C103                   | 659+44.58 | 24.94 RT | 209652.282 | 780674.310 | 869.69    |
| C104                   | 659+44.61 | 29.94 RT | 209650.525 | 780678.991 | 869.71    |
| C105                   | 659+50.32 | 29.90 RT | 209655.872 | 780680.998 | 869.87    |
| C106                   | 659+50.47 | 24.90 RT | 209657.795 | 780676.379 | 869.79    |
| C107                   | 659+55.42 | 24.87 RT | 209662.434 | 780678.120 | 869.87    |
| C108                   | 659+55.27 | 29.87 RT | 209660.507 | 780682.737 | 869.94    |
| C109                   | 659+55.50 | 22.26 RT | 209663.440 | 780675.708 | 869.70    |
| C110                   | 659+55.51 | 21.94 RT | 209663.563 | 780675.415 | 869.69    |
| C111                   | 659+50.55 | 22.10 RT | 209658.871 | 780673.796 | 869.60    |
| C112                   | 659+58.51 | 21.97 RT | 209666.354 | 780676.517 | 870.18    |
| C113                   | 659+48.62 | 22.61 RT | 209656.885 | 780673.577 | 870.16    |
| C114                   | 659+46.19 | 23.76 RT | 209654.210 | 780673.786 | 870.17    |

| STATION & OFFSET TABLE |           |          |            |            |           |
|------------------------|-----------|----------|------------|------------|-----------|
| POINT                  | STATION   | OFFSET   | Y COORDS   | X COORDS   | ELEVATION |
| C115                   | 659+59.31 | 21.98 RT | 209667.099 | 780676.811 | 870.21    |
| C116                   | 659+59.32 | 21.48 RT | 209667.283 | 780676.346 | 869.71    |
| C117                   | 659+59.34 | 19.48 RT | 209668.017 | 780674.485 | 869.79    |
| C118                   | 659+55.51 | 21.44 RT | 209663.746 | 780674.950 | 869.69    |
| C119                   | 659+55.53 | 19.44 RT | 209664.480 | 780673.090 | 869.77    |
| C120                   | 659+50.46 | 21.61 RT | 209658.965 | 780673.305 | 869.67    |
| C121                   | 659+50.11 | 19.64 RT | 209659.342 | 780671.341 | 869.75    |
| C122                   | 659+44.25 | 24.56 RT | 209652.113 | 780673.839 | 869.69    |
| C123                   | 659+42.95 | 23.05 RT | 209651.436 | 780671.958 | 869.77    |
| C124                   | 659+40.59 | 29.79 RT | 209646.822 | 780677.408 | 869.76    |
| C125                   | 659+38.72 | 29.08 RT | 209645.331 | 780676.075 | 869.84    |
| C126                   | 659+39.49 | 39.55 RT | 209642.305 | 780686.126 | 870.30    |
| C127                   | 659+38.99 | 39.48 RT | 209641.864 | 780685.890 | 869.80    |
| C128                   | 659+37.01 | 39.23 RT | 209640.101 | 780684.946 | 869.88    |

| STATION & OFFSET TABLE |           |          |            |            |           |
|------------------------|-----------|----------|------------|------------|-----------|
| POINT                  | STATION   | OFFSET   | Y COORDS   | X COORDS   | ELEVATION |
| D101                   | 658+62.22 | 19.42 RT | 209576.201 | 780639.489 | 0.00      |
| D102                   | 658+65.22 | 19.44 RT | 209580.140 | 780640.941 | 869.94    |
| D103                   | 658+70.22 | 20.02 RT | 209584.604 | 780643.259 | 869.88    |
| D104                   | 658+65.22 | 19.99 RT | 209579.942 | 780641.452 | 869.94    |
| D105                   | 658+65.18 | 25.33 RT | 209578.010 | 780646.436 | 870.11    |
| D106                   | 658+70.18 | 25.31 RT | 209582.692 | 780648.193 | 870.03    |
| D107                   | 658+70.15 | 30.31 RT | 209580.885 | 780652.855 | 870.11    |
| D108                   | 658+65.15 | 30.33 RT | 209576.204 | 780651.098 | 870.18    |
| D109                   | 658+79.56 | 30.27 RT | 209589.691 | 780656.160 | 869.86    |
| D110                   | 658+79.54 | 25.27 RT | 209591.448 | 780651.479 | 869.78    |
| D111                   | 658+83.53 | 25.26 RT | 209595.191 | 780652.884 | 869.73    |
| D112                   | 658+89.77 | 30.23 RT | 209599.254 | 780659.749 | 869.71    |
| D113                   | 658+91.82 | 32.42 RT | 209600.752 | 780663.612 | 0.00      |
| D114                   | 658+80.94 | 23.75 RT | 209593.302 | 780650.553 | 869.93    |
| D115                   | 658+73.14 | 20.68 RT | 209587.102 | 780644.918 | 870.02    |
| D116                   | 658+75.18 | 25.29 RT | 209587.373 | 780649.950 | 869.85    |

| STATION & OFFSET TABLE |           |          |            |            |           |
|------------------------|-----------|----------|------------|------------|-----------|
| POINT                  | STATION   | OFFSET   | Y COORDS   | X COORDS   | ELEVATION |
| D117                   | 658+75.15 | 30.29 RT | 209585.567 | 780654.612 | 869.93    |
| D118                   | 658+60.42 | 19.52 RT | 209575.619 | 780639.304 | 870.49    |
| D119                   | 658+60.38 | 19.02 RT | 209575.759 | 780638.824 | 869.99    |
| D120                   | 658+60.22 | 17.02 RT | 209576.318 | 780636.904 | 870.07    |
| D121                   | 658+65.25 | 18.94 RT | 209580.340 | 780640.483 | 869.94    |
| D122                   | 658+65.34 | 16.94 RT | 209581.140 | 780638.650 | 870.02    |
| D123                   | 658+70.31 | 19.53 RT | 209584.868 | 780642.834 | 869.88    |
| D124                   | 658+70.68 | 17.57 RT | 209585.903 | 780641.130 | 869.96    |
| D125                   | 658+83.80 | 24.84 RT | 209595.591 | 780652.585 | 869.73    |
| D126                   | 658+84.88 | 23.15 RT | 209597.194 | 780651.389 | 869.81    |
| D127                   | 658+90.12 | 29.88 RT | 209599.709 | 780659.542 | 869.71    |
| D128                   | 658+91.53 | 28.45 RT | 209601.529 | 780658.712 | 869.79    |
| D129                   | 659+01.32 | 57.88 RT | 209600.221 | 780689.697 | 870.34    |
| D130                   | 659+01.81 | 57.82 RT | 209600.707 | 780689.816 | 869.84    |
| D131                   | 659+03.80 | 57.57 RT | 209602.649 | 780690.291 | 869.92    |





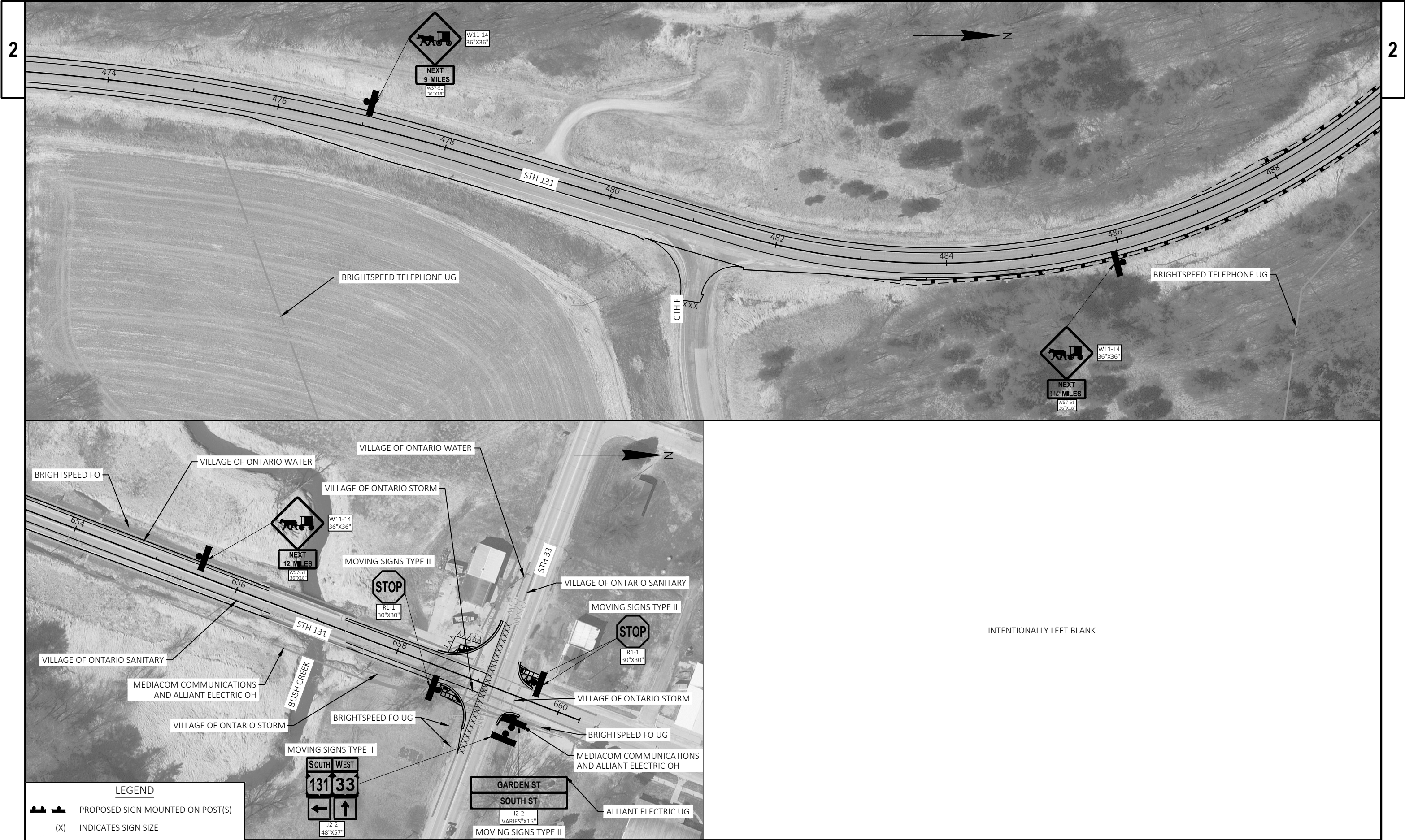
LEGEND

 PROPOSED SIGN MOUNTED ON POST(S)

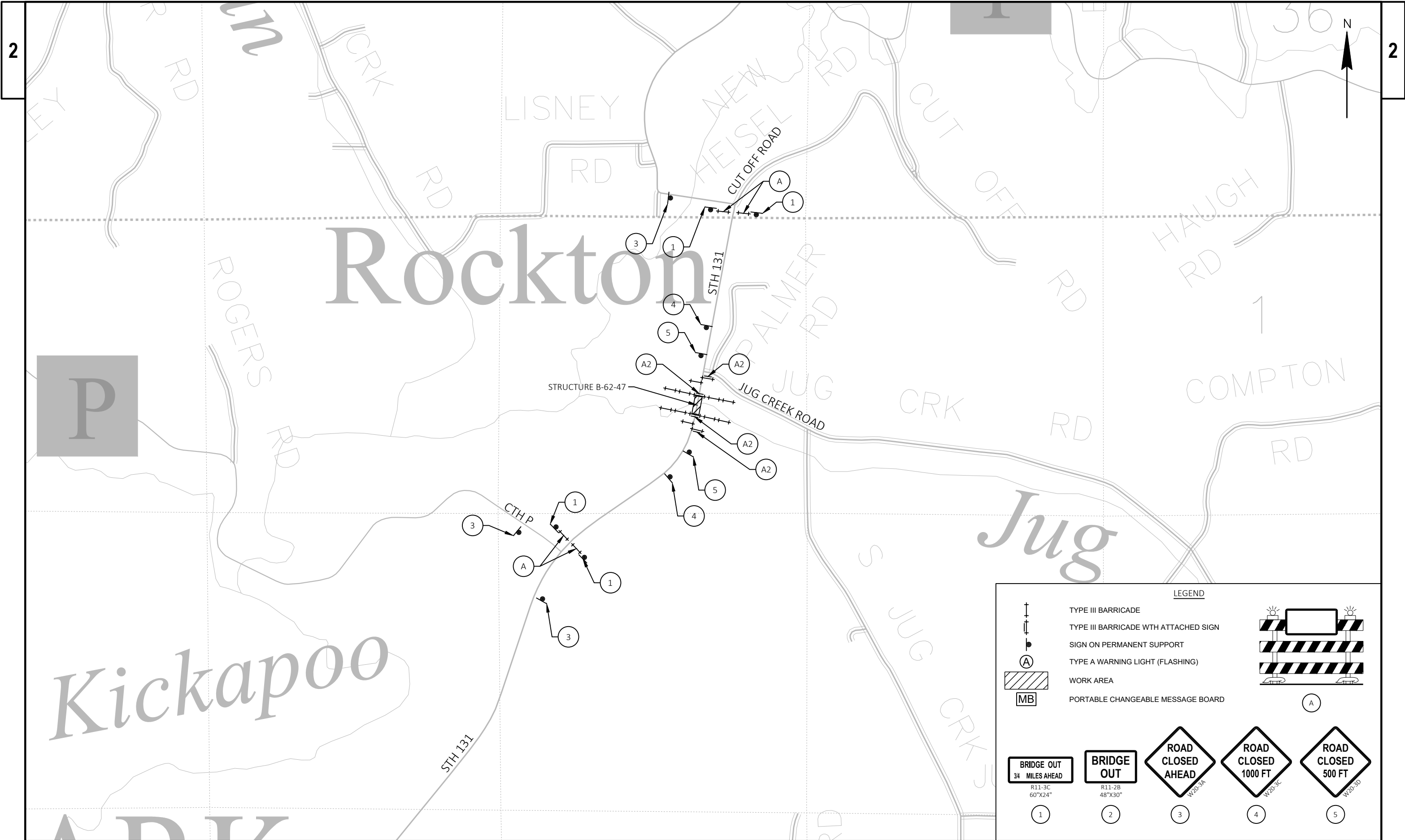
(X)

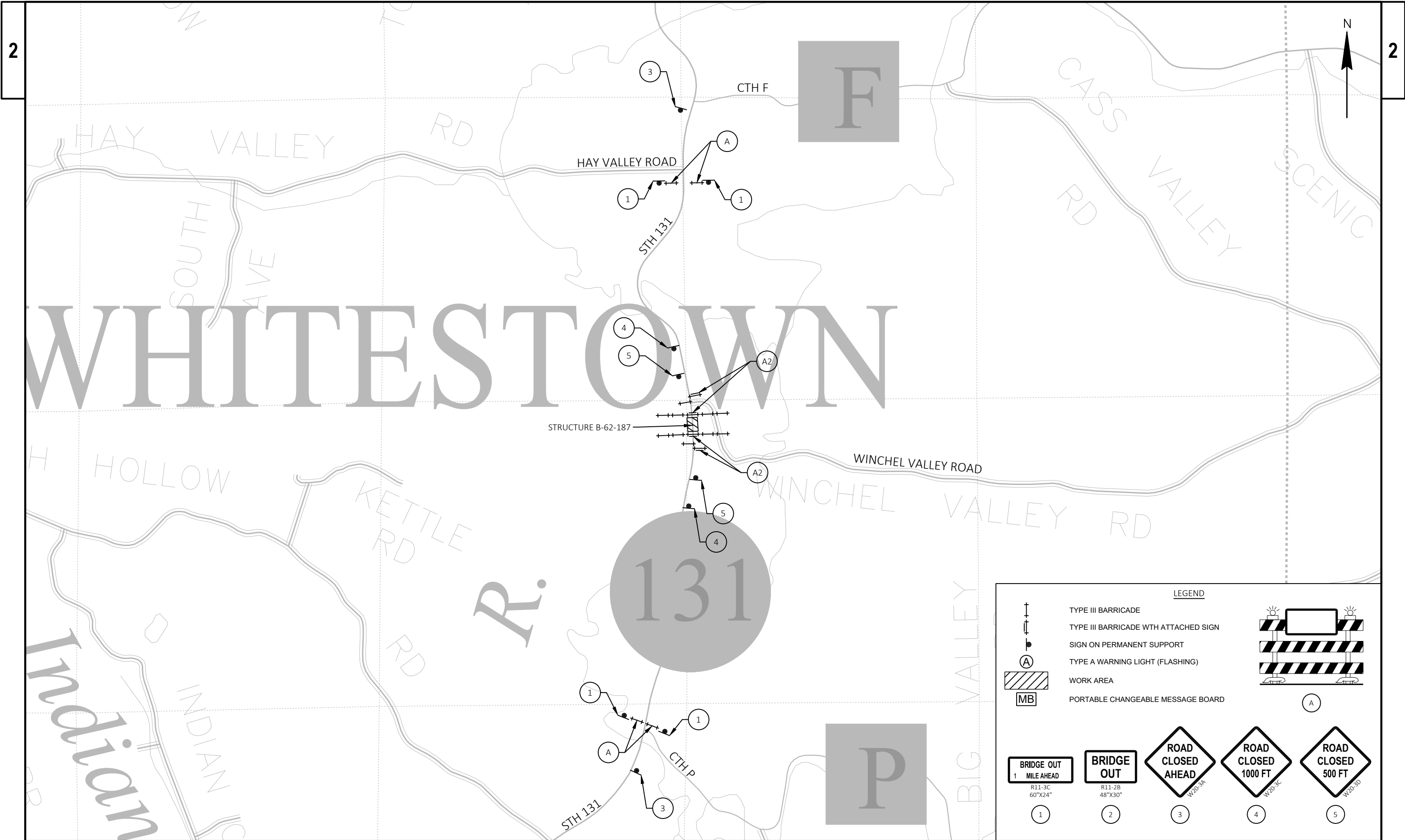
 INDICATES SIGN SIZE





| TRAFFIC STAGING OVERVIEW |                                                                             |                                                                     |                                                                                                                                   |
|--------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| STAGE                    | CLOSURE                                                                     | STAGING                                                             | WORK                                                                                                                              |
| 1                        | ROAD CLOSED TO THRU TRAFFIC FROM STH 131 @ STH 82 TO STH 131 @ CUT OFF ROAD | NB & SB STH131 TRAFFIC TO FOLLOW THE DETOUR ALONG STH 82 AND STH 33 | JUG CREEK BRIDGE (B-62-47) CONCRETE OVERLAY, STH 131 MILL AND OVERLAY, GUARDRAIL REMOVAL AND REPLACEMENT & SHOULDER CONSTRUCTION. |
| 2                        | ROAD CLOSED TO THRU TRAFFIC FROM STH 131 @ CUT OFF ROAD TO STH 131 @ STH 33 | NB & SB STH131 TRAFFIC TO FOLLOW THE DETOUR ALONG STH 82 AND STH 33 | KICKAPOO RIVER BRIDGE (B-62-187) PAINTING, STH 131 MILL AND OVERLAY, GUARDRAIL REMOVAL AND REPLACEMENT & SHOULDER CONSTRUCTION.   |









NOTES:

1. SIDEWALKS AND CROSSWALKS WILL REMAIN OPEN AT ALL TIMES DURING THIS STAGE, WITH USE OF TEMPORARY SURFACES AND CURB RAMPS. FLAGGERS SHALL BE USED TO ASSIST PEDESTRIANS AT CROSSINGS PER FDM 11-50-31.4.
2. STAGING FOR CURB RAMPS ARE INDEPENDENT OF BRIDGE STAGING.

| LEGEND |                                                    |  |                                                                   |
|--------|----------------------------------------------------|--|-------------------------------------------------------------------|
|        | TYPE II / III BARRICADE                            |  | TYPE C WARNING LIGHT (STEADY BURN)                                |
|        | TYPE II / III BARRICADE WITH ATTACHED SIGN         |  | CONCRETE BARRIER TEMPORARY PRECAST                                |
|        | TRAFFIC CONTROL DRUM                               |  | WORK AREA                                                         |
|        | TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT |  | TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)              |
|        | FLASHING ARROW BOARD                               |  | TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)              |
|        | SIGN ON PERMANENT SUPPORT                          |  | FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF |
|        | SIGN ON TEMPORARY SUPPORT                          |  | DIRECTION OF TRAFFIC                                              |
|        | DELINEATOR FLEXIBLE/TUBULAR MARKER                 |  | PORTABLE CHANGEABLE MESSAGE BOARD                                 |
|        | TRAFFIC CONTROL 42-INCH CONE                       |  |                                                                   |
|        | TYPE A WARNING LIGHT (FLASHING)                    |  |                                                                   |
|        | TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)     |  |                                                                   |



2

2

$$\begin{array}{c} \text{I} / \dagger \\ \text{II} / \dagger \end{array}$$

TYPE II / III BARRICADE WTH ATTACHED SIGN

TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

DELINEATOR FLEXIBLE/TUBULAR MARKER

TRAFFIC CONTROL 42-INCH CONE

TYPE A WARNING LIGHT (FLASHING)

TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)

©

CONCRETE BARRIER TEMPORARY PRECAST

TEMPORARY RAISED PAVEMENT MARKER

(ONE WAY REFLECTOR)

(TWO WAY REFLECTOR)

FLAGGER, EQUIPPED WITH STOP/SLOW

PADDLE FASTENED ON SUPPORT STAFF

DIRECTION OF TRAFFIC

## PORTABLE CHANGEABLE MESSAGE BOARD

MB

M4-60R  
30"X24"



M4-60L  
30"X24"

TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH

M4-60R  
30"X24"

TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH

STH 33

TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH  
TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH

NOTES:

1. SIDEWALKS AND CROSSWALKS WILL REMAIN OPEN AT ALL TIMES DURING THIS STAGE, WITH USE OF TEMPORARY SURFACES AND CURB RAMPS. FLAGGERS SHALL BE USED TO ASSIST PEDESTRIANS AT CROSSINGS PER FDM 11-50-31.4.
2. STAGING FOR CURB RAMPS ARE INDEPENDENT OF BRIDGE STAGING.

|             |            |
|-------------|------------|
| PROJECT NO: | 5110-06-70 |
|-------------|------------|

HWY: STH 131

COUNTY: VERNON

TRAFFIC CONTROL - PEDESTRIAN ACCOMMODATIONS - STAGE 2

SHEET

124

|  |  |
|--|--|
|  |  |
|--|--|

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETSP\PLAN\025112-TC-S PED 2.DWG  
LAYOUT NAME - 01

PLOT DATE : 12/17/2025 3:04 PM

PLOT BY : BRUCKNER, KAITLYN

PLOT NAME :

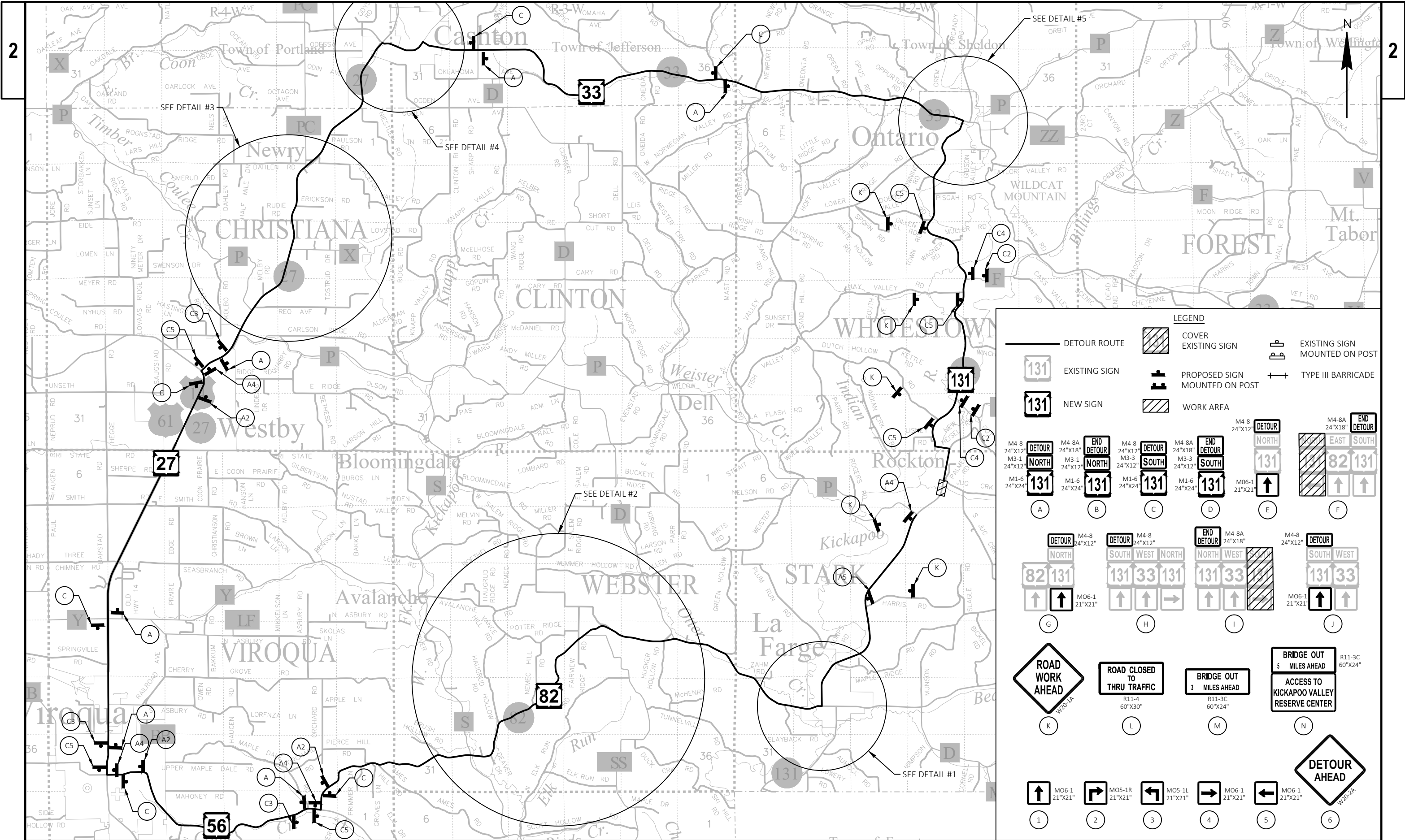
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42







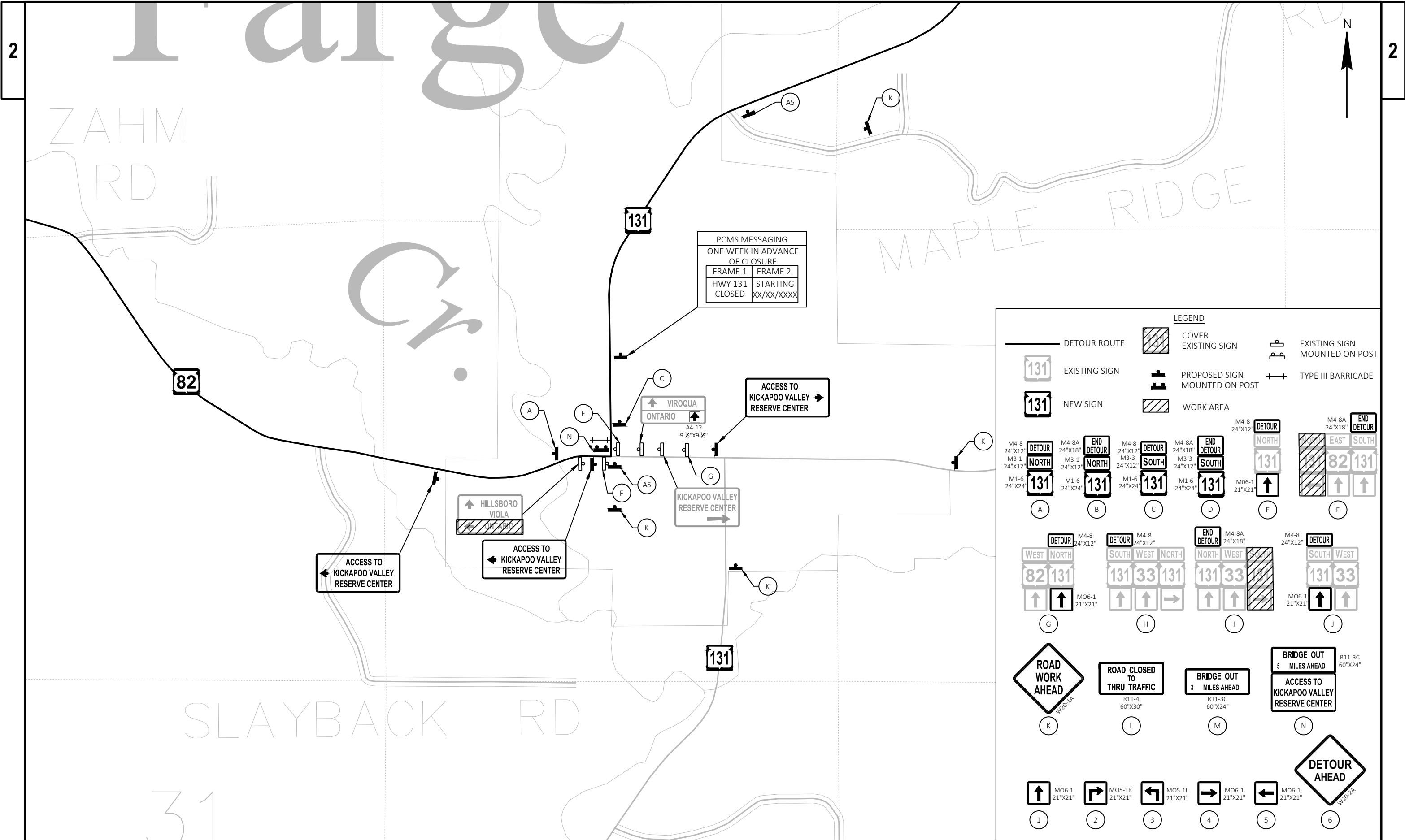


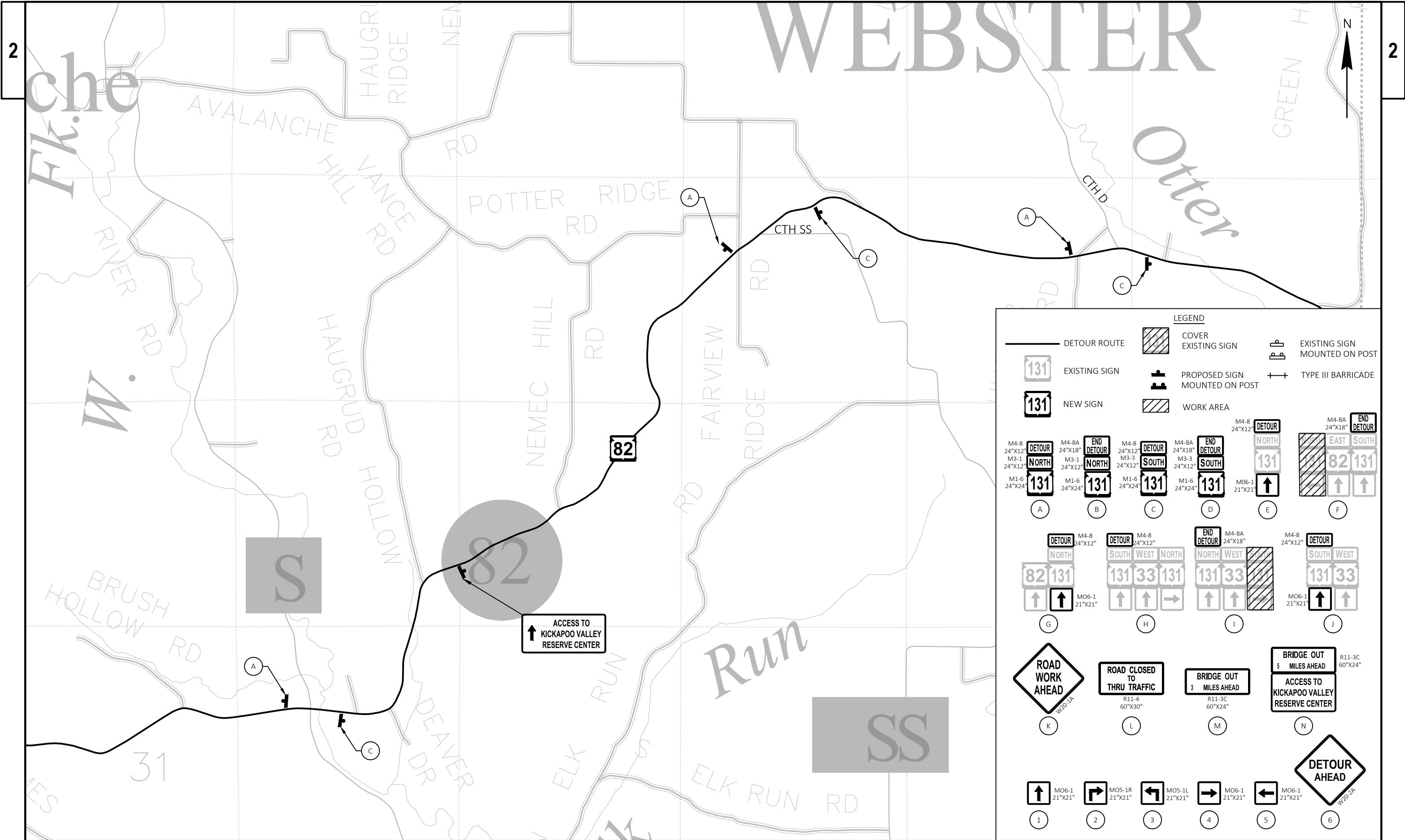
**LEGEND**

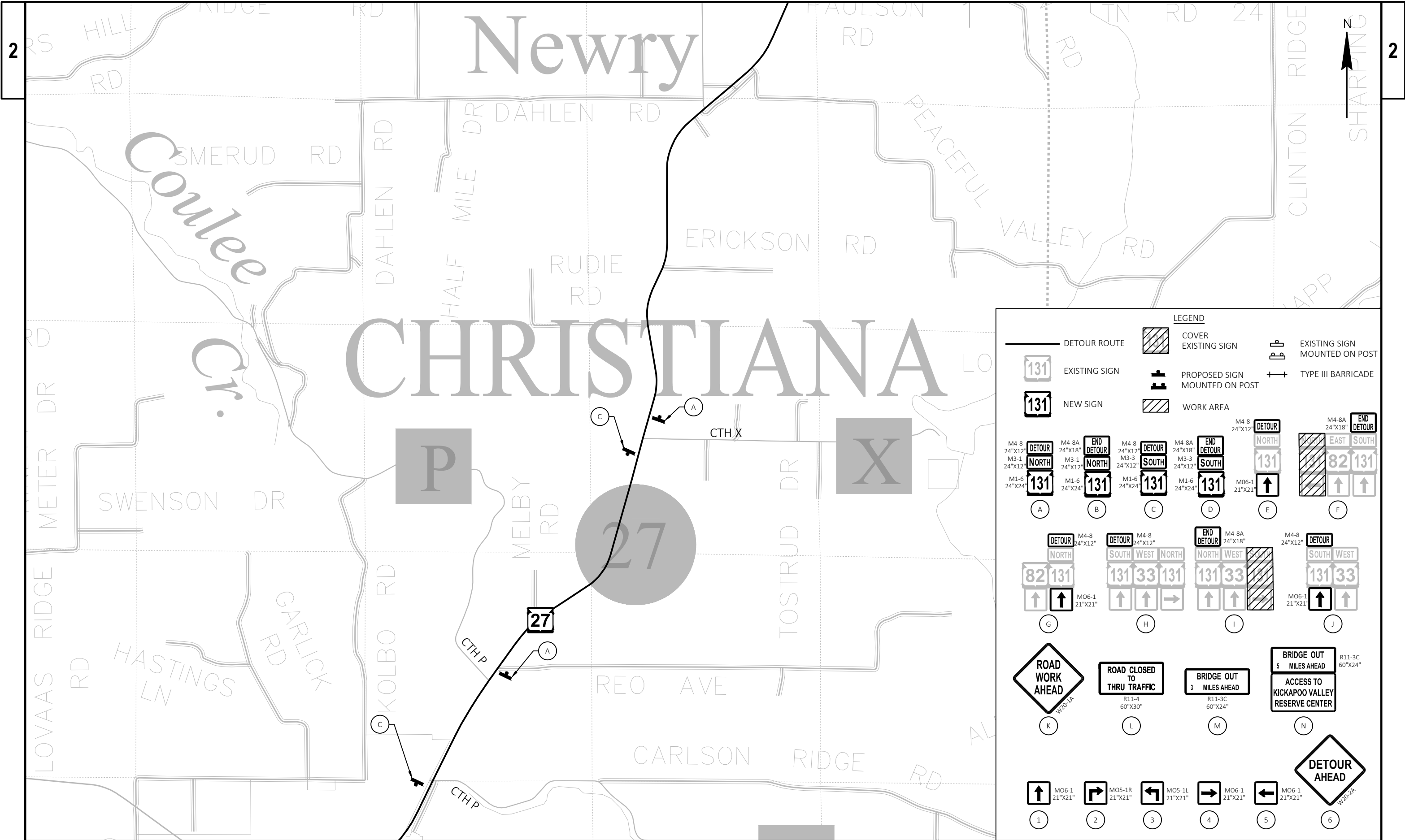
|               |                               |                               |
|---------------|-------------------------------|-------------------------------|
| DETOUR ROUTE  | COVER EXISTING SIGN           | EXISTING SIGN MOUNTED ON POST |
| EXISTING SIGN | PROPOSED SIGN MOUNTED ON POST | TYPE III BARRICADE            |
| NEW SIGN      | WORK AREA                     |                               |

**Signs and Markers:**

- Detour Signs:** M4-8 24"x12" DETOUR NORTH, M4-8A 24"x18" DETOUR NORTH, M4-8 24"x12" DETOUR SOUTH, M4-8A 24"x18" DETOUR SOUTH, M06-1 21"x21" DETOUR NORTH, M06-1 21"x21" DETOUR SOUTH, M06-1 21"x21" DETOUR WEST, M06-1 21"x21" DETOUR EAST.
- End Detour Signs:** M4-8 24"x12" END DETOUR NORTH, M4-8A 24"x18" END DETOUR NORTH, M4-8 24"x12" END DETOUR SOUTH, M4-8A 24"x18" END DETOUR SOUTH, M06-1 21"x21" END DETOUR NORTH, M06-1 21"x21" END DETOUR SOUTH, M06-1 21"x21" END DETOUR WEST, M06-1 21"x21" END DETOUR EAST.
- Road Work Ahead:** W20-1A ROAD WORK AHEAD.
- Road Closed:** R11-4 60"x30" ROAD CLOSED TO THRU TRAFFIC.
- Bridge Out:** R11-3C 60"x24" BRIDGE OUT 5 MILES AHEAD, ACCESS TO KICKAPOO VALLEY RESERVE CENTER.
- Detour Ahead:** W20-1A DETOUR AHEAD.







DETOUR ROUTE

EXISTING SIGN

NEW SIGN

COVER EXISTING SIGN

PROPOSED SIGN MOUNTED ON POST

WORK AREA

EXISTING SIGN MOUNTED ON POST

TYPE III BARRICADE

M4-8 24"x12"

M3-1 24"x12"

M1-6 24"x24"

DETOUR NORTH

131

A

M4-8A 24"x18"

M3-1 24"x12"

M1-6 24"x24"

END DETOUR NORTH

131

B

M4-8 24"x12"

M3-3 24"x12"

M1-6 24"x24"

DETOUR SOUTH

131

C

M4-8A 24"x18"

M3-3 24"x12"

M1-6 24"x24"

END DETOUR SOUTH

131

D

M4-8 24"x12"

M06-1 21"x21"

DETOUR NORTH

131

E

M4-8A 24"x18"

M06-1 21"x21"

END DETOUR EAST

82

M4-8A 24"x18"

M06-1 21"x21"

END DETOUR SOUTH

131

F

DETOUR NORTH

82

131

G

DETOUR SOUTH

131

33

H

END DETOUR NORTH

131

33

I

DETOUR SOUTH

131

33

J

ROAD WORK AHEAD

W20-1A

K

ROAD CLOSED TO THRU TRAFFIC

R11-4 60"x30"

L

BRIDGE OUT 3 MILES AHEAD

R11-3C 60"x24"

M

BRIDGE OUT 5 MILES AHEAD

R11-3C 60"x24"

ACCESS TO KICKAPOO VALLEY RESERVE CENTER

N

DETOUR AHEAD

W20-2A

O

MO6-1 21"x21"

1

MO5-1R 21"x21"

2

MO5-1L 21"x21"

3

MO6-1 21"x21"

4

MO6-1 21"x21"

5

DETOUR AHEAD

6

PROJECT NO: 5110-06-70

HWY: STH 131

COUNTY: VERNON

DETOUR ROUTE: DETAIL #3 - STAGE 1

SHEET 129

E

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\027001-DT\_S1.DWG

LAYOUT NAME - 04

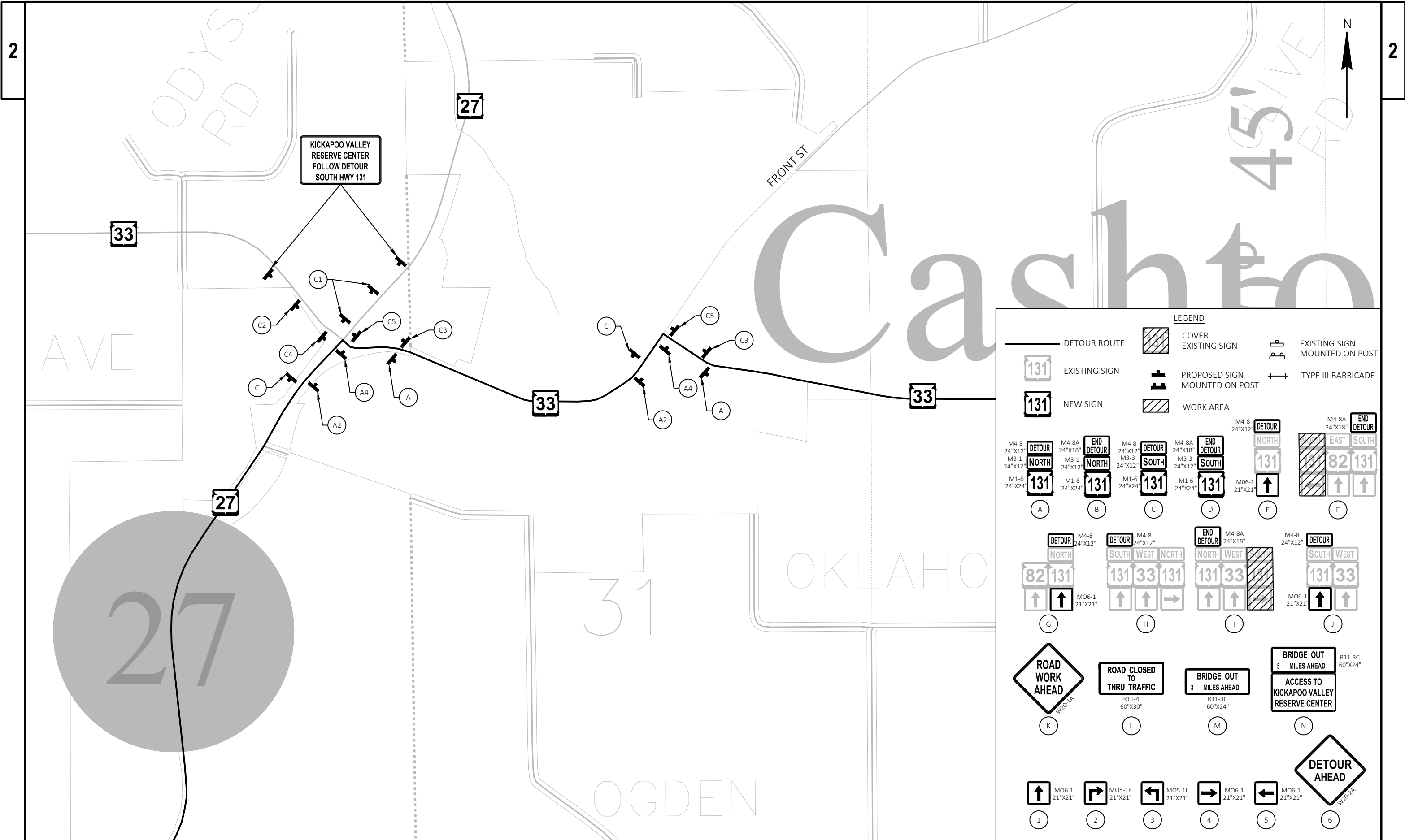
PLOT DATE : 12/17/2025 3:06 PM

PLOT BY : BRUCKNER, KAITLYN

PLOT NAME :

PLOT SCALE : 1 IN:2000 FT

WISDOT/CADDs SHEET 42

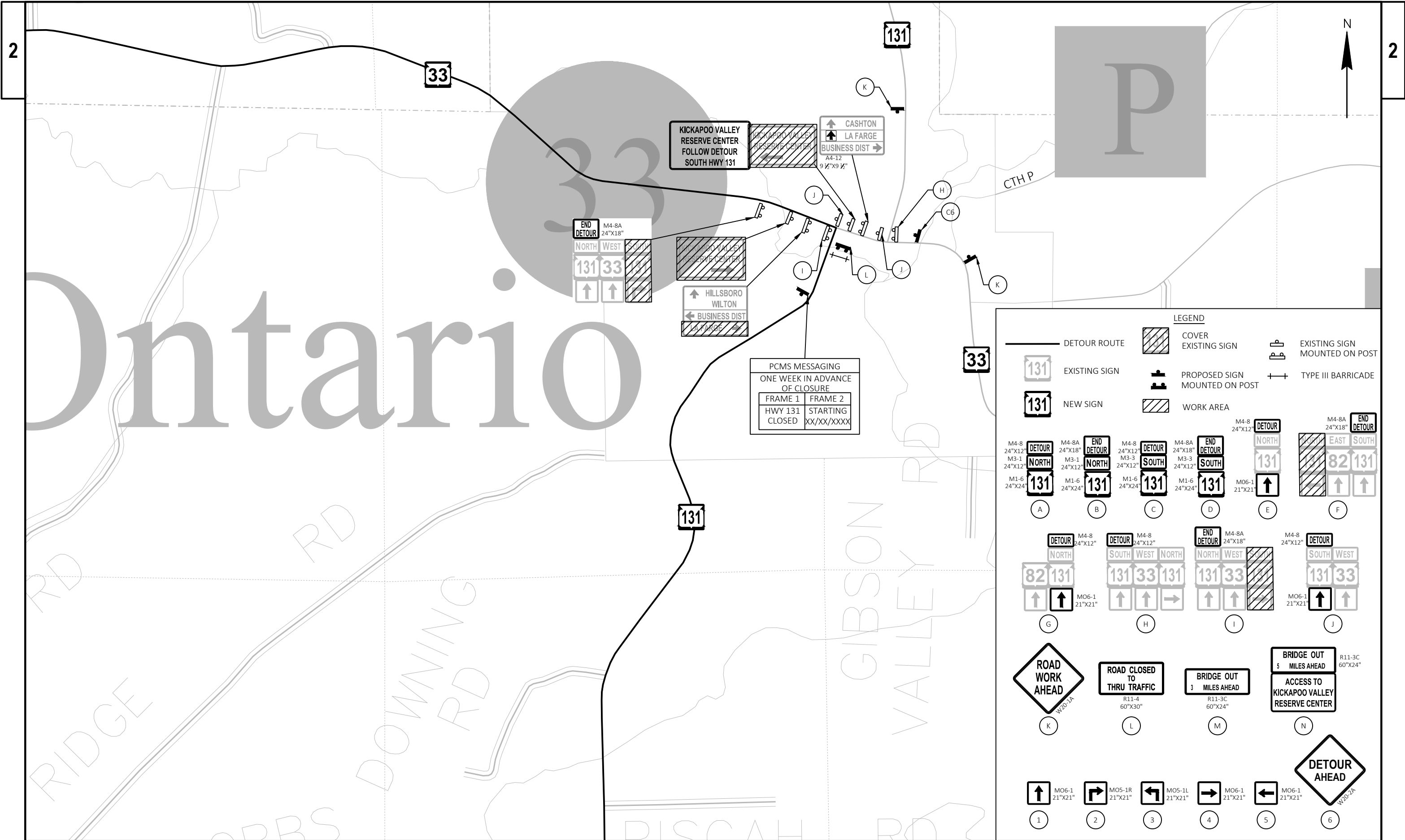


**LEGEND**

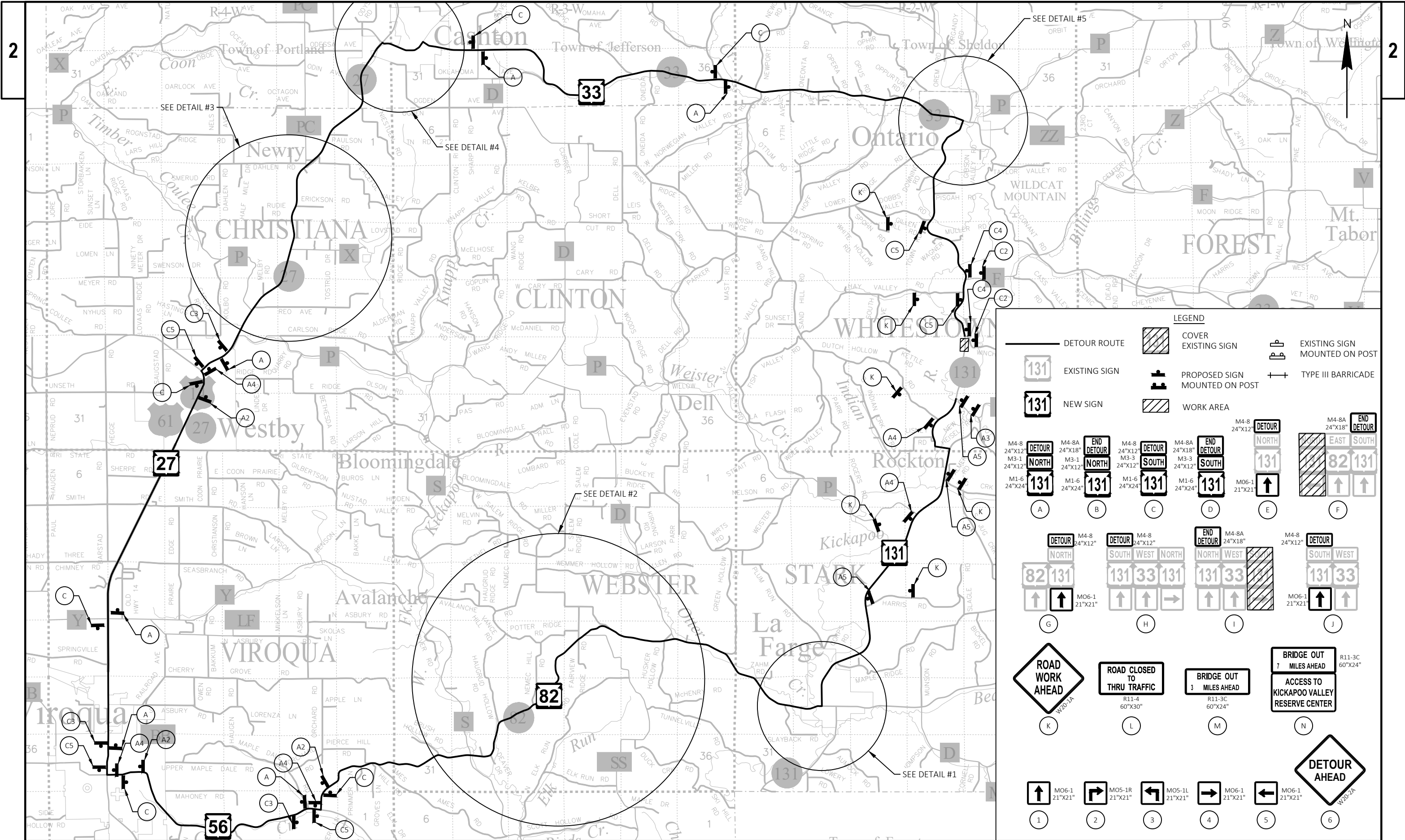
|               |                               |                               |
|---------------|-------------------------------|-------------------------------|
| DETOUR ROUTE  | COVER EXISTING SIGN           | EXISTING SIGN MOUNTED ON POST |
| EXISTING SIGN | PROPOSED SIGN MOUNTED ON POST | TYPE III BARRICADE            |
| NEW SIGN      | WORK AREA                     |                               |

**Signs and Markers:**

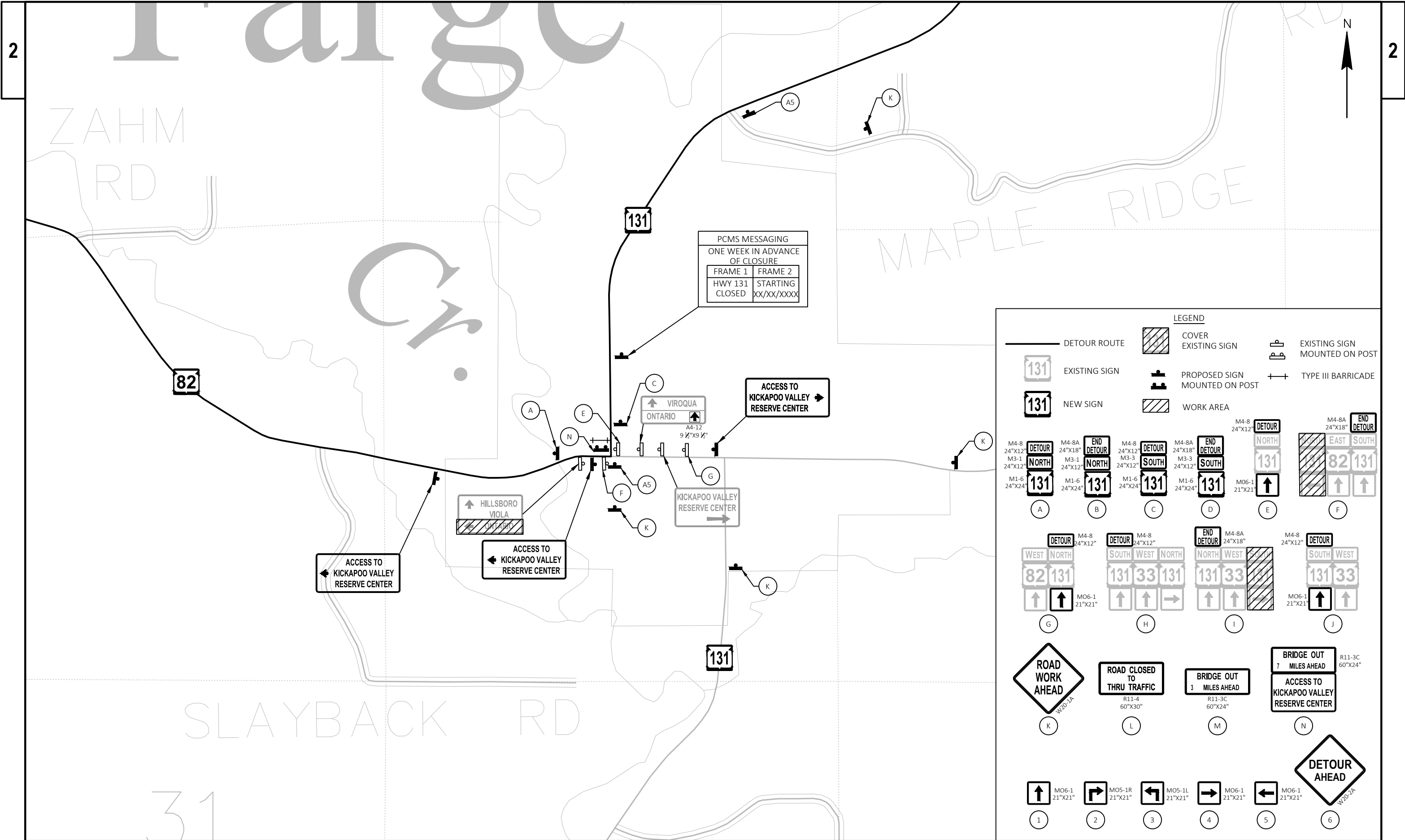
- A:** M4-8 24"x12" DETOUR NORTH 131, M3-1 24"x12" NORTH, M1-6 24"x24" NORTH
- B:** M4-8A 24"x18" END DETOUR NORTH 131, M3-1 24"x12" NORTH
- C:** M4-8 24"x12" DETOUR SOUTH 131, M3-3 24"x12" SOUTH, M1-6 24"x24" SOUTH
- D:** M4-8A 24"x18" END DETOUR SOUTH 131, M3-3 24"x12" SOUTH
- E:** M4-8 24"x12" DETOUR NORTH 131, M06-1 21"x21" NORTH
- F:** M4-8A 24"x18" END DETOUR EAST 82, SOUTH 131
- G:** M4-8 24"x12" DETOUR NORTH 82, SOUTH 131, M06-1 21"x21" NORTH
- H:** M4-8 24"x12" DETOUR SOUTH 131, WEST 33, NORTH 131, M06-1 21"x21" SOUTH
- I:** M4-8 24"x12" END DETOUR NORTH 131, WEST 33, M06-1 21"x21" NORTH
- J:** M4-8 24"x12" DETOUR SOUTH 131, WEST 33, M06-1 21"x21" SOUTH
- K:** ROAD WORK AHEAD W20-1A
- L:** ROAD CLOSED TO THRU TRAFFIC R11-4 60"x30"
- M:** BRIDGE OUT 3 MILES AHEAD R11-3C 60"x24"
- N:** BRIDGE OUT 5 MILES AHEAD ACCESS TO KICKAPOO VALLEY RESERVE CENTER R11-3C 60"x24"
- 1:** M06-1 21"x21" NORTH
- 2:** M05-1R 21"x21" RIGHT TURN
- 3:** M05-1L 21"x21" LEFT TURN
- 4:** M06-1 21"x21" RIGHT TURN
- 5:** M06-1 21"x21" LEFT TURN
- 6:** DETOUR AHEAD W20-1A

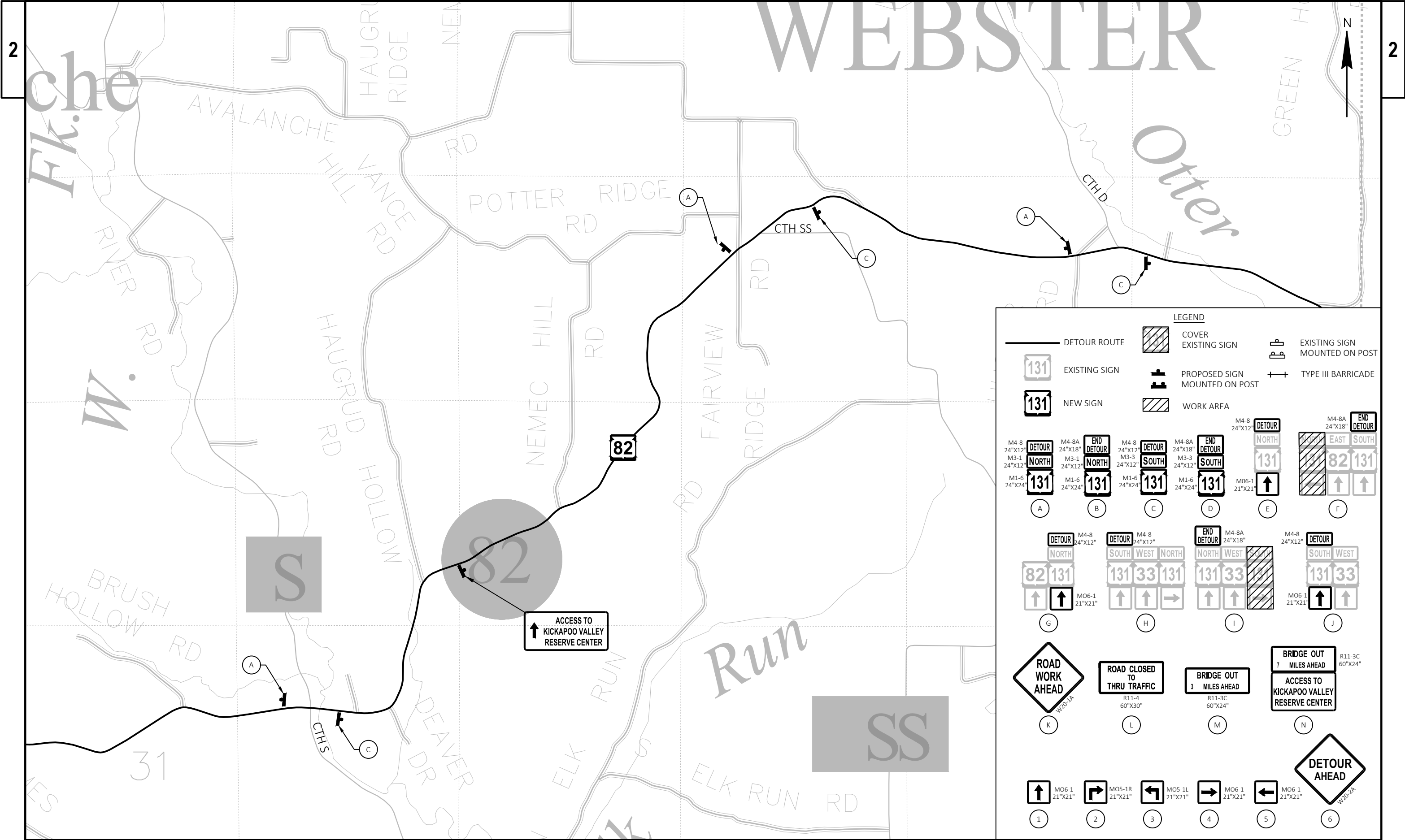


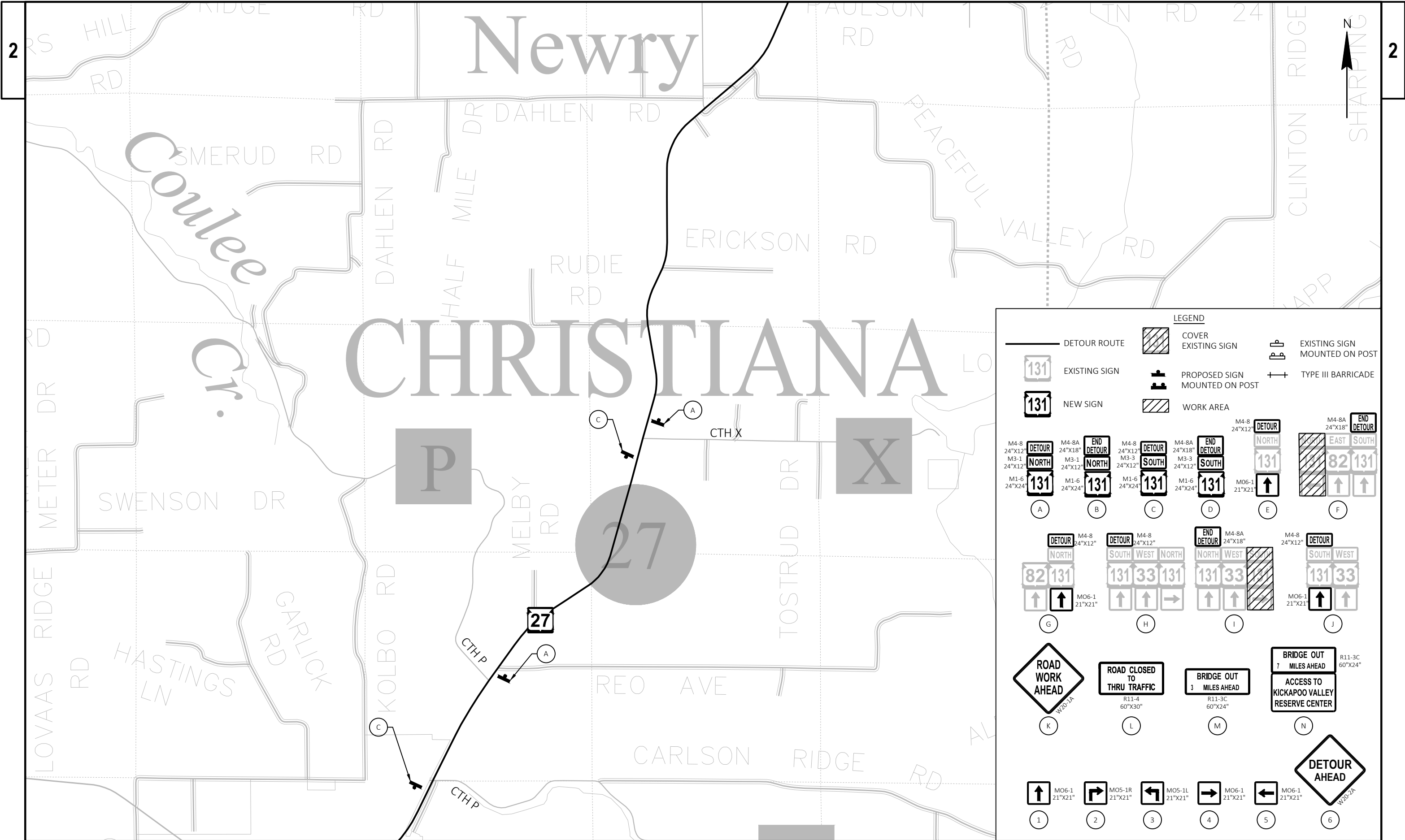












DETOUR ROUTE

EXISTING SIGN

NEW SIGN

COVER EXISTING SIGN

PROPOSED SIGN MOUNTED ON POST

WORK AREA

EXISTING SIGN MOUNTED ON POST

TYPE III BARRICADE

M4-8 24"x12"

M3-1 24"x12"

M1-6 24"x24"

DETOUR

NORTH

131

A

M4-8A 24"x18"

M3-1 24"x12"

M1-6 24"x24"

END DETOUR

NORTH

131

B

M4-8 24"x12"

M3-3 24"x12"

M1-6 24"x24"

DETOUR

SOUTH

131

C

M4-8A 24"x18"

M3-3 24"x12"

M1-6 24"x24"

END DETOUR

SOUTH

131

D

M4-8 24"x12"

M06-1 21"x21"

DETOUR

NORTH

131

E

M4-8A 24"x18"

M06-1 21"x21"

END DETOUR

EAST

82

M4-8A 24"x18"

M06-1 21"x21"

END DETOUR

SOUTH

131

F

M4-8 24"x12"

M06-1 21"x21"

DETOUR

NORTH

82

DETOUR

SOUTH

131

G

M4-8 24"x12"

M06-1 21"x21"

DETOUR

SOUTH

131

DETOUR

WEST

33

DETOUR

NORTH

131

H

M4-8 24"x12"

M06-1 21"x21"

END DETOUR

NORTH

131

END DETOUR

WEST

33

DETOUR

NORTH

131

I

M4-8 24"x12"

M06-1 21"x21"

DETOUR

SOUTH

131

DETOUR

WEST

33

DETOUR

NORTH

131

J

ROAD WORK AHEAD

R11-4 60"x30"

K

ROAD CLOSED TO THRU TRAFFIC

R11-4 60"x30"

L

BRIDGE OUT 3 MILES AHEAD

R11-3C 60"x24"

M

BRIDGE OUT 7 MILES AHEAD

R11-3C 60"x24"

ACCESS TO KICKAPOO VALLEY RESERVE CENTER

N

DETOUR AHEAD

W20-2A

O

MO6-1 21"x21"

MO5-1R 21"x21"

MO5-1L 21"x21"

MO6-1 21"x21"

MO6-1 21"x21"

1

2

3

4

5

PROJECT NO: 5110-06-70

HWY: STH 131

COUNTY: VERNON

DETOUR ROUTE: DETAIL #3 - STAGE 2

SHEET 135

E

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\027002-DT\_S2.DWG

LAYOUT NAME - 04

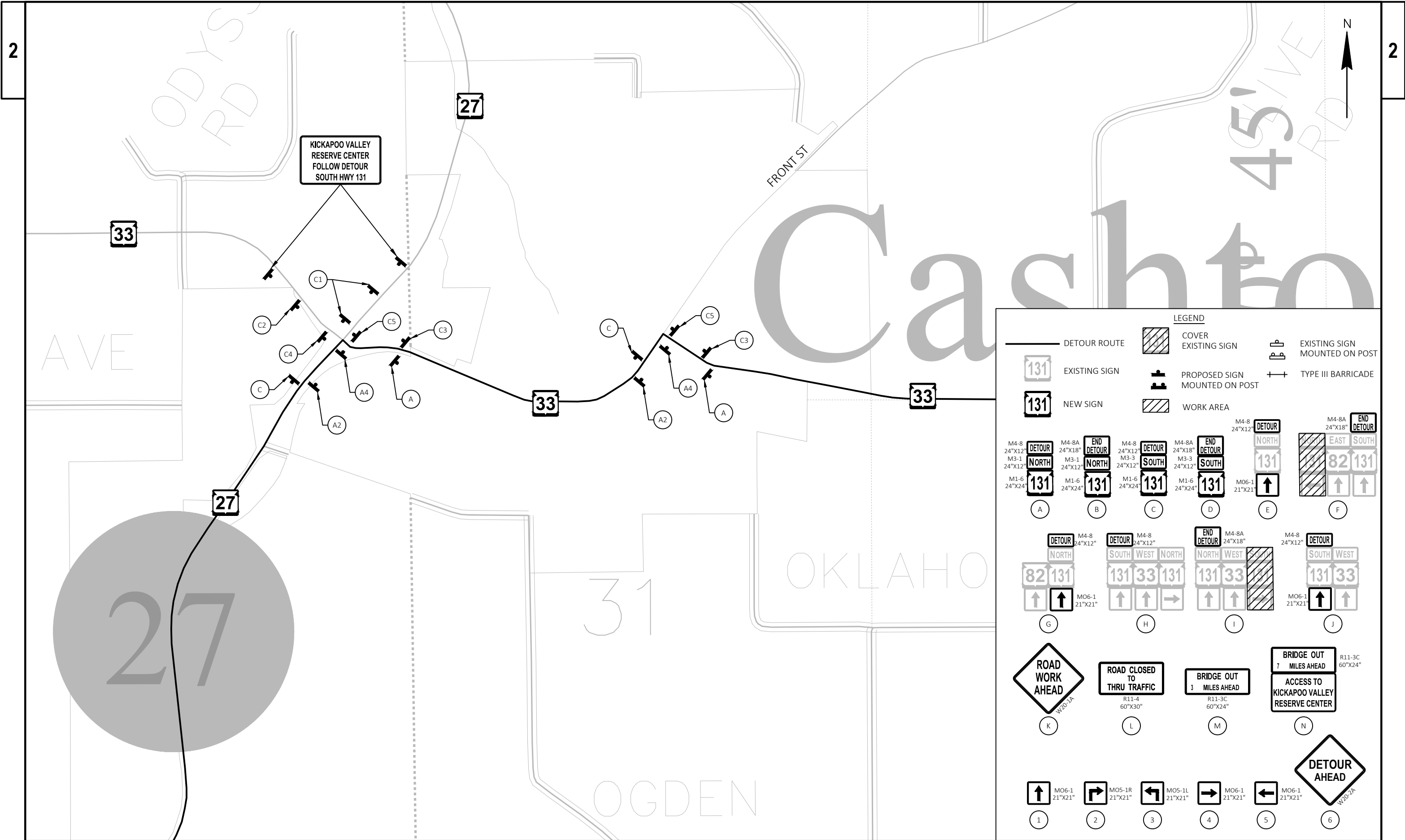
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PLOT BY : BRUCKNER, KAITLYN

PLOT NAME :

PLOT SCALE : 1 IN:2000 FT

WISDOT/CADDs SHEET 42

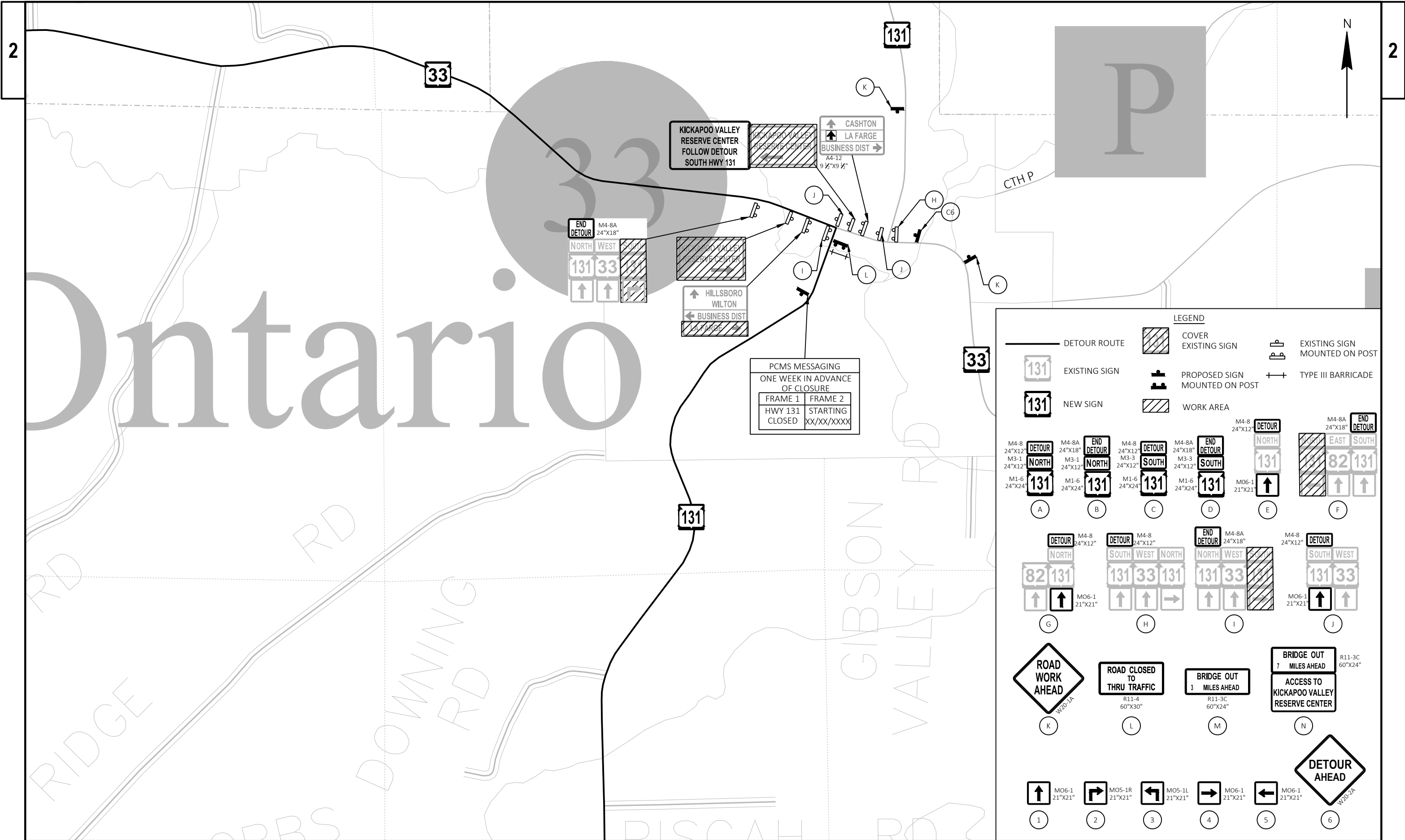


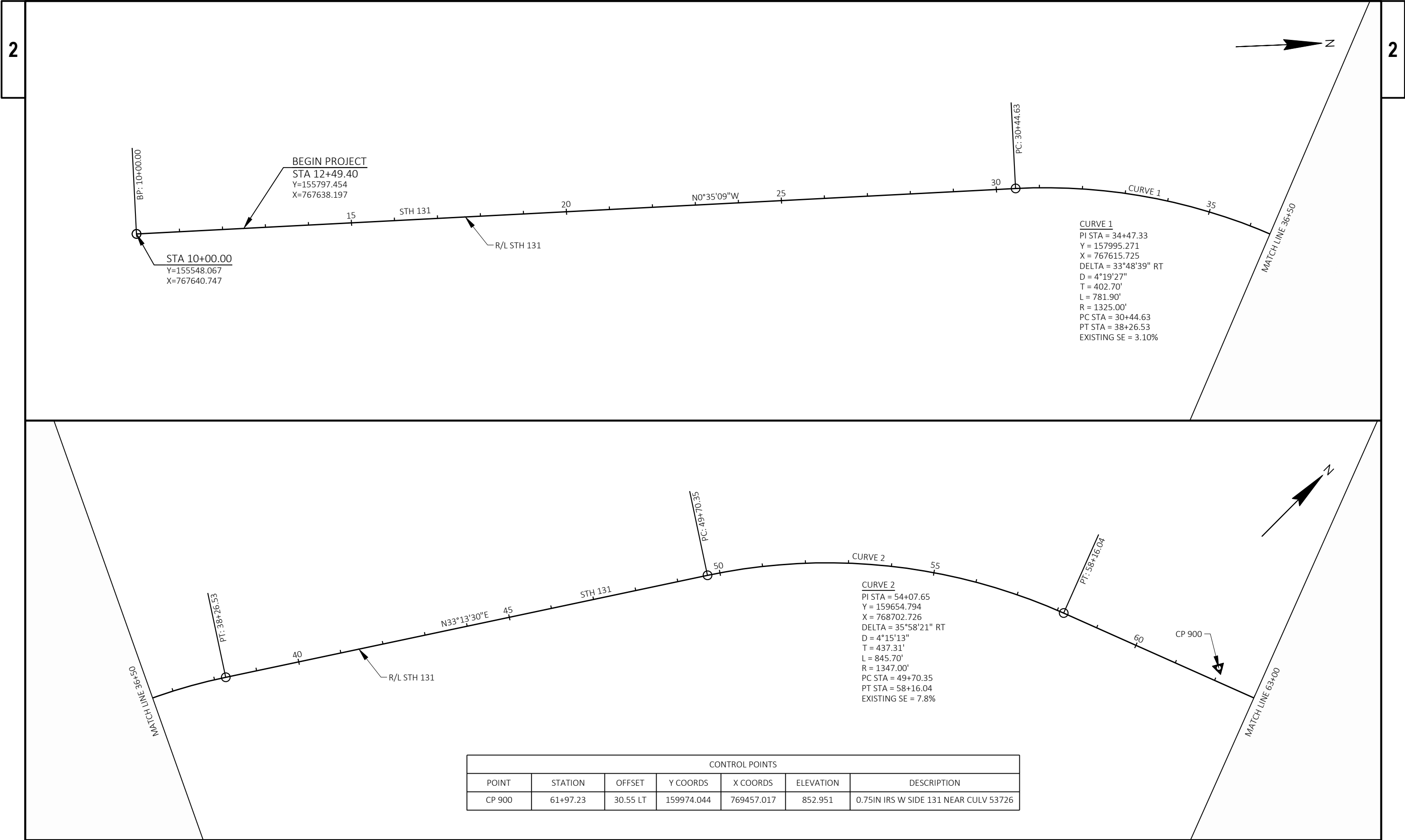
**LEGEND**

- DETOUR ROUTE
- EXISTING SIGN
- NEW SIGN
- COVER EXISTING SIGN
- PROPOSED SIGN MOUNTED ON POST
- WORK AREA
- EXISTING SIGN MOUNTED ON POST
- TYPE III BARRICADE

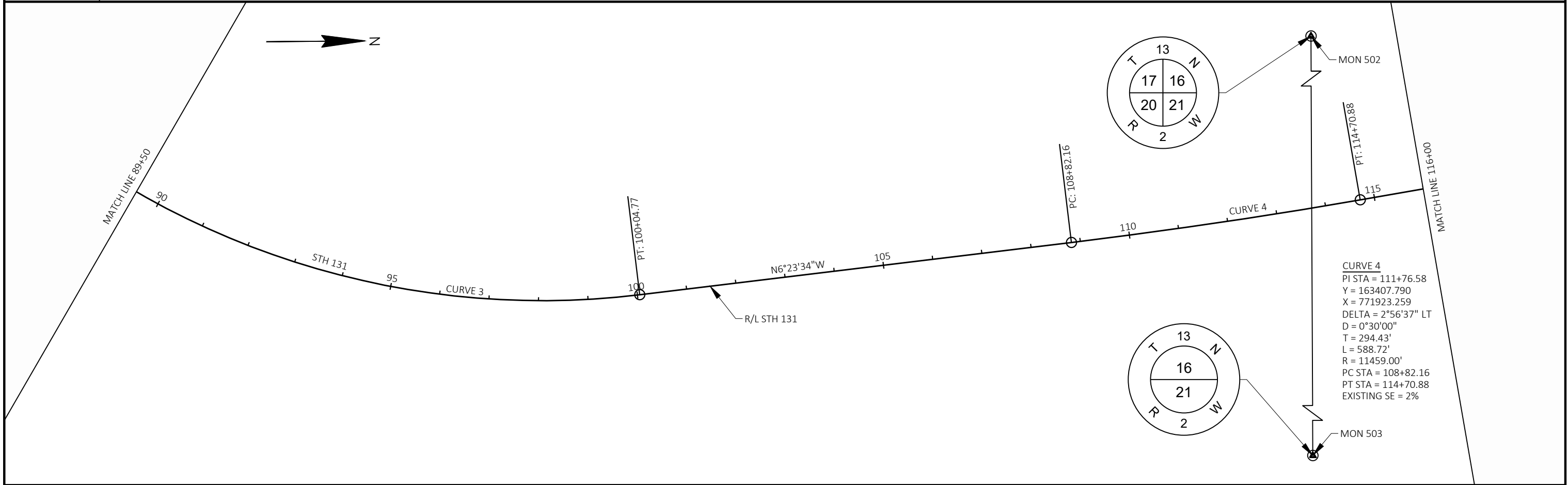
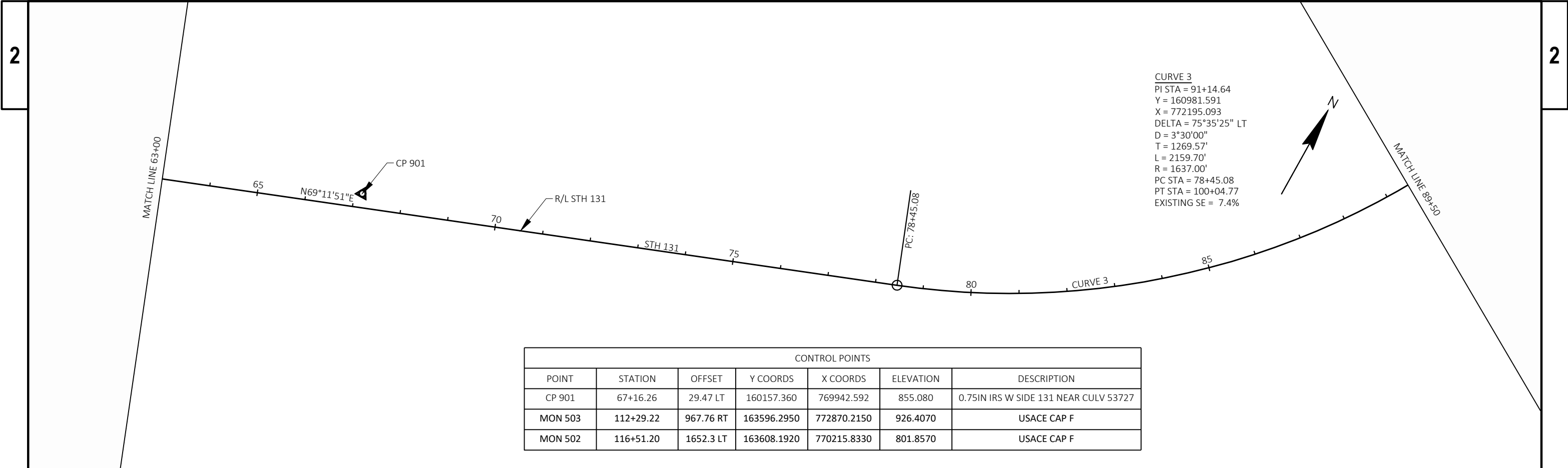
**Signs and Markers:**

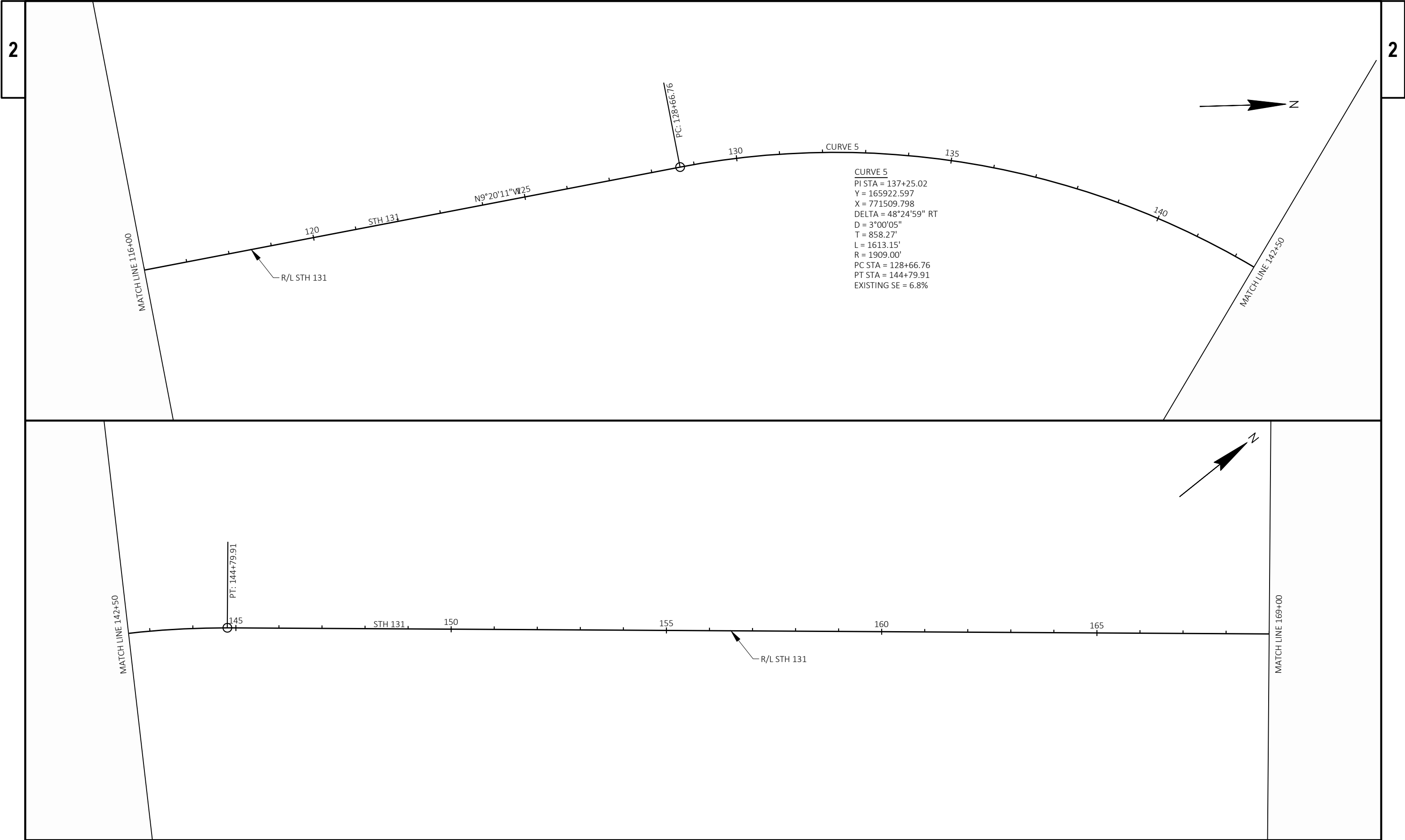
- A:** M4-8 24"x12" DETOUR NORTH 131, M3-1 24"x12" NORTH, M1-6 24"x24" NORTH
- B:** M4-8A 24"x18" END DETOUR NORTH 131, M3-1 24"x12" NORTH, M1-6 24"x24" NORTH
- C:** M4-8 24"x12" DETOUR SOUTH 131, M3-3 24"x12" SOUTH, M1-6 24"x24" SOUTH
- D:** M4-8A 24"x18" END DETOUR SOUTH 131, M3-3 24"x12" SOUTH, M1-6 24"x24" SOUTH
- E:** M4-8 24"x12" DETOUR NORTH 131, M1-6 21"x21" NORTH
- F:** M4-8A 24"x18" END DETOUR EAST 82, SOUTH 131
- G:** M4-8 24"x12" DETOUR NORTH 82, SOUTH 131, M1-6 21"x21" NORTH
- H:** M4-8 24"x12" DETOUR SOUTH 131, WEST 33, NORTH 131, M1-6 21"x21" SOUTH
- I:** M4-8A 24"x18" END DETOUR NORTH 131, WEST 33, SOUTH 131, M1-6 21"x21" NORTH
- J:** M4-8 24"x12" DETOUR SOUTH 131, WEST 33, M1-6 21"x21" SOUTH
- K:** ROAD WORK AHEAD W20-1A
- L:** ROAD CLOSED TO THRU TRAFFIC R11-4 60"x30"
- M:** BRIDGE OUT 3 MILES AHEAD R11-3C 60"x24"
- N:** BRIDGE OUT 7 MILES AHEAD ACCESS TO KICKAPOO VALLEY RESERVE CENTER R11-3C 60"x24"
- 1:** M1-6 21"x21" NORTH
- 2:** M1-6 21"x21" SOUTH
- 3:** M1-6 21"x21" WEST
- 4:** M1-6 21"x21" EAST
- 5:** M1-6 21"x21" SOUTH
- 6:** DETOUR AHEAD W20-1A



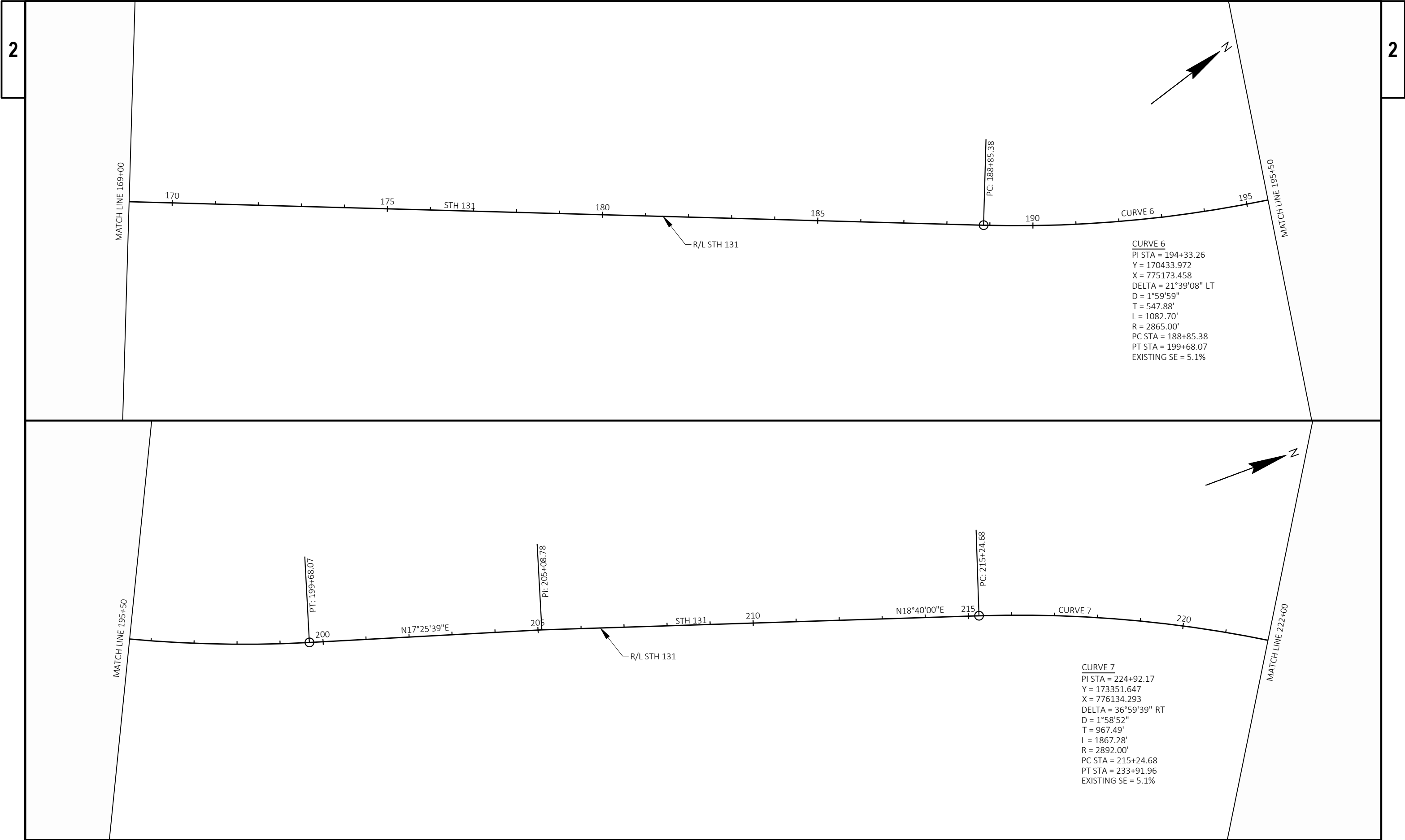


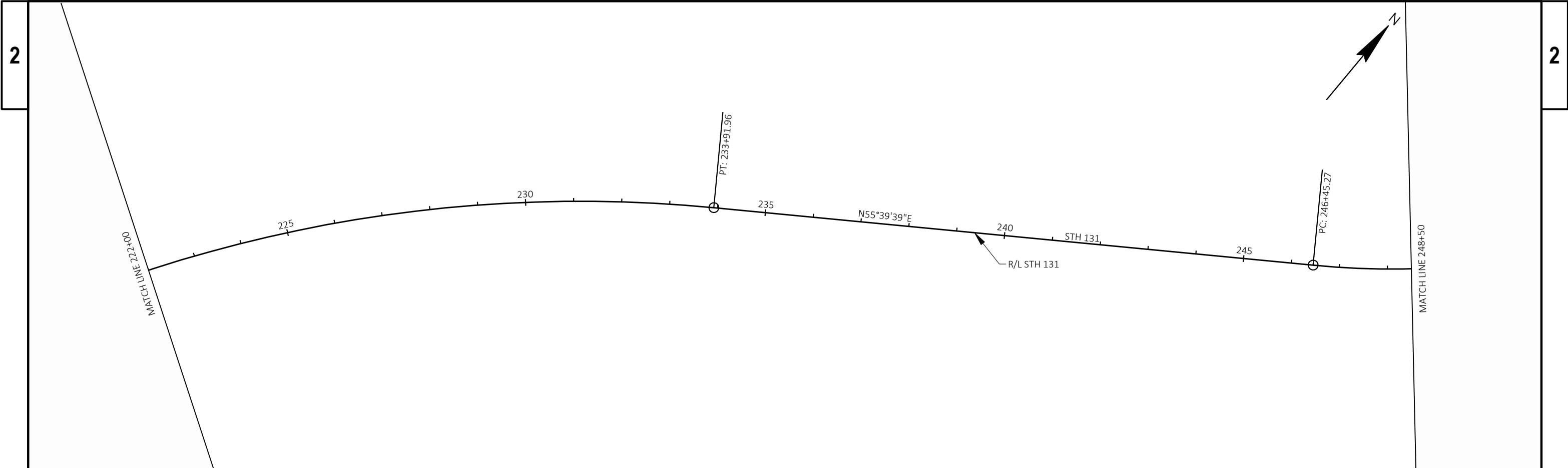




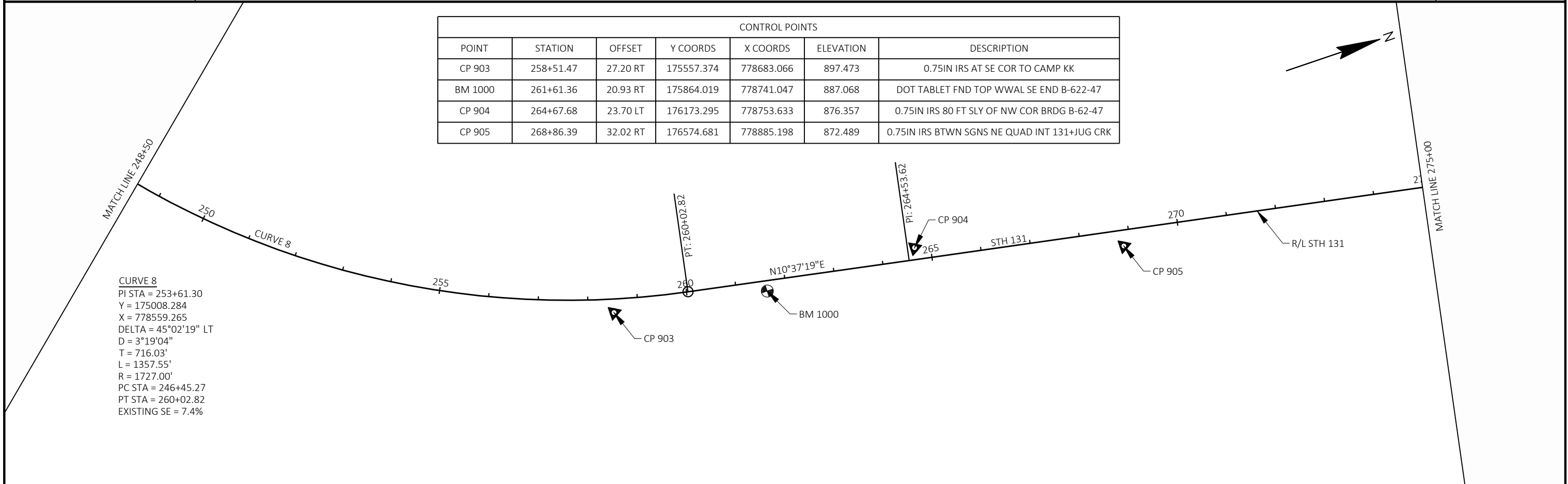


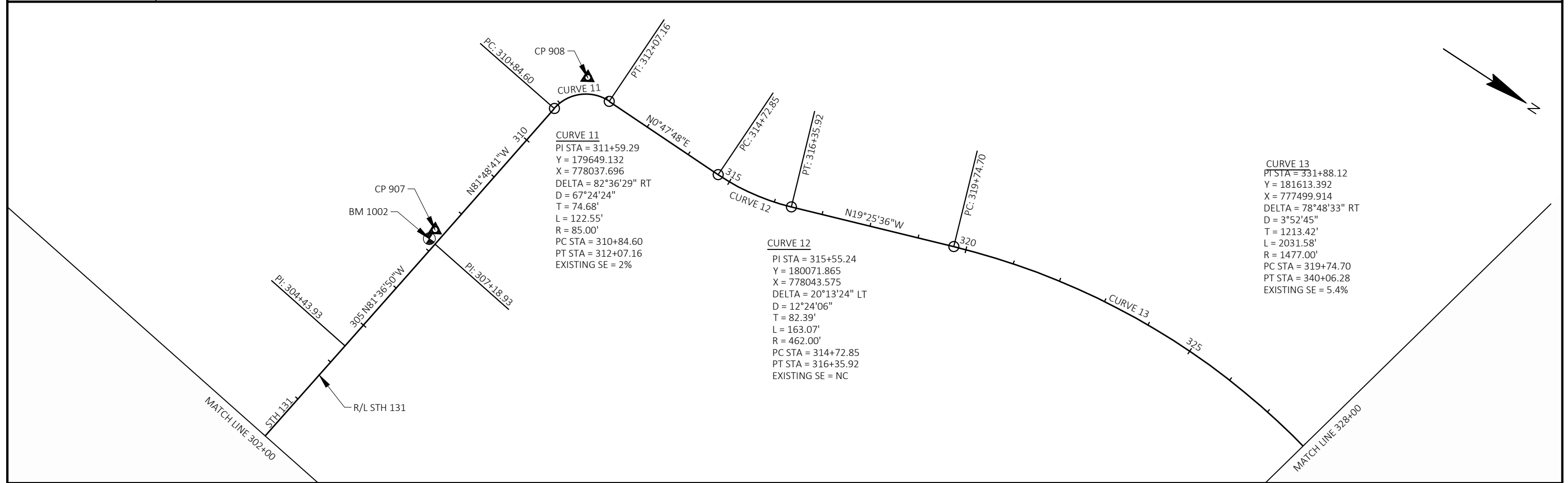
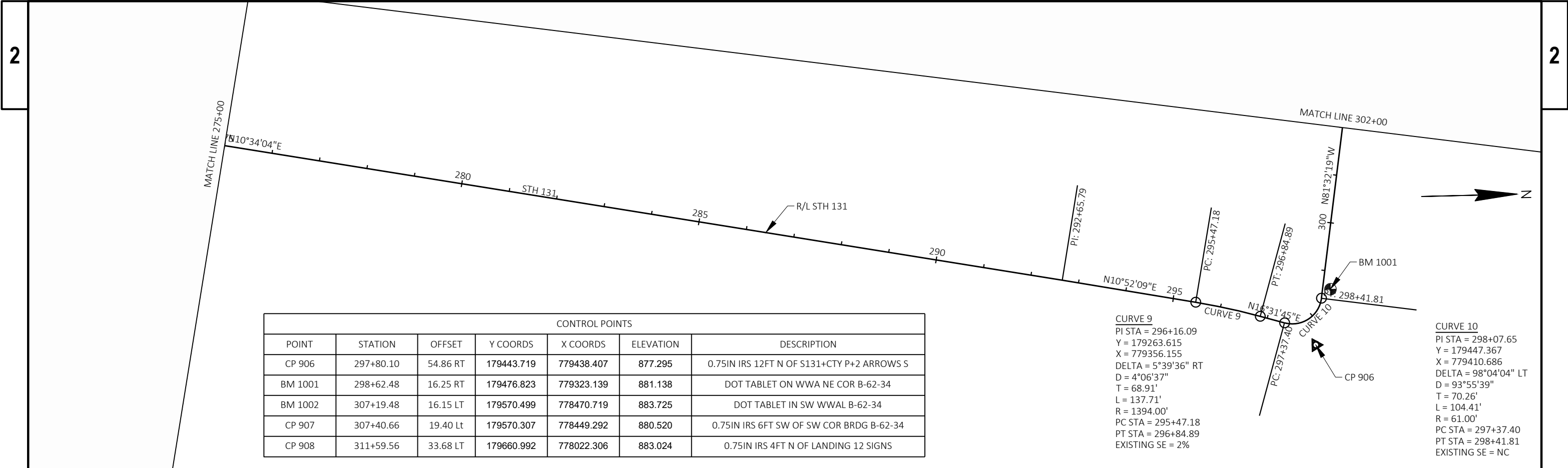


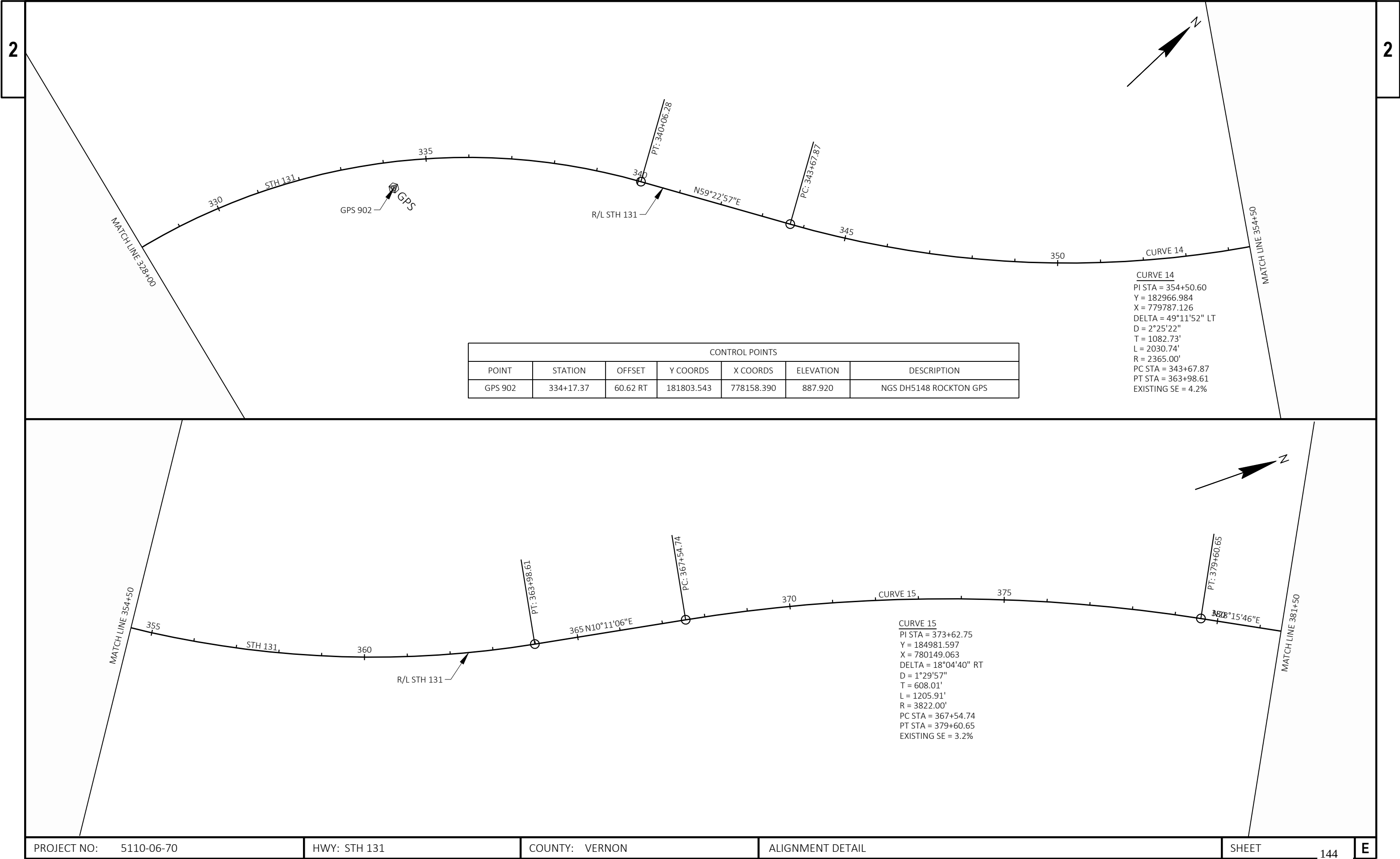


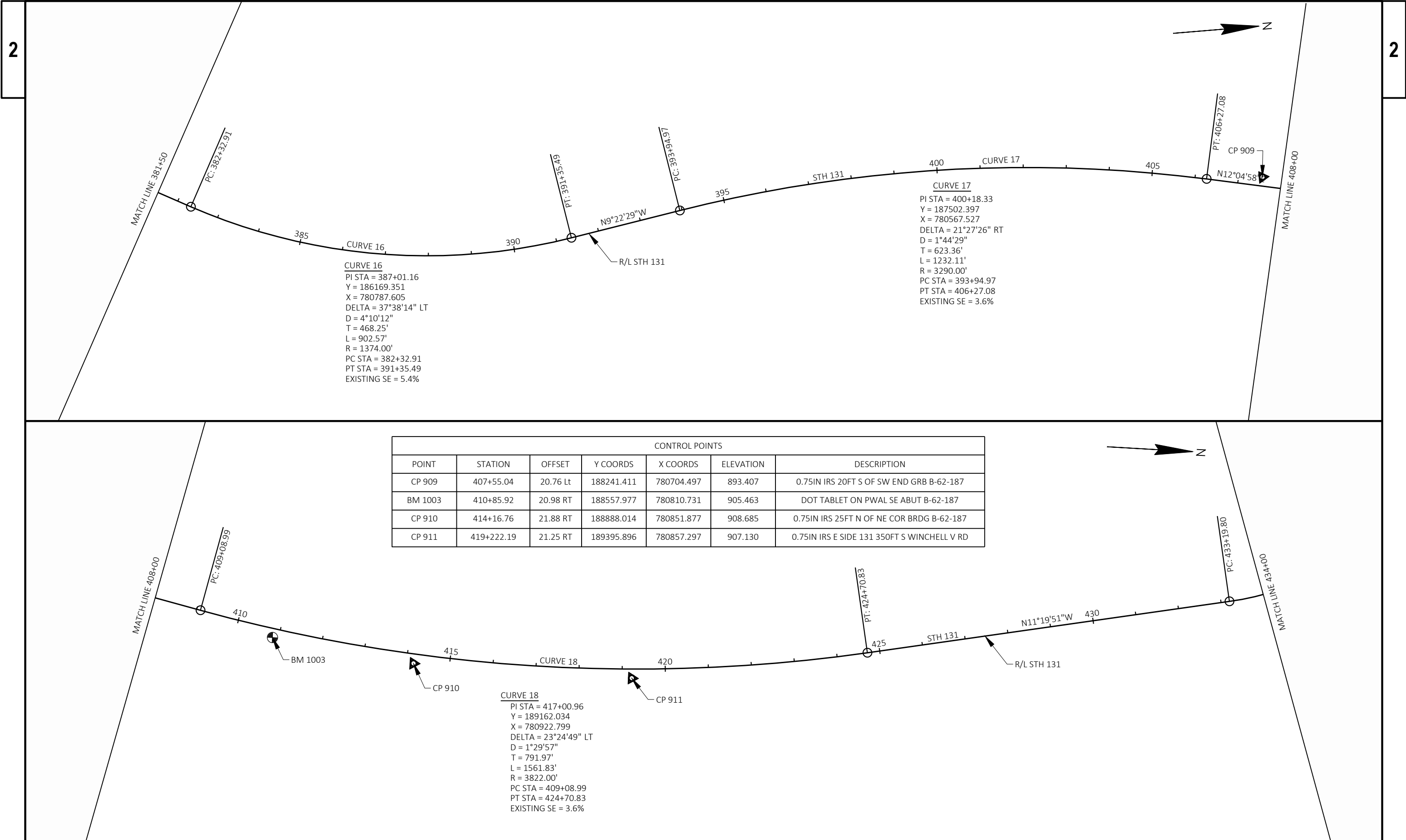


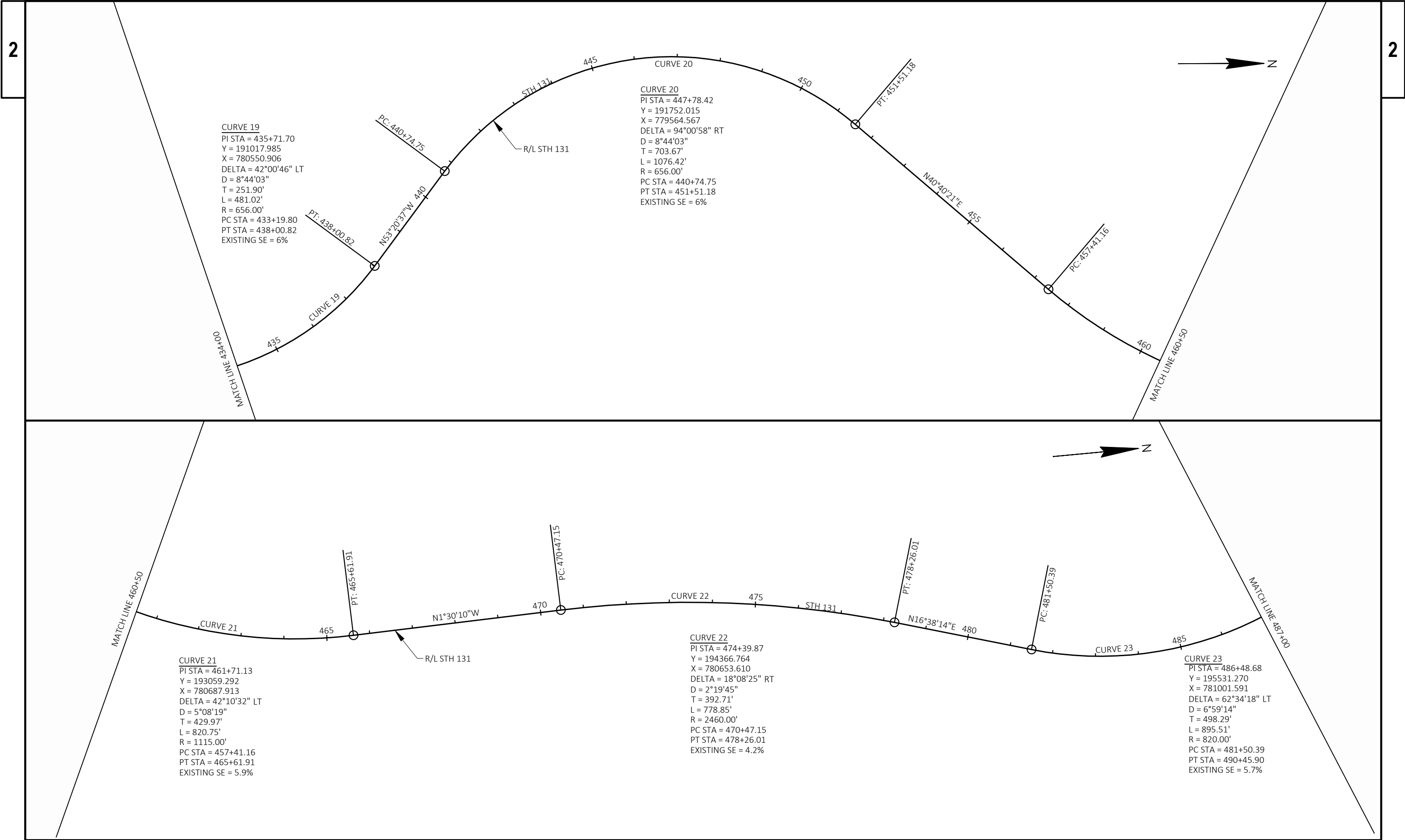
| CONTROL POINTS |           |          |            |            |           |                                              |
|----------------|-----------|----------|------------|------------|-----------|----------------------------------------------|
| POINT          | STATION   | OFFSET   | Y COORDS   | X COORDS   | ELEVATION | DESCRIPTION                                  |
| CP 903         | 258+51.47 | 27.20 RT | 175557.374 | 778683.066 | 897.473   | 0.75IN IRS AT SE COR TO CAMP KK              |
| BM 1000        | 261+61.36 | 20.93 RT | 175864.019 | 778741.047 | 887.068   | DOT TABLET FND TOP WWAL SE END B-622-47      |
| CP 904         | 264+67.68 | 23.70 LT | 176173.295 | 778753.633 | 876.357   | 0.75IN IRS 80 FT SLY OF NW COR BRDG B-62-47  |
| CP 905         | 268+86.39 | 32.02 RT | 176574.681 | 778885.198 | 872.489   | 0.75IN IRS BTWN SGNS NE QUAD INT 131+JUG CRK |



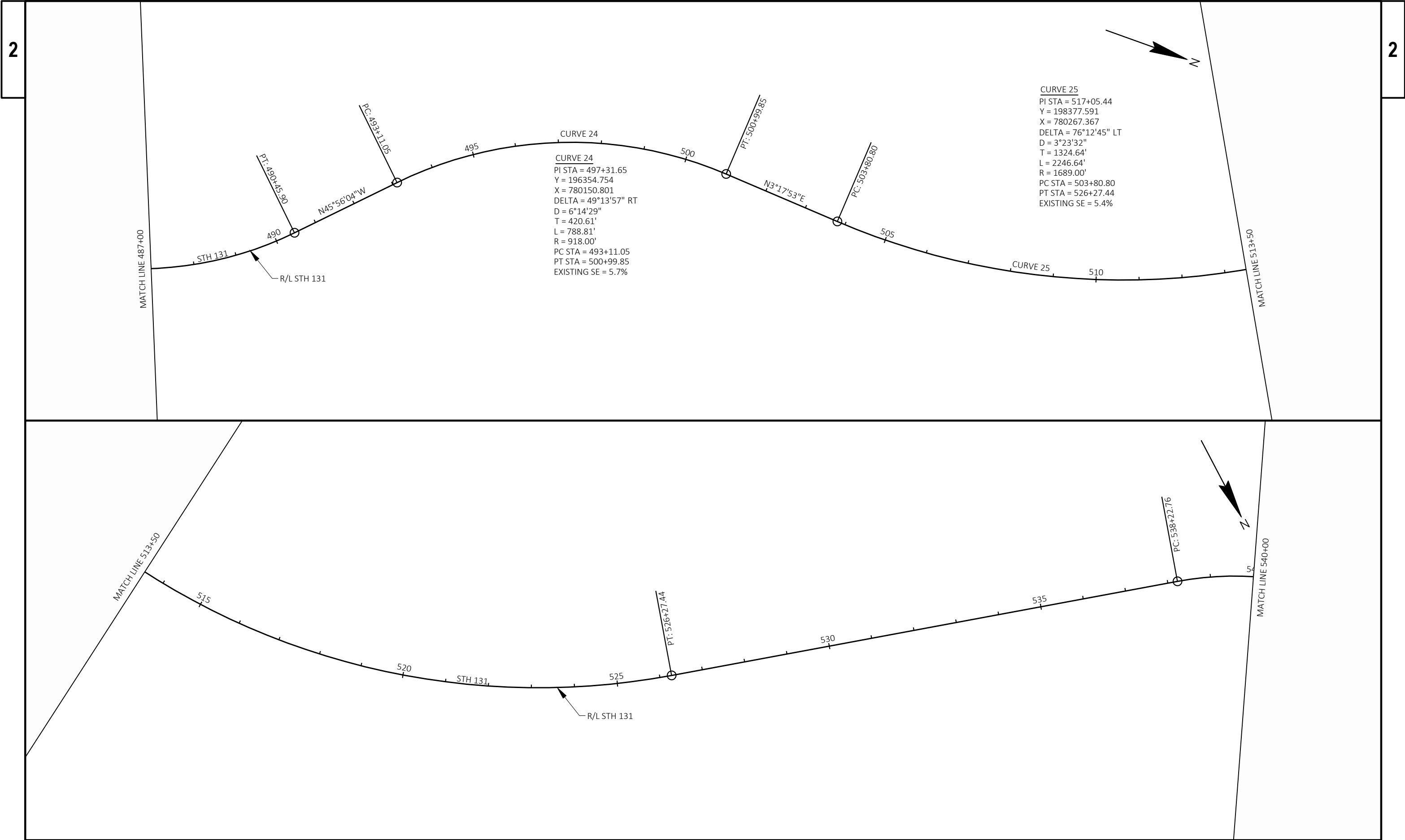


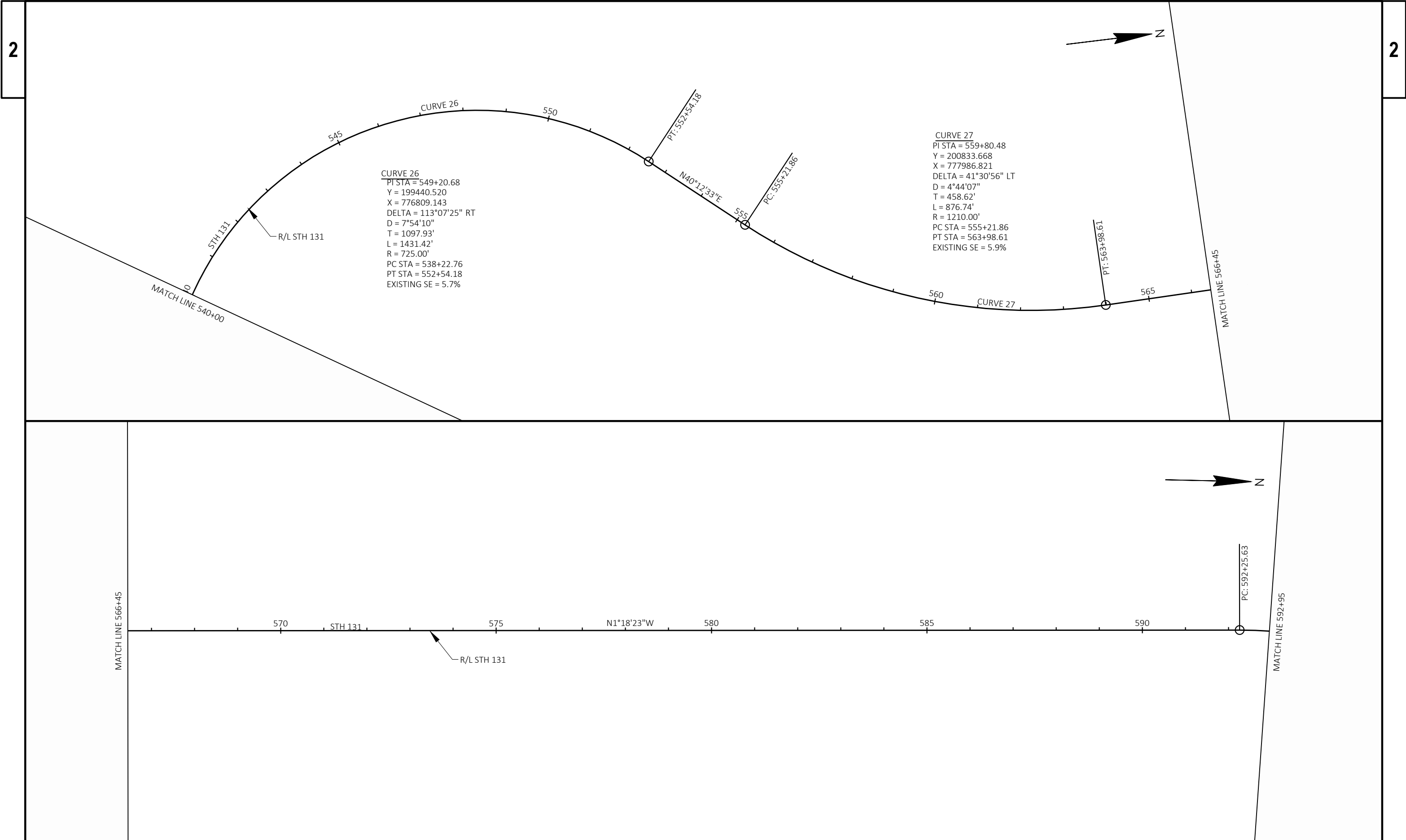




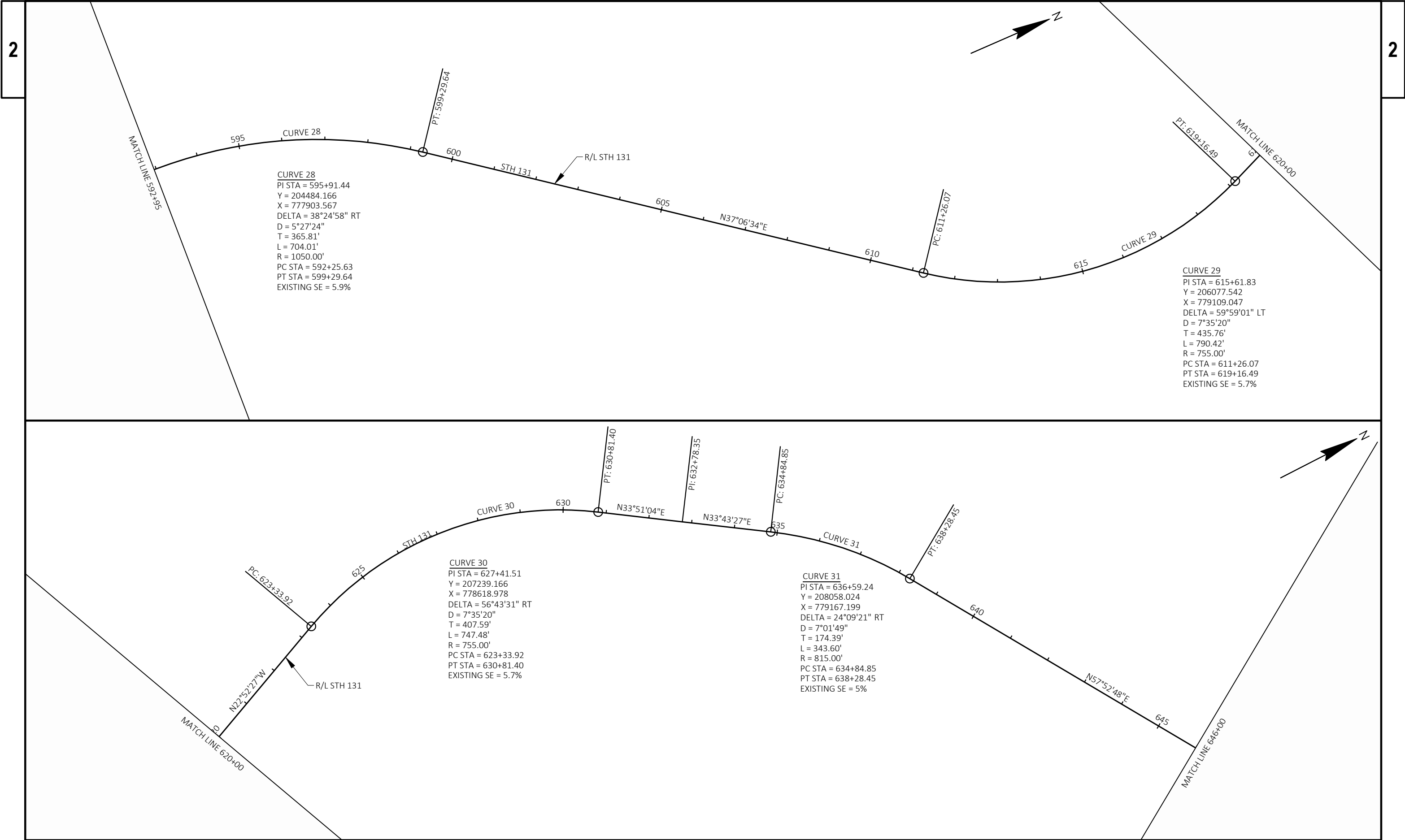


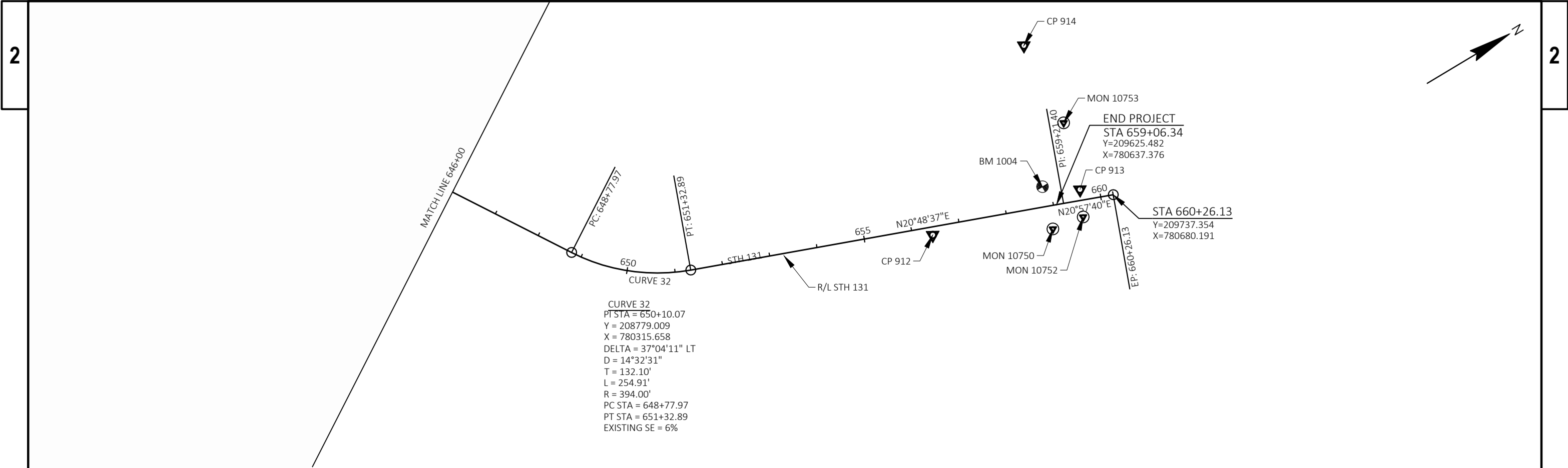












| CONTROL POINTS |           |           |            |            |           |                                           |
|----------------|-----------|-----------|------------|------------|-----------|-------------------------------------------|
| POINT          | STATION   | OFFSET    | Y COORDS   | X COORDS   | ELEVATION | DESCRIPTION                               |
| CP 912         | 656+41.65 | 17.02 RT  | 209372.012 | 780559.245 | 869.332   | MNS IN CONC 2.5FT W OF B-62-188 PLAQUE    |
| CP 914         | 658+97.73 | 338.07 Lt | 209737.546 | 780318.300 | 871.421   | 0.75IN S SIDE HYD ACROSS FRM SOUTH ST INT |
| CP 913         | 659+59.94 | 22.22 LT  | 209683.497 | 780635.763 | 870.536   | 0.75IN IRS IN LAN NW QUAD 33+GARDEN ST    |
| BM 1004        | 658+84.06 | 41.79 Lt  | 209619.504 | 780590.395 | 873.489   | TOP NUT HYD SW QUAD SOUTH ST+ GARDEN ST   |
| MON 10750      | 658+90.00 | 48.58 RT  | 209592.947 | 780676.979 | 869.773   | WDOT CAPPED IRF                           |
| MON 10753      | 659+50.60 | 165.20 LT | 209725.926 | 780498.905 | 869.886   | 0.75IN IRF                                |
| MON 10752      | 659+56.47 | 34.96 RT  | 209659.807 | 780687.916 | 869.675   | 1IN ID IPF                                |

Estimate Of Quantities

5110-06-70

| Line | Item       | Item Description                                                                         | Unit | Total       | Qty         |
|------|------------|------------------------------------------------------------------------------------------|------|-------------|-------------|
| 0002 | 203.0100   | Removing Small Pipe Culverts                                                             | EACH | 8.000       | 8.000       |
| 0004 | 203.0335   | Debris Containment Over Waterway (structure) .01 B-62-47                                 | EACH | 1.000       | 1.000       |
| 0006 | 204.0100   | Removing Concrete Pavement                                                               | SY   | 79.000      | 79.000      |
| 0008 | 204.0115   | Removing Asphaltic Surface Butt Joints                                                   | SY   | 4,226.000   | 4,226.000   |
| 0010 | 204.0120   | Removing Asphaltic Surface Milling                                                       | SY   | 236,780.000 | 236,780.000 |
| 0012 | 204.0150   | Removing Curb & Gutter                                                                   | LF   | 900.000     | 900.000     |
| 0014 | 204.0155   | Removing Concrete Sidewalk                                                               | SY   | 61.000      | 61.000      |
| 0016 | 204.0165   | Removing Guardrail                                                                       | LF   | 30,701.000  | 30,701.000  |
| 0018 | 204.0220   | Removing Inlets                                                                          | EACH | 8.000       | 8.000       |
| 0020 | 204.9060.S | Removing (item description) .01 Apron Endwalls Steel                                     | EACH | 1.000       | 1.000       |
| 0022 | 204.9060.S | Removing (item description) .02 Apron Endwalls Concrete                                  | EACH | 1.000       | 1.000       |
| 0024 | 205.0100   | Excavation Common                                                                        | CY   | 10,832.000  | 10,832.000  |
| 0026 | 208.0100   | Borrow                                                                                   | CY   | 943.000     | 943.000     |
| 0028 | 209.0200.S | Backfill Controlled Low Strength                                                         | CY   | 4.000       | 4.000       |
| 0030 | 209.2500   | Backfill Granular Grade 2                                                                | TON  | 1,619.000   | 1,619.000   |
| 0032 | 211.0101   | Prepare Foundation for Asphaltic Paving (project) .01 5110-06-70                         | EACH | 1.000       | 1.000       |
| 0034 | 213.0100   | Finishing Roadway (project) .01 5110-06-70                                               | EACH | 1.000       | 1.000       |
| 0036 | 305.0110   | Base Aggregate Dense 3/4-Inch                                                            | TON  | 10,048.000  | 10,048.000  |
| 0038 | 305.0120   | Base Aggregate Dense 1 1/4-Inch                                                          | TON  | 20,608.000  | 20,608.000  |
| 0040 | 305.0500   | Shaping Shoulders                                                                        | STA  | 704.000     | 704.000     |
| 0042 | 330.0100   | Mill and Relay                                                                           | SY   | 227,408.000 | 227,408.000 |
| 0044 | 374.1010.S | QMP Mill and Relay Compaction                                                            | SY   | 227,408.000 | 227,408.000 |
| 0046 | 455.0605   | Tack Coat                                                                                | GAL  | 16,606.000  | 16,606.000  |
| 0048 | 460.0105.S | HMA Percent Within Limits (PWL) Test Strip Volumetrics                                   | EACH | 2.000       | 2.000       |
| 0050 | 460.0110.S | HMA Percent Within Limits (PWL) Test Strip Density                                       | EACH | 2.000       | 2.000       |
| 0052 | 460.2000   | Incentive Density HMA Pavement                                                           | DOL  | 33,960.000  | 33,960.000  |
| 0054 | 460.2005   | Incentive Density PWL HMA Pavement                                                       | DOL  | 36,820.000  | 36,820.000  |
| 0056 | 460.2007   | Incentive Density HMA Pavement Longitudinal Joints                                       | DOL  | 12,380.000  | 12,380.000  |
| 0058 | 460.2010   | Incentive Air Voids HMA Pavement                                                         | DOL  | 53,050.000  | 53,050.000  |
| 0060 | 460.6223   | HMA Pavement 3 MT 58-28 S                                                                | TON  | 29,838.000  | 29,838.000  |
| 0062 | 460.6224   | HMA Pavement 4 MT 58-28 S                                                                | TON  | 23,211.000  | 23,211.000  |
| 0064 | 465.0105   | Asphaltic Surface                                                                        | TON  | 50.000      | 50.000      |
| 0066 | 465.0120   | Asphaltic Surface Driveways and Field Entrances                                          | TON  | 8.000       | 8.000       |
| 0068 | 465.0560   | Asphaltic Rumble Strips, Centerline                                                      | LF   | 61,297.000  | 61,297.000  |
| 0070 | 502.3200   | Protective Surface Treatment                                                             | SY   | 868.000     | 868.000     |
| 0072 | 509.0301   | Preparation Decks Type 1                                                                 | SY   | 332.000     | 332.000     |
| 0074 | 509.0302   | Preparation Decks Type 2                                                                 | SY   | 133.000     | 133.000     |
| 0076 | 509.0505.S | Cleaning Decks to Reapply Concrete Masonry Overlay                                       | SY   | 868.000     | 868.000     |
| 0078 | 509.1500   | Concrete Surface Repair                                                                  | SF   | 20.000      | 20.000      |
| 0080 | 509.2000   | Full-Depth Deck Repair                                                                   | SY   | 7.000       | 7.000       |
| 0082 | 509.2500   | Concrete Masonry Overlay Decks                                                           | CY   | 91.000      | 91.000      |
| 0084 | 509.9005.S | Removing Concrete Masonry Deck Overlay (structure) .01 B-62-47                           | SY   | 868.000     | 868.000     |
| 0086 | 517.1801.S | Structure Repainting Recycled Abrasive (structure) .01 B-62-187                          | EACH | 1.000       | 1.000       |
| 0088 | 517.4501.S | Negative Pressure Containment and Collection of Waste Materials (structure) .01 B-62-187 | EACH | 1.000       | 1.000       |
| 0090 | 517.6001.S | Portable Decontamination Facility                                                        | EACH | 1.000       | 1.000       |
| 0092 | 520.8000   | Concrete Collars for Pipe                                                                | EACH | 1.000       | 1.000       |
| 0094 | 522.0112   | Culvert Pipe Reinforced Concrete Class III 12-Inch                                       | LF   | 44.000      | 44.000      |
| 0096 | 522.1012   | Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch                              | EACH | 2.000       | 2.000       |

Estimate Of Quantities

5110-06-70

| Line | Item     | Item Description                                              | Unit | Total       | Qty         |
|------|----------|---------------------------------------------------------------|------|-------------|-------------|
| 0098 | 522.1024 | Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch   | EACH | 2.000       | 2.000       |
| 0100 | 530.0112 | Culvert Pipe Corrugated Polyethylene 12-Inch                  | LF   | 120.000     | 120.000     |
| 0102 | 601.0411 | Concrete Curb & Gutter 30-Inch Type D                         | LF   | 248.000     | 248.000     |
| 0104 | 601.0557 | Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D           | LF   | 558.000     | 558.000     |
| 0106 | 601.0588 | Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT         | LF   | 474.000     | 474.000     |
| 0108 | 602.0410 | Concrete Sidewalk 5-Inch                                      | SF   | 1,007.000   | 1,007.000   |
| 0110 | 602.0505 | Curb Ramp Detectable Warning Field Yellow                     | SF   | 93.000      | 93.000      |
| 0112 | 606.0050 | Riprap Extra-Light                                            | CY   | 2.000       | 2.000       |
| 0114 | 606.0200 | Riprap Medium                                                 | CY   | 22.000      | 22.000      |
| 0116 | 606.0300 | Riprap Heavy                                                  | CY   | 5.000       | 5.000       |
| 0118 | 608.0324 | Storm Sewer Pipe Reinforced Concrete Class III 24-Inch        | LF   | 125.000     | 125.000     |
| 0120 | 608.0412 | Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch         | LF   | 207.000     | 207.000     |
| 0122 | 611.0639 | Inlet Covers Type H-S                                         | EACH | 4.000       | 4.000       |
| 0124 | 611.0654 | Inlet Covers Type V                                           | EACH | 15.000      | 15.000      |
| 0126 | 611.3220 | Inlets 2x2-FT                                                 | EACH | 8.000       | 8.000       |
| 0128 | 611.3230 | Inlets 2x3-FT                                                 | EACH | 4.000       | 4.000       |
| 0130 | 611.8110 | Adjusting Manhole Covers                                      | EACH | 12.000      | 12.000      |
| 0132 | 611.8115 | Adjusting Inlet Covers                                        | EACH | 10.000      | 10.000      |
| 0134 | 614.2300 | MGS Guardrail 3                                               | LF   | 23,493.000  | 23,493.000  |
| 0136 | 614.2330 | MGS Guardrail 3 K                                             | LF   | 1,413.000   | 1,413.000   |
| 0138 | 614.2350 | MGS Guardrail Short Radius                                    | LF   | 1,253.000   | 1,253.000   |
| 0140 | 614.2500 | MGS Thrie Beam Transition                                     | LF   | 1,560.000   | 1,560.000   |
| 0142 | 614.2610 | MGS Guardrail Terminal EAT                                    | EACH | 70.000      | 70.000      |
| 0144 | 614.2630 | MGS Guardrail Short Radius Terminal                           | EACH | 23.000      | 23.000      |
| 0146 | 618.0100 | Maintenance and Repair of Haul Roads (project) .01 5110-06-70 | EACH | 1.000       | 1.000       |
| 0148 | 619.1000 | Mobilization                                                  | EACH | 1.000       | 1.000       |
| 0150 | 620.0300 | Concrete Median Sloped Nose                                   | SF   | 14.000      | 14.000      |
| 0152 | 624.0100 | Water                                                         | MGAL | 1,172.000   | 1,172.000   |
| 0154 | 625.0500 | Salvaged Topsoil                                              | SY   | 30,561.000  | 30,561.000  |
| 0156 | 628.1504 | Silt Fence                                                    | LF   | 38,033.000  | 38,033.000  |
| 0158 | 628.1520 | Silt Fence Maintenance                                        | LF   | 105,099.000 | 105,099.000 |
| 0160 | 628.1905 | Mobilizations Erosion Control                                 | EACH | 6.000       | 6.000       |
| 0162 | 628.1910 | Mobilizations Emergency Erosion Control                       | EACH | 5.000       | 5.000       |
| 0164 | 628.2023 | Erosion Mat Class II Type B                                   | SY   | 30,553.000  | 30,553.000  |
| 0166 | 628.7020 | Inlet Protection Type D                                       | EACH | 36.000      | 36.000      |
| 0168 | 628.7504 | Temporary Ditch Checks                                        | LF   | 110.000     | 110.000     |
| 0170 | 628.7570 | Rock Bags                                                     | EACH | 12.000      | 12.000      |
| 0172 | 629.0210 | Fertilizer Type B                                             | CWT  | 19.340      | 19.340      |
| 0174 | 630.0130 | Seeding Mixture No. 30                                        | LB   | 1,336.000   | 1,336.000   |
| 0176 | 630.0170 | Seeding Mixture No. 70                                        | LB   | 75.000      | 75.000      |
| 0178 | 630.0500 | Seed Water                                                    | MGAL | 685.000     | 685.000     |
| 0180 | 631.0300 | Sod Water                                                     | MGAL | 0.080       | 0.080       |
| 0182 | 631.1000 | Sod Lawn                                                      | SY   | 8.000       | 8.000       |
| 0184 | 634.0614 | Posts Wood 4x6-Inch X 14-FT                                   | EACH | 5.000       | 5.000       |
| 0186 | 634.0618 | Posts Wood 4x6-Inch X 18-FT                                   | EACH | 9.000       | 9.000       |
| 0188 | 637.2210 | Signs Type II Reflective H                                    | SF   | 6.180       | 6.180       |
| 0190 | 637.2230 | Signs Type II Reflective F                                    | SF   | 141.000     | 141.000     |
| 0192 | 638.2102 | Moving Signs Type II                                          | EACH | 117.000     | 117.000     |
| 0194 | 638.2602 | Removing Signs Type II                                        | EACH | 2.000       | 2.000       |

Estimate Of Quantities

5110-06-70

| Line | Item       | Item Description                                                          | Unit | Total       | Qty         |
|------|------------|---------------------------------------------------------------------------|------|-------------|-------------|
| 0196 | 642.5201   | Field Office Type C                                                       | EACH | 1.000       | 1.000       |
| 0198 | 643.0300   | Traffic Control Drums                                                     | DAY  | 2,583.000   | 2,583.000   |
| 0200 | 643.0420   | Traffic Control Barricades Type III                                       | DAY  | 4,323.000   | 4,323.000   |
| 0202 | 643.0705   | Traffic Control Warning Lights Type A                                     | DAY  | 3,056.000   | 3,056.000   |
| 0204 | 643.0715   | Traffic Control Warning Lights Type C                                     | DAY  | 111.000     | 111.000     |
| 0206 | 643.0900   | Traffic Control Signs                                                     | DAY  | 57,217.000  | 57,217.000  |
| 0208 | 643.0920   | Traffic Control Covering Signs Type II                                    | EACH | 14.000      | 14.000      |
| 0210 | 643.1000   | Traffic Control Signs Fixed Message                                       | SF   | 280.000     | 280.000     |
| 0212 | 643.1050   | Traffic Control Signs PCMS                                                | DAY  | 28.000      | 28.000      |
| 0214 | 643.3165   | Temporary Marking Line Paint 6-Inch                                       | LF   | 202,656.000 | 202,656.000 |
| 0216 | 643.3180   | Temporary Marking Line Removable Tape 6-Inch                              | LF   | 3,405.000   | 3,405.000   |
| 0218 | 643.3850   | Temporary Marking Stop Line Removable Tape 18-Inch                        | LF   | 10.000      | 10.000      |
| 0220 | 643.3970   | Temporary Marking Removable Mask Out Tape 10-Inch                         | LF   | 1,325.000   | 1,325.000   |
| 0222 | 643.5000   | Traffic Control                                                           | EACH | 1.000       | 1.000       |
| 0224 | 644.1440   | Temporary Pedestrian Surface Matting                                      | SF   | 326.000     | 326.000     |
| 0226 | 644.1601   | Temporary Pedestrian Curb Ramp                                            | DAY  | 44.000      | 44.000      |
| 0228 | 644.1605   | Temporary Pedestrian Detectable Warning Field                             | SF   | 20.000      | 20.000      |
| 0230 | 644.1810   | Temporary Pedestrian Barricade                                            | LF   | 30.000      | 30.000      |
| 0232 | 645.0120   | Geotextile Type HR                                                        | SY   | 40.000      | 40.000      |
| 0234 | 645.0130   | Geotextile Type R                                                         | SY   | 5.000       | 5.000       |
| 0236 | 646.2040   | Marking Line Grooved Wet Ref Epoxy 6-Inch                                 | LF   | 226,270.000 | 226,270.000 |
| 0238 | 646.6120   | Marking Stop Line Epoxy 18-Inch                                           | LF   | 34.000      | 34.000      |
| 0240 | 646.8220   | Marking Island Nose Epoxy                                                 | EACH | 2.000       | 2.000       |
| 0242 | 648.0100   | Locating No-Passing Zones                                                 | MI   | 12.260      | 12.260      |
| 0244 | 650.4000   | Construction Staking Storm Sewer                                          | EACH | 6.000       | 6.000       |
| 0246 | 650.5500   | Construction Staking Curb Gutter and Curb & Gutter                        | LF   | 1,270.000   | 1,270.000   |
| 0248 | 650.6000   | Construction Staking Pipe Culverts                                        | EACH | 1.000       | 1.000       |
| 0250 | 650.8000   | Construction Staking Resurfacing Reference                                | LF   | 61,297.000  | 61,297.000  |
| 0252 | 650.9000   | Construction Staking Curb Ramps                                           | EACH | 8.000       | 8.000       |
| 0254 | 650.9500   | Construction Staking Sidewalk (project) .01 5110-06-70                    | EACH | 1.000       | 1.000       |
| 0256 | 650.9911   | Construction Staking Supplemental Control (project) .01 5110-06-70        | EACH | 1.000       | 1.000       |
| 0258 | 650.9920   | Construction Staking Slope Stakes                                         | LF   | 22,793.000  | 22,793.000  |
| 0260 | 690.0150   | Sawing Asphalt                                                            | LF   | 4,492.000   | 4,492.000   |
| 0262 | 690.0250   | Sawing Concrete                                                           | LF   | 123.000     | 123.000     |
| 0264 | 740.0440   | Incentive IRI Ride                                                        | DOL  | 46,890.000  | 46,890.000  |
| 0266 | 999.2000.S | Installing and Maintaining Bird Deterrent System (station) .01 STA 262+50 | EACH | 1.000       | 1.000       |
| 0268 | 999.2000.S | Installing and Maintaining Bird Deterrent System (station) .02 STA 412+00 | EACH | 1.000       | 1.000       |
| 0270 | SPV.0060   | Special .01 Resetting Culvert Sections                                    | EACH | 1.000       | 1.000       |
| 0272 | SPV.0060   | Special .02 Adjusting Water Valve Boxes                                   | EACH | 3.000       | 3.000       |
| 0274 | SPV.0090   | Special .40 Reseal Joints                                                 | LF   | 130.000     | 130.000     |
| 0276 | SPV.0165   | Special .40 Fiber Wrap Reinforcing Non-Structural                         | SF   | 32.000      | 32.000      |
| 0278 | SPV.0165   | Special .41 Prestressed Girder Surface Repair                             | SF   | 3.000       | 3.000       |
| 0280 | SPV.0180   | Special .01 Removing Distressed Pavement Milling                          | SY   | 451.000     | 451.000     |

| 204.0115<br>Removing Asphaltic<br>Surface Butt Joints |         |         |          |       |
|-------------------------------------------------------|---------|---------|----------|-------|
| CATEGORY                                              | STAGE   | STATION | LOCATION | SY    |
| 0010                                                  | STAGE 1 | 18+31   | RT       | 86    |
|                                                       | STAGE 1 | 24+84   | RT       | 158   |
|                                                       | STAGE 1 | 32+79   | RT       | 237   |
|                                                       | STAGE 1 | 32+99   | MAINLINE | 417   |
|                                                       | STAGE 1 | 35+67   | LT       | 202   |
|                                                       | STAGE 1 | 42+78   | RT       | 228   |
|                                                       | STAGE 1 | 55+93   | RT       | 353   |
|                                                       | STAGE 1 | 126+28  | RT       | 433   |
|                                                       | STAGE 1 | 225+78  | LT       | 244   |
|                                                       | STAGE 1 | 260+63  | MAINLINE | 428   |
|                                                       | STAGE 1 | 263+68  | MAINLINE | 423   |
|                                                       | STAGE 1 | 267+69  | RT       | 296   |
|                                                       | STAGE 1 | 297+59  | MAINLINE | 407   |
|                                                       | STAGE 2 | 337+49  | LT       | 42    |
|                                                       | STAGE 2 | 364+02  | RT       | 50    |
|                                                       | STAGE 2 | 481+08  | RT       | 30    |
|                                                       | STAGE 2 | 519+97  | RT       | 34    |
|                                                       | STAGE 2 | 626+92  | LT       | 26    |
|                                                       | STAGE 2 | 658+96  | MAINLINE | 132   |
| Contract Total                                        |         |         |          | 4,226 |

|                |         |         |    |         |          | 204.0100<br>Removing Concrete<br>Pavement | 204.0150<br>Removing Curb &<br>Gutter |
|----------------|---------|---------|----|---------|----------|-------------------------------------------|---------------------------------------|
| CATEGORY       | STAGE   | STATION | TO | STATION | LOCATION | SY                                        | LF                                    |
| 0010           | STAGE 1 | 263+78  | -  | 264+19  | LT       |                                           | 41                                    |
|                | STAGE 1 | 263+78  | -  | 264+18  | RT       |                                           | 41                                    |
|                | STAGE 1 | 297+94  | -  | 298+47  | LT       |                                           | 40                                    |
|                | STAGE 1 | 298+17  | -  | 298+47  | RT       |                                           | 40                                    |
|                | STAGE 2 | 339+56  | -  | 339+68  | RT       | 7                                         |                                       |
|                | STAGE 2 | 343+51  | -  | 343+63  | LT       | 7                                         |                                       |
|                | STAGE 2 | 355+58  | -  | 356+70  | RT       |                                           | 112                                   |
|                | STAGE 2 | 363+34  | -  | 363+46  | LT       | 7                                         |                                       |
|                | STAGE 2 | 390+59  | -  | 390+71  | LT       | 7                                         |                                       |
|                | STAGE 2 | 410+46  | -  | 410+60  | LT       | 7                                         |                                       |
|                | STAGE 2 | 431+58  | -  | 432+83  | RT       |                                           | 125                                   |
|                | STAGE 2 | 443+58  | -  | 443+71  | RT       | 7                                         |                                       |
|                | STAGE 2 | 483+48  | -  | 483+77  | RT       |                                           | 30                                    |
|                | STAGE 2 | 496+99  | -  | 497+12  | RT       | 7                                         |                                       |
|                | STAGE 2 | 527+26  | -  | 530+17  | RT       |                                           | 291                                   |
|                | STAGE 2 | 559+57  | -  | 559+92  | LT       | 18                                        |                                       |
|                | STAGE 2 | 584+99  | -  | 585+11  | LT       | 6                                         |                                       |
|                | STAGE 2 | 585+11  | -  | 585+24  | RT       | 6                                         |                                       |
|                | STAGE 2 | 658+56  | -  | 658+91  | LT       |                                           | 43                                    |
|                | STAGE 2 | 658+60  | -  | 659+04  | RT       |                                           | 63                                    |
|                | STAGE 2 | 659+36  | -  | 659+62  | LT       |                                           | 39                                    |
|                | STAGE 2 | 659+37  | -  | 659+59  | RT       |                                           | 35                                    |
| Contract Total |         |         |    |         |          | 79                                        | 900                                   |



|                |         | 203.0100       |      | 204.0220        |  |
|----------------|---------|----------------|------|-----------------|--|
|                |         | Removing Small |      | Removing Inlets |  |
|                |         | Pipe Culverts  |      |                 |  |
| CATEGORY       | STAGE   | STATION        | EACH | EACH            |  |
| 0010           | STAGE 1 | 263+85         | 1    | 1               |  |
|                | STAGE 1 | 298+41         | 1    | 1               |  |
|                | STAGE 2 | 339+55         | 1    | 1               |  |
|                | STAGE 2 | 343+52         | 1    | 1               |  |
|                | STAGE 2 | 390+63         | 1    | 1               |  |
|                | STAGE 2 | 497+03         | 1    | 1               |  |
|                | STAGE 2 | 585+01         | 1    | 1               |  |
|                | STAGE 2 | 585+11         | 1    | 1               |  |
| Contract Total |         |                | 8    | 8               |  |

|                   |         | 204.0120           |    | SPV.1080.01         |        |
|-------------------|---------|--------------------|----|---------------------|--------|
|                   |         | Removing Asphaltic |    | Removing Distressed |        |
|                   |         | Surface Milling    |    | Pavement Milling    |        |
| CATEGORY          | STAGE   | STATION            | TO | STATION             | SY     |
| 0010              | STAGE 1 | 12+49              | -  | 32+79               |        |
|                   | STAGE 1 | 12+49              | -  | 261+63              | 88,789 |
|                   | STAGE 1 | 263+69             | -  | 298+62              | 13,462 |
|                   | STAGE 2 | 307+20             | -  | 339+71              | 13,253 |
|                   | STAGE 2 | 343+48             | -  | 361+04              | 6,817  |
|                   | STAGE 2 | 363+20             | -  | 388+28              | 10,307 |
|                   | STAGE 2 | 390+41             | -  | 410+87              | 8,130  |
|                   | STAGE 2 | 413+70             | -  | 440+46              | 10,593 |
|                   | STAGE 2 | 443+56             | -  | 494+97              | 21,862 |
|                   | STAGE 2 | 496+93             | -  | 556+73              | 24,059 |
|                   | STAGE 2 | 559+46             | -  | 585+26              | 10,114 |
|                   | STAGE 2 | 587+39             | -  | 656+49              | 27,238 |
|                   | STAGE 2 | 657+30             | -  | 659+07              | 782    |
| Category Subtotal |         |                    |    | 235,406             | 451    |
| 0040              | STAGE 1 | 14+19              | -  | 18+16               | 265    |
|                   | STAGE 1 | 13+74              | -  | 19+34               | 277    |
|                   | STAGE 1 | 19+16              | -  | 24+69               | 369    |
|                   | STAGE 1 | 25+69              | -  | 32+64               | 463    |
| Category Subtotal |         |                    |    | 1,374               | 0      |
| Contract Total    |         |                    |    | 236,780             | 451    |

|                |         | 204.0155          |    |
|----------------|---------|-------------------|----|
|                |         | Removing Concrete |    |
|                |         | Sidewalk          |    |
| CATEGORY       | STAGE   | STATION           | TO |
| 0010           | STAGE 2 | 658+56            | -  |
|                | STAGE 2 | 659+39            | -  |
| Contract Total |         |                   |    |



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| 204.0165           |         |         |    |         |          |        |
|--------------------|---------|---------|----|---------|----------|--------|
| Removing Guardrail |         |         |    |         |          |        |
| CATEGORY           | STAGE   | STATION | TO | STATION | LOCATION | LF     |
| 0010               | STAGE 1 | 166+31  | -  | 179+47  | LT       | 1,316  |
|                    | STAGE 1 | 169+47  | -  | 179+49  | RT       | 1,003  |
|                    | STAGE 1 | 227+90  | -  | 233+52  | LT       | 566    |
|                    | STAGE 1 | 257+93  | -  | 261+54  | LT       | 359    |
|                    | STAGE 1 | 259+09  | -  | 261+54  | RT       | 247    |
|                    | STAGE 1 | 263+76  | -  | 272+60  | LT       | 884    |
|                    | STAGE 1 | 263+76  | -  | 268+24  | RT       | 846    |
|                    | STAGE 1 | 292+82  | -  | 297+97  | RT       | 603    |
|                    | STAGE 1 | 293+36  | -  | 298+51  | LT       | 484    |
|                    | STAGE 1 | 298+08  | -  | 298+51  | RT       | 134    |
|                    | STAGE 2 | 307+30  | -  | 310+03  | RT       | 273    |
|                    | STAGE 2 | 307+31  | -  | 310+03  | LT       | 273    |
|                    | STAGE 2 | 315+29  | -  | 319+54  | RT       | 430    |
|                    | STAGE 2 | 321+92  | -  | 329+74  | LT       | 792    |
|                    | STAGE 2 | 323+71  | -  | 329+76  | RT       | 616    |
|                    | STAGE 2 | 336+94  | -  | 339+71  | RT       | 273    |
|                    | STAGE 2 | 337+62  | -  | 339+56  | LT       | 448    |
|                    | STAGE 2 | 343+48  | -  | 346+23  | LT       | 273    |
|                    | STAGE 2 | 343+64  | -  | 346+72  | RT       | 310    |
|                    | STAGE 2 | 352+70  | -  | 360+12  | LT       | 754    |
|                    | STAGE 2 | 356+89  | -  | 360+96  | RT       | 410    |
|                    | STAGE 2 | 360+36  | -  | 361+04  | LT       | 85     |
|                    | STAGE 2 | 362+34  | -  | 368+49  | RT       | 754    |
|                    | STAGE 2 | 363+20  | -  | 363+75  | RT       | 184    |
|                    | STAGE 2 | 363+31  | -  | 365+53  | LT       | 235    |
|                    | STAGE 2 | 365+82  | -  | 369+84  | LT       | 416    |
|                    | STAGE 2 | 384+26  | -  | 388+18  | RT       | 398    |
|                    | STAGE 2 | 387+41  | -  | 388+28  | LT       | 98     |
|                    | STAGE 2 | 390+41  | -  | 393+24  | RT       | 285    |
|                    | STAGE 2 | 390+56  | -  | 393+56  | LT       | 310    |
|                    | STAGE 2 | 393+82  | -  | 396+04  | LT       | 229    |
|                    | STAGE 2 | 407+77  | -  | 410+63  | LT       | 285    |
|                    | STAGE 2 | 407+79  | -  | 410+63  | RT       | 285    |
|                    | STAGE 2 | 413+93  | -  | 416+20  | RT       | 228    |
| Subtotal           |         |         |    |         |          | 15,086 |

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| 204.0165           |         |         |    |         |          |        |
|--------------------|---------|---------|----|---------|----------|--------|
| Removing Guardrail |         |         |    |         |          |        |
| CATEGORY           | STAGE   | STATION | TO | STATION | LOCATION | LF     |
| 0010               | STAGE 2 | 413+96  | -  | 416+30  | LT       | 233    |
|                    | STAGE 2 | 428+81  | -  | 440+46  | LT       | 1,152  |
|                    | STAGE 2 | 432+72  | -  | 438+63  | RT       | 616    |
|                    | STAGE 2 | 438+94  | -  | 440+25  | RT       | 147    |
|                    | STAGE 2 | 443+56  | -  | 453+69  | RT       | 1,008  |
|                    | STAGE 2 | 443+59  | -  | 445+10  | LT       | 172    |
|                    | STAGE 2 | 445+37  | -  | 451+13  | LT       | 603    |
|                    | STAGE 2 | 464+90  | -  | 470+81  | RT       | 592    |
|                    | STAGE 2 | 464+91  | -  | 468+85  | LT       | 641    |
|                    | STAGE 2 | 484+68  | -  | 492+98  | RT       | 863    |
|                    | STAGE 2 | 487+87  | -  | 494+15  | LT       | 640    |
|                    | STAGE 2 | 493+22  | -  | 494+93  | RT       | 185    |
|                    | STAGE 2 | 494+36  | -  | 494+97  | LT       | 85     |
|                    | STAGE 2 | 496+93  | -  | 497+60  | LT       | 85     |
|                    | STAGE 2 | 496+97  | -  | 504+88  | RT       | 785    |
|                    | STAGE 2 | 497+79  | -  | 506+85  | LT       | 927    |
|                    | STAGE 2 | 512+76  | -  | 518+73  | RT       | 603    |
|                    | STAGE 2 | 530+93  | -  | 534+98  | RT       | 405    |
|                    | STAGE 2 | 549+48  | -  | 552+25  | LT       | 888    |
|                    | STAGE 2 | 550+68  | -  | 556+67  | RT       | 596    |
|                    | STAGE 2 | 554+18  | -  | 556+72  | LT       | 371    |
|                    | STAGE 2 | 559+46  | -  | 560+35  | RT       | 102    |
|                    | STAGE 2 | 559+54  | -  | 560+27  | LT       | 85     |
|                    | STAGE 2 | 560+60  | -  | 564+36  | RT       | 392    |
|                    | STAGE 2 | 583+53  | -  | 585+14  | LT       | 160    |
|                    | STAGE 2 | 583+53  | -  | 585+26  | RT       | 173    |
|                    | STAGE 2 | 587+39  | -  | 588+87  | LT       | 148    |
|                    | STAGE 2 | 587+52  | -  | 588+87  | RT       | 136    |
|                    | STAGE 2 | 591+06  | -  | 593+99  | LT       | 304    |
|                    | STAGE 2 | 591+62  | -  | 593+54  | RT       | 204    |
|                    | STAGE 2 | 594+76  | -  | 604+63  | RT       | 979    |
|                    | STAGE 2 | 618+22  | -  | 623+63  | RT       | 542    |
|                    | STAGE 2 | 628+23  | -  | 632+10  | LT       | 414    |
|                    | STAGE 2 | 632+27  | -  | 635+87  | LT       | 379    |
| Subtotal           |         |         |    |         |          | 15,615 |
| Contract Total     |         |         |    |         |          | 30,701 |



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| DIVISION              | FROM/TO<br>STATION  | LOCATION | 205.0100 *<br>EXCAVATION<br>COMMON<br>(1) | SALVAGED/UNUSABLE<br>PAVEMENT MATERIAL<br>(4) | AVAILABLE<br>MATERIAL<br>(5) | UNEXPANDED<br>FILL | EXPANDED FILL<br>(13) | MASS ORDINATE<br>+/-<br>(14) | WASTE | 208.0100<br>BORROW | COMMENT |
|-----------------------|---------------------|----------|-------------------------------------------|-----------------------------------------------|------------------------------|--------------------|-----------------------|------------------------------|-------|--------------------|---------|
|                       |                     |          | CUT<br>(2)                                |                                               |                              |                    | FACTOR<br>1.25        |                              |       |                    |         |
| DIVISION 1            |                     |          |                                           |                                               |                              |                    |                       |                              |       |                    |         |
| STAGE 1 - LOCATION 1  | 164+73.60/181+64.70 |          | 904                                       | 904                                           | 0                            | 2                  | 3                     | -3                           |       |                    |         |
| STAGE 1 - LOCATION 2  | 226+69.06/235+50.00 |          | 327                                       | 327                                           | 0                            | 13                 | 16                    | -16                          |       |                    |         |
| STAGE 1 - LOCATION 3  | 256+94.19/261+46.50 |          | 281                                       | 281                                           | 0                            | 29                 | 36                    | -36                          |       |                    |         |
| STAGE 1 - LOCATION 4  | 263+80.87/273+76.06 |          | 252                                       | 252                                           | 0                            | 24                 | 30                    | -30                          |       |                    |         |
| STAGE 1 - LOCATION 5  | 291+11.91/298+46.89 |          | 362                                       | 362                                           | 0                            | 1                  | 1                     | -1                           |       |                    |         |
| STAGE 2 - LOCATION 1  | 307+20.23/310+82.33 |          | 214                                       | 214                                           | 0                            | 22                 | 28                    | -28                          |       |                    |         |
| STAGE 2 - LOCATION 2  | 315+12.88/320+00.00 |          | 120                                       | 120                                           | 0                            | 2                  | 3                     | -3                           |       |                    |         |
| STAGE 2 - LOCATION 3  | 321+07.73/330+78.05 |          | 414                                       | 414                                           | 0                            | 10                 | 13                    | -13                          |       |                    |         |
| STAGE 2 - LOCATION 4  | 336+10.91/339+50.00 |          | 152                                       | 152                                           | 0                            | 51                 | 64                    | -64                          |       |                    |         |
| STAGE 2 - LOCATION 5  | 343+48.18/347+72.33 |          | 268                                       | 268                                           | 0                            | 34                 | 43                    | -43                          |       |                    |         |
| STAGE 2 - LOCATION 6  | 353+11.17/360+96.29 |          | 327                                       | 327                                           | 0                            | 21                 | 26                    | -26                          |       |                    |         |
| STAGE 2 - LOCATION 7  | 363+20.16/370+26.19 |          | 383                                       | 383                                           | 0                            | 37                 | 46                    | -46                          |       |                    |         |
| STAGE 2 - LOCATION 8  | 382+96.11/388+18.64 |          | 175                                       | 175                                           | 0                            | 4                  | 5                     | -5                           |       |                    |         |
| STAGE 2 - LOCATION 9  | 390+40.81/393+12.45 |          | 138                                       | 138                                           | 0                            | 6                  | 8                     | -8                           |       |                    |         |
| STAGE 2 - LOCATION 10 | 394+00.00/397+28.82 |          | 105                                       | 105                                           | 0                            | 10                 | 13                    | -13                          |       |                    |         |
| STAGE 2 - LOCATION 11 | 406+23.80/410+62.15 |          | 255                                       | 255                                           | 0                            | 6                  | 8                     | -8                           |       |                    |         |
| STAGE 2 - LOCATION 12 | 413+93.11/417+50.83 |          | 177                                       | 177                                           | 0                            | 25                 | 31                    | -31                          |       |                    |         |
| STAGE 2 - LOCATION 13 | 427+93.83/440+46.24 |          | 648                                       | 648                                           | 0                            | 51                 | 64                    | -64                          |       |                    |         |
| STAGE 2 - LOCATION 14 | 443+55.80/453+41.64 |          | 465                                       | 465                                           | 0                            | 12                 | 15                    | -15                          |       |                    |         |
| STAGE 2 - LOCATION 15 | 464+08.78/471+71.00 |          | 322                                       | 322                                           | 0                            | 8                  | 10                    | -10                          |       |                    |         |
| STAGE 2 - LOCATION 16 | 482+85.42/494+92.63 |          | 536                                       | 536                                           | 0                            | 81                 | 101                   | -101                         |       |                    |         |
| STAGE 2 - LOCATION 17 | 497+00.00/510+04.07 |          | 510                                       | 510                                           | 0                            | 25                 | 31                    | -31                          |       |                    |         |
| STAGE 2 - LOCATION 18 | 511+87.38/519+33.03 |          | 265                                       | 265                                           | 0                            | 10                 | 13                    | -13                          |       |                    |         |
| STAGE 2 - LOCATION 19 | 529+88.32/535+86.15 |          | 158                                       | 158                                           | 0                            | 9                  | 11                    | -11                          |       |                    |         |
| STAGE 2 - LOCATION 20 | 547+62.44/556+66.67 |          | 438                                       | 438                                           | 0                            | 9                  | 11                    | -11                          |       |                    |         |
| STAGE 2 - LOCATION 21 | 559+46.56/565+01.33 |          | 229                                       | 229                                           | 0                            | 0                  | 0                     | 0                            |       |                    |         |
| STAGE 2 - LOCATION 22 | 582+32.50/585+25.82 |          | 186                                       | 186                                           | 0                            | 22                 | 28                    | -28                          |       |                    |         |
| STAGE 2 - LOCATION 23 | 587+39.28/604+14.69 |          | 712                                       | 712                                           | 0                            | 2                  | 3                     | -3                           |       |                    |         |
| STAGE 2 - LOCATION 24 | 617+00.00/623+76.98 |          | 211                                       | 211                                           | 0                            | 11                 | 14                    | -14                          |       |                    |         |
| STAGE 2 - LOCATION 25 | 628+27.49/631+95.40 |          | 87                                        | 87                                            | 0                            | 141                | 176                   | -176                         |       |                    |         |
| STAGE 2 - LOCATION 26 | 632+44.52/636+11.21 |          | 100                                       | 100                                           | 0                            | 76                 | 95                    | -95                          |       |                    |         |
| DIVISION 1 SUBTOTAL   |                     |          | 9,721                                     | 9,721                                         | 0                            | 754                | 943                   | -943                         | 0     | 943                |         |
| GRAND TOTAL           |                     |          | 9,721                                     | 9,721                                         | 0                            | 754                | 943                   | -943                         | 0     | 943                |         |
| TOTAL COMMON EXC      |                     |          | 9,721                                     |                                               |                              |                    |                       |                              |       |                    |         |

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL

(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL

(13) EXPANDED FILL FACTOR = 1.25

DEPENDING ON SELECTIONS:

EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH - REDUCED EBS) \* FILL FACTOR

OR

EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED EBS) \* FILL FACTOR

OR

EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH) \* FILL FACTOR

OR

EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK) \* FILL FACTOR

(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

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|                |         |         |          | 204.9060.S.01  | 204.9060.S.02     |
|----------------|---------|---------|----------|----------------|-------------------|
|                |         |         |          | Removing Apron | Removing Apron    |
|                |         |         |          | Endwalls Steel | Endwalls Concrete |
| CATEGORY       | STAGE   | STATION | LOCATION | EACH           | EACH              |
| 0010           | STAGE 2 | 326+77  | RT       |                | 1                 |
|                | STAGE 2 | 328+50  | RT       | 1              |                   |
| Contract Total |         |         |          | 1              | 1                 |

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| 205.0100          |         |         |    |         |       |                       |
|-------------------|---------|---------|----|---------|-------|-----------------------|
| Excavation Common |         |         |    |         |       |                       |
| CATEGORY          | STAGE   | STATION | TO | STATION | CY    | REMARKS               |
| 0010              | STAGE 2 | 526+81  | -  | 527+81  | 460   | FOR NEW CULVERT PIPES |
|                   | STAGE 2 | 527+31  | -  | 529+38  | 276   | FOR NEW CULVERT PIPES |
|                   | STAGE 2 | 623+75  | -  | 624+22  | 62    | FOR NEW CULVERT PIPES |
|                   | STAGE 2 | 638+34  | -  | 639+54  | 285   | FOR NEW CULVERT PIPES |
|                   | STAGE 2 | 658+62  | -  | 658+92  | 11    | FOR CURB RAMPS        |
|                   | STAGE 2 | 659+39  | -  | 659+65  | 3     | FOR CURB RAMPS        |
|                   | STAGE 2 | 659+40  | -  | 659+59  | 7     | FOR CURB RAMPS        |
|                   | STAGE 2 | 659+42  | -  | 659+60  | 7     | FOR CURB RAMPS        |
| Contract Total    |         |         |    |         | 1,111 |                       |

\*ADDITIONAL QUANTITIES SHOWN ON THE EARTHWORK SUMMARY

| 209.2500                  |         |         |    |         |          |       |                       |
|---------------------------|---------|---------|----|---------|----------|-------|-----------------------|
| Backfill Granular Grade 2 |         |         |    |         |          |       |                       |
| CATEGORY                  | STAGE   | STATION | TO | STATION | LOCATION | TON   | REMARKS               |
| 0010                      | STAGE 2 | 526+55  | -  | 528+07  | MEDIAN   | 690   | FOR NEW CULVERT PIPES |
|                           | STAGE 2 | 527+31  | -  | 529+38  | RT       | 414   | FOR NEW CULVERT PIPES |
|                           | STAGE 2 | 623+75  | -  | 624+22  | RT       | 93    | FOR NEW CULVERT PIPES |
|                           | STAGE 2 | 638+01  | -  | 639+67  | MEDIAN   | 422   | FOR NEW CULVERT PIPES |
| Contract Total            |         |         |    |         |          | 1,619 |                       |

| 211.0101             |      |
|----------------------|------|
| Prepare Foundation   |      |
| for Asphaltic Paving |      |
| (5110-06-70)         |      |
| CATEGORY             | EACH |
| 0010                 | 1    |
| Contract Total       |      |
| 1                    |      |

| 305.0500          |         |         |    |         |          |     |
|-------------------|---------|---------|----|---------|----------|-----|
| Shaping Shoulders |         |         |    |         |          |     |
| CATEGORY          | STAGE   | STATION | TO | STATION | LOCATION | STA |
| 0010              | STAGE 2 | 307+20  | -  | 659+65  | LT       | 352 |
|                   | STAGE 2 | 307+20  | -  | 659+65  | RT       | 352 |
| Contract Total    |         |         |    |         |          | 704 |

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| 305.0110                      |         |         |   |         |          | 305.0120                        |        |                   |
|-------------------------------|---------|---------|---|---------|----------|---------------------------------|--------|-------------------|
| Base Aggregate Dense 3/4-Inch |         |         |   |         |          | Base Aggregate Dense 1 1/4-Inch |        |                   |
| CATEGORY                      | STAGE   | STATION | - | STATION | LOCATION | TON                             | TON    | REMARKS           |
| 0010                          | STAGE 1 | 19+50   | - | 164+70  | LT       | 1,574                           |        | SHAPING SHOULDERS |
|                               | STAGE 1 | 33+67   | - | 168+45  | RT       | 1,447                           |        | SHAPING SHOULDERS |
|                               | STAGE 1 | 164+70  | - | 181+72  | LT       | 219                             | 1,296  |                   |
|                               | STAGE 1 | 168+45  | - | 181+49  | RT       | 218                             | 1,104  |                   |
|                               | STAGE 1 | 181+49  | - | 257+27  | RT       | 819                             |        | SHAPING SHOULDERS |
|                               | STAGE 1 | 181+72  | - | 310+99  | LT       | 478                             |        | SHAPING SHOULDERS |
|                               | STAGE 1 | 226+67  | - | 235+65  | LT       | 201                             | 965    |                   |
|                               | STAGE 1 | 235+65  | - | 256+72  | LT       | 226                             |        | SHAPING SHOULDERS |
|                               | STAGE 1 | 256+72  | - | 261+54  | LT       | 70                              | 438    |                   |
|                               | STAGE 1 | 257+27  | - | 261+54  | RT       | 75                              | 298    |                   |
|                               | STAGE 1 | 263+76  | - | 273+76  | LT       | 129                             | 637    |                   |
|                               | STAGE 1 | 263+76  | - | 268+24  | RT       | 103                             | 475    |                   |
|                               | STAGE 1 | 268+74  | - | 291+11  | RT       | 242                             |        | SHAPING SHOULDERS |
|                               | STAGE 1 | 273+76  | - | 292+18  | LT       | 199                             |        | SHAPING SHOULDERS |
|                               | STAGE 1 | 291+11  | - | 297+97  | RT       | 99                              | 618    |                   |
|                               | STAGE 1 | 292+18  | - | 298+49  | LT       | 77                              | 447    |                   |
|                               | STAGE 1 | 297+94  | - | 298+08  | RT       |                                 | 26     | SAFETY ISLAND     |
|                               | STAGE 2 | 307+20  | - | 310+21  | RT       | 41                              | 134    |                   |
|                               | STAGE 2 | 307+31  | - | 310+82  | LT       | 46                              | 159    |                   |
|                               | STAGE 2 | 315+12  | - | 320+23  | RT       | 73                              | 243    |                   |
|                               | STAGE 2 | 321+08  | - | 330+78  | LT       | 131                             | 534    |                   |
|                               | STAGE 2 | 323+70  | - | 329+24  | RT       | 79                              | 254    |                   |
|                               | STAGE 2 | 336+11  | - | 339+71  | RT       | 50                              | 193    |                   |
|                               | STAGE 2 | 337+48  | - | 339+56  | LT       | 63                              | 201    |                   |
|                               | STAGE 2 | 343+48  | - | 347+05  | LT       | 50                              | 199    |                   |
|                               | STAGE 2 | 343+64  | - | 347+72  | RT       | 53                              | 238    |                   |
|                               | STAGE 2 | 353+18  | - | 360+04  | LT       | 94                              | 305    |                   |
|                               | STAGE 2 | 355+65  | - | 360+96  | RT       | 73                              | 247    |                   |
|                               | STAGE 2 | 360+39  | - | 361+04  | LT       | 10                              | 35     |                   |
|                               | STAGE 2 | 361+60  | - | 370+19  | RT       | 144                             | 471    |                   |
|                               | STAGE 2 | 363+20  | - | 364+06  | RT       | 26                              | 89     |                   |
|                               | STAGE 2 | 363+31  | - | 365+37  | LT       | 30                              | 94     |                   |
|                               | STAGE 2 | 365+90  | - | 370+26  | LT       | 67                              | 303    |                   |
|                               | STAGE 2 | 382+93  | - | 388+19  | RT       | 71                              | 313    |                   |
|                               | STAGE 2 | 387+38  | - | 388+28  | LT       | 14                              | 53     |                   |
| Subtotal                      |         |         |   |         |          | 7,291                           | 10,369 |                   |

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(CONTINUED FROM PREVIOUS PAGE)

| CATEGORY       | STAGE   | STATION | - | STATION | LOCATION | 305.0110                             | 305.0120                               | REMARKS               |
|----------------|---------|---------|---|---------|----------|--------------------------------------|----------------------------------------|-----------------------|
|                |         |         |   |         |          | Base Aggregate Dense 3/4-Inch<br>TON | Base Aggregate Dense 1 1/4-Inch<br>TON |                       |
| 0010           | STAGE 2 | 390+41  | - | 393+15  | RT       | 40                                   | 150                                    |                       |
|                | STAGE 2 | 390+56  | - | 393+41  | LT       | 40                                   | 146                                    |                       |
|                | STAGE 2 | 394+03  | - | 397+29  | LT       | 49                                   | 189                                    |                       |
|                | STAGE 2 | 406+68  | - | 410+63  | LT       | 53                                   | 175                                    |                       |
|                | STAGE 2 | 406+69  | - | 410+63  | RT       | 55                                   | 214                                    |                       |
|                | STAGE 2 | 413+93  | - | 415+90  | RT       | 33                                   | 117                                    |                       |
|                | STAGE 2 | 413+96  | - | 417+68  | LT       | 56                                   | 200                                    |                       |
|                | STAGE 2 | 427+94  | - | 440+46  | LT       | 158                                  | 531                                    |                       |
|                | STAGE 2 | 432+10  | - | 438+42  | RT       | 88                                   | 320                                    |                       |
|                | STAGE 2 | 439+05  | - | 440+25  | RT       | 19                                   | 72                                     |                       |
|                | STAGE 2 | 443+56  | - | 453+42  | RT       | 125                                  | 410                                    |                       |
|                | STAGE 2 | 443+59  | - | 444+98  | LT       | 22                                   | 81                                     |                       |
|                | STAGE 2 | 445+37  | - | 451+80  | LT       | 88                                   | 347                                    |                       |
|                | STAGE 2 | 464+08  | - | 471+71  | RT       | 105                                  | 384                                    |                       |
|                | STAGE 2 | 464+88  | - | 468+92  | LT       | 110                                  | 313                                    |                       |
|                | STAGE 2 | 482+98  | - | 492+80  | RT       | 135                                  | 508                                    |                       |
|                | STAGE 2 | 486+98  | - | 494+13  | LT       | 96                                   | 331                                    |                       |
|                | STAGE 2 | 493+38  | - | 494+93  | RT       | 24                                   | 73                                     |                       |
|                | STAGE 2 | 494+36  | - | 494+97  | LT       | 11                                   | 33                                     |                       |
|                | STAGE 2 | 496+93  | - | 497+63  | LT       | 13                                   | 43                                     |                       |
|                | STAGE 2 | 496+97  | - | 505+93  | RT       | 115                                  | 404                                    |                       |
|                | STAGE 2 | 497+84  | - | 510+04  | LT       | 161                                  | 560                                    |                       |
|                | STAGE 2 | 511+87  | - | 519+33  | RT       | 104                                  | 440                                    |                       |
|                | STAGE 2 | 526+55  | - | 528+07  | MEDIAN   |                                      | 225                                    | FOR NEW CULVERT PIPES |
|                | STAGE 2 | 528+85  | - | 535+87  | RT       | 94                                   | 323                                    |                       |
|                | STAGE 2 | 547+62  | - | 556+67  | RT       | 115                                  | 410                                    |                       |
|                | STAGE 2 | 548+36  | - | 554+29  | LT       | 123                                  | 374                                    |                       |
|                | STAGE 2 | 554+14  | - | 556+72  | LT       | 48                                   | 185                                    |                       |
|                | STAGE 2 | 559+46  | - | 560+25  | RT       | 14                                   | 55                                     |                       |
|                | STAGE 2 | 559+54  | - | 560+22  | LT       | 15                                   | 46                                     |                       |
|                | STAGE 2 | 560+70  | - | 565+02  | RT       | 64                                   | 271                                    |                       |
|                | STAGE 2 | 582+48  | - | 585+14  | LT       | 38                                   | 129                                    |                       |
|                | STAGE 2 | 582+57  | - | 585+26  | RT       | 39                                   | 164                                    |                       |
|                | STAGE 2 | 587+39  | - | 590+82  | LT       | 47                                   | 145                                    |                       |
|                | STAGE 2 | 587+52  | - | 589+71  | RT       | 33                                   | 110                                    |                       |
|                | STAGE 2 | 591+10  | - | 595+28  | LT       | 64                                   | 217                                    |                       |
|                | STAGE 2 | 591+76  | - | 604+28  | RT       | 164                                  | 567                                    |                       |
|                | STAGE 2 | 616+57  | - | 623+77  | RT       | 96                                   | 356                                    |                       |
|                | STAGE 2 | 628+27  | - | 631+96  | LT       | 47                                   | 178                                    |                       |
|                | STAGE 2 | 632+44  | - | 636+12  | LT       | 56                                   | 176                                    |                       |
|                | STAGE 2 | 638+01  | - | 639+67  | MEDIAN   |                                      | 267                                    | FOR NEW CULVERT PIPES |
| Subtotal       |         |         |   |         |          | 2,757                                | 10,239                                 |                       |
| Contract Total |         |         |   |         |          | 10,048                               | 20,608                                 |                       |

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| CATEGORY          | STAGE   | STATION | TO | STATION | 330.0100                | 455.0605         | 460.6223                            | 460.6224                            | 465.0105                 | 465.0120                                                  | 465.0560                                     |
|-------------------|---------|---------|----|---------|-------------------------|------------------|-------------------------------------|-------------------------------------|--------------------------|-----------------------------------------------------------|----------------------------------------------|
|                   |         |         |    |         | Mill and<br>Relay<br>SY | Tack Coat<br>GAL | HMA Pavement<br>3 MT 58-28 S<br>TON | HMA Pavement<br>4 MT 58-28 S<br>TON | Asphaltic Surface<br>TON | Asphaltic Surface Driveways<br>and Field Entrances<br>TON | Asphaltic Rumble<br>Strips, Centerline<br>LF |
| 0010              | STAGE 1 | 12+49   | -  | 32+99   |                         | 560              | 1,008                               | 784                                 | 50                       |                                                           | 2,050                                        |
|                   | STAGE 1 | 32+99   | -  | 261+63  | 80,791                  | 5,655            | 10,180                              | 7,918                               |                          |                                                           | 22,864                                       |
|                   | STAGE 1 | 35+95   | -  | 36+32   |                         |                  |                                     |                                     |                          | 4                                                         |                                              |
|                   | STAGE 1 | 60+71   | -  | 61+01   |                         |                  |                                     |                                     |                          | 2                                                         |                                              |
|                   | STAGE 1 | 73+63   | -  | 73+84   |                         |                  |                                     |                                     |                          | 2                                                         |                                              |
|                   | STAGE 1 | 263+69  | -  | 298+62  | 13,462                  | 942              | 1,697                               | 1,320                               |                          |                                                           | 3,493                                        |
|                   | STAGE 2 | 307+19  | -  | 339+71  | 13,253                  | 928              | 1,670                               | 1,299                               |                          |                                                           |                                              |
|                   | STAGE 2 | 307+19  | -  | 339+63  |                         |                  |                                     |                                     |                          |                                                           | 3,243                                        |
|                   | STAGE 2 | 313+41  | -  | 313+75  |                         |                  |                                     |                                     |                          |                                                           |                                              |
|                   | STAGE 2 | 343+48  | -  | 361+04  | 6,817                   | 477              | 859                                 | 669                                 |                          |                                                           |                                              |
|                   | STAGE 2 | 343+56  | -  | 361+00  |                         |                  |                                     |                                     |                          |                                                           | 1,744                                        |
|                   | STAGE 2 | 363+20  | -  | 388+28  | 10,307                  | 721              | 1,299                               | 1,011                               |                          |                                                           |                                              |
|                   | STAGE 2 | 363+26  | -  | 388+23  |                         |                  |                                     |                                     |                          |                                                           | 2,498                                        |
|                   | STAGE 2 | 390+41  | -  | 410+87  | 8,130                   | 569              | 1,025                               | 797                                 |                          |                                                           |                                              |
|                   | STAGE 2 | 390+49  | -  | 410+86  |                         |                  |                                     |                                     |                          |                                                           | 2,037                                        |
|                   | STAGE 2 | 413+70  | -  | 440+46  | 10,593                  | 742              | 1,335                               | 1,039                               |                          |                                                           |                                              |
|                   | STAGE 2 | 413+70  | -  | 440+36  |                         |                  |                                     |                                     |                          |                                                           | 2,666                                        |
|                   | STAGE 2 | 443+56  | -  | 494+97  | 21,862                  | 1,530            | 2,755                               | 2,143                               |                          |                                                           |                                              |
|                   | STAGE 2 | 443+58  | -  | 494+95  |                         |                  |                                     |                                     |                          |                                                           | 5,137                                        |
|                   | STAGE 2 | 496+93  | -  | 556+73  | 24,059                  | 1,684            | 3,032                               | 2,358                               |                          |                                                           |                                              |
|                   | STAGE 2 | 496+95  | -  | 556+70  |                         |                  |                                     |                                     |                          |                                                           | 5,975                                        |
|                   | STAGE 2 | 516+68  | -  | 517+00  |                         |                  |                                     |                                     |                          |                                                           |                                              |
|                   | STAGE 2 | 559+46  | -  | 585+26  | 10,114                  | 708              | 1,275                               | 992                                 |                          |                                                           |                                              |
|                   | STAGE 2 | 559+50  | -  | 585+20  |                         |                  |                                     |                                     |                          |                                                           | 2,569                                        |
|                   | STAGE 2 | 587+39  | -  | 656+49  | 27,238                  | 1,907            | 3,432                               | 2,670                               |                          |                                                           |                                              |
|                   | STAGE 2 | 587+45  | -  | 656+41  |                         |                  |                                     |                                     |                          |                                                           | 6,896                                        |
|                   | STAGE 2 | 619+23  | -  | 619+49  |                         |                  |                                     |                                     |                          |                                                           |                                              |
|                   | STAGE 2 | 620+06  | -  | 620+54  |                         |                  |                                     |                                     |                          |                                                           |                                              |
|                   | STAGE 2 | 631+85  | -  | 632+51  |                         |                  |                                     |                                     |                          |                                                           |                                              |
|                   | STAGE 2 | 643+38  | -  | 643+64  |                         |                  |                                     |                                     |                          |                                                           |                                              |
|                   | STAGE 2 | 644+32  | -  | 644+58  |                         |                  |                                     |                                     |                          |                                                           |                                              |
|                   | STAGE 2 | 645+35  | -  | 645+69  |                         |                  |                                     |                                     |                          |                                                           |                                              |
|                   | STAGE 2 | 648+34  | -  | 648+61  |                         |                  |                                     |                                     |                          |                                                           |                                              |
|                   | STAGE 2 | 657+30  | -  | 659+07  | 782                     | 55               | 99                                  | 77                                  |                          |                                                           |                                              |
|                   | STAGE 2 | 657+36  | -  | 658+60  |                         |                  |                                     |                                     |                          |                                                           | 125                                          |
| UNDISTRIBUTED     |         |         |    |         |                         | 32               |                                     |                                     |                          |                                                           |                                              |
| Category Subtotal |         |         |    |         | 227,408                 | 16,510           | 29,666                              | 23,077                              | 50                       | 8                                                         | 61,297                                       |

(CONTINUED ON NEXT PAGE)

(CONTINUED FROM PREVIOUS PAGE)

| CATEGORY          | STAGE   | STATION | TO | STATION | 330.0100<br>Mill and<br>Relay<br>SY | 455.0605<br>Tack Coat<br>GAL | 460.6223<br>HMA Pavement<br>3 MT 58-28 S<br>TON | 460.6224<br>HMA Pavement<br>4 MT 58-28 S<br>TON | 465.0105<br>Asphaltic Surface<br>TON | 465.0120<br>Asphaltic Surface Driveways<br>and Field Entrances<br>TON | 465.0560<br>Asphaltic Rumble<br>Strips, Centerline<br>LF |
|-------------------|---------|---------|----|---------|-------------------------------------|------------------------------|-------------------------------------------------|-------------------------------------------------|--------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------|
| 0040              | STAGE 1 | 14+19   | -  | 18+16   |                                     | 19                           | 33                                              | 26                                              |                                      |                                                                       |                                                          |
|                   | STAGE 1 | 13+74   | -  | 19+34   |                                     | 19                           | 35                                              | 27                                              |                                      |                                                                       |                                                          |
|                   | STAGE 1 | 19+16   | -  | 24+69   |                                     | 26                           | 46                                              | 36                                              |                                      |                                                                       |                                                          |
|                   | STAGE 1 | 25+69   | -  | 32+64   |                                     | 32                           | 58                                              | 45                                              |                                      |                                                                       |                                                          |
| Category Subtotal |         |         |    |         | 0                                   | 96                           | 172                                             | 134                                             | 0                                    | 0                                                                     | 0                                                        |
| Contract Total    |         |         |    |         | 227,408                             | 16,606                       | 29,838                                          | 23,211                                          | 50                                   | 8                                                                     | 61,297                                                   |

|                |         |    |         | 460.0105.S                      | 460.0110.S                      |
|----------------|---------|----|---------|---------------------------------|---------------------------------|
|                |         |    |         | HMA Percent Within Limits (PWL) | HMA Percent Within Limits (PWL) |
|                |         |    |         | Test Strip Volumetrics          | Test Strip Density              |
| CATEGORY       | STATION | TO | STATION | EACH                            | EACH                            |
| 0010           | 12+49   | -  | 659+65  | 2                               | 2                               |
| Contract Total |         |    |         | 2                               | 2                               |

| Location                | Station              | Mixture Use | Underlying Surface  | Bid Item     | Tons  | Thickness | Quality Management Program to be used for:    |                                                                     |
|-------------------------|----------------------|-------------|---------------------|--------------|-------|-----------|-----------------------------------------------|---------------------------------------------------------------------|
|                         |                      |             |                     |              |       |           | Mixture Acceptance                            | Density Acceptance                                                  |
| 12 foot driving Lane    | 12+49.40 - 32+99.00  | Lower Layer | Milled Surface      | 3 MT 58-28 S | 689   | 2 ¼"      | PWL Incentive Air Voids HMA Pavement 460.2010 | Incentive Density PWL HMA Pavement 460.2005                         |
| 12 foot driving Lane    | 32+99.00 - 659+06.34 | Lower Layer | Milled & Relaid HMA | 3 MT 58-28 S | 20019 | 2 ¼"      | PWL Incentive Air Voids HMA Pavement 460.2010 | Incentive Density PWL HMA Pavement 460.2005                         |
| 8 foot shoulder         | 12+49.40 - 32+99.00  | Lower Layer | Milled Surface      | 3 MT 58-28 S | 459   | 2 ¼"      | PWL Incentive Air Voids HMA Pavement 460.2010 | Department Acceptance (SS 460.3.3.2)<br>*Not eligible for incentive |
| Variable width shoulder | 32+99.00 - 659+06.34 | Lower Layer | Milled & Relaid HMA | 3 MT 58-28 S | 8313  | 2 ¼"      | PWL Incentive Air Voids HMA Pavement 460.2010 | Department Acceptance (SS 460.3.3.2)<br>*Not eligible for incentive |
| Intersections           | 12+49.40 - 659+06.34 | Lower Layer | Milled Surface      | 3 MT 58-28 S | 504   | 2 ¼"      | PWL Incentive Air Voids HMA Pavement 460.2010 | Department Acceptance (SS 460.3.3.2)<br>*Not eligible for incentive |
| 12 foot driving Lane    | 12+49.40 - 659+06.34 | Upper Layer | 3 MT 58-28 S        | 4 MT 58-28 S | 16106 | 1 ¾"      | PWL Incentive Air Voids HMA Pavement 460.2010 | Incentive Density PWL HMA Pavement 460.2005                         |
| Variable width shoulder | 12+49.40 - 659+06.34 | Upper Layer | 3 MT 58-28 S        | 4 MT 58-28 S | 6822  | 1 ¾"      | PWL Incentive Air Voids HMA Pavement 460.2010 | Department Acceptance (SS 460.3.3.2)<br>*Not eligible for incentive |
| Intersections           | 12+49.40 - 659+06.34 | Upper Layer | 3 MT 58-28 S        | 4 MT 58-28 S | 392   | 1 ¾"      | PWL Incentive Air Voids HMA Pavement 460.2010 | Department Acceptance (SS 460.3.3.2)<br>*Not eligible for incentive |

|                |         |                    |   |        | 520.8000         |
|----------------|---------|--------------------|---|--------|------------------|
|                |         |                    |   |        | Concrete         |
|                |         |                    |   |        | Collars for Pipe |
| CATEGORY       | STAGE   | STATION TO STATION |   |        | EACH             |
| 0010           | STAGE 2 | 325+67             | - | 325+69 | 1                |
| Contract Total |         |                    |   |        | 1                |



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|                |         |         |    |         | 522.0112<br>Culvert Pipe<br>Reinforced<br>Concrete Class<br>III 12-Inch<br>LF | 608.0324<br>Storm Sewer Pipe<br>Reinforced<br>Concrete Class III<br>24-Inch<br>LF | 608.0412<br>Storm Sewer<br>Pipe Reinforced<br>Concrete Class IV<br>12-Inch | Inlet<br>Elevation | Discharge<br>Elevation | Slope<br>Ft/Ft |
|----------------|---------|---------|----|---------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------|------------------------|----------------|
| CATEGORY       | STAGE   | STATION | TO | STATION | LOCATION                                                                      |                                                                                   |                                                                            |                    |                        |                |
|                | STAGE 2 | 527+31  | -  | 527+87  | RT                                                                            |                                                                                   | 56                                                                         | 964.80             | 963.91                 | 1.59%          |
|                | STAGE 2 | 527+31  | -  | 527+31  | MEDIAN                                                                        |                                                                                   | 56                                                                         | 962.91             | 961.85                 | 1.88%          |
|                | STAGE 2 | 527+87  | -  | 529+38  | RT                                                                            |                                                                                   | 151                                                                        | 965.94             | 964.80                 | 0.75%          |
|                | STAGE 2 | 623+75  | -  | 624+22  | RT                                                                            | 44                                                                                |                                                                            | 935.06             | 934.84                 | 0.50%          |
|                | STAGE 2 | 638+84  | -  | 639+05  | MEDIAN                                                                        |                                                                                   | 69                                                                         | 902.83             | 902.08                 | 1.09%          |
| Contract Total |         |         |    |         | 44                                                                            | 125                                                                               | 207                                                                        |                    |                        |                |

|                |         |         |          | 522.1012<br>Apron Endwalls<br>for Culvert Pipe<br>Reinforced<br>Concrete 12-Inch<br>EACH | 522.1024<br>Apron Endwalls<br>for Culvert Pipe<br>Reinforced<br>Concrete 24-Inch<br>EACH |
|----------------|---------|---------|----------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| CATEGORY       | STAGE   | STATION | LOCATION | EACH                                                                                     | EACH                                                                                     |
| 0010           | STAGE 2 | 527+27  | LT       |                                                                                          | 1                                                                                        |
|                | STAGE 2 | 623+74  | RT       | 1                                                                                        |                                                                                          |
|                | STAGE 2 | 624+20  | RT       | 1                                                                                        |                                                                                          |
|                | STAGE 2 | 639+03  | LT       |                                                                                          | 1                                                                                        |
| Contract Total |         |         |          | 2                                                                                        | 2                                                                                        |

|                |         |         |          | 611.0639     | 611.3230      |           |           |       |
|----------------|---------|---------|----------|--------------|---------------|-----------|-----------|-------|
|                |         |         |          | Inlet Covers |               |           |           |       |
|                |         |         |          | Type H-S     | Inlets 2x3-FT | Rim       | Invert    | Depth |
| CATEGORY       | STAGE   | STATION | LOCATION | EACH         | EACH          | Elevation | Elevation | Ft    |
| 0010           | STAGE 2 | 527+30  | RT       | 1            | 1             | 968.65    | 962.91    | 5.74  |
|                | STAGE 2 | 527+86  | RT       | 1            | 1             | 968.79    | 964.80    | 3.99  |
|                | STAGE 2 | 529+37  | RT       | 1            | 1             | 969.44    | 965.94    | 3.5   |
|                | STAGE 2 | 638+85  | RT       | 1            | 1             | 910.32    | 902.83    | 7.49  |
| Contract Total |         |         |          | 4            | 4             |           |           |       |

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|                |         |         |          | 530.0112                | 611.0654     | 611.3220      | 611.8115     |           |           |       |
|----------------|---------|---------|----------|-------------------------|--------------|---------------|--------------|-----------|-----------|-------|
|                |         |         |          | Culvert Pipe Corrugated | Inlet Covers | Inlets 2x2-FT | Adjusting    |           |           |       |
|                |         |         |          | Polyethylene 12-Inch    | Type V       |               | Inlet Covers | Rim       | Invert    | Depth |
| CATEGORY       | STAGE   | STATION | LOCATION | LF                      | EACH         | EACH          | EACH         | Elevation | Elevation | Ft    |
| 0010           | STAGE 1 | 263+84  | RT       |                         | 1            |               | 1            |           |           |       |
|                | STAGE 1 | 263+87  | LT       | 15                      | 1            | 1             |              | 877.95    | 871.95    | 6.00  |
|                | STAGE 1 | 298+41  | LT       | 15                      | 1            | 1             |              | 878.19    | 872.19    | 6.00  |
|                | STAGE 1 | 298+42  | RT       |                         | 1            |               | 1            |           |           |       |
|                | STAGE 2 | 339+61  | RT       | 15                      | 1            |               | 1            | 893.71    | 887.71    | 6.00  |
|                | STAGE 2 | 343+59  | LT       | 15                      | 1            | 1             |              | 891.88    | 885.88    | 6     |
|                | STAGE 2 | 363+37  | LT       |                         | 1            |               | 1            |           |           |       |
|                | STAGE 2 | 390+67  | LT       | 15                      | 1            | 1             |              | 838.77    | 832.77    | 6.00  |
|                | STAGE 2 | 410+47  | LT       |                         | 1            |               | 1            |           |           |       |
|                | STAGE 2 | 443+54  | RT       |                         | 1            |               | 1            |           |           |       |
|                | STAGE 2 | 497+07  | RT       | 15                      | 1            | 1             |              | 851.6     | 845.6     | 6     |
|                | STAGE 2 | 559+52  | LT       |                         | 1            |               | 1            |           |           |       |
|                | STAGE 2 | 559+67  | LT       |                         | 1            |               | 1            |           |           |       |
|                | STAGE 2 | 585+03  | LT       | 15                      | 1            | 1             |              | 865.34    | 859.34    | 6.00  |
|                | STAGE 2 | 585+15  | RT       | 15                      | 1            | 1             |              | 865.49    | 859.49    | 6.00  |
|                | STAGE 2 | 658+80  | RT       |                         |              |               | 1            |           |           |       |
|                | STAGE 2 | 659+48  | LT       |                         |              |               | 1            |           |           |       |
|                | STAGE 2 | 659+48  | RT       |                         |              |               | 1            |           |           |       |
| Contract Total |         |         |          | 120                     | 15           | 7             | 11           |           |           |       |

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|                |         |         |    |         |          | 601.0411                                 | 601.0557                                                  | 601.0588                                                    | 602.0410                    | 602.0505                                     | 620.0300                       |
|----------------|---------|---------|----|---------|----------|------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------|-----------------------------|----------------------------------------------|--------------------------------|
|                |         |         |    |         |          | Concrete Curb & Gutter<br>30-Inch Type D | Concrete Curb & Gutter<br>6-Inch Sloped 36-Inch<br>Type D | Concrete Curb & Gutter<br>4-Inch Sloped 36-Inch<br>Type TBT | Concrete Sidewalk<br>5-Inch | Curb Ramp Detectable<br>Warning Field Yellow | Concrete Median<br>Sloped Nose |
| CATEGORY       | STAGE   | STATION | TO | STATION | LOCATION | LF                                       | LF                                                        | LF                                                          | SF                          | SF                                           | SF                             |
| 0010           | STAGE 1 | 263+78  | -  | 264+19  | LT       |                                          |                                                           | 41                                                          |                             |                                              |                                |
|                | STAGE 1 | 263+78  | -  | 264+18  | RT       |                                          |                                                           | 41                                                          |                             |                                              |                                |
|                | STAGE 1 | 297+94  | -  | 298+47  | LT       |                                          |                                                           | 40                                                          |                             |                                              |                                |
|                | STAGE 1 | 297+97  | -  | 298+05  | RT       |                                          |                                                           |                                                             | 141                         |                                              |                                |
|                | STAGE 1 | 297+97  | -  | 298+06  | RT       | 58                                       |                                                           |                                                             |                             |                                              | 14                             |
|                | STAGE 1 | 298+17  | -  | 298+47  | RT       |                                          |                                                           | 40                                                          |                             |                                              |                                |
|                | STAGE 2 | 339+38  | -  | 339+68  | RT       |                                          |                                                           | 30                                                          |                             |                                              |                                |
|                | STAGE 2 | 343+51  | -  | 343+81  | LT       |                                          |                                                           | 31                                                          |                             |                                              |                                |
|                | STAGE 2 | 355+58  | -  | 356+70  | RT       |                                          | 112                                                       |                                                             |                             |                                              |                                |
|                | STAGE 2 | 363+34  | -  | 363+65  | LT       |                                          |                                                           | 31                                                          |                             |                                              |                                |
|                | STAGE 2 | 390+59  | -  | 390+90  | LT       |                                          |                                                           | 31                                                          |                             |                                              |                                |
|                | STAGE 2 | 410+29  | -  | 410+60  | LT       |                                          |                                                           | 31                                                          |                             |                                              |                                |
|                | STAGE 2 | 431+58  | -  | 432+83  | RT       |                                          | 125                                                       |                                                             |                             |                                              |                                |
|                | STAGE 2 | 443+58  | -  | 443+90  | RT       |                                          |                                                           | 31                                                          |                             |                                              |                                |
|                | STAGE 2 | 483+48  | -  | 483+77  | RT       |                                          | 30                                                        |                                                             |                             |                                              |                                |
|                | STAGE 2 | 496+99  | -  | 497+30  | RT       |                                          |                                                           | 31                                                          |                             |                                              |                                |
|                | STAGE 2 | 527+26  | -  | 530+17  | RT       |                                          | 291                                                       |                                                             |                             |                                              |                                |
|                | STAGE 2 | 559+57  | -  | 559+92  | LT       |                                          |                                                           | 34                                                          |                             |                                              |                                |
|                | STAGE 2 | 584+80  | -  | 585+11  | LT       |                                          |                                                           | 31                                                          |                             |                                              |                                |
|                | STAGE 2 | 584+93  | -  | 585+24  | RT       |                                          |                                                           | 31                                                          |                             |                                              |                                |
|                | STAGE 2 | 638+80  | -  | 638+90  | RT       | 10                                       |                                                           |                                                             |                             |                                              |                                |
|                | STAGE 2 | 658+56  | -  | 658+91  | LT       | 43                                       |                                                           |                                                             |                             |                                              |                                |
|                | STAGE 2 | 658+56  | -  | 658+89  | LT       |                                          |                                                           |                                                             | 431                         |                                              |                                |
|                | STAGE 2 | 658+60  | -  | 659+04  | RT       | 63                                       |                                                           |                                                             |                             |                                              |                                |
|                | STAGE 2 | 658+65  | -  | 658+70  | RT       |                                          |                                                           |                                                             |                             | 10                                           |                                |
|                | STAGE 2 | 658+65  | -  | 658+90  | RT       |                                          |                                                           |                                                             | 179                         |                                              |                                |
|                | STAGE 2 | 658+66  | -  | 658+71  | LT       |                                          |                                                           |                                                             |                             | 10                                           |                                |
|                | STAGE 2 | 658+71  | -  | 658+81  | LT       |                                          |                                                           |                                                             |                             | 16                                           |                                |
|                | STAGE 2 | 658+80  | -  | 658+90  | RT       |                                          |                                                           |                                                             |                             | 17                                           |                                |
|                | STAGE 2 | 659+36  | -  | 659+62  | LT       | 39                                       |                                                           |                                                             |                             |                                              |                                |
|                | STAGE 2 | 659+37  | -  | 659+59  | RT       | 35                                       |                                                           |                                                             |                             |                                              |                                |
|                | STAGE 2 | 659+40  | -  | 659+65  | LT       |                                          |                                                           |                                                             | 167                         |                                              |                                |
|                | STAGE 2 | 659+41  | -  | 659+56  | RT       |                                          |                                                           |                                                             | 89                          |                                              |                                |
|                | STAGE 2 | 659+42  | -  | 659+44  | LT       |                                          |                                                           |                                                             |                             | 10                                           |                                |
|                | STAGE 2 | 659+45  | -  | 659+47  | RT       |                                          |                                                           |                                                             |                             | 10                                           |                                |
|                | STAGE 2 | 659+50  | -  | 659+55  | RT       |                                          |                                                           |                                                             |                             | 10                                           |                                |
|                | STAGE 2 | 659+52  | -  | 659+57  | LT       |                                          |                                                           |                                                             |                             | 10                                           |                                |
| Contract Total |         |         |    |         |          | 248                                      | 558                                                       | 474                                                         | 1,007                       | 93                                           | 14                             |

|                |         |         |          | 606.0050           | 606.0200      | 645.0120           | 645.0130          |
|----------------|---------|---------|----------|--------------------|---------------|--------------------|-------------------|
|                |         |         |          | Riprap Extra-Light | Riprap Medium | Geotextile Type HR | Geotextile Type R |
| CATEGORY       | STAGE   | STATION | LOCATION | CY                 | CY            | SY                 | SY                |
| 0010           | STAGE 2 | 410+39  | LT       |                    | 22            | 40                 |                   |
|                | STAGE 2 | 527+26  | LT       | 2                  |               |                    | 5                 |
| Contract Total |         |         |          | 2                  | 22            | 40                 | 5                 |

|                   |         |         |      | 611.8110                 |
|-------------------|---------|---------|------|--------------------------|
|                   |         |         |      | Adjusting Manhole Covers |
| CATEGORY          | STAGE   | STATION | EACH |                          |
| 0010              | STAGE 1 | 15+69   | 1    |                          |
|                   | STAGE 2 | 648+28  | 1    |                          |
|                   | STAGE 2 | 649+74  | 1    |                          |
| Category Subtotal |         |         | 3    |                          |
| 0030              | STAGE 2 | 640+01  | 1    |                          |
|                   | STAGE 2 | 643+98  | 1    |                          |
|                   | STAGE 2 | 647+11  | 1    |                          |
|                   | STAGE 2 | 651+18  | 1    |                          |
| Category Subtotal |         |         | 4    |                          |
| 0050              | STAGE 1 | 15+45   | 1    |                          |
|                   | STAGE 1 | 18+71   | 1    |                          |
|                   | STAGE 1 | 21+96   | 1    |                          |
|                   | STAGE 1 | 25+20   | 1    |                          |
|                   | STAGE 1 | 29+20   | 1    |                          |
| Category Subtotal |         |         | 5    |                          |
| Contract Total    |         |         | 12   |                          |

|                |         |         |      | SPV.0060.02                 |
|----------------|---------|---------|------|-----------------------------|
|                |         |         |      | Adjusting Water Valve Boxes |
| CATEGORY       | STAGE   | STATION | EACH |                             |
| 0010           | STAGE 1 | 33+04   | 1    |                             |
|                | STAGE 2 | 639+27  | 1    |                             |
|                | STAGE 2 | 658+95  | 1    |                             |
| Contract Total |         |         | 3    |                             |

|          |         |         |    |         |          | 614.2300        | 614.2330          | 614.2350                   | 614.2500                  | 614.2610                   | 614.2630                            | REMARKS                  |
|----------|---------|---------|----|---------|----------|-----------------|-------------------|----------------------------|---------------------------|----------------------------|-------------------------------------|--------------------------|
|          |         |         |    |         |          | MGS Guardrail 3 | MGS Guardrail 3 K | MGS Guardrail Short Radius | MGS Thrie Beam Transition | MGS Guardrail Terminal EAT | MGS Guardrail Short Radius Terminal |                          |
| CATEGORY | STAGE   | STATION | TO | STATION | LOCATION | LF              | LF                | LF                         | LF                        | EACH                       | EACH                                |                          |
| 0010     | STAGE 1 | 165+98  | -  | 166+51  | LT       |                 |                   |                            |                           | 1                          |                                     |                          |
|          | STAGE 1 | 166+51  | -  | 179+89  | LT       | 1,337           |                   |                            |                           |                            |                                     |                          |
|          | STAGE 1 | 169+45  | -  | 169+98  | RT       |                 |                   |                            |                           | 1                          |                                     |                          |
|          | STAGE 1 | 169+98  | -  | 178+98  | RT       | 900             |                   |                            |                           |                            |                                     |                          |
|          | STAGE 1 | 178+98  | -  | 179+51  | RT       |                 |                   |                            |                           | 1                          |                                     |                          |
|          | STAGE 1 | 179+89  | -  | 180+42  | LT       |                 |                   |                            |                           | 1                          |                                     |                          |
|          | STAGE 1 | 227+88  | -  | 228+41  | LT       |                 |                   |                            |                           | 1                          |                                     |                          |
|          | STAGE 1 | 228+41  | -  | 233+01  | LT       | 463             |                   |                            |                           |                            |                                     |                          |
|          | STAGE 1 | 233+01  | -  | 233+53  | LT       |                 |                   |                            |                           | 1                          |                                     |                          |
|          | STAGE 1 | 257+84  | -  | 258+38  | LT       |                 |                   |                            |                           | 1                          |                                     |                          |
|          | STAGE 1 | 258+38  | -  | 261+15  | LT       | 275             |                   |                            |                           |                            |                                     |                          |
|          | STAGE 1 | 259+09  | -  | 259+62  | RT       |                 |                   |                            |                           | 1                          |                                     |                          |
|          | STAGE 1 | 259+62  | -  | 261+15  | RT       | 154             |                   |                            |                           |                            |                                     |                          |
|          | STAGE 1 | 261+15  | -  | 261+54  | RT       |                 |                   |                            | 39                        |                            |                                     |                          |
|          | STAGE 1 | 261+15  | -  | 261+54  | LT       |                 |                   |                            | 39                        |                            |                                     |                          |
|          | STAGE 1 | 263+76  | -  | 264+15  | RT       |                 |                   |                            | 39                        |                            |                                     |                          |
|          | STAGE 1 | 263+76  | -  | 264+15  | LT       |                 |                   |                            | 39                        |                            |                                     |                          |
|          | STAGE 1 | 264+15  | -  | 272+03  | LT       | 788             |                   |                            |                           |                            |                                     |                          |
|          | STAGE 1 | 264+15  | -  | 267+64  | RT       | 349             |                   |                            |                           |                            |                                     |                          |
|          | STAGE 1 | 267+05  | -  | 267+37  | RT       |                 |                   |                            |                           | 1                          |                                     | ON JUG CREEK ROAD        |
|          | STAGE 1 | 267+37  | -  | 268+24  | RT       | 313             |                   |                            |                           |                            |                                     | ON JUG CREEK ROAD        |
|          | STAGE 1 | 267+64  | -  | 268+24  | RT       |                 |                   | 92                         |                           |                            |                                     |                          |
|          | STAGE 1 | 272+03  | -  | 272+56  | LT       |                 |                   |                            |                           | 1                          |                                     |                          |
|          | STAGE 1 | 292+31  | -  | 292+84  | RT       |                 |                   |                            |                           | 1                          |                                     |                          |
|          | STAGE 1 | 292+84  | -  | 297+88  | RT       | 550             |                   |                            |                           |                            |                                     |                          |
|          | STAGE 1 | 293+25  | -  | 293+78  | LT       |                 |                   |                            |                           | 1                          |                                     |                          |
|          | STAGE 1 | 293+78  | -  | 297+32  | LT       | 356             |                   |                            |                           |                            |                                     |                          |
|          | STAGE 1 | 297+32  | -  | 297+97  | LT       |                 |                   | 43                         |                           |                            |                                     |                          |
|          | STAGE 1 | 297+88  | -  | 297+97  | RT       |                 |                   |                            |                           | 1                          |                                     |                          |
| Subtotal |         |         |    |         |          | 5,485           | 0                 | 135                        | 156                       | 13                         | 0                                   | (CONTINUED ON NEXT PAGE) |



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(CONTINUED FROM PREVIOUS PAGE)

|          |         |         |    |         |          | 614.2300        | 614.2330          | 614.2350                   | 614.2500                  | 614.2610                   | 614.2630                            | REMARKS              |
|----------|---------|---------|----|---------|----------|-----------------|-------------------|----------------------------|---------------------------|----------------------------|-------------------------------------|----------------------|
|          |         |         |    |         |          | MGS Guardrail 3 | MGS Guardrail 3 K | MGS Guardrail Short Radius | MGS Thrie Beam Transition | MGS Guardrail Terminal EAT | MGS Guardrail Short Radius Terminal |                      |
| CATEGORY | STAGE   | STATION | TO | STATION | LOCATION | LF              | LF                | LF                         | LF                        | EACH                       | EACH                                |                      |
| 0010     | STAGE 1 | 297+97  | -  | 298+49  | LT       |                 |                   |                            | 39                        |                            |                                     |                      |
|          | STAGE 1 | 298+08  | -  | 298+20  | RT       | 95              |                   |                            |                           |                            |                                     |                      |
|          | STAGE 1 | 298+20  | -  | 298+51  | RT       |                 |                   |                            | 39                        |                            |                                     |                      |
|          | STAGE 2 | 307+20  | -  | 307+59  | RT       |                 |                   |                            | 39                        |                            |                                     |                      |
|          | STAGE 2 | 307+31  | -  | 307+70  | LT       |                 |                   |                            | 39                        |                            |                                     |                      |
|          | STAGE 2 | 307+59  | -  | 309+47  | RT       | 187             |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 307+70  | -  | 309+57  | LT       | 187             |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 309+47  | -  | 310+00  | RT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 309+57  | -  | 310+10  | LT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 315+25  | -  | 315+76  | RT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 315+76  | -  | 319+11  | RT       | 338             |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 319+11  | -  | 319+64  | RT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 321+91  | -  | 322+43  | LT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 322+43  | -  | 329+22  | LT       | 687             |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 323+70  | -  | 323+72  | RT       |                 |                   |                            |                           |                            | 1                                   |                      |
|          | STAGE 2 | 323+72  | -  | 324+05  | RT       |                 |                   | 50                         |                           |                            |                                     |                      |
|          | STAGE 2 | 324+05  | -  | 328+10  | RT       | 400             |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 328+10  | -  | 328+64  | RT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 329+22  | -  | 329+75  | LT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 336+87  | -  | 337+41  | RT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 337+41  | -  | 339+31  | RT       | 187             |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 337+48  | -  | 337+66  | LT       |                 |                   | 38                         |                           |                            |                                     | ON DUTCH HOLLOW ROAD |
|          | STAGE 2 | 337+49  | -  | 337+90  | LT       | 238             |                   |                            |                           |                            |                                     | ON DUTCH HOLLOW ROAD |
|          | STAGE 2 | 337+66  | -  | 337+89  | LT       |                 |                   |                            |                           |                            | 1                                   | ON DUTCH HOLLOW ROAD |
|          | STAGE 2 | 337+90  | -  | 338+06  | LT       |                 |                   | 23                         |                           |                            |                                     | ON DUTCH HOLLOW ROAD |
|          | STAGE 2 | 338+06  | -  | 339+16  | LT       | 113             |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 339+16  | -  | 339+56  | LT       |                 |                   |                            | 39                        |                            |                                     |                      |
|          | STAGE 2 | 339+31  | -  | 339+71  | RT       |                 |                   |                            | 39                        |                            |                                     |                      |
|          | STAGE 2 | 343+48  | -  | 343+87  | LT       |                 |                   |                            | 39                        |                            |                                     |                      |
|          | STAGE 2 | 343+64  | -  | 344+03  | RT       |                 |                   |                            | 39                        |                            |                                     |                      |
|          | STAGE 2 | 343+87  | -  | 346+02  | LT       | 213             |                   |                            |                           |                            | 1                                   |                      |
|          | STAGE 2 | 344+03  | -  | 346+01  | RT       | 200             |                   |                            |                           |                            | 1                                   |                      |
|          | STAGE 2 | 346+01  | -  | 346+54  | RT       |                 |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 346+02  | -  | 346+55  | LT       |                 |                   |                            |                           |                            |                                     |                      |
| Subtotal |         |         |    |         |          | 2,845           | 0                 | 111                        | 312                       | 10                         | 2                                   |                      |

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|          |         |         |    |         |          | 614.2300        | 614.2330          | 614.2350                   | 614.2500                  | 614.2610                   | 614.2630                            | REMARKS  |
|----------|---------|---------|----|---------|----------|-----------------|-------------------|----------------------------|---------------------------|----------------------------|-------------------------------------|----------|
|          |         |         |    |         |          | MGS Guardrail 3 | MGS Guardrail 3 K | MGS Guardrail Short Radius | MGS Thrie Beam Transition | MGS Guardrail Terminal EAT | MGS Guardrail Short Radius Terminal |          |
| CATEGORY | STAGE   | STATION | TO | STATION | LOCATION | LF              | LF                | LF                         | LF                        | EACH                       | EACH                                |          |
| 0010     | STAGE 2 | 353+36  | -  | 353+90  | LT       |                 |                   |                            |                           | 1                          |                                     |          |
|          | STAGE 2 | 353+90  | -  | 359+94  | LT       |                 | 600               |                            |                           |                            |                                     |          |
|          | STAGE 2 | 356+57  | -  | 357+10  | RT       |                 |                   |                            |                           | 1                          |                                     |          |
|          | STAGE 2 | 357+10  | -  | 360+57  | RT       | 350             |                   |                            |                           |                            |                                     |          |
|          | STAGE 2 | 359+94  | -  | 360+06  | LT       |                 |                   | 16                         |                           |                            |                                     |          |
|          | STAGE 2 | 360+06  | -  | 360+12  | LT       |                 |                   |                            |                           |                            | 1                                   |          |
|          | STAGE 2 | 360+39  | -  | 360+49  | LT       |                 |                   |                            |                           |                            | 1                                   |          |
|          | STAGE 2 | 360+49  | -  | 360+64  | LT       |                 |                   | 19                         |                           |                            |                                     |          |
|          | STAGE 2 | 360+57  | -  | 360+96  | RT       |                 |                   |                            | 39                        |                            |                                     |          |
|          | STAGE 2 | 360+64  | -  | 361+04  | LT       |                 |                   |                            | 39                        |                            |                                     |          |
|          | STAGE 2 | 362+09  | -  | 362+43  | RT       |                 |                   |                            |                           | 1                          |                                     | ON CTH P |
|          | STAGE 2 | 362+43  | -  | 364+49  | RT       | 325             |                   |                            |                           |                            |                                     | ON CTH P |
|          | STAGE 2 | 363+20  | -  | 363+59  | RT       |                 |                   |                            | 39                        |                            |                                     |          |
|          | STAGE 2 | 363+31  | -  | 363+71  | LT       |                 |                   |                            | 39                        |                            |                                     |          |
|          | STAGE 2 | 363+58  | -  | 363+89  | RT       |                 |                   |                            |                           | 1                          |                                     | ON CTH P |
|          | STAGE 2 | 363+59  | -  | 364+06  | RT       |                 |                   | 96                         |                           |                            |                                     | ON CTH P |
|          | STAGE 2 | 363+71  | -  | 365+34  | LT       | 162             |                   |                            |                           |                            |                                     |          |
|          | STAGE 2 | 363+89  | -  | 364+01  | RT       | 25              |                   |                            |                           |                            |                                     | ON CTH P |
|          | STAGE 2 | 364+49  | -  | 365+11  | RT       |                 |                   | 77                         |                           |                            |                                     | ON CTH P |
|          | STAGE 2 | 365+11  | -  | 368+62  | RT       | 350             |                   |                            |                           |                            |                                     |          |
|          | STAGE 2 | 365+34  | -  | 365+45  | LT       |                 |                   | 14                         |                           |                            |                                     |          |
|          | STAGE 2 | 365+45  | -  | 365+55  | LT       |                 |                   |                            |                           |                            | 1                                   |          |
|          | STAGE 2 | 366+23  | -  | 366+76  | LT       |                 |                   |                            |                           | 1                          |                                     |          |
|          | STAGE 2 | 366+76  | -  | 369+12  | LT       | 237             |                   |                            |                           |                            |                                     |          |
|          | STAGE 2 | 368+62  | -  | 369+15  | RT       |                 |                   |                            |                           | 1                          |                                     |          |
|          | STAGE 2 | 369+12  | -  | 369+65  | LT       |                 |                   |                            |                           | 1                          |                                     |          |
|          | STAGE 2 | 383+57  | -  | 384+10  | RT       |                 |                   |                            |                           | 1                          |                                     |          |
|          | STAGE 2 | 384+10  | -  | 387+80  | RT       | 375             |                   |                            |                           |                            |                                     |          |
|          | STAGE 2 | 387+39  | -  | 387+49  | LT       |                 |                   |                            |                           |                            | 1                                   |          |
|          | STAGE 2 | 387+49  | -  | 387+62  | LT       |                 |                   | 16                         |                           |                            |                                     |          |
|          | STAGE 2 | 387+62  | -  | 387+88  | LT       | 25              |                   |                            |                           |                            |                                     |          |
|          | STAGE 2 | 387+80  | -  | 388+19  | RT       |                 |                   |                            | 39                        |                            |                                     |          |
|          | STAGE 2 | 387+88  | -  | 388+28  | LT       |                 |                   |                            | 39                        |                            |                                     |          |
|          | STAGE 2 | 390+41  | -  | 390+79  | RT       |                 |                   |                            | 39                        |                            |                                     |          |
| Subtotal |         |         |    |         |          | 1,849           | 600               | 238                        | 273                       | 8                          | 4                                   |          |

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|          |         |         |    |         |          | 614.2300        | 614.2330          | 614.2350                   | 614.2500                  | 614.2610                   | 614.2630                            | REMARKS |
|----------|---------|---------|----|---------|----------|-----------------|-------------------|----------------------------|---------------------------|----------------------------|-------------------------------------|---------|
|          |         |         |    |         |          | MGS Guardrail 3 | MGS Guardrail 3 K | MGS Guardrail Short Radius | MGS Thrie Beam Transition | MGS Guardrail Terminal EAT | MGS Guardrail Short Radius Terminal |         |
| CATEGORY | STAGE   | STATION | TO | STATION | LOCATION | LF              | LF                | LF                         | LF                        | EACH                       | EACH                                |         |
| 0010     | STAGE 2 | 390+56  | -  | 390+96  | LT       |                 |                   |                            | 39                        |                            |                                     |         |
|          | STAGE 2 | 390+79  | -  | 392+04  | RT       | 125             |                   |                            |                           |                            |                                     |         |
|          | STAGE 2 | 390+96  | -  | 393+34  | LT       |                 | 238               |                            |                           |                            |                                     |         |
|          | STAGE 2 | 392+04  | -  | 392+57  | RT       |                 |                   |                            |                           | 1                          |                                     |         |
|          | STAGE 2 | 393+34  | -  | 393+54  | LT       |                 |                   | 28                         |                           |                            |                                     |         |
|          | STAGE 2 | 393+54  | -  | 393+59  | LT       |                 |                   |                            |                           |                            | 1                                   |         |
|          | STAGE 2 | 393+80  | -  | 393+84  | LT       |                 |                   |                            |                           |                            | 1                                   |         |
|          | STAGE 2 | 393+84  | -  | 393+99  | LT       |                 |                   | 22                         |                           |                            |                                     |         |
|          | STAGE 2 | 393+99  | -  | 395+73  | LT       | 175             |                   |                            |                           |                            |                                     |         |
|          | STAGE 2 | 395+73  | -  | 396+25  | LT       |                 |                   |                            |                           | 1                          |                                     |         |
|          | STAGE 2 | 407+19  | -  | 407+72  | LT       |                 |                   |                            |                           | 1                          |                                     |         |
|          | STAGE 2 | 407+33  | -  | 407+87  | RT       |                 |                   |                            |                           | 1                          |                                     |         |
|          | STAGE 2 | 407+72  | -  | 410+23  | LT       | 250             |                   |                            |                           |                            |                                     |         |
|          | STAGE 2 | 407+87  | -  | 410+24  | RT       | 238             |                   |                            |                           |                            |                                     |         |
|          | STAGE 2 | 410+23  | -  | 410+62  | LT       |                 |                   |                            | 39                        |                            |                                     |         |
|          | STAGE 2 | 410+24  | -  | 410+63  | RT       |                 |                   |                            | 39                        |                            |                                     |         |
|          | STAGE 2 | 413+93  | -  | 414+32  | RT       |                 |                   |                            | 39                        |                            |                                     |         |
|          | STAGE 2 | 413+96  | -  | 414+35  | LT       |                 |                   |                            | 39                        |                            |                                     |         |
|          | STAGE 2 | 414+32  | -  | 414+82  | RT       | 50              |                   |                            |                           |                            |                                     |         |
|          | STAGE 2 | 414+35  | -  | 416+23  | LT       | 187             |                   |                            |                           |                            |                                     |         |
|          | STAGE 2 | 414+82  | -  | 415+35  | RT       |                 |                   |                            |                           | 1                          |                                     |         |
|          | STAGE 2 | 416+23  | -  | 416+77  | LT       |                 |                   |                            |                           | 1                          |                                     |         |
|          | STAGE 2 | 428+78  | -  | 429+31  | LT       |                 |                   |                            |                           | 1                          |                                     |         |
|          | STAGE 2 | 429+31  | -  | 440+07  | LT       | 1,062           |                   |                            |                           |                            |                                     |         |
|          | STAGE 2 | 432+58  | -  | 433+11  | RT       |                 |                   |                            |                           | 1                          |                                     |         |
|          | STAGE 2 | 433+11  | -  | 438+23  | RT       | 525             |                   |                            |                           |                            |                                     |         |
|          | STAGE 2 | 438+23  | -  | 438+55  | RT       |                 |                   | 37                         |                           |                            |                                     |         |
|          | STAGE 2 | 438+55  | -  | 438+72  | RT       |                 |                   |                            |                           |                            | 1                                   |         |
|          | STAGE 2 | 439+20  | -  | 439+73  | RT       |                 |                   |                            |                           | 1                          |                                     |         |
|          | STAGE 2 | 439+73  | -  | 439+86  | RT       | 13              |                   |                            |                           |                            |                                     |         |
|          | STAGE 2 | 439+86  | -  | 440+25  | RT       |                 |                   |                            | 39                        |                            |                                     |         |
|          | STAGE 2 | 440+07  | -  | 440+46  | LT       |                 |                   |                            | 39                        |                            |                                     |         |
|          | STAGE 2 | 443+56  | -  | 443+96  | RT       |                 |                   |                            | 39                        |                            |                                     |         |
|          | STAGE 2 | 443+59  | -  | 443+98  | LT       |                 |                   |                            | 39                        |                            |                                     |         |
| Subtotal |         |         |    |         |          | 2,625           | 238               | 87                         | 351                       | 9                          | 3                                   |         |

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|          |         |         |    |         |          | 614.2300        | 614.2330          | 614.2350                   | 614.2500                  | 614.2610                   | 614.2630                            | REMARKS            |
|----------|---------|---------|----|---------|----------|-----------------|-------------------|----------------------------|---------------------------|----------------------------|-------------------------------------|--------------------|
|          |         |         |    |         |          | MGS Guardrail 3 | MGS Guardrail 3 K | MGS Guardrail Short Radius | MGS Thrie Beam Transition | MGS Guardrail Terminal EAT | MGS Guardrail Short Radius Terminal |                    |
| CATEGORY | STAGE   | STATION | TO | STATION | LOCATION | LF              | LF                | LF                         | LF                        | EACH                       | EACH                                |                    |
| 0010     | STAGE 2 | 443+96  | -  | 452+17  | RT       | 800             |                   |                            |                           |                            |                                     |                    |
|          | STAGE 2 | 443+98  | -  | 444+34  | LT       | 38              |                   |                            |                           |                            |                                     |                    |
|          | STAGE 2 | 444+34  | -  | 444+86  | LT       |                 |                   |                            |                           | 1                          |                                     |                    |
|          | STAGE 2 | 445+37  | -  | 445+56  | LT       |                 |                   |                            |                           |                            | 1                                   |                    |
|          | STAGE 2 | 445+56  | -  | 445+71  | LT       |                 |                   | 18                         |                           |                            |                                     |                    |
|          | STAGE 2 | 445+71  | -  | 450+46  | LT       | 487             |                   |                            |                           |                            |                                     |                    |
|          | STAGE 2 | 450+46  | -  | 450+97  | LT       |                 |                   |                            |                           | 1                          |                                     |                    |
|          | STAGE 2 | 452+17  | -  | 452+70  | RT       |                 |                   |                            |                           | 1                          |                                     |                    |
|          | STAGE 2 | 464+92  | -  | 465+44  | RT       |                 |                   |                            |                           | 1                          |                                     |                    |
|          | STAGE 2 | 465+17  | -  | 465+71  | LT       |                 |                   |                            |                           | 1                          |                                     |                    |
|          | STAGE 2 | 465+44  | -  | 470+69  | RT       | 525             |                   |                            |                           |                            |                                     |                    |
|          | STAGE 2 | 465+71  | -  | 468+46  | LT       | 275             |                   |                            |                           |                            |                                     |                    |
|          | STAGE 2 | 468+46  | -  | 468+86  | LT       |                 |                   | 62                         |                           |                            |                                     | ON HAY VALLEY ROAD |
|          | STAGE 2 | 468+85  | -  | 468+87  | LT       |                 |                   |                            |                           | 1                          |                                     | ON HAY VALLEY ROAD |
|          | STAGE 2 | 468+86  | -  | 468+87  | LT       | 175             |                   |                            |                           |                            |                                     | ON HAY VALLEY ROAD |
|          | STAGE 2 | 470+69  | -  | 471+22  | RT       |                 |                   |                            |                           | 1                          |                                     |                    |
|          | STAGE 2 | 483+65  | -  | 484+17  | RT       |                 |                   |                            |                           | 1                          |                                     |                    |
|          | STAGE 2 | 484+17  | -  | 492+03  | RT       | 800             |                   |                            |                           |                            |                                     |                    |
|          | STAGE 2 | 487+90  | -  | 488+44  | LT       |                 |                   |                            |                           | 1                          |                                     |                    |
|          | STAGE 2 | 488+44  | -  | 493+84  | LT       | 538             |                   |                            |                           |                            |                                     |                    |
|          | STAGE 2 | 492+03  | -  | 492+56  | RT       |                 |                   |                            |                           | 1                          |                                     |                    |
|          | STAGE 2 | 493+61  | -  | 494+15  | RT       |                 |                   |                            |                           | 1                          |                                     |                    |
|          | STAGE 2 | 493+84  | -  | 494+08  | LT       |                 |                   | 33                         |                           |                            |                                     |                    |
|          | STAGE 2 | 494+08  | -  | 494+13  | LT       |                 |                   |                            |                           |                            | 1                                   |                    |
|          | STAGE 2 | 494+15  | -  | 494+53  | RT       | 38              |                   |                            |                           |                            |                                     |                    |
|          | STAGE 2 | 494+36  | -  | 494+44  | LT       |                 |                   |                            |                           |                            | 1                                   |                    |
|          | STAGE 2 | 494+44  | -  | 494+58  | LT       |                 |                   | 20                         |                           |                            |                                     |                    |
|          | STAGE 2 | 494+53  | -  | 494+93  | RT       |                 |                   |                            | 39                        |                            |                                     |                    |
|          | STAGE 2 | 494+58  | -  | 494+97  | LT       |                 |                   |                            | 39                        |                            |                                     |                    |
|          | STAGE 2 | 496+93  | -  | 497+31  | LT       |                 |                   |                            | 39                        |                            |                                     |                    |
|          | STAGE 2 | 496+97  | -  | 497+37  | RT       |                 |                   |                            | 39                        |                            |                                     |                    |
|          | STAGE 2 | 497+31  | -  | 497+59  | LT       |                 |                   | 41                         |                           |                            |                                     |                    |
|          | STAGE 2 | 497+37  | -  | 504+56  | RT       | 713             |                   |                            |                           |                            |                                     |                    |
|          | STAGE 2 | 497+59  | -  | 497+63  | LT       |                 |                   |                            |                           |                            | 1                                   |                    |
| Subtotal |         |         |    |         |          | 4,389           | 0                 | 174                        | 156                       | 11                         | 4                                   |                    |

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|          |         |         |    |         |          | 614.2300        | 614.2330          | 614.2350                   | 614.2500                  | 614.2610                   | 614.2630                            | REMARKS              |
|----------|---------|---------|----|---------|----------|-----------------|-------------------|----------------------------|---------------------------|----------------------------|-------------------------------------|----------------------|
|          |         |         |    |         |          | MGS Guardrail 3 | MGS Guardrail 3 K | MGS Guardrail Short Radius | MGS Thrie Beam Transition | MGS Guardrail Terminal EAT | MGS Guardrail Short Radius Terminal |                      |
| CATEGORY | STAGE   | STATION | TO | STATION | LOCATION | LF              | LF                | LF                         | LF                        | EACH                       | EACH                                |                      |
| 0010     | STAGE 2 | 497+84  | -  | 497+87  | LT       |                 |                   |                            |                           |                            | 1                                   |                      |
|          | STAGE 2 | 497+87  | -  | 498+10  | LT       |                 |                   | 35                         |                           |                            |                                     |                      |
|          | STAGE 2 | 498+10  | -  | 508+85  | LT       | 1,075           |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 504+56  | -  | 505+08  | RT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 508+85  | -  | 509+38  | LT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 512+81  | -  | 513+34  | RT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 513+34  | -  | 518+04  | RT       | 475             |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 518+04  | -  | 518+56  | RT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 530+05  | -  | 530+58  | RT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 530+58  | -  | 534+45  | RT       | 388             |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 534+45  | -  | 534+98  | RT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 548+54  | -  | 549+09  | RT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 549+08  | -  | 549+59  | LT       |                 |                   |                            |                           | 1                          |                                     |                      |
|          | STAGE 2 | 549+09  | -  | 556+28  | RT       | 713             |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 549+59  | -  | 553+64  | LT       | 412             |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 553+18  | -  | 553+57  | LT       |                 |                   |                            |                           | 1                          |                                     | ON DOBBS VALLEY ROAD |
|          | STAGE 2 | 553+57  | -  | 554+24  | LT       | 113             |                   |                            |                           |                            |                                     | ON DOBBS VALLEY ROAD |
|          | STAGE 2 | 553+64  | -  | 554+29  | LT       |                 |                   | 129                        |                           |                            |                                     | ON DOBBS VALLEY ROAD |
|          | STAGE 2 | 554+14  | -  | 554+18  | LT       |                 |                   | 25                         |                           |                            |                                     | ON DOBBS VALLEY ROAD |
|          | STAGE 2 | 554+18  | -  | 554+78  | LT       | 137             |                   |                            |                           |                            |                                     | ON DOBBS VALLEY ROAD |
|          | STAGE 2 | 554+18  | -  | 554+34  | LT       |                 |                   |                            |                           |                            | 1                                   | ON DOBBS VALLEY ROAD |
|          | STAGE 2 | 554+78  | -  | 555+31  | LT       |                 |                   | 67                         |                           |                            |                                     | ON DOBBS VALLEY ROAD |
|          | STAGE 2 | 555+31  | -  | 556+33  | LT       | 100             |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 556+28  | -  | 556+67  | RT       |                 |                   |                            | 39                        |                            |                                     |                      |
|          | STAGE 2 | 556+33  | -  | 556+73  | LT       |                 |                   |                            | 39                        |                            |                                     |                      |
|          | STAGE 2 | 559+46  | -  | 559+85  | RT       |                 |                   |                            | 39                        |                            |                                     |                      |
|          | STAGE 2 | 559+54  | -  | 559+94  | LT       |                 |                   |                            | 39                        |                            |                                     |                      |
|          | STAGE 2 | 559+79  | -  | 560+08  | LT       |                 |                   |                            |                           |                            | 1                                   |                      |
|          | STAGE 2 | 559+85  | -  | 560+10  | RT       | 25              |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 559+94  | -  | 560+07  | LT       | 13              |                   |                            |                           |                            |                                     |                      |
|          | STAGE 2 | 560+07  | -  | 560+22  | LT       |                 |                   | 45                         |                           |                            |                                     |                      |
|          | STAGE 2 | 560+10  | -  | 560+25  | RT       |                 |                   | 26                         |                           |                            |                                     |                      |
|          | STAGE 2 | 560+24  | -  | 560+25  | RT       |                 |                   |                            |                           |                            | 1                                   |                      |
|          | STAGE 2 | 560+70  | -  | 560+72  | RT       |                 |                   |                            |                           |                            | 1                                   |                      |
| Subtotal |         |         |    |         |          | 3,451           | 0                 | 327                        | 156                       | 9                          | 5                                   |                      |

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|                |         |         |    |         |          | 614.2300        | 614.2330          | 614.2350                   | 614.2500                  | 614.2610                   | 614.2630                            | REMARKS |
|----------------|---------|---------|----|---------|----------|-----------------|-------------------|----------------------------|---------------------------|----------------------------|-------------------------------------|---------|
|                |         |         |    |         |          | MGS Guardrail 3 | MGS Guardrail 3 K | MGS Guardrail Short Radius | MGS Thrie Beam Transition | MGS Guardrail Terminal EAT | MGS Guardrail Short Radius Terminal |         |
| CATEGORY       | STAGE   | STATION | TO | STATION | LOCATION | LF              | LF                | LF                         | LF                        | EACH                       | EACH                                |         |
| 0010           | STAGE 2 | 560+72  | -  | 560+88  | RT       |                 |                   | 24                         |                           |                            |                                     |         |
|                | STAGE 2 | 560+88  | -  | 563+83  | RT       | 300             |                   |                            |                           |                            |                                     |         |
|                | STAGE 2 | 563+83  | -  | 564+36  | RT       |                 |                   |                            |                           | 1                          |                                     |         |
|                | STAGE 2 | 582+09  | -  | 582+62  | LT       |                 |                   |                            |                           | 1                          |                                     |         |
|                | STAGE 2 | 582+57  | -  | 582+87  | RT       |                 |                   | 48                         |                           |                            |                                     |         |
|                | STAGE 2 | 582+57  | -  | 582+58  | RT       |                 |                   |                            |                           |                            | 1                                   |         |
|                | STAGE 2 | 582+62  | -  | 584+74  | LT       | 213             |                   |                            |                           |                            |                                     |         |
|                | STAGE 2 | 582+87  | -  | 584+87  | RT       | 200             |                   |                            |                           |                            |                                     |         |
|                | STAGE 2 | 584+74  | -  | 585+14  | LT       |                 |                   |                            | 39                        |                            |                                     |         |
|                | STAGE 2 | 584+87  | -  | 585+26  | RT       |                 |                   |                            | 39                        |                            |                                     |         |
|                | STAGE 2 | 587+39  | -  | 587+79  | LT       |                 |                   |                            | 39                        |                            |                                     |         |
|                | STAGE 2 | 587+52  | -  | 587+91  | RT       |                 |                   |                            | 39                        |                            |                                     |         |
|                | STAGE 2 | 587+79  | -  | 590+66  | LT       | 287             |                   |                            |                           |                            |                                     |         |
|                | STAGE 2 | 587+91  | -  | 588+29  | RT       | 38              |                   |                            |                           |                            |                                     |         |
|                | STAGE 2 | 588+29  | -  | 588+82  | RT       |                 |                   |                            |                           | 1                          |                                     |         |
|                | STAGE 2 | 590+66  | -  | 590+76  | LT       |                 |                   | 13                         |                           |                            |                                     |         |
|                | STAGE 2 | 590+76  | -  | 590+82  | LT       |                 |                   |                            |                           |                            | 1                                   |         |
|                | STAGE 2 | 591+00  | -  | 591+09  | LT       |                 |                   |                            |                           |                            | 1                                   |         |
|                | STAGE 2 | 591+09  | -  | 591+18  | LT       |                 |                   | 13                         |                           |                            |                                     |         |
|                | STAGE 2 | 591+18  | -  | 594+89  | LT       |                 | 375               |                            |                           |                            |                                     |         |
|                | STAGE 2 | 591+60  | -  | 591+72  | RT       |                 |                   |                            |                           |                            | 1                                   |         |
|                | STAGE 2 | 591+72  | -  | 591+90  | RT       |                 |                   | 23                         |                           |                            |                                     |         |
|                | STAGE 2 | 591+90  | -  | 603+15  | RT       | 1,112           |                   |                            |                           |                            |                                     |         |
|                | STAGE 2 | 594+89  | -  | 595+27  | LT       |                 |                   | 60                         |                           |                            |                                     |         |
|                | STAGE 2 | 595+27  | -  | 595+28  | LT       |                 |                   |                            |                           |                            | 1                                   |         |
|                | STAGE 2 | 603+15  | -  | 603+68  | RT       |                 |                   |                            |                           | 1                          |                                     |         |
|                | STAGE 2 | 617+75  | -  | 618+27  | RT       |                 |                   |                            |                           | 1                          |                                     |         |
|                | STAGE 2 | 618+27  | -  | 623+13  | RT       | 487             |                   |                            |                           |                            |                                     |         |
|                | STAGE 2 | 623+13  | -  | 623+66  | RT       |                 |                   |                            |                           | 1                          |                                     |         |
|                | STAGE 2 | 628+73  | -  | 629+25  | LT       |                 |                   |                            |                           | 1                          |                                     |         |
|                | STAGE 2 | 629+25  | -  | 631+21  | LT       |                 | 200               |                            |                           |                            |                                     |         |
|                | STAGE 2 | 631+21  | -  | 631+74  | LT       |                 |                   |                            |                           | 1                          |                                     |         |
|                | STAGE 2 | 632+66  | -  | 633+19  | LT       |                 |                   |                            |                           | 1                          |                                     |         |
|                | STAGE 2 | 633+19  | -  | 635+31  | LT       | 212             |                   |                            |                           |                            |                                     |         |
|                | STAGE 2 | 635+31  | -  | 635+83  | LT       |                 |                   |                            |                           | 1                          |                                     |         |
| Subtotal       |         |         |    |         |          | 2,849           | 575               | 181                        | 156                       | 10                         | 5                                   |         |
| Contract Total |         |         |    |         |          | 23,493          | 1,413             | 1,253                      | 1,560                     | 70                         | 23                                  |         |

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| 624.0100       |         |         |    |         |               | REMARKS                            |
|----------------|---------|---------|----|---------|---------------|------------------------------------|
| CATEGORY       | STAGE   | STATION | TO | STATION | Water<br>MGAL |                                    |
| 0010           | STAGE 1 | 12+49   | -  | 298+62  | 187           | FOR BASE AGGREGATE DENSE SHOULDERS |
|                | STAGE 1 | 12+49   | -  | 310+99  | 270           |                                    |
|                | STAGE 1 | 263+69  | -  | 298+62  | 40            |                                    |
|                | STAGE 2 | 307+20  | -  | 339+71  | 40            | FOR BASE AGGREGATE DENSE SHOULDERS |
|                | STAGE 2 | 307+20  | -  | 659+65  | 276           |                                    |
|                | STAGE 2 | 343+48  | -  | 361+04  | 20            |                                    |
|                | STAGE 2 | 363+20  | -  | 388+28  | 31            |                                    |
|                | STAGE 2 | 390+41  | -  | 410+87  | 24            |                                    |
|                | STAGE 2 | 413+70  | -  | 440+46  | 32            |                                    |
|                | STAGE 2 | 443+56  | -  | 494+97  | 66            |                                    |
|                | STAGE 2 | 496+93  | -  | 556+73  | 72            |                                    |
|                | STAGE 2 | 559+46  | -  | 585+26  | 30            |                                    |
|                | STAGE 2 | 587+39  | -  | 656+49  | 82            |                                    |
|                | STAGE 2 | 657+30  | -  | 659+07  | 2             |                                    |
| Contract Total |         |         |    |         | 1,172         |                                    |



| CATEGORY | STAGE    | STATION | TO | STATION | 625.0500              | 628.2023                       | 629.0210               | 630.0130                  | 630.017                   | 630.0500   |
|----------|----------|---------|----|---------|-----------------------|--------------------------------|------------------------|---------------------------|---------------------------|------------|
|          |          |         |    |         | Salvaged<br>Topsoil * | Erosion Mat<br>Class II Type B | Fertilizer<br>Type B * | Seeding<br>Mixture No. 30 | Seeding<br>Mixture No. 70 | Seed Water |
|          |          |         |    |         | SY                    | SY                             | CWT                    | LB                        | LB                        | MGAL       |
| 0010     | STAGE 1  | 164+40  | -  | 181+99  | 914                   | 914                            | 0.58                   |                           | 42                        | 21         |
|          | STAGE 1  | 168+07  | -  | 179+90  | 551                   | 551                            | 0.35                   |                           | 25                        | 12         |
|          | STAGE 1  | 180+15  | -  | 181+75  | 86                    | 86                             | 0.06                   |                           | 4                         | 2          |
|          | STAGE 1  | 226+65  | -  | 236+16  | 868                   | 868                            | 0.55                   | 40                        |                           | 19         |
|          | STAGE 1  | 256+01  | -  | 261+54  | 653                   | 653                            | 0.41                   | 30                        |                           | 15         |
|          | STAGE 1  | 256+94  | -  | 258+66  | 155                   | 155                            | 0.10                   | 7                         |                           | 3          |
|          | STAGE 1  | 258+87  | -  | 261+63  | 181                   | 181                            | 0.11                   | 9                         |                           | 4          |
|          | STAGE 1  | 263+69  | -  | 268+22  | 256                   | 256                            | 0.16                   | 12                        |                           | 6          |
|          | STAGE 1  | 263+76  | -  | 274+19  | 463                   | 463                            | 0.29                   | 21                        |                           | 10         |
|          | STAGE 1  | 290+56  | -  | 297+96  | 540                   | 540                            | 0.34                   | 25                        |                           | 12         |
|          | STAGE 1  | 291+56  | -  | 298+62  | 367                   | 367                            | 0.23                   | 17                        |                           | 8          |
|          | STAGE 2  | 307+19  | -  | 310+43  | 354                   | 354                            | 0.22                   | 16                        |                           | 8          |
|          | STAGE 2  | 307+30  | -  | 310+94  | 422                   | 422                            | 0.27                   | 19                        |                           | 9          |
|          | STAGE 2  | 315+12  | -  | 320+25  | 429                   | 429                            | 0.27                   | 20                        |                           | 10         |
|          | STAGE 2  | 320+84  | -  | 331+12  | 830                   | 830                            | 0.52                   | 38                        |                           | 19         |
|          | STAGE 2  | 323+75  | -  | 329+35  | 261                   | 261                            | 0.17                   | 12                        |                           | 6          |
|          | STAGE 2  | 335+67  | -  | 339+71  | 281                   | 281                            | 0.18                   | 13                        |                           | 6          |
|          | STAGE 2  | 337+52  | -  | 339+56  | 442                   | 442                            | 0.28                   | 20                        |                           | 10         |
|          | STAGE 2  | 343+48  | -  | 347+47  | 451                   | 451                            | 0.28                   | 21                        |                           | 10         |
|          | STAGE 2  | 343+64  | -  | 348+36  | 370                   | 370                            | 0.23                   | 17                        |                           | 8          |
|          | STAGE 2  | 352+97  | -  | 360+08  | 510                   | 510                            | 0.32                   | 23                        |                           | 11         |
|          | STAGE 2  | 355+66  | -  | 356+85  | 214                   | 214                            | 0.14                   | 10                        |                           | 5          |
|          | STAGE 2  | 357+74  | -  | 360+96  | 287                   | 287                            | 0.18                   | 13                        |                           | 6          |
|          | STAGE 2  | 360+43  | -  | 361+04  | 37                    | 37                             | 0.02                   | 2                         |                           | 1          |
|          | STAGE 2  | 361+66  | -  | 370+36  | 877                   | 877                            | 0.55                   | 40                        |                           | 20         |
|          | STAGE 2  | 363+20  | -  | 364+02  | 171                   | 171                            | 0.11                   | 8                         |                           | 4          |
|          | STAGE 2  | 363+31  | -  | 365+51  | 264                   | 264                            | 0.17                   | 12                        |                           | 6          |
|          | STAGE 2  | 365+81  | -  | 370+81  | 581                   | 581                            | 0.37                   | 27                        |                           | 13         |
|          | STAGE 2  | 382+77  | -  | 388+19  | 358                   | 358                            | 0.23                   | 17                        |                           | 8          |
|          | STAGE 2  | 387+43  | -  | 388+28  | 62                    | 62                             | 0.04                   | 3                         |                           | 1          |
|          | STAGE 2  | 390+41  | -  | 393+18  | 200                   | 200                            | 0.13                   | 9                         |                           | 4          |
|          | STAGE 2  | 390+56  | -  | 393+55  | 241                   | 241                            | 0.15                   | 11                        |                           | 5          |
|          | STAGE 2  | 393+84  | -  | 397+42  | 367                   | 367                            | 0.23                   | 17                        |                           | 8          |
|          | STAGE 2  | 406+11  | -  | 410+63  | 322                   | 322                            | 0.20                   | 15                        |                           | 7          |
|          | STAGE 2  | 406+48  | -  | 410+63  | 315                   | 315                            | 0.20                   | 15                        |                           | 7          |
|          | STAGE 2  | 413+35  | -  | 413+55  | 45                    | 45                             | 0.03                   | 2                         |                           | 1          |
|          | Subtotal |         |    |         | 13,725                | 13,725                         | 9                      | 561                       | 71                        | 308        |

(CONTINUED ON NEXT PAGE)  
\*ADDITONAL QTYS SHOWN ELSEWHERE

(CONTINUED FROM PREVIOUS PAGE)

| CATEGORY       | STAGE   | STATION | TO | STATION | 625.0500              | 628.2023                       | 629.0210               | 630.0130                  | 630.017                   | 630.0500   |
|----------------|---------|---------|----|---------|-----------------------|--------------------------------|------------------------|---------------------------|---------------------------|------------|
|                |         |         |    |         | Salvaged<br>Topsoil * | Erosion Mat<br>Class II Type B | Fertilizer<br>Type B * | Seeding<br>Mixture No. 30 | Seeding<br>Mixture No. 70 | Seed Water |
|                |         |         |    |         | SY                    | SY                             | CWT                    | LB                        | LB                        | MGAL       |
| 0010           | STAGE 2 | 413+93  | -  | 416+30  | 406                   | 406                            | 0.26                   | 19                        |                           | 9          |
|                | STAGE 2 | 413+96  | -  | 417+77  | 381                   | 381                            | 0.24                   | 18                        |                           | 9          |
|                | STAGE 2 | 427+77  | -  | 440+46  | 1,024                 | 1,024                          | 0.65                   | 47                        |                           | 23         |
|                | STAGE 2 | 434+26  | -  | 438+67  | 348                   | 348                            | 0.22                   | 16                        |                           | 8          |
|                | STAGE 2 | 439+05  | -  | 440+25  | 195                   | 195                            | 0.12                   | 9                         |                           | 4          |
|                | STAGE 2 | 443+56  | -  | 453+62  | 409                   | 409                            | 0.26                   | 19                        |                           | 9          |
|                | STAGE 2 | 443+59  | -  | 445+06  | 157                   | 157                            | 0.10                   | 8                         |                           | 4          |
|                | STAGE 2 | 445+40  | -  | 452+13  | 542                   | 542                            | 0.34                   | 25                        |                           | 12         |
|                | STAGE 2 | 463+78  | -  | 472+03  | 606                   | 606                            | 0.38                   | 28                        |                           | 14         |
|                | STAGE 2 | 464+66  | -  | 468+87  | 583                   | 583                            | 0.37                   | 27                        |                           | 13         |
|                | STAGE 2 | 482+66  | -  | 483+80  | 90                    | 90                             | 0.06                   | 5                         |                           | 2          |
|                | STAGE 2 | 484+98  | -  | 492+86  | 688                   | 688                            | 0.43                   | 31                        |                           | 15         |
|                | STAGE 2 | 486+80  | -  | 494+10  | 379                   | 379                            | 0.24                   | 18                        |                           | 8          |
|                | STAGE 2 | 493+32  | -  | 494+93  | 249                   | 249                            | 0.16                   | 12                        |                           | 6          |
|                | STAGE 2 | 494+40  | -  | 494+97  | 56                    | 56                             | 0.04                   | 3                         |                           | 1          |
|                | STAGE 2 | 496+93  | -  | 497+60  | 98                    | 98                             | 0.06                   | 5                         |                           | 2          |
|                | STAGE 2 | 496+96  | -  | 506+24  | 576                   | 576                            | 0.36                   | 26                        |                           | 13         |
|                | STAGE 2 | 497+88  | -  | 510+61  | 742                   | 742                            | 0.47                   | 34                        |                           | 17         |
|                | STAGE 2 | 511+65  | -  | 519+59  | 677                   | 677                            | 0.43                   | 31                        |                           | 15         |
|                | STAGE 2 | 528+85  | -  | 535+87  | 652                   | 652                            | 0.41                   | 30                        |                           | 15         |
|                | STAGE 2 | 547+41  | -  | 556+67  | 654                   | 654                            | 0.41                   | 30                        |                           | 15         |
|                | STAGE 2 | 548+09  | -  | 554+25  | 522                   | 522                            | 0.33                   | 24                        |                           | 12         |
|                | STAGE 2 | 554+18  | -  | 556+72  | 301                   | 301                            | 0.19                   | 14                        |                           | 7          |
|                | STAGE 2 | 559+46  | -  | 560+21  | 104                   | 104                            | 0.07                   | 5                         |                           | 2          |
|                | STAGE 2 | 559+54  | -  | 560+18  | 52                    | 52                             | 0.03                   | 3                         |                           | 1          |
|                | STAGE 2 | 560+73  | -  | 565+26  | 356                   | 356                            | 0.23                   | 17                        |                           | 8          |
|                | STAGE 2 | 580+90  | -  | 585+14  | 464                   | 464                            | 0.29                   | 21                        |                           | 10         |
|                | STAGE 2 | 582+61  | -  | 585+26  | 276                   | 276                            | 0.17                   | 13                        |                           | 6          |
|                | STAGE 2 | 587+39  | -  | 590+78  | 303                   | 303                            | 0.19                   | 14                        |                           | 7          |
|                | STAGE 2 | 587+52  | -  | 590+00  | 200                   | 200                            | 0.13                   | 9                         |                           | 4          |
|                | STAGE 2 | 591+04  | -  | 595+24  | 525                   | 525                            | 0.33                   | 24                        |                           | 12         |
|                | STAGE 2 | 591+65  | -  | 604+41  | 771                   | 771                            | 0.49                   | 35                        |                           | 17         |
|                | STAGE 2 | 616+59  | -  | 623+83  | 724                   | 724                            | 0.46                   | 33                        |                           | 16         |
|                | STAGE 2 | 627+95  | -  | 632+00  | 595                   | 595                            | 0.38                   | 27                        |                           | 13         |
|                | STAGE 2 | 632+36  | -  | 636+30  | 668                   | 668                            | 0.42                   | 31                        |                           | 15         |
| UNDISTRIBUTED  |         |         |    |         | 1,455                 | 1,455                          | 1                      | 64                        | 4                         | 33         |
| Subtotal       |         |         |    |         | 16,828                | 16,828                         | 10.61                  | 775                       | 4                         | 377        |
| Contract Total |         |         |    |         | 30,553                | 30,553                         | 19.26                  | 1,336                     | 75                        | 685        |

\*ADDITONAL QTYS SHOWN ELSEWHERE

|                |         |         |    |         | 625.0500 | 629.0210   | 631.0300  | 631.1000 |
|----------------|---------|---------|----|---------|----------|------------|-----------|----------|
|                |         |         |    |         | Salvaged | Fertilizer |           |          |
|                |         |         |    |         | Topsoil* | Type B*    | Sod Water | Sod Lawn |
| CATEGORY       | STAGE   | STATION | TO | STATION | SY       | CWT        | MGAL      | SY       |
| 0010           | STAGE 2 | 658+62  | -  | 658+65  | 1        | 0.01       | 0.01      | 1        |
|                | STAGE 2 | 658+70  | -  | 658+84  | 1        | 0.01       | 0.01      | 1        |
|                | STAGE 2 | 658+80  | -  | 658+92  | 1        | 0.01       | 0.01      | 1        |
|                | STAGE 2 | 659+39  | -  | 659+52  | 1        | 0.01       | 0.01      | 1        |
|                | STAGE 2 | 659+40  | -  | 659+50  | 1        | 0.01       | 0.01      | 1        |
|                | STAGE 2 | 659+42  | -  | 659+52  | 1        | 0.01       | 0.01      | 1        |
|                | STAGE 2 | 659+55  | -  | 659+59  | 1        | 0.01       | 0.01      | 1        |
|                | STAGE 2 | 659+57  | -  | 659+60  | 1        | 0.01       | 0.01      | 1        |
| Contract Total |         |         |    |         | 8        | 0.08       | 0.08      | 8        |

\*ADDITONAL QTYS SHOWN ELSEWHERE

|                |  |  | 628.1905        | 628.1910                  |
|----------------|--|--|-----------------|---------------------------|
|                |  |  | Mobilizations   | Mobilizations             |
|                |  |  | Erosion Control | Emergency Erosion Control |
| CATEGORY       |  |  | EACH            | EACH                      |
| 0010           |  |  | 6               | 5                         |
| Contract Total |  |  | 6               | 5                         |



| CATEGORY | STAGE   | STATION | TO | STATION | 628.1504      | 628.1520                  |
|----------|---------|---------|----|---------|---------------|---------------------------|
|          |         |         |    |         | Silt Fence LF | Silt Fence Maintenance LF |
| 0010     | STAGE 1 | 166+98  | -  | 178+72  | 1,173         | 3,519                     |
|          | STAGE 1 | 170+03  | -  | 179+64  | 961           | 2,883                     |
|          | STAGE 1 | 227+89  | -  | 233+15  | 533           | 1,599                     |
|          | STAGE 1 | 258+96  | -  | 261+53  | 260           | 780                       |
|          | STAGE 1 | 259+38  | -  | 261+54  | 258           | 774                       |
|          | STAGE 1 | 263+78  | -  | 268+07  | 471           | 1,413                     |
|          | STAGE 1 | 263+81  | -  | 272+00  | 819           | 2,457                     |
|          | STAGE 1 | 293+13  | -  | 297+92  | 566           | 1,698                     |
|          | STAGE 1 | 293+50  | -  | 298+52  | 442           | 1,326                     |
|          | STAGE 1 | 298+13  | -  | 298+55  | 126           | 378                       |
|          | STAGE 2 | 307+21  | -  | 310+44  | 326           | 978                       |
|          | STAGE 2 | 307+23  | -  | 310+85  | 363           | 1,089                     |
|          | STAGE 2 | 315+12  | -  | 320+25  | 526           | 1,578                     |
|          | STAGE 2 | 320+82  | -  | 331+14  | 1,060         | 3,180                     |
|          | STAGE 2 | 323+79  | -  | 329+25  | 574           | 1,722                     |
|          | STAGE 2 | 336+12  | -  | 339+75  | 354           | 1,062                     |
|          | STAGE 2 | 337+58  | -  | 339+53  | 458           | 1,374                     |
|          | STAGE 2 | 343+46  | -  | 347+07  | 362           | 1,086                     |
|          | STAGE 2 | 343+68  | -  | 348+39  | 479           | 1,437                     |
|          | STAGE 2 | 352+99  | -  | 360+00  | 711           | 2,133                     |
|          | STAGE 2 | 355+71  | -  | 356+59  | 90            | 270                       |
|          | STAGE 2 | 357+98  | -  | 360+97  | 313           | 939                       |
|          | STAGE 2 | 360+51  | -  | 361+03  | 68            | 204                       |
|          | STAGE 2 | 361+70  | -  | 370+39  | 1,043         | 3,129                     |
|          | STAGE 2 | 363+20  | -  | 363+89  | 174           | 522                       |
|          | STAGE 2 | 363+31  | -  | 365+40  | 218           | 654                       |
|          | STAGE 2 | 365+80  | -  | 370+80  | 514           | 1,542                     |
|          | STAGE 2 | 382+76  | -  | 388+18  | 557           | 1,671                     |
|          | STAGE 2 | 387+55  | -  | 388+22  | 84            | 252                       |
|          | STAGE 2 | 390+41  | -  | 393+17  | 288           | 864                       |
|          | STAGE 2 | 390+57  | -  | 393+37  | 303           | 909                       |
|          | STAGE 2 | 393+89  | -  | 397+42  | 376           | 1,128                     |
|          | STAGE 2 | 406+08  | -  | 410+62  | 457           | 1,371                     |
|          | STAGE 2 | 406+47  | -  | 410+62  | 418           | 1,254                     |
| Subtotal |         |         |    |         | 15,725        | 47,175                    |

| CATEGORY       | STAGE         | STATION | TO | STATION | 628.1504      | 628.1520                  |
|----------------|---------------|---------|----|---------|---------------|---------------------------|
|                |               |         |    |         | Silt Fence LF | Silt Fence Maintenance LF |
| 0010           | STAGE 2       | 413+93  | -  | 416+32  | 258           | 774                       |
|                | STAGE 2       | 413+96  | -  | 417+77  | 386           | 1,158                     |
|                | STAGE 2       | 427+91  | -  | 440+47  | 1,256         | 3,768                     |
|                | STAGE 2       | 434+25  | -  | 438+58  | 467           | 1,401                     |
|                | STAGE 2       | 439+04  | -  | 440+26  | 124           | 372                       |
|                | STAGE 2       | 443+56  | -  | 453+66  | 977           | 2,931                     |
|                | STAGE 2       | 443+59  | -  | 445+07  | 169           | 507                       |
|                | STAGE 2       | 445+52  | -  | 452+15  | 703           | 2,109                     |
|                | STAGE 2       | 463+75  | -  | 472+03  | 846           | 2,538                     |
|                | STAGE 2       | 464+63  | -  | 468+74  | 764           | 2,292                     |
|                | STAGE 2       | 482+63  | -  | 492+86  | 1,062         | 3,186                     |
|                | STAGE 2       | 486+77  | -  | 494+04  | 748           | 2,244                     |
|                | STAGE 2       | 493+32  | -  | 494+90  | 153           | 459                       |
|                | STAGE 2       | 494+47  | -  | 494+98  | 68            | 204                       |
|                | STAGE 2       | 496+92  | -  | 497+54  | 83            | 249                       |
|                | STAGE 2       | 496+97  | -  | 506+25  | 921           | 2,763                     |
|                | STAGE 2       | 497+95  | -  | 510+65  | 1,300         | 3,900                     |
|                | STAGE 2       | 511+59  | -  | 519+59  | 825           | 2,475                     |
|                | STAGE 2       | 528+90  | -  | 536+33  | 749           | 2,247                     |
|                | STAGE 2       | 547+37  | -  | 556+69  | 920           | 2,760                     |
|                | STAGE 2       | 548+05  | -  | 554+19  | 927           | 2,781                     |
|                | STAGE 2       | 554+24  | -  | 556+65  | 371           | 1,113                     |
|                | STAGE 2       | 559+47  | -  | 560+14  | 87            | 261                       |
|                | STAGE 2       | 559+53  | -  | 559+88  | 35            | 105                       |
|                | STAGE 2       | 560+79  | -  | 565+29  | 491           | 1,473                     |
|                | STAGE 2       | 580+89  | -  | 585+13  | 426           | 1,278                     |
|                | STAGE 2       | 582+67  | -  | 585+26  | 297           | 891                       |
|                | STAGE 2       | 587+40  | -  | 590+72  | 351           | 1,053                     |
|                | STAGE 2       | 587+51  | -  | 590+01  | 253           | 759                       |
|                | STAGE 2       | 591+11  | -  | 595+18  | 476           | 1,428                     |
|                | STAGE 2       | 591+74  | -  | 604+47  | 1,270         | 3,810                     |
|                | STAGE 2       | 616+55  | -  | 623+84  | 756           | 2,268                     |
|                | STAGE 2       | 628+27  | -  | 631+96  | 392           | 1,176                     |
|                | STAGE 2       | 632+45  | -  | 636+30  | 397           | 1,191                     |
|                | UNDISTRIBUTED |         |    |         | 3,000         |                           |
| Subtotal       |               |         |    |         | 22,308        | 57,924                    |
| Contract Total |               |         |    |         | 38,033        | 105,099                   |



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| 628.7020                |         |         |    |         |      |
|-------------------------|---------|---------|----|---------|------|
| Inlet Protection Type D |         |         |    |         |      |
| CATEGORY                | STAGE   | STATION | TO | STATION | EACH |
| 0010                    | STAGE 1 | 15+55   | -  | 15+63   | 1    |
|                         | STAGE 1 | 15+58   | -  | 15+66   | 1    |
|                         | STAGE 1 | 263+84  | -  | 263+94  | 1    |
|                         | STAGE 1 | 263+85  | -  | 263+94  | 1    |
|                         | STAGE 1 | 298+38  | -  | 298+48  | 1    |
|                         | STAGE 1 | 298+39  | -  | 298+51  | 1    |
|                         | STAGE 2 | 339+55  | -  | 339+68  | 1    |
|                         | STAGE 2 | 343+52  | -  | 343+65  | 1    |
|                         | STAGE 2 | 363+37  | -  | 363+47  | 1    |
|                         | STAGE 2 | 390+63  | -  | 390+72  | 1    |
|                         | STAGE 2 | 394+21  | -  | 394+30  | 1    |
|                         | STAGE 2 | 394+60  | -  | 394+69  | 1    |
|                         | STAGE 2 | 410+47  | -  | 410+56  | 1    |
|                         | STAGE 2 | 443+54  | -  | 443+66  | 1    |
|                         | STAGE 2 | 497+02  | -  | 497+14  | 1    |
|                         | STAGE 2 | 527+23  | -  | 527+35  | 1    |
|                         | STAGE 2 | 527+79  | -  | 527+91  | 1    |
|                         | STAGE 2 | 528+61  | -  | 528+73  | 1    |
|                         | STAGE 2 | 529+30  | -  | 529+42  | 1    |
|                         | STAGE 2 | 529+83  | -  | 529+95  | 1    |
|                         | STAGE 2 | 530+63  | -  | 530+75  | 1    |
|                         | STAGE 2 | 559+52  | -  | 559+64  | 1    |
|                         | STAGE 2 | 559+67  | -  | 559+78  | 1    |
|                         | STAGE 2 | 585+01  | -  | 585+09  | 1    |
|                         | STAGE 2 | 585+11  | -  | 585+19  | 1    |
|                         | STAGE 2 | 632+75  | -  | 632+87  | 1    |
|                         | STAGE 2 | 632+93  | -  | 633+05  | 1    |
|                         | STAGE 2 | 636+52  | -  | 636+65  | 1    |
|                         | STAGE 2 | 636+68  | -  | 636+82  | 1    |
|                         | STAGE 2 | 638+82  | -  | 638+95  | 1    |
|                         | STAGE 2 | 640+42  | -  | 640+55  | 1    |
|                         | STAGE 2 | 643+69  | -  | 643+81  | 1    |
|                         | STAGE 2 | 647+67  | -  | 647+80  | 1    |
|                         | STAGE 2 | 647+85  | -  | 647+98  | 1    |
|                         | STAGE 2 | 647+93  | -  | 648+06  | 1    |
|                         | STAGE 2 | 656+24  | -  | 656+35  | 1    |
| Contract Total          |         |         |    |         | 36   |

3

| 628.7504               |         |         |    |         |           |
|------------------------|---------|---------|----|---------|-----------|
| Temporary Ditch Checks |         |         |    |         |           |
| CATEGORY               | STAGE   | STATION | TO | STATION | LF        |
| 0010                   | STAGE 1 | 165+70  | -  | 165+71  | 5         |
|                        | STAGE 1 | 166+24  | -  | 166+25  | 5         |
|                        | STAGE 1 | 166+89  | -  | 166+90  | 5         |
|                        | STAGE 1 | 168+96  | -  | 168+96  | 5         |
|                        | STAGE 1 | 170+00  | -  | 170+01  | 5         |
|                        | STAGE 1 | 178+54  | -  | 178+55  | 5         |
|                        | STAGE 1 | 179+51  | -  | 179+51  | 5         |
|                        | STAGE 1 | 180+70  | -  | 180+70  | 5         |
|                        | STAGE 1 | 180+72  | -  | 180+73  | 5         |
|                        | STAGE 1 | 227+04  | -  | 227+05  | 5         |
|                        | STAGE 1 | 232+85  | -  | 232+87  | 5         |
|                        | STAGE 1 | 233+06  | -  | 233+08  | 5         |
|                        | STAGE 1 | 233+41  | -  | 233+41  | 5         |
|                        | STAGE 1 | 234+54  | -  | 234+55  | 5         |
|                        | STAGE 1 | 258+25  | -  | 258+25  | 5         |
|                        | STAGE 1 | 259+33  | -  | 259+36  | 5         |
|                        | STAGE 1 | 271+97  | -  | 271+98  | 5         |
|                        | STAGE 1 | 273+01  | -  | 273+02  | 5         |
|                        | STAGE 1 | 292+00  | -  | 292+00  | 5         |
|                        | STAGE 1 | 293+02  | -  | 293+02  | 5         |
|                        | STAGE 1 | 293+18  | -  | 293+19  | 5         |
|                        | STAGE 1 | 293+54  | -  | 293+57  | 5         |
|                        | STAGE 2 | 428+81  | -  | 428+81  | 1         |
| Contract Total         |         |         |    |         | 110       |
|                        |         |         |    |         | 628.7570  |
|                        |         |         |    |         | Rock Bags |
|                        |         |         |    |         | EACH      |

TYPE I & II PERMANENT SIGNING

5110-06-70

CATEGORY CODE 1000

| SIGN NO.      | SIGN CODE & SIZE | SIGN MESSAGE     | SIGN SIZE  |        |            | 637.2210                                    | 637.2230                                    | 634.0614                               | 634.0618                               | MOUNT ON SAME POST AS SIGN # | REMARKS / NEW SIGN LOCATION |
|---------------|------------------|------------------|------------|--------|------------|---------------------------------------------|---------------------------------------------|----------------------------------------|----------------------------------------|------------------------------|-----------------------------|
|               |                  |                  | W<br>[IN.] | x<br>x | H<br>[IN.] | SIGNS<br>TYPE II<br>REFLECTIVE<br>H<br>[SF] | SIGNS<br>TYPE II<br>RELFECTIVE<br>F<br>[SF] | POSTS<br>WOOD<br>4" X 6" X 14'<br>[EA] | POSTS<br>WOOD<br>4" X 6" X 18'<br>[EA] |                              |                             |
| 1             | W11-14 (2S)      | NEXT 12 MILES    | 36         | x      | 36         |                                             | 9                                           |                                        | 1                                      | 1                            |                             |
| 2             | W57-51 (3)       |                  | 36         | x      | 18         |                                             | 4.5                                         |                                        |                                        |                              |                             |
| 3             | W11-14 (2S)      |                  | 36         | x      | 36         |                                             | 9                                           |                                        | 1                                      |                              |                             |
| 4             | W57-51 (3)       | NEXT 5 MILES     | 36         | x      | 18         |                                             | 4.5                                         |                                        | 3                                      |                              |                             |
| 5             | W11-14 (2S)      |                  | 36         | x      | 36         |                                             | 9                                           |                                        |                                        | 1                            |                             |
| 6             | W57-51 (3)       | NEXT 7 MILES     | 36         | x      | 18         | 5.18                                        | 4.5                                         |                                        |                                        | 5                            | 2' MOUNTING HEIGHT          |
| 7             | R1-1 (2S)        |                  | 30         | x      | 30         |                                             |                                             |                                        | 1                                      |                              |                             |
| 8             | W12-1D (2S)      |                  | 24         | x      | 24         |                                             |                                             | 4                                      | 1                                      |                              |                             |
| 9             | W1-6 (2S)        |                  | 48         | x      | 24         |                                             |                                             | 8                                      | 1                                      |                              |                             |
| 10            | W1-6 (2S)        |                  | 48         | x      | 24         |                                             |                                             | 8                                      | 1                                      |                              |                             |
| 11            | W11-14 (2S)      | NEXT 6 1/2 MILES | 36         | x      | 36         |                                             | 9                                           |                                        | 1                                      | 11                           |                             |
| 12            | W57-51 (3)       |                  | 36         | x      | 18         |                                             | 4.5                                         |                                        |                                        |                              |                             |
| 13            | W11-14 (2S)      |                  | 36         | x      | 36         |                                             | 9                                           |                                        | 1                                      |                              |                             |
| 14            | W57-51 (3)       | NEXT 5 1/2 MILES | 36         | x      | 18         |                                             | 4.5                                         |                                        | 13                                     |                              |                             |
| 15            | W11-14 (2S)      |                  | 36         | x      | 36         |                                             | 9                                           |                                        |                                        | 1                            |                             |
| 16            | W57-51 (3)       | NEXT 9 MILES     | 36         | x      | 18         |                                             | 4.5                                         |                                        |                                        | 15                           |                             |
| 17            | W11-14 (2S)      |                  | 36         | x      | 36         |                                             | 9                                           |                                        | 1                                      |                              |                             |
| 18            | W57-51 (3)       | NEXT 3 1/2 MILES | 36         | x      | 18         |                                             | 4.5                                         |                                        | 17                                     |                              |                             |
| 19            | W11-14 (2S)      |                  | 36         | x      | 36         |                                             | 9                                           |                                        |                                        | 1                            |                             |
| 20            | W57-51 (3)       | NEXT 12 MILES    | 36         | x      | 18         |                                             | 4.5                                         |                                        |                                        | 19                           |                             |
| SUBTOTAL      |                  |                  |            |        |            | 5.18                                        | 128                                         | 4                                      | 8                                      |                              |                             |
| UNDISTRIBUTED |                  |                  |            |        |            | 1                                           | 13                                          | 1                                      | 1                                      |                              |                             |
| TOTALS        |                  |                  |            |        |            | 6.18                                        | 141                                         | 5                                      | 9                                      |                              |                             |

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|          |         |         |          | 638.2102     | 638.2602       |
|----------|---------|---------|----------|--------------|----------------|
|          |         |         |          | Moving Signs | Removing Signs |
|          |         |         |          | Type II      | Type II        |
| CATEGORY | STAGE   | STATION | LOCATION | EACH         | EACH           |
| 0010     | STAGE 1 | 176+77  | RT       | 1            |                |
|          | STAGE 1 | 227+31  | LT       | 1            |                |
|          | STAGE 1 | 230+46  | LT       | 1            |                |
|          | STAGE 1 | 293+76  | RT       | 1            |                |
|          | STAGE 1 | 296+06  | LT       | 1            |                |
|          | STAGE 1 | 297+62  | RT       | 1            |                |
|          | STAGE 1 | 297+66  | RT       | 2            |                |
|          | STAGE 1 | 298+14  | RT       | 1            |                |
|          | STAGE 1 | 298+18  | RT       | 2            |                |
|          | STAGE 1 | 298+19  | LT       | 2            |                |
|          | STAGE 1 | 298+20  | RT       |              | 1              |
|          | STAGE 1 | 298+21  | RT       |              | 1              |
|          | STAGE 1 | 298+33  | RT       | 1            |                |
|          | STAGE 1 | 298+39  | RT       | 1            |                |
|          | STAGE 1 | 298+46  | RT       | 1            |                |
|          | STAGE 1 | 298+49  | LT       | 1            |                |
|          | STAGE 2 | 307+21  | RT       | 2            |                |
|          | STAGE 2 | 307+45  | LT       | 1            |                |
|          | STAGE 2 | 307+47  | RT       | 1            |                |
|          | STAGE 2 | 307+61  | LT       | 1            |                |
|          | STAGE 2 | 308+84  | RT       | 1            |                |
|          | STAGE 2 | 309+44  | RT       | 1            |                |
|          | STAGE 2 | 316+24  | RT       | 1            |                |
|          | STAGE 2 | 321+89  | LT       | 1            |                |
|          | STAGE 2 | 324+49  | LT       | 1            |                |
|          | STAGE 2 | 329+94  | LT       | 1            |                |
|          | STAGE 2 | 337+79  | LT       | 2            |                |
|          | STAGE 2 | 339+39  | RT       | 1            |                |
|          | STAGE 2 | 339+44  | LT       | 1            |                |
|          | STAGE 2 | 339+62  | RT       | 1            |                |
|          | STAGE 2 | 343+48  | LT       | 1            |                |
|          | STAGE 2 | 343+65  | RT       | 1            |                |
|          | STAGE 2 | 343+77  | LT       | 1            |                |
|          | STAGE 2 | 359+12  | LT       | 1            |                |
|          | STAGE 2 | 360+62  | RT       | 1            |                |
|          | STAGE 2 | 360+88  | RT       | 1            |                |
|          | STAGE 2 | 360+96  | LT       | 1            |                |
| Subtotal |         |         |          | 40           | 2              |

|          |         |         |          | 638.2102     | 638.2602       |
|----------|---------|---------|----------|--------------|----------------|
|          |         |         |          | Moving Signs | Removing Signs |
|          |         |         |          | Type II      | Type II        |
| CATEGORY | STAGE   | STATION | LOCATION | EACH         | EACH           |
| 0010     | STAGE 2 | 363+21  | RT       | 1            |                |
|          | STAGE 2 | 363+31  | LT       | 1            |                |
|          | STAGE 2 | 363+34  | RT       | 1            |                |
|          | STAGE 2 | 363+67  | LT       | 1            |                |
|          | STAGE 2 | 363+68  | LT       | 1            |                |
|          | STAGE 2 | 364+32  | LT       | 1            |                |
|          | STAGE 2 | 364+44  | LT       | 1            |                |
|          | STAGE 2 | 364+62  | RT       | 1            |                |
|          | STAGE 2 | 364+68  | RT       | 1            |                |
|          | STAGE 2 | 365+74  | RT       | 1            |                |
|          | STAGE 2 | 366+99  | RT       | 1            |                |
|          | STAGE 2 | 387+82  | RT       | 1            |                |
|          | STAGE 2 | 388+11  | RT       | 1            |                |
|          | STAGE 2 | 388+20  | LT       | 1            |                |
|          | STAGE 2 | 390+41  | RT       | 1            |                |
|          | STAGE 2 | 390+57  | LT       | 1            |                |
|          | STAGE 2 | 390+74  | LT       | 1            |                |
|          | STAGE 2 | 395+21  | LT       | 1            |                |
|          | STAGE 2 | 410+57  | RT       | 1            |                |
|          | STAGE 2 | 410+57  | LT       | 1            |                |
|          | STAGE 2 | 413+92  | LT       | 1            |                |
|          | STAGE 2 | 413+93  | RT       | 1            |                |
|          | STAGE 2 | 439+76  | RT       | 1            |                |
|          | STAGE 2 | 439+77  | LT       | 1            |                |
|          | STAGE 2 | 440+08  | RT       | 1            |                |
|          | STAGE 2 | 440+17  | RT       | 1            |                |
|          | STAGE 2 | 440+39  | LT       | 1            |                |
|          | STAGE 2 | 443+54  | RT       | 1            |                |
|          | STAGE 2 | 443+59  | LT       | 1            |                |
|          | STAGE 2 | 443+71  | LT       | 1            |                |
|          | STAGE 2 | 468+06  | LT       | 1            |                |
|          | STAGE 2 | 470+97  | RT       | 1            |                |
|          | STAGE 2 | 483+41  | RT       | 1            |                |
|          | STAGE 2 | 489+59  | LT       | 1            |                |
| Subtotal |         |         |          | 34           | 0              |

|                |         |         |          | 638.2102     | 638.2602       |
|----------------|---------|---------|----------|--------------|----------------|
|                |         |         |          | Moving Signs | Removing Signs |
|                |         |         |          | Type II      | Type II        |
| CATEGORY       | STAGE   | STATION | LOCATION | EACH         | EACH           |
| 0010           | STAGE 2 | 491+08  | RT       | 1            |                |
|                | STAGE 2 | 491+09  | LT       | 1            |                |
|                | STAGE 2 | 494+66  | RT       | 1            |                |
|                | STAGE 2 | 494+85  | RT       | 1            |                |
|                | STAGE 2 | 494+90  | LT       | 1            |                |
|                | STAGE 2 | 496+93  | LT       | 1            |                |
|                | STAGE 2 | 496+97  | RT       | 1            |                |
|                | STAGE 2 | 497+09  | LT       | 1            |                |
|                | STAGE 2 | 497+10  | LT       | 1            |                |
|                | STAGE 2 | 503+07  | LT       | 2            |                |
|                | STAGE 2 | 534+45  | RT       | 2            |                |
|                | STAGE 2 | 554+13  | LT       | 2            |                |
|                | STAGE 2 | 554+70  | LT       | 2            |                |
|                | STAGE 2 | 556+50  | RT       | 1            |                |
|                | STAGE 2 | 556+59  | RT       | 1            |                |
|                | STAGE 2 | 556+65  | LT       | 1            |                |
|                | STAGE 2 | 559+46  | RT       | 1            |                |
|                | STAGE 2 | 559+53  | LT       | 1            |                |
|                | STAGE 2 | 559+66  | LT       | 1            |                |
|                | STAGE 2 | 560+14  | LT       | 1            |                |
|                | STAGE 2 | 584+08  | LT       | 1            |                |
|                | STAGE 2 | 585+07  | LT       | 1            |                |
|                | STAGE 2 | 585+08  | RT       | 1            |                |
|                | STAGE 2 | 585+20  | RT       | 1            |                |
|                | STAGE 2 | 587+40  | LT       | 1            |                |
|                | STAGE 2 | 587+52  | RT       | 1            |                |
|                | STAGE 2 | 587+52  | LT       | 1            |                |
|                | STAGE 2 | 621+99  | RT       | 1            |                |
|                | STAGE 2 | 623+33  | RT       | 1            |                |
|                | STAGE 2 | 629+52  | LT       | 1            |                |
|                | STAGE 2 | 629+53  | LT       | 1            |                |
|                | STAGE 2 | 631+63  | LT       | 1            |                |
|                | STAGE 2 | 634+34  | LT       | 2            |                |
|                | STAGE 2 | 658+57  | RT       | 1            |                |
|                | STAGE 2 | 659+46  | RT       | 1            |                |
|                | STAGE 2 | 659+47  | RT       | 2            |                |
|                | STAGE 2 | 659+62  | LT       | 1            |                |
| Subtotal       |         |         |          | 43           | 0              |
| Contract Total |         |         |          | 117          | 2              |

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| CATEGORY       | STAGE         | DAYS | 643.0300              | 643.0420                            | 643.0705                              | 643.0715                              | 643.0900              | 643.0920                               | 643.1000                            | 643.1050                   |
|----------------|---------------|------|-----------------------|-------------------------------------|---------------------------------------|---------------------------------------|-----------------------|----------------------------------------|-------------------------------------|----------------------------|
|                |               |      | Traffic Control Drums | Traffic Control Barricades Type III | Traffic Control Warning Lights Type A | Traffic Control Warning Lights Type C | Traffic Control Signs | Traffic Control Covering Signs Type II | Traffic Control Signs Fixed Message | Traffic Control Signs PCMS |
|                |               |      | DAY                   | DAY                                 | DAY                                   | DAY                                   | DAY                   | EACH                                   | SF                                  | DAY                        |
| 0010           | STAGE 1       | 66   |                       | 1,452                               | 1,056                                 |                                       | 19,668                | 7                                      | 140                                 | 14                         |
|                | STAGE 2       | 125  |                       | 2,750                               | 2,000                                 |                                       | 37,125                | 7                                      | 140                                 | 14                         |
|                | STAGE 1 PED   | 15   | 198                   | 33                                  |                                       | 45                                    | 105                   |                                        |                                     |                            |
|                | STAGE 2 PED   | 11   | 165                   | 44                                  |                                       | 33                                    | 165                   |                                        |                                     |                            |
|                | STAGE 3 PED   | 11   | 220                   | 44                                  |                                       | 33                                    | 154                   |                                        |                                     |                            |
|                | UNDISTRIBUTED |      | 2,000                 |                                     |                                       |                                       |                       |                                        |                                     |                            |
| Contract Total |               |      | 2,583                 | 4,323                               | 3,056                                 | 111                                   | 57,217                | 14                                     | 280                                 | 28                         |



| CATEGORY | STAGE   | STATION | TO | STATION | LOCATION   | 643.3165          | 646.2040                     | 646.6120          | 646.8220       | REMARKS |                 |
|----------|---------|---------|----|---------|------------|-------------------|------------------------------|-------------------|----------------|---------|-----------------|
|          |         |         |    |         |            | Temporary Marking | Marking Line Grooved Wet Ref | Marking Stop Line | Marking Island |         |                 |
|          |         |         |    |         |            | Line Paint 6-Inch | Epoxy 6-Inch                 | Epoxy 18-Inch     | Nose Epoxy     |         |                 |
|          |         |         |    |         |            | LF                | LF                           | LF                | EACH           |         |                 |
|          |         |         |    |         |            | YELLOW            | WHITE                        | YELLOW            | WHITE          | YELLOW  |                 |
| 0010     | STAGE 1 | 12+49   | -  | 18+25   | CENTERLINE | 1,440             |                              | 720               |                |         | NB PASSING ONLY |
|          | STAGE 1 | 12+49   | -  | 12+49   | LT         |                   |                              |                   | 17             |         |                 |
|          | STAGE 1 | 18+25   | -  | 32+00   | CENTERLINE | 688               |                              | 344               |                |         | BOTH PASSING    |
|          | STAGE 1 | 19+50   | -  | 310+99  | LT         |                   | 20,636                       |                   |                |         |                 |
|          | STAGE 1 | 32+00   | -  | 35+75   | CENTERLINE | 938               |                              | 469               |                |         | SB PASSING ONLY |
|          | STAGE 1 | 33+74   | -  | 56+08   | RT         |                   | 2,225                        |                   |                |         |                 |
|          | STAGE 1 | 35+75   | -  | 55+00   | CENTERLINE | 7,700             |                              | 3,850             |                |         | NO PASSING      |
|          | STAGE 1 | 55+00   | -  | 66+00   | CENTERLINE | 2,750             |                              | 1,375             |                |         | NB PASSING ONLY |
|          | STAGE 1 | 57+92   | -  | 126+42  | RT         |                   | 6,866                        |                   |                |         |                 |
|          | STAGE 1 | 66+00   | -  | 73+00   | CENTERLINE | 350               |                              | 175               |                |         | BOTH PASSING    |
|          | STAGE 1 | 73+00   | -  | 78+00   | CENTERLINE | 1,250             |                              | 625               |                |         | SB PASSING ONLY |
|          | STAGE 1 | 78+00   | -  | 98+00   | CENTERLINE | 8,000             |                              | 4,000             |                |         | NO PASSING      |
|          | STAGE 1 | 98+00   | -  | 110+00  | CENTERLINE | 3,000             |                              | 1,500             |                |         | NB PASSING ONLY |
|          | STAGE 1 | 110+00  | -  | 124+00  | CENTERLINE | 700               |                              | 350               |                |         | BOTH PASSING    |
|          | STAGE 1 | 124+00  | -  | 134+00  | CENTERLINE | 2,500             |                              | 1,250             |                |         | SB PASSING ONLY |
|          | STAGE 1 | 128+41  | -  | 299+05  | RT         |                   | 13,913                       |                   |                |         |                 |
|          | STAGE 1 | 134+00  | -  | 140+00  | CENTERLINE | 2,400             |                              | 1,200             |                |         | NO PASSING      |
|          | STAGE 1 | 140+00  | -  | 148+00  | CENTERLINE | 2,000             |                              | 1,000             |                |         | NB PASSING ONLY |
|          | STAGE 1 | 148+00  | -  | 152+00  | CENTERLINE | 200               |                              | 100               |                |         | NO PASSING      |
|          | STAGE 1 | 152+00  | -  | 160+00  | CENTERLINE | 2,000             |                              | 1,000             |                |         | NB PASSING ONLY |
|          | STAGE 1 | 160+00  | -  | 166+25  | CENTERLINE | 2,500             |                              | 1,250             |                |         | NO PASSING      |
|          | STAGE 1 | 166+25  | -  | 175+00  | CENTERLINE | 2,188             |                              | 1,094             |                |         | NB PASSING ONLY |
|          | STAGE 1 | 175+00  | -  | 182+00  | CENTERLINE | 350               |                              | 175               |                |         | BOTH PASSING    |
|          | STAGE 1 | 182+00  | -  | 193+00  | CENTERLINE | 2,750             |                              | 1,375             |                |         | SB PASSING ONLY |
|          | STAGE 1 | 193+00  | -  | 198+00  | CENTERLINE | 2,000             |                              | 1,000             |                |         | NO PASSING      |
|          | STAGE 1 | 198+00  | -  | 203+00  | CENTERLINE | 1,250             |                              | 625               |                |         | NB PASSING ONLY |
|          | STAGE 1 | 203+00  | -  | 212+00  | CENTERLINE | 450               |                              | 225               |                |         | NO PASSING      |
| Subtotal |         |         |    |         |            | 47,404            | 43,640                       | 23,702            | 17             | 0       |                 |

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| CATEGORY       | STAGE   | STATION | TO | STATION | LOCATION   | 643.3165          | 646.2040     | 646.6120        | 646.8220          | REMARKS |                 |
|----------------|---------|---------|----|---------|------------|-------------------|--------------|-----------------|-------------------|---------|-----------------|
|                |         |         |    |         |            | Temporary Marking | Marking Line | Grooved Wet Ref | Marking Stop Line |         | Marking Island  |
|                |         |         |    |         |            | Line Paint 6-Inch | Epoxy 6-Inch |                 | Epoxy 18-Inch     |         | Nose Epoxy      |
|                |         |         |    |         |            | LF                | LF           | LF              | EACH              |         |                 |
|                |         |         |    |         |            | YELLOW            | WHITE        | YELLOW          | WHITE             | YELLOW  |                 |
| 0010           | STAGE 1 | 212+00  | -  | 224+00  | CENTERLINE | 3,000             |              | 1,500           |                   |         | SB PASSING ONLY |
|                | STAGE 1 | 224+00  | -  | 254+00  | CENTERLINE | 12,000            |              | 6,000           |                   |         | NO PASSING      |
|                | STAGE 1 | 227+16  | -  | 298+62  | LT         |                   | 7,118        |                 |                   |         |                 |
|                | STAGE 1 | 254+00  | -  | 264+50  | CENTERLINE | 2,626             |              | 1,313           |                   |         | NB PASSING ONLY |
|                | STAGE 1 | 264+50  | -  | 286+00  | CENTERLINE | 1,076             |              | 538             |                   |         | BOTH PASSING    |
|                | STAGE 1 | 268+90  | -  | 298+62  | RT         |                   | 2,991        |                 |                   |         |                 |
|                | STAGE 1 | 286+00  | -  | 297+37  | CENTERLINE | 2,844             |              | 1,422           |                   |         | SB PASSING ONLY |
|                | STAGE 1 | 297+37  | -  | 298+62  | CENTERLINE | 496               |              | 248             |                   |         | NO PASSING      |
|                | STAGE 1 | 297+97  | -  | 298+06  | RT         |                   |              |                 |                   | 2       |                 |
|                | STAGE 2 | 298+62  | -  | 364+02  | CENTERLINE | 26,152            |              | 13,076          |                   |         | NO PASSING      |
|                | STAGE 2 | 298+62  | -  | 336+63  | LT         |                   | 3,826        |                 |                   |         |                 |
|                | STAGE 2 | 298+62  | -  | 363+22  | RT         |                   | 6,438        |                 |                   |         |                 |
|                | STAGE 2 | 338+19  | -  | 363+29  | LT         |                   | 2,501        |                 |                   |         |                 |
|                | STAGE 2 | 363+29  | -  | 553+96  | LT         |                   | 19,079       |                 |                   |         |                 |
|                | STAGE 2 | 364+02  | -  | 560+21  | CENTERLINE | 78,500            |              | 39,250          |                   |         | NO PASSING      |
|                | STAGE 2 | 364+63  | -  | 480+22  | RT         |                   | 11,559       |                 |                   |         |                 |
|                | STAGE 2 | 481+71  | -  | 519+50  | RT         |                   | 3,794        |                 |                   |         |                 |
|                | STAGE 2 | 520+67  | -  | 658+59  | RT         |                   | 13,780       |                 |                   |         |                 |
|                | STAGE 2 | 555+20  | -  | 626+62  | LT         |                   | 7,132        |                 |                   |         |                 |
|                | STAGE 2 | 560+21  | -  | 566+96  | CENTERLINE | 1,688             |              | 844             |                   |         | NB PASSING ONLY |
|                | STAGE 2 | 566+96  | -  | 584+96  | CENTERLINE | 900               |              | 450             |                   |         | BOTH PASSING    |
|                | STAGE 2 | 584+96  | -  | 594+46  | CENTERLINE | 2,376             |              | 1,188           |                   |         | SB PASSING ONLY |
|                | STAGE 2 | 594+46  | -  | 596+21  | CENTERLINE | 700               |              | 350             |                   |         | NO PASSING      |
|                | STAGE 2 | 596+21  | -  | 609+96  | CENTERLINE | 3,438             |              | 1,719           |                   |         | NB PASSING ONLY |
|                | STAGE 2 | 609+96  | -  | 658+60  | CENTERLINE | 19,456            |              | 9,728           |                   |         | NO PASSING      |
|                | STAGE 2 | 627+65  | -  | 658+44  | LT         |                   | 3,084        |                 |                   |         |                 |
|                | STAGE 2 | 658+60  | -  | 658+60  | RT         |                   |              |                 | 17                |         |                 |
| Subtotal       |         |         |    |         |            | 155,252           | 81,302       | 77,626          | 17                | 2       |                 |
| Contract Total |         |         |    |         |            | 202,656           | 124,942      | 101,328         | 34                | 2       |                 |
|                |         |         |    |         |            |                   |              |                 |                   |         | 226,270         |

| CATEGORY       | STAGE       | LOCATION      | 643.3180               |        | 643.3850            | 643.3970           |
|----------------|-------------|---------------|------------------------|--------|---------------------|--------------------|
|                |             |               | Temporary Marking Line |        | Temporary Marking   | Temporary Marking  |
|                |             |               | Removable Tape 6-Inch  |        | Stop Line Removable | Removable Mask Out |
|                |             |               | LF                     |        | Tape 18-Inch        | Tape 10-Inch       |
|                |             |               | WHITE                  | YELLOW | WHITE               | LF                 |
| 0010           | STAGE 1 PED | STH 33 MEDIAN |                        | 489    |                     | 489                |
|                | STAGE 1 PED | STH 33 RT     | 489                    |        |                     |                    |
|                | STAGE 2 PED | STH 33 MEDIAN |                        | 418    |                     | 418                |
|                | STAGE 2 PED | STH 33 LT     | 418                    |        |                     |                    |
|                | STAGE 2 PED | STH 33 LT     | 156                    |        |                     |                    |
|                | STAGE 2 PED | STH 33 LT     |                        | 166    |                     |                    |
|                | STAGE 2 PED | STH 33 LT     | 166                    |        |                     |                    |
|                | STAGE 3 PED | STH 33 MEDIAN |                        | 418    |                     | 418                |
|                | STAGE 3 PED | STH 33 LT     | 418                    |        |                     |                    |
|                | STAGE 3 PED | STH 33 LT     | 89                     |        |                     |                    |
|                | STAGE 3 PED | STH 33 LT     |                        | 89     |                     |                    |
|                | STAGE 3 PED | STH 33 LT     | 89                     |        |                     |                    |
|                | STAGE 3 PED | STH 33 LT     |                        |        | 10                  |                    |
| Contract Total |             |               | 1,825                  | 1,580  | 10                  | 1,325              |
|                |             |               | 3,405                  |        |                     |                    |

|                |             |         |    |         |          | 644.1440             | 644.1601             | 644.1605                 | 644.1810             |
|----------------|-------------|---------|----|---------|----------|----------------------|----------------------|--------------------------|----------------------|
|                |             |         |    |         |          | Temporary Pedestrian | Temporary Pedestrian | Temporary Pedestrian     | Temporary Pedestrian |
|                |             |         |    |         |          | Surface Matting      | Curb Ramp            | Detectable Warning Field | Barricade            |
| CATEGORY       | STAGE       | STATION | TO | STATION | LOCATION | SF                   | DAY                  | SF                       | LF                   |
|                | STAGE 3 PED | 659+55  | -  | 660+11  | RT       | 296                  |                      |                          |                      |
|                | STAGE 3 PED | 660+05  | -  | 660+11  | RT       |                      |                      |                          | 14                   |
|                | STAGE 3 PED | 660+06  | -  | 660+11  | RT       |                      | 22                   | 10                       |                      |
|                | STAGE 3 PED | 660+07  | -  | 660+12  | LT       | 30                   | 22                   | 10                       |                      |
|                | STAGE 3 PED | 660+07  | -  | 660+13  | LT       |                      |                      |                          | 16                   |
| Contract Total |             |         |    |         |          | 326                  | 44                   | 20                       | 30                   |

|                |         |    |         |  | 648.0100                  |
|----------------|---------|----|---------|--|---------------------------|
|                |         |    |         |  | Locating No-Passing Zones |
| CATEGORY       | STATION | TO | STATION |  | MI                        |
| 0010           | 12+49   | -  | 659+65  |  | 12.26                     |
| Contract Total |         |    |         |  | 12.26                     |



| CATEGORY | STAGE   | STATION | TO | STATION | 650.4000<br>Construction<br>Staking Storm<br>Sewer<br>EACH | 650.5500<br>Construction<br>Staking Curb &<br>Gutter<br>LF | 650.6000<br>Construction<br>Staking Pipe<br>Culverts<br>EACH | 650.8000<br>Construction<br>Staking Resurfacing<br>Reference<br>LF | 650.9000<br>Construction<br>Staking Curb<br>Ramps<br>EACH | 650.9500<br>Construction<br>Staking Sidewalk<br>(5110-06-70)<br>EACH | 650.9911<br>Construction Staking<br>Supplemental<br>Control (5110-06-70)<br>EACH | 650.9920<br>Construction<br>Staking Slope<br>Stakes<br>LF |
|----------|---------|---------|----|---------|------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------|
| 0010     | STAGE 1 | 12+49   | -  | 261+63  |                                                            |                                                            |                                                              | 24,914                                                             |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 1 | 164+63  | -  | 181+72  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 1,709                                                     |
|          | STAGE 1 | 226+88  | -  | 234+53  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 765                                                       |
|          | STAGE 1 | 256+72  | -  | 261+63  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 490                                                       |
|          | STAGE 1 | 263+69  | -  | 298+62  |                                                            |                                                            |                                                              | 3,493                                                              |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 1 | 263+69  | -  | 273+76  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 1,007                                                     |
|          | STAGE 1 | 263+78  | -  | 264+19  |                                                            | 41                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 1 | 263+78  | -  | 264+18  |                                                            | 41                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 1 | 291+11  | -  | 298+49  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 738                                                       |
|          | STAGE 1 | 297+94  | -  | 298+47  |                                                            | 40                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 1 | 297+97  | -  | 298+06  |                                                            | 58                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 1 | 298+17  | -  | 298+47  |                                                            | 40                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 307+20  | -  | 310+82  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 362                                                       |
|          | STAGE 2 | 307+20  | -  | 339+63  |                                                            |                                                            |                                                              | 3,243                                                              |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 315+12  | -  | 320+23  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 510                                                       |
|          | STAGE 2 | 321+08  | -  | 330+78  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 970                                                       |
|          | STAGE 2 | 336+11  | -  | 339+71  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 360                                                       |
|          | STAGE 2 | 339+38  | -  | 339+68  |                                                            | 30                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 343+48  | -  | 347+72  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 424                                                       |
|          | STAGE 2 | 343+51  | -  | 343+81  |                                                            | 31                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 343+56  | -  | 361+00  |                                                            |                                                            |                                                              | 1,744                                                              |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 353+11  | -  | 361+04  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 793                                                       |
|          | STAGE 2 | 355+58  | -  | 356+70  |                                                            | 112                                                        |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 363+20  | -  | 370+26  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 706                                                       |
|          | STAGE 2 | 363+26  | -  | 388+23  |                                                            |                                                            |                                                              | 2,498                                                              |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 363+34  | -  | 363+65  |                                                            | 31                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 382+93  | -  | 388+28  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 535                                                       |
| Subtotal |         |         |    |         | 0                                                          | 424                                                        | 0                                                            | 35,892                                                             | 0                                                         | 0                                                                    | 0                                                                                | 9,369                                                     |

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| CATEGORY | STAGE   | STATION | TO | STATION | 650.4000<br>Construction<br>Staking Storm<br>Sewer<br>EACH | 650.5500<br>Construction<br>Staking Curb &<br>Gutter<br>LF | 650.6000<br>Construction<br>Staking Pipe<br>Culverts<br>EACH | 650.8000<br>Construction<br>Staking Resurfacing<br>Reference<br>LF | 650.9000<br>Construction<br>Staking Curb<br>Ramps<br>EACH | 650.9500<br>Construction<br>Staking Sidewalk<br>(5110-06-70)<br>EACH | 650.9911<br>Construction Staking<br>Supplemental<br>Control (5110-06-70)<br>EACH | 650.9920<br>Construction<br>Staking Slope<br>Stakes<br>LF |
|----------|---------|---------|----|---------|------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------|
| 0010     | STAGE 2 | 390+41  | -  | 393+59  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 319                                                       |
|          | STAGE 2 | 390+49  | -  | 410+86  |                                                            |                                                            |                                                              | 2,037                                                              |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 390+59  | -  | 390+90  |                                                            | 31                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 393+80  | -  | 397+29  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 349                                                       |
|          | STAGE 2 | 406+24  | -  | 410+63  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 439                                                       |
|          | STAGE 2 | 410+29  | -  | 410+60  |                                                            | 31                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 413+70  | -  | 440+36  |                                                            |                                                            |                                                              | 2,666                                                              |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 413+93  | -  | 417+68  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 375                                                       |
|          | STAGE 2 | 427+94  | -  | 440+46  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 1,252                                                     |
|          | STAGE 2 | 431+58  | -  | 432+83  |                                                            | 125                                                        |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 443+58  | -  | 494+95  |                                                            |                                                            |                                                              | 5,137                                                              |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 443+58  | -  | 443+90  |                                                            | 31                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 443+59  | -  | 453+42  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 982                                                       |
|          | STAGE 2 | 464+08  | -  | 471+71  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 763                                                       |
|          | STAGE 2 | 482+85  | -  | 494+97  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 1,212                                                     |
|          | STAGE 2 | 483+48  | -  | 483+77  |                                                            | 30                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 496+93  | -  | 510+04  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 1,311                                                     |
|          | STAGE 2 | 496+95  | -  | 556+70  |                                                            |                                                            |                                                              | 5,975                                                              |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 496+99  | -  | 497+30  |                                                            | 31                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 511+87  | -  | 519+33  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 746                                                       |
|          | STAGE 2 | 527+26  | -  | 530+17  |                                                            | 291                                                        |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 527+27  | -  | 527+35  | 1                                                          |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 527+29  | -  | 527+32  | 1                                                          |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 527+85  | -  | 527+88  | 1                                                          |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 528+85  | -  | 535+87  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 701                                                       |
|          | STAGE 2 | 529+36  | -  | 529+39  | 1                                                          |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|          | STAGE 2 | 547+62  | -  | 556+72  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 910                                                       |
|          | STAGE 2 | 559+46  | -  | 565+02  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 556                                                       |
| Subtotal |         |         |    |         | 4                                                          | 570                                                        | 0                                                            | 15,815                                                             | 0                                                         | 0                                                                    | 0                                                                                | 9,915                                                     |

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| CATEGORY       | STAGE   | STATION | TO | STATION | 650.4000<br>Construction<br>Staking Storm<br>Sewer<br>EACH | 650.5500<br>Construction<br>Staking Curb &<br>Gutter<br>LF | 650.6000<br>Construction<br>Staking Pipe<br>Culverts<br>EACH | 650.8000<br>Construction<br>Staking Resurfacing<br>Reference<br>LF | 650.9000<br>Construction<br>Staking Curb<br>Ramps<br>EACH | 650.9500<br>Construction<br>Staking Sidewalk<br>(5110-06-70)<br>EACH | 650.9911<br>Construction Staking<br>Supplemental<br>Control (5110-06-70)<br>EACH | 650.9920<br>Construction<br>Staking Slope<br>Stakes<br>LF |
|----------------|---------|---------|----|---------|------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------|
| 0010           | STAGE 2 | 559+50  | -  | 585+20  |                                                            |                                                            |                                                              | 2,569                                                              |                                                           |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 559+57  | -  | 559+92  |                                                            | 34                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 581+40  | -  | 585+26  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 386                                                       |
|                | STAGE 2 | 584+80  | -  | 585+11  |                                                            | 31                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 584+93  | -  | 585+24  |                                                            | 31                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 587+39  | -  | 590+82  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 342                                                       |
|                | STAGE 2 | 587+45  | -  | 656+41  |                                                            |                                                            |                                                              | 6,896                                                              |                                                           |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 591+00  | -  | 604+28  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 1,328                                                     |
|                | STAGE 2 | 616+59  | -  | 623+77  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 718                                                       |
|                | STAGE 2 | 623+75  | -  | 624+22  |                                                            |                                                            | 1                                                            |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 628+27  | -  | 631+96  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 368                                                       |
|                | STAGE 2 | 632+44  | -  | 636+12  |                                                            |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  | 367                                                       |
|                | STAGE 2 | 638+82  | -  | 638+86  | 1                                                          |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 639+03  | -  | 639+10  | 1                                                          |                                                            |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 657+36  | -  | 658+60  |                                                            |                                                            |                                                              | 125                                                                |                                                           |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 658+56  | -  | 658+91  |                                                            | 43                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 658+60  | -  | 659+04  |                                                            | 63                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 658+65  | -  | 658+70  |                                                            |                                                            |                                                              |                                                                    | 1                                                         |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 658+66  | -  | 658+71  |                                                            |                                                            |                                                              |                                                                    | 1                                                         |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 658+71  | -  | 658+81  |                                                            |                                                            |                                                              |                                                                    | 1                                                         |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 658+80  | -  | 658+90  |                                                            |                                                            |                                                              |                                                                    | 1                                                         |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 659+36  | -  | 659+62  |                                                            | 39                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 659+37  | -  | 659+59  |                                                            | 35                                                         |                                                              |                                                                    |                                                           |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 659+42  | -  | 659+44  |                                                            |                                                            |                                                              |                                                                    | 1                                                         |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 659+45  | -  | 659+47  |                                                            |                                                            |                                                              |                                                                    | 1                                                         |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 659+50  | -  | 659+55  |                                                            |                                                            |                                                              |                                                                    | 1                                                         |                                                                      |                                                                                  |                                                           |
|                | STAGE 2 | 659+52  | -  | 659+57  |                                                            |                                                            |                                                              |                                                                    | 1                                                         |                                                                      |                                                                                  |                                                           |
|                |         | 12+49   | -  | 659+65  |                                                            |                                                            |                                                              |                                                                    |                                                           | 1                                                                    | 1                                                                                |                                                           |
| Subtotal       |         |         |    |         | 2                                                          | 276                                                        | 1                                                            | 9,590                                                              | 8                                                         | 1                                                                    | 1                                                                                | 3,509                                                     |
| Contract Total |         |         |    |         | 6                                                          | 1,270                                                      | 1                                                            | 61,297                                                             | 8                                                         | 1                                                                    | 1                                                                                | 22,793                                                    |



| CATEGORY | STAGE   | STATION | LOCATION   | 690.0150             | 690.0250              |
|----------|---------|---------|------------|----------------------|-----------------------|
|          |         |         |            | Sawing Asphalt<br>LF | Sawing Concrete<br>LF |
| 0010     | STAGE 1 | 12+49   | CENTERLINE | 40                   |                       |
|          | STAGE 1 | 26+00   | LT         | 17                   |                       |
|          | STAGE 1 | 36+06   | RT         | 19                   |                       |
|          | STAGE 1 | 60+81   | RT         | 10                   |                       |
|          | STAGE 1 | 73+66   | RT         | 19                   |                       |
|          | STAGE 1 | 11351   | LT         | 55                   |                       |
|          | STAGE 1 | 164+63  | LT         | 219                  |                       |
|          | STAGE 1 | 168+75  | RT         | 131                  |                       |
|          | STAGE 1 | 178+98  | RT         | 260                  |                       |
|          | STAGE 1 | 179+07  | LT         | 275                  |                       |
|          | STAGE 1 | 22688   | LT         | 160                  |                       |
|          | STAGE 1 | 233+01  | LT         | 163                  |                       |
|          | STAGE 1 | 256+72  | LT         | 174                  |                       |
|          | STAGE 1 | 257+71  | RT         | 96                   |                       |
|          | STAGE 1 | 263+78  | RT         | 45                   |                       |
|          | STAGE 1 | 26378   | LT         | 44                   |                       |
|          | STAGE 1 | 272+03  | LT         | 183                  |                       |
|          | STAGE 1 | 291+11  | RT         | 290                  |                       |
|          | STAGE 1 | 292+24  | LT         | 164                  |                       |
|          | STAGE 1 | 297+89  | RT         | 43                   |                       |
|          | STAGE 1 | 29794   | RT         | 76                   |                       |
|          | STAGE 1 | 297+94  | LT         | 44                   |                       |
|          | STAGE 1 | 298+17  | RT         | 44                   |                       |
|          | STAGE 2 | 310+88  | LT         | 107                  |                       |
|          | STAGE 2 | 313+45  | LT         | 26                   |                       |
|          | STAGE 2 | 31588   | LT         | 148                  |                       |
|          | STAGE 2 | 319+91  | LT         | 118                  |                       |
|          | STAGE 2 | 339+38  | RT         | 20                   |                       |
|          | STAGE 2 | 339+68  | RT         |                      | 4                     |
|          | STAGE 2 | 343+51  | LT         |                      | 4                     |
|          | STAGE 2 | 34363   | LT         | 21                   |                       |
|          | STAGE 2 | 363+34  | LT         |                      | 4                     |
|          | STAGE 2 | 363+46  | LT         | 21                   |                       |
|          | STAGE 2 | 390+59  | LT         |                      | 4                     |
|          | STAGE 2 | 390+71  | LT         | 21                   |                       |
|          | STAGE 2 | 41029   | LT         | 19                   |                       |
|          | STAGE 2 | 410+60  | LT         |                      | 4                     |
|          | STAGE 2 | 422+22  | RT         | 112                  |                       |
| Subtotal |         |         |            | 3,184                | 20                    |

| CATEGORY       | STAGE   | STATION | LOCATION   | 690.0150             | 690.0250              |
|----------------|---------|---------|------------|----------------------|-----------------------|
|                |         |         |            | Sawing Asphalt<br>LF | Sawing Concrete<br>LF |
| 0010           | STAGE 2 | 443+58  | RT         |                      | 4                     |
|                | STAGE 2 | 443+71  | RT         | 21                   |                       |
|                | STAGE 2 | 468+51  | LT         | 119                  |                       |
|                | STAGE 2 | 496+99  | RT         |                      | 4                     |
|                | STAGE 2 | 497+12  | RT         | 21                   |                       |
|                | STAGE 2 | 516+77  | LT         | 13                   |                       |
|                | STAGE 2 | 526+81  | CENTERLINE | 36                   |                       |
|                | STAGE 2 | 527+81  | CENTERLINE | 36                   |                       |
|                | STAGE 2 | 528+90  | LT         | 101                  |                       |
|                | STAGE 2 | 553+96  | LT         | 125                  |                       |
|                | STAGE 2 | 559+57  | LT         | 43                   |                       |
|                | STAGE 2 | 579+83  | RT         | 99                   |                       |
|                | STAGE 2 | 584+80  | LT         | 21                   |                       |
|                | STAGE 2 | 584+93  | RT         | 21                   |                       |
|                | STAGE 2 | 585+11  | LT         |                      | 4                     |
|                | STAGE 2 | 585+24  | RT         |                      | 4                     |
|                | STAGE 2 | 594+87  | LT         | 126                  |                       |
|                | STAGE 2 | 619+27  | LT         | 17                   |                       |
|                | STAGE 2 | 620+11  | LT         | 36                   |                       |
|                | STAGE 2 | 632+03  | LT         | 33                   |                       |
|                | STAGE 2 | 638+34  | CENTERLINE | 36                   |                       |
|                | STAGE 2 | 639+54  | CENTERLINE | 36                   |                       |
|                | STAGE 2 | 643+43  | RT         | 17                   |                       |
|                | STAGE 2 | 644+37  | RT         | 17                   |                       |
|                | STAGE 2 | 645+02  | LT         | 98                   |                       |
|                | STAGE 2 | 645+41  | RT         | 23                   |                       |
|                | STAGE 2 | 648+40  | LT         | 17                   |                       |
|                | STAGE 2 | 658+44  | LT         |                      | 3                     |
|                | STAGE 2 | 658+56  | LT         |                      | 58                    |
|                | STAGE 2 | 658+60  | RT         |                      | 3                     |
|                | STAGE 2 | 659+00  | LT         |                      | 3                     |
|                | STAGE 2 | 659+01  | RT         |                      | 3                     |
|                | STAGE 2 | 659+06  | CENTERLINE | 196                  |                       |
|                | STAGE 2 | 659+36  | LT         |                      | 3                     |
|                | STAGE 2 | 659+37  | RT         |                      | 3                     |
|                | STAGE 2 | 659+59  | RT         |                      | 3                     |
|                | STAGE 2 | 659+62  | LT         |                      | 3                     |
|                | STAGE 2 | 659+65  | LT         |                      | 5                     |
| Subtotal       |         |         |            | 1,308                | 103                   |
| Contract Total |         |         |            | 4,492                | 123                   |

| 213.0100<br>Finishing Roadway<br>(5110-06-70) |      |
|-----------------------------------------------|------|
| CATEGORY                                      | EACH |
| 0010                                          | 1    |
| Contract Total                                | 1    |

| 618.0100<br>Maintenance and<br>Repair of Haul Roads |      |
|-----------------------------------------------------|------|
| CATEGORY                                            | EACH |
| 0010                                                | 1    |
| Contract Total                                      | 1    |

| 619.1000<br>Mobilization |      |
|--------------------------|------|
| CATEGORY                 | EACH |
| 0010                     | 1    |
| Contract Total           | 1    |

| 642.5201<br>Field Office Type C |      |
|---------------------------------|------|
| CATEGORY                        | EACH |
| 0010                            | 1    |
| Contract Total                  | 1    |

| 999.2000.S.01<br>Maintaining Bird Deterrent<br>System Station 262+50 |         | 999.2000.S.02<br>Maintaining Bird Deterrent<br>System Station 412+00 |      |
|----------------------------------------------------------------------|---------|----------------------------------------------------------------------|------|
| CATEGORY                                                             | STAGE   | STATION                                                              | EACH |
| 0010                                                                 | STAGE 1 | 262+50                                                               | 1    |
|                                                                      | STAGE 2 | 412+00                                                               | 1    |
| Contract Total                                                       |         |                                                                      | 1    |

| SPV.0060.01<br>Resetting Culvert Sections |         |         |      |
|-------------------------------------------|---------|---------|------|
| CATEGORY                                  | STAGE   | STATION | EACH |
| 0010                                      | STAGE 2 | 326+77  | 1    |
| Contract Total                            |         |         | 1    |

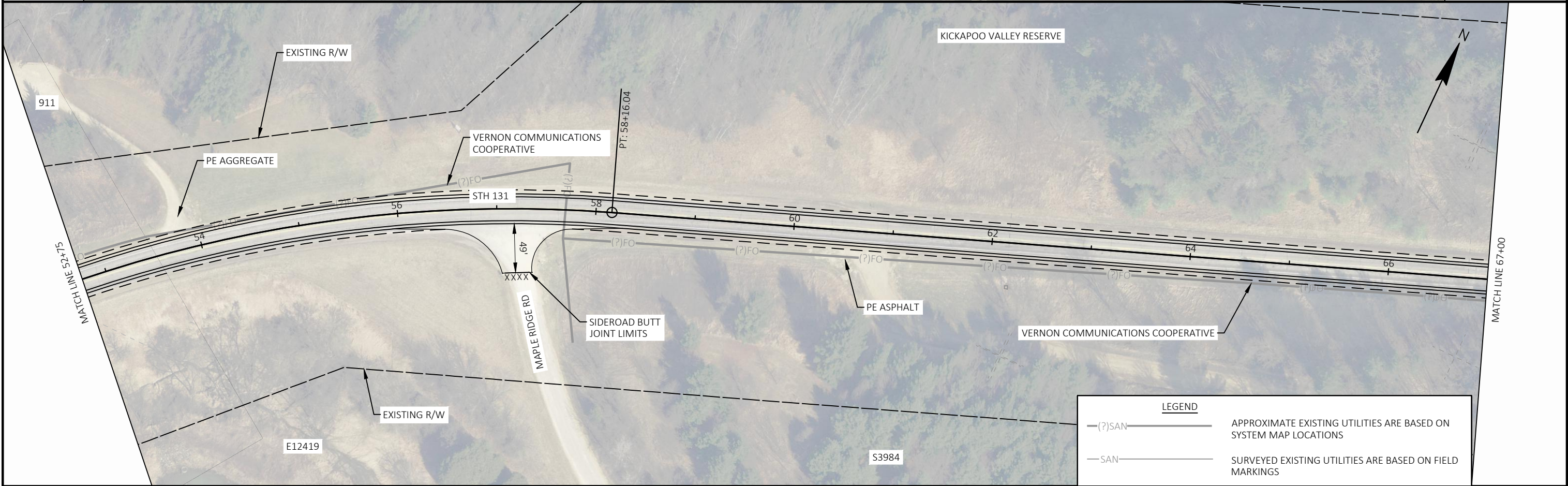
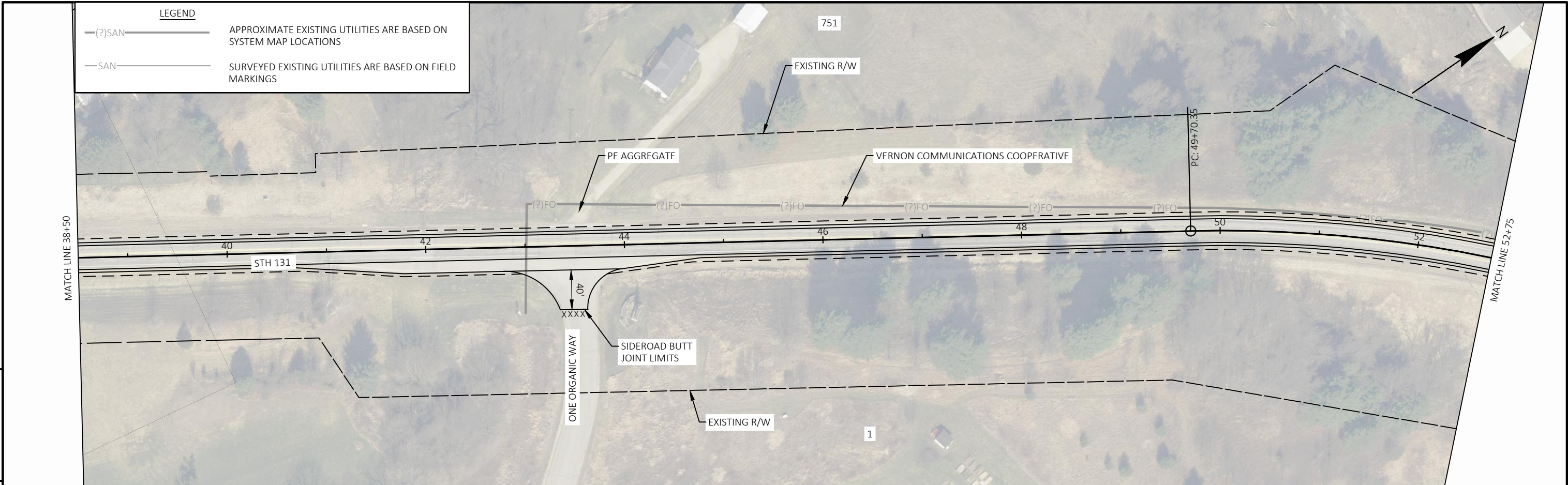




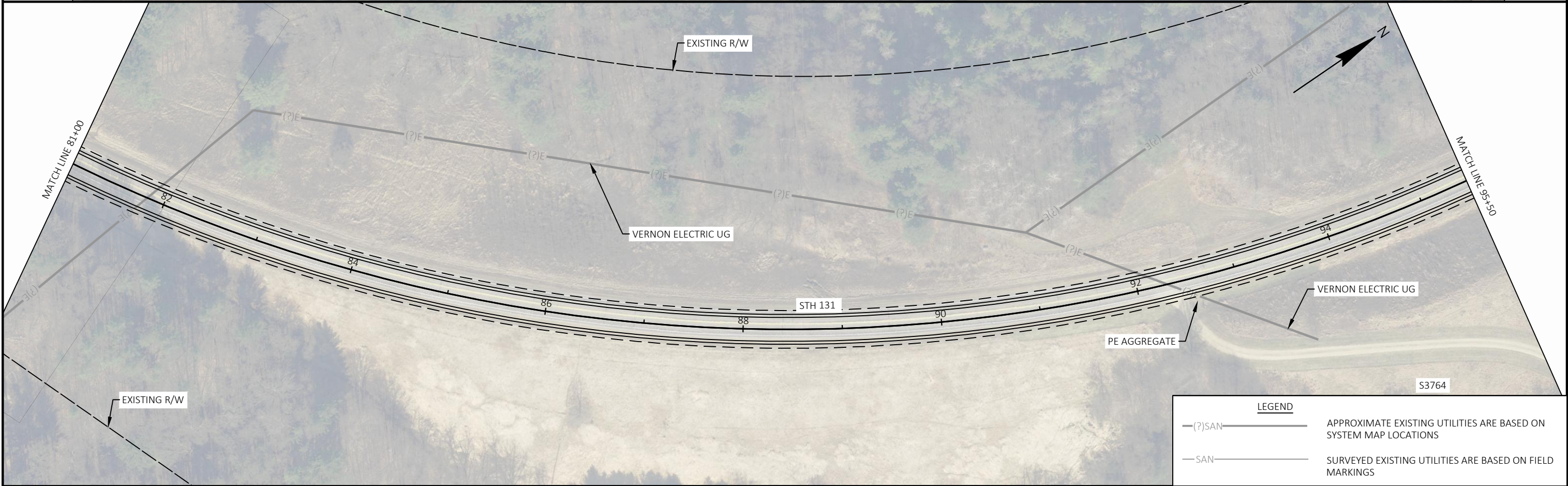




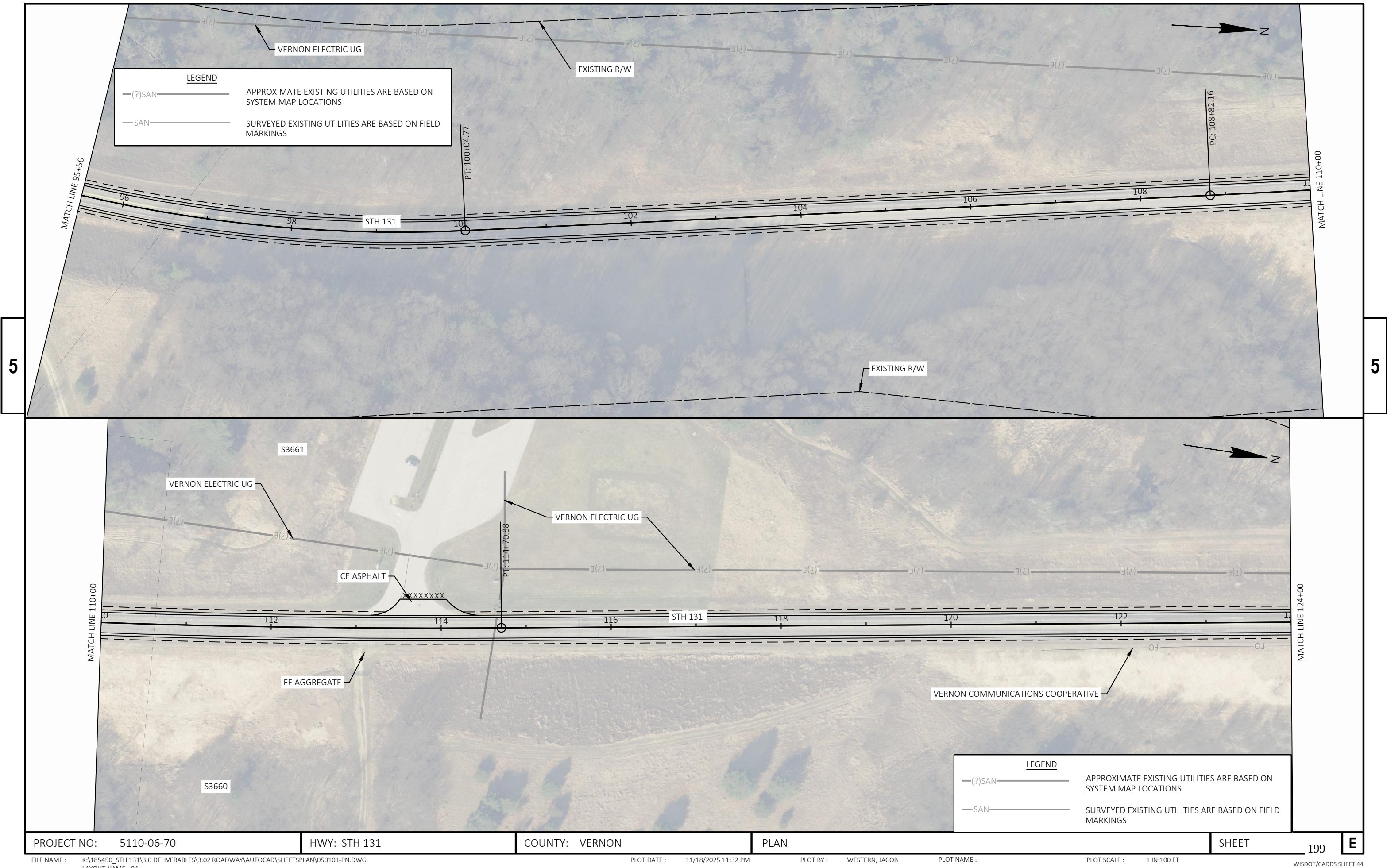




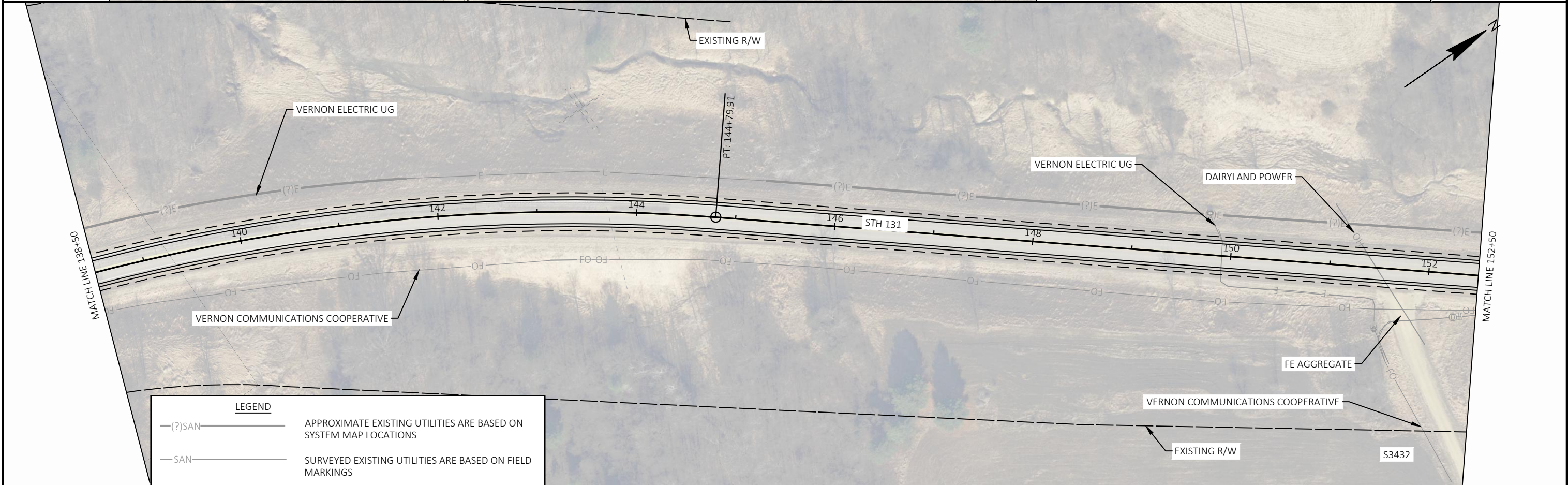
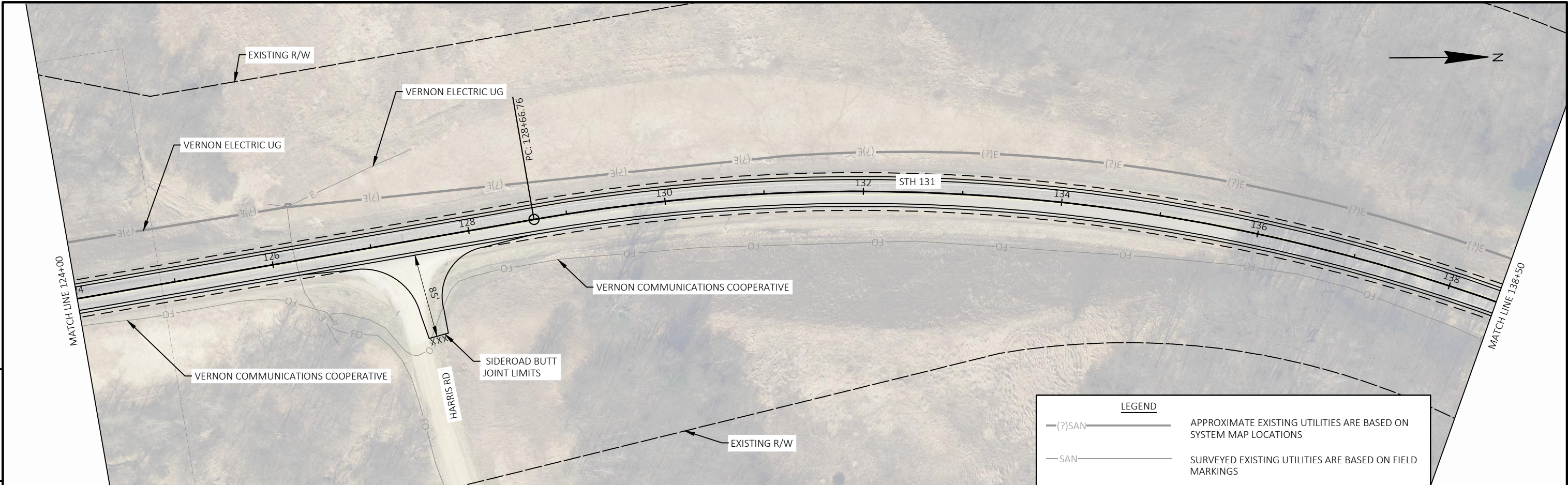












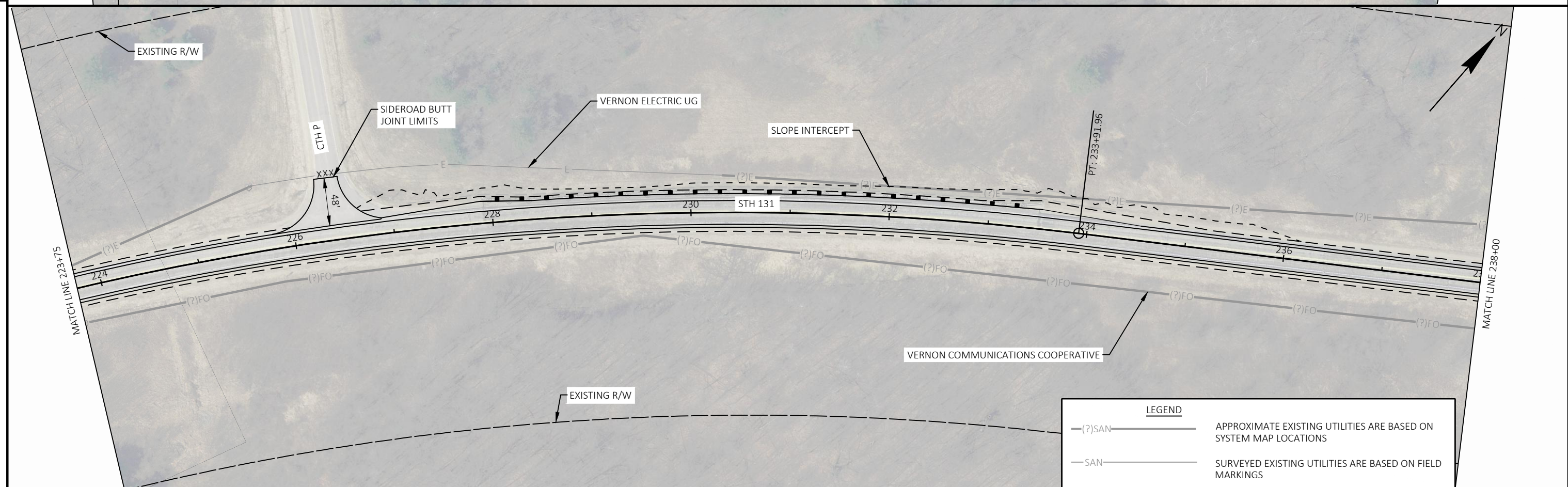
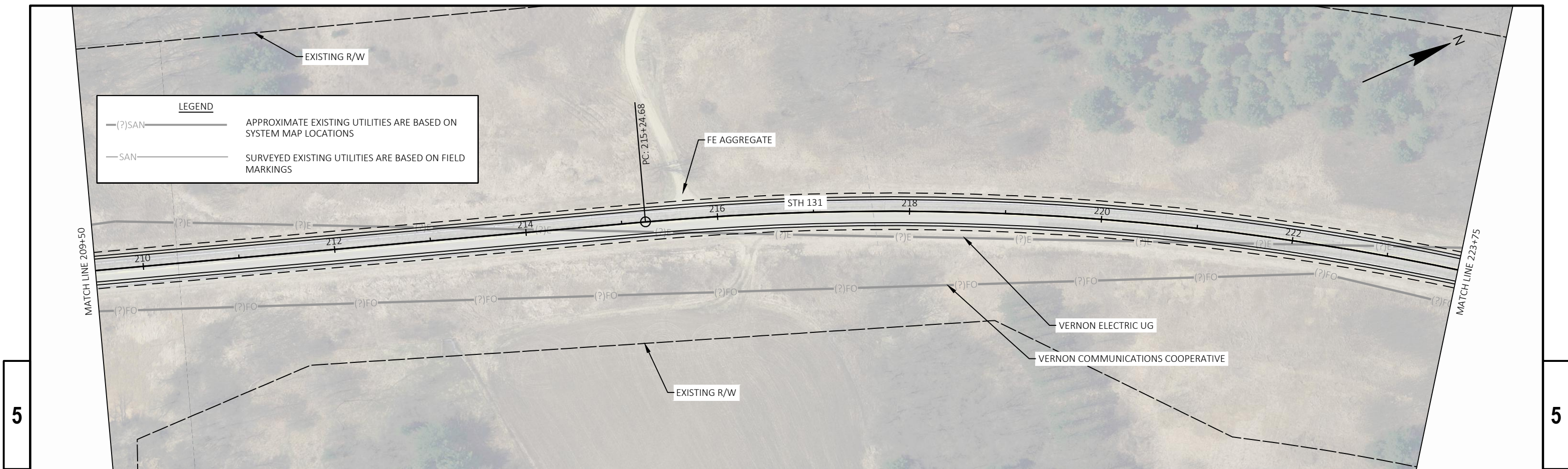




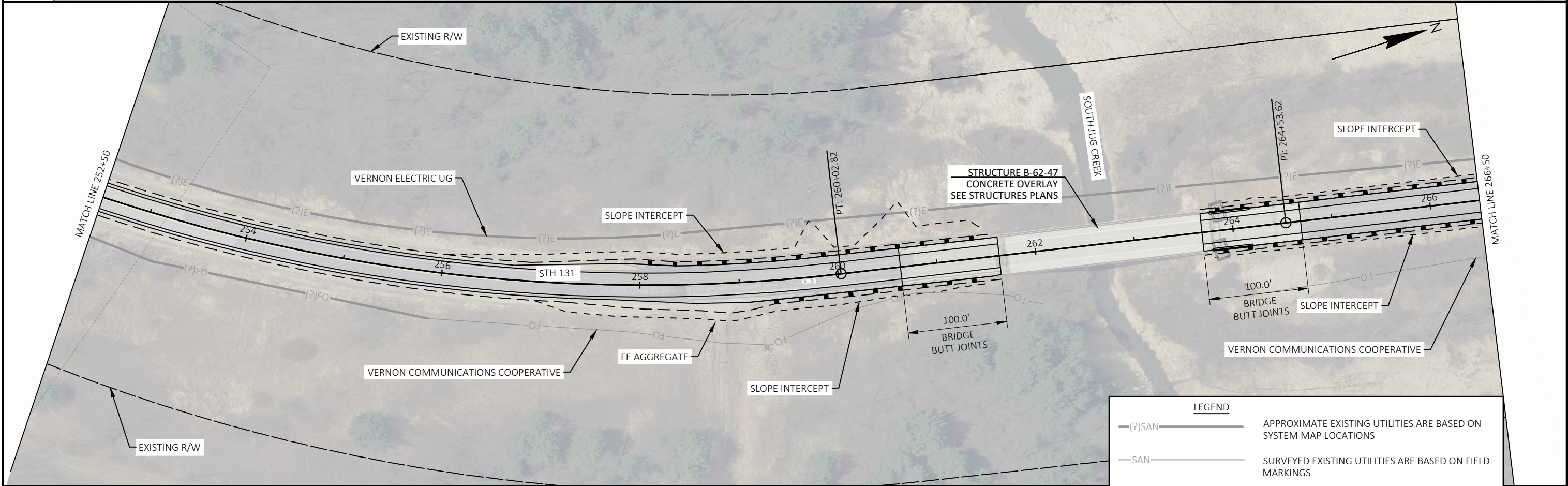
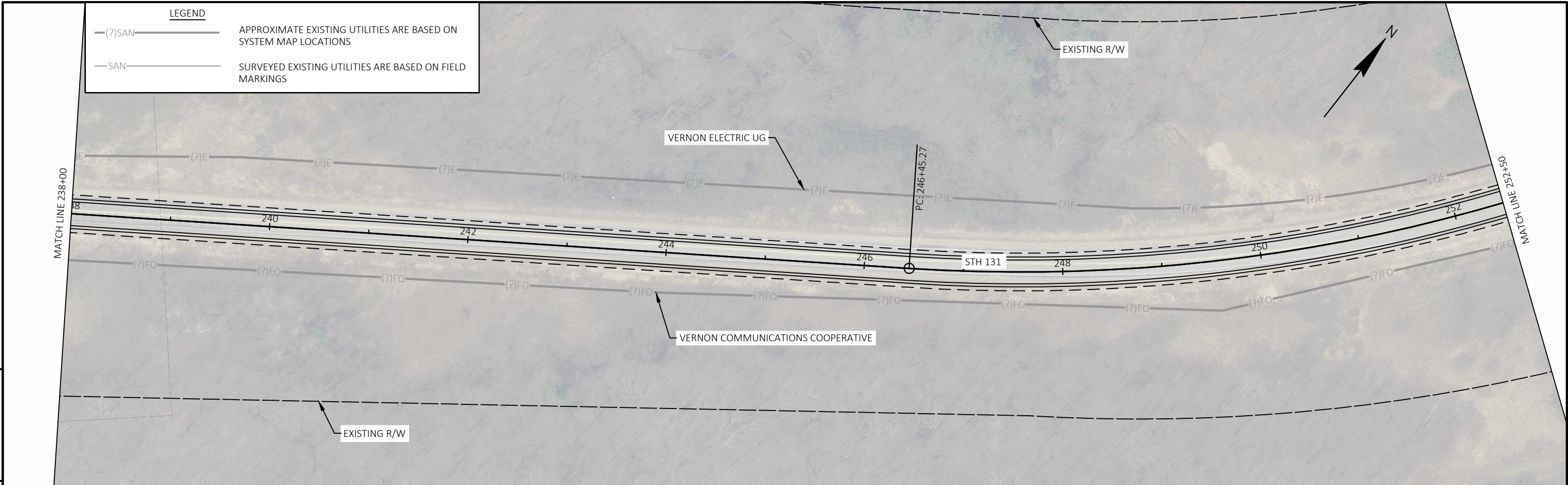








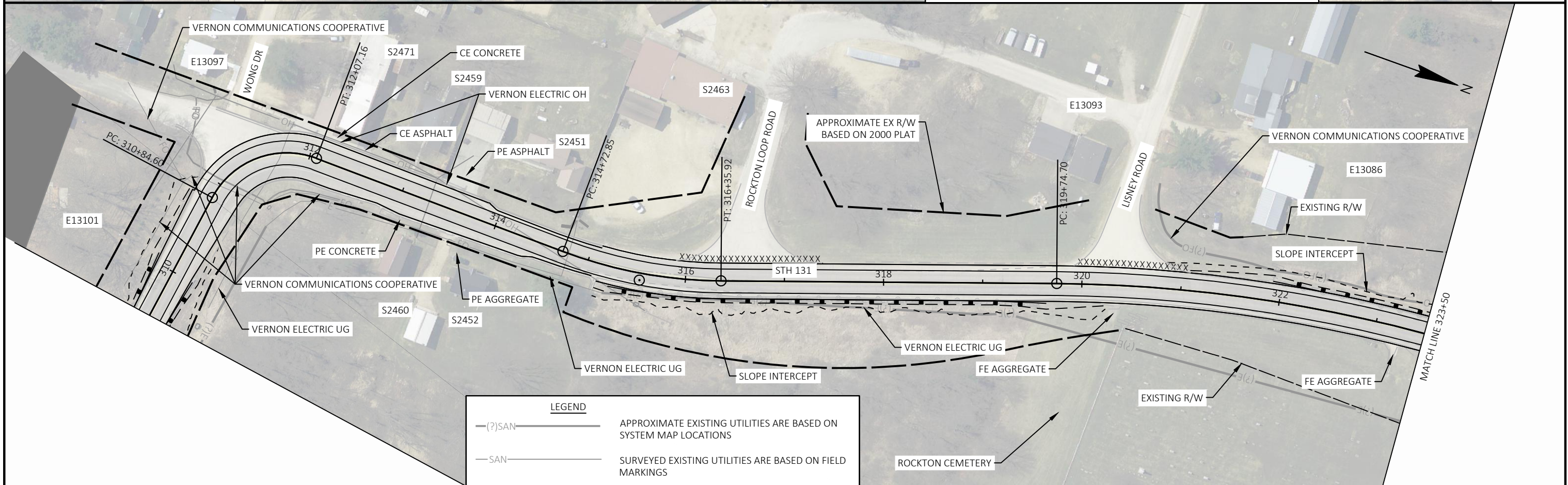
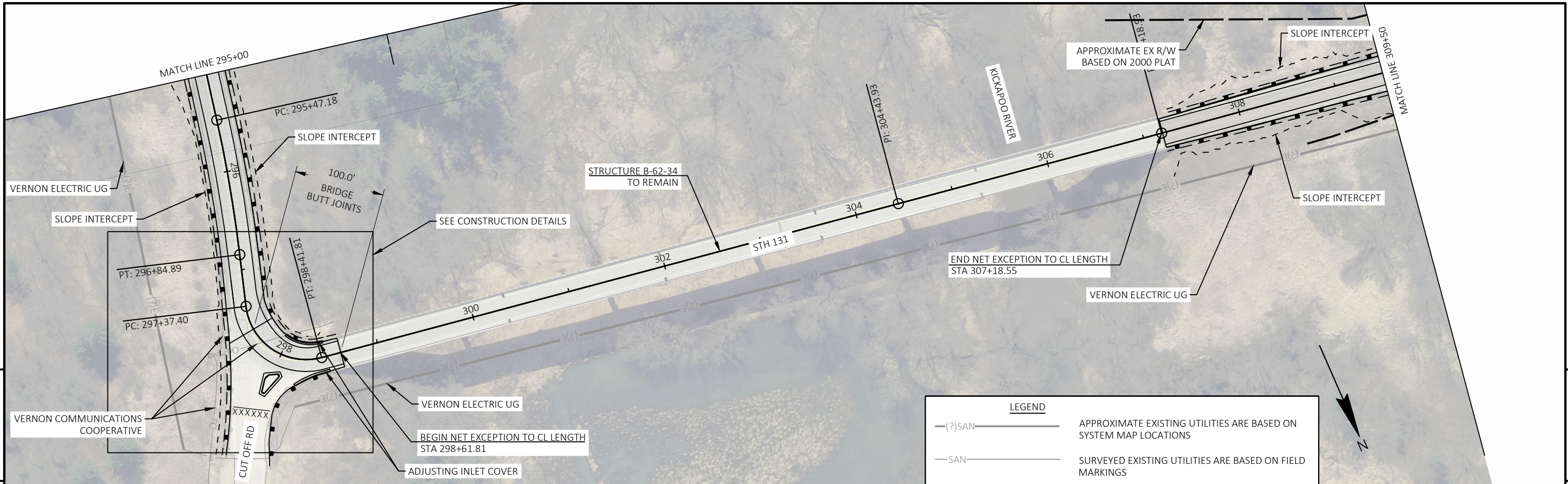




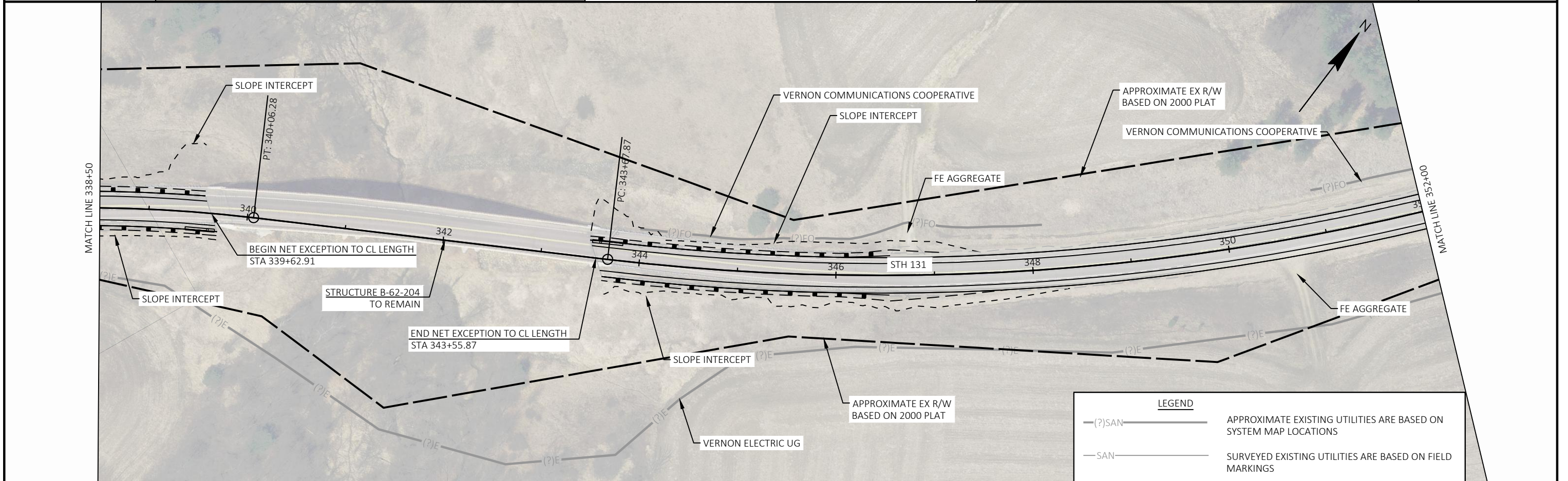
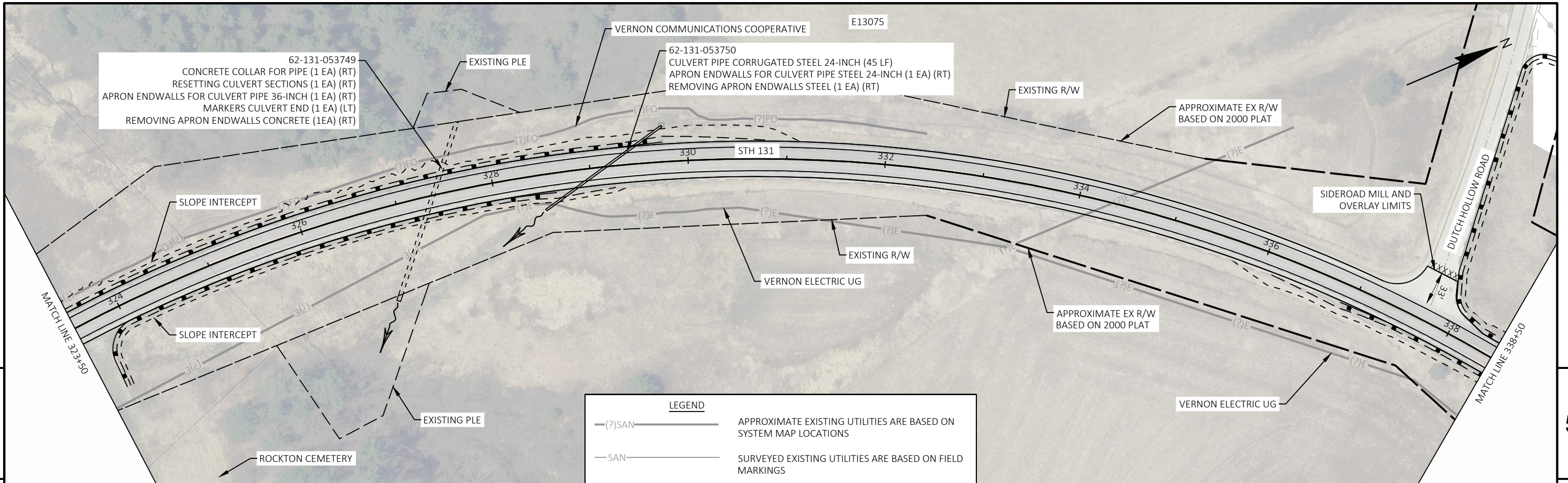




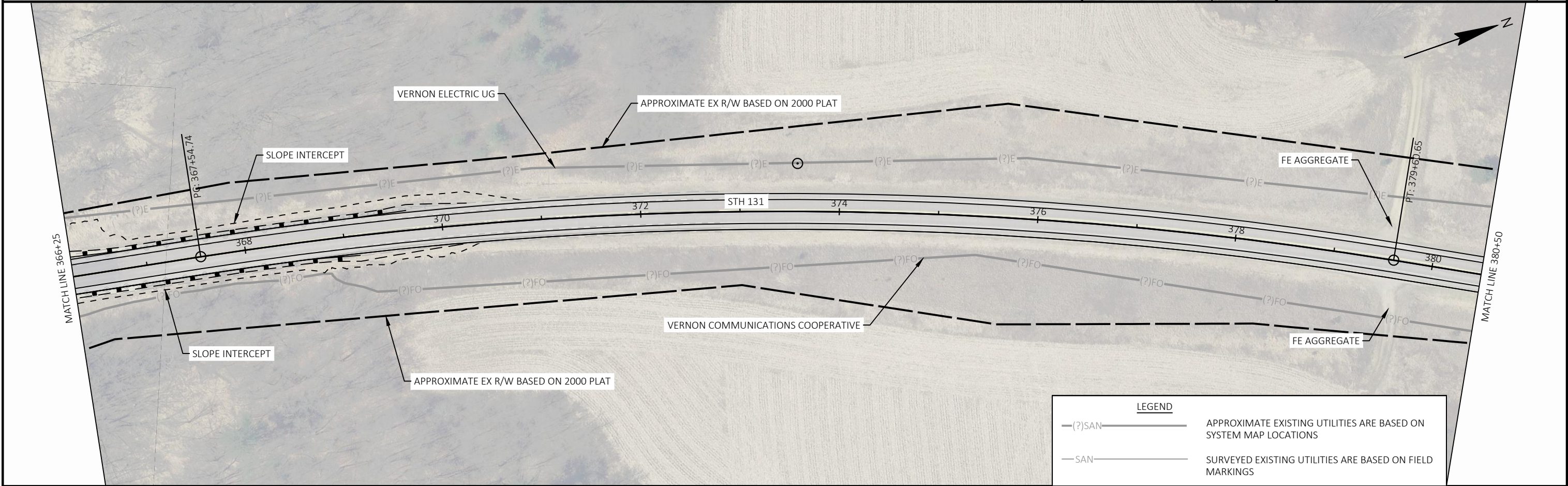
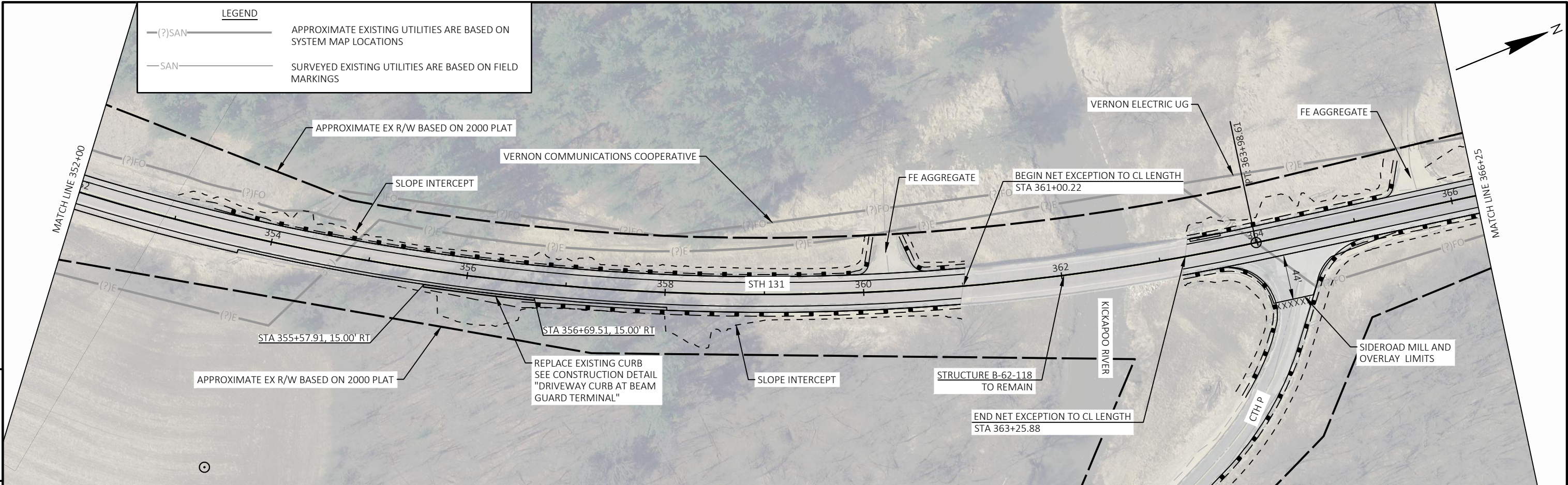




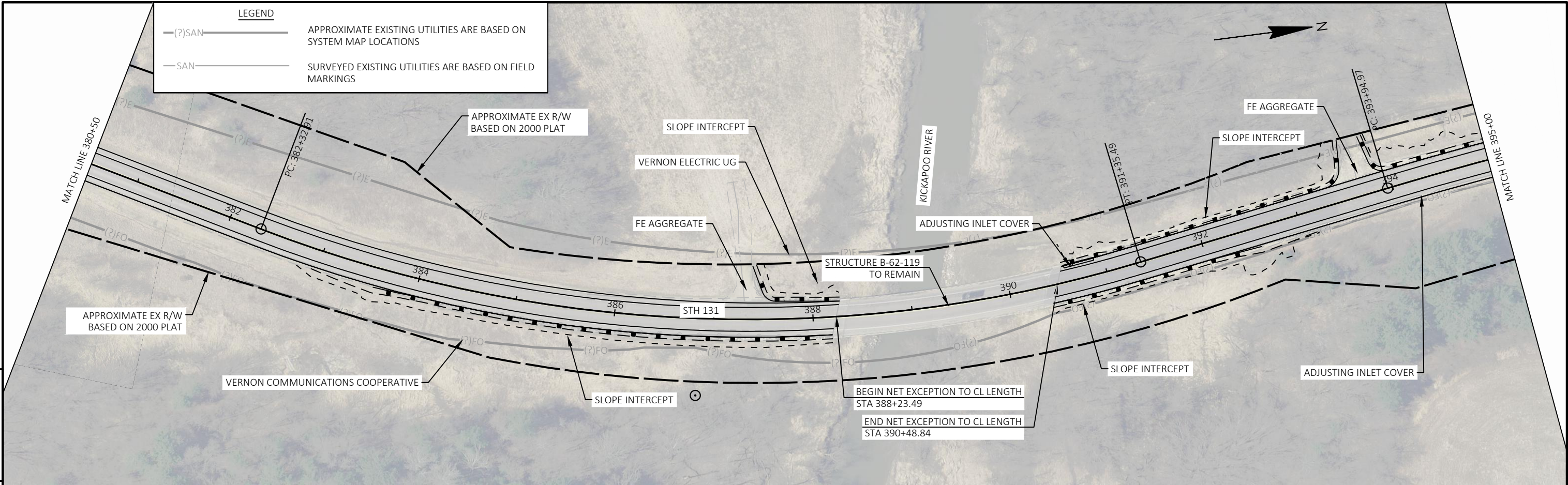




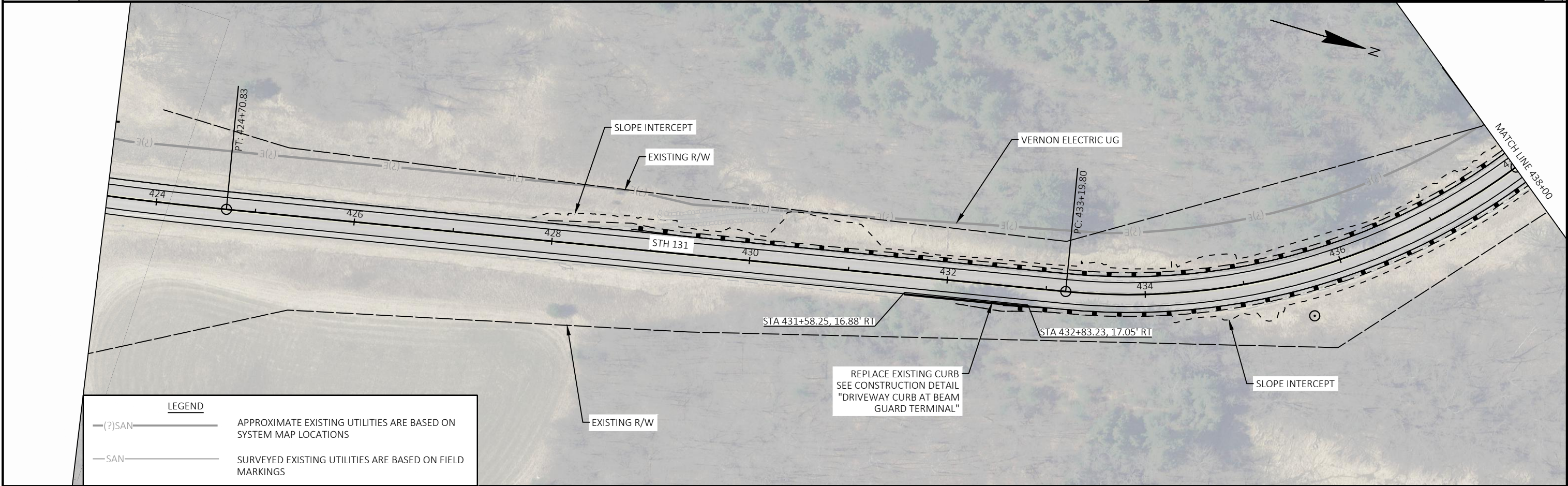
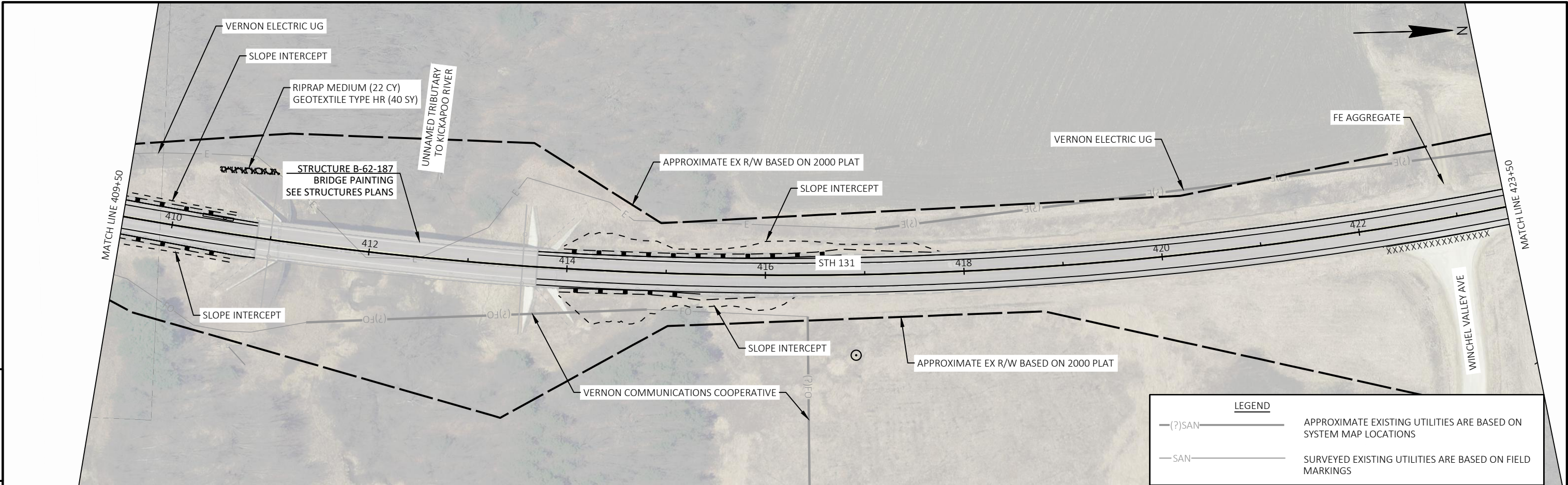




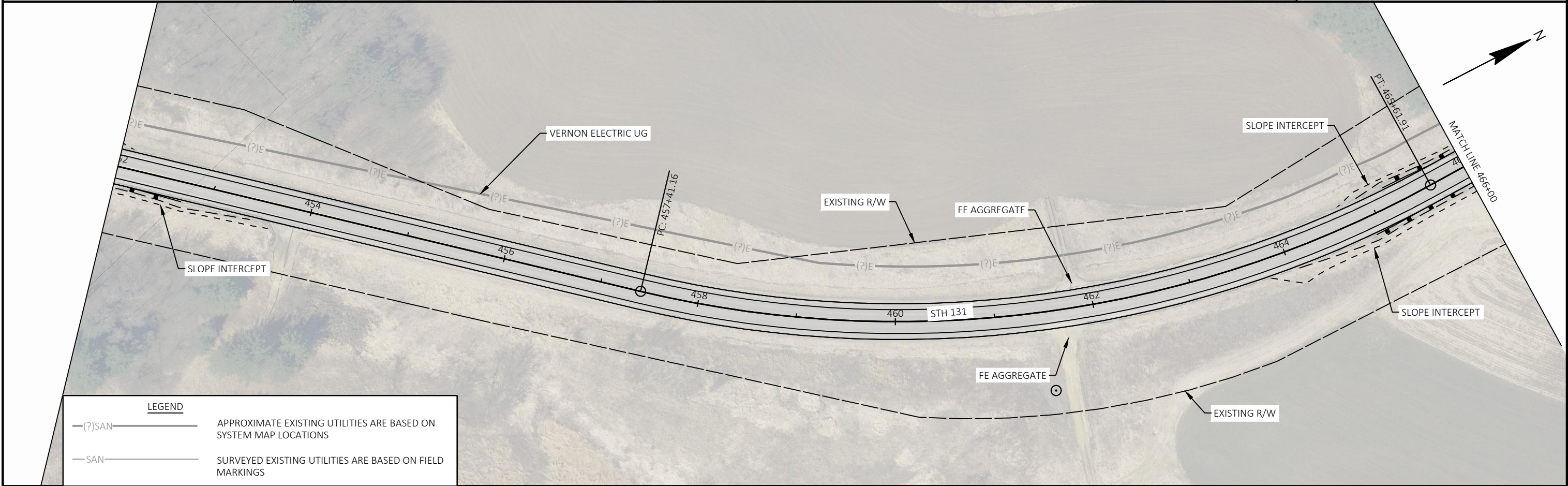
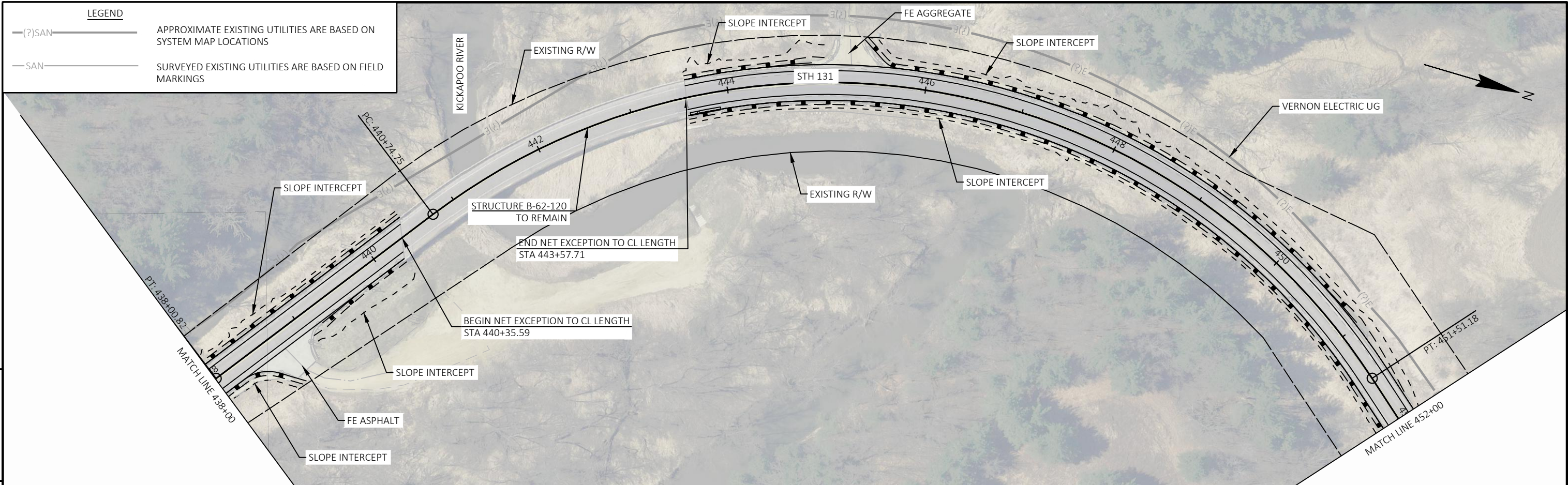




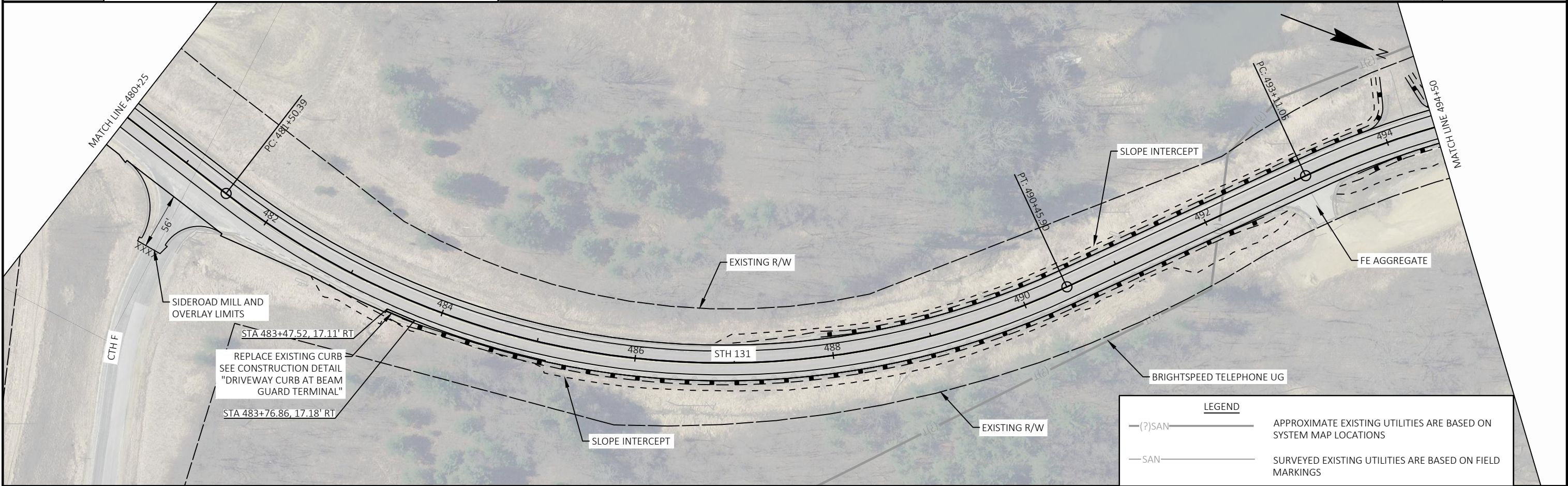
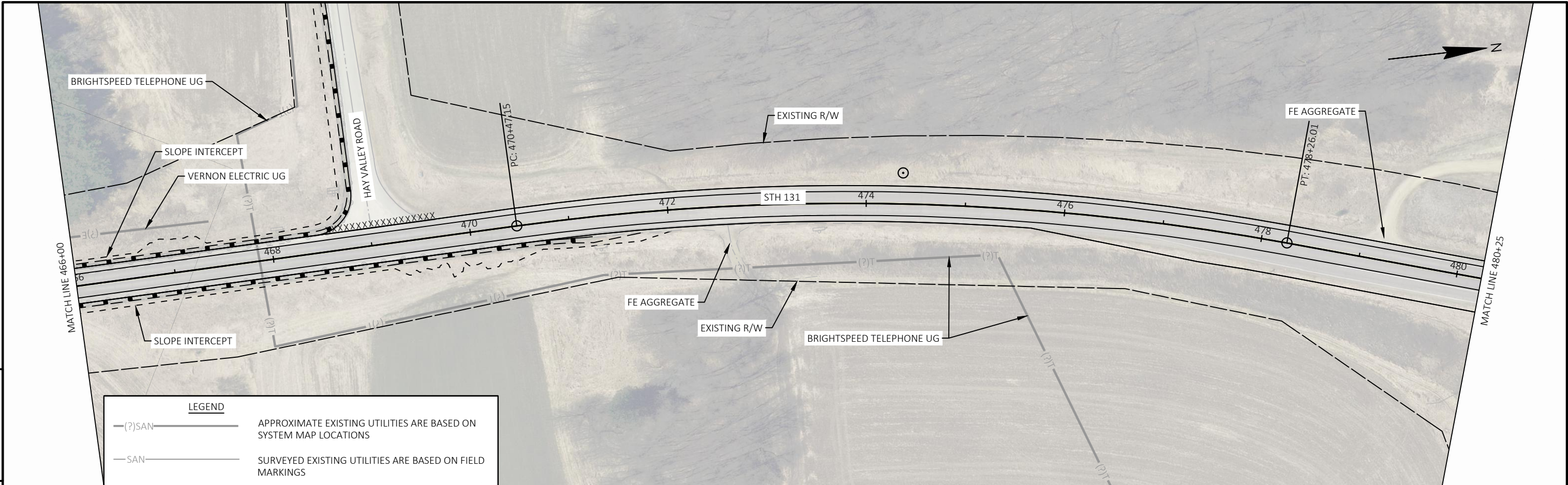




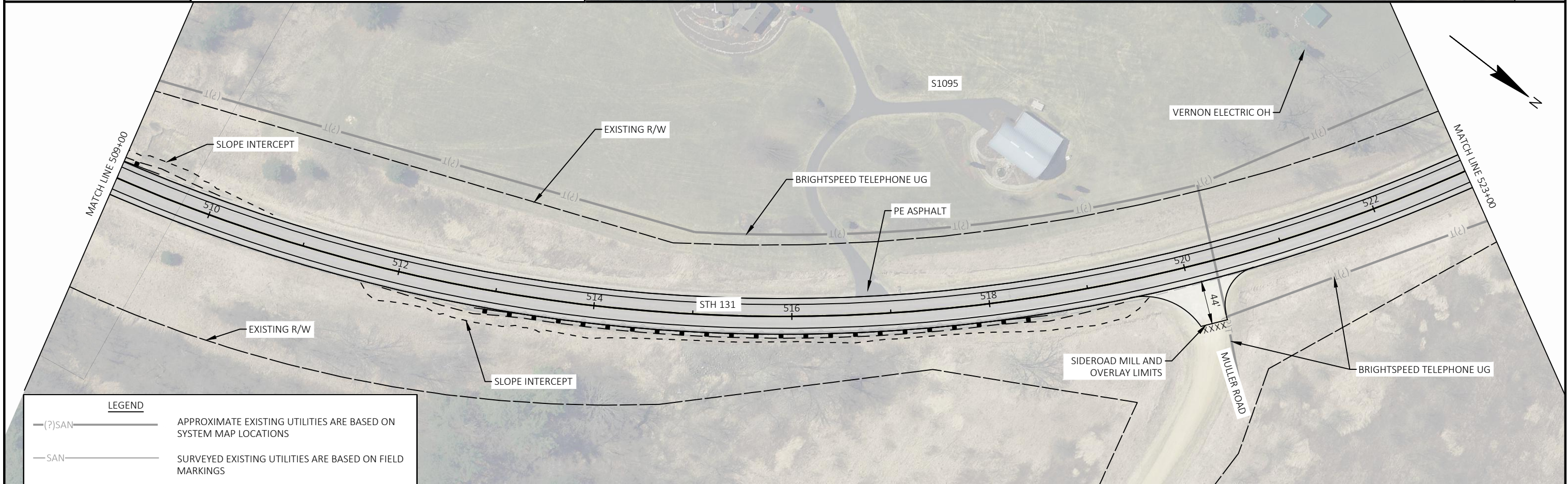
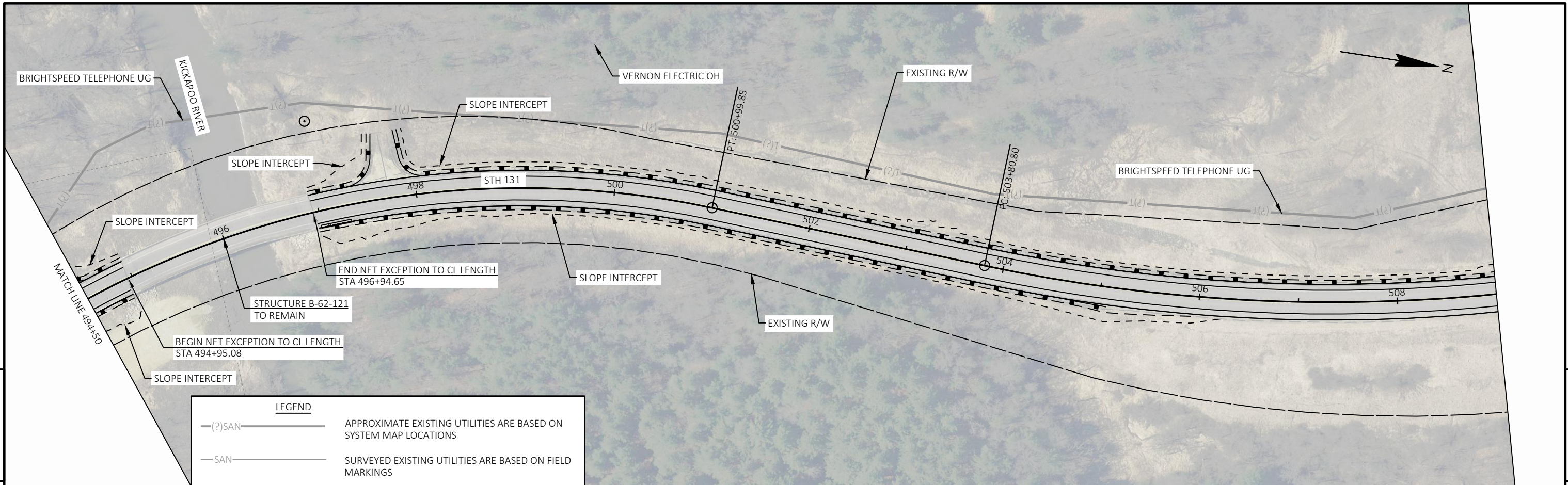




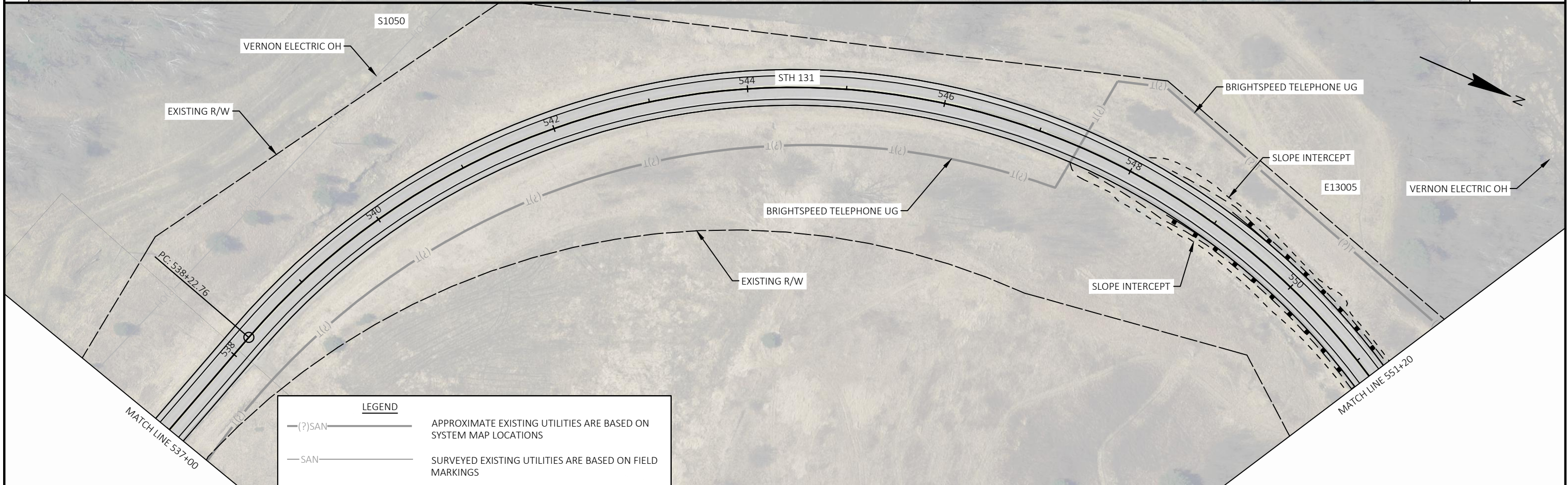
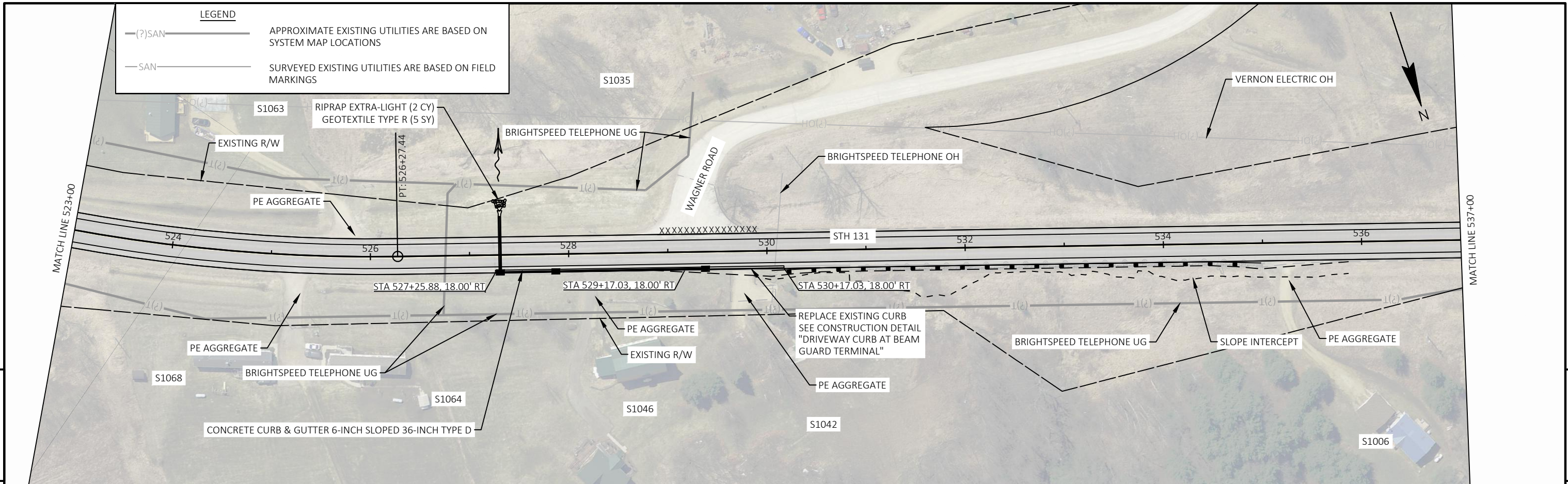




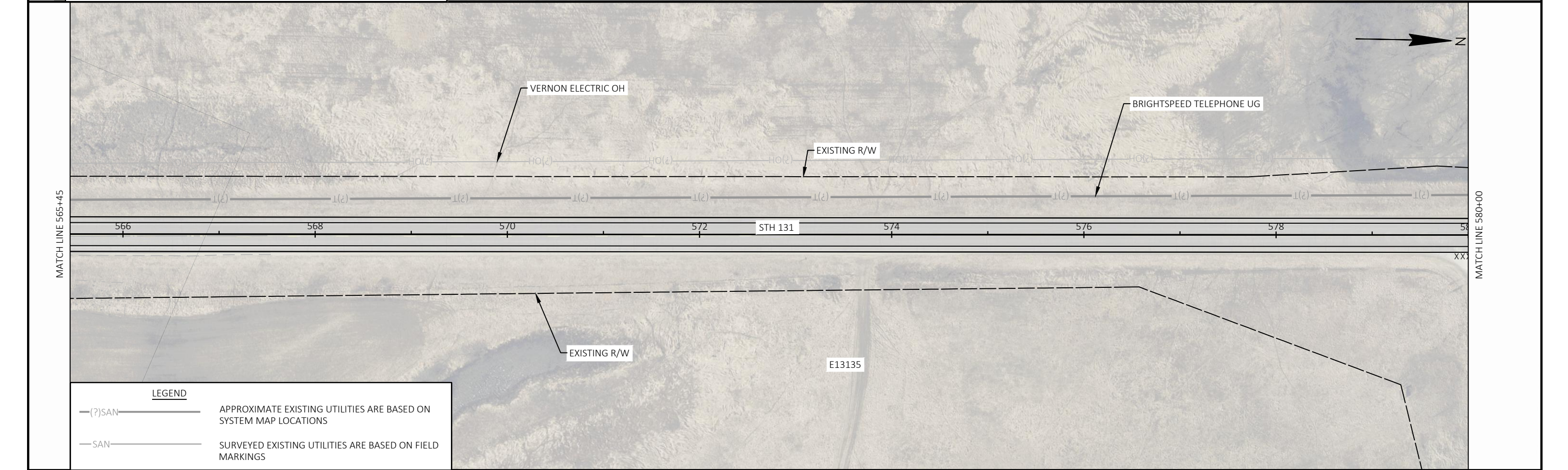
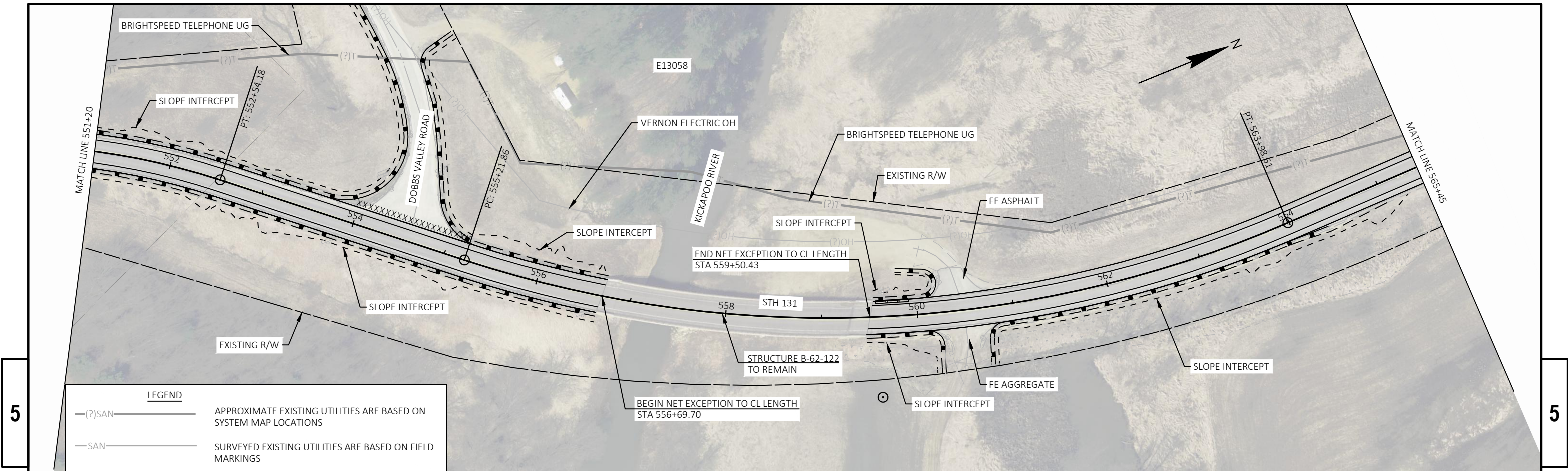




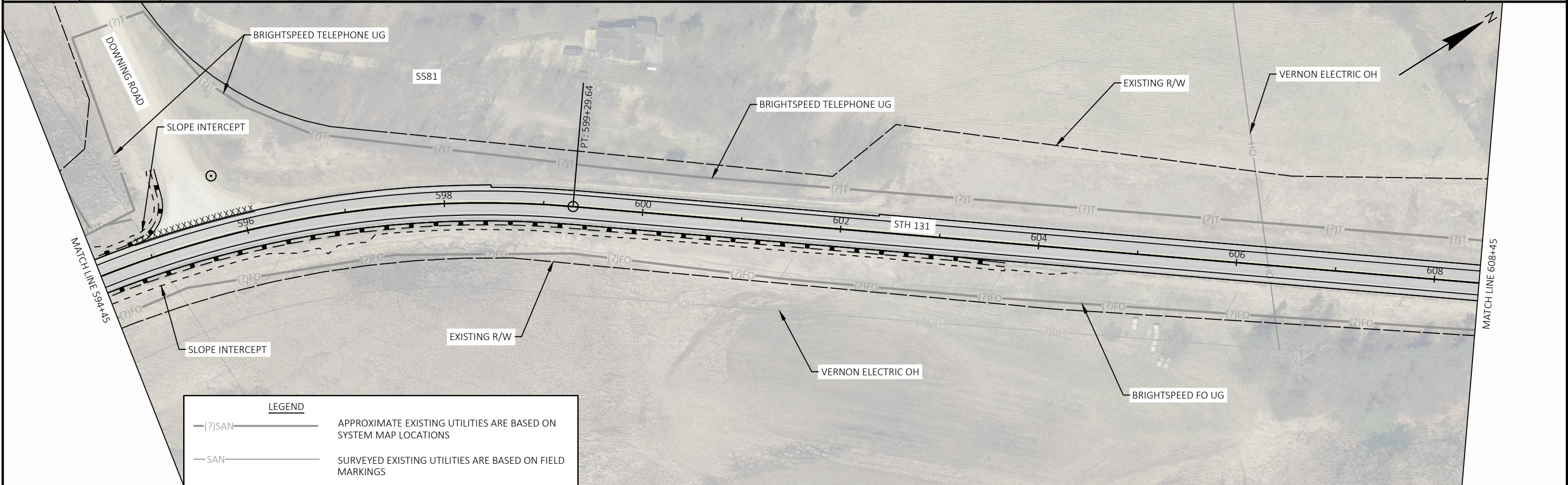
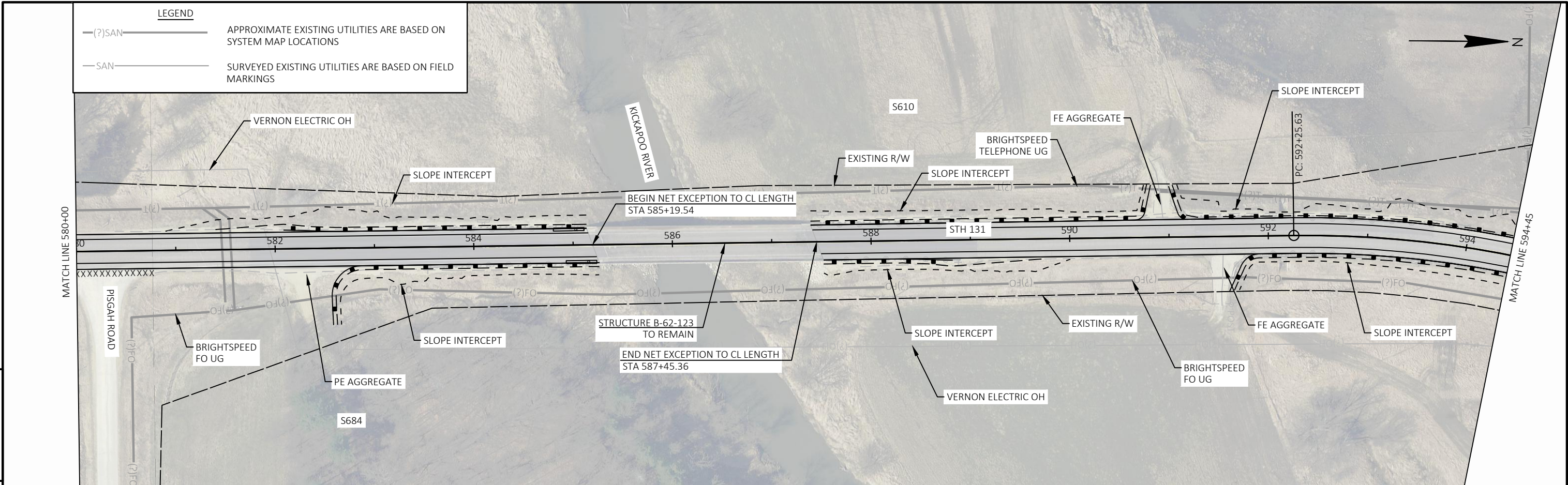




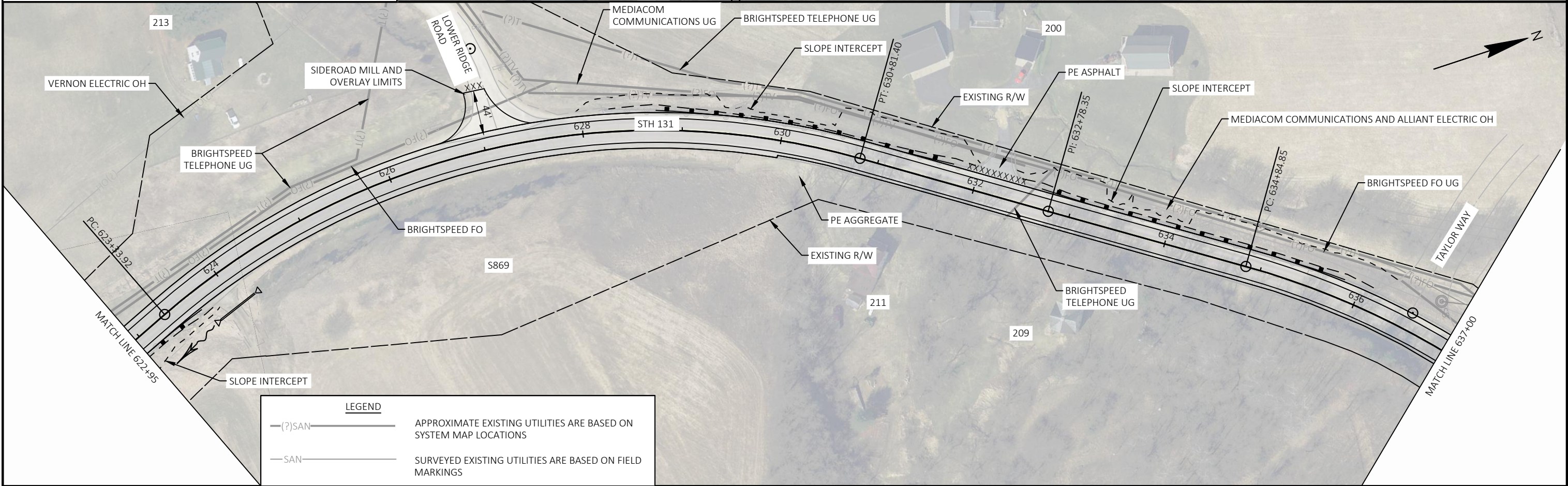
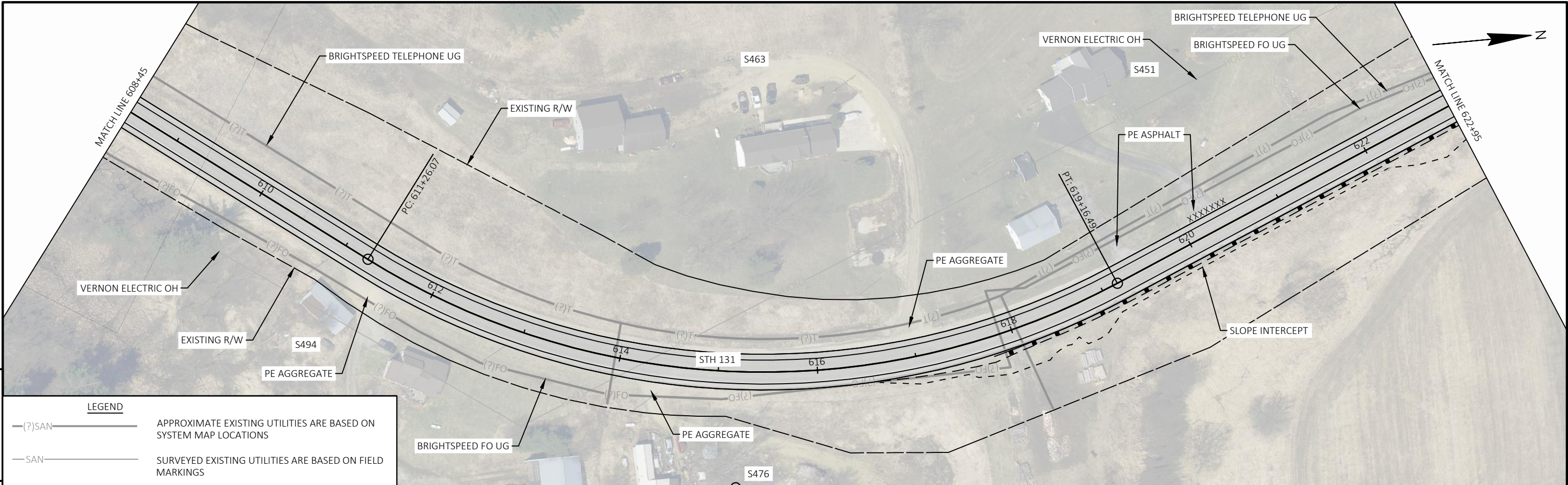




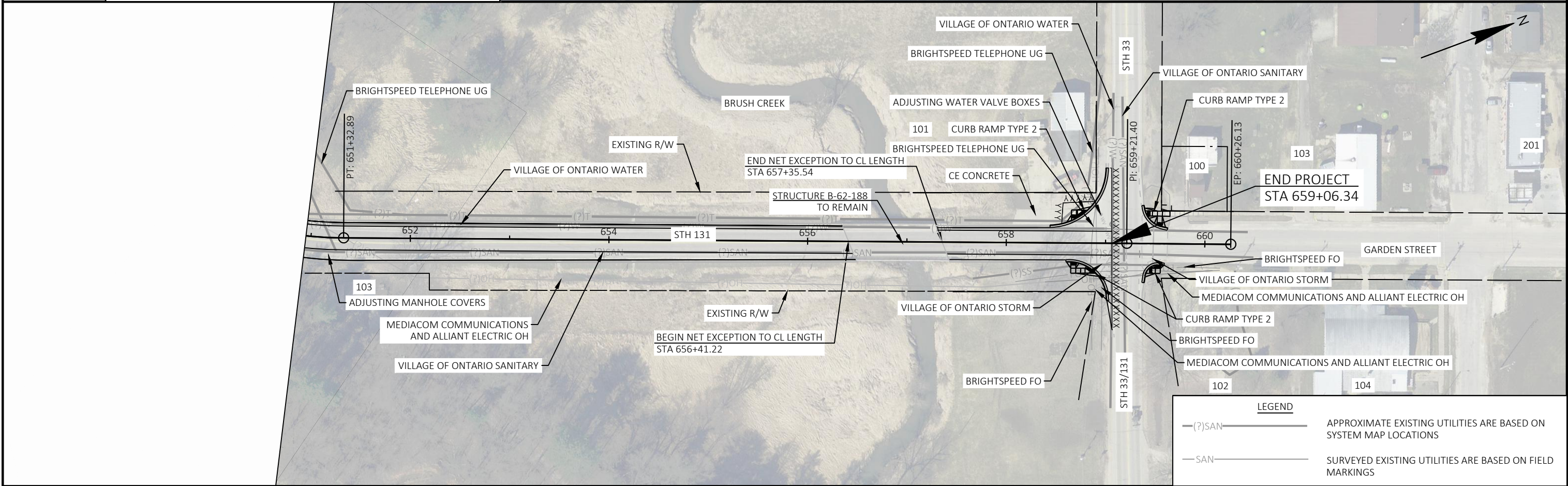
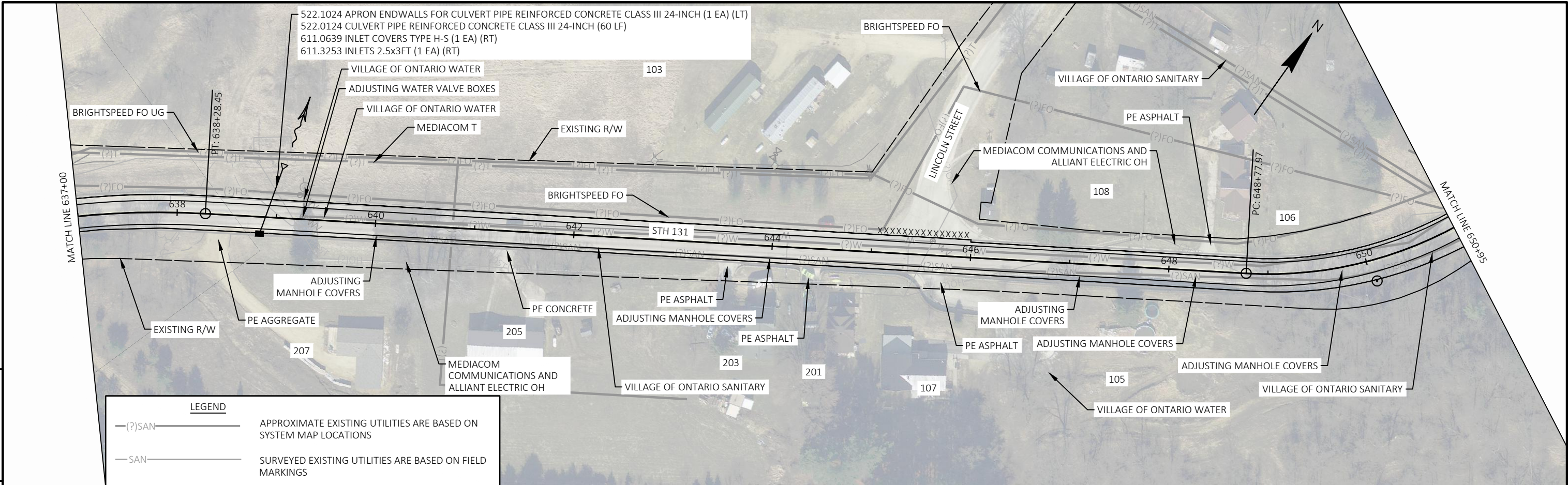












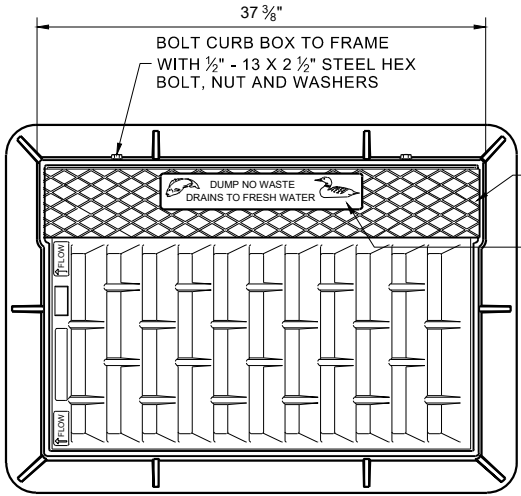


Standard Detail Drawing List

|           |                                                                                                 |
|-----------|-------------------------------------------------------------------------------------------------|
| 08A05-22A | INLET COVERS TYPE A, H, A-S, H-S & Z                                                            |
| 08A05-22D | INLET COVERS TYPE V, V-B, & VV-B                                                                |
| 08C07-03  | INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT                                            |
| 08D01-24A | CONCRETE CURB & GUTTER                                                                          |
| 08D01-24B | CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS                                            |
| 08D05-22B | CURB RAMPS TYPES 2 AND 3                                                                        |
| 08D05-22F | CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS                                         |
| 08D05-22G | CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES                                     |
| 08E08-03  | TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS                                 |
| 08E09-06  | SILT FENCE                                                                                      |
| 08E10-02  | INLET PROTECTION TYPE A, B, C AND D                                                             |
| 08F01-11  | APRON ENDWALLS FOR CULVERT PIPE                                                                 |
| 08F04-08  | JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL                                         |
| 11B02-02  | CONCRETE MEDIAN NOSE                                                                            |
| 13A11-04A | CENTERLINE RUMBLE STRIPS - ASPHALT                                                              |
| 13C19-03  | HMA LONGITUDINAL JOINTS                                                                         |
| 14B29-01  | SAFETY EDGE                                                                                     |
| 14B42-07A | MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL                                                        |
| 14B42-07B | MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL                                                        |
| 14B42-07C | MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL                                                        |
| 14B42-07D | MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL                                                        |
| 14B44-04A | MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)                                        |
| 14B44-04B | MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)                                        |
| 14B44-04C | MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)                                        |
| 14B45-05A | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)                                            |
| 14B45-05B | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)                                            |
| 14B45-05C | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)                                            |
| 14B45-05D | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)                                            |
| 14B45-05E | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)                                            |
| 14B45-05F | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)                                            |
| 14B45-05G | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)                                            |
| 14B45-05H | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)                                            |
| 14B45-05I | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)                                            |
| 14B45-05J | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)                                            |
| 14B45-05K | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)                                            |
| 14B45-05L | MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)                                            |
| 14B47-06A | MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL                                                  |
| 14B47-06B | MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL                                                  |
| 14B47-06C | MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL                                                  |
| 14B47-06D | MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL                                                  |
| 14B47-06E | MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL                                                  |
| 14B47-06F | MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL                                                  |
| 14B47-06G | MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL                                                  |
| 14B53-03A | SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)                                       |
| 14B53-03B | SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)                                       |
| 14B53-03C | SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)                                       |
| 14B53-03D | SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)                                       |
| 14B53-03E | SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)                                       |
| 14B53-03F | SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)                                       |
| 14B53-03G | SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)                                       |
| 14B53-03H | SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)                                       |
| 14B53-03I | SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)                                       |
| 15C02-09A | BARRICADES AND SIGNS FOR MAINLINE CLOSURES                                                      |
| 15C02-09B | BARRICADES AND SIGNS FOR VARIOUS CLOSURES                                                       |
| 15C02-09C | DETOUR SIGNING FOR MAINLINE CLOSURES                                                            |
| 15C02-09H | MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING                                                      |
| 15C03-05  | BARRICADES AND SIGNS FOR SIDEROAD CLOSURES                                                      |
| 15C05-05  | TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC |
| 15C08-24A | PERMANENT LONGITUDINAL PAVEMENT MARKINGS                                                        |
| 15C08-24B | TEMPORARY LONGITUDINAL PAVEMENT MARKING                                                         |
| 15C11-10B | CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS                               |
| 15C12-09A | TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION                                        |
| 15C18-09B | PAVEMENT MARKINGS, MEDIAN ISLAND NOSE                                                           |
| 15C19-10A | MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY                                      |
| 15C33-05  | STOP LINE AND CROSSWALK PAVEMENT MARKING                                                        |
| 15C35-06A | PAVEMENT MARKING (INTERSECTIONS)                                                                |

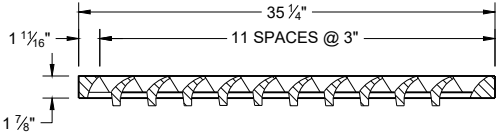
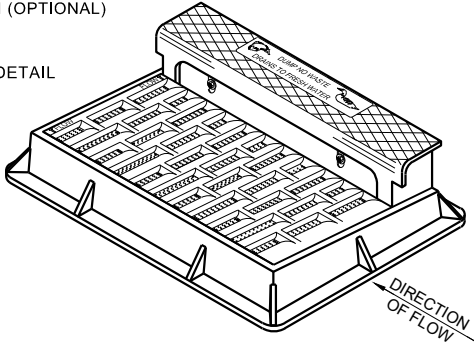
Standard Detail Drawing List

|           |                                                                                                  |
|-----------|--------------------------------------------------------------------------------------------------|
| 15D30-11A | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION                                                        |
| 15D30-11B | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION                                                        |
| 15D30-11C | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION                                                        |
| 15D30-11G | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION                                                        |
| 15D30-11I | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION                                                        |
| 15D30-11J | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION                                                        |
| 15D30-11L | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION                                                        |
| 15D40-06C | TRAFFIC CONTROL, PARTIAL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER |

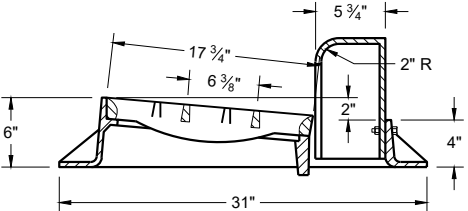
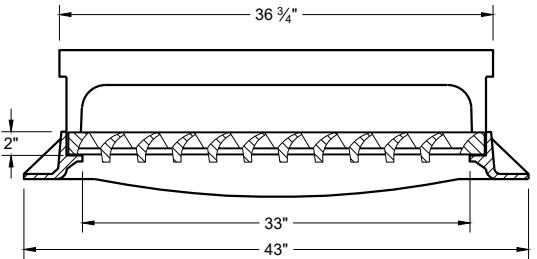
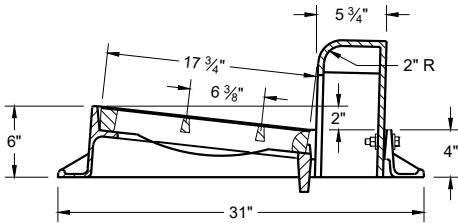
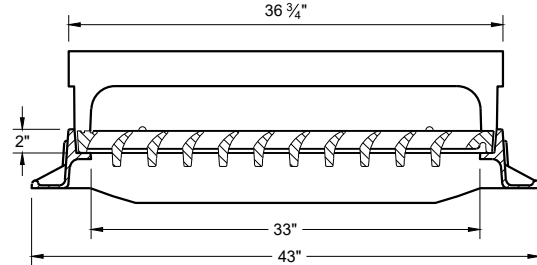


NOTE: EITHER CASTING IS ACCEPTABLE

TYPE "C" CHECKERED TOP DESIGN (OPTIONAL)  
SEE LOGO DETAIL

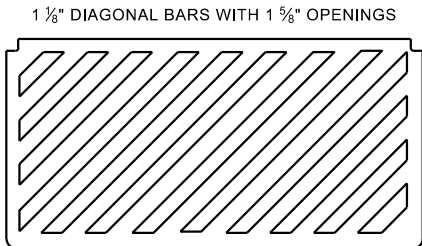


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

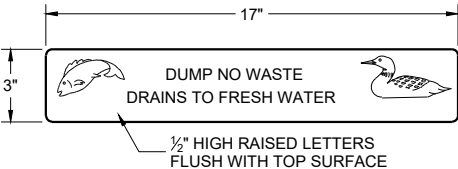


**TYPE "H"**

NOTE: EITHER CASTING IS ACCEPTABLE



**SPECIAL GRATE FOR TYPE "H" COVER**  
(MEASURES 35" X 17 3/4" X 2")  
(NOTED AS TYPE H-S ON DRAINAGE TABLE)



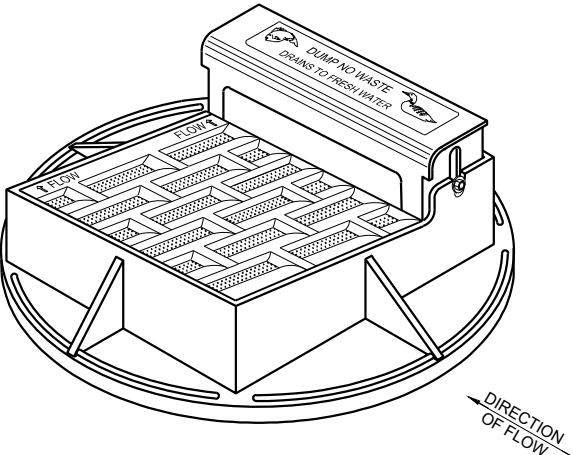
**LOGO DETAIL**

**GENERAL NOTES**

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

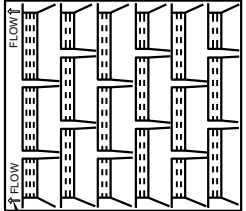
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

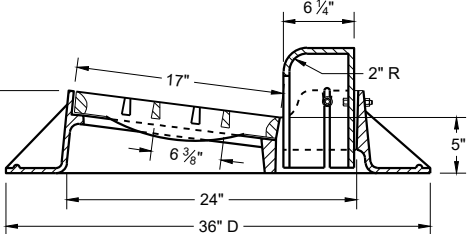
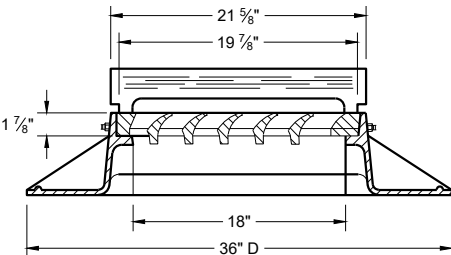
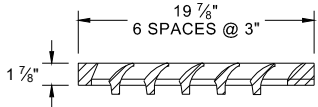


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

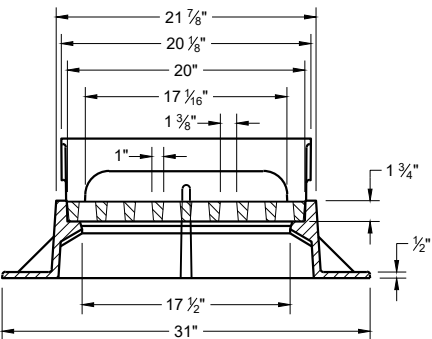
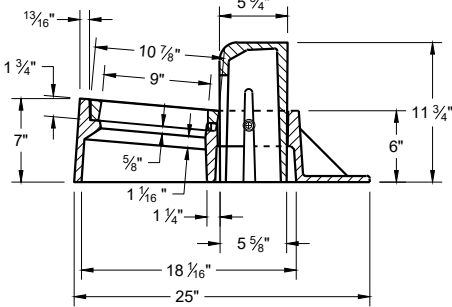
NOTE: EITHER CASTING IS ACCEPTABLE



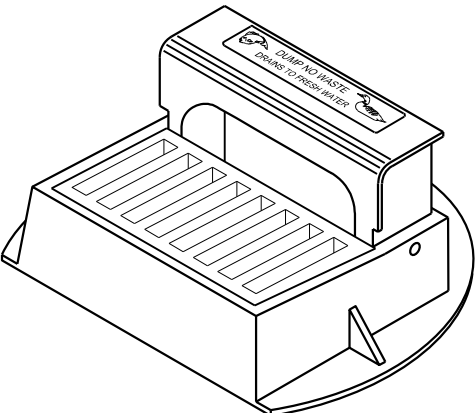
DIRECTION OF FLOW ARROWS



**TYPE "A"**



**TYPE "Z"**



**INLET COVERS  
TYPES A, H, A-S, H-S AND Z**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

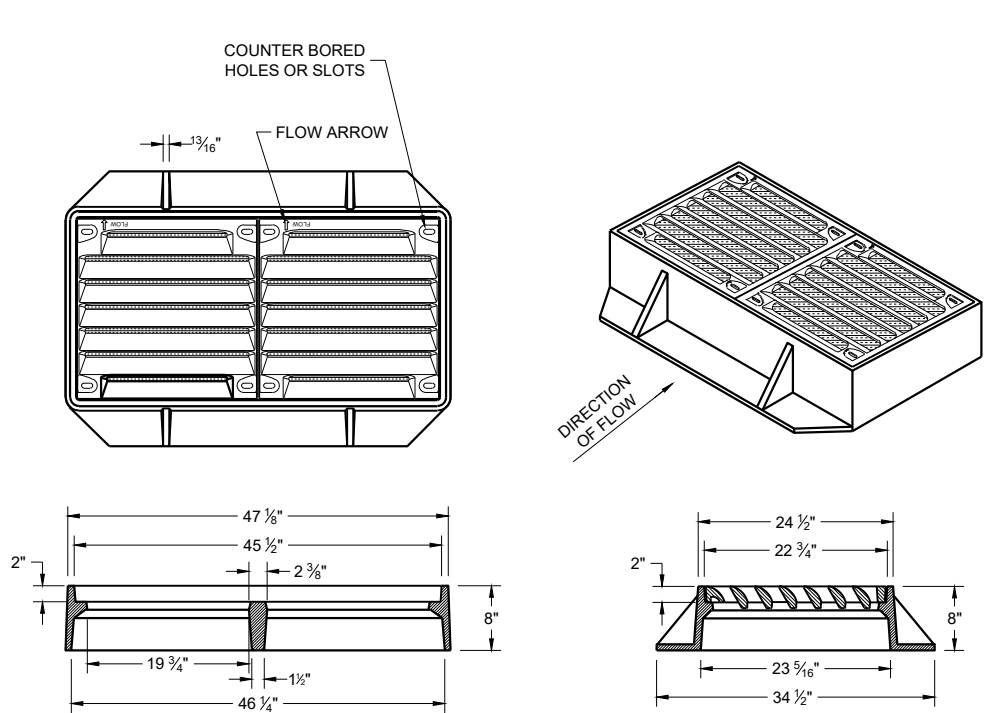
APPROVED  
February 2025 DATE /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR  
FHWA



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

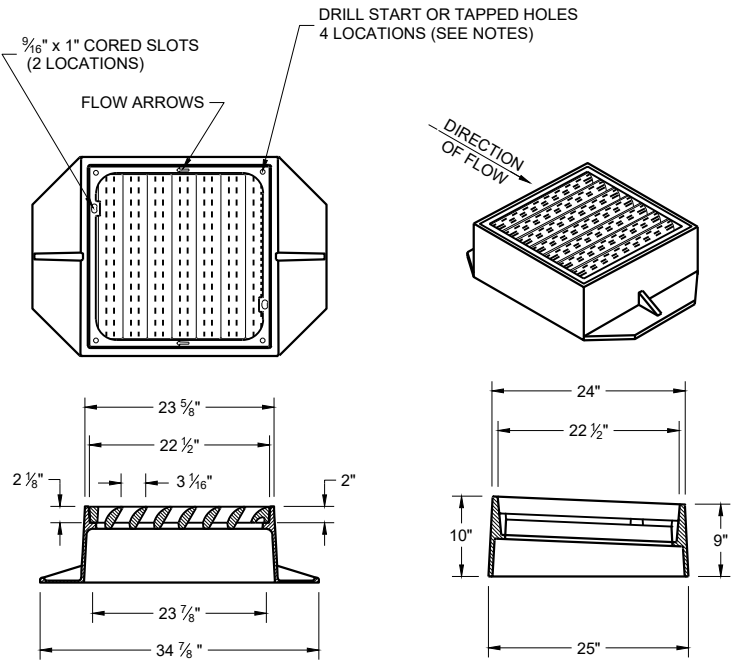
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



TYPE "VV-B"

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER  
ALL DRILLING AND TAPPING GRATES AND FRAMES BY  
CASTING MANUFACTURER

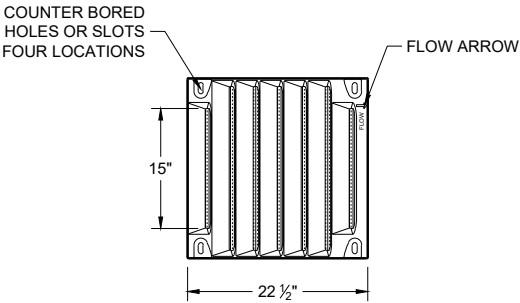
TYPE V  
FRAME - CAST GRAY IRON ASTM A48 CLASS 35B  
3/8" DIA. X 1/16" DRILL START IN 8 LOCATIONS  
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



TYPE "V"

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER ALL DRILLING  
AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

TYPE V  
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A  
3/8" DIA. X 1/16" DRILL START IN 4 LOCATIONS  
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



BOLT DOWN GRATE FOR  
TYPE "V" AND "VV-B" COVER

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER  
NOTED AS TYPE "V-B" OR "VV-B" (FOR DOUBLE GRATE) ON  
DRAINAGE TABLE

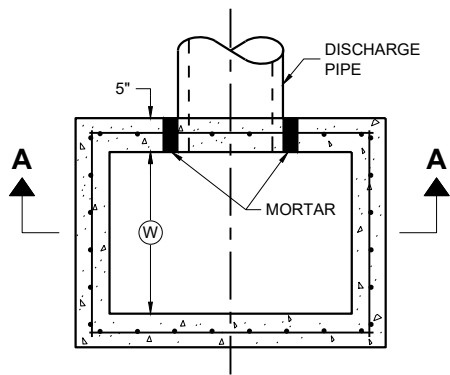
TAP 1/2" -13 HOLES IN FOUR LOCATIONS PER GRATE IN FRAME TO  
BOLT GRATE(S).  
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A

GRATE - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD  
BOLTS - 1/2" -13 STAINLESS STEEL BOLTS WITH WASHERS  
TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT  
OVERTIGHTEN.

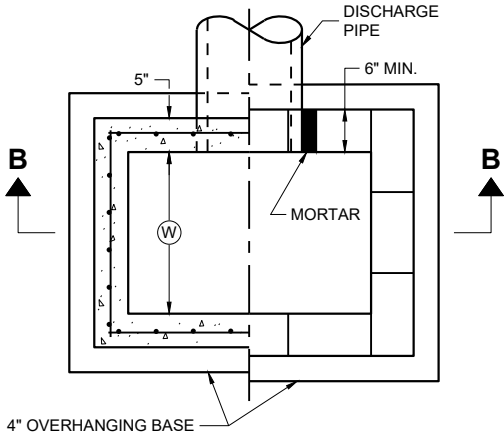
INLET COVERS  
TYPES V, V-B, AND VV-B

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

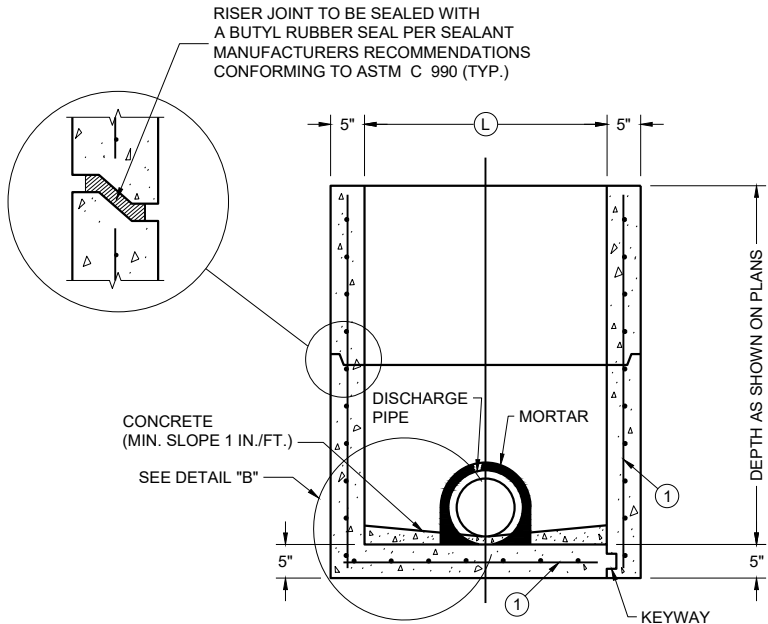
APPROVED  
February 2025 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR



PLAN VIEW



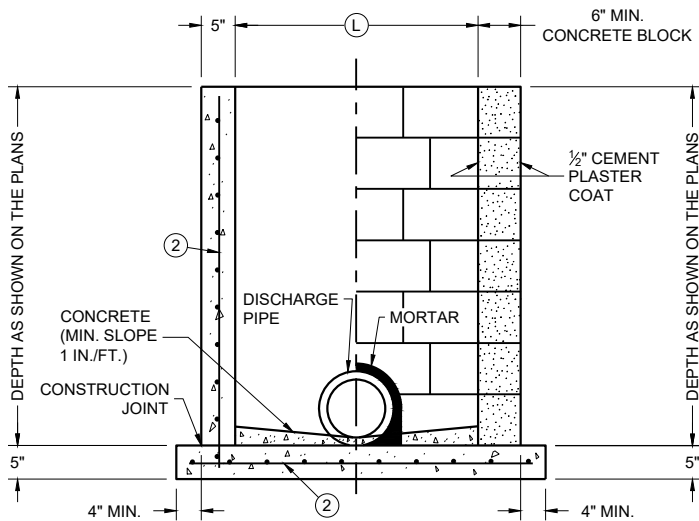
PLAN VIEW



PRECAST REINFORCED  
CONCRETE WITH  
MONOLITHIC BASE

PRECAST REINFORCED  
CONCRETE WITH  
INTEGRAL BASE

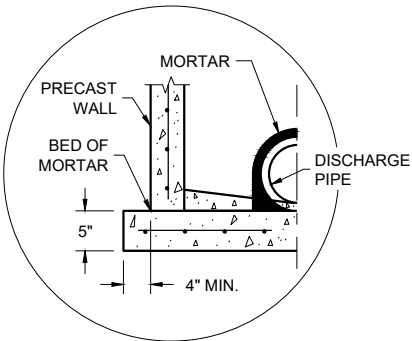
SECTION A - A



CAST IN PLACE  
REINFORCED  
CONCRETE

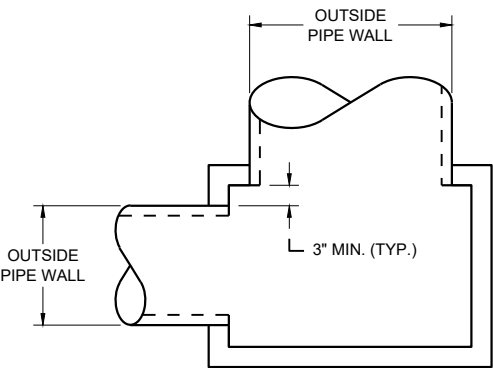
CONCRETE BLOCK WITH  
CAST IN PLACE OR  
PRECAST REINFORCED  
CONCRETE BASE ①

SECTION B - B



SEPARATE PRECAST REINFORCED  
CONCRETE BASE OPTION

DETAIL "B"



DETAIL "A"

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2X3.5-FT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

- ① FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

CATCH BASIN COVER MATRIX

| INLET<br>SIZE | WIDTH<br>(W) (FT.) | LENGTH<br>(L) (FT.) | INLET COVER TYPE |         |    |   |         |   |   |   |    |       |
|---------------|--------------------|---------------------|------------------|---------|----|---|---------|---|---|---|----|-------|
|               |                    |                     | ALL A'S          | ALL B'S | BW | F | ALL H'S | S | T | V | WM | V V-B |
| 2 X 2-FT      | 2                  | 2                   | X                | X       |    |   |         | X |   |   |    |       |
| 2 X 2.5-FT    | 2                  | 2.5                 |                  |         | X  |   |         | X | X | X | X  |       |
| 2 X 3-FT      | 2                  | 3                   |                  |         |    |   | X       |   |   |   |    |       |
| 2.5 X 3-FT    | 2.5                | 3                   |                  |         |    | X |         |   |   |   |    |       |
| 2 X 3.5-FT    | 2                  | 3.5                 |                  |         |    |   |         |   |   |   |    | X     |

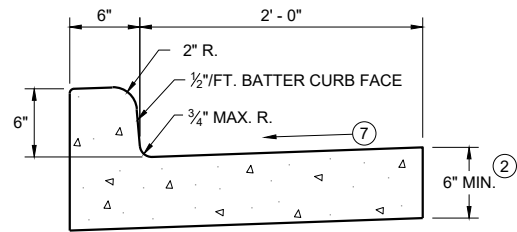
PIPE MATRIX

| CATCH<br>BASIN<br>SIZE | MAXIMUM INSIDE PIPE DIAMETER<br>FOR TWO PIPES |             |
|------------------------|-----------------------------------------------|-------------|
|                        | WIDTH (IN)                                    | LENGTH (IN) |
| 2 X 2-FT               | 12                                            | 12          |
| 2 X 2.5-FT             | 12                                            | 18          |
| 2 X 3-FT               | 12                                            | 24          |
| 2.5 X 3-FT             | 18                                            | 24          |
| 2 X 3.5-FT             | 12                                            | 30          |

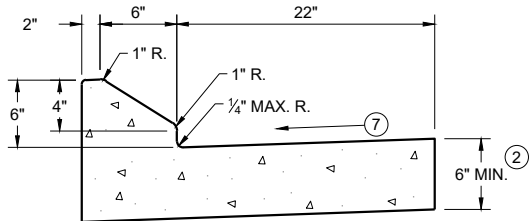
INLETS 2 X 2-FT, 2 X 2.5-FT,  
2 X 3-FT, 2.5 X 3-FT  
AND 2 X 3.5-FT

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

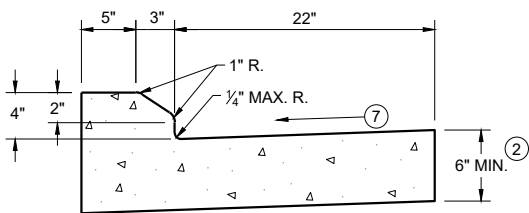
APPROVED  
December 2023 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR



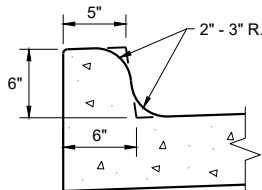
TYPES A<sup>①</sup> & D



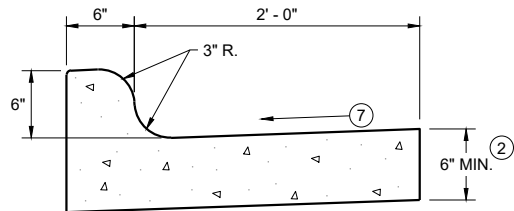
6" SLOPED CURB TYPES G<sup>①</sup> & J



4" SLOPED CURB TYPES G<sup>①</sup> & J

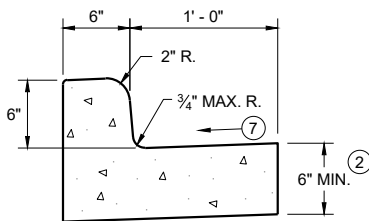


TYPES K<sup>①</sup> & L  
(OPTIONAL CURB SHAPE)



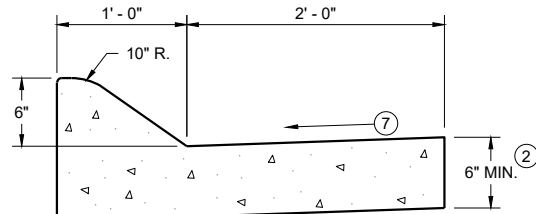
TYPES K<sup>①</sup> & L

CONCRETE CURB AND GUTTER 30"

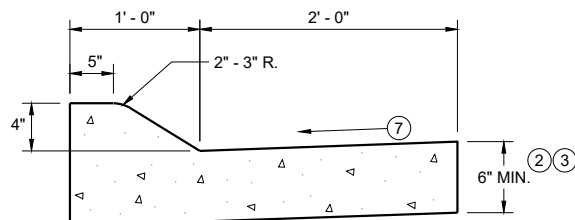


TYPES A<sup>①</sup> & D

CONCRETE CURB AND GUTTER 18"

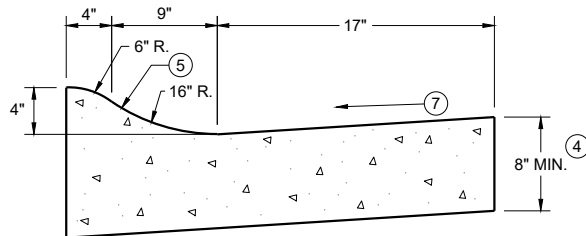


6" SLOPED CURB TYPES A<sup>①</sup> & D



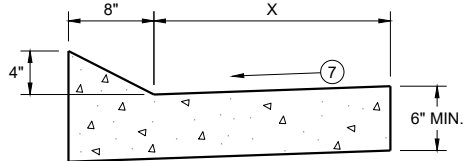
4" SLOPED CURB TYPES A<sup>①</sup> & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R<sup>①</sup> & T  
CONCRETE CURB AND GUTTER 30"

| TBT & TBTT | X   |
|------------|-----|
| 30"        | 22" |
| 36"        | 28" |

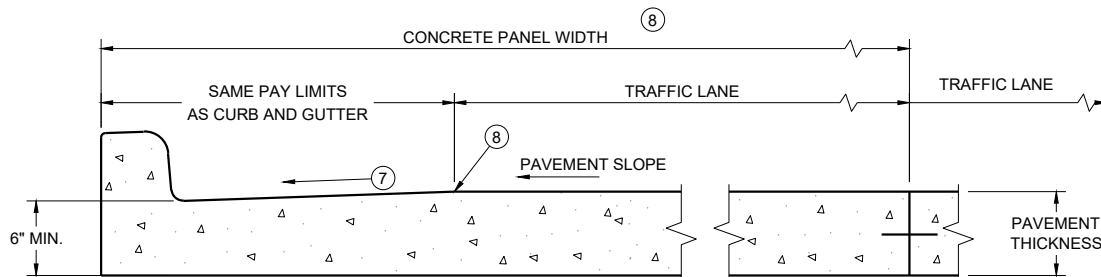


TYPES TBT & TBTT<sup>①</sup>

CONCRETE CURB AND GUTTER

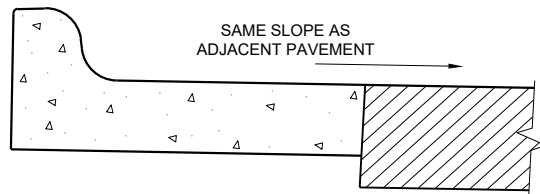
PAVEMENT THICKNESS  
AND MAXIMUM CONCRETE  
PANEL WIDTH TABLE

| PAVEMENT THICKNESS | MAXIMUM PANEL WIDTH |
|--------------------|---------------------|
| LESS THAN 10"      | 12'                 |
| 10" & ABOVE        | 15'                 |

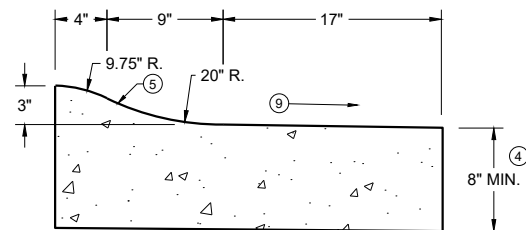


PARTIAL SECTION OF PAVEMENT  
WITH INTEGRAL CURB AND GUTTER

\* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER<sup>⑥</sup>  
(TYPICAL FOR ALL CURB & GUTTER TYPES)



3" SLOPED CURB TYPES R<sup>①</sup> & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

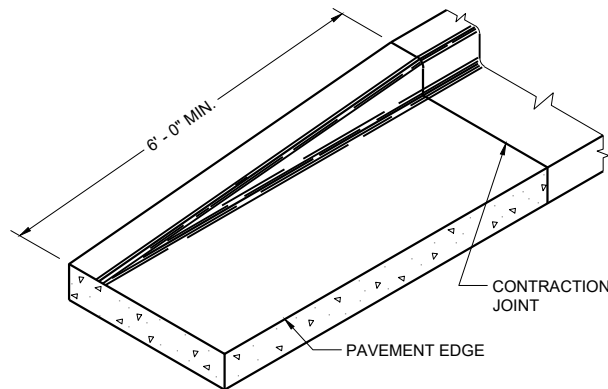
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

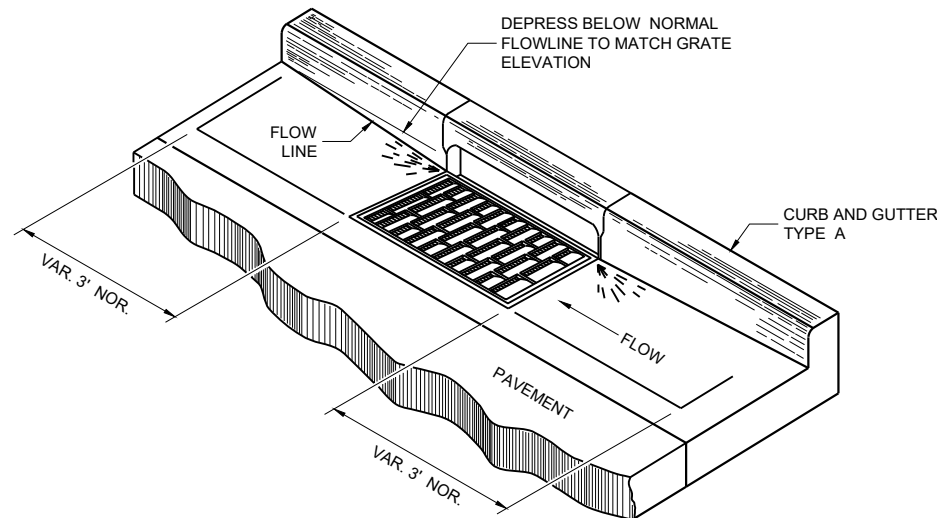
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ SLOPE TO BE REVERSE SLOPE MATCHING THE SLOPE OF THE PAVEMENT AND THE CIRCULATORY ROADWAY

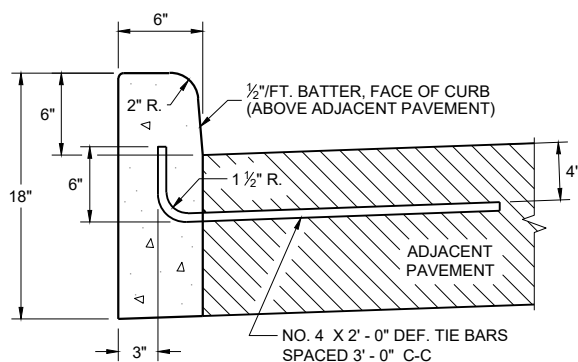


**END SECTION CURB AND GUTTER**

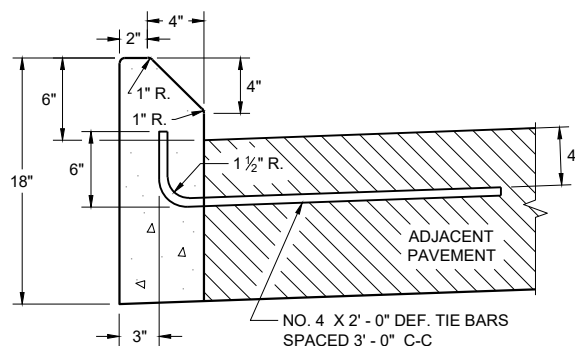


**DETAIL OF CURB AND GUTTER AT INLETS**

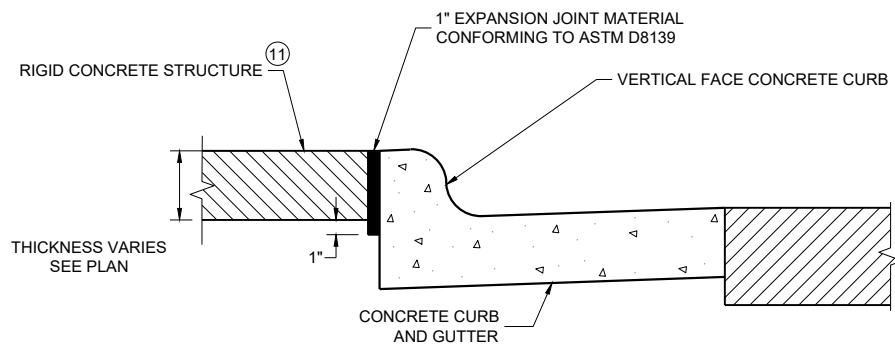
(TYPICAL H INLET COVER SHOWN)



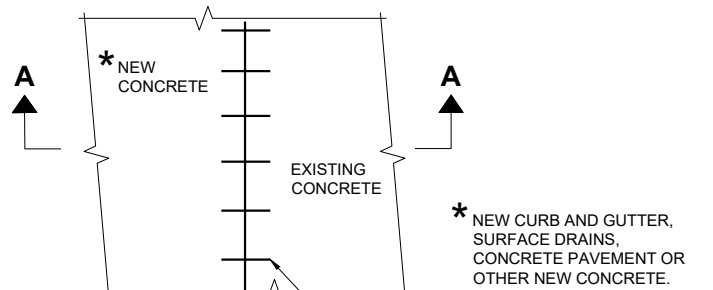
**TYPES A<sup>①</sup> & D**



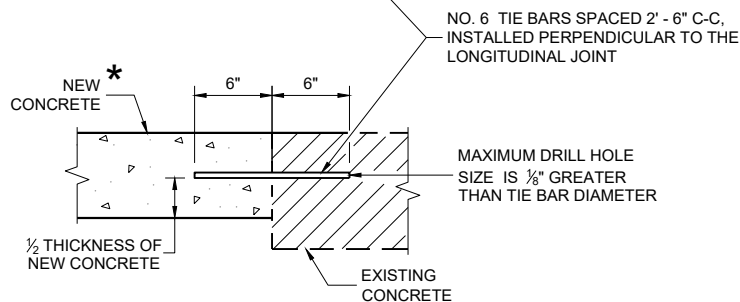
**TYPES G<sup>①</sup> & J  
CONCRETE CURB**



**EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE<sup>⑪</sup>**



**PLAN VIEW**



**SECTION A - A  
TIE BARS DRILLED INTO EXISTING PAVEMENT**

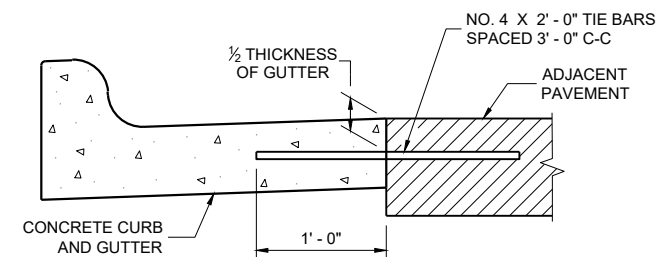
**GENERAL NOTES**

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

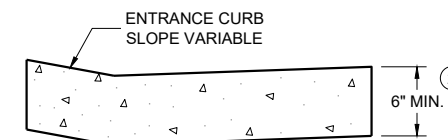
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.
- ⑪ PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.



**TYPICAL TIE BAR LOCATION<sup>①</sup>**



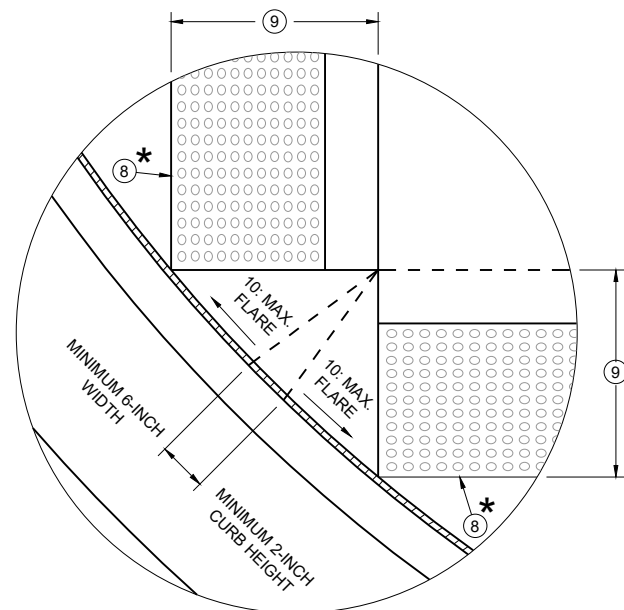
**DRIVEWAY ENTRANCE CURB<sup>⑩</sup>  
(WHEN DIRECTED BY THE ENGINEER)**

**CONCRETE CURB, TIES  
AND CURB AND GUTTER  
APPLICATIONS**

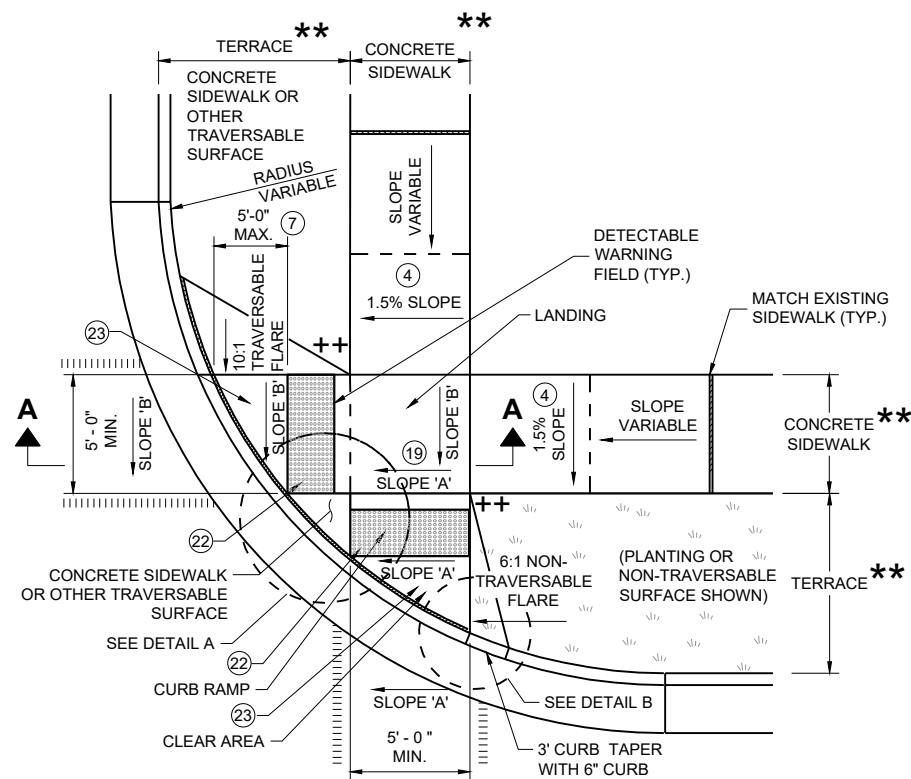
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2025 DATE /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR  
FHWA

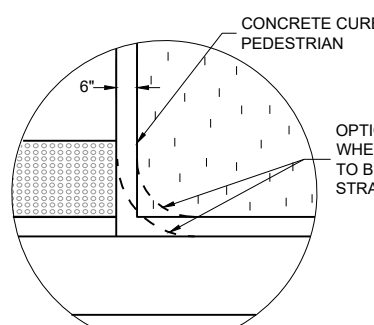




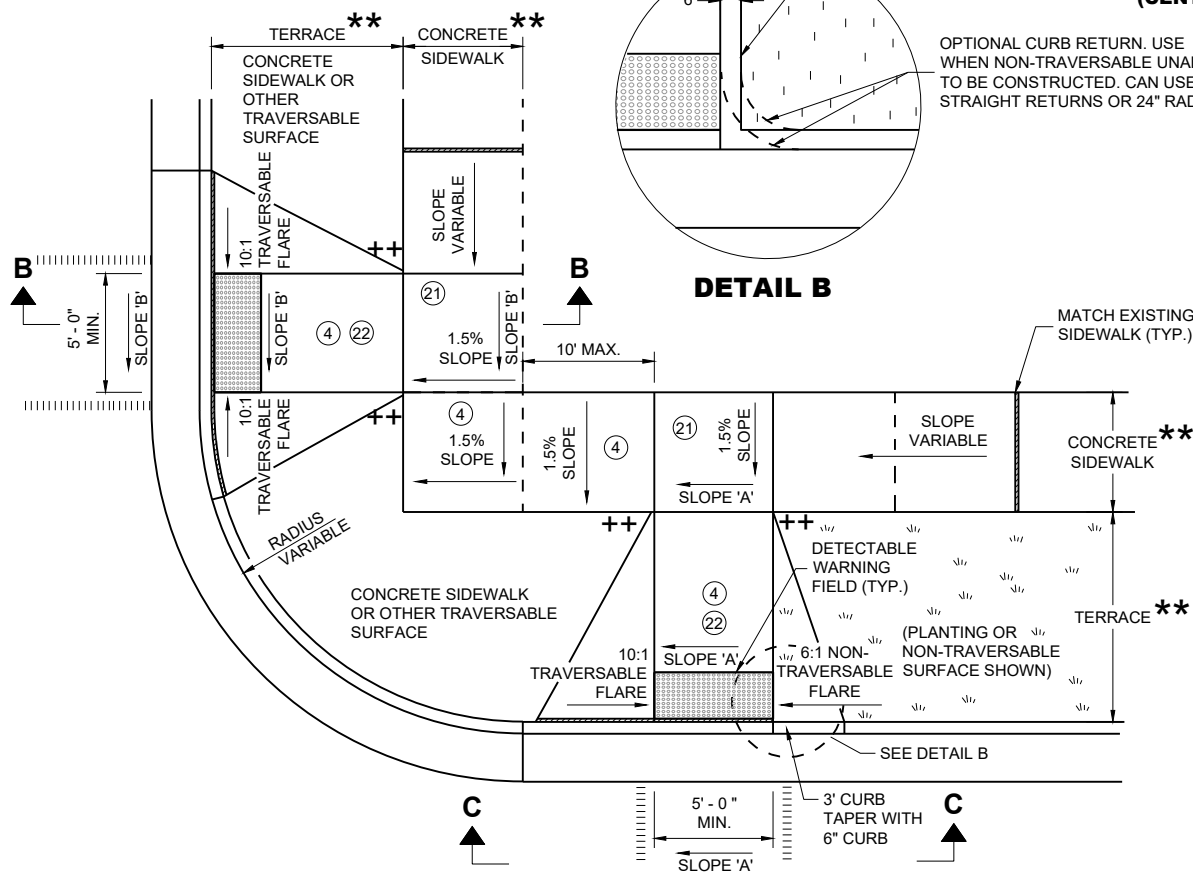
DETAIL A



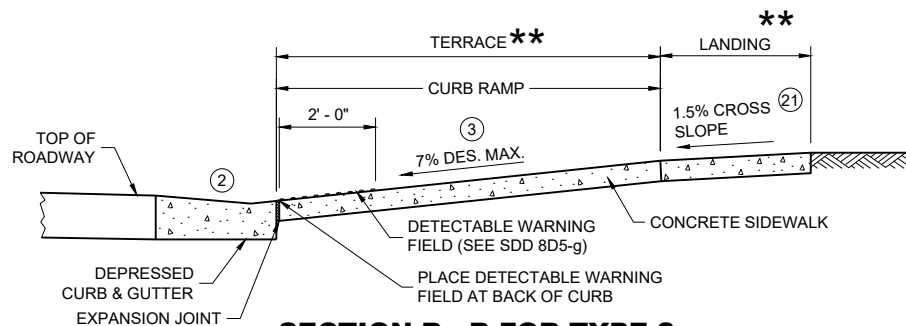
**PLAN VIEW  
CURB RAMP TYPE 2  
(CENTER OF CORNER RADIUS)**



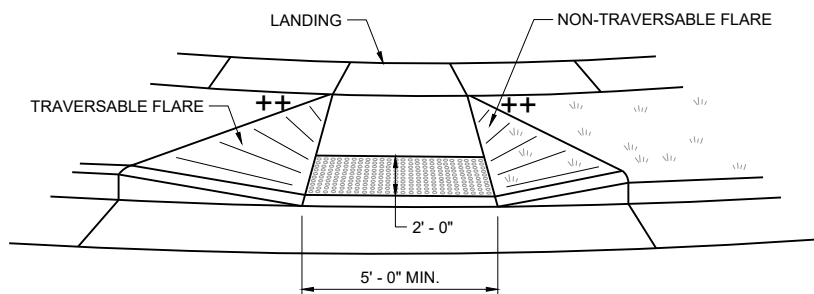
DETAIL B



**PLAN VIEW  
CURB RAMP TYPE 3  
(OUTSIDE OF CROSSWALK AREA)**



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

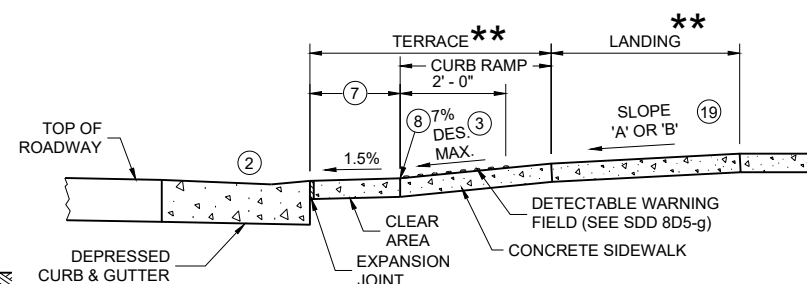
**GENERAL NOTES**

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ④  $\pm 0.5\%$  CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% DESIGN MAXIMUM SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% DESIGN MAXIMUM SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.
- ⑪ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑫ WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.
- ⑬ PROVIDE A LANDING WITH A SLOPE PARALLEL TO ROADWAY THAT MATCHES SLOPE AT THE BOTTOM OF THE ADJACENT RAMP. SLOPE PERPENDICULAR TO ROADWAY SHALL BE 2.1% MAXIMUM. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑭ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- ⑮ THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



SECTION A - A FOR TYPE 2

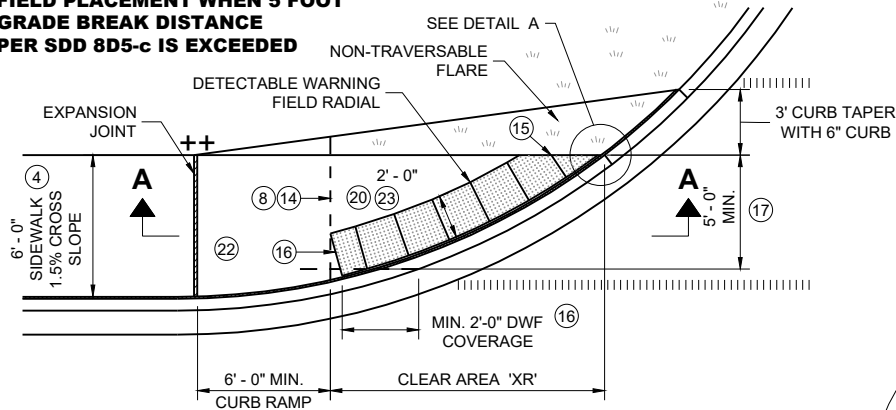
**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- - - CONTRACTION JOINT SIDEWALK
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- \* MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- \*\* WIDTH SHOWN ELSEWHERE IN THE PLANS
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

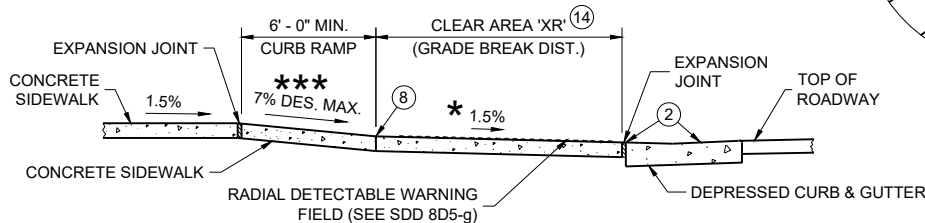
**CURB RAMPS  
TYPE 2 AND 3**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**RADIAL DETECTABLE WARNING  
FIELD PLACEMENT WHEN 5 FOOT  
GRADE BREAK DISTANCE  
PER SDD 8D5-c IS EXCEEDED**

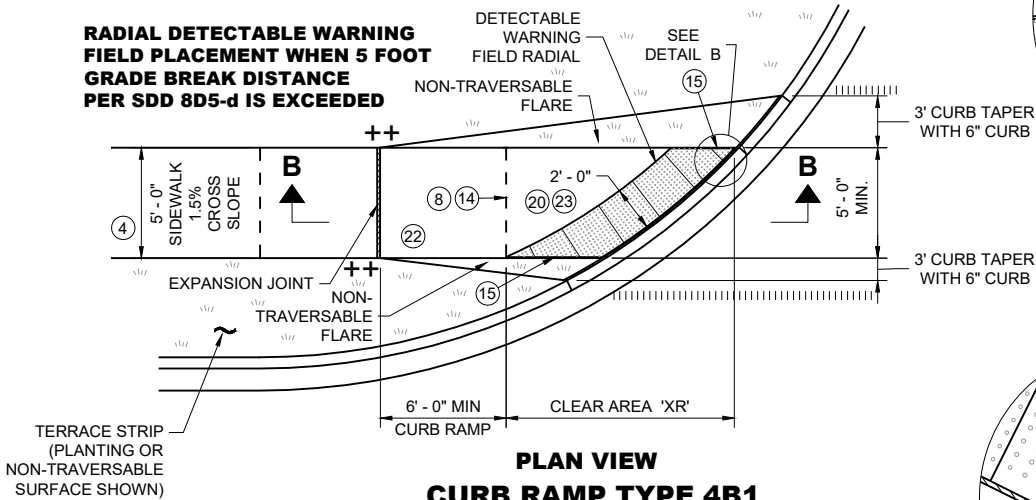


**PLAN VIEW  
CURB RAMP TYPE 4A1  
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

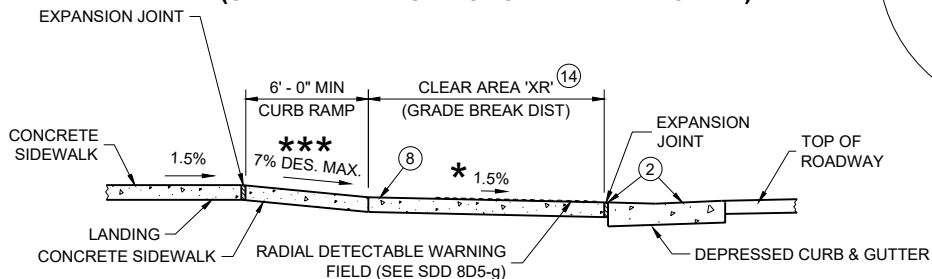


**SECTION A - A FOR TYPE 4A1**

**RADIAL DETECTABLE WARNING  
FIELD PLACEMENT WHEN 5 FOOT  
GRADE BREAK DISTANCE  
PER SDD 8D5-d IS EXCEEDED**

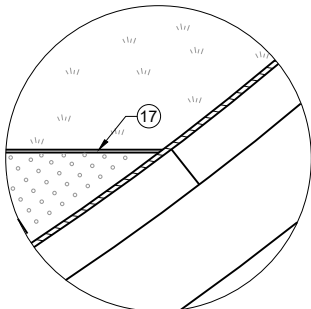


**PLAN VIEW  
CURB RAMP TYPE 4B1  
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

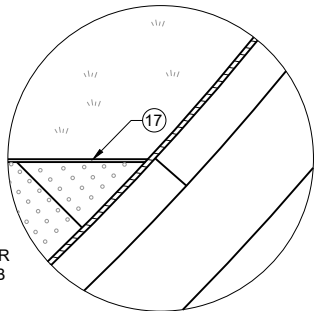


**SECTION B - B FOR TYPE 4B1**

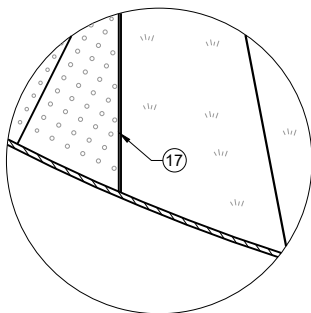
- LEGEND**
- 1/2" EXPANSION JOINT SIDEWALK
  - CONTRACTION JOINT SIDEWALK
  - PAVEMENT MARKING CROSSWALK (WHITE)
  - \*\* WIDTH SHOWN ELSEWHERE IN THE PLANS
  - \*\*\* MAXIMUM 8.3%
  - ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



**DETAIL A**



**DETAIL B**



**DETAIL C**

**GENERAL NOTES**

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

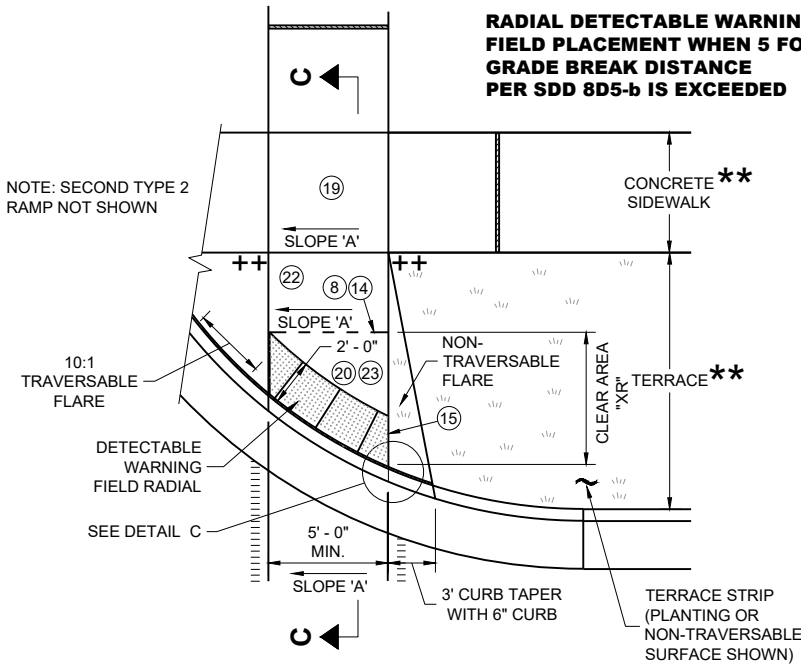
REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

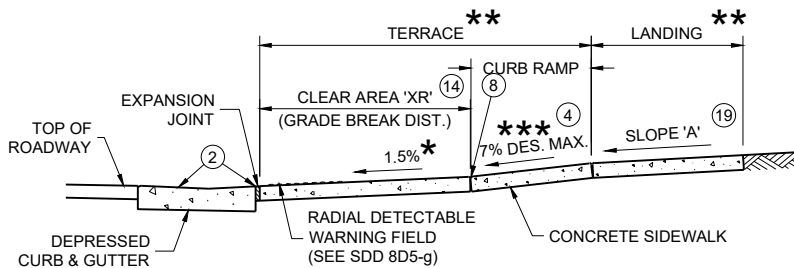
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

- 2 GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3 MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 6 PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
- 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- 14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- 15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- 16 USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
- 17 A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- 19 WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.
- 20 MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.
- 22 THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- 23 THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

**RADIAL DETECTABLE WARNING  
FIELD PLACEMENT WHEN 5 FOOT  
GRADE BREAK DISTANCE  
PER SDD 8D5-b IS EXCEEDED**



**PLAN VIEW  
CURB RAMP TYPE 2  
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)  
(ON LINE WITH SIDEWALK)**



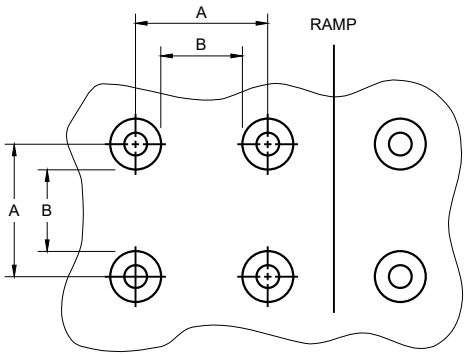
**SECTION C - C FOR TYPE 2**

**CURB RAMPS  
RADIAL DETECTABLE WARNING**

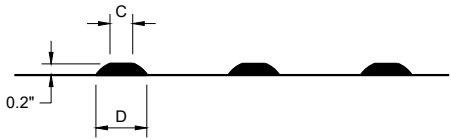
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

|   | MIN.  | MAX. |
|---|-------|------|
| A | 1.6"  | 2.4" |
| B | 0.65" | 1.5" |
| C | *     | *    |
| D | 0.9"  | 1.4" |

\* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

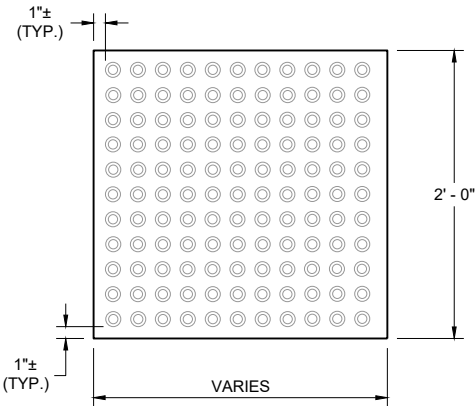


PLAN VIEW

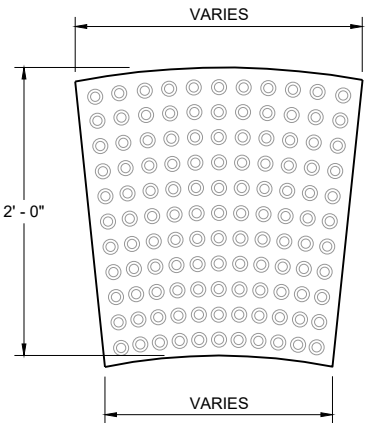


ELEVATION VIEW

TRUNCATED DOMES  
DETECTABLE WARNING PATTERN DETAIL

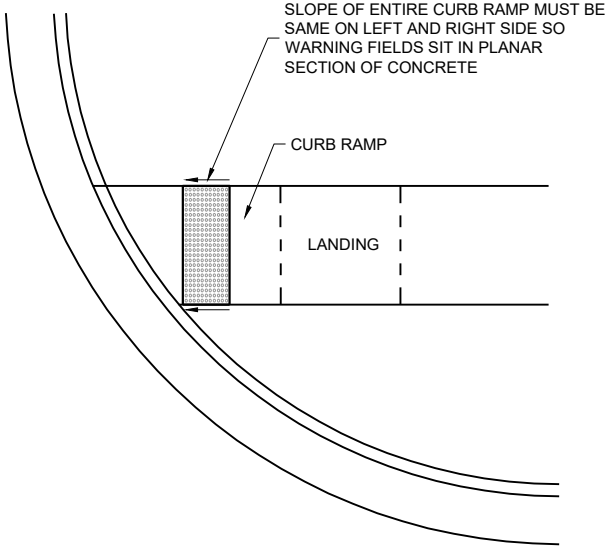


RECTANGULAR  
PLATES

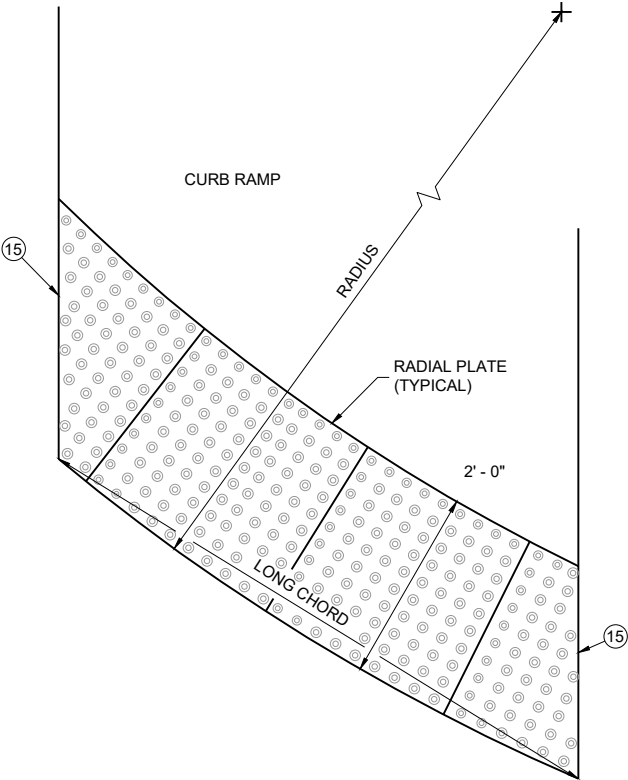


RADIAL  
PLATES

PLAN VIEW  
DETECTABLE WARNING FIELDS (TYPICAL)



DETECTABLE WARNING FIELD  
PLANAR INSTALLATION



PLAN VIEW  
RADIAL DETECTABLE  
WARNING FIELD ATTRIBUTES

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

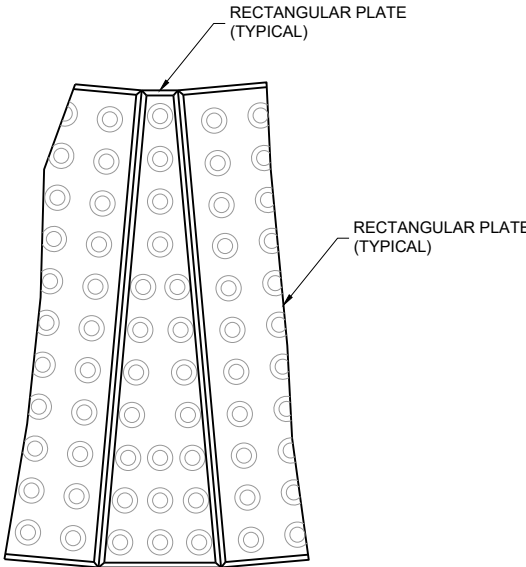
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8 inch DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



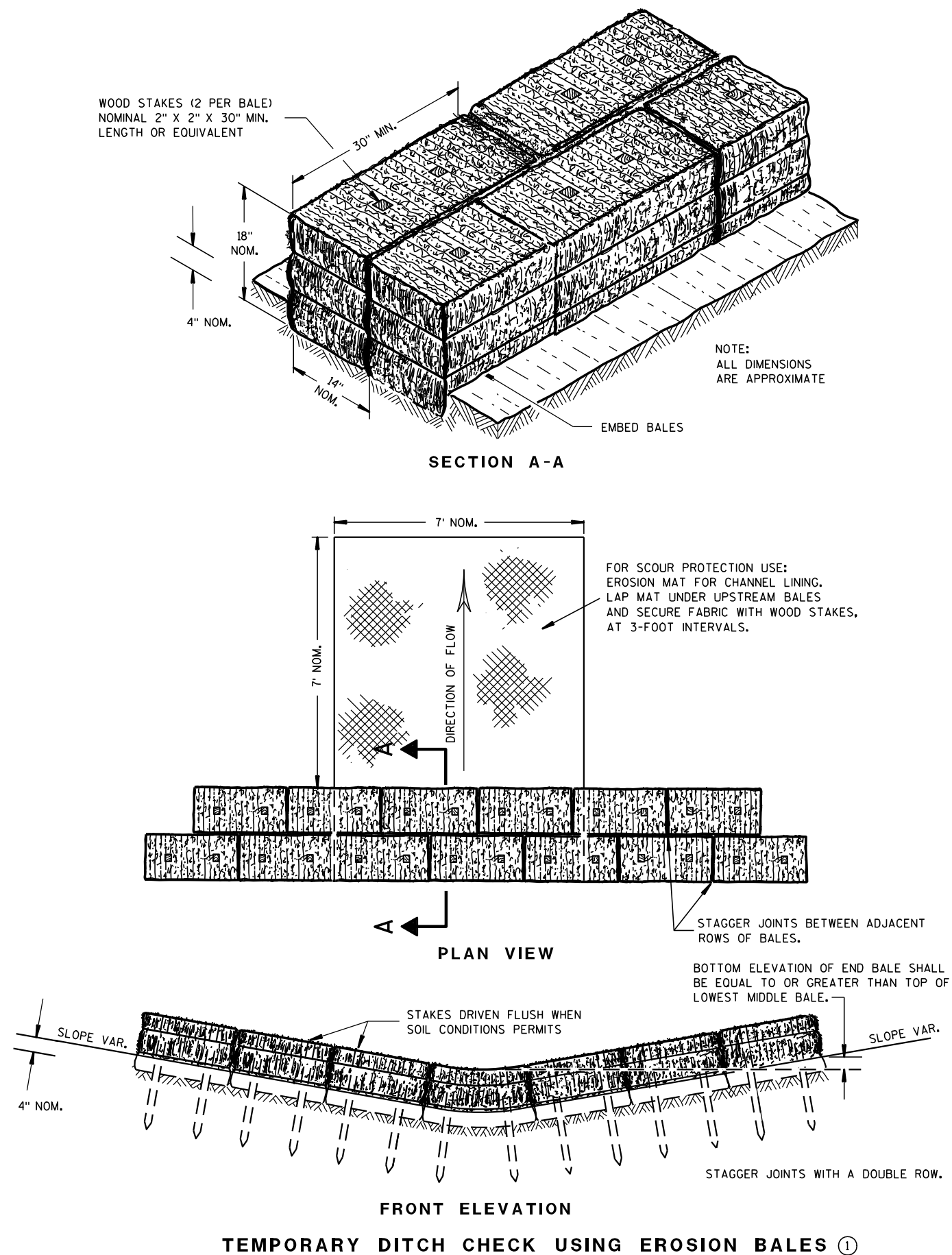
PLAN VIEW  
RADIAL WEDGE PLATE  
CONNECTION DETAIL

CURB RAMPS  
RECTANGULAR AND RADIAL  
DETECTABLE WARNING PLATES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2025 /S/ Rodney Taylor  
DATE <position>

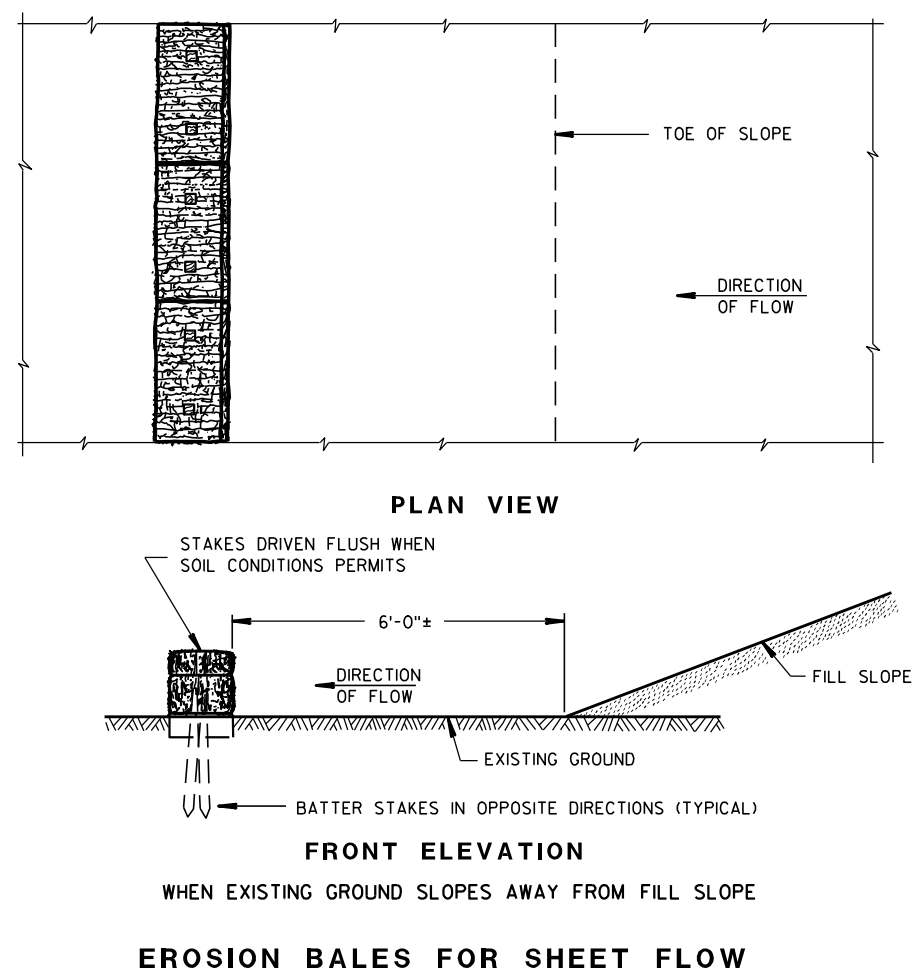
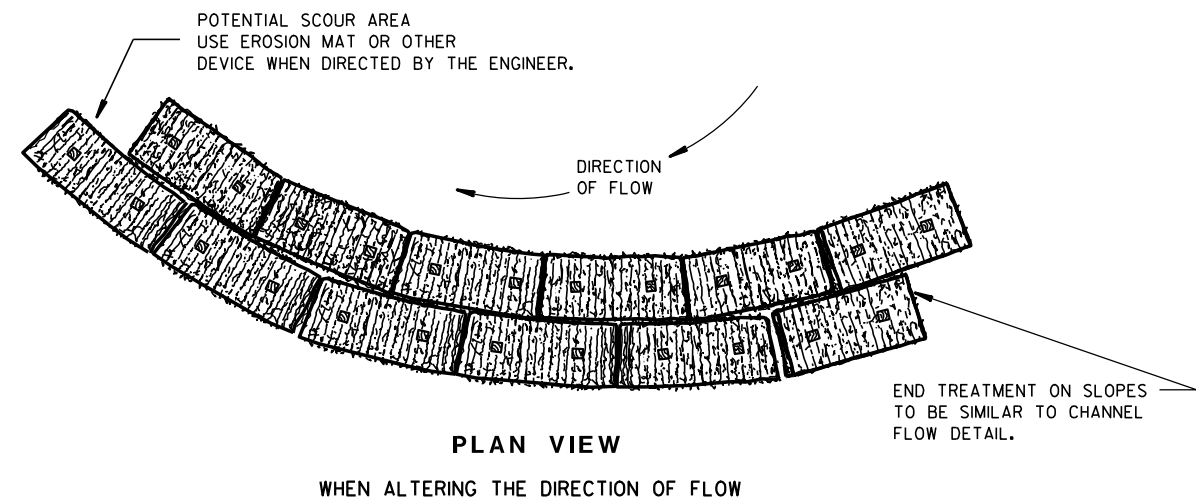
FHWA



## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

TYPICAL INSTALLATIONS OF  
EROSION BALES / TEMPORARY  
DITCH CHECKS

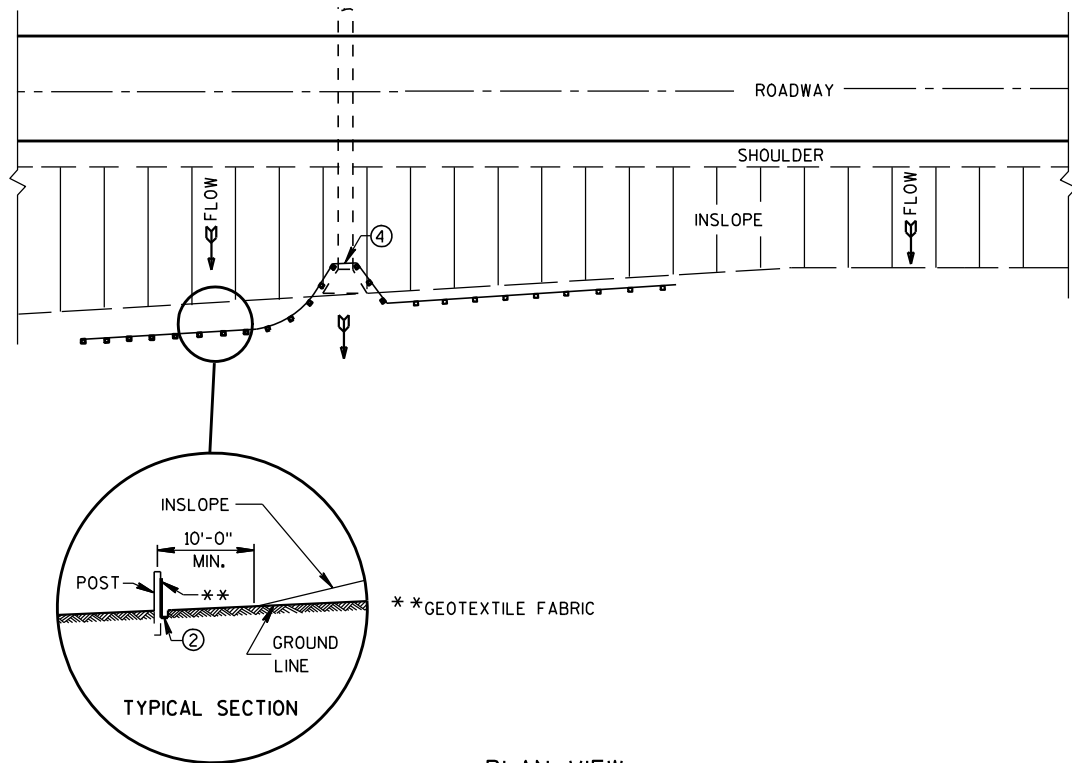
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

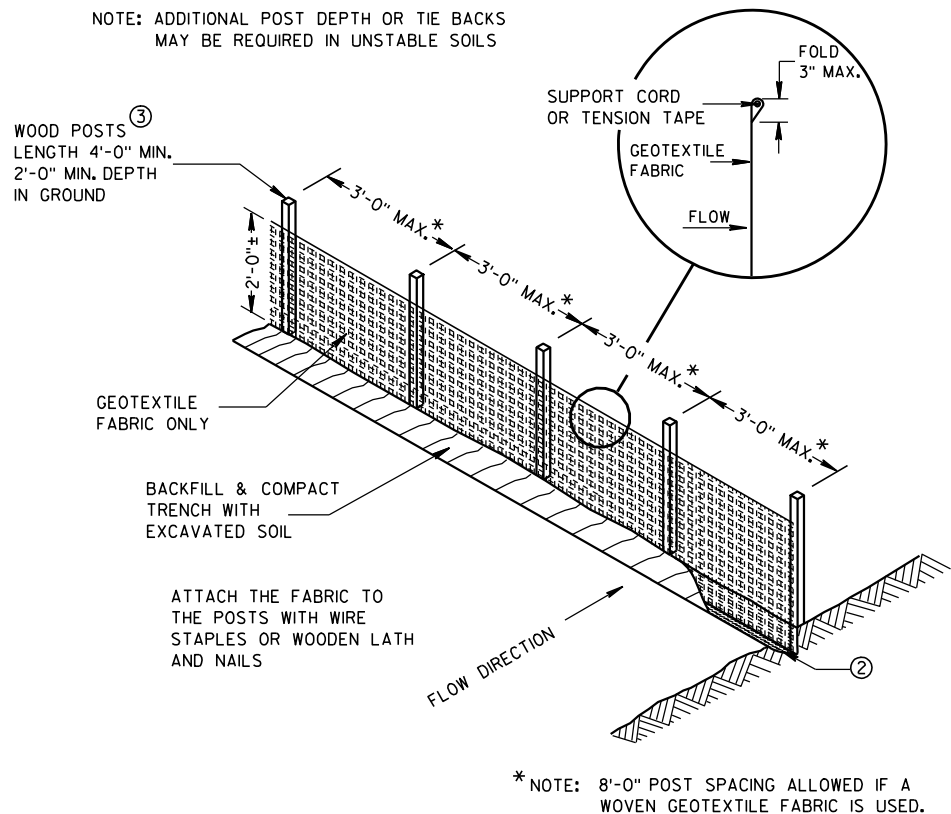
6/04/02  
DATE/S/ Beth Conn  
CHIEF ROADWAY DEVELOPER 229 ENGINEER

FHWA

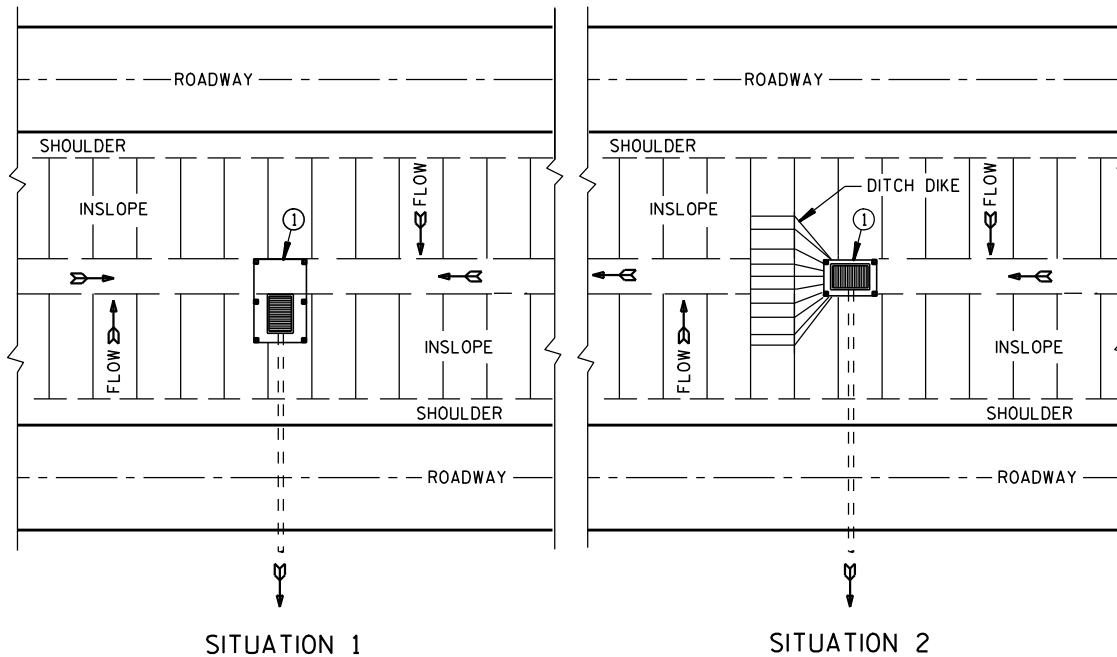




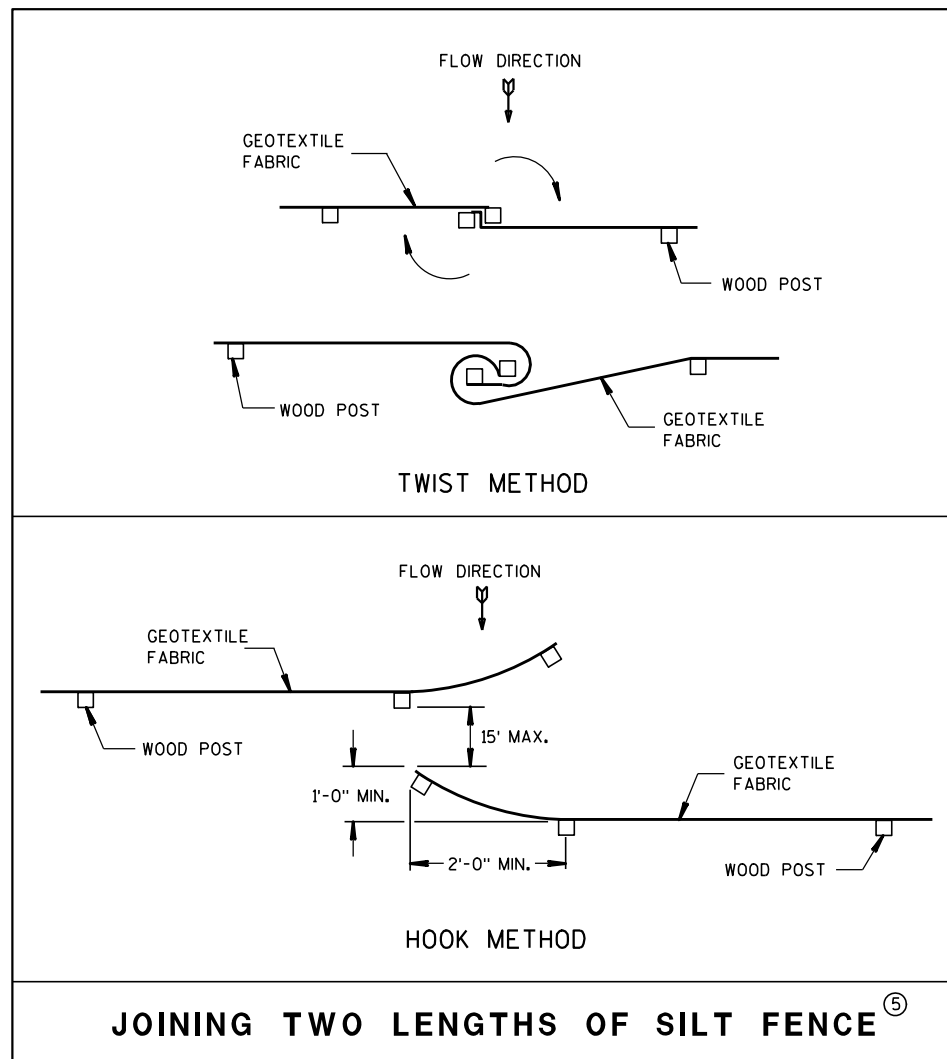
PLAN VIEW  
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW  
SILT FENCE AT MEDIAN SURFACE DRAINS

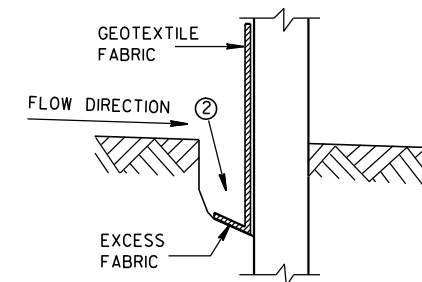


JOINING TWO LENGTHS OF SILT FENCE ⑤

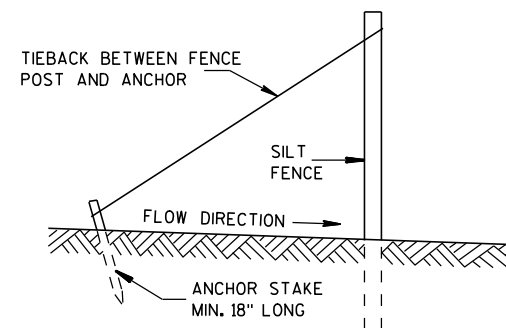
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

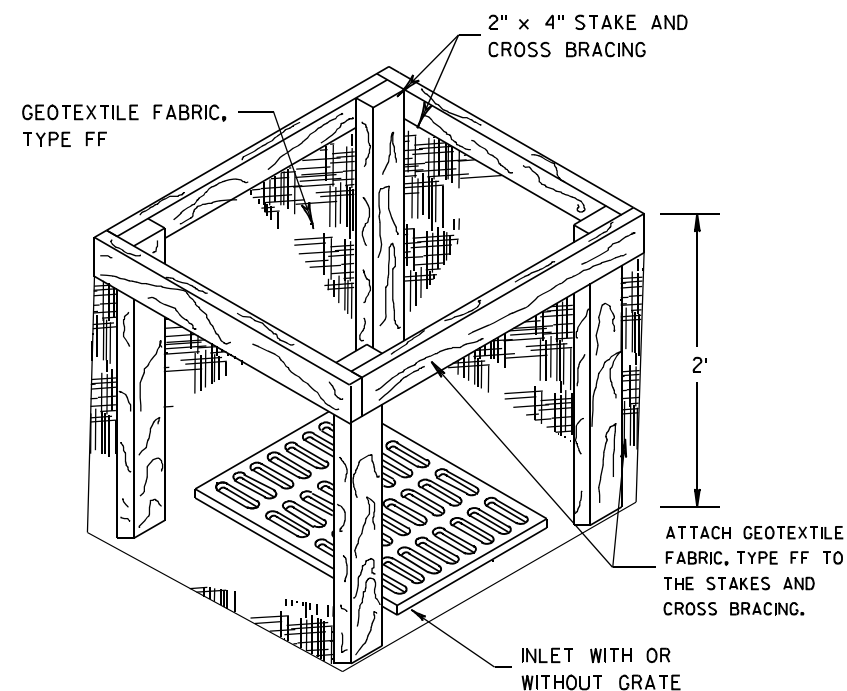
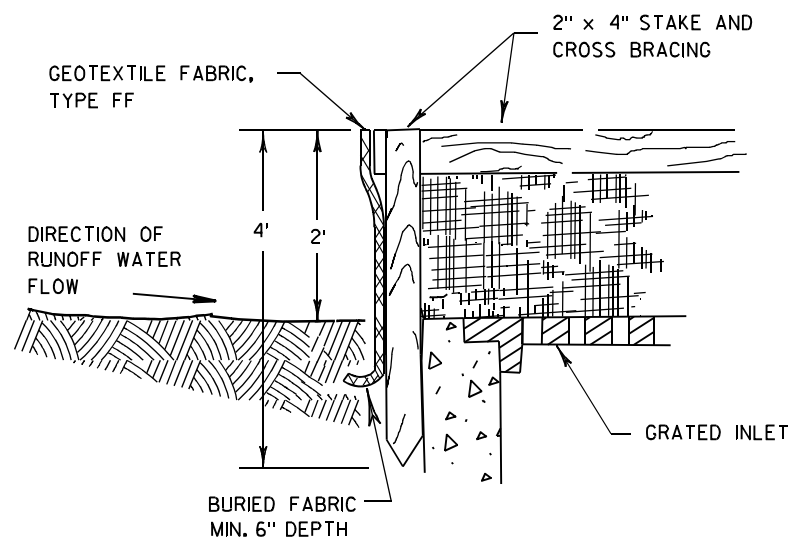


TRENCH DETAIL



SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)

| SILT FENCE                                         |                                                             |
|----------------------------------------------------|-------------------------------------------------------------|
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |                                                             |
| APPROVED<br>4-29-05<br>DATE                        | /S/ Beth Conn<br>CHIEF ROADWAY DEVELOPER<br>230<br>ENGINEER |
| FHWA                                               |                                                             |



**INLET PROTECTION, TYPE A**

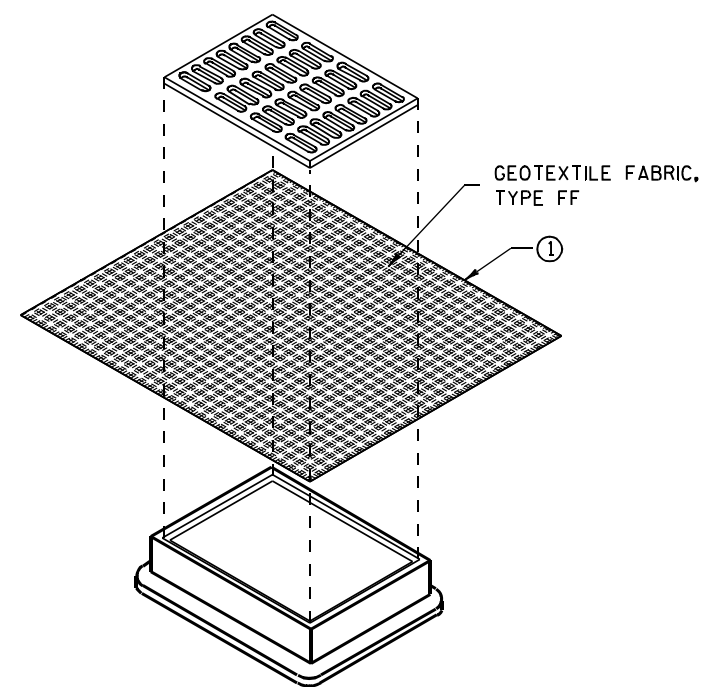
**GENERAL NOTES**

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

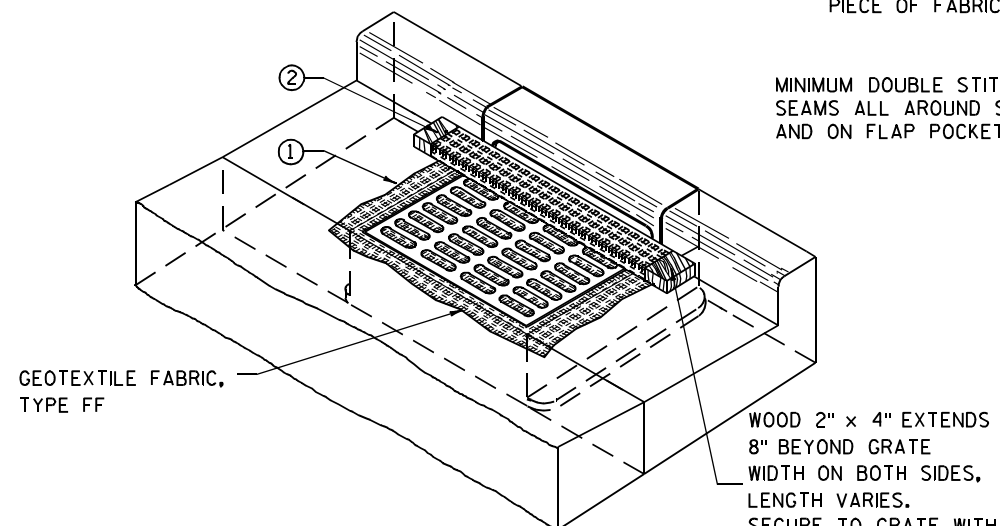
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B  
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



**INLET PROTECTION, TYPE C (WITH CURB BOX)**

**INSTALLATION NOTES**

**TYPE B & C**

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

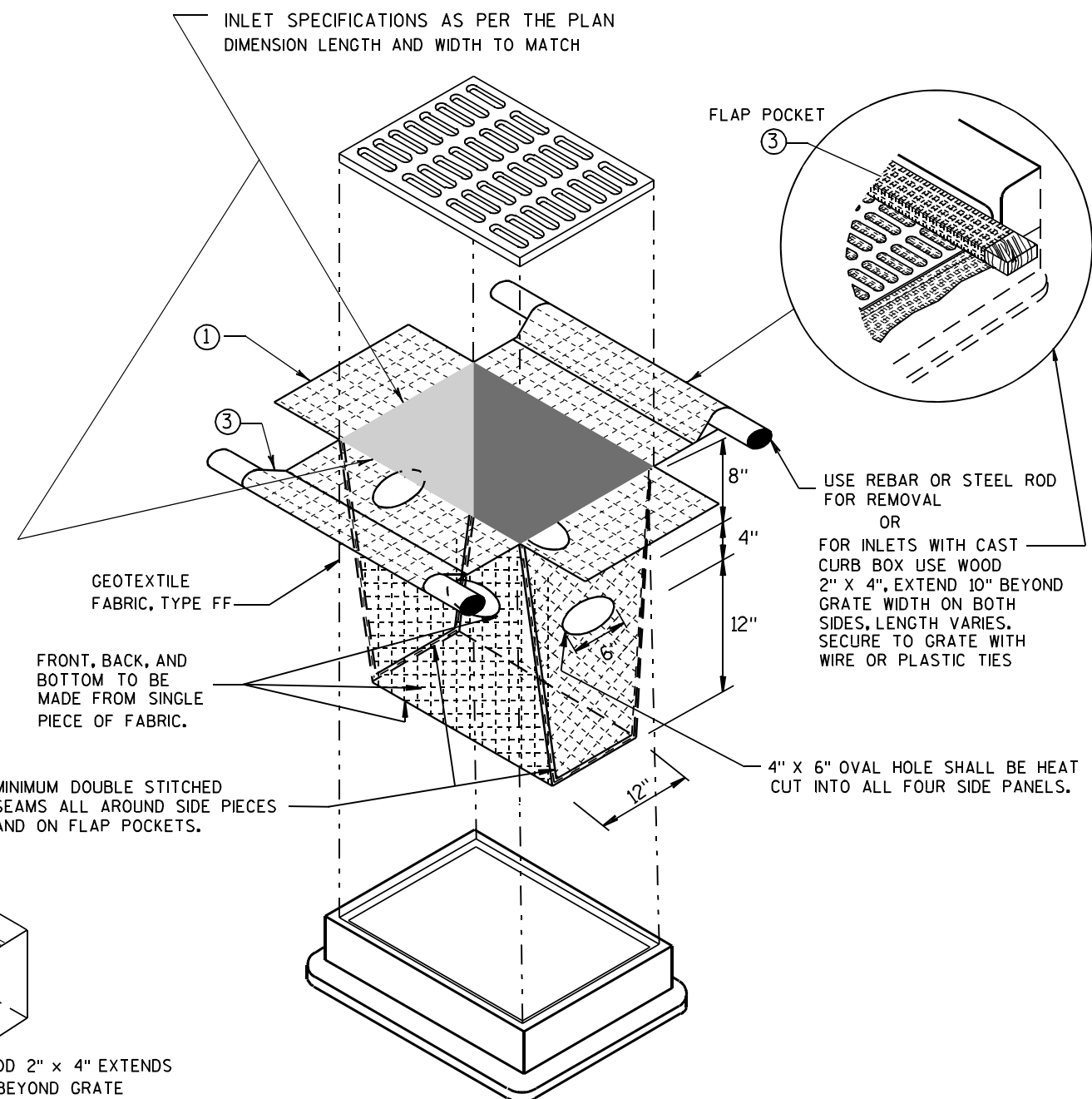
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

**TYPE D**

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



**INLET PROTECTION, TYPE D**

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

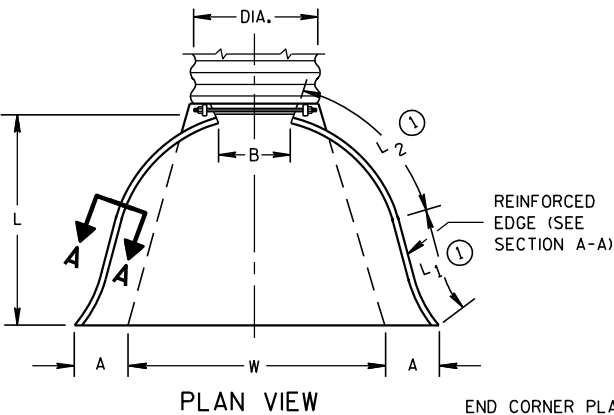
**INLET PROTECTION  
TYPE A, B, C, AND D**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
10/16/02 /S/ Beth Connolly  
DATE 231  
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER

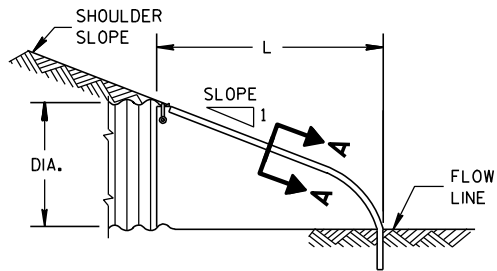
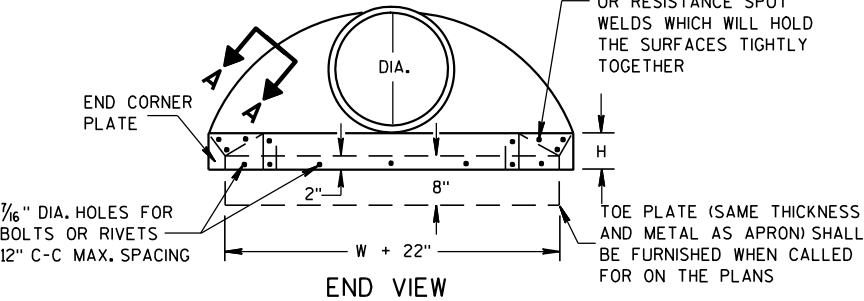
| METAL APRON ENDWALLS |                         |       |                     |             |            |                |         |         |            |                  |  |       |
|----------------------|-------------------------|-------|---------------------|-------------|------------|----------------|---------|---------|------------|------------------|--|-------|
| PIPE DIA.<br>(IN.)   | MIN. THICK.<br>(Inches) |       | DIMENSIONS (Inches) |             |            |                |         |         |            | APPROX.<br>SLOPE |  | BODY  |
|                      | STEEL                   | ALUM. | A<br>(±1")          | B<br>(MAX.) | H<br>(±1") | L<br>(±1 1/2") | L1<br>① | L2<br>① | W<br>(±2") |                  |  |       |
| 12                   | .064                    | .060  | 6                   | 6           | 6          | 21             | 12      | 17 1/2  | 24         | 2 1/2 to 1       |  | 1 Pc. |
| 15                   | .064                    | .060  | 7                   | 8           | 6          | 26             | 14      | 21 3/4  | 30         | 2 1/2 to 1       |  | 1 Pc. |
| 18                   | .064                    | .060  | 8                   | 10          | 6          | 31             | 15      | 28 1/4  | 36         | 2 1/2 to 1       |  | 1 Pc. |
| 21                   | .064                    | .060  | 9                   | 12          | 6          | 36             | 18      | 29 5/8  | 42         | 2 1/2 to 1       |  | 1 Pc. |
| 24                   | .064                    | .075  | 10                  | 13          | 6          | 41             | 18      | 37 1/4  | 48         | 2 1/2 to 1       |  | 1 Pc. |
| 30                   | .079                    | .075  | 12                  | 16          | 8          | 51             | 18      | 52 1/4  | 60         | 2 1/2 to 1       |  | 1 Pc. |
| 36                   | .079                    | .105  | 14                  | 19          | 9          | 60             | 24      | 59 3/4  | 72         | 2 1/2 to 1       |  | 2 Pc. |
| 42                   | .109                    | .105  | 16                  | 22          | 11         | 69             | 24      | 75 5/8  | 84         | 2 1/2 to 1       |  | 2 Pc. |
| 48                   | .109                    | .105  | 18                  | 27          | 12         | 78             | 24      | 81      | 90         | 2 1/4 to 1       |  | 3 Pc. |
| 54                   | .109                    | .105  | 18                  | 30          | 12         | 84             | 30      | 85 1/2  | 102        | 2 1/4 to 1       |  | 3 Pc. |
| 60                   | .109x                   | .105x | 18                  | 33          | 12         | 87             | —       | —       | 114        | 2 to 1           |  | 3 Pc. |
| 66                   | .109x                   | .105x | 18                  | 36          | 12         | 87             | —       | —       | 120        | 2 to 1           |  | 3 Pc. |
| 72                   | .109x                   | .105x | 18                  | 39          | 12         | 87             | —       | —       | 126        | 2 to 1           |  | 3 Pc. |
| 78                   | .109x                   | .105x | 18                  | 42          | 12         | 87             | —       | —       | 132        | 1 1/2 to 1       |  | 3 Pc. |
| 84                   | .109x                   | .105x | 18                  | 45          | 12         | 87             | —       | —       | 138        | 1 1/2 to 1       |  | 3 Pc. |
| 90                   | .109x                   | .105x | 18                  | 37          | 12         | 87             | —       | —       | 144        | 1 1/2 to 1       |  | 3 Pc. |
| 96                   | .109x                   | .105x | 18                  | 35          | 12         | 87             | —       | —       | 150        | 1 1/2 to 1       |  | 3 Pc. |

\* EXCEPT CENTER PANEL  
SEE GENERAL NOTES



END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

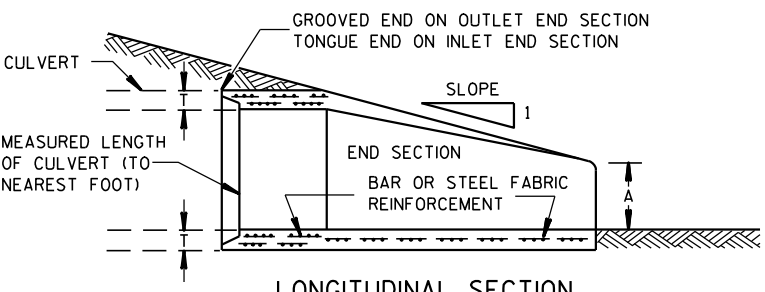
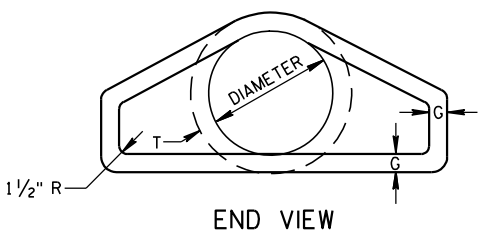
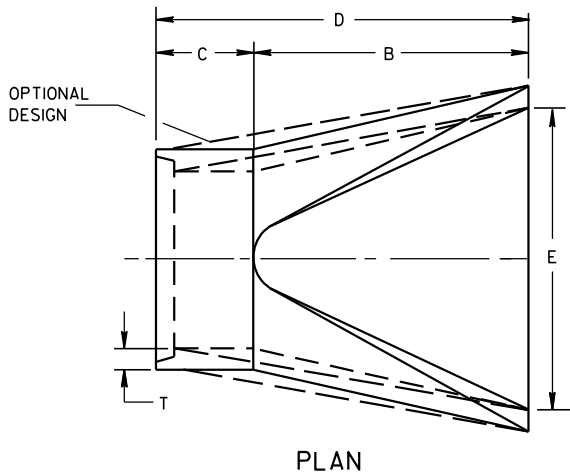
TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS



SIDE ELEVATION  
METAL ENDWALLS

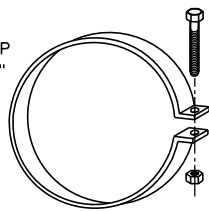
| REINFORCED CONCRETE APRON ENDWALLS |                     |        |        |        |         |     |       |                  |  |  |  |  |
|------------------------------------|---------------------|--------|--------|--------|---------|-----|-------|------------------|--|--|--|--|
| PIPE DIA.<br>(IN.)                 | DIMENSIONS (Inches) |        |        |        |         |     |       | APPROX.<br>SLOPE |  |  |  |  |
|                                    | T                   | A      | B      | C      | D       | E   | G     |                  |  |  |  |  |
| 12                                 | 2                   | 4      | 24     | 48 7/8 | 72 7/8  | 24  | 2     | 3 to 1           |  |  |  |  |
| 15                                 | 2 1/4               | 6      | 27     | 46     | 73      | 30  | 2 1/4 | 3 to 1           |  |  |  |  |
| 18                                 | 2 1/2               | 9      | 27     | 46     | 73      | 36  | 2 1/2 | 3 to 1           |  |  |  |  |
| 21                                 | 2 3/4               | 9      | 36     | 37 1/2 | 73 1/2  | 42  | 2 3/4 | 3 to 1           |  |  |  |  |
| 24                                 | 3                   | 9 1/2  | 43 1/2 | 30     | 73 1/2  | 48  | 3     | 3 to 1           |  |  |  |  |
| 27                                 | 3 1/4               | 10 1/2 | 49 1/2 | 24     | 73 1/2  | 54  | 3 1/4 | 3 to 1           |  |  |  |  |
| 30                                 | 3 1/2               | 12     | 54     | 19 3/4 | 73 1/2  | 60  | 3 1/2 | 3 to 1           |  |  |  |  |
| 36                                 | 4                   | 15     | 63     | 34 3/4 | 97 3/4  | 72  | 4     | 3 to 1           |  |  |  |  |
| 42                                 | 4 1/2               | 21     | 63     | 35     | 98      | 78  | 4 1/2 | 3 to 1           |  |  |  |  |
| 48                                 | 5                   | 24     | 72     | 26     | 98      | 84  | 5     | 3 to 1           |  |  |  |  |
| 54                                 | 5 1/2               | 27     | 65     | 33 1/4 | 98 1/4  | 90  | 5 1/2 | 2 2/5 to 1       |  |  |  |  |
| 60                                 | 6                   | 30-35  | 60     | 39     | 99      | 96  | 5     | 2 to 1           |  |  |  |  |
| 66                                 | 6 1/2               | 24-30  | 72-78  | 21-27  | 99      | 102 | 5 1/2 | 2 to 1           |  |  |  |  |
| 72                                 | 7                   | 24-36  | 78     | 21     | 99      | 108 | 6     | 2 to 1           |  |  |  |  |
| 78                                 | 7 1/2               | 24-36  | 78     | 21     | 99      | 114 | 6 1/2 | 2 to 1           |  |  |  |  |
| 84                                 | 8                   | 36     | 90 1/2 | 21     | 111 1/2 | 120 | 6 1/2 | 1 1/2 to 1       |  |  |  |  |
| 90                                 | 8 1/2               | 41     | 87 1/2 | 24     | 111 1/2 | 132 | 6 1/2 | 1 1/2 to 1       |  |  |  |  |

\* MINIMUM  
\*\* MAXIMUM

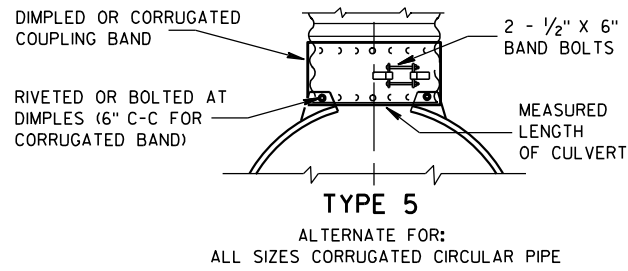
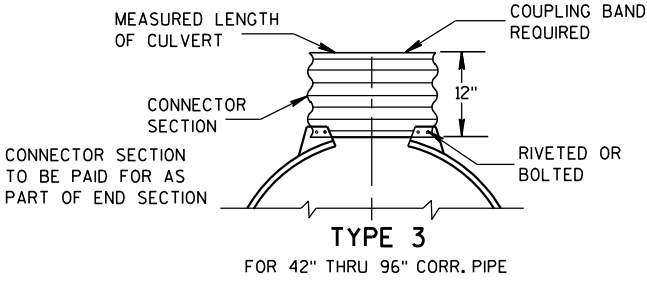
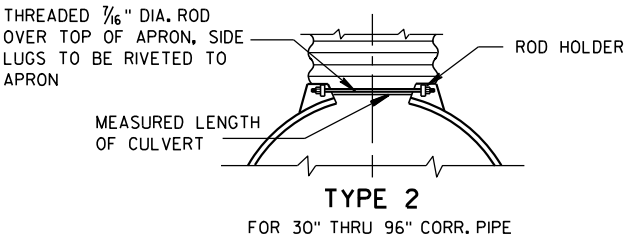
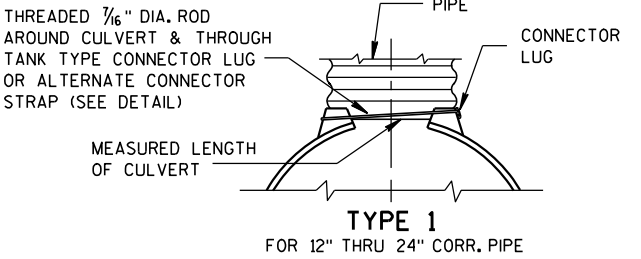


LONGITUDINAL SECTION  
CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION  
END SECTION CONNECTOR STRAP



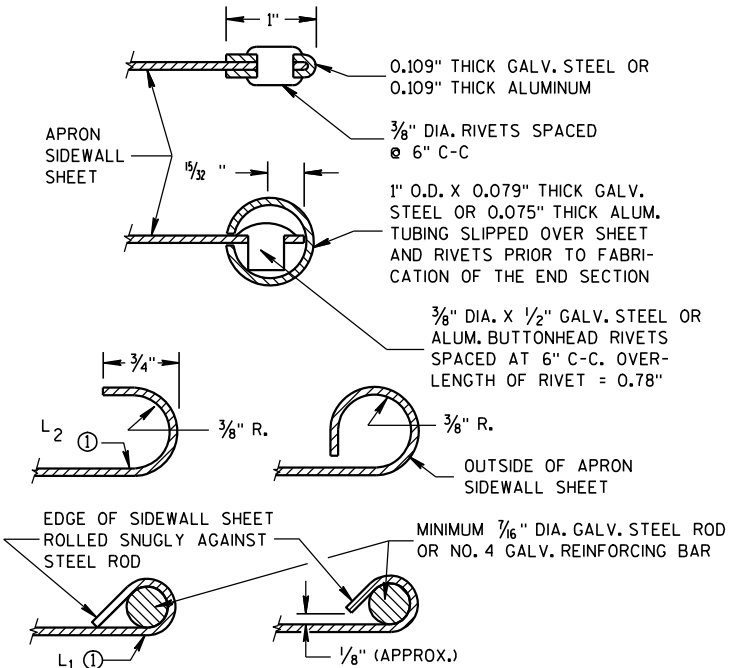
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

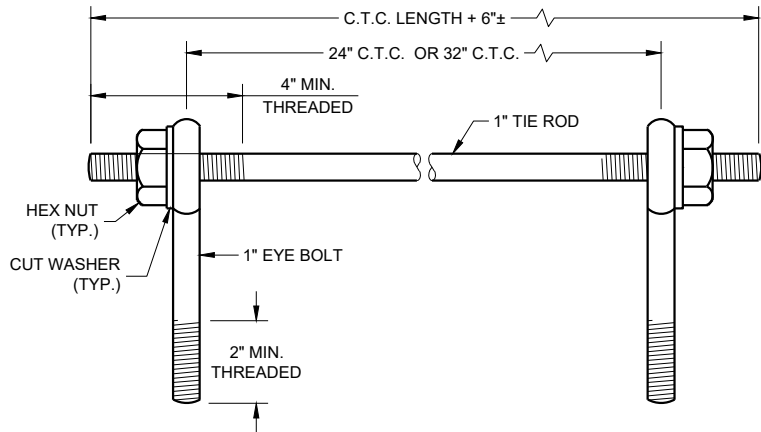
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

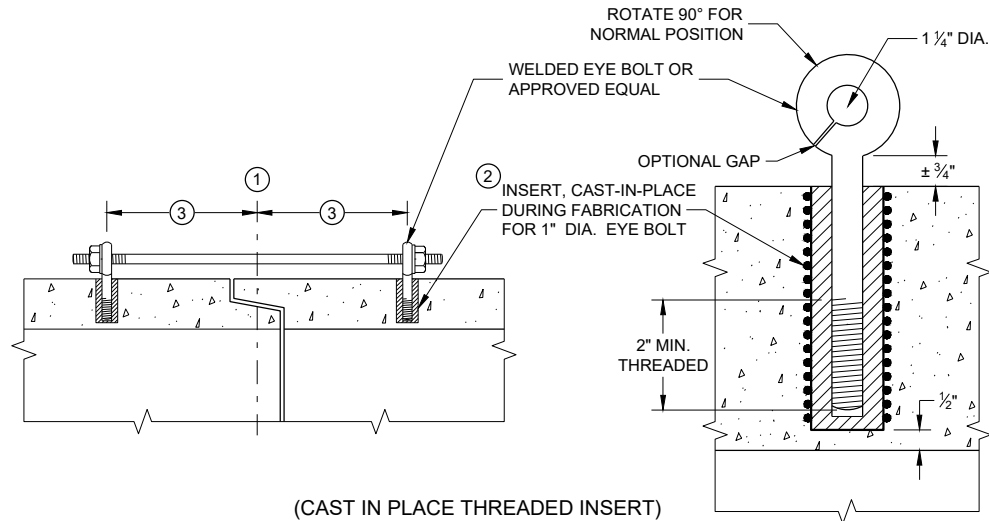
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

| APRON ENDWALLS FOR CULVERT PIPE                    |          |                           |      |
|----------------------------------------------------|----------|---------------------------|------|
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |          |                           |      |
| APPROVED                                           | 11/30/94 | /S/ Rory L. Rhinehart     | NEER |
|                                                    | DATE     | CHIEF ROADWAY DEVELOP 232 |      |
| FHWA                                               |          |                           |      |



Eye Bolts and Tie Rod

Eye Bolt and Tie Rod Assembly (Alternate No. 1)



(Cast in Place Threaded Insert)

Longitudinal Sections

## GENERAL NOTES

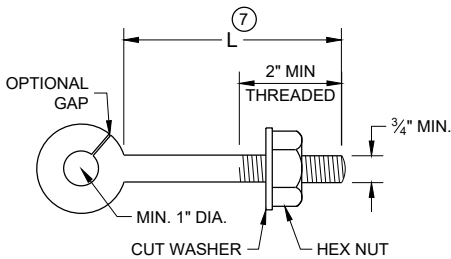
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

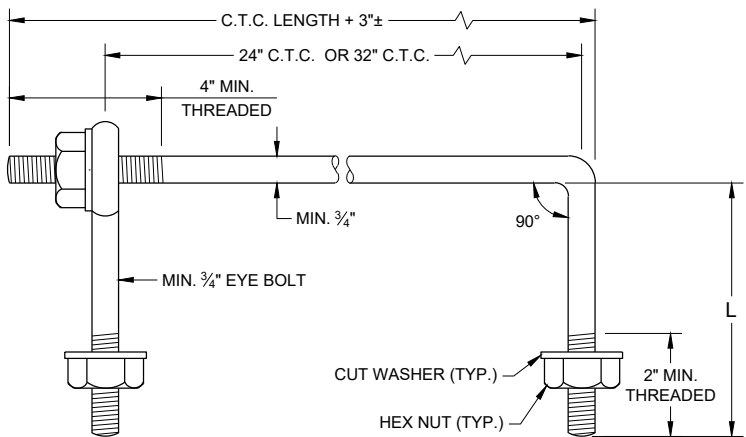
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- 1 CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- 2 THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- 3 HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- 4 BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- 5 OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- 6 LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- 7 EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

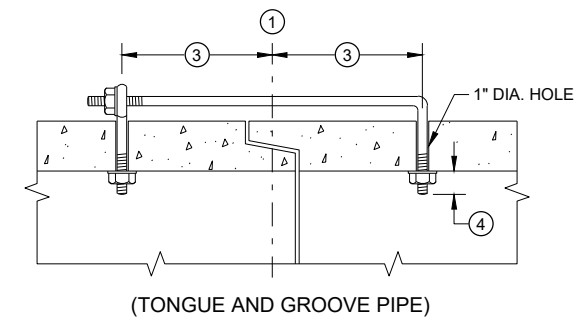


Eye Bolt

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



Eye Bolt and Tie Rod

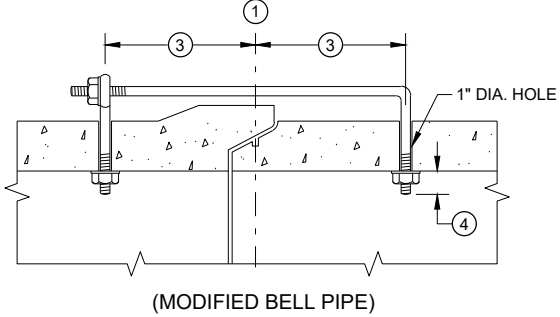


(Tongue and Groove Pipe)

Longitudinal Section

(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

Eye Bolt and Tie Rod Assembly (Alternate No. 2)

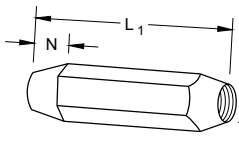


(Modified Bell Pipe)

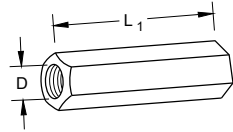
Adjustable Tie Rod Table

| PIPE DIAMETER | TIE ROD DIAMETER | D   | L <sub>1</sub> | N      |
|---------------|------------------|-----|----------------|--------|
| 12 - 60       | 5/8              | 5/8 | 5              | 1/2    |
| 66 - 84       | 3/4              | 3/4 | 5              | 1/2    |
| 90 - 144      | 1                | 1   | 7              | 1 1/16 |

DIMENSIONS SHOWN ARE IN INCHES

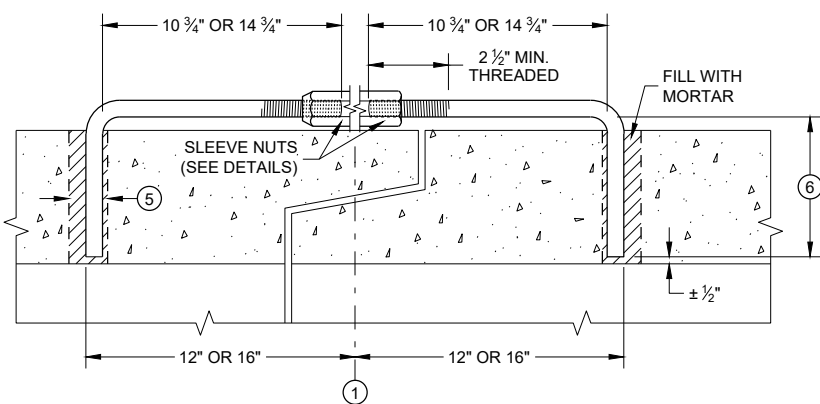


Tapered



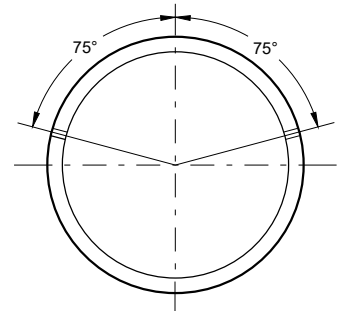
Plain

Right and Left Threads  
Sleeve Nuts



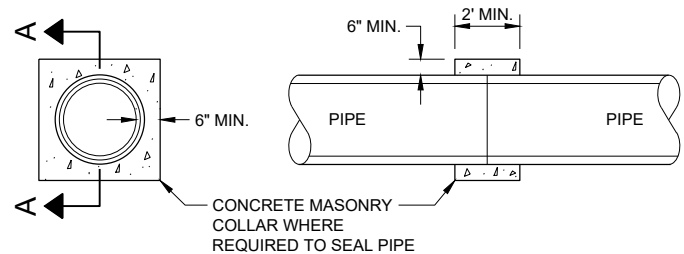
Longitudinal Section

Adjustable Tie Rod (Alternate No. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

Transverse Section



Section A - A

Concrete Collar Detail

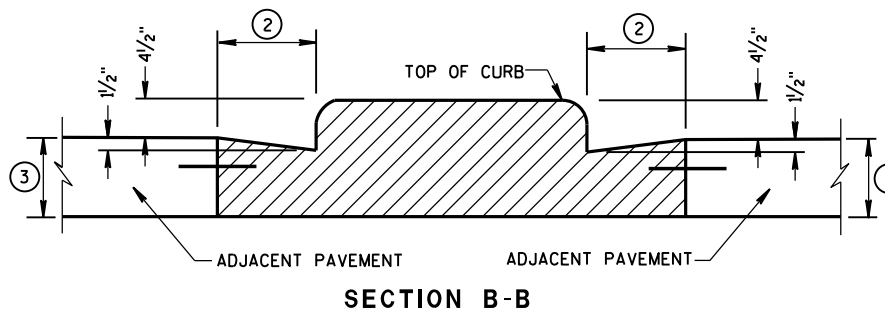
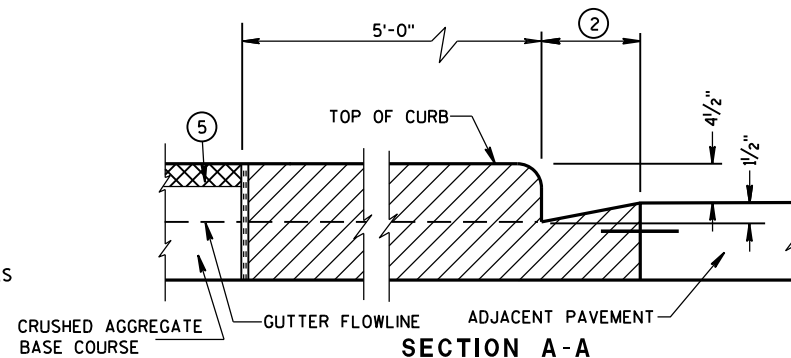
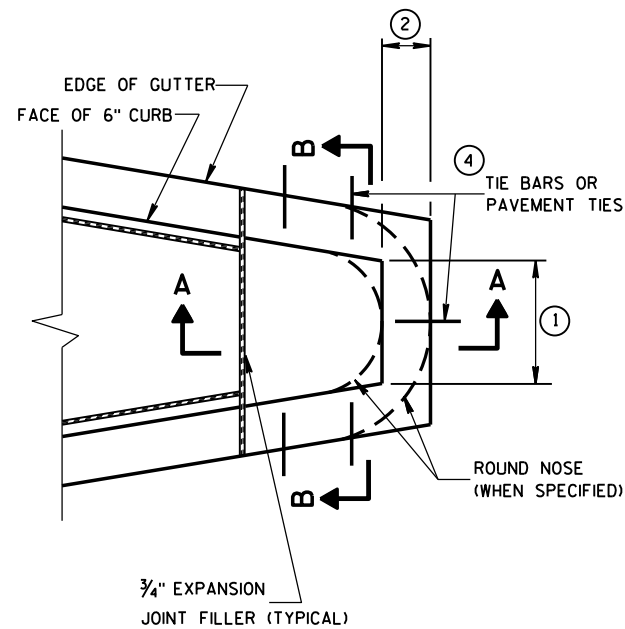
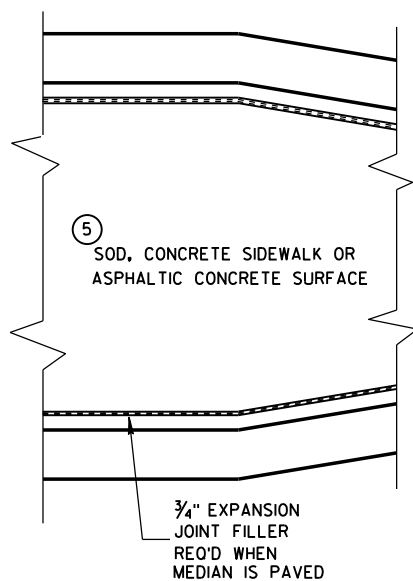
## JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

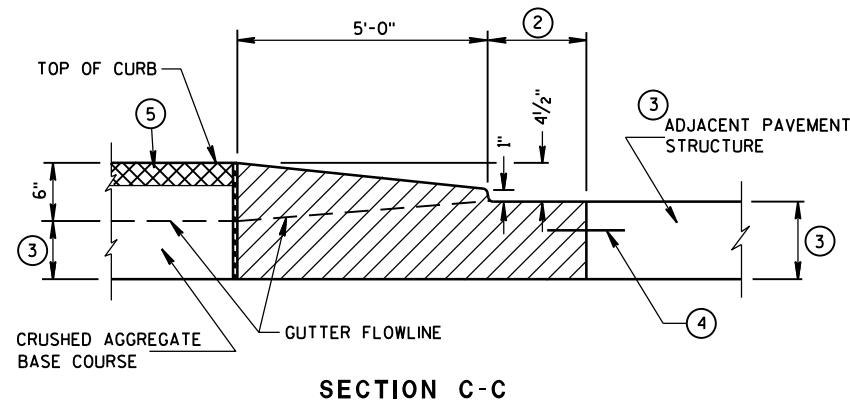
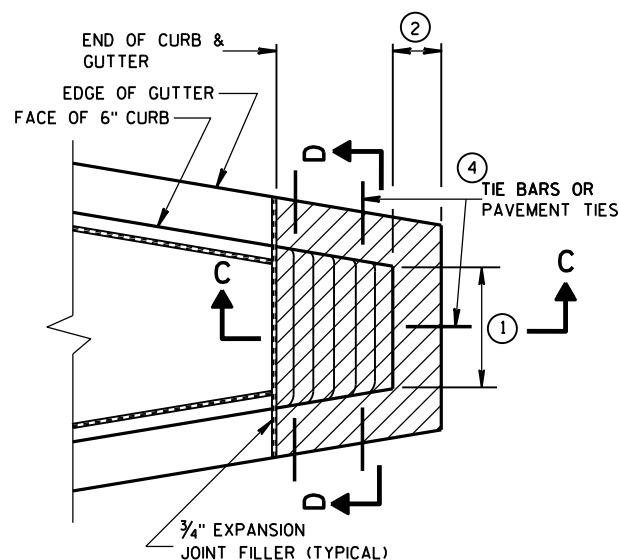
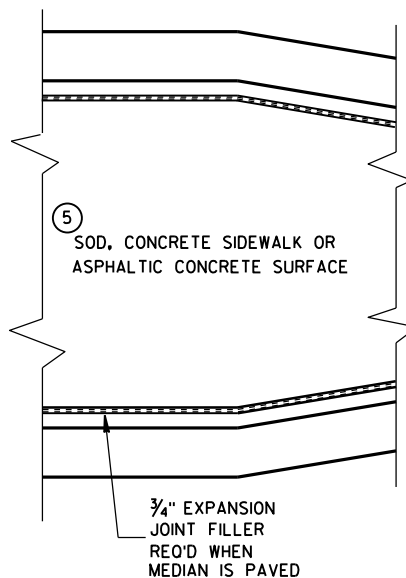
APPROVED  
November 2021  
DATE  
/S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT ENGINEER  
233

FHWA

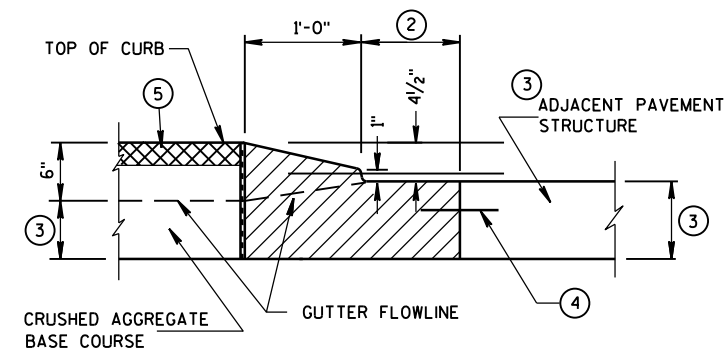
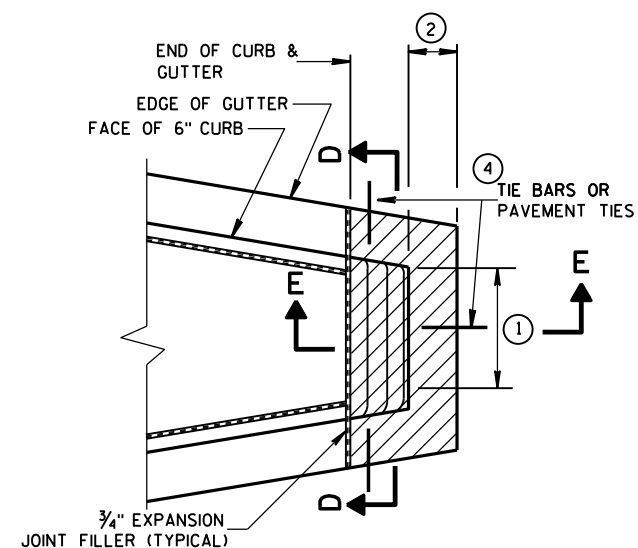




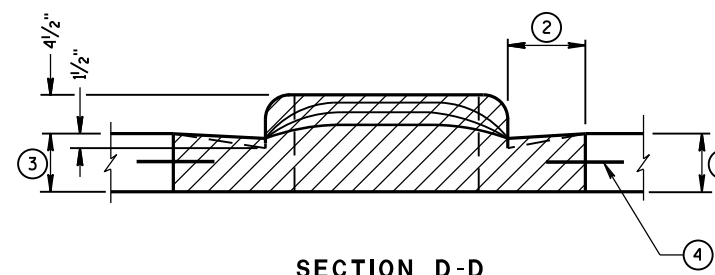
CONCRETE MEDIAN BLUNT NOSE DETAIL



CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN SLOPED NOSE TYPE 2



## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).
- ② WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.
- ③ DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:
  - (1) NEW OR EXISTING CONCRETE PAVEMENT.
  - (2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.
  - (3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

- ④ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

- ⑤ SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

CONCRETE MEDIAN NOSE

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APPROVED

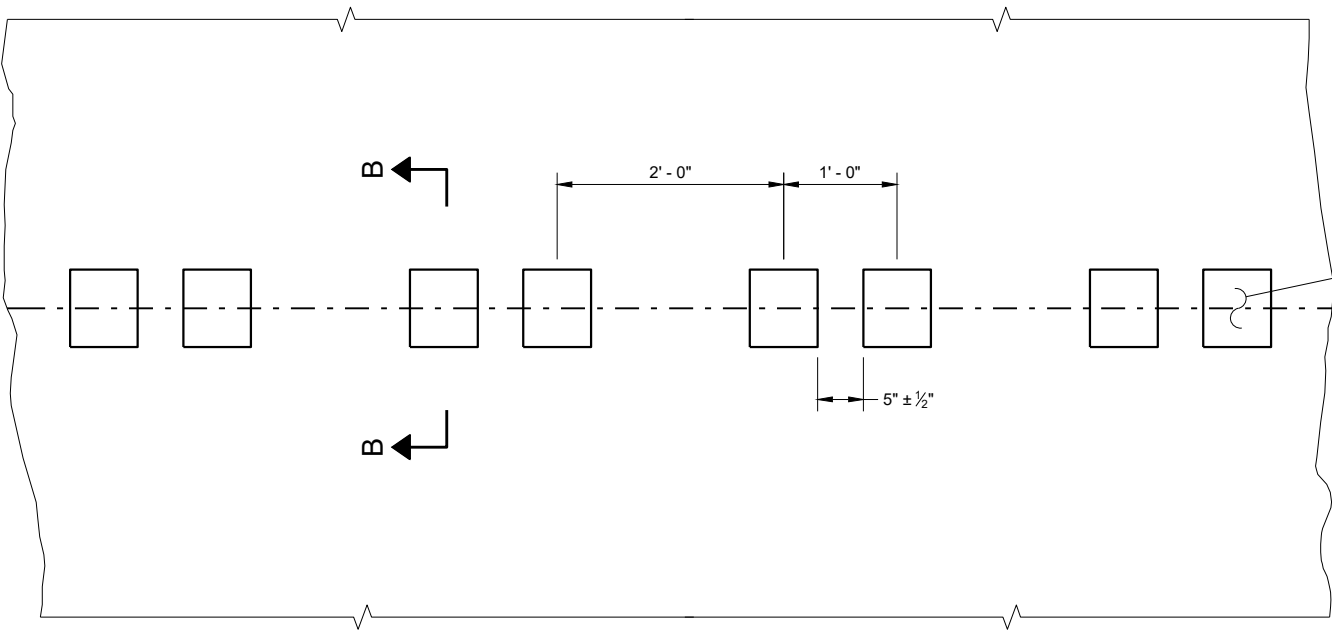
6/8/2006

DATE

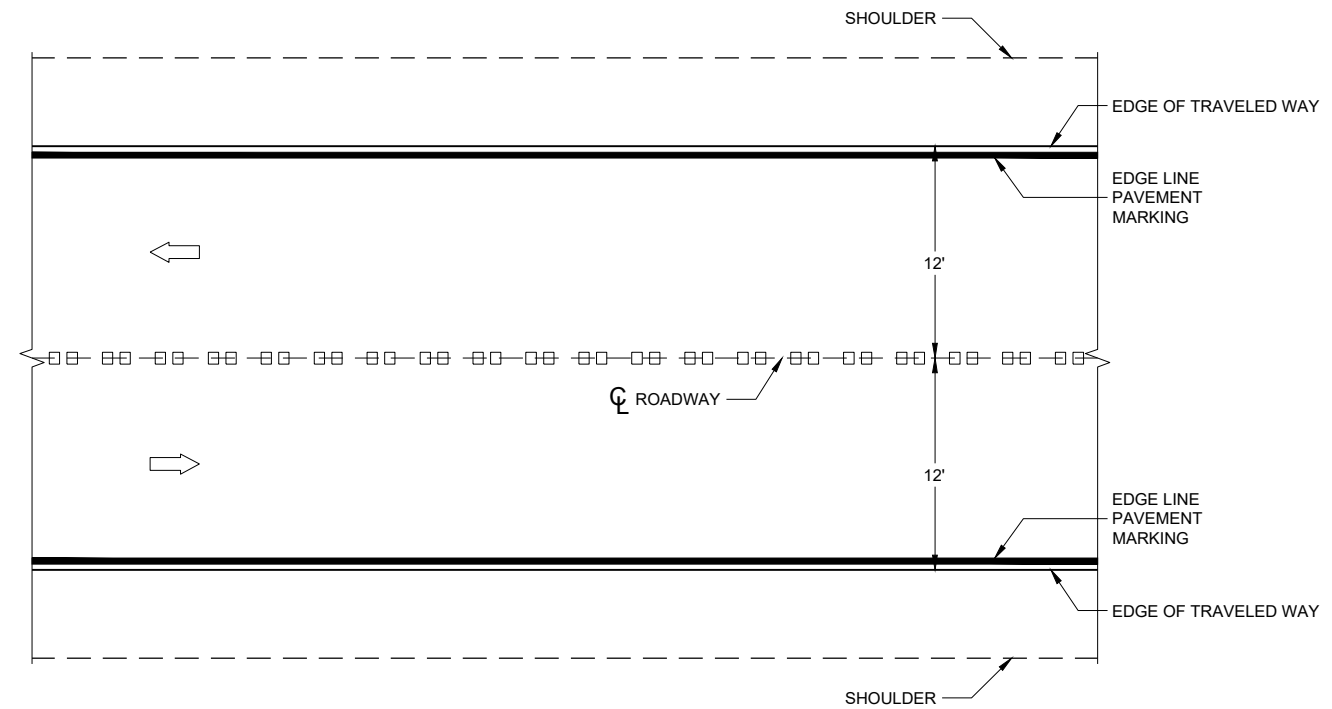
FHWA

/S/ Jerry H. Zogg  
ROADWAY STANDARDS D 234  
ENGINEER

4T

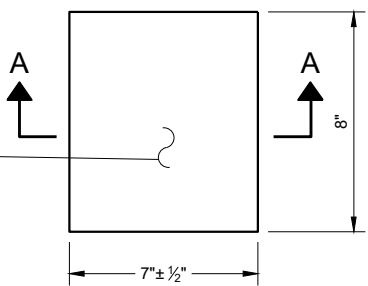


PLAN DETAIL VIEW

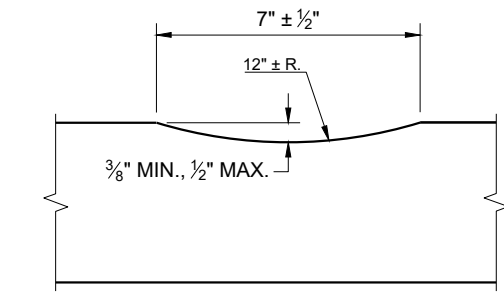


PLAN VIEW

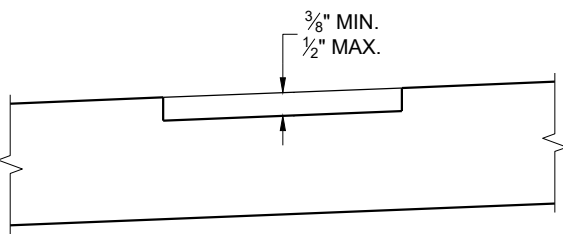
CENTERLINE RUMBLE STRIPS - ASPHALT



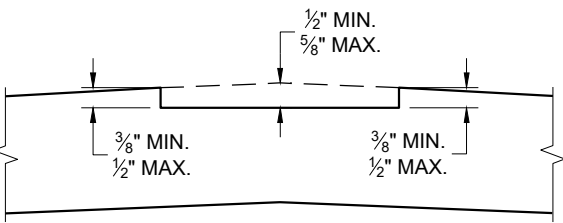
PLAN VIEW  
(SINGLE GROOVE)



SECTION A - A



SECTION B - B  
SUPERELEVATED ROADWAY

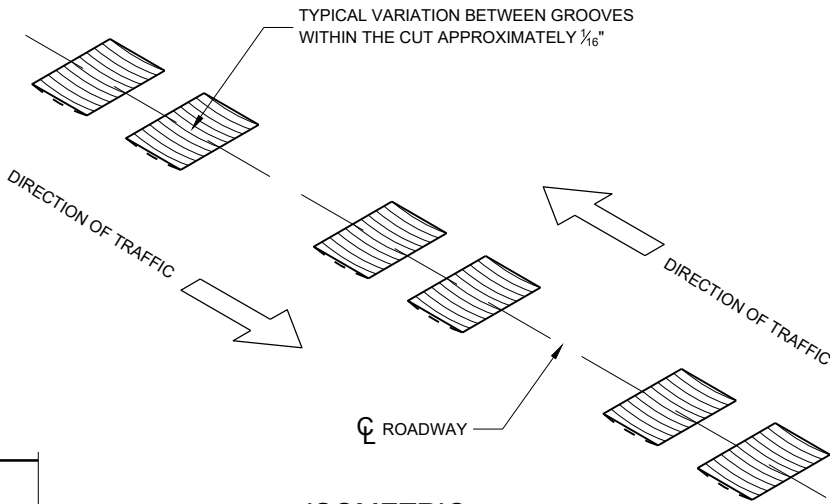


SECTION B - B  
CROWNED ROADWAY

GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

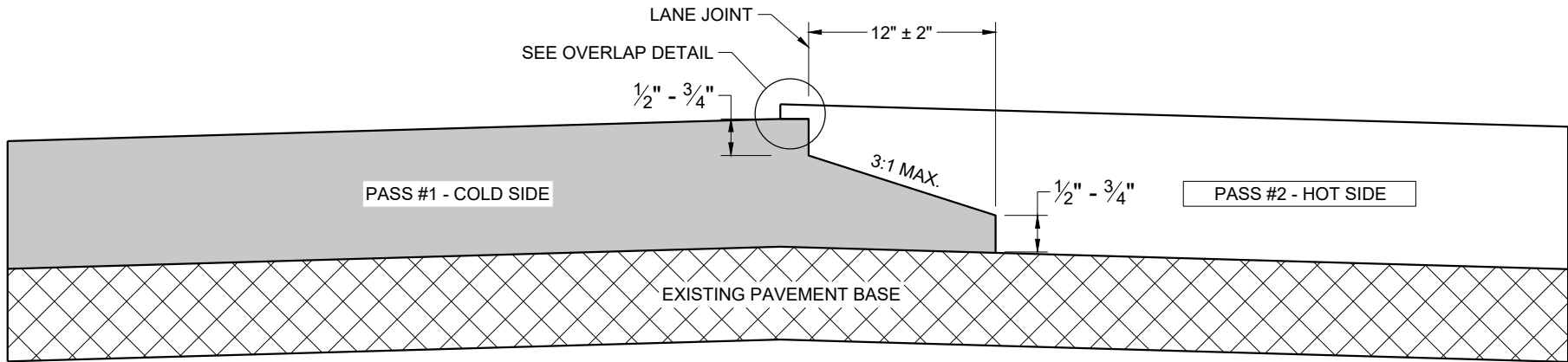
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



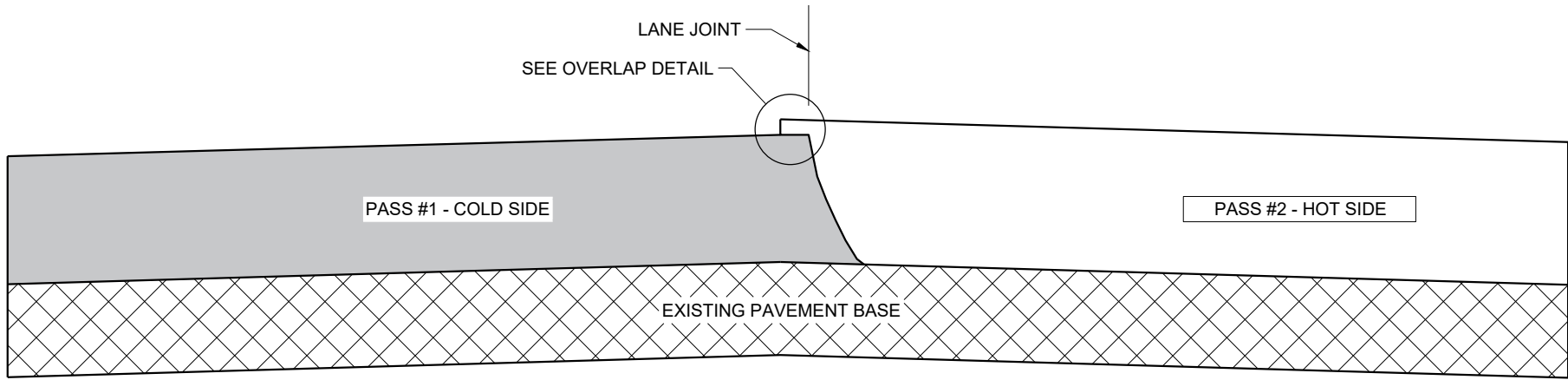
ISOMETRIC

CENTERLINE RUMBLE  
STRIPS - ASPHALT

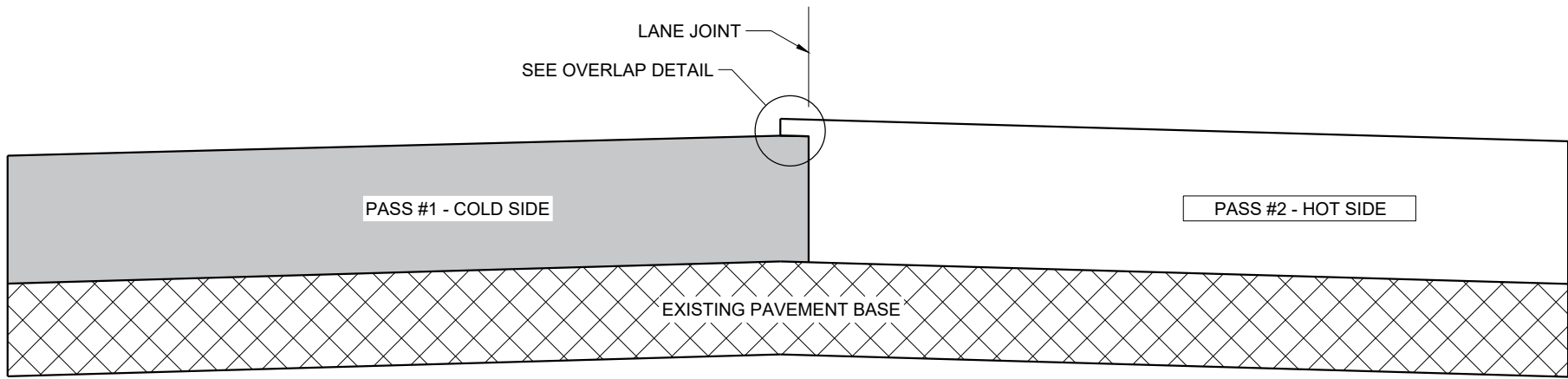
STATE OF WISCONSIN  
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**TYPICAL PAVEMENT CROSS SECTION  
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION  
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION  
VERTICAL JOINT (MILLED)**

**GENERAL NOTES**

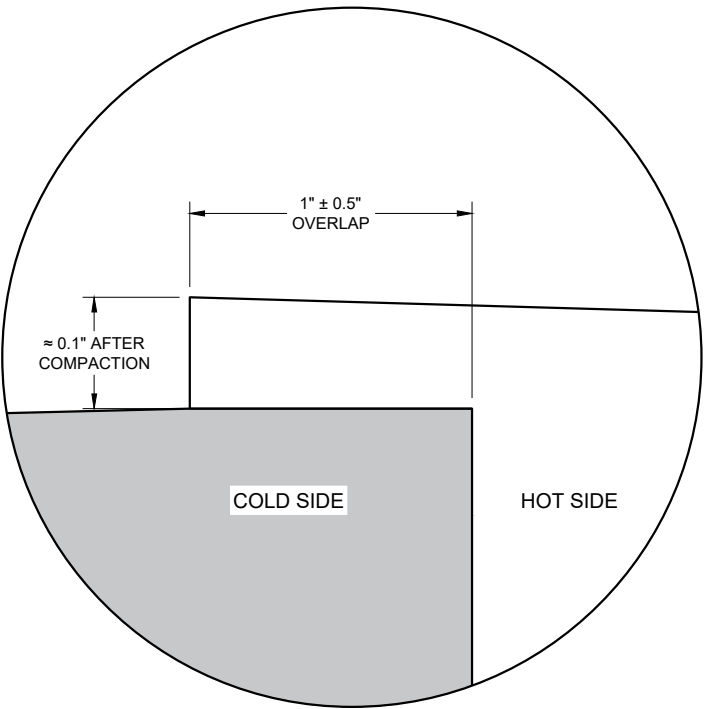
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.

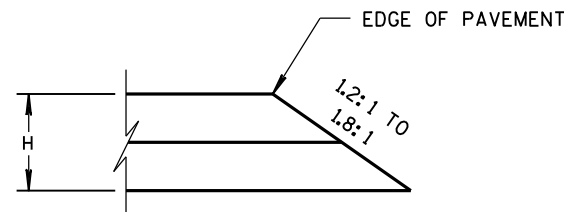


**OVERLAP DETAIL (TYPICAL)**

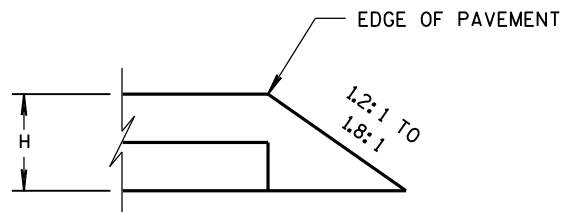
**HMA LONGITUDINAL JOINTS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

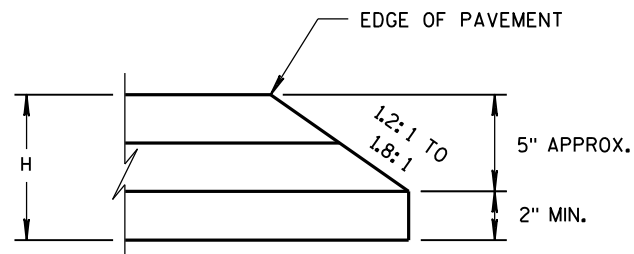
APPROVED  
November 2020 /S/ Steven Hefel  
DATE HMA PAVEMENT ENGIN 236  
FHWA



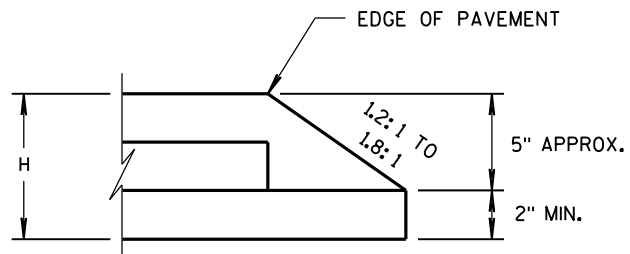
CONSTRUCTED WITH FINAL TWO LAYERS  
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER  
FOR H 5" OR LESS

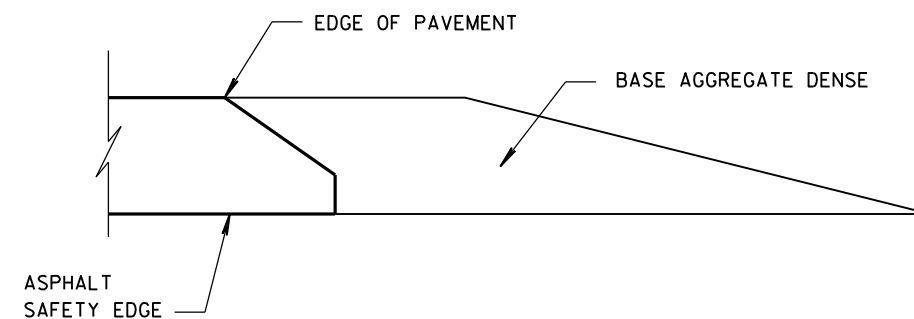


CONSTRUCTED WITH FINAL TWO LAYERS  
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER  
FOR H GREATER THAN 5"

## HMA PAVEMENT AND HMA OVERLAYS



## FINISHED SHOULDER AGGREGATE PLACEMENT

SAFETY EDGE<sub>SM</sub>

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE  
11/30/2012  
FHWA

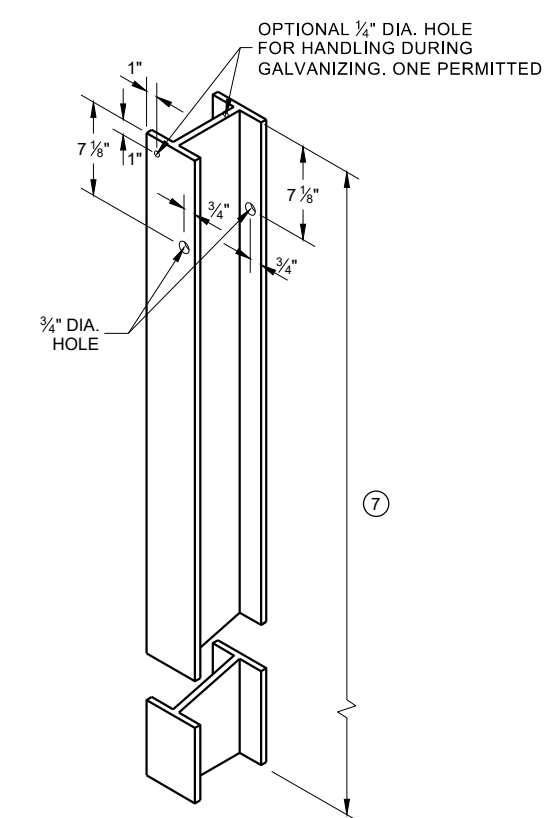
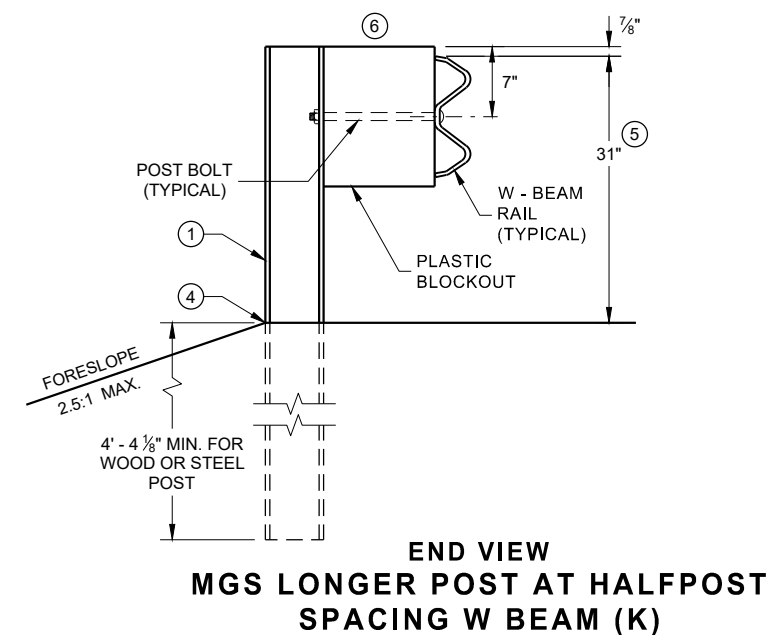
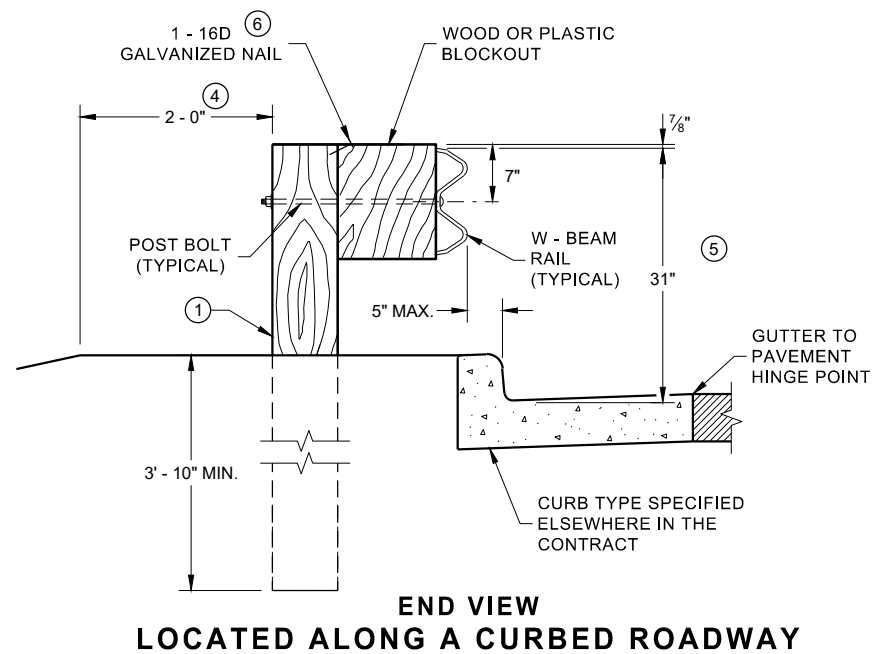
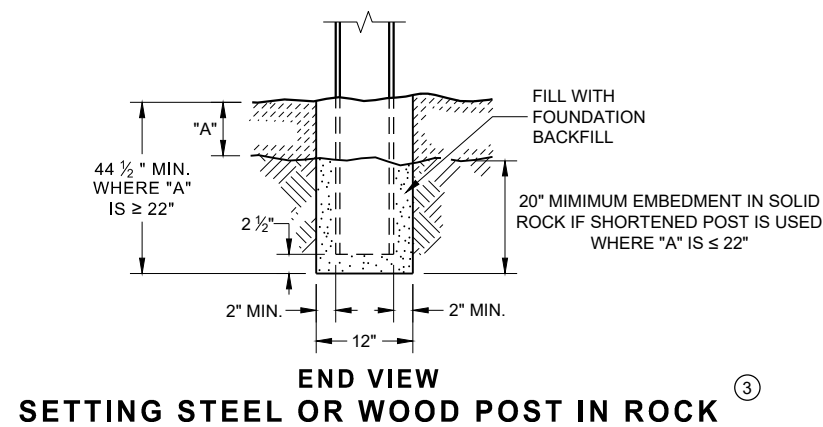
/s/ Jerry H. Zoga  
ROADWAY STANDARDS  
ENGINEER

237

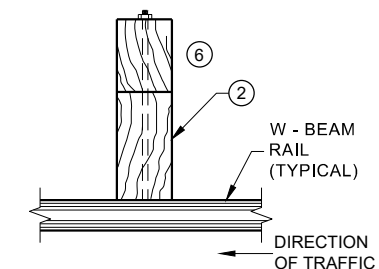
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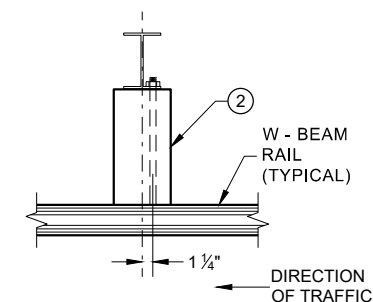
- WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS  $\pm 1"$ . FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" TO 32".
- WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- TOTAL POST LENGTH FOR TYPE K IS 7' - 0".  
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



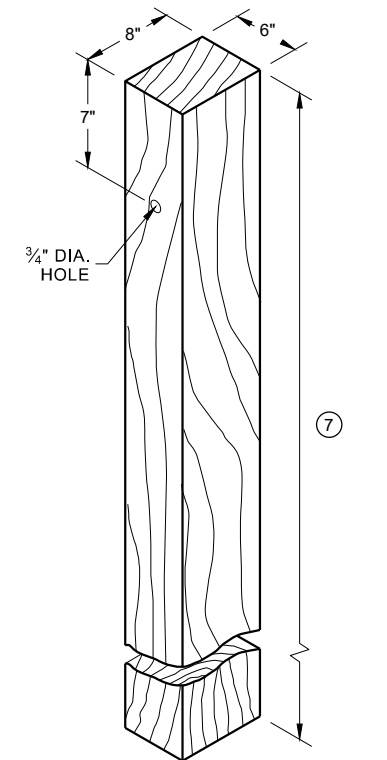
**STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9)**



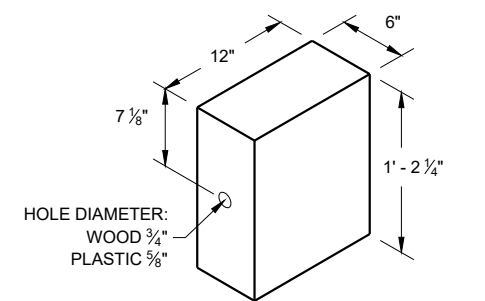
**PLAN VIEW WOOD POST, BLOCKOUT & BEAM**



**PLAN VIEW STEEL POST, PLASTIC BLOCKOUT & BEAM**



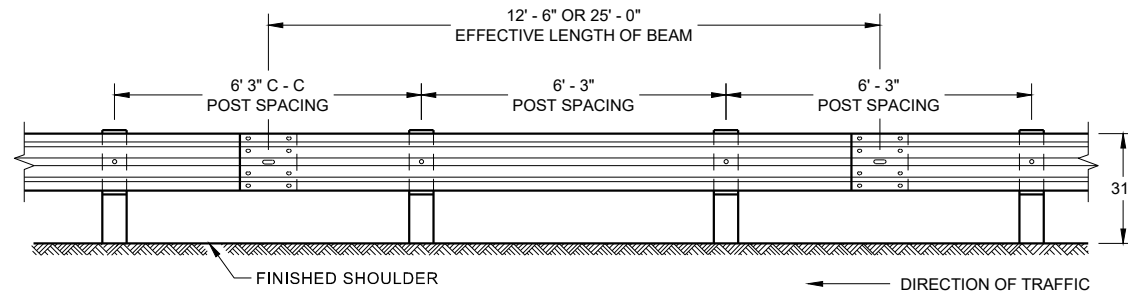
**WOOD POST (6" X 8") NOMINAL**



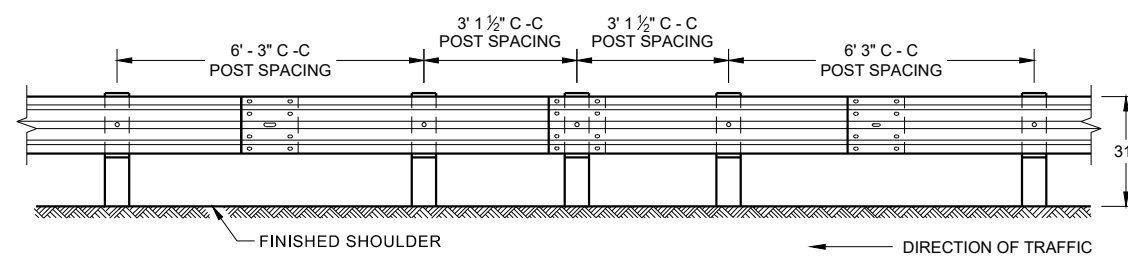
**WOOD OR PLASTIC BLOCKOUT**

**MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL**

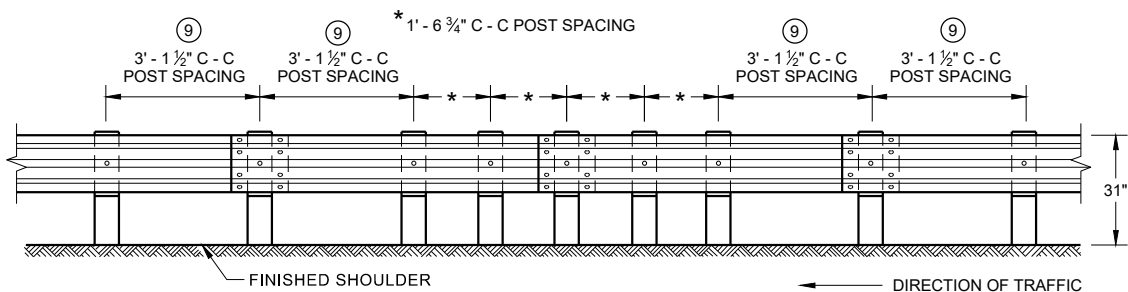
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



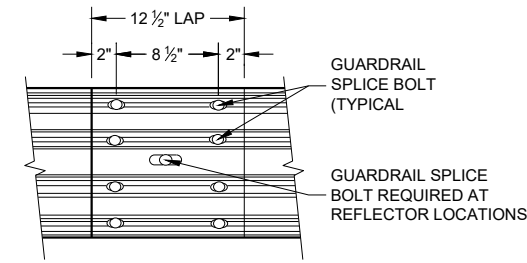
**FRONT VIEW  
POST SPACING STANDARD INSTALLATION**



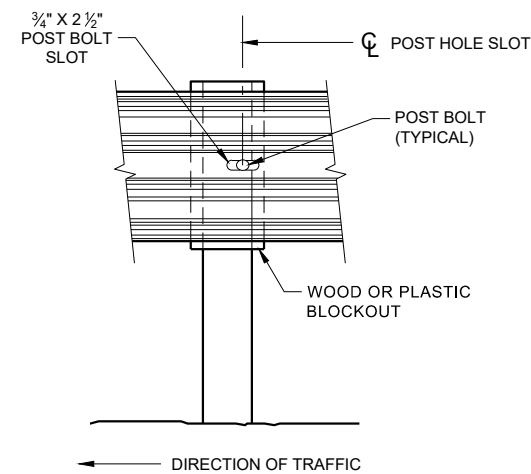
**FRONT VIEW  
HALF POST SPACING (HS) AND  
HALF POST SPACING WITH LONGER POSTS (K)**



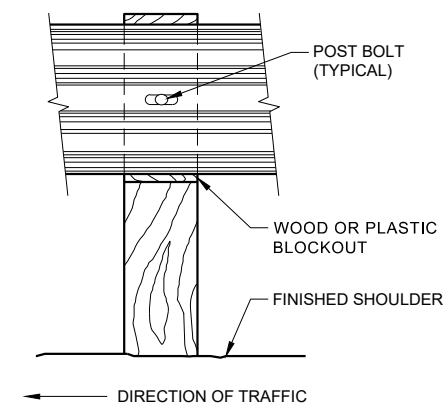
**FRONT VIEW  
QUARTER POST SPACING (QS)**



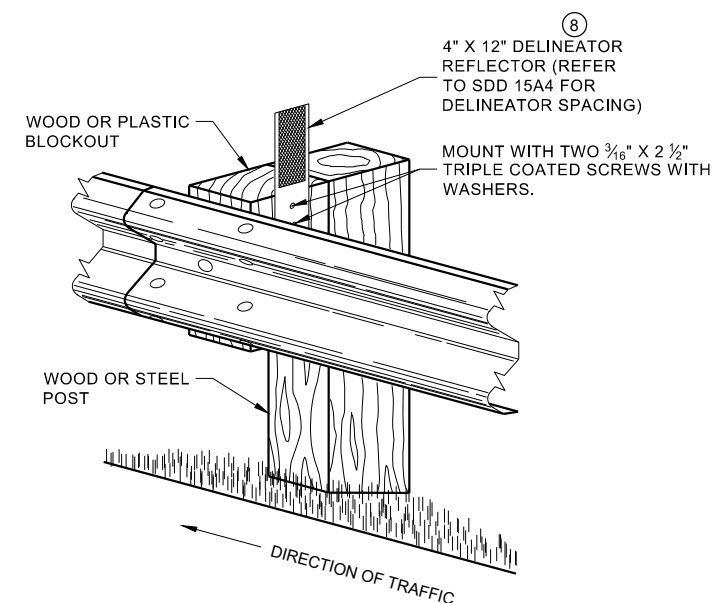
**FRONT VIEW  
MID-SPAN BEAM SPLICE**



**FRONT VIEW AT STEEL POST**



**FRONT VIEW AT WOOD POST**



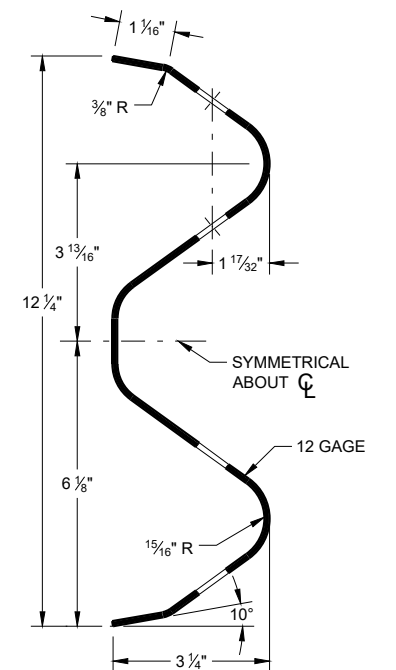
**ONE SIDED REFLECTOR DETAIL  
AND TYPICAL INSTALLATION**

## GENERAL NOTES

- 8 DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- 9 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

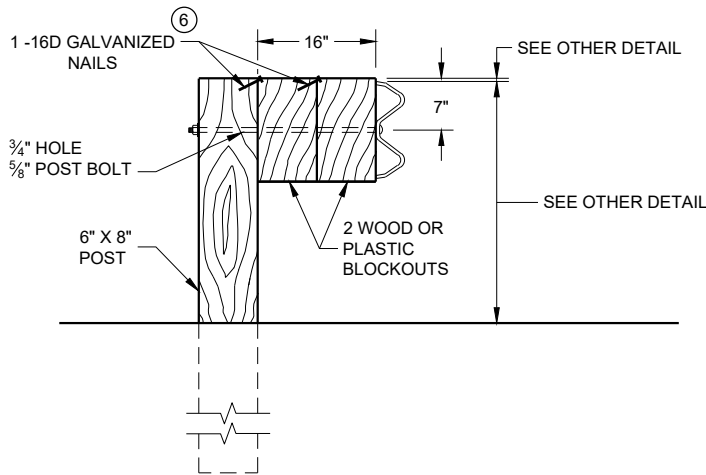
GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



**SECTION THRU W-BEAM RAIL**

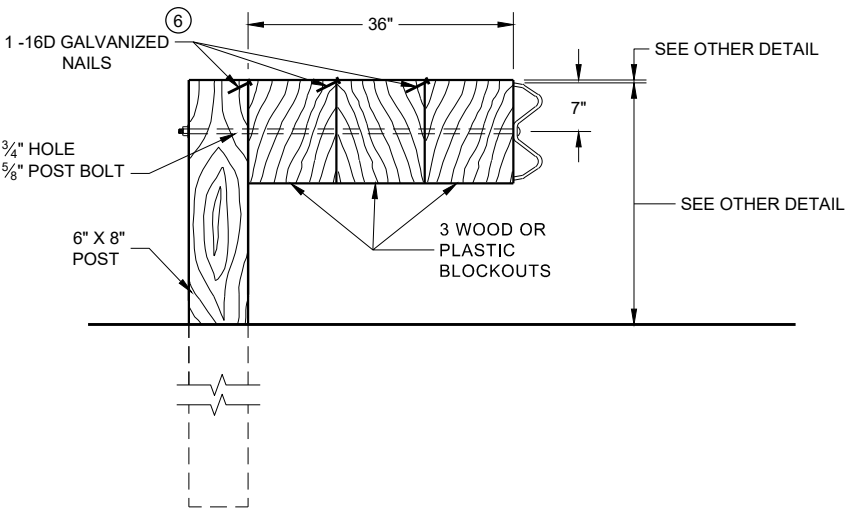
**MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

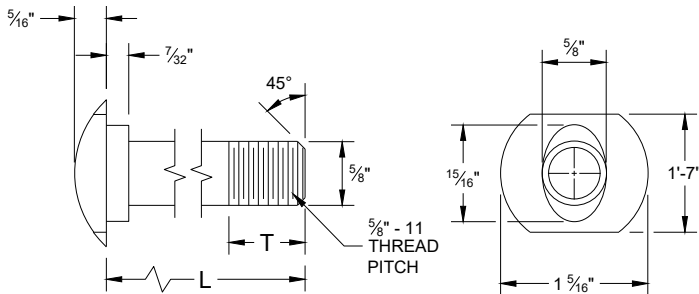
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



DETAIL FOR 36" BLOCKOUT DEPTH

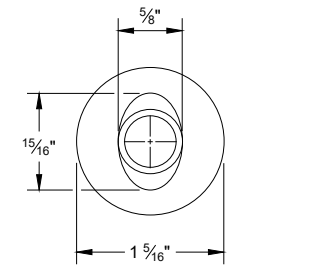
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.  
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

- NOTE:
- 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
  - 2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

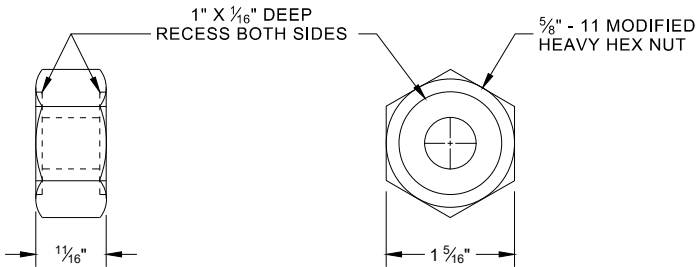


POST BOLT TABLE

| L      | T (MIN.) |
|--------|----------|
| 1 1/4" | 1 1/8"   |
| 2"     | 1 3/4"   |
| 10"    | 4"       |
| 14"    | 4 1/16"  |
| 18"    | 4"       |
| 21"    | 4 1/16"  |
| 25"    | 4"       |

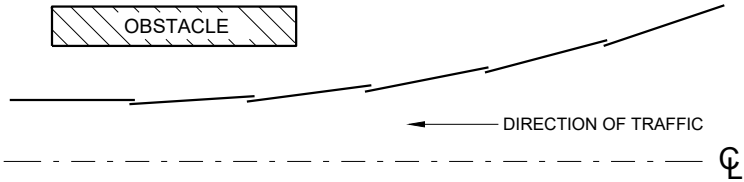


ALTERNATE BOLT HEAD

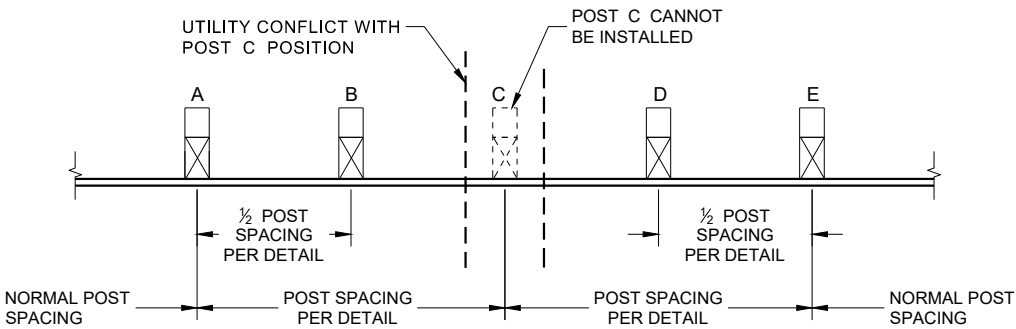


POST BOLT, SPLICE BOLT AND RECESS NUT

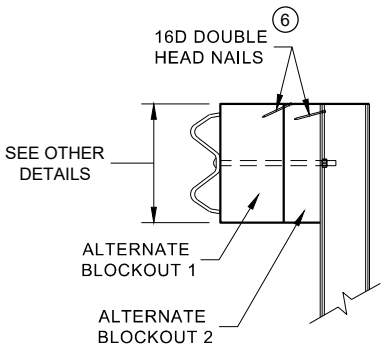
- 6 WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



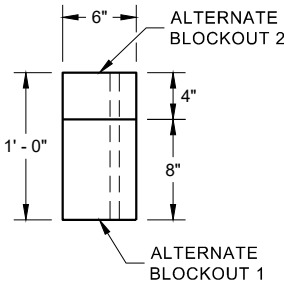
PLAN VIEW  
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS  
UNDERGROUND OBSTRUCTION



SIDE VIEW

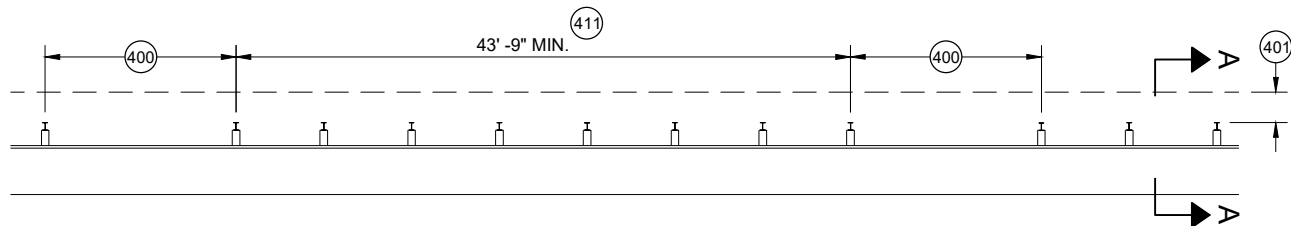


PLAN VIEW

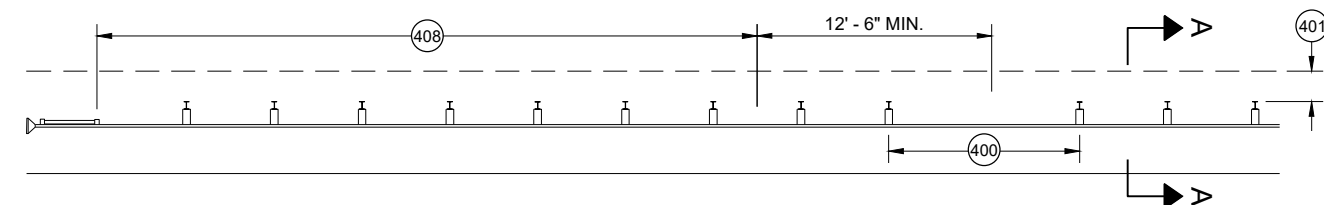
ALTERNATE WOOD  
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL

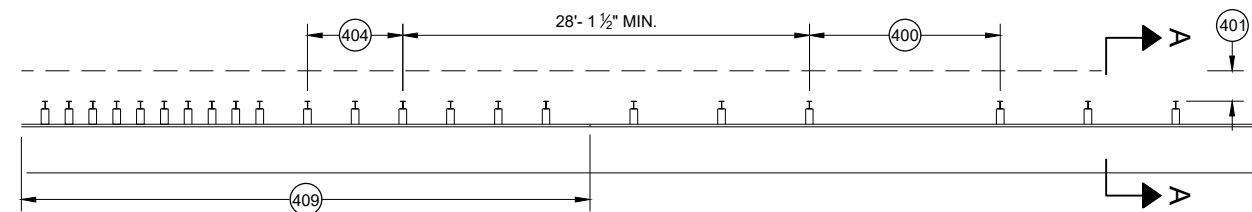
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 240



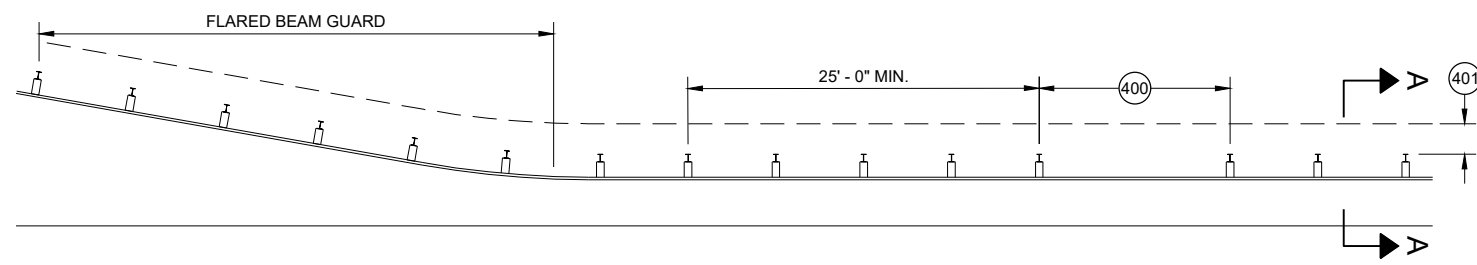
**MISSING POST IN MGS GUARDRAIL**



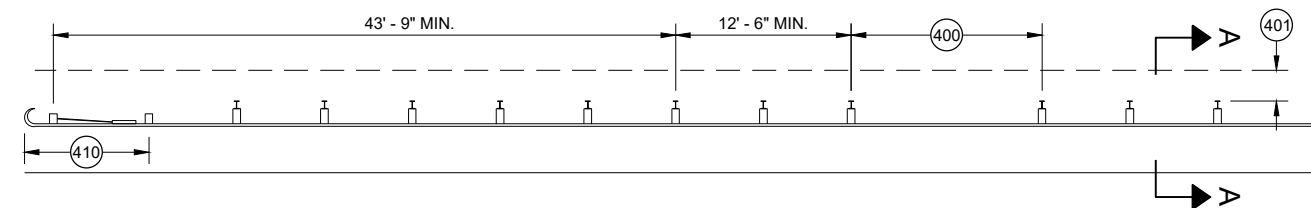
**MISSING POST IN MGS GUARDRAIL NEAR EAT**



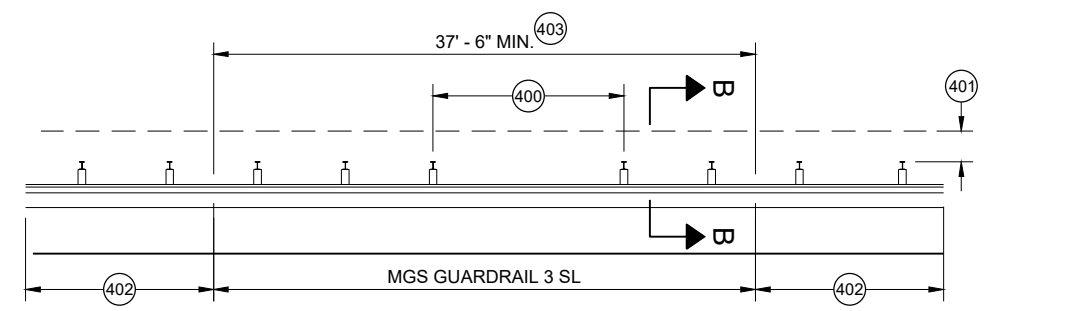
**MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION**



**MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD**

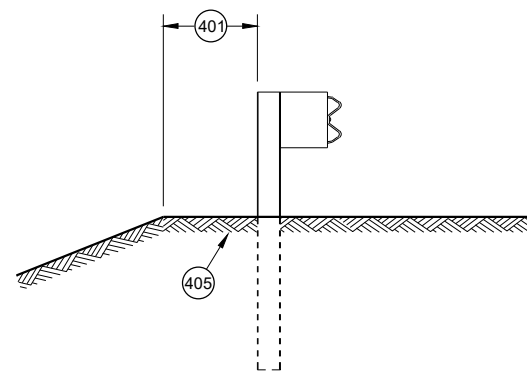


**MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL**

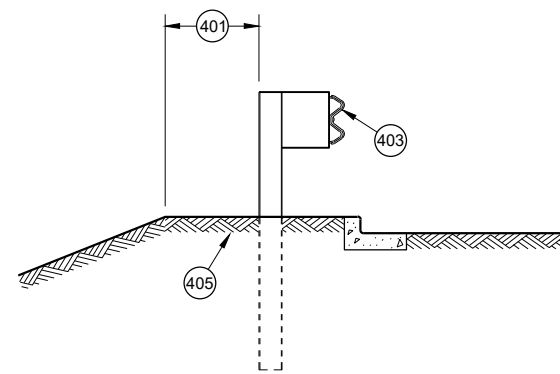


**MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)**

- (400) MAX SPAN 12' - 6"
- (401) 2' MIN.
- (402) MGS GUARDRAIL 3
- (403) NESTING BEAM GUARD
- (404) ASYMMETRIC TRANSITION
- (405) SOIL WELL DRAINED AND COMPACTED
- (406) SEE OTHER DRAWINGS IN THIS SDD
- (407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
- (408) SEE SDD 14B44
- (409) SEE SDD 14B45
- (410) SEE SDD 14B47
- (411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



**SECTION A - A**



**SECTION B - B**

**MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2021  
DATE  
/S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR

FHWA



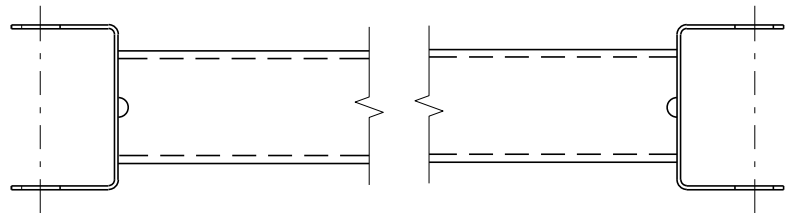
- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED
- (C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.
- (D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.
- (E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

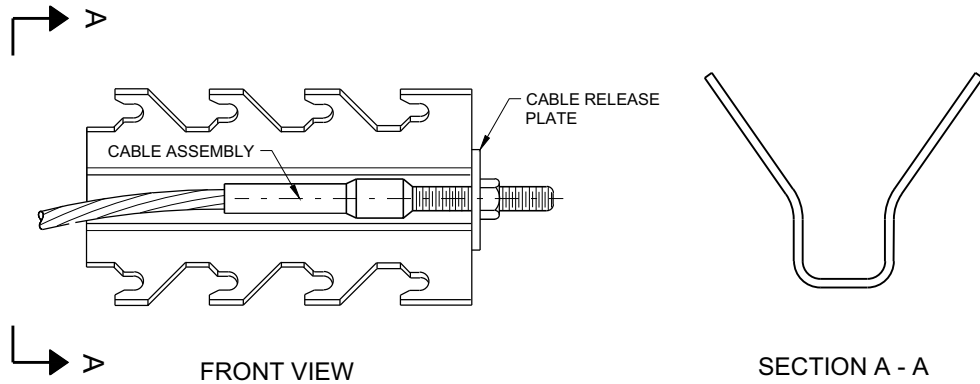


STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 242

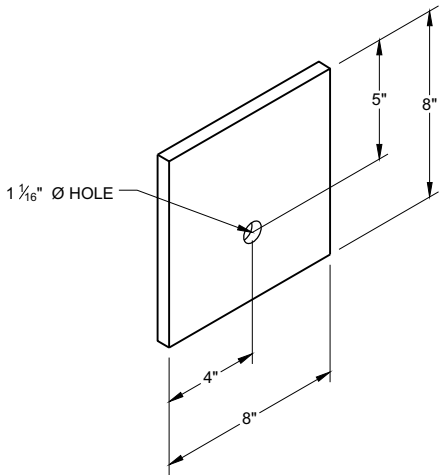


GENERIC GROUND STRUT<sup>9</sup> <sup>E</sup>

| BILL OF MATERIALS |                                                                                                                |
|-------------------|----------------------------------------------------------------------------------------------------------------|
| PART NO.          | DESCRIPTION<br>MATERIALS PROVIDED BY MGS EAT MANUFACTURER.<br>SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION. |
| ①                 | UPPER POST NO. 1 6" X 6" TUBE                                                                                  |
| ②                 | LOWER POST NO. 1                                                                                               |
| ③                 | WOOD CRT                                                                                                       |
| ④                 | WOOD BLOCKOUT                                                                                                  |
| ⑤                 | PIPE SLEEVE                                                                                                    |
| ⑥                 | BEARING PLATE                                                                                                  |
| ⑦                 | BCT CABLE ASSEMBLY                                                                                             |
| ⑧                 | ANCHOR CABLE BOX                                                                                               |
| ⑨                 | GROUND STRUT                                                                                                   |
| ⑩                 | PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.                                                                 |
| ⑪                 | STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED.<br>SECTIONS VARY IN LENGTH.                                  |
| ⑫                 | IMPACT HEAD                                                                                                    |
| ⑬                 | EAT MARKER POST - YELLOW<br>(SEE APPROVED PRODUCTS LIST)                                                       |
| ⑭                 | SOIL PLATE                                                                                                     |
| ⑮                 | UPPER POST NO. 2                                                                                               |
| ⑯                 | LOWER POST NO. 2                                                                                               |



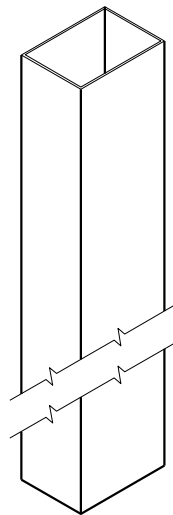
GENERIC ANCHOR CABLE BOX<sup>9</sup> <sup>E</sup>



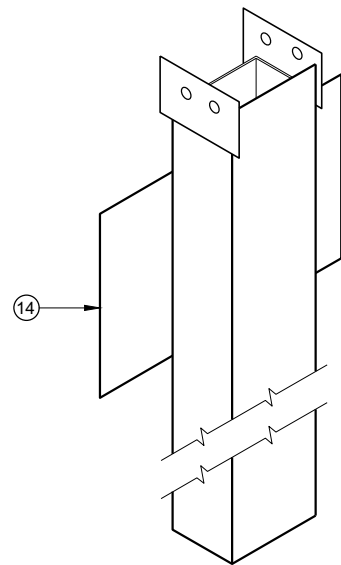
BEARING PLATE<sup>6</sup> <sup>E</sup>

MIDWEST GUARDRAIL SYSTEM  
ENERGY ABSORBING TERMINAL  
(MGS)

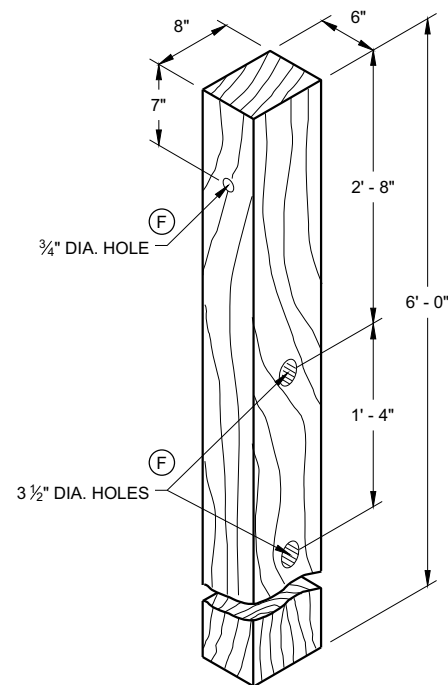
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 243



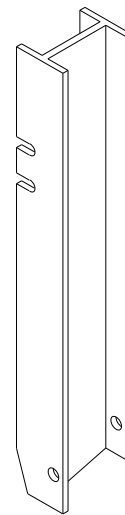
UPPER POST NO. 1 <sup>(1)</sup> (E)



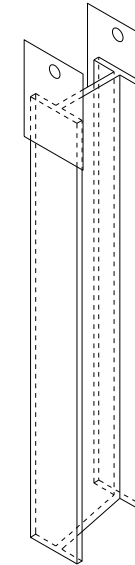
LOWER POST NO. 1 <sup>(2)</sup> (E)



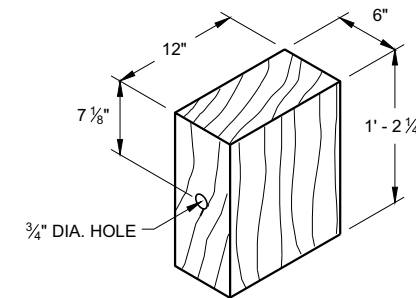
WOOD CRT POST <sup>(3)</sup> (E)  
POSTS NUMBER 3-9



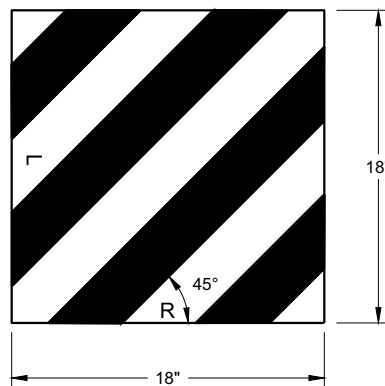
UPPER POST NO. 2 <sup>(15)</sup> (E)



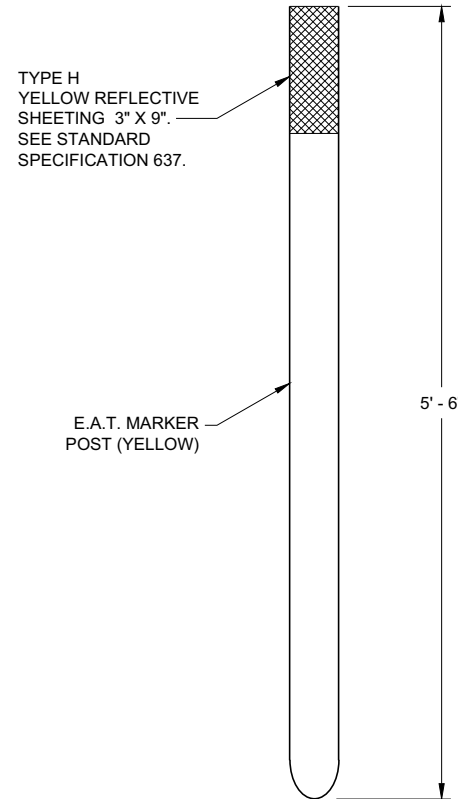
LOWER POST NO. 2 <sup>(16)</sup> (E)



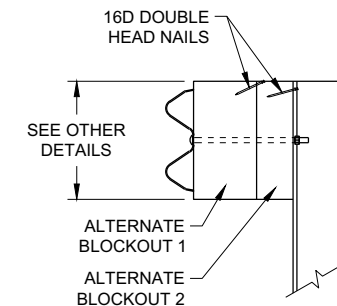
WOOD BLOCKOUT <sup>(4)</sup>  
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



REFLECTIVE SHEETING DETAIL <sup>(E)</sup>

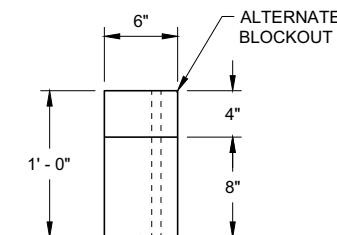


E.A.T. MARKER POST <sup>(13)</sup>



SIDE VIEW

ALTERNATE WOOD  
BLOCKOUT DETAIL

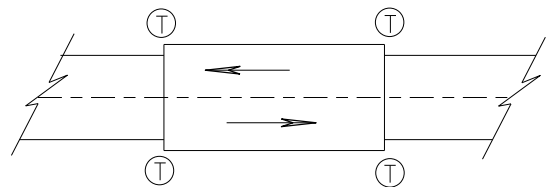


TOP VIEW

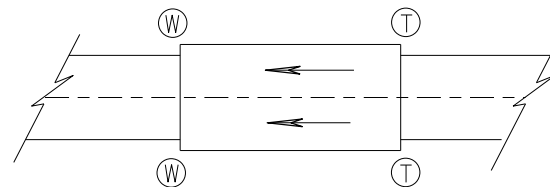
**MIDWEST GUARDRAIL SYSTEM  
ENERGY ABSORBING TERMINAL  
(MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
7/2018 DATE /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR  
FHWA 244



**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

**TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE**

**GENERAL NOTES**

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

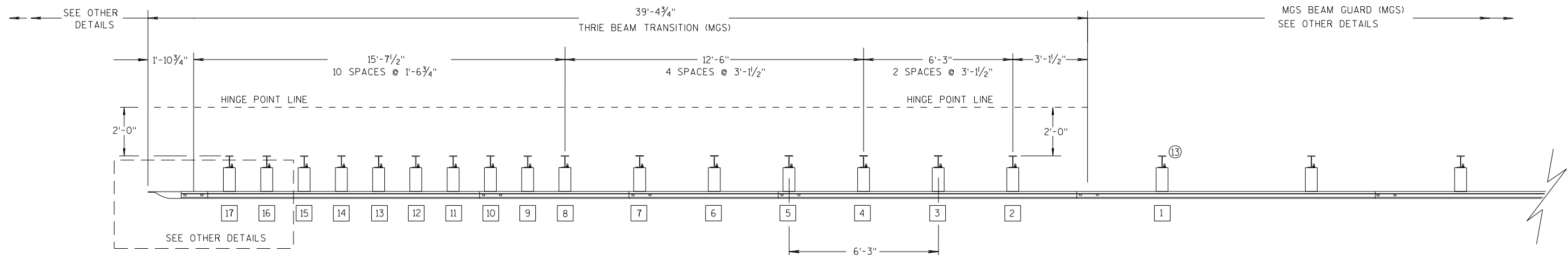
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

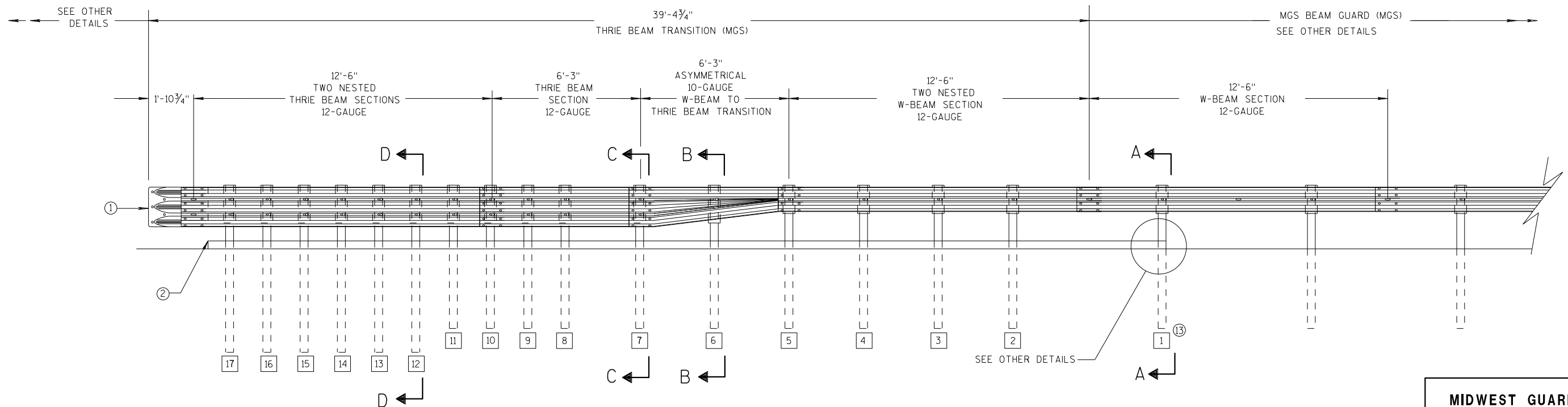
① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



**PLAN VIEW**



**ELEVATION VIEW**

**MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION**

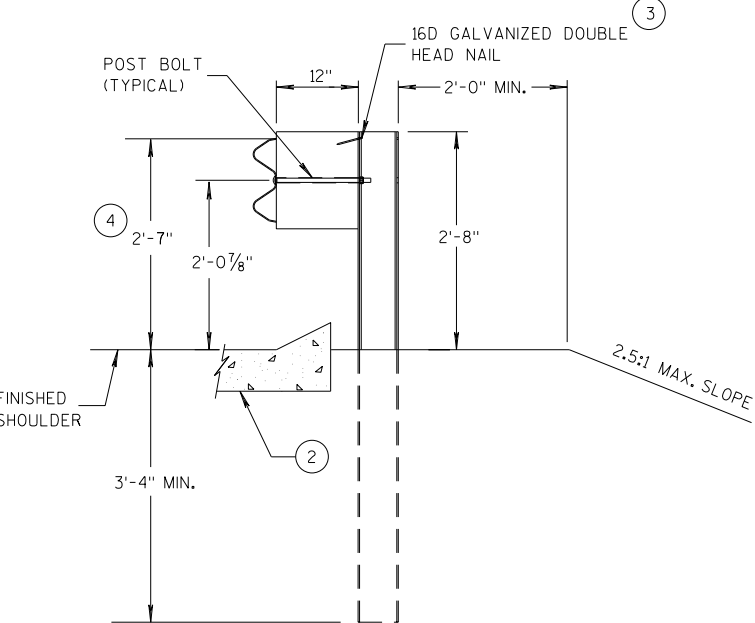
**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 245

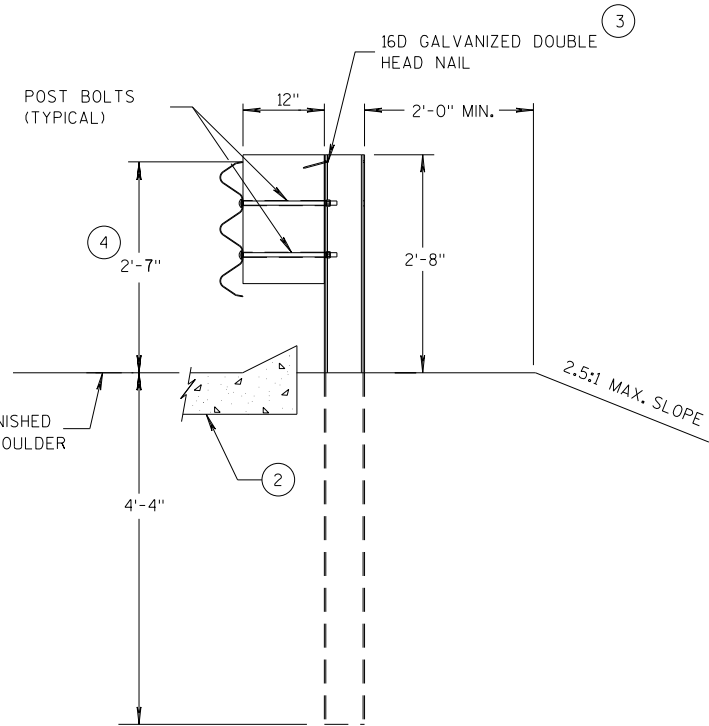


GENERAL NOTES

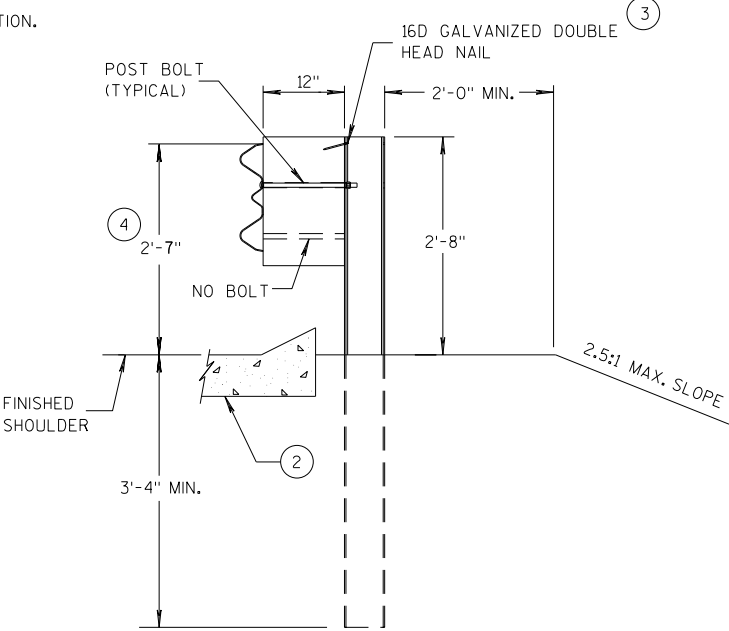
- 2 OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- 3 WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- 4 TOLERANCE FOR TOP OF W-BEAM RAIL IS  $\pm 1"$ .
- 13 STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



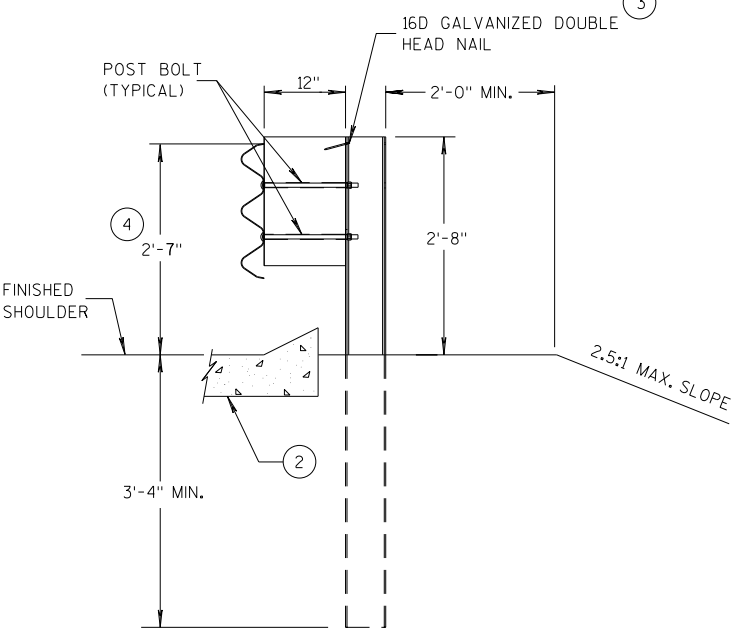
SECTION A-A  
POSTS 1-5



SECTION D-D  
POSTS 12-17



SECTION B-B  
POST 6



SECTION C-C  
POSTS 7-11

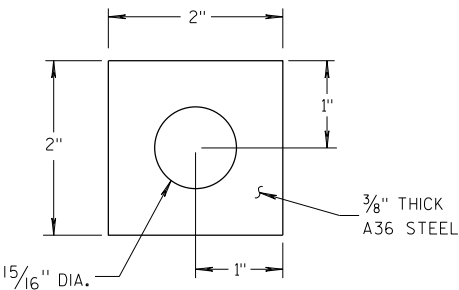
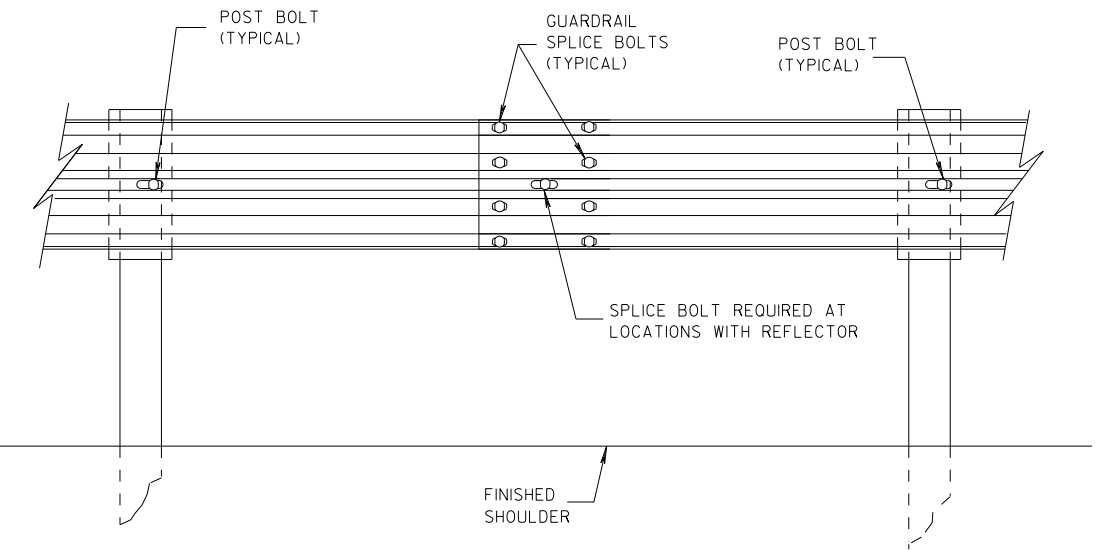
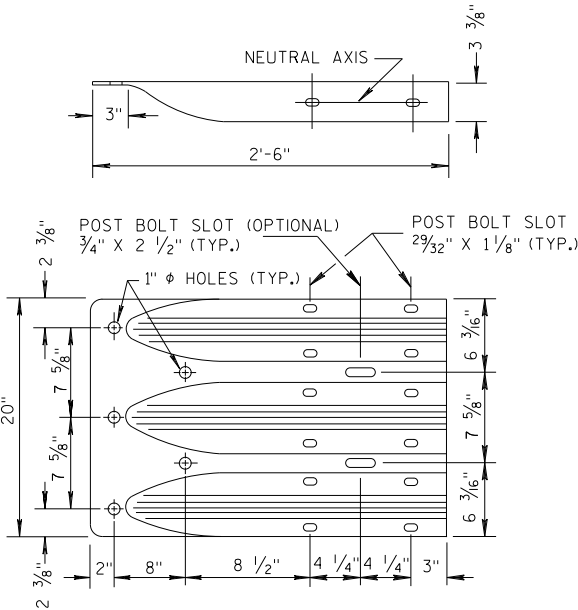


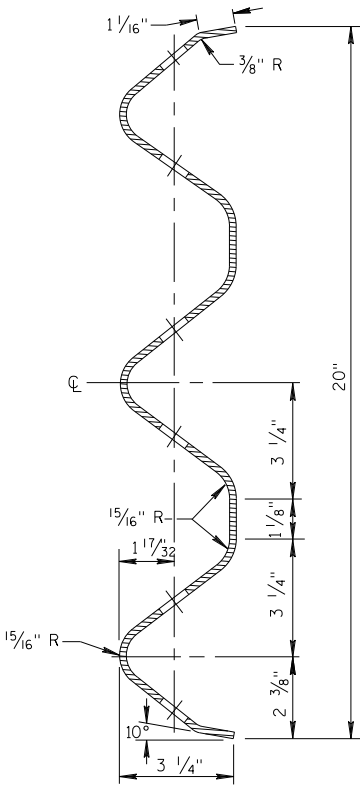
PLATE WASHER DETAIL



SPLICE DETAIL



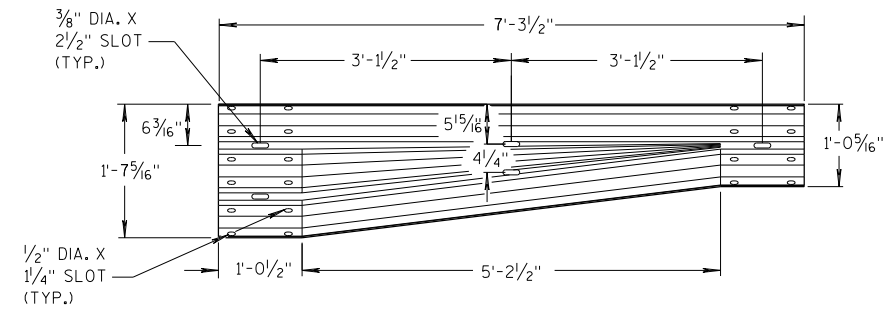
THRIE BEAM  
TERMINAL CONNECTOR



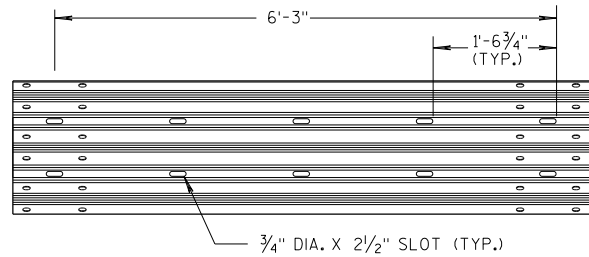
SECTION THRU THRIE  
BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)

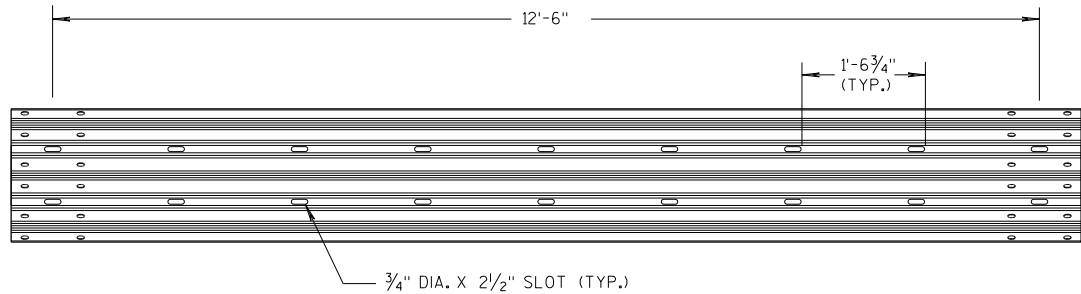
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



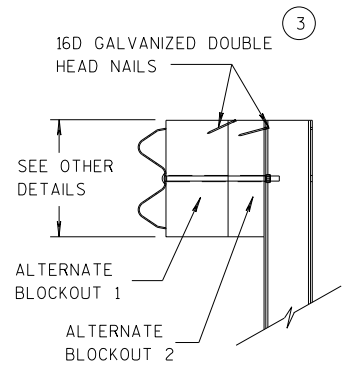
W-BEAM TO THRIE BEAM TRANSITION SECTION



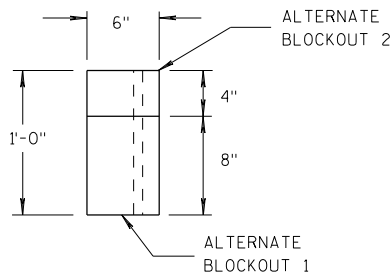
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

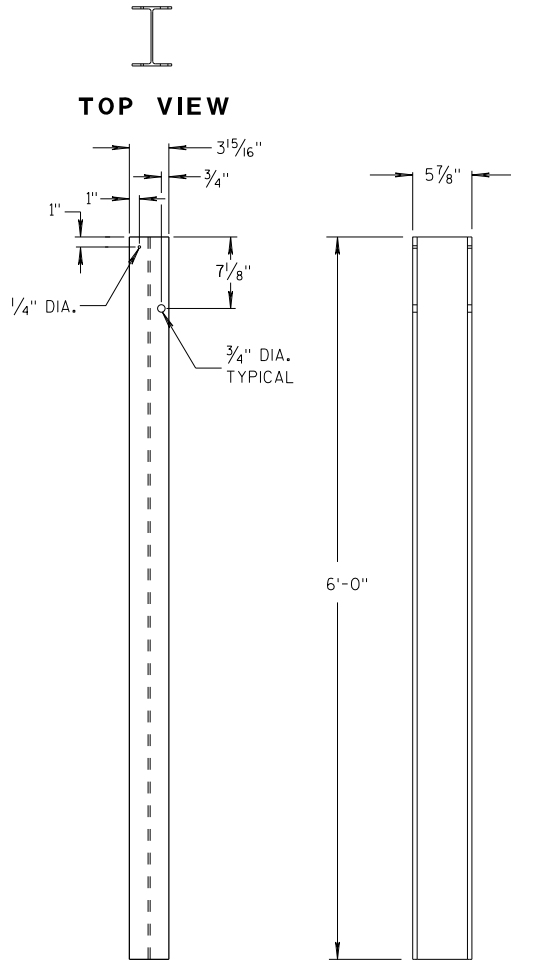


SIDE VIEW



TOP VIEW

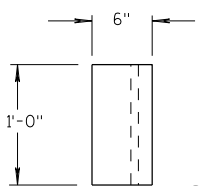
ALTERNATE WOOD BLOCKOUT DETAIL



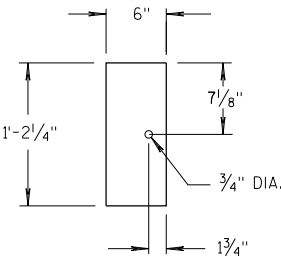
FRONT VIEW

SIDE VIEW

STEEL POSTS 1-5

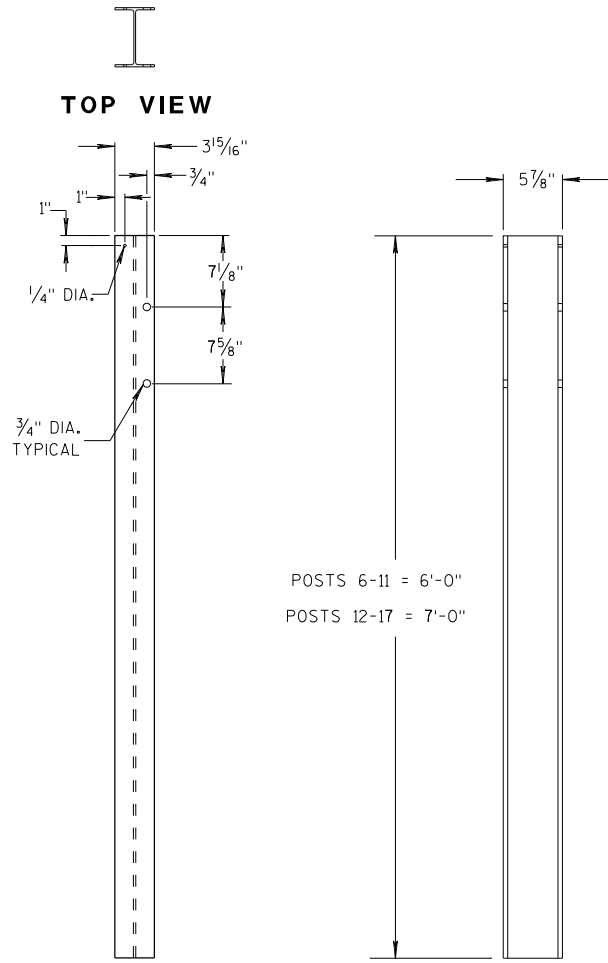


TOP VIEW



FRONT VIEW

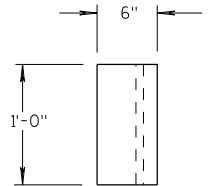
BLOCKOUT POSTS 1-5



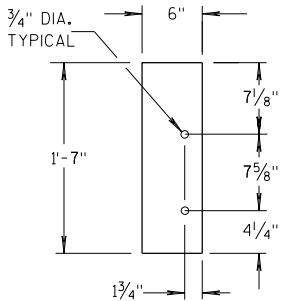
FRONT VIEW

SIDE VIEW

STEEL POSTS 6-17



TOP VIEW



FRONT VIEW

BLOCKOUT POSTS 6-17

### GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

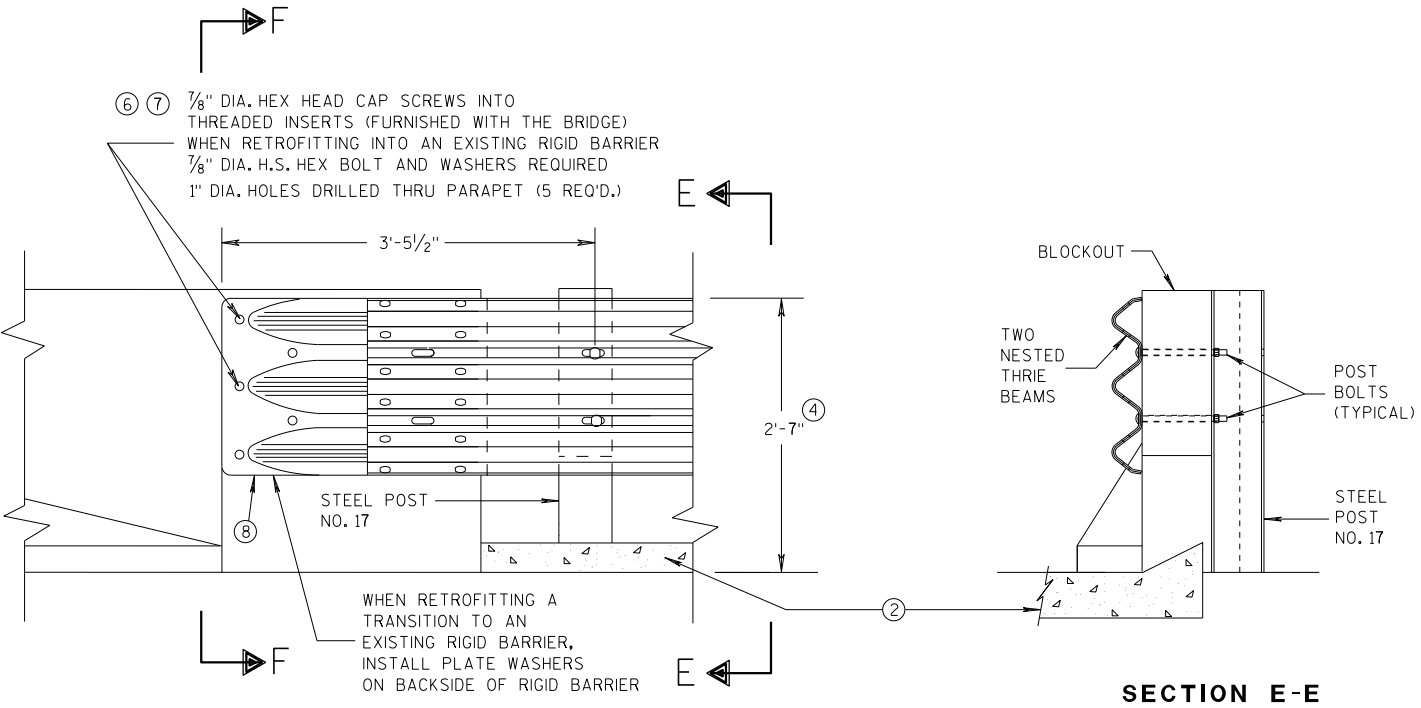
③ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

⑤ WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

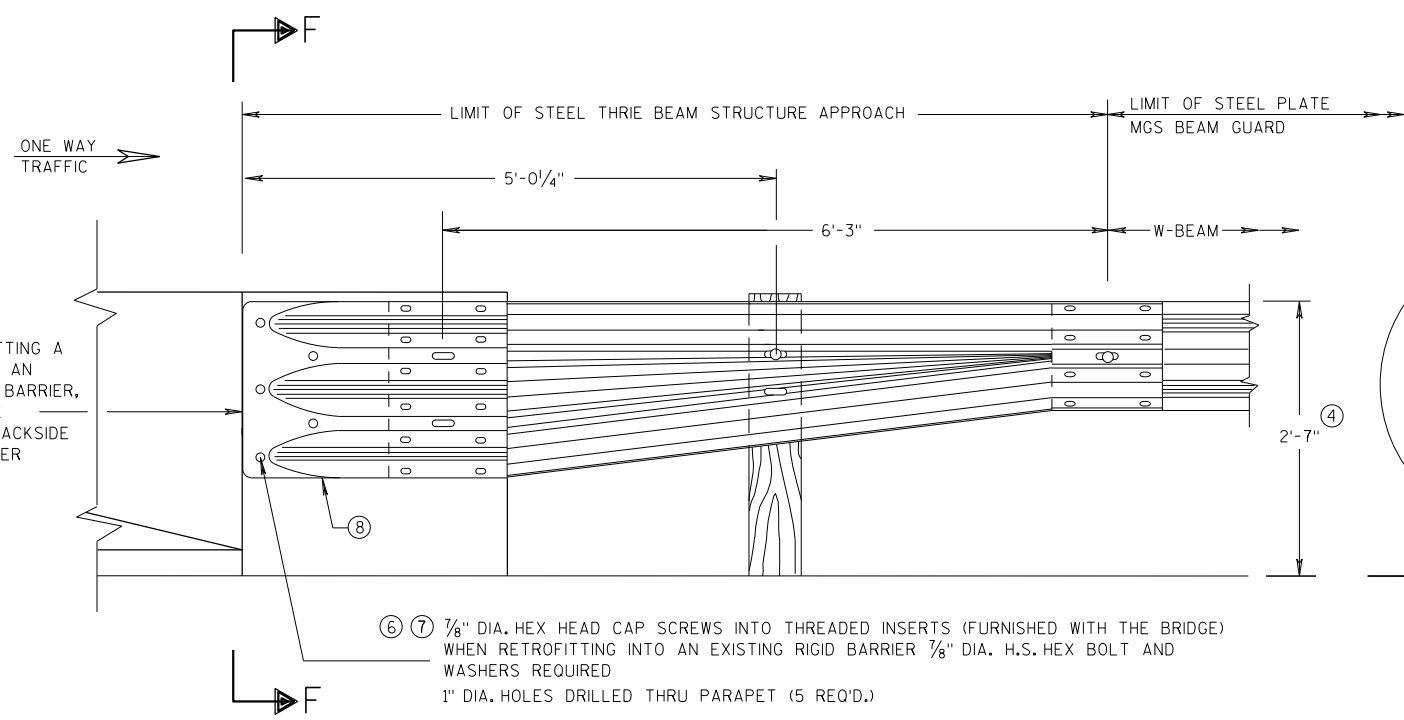
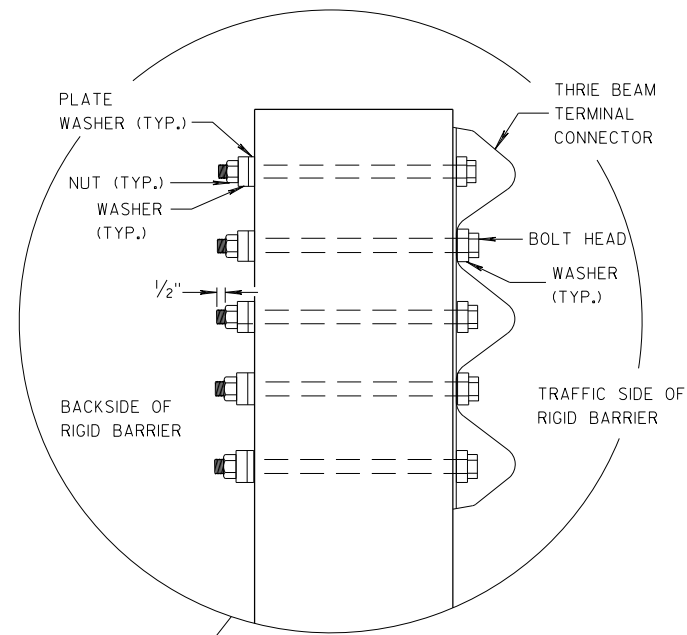
MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

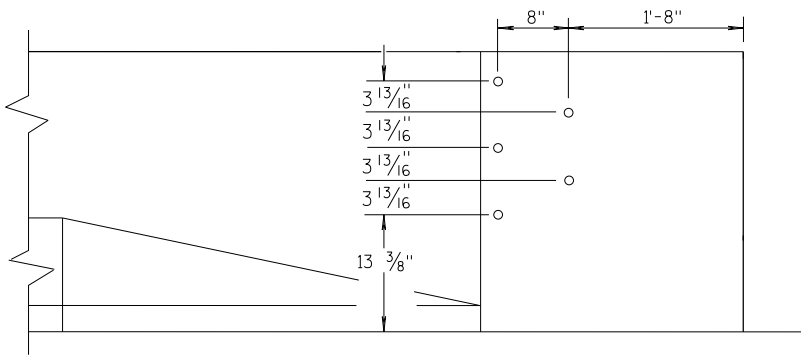


**GENERAL NOTES**

- THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④ TOLERANCE FOR TOP OF BEAM IS  $\pm 1"$ .
- ⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".



**SECTION F-F**



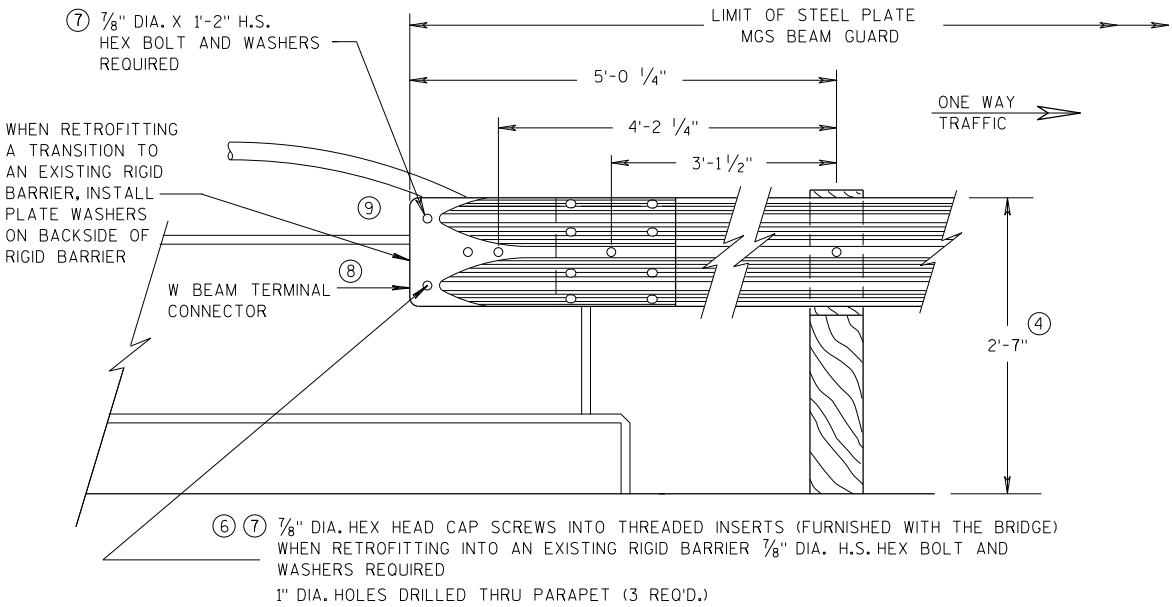
**DRILL HOLE LOCATION**

|                                                         |                                                        |    |  |
|---------------------------------------------------------|--------------------------------------------------------|----|--|
| MIDWEST GUARDRAIL SYSTEM<br>THRIE BEAM TRANSITION (MGS) |                                                        |    |  |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION      |                                                        |    |  |
| APPROVED<br>07/2018<br>DATE                             | /S/ Rodney Taylor<br>ROADWAY STANDARDS UNIT SUPERVISOR |    |  |
| FHWA                                                    | 248                                                    | NT |  |

GENERAL NOTES

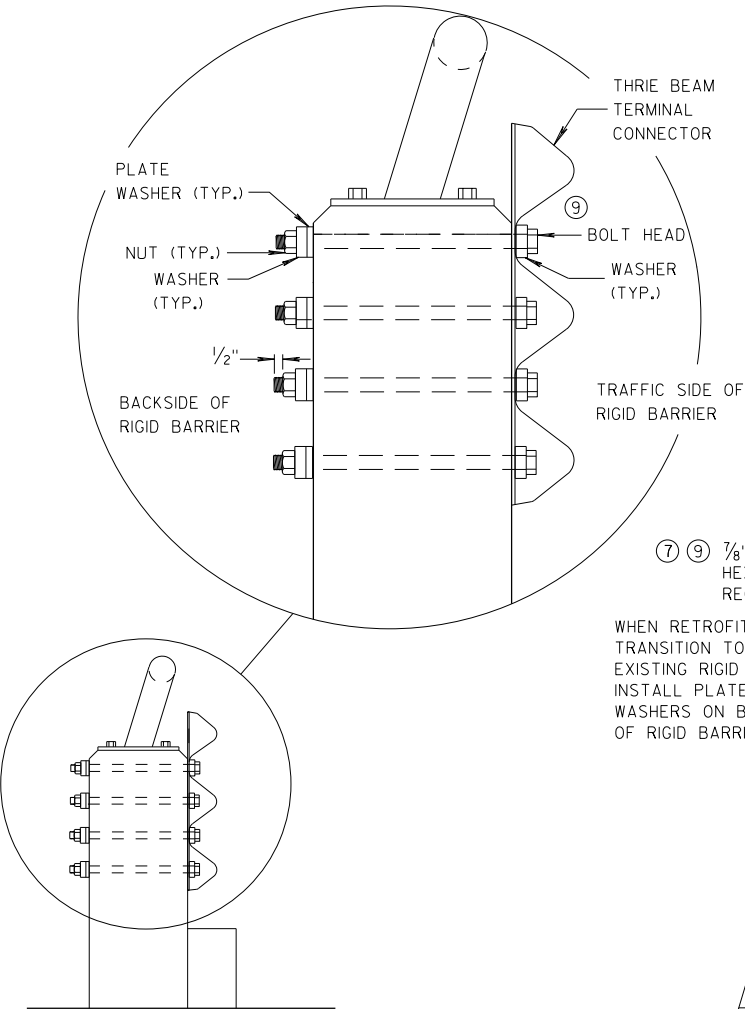
THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

- ②
- OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④
- TOLERANCE FOR TOP OF BEAM IS ± 1".
- ⑥
- DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦
- BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ⑧
- THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".
- ⑨
- BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

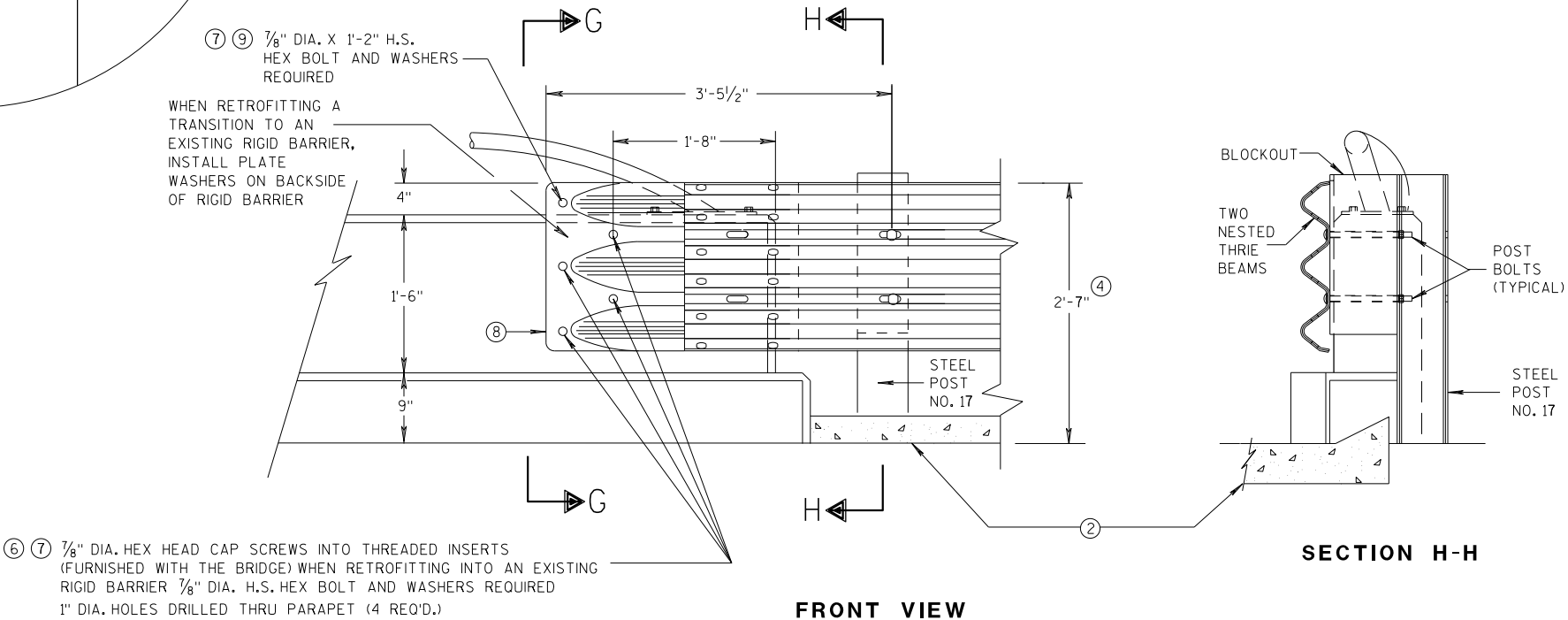


FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET  
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



SECTION G-G



FRONT VIEW

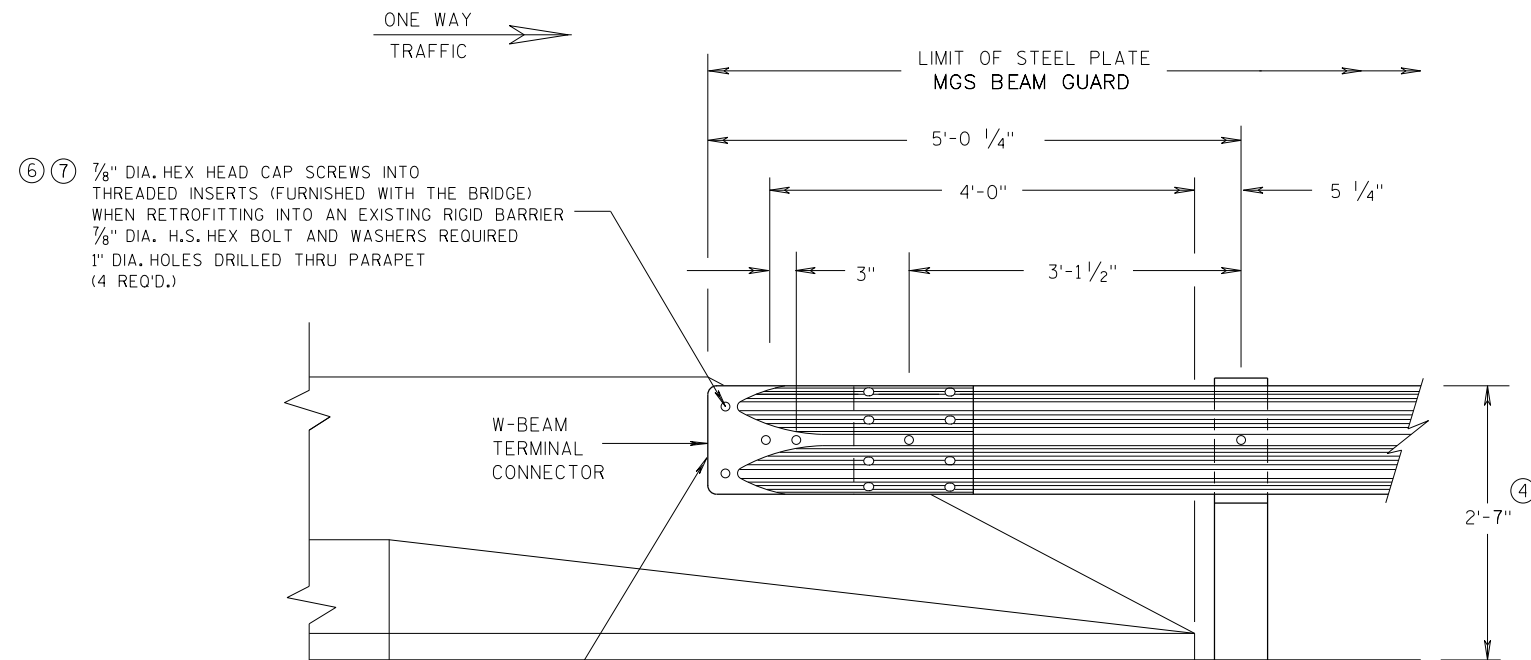
THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

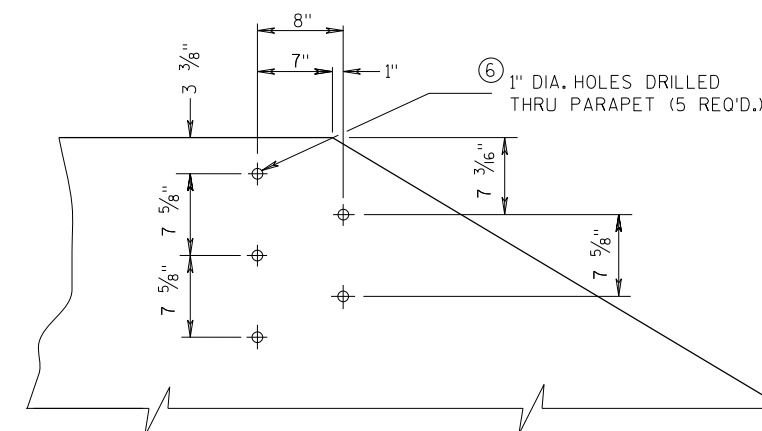
APPROVED  
07/2018  
DATE  
/S/ Rodney Taylor  
ROADWAY STANDARDS UNIT SUPERVISOR  
249  
FHWA



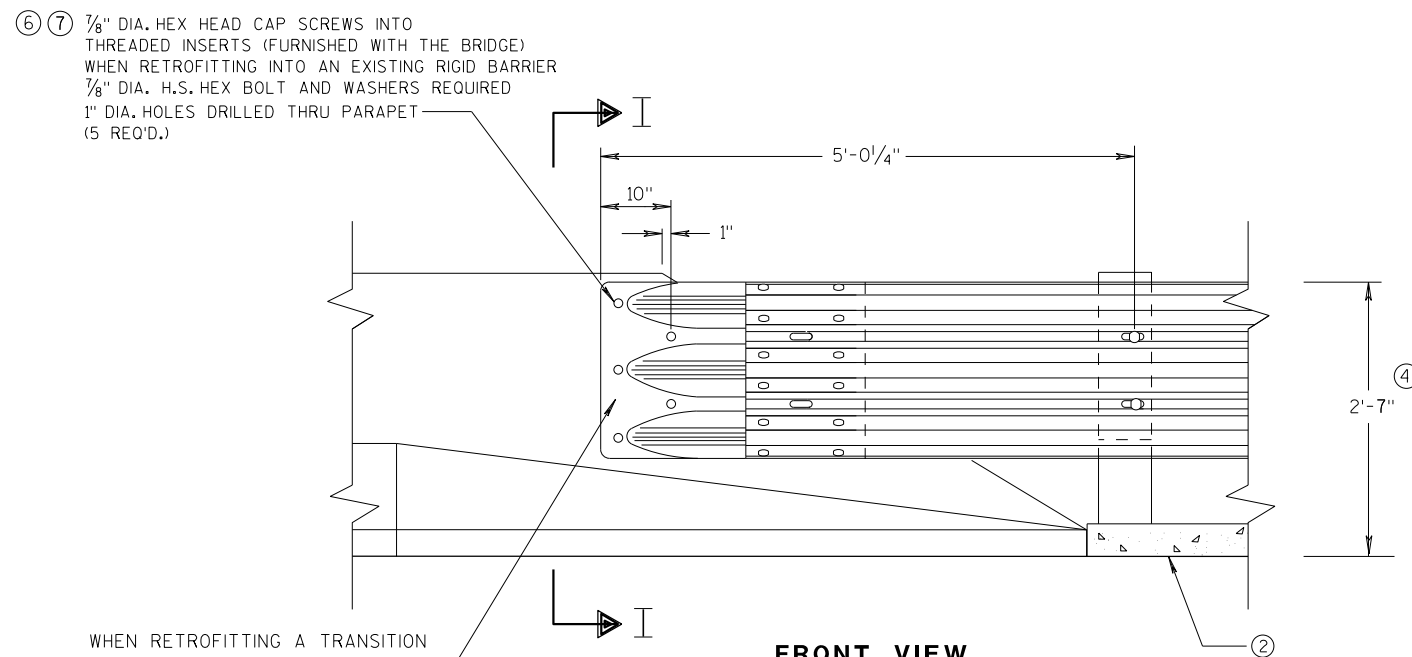


FRONT VIEW

**W BEAM CONNECTION TO  
PARAPETS WITH SLOPED ENDS  
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)**

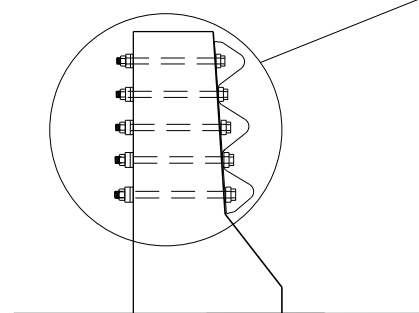


**DRILL HOLE LOCATION AND PATTERN  
FOR THRIE BEAM CONNECTION**

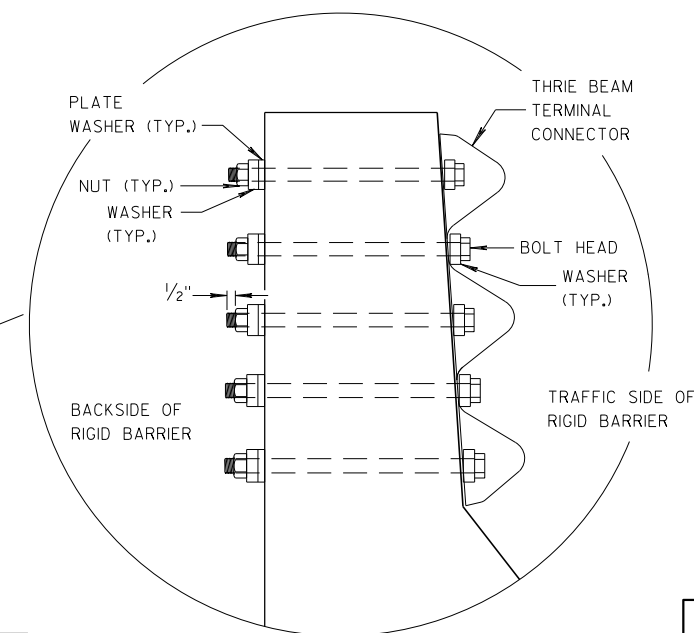


FRONT VIEW

**THRIE BEAM CONNECTION TO BRIDGE  
PARAPETS WITH SLOPED ENDS**



SECTION I-I



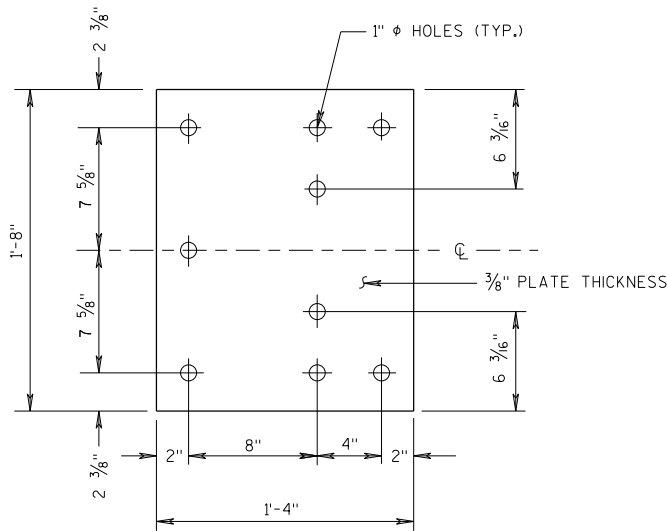
**GENERAL NOTES**

- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④ TOLERANCE FOR TOP OF BEAM IS  $\pm 1"$ .
- ⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

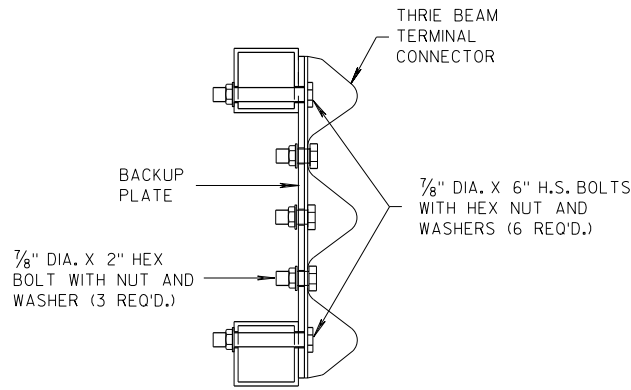
**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

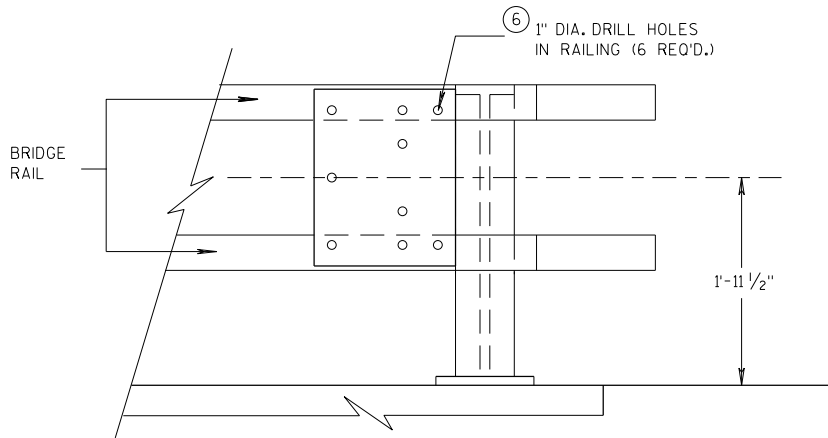
APPROVED  
DATE 07/2018 /S/ Rodney Taylor  
ROADWAY STANDARDS UNIT SUPERVISOR 250  
FHWA



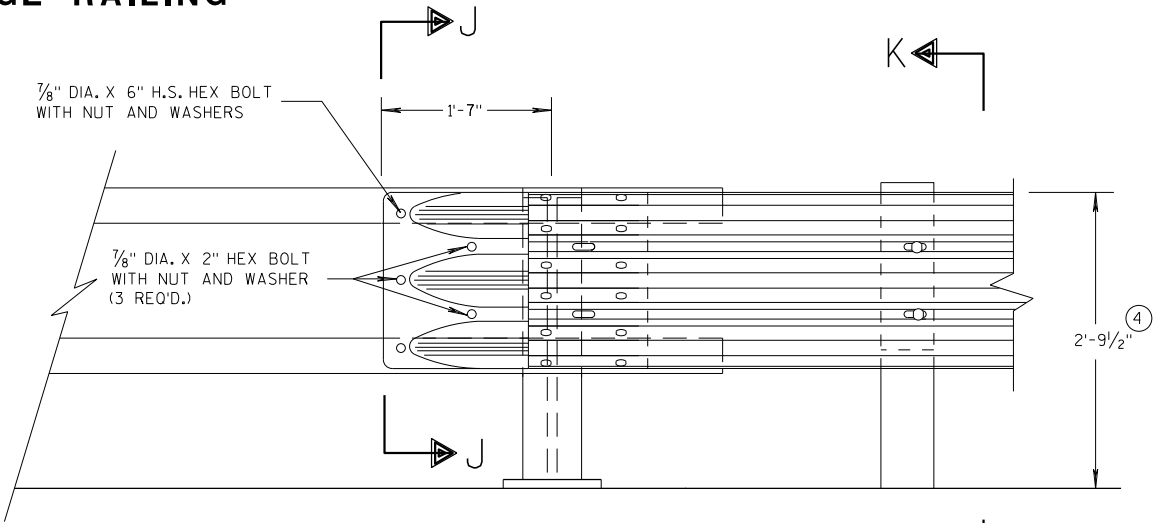
BACK-UP PLATE DETAIL



SECTION J-J

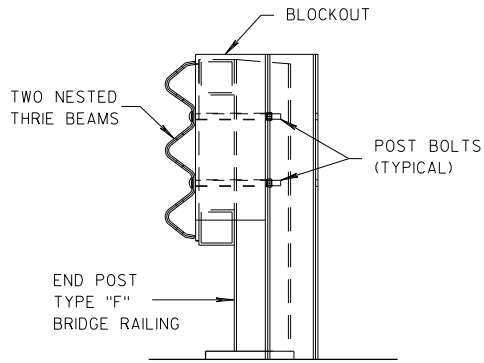


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW

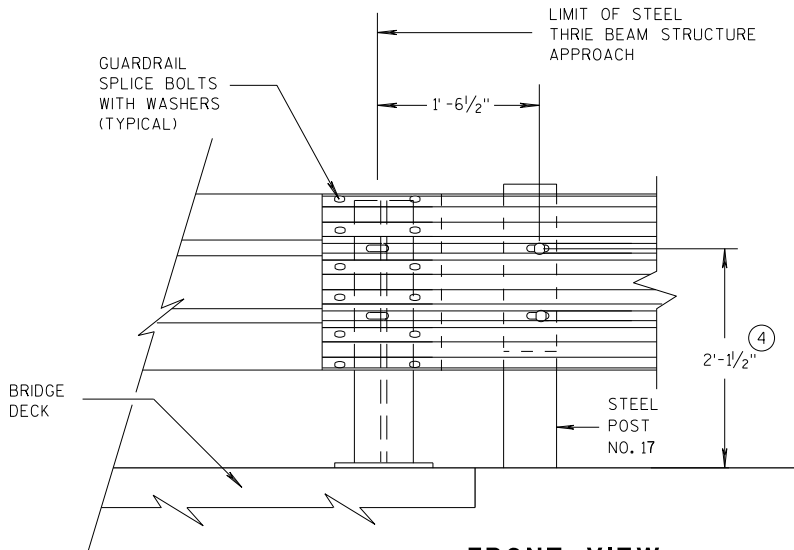
THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"



SECTION K-K

GENERAL NOTES

- ④ TOLERANCE FOR TOP OF BEAM IS  $\pm 1"$ .
- ⑥ DRILLING HOLES THROUGH THE PAPER, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.



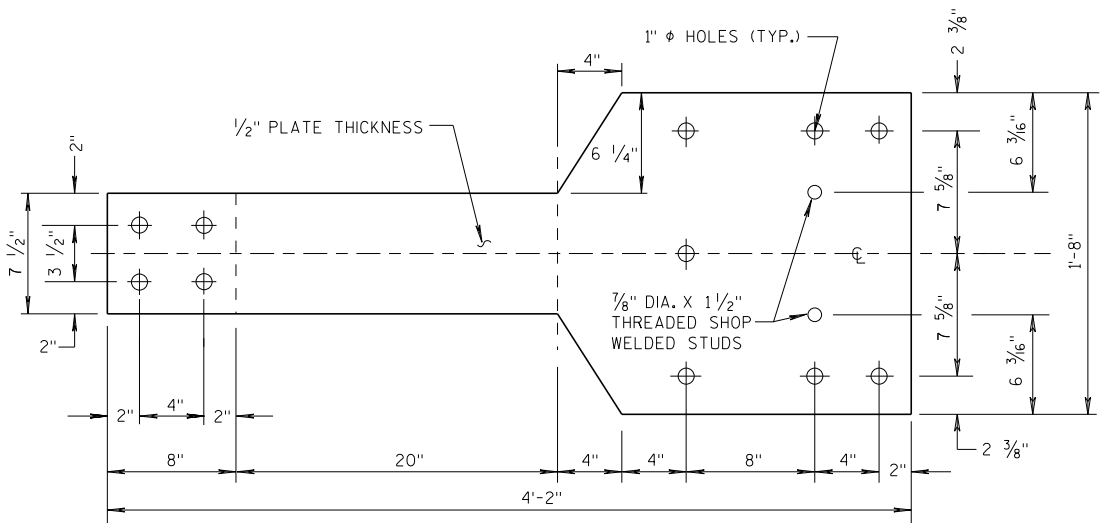
FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"

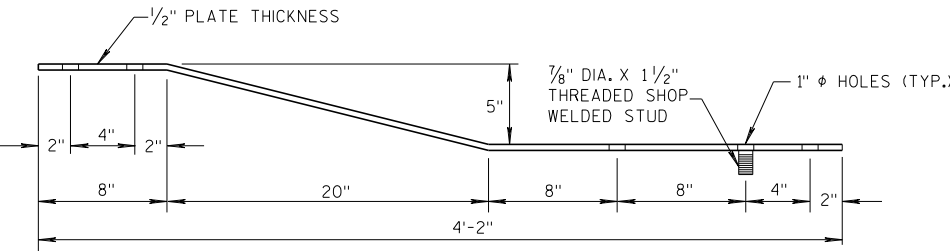
|                                                         |                               |                 |
|---------------------------------------------------------|-------------------------------|-----------------|
| MIDWEST GUARDRAIL SYSTEM<br>THRIE BEAM TRANSITION (MGS) |                               |                 |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION      |                               |                 |
| APPROVED<br>07/2018                                     | /S/ Rodney Taylor             | 251             |
| DATE                                                    | ROADWAY STANDARDS DEVELOPMENT | UNIT SUPERVISOR |
| FHWA                                                    |                               |                 |

GENERAL NOTES

④ TOLERANCE FOR TOP OF W-BEAM RAIL IS  $\pm 1"$ .

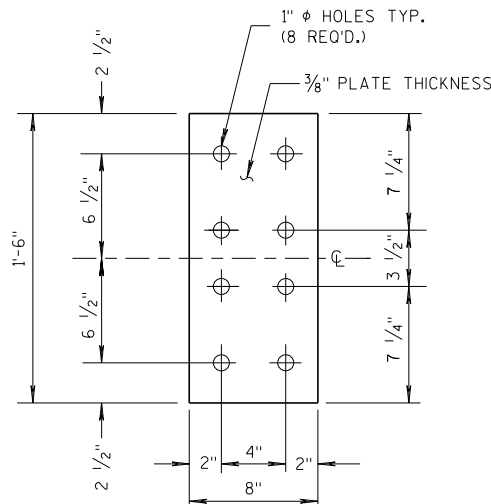


FRONT VIEW



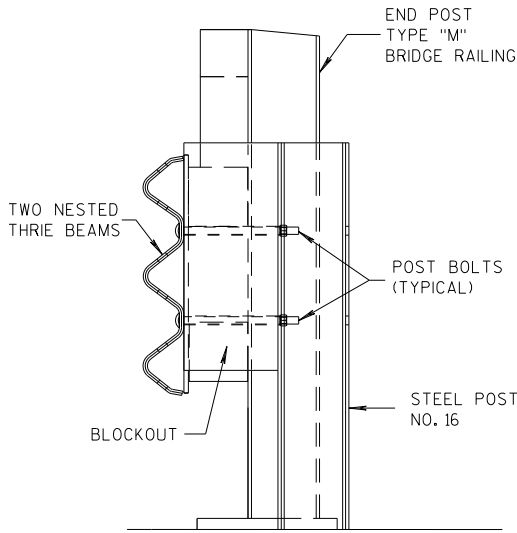
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

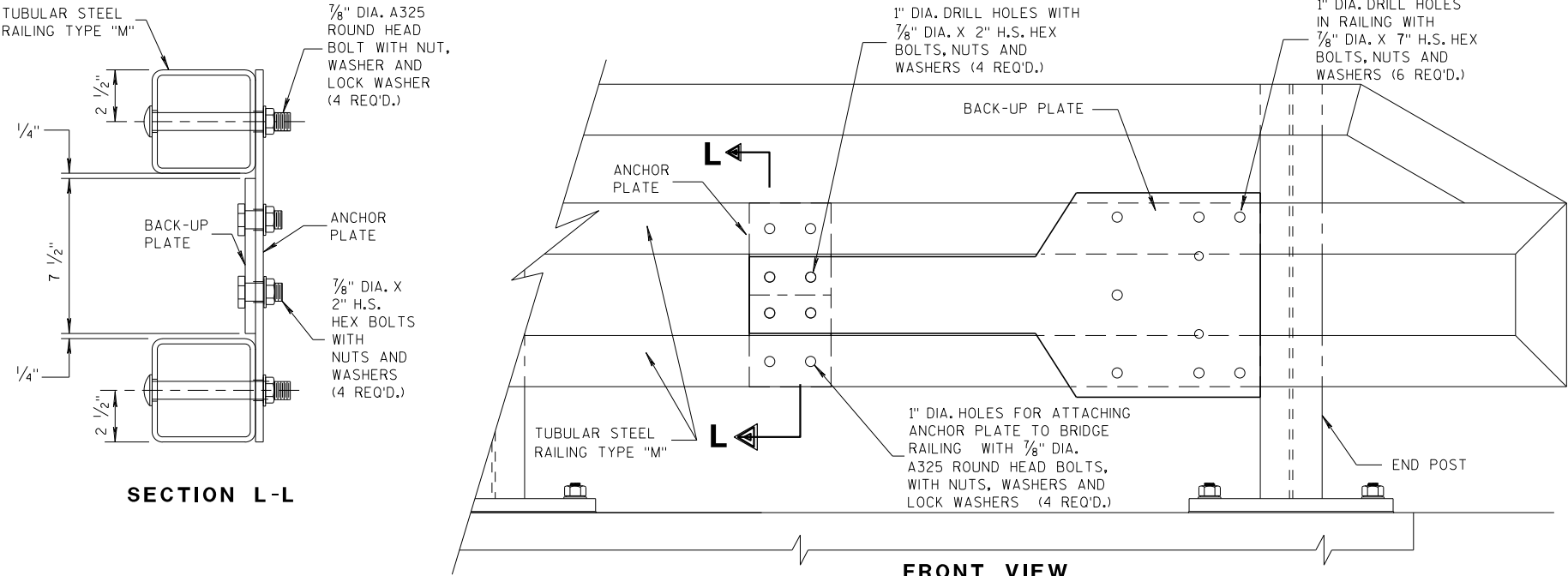


FRONT VIEW

ANCHOR PLATE DETAIL, TYPE "M"



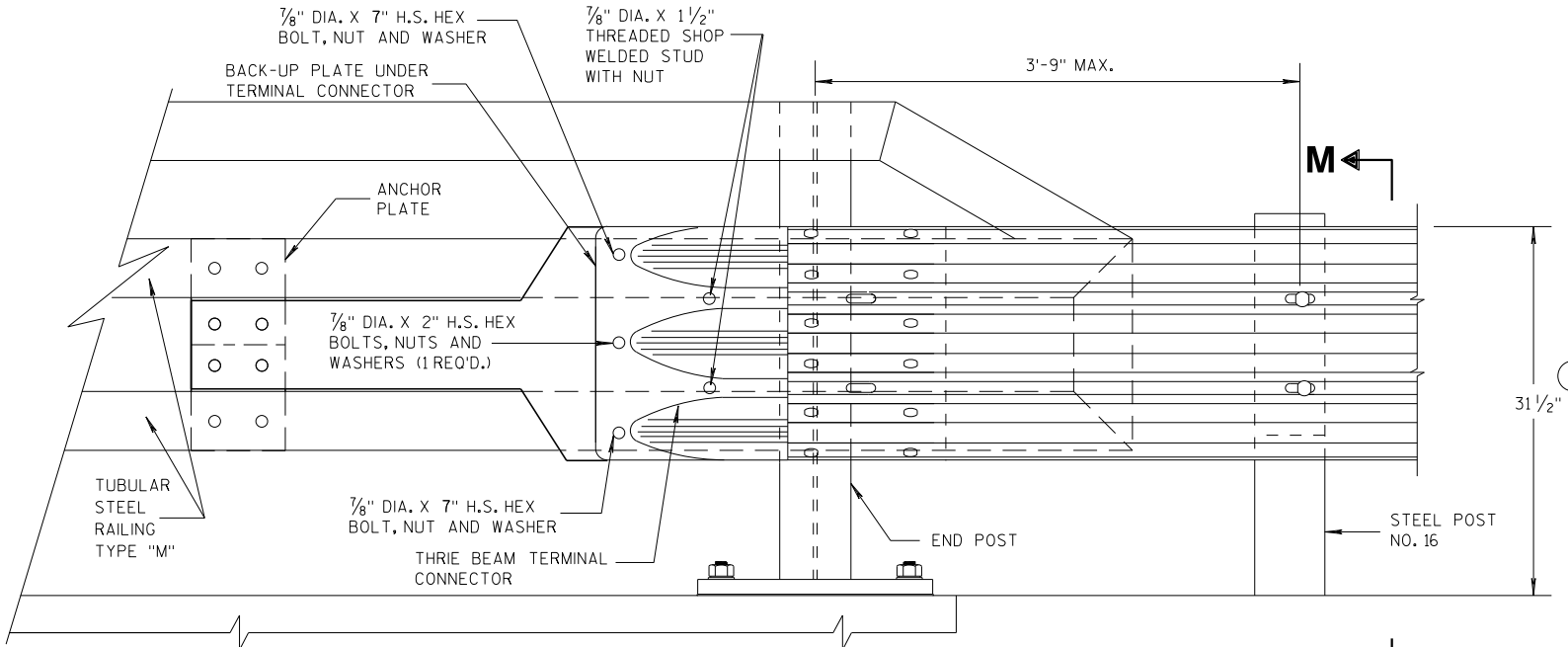
SECTION M-M



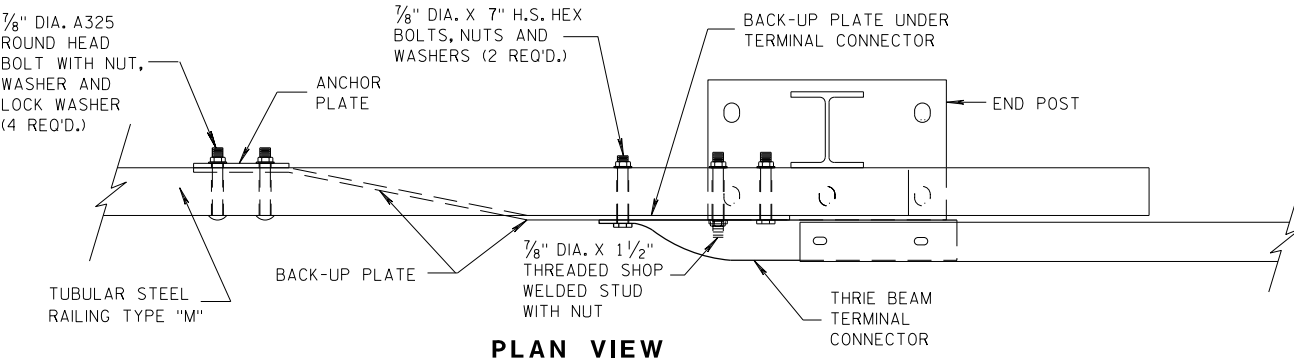
SECTION L-L

FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



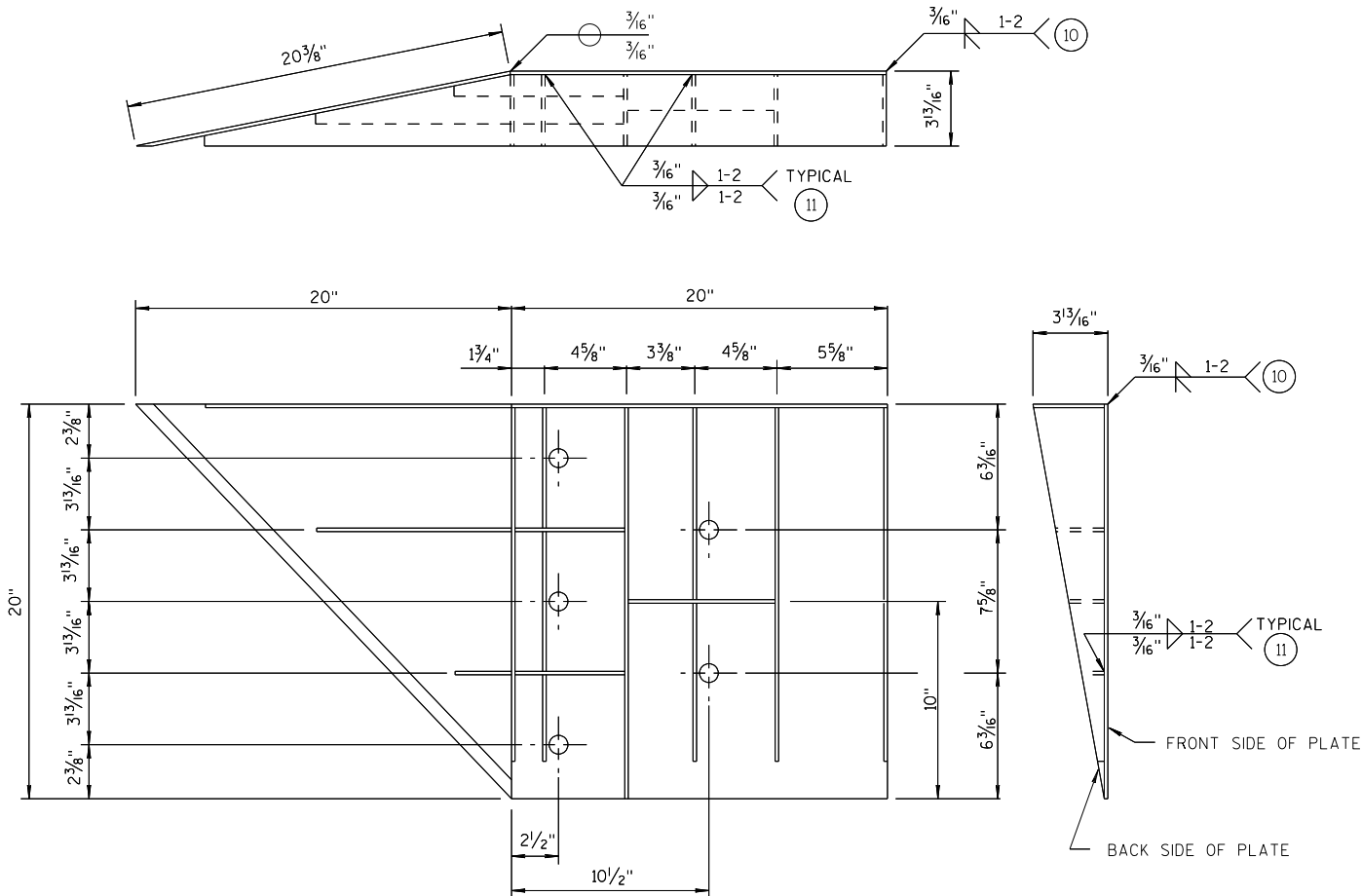
PLAN VIEW

THREE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM  
THREE BEAM TRANSITION (MGS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
07/2018 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS UNIT SUPERVISOR  
FHWA 252



WELDING INSTRUCTION  
(VIEWED FROM BACK SIDE OF PLATE)

| CONNECTOR PLATE DIMENSION<br>(PER ASSEMBLY) |          |       |                                     |           |
|---------------------------------------------|----------|-------|-------------------------------------|-----------|
| PLATE                                       | QUANTITY | SHAPE | SIZE (A x B x C x D)                | THICKNESS |
| P1                                          | 1        |       | 20" x 20"                           | 3/16"     |
| P2                                          | 1        |       | 20" x 20" x 28 3/16"                | 3/16"     |
| P3                                          | 1        |       | 39" x 3 5/8" x 20" x 19 5/16"       | 3/16"     |
| S1                                          | 4        |       | 18 7/16" x 3 5/8" x 18 3/4"         | 1/4"      |
| S2                                          | 1        |       | 10 1/4" x 2 1/16" x 10 3/8" x 1/2"  | 1/4"      |
| S3                                          | 1        |       | 3" x 1 1/16" x 3 3/8" x 1/2"        | 1/4"      |
| S4                                          | 1        |       | 6 1/8" x 2 7/16"                    | 1/4"      |
| S5                                          | 1        |       | 6 1/8" x 1 1/16"                    | 1/4"      |
| S6                                          | 1        |       | 7 3/4" x 1 3/4"                     | 1/4"      |
| S7                                          | 1        |       | 2 3/16" x 6" x 3 5/8" x 5 7/8"      | 1/4"      |
| S8                                          | 1        |       | 1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"  | 1/4"      |
| S9                                          | 1        |       | 6 1/16" x 6 3/16" x 1 3/32"         | 1/4"      |
| S10                                         | 1        |       | 1 7/8" x 9 7/8" x 3 5/8" x 9 11/16" | 1/4"      |
| S11                                         | 1        |       | 8 1/2" x 8 3/4" x 1 3/16"           | 1/4"      |

SINGLE SLOPE CONNECTION PLATE

GENERAL NOTES

- COVER PLATE PANELS ARE 3/16" THICK.
- ALL STIFFENERS ARE 1/4" THICK.
- CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.
- FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.
- ALL HOLE DIAMETERS SHALL BE 1".
- FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

- STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:  
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.
- STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:  
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

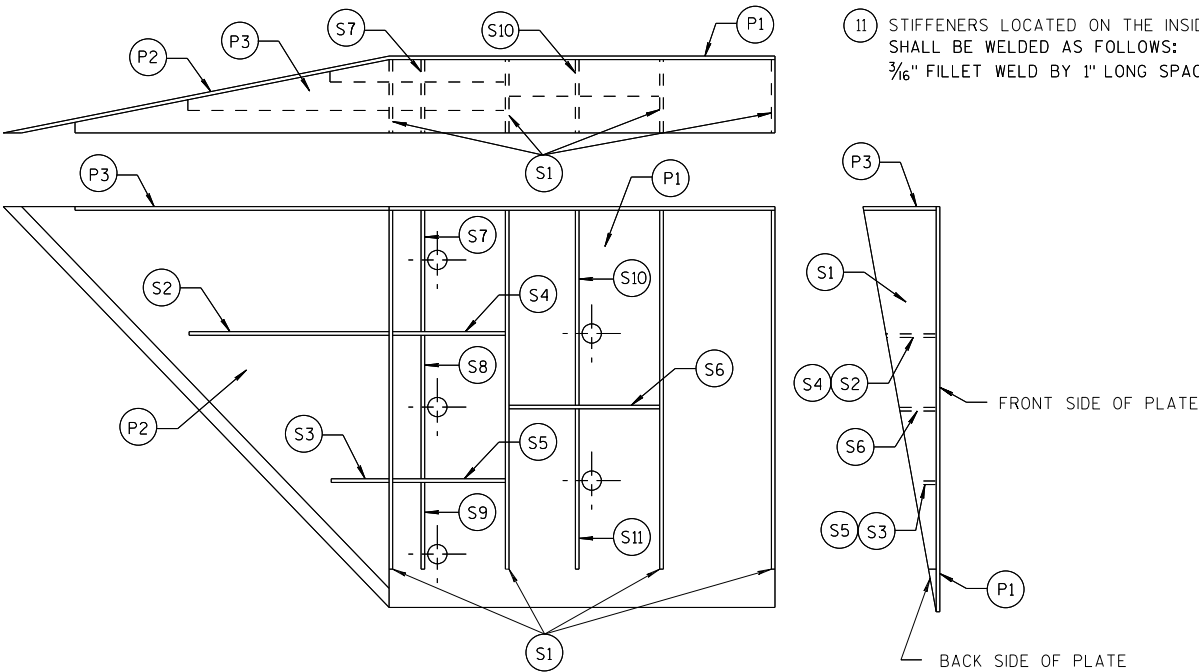


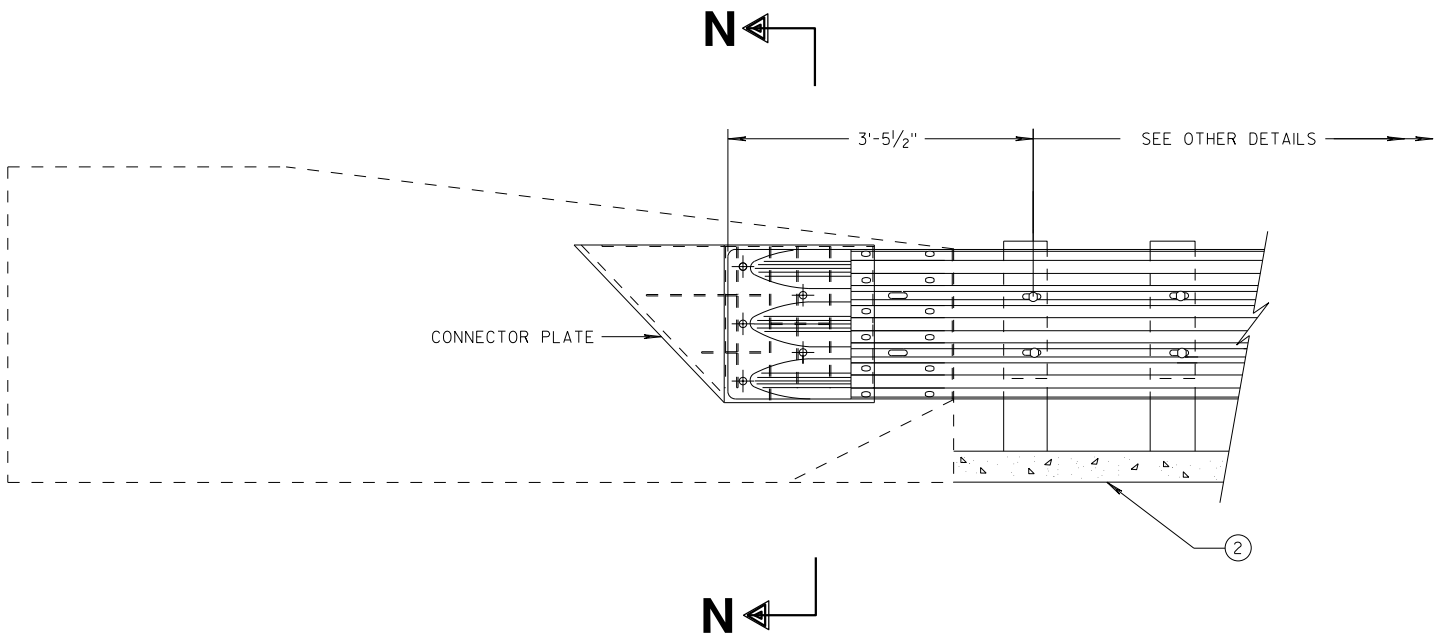
PLATE AND STIFFENER IDENTIFICATION  
(VIEWED FROM BACK SIDE OF PLATE)

MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)

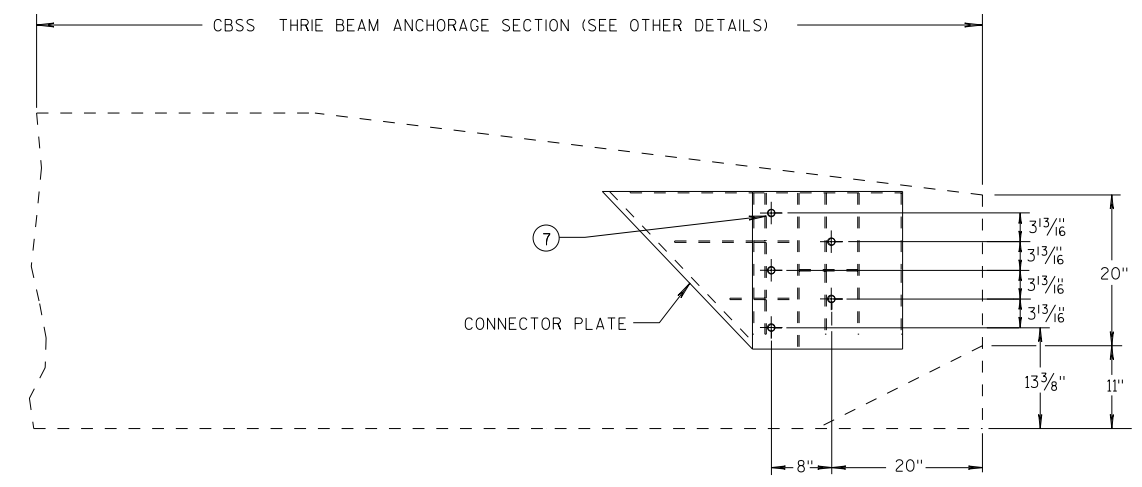
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
7/2018  
DATE  
/S/ Rodney Taylor  
ROADWAY STANDARDS UNIT SUPERVISOR  
253  
ENT  
FHWA





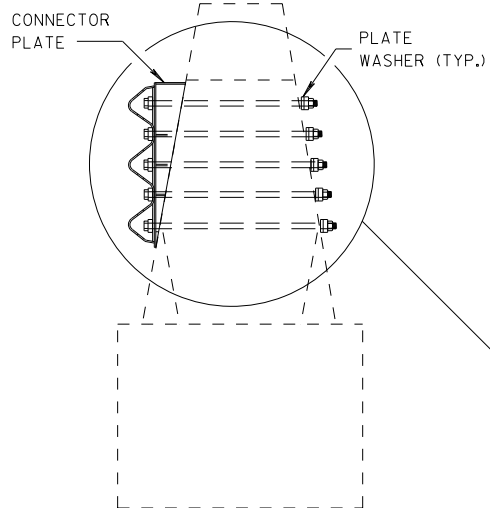
THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



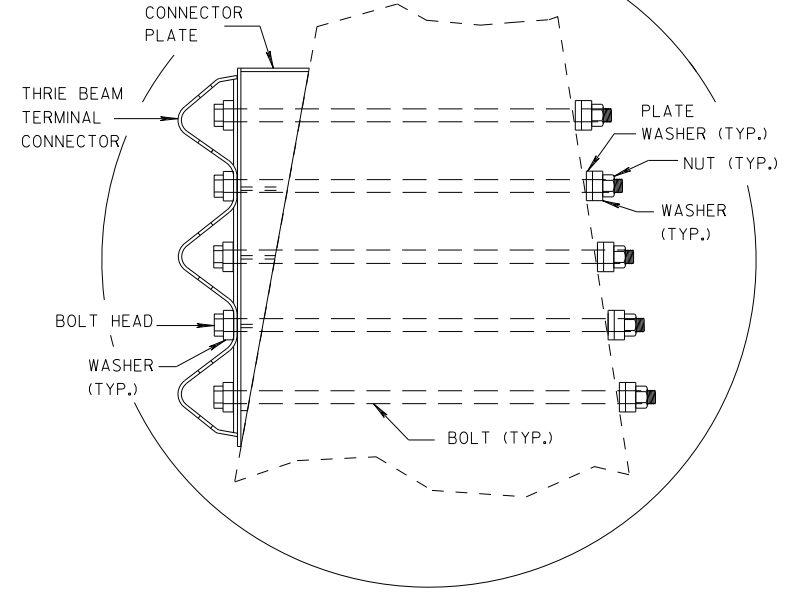
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

- CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- (2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- (7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTION PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



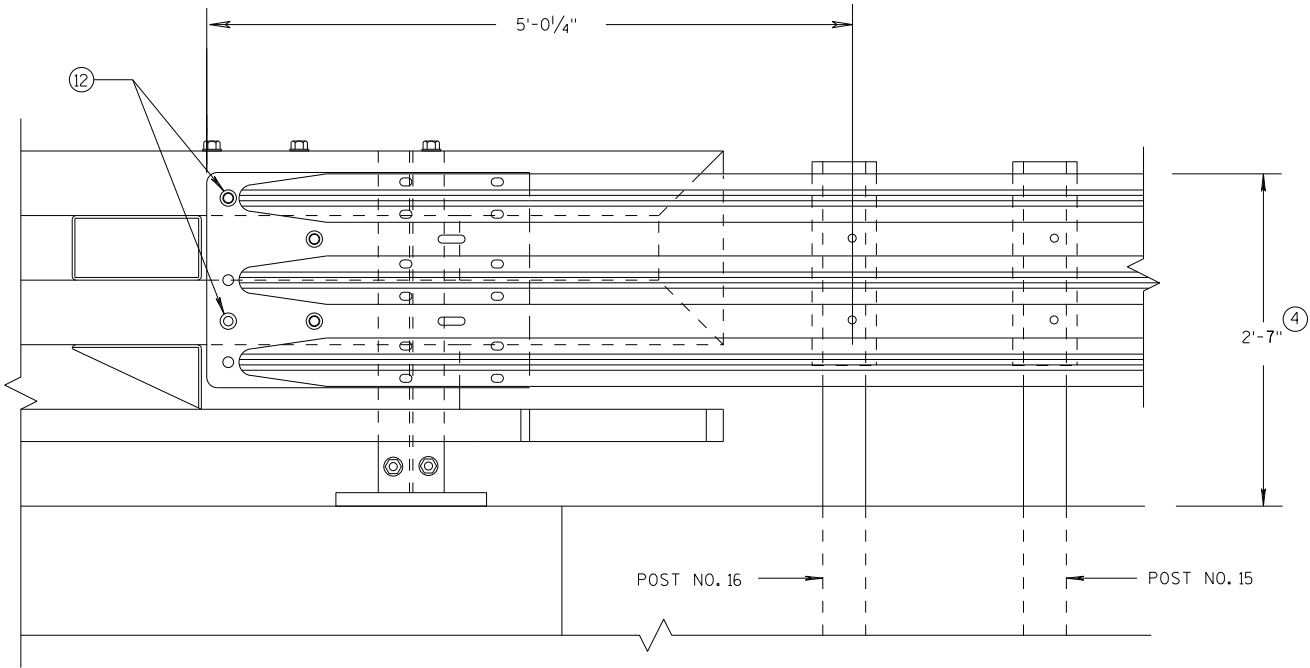
SECTION N-N



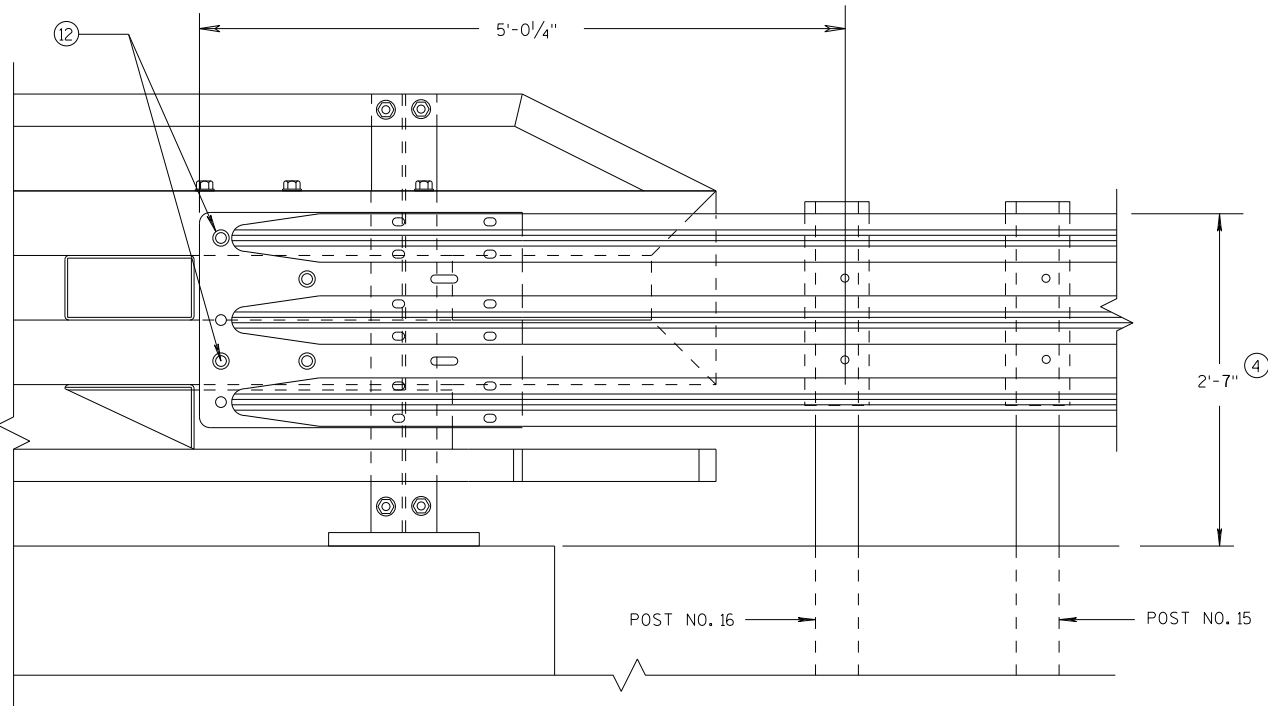
| MIDWEST GUARDRAIL SYSTEM<br>THRIE BEAM TRANSITION (MGS) |                                                                        |  |  |
|---------------------------------------------------------|------------------------------------------------------------------------|--|--|
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION      |                                                                        |  |  |
| APPROVED<br>7/2018<br>DATE                              | /S/ Rodney Taylor<br>ROADWAY STANDARDS DISTRICT 254<br>UNIT SUPERVISOR |  |  |
| FHWA                                                    |                                                                        |  |  |

GENERAL NOTES

- ④ TOLERANCE FOR TOP OF BEAM IS  $\pm 1"$ .
- ⑫ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND  $\frac{1}{2}$ -INCH BEYOND NUT.



ELEVATION OF DETAIL AT NY3 END POST  
THRIE BEAM RAIL ATTACHMENT

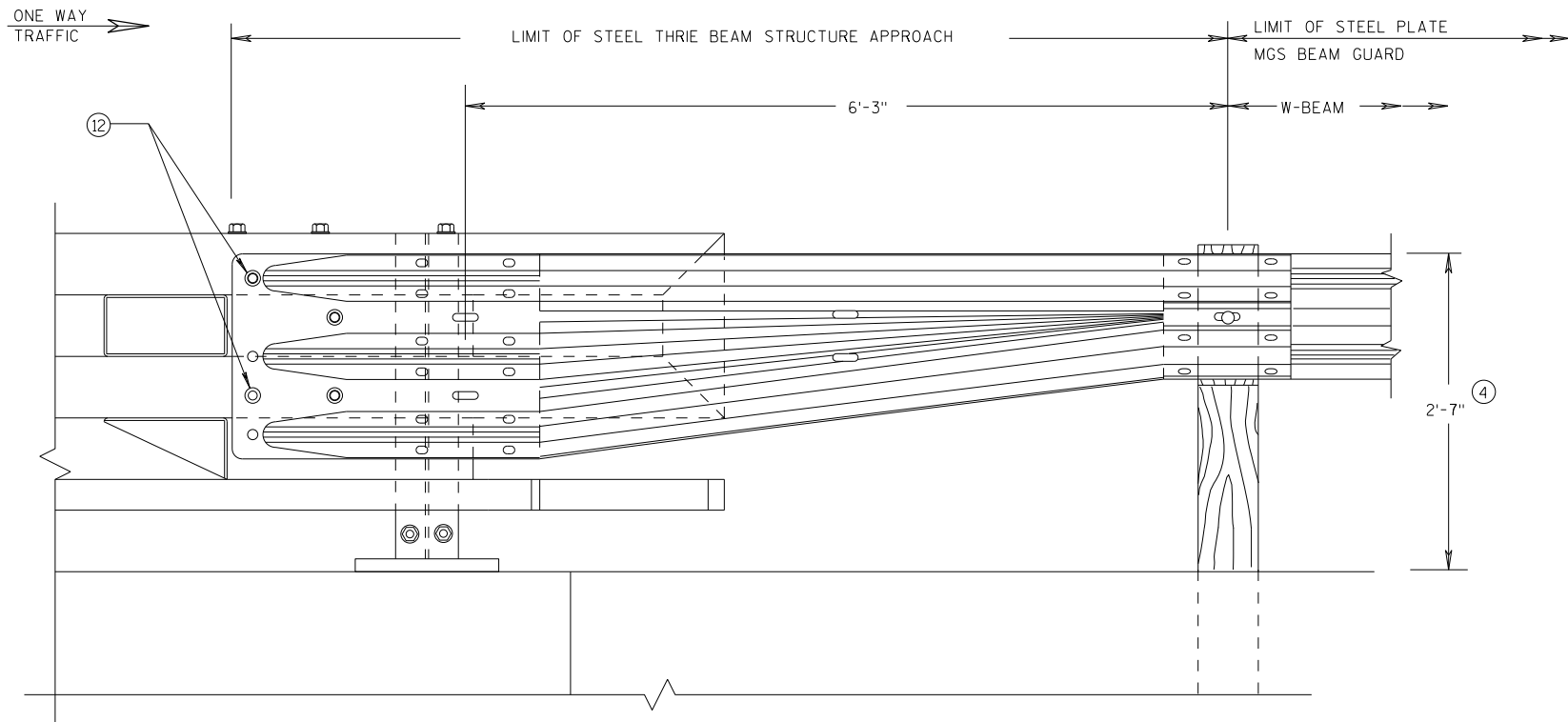


ELEVATION OF DETAIL AT NY4 END POST  
THRIE BEAM RAIL ATTACHMENT

MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

|          |                                         |
|----------|-----------------------------------------|
| APPROVED | /S/ Rodney Taylor                       |
| DATE     | 7/2018                                  |
| FHWA     | ROADWAY STANDARDS C 255 UNIT SUPERVISOR |



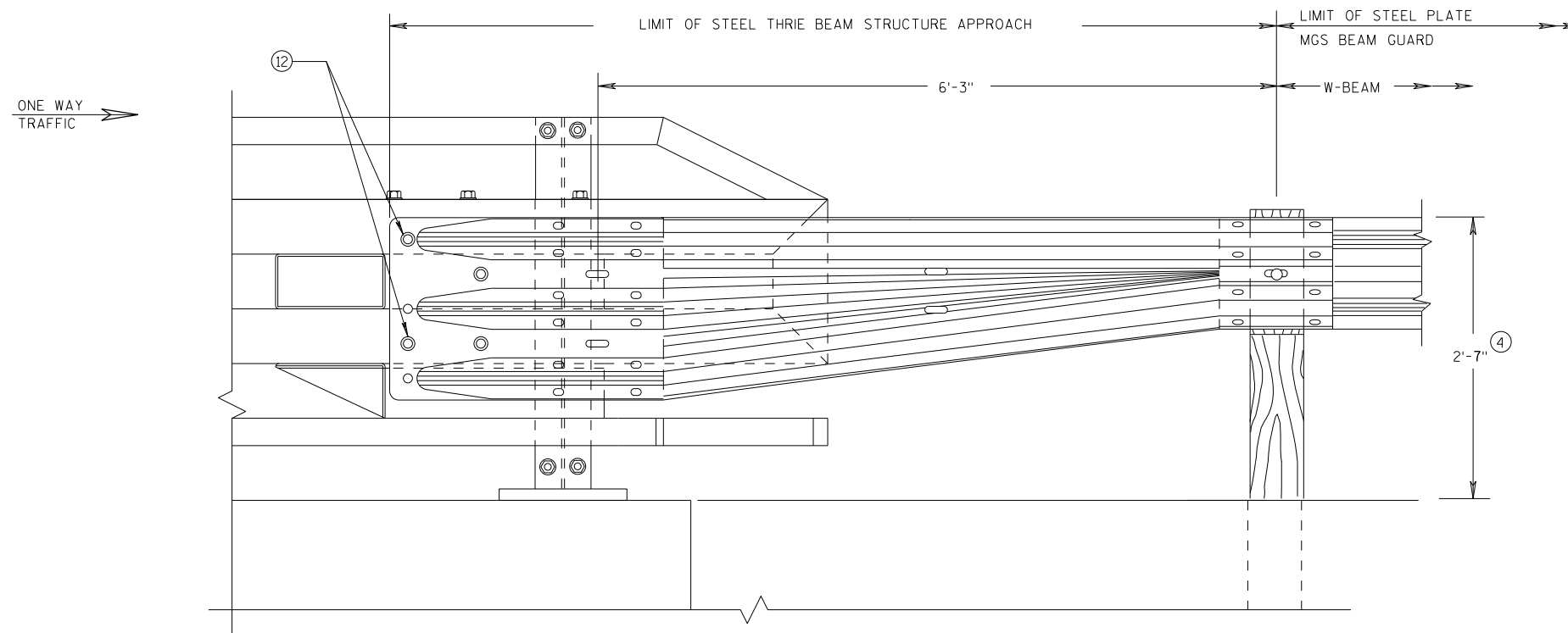
## GENERAL NOTES

④ TOLERANCE FOR TOP OF BEAM IS  $\pm 1"$ .

⑫ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND  $\frac{1}{2}$ -INCH BEYOND NUT.

FRONT VIEW

### W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3" (USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

### W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4" (USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018

DATE

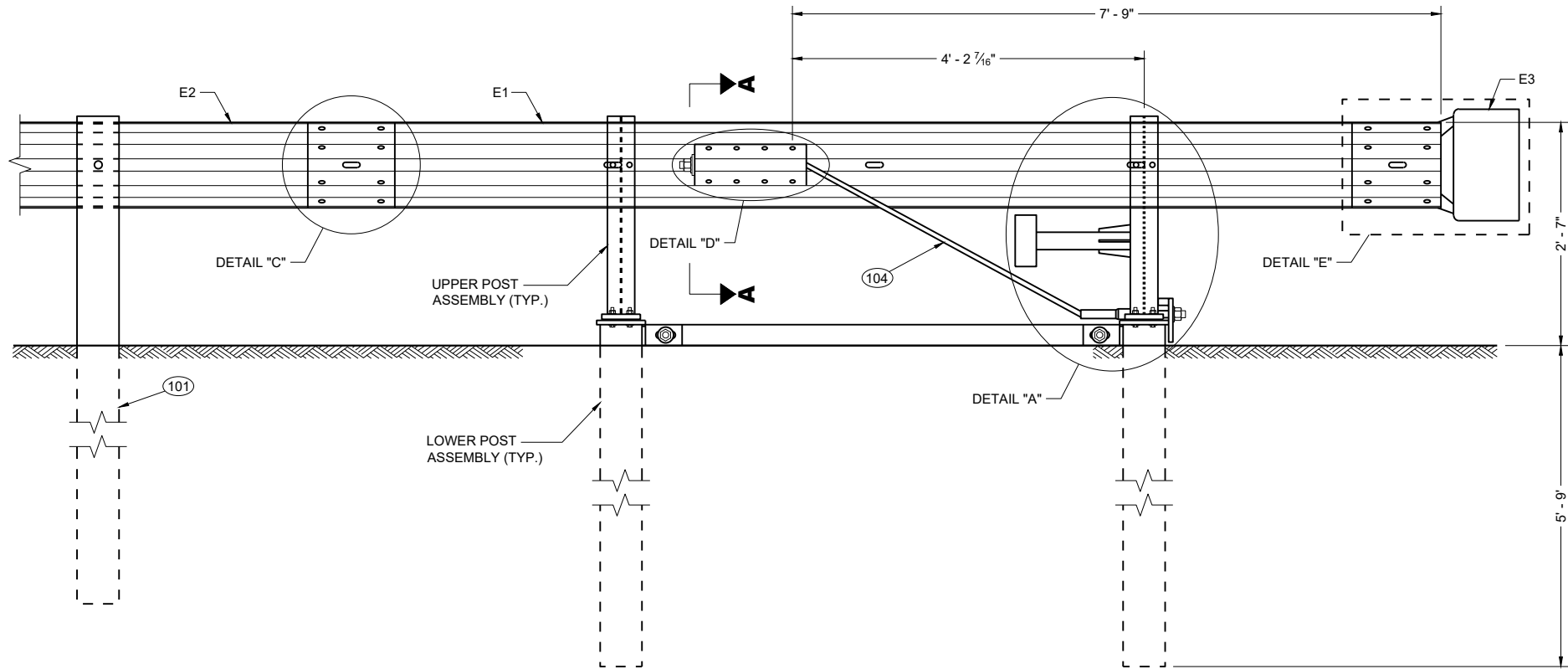
FHWA

/S/ Rodney Taylor

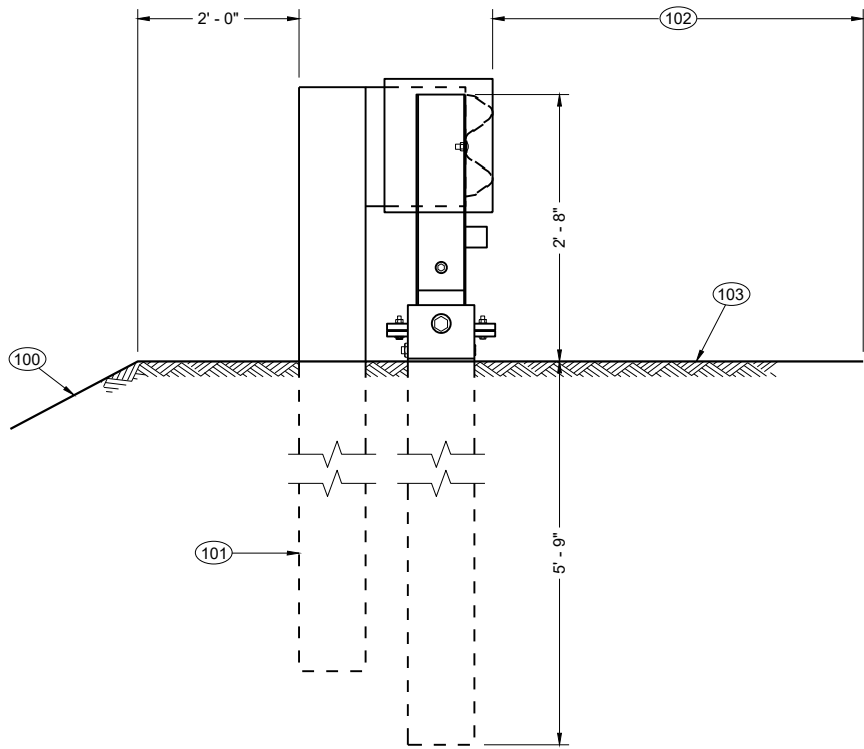
ROADWAY STANDARDS C 256

UNIT SUPERVISOR

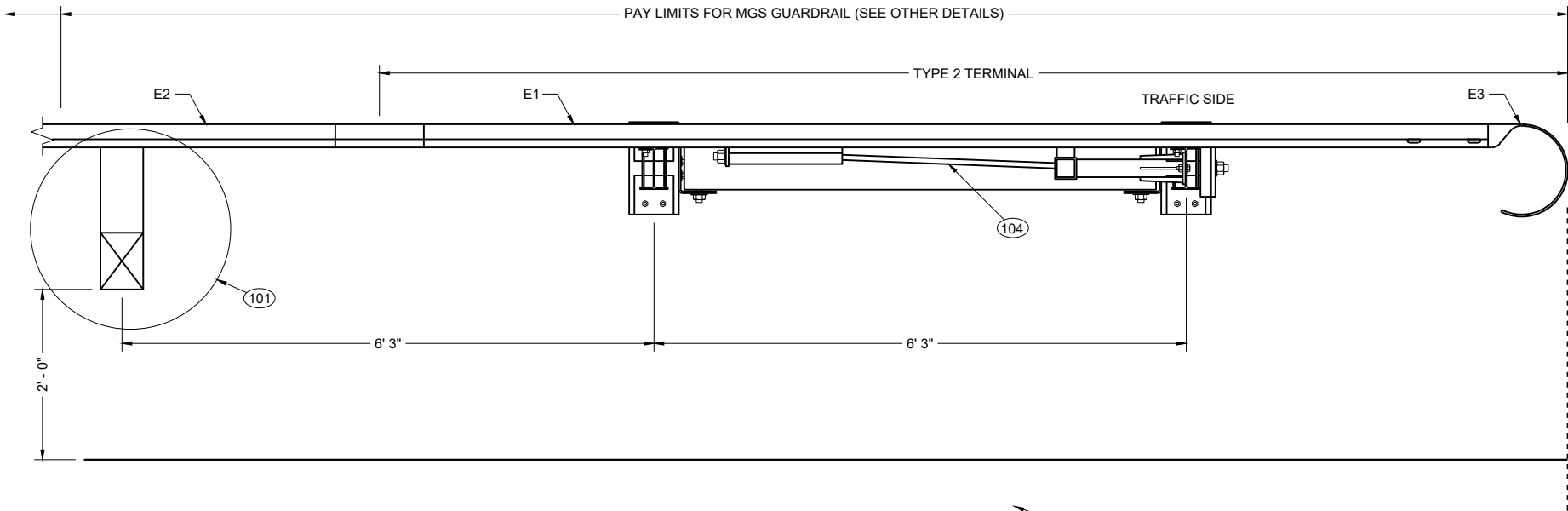
NT



BACK VIEW  
TYPE 2 TERMINAL



SIDE VIEW  
TYPE 2 TERMINAL



TOP VIEW  
TYPE 2 TERMINAL

GENERAL NOTES

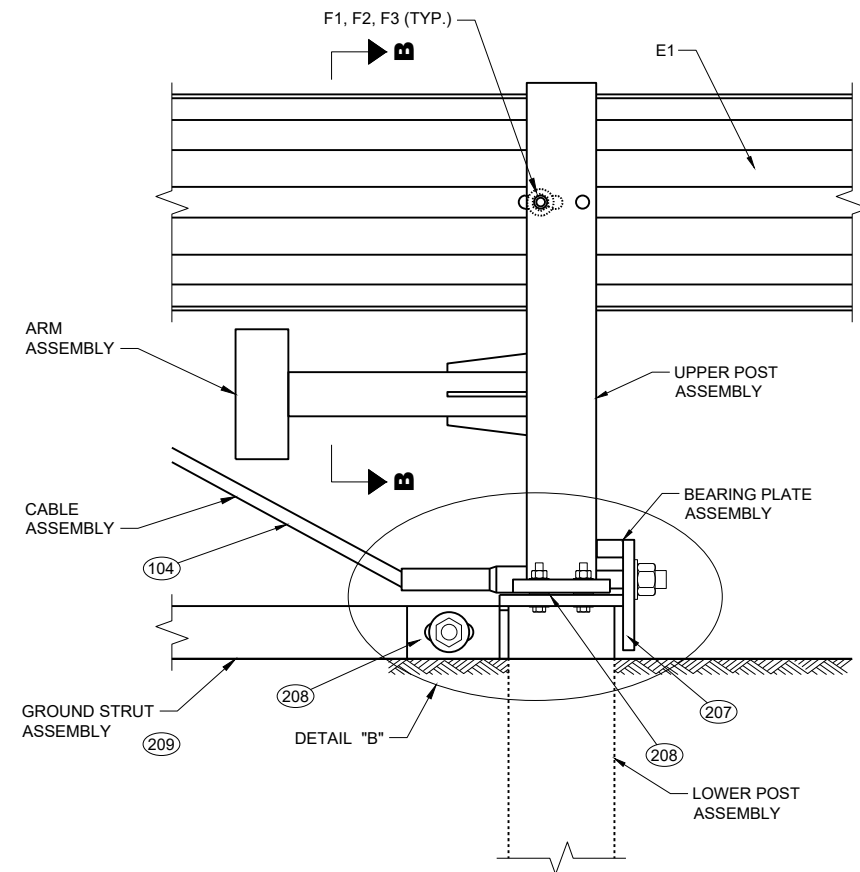
SEE SDD 14B42 FOR MORE INFORMATION

- 100 MAXIMUM SLOPE IS 2.5:1.
- 101 SEE SDD 14B42 FOR MORE INFORMATION.
- 102 SHOULDER
- 103 MAXIMUM SLOPE IS 10:1.
- 104 AFTER ASSEMBLY, CABLE IS TO BE TIGHTENED WITHOUT TWISTING THE CABLE.

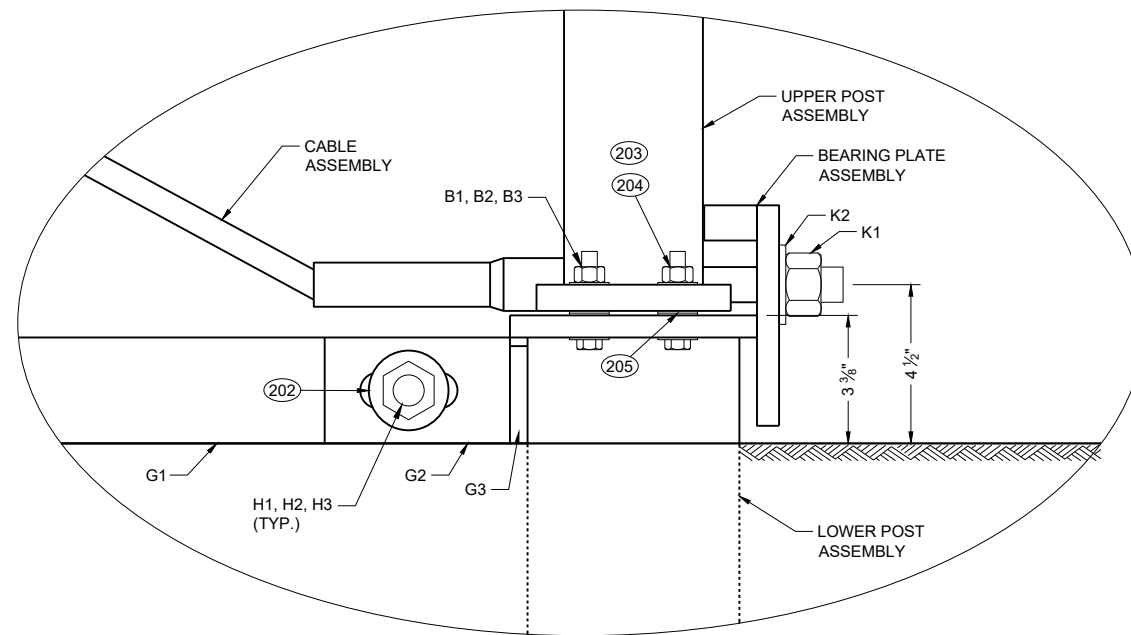
MIDWEST GUARDRAIL  
SYSTEM (MGS)  
TYPE 2 TERMINAL

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

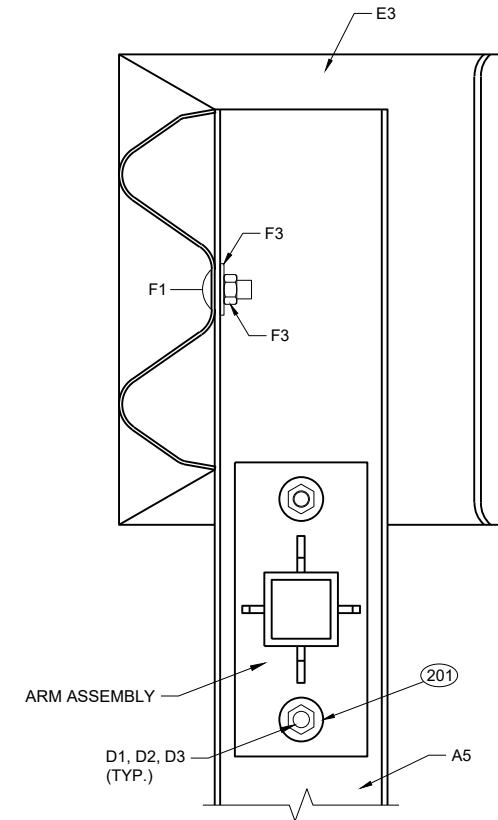




DETAIL "A"



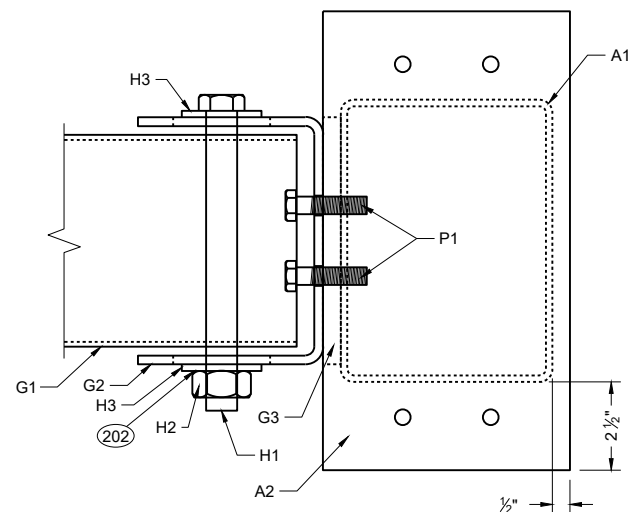
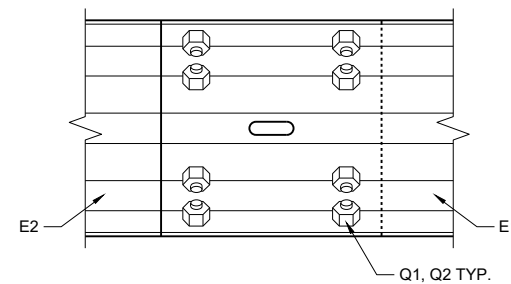
DETAIL "B"



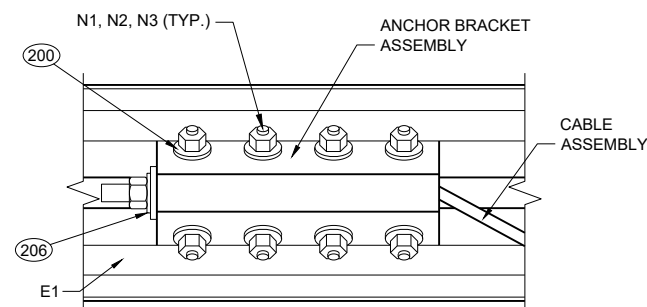
SECTION B - B

## GENERAL NOTES

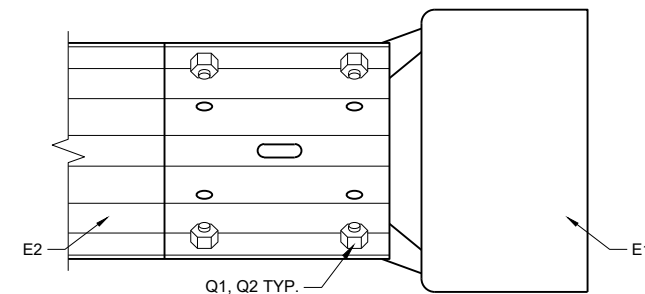
- (200) INSTALL ONE WASHER UNDER BOLT HEAD AND RAIL AND ON WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.
- (201) INSTALL ONE WASHER UNDER BOLT HEAD AND UPPER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND ARM PLATE.
- (202) INSTALL ONE WASHER UNDER BOLT HEAD AND GROUND STRUT CONNECTOR AND ONE WASHER BETWEEN NUT AND GROUND STRUT CONNECTOR.
- (203) INSTALL ONE WASHER UNDER BOLT HEAD AND LOWER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND UPPER POST ASSEMBLY.
- (204) TORQUE VALUE IS BETWEEN 60 - 75 FT-LB.
- (205) TWO WASHERS BETWEEN UPPER AND LOWER POST ASSEMBLY.
- (206) INSTALL ONE WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.
- (207) NO MATERIAL IS TO BE PLACED AGAINST THE VERTICAL FACES OF BEARING PLATE.
- (208) PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLTS FOR POST ASSEMBLIES AND GROUND STRUT.
- (209) PREVENT OR REMOVE MATERIALS THAT IMPEDE REMOVAL OF GROUND STRUT.

TOP VIEW  
GROUND STRUT  
CONNECTION DETAIL

DETAIL "C"

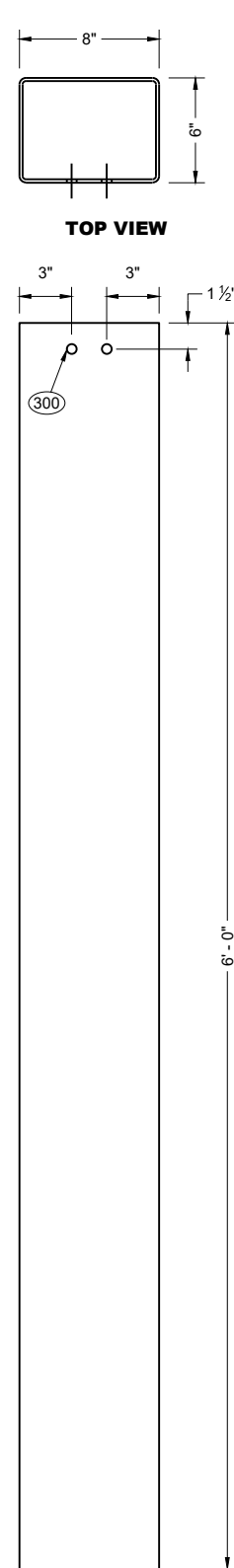


DETAIL "D"

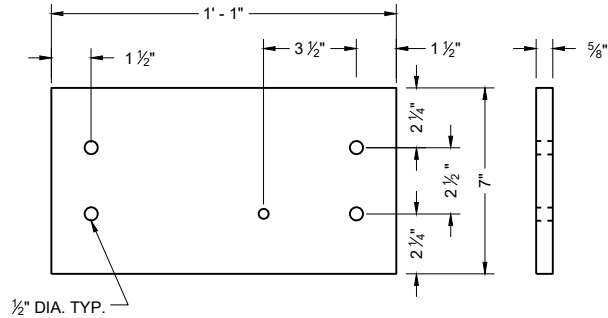


DETAIL "E"

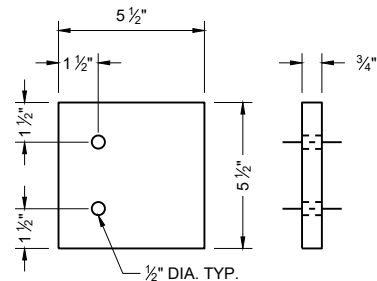
MIDWEST GUARDRAIL  
SYSTEM (MGS)  
TYPE 2 TERMINALSTATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



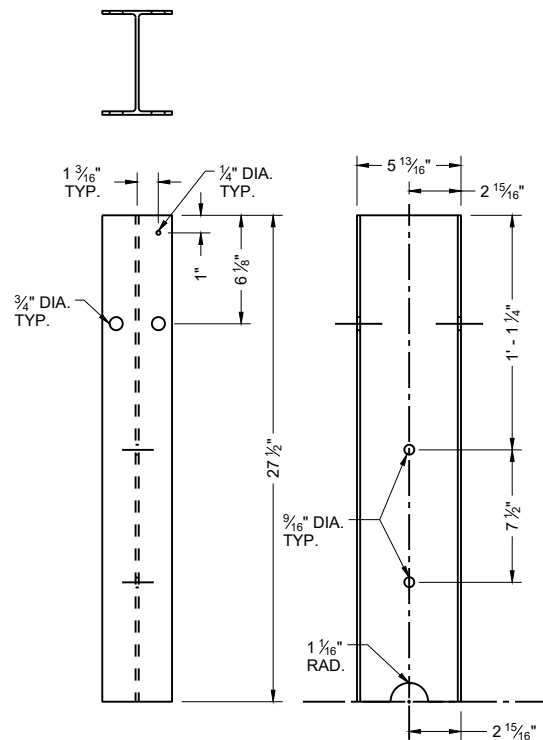
FOUNDATION  
TUBE (A1)



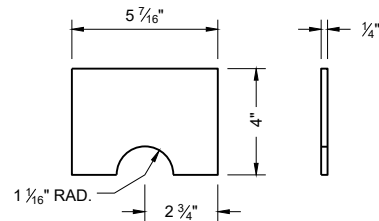
LOWER PLATE (A2)



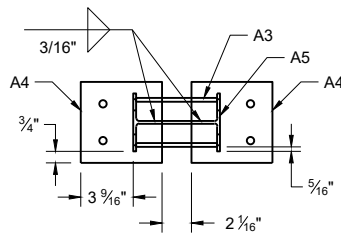
UPPER PLATE (A4)



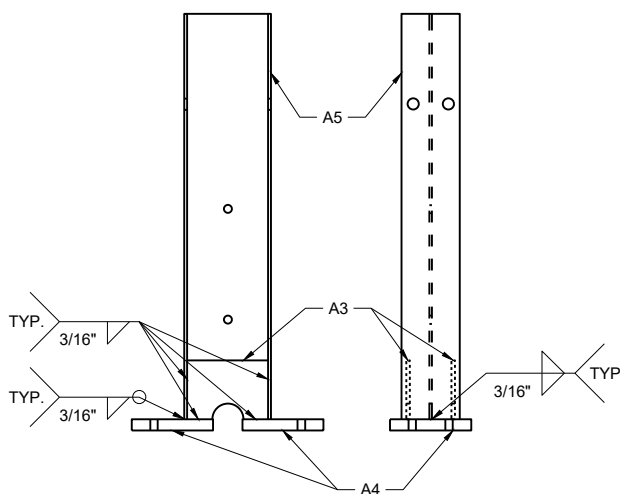
TYPE 2 POST (A5)



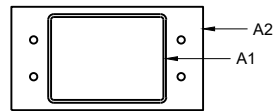
POST GUSSET (A3)



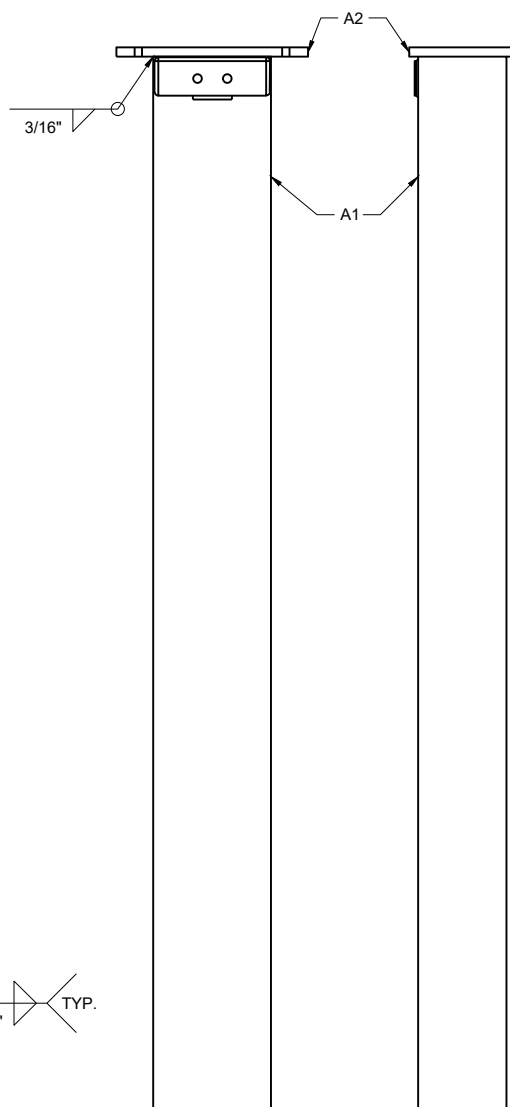
PLAN VIEW



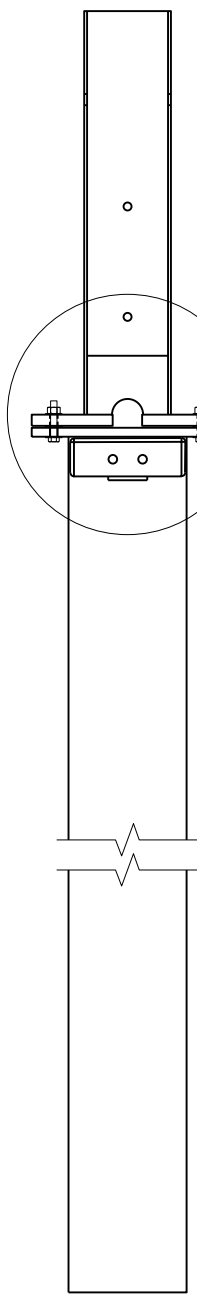
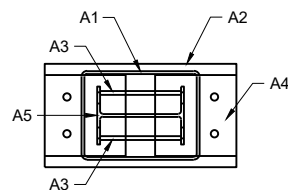
UPPER POST ASSEMBLY



PLAN VIEW



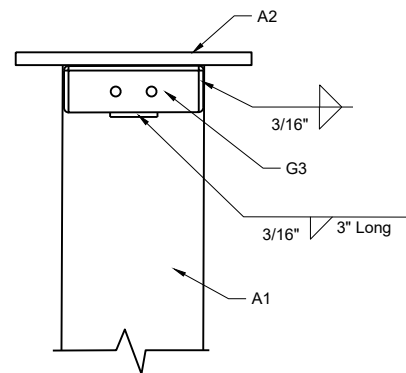
LOWER POST ASSEMBLY



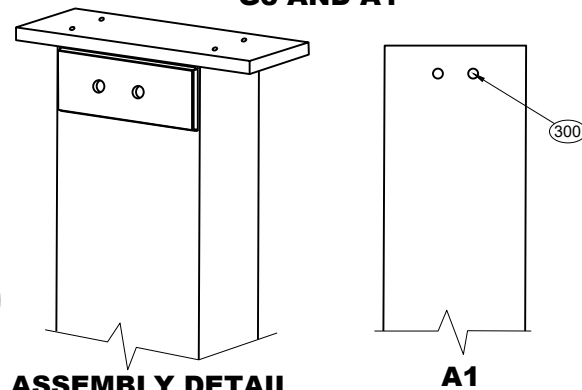
ASSEMBLED POST

GENERAL NOTES

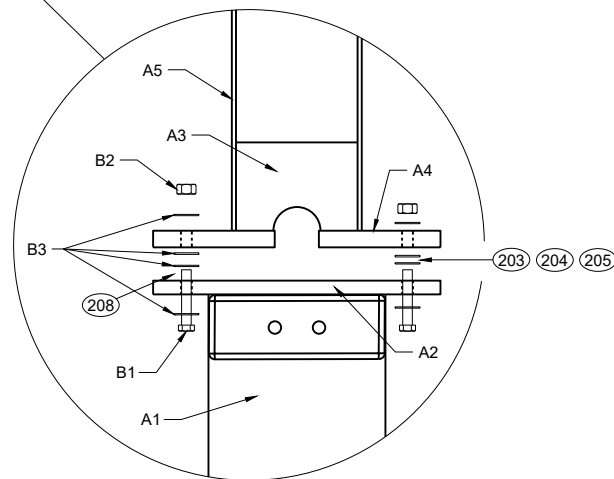
(300) TAP FOR 1/2" AFTER GALVANIZATION



WELDING DETAIL  
G3 AND A1



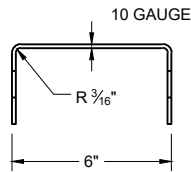
ASSEMBLY DETAIL  
ISOMETRIC



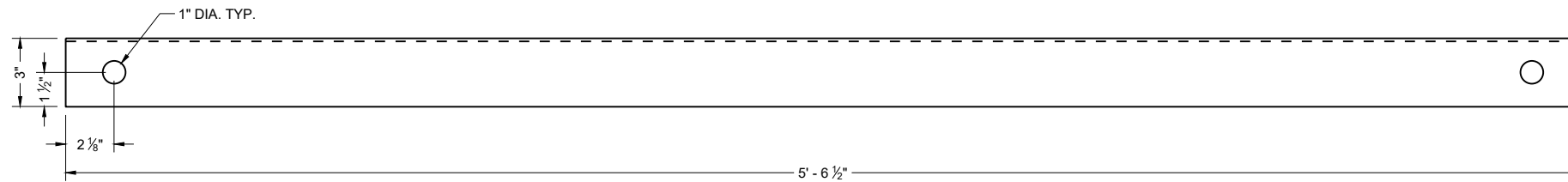
POST CONNECTION DETAIL

MIDWEST GUARDRAIL  
SYSTEM (MGS)  
TYPE 2 TERMINAL

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

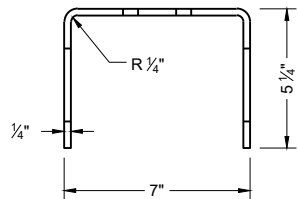


SIDE VIEW

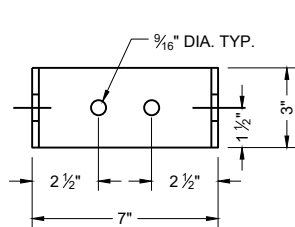


FRONT VIEW

GROUND STRUT CHANNEL (G1)

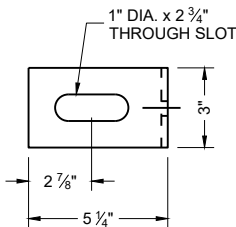


TOP VIEW



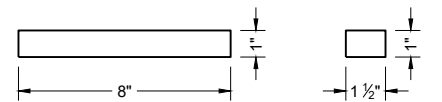
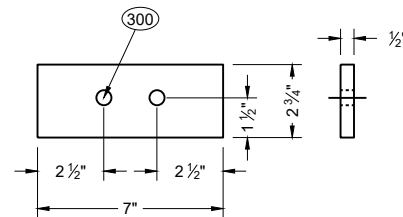
FRONT VIEW

GROUND STRUT CONNECTOR (G2)

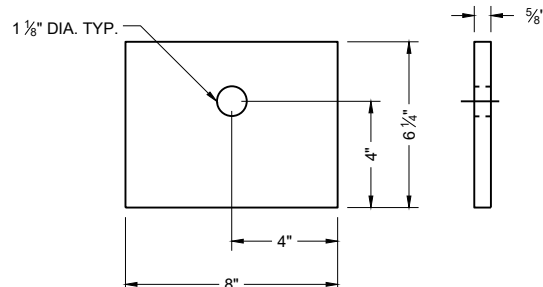


SIDE VIEW

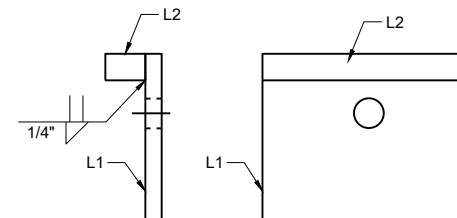
GROUND STRUT PLATE (G3)



BEARING PLATE FLANGE (L2)



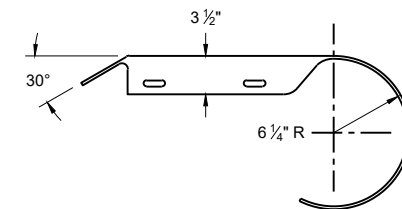
BEARING PLATE (L1)



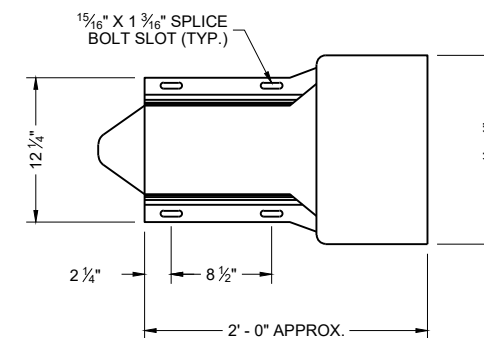
SIDE VIEW

FRONT VIEW

BEARING PLATE ASSEMBLY

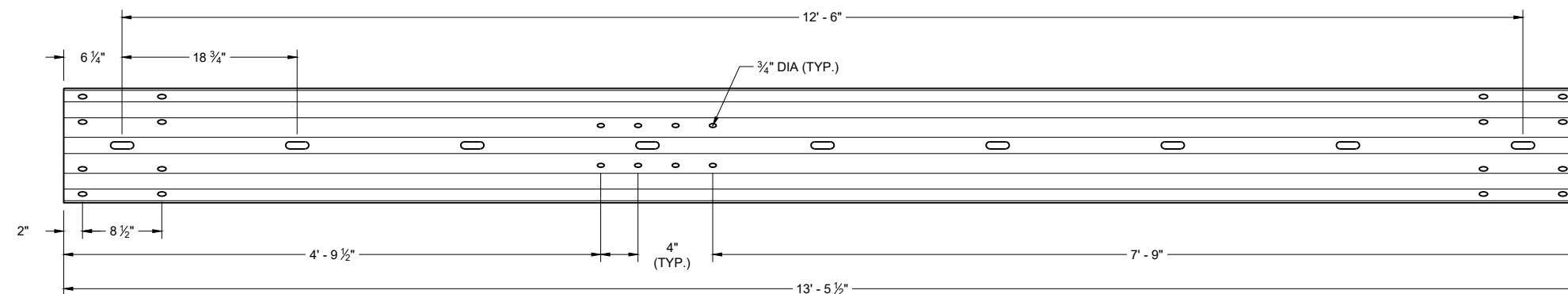


PLAN VIEW

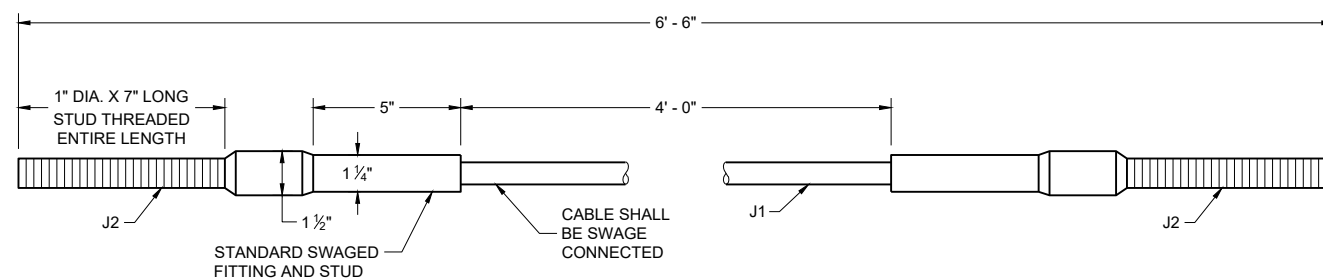


ELEVATION VIEW

ROUNDED BUFFER END (E3)



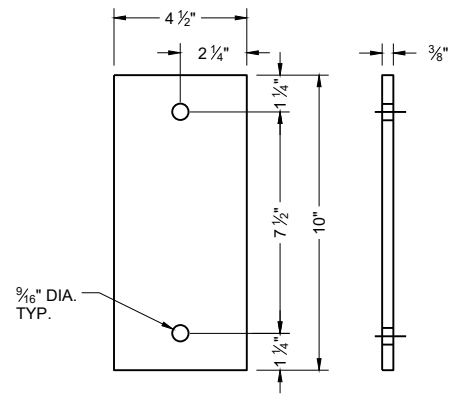
TYPE 2 GUARDRAIL (E1)



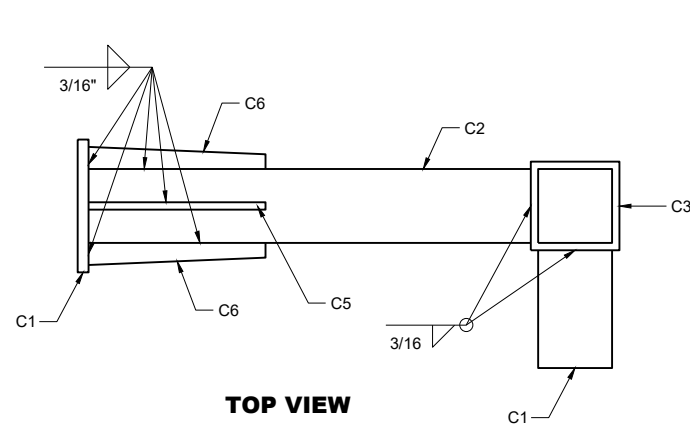
CABLE ASSEMBLY

MIDWEST GUARDRAIL  
SYSTEM (MGS)  
TYPE 2 TERMINAL

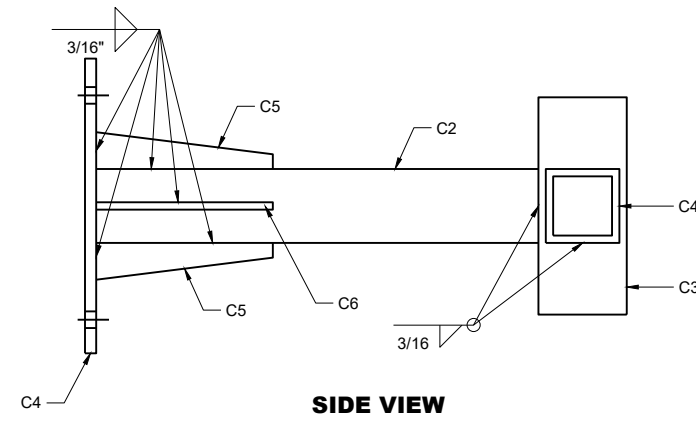
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



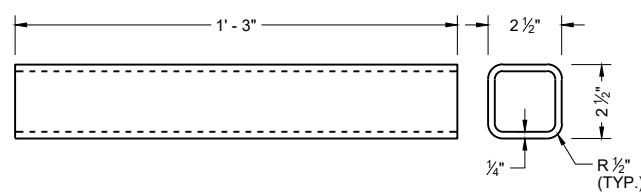
**ARM PLATE (C1)**



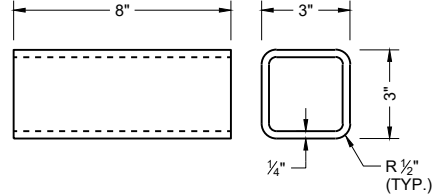
**TOP VIEW  
ARM ASSEMBLY**



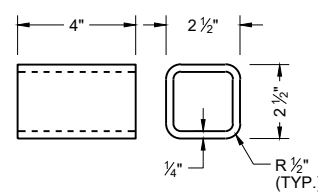
**SIDE VIEW  
ARM ASSEMBLY**



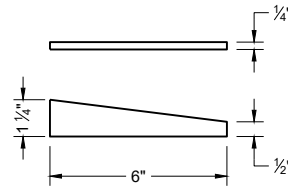
**ARM TUBE 1 (C2)**



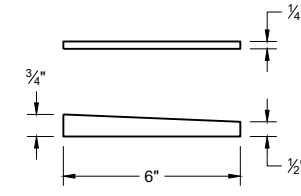
**ARM TUBE 2 (C3)**



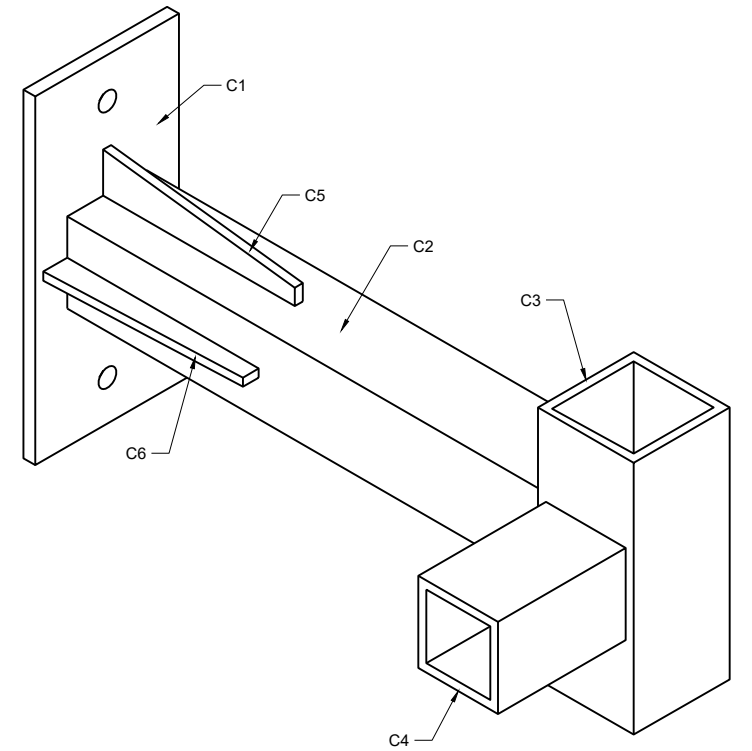
**ARM TUBE 3 (C4)**



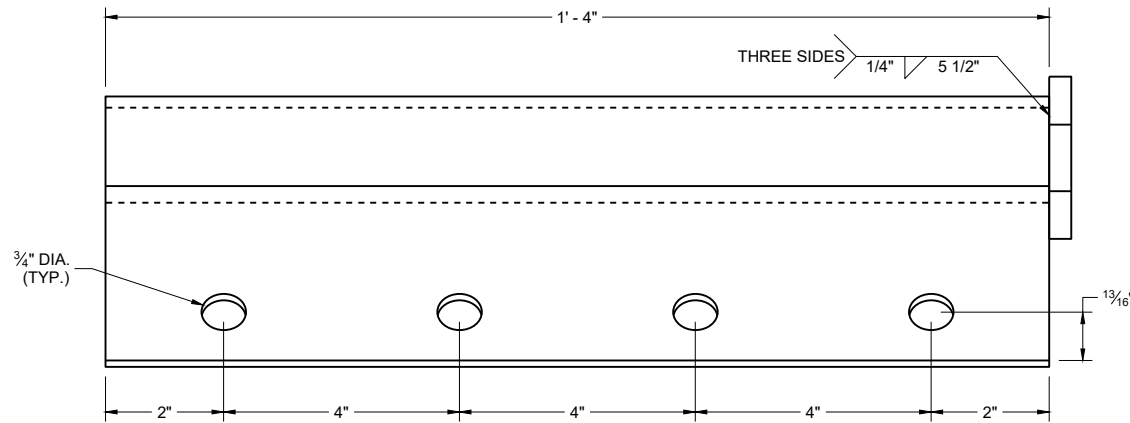
**ARM GUSSET  
PLATE 1 (C5)**



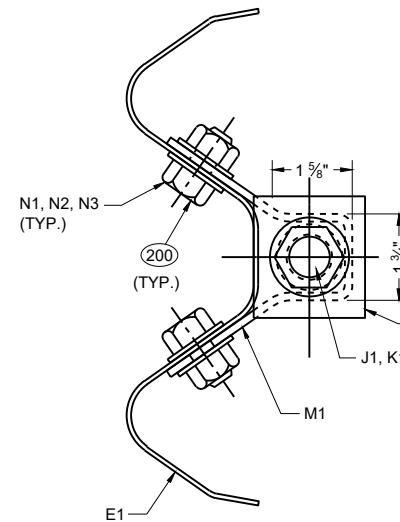
**ARM GUSSET  
PLATE 2 (C6)**



**ISOMETRIC VIEW  
ARM ASSEMBLY**

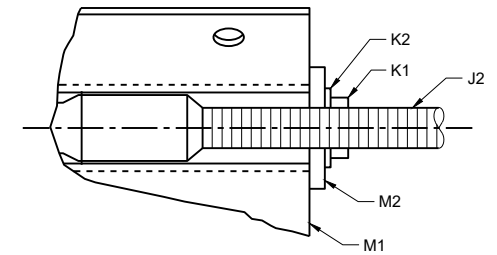


**ANCHOR BRACKET (M1, M2)**



**ANCHOR BRACKET BEARING PLATE (M2)**

**SECTION A - A**



**MIDWEST GUARDRAIL  
SYSTEM (MGS)  
TYPE 2 TERMINAL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

| PART | DESCRIPTION                   | MATERIALS SPECIFICATIONS                                                                                                                                                                                                                                                                                                                                              | NOTES                     |
|------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| A1   | TYPE 2 FOUNDATION TUBE        | AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501                                                                                                                                                                                                                                                                                                               | TS 8" x 6" x 3⁄16"        |
| A2   | LOWER PLATE                   | AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI                                                                                                                                                                        | 5⁄8" THICKNESS            |
| A3   | POST GUSSET                   | AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI                                                                                                                                                                        | 1⁄4" THICKNESS            |
| A4   | UPPER PLATE                   | AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI                                                                                                                                                                        | 3⁄4" THICKNESS            |
| A5   | TYPE 2 POST                   | AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI, w6x9 or w6x8.5                                                                                                                                                        |                           |
| B1   | BREAKAWAY BOLT                | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED . PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT. | 7⁄16" DIA.                |
| B2   | BREAKAWAY BOLT WASHER         | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)                                                                                                                                                                                           | 7⁄16" DIA.                |
| B3   | BREAKAWAY BOLT NUT            | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5                                                                                                                     |                           |
| C1   | ARM ASSEMBLY PLATE            | AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI                                                                                                                                                                        | 3⁄8" THICKNESS            |
| C2   | ARM ASSEMBLY TUBE 1           | AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501                                                                                                                                                                                                                                                                                                               | TS 8" x 6" x 3⁄16"        |
| C3   | ARM ASSEMBLY TUBE 2           | AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501                                                                                                                                                                                                                                                                                                               | TS 3" x 3" x 1⁄4"         |
| C4   | ARM ASSEMBLY TUBE 3           | AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501                                                                                                                                                                                                                                                                                                               | TS 2 1⁄2" x 2 1⁄2" X 1⁄4" |
| C5   | ARM ASSEMBLY GUSSET PLATE 1   | AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI                                                                                                                                                                        | 1⁄4" THICKNESS            |
| C6   | ARM ASSEMBLY GUSSET PLATE 2   | AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI                                                                                                                                                                        | 1⁄4" THICKNESS            |
| D1   | ARM ASSEMBLY BOLT             | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36                                                                                                                                            | 1⁄2" DIA.                 |
| D2   | ARM ASSEMBLY WASHER           | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)                                                                                                                                                                                           | 1⁄2" DIA.                 |
| D3   | ARM ASSEMBLY NUT              | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5                                                                                                                   | 1⁄2" DIA.                 |
| E1   | TYPE 2 GUARD RAIL             | AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER                                                                                                                                                                                                                                                                                                                 |                           |
| E2   | BEAM GUARD RAIL               | AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER                                                                                                                                                                                                                                                                                                                 |                           |
| E3   | BEAM GUARD ROUNDED BUFFER END | AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER                                                                                                                                                                                                                                                                                                                 |                           |
| F1   | POST BOLT                     | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36                                                                                                                                            | 5⁄8" DIA.                 |
| F2   | POST BOLT WASHER              | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)                                                                                                                                                                                           | 5⁄8" DIA.                 |
| F3   | POST BOLT NUT                 | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5                                                                                                |                           |
| G1   | GROUND STRUT CHANNEL          | AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI                                                                                                                                                                        | 1⁄2" x 11 3⁄4" x 10 GAUGE |
| G2   | GROUND STRUT CONNECTOR        | AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI                                                                                                                                                                        | 1⁄4" THICKNESS            |
| G3   | GROUND STRUT PLATE            | AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI                                                                                                                                                                        | 1⁄2" THICKNESS            |

MIDWEST GUARDRAIL  
SYSTEM (MGS)  
TYPE 2 TERMINAL

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

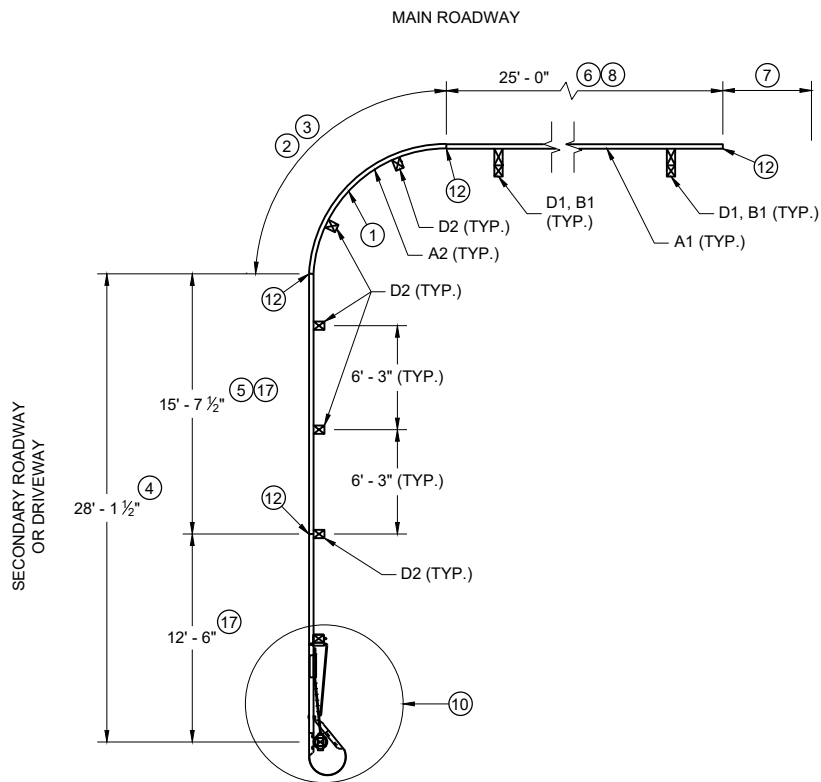
| PART | DESCRIPTION                 | MATERIALS SPECIFICATIONS                                                                                                                                                                                                                                                                                    | NOTES          |
|------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| H1   | GROUND STRUT BOLT           | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC<br>HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36                                                                               | 7/8" DIA.      |
| H2   | GROUND STRUT BOLT WASHER    | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1<br>F436 TYPE 1 (HARDEN WASHER ONLY)                                                                                                                               | 7/8" DIA.      |
| H3   | GROUND STRUT BOLT NUT       | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC<br>HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36                                                                          |                |
| J1   | BCT CABLE                   | AASHTO M30 / ASTM A741 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS)<br>TYPE II OR IIC, CLASS C ZINC COATED MIN. BREAKING STRENGTH OF 42.7 KIPS                                                                              | 3/4" DIA.      |
| J2   | BCT CABLE                   | UNC 1" ASTM A576 GRADE 1035 SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. MIN BREAKING STRENGTH OF 42.7 KIPS ASME B30.26 "FORGED, CAST, OR DIE<br>STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR<br>ALLOY EYEBOLTS." |                |
| K1   | CABLE ASSEMBLY NUT          | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC<br>OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5                                                      | 1" DIA.        |
| K2   | CABLE ASSEMBLY WASHER       | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1                                                                                                                                                                                              | 1" DIA.        |
| L1   | BEARING PLATE               | AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709<br>MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI                                                                                                           | 5/8" THICKNESS |
| L2   | BEARING PLATE FLANGE        | AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709<br>MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI                                                                                                           | 1" THICKNESS   |
| M1   | BEAM GUARD ANCHOR BRACKET   | AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709<br>MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI                                                                                                           |                |
| M2   | BEAM GUARD ANCHOR END PLATE | AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709<br>MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI                                                                                                           | 3/8" THICKNESS |
| N1   | ANCHOR BRACKET BOLT         | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC<br>AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36                                                                             | 5/8" DIA.      |
| N2   | ANCHOR BRACKET BOLT WASHER  | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1<br>F436 TYPE 1 (HARDEN WASHER ONLY)                                                                                                                               | 5/8" DIA.      |
| N3   | ANCHOR BRACKET BOLT NUT     | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC<br>OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5                                                      |                |
| P1   | FOUNDATION TUBE BOLT        | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC<br>OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5                                                       | 1/2" DIA.      |
| Q1   | SPLICE BOLT                 | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC<br>AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36                                                                             |                |
| Q2   | SPLICE NUT                  | HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC<br>OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5                                 | 5/8" DIA.      |

MIDWEST GUARDRAIL  
SYSTEM (MGS)  
TYPE 2 TERMINAL

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

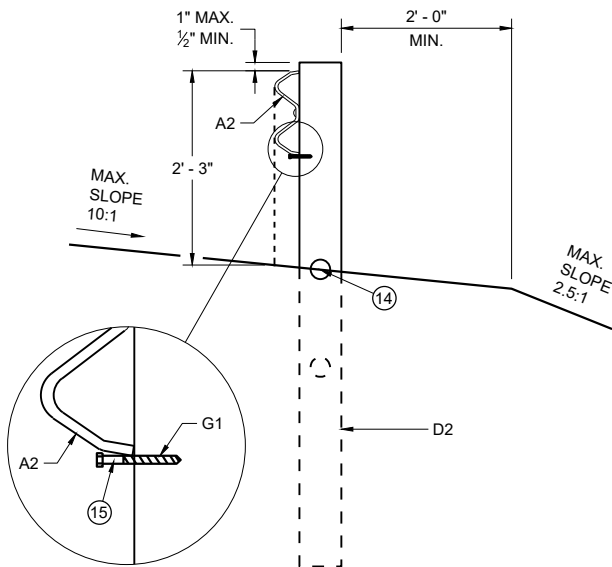
APPROVED  
June 2025 /S/ Rodney Taylor  
DATE <position>

FHWA

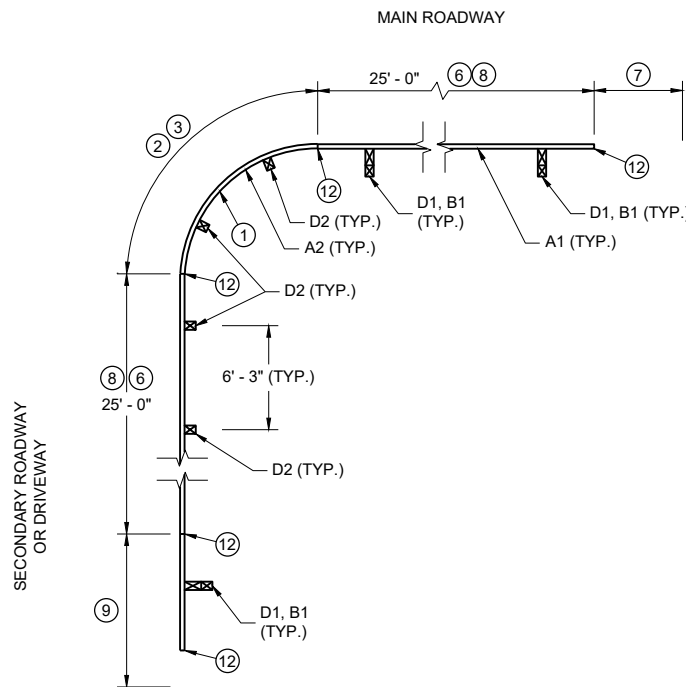


PLAN VIEW

**SHORT RADIUS BEAM GUARD WITH  
SHORT RADIUS TERMINAL ON  
SECONDARY ROAD OR DRIVEWAY**

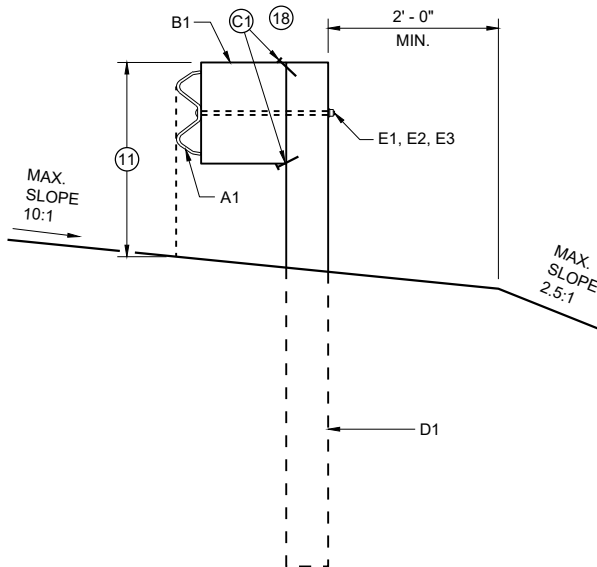


**CONTROLLED RELEASE  
TERMINAL POST (CRT) IN RADIUS**



PLAN VIEW

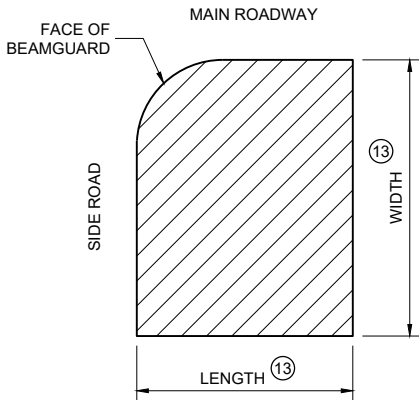
**SHORT RADIUS BEAM GUARD WITH  
EAT, ADDITIONAL BEAM GUARD  
OR  
TRANSITION TO RIGID BARRIER ON  
SECONDARY ROAD OR DRIVEWAY**



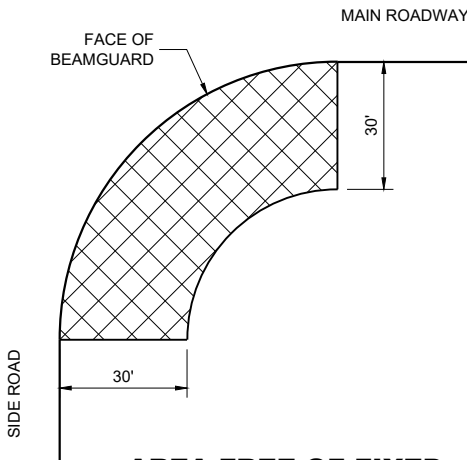
**BEAM GUARD POSTS  
IN HEIGHT TRANSITION**

TABLE FOR RADIUS OF 32' AND LESS

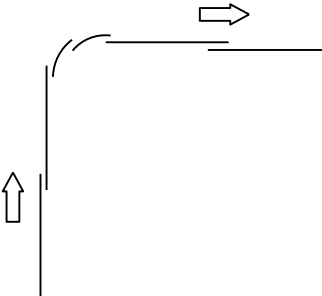
| RADIUS (FT) | LENGTH (FT) | WIDTH (FT) |
|-------------|-------------|------------|
| 8           | 25          | 15         |
| 16          | 30          | 15         |
| 24          | 40          | 20         |
| 32          | 50          | 30         |



**AREA FREE OF FIXED  
OBJECTS FOR RADIUS  
32' AND LESS**



**AREA FREE OF FIXED  
OBJECTS FOR RADIUS  
GREATER THAN 32'**



LAP SPLICE DETAIL

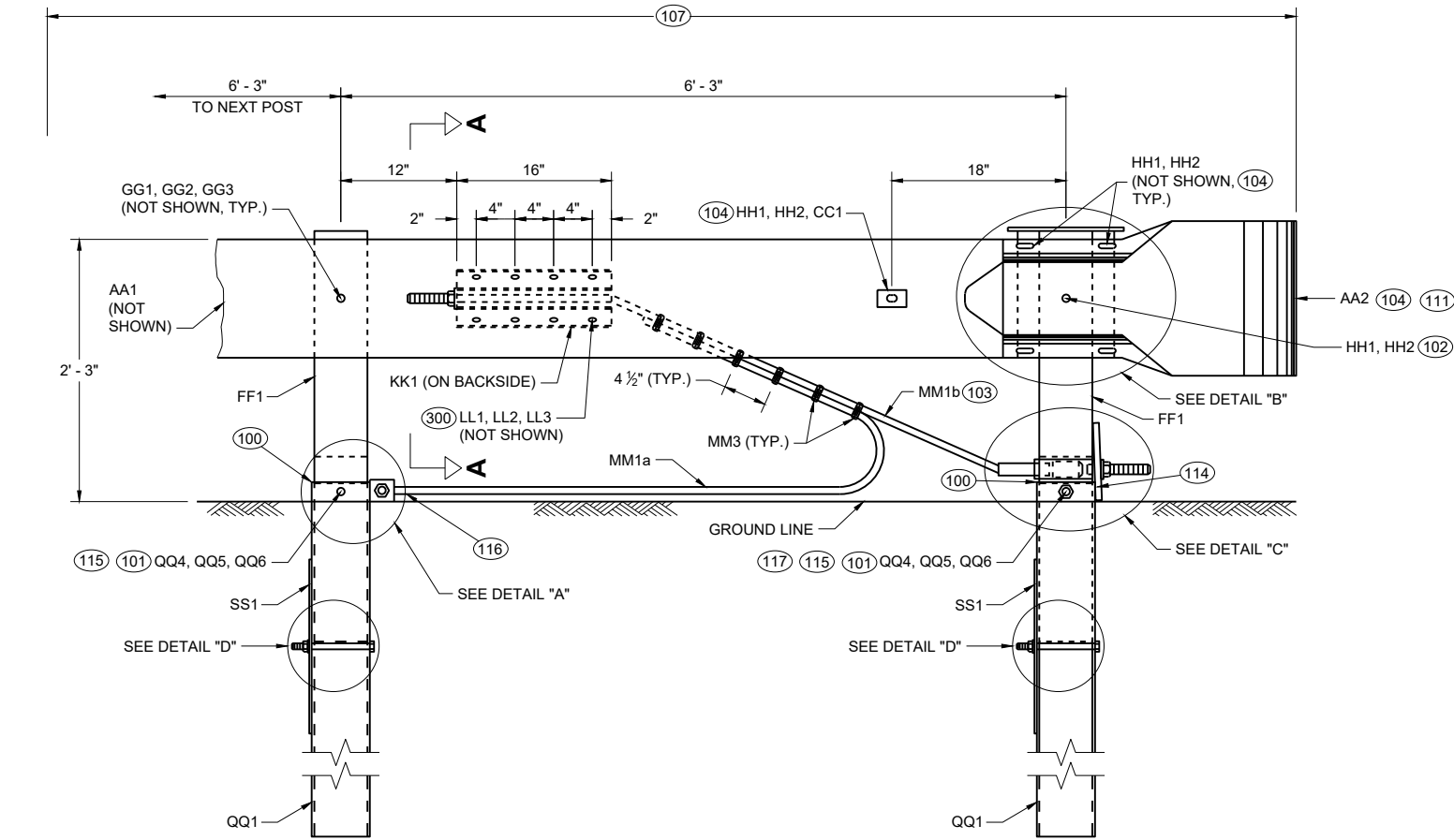
**GENERAL NOTES**

- SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.
- SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.
- GALVANIZE PARTS AFTER FABRICATION.
- WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.
- UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.
- UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.
- ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.
- UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE 1/4" TO 1/2" BEYOND THE NUT.
- DRAWINGS ARE NOT TO SCALE.

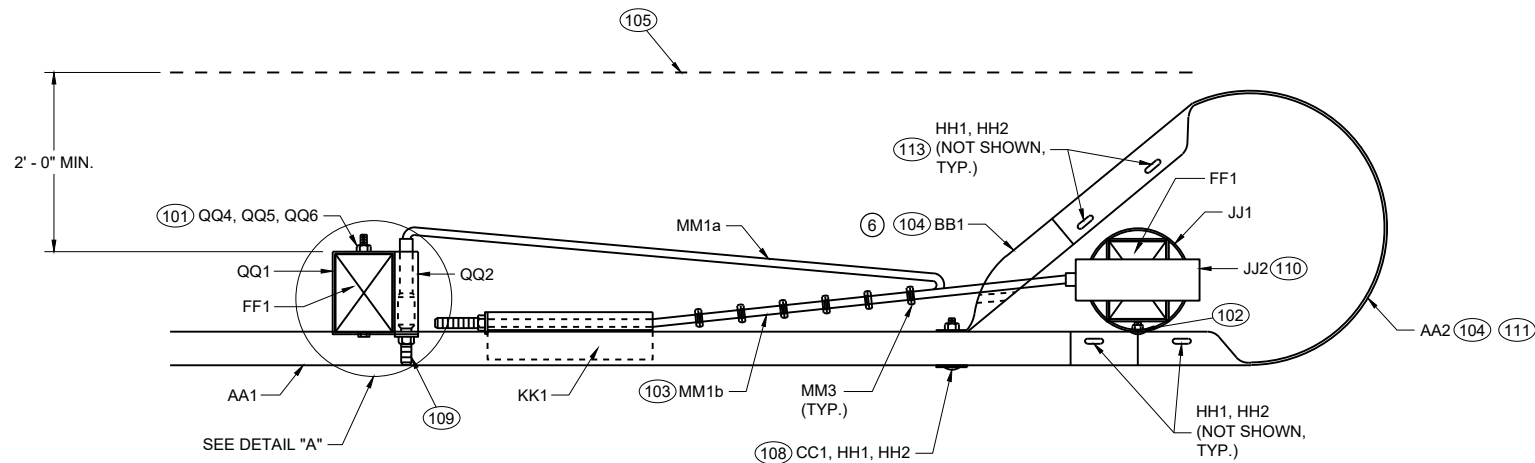
- (1) RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.
- (2) CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6' - 3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE (CRT) POSTS.
- (3) WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAIL IS RESTED ON TOP OF LAG SCREW.
- (4) MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID WITH BEAM GUARD ITEM.
- (5) ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.
- (6) MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TO TRANSITION TO RIGID BARRIER. ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.
- (7) BEAM GUARD, EAT, OR TRANSITION TO RIGID BARRIER. SEE PLAN.
- (8) TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.
- (9) ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.
- (10) SHORT RADIUS TERMINAL (SEE OTHER DETAILS).
- (11) HEIGHT VARIES. SEE NOTE (8) AND (17).
- (12) BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRES PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.
- (13) SEE TABLE FOR VALUES.
- (14) MAXIMUM HEIGHT FOR CENTER OF HOLE IS 3/4" ABOVE FINISHED GROUND ±1".
- (15) DRILL POST 15/64" DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.
- (16) SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.
- (17) TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL (CRT).
- (18) INITIAL 1 NAIL AT EACH CORNER OF THE BLOCK TO CONNECT BLOCKS.

**SHORT RADIUS BEAM  
GUARD (MGS) SHORT  
RADIUS TERMINAL (MGS)**

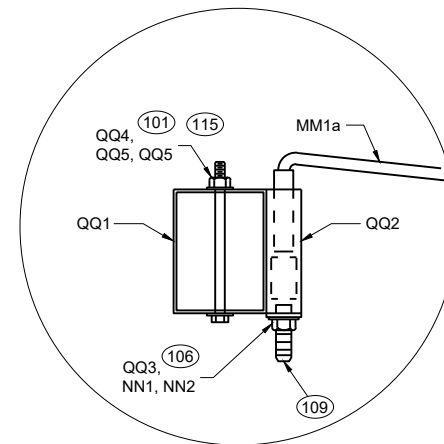
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



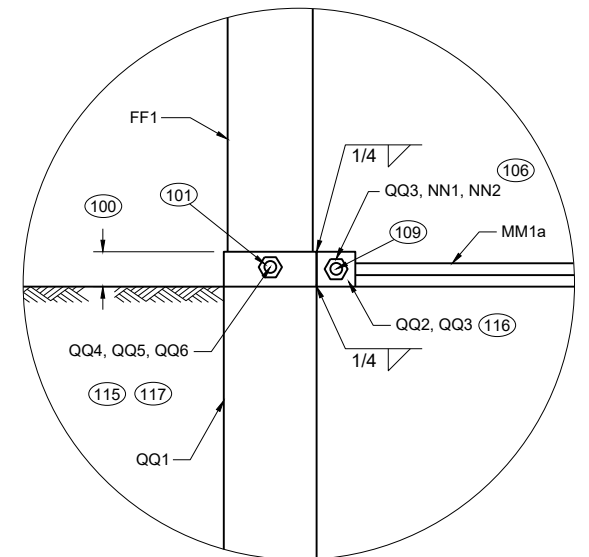
**PROFILE VIEW  
SHORT RADIUS TERMINAL**



**TOP VIEW  
SHORT RADIUS TERMINAL**



**TOP VIEW  
DETAIL "A"  
(WOOD BREAKAWAY AND BEAM  
GUARD RAIL POSTS NOT SHOWN)**



**PROFILE VIEW  
DETAIL "A"**

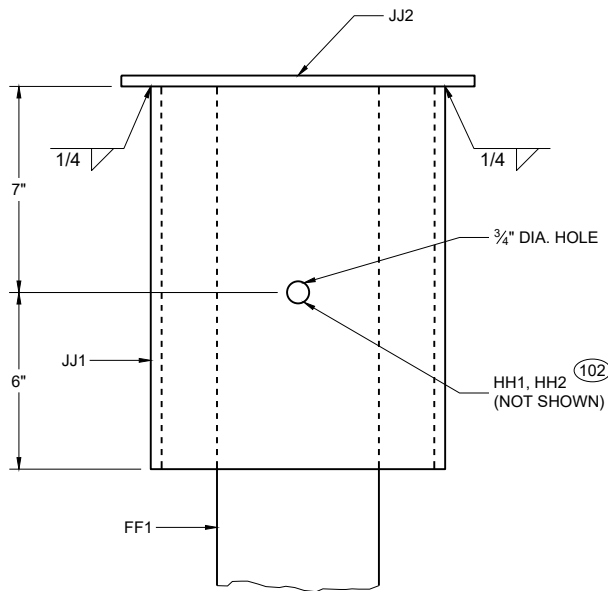
**GENERAL NOTES**

- (100) TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.
- (101) WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.
- (102) SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".
- (103) CABLE IS TAUT.
- (104) ADJUST AA2 AND BB1 TO FIT.
- (105) BREAK POINT OF SHOULDER.
- (106) TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.
- (107) PAY LIMIT FOR BEAM GUARD.
- (108) SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.
- (109) CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS 1/2" TOLERANCE). DEBURR AFTER CUTTING.
- (110) SEE STEEL PIPE ASSEMBLY DETAILS.
- (111) ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.
- (112) FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.
- (113) FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.
- (114) NO MATERIAL IS TO BE PLACED AGAINST THE VERTICAL FACES OF BEARING PLATE.
- (115) PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLTS FOR POST AND SOIL TUBE.
- (116) PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLT. PLACE CABLE ON TOP OF MATERIAL.
- (117) ONE WASHER BETWEEN BOLD HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

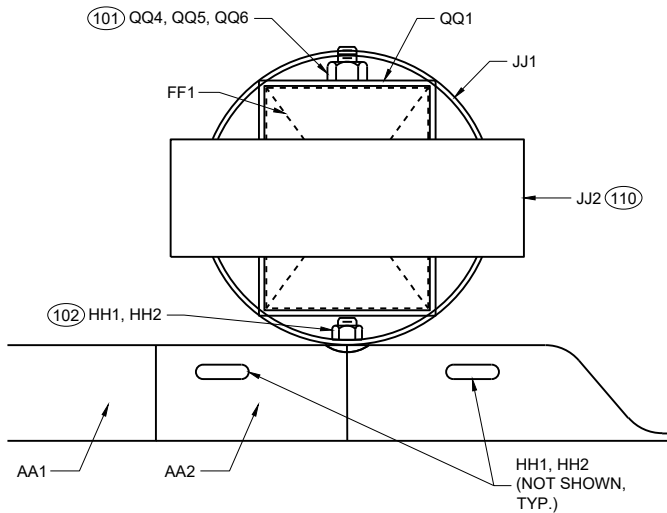
**SHORT RADIUS BEAM  
GUARD (MGS) SHORT  
RADIUS TERMINAL (MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

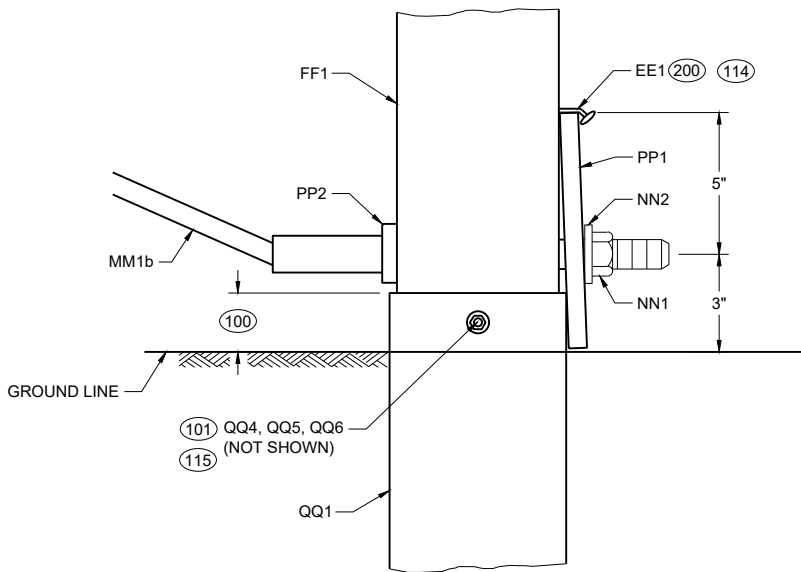




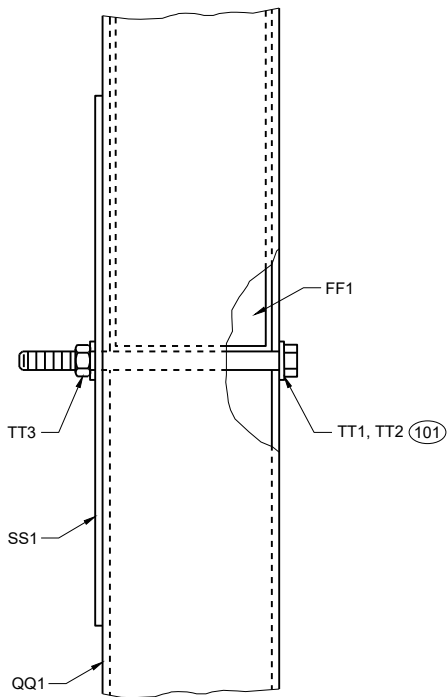
**PROFILE VIEW  
DETAIL "B"  
STEEL PIPE ASSEMBLY  
(BEAM GUARD AND W BEAM  
END SECTION NOT SHOWN)**



**PLAN VIEW  
DETAIL "B"  
STEEL PIPE ASSEMBLY**



**PROFILE VIEW  
DETAIL "C"**



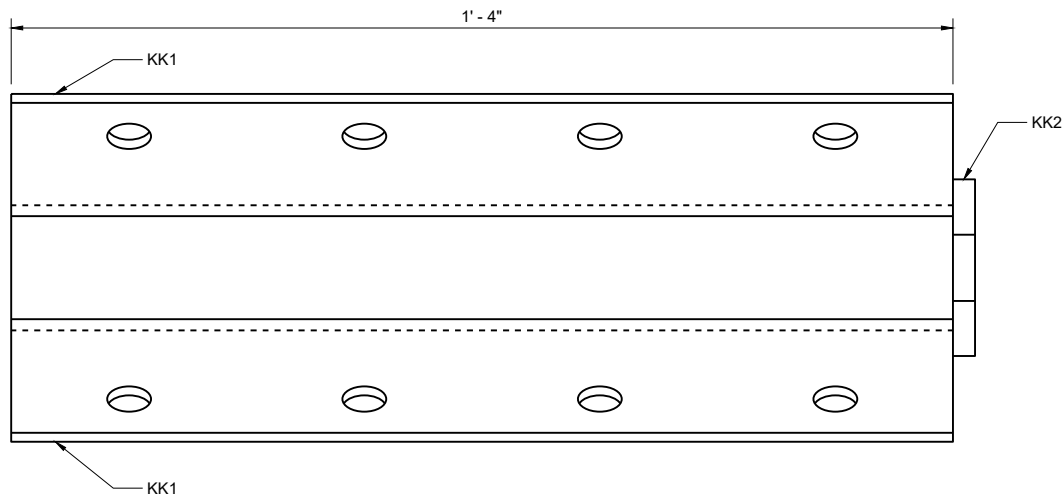
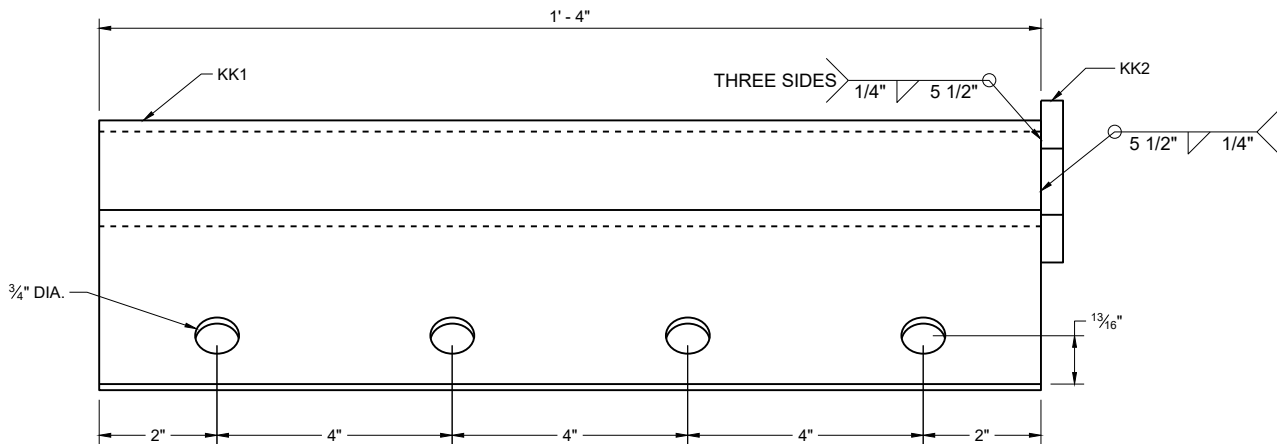
**PROFILE VIEW  
DETAIL "D"**

**GENERAL NOTES**

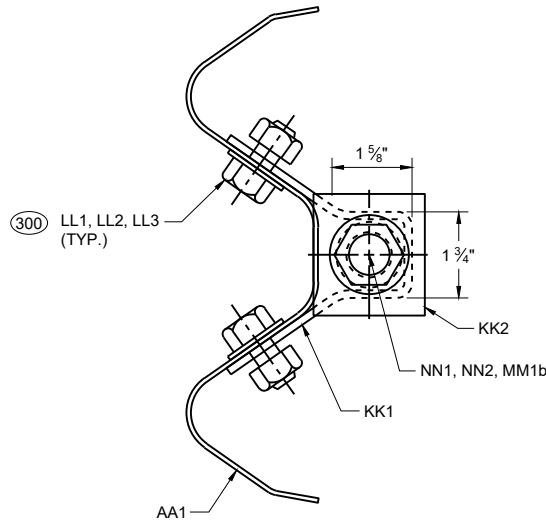
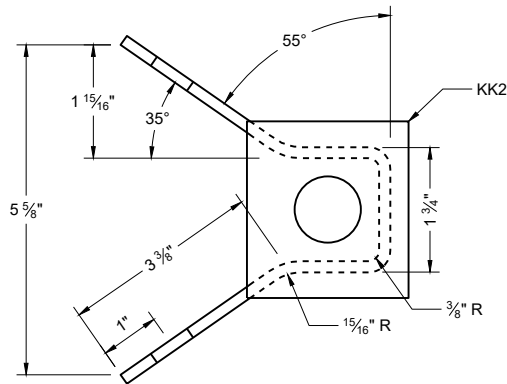
(200) TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.

**SHORT RADIUS BEAM  
GUARD (MGS) SHORT  
RADIUS TERMINAL (MGS)**

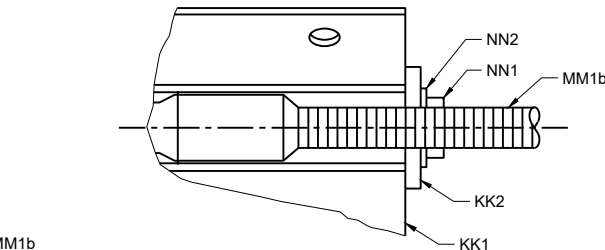
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



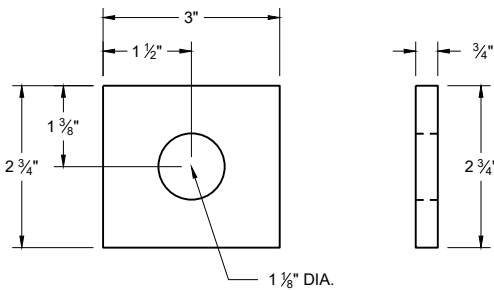
ANCHOR BRACKET (KK1, KK2)



SECTION A - A

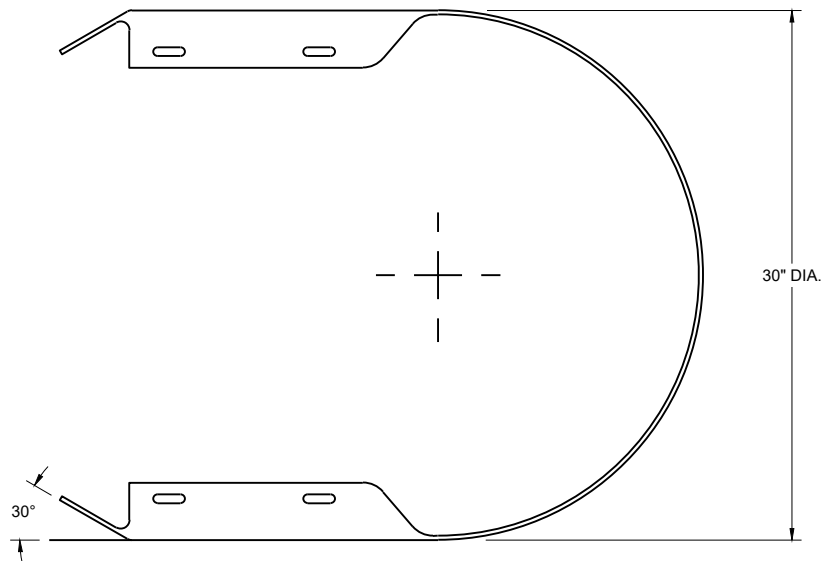


ANCHOR BRACKET BEARING PLATE (KK2)

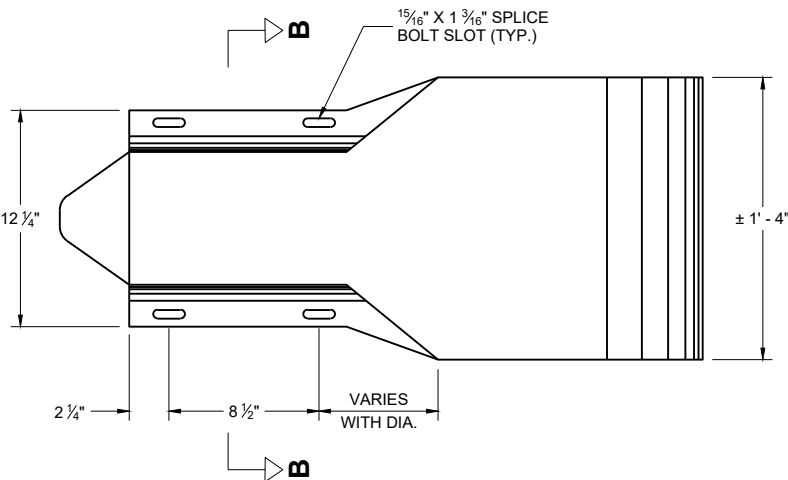


SHORT RADIUS BEAM  
GUARD (MGS) SHORT  
RADIUS TERMINAL (MGS)

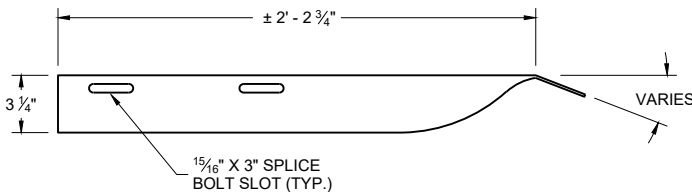
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



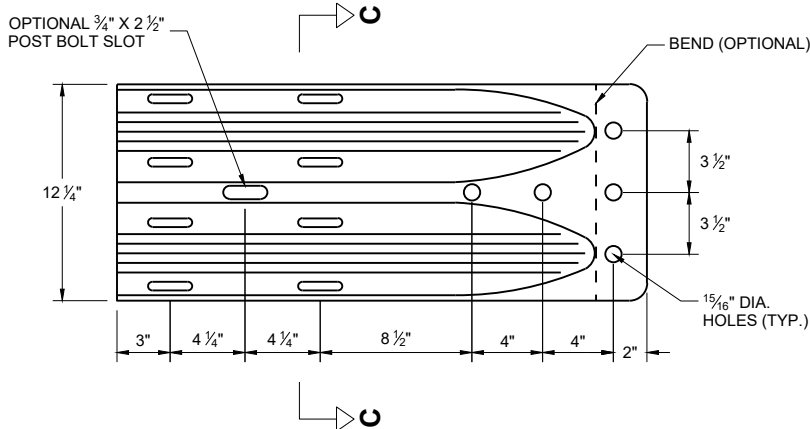
TOP VIEW



PROFILE VIEW  
W BEAM  
END SECTION BUFFER (AA2)



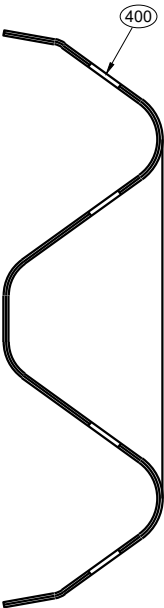
TOP VIEW



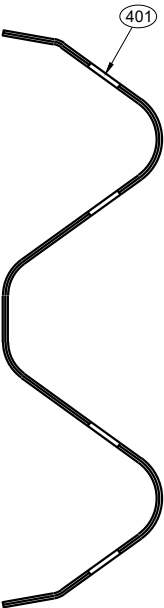
PROFILE VIEW  
W BEAM  
TERMINAL CONNECTOR (BB1)

GENERAL NOTES

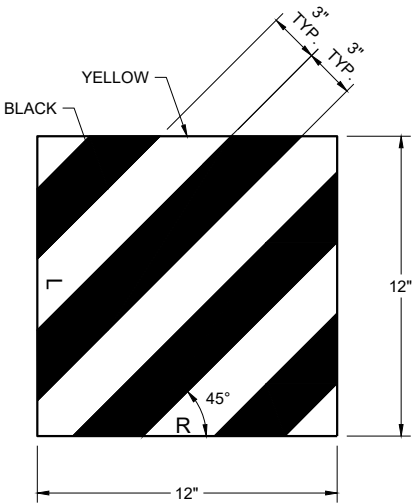
- (400) CROSS SECTION OF PART IS TO FIT OVER AA1 .
- (401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



SECTION B -B



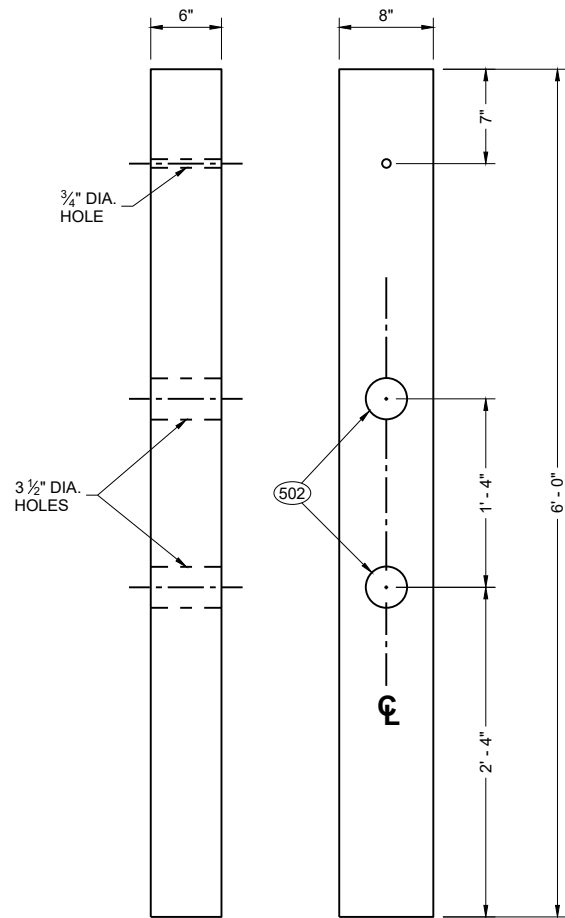
SECTION C -C



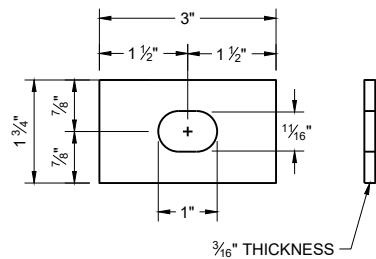
REFLECTIVE SHEETING (UU1, UU2)

SHORT RADIUS BEAM  
GUARD (MGS) SHORT  
RADIUS TERMINAL (MGS)

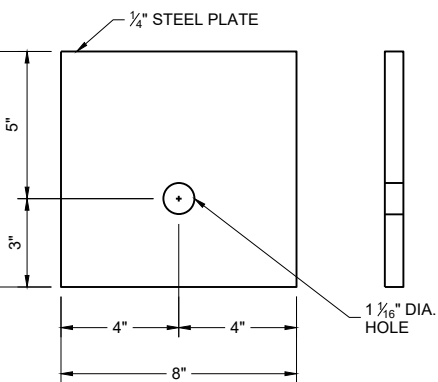
STATE OF WISCONSIN  
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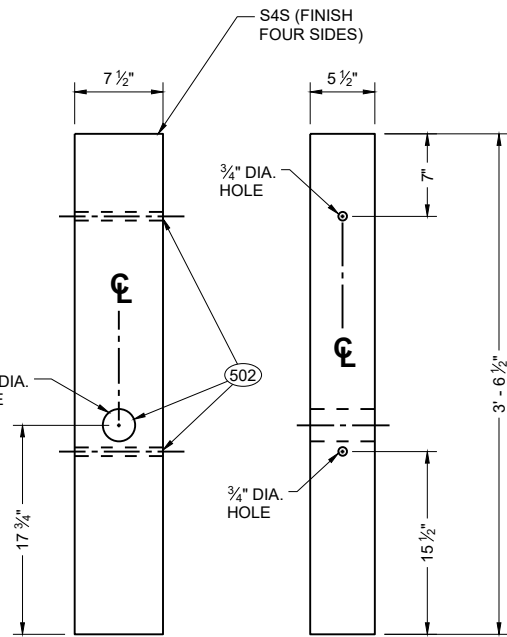
**FRONT VIEW      SIDE VIEW**  
**CONTROLLED RELEASE POST (CRT) (DD2)**



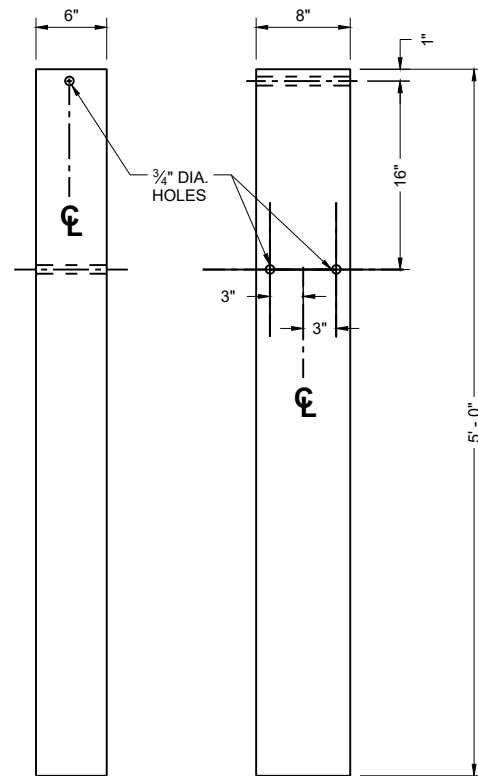
**RECTANGULAR PLATE WASHER (CC1)**



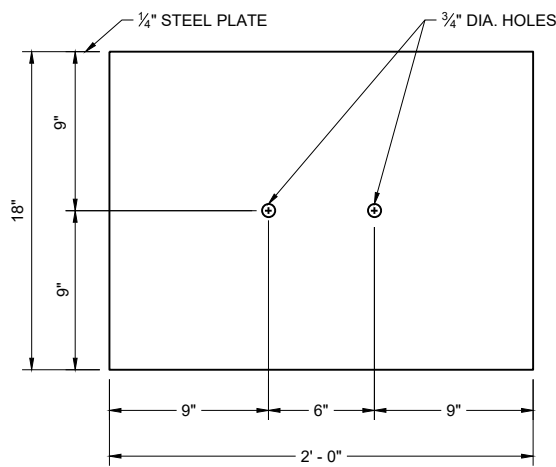
**BEARING PLATE (PP1)**



**FRONT VIEW      SIDE VIEW**  
**WOOD BREAKAWAY POST (FF1)**



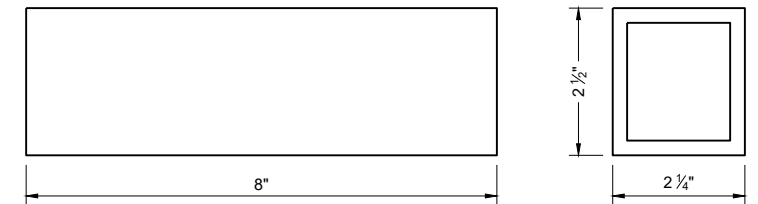
**FRONT VIEW      SIDE VIEW**  
**FOUNDATION TUBE (QQ1)** (500)



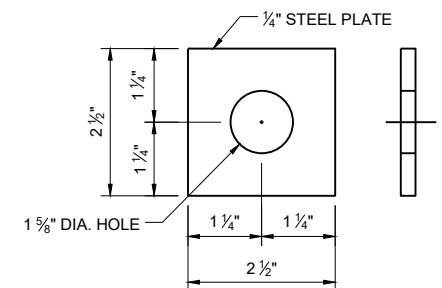
**SOIL PLATE (SS1)**

**GENERAL NOTES**

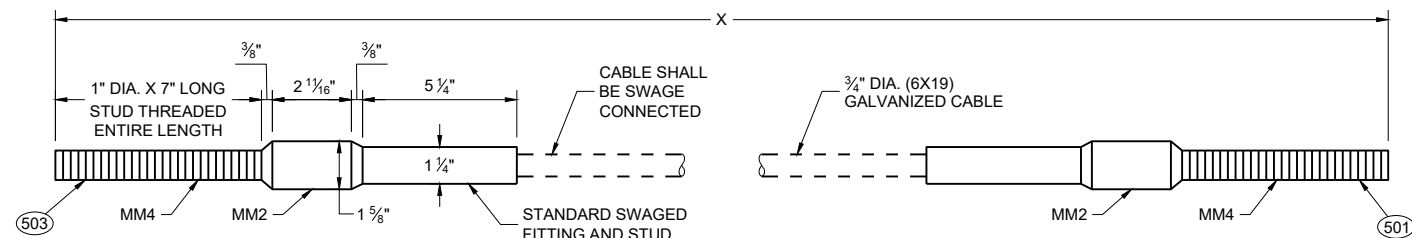
- (500) SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.
- (501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.
- (502) LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.
- (503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109)



**FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)**



**ANCHOR CABLE TUBE END PLATE (QQ3)**



**CABLE ASSEMBLY (MM1a, MM1b)**

**"X" LENGTH**

|      |         |
|------|---------|
| MM1b | 9' - 0" |
| MM1b | 6' - 8" |

**SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

| PART | DESCRIPTION                 | MATERIALS SPECIFICATIONS                                                                                                                                  | NOTES                                            |
|------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| A1   | BEAM GUARD RAIL             | AASHTO M180, CLASS A, TYPE 2                                                                                                                              |                                                  |
|      |                             | APPROVED PRODUCER                                                                                                                                         |                                                  |
| A2   | BEAM GUARD RAIL - SHOP BENT | INDICATE ON BACK OF RAIL THE RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION. |                                                  |
|      |                             | AASHTO M180, CLASS A, TYPE 2                                                                                                                              |                                                  |
|      |                             | APPROVED PRODUCER                                                                                                                                         |                                                  |
| B1   | BLOCK - WOOD                | WISDOT SPEC. 614                                                                                                                                          | SEE SDD 14B42                                    |
| C1   | NAIL                        | ASTM A153 HOT DIP CLASS D                                                                                                                                 |                                                  |
|      |                             | ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)                                                                                                               |                                                  |
| D1   | POST-STRONG POST-WOOD       | WISDOT SPEC. 614                                                                                                                                          | SEE SDD 14B42                                    |
| D2   | POST-CRT-WOOD               | WISDOT SPEC. 614                                                                                                                                          |                                                  |
| E1   | POST BOLT                   | ASTM A307 GRADE A OR SAE J429 GRADE 2                                                                                                                     | 5/8" DIA.<br><br>SEE SDD 14B42 FOR BOLT GEOMETRY |
|      |                             | AASHTO M180                                                                                                                                               |                                                  |
|      |                             | GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1  |                                                  |
|      |                             | UNC                                                                                                                                                       |                                                  |
| E2   | POST BOLT - WASHER          | ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)                                                         | 5/8" DIA.                                        |
|      |                             | GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329                                                  |                                                  |
| E3   | POST BOLT - NUT             | AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD                                                                                                                | 5/8" DIA.<br><br>SEE SDD 14B42 FOR BOLT GEOMETRY |
|      |                             | GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1  |                                                  |
|      |                             | UNC                                                                                                                                                       |                                                  |
|      |                             | OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563                                                                                        |                                                  |
|      |                             | ASTM A563 GRADE A HEAVY HEX HEAD                                                                                                                          |                                                  |
| F1   | SPlice BOLT                 | GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1  | 5/8" DIA.<br><br>SEE SDD 14B42 FOR BOLT GEOMETRY |
|      |                             | ASTM A307 GRADE A OR SAE J429 GRADE 2                                                                                                                     |                                                  |
|      |                             | UNC                                                                                                                                                       |                                                  |
|      |                             | AASHTO M180                                                                                                                                               |                                                  |

| PART | DESCRIPTION                                   | MATERIALS SPECIFICATIONS                                                                                                                           | NOTES                                            |
|------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| F2   | SPlice BOLT - NUT                             | ASTM A563 GRADE A                                                                                                                                  | 5/8" DIA.<br><br>SEE SDD 14B42 FOR BOLT GEOMETRY |
|      |                                               | AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD                                                                                                         |                                                  |
|      |                                               | GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1 |                                                  |
|      |                                               | OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563                                                                                 |                                                  |
|      |                                               | UNC                                                                                                                                                |                                                  |
|      |                                               |                                                                                                                                                    |                                                  |
| G1   | LAG SCREW                                     | ASTM A308 GRADE A ASTM A153 CLASS D                                                                                                                | 1/2" DIA. 6" LONG                                |
| H1   | DELINEATOR - BEAM GUARD                       |                                                                                                                                                    | SEE SDD 14B42 FOR MORE INFORMATION               |
| H2   | DELINEATION - SHEETING                        | YELLOW OR WHITE                                                                                                                                    |                                                  |
|      |                                               | WISDOT SPEC 637 TYPE SH                                                                                                                            |                                                  |
|      |                                               | APPROVED PRODUCT LIST                                                                                                                              |                                                  |
| J1   | FOUNDATION BACKFILL                           | STANDARD SPEC. 614                                                                                                                                 |                                                  |
| AA1  | BEAM GUARD RAIL - PUNCHED                     | AASHTO M180, CLASS A, TYPE 2                                                                                                                       |                                                  |
|      |                                               | APPROVED PRODUCER                                                                                                                                  |                                                  |
| AA2  | BEAM GUARD RAIL - END SECTION BUFFER          | AASHTO M180, CLASS A, TYPE 2                                                                                                                       |                                                  |
|      |                                               | APPROVED PRODUCER                                                                                                                                  |                                                  |
| BB1  | BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED | AASHTO M180, CLASS A, TYPE 2                                                                                                                       |                                                  |
|      |                                               | APPROVED PRODUCER                                                                                                                                  |                                                  |
| CC1  | SHORT RADIUS - SQUARE WASHER                  | AASHTO M180                                                                                                                                        |                                                  |
|      |                                               | GALV. AASHTO M111 / ASTM A123                                                                                                                      |                                                  |
| EE1  | NAIL                                          | ASTM A153 HOT DIP CLASS D                                                                                                                          |                                                  |
|      |                                               | ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)                                                                                                      |                                                  |
| FF1  | POST - BCT - WOOD                             | S4S FINISH ON 4 SIDES                                                                                                                              |                                                  |
|      |                                               | WISDOT SPEC. 614                                                                                                                                   |                                                  |
| GG1  | POST BOLT                                     | ASTM A307 GRADE A OR SAE J429 GRADE 2                                                                                                              | 3/8" DIA.<br><br>SEE SDD 14B42 FOR BOLT GEOMETRY |
|      |                                               | AASHTO M180                                                                                                                                        |                                                  |
|      |                                               | GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1 |                                                  |
|      |                                               | UNC                                                                                                                                                |                                                  |
| GG2  | POST BOLT - WASHER                            | ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)                                                  | 3/8" DIA.                                        |
|      |                                               | GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329                                             |                                                  |

SHORT RADIUS BEAM  
GUARD (MGS) SHORT  
RADIUS TERMINAL (MGS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

| PART | DESCRIPTION                    | MATERIALS SPECIFICATIONS                                                                                                                                             | NOTES                                            |
|------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| GG3  | POST BOLT - NUT                | ASTM A563 GRADE A                                                                                                                                                    | 3/8" DIA.<br>SEE 14B42 FOR GEOMETRY              |
|      |                                | AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD                                                                                                                           |                                                  |
|      |                                | GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1             |                                                  |
|      |                                | UNC                                                                                                                                                                  |                                                  |
|      |                                | OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563                                                                                                   |                                                  |
|      |                                | ASTM A563 GRADE A HEAVY HEX HEAD                                                                                                                                     |                                                  |
| HH1  | SPLICE BOLT                    | GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1             | 3/8" DIA.<br><br>SEE SDD 14B42 FOR BOLT GEOMETRY |
|      |                                | ASTM A307 GRADE A OR SAE J429 GRADE 2                                                                                                                                |                                                  |
|      |                                | UNC                                                                                                                                                                  |                                                  |
|      |                                | AASHTO M180 HEAD GEOMETRY                                                                                                                                            |                                                  |
| HH2  | SPLICE BOLT - NUT              | ASTM A563 GRADE A                                                                                                                                                    | 3/8" DIA.<br><br>SEE SDD 14B42 FOR BOLT GEOMETRY |
|      |                                | AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD                                                                                                                           |                                                  |
|      |                                | GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1             |                                                  |
|      |                                | OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563                                                                                                   |                                                  |
|      |                                | UNC                                                                                                                                                                  |                                                  |
| JJ1  | PIPE - STEEL                   | ASTM A53 GALVANIZED GRADE B SCHEDULE 40                                                                                                                              | 10" O.D.                                         |
| JJ2  | TOP PLATE                      | ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI | DIMENSIONS<br>3/8" X 4" X 1" - 0"                |
|      |                                | GALV. AASHTO M111 / ASTM A123                                                                                                                                        |                                                  |
| KK1  | ANCHOR BRACKET                 | ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI |                                                  |
|      |                                | GALV. AASHTO M111 / ASTM A123                                                                                                                                        |                                                  |
| KK2  | ANCHOR BRACKET - BEARING PLATE | ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI |                                                  |
|      |                                | GALV. AASHTO M111 / ASTM A123                                                                                                                                        |                                                  |
| LL1  | ANCHOR BRACKET - BOLT          | ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD                                                                                                  | 5/8" DIA.                                        |
|      |                                | GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1             |                                                  |
|      |                                | UNC                                                                                                                                                                  |                                                  |

| PART | DESCRIPTION                         | MATERIALS SPECIFICATIONS                                                                                                                                                | NOTES     |
|------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| LL2  | ANCHOR BRACKET - WASHER             | ASTM F436 TYPE 1 (HARDEN WASHER ONLY)                                                                                                                                   | 5/8" DIA. |
|      |                                     | GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329                                                                  |           |
| LL3  | ANCHOR BRACKET - NUT                | ASTM A563 GRADE A                                                                                                                                                       | 5/8" DIA. |
|      |                                     | GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1                |           |
|      |                                     | OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563                                                                                                      |           |
|      |                                     | UNC                                                                                                                                                                     |           |
| MM1a | ANCHOR CABLE                        | AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED FLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED                      |           |
| MM1b | ANCHOR CABLE                        | AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED FLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED                      |           |
| MM2  | ANCHOR CABLE - SWAGE FITTING        | ASTM A576 GRADE 1035                                                                                                                                                    |           |
|      |                                     | SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.                                                                                          |           |
|      |                                     | GALV. AASHTO M111 / ASTM A123                                                                                                                                           |           |
|      |                                     | ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE. |           |
| MM3  | WIRE ROPE CABLE CLAMPS              | FF-C-450D TYPE 1 CLASS 1                                                                                                                                                | 3/4"      |
|      |                                     | ASTM A153 HOT DIP CLASS D                                                                                                                                               |           |
| MM4  | ANCHOR CABLE - SWAGE FITTING - STUD | ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD                                                                                          |           |
|      |                                     | GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1                |           |
|      |                                     | UNC                                                                                                                                                                     |           |
| NN1  | ANCHOR CABLE - NUT                  | ASTM A563 GRADE A                                                                                                                                                       | 1" DIA.   |
|      |                                     | AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD                                                                                                                              |           |
|      |                                     | GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1                |           |
|      |                                     | OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563                                                                                                      |           |
| NN2  | ANCHOR CABLE - NUT - WASHER         | UNC                                                                                                                                                                     | 1" DIA.   |
|      |                                     | ASTM F436 TYPE 1 (HARDEN WASHER ONLY)                                                                                                                                   |           |
|      |                                     | GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329                                                                  |           |

SHORT RADIUS BEAM  
GUARD (MGS) SHORT  
RADIUS TERMINAL (MGS)

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

| PART | DESCRIPTION                                                | MATERIALS SPECIFICATIONS                                                                                                                                             | NOTES                               |
|------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| PP1  | BEARING PLATE AT POST                                      | ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI |                                     |
|      |                                                            | GALV. AASHTO M111 / ASTM A123                                                                                                                                        |                                     |
| PP2  | PIPE - STEEL                                               | ASTM A53 GALVANIZED GRADE B SCHEDULE 40                                                                                                                              | 2" DIA. x 6" LONG                   |
| QQ1  | FOUNDATION TUBE                                            | ASTM A500 GRADE B                                                                                                                                                    | 8" X 6" X 3⁄16"                     |
|      |                                                            | GALV. AASHTO M111 / ASTM A123                                                                                                                                        |                                     |
| QQ2  | SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE       | ASTM A500 GRADE B                                                                                                                                                    | DIMENSIONS<br>2 ½" X 2 ¼" X ¼" X 8" |
|      |                                                            | GALV. AASHTO M111 / ASTM A123                                                                                                                                        |                                     |
| QQ3  | SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE | ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI | DIMENSIONS<br>2 ½" X 2 ½" X ¼"      |
|      |                                                            | GALV. AASHTO M111 / ASTM A123                                                                                                                                        |                                     |
| QQ4  | GROUND STRUT AND YOKE - BOLT                               | GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1             | 5⁄8 DIA.                            |
|      |                                                            | ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD                                                                                                  |                                     |
|      |                                                            | UNC                                                                                                                                                                  |                                     |
| QQ5  | GROUND PLATE AND YOKE - WASHER                             | ASTM F436 TYPE 1 (HARDEN WASHER ONLY)                                                                                                                                | 5⁄8 DIA.                            |
|      |                                                            | GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329                                                               |                                     |
| QQ6  | GROUND STRUT AND YOKE - NUT                                | HEAVY HEX                                                                                                                                                            | 5⁄8 DIA.                            |
|      |                                                            | UNC                                                                                                                                                                  |                                     |
|      |                                                            | ASTM A563 GRADE A                                                                                                                                                    |                                     |
|      |                                                            | OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563                                                                                                             |                                     |
|      |                                                            | GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1             |                                     |

| PART | DESCRIPTION                    | MATERIALS SPECIFICATIONS                                                                                                                                             | NOTES                                                     |
|------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| SS1  | SOIL PLATE                     | ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI |                                                           |
|      |                                | GALV. AASHTO M111 / A123                                                                                                                                             |                                                           |
| TT1  | SOIL PLATE - BOLT              | ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD                                                                                                  | 5⁄8 DIA.                                                  |
|      |                                | GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1             |                                                           |
|      |                                | UNC                                                                                                                                                                  |                                                           |
| TT2  | SOIL PLATE - WASHER            | ASTM F436 TYPE 1 (HARDEN WASHER ONLY)                                                                                                                                | 5⁄8 DIA.                                                  |
|      |                                | GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329                                                               |                                                           |
| TT3  | SOIL PLATE - NUT               | GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1             | 5⁄8 DIA.                                                  |
| UU1  | OBJECT MARKER - SHEETING       | MUTCD / WISDOT OBJECT MARKER TYPE 3                                                                                                                                  | PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER. |
|      |                                | WISDOT SPEC 637 TYPE F                                                                                                                                               |                                                           |
|      |                                | APPROVED PRODUCT LIST                                                                                                                                                |                                                           |
| UU2  | OBJECT MARKER - ALUMINUM PLATE | WISDOT SPEC 637 ALUMINUM PLATE                                                                                                                                       | MATERIAL AND THICKNESS OF MATERIALS                       |
| UU3  | OBJECT MARKER - SCREWS         | STAINLESS SELF-TAPPING SCREWS                                                                                                                                        |                                                           |
| VV1  | FOUNDATION BACKFILL            | WISDOT SPEC 614                                                                                                                                                      |                                                           |

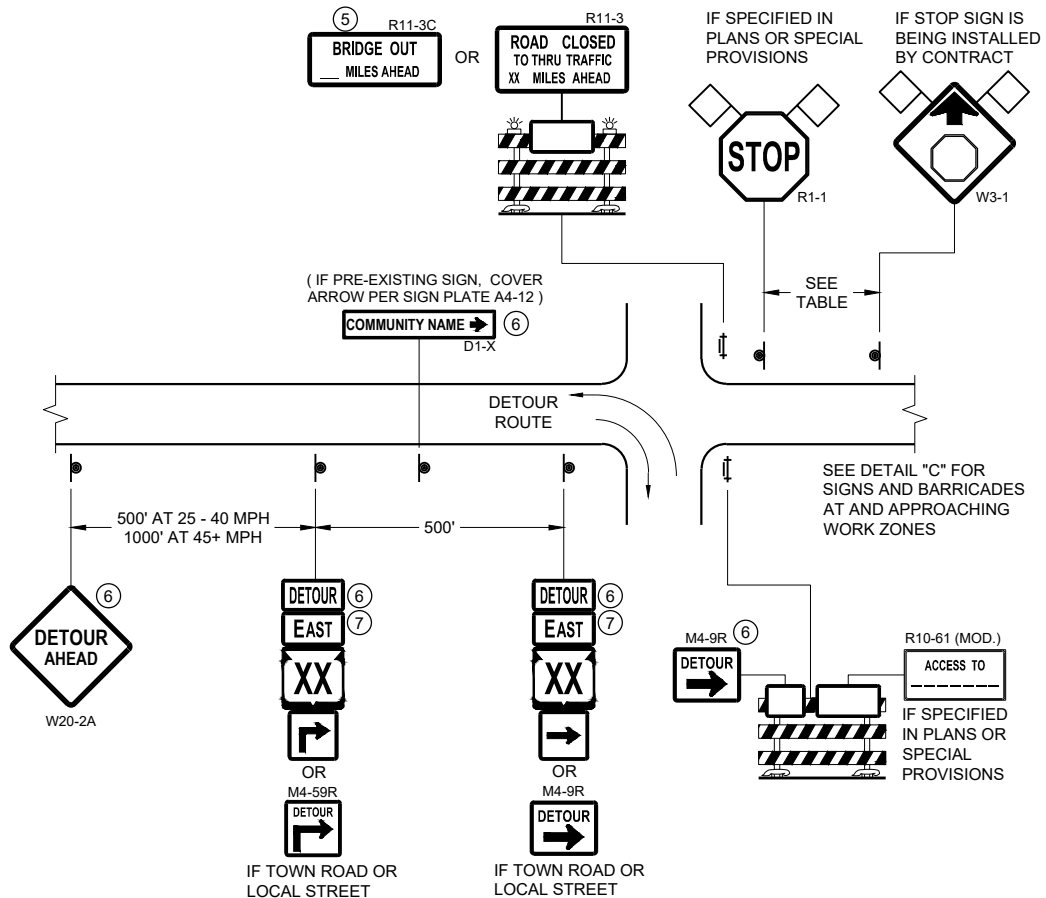
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

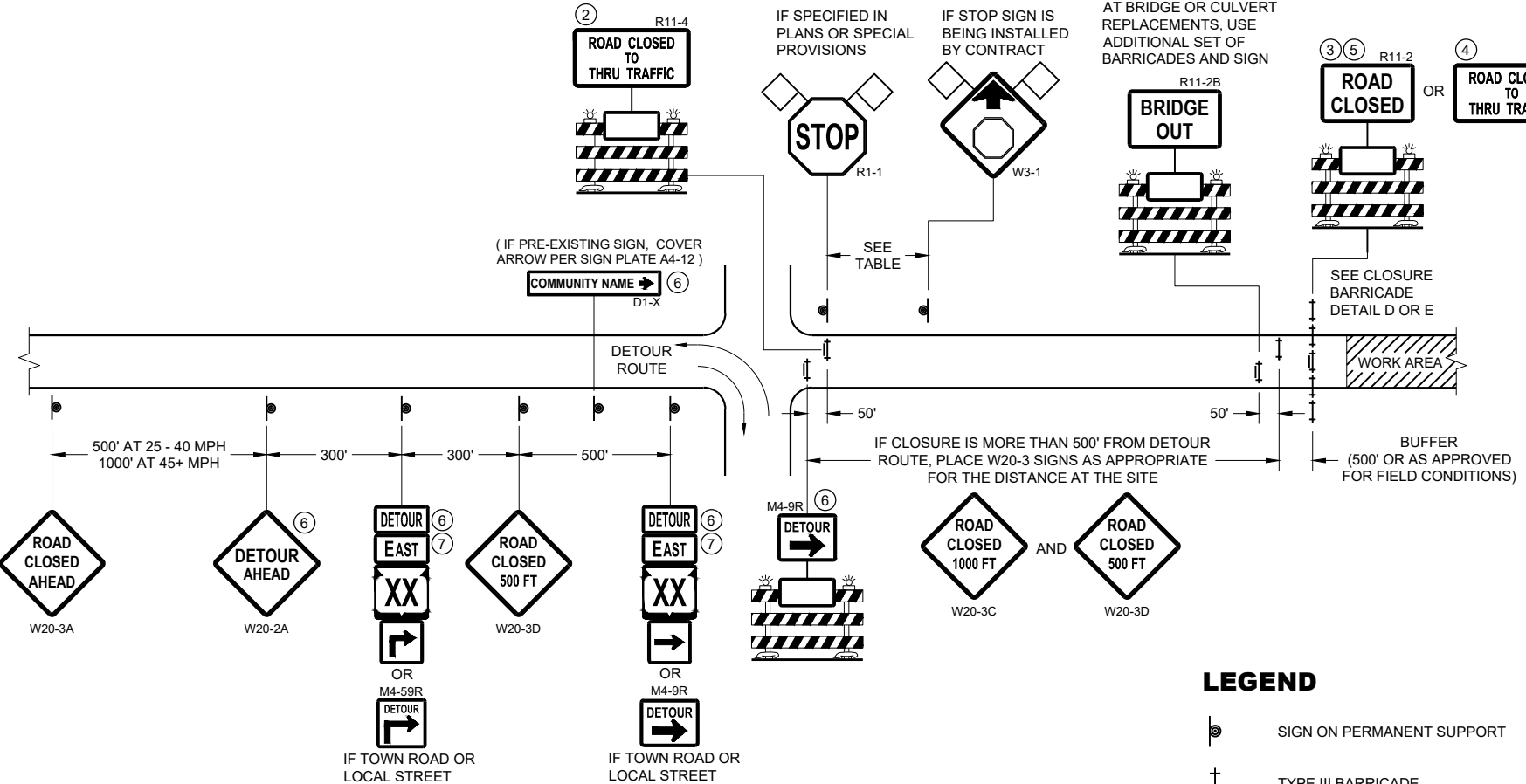
APPROVED  
December 2024  
DATE

/S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



**DETAIL A**  
**MAINLINE CLOSURE WITH POSTED DETOUR**  
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )



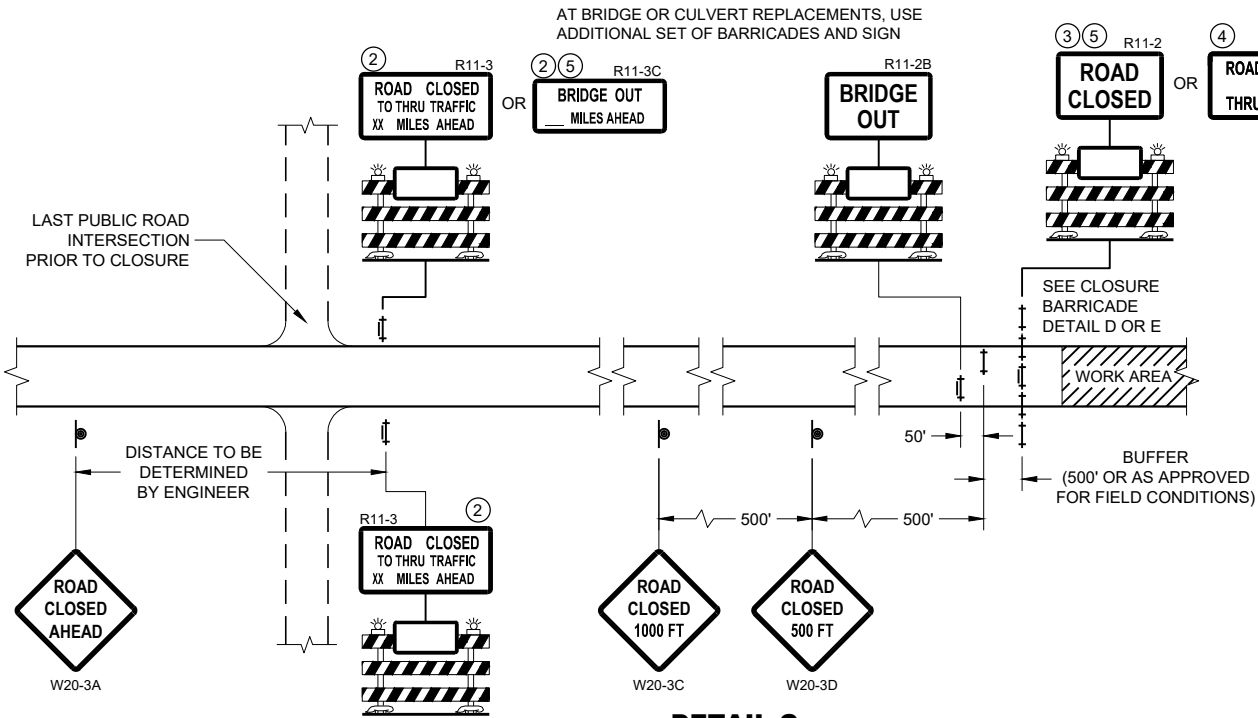
**DETAIL B**  
**MAINLINE CLOSURE WITH POSTED DETOUR**  
WORK ZONE LESS THAN ½ MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

- LEGEND**
- SIGN ON PERMANENT SUPPORT
  - TYPE III BARRICADE
  - TYPE III BARRICADE WITH ATTACHED SIGN
  - TYPE "A" WARNING LIGHT (FLASHING)
  - WORK AREA
  - FLAGS, 16" X 16" MIN. (ORANGE)

- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY M1 - 5A
- OR M05 - 1 OR M06 - 1

| SPEED LIMIT (MPH) | "STOP AHEAD" ADVANCE WARNING DISTANCE (FT) |
|-------------------|--------------------------------------------|
| 25                | 200                                        |
| 30                | 200                                        |
| 35                | 350                                        |
| 40                | 350                                        |
| 45                | 500                                        |
| 50                | 550                                        |
| 55                | 750                                        |

SEE SDD 15C2-SHEET "b"  
FOR GENERAL NOTES  
AND FOOTNOTES ① THROUGH ⑦



**DETAIL C**  
**MAINLINE CLOSURE, NO POSTED DETOUR**

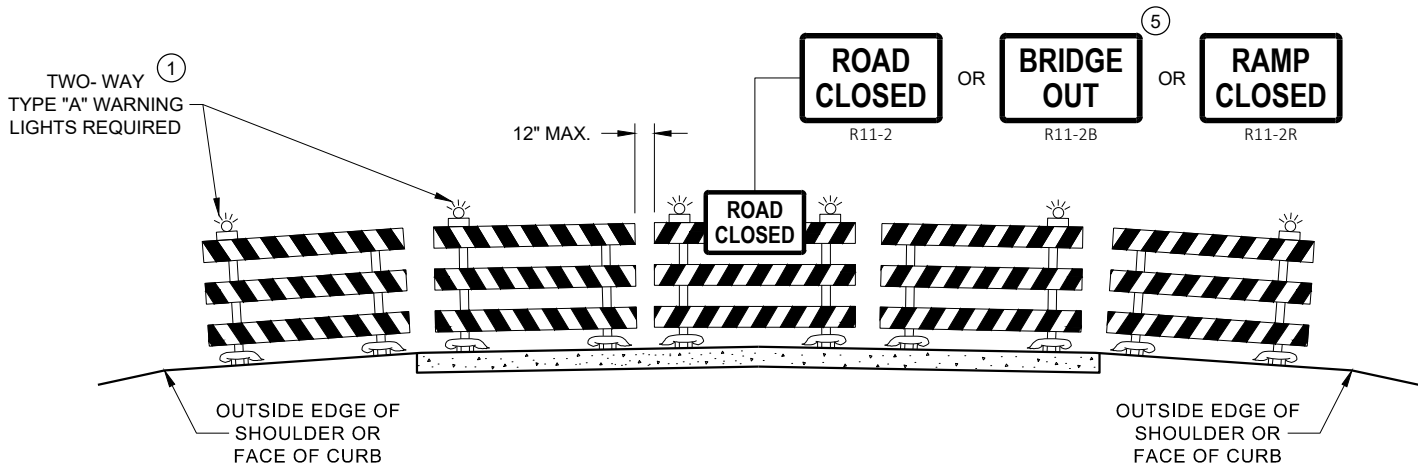
**BARRICADES AND SIGNS  
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

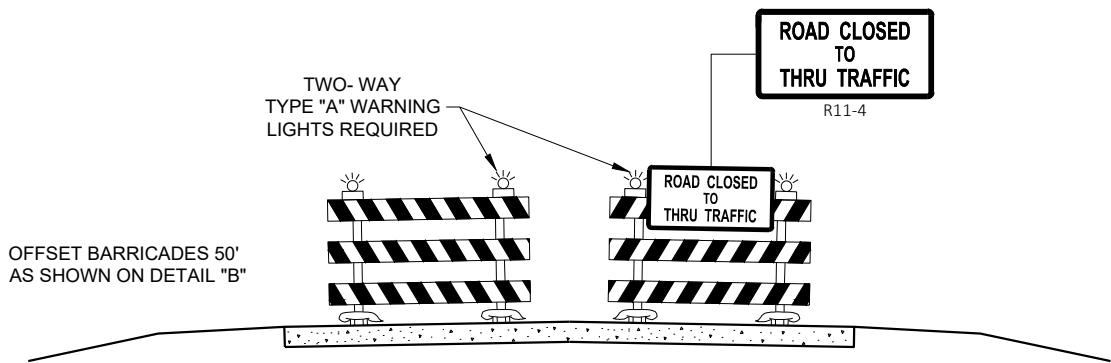
APPROVED  
May 2023 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER 273

FHWA





**DETAIL D**  
**ROAD CLOSURE BARRICADE DETAIL**  
**APPROACH VIEW**



**DETAIL E**  
**LANE CLOSURE BARRICADE DETAIL**  
**APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

**GENERAL NOTES**

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

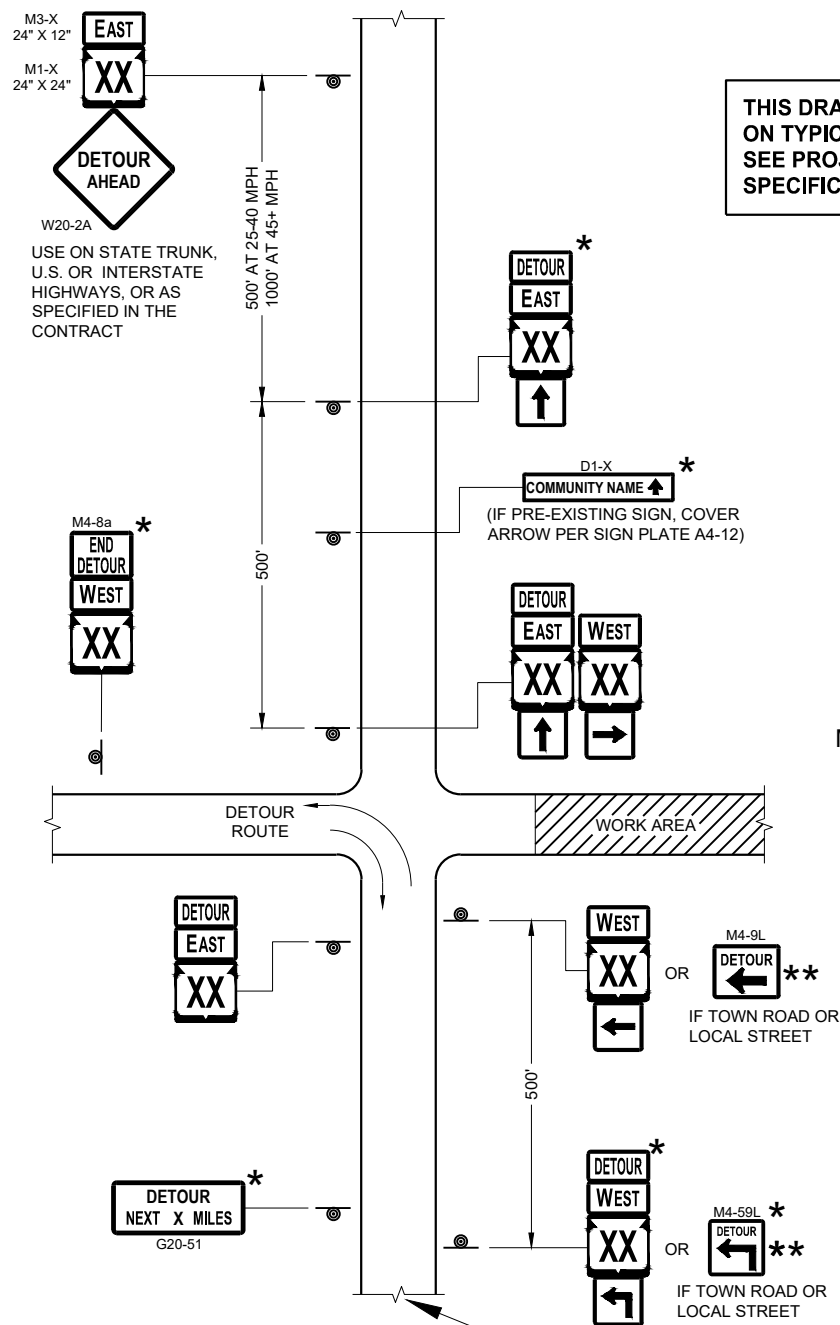
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS**  
**FOR**  
**VARIOUS CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2023 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER 274

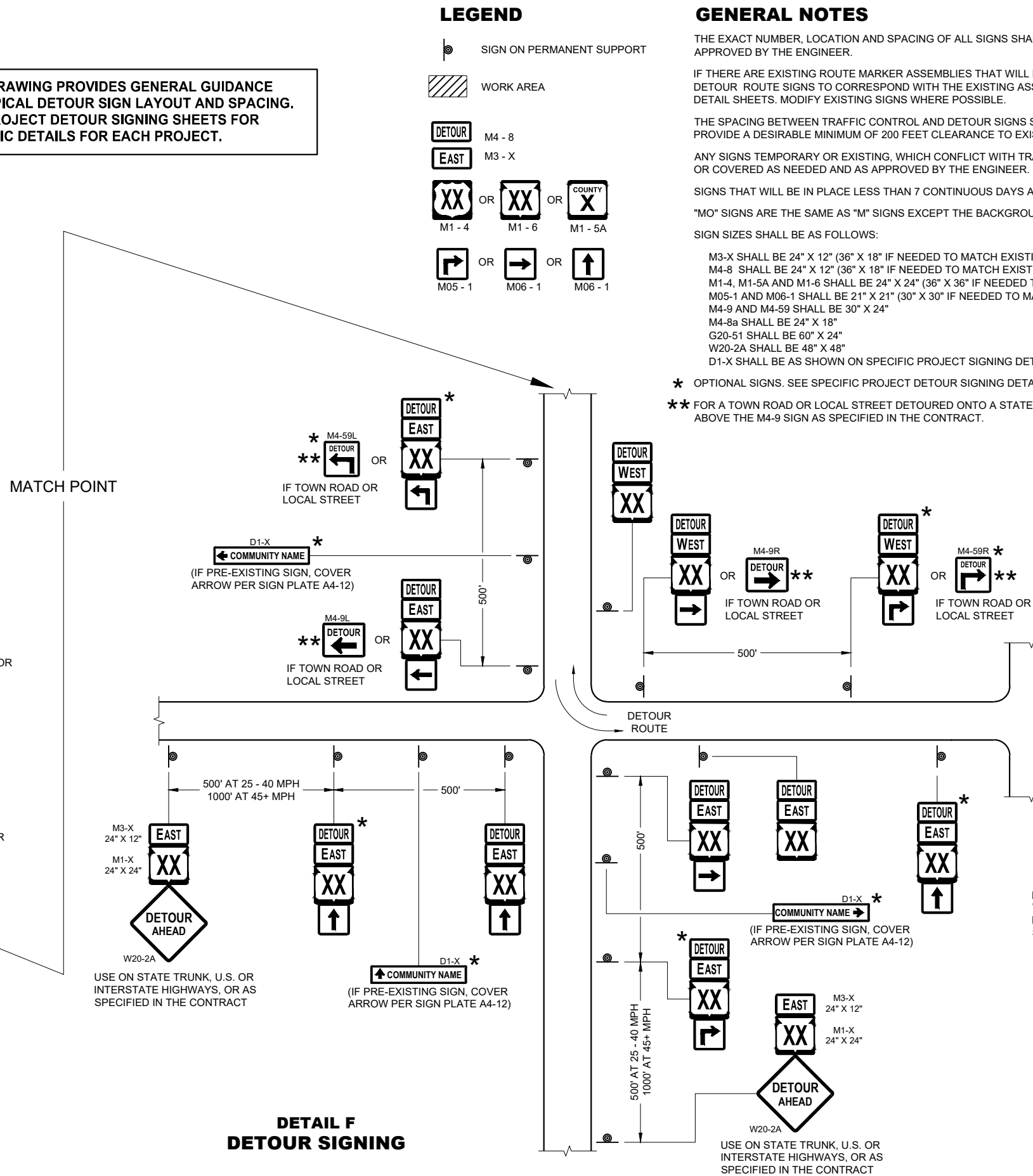
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**THIS DRAWING PROVIDES GENERAL GUIDANCE  
ON TYPICAL DETOUR SIGN LAYOUT AND SPACING.  
SEE PROJECT DETOUR SIGNING SHEETS FOR  
SPECIFIC DETAILS FOR EACH PROJECT.**

SEE SPECIFIC PROJECT DETOUR  
SIGNING DETAIL SHEETS AND  
DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

**SDD 15C02 - 09c**



## DETAIL F DETOUR SIGNING

## GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)  
M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)  
M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)  
M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)  
M4-9 AND M4-59 SHALL BE 30" X 24"  
M4-8a SHALL BE 24" X 18"  
G20-51 SHALL BE 60" X 24"  
W20-2A SHALL BE 48" X 48"  
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

\* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

**\*\* FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.**

PLACE SIGNS BEYOND INTERSECTIONS  
WITH STATE OR COUNTY TRUNK  
HIGHWAYS OR AT 4 MILE MAXIMUM  
SPACING (4 BLOCKS IF URBAN AREA)

## DETOUR SIGNING FOR MAINLINE CLOSURES

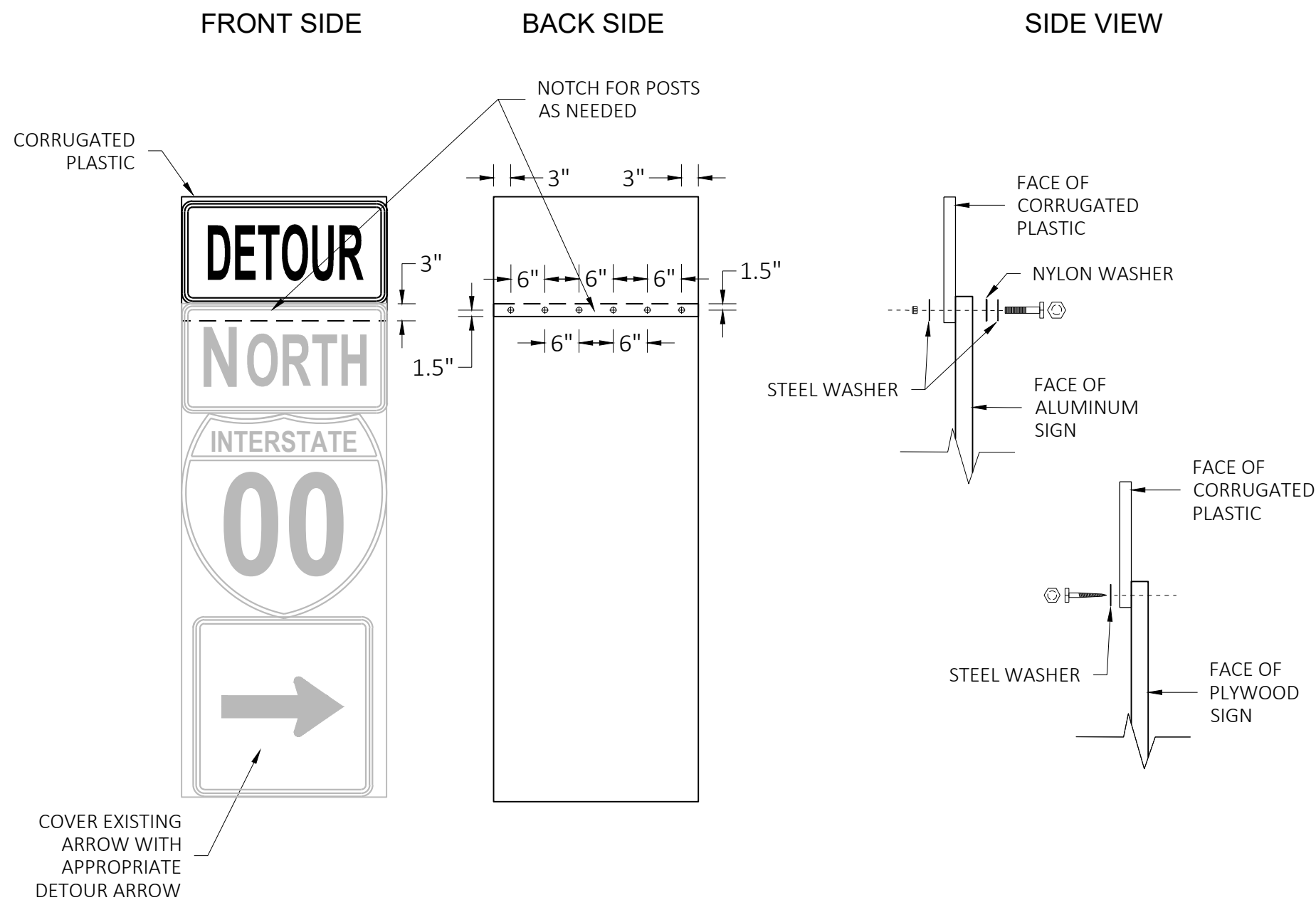
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2023  
DATE

/S/ Andrew Heidtke  
WORK ZONE ENGINEER 275

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**SDD15C02 - 09c**



## GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.

FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.

FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.

METAL WASHERS, NUTS, BOLTS AND LAGS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3.
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

PLYWOOD SIGNS:

LAG SCREWS - 5/16" x 1"

ALUMINUM SIGNS:

MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS

WASHERS:

1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL

1-1/4" O.D. x 3/8" I.D. x .080 NYLON

## MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

### MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

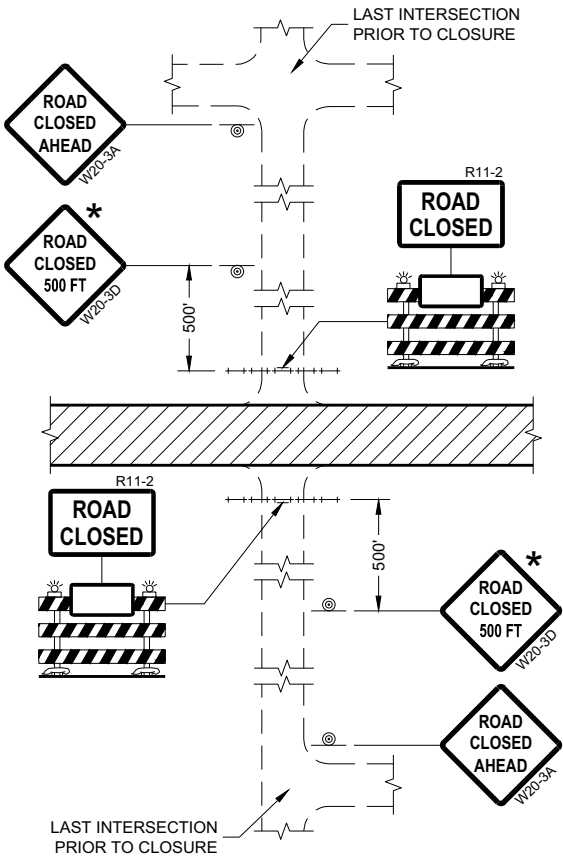
APPROVED

May 2023  
DATE

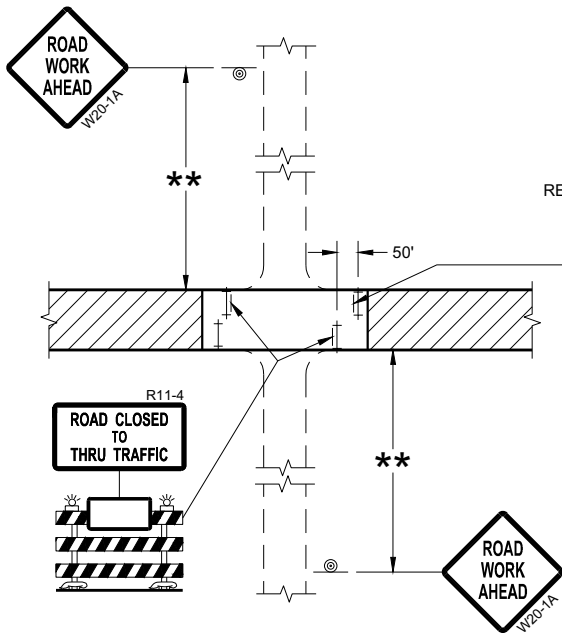
/S/ Andrew Heidtke  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA

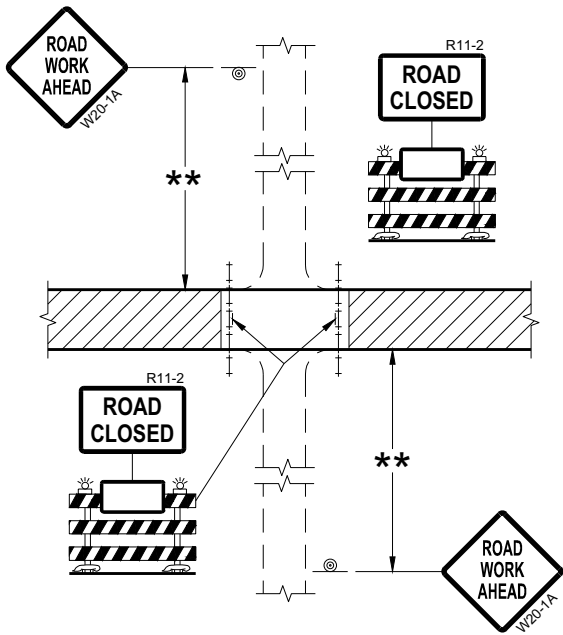
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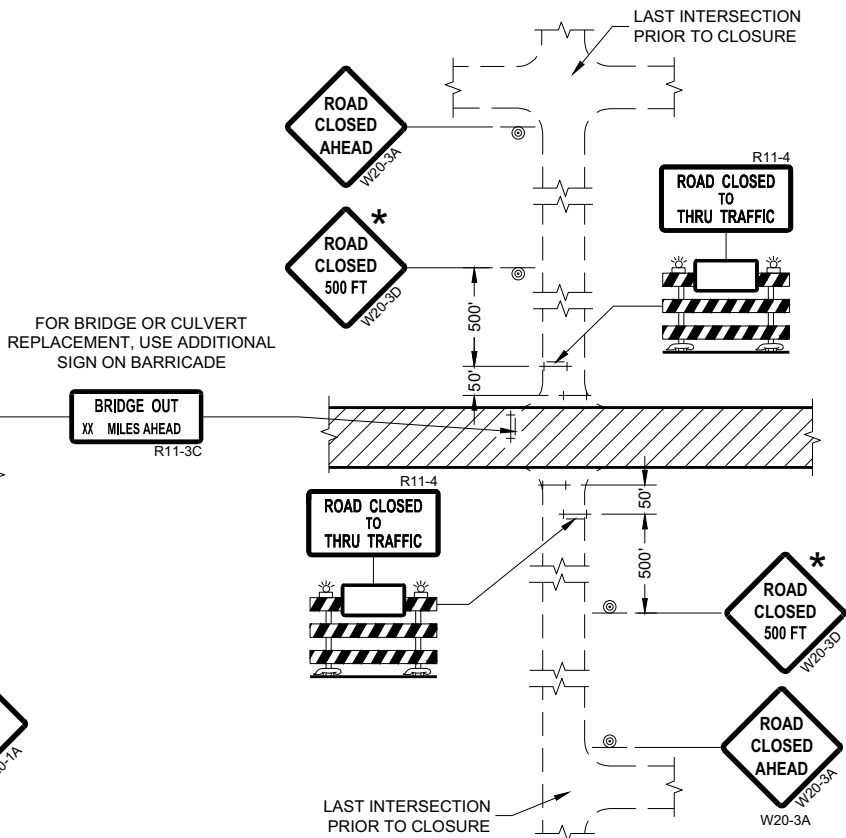
**DETAIL 1**  
(NO ACCESS TO PROJECT)



**DETAIL 3**  
(PUBLIC CROSS-TRAFFIC MAINTAINED.  
CONTRACTOR, LOCAL BUSINESS AND  
RESIDENT ACCESS TO PROJECT)



**DETAIL 2**  
(PUBLIC CROSS-TRAFFIC MAINTAINED.  
NO ACCESS TO PROJECT)



**DETAIL 4**  
(CONTRACTOR, LOCAL BUSINESS AND  
RESIDENT ACCESS TO PROJECT)

**GENERAL NOTES**

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:  
R11-2 SHALL BE 48" X 30".  
R11-4 AND R11-3 SHALL BE 60" X 30".

- \* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- \*\* 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

**LEGEND**

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

**BARRICADES AND SIGNS  
FOR  
SIDEROAD CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
July 2018 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER 277

FHWA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

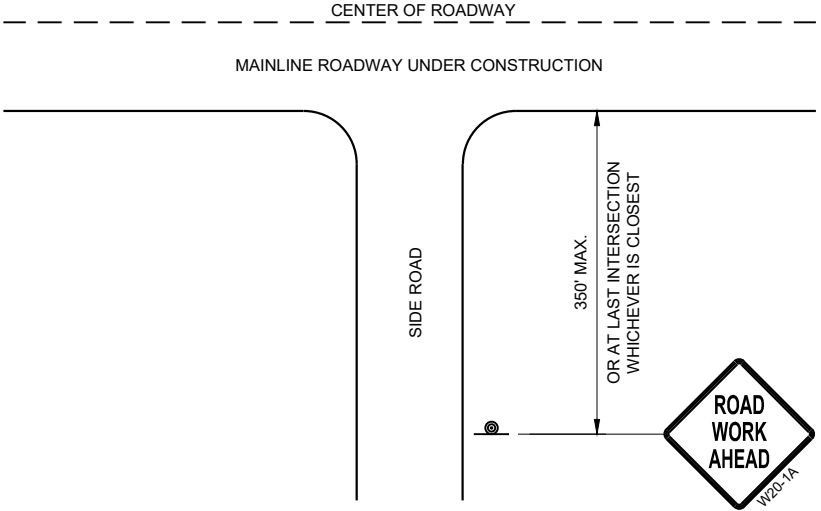
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

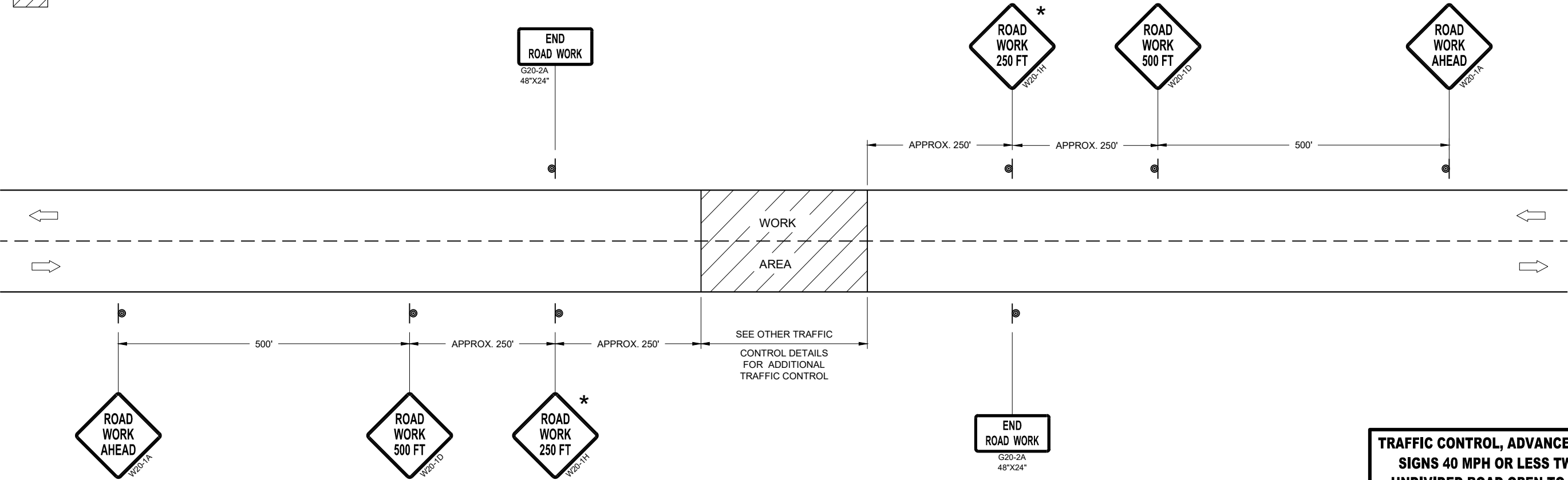
\* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



TYPICAL SIDE ROAD APPROACH  
WARNING SIGN DETAIL



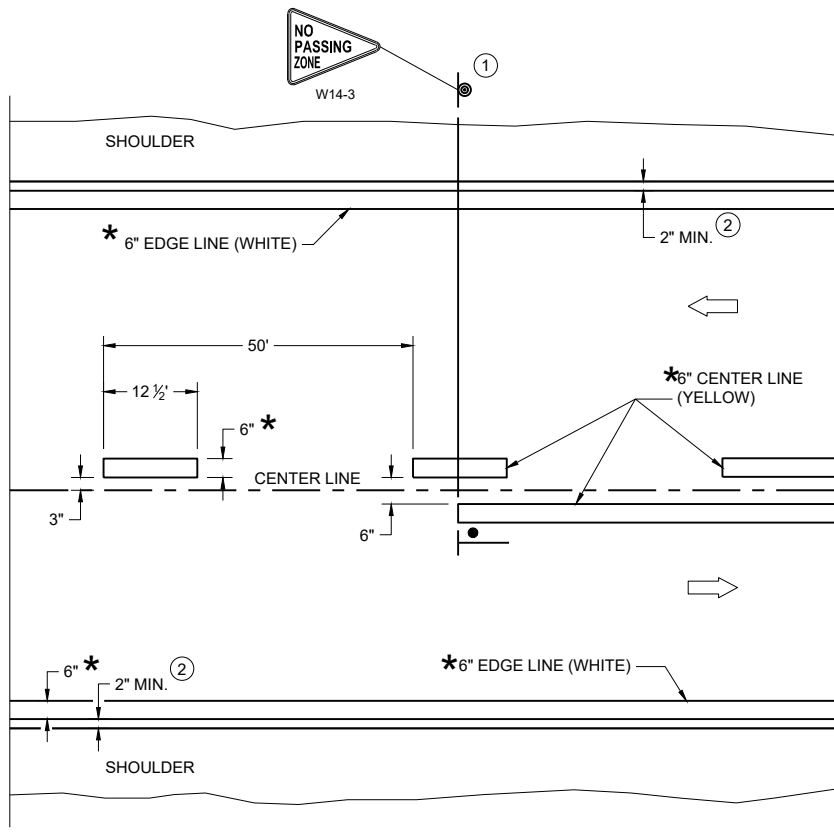
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING  
SIGNS 40 MPH OR LESS TWO-WAY  
UNDIVIDED ROAD OPEN TO TRAFFIC

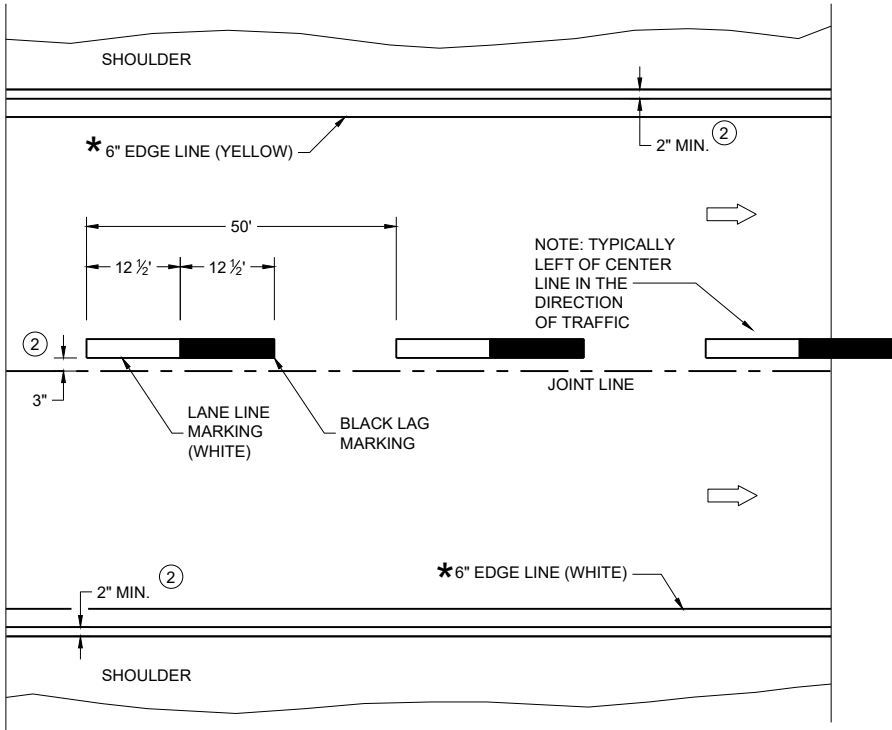
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
July 2018 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER 278  
FHWA





TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

\*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

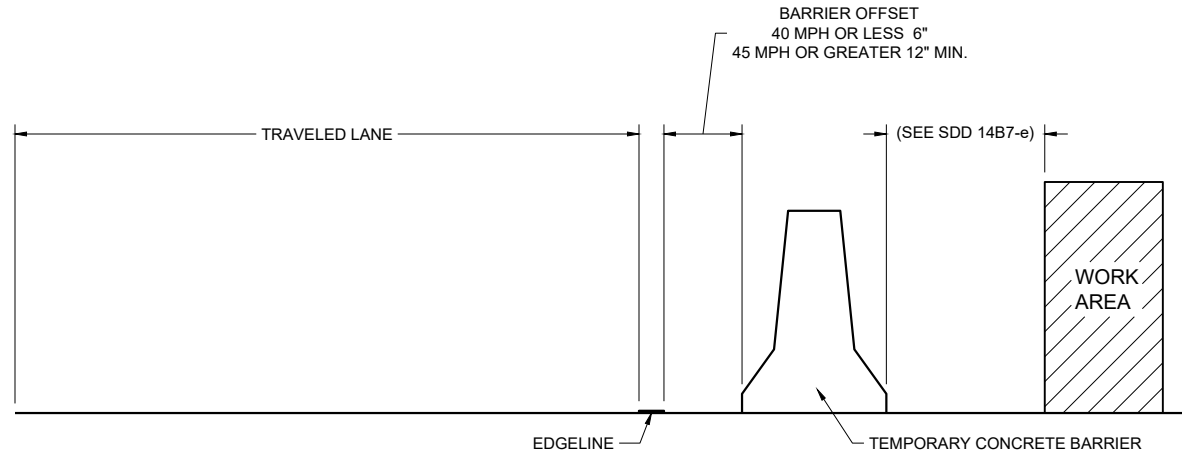
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

|                                                    |                                                           |
|----------------------------------------------------|-----------------------------------------------------------|
| PERMANENT LONGITUDINAL PAVEMENT MARKINGS           |                                                           |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |                                                           |
| APPROVED<br>December 2024<br>DATE                  | /S/ Jeannie Silver<br>Statewide Pavement Marking Engineer |
| FHWA 279                                           |                                                           |



TEMPORARY BARRIER OFFSET FROM EDGE LINE

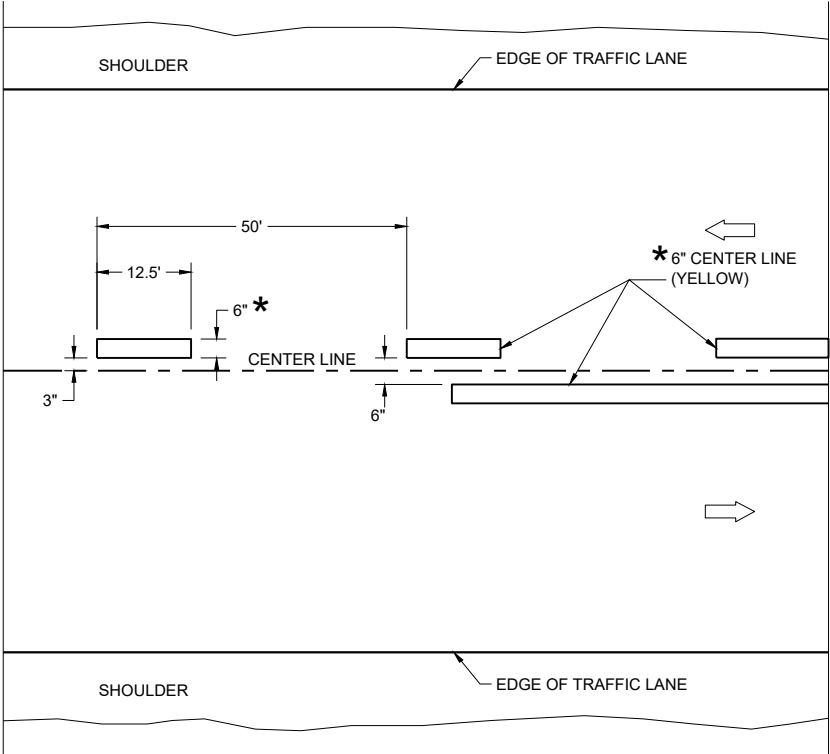
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

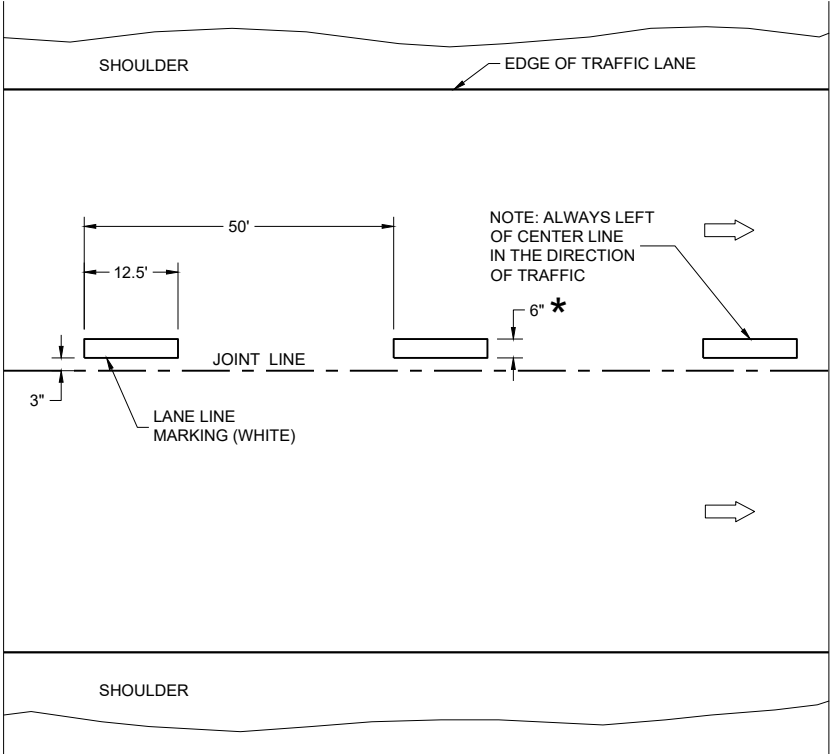
LEGEND

➡ DIRECTION OF TRAFFIC

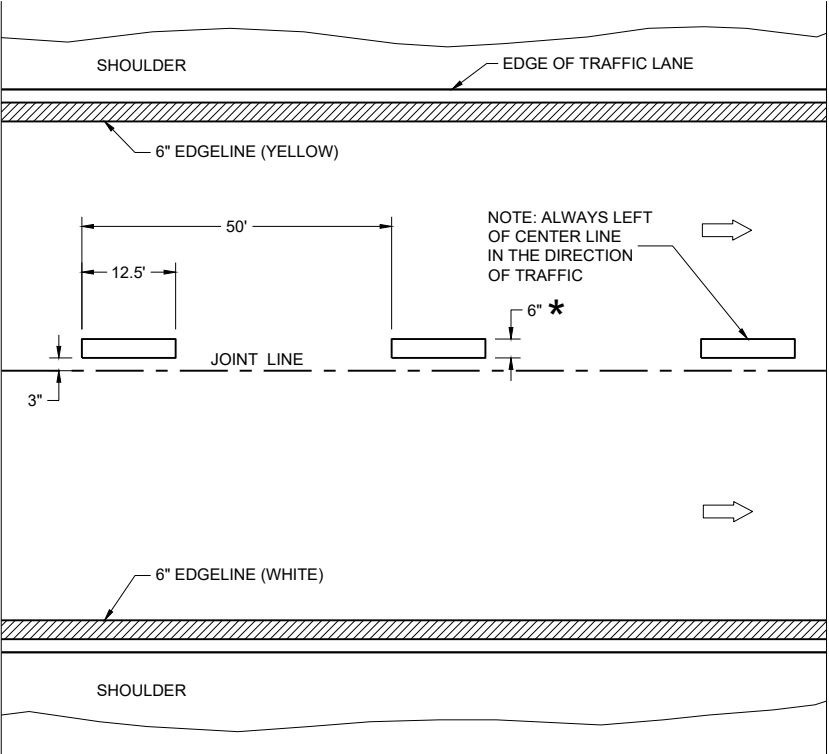
\* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



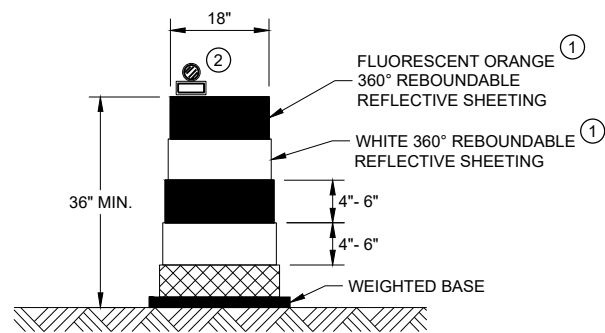
ONE WAY TRAFFIC



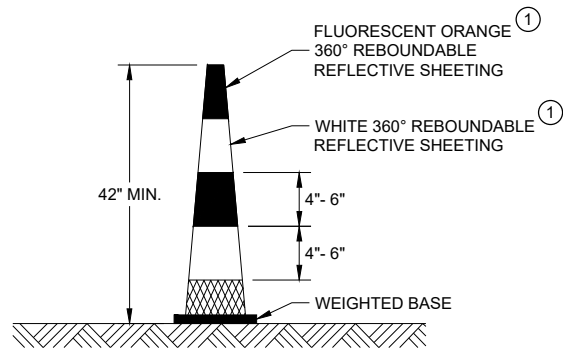
FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

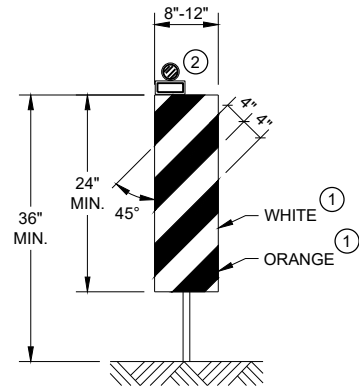
| TEMPORARY LONGITUDINAL PAVEMENT MARKING            |                                                           |
|----------------------------------------------------|-----------------------------------------------------------|
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |                                                           |
| APPROVED<br>December 2024<br>DATE                  | /S/ Jeannie Silver<br>Statewide Pavement Marking Engineer |
| FHWA                                               | 280                                                       |



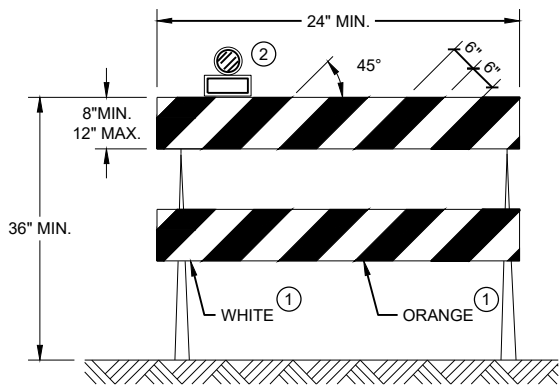
**DRUM**  
BALLAST WIDTHS  
RANGE FROM 24"-36"



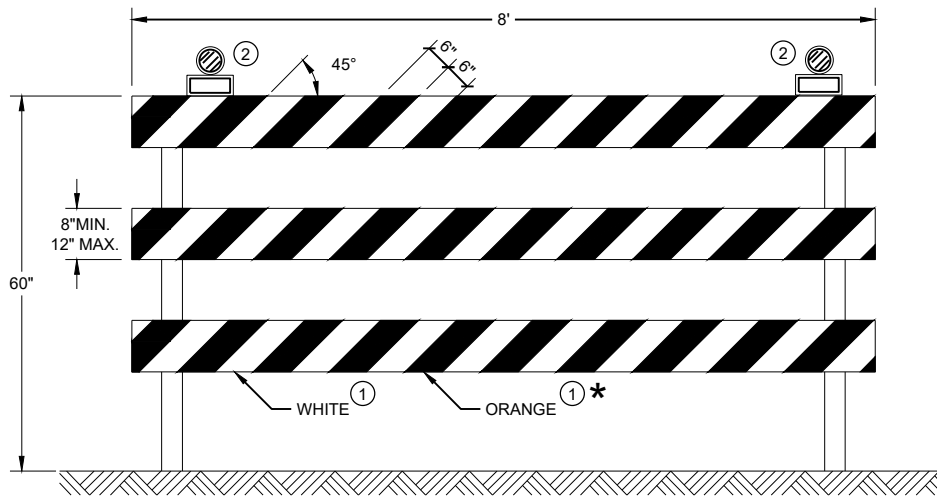
**42" CONE**  
DO NOT USE IN TAPERS  
½ SPACING OF DRUMS  
BALLAST WIDTHS  
RANGE FROM 14"-20"



**VERTICAL PANEL**  
THE STRIPES SHALL SLOPE DOWNWARD TO  
THE TRAFFIC SIDE FOR CHANNELIZATION.



**TYPE II BARRICADE**  
FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES  
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD  
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



**TYPE III BARRICADE**  
IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP  
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.  
\* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

**GENERAL NOTES**

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

|                                                                                  |                                              |
|----------------------------------------------------------------------------------|----------------------------------------------|
| <b>CHANNELIZING DEVICES<br/>DRUMS, CONES, BARRICADES<br/>AND VERTICAL PANELS</b> |                                              |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION                               |                                              |
| APPROVED<br>November 2022<br>DATE                                                | /S/ Andrew Heidtke<br>WORK ZONE ENGINEER 281 |
| FHWA                                                                             |                                              |

LEGEND

-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

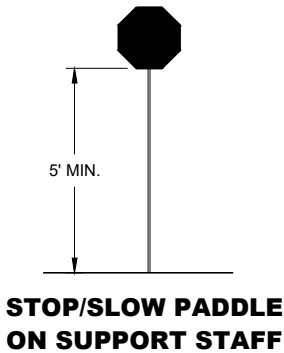
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

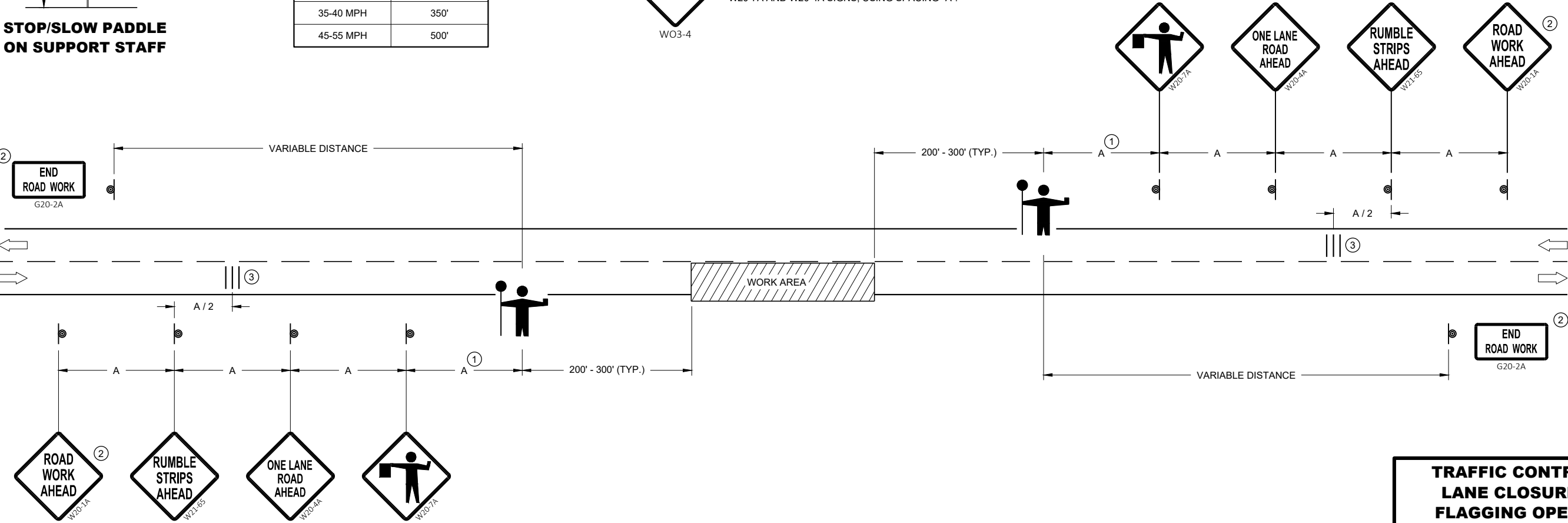


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

| SPEED LIMIT | SPACING "A" |
|-------------|-------------|
| 25-30 MPH   | 200'        |
| 35-40 MPH   | 350'        |
| 45-55 MPH   | 500'        |



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".

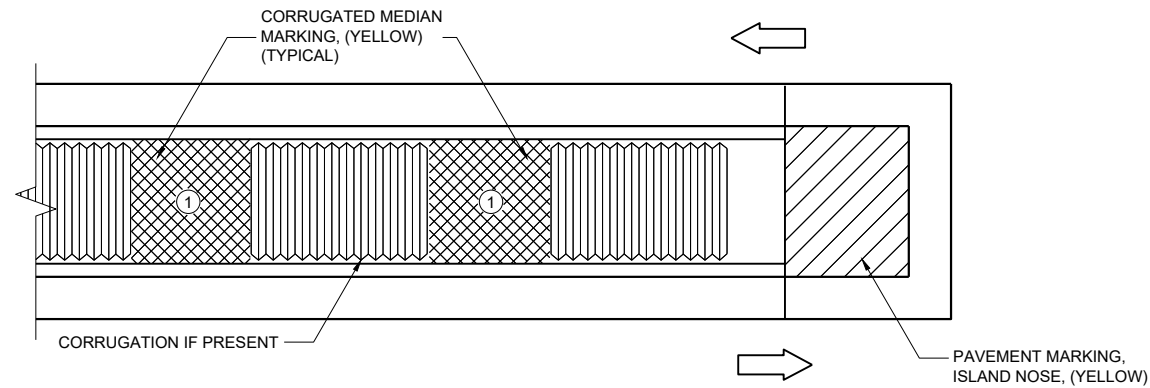


**TRAFFIC CONTROL FOR  
LANE CLOSURE WITH  
FLAGGING OPERATION**

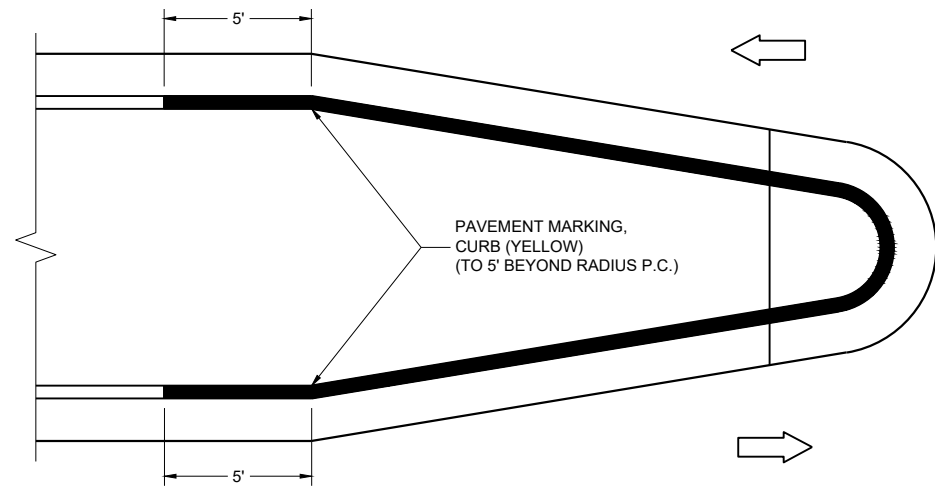
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2022 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER 282

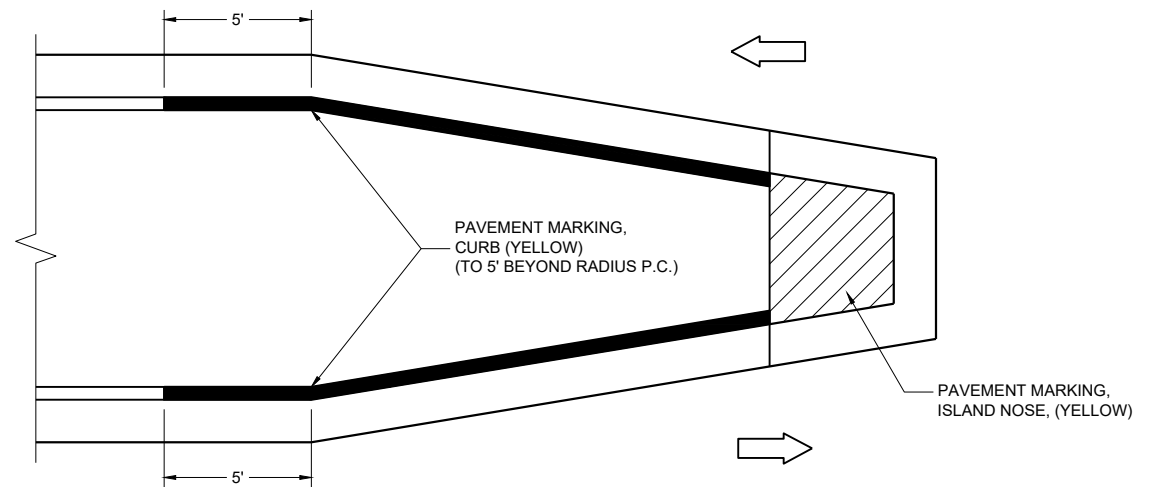
FHWA



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

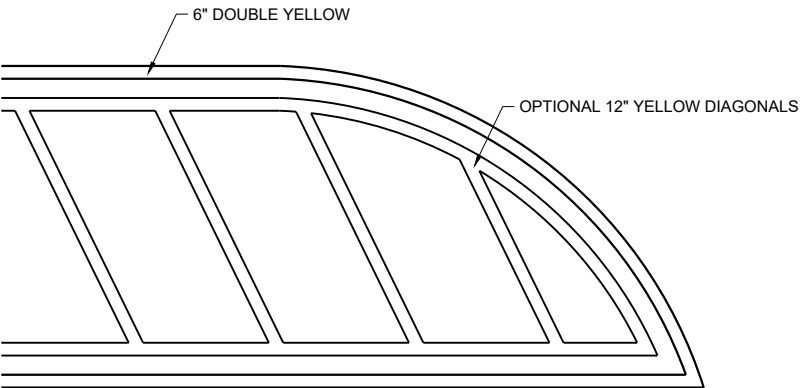
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

① APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL



FLUSH MEDIAN ISLAND NOSE

| PAVEMENT MARKINGS,<br>MEDIAN ISLAND NOSE           |                                                           |
|----------------------------------------------------|-----------------------------------------------------------|
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |                                                           |
| APPROVED<br>August 2024<br>DATE                    | /S/ Jeannie Silver<br>Statewide Pavement Marking Engineer |
| FHWA                                               | 283                                                       |



LEGEND

- V1

LEAD VEHICLE
- V2

MARKING VEHICLE
- V3

SHADOW VEHICLE
- 

TRUCK MOUNTED ATTENUATOR (TMA)
- 

SIGN ON TEMPORARY SUPPORT
- 

DIRECTION OF TRAFFIC

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH

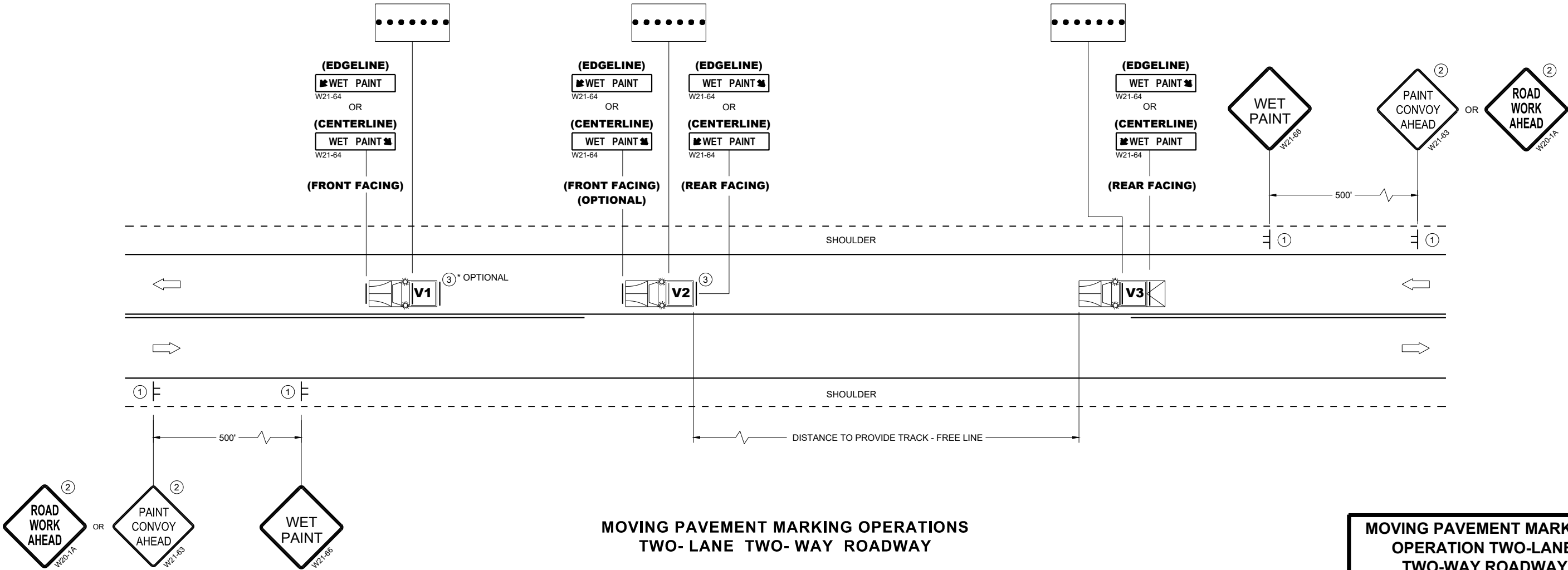
WORKERS SHALL NOT PERFORM WORK FROM ANY SHADOW OR PROTECTION VEHICLES.

UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.

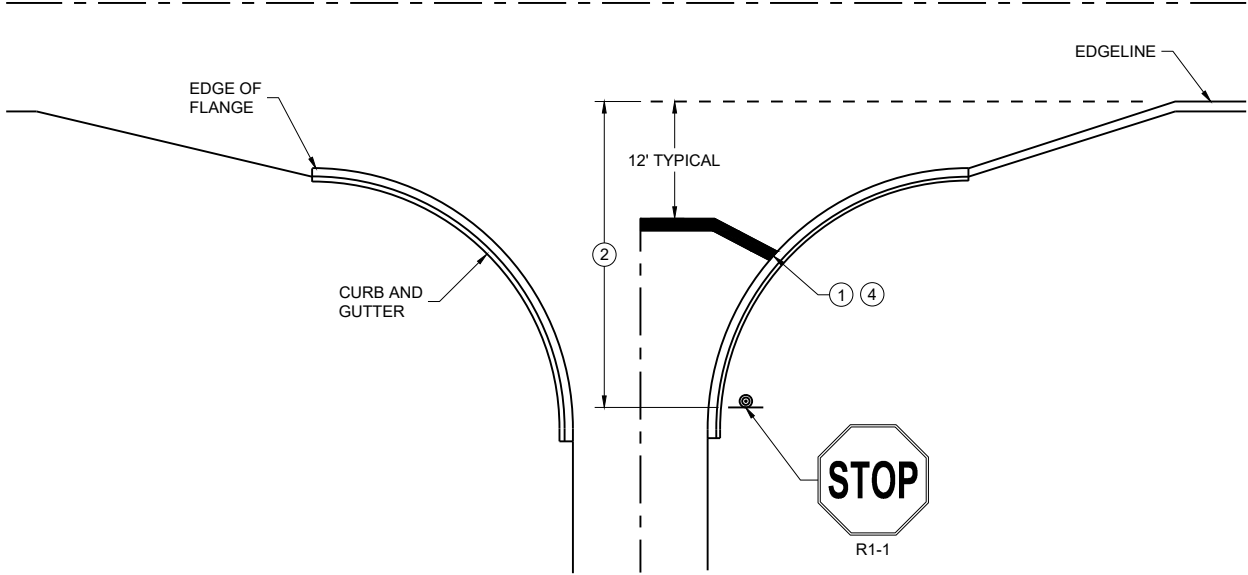


MOVING PAVEMENT MARKING OPERATIONS  
TWO- LANE TWO- WAY ROADWAY

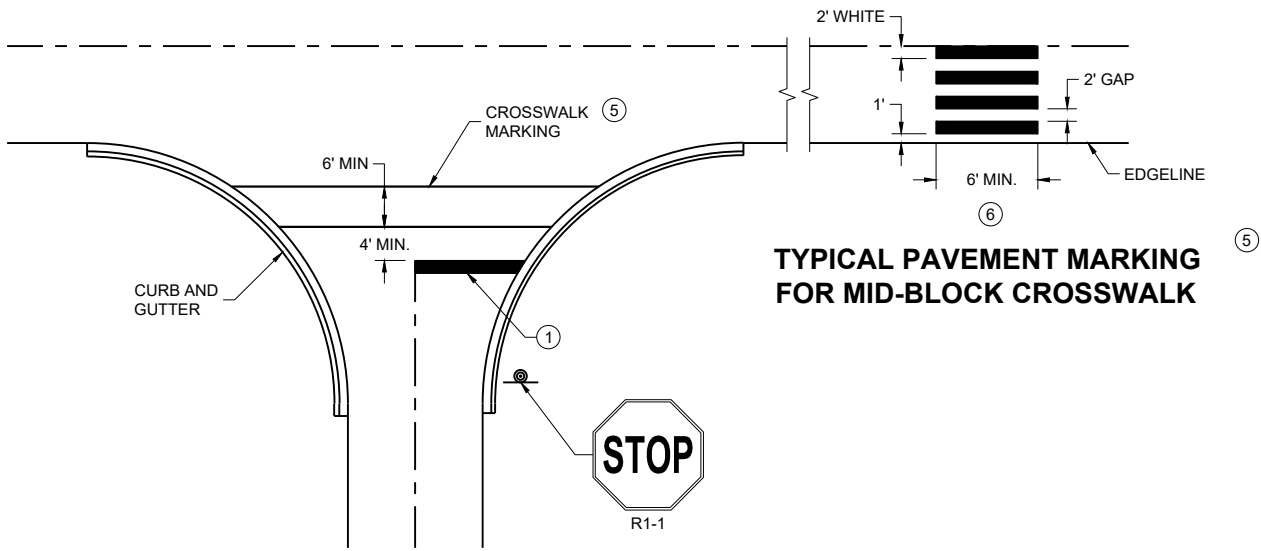
MOVING PAVEMENT MARKING  
OPERATION TWO-LANE  
TWO-WAY ROADWAY

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

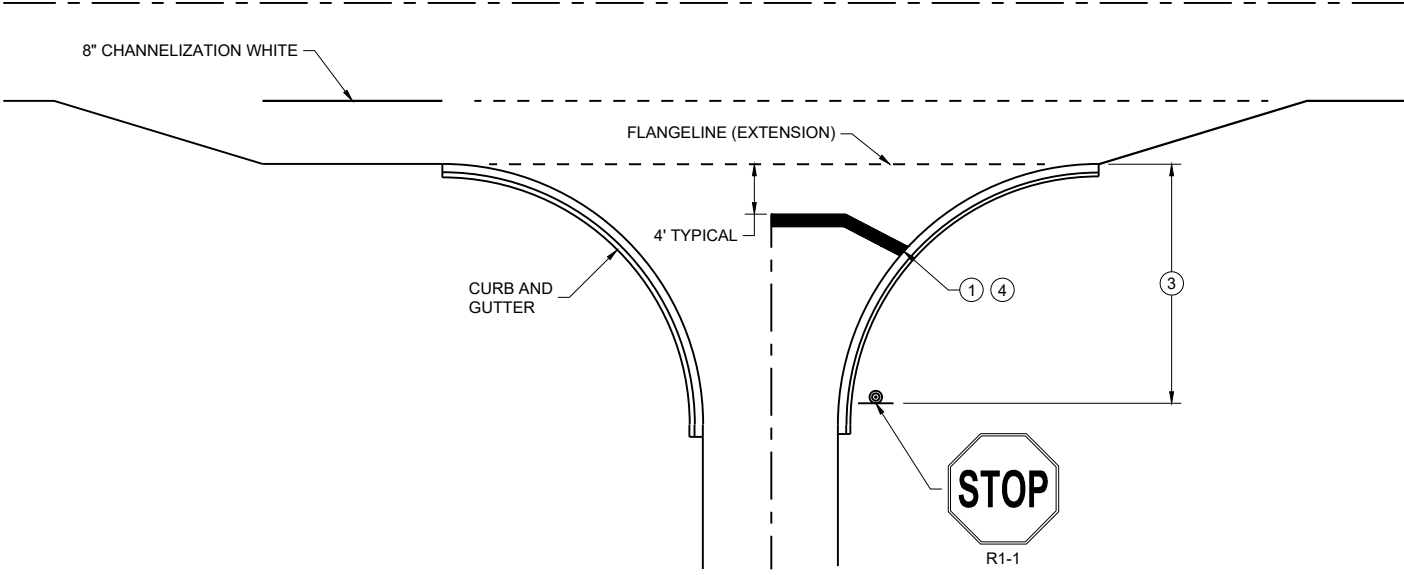
APPROVED  
November 2025 /S/ Andrew Heidtke  
DATE STATE ELECTRICAL ENGINEER



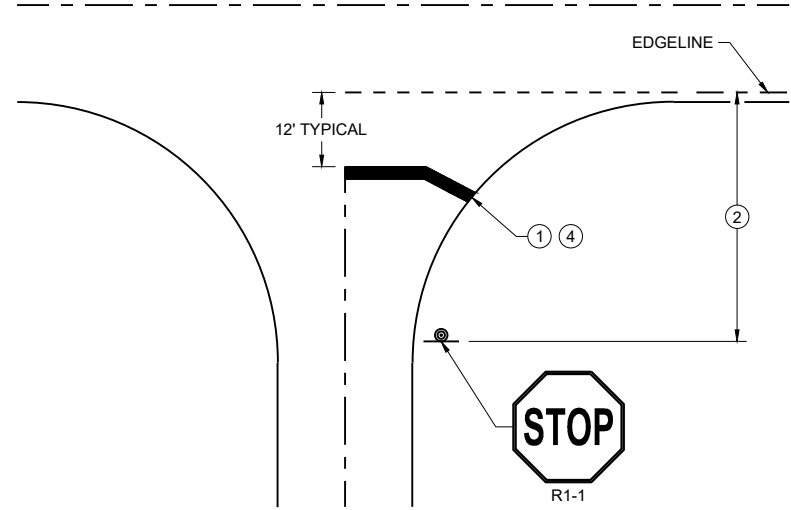
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGE LINE LOCATION.

- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE.
- 3 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- 4 MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- 5 LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
- 6 POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS

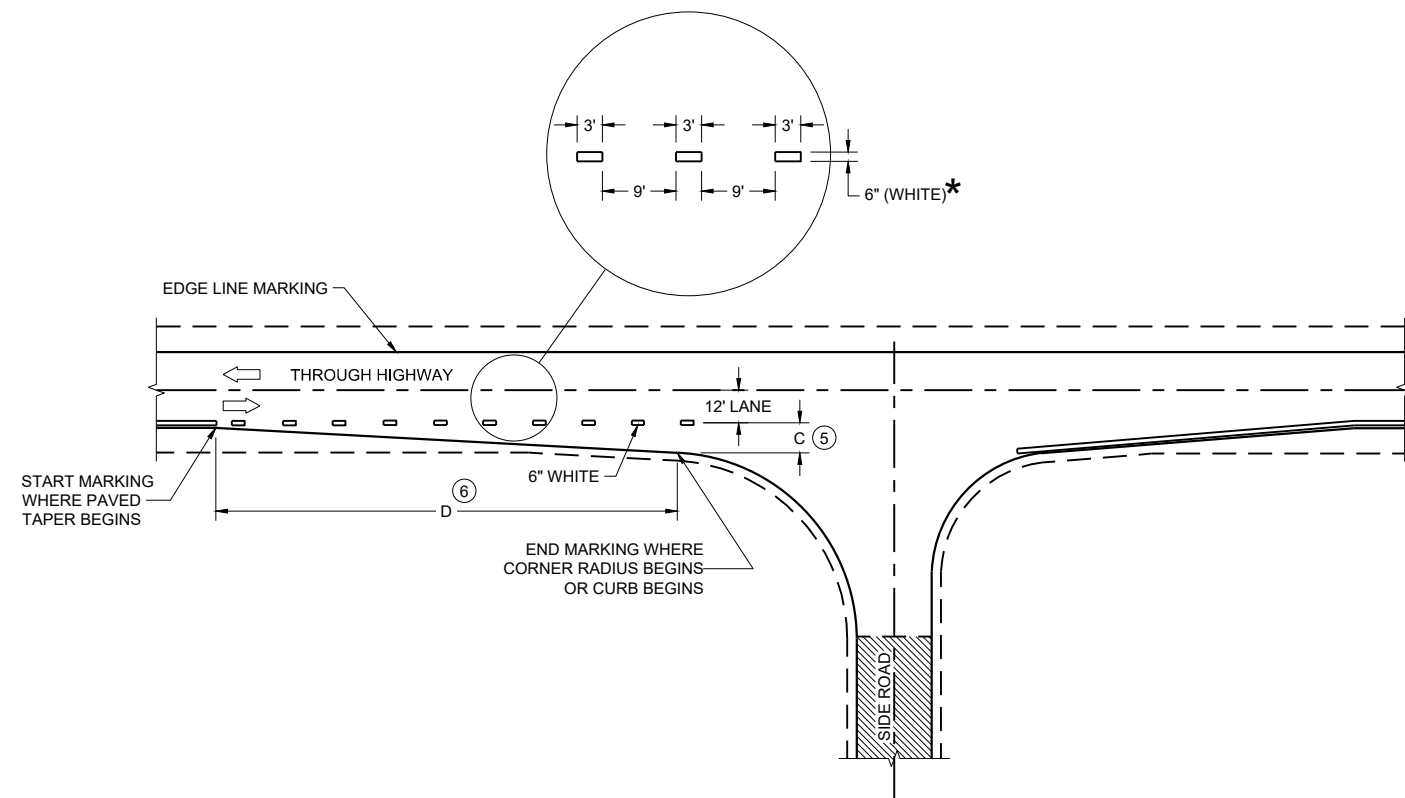
STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

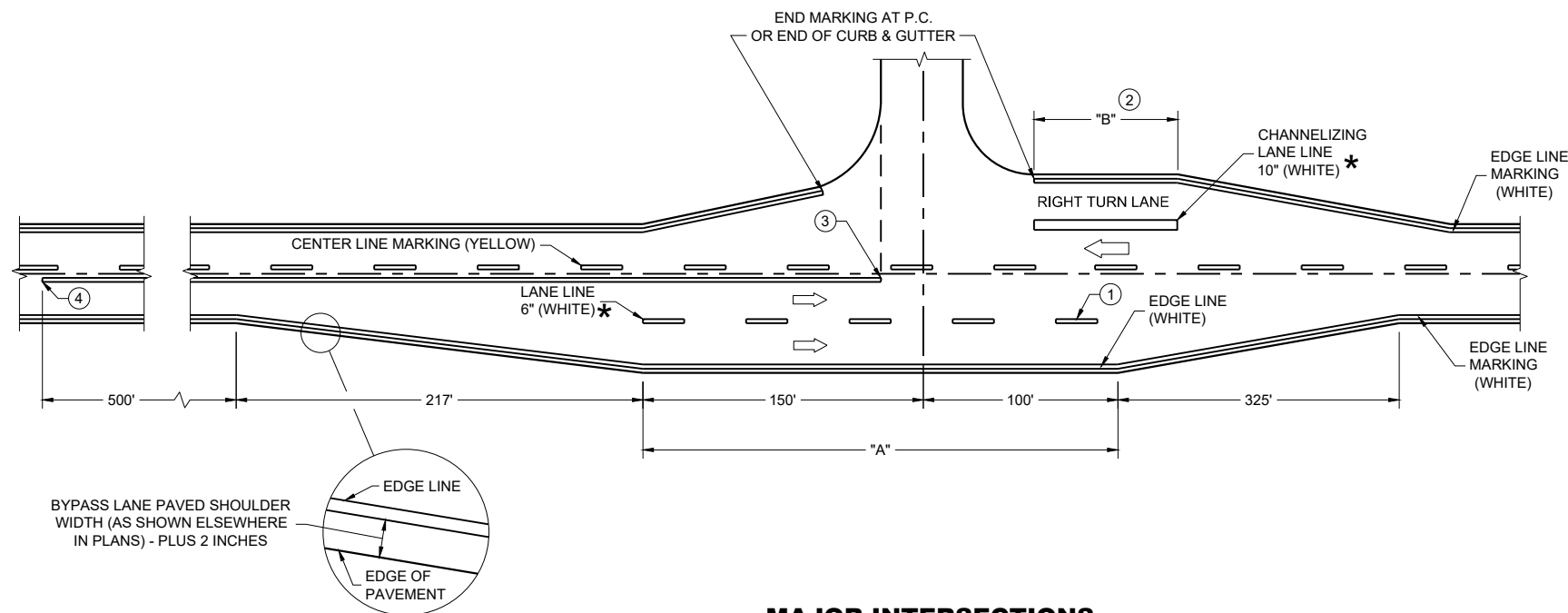
APPROVED  
March 2024  
DATE

/S/ Matthew Rauch  
STATE SIGNING AND MARKING  
ENGINEER

FHWA



MINOR INTERSECTION



MAJOR INTERSECTIONS  
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

\*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

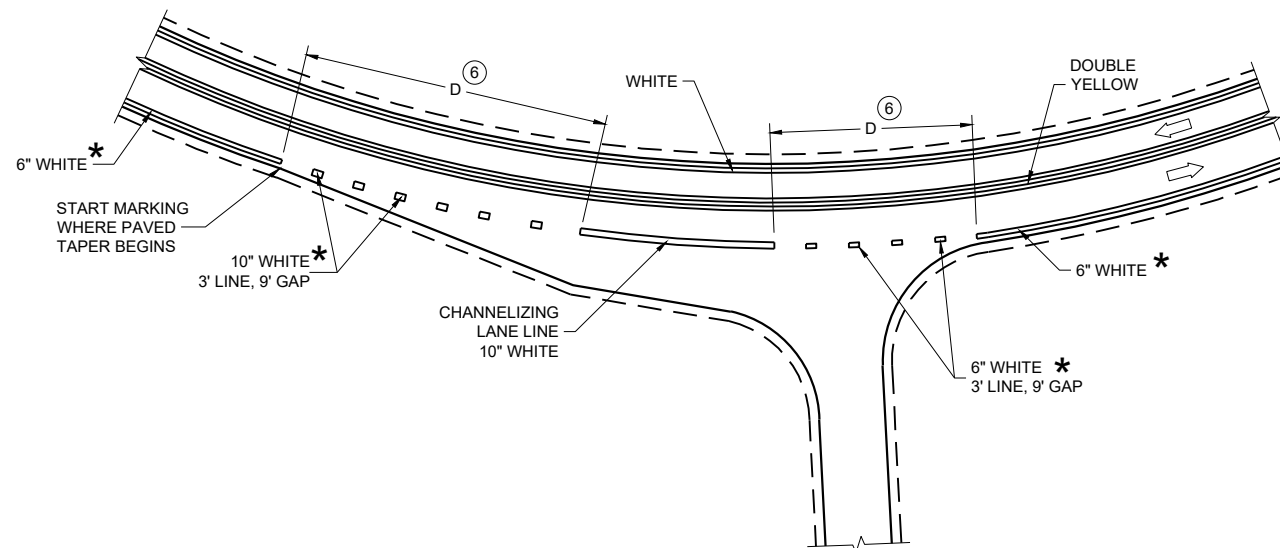
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

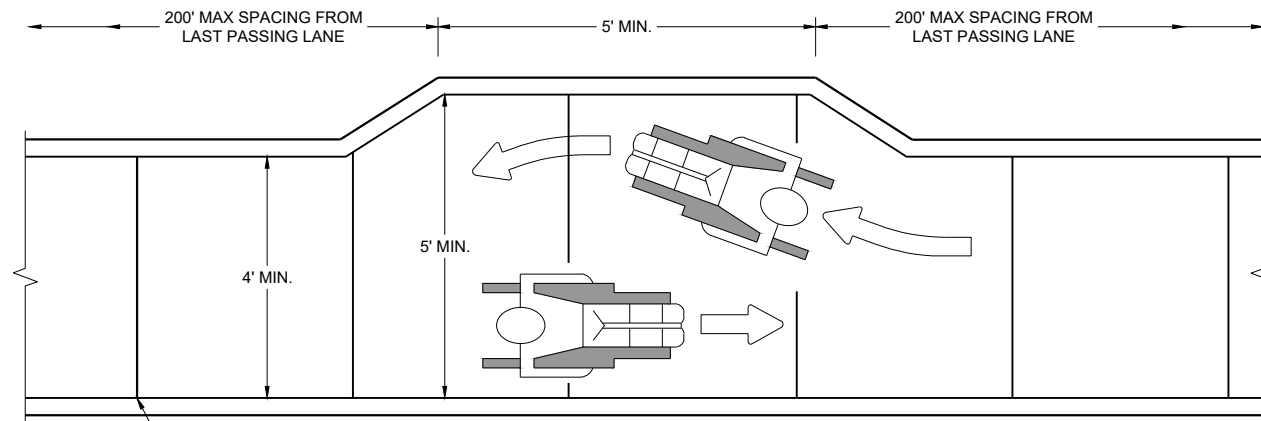
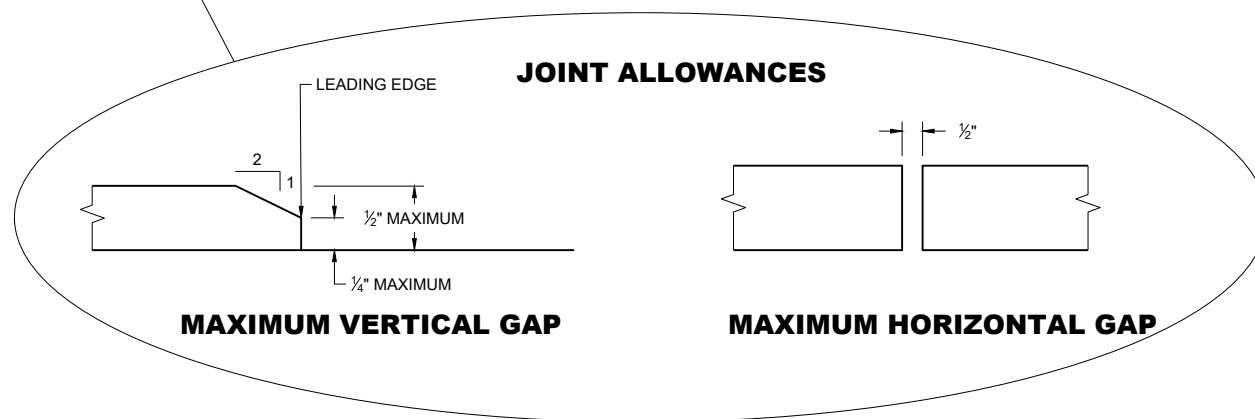
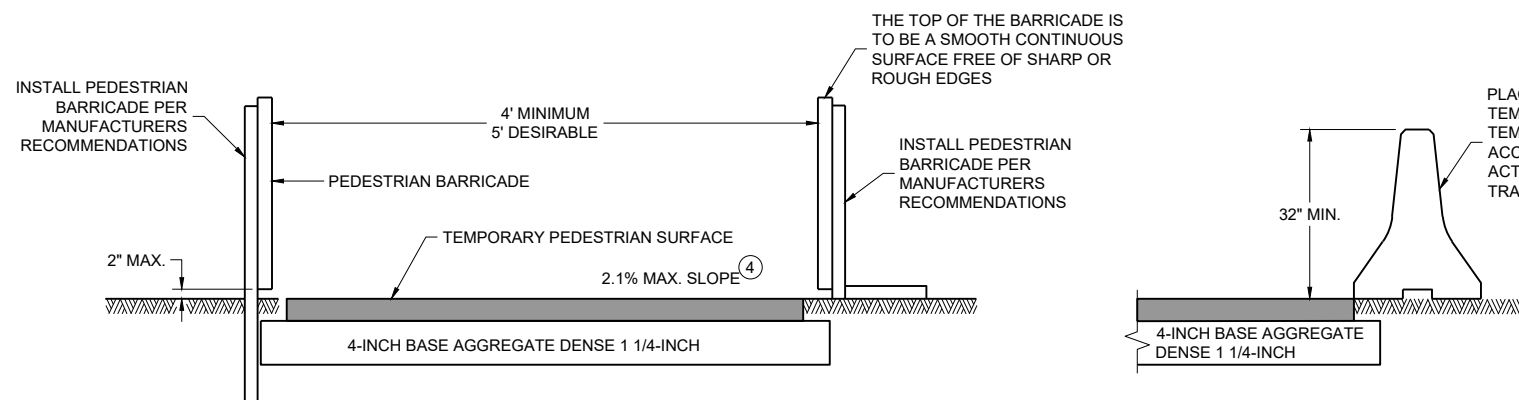
➡ DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

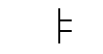
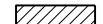
PAVEMENT MARKING  
(INTERSECTIONS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**NARROW SIDEWALK PASSING DETAIL****MAXIMUM VERTICAL GAP****MAXIMUM HORIZONTAL GAP****TEMPORARY PEDESTRIAN ACCESS**

PLACE CONCRETE BARRIER  
TEMPORARY PRECAST IF  
TEMPORARY PEDESTRIAN  
ACCESS IS ADJACENT TO AN  
ACTIVE WORK ZONE OR LIVE  
TRAFFIC LANE

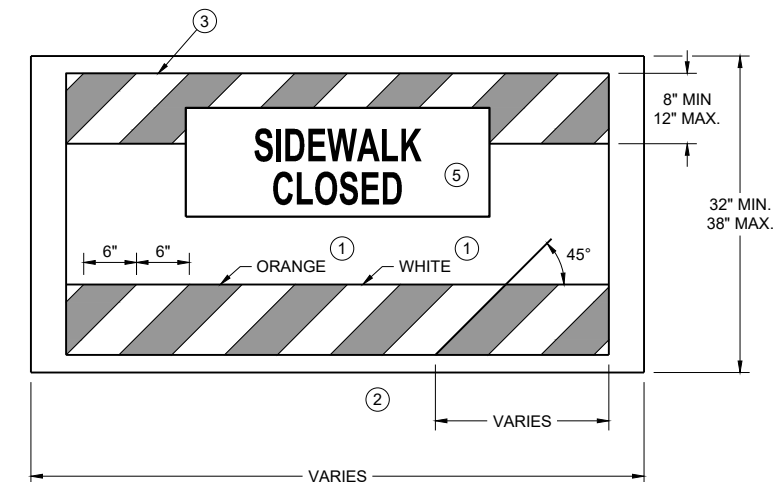
**LEGEND**

-  TEMPORARY PEDESTRIAN BARRICADE
-  AUDIBLE MESSAGE DEVICE
-  TEMPORARY SIGN SUPPORT
-  WORK AREA

**GENERAL NOTES**

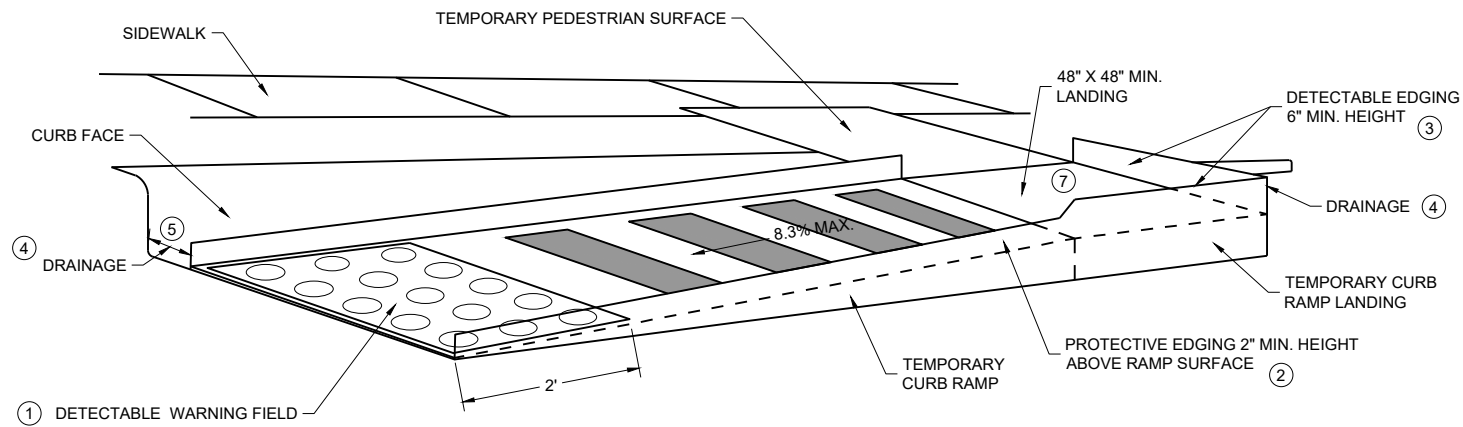
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- ★ USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.
- ④ WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.
- ⑤ WHERE SIGNS FOR TEMPORARY PEDESTRIAN ACCOMMODATIONS ARE SHOWN BEING PLACED BEHIND TEMPORARY PEDESTRIAN BARRICADE, THE SIGNS MAY BE MOUNTED ON THE TEMPORARY PEDESTRIAN BARRICADE INSTEAD. A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE SHALL BE USED IF MOUNTED ON THE BARRICADE. THE TOP OF THE SIGN SHALL BE MOUNTED BELOW THE TOP OF THE BARRICADE TO ALLOW A CONTINUOUS HAND-TRAILING EDGE.

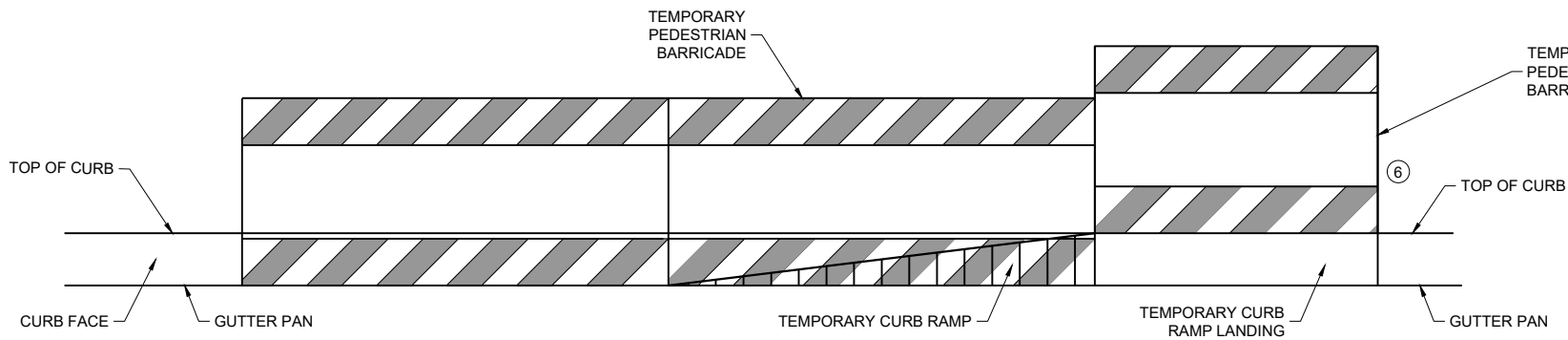
**TEMPORARY PEDESTRIAN BARRICADE \*****TEMPORARY PEDESTRIAN FLAGGING**

**TRAFFIC CONTROL,  
PEDESTRIAN  
ACCOMMODATION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

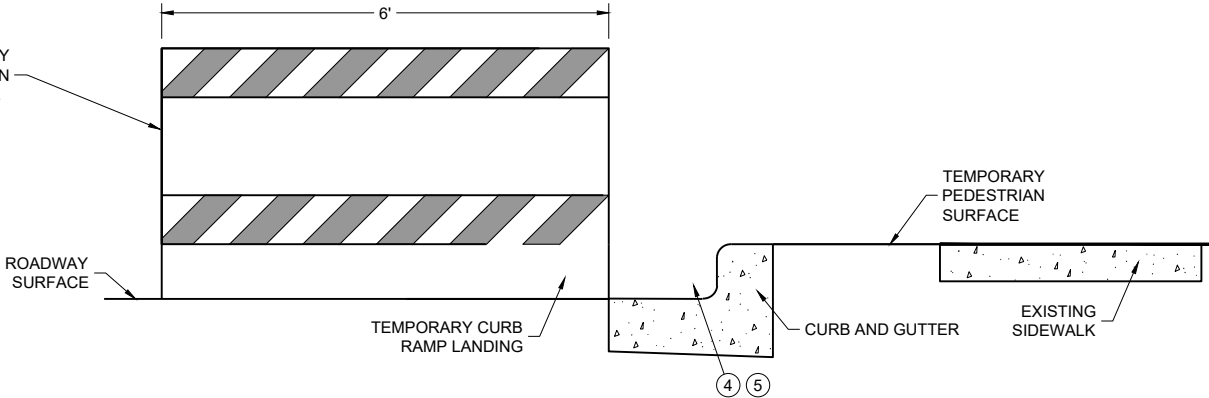


PERSPECTIVE VIEW



FRONT VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB



SIDE VIEW

GENERAL NOTES

CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

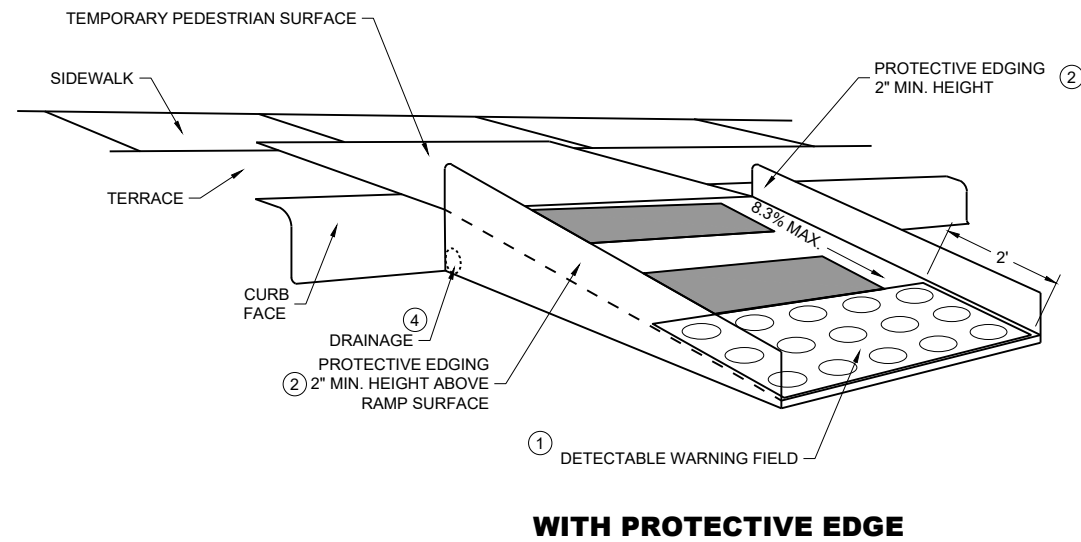
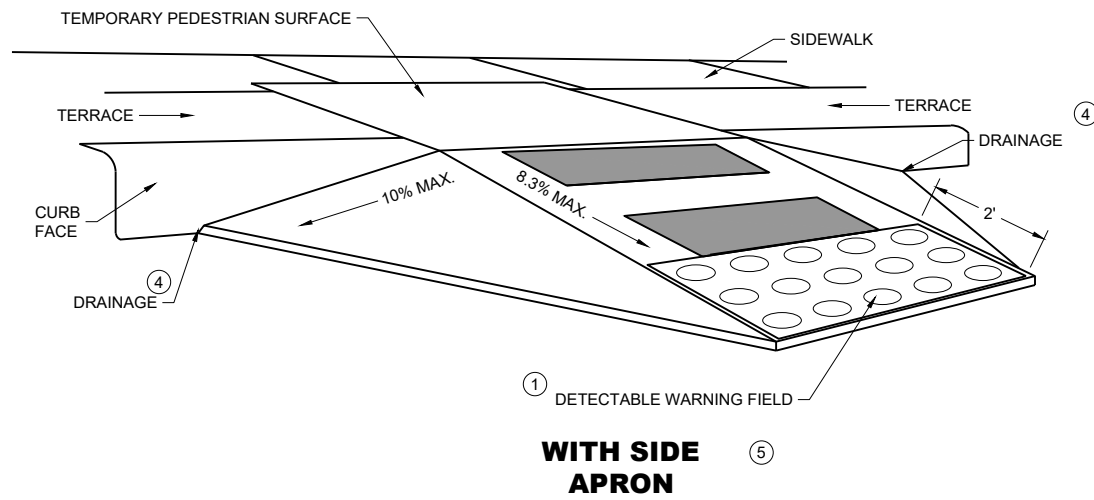
CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

- 1. INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
- 2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- 3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- 4. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- 5. ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
- 6. IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.
- 7. LANDING TO BE SLOPED A MAXIMUM OF 2.1% IN ALL DIRECTIONS OF PEDESTRIAN TRAVEL.





TEMPORARY CURB RAMP PERPENDICULAR TO CURB

## GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

- (1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS
- (2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- (3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- (4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- (5) CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

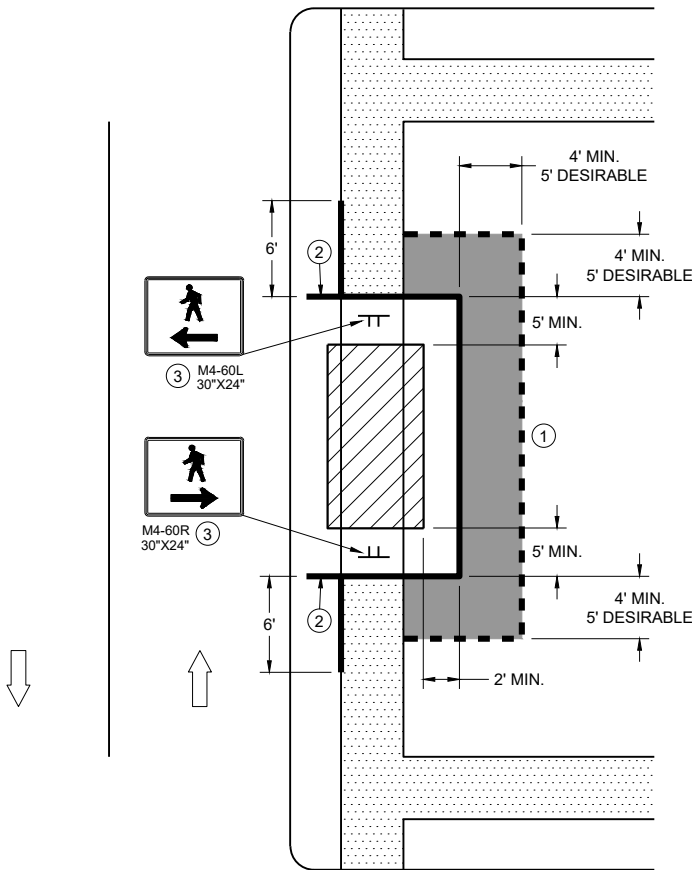
GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

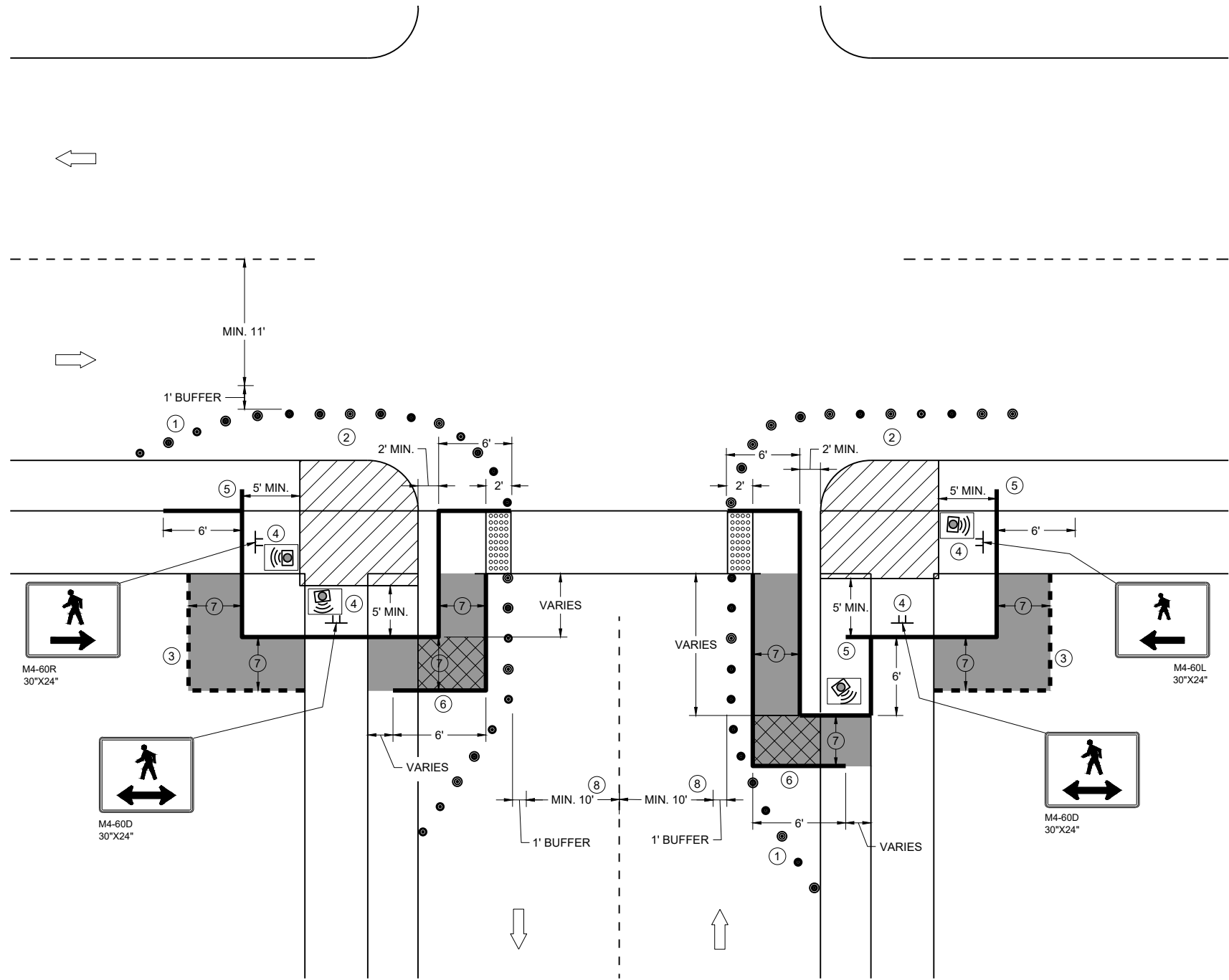
WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

- ① USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ② IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ③ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK BYPASS  
SINGLE SIDE



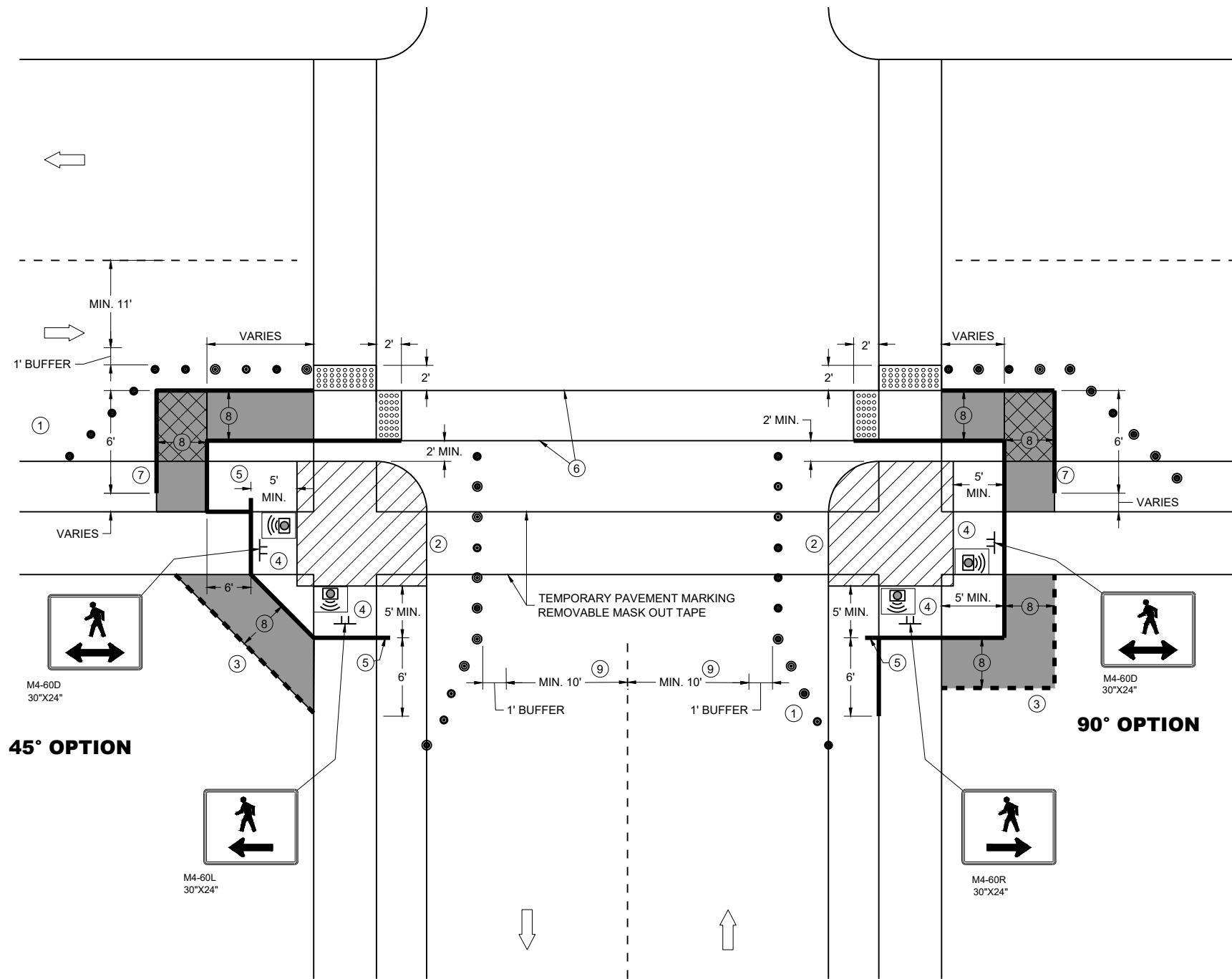
CURB RAMP PEDESTRIAN TRAFFIC CONTROL  
SIDEWALK ON SINGLE SIDE

GENERAL NOTES

- IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.
- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG
- WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
  - ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
  - ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
  - ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
  - ⑤ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
  - ⑥ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
  - ⑦ 4 FEET MINIMUM, 5 FEET DESIRABLE
  - ⑧ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



CURB RAMP PEDESTRIAN TRAFFIC CONTROL

**GENERAL NOTES**

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

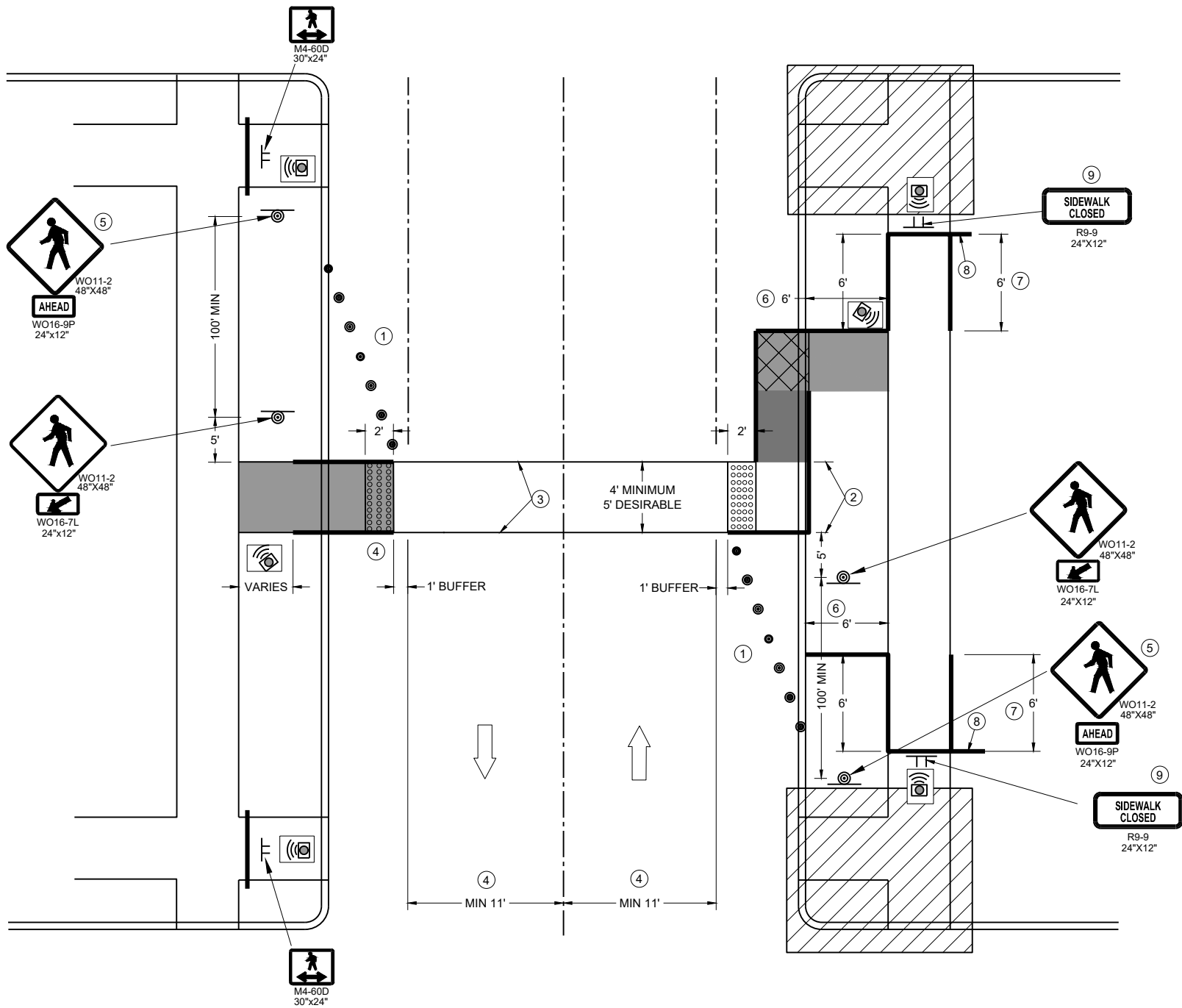
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
- ⑤ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
- ⑥ WHITE 6" TEMPORARY PAVEMENT MARKING
- ⑦ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- ⑧ 4 FEET MINIMUM, 5 FEET DESIRABLE
- ⑨ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

**LEGEND**

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.  
SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

- 1 SHOULDERS OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.
- 2 4 FEET MINIMUM, 5 FEET DESIRABLE.
- 3 WHITE 6" TEMPORARY PAVEMENT MARKING.
- 4 IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMP MAY NEED TO BE UTILIZED.
- 5 IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.
- 6 IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- 7 PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- 8 IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- 9 MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2025 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER



LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT LEFT - REVERSE FOR SHIFTING RIGHT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

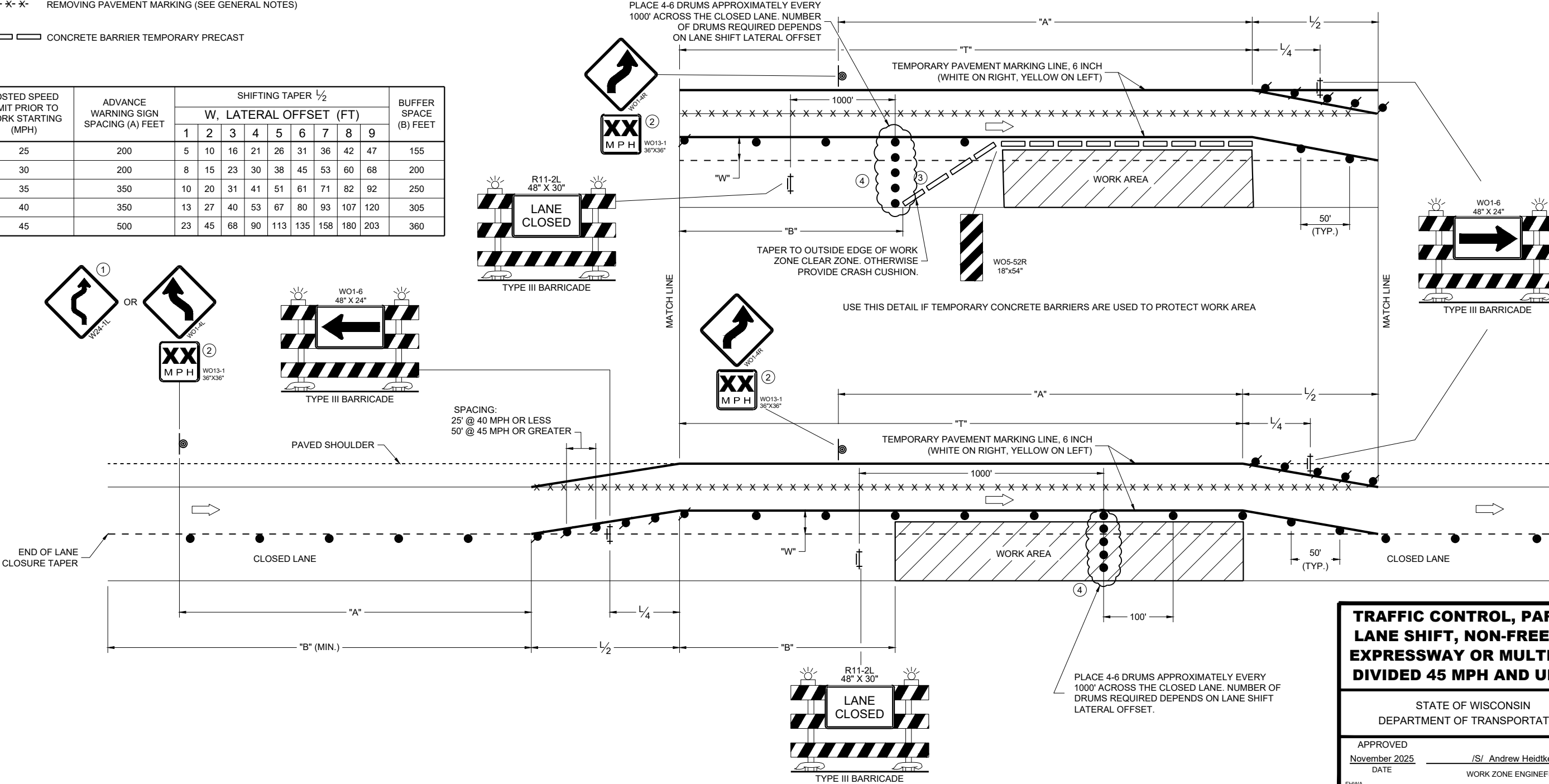
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

- 1 USE ONLY WHEN T<600', OMIT WO1-4R.
- 2 IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
- 3 BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS  
8:1 @ 45 MPH OR GREATER
- 4 DRUMS IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

| POSTED SPEED<br>LIMIT PRIOR TO<br>WORK STARTING<br>(MPH) | ADVANCE<br>WARNING SIGN<br>SPACING (A) FEET | SHIFTING TAPER $\frac{L}{2}$ |    |    |    |     |     |     |     |     | BUFFER<br>SPACE<br>(B) FEET |
|----------------------------------------------------------|---------------------------------------------|------------------------------|----|----|----|-----|-----|-----|-----|-----|-----------------------------|
|                                                          |                                             | W, LATERAL OFFSET (FT)       |    |    |    |     |     |     |     |     |                             |
|                                                          |                                             | 1                            | 2  | 3  | 4  | 5   | 6   | 7   | 8   | 9   |                             |
| 25                                                       | 200                                         | 5                            | 10 | 16 | 21 | 26  | 31  | 36  | 42  | 47  | 155                         |
| 30                                                       | 200                                         | 8                            | 15 | 23 | 30 | 38  | 45  | 53  | 60  | 68  | 200                         |
| 35                                                       | 350                                         | 10                           | 20 | 31 | 41 | 51  | 61  | 71  | 82  | 92  | 250                         |
| 40                                                       | 350                                         | 13                           | 27 | 40 | 53 | 67  | 80  | 93  | 107 | 120 | 305                         |
| 45                                                       | 500                                         | 23                           | 45 | 68 | 90 | 113 | 135 | 158 | 180 | 203 | 360                         |



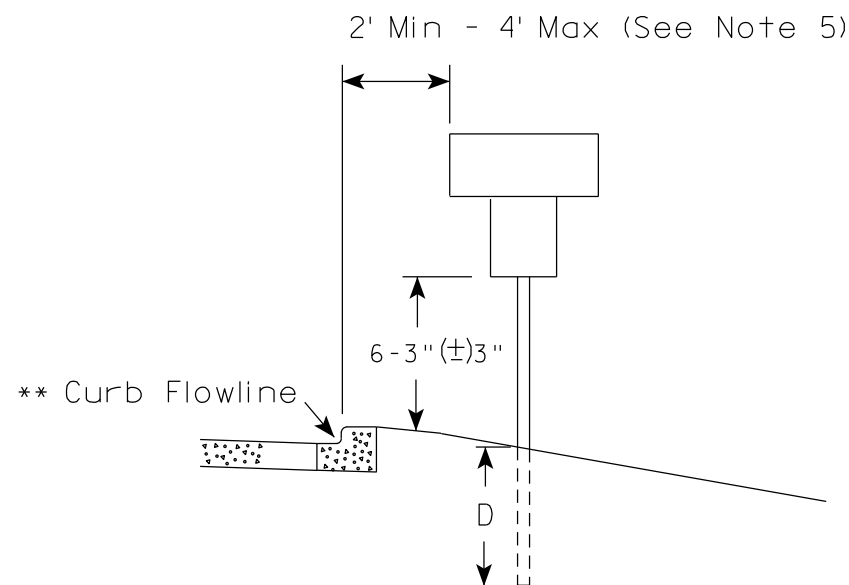
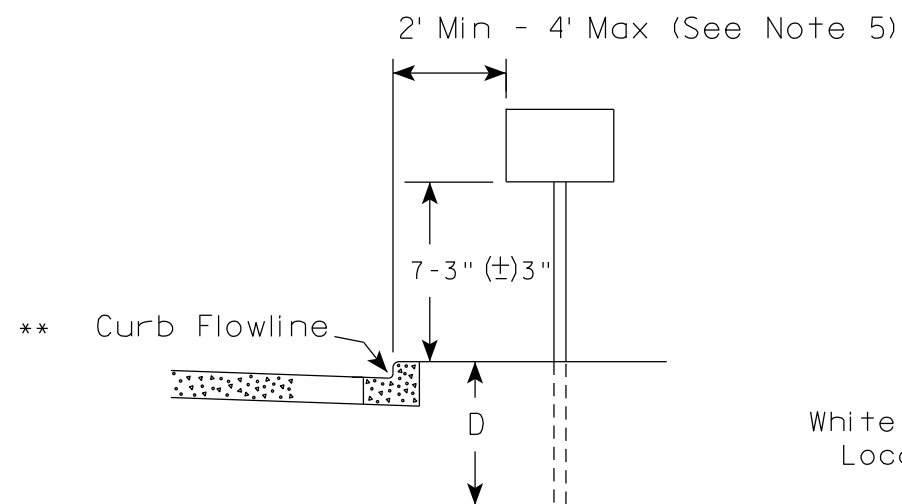
**TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2025 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

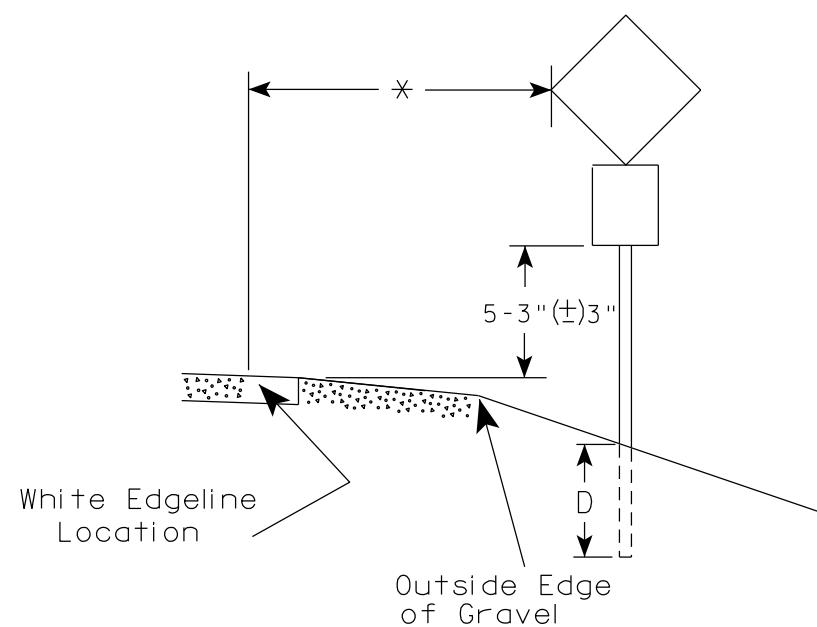
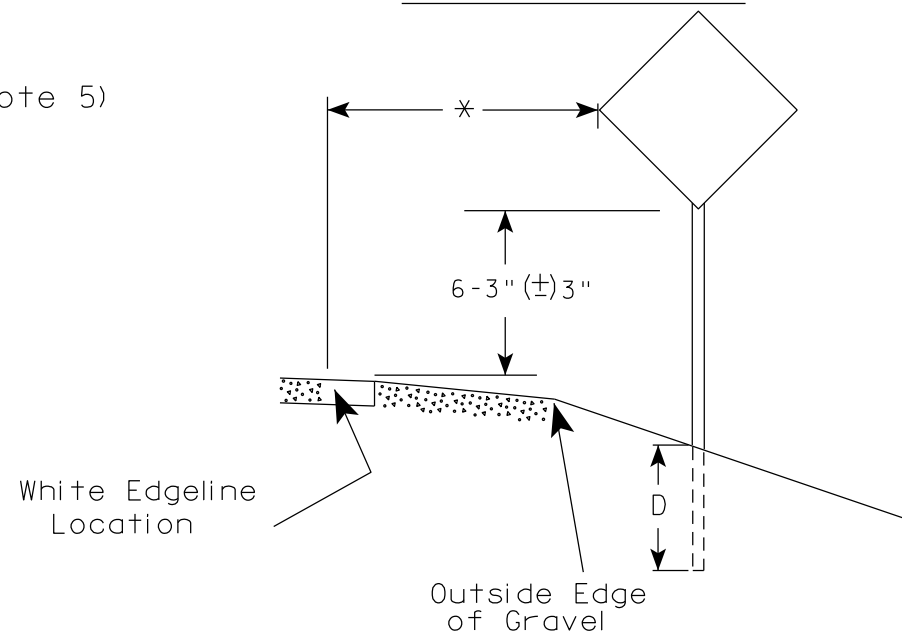
FHWA 294

## URBAN AREA



\* \* The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

## RURAL AREA (See Note 2)



\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

## GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.  
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the Engineer.

## POST EMBEDMENT DEPTH

| Area of Sign Installation ( Sq. Ft. ) | D ( Min ) |
|---------------------------------------|-----------|
| 20 or Less                            | 4'        |
| Greater than 20                       | 5'        |

TYPICAL INSTALLATION  
OF PERMANENT TYPE II  
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Matthew R. Rauch*  
for State Traffic Engineer

DATE 12/6/23

PLATE NO. A4-3.23

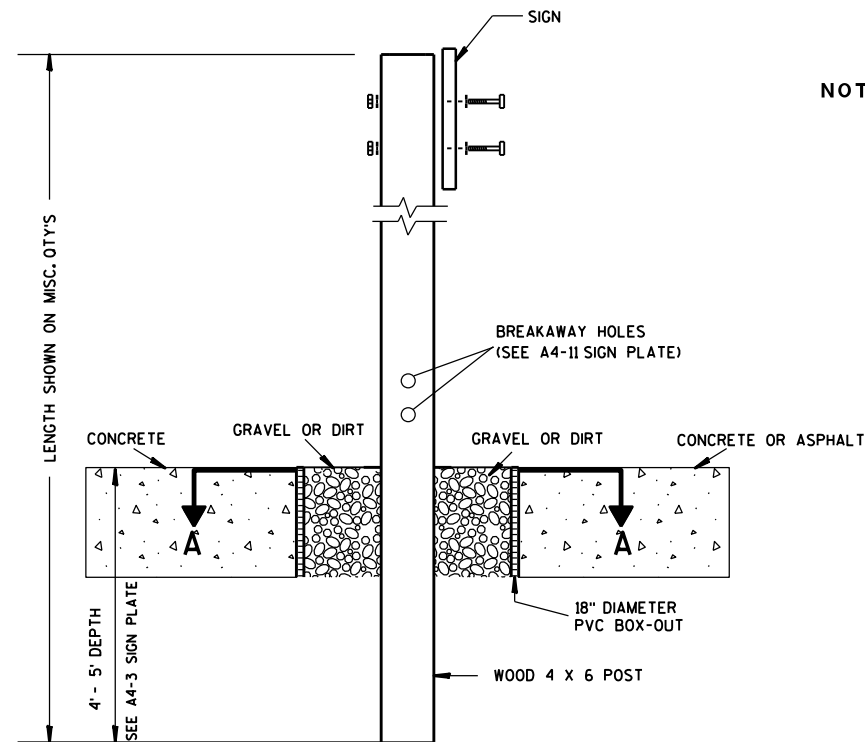
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 295

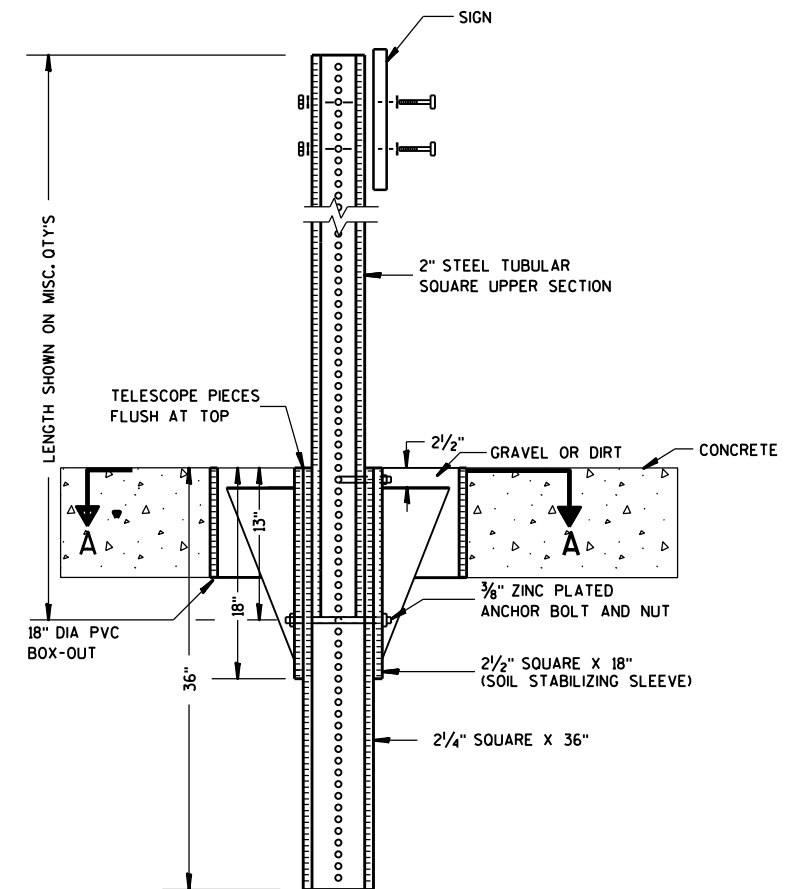
E



### ELEVATION VIEW

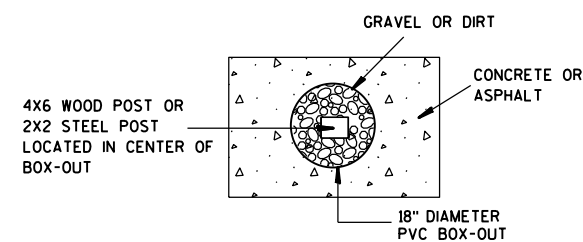
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



### ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



### PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST  
BOX-OUTS  
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 1/27/14 PLAT 296 A4-3B.1

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

GENERAL NOTES

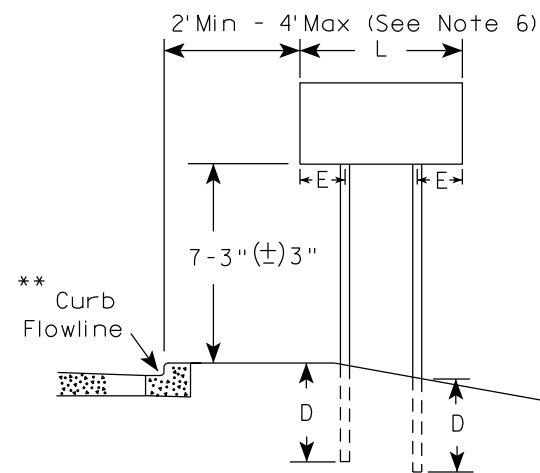
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- J-Assemblies are considered to be one sign for mounting height.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".

\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

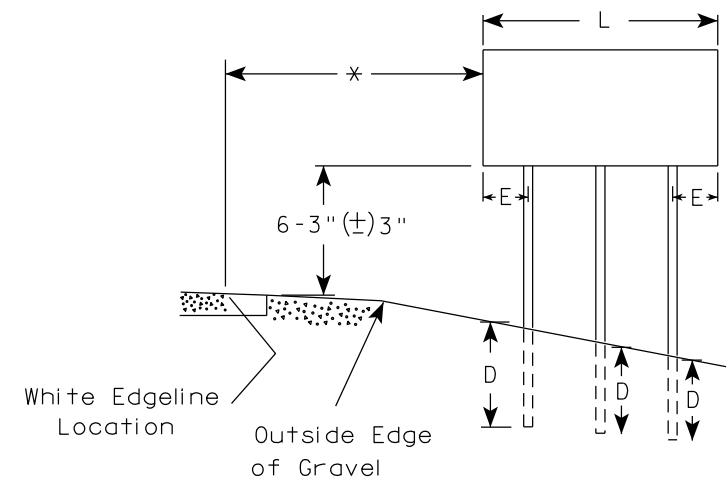
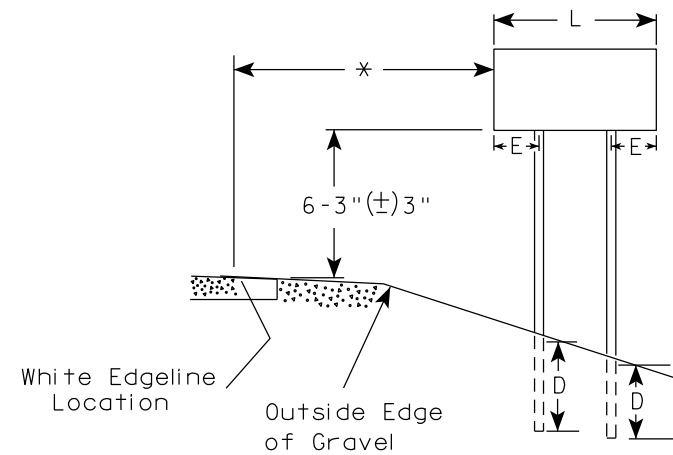
\*\* The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

\*\*\* See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

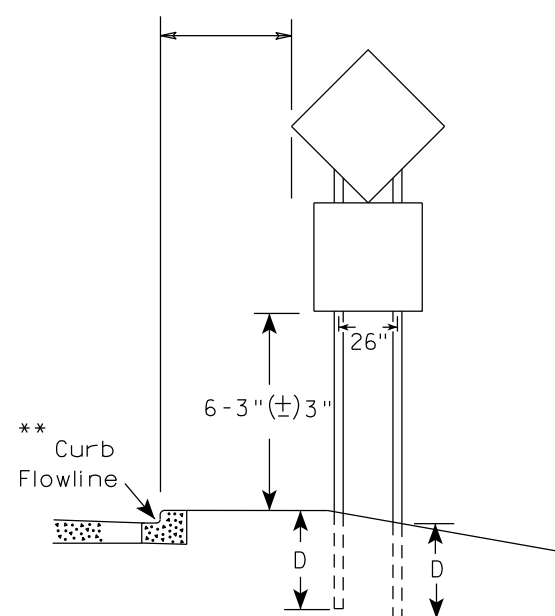
URBAN AREA



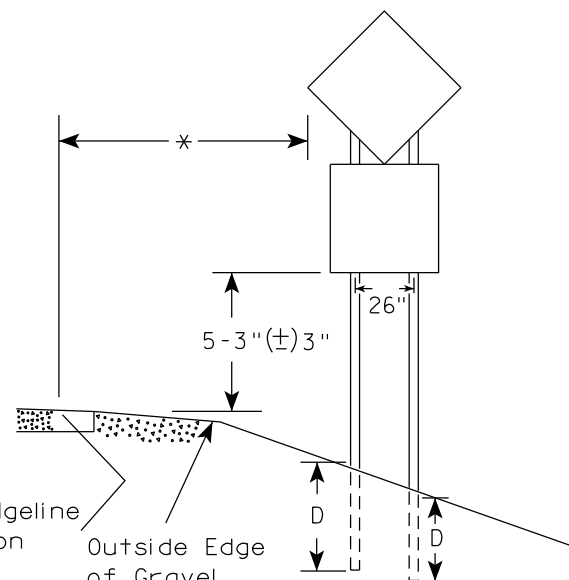
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

| SIGN SHAPE OTHER THAN DIAMOND<br>(TWO POSTS REQUIRED) |     |
|-------------------------------------------------------|-----|
| L                                                     | E   |
| Greater than 48"<br>Less than 60"                     | 12" |
| 60" to 108"                                           | L/5 |

\*\*\*

| SIGN SHAPE OTHER THAN DIAMOND<br>(THREE POSTS REQUIRED) |     |
|---------------------------------------------------------|-----|
| L                                                       | E   |
| Greater than 108"<br>to 144"                            | 12" |

POST EMBEDMENT DEPTH

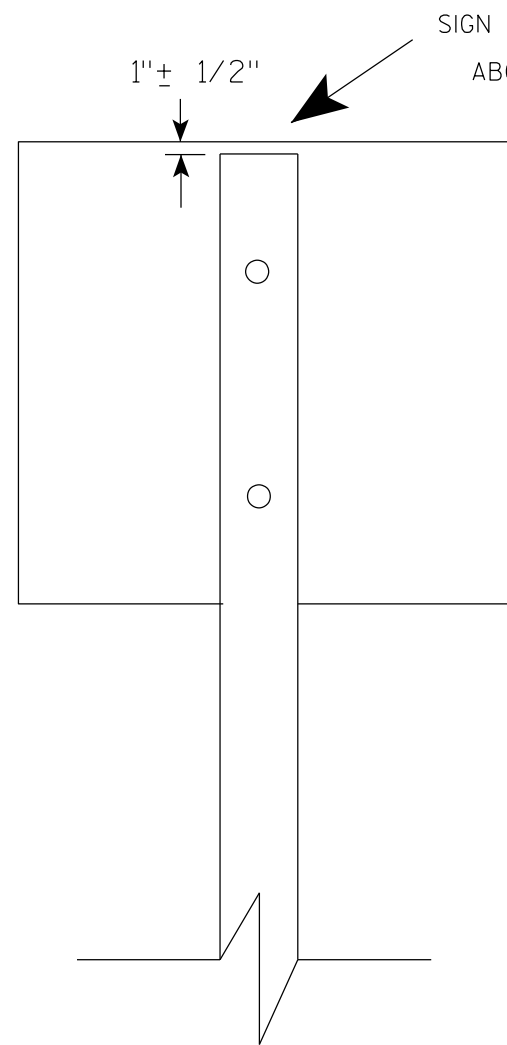
| Area of Sign<br>Installation<br>( Sq.Ft. ) | D<br>( Min ) |
|--------------------------------------------|--------------|
| 20 or Less                                 | 4'           |
| Greater than 20                            | 5'           |

TYPICAL INSTALLATION  
OF TYPE II SIGNS  
ON MULTIPLE POSTS

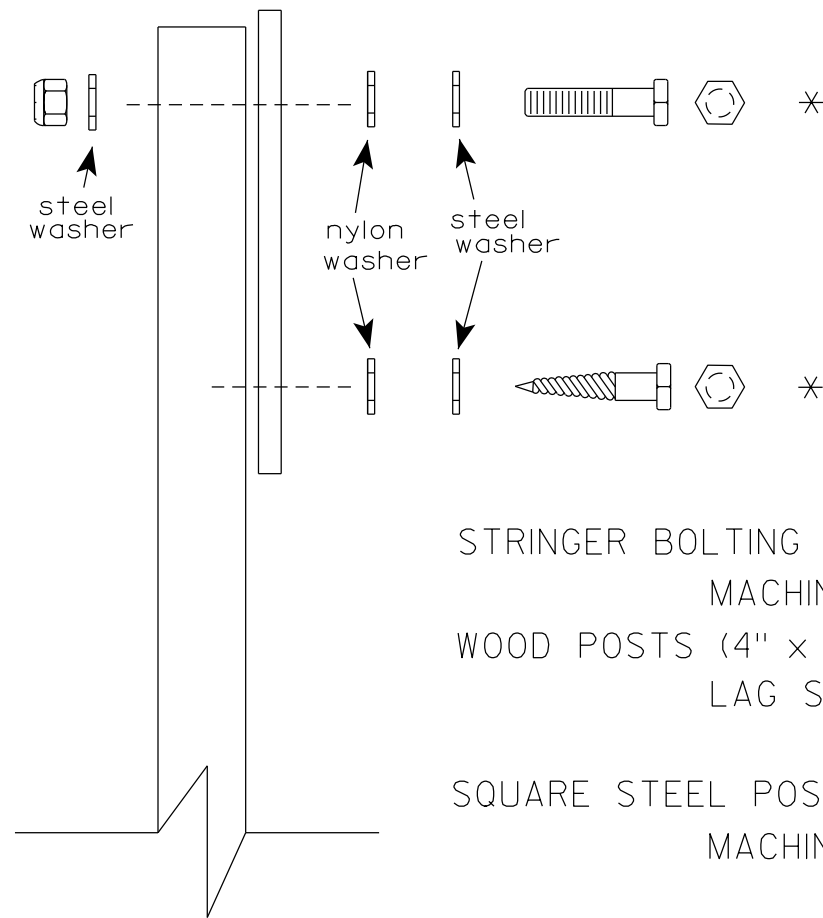
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16



SIGN SHALL BE MOUNTED TO PROJECT  
ABOVE THE TOP OF THE POST



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)  
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)  
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL  
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON

\* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

## ATTACHMENT OF SIGNS TO POSTS

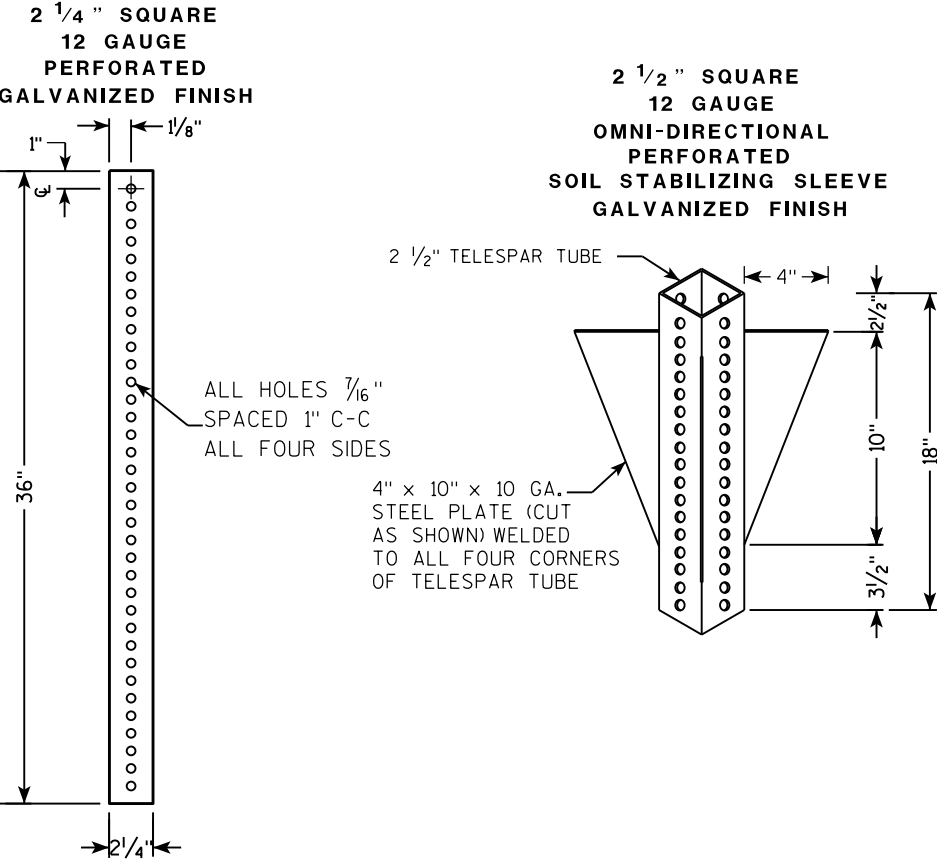
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch  
For State Traffic Engineer

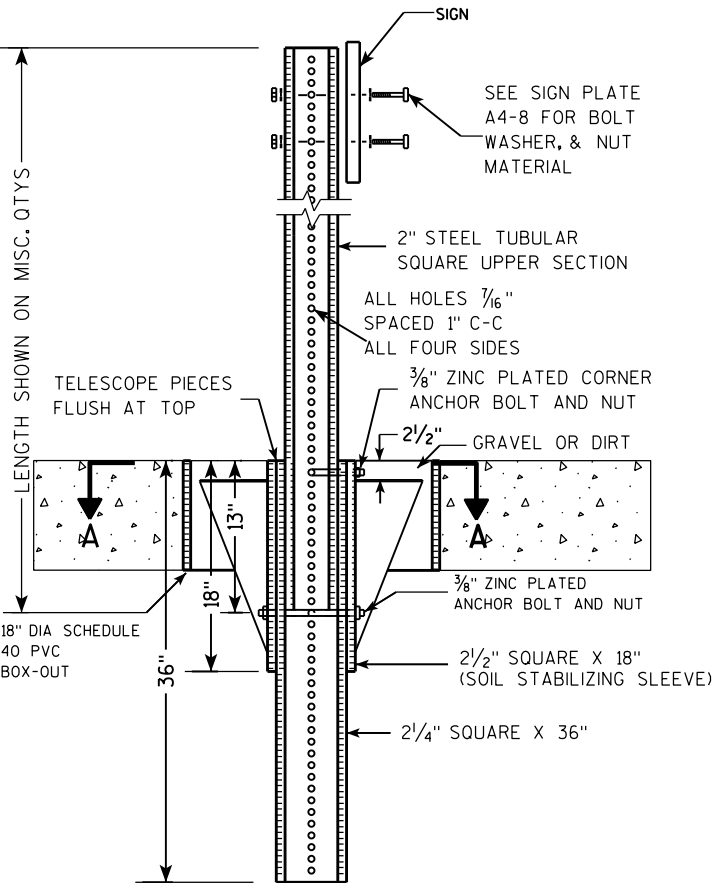
DATE 4/1/2020 PLATE NO. A4-8.9



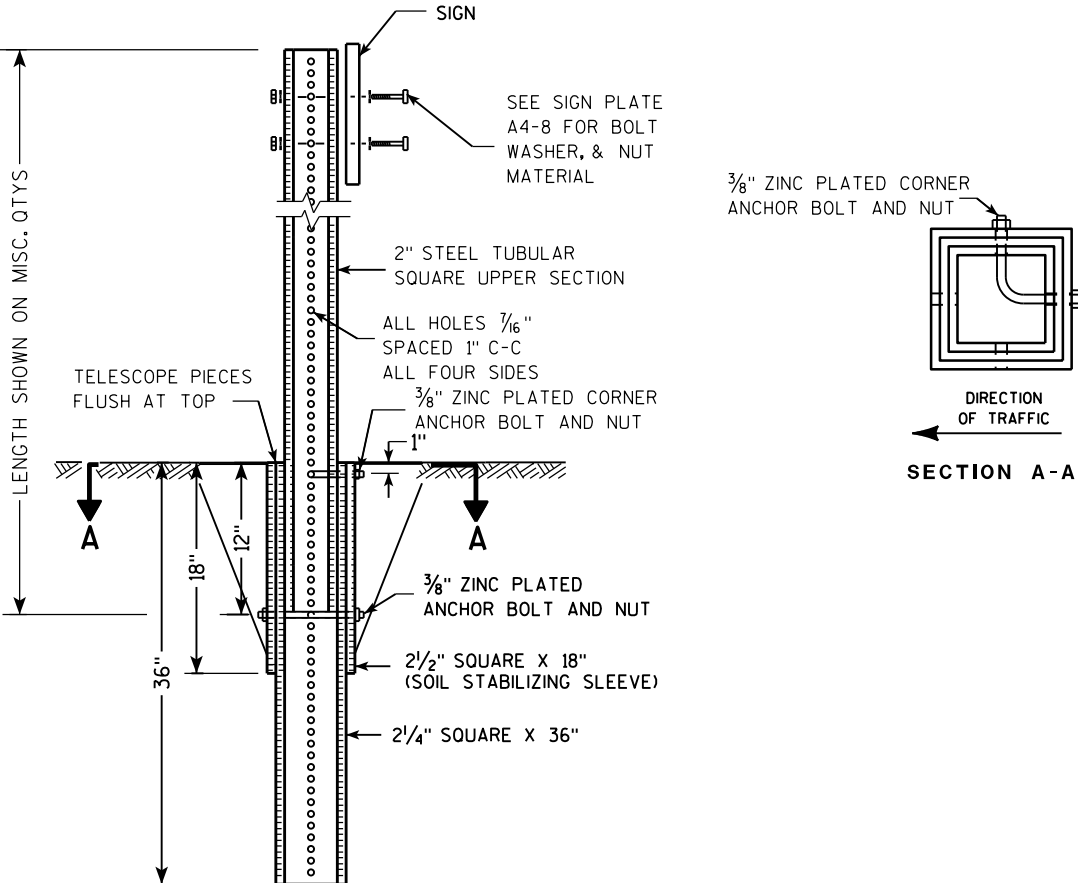
TELESCOPIC TUBING ANCHORS  
TWO PIECE SYSTEM



DETAIL OF TUBULAR STEEL SIGN POST  
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST  
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)



| Area of Sign Installation (Sq. Ft.)      | Number of Required Posts |
|------------------------------------------|--------------------------|
| 9 or less                                | 1                        |
| Greater than 9 less than or equal to 18  | 2                        |
| Greater than 18 less than or equal to 27 | 3                        |

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

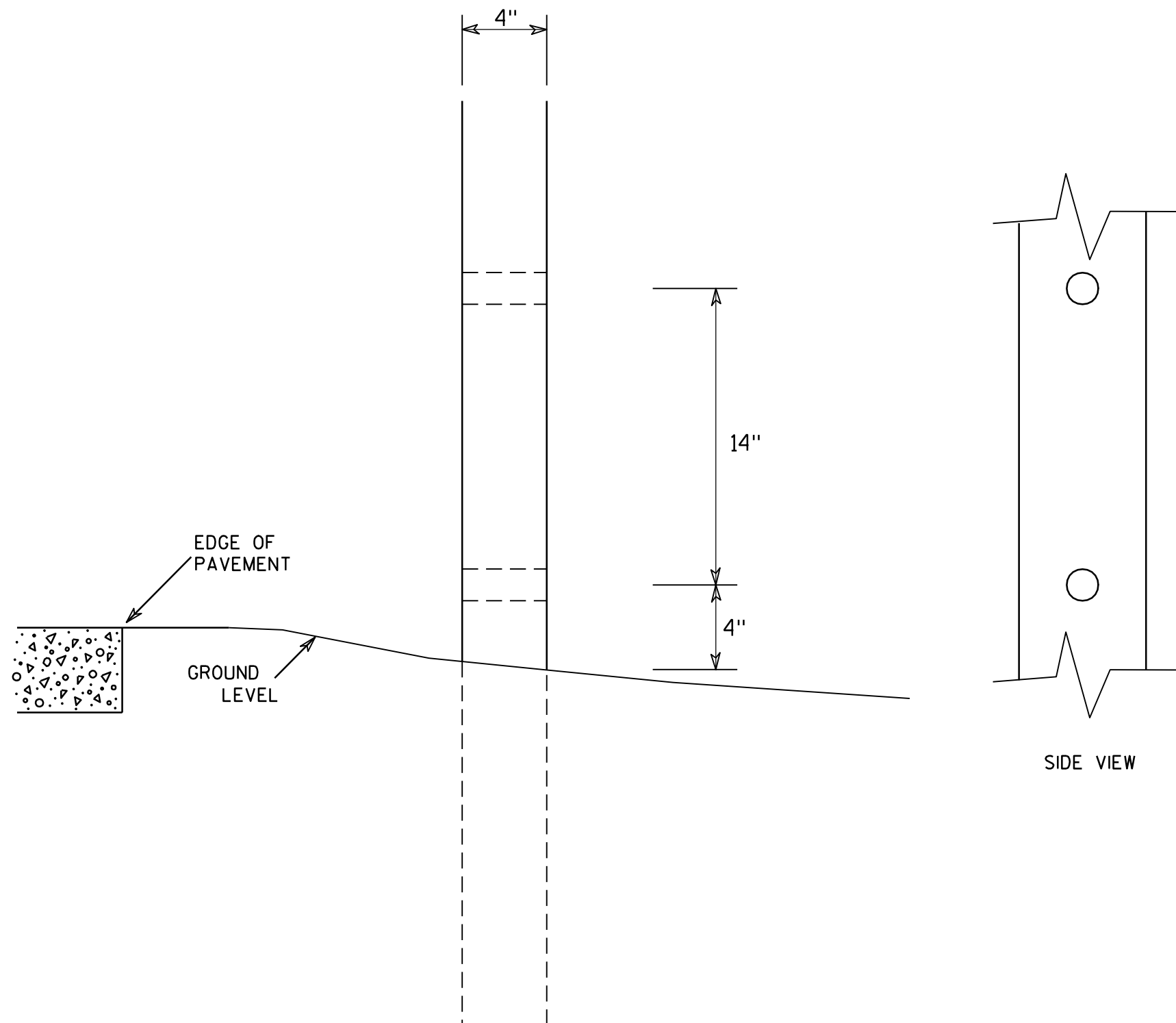
TUBULAR STEEL  
SIGN POST  
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 2/05/15 PLAT 14-9.9

7



### GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

### 4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Chester J. Spang*  
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 300

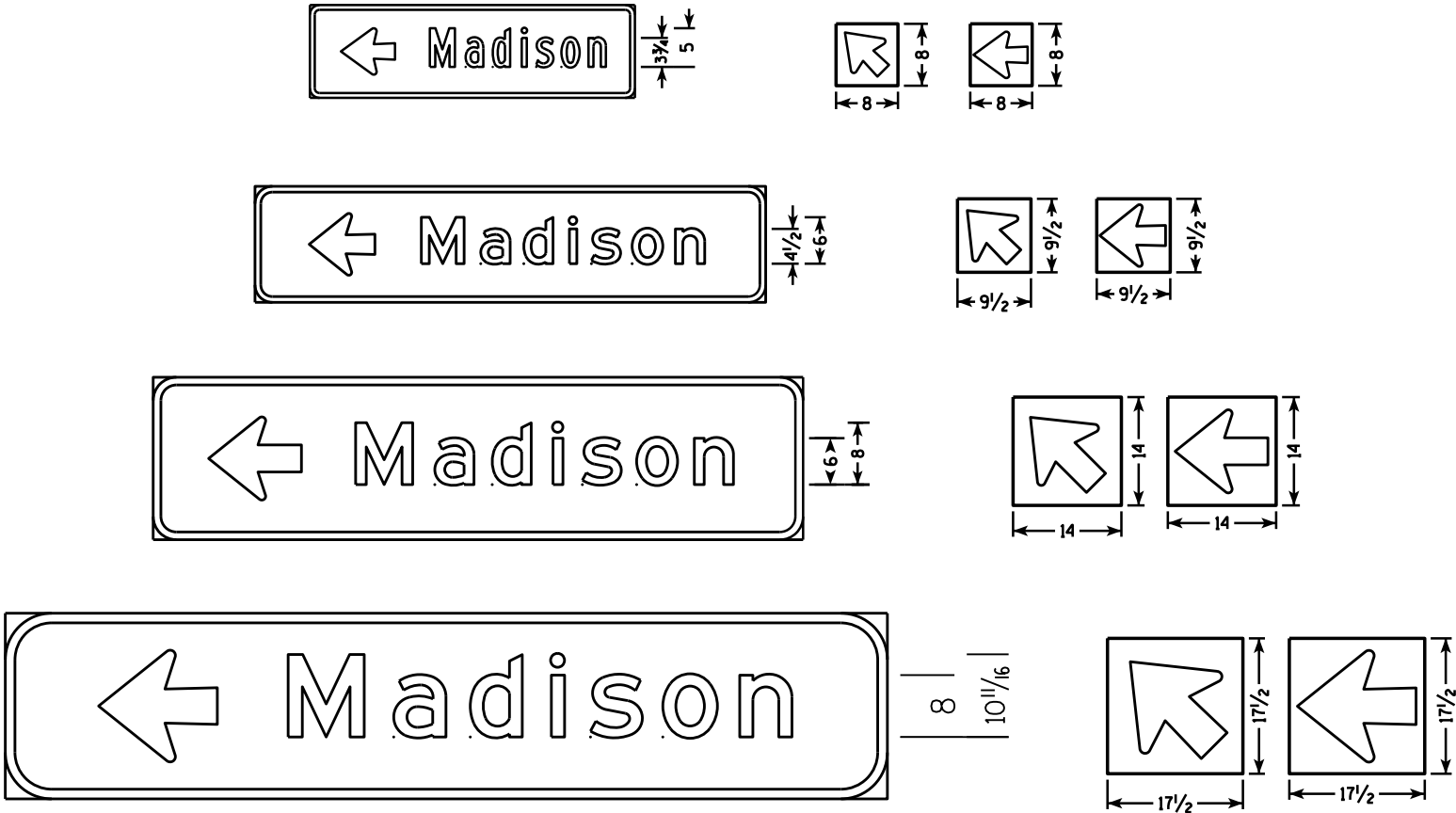
E

SIGN LAYOUT WITH VARIOUS SIZED MESSAGES

GENERAL NOTES

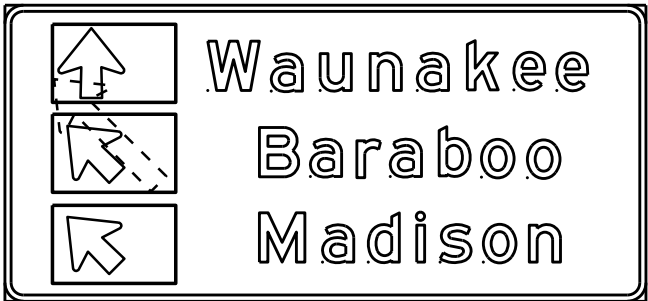
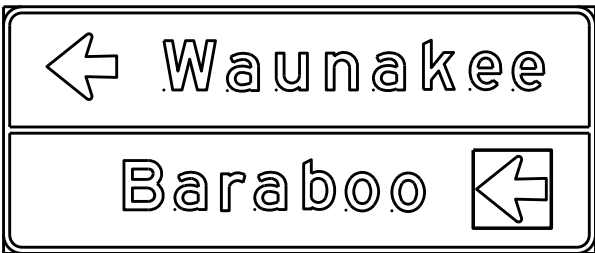
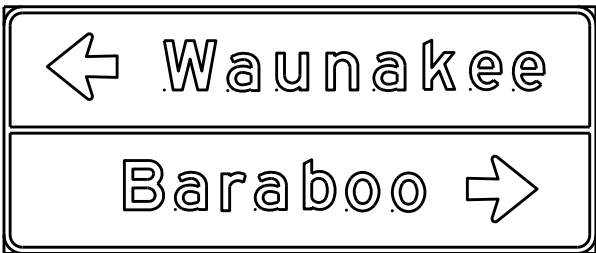
- 1. Materials shall conform to Standard Specification Section 637.  
Base - Sheet Aluminum 0.040" Thickness  
Sheeting - Orange Type F Reflective  
Arrow - Black Non-Reflective
- 2. Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws.  
There shall be a minmum of 2 fasteners used per arrow sign.
- 3. There shall be a spacer consisting of a 0.08" nylon washer between the back of the arrow sign and the face of the permanent sign.
- 4. Arrows are per standard plate A1-2
- 5. Use separate arrow sign for each destination
- 6. Tilt arrow is always at 45 degrees
- 7. Arrow is centered on arrow sign

| Lower Case Copy Size | Standard Width (Single Arrow) | 2 Line Tilt Arrow Cover Width | 3 Line Tilt Arrow Cover Width | Height |
|----------------------|-------------------------------|-------------------------------|-------------------------------|--------|
| 3¾" Series C         | 8                             | 9 ½                           | 14 ½                          | 8      |
| 4½" Series D & E     | 9 ½                           | 10                            | 15                            | 9 ½    |
| 6" Series D & E      | 14                            | 16                            | 20 ½                          | 14     |
| 8" Series E          | 17 ½                          | 20 ½                          | 25                            | 17 ½   |



BEFORE

AFTER

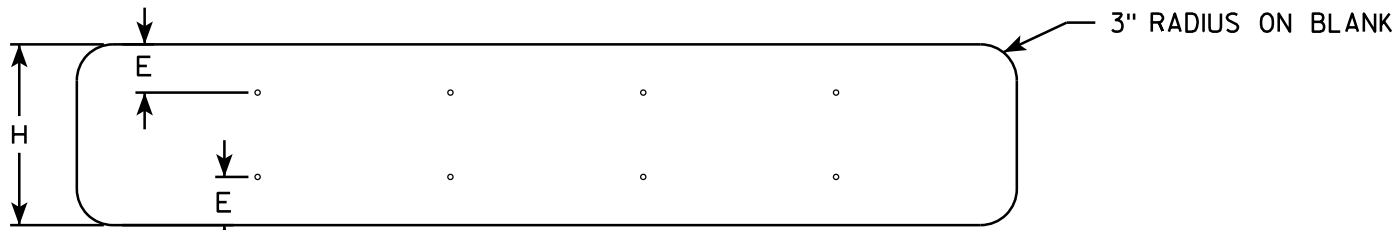


DESTINATION DIRECTIONAL ARROW FOR DETOUR SIGNS

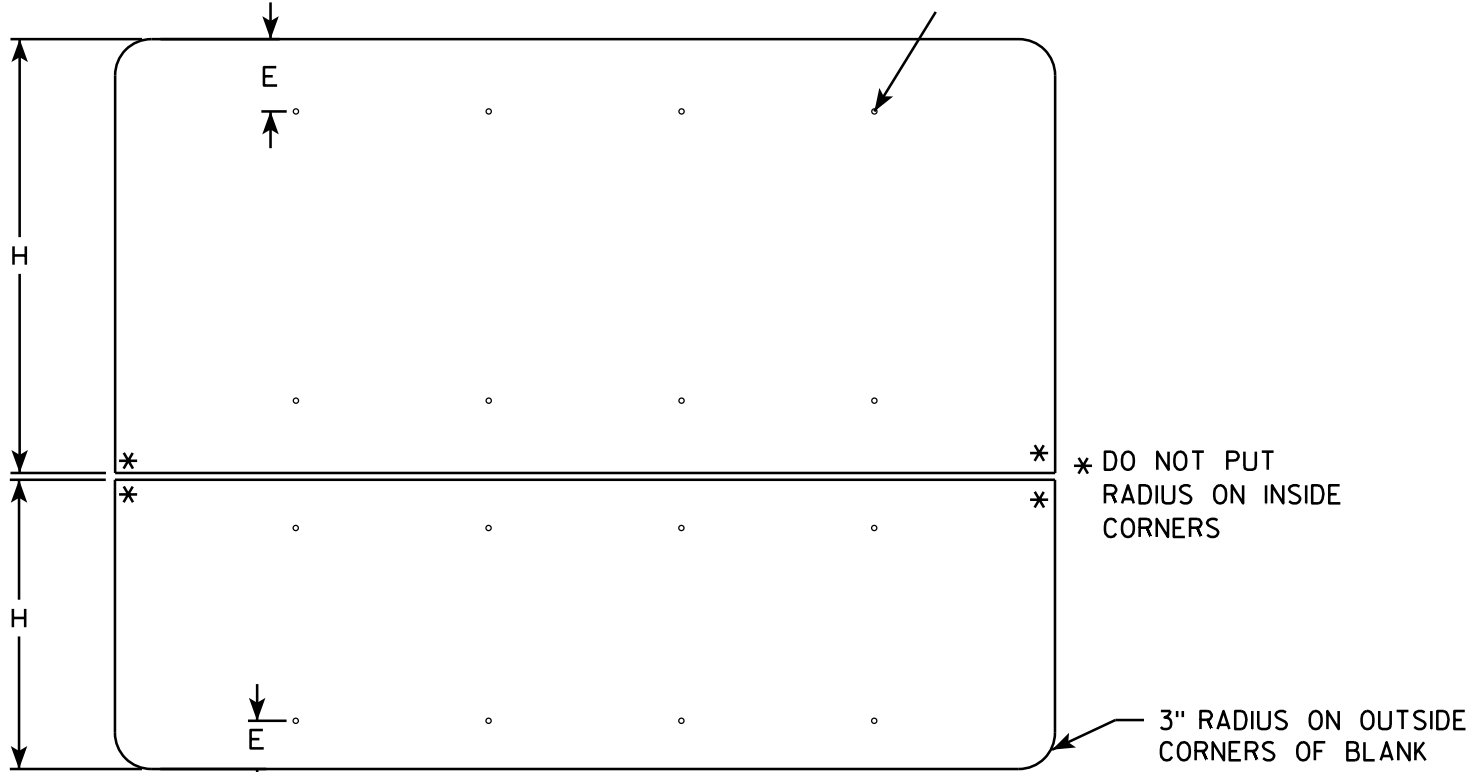
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 10/08/14 301 . A4-12.2



SINGLE PIECE ALUMINUM SIGN 1/16" MOUNTING HOLES



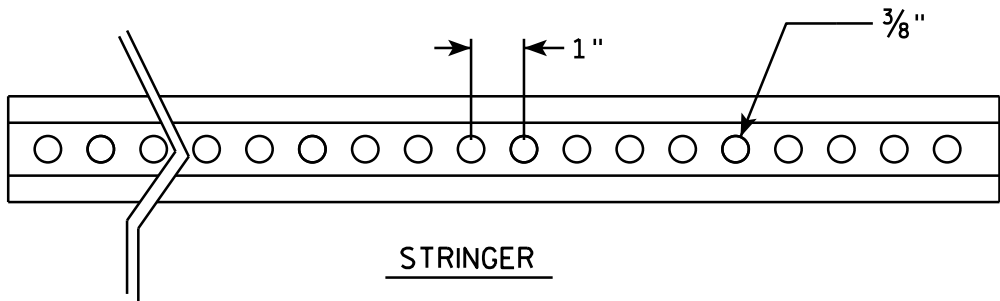
MULTI-PIECE ALUMINUM SIGN

\* DO NOT PUT RADIUS ON INSIDE CORNERS

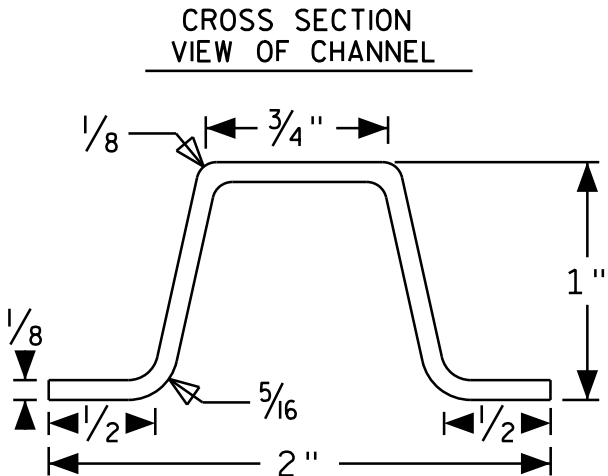
## GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

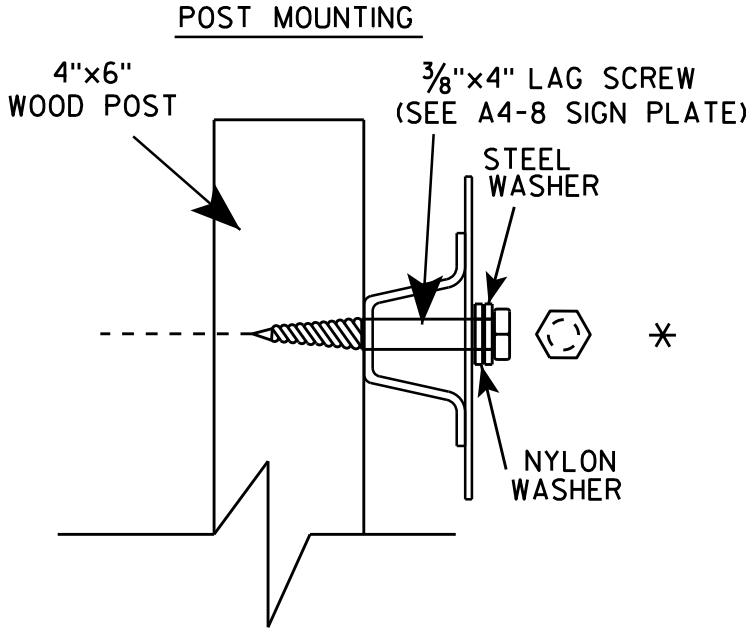
| SIGN WIDTH | STRINGER WIDTH | POSTS | HOLE SPACING | MOUNTING HOLES |         |         |                   |
|------------|----------------|-------|--------------|----------------|---------|---------|-------------------|
| 78"        | 72"            | 2     | 16"          | 15"            | 31"     | 47"     | 63"               |
| 84"        | 72"            | 2     | 17"          | 16 1/2"        | 33 1/2" | 50 1/2" | 67 1/2"           |
| 90"        | 72"            | 2     | 18"          | 18"            | 36"     | 54"     | 72"               |
| 96"        | 90"            | 2     | 19"          | 19 1/2"        | 38 1/2" | 57 1/2" | 76 1/2"           |
| 102"       | 90"            | 2     | 20"          | 21"            | 41"     | 61"     | 81"               |
| 108"       | 90"            | 2     | 21"          | 22 1/2"        | 43 1/2" | 64 1/2" | 85 1/2"           |
| 114"       | 108"           | 3     | 15"          | 12"            | 27"     | 42"     | 57" 72" 87" 102"  |
| 120"       | 108"           | 3     | 16"          | 12"            | 28"     | 44"     | 60" 76" 92" 108"  |
| 126"       | 108"           | 3     | 17"          | 12"            | 29"     | 46"     | 63" 80" 97" 114"  |
| 132"       | 126"           | 3     | 18"          | 12"            | 30"     | 48"     | 66" 84" 102" 120" |
| 138"       | 126"           | 3     | 19"          | 12"            | 31"     | 50"     | 69" 88" 107" 126" |
| 144"       | 126"           | 3     | 20"          | 12"            | 32"     | 52"     | 72" 92" 112" 132" |



STRINGER



CROSS SECTION VIEW OF CHANNEL

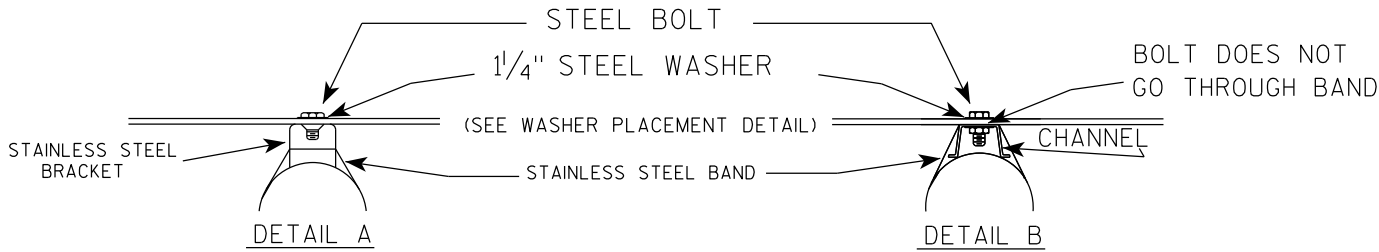
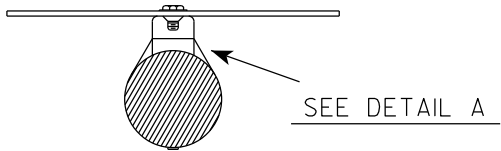
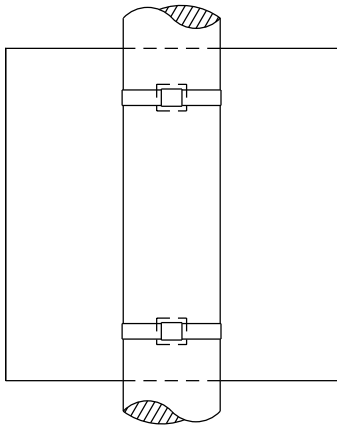


POST MOUNTING

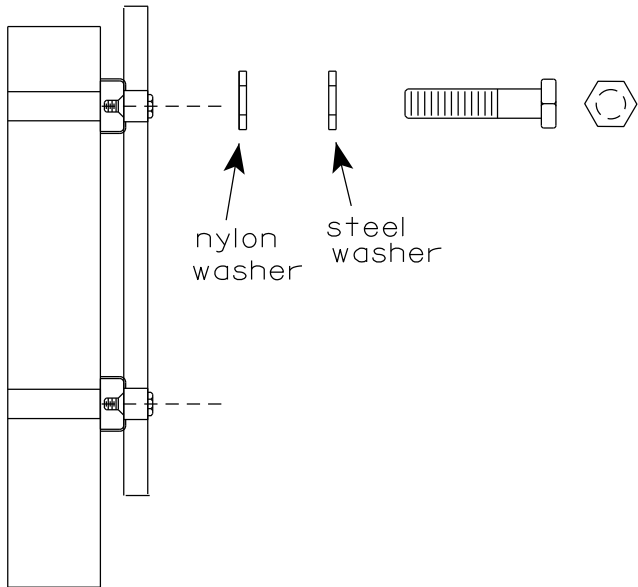
|                                     |                                                       |
|-------------------------------------|-------------------------------------------------------|
| SIGN STRINGER MOUNTING REQUIREMENTS |                                                       |
| WISCONSIN DEPT OF TRANSPORTATION    |                                                       |
| APPROVED                            | <i>Matthew R. Rauch</i><br>for State Traffic Engineer |
| DATE 4/26/16                        | PLATE No A4-18.1<br>302                               |

BANDING

SINGLE SIGN



WASHER PLACEMENT

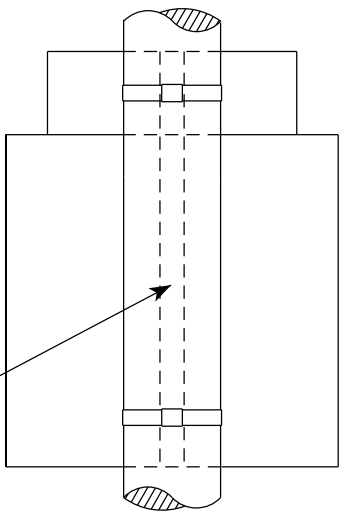


WASHERS (ALL POSTS) -  
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL  
1-1/4" O.D. X 3/8" I.D. X .080 NYLON  
FOR ALL TYPE H SIGNS

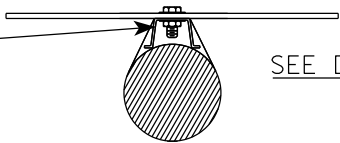
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
  - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
  - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



CHANNEL  
SEE TYPICAL PANEL  
INSTALLATION SHEET

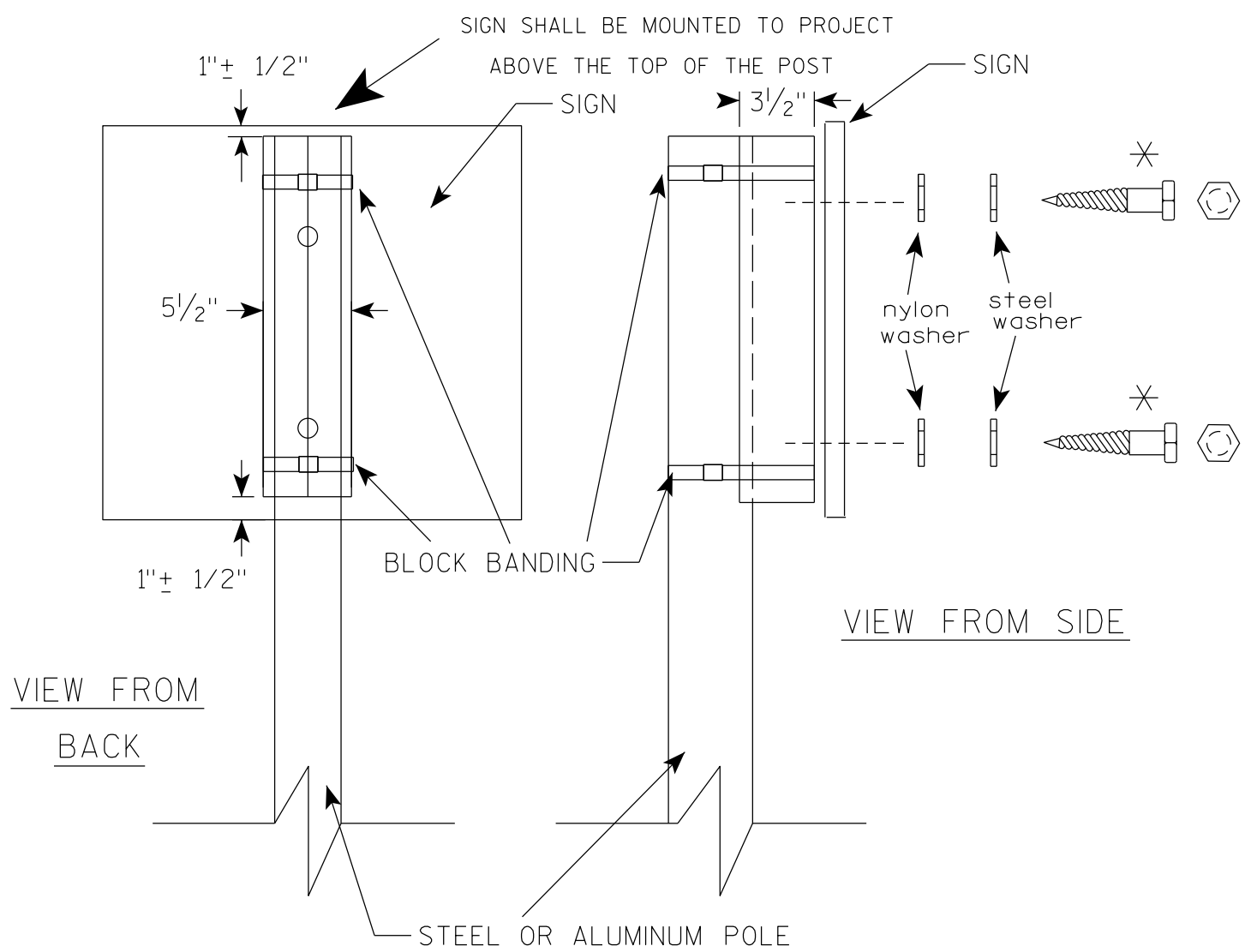


STANDARD SIGN  
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

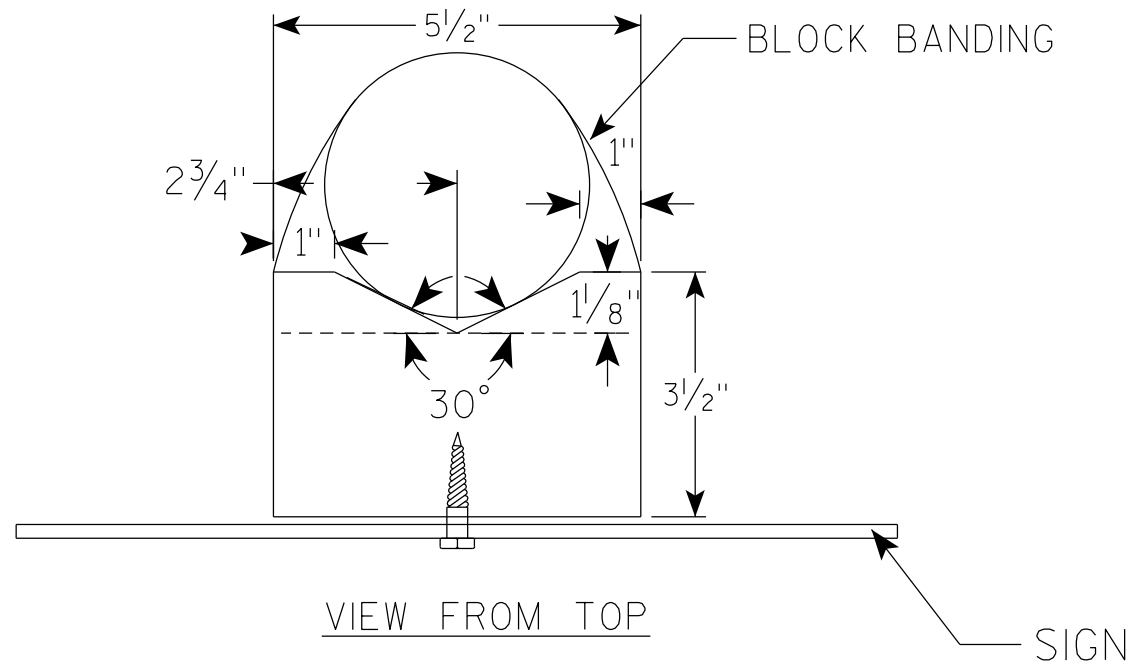
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 6/10/19 PLATE NO. A5-9.4





VIEW FROM  
BACK

VIEW FROM SIDE



VIEW FROM TOP

## GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL,  $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
  - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
  - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE  $\frac{1}{4}$ " O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE  $\frac{1}{4}$ " O.D. X  $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE  $\frac{3}{8}$ " X  $2\frac{1}{2}$ "

BLOCK BANDING DETAIL  
( V-BLOCK OPTION )

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

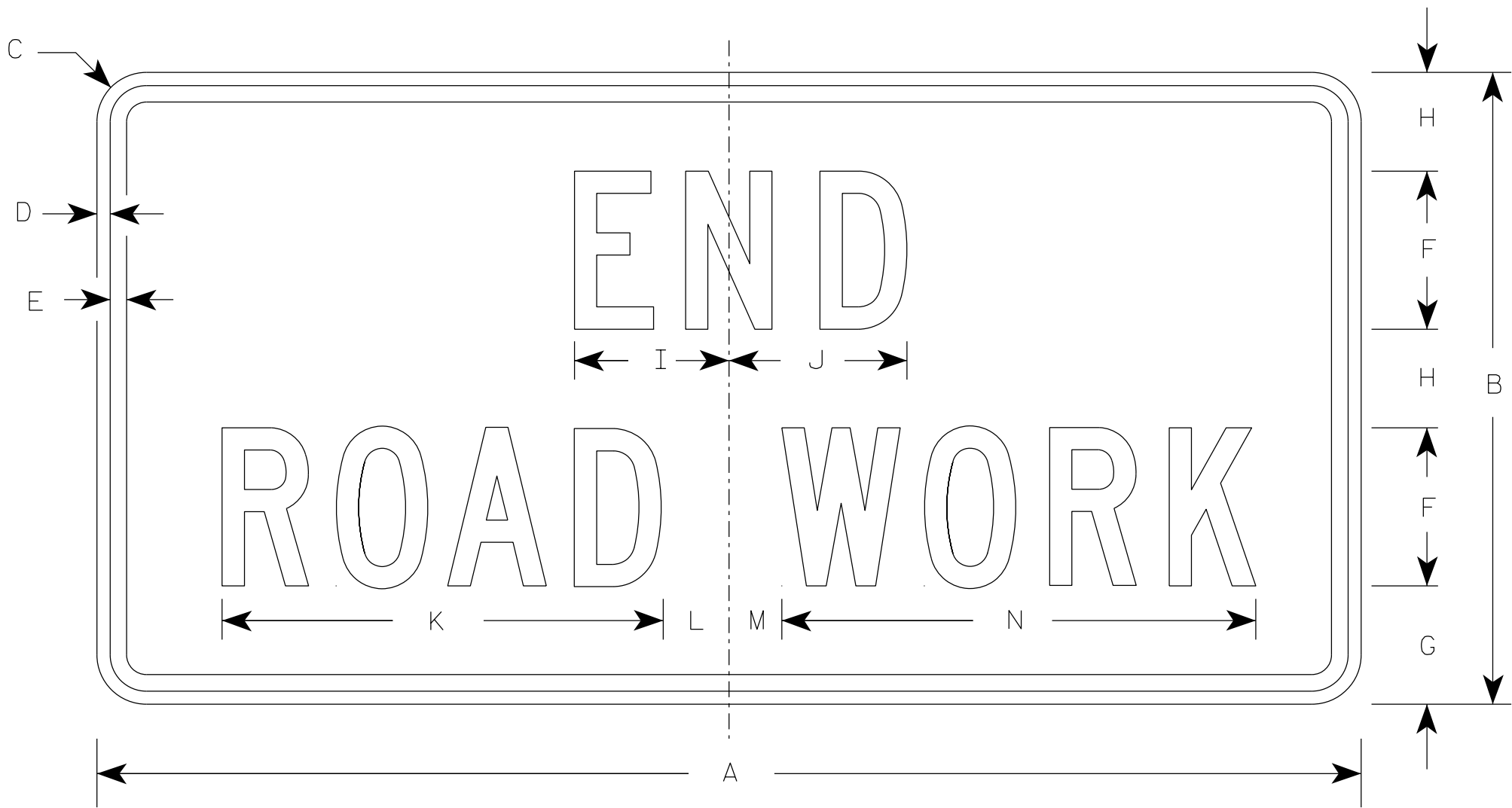
PROJECT NO:

SHEET NO: 304

E

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
  - Background - Orange
  - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



G20-2A

| SIZE | A  | B  | C     | D   | E   | F | G     | H     | I     | J     | K      | L     | M     | N      | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|-------|-------|-------|-------|--------|-------|-------|--------|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 36 | 18 | 1 1/2 | 3/8 | 1/2 | 4 | 3 3/4 | 2 1/2 | 4 1/8 | 4 1/8 | 11 1/8 | 2     | 1     | 12 1/8 |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 2    | 48 | 24 | 1 7/8 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 2M   | 48 | 24 | 1 7/8 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 3    | 48 | 24 | 1 7/8 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 4    | 48 | 24 | 1 7/8 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 5    | 48 | 24 | 1 7/8 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |

STANDARD SIGN

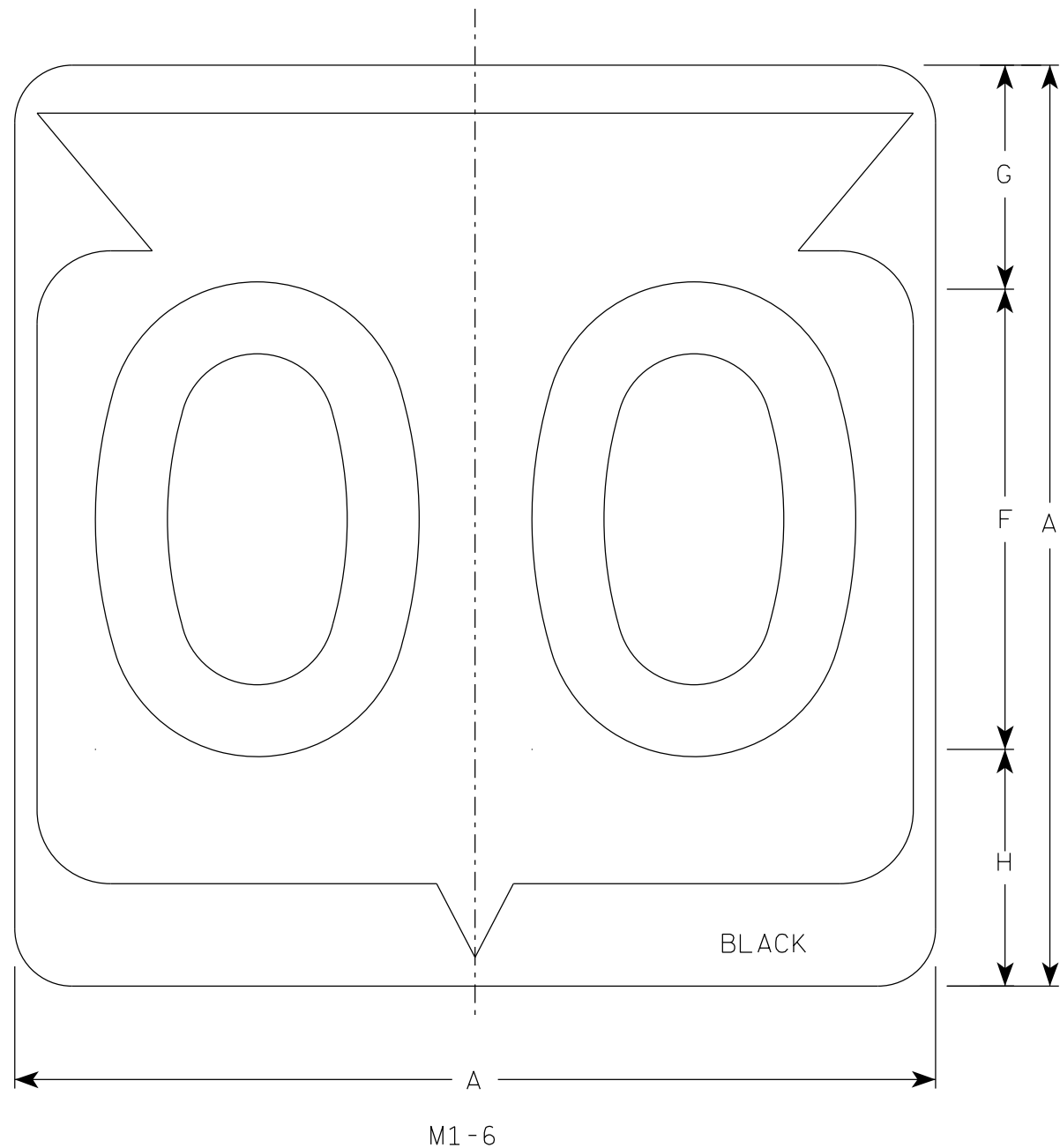
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

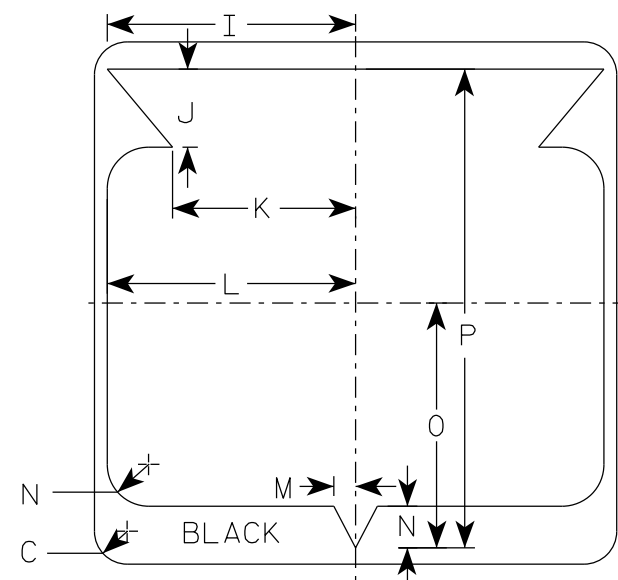
DATE 1/26/2023 PLATE NO. G20-2A.10

7



### NOTES

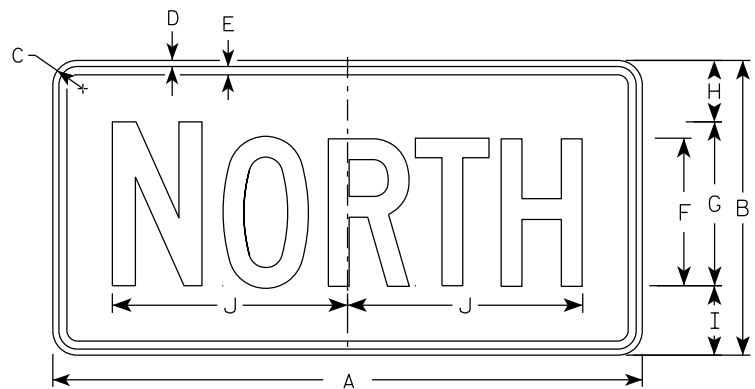
1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - D except 3 number signs Series C



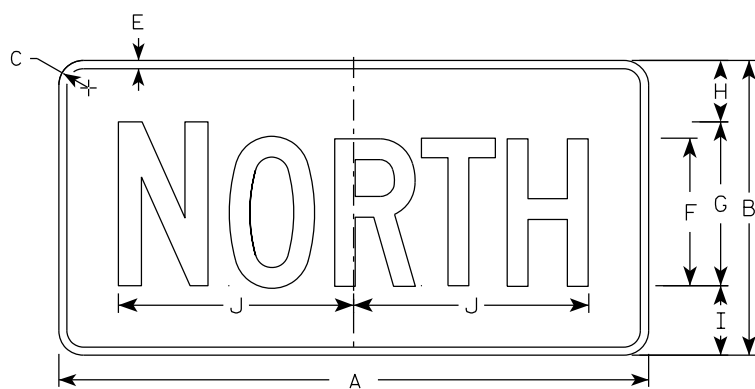
7

| SIZE | A  | B | C     | D | E | F  | G     | H     | I      | J     | K      | L      | M     | N     | O      | P      | Q | R | S | T | U | v | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|---|---|----|-------|-------|--------|-------|--------|--------|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |   |       |   |   |    |       |       |        |       |        |        |       |       |        |        |   |   |   |   |   |   |   |   |   |   |                 |
| 2    | 24 |   | 1 1/2 |   |   | 12 | 5 1/2 | 6 1/2 | 10 1/4 | 2 1/2 | 8 7/8  | 11 1/2 | 1     | 1 7/8 | 11 1/4 | 21 7/8 |   |   |   |   |   |   |   |   |   |   | 4.0             |
| 2M   | 24 |   | 1 1/2 |   |   | 12 | 5 1/2 | 6 1/2 | 10 1/4 | 2 1/2 | 8 7/8  | 11 1/2 | 1     | 1 7/8 | 11 1/4 | 21 7/8 |   |   |   |   |   |   |   |   |   |   | 4.0             |
| 3    | 36 |   | 2 1/4 |   |   | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33     |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 36 |   | 2 1/4 |   |   | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33     |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 5    | 36 |   | 2 1/4 |   |   | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33     |   |   |   |   |   |   |   |   |   |   | 9.0             |

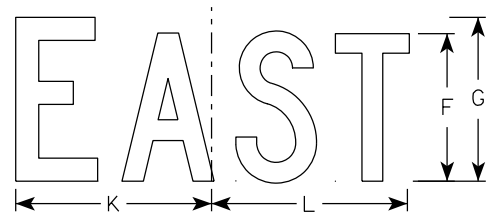
|                                           |                                                       |
|-------------------------------------------|-------------------------------------------------------|
| STATE ROUTE MARKER<br>M1-6 FOR ASSEMBLIES |                                                       |
| WISCONSIN DEPT OF TRANSPORTATION          |                                                       |
| APPROVED                                  | <i>Matthew R. Rauch</i><br>for State Traffic Engineer |
| DATE 11/8/2022                            | PLATE NO. M1-6.11                                     |



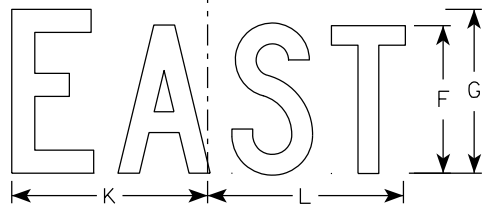
M3-1  
MM3-1  
MP3-1



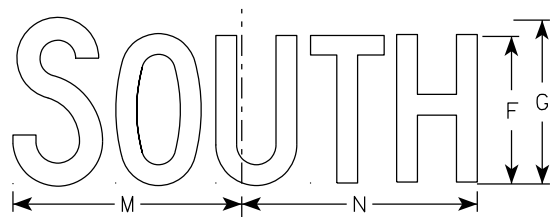
MB3-1  
MK3-1  
MN3-1



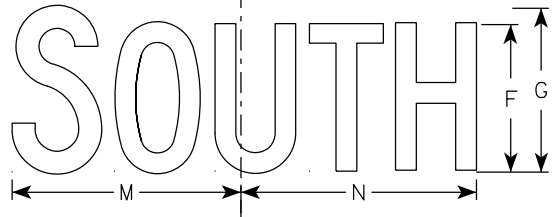
M3-2  
MM3-2  
MP3-2



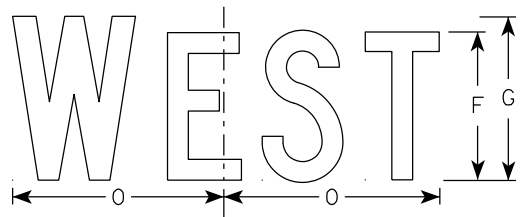
MB3-2  
MK3-2  
MN3-2



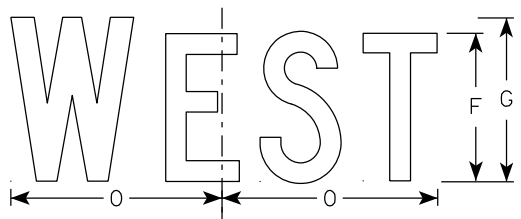
M3-3  
MM3-3  
MP3-3



MB3-3  
MK3-3  
MN3-3



M3-4  
MM3-4  
MP3-4



MB3-4  
MK3-4  
MN3-4

## NOTES

- All Signs Type II - Type H Reflective
- Color:
  - Background - See note 5
  - Message - See note 5
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M3-1 thru M3-4 Background - White  
Message - Black  
MB3-1 thru MB3-4 Background - Blue  
Message - White  
MK3-1 thru MK3-4 Background - Green  
Message - White  
MM3-1 thru MM3-4 Background - White  
Message - Green  
MN3-1 thru MN3-4 Background - Brown  
Message - White  
MP3-1 thru MP3-4 Background - White  
Message - Blue
- Note the first letter of each direction is larger than the remainder of the message.

7

7

| SIZE | A  | B  | C     | D   | E   | F | G  | H     | I     | J      | K     | L      | M      | N      | O     | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|----|-------|-------|--------|-------|--------|--------|--------|-------|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |    |       |       |        |       |        |        |        |       |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 24 | 12 | 1 1/2 | 3/8 | 3/8 | 6 | 7  | 2 1/4 | 2 3/4 | 10 1/4 | 7 7/8 | 8 3/8  | 10 1/4 | 9 3/4  | 8 3/4 |   |   |   |   |   |   |   |   |   |   |   | 2.00            |
| 2M   | 24 | 12 | 1 1/2 | 3/8 | 3/8 | 6 | 7  | 2 1/4 | 2 3/4 | 10 1/4 | 7 7/8 | 8 3/8  | 10 1/4 | 9 3/4  | 8 3/4 |   |   |   |   |   |   |   |   |   |   |   | 2.00            |
| 3    | 36 | 18 | 1 1/2 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12    | 12 1/8 | 14     | 14 1/8 | 13    |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 4    | 36 | 18 | 1 1/2 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12    | 12 1/8 | 14     | 14 1/8 | 13    |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 5    | 36 | 18 | 1 1/2 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12    | 12 1/8 | 14     | 14 1/8 | 13    |   |   |   |   |   |   |   |   |   |   |   | 4.5             |

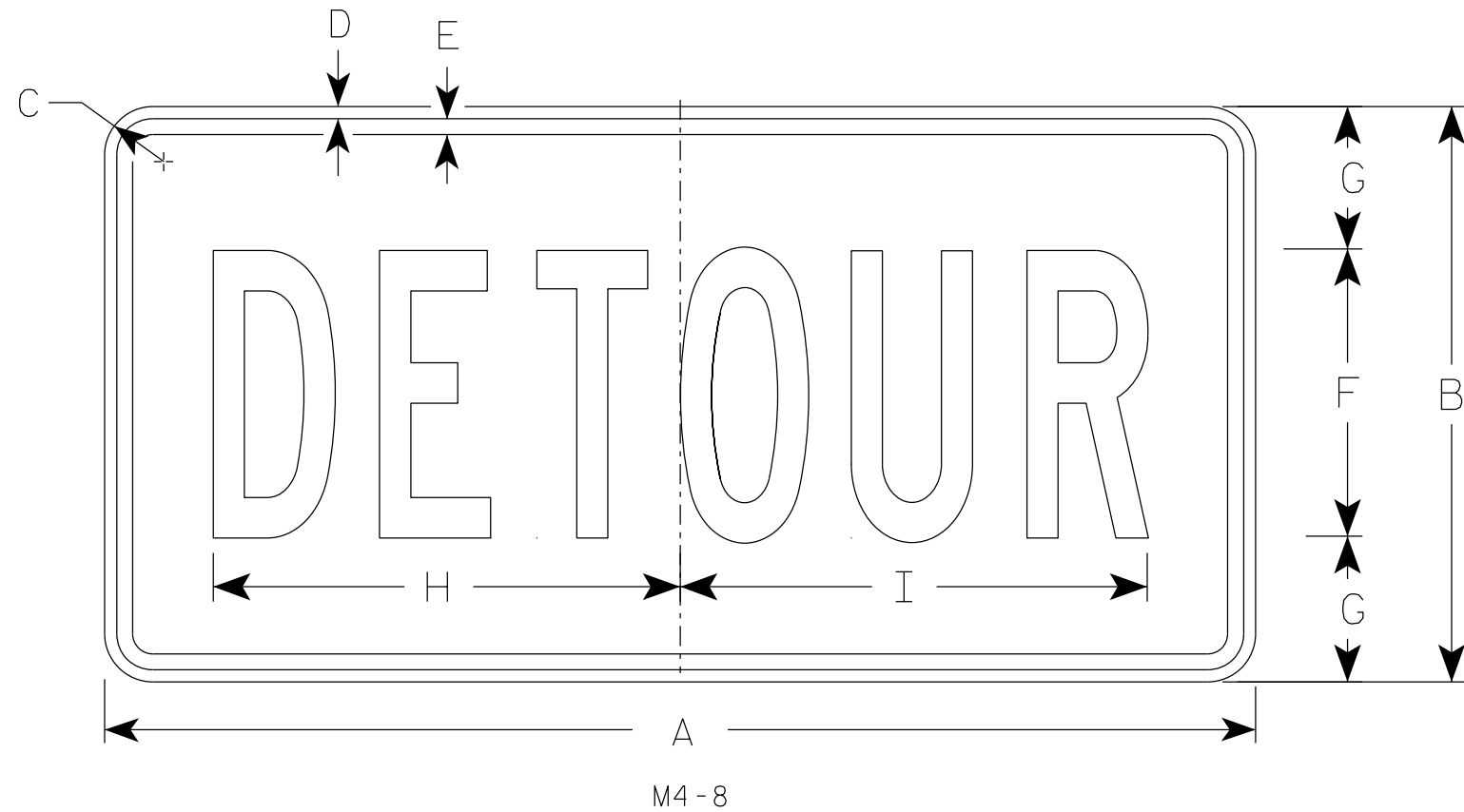
|             |      |         |               |   |
|-------------|------|---------|---------------|---|
| PROJECT NO: | HWY: | COUNTY: | SHEET NO: 307 | E |
|-------------|------|---------|---------------|---|

7

7

NOTES

1. Sign is Type II - Type F Reflective
2. Color:  
Background - Orange  
Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



| SIZE | A  | B  | C     | D   | E   | F | G     | H      | I      | J | K | L | M | N | O | P | Q | R | S | T | U | v | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |       |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2    | 24 | 12 | 1 1/2 | 3/8 | 3/8 | 6 | 3     | 10     | 10 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2.0             |
| 2M   | 24 | 12 | 1 1/2 | 3/8 | 3/8 | 6 | 3     | 10     | 10 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2.0             |
| 3    | 36 | 18 | 1 1/2 | 3/8 | 1/2 | 9 | 4 1/2 | 14 5/8 | 14 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 4    | 36 | 18 | 1 1/2 | 3/8 | 1/2 | 9 | 4 1/2 | 14 5/8 | 14 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 5    | 36 | 18 | 1 1/2 | 3/8 | 1/2 | 9 | 4 1/2 | 14 5/8 | 14 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |

STANDARD SIGN

M4 - 8

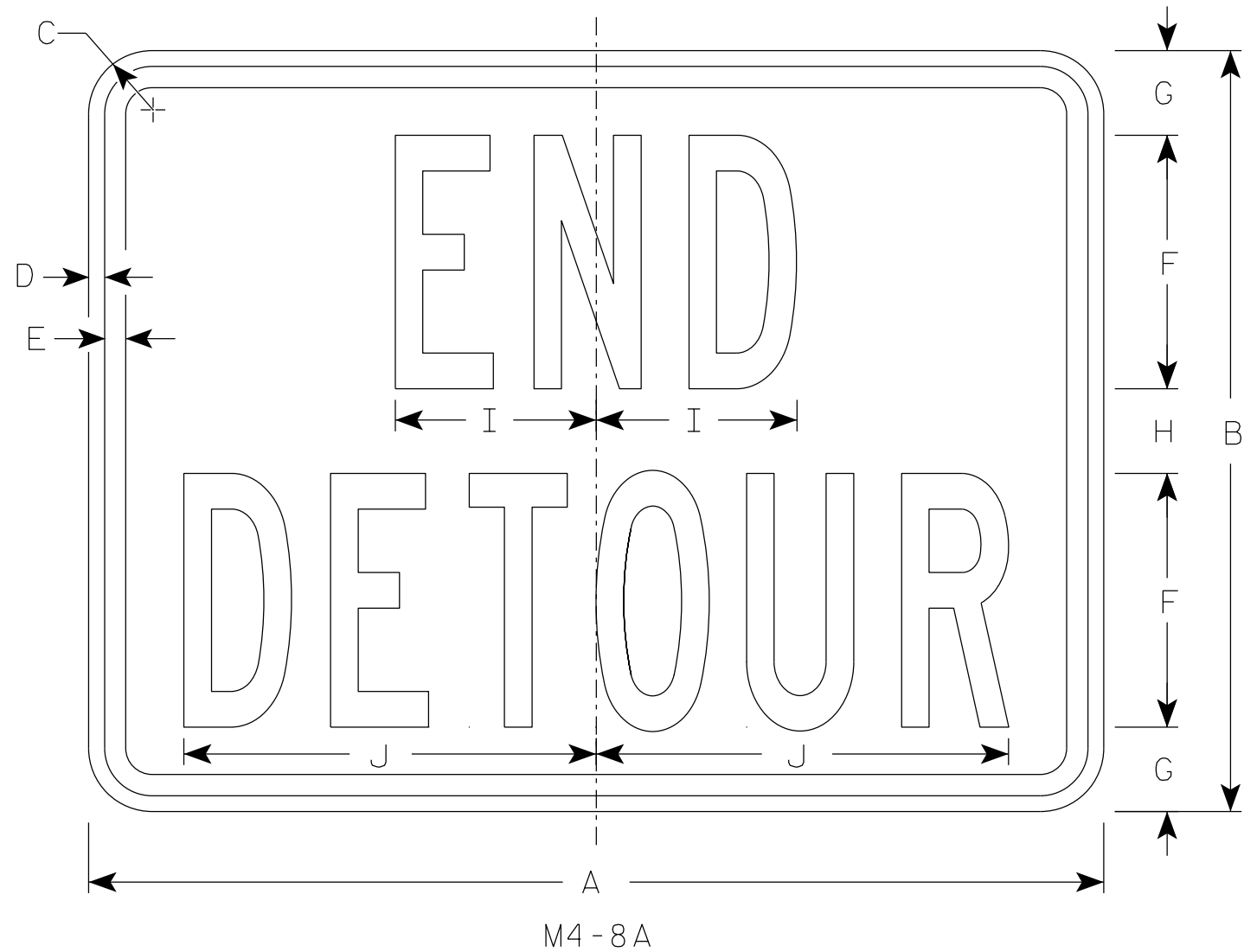
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4



7



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
  - Background - Orange
  - Message - Black
- 3. Message Series - B
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

| SIZE | A  | B  | C     | D   | E   | F | G     | H | I     | J     | K | L | M | N | O | P | Q | R | S | T | U | v | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|-------|---|-------|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |       |   |       |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2    | 24 | 18 | 1 1/2 | 3/8 | 1/2 | 6 | 2     | 2 | 4 3/4 | 9 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.0             |
| 2M   | 24 | 18 | 1 1/2 | 3/8 | 1/2 | 6 | 2     | 2 | 4 3/4 | 9 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.0             |
| 3    | 30 | 24 | 1 1/2 | 3/8 | 1/2 | 8 | 2 1/2 | 3 | 6 3/4 | 13    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.0             |
| 4    | 30 | 24 | 1 1/2 | 3/8 | 1/2 | 8 | 2 1/2 | 3 | 6 3/4 | 13    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.0             |
| 5    | 30 | 24 | 1 1/2 | 3/8 | 1/2 | 8 | 2 1/2 | 3 | 6 3/4 | 13    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.0             |

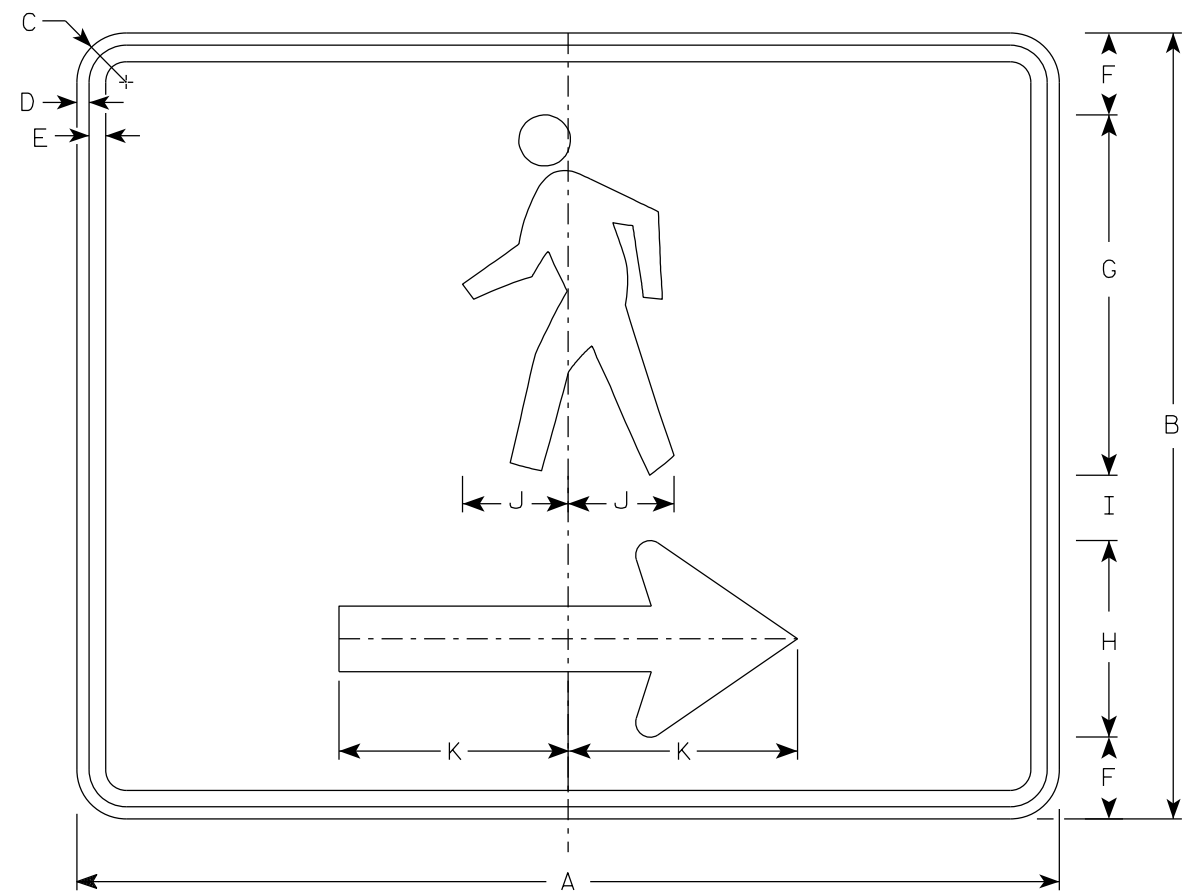
STANDARD SIGN

M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

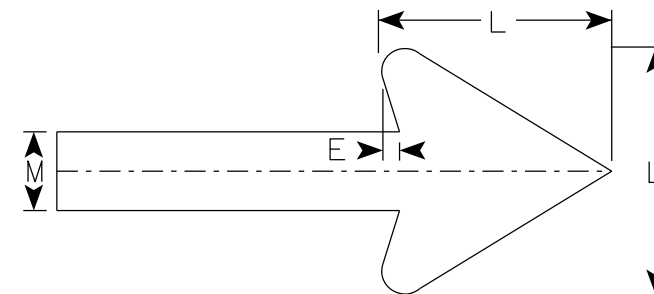
DATE 2/9/2023 PLATE NO. M4-8A.4



M4-60R

NOTES

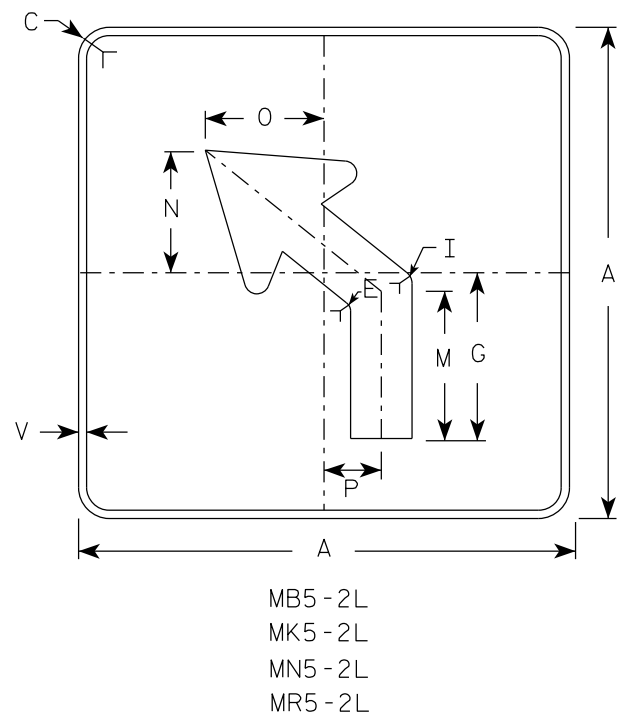
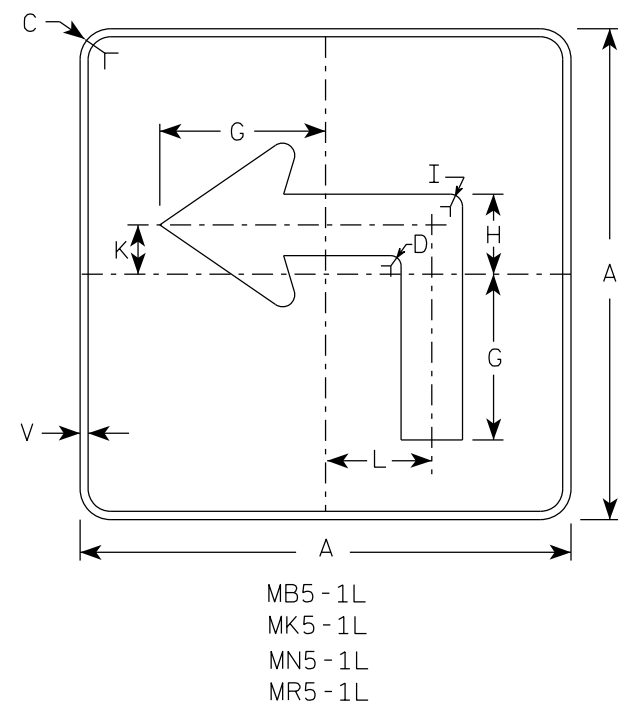
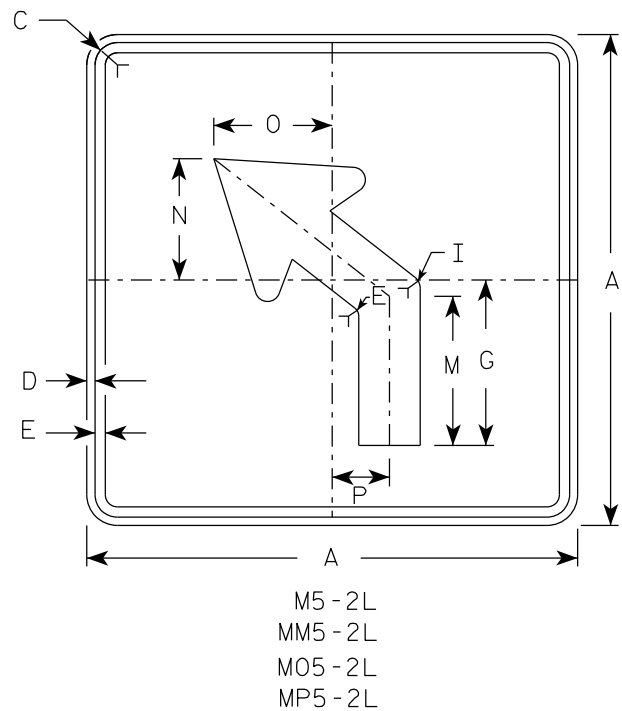
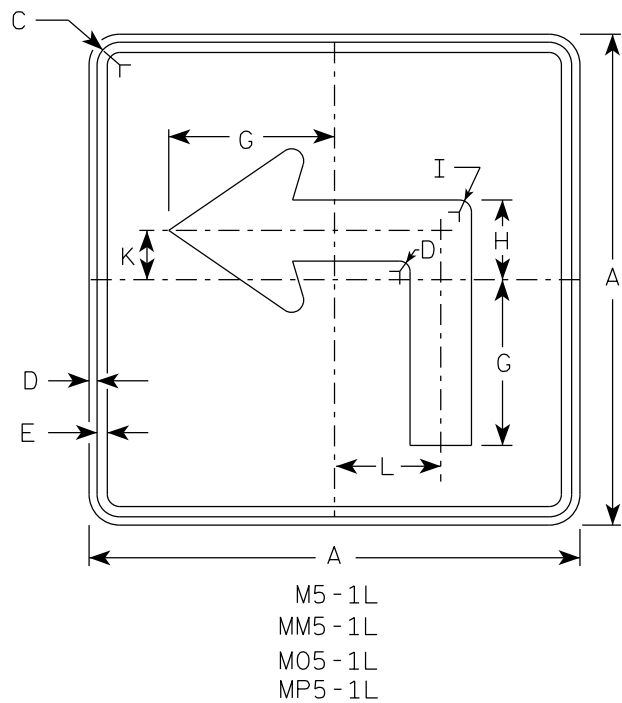
1. Sign is Type II- Type F Reflective
2. Color:  
Background - Orange  
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-60L is the same as M4-60R except the arrow is reversed.



Arrow Detail

| SIZE | A  | B  | C     | D   | E   | F     | G  | H | I | J     | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|-------|----|---|---|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |       |    |   |   |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 30 | 24 | 1 1/2 | 3/8 | 1/2 | 2 1/2 | 11 | 6 | 2 | 3 1/4 | 7 | 6 | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.00            |
| 2M   | 30 | 24 | 1 1/2 | 3/8 | 1/2 | 2 1/2 | 11 | 6 | 2 | 3 1/4 | 7 | 6 | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.00            |
| 3    |    |    |       |     |     |       |    |   |   |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 4    |    |    |       |     |     |       |    |   |   |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 5    |    |    |       |     |     |       |    |   |   |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

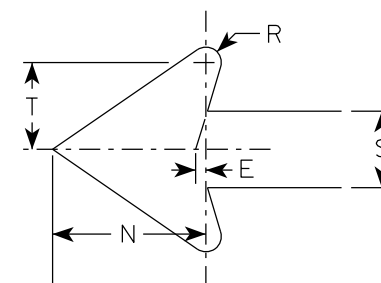
|             |  |      |  |         |  |               |  |   |
|-------------|--|------|--|---------|--|---------------|--|---|
| PROJECT NO: |  | HWY: |  | COUNTY: |  | SHEET NO: 310 |  | E |
|-------------|--|------|--|---------|--|---------------|--|---|



NOTES

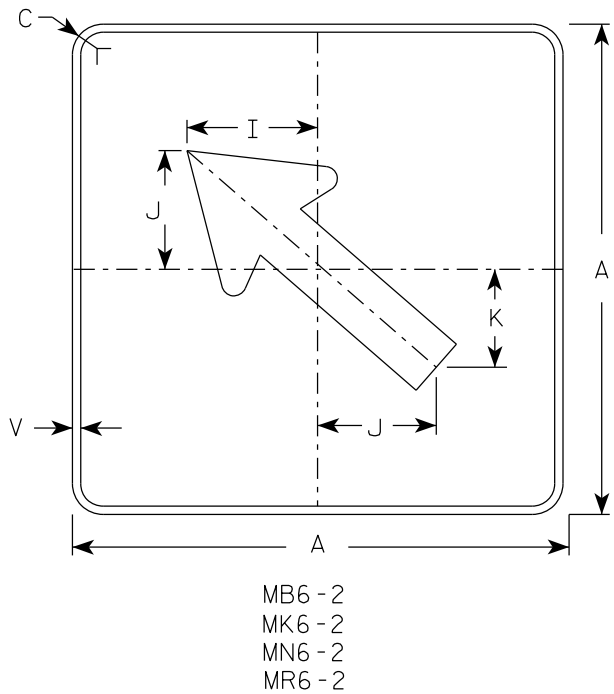
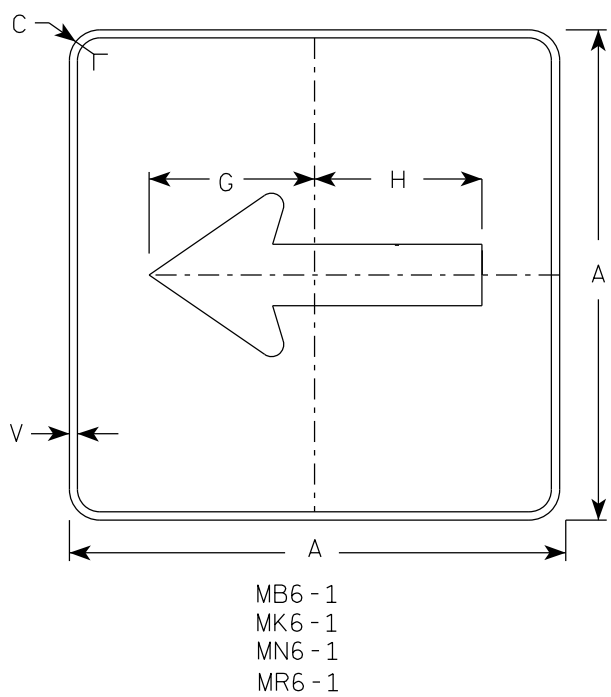
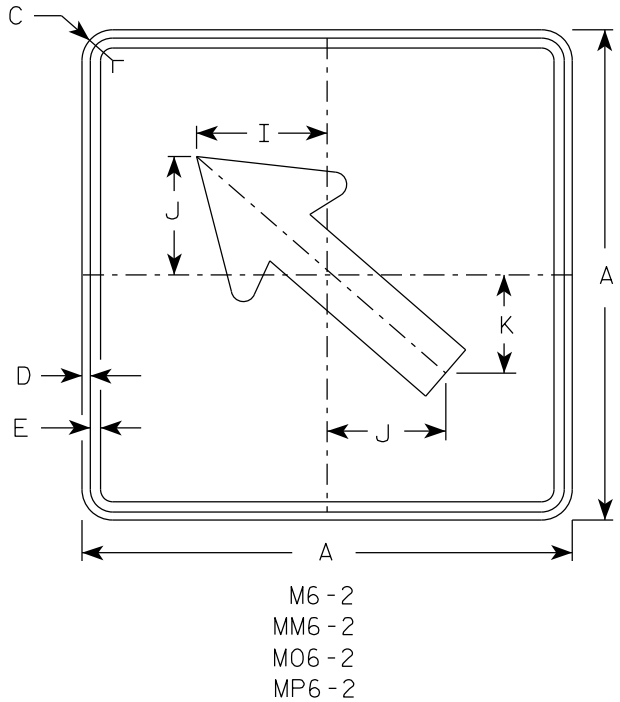
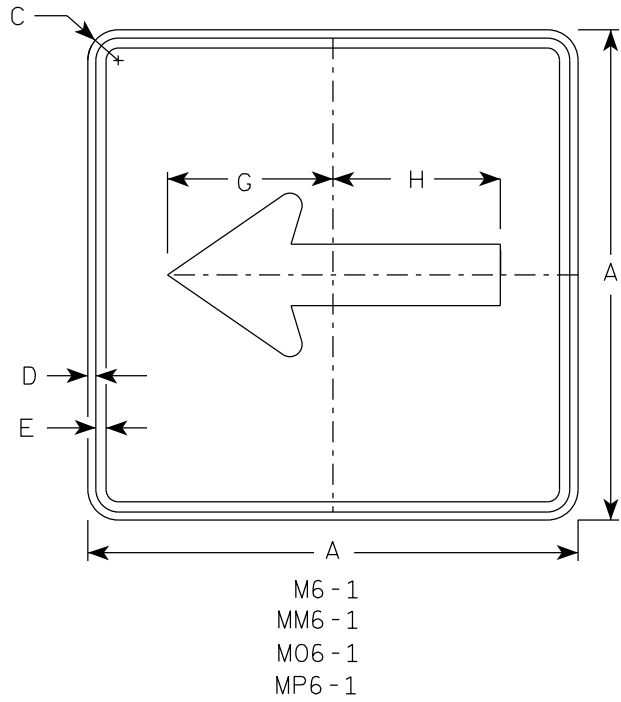
- Signs are Type II - Type H reflective except as shown
- Color:  
Background - See note 4  
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- |           |       |                                         |
|-----------|-------|-----------------------------------------|
| M5-1 and  | M5-2  | Background - White                      |
|           |       | Message - Black                         |
| MB5-1 and | MB5-2 | Background - Blue                       |
|           |       | Message - White                         |
| MK5-1 and | MK5-2 | Background - Green                      |
|           |       | Message - White                         |
| MM5-1 and | MM5-2 | Background - White                      |
|           |       | Message - Green                         |
| MN5-1 and | MN5-2 | Background - Brown                      |
|           |       | Message - White                         |
| M05-1 and | M05-2 | Background - Orange - Type F Reflective |
|           |       | Message - Black                         |
| MP5-1 and | MP5-2 | Background - White                      |
|           |       | Message - Blue                          |
| MR5-1 and | MR5-2 | Background - Brown                      |
|           |       | Message - Yellow                        |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL

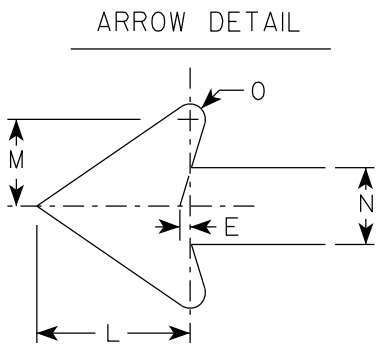


| SIZE | A  | B | C     | D   | E   | F | G      | H     | I   | J | K     | L     | M     | N     | O     | P     | Q | R   | S     | T     | U | V   | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|---|--------|-------|-----|---|-------|-------|-------|-------|-------|-------|---|-----|-------|-------|---|-----|---|---|---|---|-----------------|
| 1    |    |   |       |     |     |   |        |       |     |   |       |       |       |       |       |       |   |     |       |       |   |     |   |   |   |   |                 |
| 2S   | 21 |   | 1 1/2 | 3/8 | 3/8 |   | 7      | 3 3/8 | 5/8 |   | 2 1/8 | 4 1/2 | 6 3/8 | 5 1/4 | 5     | 2 1/2 |   | 1/2 | 2 5/8 | 3     |   | 1/2 |   |   |   |   | 3.06            |
| 2M   | 21 |   | 1 1/2 | 3/8 | 3/8 |   | 7      | 3 3/8 | 5/8 |   | 2 1/8 | 4 1/2 | 6 3/8 | 5 1/4 | 5     | 2 1/2 |   | 1/2 | 2 5/8 | 3     |   | 1/2 |   |   |   |   | 3.06            |
| 3    | 30 |   | 1 7/8 | 1/2 | 5/8 |   | 10 1/8 | 4 7/8 | 7/8 |   | 3     | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 |   | 3/4 | 3 3/4 | 4 1/4 |   | 1/2 |   |   |   |   | 6.25            |
| 4    | 30 |   | 1 7/8 | 1/2 | 5/8 |   | 10 1/8 | 4 7/8 | 7/8 |   | 3     | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 |   | 3/4 | 3 3/4 | 4 1/4 |   | 1/2 |   |   |   |   | 6.25            |
| 5    | 30 |   | 1 7/8 | 1/2 | 5/8 |   | 10 1/8 | 4 7/8 | 7/8 |   | 3     | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 |   | 3/4 | 3 3/4 | 4 1/4 |   | 1/2 |   |   |   |   | 6.25            |

|             |      |         |               |   |
|-------------|------|---------|---------------|---|
| PROJECT NO: | HWY: | COUNTY: | SHEET NO: 311 | E |
|-------------|------|---------|---------------|---|

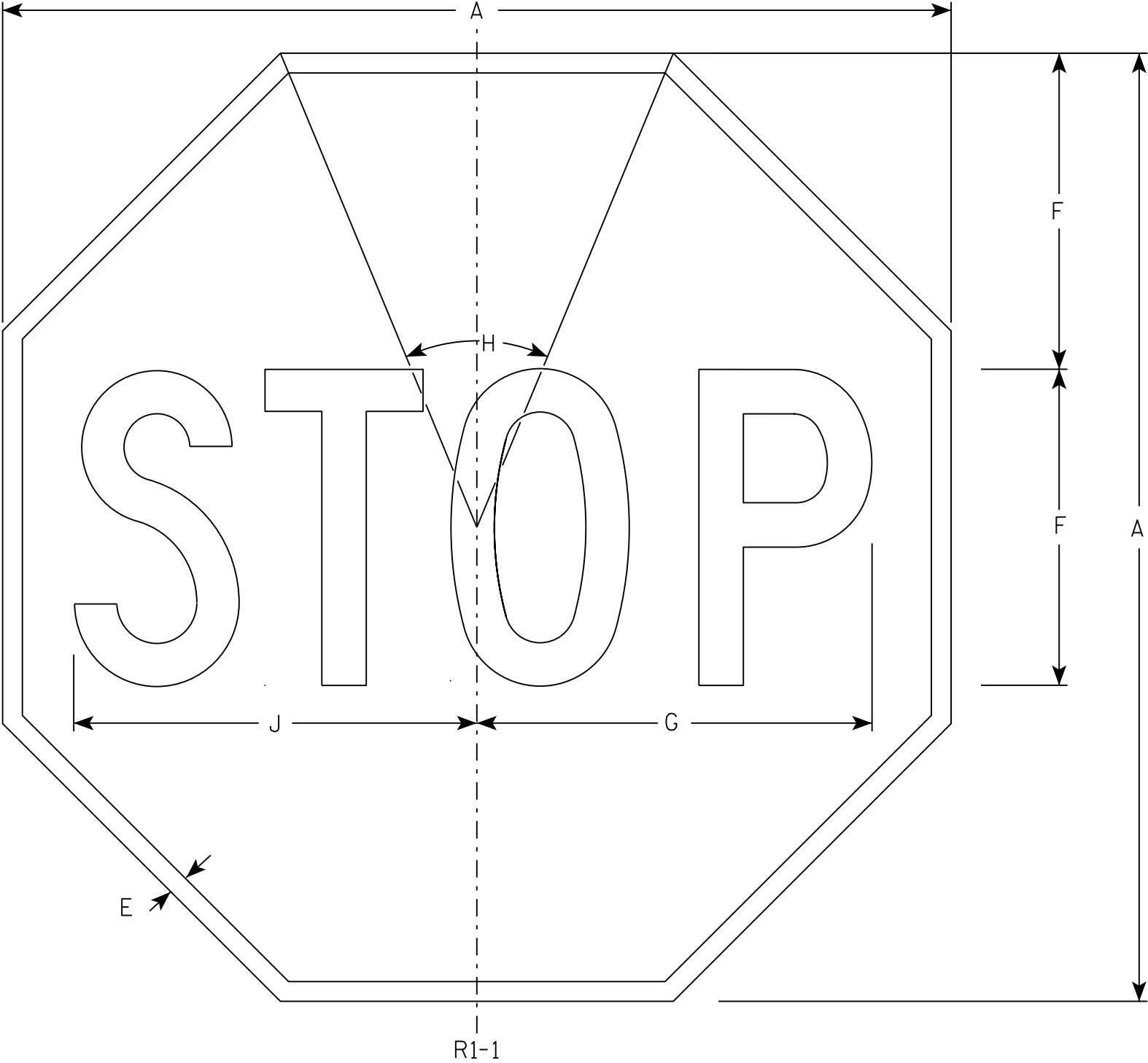


- NOTES
- Signs are Type II - Type H Reflective except as Shown
  - Color:  
Background - See note 4  
Message - See note 4
  - Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
  - M6-1 and M6-2 Background - White  
Message - Black  
MB6-1 and MB6-2 Background - Blue  
Message - White  
MK6-1 and MK6-2 Background - Green  
Message - White  
MM6-1 and MM6-2 Background - White  
Message - Green  
MN6-1 and MN6-2 Background - Brown  
Message - White  
M06-1 and M06-2 Background - Orange - Type F Reflective  
Message - Black  
MP6-1 and MP6-2 Background - White  
Message - Blue  
MR6-1 and MR6-2 Background - Brown  
Message - Yellow



| SIZE | A  | B | C     | D   | E   | F | G      | H      | I     | J     | K     | L     | M     | N     | O   | P | Q | R | S | T | U | V   | W | X | Y | Z | Area<br>sq. ft. |      |
|------|----|---|-------|-----|-----|---|--------|--------|-------|-------|-------|-------|-------|-------|-----|---|---|---|---|---|---|-----|---|---|---|---|-----------------|------|
| 1    |    |   |       |     |     |   |        |        |       |       |       |       |       |       |     |   |   |   |   |   |   |     |   |   |   |   |                 |      |
| 2S   | 21 |   | 1 1/2 | 3/8 | 3/8 |   | 7 1/2  | 7 1/8  | 5 5/8 | 5     | 4 1/4 | 5 1/4 | 3     | 2 5/8 | 1/2 |   |   |   |   |   |   | 1/2 |   |   |   |   |                 | 3.06 |
| 2M   | 21 |   | 1 1/2 | 3/8 | 3/8 |   | 7 1/2  | 7 1/8  | 5 5/8 | 5     | 4 1/4 | 5 1/4 | 3     | 2 5/8 | 1/2 |   |   |   |   |   |   | 1/2 |   |   |   |   |                 | 3.06 |
| 3    | 30 |   | 1 7/8 | 1/2 | 5/8 |   | 10 3/4 | 10 1/4 | 8     | 7 1/4 | 6     | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   |   | 1/2 |   |   |   |   |                 | 6.25 |
| 4    | 30 |   | 1 7/8 | 1/2 | 5/8 |   | 10 3/4 | 10 1/4 | 8     | 7 1/4 | 6     | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   |   | 1/2 |   |   |   |   |                 | 6.25 |
| 5    | 30 |   | 1 7/8 | 1/2 | 5/8 |   | 10 3/4 | 10 1/4 | 8     | 7 1/4 | 6     | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   |   | 1/2 |   |   |   |   |                 | 6.25 |

7



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:  
Background - Red  
Message - White
- 3. Message Series - C

7

R1-1

| SIZE | A  | B | C | D | E   | F  | G      | H   | I | J      | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|---|---|-----|----|--------|-----|---|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 30 |   |   |   | 5/8 | 10 | 12 1/2 | 45° |   | 12 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.18            |
| 2S   | 30 |   |   |   | 5/8 | 10 | 12 1/2 | 45° |   | 12 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.18            |
| 2M   | 36 |   |   |   | 3/4 | 12 | 15     | 45° |   | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 7.46            |
| 3    | 36 |   |   |   | 3/4 | 12 | 15     | 45° |   | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 7.46            |
| 4    | 48 |   |   |   | 1   | 16 | 20     | 45° |   | 20 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 13.25           |
| 5    | 48 |   |   |   | 1   | 16 | 20     | 45° |   | 20 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 13.25           |
| 6    | 18 |   |   |   | 3/8 | 6  | 7 3/4  | 45° |   | 7 3/4  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1.86            |
| 7    | 12 |   |   |   | 1/4 | 4  | 5      | 45° |   | 5 1/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 0.78            |

STANDARD SIGN  
R1 - 1

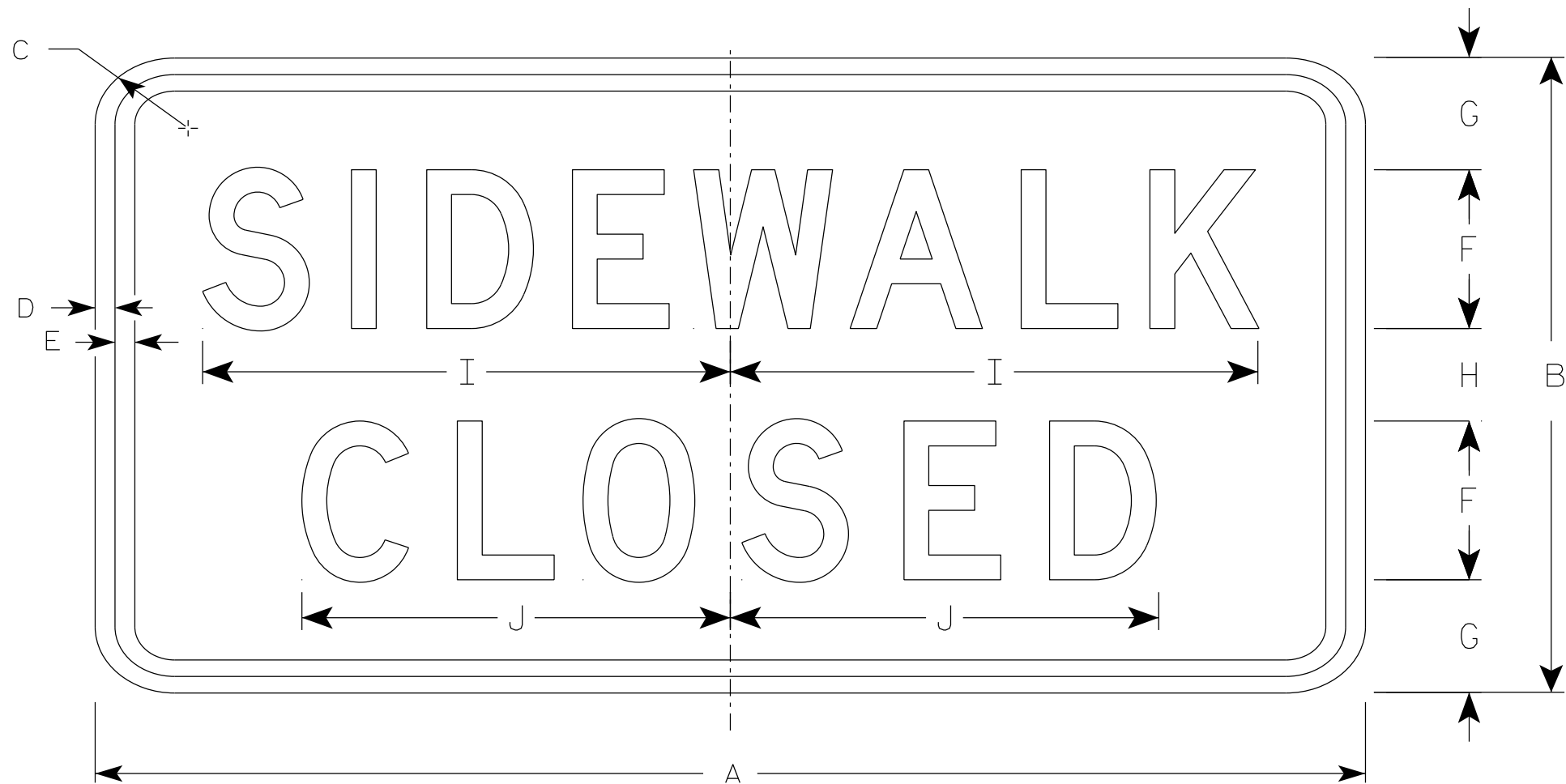
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13



7



R9-9

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
  - Background - White
  - Message - Black
- 3. Message Series - C
- 4. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

7

| SIZE | A  | B  | C     | D   | E   | F | G     | H     | I      | J      | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |       |       |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 24 | 12 | 1 1/2 | 1/2 | 1/2 | 3 | 2 1/8 | 1 3/4 | 10     | 8 1/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2.0             |
| 2M   | 24 | 12 | 1 1/2 | 1/2 | 1/2 | 3 | 2 1/8 | 1 3/4 | 10     | 8 1/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2.0             |
| 3    | 30 | 18 | 1 1/2 | 1/2 | 1/2 | 4 | 3 1/2 | 3     | 12 1/2 | 10 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.75            |
| 4    |    |    |       |     |     |   |       |       |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 5    |    |    |       |     |     |   |       |       |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

PROJECT NO:

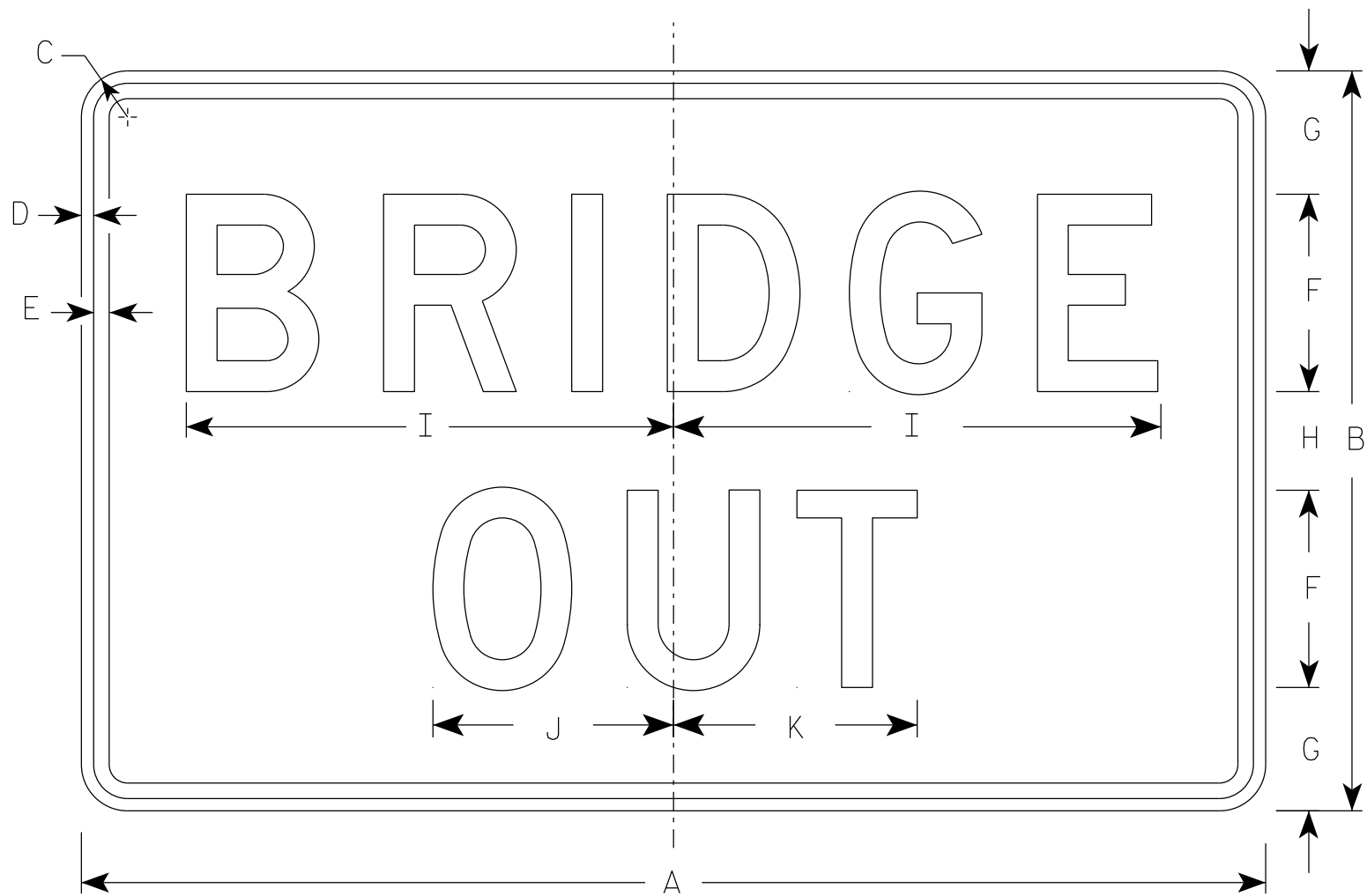
HWY:

COUNTY:

SHEET NO: 314

E

7



R11-2B

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

| SIZE | A  | B  | C     | D   | E   | F | G | H | I      | J     | K     | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|---|---|--------|-------|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |   |   |        |       |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 48 | 30 | 1 7/8 | 1/2 | 5/8 | 8 | 5 | 4 | 19 3/4 | 9 3/4 | 9 7/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 10.0            |
| 2M   | 48 | 30 | 1 7/8 | 1/2 | 5/8 | 8 | 5 | 4 | 19 3/4 | 9 3/4 | 9 7/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 10.0            |
| 3    | 48 | 30 | 1 7/8 | 1/2 | 5/8 | 8 | 5 | 4 | 19 3/4 | 9 3/4 | 9 7/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 10.0            |
| 4    | 48 | 30 | 1 7/8 | 1/2 | 5/8 | 8 | 5 | 4 | 19 3/4 | 9 3/4 | 9 7/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 10.0            |
| 5    | 48 | 30 | 1 7/8 | 1/2 | 5/8 | 8 | 5 | 4 | 19 3/4 | 9 3/4 | 9 7/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 10.0            |

STANDARD SIGN  
R11-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

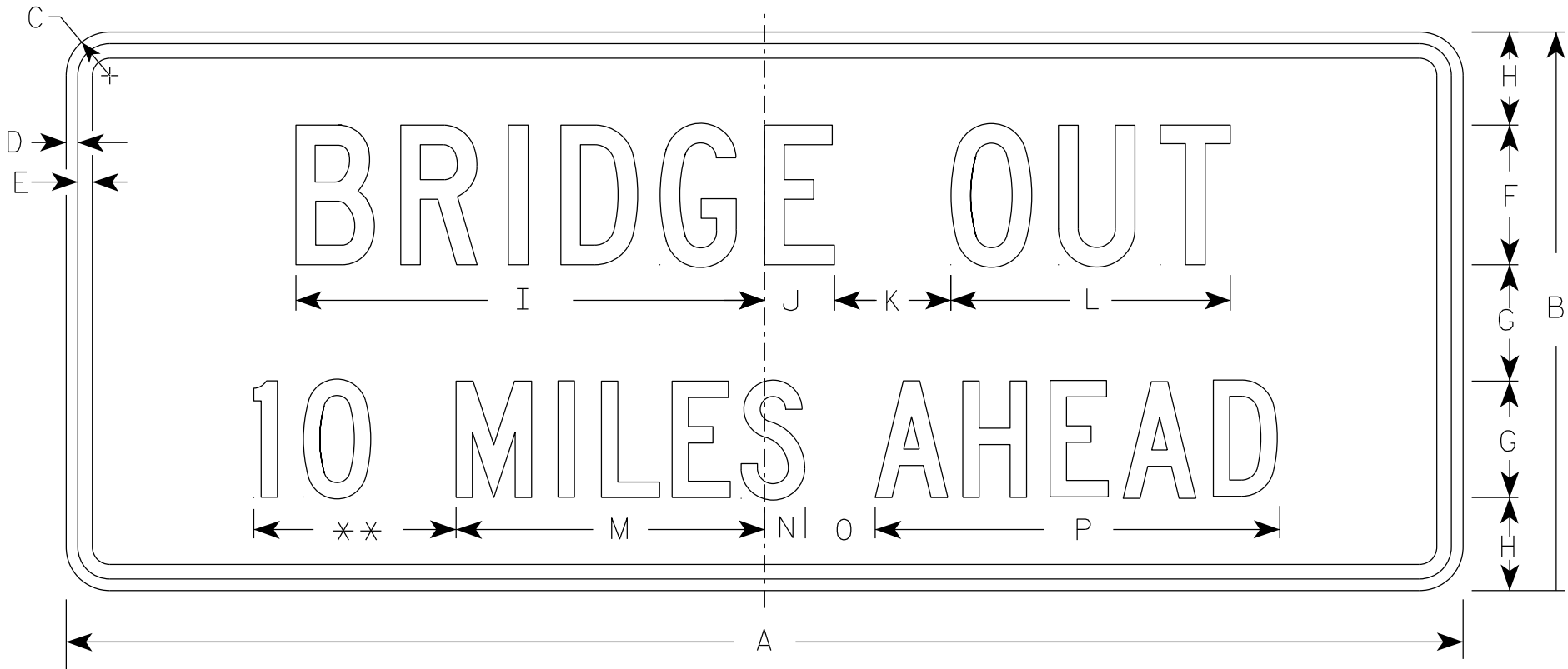
DATE 2/5/24 PLATE NO. R11-2B.3

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

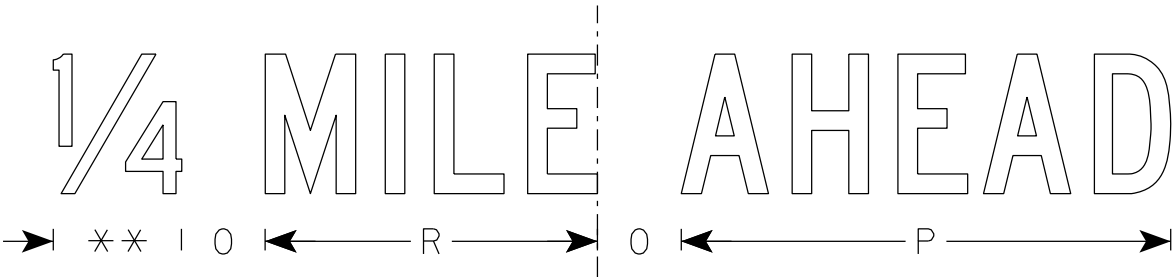
Background - White

Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3C

\*\* See Note 5



| SIZE | A  | B  | C     | D   | E   | F | G | H     | I      | J     | K | L  | M      | N     | O | P      | Q | R      | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|---|-------|--------|-------|---|----|--------|-------|---|--------|---|--------|---|---|---|---|---|---|---|---|-----------------|
| 1    | 36 | 15 | 1 1/2 | 1/2 | 5/8 | 4 | 3 | 2 1/2 | 13 1/4 | 2 1/4 | 3 | 8  | 8      | 1 1/2 | 2 | 10 3/4 |   | 7 1/8  |   |   |   |   |   |   |   |   | 3.75            |
| 2S   | 60 | 24 | 1 7/8 | 1/2 | 5/8 | 6 | 5 | 4     | 20 1/8 | 3     | 5 | 12 | 13 1/4 | 1 3/4 | 3 | 17 3/8 |   | 11 7/8 |   |   |   |   |   |   |   |   | 10.0            |
| 2M   | 60 | 24 | 1 7/8 | 1/2 | 5/8 | 6 | 5 | 4     | 20 1/8 | 3     | 5 | 12 | 13 1/4 | 1 3/4 | 3 | 17 3/8 |   | 11 7/8 |   |   |   |   |   |   |   |   | 10.0            |
| 3    |    |    |       |     |     |   |   |       |        |       |   |    |        |       |   |        |   |        |   |   |   |   |   |   |   |   |                 |
| 4    |    |    |       |     |     |   |   |       |        |       |   |    |        |       |   |        |   |        |   |   |   |   |   |   |   |   |                 |
| 5    |    |    |       |     |     |   |   |       |        |       |   |    |        |       |   |        |   |        |   |   |   |   |   |   |   |   |                 |

STANDARD SIGN  
R11-3C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

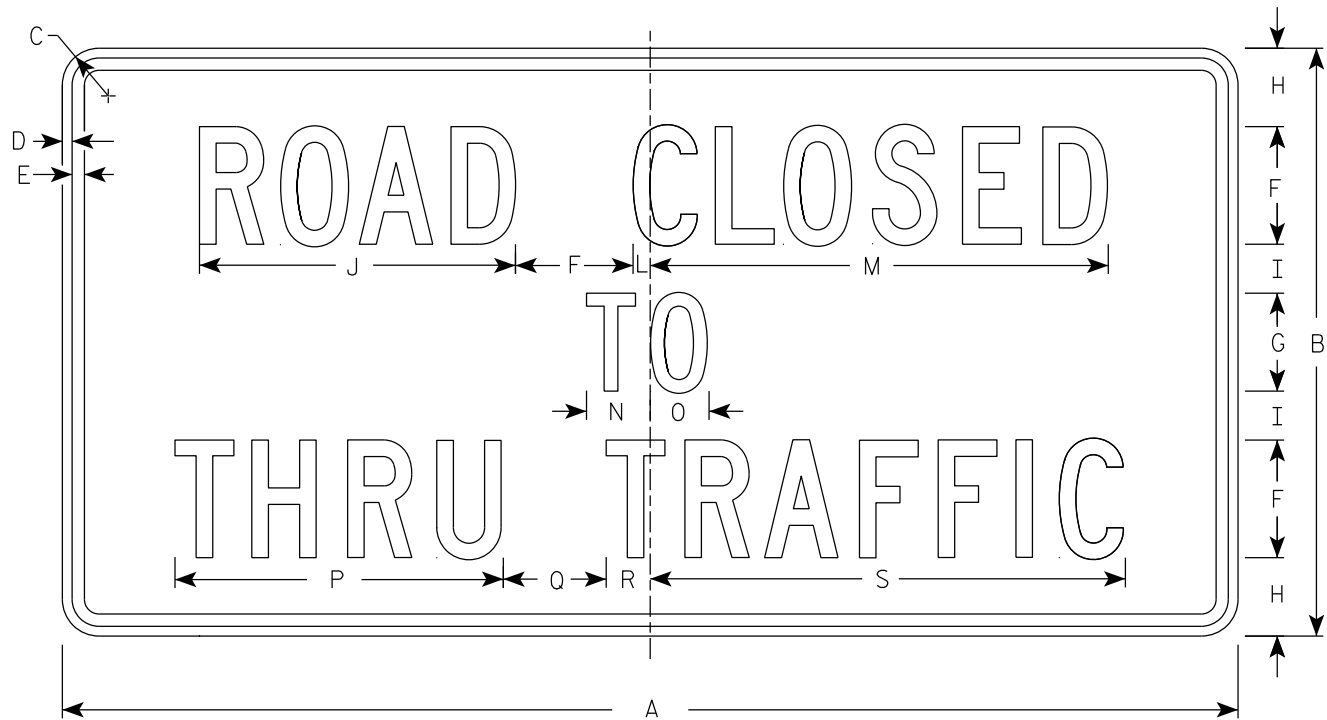
DATE 2/5/24 PLATE NO. R11-3C.4

PROJECT NO:

SHEET NO: 316

E

7



R11-4

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
  - Background - White
  - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

| SIZE | A  | B  | C     | D   | E   | F | G | H | I     | J      | K | L   | M      | N     | O | P      | Q     | R     | S      | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|---|---|-------|--------|---|-----|--------|-------|---|--------|-------|-------|--------|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |   |   |       |        |   |     |        |       |   |        |       |       |        |   |   |   |   |   |   |   |                 |
| 2S   | 60 | 30 | 1 7/8 | 1/2 | 5/8 | 6 | 5 | 4 | 2 1/2 | 16 1/8 |   | 7/8 | 23 3/8 | 3 1/4 | 3 | 16 3/4 | 5 1/4 | 2 1/4 | 24 1/4 |   |   |   |   |   |   |   | 12.5            |
| 2M   | 60 | 30 | 1 7/8 | 1/2 | 5/8 | 6 | 5 | 4 | 2 1/2 | 16 1/8 |   | 7/8 | 23 3/8 | 3 1/4 | 3 | 16 3/4 | 5 1/4 | 2 1/4 | 24 1/4 |   |   |   |   |   |   |   | 12.5            |
| 3    |    |    |       |     |     |   |   |   |       |        |   |     |        |       |   |        |       |       |        |   |   |   |   |   |   |   |                 |
| 4    |    |    |       |     |     |   |   |   |       |        |   |     |        |       |   |        |       |       |        |   |   |   |   |   |   |   |                 |
| 5    |    |    |       |     |     |   |   |   |       |        |   |     |        |       |   |        |       |       |        |   |   |   |   |   |   |   |                 |

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 317

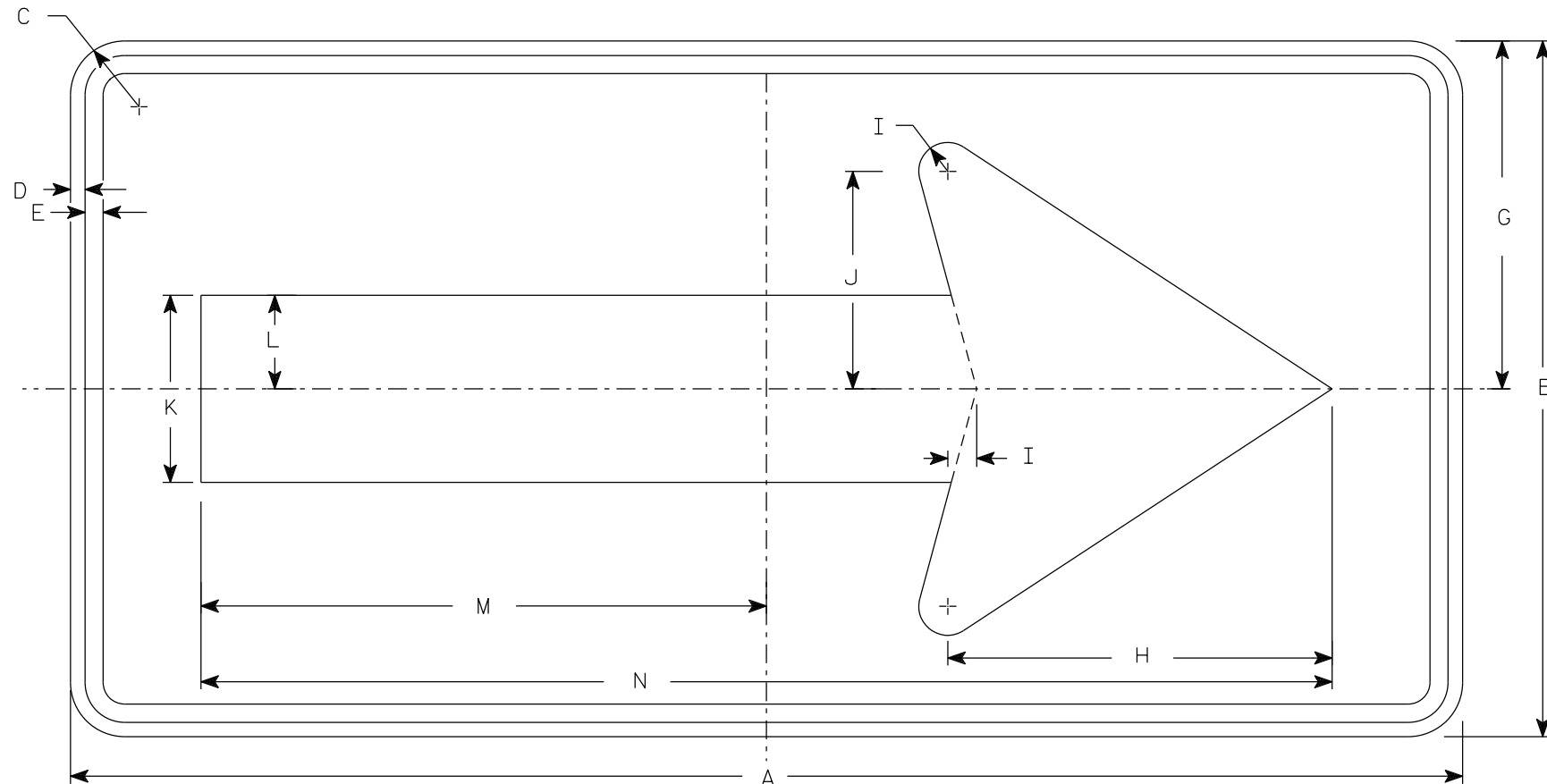
E

7

7

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
  - Background - Yellow
  - Message - Black



W1-6

| SIZE | A  | B  | C     | D   | E   | F | G  | H      | I     | J     | K     | L     | M      | N      | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|----|--------|-------|-------|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 36 | 18 | 1 1/2 | 3/8 | 3/8 |   | 9  | 10     | 3/4   | 5 5/8 | 4 3/4 | 2 3/8 | 14 5/8 | 29 1/4 |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 2S   | 48 | 24 | 1 7/8 | 1/2 | 5/8 |   | 12 | 13 1/4 | 1     | 7 1/2 | 6 1/2 | 3 1/4 | 19 1/2 | 39     |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 2M   | 48 | 24 | 1 7/8 | 1/2 | 5/8 |   | 12 | 13 1/4 | 1     | 7 1/2 | 6 1/2 | 3 1/4 | 19 1/2 | 39     |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 3    | 60 | 30 | 1 7/8 | 1/2 | 5/8 |   | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8     | 4     | 24 3/8 | 48 3/4 |   |   |   |   |   |   |   |   |   |   |   |   | 12.5            |
| 4    | 60 | 30 | 1 7/8 | 1/2 | 5/8 |   | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8     | 4     | 24 3/8 | 48 3/4 |   |   |   |   |   |   |   |   |   |   |   |   | 12.5            |
| 5    | 96 | 48 | 3     | 3/4 | 1   |   | 24 | 26 1/2 | 2     | 15    | 13    | 6 1/2 | 39     | 78     |   |   |   |   |   |   |   |   |   |   |   |   | 32.0            |

PROJECT NO:

HWY:

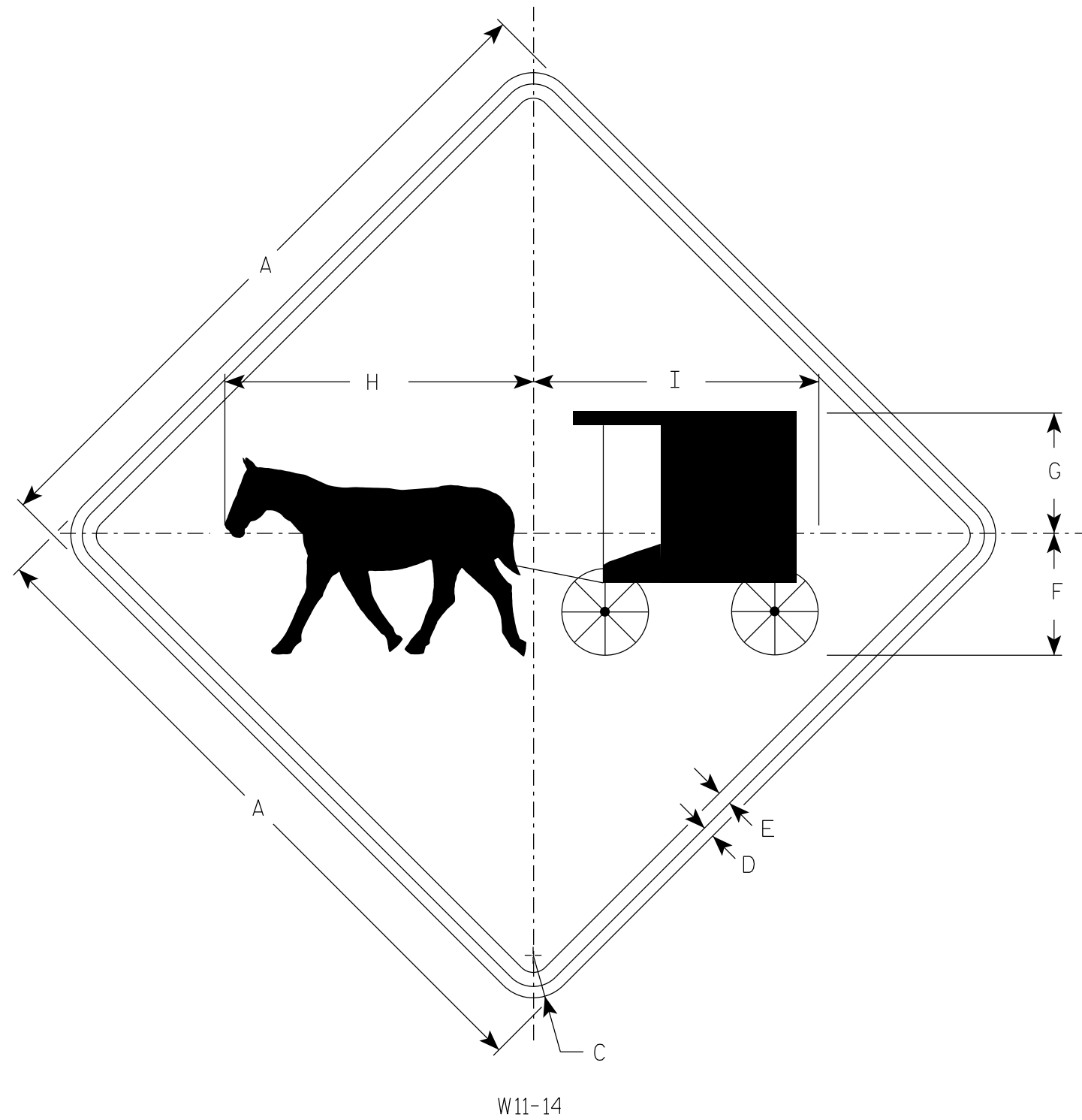
COUNTY:

SHEET NO: 318

E



7



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
  - Background - Yellow
  - Message - Black

7

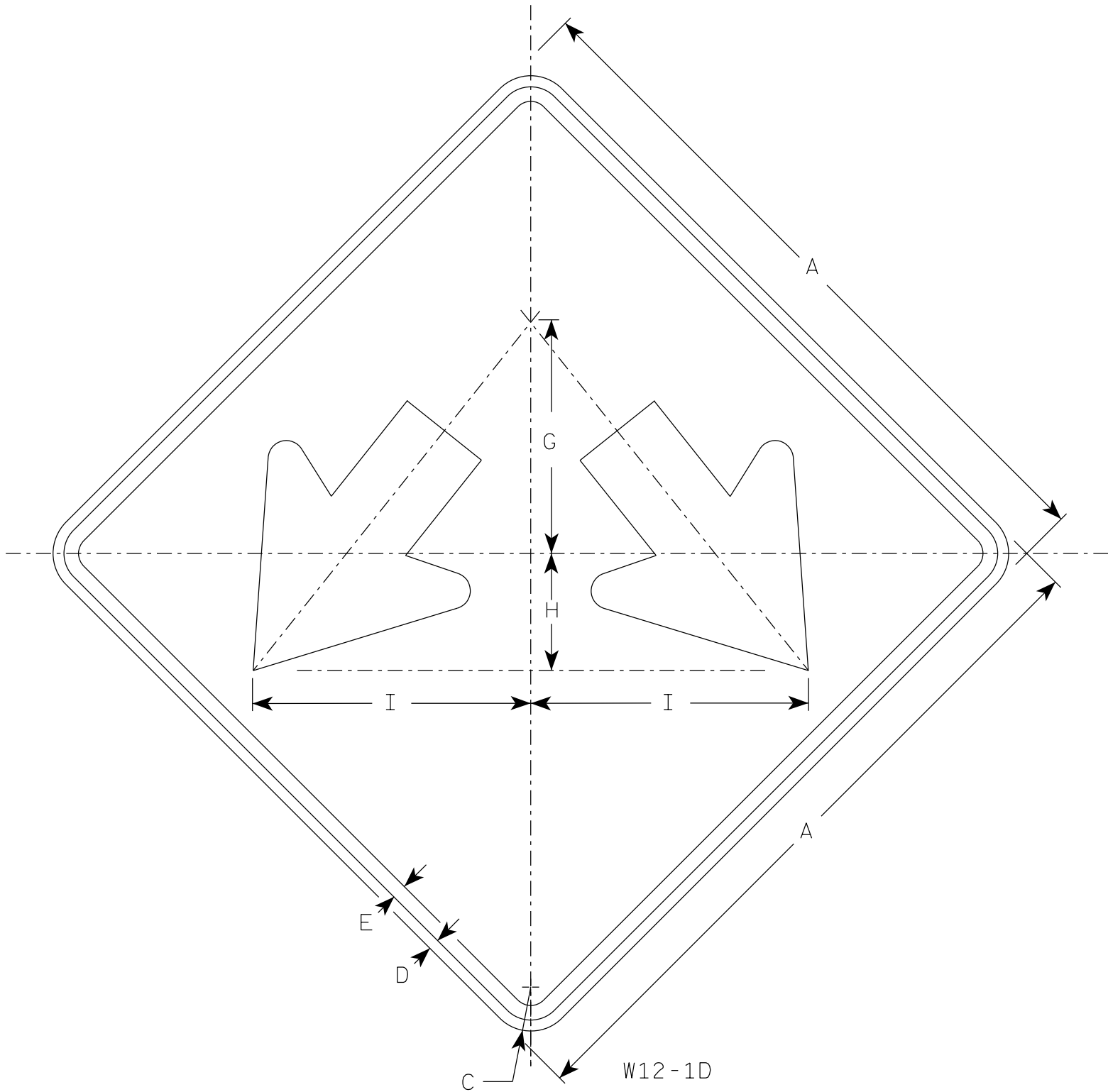
| SIZE | A  | B | C     | D   | E   | F     | G     | H      | I      | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 30 |   | 1 7⁄8 | 1⁄2 | 5⁄8 | 5 3⁄8 | 5 1⁄4 | 13 5⁄8 | 12 5⁄8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.25            |
| 2S   | 36 |   | 2 1⁄4 | 5⁄8 | 3⁄4 | 6 1⁄2 | 6 3⁄8 | 16 3⁄8 | 15 1⁄8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 2M   | 36 |   | 2 1⁄4 | 5⁄8 | 3⁄4 | 6 1⁄2 | 6 3⁄8 | 16 3⁄8 | 15 1⁄8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 3    | 36 |   | 2 1⁄4 | 5⁄8 | 3⁄4 | 6 1⁄2 | 6 3⁄8 | 16 3⁄8 | 15 1⁄8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 48 |   | 3     | 3⁄4 | 1   | 8 5⁄8 | 8 1⁄2 | 21 7⁄8 | 20 1⁄8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 16.0            |
| 5    |    |   |       |     |     |       |       |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

STANDARD SIGN  
W11-14

WISCONSIN DEPT OF TRANSPORTATION

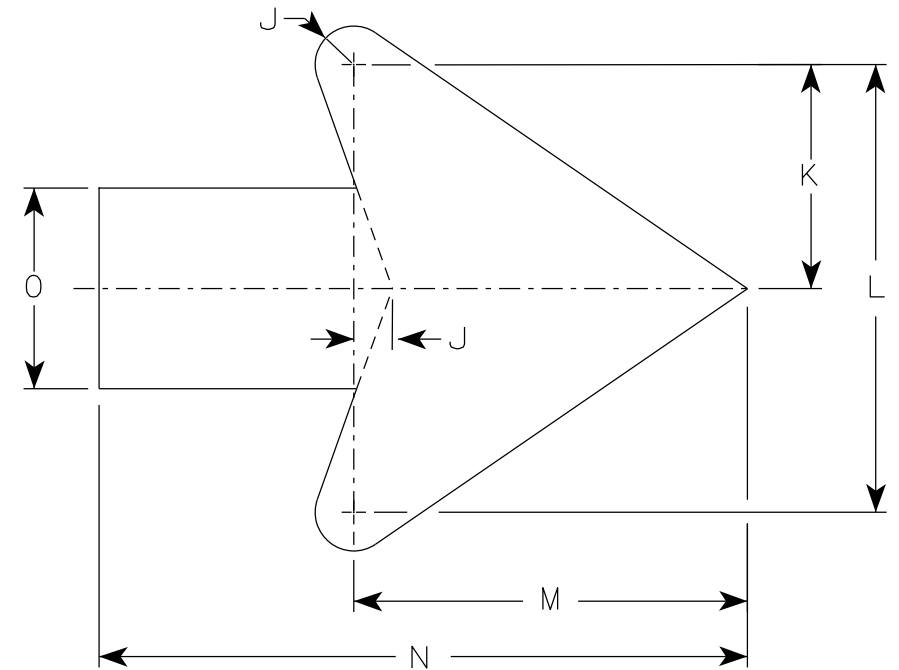
APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/27/24 PLATE NO. W11-14.2



NOTES

1. Sign is Type II - Type F Reflective
2. Color:  
Background - Yellow  
Message - Black

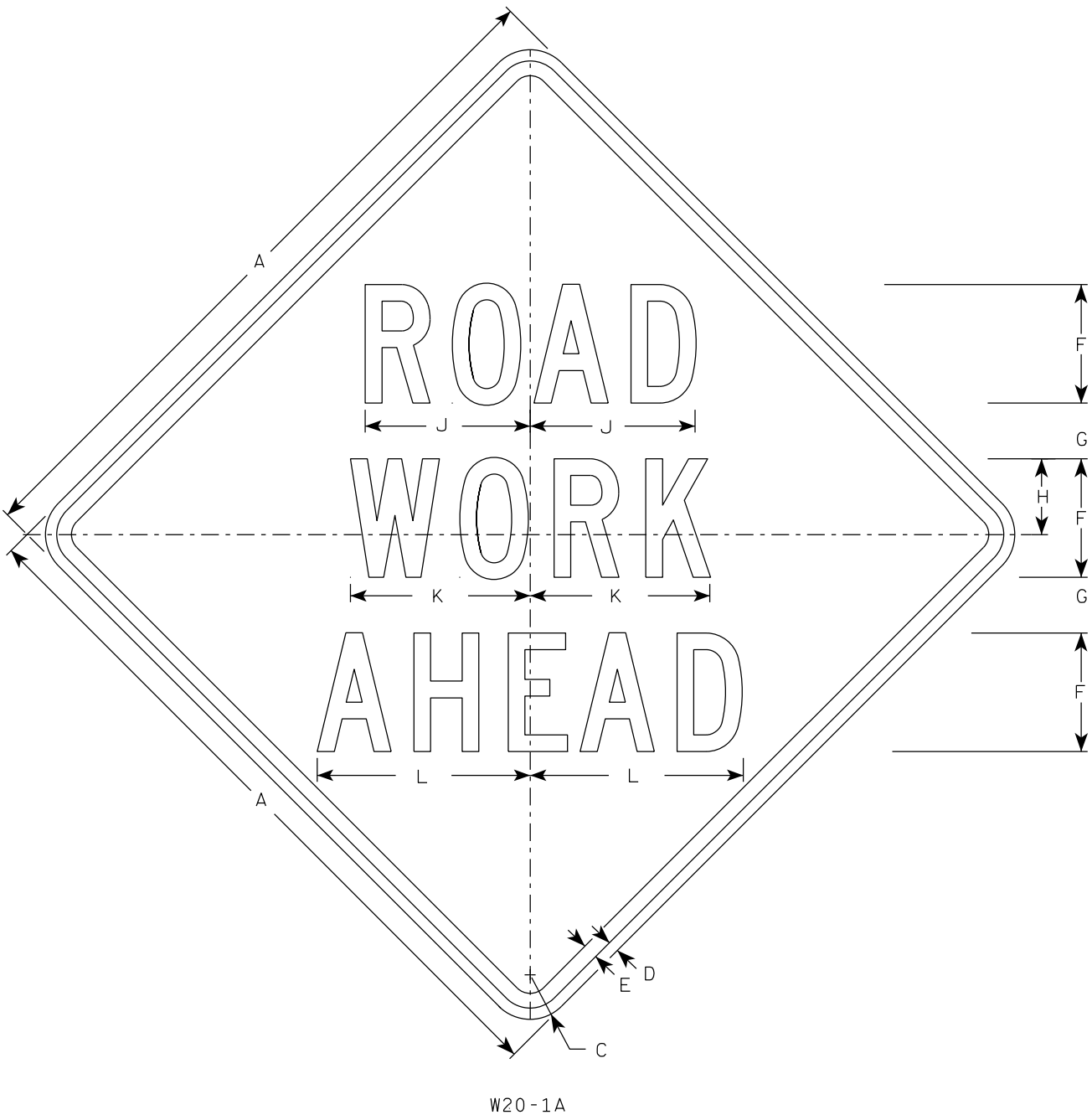


Arrow Detail

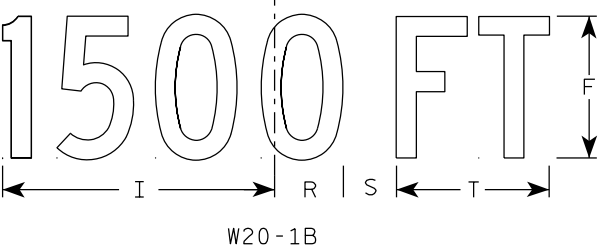
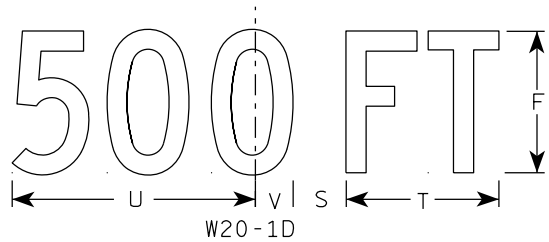
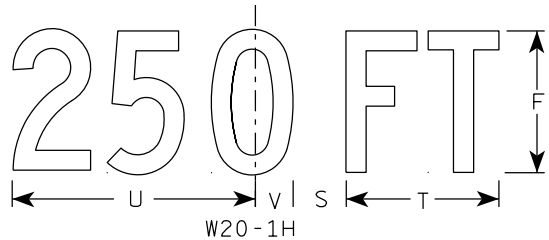
| SIZE | A  | B | C     | D   | E   | F | G  | H | I      | J     | K     | L      | M      | N      | O     | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|---|----|---|--------|-------|-------|--------|--------|--------|-------|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |   |       |     |     |   |    |   |        |       |       |        |        |        |       |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 24 |   | 1 1/2 | 1/2 | 3/8 |   | 8  | 4 | 9 1/2  | 3/8   | 3 3/8 | 7 1/4  | 6 3/8  | 10 3/8 | 3 1/4 |   |   |   |   |   |   |   |   |   |   |   | 4.0             |
| 2M   | 24 |   | 1 1/2 | 1/2 | 3/8 |   | 8  | 4 | 9 1/2  | 3/8   | 3 3/8 | 7 1/4  | 6 3/8  | 10 3/8 | 3 1/4 |   |   |   |   |   |   |   |   |   |   |   | 4.0             |
| 3    | 30 |   | 1 7/8 | 1/2 | 5/8 |   | 10 | 5 | 11 7/8 | 3/4   | 4 1/2 | 9      | 7 7/8  | 13     | 4     |   |   |   |   |   |   |   |   |   |   |   | 6.25            |
| 4    | 36 |   | 2 1/4 | 1/2 | 5/8 |   | 12 | 6 | 14 1/4 | 1     | 5 1/2 | 10 7/8 | 9 5/8  | 15 3/4 | 4 3/4 |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 5    | 48 |   | 3     | 3/4 | 1   |   | 16 | 8 | 19     | 1 1/4 | 7 1/4 | 14 1/2 | 12 3/4 | 21     | 6 1/4 |   |   |   |   |   |   |   |   |   |   |   | 16.0            |

|                                  |                                                       |
|----------------------------------|-------------------------------------------------------|
| STANDARD SIGN<br>W12-1D          |                                                       |
| WISCONSIN DEPT OF TRANSPORTATION |                                                       |
| APPROVED                         | <i>Matthew R. Rauch</i><br>for State Traffic Engineer |
| DATE 11/30/2023                  | PLATE NO. W12-1D.16                                   |

|             |      |         |               |   |
|-------------|------|---------|---------------|---|
| PROJECT NO: | HWY: | COUNTY: | SHEET NO: 320 | E |
|-------------|------|---------|---------------|---|

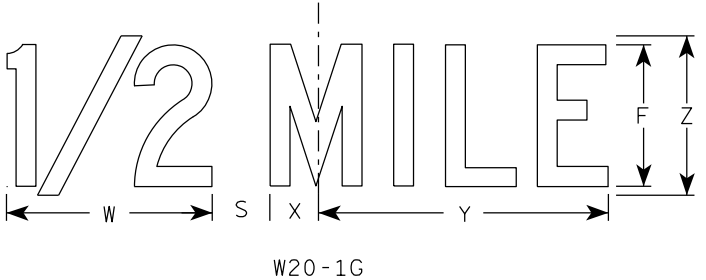


W20-1A

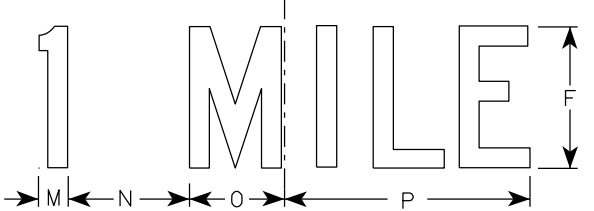


W20-1B

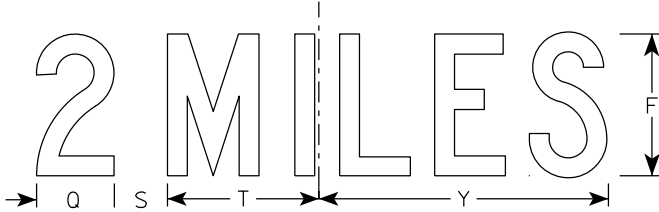
- NOTES
1. Sign is Type II - Type F Reflective
  2. Color:  
Background - Orange  
Message - Black
  3. Message Series - C
  4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G

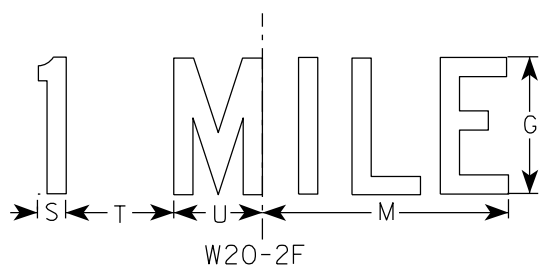
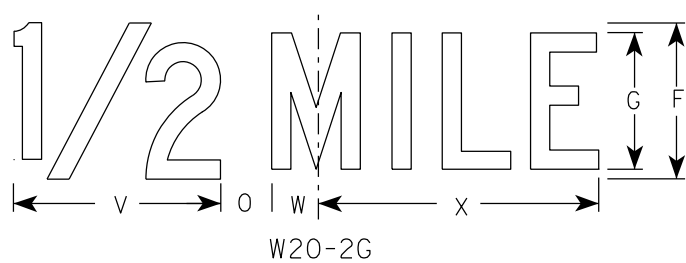
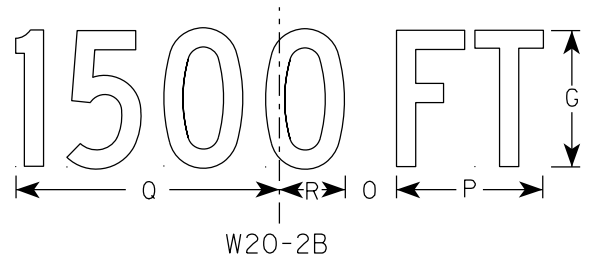
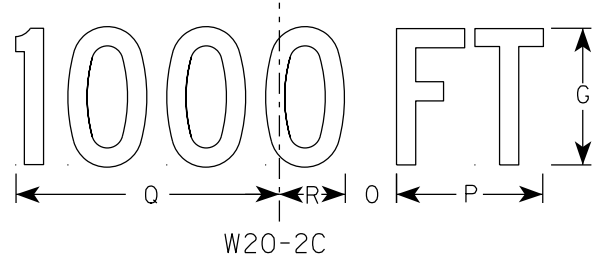
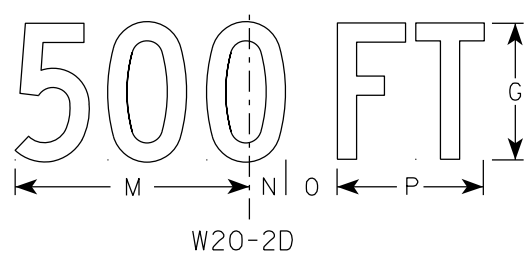
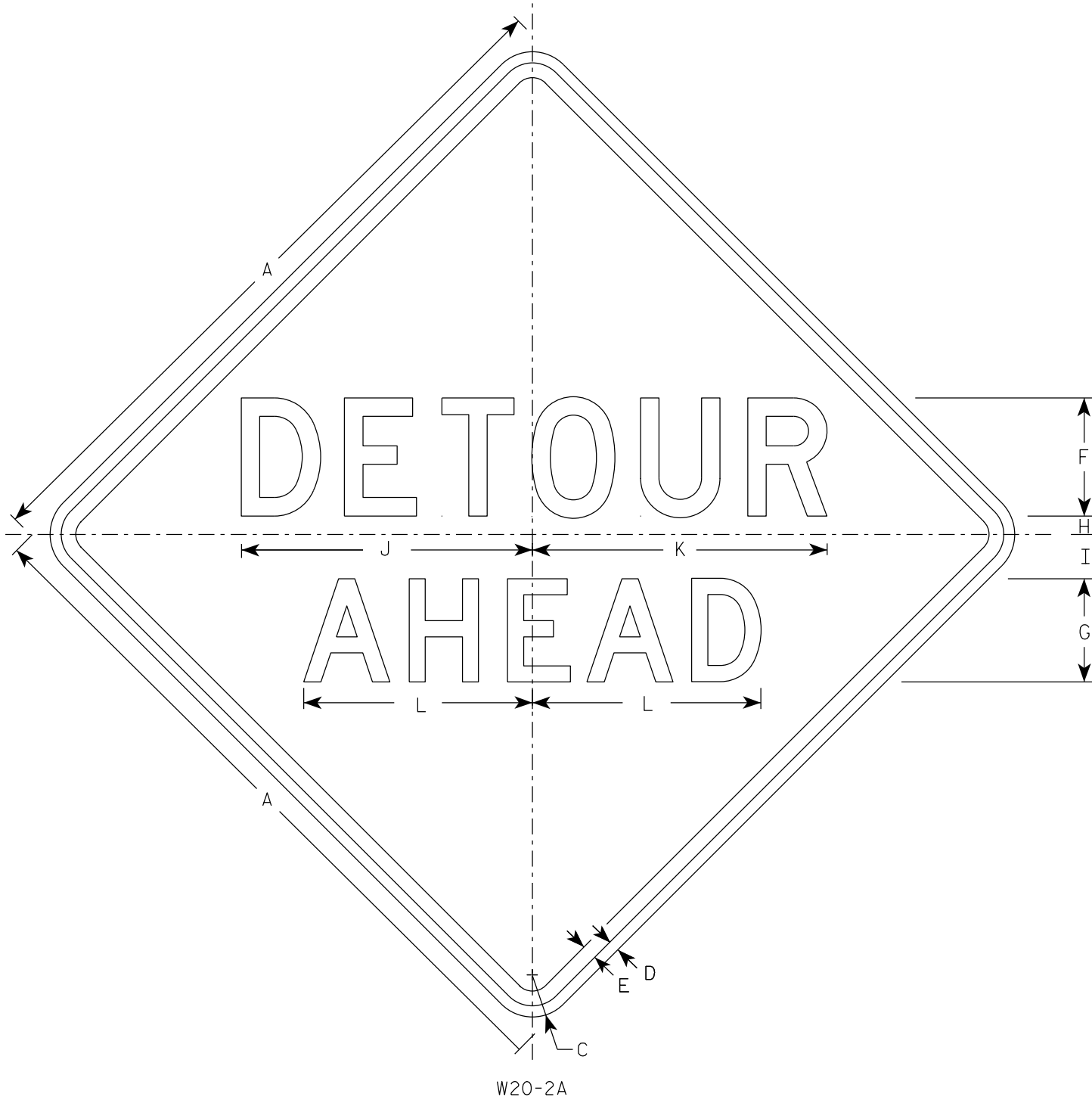


W20-1F



W20-1E

| SIZE | A  | B | C     | D   | E   | F | G     | H     | I      | J      | K      | L      | M     | N     | O     | P      | Q     | R     | S     | T     | U      | v     | W      | X     | Y      | Z | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|---|-------|-------|--------|--------|--------|--------|-------|-------|-------|--------|-------|-------|-------|-------|--------|-------|--------|-------|--------|---|-----------------|
| 1    | 36 |   | 2 1/4 | 5/8 | 3/4 | 5 | 2 5/8 | 3 1/4 | 10 1/8 | 7      | 7 5/8  | 8 7/8  | 1 1/8 | 4 1/2 | 3 1/2 | 9      | 3 1/4 | 2 1/2 | 2 1/4 | 5 5/8 | 9      | 1 3/8 | 8      | 1 3/4 | 10 3/4 | 6 | 9.0             |
| 2S   | 48 |   | 3     | 3/4 | 1   | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3     | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0            |
| 2M   | 48 |   | 3     | 3/4 | 1   | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3     | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0            |
| 3    | 48 |   | 3     | 3/4 | 1   | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3     | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0            |
| 4    | 48 |   | 3     | 3/4 | 1   | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3     | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0            |
| 5    | 48 |   | 3     | 3/4 | 1   | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3     | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0            |



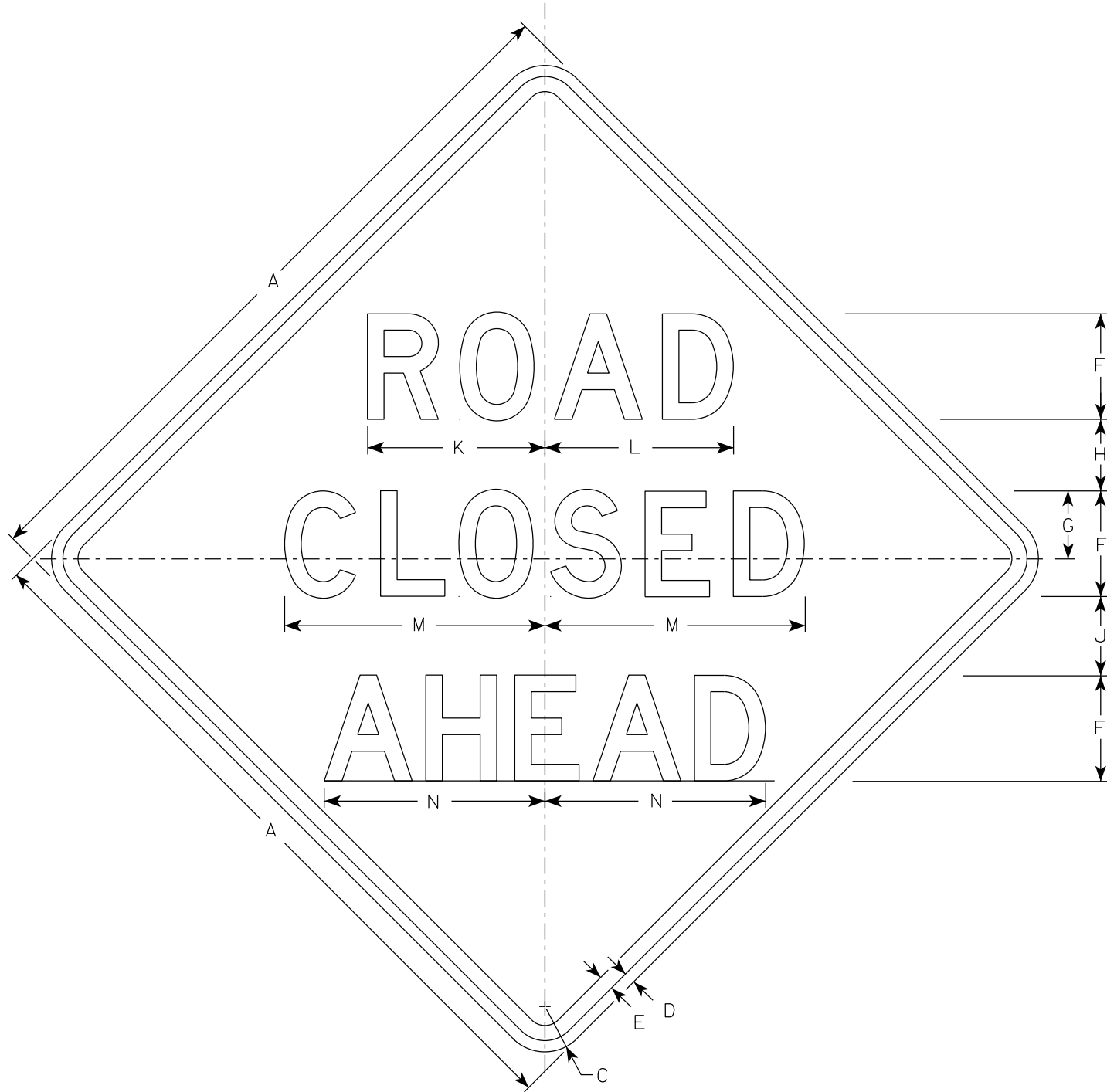
NOTES

- Sign is Type II - Type F Reflective
- Color:  
Background - Orange  
Message - Black
- Message Series - See note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Line 1 is Series D.  
Line 2 is Series D for AHEAD and Series C for all other distances.

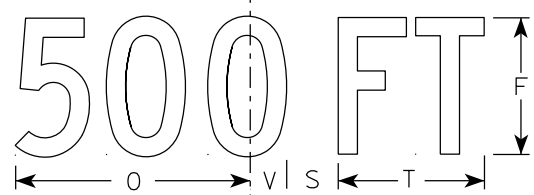
| SIZE | A  | B | C     | D   | E   | F | G | H     | I     | J      | K  | L      | M  | N     | O     | P     | Q      | R     | S     | T     | U     | v      | w     | X      | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|---|---|-------|-------|--------|----|--------|----|-------|-------|-------|--------|-------|-------|-------|-------|--------|-------|--------|---|---|-----------------|
| 1    | 36 |   | 2 1/4 | 5/8 | 3/4 | 6 | 5 | 1     | 2 1/4 | 14 3/4 | 15 | 11 5/8 | 9  | 1 3/8 | 1 7/8 | 5 5/8 | 10 1/8 | 2 1/2 | 1 1/8 | 4 1/2 | 3 1/2 | 8      | 1 3/4 | 10 3/4 |   |   | 9.0             |
| 2S   | 48 |   | 3     | 3/4 | 1   | 8 | 7 | 1 1/4 | 3     | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6     | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 |   |   | 16.0            |
| 2M   | 48 |   | 3     | 3/4 | 1   | 8 | 7 | 1 1/4 | 3     | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6     | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 |   |   | 16.0            |
| 3    | 48 |   | 3     | 3/4 | 1   | 8 | 7 | 1 1/4 | 3     | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6     | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 |   |   | 16.0            |
| 4    | 48 |   | 3     | 3/4 | 1   | 8 | 7 | 1 1/4 | 3     | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6     | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 |   |   | 16.0            |
| 5    | 48 |   | 3     | 3/4 | 1   | 8 | 7 | 1 1/4 | 3     | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6     | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 |   |   | 16.0            |

|                                     |                                                       |
|-------------------------------------|-------------------------------------------------------|
| STANDARD SIGN<br>W20-2A,B,C,D,F & G |                                                       |
| WISCONSIN DEPT OF TRANSPORTATION    |                                                       |
| APPROVED                            | <i>Matthew R. Rauch</i><br>For State Traffic Engineer |
| DATE 1/10/2024                      | PLATE NO. W20-2.7                                     |

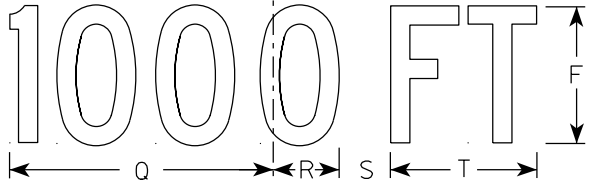
7



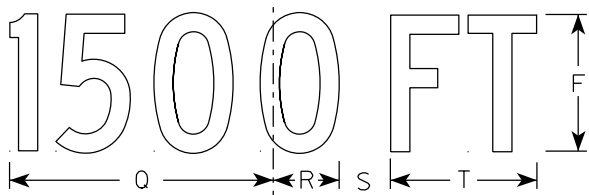
W20-3A



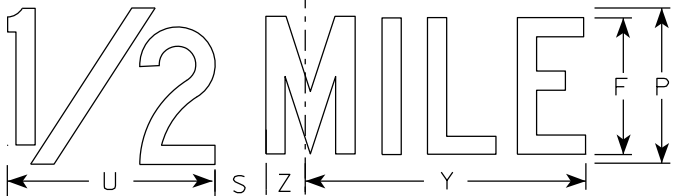
W20-3D



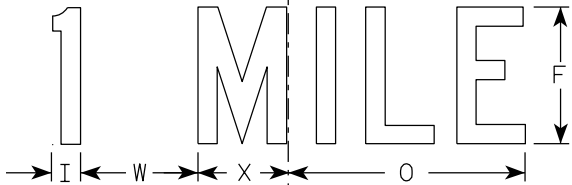
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:  
Background - Orange  
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.  
Line 3 is Series D for AHEAD and Series C for all other distances.

7

| SIZE | A  | B | C     | D   | E   | F | G     | H     | I     | J     | K      | L      | M      | N      | O  | P | Q      | R     | S     | T     | U      | v     | W     | X     | Y      | Z     | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|---|-------|-------|-------|-------|--------|--------|--------|--------|----|---|--------|-------|-------|-------|--------|-------|-------|-------|--------|-------|-----------------|
| 1    | 36 |   | 2 1/4 | 5/8 | 3/4 | 5 | 3 3/8 | 3 1/2 | 1 1/8 | 4     | 8 3/8  | 8 7/8  | 12 1/2 | 11     | 9  | 6 | 10 1/8 | 2 1/2 | 1 7/8 | 5 5/8 | 8      | 1 3/8 | 4 1/2 | 3 1/2 | 10 3/4 | 1 3/4 | 9.0             |
| 2S   | 48 |   | 3     | 3/4 | 1   | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6     | 4 5/8 | 14 3/8 | 2 3/8 | 16.0            |
| 2M   | 48 |   | 3     | 3/4 | 1   | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6     | 4 5/8 | 14 3/8 | 2 3/8 | 16.0            |
| 3    | 48 |   | 3     | 3/4 | 1   | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6     | 4 5/8 | 14 3/8 | 2 3/8 | 16.0            |
| 4    | 48 |   | 3     | 3/4 | 1   | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6     | 4 5/8 | 14 3/8 | 2 3/8 | 16.0            |
| 5    | 48 |   | 3     | 3/4 | 1   | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6     | 4 5/8 | 14 3/8 | 2 3/8 | 16.0            |

STANDARD SIGN  
W20-3A, B, C, D, F & G

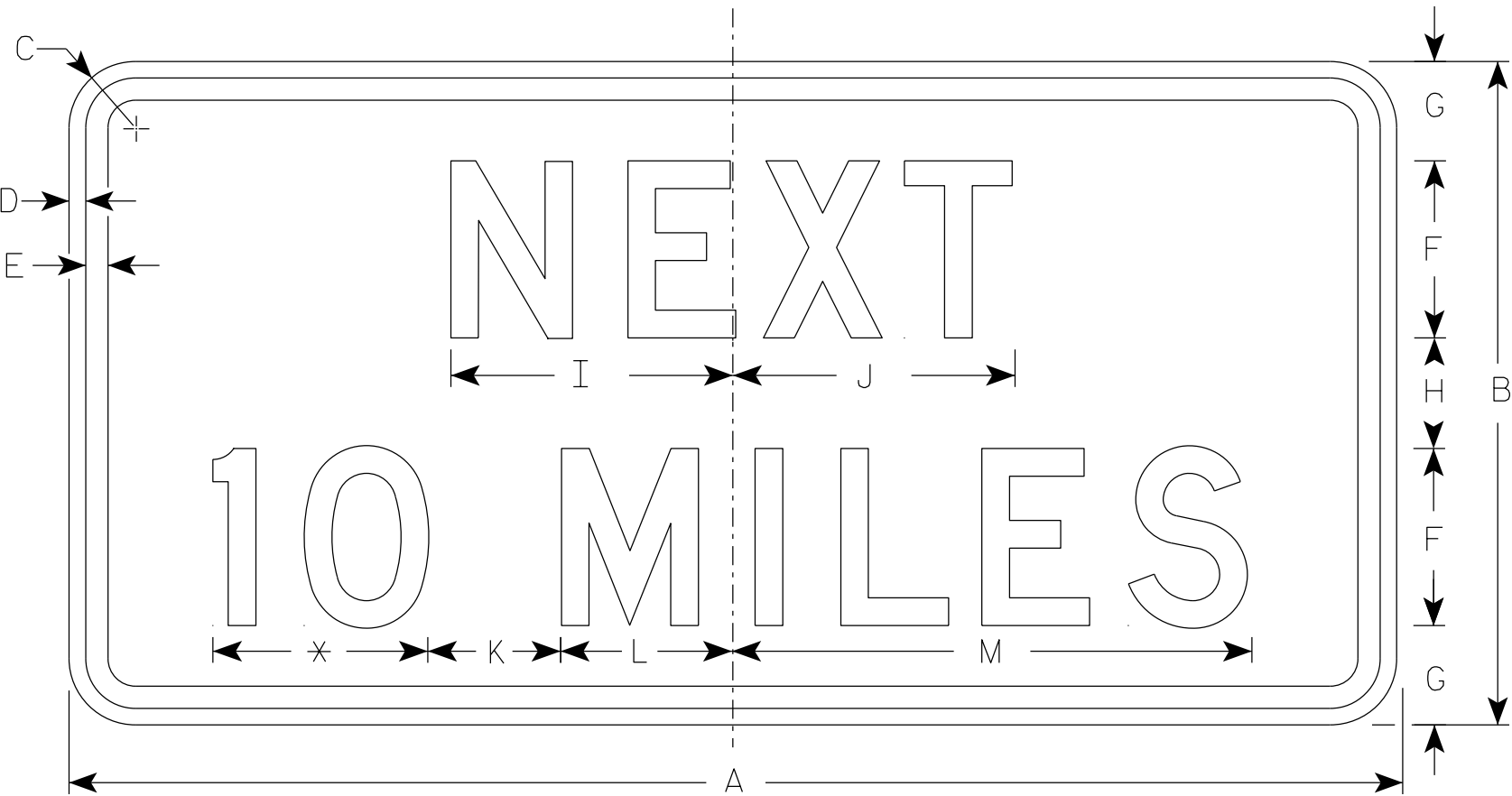
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-3.8



7



W57-51

\* See note 4

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:  
Background - Yellow  
Message - Black
- 3. Message Series - D
- 4. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance.

7

| SIZE | A  | B  | C     | D   | E   | F | G     | H     | I     | J      | K | L     | M      | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|-------|-------|-------|--------|---|-------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 24 | 12 | 1 1/2 | 3/8 | 3/8 | 3 | 2 1/4 | 1 1/2 | 5     | 5 1/8  | 3 | 2 3/4 | 9 5/8  |   |   |   |   |   |   |   |   |   |   |   |   |   | 2.0             |
| 2S   | 30 | 15 | 1 1/2 | 3/8 | 1/2 | 4 | 2 1/2 | 2     | 6 3/8 | 6 3/8  | 3 | 3 7/8 | 11 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.13            |
| 2M   | 36 | 18 | 1 1/2 | 3/8 | 1/2 | 5 | 2 3/4 | 2 1/2 | 7 7/8 | 8      | 5 | 4 1/8 | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 3    | 36 | 18 | 1 1/2 | 3/8 | 1/2 | 5 | 2 3/4 | 2 1/2 | 7 7/8 | 8      | 5 | 4 1/8 | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 4    | 48 | 24 | 1 7/8 | 1/2 | 5/8 | 6 | 4     | 4     | 10    | 10 1/8 | 6 | 5 5/8 | 19     |   |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 5    | 48 | 24 | 1 7/8 | 1/2 | 5/8 | 6 | 4     | 4     | 10    | 10 1/8 | 6 | 5 5/8 | 19     |   |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |

PROJECT NO:

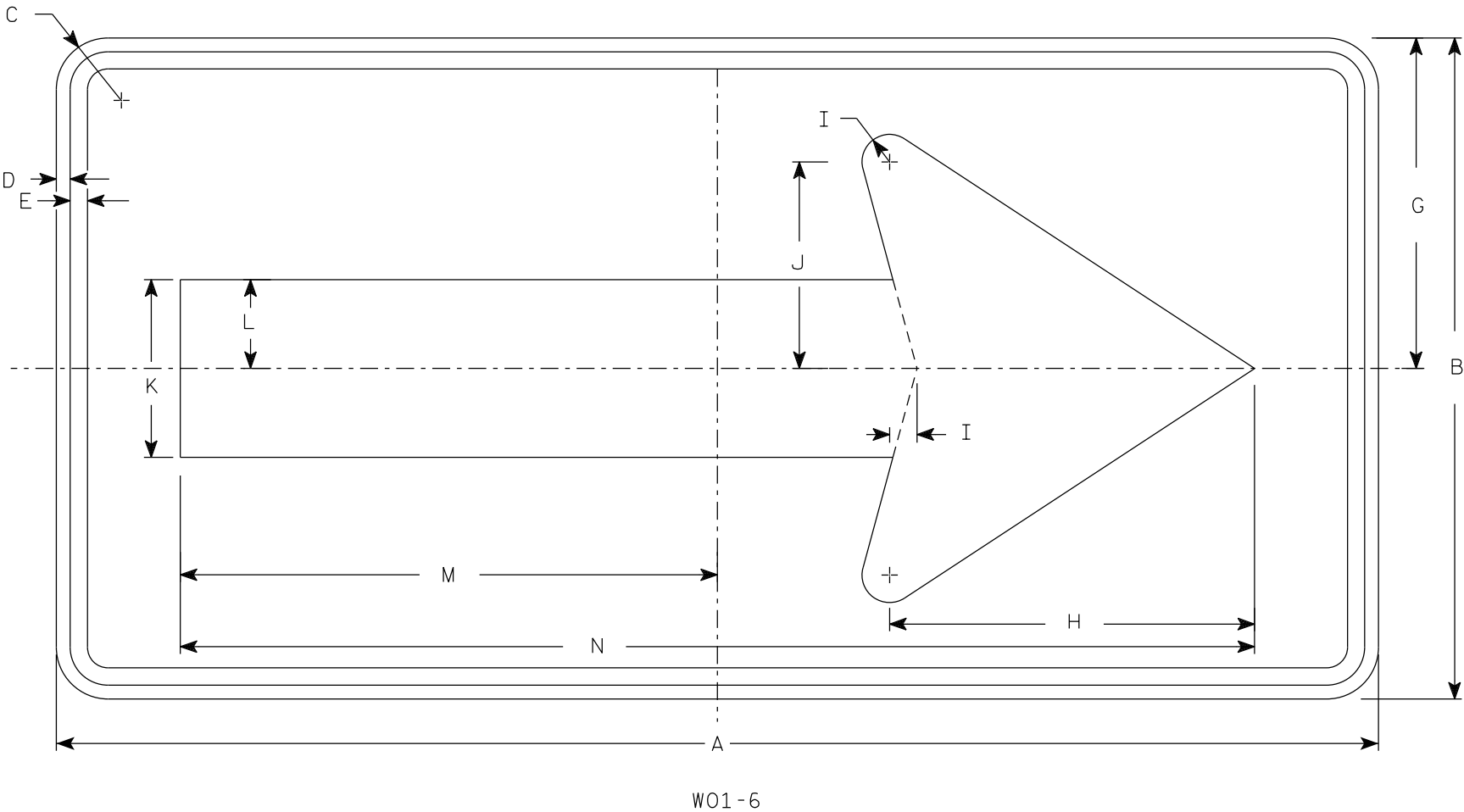
HWY:

COUNTY:

SHEET NO: 324

E

7



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:  
Background - Orange  
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

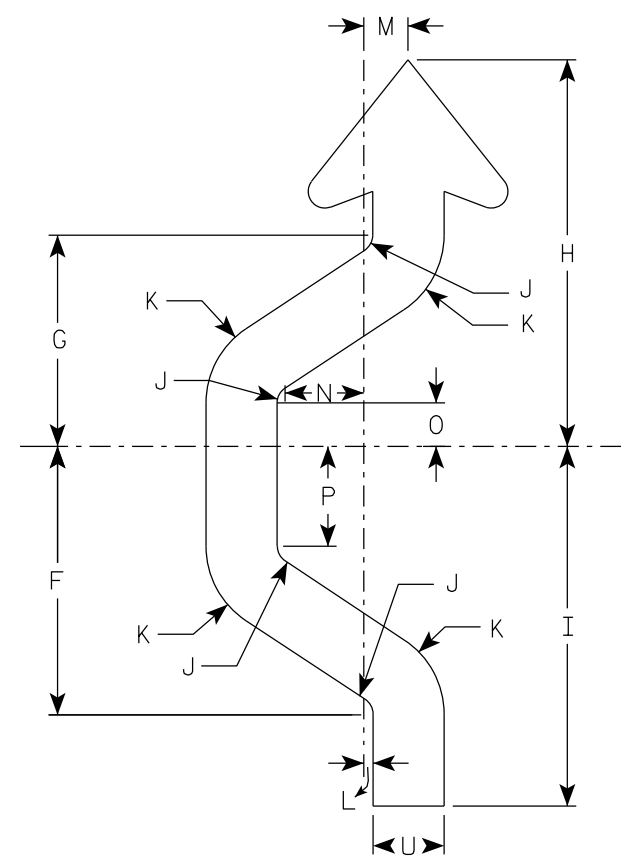
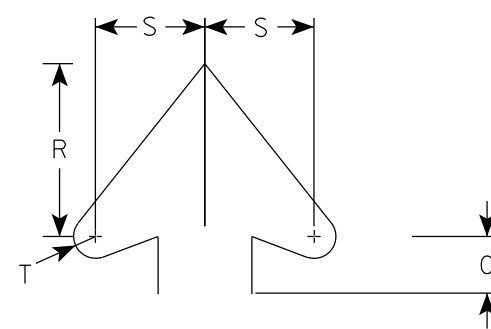
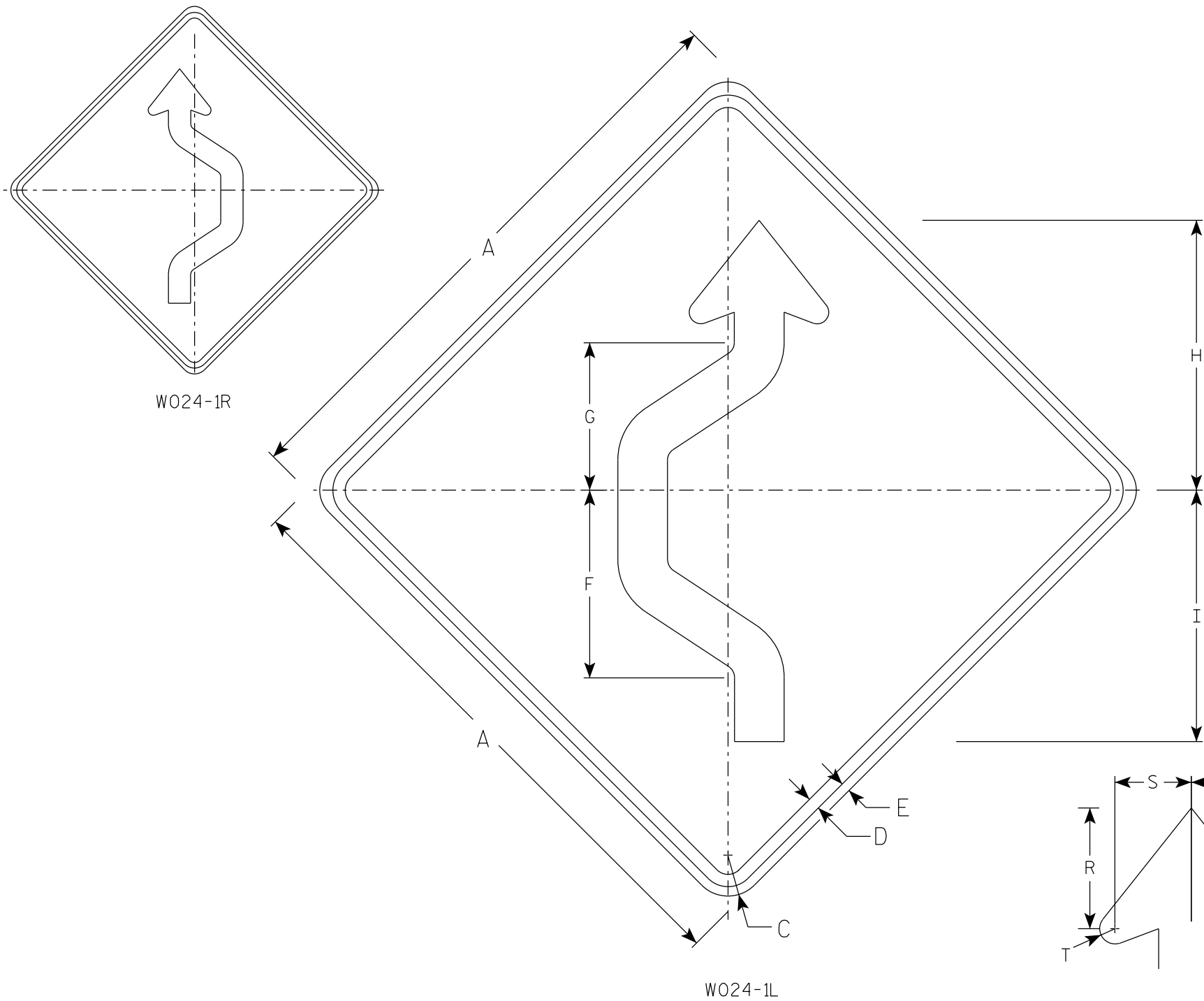
| SIZE | A  | B  | C     | D   | E   | F | G  | H      | I     | J     | K     | L     | M      | N      | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|----|--------|-------|-------|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |    |        |       |       |       |       |        |        |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 48 | 24 | 1 7/8 | 1/2 | 5/8 |   | 12 | 13 1/4 | 1     | 7 1/2 | 6 1/2 | 3 1/4 | 19 1/2 | 39     |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 2M   | 48 | 24 | 1 7/8 | 1/2 | 5/8 |   | 12 | 13 1/4 | 1     | 7 1/2 | 6 1/2 | 3 1/4 | 19 1/2 | 39     |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 3    | 60 | 30 | 1 7/8 | 1/2 | 5/8 |   | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8     | 4     | 24 3/8 | 48 3/4 |   |   |   |   |   |   |   |   |   |   |   |   | 12.5            |
| 4    | 60 | 30 | 1 7/8 | 1/2 | 5/8 |   | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8     | 4     | 24 3/8 | 48 3/4 |   |   |   |   |   |   |   |   |   |   |   |   | 12.5            |
| 5    | 60 | 30 | 1 7/8 | 1/2 | 5/8 |   | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8     | 4     | 24 3/8 | 48 3/4 |   |   |   |   |   |   |   |   |   |   |   |   | 12.5            |

STANDARD SIGN  
W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

DATE 1/24/2024      PLATE NO. W01-6.2



NOTES

1. Sign is Type II - Type F Reflective
2. Color:  
Background - Orange  
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W024-1R is the same as W024-1L except reversed along the vertical centerline.

| SIZE | A  | B | C     | D   | E   | F      | G      | H      | I      | J   | K     | L   | M     | N     | O     | P     | Q | R     | S     | T   | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|--------|--------|--------|--------|-----|-------|-----|-------|-------|-------|-------|---|-------|-------|-----|---|---|---|---|---|---|-----------------|
| 1    | 36 |   | 2 1/4 | 5/8 | 1/2 | 11 3/8 | 8 7/8  | 16 3/8 | 15 1/4 | 3/4 | 3 3/4 | 3/8 | 2     | 3 3/8 | 1 7/8 | 4 1/4 |   | 5 1/2 | 3 1/2 | 5/8 | 3 |   |   |   |   |   | 9.0             |
| 2S   | 48 |   | 3     | 1   | 3/4 | 15 1/8 | 11 7/8 | 21 3/4 | 20 1/4 | 1   | 5     | 1/2 | 2 1/2 | 4 3/8 | 2 3/8 | 5 5/8 |   | 7 3/8 | 4 3/4 | 7/8 | 4 |   |   |   |   |   | 16.0            |
| 2M   | 48 |   | 3     | 1   | 3/4 | 15 1/8 | 11 7/8 | 21 3/4 | 20 1/4 | 1   | 5     | 1/2 | 2 1/2 | 4 3/8 | 2 3/8 | 5 5/8 |   | 7 3/8 | 4 3/4 | 7/8 | 4 |   |   |   |   |   | 16.0            |
| 3    | 48 |   | 3     | 1   | 3/4 | 15 1/8 | 11 7/8 | 21 3/4 | 20 1/4 | 1   | 5     | 1/2 | 2 1/2 | 4 3/8 | 2 3/8 | 5 5/8 |   | 7 3/8 | 4 3/4 | 7/8 | 4 |   |   |   |   |   | 16.0            |
| 4    | 48 |   | 3     | 1   | 3/4 | 15 1/8 | 11 7/8 | 21 3/4 | 20 1/4 | 1   | 5     | 1/2 | 2 1/2 | 4 3/8 | 2 3/8 | 5 5/8 |   | 7 3/8 | 4 3/4 | 7/8 | 4 |   |   |   |   |   | 16.0            |
| 5    | 48 |   | 3     | 1   | 3/4 | 15 1/8 | 11 7/8 | 21 3/4 | 20 1/4 | 1   | 5     | 1/2 | 2 1/2 | 4 3/8 | 2 3/8 | 5 5/8 |   | 7 3/8 | 4 3/4 | 7/8 | 4 |   |   |   |   |   | 16.0            |

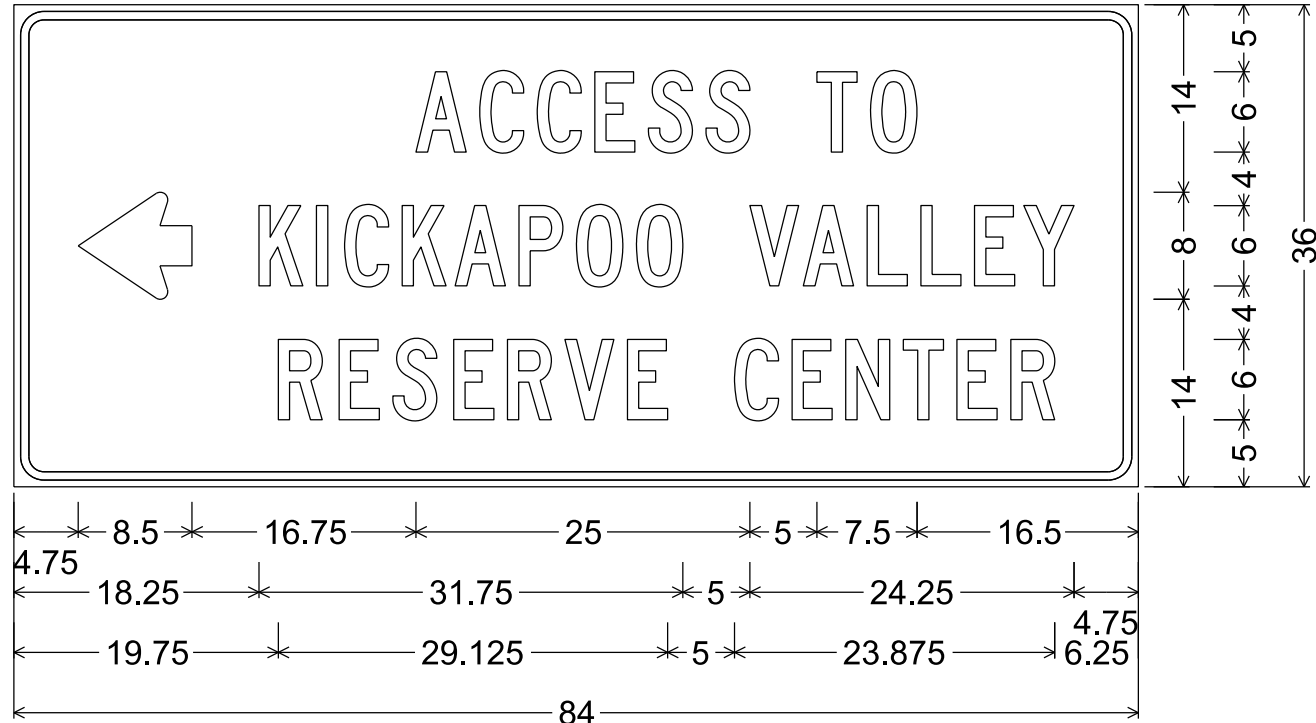
STANDARD SIGN

W024-1 L & R

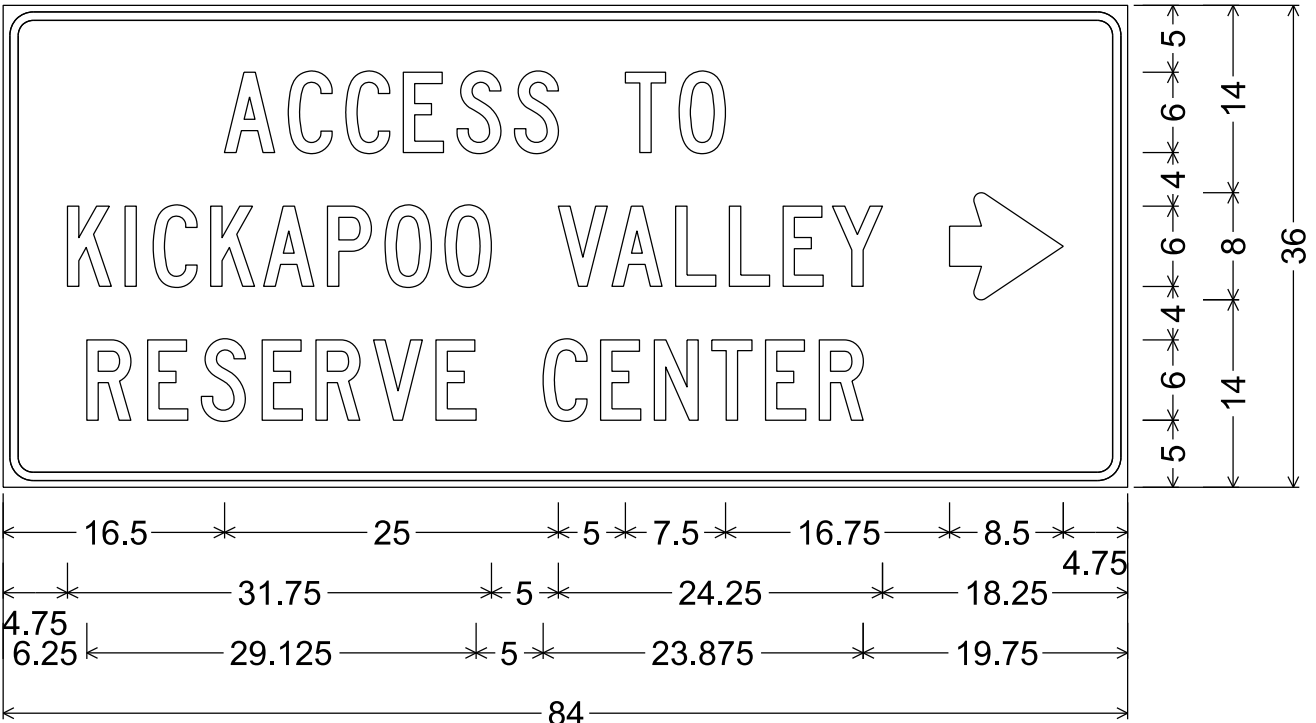
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W024-1.2



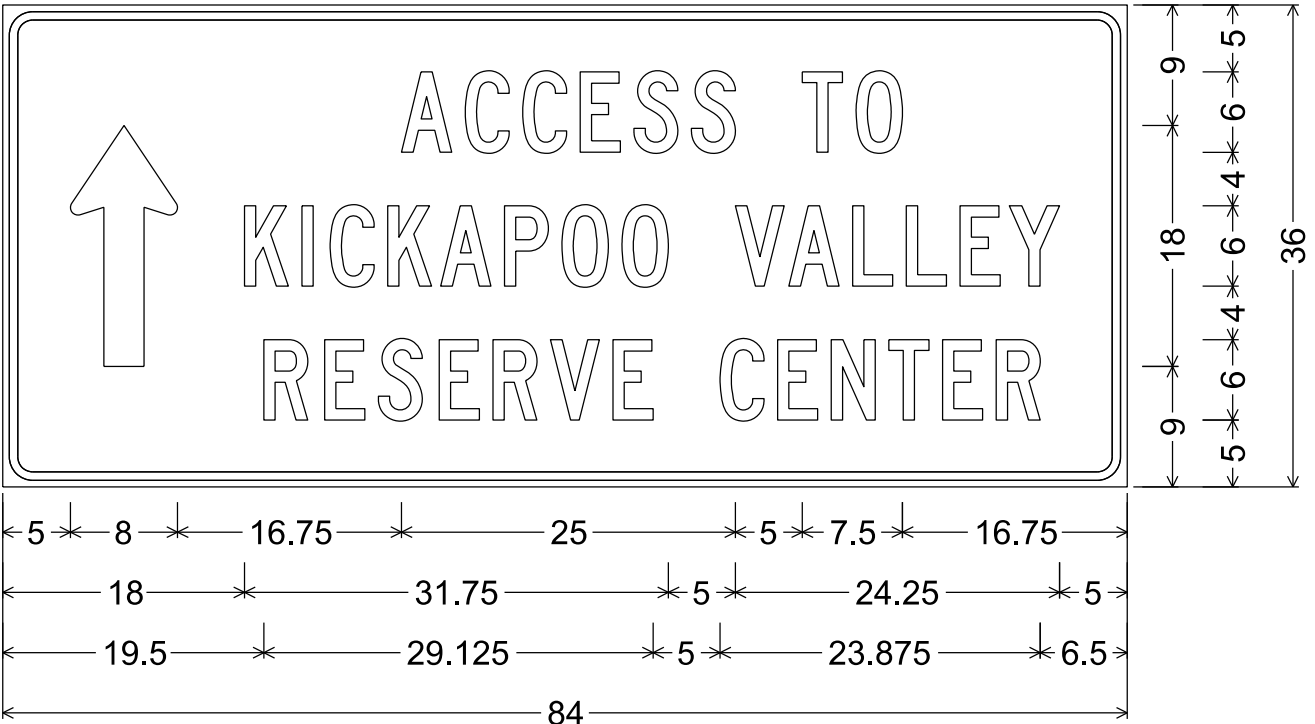
2.250" Radius, 0.625" Border, 0.500" Indent



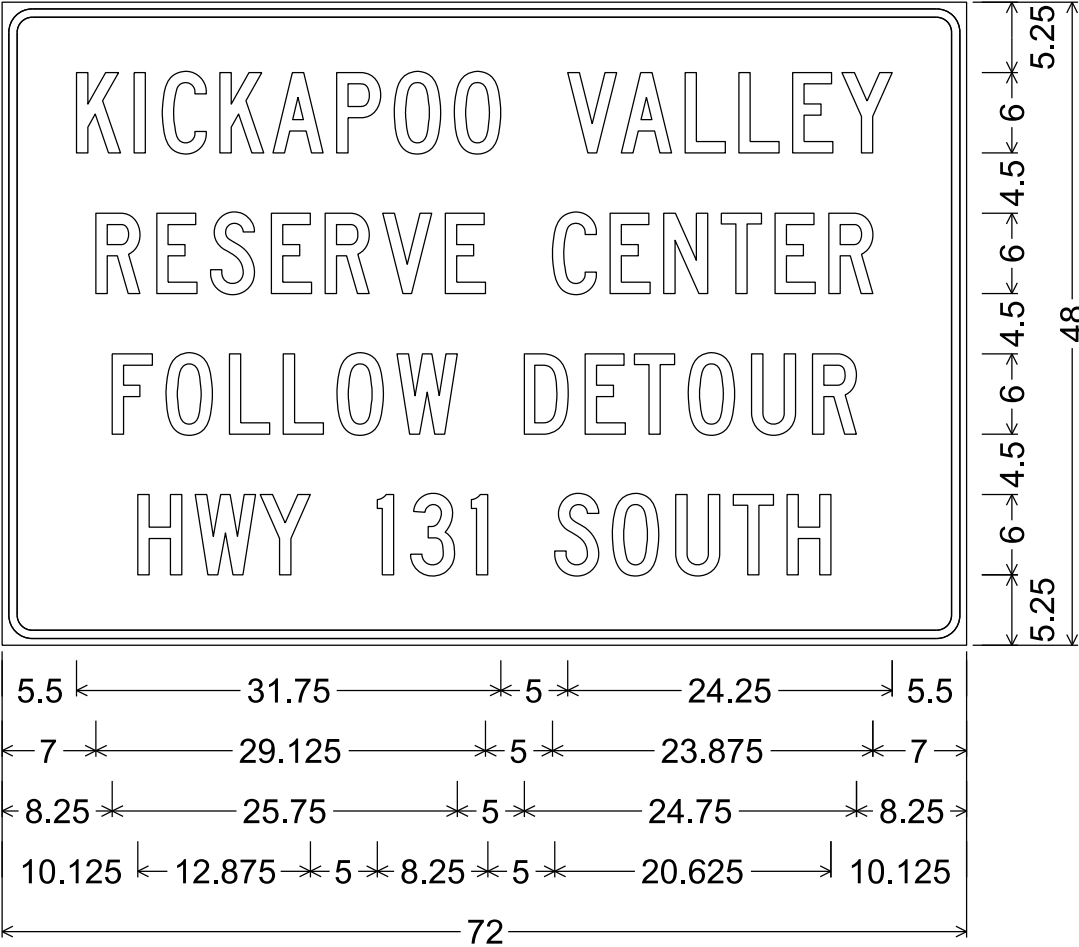
2.250" Radius, 0.625" Border, 0.500" Indent

NOTES

- 1. Fixed Message Signs Type II - Type F Reflective
- 2. Color:
  - Background - Orange
  - Message - Black
- 3. Message Series - C



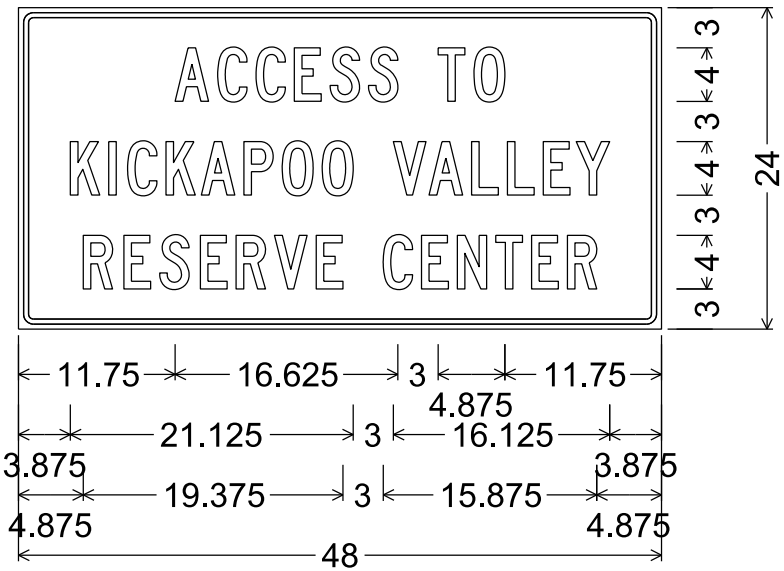
2.250" Radius, 0.625" Border, 0.500" Indent



2.250" Radius, 0.625" Border, 0.500" Indent

NOTES

- 1. Fixed Message Signs Type II - Type F Reflective
- 2. Color:
  - Background - Orange
  - Message - Black
- 3. Message Series - C



1.125" Radius, 0.375" Border, 0.375" Indent



DESIGN DATA

LIVE LOAD:

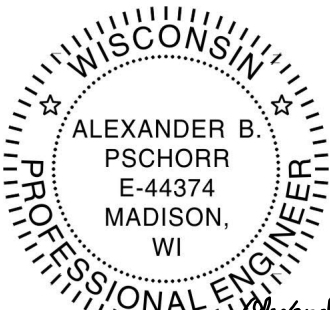
INVENTORY RATING: HS-13  
OPERATING RATING: HS-22  
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 180 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY  
CONCRETE MASONRY OVERLAY DECKS  $f'_c = 4,000$  PSI  
PRESTRESSED GIRDER SURFACE REPAIR  $f'_c = 5,000$  PSI  
ALL OTHER  $f'_c = 3,500$  PSI

TRAFFIC DATA

STH 131  
ADT = 770 (2027)  
ADT = 860 (2047)  
R.D.S. = 60 MPH



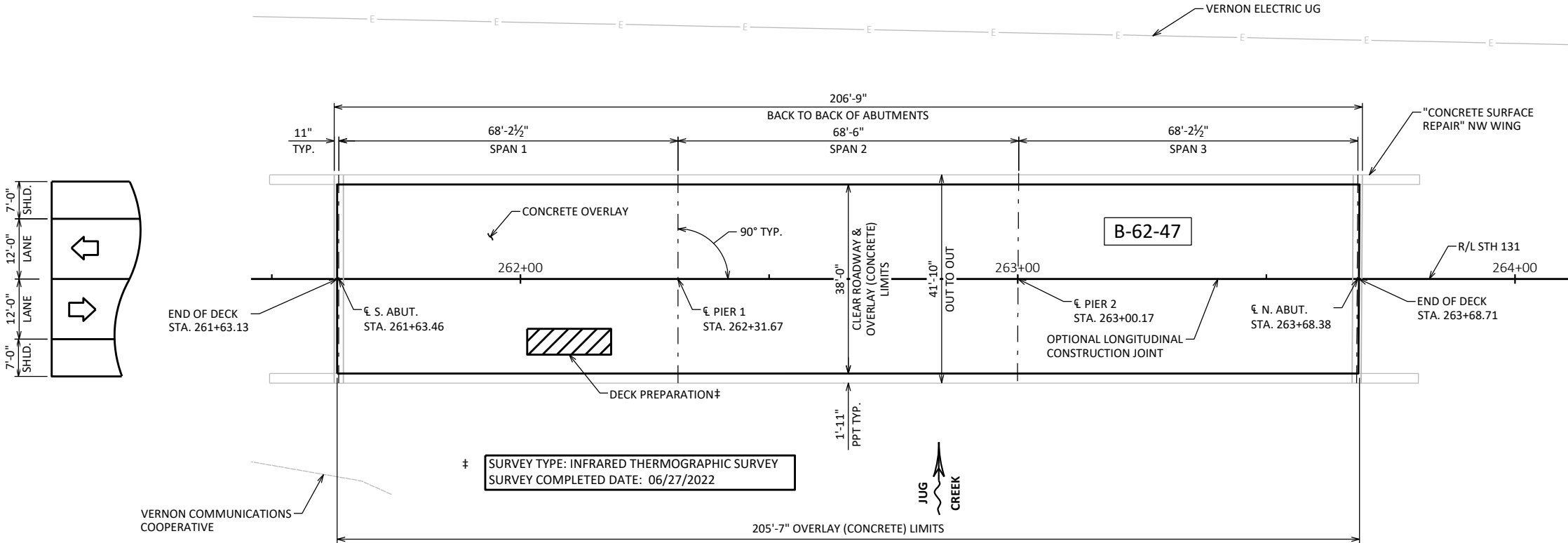
07/01/2025

LIST OF DRAWINGS:

- GENERAL PLAN
- CROSS SECTION & QUANTITIES
- INFRARED THERMOGRAPHIC DECK SURVEY

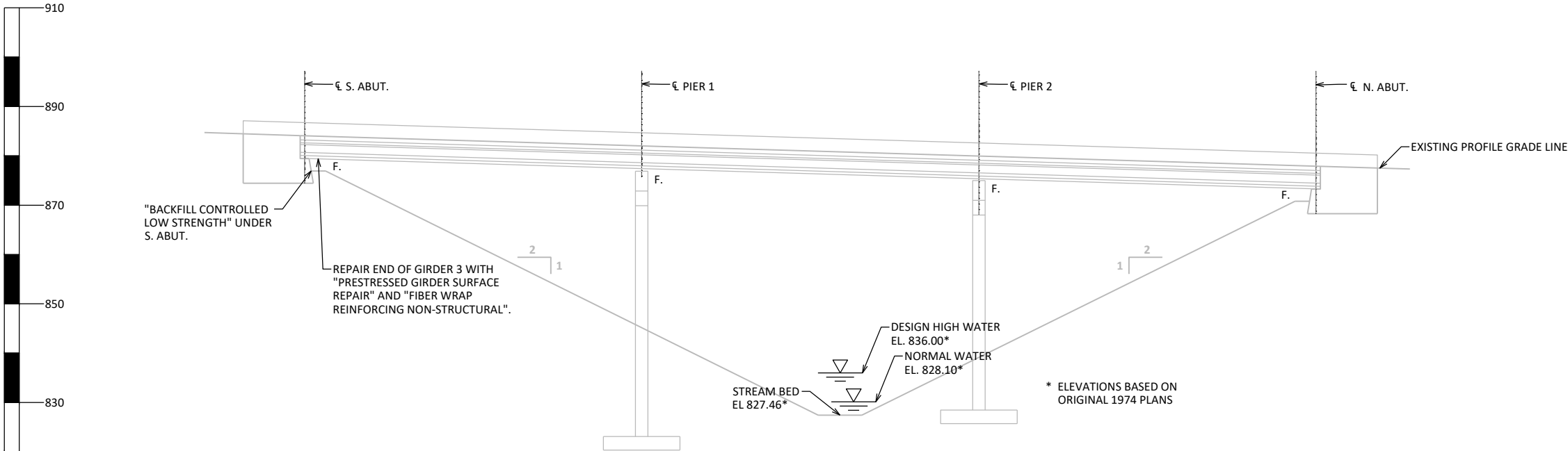
|                                                                                                                        |                        |          |                     |
|------------------------------------------------------------------------------------------------------------------------|------------------------|----------|---------------------|
| NO.                                                                                                                    | DATE                   | REVISION | BY                  |
| <b>Michael Baker</b> MICHAEL BAKER INTERNATIONAL<br>1255 FOURIER DRIVE<br>SUITE 100<br>INTERNATIONAL MADISON, WI 53717 |                        |          |                     |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION                                                                     |                        |          |                     |
| ACCEPTED                                                                                                               | <i>[Signature]</i> JLR | 12/02/25 | DATE                |
| CHIEF STRUCTURES DESIGN ENGINEER                                                                                       |                        |          |                     |
| <b>STRUCTURE B-62-47</b>                                                                                               |                        |          |                     |
| STH 131 OVER JUG CREEK                                                                                                 |                        |          |                     |
| COUNTY                                                                                                                 | VERNON                 | TOWN     | STARK               |
| DESIGN SPEC.<br>REHABILITATION N/A                                                                                     |                        |          |                     |
| DESIGNED BY                                                                                                            | DESIGNED CK'D          | DRAWN BY | PLANS CK'D          |
| ABP                                                                                                                    | AA                     | ABP      | LMVK                |
| <b>GENERAL PLAN</b>                                                                                                    |                        |          | SHEET 1 OF 3<br>329 |

STRUCTURE DESIGN CONTACTS:  
AARON BONK 608-261-0261  
LINDA KRUEGER 608-821-8700



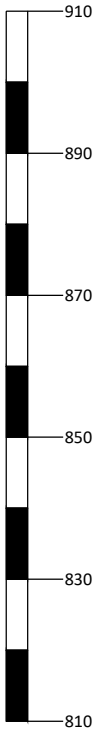
PLAN

(3 SPAN 45" PRESTRESSED GIRDER - CONCRETE OVERLAY)



ELEVATION

(LOOKING WEST)



GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1" DEEP SAW CUT.

"PROTECTIVE SURFACE TREATMENT" TO BE APPLIED TO THE ENTIRE TOP OF THE NEW CONCRETE OVERLAY.

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATIONS. COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

THE ENTIRE EXISTING VARIABLE DEPTH OVERLAY SHALL BE REMOVED TO SOUND CONCRETE FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "REMOVING CONCRETE MASONRY DECK OVERLAY B-62-47".

THE AVERAGE OVERLAY THICKNESS IS BASED ON THE MINIMUM OVERLAY THICKNESS PLUS ½-INCH TO ACCOUNT FOR VARIATIONS IN THE DECK SURFACE.

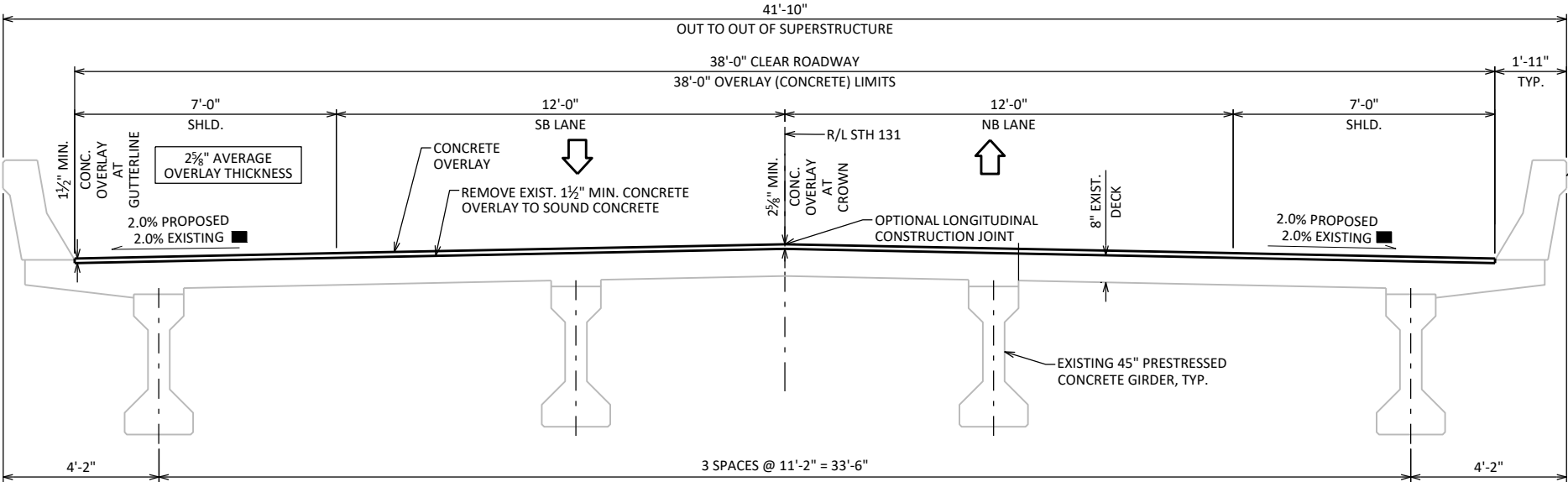
"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL-DEPTH DECK REPAIR" AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ANY EXCAVATION NECESSARY TO COMPLETE THE OVERLAY AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2⅝". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

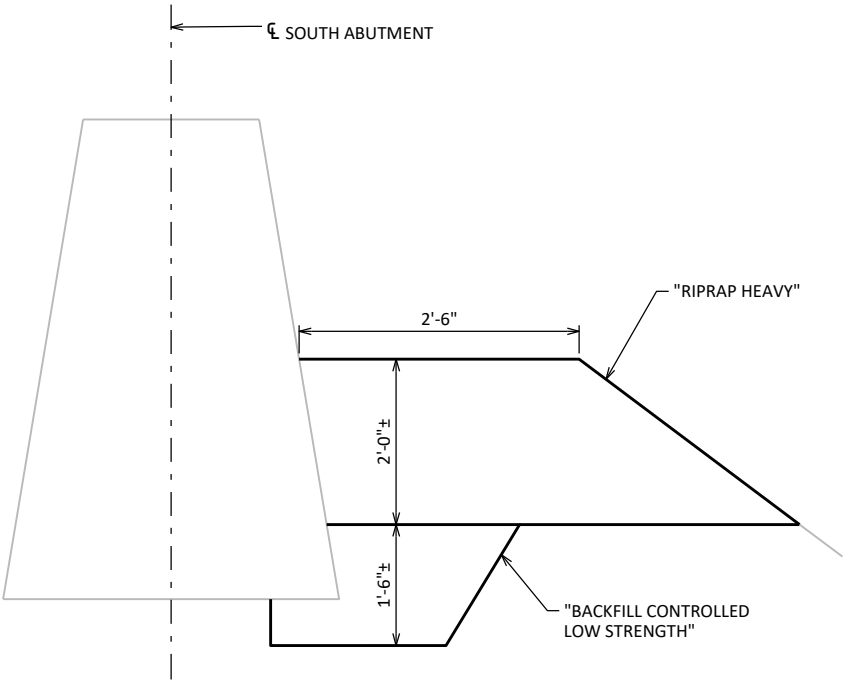
THE EXISTING STRUCTURE, B-62-47, IS A 3-SPAN PRESTRESSED CONCRETE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 41'-10" AND AN OVERALL LENGTH BETWEEN BACK OF ABUTMENTS OF 206'-9". THE ENTIRE BRIDGE DECK SHALL BE PREPARED FOR A NEW CONCRETE OVERLAY. CONCRETE SURFACE REPAIRS SHALL BE PERFORMED AS DETAILED ON THE PLANS AND AS DIRECTED BY THE ENGINEER. "BACKFILL CONTROLLED LOW STRENGTH" SHALL BE ADDED AT THE SOUTH ABUTMENT. GIRDER 3 NEAR THE SOUTH ABUTMENT SHALL HAVE "PRESTRESSED GIRDER SURFACE REPAIR" AND "FIBER WRAP REINFORCING NON-STRUCTURAL" PERFORMED ON IT.

- EXISTING CROSS SLOPE ON TOP OF EXISTING OVERLAY IS 2.0%.
- EXISTING CROSS SLOPE ON EXISTING DECK (BELOW OVERLAY) IS 1.5%.



CROSS SECTION THRU ROADWAY

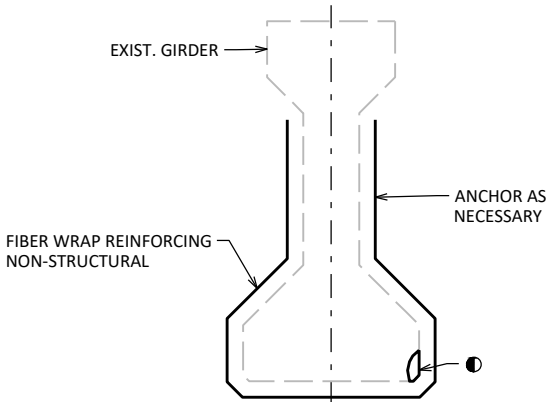
LOOKING NORTH



SECTION THRU SOUTH ABUTMENT

LOOKING WEST

WEST HALF OF SOUTH ABUTMENT TO BE REPAIRED WITH "BACKFILL CONTROLLED LOW STRENGTH" AS DIRECTED BY THE ENGINEER



FIBER WRAP REINFORCEMENT NON-STRUCTURAL

SOUTH END OF GIRDER 3 IN SPAN 1

FIBER WRAP REINFORCEMENT TO BE APPLIED AFTER THE FULL DEAD LOAD IS APPLIED TO THE GIRDER.

- REPAIR EDGE OF GIRDER. PAID SEPARATELY UNDER THE BID ITEM "PRESTRESSED GIRDER SURFACE REPAIR".

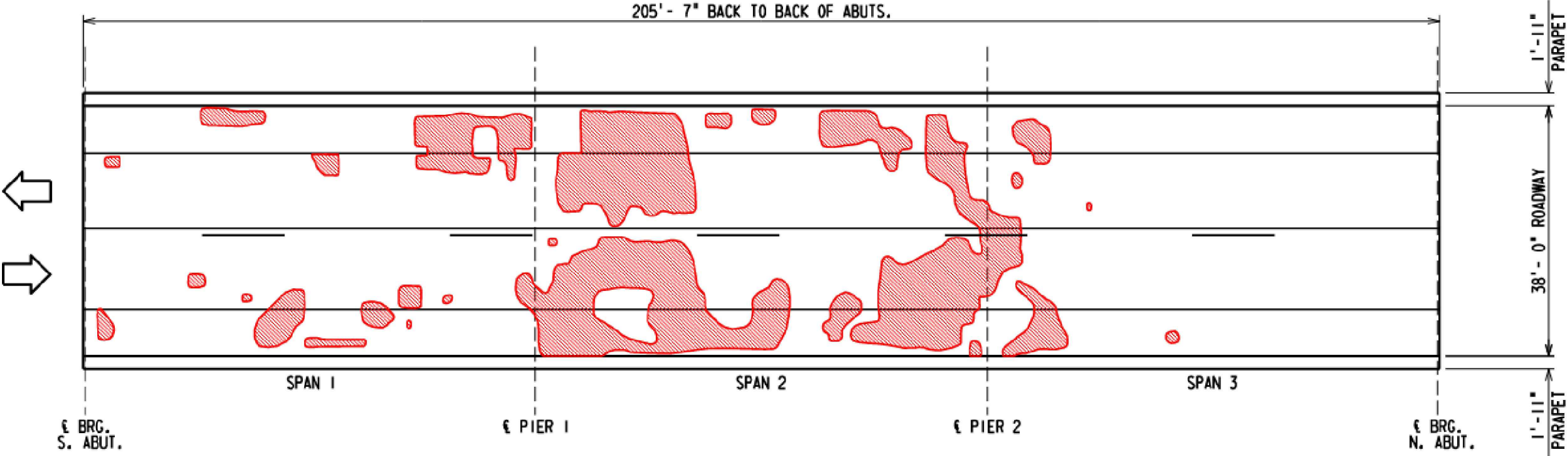
TOTAL ESTIMATED QUANTITIES

| ITEM NUMBER   | ITEM DESCRIPTION                                   | UNIT | TOTAL |
|---------------|----------------------------------------------------|------|-------|
| 203.0335.01   | DEBRIS CONTAINMENT OVER WATERWAY B-62-47           | EACH | 1     |
| 209.0200.S    | BACKFILL CONTROLLED LOW STRENGTH                   | CY   | 4     |
| 502.3200      | PROTECTIVE SURFACE TREATMENT                       | SY   | 868   |
| 509.0301      | PREPARATION DECKS TYPE 1                           | SY   | 332   |
| 509.0302      | PREPARATION DECKS TYPE 2                           | SY   | 133   |
| 509.0505.S    | CLEANING DECKS TO REAPPLY CONCRETE MASONRY OVERLAY | SY   | 868   |
| 509.1500      | CONCRETE SURFACE REPAIR                            | SF   | 20    |
| 509.2000      | FULL-DEPTH DECK REPAIR                             | SY   | 7     |
| 509.2500      | CONCRETE MASONRY OVERLAY DECKS                     | CY   | 91    |
| 509.9005.S.01 | REMOVING CONCRETE MASONRY DECK OVERLAY B-62-47     | SY   | 868   |
| 606.0300      | RIPRAP HEAVY                                       | CY   | 5     |
| SPV.0165.40   | FIBER WRAP REINFORCING NON-STRUCTURAL              | SF   | 32    |
| SPV.0165.41   | PRESTRESSED GIRDER SURFACE REPAIR                  | SF   | 3     |

NOTE: CONCRETE SURFACE REPAIR AND DECK PREPARATION QUANTITIES ARE APPROXIMATE AND WILL NEED TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

|                                                    |      |                     |            |
|----------------------------------------------------|------|---------------------|------------|
|                                                    |      |                     |            |
| NO.                                                | DATE | REVISION            | BY         |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |      |                     |            |
| STRUCTURE B-62-47                                  |      |                     |            |
|                                                    |      | DRAWN BY            | PLANS CK'D |
|                                                    |      | ABP                 | LMVK       |
| CROSS SECTION & QUANTITIES                         |      | SHEET 2 OF 3<br>330 |            |

SCALE =



PLAN

INFRARED THERMOGRAPHIC SURVEY RESULTS



| FIELD OBSERVATIONS SUMMARY |                 | STRUCTURE NO.<br>B-62-47 |      | LEGEND        |  |
|----------------------------|-----------------|--------------------------|------|---------------|--|
| ITEM                       | UNIT            | QUANT.                   | %    |               |  |
| TOTAL AREA                 | ft <sup>2</sup> | 7813                     |      | DELAMINATION  |  |
| SHADE/DEBRIS               | ft <sup>2</sup> | 0                        |      | SPALL         |  |
| DELAMINATION               | ft <sup>2</sup> | 1492                     | 19.1 | DEBOND        |  |
| SPALL                      | ft <sup>2</sup> | 0                        | 0    | ASPHALT PATCH |  |
| DEBOND                     | ft <sup>2</sup> | 0                        | 0    | PCC PATCH     |  |
| ASPHALT PATCH              | ft <sup>2</sup> | 0                        | 0    | SHADE/DEBRIS  |  |
| PCC PATCH                  | ft <sup>2</sup> | 0                        | 0    |               |  |



SURFACE TYPE: CONCRETE OVERLAY  
INFRARED INSPECTION DATE: 6/27/22

|                                                    |      |                     |    |
|----------------------------------------------------|------|---------------------|----|
| NO.                                                | DATE | REVISION            | BY |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |      |                     |    |
| STRUCTURE B-62-47                                  |      |                     |    |
| DRAWN BY<br>ABP                                    |      | PLANS CK'D<br>LMVK  |    |
| INFRARED THERMOGRAPHIC DECK SURVEY                 |      | SHEET 3 OF 3<br>331 |    |

## DESIGN DATA

## LIVE LOAD:

TAKEN FROM HSI, 02/03/2023  
DESIGN LOADING: HS20  
INVENTORY RATING FACTOR: RF = 1.25  
OPERATING RATING FACTOR: RF = 1.63  
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

## TRAFFIC DATA

STH 131  
ADT = 800 (2027)  
ADT = 840 (2037)  
R.D.S. = 50 MPH

## CURVE DATA

STH 131  
P.I. = 417+00.96  
 $\Delta = 23^\circ 24' 49''$  LT  
D = 1°-29'-57"  
T = 791.97'  
L = 1561.83'  
R = 3822.00'  
S.E. = 0.036 '/'  
P.C. = 409+08.99  
P.T. = 424+70.83

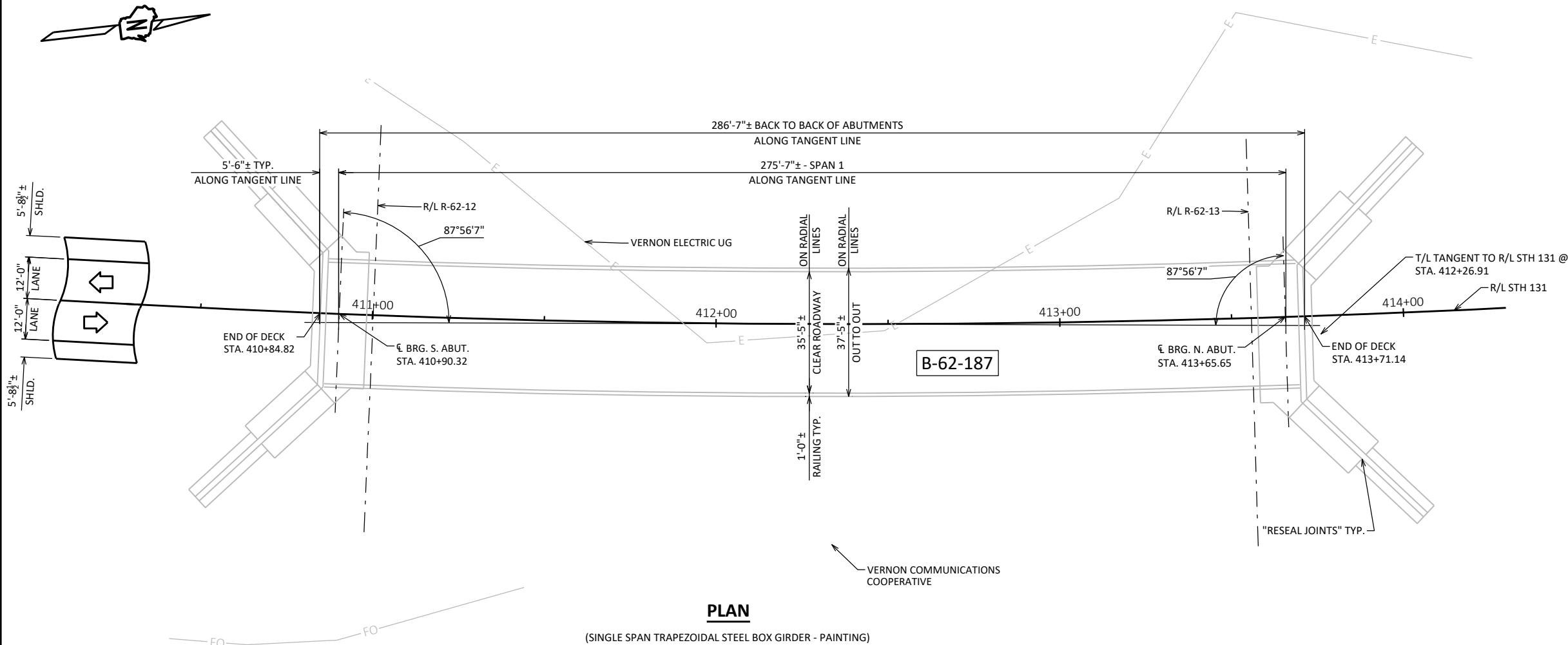


## LIST OF DRAWINGS:

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. PAINTING DETAILS

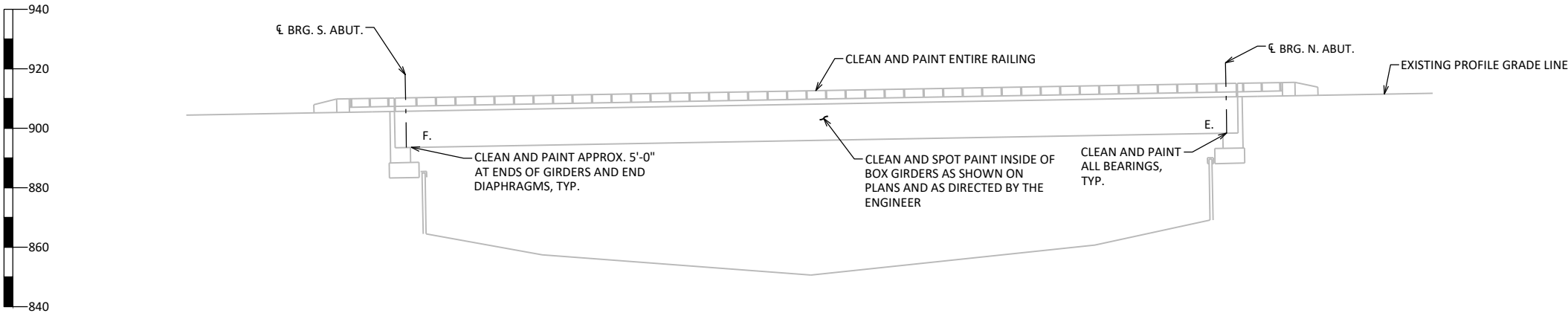
|                                                    |                                                                                              |                                                                                                          |                            |
|----------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------|
| NO.                                                | DATE                                                                                         | REVISION                                                                                                 | BY                         |
| <b>Michael Baker</b>                               |                                                                                              | MICHAEL BAKER INTERNATIONAL<br>1255 FOURIER DRIVE<br>SUITE 100<br><b>INTERNATIONAL</b> MADISON, WI 53717 |                            |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |                                                                                              |                                                                                                          |                            |
| ACCEPTED                                           |  J.L.R. |                                                                                                          | <b>12/02/25</b>            |
| CHIEF STRUCTURES DESIGN ENGINEER                   |                                                                                              | DATE                                                                                                     |                            |
| <b>STRUCTURE B-62-187</b>                          |                                                                                              |                                                                                                          |                            |
| STH 131 OVER UNNAMED STREAM                        |                                                                                              |                                                                                                          |                            |
| COUNTY                                             | VERNON                                                                                       | TOWN                                                                                                     | WHITESTOWN                 |
| DESIGN SPEC.<br>REHABILITATION N/A                 |                                                                                              |                                                                                                          |                            |
| DESIGNED BY                                        | ABP                                                                                          | DESIGNED CK'D                                                                                            | LMVK                       |
| DRAWN BY                                           | ABP                                                                                          | PLANS CK'D                                                                                               | LMVK                       |
| <b>GENERAL PLAN</b>                                |                                                                                              |                                                                                                          | SHEET 1 OF 3<br><b>332</b> |

STRUCTURE DESIGN CONTACTS:  
AARON BONK 608-261-0261  
LINDA KRUEGER 608-821-8700



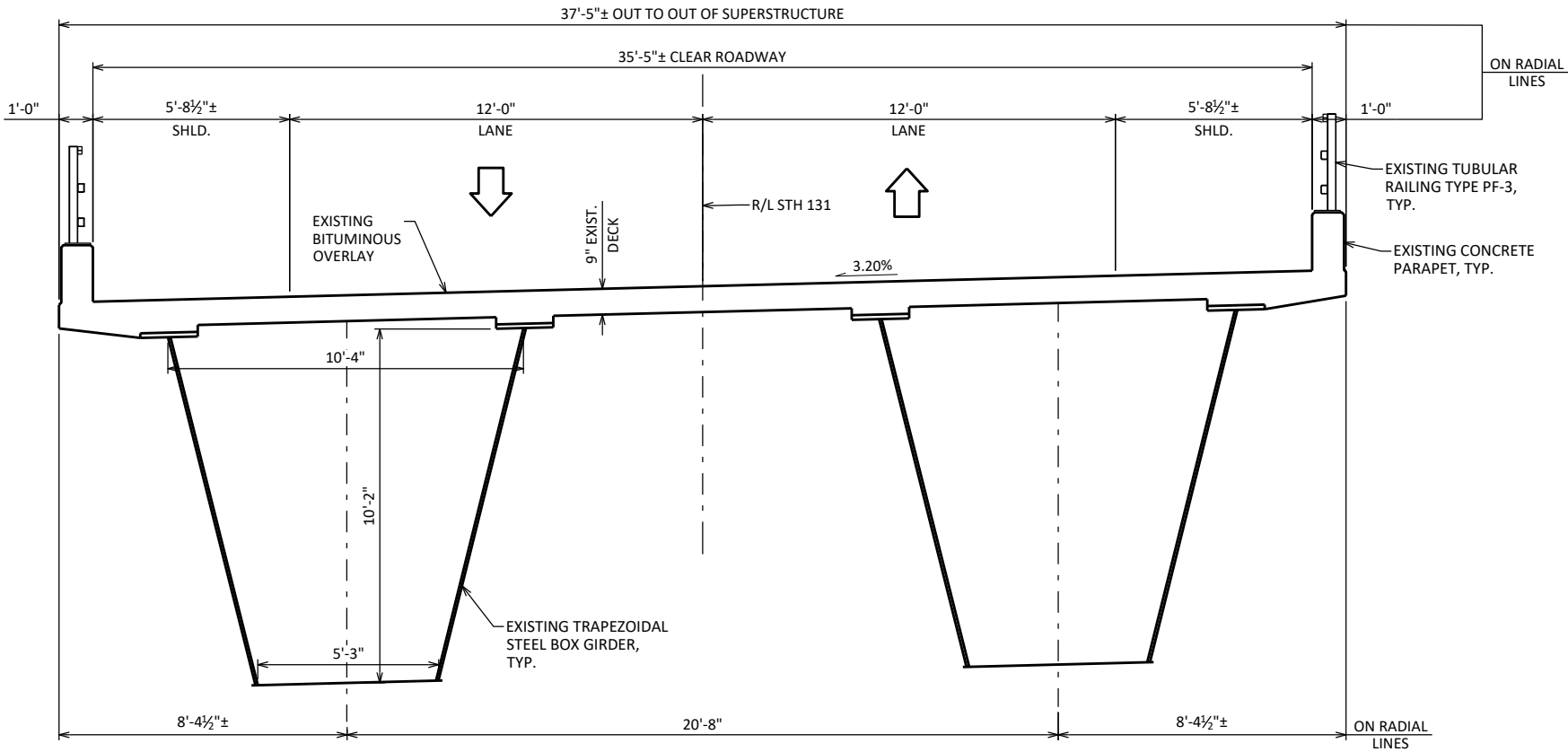
## PLAN

(SINGLE SPAN TRAPEZOIDAL STEEL BOX GIRDER - PAINTING)



## ELEVATION

(LOOKING WEST)



CROSS SECTION  
(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

| ITEM NUMBER   | ITEM DESCRIPTION                                                         | UNIT | TOTAL |
|---------------|--------------------------------------------------------------------------|------|-------|
| 517.1801.S.01 | STRUCTURE REPAINTING RECYCLED ABRASIVE B-62-187                          | EACH | 1     |
| 517.4501.S.01 | NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-62-187 | EACH | 1     |
| 517.6001.S    | PORTABLE DECONTAMINATION FACILITY                                        | EACH | 1     |
| SPV.0090.40   | RESEAL JOINTS                                                            | LF   | 130   |

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

THE COLOR OF THE FINISH TOP COAT ON THE INSIDE OF BOX GIRDERS SHALL BE WHITE, (AMS STANDARD COLOR NO. 27925). THE COLOR OF THE FINISH TOP COAT ON ALL OTHER PAINT AREAS SHALL BE BROWN, (AMS STANDARD COLOR NO. 20059).

THE BID ITEM "STRUCTURE REPAINTING RECYCLED ABRASIVE B-62-187" INCLUDES CLEANING AND PAINTING BEARINGS, APPROX. 5' AT EACH END OF GIRDERS, END DIAPHRAGMS, SPOT LOCATIONS ON INTERIOR OF GIRDERS AND BRIDGE RAILING.

THE EXISTING STRUCTURE, B-62-187 IS A SINGLE SPAN TRAPEZOIDAL STEEL BOX GIRDER STRUCTURE WITH AN OVERALL OUT TO OUT WIDTH OF 37'-5"± AND AN OVERALL LENGTH BETWEEN BACK OF ABUTMENTS OF 286'-7±". THE BEARINGS, APPROX. 5' AT EACH END OF GIRDERS, END DIAPHRAGMS, SPOT LOCATIONS ON INTERIOR OF GIRDER AND BRIDGE RAILING SHALL BE PAINTED.

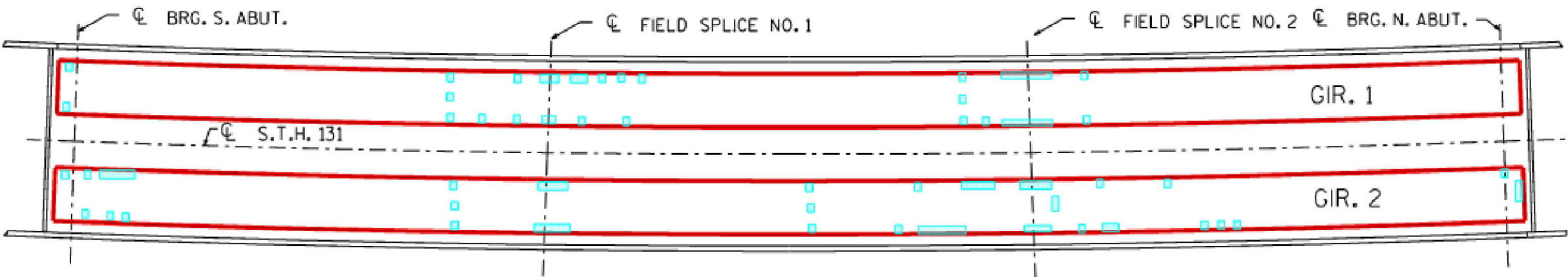
STATE PROJECT NUMBER

5110-06-70

|                                                    |      |              |                 |
|----------------------------------------------------|------|--------------|-----------------|
| NO.                                                | DATE | REVISION     | BY              |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |      |              |                 |
| STRUCTURE B-62-187                                 |      |              |                 |
| DRAWN BY                                           |      | ABP          | PLANS CK'D LMVK |
| CROSS SECTION & QUANTITIES                         |      | SHEET 2 OF 3 |                 |
|                                                    |      | 333          |                 |

SCALE =





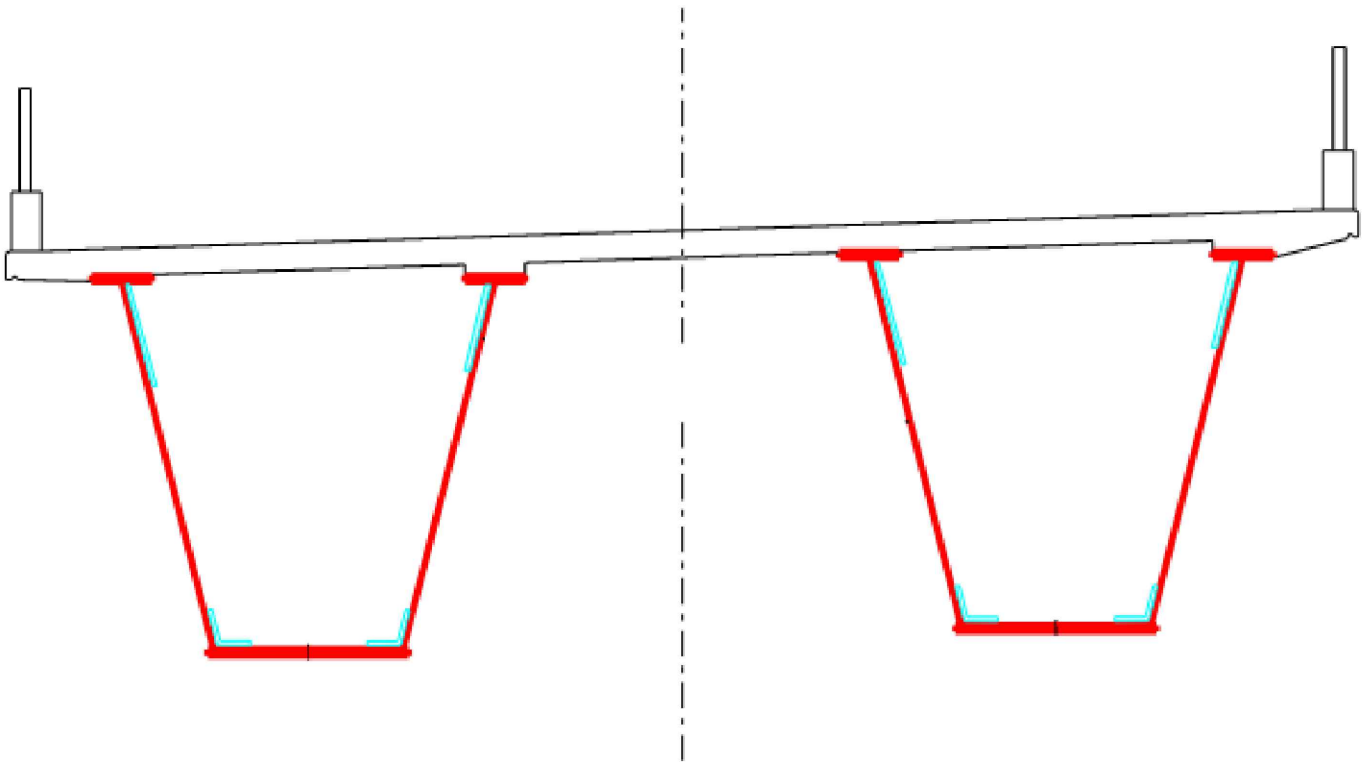
PLAN

**LEGEND:**

ESTIMATED AREAS OF PAINT FAILURE

**NOTE:**

THIS DETAIL IS PROVIDED FOR INFORMATION ONLY. AREAS SHOWN ARE APPROXIMATE, AND PAINT AREAS IN NEED OF REPAIR WILL NEED TO BE VERIFIED IN THE FIELD BY THE ENGINEER.



CROSS SECTION THRU ROADWAY LOOKING NORTH

| NO.                                                | DATE | REVISION            | BY                    |
|----------------------------------------------------|------|---------------------|-----------------------|
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |      |                     |                       |
| STRUCTURE B-62-187                                 |      |                     |                       |
| DRAWN<br>BY                                        |      | ABP                 | PLANS<br>CK'D<br>LMVK |
| PAINTING DETAILS                                   |      | SHEET 3 OF 3<br>334 |                       |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REAL STATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |        | CUMULATIVE VOL (CY) |                       |               |
|-----------|--------------|----------|-----------|------|--------------------------------------|--------|---------------------|-----------------------|---------------|
|           |              |          | CUT       | FILL | CUT                                  | FILL   | CUT<br>1.00         | EXPANDED FILL<br>1.25 | MASS ORDINATE |
|           |              |          |           |      | NOTE 1                               | NOTE 3 | NOTE 1              |                       | NOTE 8        |
| 164+73.60 | 16473.60     | 0.00     | 12.49     | 0.00 | 0                                    | 0      | 0                   | 0                     | 0             |
| 165+00.00 | 16500.00     | 26.40    | 10.12     | 0.00 | 11                                   | 0      | 11                  | 0                     | 11            |
| 165+50.00 | 16550.00     | 50.00    | 11.95     | 0.00 | 20                                   | 0      | 31                  | 0                     | 31            |
| 165+98.13 | 16598.13     | 48.13    | 18.87     | 0.00 | 27                                   | 0      | 58                  | 0                     | 58            |
| 166+23.11 | 16623.11     | 24.98    | 20.43     | 0.00 | 18                                   | 0      | 76                  | 0                     | 76            |
| 166+48.09 | 16648.09     | 24.98    | 19.44     | 0.00 | 18                                   | 0      | 94                  | 0                     | 94            |
| 167+00.00 | 16700.00     | 51.91    | 3.98      | 0.00 | 23                                   | 0      | 117                 | 0                     | 117           |
| 167+50.00 | 16750.00     | 50.00    | 2.81      | 0.00 | 6                                    | 0      | 123                 | 0                     | 123           |
| 168+00.00 | 16800.00     | 50.00    | 11.10     | 0.00 | 13                                   | 0      | 136                 | 0                     | 136           |
| 168+50.00 | 16850.00     | 50.00    | 10.63     | 0.00 | 20                                   | 0      | 156                 | 0                     | 156           |
| 169+00.00 | 16900.00     | 50.00    | 32.58     | 0.00 | 40                                   | 0      | 196                 | 0                     | 196           |
| 169+45.12 | 16945.12     | 45.12    | 31.43     | 0.00 | 53                                   | 0      | 249                 | 0                     | 249           |
| 169+70.10 | 16970.10     | 24.98    | 33.34     | 0.00 | 30                                   | 0      | 279                 | 0                     | 279           |
| 169+95.08 | 16995.08     | 24.98    | 27.96     | 0.00 | 28                                   | 0      | 307                 | 0                     | 307           |
| 170+50.00 | 17050.00     | 54.92    | 21.15     | 0.00 | 50                                   | 0      | 357                 | 0                     | 357           |
| 171+00.00 | 17100.00     | 50.00    | 21.26     | 0.00 | 39                                   | 0      | 396                 | 0                     | 396           |
| 171+50.00 | 17150.00     | 50.00    | 18.10     | 0.00 | 36                                   | 0      | 432                 | 0                     | 432           |
| 172+00.00 | 17200.00     | 50.00    | 17.73     | 0.00 | 33                                   | 0      | 465                 | 0                     | 465           |
| 172+50.00 | 17250.00     | 50.00    | 16.78     | 0.00 | 32                                   | 0      | 497                 | 0                     | 497           |
| 173+00.00 | 17300.00     | 50.00    | 14.94     | 0.00 | 29                                   | 0      | 526                 | 0                     | 526           |
| 173+50.00 | 17350.00     | 50.00    | 15.27     | 0.00 | 28                                   | 0      | 554                 | 0                     | 554           |
| 174+00.00 | 17400.00     | 50.00    | 16.13     | 0.00 | 29                                   | 0      | 583                 | 0                     | 583           |
| 174+50.00 | 17450.00     | 50.00    | 14.19     | 0.00 | 28                                   | 0      | 611                 | 0                     | 611           |
| 175+00.00 | 17500.00     | 50.00    | 15.84     | 0.00 | 28                                   | 0      | 639                 | 0                     | 639           |
| 175+50.00 | 17550.00     | 50.00    | 15.67     | 0.00 | 29                                   | 0      | 668                 | 0                     | 668           |
| 176+00.00 | 17600.00     | 50.00    | 16.37     | 0.00 | 30                                   | 0      | 698                 | 0                     | 698           |
| 176+50.00 | 17650.00     | 50.00    | 15.84     | 0.00 | 30                                   | 0      | 728                 | 0                     | 728           |
| 177+00.00 | 17700.00     | 50.00    | 14.16     | 0.01 | 28                                   | 0      | 756                 | 0                     | 756           |
| 177+50.00 | 17750.00     | 50.00    | 16.27     | 0.02 | 28                                   | 0      | 784                 | 0                     | 784           |
| 178+00.00 | 17800.00     | 50.00    | 16.88     | 0.00 | 31                                   | 0      | 815                 | 0                     | 815           |
| 178+50.00 | 17850.00     | 50.00    | 15.54     | 0.00 | 30                                   | 0      | 845                 | 0                     | 845           |
| 179+01.33 | 17901.33     | 51.33    | 14.66     | 0.00 | 29                                   | 0      | 874                 | 0                     | 874           |
| 179+26.31 | 17926.31     | 24.98    | 34.26     | 0.00 | 23                                   | 0      | 897                 | 0                     | 897           |
| 179+51.29 | 17951.29     | 24.98    | 39.97     | 0.00 | 34                                   | 0      | 931                 | 0                     | 931           |
| 179+91.92 | 17991.92     | 40.63    | 38.77     | 0.00 | 59                                   | 0      | 990                 | 0                     | 990           |
| 180+16.90 | 18016.90     | 24.98    | 34.13     | 0.00 | 34                                   | 0      | 1024                | 0                     | 1024          |
| 180+41.88 | 18041.88     | 24.98    | 26.85     | 0.00 | 28                                   | 0      | 1052                | 0                     | 1052          |
| 181+00.00 | 18100.00     | 58.12    | 37.51     | 0.00 | 69                                   | 0      | 1121                | 0                     | 1121          |
| 181+50.00 | 18150.00     | 50.00    | 16.37     | 0.00 | 50                                   | 0      | 1171                | 0                     | 1171          |
| 181+64.70 | 18164.70     | 14.70    | 15.91     | 0.00 | 9                                    | 0      | 1180                | 0                     | 1180          |

|                                         |                                                                                                                                                                                                            |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NOTES:                                  |                                                                                                                                                                                                            |
| 2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL | THIS DOES NOT SHOW UP IN CROSS SECTIONS                                                                                                                                                                    |
| 3 - FILL                                | DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME                                                                                                                                                              |
| 8 - MASS ORDINATE                       | IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)] |
| 8 - MASS ORDINATE                       | IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]                                              |
| 8 - MASS ORDINATE                       | IF MARSH AND EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - EXPANDED ROCK) * FILL FACTOR)]                                              |
| 8 - MASS ORDINATE                       | IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - EXPANDED ROCK) * FILL FACTOR)]                                                                                            |

| DIVISION 1 - ALIGNMENT - STH 131 |              |          |           |       |                                      |                |                       |                       |                         |
|----------------------------------|--------------|----------|-----------|-------|--------------------------------------|----------------|-----------------------|-----------------------|-------------------------|
| STATION                          | REAL STATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |                | CUMULATIVE VOL (CY)   |                       |                         |
|                                  |              |          | CUT       | FILL  | CUT<br>NOTE 1                        | FILL<br>NOTE 3 | CUT<br>1.00<br>NOTE 1 | EXPANDED FILL<br>1.25 | MASS ORDINATE<br>NOTE 8 |
|                                  |              |          |           |       |                                      |                |                       |                       |                         |
| 256+72.25                        | 25672.28     | 0.00     | 9.36      | 0.00  | 0                                    | 0              | 0                     | 0                     | 0                       |
| 257+50.00                        | 25750.00     | 77.72    | 11.10     | 0.00  | 29                                   | 0              | 29                    | 0                     | 29                      |
| 257+84.33                        | 25784.33     | 34.33    | 32.42     | 0.00  | 28                                   | 0              | 57                    | 0                     | 57                      |
| 258+09.61                        | 25809.61     | 25.28    | 32.95     | 0.00  | 31                                   | 0              | 88                    | 0                     | 88                      |
| 258+34.84                        | 25834.84     | 25.23    | 34.45     | 0.00  | 31                                   | 0              | 119                   | 0                     | 119                     |
| 259+00.00                        | 25900.00     | 65.16    | 22.17     | 0.00  | 68                                   | 0              | 187                   | 0                     | 187                     |
| 259+09.05                        | 25909.05     | 9.05     | 19.22     | 0.00  | 7                                    | 0              | 194                   | 0                     | 194                     |
| 259+33.75                        | 25933.75     | 24.7     | 16.06     | 0.00  | 16                                   | 0              | 210                   | 0                     | 210                     |
| 259+58.47                        | 25958.47     | 24.72    | 14.53     | 0.00  | 14                                   | 0              | 224                   | 0                     | 224                     |
| 260+00.00                        | 26000.00     | 41.53    | 13.16     | 0.06  | 21                                   | 0              | 245                   | 0                     | 245                     |
| 260+50.00                        | 26050.00     | 50       | 9.94      | 0.11  | 21                                   | 0              | 266                   | 0                     | 266                     |
| 261+00.00                        | 26100.00     | 50       | 7.35      | 16.78 | 16                                   | 16             | 282                   | 20                    | 262                     |
| 261+46.50                        | 26146.50     | 46.5     | 2.05      | 1.28  | 8                                    | 16             | 290                   | 40                    | 250                     |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REAL STATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |                | CUMULATIVE VOL (CY)   |                       |                         |
|-----------|--------------|----------|-----------|------|--------------------------------------|----------------|-----------------------|-----------------------|-------------------------|
|           |              |          | CUT       | FILL | CUT<br>NOTE 1                        | FILL<br>NOTE 3 | CUT<br>1.00<br>NOTE 1 | EXPANDED FILL<br>1.25 | MASS ORDINATE<br>NOTE 8 |
|           |              |          |           |      |                                      |                |                       |                       |                         |
| 226+59.67 | 22659.67     | 0.00     | 22.67     | 0.00 | 0                                    | 0              | 0                     | 0                     | 0                       |
| 227+04.76 | 22704.76     | 45.09    | 21.68     | 0.00 | 37                                   | 0              | 37                    | 0                     | 37                      |
| 227+50.00 | 22750.00     | 45.24    | 20.70     | 0.00 | 36                                   | 0              | 73                    | 0                     | 73                      |
| 227+88.49 | 22788.49     | 38.49    | 21.86     | 0.00 | 30                                   | 0              | 103                   | 0                     | 103                     |
| 228+13.25 | 22813.25     | 24.76    | 22.12     | 0.00 | 20                                   | 0              | 123                   | 0                     | 123                     |
| 228+38.04 | 22838.04     | 24.79    | 17.41     | 0.00 | 18                                   | 0              | 141                   | 0                     | 141                     |
| 229+00.00 | 22900.00     | 61.96    | 14.36     | 0.00 | 36                                   | 0              | 177                   | 0                     | 177                     |
| 229+50.00 | 22950.00     | 50.00    | 11.05     | 0.00 | 24                                   | 0              | 201                   | 0                     | 201                     |
| 230+00.00 | 23000.00     | 50.00    | 10.36     | 0.00 | 20                                   | 0              | 221                   | 0                     | 221                     |
| 230+50.00 | 23050.00     | 50.00    | 8.37      | 0.00 | 17                                   | 0              | 238                   | 0                     | 238                     |
| 231+00.00 | 23100.00     | 50.00    | 7.16      | 0.00 | 14                                   | 0              | 252                   | 0                     | 252                     |
| 231+50.00 | 23150.00     | 50.00    | 6.70      | 0.00 | 13                                   | 0              | 265                   | 0                     | 265                     |
| 232+00.00 | 23200.00     | 50.00    | 7.05      | 0.00 | 13                                   | 0              | 278                   | 0                     | 278                     |
| 232+50.00 | 23250.00     | 50.00    | 10.75     | 0.00 | 16                                   | 0              | 294                   | 0                     | 294                     |
| 233+03.82 | 23303.82     | 53.82    | 21.94     | 0.00 | 33                                   | 0              | 327                   | 0                     | 327                     |
| 233+28.65 | 23328.65     | 24.83    | 16.95     | 0.00 | 18                                   | 0              | 345                   | 0                     | 345                     |
| 233+53.47 | 23353.47     | 24.82    | 14.84     | 0.00 | 15                                   | 0              | 360                   | 0                     | 360                     |
| 234+00.00 | 23400.00     | 46.53    | 10.12     | 0.00 | 22                                   | 0              | 382                   | 0                     | 382                     |
| 234+50.00 | 23450.00     | 50.00    | 9.83      | 0.00 | 18                                   | 0              | 400                   | 0                     | 400                     |
| 235+00.00 | 23500.00     | 50.00    | 11.00     | 0.00 | 19                                   | 0              | 419                   | 0                     | 419                     |
| 235+50.00 | 23550.00     | 50.00    | 7.74      | 0.00 | 17                                   | 0              | 436                   | 0                     | 436                     |
| 235+65.25 | 23565.25     | 15.25    | 0.00      | 0.00 | 2                                    | 0              | 438                   | 0                     | 438                     |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REAL STATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |                | CUMULATIVE VOL (CY)   |                       |                         |
|-----------|--------------|----------|-----------|-------|--------------------------------------|----------------|-----------------------|-----------------------|-------------------------|
|           |              |          | CUT       | FILL  | CUT<br>NOTE 1                        | FILL<br>NOTE 3 | CUT<br>1.00<br>NOTE 1 | EXPANDED FILL<br>1.25 | MASS ORDINATE<br>NOTE 8 |
|           |              |          |           |       |                                      |                |                       |                       |                         |
| 263+80.87 | 26380.87     | 0.00     | 14.43     | 9.26  | 0                                    | 0              | 0                     | 0                     | 0                       |
| 264+00.00 | 26400.00     | 19.13    | 7.41      | 11.16 | 8                                    | 7              | 8                     | 9                     | -1                      |
| 264+50.00 | 26450.00     | 50       | 8.08      | 0.00  | 14                                   | 10             | 22                    | 21                    | 1                       |
| 265+00.00 | 26500.00     | 50       | 9.87      | 0.00  | 17                                   | 0              | 39                    | 21                    | 18                      |
| 265+50.00 | 26550.00     | 50       | 9.09      | 0.00  | 18                                   | 0              | 57                    | 21                    | 36                      |
| 266+00.00 | 26600.00     | 50       | 8.73      | 0.00  | 16                                   | 0              | 73                    | 21                    | 52                      |
| 266+50.00 | 26650.00     | 50       | 9.30      | 0.00  | 17                                   | 0              | 90                    | 21                    | 69                      |
| 267+00.00 | 26700.00     | 50       | 8.36      | 0.00  | 16                                   | 0              | 106                   | 21                    | 85                      |
| 267+50.00 | 26750.00     | 50       | 7.85      | 0.00  | 15                                   | 0              | 121                   | 21                    | 100                     |
| 268+00.00 | 26800.00     | 50       | 4.42      | 0.00  | 11                                   | 0              | 132                   | 21                    | 111                     |
| 268+50.00 | 26850.00     | 50       | 4.74      | 0.00  | 8                                    | 0              | 140                   | 21                    | 119                     |
| 269+00.00 | 26900.00     | 50       | 4.55      | 0.00  | 9                                    | 0              | 149                   | 21                    | 128                     |
| 269+50.00 | 26950.00     | 50       | 4.56      | 0.00  | 8                                    | 0              | 157                   | 21                    | 136                     |
| 270+00.00 | 27000.00     | 50       | 4.40      | 0.00  | 8                                    | 0              | 165                   | 21                    | 144                     |
| 270+50.00 | 27050.00     | 50       | 3.46      | 0.00  | 7                                    | 0              | 172                   | 21                    | 151                     |
| 271+00.00 | 27100.00     | 50       | 3.51      | 0.00  | 6                                    | 0              | 178                   | 21                    | 157                     |
| 271+50.00 | 27150.00     | 50       | 2.82      | 0.00  | 6                                    | 0              | 184                   | 21                    | 163                     |
| 272+06.06 | 27206.06     | 56.06    | 8.10      | 0.00  | 11                                   | 0              | 195                   | 21                    | 174                     |
| 272+31.04 | 27231.04     | 24.98    | 8.77      | 0.50  | 8                                    | 0              | 203                   | 21                    | 182                     |
| 272+56.02 | 27256.02     | 24.98    | 7.88      | 3.78  | 8                                    | 2              | 211                   | 24                    | 187                     |
| 273+00.00 | 27300.00     | 43.98    | 8.84      | 0.74  | 14                                   | 4              | 225                   | 29                    | 196                     |
| 273+50.00 | 27350.00     | 50       | 7.65      | 0.13  | 15                                   | 1              | 240                   | 30                    | 210                     |
| 273+76.06 | 27376.06     | 26.06    | 0.00      | 0.00  | 4                                    | 0              | 244                   | 30                    | 214                     |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REAL STATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |        | CUMULATIVE VOL (CY) |                       |              |
|-----------|--------------|----------|-----------|------|--------------------------------------|--------|---------------------|-----------------------|--------------|
|           |              |          | CUT       | FILL | CUT                                  | FILL   | CUT<br>1.00         | EXPANDED FILL<br>1.25 | MASS ORDNATE |
|           |              |          |           |      | NOTE 1                               | NOTE 3 | NOTE 1              |                       | NOTE 8       |
| 291+11.91 | 29111.91     | 0.00     | 13.05     | 0.00 | 0                                    | 0      | 0                   | 0                     | 0            |
| 291+50.00 | 29150.00     | 38.09    | 8.15      | 0.00 | 15                                   | 0      | 15                  | 0                     | 15           |
| 292+00.00 | 29200.00     | 50.00    | 12.50     | 0.00 | 19                                   | 0      | 34                  | 0                     | 34           |
| 292+30.97 | 29230.97     | 30.97    | 18.79     | 0.26 | 18                                   | 0      | 52                  | 0                     | 52           |
| 292+55.95 | 29255.95     | 24.98    | 19.34     | 0.59 | 18                                   | 0      | 70                  | 0                     | 70           |
| 292+81.04 | 29281.04     | 25.09    | 23.77     | 0.76 | 20                                   | 1      | 90                  | 1                     | 89           |
| 293+00.00 | 29300.00     | 18.96    | 27.42     | 0.28 | 18                                   | 0      | 108                 | 1                     | 107          |
| 293+25.30 | 29325.30     | 25.30    | 27.53     | 0.00 | 26                                   | 0      | 134                 | 1                     | 133          |
| 293+50.28 | 29350.28     | 24.98    | 31.81     | 0.00 | 27                                   | 0      | 161                 | 1                     | 160          |
| 293+75.26 | 29375.26     | 24.98    | 31.15     | 0.00 | 29                                   | 0      | 190                 | 1                     | 189          |
| 294+00.00 | 29400.00     | 24.74    | 15.84     | 0.00 | 22                                   | 0      | 212                 | 1                     | 211          |
| 294+50.00 | 29450.00     | 50.00    | 12.80     | 0.44 | 27                                   | 0      | 239                 | 1                     | 238          |
| 295+00.00 | 29500.00     | 50.00    | 11.52     | 0.96 | 23                                   | 1      | 262                 | 3                     | 260          |
| 295+50.00 | 29550.00     | 50.00    | 16.38     | 0.02 | 26                                   | 1      | 288                 | 4                     | 284          |
| 296+00.00 | 29600.00     | 50.00    | 17.42     | 0.00 | 31                                   | 0      | 319                 | 4                     | 315          |
| 296+50.00 | 29650.00     | 50.00    | 15.17     | 0.00 | 30                                   | 0      | 349                 | 4                     | 345          |
| 297+00.00 | 29700.00     | 50.00    | 15.26     | 0.00 | 28                                   | 0      | 377                 | 4                     | 373          |
| 297+50.00 | 29750.00     | 50.00    | 10.45     | 0.00 | 24                                   | 0      | 401                 | 4                     | 397          |
| 298+00.00 | 29800.00     | 50.00    | 0.00      | 0.00 | 10                                   | 0      | 411                 | 4                     | 407          |
| 298+46.89 | 29846.89     | 46.89    | 0.00      | 0.00 | 0                                    | 0      | 411                 | 4                     | 407          |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REAL STATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |        | CUMULATIVE VOL (CY) |                       |              |
|-----------|--------------|----------|-----------|------|--------------------------------------|--------|---------------------|-----------------------|--------------|
|           |              |          | CUT       | FILL | CUT                                  | FILL   | CUT<br>1.00         | EXPANDED FILL<br>1.25 | MASS ORDNATE |
|           |              |          |           |      | NOTE 1                               | NOTE 3 | NOTE 1              |                       | NOTE 8       |
| 315+12.88 | 31512.88     | 0.00     | 11.40     | 0.00 | 0                                    | 0      | 0                   | 0                     | 0            |
| 315+25.04 | 31525.04     | 12.16    | 14.32     | 0.00 | 6                                    | 0      | 6                   | 0                     | 6            |
| 315+48.99 | 31548.99     | 23.95    | 10.79     | 0.00 | 11                                   | 0      | 17                  | 0                     | 17           |
| 315+73.00 | 31573.00     | 24.01    | 6.51      | 0.63 | 8                                    | 0      | 25                  | 0                     | 25           |
| 316+00.00 | 31600.00     | 27.00    | 5.56      | 0.25 | 6                                    | 0      | 31                  | 0                     | 31           |
| 316+50.00 | 31650.00     | 50.00    | 4.95      | 2.35 | 10                                   | 2      | 41                  | 3                     | 39           |
| 317+00.00 | 31700.00     | 50.00    | 4.23      | 1.06 | 8                                    | 3      | 49                  | 6                     | 43           |
| 317+50.00 | 31750.00     | 50.00    | 5.53      | 0.91 | 9                                    | 2      | 58                  | 9                     | 49           |
| 318+00.00 | 31800.00     | 50.00    | 5.88      | 0.97 | 11                                   | 2      | 69                  | 11                    | 58           |
| 318+50.00 | 31850.00     | 50.00    | 6.72      | 0.49 | 12                                   | 1      | 81                  | 13                    | 69           |
| 319+00.00 | 31900.00     | 50.00    | 5.48      | 1.68 | 11                                   | 2      | 92                  | 15                    | 77           |
| 319+14.32 | 31914.32     | 14.32    | 7.72      | 0.14 | 4                                    | 0      | 96                  | 15                    | 81           |
| 319+39.30 | 31939.30     | 24.98    | 7.84      | 0.00 | 7                                    | 0      | 103                 | 15                    | 88           |
| 319+50.00 | 31950.00     | 10.70    | 9.18      | 0.00 | 3                                    | 0      | 106                 | 15                    | 91           |
| 319+64.28 | 31964.28     | 14.28    | 11.16     | 0.00 | 5                                    | 0      | 111                 | 15                    | 96           |
| 320+00.00 | 32000.00     | 35.72    | 19.41     | 0.00 | 20                                   | 0      | 131                 | 15                    | 116          |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REAL STATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |        | CUMULATIVE VOL (CY) |                       |              |
|-----------|--------------|----------|-----------|------|--------------------------------------|--------|---------------------|-----------------------|--------------|
|           |              |          | CUT       | FILL | CUT                                  | FILL   | CUT<br>1.00         | EXPANDED FILL<br>1.25 | MASS ORDNATE |
|           |              |          |           |      | NOTE 1                               | NOTE 3 | NOTE 1              |                       | NOTE 8       |
| 307+20.23 | 30720.23     | 0.00     | 38.92     | 0.00 | 0                                    | 0      | 0                   | 0                     | 0            |
| 307+50.00 | 30750.00     | 29.77    | 15.56     | 0.00 | 30                                   | 0      | 30                  | 0                     | 30           |
| 308+00.00 | 30800.00     | 50.00    | 23.54     | 0.00 | 36                                   | 0      | 66                  | 0                     | 66           |
| 308+50.00 | 30850.00     | 50.00    | 18.30     | 0.00 | 39                                   | 0      | 105                 | 0                     | 105          |
| 309+00.00 | 30900.00     | 50.00    | 14.57     | 0.00 | 30                                   | 0      | 135                 | 0                     | 135          |
| 309+49.90 | 30949.90     | 49.90    | 15.50     | 8.71 | 28                                   | 8      | 163                 | 10                    | 153          |
| 309+60.55 | 30960.55     | 10.65    | 16.00     | 5.06 | 6                                    | 3      | 169                 | 14                    | 155          |
| 309+74.58 | 30974.58     | 14.03    | 11.87     | 5.74 | 7                                    | 3      | 176                 | 18                    | 159          |
| 309+85.53 | 30985.53     | 10.95    | 14.53     | 4.49 | 5                                    | 2      | 181                 | 20                    | 161          |
| 309+99.76 | 30999.76     | 14.23    | 19.12     | 2.63 | 9                                    | 2      | 190                 | 23                    | 168          |
| 310+10.44 | 31010.44     | 10.68    | 17.82     | 3.04 | 7                                    | 1      | 197                 | 24                    | 173          |
| 310+20.79 | 31020.79     | 10.35    | 7.23      | 2.95 | 5                                    | 1      | 202                 | 25                    | 177          |
| 310+50.00 | 31050.00     | 29.21    | 11.05     | 0.00 | 10                                   | 2      | 212                 | 28                    | 185          |
| 310+82.33 | 31082.33     | 32.33    | 18.44     | 0.00 | 18                                   | 0      | 230                 | 28                    | 203          |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REAL STATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |        | CUMULATIVE VOL (CY) |                       |              |
|-----------|--------------|----------|-----------|-------|--------------------------------------|--------|---------------------|-----------------------|--------------|
|           |              |          | CUT       | FILL  | CUT                                  | FILL   | CUT<br>1.00         | EXPANDED FILL<br>1.25 | MASS ORDNATE |
|           |              |          |           |       | NOTE 1                               | NOTE 3 | NOTE 1              |                       | NOTE 8       |
| 321+07.73 | 32107.73     | 0.00     | 12.14     | 0.00  | 0                                    | 0      | 0                   | 0                     | 0            |
| 321+50.00 | 32150.00     | 42.27    | 9.51      | 0.00  | 17                                   | 0      | 17                  | 0                     | 17           |
| 321+90.86 | 32190.86     | 40.86    | 14.60     | 0.00  | 18                                   | 0      | 35                  | 0                     | 35           |
| 322+15.52 | 32215.52     | 24.66    | 13.18     | 0.00  | 13                                   | 0      | 48                  | 0                     | 48           |
| 322+40.22 | 32240.22     | 24.70    | 12.45     | 0.00  | 12                                   | 0      | 60                  | 0                     | 60           |
| 323+00.00 | 32300.00     | 59.78    | 7.62      | 0.00  | 22                                   | 0      | 82                  | 0                     | 82           |
| 323+50.00 | 32350.00     | 50.00    | 5.27      | 11.16 | 12                                   | 10     | 94                  | 13                    | 82           |
| 324+00.00 | 32400.00     | 50.00    | 15.12     | 0.00  | 19                                   | 10     | 113                 | 25                    | 88           |
| 324+50.00 | 32450.00     | 50.00    | 14.96     | 0.00  | 28                                   | 0      | 141                 | 25                    | 116          |
| 325+00.00 | 32500.00     | 50.00    | 14.82     | 0.00  | 28                                   | 0      | 169                 | 25                    | 144          |
| 325+50.00 | 32550.00     | 50.00    | 14.87     | 0.00  | 27                                   | 0      | 196                 | 25                    | 171          |
| 326+00.00 | 32600.00     | 50.00    | 12.76     | 0.22  | 26                                   | 0      | 222                 | 25                    | 197          |
| 326+50.00 | 32650.00     | 50.00    | 11.19     | 0.48  | 22                                   | 1      | 244                 | 26                    | 218          |
| 327+00.00 | 32700.00     | 50.00    | 12.52     | 1.61  | 22                                   | 2      | 266                 | 29                    | 237          |
| 327+50.00 | 32750.00     | 50.00    | 12.63     | 1.21  | 23                                   | 3      | 289                 | 33                    | 257          |
| 328+00.00 | 32800.00     | 50.00    | 15.36     | 0.00  | 26                                   | 1      | 315                 | 34                    | 281          |
| 328+12.91 | 32812.91     | 12.91    | 15.39     | 0.00  | 7                                    | 0      | 322                 | 34                    | 288          |
| 328+38.21 | 32838.21     | 25.30    | 16.54     | 0.00  | 15                                   | 0      | 337                 | 34                    | 303          |
| 328+63.53 | 32863.53     | 25.32    | 19.16     | 0.00  | 17                                   | 0      | 354                 | 34                    | 320          |
| 329+24.23 | 32924.23     | 60.70    | 18.71     | 0.00  | 43                                   | 0      | 397                 | 34                    | 363          |
| 329+50.25 | 32950.25     | 26.02    | 14.25     | 0.00  | 16                                   | 0      | 413                 | 34                    | 379          |
| 329+74.91 | 32974.91     | 24.66    | 15.16     | 0.00  | 13                                   | 0      | 426                 | 34                    | 392          |
| 330+50.00 | 33050.00     | 75.09    | 19.34     | 0.00  | 48                                   | 0      | 474                 | 34                    | 440          |
| 330+78.05 | 33078.05     | 28.05    | 0.00      | 0.00  | 10                                   | 0      | 484                 | 34                    | 450          |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |                | CUMULATIVE VOL (CY)   |                       |                         |
|-----------|-------------|----------|-----------|-------|--------------------------------------|----------------|-----------------------|-----------------------|-------------------------|
|           |             |          | CUT       | FILL  | CUT<br>NOTE 1                        | FILL<br>NOTE 3 | CUT<br>1.00<br>NOTE 1 | EXPANDED FILL<br>1.25 | MASS ORDINATE<br>NOTE 8 |
|           |             |          |           |       |                                      |                |                       |                       |                         |
| 336+10.91 | 33610.91    | 0.00     | 11.10     | 0.00  | 0                                    | 0              | 0                     | 0                     | 0                       |
| 336+50.00 | 33650.00    | 39.09    | 11.62     | 0.00  | 16                                   | 0              | 16                    | 0                     | 16                      |
| 336+87.19 | 33687.19    | 37.19    | 13.82     | 0.00  | 18                                   | 0              | 34                    | 0                     | 34                      |
| 337+00.00 | 33700.00    | 12.81    | 12.30     | 0.00  | 6                                    | 0              | 40                    | 0                     | 40                      |
| 337+12.43 | 33712.43    | 12.43    | 12.05     | 0.00  | 6                                    | 0              | 46                    | 0                     | 46                      |
| 337+37.70 | 33737.70    | 25.27    | 12.04     | 0.01  | 11                                   | 0              | 57                    | 0                     | 57                      |
| 337+50.00 | 33750.00    | 12.30    | 10.79     | 0.00  | 5                                    | 0              | 62                    | 0                     | 62                      |
| 338+00.00 | 33800.00    | 50.00    | 11.19     | 0.00  | 20                                   | 0              | 82                    | 0                     | 82                      |
| 338+50.00 | 33850.00    | 50.00    | 17.29     | 3.90  | 26                                   | 4              | 108                   | 5                     | 103                     |
| 339+00.00 | 33900.00    | 50.00    | 15.79     | 1.75  | 31                                   | 5              | 139                   | 11                    | 128                     |
| 339+50.00 | 33950.00    | 50.00    | 12.13     | 44.78 | 26                                   | 43             | 165                   | 65                    | 100                     |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |                | CUMULATIVE VOL (CY)   |                       |                         |
|-----------|-------------|----------|-----------|------|--------------------------------------|----------------|-----------------------|-----------------------|-------------------------|
|           |             |          | CUT       | FILL | CUT<br>NOTE 1                        | FILL<br>NOTE 3 | CUT<br>1.00<br>NOTE 1 | EXPANDED FILL<br>1.25 | MASS ORDINATE<br>NOTE 8 |
|           |             |          |           |      |                                      |                |                       |                       |                         |
| 353+18.73 | 35318.73    | 0.00     | 10.06     | 0.00 | 0                                    | 0              | 0                     | 0                     | 0                       |
| 353+41.60 | 35341.60    | 22.87    | 7.90      | 0.64 | 8                                    | 0              | 8                     | 0                     | 8                       |
| 353+66.79 | 35366.79    | 25.19    | 8.84      | 0.00 | 8                                    | 0              | 16                    | 0                     | 16                      |
| 353+91.97 | 35391.97    | 25.18    | 9.35      | 0.00 | 8                                    | 0              | 24                    | 0                     | 24                      |
| 354+50.00 | 35450.00    | 58.03    | 7.70      | 0.00 | 18                                   | 0              | 42                    | 0                     | 42                      |
| 355+00.00 | 35500.00    | 50.00    | 6.08      | 3.49 | 13                                   | 3              | 55                    | 4                     | 51                      |
| 355+50.00 | 35550.00    | 50.00    | 4.51      | 6.45 | 10                                   | 9              | 65                    | 15                    | 50                      |
| 355+65.49 | 35565.49    | 15.49    | 5.33      | 4.12 | 3                                    | 3              | 68                    | 19                    | 49                      |
| 356+00.00 | 35600.00    | 34.51    | 11.00     | 0.41 | 10                                   | 3              | 78                    | 23                    | 56                      |
| 356+57.08 | 35657.08    | 57.08    | 10.44     | 0.20 | 23                                   | 1              | 101                   | 24                    | 77                      |
| 356+81.95 | 35681.95    | 24.87    | 8.93      | 0.69 | 9                                    | 0              | 110                   | 24                    | 86                      |
| 357+06.73 | 35706.73    | 24.78    | 10.10     | 1.94 | 9                                    | 1              | 119                   | 25                    | 94                      |
| 357+50.00 | 35750.00    | 43.27    | 8.84      | 4.90 | 15                                   | 5              | 134                   | 31                    | 103                     |
| 358+00.00 | 35800.00    | 50.00    | 12.90     | 0.28 | 20                                   | 5              | 154                   | 38                    | 117                     |
| 358+50.00 | 35850.00    | 50.00    | 13.92     | 6.06 | 25                                   | 6              | 179                   | 45                    | 134                     |
| 359+00.00 | 35900.00    | 50.00    | 13.14     | 7.70 | 25                                   | 13             | 204                   | 61                    | 143                     |
| 359+50.00 | 35950.00    | 50.00    | 12.91     | 6.82 | 24                                   | 13             | 228                   | 78                    | 151                     |
| 360+00.00 | 36000.00    | 50.00    | 20.21     | 0.00 | 31                                   | 6              | 259                   | 85                    | 174                     |
| 360+50.00 | 36050.00    | 50.00    | 23.43     | 0.00 | 40                                   | 0              | 299                   | 85                    | 214                     |
| 360+96.29 | 36096.29    | 46.29    | 6.30      | 0.00 | 25                                   | 0              | 324                   | 85                    | 239                     |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |                | CUMULATIVE VOL (CY)   |                       |                         |
|-----------|-------------|----------|-----------|-------|--------------------------------------|----------------|-----------------------|-----------------------|-------------------------|
|           |             |          | CUT       | FILL  | CUT<br>NOTE 1                        | FILL<br>NOTE 3 | CUT<br>1.00<br>NOTE 1 | EXPANDED FILL<br>1.25 | MASS ORDINATE<br>NOTE 8 |
|           |             |          |           |       |                                      |                |                       |                       |                         |
| 343+48.18 | 34348.18    | 0.00     | 9.71      | 0.00  | 0                                    | 0              | 0                     | 0                     | 0                       |
| 343+63.99 | 34363.99    | 15.81    | 8.89      | 28.93 | 5                                    | 8              | 5                     | 10                    | -5                      |
| 344+00.00 | 34400.00    | 36.01    | 12.47     | 2.40  | 14                                   | 21             | 19                    | 36                    | -17                     |
| 344+50.00 | 34450.00    | 50.00    | 14.69     | 0.00  | 25                                   | 2              | 44                    | 39                    | 5                       |
| 345+00.00 | 34500.00    | 50.00    | 15.06     | 0.00  | 28                                   | 0              | 72                    | 39                    | 33                      |
| 345+50.00 | 34550.00    | 50.00    | 23.06     | 5.09  | 35                                   | 5              | 107                   | 45                    | 62                      |
| 346+01.53 | 34601.53    | 51.53    | 24.28     | 0.00  | 45                                   | 5              | 152                   | 51                    | 101                     |
| 346+04.55 | 34604.55    | 3.02     | 24.89     | 0.00  | 3                                    | 0              | 155                   | 51                    | 104                     |
| 346+29.38 | 34629.38    | 24.83    | 24.26     | 0.00  | 23                                   | 0              | 178                   | 51                    | 127                     |
| 346+54.13 | 34654.13    | 24.75    | 34.66     | 0.00  | 27                                   | 0              | 205                   | 51                    | 154                     |
| 346+55.04 | 34655.04    | 0.91     | 36.39     | 0.00  | 1                                    | 0              | 206                   | 51                    | 155                     |
| 347+05.13 | 34705.13    | 50.09    | 43.05     | 0.00  | 74                                   | 0              | 280                   | 51                    | 229                     |
| 347+50.00 | 34750.00    | 44.87    | 14.15     | 0.00  | 48                                   | 0              | 328                   | 51                    | 277                     |
| 347+72.33 | 34772.33    | 22.33    | 12.32     | 0.00  | 11                                   | 0              | 339                   | 51                    | 288                     |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |                | CUMULATIVE VOL (CY)   |                       |                         |
|-----------|-------------|----------|-----------|-------|--------------------------------------|----------------|-----------------------|-----------------------|-------------------------|
|           |             |          | CUT       | FILL  | CUT<br>NOTE 1                        | FILL<br>NOTE 3 | CUT<br>1.00<br>NOTE 1 | EXPANDED FILL<br>1.25 | MASS ORDINATE<br>NOTE 8 |
|           |             |          |           |       |                                      |                |                       |                       |                         |
| 363+20.16 | 36320.16    | 0.00     | 3.80      | 0.85  | 0                                    | 0              | 0                     | 0                     | 0                       |
| 363+50.00 | 36350.00    | 29.84    | 22.32     | 0.00  | 14                                   | 0              | 14                    | 0                     | 14                      |
| 364+00.00 | 36400.00    | 50.00    | 38.50     | 0.00  | 56                                   | 0              | 70                    | 0                     | 70                      |
| 364+60.22 | 36460.22    | 60.22    | 8.09      | 8.18  | 52                                   | 9              | 122                   | 11                    | 111                     |
| 364+86.73 | 36486.73    | 26.51    | 8.60      | 9.01  | 8                                    | 8              | 130                   | 21                    | 109                     |
| 365+11.71 | 36511.71    | 24.98    | 20.88     | 21.56 | 14                                   | 14             | 144                   | 39                    | 105                     |
| 365+50.00 | 36550.00    | 38.29    | 10.61     | 0.00  | 22                                   | 15             | 166                   | 58                    | 109                     |
| 366+00.00 | 36600.00    | 50.00    | 9.86      | 0.00  | 19                                   | 0              | 185                   | 58                    | 128                     |
| 366+22.54 | 36622.54    | 22.54    | 17.49     | 12.16 | 11                                   | 5              | 196                   | 64                    | 132                     |
| 366+47.52 | 36647.52    | 24.98    | 15.92     | 10.17 | 15                                   | 10             | 211                   | 76                    | 135                     |
| 366+72.51 | 36672.51    | 24.99    | 16.04     | 1.11  | 15                                   | 5              | 226                   | 83                    | 144                     |
| 367+00.00 | 36700.00    | 27.49    | 16.67     | 0.00  | 17                                   | 1              | 243                   | 84                    | 159                     |
| 367+50.00 | 36750.00    | 50.00    | 15.16     | 0.00  | 29                                   | 0              | 272                   | 84                    | 188                     |
| 368+00.00 | 36800.00    | 50.00    | 17.88     | 0.00  | 31                                   | 0              | 303                   | 84                    | 219                     |
| 368+64.67 | 36864.67    | 64.67    | 19.42     | 1.55  | 45                                   | 2              | 348                   | 86                    | 262                     |
| 368+89.77 | 36889.77    | 25.10    | 21.37     | 1.07  | 19                                   | 1              | 367                   | 88                    | 280                     |
| 369+14.88 | 36914.88    | 25.11    | 23.22     | 1.73  | 21                                   | 1              | 388                   | 89                    | 299                     |
| 369+40.36 | 36940.36    | 25.48    | 31.58     | 0.06  | 26                                   | 1              | 414                   | 90                    | 324                     |
| 369+65.21 | 36965.21    | 24.85    | 34.52     | 0.04  | 30                                   | 0              | 444                   | 90                    | 354                     |
| 370+00.00 | 37000.00    | 34.79    | 32.40     | 1.21  | 43                                   | 1              | 487                   | 91                    | 396                     |
| 370+19.41 | 37019.41    | 19.41    | 24.63     | 0.00  | 21                                   | 0              | 508                   | 91                    | 417                     |
| 370+26.19 | 37026.19    | 6.78     | 25.06     | 0.00  | 6                                    | 0              | 514                   | 91                    | 423                     |



DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REAL STATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY) |                | CUMULATIVE VOL (CY)   |               |     |
|-----------|--------------|----------|-----------|------|----------------------|----------------|-----------------------|---------------|-----|
|           |              |          |           |      | (UNADJUSTED)         |                | EXPANDED FILL<br>1.25 | MASS ORDINATE |     |
|           |              |          | CUT       | FILL | CUT<br>NOTE 1        | FILL<br>NOTE 3 |                       |               |     |
| 382+96.11 | 38296.11     | 0.00     | 9.86      | 0.00 | 0                    | 0              | 0                     | 0             | 0   |
| 383+57.25 | 38357.25     | 61.14    | 11.37     | 0.00 | 24                   | 0              | 24                    | 0             | 24  |
| 383+81.87 | 38381.87     | 24.62    | 13.64     | 0.00 | 11                   | 0              | 35                    | 0             | 35  |
| 384+06.51 | 38406.51     | 24.64    | 15.38     | 0.00 | 13                   | 0              | 48                    | 0             | 48  |
| 384+50.00 | 38450.00     | 43.49    | 11.58     | 0.00 | 22                   | 0              | 70                    | 0             | 70  |
| 385+00.00 | 38500.00     | 50.00    | 12.18     | 0.02 | 22                   | 0              | 92                    | 0             | 92  |
| 385+50.00 | 38550.00     | 50.00    | 10.43     | 0.00 | 21                   | 0              | 113                   | 0             | 113 |
| 386+00.00 | 38600.00     | 50.00    | 10.59     | 0.00 | 19                   | 0              | 132                   | 0             | 132 |
| 386+50.00 | 38650.00     | 50.00    | 12.15     | 0.00 | 21                   | 0              | 153                   | 0             | 153 |
| 387+00.00 | 38700.00     | 50.00    | 11.62     | 0.00 | 22                   | 0              | 175                   | 0             | 175 |
| 387+50.00 | 38750.00     | 50.00    | 43.45     | 0.00 | 51                   | 0              | 226                   | 0             | 226 |
| 388+00.00 | 38800.00     | 50.00    | 18.48     | 1.05 | 57                   | 1              | 283                   | 1             | 282 |
| 388+18.64 | 38818.64     | 18.64    | 5.95      | 8.36 | 8                    | 3              | 291                   | 5             | 286 |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REAL STATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY) |                | CUMULATIVE VOL (CY)   |               |      |
|-----------|--------------|----------|-----------|-------|----------------------|----------------|-----------------------|---------------|------|
|           |              |          |           |       | (UNADJUSTED)         |                | EXPANDED FILL<br>1.25 | MASS ORDINATE |      |
|           |              |          | CUT       | FILL  | CUT<br>NOTE 1        | FILL<br>NOTE 3 |                       |               |      |
| 393+93.19 | 39393.19     | 0.00     | 9.95      | 0.00  | 0                    | 0              | 0                     | 0             | 0    |
| 394+21.89 | 39421.89     | 28.70    | 5.30      | 58.05 | 8                    | 31             | 8                     | 39            | -31  |
| 394+46.72 | 39446.72     | 24.83    | 5.20      | 40.80 | 5                    | 45             | 13                    | 95            | -82  |
| 394+71.56 | 39471.56     | 24.84    | 6.04      | 32.80 | 5                    | 34             | 18                    | 138           | -120 |
| 395+00.00 | 39500.00     | 28.44    | 6.70      | 15.69 | 7                    | 26             | 25                    | 170           | -145 |
| 395+50.00 | 39550.00     | 50.00    | 8.57      | 1.03  | 14                   | 15             | 39                    | 189           | -150 |
| 395+77.77 | 39577.77     | 27.77    | 11.02     | 1.15  | 10                   | 1              | 49                    | 190           | -141 |
| 396+02.08 | 39602.08     | 24.31    | 13.83     | 0.00  | 11                   | 1              | 60                    | 191           | -131 |
| 396+26.90 | 39626.90     | 24.82    | 15.50     | 0.31  | 13                   | 0              | 73                    | 191           | -118 |
| 396+50.00 | 39650.00     | 23.10    | 13.63     | 0.00  | 12                   | 0              | 85                    | 191           | -106 |
| 397+00.00 | 39700.00     | 50.00    | 12.06     | 0.00  | 24                   | 0              | 109                   | 191           | -82  |
| 397+28.82 | 39728.82     | 28.82    | 6.28      | 0.00  | 10                   | 0              | 119                   | 191           | -72  |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REAL STATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY) |                | CUMULATIVE VOL (CY)   |               |      |
|-----------|--------------|----------|-----------|-------|----------------------|----------------|-----------------------|---------------|------|
|           |              |          |           |       | (UNADJUSTED)         |                | EXPANDED FILL<br>1.25 | MASS ORDINATE |      |
|           |              |          | CUT       | FILL  | CUT<br>NOTE 1        | FILL<br>NOTE 3 |                       |               |      |
| 390+40.81 | 39040.81     | 0.00     | 13.86     | 0.00  | 0                    | 0              | 0                     | 0             | 0    |
| 390+50.00 | 39050.00     | 9.19     | 7.83      | 0.02  | 4                    | 0              | 4                     | 0             | 4    |
| 391+00.00 | 39100.00     | 50.00    | 17.98     | 0.04  | 24                   | 0              | 28                    | 0             | 28   |
| 391+50.00 | 39150.00     | 50.00    | 14.74     | 0.91  | 30                   | 1              | 58                    | 1             | 57   |
| 392+06.80 | 39206.80     | 56.80    | 19.73     | 14.47 | 36                   | 16             | 94                    | 21            | 73   |
| 392+31.78 | 39231.78     | 24.98    | 16.99     | 37.15 | 17                   | 24             | 111                   | 51            | 60   |
| 392+56.75 | 39256.75     | 24.97    | 15.91     | 54.37 | 15                   | 42             | 126                   | 104           | 22   |
| 392+62.50 | 39262.50     | 5.75     | 16.23     | 56.57 | 3                    | 12             | 129                   | 119           | 10   |
| 392+87.48 | 39287.48     | 24.98    | 8.53      | 60.01 | 11                   | 54             | 140                   | 186           | -46  |
| 393+12.45 | 39312.45     | 24.97    | 10.97     | 81.40 | 9                    | 65             | 149                   | 268           | -119 |
| 393+14.76 | 39314.76     | 2.31     | 5.79      | 81.79 | 1                    | 7              | 150                   | 276           | -126 |
| 393+41.12 | 39341.12     | 26.36    | 9.16      | 43.88 | 7                    | 61             | 157                   | 353           | -196 |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REAL STATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY) |                | CUMULATIVE VOL (CY)   |               |     |
|-----------|--------------|----------|-----------|------|----------------------|----------------|-----------------------|---------------|-----|
|           |              |          |           |      | (UNADJUSTED)         |                | EXPANDED FILL<br>1.25 | MASS ORDINATE |     |
|           |              |          | CUT       | FILL | CUT<br>NOTE 1        | FILL<br>NOTE 3 |                       |               |     |
| 407+00.00 | 40700.00     | 0.00     | 18.32     | 0.29 | 0                    | 0              | 0                     | 0             | 0   |
| 407+33.42 | 40733.42     | 33.42    | 20.25     | 0.60 | 24                   | 1              | 24                    | 1             | 23  |
| 407+58.40 | 40758.40     | 24.98    | 19.32     | 1.84 | 18                   | 1              | 42                    | 3             | 40  |
| 407+69.34 | 40769.34     | 10.94    | 25.70     | 0.00 | 9                    | 0              | 51                    | 3             | 49  |
| 407+83.38 | 40783.38     | 14.04    | 24.66     | 0.00 | 13                   | 0              | 64                    | 3             | 62  |
| 407+94.32 | 40794.32     | 10.94    | 24.06     | 0.00 | 10                   | 0              | 74                    | 3             | 72  |
| 408+19.30 | 40819.30     | 24.98    | 19.88     | 0.00 | 20                   | 0              | 94                    | 3             | 92  |
| 408+50.00 | 40850.00     | 30.70    | 18.43     | 0.31 | 22                   | 0              | 116                   | 3             | 114 |
| 409+00.00 | 40900.00     | 50.00    | 18.76     | 0.00 | 34                   | 0              | 150                   | 3             | 148 |
| 409+50.00 | 40950.00     | 50.00    | 17.87     | 0.00 | 34                   | 0              | 184                   | 3             | 182 |
| 410+00.00 | 41000.00     | 50.00    | 23.15     | 0.00 | 38                   | 0              | 222                   | 3             | 220 |
| 410+50.00 | 41050.00     | 50.00    | 12.14     | 0.00 | 33                   | 0              | 255                   | 3             | 253 |
| 410+62.15 | 41062.15     | 12.15    | 9.16      | 0.00 | 5                    | 0              | 260                   | 3             | 258 |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |        |        | CUMULATIVE VOL (CY)   |               |
|-----------|-------------|----------|-----------|-------|--------------------------------------|--------|--------|-----------------------|---------------|
|           |             |          | CUT       | FILL  | CUT                                  | FILL   | CUT    | EXPANDED FILL<br>1.25 | MASS ORDINATE |
|           |             |          |           |       | NOTE 1                               | NOTE 3 | NOTE 1 |                       |               |
| 413+93.11 | 41393.11    | 0.00     | 7.35      | 0.00  | 0                                    | 0      | 0      | 0                     | 0             |
| 414+50.00 | 41450.00    | 56.89    | 15.71     | 31.57 | 24                                   | 33     | 24     | 41                    | -17           |
| 414+85.20 | 41485.20    | 35.20    | 18.92     | 16.18 | 23                                   | 31     | 47     | 80                    | -33           |
| 415+10.05 | 41510.05    | 24.85    | 20.25     | 0.18  | 18                                   | 8      | 65     | 90                    | -25           |
| 415+34.87 | 41534.87    | 24.82    | 17.50     | 1.37  | 17                                   | 1      | 82     | 91                    | -9            |
| 415+50.00 | 41550.00    | 15.13    | 16.14     | 0.15  | 9                                    | 0      | 91     | 91                    | 0             |
| 415+89.92 | 41589.92    | 39.92    | 29.78     | 0.00  | 34                                   | 0      | 125    | 91                    | 34            |
| 416+00.00 | 41600.00    | 10.08    | 18.10     | 0.00  | 9                                    | 0      | 134    | 91                    | 43            |
| 416+26.69 | 41626.69    | 26.69    | 16.29     | 0.00  | 17                                   | 0      | 151    | 91                    | 60            |
| 416+51.73 | 41651.73    | 25.04    | 14.76     | 0.00  | 14                                   | 0      | 165    | 91                    | 74            |
| 416+76.81 | 41676.81    | 25.08    | 9.12      | 0.00  | 11                                   | 0      | 176    | 91                    | 85            |
| 417+00.00 | 41700.00    | 23.19    | 8.01      | 0.00  | 7                                    | 0      | 183    | 91                    | 92            |
| 417+50.83 | 41750.83    | 50.83    | 9.65      | 0.00  | 17                                   | 0      | 200    | 91                    | 109           |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |        |        | CUMULATIVE VOL (CY)   |               |
|-----------|-------------|----------|-----------|------|--------------------------------------|--------|--------|-----------------------|---------------|
|           |             |          | CUT       | FILL | CUT                                  | FILL   | CUT    | EXPANDED FILL<br>1.25 | MASS ORDINATE |
|           |             |          |           |      | NOTE 1                               | NOTE 3 | NOTE 1 |                       |               |
| 443+55.80 | 44355.80    | 0.00     | 9.05      | 0.00 | 0                                    | 0      | 0      | 0                     | 0             |
| 444+00.00 | 44400.00    | 44.20    | 16.39     | 0.00 | 21                                   | 0      | 21     | 0                     | 21            |
| 444+37.37 | 44437.37    | 37.37    | 16.40     | 0.00 | 23                                   | 0      | 44     | 0                     | 44            |
| 444+61.66 | 44461.66    | 24.29    | 18.93     | 0.00 | 16                                   | 0      | 60     | 0                     | 60            |
| 444+85.96 | 44485.96    | 24.30    | 19.04     | 1.83 | 17                                   | 1      | 77     | 1                     | 76            |
| 444+97.98 | 44497.98    | 12.02    | 28.62     | 0.00 | 11                                   | 0      | 88     | 1                     | 87            |
| 445+50.00 | 44550.00    | 52.02    | 16.11     | 0.00 | 43                                   | 0      | 131    | 1                     | 130           |
| 446+00.00 | 44600.00    | 50.00    | 15.85     | 0.00 | 30                                   | 0      | 161    | 1                     | 160           |
| 446+50.00 | 44650.00    | 50.00    | 17.32     | 0.00 | 31                                   | 0      | 192    | 1                     | 191           |
| 447+00.00 | 44700.00    | 50.00    | 14.01     | 0.00 | 29                                   | 0      | 221    | 1                     | 220           |
| 447+50.00 | 44750.00    | 50.00    | 11.67     | 1.55 | 24                                   | 1      | 245    | 3                     | 243           |
| 448+00.00 | 44800.00    | 50.00    | 12.91     | 1.63 | 23                                   | 3      | 268    | 6                     | 262           |
| 448+50.00 | 44850.00    | 50.00    | 14.07     | 0.97 | 25                                   | 2      | 293    | 9                     | 284           |
| 449+00.00 | 44900.00    | 50.00    | 14.01     | 0.68 | 26                                   | 2      | 319    | 11                    | 308           |
| 449+50.00 | 44950.00    | 50.00    | 14.93     | 0.01 | 27                                   | 1      | 346    | 13                    | 334           |
| 450+00.00 | 45000.00    | 50.00    | 13.55     | 0.02 | 26                                   | 0      | 372    | 13                    | 360           |
| 450+48.85 | 45048.85    | 48.85    | 12.56     | 0.36 | 24                                   | 0      | 396    | 13                    | 384           |
| 450+73.15 | 45073.15    | 24.30    | 12.90     | 0.02 | 11                                   | 0      | 407    | 13                    | 395           |
| 450+97.41 | 45097.41    | 24.26    | 15.13     | 0.14 | 13                                   | 0      | 420    | 13                    | 408           |
| 451+50.00 | 45150.00    | 52.59    | 19.52     | 0.00 | 34                                   | 0      | 454    | 13                    | 442           |
| 451+80.14 | 45180.14    | 30.14    | 15.56     | 0.00 | 20                                   | 0      | 474    | 13                    | 462           |
| 452+00.00 | 45200.00    | 19.86    | 6.89      | 0.00 | 8                                    | 0      | 482    | 13                    | 470           |
| 452+20.14 | 45220.14    | 20.14    | 6.61      | 0.00 | 5                                    | 0      | 487    | 13                    | 475           |
| 452+45.13 | 45245.13    | 24.99    | 7.14      | 0.00 | 6                                    | 0      | 493    | 13                    | 481           |
| 452+70.11 | 45270.11    | 24.98    | 9.13      | 0.00 | 8                                    | 0      | 501    | 13                    | 489           |
| 453+00.00 | 45300.00    | 29.89    | 7.83      | 0.00 | 9                                    | 0      | 510    | 13                    | 498           |
| 453+41.64 | 45341.64    | 41.64    | 6.49      | 0.00 | 11                                   | 0      | 521    | 13                    | 509           |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |        |        | CUMULATIVE VOL (CY)   |               |
|-----------|-------------|----------|-----------|-------|--------------------------------------|--------|--------|-----------------------|---------------|
|           |             |          | CUT       | FILL  | CUT                                  | FILL   | CUT    | EXPANDED FILL<br>1.25 | MASS ORDINATE |
|           |             |          |           |       | NOTE 1                               | NOTE 3 | NOTE 1 |                       |               |
| 427+93.83 | 42793.83    | 0.00     | 7.41      | 0.00  | 0                                    | 0      | 0      | 0                     | 0             |
| 428+50.00 | 42850.00    | 56.17    | 8.12      | 0.28  | 16                                   | 0      | 16     | 0                     | 16            |
| 428+78.06 | 42878.06    | 28.06    | 10.75     | 0.93  | 10                                   | 1      | 26     | 1                     | 25            |
| 429+03.04 | 42903.04    | 24.98    | 6.83      | 1.58  | 8                                    | 1      | 34     | 3                     | 32            |
| 429+28.02 | 42928.02    | 24.98    | 8.47      | 0.10  | 7                                    | 1      | 41     | 4                     | 37            |
| 429+50.00 | 42950.00    | 21.98    | 8.07      | 0.00  | 7                                    | 0      | 48     | 4                     | 44            |
| 430+00.00 | 43000.00    | 50.00    | 7.72      | 0.00  | 15                                   | 0      | 63     | 4                     | 59            |
| 430+50.00 | 43050.00    | 50.00    | 5.75      | 0.00  | 12                                   | 0      | 75     | 4                     | 71            |
| 431+00.00 | 43100.00    | 50.00    | 5.37      | 0.00  | 10                                   | 0      | 85     | 4                     | 81            |
| 431+50.00 | 43150.00    | 50.00    | 6.03      | 0.00  | 11                                   | 0      | 96     | 4                     | 92            |
| 432+00.00 | 43200.00    | 50.00    | 6.63      | 0.00  | 12                                   | 0      | 108    | 4                     | 104           |
| 432+10.42 | 43210.42    | 10.42    | 9.74      | 0.00  | 3                                    | 0      | 111    | 4                     | 107           |
| 432+58.19 | 43258.19    | 47.77    | 9.72      | 0.24  | 17                                   | 0      | 128    | 4                     | 124           |
| 432+83.17 | 43283.17    | 24.98    | 7.71      | 0.33  | 8                                    | 0      | 136    | 4                     | 132           |
| 433+08.15 | 43308.15    | 24.98    | 7.69      | 0.10  | 7                                    | 0      | 143    | 4                     | 139           |
| 433+50.00 | 43350.00    | 41.85    | 10.33     | 0.20  | 14                                   | 0      | 157    | 4                     | 153           |
| 434+00.00 | 43400.00    | 50.00    | 7.58      | 0.05  | 17                                   | 0      | 174    | 4                     | 170           |
| 434+50.00 | 43450.00    | 50.00    | 13.93     | 4.87  | 20                                   | 5      | 194    | 10                    | 184           |
| 435+00.00 | 43500.00    | 50.00    | 20.19     | 0.00  | 32                                   | 5      | 226    | 16                    | 210           |
| 435+50.00 | 43550.00    | 50.00    | 30.97     | 0.00  | 47                                   | 0      | 273    | 16                    | 257           |
| 436+00.00 | 43600.00    | 50.00    | 26.99     | 0.02  | 54                                   | 0      | 327    | 16                    | 311           |
| 436+50.00 | 43650.00    | 50.00    | 16.22     | 1.95  | 40                                   | 2      | 367    | 19                    | 348           |
| 437+00.00 | 43700.00    | 50.00    | 16.86     | 0.89  | 31                                   | 3      | 398    | 23                    | 376           |
| 437+64.69 | 43764.69    | 64.69    | 14.19     | 9.25  | 37                                   | 12     | 435    | 38                    | 398           |
| 437+88.98 | 43788.98    | 24.29    | 13.88     | 11.47 | 13                                   | 9      | 448    | 49                    | 399           |
| 438+13.58 | 43813.58    | 24.60    | 14.35     | 13.58 | 13                                   | 11     | 461    | 63                    | 399           |
| 438+42.44 | 43842.44    | 28.86    | 6.53      | 0.43  | 11                                   | 7      | 472    | 71                    | 401           |
| 439+05.43 | 43905.43    | 62.99    | 18.85     | 9.72  | 30                                   | 12     | 502    | 86                    | 416           |
| 439+20.03 | 43920.03    | 14.60    | 11.20     | 11.55 | 8                                    | 6      | 510    | 94                    | 416           |
| 439+45.01 | 43945.01    | 24.98    | 10.81     | 12.12 | 10                                   | 11     | 520    | 108                   | 413           |
| 439+69.99 | 43969.99    | 24.98    | 10.12     | 10.01 | 10                                   | 10     | 530    | 120                   | 410           |
| 440+00.00 | 44000.00    | 30.01    | 11.07     | 12.51 | 12                                   | 13     | 542    | 136                   | 406           |
| 440+46.24 | 44046.24    | 46.24    | 4.55      | 0.00  | 13                                   | 11     | 555    | 150                   | 405           |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY) |        | CUMULATIVE VOL (CY) |               |               |
|-----------|-------------|----------|-----------|-------|----------------------|--------|---------------------|---------------|---------------|
|           |             |          |           |       | (UNADJUSTED)         |        |                     |               |               |
|           |             |          | CUT       | FILL  | CUT                  | FILL   | CUT                 | EXPANDED FILL | MASS ORDINATE |
|           |             |          |           |       | NOTE 1               | NOTE 3 | NOTE 1              | 1.25          | NOTE 8        |
| 464+08.78 | 46408.78    | 0.00     | 15.31     | 0.00  | 0                    | 0      | 0                   | 0             | 0             |
| 464+50.00 | 46450.00    | 41.22    | 13.35     | 0.00  | 22                   | 0      | 22                  | 0             | 22            |
| 464+87.93 | 46487.93    | 37.93    | 21.37     | 0.00  | 24                   | 0      | 46                  | 0             | 46            |
| 464+91.61 | 46491.61    | 3.68     | 22.81     | 0.00  | 3                    | 0      | 49                  | 0             | 49            |
| 465+16.16 | 46516.16    | 24.55    | 18.31     | 0.00  | 19                   | 0      | 68                  | 0             | 68            |
| 465+17.41 | 46517.41    | 1.25     | 18.99     | 0.00  | 1                    | 0      | 69                  | 0             | 69            |
| 465+40.66 | 46540.66    | 23.25    | 16.03     | 0.00  | 15                   | 0      | 84                  | 0             | 84            |
| 465+42.85 | 46542.85    | 2.19     | 16.16     | 0.00  | 1                    | 0      | 85                  | 0             | 85            |
| 465+68.21 | 46568.21    | 25.36    | 17.58     | 0.00  | 16                   | 0      | 101                 | 0             | 101           |
| 466+00.00 | 46600.00    | 31.79    | 17.77     | 0.00  | 21                   | 0      | 122                 | 0             | 122           |
| 466+50.00 | 46650.00    | 50.00    | 15.61     | 0.00  | 31                   | 0      | 153                 | 0             | 153           |
| 467+00.00 | 46700.00    | 50.00    | 13.60     | 2.74  | 27                   | 3      | 180                 | 4             | 176           |
| 467+50.00 | 46750.00    | 50.00    | 14.89     | 0.00  | 26                   | 3      | 206                 | 8             | 199           |
| 468+00.00 | 46800.00    | 50.00    | 14.73     | 0.00  | 27                   | 0      | 233                 | 8             | 226           |
| 468+50.00 | 46850.00    | 50.00    | 17.91     | 0.00  | 30                   | 0      | 263                 | 8             | 256           |
| 469+00.00 | 46900.00    | 50.00    | 7.03      | 0.00  | 23                   | 0      | 286                 | 8             | 279           |
| 469+50.00 | 46950.00    | 50.00    | 7.39      | 16.86 | 13                   | 16     | 299                 | 28            | 272           |
| 470+00.00 | 47000.00    | 50.00    | 5.26      | 5.07  | 12                   | 20     | 311                 | 53            | 259           |
| 470+71.82 | 47071.82    | 71.82    | 7.50      | 0.00  | 17                   | 7      | 328                 | 61            | 267           |
| 470+96.99 | 47096.99    | 25.17    | 9.43      | 0.00  | 8                    | 0      | 336                 | 61            | 275           |
| 471+22.17 | 47122.17    | 25.18    | 9.23      | 0.00  | 9                    | 0      | 345                 | 61            | 284           |
| 471+71.00 | 47171.00    | 48.83    | 9.95      | 0.00  | 17                   | 0      | 362                 | 61            | 301           |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY) |        | CUMULATIVE VOL (CY) |               |               |
|-----------|-------------|----------|-----------|-------|----------------------|--------|---------------------|---------------|---------------|
|           |             |          |           |       | (UNADJUSTED)         |        |                     |               |               |
|           |             |          | CUT       | FILL  | CUT                  | FILL   | CUT                 | EXPANDED FILL | MASS ORDINATE |
|           |             |          |           |       | NOTE 1               | NOTE 3 | NOTE 1              | 1.25          | NOTE 8        |
| 482+85.42 | 48285.42    | 0.00     | 9.51      | 0.00  | 0                    | 0      | 0                   | 0             | 0             |
| 483+00.00 | 48300.00    | 14.58    | 6.32      | 0.00  | 4                    | 0      | 4                   | 0             | 4             |
| 483+50.00 | 48350.00    | 50.00    | 8.00      | 0.00  | 13                   | 0      | 17                  | 0             | 17            |
| 483+64.67 | 48364.67    | 14.67    | 12.49     | 0.00  | 6                    | 0      | 23                  | 0             | 23            |
| 483+89.07 | 48389.07    | 24.40    | 16.63     | 0.08  | 13                   | 0      | 36                  | 0             | 36            |
| 484+13.50 | 48413.50    | 24.43    | 9.99      | 0.17  | 12                   | 0      | 48                  | 0             | 48            |
| 484+50.00 | 48450.00    | 36.50    | 4.04      | 0.03  | 9                    | 0      | 57                  | 0             | 57            |
| 485+00.00 | 48500.00    | 50.00    | 3.39      | 0.19  | 7                    | 0      | 64                  | 0             | 64            |
| 485+50.00 | 48550.00    | 50.00    | 12.86     | 0.00  | 15                   | 0      | 79                  | 0             | 79            |
| 486+00.00 | 48600.00    | 50.00    | 12.19     | 0.01  | 23                   | 0      | 102                 | 0             | 102           |
| 486+50.00 | 48650.00    | 50.00    | 10.44     | 0.00  | 21                   | 0      | 123                 | 0             | 123           |
| 486+98.36 | 48698.36    | 48.36    | 17.76     | 0.02  | 25                   | 0      | 148                 | 0             | 148           |
| 487+50.00 | 48750.00    | 51.64    | 23.17     | 0.00  | 39                   | 0      | 187                 | 0             | 187           |
| 487+89.57 | 48789.57    | 39.57    | 23.61     | 0.00  | 34                   | 0      | 221                 | 0             | 221           |
| 488+15.17 | 48815.17    | 25.60    | 21.62     | 0.00  | 21                   | 0      | 242                 | 0             | 242           |
| 488+40.76 | 48840.76    | 25.59    | 18.93     | 0.00  | 19                   | 0      | 261                 | 0             | 261           |
| 488+50.00 | 48850.00    | 9.24     | 17.96     | 0.01  | 6                    | 0      | 267                 | 0             | 267           |
| 489+00.00 | 48900.00    | 50.00    | 19.62     | 0.01  | 35                   | 0      | 302                 | 0             | 302           |
| 489+50.00 | 48950.00    | 50.00    | 17.28     | 0.06  | 34                   | 0      | 336                 | 0             | 336           |
| 490+00.00 | 49000.00    | 50.00    | 13.17     | 0.17  | 28                   | 0      | 364                 | 0             | 364           |
| 490+50.00 | 49050.00    | 50.00    | 13.93     | 0.77  | 25                   | 1      | 389                 | 1             | 388           |
| 491+00.00 | 49100.00    | 50.00    | 13.44     | 0.19  | 25                   | 1      | 414                 | 3             | 412           |
| 491+50.00 | 49150.00    | 50.00    | 14.68     | 4.87  | 26                   | 5      | 440                 | 9             | 431           |
| 492+05.86 | 49205.86    | 55.86    | 15.51     | 5.05  | 31                   | 10     | 471                 | 21            | 450           |
| 492+30.84 | 49230.84    | 24.98    | 12.61     | 9.54  | 13                   | 7      | 484                 | 30            | 454           |
| 492+55.82 | 49255.82    | 24.98    | 12.73     | 8.58  | 12                   | 8      | 496                 | 40            | 456           |
| 492+79.60 | 49279.60    | 23.78    | 15.44     | 0.09  | 12                   | 4      | 508                 | 45            | 463           |
| 493+38.40 | 49338.40    | 58.80    | 18.88     | 0.01  | 37                   | 0      | 545                 | 45            | 500           |
| 493+60.60 | 49360.60    | 22.20    | 13.91     | 8.75  | 13                   | 4      | 558                 | 50            | 508           |
| 493+86.12 | 49386.12    | 25.52    | 14.12     | 8.04  | 13                   | 8      | 571                 | 60            | 511           |
| 494+11.63 | 49411.63    | 25.51    | 5.62      | 8.64  | 9                    | 8      | 580                 | 70            | 510           |
| 494+50.00 | 49450.00    | 38.37    | 15.89     | 11.81 | 15                   | 15     | 595                 | 89            | 506           |
| 494+92.63 | 49492.63    | 42.63    | 12.94     | 1.90  | 23                   | 11     | 618                 | 103           | 516           |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |                | CUMULATIVE VOL (CY)   |                       |                         |
|-----------|-------------|----------|-----------|------|--------------------------------------|----------------|-----------------------|-----------------------|-------------------------|
|           |             |          | CUT       | FILL | CUT<br>NOTE 1                        | FILL<br>NOTE 3 | CUT<br>1.00<br>NOTE 1 | EXPANDED FILL<br>1.25 | MASS ORDINATE<br>NOTE 8 |
|           |             |          |           |      |                                      |                |                       |                       |                         |
| 497+00.00 | 49700.00    | 0.00     | 13.22     | 0.00 | 0                                    | 0              | 0                     | 0                     | 0                       |
| 497+50.00 | 49750.00    | 50.00    | 16.56     | 2.42 | 28                                   | 2              | 28                    | 3                     | 26                      |
| 498+00.00 | 49800.00    | 50.00    | 13.60     | 2.57 | 28                                   | 5              | 56                    | 9                     | 47                      |
| 498+50.00 | 49850.00    | 50.00    | 13.42     | 0.00 | 25                                   | 2              | 81                    | 11                    | 70                      |
| 499+00.00 | 49900.00    | 50.00    | 14.08     | 0.00 | 25                                   | 0              | 106                   | 11                    | 95                      |
| 499+50.00 | 49950.00    | 50.00    | 16.00     | 0.00 | 28                                   | 0              | 134                   | 11                    | 123                     |
| 500+00.00 | 50000.00    | 50.00    | 15.72     | 0.00 | 29                                   | 0              | 163                   | 11                    | 152                     |
| 500+50.00 | 50050.00    | 50.00    | 14.60     | 0.00 | 28                                   | 0              | 191                   | 11                    | 180                     |
| 501+00.00 | 50100.00    | 50.00    | 14.96     | 0.00 | 27                                   | 0              | 218                   | 11                    | 207                     |
| 501+50.00 | 50150.00    | 50.00    | 14.30     | 0.00 | 27                                   | 0              | 245                   | 11                    | 234                     |
| 502+00.00 | 50200.00    | 50.00    | 17.32     | 0.00 | 29                                   | 0              | 274                   | 11                    | 263                     |
| 502+50.00 | 50250.00    | 50.00    | 16.57     | 0.00 | 31                                   | 0              | 305                   | 11                    | 294                     |
| 503+00.00 | 50300.00    | 50.00    | 20.54     | 0.00 | 34                                   | 0              | 339                   | 11                    | 328                     |
| 503+50.00 | 50350.00    | 50.00    | 14.24     | 0.00 | 32                                   | 0              | 371                   | 11                    | 360                     |
| 504+00.00 | 50400.00    | 50.00    | 14.43     | 0.00 | 27                                   | 0              | 398                   | 11                    | 387                     |
| 504+58.60 | 50458.60    | 58.60    | 16.84     | 0.00 | 34                                   | 0              | 432                   | 11                    | 421                     |
| 504+83.34 | 50483.34    | 24.74    | 22.21     | 0.27 | 18                                   | 0              | 450                   | 11                    | 439                     |
| 505+08.02 | 50508.02    | 24.68    | 21.81     | 0.13 | 20                                   | 0              | 470                   | 11                    | 459                     |
| 505+50.00 | 50550.00    | 41.98    | 11.96     | 0.11 | 26                                   | 0              | 496                   | 11                    | 485                     |
| 505+92.51 | 50592.51    | 42.51    | 15.16     | 0.00 | 21                                   | 0              | 517                   | 11                    | 506                     |
| 506+00.00 | 50600.00    | 7.49     | 6.42      | 0.00 | 3                                    | 0              | 520                   | 11                    | 509                     |
| 506+50.00 | 50650.00    | 50.00    | 7.19      | 0.00 | 13                                   | 0              | 533                   | 11                    | 522                     |
| 507+00.00 | 50700.00    | 50.00    | 8.11      | 0.00 | 14                                   | 0              | 547                   | 11                    | 536                     |
| 507+50.00 | 50750.00    | 50.00    | 6.24      | 0.00 | 13                                   | 0              | 560                   | 11                    | 549                     |
| 508+00.00 | 50800.00    | 50.00    | 4.66      | 0.00 | 10                                   | 0              | 570                   | 11                    | 559                     |
| 508+50.00 | 50850.00    | 50.00    | 5.18      | 0.00 | 9                                    | 0              | 579                   | 11                    | 568                     |
| 508+87.75 | 50887.75    | 37.75    | 4.96      | 0.52 | 7                                    | 0              | 586                   | 11                    | 575                     |
| 509+12.98 | 50912.98    | 25.23    | 4.91      | 1.54 | 5                                    | 1              | 591                   | 13                    | 579                     |
| 509+38.25 | 50938.25    | 25.27    | 5.89      | 7.68 | 5                                    | 4              | 596                   | 18                    | 579                     |
| 510+04.07 | 51004.07    | 65.82    | 5.69      | 0.00 | 14                                   | 9              | 610                   | 29                    | 581                     |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |                | CUMULATIVE VOL (CY)   |                       |                         |
|-----------|-------------|----------|-----------|------|--------------------------------------|----------------|-----------------------|-----------------------|-------------------------|
|           |             |          | CUT       | FILL | CUT<br>NOTE 1                        | FILL<br>NOTE 3 | CUT<br>1.00<br>NOTE 1 | EXPANDED FILL<br>1.25 | MASS ORDINATE<br>NOTE 8 |
|           |             |          |           |      |                                      |                |                       |                       |                         |
| 529+88.32 | 52988.32    | 0.00     | 8.66      | 0.00 | 0                                    | 0              | 0                     | 0                     | 0                       |
| 530+04.66 | 53004.66    | 16.34    | 15.34     | 0.00 | 7                                    | 0              | 7                     | 0                     | 7                       |
| 530+29.51 | 53029.51    | 24.85    | 8.10      | 0.00 | 11                                   | 0              | 18                    | 0                     | 18                      |
| 530+54.49 | 53054.49    | 24.98    | 2.74      | 0.00 | 5                                    | 0              | 23                    | 0                     | 23                      |
| 531+00.00 | 53100.00    | 45.51    | 11.05     | 0.00 | 12                                   | 0              | 35                    | 0                     | 35                      |
| 531+50.00 | 53150.00    | 50.00    | 6.53      | 2.31 | 16                                   | 2              | 51                    | 3                     | 49                      |
| 532+00.00 | 53200.00    | 50.00    | 6.36      | 0.00 | 12                                   | 2              | 63                    | 5                     | 58                      |
| 532+49.45 | 53249.45    | 49.45    | 5.56      | 0.77 | 11                                   | 1              | 74                    | 6                     | 68                      |
| 533+00.00 | 53300.00    | 50.55    | 5.29      | 2.99 | 10                                   | 4              | 84                    | 11                    | 73                      |
| 533+49.36 | 53349.36    | 49.36    | 5.90      | 0.58 | 10                                   | 3              | 94                    | 15                    | 79                      |
| 534+00.00 | 53400.00    | 50.64    | 6.46      | 0.00 | 12                                   | 1              | 106                   | 16                    | 90                      |
| 534+48.21 | 53448.21    | 48.21    | 8.41      | 0.65 | 13                                   | 1              | 119                   | 18                    | 102                     |
| 534+73.21 | 53473.21    | 25.00    | 9.99      | 0.00 | 9                                    | 0              | 128                   | 18                    | 111                     |
| 534+98.20 | 53498.20    | 24.99    | 14.40     | 0.00 | 11                                   | 0              | 139                   | 18                    | 122                     |
| 535+50.00 | 53550.00    | 51.80    | 13.21     | 0.00 | 26                                   | 0              | 165                   | 18                    | 148                     |
| 535+86.15 | 53586.15    | 36.15    | 8.79      | 0.00 | 15                                   | 0              | 180                   | 18                    | 163                     |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |                | CUMULATIVE VOL (CY)   |                       |                         |
|-----------|-------------|----------|-----------|------|--------------------------------------|----------------|-----------------------|-----------------------|-------------------------|
|           |             |          | CUT       | FILL | CUT<br>NOTE 1                        | FILL<br>NOTE 3 | CUT<br>1.00<br>NOTE 1 | EXPANDED FILL<br>1.25 | MASS ORDINATE<br>NOTE 8 |
|           |             |          |           |      |                                      |                |                       |                       |                         |
| 511+87.38 | 51187.38    | 0.00     | 15.34     | 0.00 | 0                                    | 0              | 0                     | 0                     | 0                       |
| 512+00.00 | 51200.00    | 12.62    | 10.84     | 0.00 | 6                                    | 0              | 6                     | 0                     | 6                       |
| 512+50.00 | 51250.00    | 50.00    | 11.51     | 0.00 | 21                                   | 0              | 27                    | 0                     | 27                      |
| 512+81.44 | 51281.44    | 31.44    | 11.64     | 3.19 | 13                                   | 2              | 40                    | 3                     | 38                      |
| 513+05.98 | 51305.98    | 24.54    | 8.03      | 3.22 | 9                                    | 3              | 49                    | 6                     | 43                      |
| 513+30.69 | 51330.69    | 24.71    | 7.41      | 0.53 | 7                                    | 2              | 56                    | 9                     | 47                      |
| 513+50.00 | 51350.00    | 19.31    | 10.84     | 0.00 | 7                                    | 0              | 63                    | 9                     | 54                      |
| 514+00.00 | 51400.00    | 50.00    | 13.17     | 0.00 | 22                                   | 0              | 85                    | 9                     | 76                      |
| 514+50.00 | 51450.00    | 50.00    | 9.81      | 0.00 | 21                                   | 0              | 106                   | 9                     | 97                      |
| 515+00.00 | 51500.00    | 50.00    | 8.29      | 0.00 | 17                                   | 0              | 123                   | 9                     | 114                     |
| 515+50.00 | 51550.00    | 50.00    | 8.55      | 0.00 | 16                                   | 0              | 139                   | 9                     | 130                     |
| 516+00.00 | 51600.00    | 50.00    | 7.99      | 0.00 | 15                                   | 0              | 154                   | 9                     | 145                     |
| 516+50.00 | 51650.00    | 50.00    | 4.97      | 0.00 | 12                                   | 0              | 166                   | 9                     | 157                     |
| 517+00.00 | 51700.00    | 50.00    | 7.23      | 0.00 | 11                                   | 0              | 177                   | 9                     | 168                     |
| 517+50.00 | 51750.00    | 50.00    | 6.83      | 0.00 | 13                                   | 0              | 190                   | 9                     | 181                     |
| 518+06.82 | 51806.82    | 56.82    | 11.98     | 0.00 | 20                                   | 0              | 210                   | 9                     | 201                     |
| 518+31.57 | 51831.57    | 24.75    | 14.91     | 0.00 | 12                                   | 0              | 222                   | 9                     | 213                     |
| 518+56.26 | 51856.26    | 24.69    | 18.12     | 0.00 | 15                                   | 0              | 237                   | 9                     | 228                     |
| 519+00.00 | 51900.00    | 43.74    | 21.38     | 0.00 | 32                                   | 0              | 269                   | 9                     | 260                     |
| 519+33.03 | 51933.03    | 33.03    | 18.40     | 0.00 | 24                                   | 0              | 293                   | 9                     | 284                     |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY)<br>(UNADJUSTED) |                | CUMULATIVE VOL (CY)   |                       |                         |
|-----------|-------------|----------|-----------|------|--------------------------------------|----------------|-----------------------|-----------------------|-------------------------|
|           |             |          | CUT       | FILL | CUT<br>NOTE 1                        | FILL<br>NOTE 3 | CUT<br>1.00<br>NOTE 1 | EXPANDED FILL<br>1.25 | MASS ORDINATE<br>NOTE 8 |
|           |             |          |           |      |                                      |                |                       |                       |                         |
| 547+62.44 | 54762.44    | 0.00     | 7.83      | 0.00 | 0                                    | 0              | 0                     | 0                     | 0                       |
| 548+00.00 | 54800.00    | 37.56    | 8.71      | 0.00 | 12                                   | 0              | 12                    | 0                     | 12                      |
| 548+36.01 | 54836.01    | 36.01    | 6.59      | 0.76 | 10                                   | 1              | 22                    | 1                     | 21                      |
| 548+54.18 | 54854.18    | 18.17    | 17.91     | 1.72 | 8                                    | 1              | 30                    | 3                     | 28                      |
| 548+79.84 | 54879.84    | 25.66    | 19.74     | 0.00 | 18                                   | 1              | 48                    | 4                     | 44                      |
| 549+05.52 | 54905.52    | 25.68    | 18.16     | 0.00 | 18                                   | 0              | 66                    | 4                     | 62                      |
| 549+07.58 | 54907.58    | 2.06     | 19.51     | 0.00 | 1                                    | 0              | 67                    | 4                     | 63                      |
| 549+31.91 | 54931.91    | 24.33    | 20.34     | 0.00 | 18                                   | 0              | 85                    | 4                     | 81                      |
| 549+56.24 | 54956.24    | 24.33    | 19.45     | 0.00 | 18                                   | 0              | 103                   | 4                     | 99                      |
| 550+00.00 | 55000.00    | 43.76    | 17.25     | 0.00 | 30                                   | 0              | 133                   | 4                     | 129                     |
| 550+50.00 | 55050.00    | 50.00    | 14.96     | 1.10 | 30                                   | 1              | 163                   | 5                     | 158                     |
| 551+00.00 | 55100.00    | 50.00    | 16.70     | 0.00 | 29                                   | 1              | 192                   | 6                     | 186                     |
| 551+50.00 | 55150.00    | 50.00    | 13.82     | 0.09 | 28                                   | 0              | 220                   | 6                     | 214                     |
| 552+00.00 | 55200.00    | 50.00    | 13.69     | 0.15 | 25                                   | 0              | 245                   | 6                     | 239                     |
| 552+50.00 | 55250.00    | 50.00    | 10.83     | 1.55 | 23                                   | 2              | 268                   | 9                     | 259                     |
| 553+00.00 | 55300.00    | 50.00    | 12.02     | 0.00 | 21                                   | 1              | 289                   | 10                    | 279                     |
| 553+50.00 | 55350.00    | 50.00    | 15.59     | 0.00 | 26                                   | 0              | 315                   | 10                    | 305                     |
| 554+00.00 | 55400.00    | 50.00    | 22.39     | 0.00 | 35                                   | 0              | 350                   | 10                    | 340                     |
| 554+50.00 | 55450.00    | 50.00    | 7.64      | 0.00 | 28                                   | 0              | 378                   | 10                    | 368                     |
| 555+00.00 | 55500.00    | 50.00    | 24.60     | 0.00 | 30                                   | 0              | 408                   | 10                    | 398                     |
| 555+50.00 | 55550.00    | 50.00    | 22.11     | 0.00 | 43                                   | 0              | 451                   | 10                    | 441                     |
| 556+00.00 | 55600.00    | 50.00    | 18.24     | 0.50 | 37                                   | 0              | 488                   | 10                    | 478                     |
| 556+50.00 | 55650.00    | 50.00    | 20.59     | 0.00 | 36                                   | 0              | 524                   | 10                    | 514                     |
| 556+66.67 | 55666.67    | 16.67    | 11.11     | 0.96 | 10                                   | 0              | 534                   | 10                    | 524                     |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY) |        | CUMULATIVE VOL (CY)   |               |     |
|-----------|-------------|----------|-----------|------|----------------------|--------|-----------------------|---------------|-----|
|           |             |          |           |      | (UNADJUSTED)         |        | EXPANDED FILL<br>1.25 | MASS ORDINATE |     |
|           |             |          | CUT       | FILL | CUT                  | FILL   |                       |               |     |
|           |             |          |           |      | NOTE 1               | NOTE 3 | NOTE 1                | NOTE 8        |     |
| 559+46.56 | 55946.56    | 0.00     | 9.40      | 0.00 | 0                    | 0      | 0                     | 0             | 0   |
| 559+54.40 | 55954.40    | 7.84     | 18.03     | 0.00 | 4                    | 0      | 4                     | 0             | 4   |
| 560+00.00 | 56000.00    | 45.60    | 25.06     | 0.00 | 36                   | 0      | 40                    | 0             | 40  |
| 561+00.00 | 56100.00    | 100.00   | 11.07     | 0.00 | 67                   | 0      | 107                   | 0             | 107 |
| 561+50.00 | 56150.00    | 50.00    | 11.20     | 0.00 | 21                   | 0      | 128                   | 0             | 128 |
| 562+00.00 | 56200.00    | 50.00    | 11.69     | 0.00 | 21                   | 0      | 149                   | 0             | 149 |
| 562+50.00 | 56250.00    | 50.00    | 14.65     | 0.00 | 24                   | 0      | 173                   | 0             | 173 |
| 563+00.00 | 56300.00    | 50.00    | 14.12     | 0.00 | 27                   | 0      | 200                   | 0             | 200 |
| 563+50.00 | 56350.00    | 50.00    | 13.36     | 0.00 | 25                   | 0      | 225                   | 0             | 225 |
| 563+86.42 | 56386.42    | 36.42    | 12.31     | 0.00 | 17                   | 0      | 242                   | 0             | 242 |
| 564+11.17 | 56411.17    | 24.75    | 12.96     | 0.00 | 12                   | 0      | 254                   | 0             | 254 |
| 564+36.16 | 56436.16    | 24.99    | 14.90     | 0.00 | 13                   | 0      | 267                   | 0             | 267 |
| 564+50.00 | 56450.00    | 13.84    | 16.06     | 0.00 | 8                    | 0      | 275                   | 0             | 275 |
| 565+01.33 | 56501.33    | 51.33    | 14.00     | 0.00 | 29                   | 0      | 304                   | 0             | 304 |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY) |        | CUMULATIVE VOL (CY)   |               |     |
|-----------|-------------|----------|-----------|-------|----------------------|--------|-----------------------|---------------|-----|
|           |             |          |           |       | (UNADJUSTED)         |        | EXPANDED FILL<br>1.25 | MASS ORDINATE |     |
|           |             |          | CUT       | FILL  | CUT                  | FILL   |                       |               |     |
|           |             |          |           |       | NOTE 1               | NOTE 3 | NOTE 1                | NOTE 8        |     |
| 582+32.50 | 58232.50    | 0.00     | 7.32      | 0.62  | 0                    | 0      | 0                     | 0             | 0   |
| 582+50.00 | 58250.00    | 17.50    | 4.65      | 4.58  | 4                    | 2      | 4                     | 3             | 2   |
| 583+00.00 | 58300.00    | 50.00    | 17.82     | 19.04 | 21                   | 22     | 25                    | 30            | -5  |
| 583+33.69 | 58333.69    | 33.69    | 20.80     | 19.66 | 24                   | 24     | 49                    | 60            | -11 |
| 583+58.68 | 58358.68    | 24.99    | 21.80     | 4.52  | 20                   | 11     | 69                    | 74            | -5  |
| 583+83.65 | 58383.65    | 24.97    | 20.81     | 4.02  | 20                   | 4      | 89                    | 79            | 10  |
| 584+00.00 | 58400.00    | 16.35    | 18.22     | 4.31  | 12                   | 3      | 101                   | 83            | 19  |
| 584+50.00 | 58450.00    | 50.00    | 18.20     | 0.76  | 34                   | 5      | 135                   | 89            | 46  |
| 585+00.00 | 58500.00    | 50.00    | 19.28     | 0.00  | 35                   | 1      | 170                   | 90            | 80  |
| 585+25.82 | 58525.82    | 25.82    | 17.82     | 0.00  | 18                   | 0      | 188                   | 90            | 98  |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REALSTATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY) |        | CUMULATIVE VOL (CY)   |               |     |
|-----------|-------------|----------|-----------|-------|----------------------|--------|-----------------------|---------------|-----|
|           |             |          |           |       | (UNADJUSTED)         |        | EXPANDED FILL<br>1.25 | MASS ORDINATE |     |
|           |             |          | CUT       | FILL  | CUT                  | FILL   |                       |               |     |
|           |             |          |           |       | NOTE 1               | NOTE 3 | NOTE 1                | NOTE 8        |     |
| 587+39.28 | 58739.28    | 0.00     | 3.81      | 2.35  | 0                    | 0      | 0                     | 0             | 0   |
| 587+52.14 | 58752.14    | 12.86    | 17.22     | 5.74  | 5                    | 2      | 5                     | 3             | 3   |
| 588+00.00 | 58800.00    | 47.86    | 20.43     | 0.00  | 33                   | 5      | 38                    | 9             | 29  |
| 588+31.98 | 58831.98    | 31.98    | 18.37     | 0.00  | 23                   | 0      | 61                    | 9             | 52  |
| 588+56.98 | 58856.98    | 25.00    | 21.48     | 0.00  | 18                   | 0      | 79                    | 9             | 70  |
| 588+81.98 | 58881.98    | 25.00    | 27.17     | 0.00  | 23                   | 0      | 102                   | 9             | 93  |
| 589+00.00 | 58900.00    | 18.02    | 25.18     | 4.18  | 17                   | 1      | 119                   | 10            | 109 |
| 589+50.00 | 58950.00    | 50.00    | 18.19     | 0.00  | 40                   | 4      | 159                   | 15            | 144 |
| 589+66.14 | 58966.14    | 16.14    | 17.51     | 0.18  | 11                   | 0      | 170                   | 15            | 155 |
| 590+06.75 | 59006.75    | 40.61    | 7.38      | 0.00  | 19                   | 0      | 189                   | 15            | 174 |
| 590+31.75 | 59031.75    | 25.00    | 6.36      | 9.44  | 6                    | 4      | 195                   | 20            | 175 |
| 590+56.74 | 59056.74    | 24.99    | 8.30      | 0.00  | 7                    | 4      | 202                   | 25            | 177 |
| 590+75.15 | 59075.15    | 18.41    | 12.46     | 0.00  | 7                    | 0      | 209                   | 25            | 184 |
| 591+10.65 | 59110.65    | 35.50    | 11.56     | 0.00  | 16                   | 0      | 225                   | 25            | 200 |
| 591+40.38 | 59140.38    | 29.73    | 7.14      | 18.34 | 10                   | 10     | 235                   | 38            | 198 |
| 591+65.37 | 59165.37    | 24.99    | 6.76      | 10.36 | 6                    | 13     | 241                   | 54            | 187 |
| 591+75.79 | 59175.79    | 10.42    | 16.97     | 13.35 | 5                    | 5      | 246                   | 60            | 186 |
| 591+90.37 | 59190.37    | 14.58    | 12.49     | 28.99 | 8                    | 11     | 254                   | 74            | 180 |
| 591+99.83 | 59199.83    | 9.46     | 10.63     | 50.40 | 4                    | 14     | 258                   | 91            | 167 |
| 592+24.83 | 59224.83    | 25.00    | 11.11     | 40.89 | 10                   | 42     | 268                   | 144           | 124 |
| 592+50.23 | 59250.23    | 25.40    | 12.94     | 8.75  | 11                   | 23     | 279                   | 173           | 107 |
| 593+00.00 | 59300.00    | 49.77    | 15.74     | 1.18  | 26                   | 9      | 305                   | 184           | 121 |
| 593+50.00 | 59350.00    | 50.00    | 23.53     | 0.00  | 36                   | 1      | 341                   | 185           | 156 |
| 594+00.00 | 59400.00    | 50.00    | 16.63     | 0.00  | 37                   | 0      | 378                   | 185           | 193 |
| 594+50.00 | 59450.00    | 50.00    | 17.49     | 1.24  | 32                   | 1      | 410                   | 186           | 224 |
| 595+00.00 | 59500.00    | 50.00    | 18.34     | 0.00  | 33                   | 1      | 443                   | 188           | 256 |
| 595+50.00 | 59550.00    | 50.00    | 10.07     | 0.00  | 26                   | 0      | 469                   | 188           | 282 |
| 596+00.00 | 59600.00    | 50.00    | 8.04      | 0.00  | 17                   | 0      | 486                   | 188           | 299 |
| 596+50.00 | 59650.00    | 50.00    | 7.57      | 1.49  | 14                   | 1      | 500                   | 189           | 311 |
| 597+00.00 | 59700.00    | 50.00    | 6.77      | 0.04  | 13                   | 1      | 513                   | 190           | 323 |
| 597+50.00 | 59750.00    | 50.00    | 5.63      | 0.00  | 11                   | 0      | 524                   | 190           | 334 |
| 598+00.00 | 59800.00    | 50.00    | 7.68      | 0.00  | 12                   | 0      | 536                   | 190           | 346 |
| 598+50.00 | 59850.00    | 50.00    | 7.01      | 0.00  | 14                   | 0      | 550                   | 190           | 360 |
| 599+00.00 | 59900.00    | 50.00    | 8.13      | 0.00  | 14                   | 0      | 564                   | 190           | 374 |
| 599+50.00 | 59950.00    | 50.00    | 9.23      | 0.00  | 16                   | 0      | 580                   | 190           | 390 |
| 600+00.00 | 60000.00    | 50.00    | 6.51      | 0.00  | 15                   | 0      | 595                   | 190           | 405 |
| 601+00.00 | 60100.00    | 100.00   | 7.44      | 0.00  | 26                   | 0      | 621                   | 190           | 431 |
| 601+50.00 | 60150.00    | 50.00    | 8.12      | 0.00  | 14                   | 0      | 635                   | 190           | 445 |
| 602+00.00 | 60200.00    | 50.00    | 6.17      | 0.00  | 13                   | 0      | 648                   | 190           | 458 |
| 602+50.00 | 60250.00    | 50.00    | 5.80      | 0.00  | 11                   | 0      | 659                   | 190           | 469 |
| 603+00.00 | 60300.00    | 50.00    | 7.41      | 0.00  | 12                   | 0      | 671                   | 190           | 481 |
| 603+18.08 | 60318.08    | 18.08    | 7.50      | 0.00  | 5                    | 0      | 676                   | 190           | 486 |
| 603+43.08 | 60343.08    | 25.00    | 8.69      | 0.00  | 7                    | 0      | 683                   | 190           | 493 |
| 603+68.08 | 60368.08    | 25.00    | 8.99      | 0.00  | 8                    | 0      | 691                   | 190           | 501 |
| 604+14.69 | 60414.69    | 46.61    | 8.25      | 0.00  | 15                   | 0      | 706                   | 190           | 516 |



DIVISION 1 - ALIGNMENT - STH 131

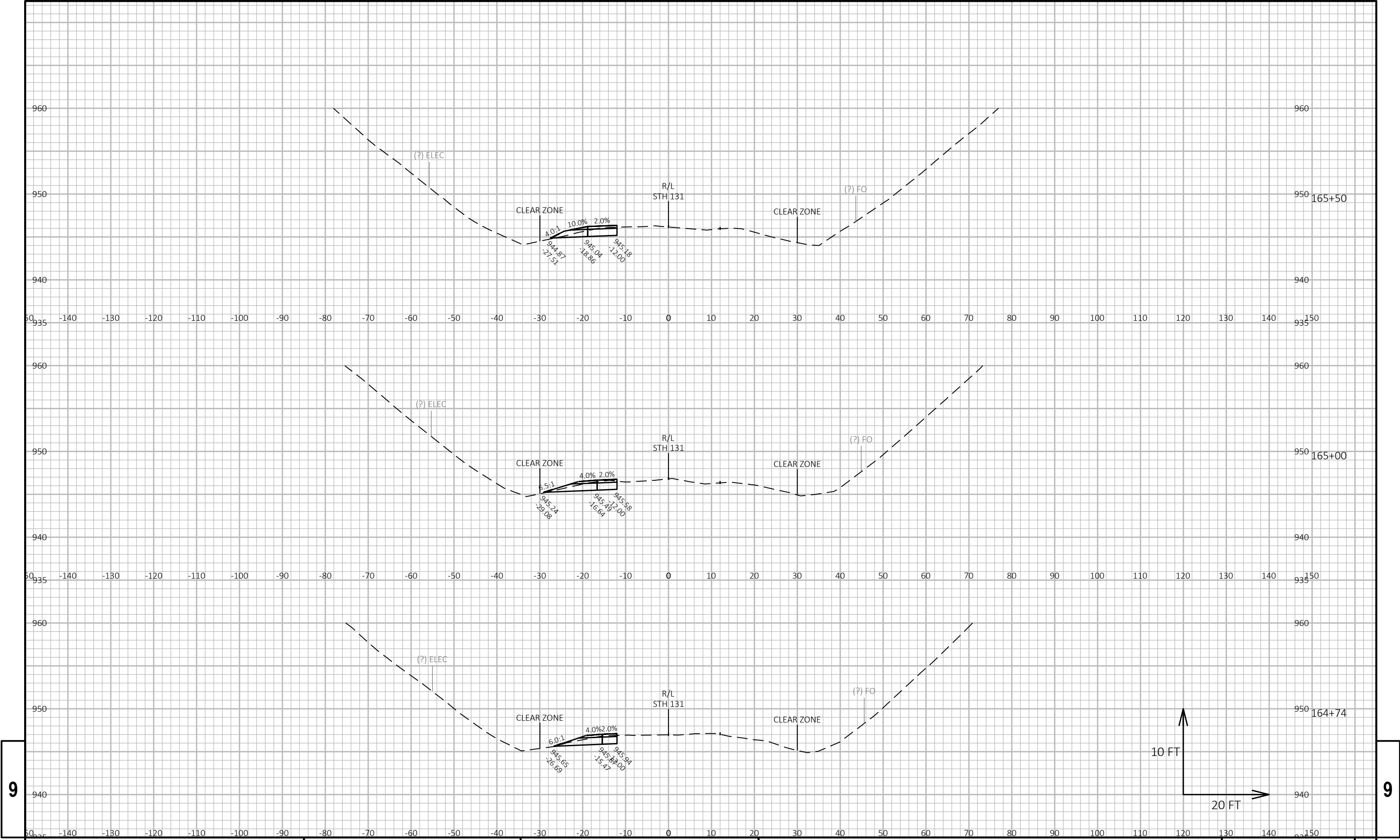
| STATION   | REAL STATION | DISTANCE | AREA (SF) |      | INCREMENTAL VOL (CY) |                | CUMULATIVE VOL (CY)   |              |     |
|-----------|--------------|----------|-----------|------|----------------------|----------------|-----------------------|--------------|-----|
|           |              |          |           |      | (UNADJUSTED)         |                | EXPANDED FILL<br>1.25 | MASS ORDNATE |     |
|           |              |          | CUT       | FILL | CUT<br>NOTE 1        | FILL<br>NOTE 3 | CUT<br>1.00<br>NOTE 1 |              |     |
| 617+00.00 | 61700.00     | 0.00     | 9.89      | 0.00 | 0                    | 0              | 0                     | 0            | 0   |
| 617+50.00 | 61750.00     | 50.00    | 10.94     | 0.00 | 19                   | 0              | 19                    | 0            | 19  |
| 617+75.60 | 61775.60     | 25.60    | 8.30      | 1.91 | 9                    | 1              | 28                    | 1            | 27  |
| 617+99.74 | 61799.74     | 24.14    | 30.67     | 0.00 | 17                   | 1              | 45                    | 3            | 43  |
| 618+24.14 | 61824.14     | 24.40    | 15.68     | 0.00 | 21                   | 0              | 66                    | 3            | 64  |
| 618+50.00 | 61850.00     | 25.86    | 8.17      | 2.84 | 11                   | 1              | 77                    | 4            | 73  |
| 619+00.00 | 61900.00     | 50.00    | 7.22      | 0.00 | 14                   | 3              | 91                    | 8            | 84  |
| 619+50.00 | 61950.00     | 50.00    | 7.42      | 0.00 | 14                   | 0              | 105                   | 8            | 98  |
| 620+00.00 | 62000.00     | 50.00    | 7.96      | 0.00 | 14                   | 0              | 119                   | 8            | 112 |
| 620+50.00 | 62050.00     | 50.00    | 6.26      | 0.00 | 13                   | 0              | 132                   | 8            | 125 |
| 621+00.00 | 62100.00     | 50.00    | 5.37      | 0.00 | 11                   | 0              | 143                   | 8            | 136 |
| 621+50.00 | 62150.00     | 50.00    | 7.46      | 0.00 | 12                   | 0              | 155                   | 8            | 148 |
| 622+00.00 | 62200.00     | 50.00    | 5.88      | 0.00 | 12                   | 0              | 167                   | 8            | 160 |
| 622+50.00 | 62250.00     | 50.00    | 6.37      | 0.02 | 11                   | 0              | 178                   | 8            | 171 |
| 623+15.62 | 62315.62     | 65.62    | 6.33      | 1.03 | 15                   | 1              | 193                   | 9            | 184 |
| 623+40.80 | 62340.80     | 25.18    | 7.83      | 0.29 | 7                    | 1              | 200                   | 10           | 190 |
| 623+66.47 | 62366.47     | 25.67    | 11.18     | 0.00 | 9                    | 0              | 209                   | 10           | 199 |
| 623+76.98 | 62376.98     | 10.51    | 0.00      | 0.00 | 2                    | 0              | 211                   | 10           | 201 |

DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REAL STATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY) |                | CUMULATIVE VOL (CY)   |              |     |
|-----------|--------------|----------|-----------|-------|----------------------|----------------|-----------------------|--------------|-----|
|           |              |          |           |       | (UNADJUSTED)         |                | EXPANDED FILL<br>1.25 | MASS ORDNATE |     |
|           |              |          | CUT       | FILL  | CUT<br>NOTE 1        | FILL<br>NOTE 3 | CUT<br>1.00<br>NOTE 1 |              |     |
| 628+27.49 | 62827.49     | 0.00     | 9.30      | 1.78  | 0                    | 0              | 0                     | 0            | 0   |
| 628+50.00 | 62850.00     | 22.51    | 6.96      | 6.56  | 7                    | 3              | 7                     | 4            | 3   |
| 628+73.23 | 62873.23     | 23.23    | 4.82      | 9.80  | 5                    | 7              | 12                    | 13           | -1  |
| 628+97.56 | 62897.56     | 24.33    | 5.67      | 5.75  | 5                    | 7              | 17                    | 21           | -4  |
| 629+21.92 | 62921.92     | 24.36    | 5.77      | 5.03  | 5                    | 5              | 22                    | 28           | -6  |
| 629+50.00 | 62950.00     | 28.08    | 6.76      | 0.00  | 7                    | 3              | 29                    | 31           | -2  |
| 630+00.00 | 63000.00     | 50.00    | 6.00      | 0.00  | 12                   | 0              | 41                    | 31           | 10  |
| 630+50.00 | 63050.00     | 50.00    | 5.35      | 0.00  | 11                   | 0              | 52                    | 31           | 21  |
| 631+00.00 | 63100.00     | 50.00    | 3.08      | 28.28 | 8                    | 26             | 60                    | 64           | -4  |
| 631+24.34 | 63124.34     | 24.34    | 4.62      | 29.71 | 3                    | 26             | 63                    | 96           | -33 |
| 631+49.34 | 63149.34     | 25.00    | 4.82      | 27.63 | 4                    | 27             | 67                    | 130          | -63 |
| 631+74.34 | 63174.34     | 25.00    | 5.97      | 27.34 | 5                    | 25             | 72                    | 161          | -89 |
| 631+95.40 | 63195.40     | 21.06    | 9.59      | 0.00  | 6                    | 11             | 78                    | 175          | -97 |

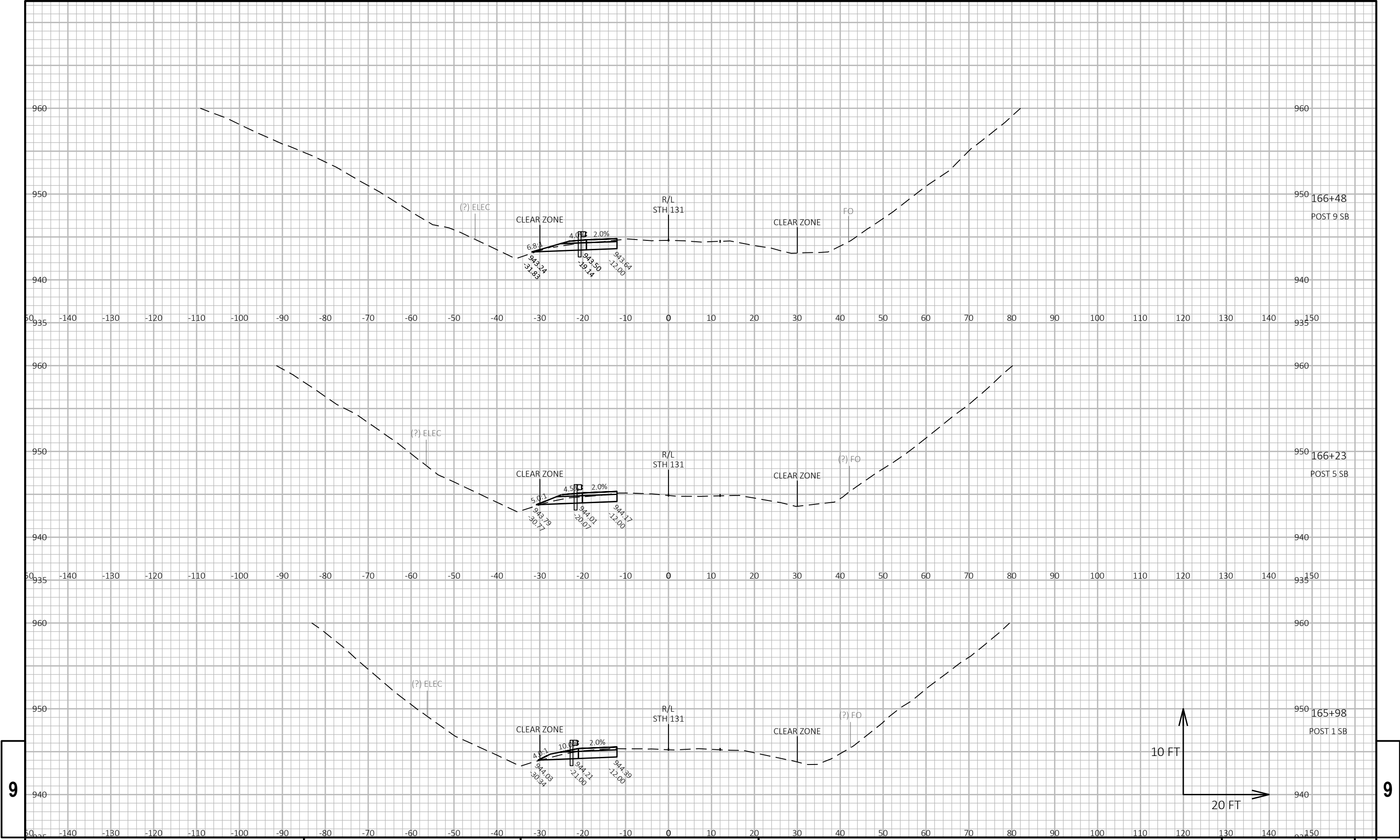
DIVISION 1 - ALIGNMENT - STH 131

| STATION   | REAL STATION | DISTANCE | AREA (SF) |       | INCREMENTAL VOL (CY) |                | CUMULATIVE VOL (CY)   |              |     |
|-----------|--------------|----------|-----------|-------|----------------------|----------------|-----------------------|--------------|-----|
|           |              |          |           |       | (UNADJUSTED)         |                | EXPANDED FILL<br>1.25 | MASS ORDNATE |     |
|           |              |          | CUT       | FILL  | CUT<br>NOTE 1        | FILL<br>NOTE 3 | CUT<br>1.00<br>NOTE 1 |              |     |
| 632+44.52 | 63244.52     | 0.00     | 12.17     | 0.00  | 0                    | 0              | 0                     | 0            | 0   |
| 632+66.18 | 63266.18     | 21.66    | 6.94      | 4.09  | 8                    | 2              | 8                     | 3            | 6   |
| 632+91.18 | 63291.18     | 25.00    | 5.91      | 15.08 | 6                    | 9              | 14                    | 14           | 0   |
| 633+16.18 | 63316.18     | 25.00    | 4.46      | 12.64 | 5                    | 13             | 19                    | 30           | -11 |
| 633+50.00 | 63350.00     | 33.82    | 5.81      | 0.00  | 6                    | 8              | 25                    | 40           | -15 |
| 634+00.00 | 63400.00     | 50.00    | 6.44      | 0.00  | 11                   | 0              | 36                    | 40           | -4  |
| 634+50.00 | 63450.00     | 50.00    | 5.76      | 16.38 | 11                   | 15             | 47                    | 59           | -12 |
| 634+81.80 | 63481.80     | 31.80    | 6.27      | 14.55 | 7                    | 18             | 54                    | 81           | -27 |
| 635+06.49 | 63506.49     | 24.69    | 6.10      | 11.55 | 6                    | 12             | 60                    | 96           | -36 |
| 635+30.98 | 63530.98     | 24.49    | 7.12      | 5.04  | 6                    | 8              | 66                    | 106          | -40 |
| 636+11.21 | 63611.21     | 80.23    | 10.27     | 8.13  | 26                   | 20             | 92                    | 131          | -39 |



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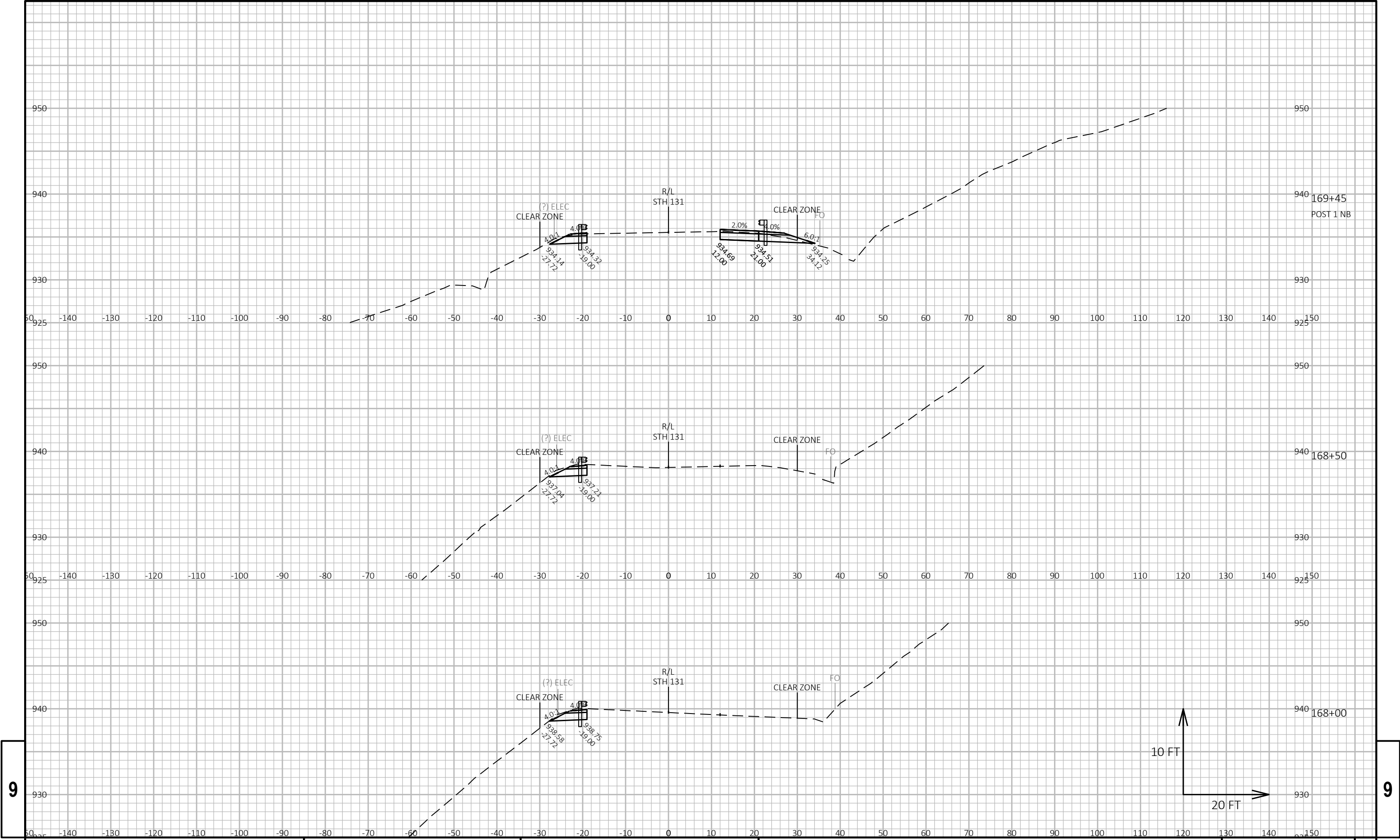
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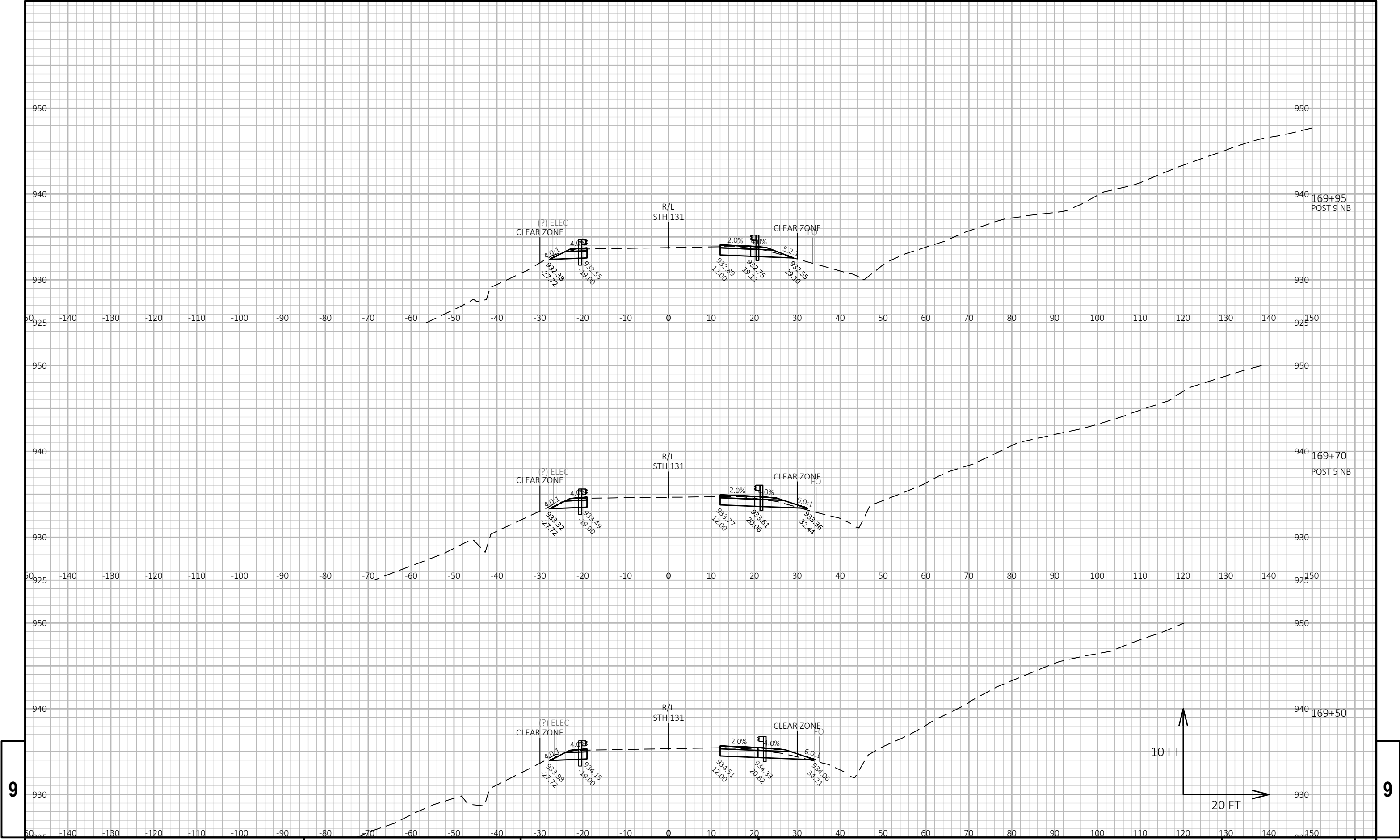




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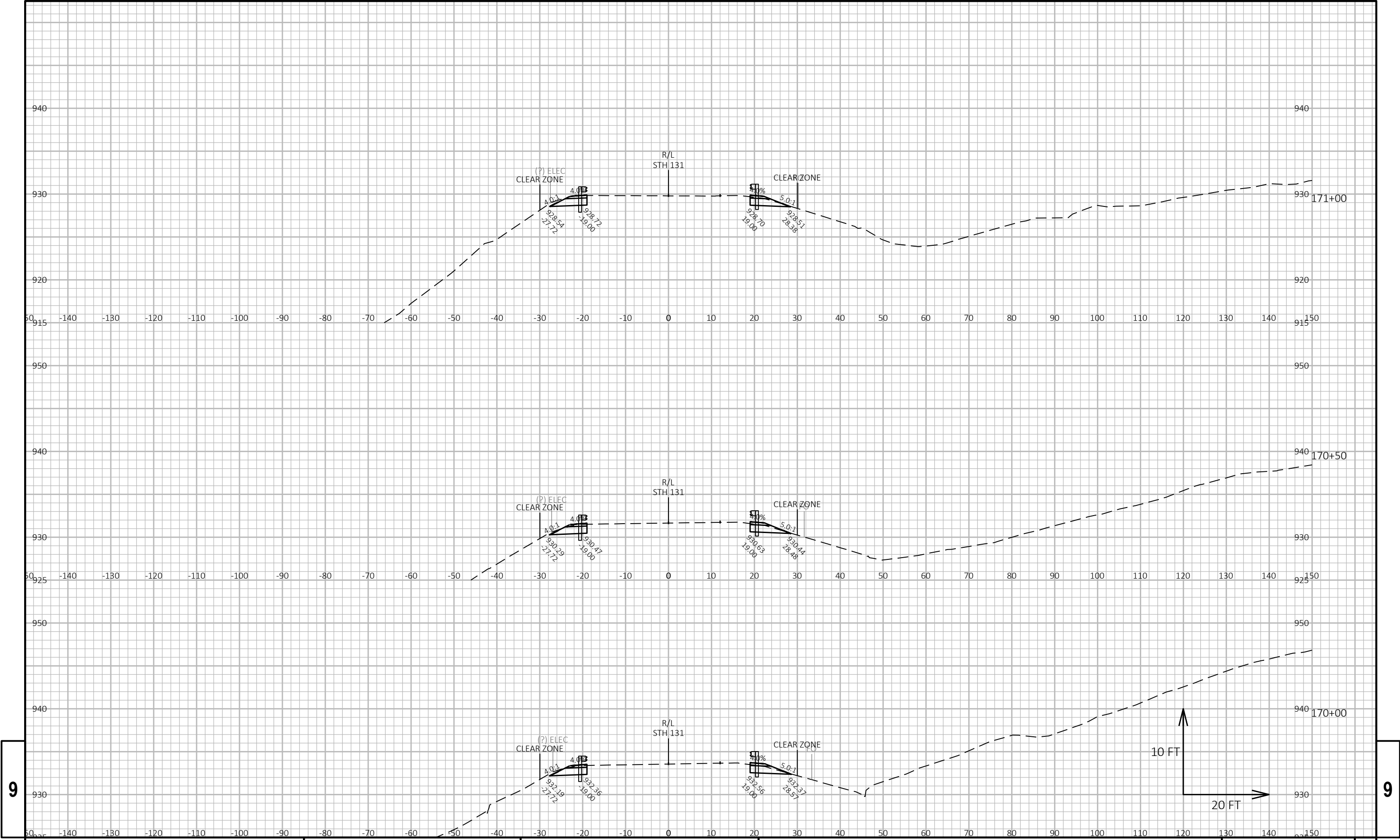
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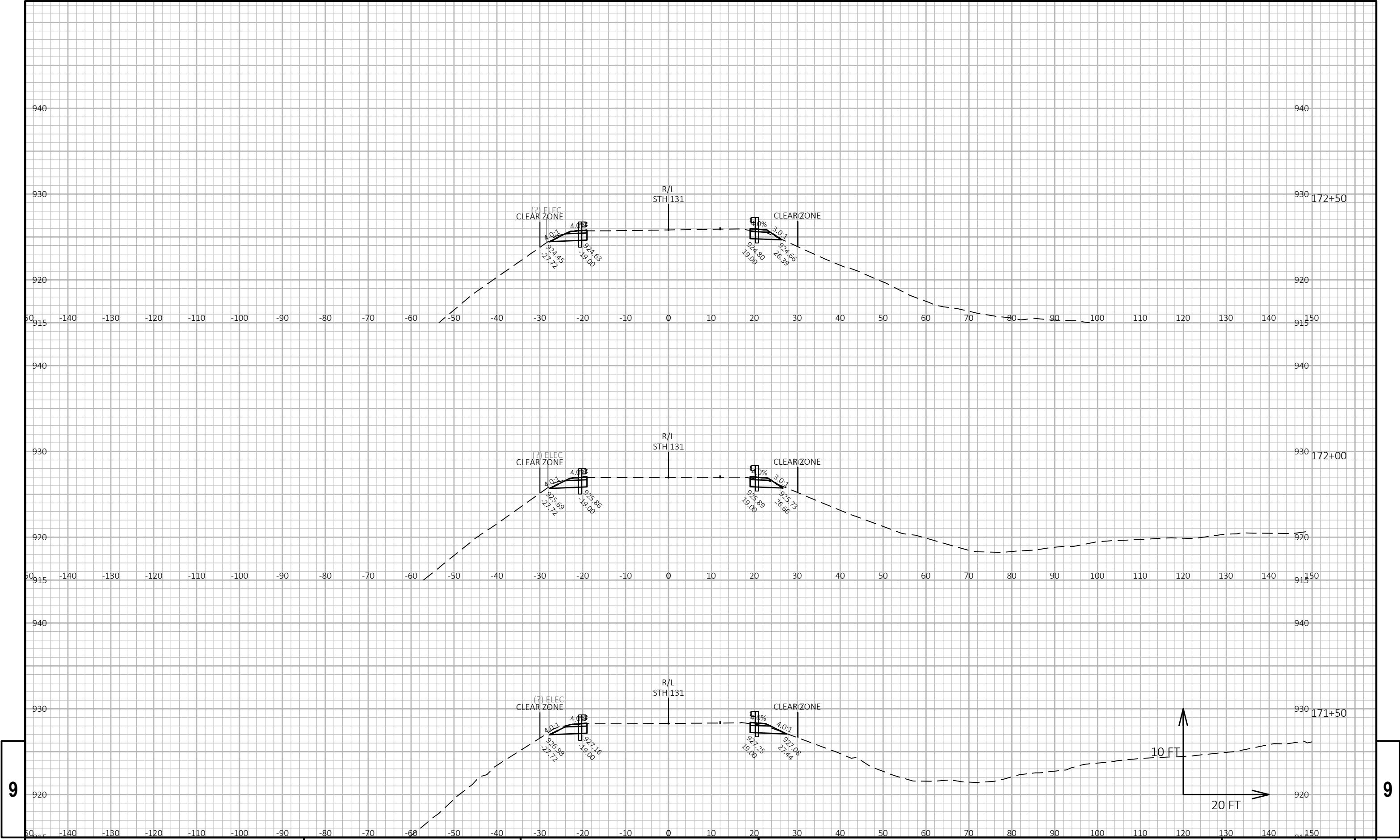
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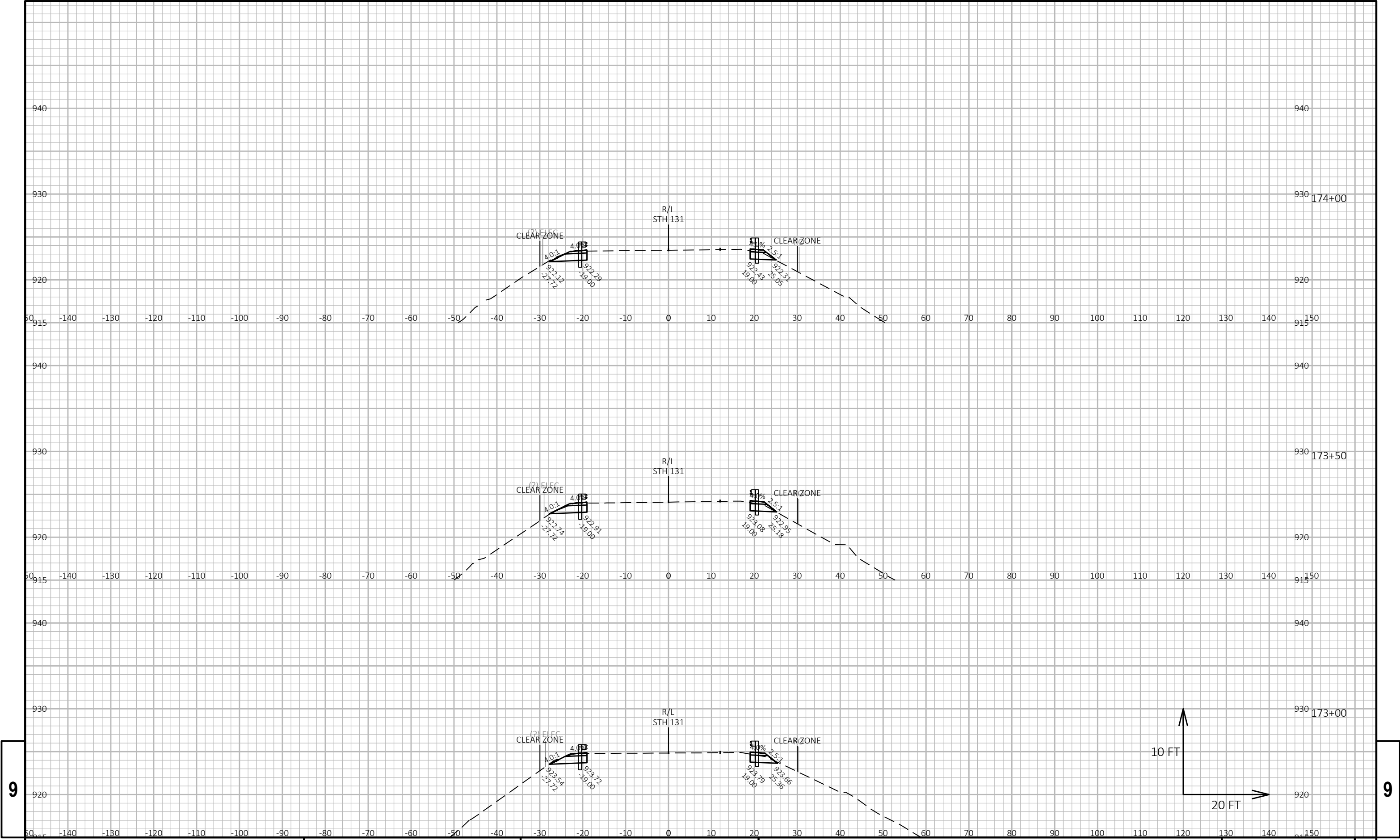
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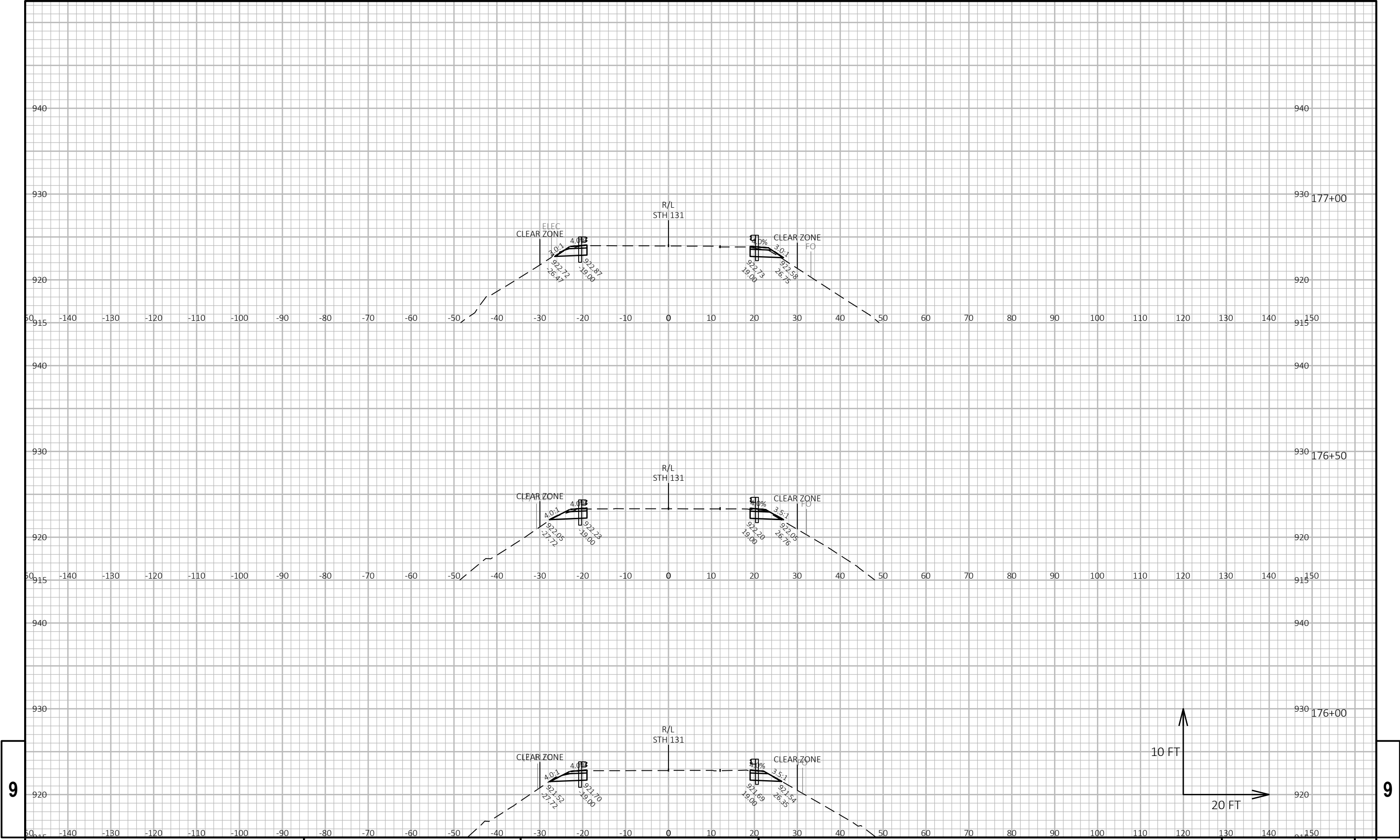
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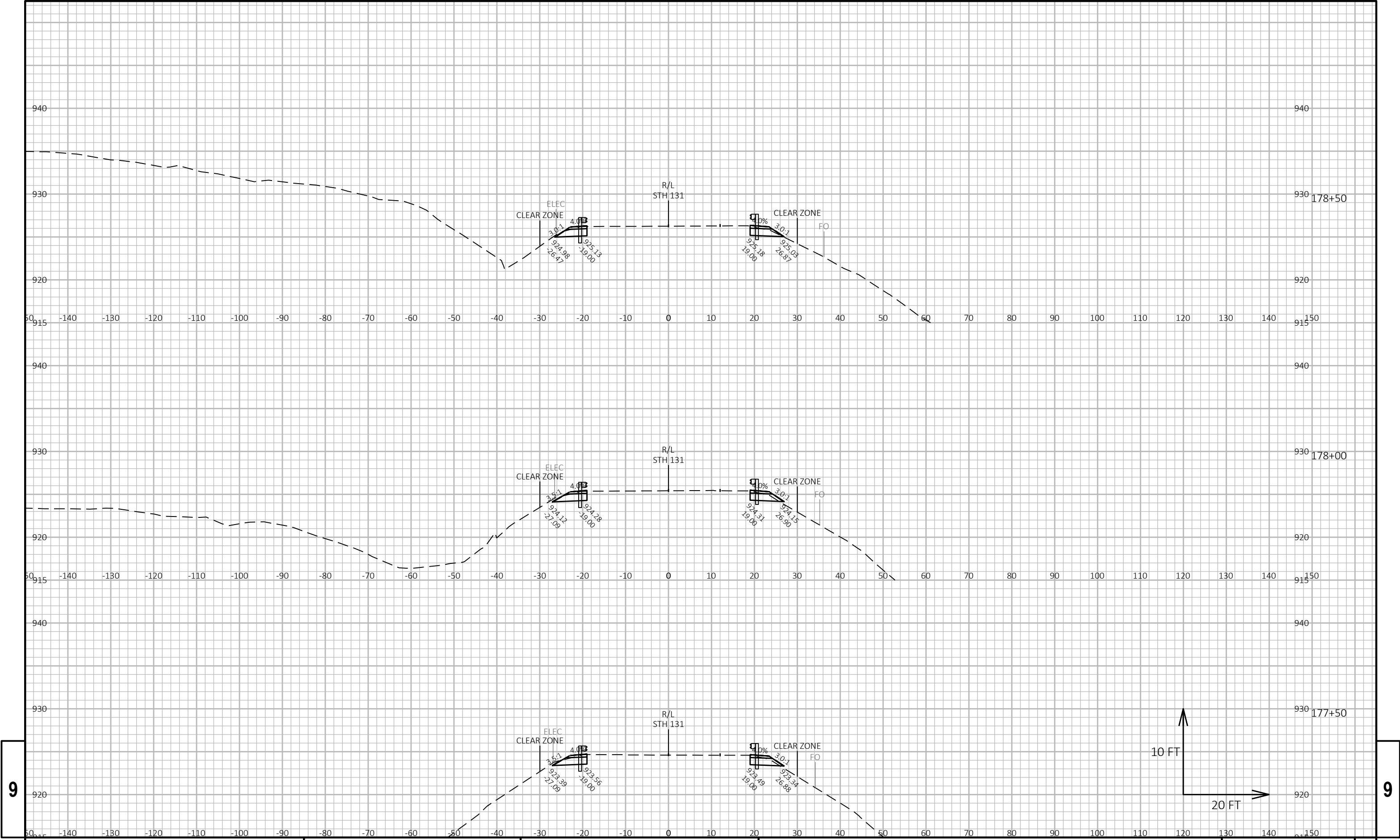






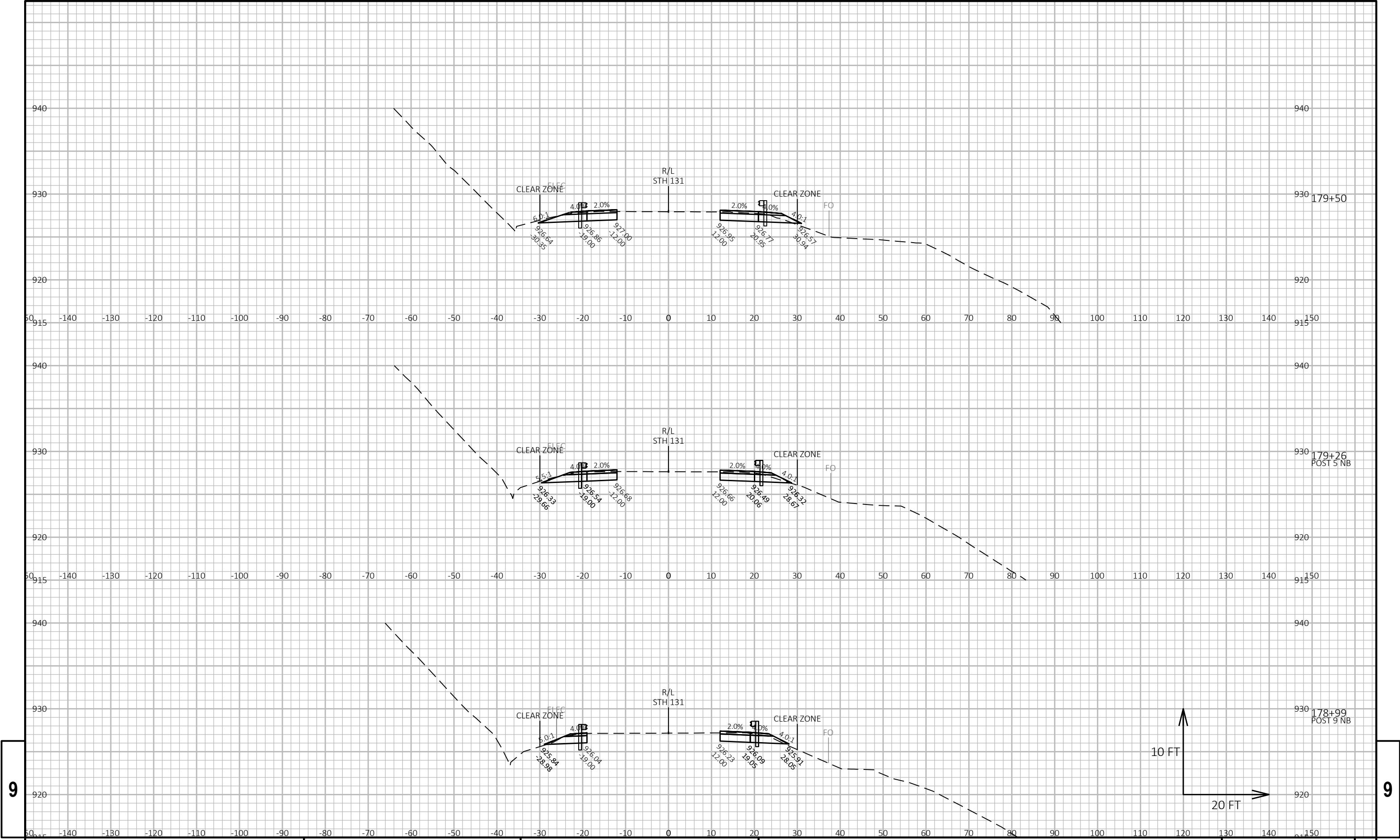
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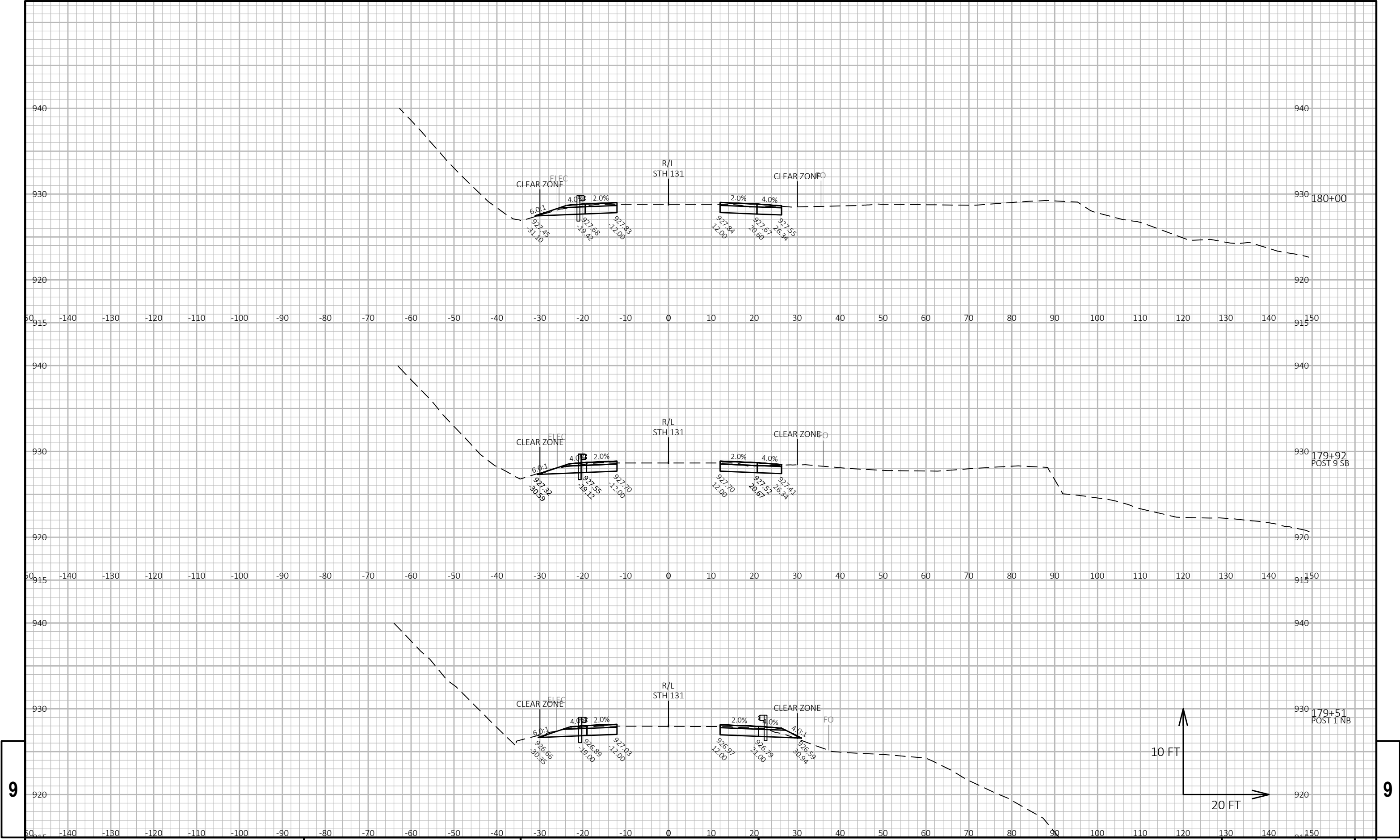
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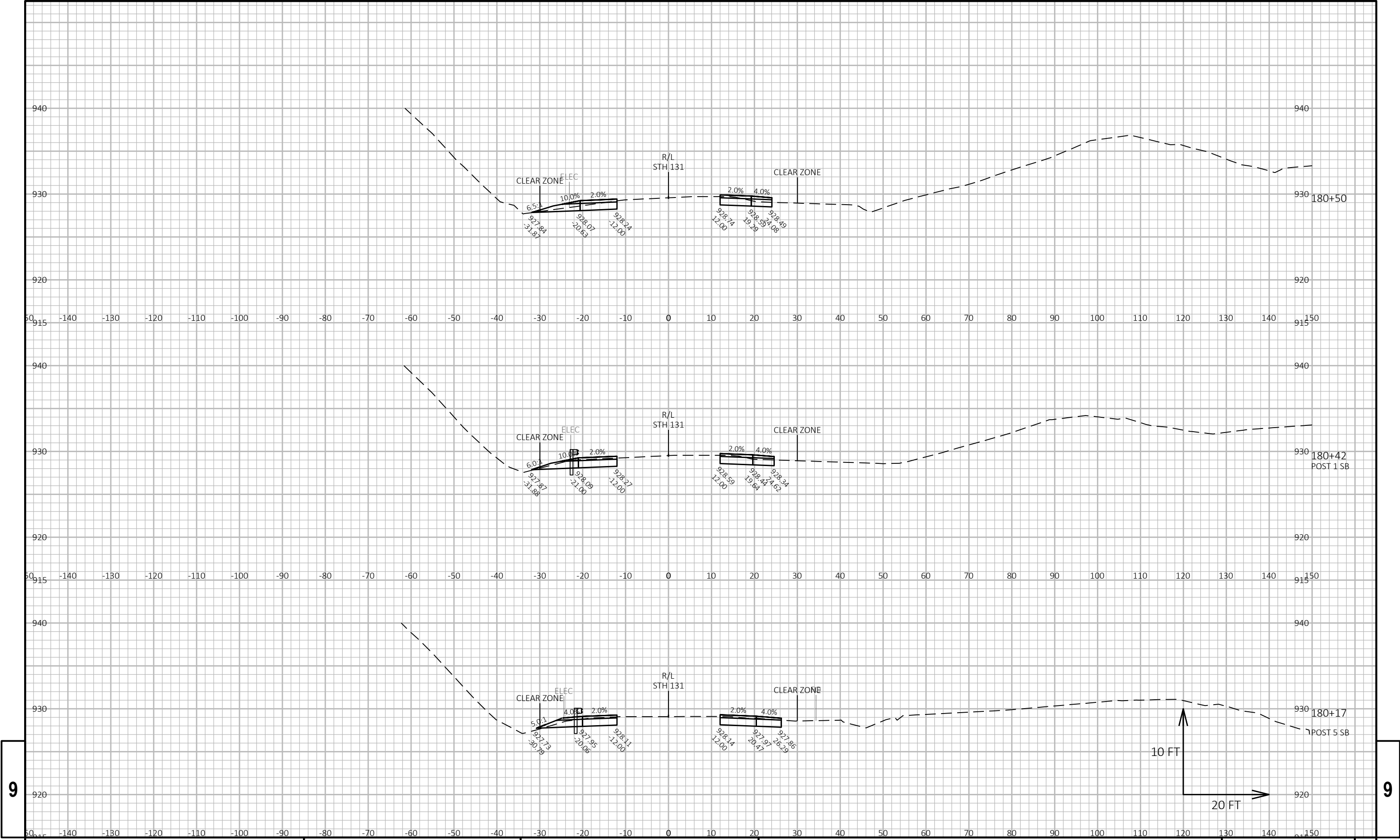
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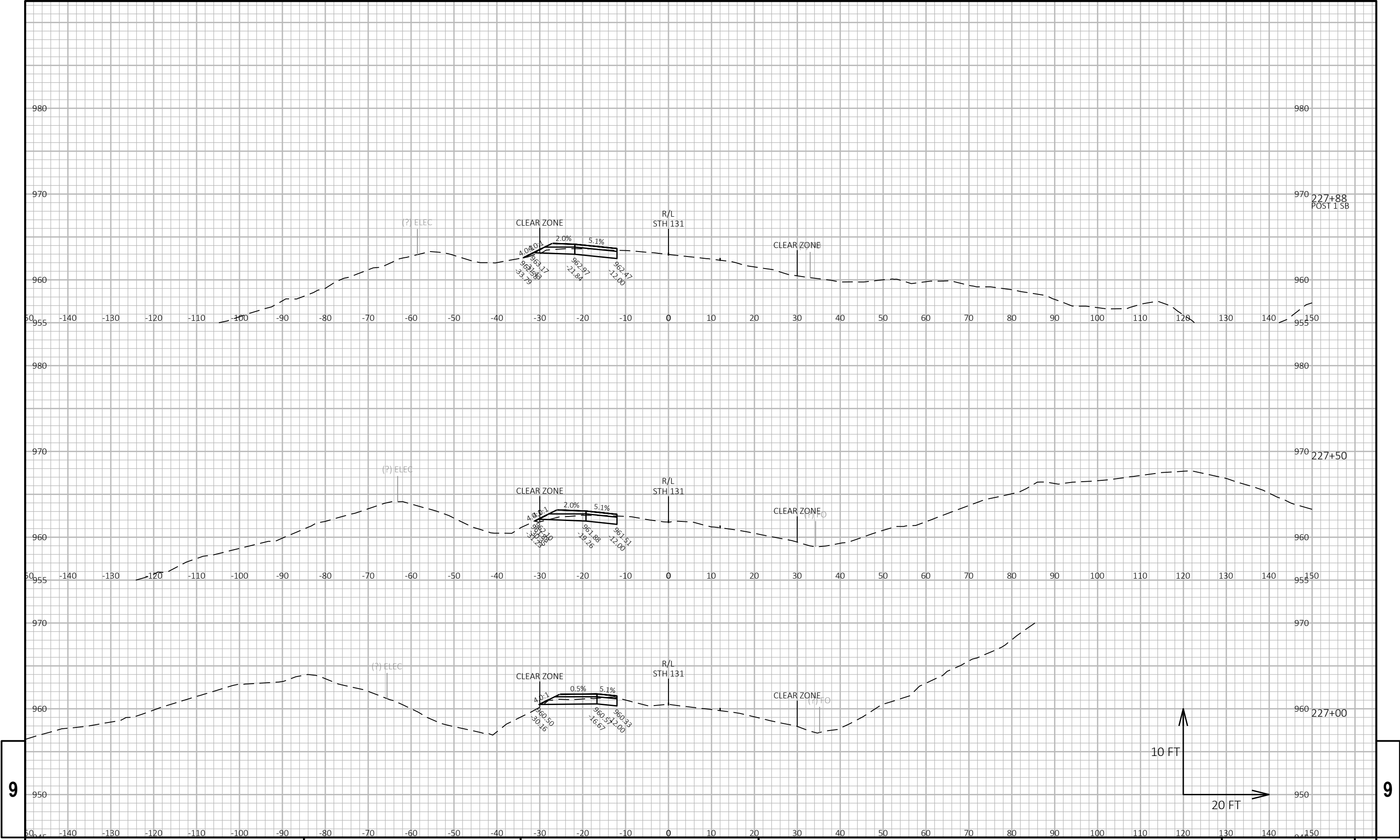


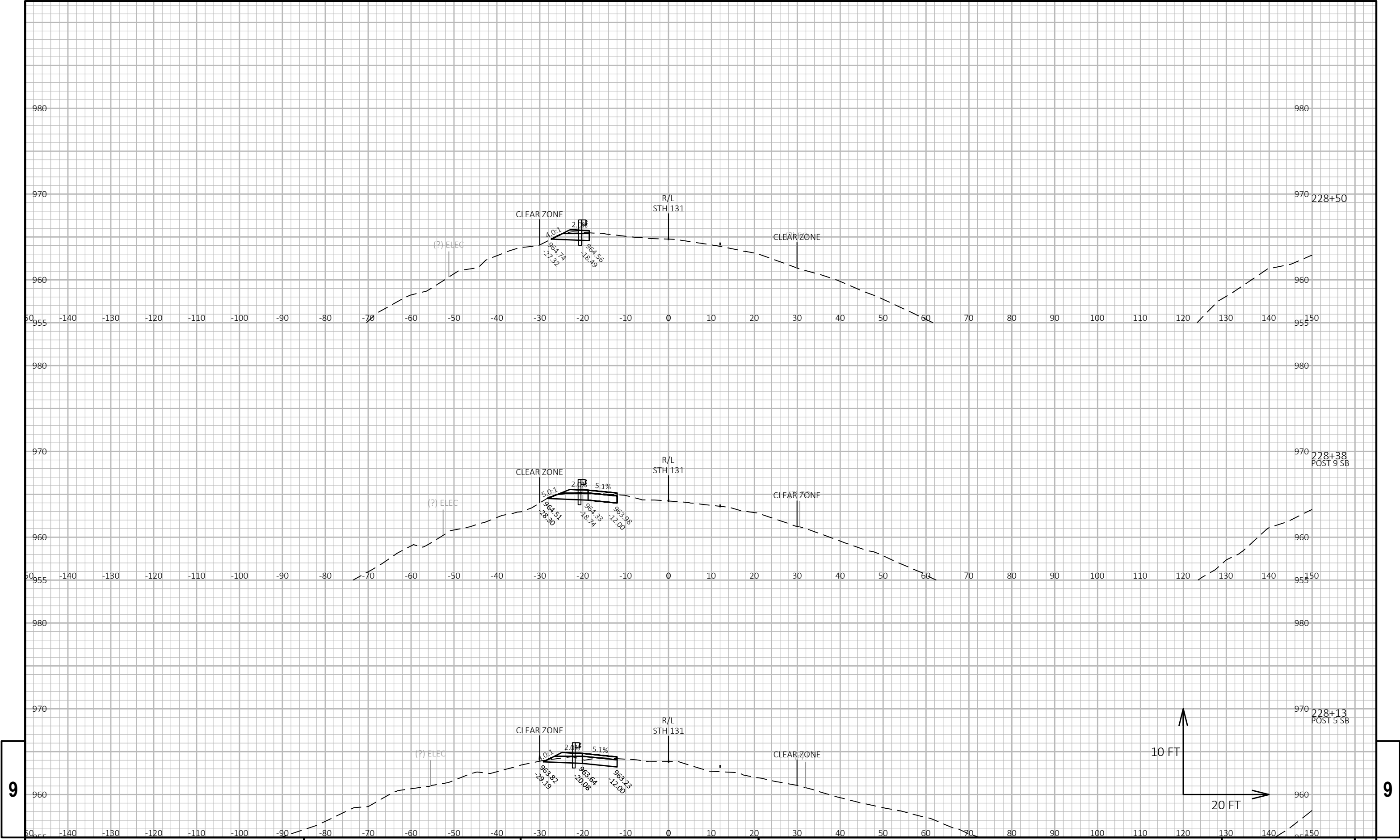
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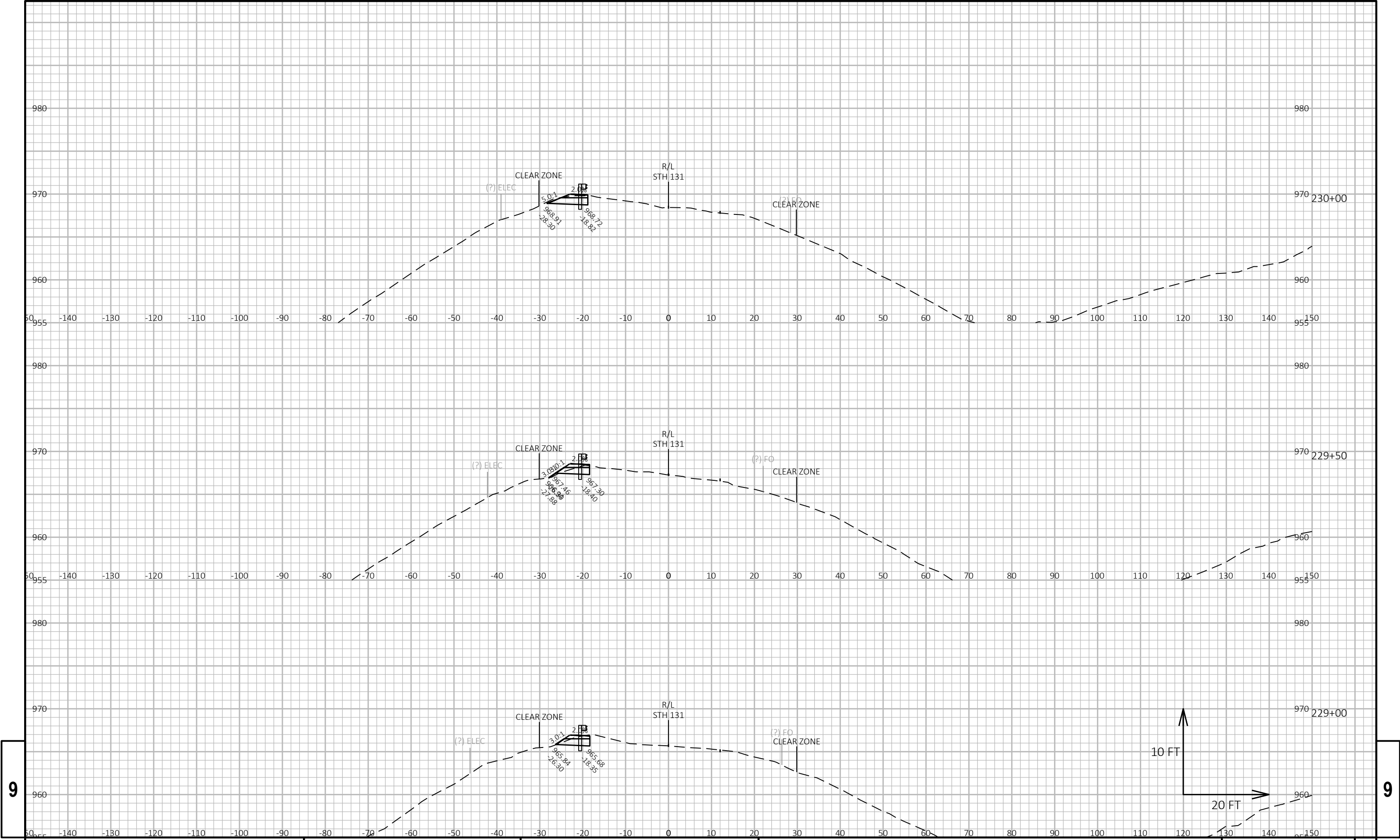






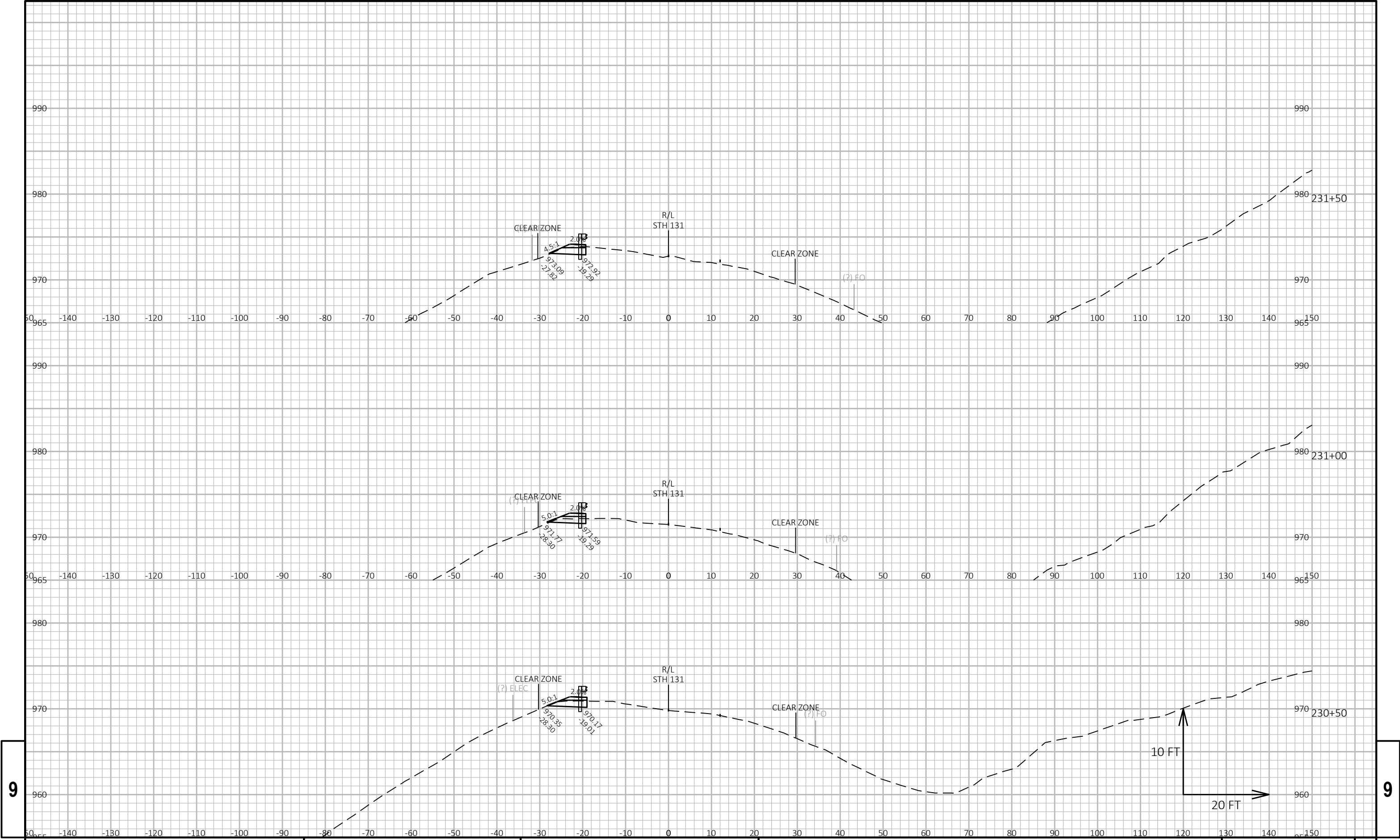
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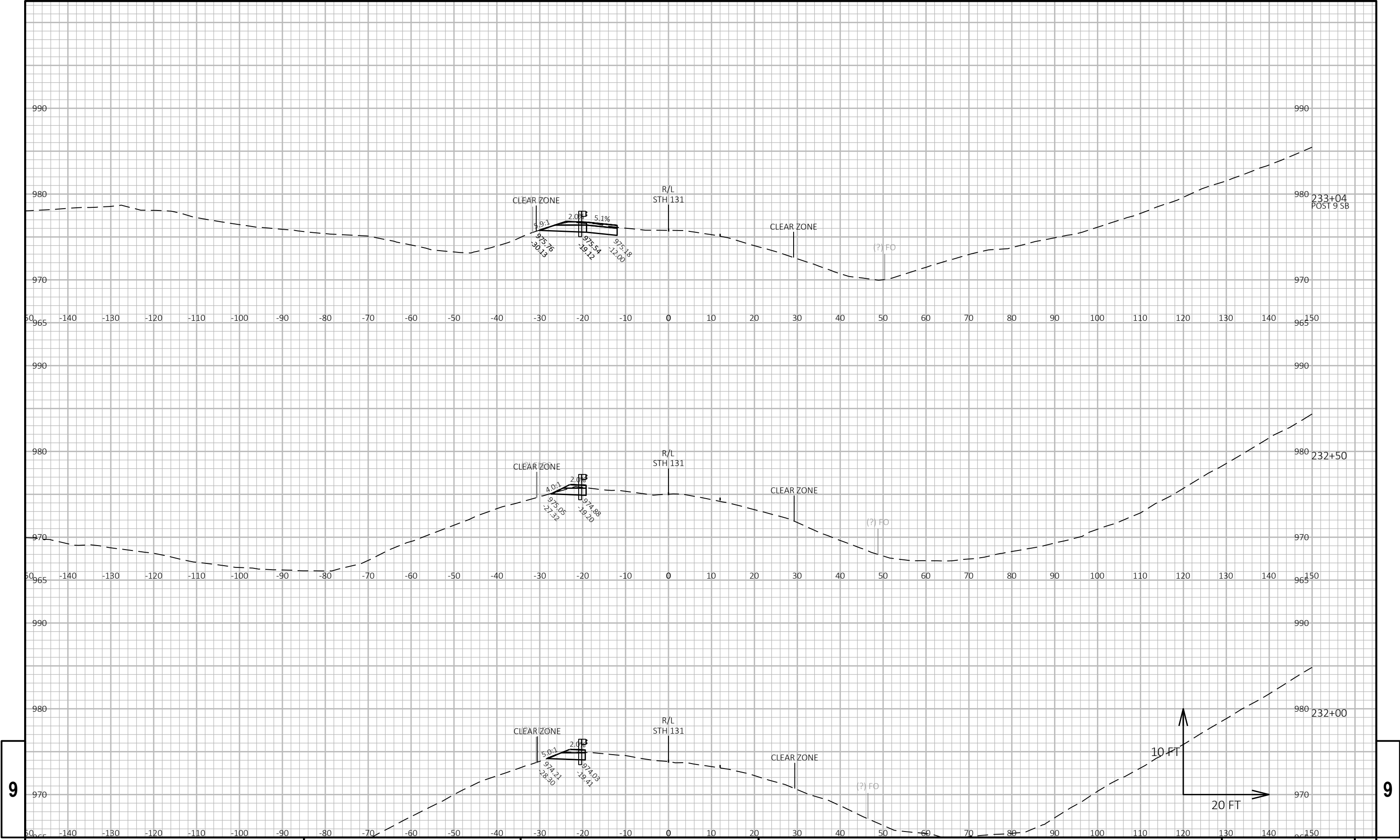
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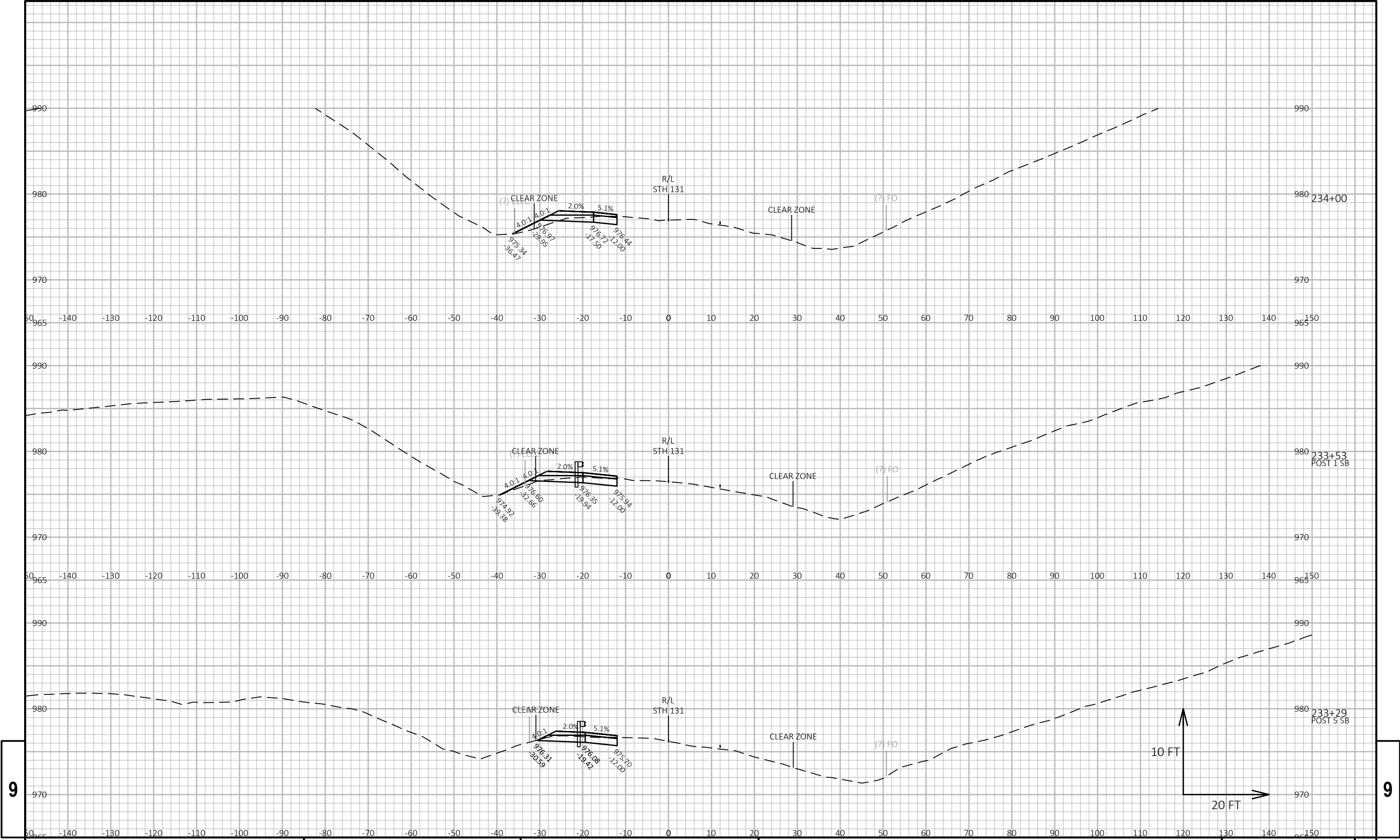
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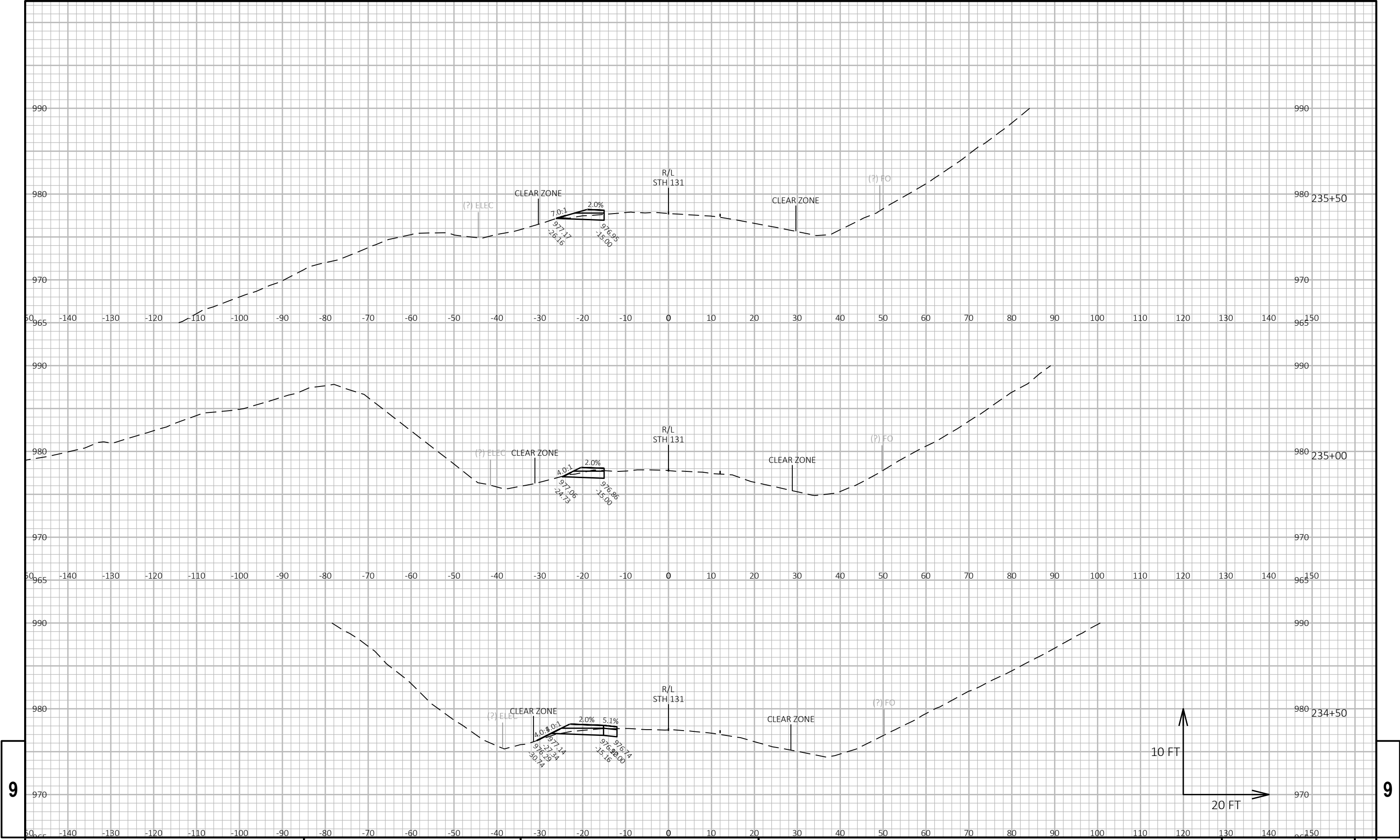
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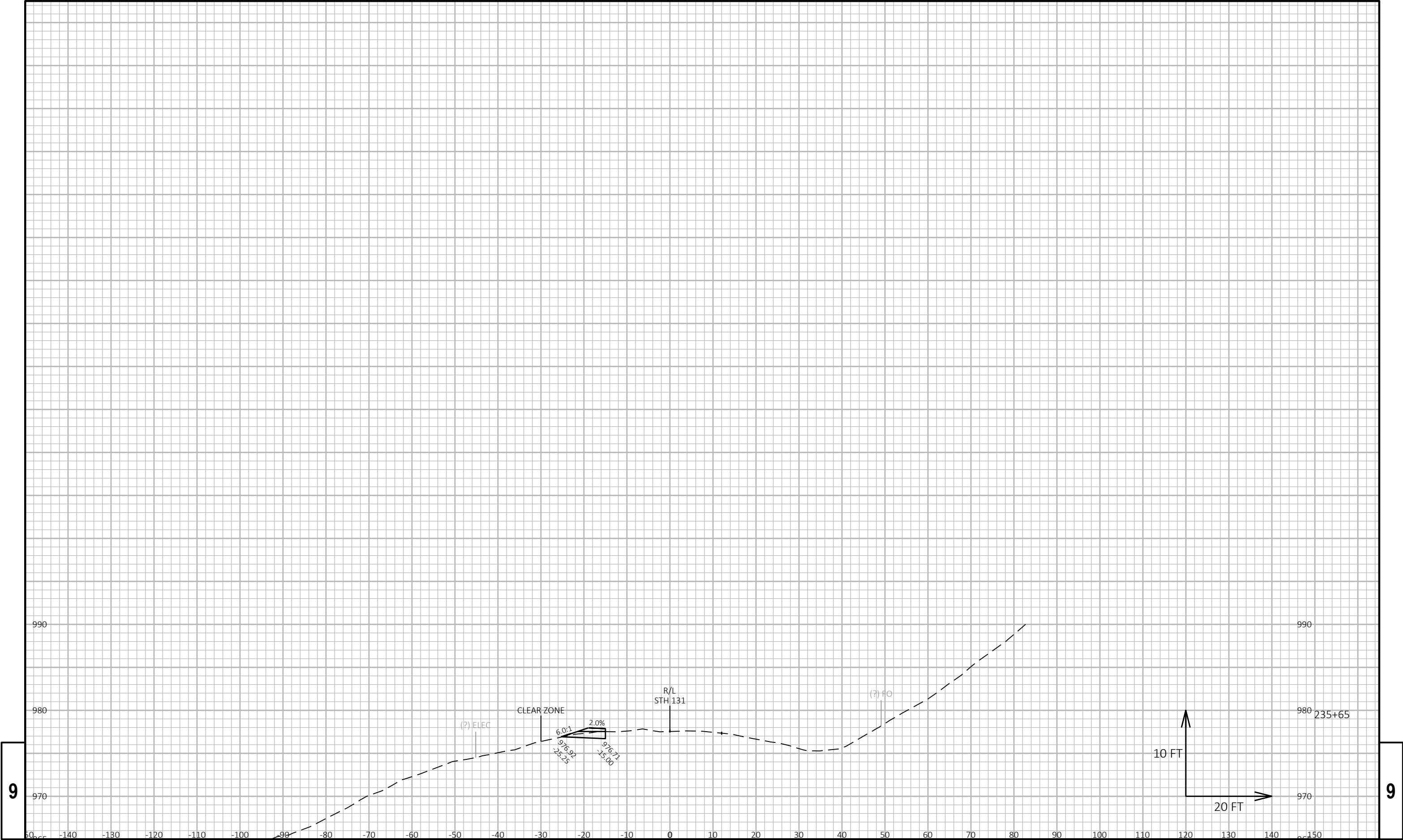
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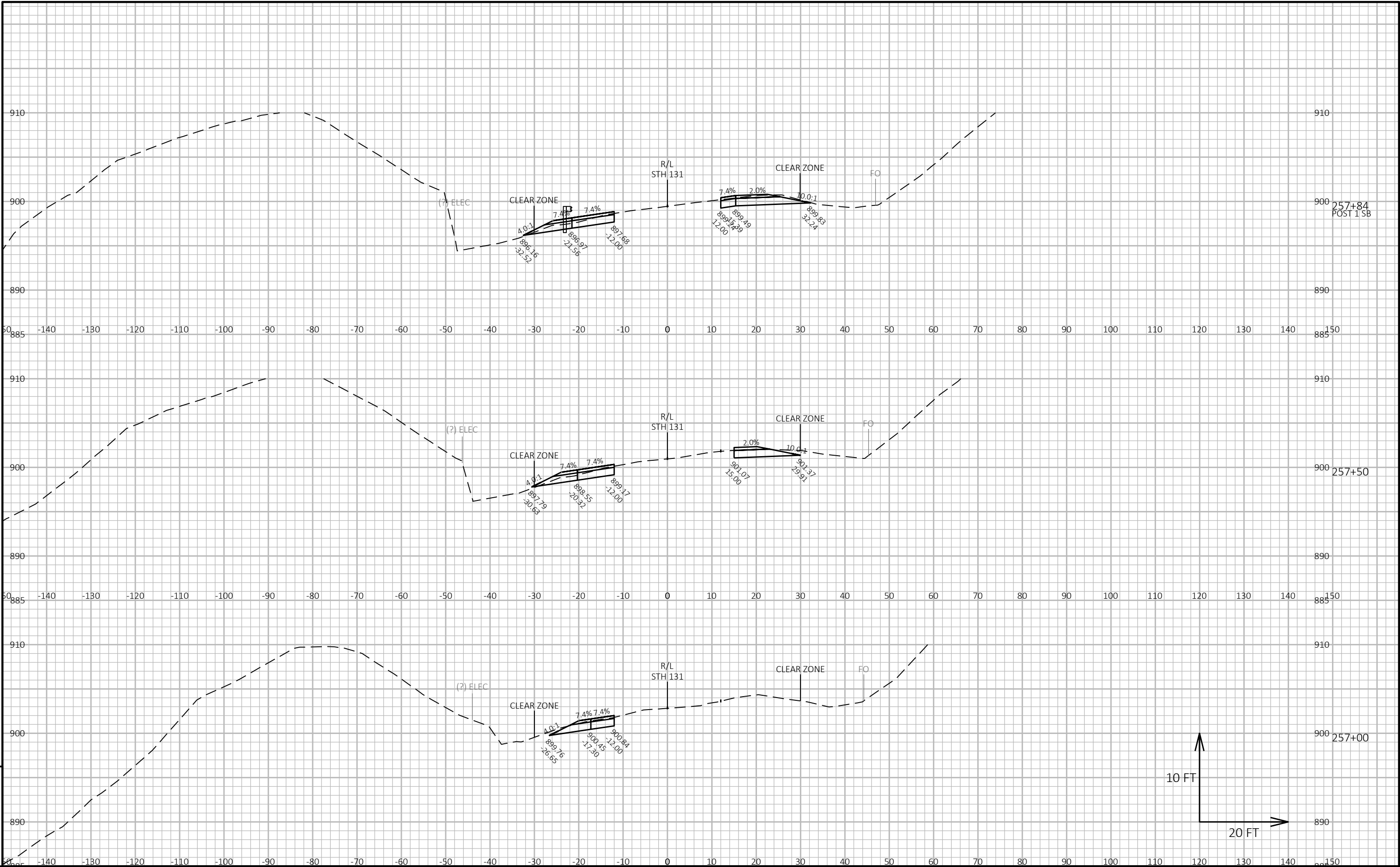
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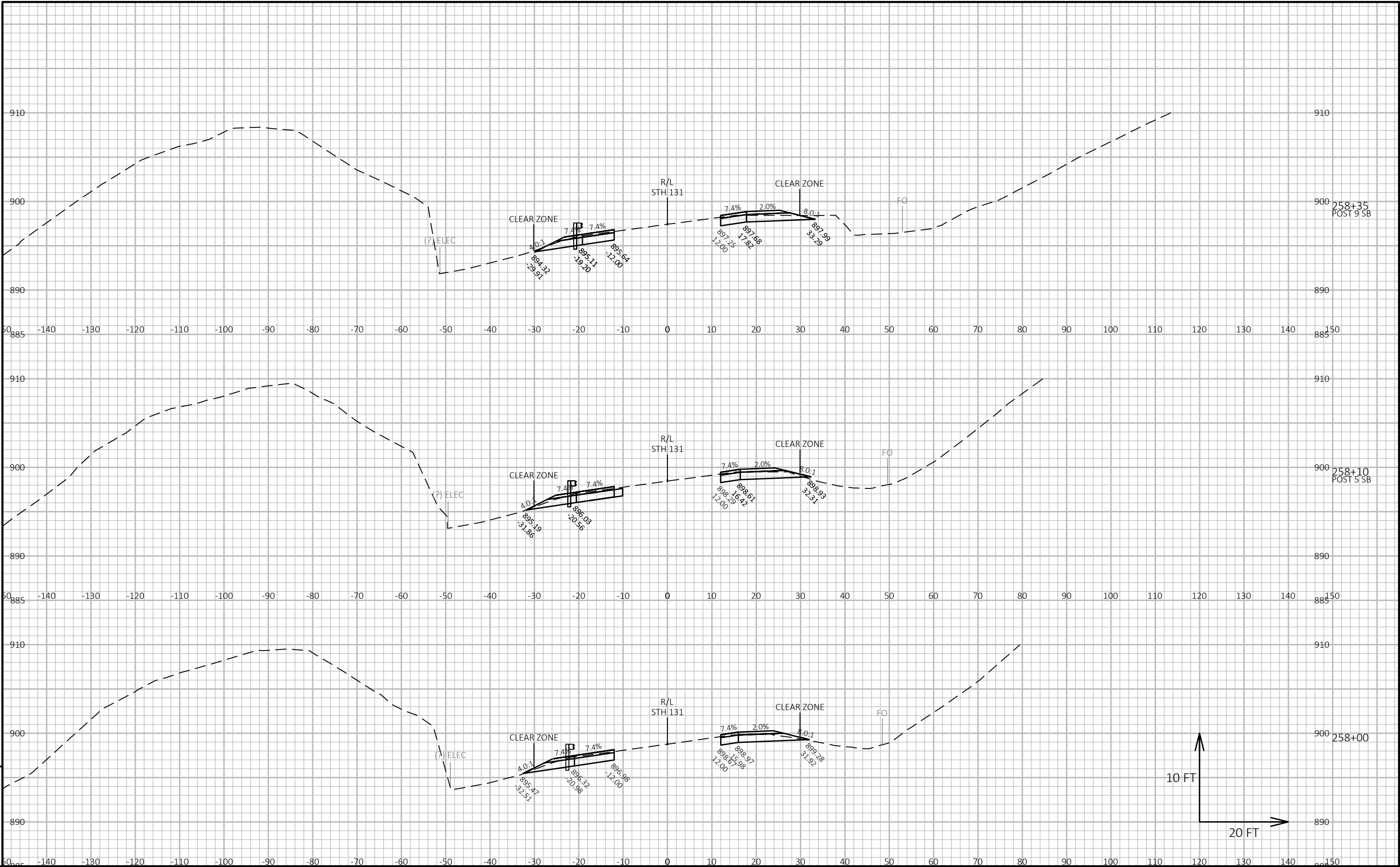
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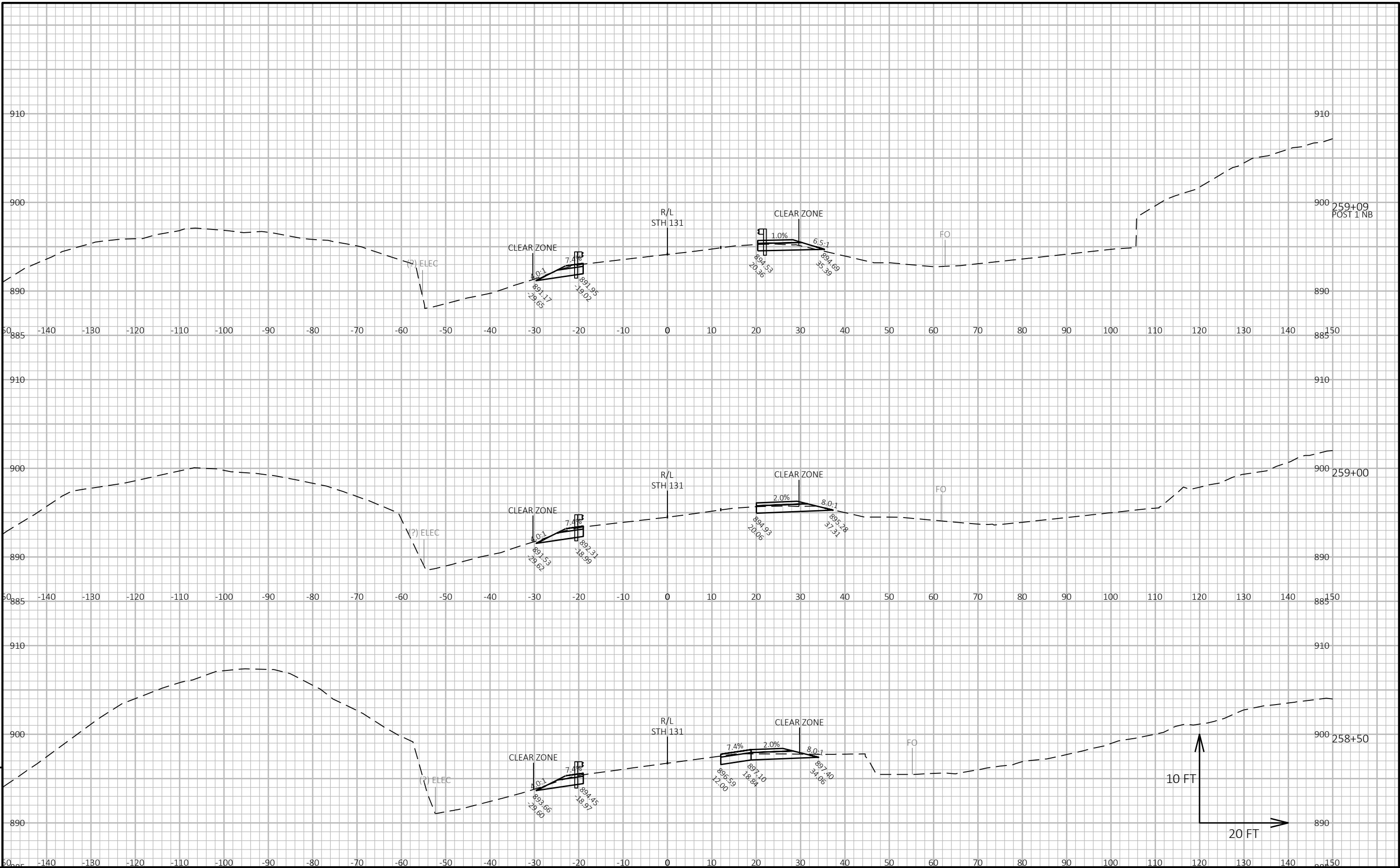
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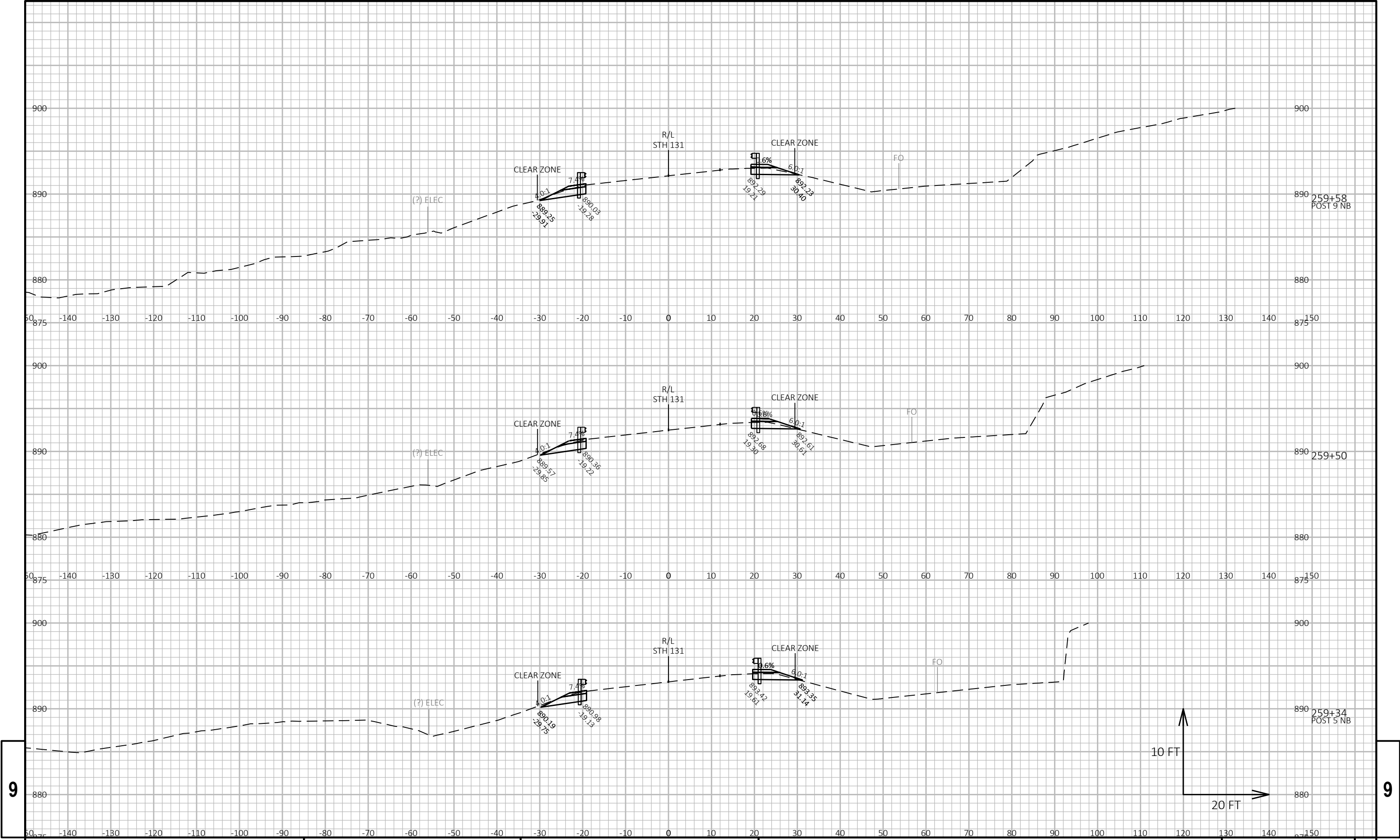


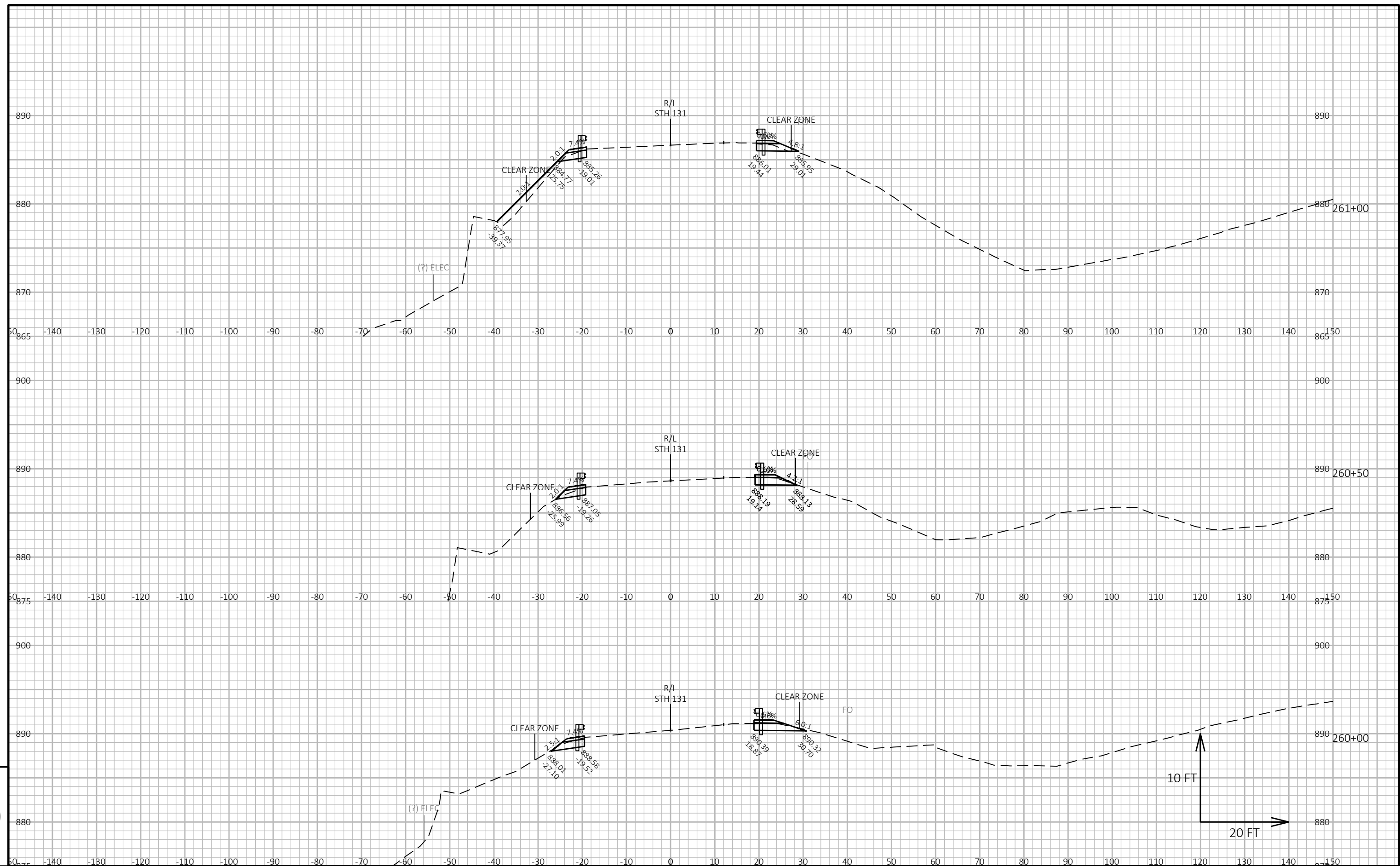
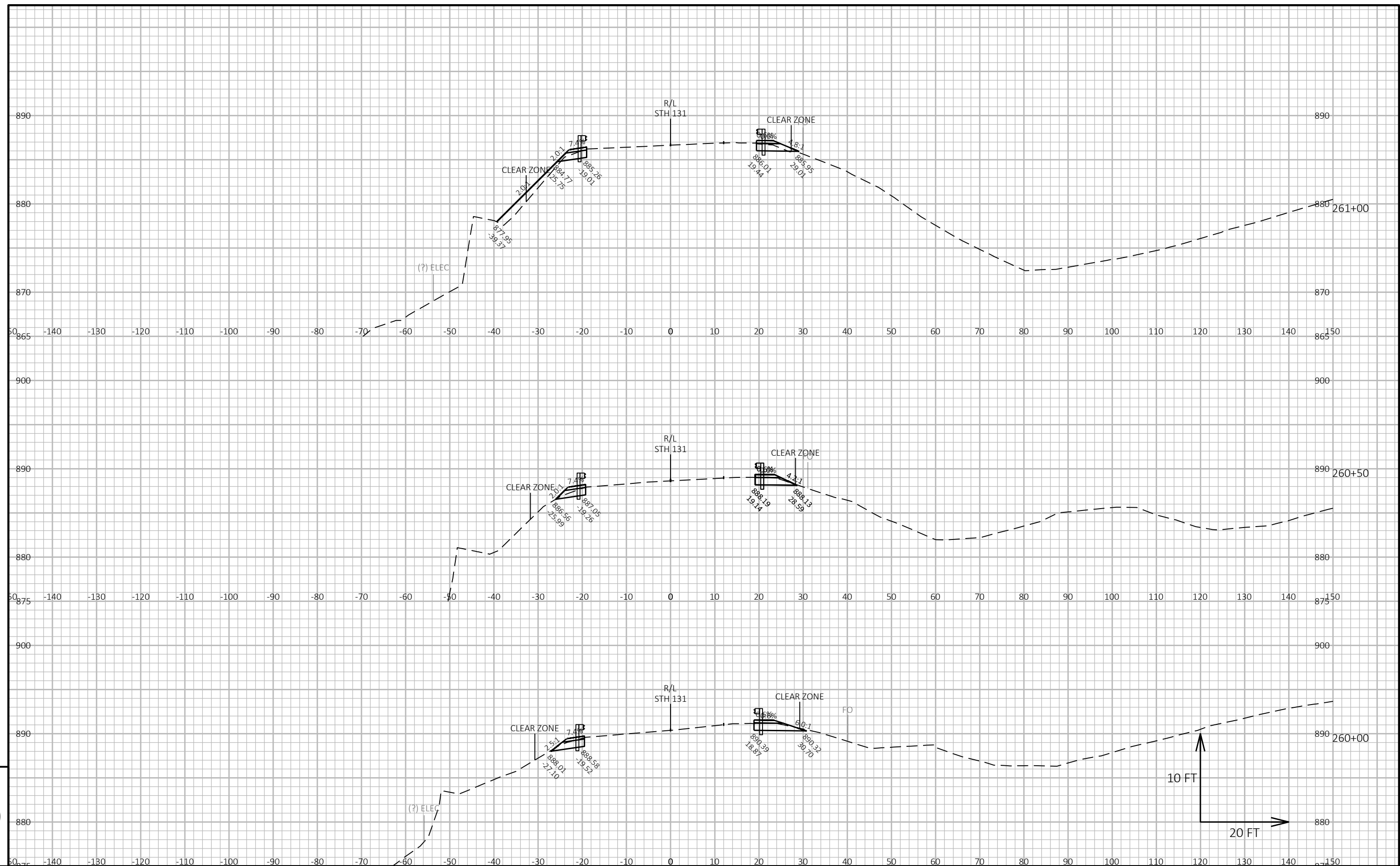
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|------------------------|--------------|----------------|-------------------------|-----------|----------|
| PROJECT NO: 5110-06-70 | HWY: STH 131 | COUNTY: VERNON | CROSS SECTIONS: STH 131 | SHEET 372 | <b>E</b> |
|------------------------|--------------|----------------|-------------------------|-----------|----------|

|                        |              |                |                         |           |          |
|------------------------|--------------|----------------|-------------------------|-----------|----------|
| PROJECT NO: 5110-06-70 | HWY: STH 131 | COUNTY: VERNON | CROSS SECTIONS: STH 131 | SHEET 372 | <b>E</b> |
|------------------------|--------------|----------------|-------------------------|-----------|----------|

|                        |              |                |                         |           |          |
|------------------------|--------------|----------------|-------------------------|-----------|----------|
| PROJECT NO: 5110-06-70 | HWY: STH 131 | COUNTY: VERNON | CROSS SECTIONS: STH 131 | SHEET 372 | <b>E</b> |
|------------------------|--------------|----------------|-------------------------|-----------|----------|

|                        |              |                |                         |           |          |
|------------------------|--------------|----------------|-------------------------|-----------|----------|
| PROJECT NO: 5110-06-70 | HWY: STH 131 | COUNTY: VERNON | CROSS SECTIONS: STH 131 | SHEET 372 | <b>E</b> |
|------------------------|--------------|----------------|-------------------------|-----------|----------|

|                        |              |                |                         |           |          |
|------------------------|--------------|----------------|-------------------------|-----------|----------|
| PROJECT NO: 5110-06-70 | HWY: STH 131 | COUNTY: VERNON | CROSS SECTIONS: STH 131 | SHEET 372 | <b>E</b> |
|------------------------|--------------|----------------|-------------------------|-----------|----------|

|                        |              |                |                         |           |          |
|------------------------|--------------|----------------|-------------------------|-----------|----------|
| PROJECT NO: 5110-06-70 | HWY: STH 131 | COUNTY: VERNON | CROSS SECTIONS: STH 131 | SHEET 372 | <b>E</b> |
|------------------------|--------------|----------------|-------------------------|-----------|----------|

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LAYOUT NAME - 28

PLOT DATE : 10/23/2025 10:36 AM

PLOT BY : BRUCKNER, KAITLYN

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDs SHEET 49

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\090201-XS.DWG  
LAYOUT NAME - 28

PLOT DATE : 10/23/2025 10:36 AM

PLOT BY : BRUCKNER, KAITLYN

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDs SHEET 49

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\090201-XS.DWG  
LAYOUT NAME - 28

PLOT DATE : 10/23/2025 10:36 AM

PLOT BY : BRUCKNER, KAITLYN

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDs SHEET 49

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\090201-XS.DWG  
LAYOUT NAME - 28

PLOT DATE : 10/23/2025 10:36 AM

PLOT BY : BRUCKNER, KAITLYN

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDs SHEET 49

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\090201-XS.DWG  
LAYOUT NAME - 28

PLOT DATE : 10/23/2025 10:36 AM

PLOT BY : BRUCKNER, KAITLYN

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDs SHEET 49

FILE NAME : K:\185450\_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\090201-XS.DWG  
LAYOUT NAME - 28

PLOT DATE : 10/23/2025 10:36 AM

PLOT BY : BRUCKNER, KAITLYN

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDs SHEET 49

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LAYOUT NAME - 28

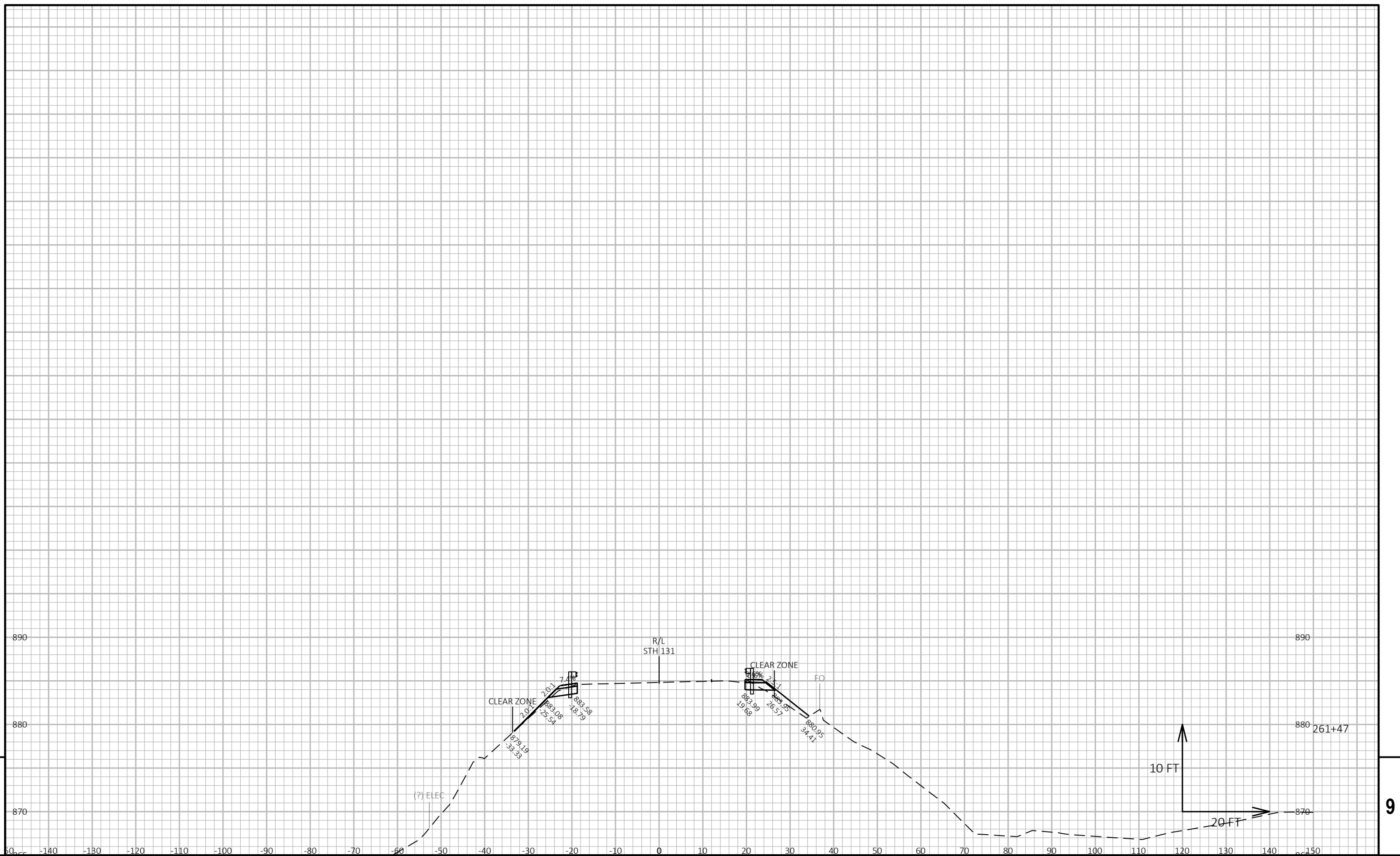
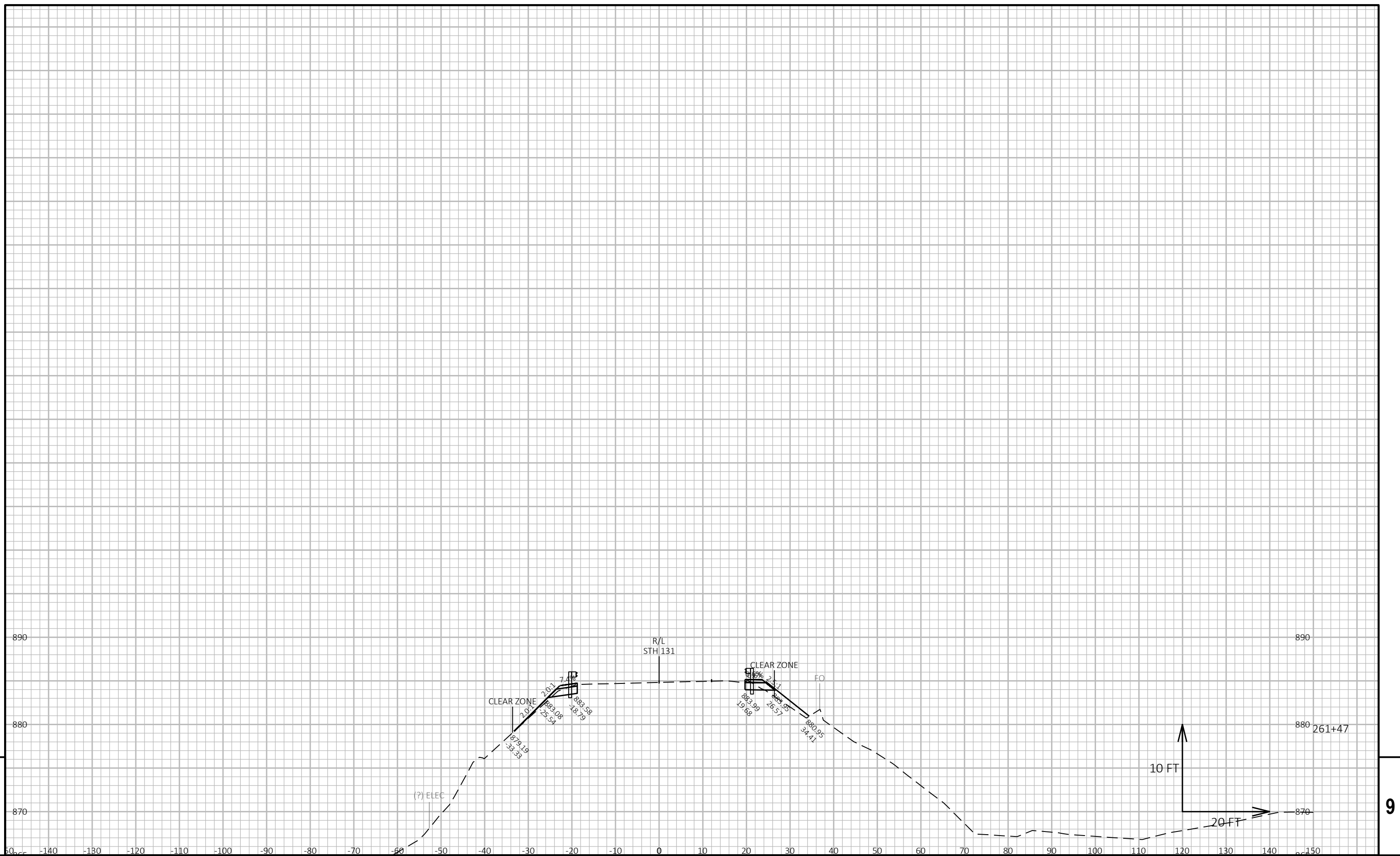
PLOT DATE : 10/23/2025 10:36 AM

PLOT BY : BRUCKNER, KAITLYN

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDs SHEET 49



|                                                                                               |  |              |  |                                 |  |                             |  |             |  |                                                  |  |
|-----------------------------------------------------------------------------------------------|--|--------------|--|---------------------------------|--|-----------------------------|--|-------------|--|--------------------------------------------------|--|
| PROJECT NO: 5110-06-70                                                                        |  | HWY: STH 131 |  | COUNTY: VERNON                  |  | CROSS SECTIONS: STH 131     |  | SHEET 373   |  | E                                                |  |
| FILE NAME : K:\185450_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\090201-XS.DWG |  |              |  | PLOT DATE : 10/23/2025 10:37 AM |  | PLOT BY : BRUCKNER, KAITLYN |  | PLOT NAME : |  | PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT. |  |
| LAYOUT NAME - 29                                                                              |  |              |  | WSDOT/CADD SHEET 49             |  |                             |  |             |  |                                                  |  |

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|-----------------------------------------------------------------------------------------------|--|--------------|--|---------------------------------|--|-----------------------------|--|-------------|--|--------------------------------------------------|--|
| PROJECT NO: 5110-06-70                                                                        |  | HWY: STH 131 |  | COUNTY: VERNON                  |  | CROSS SECTIONS: STH 131     |  | SHEET 373   |  | E                                                |  |
| FILE NAME : K:\185450_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\090201-XS.DWG |  |              |  | PLOT DATE : 10/23/2025 10:37 AM |  | PLOT BY : BRUCKNER, KAITLYN |  | PLOT NAME : |  | PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT. |  |
| LAYOUT NAME - 29                                                                              |  |              |  | WSDOT/CADD SHEET 49             |  |                             |  |             |  |                                                  |  |

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|-----------------------------------------------------------------------------------------------|--|--------------|--|---------------------------------|--|-----------------------------|--|-------------|--|--------------------------------------------------|--|
| PROJECT NO: 5110-06-70                                                                        |  | HWY: STH 131 |  | COUNTY: VERNON                  |  | CROSS SECTIONS: STH 131     |  | SHEET 373   |  | E                                                |  |
| FILE NAME : K:\185450_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\090201-XS.DWG |  |              |  | PLOT DATE : 10/23/2025 10:37 AM |  | PLOT BY : BRUCKNER, KAITLYN |  | PLOT NAME : |  | PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT. |  |
| LAYOUT NAME - 29                                                                              |  |              |  | WISDOT/CADD SHEET 49            |  |                             |  |             |  |                                                  |  |

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|-----------------------------------------------------------------------------------------------|--|--------------|--|---------------------------------|--|-----------------------------|--|-------------|--|--------------------------------------------------|--|
| PROJECT NO: 5110-06-70                                                                        |  | HWY: STH 131 |  | COUNTY: VERNON                  |  | CROSS SECTIONS: STH 131     |  | SHEET 373   |  | E                                                |  |
| FILE NAME : K:\185450_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\090201-XS.DWG |  |              |  | PLOT DATE : 10/23/2025 10:37 AM |  | PLOT BY : BRUCKNER, KAITLYN |  | PLOT NAME : |  | PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT. |  |
| LAYOUT NAME - 29                                                                              |  |              |  | WSDOT/CADD SHEET 49             |  |                             |  |             |  |                                                  |  |

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|-----------------------------------------------------------------------------------------------|--|--------------|--|---------------------------------|--|-----------------------------|--|-------------|--|--------------------------------------------------|--|
| PROJECT NO: 5110-06-70                                                                        |  | HWY: STH 131 |  | COUNTY: VERNON                  |  | CROSS SECTIONS: STH 131     |  | SHEET 373   |  | E                                                |  |
| FILE NAME : K:\185450_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\090201-XS.DWG |  |              |  | PLOT DATE : 10/23/2025 10:37 AM |  | PLOT BY : BRUCKNER, KAITLYN |  | PLOT NAME : |  | PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT. |  |
| LAYOUT NAME - 29                                                                              |  |              |  | WSDOT/CADD SHEET 49             |  |                             |  |             |  |                                                  |  |

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|-----------------------------------------------------------------------------------------------|--|--------------|--|---------------------------------|--|-----------------------------|--|-------------|--|--------------------------------------------------|--|
| PROJECT NO: 5110-06-70                                                                        |  | HWY: STH 131 |  | COUNTY: VERNON                  |  | CROSS SECTIONS: STH 131     |  | SHEET 373   |  | E                                                |  |
| FILE NAME : K:\185450_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\090201-XS.DWG |  |              |  | PLOT DATE : 10/23/2025 10:37 AM |  | PLOT BY : BRUCKNER, KAITLYN |  | PLOT NAME : |  | PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT. |  |
| LAYOUT NAME - 29                                                                              |  |              |  | WISDOT/CADD SHEET 49            |  |                             |  |             |  |                                                  |  |

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|-----------------------------------------------------------------------------------------------|--|--------------|--|---------------------------------|--|-----------------------------|--|-------------|--|--------------------------------------------------|--|
| PROJECT NO: 5110-06-70                                                                        |  | HWY: STH 131 |  | COUNTY: VERNON                  |  | CROSS SECTIONS: STH 131     |  | SHEET 373   |  | E                                                |  |
| FILE NAME : K:\185450_STH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\090201-XS.DWG |  |              |  | PLOT DATE : 10/23/2025 10:37 AM |  | PLOT BY : BRUCKNER, KAITLYN |  | PLOT NAME : |  | PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT. |  |
| LAYOUT NAME - 29                                                                              |  |              |  | WSDOT/CADD SHEET 49             |  |                             |  |             |  |                                                  |  |

FILE NAME : K:\185450\_5TH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETSP\090201-XS.DWG  
LAYOUT NAME - 29

FILE NAME : K:\185450\_5TH 131\3.0 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETSPLAN\090201-XS.DWG  
LAYOUT NAME - 29

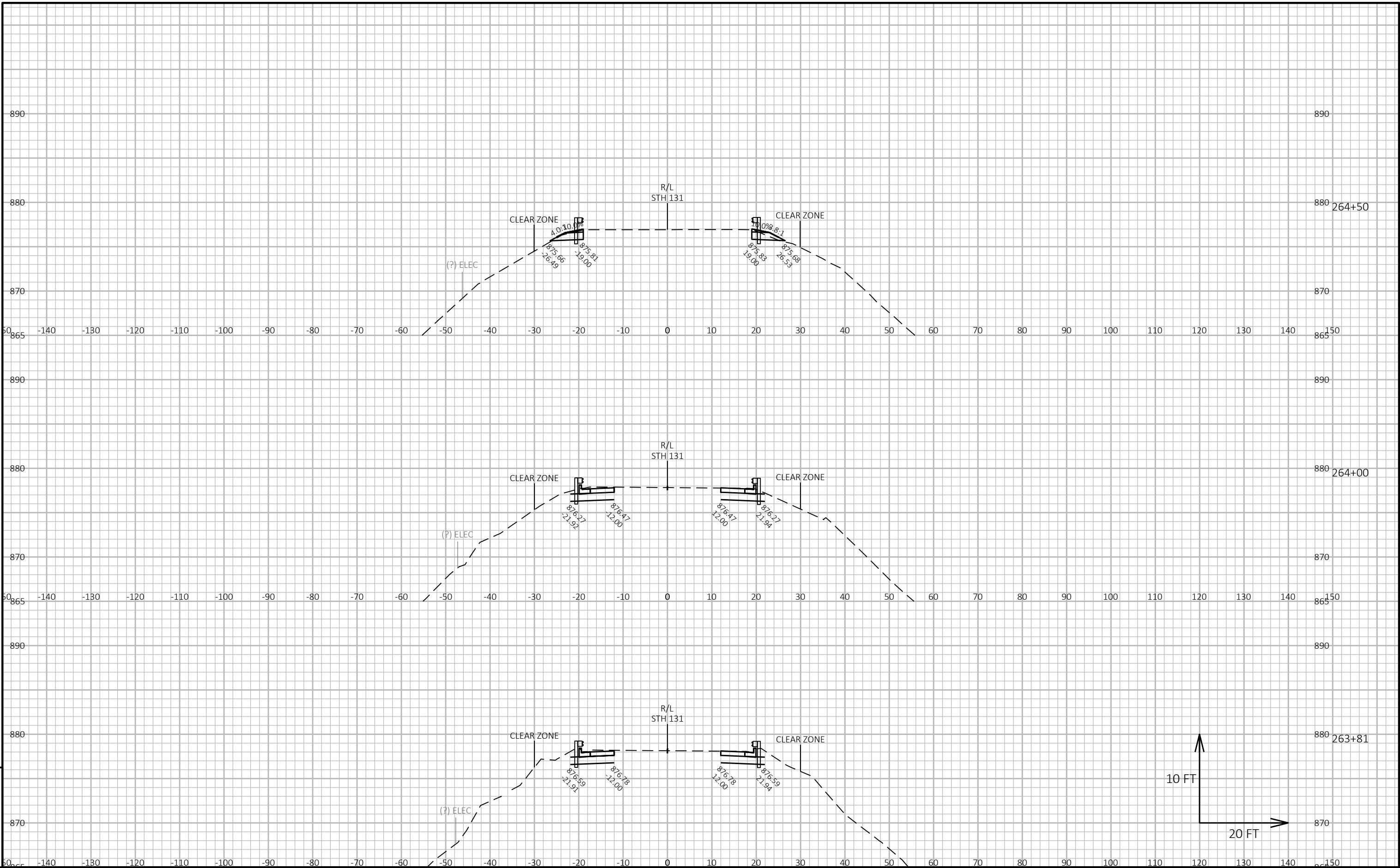
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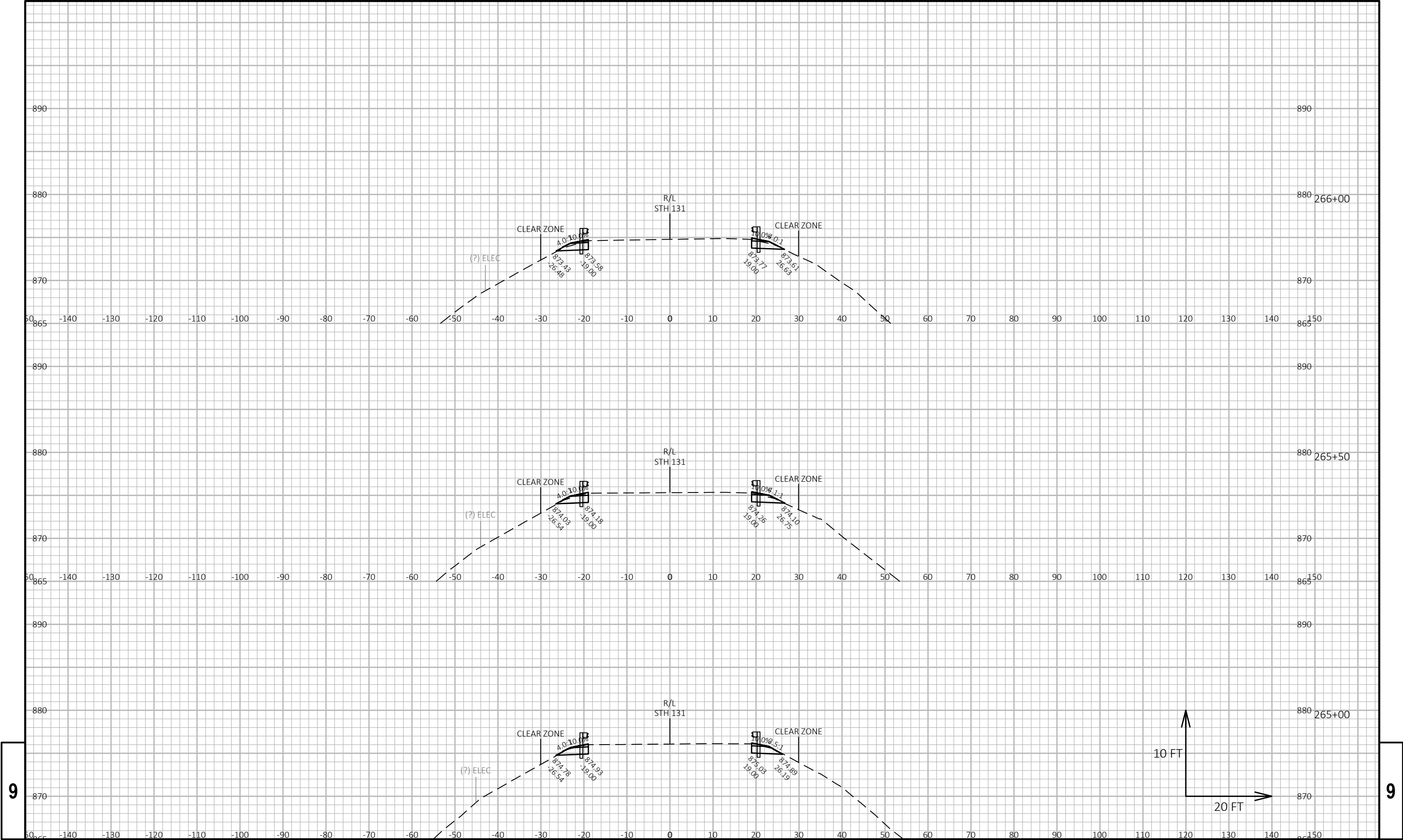
PLOT BY : BRUCKNER, KAITLYN

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

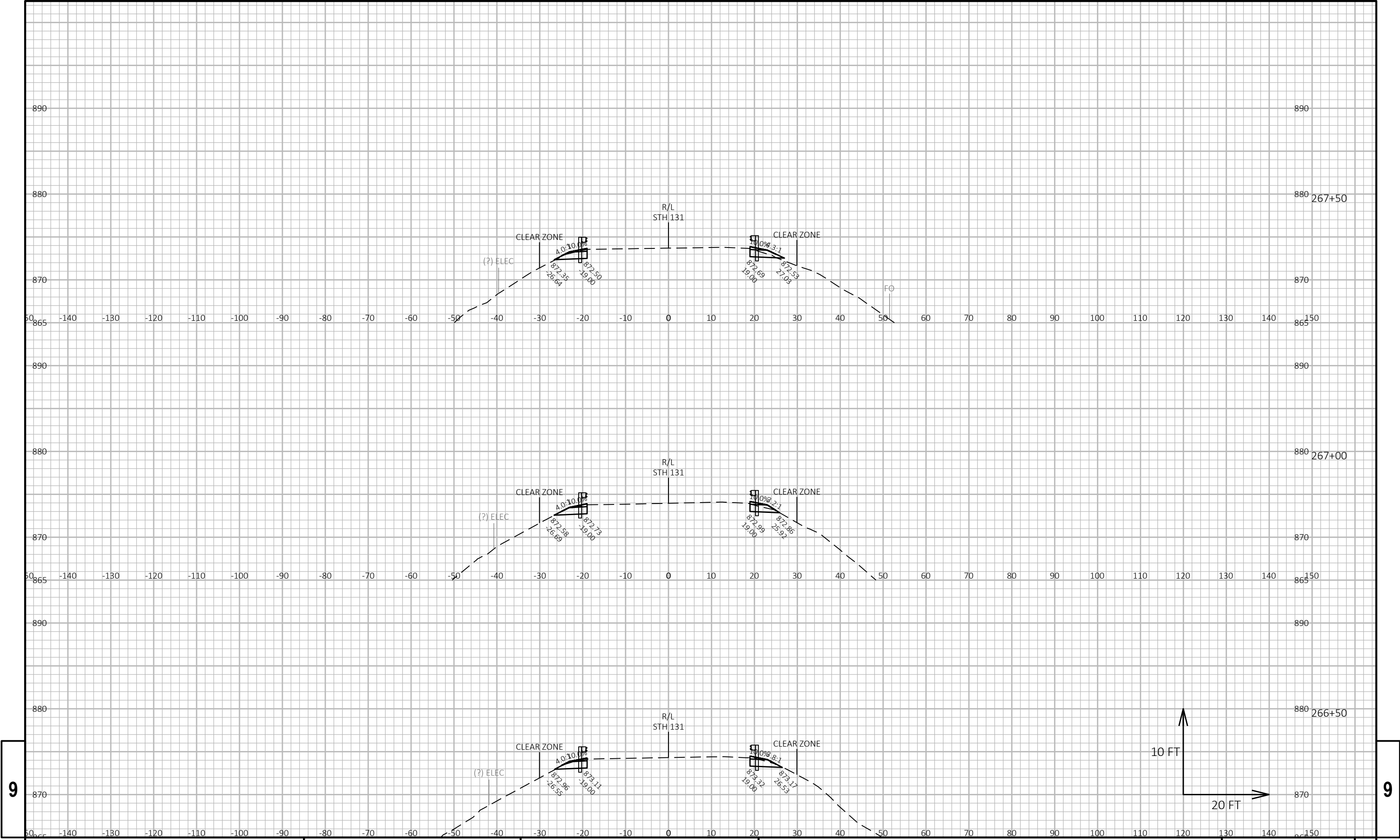
WISDOT/CADDS SHEET 49





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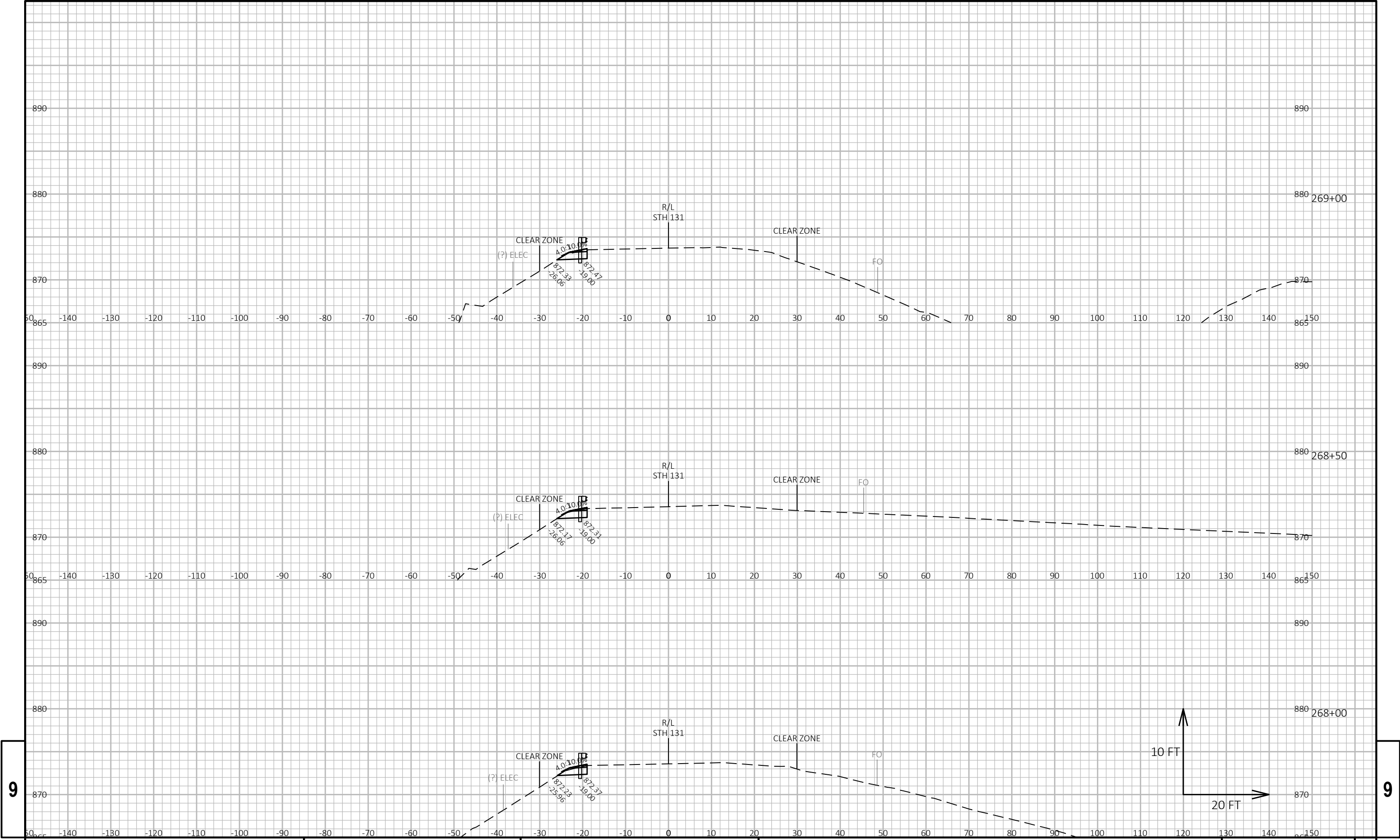
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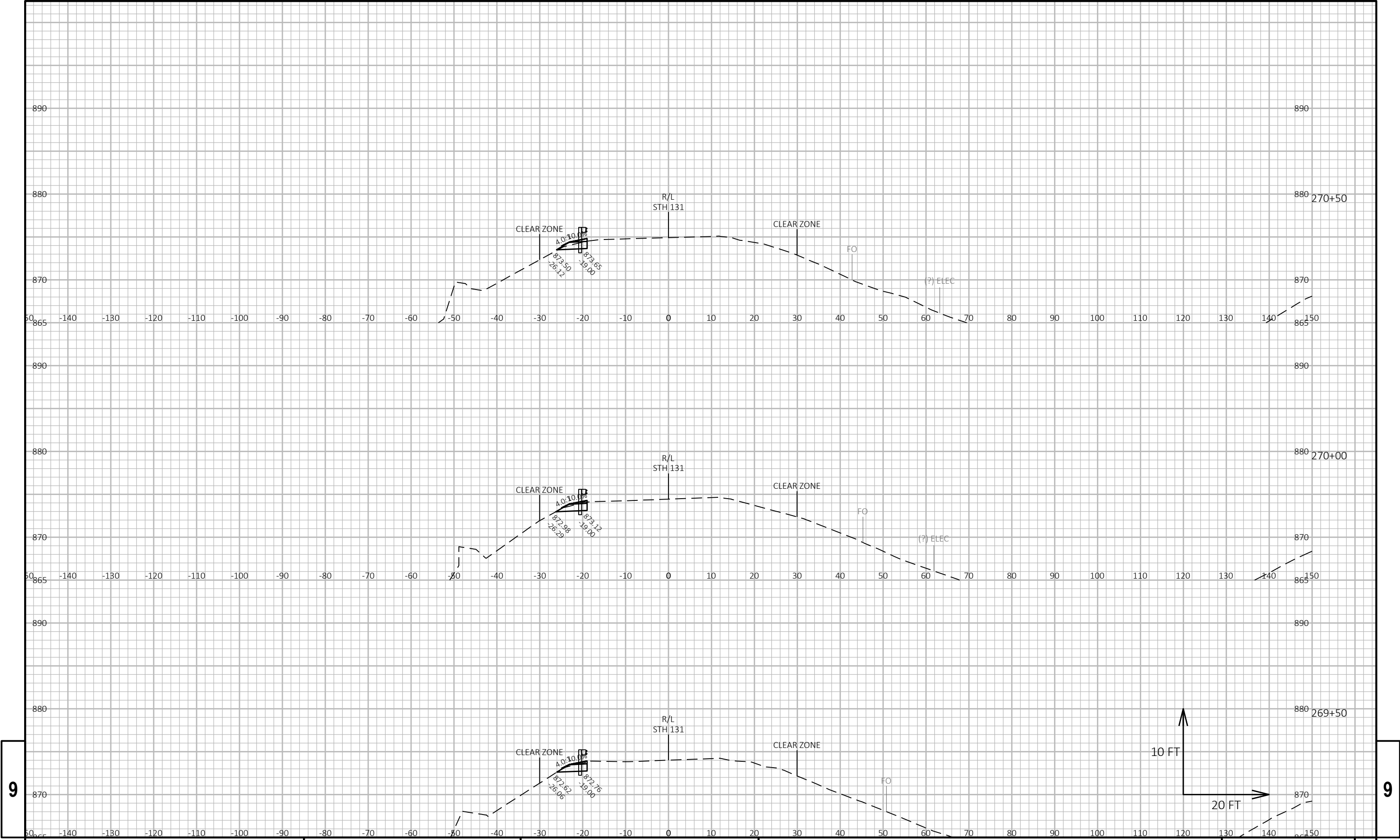
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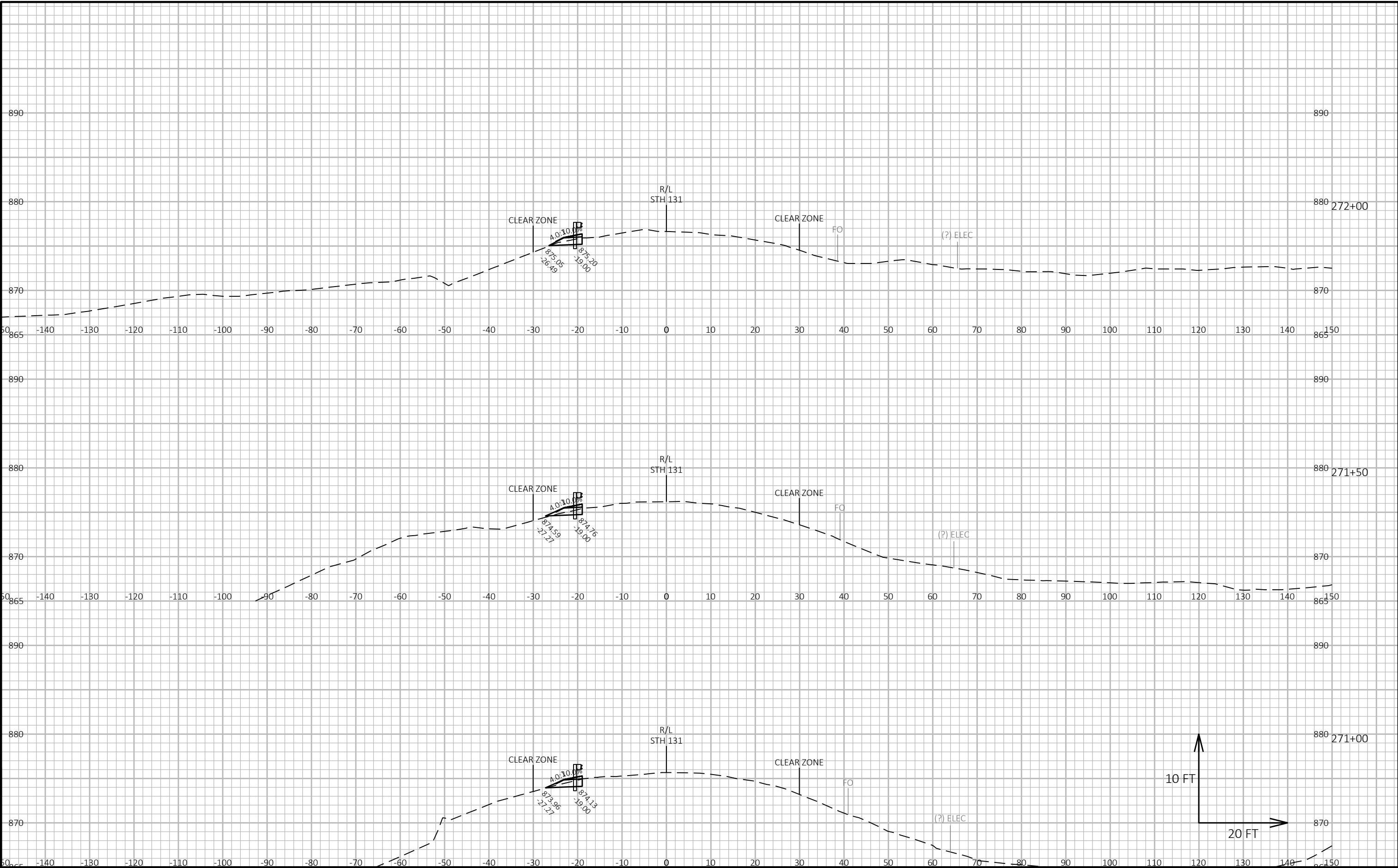




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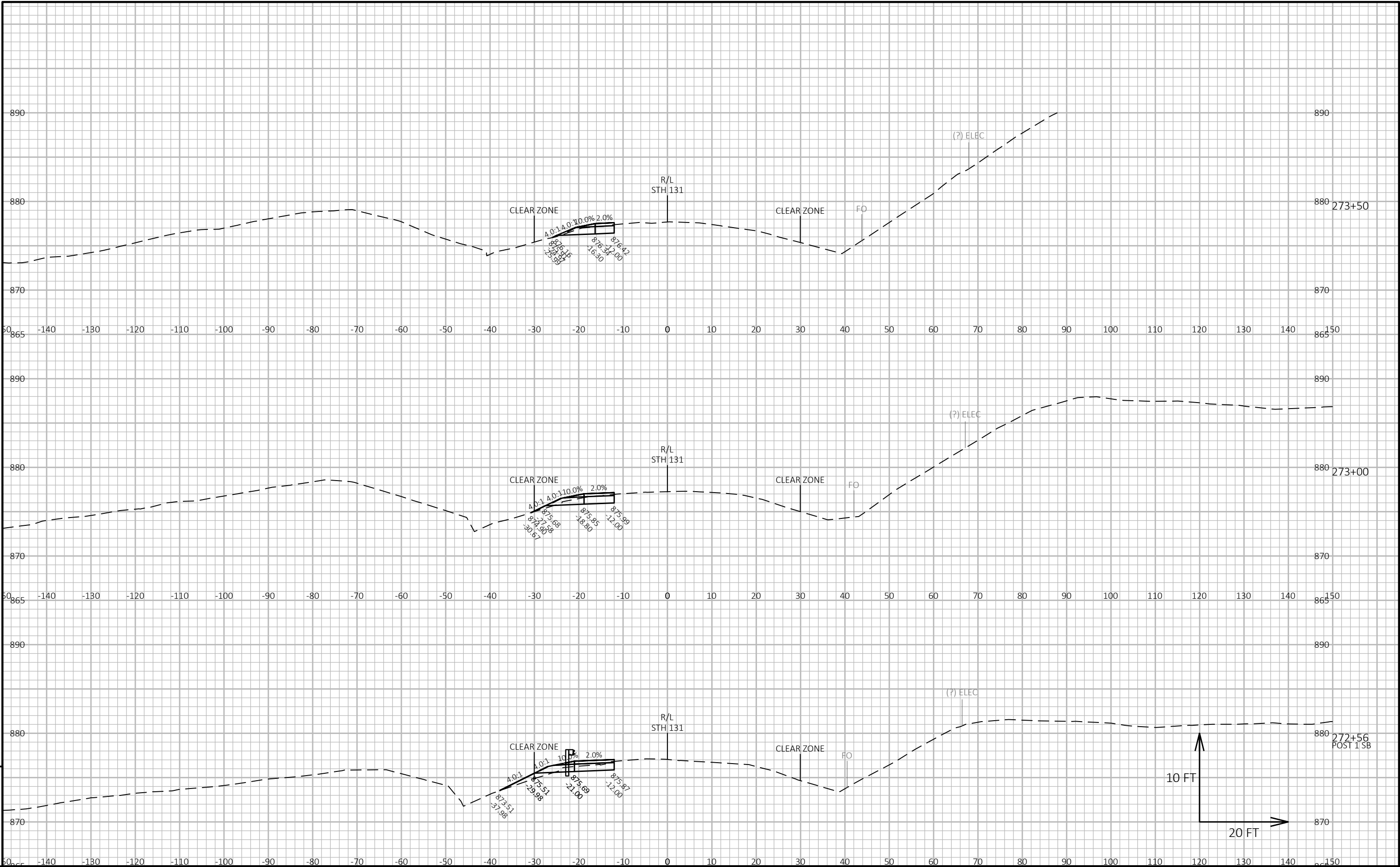




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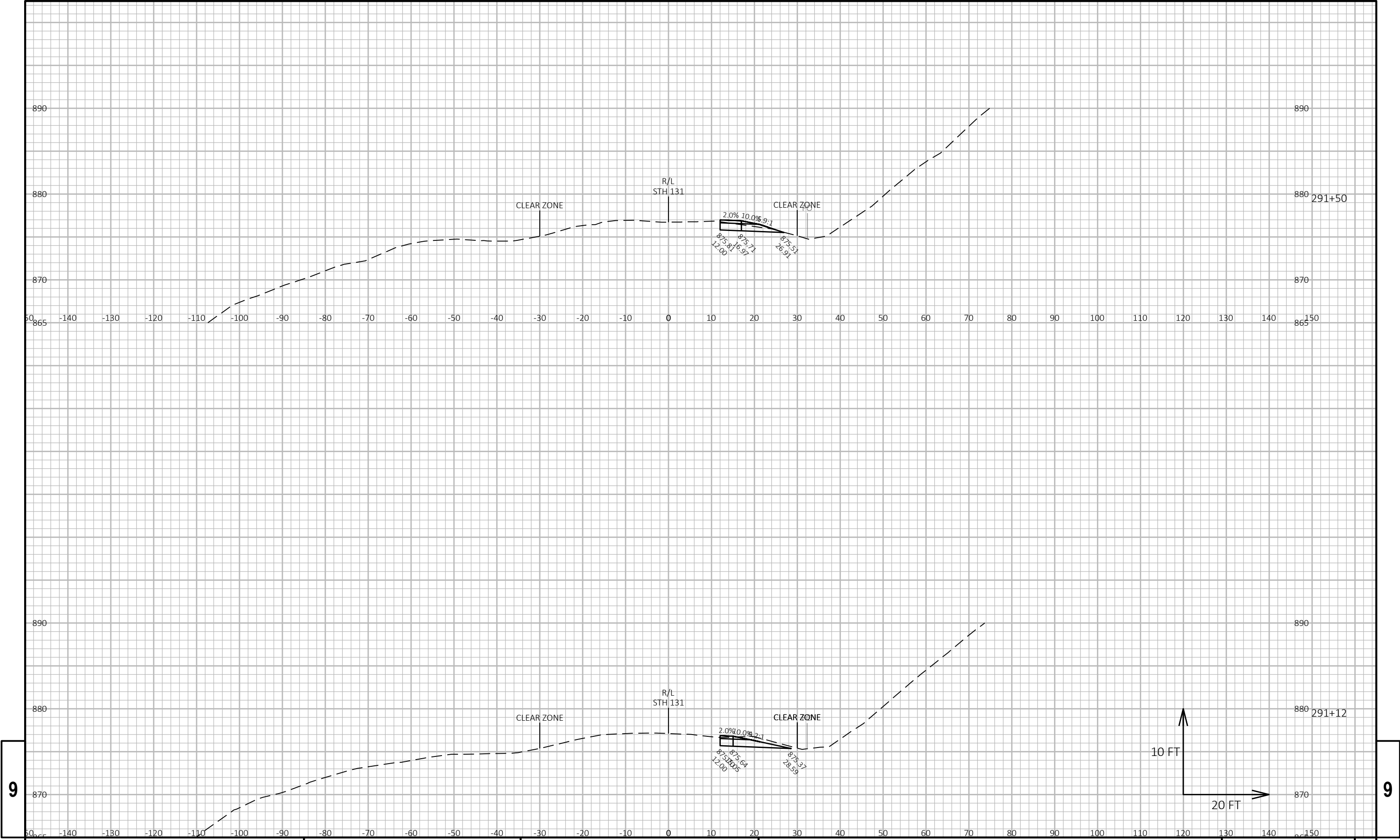
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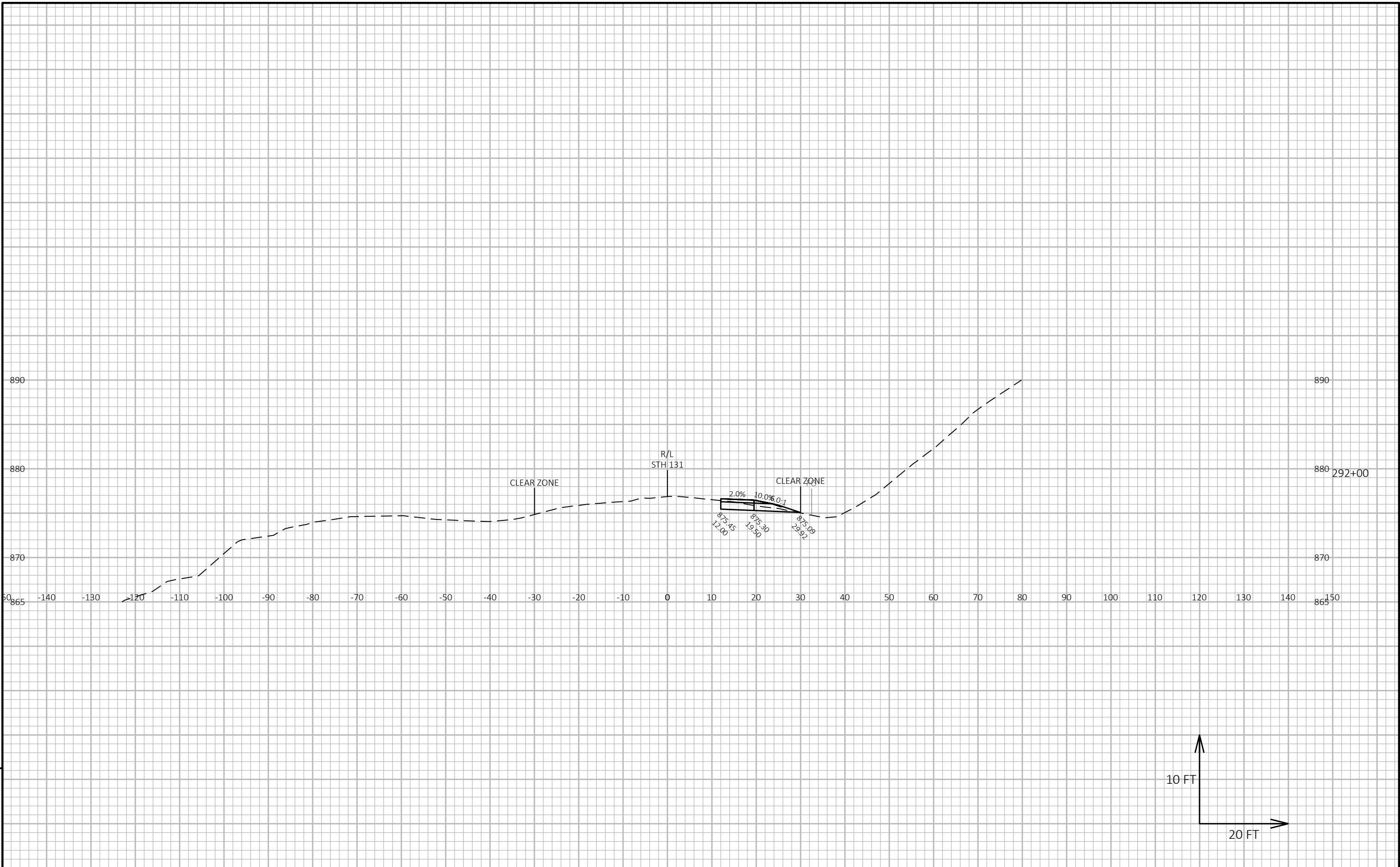






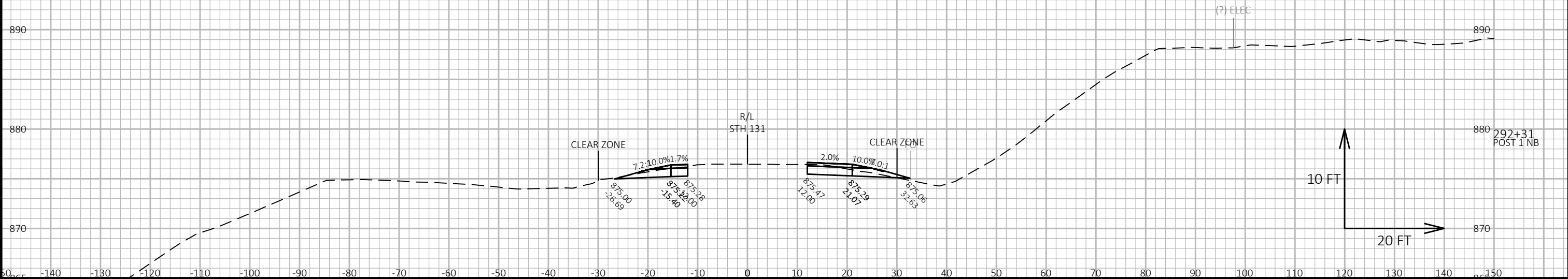
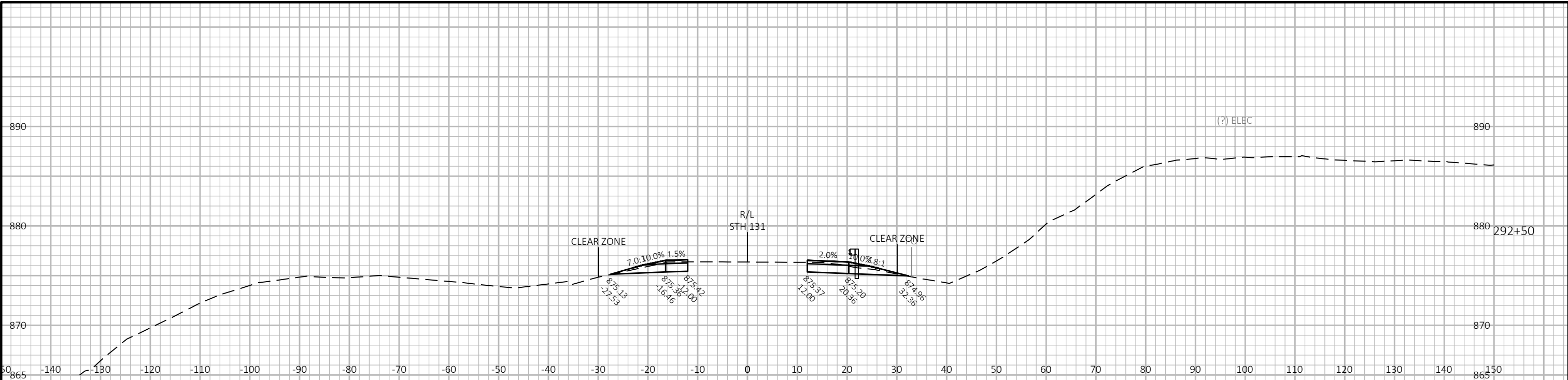
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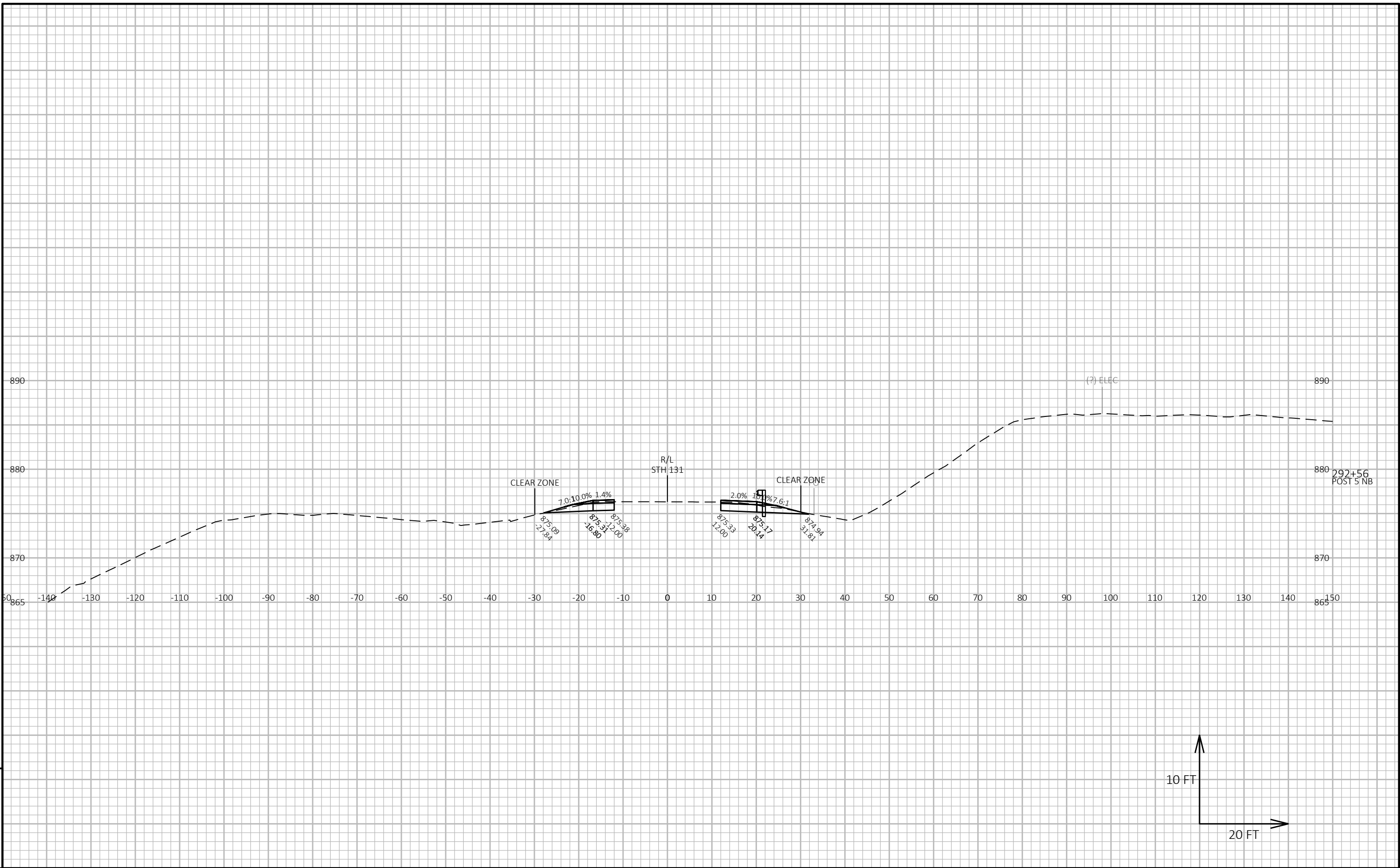
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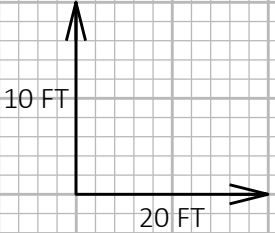
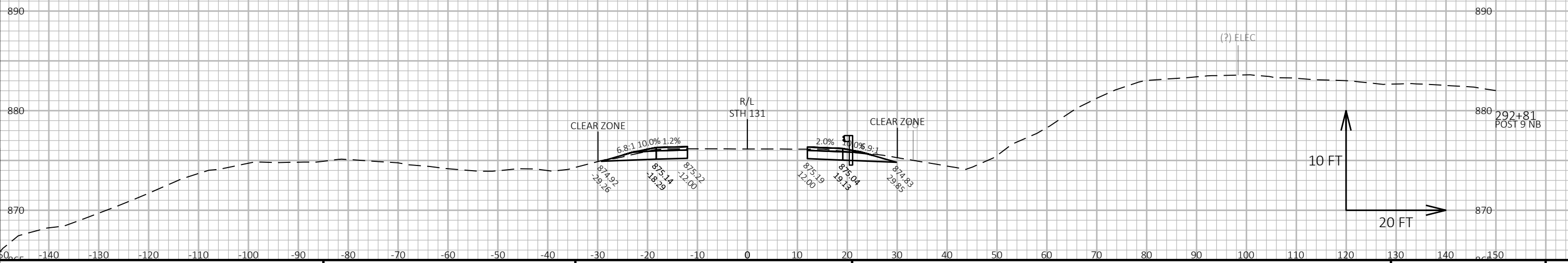
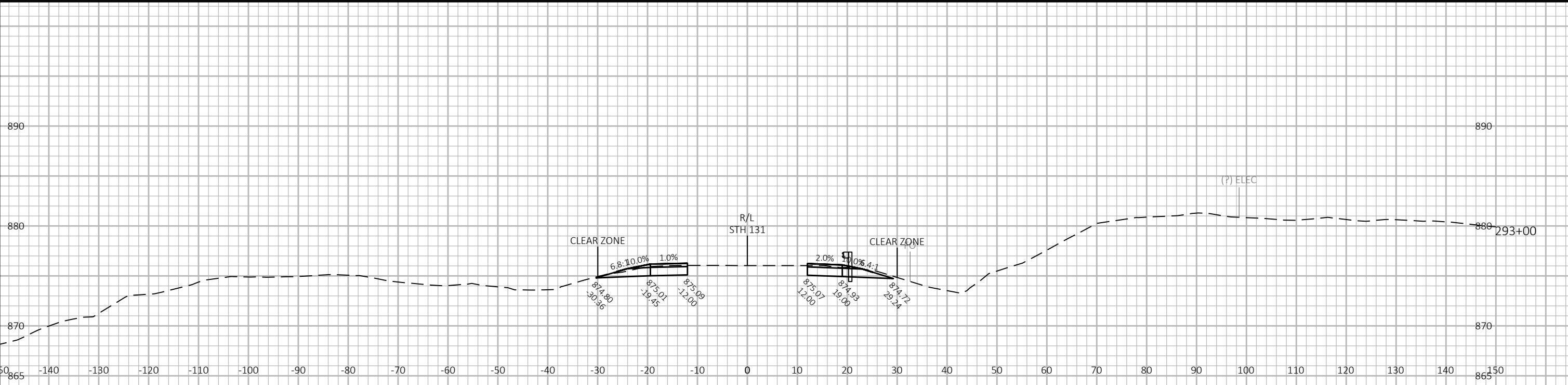
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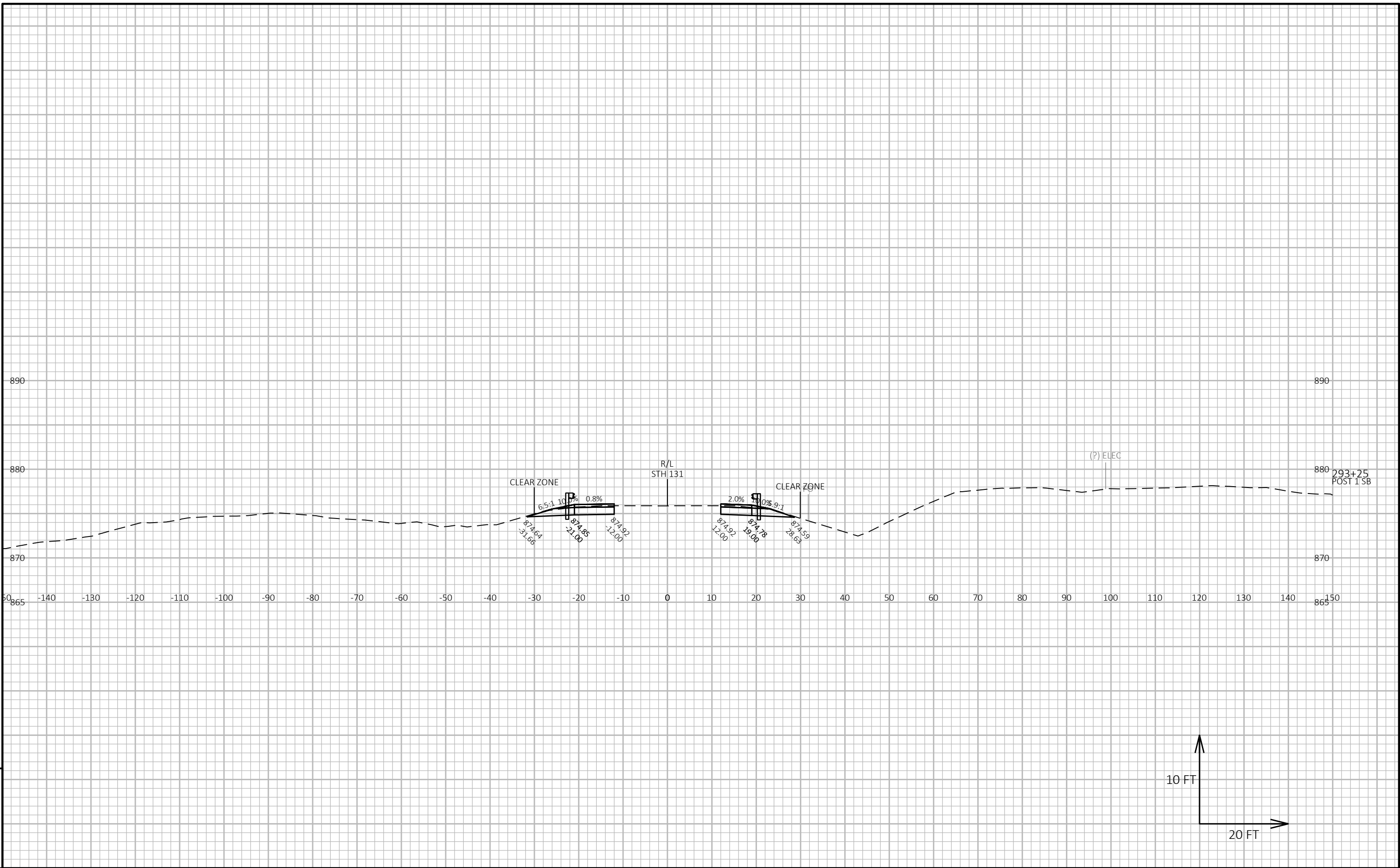


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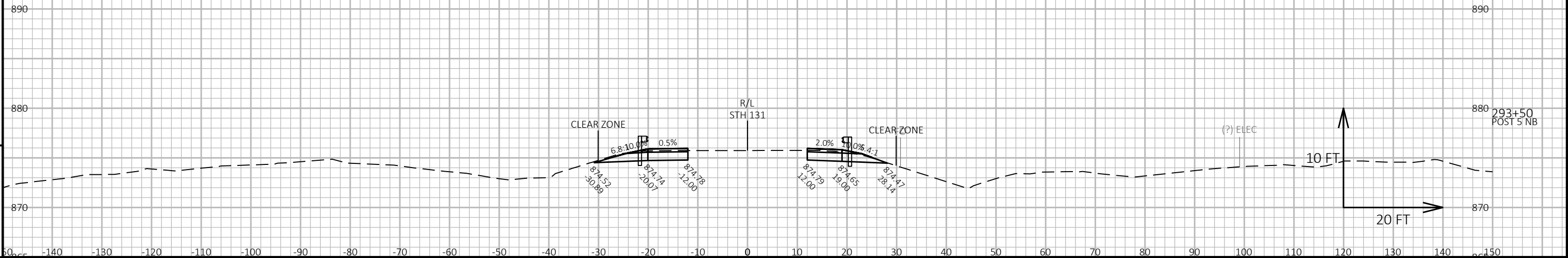
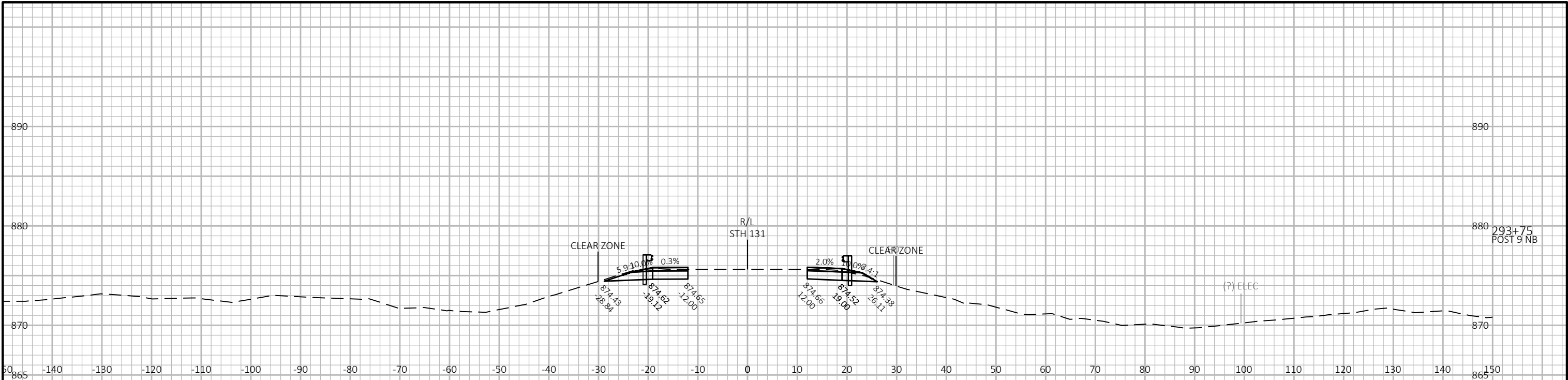
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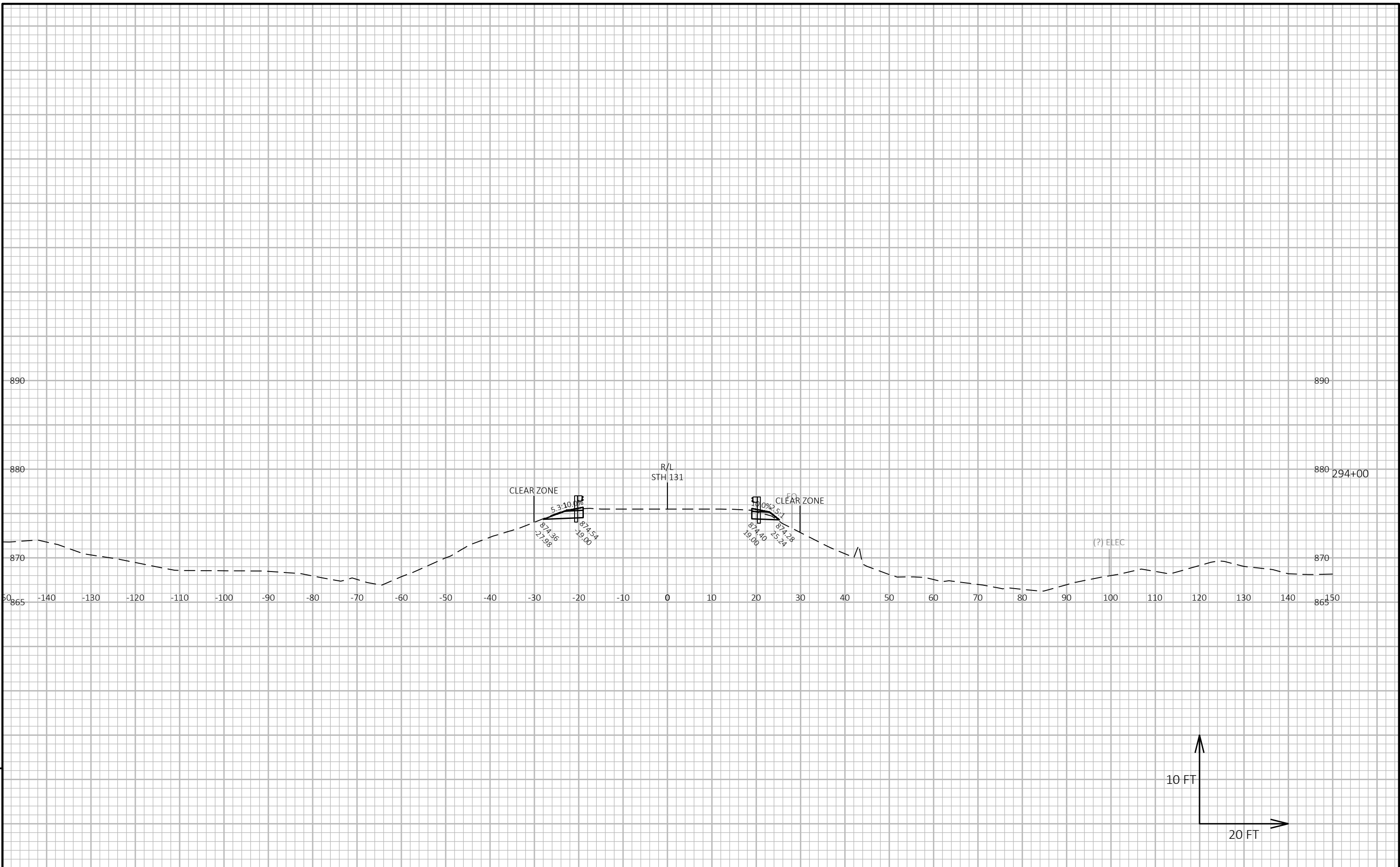


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|------------------------|--------------|----------------|-------------------------|-----------|
| PROJECT NO: 5110-06-70 | HWY: STH 131 | COUNTY: VERNON | CROSS SECTIONS: STH 131 | SHEET 387 |
|------------------------|--------------|----------------|-------------------------|-----------|



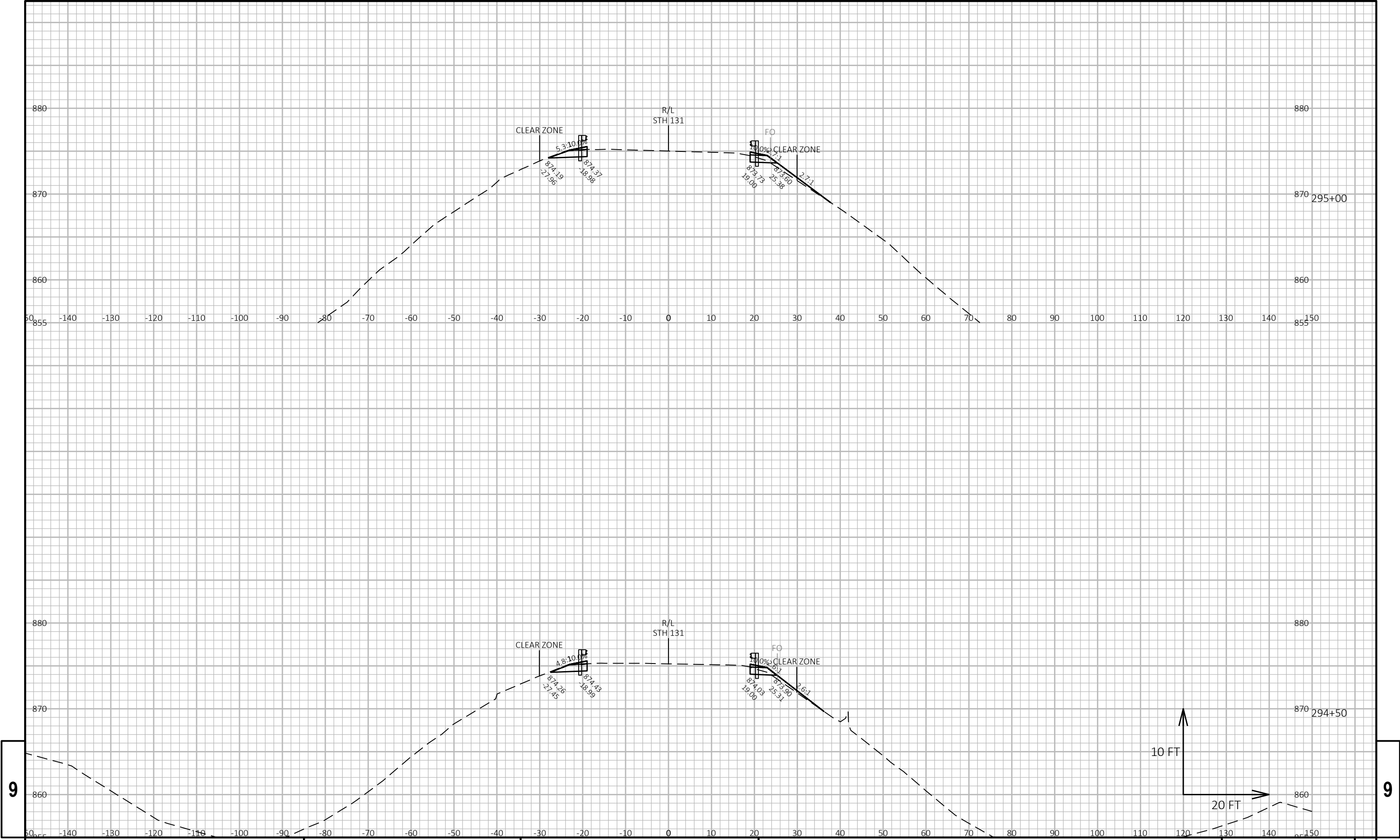






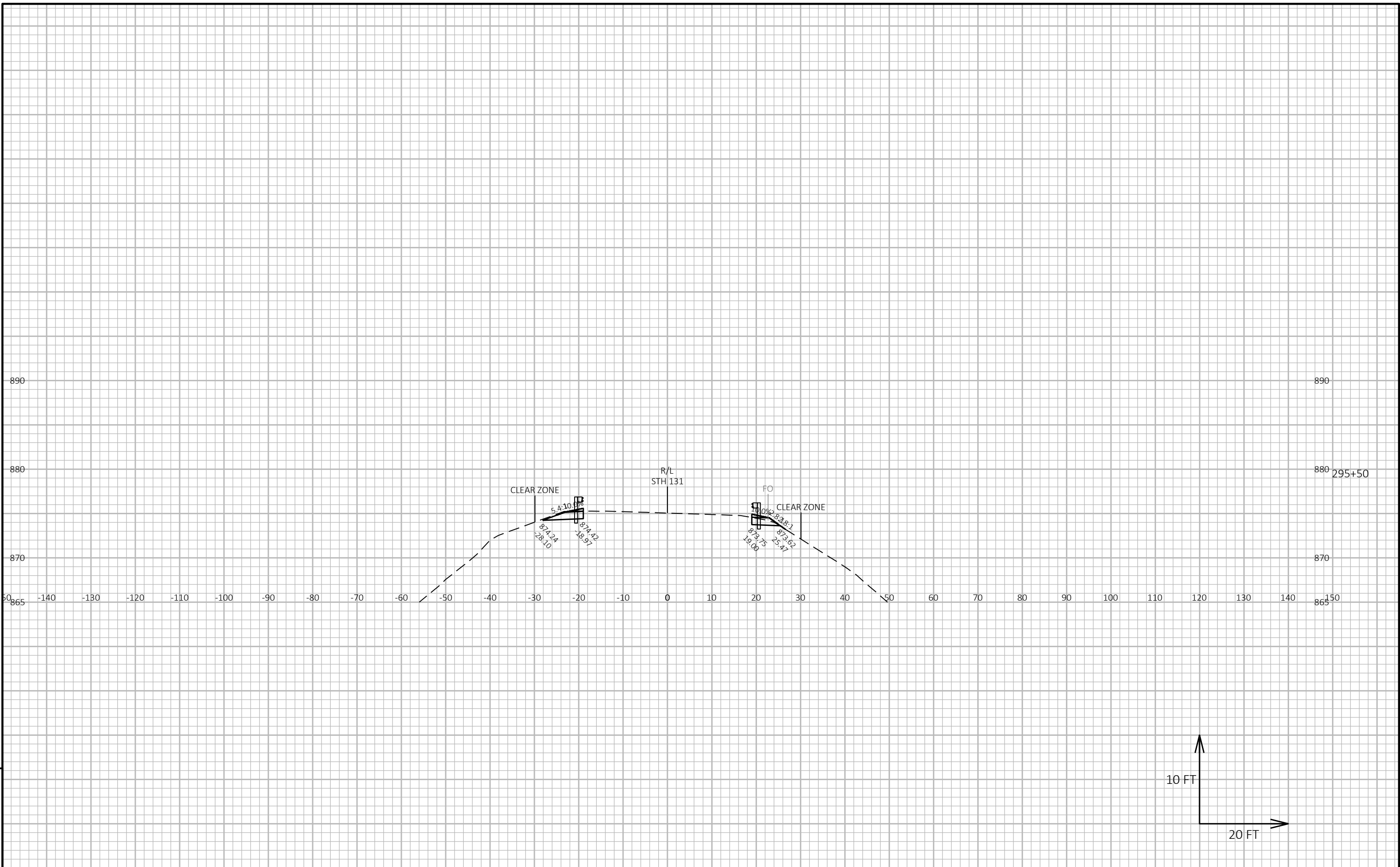
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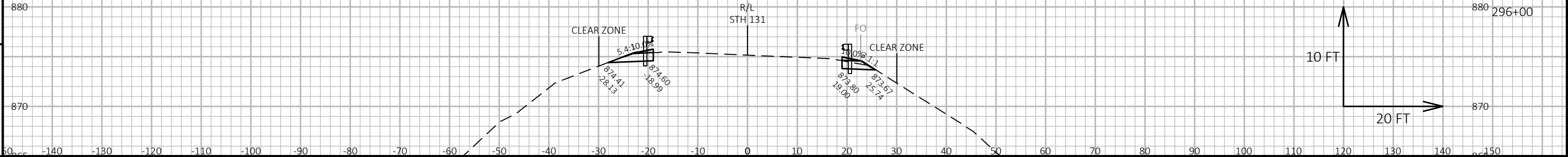
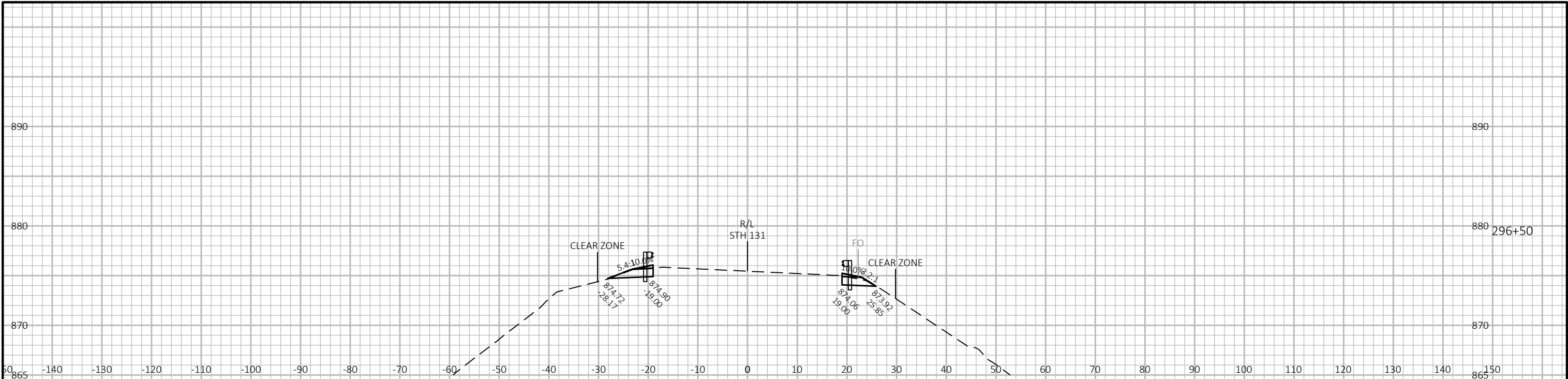
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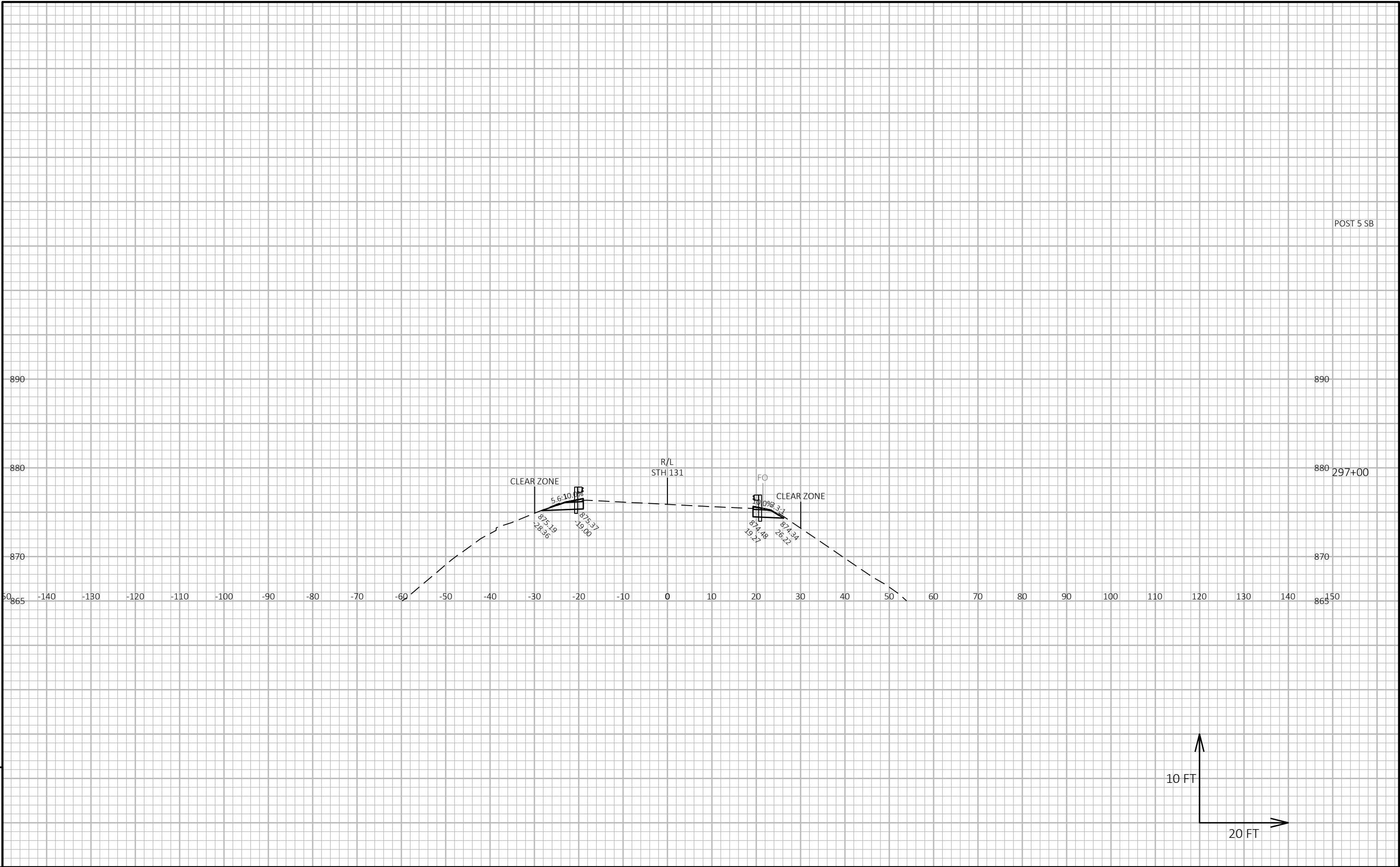


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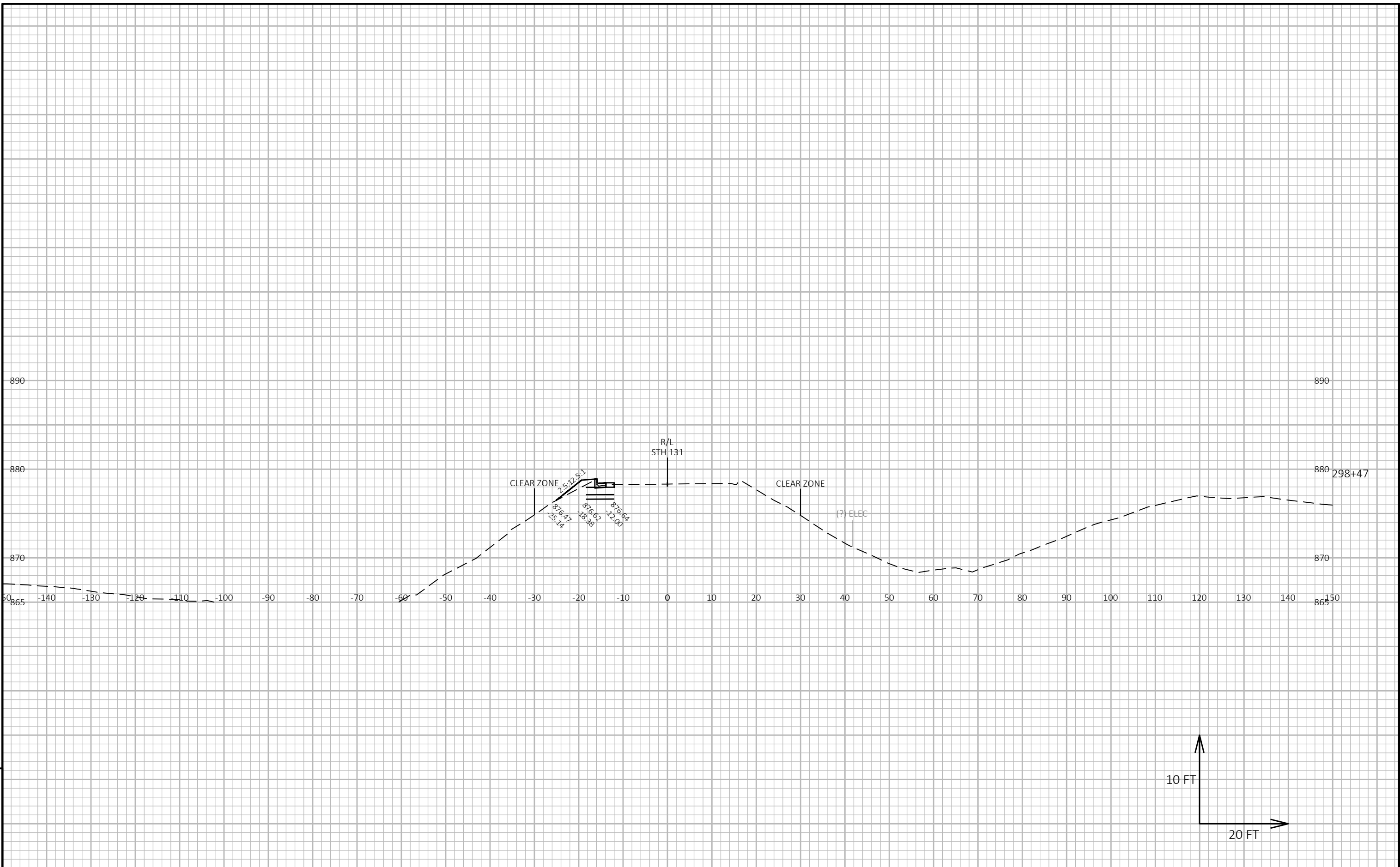






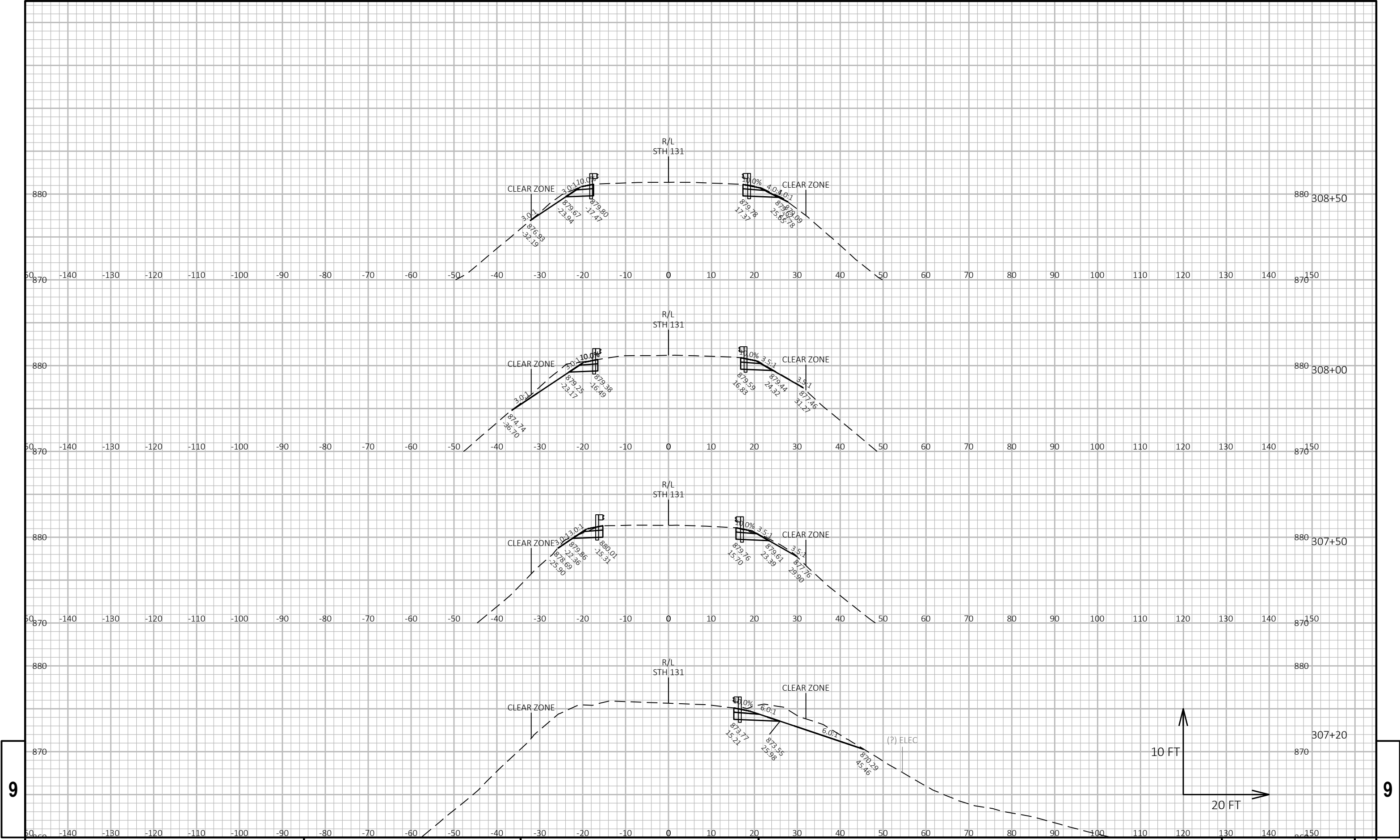






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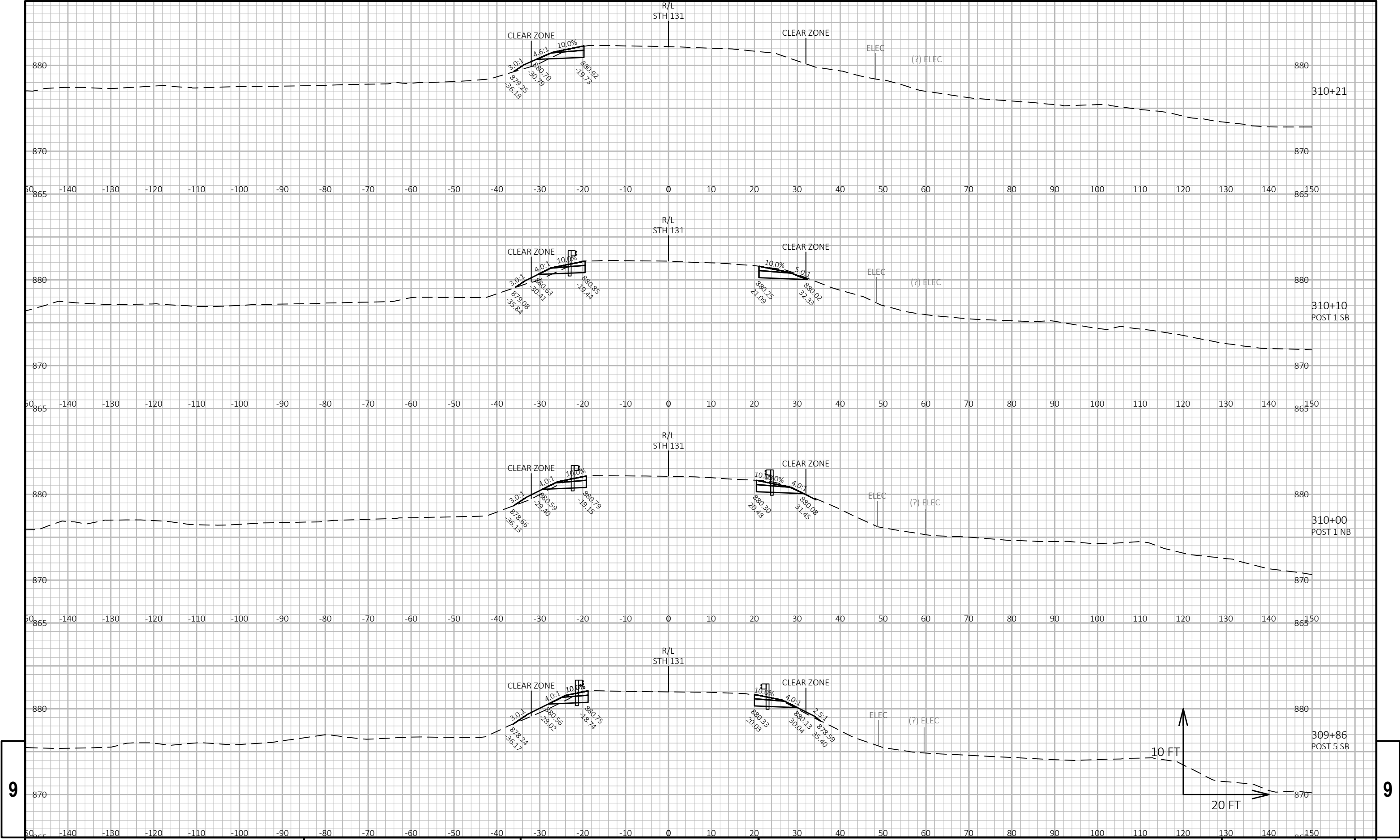
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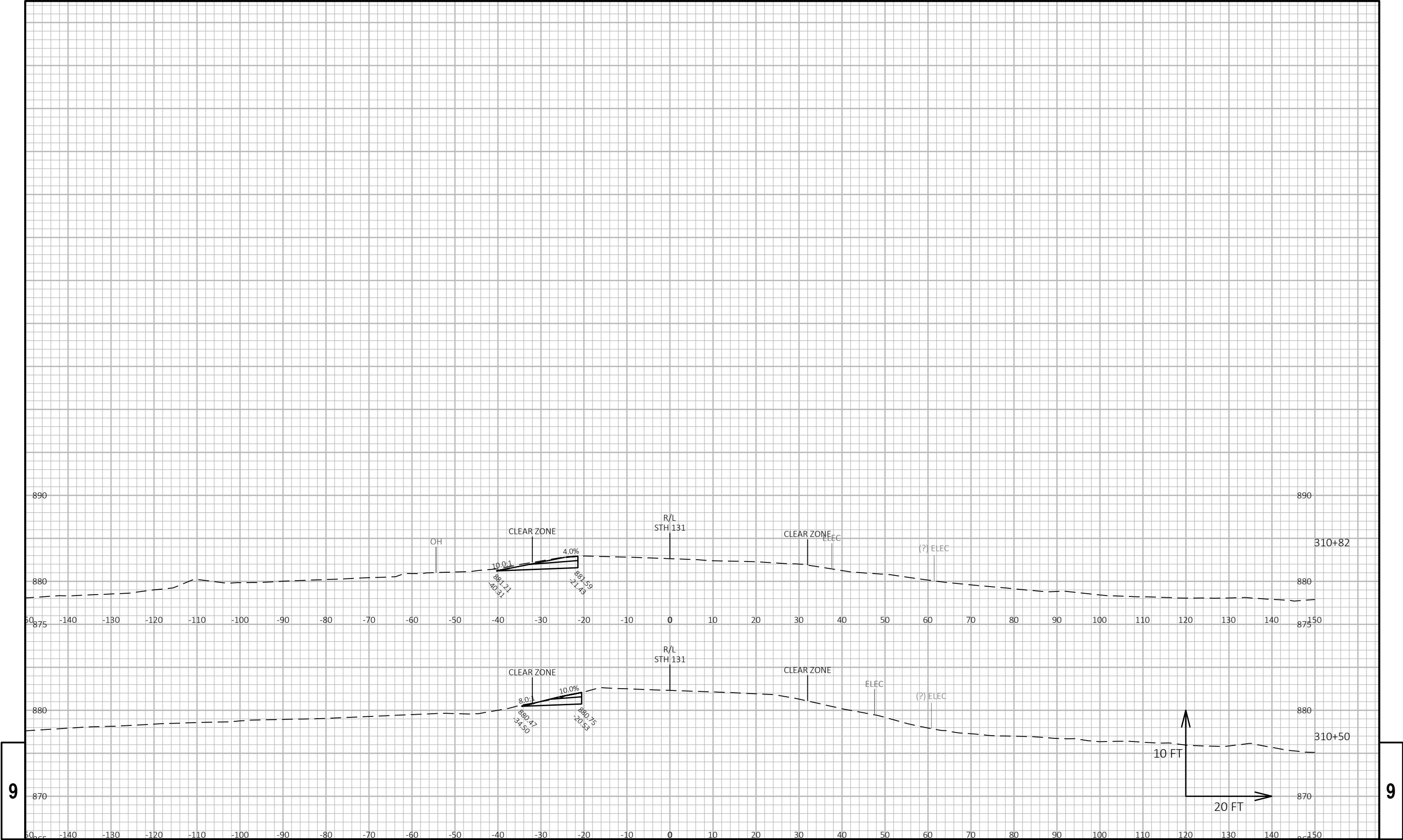
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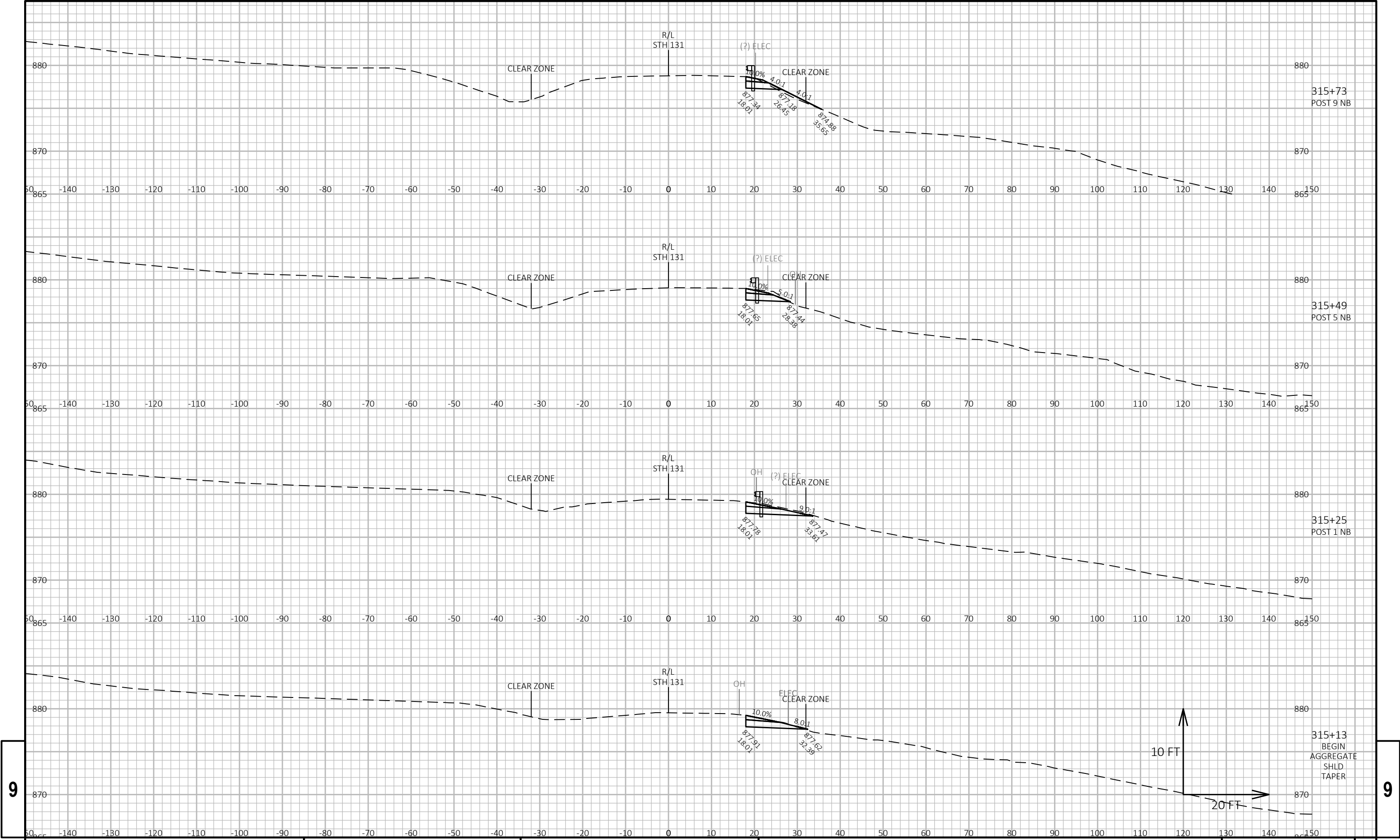
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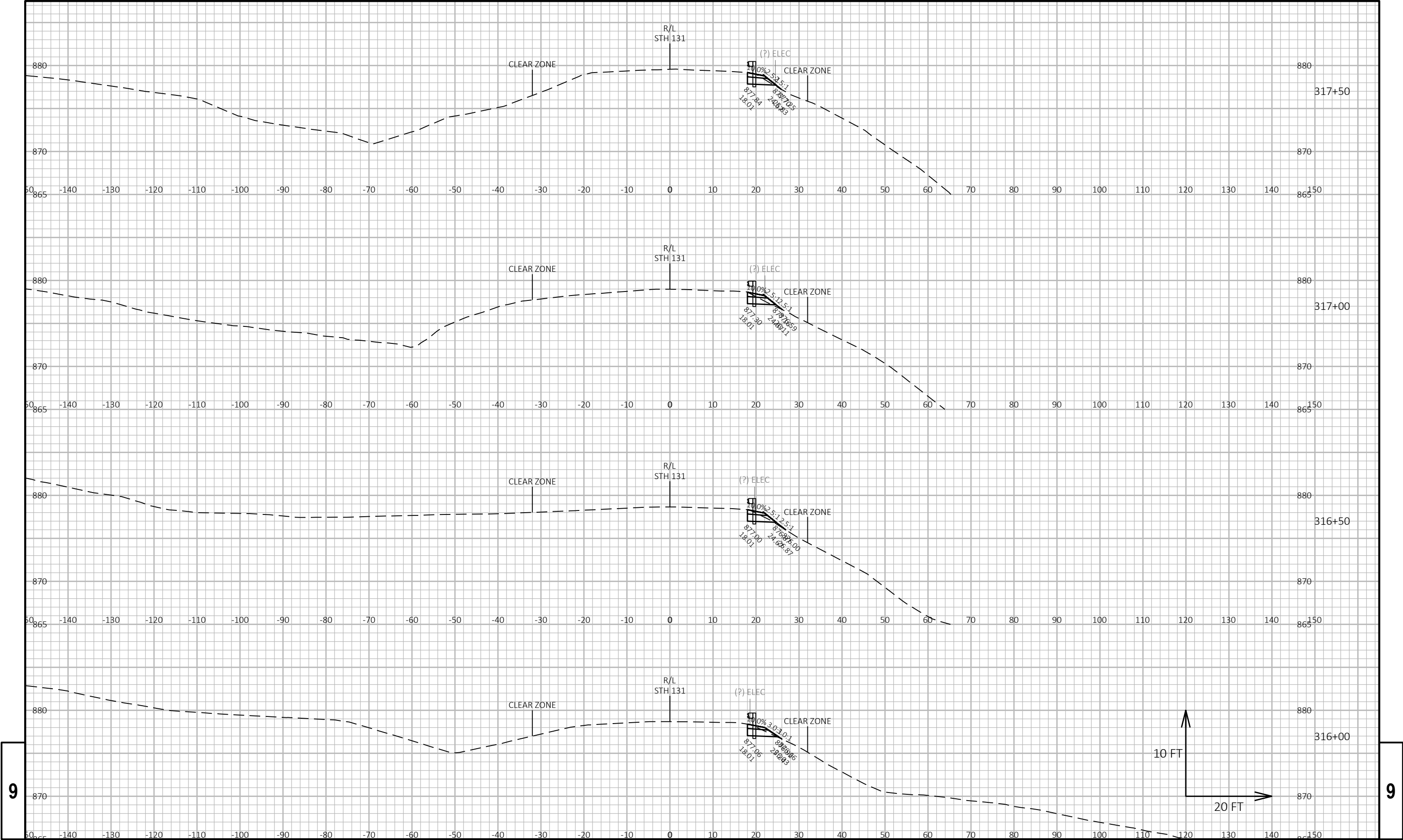
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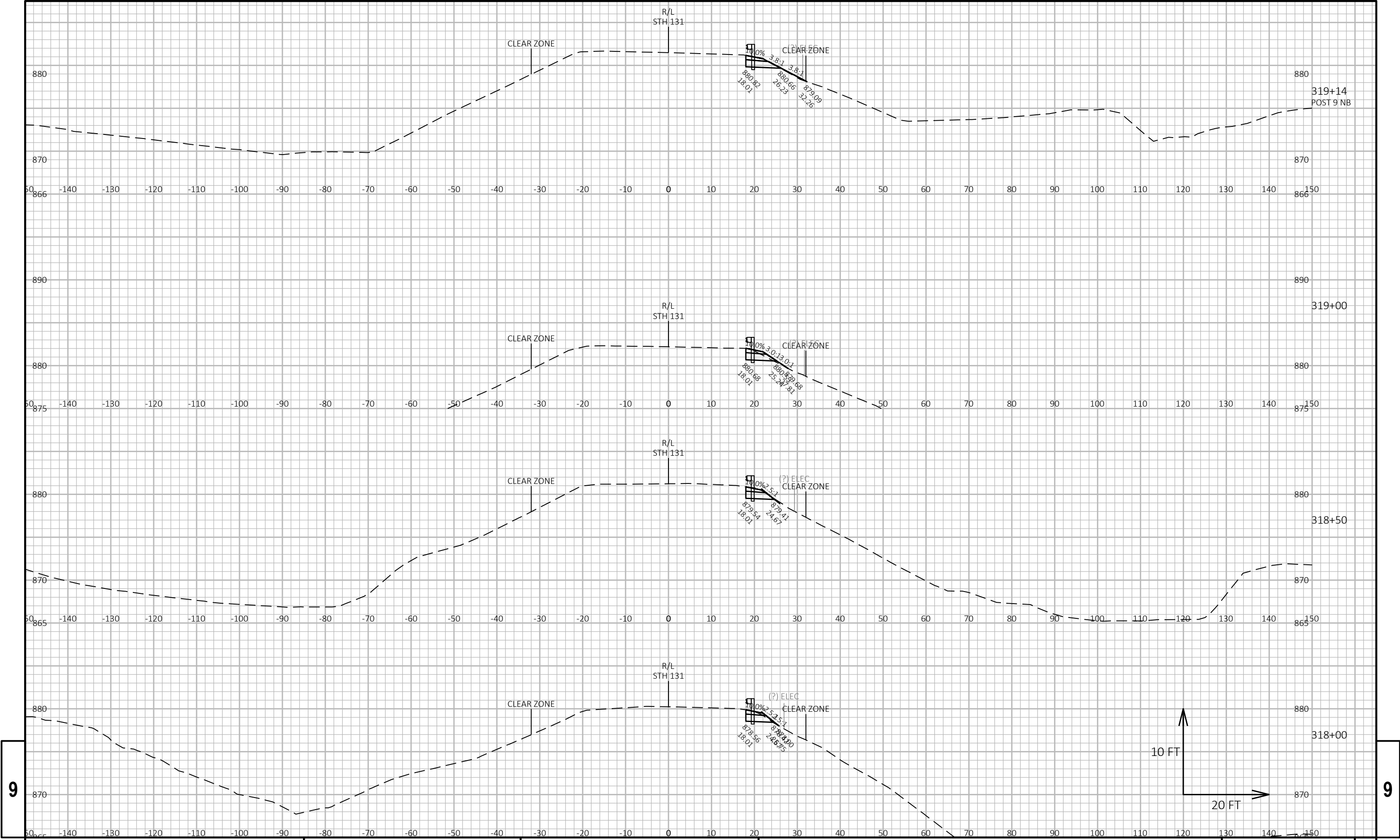




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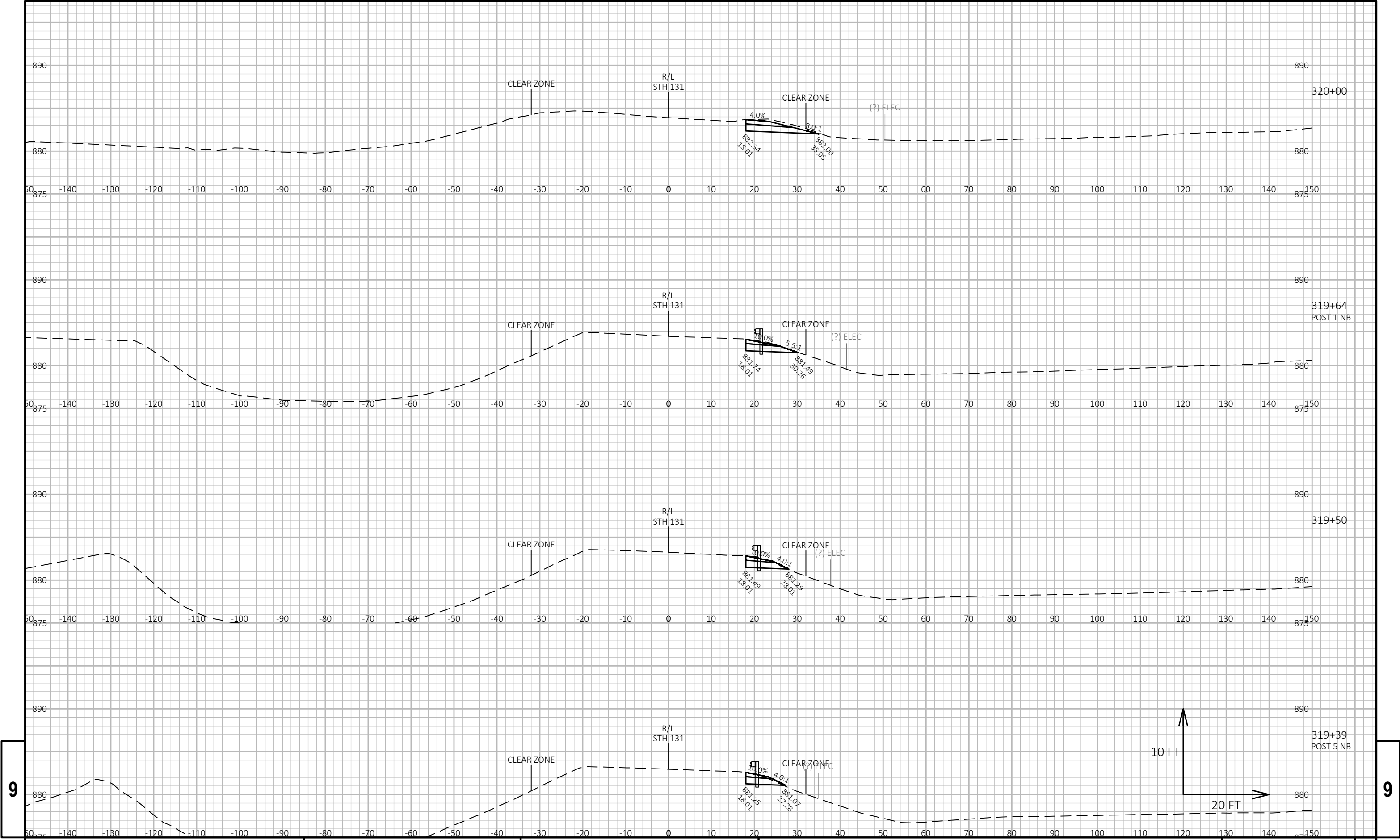
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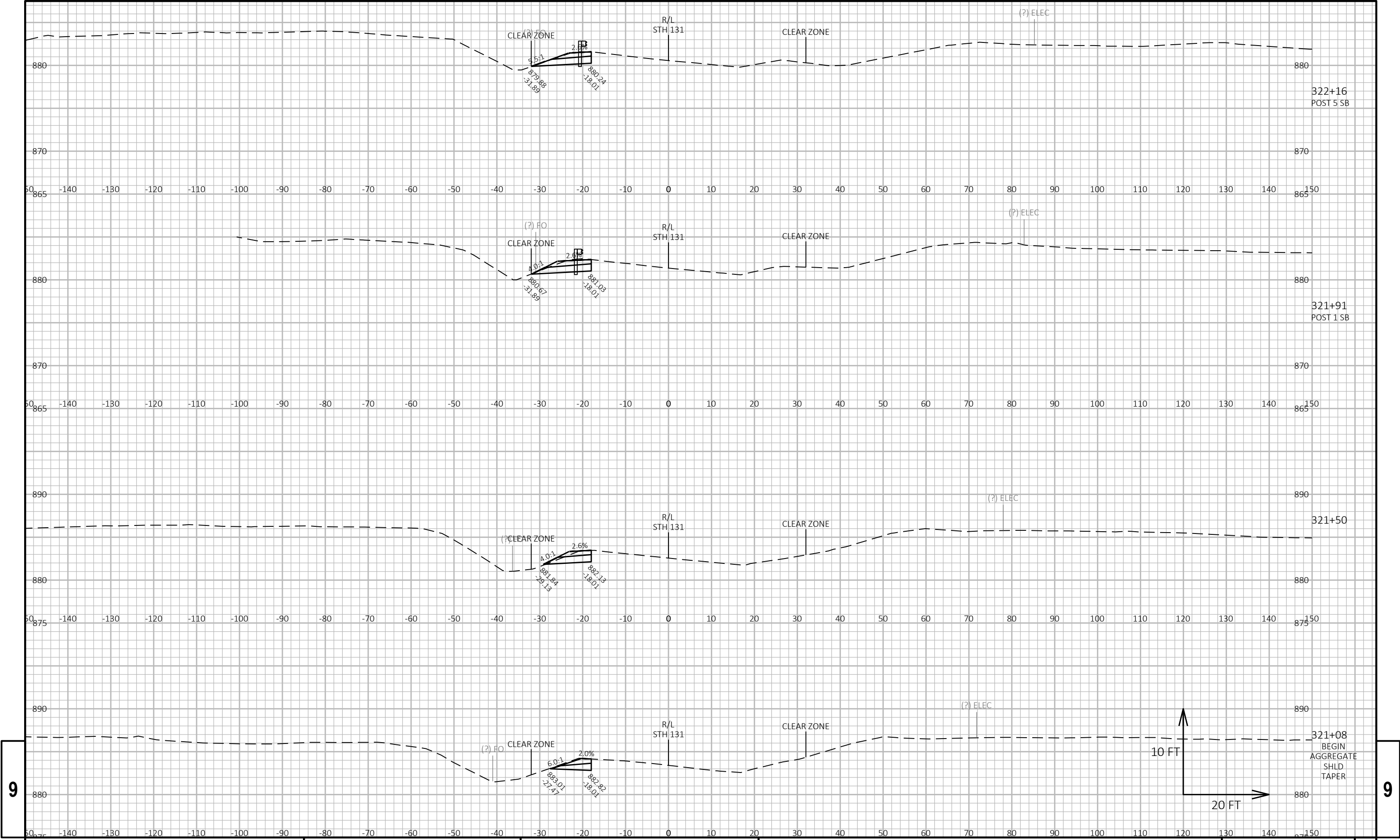
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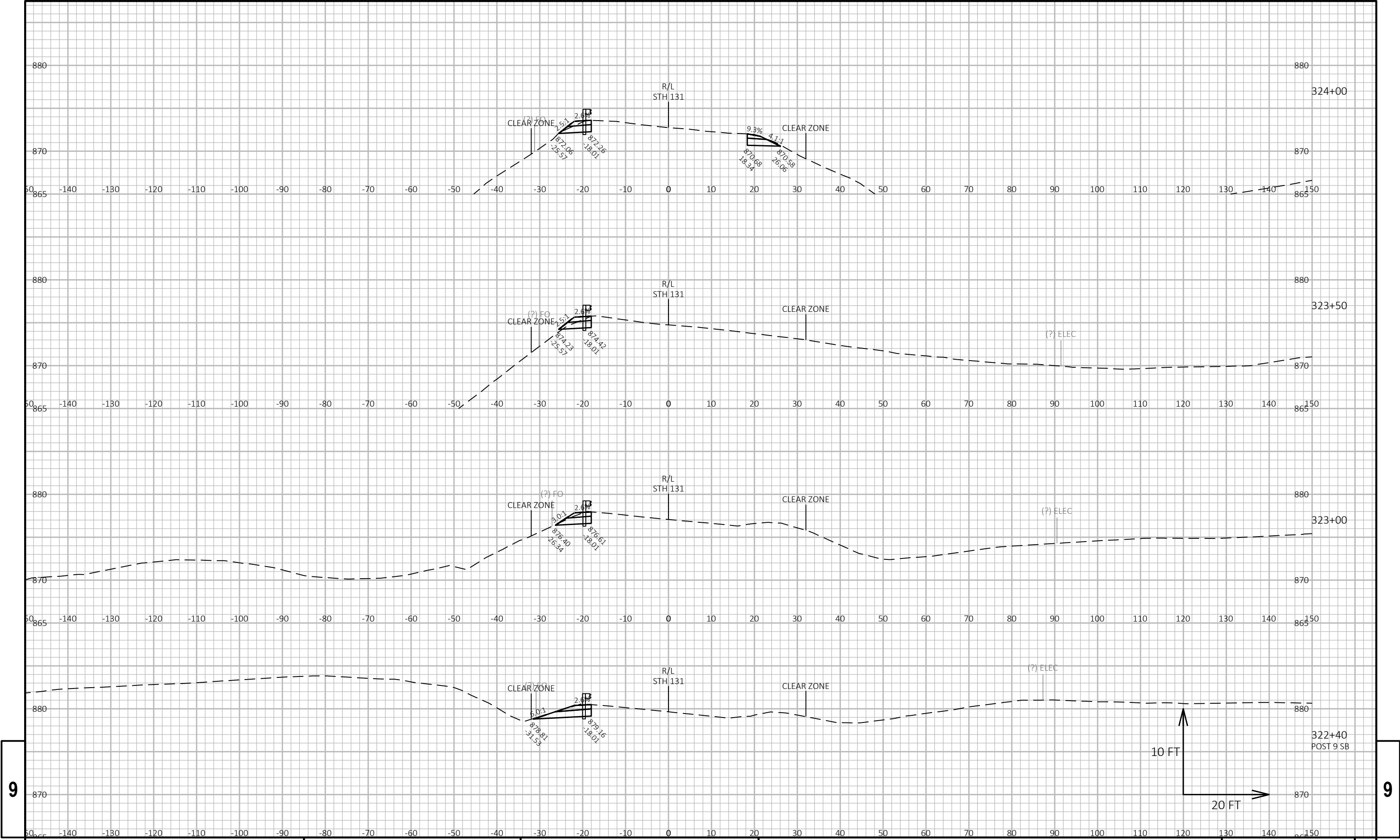
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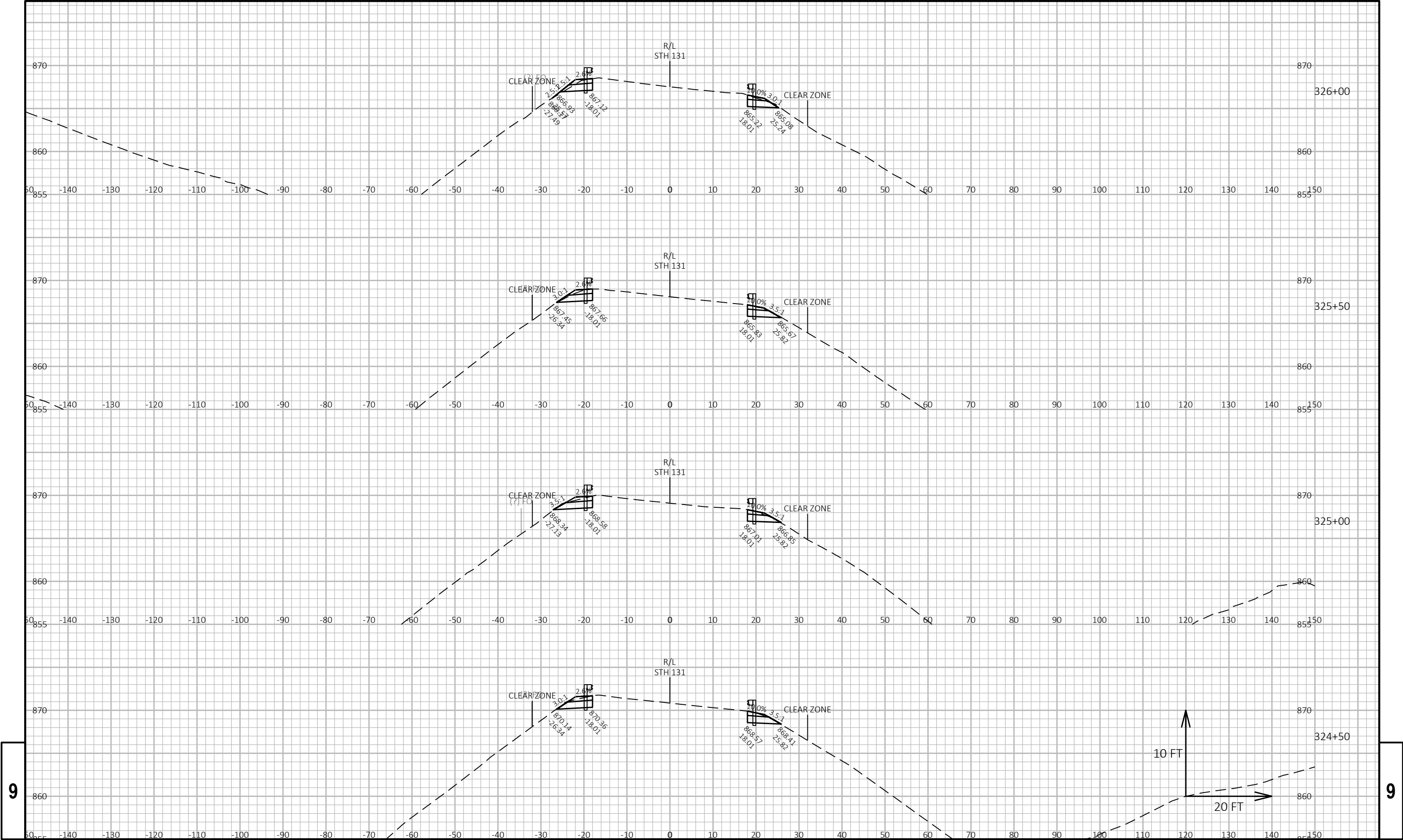
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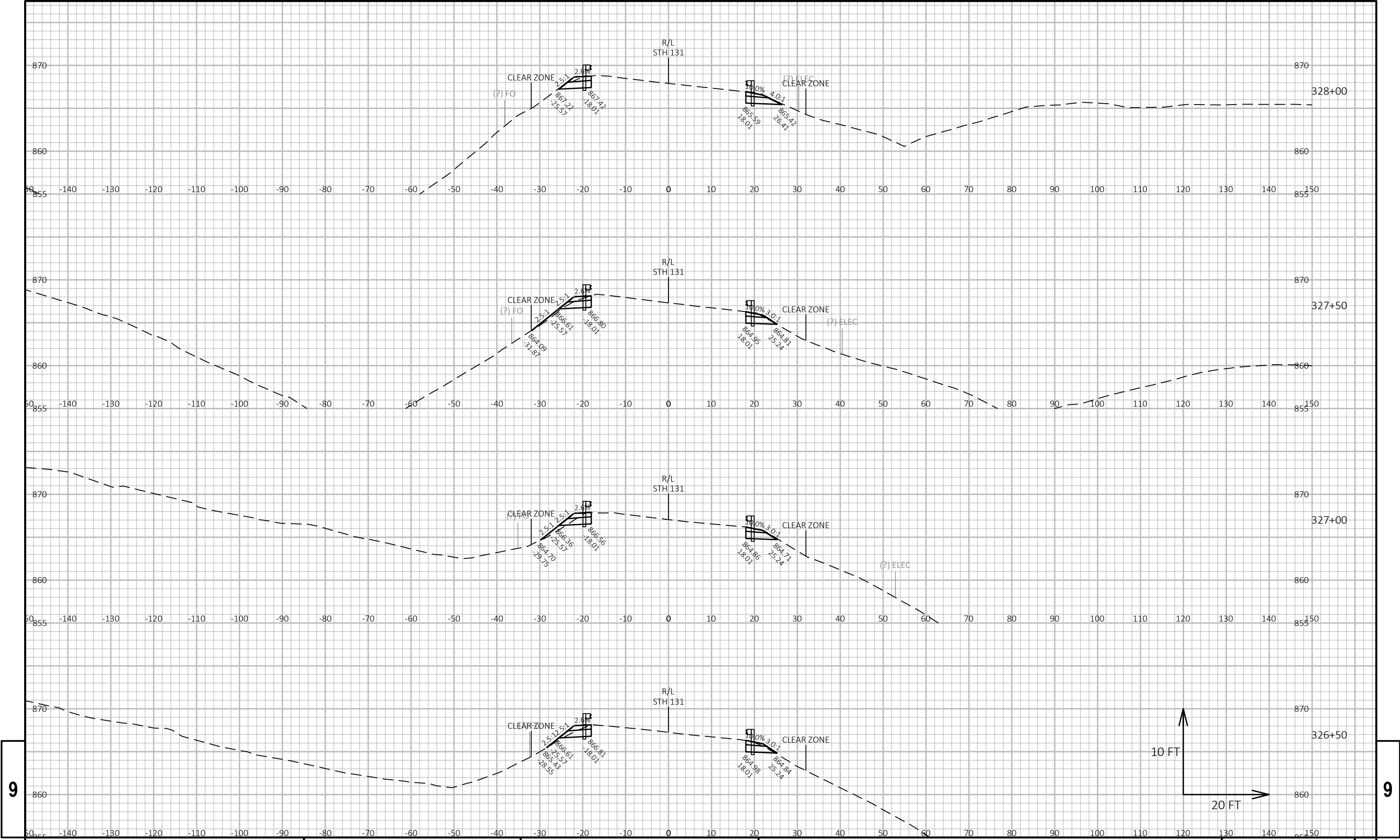
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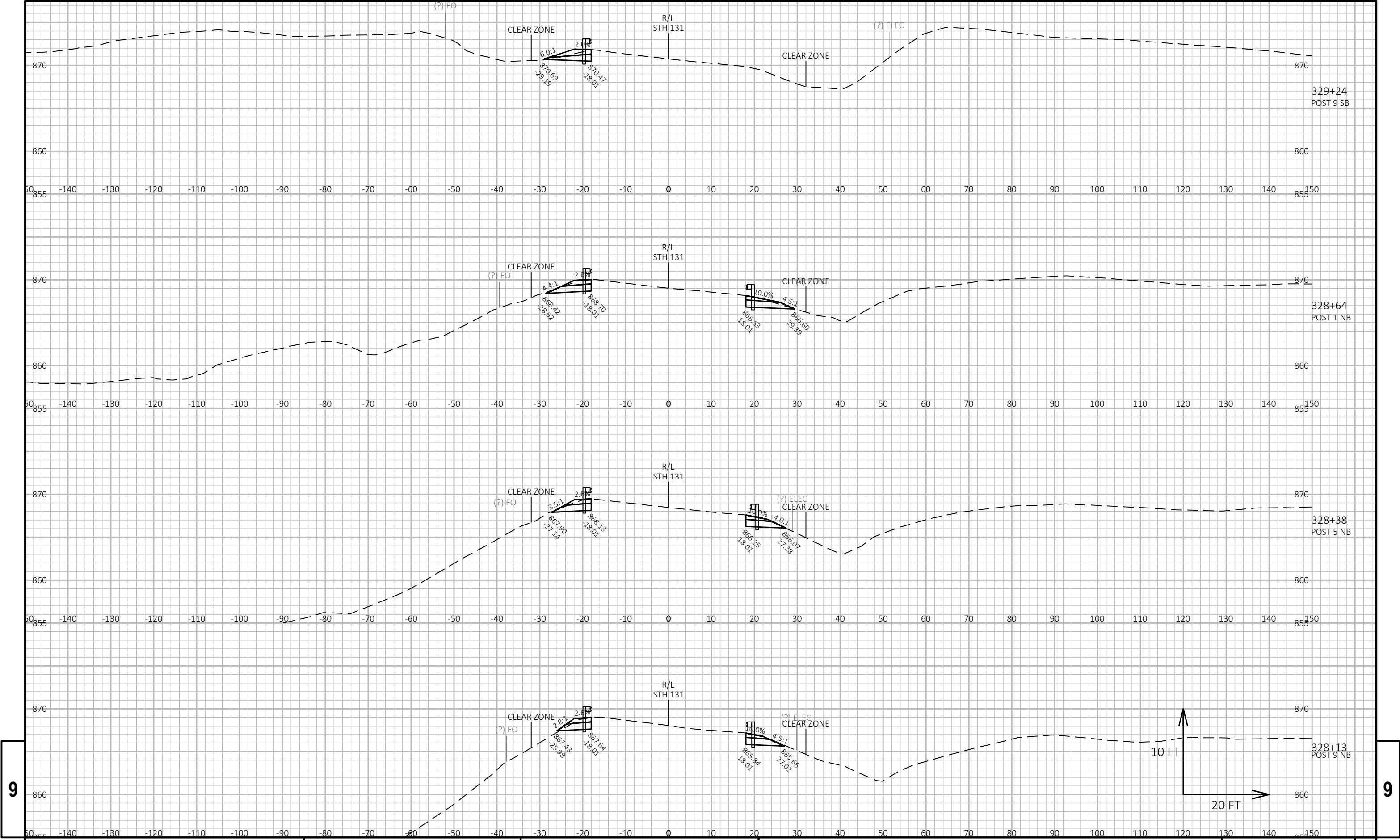
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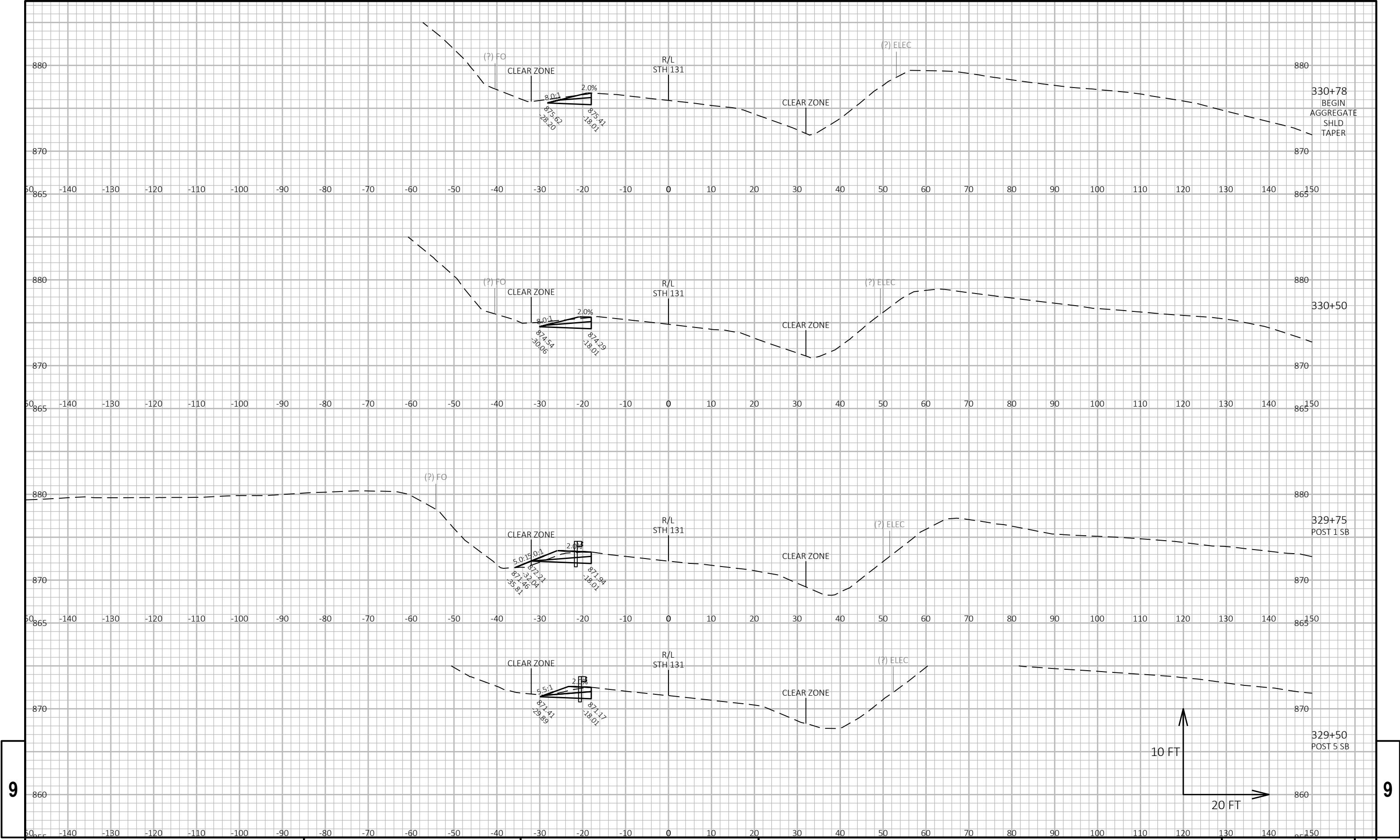
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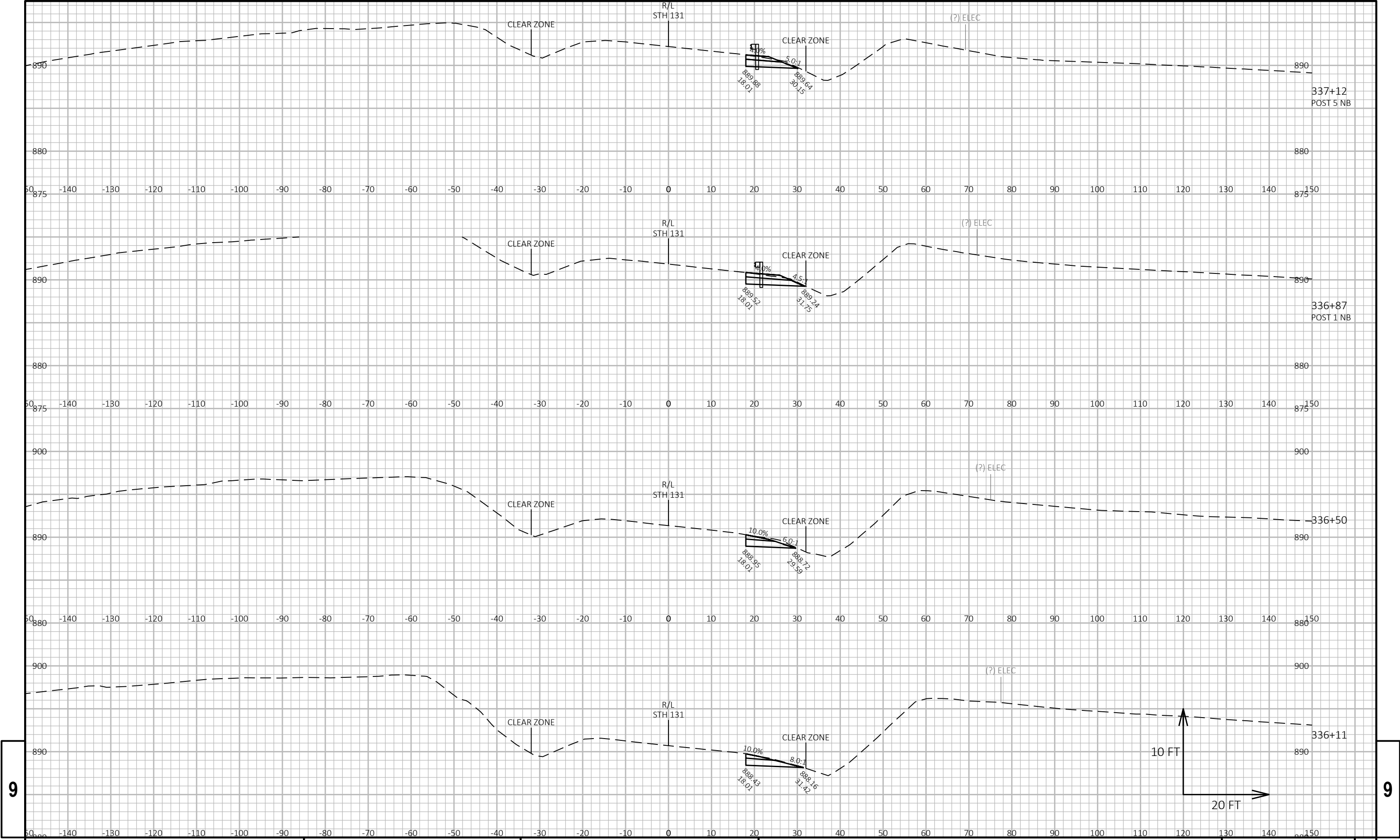
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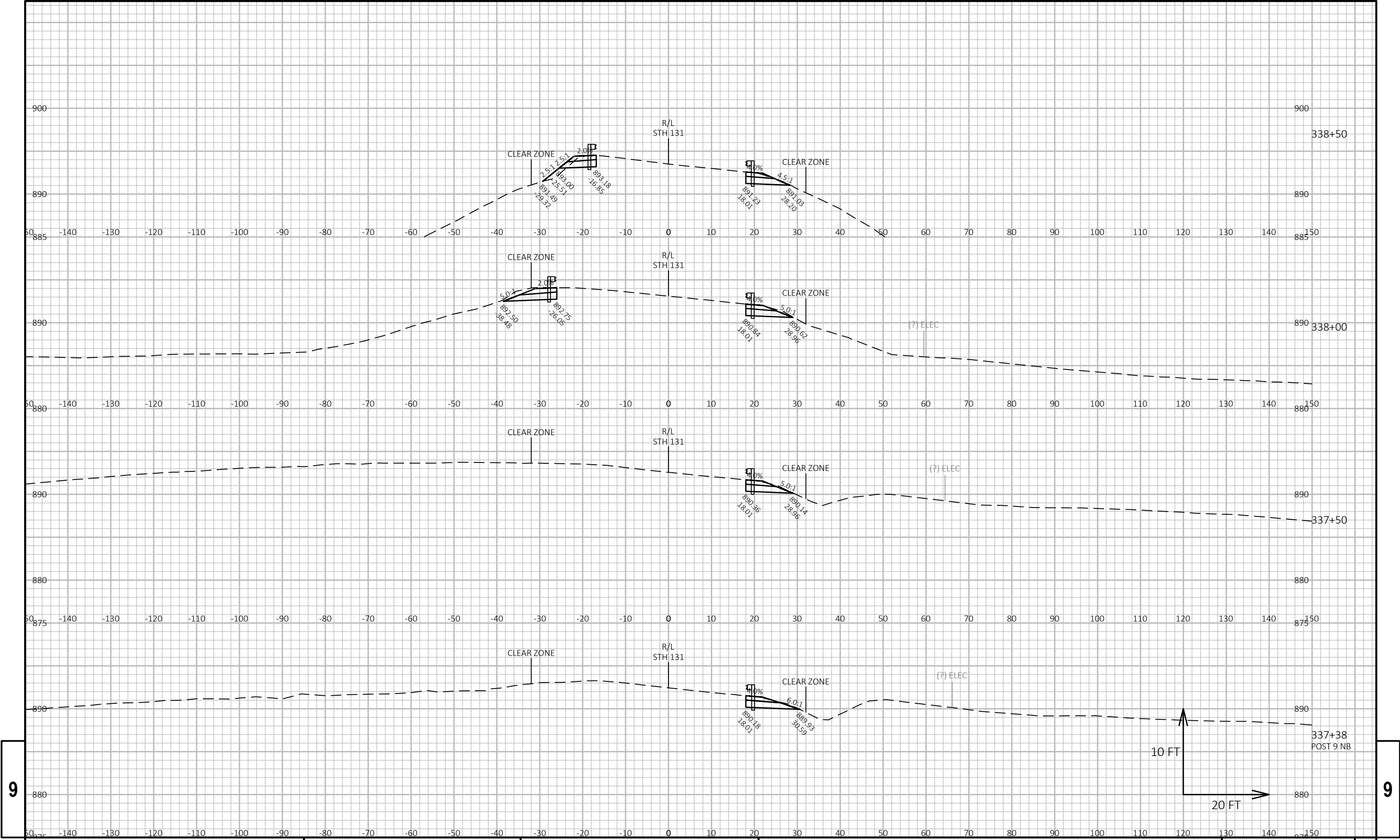
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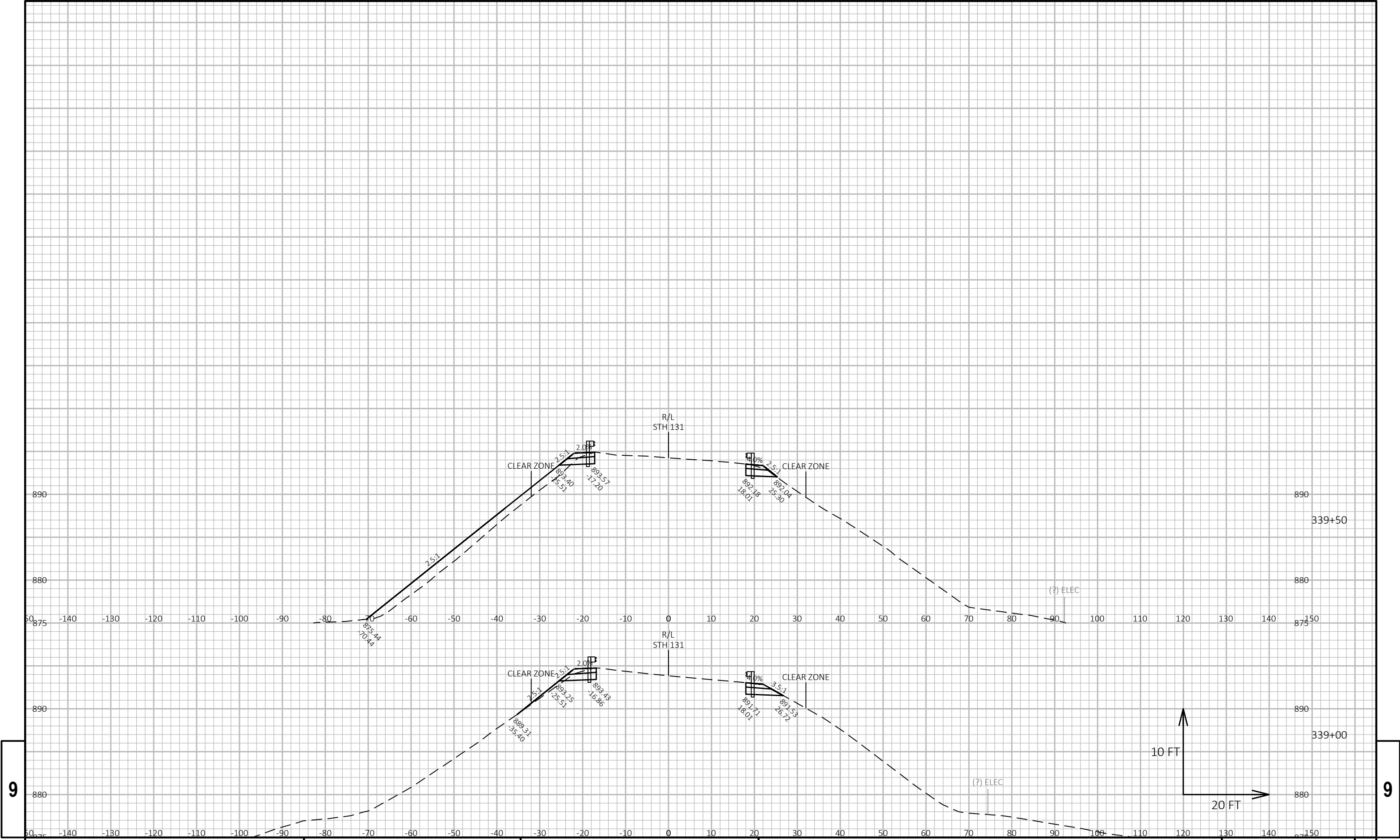
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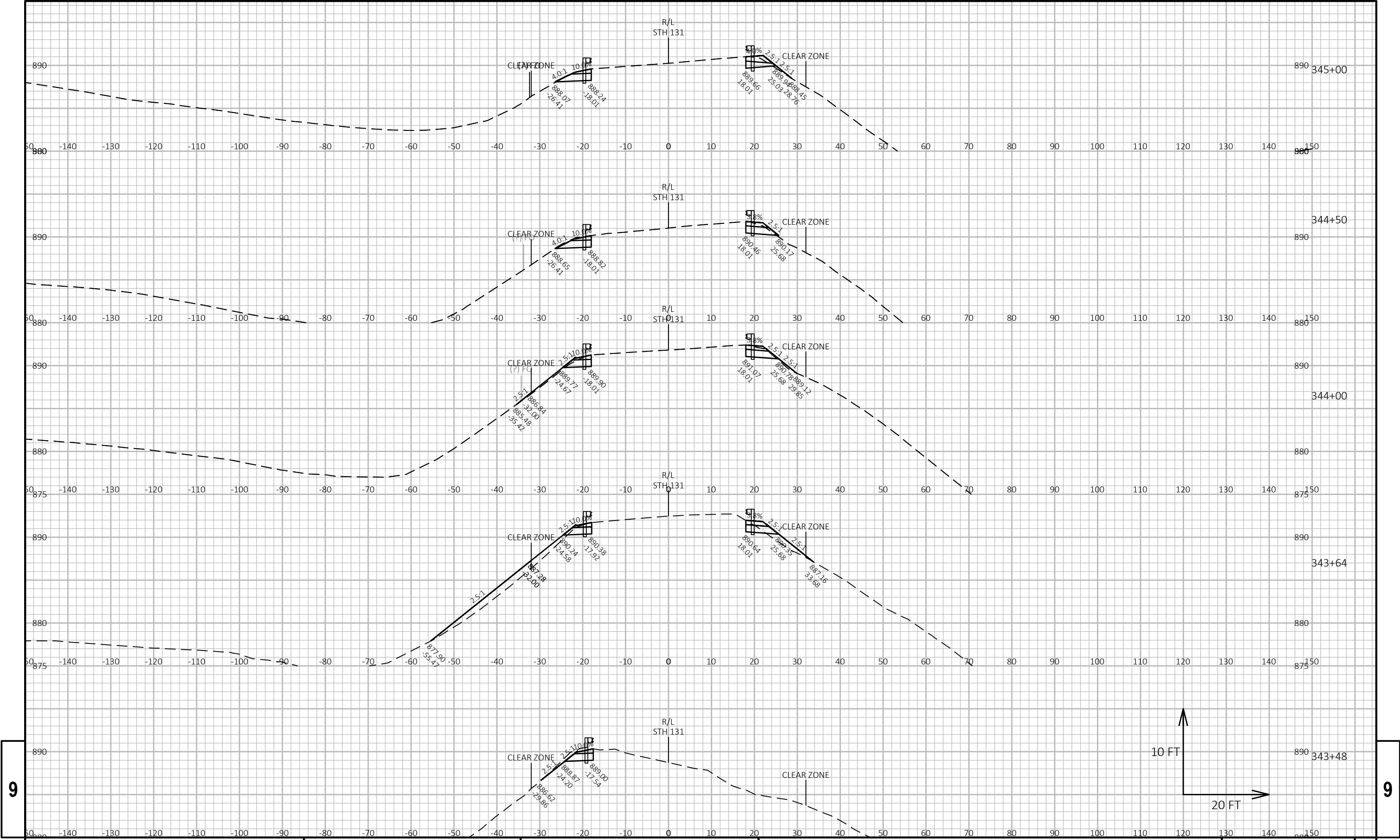
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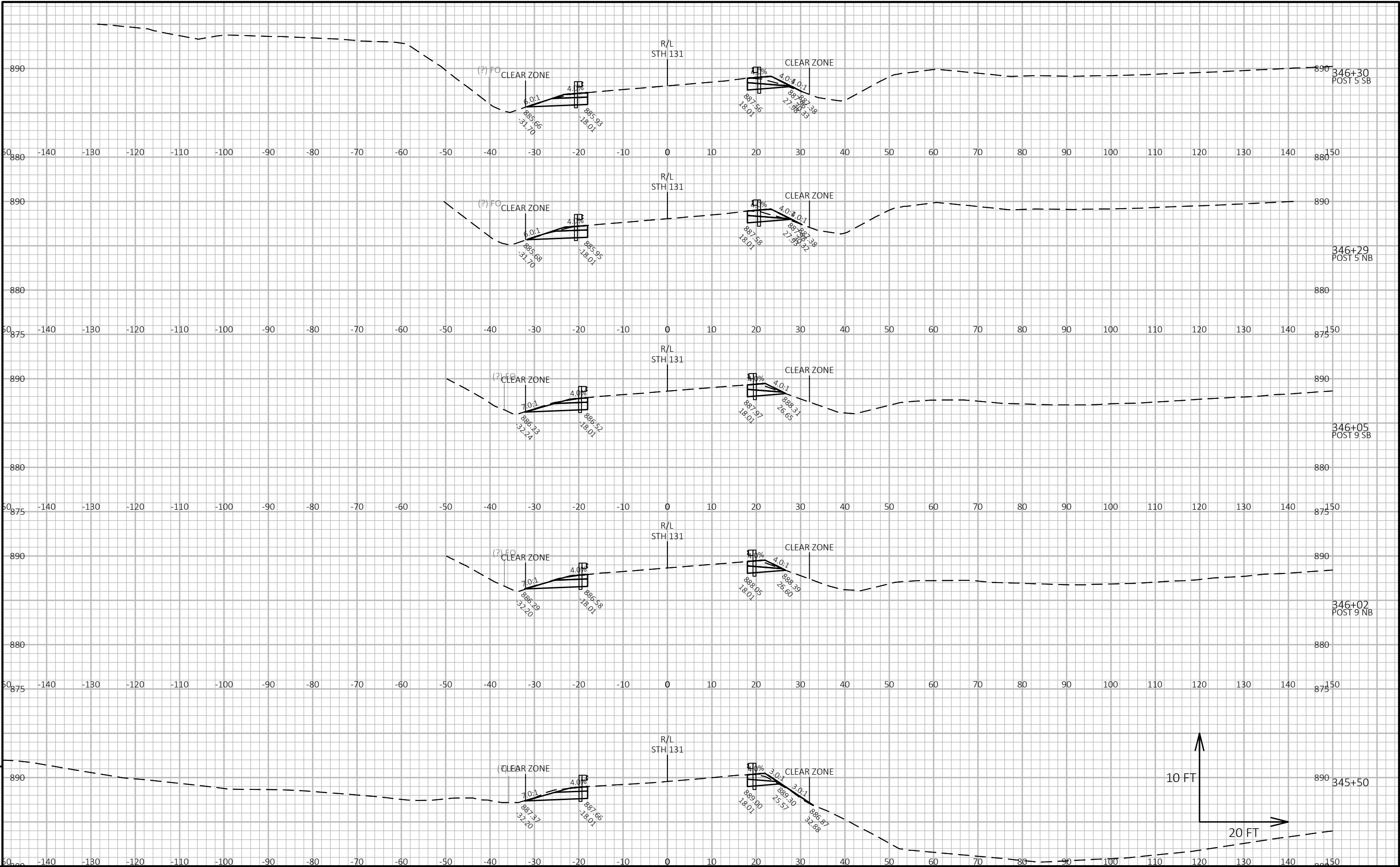


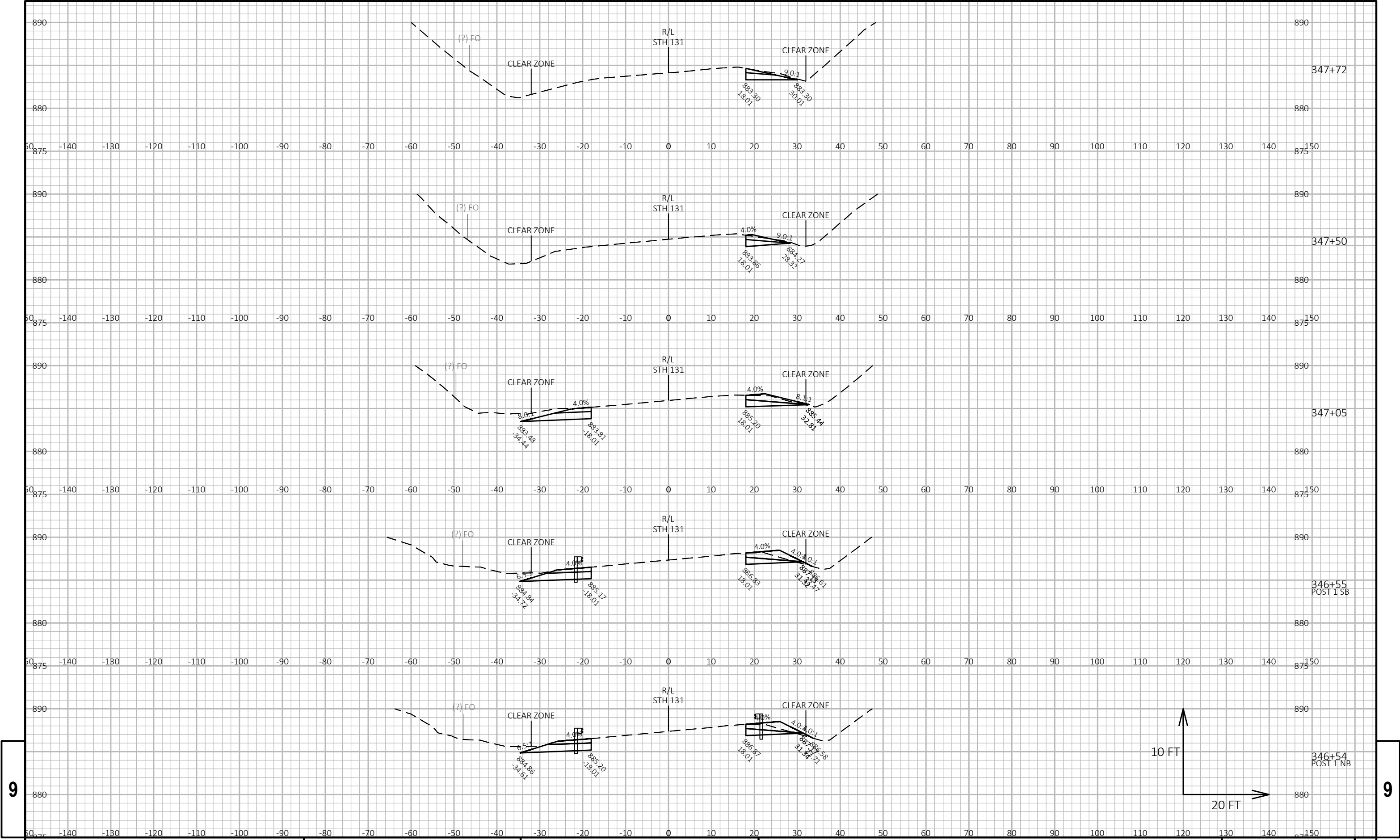


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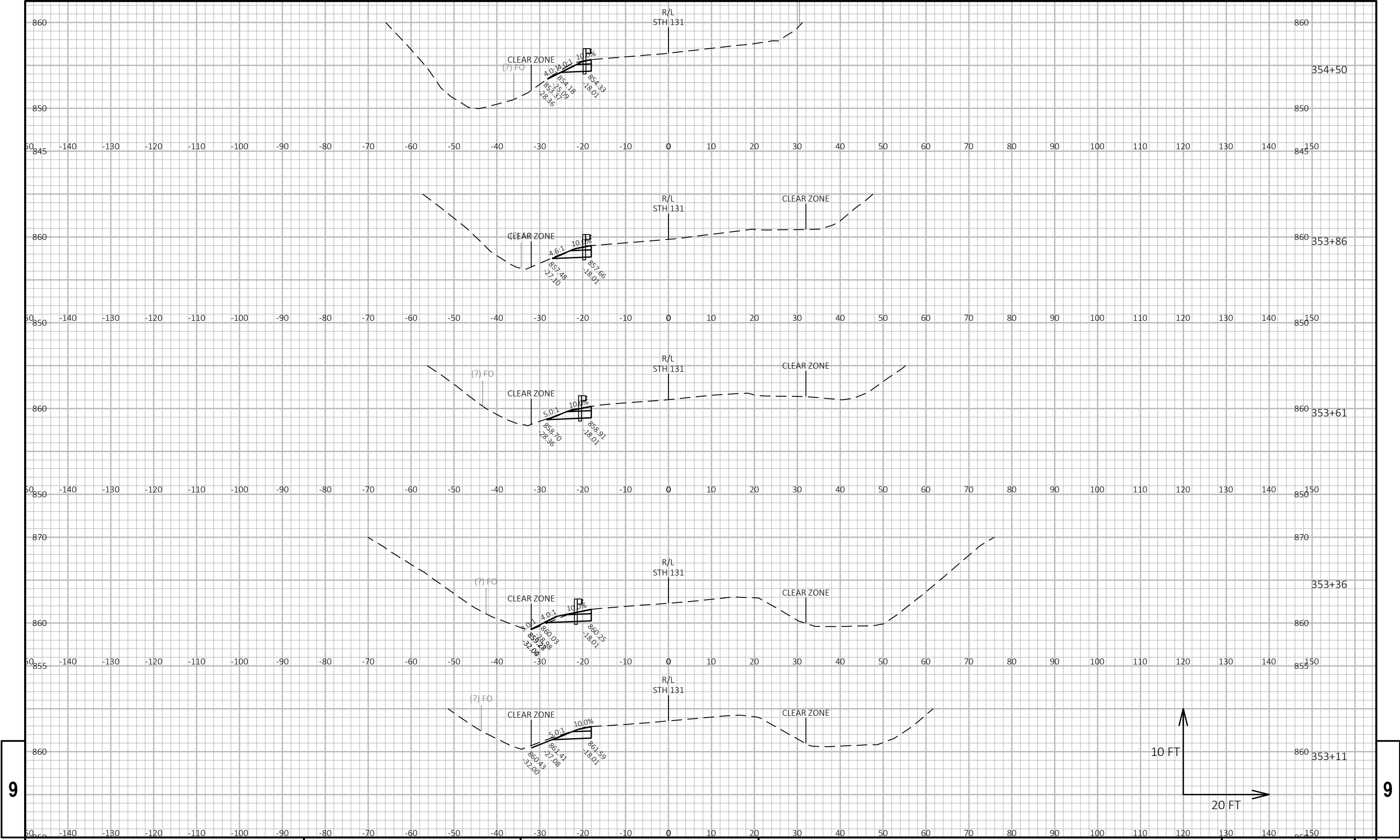






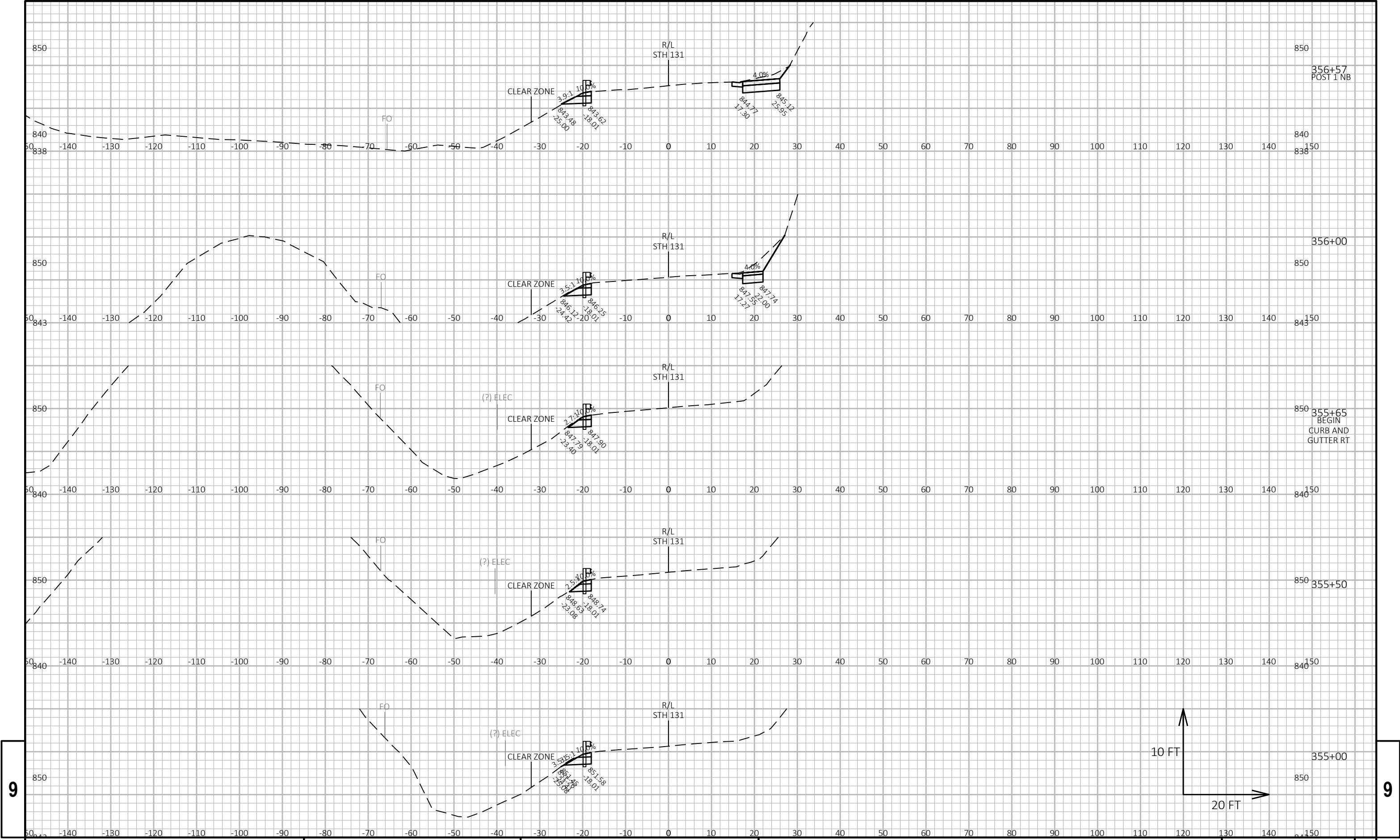
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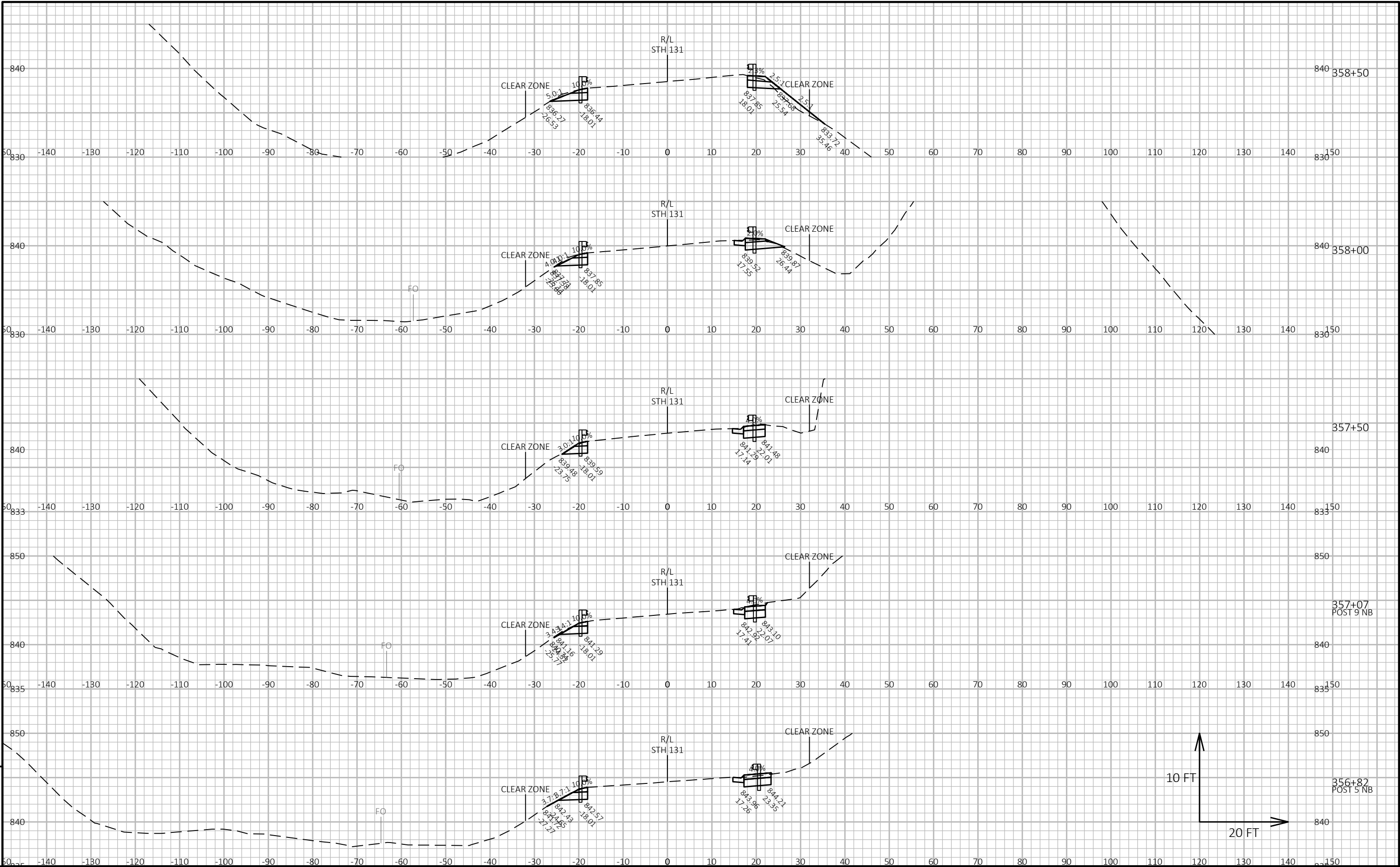
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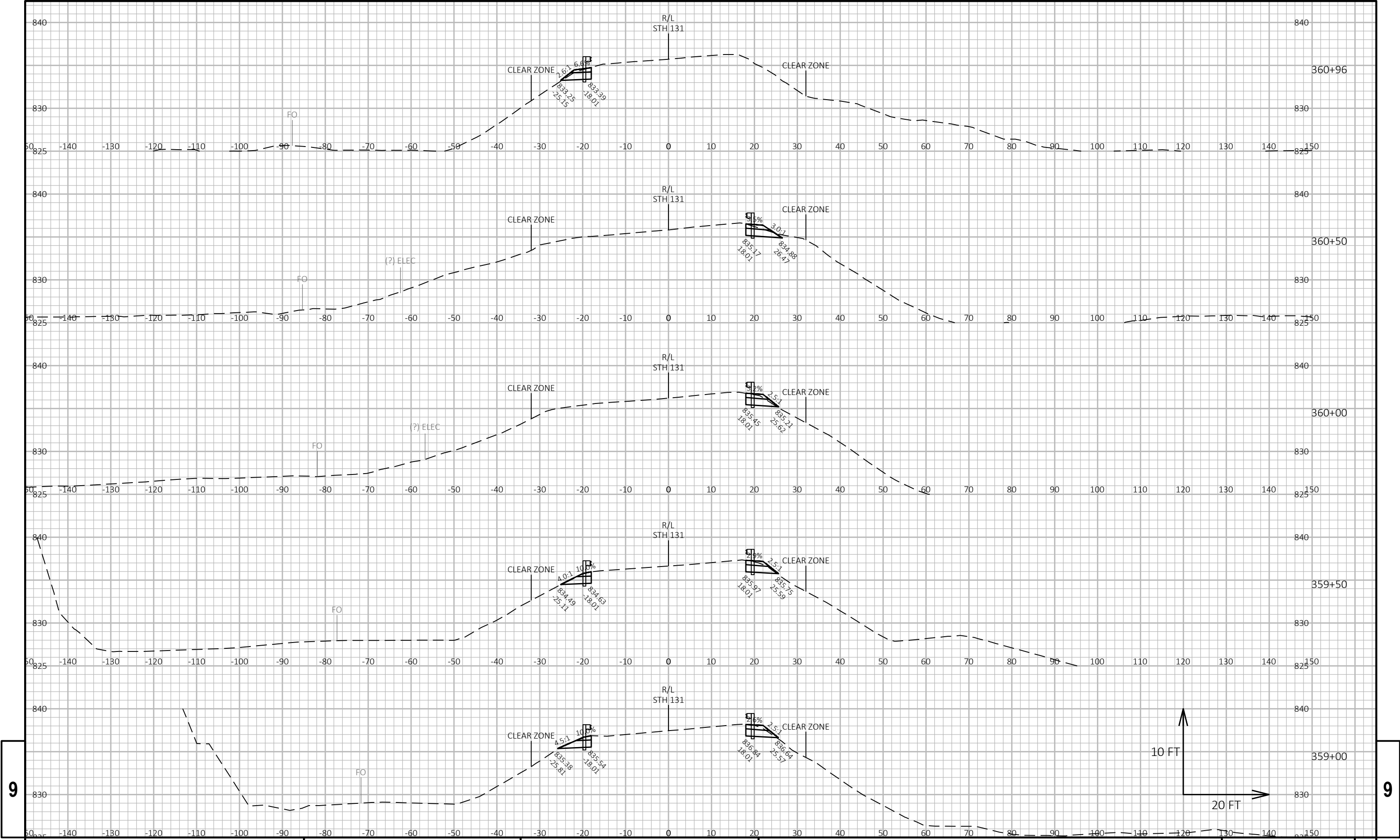


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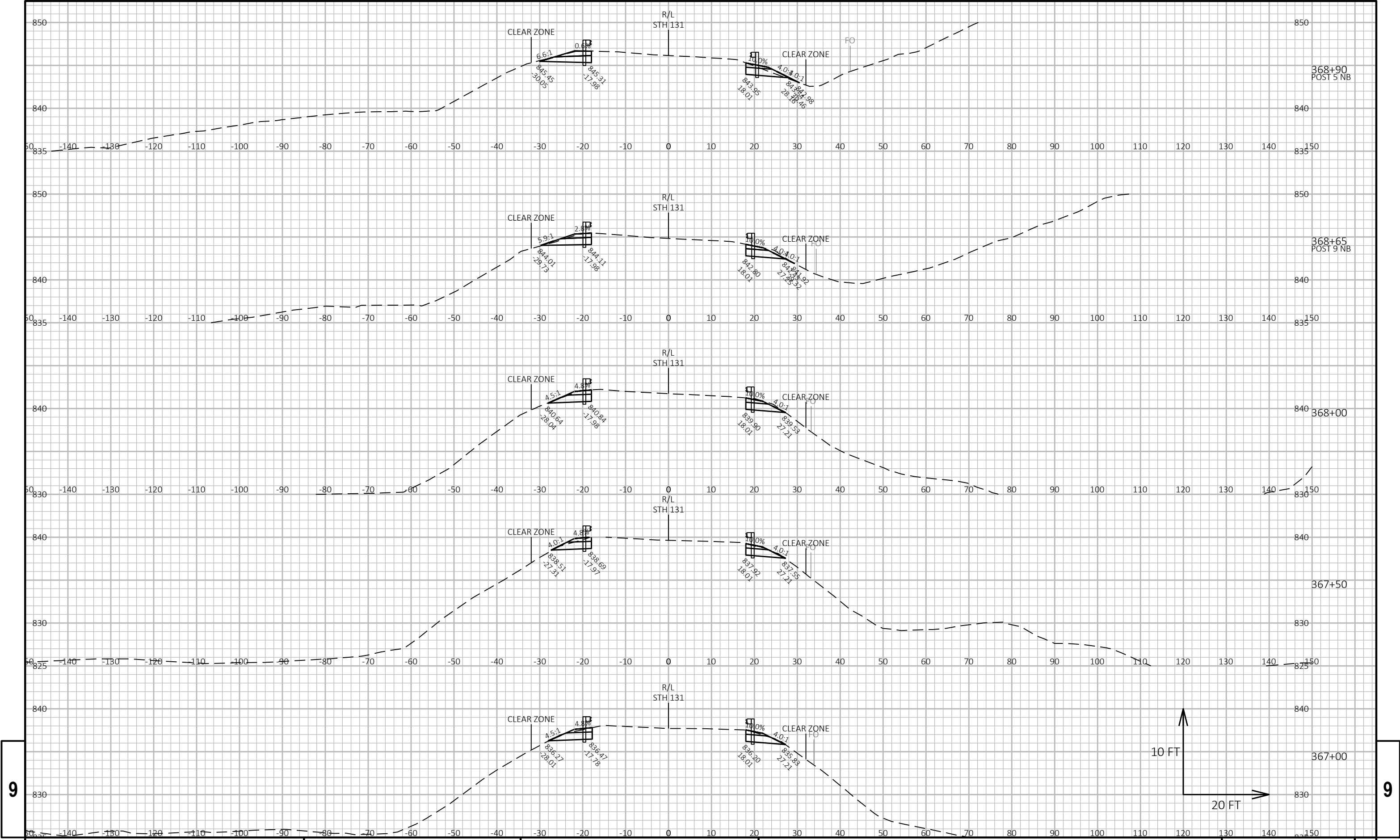






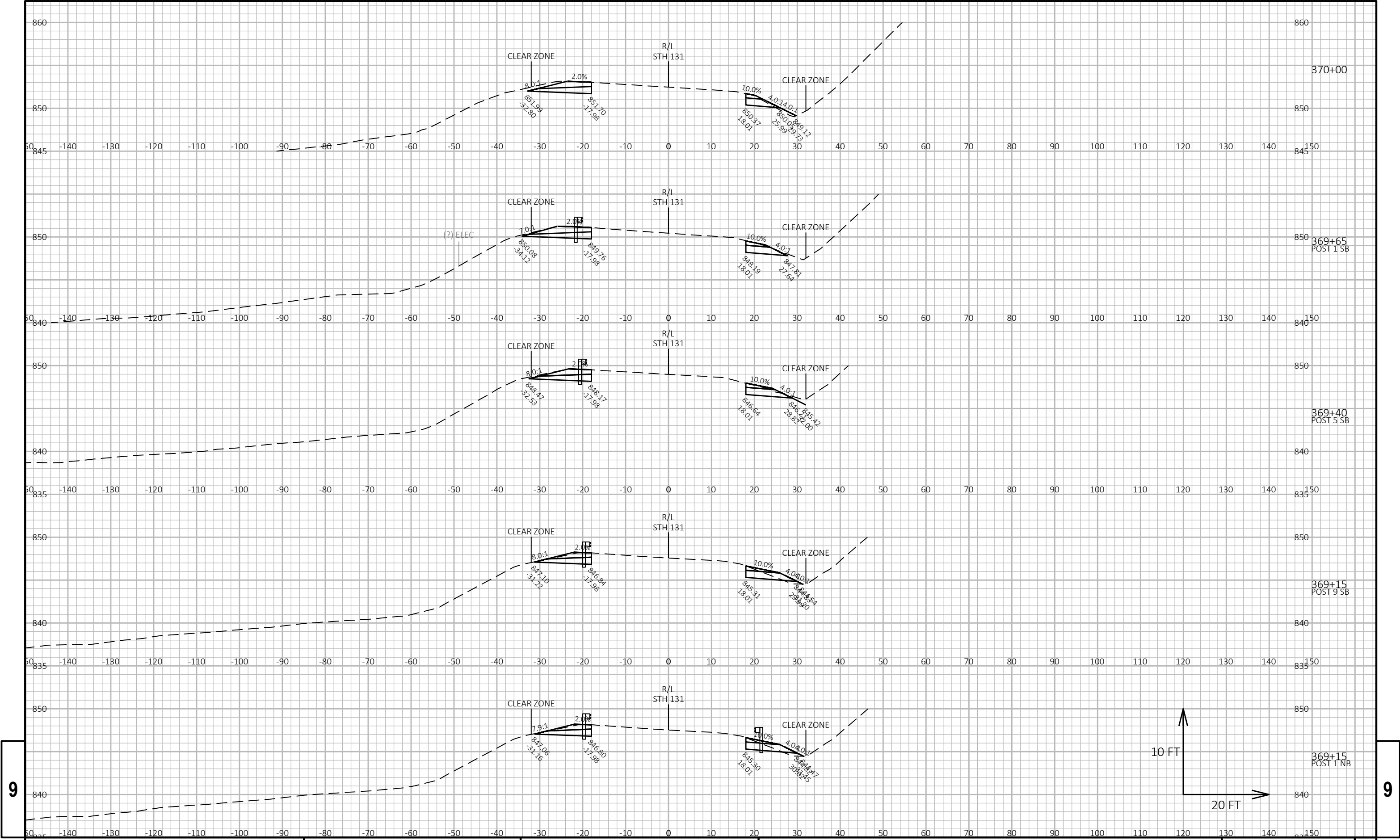






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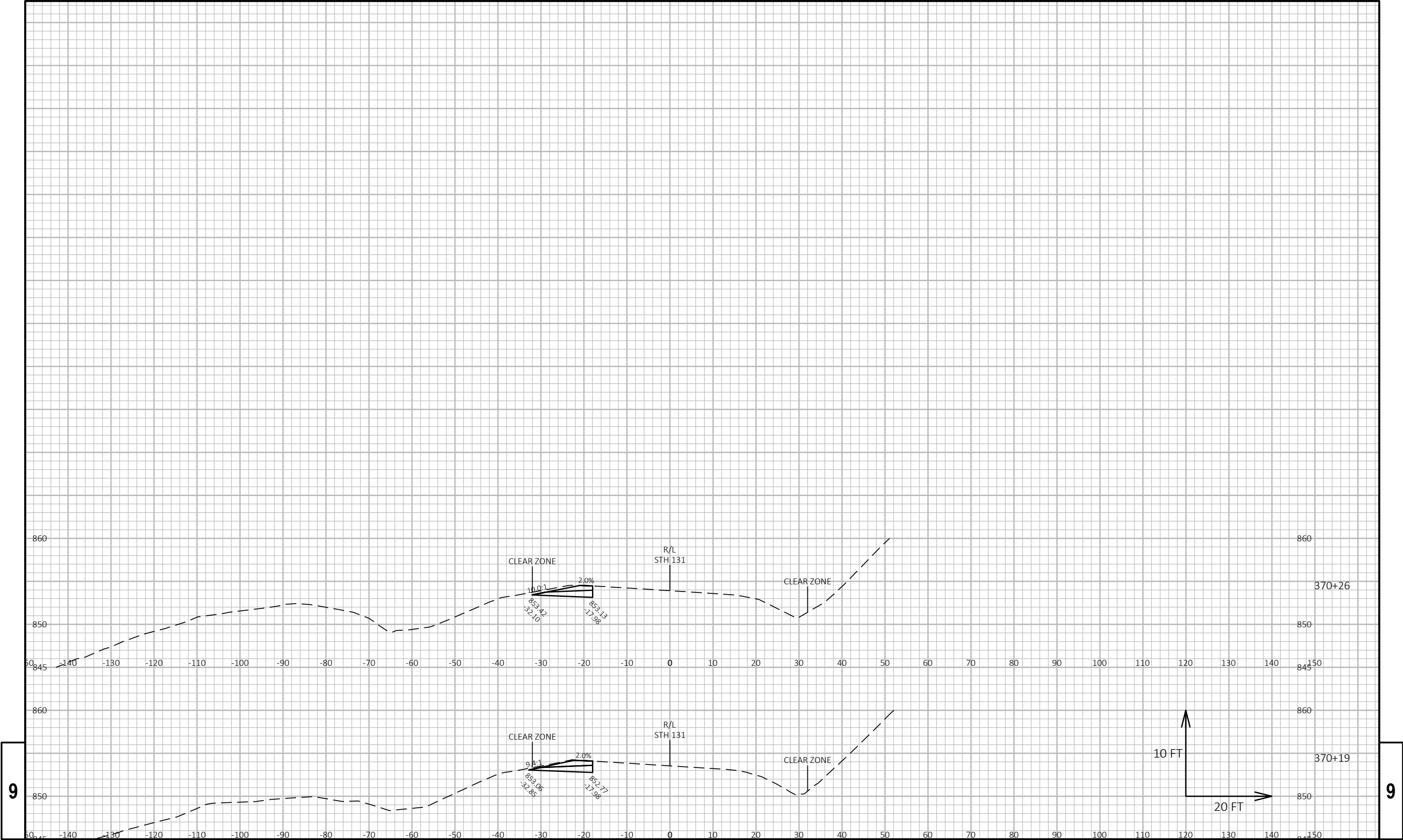
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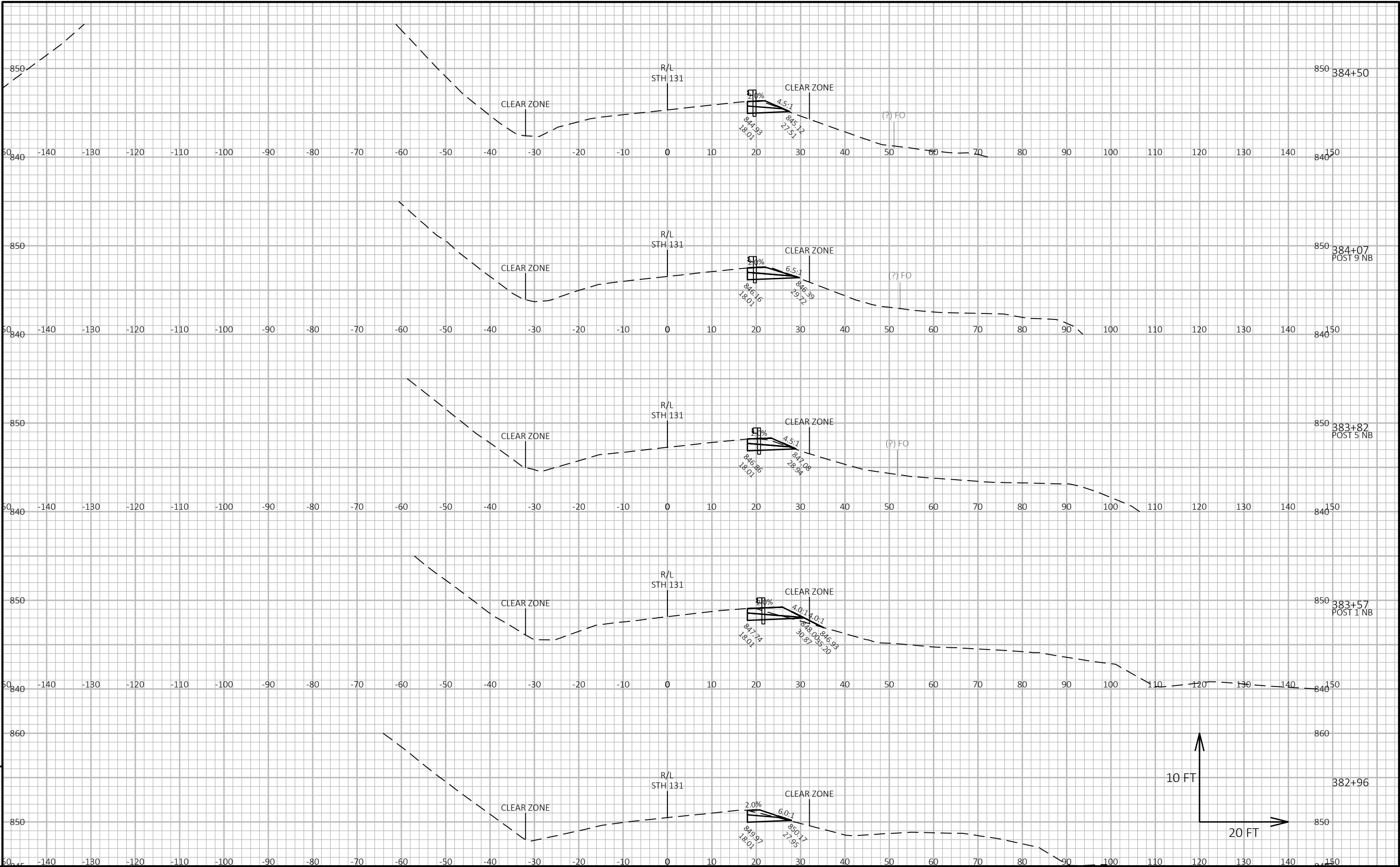
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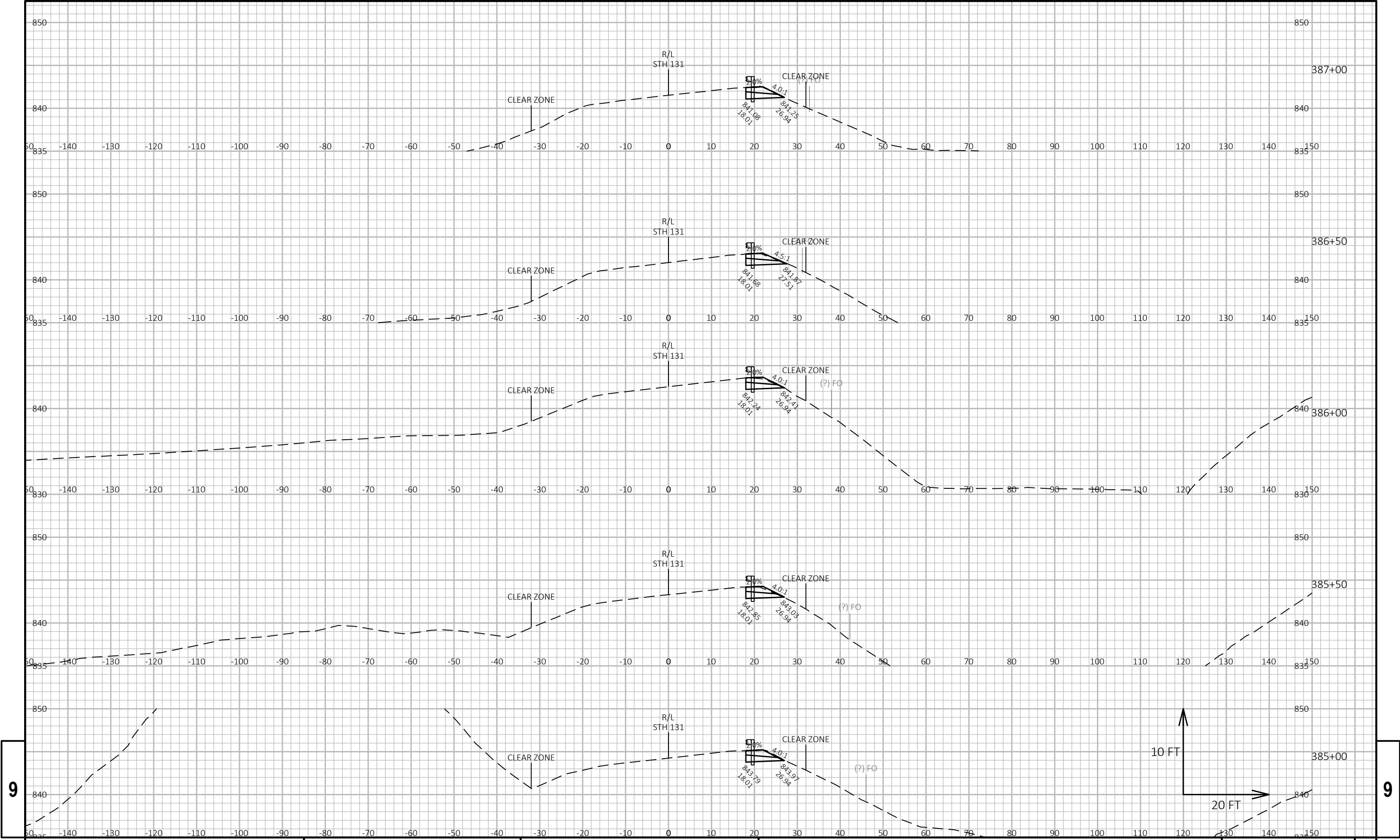
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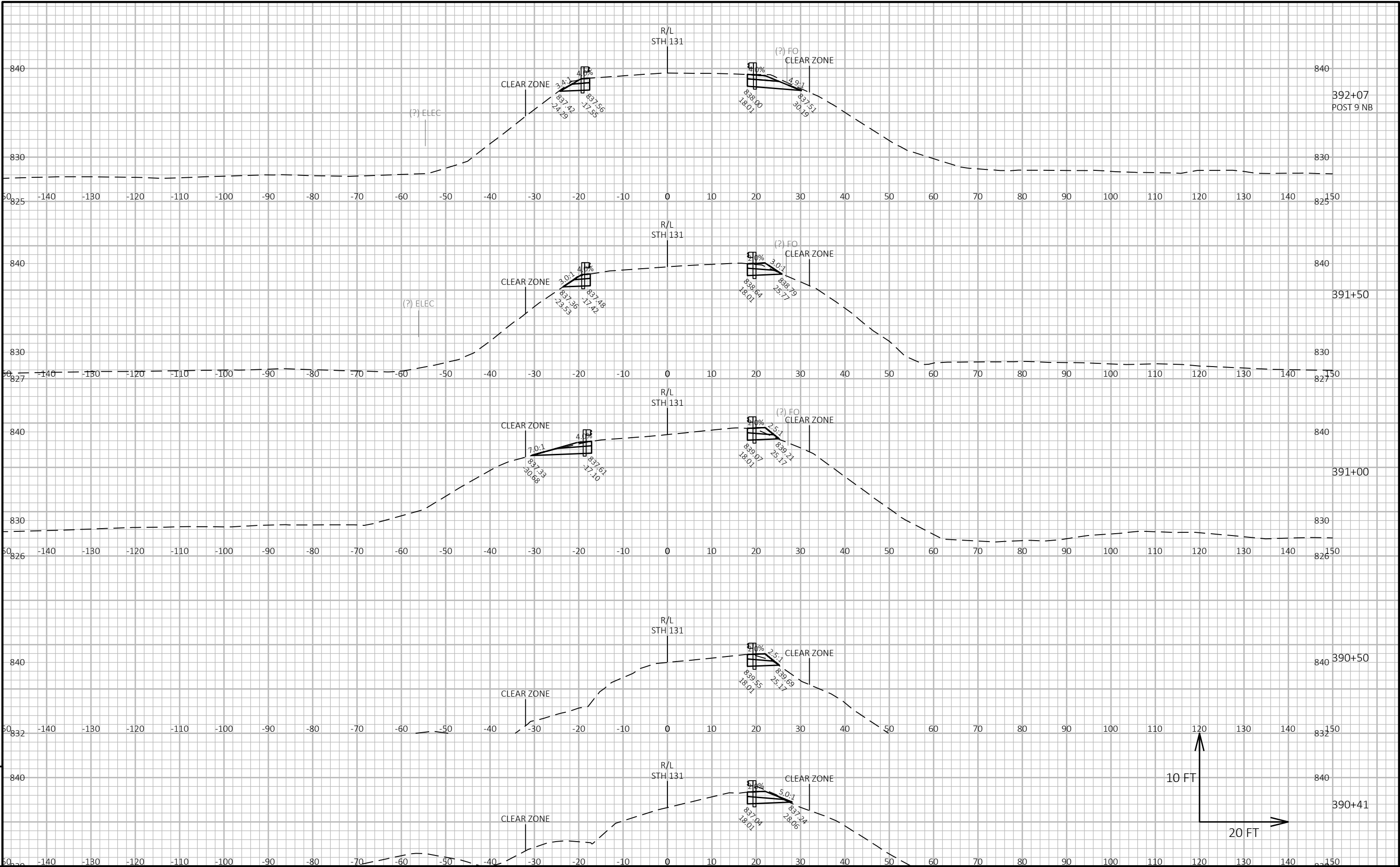
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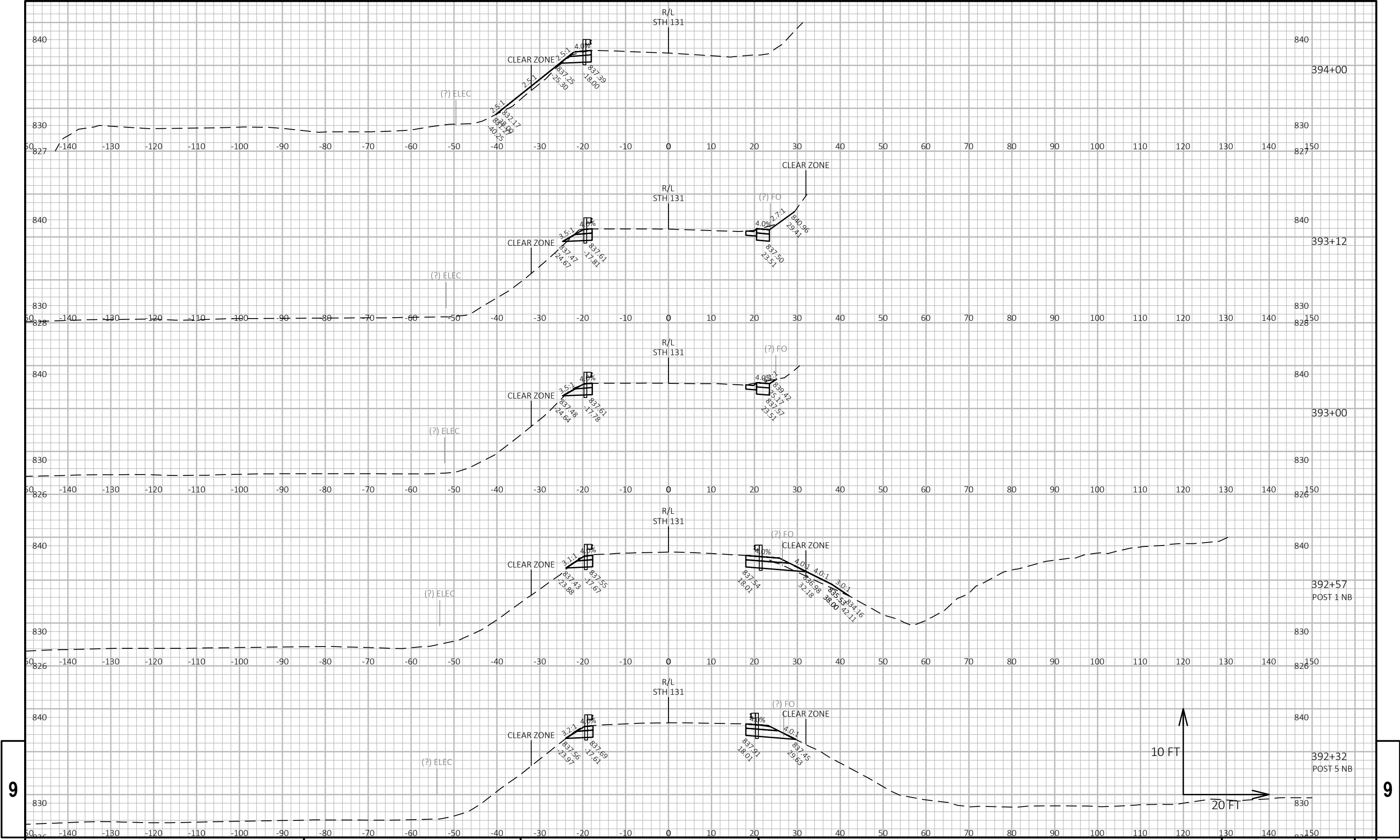


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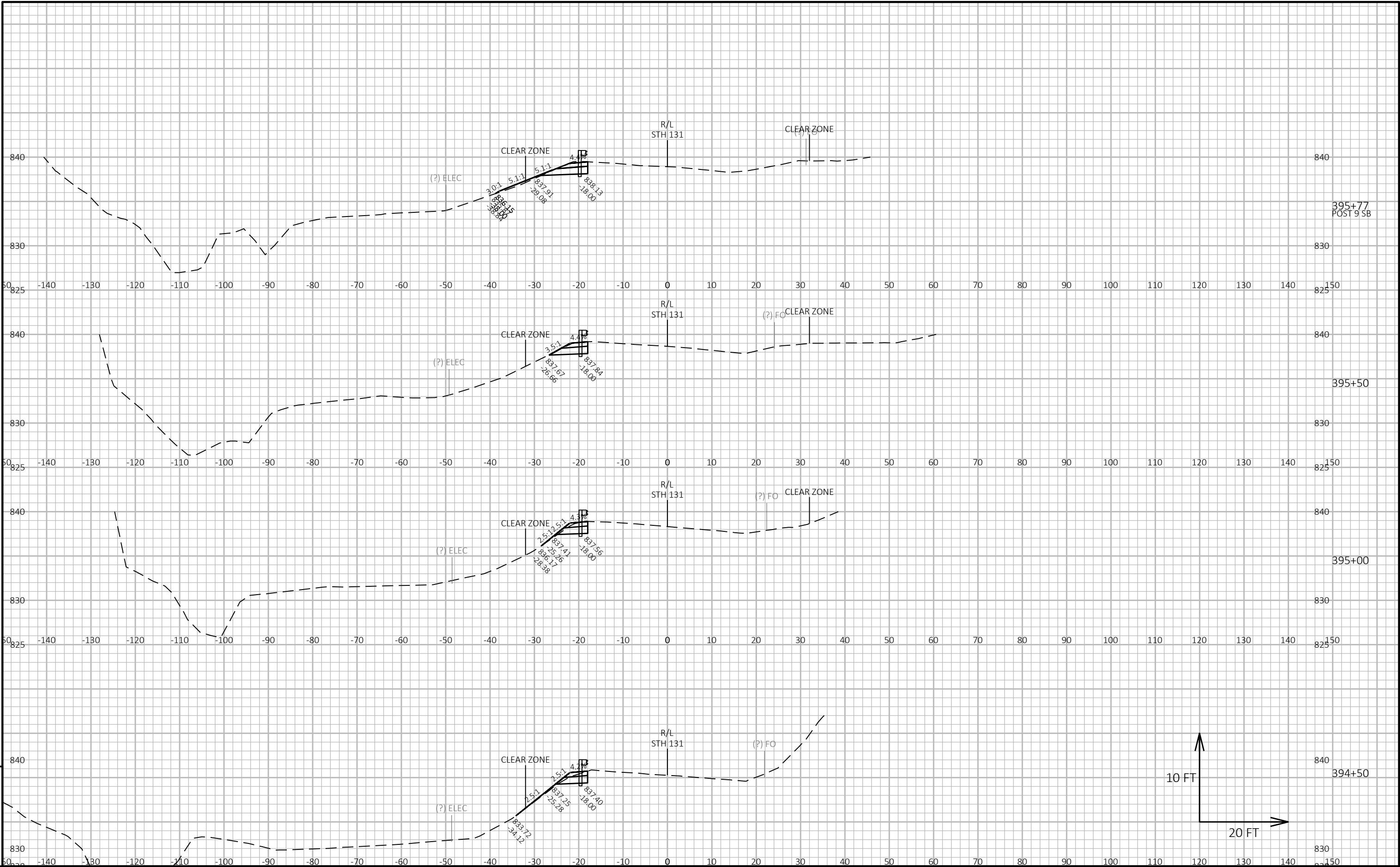




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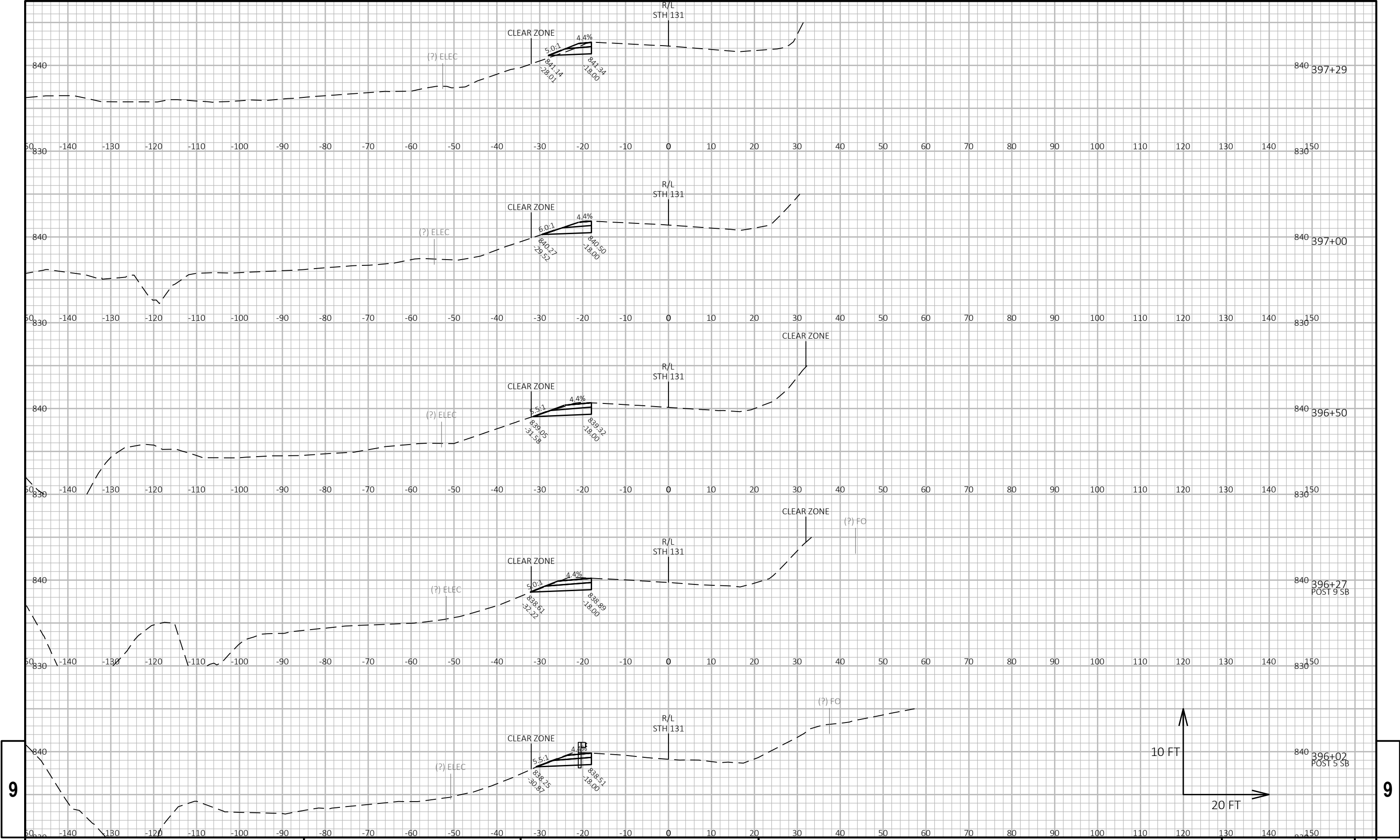
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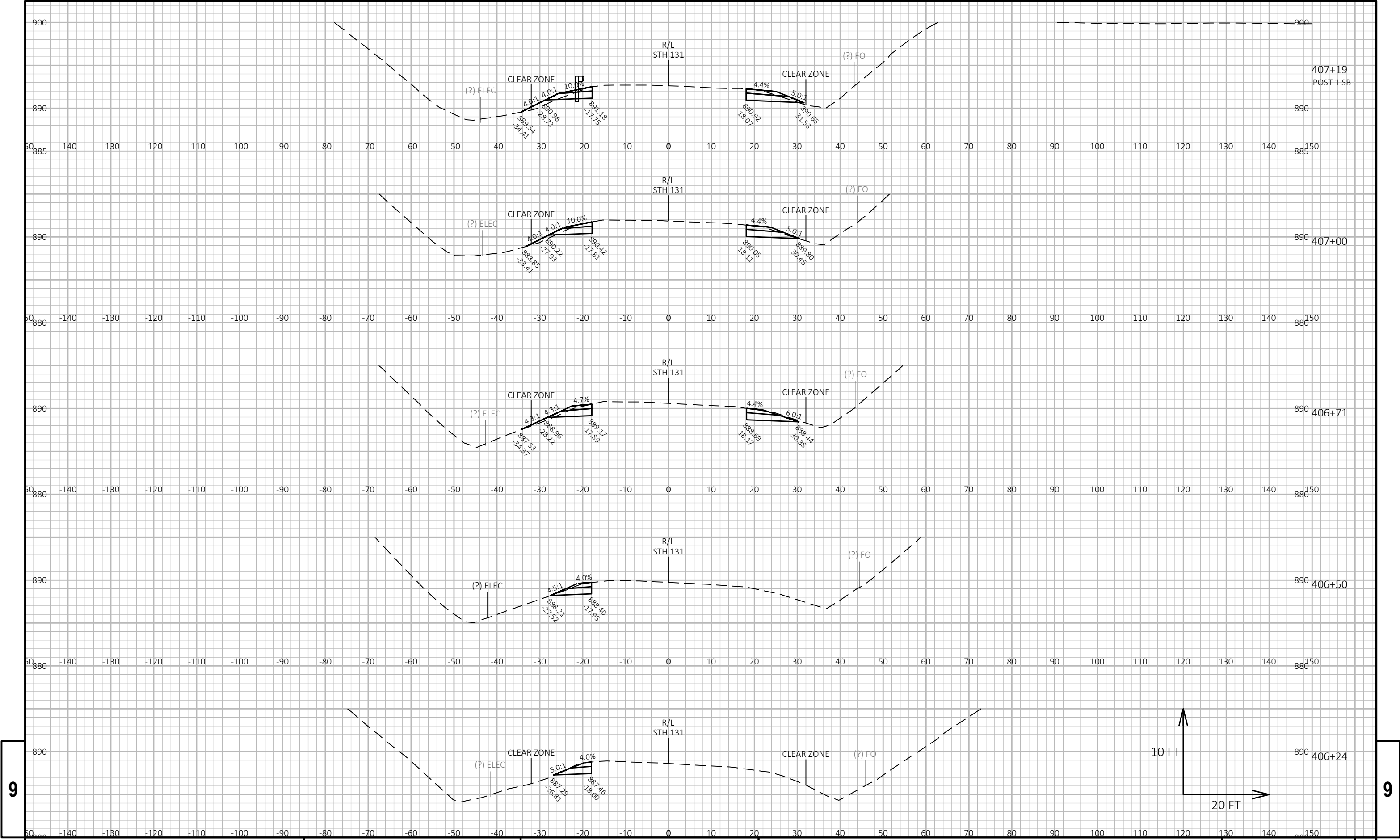


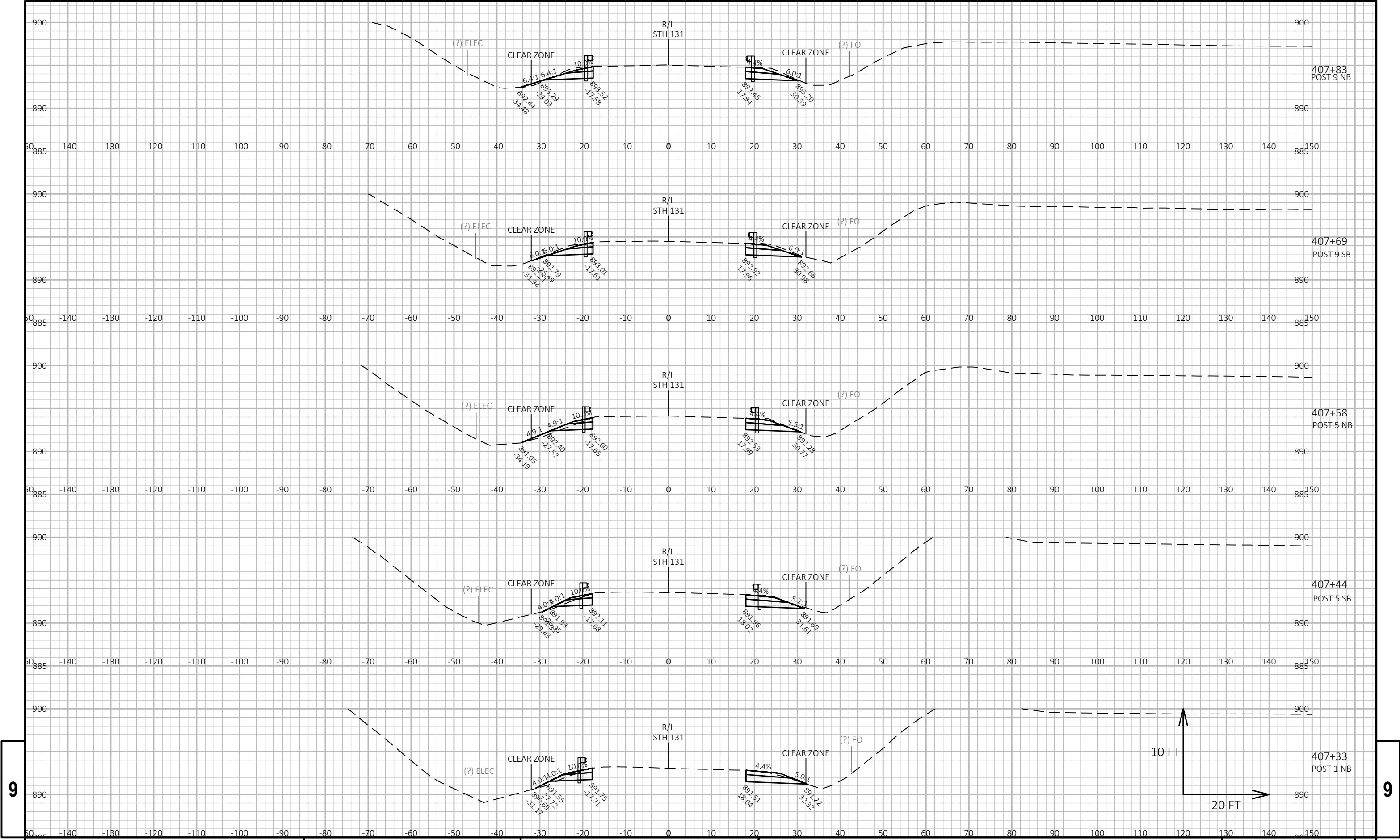


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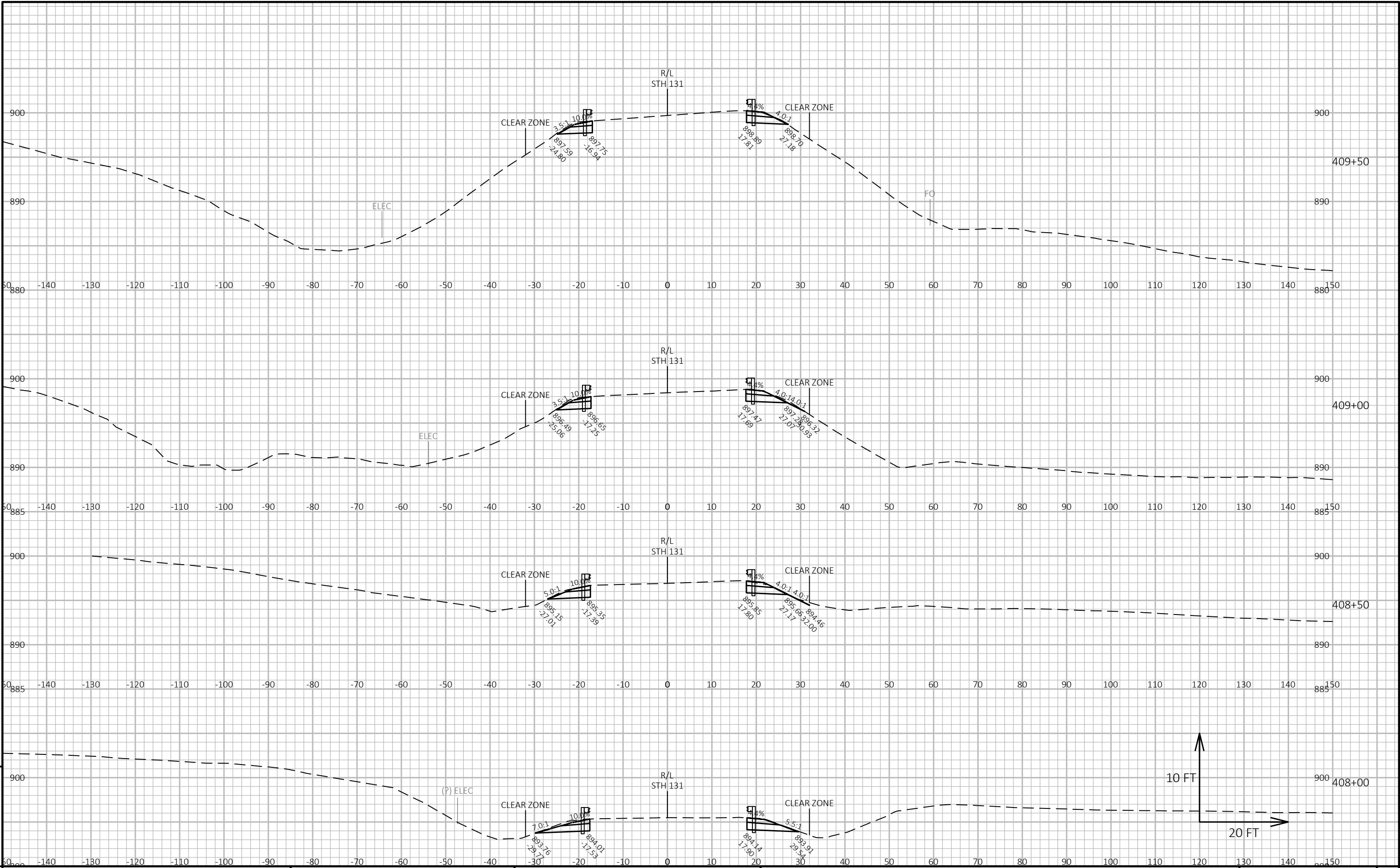


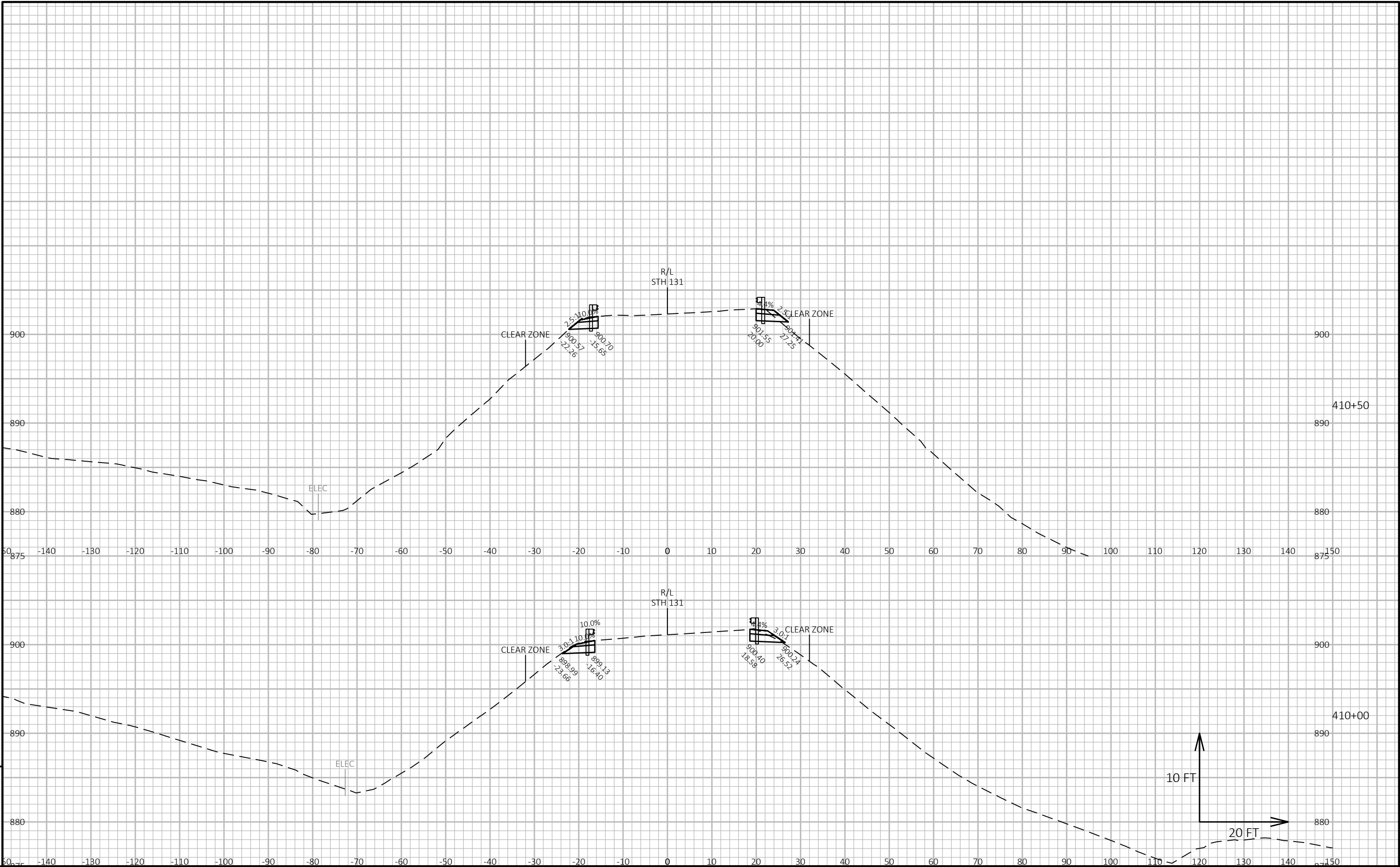




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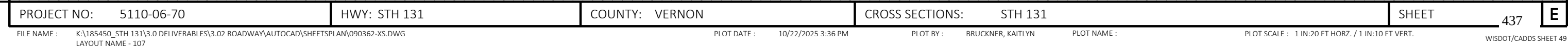
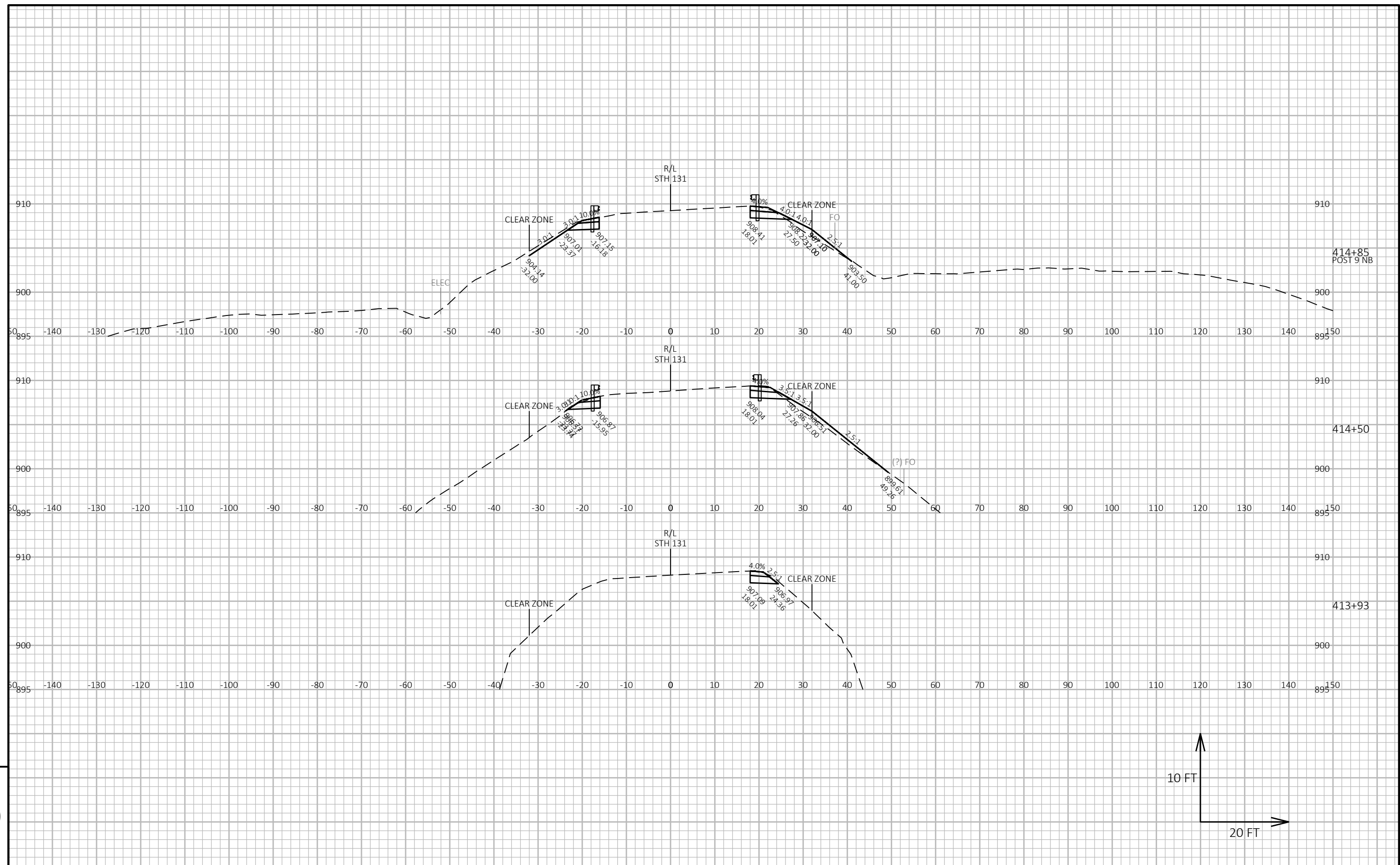


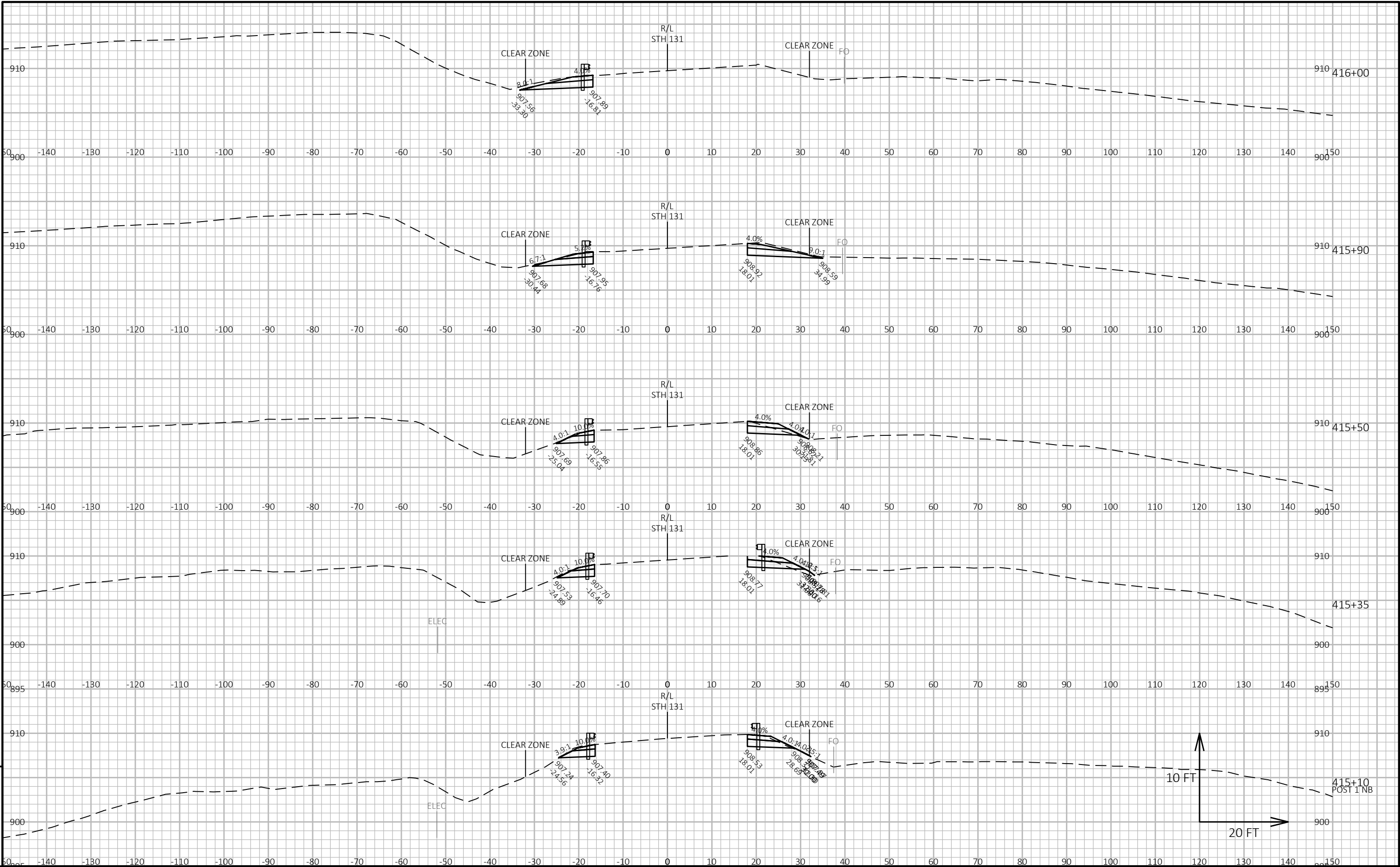


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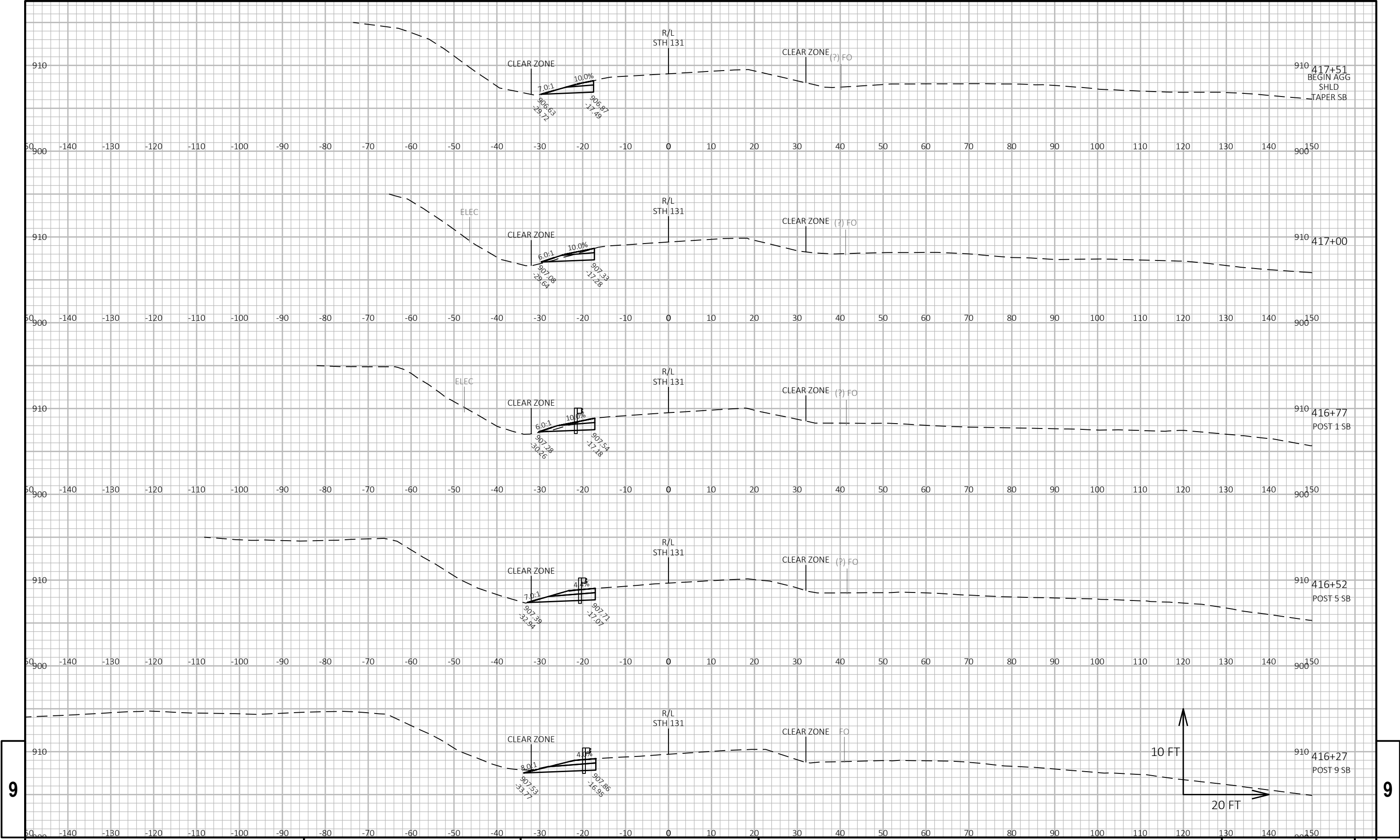


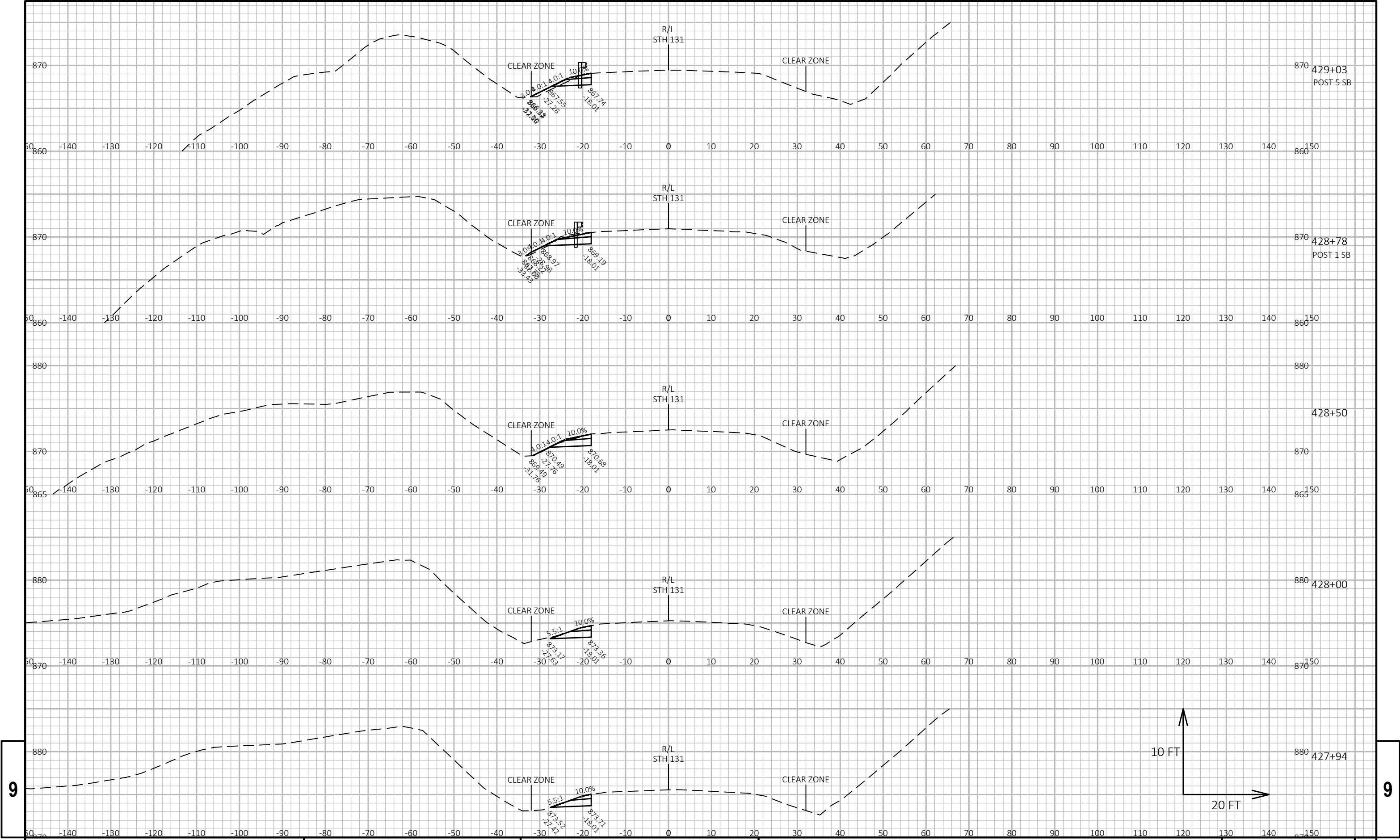


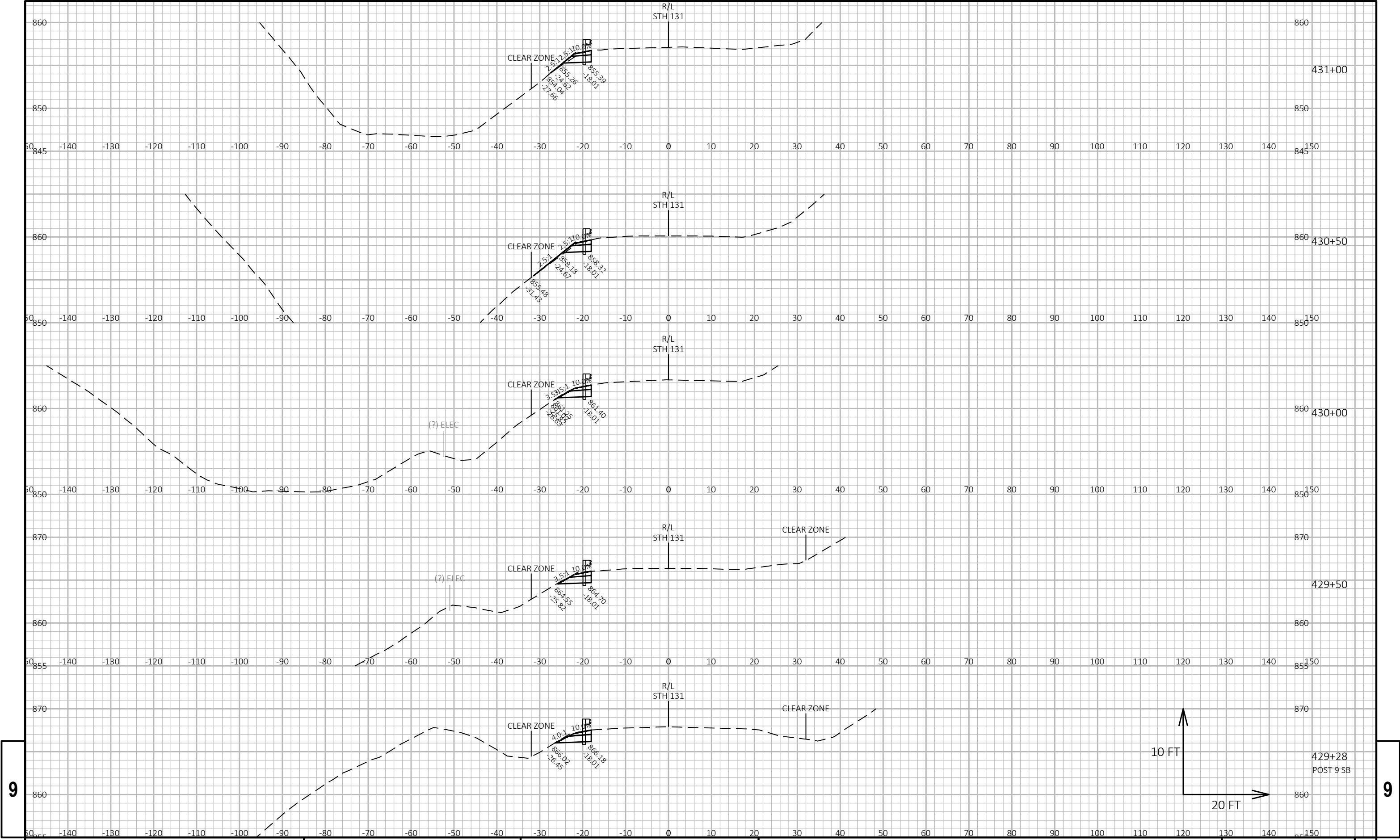


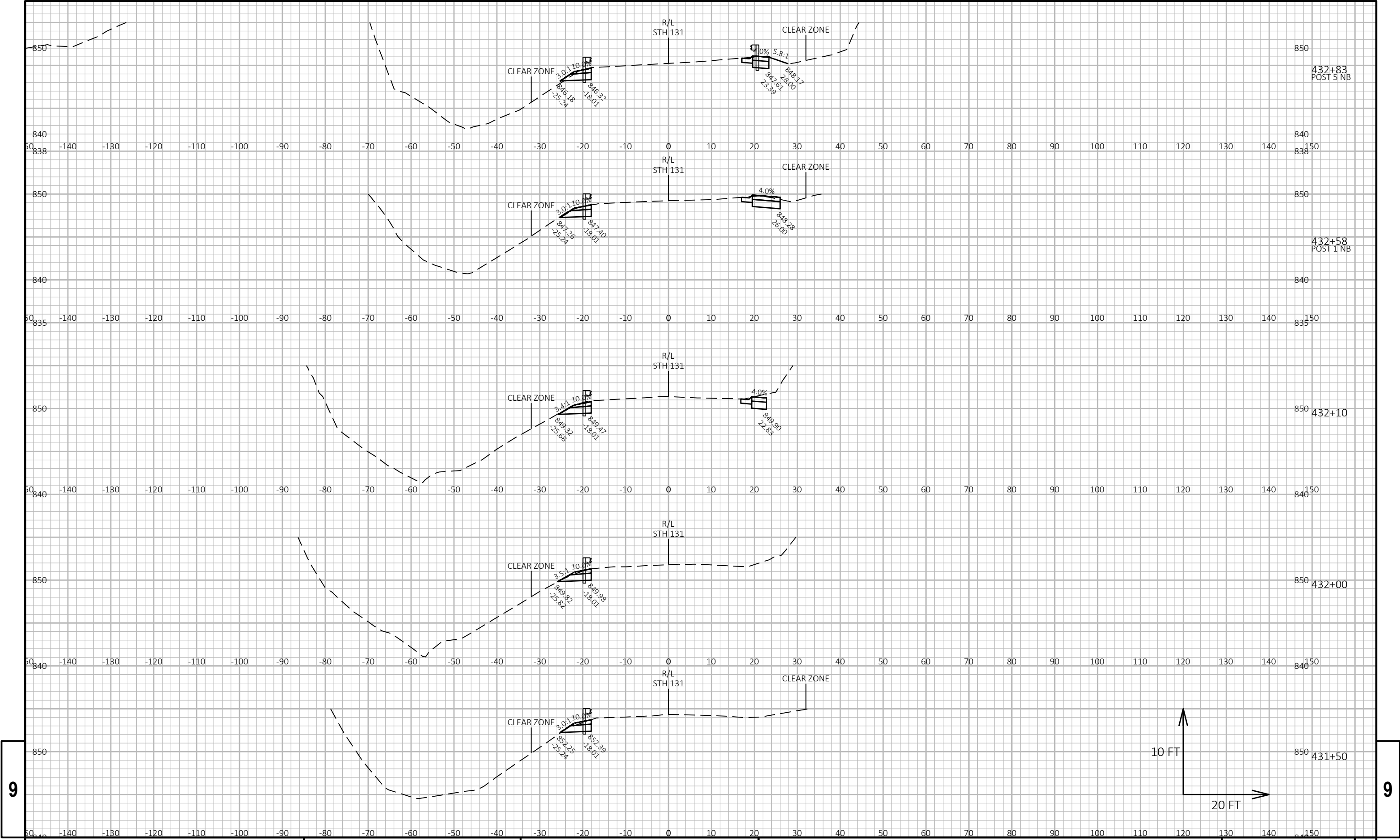
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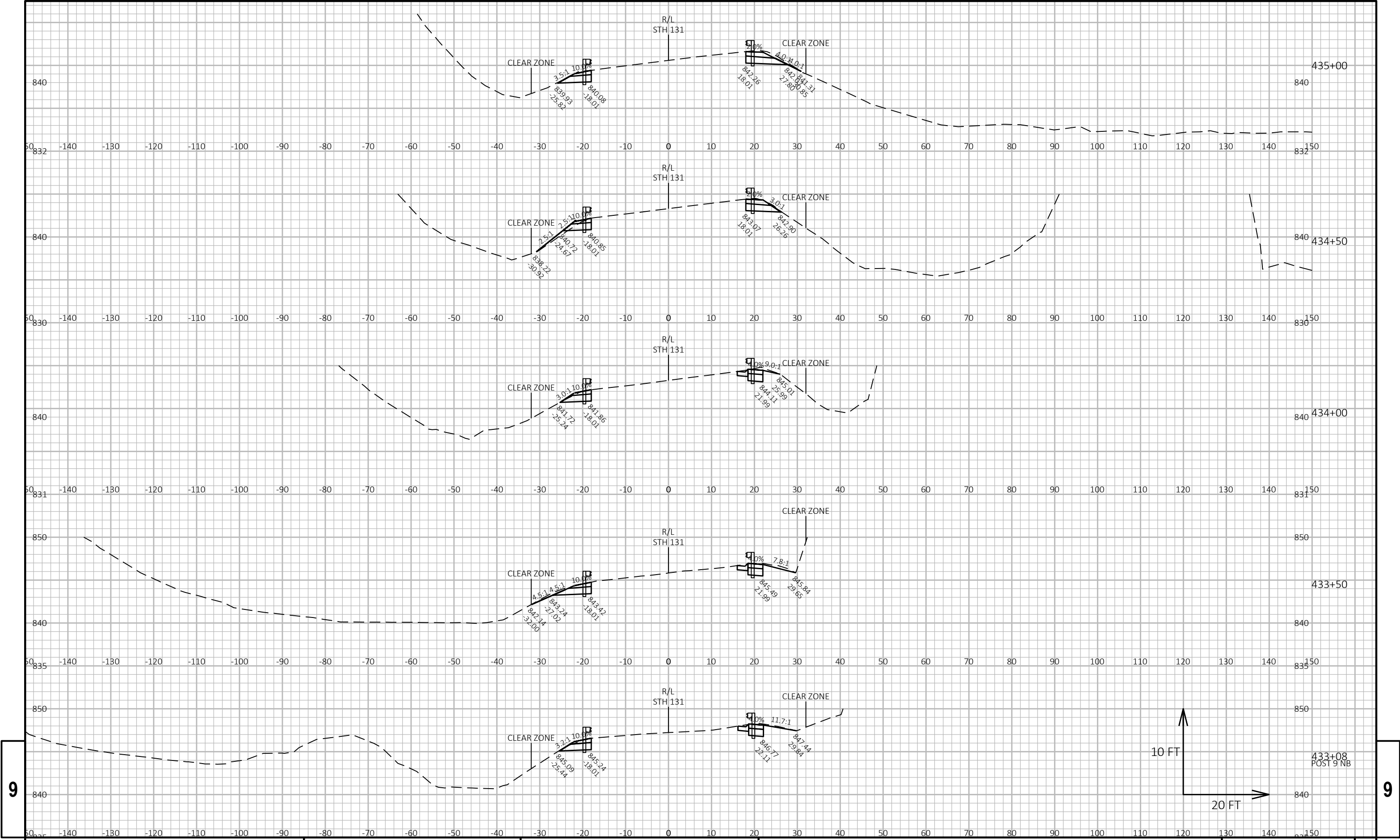




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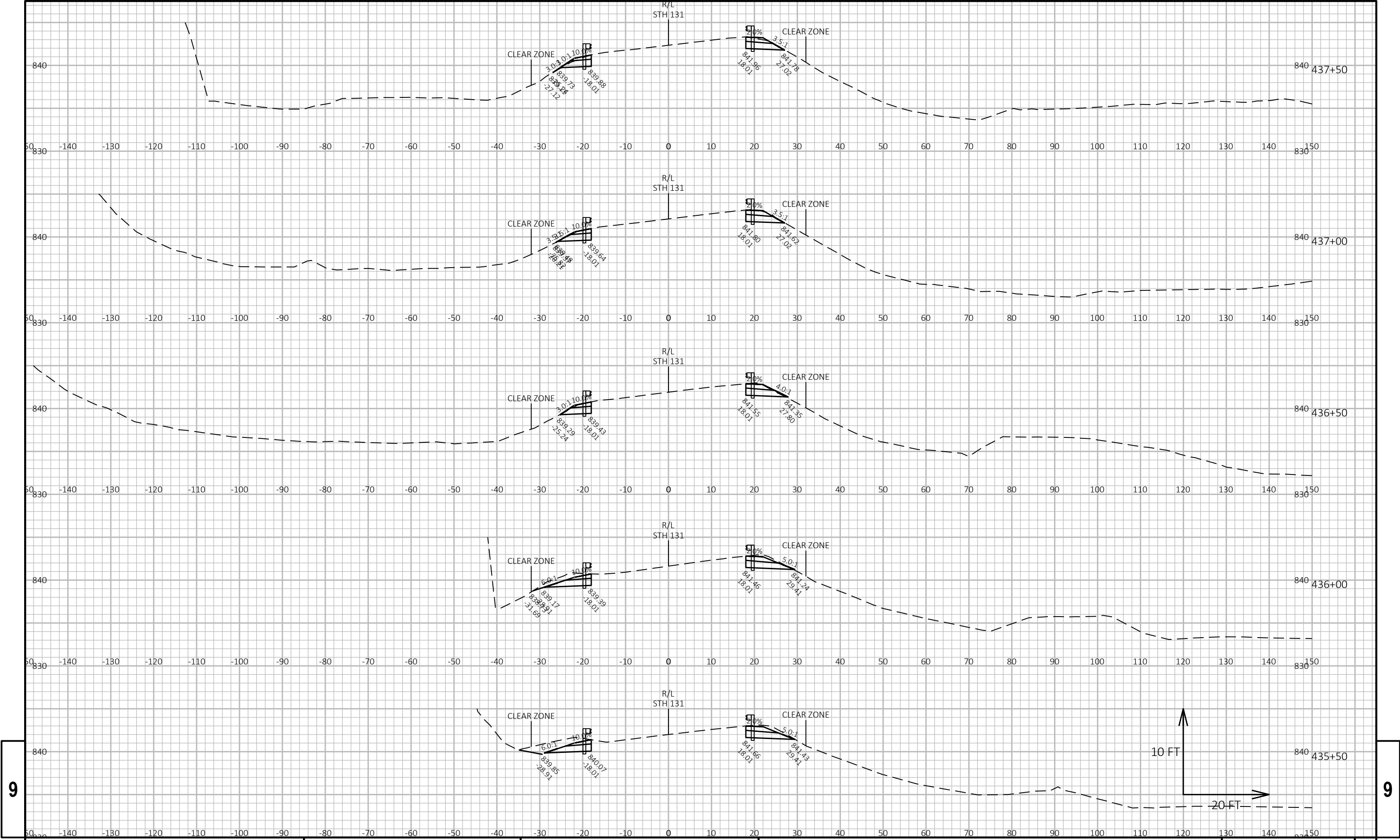


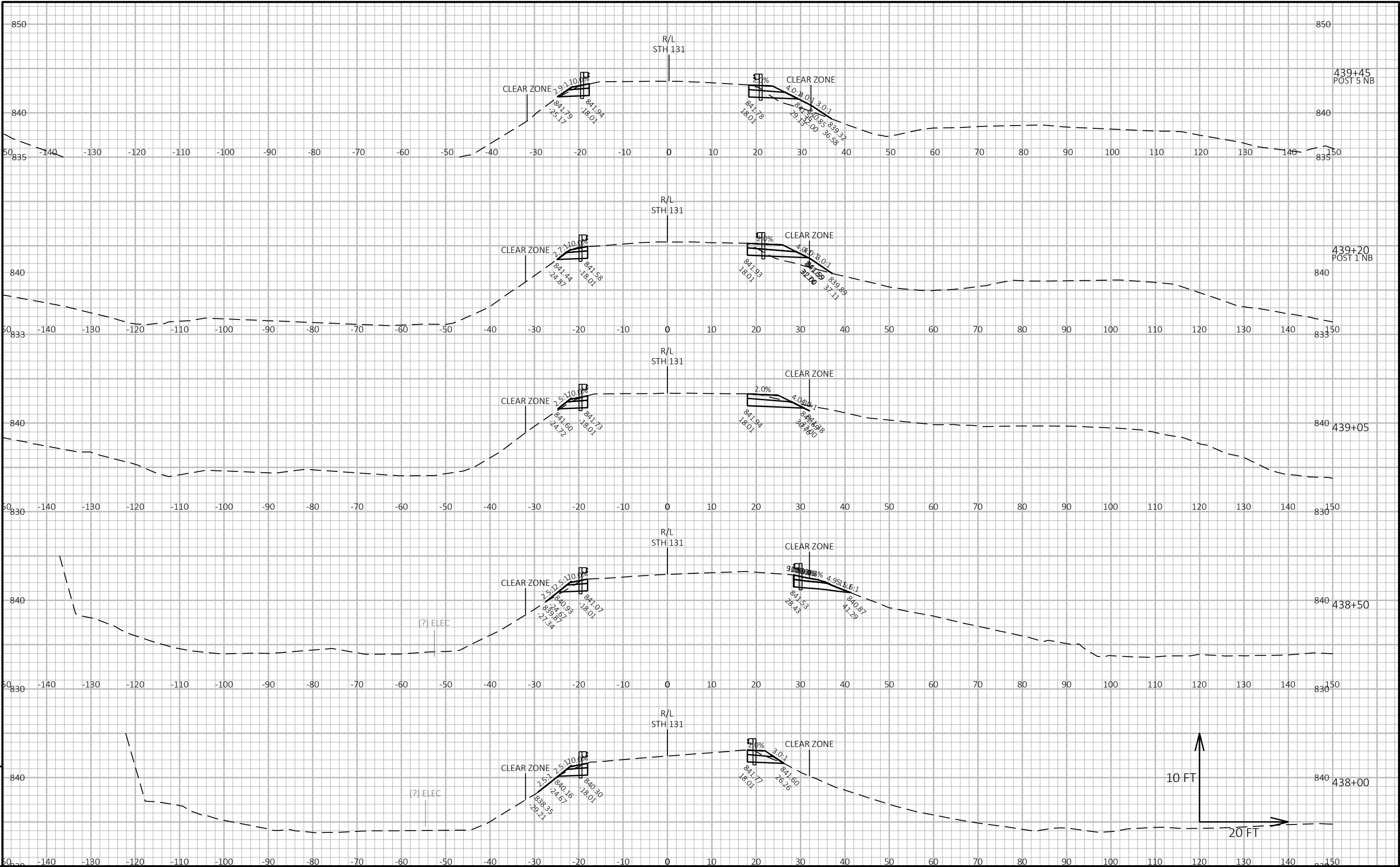


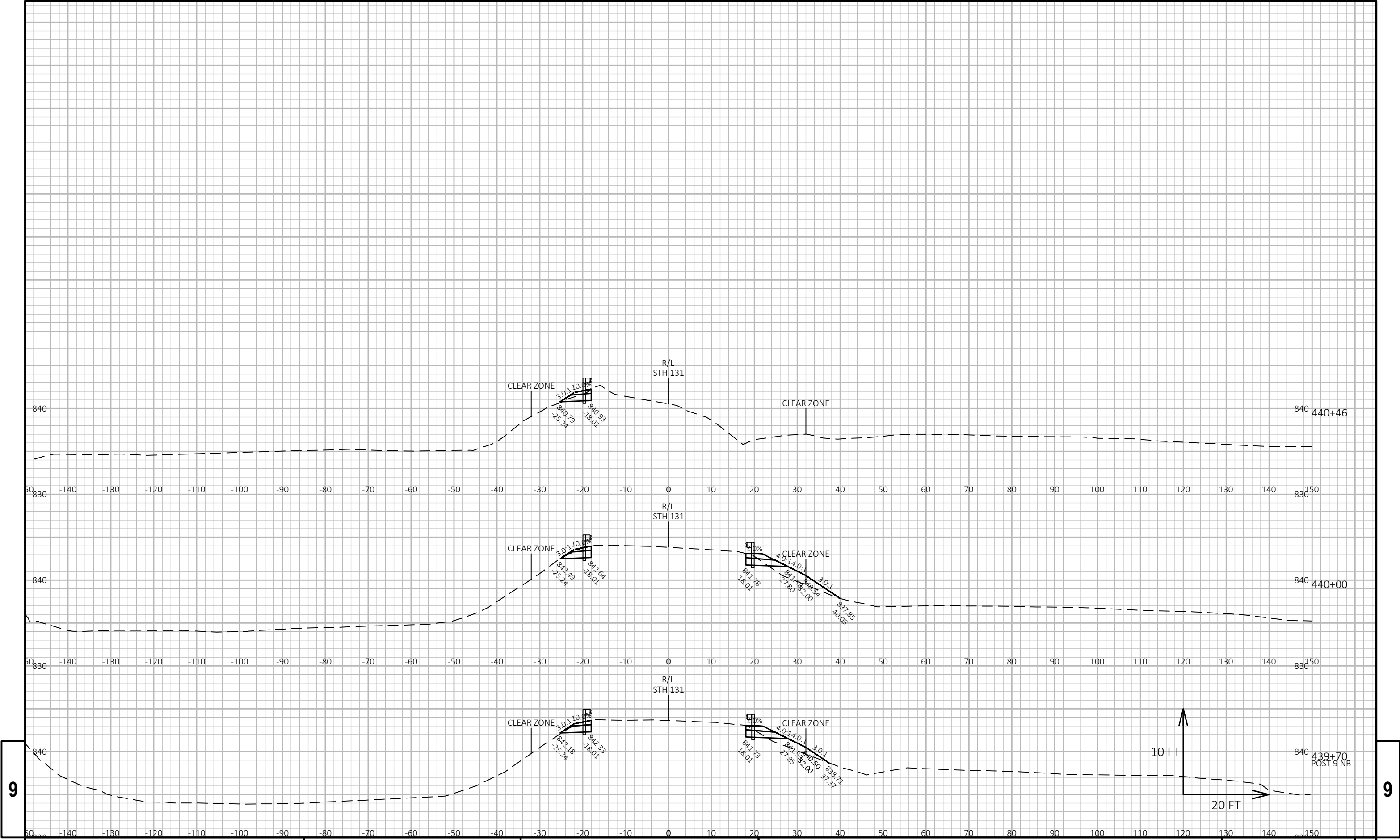
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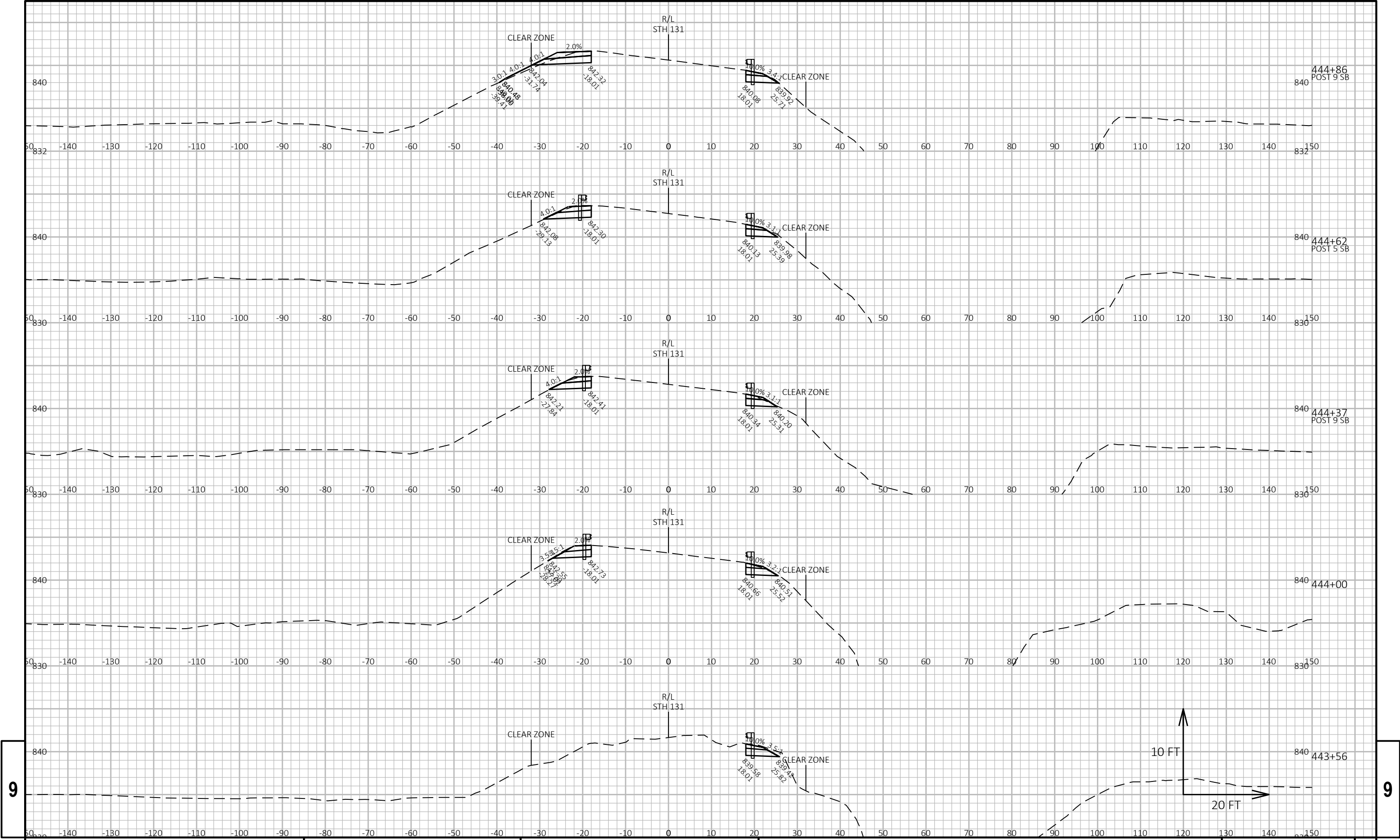
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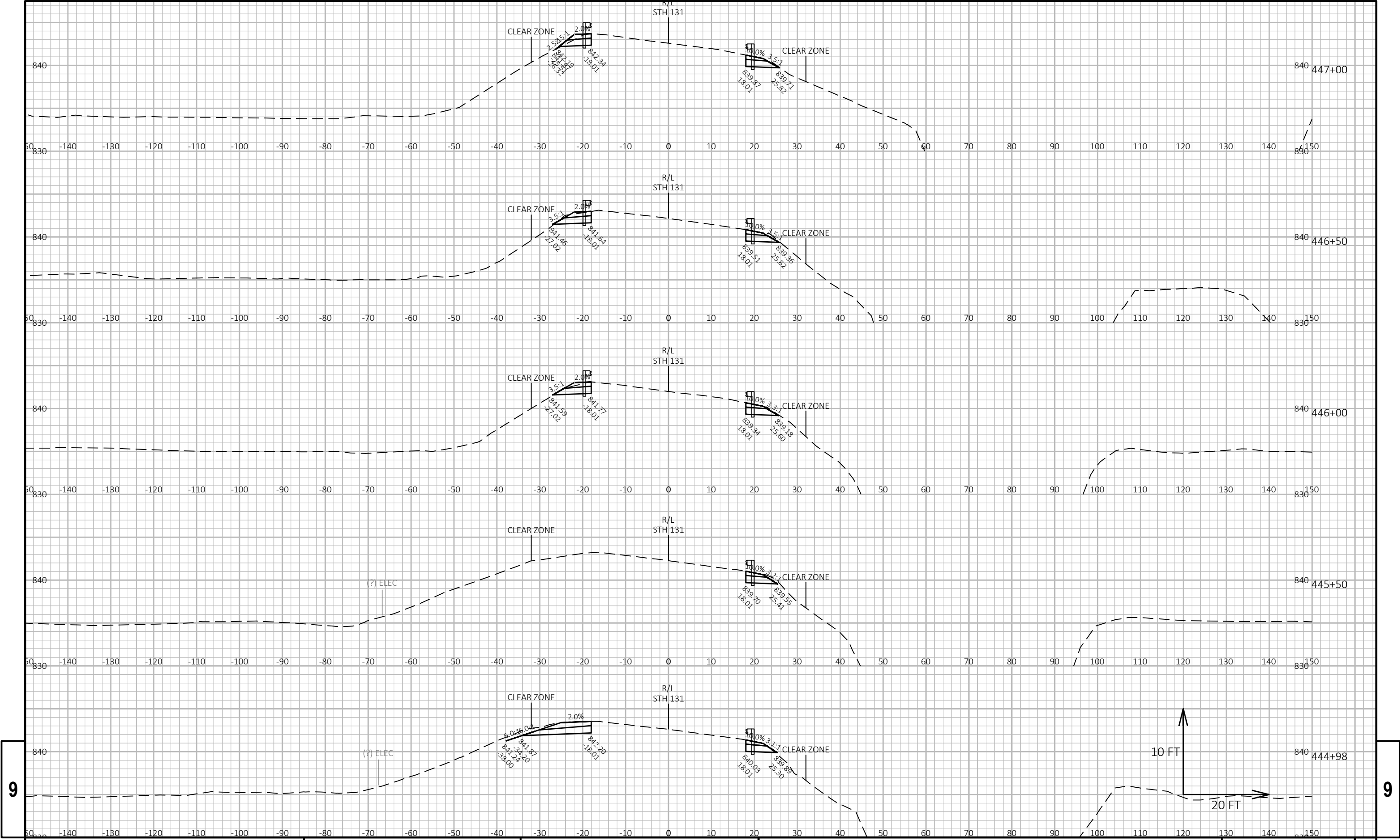


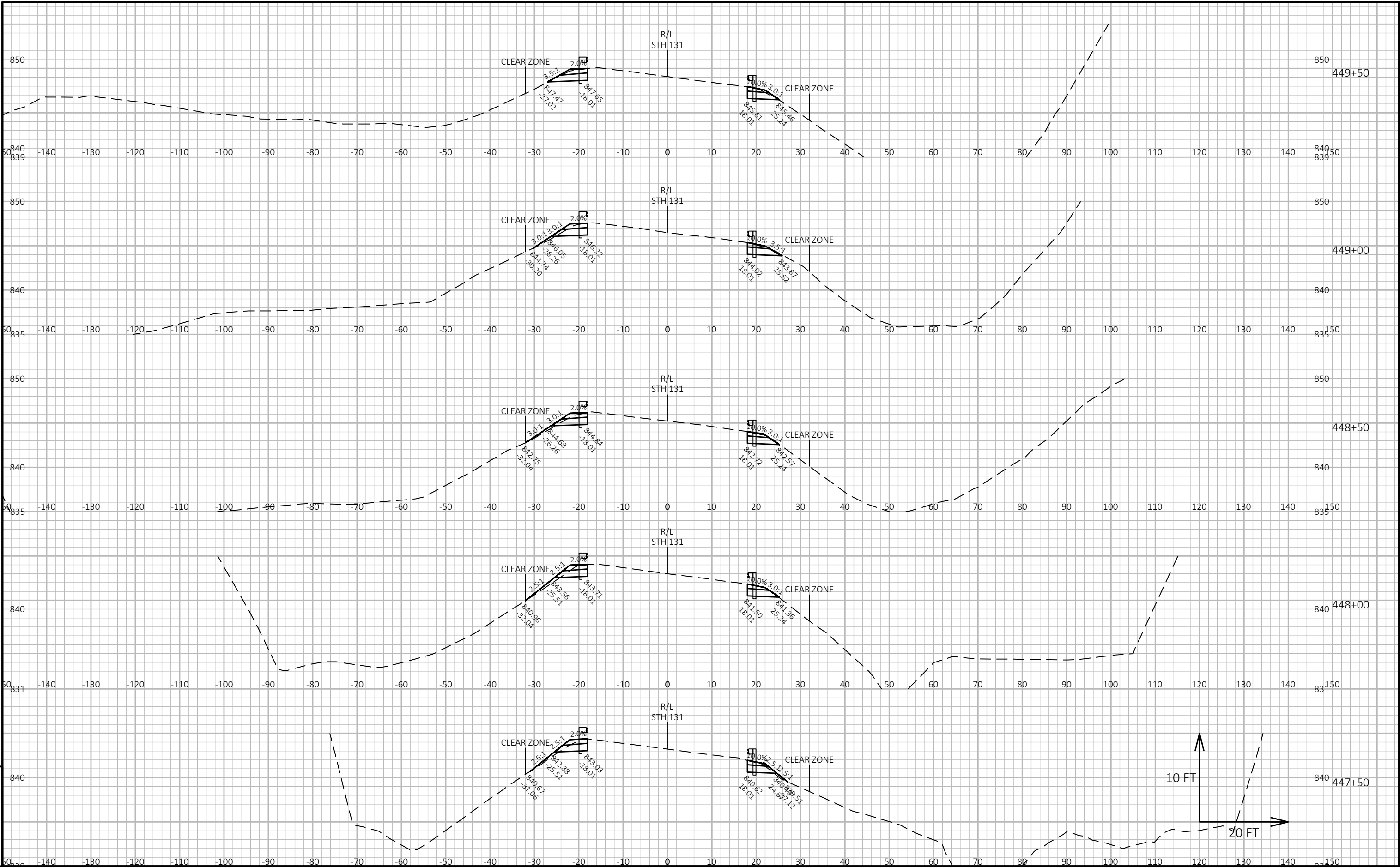




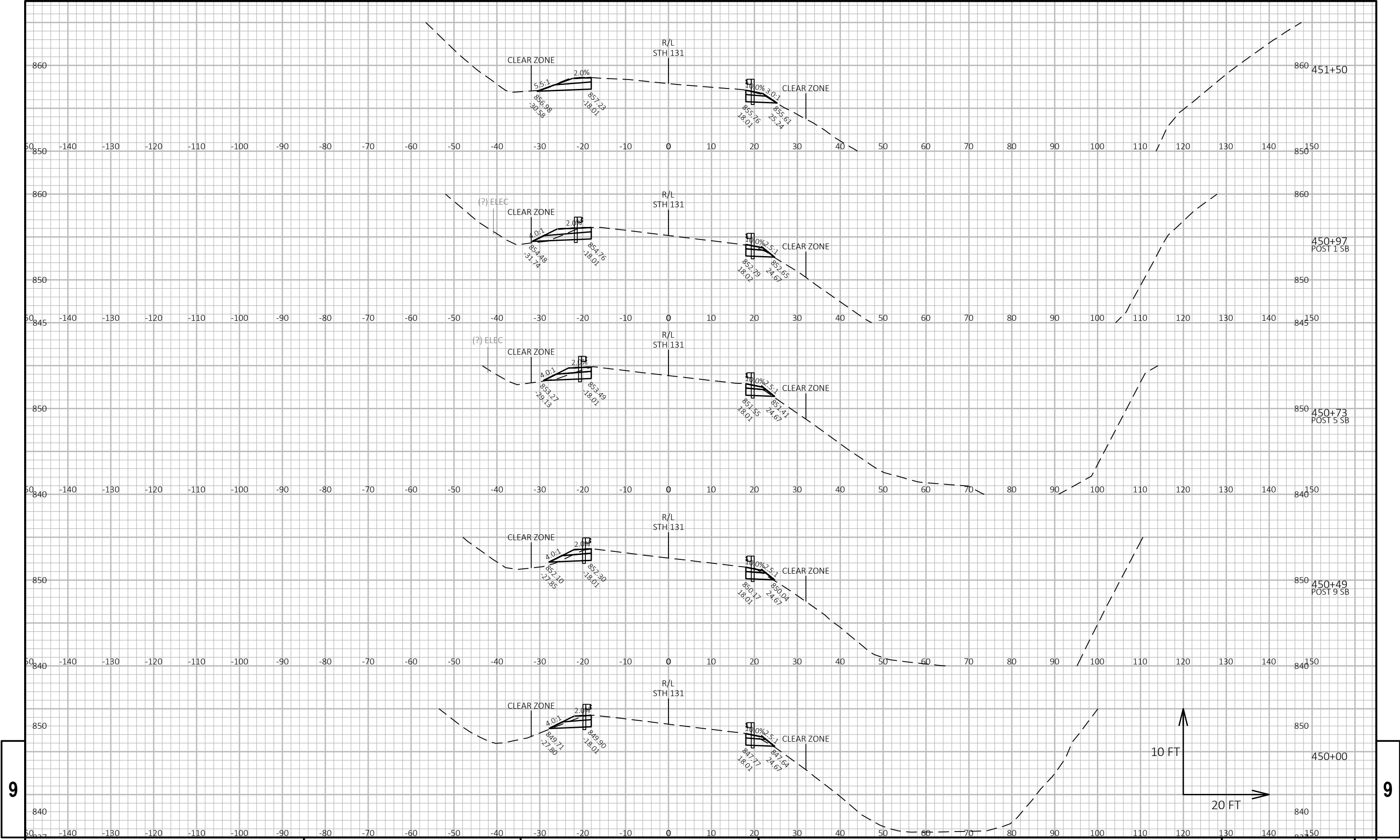








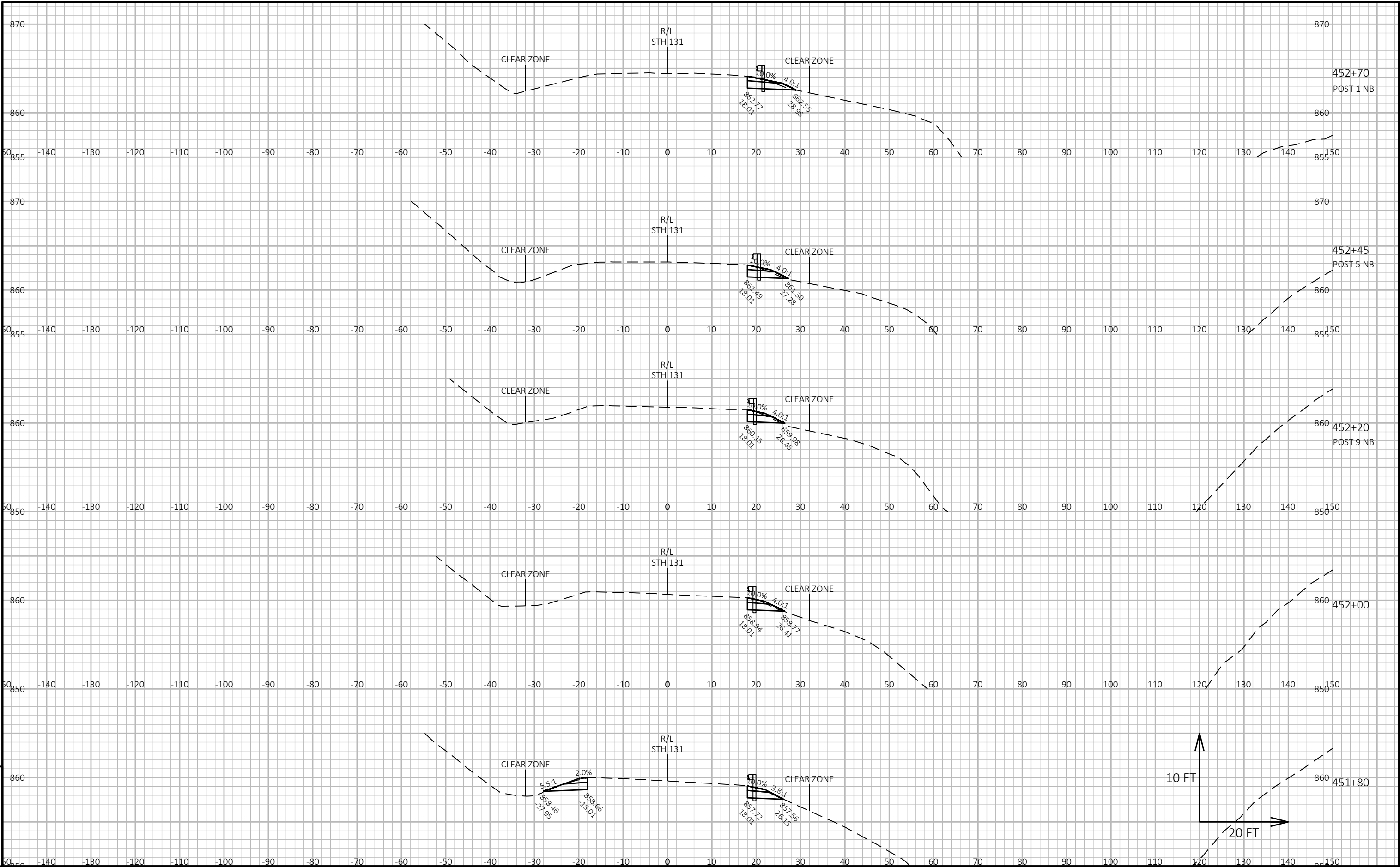


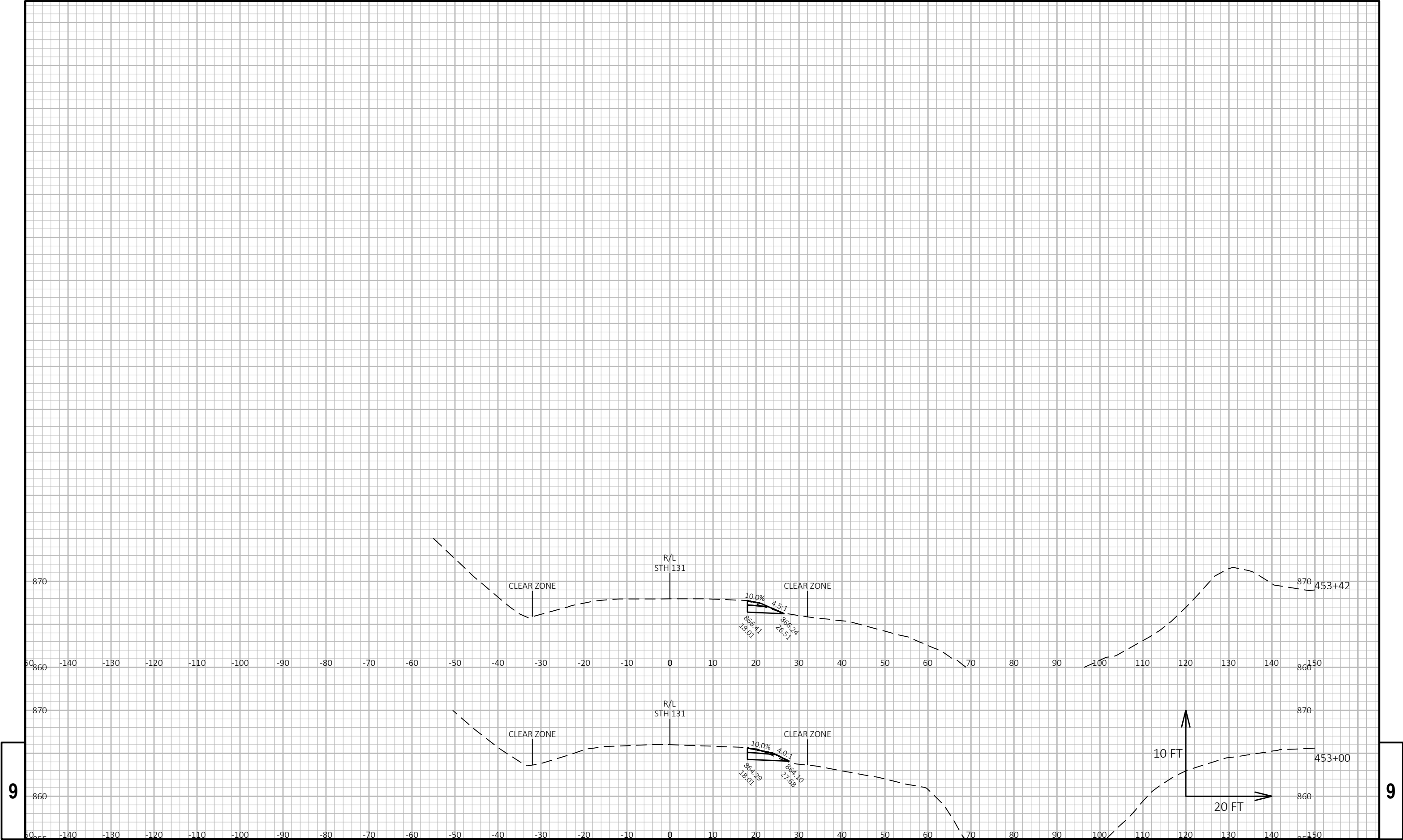


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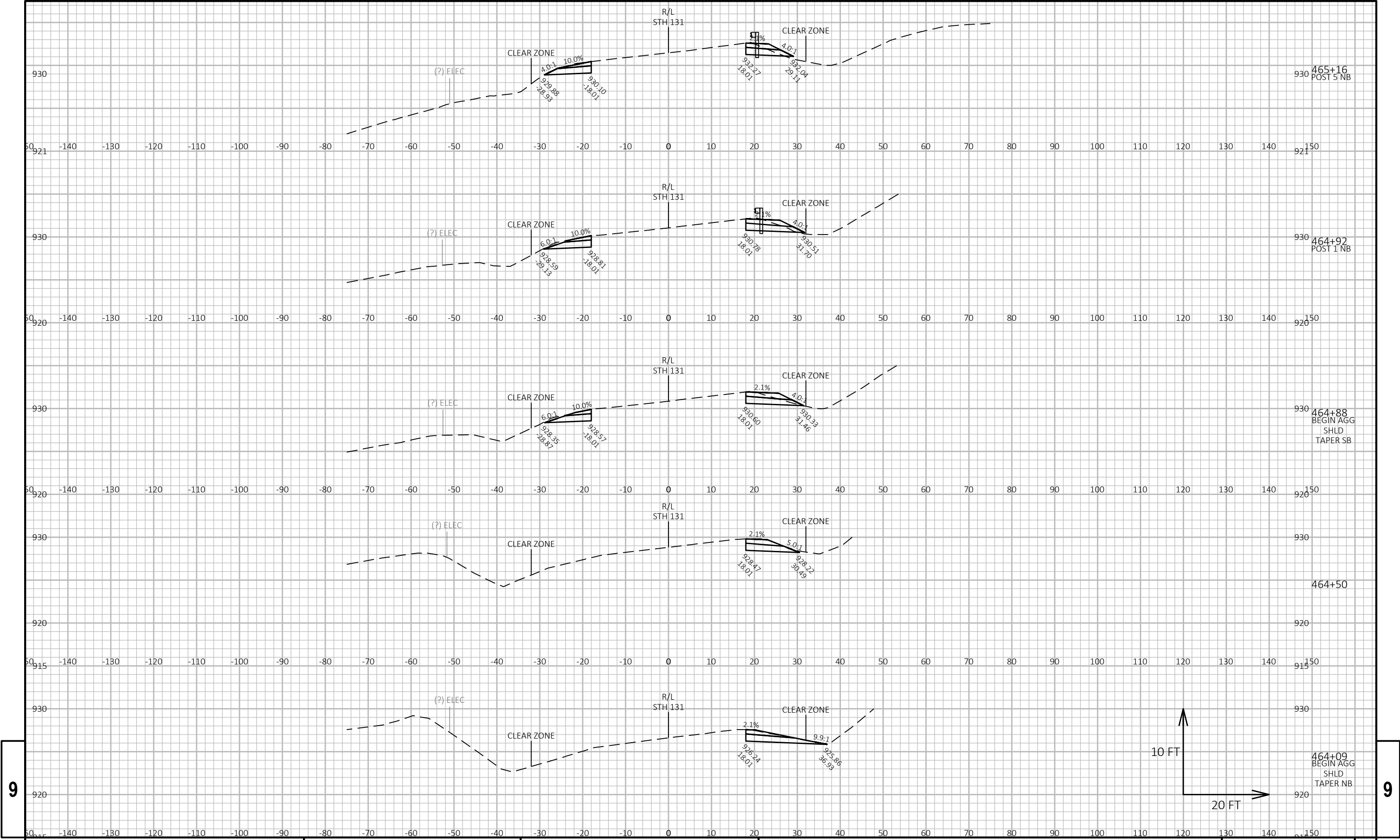


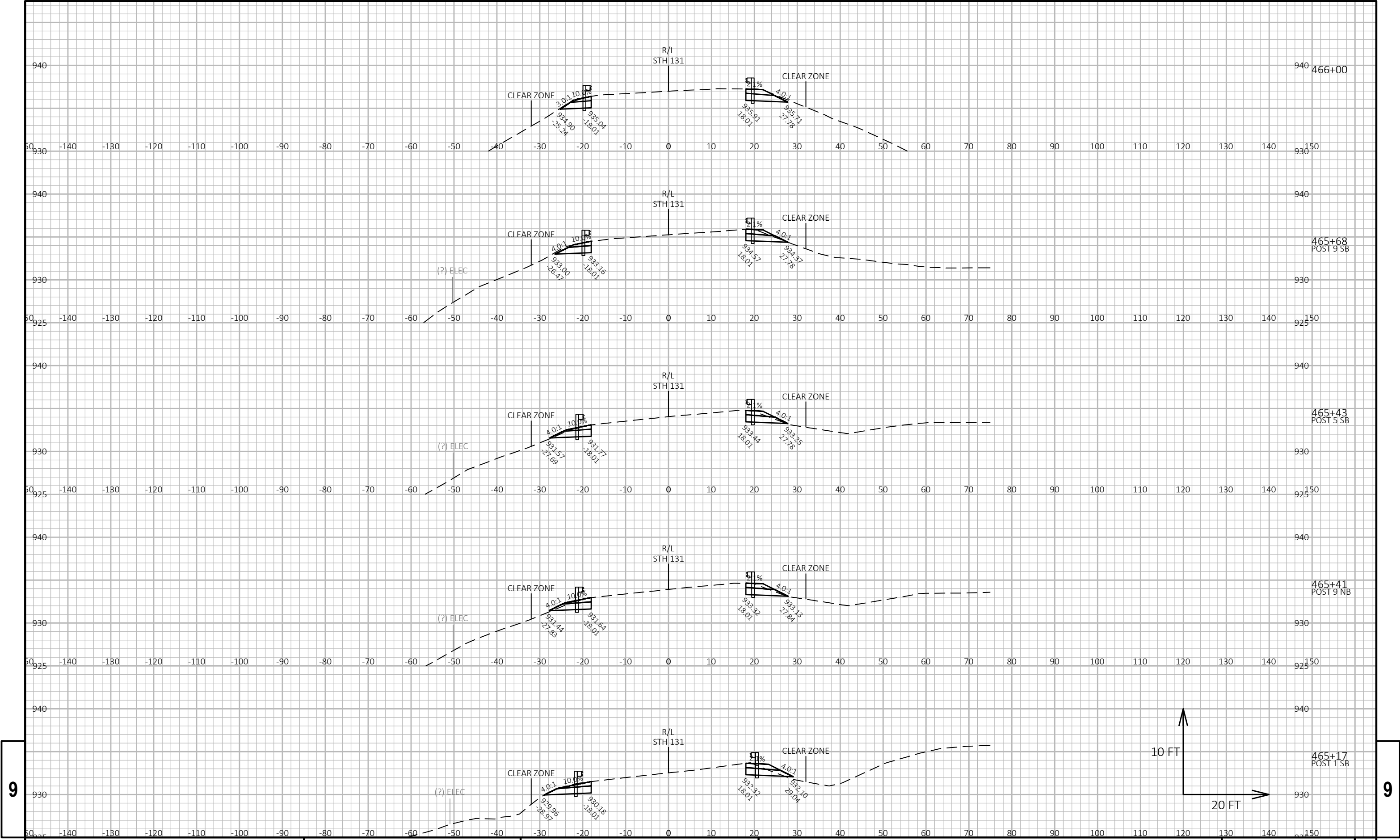




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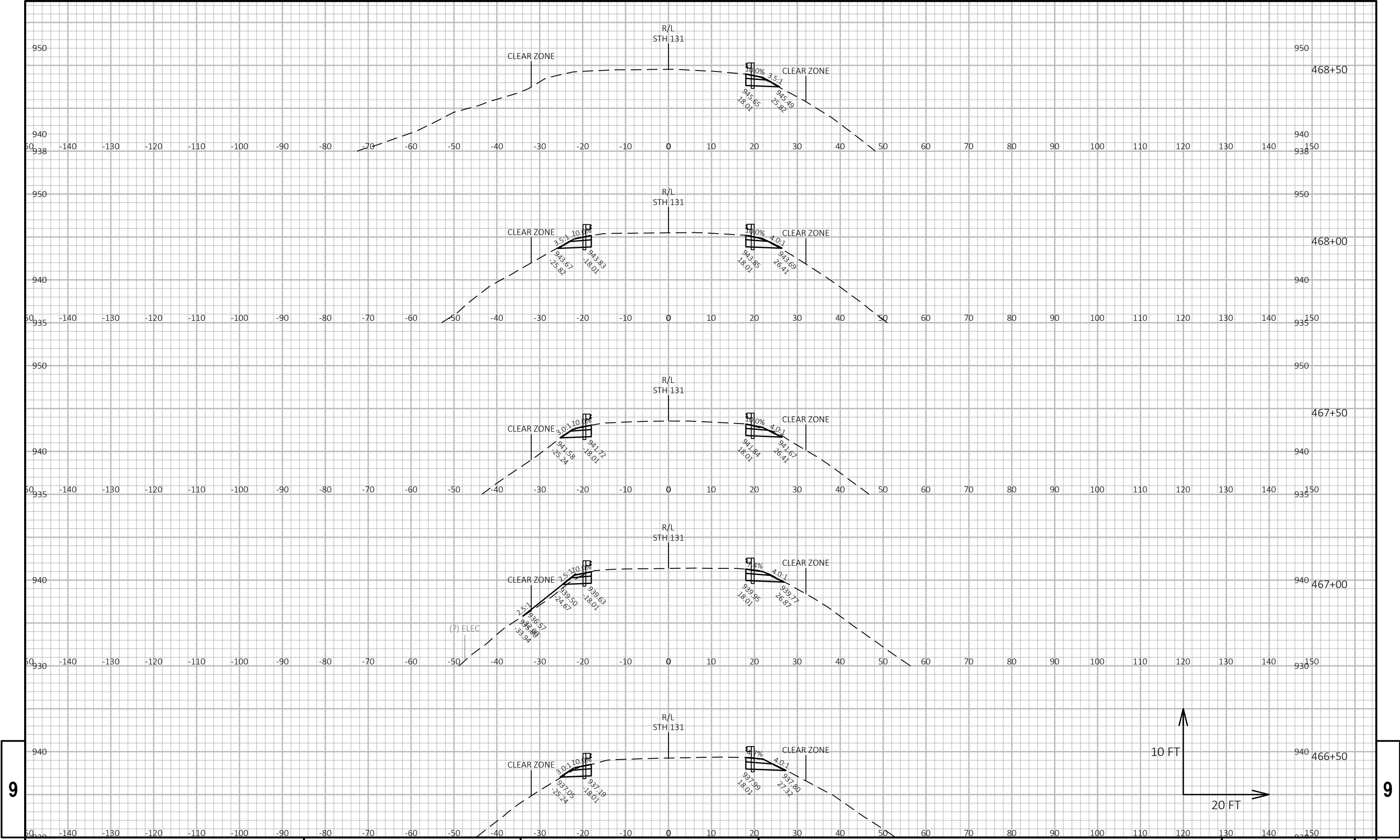
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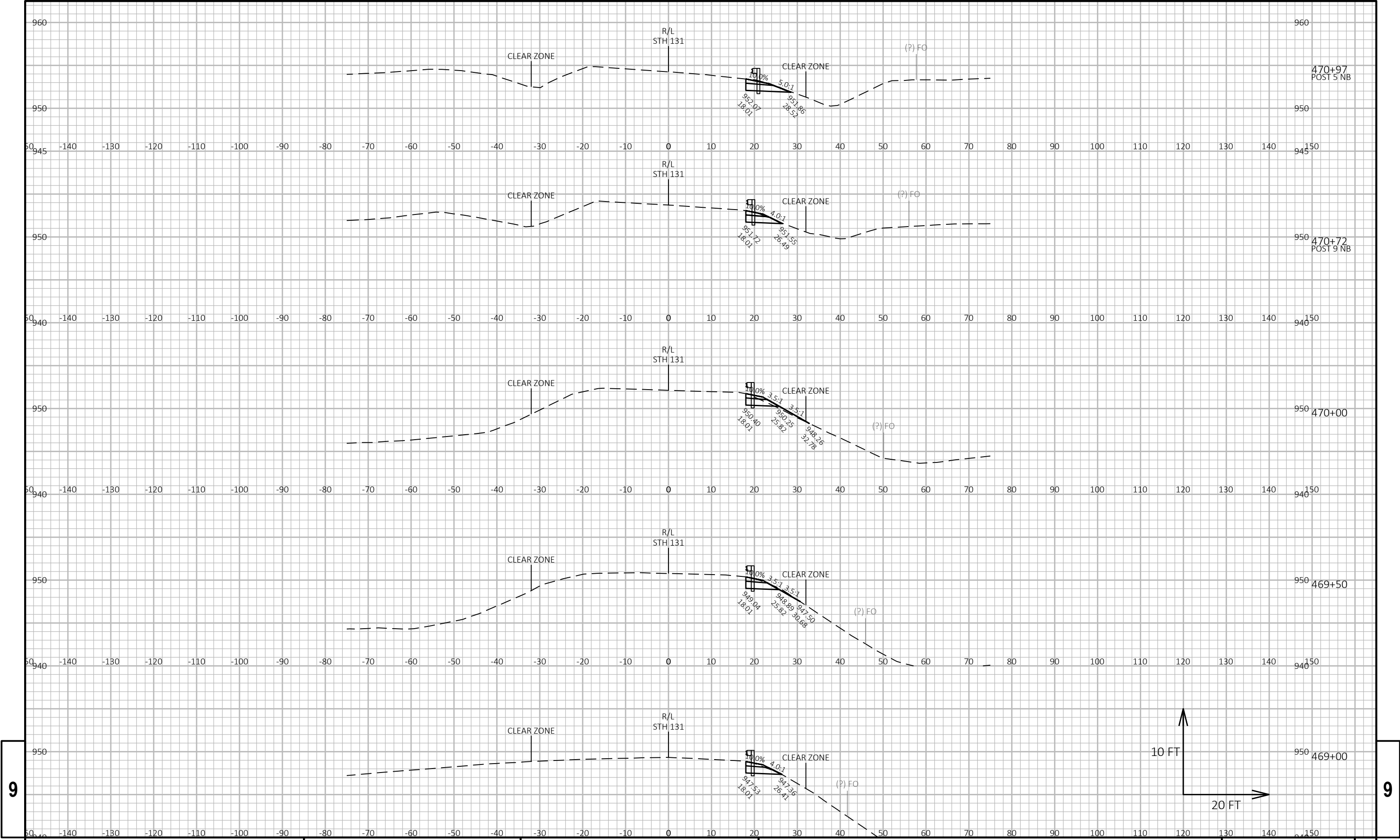




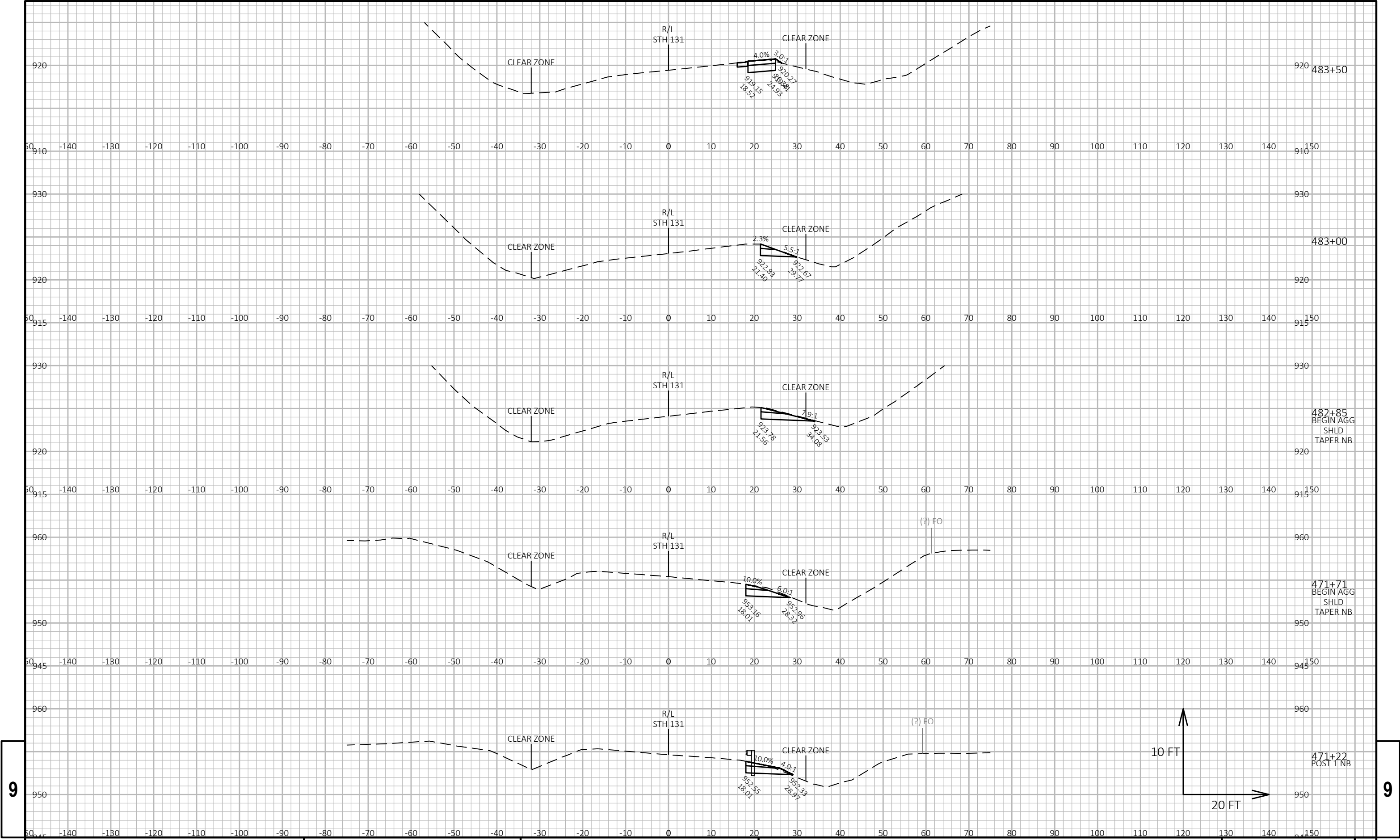
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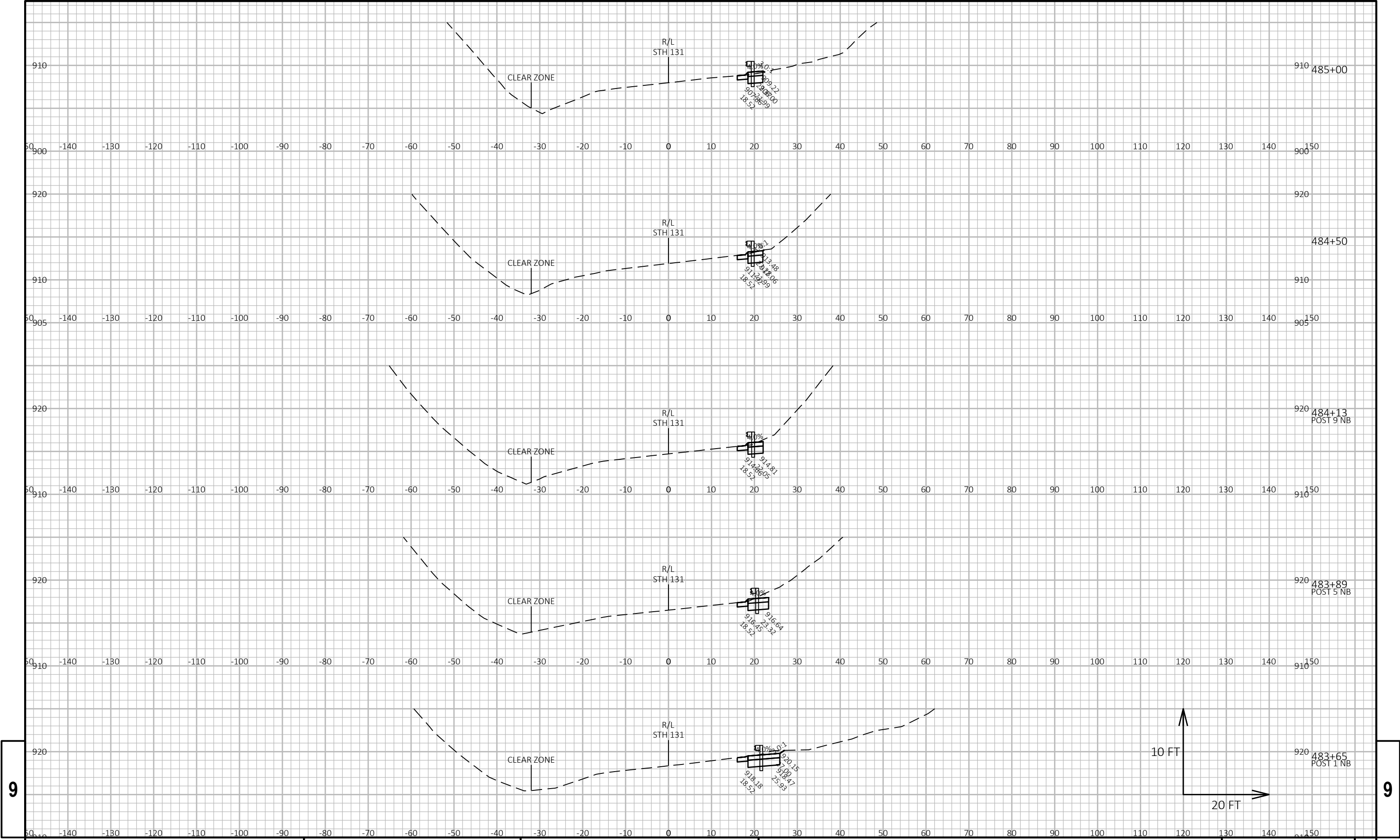


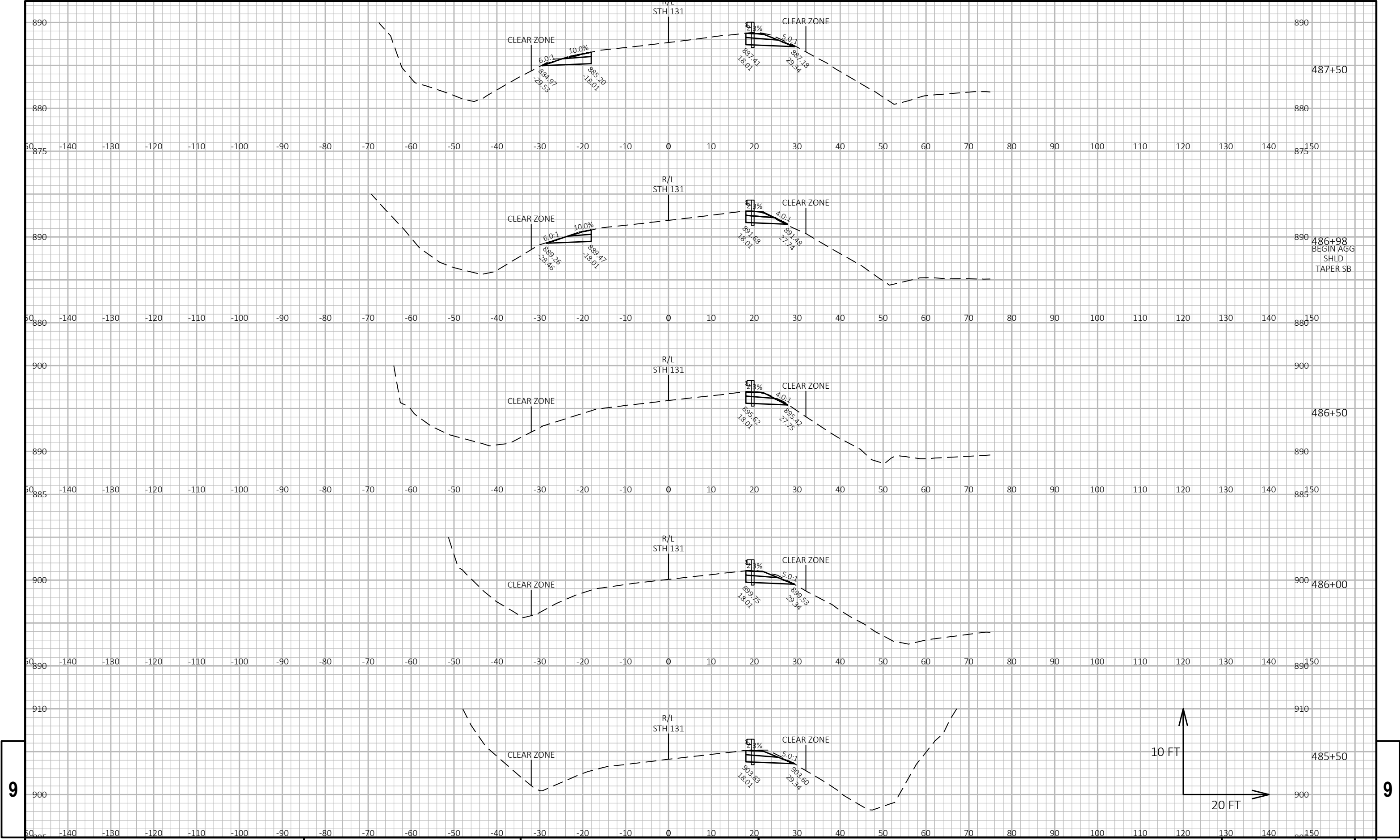


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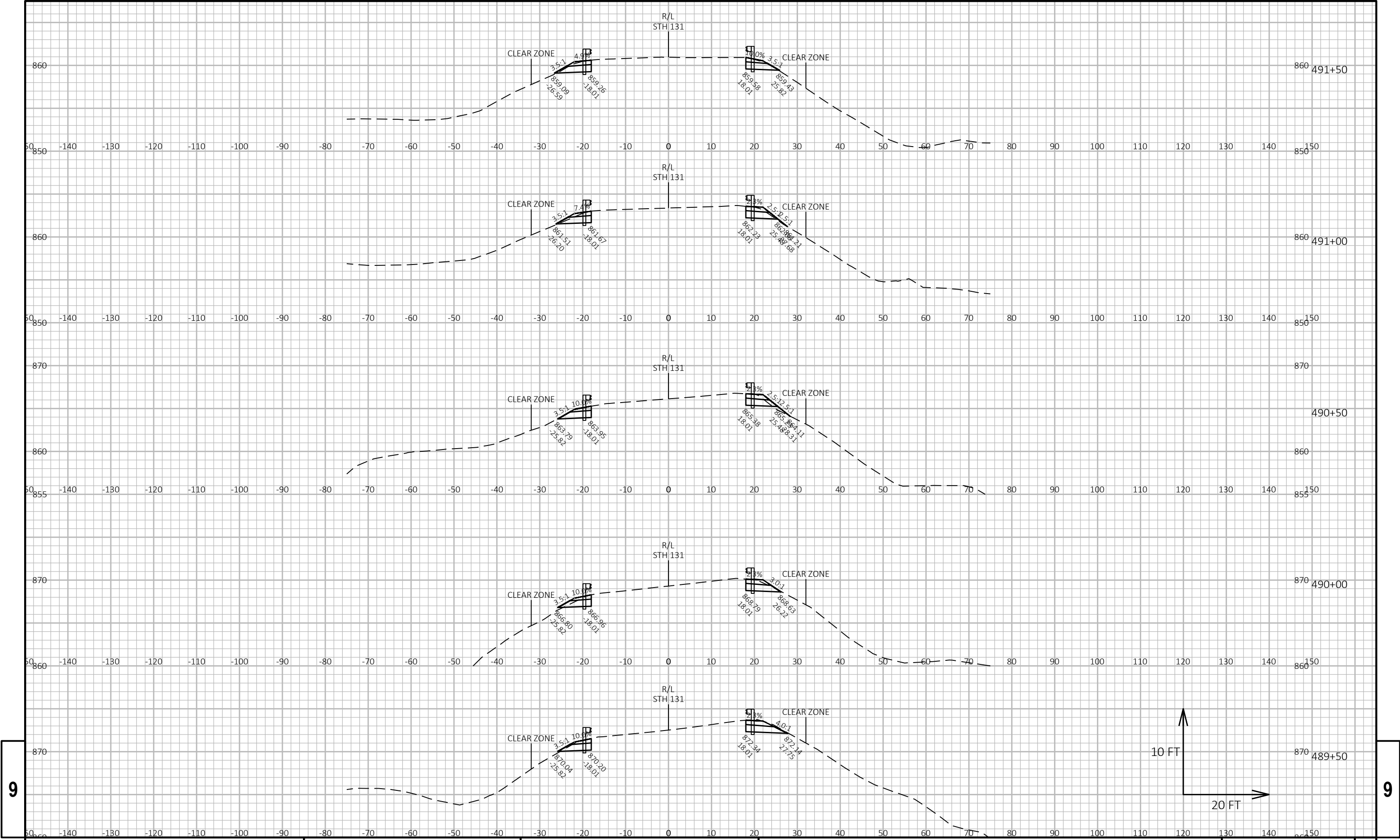


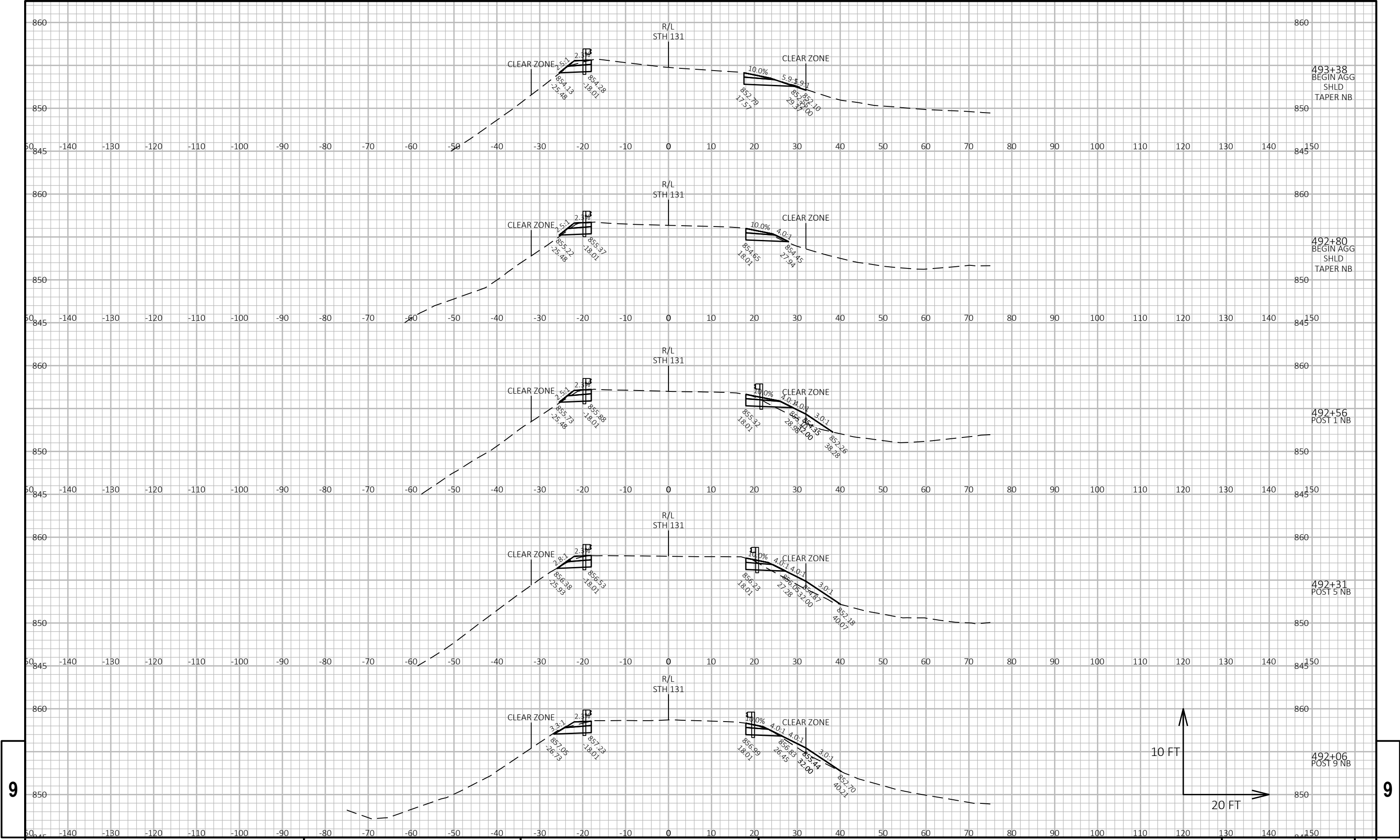


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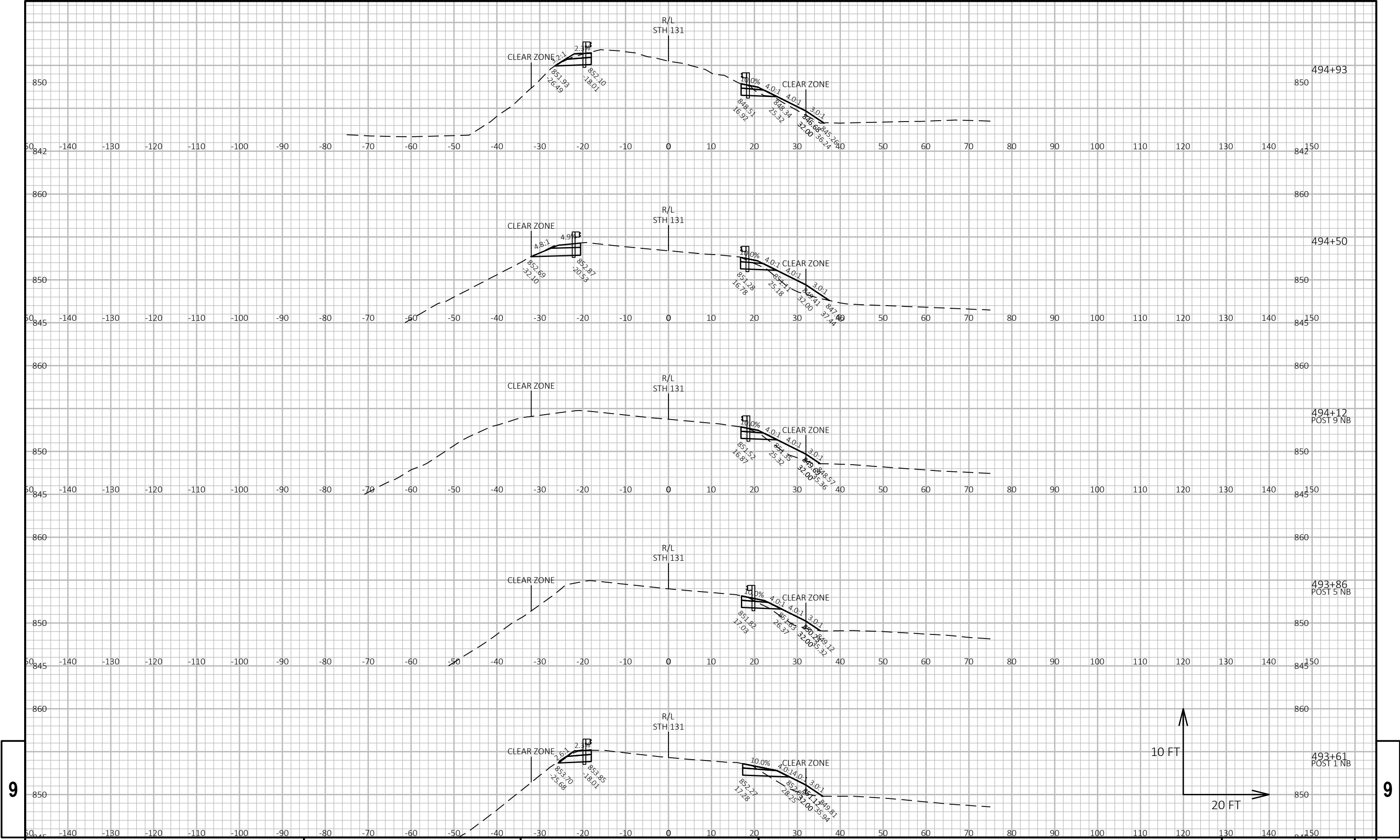






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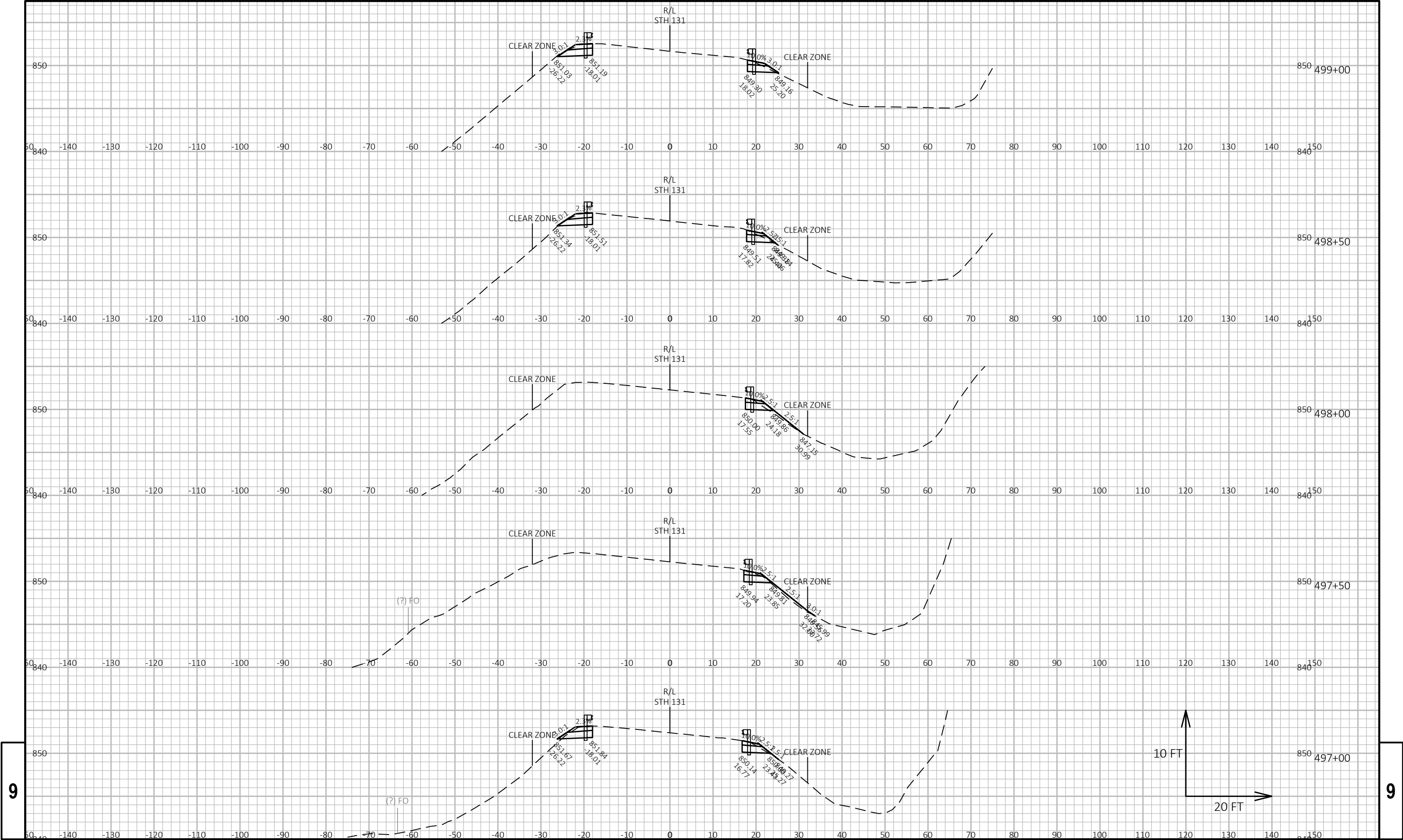
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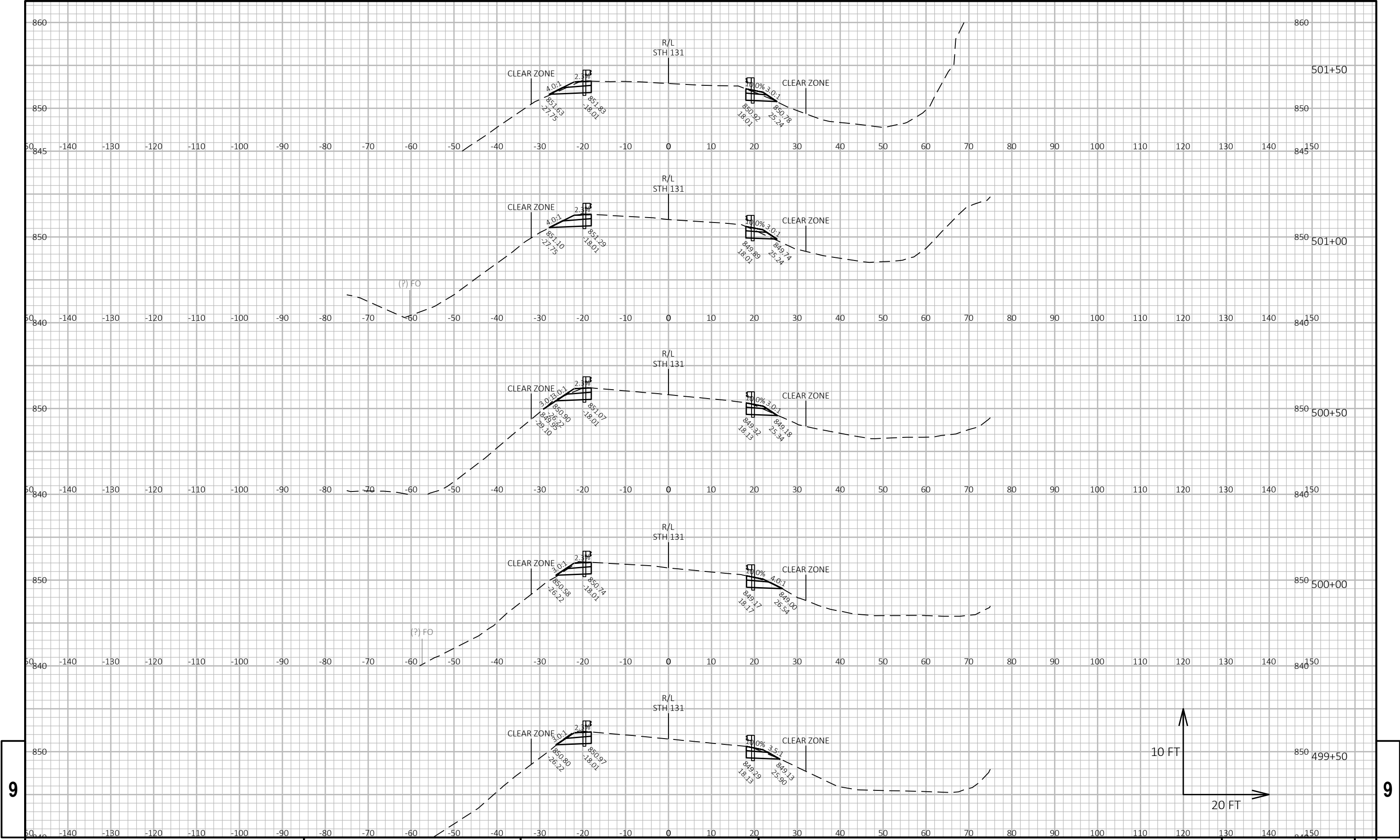
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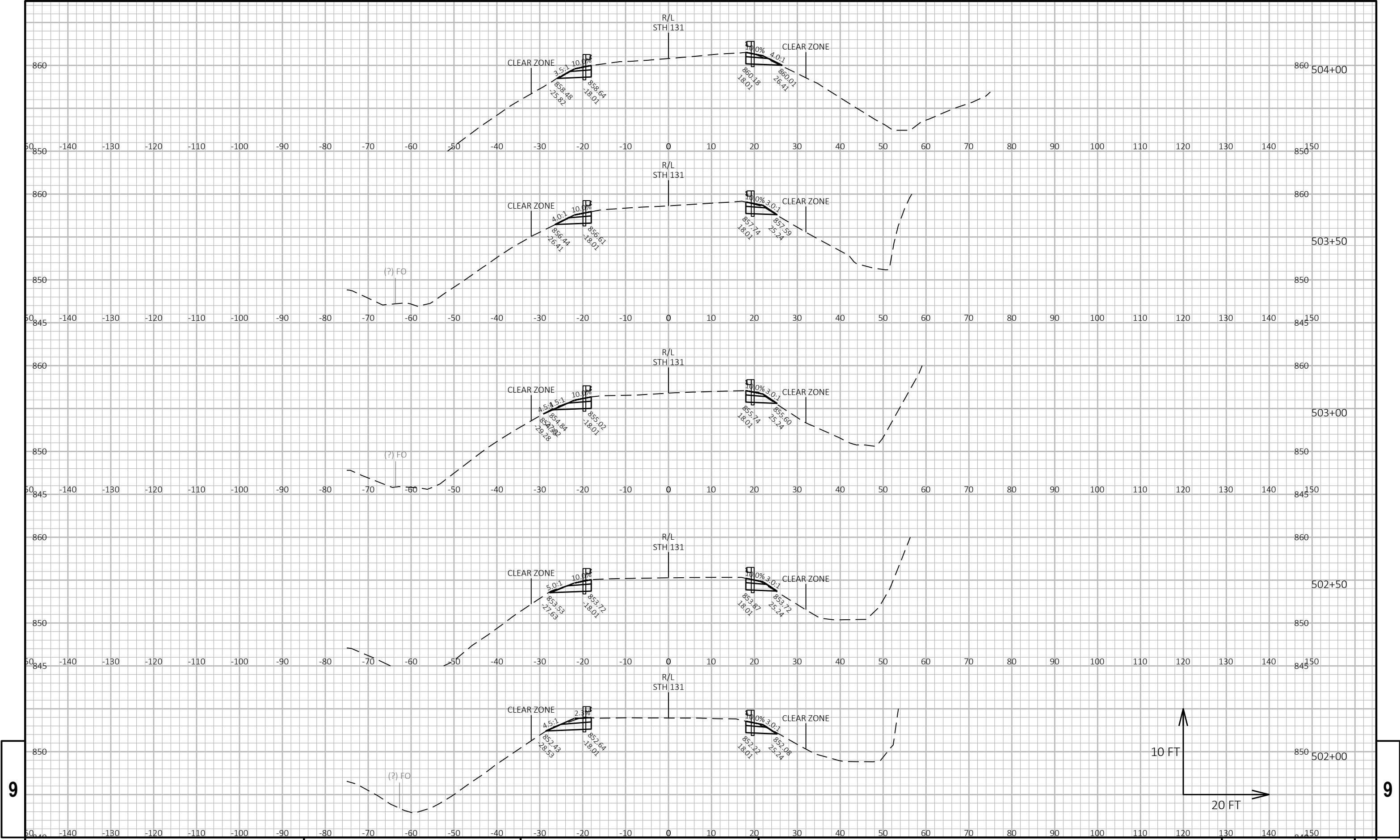






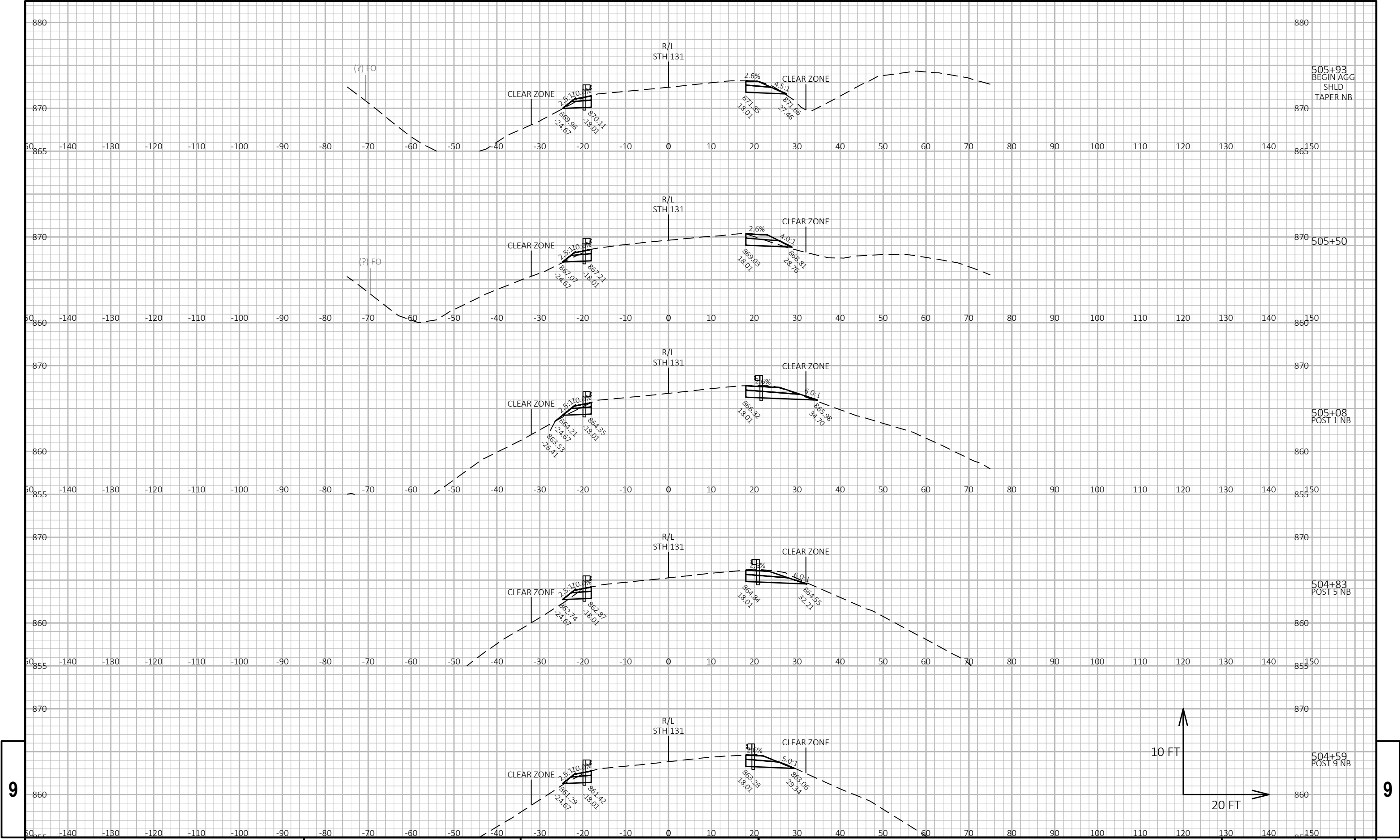
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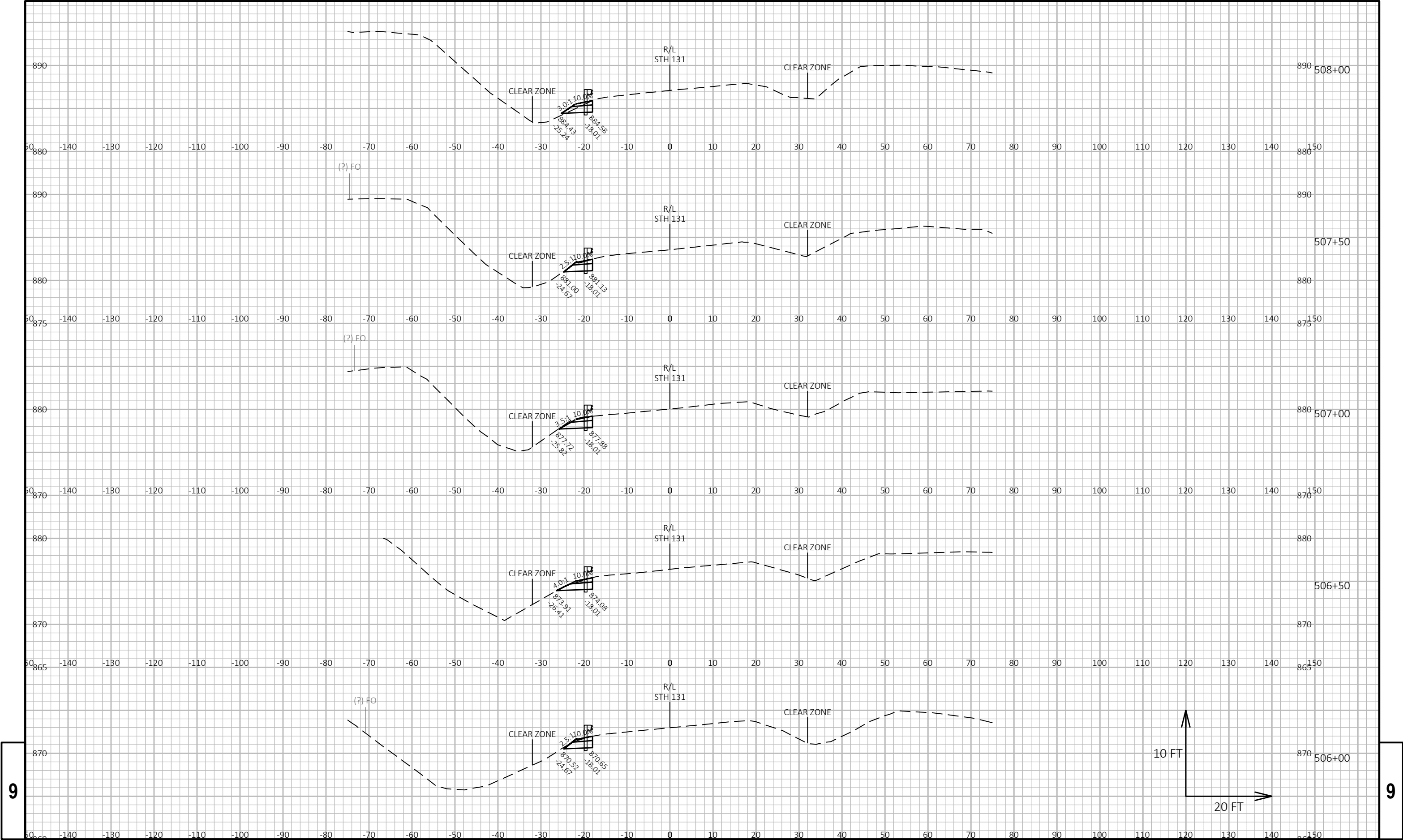
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PROJECT NO: 5110-06-70

HWY: STH 131

COUNTY: VERNON

CROSS SECTIONS: STH 131

SHEET 468

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FILE NAME : K:\185450\_STH 131\3.02 DELIVERABLES\3.02 ROADWAY\AUTOCAD\SHEETS\PLAN\090363-XS.DWG  
LAYOUT NAME - 145

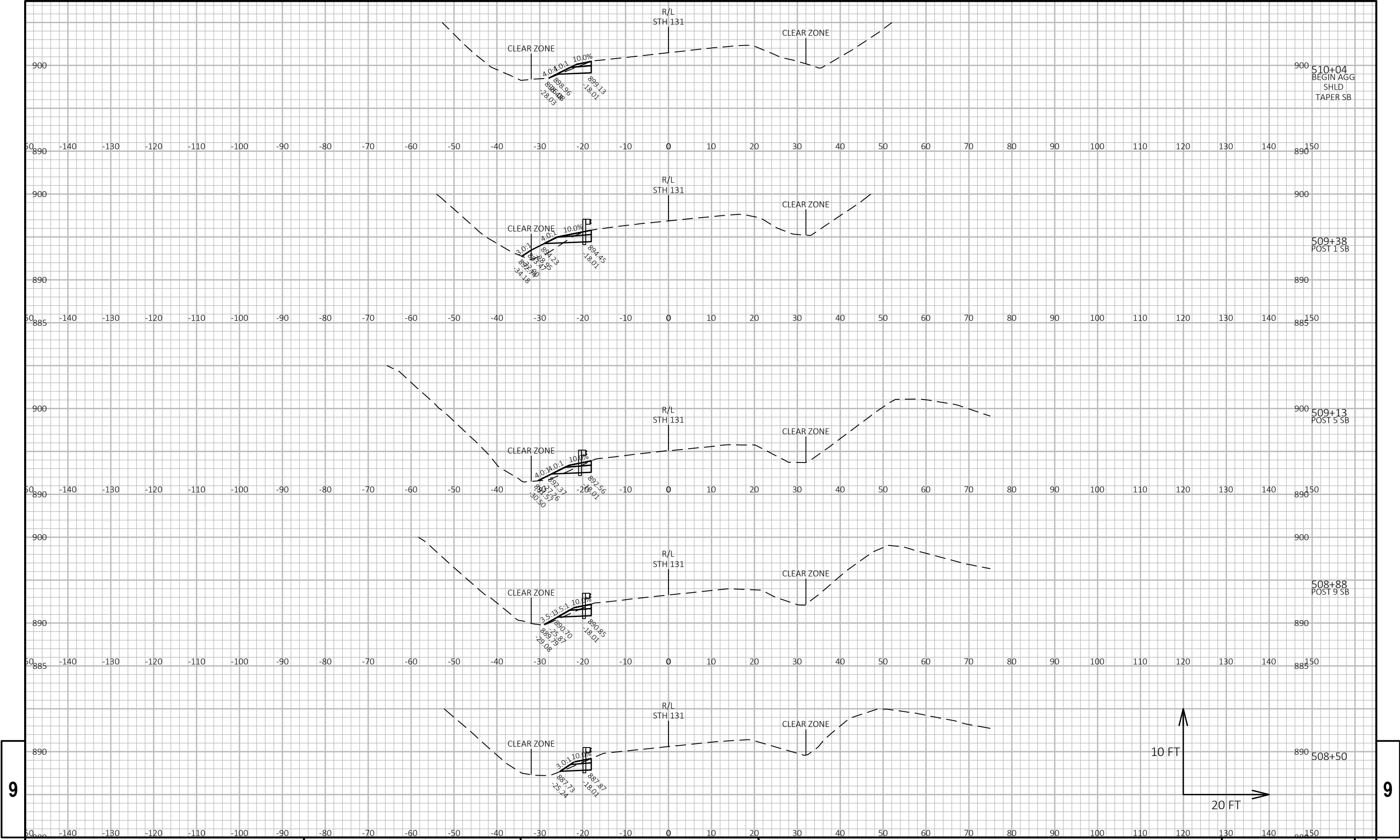
PLOT DATE : 10/22/2025 4:28 PM

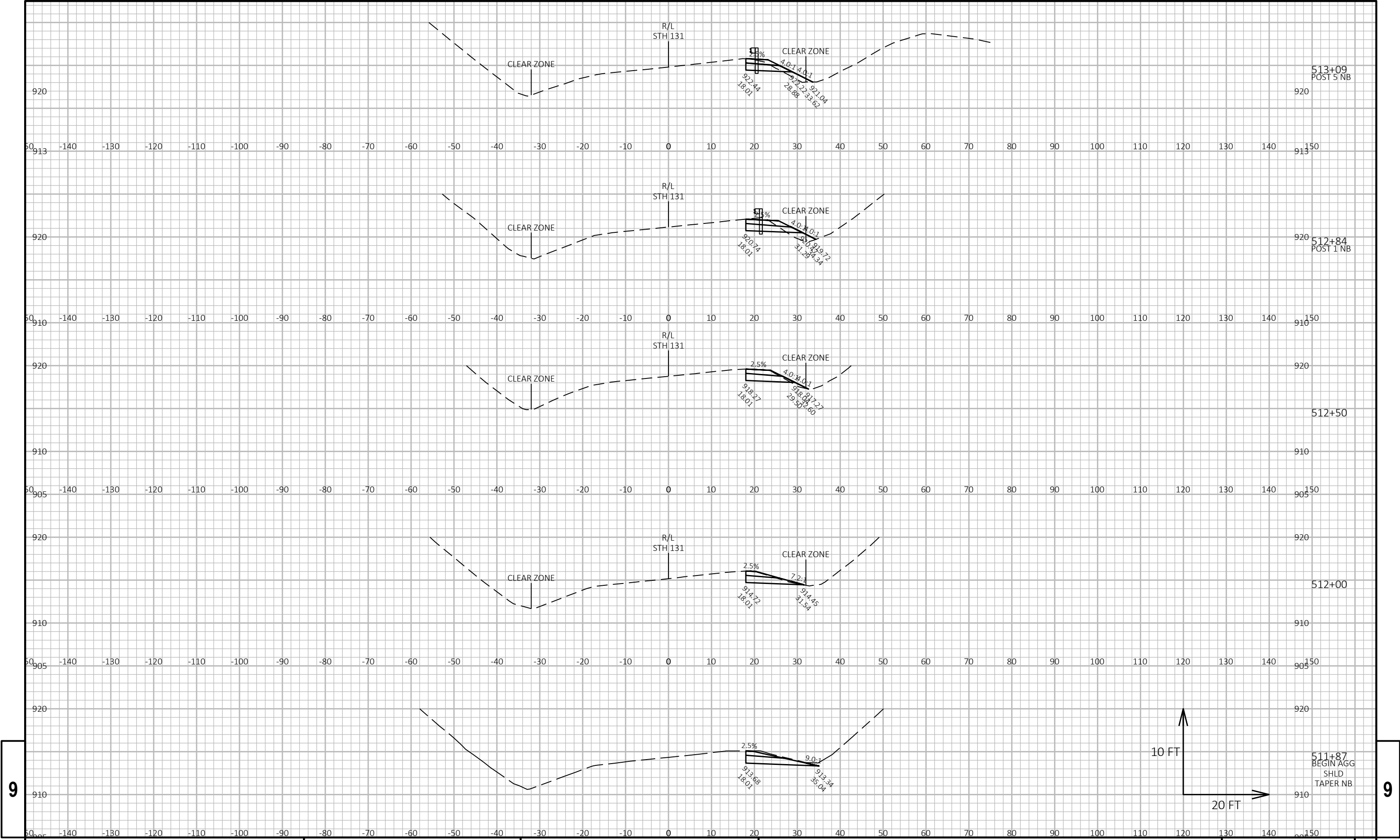
PLOT BY : BRUCKNER, KAITLYN

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDs SHEET 49





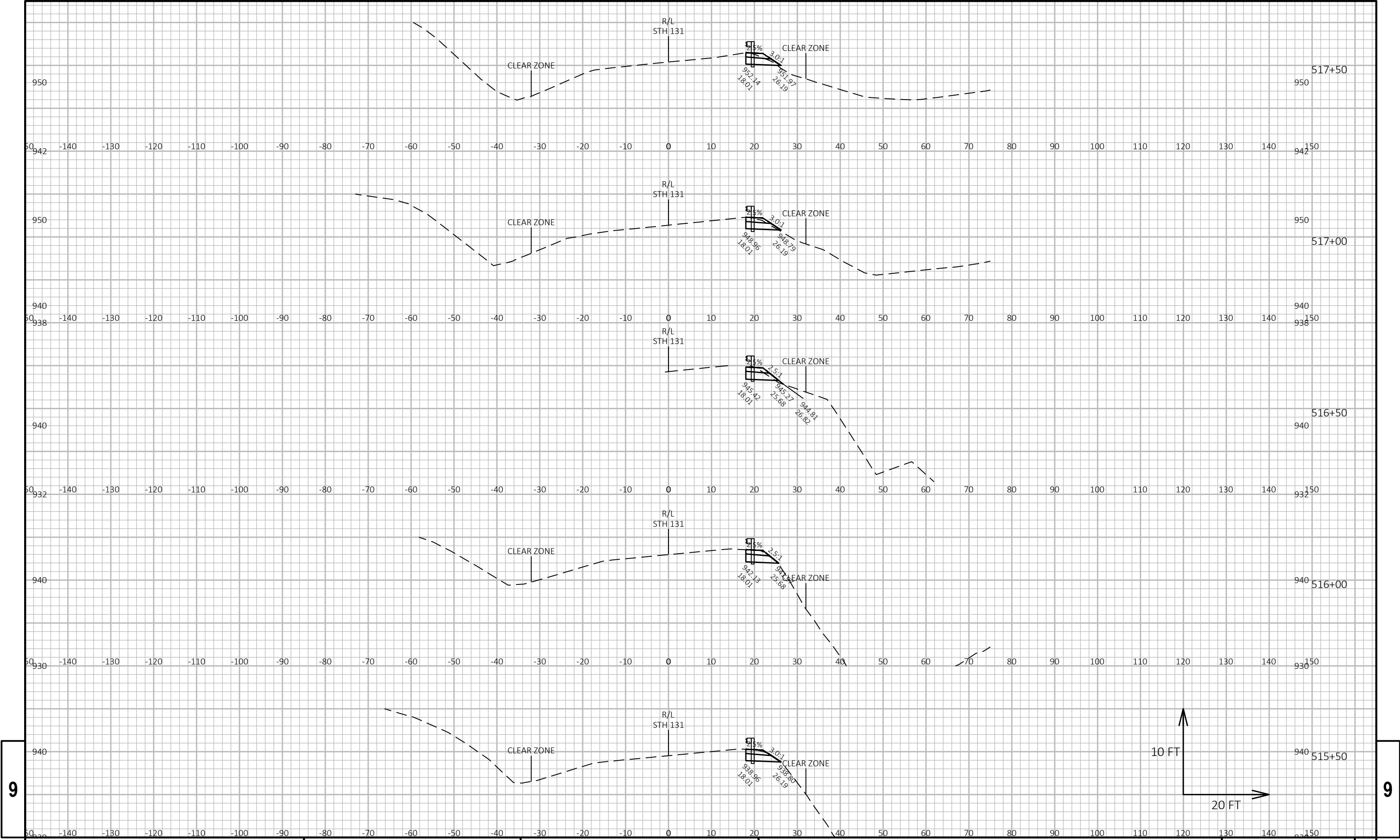
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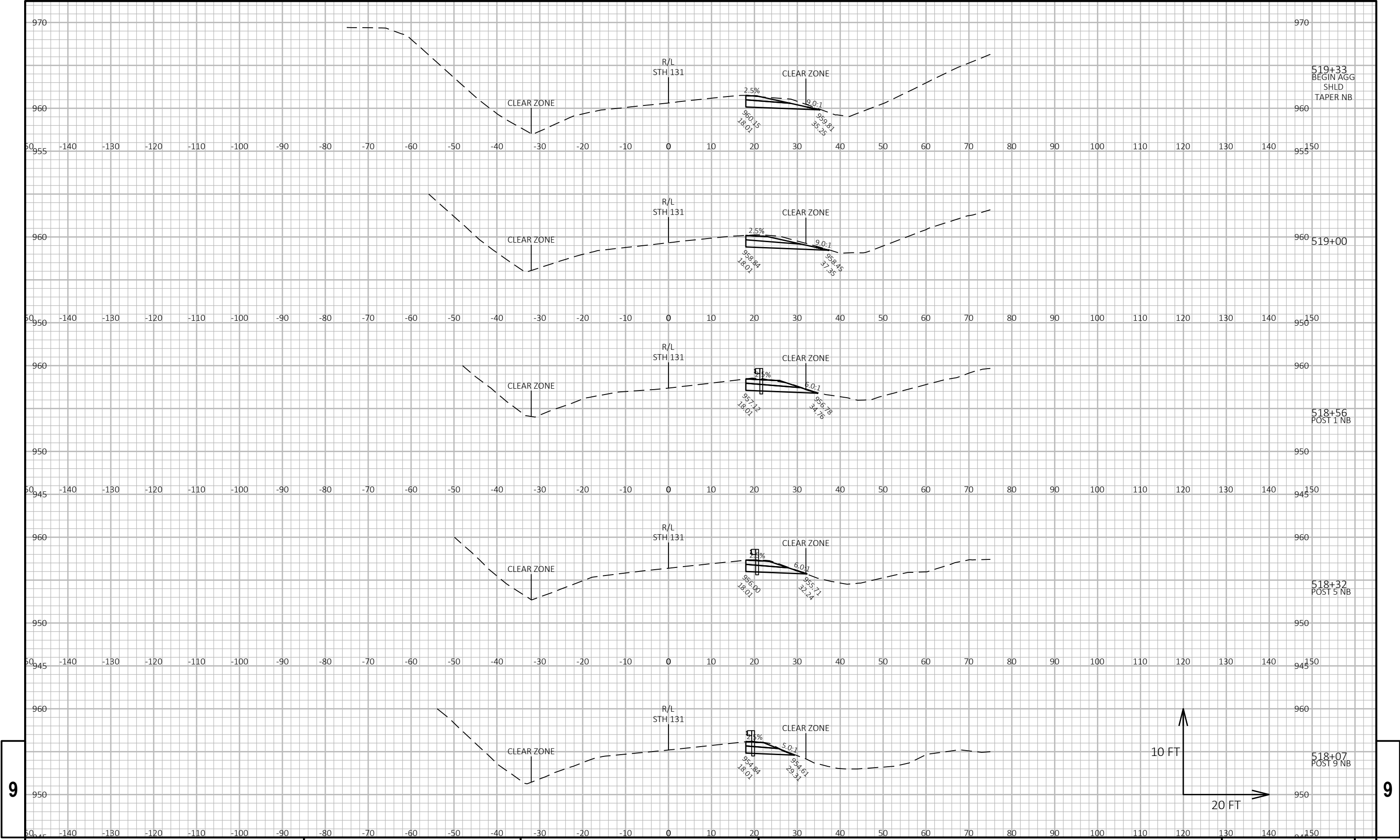


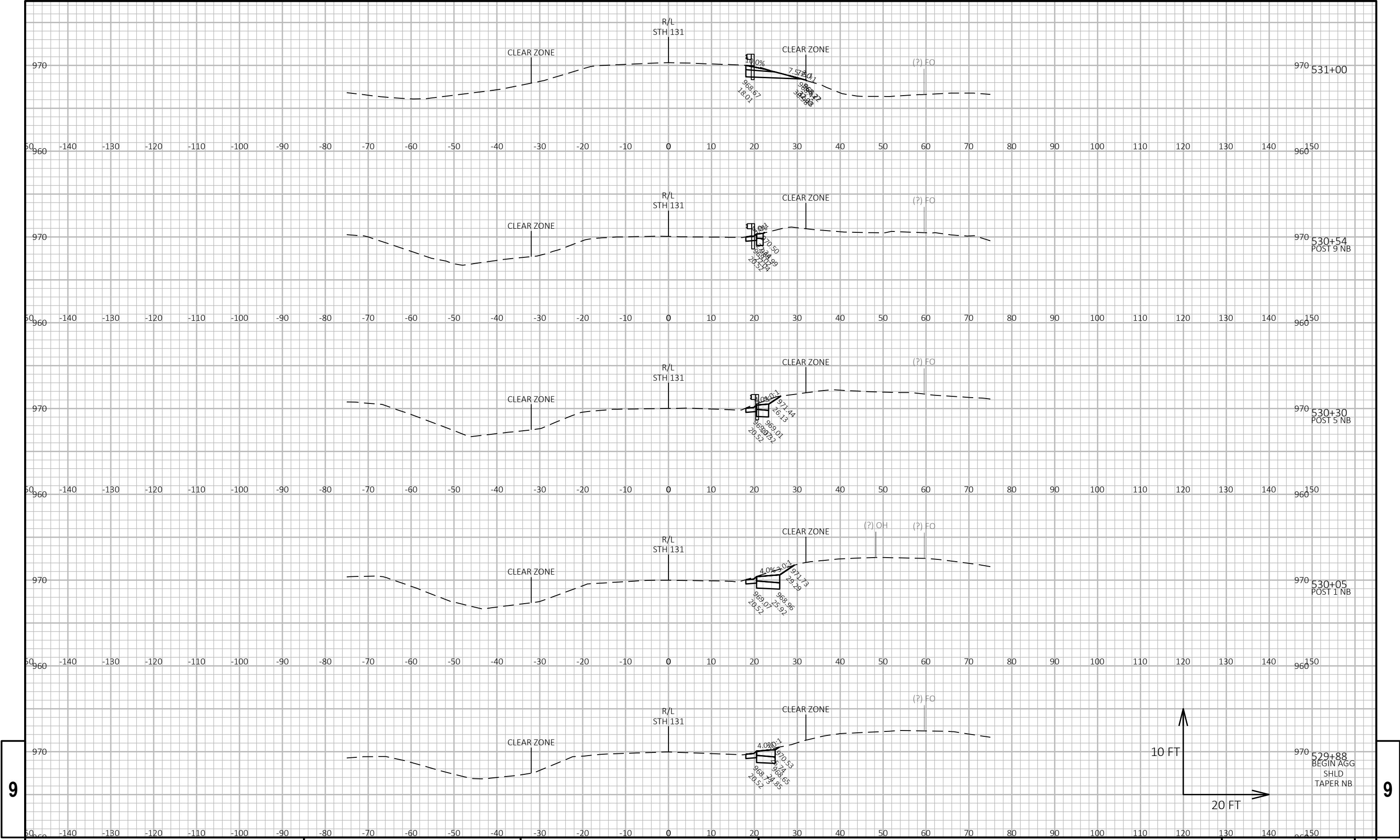


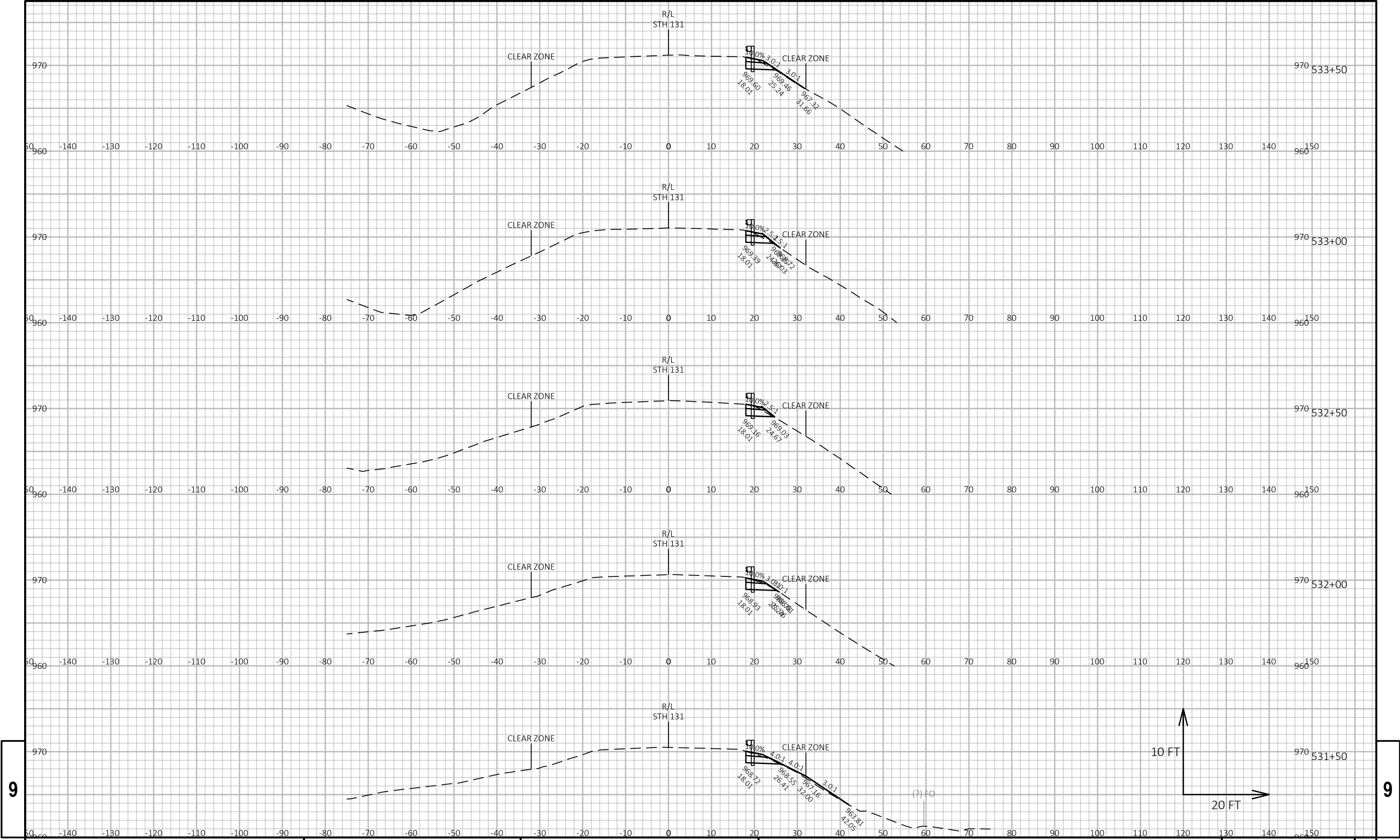


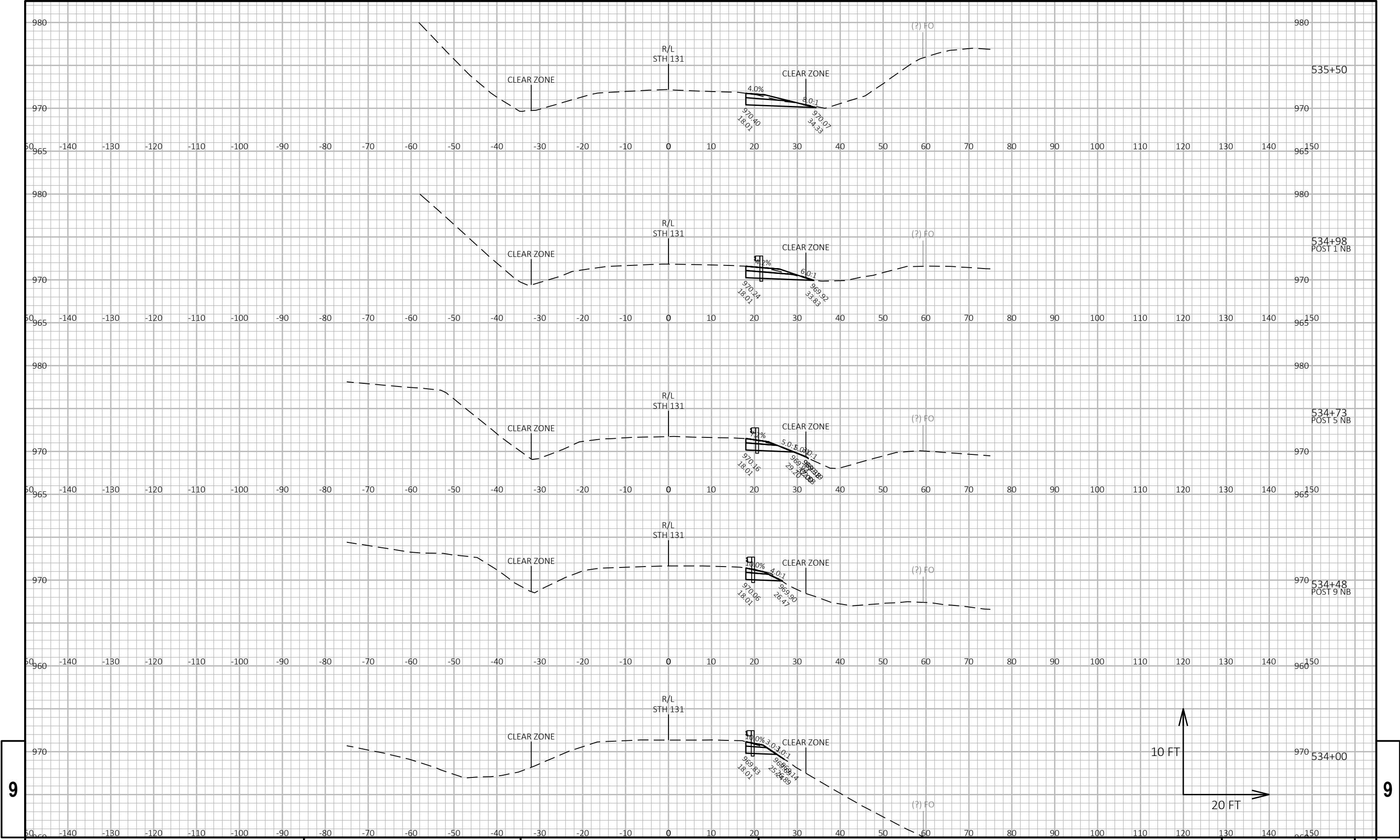
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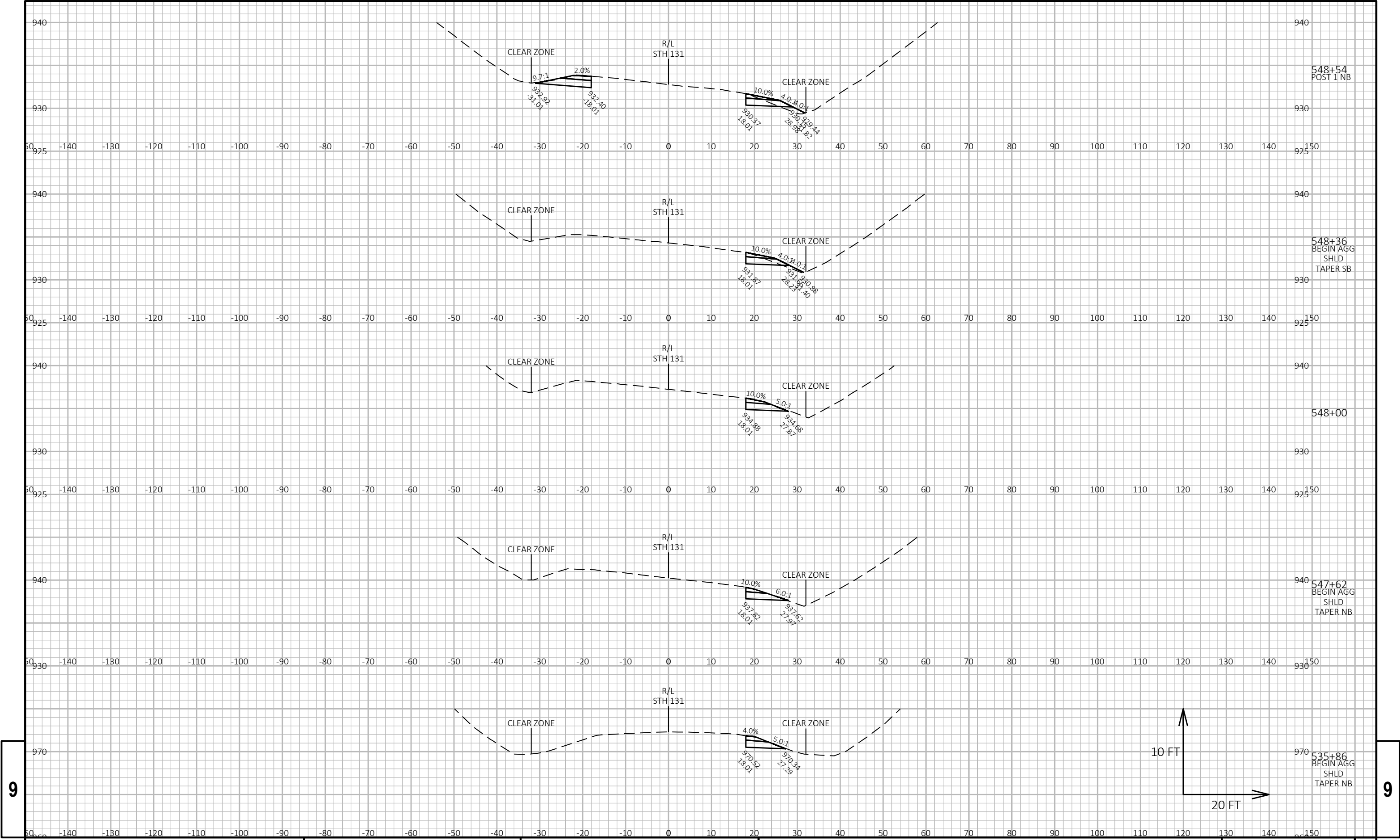
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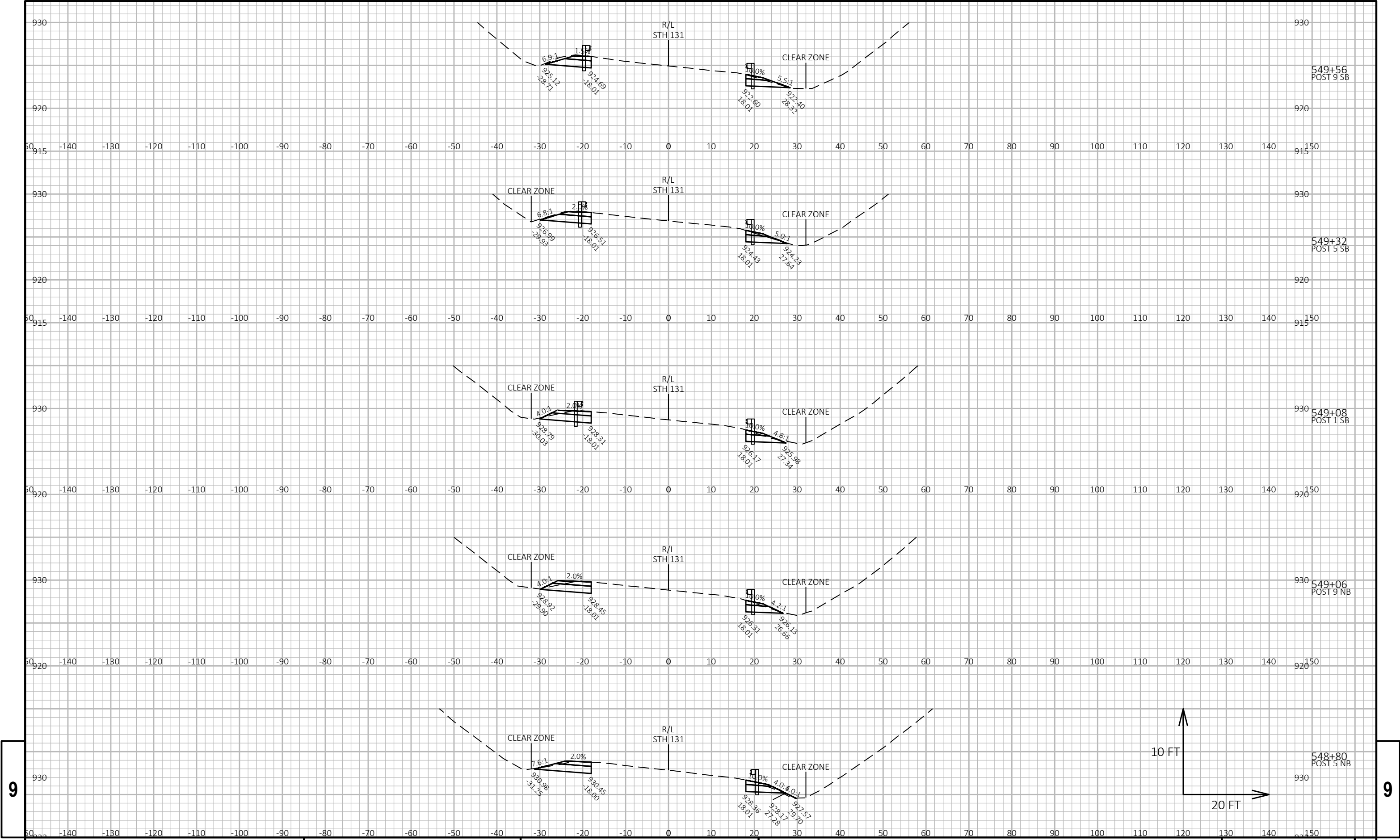








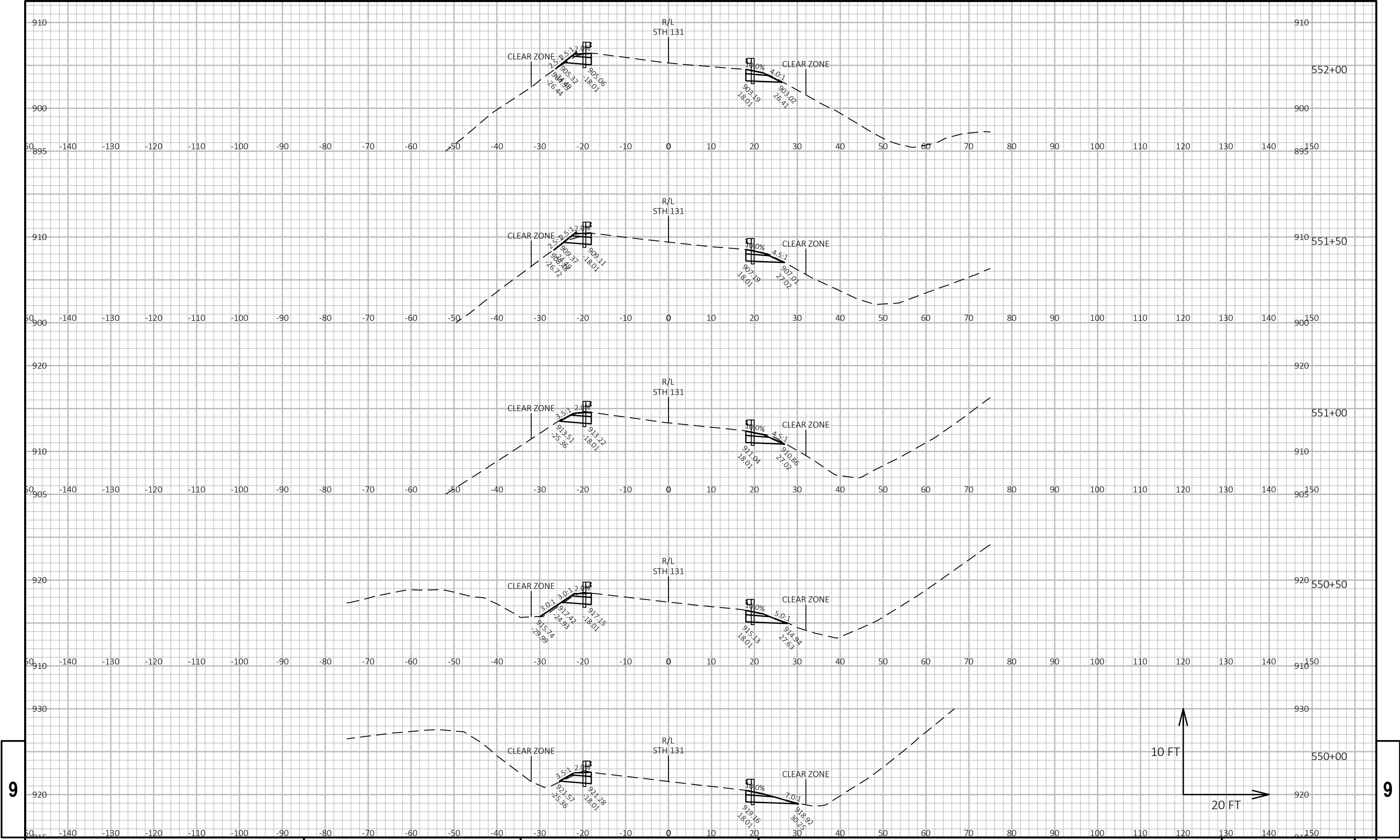




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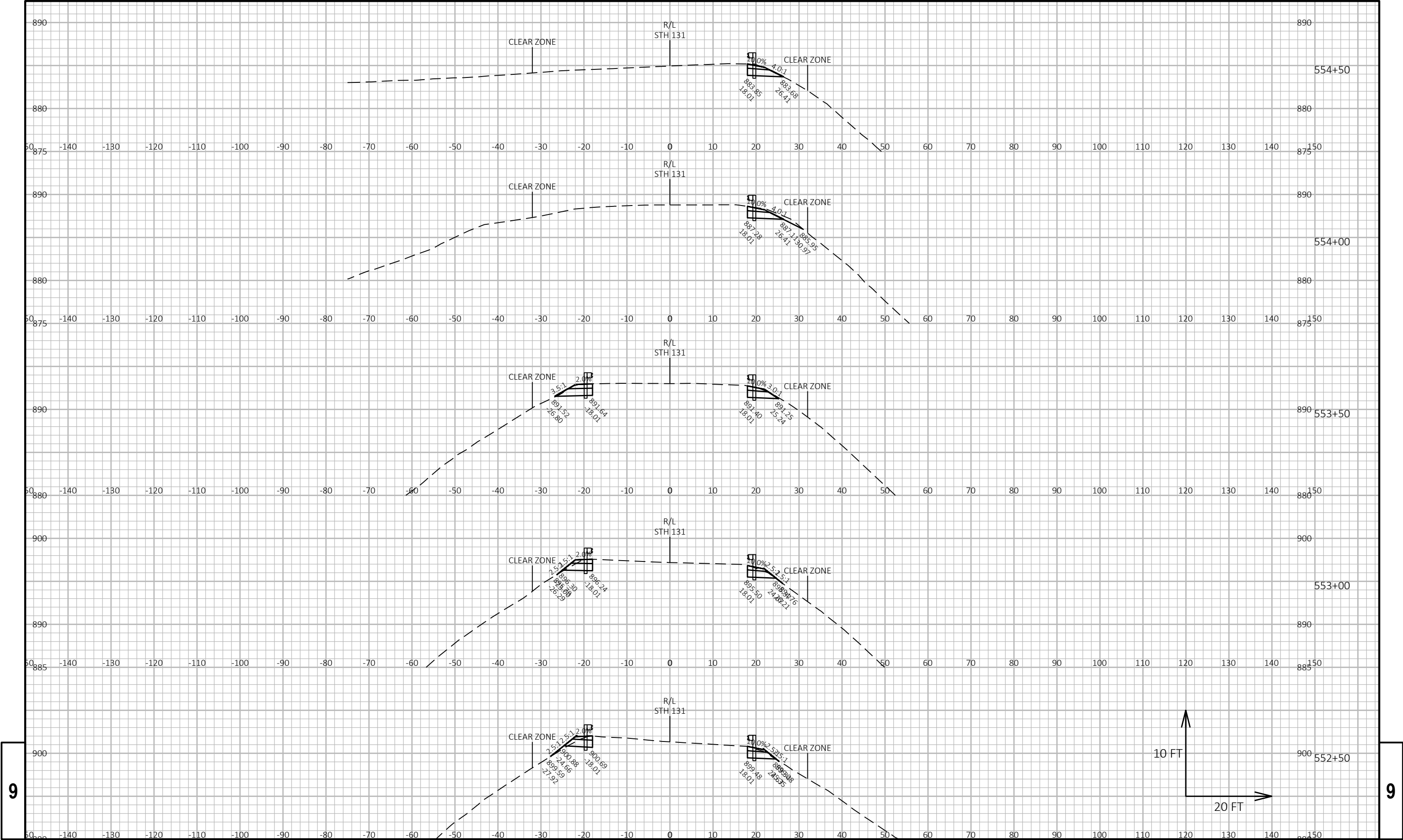
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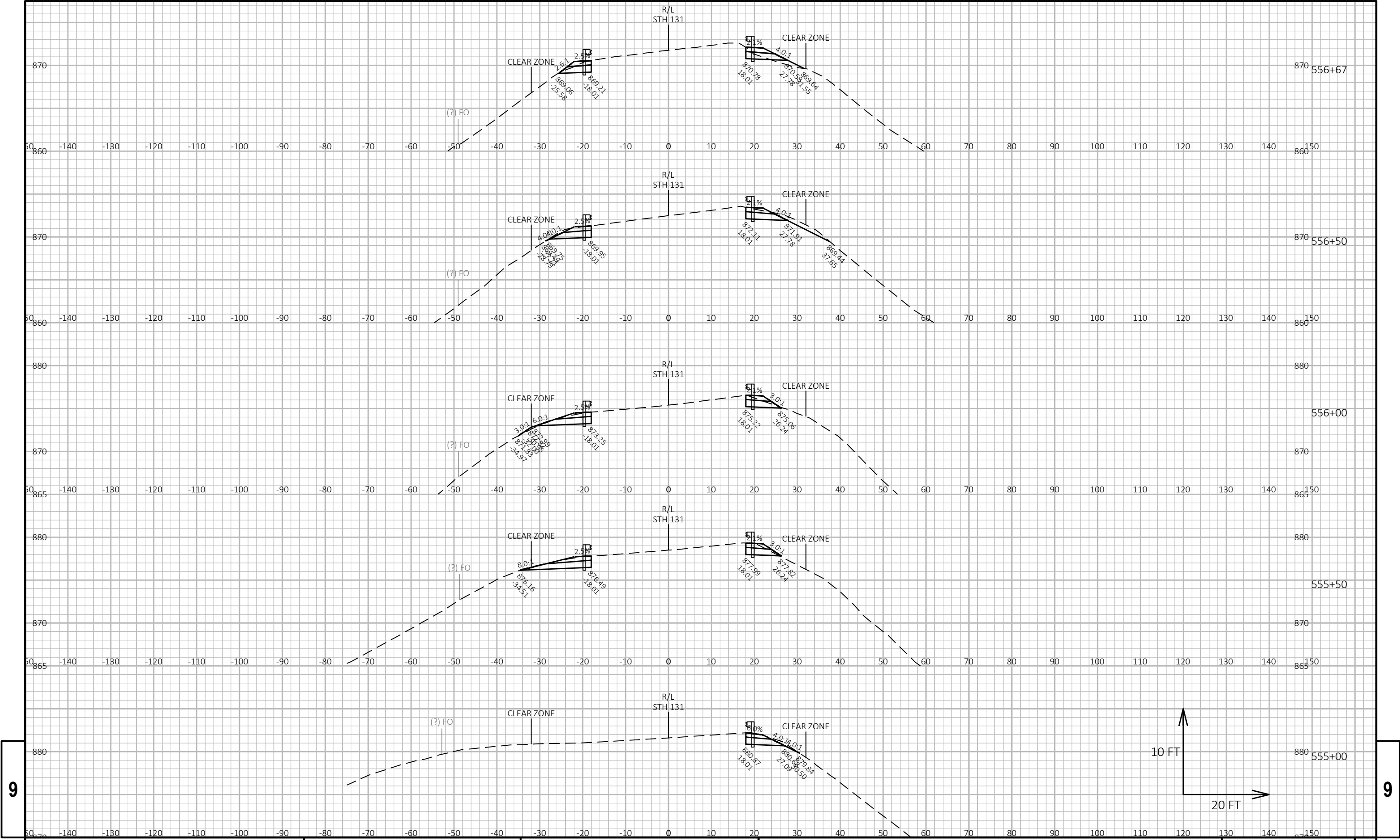




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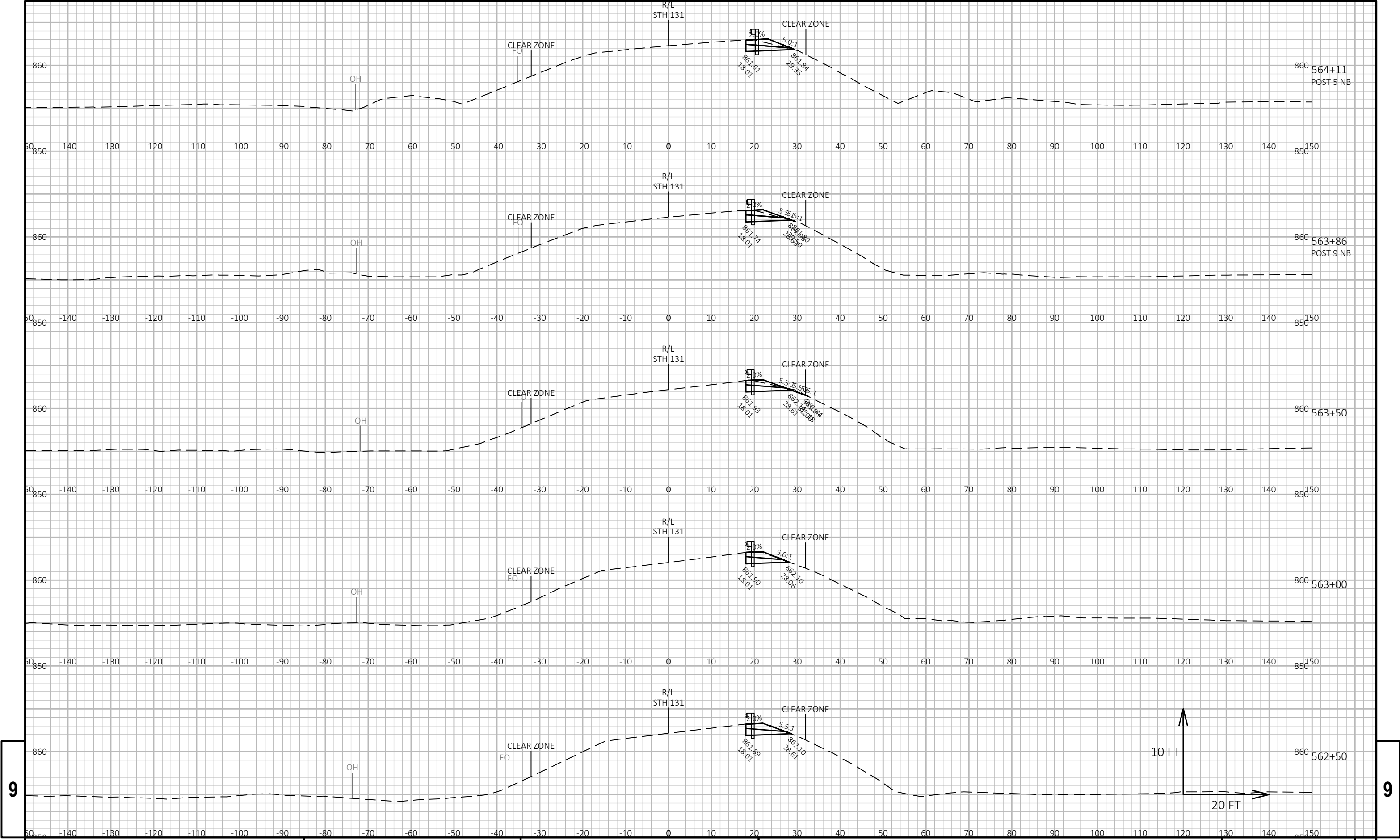


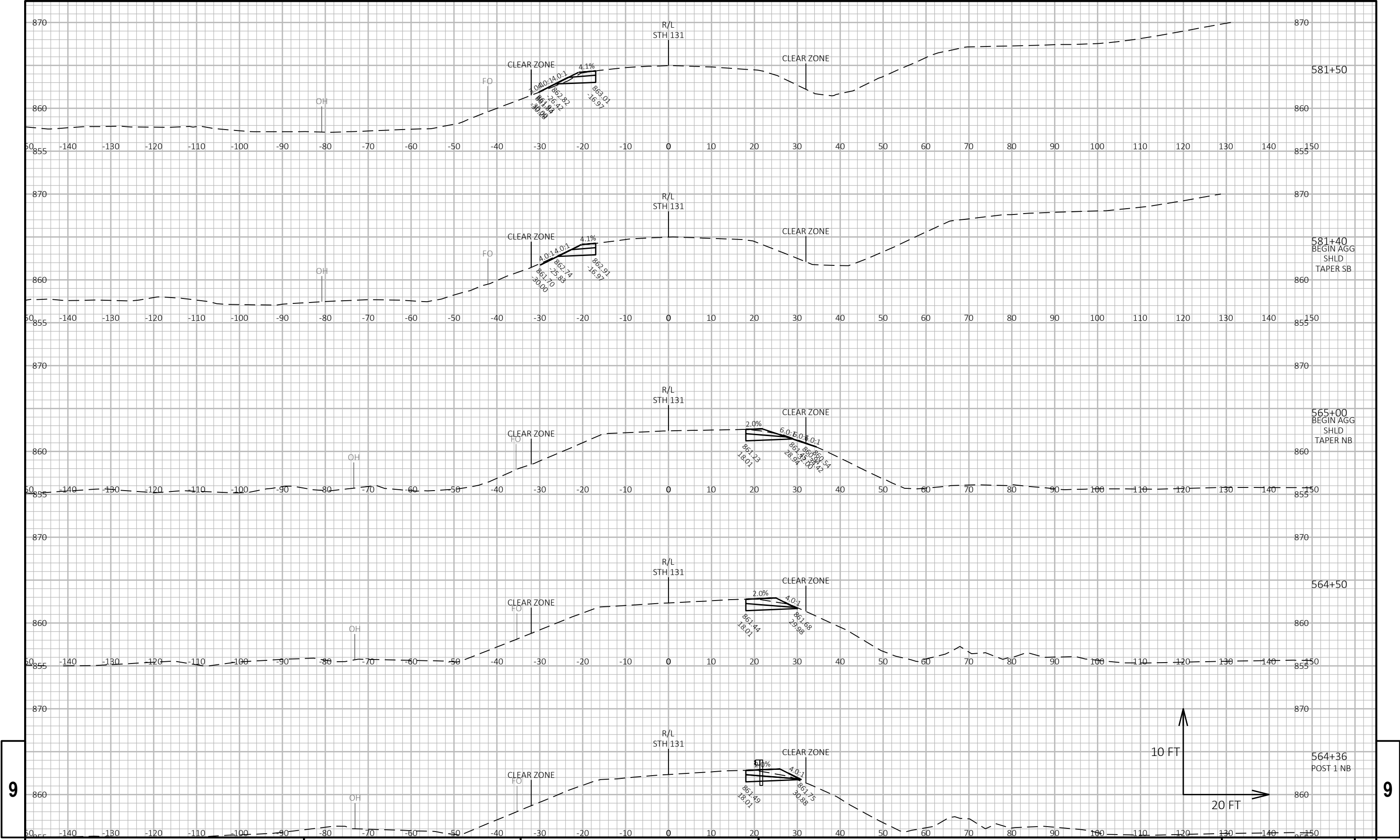


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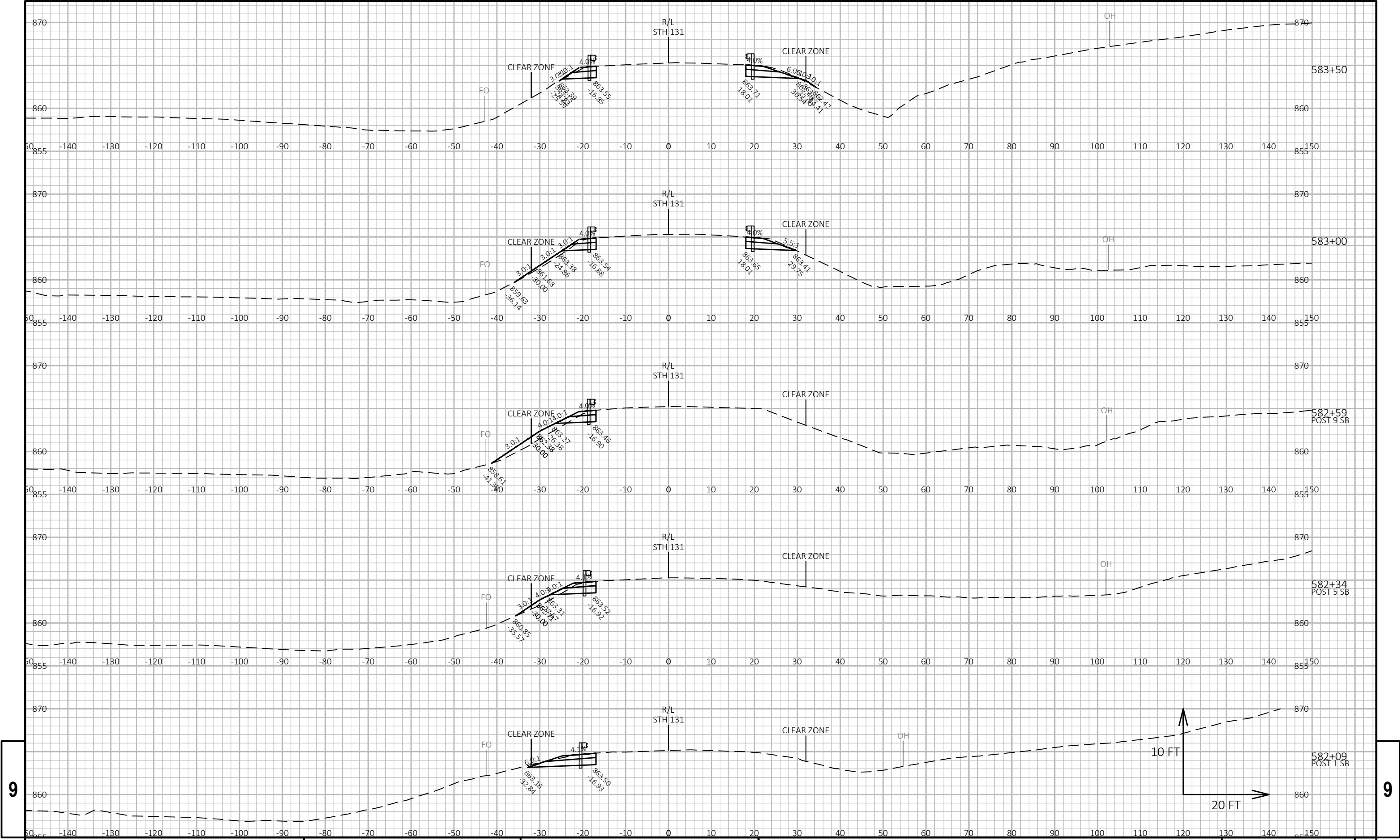
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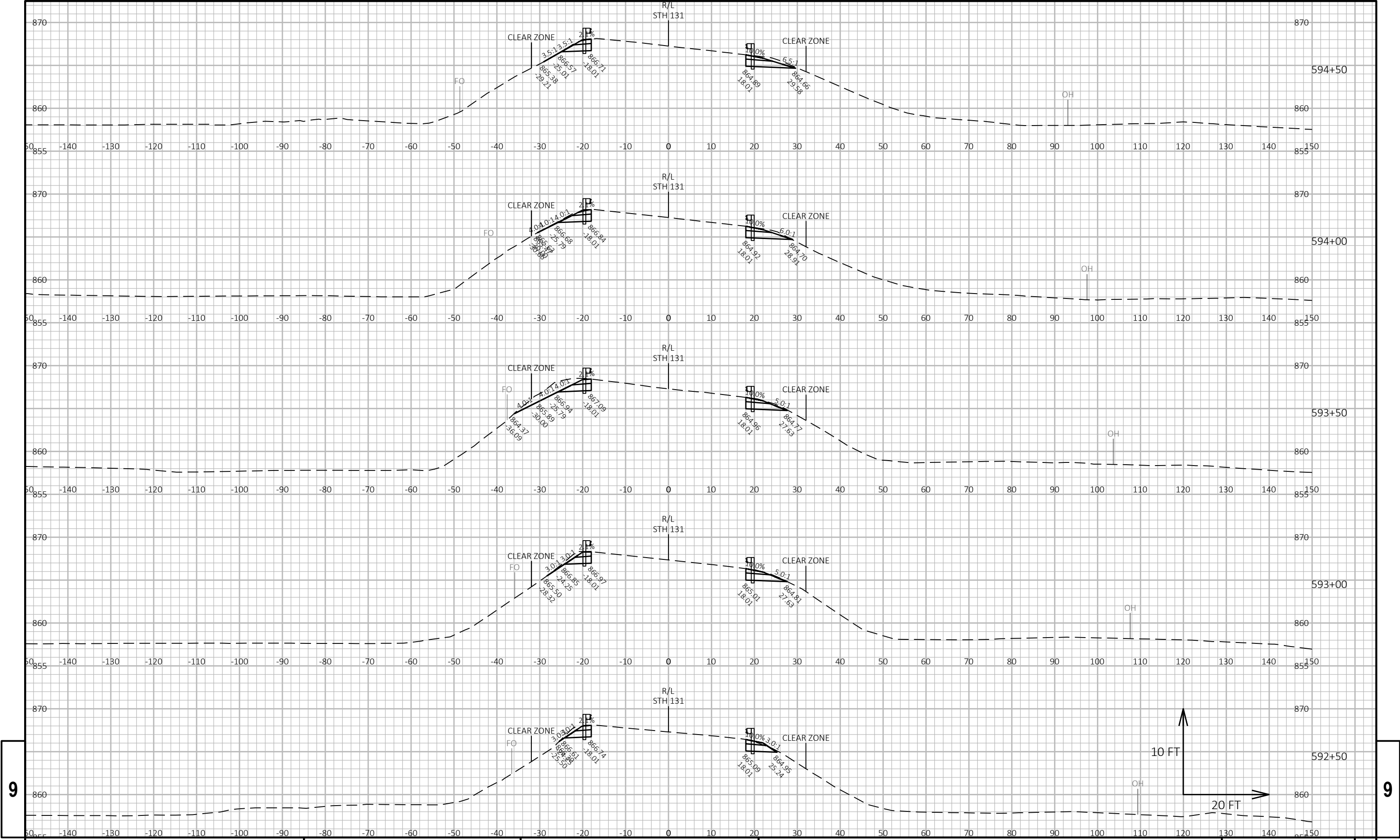
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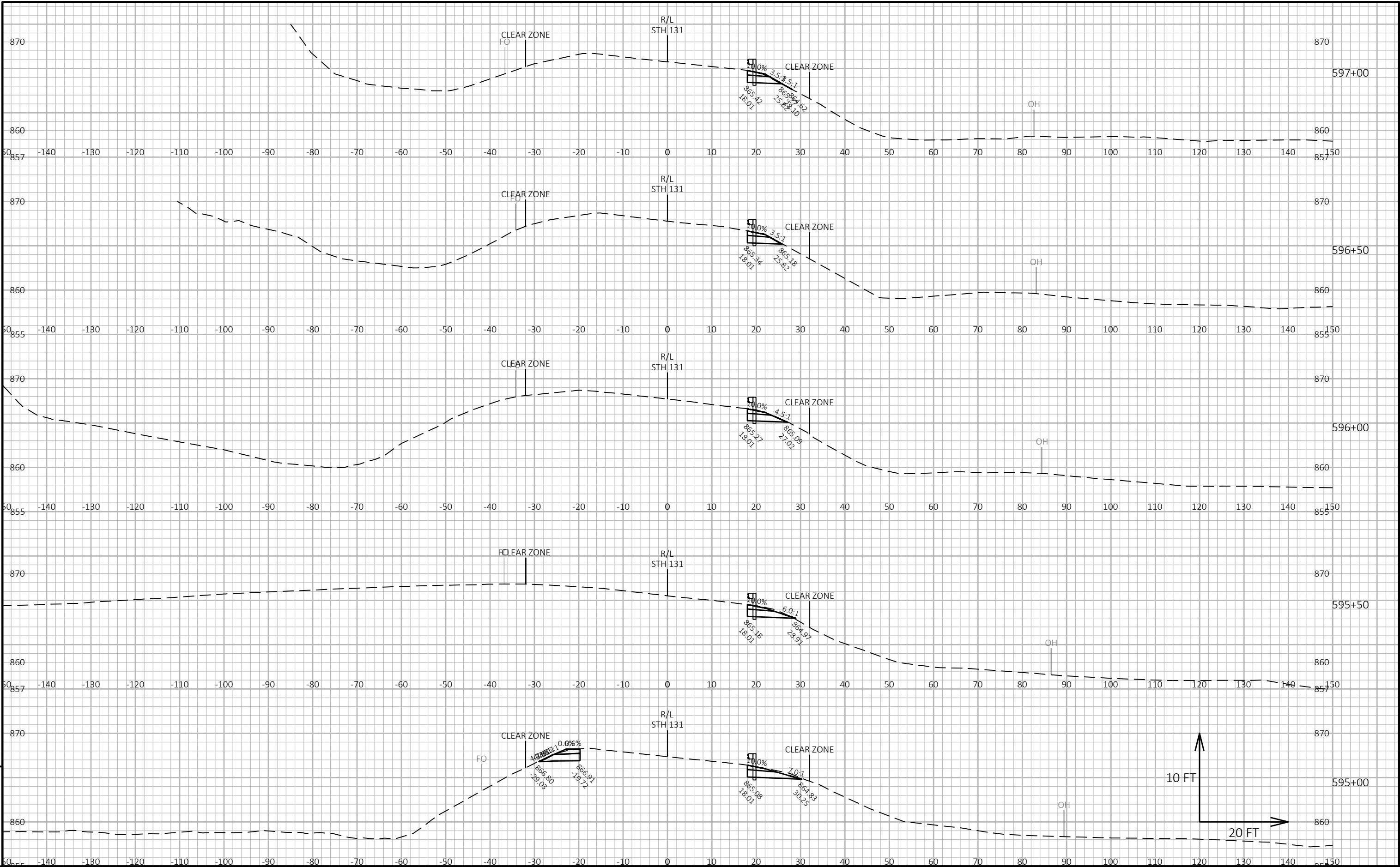






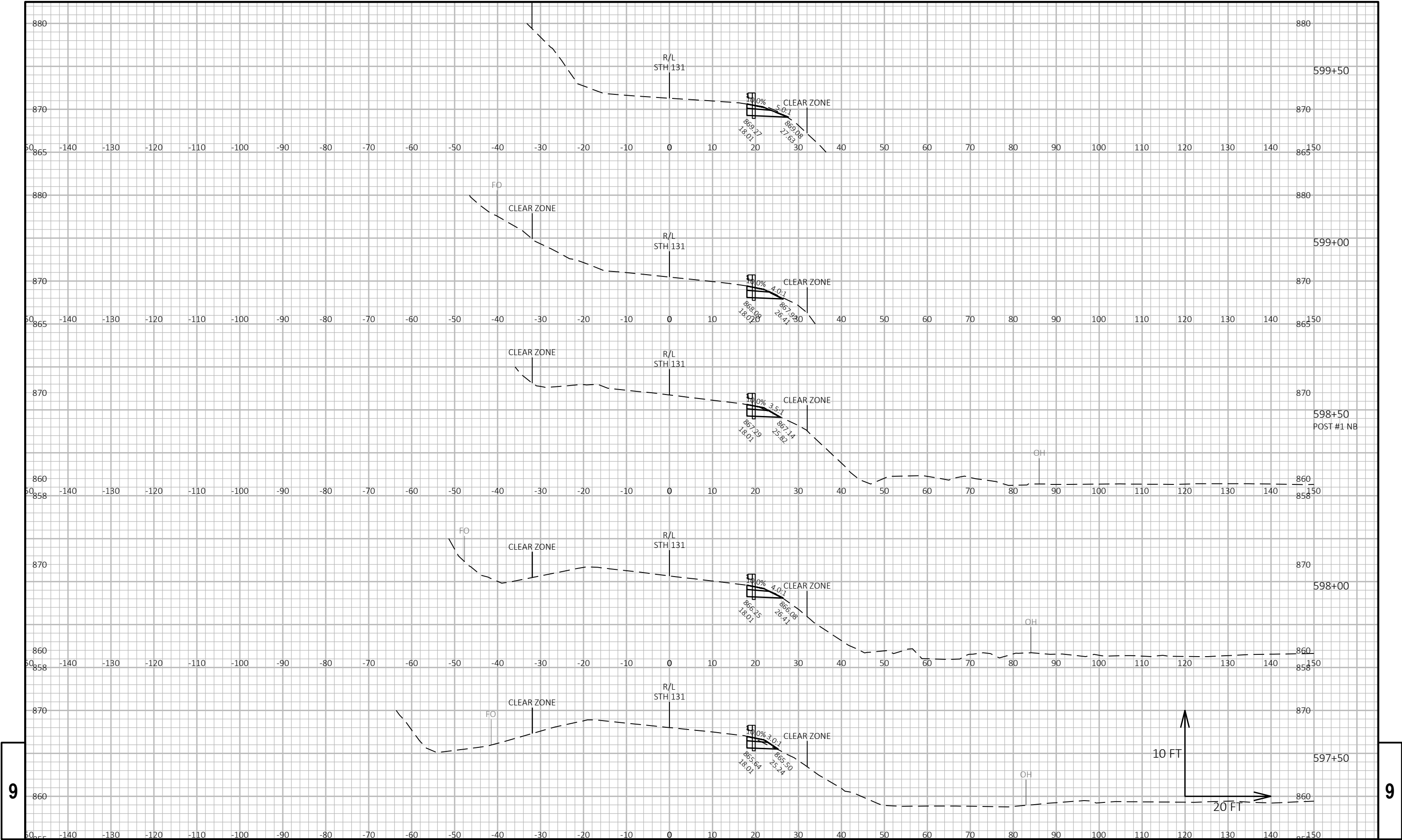
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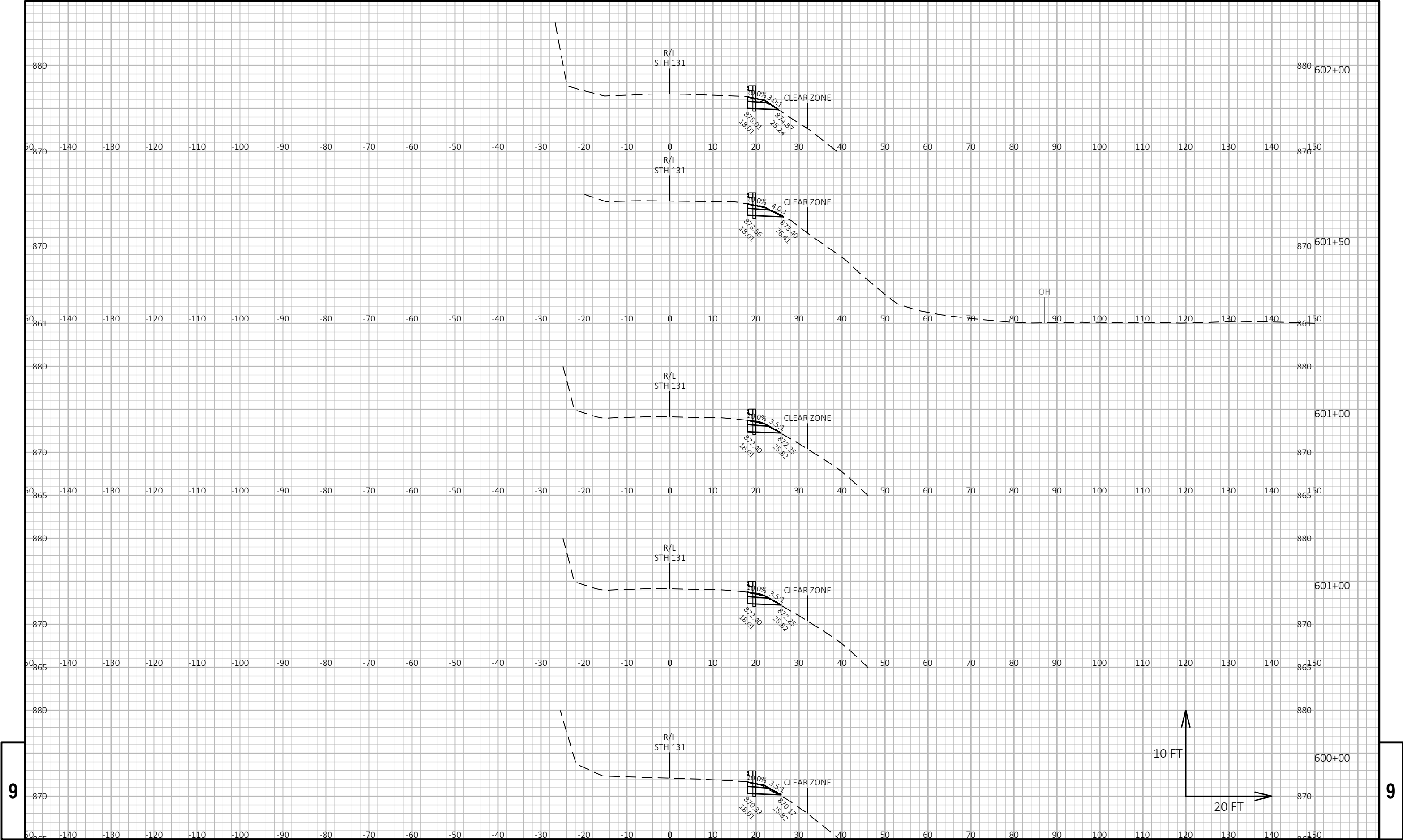
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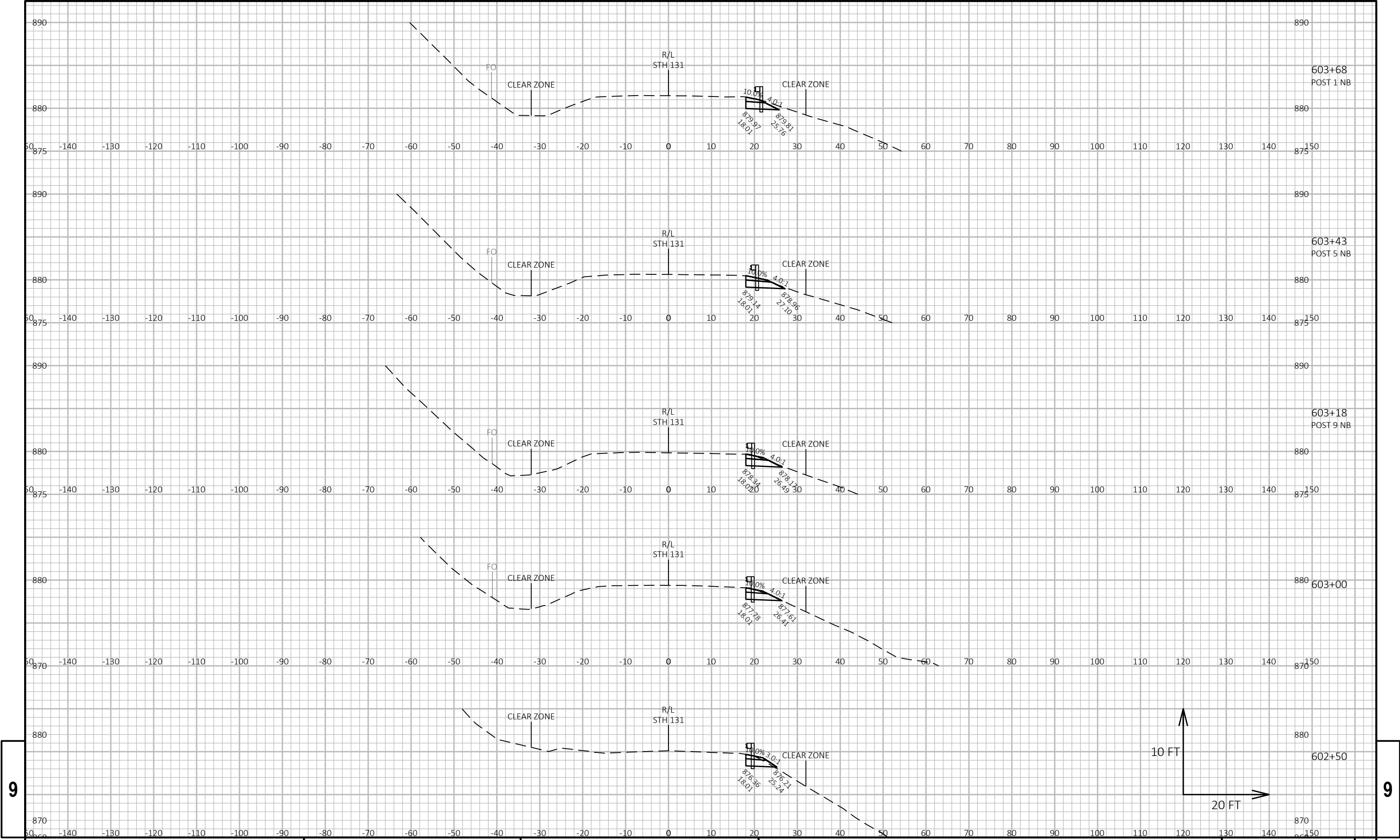




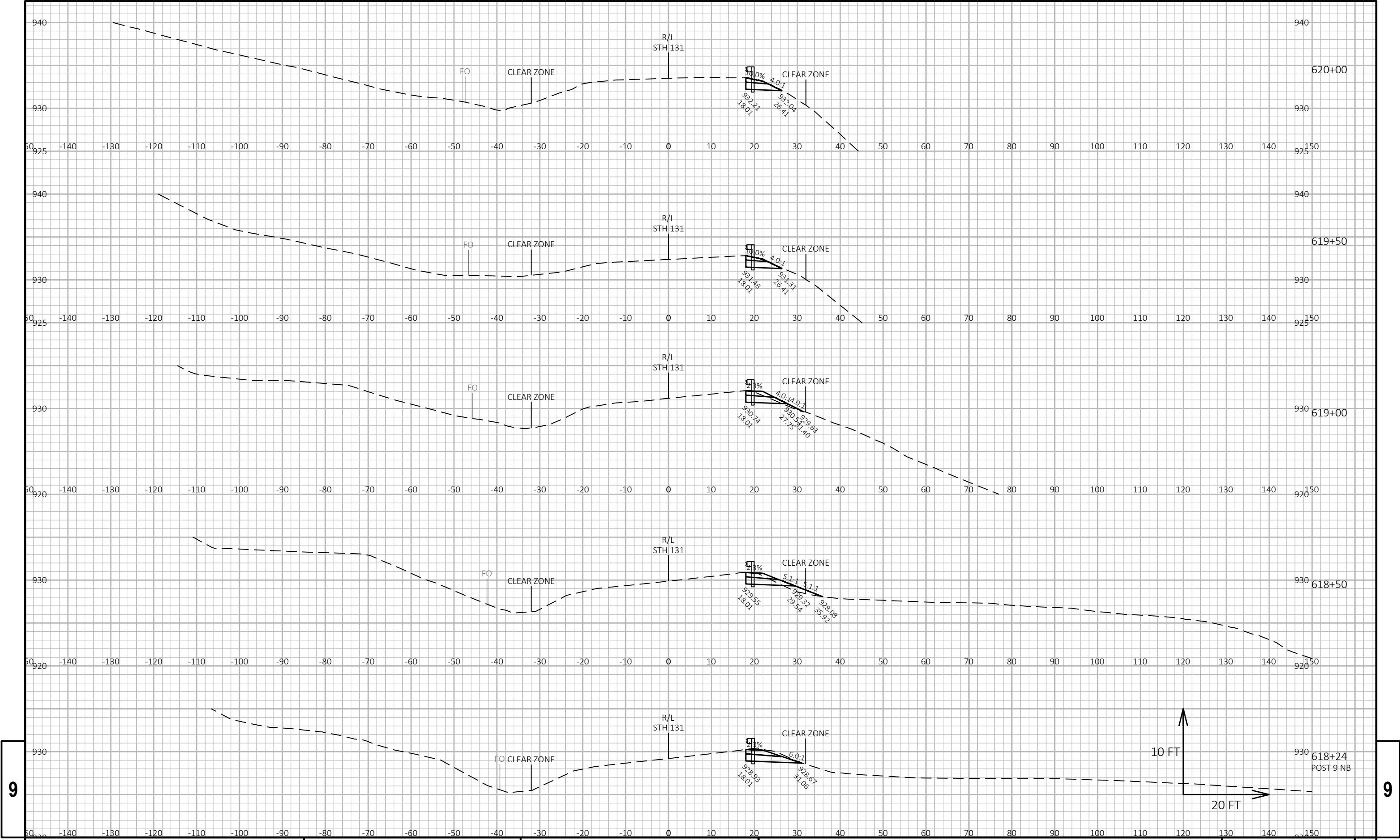
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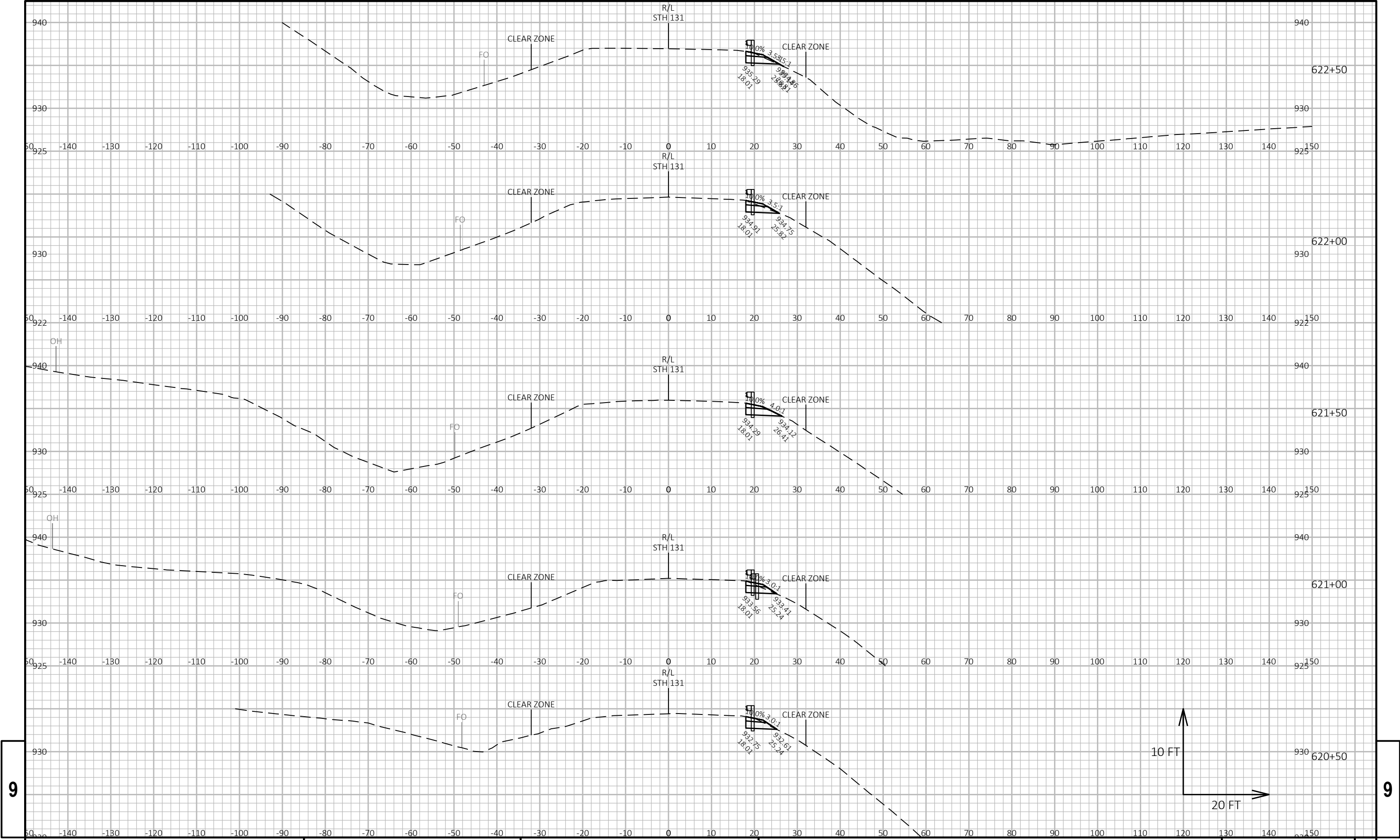
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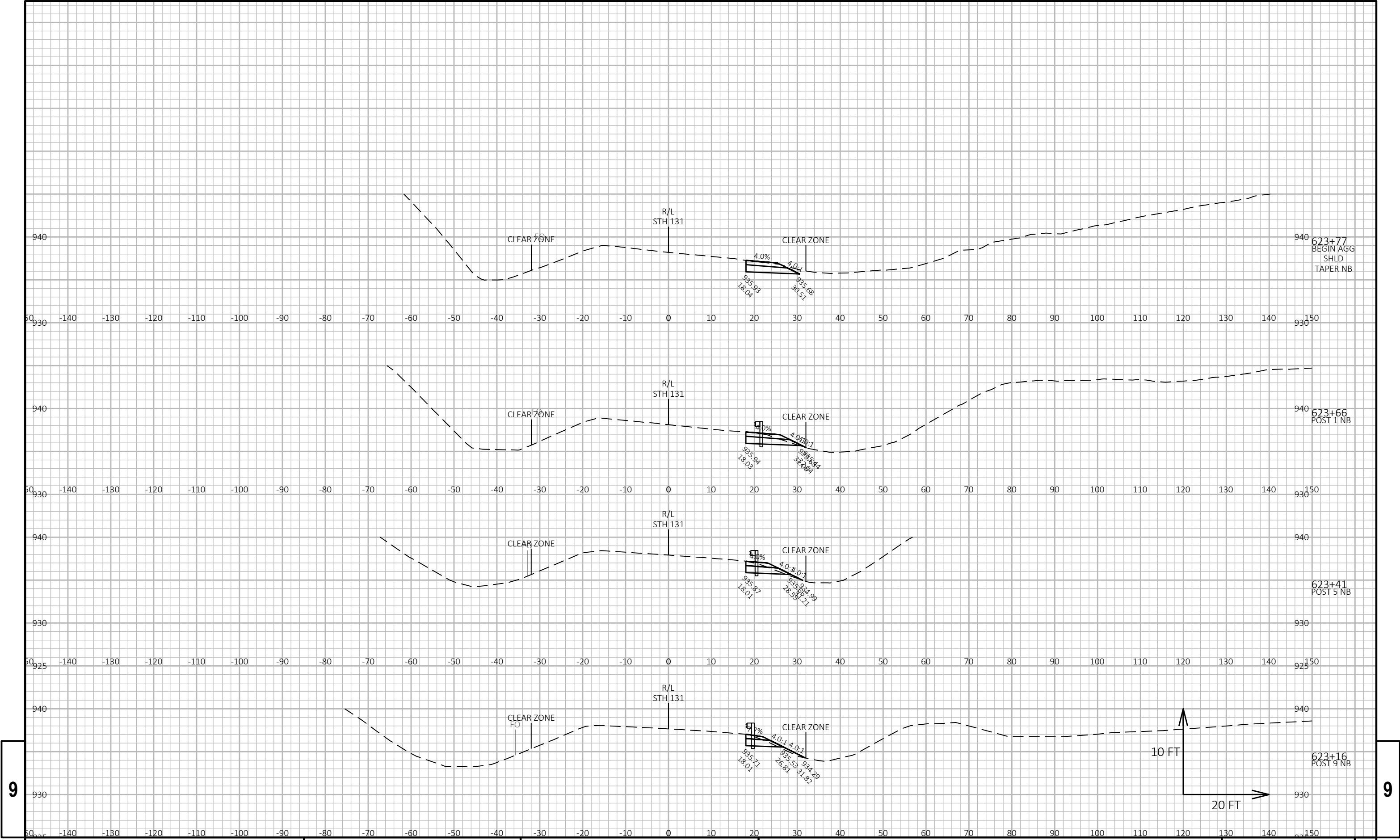






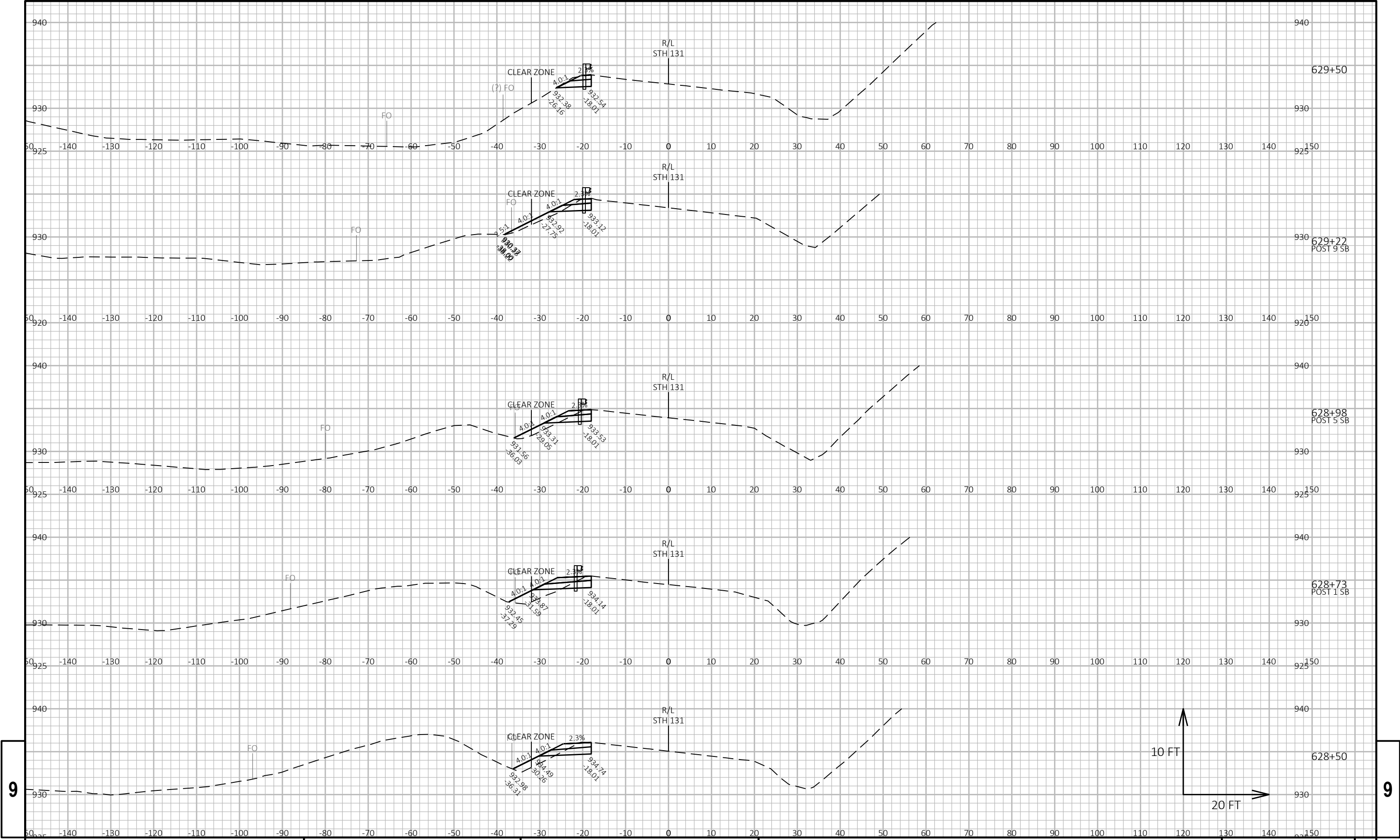






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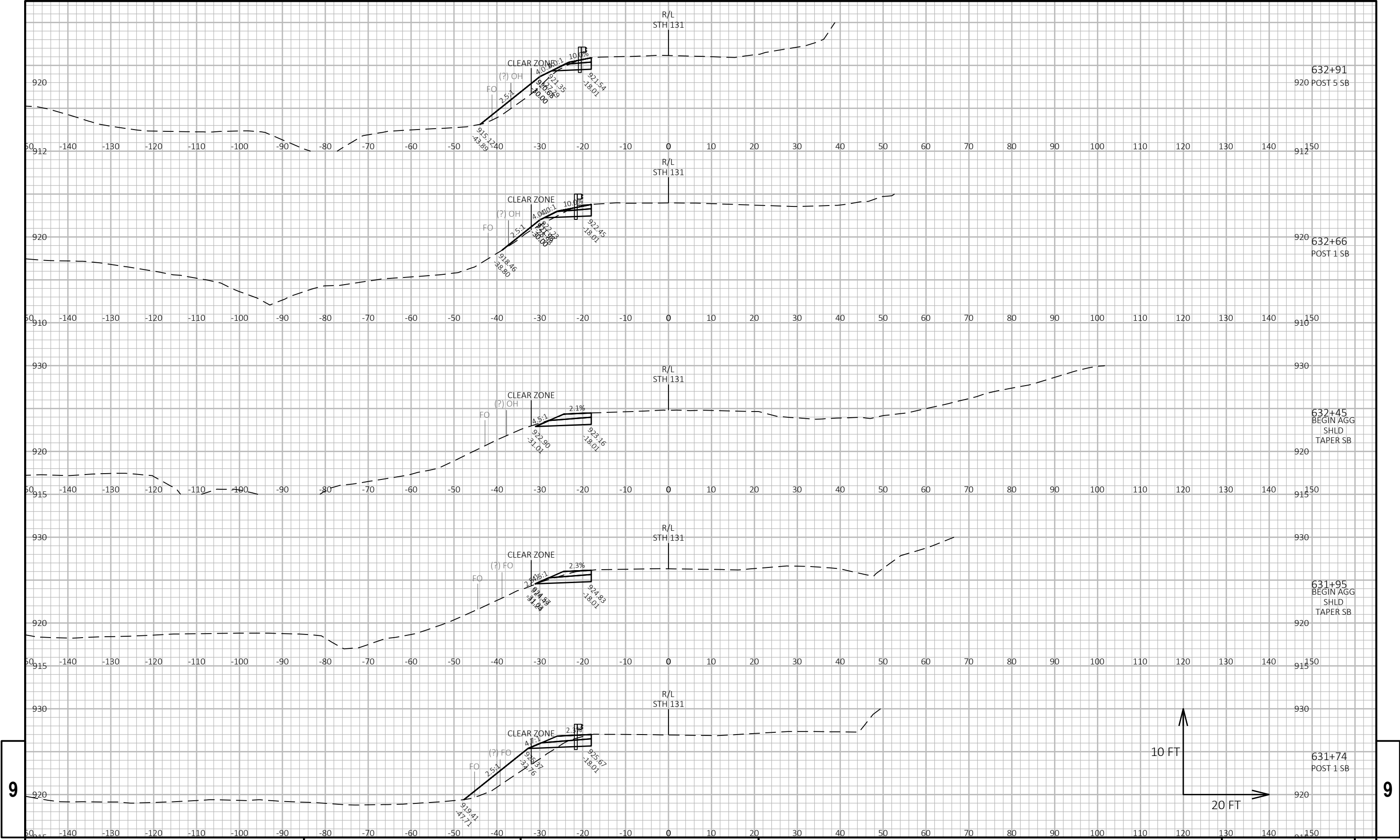
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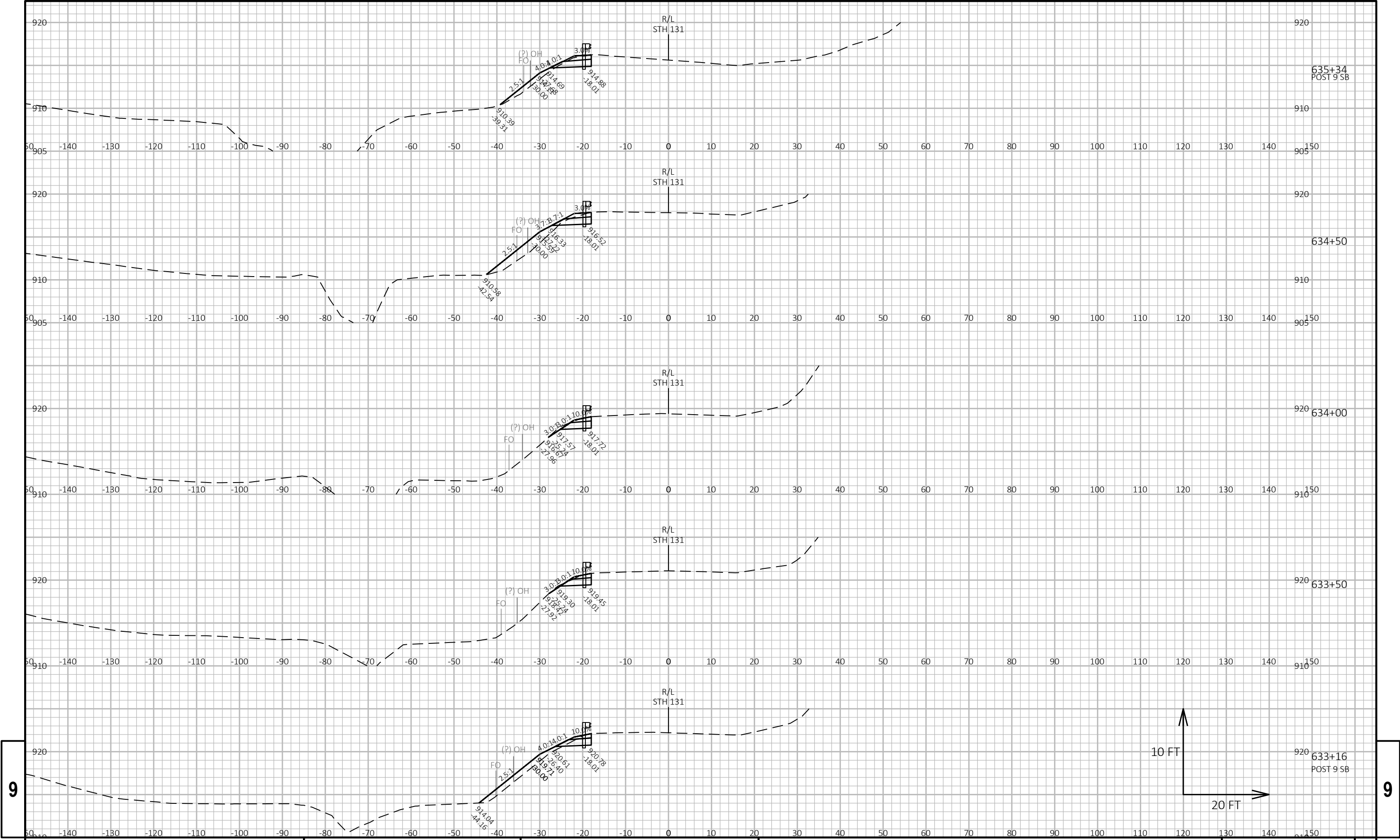


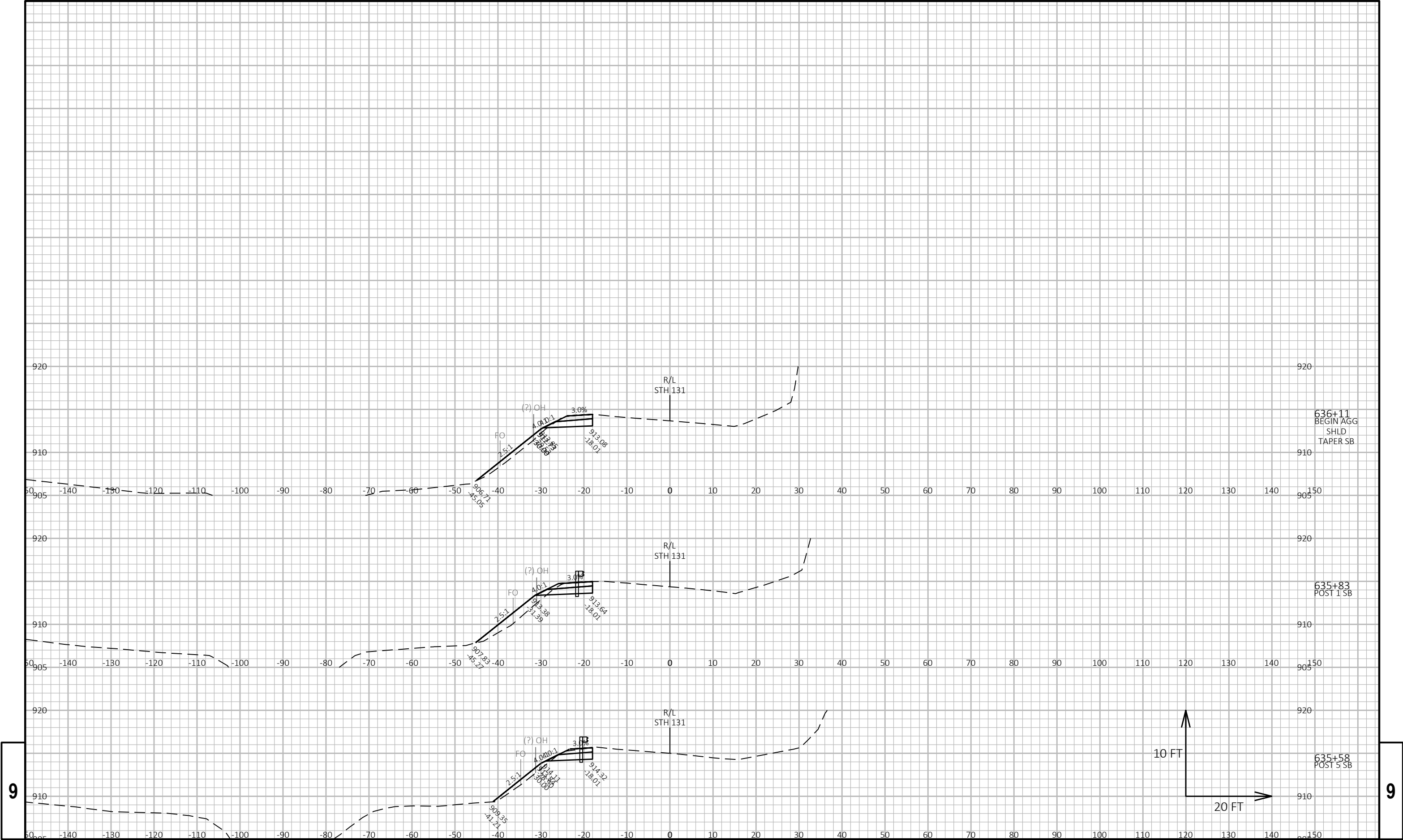




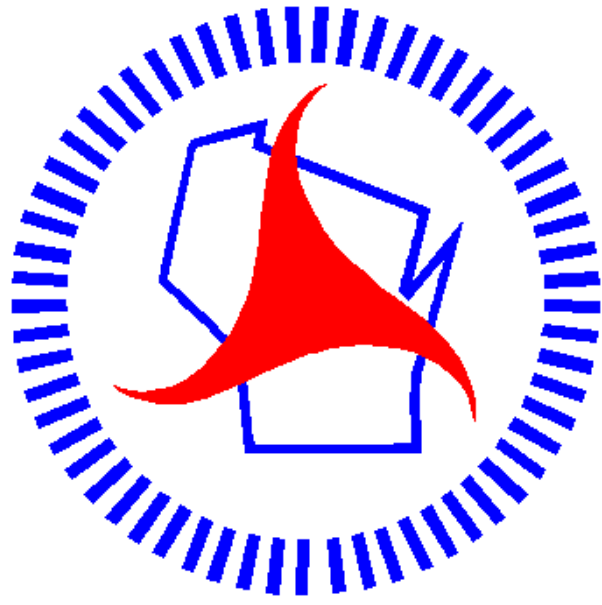
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## Notes



## ***Wisconsin Department of Transportation***

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