

Released for Construction
 Thomas J Powell, PE
 10/29/2021

| ISSUE RECORD - BU-33A ROADWAY | | |
|-------------------------------|------|-------------|
| NO. | DATE | DESCRIPTION |
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STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION

SUM-76-8.24
SUM-77-9.74
SUM-8-0.00

CITY OF AKRON
SUMMIT COUNTY

PROJECT DESCRIPTION

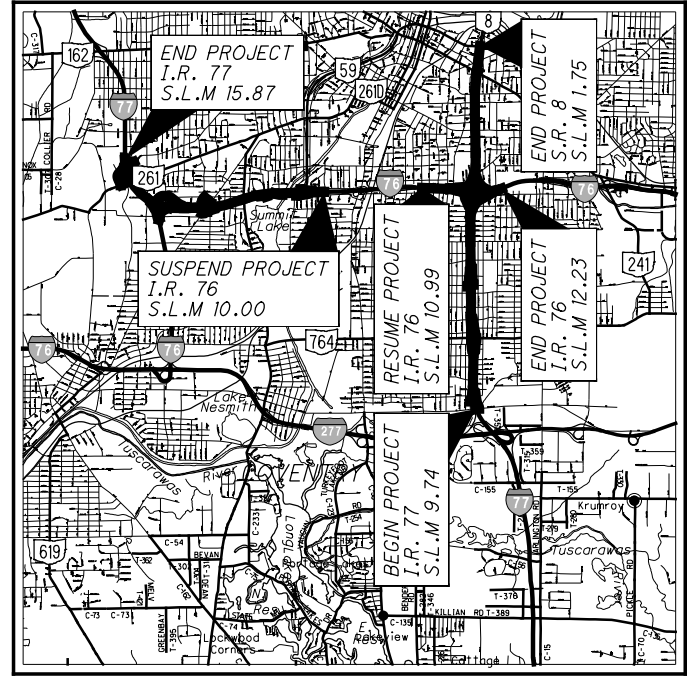
PAVEMENT REPLACEMENT OVER SUM - I.R. 76 FROM S.L.M. 8.24 TO 10.00, SUM - 77 FROM S.L.M. 9.74 TO 11.54, AND SUM - 8 FROM S.L.M. 0.00 TO 1.75. COVERS THE "SOUTH LEG" AND "WEST LEG", INCLUDES REHABILITATION OF SEVERAL STRUCTURES IN THE CITY OF AKRON, SUMMIT COUNTY, OHIO.

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

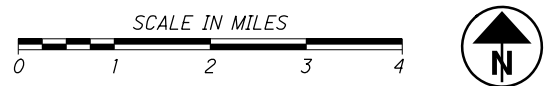
2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.



LOCATION MAP

LATITUDE: 41° 03' 43" LONGITUDE: 81° 30' 17"



| | |
|-------------------------|-------|
| PORTION TO BE IMPROVED | ----- |
| INTERSTATE HIGHWAY | ===== |
| FEDERAL ROUTES | ----- |
| STATE ROUTES | ----- |
| COUNTY & TOWNSHIP ROADS | ----- |
| OTHER ROADS | ----- |

DESIGN EXCEPTIONS

| NUMBER | ROUTE | DESIGN FEATURE | APPROVAL DATES | SHEET NUMBERS |
|--------|---------|---------------------|----------------|---------------|
| 2 | I-76 | SHOULDER WIDTH | 06/28/2019 | 5 , 6 |
| 3 | I-76 EB | SUPERELEVATION RATE | 11/06/2019 | 19 |

INDEX OF SHEETS:

| | |
|-----------------------|---------|
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SEE BU-02A & BU-02B FOR MAINTENANCE OF TRAFFIC
 SEE BU-14 FOR STRUCTURES
 SEE BU-19 FOR SCHEMATIC
 SEE BU-28B FOR ROADWAY SOUTH OF BEACON
 SEE BU-33B FOR CENTRAL INTERCHANGE
 SEE BU-36 FOR LIGHTING/ITS
 SEE BU-39 FOR TRAFFIC CONTROL
 SEE BU-42 FOR FENCING PLANS
 SEE SUM-76/77/8 10.99/11.54/0.00 FOR NOISE WALLS

UNDERGROUND UTILITIES
 Contact Two Working Days
 Before You Dig

OHIO811.org
 Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
 (Non-members must be called directly)

PLAN PREPARED BY:



ENGINEERS SEAL:

SIGNED: *E.A. Ksiel*
 DATE: 10/18/21

| STANDARD CONSTRUCTION DRAWINGS | | | | | | SUPPLEMENTAL SPECIFICATIONS | SPECIAL PROVISIONS |
|--------------------------------|---------|---------|---------|--------|---------|-----------------------------|--------------------|
| BP-3.1 | 1/17/20 | DM-1.2 | 1/18/13 | I-2.1 | 1/15/16 | 800-2019 10/16/20 | |
| BP-3.2 | 1/18/19 | DM-2.1 | 1/18/13 | I-2.2 | 7/19/19 | 832 10/19/18 | |
| BP-5.1 | 1/18/19 | DM-3.1 | 1/18/13 | I-2.3 | 1/15/16 | 875 1/18/19 | |
| BP-9.1 | 1/18/19 | DM-4.1 | 7/17/20 | | | | |
| | | DM-4.2 | 7/20/12 | MH-1.1 | 1/15/16 | | |
| CB-1.1 | 7/19/19 | DM-4.3 | 1/15/16 | MH-1.2 | 1/15/16 | | |
| CB-2.1 | 1/15/21 | | | | | | |
| CB-2.2 | 1/15/21 | MGS-1.1 | 1/19/18 | RM-1.1 | 1/15/21 | | |
| CB-2.3 | 1/15/16 | MGS-2.1 | 1/19/18 | RM-4.3 | 7/18/14 | | |
| CB-3.1 | 1/15/16 | MGS-3.1 | 1/19/18 | RM-4.4 | 7/19/19 | | |
| CB-3.2 | 1/15/16 | MGS-3.2 | 1/18/13 | RM-4.5 | 7/21/17 | | |
| CB-3.3 | 1/15/16 | MGS-4.2 | 7/19/13 | RM-4.6 | 7/19/13 | | |
| CB-3.4 | 1/15/16 | MGS-4.3 | 1/18/13 | | | | |
| CB-4.2 | 1/18/13 | MGS-5.2 | 7/15/16 | | | | |
| | | MGS-5.3 | 7/15/16 | | | | |
| DM-1.1 | 7/17/20 | | | | | | |

BU-33A
FULL DEPTH REPLACEMENT
 &
WIDENING
 IR-77/IR-76 SUMNER ST.
 TO BROWN ST.
RFC PLANS
OCTOBER 18, 2021

FEDERAL PROJECT NO. **E180(428)**
 PID NO. **102329**
 CONSTRUCTION PROJECT NO. **21-3000**
 RAILROAD INVOLVEMENT **NONE**
 2021-10-18 - BU 33A - RFC
SUM-76/77/8-8.24/9.74/0.00
 1/51

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LEGEND - PROPOSED ITEMS

- ① ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (447), AS PER PLAN
- ② ITEM 407 - NON-TRACKING TACK COAT
- ③ ITEM 442 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446), AS PER PLAN
- ④ ITEM 302 - 8" ASPHALT CONCRETE BASE, PG64-22, TWO EQUAL LIFTS
- ⑤ ITEM 304 - 6" AGGREGATE BASE, AS PER PLAN
- ⑥ NOT USED
- ⑦ ITEM 204 - PROOF ROLLING
- ⑧ ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- ⑨ ITEM 605 - 6" BASE PIPE UNDERDRAIN W/ GEOTEXTILE FABRIC
- ⑩ ITEM 606 - GUARDRAIL, TYPE MGS
- ⑪ ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B1
- ⑫ ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D
- ⑬ ITEM 609 - CURB, TYPE 4-C, AS PER PLAN (SHT. 11)
- ⑭ ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15")
- ⑮ ITEM 659 - SEEDING AND MULCHING OR ITEM 670 - EROSION CONTROL MAT, TYPE E (USED ON ALL 2:1 SLOPES)
- ⑯ ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE C1
- ⑰ ITEM 618 - RUMBLE STRIPS (SHT. 5)

LEGEND - EXISTING ITEMS

- Ⓐ 7" ± ASPHALT CONCRETE
- Ⓑ VARIABLE DEPTH PLAIN CONCRETE PAVEMENT
- Ⓒ 6" ± SUBBASE
- Ⓓ 3" ± WATERPROOFED AGGREGATE BASE
- Ⓔ 7" ± STABILIZED CRUSHED AGGREGATE
- Ⓕ PIPE UNDERDRAIN
- Ⓖ CONCRETE BARRIER, TYPE B-50
- Ⓗ GUARDRAIL
- Ⓘ CURB
- Ⓙ 15" ± REINFORCED CONCRETE APPROACH SLAB

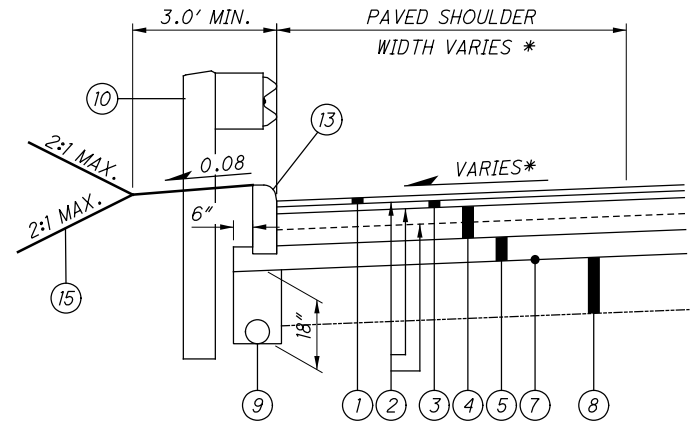
2021-10-18 - BU 33A - RFC

TYPICAL SECTIONS - LEGEND

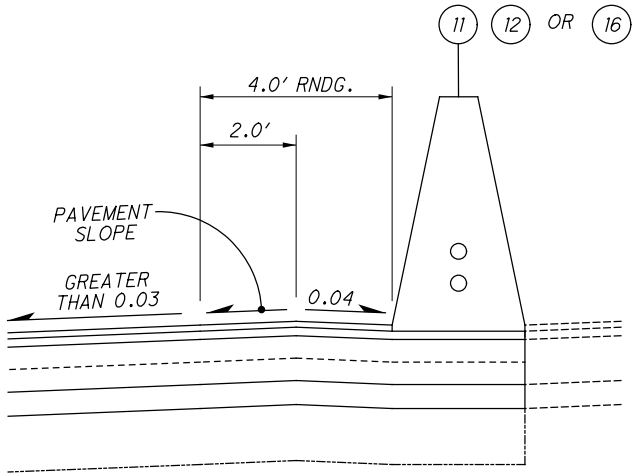
**SUM-76 / 77 - 8 -
 8.24 / 9.74 0.00**

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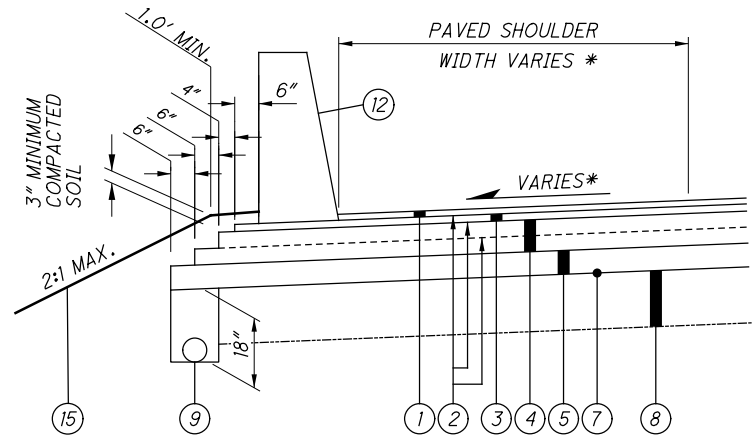
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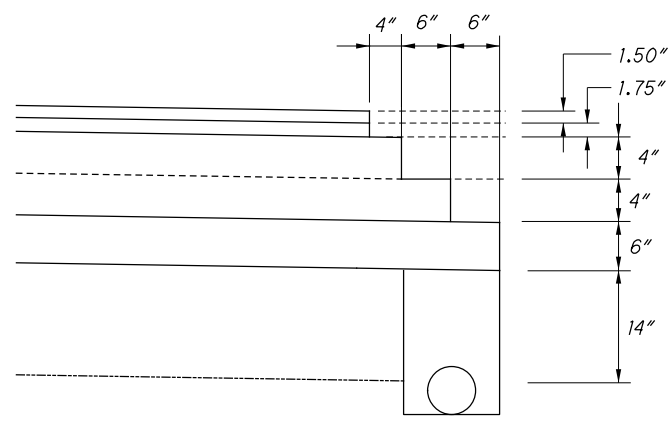
CURB AND GUARDRAIL DETAIL



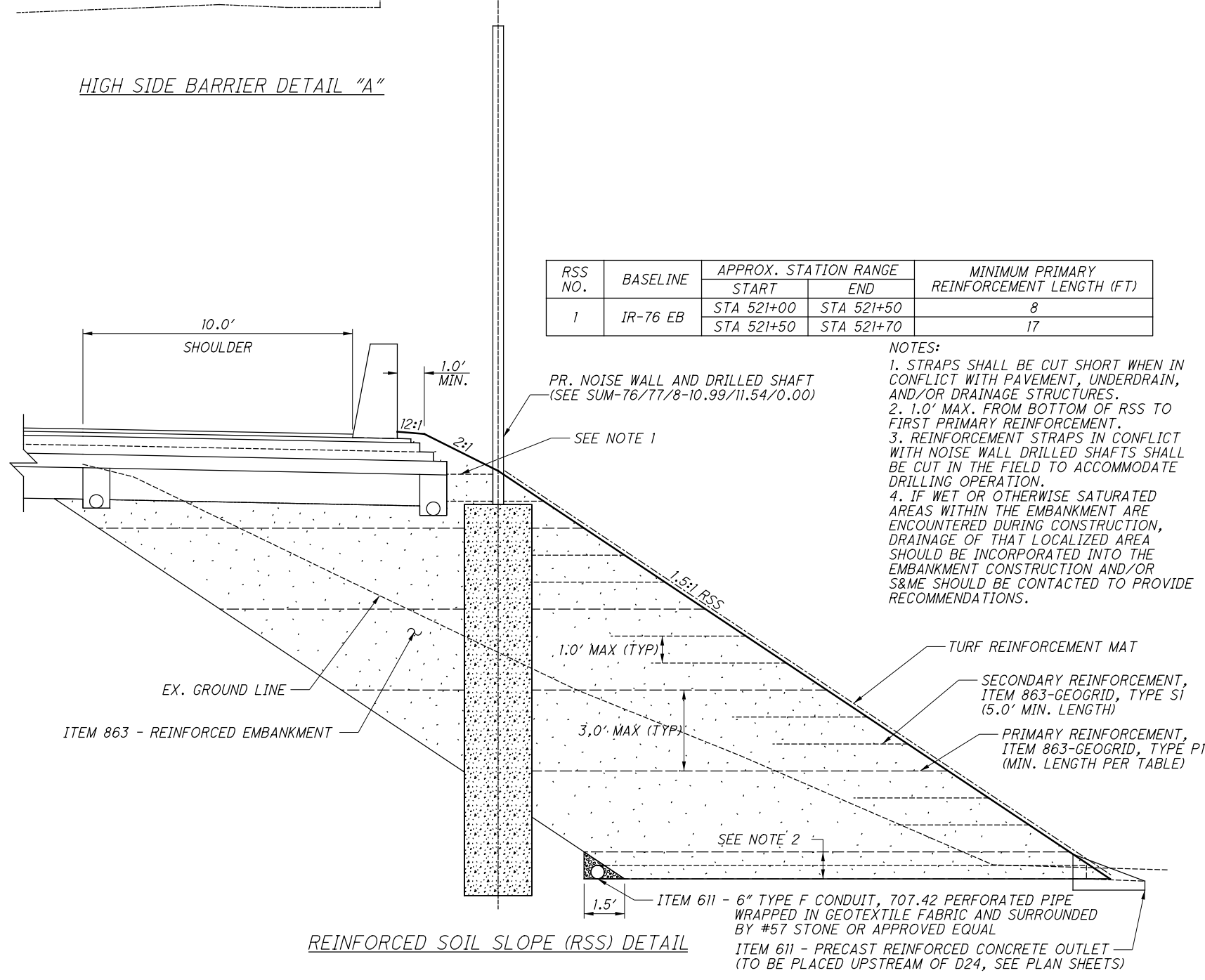
HIGH SIDE BARRIER DETAIL "A"



ITEM 622 - CONCRETE BARRIER, TYPE D



PAVEMENT "STEP" DETAIL



| RSS NO. | BASELINE | APPROX. STATION RANGE | | MINIMUM PRIMARY REINFORCEMENT LENGTH (FT) |
|---------|----------|-----------------------|------------|---|
| | | START | END | |
| 1 | IR-76 EB | STA 521+00 | STA 521+50 | 8 |
| | | STA 521+50 | STA 521+70 | 17 |

- NOTES:
- STRAPS SHALL BE CUT SHORT WHEN IN CONFLICT WITH PAVEMENT, UNDERDRAIN, AND/OR DRAINAGE STRUCTURES.
 - 1.0' MAX. FROM BOTTOM OF RSS TO FIRST PRIMARY REINFORCEMENT.
 - REINFORCEMENT STRAPS IN CONFLICT WITH NOISE WALL DRILLED SHAFTS SHALL BE CUT IN THE FIELD TO ACCOMMODATE DRILLING OPERATION.
 - IF WET OR OTHERWISE SATURATED AREAS WITHIN THE EMBANKMENT ARE ENCOUNTERED DURING CONSTRUCTION, DRAINAGE OF THAT LOCALIZED AREA SHOULD BE INCORPORATED INTO THE EMBANKMENT CONSTRUCTION AND/OR S&ME SHOULD BE CONTACTED TO PROVIDE RECOMMENDATIONS.

PR. NOISE WALL AND DRILLED SHAFT (SEE SUM-76/77/8-10.99/11.54/0.00)

SEE NOTE 1

SEE NOTE 2

ITEM 611 - 6" TYPE F CONDUIT, 707.42 PERFORATED PIPE WRAPPED IN GEOTEXTILE FABRIC AND SURROUNDED BY #57 STONE OR APPROVED EQUAL
 ITEM 611 - PRECAST REINFORCED CONCRETE OUTLET (TO BE PLACED UPSTREAM OF D24, SEE PLAN SHEETS)

TYPICAL SECTIONS - DETAILS

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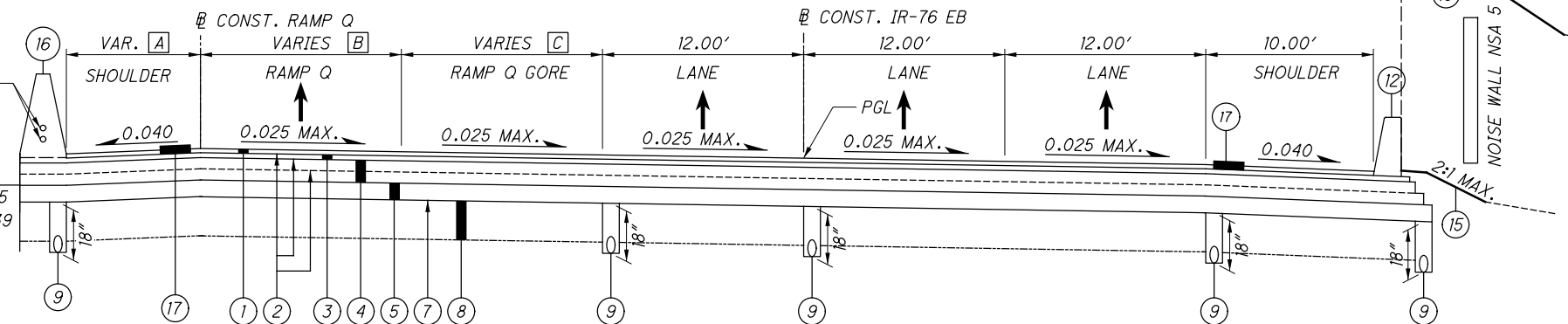
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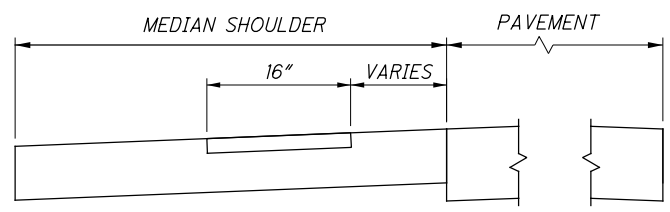
- A** RAMP Q
VARIES FROM 8.6' AT STA. 2516+17.17 TO 12.8' AT STA. 2521+49.20
VARIES FROM 8.5' AT STA. 2523+59.05 TO 10.00' AT STA. 2524+34.05
- B** RAMP Q
VARIES FROM 12.0' AT STA. 2516+17.17 TO 16.0' AT STA. 2519+36.89
16.0' FROM STA. 2519+36.89 TO STA. 2524+48.06 (RAMP Q NOSE)
- C** RAMP Q
0.0' FROM STA. 2516+17.17 TO STA. 2519+36.89
VARIES FROM 0.0' AT STA. 2519+36.89 TO
23.0' AT STA. 2524+48.06 (RAMP Q NOSE)
- D** 12.0' FROM STA. 507+19.85 TO STA. 509+89.42
VARIES FROM 12.0' AT STA. 509+89.42 TO 0' AT STA. 511+09.42

SEE IR-76 WB TYPICAL SECTIONS
STA. 516+85.14 TO STA. 522+14.95
STA. 524+28.13 TO STA. 525+17.39



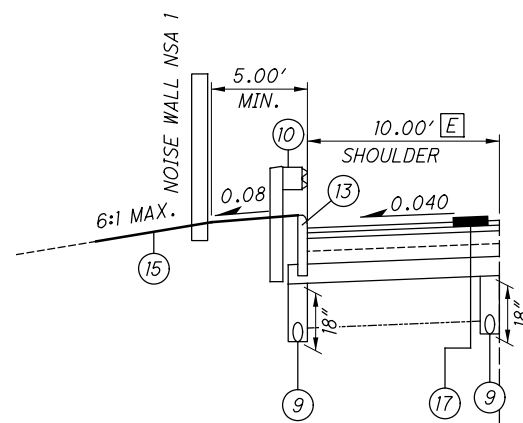
RAMP Q
STA. 2516+17.17 TO STA. 2521+49.18
(SEE APPROACH SLAB TYPICAL SECTION ABOVE)
STA. 2523+58.11 TO STA. 2524+48.06

IR-76 EB SUPERELEVATED SECTION
STA. 516+17.18 TO STA. 521+51.09 (SEE APPROACH SLAB TYPICAL SECTION ABOVE)
STA. 523+61.03 TO STA. 524+45.58



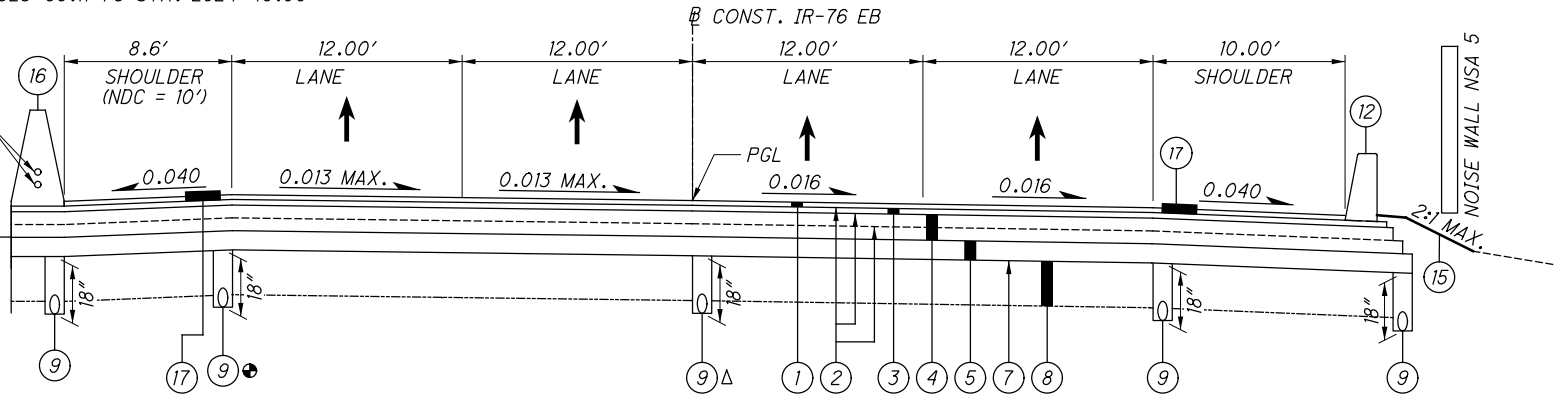
SHOULDER RUMBLE STRIP DETAIL

MEDIAN SHOULDER OFFSET
- 6" FOR 4' TO 6' SHOULDERS
- 10" FOR 8' TO 10' SHOULDERS

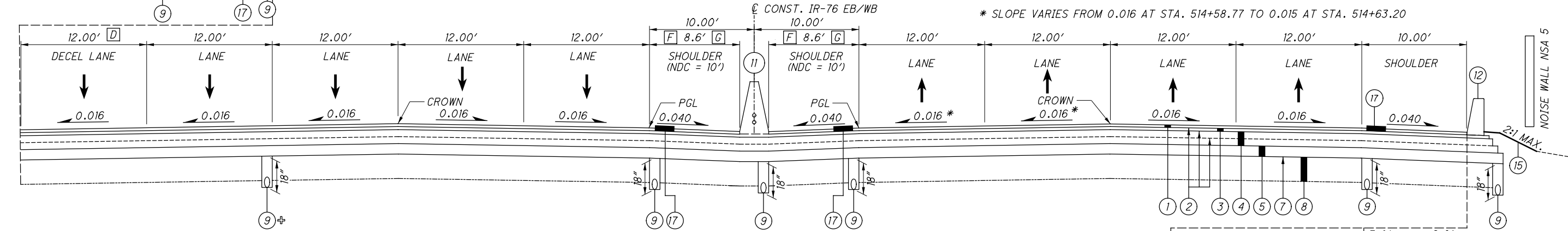


- E** VARIES FROM 10.96' AT STA. 507+19.85 TO 10.00' AT STA. 507+31.79
- F** TRANSITION FROM 8.6' AT STA. 508+05.00 TO 7.5' AT STA. 508+45.00
- G** TRANSITION FROM 7.5' AT STA. 508+70.00 TO 8.6' AT STA. 509+10.00

SEE IR-76 WB TYPICAL SECTIONS
STA. 515+37.96 TO STA. 516+85.14



IR-76 EB SUPERELEVATED SECTION
IR-76 EB STA. 514+70.00 TO STA. 516+17.18
UNDERDRAIN NOT REQUIRED STA. 515+50.58 TO STA. 516+17.18
UNDERDRAIN NOT REQUIRED STA. 514+70.00 TO STA. 515+50.58

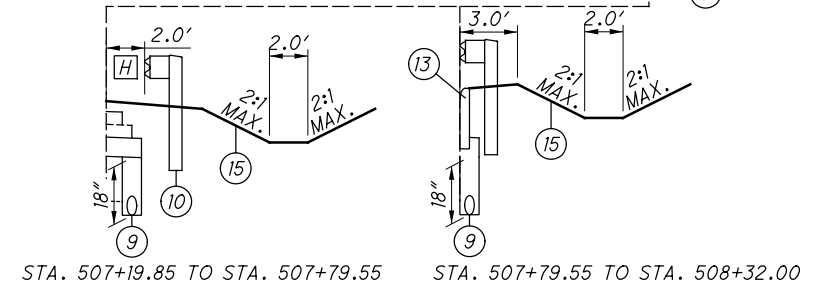


IR-76 EB/WB NORMAL SECTION

UNDERDRAIN NOT REQUIRED STA. 511+09.42 TO STA. 514+63.20
IR-76 EB/WB STA. 507+19.85 TO STA. 514+63.20
STATION EQUATION: C CONST. IR-76 EB/WB STA. 514+63.20 (BACK) = B IR-76 WB STA. 515+37.96 (AHEAD) (SEE SHEET 6)
= A IR-76 EB STA. 514+70.00 (AHEAD)

NOTES
FOR LEGEND SEE SHEET 2
FOR PLAN ABBREVIATIONS, SEE GENERAL NOTES
FOR DITCH AND GRADING INFORMATION, SEE CROSS SECTIONS AND SHEETS 7 TO 9

H VARIES FROM 2.0' AT STA. 507+54.55 TO 0.0' AT STA. 507+79.55



TYPICAL SECTIONS - IR-76 EB / WB AND IR-76 EB ONLY

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SUM-76/77-8 / 77/78-00
8.24/9.74/0.00

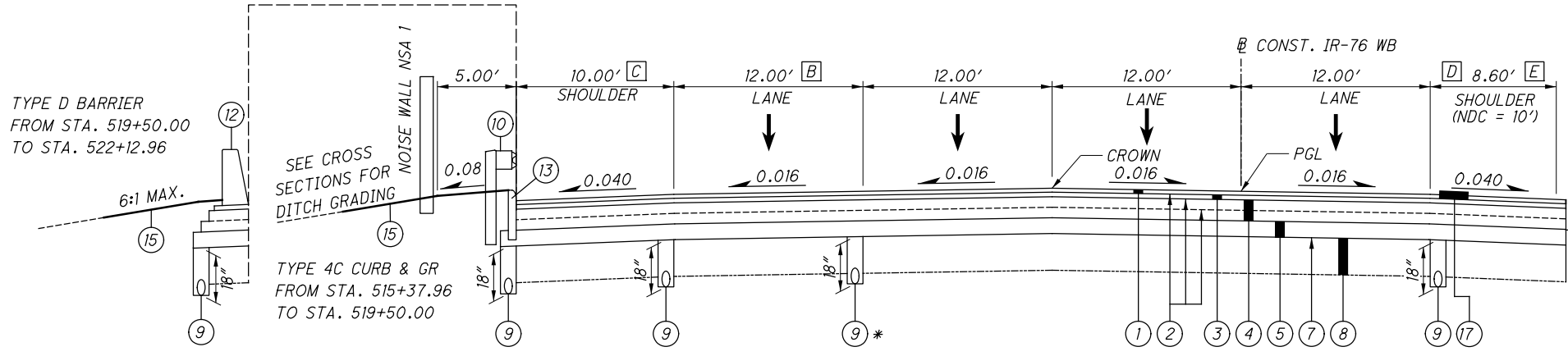
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- [B] 12.0' FROM STA. 515+37.96 TO STA. 521+63.17
VARIES FROM 12.0' AT STA. 521+63.17 TO 13.0' AT STA. 522+13.17
- [C] 10.0' STA. 515+37.96 TO STA. 521+63.17
VARIES FROM 10.0' AT STA. 521+63.17 TO 11.11' AT STA. 522+13.17
- * UNDERDRAIN NOT REQUIRED STA. 515+37.96 TO STA. 521+63.17

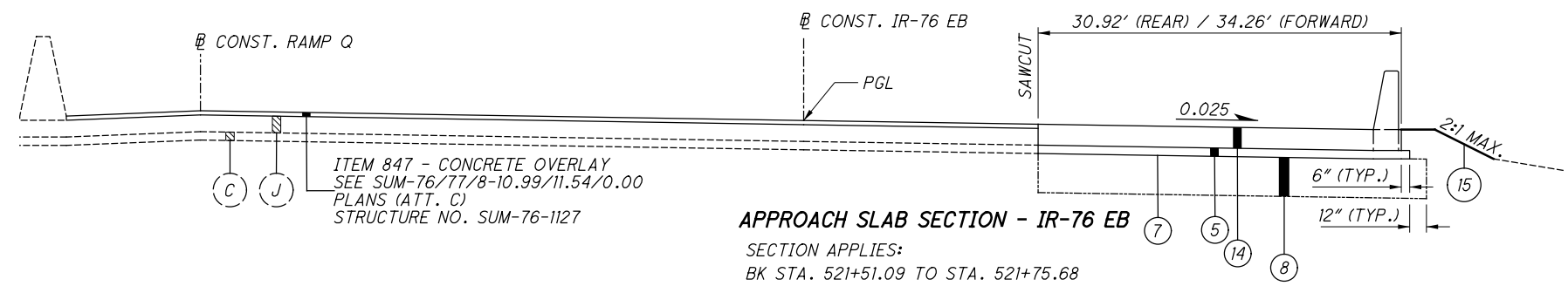
- [D] TRANSITION FROM 8.6' AT STA. 519+63.00 TO 7.5' AT STA. 520+03.00
- [E] TRANSITION FROM 7.5' AT STA. 520+13.00 TO 8.6' AT STA. 520+53.00



IR-76 WB NORMAL SECTION
IR-76 WB STA. 515+37.96 TO STA. 522+14.95
STRUCTURE SUM-076-11.27

SEE IR-76 EB TYPICAL SECTIONS
STA. 514+70.00 TO STA. 521+51.09

NOTES
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FOR PLAN ABBREVIATIONS, SEE GENERAL NOTES
FOR DITCH AND GRADING INFORMATION, SEE CROSS SECTIONS
AND SHEETS 7 TO 9



APPROACH SLAB SECTION - IR-76 EB
SECTION APPLIES:
BK STA. 521+51.09 TO STA. 521+75.68
STRUCTURE SUM-76-1127
AH STA. 523+35.89 TO STA. 523+61.03

TYPICAL SECTIONS - IR-76 EB AND IR-76 WB

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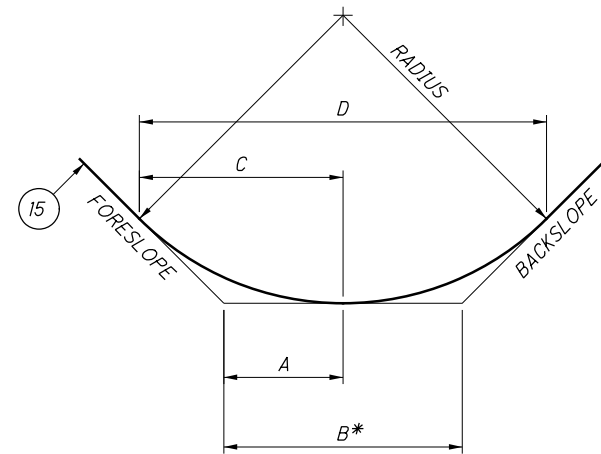
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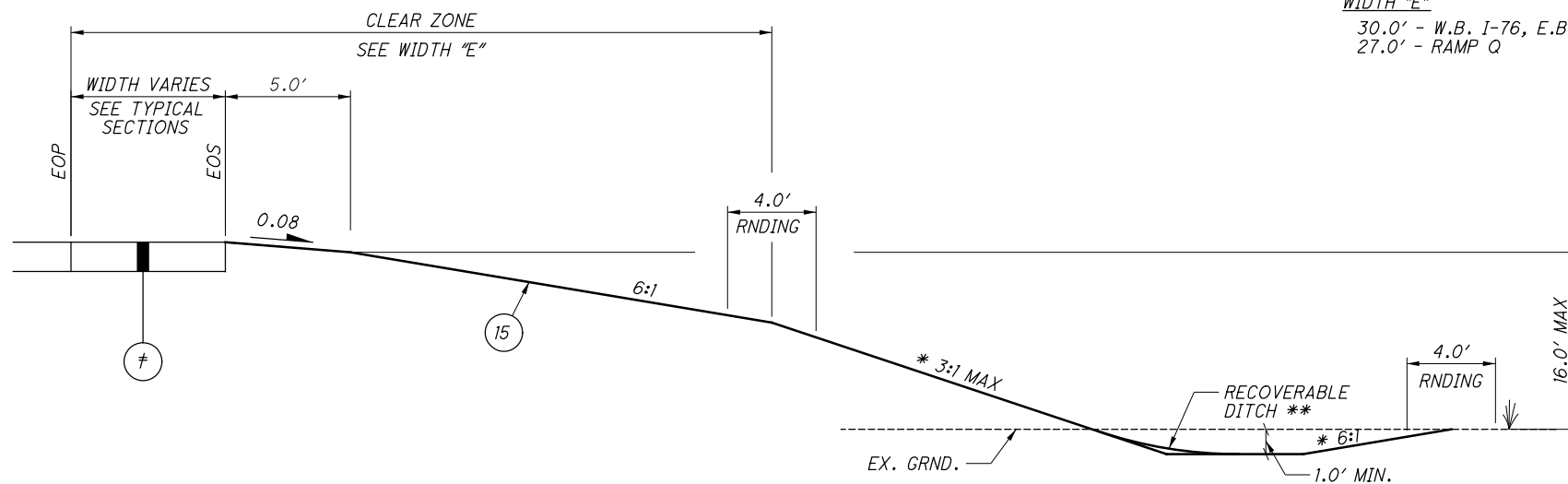
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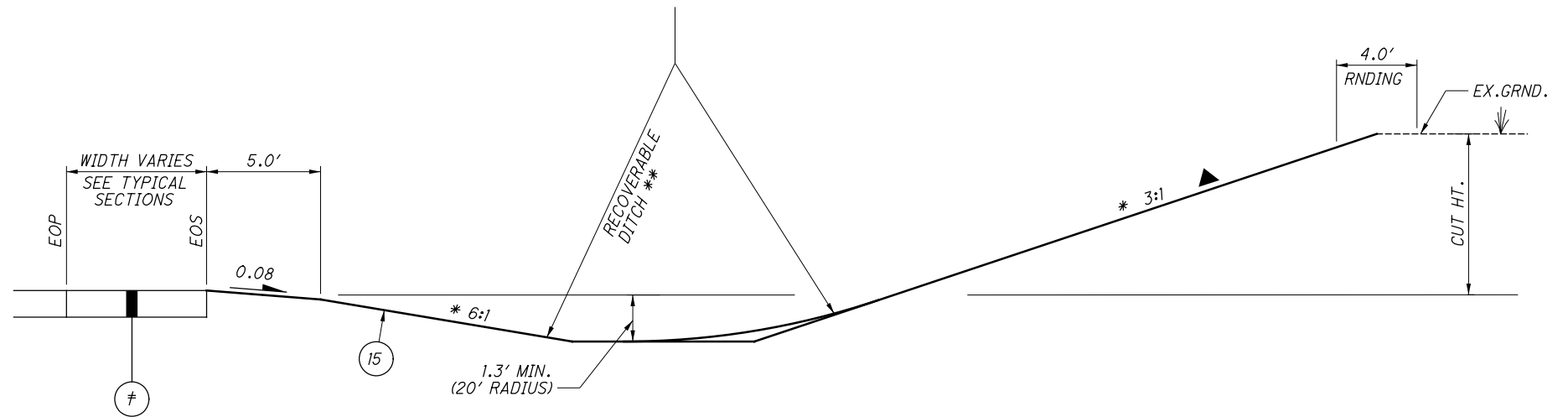


| FORESLOPE | WIDTH "A" - "D" | | BACKSLOPE | | | | | |
|-----------|-----------------|-------|-----------|-------|-------|-------|-------|-------|
| | 20' RADIUS | | 6:1 | | 4:1 | | 3:1 | |
| | A | C | B* | D | B* | D | B* | D |
| 8:1 | 1.25' | 2.50' | 2.92' | 5.75' | 3.67' | 7.33' | 4.50' | 8.83' |
| 6:1 | 1.67' | 3.25' | 3.33' | 6.58' | 4.08' | 8.17' | 4.92' | 9.58' |
| 4:1 | 2.50' | 4.83' | 4.08' | 8.17' | 4.92' | 9.67' | | |
| 3:1 | 3.25' | 6.33' | 4.92' | 9.58' | | | | |

RECOVERABLE DITCH DETAIL
 N.T.S.



FILL SECTION - (SAFETY/CLEAR ZONE GRADING)



CUT SECTION - (SAFETY/CLEAR ZONE GRADING)

WIDTH "E"
 30.0' - W.B. I-76, E.B. I-76
 27.0' - RAMP Q

▲ APPROXIMATE CUT BACKSLOPE (SEE CROSS SECTIONS FOR ACTUAL SLOPES)

| BACKSLOPE | CUT HEIGHT |
|-----------|------------|
| 6:1 | < 8' |
| 4:1 | 8' TO 11' |
| 3:1 | 12' TO 15' |

* OR AS SHOWN ON CROSS SECTIONS
 ** SEE RECOVERABLE DITCH DETAIL ON THIS SHEET
 † SEE TYPICAL SECTIONS FOR PAVEMENT BUILDUP.
 φ 4.0' ROUNDING

FOR LEGEND AND ADDITIONAL DETAILS, SEE SHEET 2
 FOR PLAN ABBREVIATIONS, SEE GENERAL NOTES

TYPICAL SECTIONS - PROPOSED GRADING DETAILS

2021-10-18 - BU 33A - RFC

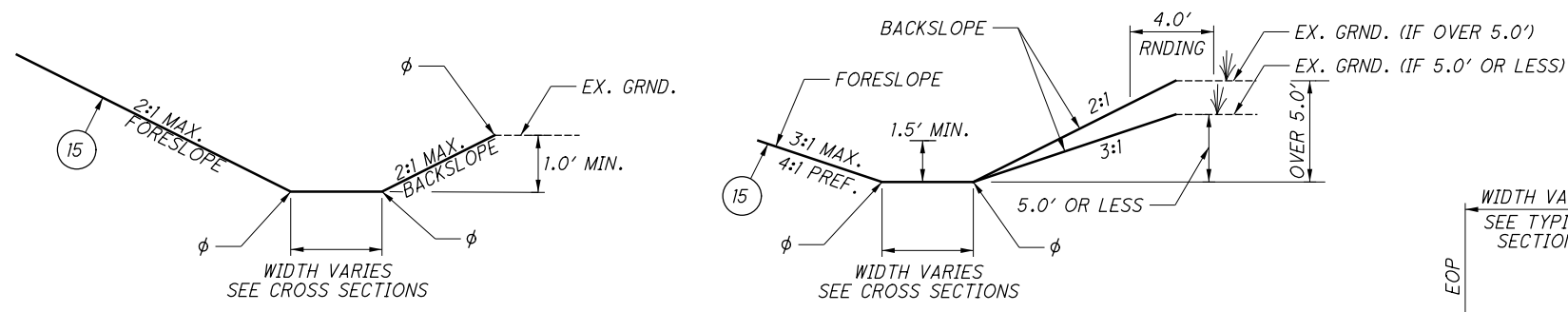
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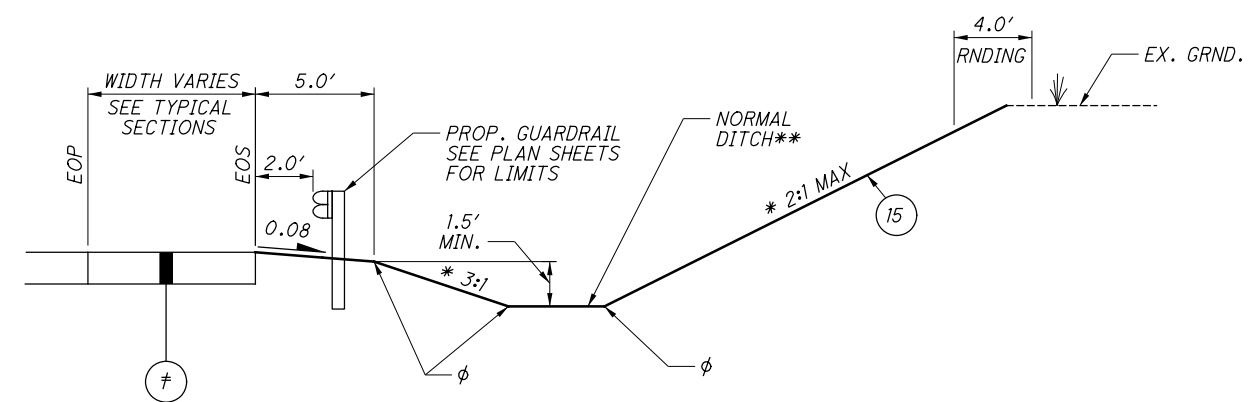
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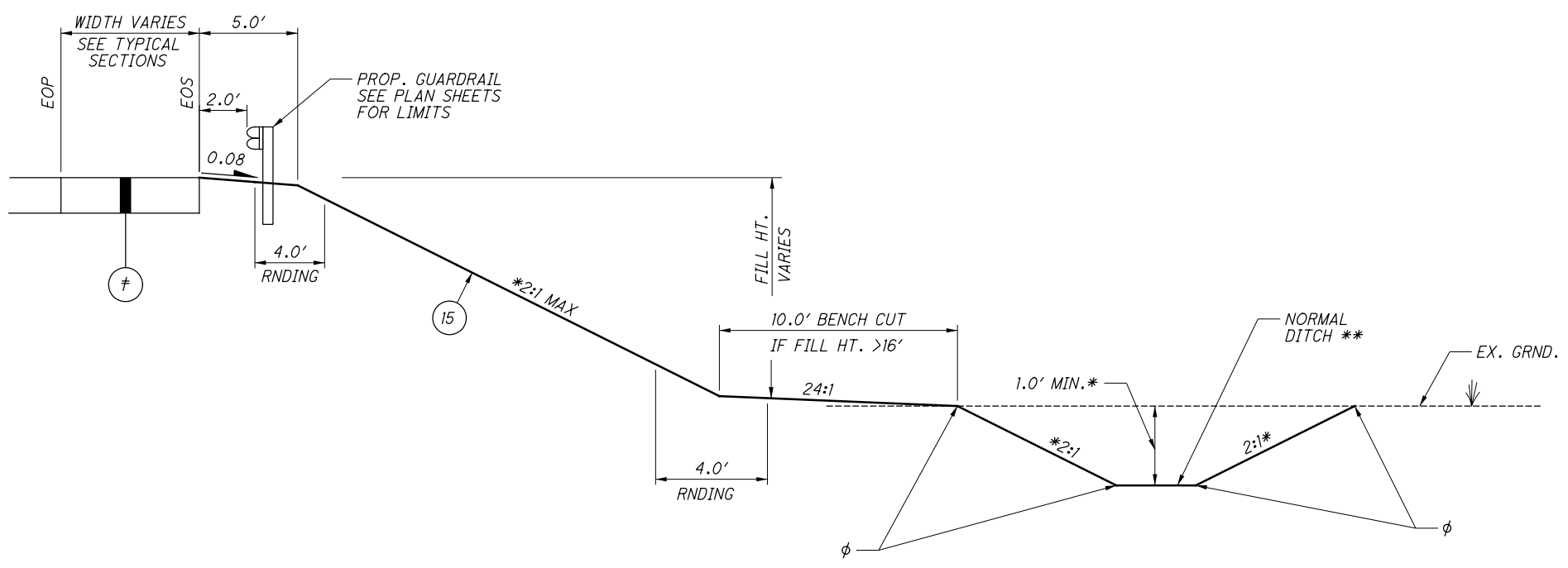


FILL CUT

NORMAL DITCH DETAILS



CUT SECTION - (BARRIER GRADING)
 AS SHOWN WITH PROPOSED GUARDRAIL



FILL SECTION - (BARRIER GRADING)
 AS SHOWN WITH PROPOSED GUARDRAIL

* OR AS SHOWN ON CROSS SECTIONS
 ** SEE NORMAL DITCH DETAIL ON THIS SHEET.
 † SEE TYPICAL SECTIONS FOR PAVEMENT BUILDUP.
 ϕ 4.0' ROUNDING

FOR LEGEND AND ADDITIONAL DETAILS, SEE SHEET 2
 FOR PLAN ABBREVIATIONS, SEE GENERAL NOTES

TYPICAL SECTIONS - PROPOSED GRADING DETAILS

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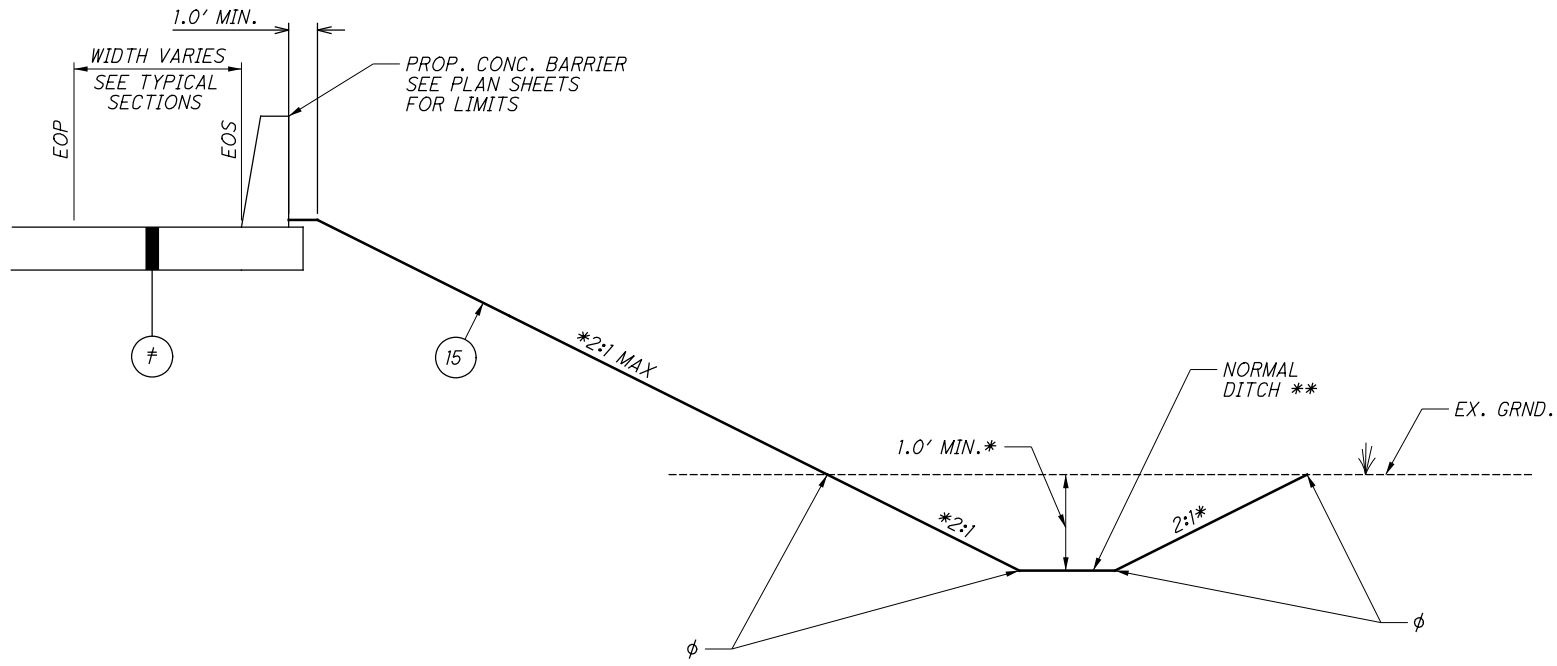
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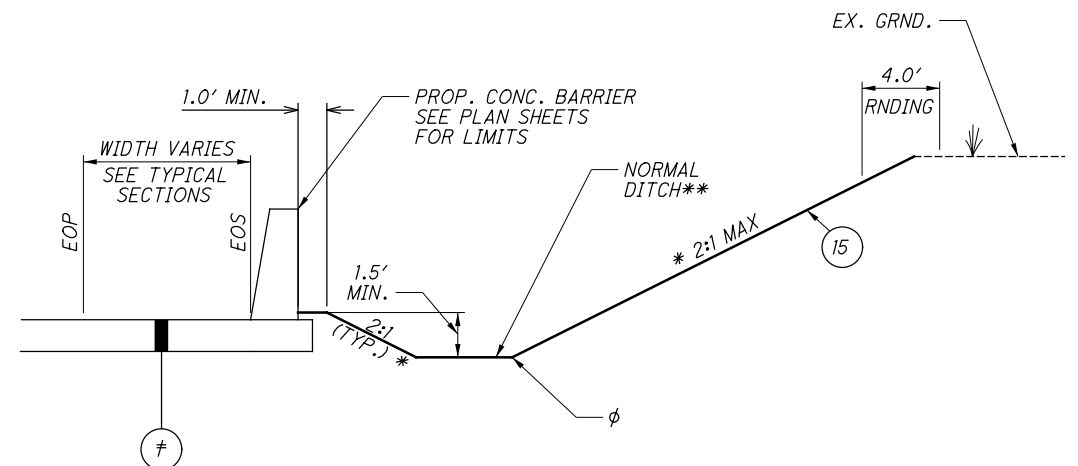
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NOTE: ALL DETAILS ON THIS SHEET SHOWN ARE NOT DRAWN TO SCALE (N.T.S.)



FILL SECTION - (BARRIER GRADING)
 AS SHOWN WITH PROPOSED CONCRETE BARRIER



CUT SECTION - (BARRIER GRADING)
 AS SHOWN WITH PROPOSED CONCRETE BARRIER

- * OR AS SHOWN ON CROSS SECTIONS
- ** SEE NORMAL DITCH DETAIL ON THIS SHEET 8.
- † SEE TYPICAL SECTIONS FOR PAVEMENT BUILDUP.
- φ 4.0' ROUNDING

FOR LEGEND AND ADDITIONAL DETAILS, SEE SHEET 2
 FOR PLAN ABBREVIATIONS, SEE GENERAL NOTES

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TYPICAL SECTIONS - PROPOSED GRADING DETAILS

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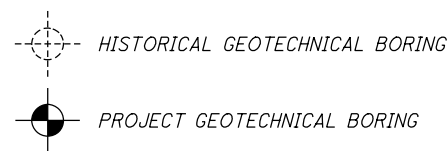
PLAN ABBREVIATIONS

THE FOLLOWING LIST OF ABBREVIATION DEFINITIONS IS USED FOR THIS PLAN SET:

| ABBREVIATION | DESCRIPTION |
|--------------|------------------------------------|
| ATG | ADJUSTED TO GRADE |
| AA | ANCHOR ASSEMBLY |
| APP | AS PER PLAN |
| ASPH. | ASPHALT |
| AVE. | AVENUE |
| ℄ | BASELINE |
| BM | BENCH MARK |
| BLVD. | BOULEVARD |
| BTA | BRIDGE TERMINAL ASSEMBLY |
| CB | CATCH BASIN |
| CD | COLLECTOR-DISTRIBUTOR |
| ℄ | CENTERLINE |
| COMM. | COMMERCIAL |
| CONC. | CONCRETE |
| CONST. | CONSTRUCTION |
| CONT'D | CONTINUED |
| CORP. | CORPORATION |
| CMP | CORRUGATED METAL PIPE |
| CU YD | CUBIC YARD |
| CI | CURB INLET |
| CS | COMBINED SEWER |
| DIST. | DISTANCE |
| DND | DO NOT DISTURB |
| DR. | DRIVE/DRIVEWAY |
| EA. | EACH |
| EDA | EARTH DISTURBED AREA |
| EB | EASTBOUND |
| EL | EDGE LINE |
| EOI | END OF INFORMATION |
| EORI | END OF RECORDED INFORMATION |
| EOP | EDGE OF PAVEMENT |
| EOS | EDGE OF SHOULDER |
| ELEC. | ELECTRIC |
| ELEV. | ELEVATION |
| EST. | ESTIMATE/ESTIMATED |
| EXC. | EXCAVATION |
| EX. | EXISTING |
| FT. | FEET |
| FH | FIRE HYDRANT |
| ℄ | FLOW LINE |
| GR | GUARDRAIL |
| HW | HEADWALL |
| HWY. | HIGHWAY |
| IN. | INCHES |
| INT. | INTERSECTION |
| INV. | INVERT |
| IR | INTERSTATE ROUTE |
| ITS | INTELLIGENT TRANSPORTATION SYSTEMS |
| LIN. | LINEAR |
| MOT | MAINTENANCE OF TRAFFIC |
| MH | MANHOLE |
| MAX. | MAXIMUM |
| MGS | MIDWEST GUARDRAIL SYSTEM |
| MI. | MILE(S) |
| MIN. | MINIMUM |
| MO. | MONTH(S) |
| N | NORTH |
| NB | NORTHBOUND |
| NE | NORTHEAST |
| NW | NORTHWEST |
| NO. | NUMBER |
| N.T.S. | NOT TO SCALE |
| OVHD. | OVERHEAD |
| PVMT | PAVEMENT |
| PL. | PLACE |
| PCB | PORTABLE CONCRETE BARRIER |
| PG | PROFILE GRADE |

PLAN ABBREVIATIONS (CONT'D)

| ABBREVIATION | DESCRIPTION |
|--------------|-----------------------------|
| PGL | PROFILE GRADE LINE |
| ℄ | PROPERTY LINE |
| PROP. | PROPOSED |
| QL | (SUE) QUALITY LEVEL |
| RAD. | RADIUS |
| REF. | REFERENCE |
| REINF. | REINFORCED |
| RMVD. | REMOVED |
| RES. | RESIDENTIAL |
| RD. | ROAD |
| RCP | ROCK CHANNEL PROTECTION |
| RNDG. | ROUNDING |
| RTG | RECONSTRUCTED TO GRADE |
| SEC. | SECTION |
| SHT. | SHEET |
| SHLDR. | SHOULDER |
| S | SOUTH |
| SB | SOUTHBOUND |
| SE | SOUTHEAST |
| SW | SOUTHWEST |
| SQ FT | SQUARE FEET |
| SQ YD | SQUARE YARD |
| STD. | STANDARD |
| STA. | STATION |
| ST. | STREET |
| STRUCT. | STRUCTURE |
| TELE. | TELEPHONE |
| TEMP. | TEMPORARY |
| TBR | TO BE REMOVED |
| TBRR | TO BE REMOVED AND RELOCATED |
| TOT. | TOTAL |
| TWP. | TOWNSHIP |
| TYP. | TYPICAL |
| US | UNITED STATES ROUTE |
| VAR. | VARIABLE/VARIES |
| VC | VERTICAL CURVE |
| V.C. | VERTICAL CLEARANCE |
| Vdes | DESIGN SPEED |
| WM | WATER MAIN |
| WV | WATER VALVE |
| WB | WESTBOUND |



UTILITIES

THE UNDERGROUND UTILITIES ON THIS PLAN HAVE BEEN LOCATED BY USING A SUBSURFACE UTILITY ENGINEERING COMPANY [SUE]. IF THERE ARE ANY DISCREPANCIES BETWEEN FIELD MARKINGS AND WHAT THE PLAN INDICATES, PLEASE CONTACT MATTHEW STEELE (PHONE: 330-786-4832), DISTRICT UTILITY COORDINATOR, PRIOR TO ANY SUBSURFACE WORK BEING INITIATED. THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

LISTED BELOW ARE THE UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS

- | | |
|---|--|
| CARGILL SALT ATTN: KERRY MORGAN CELL (330) 780-6610 2065 MANCHESTER RD. AKRON, OH 43082 | FIBER OPTIC INVOLTA ATTN: RAY HICKS OFFICE (330) 259-4920 CELL (330) 518-8960 568 LAKEVIEW BLVD. LAKE MILTON, OH 44429 |
| TELECOMMUNICATIONS CROWN CASTLE ATTN: KEITH STORSIN CELL (330) 813-6710 | |

UTILITIES (CONT'D)

- | | |
|--|--|
| TELECOMMUNICATIONS AT&T OHIO ENGINEERING ATTN: PABLO HENRIQUEZ OFFICE (330) 384-8973 ATTN: LUCIE HINSHAW OFFICE (330) 384-3048 CELL (330) 524-2091 | FIBER OPTIC CENTURY LINK ATTN: DOUG HOLLOWAY OFFICE (216) 906-6284 1025 ELDORADO BLVD. BROOMFIELD, CO 80021 |
| TELECOMMUNICATIONS AT&T OHIO CONSTRUCTION ATTN: JEFF ZEHRER OFFICE (330) 384-3247 CELL (330) 524-4725 | FIBER OPTIC LIGHTOWER AND FIBERTECH ATTN: BILL DARDEN OFFICE (585) 445-5865 CELL (585) 313-7728 |
| GAS DOMINION EAST OHIO ATTN: COREY ROLLINS OFFICE (330) 664-2754 KEVIN BIRT OFFICE (330) 664-2409 320 SPRINGSIDE DR. SUITE 320 AKRON, OH 44333 | FIBER OPTIC MEDINA COUNTY FIBER NETWORK ATTN: DAVID CORRADO OFFICE (216) 832-7059 144 N. BROADWAY MEDINA, OH 44256 |
| ELECTRIC FIRST ENERGY ATTN: CRAIG BUTLER OFFICE (330) 436-4153 ATTN: ROSS CATANESE OFFICE (330) 436-4177 CELL (330) 807-0338 ATTN: ERIC LIVESAY OFFICE (330) 294 6310 CELL (330) 618-6903 1910 W. MARKET ST. BLDG. 3 AKRON, OH 44313 | FIBER OPTIC MOBILITIE ATTN: KEVIN BRECHT OFFICE (330) 515-5555 CELL (330) 571-1788 120 S. RIVERSIDE PLAZA, SUITE 1800 CHICAGO, IL 60606 |
| CITY OF AKRON BUREAU OF WATER RECLAMATION ATTN: BRIAN GRESSER OFFICE (330) 375-2963x7130 2460 AKRON-PENINSULA RD. AKRON, OH 44313 | FIBER OPTIC WINDSTREAM/KDL ATTN: DWAYNE LAHMANN OFFICE (330) 419-1293 388 S. MAIN ST. AKRON, OH 44308 |
| ODOT OFFICE OF TECHNICAL SERVICES ATTN: SANDRA MAPEL (FIELD OPERATIONS) OFFICE (614) 644-0291 TRAFFIC MONITORING SECTION ODOT 1980 WEST BROAD STREET COLUMBUS, OHIO 43223 | CABLE SPECTRUM ATTN: RON ICKES OFFICE (330) 494-9200 OR (330) 555-3009 CELL (216) 392-7964 530 S. MAIN ST. AKRON, OH 44311 |
| CITY OF AKRON BUREAU OF WATER SUPPLY (INSPECTION) ATTN: TONY PUGLIA OFFICE (330) 375-2549 1460 TRIPLETT BLVD. AKRON, OH 44306 | FIBER OPTIC VERIZON COMMUNICATIONS ATTN: AL GUEST OFFICE (330) 253-8267 CELL (330) 329-5495 FAX (918) 562-7014 120 RAVINE ST. AKRON, OH 44303 |
| CITY OF AKRON UTILITY COORDINATOR ATTN: JOSEPH KUNZLER OFFICE (330)-375-2217 CELL (330)-690-0133 166 S. HIGH ST. AKRON, OH 44308 | FIBER OPTIC ZAYO GROUP ATTN: DAVE GALUSKA OFFICE (234) 281-0025 SCOTT HEINLEN CELL (740) 501-6921 ONE WEST THIRD ST. SUITE 1300, TULSA, OK 74103 |
| CITY OF AKRON COMMUNICATIONS ATTN: MALCOLM VALENTINE OFFICE (330) 375-2670 FAX (330) 375-2996 JOHN HEFFERNAN OFFICE (330) 375-2685 | STRAWN OILFIELD SERVICE ATTN: GEORGE STRAWN CELL (330) 727-1614 29093 STATE ROUTE 62 SALEM, OH 44460 |
| CITY OF AKRON TRAFFIC ENGINEERING ATTN: MIKE LUPICA OFFICE (330) 375-2851 FAX (330) 375-2307 CELL (330) 812-7550 | EVERFLOW EASTERN PARTNERS OFFICE (330) 537-3863 585 W MAIN ST. CANFIELD, OH 44406 |
| | SUMMIT COUNTY ENGINEER'S OFFICE ATTN: STEVE BURGESS OFFICE (330) 808-5575 538 E. SOUTH ST. AKRON, OH 44311 |

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ABANDONED (BURIED) STRUCTURES

PER RECORD PLAN SUM-76/77-11.27/12.12, THE PIERS, ABUTMENTS, FOUNDATIONS AND OTHER SUBSTRUCTURAL ELEMENTS OF STRUCTURES SUM-76-1137R, SUM-76-1137L AND SUM-77-1212R WERE ABANDONED AND BURIED UNDER EM BANKMENT. THE ABANDONED STRUCTURAL ELEMENTS ARE DEPICTED IN THE PLANS USING THE AVAILABLE RECORD PLAN INFORMATION, AND ARE INTENDED TO BE LEFT IN PLACE AND UNDISTURBED/UNIMPACTED DURING AND AFTER THE CONSTRUCTION OF THE PROJECT. WHILE WORKING IN OR AROUND THE LOCATION(S) WHERE KNOWN SUBSURFACE ABANDONED STRUCTURAL ELEMENTS MAY BE PRESENT, THE CONTRACTOR SHALL TAKE CAUTION NOT TO IMPACT OR DISTURB THESE EXISTING STRUCTURES. SHOULD THE CONTRACTOR EXPOSE, IMPACT, DAMAGE OR OTHERWISE MAKE CONTACT WITH THESE ABANDONED STRUCTURES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY AND SUSPEND ALL WORK IN THE AREA UNTIL THE PROJECT ENGINEER GIVES NOTICE TO RESUME WORK.

CLEARING AND GRUBBING

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. INDIVIDUAL TREE/STUMP SIZES WITHIN HEAVILY VEGETATED AREAS MAY NOT BE KNOWN AND WERE NOT SURVEYED, WHICH COVERS MOST OF THE VEGETATED AREAS WITHIN THE CONSTRUCTION LIMITS. UNLESS SPECIFICALLY MARKED AS "DO NOT DISTURB" IN THE PLANS, CLEARING OF ALL HEAVILY VEGETATED AREAS SHOWN WITHIN THE CONSTRUCTION LIMITS SHALL BE PAID FOR UNDER ITEM 201, CLEARING AND GRUBBING.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT PROJECT ...(PID...) MAY BE ONGOING IN AN AREA IMMEDIATELY ADJACENT TO AND WITHIN THE PROJECT LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS TO CAUSE A MINIMUM OF DELAY OR CONFLICT WITH THE OTHER PROJECTS. IN ACCORDANCE WITH 105.08, THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL RECEIVE DAILY APPROVALS FROM THE ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. ANY CONFLICT BETWEEN CONTRACTORS INVOLVING WORK SCHEDULES, WORK AREA, OR COOPERATION SHALL BE RESOLVED BY THE ENGINEER. COMPENSATION FOR THE ABOVE COOPERATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

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GENERAL NOTES
 2021-10-18 - BU 33A - RFC
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CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION TYPE DEVICES BETWEEN THE HOURS OF 8AM AND 10PM, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

ROADWAY NOTES

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

EXISTING UTILITIES AND SUBGRADE TREATMENT

THE CONTRACTOR SHALL VERIFY THE DEPTH OF ALL EXISTING UNDERGROUND UTILITIES AND SEWERS WITHIN THE PROPOSED PAVEMENT LIMITS TO ENSURE NO UTILITIES OR SEWERS ARE IMPACTED OR DAMAGED DURING CEMENT STABILIZATION AND/OR UNDERCUT ACTIVITIES. THE CONTRACTOR SHALL LOCATE AND TAKE CARE TO FLAG ALL EXISTING UTILITIES WITHIN THE PROPOSED PAVEMENT LIMITS PRIOR TO PERFORMING CEMENT STABILIZATION OR UNDERCUT, AS DESIGNATED IN THE PLANS. SHOULD THE CONTRACTOR ENCOUNTER A POTENTIAL UTILITY CONFLICT, THE CONTRACTOR SHALL NOTIFY PROJECT ENGINEER AND STOP CEMENT STABILIZATION/UNDERCUT ACTIVITIES AT THE CONFLICT LOCATION IMMEDIATELY.

MEDIAN AND/OR CURBING ON APPROACH SLABS

WITHIN THE LIMITS OF THE APPROACH SLAB, TRANSITION THE SHAPE OF THE MEDIAN AND/OR CURBING ON APPROACH SLABS FROM THE STANDARD SECTION ON THE APPROACHES TO THE SECTION USED ON THE BRIDGE.

SHEETING & BRACING

ANY SHEETING AND BRACING USED BY THE CONTRACTOR AND NOT OTHERWISE CALLED FOR IN THE PLANS SHALL BE FURNISHED, INSTALLED, AND MAINTAINED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. NO SEPARATE PAYMENT SHALL BE MADE FOR SHEETING AND BRACING. AT ALL TIMES THE CONTRACTOR SHALL BE REQUIRED TO EXCAVATE IN A MANNER THAT IS SAFE TO ALL WORKERS AND THE GENERAL TRAVELING PUBLIC. ALL OSHA REQUIREMENTS SHALL BE UPHELD AND SOUND SAFETY PRACTICES SHALL BE EXERCISED AT ALL TIMES. REMOVAL OF SHEETING AND BRACING ITEMS UPON COMPLETION OF WORK WILL BE REQUIRED AS DIRECTED BY ODOT REPRESENTATIVES.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05

MONUMENT ASSEMBLIES

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN IN THE R/W PLANS.

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.
2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE CHEMICAL STABILIZATION. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. UNSUITABLE SUBGRADE INCLUDES ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

REPLACE WITH SUITABLE MATERIAL ACCORDING TO 204.07.

3. PERFORM CHEMICAL STABILIZATION IN ACCORDANCE WITH C&MS 206
4. PROOF ROLL THE STABILIZED AREAS ACCORDING TO C&MS 204.06 TO VERIFY STABILITY.
5. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITY FOR EXCAVATING THE UNSUITABLE SUBGRADE IS PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E, MASH

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

UNDERDRAINS AT ROCK CUT SECTIONS

SOIL BORINGS WITHIN THE PROJECT LIMITS INDICATE THE PRESENCE OF ROCK. WHEN ROCK IS ENCOUNTERED WITHIN 24 INCHES OF BOTTOM OF THE PROPOSED PAVEMENT (SUBGRADE), CONTRACTOR SHALL EXCAVATE THE ROCK ACCORDING TO 204.05. SEE TYPICAL SECTIONS FOR MORE INFORMATION.

ITEM 609 - CURB, TYPE 4-C, AS PER PLAN

ALL REQUIREMENTS ODOT STANDARD ROADWAY CONSTRUCTION DRAWING BP 5.1 SHALL APPLY WITH THE FOLLOWING MODIFICATIONS: THE DEPTH OF THE CURB OR COMBINATION CURB AND GUTTER SHALL BE ADJUSTED SUCH THAT THE BOTTOM OF CURB RESTS DIRECTLY ON THE TOP OF THE AGGREGATE BASE LAYER. SEE TYPICAL SECTIONS FOR MORE INFORMATION.

ITEM SPECIAL - MISC.: VERTICAL CLEARANCE

BEFORE ANY CONSTRUCTION TAKES PLACE AND AFTER ALL CONSTRUCTION HAS BEEN COMPLETED, A REGISTERED SURVEYOR WILL TAKE VERTICAL CLEARANCE MEASUREMENTS AT LOCATIONS INDICATED ON THE APPROVED ODOT FORM (AVAILABLE IN THE DISTRICT 4 STRUCTURES AND PAVEMENT OFFICE). FOR THE STRUCTURES WHERE THE PROPOSED WORK WILL NEITHER AFFECT THE POSITION OF THE LOWER CHORD NOR THE ROADWAY SURFACE BELOW, THE VERTICAL CLEARANCE DOES NOT NEED TO BE MEASURED AFTER ALL CONSTRUCTION HAS BEEN COMPLETED. THE FINAL MEASUREMENTS SHALL BE RECORDED ON THE FORM AND SUBMITTED TO THE PROJECT ENGINEER AND THE DISTRICT 4 STRUCTURES AND PAVEMENT ENGINEER. THE RECORD SHALL BEAR THE SEAL OF THE LICENSED SURVEYOR WHO HAS TAKEN THE MEASUREMENTS. THIS WORK SHALL BE PERFORMED AT ALL OF THE OVERHEAD STRUCTURES WITHIN THE PROJECT LIMITS.

THE VERTICAL CLEARANCE SHALL BE MEASURED PRIOR TO AND AFTER CONSTRUCTION AT THE FOLLOWING STRUCTURES:

- SUM-76-1102
- SUM-76-1127

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ITEM 203 EMBANKMENT, AS PER PLAN

THE FOLLOWING REQUIREMENTS ARE IN ADDITION TO THOSE OF CMS 203

AT RETAINING WALLS: EMBANKMENT PLACED FOR SECTIONS OF APPROACH RAMPS N & Q UPON WHICH SUPPORTS AND IS CONTAINED BY RETAINING WALLS SHALL BE CONSTRUCTED IN THE FOLLOWING MANNER:

1. THE INITIAL EMBANKMENT LIFTS FOR THE ENTIRE WIDTH OF APPROACH EMBANKMENT SHALL BE CONSTRUCTED TO AN ELEVATION AT OR ABOVE THE TOP OF FOOTING HEEL FOR EACH INDIVIDUAL SECTION OF RETAINING WALL. WHERE BACK-TO-BACK WALLS OCCUR (SUCH AS RETAINING WALLS 2 AND 3) THE ELEVATION OF THE INITIAL FILL PLACEMENT SHALL BE BUILT TO LEVELS THAT ARE HIGH ENOUGH TO COVER ALL INDIVIDUAL FOOTING SECTIONS OF THE RETAINING WALLS.

2. AFTER INITIAL EMBANKMENT PLACEMENT IS COMPLETE FOR EACH APPROACH RAMP THE SPECIFIED EMBANKMENT SETTLEMENT WAITING PERIOD SHALL COMMENCE. SEE RAMP BRIDGE PLANS FOR WAITING PERIOD DURATION.

3. FOLLOWING EXPIRATION OF THE SPECIFIED SETTLEMENT WAITING PERIOD FOR THE INITIAL EMBANKMENT PLACEMENT, EXCAVATIONS FOR THE RETAINING WALL FOOTINGS MAY COMMENCE.

4. ALL CONCRETE FOR RETAINING WALL FOOTINGS SHALL BE CAST NEAT AGAINST THE VERTICAL SIDES OF THE INDIVIDUAL FOOTING EXCAVATION. IF FORMS ARE USED TO CONSTRUCT THE VERTICAL SIDES OF THE FOOTINGS ANY VOIDS BETWEEN THE VERTICAL SIDES OF THE FOOTINGS AND THE ADJACENT UNDISTURBED GROUND SHALL BE BACKFILLED WITH CLASS QC1 CONCRETE.

AT BRIDGE APPROACHES: AT THE FOLLOWING LOCATIONS, PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT AT BRIDGES:

1. RAMP Q (SUM-76-1148Q)
STA. 2530+67.83 TO 2531+67.83
STA. 2540+16.04 TO 2541+16.04
2. RAMP N (SUM-76-1152N)
STA. 3331+41.18 TO 3332+41.18
STA. 3338+79.43 TO 3339+79.43
3. IR-76 EB (SUM-76-1127)
STA. 520+75.68 TO 521+75.68
STA. 523+35.89 TO 524+35.89
4. IR-76 WB (SUM-76-1180L)
STA. 548+46.24 TO 549+46.24
STA. 550+06.00 TO 551+06.00

GENERAL NOTES

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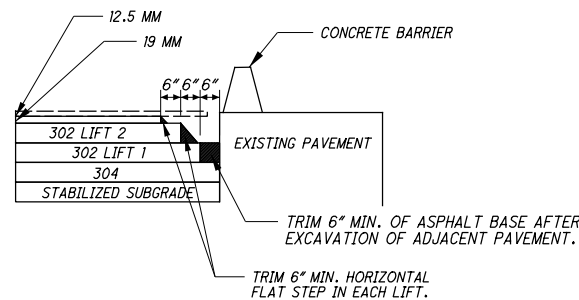
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PAVEMENT NOTES

PHASE JOINT FOR PAVEMENT

PER THE PHASE JOINT DETAIL, BEFORE PAVING AGAINST THE PHASE JOINT, THE CONTRACTOR SHALL MILL OUT THE UNCONSOLIDATED EDGE OF EACH PAVEMENT COURSE TO PROVIDE THE APPROPRIATE STEPS IN THE PAVEMENT JOINT, WHILE REMOVING UNCONSOLIDATED MATERIAL, PER THE DETAIL BELOW. UPON COMPLETION OF THE MILLING, THE VERTICAL FACES SHALL BE SEALED WITH SUPPLEMENTAL SPECIFICATION 875.02 HOT APPLIED ASPHALT JOINT ADHESIVE TO PROVIDE 100% COVERAGE OF THE JOINTS. THE COST FOR MILLING AND SEALING SHALL BE INCIDENTAL TO THE COST OF THE PAVEMENT ITEMS.

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR THE WORK NOTED ABOVE:



PHASING JOINT DETAIL

BUTT JOINTS

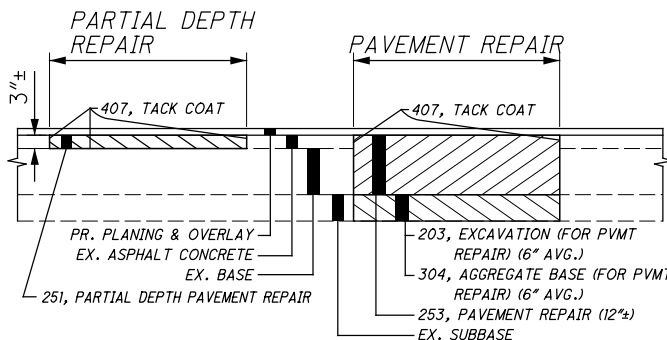
AT THE START OR END OF ALL FULL-DEPTH PAVEMENT SECTIONS SHOWN IN THE PLANS, CONTRACTOR SHALL PROVIDE A BUTT JOINT PER SCD BP-3.1.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 441 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE 1 PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. UNLESS OTHERWISE DIRECTED BY THE ENGINEER THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANNING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANNING. PAVEMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR. SEE DETAIL BELOW.

ITEM 253 - PAVEMENT REPAIR

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 12"± 301 ASPHALT CONCRETE BASE, PG64-22. THE MAXIMUM COMPACTED DEPTH OF ANY ONE LAYER SHALL BE 6 INCHES. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. SEE DETAIL BELOW.



PAVEMENT REPAIR DETAIL

ITEM 304 - AGGREGATE BASE, AS PER PLAN

GRANULATED SLAG (GS) SHALL NOT BE PERMITTED FOR THIS ITEM. ALL OTHER REQUIREMENTS OF SECTIONS 304 AND 703.17 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL STILL BE APPLICABLE.

ITEM 441 & 442 - ASPHALT CONCRETE SURFACE COURSE, AS PER PLAN

DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

ITEM 442 - ANTI-SEGREGATION EQUIPMENT

PROVIDE ANTI-SEGREGATION EQUIPMENT FOR ALL COURSES OF UNIFORM THICKNESS IN ACCORDANCE WITH CMS 401.12.

ITEM 442 - ASPHALT CONCRETE INTERMEDIATE COURSE, AS PER PLAN

ON THIS PROJECT SUPPLY A 19MM INTERMEDIATE COURSE MEETING THE REQUIREMENTS OF 442 EXCEPT AS MODIFIED BELOW. MODIFY TABLE 442.02-2 AS FOLLOWS:

| Sieve Size | Total Percent Passing | | |
|--------------------|-----------------------|-------------|-----------|
| | 9.5 mm mix | 12.5 mm mix | 19 mm mix |
| 1/2 inch (12.5 mm) | - | - | 100 |
| 3/4 inch (19 mm) | - | 100 | 95 to 100 |
| 1/2 inch (12.5 mm) | 100 | 95 to 100 | 90 to 100 |
| 3/8 inch (9.5 mm) | 90 to 100 | 96 max | 96 max |
| NO. 4 (4.75 mm) | 70 max | 52 to 65 | 60 max |
| NO. 8 (2.36 mm) | 34 to 52 | 34 to 45 | 34 to 45 |
| NO. 200 (75 µm) | 2 to 8 | 2 to 8 | 2 to 8 |

MODIFY TABLE 442.02-3 AS FOLLOWS:

- APPLY 14.0 FOR A VMA (PERCENT MINIMUM) FOR A 19MM MIX.
- APPLY 5.3 PERCENT FOR THE MINIMUM TOTAL ASPHALT BINDER CONTENT FOR A 19MM MIX.

MODIFY THE 442 INTERMEDIATE COURSE REQUIREMENTS OF TABLES 401.04-1 AND 401.04-2 AS FOLLOWS:

- APPLY 3.5 PERCENT FOR THE TOTAL VIRGIN ASPHALT BINDER CONTENT, MINIMUM.
- USE A PG 64-22 IF USING 25 PERCENT OR LESS RAP. USE PG 64-28 IF USING GREATER THAN 25 PERCENT RAP.

ITEM 617 COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN. MODIFIED GRADATION SHALL APPLY:

| SIEVE | TOTAL PERCENT PASSING |
|--------|-----------------------|
| 1-1/2" | 100 |
| 3/4" | 50-100 |
| NO 4 | 35-70 |
| NO 30 | 9-33 |
| NO 200 | 0-13 |

DRAINAGE NOTES

UNDERDRAIN CONNECTIONS AT SAWCUTS

AT THE START, END OR WIDENING OF ALL FULL-DEPTH PAVEMENT SECTIONS SHOWN IN THE PLANS, CONTRACTOR SHALL CONNECT PROPOSED UNDERDRAINS TO EXISTING AND ENSURE POSITIVE DRAINAGE IS MAINTAINED.

EXISTING STORM SEWER REMOVALS, ABANDONMENTS, AND/OR FILLING AND PLUGGING

A. USE THE FOLLOWING GUIDELINES TO DETERMINE WHETHER AN EXISTING PIPE BEING TAKEN OUT OF SERVICE SHOULD BE ABANDONED OR REMOVED:

- PIPES 10 INCHES THROUGH 24 INCHES IN DIAMETER OR RISE WITH LESS THAN 3 FEET OF FINAL COVER SHALL BE REMOVED; WITH MORE THAN 3 FEET OF FINAL COVER THEY MAY BE ABANDONED IN PLACE.
- ALL CONDUITS 24 INCHES OR GREATER SHALL BE REMOVED OR ABANDONED PER CMS 202.

EXISTING STORM SEWER REMOVALS, ABANDONMENTS, AND/OR FILLING AND PLUGGING (CONT'D)

III. ABANDONED CONDUIT SHALL BE FILLED WITH ITEM 613 LSM AND THE DBT SHALL INCLUDE METHODS TO VERIFY COMPLETE FILLING OF CONDUIT TO BE ABANDONED.

B. USE THE FOLLOWING GUIDELINES TO DETERMINE WHETHER AN EXISTING STRUCTURE BEING TAKEN OUT OF SERVICE SHOULD BE ABANDONED OR REMOVED:

I. EXISTING STRUCTURES WITH LESS THAN 4.5' OF COVER SHALL BE REMOVED PER CMS 202.

II. EXISTING STRUCTURES WITH MORE THAN 4.5' OF COVER SHALL BE REMOVED OR ABANDONED PER CMS 202.

III. ABANDONED STRUCTURES SHALL BE FILLED WITH ITEM 613 LSM AND THE DBT SHALL INCLUDE METHODS TO VERIFY COMPLETE FILLING OF STRUCTURE TO BE ABANDONED.

ISSUE RECORD - BU-33A ROADWAY

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CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING ALONG WITH PHOTOS BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

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GENERAL NOTES
 2021-10-18 - BU 33A - RFC
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ITEM 611 - CONDUIT BORED OR JACKED

WHERE IT IS SPECIFIED OR DETERMINED IN THE FIELD THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN 5 FEET TO THE EDGE OF PAVEMENT. PROVIDE A STEEL CASING PIPE CONFORMING TO 748.06 HAVING JOINTS WITH A CIRCUMFERENTIAL FULLY PENETRATING B-U4B WELD THAT IS PERFORMED BY AN ODOT APPROVED FIELD WELDER OR MACHINED INTERLOCKING JOINTS ARE PERMITTED. THE INSTALLED CASING PIPE IS THE STORM WATER CONVEYANCE CARRIER UNLESS OTHERWISE SPECIFIED IN THE PLANS. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE.

ITEM 611 - MANHOLE ADJUSTED TO GRADE. AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 611.10.D FOR MANHOLES, THE CONTRACTOR WILL MAKE A CLEAN CIRCULAR CUT AROUND THE CASTING (A MINIMUM OF 1'-0" OUTSIDE OF THE CASTING) AND ADJUST THE CASTING TO GRADE (ACCORDING TO THE TOLERANCES AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1) AFTER THE PAVEMENT SURFACE COURSE HAS BEEN PLACED.

CMS 499 CLASS QCMS CONCRETE (DYE THE CONCRETE SUCH THAT ITS COLOR CLOSELY MATCHES THE COLOR OF THE SURROUNDING PAVEMENT) WILL BE USED FOR BACKFILLING THE FULL PAVEMENT SECTION AND THE JOINT BETWEEN THE ASPHALT AND CONCRETE WILL BE SEALED WITH CMS 702.01 PG BINDER. EPOXY COATED REBAR SHALL BE PLACED IN THE CONCRETE AT 6" MAXIMUM ON CENTER AND A MINIMUM OF 3.5" CLEARANCE FROM THE TOP, BOTTOM AND SIDES. THE CONCRETE WILL BE VIBRATED SUFFICIENTLY TO ELIMINATE AIR POCKETS UNDER THE FRAME.

MANHOLES IN SHOULDERS

MANHOLES IN PAVED SHOULDERS SHALL BE PROVIDED WITH BOLT DOWN CASTINGS.

ITEM 511 WINGWALLS OR HEADWALLS FOR 611 ITEMS

FOR ITEMS 706.05, 706.051, 706.052 AND 706.053 WITH A CAST-IN-PLACE WINGWALL OR HEADWALL A PRECAST ALTERNATIVE MAY BE FURNISHED PER 602.03. THE PRECAST ALTERNATIVE WILL MEET THE CAST-IN-PLACE STRUCTURAL DESIGN LOADINGS, DESIGN HEIGHT, AND DESIGN LENGTH DIMENSIONS.

ITEM SPECIAL - PIPE CLEANOUT

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SPECIFIED IN THE PLANS. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 105.16 AND 105.17. ALL SEWERS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

EXISTING SUBSURFACE DRAINAGE

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE. UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

ITEM 611 - INLET RECONSTRUCTED TO GRADE. AS PER PLAN

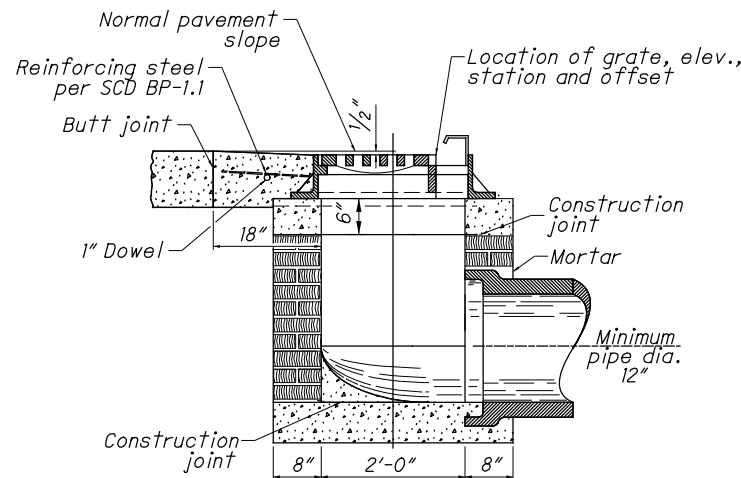
THIS ITEM SHALL MEET ALL THE REQUIREMENTS OF ITEM 611 AND SHALL INCLUDE THE RECONSTRUCTION OF THE EXISTING MEDIAN BARRIER INLETS FROM THE PCJ UP TO MATCH THE NEW PROPOSED BARRIER SHAPE.

MAINLINE CATCH BASINS

ALL CATCH BASIN 3'S AND 3-A'S SPECIFIED IN THE PLANS TO BE INSTALLED ALONG THE MAINLINE WHERE 4-C CURB IS SPECIFIED SHALL HAVE 4" HIGH CASTINGS TO MATCH THE CURB HEIGHT.

ITEM 611 - CATCH BASIN NO. 6. AS PER PLAN

EACH CATCH BASIN NO. 6 SHALL BE CONSTRUCTED AS PER PLAN USING THE FOLLOWING GRATE AND CASTING: EAST JORDAN 7030" TYPE M6 OR NEENAH "R-3246-CL" OR EQUIVALENT BASED ON THE DETAIL BELOW. THIS GRATE AND CASTING HAS A WINDOW AT THE CURB.



CATCH BASIN NO. 6. AS PER PLAN

EAST JORDAN 7030 TYPE M6 OR NEENAH 3246-CL

ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE. AS PER PLAN

THIS ITEM SHALL MEET ALL THE REQUIREMENTS OF ITEM 611 AND SHALL INCLUDE THE RECONSTRUCTION OF THE EXISTING MANHOLES THAT MAY REQUIRE ADDITIONAL EQUIPMENT SUCH AS SHORING TO RECONSTRUCT.

ITEM 611 - INLET NO. 3D FOR SINGLE SLOPE BARRIER. AS PER PLAN

THIS ITEM SHALL MEET ALL THE REQUIREMENTS OF ITEM 611 AND SCD 1-2.3 EXCEPT THAT THE SHAPE OF THE BARRIER ABOVE THE PCJ SHALL MATCH THE PROPOSED BARRIER SHAPE IN THE CONCRETE BARRIER TYPE C AS PER PLAN DETAIL ON SHEET 3.

PIPE CONNECTIONS TO CORRUGATED METAL STRUCTURES

CONNECTIONS OF PROPOSED LONGITUDINAL DRAINAGE TO CORRUGATED METAL STRUCTURES SHALL BE MADE BY MEANS OF A SHOP FABRICATED OR FIELD WELDED STUB ON THE STRUCTURE. THE STUB SHALL MEET THE REQUIREMENTS OF 707 AND HAVE A MINIMUM LENGTH OF 2 FEET AND A MINIMUM WALL THICKNESS OF 0.064 INCHES.

THE LOCATION AND ELEVATION OF THE STUB ARE TO BE CONSIDERED APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER TO AVOID CUTTING THROUGH JOINTS IN THE STRUCTURE.

THE FIELD WELDED JOINT, IF USED, SHALL BE THOROUGHLY CLEANED AND REGALVANIZED OR OTHERWISE SUITABLY REPAIRED. WELDING SHALL MEET THE REQUIREMENTS OF 513.21.

A MASONRY COLLAR, AS PER STANDARD DRAWING DM-1.1, WILL BE REQUIRED TO CONNECT THE LONGITUDINAL DRAINAGE TO THE STUB, WHEN PIPE OTHER THAN CORRUGATED METAL IS PROVIDED FOR THE LONGITUDINAL DRAINAGE.

ENVIRONMENTAL NOTES

COMMUNITY NOTIFICATION

THE CONTRACTOR WILL ADVISE THE ODOT PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST ALSO PROVIDE NOTIFICATION TO THE ODOT PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO ANY LANE RESTRICTIONS. THE ODOT PROJECT ENGINEER WILL FORWARD THE INFORMATION TO THE ODOT, DISTRICT 4 OFFICE OF PUBLIC INFORMATION FOR USE TO NOTIFY EMERGENCY SERVICES AND THE COMMUNITY A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE START OF PROJECT CONSTRUCTION. INCLUDED IN THIS NOTIFICATION WILL BE THE PROPOSED LANE RESTRICTIONS.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

THE DBT SHALL SUBMIT TO THE ODOT PROJECT MANAGER THE TOTAL NUMBER OF ACRES OF EARTH DISTURBANCE ACTIVITIES FOR BOTH OFF PROJECT AND ON PROJECT WORK IN A TIMELY MANNER. THIS INFORMATION WILL BE USED TO DEVELOP THE NOI IF REQUIRED. THE NOI WILL BE SUBMITTED TO THE OEPA WITHIN 10 DAYS AFTER THIS INFORMATION IS RECEIVED FROM THE DBT. APPROVAL FROM THE OEPA TAKES 21 DAYS AND THE ODOT PROJECT MANAGER HAS 10 DAYS TO FILE THE NOI SO THESE 31 DAYS WILL BE COUNTED FOR IN THE PROJECT.

ALL TEMPORARY EROSION CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR EVEN IF A SWPPP IS NOT REQUIRED. EARTH DISTURBING ACTIVITY IS NOT PERMITTED PRIOR TO THE OEPA PERMIT APPROVAL. FOR PROJECTS THAT REQUIRE AN NOI, THE SWPPP MUST BE IN PLACE PRIOR TO THE INITIATION OF ANY EARTH DISTURBING ACTIVITY. ALL TEMPORARY EROSION CONTROL WORK AND THE SWPPP IF REQUIRED WILL BE PER SS832. FOR INFORMATION ABOUT OEPA'S NPDES PERMIT REQUIREMENTS SEE [HTTPS://WWW.EPA.OHIO.GOV/DSW/STORM/INDEX](https://www.epa.ohio.gov/dsw/storm/index)

ITEMS USED TO IMPLEMENT THE DBT'S EROSION CONTROL REQUIREMENTS ARE PAID FROM AN ENCUMBERED AMOUNT INCLUDED IN THE PROPOSAL AS A NON-BID REFERENCE NUMBER. THE PROPOSAL SPECIFIES THE UNIT PRICES FOR THE EROSION CONTROL ITEMS. PAYMENTS FOR EROSION CONTROL ITEMS THAT EXCEED THE ENCUMBERED AMOUNT WILL BE MADE BY AN EXTRA WORK CHANGE ORDER USING THE SPECIFIED UNIT PRICES. THE SPECIFIED UNIT PRICES ARE FIXED FOR THE CONTRACT AND MAY NOT BE NEGOTIATED OR ADJUSTED FOR INFLATION OR CLAIMED CHANGED CONDITION.

THE PREPARATION OF THE SWPPP, ALONG WITH ALL REQUIREMENTS OF SS832 FOR MAINTAINING, INSPECTING, MODIFYING AND UPDATING THE SWPPP ARE CONSIDERED INCIDENTAL TO THE PROJECT.

REMOVAL OF TEMPORARY EROSION CONTROL ITEMS

ALL TEMPORARY EROSION CONTROL ITEMS SHALL BE REMOVED BEFORE THE PROJECT IS ACCEPTED. REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH THE APPROPRIATE C&MS SPECIFICATIONS.

WATERWAY PERMITS

THE WATERWAY PERMITS WILL BE OBTAINED BY ODOT PRIOR TO CONSTRUCTION. THE PROJECT WILL BE COVERED UNDER ODOT REGIONAL GENERAL PERMIT - B.

FLOODPLAIN COORDINATION

FLOODPLAIN COORDINATION IS COMPLETE, AND NO FLOOD-PLAIN PERMIT IS NEEDED.

Released for Construction
 Thomas J Powell, PE
 10/29/2021

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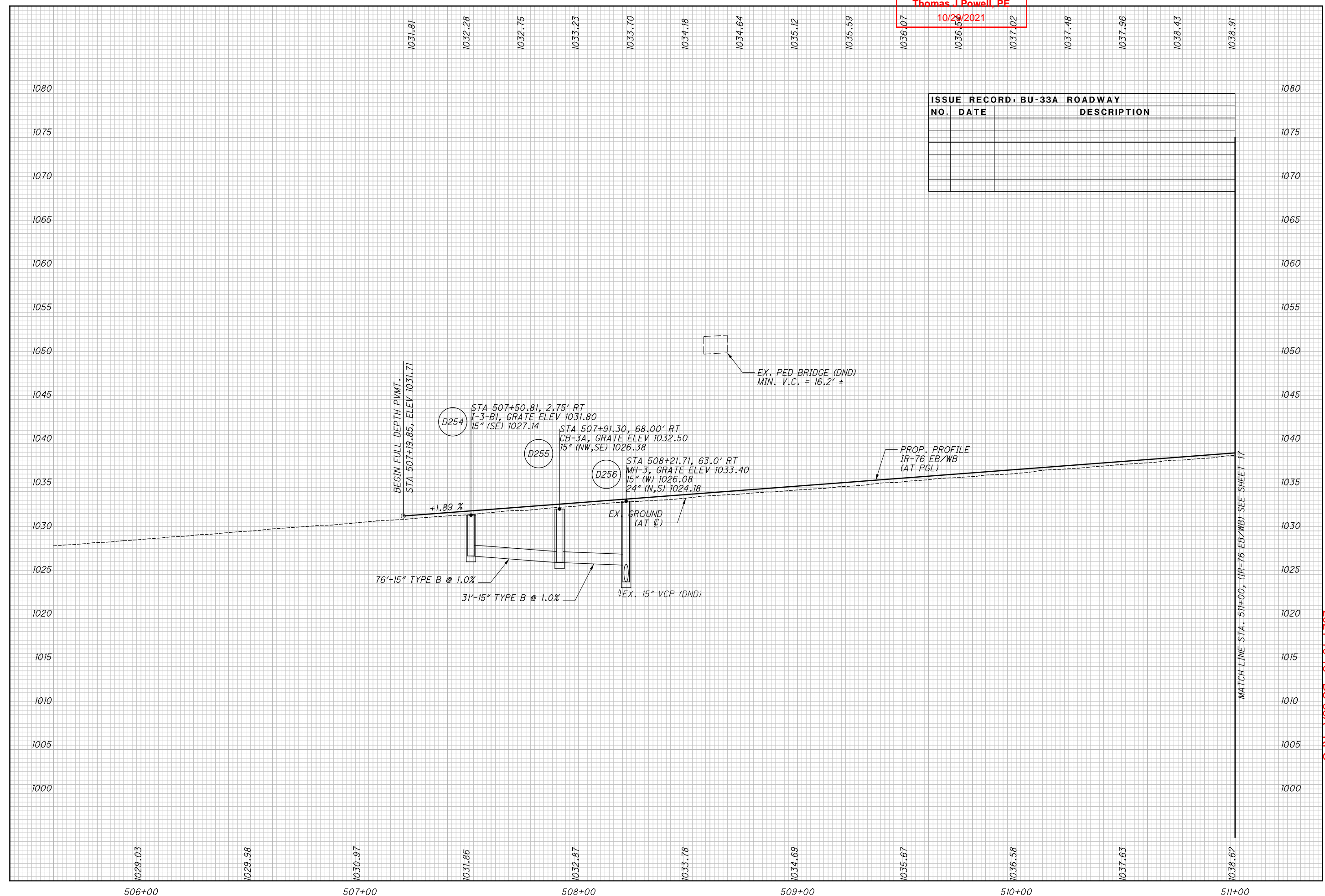
ENDANGERED SPECIES HABITAT

INDIANA BAT/NORTHERN LONG-EARED BAT: THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

GENERAL NOTES
 2021-10-18 - BU 33A - RFC
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Released for Construction
 Thomas J Powell, PE
 10/28/2021

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PROFILE - IR-76 EB / IR-76 WB
 BEGIN WORK TO STA. 511+00.00

2021-10-18 - BU 33A - RFC

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LEGEND

SEE GENERAL NOTES FOR LIST OF PLAN ABBREVIATIONS

PAVEMENT PLANING & RESURFACING

ITEM 670 DITCH EROSION PROTECTION

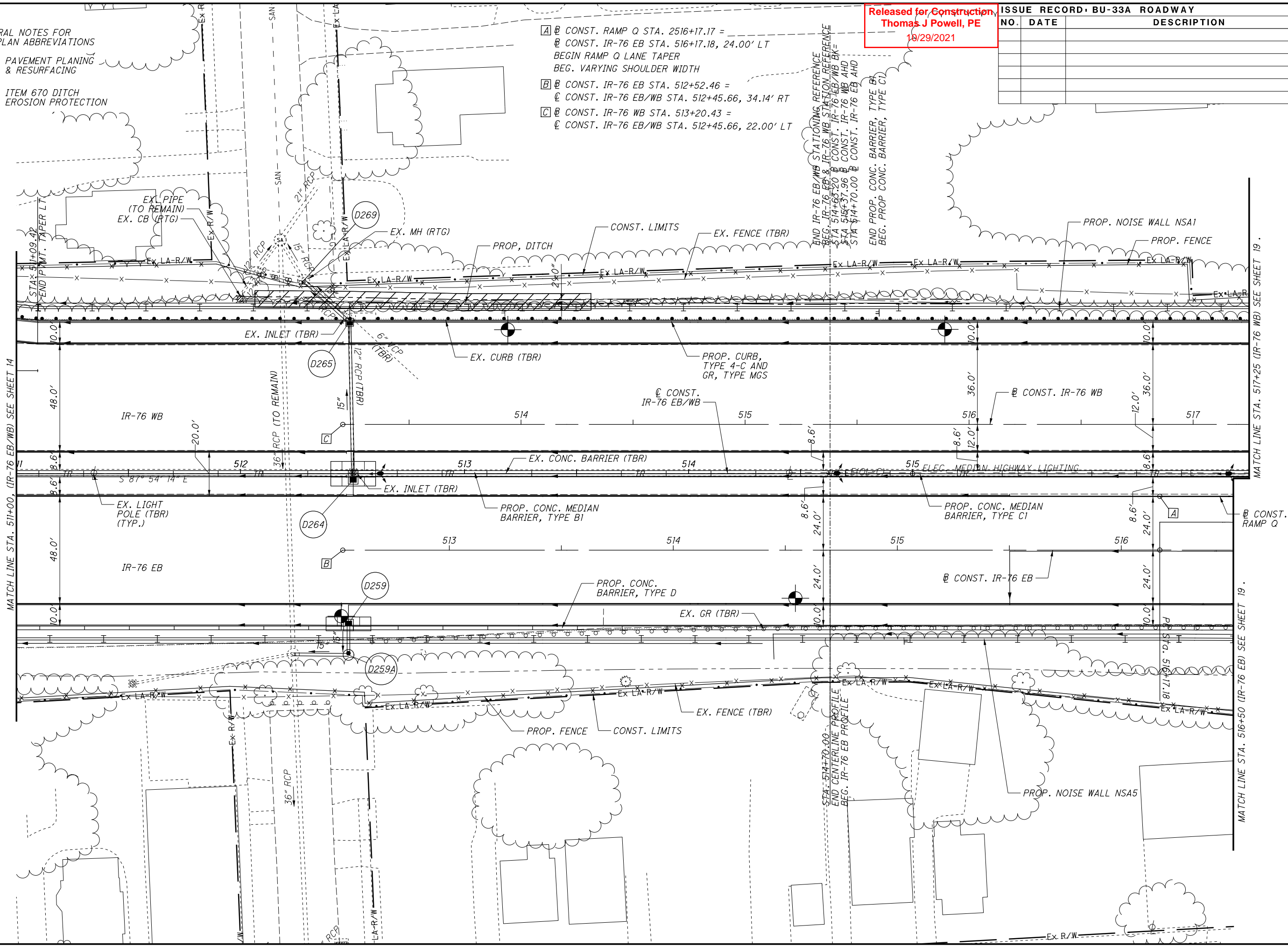
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- A CONST. RAMP Q STA. 2516+17.17 =
 B CONST. IR-76 EB STA. 516+17.18, 24.00' LT
 BEGIN RAMP Q LANE TAPER
 BEG. VARYING SHOULDER WIDTH
- B CONST. IR-76 EB STA. 512+52.46 =
 C CONST. IR-76 EB/WB STA. 512+45.66, 34.14' RT
- C CONST. IR-76 WB STA. 513+20.43 =
 D CONST. IR-76 EB/WB STA. 512+45.66, 22.00' LT

END IR-76 EB/WB STATIONING REFERENCE
 BEG. IR-76 EB & IR-76 WB STATION REFERENCE
 STA 514+65.20 B CONST. IR-76 EB/WB BK=
 STA 514+65.20 B CONST. IR-76 EB AHD
 STA 514+70.00 B CONST. IR-76 EB AHD
 END PROP. CONC. BARRIER, TYPE B1
 BEG. PROP. CONC. BARRIER, TYPE C1

MATCH LINE STA. 511+00. (IR-76 EB/WB) SEE SHEET 14

MATCH LINE STA. 517+25 (IR-76 WB) SEE SHEET 19.

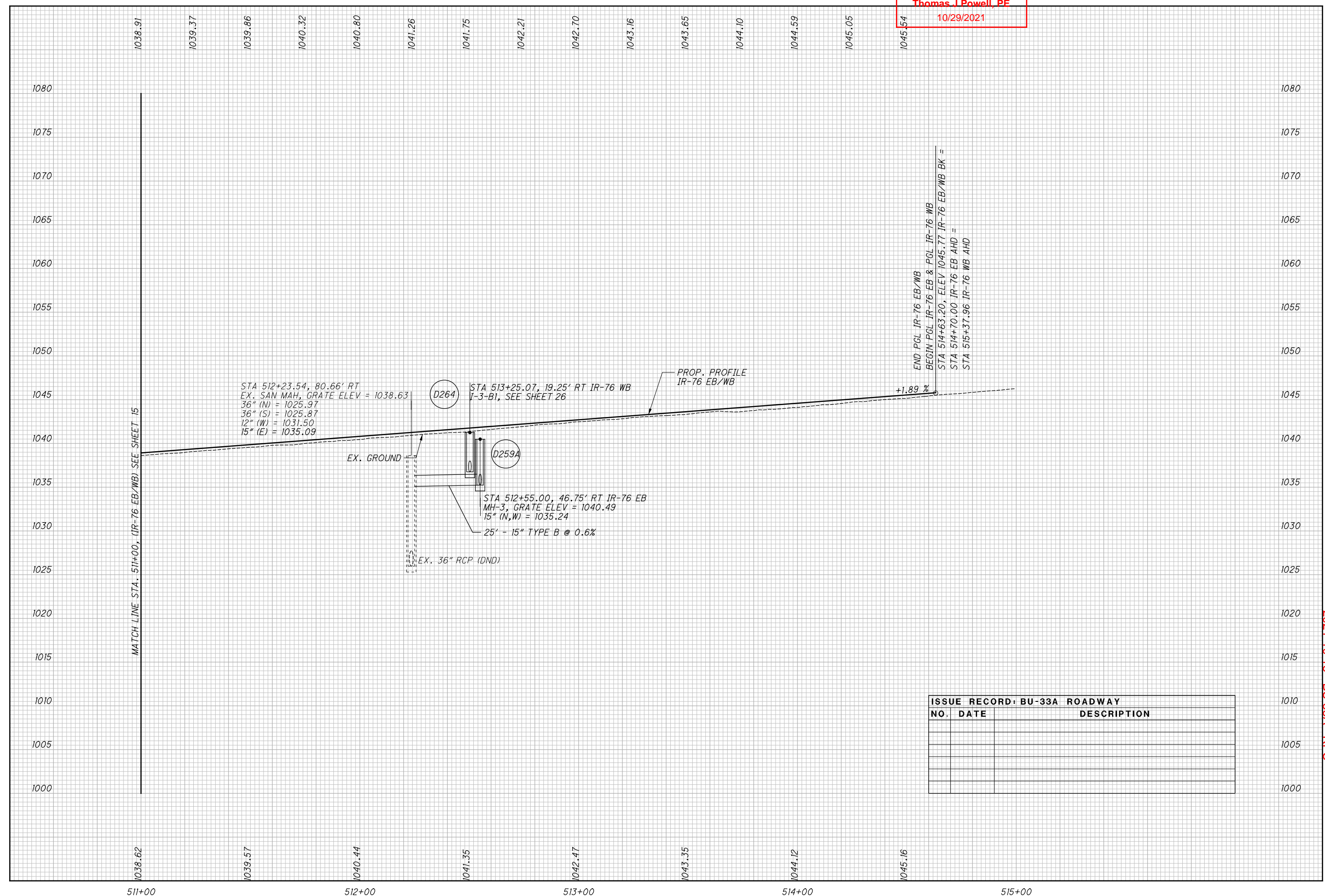
MATCH LINE STA. 516+50 (IR-76 EB) SEE SHEET 19.

PLAN - IR-76 EB STA. 511+00 TO STA. 516+50.00
 IR-76 WB STA. 511+00 TO STA. 517+25.00
 2021-10-18 - BU 33A - RFC

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 Thomas J Powell, PE
 10/29/2021



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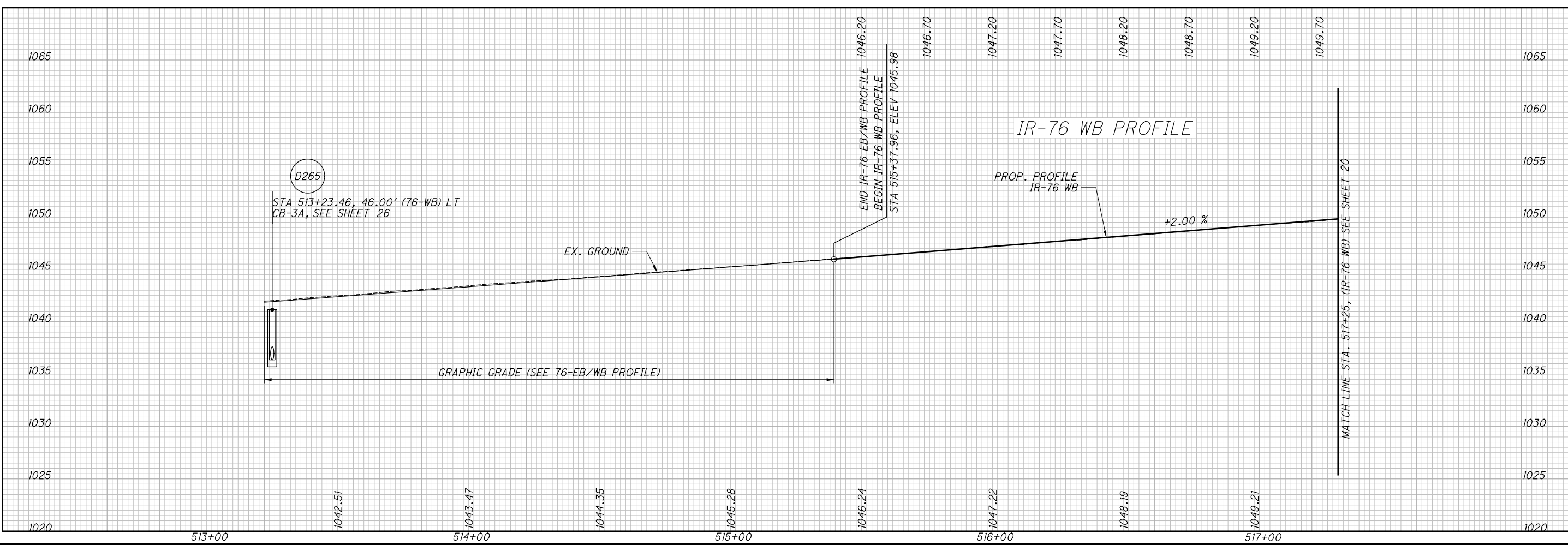
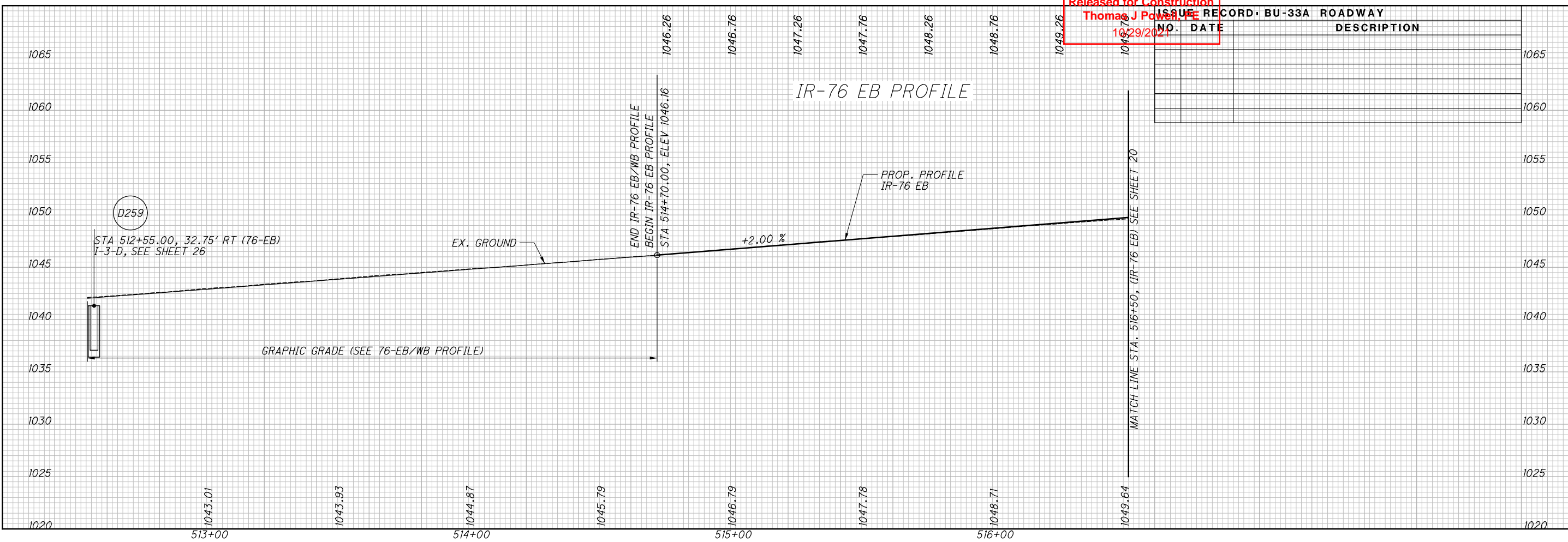
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Released for Construction
 Thomas J. Powell
 10/29/2021

| ISSUE RECORD - BU-33A ROADWAY | | |
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 2021-10-18 - BU 33A - RFC
 PROFILE - IR-76 EB STA. 514+70.00 TO STA. 516+50.00
 PROFILE - IR-76 WB STA. 515+37.96 TO STA. 517+25.00
 SUM-76 / 77 / 8 - 8.24 / 9.74 / 0.00
 18 / 51

Released for Construction
 Thomas J Powell, PE
 10/29/2021

| ISSUE RECORD - BU-33A ROADWAY | | |
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LEGEND

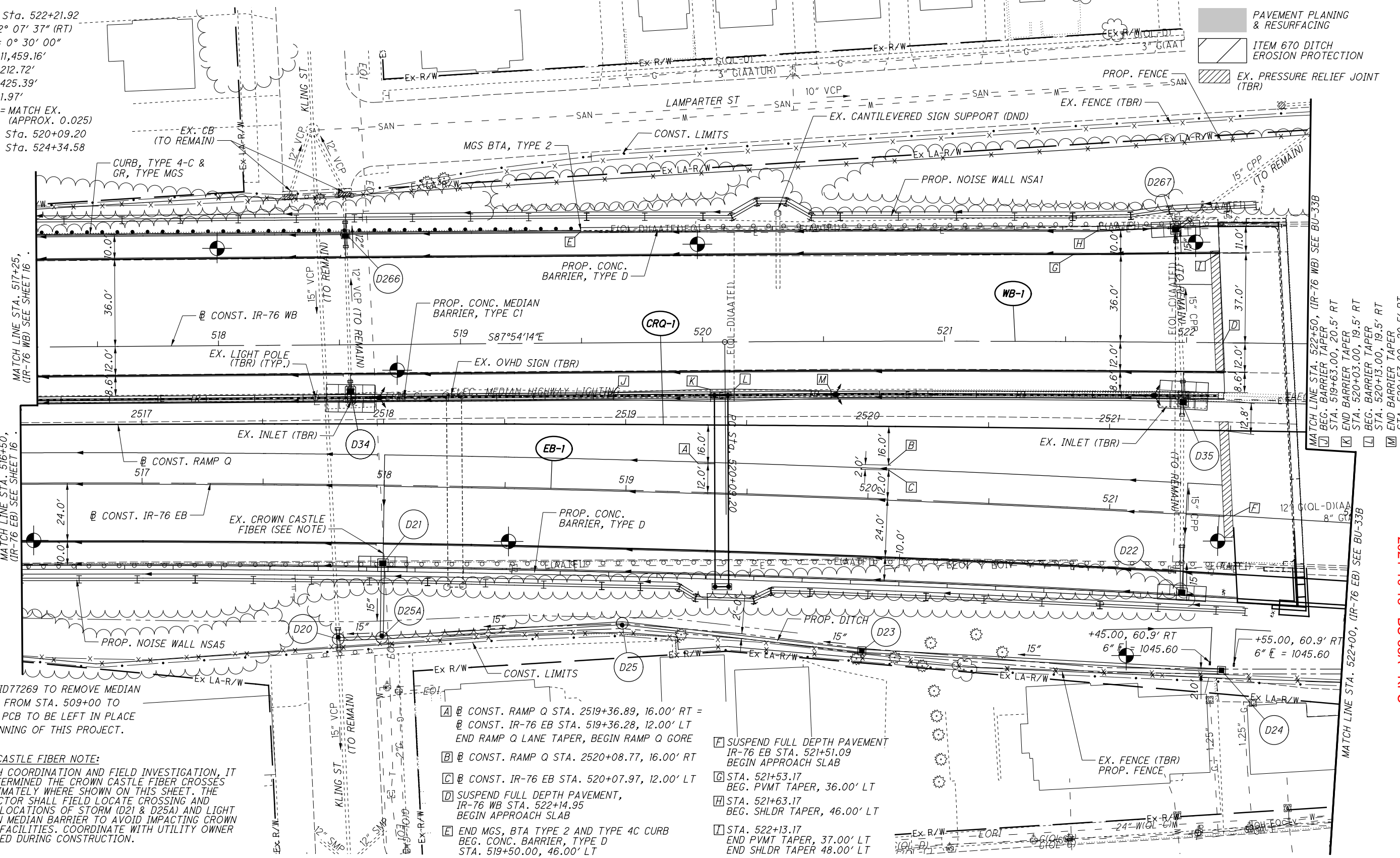
SEE GENERAL NOTES FOR LIST OF PLAN ABBREVIATIONS

- PAVEMENT PLANING & RESURFACING
- ITEM 670 DITCH EROSION PROTECTION
- EX. PRESSURE RELIEF JOINT (TBR)

EB-1 P.I. Sta. 523+90.92
 $\Delta = 10^\circ 48' 01''$ (RT)
 $D_c = 0^\circ 42' 00''$
 $R = 8,185.11'$
 $T = 773.74'$
 $L = 1,542.90'$
 $E = 36.49'$
 $\theta_{max} = 0.025$
 (NDC 0.020)
 P.C. Sta. 516+17.18
 P.T. Sta. 531+60.08

CRQ-1 P.I. Sta. 2520+90.04
 $\Delta = 2^\circ 21' 51''$ (RT)
 $D_c = 0^\circ 15' 00''$
 $R = 22,918.31'$
 $T = 472.87'$
 $L = 945.61'$
 $E = 4.88'$
 $\theta_{max} = 0.025$ (NDC NC)
 P.C. Sta. 2516+17.17
 P.C.C. Sta. 2525+62.76

WB-1 P.I. Sta. 522+21.92
 $\Delta = 2^\circ 07' 37''$ (RT)
 $D_c = 0^\circ 30' 00''$
 $R = 11,459.16'$
 $T = 212.72'$
 $L = 425.39'$
 $E = 1.97'$
 $\theta_{max} = \text{MATCH EX.}$
 (APPROX. 0.025)
 P.C. Sta. 520+09.20
 P.T. Sta. 524+34.58



* NOTE: PID77269 TO REMOVE MEDIAN BARRIER FROM STA. 509+00 TO 514+00. PCB TO BE LEFT IN PLACE AT BEGINNING OF THIS PROJECT.

CROWN CASTLE FIBER NOTE:
 THROUGH COORDINATION AND FIELD INVESTIGATION, IT WAS DETERMINED THE CROWN CASTLE FIBER CROSSES APPROXIMATELY WHERE SHOWN ON THIS SHEET. THE CONTRACTOR SHALL FIELD LOCATE CROSSING AND ADJUST LOCATIONS OF STORM (D21 & D25A) AND LIGHT POLE ON MEDIAN BARRIER TO AVOID IMPACTING CROWN CASTLE FACILITIES. COORDINATE WITH UTILITY OWNER AS NEEDED DURING CONSTRUCTION.

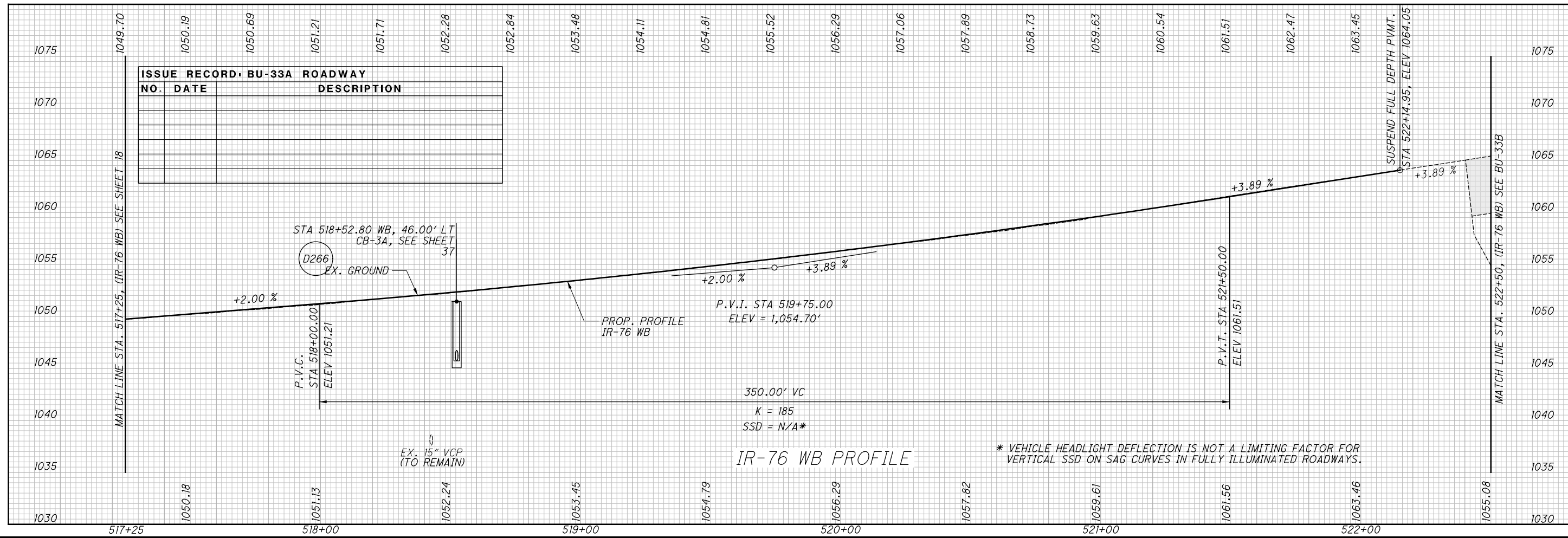
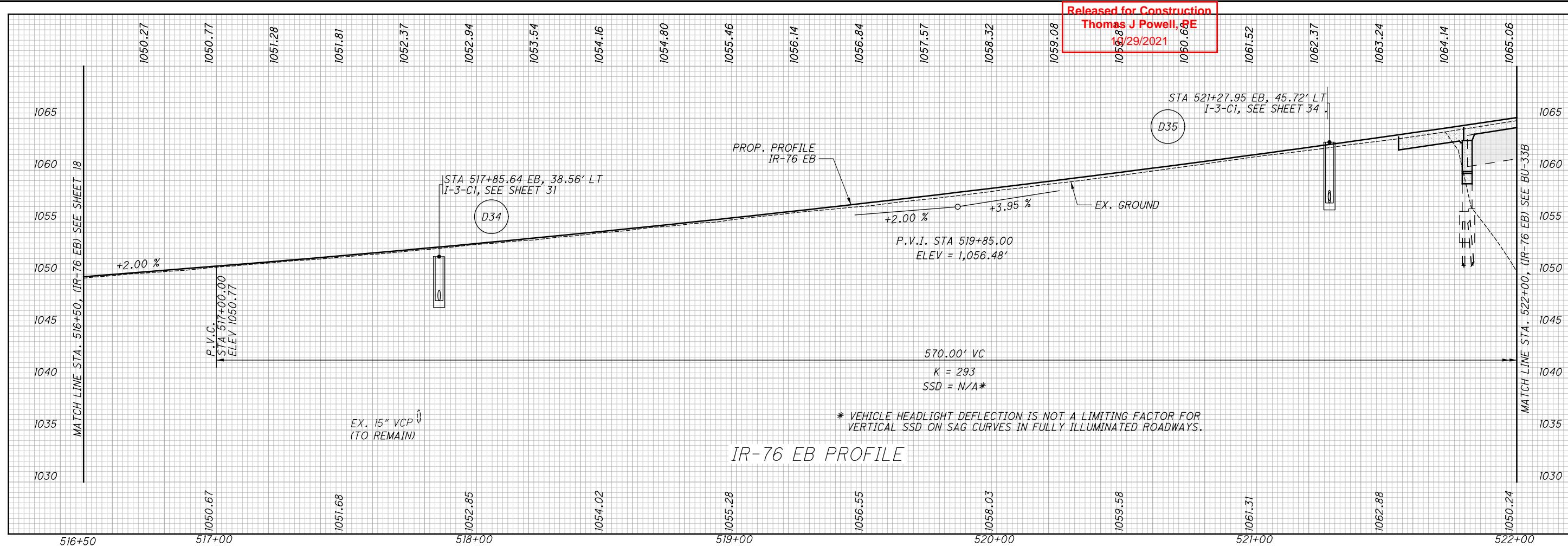
- A) CONST. RAMP Q STA. 2519+36.89, 16.00' RT =
 CONST. IR-76 EB STA. 519+36.28, 12.00' LT
 END RAMP Q LANE TAPER, BEGIN RAMP Q GORE
- B) CONST. RAMP Q STA. 2520+08.77, 16.00' RT
- C) CONST. IR-76 EB STA. 520+07.97, 12.00' LT
- D) SUSPEND FULL DEPTH PAVEMENT, IR-76 WB STA. 522+14.95 BEGIN APPROACH SLAB
- E) END MGS, BTA TYPE 2 AND TYPE 4C CURB
 BEG. CONC. BARRIER, TYPE D
 STA. 519+50.00, 46.00' LT
- F) SUSPEND FULL DEPTH PAVEMENT IR-76 EB STA. 521+51.09 BEGIN APPROACH SLAB
- G) STA. 521+53.17 BEG. PVM TAPER, 36.00' LT
- H) STA. 521+63.17 BEG. SHLDR TAPER, 46.00' LT
- I) STA. 522+13.17 END PVM TAPER, 37.00' LT
 END SHLDR TAPER 48.00' LT

PLAN - IR-76 EB STA. 516+50 TO STA. 522+50
 IR-76 WB STA. 517+25 TO STA. 522+50

SUM-76/77/8-8.24/9.74/0.00
 2021-10-18 - BU 33A - RFC

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 Thomas J Powell, PE
 10/29/2021



| ISSUE RECORD, BU-33A ROADWAY | | |
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2021-10-18 - BU 33A - REC

PROFILE - IR-76 EB STA. 516+50.00 TO STA. 522+00.00
 PROFILE - IR-76 WB STA. 517+25.00 TO STA. 522+50.00

SUM-76 / 77 / 8 -
 8.24 / 9.74 / 0.00

CALCULATED
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Released for Construction
 Thomas J Powell, PE
 10/29/2021

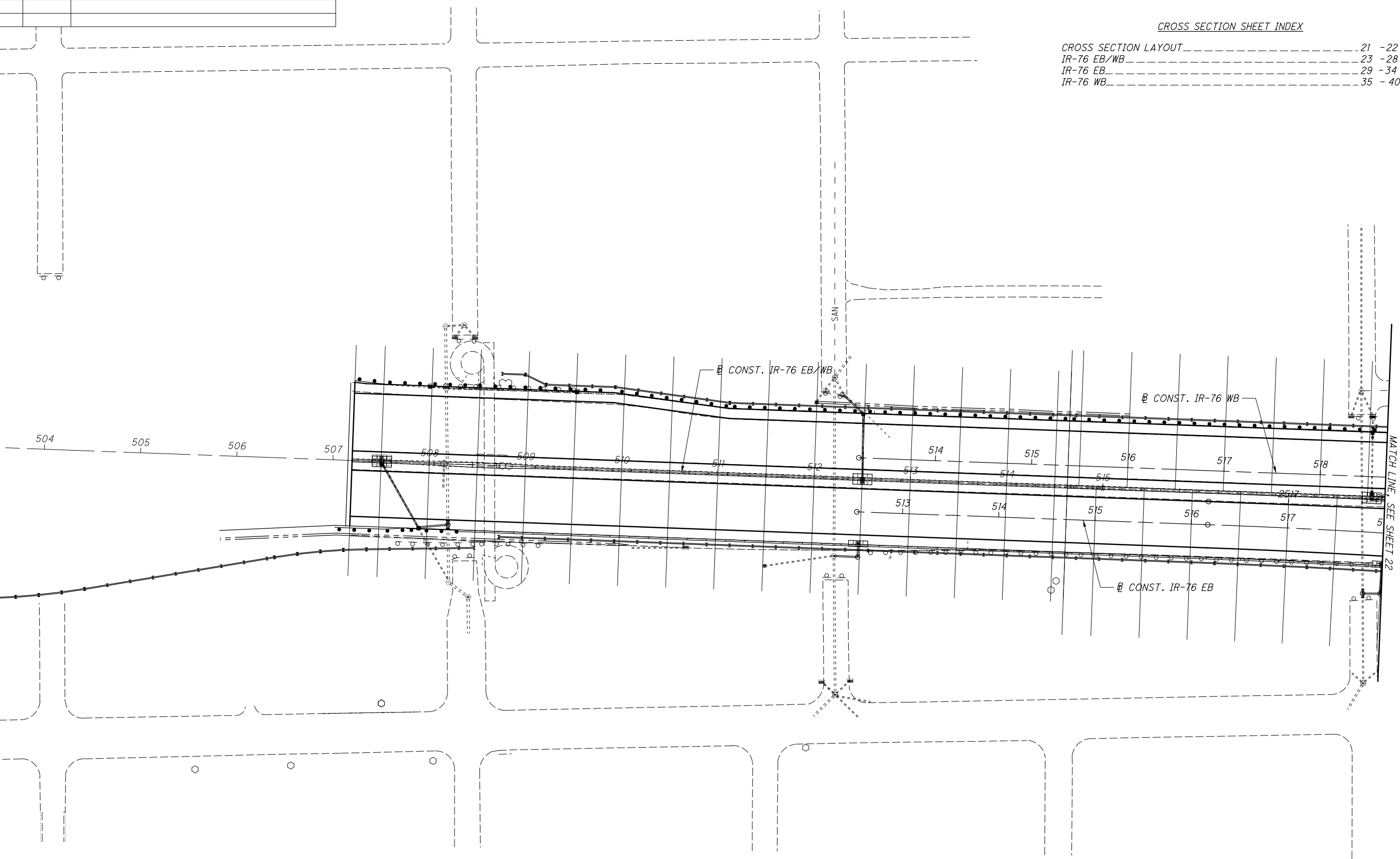
————— CROSS SECTION MATCH LINE



CROSS SECTION SHEET INDEX

| | |
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| CROSS SECTION LAYOUT | 21 - 22 |
| IR-76 EB/WB | 23 - 28 |
| IR-76 EB | 29 - 34 |
| IR-76 WB | 35 - 40 |

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CROSS SECTION LAYOUT

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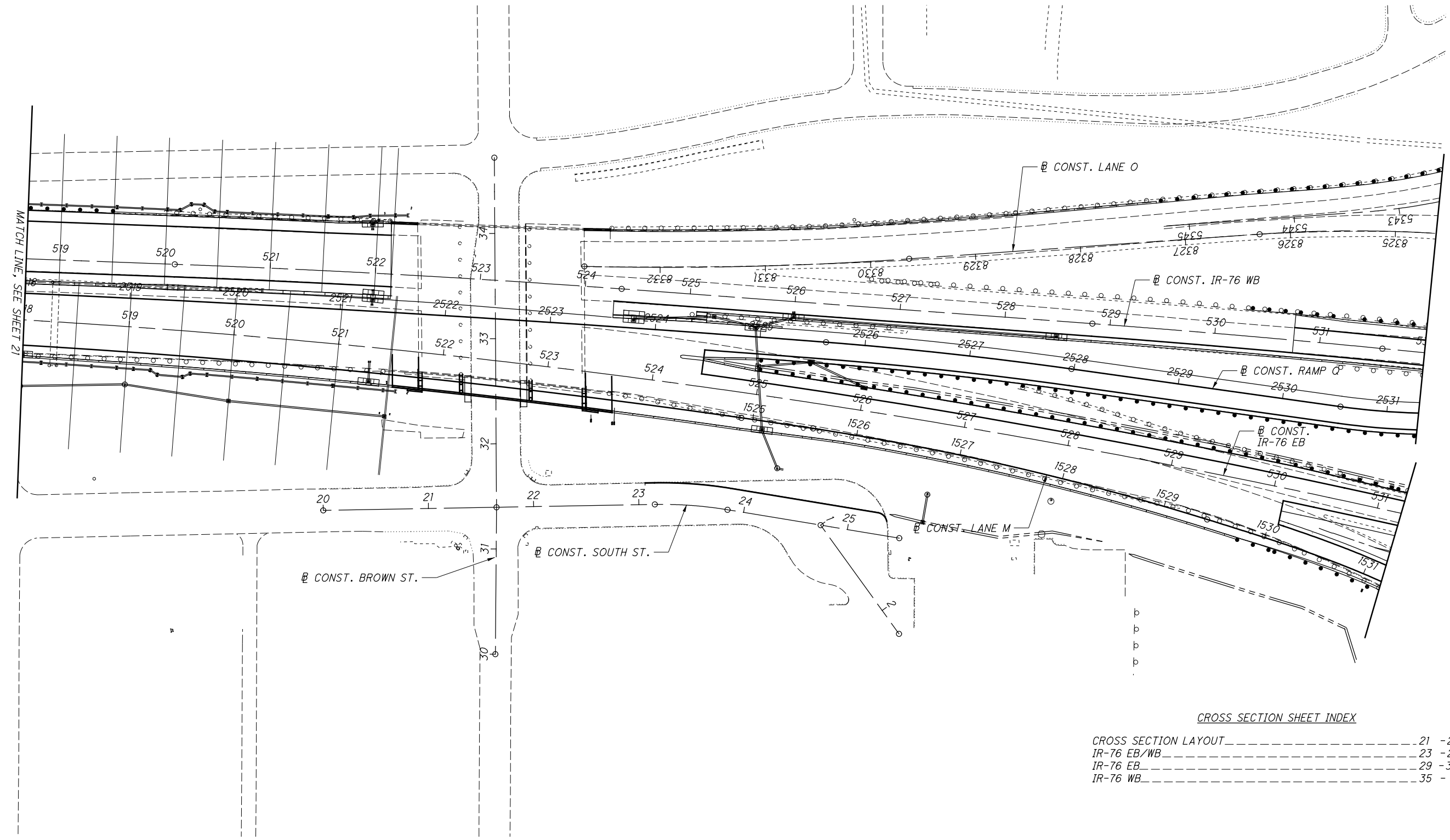
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 Thomas J Powell, PE
 10/29/2021

————— CROSS SECTION MATCH LINE

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 SCALE IN FEET



CROSS SECTION SHEET INDEX

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| CROSS SECTION LAYOUT | 21 - 22 |
| IR-76 EB/WB | 23 - 28 |
| IR-76 EB | 29 - 34 |
| IR-76 WB | 35 - 40 |

CROSS SECTION LAYOUT

2021-10-18 - BU 33A - RFC

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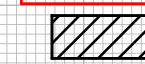
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IR-76 EB/WB

Released for Construction

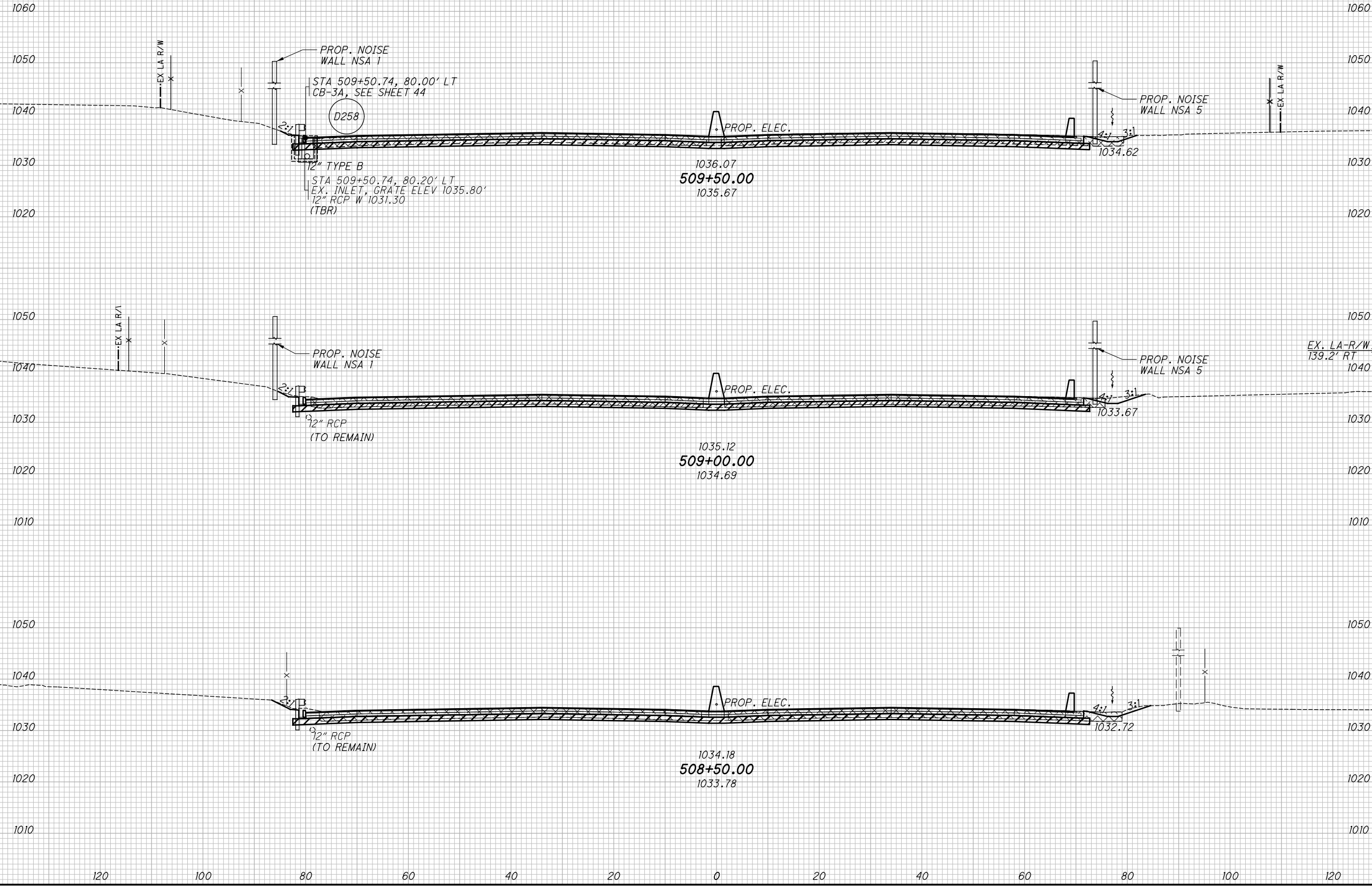
Thomas J Powell PE
10/29/2021



ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

ITEM 201 - PAVEMENT REMOVED OR
ITEM 202 - PAVEMENT REMOVED, ASPHALT

| END AREA | | VOLUME | | CALCULATED | DSS | CHECKED | MET |
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| CUT | FILL | CUT | FILL | | | | |
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| | | | | CROSS SECTIONS IR-76 EB/WB | | | |
| | | | | STA. 508+50.00 TO STA. 509+50.00 | | | |
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| END WIDTH | SO. YDS. |
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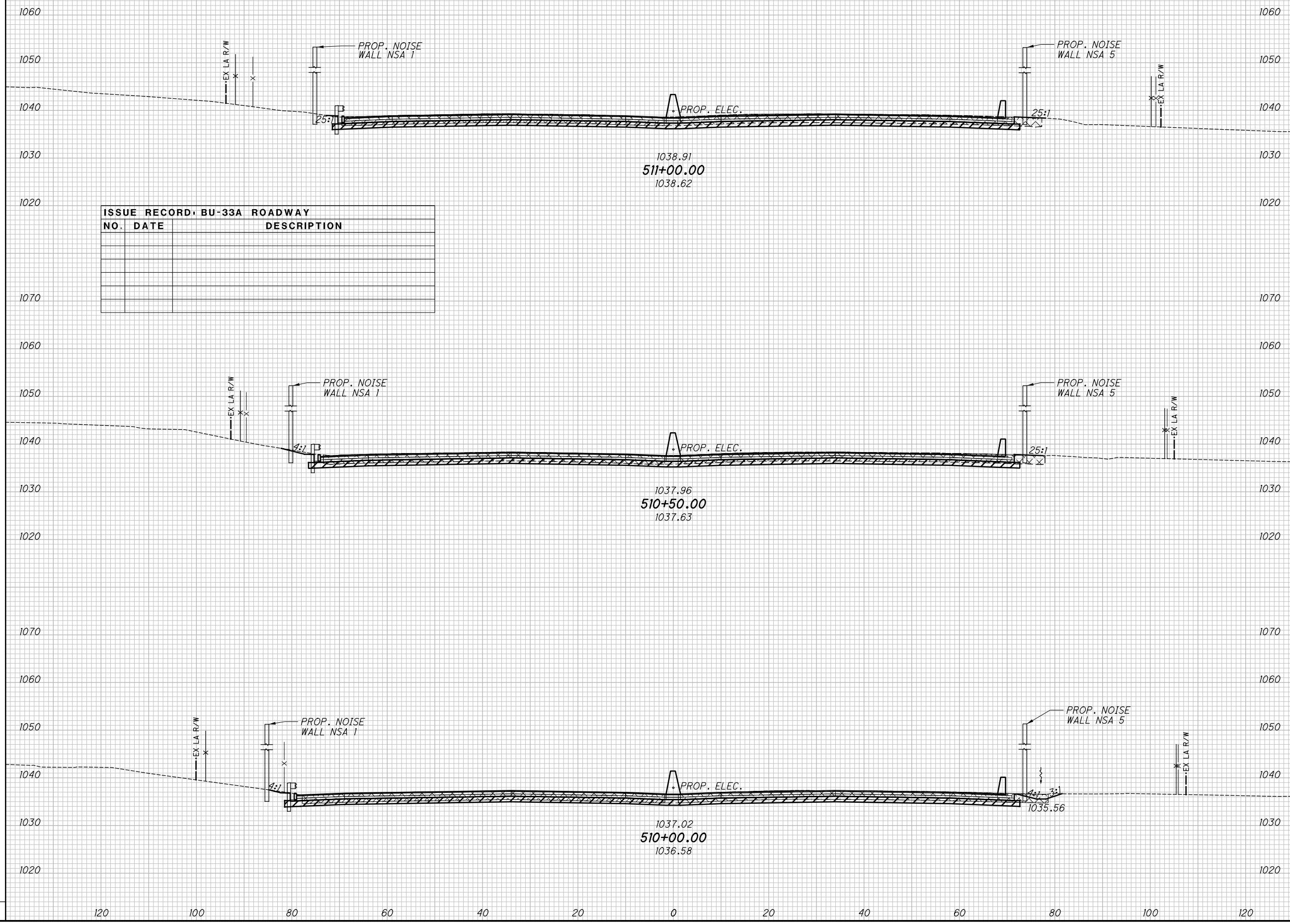
IR-76 EB/WB

Released for Construction

Thomas J Powell PE
 10/29/2021
 ITEM 202 - PAVEMENT REMOVED OR
 ITEM 202 - PAVEMENT REMOVED, ASPHALT

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

| END AREA | | VOLUME | | CALCULATED | DSS | CHECKED | MET |
|----------|------|--------|------|------------|-----|---------|-----|
| CUT | FILL | CUT | FILL | | | | |
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CROSS SECTIONS IR-76 EB / WB
 STA. 510+00.00 TO STA. 511+00.00

2021-10-18 - BU 33A - RFC

SUM-76 77 8-
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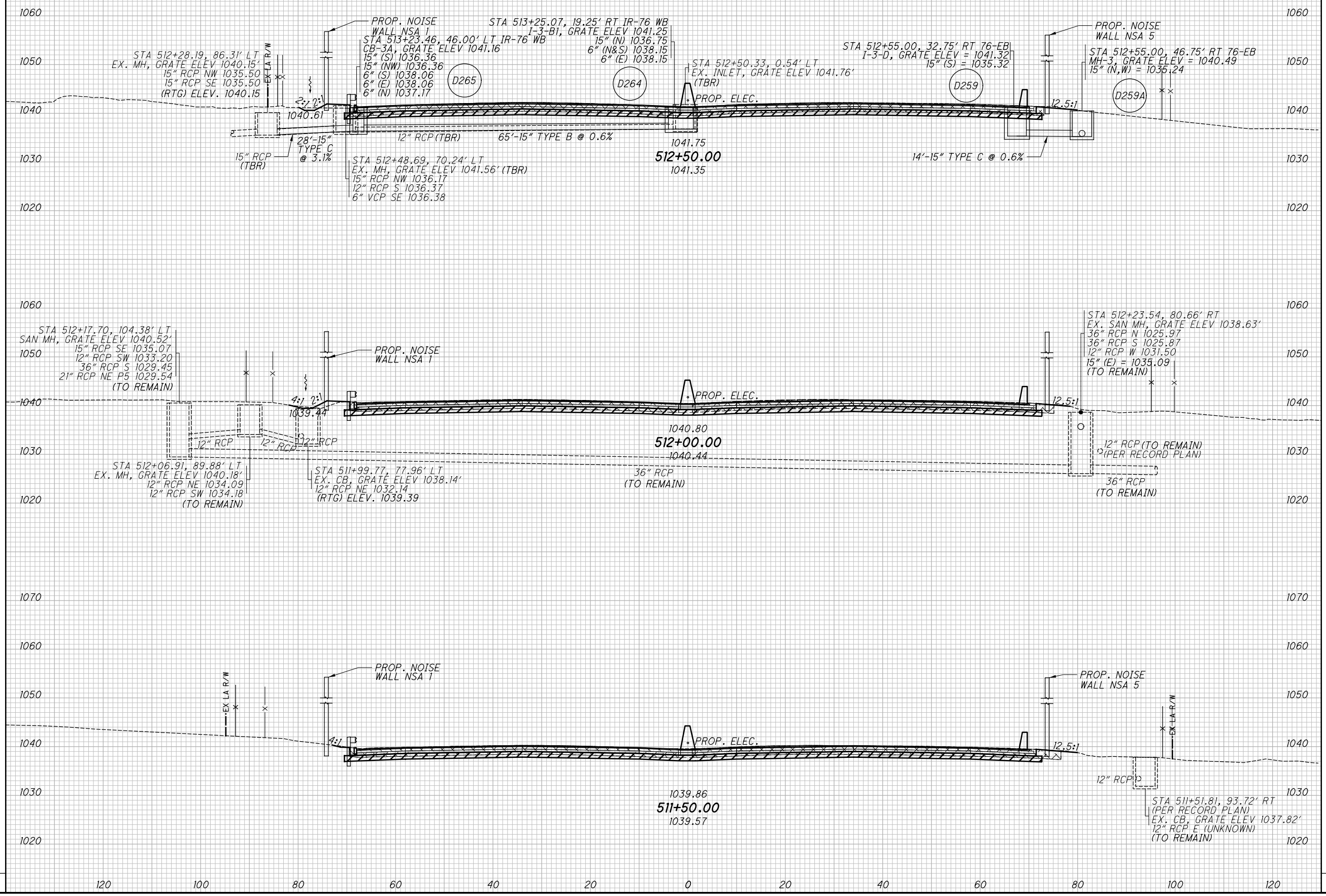
IR-76 EB/WB

Released for Construction
 Thomas J Powell PE
 10/29/2021

ITEM 206 - PAVEMENT REMOVED OR
 ITEM 202 - PAVEMENT REMOVED, ASPHALT

 ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

| END AREA | | VOLUME | | CALCULATED | DSS | CHECKED | MET |
|----------|------|--------|------|------------|-----|---------|-----|
| CUT | FILL | CUT | FILL | | | | |
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CROSS SECTIONS IR-76 EB / WB
 STA. 511+50.00 TO STA. 512+50.00

2021-10-18 - BU 33A - RFC
 SUM-76 77 8 -
 8.24 / 9.74 / 0.00

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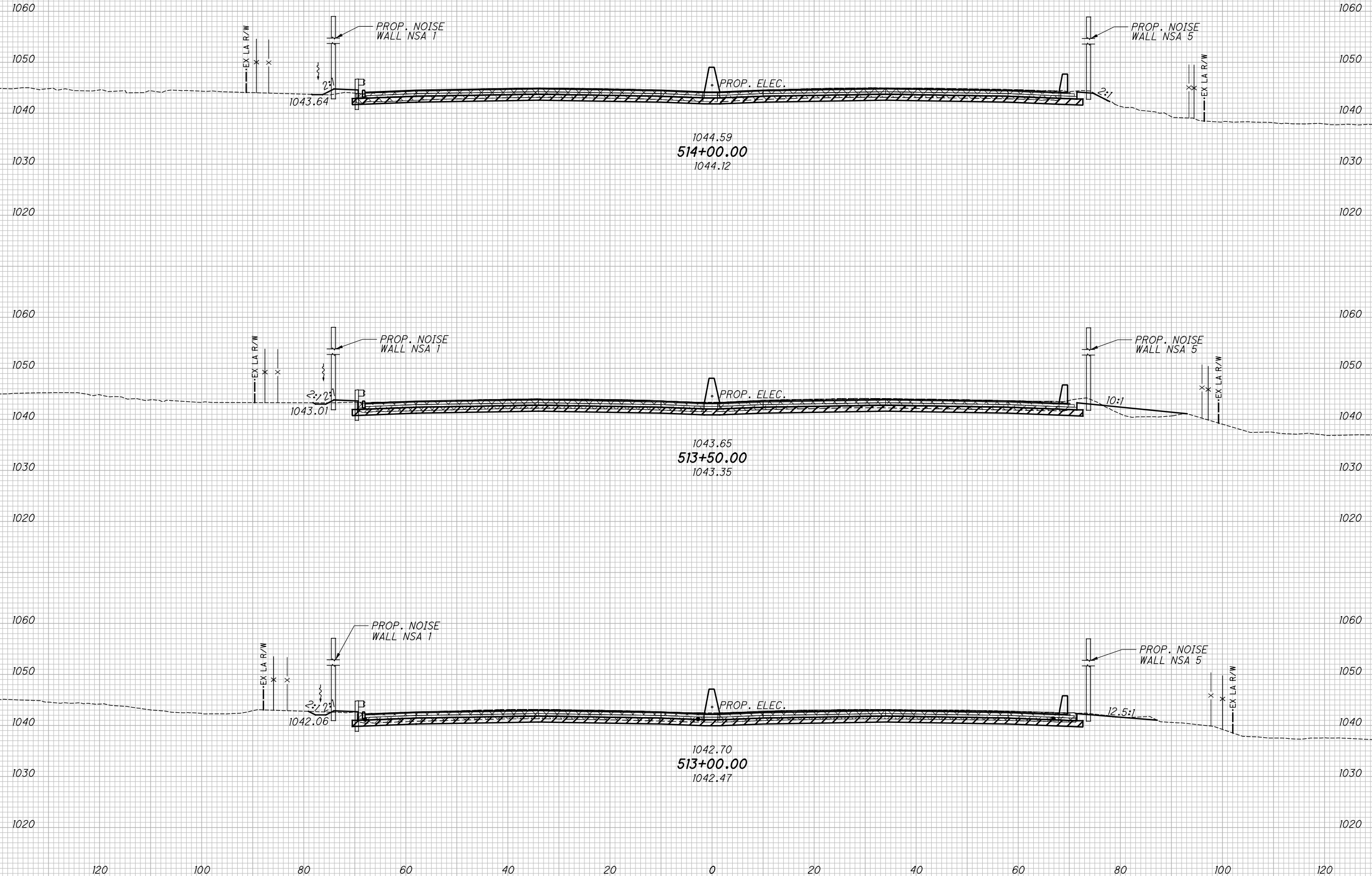
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IR-76 EB/WB

Released for Construction
 Thomas J Powell PE
 10/29/2021
 ITEM 201 - PAVEMENT REMOVED OR
 ITEM 202 - PAVEMENT REMOVED, ASPHALT

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

| END AREA | VOLUME | CALCULATED | DSS | CHECKED | MET |
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| <p>CROSS SECTIONS IR-76 EB / WB STA. 513+00.00 TO STA. 514+00.00</p> | | | | | |
| <p>SUM-76 77 8- 8.24 / 9.74 / 0.00</p> | | | | | |
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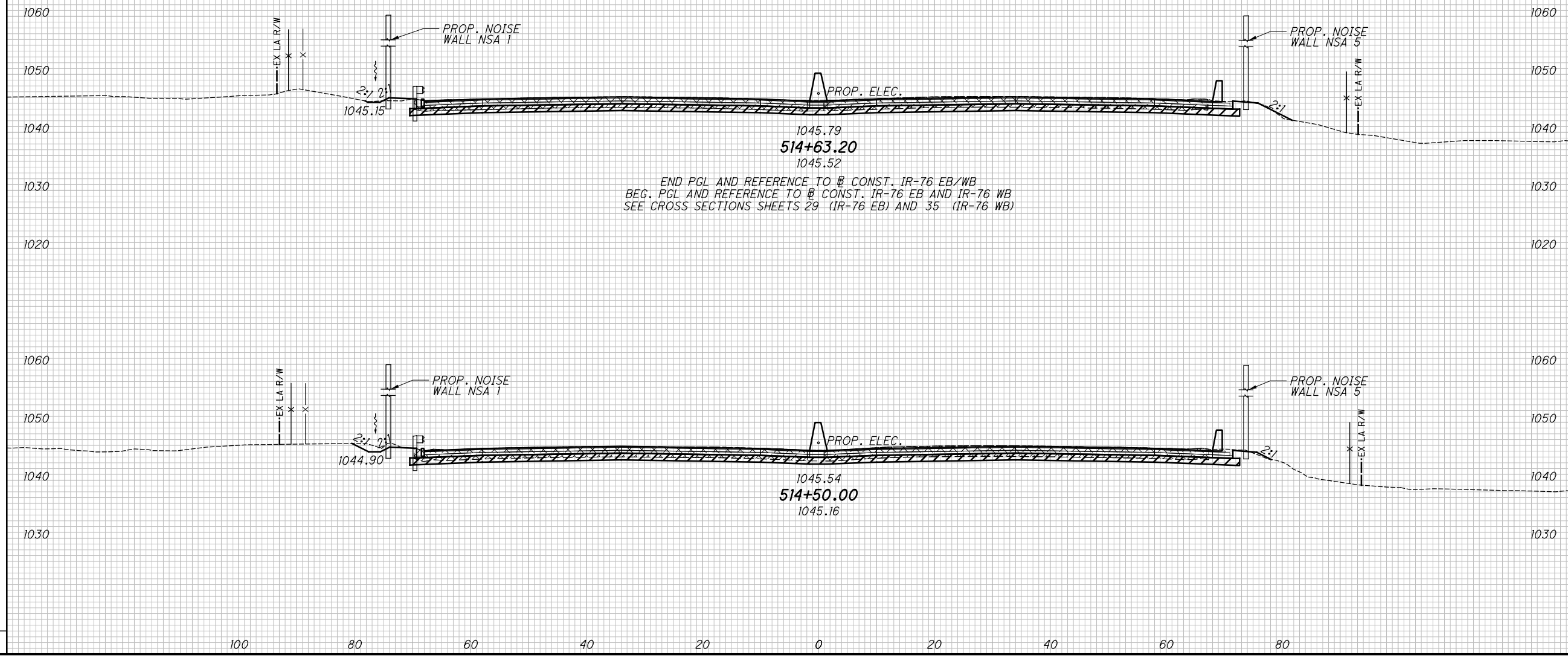
IR-76 EB/WB

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Thomas J Powell PE
 10/29/2021
 ITEM 202 - PAVEMENT REMOVED OR
 ITEM 202 - PAVEMENT REMOVED, ASPHALT

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

| END AREA | | VOLUME | | CALCULATED | DSS | CHECKED | MET |
|----------|------|--------|------|------------|-----|---------|-----|
| CUT | FILL | CUT | FILL | | | | |
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END PGL AND REFERENCE TO B CONST. IR-76 EB/WB
 BEG. PGL AND REFERENCE TO B CONST. IR-76 EB AND IR-76 WB
 SEE CROSS SECTIONS SHEETS 29 (IR-76 EB) AND 35 (IR-76 WB)

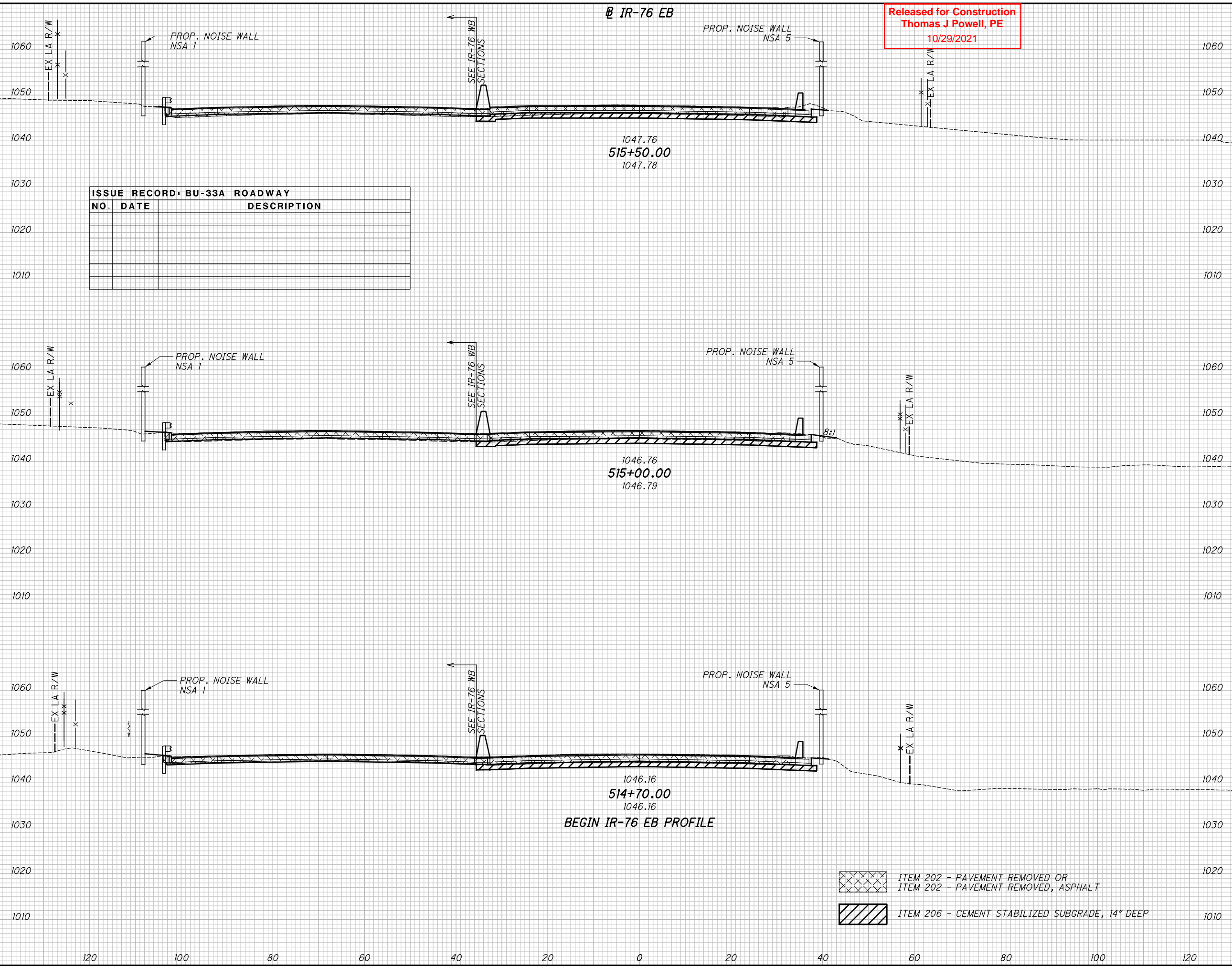
CROSS SECTIONS IR-76 EB / WB
STA. 514+50.00 TO STA. 514+63.20

2021-10-18 - BU 33A - RFC

SUM-76 77 8-
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10/29/2021

| END | AREA | | VOLUME | | CALCULATED | CHECKED | MET |
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| | CUT | FILL | CUT | FILL | | | |
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| CROSS SECTIONS IR-76 EB STA. 514+70.00 TO STA. 515+50.00 | | | | | | | |
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- ITEM 202 - PAVEMENT REMOVED OR
ITEM 202 - PAVEMENT REMOVED, ASPHALT
- ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

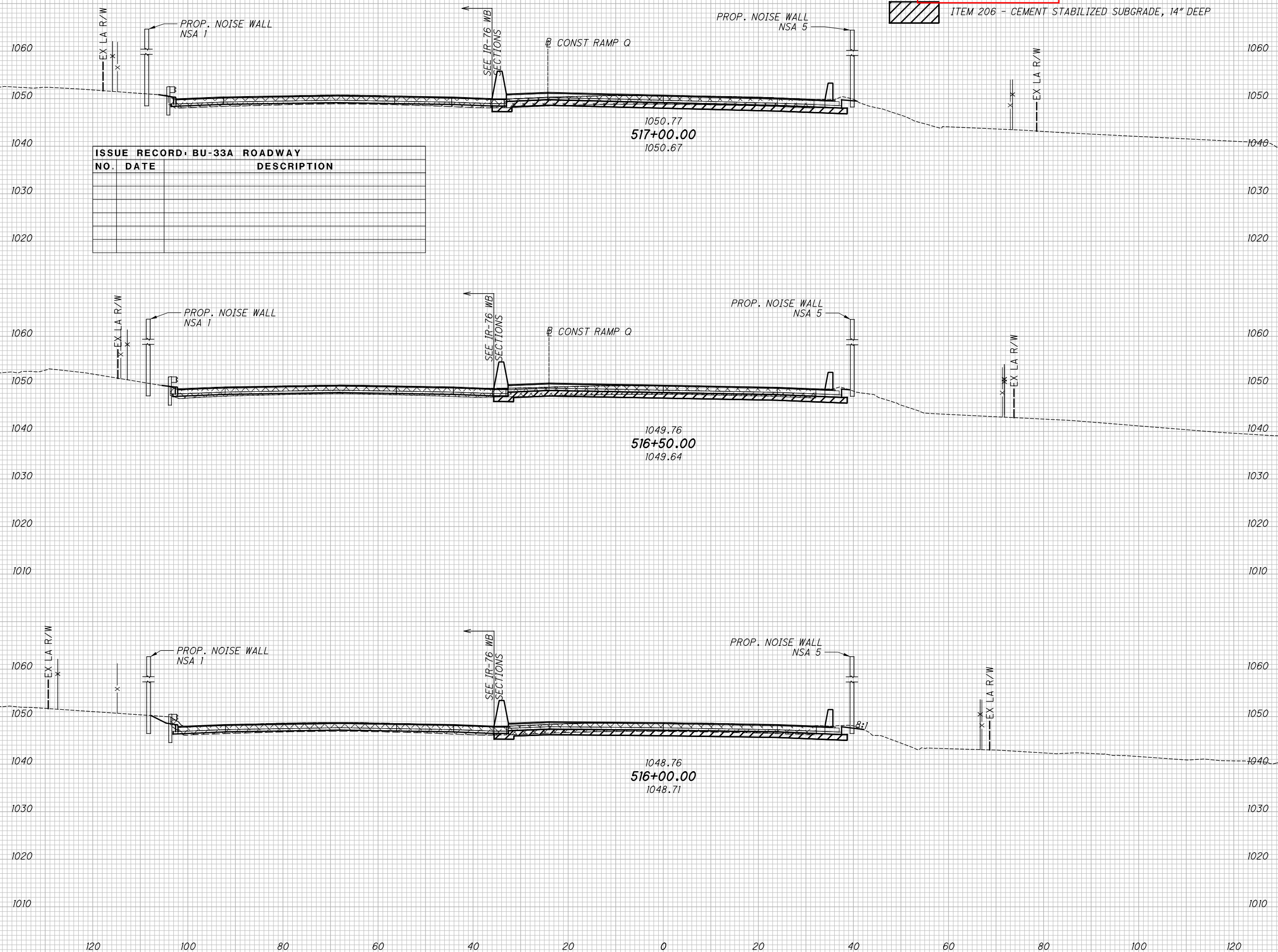
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IR-76 EB

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10/29/2021
ITEM 202 - PAVEMENT REMOVED OR
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

END AREA VOLUME
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| ISSUE RECORD: BU-33A ROADWAY | | |
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CROSS SECTIONS IR-76 EB
STA. 516+00.00 TO STA. 517+00.00

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SUM-76 77 8-
8.24 / 9.74 / 0.00

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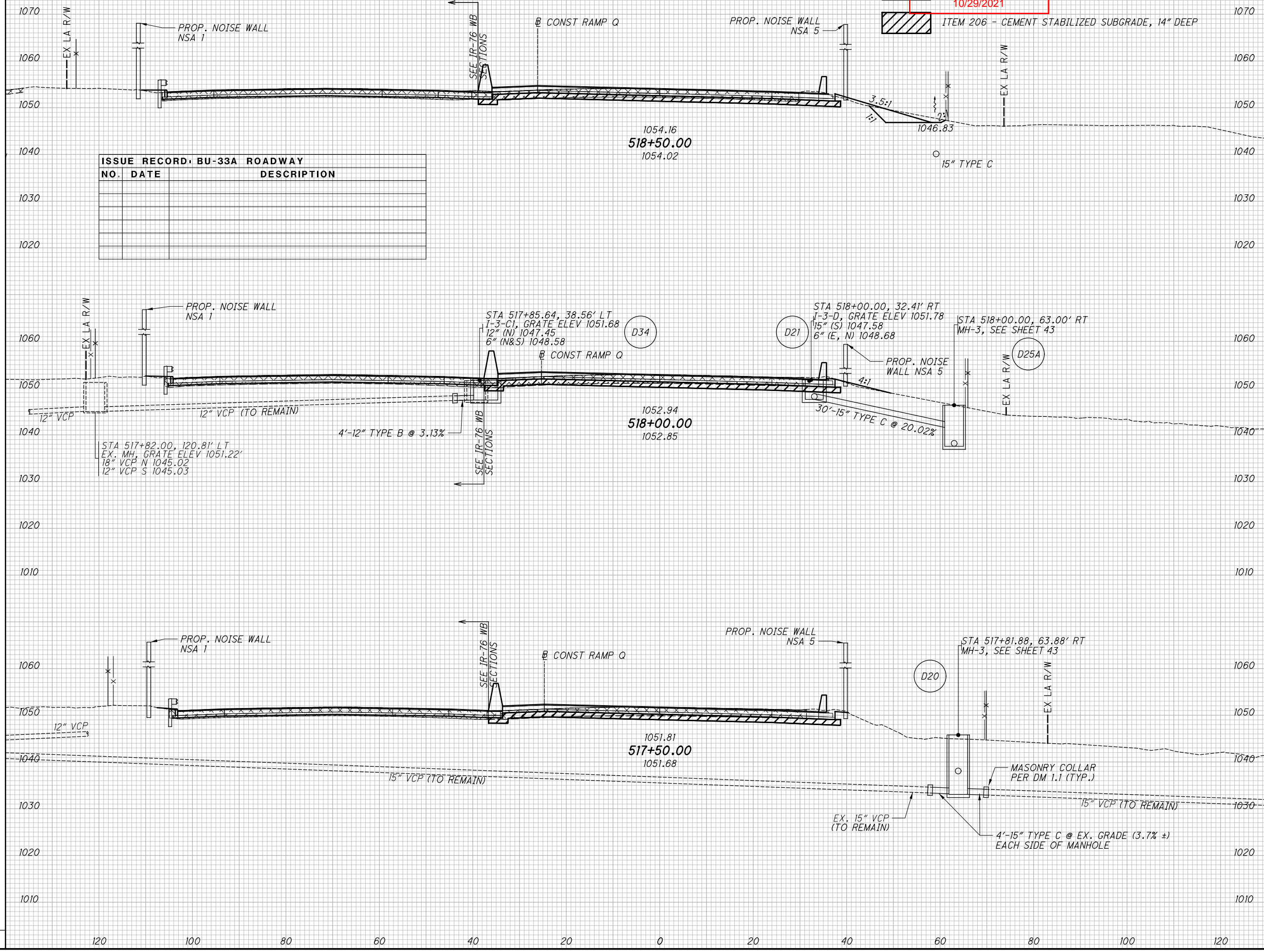
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IR-76 EB

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 Thomas A. Powell
 10/29/2021

ITEM 202 - PAVEMENT REMOVED OR
 ITEM 202 - PAVEMENT REMOVED, ASPHALT
 ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

| END AREA | | VOLUME | | CALCULATED | JLG | CHECKED | MET |
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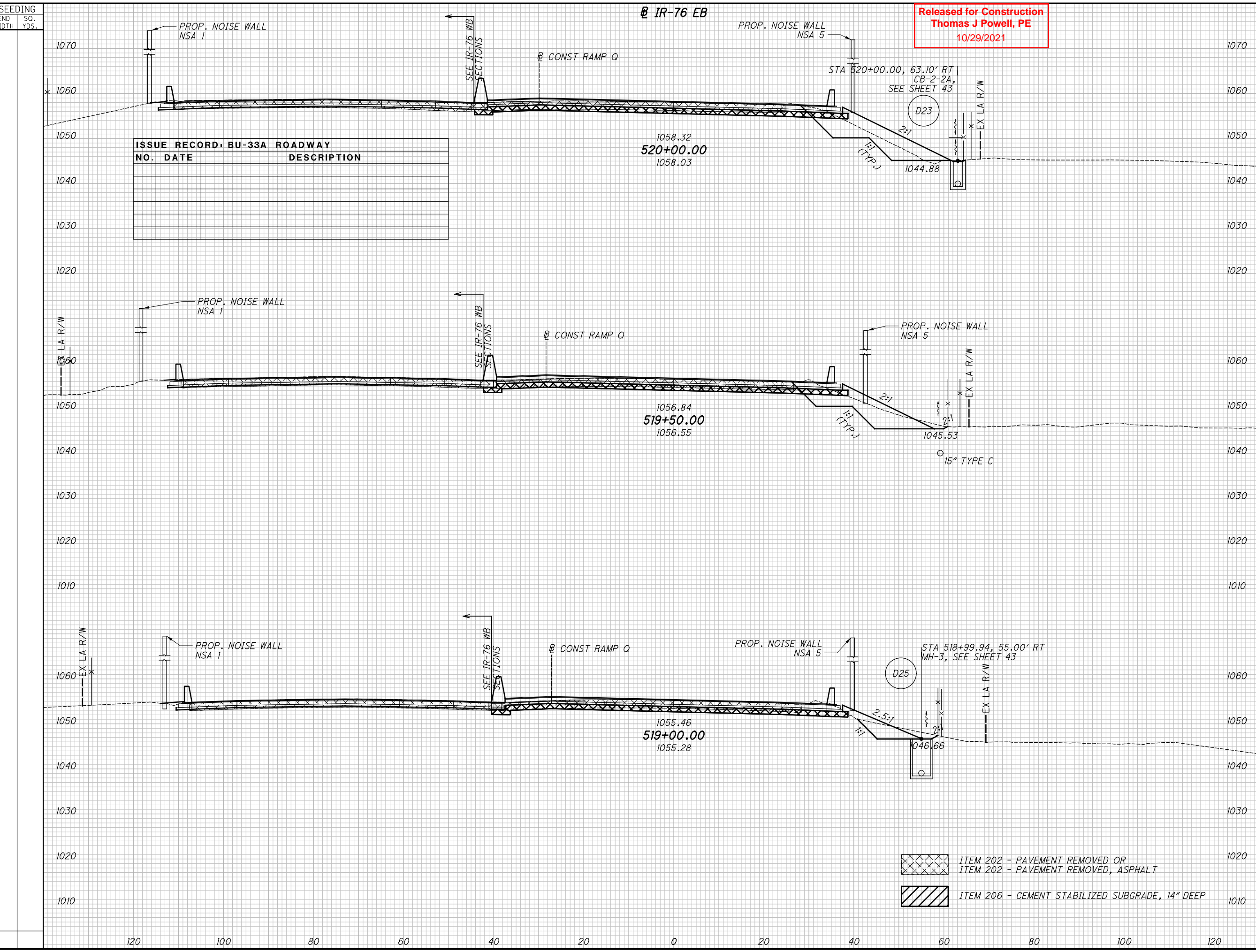


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CROSS SECTIONS IR-76 EB
 STA. 517+50.00 TO STA. 518+50.00
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ISSUE RECORD - BU-33A ROADWAY

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Thomas J Powell, PE
10/29/2021

| END | AREA | | VOLUME | | CALCULATED | JLG | CHECKED | MET |
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| CROSS SECTIONS IR-76 EB STA. 519+00.00 TO STA. 520+00.00 | | | | | | | | |
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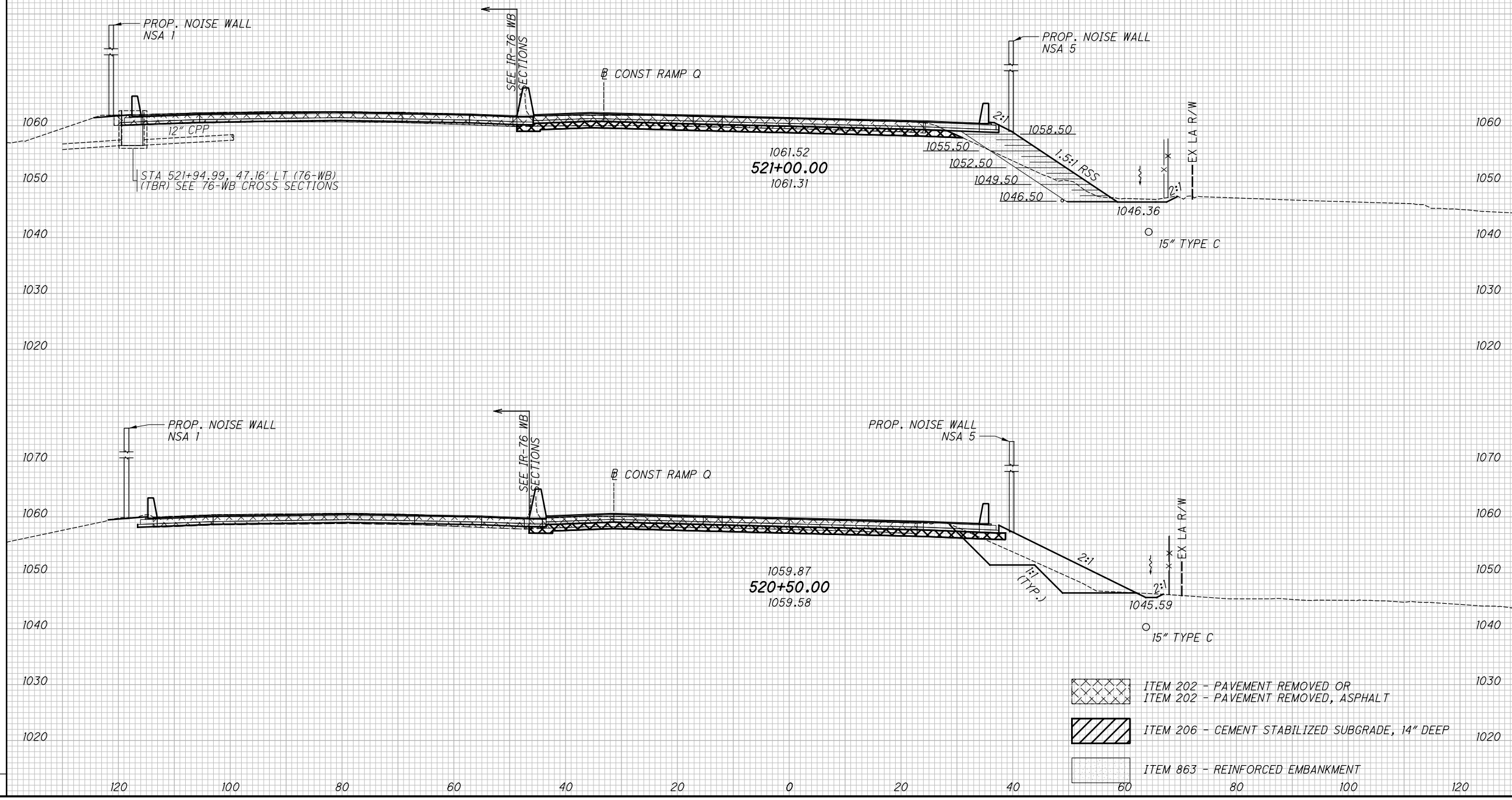
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IR-76 EB

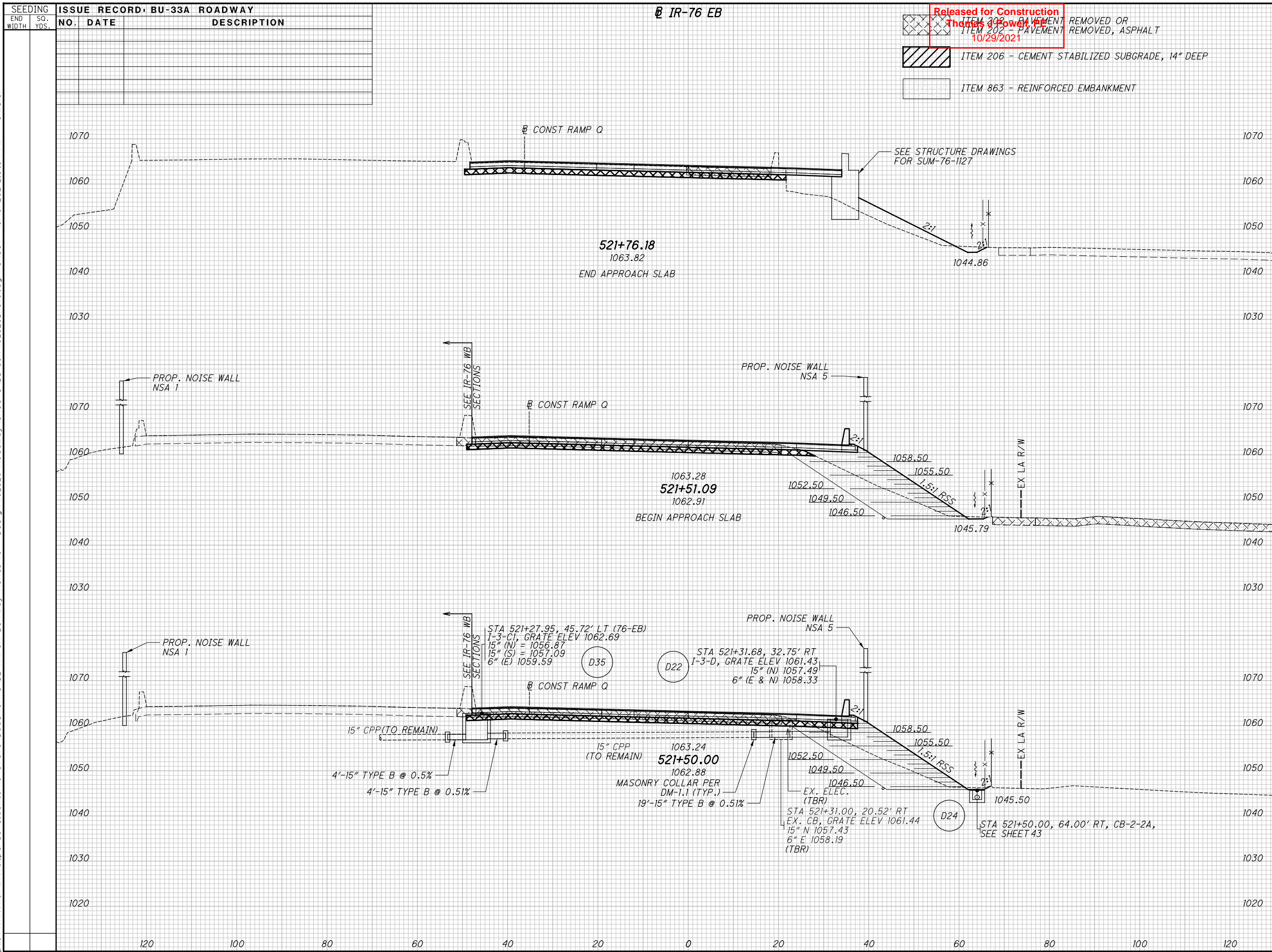
Released for Construction
Thomas J Powell, PE
10/29/2021

| END AREA | | VOLUME | | CALCULATED JLG | CHECKED MET |
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| CUT | FILL | CUT | FILL | | |
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- ITEM 202 - PAVEMENT REMOVED OR
ITEM 202 - PAVEMENT REMOVED, ASPHALT
- ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP
- ITEM 863 - REINFORCED EMBANKMENT

CROSS SECTIONS IR-76 EB
STA. 520+50.00 TO STA. 521+00.00
 2021-10-18 - BU 33A - RFC
SUM-76 77 8-
8.24 / 9.74 / 0.00



| END AREA | VOLUME | CALCULATED | JLG | CHECKED | MET |
|---|--------|------------|-----|---------|-----|
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| CROSS SECTIONS IR-76 EB | | | | | |
| STA. 521+50.00 TO STA. 521+76.18 | | | | | |
| 2021-10-18 - BU 33A - RFC | | | | | |
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| END WIDTH | SO. YDS. |

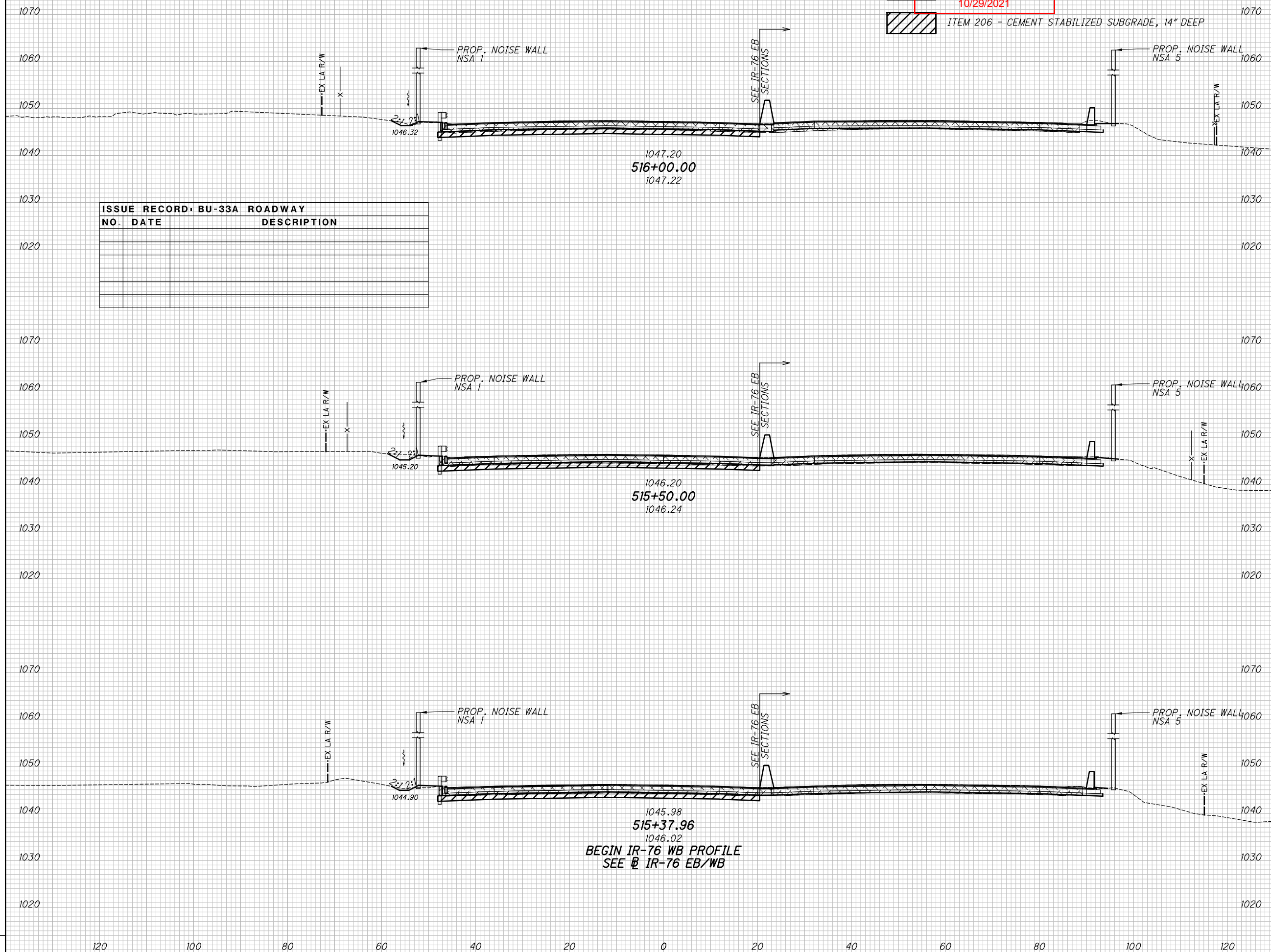
IR-76 WB

Released for Construction
Thomas Power
10/29/2021

ITEM 202 - PAVEMENT REMOVED OR
ITEM 202 - PAVEMENT REMOVED, ASPHALT

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

| END AREA | | VOLUME | | CALCULATED | DSS | CHECKED | MET |
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| CUT | FILL | CUT | FILL | | | | |



| NO. | DATE | DESCRIPTION |
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CROSS SECTIONS IR-76 WB
STA. 515+37.96 TO STA. 516+00.00

2021-10-18 - BU 33A - RFC
SUM-76 77 8-
8.24 / 9.74 / 0.00

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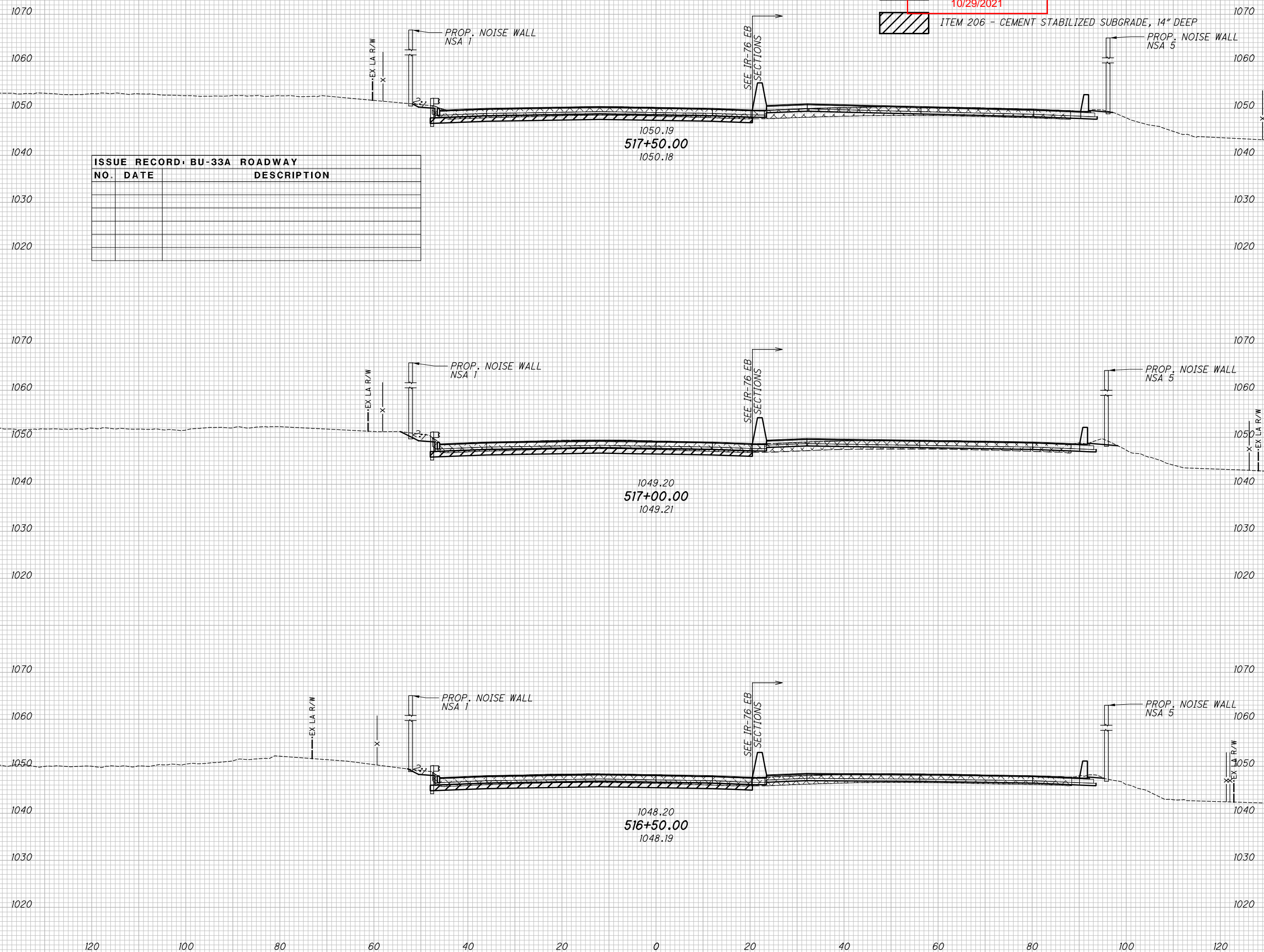
IR-76 WB

Released for Construction
Thomas Power Inc
10/29/2021

ITEM 202 - PAVEMENT REMOVED OR
ITEM 202 - PAVEMENT REMOVED, ASPHALT

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

| END AREA | | VOLUME | | CALCULATED | DSS | CHECKED | MET |
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CROSS SECTIONS IR-76 WB
STA. 516+50.00 TO STA. 517+50.00

2021-10-18 - BU 33A - RFC

SUM - 76 / 77 / 8 -
8.24 / 9.74 / 0.00

36
51

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| SEEDING | | | ISSUE RECORD: BU-33A ROADWAY | | |
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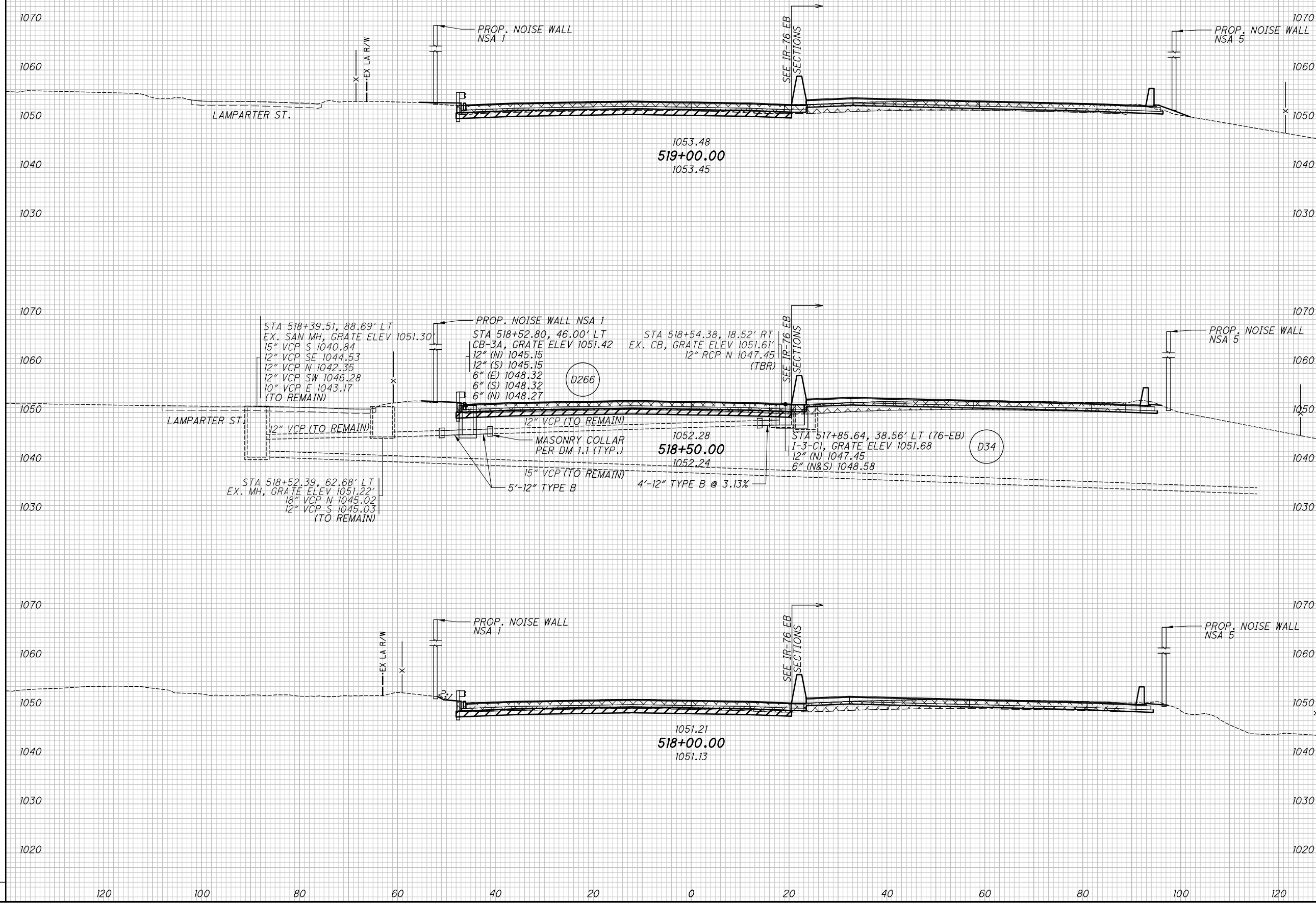
IR-76 WB

Released for Construction
 Thomas A. Powell
 10/29/2021

ITEM 202 - PAVEMENT REMOVED OR
 REMOVED, ASPHALT

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

| END AREA | | VOLUME | | CALCULATED | DSS | CHECKED | MET |
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| CUT | FILL | CUT | FILL | | | | |
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| <p>CROSS SECTIONS IR-76 WB STA. 518+00.00 TO STA. 519+00.00</p> | | | | | | | |
| <p>2021-10-18 - BU 33A - RFC</p> | | | | | | | |
| <p>SUM - 76 / 77 / 8 - 8.24 / 9.74 / 0.00</p> | | | | | | | |
| <p>(37 / 51)</p> | | | | | | | |



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IR-76 WB

Released for Construction
 Thomas Powell PE
 10/29/2021
 ITEM 202 - PAVEMENT REMOVED OR PAVEMENT REMOVED, ASPHALT
 ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

| END AREA | VOLUME | CALCULATED | DSS | CHECKED | MET |
|---|--------|------------|-----|---------|-----|
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| CROSS SECTIONS IR-76 WB STA. 519+50.00 TO STA. 520+50.00 | | | | | |
| SUM - 76 / 77 / 8 - 8.24 / 9.74 / 0.00 | | | | | |
| 2021-10-18 - BU 33A - RFC | | | | | |
| 38 51 | | | | | |



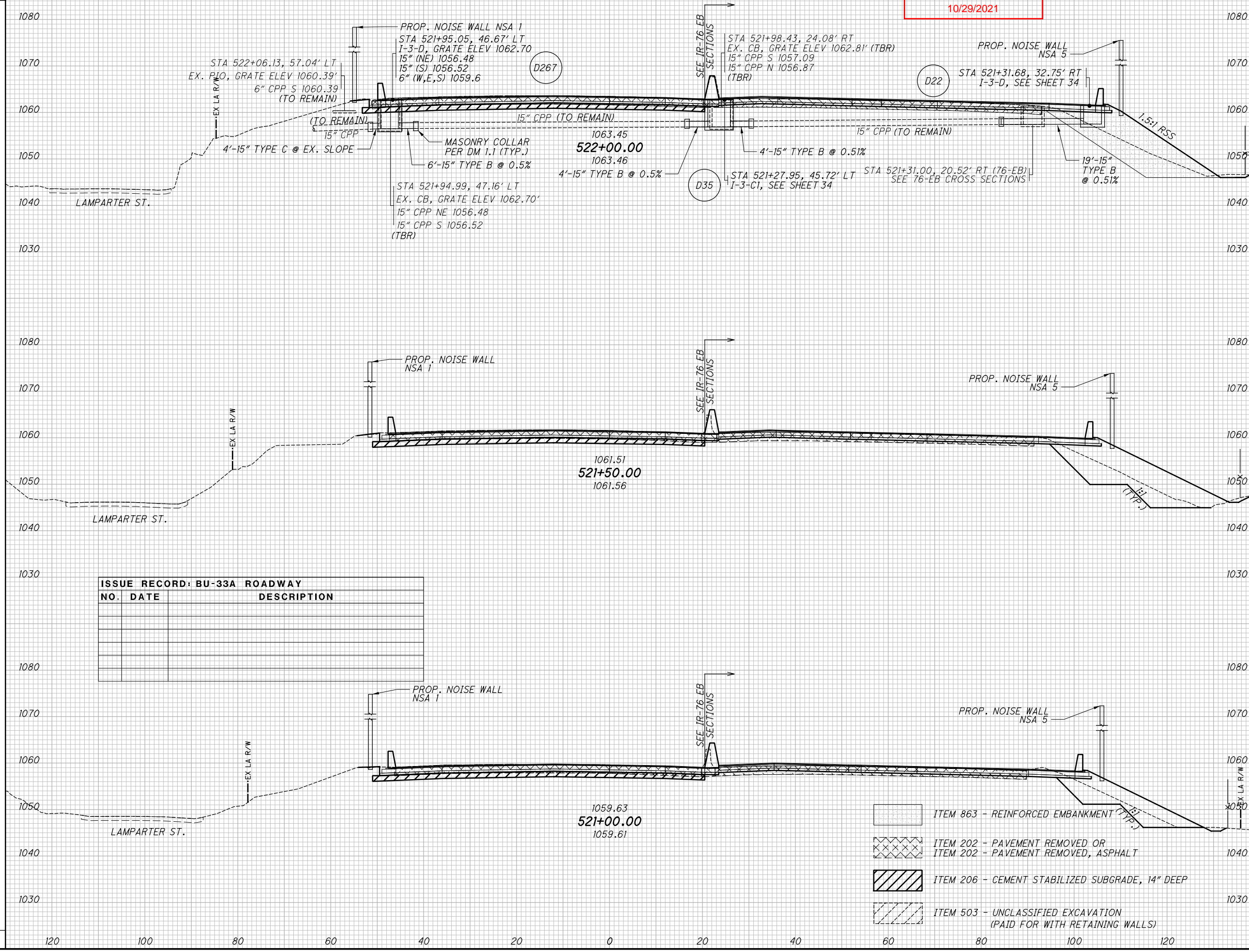
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| SEEDING | |
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IR-76 WB

Released for Construction
Thomas J Powell, PE
10/29/2021

| END AREA | VOLUME | CALCULATED | DSS | CHECKED | MET |
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| NO. | DATE | DESCRIPTION |
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- ITEM 863 - REINFORCED EMBANKMENT
- ITEM 202 - PAVEMENT REMOVED OR
ITEM 202 - PAVEMENT REMOVED, ASPHALT
- ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP
- ITEM 503 - UNCLASSIFIED EXCAVATION
(PAID FOR WITH RETAINING WALLS)

CROSS SECTIONS IR-76 WB
STA. 521+00.00 TO STA. 522+00.00
SUM-76 77 8-
8.24 / 9.74 / 0.00
39
51

2021-10-18 - BU 33A - RFC

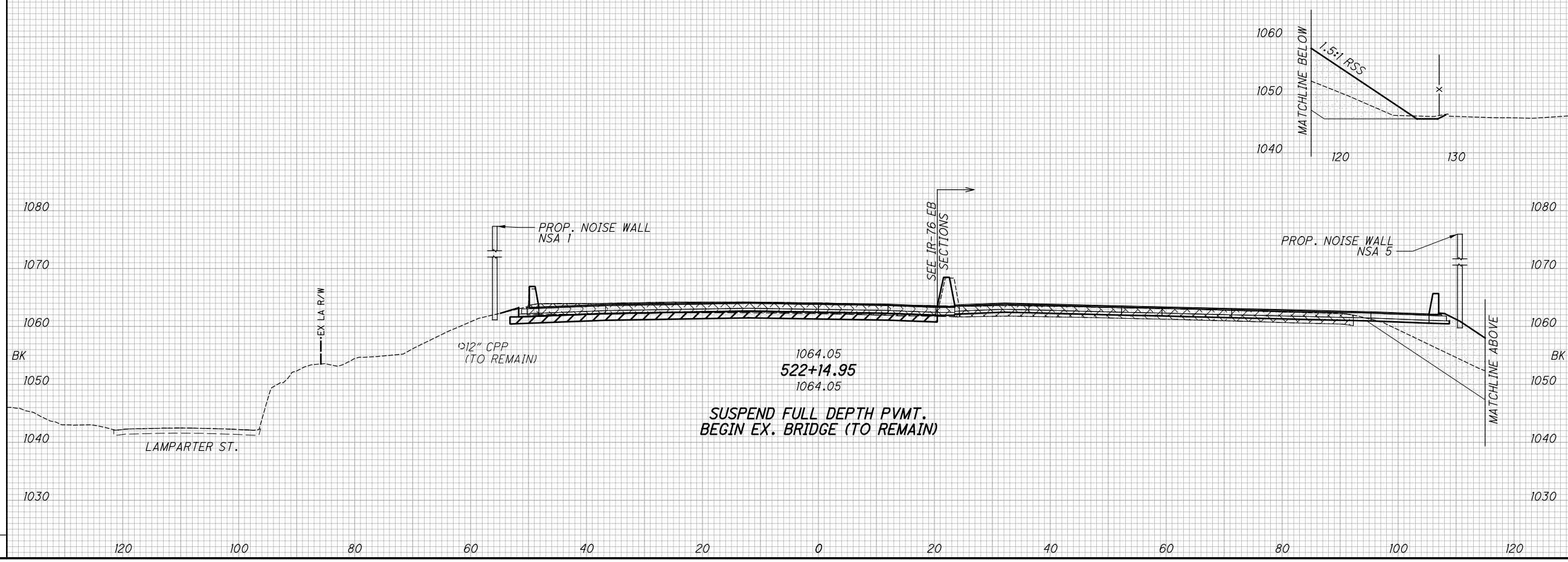
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| SEEDING | | | ISSUE RECORD: BU-33A ROADWAY | | |
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IR-76 WB

- Released for Construction
Thomas A. Powell
10/29/2021
- ITEM 202 - PAVEMENT REMOVED OR REMOVED, ASPHALT
- ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP
- ITEM 503 - UNCLASSIFIED EXCAVATION
- ITEM 863 - REINFORCED EMBANKMENT

| END AREA | VOLUME | CALCULATED | DSS | CHECKED | MET |
|---|--------|------------|-----|---------|-----|
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| CROSS SECTIONS IR-76 WB STA. 522+14.95 | | | | | |
| 2021-10-18 - BU 33A - RFC | | | | | |
| SUM-76 / 77 / 8 - 8.24 / 9.74 / 0.00 | | | | | |
| (40 / 51) | | | | | |



CURVE EB-1 SUPERELEVATION TABLE

P. I. Station 523+90.92

Dc = 0°42'0"

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Table with 12 columns: LEFT SIDE (EDGE ELEVATION, TRANSITION RATE, ELEVATION CORRECTION, CROSS SLOPE, WIDTH), CENTERLINE CONTROL (STATION, PROFILE GRADE, WIDTH, CROSS SLOPE, ELEVATION CORRECTION, TRANSITION RATE, EDGE ELEVATION), RIGHT SIDE, and REMARKS. Includes data rows from station 514+65.33 to 526+00.00.

CURVE EB-1 SUPERELEVATION TABLE

P. I. Station 523+90.92

Dc = 0°42'0"

Released for Construction
Thomas J Powell, PE
10/29/2021

Table with 12 columns: LEFT SIDE (EDGE ELEVATION, TRANSITION RATE, ELEVATION CORRECTION, CROSS SLOPE, WIDTH), CENTERLINE CONTROL (STATION, PROFILE GRADE, WIDTH, CROSS SLOPE, ELEVATION CORRECTION, TRANSITION RATE, EDGE ELEVATION), RIGHT SIDE, and REMARKS. Includes data rows from station 526+00.00 to 532+36.00.

CALCULATED DSS CHECKED MET

IR-76 EB SUPERELEVATION TABLE
2021-10-18 - BU 33A - RFGC
SUM-76 77 / 9.74 / 0.00
8.24 / 9.74 / 0.00
41
51

WITHIN GORE LIMITS, EDGE ELEVATION GIVEN AT INSIDE EOP OF GORE RELATIVE TO MAINLINE. SEE TERMINAL DETAILS FOR CROSS SLOPE AND ELEVATIONS THROUGH GORE BEYOND THE INSIDE EOP.
DIMENSION SHOWN FROM 76-EB @ TO RAMP Q @

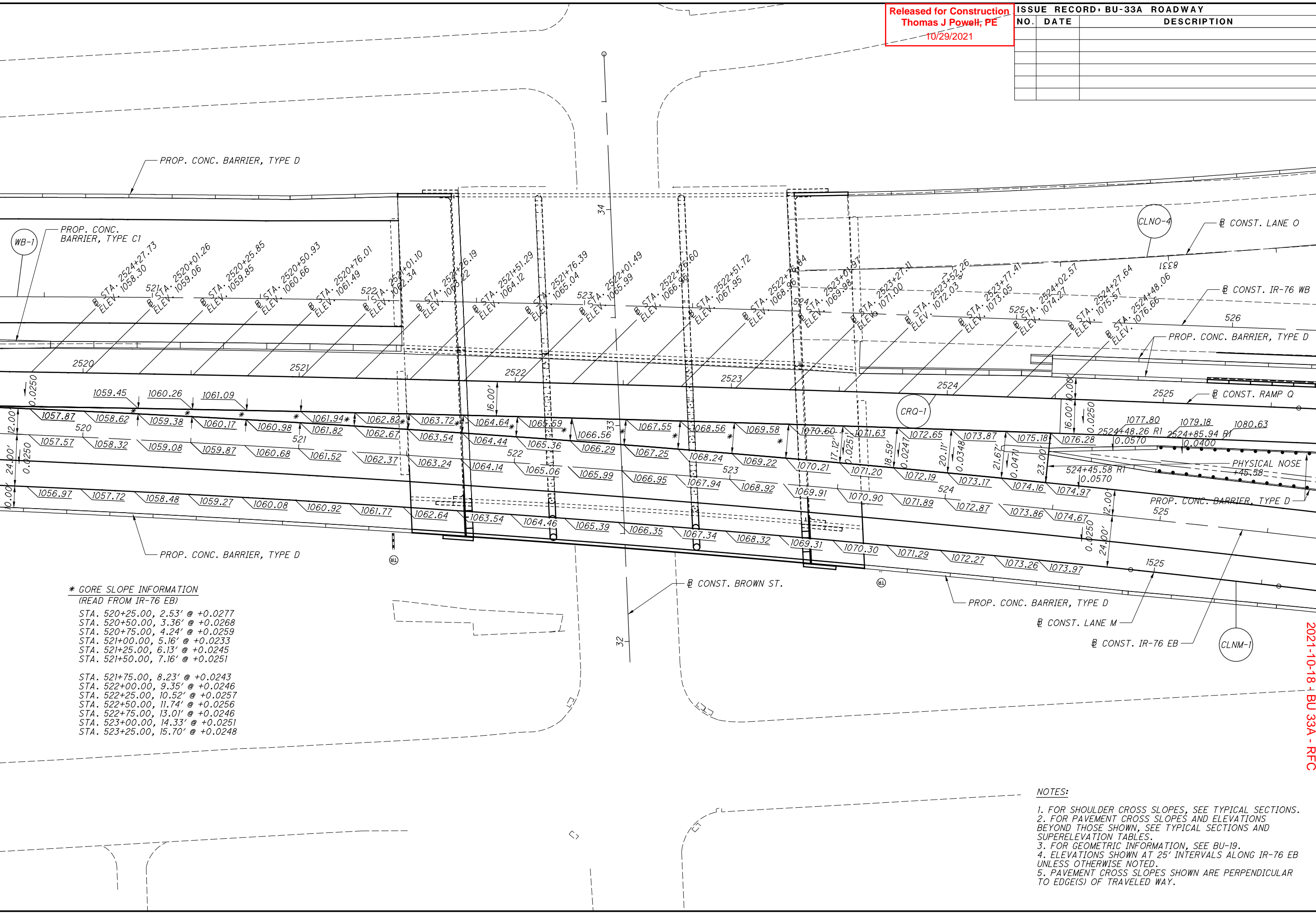
ISSUE RECORD: BU-33A ROADWAY
Table with 3 columns: NO., DATE, DESCRIPTION

Released for Construction
 Thomas J Powell, PE
 10/29/2021

| ISSUE RECORD - BU-33A ROADWAY | | |
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| NO. | DATE | DESCRIPTION |
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*** GORE SLOPE INFORMATION
 (READ FROM IR-76 EB)**

STA. 520+25.00, 2.53' @ +0.0277
 STA. 520+50.00, 3.36' @ +0.0268
 STA. 520+75.00, 4.24' @ +0.0259
 STA. 521+00.00, 5.16' @ +0.0233
 STA. 521+25.00, 6.13' @ +0.0245
 STA. 521+50.00, 7.16' @ +0.0251

 STA. 521+75.00, 8.23' @ +0.0243
 STA. 522+00.00, 9.35' @ +0.0246
 STA. 522+25.00, 10.52' @ +0.0257
 STA. 522+50.00, 11.74' @ +0.0256
 STA. 522+75.00, 13.01' @ +0.0246
 STA. 523+00.00, 14.33' @ +0.0251
 STA. 523+25.00, 15.70' @ +0.0248

- NOTES:**
1. FOR SHOULDER CROSS SLOPES, SEE TYPICAL SECTIONS.
 2. FOR PAVEMENT CROSS SLOPES AND ELEVATIONS BEYOND THOSE SHOWN, SEE TYPICAL SECTIONS AND SUPERELEVATION TABLES.
 3. FOR GEOMETRIC INFORMATION, SEE BU-19.
 4. ELEVATIONS SHOWN AT 25' INTERVALS ALONG IR-76 EB UNLESS OTHERWISE NOTED.
 5. PAVEMENT CROSS SLOPES SHOWN ARE PERPENDICULAR TO EDGE(S) OF TRAVELED WAY.

**TERMINAL DETAIL
 RAMP Q AT IR-76 EB**

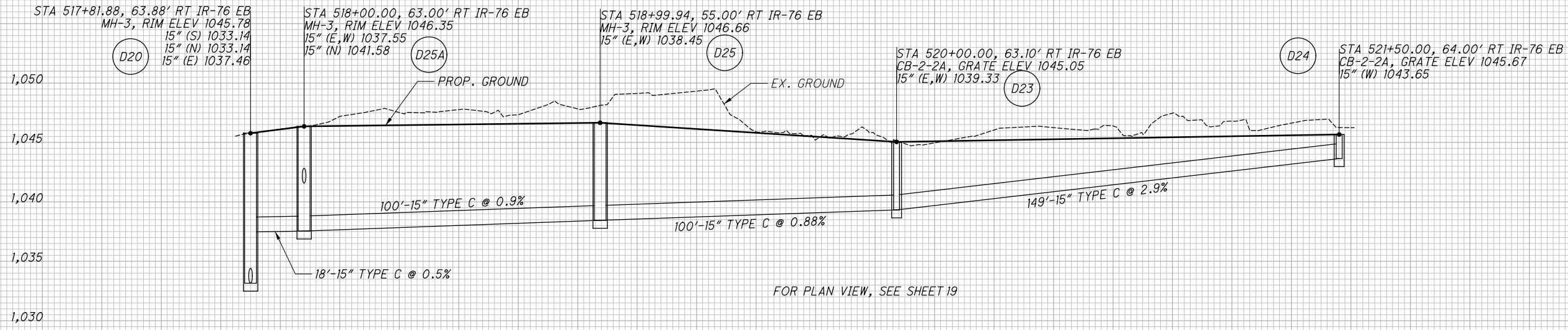
2021-10-18 BU 33A - RFC

**SUM-76/77-8 / 77/0.00
 8.24 / 9.74 / 0.00**

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Released for Construction
 Thomas J Powell, PE
 10/29/2021

| ISSUE RECORD: BU-33A ROADWAY | | |
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FOR PLAN VIEW, SEE SHEET 19

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STORM SEWER PROFILES

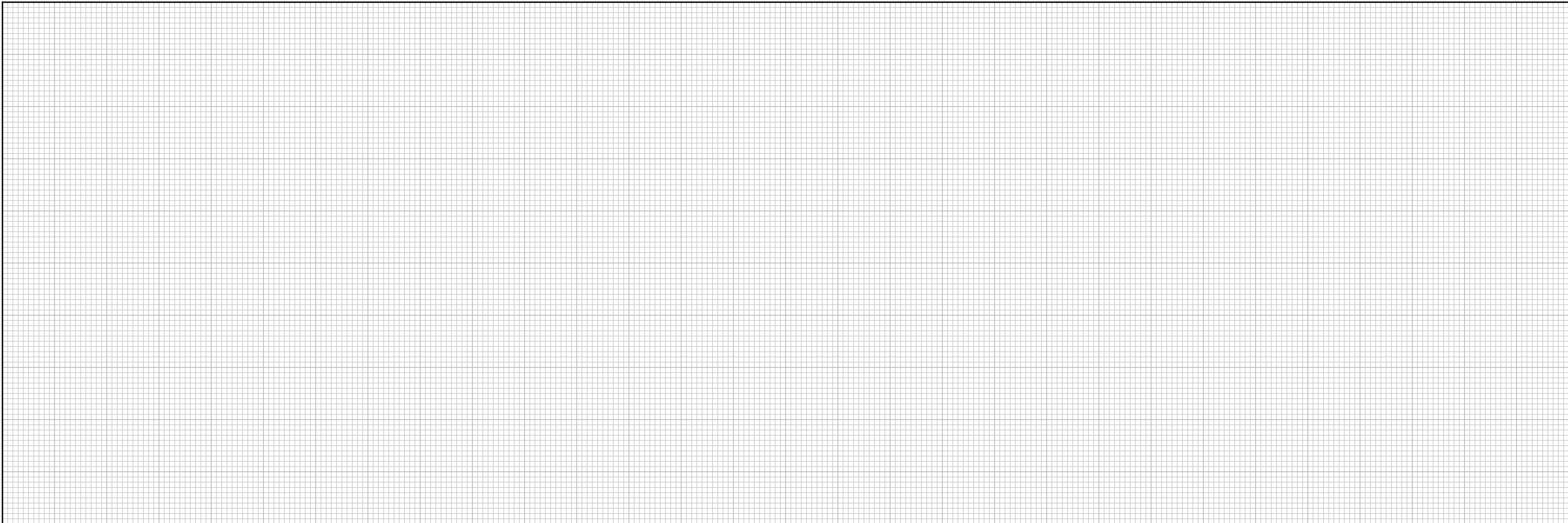
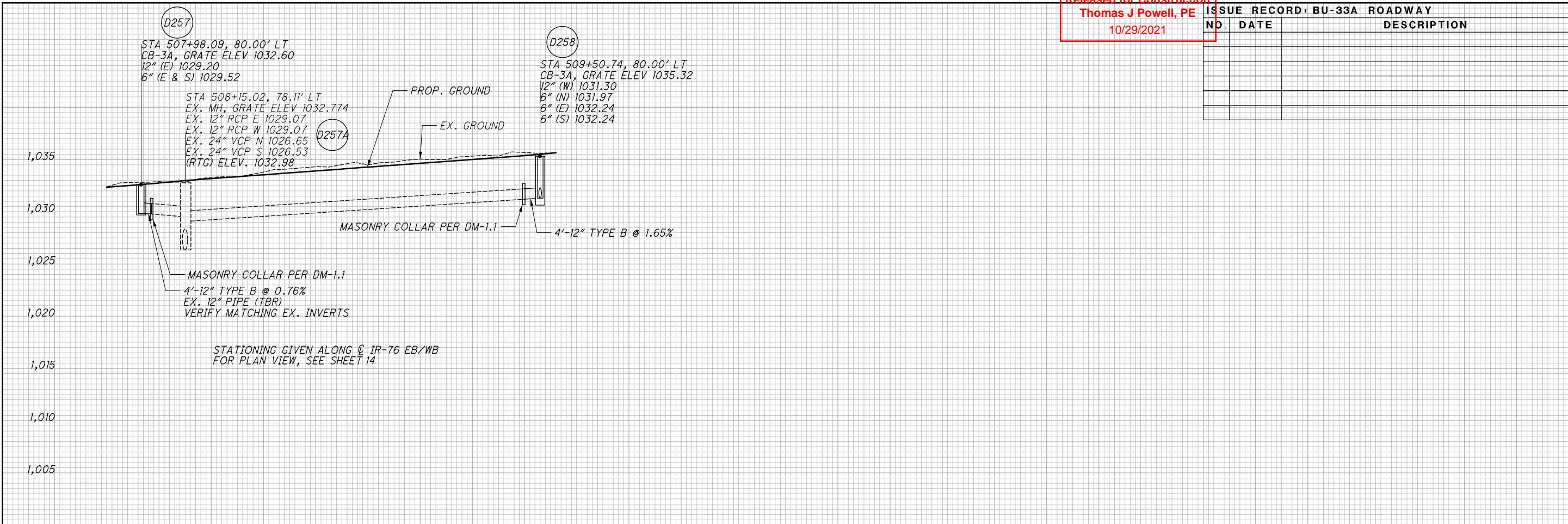
2021-10-18 - BU 33A - RFC

SUM-7677-8 / 47.74 / 0.00
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Released for Construction
 Thomas J Powell, PE
 10/29/2021

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CALCULATED VLE CHECKED MET
STORM SEWER PROFILES
 2021-10-18 - BU 33A - RFC
 SUM-76/77/8-8/77/7-M
 8.24/9.74/0.00
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| REF NO. | SHEET NO. | STATION TO STATION | | REF. ALIGNMENT | BENDS & BRANCHES - FOR INFORMATION ONLY | | | | | | | | | | Released for Construction Thomas J Powell, PE 10/29/2021 | | | | | |
|---------|-----------|--------------------|----|----------------|---|---|--|--------------------|------------------------------------|-------------|---------|---------------|---------------|---------------|--|---------------------|-------------------------|--------|---------|-----------|
| | | | | | TIED CONCRETE BLOCK MAT, TYPE 1 | 6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC | 6" ROCK CUT UNDERDRAINS WITH GEOTEXTILE FABRIC | 6" CONDUIT, TYPE F | PRECAST REINFORCED CONCRETE OUTLET | 6" x 6" TEE | 6" PLUG | 6" - 90° BEND | 6" - 45° BEND | 6" x 6" CROSS | OUTLET TYPE | OUTLET BOTTOM ELEV. | UNDERDRAIN INVERT ELEV. | | | |
| | | | | | SY | FT | FT | FT | EACH | EACH | EACH | EACH | EACH | EACH | | | | | | |
| U400 | 47 | 507+19.85 | LT | TO 507+95.14 | LT | 76 EB/WB | | 25 | | | 50 | | | | | | | EX. UD | | MATCH EX. |
| U401 | 47 | 507+19.85 | LT | 507+95.14 | LT | 76 EB/WB | | 75 | | | | | | | | | | EX. UD | | MATCH EX. |
| U402 | 47 | 507+19.85 | LT | 507+95.14 | LT | 76 EB/WB | | 75 | | | | | | | | | | EX. UD | | MATCH EX. |
| U403 | 47 | 507+19.85 | LT | 507+47.79 | LT | 76 EB/WB | | 28 | | | | | | | | | | EX. UD | | MATCH EX. |
| U404 | | NOT USED | | | | | | | | | | | | | | | | | | |
| U405 | 47 | 507+19.85 | RT | 507+47.79 | RT | 76 EB/WB | | 28 | | | | | | | | | | EX. UD | | MATCH EX. |
| U406 | 47 | 507+19.85 | RT | 507+47.79 | RT | 76 EB/WB | | 28 | | | | | | | | | | EX. UD | | MATCH EX. |
| U407 | | NOT USED | | | | | | | | | | | | | | | | | | |
| U408 | 47 | 507+19.85 | RT | 507+88.33 | RT | 76 EB/WB | | 69 | | | | | | | | | | EX. UD | | MATCH EX. |
| U409 | 47 | 507+19.85 | RT | 507+88.33 | RT | 76 EB/WB | | 69 | | | | | | | | | | EX. UD | | MATCH EX. |
| U410 | 47 | 507+91.30 | RT | 507+91.30 | RT | 76 EB/WB | | | | | 9 | | | | | | | D255 | 1026.38 | 1029.40 |
| U411 | 47 | 507+98.11 | LT | 507+98.11 | LT | 76 EB/WB | | | | | 34 | | | | | | | D257 | 1029.20 | 1029.52 |
| U412 | 47 | 507+98.11 | LT | 509+47.79 | LT | 76 EB/WB | | | | | 150 | | | | | | | D257 | 1029.20 | 1029.52 |
| U413 | 47 | 507+98.11 | LT | 509+47.79 | LT | 76 EB/WB | | 140 | | | 10 | | | | | | | U411 | | |
| U414 | 47 | 507+98.11 | LT | 509+47.79 | LT | 76 EB/WB | | 140 | | | 10 | | | | | | | U411 | | |
| U415 | 47 | 507+50.76 | LT | 512+47.31 | LT | 76 EB/WB | | 497 | | | 8 | | | | | | | U416 | | |
| U416 | | NOT USED | | | | | | | | | | | | | | | | | | |
| U417 | 47 | 507+50.81 | RT | 512+47.31 | RT | 76 EB/WB | | 475 | | | 20 | | | | | | | D254 | 1027.14 | 1028.70 |
| U418 | 47 | 507+50.76 | RT | 512+47.31 | RT | 76 EB/WB | | 495 | | | 8 | | | | | | | D254 | 1027.14 | 1028.70 |
| U419 | 47 | 507+91.30 | RT | 512+45.23 | RT | 76 EB/WB | | 429 | | | 25 | | | | | | | U410 | | |
| U420 | 47 | 507+91.30 | RT | 512+45.33 | RT | 76 EB/WB | | 419 | | | 35 | | | | | | | D255 | 1026.38 | 1029.40 |
| U421 | 47 | 509+50.75 | LT | 509+50.75 | LT | 76 EB/WB | | | | | 34 | | | | | | | D258 | 1031.30 | 1032.24 |
| U422 | 47 | 509+50.75 | LT | 512+45.73 | LT | 76 EB/WB | | 276 | | | 20 | | | | | | | D258 | 1031.30 | 1032.24 |
| U423 | 47 | 509+50.75 | LT | 512+45.73 | LT | 76 EB/WB | | 286 | | | 10 | | | | | | | U421 | | |
| U424 | 47 | 509+50.75 | LT | 511+09.42 | LT | 76 EB/WB | | 159 | | | | | | | | | | U421 | | |
| U425 | 47 | 513+23.46 | LT | 513+23.46 | LT | 76 WB | | | | | 9 | | | | | | | D265 | 1036.36 | 1038.06 |
| U426 | 47 | 512+57.08 | RT | 512+57.08 | LT | 76 EB | | | | | 10 | | | | | | | D264 | 1036.75 | 1038.15 |
| U427 | 47 | 512+54.99 | RT | 512+54.99 | RT | 76 EB | | | | | 9 | | | | | | | D259 | 1035.32 | 1038.22 |
| U428 | 47 | 513+23.46 | LT | 518+42.53 | LT | 76 WB | | 510 | | | 10 | | | | | | | D265 | 1036.36 | 1038.06 |
| U429 | 47 | 513+23.46 | LT | 518+42.53 | LT | 76 WB | | 510 | | | 10 | | | | | | | U425 | | |
| U430 | | NOT USED | | | | | | | | | | | | | | | | | | |
| U431 | 47 | 513+25.05 | RT | 518+51.42 | RT | 76 WB | | 526 | | | 10 | | | | | | | D264 | 1036.75 | 1038.15 |
| U432 | | NOT USED | | | | | | | | | | | | | | | | | | |
| U433 | 47 | 512+57.08 | LT | 517+82.75 | LT | 76 EB | | 516 | | | 10 | | | | | | | D264 | 1036.75 | 1038.15 |
| U434 | 47 | 512+57.08 | LT | 515+50.58 | LT | 76 EB | | 293 | | | | | | | | | | U426 | | |
| U435 | | NOT USED | | | | | | | | | | | | | | | | | | |
| U436 | 47 | 515+50.16 | RT | 517+97.09 | RT | 76 EB | | 247 | | | 24 | | | | | | | U437 | | |
| U437 | 47 | 512+54.99 | RT | 517+97.09 | RT | 76 EB | | 542 | | | | | | | | | | U427 | | |
| U438 | 47 | 512+54.99 | RT | 517+97.09 | RT | 76 EB | | 532 | | | 10 | | | | | | | D259 | 1035.32 | 1038.22 |
| U439 | 47 | 518+52.80 | LT | 518+52.80 | LT | 76 WB | | | | | 9 | | | | | | | D266 | 1045.15 | 1048.32 |
| U440 | 47 | 518+54.37 | RT | 518+54.39 | RT | 76 WB | | | | | 12 | | | | | | | D34 | 1047.45 | 1048.58 |
| U441 | 47 | 518+52.80 | LT | 521+95.04 | LT | 76 WB | | 301 | | | 10 | | | | | | | D266 | 1045.15 | 1048.32 |
| U442 | 47 | 518+52.80 | LT | 521+92.09 | LT | 76 WB | | 340 | | | | | | | | | | U439 | | |
| U443 | | NOT USED | | | | | | | | | | | | | | | | | | |
| U444 | 47 | 518+54.39 | RT | 521+95.86 | RT | 76 WB | | 340 | | | | | | | | | | U440 | | |

ISSUE RECORD: BU-33A ROADWAY

| NO. | DATE | DESCRIPTION |
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| UNDERDRAIN QUANTITIES | | | |
| SUM - 76 / 77 - 8 / 77 / 9.74 / 0.00 8.24 / 9.74 / 0.00 | | | |
| 45 51 | | | |

| REF NO. | SHEET NO. | STATION TO STATION | | REF. ALIGNMENT | 601 | | | | | 605 | | | | | 611 | | | | | 611 | | | | | BENDS & BRANCHES - FOR INFORMATION ONLY | | | | | Released for Construction Thomas J Powell, PE 10/29/2021 | | | | | | | |
|---------|-----------|--------------------|----|----------------|---------------------------------|---|--|--------------------|------------------------------------|-------------|---------|---------------|---------------|---------------|-------------|---------------------|-------------------------|------|------|------|------|------|------|------|---|------|------|------|------|--|------|------|--|--|--|--|--|
| | | | | | TIED CONCRETE BLOCK MAT, TYPE 1 | 6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC | 6" ROCK CUT UNDERDRAINS WITH GEOTEXTILE FABRIC | 6" CONDUIT, TYPE F | PRECAST REINFORCED CONCRETE OUTLET | 6" x 6" TEE | 6" PLUG | 6" - 90° BEND | 6" - 45° BEND | 6" x 6" CROSS | OUTLET TYPE | OUTLET BOTTOM ELEV. | UNDERDRAIN INVERT ELEV. | | | | | | | | | | | | | | | | | | | | |
| | | | | SY | FT | FT | FT | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | | | | | |
| U445 | | NOT USED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U446 | 47 | 518+54.38 | RT | 521+95.85 | RT | 76 | WB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U447 | 47 | 518+00.07 | RT | 518+00.07 | LT | 76 | EB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U448 | 47 | 518+00.07 | LT | 521+28.74 | LT | 76 | EB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U449 | 47 | 518+00.07 | RT | 521+28.74 | RT | 76 | EB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U450 | 47 | 518+00.07 | RT | 521+28.73 | RT | 76 | EB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U451 | 47 | 518+00.07 | RT | 521+28.73 | RT | 76 | EB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U500 | 48 | 521+95.04 | LT | 521+95.05 | LT | 76 | WB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U501 | 48 | 521+95.05 | LT | 522+12.53 | LT | 76 | WB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U502 | 48 | 521+95.05 | LT | 522+13.16 | LT | 76 | WB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U503 | 48 | 521+95.05 | LT | 522+10.25 | LT | 76 | WB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U504 | 48 | 521+98.83 | RT | 521+98.83 | RT | 76 | WB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U505 | 48 | 521+98.83 | RT | 522+15.53 | RT | 76 | WB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U506 | | NOT USED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U507 | 48 | 521+98.83 | RT | 522+15.53 | RT | 76 | WB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U508 | 48 | 521+31.66 | RT | 521+31.66 | LT | 76 | EB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U509 | 48 | 521+31.66 | LT | 521+45.83 | LT | 76 | EB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U510 | 48 | 521+31.66 | RT | 521+47.17 | RT | 76 | EB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U511 | 48 | 521+31.66 | RT | 521+53.79 | RT | 76 | EB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U512 | 48 | 521+31.66 | RT | 521+54.78 | RT | 76 | EB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ISSUE RECORD: BU-33A ROADWAY
NO. DATE DESCRIPTION

2021-10-18 - BU 33A - RFC

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8.24 / 9.74 0.00

UNDERDRAIN QUANTITIES

CALCULATED ENR CHECKED ALR

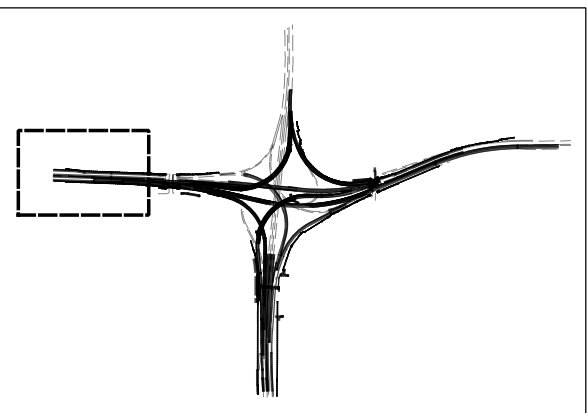
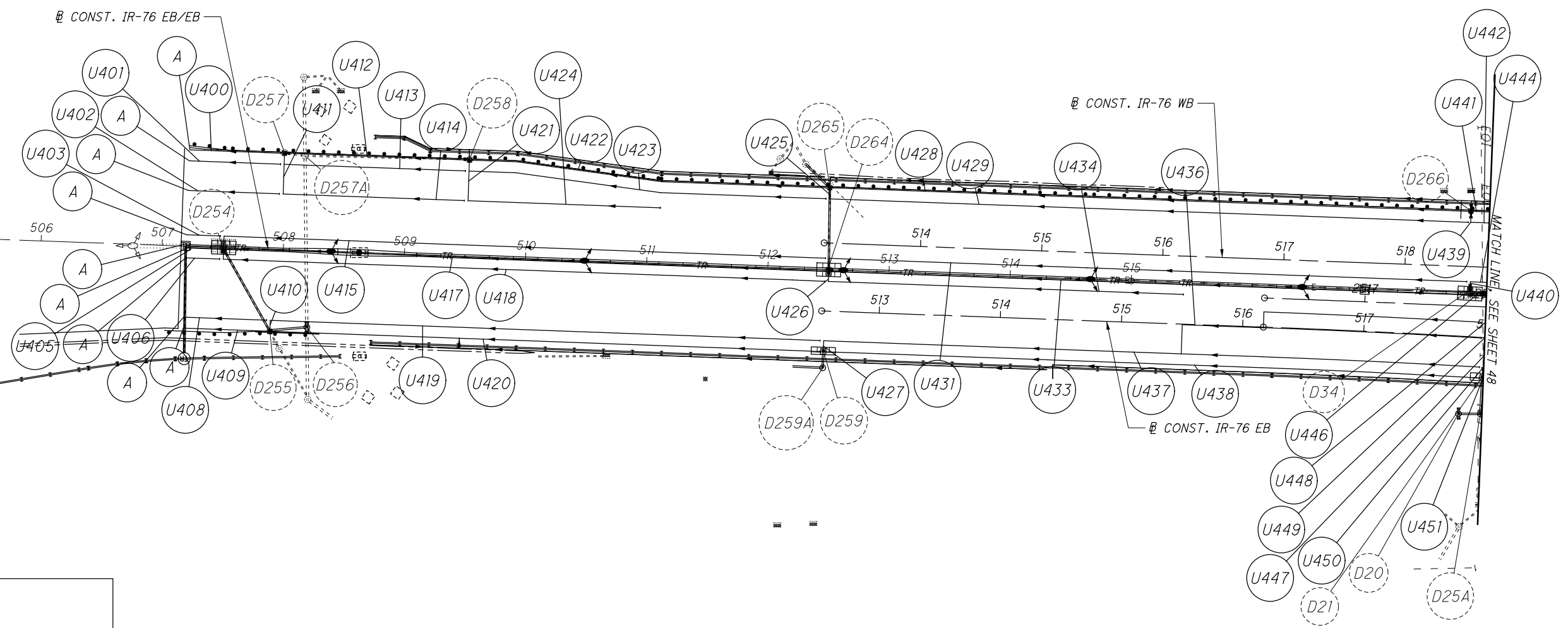
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| ISSUE RECORD - BU-33A ROADWAY | | |
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UNDERDRAIN DETAILS

2021-10-18 - BU 33A - RFC

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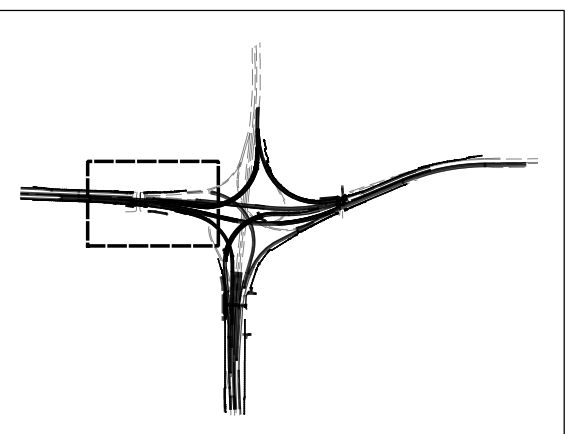
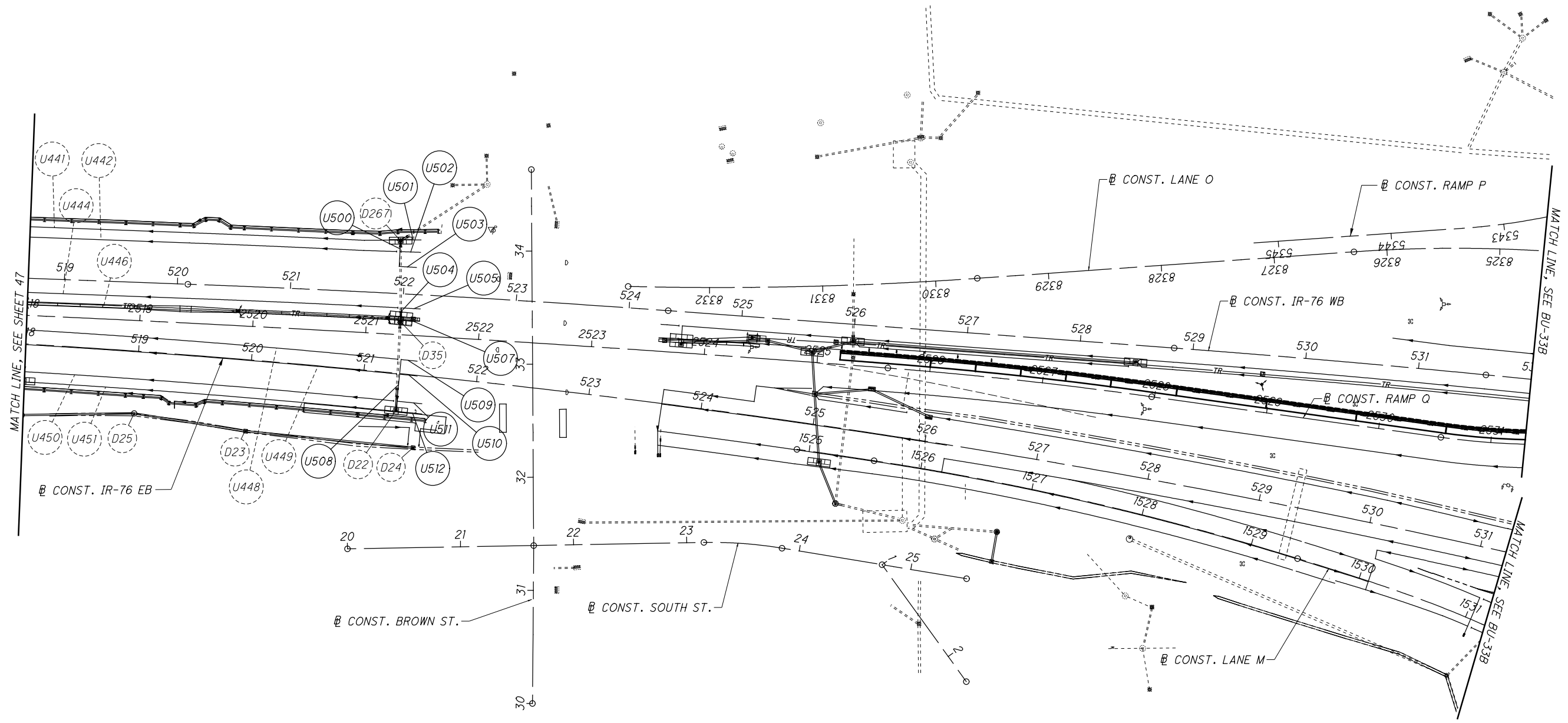
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UNDERDRAIN DETAILS

2021-10-18 - BU 33A - RFC

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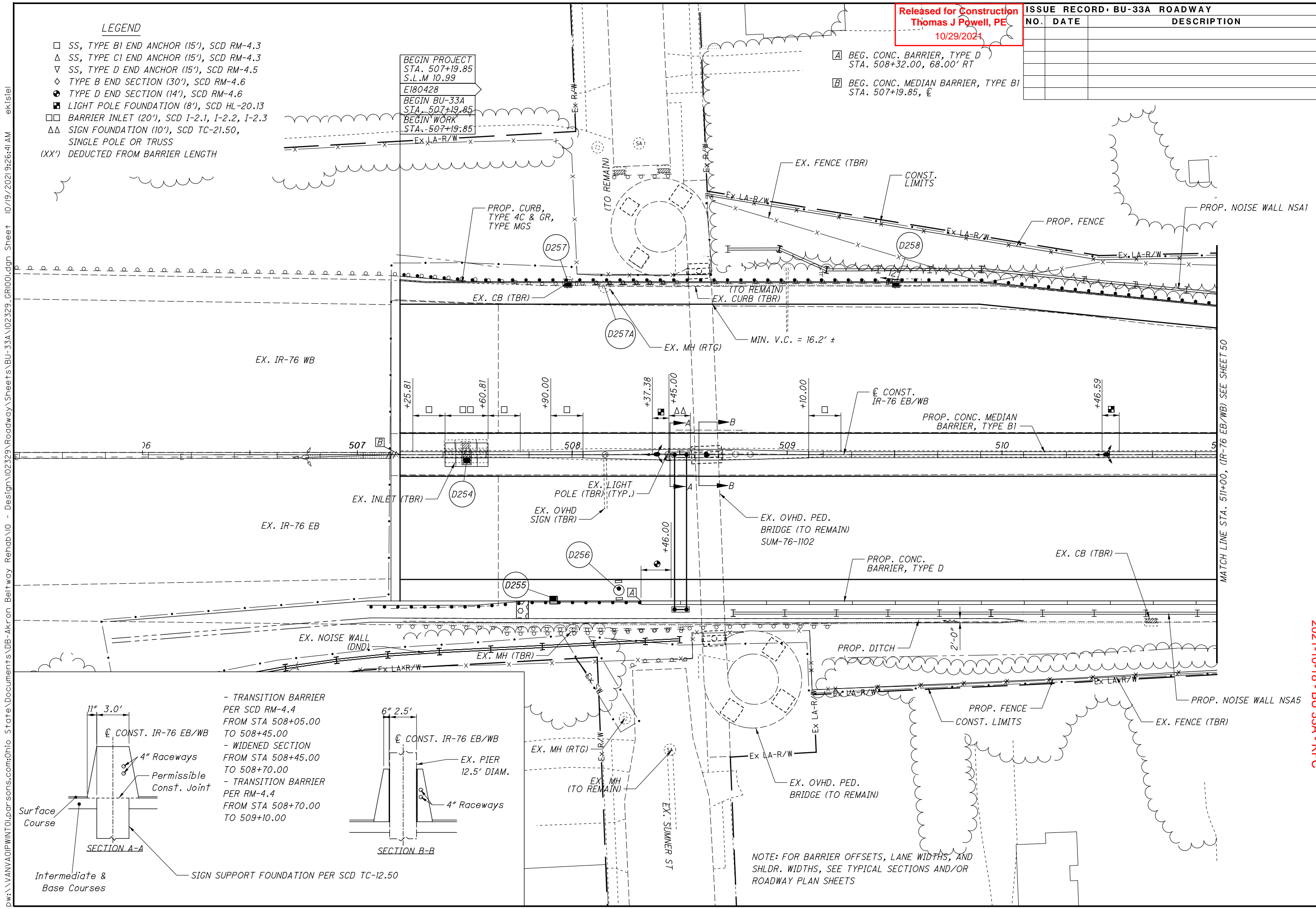


LEGEND

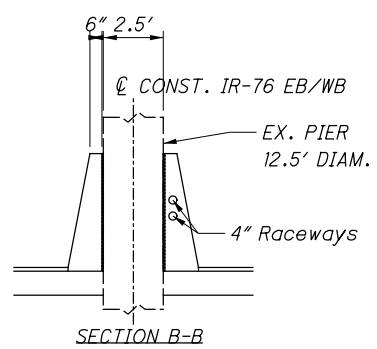
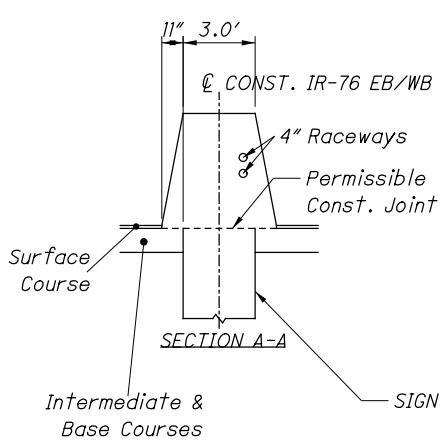
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- △ SS, TYPE C1 END ANCHOR (15'), SCD RM-4.3
- ▽ SS, TYPE D END ANCHOR (15'), SCD RM-4.5
- ◇ TYPE B END SECTION (30'), SCD RM-4.6
- TYPE D END SECTION (14'), SCD RM-4.6
- LIGHT POLE FOUNDATION (8'), SCD HL-20.13
- BARRIER INLET (20'), SCD I-2.1, I-2.2, I-2.3
- △△ SIGN FOUNDATION (10'), SCD TC-21.50, SINGLE POLE OR TRUSS
- (XX') DEDUCTED FROM BARRIER LENGTH

BEGIN PROJECT
 STA. 507+19.85
 S.L.M 10.99
 E180428
 BEGIN BU-33A
 STA. 507+19.85
 BEGIN WORK
 STA. 507+19.85

- Ⓐ BEG. CONC. BARRIER, TYPE D
 STA. 508+32.00, 68.00' RT
- Ⓑ BEG. CONC. MEDIAN BARRIER, TYPE B1
 STA. 507+19.85, C



- TRANSITION BARRIER
 PER SCD RM-4.4
 FROM STA 508+05.00
 TO 508+45.00
 - WIDENED SECTION
 FROM STA 508+45.00
 TO 508+70.00
 - TRANSITION BARRIER
 PER RM-4.4
 FROM STA 508+70.00
 TO 509+10.00



NOTE: FOR BARRIER OFFSETS, LANE WIDTHS, AND SHLDR. WIDTHS, SEE TYPICAL SECTIONS AND/OR ROADWAY PLAN SHEETS

BARRIER DETAILS - IR-76 EB / WB
 BEGIN WORK TO STA. 511+00.00
 2021-10-18 - BU 33A - RFC
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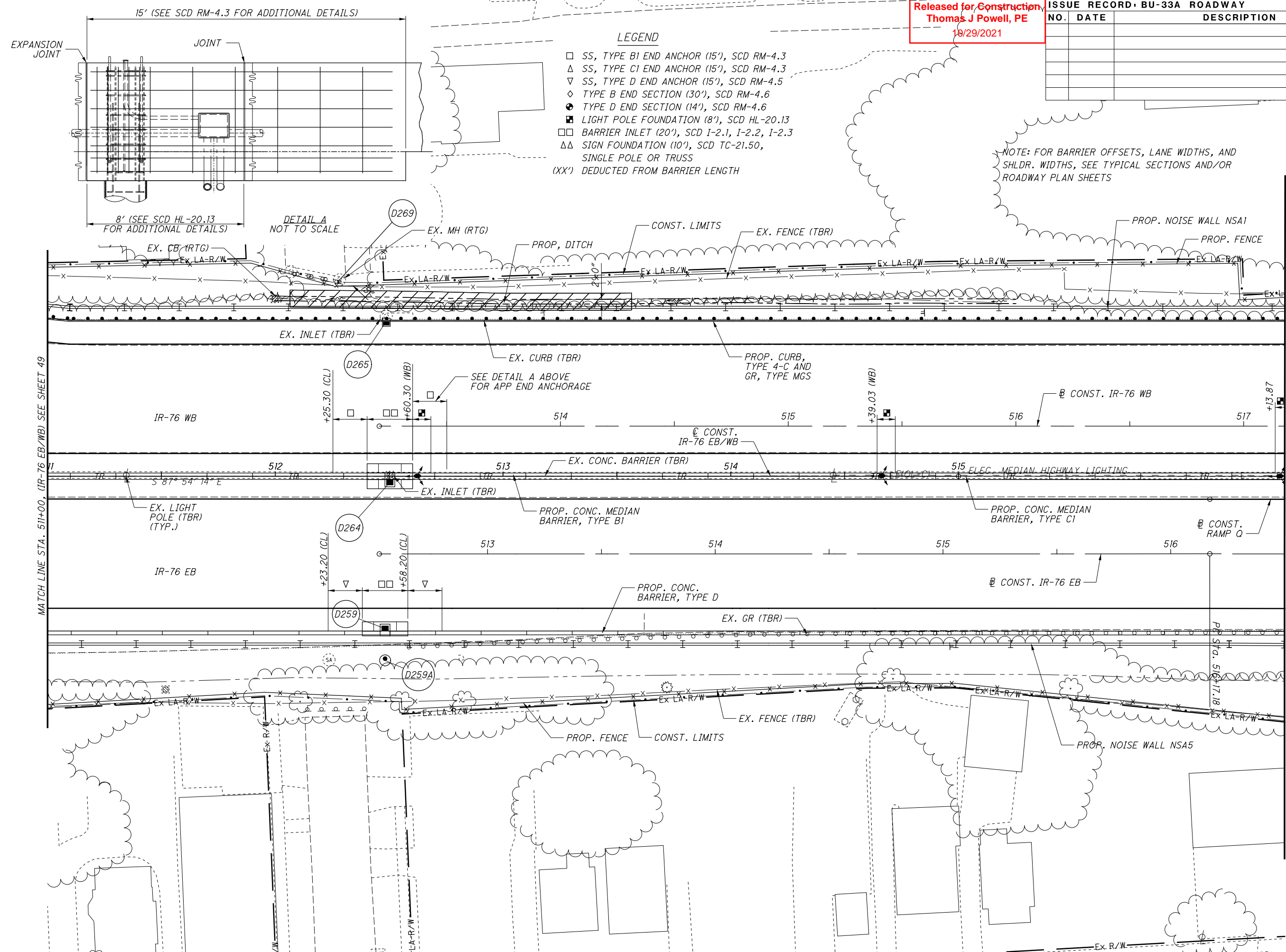
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 HORIZONTAL SCALE IN FEET



- LEGEND
- SS, TYPE B1 END ANCHOR (15'), SCD RM-4.3
 - △ SS, TYPE C1 END ANCHOR (15'), SCD RM-4.3
 - ▽ SS, TYPE D END ANCHOR (15'), SCD RM-4.5
 - ◇ TYPE B END SECTION (30'), SCD RM-4.6
 - TYPE D END SECTION (14'), SCD RM-4.6
 - LIGHT POLE FOUNDATION (8'), SCD HL-20.13
 - BARRIER INLET (20'), SCD I-2.1, I-2.2, I-2.3
 - △△ SIGN FOUNDATION (10'), SCD TC-21.50, SINGLE POLE OR TRUSS
 - (XX') DEDUCTED FROM BARRIER LENGTH

BARRIER DETAILS - IR-76 EB / WB
STA. 511+00.00 TO STA 516+50.00

2021-10-18 - BU 33A - RFC

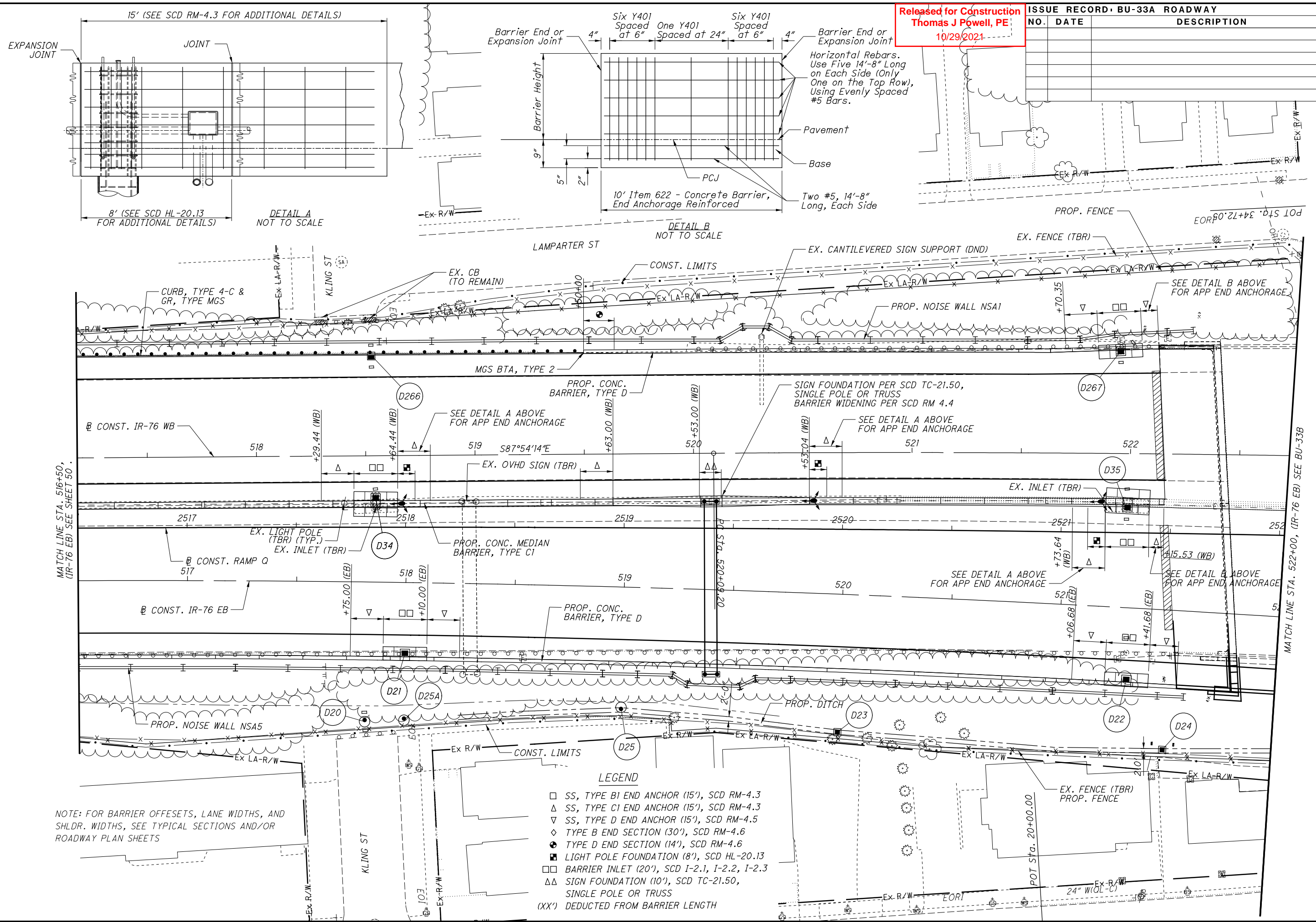
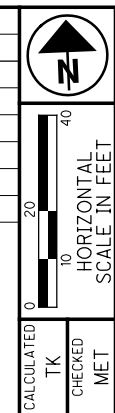
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| NO. | DATE | DESCRIPTION |
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DETAIL A NOT TO SCALE

DETAIL B NOT TO SCALE

MATCH LINE STA. 516+50, (IR-76 EB) SEE SHEET 50.

MATCH LINE STA. 522+00, (IR-76 EB) SEE BU-33B

NOTE: FOR BARRIER OFFSETS, LANE WIDTHS, AND SHLDR. WIDTHS, SEE TYPICAL SECTIONS AND/OR ROADWAY PLAN SHEETS

- LEGEND**
- SS, TYPE B1 END ANCHOR (15'), SCD RM-4.3
 - △ SS, TYPE C1 END ANCHOR (15'), SCD RM-4.3
 - ▽ SS, TYPE D END ANCHOR (15'), SCD RM-4.5
 - ◇ TYPE B END SECTION (30'), SCD RM-4.6
 - TYPE D END SECTION (14'), SCD RM-4.6
 - LIGHT POLE FOUNDATION (8'), SCD HL-20.13
 - BARRIER INLET (20'), SCD I-2.1, I-2.2, I-2.3
 - △△ SIGN FOUNDATION (10'), SCD TC-21.50, SINGLE POLE OR TRUSS
 - (XX') DEDUCTED FROM BARRIER LENGTH

BARRIER DETAILS - IR-76 EB
STA. 516+50.00 TO STA. 522+00.00

2021-10-18 - BU 33A - RFC

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