

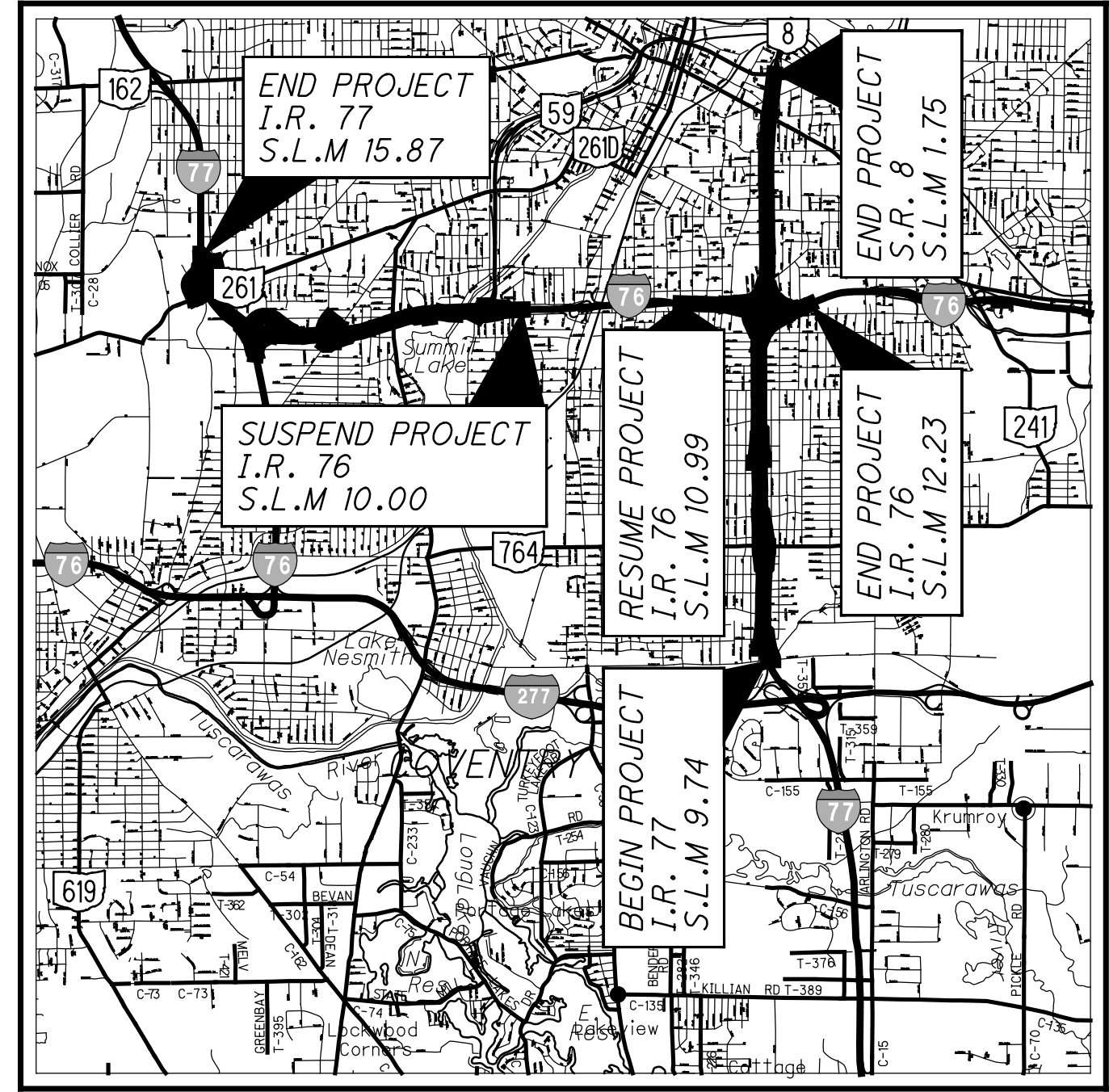
Released for Construction  
 Thomas J Powell, PE  
 06/09/2021

ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

STATE OF OHIO  
 DEPARTMENT OF TRANSPORTATION

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

**CITY OF AKRON**  
**SUMMIT COUNTY**



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	—————

INDEX OF SHEETS:

TITLE SHEET	1
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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-25A FOR REMOVALS  
 SEE BU-28B FOR ROADWAY SOUTH OF BEACON  
 SEE BU-36 FOR LIGHTING/ITS  
 SEE BU-39 FOR TRAFFIC CONTROL

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.

**UNDERGROUND UTILITIES**  
 Contact Two Working Days  
 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. Ksiazek*  
 DATE: 6/8/21

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	1/17/20	RM-4.4	7/19/19	800	4/16/21
BP-3.2	1/18/19	RM-4.5	7/21/17	809	4/16/21
BP-5.1	1/18/19	RM-4.6	7/19/13	832	10/19/18
DM-1.1	7/17/20	MH-1.2	1/15/16		
DM-1.2	1/18/13				
MGS-1.1	1/19/18				
MGS-3.1	1/19/18				
MGS-3.2	1/18/13				
MGS-4.2	7/19/13				
HW-2.1	7/20/18				
HW-2.2	7/20/18				
I-2.2	7/19/19				

**BU-28A**  
**RESURFACING**  
 &  
**WIDENING**  
 S.R. 8 at Beacon St. to  
 S.R. 8 at Perkins St.  
**RFC PLANS**  
**JUNE 8, 2021**

FEDERAL PROJECT NO.	<b>E180(428)</b>
PID NO.	<b>102329</b>
CONSTRUCTION PROJECT NO.	<b>21-3000</b>
RAILROAD INVOLVEMENT	<b>NONE</b>
SUM-76 / 77 / 8 -	<b>8.24 / 9.74 / 0.00</b>
1	30

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ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

CALCULATED
AA
CHECKED
EAK

**DESIGN DESIGNATION**

**SR-8**  
 CURRENT ADT (2020)----- 123,390  
 DESIGN YEAR ADT (2040)----- 135,300  
 DESIGN HOURLY VOLUME (2040)----- 13,520  
 DIRECTIONAL DISTRIBUTION----- 61%  
 TRUCKS (24 HOUR B&C)----- 7%  
 DESIGN SPEED----- 60 MPH  
 LEGAL SPEED----- 55 MPH  
 DESIGN FUNCTIONAL CLASSIFICATION:  
 URBAN INTERSTATE  
 NHS PROJECT----- YES

**DESIGN EXCEPTIONS**

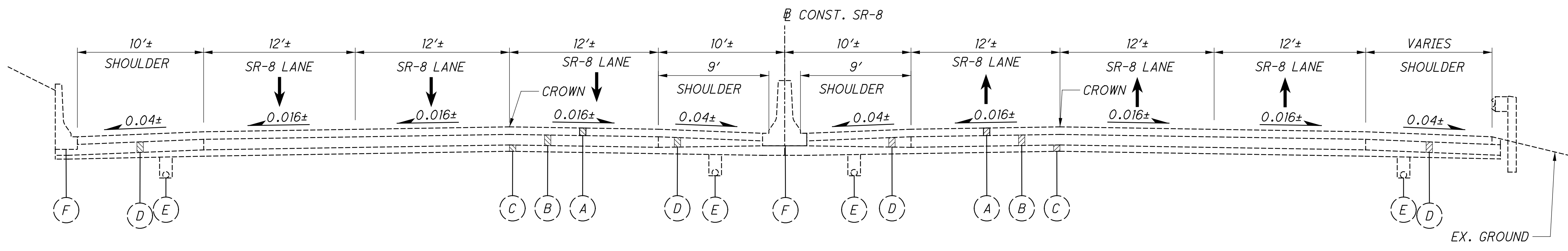
NUMBER	ROUTE	DESIGN FEATURE	APPROVAL DATES	SHEET NUMBERS
4	SR-8	SHOULDER WIDTH	05/12/2020	4

**DESIGN DESIGNATIONS AND DESIGN EXCEPTIONS**

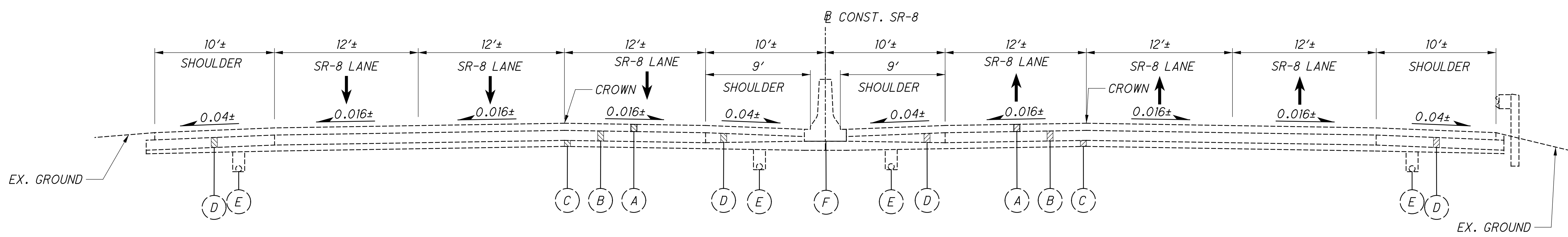
**SUM-76 / 77 / 8 -  
8.24 / 9.74 / 0.00**

2  
30

ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION



**EXISTING SECTION - SR-8**  
 STA. 362+78.49± TO STA. 366+58.89±



**EXISTING SECTION - SR-8**  
 STA. 385+96.47± TO STA. 393+08.83±

**LEGEND - PROPOSED ITEMS**

- 1 ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN
- 2 ITEM 407 - NON-TRACKING TACK COAT
- 3 ITEM 442 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), AS PER PLAN
- 4 ITEM 302 - 8" ASPHALT CONCRETE BASE, PG 64-22 (TWO LIFTS)
- 5 ITEM 304 - 6" AGGREGATE BASE, AS PER PLAN
- 6 ITEM 204 - PROOF ROLLING
- 7 ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- 8 ITEM 606 - GUARDRAIL TYPE MGS OR GUARDRAIL TYPE MGS WITH LONG POSTS
- 9 ITEM 659 - SEEDING AND MULCHING

- 10 ITEM 609 - CURB, TYPE 4-C, AS PER PLAN
- 11 ITEM 441 - 3.0" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), (UNDER GUARDRAIL)
- 12 ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (DEPTH VARIES, 2.0" MIN.)
- 13 ITEM 442 - 2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE B (446), AS PER PLAN
- 14 ITEM 605 - 6" BASE PIPE UNDERDRAIN WITH GEOTEXTILE FILTER, 18"
- 15 ITEM 622 - BARRIER, MISC.: CONCRETE BARRIER, TYPE B1 (10/21/97)
- 16 ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D
- 17 ITEM 304 - VARIABLE THICKNESS AGGREGATE BASE, AS PER PLAN

**LEGEND - EXISTING ITEMS**

- (A) EX. VARIES 4"± - 5"± ASPHALT CONCRETE
- (B) EX. 10"± REINFORCED CONCRETE PAVEMENT
- (C) EX. 6"± SUBBASE
- (D) EX. 10"± AGGREGATE BASE
- (E) EX. UNDERDRAIN
- (F) EX. CONCRETE BARRIER
- (G) EX. GUARDRAIL
- (H) EX. CURB

TYPICAL SECTIONS - EXISTING SR-8

SUM-76/77/8/  
8.24/09.74/0.00

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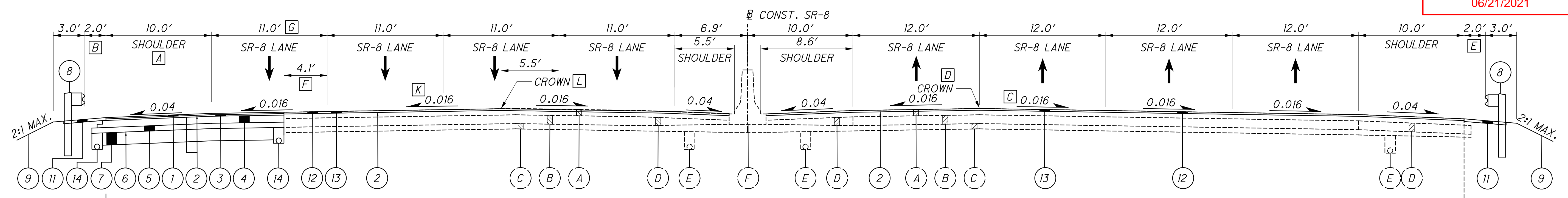
ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION
1	06/16/21	CROWN LOCATION REVISION

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 06/21/2021

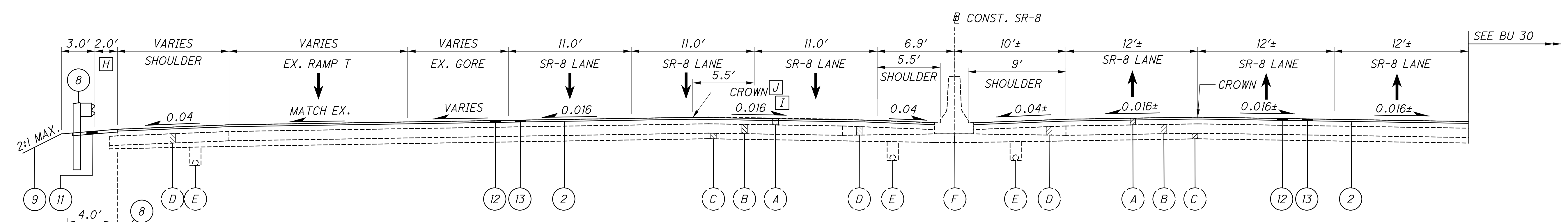
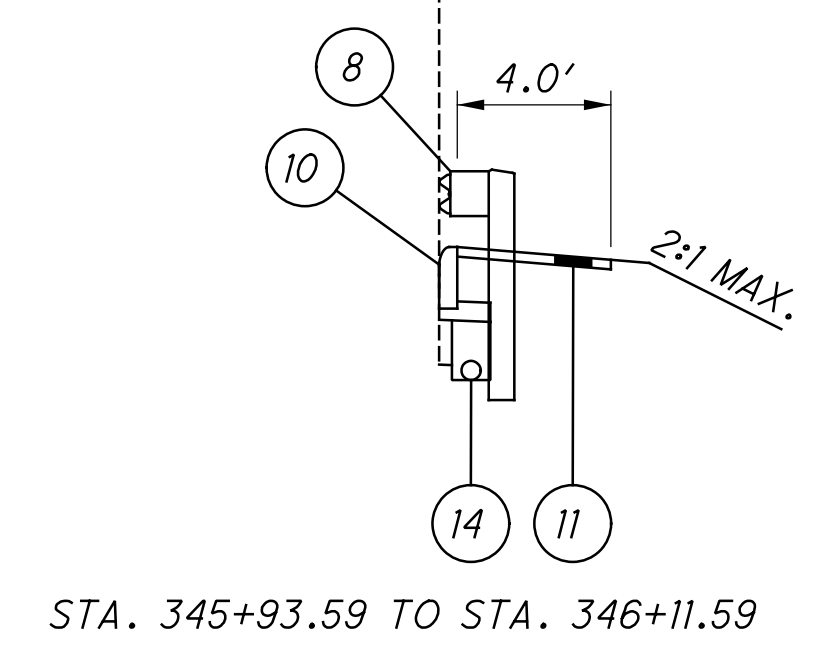
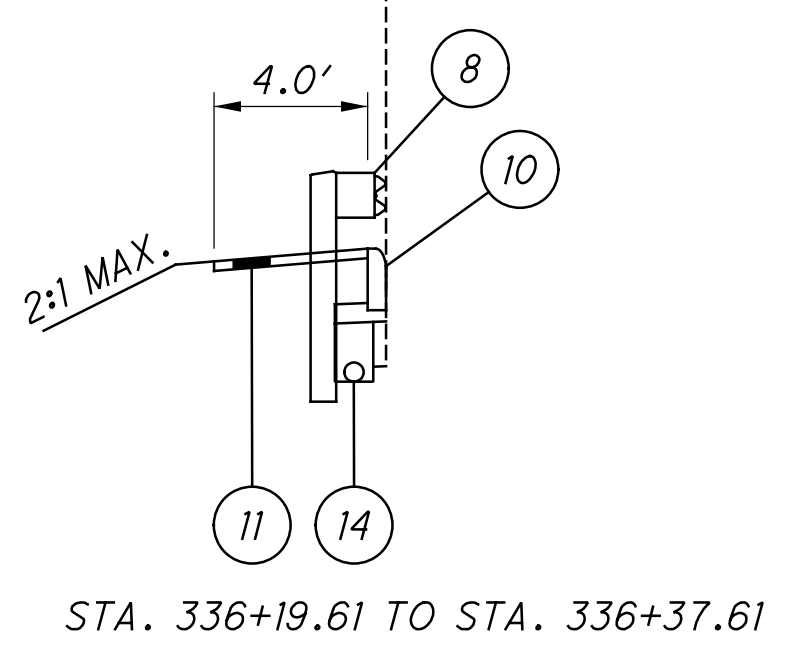
- A** 7.0' FROM STA. 335+92.93 TO STA. 337+00.00  
VARIES FROM 7.0' AT STA. 337+00.00 TO 10.0' AT STA. 337+75.00
- B** 0.0' FROM STA. 336+19.61 TO STA. 336+50.00  
VARIES FROM 0.0' AT STA. 336+50.00 TO 2.0' AT STA. 336+66.61  
VARIES FROM 2.0' AT STA. 345+79.64 TO 0.0' AT STA. 346+04.41  
0.0' FROM STA. 346+04.41 TO STA. 346+17.01
- C** +0.016 FROM STA. 336+54.28 TO STA. 337+00.00  
VARIES FROM +0.016 AT STA. 337+00.00 TO -0.0160 AT STA. 338+00.00

- D** CROWN LOCATION VARIES:  
34.0' RT FROM STA. 336+54.28 TO STA. 337+00.00  
VARIES FROM 34.0' RT AT STA. 337+00.00 TO 22.0' RT AT STA. 338+00.00
- E** 0.0' FROM STA. 336+76.66 TO STA. 336+89.16  
VARIES FROM 0.0' AT STA. 336+89.16 TO 2.0' AT STA. 337+14.10  
VARIES FROM 2.0' AT STA. 345+43.20 TO 0.0' AT STA. 345+61.59  
0.0' FROM STA. 345+61.59 TO STA. 346+11.59
- F** VARIES FROM 4.1' AT STA. 342+00.05 TO 14.8' AT STA. 346+39.19
- G** VARIES FROM 11.0' AT STA. 344+00.77 TO 16.8' AT STA. 346+39.19

- K** +0.016 FROM STA. 336+12.29 TO STA. 337+00.00  
VARIES FROM +0.016 AT STA. 337+00.00 TO -0.0160  
AT STA. 338+00.00  
VARIES FROM -0.016 AT STA. 345+00.00 TO +0.0160  
AT STA. 346+00.00  
+0.016 FROM STA. 346+00.00 TO STA. 346+39.14



- L** CROWN LOCATION VARIES:  
28.9' LT FROM STA. 336+12.29 TO STA. 337+00.00  
VARIES FROM 28.9' LT AT STA. 337+00.00 TO  
23.4' LT AT STA. 338+00.00  
VARIES FROM 23.4' LT AT STA. 345+00.00 TO  
22.0' LT AT STA. 346+00.00  
22.0' LT FROM STA. 346+00.00 TO STA. 346+39.14



- H** 0.0' FROM STA. 347+93.69 TO STA. 348+43.08  
VARIES FROM 0.0' AT STA. 348+43.08 TO 2.0' AT STA. 348+62.00  
SUSPEND GUARDRAIL REPLACEMENT AT STA. 352+42.92
- I** +0.016 FROM STA. 347+71.48 TO STA. 348+00.00  
VARIES FROM +0.016 AT STA. 348+00.00 TO -0.0160 AT STA. 349+00.00
- J** CROWN LOCATION VARIES:  
22.0' LT FROM STA. 347+71.52 TO STA. 348+00.00  
VARIES FROM 22.0' LT AT STA. 348+00.00 TO 23.4' LT AT STA. 349+00.00

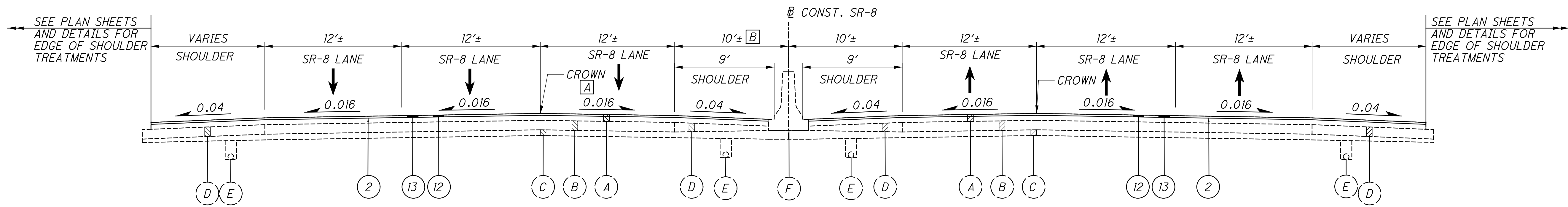
FOR LEGEND, SEE SHEET 3  
FOR DETAILS, SEE SHEET 5

TYPICAL SECTIONS - PROPOSED SR-8

SUM-76/77/8/  
 8.24/09.74/0.00

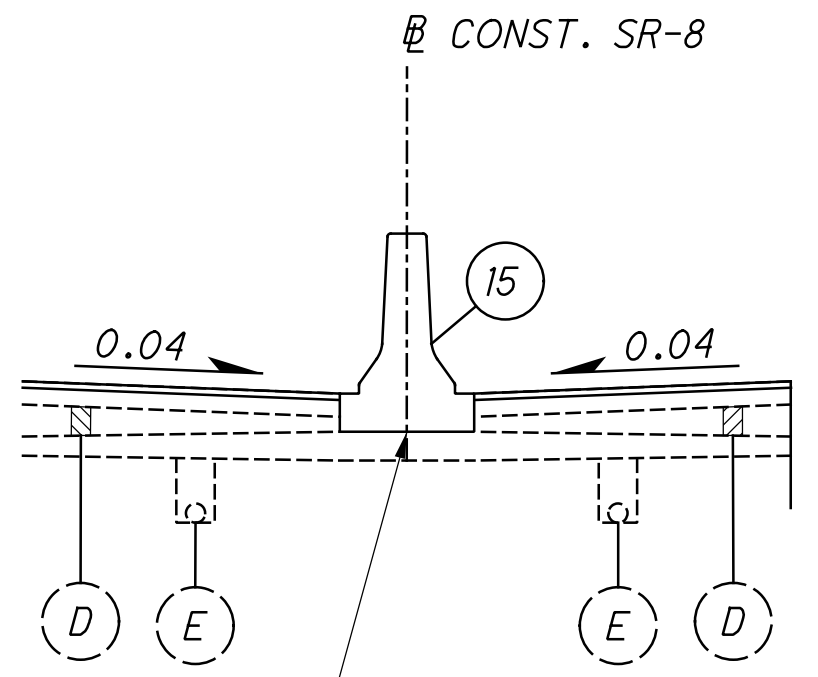
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NO.	DATE	DESCRIPTION



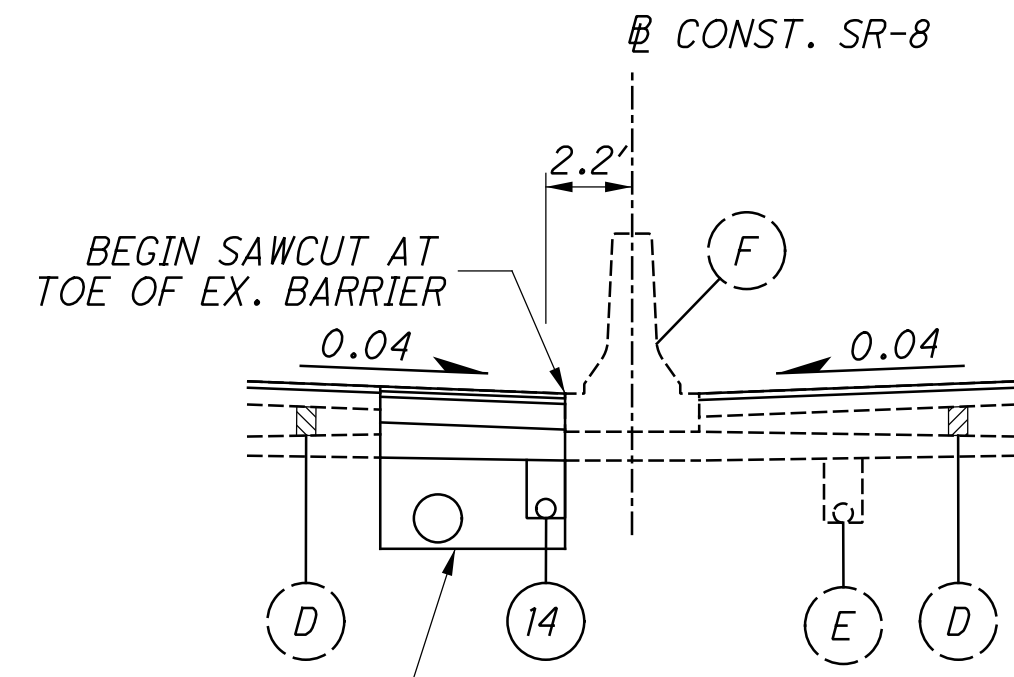
- A** CROWN LOCATION VARIES:  
 VARIES FROM 23.4' LT AT STA. 354+24.91 TO 19.4' LT AT STA. 355+24.91  
 FROM STA. 355+24.91 FORWARD, THE CROWN SHALL BE LOCATED ON  
 LANE LINE BETWEEN LANE ONE AT TWO
- B** VARIES FROM 6.9' AT STA. 354+24.91 TO 10.0' AT STA. 357+85.19

**RESURFACING SECTION - SR-8**  
 STA. STA. 354+24.91 TO STA. 393+54.11



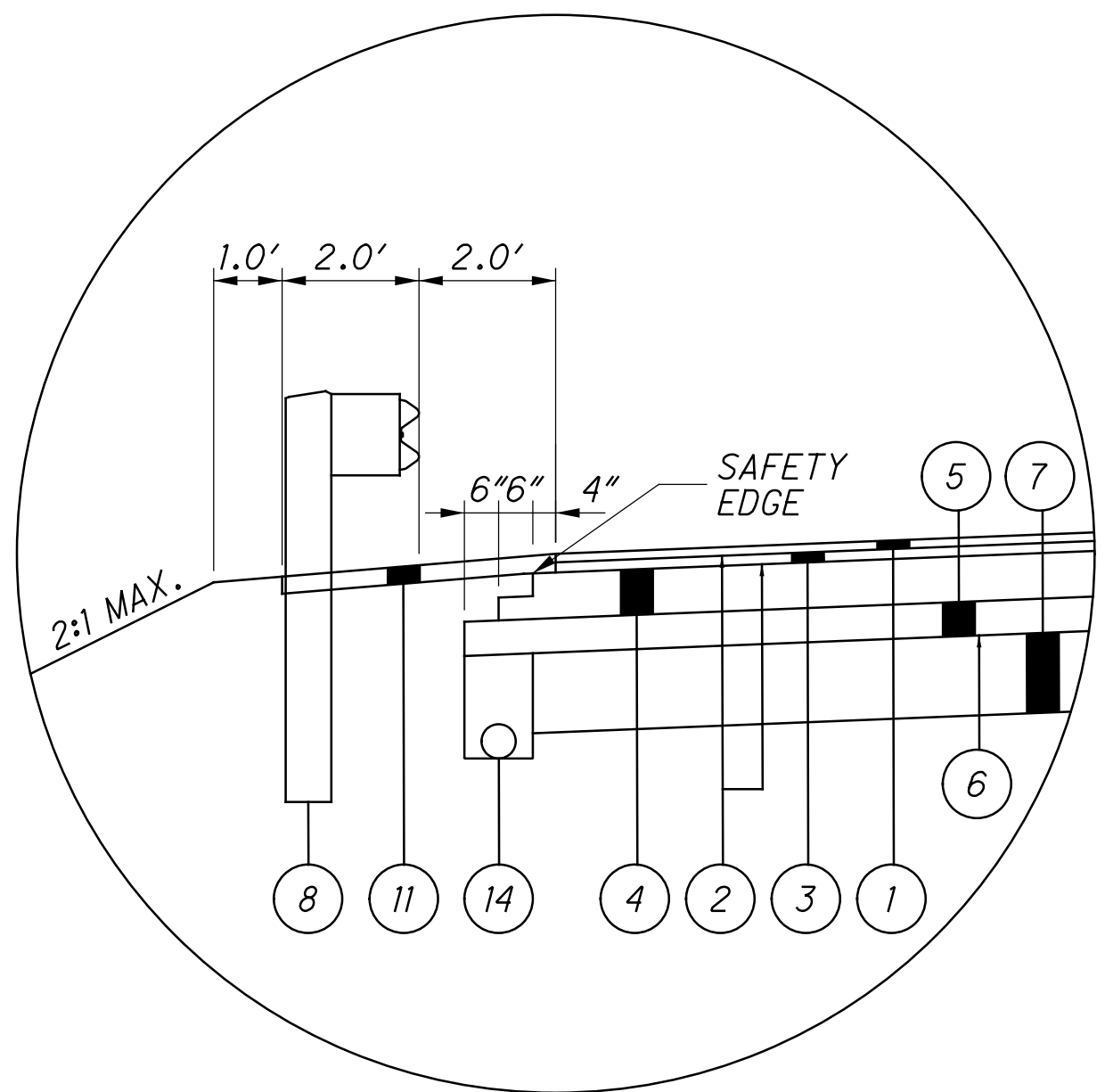
PROP. BARRIER SHALL BE PLACED ON EXISTING SUBBASE

**MEDIAN BARRIER REPLACEMENT DETAIL**  
 STA. 338+90.00 to STA. 339+10.00  
 STA. 340+90.00 TO STA. 341+10.00  
 STA. 345+65.00 TO STA. 345+85.00  
 STA. 347+90.00 TO STA. 348+10.00  
 STA. 350+40.00 TO STA. 353+50.00

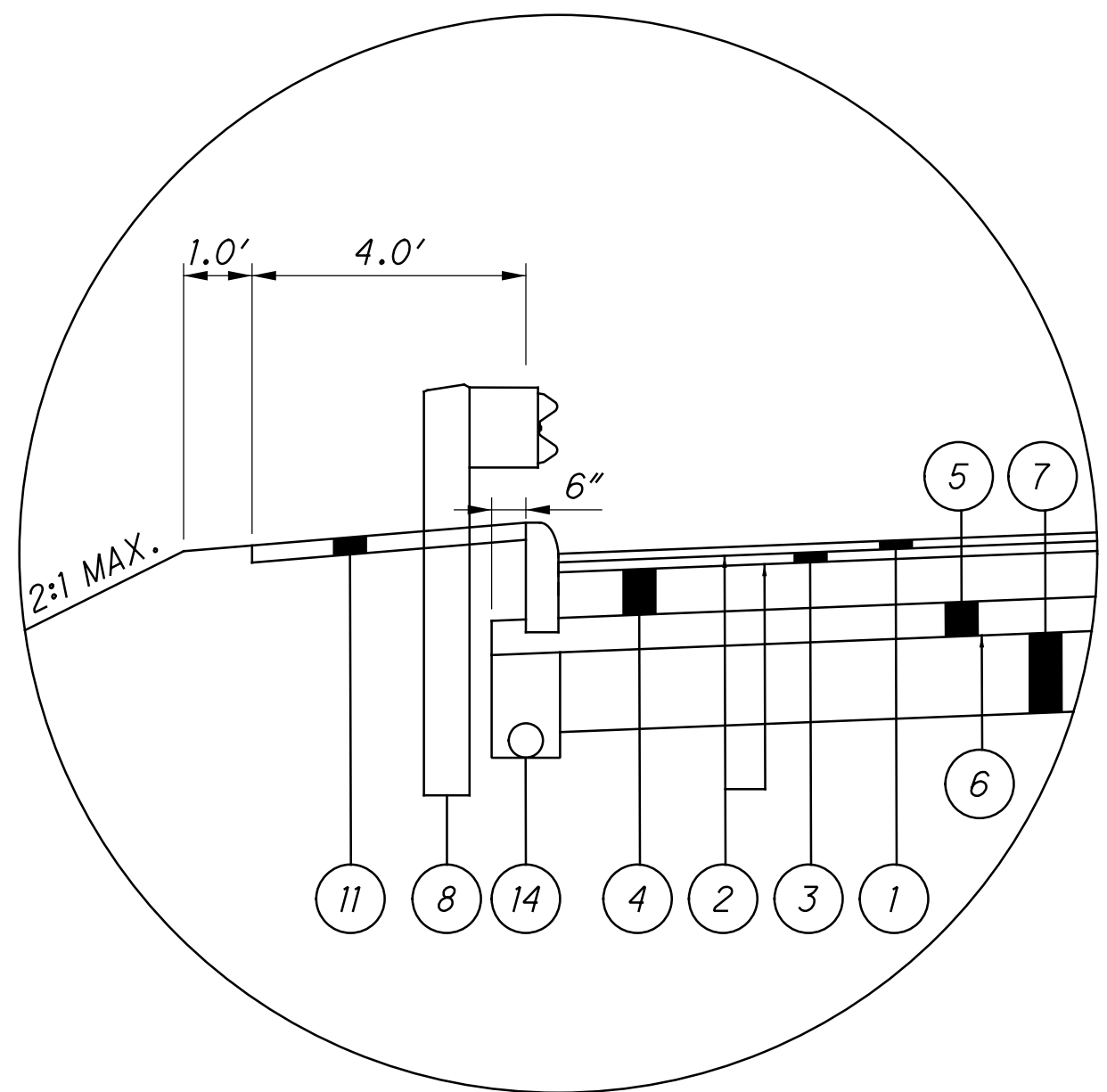


SEE SHEET 7 FOR PAVEMENT REPLACEMENT DETAIL

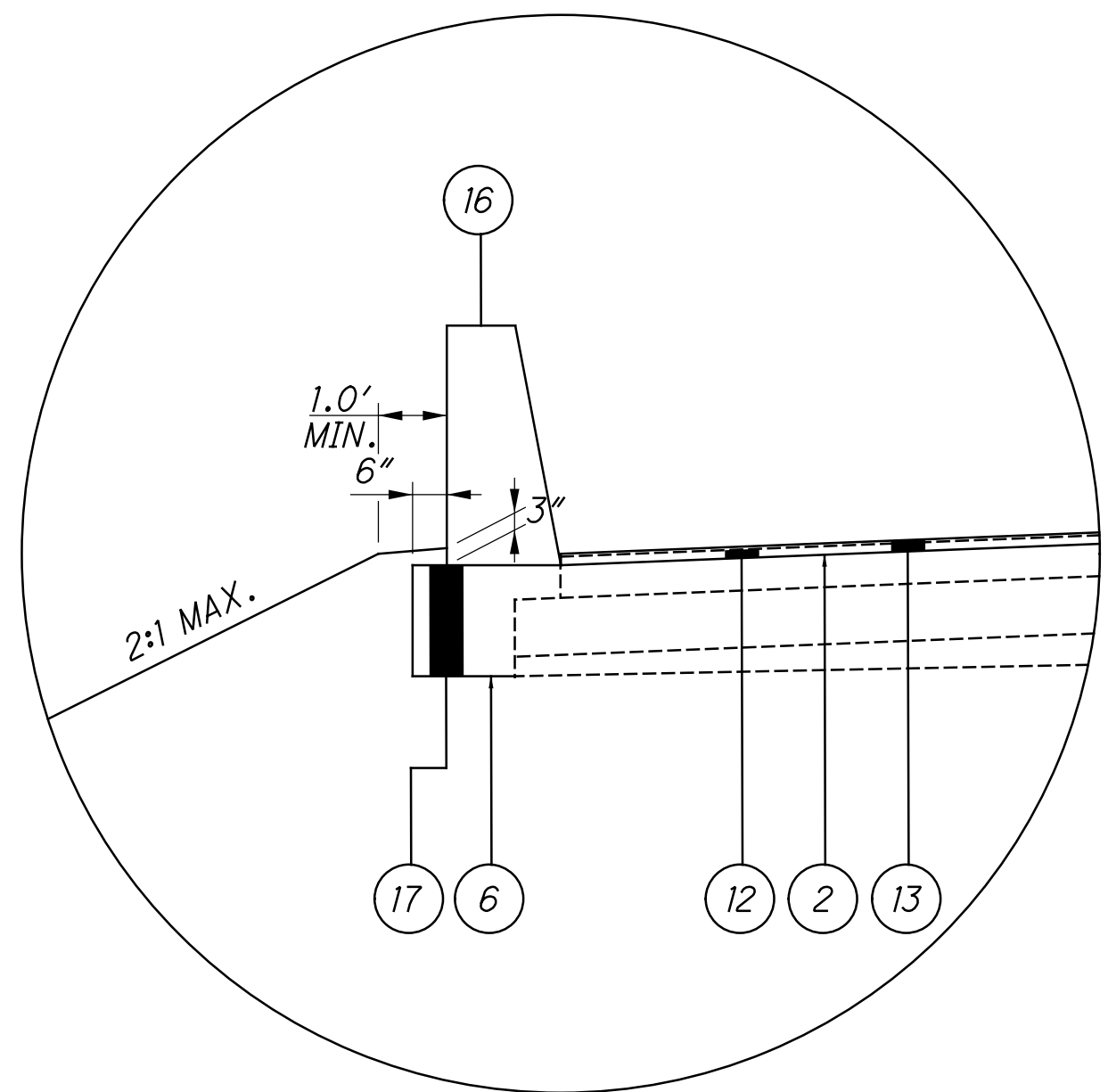
**UNDERDRAIN REPLACEMENT DETAIL**  
 STA. 341+89.56 to STA. 343+02.00



**PAVING UNDER GUARDRAIL DETAIL (WITHOUT CURB)**



**PAVING UNDER GUARDRAIL DETAIL (WITH CURB)**



**CONCRETE BARRIER REPLACEMENT DETAIL**

FOR LEGEND, SEE SHEET 3

TYPICAL SECTIONS - PROPOSED SR-8

SUM-76/77/8/  
8.24/09.74/0.00

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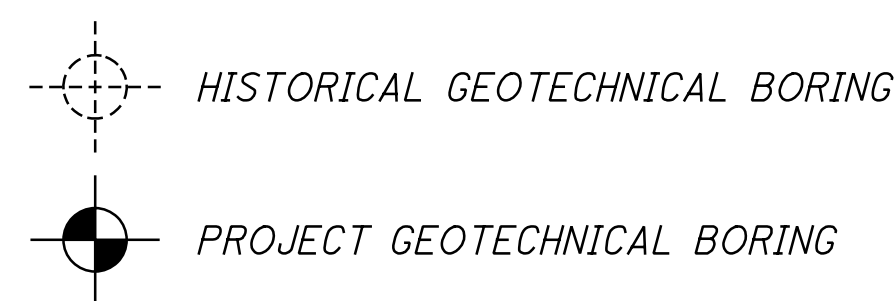
**PLAN ABBREVIATIONS**

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
B	BASELINE
BM	BENCH MARK
BLVD.	BOULEVARD
BTA	BRIDGE TERMINAL ASSEMBLY
CB	CATCH BASIN
C	CENTERLINE
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
F	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
P	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

**CITY OF AKRON BUREAU OF WATER SUPPLY (INSPECTION)**  
ATTN: TONY PUGLIA  
OFFICE (330) 375-2549  
1460 TRIPPLETT BLVD.  
AKRON, OH 44306

**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

**CITY OF AKRON UTILITY COORDINATOR**  
ATTN: JOSEPH KUNZLER  
OFFICE (330)-375-2217  
CELL (330)-690-0133  
166 S. HIGH ST. AKRON, OH 44308

**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

**CITY OF AKRON COMMUNICATIONS**  
ATTN: MALCOLM VALENTINE  
OFFICE (330) 375-2670  
FAX (330) 375-2996  
JOHN HEFFERNAN  
OFFICE (330) 375-2685

**CITY OF AKRON BUREAU OF WATER RECLAMATION**  
ATTN: BRIAN GRESSER  
OFFICE (330) 375-2963x7130  
2460 AKRON-PENINSULA RD.  
AKRON, OH 44313

**CITY OF AKRON TRAFFIC ENGINEERING**  
ATTN: MIKE LUPICA  
OFFICE (330) 375-2851  
FAX (330) 375-2307  
CELL (330) 812-7550

**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

**STRAWN OILFIELD SERVICE**  
ATTN: GEORGE STRAWN  
CELL (330) 727-1614  
29093 STATE ROUTE 62  
SALEM, OH 44460

**ODOT ITS**  
1606 W. BROAD ST.  
COLUMBUS, OH 43223  
CEN.ITS.LAB@DOT.OHIO.GOV  
(614) 387-4113

**EVERFLOW EASTERN PARTNERS**  
OFFICE (330) 537-3863  
585 W MAIN ST.  
CANFIELD, OH 44406

**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.

Released for Construction  
Thomas J Powell, PE

**ISSUE RECORD: BU-28A ROADWAY**

NO.	DATE	DESCRIPTION

**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 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.

FULL COMPENSATION FOR THE PRECAST WINGWALL OR HEADWALL IS THE NUMBER OF CUBIC YARDS OF ITEM 511 AND POUNDS OF ITEM 509 FOR THE CORRESPONDING CAST-IN-PLACE STRUCTURE.

**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.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

**GENERAL NOTES**

**SUM-76 / 77 / 8 / 8.24 / 09.74 / 0.00**

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ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

CALCULATED
JTB
CHECKED
EAK

**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.

**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.

**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.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

**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 304 - AGGREGATE BASE, AS PER PLAN**

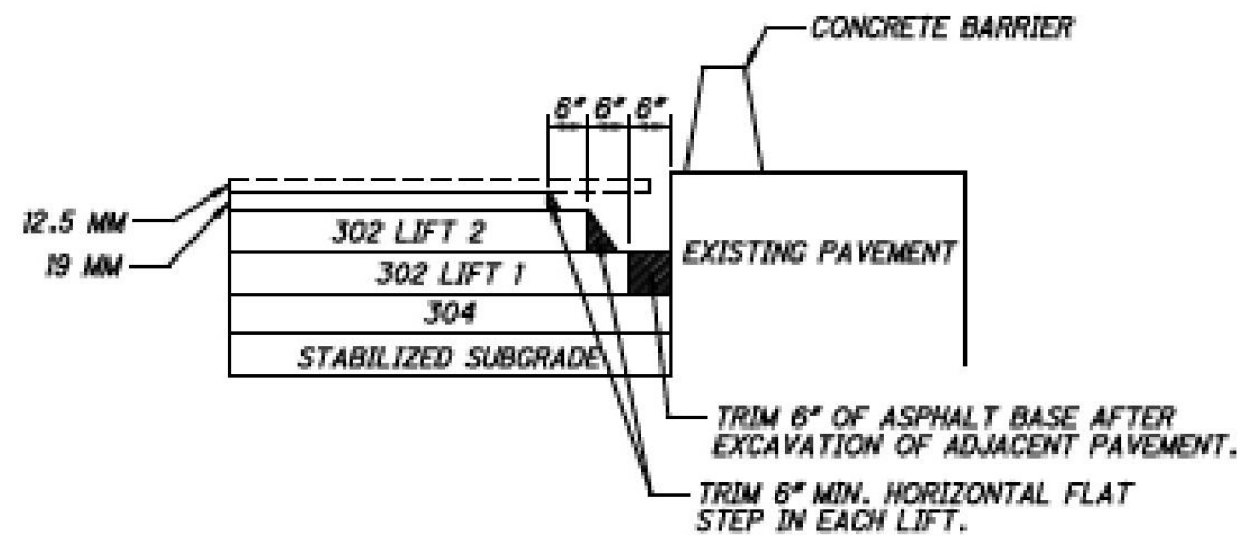
GRANULATED SLAG (GS) SHALL NOT BE PERMITTED FOR THIS ITEM. ALL OTHER REQUIREMENTS OF SECTIONS 304 AND 703.17 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL STILL BE APPLICABLE.

**ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, AS PER PLAN**

703.05 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.

**PHASE JOINT FOR ASPHALT PAVEMENT**

PER THE PHASING 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 INT PAVEMENT JOINT, WHILE REMOVING THE UNCONSOLIDATED MATERIAL, PER THE DETAIL SHOWN 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 THE MILLING AND SEALING SHALL BE INCIDENTAL TO THE COST OF THE PAVEMENT ITEMS.



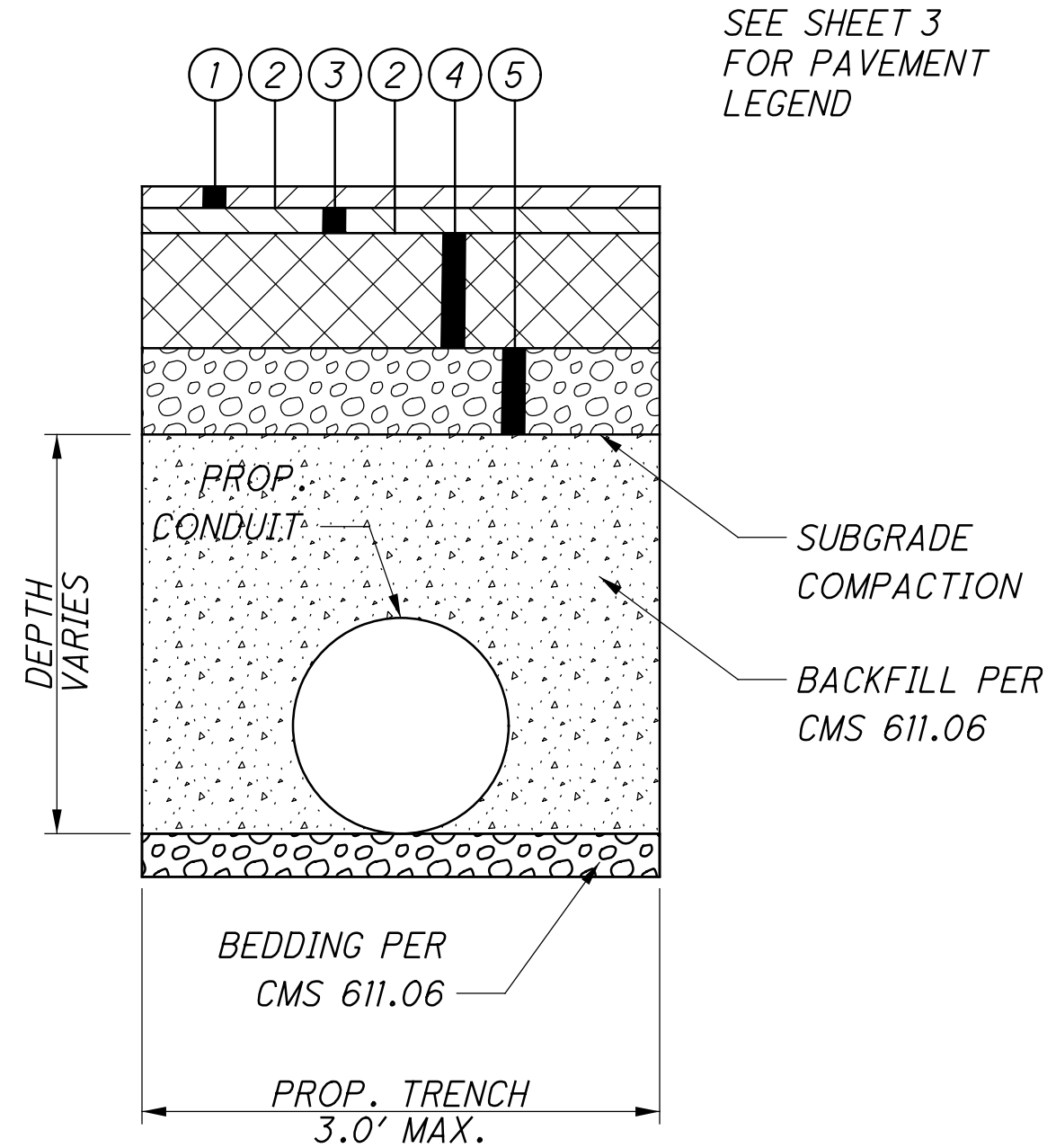
PHASING JOINT DETAIL

**ITEM 442 - ANTI-SEGREGATION EQUIPMENT**

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

**ITEM 252 FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT**

IN ACCORDANCE ITEM 252 - FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, THIS ITEM SHALL BE USED WHEN NEW STORM SEWER CONDUIT AND/OR NEW MEDIAN INLETS ARE TO BE PLACED IN RESURFACING AREAS. SEE DETAIL BELOW FOR PROPOSED PAVEMENT AND TRENCH DETAIL FOR CONDUIT INSTALLATION.



GENERAL NOTES

SUM-76/77/8/  
 8.24/09.74/0.00

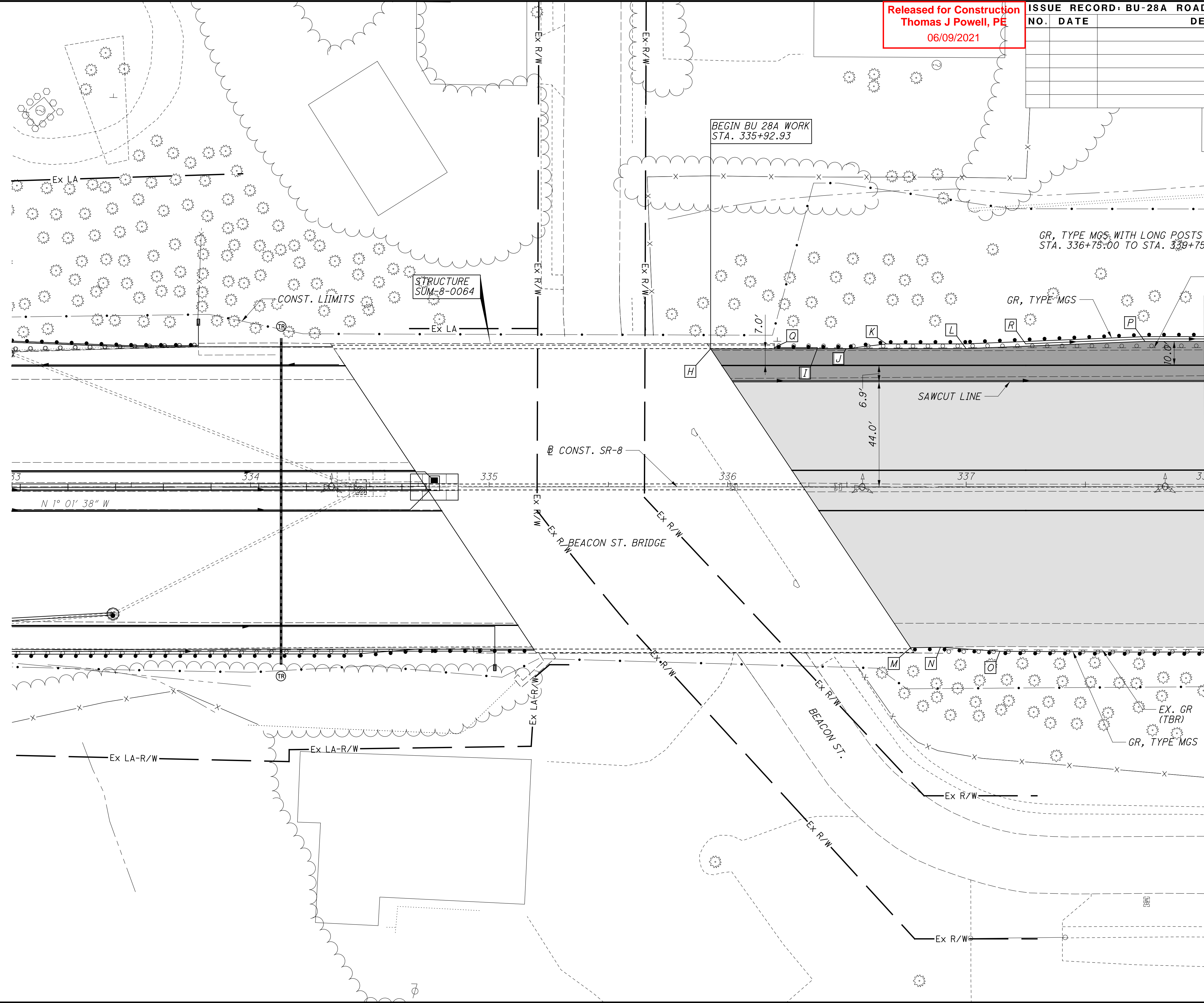
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ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

CALCULATED  
AA  
CHECKED  
EAK

0 20 40  
HORIZONTAL  
SCALE IN FEET



GR, TYPE MGS WITH LONG POSTS STATION LIMITS:  
STA. 336+75.00 TO STA. 339+75.00, LT

- MATCH LINE STA. 338+00 SEE SHEET 9
- [M] +76.66, 67.52' RT
  - [N] +89.16, 67.34' RT
  - [O] +14.10, 69.06' RT
  - [P] +75.00, 60.90' LT
  - [Q] +19.61, 57.90' LT
  - [R] +24.99, 59.9' LT
- BEGIN GR, BTA TYPE 2  
BEGIN SHOULDER UNDERDRAIN  
BEGIN GR TAPER  
END GR TAPER  
END SHOULDER TAPER  
BEGIN CURB  
BEGIN GR, BTA TYPE 1

- [T] +92.93, 57.9' RT
  - [U] +37.61, 54.9' RT
  - [V] +50.00, 57.90' LT
  - [W] +66.61, 59.9' LT
  - [X] +00.00, 57.9' LT
- BEGIN PROP. SHOULDER  
END CURB  
BEGIN GR TAPER  
END GR TAPER  
BEGIN SHOULDER TAPER

**LEGEND**

SEE GENERAL NOTES FOR LIST OF PLAN ABBREVIATIONS

PAVEMENT PLANING & RESURFACING

FULL DEPTH PAVEMENT REPLACEMENT

PLAN - SR-8  
STA. 333+00 TO STA. 338+00

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



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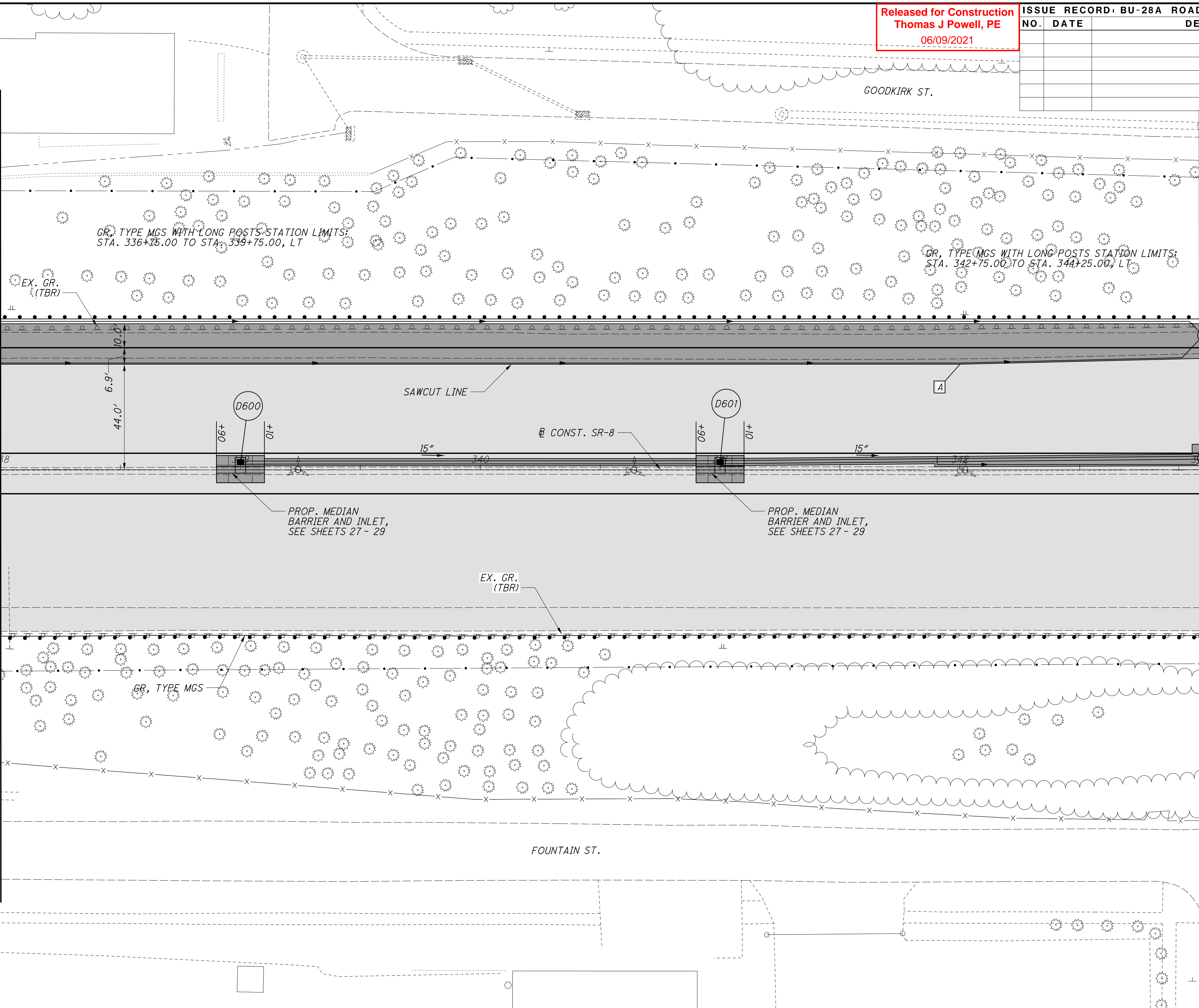
ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

CALCULATED  
AA  
CHECKED  
EAK

HORIZONTAL SCALE IN FEET

MATCH LINE STA. 338+00 SEE SHEET 8

MATCH LINE STA. 343+00 SEE SHEET 10



A +00.05, 44.00' LT  
BEGIN SAWCUT TAPER

PLAN - SR-8  
STA. 338+00 TO STA. 343+00

LEGEND

SEE GENERAL NOTES FOR LIST OF PLAN ABBREVIATIONS

PAVEMENT PLANING & RESURFACING

FULL DEPTH PAVEMENT REPLACEMENT

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

9  
30

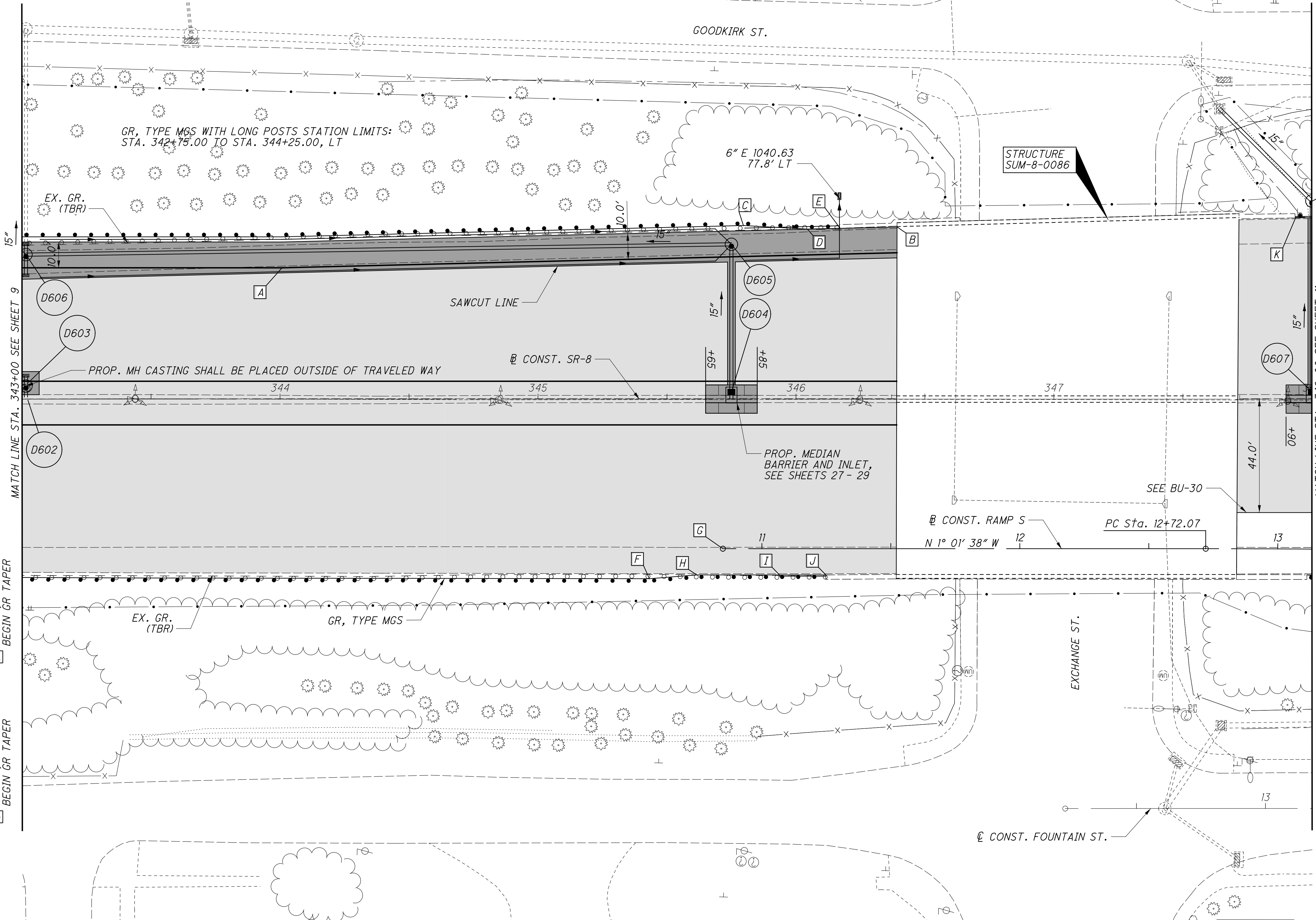
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ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

CALCULATED AA  
CHECKED EAK

HORIZONTAL SCALE IN FEET



- [A] +00.77, 50.90' LT  
BEGIN PAVEMENT TAPER  
END GR TAPER
- [B] +39.22, 66.72' LT  
END PROPOSED SHOULDER  
BEGIN GR TAPER
- [C] +79.64, 67.27' LT  
BEGIN GR TAPER
- [D] +04.41, 65.89' LT  
END GR TAPER
- [E] +17.02, 66.18' LT  
END GR, BTA, TYPE 2
- [F] +43.20, 69.6' RT  
BEGIN GR TAPER

- [G] CONST. SR-8 STA. 345+71.68, 58.00' RT. =
- [H] CONST. RAMP S STA. 10+84.88, 0.00' RT
- [I] +61.59, 68.2' RT  
END GR TAPER
- [J] +93.59, 68.1' RT  
BEGIN CURB  
END CURB, BTA, TYPE 1
- [K] +93.69, 70.22' LT  
BEGIN CURB  
BEGIN GR, BTA, TYPE 1

**LEGEND**  
SEE GENERAL NOTES FOR LIST OF PLAN ABBREVIATIONS

PAVEMENT PLANING & RESURFACING

FULL DEPTH PAVEMENT REPLACEMENT

**PLAN - SR-8**  
**STA. 343+00 TO STA. 348+00**

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



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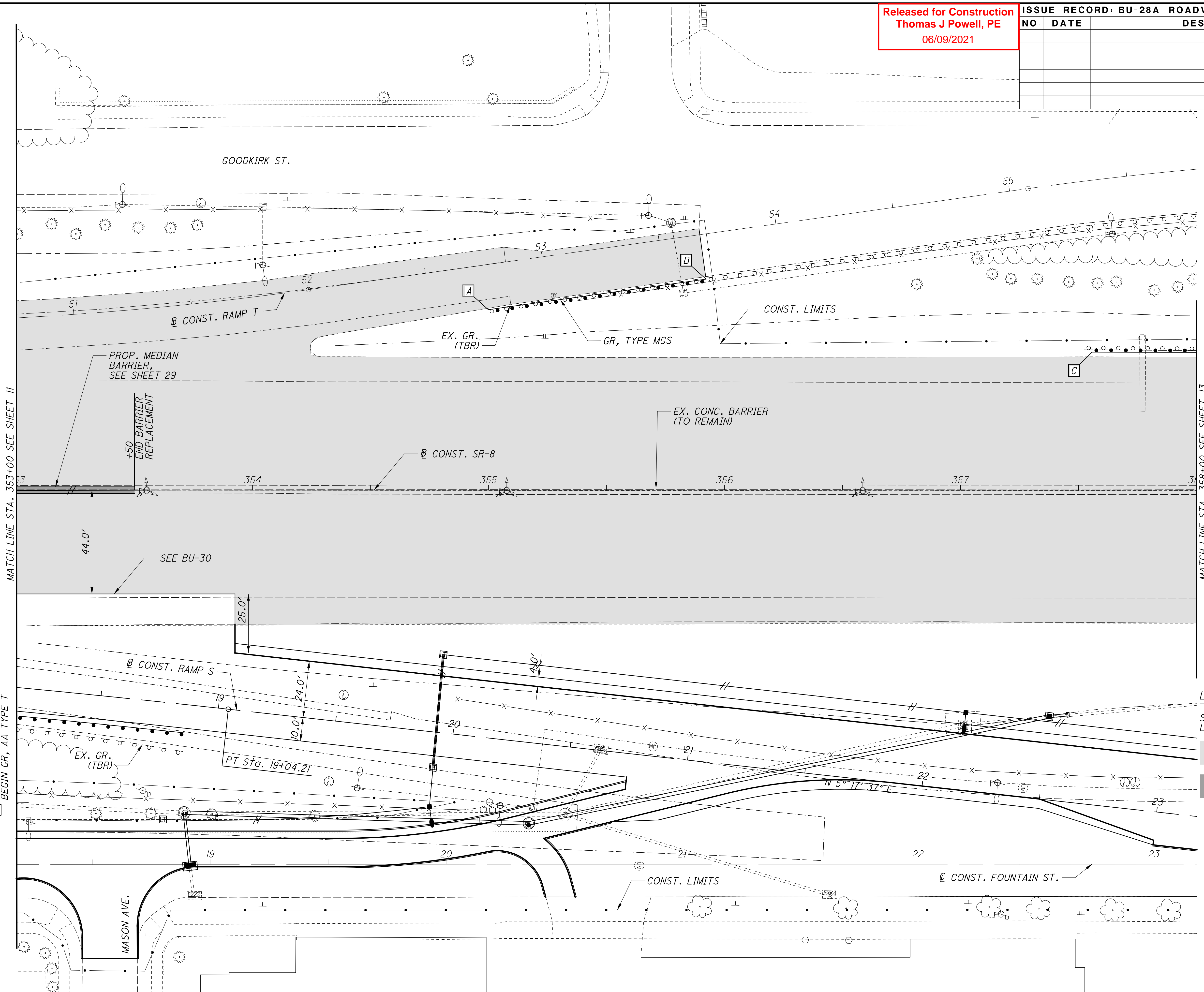
ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

CALCULATED  
AA

CHECKED  
EAK

0 10 20 40  
HORIZONTAL  
SCALE IN FEET

N



- A +74.29, 19.00' RT  
END GR, AA TYPE T
- B +67.45, 19.00' RT  
CONNECT TO EX. GR
- C +55.75, 58.49' LT  
BEGIN GR, AA TYPE T

LEGEND

SEE GENERAL NOTES FOR LIST OF PLAN ABBREVIATIONS

PAVEMENT PLANING & RESURFACING

FULL DEPTH PAVEMENT REPLACEMENT

PLAN - SR-8  
STA. 353+00 TO STA. 358+00

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

12  
30

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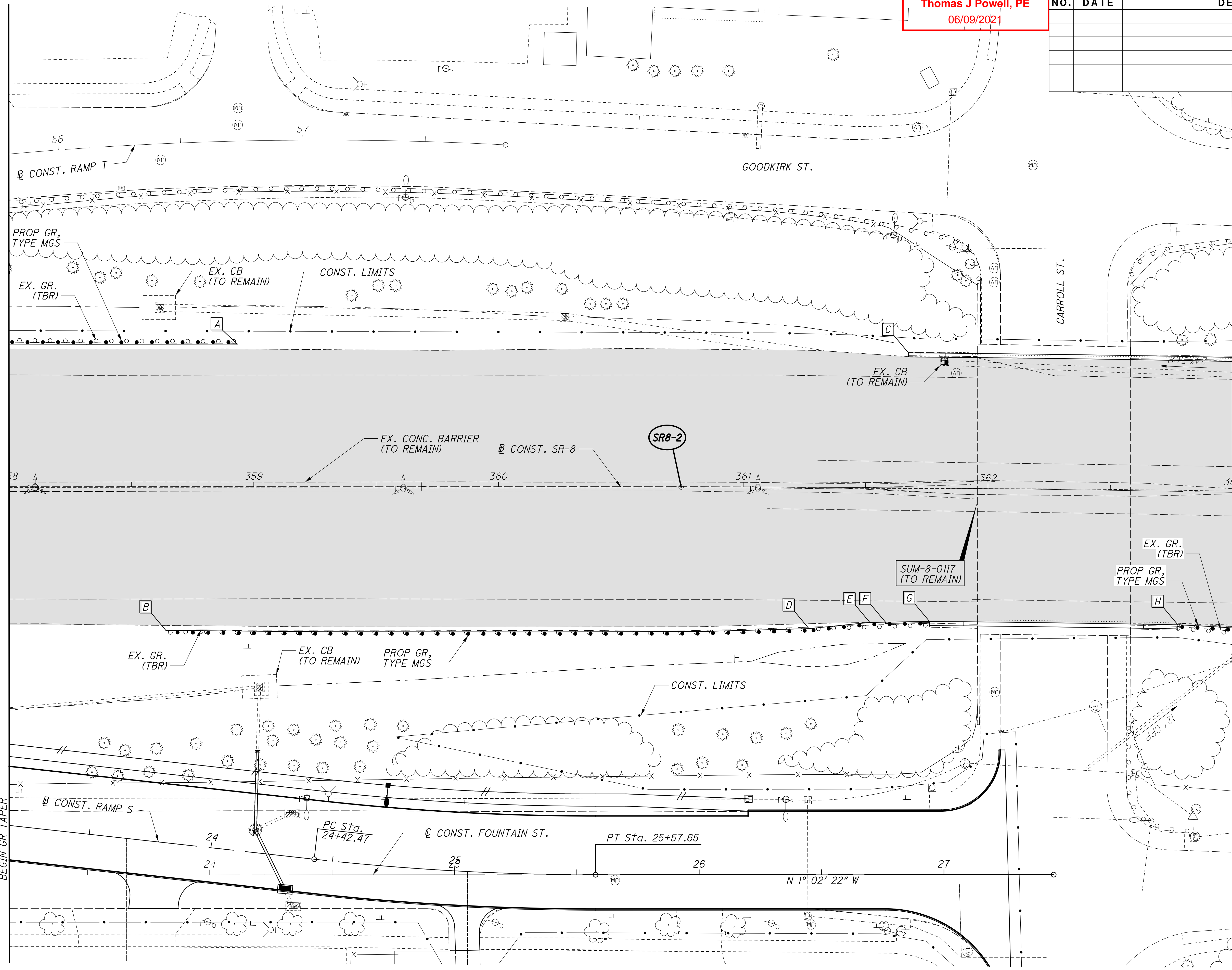
ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

CALCULATED  
AA  
CHECKED  
EAK

HORIZONTAL SCALE IN FEET

MATCH LINE STA. 358+00 SEE SHEET 12

MATCH LINE STA. 363+00 SEE SHEET 14



- [A] +93.26, 58.34' LT  
END GR, AA TYPE E
- [B] +64.10, 58.59' RT  
END GR, AA TYPE E
- [C] +67.08, 55.17' LT  
BEGIN TYPE D BARRIER
- [D] +27.15, 57.75' RT  
BEGIN GR TAPER
- [E] +52.13, 55.09' RT  
END GR TAPER
- [F] +58.56, 54.94' RT  
BEGIN CURB
- [G] +76.64, 54.48' RT  
BEGIN BTA TYPE 1
- [H] +78.62, 54.49' RT  
END TYPE D BARRIER

**SR8-2**

PI Sta. 368+47.03  
 $\Delta = 7^\circ 46' 07''$  (RT)  
DC =  $0^\circ 30' 13''$   
R = 11,375.75'  
T = 772.39'  
L = 1,542.41'  
E = 26.19'  
eMAX = NC  
PC Sta. 360+74.64  
PT Sta. 376+17.05  
vDES = 60 MPH

LEGEND

SEE GENERAL NOTES FOR LIST OF PLAN ABBREVIATIONS

PAVEMENT PLANING & RESURFACING

PLAN - SR-8  
STA. 358+00 TO STA. 363+00

SUM-76/77/8-  
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ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

CALCULATED  
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 EAK

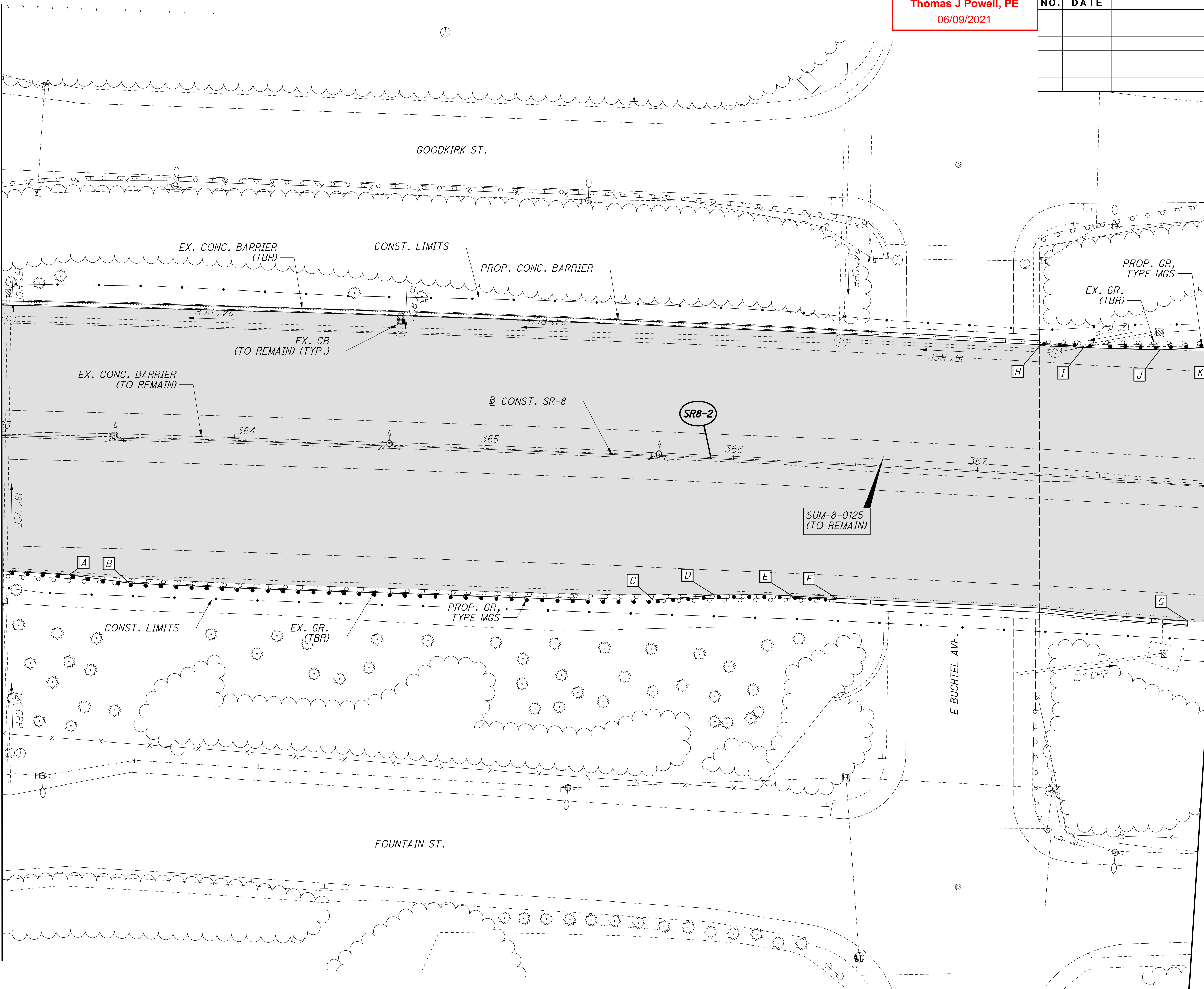
0 20 40  
 HORIZONTAL  
 SCALE IN FEET

SR8-2

PI Sta. 368+47.03  
 Δ = 7° 46' 07" (RT)  
 DC = 0° 30' 13"  
 R = 11,375.75'  
 T = 772.39'  
 L = 1,542.41'  
 E = 26.19'  
 eMAX = NC  
 PC Sta. 360+74.64  
 PT Sta. 376+17.05  
 vDES = 60 MPH

MATCH LINE STA. 363+00 SEE SHEET 13

MATCH LINE STA. 368+00 SEE SHEET 15



- A +28.78, 56.47' RT  
 BEGIN GR TAPER
- B +53.76, 59.20' RT  
 END GR TAPER
- C +69.68, 58.82' RT  
 BEGIN GR TAPER
- D +94.61, 55.69' RT  
 END GR TAPER

- I +53.40, 40.43' LT  
 END CURB
- J +71.66, 54.40' LT  
 BEGIN GR TAPER
- K +96.41, 56.99' LT  
 END GR TAPER

- E +26.73, 54.61' RT  
 BEGIN CURB
- F +44.82, 54.63' RT  
 END CURB  
 END GR BTA, TYPE 1  
 BEGIN TYPE D BARRIER
- G +89.92, 55.83' RT  
 END TYPE D BARRIER
- H +22.51, 53.10' LT  
 END TYPE D BARRIER  
 BEGIN CURB  
 BEGIN GR BTA, TYPE 1

LEGEND  
 SEE GENERAL NOTES FOR  
 LIST OF PLAN ABBREVIATIONS

PAVEMENT PLANING  
 & RESURFACING

PLAN - SR-8  
 STA. 363+00 TO STA. 368+00

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

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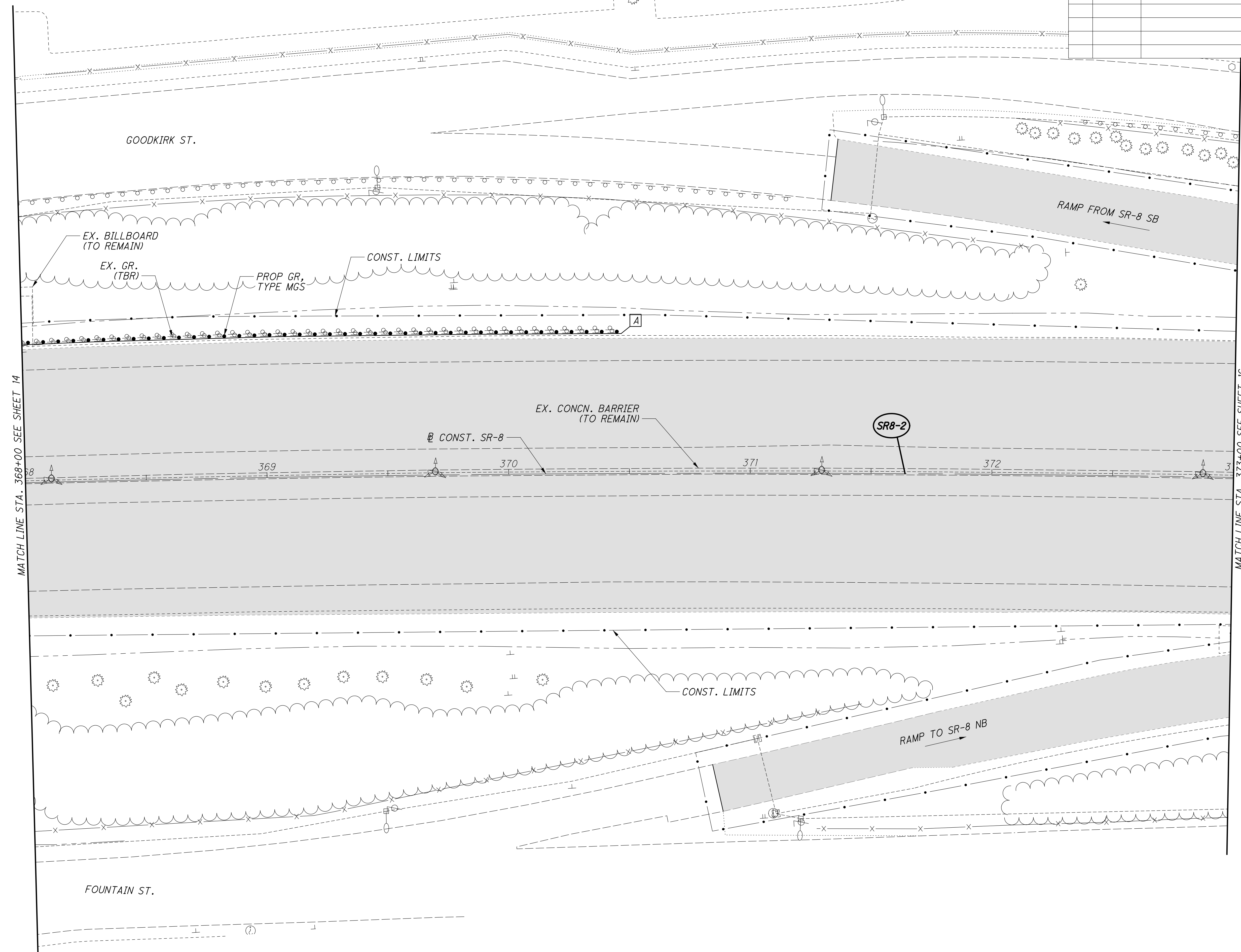
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ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

CALCULATED  
AA  
CHECKED  
EAK

0 20 40  
HORIZONTAL  
SCALE IN FEET

15  
30



A +56.84, 57.90' LT  
END GR, AA TYPE E

MATCH LINE STA. 368+00 SEE SHEET 14

MATCH LINE STA. 373+00 SEE SHEET 16

PLAN - SR-8  
STA. 368+00 TO STA. 373+00

SR8-2

PI Sta. 368+47.03  
 $\Delta = 7^\circ 46' 07''$  (RT)  
 DC =  $0^\circ 30' 13''$   
 R = 11,375.75'  
 T = 772.39'  
 L = 1,542.41'  
 E = 26.19'  
 eMAX = NC  
 PC Sta. 360+74.64  
 PT Sta. 376+17.05  
 vDES = 60 MPH

**LEGEND**  
 SEE GENERAL NOTES FOR  
 LIST OF PLAN ABBREVIATIONS

PAVEMENT PLANING  
& RESURFACING

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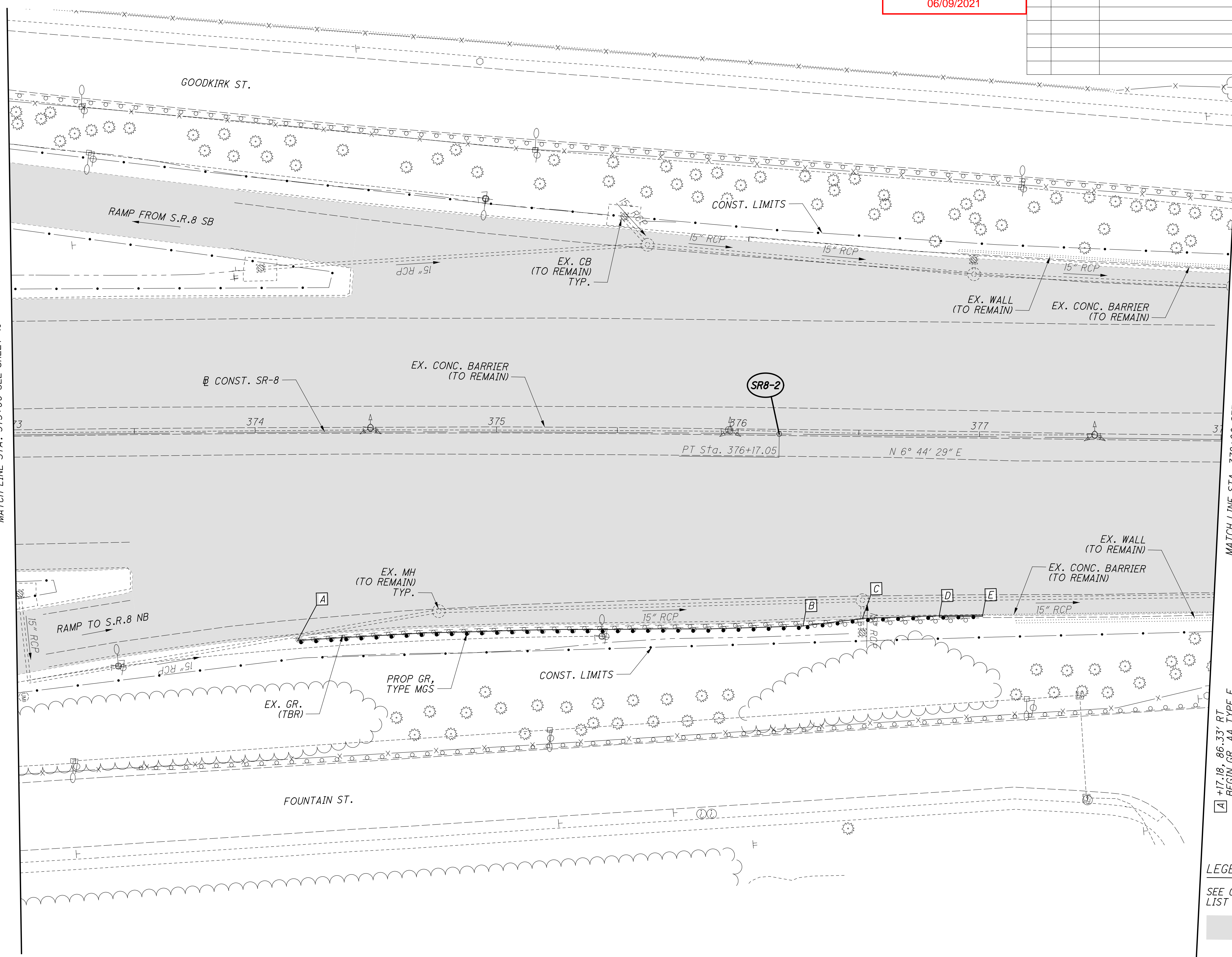
ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

CALCULATED AA  
 CHECKED EAK

PLAN - SR-8  
 STA. 373+00 TO STA. 378+00

MATCH LINE STA. 373+00 SEE SHEET 15

MATCH LINE STA. 378+00 SEE SHEET 17



**SR8-2**  
 PI Sta. 368+47.03  
 $\Delta = 7^\circ 46' 07''$  (RT)  
 $DC = 0^\circ 30' 13''$   
 $R = 11,375.75'$   
 $T = 772.39'$   
 $L = 1,542.41'$   
 $E = 26.19'$   
 $eMAX = NC$   
 PC Sta. 360+74.64  
 PT Sta. 376+17.05  
 $vDES = 60$  MPH

- A +17.18, 86.33' RT  
BEGIN GR, AA TYPE E
- B +27.93, 79.36' RT  
BEGIN GR TAPER
- C +52.90, 75.91' RT  
END GR TAPER
- D +84.26, 74.48' RT  
BEGIN CURB
- E +02.26, 73.93' RT  
END CURB  
END GR, BTA TYPE 1  
CONNECT TO EX. CONC. BARRIER

**LEGEND**  
 SEE GENERAL NOTES FOR LIST OF PLAN ABBREVIATIONS  
 PAVEMENT PLANING & RESURFACING

SUM-76/77/8-  
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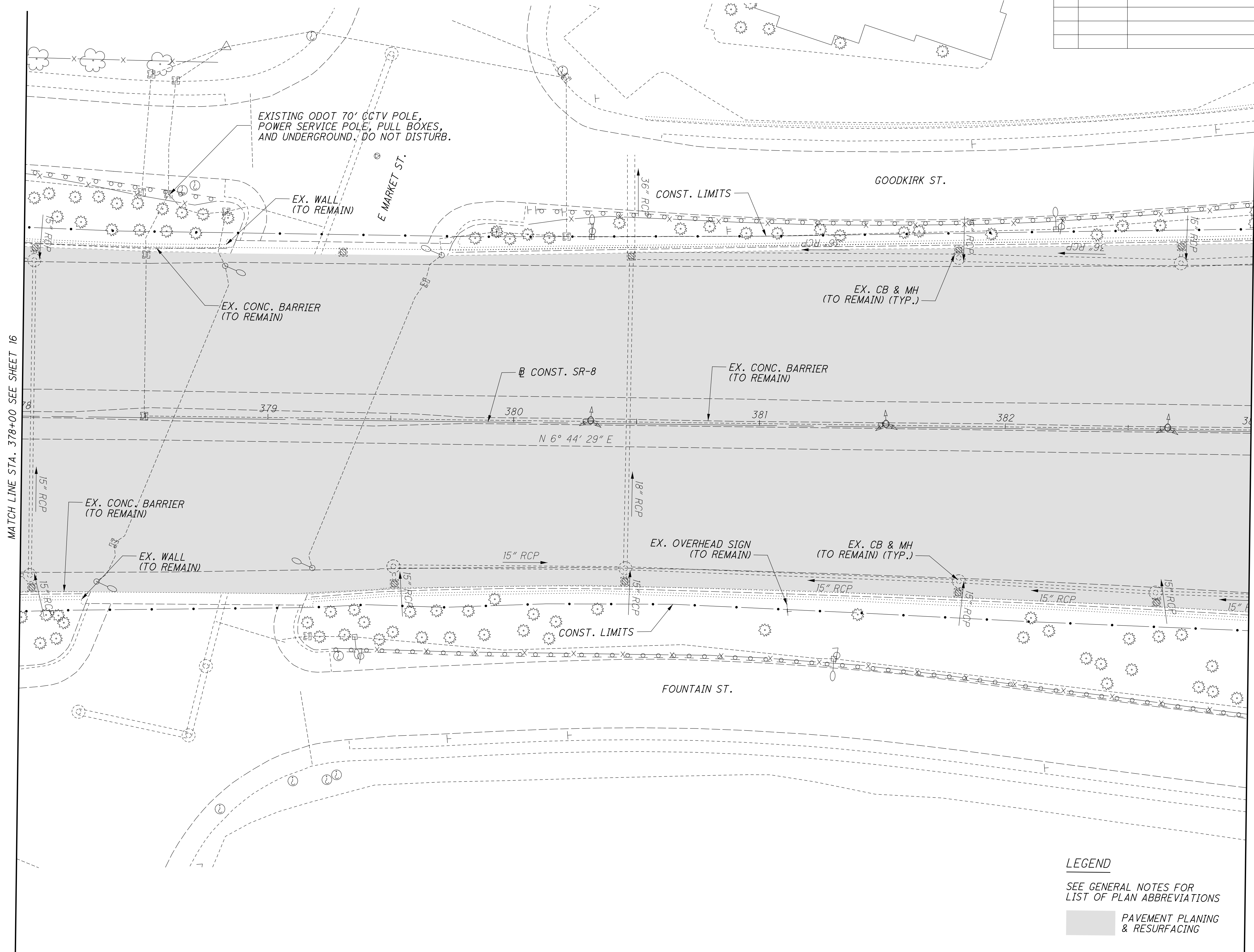
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06/09/2021

ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

CALCULATED  
AA

CHECKED  
EAK

HORIZONTAL SCALE IN FEET



**LEGEND**

SEE GENERAL NOTES FOR LIST OF PLAN ABBREVIATIONS

PAVEMENT PLANING & RESURFACING

PLAN - SR-8  
STA. 378+00 TO STA. 383+00

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

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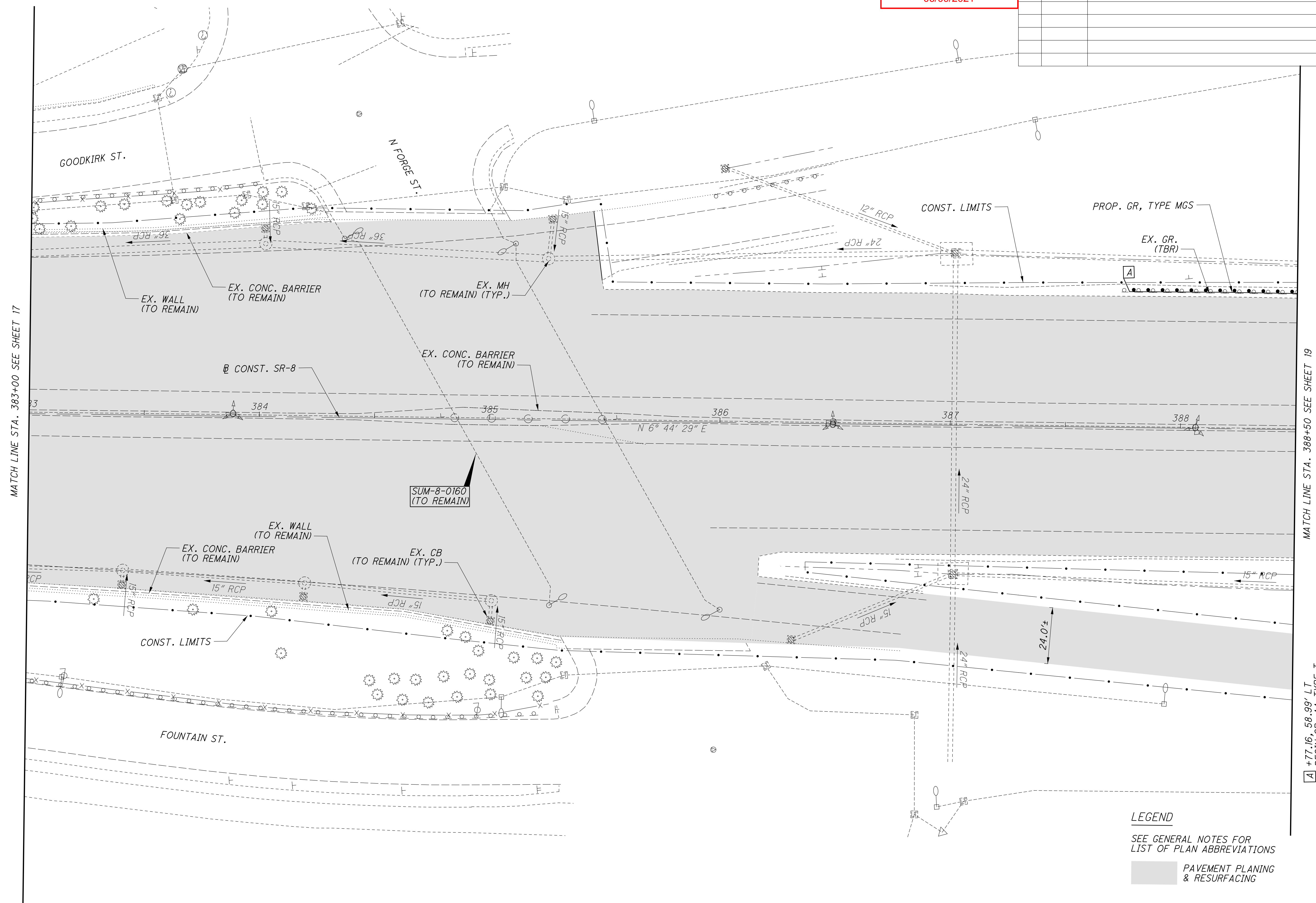
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ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

CALCULATED  
AA

CHECKED  
EAK

HORIZONTAL SCALE IN FEET



MATCH LINE STA. 383+00 SEE SHEET 17

MATCH LINE STA. 388+50 SEE SHEET 19

PLAN - SR-8  
STA. 383+00 TO STA. 388+50

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

LEGEND

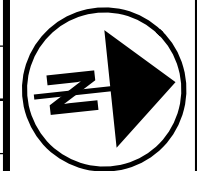
SEE GENERAL NOTES FOR LIST OF PLAN ABBREVIATIONS

PAVEMENT PLANING & RESURFACING

A +77.16, 58.99' LT  
BEGIN GR, AA TYPE T

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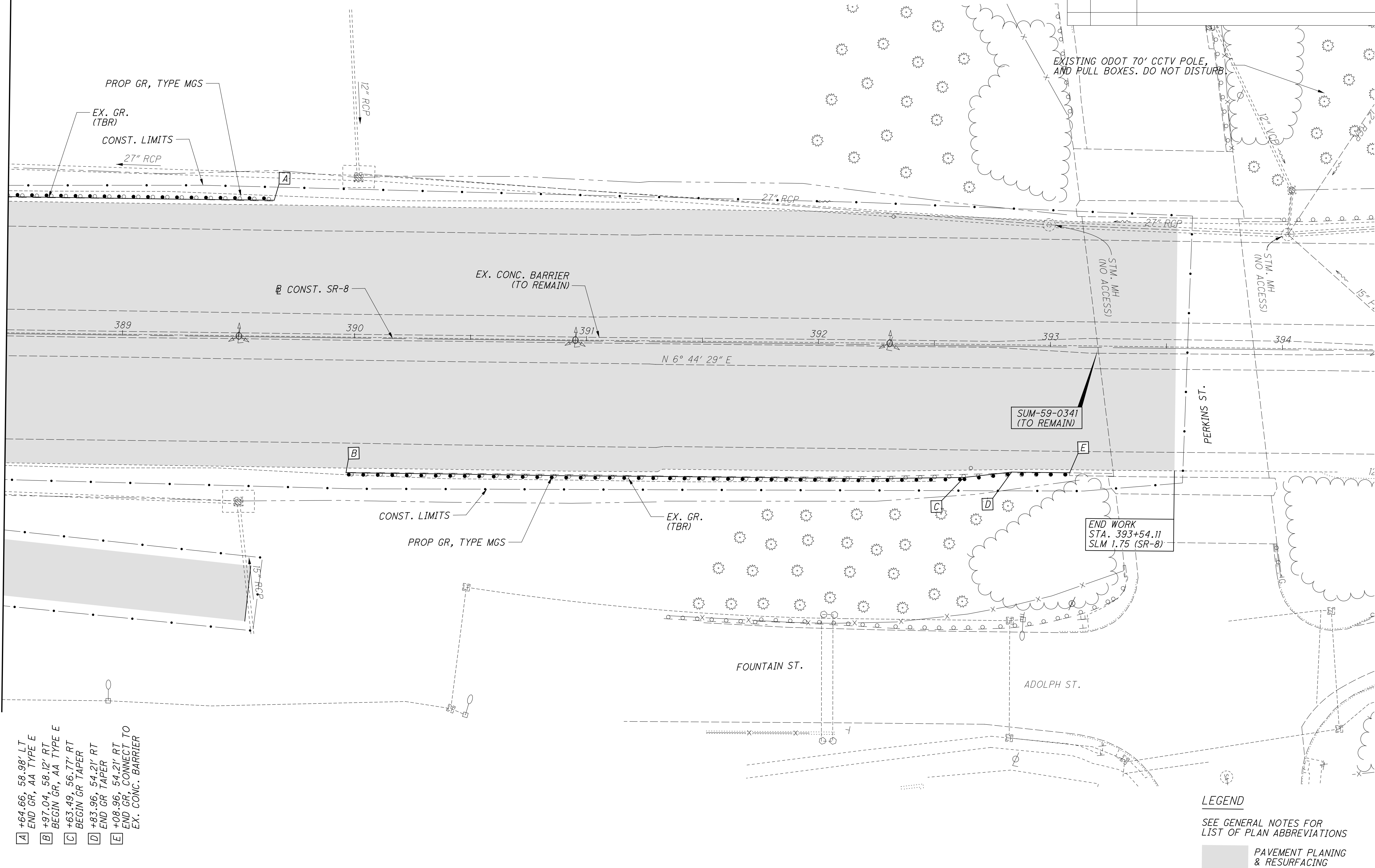
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NO.	DATE	DESCRIPTION



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MATCH LINE STA. 388+50 SEE SHEET 18



- A +64.66, 58.98' LT  
END GR, AA TYPE E
- B +97.04, 58.12' RT  
BEGIN GR, AA TYPE E
- C +63.49, 56.77' RT  
BEGIN GR TAPER
- D +83.96, 54.21' RT  
END GR TAPER
- E +08.96, 54.21' RT  
END GR, CONNECT TO  
EX. CONC. BARRIER

**LEGEND**

SEE GENERAL NOTES FOR LIST OF PLAN ABBREVIATIONS



**PLAN - SR-8**  
**STA. 388+50 TO STA. 394+40**

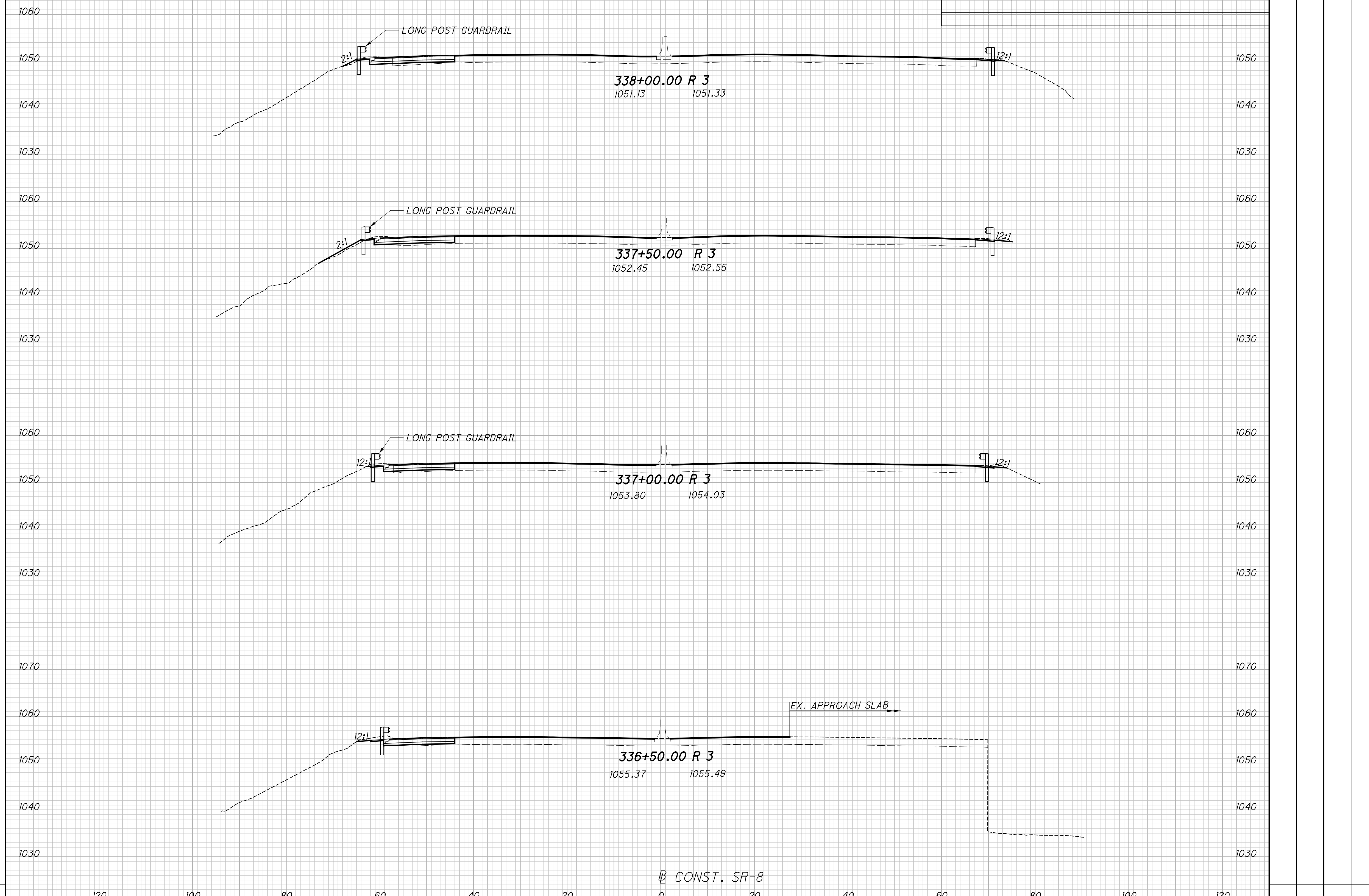
**SUM-76/77/8-**  
**8.24/9.74/0.00**

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 END WIDTH SO. YDS.  
 ekistiel  
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 06/09/2021

ISSUE RECORD: BU-28A ROADWAY	
NO.	DATE

END	AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		



**CROSS SECTIONS - SR-8**  
**STA. 336+50.00 TO STA. 338+00.00**  
**SUM-76 / 77 / 8**  
**8.24 / 09.74 / 0.00**

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ISSUE RECORD: BU-28A ROADWAY

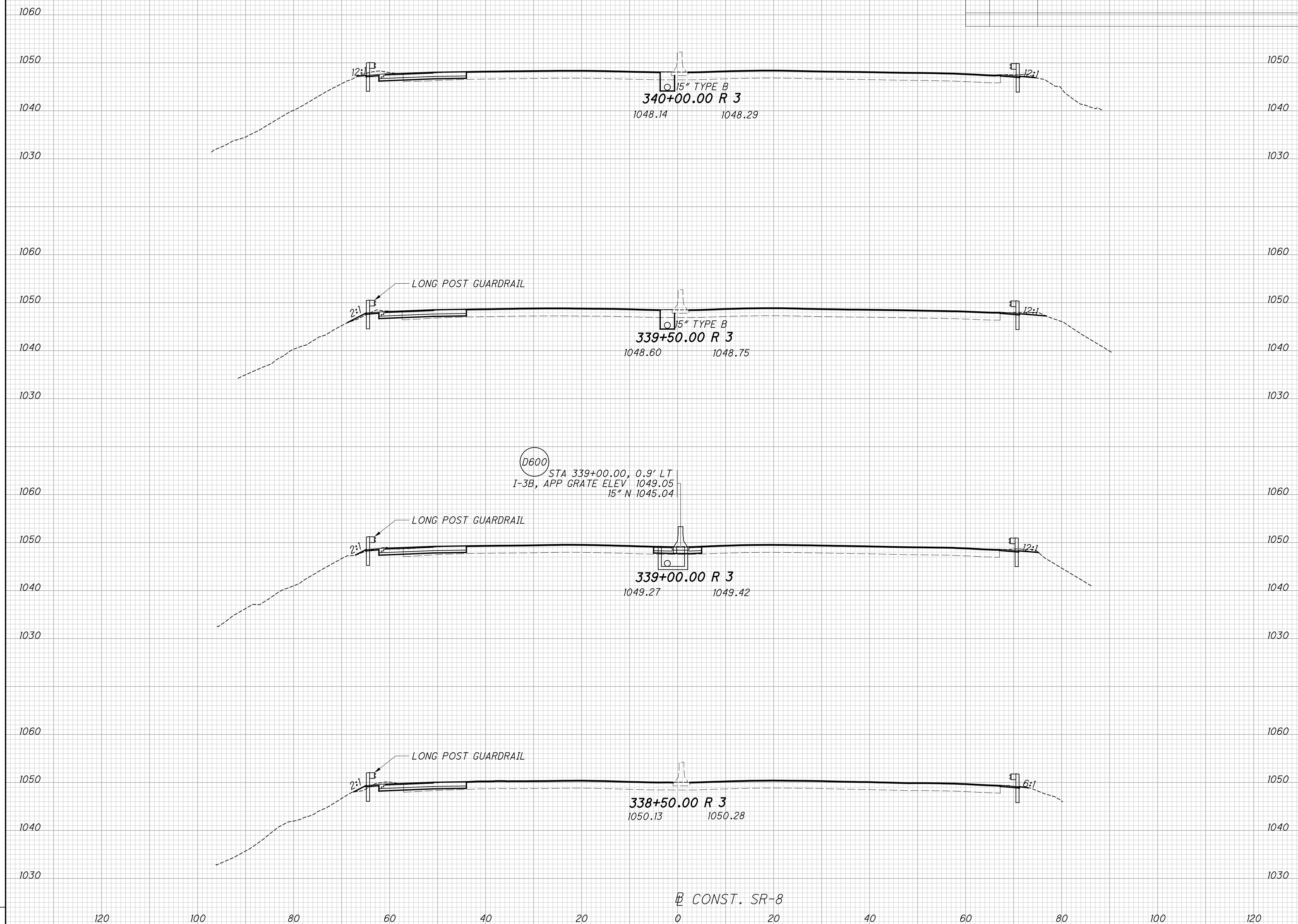
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END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED	CHECKED
AA	EAK

SEEDING	
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CROSS SECTIONS - SR-8  
STA. 338+50.00 TO STA. 340+00.00

SUM - 76 / 77 / 8  
8.24 / 09.74 / 0.00

(21/30)

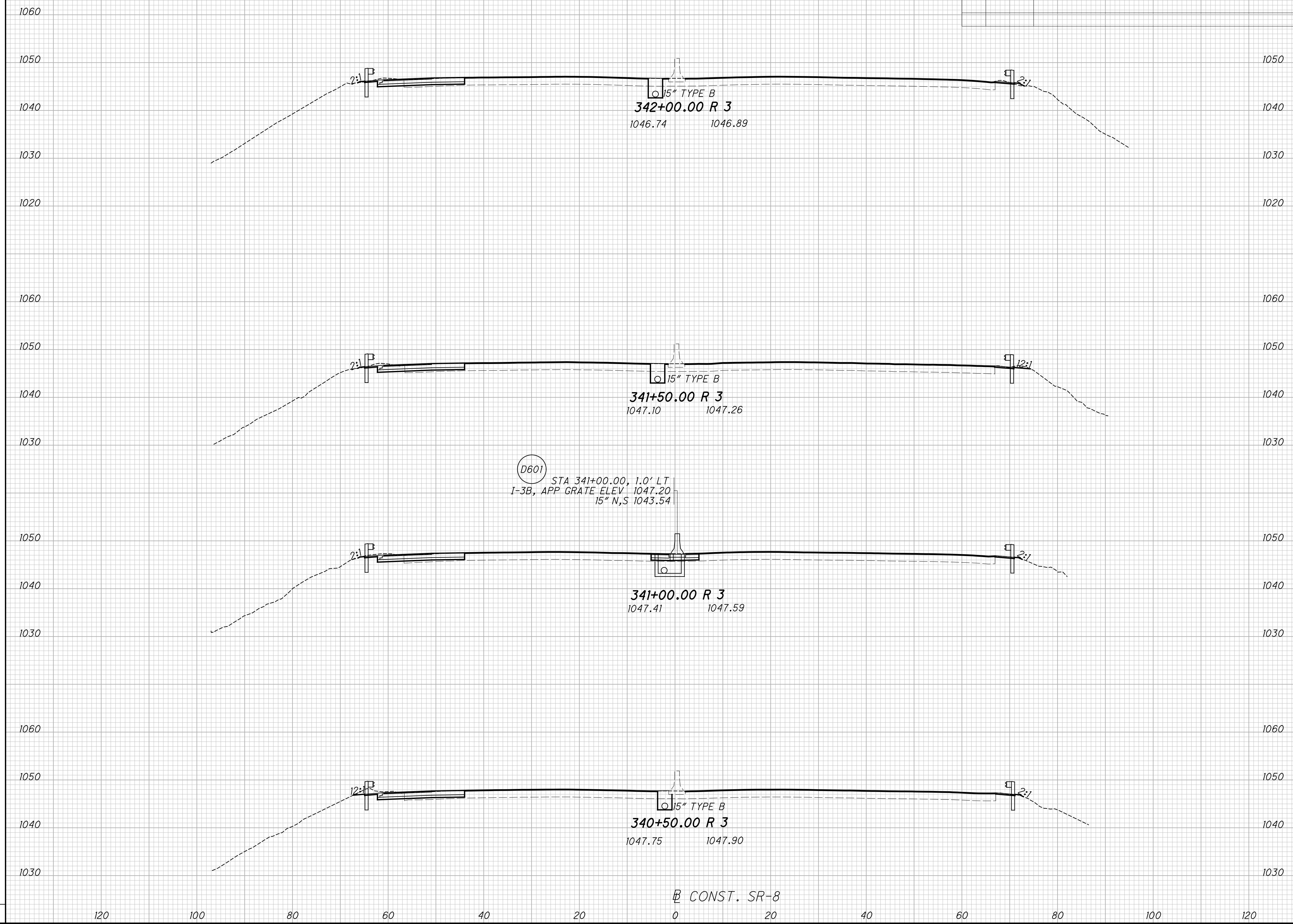
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06/09/2021

ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

END	AREA	VOLUME					
CUT	FILL	CUT	FILL	AA			

CROSS SECTIONS - SR-8  
STA. 340+50.00 TO STA. 342+00.00  
SUM - 76 / 77 / 8  
8.24 / 09.74 / 0.00  
22 / 30



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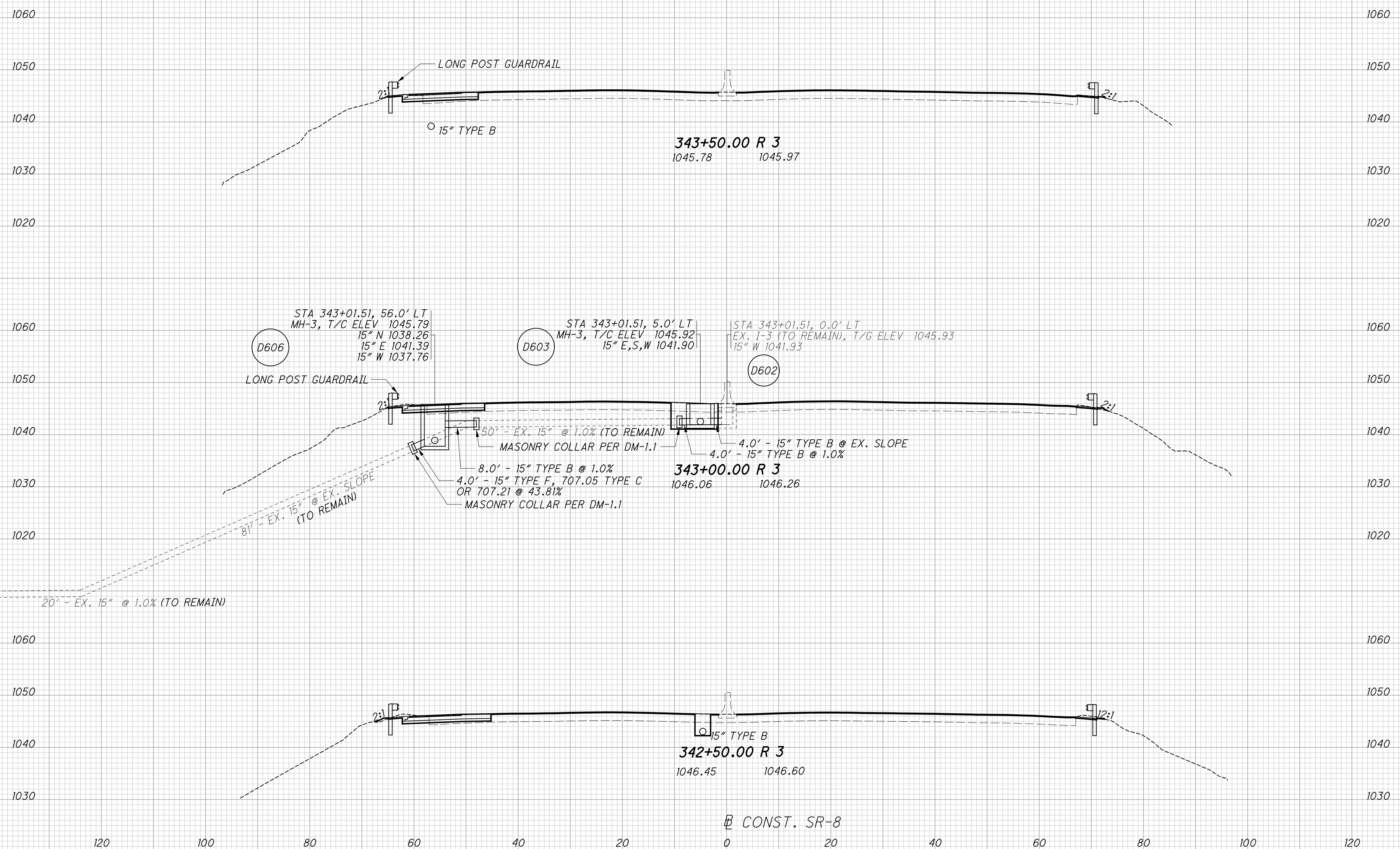
SEEDING  
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WIDTH YDS.

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06/09/2021

ISSUE RECORD: BU-28A ROADWAY  
NO. DATE DESCRIPTION

END AREA VOLUME  
CUT FILL CUT FILL  
CALCULATED AA  
CHECKED EAK

CONST. SR-8



CROSS SECTIONS - SR-8  
STA. 342+50.00 TO STA. 343+50.00

SUM - 76 / 77 / 8  
8.24 / 09.74 / 0.00

23  
30





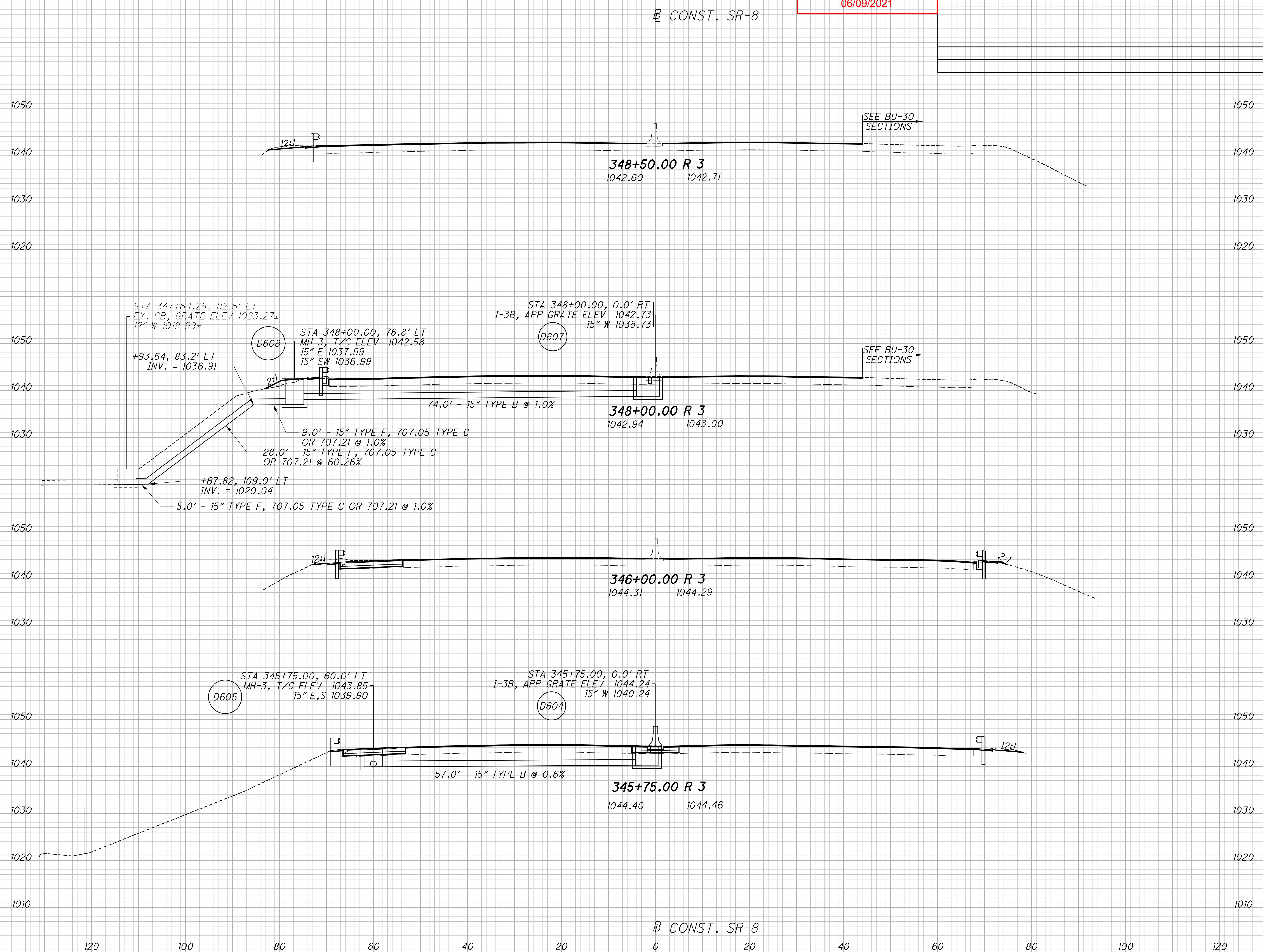
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SEEDING	
END WIDTH	SO. YDS.

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ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

END AREA	VOLUME	CALCULATED	CHECKED	
CUT	FILL			AA



CROSS SECTIONS - SR-8  
 STA. 345+75.00 TO STA. 348+50.00

SUM - 76 / 77 / 8  
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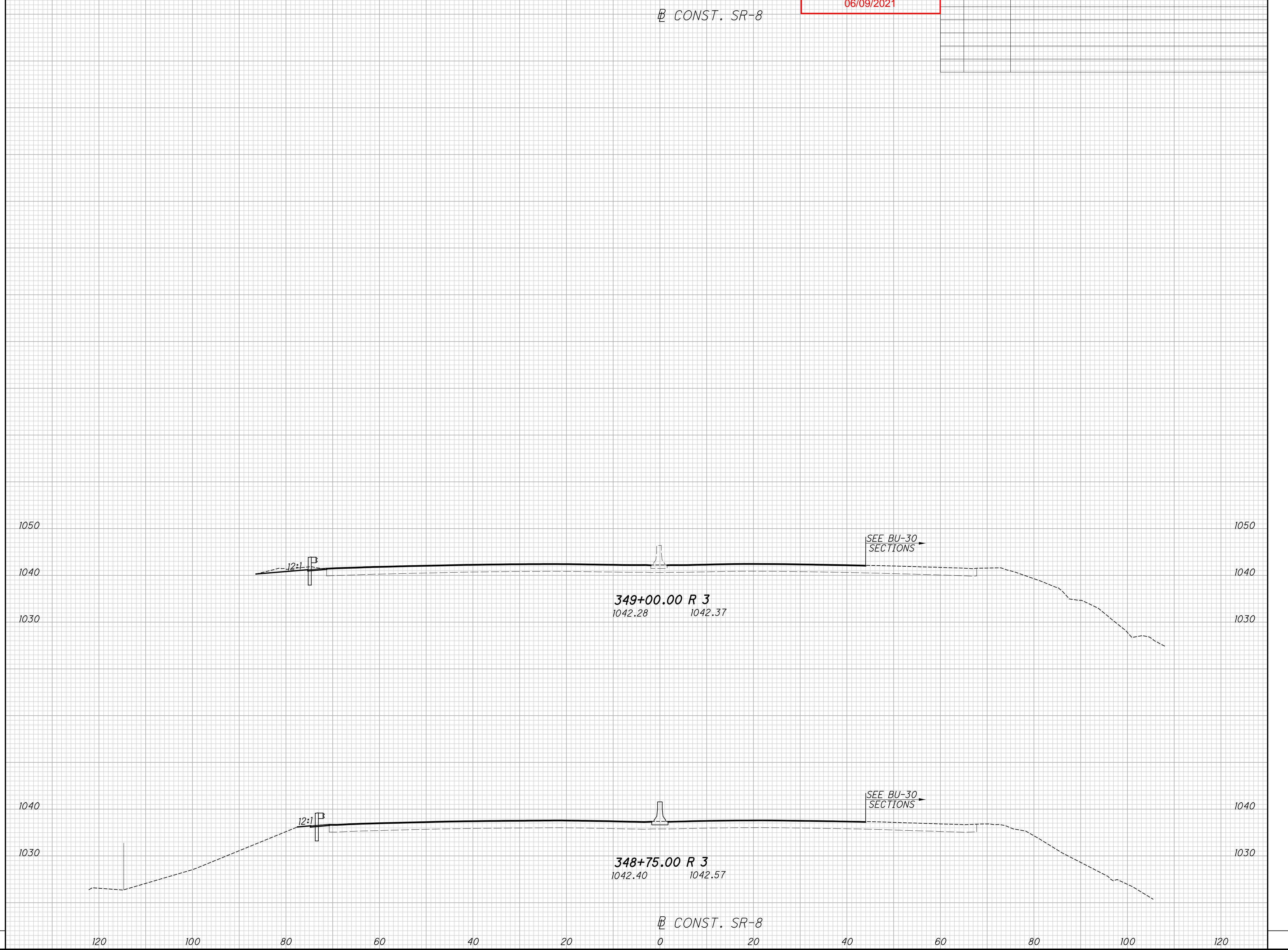
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Released for Construction  
Thomas J Powell, PE  
06/09/2021

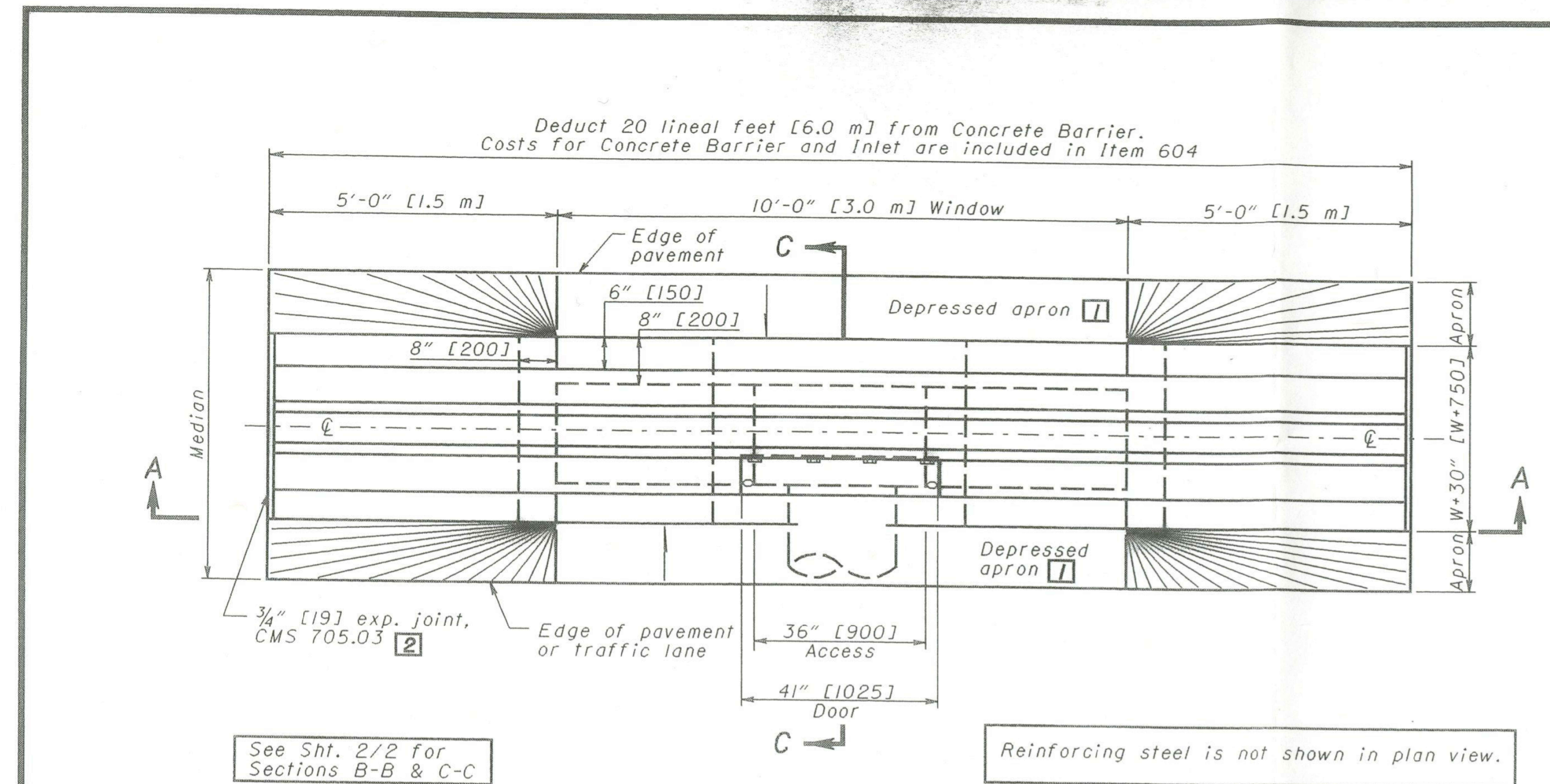
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NO.	DATE	DESCRIPTION

END CUT	AREA FILL	VOLUME CUT	VOLUME FILL	CALCULATED AA	CHECKED EAK

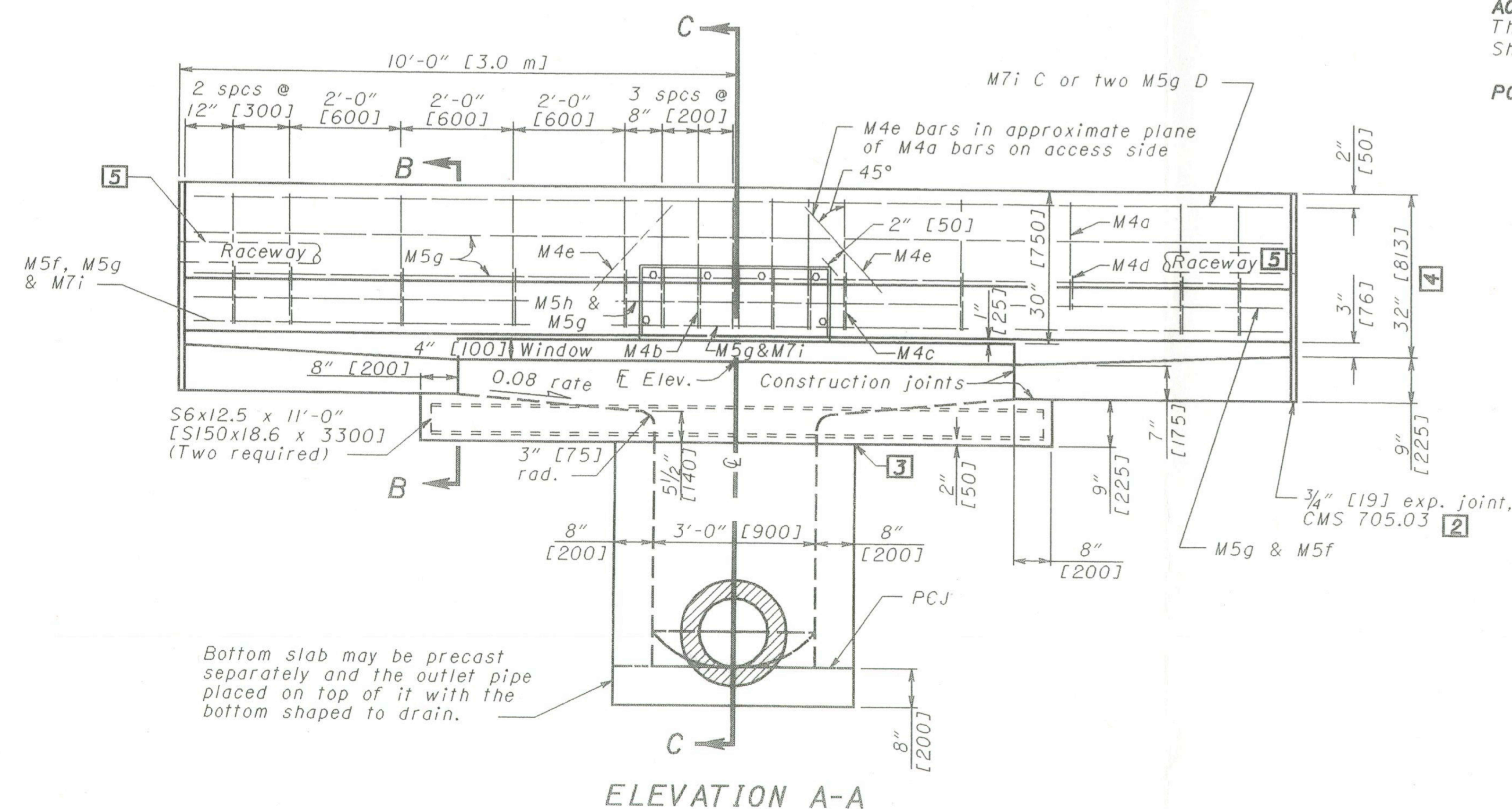
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**8.24 / 09.74 / 0.00**  
26 / 30



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PLAN VIEW



ELEVATION A-A

NOTES

- GENERAL:** For details of concrete barriers, see SCD RM-4.3.
- WALLS:** The walls between the bottom slab and the upper permissible construction joint may be built of brick, concrete block or cast-in-place concrete, 8" [200] nominal thickness for depths of 12' [3.5 m] or less. Precast walls shall have a minimum thickness of 6" [150] and be reinforced sufficiently to permit shipping and handling without damage.
- HEIGHT:** When placed in 50" [1270] high barrier the 30" [763] height shall be made 48" [1220].
- CONCRETE:** Cast-in-place concrete is to be Class C. All precast concrete shall meet the requirements of CMS 706.13 with a minimum of 4% entrained air content in the hardened concrete. Required markings shall include the inlet number. Exposed concrete surfaces of the barrier shall be sealed with an approved sealer.
- REINFORCING STEEL:** Reinforcing steel shall be epoxy coated in accordance with CMS 509.10.
- STEPS:** Steps shall be in accordance with SCD MH-1.1.
- INLETS OVER 12 FEET [3.5 m] IN DEPTH:** Such inlets shall be precast or cast-in-place concrete; reinforced with #4 [#13M] bars on 12" [300] centers both vertically and horizontally with 2" [50] clearance from the inside wall face.
- OPENINGS:** Pipe openings shall be the outside diameter of the pipe being supplied plus 2" [50] when fabricated or field cut. The interstitial space shall be filled with grout per CMS 601.
- ACCESS DOOR:** The steel door, frame and all inserts, shall be galvanized. The hex head bolts shall be stainless steel. (See ACCESS DOOR DETAIL, Sht. 2/2).
- PCJ:** Permissible Construction Joint.

STANDARD INLET NUMBERS	
I-3C Type A	(32" [813] Barrier with W=6" [150])
I-3C Type A1	(50" [1270] Barrier with W=6" [150])
I-3D Type B	(32" [813] Barrier with W=12" [300])
I-3D Type B1	(50" [1270] Barrier with W=12" [300])

LEGEND

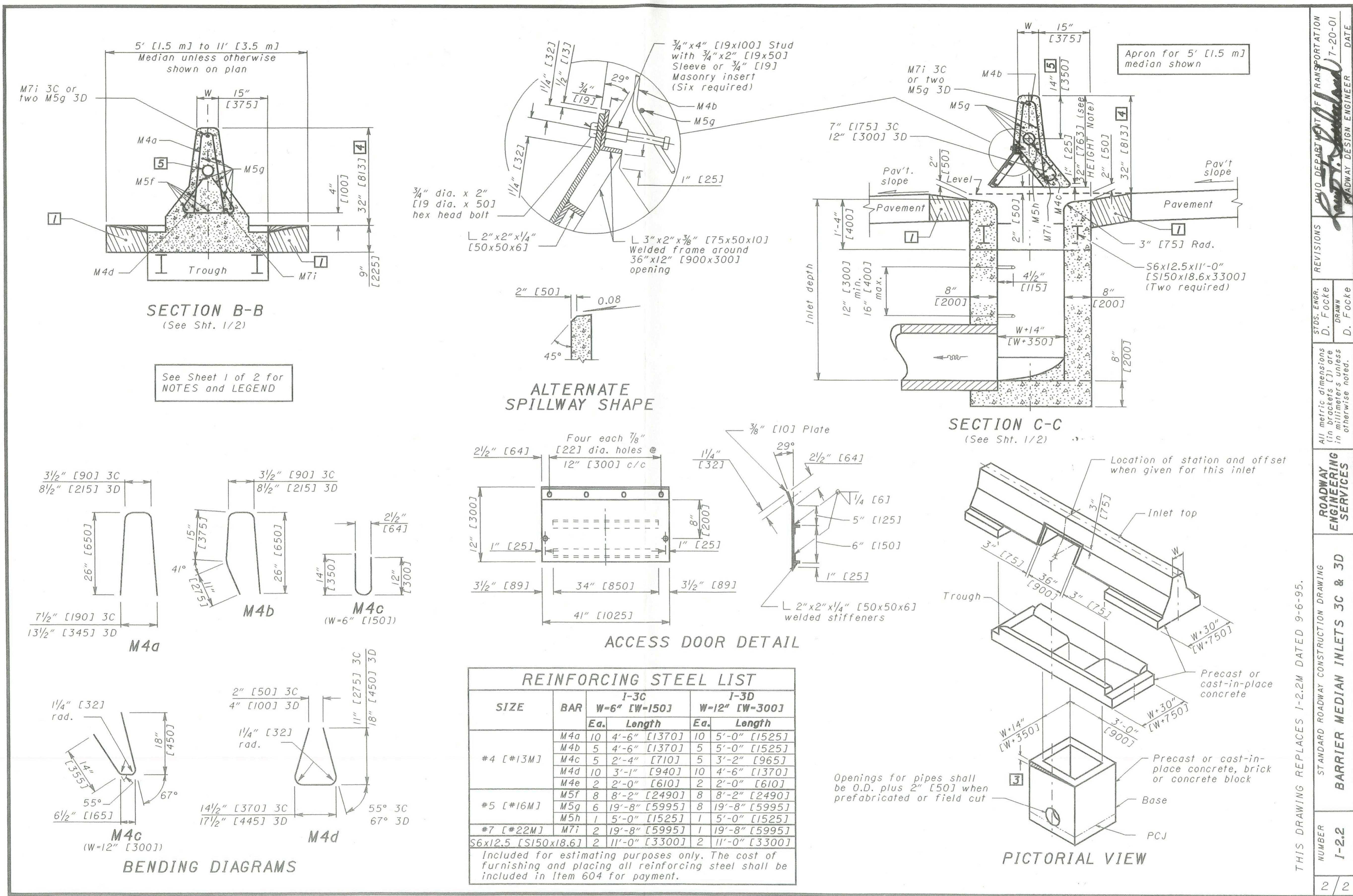
- [1] Aprons on both sides of the inlet shall be sloped toward windows and filled with Class C concrete. On superelevated sections, the aprons shall be sloped as shown in SECTION C-C on Sht. 2/2. Cost of any pavement removal and material is included in CMS 604.
- [2] A 1/2" [38] minimum exp. joint shall be provided in concrete pavement or concrete shoulders.
- [3] Inlet top profile shall match the adjacent concrete median barrier profile by constructing the top surface of the base to match the median barrier profile.
- [4] Barrier height equals either 32" [813] or 50" [1270].
- [5] 4" [100] Lighting raceway, if required else where by the plans. (Only when W=12" [300].)

THIS DRAWING REPLACES I-2.2M DATED 9-6-95.

NUMBER	STANDARD ROADWAY CONSTRUCTION DRAWING	REVISIONS	OHIO DEPARTMENT OF TRANSPORTATION	DATE
I-2.2	BARRIER MEDIAN INLETS 3C & 3D	D. Focke	ADWAY DESIGN ENGINEER	
1/2		D. Focke		

ITEM 611 - INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B, AS PER PLAN

SUM-76/77/8  
 8.24/09.74/0.00



SECTION B-B  
 (See Sht. 1/2)

ALTERNATE  
 SPILLWAY SHAPE

SECTION C-C  
 (See Sht. 1/2)

ACCESS DOOR DETAIL

BENDING DIAGRAMS

REINFORCING STEEL LIST

SIZE	BAR	I-3C W-6" [W-150]		I-3D W-12" [W-300]	
		Ea.	Length	Ea.	Length
#4 [#13M]	M4a	10	4'-6" [1370]	10	5'-0" [1525]
	M4b	5	4'-6" [1370]	5	5'-0" [1525]
	M4c	5	2'-4" [710]	5	3'-2" [965]
	M4d	10	3'-1" [940]	10	4'-6" [1370]
	M4e	2	2'-0" [610]	2	2'-0" [610]
#5 [#16M]	M5f	8	8'-2" [2490]	8	8'-2" [2490]
	M5g	6	19'-8" [5995]	8	19'-8" [5995]
	M5h	1	5'-0" [1525]	1	5'-0" [1525]
#7 [#22M]	M7i	2	19'-8" [5995]	1	19'-8" [5995]
S6x12.5 [S150x18.6]		2	11'-0" [3300]	2	11'-0" [3300]

Included for estimating purposes only. The cost of furnishing and placing all reinforcing steel shall be included in Item 604 for payment.

ROADWAY ENGINEERING SERVICES

STANDARD ROADWAY CONSTRUCTION DRAWING

BARRIER MEDIAN INLETS 3C & 3D

THIS DRAWING REPLACES I-2.2M DATED 9-6-95.

NO. 1-2.2

DATE

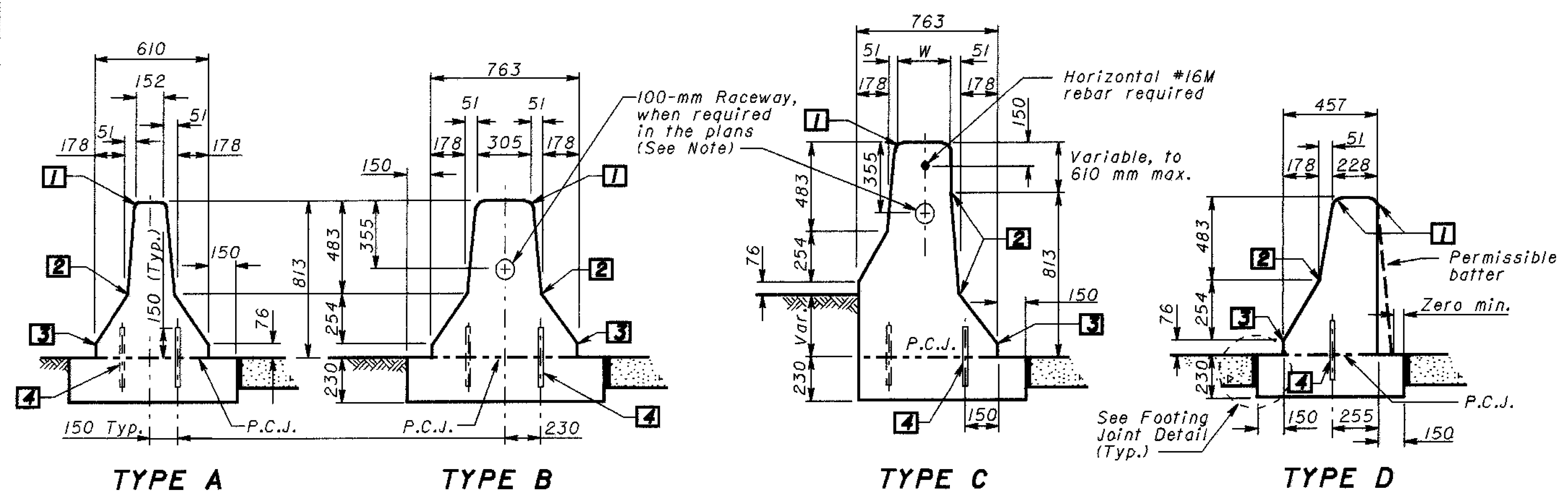
DESIGNED BY: *[Signature]*

CHECKED BY: *[Signature]*

DATE

ITEM 611 - INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B, AS PER PLAN

SUM-76/77/8  
 8.24/09.74/0.00



TYPE A TYPE B

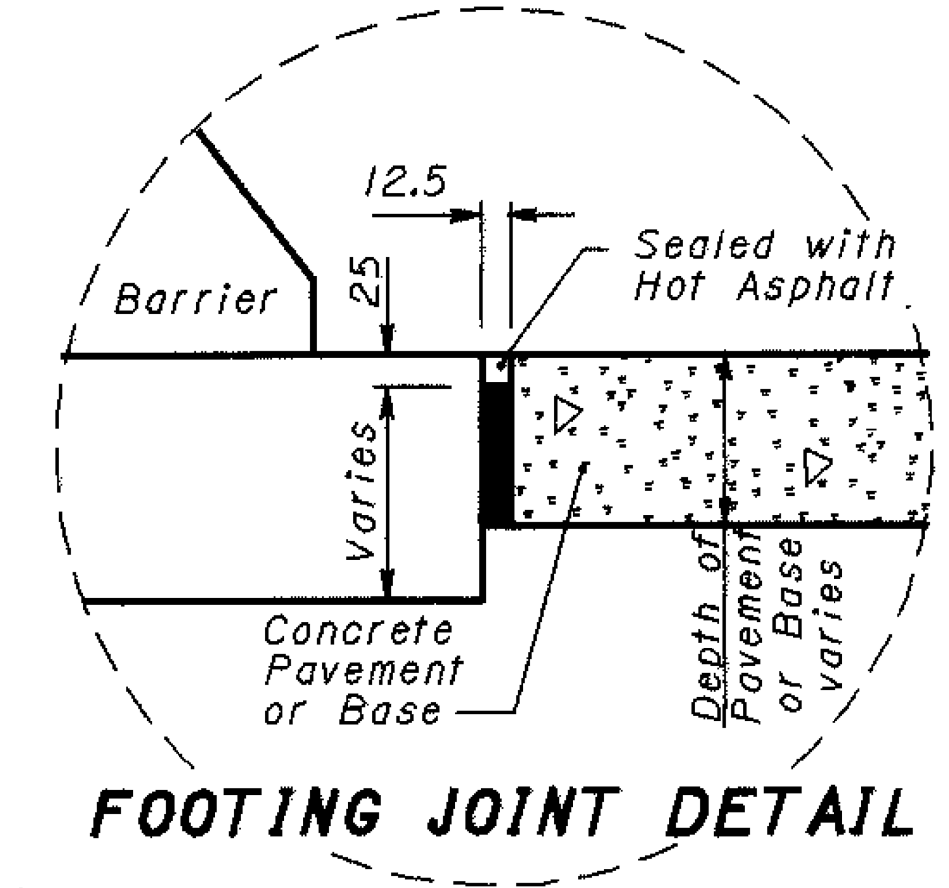
TYPE C TYPE D

**NORMAL SECTIONS**

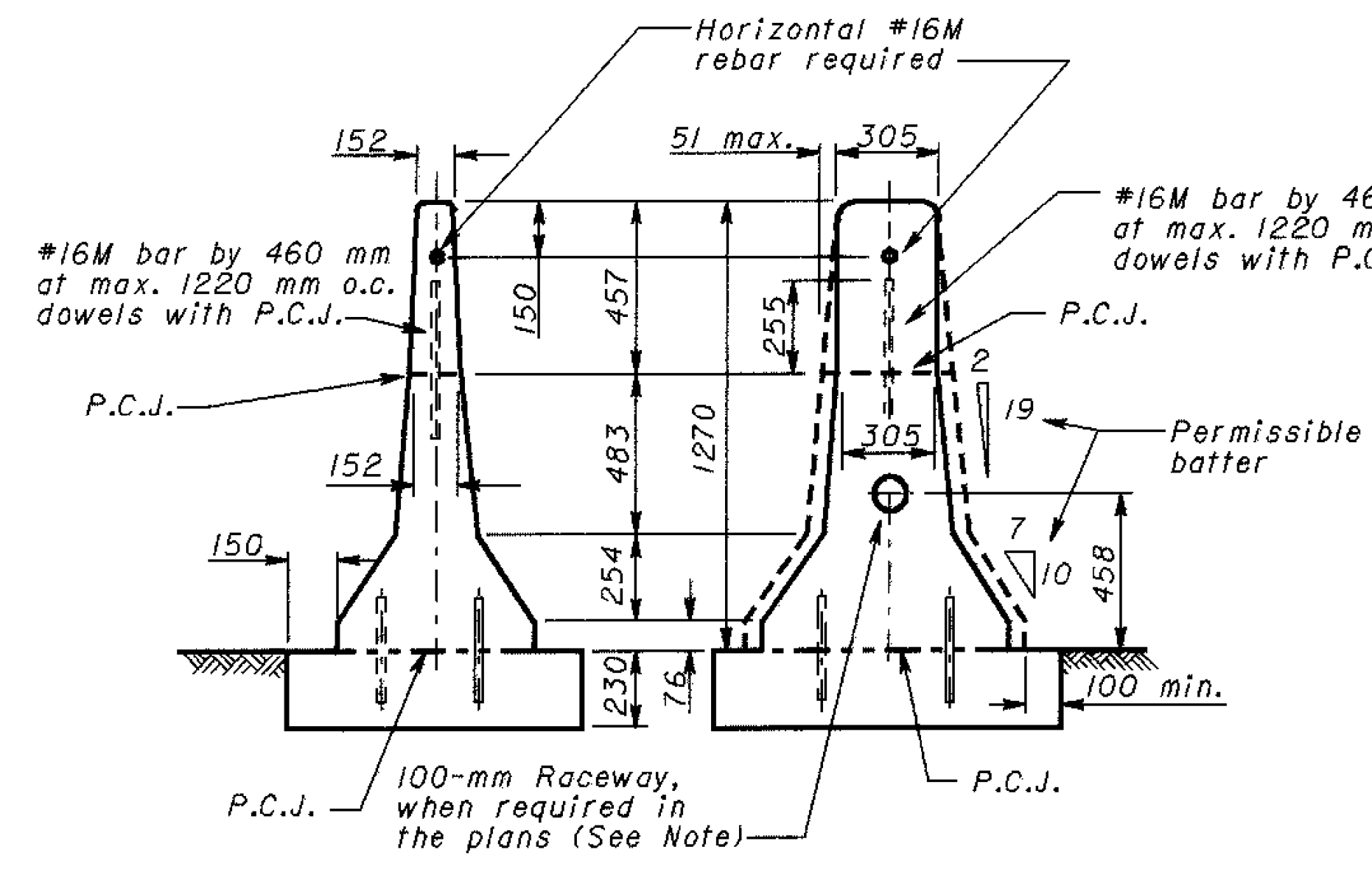
**LEGEND**

- 1 25-mm radius or 19-mm chamfer.
- 2 Permissible 250-mm radius.
- 3 Permissible 25-mm radius.
- 4 #25M epoxy coated deformed steel bars, 305 mm long, spaced 1220 mm between successive bars on a staggered pattern except in Type D. Omit dowels when the top is constructed integrally with the base.

W = 152 or 305 mm barrier width, as specified in the plans.



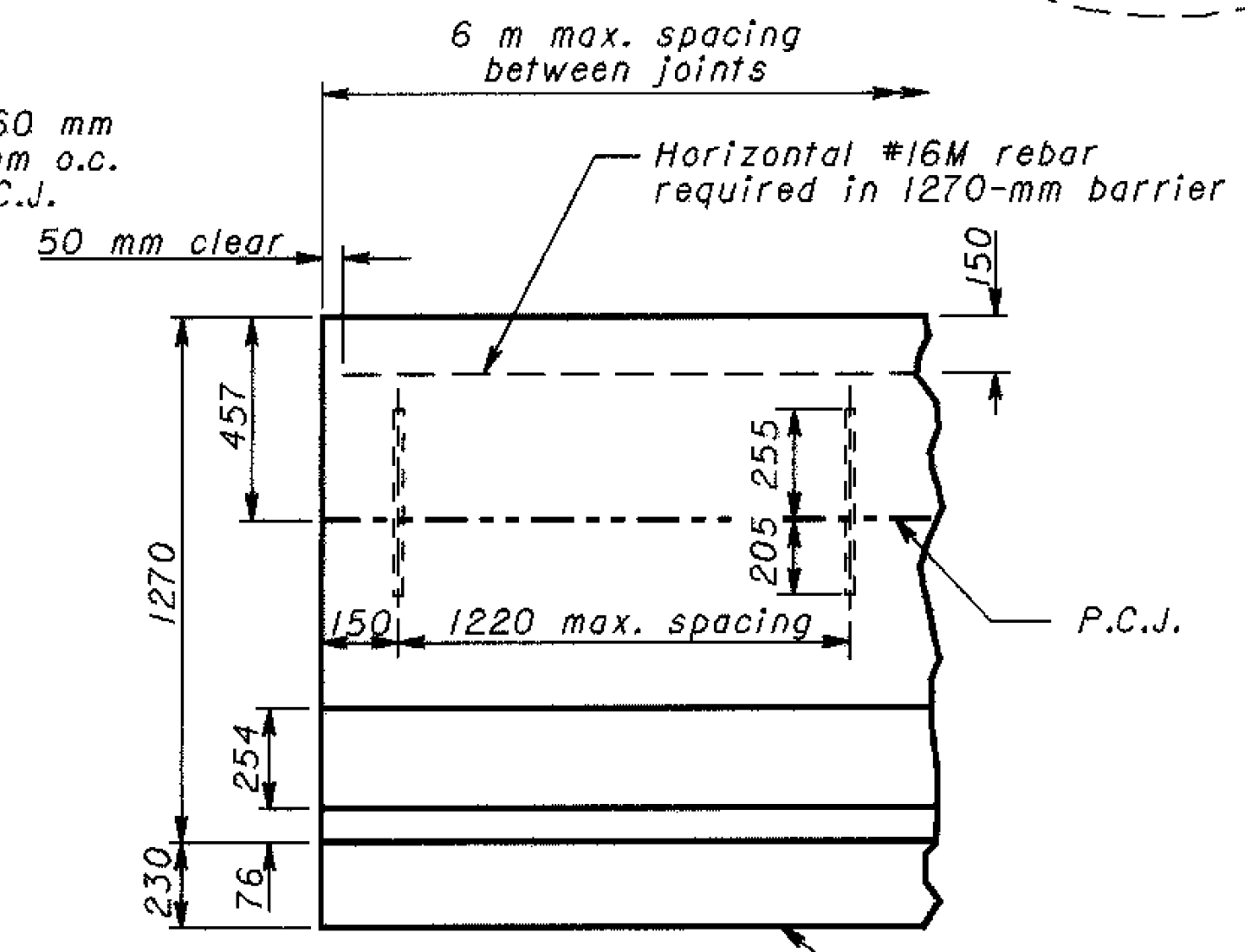
**FOOTING JOINT DETAIL**



TYPE AI TYPE BI

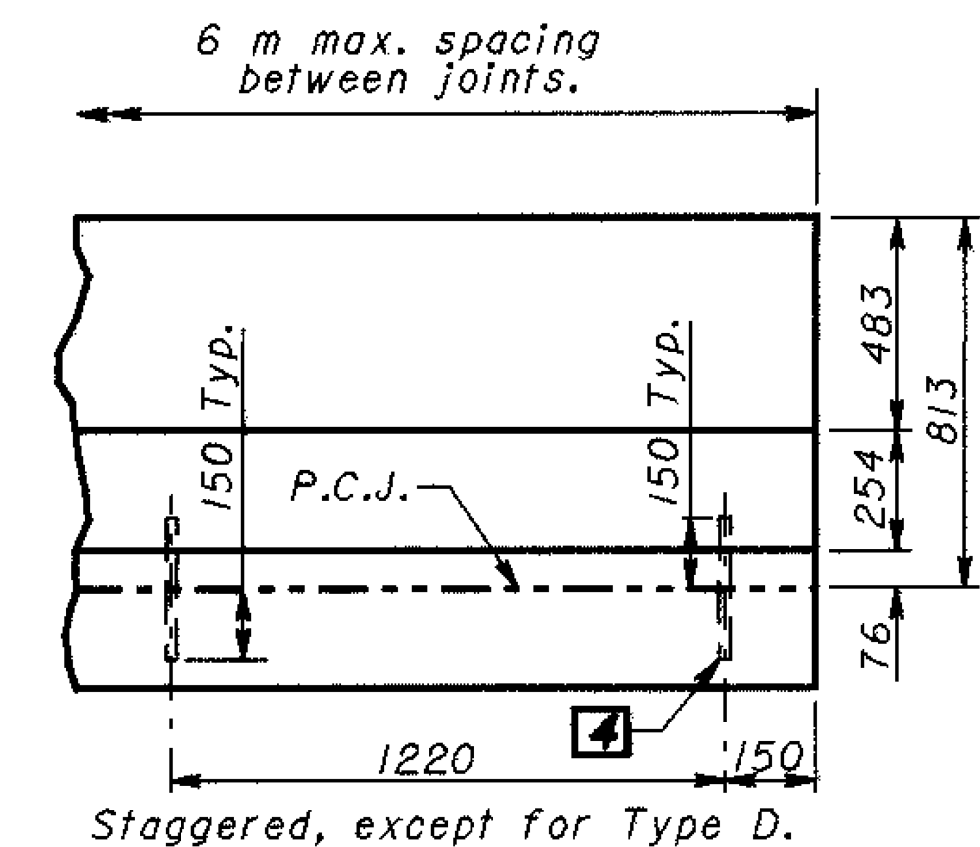
**1270-mm BARRIERS - TYPICAL SECTIONS**

See Type A and Type B Normal Section Details for dimensions that are not shown.



**1270-mm BARRIER**

**BARRIER ELEVATIONS**



**813-mm BARRIER**

**NOTES**

**JOINTS:** Unsealed contraction joints spaced at 6 m maximum shall be constructed throughout the run of Concrete Barrier except that expansion joints shall be used at the center line of and around each bridge pier column and on either side of overhead sign supports, inlets and light pole foundations. If the inlet top is slip formed, the expansion joints adjacent to it may be omitted.

Contraction joints may be constructed with metal inserts inside the forms, preformed full width joint filler, a grooving tool, or by sawing. Inserts, tooled or sawed joints shall have a 75-mm minimum depth. All joints shall be constructed for the full height of the barrier including the footing. Sawing shall be done as soon as curing will allow, to prevent spalling.

**FOOTING JOINTS:** The vertical walls between the barrier footing and a concrete pavement or concrete base shall be provided with a sealed joint as shown. Sealing material shall conform to CMS 705.04.

**P.C.J.** - Permissible Construction Joint

**MEASUREMENT:** Item 622, Concrete Barrier, including transitions and pier sections detailed on SCD RM-4.4M, is paid for in meters as one of the four types (A, B, C or D) or as Type AI and BI, (for 1270 mm high barrier), with appropriate deductions for other items such as:

Item 604 I-3 Median inlet	6 meters.
Item 625 Light pole foundation or pullbox	1 meter.
Item 630 Overhead sign support foundation	3 meters.
Item 630 Barrier wall assembly	3 meters.

**1270-mm BARRIER:** High barrier shall be built in locations specified in the plans. Construct the lower 813 mm of the barrier base using the same dimensions as shown in the corresponding Normal Section. The upper 457 mm may be constructed integral with the bottom, or separately with #15M rebar dowels at 1220 mm maximum spacing. Start and end dowels 150 mm from barrier contraction joints.

**RACEWAY:** The contractor shall ensure that the electrical raceway is clear of internal obstructions. Cost of the 100 mm polyvinyl chloride raceway and No. 10 AWG copper-clad or aluminum-clad wire if needed for future installation of circuits shall be included in the unit cost per meter for Item 622, Concrete Barrier.

**STATION MARKING:** Marking shall be impressed in the "green" concrete on both sides at the top of the barrier if specified in the plans, which cost shall be incidental to the unit cost per meter bid for Item 622, Concrete Barrier.

All dimensions are in millimeters unless otherwise noted.



This Drawing Replaces MC-9.3.

**OHIO DEPARTMENT OF TRANSPORTATION**

**CONCRETE BARRIERS**

DATE: 6-30-95 / 10-21-97

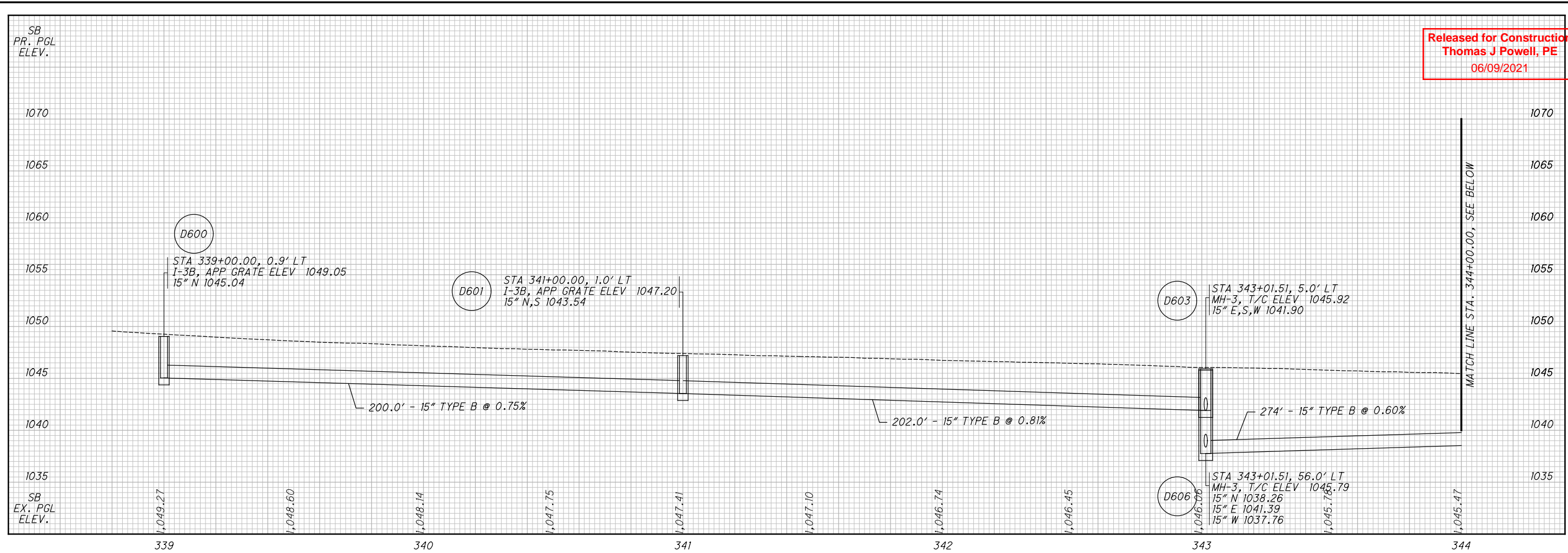
STANDARD CONSTRUCTION DRAWING **RM-4.3M**

APPROVED: *[Signature]*

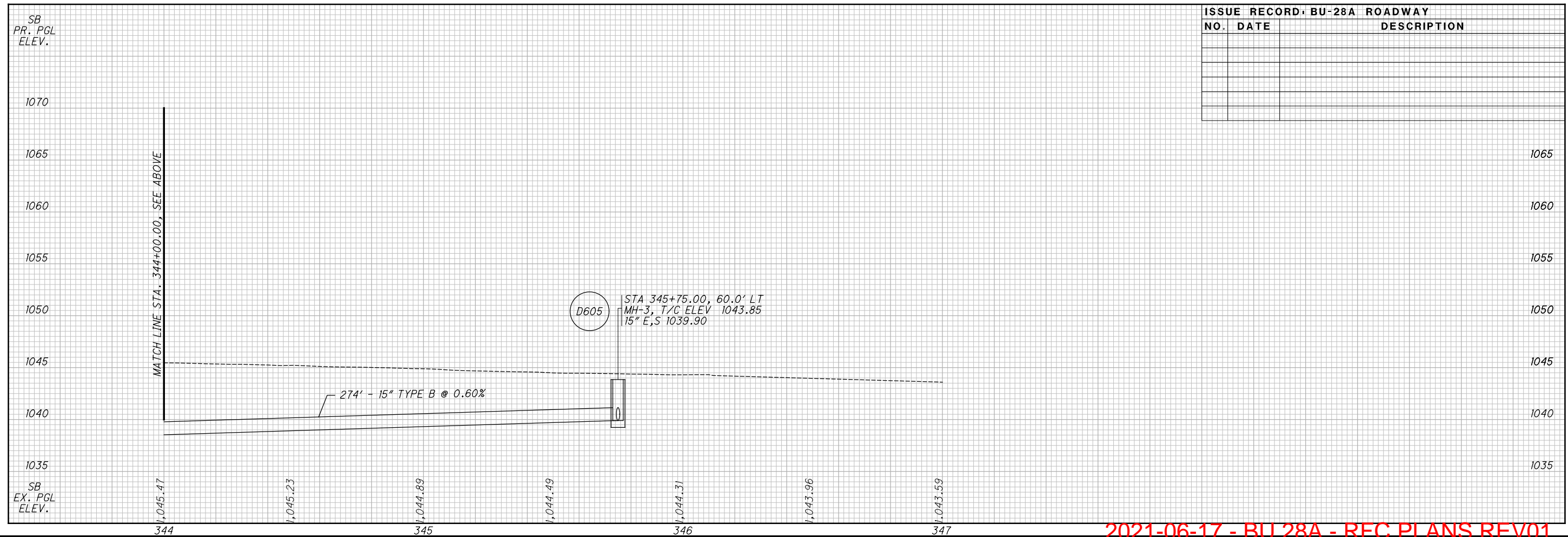
ITEM 622 - BARRIER, MISC.: CONCRETE BARRIER, TYPE B1 (10/21/97)

SUM-76/77/8  
 8.24/09.74/0.00

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Thomas J Powell, PE  
06/09/2021



ISSUE RECORD: BU-28A ROADWAY		
NO.	DATE	DESCRIPTION

CALCULATED AA  
CHECKED EAK

**STORM SEWER PROFILE - SR-8**

**STA. 339+00 TO STA. 347+00**

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

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