

DESIGN DESIGNATION

	LESTER DRIVE (NORTH OF BROAD ST.)	ELIJAH PIERCE AVENUE	I-71 NB (SOUTH OF BROAD ST.)	I-71 NB (NORTH OF BROAD ST.)	I-71 SB (SOUTH OF BROAD ST.)	I-71 SB (NORTH OF BROAD ST.)	BROAD STREET
CURRENT ADT (2015)	12,130	13,130	92,930	92,930	72,300	72,300	28,700
DESIGN YEAR ADT (2035)	14,190	15,070	120,040	120,040	87,960	87,960	32,820
DESIGN HOURLY VOLUME (2035)	1,630	1,510	10,370	10,370	8,800	8,800	2,950
DIRECTIONAL DISTRIBUTION	100%	100%	100%	100%	100%	100%	60%
TRUCKS (24 HOUR B&C)	2%	3%	10%	10%	10%	10%	2%
DESIGN SPEED	35 MPH	35 MPH	55 MPH (MATCH EXISTING)	60 MPH	55 MPH (MATCH EXISTING)	60 MPH	35 MPH
LEGAL SPEED	35 MPH	35 MPH	55 MPH (MATCH EXISTING)	55 MPH	55 MPH (MATCH EXISTING)	55 MPH	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	URBAN PRINCIPAL ARTERIAL	URBAN PRINCIPAL ARTERIAL	URBAN INTERSTATE	URBAN INTERSTATE	URBAN INTERSTATE	URBAN INTERSTATE	URBAN PRINCIPAL ARTERIAL
NHS PROJECT:	NO	NO	YES	YES	YES	YES	YES

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LEGEND

PROPOSED

- ① ITEM 302 - 6" ASPHALT CONCRETE BASE, PG64-22
- ② ITEM 442 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
- ③ ITEM 302 - 11 1/2" ASPHALT CONCRETE BASE, PG64-22 (2 - 5 3/4" LIFTS)
- ④ ITEM 304 - 6" AGGREGATE BASE
- ⑤ ITEM 407 - NON-TRACKING TACK COAT (RATE PER CMS 407.06)
- ⑥ ITEM 204 - SUBGRADE COMPACTION
- ⑦ ITEM 659 - SEEDING AND MULCHING, CLASS 2
- ⑧ ITEM 622 - CONCRETE BARRIER, TYPE C1 (FOR DETAIL, SEE SHEET 516)
- ⑨ ITEM 622 - BARRIER, MISC.: TYPE C1 MODIFIED (SEE SHEET 516 FOR DETAILS)
- ⑩ ITEM 605 - 6" SHALLOW PIPE UNDERDRAINS *
- ⑪ ITEM 622 - CONCRETE BARRIER, TYPE D
- ⑫ ITEM 407 - TACK COAT (RATE PER CMS 407.06)
- ⑬ ITEM 609 - CURB, TYPE 6, AS PER PLAN
- ⑭ ITEM 608 - 4" CONCRETE WALK
- ⑮ ITEM SPECIAL - BUFFER WALL - 2.5' - 3.5' HIGH, CMU BLOCK WALL WITH BRICK VENEER AND WALL CAP (SEE DETAILS, SHEETS 670-671)
- ⑯ ITEM 452 - 12" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 (FOR DETAIL, SEE SHEET 41)
- ⑰ ITEM 608 - WALKWAYS, MISC.: BRICK PAVER WALK (FOR DETAIL, SEE SHEET 41)
- ⑱ ITEM 608 - WALKWAY, MISC.: BRICK PAVER CROSSWALK (FOR DETAIL, SEE SHEET 41)
- ⑲ ITEM 526 - REINFORCED CONCRETE APPROACH SLAB (T=15")
- ⑳ ITEM 653 - TOPSOIL FURNISHED AND PLACED (SEE LANDSCAPE PLANS FOR DETAILS)
- ㉑ ITEM SPECIAL - MISC.: BRICK PAVEMENT (SEE DETAIL, SHEET 41)
- ㉒ ITEM SPECIAL - MISC.: SAND-BASED STRUCTURAL SOIL MIX FURNISHED AND PLACED (SEE LANDSCAPE PLANS FOR DETAILS)
- ㉓ ITEM 609 - CURB, MISC.: STRAIGHT 18" GRANITE CURB "A" (SEE DETAIL, SHEET 44)
- ㉔ ITEM 605 - 6" BASE PIPE UNDERDRAINS *
- ㉕ ITEM 441 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
- ㉖ ITEM 441 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
- ◇ ㉗ ITEM 305 - 8" CONCRETE BASE, CLASS QC1
- ◇ ㉘ ITEM 305 - CONCRETE BASE, MISC.: 9" CONCRETE BASE, CLASS QC1 WITH QC/QA
- ◇ ㉙ ITEM 305 - CONCRETE BASE, MISC.: 8.5" CONCRETE BASE, CLASS QC1 WITH QC/QA
- ⑳ ITEM 204 - EMBANKMENT
- ㉑ ITEM 442 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)
- ㉒ ITEM 452 - 10" NON-REINFORCED CONCRETE PAVEMENT

- ⑳ ITEM 204 - EXCAVATION OF SUBGRADE
- ㉑ ITEM 836 - SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1
- ㉒ ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (1 1/4" MAX. DEPTH)
- ㉓ ITEM 659 - SEEDING AND MULCHING, CLASS 1, AS PER PLAN
- ㉔ ITEM 609 - CURB, TYPE 4-C, AS PER PLAN
- ㉕ ITEM 204 - PROOF ROLLING
- ㉖ ITEM 609 - CONCRETE MEDIAN
- ㉗ ITEM 622 - CONCRETE BARRIER, TYPE C
- ㉘ ITEM 608 - 8" CONCRETE WALK (SEE STREET INTERSECTION DETAILS SHEETS)
- ㉙ ITEM 609 - CURB, MISC.: STRAIGHT 18" GRANITE CURB "B" (SEE DETAIL, SHEET 44)
- ㉚ ITEM 305 - 6" CONCRETE BASE, CLASS QC1 (SEE SHEET 415 FOR PARKING LOT TYPICAL SECTIONS)
- ㉛ ITEM 407 - TACK COAT, 702.13
- ㉜ ITEM 452 - 6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 (SEE SHEET 414 FOR DRIVE TYPICAL SECTIONS)
- ㉝ ITEM 452 - 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 (SEE SHEET 414 FOR DRIVE TYPICAL SECTIONS)
- ㉞ ITEM SPECIAL - MISC.: GRANITE PAVERS "A" (SEE SHEETS 46 -47 FOR DETAILS)
- ㉟ ITEM SPECIAL - MISC.: GRANITE PAVERS "B" (SEE SHEETS 46 -47 FOR DETAILS)
- ㊱ ITEM 254 - 1 1/2" PAVEMENT PLANING, ASPHALT CONCRETE
- ◇ ㊲ ITEM 305 - CONCRETE BASE, MISC.: 11" CONCRETE BASE, CLASS QC1 WITH QC/QA
- ㊳ ITEM 302 - 5" ASPHALT CONCRETE BASE, PG64-22
- ㊴ ITEM 302 - 9" ASPHALT CONCRETE BASE, PG64-22 (2-4.5" LIFTS)
- ㊵ ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (VARIABLE DEPTH); SEE SHEETS 51 & 52
- ㊶ ITEM 442 - ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448) (VARIABLE DEPTH); SEE SHEETS 51 & 52
- ㊷ ITEM 622 - BARRIER, MISC.: PORTABLE BARRIER (32")
- ㊸ ITEM 622 - BARRIER, MISC.: TYPE D MODIFIED (SEE SHEET 517 FOR DETAILS)
- ㊹ ITEM 609 - 4" CONCRETE MEDIAN
- ㊺ ITEM 622 - BARRIER, MISC.: TYPE C MODIFIED (SEE SHEET 517 FOR DETAILS)

EXISTING

- | | | |
|--|------------------------------|--|
| Ⓐ EXISTING 2 1/2"± ASPHALT CONCRETE SURFACE COURSE & LEVELING COURSE | Ⓕ EXISTING 8"± CONCRETE BASE | Ⓚ EXISTING 1 1/2" ASPHALT CONCRETE SURFACE COURSE |
| Ⓑ EXISTING 9"± CONCRETE BASE | Ⓖ EXISTING 4"± CONCRETE WALK | Ⓛ EXISTING 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE |
| Ⓒ EXISTING 6"± BASE MATERIAL | Ⓗ EXISTING BRICK | Ⓜ EXISTING 11 1/2" ASPHALT CONCRETE BASE |
| Ⓓ EXISTING CONCRETE BARRIER | Ⓘ EXISTING 8"± CONCRETE BASE | Ⓝ EXISTING 6" AGGREGATE BASE |
| Ⓔ EXISTING 3"± ASPHALT CONCRETE | Ⓝ EXISTING RETAINING WALL | Ⓞ EXISTING 4" CURB |

◇ - ROLLER COMPACTED CONCRETE IS BEING USED AS AN OPTIONAL BID ITEM IN PLACE OF THE CONCRETE BASE PAVEMENT. REFER TO GENERAL NOTE "ROLLER COMPACTED CONCRETE (RCC) BASE PAVEMENT" IN THE GENERAL NOTES. SEE SHEET 127. IF THE ROLLER COMPACTED CONCRETE IS USED, THE UNDERDRAINS SHALL BE INSTALLED IN THE ALTERNATE POSITION PER (COC SCD 2000).

* - NOTE: SHALLOW PIPE UNDERDRAINS TO BE PLACED TYPICALLY 30" BELOW SUBGRADE. BASE PIPE UNDERDRAINS TO BE PLACED TYPICALLY 18" BELOW SUBGRADE. SEE UNDERDRAIN PLAN FOR UNDERDRAIN ELEVATIONS.

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TYPICAL SECTIONS LEGEND

FRA-71-17.46

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 PROOF ROLLING. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05.
3. 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.
4. COMPACT THE SUBGRADE ACCORDING TO 204.03.
5. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06.

- 6. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.

- 7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

UNDERCUT (ODOT CMS 204)

WHERE UNDERCUTTING IS TO BE PERFORMED, CONTRACTOR SHALL ADHERE TO ALL REQUIREMENTS AND GUIDELINES SPECIFIED IN ODOT CMS 204. UNDERCUTTING IS ANTICIPATED AT LESTER DRIVE FROM APPROX. STA. 125+30 TO 123+71, AS SHOWN IN THE PAVEMENT CALCULATIONS AND CARRIED TO THE GENERAL SUMMARY. UNDERCUT DEPTHS OF 24" WERE USED FOR ESTIMATING PURPOSES IN THE PLANS. CONTRACTOR SHALL UNDERCUT SUBGRADE AT THE LOCATION(S) DESCRIBED ABOVE AND/OR AS OTHERWISE DIRECTED BY THE ENGINEER.

PRIOR TO PERFORMING UNDERCUT WORK, 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 CONSTRUCTION OF UNDERCUTS. THE CONTRACTOR SHALL LOCATE AND FLAG ALL EXISTING UTILITIES WITHIN THE PROPOSED PAVEMENT LIMITS PRIOR TO PERFORMING UNDERCUTS AND TAKE CARE TO FLAG UTILITIES AND/OR AS OTHERWISE DIRECTED BY THE ENGINEER.

PAYMENT TO PERFORM THE WORK DESCRIBED ABOVE AND ALL REQUIRED LABOR, MATERIALS AND EQUIPMENT SHALL BE INCLUDED IN ITEM 204 - EXCAVATION OF SUBGRADE AND ITEM 204 - EMBANKMENT.

SHOULD UNSUITABLE SOILS BE ENCOUNTERED DURING CONSTRUCTION BEYOND THOSE ACCOUNTED FOR IN THE PAVEMENT CALCULATIONS, THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO BE USED AS DIRECTED BY THE ENGINEER:

Table with 2 columns: Item description and Quantity. Includes items like 'ITEM 204 - EXCAVATION OF SUBGRADE' (2,800 CY), 'ITEM 204 - GRANULAR MATERIAL, TYPE B' (2,800 CY), etc.

ITEM 208 - VIBRATION CONTROL AND MONITORING, AS PER PLAN

THE CONTRACTOR SHALL CONTROL AND MONITOR VIBRATIONS WHEN PERFORMING DEMOLITION AND CONSTRUCTION ACTIVITIES NEAR BUILDINGS, STRUCTURES, OR UTILITIES THAT MAY BE SUBJECT TO DAMAGE FROM CONSTRUCTION INDUCED GROUND VIBRATIONS. DEMOLITION ACTIVITIES INCLUDE REMOVAL OF EXISTING BRIDGES, RETAINING WALLS, PAVEMENTS, AND FOUNDATIONS.

ITEM 208 - VIBRATION CONTROL AND MONITORING, AS PER PLAN (CONT'D)

BUILDINGS TO BE MONITORED INCLUDE ALL BUILDINGS TOUCHING THE WORK LIMITS WITHIN THE PROJECT CORRIDOR. THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION SURVEY OF ANY BUILDINGS, STRUCTURES, AND UTILITIES LOCATED WITHIN LIMITS DETERMINED BY THE VIBRATION SPECIALIST AND PROVIDE THE ENGINEER WITH PRECONSTRUCTION AUDIO-VIDEO COLOR RECORDING AS FOLLOWS:

A. RECORDING. CONSTRUCTION IN AN AREA SHALL NOT START UNTIL THE AREA HAS BEEN RECORDED AND THE DVDS SUBMITTED TO THE ENGINEER.

B. VISUAL INSPECTION. PRIOR TO RECORDING, ALL AREAS TO BE RECORDED SHALL BE INVESTIGATED VISUALLY WITH NOTATION MADE OF FEATURES NOT READILY VISIBLE BY RECORDING METHODS. THIS WOULD INCLUDE, BUT NOT BE LIMITED TO, CULVERTS (SIZE, TYPE AND CONDITION) AND MANHOLES THAT MAY BE PARTIALLY BURIED. RECORD ALL MEASUREMENTS.

C. APPROVALS. ALL RECORDING SHALL BE CONDUCTED IN THE PRESENCE OF THE DEPARTMENT UNLESS WAIVED BY THE ENGINEER. AT THE START OF RECORDING, THE CONTRACTOR SHALL SUBMIT A SAMPLE RECORDING OF A PORTION OF THIS PROJECT FOR THE ENGINEER TO REVIEW. THE SAMPLE RECORDING SHALL BE APPROVED BEFORE ANY OTHER RECORDING IS ALLOWED.

D. CERTIFICATION. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL PROVIDE CERTIFICATION IN WRITING TO THE ENGINEER THAT ALL THE REQUIREMENTS OF THE AUDIO-VIDEO COLOR RECORDING FOR THIS PROJECT WERE ACCOMPLISHED IN ACCORDANCE WITH THESE SPECIFICATIONS:

1. IDENTIFICATION. ALL RECORDINGS (DVDS AND CASES) SHALL BE PROPERLY IDENTIFIED BY RECORDING NUMBER, LOCATION, AND PROJECT NAME IN A MANNER ACCEPTABLE TO THE ENGINEER.

2. RECORD. A RECORD OF THE CONTENTS OF EACH RECORDING SHALL BE SUPPLIED ON A RUN SHEET IDENTIFYING EACH SEGMENT IN THE RECORDING NUMBER, LOCATION, AND PROJECT NAME IN A MANNER ACCEPTABLE TO THE ENGINEER.

CONSTRUCTION ACTIVITIES INCLUDE INSTALLATION OF DRILLED SHAFTS, PILE DRIVING, USE OF VIBRATORY ROLLERS, OR ANY OTHER OPERATION THAT CAUSES VIBRATION. VIBRATION CONTROL AND MONITORING SHALL CONFORM TO THE CONSTRUCTION AND MATERIALS SPECIFICATION (CMS) ITEM 208.15, EXCEPT AS MODIFIED BELOW:

1. ALL REFERENCES TO BLASTING SHALL INSTEAD APPLY TO DEMOLITION AND CONSTRUCTION ACTIVITIES.

2. THE VIBRATION SPECIALIST'S EXPERIENCE REQUIREMENT SHALL APPLY FOR VIBRATION MONITORING AND NEED NOT BE SPECIFIC TO ROCK BLASTING PROJECTS.

3. INVENTORY. A BRIEF REPORT AND INVENTORY OF ALL RECORDINGS COMPLETED, REFERENCED BY LOCATION AND RECORDING NUMBER SHALL BE FURNISHED TO THE DEPARTMENT UPON COMPLETION OF THE WORK AND DELIVERY OF THE RECORDINGS. ALL RECORDINGS AND WRITTEN RECORDS SHALL BECOME THE PROPERTY OF THE DEPARTMENT.

THE CONTRACTOR SHALL USE A SURVEY METHOD ACCEPTABLE TO ITS INSURANCE COMPANY. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE RESULTING FROM DEMOLITION AND CONSTRUCTION ACTIVITIES. IF OWNERS OR OCCUPANTS FAIL TO ALLOW ACCESS TO A PROPERTY FOR THE PRE-CONSTRUCTION SURVEY, SEND A CERTIFIED LETTER TO THE OWNER OR OCCUPANT. MAKE THE NOTIFICATION EFFORT AND THE CERTIFIED LETTER PART OF THE PRE-CONSTRUCTION SURVEY RECORDS. DELIVER A COPY OF THE PRE-CONSTRUCTION SURVEY TO THE ENGINEER BEFORE BEGINNING CONSTRUCTION OPERATIONS AT CRITICAL LOCATIONS. CRITICAL LOCATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO EXISTING BRIDGES, RETAINING WALLS, AND UTILITIES. SUBMIT DELIVERABLES IN ACCORDANCE WITH CMS ITEM 208.

ITEM 208, VIBRATION CONTROL AND MONITORING (LUMP)

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY - URETHANE), AS PER PLAN

THIS ITEM SHALL ADHERE TO ALL REQUIREMENTS AND SPECIFICATIONS LISTED IN ODOT CMS 512 EXCEPT THAT THE FINAL COAT SHALL BE TINTED SO THAT THE FINAL COLOR IS FEDERAL COLOR STANDARD NO. 17778- LIGHT NEUTRAL. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY - URETHANE), AS PER PLAN 5,065 SY

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

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.

ITEM 606 - IMPACT ATTENUATOR, TYPE 2, (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 2 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE. WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 2 [60 MPH, HAZARD WIDTH=30", (UNIDIRECTIONAL)], EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FOLLOWING INFORMATION SHALL SUPPLEMENT THE ABOVE NOTE FOR CONSTRUCTION PURPOSES

IR-71 NB/SB - BIDIRECTIONAL IMPACT ATTENUATOR AVAILABLE FOOTPRINT AREA = 30 FEET FOUNDATION TYPE = CONCRETE TRANSITION TYPE = CONCRETE BARRIER, TYPE C1 BACK UP SUPPORT

IR-71 NB/RAMP R1 - UNIDIRECTIONAL IMPACT ATTENUATOR AVAILABLE FOOTPRINT AREA = 30 FEET FOUNDATION TYPE = CONCRETE TRANSITION TYPE = CONCRETE BARRIER, TYPE B BACK UP SUPPORT

IR-71 NB/RAMP Q2 - UNIDIRECTIONAL IMPACT ATTENUATOR AVAILABLE FOOTPRINT AREA = 30 FEET FOUNDATION TYPE = CONCRETE TRANSITION TYPE = CONCRETE BARRIER, TYPE B BACK UP SUPPORT

ITEM 606 - IMPACT ATTENUATOR, MISC.: WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)

THIS ITEM SHALL FOLLOW ALL APPLICABLE SPECIFICATIONS, STANDARD CONSTRUCTION DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS RELATED TO ITEM 614 - WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL) EXCEPT THAT OWNERSHIP SHALL BE TURNED OVER TO THE DEPARTMENT AT THE COMPLETION OF THE PROJECT IN LOCATION(S) AS SPECIFIED IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR FROM THE ODOT OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS. SHOULD THE WORK ZONE IMPACT ATTENUATOR BE DAMAGED BEFORE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT. ANY REPAIR COSTS NEEDED AS A RESULT OF DAMAGES TO THE IMPACT ATTENUATOR SUSTAINED DURING CONTRACTOR RELATED ACTIVITY WILL NOT BE COMPENSATED BY THE DEPARTMENT. ANY COST FOR ADDITIONAL BARRIER REQUIRED FOR THE GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. APPROVED PRODUCTS SHALL CONFORM TO TEST LEVEL 3 (TL-3) CONFIGURATIONS FOR INSTALLATIONS ON NHS.

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 608 - WALKWAY MISC.: COLUMBUS CURB RAMP TYPE A AND H

ALL CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF COLUMBUS SPECIFICATION ITEM 608 AND COC SCD 2319.

GRATINGS, VALVE BOXES, AND UTILITY BOXES SHALL NOT BE LOCATED IN THE RAMP, LANDING, DETECTABLE WARNINGS, OR TRANSITION AREAS. SEE SHEETS 41 - 42 AND INTERSECTION DETAIL SHEETS FOR MORE INFORMATION.

NO STANDING WATER IS PERMITTED AT THE BOTTOM OF ANY CURB RAMP. SEE "PONDING" NOTE SHOWN ON THIS SHEET FOR MORE INFORMATION.

PAYMENT FOR THE WORK DESCRIBED ABOVE SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, MATERIALS, AND DETECTABLE WARNINGS TO INSTALL ITEM 608 - WALKWAY MISC.: COLUMBUS CURB RAMP (TYPE A AND H), COMPLETE AND FINISHED, AS APPROVED BY THE ENGINEER.

PONDING

THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS TO ALL AREAS THAT HOLD WATER AFTER CONSTRUCTION OF THE CURB RAMPS. THESE AREAS INCLUDE ANY AND ALL AREAS WITHIN THE PEDESTRIAN RIGHT-OF-WAY APPROACHING AND LEAVING THE NEWLY CONSTRUCTED CURB RAMP. AREAS OF PONDING CANNOT BE IDENTIFIED UNTIL AFTER ADEQUATE RAINFALL HAS OCCURRED AND REPAIR TO THESE AREAS WILL NOT OCCUR UNTIL AFTER SUCH A TIME.

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GENERAL NOTES

FRA-71-17.46

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ITEM 614 - MAINTAINING TRAFFIC

1. CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY ODOT PERSONNEL. THE CONSTRUCTION INSPECTOR SHALL APPROVE ALL TEMPORARY TRAFFIC CONTROL DEVICES FOR CONDITION AND LOCATION BEFORE THE CONTRACTOR WILL BE ALLOWED TO BEGIN WORK. IF THE CONTRACTOR DOES NOT COMPLY WITH THE STANDARDS, HIS PERMIT SHALL BE REVOKED AND ALL WORK SHALL BE TERMINATED.

2. ALL SIGNS, BARRICADES, SIGN SUPPORTS, DRUMS, FLAGGERS, WORK ZONE TRAFFIC SIGNALS AND INCIDENTALS FOR TRAFFIC CONTROL SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN CONFORMANCE WITH THE MOST RECENT REVISIONS, CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (OMUTCD). ALL SIGNS USED FOR THE MAINTENANCE OF TRAFFIC SHALL BE NEW OR LIKE NEW CONDITION SUBJECT TO THE APPROVAL OF THE ENGINEER. DEVICES USED TO MAINTAIN TRAFFIC SHALL BE REMOVED IMMEDIATELY AFTER THE TERMINATION OF SAID WORK. PAYMENT SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC.

3. FOR WORK WHICH IS CONFINED TO THE SHOULDER, TRAFFIC CONTROL SHALL CONFORM TO FIGURES TA-1, TA-3, TA-4, AND TA-6 OF THE OMUTCD AND SCD MT-95.45. IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS AND PROVISIONS OF THE OMUTCD AND FAILURE RESULTS IN A CONDITION AT THE WORK SITE WHICH IS UNSAFE FOR TRAFFIC, THE ENGINEER HAS THE AUTHORITY TO SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC, UNLESS SEPERATELY ITEMIZED IN THE PLAN.

NOTIFICATION OF CONSTRUCTION INITIATION

AT LEAST FOURTEEN DAYS PRIOR TO STARTING INITIAL CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL ADVISE THE DISTRICT OFFICE OF COMMUNICATIONS VIA EMAIL AT D06.PIO@DOT.OHIO.GOV, THE DISTRICT WORK ZONE TRAFFIC MANAGER VIA EMAIL AT D06.MOT@DOT.OHIO.GOV AND THE CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY FAX AT (614)728-4099 OF THE ANTICIPATED START DATE OF ANY CONSTRUCTION ACTIVITIES INCLUDING BUT NOT LIMITED TO THE PLACING OF WORK ZONE SIGNS. THE NOTIFICATION SHALL ALSO INCLUDE THE PROJECT NUMBER, PID, NAME AND PHONE NUMBER OF THE CONTRACTOR, A POINT OF CONTACT AND THE ANTICIPATED IMPACT ON TRAFFIC. THE CONTRACTOR WILL IMMEDIATELY INFORM THE DISTRICT OFFICE OF COMMUNICATIONS AND THE DISTRICT WORK ZONE TRAFFIC MANAGER OF ANY AND ALL DELAYS AND/OR CHANGES REGARDING THE CONSTRUCTION INITIATION DATE.

NOTIFICATION OF PERMANENT RAMP CLOSURE

NOTICE OF CLOSURE SIGN, AS DETAILED BELOW, SHALL BE ERECTED AT LEAST FOURTEEN DAYS PRIOR TO THE PERMANENT CLOSURE OF THE BROAD STREET NORTHBOUND ENTRANCE RAMP WITH I-71. THE SIGN SHALL BE MOUNTED ON THE RIGHT SIDE OF THE RAMP FACING TRAFFIC. IT SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS.



W20-H13-60 (MODIFIED)

AT THE TIME THE RAMP IS CLOSED THE EXISTING RAMP SIGNING AN OVERLAY STATING "CLOSED" SHALL BE ADDED OR THE SIGN SHALL BE REMOVED. WITHIN TWO WEEKS AFTER THE CLOSURE THE SIGNS SHALL BE REMOVED.

NOTICE OF CLOSURE SIGN

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTIFICATION TIME FRAME TABLE		
ITEM	DURATION OF CLOSURE	NOTIFICATION DUE TO DISTRICT 6 COMMUNICATIONS OFFICE
ROAD AND RAMP CLOSURES	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS AND < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES/ RESTRICTIONS	>= 2 WEEKS	7 BUSINESS DAYS PRIOR TO CLOSURE
	< 2 WEEKS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

PERMITTED LANE CLOSURES ON FREEWAYS, RAMPS AND CITY STREETS

THE EXISTING NUMBER OF LANES IN EACH DIRECTION ON ALL FREEWAYS SHALL BE MAINTAINED IN ACCORDANCE WITH THE UNAUTHORIZED LANE USE TABLE FOR EACH LOCATION UNLESS OTHERWISE SHOWN IN THE PLANS. THE EXISTING NUMBER OF LANES IN EACH DIRECTION ON ALL RAMPS AND CITY STREETS SHALL BE MAINTAINED FOR EACH LOCATION UNLESS OTHERWISE SHOWN IN THE PLANS.

IT MAY BE NECESSARY TO EXTEND THE ADVANCE WARNING, TAPER AND BUFFER ZONES BEYOND THE MINIMUM DISTANCES SHOWN ON THE STANDARD DRAWINGS DUE TO HORIZONTAL ALIGNMENT, VERTICAL ALIGNMENT, RAMP LOCATIONS, OR OTHER SIGHT OBSTRUCTIONS. TAPERS SHOULD BE PLACED IN TANGENT SECTIONS WHENEVER POSSIBLE.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK ZONE AND TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, APPLICABLE STANDARD DRAWINGS, AND THE OHIO MANUAL OF TRAFFIC CONTROL DEVICES (CURRENT EDITION).

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

PROJECT COORDINATION

THE CONTRACTOR SHALL COOPERATE AND COORDINATE WITH THE CONTRACTOR FOR THE FRA-70-14.54 PROJECT (PID 105322) IF IT IS STILL UNDER CONSTRUCTION. ALL COORDINATION ISSUES SHALL BE BROUGHT TO THE ATTENTION OF AND RESOLVED WITH THE APPROVAL OF THE ENGINEER.

ALL COORDINATION EFFORTS INCLUDING LABOR, EQUIPMENT, AND MATERIALS SHALL BE PAID FOR UNDER THE ITEM 614 - MAINTAINING TRAFFIC LUMP SUM.

LANE VALUE CONTRACT TABLE

THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE FOR EACH UNIT OF TIME A LANE/SHOULDER/RAMP IS CLOSED BY THE CONTRACTORS ACTION WHILE NOT OTHERWISE PERMITTED BY THE LANE VALUE CONTRACT TABLE.

LANE VALUE CONTRACT TABLE						
Section (SLM)	Existing Number of Lanes per Direction	Lane Closures are NOT Permitted:				Disincentive Amounts per minute per lane
		Lane Reduction	Mon to Fri	Sat	Sun	
FRA-71						
Main Street (17.13) to Leonard Avenue (18.31)	2	2 to 1	5AM-10PM	9AM-10PM	9AM-10PM	\$540
Leonard Avenue (18.31) to Cooke Road (23.46)	3	3 to 2	5AM-8PM	9AM-7PM	9AM-7PM	\$435
		3 to 1	5AM-10PM	6AM-10PM	6AM-10PM	\$435
Short term shoulder closures are NOT permitted 5AM-9AM and 3PM-6PM Monday-Friday.						
FRA-70						
Short Street (13.73) to Grant Avenue (14.56)	3	3 to 2	5AM-9PM	6AM-10PM	6AM-10PM	\$360
		3 to 1	5AM-11PM	5AM-10PM	5AM-10PM	\$360
Grant Avenue (14.56) to Champion Street (15.60) (WB)	2	2 to 1	5AM-11PM	6AM-10PM	6AM-10PM	\$540
Grant Avenue (14.56) to 18th Street (15.24) (EB)	2	2 to 1	5AM-11PM	6AM-10PM	6AM-10PM	\$540
18th Street (15.24) to Alum Creek Drive (17.00) (EB)	4	4 to 3	5-9AM & 2-7PM	No Restriction	No Restriction	\$270
		4 to 2	8AM-8PM	11AM-7PM	11AM-7PM	\$270
		4 to 1	5AM-MIDNIGHT	7AM-MIDNIGHT	7AM-MIDNIGHT	\$270
Champion Street (15.60) to Alum Creek Drive (17.00) (WB)	4	4 to 3	5AM-9AM	No Restriction	No Restriction	\$270
		4 to 2	5AM-8PM	9AM-7PM	9AM-7PM	\$270
		4 to 1	5AM-11PM	6AM-11PM	6AM-11PM	\$270
Short term shoulder closures are NOT permitted 5AM-9AM and 3PM-6PM Monday-Friday.						

REPLACEMENT OF PERMANENT ITEM

WHERE CONSTRUCTION ACTIVITIES DISTURB PERMANENT ITEMS THE CONTRACTOR SHALL RETURN THESE AREAS TO THE CONDITION PRIOR TO CONSTRUCTION. THIS INCLUDES BUT IS NOT LIMITED TO THE GUARDRAIL ALONG RAMP Q3 AND THE SIDEWALK AT THE INTERSECTION OF BROAD ST/PARSONS AVE.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC.

ITEM 607 - FENCE, TYPE CL, AS PER PLAN, C

6' HIGH GALVANIZED CHAIN LINK FENCE SHALL BE UTILIZED AS TEMPORARY FENCING. THE CONTRACTOR SHALL INSTALL THE FENCE WHEN AND WHERE DIRECTED BY THE ENGINEER-IN-CHARGE. THE FENCE MAY UTILIZE POST SUPPORTS OR WITH BASE UNITS SECURELY HELD IN PLACE.

AT A MINIMUM THE FENCE SHALL BE INSTALLED DURING MOT PHASES 2B & 2C WHEN LESTER DRIVE IS CONSTRUCTED IN FRONT OF THE JEFFERSON CENTER.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS AND INSTALLATION, MAINTENANCE AND REMOVAL SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR 607, TEMPORARY FENCE, TYPE CL, AS PER PLAN, C.

ITEM 6074 - FENCE, TYPE CL, AS PER PLAN, C 1050 FT

TEMPORARY DRAINAGE

TEMPORARY DRAINAGE ITEMS LABELED ON THE MAINTENANCE OF TRAFFIC PLAN ARE ITEMIZED ON THE MOT PLANS. PAYMENT FOR THE TEMPORARY DRAINAGE ITEMS ARE ITEMIZED AND CARRIED TO THE GENERAL SUMMARY.

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MAINTENANCE OF TRAFFIC NOTES

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ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	SEE SHEET
607	20001	1050	FT	FENCE, TYPE CL, AS PER PLAN, C	62
614	11000	LS		MAINTAINING TRAFFIC	62
614	11110	2500	HOURL	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	64
SPECIAL	61411300	2	EACH	WORK ZONE TRAFFIC SIGNAL	65
614	11630	25550	FT	INCREASED BARRIER DELINEATION	65
614	12336	21	EACH	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	64
614	12420	LS		DETOUR SIGNING	66
614	12484	6	EACH	WORK ZONE INCREASED PENALTIES SIGN	66
614	12500	50	EACH	REPLACEMENT SIGN	65
614	12600	100	EACH	REPLACEMENT DRUM	65
614	12801	5512	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	67
614	13310	511	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	65
614	13350	511	EACH	OBJECT MARKER, ONE WAY	65
614	18601	20	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	65
614	20100	8.97	MILE	WORK ZONE LANE LINE, CLASS I, 4", 642 PAINT	
614	21100	0.47	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
614	22100	16.67	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT	
614	23200	20090	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	
614	24200	8551	FT	WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	
614	26200	130	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
614	27200	2509	FT	WORK ZONE CROSSWALK LINE, CLASS I, 642 PAINT	
614	30200	15	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT	
614	31200	2	EACH	WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT	
615	25000	11371	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	
616	10000	360	MGAL	WATER	65
622	41000	25110	FT	PORTABLE BARRIER, 32"	
622	41020	440	FT	PORTABLE BARRIER, 32", BRIDGE MOUNTED	
808	18700	60	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	66
611	05900	112	FT	15" CONDUIT, TYPE B (MOT)	
611	98370	7	EACH	CATCH BASIN, NO. 6 (MOT)	
202	35100	112	FT	PIPE REMOVED, 24" AND UNDER (MOT)	
202	58100	7	EACH	CATCH BASIN REMOVED (MOT)	

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MAINTENANCE OF TRAFFIC SUBSUMMARY

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SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
55	59	60	61	205	274	277	445	473	519	OFFICE CALC	01/IMS/PV	02/NHS/PV	06/MPO/OT/Colts						
				280							280			622	10120	280	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C	
				772							772			622	10140	772	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1	
				3,364							3,364			622	10160	3,364	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
				4							4			622	24840	4	EACH	CONCRETE BARRIER END SECTION, TYPE B	
				2							2			622	24860	2	EACH	CONCRETE BARRIER END SECTION, TYPE C1	
				8							8			622	25000	8	EACH	CONCRETE BARRIER END SECTION, TYPE D	
				5							5			622	25014	5	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1	
				16							16			622	25050	16	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
				2							2			622	25050	2	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, A	516
					14						14			622	41000	14	FT	PORTABLE BARRIER, 32" (ROADWAY)	
				730							730			622	90000	730	FT	BARRIER, MISC.:PORTABLE BARRIER 32"	55
				713							713			622	90000	713	FT	BARRIER, MISC.:TYPE C1 MODIFIED	516
				43							43			622	90000	43	FT	BARRIER, MISC.:TYPE C MODIFIED	516
				123							123			622	90000	123	FT	BARRIER, MISC.:TYPE D MODIFIED	516
11											11			623	38500	11	EACH	MONUMENT ASSEMBLY (TYPE A)	
				114	2						116			626	00102	116	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
				23							23			626	00110	23	EACH	BARRIER REFLECTOR, TYPE 2, ONE WAY	
									6		6			690	98000	6	EACH	SPECIAL -PARKING METER POST HOLE CORE	519
										98	98			690	98300	98	SY	SPECIAL -MISC.: BRICK PAVEMENT	
LS											LS			690	98400	LS		SPECIAL -MISC.: RESTORE PARKING LOT	
	13,000										13,000			875	10000	13,000	LB	LONGITUDINAL JOINT ADHESIVE	
											LS	LS		878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
																		EROSION CONTROL	
	2										2			659	00100	2	EACH	SOIL ANALYSIS TEST	
	768										768			659	00300	768	CY	TOPSOIL	
						6,999					6,999			659	10000	6,999	SY	SEEDING AND MULCHING	
											346			659	14000	346	SY	REPAIR SEEDING AND MULCHING	
											346			659	15000	346	SY	INTER-SEEDING	
											0.96			659	20000	0.96	TON	COMMERCIAL FERTILIZER	
											1.43			659	31000	1.43	ACRE	LIME	
											38			659	35000	38	MGAL	WATER	
											16			659	40000	16	MSF	MOWING	
								167			167			670	00700	167	SY	DITCH EROSION PROTECTION	
											LS			832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
											LS			832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
											LS			832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
											530,000			832	30000	530,000	EACH	EROSION CONTROL	
																		DRAINAGE	
			400								400			605	05200	400	FT	4" UNCLASSIFIED PIPE UNDERDRAINS	
								12,687			12,687			605	11100	12,687	FT	6" SHALLOW PIPE UNDERDRAINS	
								568			568			605	13300	568	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
								5,172			5,172			605	14000	5,172	FT	6" BASE PIPE UNDERDRAINS	
			100								100			611	00100	100	FT	4" CONDUIT, TYPE B, FOR SANITARY	
			400								400			611	00406	400	FT	4" CONDUIT, TYPE F	
								165			165			611	00900	165	FT	6" CONDUIT, TYPE B	
			50								50			611	00900	50	FT	6" CONDUIT, TYPE B, FOR DRAINAGE CONNECTION	
			100								100			611	00900	100	FT	6" CONDUIT, TYPE B, FOR SANITARY	
			50								50			611	01100	50	FT	6" CONDUIT, TYPE C, FOR DRAINAGE CONNECTION	
			50								50			611	01800	50	FT	8" CONDUIT, TYPE B, FOR DRAINAGE CONNECTION	
			100								100			611	01800	100	FT	8" CONDUIT, TYPE B, FOR SANITARY	
			50								50			611	02000	50	FT	8" CONDUIT, TYPE C, FOR DRAINAGE CONNECTION	
								49			49			611	03100	49	FT	10" CONDUIT, TYPE B	
								1,183			1,183			611	04400	1,183	FT	12" CONDUIT, TYPE B	
								99			99			611	04401	99	FT	12" CONDUIT, TYPE B, AS PER PLAN	60
			50								50			611	04400	50	FT	12" CONDUIT, TYPE B, FOR DRAINAGE CONNECTION	
								25			25			611	04600	25	FT	12" CONDUIT, TYPE C	
			50								50			611	04600	50	FT	12" CONDUIT, TYPE C, FOR DRAINAGE CONNECTION	
								3,004			3,004			611	05900	3,004	FT	15" CONDUIT, TYPE B	
								199			199			611	06100	199	FT	15" CONDUIT, TYPE C	
								301			301			611	07400	301	FT	18" CONDUIT, TYPE B	
								85			85			611	07400	85	FT	18" CONDUIT, TYPE B, 706.02 W/ PREMIUM JOINTS	

GENERAL SUMMARY

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SHEET NUM.								PART.								ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
493	494	500	502	512-513	604	515A	515D	01/IMS/PV	05/IMS/OT	07/S>2/OT/CLS	08/ENH/OT/CLS	9/IMS/OT/AEP	10/IMS/OT/ATT	11/IMS/OT/TW	12/IMS/OT/VER							
9											9					625	32000	9	EACH	GROUND ROD (ELECTRICAL)		
465											465					625	36000	465	FT	PLASTIC CAUTION TAPE		
2											2					690	98000	2	EACH	SPECIAL -MISC.: 50' POWER POLE, TDMIS-1		
1											1					690	98000	1	EACH	SPECIAL -MISC.: EXISTING DOP VAULT #200 AS PER PLAN	490	
1											1					690	98000	1	EACH	SPECIAL -MISC.: GUY WIRE		
1											1					690	98000	1	EACH	SPECIAL -MISC.: MANHOLE #1 AS PER PLAN, TDMIS-1015	490	
1											1					690	98000	1	EACH	SPECIAL -MISC.: MANHOLE #2 AS PER PLAN, TDMIS-1015	490	
2											2					690	98000	2	EACH	SPECIAL -MISC.: REMOVE POWER POLE		
	225										225					690	98100	225	FT	SPECIAL -CONDUIT, CONCRETE ENCASED: 1-2", TDMIS-1013	490	
	165										165					690	98100	165	FT	SPECIAL -CONDUIT, CONCRETE ENCASED: 2-2", TDMIS-1013	490	
	135										135					690	98100	135	FT	SPECIAL -CONDUIT, CONCRETE ENCASED: 2-5", TDMIS-1013		
	210										210					690	98100	210	FT	SPECIAL -CONDUIT, CONCRETE ENCASED: 6-5", TDMIS-1013		
	210										210					690	98100	210	FT	SPECIAL -DISTRIBUTION CABLE, 3-#500 KCMIL 15 KV WITH 1-#350 KCMIL 600 VOLT NEUTRAL, TDMIS-1510		
280											280					690	98100	280	FT	SPECIAL -MISC.: AERIAL PRIMARY CONDUCTORS		
150											150					690	98100	150	FT	SPECIAL -MISC.: REMOVE AERIAL PRIMARY CONDUCTORS		
	350										350					690	98100	350	FT	SPECIAL -NO. 2/0 AWG AL TRIPLEX W/ ACSR NEUTRAL, TDMIS-1501		
	LS										LS					690	98400	LS		SPECIAL -CONDUCTOR SAFETY POLICY, TDMIS-1603	490	
																					TELECOMMUNICATIONS (AT&T)	
					11,088												625	25920	11,088	FT	CONDUIT, MISC.: CONCRETE ENCASED FIBERGLASS CONDUIT, 4"	512
																					TELECOMMUNICATIONS (CHARTER)	
							266										625	25920	266	FT	CONDUIT, MISC.: FIBERGLASS CONDUIT, 4", DIRECTIONAL DRILLED	515A
																					TELECOMMUNICATIONS (VERIZON)	
																	625	25920	318	FT	CONDUIT, MISC.: FIBERGLASS CONDUIT, 4"	515D
																					ELECTRICAL (AEP)	
												233					511	53016	233	CY	CLASS QC4 CONCRETE, MISC.: CLASS QC4 CONCRETE, PEA GRAVEL ENCASEMENT, AS PER PLAN	503
												6,234					625	25920	6,234	FT	CONDUIT, MISC.: CONDUIT, PVC, 5", SCH. 40, ELECTRIC RATED, AS PER PLAN	503
												1,253					625	29401	1,253	FT	TRENCH IN PAVED AREAS, AS PER PLAN	501
												1					690	98000	1	EACH	SPECIAL -MISC.: FIBERGLASS BOX PAD INSTALLATION	501
												2					690	98000	2	EACH	SPECIAL -MISC.: PRECAST CONCRETE ELECTRIC MANHOLE	501
												1					690	98000	1	EACH	SPECIAL -MISC.: PRECAST PRIMARY ENCLOSURE	507
																					TELECOMMUNICATIONS (C.O.C. DOT)	
																	625	25603	80	FT	CONDUIT, 4", 725.05, AS PER PLAN	499
																	690	98100	900	FT	SPECIAL - MISC.: REMOVAL AND DISPOSAL OF F01.HM FIBER OPTIC CABLE	499
																	690	98100	1,856	FT	SPECIAL - MISC.: REMOVAL AND DISPOSAL OF F02.HH FIBER OPTIC CABLE	499
																	804	98000	1,582	FT	FIBER OPTIC CABLE, MISC.: F01.HH FIBER OPTIC CABLE, 288 STRAND	499
																	804	98000	3,439	FT	FIBER OPTIC CABLE, MISC.: F02.HH FIBER OPTIC CABLE, 288 STRAND	499
																	804	98000	1,185	FT	FIBER OPTIC CABLE, MISC.: F03.HM FIBER OPTIC CABLE, 288 STRAND	499
																					TRAFFIC SURVEILLANCE	
							LS					LS					202	98000	LS		REMOVAL MISC.: REMOVAL OF PROJECT 1 PERMANENT ITS	607
							LS					LS					202	98000	LS		REMOVAL MISC.: REMOVAL OF PROJECT 3 TEMPORARY ITS	607
												56					625	25408	56	FT	CONDUIT, 2", 725.051 (SURVEILLANCE)	
												496					625	25504	496	FT	CONDUIT, 3", 725.051 (SURVEILLANCE)	
												3,126					625	25750	3,126	FT	CONDUIT, 4", MULTICELL, 725.20 , EPC-40, (4)-1.25" INNER-DUCTS	
												52					625	25802	52	FT	CONDUIT, CONCRETE ENCASED, 4", MULTICELL, EPC-40	
												646					625	25900	646	FT	CONDUIT, JACKED OR DRILLED, 4" MULTICELL, EPC-80	
												604					625	29100	604	FT	TRENCH, 36" DEEP	
												6					625	29931	6	EACH	MEDIAN JUNCTION BOX, AS PER PLAN	603
												7					625	30700	7	EACH	PULL BOX, 725.08, 18"	
												5					625	31510	5	EACH	PULL BOX REMOVED (SURVEILLANCE)	
												4					625	31600	4	EACH	PULL BOX, MISC.: CONCRETE, 32" (SURVEILLANCE)	604
												1					625	32000	1	EACH	GROUND ROD (SURVEILLANCE)	
												3					625	34000	3	EACH	POWER SERVICE	
												27					630	03100	27	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
												24					630	80100	24	SF	SIGN, FLAT SHEET	
												3					632	04905	3	EACH	VEHICULAR SIGNAL HEAD, (LED), 2-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	604
												4					632	26500	4	EACH	DETECTOR LOOP	
												3					632	28200	3	EACH	DISCONNECT SWITCH WITH ENCLOSURE	
							1,893					1,893					632	29901	1,893	FT	MESSANGER WIRE, 7 STRAND, 1/4" DIAMETER WITH ACCESSORIES, AS PER PLAN	604

GENERAL SUMMARY

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SHEET NUM.										PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	CALCULATED	DSS CHECKED	MRT
520	521	525	529	539	573					01/IMS/PV										
	25		50							75		630	84900	75	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL				
	1									1		630	85100	1	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION				
	6									6		630	85400	6	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL				
	1									1		630	85600	1	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION				
	24		37							61		630	86002	61	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL				
	10									10		630	86102	10	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL				
	6									6		630	87100	6	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION				
	24		13							37		630	87400	37	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL				
	10		42							52		630	87500	52	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL				
	1									1		630	87520	1	EACH	REMOVAL OF POLE MOUNTED SIGN AND REERECTION				
			3							3		630	89702	3	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL				
	1									1		630	89706	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30				
	2									2		630	89802	2	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65				
	2									2		630	89806	2	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-18.24				
	1									1		630	89810	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-17.10				
	15									15		630	89894	15	EACH	REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL				
			10							10		630	97700	10	EACH	SIGNING, MISC.:ANCHOR BASE FOR POSTS ON CONCRETE SURFACES			518	
			3							3		630	97700	3	EACH	SIGNING, MISC.:WAYFINDING SIGN			519	
3.44										3.44		644	00104	3.44	MILE	EDGE LINE, 6"				
3.42										3.42		644	00204	3.42	MILE	LANE LINE, 6"				
8,861										8,861		644	00404	8,861	FT	CHANNELIZING LINE, 12"				
71										71		644	00500	71	FT	STOP LINE				
1,679										1,679		644	00700	1,679	FT	TRANSVERSE/DIAGONAL LINE				
1,855										1,855		644	00720	1,855	FT	CHEVRON MARKING				
3		16								19		644	01300	19	EACH	LANE ARROW				
2										2		644	01350	2	EACH	LANE REDUCTION ARROW				
1										1		644	01360	1	EACH	WRONG WAY ARROW				
3,910										3,910		644	01514	3,910	FT	DOTTED LINE, 8"				
		13								13		644	01630	13	EACH	BIKE LANE SYMBOL MARKING				
		2								2		644	19000	2	EACH	SHARED LANE MARKING				
		1,474								1,474		644	30000	1,474	FT	REMOVAL OF PAVEMENT MARKING				
2		11								13		644	30020	13	EACH	REMOVAL OF PAVEMENT MARKING				
920										920		644	50300	920	FT	PAVEMENT MARKING, MISC.:LANE LINE, 12"			518	
		362								362		644	50300	362	FT	PAVEMENT MARKING, MISC.:CHANNELIZING LINE, 10"			518	
		196								196		644	50300	196	FT	PAVEMENT MARKING, MISC.:CROSSWALK LINE, 10"			518	
		484								484		644	50300	484	FT	PAVEMENT MARKING, MISC.:DOTTED LINE, 5" (WHITE)			518	
		1,178								1,178		644	50300	1,178	FT	PAVEMENT MARKING, MISC.:PARKING LOT STALL MARKING, 5"			518	
		218								218		644	50300	218	FT	PAVEMENT MARKING, MISC.:STOP LINE, 20"			518	
		0.02								0.02		644	50400	0.02	MILE	PAVEMENT MARKING, MISC.:CENTERLINE, 5"			518	
		1.08								1.08		644	50400	1.08	MILE	PAVEMENT MARKING, MISC.:LANE LINE, 5"			518	
		0.54								0.54		644	50400	0.54	MILE	PAVEMENT MARKING, MISC.:EDGE LINE, 5"			518	
		0.04								0.04		645	90000	0.04	MILE	PAVEMENT MARKING, MISC.: CENTERLINE, 5", TYPE A, INLAID WITH CONTRAST			518	
		0.08								0.08		645	90000	0.08	MILE	PAVEMENT MARKING, MISC.: EDGE LINE, 5", TYPE A, INLAID WITH CONTRAST			518	
		0.15								0.15		645	90000	0.15	MILE	PAVEMENT MARKING, MISC.: LANE LINE, 5", TYPE A, INLAID WITH CONTRAST			518	
		477								477		645	98000	477	FT	PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 10", TYPE A, INLAID WITH CONTRAST			518	
		136								136		645	98000	136	FT	PAVEMENT MARKING, MISC.: DOTTED LINE, 5", TYPE A, INLAID WITH CONTRAST			518	
		197								197		645	98000	197	FT	PAVEMENT MARKING, MISC.: GROOVE FOR INLAID PAVEMENT MARKINGS			518	
0.03										0.03		646	10010	0.03	MILE	EDGE LINE, 6"				
0.05										0.05		646	10110	0.05	MILE	LANE LINE, 6"				
142										142		646	10310	142	FT	CHANNELIZING LINE, 12"				
		4								4		647	20610	4	EACH	LANE ARROW, TYPE B90				
		4								4		647	20610	4	EACH	LANE ARROW, TYPE B90, WITH CONTRAST			518	
		4								4		647	20910	4	EACH	BIKE LANE SYMBOL MARKING, TYPE B90				
		4								4		647	20910	4	EACH	BIKE LANE SYMBOL MARKING, TYPE B90, WITH CONTRAST			518	
		197								197		647	50120	197	FT	PAVEMENT MARKING, MISC.: EDGE LINE, TYPE B90, 5" (WHITE)			518	
		98								98		647	50120	98	FT	PAVEMENT MARKING, MISC.: STOP LINE, 20"			518	
		837								837		647	50120	837	FT	PAVEMENT MARKING, MISC.: CROSSWALK LINE, 10"			518	
		590								590		647	60020	590	SF	GREEN COLORED PAVEMENT FOR BIKE LANES,TYPE B90				
		202								202		831	00100	202	FT	LONGITUDINAL CHANNELIZING DEVICE, YELLOW (COLS. CMS ITEM 628)				

GENERAL SUMMARY

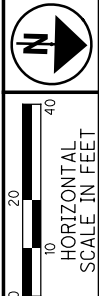
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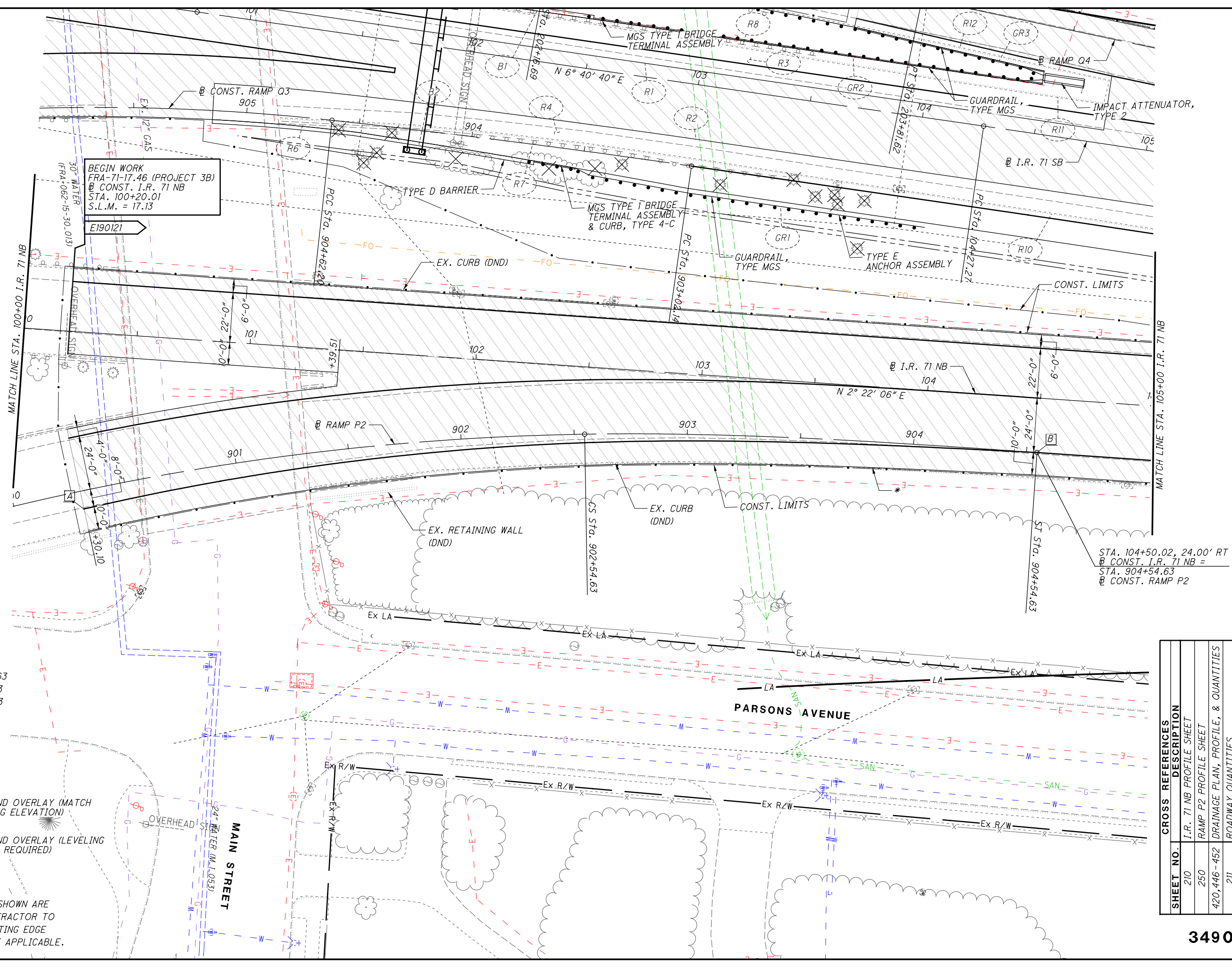
ESTIMATED QUANTITY FROM SHEET NO.	PLAN SPLIT	202	202	202	202	202	202	202	202	202	202	252	606	606	606	606	606	606	606			
		PAVEMENT REMOVED	CONCRETE MEDIAN REMOVED	CONCRETE MEDIAN REMOVED, AS PER PLAN	CONCRETE BARRIER REMOVED	CURB REMOVED	GUARDRAIL REMOVED	ANCHOR ASSEMBLY REMOVED	IMPACT ATTENUATOR REMOVED	FENCE REMOVED	FULL DEPTH PAVEMENT SAWING	GUARDRAIL, TYPE MGS	ANCHOR ASSEMBLY, TYPE E	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL)	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) 55 MPH/ 28"	IMPACT ATTENUATOR, MISC.: WORK ZONE IMPACT ATTENUATOR				
		SY	SY	SY	FT	FT	FT	EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH			
211	1	1107			194	870	344				979	463	1	2	1							
215	1	529			224	228					597				1							
219	1	600			237	406	170				419	413		1	1							
223	1	2032	94		366	419	129		1		781			1	1							
227	1	6580	396		809	448	115		1		290	38	1									
231	1	9476	75		1823	1746	1278	1							1							
235	1	5744	26		318	501	601				323									1		
244	1																					
247	1	1394		193	674	180				186	25											
249	1	1193				347	534			100	120	388	2	2								
TOTALS CARRIED TO GENERAL SUMMARY		28655	591	193	4645	5145	3171	1	2	286	3534	1302	4	6	1	3	1	1				

ESTIMATED QUANTITY FROM SHEET NO.	PLAN SPLIT	607	609	609	622	622	622	622	622	622	622	622	622	626	626	626	622	622	626	626		
		FENCE, TYPE CLT	CURB, TYPE 4-C, AS PER PLAN	4" CONCRETE MEDIAN	CONCRETE BARRIER, SINGLE SLOPE, TYPE B	CONCRETE BARRIER, SINGLE SLOPE, TYPE C	CONCRETE BARRIER, SINGLE SLOPE, TYPE CI	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	CONCRETE BARRIER END SECTION, TYPE B	CONCRETE BARRIER END SECTION, TYPE CI	CONCRETE BARRIER END SECTION, TYPE D	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE CI	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, A	BARRIER, MISC.:TYPE C MODIFIED	BARRIER, MISC.:TYPE CI MODIFIED	BARRIER, MISC.:TYPE D MODIFIED	BARRIER, MISC.:PORTABLE BARRIER 32"	BARRIER REFLECTOR, TYPE 1, ONE WAY	BARRIER REFLECTOR, TYPE 2, ONE WAY		
		FT	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	EACH	EACH		
211	1		305							220		2	2	2					7	8		
215	1						239		1		3								6			
219	1		427					243	1	1									4	6		
223	1		20				66	171	1	3	2	2							13			
227	1		280				173	505		1	1					312			17			
231	1			10	254	225	460	1							234	500	21					
235	1					69	265								167	230	10					
244	1						884					6							17			
247	1	149		345			531					6		43		123			13			
249	1	35	38		26	85	1	1											6	9		
TOTALS CARRIED TO GENERAL SUMMARY		184	1070	345	10	280	772	3364	4	2	8	5	16	2	43	713	123	730	114	23		

CALCULATED	RLE	CHECKED	MRT
MAINLINE AND RAMP ROADWAY SUBSUMMARY			
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(205 881)			



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- A STA. 900+30.10, 8.00' RT
BEGIN EOP TAPER
- B STA. 904+54.63, 0.00' RT
END EOP TAPER

RAMP P2
 P.I. Sta. 897+55.48
 $\Delta = 53^\circ 04' 02''$ (RT)
 $Dc = 4^\circ 54' 00''$
 $R = 1,169.30'$
 $Ls = 200.00'$
 $\theta s = 4^\circ 54' 00''$
 $LT = 133.38'$
 $ST = 66.71'$
 $Lc = 1,083.00'$
 $T = 583.85'$
 $E = 137.66'$
 $e_{max} =$ MATCH EX. (APPROX. 0.080)
 P.C.C. Sta. 891+71.63
 C.S. Sta. 902+54.63
 S.T. Sta. 904+54.63

- MILL AND OVERLAY (MATCH EXISTING ELEVATION)
- MILL AND OVERLAY (LEVELING COURSE REQUIRED)

* NOTE: DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR TO RESURFACE TO EXISTING EDGE OF SHOULDER WHERE APPLICABLE.

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
210	I.R. 71 NB PROFILE SHEET
250	RAMP P2 PROFILE SHEET
420, 446 - 452	DRAINAGE PLAN, PROFILE, & QUANTITIES
211	ROADWAY QUANTITIES

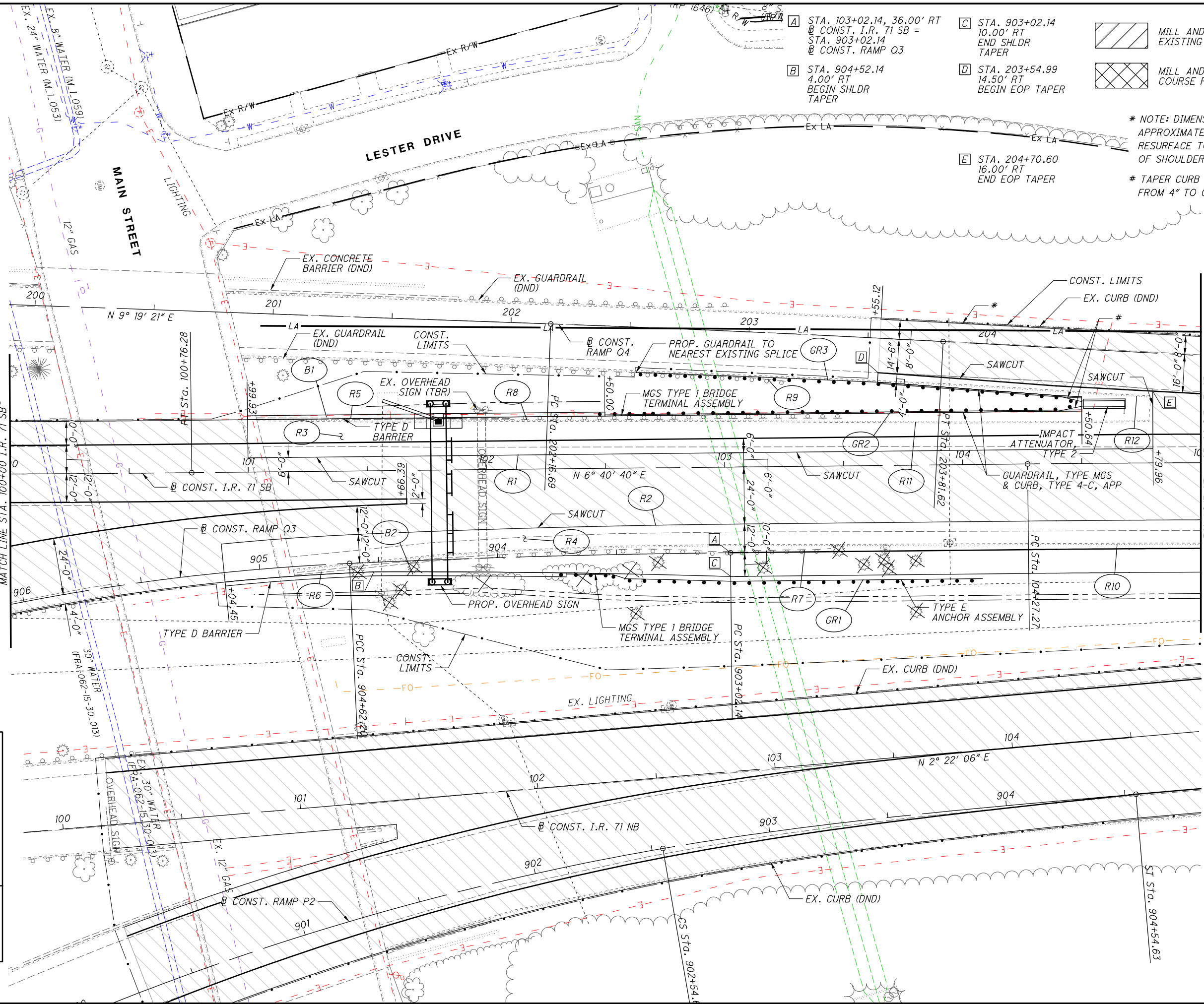
3490-E

I.R. 71 SB
 P.I. Sta. 104+76.47
 $\Delta = 0^\circ 29' 31''$ (RT)
 $D_c = 0^\circ 30' 00''$
 $R = 11,459.16'$
 $T = 49.21'$
 $L = 98.41'$
 $E = 0.11'$
 $e_{max} = \text{MATCH EX. (APPROX. NC)}$
 $C = 98.41'$
 $C.B. = N 6^\circ 55' 26'' E$
 P.C. Sta. 104+27.27
 P.T. Sta. 105+25.68

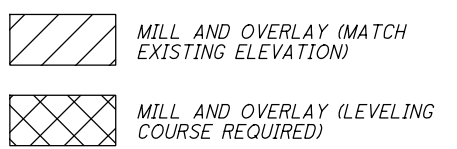
RAMP Q3
 P.I. Sta. 903+82.18
 $\Delta = 2^\circ 00' 03''$ (LT)
 $D_c = 1^\circ 15' 00''$
 $R = 4,583.66'$
 $T = 80.04'$
 $L = 160.06'$
 $E = 0.70'$
 $e_{max} = \text{MATCH EX. (APPROX. 0.060)}$
 $C = 160.05'$
 $C.B. = S 5^\circ 40' 39'' W$
 P.C. Sta. 903+02.14
 P.C.C. Sta. 904+62.20

RAMP Q4
 P.I. Sta. 202+99.16
 $\Delta = 1^\circ 04' 19''$ (RT)
 $D_c = 0^\circ 39' 00''$
 $R = 8,814.74'$
 $T = 82.47'$
 $L = 164.94'$
 $E = 0.39'$
 $e_{max} = \text{MATCH EX. (APPROX. 0.020)}$
 $C = 164.93'$
 $C.B. = N 9^\circ 51' 30'' E$
 P.C. Sta. 202+16.69
 P.T. Sta. 203+81.62

SHEET NO.	CROSS REFERENCES
210	I.R. 71 SB PROFILE SHEET
251	RAMP Q3 PROFILE SHEET
252	RAMP Q4 PROFILE SHEET
391-392	RAMP GORE DETAILS
420, 446-452	DRAINAGE PLAN & QUANTITIES
211	ROADWAY QUANTITIES
516	BARRIER DETAILS



- A STA. 103+02.14, 36.00' RT
 CONST. I.R. 71 SB =
 STA. 903+02.14
 CONST. RAMP Q3
- B STA. 904+52.14
 4.00' RT
 BEGIN SHLDR
 TAPER
- C STA. 903+02.14
 10.00' RT
 END SHLDR
 TAPER
- D STA. 203+54.99
 14.50' RT
 BEGIN EOP TAPER
- E STA. 204+70.60
 16.00' RT
 END EOP TAPER



* NOTE: DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR TO SURFACE TO EXISTING EDGE OF SHOULDER WHERE APPLICABLE.
 # TAPER CURB HEIGHT FROM 4" TO 0" OVER 10'.



PLAN - I.R. 71 SB
 STA. 100+00.00 TO STA. 105+00.00

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SCALE IN FEET

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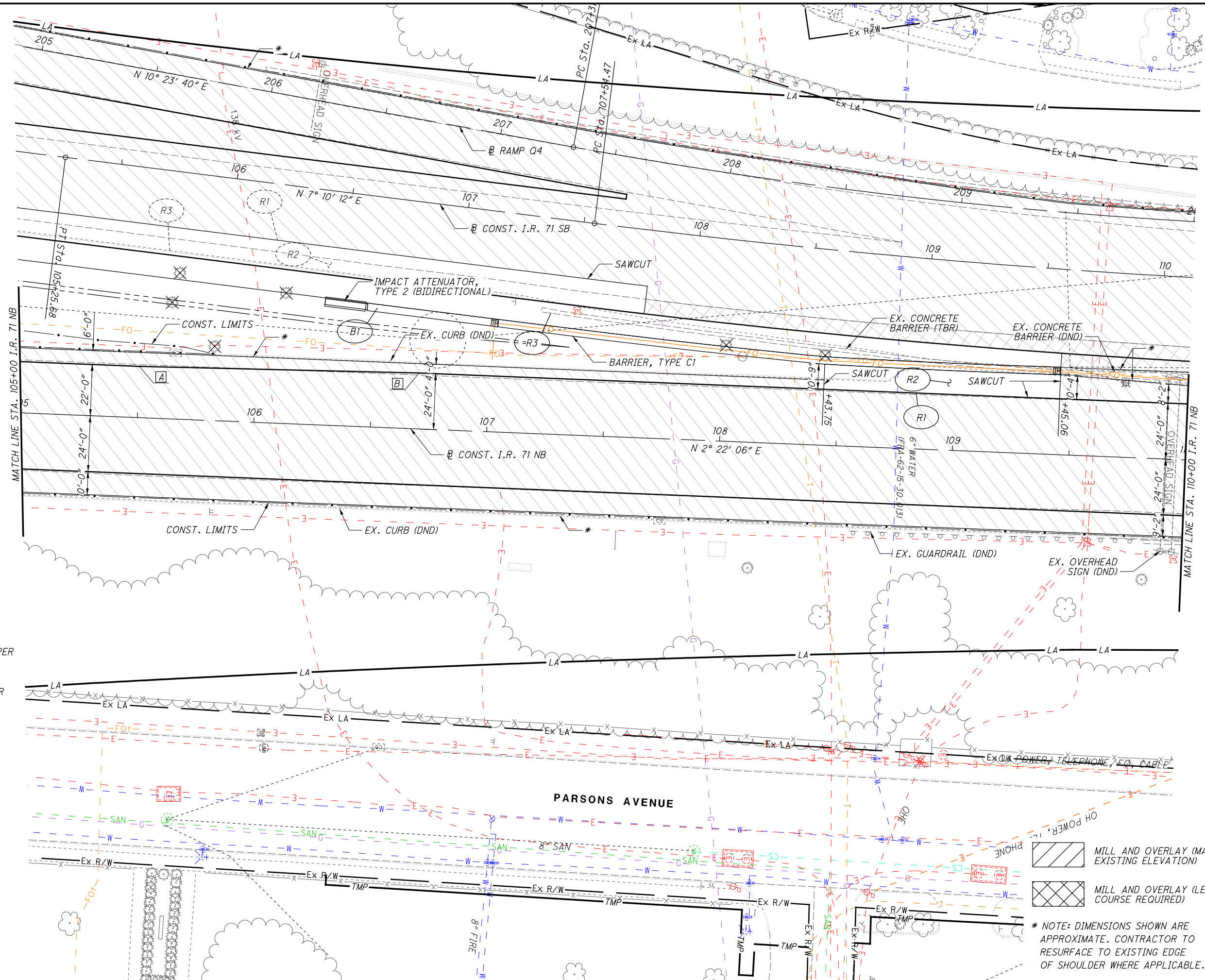
PLAN - I.R. 71 NB
STA. 105+00.00 TO STA. 110+00.00

FRA-71-17.46

212
881

- [A] STA. 105+50.00, 22.00' LT BEGIN SHLDR TAPER
- [B] STA. 106+70.02, 24.00' LT END SHLDR TAPER

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
214	I.R. 71 NB PROFILE SHEET
421, 446-452	DRAINAGE PLAN & QUANTITIES
394	RAMP GORE DETAILS
516	BARRIER DETAILS
215	ROADWAY QUANTITIES



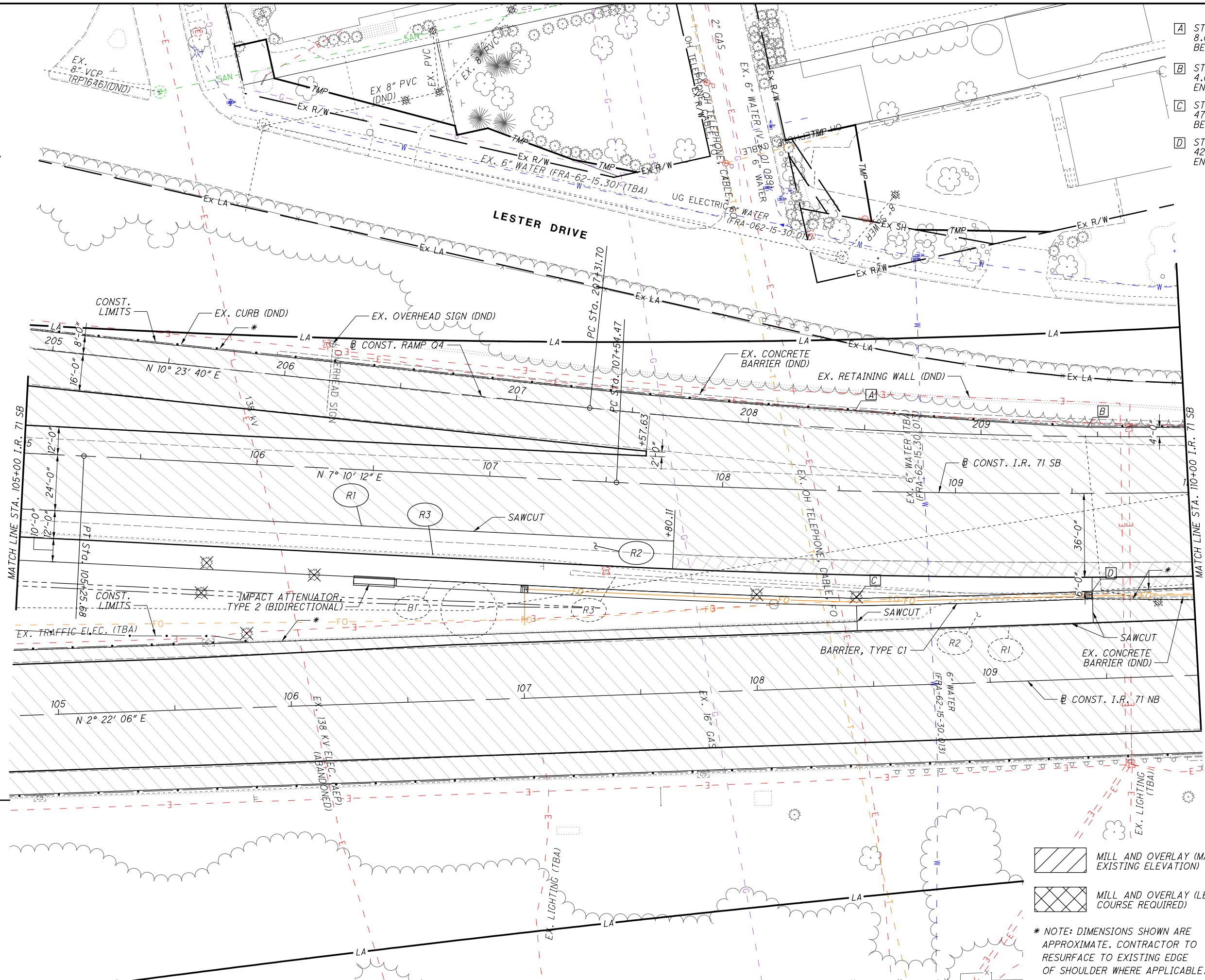
- [Hatched Box] MILL AND OVERLAY (MATCH EXISTING ELEVATION)
- [Cross-hatched Box] MILL AND OVERLAY (LEVELING COURSE REQUIRED)

* NOTE: DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR TO RESURFACE TO EXISTING EDGE OF SHOULDER WHERE APPLICABLE.

3490-E

I.R. 71 SB
 P.I. Sta. 112+81.19
 $\Delta = 15^\circ 42' 09''$ (LT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 526.72'$
 $L = 1,046.83'$
 $E = 36.14'$
 $e_{max} = \text{MATCH EX.}$
 (APPROX. 0.032)
 $C = 1,043.56'$
 $C.B. = N 0^\circ 40' 53'' W$
 P.C. Sta. 107+54.47
 P.T. Sta. 118+01.30
RAMP Q4
 P.I. Sta. 208+70.72
 $\Delta = 7^\circ 13' 10''$ (LT)
 $D_c = 2^\circ 36' 00''$
 $R = 2,203.68'$
 $T = 139.02'$
 $L = 277.67'$
 $E = 4.38'$
 $e_{max} = \text{MATCH EX.}$
 (APPROX. 0.020)
 $C = 277.49'$
 $C.B. = N 6^\circ 47' 05'' E$
 P.C. Sta. 207+31.70
 P.T. Sta. 210+09.37

- A STA. 208+45.62, 8.00' LT BEGIN SHLDR TAPER
- B STA. 209+45.62, 4.00' LT END SHLDR TAPER
- C STA. 108+58.47, 47.00' RT BEGIN SHLDR TAPER
- D STA. 109+58.47, 42.00' RT END SHLDR TAPER



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
214	I.R. 71 SB PROFILE SHEET
252	RAMP Q4 PROFILE SHEET
420, 446 - 452	DRAINAGE PLAN & QUANTITIES
215	ROADWAY QUANTITIES
516	BARRIER DETAILS
393 - 394	RAMP GORE DETAILS

- MILL AND OVERLAY (MATCH EXISTING ELEVATION)
- MILL AND OVERLAY (LEVELING COURSE REQUIRED)

* NOTE: DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR TO RESURFACE TO EXISTING EDGE OF SHOULDER WHERE APPLICABLE.

PLAN - I.R. 71 SB
 STA. 105+00.00 TO STA. 110+00.00

FRA-71-17.46

213
881

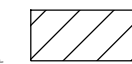
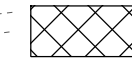
3490-E

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REF NO.	SHEET NO.	STATION TO STATION				202	202	202	252	606	622	622	622	626														
		PAVEMENT REMOVED	CONCRETE BARRIER REMOVED	CURB REMOVED	FULL DEPTH PAVEMENT SAWING	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) 55 MPH/ 28"	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1	CONCRETE BARRIER END SECTION, TYPE C1	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1	BARRIER REFLECTOR, TYPE 1, ONE WAY	SY	FT	FT	FT	EACH	FT	EACH	EACH	EACH									
														I.R. 71 NB														
B1	212	106+28.38	LT	TO	109+45.06	LT								1	239	1	3	6										
R1	212	108+43.75	LT	TO	109+45.03	LT			119																			
R2	212	108+43.75	LT	TO	109+45.06	LT	100																					
R3	212	107+21.43	LT	TO	109+45.05	LT		224																				
														I.R. 71 SB														
R1	213	105+00.00	RT	TO	109+58.47	RT			478																			
R2	213	105+00.00	RT	TO	109+58.47	RT	429																					
R3	213	105+00.00	RT	TO	107+28.19	RT		228																				
					TOTALS CARRIED TO SHEET				205	529	224	228	597	1	239	1	3	6										

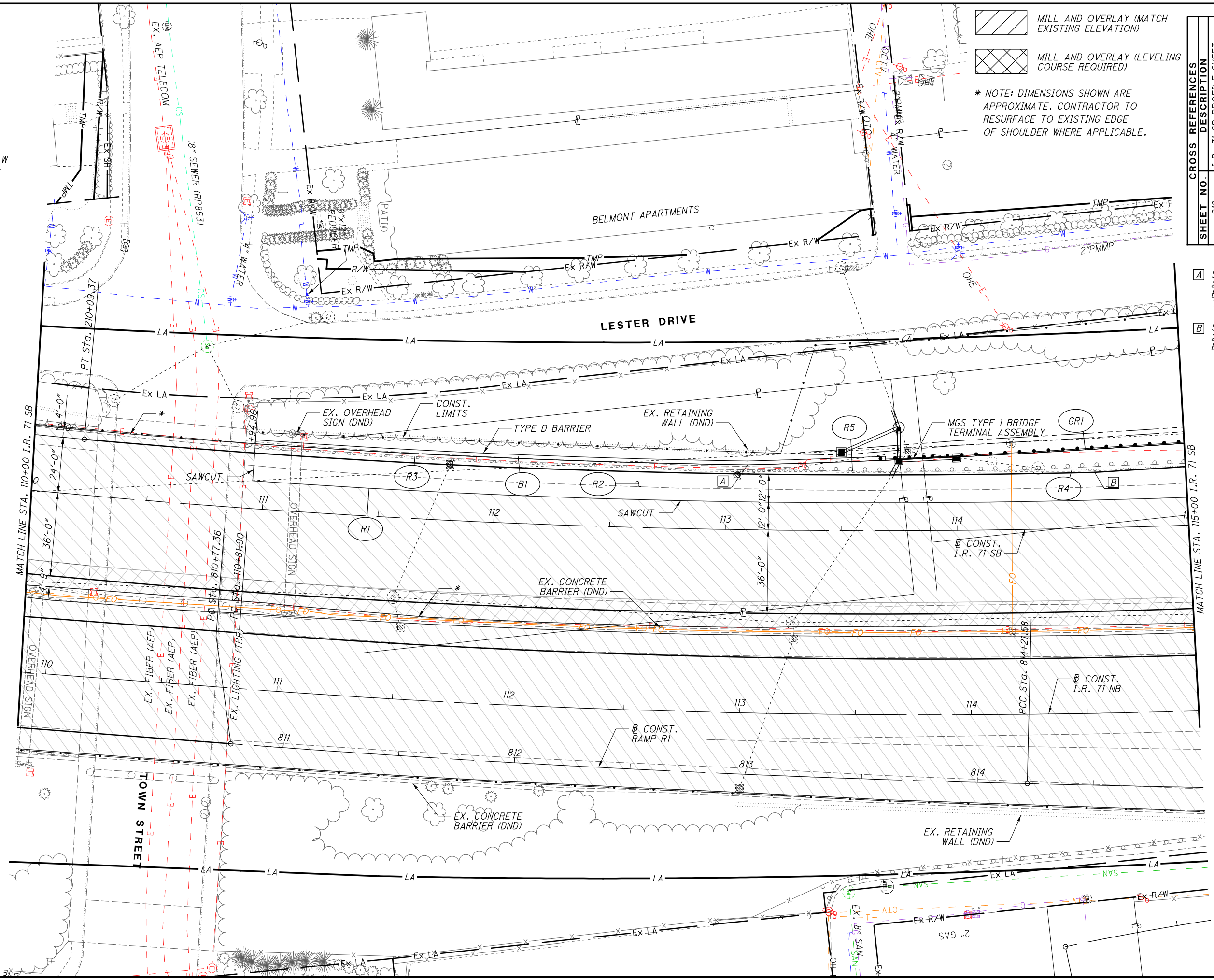
FRA - 71 - 17.46	ROADWAY QUANTITIES - I.R. 71
CALCULATED RLE CHECKED MRT	

I.R. 71 SB
 P.I. Sta. 112+81.19
 $\Delta = 15^\circ 42' 09''$ (LT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 526.72'$
 $L = 1,046.83'$
 $E = 36.14'$
 $e_{max} = \text{MATCH EX.}$
 (APPROX. 0.032)
 $C = 1,043.56'$
 $C.B. = N 0^\circ 40' 53'' W$
 P.C. Sta. 107+54.47
 P.T. Sta. 118+01.30

 MILL AND OVERLAY (MATCH EXISTING ELEVATION)
 MILL AND OVERLAY (LEVELING COURSE REQUIRED)

* NOTE: DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR TO RESURFACE TO EXISTING EDGE OF SHOULDER WHERE APPLICABLE.

CROSS REFERENCES	DESCRIPTION
SHEET NO. 218	I.R. 71 SB PROFILE SHEET
422, 446 - 452	DRAINAGE PLAN & QUANTITIES
516	BARRIER DETAILS
395 - 396	RAMP GORE DETAILS
219	ROADWAY QUANTITIES



- [A] STA. 113+09.20, 28.0' LT BEGIN SHLDR TAPER
- [B] STA. 114+60.15, 24.00' LT BEGIN TAPER

PLAN - I.R. 71 SB
 STA. 110+00.00 TO STA. 115+00.00

FRA-71-17.46

217
881

3490-E

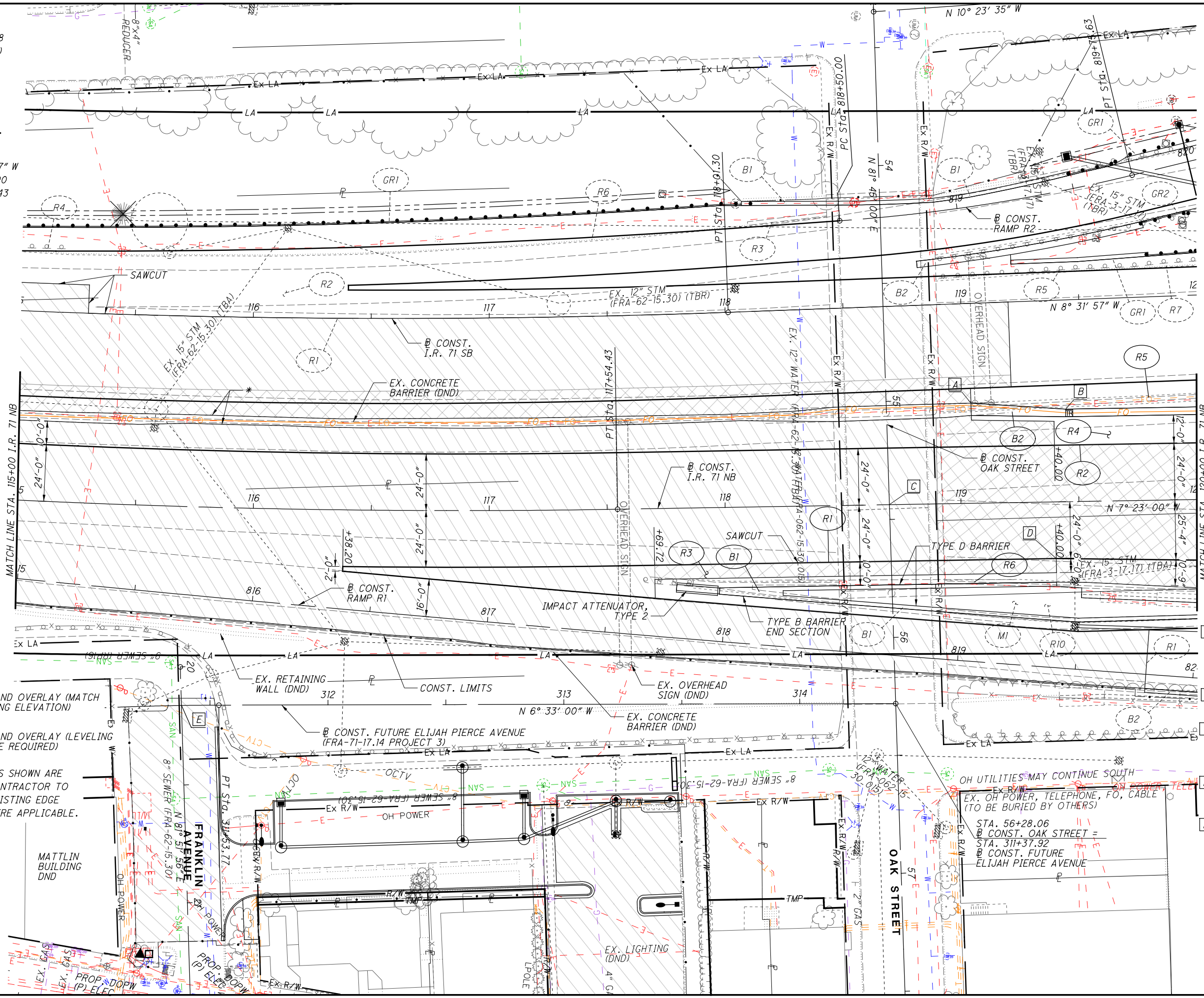
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REF NO.	SHEET NO.	STATION TO STATION				202	202	202	202	252	606	606	606	609	622	622	622	626	626	
						PAVEMENT REMOVED SY	CONCRETE BARRIER REMOVED FT	CURB REMOVED FT	GUARDRAIL REMOVED FT	FULL DEPTH PAVEMENT SAWING FT	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2 EACH	GUARDRAIL, TYPE MGS FT	CURB, TYPE 4-C, AS PER PLAN FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D FT	CONCRETE BARRIER END SECTION, TYPE B EACH	CONCRETE BARRIER END SECTION, TYPE D EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY EACH	BARRIER REFLECTOR, TYPE 2, ONE WAY EACH	
		I.R. 71 NB																		
		I.R. 71 SB																		
B1	217	110+94.96	LT	TO 113+69.18	LT									243	1	1	4			
GRI	217	113+66.66	LT	TO 118+13.24	LT					1	1	412.5	427					6		
R1	217	110+94.81	LT	TO 115+00.00	LT				419											
R2	217	110+94.96	LT	TO 115+00.00	LT	600														
R3	217	110+90.85	LT	TO 113+29.29	LT		237													
R4	217	110+90.85	LT	TO 115+00.00	LT			406												
R5	217	113+29.16	LT	TO 115+00.00	LT				170											
TOTALS CARRIED TO SHEET					205	600	237	406	170	419	1	1	413	427	243	1	1	4	6	

FRA - 71 - 17.46	CALCULATED
	RLE CHECKED MRT

ROADWAY QUANTITIES - I.R. 71

I.R. 71 NB
 P.I. Sta. 114+18.98
 $\Delta = 9^\circ 45' 06''$ (LT)
 $D_c = 1^\circ 27' 00''$
 $R = 3,951.43'$
 $T = 337.08'$
 $L = 672.52'$
 $E = 14.35'$
 $e_{max} = \text{MATCH EX.}$
 (APPROX. 0.032)
 $C = 671.71'$
 $C.B. = N 2^\circ 30' 27'' W$
 P.C. Sta. 110+81.90
 P.T. Sta. 117+54.43



MILL AND OVERLAY (MATCH EXISTING ELEVATION)
 MILL AND OVERLAY (LEVELING COURSE REQUIRED)

* NOTE: DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR TO RESURFACE TO EXISTING EDGE OF SHOULDER WHERE APPLICABLE.

CROSS REFERENCES	DESCRIPTION
SHEET NO. 222	I.R. 71 NB PROFILE SHEET
423,446-452	DRAINAGE PLAN & QUANTITIES
396,399-400	RAMP GORE DETAILS
516	BARRIER DETAILS
223	ROADWAY QUANTITIES
390	SUPERELEVATION TABLE

- A +04.91, 42.45' LT (NB) BEGIN BARRIER TAPER, BEGIN TYPE C1 BARRIER
- B +45.20, 39.20' LT (NB) END BARRIER TAPER
- C STA. 118+69.63
 @ CONST. I.R. 71 NB = STA. 55+43.75
 @ CONST. OAK STREET
- D STA. 119+40.00, 24.00' RT BEGIN TAPER
- E STA. 20+16.34
 @ CONST. FRANKLIN AVENUE = STA. 311+37.92
 @ CONST. FUTURE ELIJAH PIERCE AVENUE



PLAN - I.R. 71 NB
 STA. 115+00.00 TO STA. 120+00.00

FRA-71-17.46

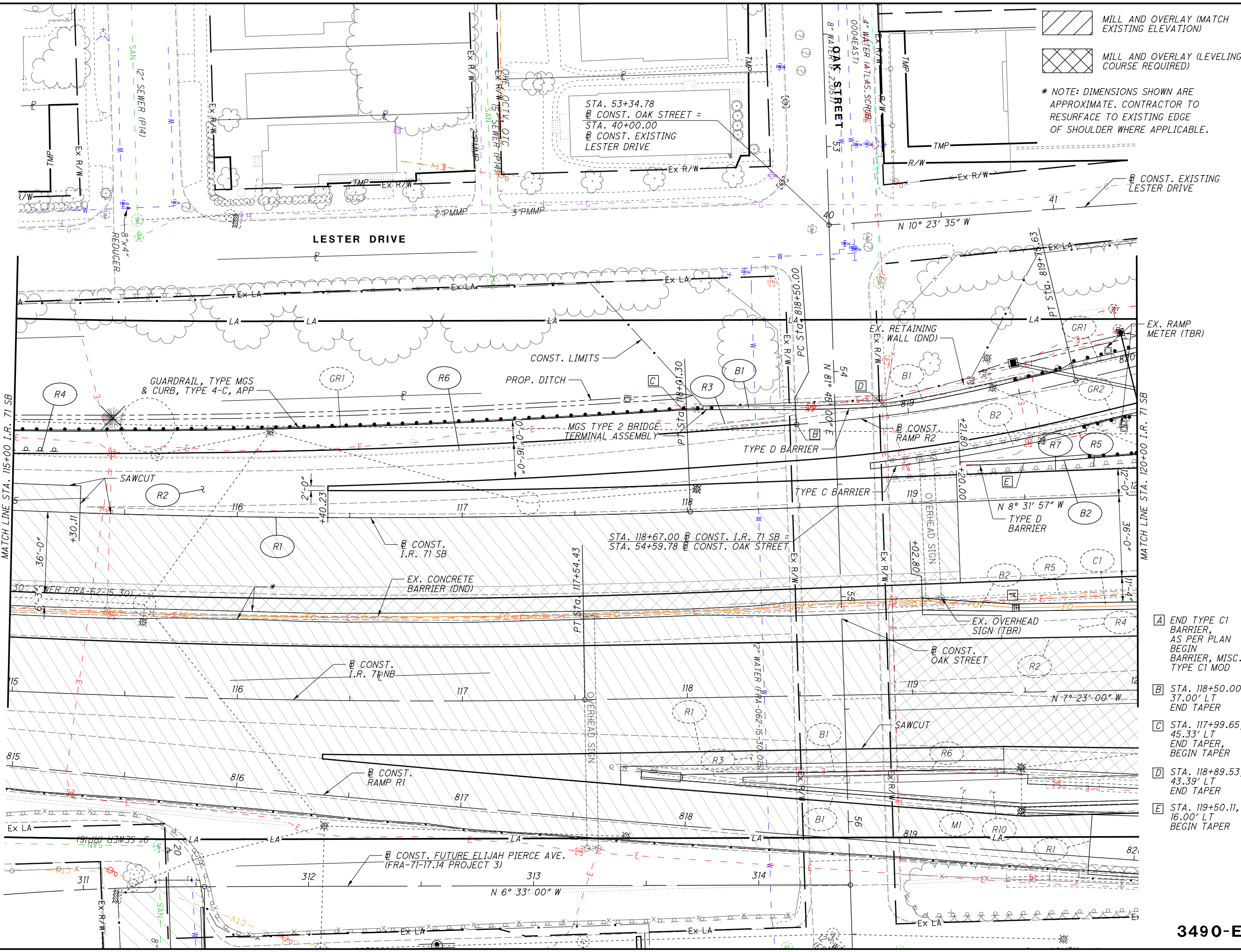
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3490-E

I.R. 71 SB
 P.I. Sta. 112+81.19
 $\Delta = 15^\circ 42' 09''$ (LT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 526.72'$
 $L = 1,046.83'$
 $E = 36.14'$
 $e_{max} = \text{MATCH EX.}$
 (APPROX. 0.032)
 $C = 1,043.56'$
 $C.B. = N 0^\circ 40' 53'' W$
 P.C. Sta. 107+54.47
 P.T. Sta. 118+01.30

RAMP R2
 P.I. Sta. 819+12.96
 $\Delta = 9^\circ 40' 25''$ (LT)
 $D_c = 7^\circ 42' 00''$
 $R = 744.10'$
 $T = 62.96'$
 $L = 125.63'$
 $E = 2.66'$
 $e_{max} = 0.054$
 $C = 125.48'$
 $C.B. = N 15^\circ 16' 42'' W$
 P.C. Sta. 818+50.00
 P.T. Sta. 819+75.00



MILL AND OVERLAY (MATCH EXISTING ELEVATION)
 MILL AND OVERLAY (LEVELING COURSE REQUIRED)
 * NOTE: DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR TO RESURFACE TO EXISTING EDGE OF SHOULDER WHERE APPLICABLE.



PLAN - I.R. 71 SB
 STA. 115+00.00 TO STA. 120+00.00

FRA-71-17.46

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SHEET NO.	CROSS REFERENCES DESCRIPTION
222	I.R. 71 SB PROFILE SHEET
423, 446 - 452	DRAINAGE PLAN & QUANTITIES
516	BARRIER DETAILS
396 - 400	RAMP CORE DETAILS
223	ROADWAY QUANTITIES
390	SUPERELEVATION TABLE

- A END TYPE C1 BARRIER, AS PER PLAN BEGIN BARRIER, MISC.: TYPE C1 MOD
- B STA. 118+50.00, 37.00' LT END TAPER
- C STA. 117+99.65, 45.33' LT END TAPER, BEGIN TAPER
- D STA. 118+89.53, 43.39' LT END TAPER
- E STA. 119+50.11, 16.00' LT BEGIN TAPER

3490-E

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REF NO.	SHEET NO.	STATION TO STATION					202	202	202	202	202	252	606	606	606	606	609	622	622	622	622	622	626	626		
		PAVEMENT REMOVED	CONCRETE MEDIAN REMOVED	CONCRETE BARRIER REMOVED	CURB REMOVED	GUARDRAIL REMOVED	IMPACT ATTENUATOR REMOVED	FULL DEPTH PAVEMENT SAWING	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL)	GUARDRAIL, TYPE MGS	ANCHOR ASSEMBLY, TYPE T	ANCHOR ASSEMBLY, MGS TYPE E	CURB, TYPE 4-C, AS PER PLAN	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	CONCRETE BARRIER END SECTION, TYPE D	CONCRETE BARRIER END SECTION, TYPE B	BARRIER REFLECTOR, TYPE 1, ONE WAY	BARRIER REFLECTOR, TYPE 2, ONE WAY						
		SY	SY	FT	FT	FT	EACH	FT	EACH	FT	EACH	EACH	FT	FT	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH			
		I.R. 71 NB																								
B1	220	117+79.09	RT	TO	119+40.00	RT																				
B2	220	119+05.02	RT	TO	125+00.00	RT																				
R1	220	117+69.72	RT	TO	119+30.00	RT																				
R2	220	119+04.88	LT	TO	120+00.00	LT																				
R3	220	117+69.72	RT	TO	119+40.00	RT	171																			
R4	220	119+05.04	LT	TO	120+00.00	LT	130																			
R5	220	119+05.04	LT	TO	120+00.00	LT		94																		
R6	220	117+64.93	RT	TO	119+40.00	RT																				
		I.R. 71 SB																								
B1	221	118+08.61	LT	TO	118+49.74	LT																				
C1	221	119+21.80	LT	TO	120+00.00	LT																				
GR1	221	119+21.80	LT	TO	120+87.35	LT																				
R1	221	115+00.00	LT	TO	119+20.00	LT																				
R2	221	115+00.00	LT	TO	120+00.00	LT	1731																			
R3	221	118+10.97	LT	TO	119+55.65	LT																				
R4	221	115+00.00	LT	TO	115+19.43	LT																				
R5	221	118+89.79	LT	TO	120+00.00	LT																				
R6	221	115+00.00	LT	TO	118+10.89	LT																				
R7	221	118+89.79	LT	TO	120+00.00	LT																				
		TOTALS CARRIED TO SHEET					205	2032	94	366	419	129	1	781	1	100	1	1	79	66	2	142	2	1	10	2

CALCULATED RLE CHECKED MRT	ROADWAY QUANTITIES - I.R. 71	FRA - 71 - 17.46	223 881
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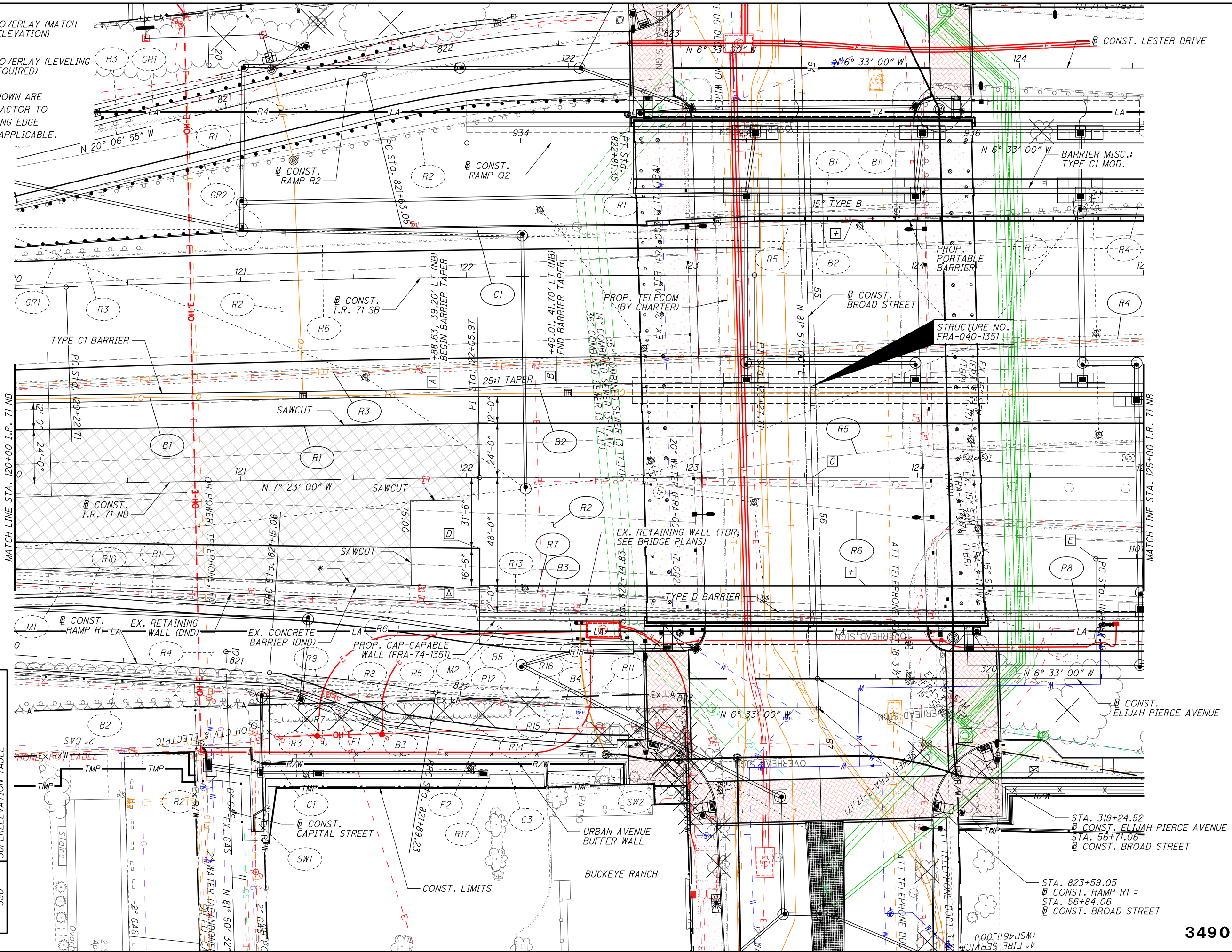
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MILL AND OVERLAY (MATCH EXISTING ELEVATION)
MILL AND OVERLAY (LEVELING COURSE REQUIRED)

* NOTE: DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR TO RESURFACE TO EXISTING EDGE OF SHOULDER WHERE APPLICABLE.

- A END BARRIER MISC.: TYPE C1 MOD BEGIN TYPE C1 BARRIER
- B END TYPE C1 BARRIER BEGIN BARRIER MISC.: TYPE C1 MOD
- C STA. 123+53.33 @ CONST. I.R. 71 NB = STA. 55+81.86 @ CONST. BROAD STREET
- D STA. 122+05.52, 31.50' RT END TAPER
- E STA. 124+78.98, 36.00' RT @ CONST. I.R. 71 NB = STA. 110+82.19 @ CONST. RAMP V2
- Δ PROP. SHEETING, SEE STRUCTURE DETAIL SHEETS
- + FUTURE EOP FOR FRA-71-17.14. SEE PAVEMENT MARKING PLAN FOR CLARIFICATION

CROSS REFERENCES SHEET NO.	DESCRIPTION
226	I.R. 71 NB PROFILE SHEET
424, 446 - 452	DRAINAGE PLAN & QUANTITIES
400	RAMP GORE DETAILS
516	BARRIER DETAILS
227	ROADWAY QUANTITIES
417	PARKING LOT DETAIL - BUCKEYE RANCH
390	SUPERELEVATION TABLE

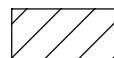
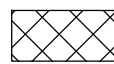


PLAN - I.R. 71 NB
STA. 120+00.00 TO STA. 125+00.00

FRA-71-17.46

224
181

3490-E

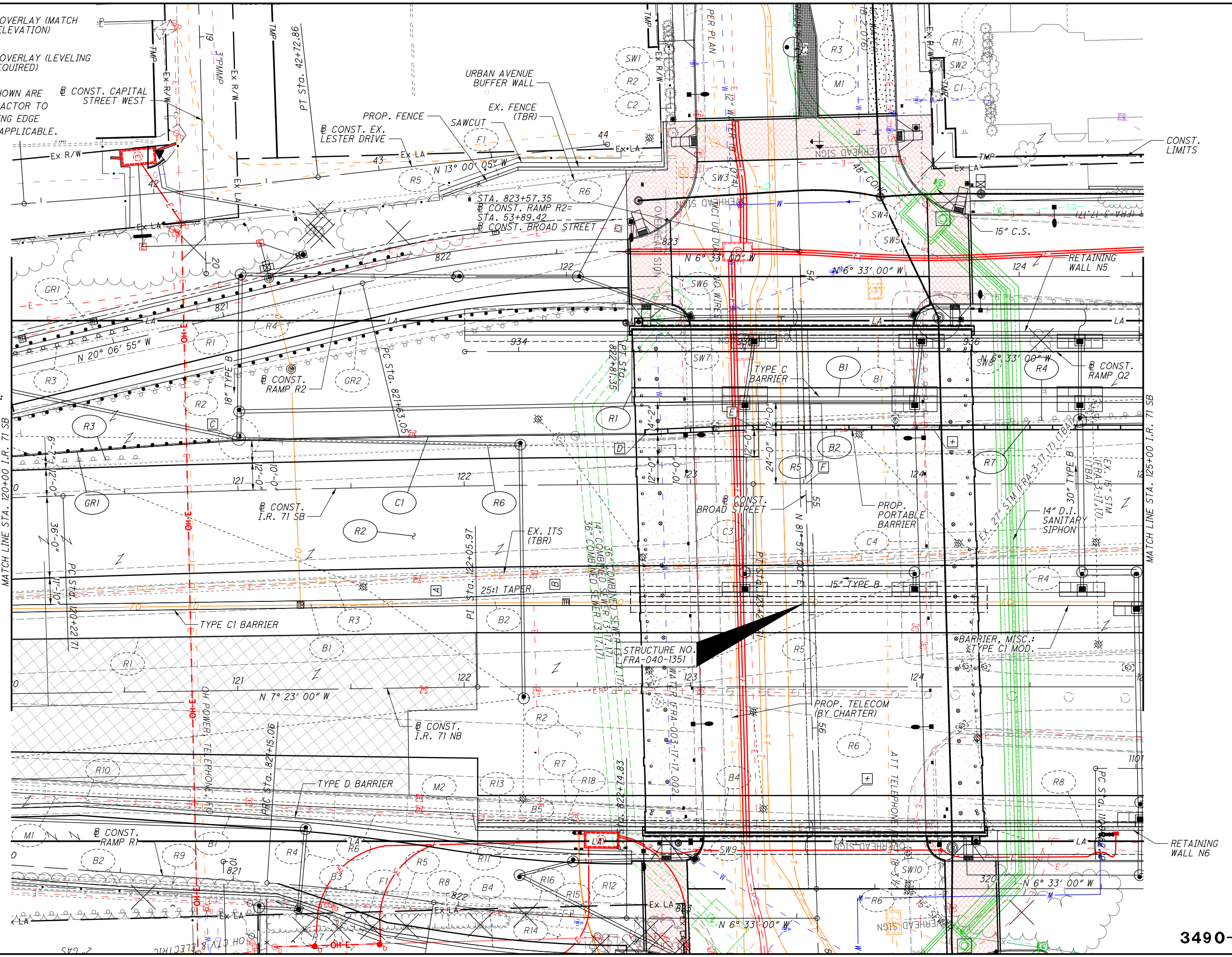
 MILL AND OVERLAY (MATCH EXISTING ELEVATION)
 MILL AND OVERLAY (LEVELING COURSE REQUIRED)

* NOTE: DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR TO RESURFACE TO EXISTING EDGE OF SHOULDER WHERE APPLICABLE.

I.R. 71 SB
 P.I. Sta. 121+75.22
 $\Delta = 1^\circ 58' 57''$ (RT)
 $D_c = 0^\circ 39' 00''$
 $R = 8,814.74'$
 $L = 152.52'$
 $T = 305.00'$
 $E = 1.32'$
 $e_{max} = NC$
 $C = 304.98'$
 $C.B. = N 7^\circ 32' 28'' W$
 $P.C. Sta. 120+22.71$
 $P.T. Sta. 123+27.71$

- A** END BARRIER, MISC.: TYPE C1 MOD. BEGIN TYPE C1 BARRIER
- B** END TYPE C1 BARRIER. BEGIN BARRIER, MISC.: TYPE C1 MOD.
- C** STA. 121+00.11, 22.00' LT. END TAPER
- D** STA. 122+79.98, 22.00' LT. BEGIN TAPER
- E** STA. 123+30.00, 24.00' LT. END TAPER
- F** STA. 123+50.95 @ CONST. I.R. 71 SB = STA. 54+92.13 @ CONST. BROAD STREET
- +** FUTURE EOP FOR FRA-71-17.14. SEE PAVEMENT MARKING PLAN FOR CLARIFICATION.

CROSS REFERENCES	DESCRIPTION
SHEET NO. 226	I.R. 71 SB PROFILE SHEET
424, 446-452	DRAINAGE PLAN & QUANTITIES
516	BARRIER DETAILS
227	ROADWAY QUANTITIES



CALCULATED: 0
 FILE: 10
 CHECKED: MRT
 HORIZONTAL SCALE IN FEET: 1" = 40'

PLAN - I.R. 71 SB
STA. 120+00.00 TO STA. 125+00.00

FRA-71-17.46

225
 881

3490-E

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REF NO.	SHEET NO.	STATION TO STATION				202	202	202	202	202	202	252	606	606	609	622	622	622	622	622	622	626	CALCULATED	RLE	CHECKED	MRT
						PAVEMENT REMOVED SY	CONCRETE MEDIAN REMOVED SY	CONCRETE BARRIER REMOVED FT	CURB REMOVED FT	GUARDRAIL REMOVED FT	IMPACT ATTENUATOR REMOVED EACH	FULL DEPTH PAVEMENT SAWING FT	GUARDRAIL, TYPE MGS FT	ANCHOR ASSEMBLY, TYPE E EACH	CURB, TYPE 4-C, AS PER PLAN FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1 FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D FT	CONCRETE BARRIER END SECTION, TYPE D EACH	CONCRETE BARRIER END SECTION, TYPE C1 EACH	BARRIER, MISC.:TYPE C1 MODIFIED FT	BARRIER, MISC.:PORTABLE BARRIER 32" FT	BARRIER REFLECTOR, TYPE 1, ONE WAY EACH				
I.R. 71 NB																										
B1	224	120+00.00	LT	TO	121+88.63	LT									173			1			4					
B2	224	122+40.00	LT	TO	125+00.00	LT													312		4					
B3	224	122+05.97	RT	TO	125+00.00	RT										279	1				3					
R1	224	120+00.00	LT	TO	122+05.97	LT					261															
R2	224	120+00.00	RT<	TO	125+00.00	RT<	3564																			
R3	224	120+00.00	LT	TO	123+00.00	LT		301																		
R4	224	124+05.46	LT	TO	125+00.00	LT		95																		
R5	224	122+60.90	LT	TO	125+00.00	LT			220		1															
R6	224	122+80.44	RT	TO	125+00.00	RT			221																	
R7	224	122+04.65	RT	TO	124+08.15	RT		203																		
R8	224	124+08.94	RT	TO	125+00.00	RT			91																	
I.R. 71 SB																										
B1	225	122+74.34	LT	TO	125+00.00	LT										226						3				
B2	225	122+80.00	LT	TO	125+00.00	LT														220		3				
C1	225	120+00.00	LT	TO	122+79.98	LT								280												
GR1	225	120+05.01	LT	TO	120+92.26	LT						37.5	1													
R1	225	122+74.34	RT<	TO	122+74.51	RT<					29															
R2	225	120+00.00	RT<	TO	125+00.00	RT<	3016																			
R3	225	120+00.00	LT	TO	120+57.05	LT						57														
R4	225	124+41.95	LT	TO	125+00.00	LT						58														
R5	225	122+77.22	LT	TO	124+41.60	LT			165																	
R6	225	120+00.00	LT	TO	122+98.58	LT				299																
R7	225	124+41.60	LT	TO	125+00.00	LT				58																
TOTALS CARRIED TO SHEET					205		6580	396	809	448	115	1	290	38	1	280	173	505	1	1	312	220	17			

ROADWAY QUANTITIES - I.R. 71

FRA-71-17.46

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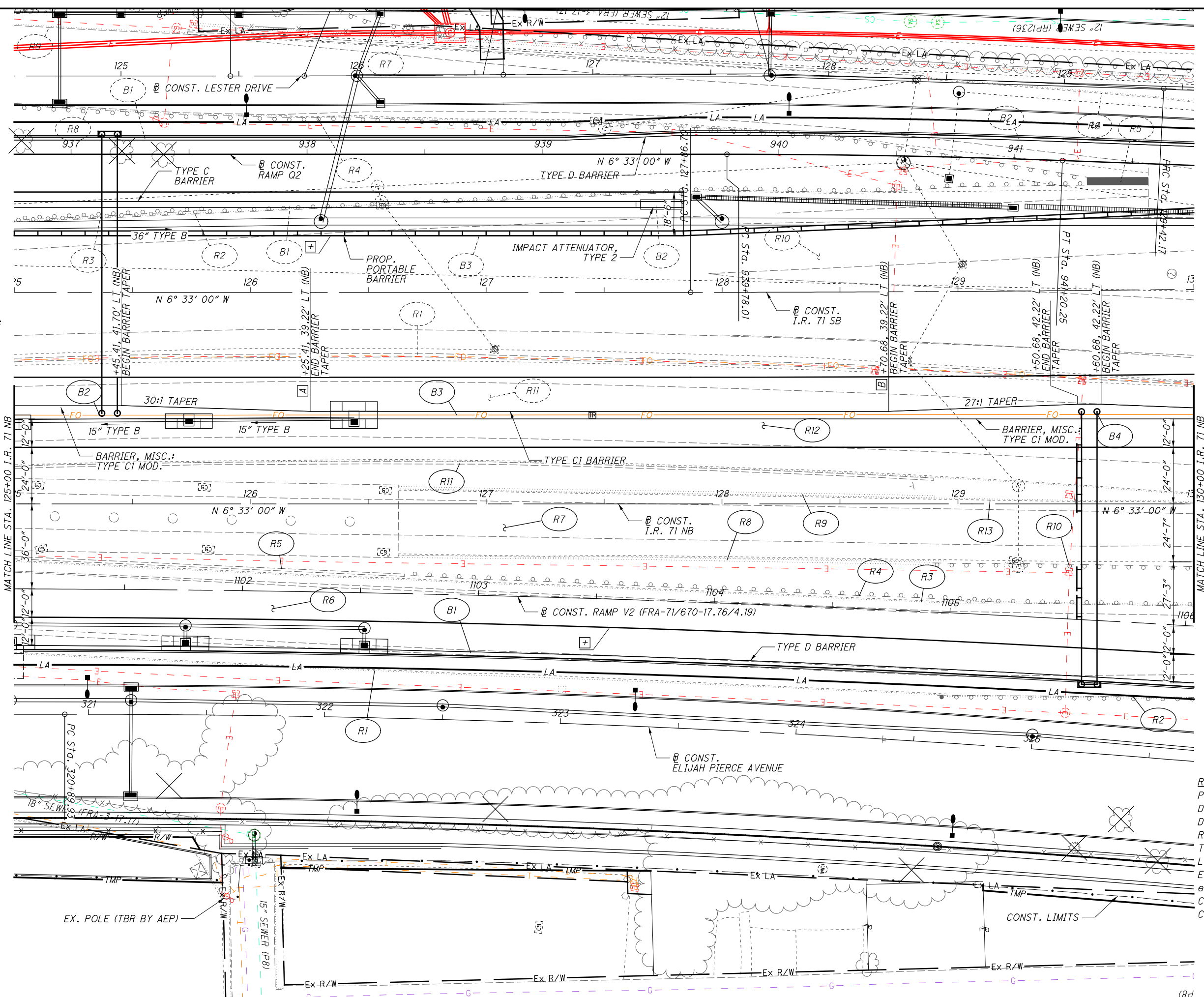
 HORIZONTAL SCALE IN FEET

PLAN - I.R. 71 NB
STA. 125+00.00 TO STA. 130+00.00

FRA-71-17.46

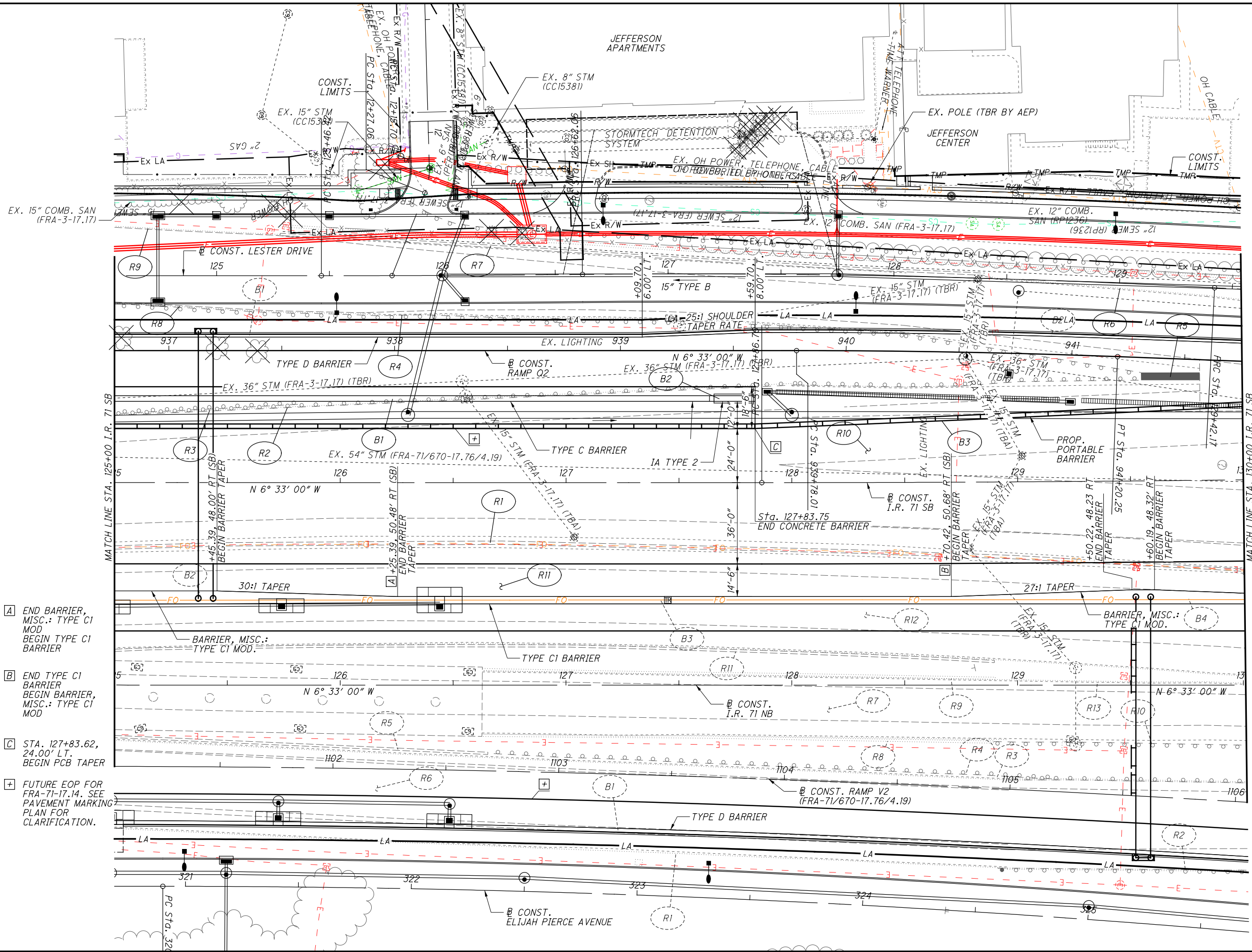
- [A] END BARRIER MISC.: TYPE C1 MOD
BEGIN TYPE C1 BARRIER
- [B] END TYPE C1 BARRIER
BEGIN BARRIER, MISC.: TYPE C1 MOD
- [+] FUTURE EOP FOR FRA-71-17.14. SEE PAVEMENT MARKING PLAN FOR CLARIFICATION.

CROSS REFERENCES	SHEET NO.	DESCRIPTION
	230	I.R. 71 NB PROFILE SHEET
	425, 446 - 452	DRAINAGE PLAN & QUANTITIES
	231	ROADWAY QUANTITIES
	516	BARRIER DETAILS



RAMP V2
 P.I. = Sta. 1105+92.84
 D = 6° 48' 02" (RT)
 Dc = 0° 40' 00"
 R = 8,594.37'
 T = 510.65'
 L = 1,020.09'
 E = 15.16'
 emax = 0.020
 C = 1,019.49'
 C.B. = N 3° 08' 58" W

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SHEET NO.	CROSS REFERENCES DESCRIPTION
230	I.R. 71 SB PROFILE SHEET
425,446-452	DRAINAGE PLAN & QUANTITIES
231	ROADWAY QUANTITIES
516	BARRIER DETAILS



- A END BARRIER, MISC.: TYPE C1 MOD
BEGIN TYPE C1 BARRIER
- B END TYPE C1 BARRIER
BEGIN BARRIER, MISC.: TYPE C1 MOD
- C STA. 127+83.62, 24.00' LT.
BEGIN PCB TAPER
- + FUTURE EOP FOR FRA-71-17.14. SEE PAVEMENT MARKING PLAN FOR CLARIFICATION.

I.R. 71 SB
P.I. Sta. 130+08.37
 $\Delta = 1^\circ 24' 38''$ (LT)
 $D_c = 0^\circ 19' 05''$
 $R = 18,008.38'$
 $T = 221.67'$
 $L = 443.32'$
 $E = 1.36'$
 $e_{max} = NC$
 $C = 443.31'$
C.B. = $N 7^\circ 15' 19'' W$
P.C. Sta. 127+86.70
P.C.C. Sta. 132+30.02

RAMP V2
P.I. = Sta. 1105+92.84
 $D = 6^\circ 48' 02''$ (RT)
 $D_c = 0^\circ 40' 00''$
 $R = 8,594.37'$
 $T = 510.65'$
 $L = 1,020.09'$
 $E = 15.16'$
 $C = 1,019.49'$
C.B. = $N 3^\circ 08' 58'' W$

PLAN - I.R. 71 SB
STA. 125+00.00 TO STA. 130+00.00




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REF NO.	SHEET NO.	STATION TO STATION					202	202	202	202	202	202	606		622	622	622	622	622	622	626								
		PAVEMENT REMOVED	CONCRETE MEDIAN REMOVED	CONCRETE BARRIER REMOVED	CURB REMOVED	GUARDRAIL REMOVED	ANCHOR ASSEMBLY REMOVED	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL)		CONCRETE BARRIER, SINGLE SLOPE, TYPE B	CONCRETE BARRIER, SINGLE SLOPE, TYPE C	CONCRETE BARRIER, SINGLE SLOPE, TYPE CI	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	CONCRETE BARRIER END SECTION, TYPE B	BARRIER, MISC.:TYPE CI MODIFIED	BARRIER, MISC.:PORTABLE BARRIER 32"	BARRIER REFLECTOR, TYPE 1, ONE WAY												
		SY	SY	FT	FT	FT	EACH	EACH	FT	FT	FT	FT	EACH	FT	FT	FT	FT	EACH	FT	FT	EACH								
		I.R. 71 NB																											
B1	228	125+00.00	RT	TO	130+00.00	RT										460											5		
B2	228	125+00.00	LT	TO	126+25.41	LT												105									2		
B3	228	126+25.41	LT	TO	128+70.68	LT									225												3		
B4	228	128+70.68	LT	TO	130+00.00	LT												129									2		
R1	228	125+00.00	RT	TO	130+00.00	RT				500																			
R2	228	128+91.33	RT	TO	130+00.00	RT					109																		
R3	228	126+65.38	RT	TO	130+00.00	RT					335																		
R4	228	126+65.38	RT	TO	130+00.00	RT						336																	
R5	228	125+00.00	RT	TO	126+65.38	RT															166								
R6	228	125+00.0	RT	TO	130+00.00	RT	2143																						
R7	228	126+62.89	RT<	TO	130+00.00	RT<	973																						
R8	228	126+62.74	RT	TO	128+89.38	RT															227								
R9	228	126+62.94	LT	TO	128+90.10	LT															227								
R10	228	128+89.37	RT	TO	130+00.00	RT						111																	
R11	228	125+00.00	LT	TO	128+89.76	LT															390								
R12	228	125+00.00	LT	TO	130+00.00	LT	1165																						
R13	228	128+90.10	LT	TO	130+00.00	LT				75																			
		I.R. 71 SB																											
B1	229	125+00.00	LT	TO	127+63.50	LT								1	10	254											3		
B2	229	127+63.50	LT	TO	127+83.75	LT												1									1		
B3	229	125+00.00	LT	TO	130+00.00	LT																				500	5		
R1	229	125+00.00	RT	TO	130+00.00	RT															500								
R2	229	125+00.00	LT	TO	129+55.09	LT						457																	
R3	229	125+00.00	LT	TO	128+75.14	LT					375																		
R4	229	125+00.00	LT	TO	129+55.09	LT						265																	
R5	229	129+55.09	LT	TO	129+81.16	LT								1															
R6	229	128+85.85	LT	TO	130+00.00	LT						114																	
R7	229	125+73.34	LT	TO	128+85.96	LT															313								
R8	229	125+00.00	LT	TO	128+49.12	LT						349																	
R9	229	125+00.00	LT	TO	125+73.31	LT						73																	
R10	229	125+00.00	LT	TO	130+00.00	LT	4222																						
R11	229	125+00.00	RT	TO	130+00.00	RT	972																						
		TOTALS CARRIED TO SHEET					205	9476	75	1823	1746	1278	1	1	10	254	225	460	1	234	500	21							

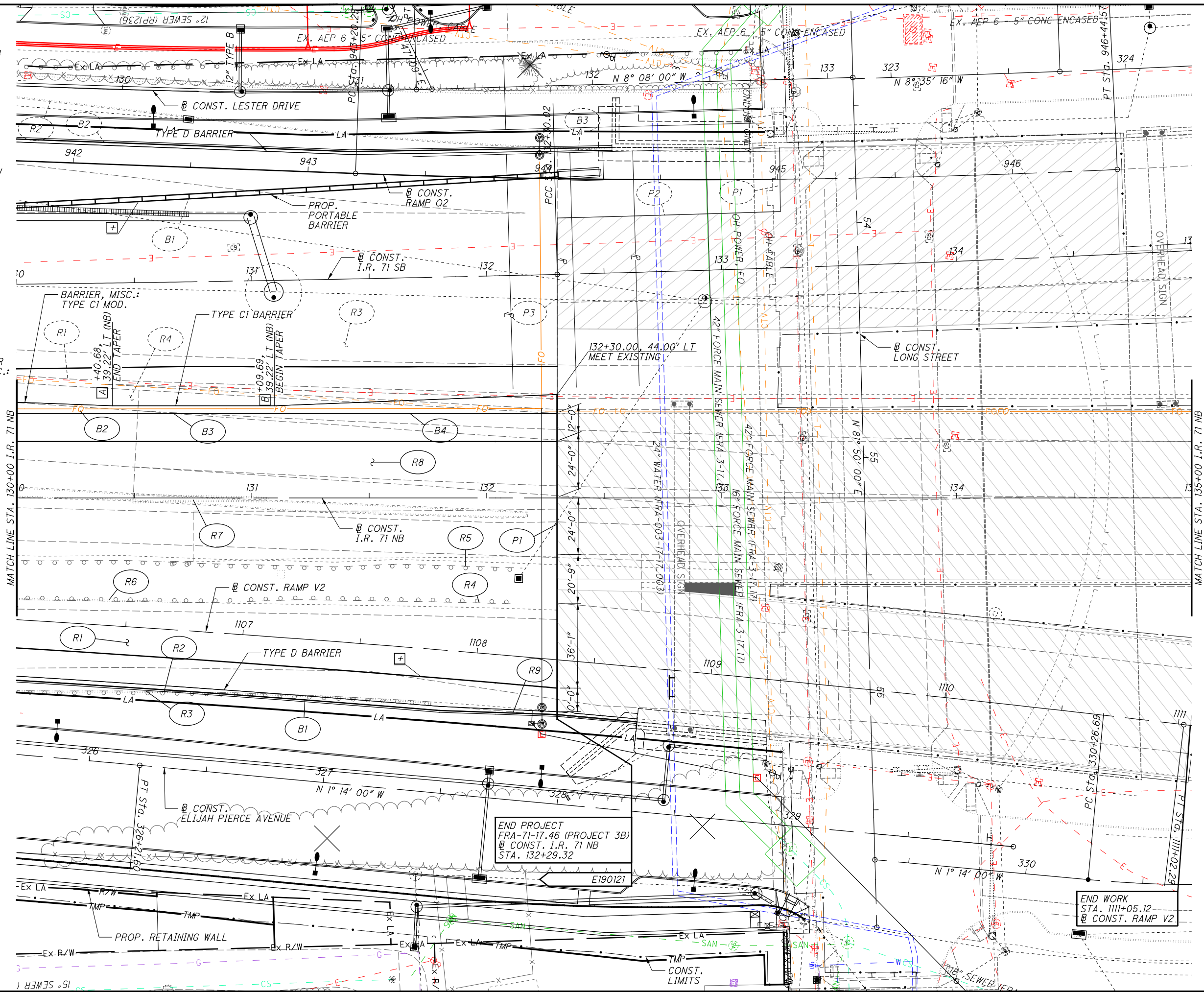
ROADWAY QUANTITIES - I.R. 71	FRA - 71 - 17.46
CALCULATED RLE CHECKED MRT	231 881

RAMP V2
 P.I. = Sta. 1105+92.84
 D = 6° 48' 02" (RT)
 Dc = 0° 40' 00"
 R = 8,594.37'
 T = 510.65'
 L = 1,020.09'
 E = 15.16'
 emax = 0.020
 C = 1,019.49'
 C.B. = N 3° 08' 58" W

 MILL AND OVERLAY LIMITS (MATCH EXISTING ELEVATION)

-  END BARRIER MISC.: TYPE C1 MOD BEGIN TYPE C1 BARRIER
-  END TYPE C1 BARRIER BEGIN BARRIER, MISC.: TYPE C1 MOD
-  FUTURE EOP FOR FRA-71-17.14. SEE PAVEMENT MARKING PLAN FOR CLARIFICATION.

CROSS REFERENCES	DESCRIPTION
SHEET NO.	
234	I.R. 71 NB PROFILE SHEET
426, 446 - 452	DRAINAGE PLAN & QUANTITIES
516	BARRIER DETAILS
239	PAVEMENT RESURFACING SCHEMATIC
235	ROADWAY QUANTITIES



END PROJECT
 FRA-71-17.46 (PROJECT 3B)
 CONST. I.R. 71 NB
 STA. 132+29.32

END WORK
 STA. 1111+05.12
 CONST. RAMP V2



CALCULATED
 RLE
 CHECKED
 MRT

PLAN - I.R. 71 NB
 STA. 130+00.00 TO STA. 135+00.00

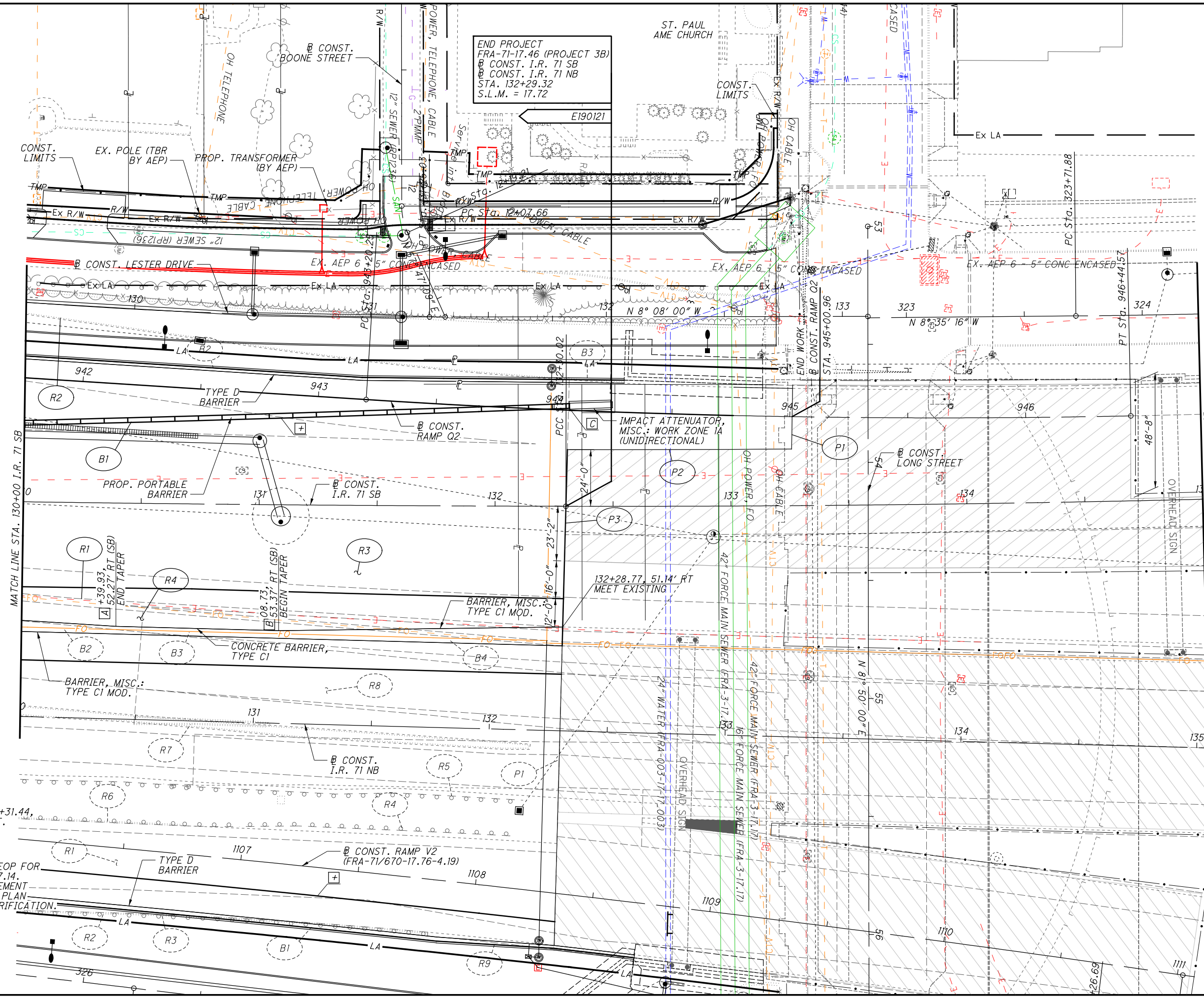
FRA-71-17.46

232
 881

3490-E

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END PROJECT
 FRA-71-17.46 (PROJECT 3B)
 CONST. I.R. 71 SB
 CONST. I.R. 71 NB
 STA. 132+29.32
 S.L.M. = 17.72

SHEET NO.	CROSS REFERENCES DESCRIPTION
234	I.R. 71 SB PROFILE SHEET
426, 446 - 452	DRAINAGE PLAN & QUANTITIES
516	BARRIER DETAILS
239	PAVEMENT RESURFACING SCHEMATIC
235	ROADWAY QUANTITIES

MILL AND OVERLAY LIMITS (MATCH EXISTING ELEVATION)

I.R. 71 SB
 P.I. Sta. 130+08.37
 $\Delta = 1^\circ 24' 38''$ (LT)
 $D_c = 0^\circ 19' 05''$
 $R = 18,008.38'$
 $T = 221.67'$
 $L = 443.32'$
 $E = 1.36'$
 $e_{max} = NC$
 $C = 443.31'$
 $C.B. = N 7^\circ 15' 19'' W$
 $P.C. Sta. 127+86.70$
 $P.C.C. Sta. 132+30.02$

I.R. 71 SB
 P.I. Sta. 134+30.49
 $\Delta = 2^\circ 12' 18''$ (LT)
 $D_c = 0^\circ 33' 00''$
 $R = 10,417.41'$
 $T = 200.47'$
 $L = 400.90'$
 $E = 1.93'$
 $e_{max} = NC$
 $C = 400.87'$
 $C.B. = N 9^\circ 03' 47'' W$
 $P.C.C. Sta. 132+30.02$
 $P.T. Sta. 136+30.92$

RAMP V2
 P.I. = Sta. 1105+92.84
 $D = 6^\circ 48' 02''$ (RT)
 $D_c = 0^\circ 40' 00''$
 $R = 8,594.37'$
 $T = 510.65'$
 $L = 1,020.09'$
 $E = 15.16'$
 $C = 1,019.49'$
 $C.B. = N 3^\circ 08' 58'' W$

- A END BARRIER MISC.: TYPE C1 MOD BEGIN TYPE C1 BARRIER
- B END TYPE C1 BARRIER BEGIN BARRIER MISC.: TYPE C1 MOD
- C STA. 132+31.44, 41.50' LT. END PCB TAPER
- + FUTURE EOP FOR FRA-71-17.14. SEE PAVEMENT MARKING PLAN FOR CLARIFICATION.

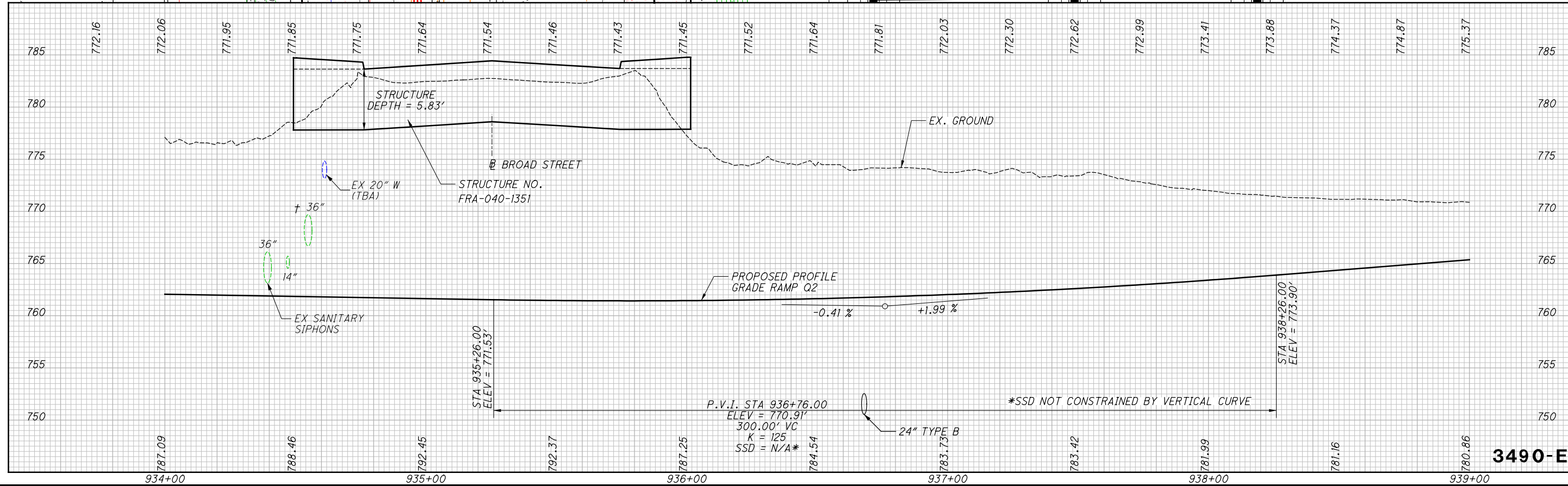
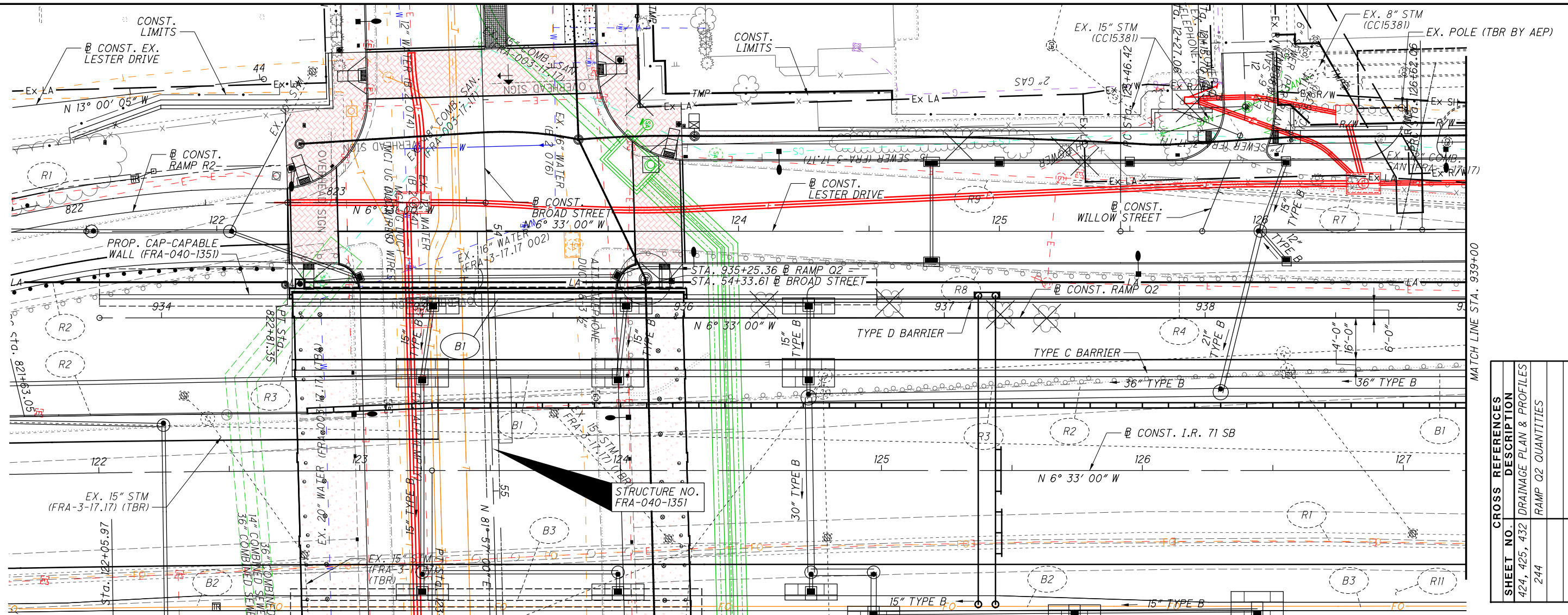
REF NO.	SHEET NO.	STATION TO STATION				202	202	202	202	202	252	606	622	622	622	622	626	CALCULATED RLE CHECKED MRT
						PAVEMENT REMOVED SY	CONCRETE MEDIAN REMOVED SY	CONCRETE BARRIER REMOVED FT	CURB REMOVED FT	GUARDRAIL REMOVED FT	FULL DEPTH PAVEMENT SAWING FT	IMPACT ATTENUATOR, MISC.:WORK ZONE IMPACT ATTENUATOR EACH	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1 FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D FT	BARRIER, MISC.:TYPE C1 MODIFIED FT	BARRIER, MISC.:PORTABLE BARRIER 32" FT	BARRIER REFLECTOR, TYPE 1, ONE WAY EACH	
I.R. 71 NB																		
B1	232	130+00.00	RT	TO	131+76.25	RT										265	3	
B2	232	130+00.00	LT	TO	130+40.68	LT										47	1	
B3	232	130+40.68	LT	TO	131+09.69	LT							69				1	
B4	232	131+09.69	LT	TO	132+30.00	LT									120		2	
P1	232	132+29.32	RT<							127								
R1	232	130+00.00	RT	TO	132+29.32	RT	1007											
R2	232	130+00.00	RT	TO	131+76.25	RT		176										
R3	232	130+00.00	RT	TO	131+76.25	RT			176									
R4	232	130+00.00	RT	TO	132+10.14	RT			210									
R5	232	130+00.00	RT	TO	132+15.17	RT			215									
R6	232	130+00.00	RT	TO	130+70.22	RT		70										
R7	232	130+00.00	RT	TO	131+07.05	RT												
R8	232	130+00.00	LT	TO	132+29.32	LT	1532											
R9	232	131+76.25	RT	TO	132+63.91	RT											88	
I.R. 71 SB																		
B1	233	130+00.00	LT	TO	132+49.79	LT					1				230		3	
P1	233	133+25.85	LT	TO	133+26.46	LT				26								
P2	233	132+30.61	RT	TO	133+25.85	RT				95								
P3	233	132+28.77	RT	TO	132+30.61	RT				75								
R1	233	130+00.00	RT	TO	132+28.77	RT											230	
R2	233	130+00.00	LT	TO	132+54.76	LT											255	
R3	233	130+00.00	RT<	TO	133+25.85	RT<	3122											
R4	233	130+00.00	RT	TO	132+28.77	RT	83											
TOTALS CARRIED TO SHEET				205			5744	26	318	501	601	323	1	69	265	167	230	10

ROADWAY QUANTITIES - I.R. 71

FRA - 71 - 17.46

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CROSS REFERENCES		
SHEET NO.	DESCRIPTION	
424, 425, 432	DRAINAGE PLAN & PROFILES	
244	RAMP Q2 QUANTITIES	



**PLAN AND PROFILE - RAMP Q2
BEGIN RAMP Q2 TO STA. 939+00.00**

FRA-71-17.46

241
881

3490-E

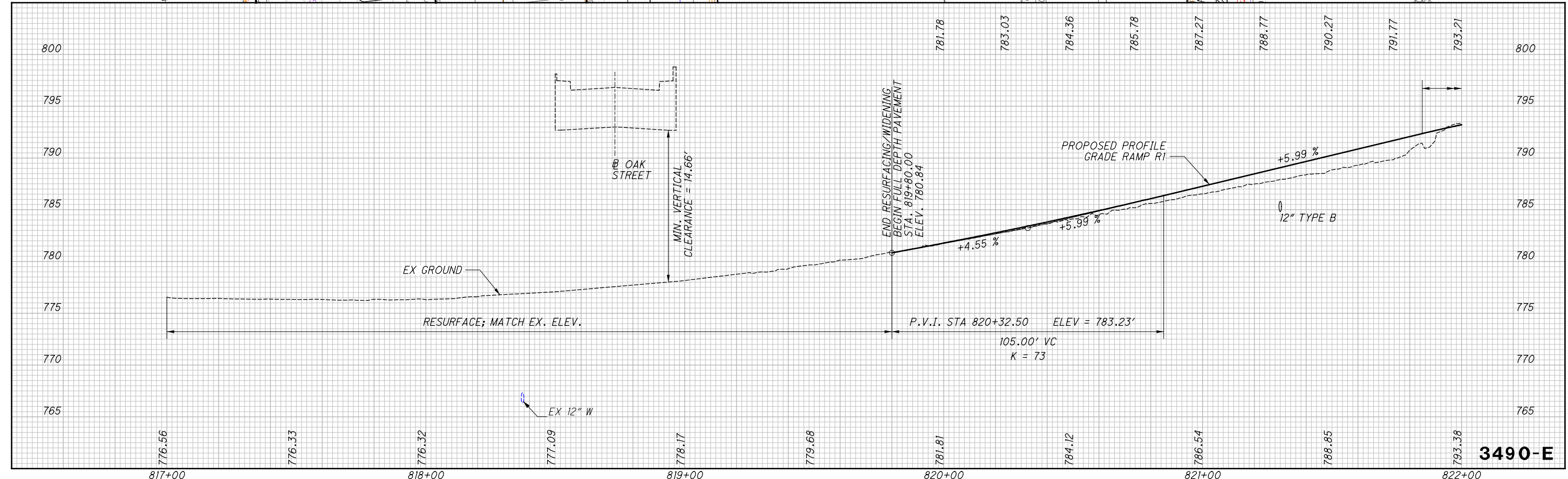
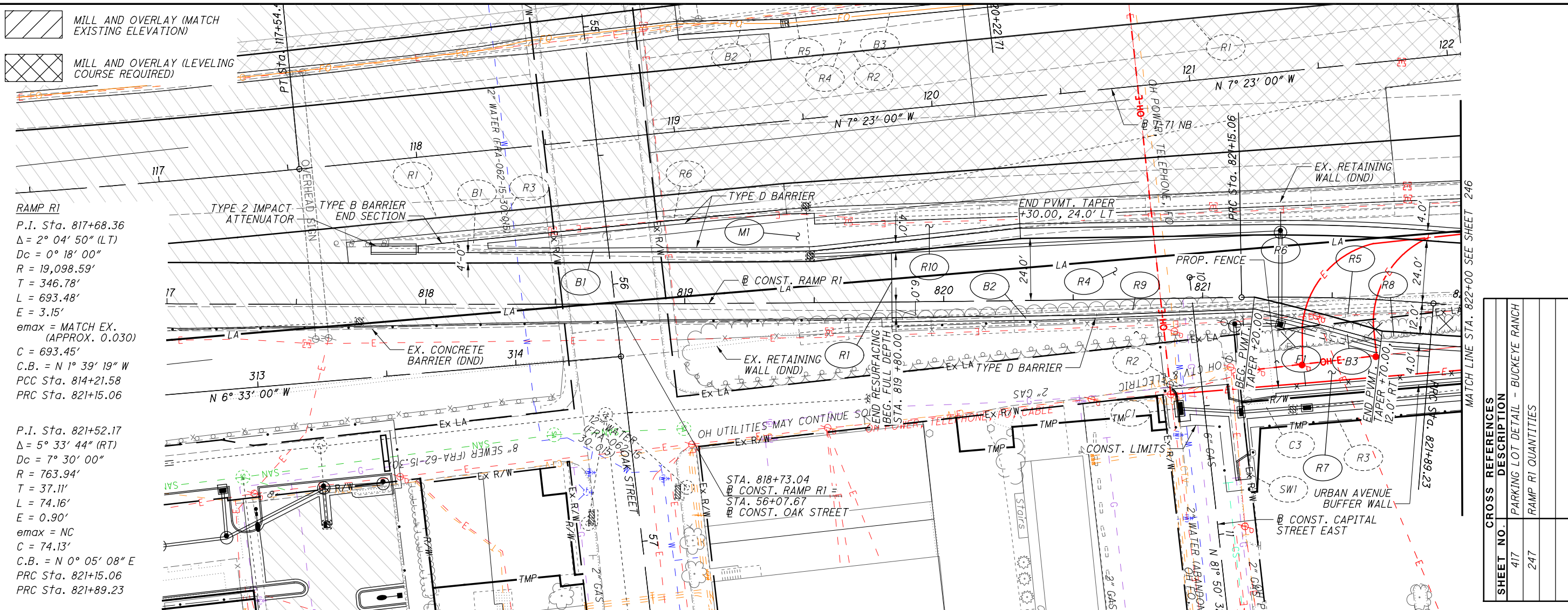
REF NO.	SHEET NO.	STATION TO STATION				622	622	626																																
						CONCRETE BARRIER, SINGLE SLOPE, TYPE D,	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D,	BARRIER REFLECTOR, TYPE 1, ONE WAY																								FT	EACH	EACH						
		RAMP Q2																																						
B1	241	934+50.06	LT	TO	939+00.00	LT	415	2	7																															
B2	242	939+00.00	LT	TO	944+00.00	LT	455	3	7																															
B3	243	944+00.00	LT	TO	944+29.29	LT	14	1	3																															
TOTALS CARRIED TO SHEET						205	884	6	17																															

CALCULATED
RLE
CHECKED
MRT

ROADWAY QUANTITIES - RAMP Q2

FRA-71-17.46

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MILL AND OVERLAY (MATCH EXISTING ELEVATION)

MILL AND OVERLAY (LEVELING COURSE REQUIRED)

RAMP R1
 P.I. Sta. 817+68.36
 $\Delta = 2^\circ 04' 50''$ (LT)
 $D_c = 0^\circ 18' 00''$
 $R = 19,098.59'$
 $T = 346.78'$
 $L = 693.48'$
 $E = 3.15'$
 $e_{max} = \text{MATCH EX.}$
 (APPROX. 0.030)
 $C = 693.45'$
 $C.B. = N 1^\circ 39' 19'' W$
 PCC Sta. 814+21.58
 PRC Sta. 821+15.06

P.I. Sta. 821+52.17
 $\Delta = 5^\circ 33' 44''$ (RT)
 $D_c = 7^\circ 30' 00''$
 $R = 763.94'$
 $T = 37.11'$
 $L = 74.16'$
 $E = 0.90'$
 $e_{max} = \text{NC}$
 $C = 74.13'$
 $C.B. = N 0^\circ 05' 08'' E$
 PRC Sta. 821+15.06
 PRC Sta. 821+89.23

CROSS REFERENCES		
SHEET NO.	DESCRIPTION	RAMP R1 QUANTITIES
417	PARKING LOT DETAIL - BUCKEYE RANCH	
247	RAMP R1 QUANTITIES	



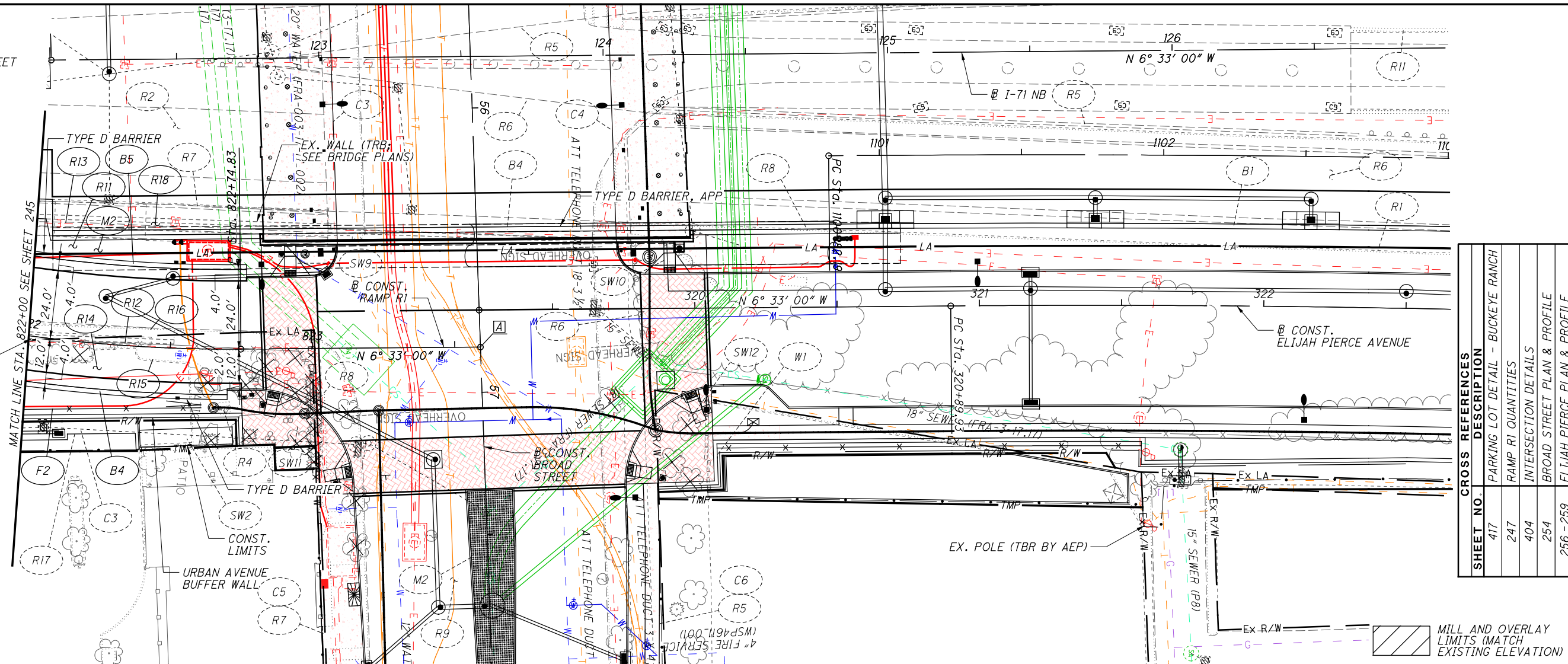
PLAN AND PROFILE - RAMP R1
BEGIN RAMP R1 TO STA. 822+00.00

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A STA. 823+59.05
 B CONST. RAMP R1 =
 STA. 56+84.06
 C CONST. BROAD STREET

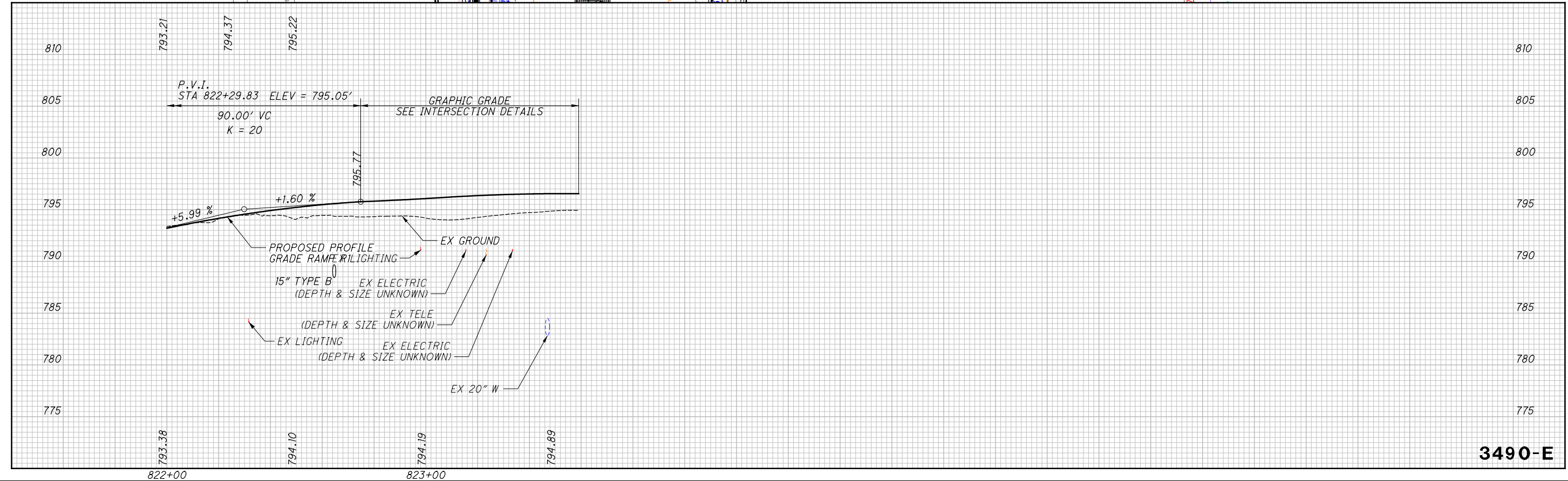
RAMP R1
 P.I. Sta. 822+32.13
 $\Delta = 9^\circ 25' 00''$ (LT)
 $D_c = 11^\circ 00' 00''$
 $R = 520.87'$
 $T = 42.90'$
 $L = 85.61'$
 $E = 1.76'$
 $e_{max} = NC$
 $C = 85.51'$
 $C.B. = N 1^\circ 50' 30'' W$
 $PRC Sta. 821+89.23$
 $PT Sta. 822+74.83$

EX. WALL (TBR; SEE GENERAL NOTES))



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
417	PARKING LOT DETAIL - BUCKEYE RANCH
247	RAMP R1 QUANTITIES
404	INTERSECTION DETAILS
254	BROAD STREET PLAN & PROFILE
256 - 259	ELIJAH PIERCE PLAN & PROFILE

MILL AND OVERLAY LIMITS (MATCH EXISTING ELEVATION)



CALCULATED DSS CHECKED MRT

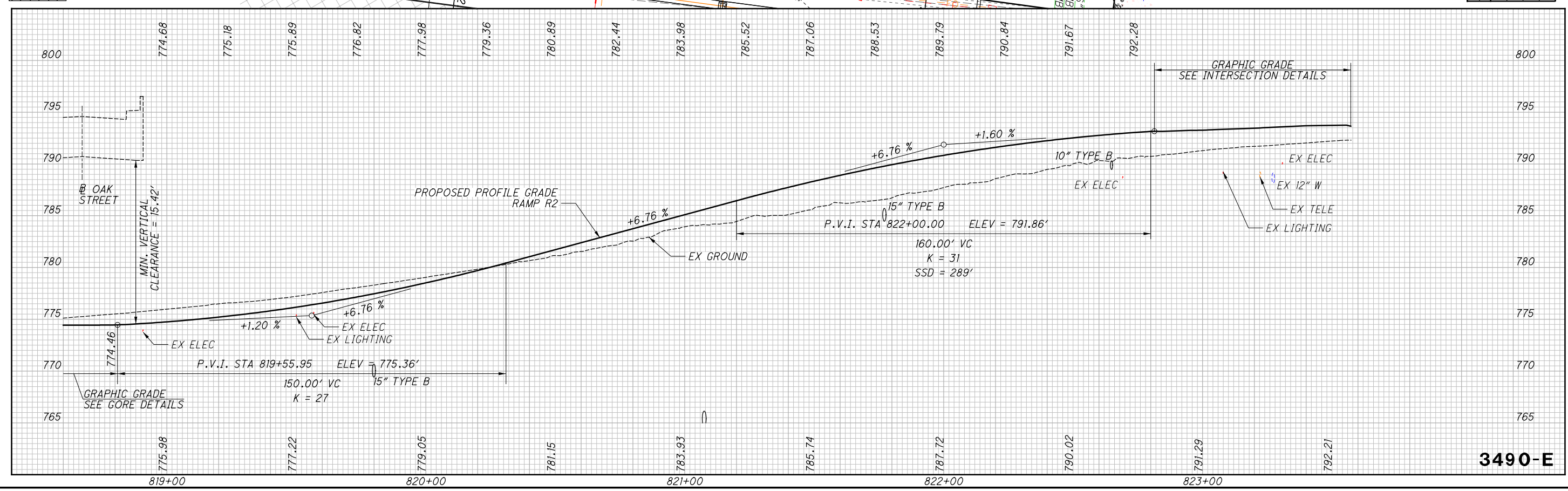
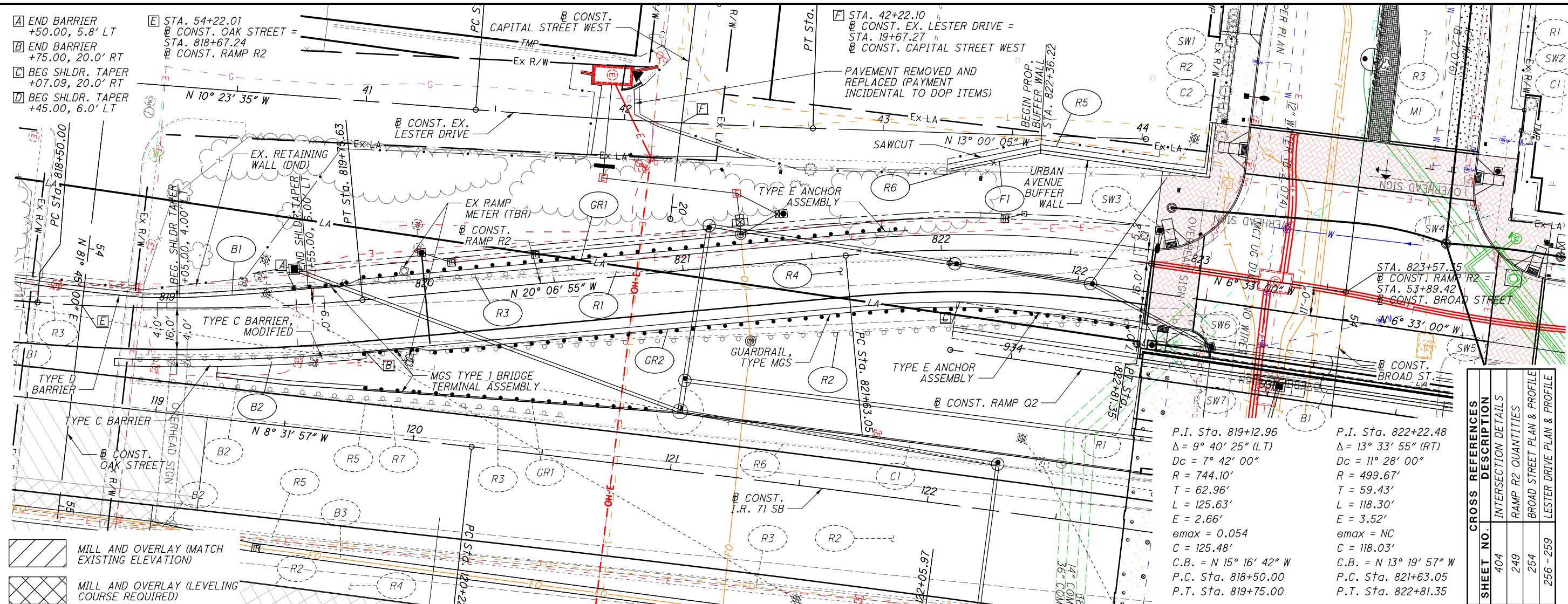
PLAN AND PROFILE - RAMP R1
STA. 822+00.00 TO END RAMP R1

FRA-71-17.46

3490-E

246
 881

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CROSS REFERENCES	DESCRIPTION
SHEET NO. 404	INTERSECTION DETAILS
249	RAMP R2 QUANTITIES
254	BROAD STREET PLAN & PROFILE
256 - 259	LESTER DRIVE PLAN & PROFILE



**PLAN AND PROFILE - RAMP R2
 BEGIN RAMP R2 TO END RAMP R2**

FRA-71-17.46

REF NO.	SHEET NO.	STATION TO STATION				202	202	202	202	252	606	606	606	609	622	622	622	622	622	607	626	626	622			
						PAVEMENT REMOVED	CURB REMOVED	FENCE REMOVED	GUARDRAIL REMOVED	FULL DEPTH PAVEMENT SAWING	GUARDRAIL, TYPE MGS	MGS BRIDGE TERMINAL ASSEMBLY, TYPE I	ANCHOR ASSEMBLY, TYPE E	CURB, TYPE 4-C, AS PER PLAN	CONCRETE BARRIER, SINGLE SLOPE, TYPE C	CONCRETE BARRIER END SECTION, TYPE B	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	CONCRETE BARRIER END SECTION, TYPE D	FENCE, TYPE CLT	BARRIER REFLECTOR, TYPE 1, ONE WAY	BARRIER REFLECTOR, TYPE 2, ONE WAY	BARRIER, MISC.:TYPE C MODIFIED			
					SY	FT	FT	FT	FT	FT	EACH	EACH	FT	FT	EACH	EACH	FT	EACH	FT	EACH	EACH	FT				
		RAMP R2																								
B1	248	818+50.00	LT	TO	819+49.95	LT											85	1			3					
B2	248	818+80.46	RT	TO	819+75.00	RT								26	1	1					3		43			
F1	248	822+04.29	LT	TO	822+36.22	LT													35							
GR1	248	819+47.44	LT	TO	821+87.17	LT				162.5	1	1	19										4			
GR2	248	819+72.57	RT	TO	822+79.97	RT				225	1	1	19										5			
R1	248	819+57.66	LT	TO	823+02.69	LT					347															
R2	248	818+88.33	RT	TO	823+06.38	RT																				
R3	248	819+57.74	LT	TO	820+58.49	LT																				
R4	248	818+50.00	RT<	TO	822+81.49	RT<	1192																			
R5	248	822+03.17	LT	TO	822+98.28	LT							120													
R6	248	822+04.29	LT	TO	822+99.46	LT																100				
TOTALS CARRIED TO SHEET					205																					
					1193	347	100	534	120	388	2	2	38	26	1	1	85	1	35	6	9	43				

CALCULATED RLE CHECKED MRT	ROADWAY QUANTITIES - RAMP R2	FRA-71-17.46	249 881
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ITEM 625: CONDUIT, 4" 725.05, AS PER PLAN

THIS ITEM OF WORK SHALL CONFORM TO ODOT ITEM 625 WITH THE FOLLOWING ADDITIONS/CLARIFICATIONS AS IDENTIFIED IN THE CITY OF COLUMBUS DEPT. OF TECHNOLOGY GENERAL SPECIFICATIONS. THIS ITEM OF WORK INCLUDES FURNISHING AND INSTALLING CONDUIT, TRENCH, AND PULL STRINGS AS SPECIFIED FOR THE PROPOSED TELECOMMUNICATIONS CONDUIT FROM CFN MH 32 AT BROAD STREET STATION 52+33.72, 22.6' LT, TO THE INTERCONNECT PULL BOX AT BROAD STREET STATION 52+33.50, 34.4' LT. THIS ITEM SHALL INCLUDE CONNECTION TO THE EXISTING CFN MH 32 AND TRAFFIC INTERCONNECT PULLBOX, AND CONNECTION BETWEEN THE AESTHETIC LIGHTING CONTROLLER AND TRAFFIC INTERCONNECT PULLBOX AT STA. 822+65.0, 20.6' RT.

BASIS OF PAYMENT
 CONDUIT WILL BE PAID PER FOOT FROM THE FACE OF CFN MH 32 TO THE FACE OF THE TRAFFIC INTERCONNECT PULL BOX, AND WILL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

ITEM	UNIT	DESCRIPTION
625	FOOT	CONDUIT, 4", 725.05, AS PER PLAN

ITEM SPECIAL: MISC.: REMOVAL AND DISPOSAL OF FO1.HM FIBER OPTIC CABLE

THIS ITEM SHALL INCLUDE REMOVAL AND DISPOSAL OF EXISTING FO1.HM FIBER CABLE. REMOVAL OF FO1.HM WILL START IN AT THE EXISTING SPLICE CASE IN CFN MH 32 AND BE PULLED BACK THROUGH COC DOT'S CONDUIT GOING NORTHWEST TO AT&T MH 390, THEN EAST TO AT&T MH 391 THEN THROUGH BROAD STREET BRIDGE GOING EAST TO AT&T MH 391B, THEN GOING EAST TO MH 392.

BASIS OF PAYMENT
 REMOVAL AND DISPOSAL OF FIBER OPTIC CABLE WILL BE PAID PER LINEAR FOOT, AND WILL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SPECIFIED.

ITEM	UNIT	DESCRIPTION
SPECIAL	FOOT	MISC.: REMOVAL AND DISPOSAL OF FO1.HM FIBER OPTIC CABLE

ITEM SPECIAL: MISC.: REMOVAL AND DISPOSAL OF FO2.HH FIBER OPTIC CABLE

THIS ITEM OF WORK SHALL INCLUDE REMOVAL AND DISPOSAL OF EXISTING FO2.HH FIBER CABLE. REMOVAL OF FO2.HH WILL START IN THE BASEMENT TELCO ROOM IN HEALTH DEPT. BUILDING AND BE DISCONNECTED FROM THE LIGHT INTERFACE UNIT (LIU) WHERE THE FIBER TERMINATES INTO A BOXED UNIT, AND PULLED BACK THROUGH THE HEALTH DEPARTMENT CONDUIT SYSTEM GOING WEST OUT OF THE TELCO ROOM CONDUIT, THEN NORTHERLY TO AN EXISTING LIGHT POLE AT STATION 201+31.02, 25.21' LT (PARSONS), THEN NORTHERLY AERIALY ON A POLE LINE ALONG THE WESTERN SIDE OF PARSONS AVENUE TO THE SOUTHWEST CORNER OF FRANKLIN AVENUE, THEN THRU THE PARSONS AVENUE INTERCONNECT DUCT BANK TO THE AT&T MH 393, THEN NORTH TO AT&T MH 392 ON BROAD ST., THEN WEST TO AT&T MH 391B, AND THEN WEST ACROSS THE BROAD ST BRIDGE TO MH 391, THEN TO AT&T MH 390, THEN THROUGH COC DOT CONDUIT TO CFN MH 32, WHERE IT WILL BE CUT 1 FOOT SHORT OF EXISTING SPLICE CASE AND LABELED FO2.HH.

BASIS OF PAYMENT
 REMOVAL AND DISPOSAL OF FIBER OPTIC CABLE WILL BE PAID PER LINEAR FOOT, AND WILL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SPECIFIED.

ITEM	UNIT	DESCRIPTION
SPECIAL	FOOT	MISC.: REMOVAL AND DISPOSAL OF FO2.HH FIBER OPTIC CABLE

ITEM 804: FIBER OPTIC CABLE, MISC.: FO1.HM FIBER OPTIC CABLE, 288 STRAND

THIS ITEM OF WORK SHALL CONFORM TO ODOT ITEM 804 WITH THE FOLLOWING ADDITIONS/CLARIFICATIONS. THIS ITEM OF WORK SHALL INCLUDE FURNISHING AND INSTALLING NEW FO1.HM 288 STRAND FIBER OPTIC CABLE. NEW FO1.HM 288 FIBER OPTIC CABLE WILL BE PULLED IN, STARTING AT CFN MH 32 THROUGH NEW CONDUIT, LEAVING NORTH TO THE NEW TRAFFIC MH, THEN GOING THROUGH THE NEW TRAFFIC MH EAST ACROSS THE BROAD STREET BRIDGE TO THE INTERSECTION OF BROAD STREET AND PARSONS AVENUE, CONTINUING SOUTH ON PARSONS AVENUE IN THE EXISTING TRAFFIC CONDUIT SYSTEM IN AN EXISTING DUCT TO AT&T MH 393 AND SPLICING ALL 288 STRANDS TO THE EXISTING FIBER.

THE FIRST HALF OF THE 288 FIBERS (144 FIBERS) IN FO3.CFN WILL BE SPLICED TO THE FIRST HALF OF THE FIBERS IN FO1.HM IN EXISTING SPLICE CASE IN CFN MH 32.

NEW FO1.HM 50 FT MAINTENANCE LOOPS WILL BE PLACED IN EVERY TRAFFIC MH OR PULL BOX AND 75 FT MAINTENANCE LOOPS WILL BE PLACED IN CFN MH32 AND AT&T MH 393.

METHOD OF MEASUREMENT
 FIBER OPTIC CABLE WILL BE MEASURED TO THE CENTER OF FOUNDATION OR PULL BOX, PLUS AN ALLOWANCE FOR CABLE COILED AT PULL BOXES, SPLICES. ALL TESTING AND SPLICES SHALL BE INCIDENTAL TO THE COST OF THE FIBER OPTIC PAY ITEM. ALL CABLE WRAPS, TRACER WIRE SHALL BE INCIDENTAL TO THE COST OF THE FIBER OPTIC PAY ITEM.

BASIS OF PAYMENT
 FIBER OPTIC CABLE WILL BE PAID PER FOOT, AND WILL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SPECIFIED.

ITEM	UNIT	DESCRIPTION
804	FOOT	FIBER OPTIC CABLE, MISC.: FO1.HM FIBER OPTIC CABLE, 288 STRAND

ITEM 804: FIBER OPTIC CABLE, MISC.: FO2.HH FIBER OPTIC CABLE, 288 STRAND

THIS ITEM OF WORK SHALL CONFORM TO ODOT ITEM 804 WITH THE FOLLOWING ADDITIONS/CLARIFICATIONS. THIS ITEM OF WORK SHALL INCLUDE FURNISHING AND INSTALLING NEW FO2.HH 288 STRAND FIBER OPTIC CABLE. NEW FO2.HH 288 FIBER OPTIC CABLE WILL BE PULLED IN, STARTING AT CFN MH 32 THROUGH NEW CONDUIT, LEAVING NORTH TO THE NEW TRAFFIC MH, THEN GOING THROUGH THE NEW TRAFFIC MH EAST ACROSS THE BROAD STREET BRIDGE TO THE INTERSECTION OF BROAD STREET AND PARSONS AVENUE, STILL CONTINUING IN THE EXISTING TRAFFIC CONDUIT SYSTEM SOUTH ON PARSONS, TO A PULL BOX NEAR FRANKLIN AVENUE, THEN SOUTHWESTERLY TO RISER UP A POLE AT THE SOUTHWEST CORNER OF FRANKLIN AVENUE AND PARSONS AVENUE AT STATION 82+97.89, 18.74' LT, THEN SOUTHERLY AERIALY ON A POLE LINE TO AN EXISTING LIGHT POLE AT STATION 201+31.02, 25.21' LT (PARSONS), THEN THROUGH THE CONDUIT GOING EAST UNDER THE HEALTH DEPT. LAWN ENTERING THE WEST SIDE OF HEALTH DEPT., CONTINUING TO THE TELCO ROOM IN THE BASEMENT OF THE HEALTH DEPT. BUILDING. 288 STRAND FIBERS WILL BE SPLICED TO COLOR CODED PIGTAILED LC-APC CORNING CASSETTES CONNECTS TO BE INSERTED INTO EXISTING RACKED CORNING LIU AT HEALTH DEPT. BLDG.

THE SECOND HALF OF THE 288 FIBERS (144 FIBERS) IN FO3.CFN WILL BE SPLICED TO THE FIRST HALF OF THE FIBERS IN FO2.HH IN EXISTING SPLICE CASE IN CFN MH 32. THE SECOND HALF OF THE 288 FIBERS (144 FIBERS) IN FO1.HM WILL BE SPLICED TO THE SECOND HALF OF THE 288 FIBERS (144 FIBERS) IN FO2.HH IN EXISTING SPLICE CASE IN CFN MH 32.

NEW FO1.HM 50 FT MAINTENANCE LOOPS WILL BE PLACED IN THE HEALTH DEPT. BLDG. AND EVERY TRAFFIC MH OR PULL BOX, AND 75 FT MAINTENANCE LOOP WILL BE PLACED IN CFN MH32.

METHOD OF MEASUREMENT
 FIBER OPTIC CABLE WILL BE MEASURED TO THE CENTER OF FOUNDATION OR PULL BOX, PLUS AN ALLOWANCE FOR CABLE COILED AT PULL BOXES, SPLICES. ALL TESTING AND SPLICES SHALL BE INCIDENTAL TO THE COST OF THE FIBER OPTIC PAY ITEM. ALL CABLE WRAPS, TRACER WIRE SHALL BE INCIDENTAL TO THE COST OF THE FIBER OPTIC PAY ITEM.

ITEM 804: FIBER OPTIC CABLE, MISC.: FO2.HH FIBER OPTIC CABLE, 288 STRAND (CONT'D)

BASIS OF PAYMENT
 FIBER OPTIC CABLE WILL BE PAID PER FOOT, AND WILL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SPECIFIED.

ITEM	UNIT	DESCRIPTION
804	FOOT	FIBER OPTIC CABLE, MISC.: FO2.HH FIBER OPTIC CABLE, 288 STRAND

ITEM 804: FIBER OPTIC CABLE, MISC.: FO3.HM FIBER OPTIC CABLE, 288 STRAND

THIS ITEM OF WORK SHALL CONFORM TO ODOT ITEM 804 WITH THE FOLLOWING ADDITIONS/CLARIFICATIONS. THIS ITEM OF WORK SHALL INCLUDE FURNISHING AND INSTALLING NEW FO3.HM 288 STRAND FIBER OPTIC CABLE. NEW FO3.HM 288 FIBER OPTIC CABLE WILL BE PULLED IN, STARTING AT CFN MH 32 THROUGH NEW CONDUIT, LEAVING NORTH TO THE NEW TRAFFIC MH, THEN GOING THROUGH THE NEW TRAFFIC MH EAST ACROSS THE BROAD STREET BRIDGE, THEN RUNNING SOUTH TO THE PROPOSED INTERCONNECT PULLBOX AT STA. 822+65.0 AND TERMINATING AT THE PROPOSED AESTHETIC LIGHTING CONTROLLER. AT THE AESTHETIC LIGHTING CONTROLLER, 288 STRAND FIBERS WILL BE SPLICED TO COLOR CODED PIGTAILED LC-APC CORNING CASSETTES CONNECTS TO BE INSERTED INTO RACKED CORNING LIU.

THE FIRST HALF OF THE 288 FIBERS (144 FIBERS) IN FO3.CFN WILL BE SPLICED TO THE FIRST HALF OF THE FIBERS IN FO3.HM IN EXISTING SPLICE CASE IN CFN MH 32.

NEW FO3.HM 50 FT MAINTENANCE LOOPS WILL BE PLACED IN EVERY TRAFFIC MH OR PULL BOX AND 75 FT MAINTENANCE LOOPS WILL BE PLACED IN CFN MH32.

METHOD OF MEASUREMENT
 FIBER OPTIC CABLE WILL BE MEASURED TO THE CENTER OF FOUNDATION OR PULL BOX, PLUS AN ALLOWANCE FOR CABLE COILED AT PULL BOXES, SPLICES. ALL TESTING AND SPLICES SHALL BE INCIDENTAL TO THE COST OF THE FIBER OPTIC PAY ITEM. ALL CABLE WRAPS, TRACER WIRE SHALL BE INCIDENTAL TO THE COST OF THE FIBER OPTIC PAY ITEM.

BASIS OF PAYMENT
 FIBER OPTIC CABLE WILL BE PAID PER FOOT, AND WILL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SPECIFIED.

ITEM	UNIT	DESCRIPTION
804	FOOT	FIBER OPTIC CABLE, MISC.: FO3.HM FIBER OPTIC CABLE, 288 STRAND

1.0 GENERAL REQUIREMENTS

- 1.0.1 CITY OF COLUMBUS DEPARTMENT OF TECHNOLOGY (COC DOT) HAS TWO 288 FIBER CABLES IN OHIO DEPARTMENT OF TRANSPORTATION PROJECT FRA 7117.14 THAT CROSS THE BROAD STREET BRIDGE AND ARE AFFECTED BY THIS PROJECT. FO1.HM "GOES TO HAMMOND BLD" AND FO2.HH "GOES TO THE HEALTH BLD." THEY BOTH TERMINATE AT ONE 288 FIBER CABLE FO3.CFN "GOES TO COC DOT PEDESTAL ON BROAD AT GRANT" IN CFN MH 32.
- 1.0.2 COC DOT REQUIRES A MINIMUM OF TWO WEEK'S NOTICE BEFORE ANY FIBER WORK IS PERFORMED.
- 1.0.3 ONE FIBER SHALL REMAIN IN SERVICE AT ALL TIMES. THEREFORE, FO1.HM SHALL STAY ACTIVE UNTIL FO2.HH HAS BEEN REMOVED AND REPLACED WITH A NEW 288 INTO TRAFFIC'S NEW CONDUIT PATH, SPLICED, AND TESTED TO COC DOT SPECIFICATIONS AND BROUGHT BACK ON LINE WITH 144 OUT OF THE 288 OF NEW FO2.HH FULLY OPERATIONAL FOR COC DOT TO USE IMMEDIATELY. THEN FO1.HM CAN BE MOVED AND RESTORED BACK TO ORIGINAL STATE IN THE NEW AT&T CONDUIT PATH.
- 1.0.4 EXISTING FIBER SHALL ONLY BE DISCONNECTED ON THE THIRD WEEKEND OF EACH MONTH AND SPLICING OF NEW FIBER SHALL BE PERFORMED SIMULTANEOUSLY AT BOTH ENDS OF THE FIBER.
- 1.0.5 THE FOLLOWING ARE LOCATIONS OF AT&T MANHOLES AND CFN MH 32 REFERENCED HEREIN:

MANHOLE ID	BROAD STREET STATION
AT&T MH 390	51+60.28, 30.25' LT
CFN MH 32	52+33.72, 22.65' LT
AT&T MH 390-1	52+84.77, 35.82' RT.
AT&T MH 391	54+06.35, 32.75' LT.
AT&T MH 391B	56+86.92, 33.71' LT.
AT&T MH 1801	58+27.84, 53.04' LT.
AT&T MH 392	59+66.67, 31.07' LT.
AT&T MH 393	59+18.67, 206.64' RT.

TRACER WIRE SHALL BE INSTALLED IN THE EXISTING CONDUIT FROM CFN MH 32 TO AT&T MH 390, IN THE EXISTING CONDUIT ALONG WITH THE PROPOSED FIBER AND IN THE PROPOSED SEPARATE TRACER WIRE CONDUIT FROM CFN 32 NORTHERLY TO THE NEW TRAFFIC PULL BOX AT STA. 52+33.50, 34.4' LT.

NOTE: NEW FO2.HH MUST BE FULLY OPERATIONAL BETWEEN HEALTH AND ARLINGATE BEFORE WORK ON FO1.HM CAN START.

NOTE: ALL FIBERS MUST BE TESTED TO COC DOT SPECIFICATIONS.

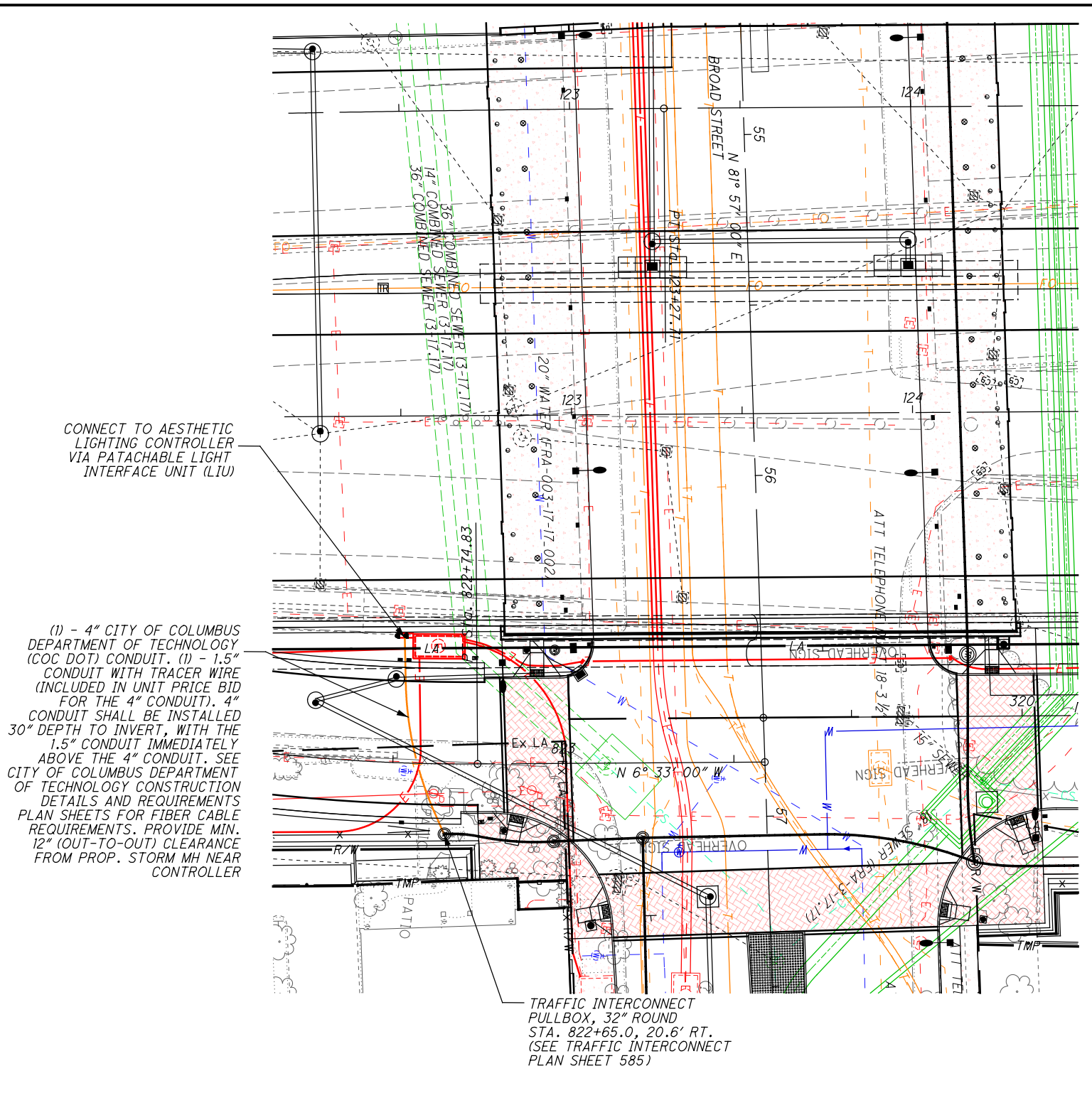
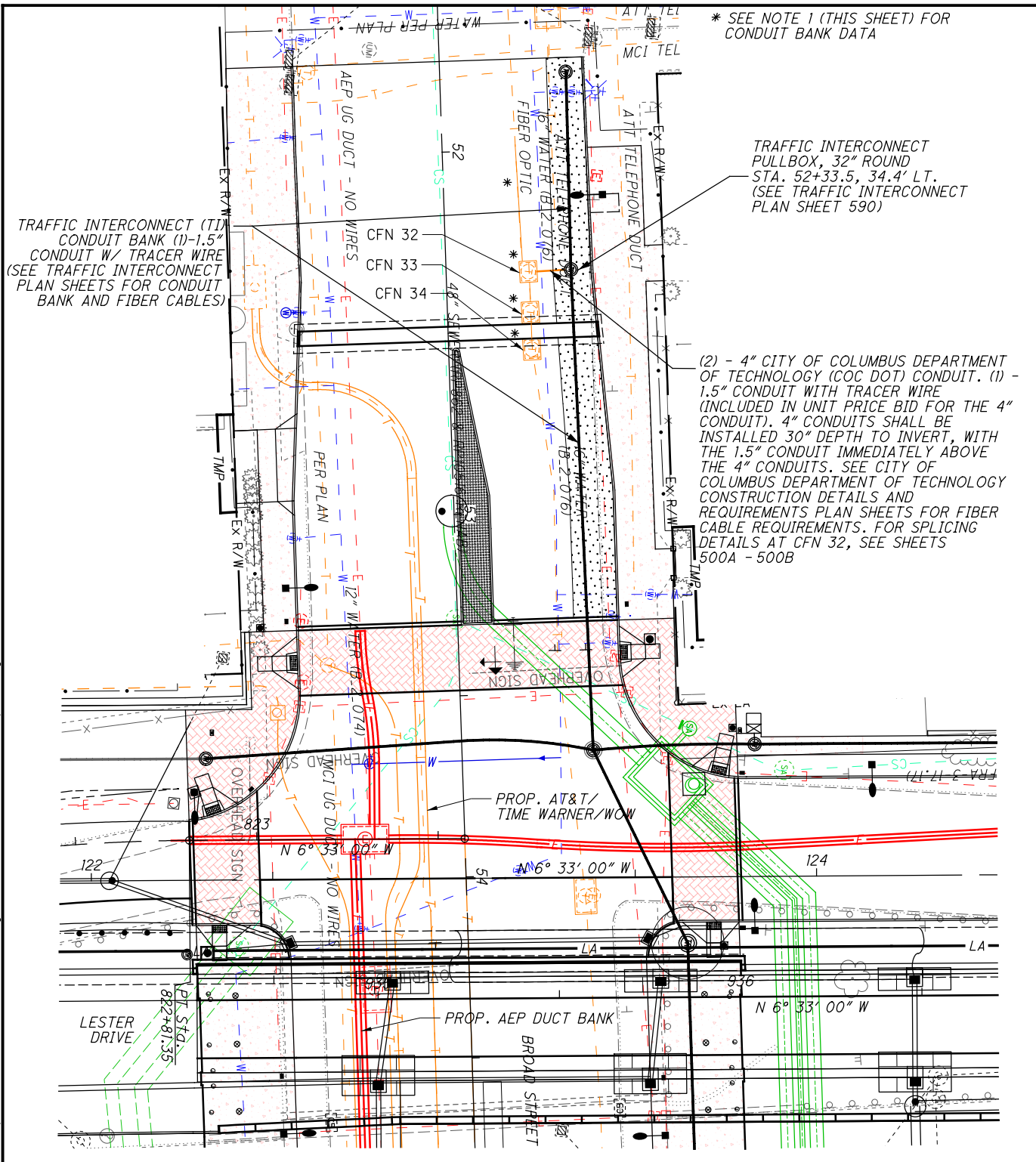
CALCULATED
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 MAH

CITY OF COLUMBUS DEPARTMENT OF TECHNOLOGY
 CONSTRUCTION DETAILS AND REQUIREMENTS

FRA-71-17.46

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CITY OF COLUMBUS DEPT OF TECHNOLOGY

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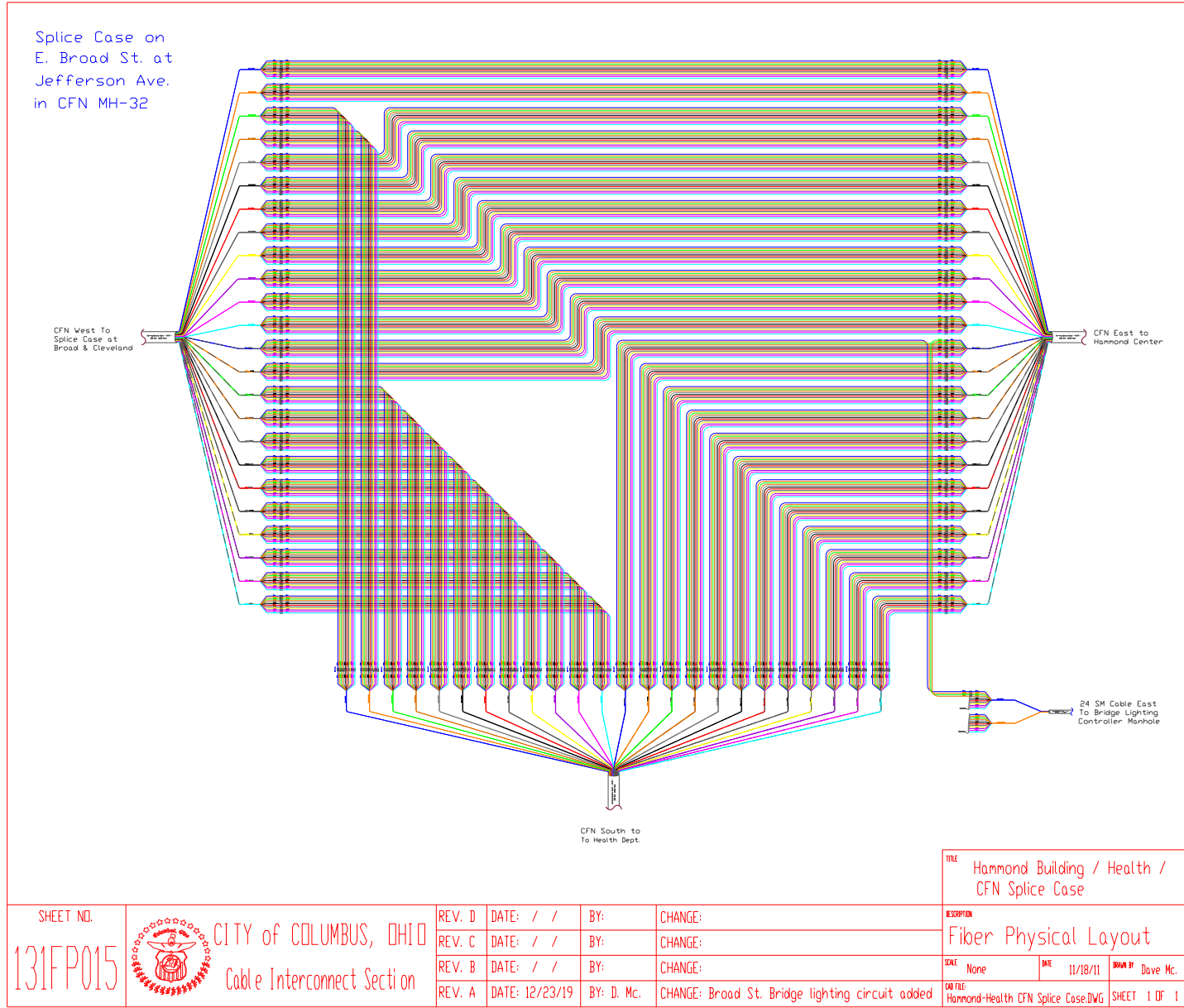
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TELECOMMUNICATIONS SUB-SUMMARY			
ITEM NO.	TOTAL	UNIT	ITEM DESCRIPTION
625	80	FOOT	CONDUIT, 4", 725.05, AS PER PLAN
SPECIAL	900	FOOT	MISC.: REMOVAL AND DISPOSAL OF F01.HM FIBER OPTIC CABLE
SPECIAL	1,856	FOOT	MISC.: REMOVAL AND DISPOSAL OF F02.HH FIBER OPTIC CABLE
804	1,437	FOOT	FIBER OPTIC CABLE, MISC.: F01.HM FIBER OPTIC CABLE, 288 STRAND
804	3,294	FOOT	FIBER OPTIC CABLE, MISC.: F02.HH FIBER OPTIC CABLE, 288 STRAND
804	1,185	FOOT	FIBER OPTIC CABLE, MISC.: F03.HH FIBER OPTIC CABLE, 288 STRAND

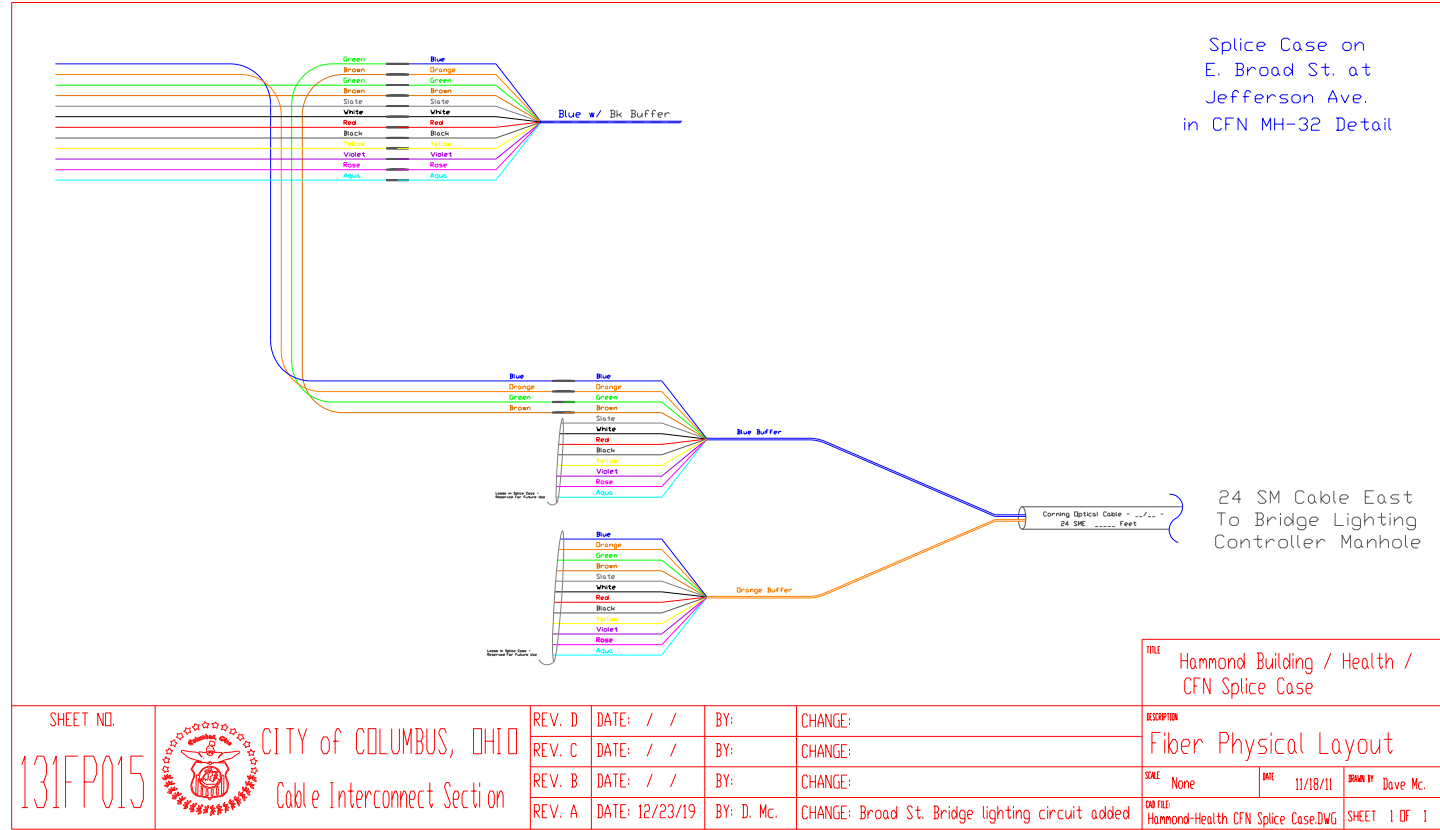
NOTES:

- CFN 32 AND CFN 34 EACH HAS A 6-CONDUIT BANK ENTERING FROM THE WEST, AND CFN 33 HAS AN 8-CONDUIT BANK ENTERING FROM THE WEST. THERE ARE NO OTHER CONDUITS ENTERING ANY OF THESE HANDHOLES, SO THE CONDUIT BANKS FROM CFN 33 OR CFN 34 PROBABLY CROSS TO THE NORTH OR SOUTH OF CFN 32. THE CONTRACTOR SHALL DIG WITH CAUTION IN THE EVENT THAT THE CONDUITS FROM CFN 33 AND/OR CFN 34 CROSS TO THE NORTH OF CFN 32, AND EXPOSE EXISTING CONDUIT PRIOR TO PROVIDING AN OPENING IN CFN 32.
- SINCE THERE ARE NO OTHER CONDUITS ENTERING CFN 32 FROM THE NORTH, THE EXISTING KNOCKOUTS ARE AVAILABLE FOR THE CONTRACTOR'S USE TO INSTALL TWO 4" CONDUITS FROM CFN 32 NORTHERLY TO THE PROPOSED TRAFFIC INTERCONNECT 32" PULL BOX. HOWEVER, SINCE THE KNOCKOUTS MAY BE DEEPER THAN A TYPICAL SINGLE CONDUIT INSTALLATION, THE CONTRACTOR MAY, AT HIS DISCRETION, CORE THE HANDHOLE IN AN UPPER CORNER RATHER THAN UTILIZE A KNOCKOUT.
- THE CONTRACTOR SHALL NOTIFY MIKE HASSON OF COLUMBUS FIBERNET AT (614) 207-8212 TWO WORKING DAYS PRIOR TO PERFORMING THIS WORK. IF THE CONTRACTOR ELECTS TO USE A KNOCKOUT, MIKE WILL SPECIFY WHICH KNOCKHOLE TO USE.
- THE COST FOR CONNECTION TO THE EXISTING HANDHOLE AND PROPOSED TRAFFIC INTERCONNECT PULLBOX SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE 4" DEPARTMENT OF TECHNOLOGY CONDUIT(S).

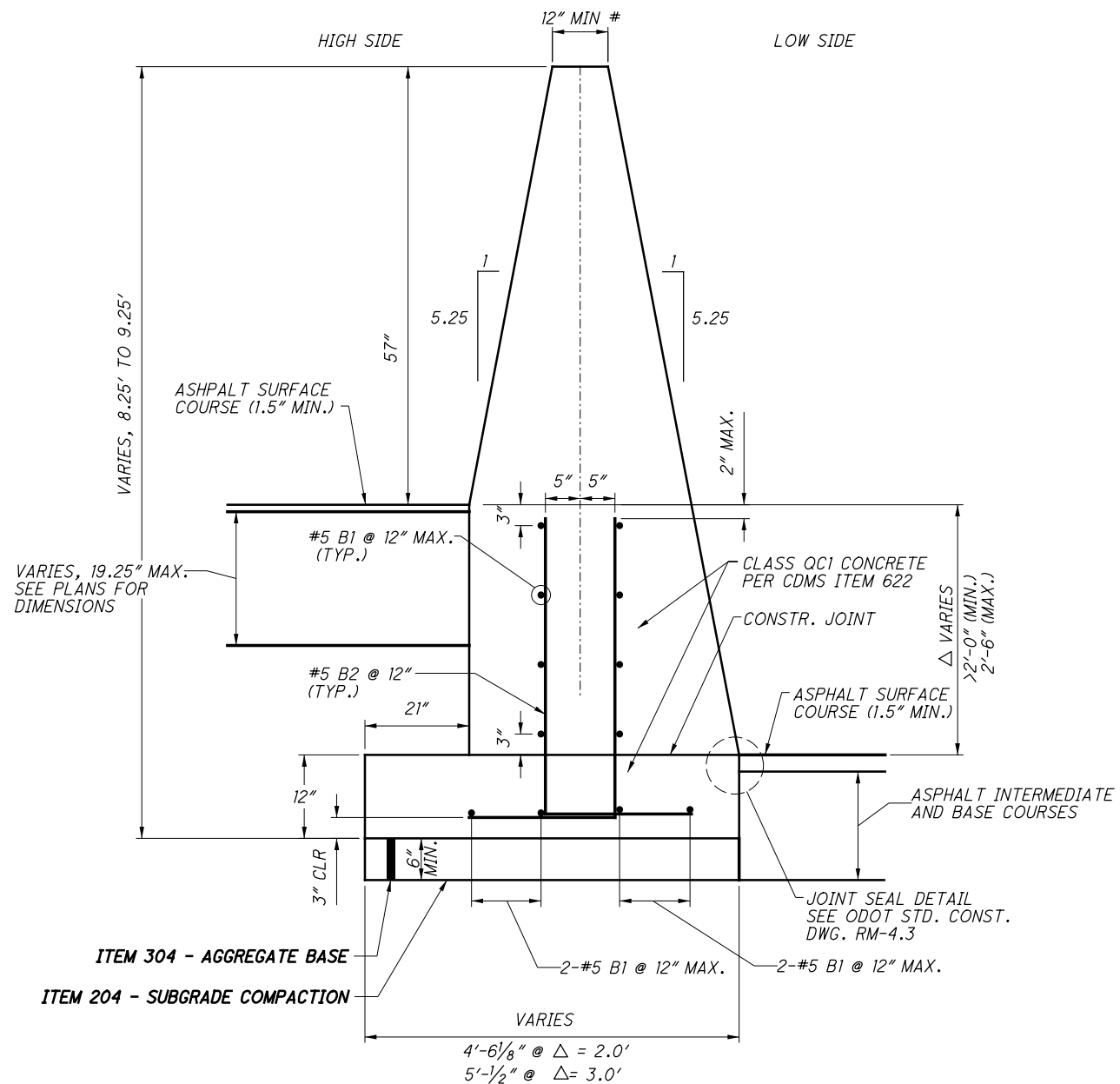
3490-E



SHEET NO. 131FP015	 CITY OF COLUMBUS, OHIO Cable Interconnect Section	REV. D	DATE: / /	BY:	CHANGE:	TITLE	Hammond Building / Health / CFN Splice Case
		REV. C	DATE: / /	BY:	CHANGE:	DESCRIPTION	Fiber Physical Layout
		REV. B	DATE: / /	BY:	CHANGE:	SCALE	None
		REV. A	DATE: 12/23/19	BY: D. Mc.	CHANGE: Broad St. Bridge lighting circuit added	DATE	11/18/11
						TAG TAG	Hammond-Health CFN Splice Case.DWG
						SHEET	1 OF 1



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FOR TOP WIDTH, SEE SHEET 30

- ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B, C, C1, D
- ITEM 622 - CONCRETE BARRIER END SECTION, TYPE D
- ITEM 622 - CONCRETE BARRIER END ANCHORAGE REINFORCED, TYPE D
- ITEM 622 - CONCRETE BARRIER END ANCHORAGE REINFORCED, TYPE D, A
- ITEM 622 - BARRIER MISC.: TYPE C1 MODIFIED
- ITEM 622 - BARRIER MISC.: TYPE D MODIFIED

SEAL THE EXPOSED CONCRETE SURFACES OF THE ITEMS LISTED ABOVE WITH EPOXY-URETHANE PER ODOT CMS ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE). EPOXY-URETHANE SHALL MATCH MATERIAL SPECIFICATIONS IN ODOT CMS 512. FOR MORE INFORMATION REGARDING ITEM 512, SEE GENERAL NOTES.

ITEM 304 - AGGREGATE BASE
ITEM 204 - SUBGRADE COMPACTION

ITEM 622 - BARRIER, MISC.: TYPE C1 MODIFIED

ITEM 622
GRADE DIFFERENCE: Δ > 2'-0" (MIN.) TO 3'-0" (MAX.)
NOT TO SCALE

EXPANSION AND CONTRACTION JOINTS
BARRIER, MISC.: TYPE C1, MOD., SHALL BE CONSTRUCTED WITH EXPANSION JOINTS AT THE END OF EACH SLIP FORM RUN AND CONTRACTION JOINTS AT MAX. 20 FT SPACING.

AFTER MEDIAN BARRIER IS CONSTRUCTED, DO NOT UNDERMINE OR DISTURB PROPERLY COMPACTED MATERIAL BELOW BARRIER

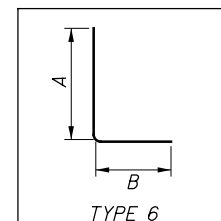
NOTES:

1. ITEM 622 - BARRIER, MISC.: TYPE C1 MODIFIED SHALL BE PLACED IN LOCATIONS SHOWN ON PLAN SHEETS AND TYPICAL SECTIONS SHEETS.
2. ITEM 304 - AGGREGATE BASE, AND ITEM 204 SUBGRADE COMPACTION SHALL BE INCLUDED IN ITEM 622 - BARRIER, MISC.: TYPE C1 MODIFIED.
3. WHERE HIGH SIDE AND LOW SIDE ELEVATIONS DIFFER BY 2' OR LESS (SHOWN AS Δ ABOVE), USE STANDARD ITEM 622 - BARRIER (B1 OR C1) PER ODOT STANDARD CONSTRUCTION DRAWING RM-4.3, OR AS OTHERWISE SHOWN IN THE PLANS.
4. FOR CONSTRUCTION NOTES AND LEGEND NOT SHOWN ON THIS SHEET, REFER TO ODOT STANDARD CONSTRUCTION DRAWING RM-4.3, SHEET 1.

MEDIAN BARRIER REINFORCING						
BAR MARK	* No.	SIZE	TYPE	LENGTH	DIMENSIONS	
					A	B
B1	*	5	6	*	-	-
B2	*	5	6	5'-4"	3'-7"	1'-9"

* AS DETERMINED BY THE PROJECT ENGINEER.

NOTE:
#5 BARS TO BE EPOXY COATED.



SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	630
			FROM	OFFSET		SIGNING, MISC.: PARKING METER POST CORE EACH
548	M1	ELIJAH PIERCE AVE	320+52.81	37.00	RT	1
549	M2	ELIJAH PIERCE AVE	328+15.03	37.00	RT	1
551	M3	LESTER DR	131+54.26	37.00	LT	1
551	M4	LESTER DR	131+74.29	37.00	LT	1
551	M5	LESTER DR	131+97.29	37.00	LT	1
552	M6	LESTER DR	132+20.29	37.00	LT	1
TOTALS CARRIED TO GENERAL GENERAL SUMMARY						6

ITEM 630 - SIGNING, MISC.: WAYFINDING SIGN

THE CONTRACTOR AS PART OF THIS PROJECT SHALL CONTACT THE CITY OF COLUMBUS TRAFFIC MAINTENANCE SHOP AT 1820 E. 17TH AVE TO PROPERLY INSTALL SID WAYFINDING SIGNS AND SUPPORTS AT THE LOCATIONS SHOWN IN THE PLANS, OWNED BY THE CITY OF COLUMBUS, WITHIN THE PROJECT LIMITS WHEN REQUIRED. ALL WAYFINDING SIGNAGE SHALL REMAIN IN PLACE UNTIL REMOVAL IS REQUIRED. PLEASE CALL THE TRAFFIC MAINTENANCE SHOP AT (614)-645-7393 (7:30AM TO 4:00PM MON. THRU FRI.) (2) WEEKS IN ADVANCE OF CONSTRUCTION FOR REMOVAL OF EACH SIGN(S) AND (2) WEEKS BEFORE INSTALLATION IS REQUIRED.

THE CONTRACTOR SHALL CONTACT MARC CONTE (614) 645-5273 FOR WAYFINDING SIGNAGE AND HANNAH JONES FOR NEIGHBORHOOD WELCOMING SIGNS, DEPARTMENT OF DEVELOPMENT, (614) 645-7125, (2) WEEKS PRIOR TO INSTALLATION OF ALL WAYFINDING SIGNS AND NEIGHBORHOOD WELCOME SIGNS TO PROPERLY NOTIFY AFFECTED NEIGHBORHOOD.

IN ADDITION TO THE ABOVE NOTIFICATIONS AND COORDINATION, THIS ITEM SHALL CONSIST OF FABRICATING AND INSTALLING WAYFINDING SIGNS ACCORDING TO THE DETAILS SHOWN HEREIN. THE CONTRACTOR SHALL SUPPLY FLAT SHEET, COLORS, ATTACHMENT HARDWARE AND INCIDENTALS AS SHOWN ON SHEET 564. THE MOUNTING ASSEMBLY AND POLES/POSTS ARE CONSIDERED INCIDENTAL TO THIS ITEM.

PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT BID PRICE FOR ITEM 630 - SIGNING, MISC.: WAYFINDING SIGN AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND MOUNTING HARDWARE TO FABRICATE AND INSTALL THE SIGNS INCLUDING REQUIRED COORDINATION AND NOTIFICATIONS.

ITEM 630 - SIGNING, MISC.: STRUCTURAL PIPE SUPPORT

IN ADDITION TO THE WORK DETAILED IN CMS 630 AND THE STANDARD CONSTRUCTION DRAWING TC-41.15, THIS ITEM OF WORK SHALL INCLUDE FIELD WELDING THREE 1" LENGTH WELDS WITH 1/4" WIDTH EVENLY SPACED AROUND THE PERIMETER OF THE STRUCTURAL PIPE WHERE IT MEETS THE SLIP BASE CASTING. THE WELDING SHALL OCCUR AFTER THE SIGN HAS BEEN ATTACHED AND PROPERLY ALIGNED WITH THE ROADWAY. A SPRAY GALVANIZATION TO THE WELD SHALL BE APPLIED.

PAYMENT SHALL BE FOR EACH TRIANGULAR SLIP BASE CONNECTION, AS PER PLAN IN PLACE PER THE PLANS.

CITY OF COLUMBUS PARKING METER POSTS REMOVED OR POST CORES

THE CONTRACTOR SHALL COORDINATE WITH DIVISION OF INFRASTRUCTURE MANAGEMENT AND DIVISION OF TRAFFIC MANAGEMENT REGARDING PARKING METERS TO BE REMOVED, METERS TO BE ROTATED, AND FOR NEW METER INSTALLATION.

THE DIVISION OF TRAFFIC MANAGEMENT WILL REMOVE ANY METER HEADS SPECIFIED TO BE REMOVED; ROTATE ANY METERS SPECIFIED TO BE ROTATED; INSTALL METER HEADS AND POSTS FOR ANY NEW METERS SPECIFIED IN THE PLANS. THE CONTRACTOR SHALL COORDINATE WITH THE DIVISION OF TRAFFIC MANAGEMENT TO HAVE LOCATIONS MARKED AND THE CONTRACTOR SHALL CORE HOLES FOR POST INSTALLATION (BY DIVISION OF TRAFFIC MANAGEMENT). THE DIVISION OF TRAFFIC MANAGEMENT WILL REMOVE OR COVER ALL PARKING METER HEADS PUT OUT OF SERVICE BY THIS PROJECT. THERE IS A \$60.00 DOLLAR CHARGE FOR REMOVAL AND REINSTALLATION OF EACH METER. IN ADDITION, A DAILY METER FEE WILL BE CHARGED FOR ALL ENFORCEMENT HOURS EACH METER TAKEN OUT OF SERVICE. TO CALCULATE THESE CHARGES SEE PARKING METER OUT OF SERVICE FEES NOTE. THESE CHARGES WILL BE COLLECTED FROM THE CONTRACTOR IN ADVANCE WITH THE ISSUANCE OF THE STREET OCCUPANCY/EXCAVATION PERMIT FROM THE DIVISION OF INFRASTRUCTURE MANAGEMENT, PERMIT OFFICE (614-645-7497). PARKING SERVICES SUPPORT JONATHON HEIDER (JMHEIDER@COLUMBUS.GOV) (614-645-8185) AND MICHAEL HEROLD (MPHEROLD@COLUMBUS.GOV) (614-679-4353) SHALL BE NOTIFIED A MINIMUM OF FORTY-EIGHT (48) HOURS (EXCLUDING SAT, SUN, & HOLIDAYS) PRIOR TO BEGINNING WORK. CALL 614-645-8376 IF UNABLE TO MAKE CONTACT THROUGH THE PRIOR PHONE NUMBER.

PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY FOR THIS WORK SHALL BE INCLUDED IN UNIT PRICE BID FOR THE FOLLOWING:

ITEM 630 - REMOVAL OF TRAFFIC MISCELLANEOUS TRAFFIC CONTROL ITEM: PARKING METER POST REMOVAL

ITEM 630 - SIGNING, MISC.: PARKING METER POST CORE

PAID PARKING OUT OF SERVICE FEES

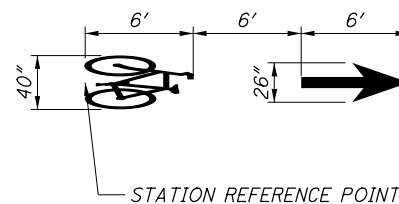
AS INDICATED IN THE MAINTENANCE OF TRAFFIC PLAN NOTES AND PER COLUMBUS CITY CODE CHAPTER 2155.055 FEES FOR PARKING METERS OUT OF SERVICE, FOR ALL PAID PARKING (WHICH MAY INCLUDE PARKING METERS, KIOSKS, AND MOBILE PAYMENT ONLY ZONES) THAT ARE TAKEN OUT OF SERVICE (BAGGED OR REMOVED) DUE TO THE CONSTRUCTION OF THIS PROJECT, THE COST IS THE RESPONSIBILITY OF THE CONTRACTOR AS A PART OF THIS CONTRACT. WHILE THE ACTUAL PAID PARKING TO BE TAKEN OUT OF SERVICE IS NOT LISTED OR INCLUDED IN THESE PLANS, THE CONTRACTOR IS TO IDENTIFY THE PAID PARKING AREA TO BE REMOVED FROM SERVICE, AND DETERMINE THE COST.

THE CONTRACTOR IS RESPONSIBLE FOR PAYING THE DAILY LOST PAID PARKING REVENUE FOR EACH PAID PARKING SPACE TAKEN OUT OF SERVICE.

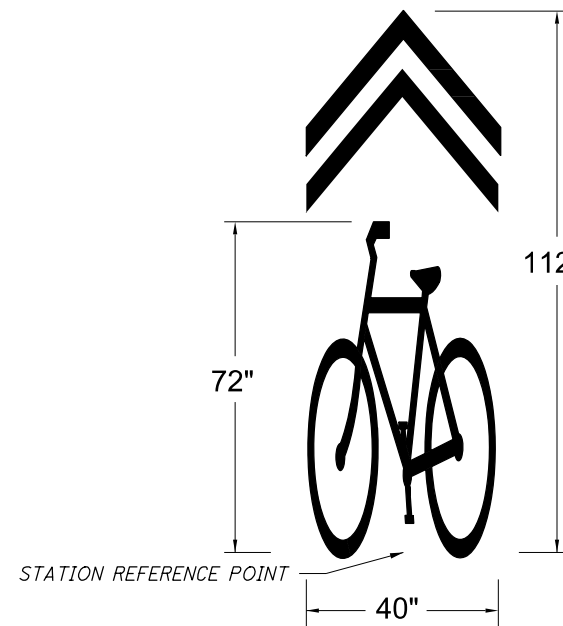
TO CALCULATE AN ESTIMATE FOR THE LOST METER REVENUE, VISIT THE METER MAP AT [HTTPS://WWW.COLUMBUS.GOV/PARKINGMETERMAP.ASPX](https://www.columbus.gov/parkingmetermap.aspx). FIND THE REQUESTED METER(S) ON THE MAP AND CLICK ON THE "P" SYMBOL. THERE WILL BE THE METER NUMBER, THE DURATION OF THE METER, AND THE HOURS OF OPERATION. USING THE COLOR CODED MAPS PROVIDED WITH THIS CONTRACT, LOCATE THE HOURLY RATE AS SHOWN ON THE MAP. TO DETERMINE THE DAILY LOST METER REVENUE, MULTIPLE THE HOURLY RATE TIMES THE NUMBER OF HOURS THE METER IS IN OPERATION EACH DAY.

EXAMPLE: A THREE (3) HOUR METER IS \$0.75 PER HOUR AND IS IN OPERATION 14 HOURS PER DAY. THE DAILY LOST METER REVENUE IS \$10.50 PER DAY (14 HOURS X \$0.75 PER HOUR = \$10.50 PER DAY).

FOR MOBILE PAYMENT ONLY ZONES, PLEASE REVIEW THE POSTED MOBILE PAYMENT ZONE SIGN AND PROVIDE THE MOBILE PAYMENT ZONE NUMBER FOR THE PARKING SPACE(S) THAT WILL BE REMOVED FROM SERVICE. IF "TICK-MARKS" ARE INCLUDED WITHIN THE PARKING ZONE, THEN COUNT THE NUMBER OF SPACES NEEDED TO BE OUT OF SERVICE. IF NO "TICK-MARKS" ARE WITHIN THE PARKING ZONE, THEN CALCULATE THE NUMBER OF "SPACES" NEEDED BY USING 20 FEET PER SPACE. ONCE ALL THE INFORMATION LISTED ABOVE HAS BEEN COLLECTED FOR THE PAID PARKING TO BE REMOVED FROM SERVICE, CONTACT THE CITY OF COLUMBUS, DIVISION OF PARKING SERVICES AT [PARKINGSERVICES@COLUMBUS.GOV](mailto:parkingservices@columbus.gov) FOR ASSISTANCE WITH ESTIMATING THE DAILY PAID PARKING REVENUE RATE. PROVIDE THE PROJECT ODOT PID AND CITY OF COLUMBUS E-PLAN IN THE SUBJECT LINE OF THE EMAIL.



BIKE LANE SYMBOL MARKING DETAIL



SHARED LANE MARKING DETAIL

ALL PAID PARKING SPACES ARE FREE ON SUNDAY AND CITY RECOGNIZED HOLIDAYS, SO THOSE DAYS DO NOT NEED TO BE INCLUDED IN THE CALCULATION. THE FOLLOWING ARE CITY RECOGNIZED HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING DAY, PRESIDENTS' DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS DAY, THANKSGIVING DAY, AND CHRISTMAS DAY. ALL RATES ARE SUBJECT TO CHANGE BY THE CITY OF COLUMBUS.

THIS COST IS TO BE INCLUDED IN THE BID FOR THIS PROJECT AS A PART OF ITEM 614 MAINTENANCE OF TRAFFIC, LUMP SUM.

AT THE TIME THE CONTRACTOR SUBMITS FOR THE STREET OCCUPANCY/EXCAVATION PERMIT, ALONG WITH THE PAID PARKING IDENTIFICATION NUMBERS TO BE INCLUDED ON THE PERMIT REQUEST FORM, THE CONTRACTOR IS TO PROVIDE A LISTING OF THE METER IDENTIFICATION NUMBERS OR MOBILE PAYMENT ONLY ZONE NUMBERS AND THE NUMBER OF DAYS THAT EACH PAID PARKING SPACE IS TO BE OUT OF SERVICE, TO THE DEPARTMENT OF PUBLIC SERVICE PERMIT OFFICE. THE PERMIT OFFICE WILL VERIFY THAT THE HOURLY RATES ARE CORRECT AND CALCULATE THE COST OF THE PERMIT.

ANY QUESTIONS ABOUT THIS SPECIAL PROVISION ARE TO BE SUBMITTED THROUGH THE OWNER AGENCY OFFERING THE SOLICITATION OF THIS BID AS A PRE-BID QUESTION.

SHEET NO.	STATION		SIDE	MARKING DESCRIPTION																												CCMS					
																																628	628				
				FROM	TO	MILE	MILE	MILE	FT	FT	MILE	FT	FT	FT	EACH	EACH	EACH	FT	EACH	FT	FT	MILE	FT	MILE	FT	FT	FT	EACH	EACH	EACH	EACH	FT	SF	FT	FT	FT	FT
WILLOW ST																																					
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550	12+23		LT/RT																													20					
550	12+31		LT/RT																													23					
LESTER DR																																					
551	127+00	131+05	LT	405																																	
551	127+00	132+00	CL/LT		1000																																
551	128+48		LT																													1					
551	130+99		LT																													1					
551	131+41	132+00	LT	59																																	
551	131+42	132+00	LT	58																																	
551	131+74	131+97	LT																													16					
BOONE ST																																					
551	12+12		LT/RT																													16					
551	12+21		LT/RT																													18					
LESTER DR																																					
552	132+00	132+69	CL/LT	69	138																																
552	132+00	132+51	LT	51																																	
552	132+20		LT																													8					
552	132+63		LT																													1					
552	132+85	132+14	LT																													113					
552	132+96	133+12	LT																																		
552	322+87	323+14	RT																													43					
552	323+31	328+33	LT	1004																													1210 8				
552	323+61		RT																													1					
552	324+24		RT																													1					
552	324+87		RT																													1					
552	325+51		RT																													1					
552	1600+79	1603+00	RT	221																													221 3				
552	1600+92		RT																													1					
552	1601+85		RT																													1					
552	1602+85		RT																													1					
LONG ST																																					
552	53+16	53+60	RT																													88					
FRANKLIN AVE																																					
553	20+28	21+10	RT																													180					
SUBTOTAL				642	0	2363																													0 0 0		
SUBTOTAL FROM THIS SHEET																																0.13 MI 0.45 MI 0 201 0 MI 19 77 204 7 3 0 1474 11 0 0 MI 0 MI 0 0 0 MI 0					
SUBTOTAL FROM SHEET				523	0.07 MI	0.21 MI	0	0	0.02 MI	120	34	0	0	3	0	0	197	0.08 MI	0.15 MI	337	136	0.04 MI	98	646	4	4	1	1	42	104	202	3490-E					
SUBTOTAL FROM SHEET				524	0.33 MI	0.39 MI	362	283	0 MI	79	85	974	9	7	2	0	0	0	0 MI	0 MI	140	0	0 MI	0	191	0	2	2	98	286	0						
TOTALS TO GENERAL SUMMARY																																0.54 MI 1.08 MI 362 484 0.02 MI 218 196 1178 16 13 2 1474 11 197 0.08 MI 0.15 MI 477 136 0.04 MI 98 837 4 4 4 4 197 590 202					

CALCULATED		MUT		CHECKED		MJC	
CITY STREETS - PAVEMENT MARKING SUBSUMMARY							
FRA-71-17.46							
525							
881							

ITEM 630 SIGNING, MISC.: MODIFICATIONS TO FIRE ALARM SYSTEM

THIS ITEM OF WORK SHALL CONSIST OF CONVERTING THE FIRE ALARM WARNING SYSTEM FROM A DIGITAL MESSAGE SIGN (DMS) BASED SYSTEM TO A STATIC SIGN WITH FLASHING RED BEACONS, AS SHOWN IN THE PLANS. THE EXISTING FIRE ALARM SYSTEM CONTROLLER WILL BE REUSED, BUT WILL BE REPROGRAMMED BY THE CONTRACTOR TO CONVERT THE SYSTEM AS SHOWN IN THE PLANS. THE EXISTING FIRE DETECTION HARDWARE IN THE TUNNEL AND THE FIRE CONTROL SYSTEM CABINET IS EXISTING TO REMAIN.

THIS ITEM SHALL INCLUDE ALL MATERIALS, DEVICES, HARDWARE, SIGN TRUSS CONDUIT, ATTACHMENTS, AND INCIDENTALS NECESSARY TO MAKE THE SYSTEM FULLY FUNCTIONAL, UNLESS OTHERWISE QUANTIFIED IN THE PLAN. THE MATERIALS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR, PER MANUFACTURER RECOMMENDATIONS, USING METHODS AS APPROVED BY THE ENGINEER. EXISTING MATERIAL SUCH AS TRUSS MOUNTED CONDUIT SYSTEMS MAY BE REUSED FOR THE PROPOSED FIRE ALARM WARNING SYSTEM, PROVIDED THAT THE MATERIAL IS IN GOOD CONDITION, AND THE REUSE OF THE MATERIAL IS APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL INCLUDE A REPRESENTATIVE TO PROVIDE A FULL TEST OF THE SYSTEM AS INSTALLED. THE REPRESENTATIVE MAY BE CHOSEN BY THE CONTRACTOR, BUT HE OR SHE MUST HAVE EXPERT KNOWLEDGE OF THE FIRE ALARM SYSTEM AND EXPERIENCE WITH CHECKING AND TROUBLESHOOTING SIMILAR SYSTEMS. THE NAMED REPRESENTATIVE MUST BE APPROVED BY THE ENGINEER, PRIOR TO WORKING ON THIS SYSTEM.

AS PART OF THIS TEST, THE CONTRACTOR SHALL MAKE ANY NECESSARY CORRECTIONS TO THE SYSTEM TO PROVIDE A FULLY FUNCTIONAL ADVANCED WARNING SYSTEM AS SPECIFIED IN THE PLANS. ALL COSTS INCURRED BY THE CONTRACTOR TO TEST AND CORRECT THE WARNING SYSTEM SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM.

THIS ITEM SHALL ALSO INCLUDE REMOVAL OF THE EXISTING TUNNEL ALARM EQUIPMENT, INCLUDING BUT NOT LIMITED TO DMS SIGNS, EXTERNAL CONDUITS, POWER CABLE, COMMUNICATION CABLE, OR ANY OTHER MATERIAL NOT DESIGNATED FOR REUSE. THE REMOVED MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE PROJECT.

THE CONTRACTOR SHALL NOTIFY ODOT DISTRICT TRAFFIC AT (740-833-8198) OR (740-833-6287) AND NORTHWESTERN OHIO SECURITY SYSTEMS (419-227-1655) 3 WORKING DAYS PRIOR TO WORK ON THE FIRE ALARM SYSTEM AND WITHIN 24 HOURS FOLLOWING COMPLETION OF THE FIRE ALARM SYSTEM WORK.

THE WORKING PORTION OF THE TUNNEL ALARM SYSTEM SHALL BE DEFINED AS THE FIRE DETECTION HARDWARE IN THE TUNNEL, THE FIRE DETECTION CONTROLLER, AND THE EXISTING DMS SIGN OVER THE "I-670 EAST, AIRPORT, EXIT ONLY" SIGN AT APPROXIMATE STATION 132+90. ALL OTHER WIRING, POWER SERVICES, CONDUIT SYSTEMS, AND DMS SIGNS MAY BE REMOVED BY THE CONTRACTOR AT ANY TIME, WITH APPROVAL FROM THE ENGINEER.

THE WORKING PORTION OF THE TUNNEL ALARM SYSTEM MAY BE SHUT DOWN FOR ONE CONTINUOUS 24-HOUR TIME PERIOD, TO SWITCH FROM DMS TO THE FULL STATIC FLASHING SIGN OPERATION, AS SHOWN IN THE PLAN. OTHERWISE, THE WORKING PORTION OF THE TUNNEL ALARM MUST BE MAINTAINED IN FULLY OPERATIONAL MODE BY THE CONTRACTOR FROM THE TIME CONSTRUCTION OPERATIONS FIRST IMPACT THE SYSTEM UNTIL THE FINAL SYSTEM IS ACCEPTED BY THE ENGINEER. ALL COSTS NECESSARY TO MEET THIS PROVISION SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM.

PAYMENT FOR ITEM 630 "SIGNING, MISC.: MODIFICATION TO FIRE ALARM SYSTEM" WILL BE MADE AT THE CONTRACT UNIT PRICE PER EACH, INCLUDING ALL NECESSARY LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO MAKE THE SYSTEM FULLY FUNCTIONAL, TESTED, AND ACCEPTED.

ITEM 631 SIGNING FLASHER ASSEMBLY, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF INSTALLING A SIGN FLASHER ASSEMBLY IN CONFORMANCE WITH 731.06, EXCEPT THAT THE ASSEMBLY SHALL INCLUDE:

- * AN EXTERNAL MOUNT DISCONNECT SWITCH PER 732.21;
- * THE FLASHING BEACONS SHALL BE 12" RED LENSES;
- * THE CONTROL CABINET SHALL BE NEMA SIZE 5, GROUND MOUNTED PER TC-83.20, WITH A 6" RISER;
- * THE CABINET SHALL INCLUDE A WORK PAD, PER TC-83.20; AND,
- * THE CABINET SHALL INCLUDE AN UNINTERUPTIBLE POWER SUPPLY PER ITEM 633, HOUSED IN THE SIZE 5 CABINET.

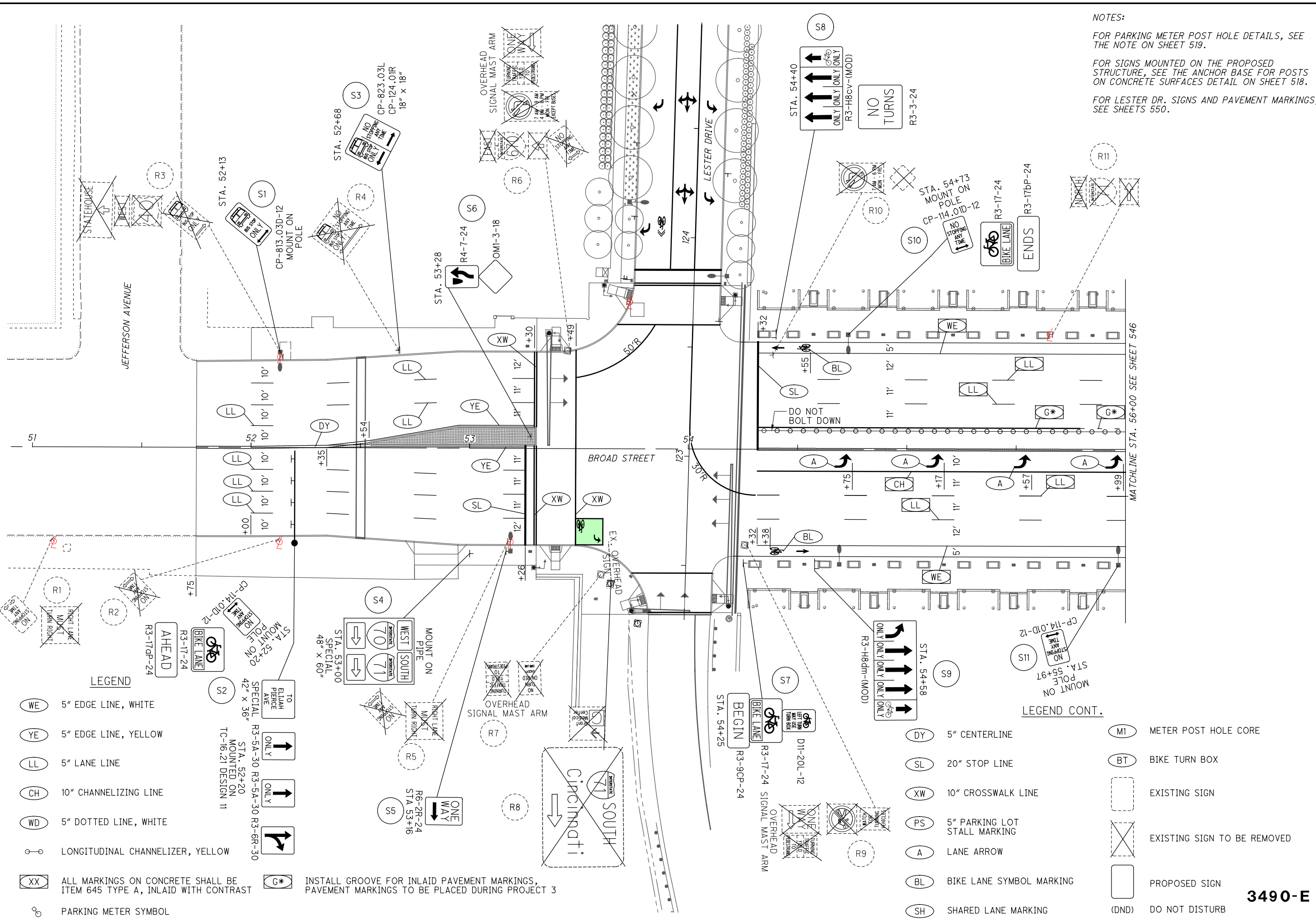
THE FLASHER CONTROLLER SHALL ACTIVATE WHEN A SIGNAL IS RECEIVED FROM THE FIRE ALARM CABINET. THE CONTRACTOR SHALL INCLUDE ANY NECESSARY HARDWARE OR DEVICES NECESSARY TO ACTIVATE AND DEACTIVATE THE FLASHING WARNING BEACONS, BASED ON COMMUNICATION FROM THE FIRE ALARM SYSTEM.

PAYMENT FOR ITEM 631 "SIGNING FLASHER ASSEMBLY, AS PER PLAN" WILL BE MADE AT THE CONTRACT UNIT PRICE PER EACH, INCLUDING ALL NECESSARY LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO MAKE THE SYSTEM FULLY FUNCTIONAL, TESTED, AND ACCEPTED.

QUANTITIES

ITEM	EXTENSION	DESCRIPTION	QUANTITY	UNIT
625	E00450	CONNECTION, FUSED PULL APART	3	EACH
625	E00460	CONNECTION, UNFUSED PULL APART	3	EACH
625	E00480	CONNECTION, UNFUSED PERMANENT	6	EACH
625	E23000	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE	8526	FT
625	E23410	NO. 12 AWG POLE AND BRACKET CABLE	2553	FT
625	E25400	CONDUIT, 2", 725.04	367	FT
625	E29000	TRENCH	367	FT
625	E29900	JUNCTION BOX	3	EACH
625	E30700	PULL BOX, 725.08, 18"	3	EACH
625	E32000	GROUND ROD	1	EACH
630	E97700	SIGNING, MISC.: MODIFICATION TO FIRE ALARM SYSTEM	1	EACH
631	E92000	SIGN FLASHER ASSEMBLY, AS PER PLAN	1	EACH

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NOTES:
 FOR PARKING METER POST HOLE DETAILS, SEE THE NOTE ON SHEET 519.
 FOR SIGNS MOUNTED ON THE PROPOSED STRUCTURE, SEE THE ANCHOR BASE FOR POSTS ON CONCRETE SURFACES DETAIL ON SHEET 518.
 FOR LESTER DR. SIGNS AND PAVEMENT MARKINGS, SEE SHEETS 550.

CALCULATED MJT
 CHECKED MJC
 HORIZONTAL SCALE IN FEET
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**SIGN AND PAVEMENT MARKING PLAN
 BROAD STREET**

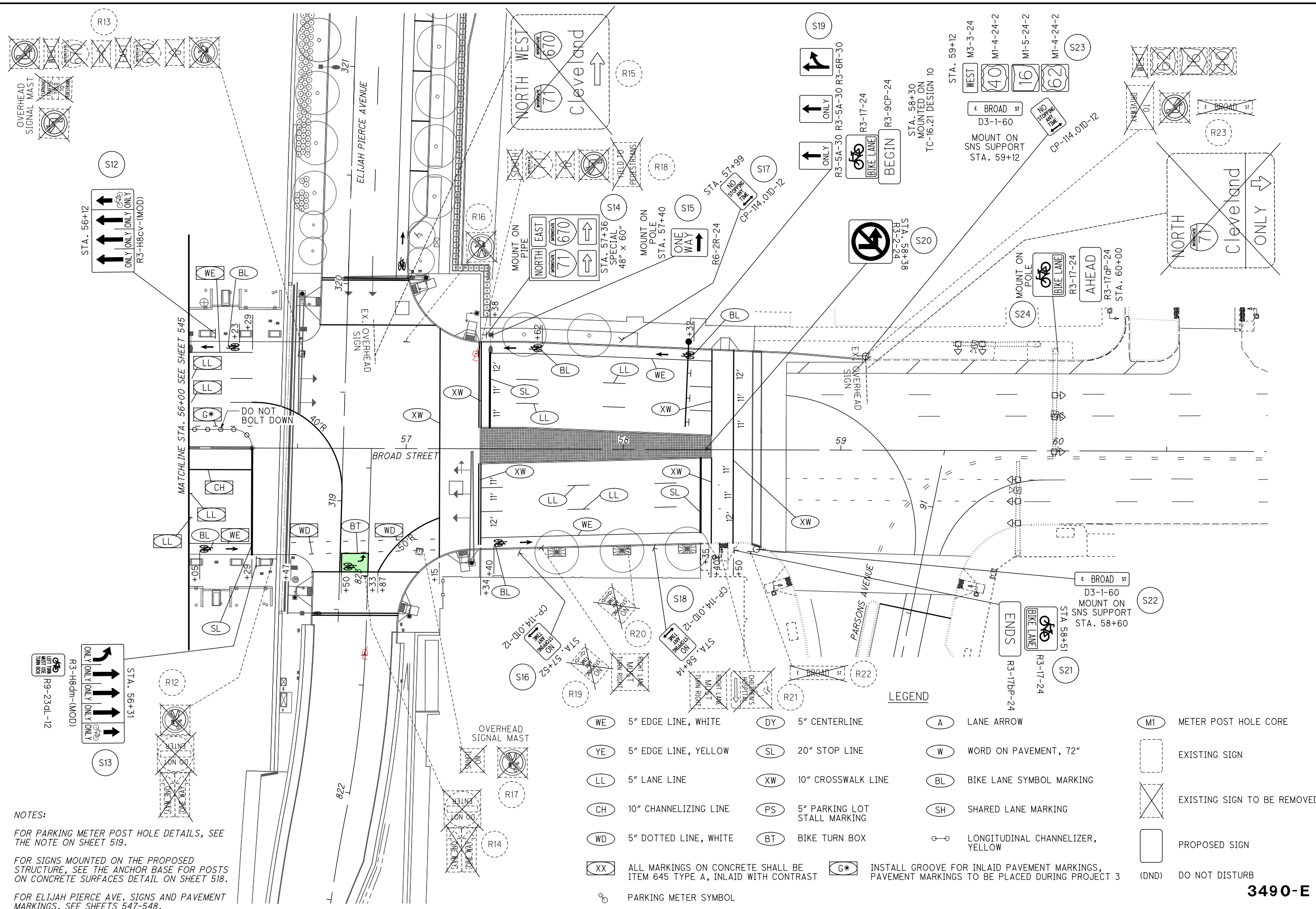
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545
881

- LEGEND**
- (WE) 5" EDGE LINE, WHITE
 - (YE) 5" EDGE LINE, YELLOW
 - (LL) 5" LANE LINE
 - (CH) 10" CHANNELIZING LINE
 - (WD) 5" DOTTED LINE, WHITE
 - LONGITUDINAL CHANNELIZER, YELLOW
 - (XX) ALL MARKINGS ON CONCRETE SHALL BE ITEM 645 TYPE A, INLAID WITH CONTRAST
 - (G*) INSTALL GROOVE FOR INLAID PAVEMENT MARKINGS, PAVEMENT MARKINGS TO BE PLACED DURING PROJECT 3
 - (P) PARKING METER SYMBOL
 - (S1) TO ELIAH PIERCE AVE SPECIAL R3-5A-30 R3-5A-30 R3-6R-30 MOUNTED ON T-C-16-21 DESIGN 11
 - (S2) 42" x 36"
 - (S3) 48" x 60"
 - (S4) 48" x 60"
 - (S5) R6-2R-24 STA 53+16
 - (S6) R4-7-24 OMI-3-18
 - (S7) R3-9CP-24
 - (S8) R3-H8cv-(MOD)
 - (S9) R3-H8dm-(MOD)
 - (S10) CP-114.01D-12
 - (S11) CP-114.01D-12
 - (S12) R3-17-24
 - (S13) R3-17-24
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 - (S98) R3-17-24
 - (S99) R3-17-24
 - (S100) R3-17-24

- LEGEND CONT.**
- (M1) METER POST HOLE CORE
 - (BT) BIKE TURN BOX
 - () EXISTING SIGN
 - () EXISTING SIGN TO BE REMOVED
 - () PROPOSED SIGN
 - (DND) DO NOT DISTURB
 - (DY) 5" CENTERLINE
 - (SL) 20" STOP LINE
 - (XW) 10" CROSSWALK LINE
 - (PS) 5" PARKING LOT STALL MARKING
 - (A) LANE ARROW
 - (BL) BIKE LANE SYMBOL MARKING
 - (SH) SHARED LANE MARKING

3490-E



NOTES:

FOR PARKING METER POST HOLE DETAILS, SEE THE NOTE ON SHEET 519.

FOR SIGNS MOUNTED ON THE PROPOSED STRUCTURE, SEE THE ANCHOR BASE FOR POSTS ON CONCRETE SURFACES DETAIL ON SHEET 518.

FOR ELIJAH PIERCE AVE. SIGNS AND PAVEMENT MARKINGS, SEE SHEETS 547-548.

(WE)	5" EDGE LINE, WHITE	(DY)	5" CENTERLINE	(A)	LANE ARROW	(M1)	METER POST HOLE CORE
(YE)	5" EDGE LINE, YELLOW	(SL)	20" STOP LINE	(W)	WORD ON PAVEMENT, 72"	(EXIST)	EXISTING SIGN
(LL)	5" LANE LINE	(XW)	10" CROSSWALK LINE	(BL)	BIKE LANE SYMBOL MARKING	(X-EXIST)	EXISTING SIGN TO BE REMOVED
(CH)	10" CHANNELIZING LINE	(PS)	5" PARKING LOT STALL MARKING	(SH)	SHARED LANE MARKING	(PROP)	PROPOSED SIGN
(WD)	5" DOTTED LINE, WHITE	(BT)	BIKE TURN BOX	(LONG)	LONGITUDINAL CHANNELIZER, YELLOW	(DND)	DO NOT DISTURB
(XX)	ALL MARKINGS ON CONCRETE SHALL BE ITEM 645 TYPE A, INLAID WITH CONTRAST	(G*)	INSTALL GROOVE FOR INLAID PAVEMENT MARKINGS, PAVEMENT MARKINGS TO BE PLACED DURING PROJECT 3				
(PMS)	PARKING METER SYMBOL						

CALCULATED MJT CHECKED MJC

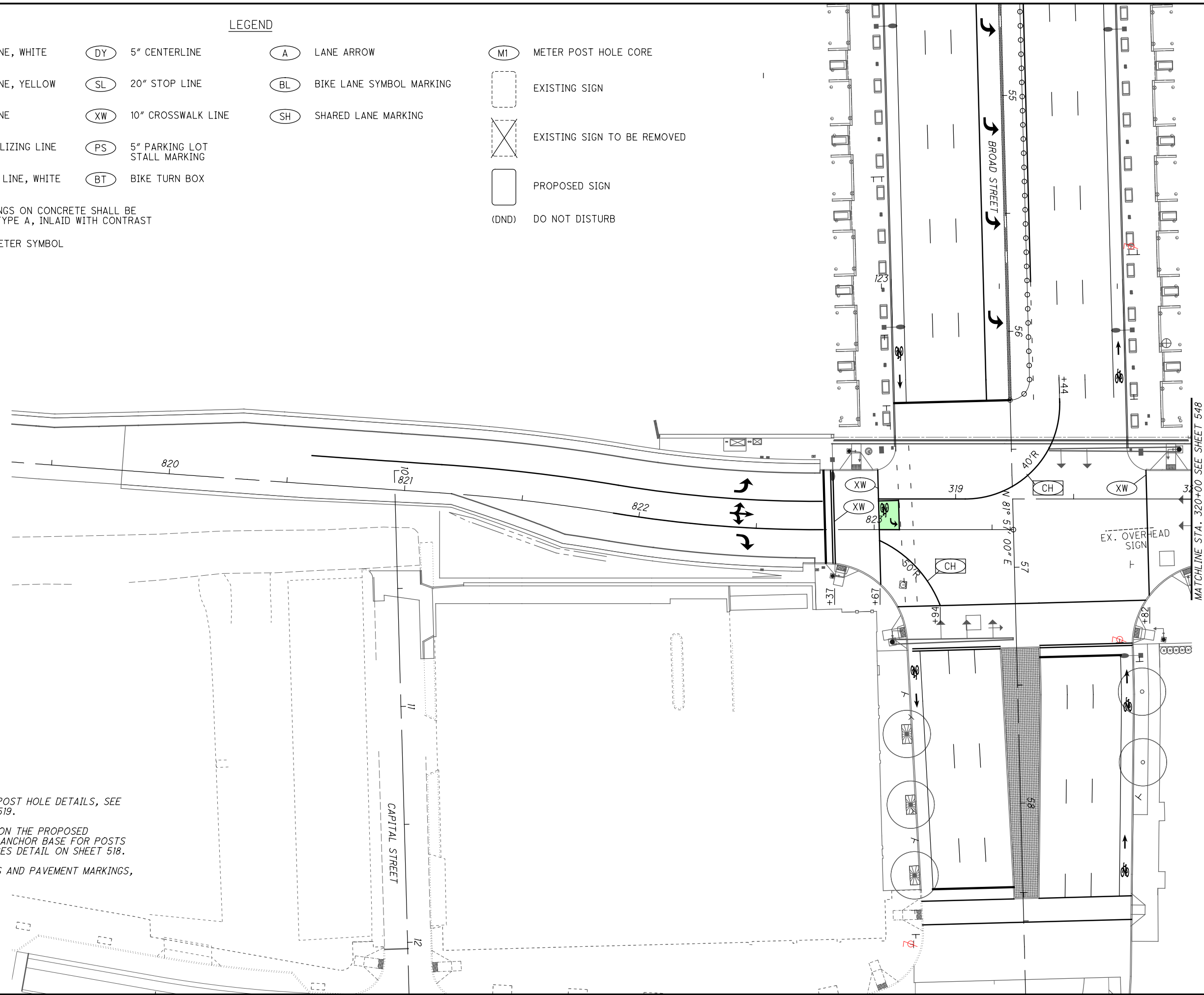
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SIGN AND PAVEMENT MARKING PLAN
BROAD STREET

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LEGEND

(WE) 5" EDGE LINE, WHITE	(DY) 5" CENTERLINE	(A) LANE ARROW	(M1) METER POST HOLE CORE
(YE) 5" EDGE LINE, YELLOW	(SL) 20" STOP LINE	(BL) BIKE LANE SYMBOL MARKING	[Dashed Box] EXISTING SIGN
(LL) 5" LANE LINE	(XW) 10" CROSSWALK LINE	(SH) SHARED LANE MARKING	[Box with X] EXISTING SIGN TO BE REMOVED
(CH) 10" CHANNELIZING LINE	(PS) 5" PARKING LOT STALL MARKING	[Empty Box] PROPOSED SIGN	(DND) DO NOT DISTURB
(WD) 5" DOTTED LINE, WHITE	(BT) BIKE TURN BOX		
(XX) ALL MARKINGS ON CONCRETE SHALL BE ITEM 645 TYPE A, INLAID WITH CONTRAST			
(P) PARKING METER SYMBOL			



NOTES:

FOR PARKING METER POST HOLE DETAILS, SEE THE NOTE ON SHEET 519.

FOR SIGNS MOUNTED ON THE PROPOSED STRUCTURE, SEE THE ANCHOR BASE FOR POSTS ON CONCRETE SURFACES DETAIL ON SHEET 518.

FOR BROAD ST. SIGNS AND PAVEMENT MARKINGS, SEE SHEETS 545-546.

3490-E

CALCULATED MJT
CHECKED MJC

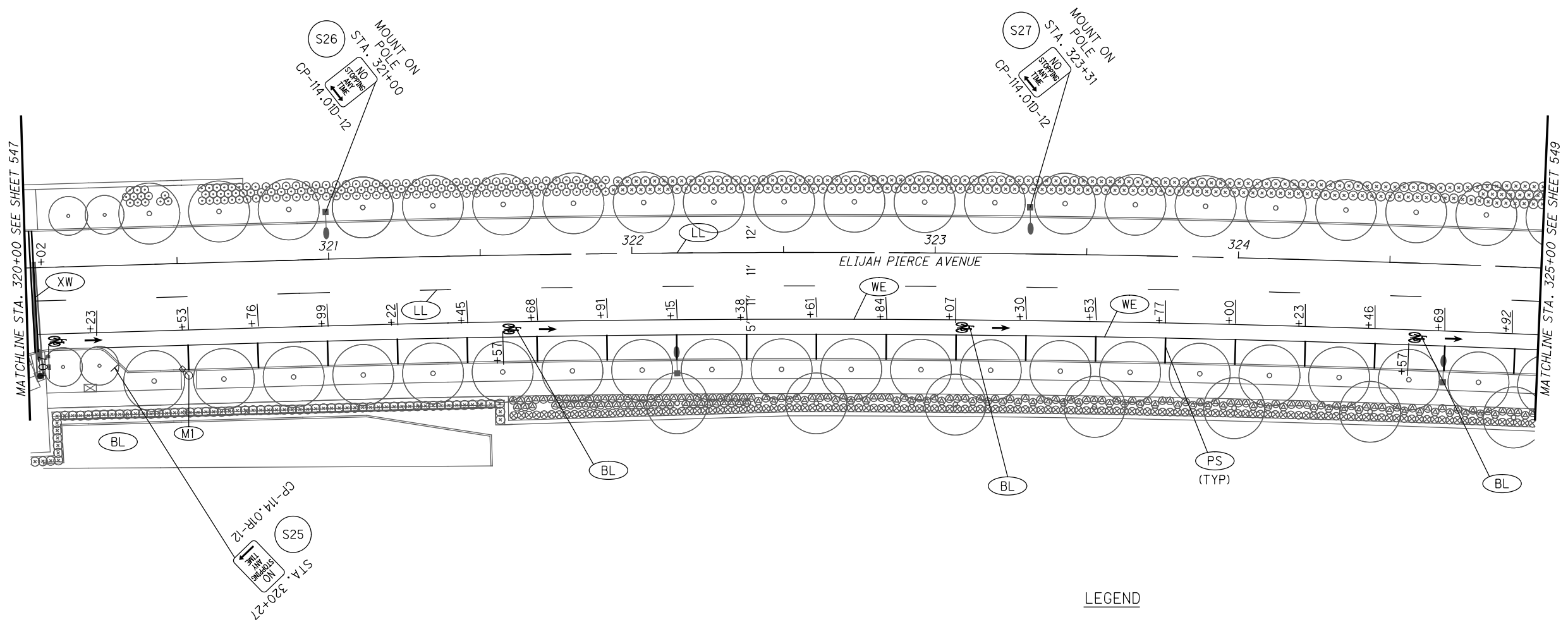
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SIGN AND PAVEMENT MARKING PLAN
ELIJAH PIERCE AVENUE

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NOTES:

FOR PARKING METER POST HOLE DETAILS, SEE THE NOTE ON SHEET 519.
 FOR SIGNS MOUNTED ON THE PROPOSED STRUCTURE, SEE THE ANCHOR BASE FOR POSTS ON CONCRETE SURFACES DETAIL ON SHEET 518.

LEGEND			
(WE)	5" EDGE LINE, WHITE	(DY)	5" CENTERLINE
(YE)	5" EDGE LINE, YELLOW	(SL)	20" STOP LINE
(LL)	5" LANE LINE	(XW)	10" CROSSWALK LINE
(CH)	10" CHANNELIZING LINE	(PS)	5" PARKING LOT STALL MARKING
(WD)	5" DOTTED LINE, WHITE	(BT)	BIKE TURN BOX
(XX)	ALL MARKINGS ON CONCRETE SHALL BE ITEM 645 TYPE A, INLAID WITH CONTRAST	(A)	LANE ARROW
(P)	PARKING METER SYMBOL	(BL)	BIKE LANE SYMBOL MARKING
		(SH)	SHARED LANE MARKING
		(MI)	METER POST HOLE CORE
		(DND)	DO NOT DISTURB
		(Existing Sign)	EXISTING SIGN
		(Existing Sign to be Removed)	EXISTING SIGN TO BE REMOVED
		(Proposed Sign)	PROPOSED SIGN

CALCULATED MJT
 CHECKED MJC

**SIGN AND PAVEMENT MARKING PLAN
 ELIJAH PIERCE AVENUE**

FRA-71-17.46

3490-E

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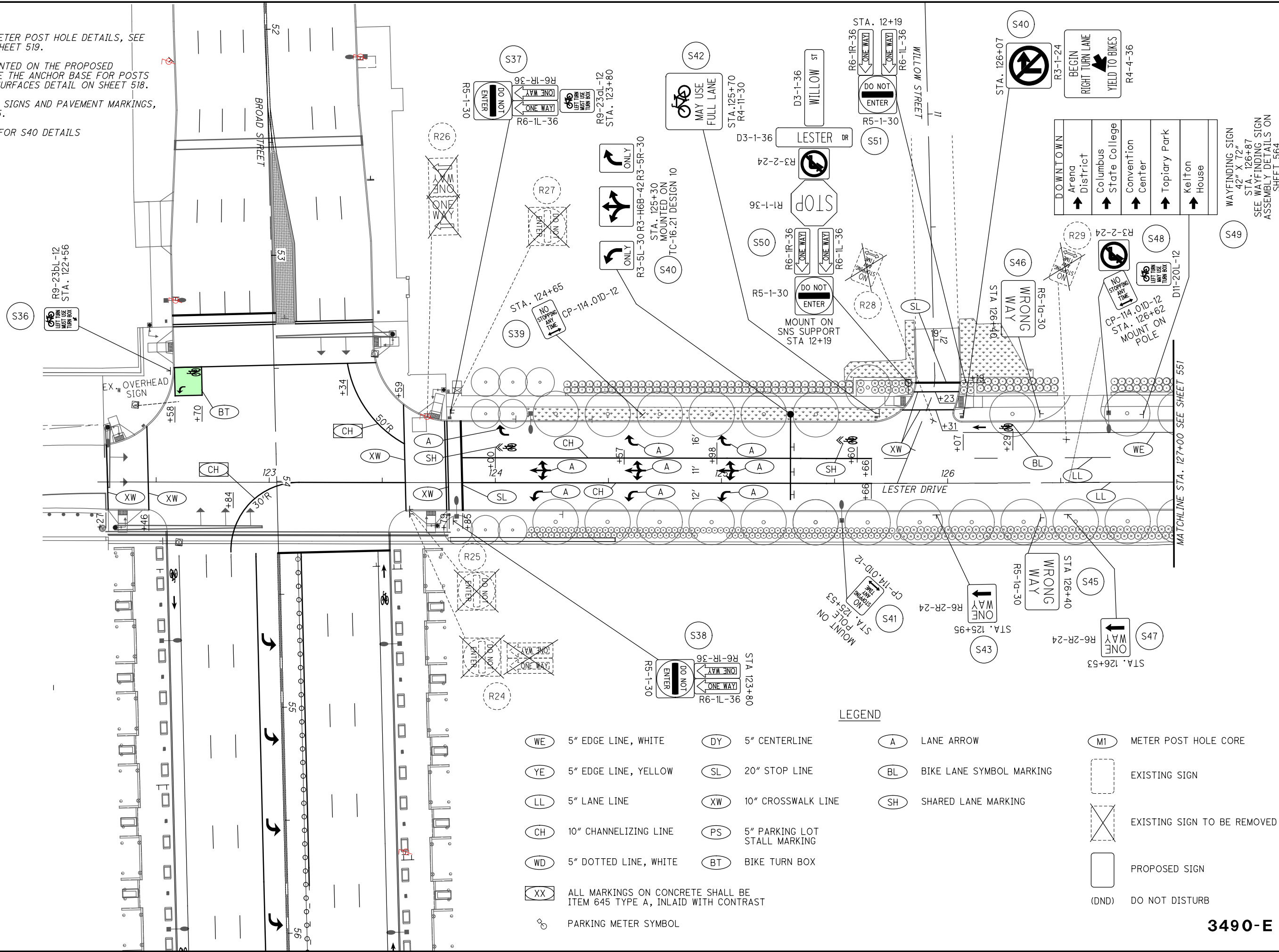
NOTES:

FOR PARKING METER POST HOLE DETAILS, SEE THE NOTE ON SHEET 519.

FOR SIGNS MOUNTED ON THE PROPOSED STRUCTURE, SEE THE ANCHOR BASE FOR POSTS ON CONCRETE SURFACES DETAIL ON SHEET 518.

FOR BROAD ST. SIGNS AND PAVEMENT MARKINGS, SEE SHEETS 545.

SEE SHEET 561 FOR S40 DETAILS



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**SIGN AND PAVEMENT MARKING PLAN
LESTER DRIVE**

FRA-71-17.46

550
881

CALCULATED
MJC
CHECKED
MJC



WAYFINDING SIGN
42" X 72"
STA. 126+87
SEE WAYFINDING SIGN
ASSEMBLY DETAILS ON
SHEET 564

3490-E

LEGEND

- | | | | |
|--|-----------------------------------|-------------------------------|---------------------------------|
| (WE) 5" EDGE LINE, WHITE | (DY) 5" CENTERLINE | (A) LANE ARROW | (M1) METER POST HOLE CORE |
| (YE) 5" EDGE LINE, YELLOW | (SL) 20" STOP LINE | (BL) BIKE LANE SYMBOL MARKING | (---) EXISTING SIGN |
| (LL) 5" LANE LINE | (XW) 10" CROSSWALK LINE | (SH) SHARED LANE MARKING | (X) EXISTING SIGN TO BE REMOVED |
| (CH) 10" CHANNELIZING LINE | (PS) 5" PARKING LOT STALL MARKING | | (□) PROPOSED SIGN |
| (WD) 5" DOTTED LINE, WHITE | (BT) BIKE TURN BOX | | (DND) DO NOT DISTURB |
| (XX) ALL MARKINGS ON CONCRETE SHALL BE ITEM 645 TYPE A, INLAID WITH CONTRAST | | | |
| (P) PARKING METER SYMBOL | | | |

LEGEND

-  PROPOSED 32" OR 48" ROUND PULLBOX
-  PROPOSED CONDUIT DUCT BANK

NOTE:
ASSOCIATED DUCT BANK DETAILS
ARE ON THE FOLLOWING SHEET.

N



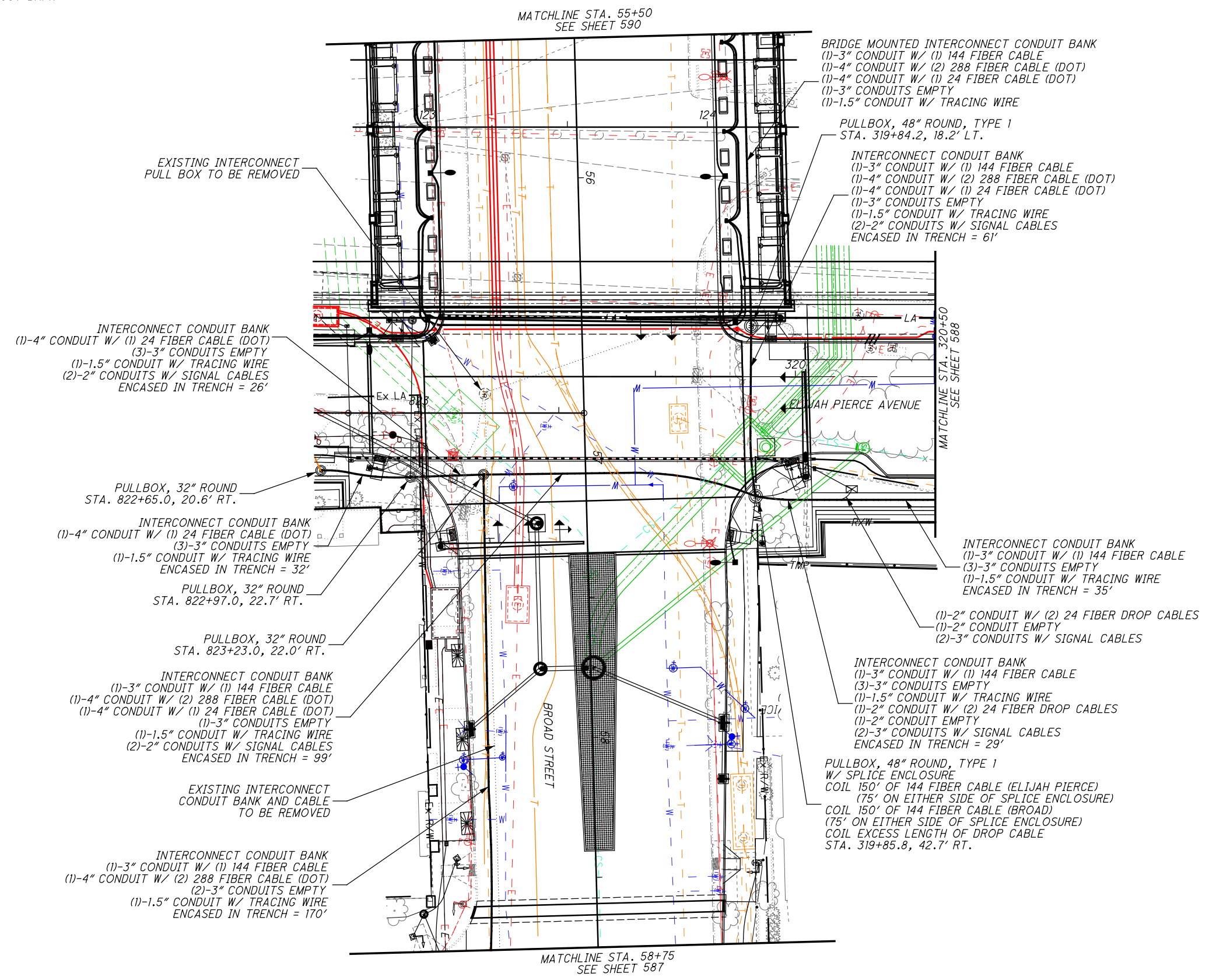
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SCALE IN FEET

CALCULATED	EMW	CHECKED	RMK

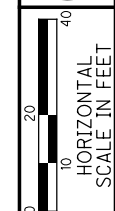
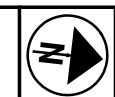
**TRAFFIC SIGNAL INTERCONNECT PLAN
ELIJAH PIERCE AVENUE**

FRA-71-17.46

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881



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CALCULATED
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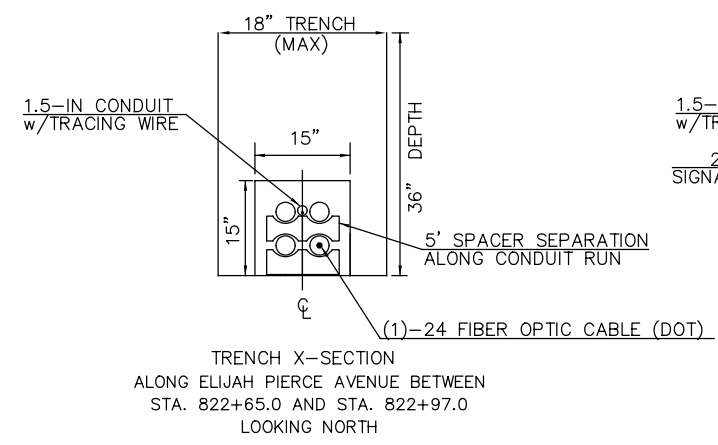
TRAFFIC SIGNAL INTERCONNECT PLAN
ELIJAH PIERCE AVENUE AND BROAD STREET

FRA-71-17.46

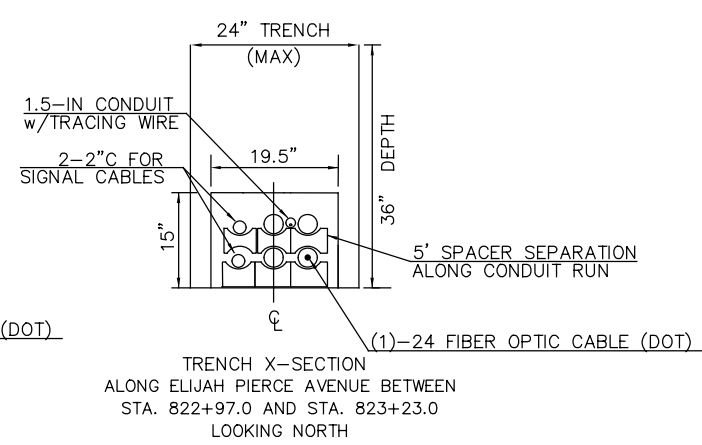
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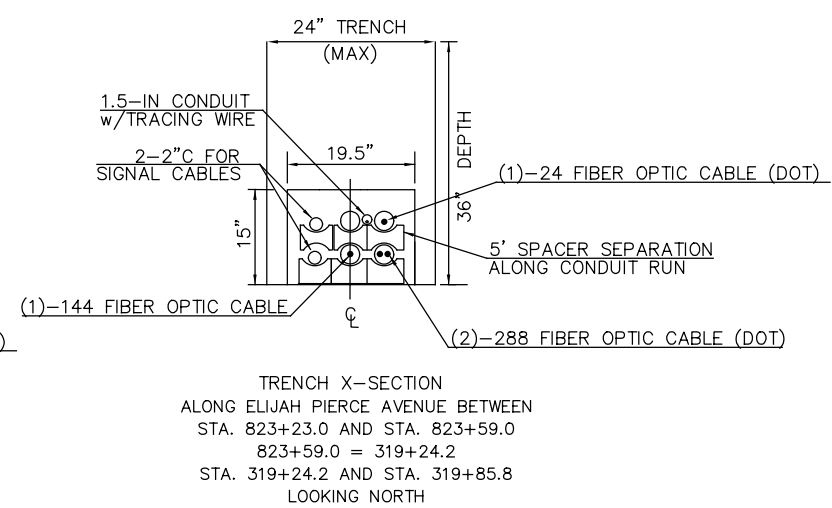
1-4"C, 3-3"C + 1-1.5" CONDUIT BANK
3" CONCRETE ENCASEMENT
6-1/2" C-C CONDUIT SEPARATION



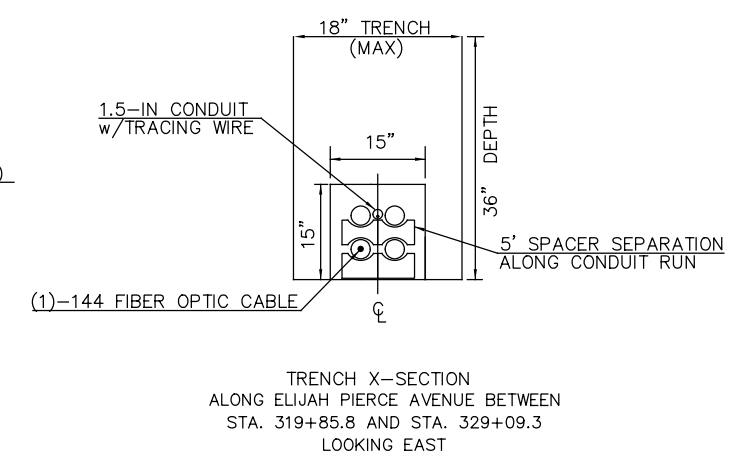
1-4"C, 3-3"C + 2-2"C + 1-1.5" CONDUIT BANK
3" CONCRETE ENCASEMENT
6-1/2" C-C CONDUIT SEPARATION



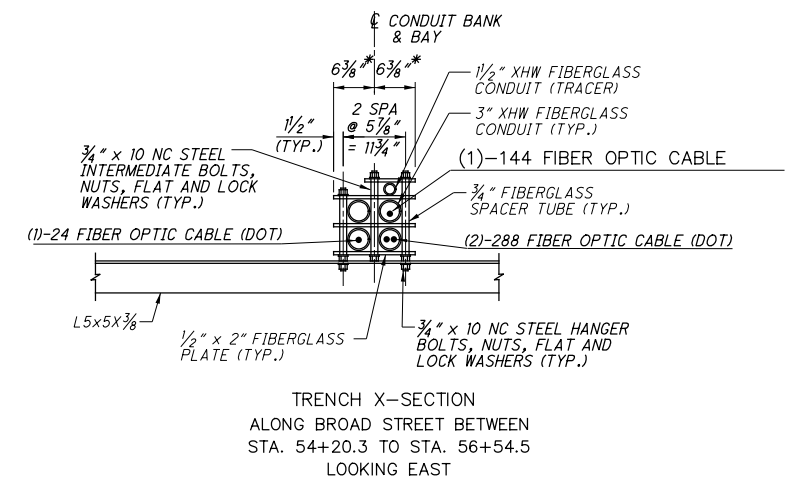
2-4"C, 2-3"C + 2-2"C + 1-1.5" CONDUIT BANK
3" CONCRETE ENCASEMENT
6-1/2" C-C CONDUIT SEPARATION



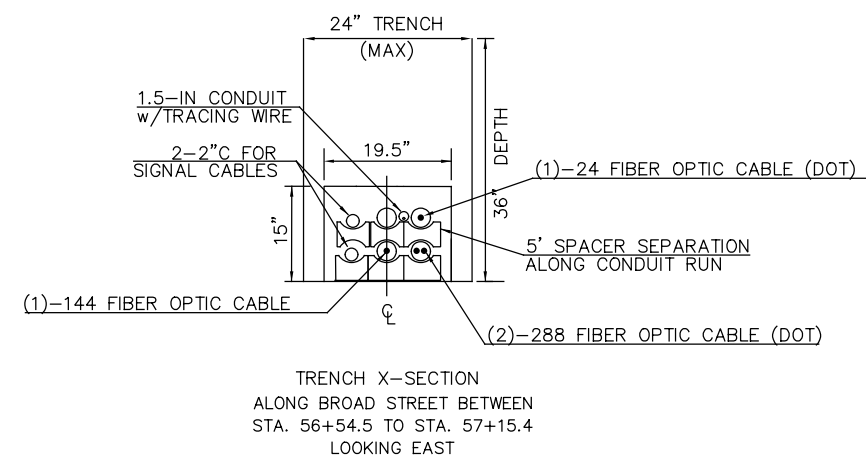
4-3"C + 1-1.5" CONDUIT BANK
3" CONCRETE ENCASEMENT
5-1/2" C-C CONDUIT SEPARATION



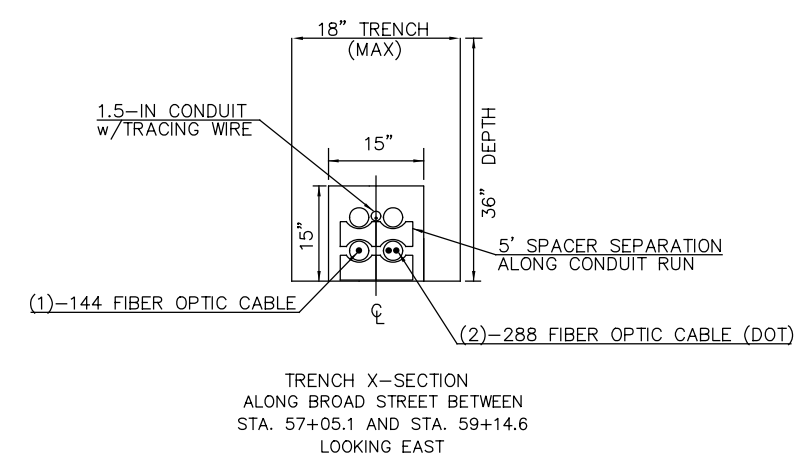
2-4"C, 2-3"C + 1-1.5" CONDUIT BANK
ON BRIDGE



2-4"C, 2-3"C, 2-2"C + 1-1.5" CONDUIT BANK
3" CONCRETE ENCASEMENT
6-1/2" C-C CONDUIT SEPARATION



1-4"C, 3-3"C + 1-1.5" CONDUIT BANK
3" CONCRETE ENCASEMENT
6-1/2" C-C CONDUIT SEPARATION



NOTE:
WIRE-WRAP EACH TOP-ROW CONDUIT
TO SPACERS TO HOLD IN PLACE.

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LEGEND

- ⊙ PROPOSED 32" OR 48" ROUND PULLBOX
- PROPOSED CONDUIT DUCT BANK

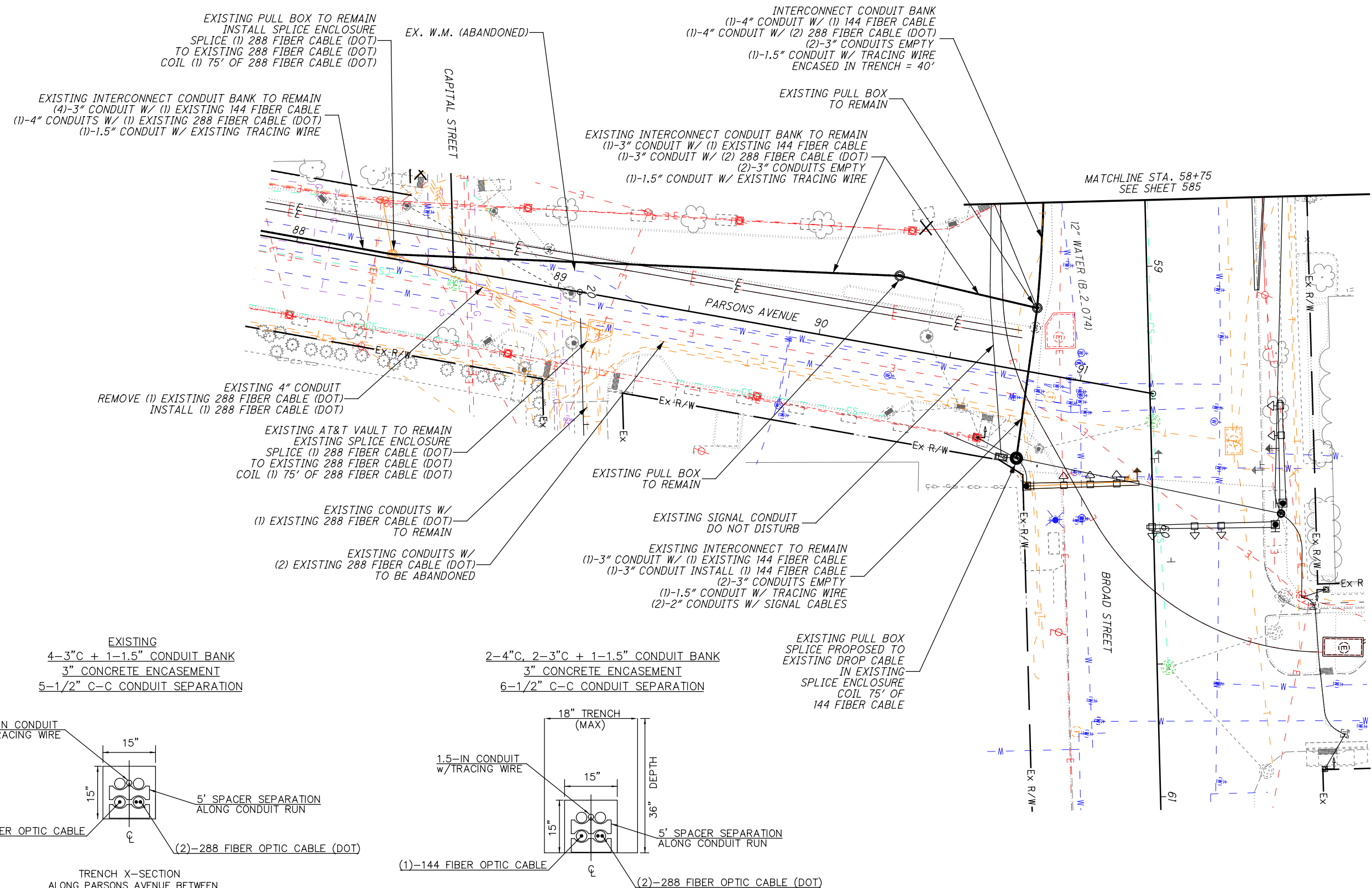


CALCULATED	EMW	CHECKED	RMK

**TRAFFIC SIGNAL INTERCONNECT PLAN
PARSONS AVENUE**

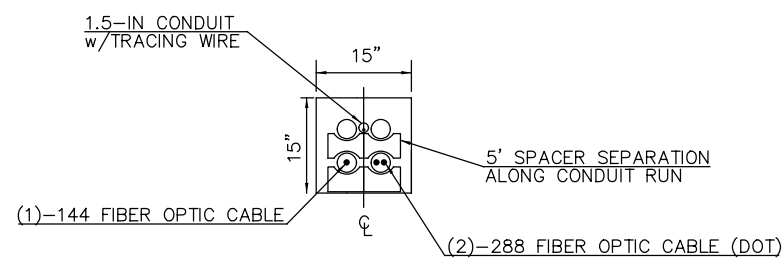
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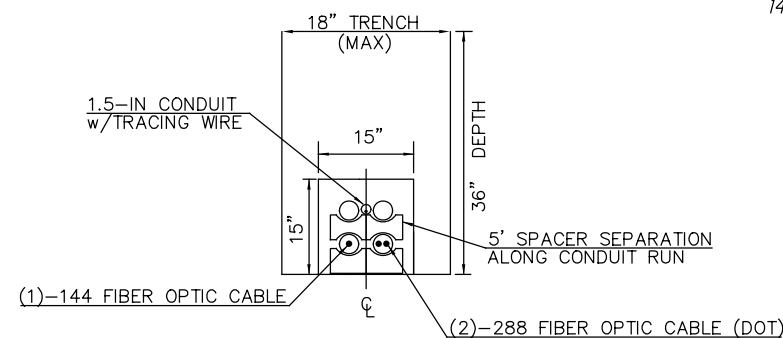


EXISTING
4-3"C + 1-1.5" CONDUIT BANK
3" CONCRETE ENCASUREMENT
5-1/2" C-C CONDUIT SEPARATION

2-4"C, 2-3"C + 1-1.5" CONDUIT BANK
3" CONCRETE ENCASUREMENT
6-1/2" C-C CONDUIT SEPARATION



TRENCH X-SECTION
ALONG PARSONS AVENUE BETWEEN
STA. 88+36.3 AND STA. 90+79.3
LOOKING NORTH



TRENCH X-SECTION
ALONG BROAD STREET BETWEEN
STA. 57+05.1 AND STA. 59+14.6
LOOKING EAST

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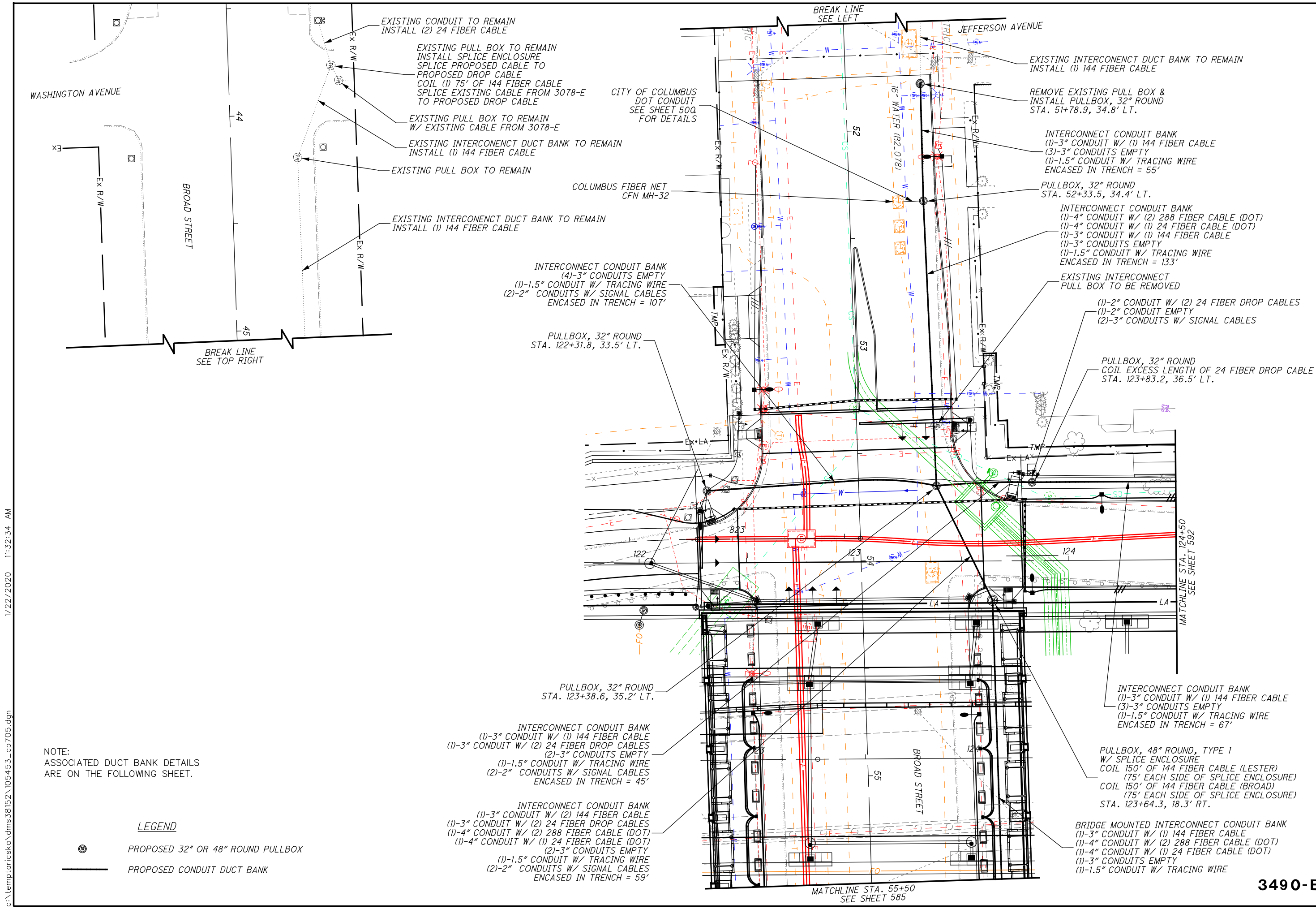
0 20 40
HORIZONTAL SCALE IN FEET

CALCULATED
EMW
CHECKED
RMK

TRAFFIC SIGNAL INTERCONNECT PLAN
LESTER DRIVE

FRA-71-17.46

590
881



EXISTING CONDUIT TO REMAIN
INSTALL (2) 24 FIBER CABLE

EXISTING PULL BOX TO REMAIN
INSTALL SPLICE ENCLOSURE
SPLICE PROPOSED CABLE TO
PROPOSED DROP CABLE
COIL (1) 75' OF 144 FIBER CABLE
SPLICE EXISTING CABLE FROM 3078-E
TO PROPOSED DROP CABLE

EXISTING PULL BOX TO REMAIN
W/ EXISTING CABLE FROM 3078-E

EXISTING INTERCONNECT DUCT BANK TO REMAIN
INSTALL (1) 144 FIBER CABLE

EXISTING PULL BOX TO REMAIN

EXISTING INTERCONNECT DUCT BANK TO REMAIN
INSTALL (1) 144 FIBER CABLE

INTERCONNECT CONDUIT BANK
(4)-3" CONDUITS EMPTY
(1)-1.5" CONDUIT W/ TRACING WIRE
(2)-2" CONDUITS W/ SIGNAL CABLES
ENCASED IN TRENCH = 107'

PULLBOX, 32" ROUND
STA. 122+31.8, 33.5' LT.

CITY OF COLUMBUS
DOT CONDUIT
SEE SHEET 50Q
FOR DETAILS

COLUMBUS FIBER NET
CFN MH-32

BREAK LINE
SEE LEFT

EXISTING INTERCONNECT DUCT BANK TO REMAIN
INSTALL (1) 144 FIBER CABLE

REMOVE EXISTING PULL BOX &
INSTALL PULLBOX, 32" ROUND
STA. 51+78.9, 34.8' LT.

INTERCONNECT CONDUIT BANK
(1)-3" CONDUIT W/ (1) 144 FIBER CABLE
(3)-3" CONDUITS EMPTY
(1)-1.5" CONDUIT W/ TRACING WIRE
ENCASED IN TRENCH = 55'

PULLBOX, 32" ROUND
STA. 52+33.5, 34.4' LT.

INTERCONNECT CONDUIT BANK
(1)-4" CONDUIT W/ (2) 288 FIBER CABLE (DOT)
(1)-4" CONDUIT W/ (1) 24 FIBER CABLE (DOT)
(1)-3" CONDUIT W/ (1) 144 FIBER CABLE
(1)-3" CONDUITS EMPTY
(1)-1.5" CONDUIT W/ TRACING WIRE
ENCASED IN TRENCH = 133'

EXISTING INTERCONNECT
PULL BOX TO BE REMOVED

(1)-2" CONDUIT W/ (2) 24 FIBER DROP CABLES
(1)-2" CONDUIT EMPTY
(2)-3" CONDUITS W/ SIGNAL CABLES

PULLBOX, 32" ROUND
COIL EXCESS LENGTH OF 24 FIBER DROP CABLE
STA. 123+83.2, 36.5' LT.

MATCHLINE STA. 124+50
SEE SHEET 592

PULLBOX, 32" ROUND
STA. 123+38.6, 35.2' LT.

INTERCONNECT CONDUIT BANK
(1)-3" CONDUIT W/ (1) 144 FIBER CABLE
(3)-3" CONDUITS EMPTY
(1)-1.5" CONDUIT W/ TRACING WIRE
(2)-2" CONDUITS W/ SIGNAL CABLES
ENCASED IN TRENCH = 45'

INTERCONNECT CONDUIT BANK
(1)-3" CONDUIT W/ (2) 144 FIBER CABLE
(1)-3" CONDUIT W/ (2) 24 FIBER DROP CABLES
(1)-4" CONDUIT W/ (2) 288 FIBER CABLE (DOT)
(1)-4" CONDUIT W/ (1) 24 FIBER CABLE (DOT)
(2)-3" CONDUITS EMPTY
(1)-1.5" CONDUIT W/ TRACING WIRE
(2)-2" CONDUITS W/ SIGNAL CABLES
ENCASED IN TRENCH = 59'

INTERCONNECT CONDUIT BANK
(1)-3" CONDUIT W/ (1) 144 FIBER CABLE
(3)-3" CONDUITS EMPTY
(1)-1.5" CONDUIT W/ TRACING WIRE
ENCASED IN TRENCH = 67'

PULLBOX, 48" ROUND, TYPE 1
W/ SPLICE ENCLOSURE
COIL 150' OF 144 FIBER CABLE (LESTER)
(75' EACH SIDE OF SPLICE ENCLOSURE)
COIL 150' OF 144 FIBER CABLE (BROAD)
(75' EACH SIDE OF SPLICE ENCLOSURE)
STA. 123+64.3, 18.3' RT.

BRIDGE MOUNTED INTERCONNECT CONDUIT BANK
(1)-3" CONDUIT W/ (1) 144 FIBER CABLE
(1)-4" CONDUIT W/ (2) 288 FIBER CABLE (DOT)
(1)-4" CONDUIT W/ (1) 24 FIBER CABLE (DOT)
(1)-3" CONDUITS EMPTY
(1)-1.5" CONDUIT W/ TRACING WIRE

MATCHLINE STA. 55+50
SEE SHEET 585

WASHINGTON AVENUE

BROAD STREET

BROAD STREET

EX

EX R/W

EX R/W

EX R/W

EX R/W

EX R/W

EX R/W

EX R/W

EX R/W

EX R/W

EX R/W

EX R/W

EX R/W

EX R/W

EX R/W

EX R/W

NOTE:
ASSOCIATED DUCT BANK DETAILS
ARE ON THE FOLLOWING SHEET.

LEGEND

- ⊙ PROPOSED 32" OR 48" ROUND PULLBOX
- PROPOSED CONDUIT DUCT BANK

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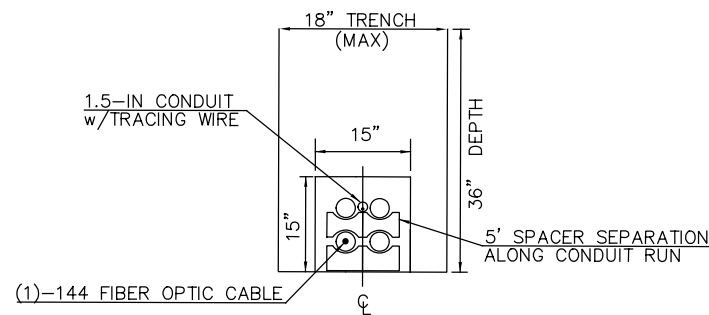
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TRAFFIC SIGNAL INTERCONNECT PLAN
LESTER DRIVE AND BROAD STREET

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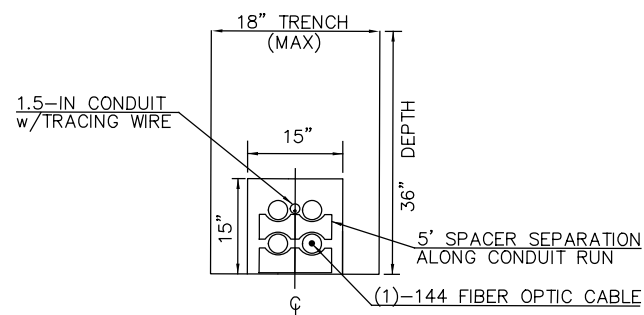
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4-3"C + 1-1.5" CONDUIT BANK
3" CONCRETE ENCASEMENT
5-1/2" C-C CONDUIT SEPARATION



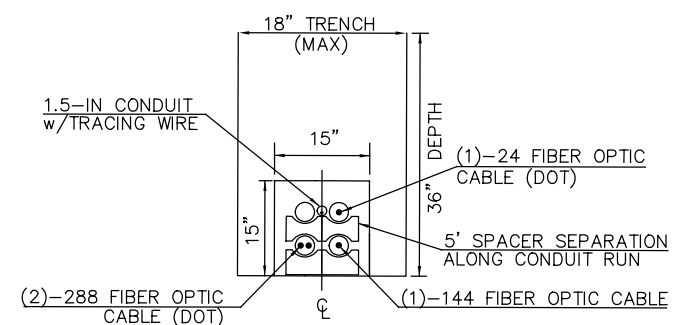
TRENCH X-SECTION
ALONG LESTER DRIVE BETWEEN
STA. 123+83.2 AND STA. 132+77.8
LOOKING NORTH

4-3"C + 1-1.5" CONDUIT BANK
3" CONCRETE ENCASEMENT
5-1/2" C-C CONDUIT SEPARATION



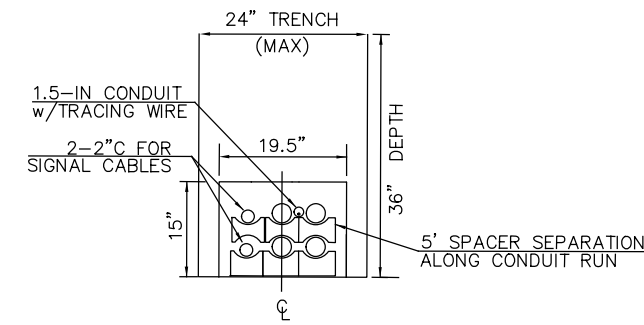
TRENCH X-SECTION
ALONG BROAD STREET BETWEEN
STA. 51+78.9 AND STA. 52+33.5
LOOKING EAST

1-4"C, 3-3"C + 1-1.5" CONDUIT BANK
3" CONCRETE ENCASEMENT
6-1/2" C-C CONDUIT SEPARATION



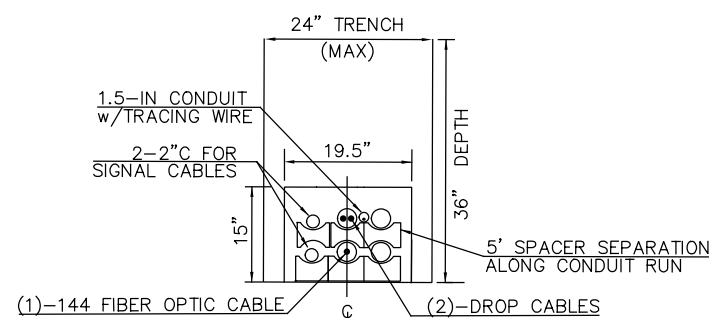
TRENCH X-SECTION
ALONG BROAD STREET BETWEEN
STA. 52+33.5 AND STA. 53+66.2
LOOKING EAST

4-3"C + 2-2"C + 1-1.5" CONDUIT BANK
3" CONCRETE ENCASEMENT
5-1/2" C-C CONDUIT SEPARATION



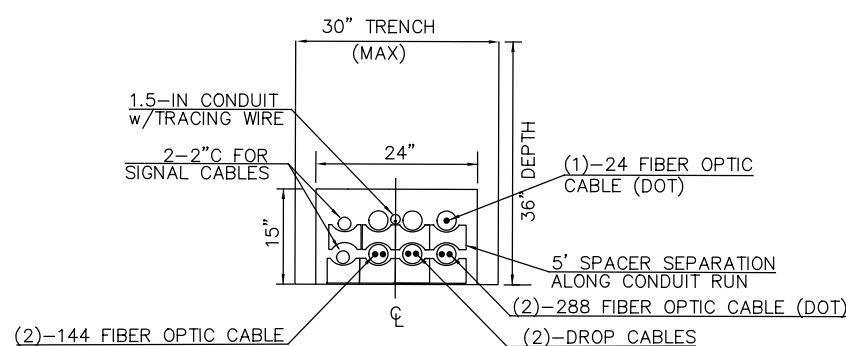
TRENCH X-SECTION
ALONG LESTER DRIVE BETWEEN
STA. 122+31.8 TO STA. 123+38.6
LOOKING NORTH

4-3"C + 2-2"C + 1-1.5" CONDUIT BANK
3" CONCRETE ENCASEMENT
5-1/2" C-C CONDUIT SEPARATION



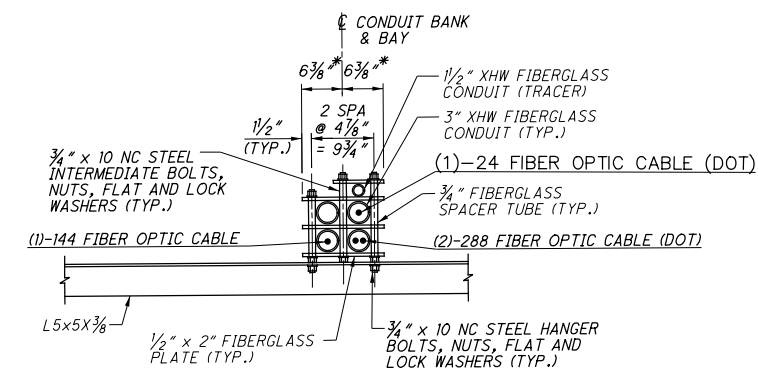
TRENCH X-SECTION
ALONG LESTER DRIVE BETWEEN
STA. 123+38.6 TO STA. 123+83.2
LOOKING NORTH

2-4"C, 4-3"C, 2-2"C + 1-1.5" CONDUIT BANK
3" CONCRETE ENCASEMENT
6-1/2" C-C CONDUIT SEPARATION



TRENCH X-SECTION
ALONG BROAD STREET BETWEEN
STA. 53+66.2 TO STA. 54+20.3
LOOKING EAST

2-2"C, 2-3"C + 1-1.5" CONDUIT BANK
ON BRIDGE



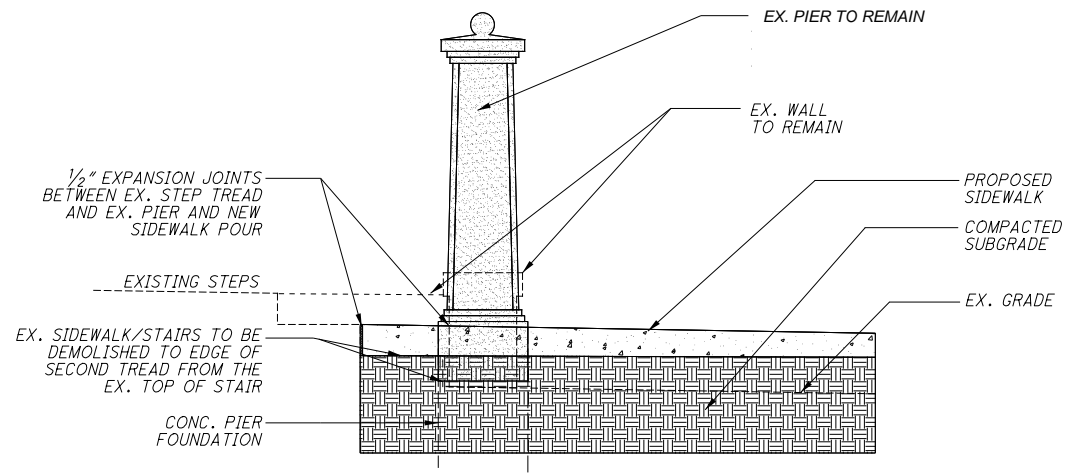
TRENCH X-SECTION
ALONG BROAD STREET BETWEEN
STA. 54+20.3 TO STA. 56+54.5
LOOKING EAST

NOTE:
WIRE-WRAP EACH TOP-ROW CONDUIT
TO SPACERS TO HOLD IN PLACE.

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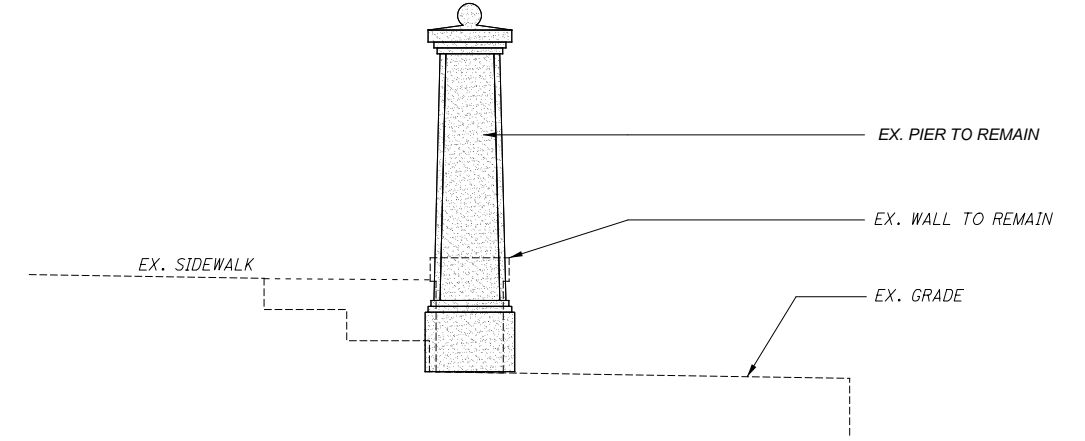
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PROPOSED STAIR CONNECTION DETAIL - BROAD STREET STA. 53+15.55
N.T.S.

NOTES:

1. PROPOSED SIDEWALK CONSTRUCTION AND CONNECTIONS TO EXISTING SIDEWALKS SHALL CONFORM TO CITY OF COLUMBUS DETAILS STD DWG 2300 AND 2328.
2. ALL PROPOSED SIDEWALKS HAVE A 4" THICKNESS.



EXISTING STAIR CONNECTION DETAIL - BROAD STREET STA. 53+15.55
N.T.S.

CALCULATED
AFC
CHECKED

SIDEWALK CONNECTION DETAILS

FRA-71-17.46

673
881

ITEM 511, CLASS QCI CONCRETE WITH QC/QA, FOOTING, AS PER PLAN: IN ADDITION TO THE REQUIREMENTS OF ITEM 511, INSTALL REFERENCE MONUMENTS AT THE LOCATIONS SHOWN ON SHEET 8 / 58.

THE REFERENCE MONUMENT SHALL CONSIST OF A #8, OR LARGER, EPOXY COATED REBAR EMBEDDED AT LEAST 6" INTO THE FOOTING AND EXTENDED VERTICALLY 4 TO 6 INCHES ABOVE THE TOP OF THE FOOTING. INSTALL A FOUR INCH DIAMETER, SCHEDULE 40, PLASTIC PIPE AROUND THE REFERENCE MONUMENT. CENTER THE PIPE ON THE REFERENCE MONUMENT AND PLACE THE PIPE VERTICAL WITH ITS TOP AT THE FINISHED GRADE. THE PIPE SHALL HAVE A REMOVABLE, SCHEDULE 40, PLASTIC CAP. PERMANENTLY ATTACH THE BOTTOM OF THE PIPE TO THE TOP OF THE FOOTING.

ESTABLISH A BENCHMARK TO DETERMINE THE ELEVATIONS OF THE REFERENCE MONUMENTS AT VARIOUS MONITORING PERIODS THROUGHOUT THE LENGTH OF THE CONSTRUCTION PROJECT. THE BENCHMARK SHALL BE THE SAME THROUGHOUT THE PROJECT AND SHALL BE INDEPENDENT OF ALL STRUCTURES.

RECORD THE ELEVATION OF EACH REFERENCE MONUMENT AT EACH MONITORING PERIOD SHOWN IN THE TABLES BELOW.

THE ORIGINAL COMPLETED TABLES WILL BECOME PART OF THE DISTRICT'S PROJECT PLAN RECORDS.

PROJECT NUMBER: FRA-71-17.14, PID 77371		MAXIMUM FACTORED BEARING PRESSURE: 11.5 KSF	
BRIDGE NUMBER: FRA-040-1351		STRUCTURE FILE NUMBER: 2502623	
BENCHMARK LOCATION:			
FOOTING LOCATION: REAR ABUTMENT (LEFT AND RIGHT EDGES OF PHASE 1 FOOTING)			
MONITORING PERIOD	LEFT MONUMENT	RIGHT MONUMENT	
AFTER FOOTING CONCRETE IS PLACED			
BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS			
BEFORE DECK PLACEMENT			
AFTER DECK PLACEMENT			
PROJECT COMPLETION			

PROJECT NUMBER: FRA-71-17.14, PID 77371		MAXIMUM FACTORED BEARING PRESSURE: 11.5 KSF	
BRIDGE NUMBER: FRA-040-1351		STRUCTURE FILE NUMBER: 2502623	
BENCHMARK LOCATION:			
FOOTING LOCATION: REAR ABUTMENT (LEFT EDGE OF PHASE 2 FOOTING)			
MONITORING PERIOD	LEFT MONUMENT		
AFTER FOOTING CONCRETE IS PLACED			
BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS			
BEFORE DECK PLACEMENT			
AFTER DECK PLACEMENT			
PROJECT COMPLETION			

PROJECT NUMBER: FRA-71-17.14, PID 77371		MAXIMUM FACTORED BEARING PRESSURE: 11.6 KSF	
BRIDGE NUMBER: FRA-040-1351		STRUCTURE FILE NUMBER: 2502623	
BENCHMARK LOCATION:			
FOOTING LOCATION: FORWARD ABUTMENT (LEFT AND RIGHT EDGES OF PHASE 1 FOOTING)			
MONITORING PERIOD	LEFT MONUMENT	RIGHT MONUMENT	
AFTER FOOTING CONCRETE IS PLACED			
BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS			
BEFORE DECK PLACEMENT			
AFTER DECK PLACEMENT			
PROJECT COMPLETION			

PROJECT NUMBER: FRA-71-17.14, PID 77371		MAXIMUM FACTORED BEARING PRESSURE: 11.6 KSF	
BRIDGE NUMBER: FRA-040-1351		STRUCTURE FILE NUMBER: 2502623	
BENCHMARK LOCATION:			
FOOTING LOCATION: FORWARD ABUTMENT (LEFT EDGE OF PHASE 2 FOOTING)			
MONITORING PERIOD	LEFT MONUMENT		
AFTER FOOTING CONCRETE IS PLACED			
BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS			
BEFORE DECK PLACEMENT			
AFTER DECK PLACEMENT			
PROJECT COMPLETION			

PROJECT NUMBER: FRA-71-17.14, PID 77371		MAXIMUM FACTORED BEARING PRESSURE: 9.3 TSF	
BRIDGE NUMBER: FRA-040-1351		STRUCTURE FILE NUMBER: 2502623	
BENCHMARK LOCATION:			
FOOTING LOCATION: PIER (LEFT AND RIGHT EDGES OF PHASE 1 FOOTING)			
MONITORING PERIOD	LEFT MONUMENT	RIGHT MONUMENT	
AFTER FOOTING CONCRETE IS PLACED			
BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS			
BEFORE DECK PLACEMENT			
AFTER DECK PLACEMENT			
PROJECT COMPLETION			

PROJECT NUMBER: FRA-71-17.14, PID 77371		MAXIMUM FACTORED BEARING PRESSURE: 9.3 TSF	
BRIDGE NUMBER: FRA-040-1351		STRUCTURE FILE NUMBER: 2502623	
BENCHMARK LOCATION:			
FOOTING LOCATION: PIER (LEFT EDGE OF PHASE 2 FOOTING)			
MONITORING PERIOD	LEFT MONUMENT		
AFTER FOOTING CONCRETE IS PLACED			
BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS			
BEFORE DECK PLACEMENT			
AFTER DECK PLACEMENT			
PROJECT COMPLETION			

ITEM 625 - CONDUIT, MISC.: 1 1/2" FIBERGLASS, EXTRA HEAVY WALL, AS PER PLAN (INTERCONNECT TRACER): THIS WORK INCLUDES ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO INSTALL THE FIBERGLASS CONDUIT ON THE BRIDGE INCLUDING CONDUIT, CONDUIT SUPPORT ASSEMBLIES, BRACING, EXPANSION JOINTS, AND MOUNTING HARDWARE. PROVIDE 1 1/2" NOMINAL SIZE FIBERGLASS CONDUITS WHICH MEET NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION (NEMA) TC-14. WALL THICKNESS SHALL BE A NOMINAL 0.25". PROVIDE CONDUIT SUPPORT ASSEMBLIES FROM OSBURN ASSOCIATES SUPPORT SYSTEMS, FURNISHED BY OSBURN ASSOCIATES, INC., P.O. BOX 912, LOGAN, OHIO, TEL. (614) 385-6869, OR EQUAL, SUBJECT TO THE APPROVAL OF THE CITY OF COLUMBUS. INSTALL THE CONDUIT AND CONDUIT SUPPORT ASSEMBLIES AS PER THE MANUFACTURER'S INSTRUCTIONS. PLACE CONDUIT BELLS AND/OR COUPLINGS NO CLOSER THAN 6" TO THE OUTSIDE EDGE OF ANY SUPPORT ANGLE. GALVANIZE ALL STEEL MOUNTING HARDWARE AS PER 711.02.

ITEM 625 - CONDUIT, MISC.: 4" FIBERGLASS, EXTRA HEAVY WALL, AS PER PLAN (INTERCONNECT) AND

ITEM 625 - CONDUIT, MISC.: 3" FIBERGLASS, EXTRA HEAVY WALL, AS PER PLAN (INTERCONNECT): THIS WORK INCLUDES ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO INSTALL THE FIBERGLASS CONDUIT ON THE BRIDGE INCLUDING CONDUIT, CONDUIT SUPPORT ASSEMBLIES, BRACING, EXPANSION JOINTS, AND MOUNTING HARDWARE. PROVIDE 3" AND 4" NOMINAL SIZE FIBERGLASS CONDUITS, AS INDICATED IN THE PLANS, WHICH MEET NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION (NEMA) TC-14. WALL THICKNESS SHALL BE A NOMINAL 0.25". PROVIDE CONDUIT SUPPORT ASSEMBLIES FROM OSBURN ASSOCIATES SUPPORT SYSTEMS, FURNISHED BY OSBURN ASSOCIATES, INC., P.O. BOX 912, LOGAN, OHIO, TEL. (614) 385-6869, OR EQUAL, SUBJECT TO THE APPROVAL OF THE CITY OF COLUMBUS. INSTALL THE CONDUIT AND CONDUIT SUPPORT ASSEMBLIES AS PER THE MANUFACTURER'S INSTRUCTIONS. PLACE CONDUIT BELLS AND/OR COUPLINGS NO CLOSER THAN 6" TO THE OUTSIDE EDGE OF ANY SUPPORT ANGLE. GALVANIZE ALL STEEL MOUNTING HARDWARE AS PER 711.02.

ITEM 625 - CONDUIT, MISC.: 4" FIBERGLASS, EXTRA HEAVY WALL, AS PER PLAN (AT&T & TWC): THIS WORK INCLUDES ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO INSTALL THE FIBERGLASS CONDUIT ON THE BRIDGE INCLUDING CONDUIT, CONDUIT SUPPORT ASSEMBLIES, BRACING, EXPANSION JOINTS, AND MOUNTING HARDWARE. PROVIDE 4" NOMINAL SIZE FIBERGLASS CONDUITS WHICH MEET NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION (NEMA) TC-14. WALL THICKNESS SHALL BE A NOMINAL 0.25". PROVIDE CONDUIT SUPPORT ASSEMBLIES FROM OSBURN ASSOCIATES SUPPORT SYSTEMS, FURNISHED BY OSBURN ASSOCIATES, INC., P.O. BOX 912, LOGAN, OHIO, TEL. (614) 385-6869, OR EQUAL, SUBJECT TO THE APPROVAL OF AT&T. INSTALL THE CONDUIT AND CONDUIT SUPPORT ASSEMBLIES AS PER THE MANUFACTURER'S INSTRUCTIONS. PLACE CONDUIT BELLS AND/OR COUPLINGS NO CLOSER THAN 6" TO THE OUTSIDE EDGE OF ANY SUPPORT ANGLE. GALVANIZE ALL STEEL MOUNTING HARDWARE AS PER 711.02.

ITEM 625 - CONDUIT, MISC.: 5" FIBERGLASS, EXTRA HEAVY WALL, AS PER PLAN (AEP): THIS WORK INCLUDES ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO INSTALL THE FIBERGLASS CONDUIT ON THE BRIDGE INCLUDING CONDUIT, CONDUIT SUPPORT ASSEMBLIES, BRACING, EXPANSION JOINTS, AND MOUNTING HARDWARE. PROVIDE 5" NOMINAL SIZE FIBERGLASS CONDUITS WHICH MEET NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION (NEMA) TC-14. WALL THICKNESS SHALL BE A NOMINAL 0.25". PROVIDE CONDUIT SUPPORT ASSEMBLIES FROM OSBURN ASSOCIATES SUPPORT SYSTEMS, FURNISHED BY OSBURN ASSOCIATES, INC., P.O. BOX 912, LOGAN, OHIO, TEL. (614) 385-6869, OR EQUAL, SUBJECT TO THE APPROVAL OF AEP. INSTALL THE CONDUIT AND CONDUIT SUPPORT ASSEMBLIES AS PER THE MANUFACTURER'S INSTRUCTIONS. PLACE CONDUIT BELLS AND/OR COUPLINGS NO CLOSER THAN 6" TO THE OUTSIDE EDGE OF ANY SUPPORT ANGLE. GALVANIZE ALL STEEL MOUNTING HARDWARE AS PER 711.02.

SEQUENCE OF CONSTRUCTION:

THE FOLLOWING IS THE SEQUENCE OF CONSTRUCTION FOR THE BRIDGE AND CAP-CAPABLE WALLS:

1. DURING MAINLINE AND BROAD STREET PHASE 1 MAINTENANCE OF TRAFFIC, REMOVE EXISTING STRUCTURE FRA-040-1352 (I-71 NORTHBOUND ON RAMP).
2. CONSTRUCT THE CONCRETE COLLARS AT THE LEFT REAR AND LEFT FORWARD CAP-CAPABLE WALLS FOR THE BROAD STREET SIPHON REPLACEMENT UP TO THE BOTTOM OF THE FOOTING.
3. SUBSEQUENT TO SIPHON CONSTRUCTION, THE CONTRACTOR MAY ELECT TO CONSTRUCT ANY PORTIONS OF WALL FOOTING AND WALL STEM THAT CONDITIONS ALLOW PROVIDED THAT WALL STEMS BE CONSTRUCTED IN ENTIRETY TO A CONTRACTION JOINT. IF FOOTING AND WALLS ARE NOT CONSTRUCTED AT THIS TIME, THE CONTRACTOR SHALL PROTECT THE COLLAR AND EXPOSED REBAR FROM DAMAGE UNTIL AS SUCH TIME THAT WORK RESUMES ON THESE WALLS.
4. DURING BROAD STREET PHASE 2A MOT, PLACE TEMPORARY SHORING AND REMOVE THE RIGHT SIDE OF THE EXISTING STRUCTURE.
5. CONSTRUCT PHASE 1 PORTIONS OF STRUCTURE AS SHOWN IN THESE PLANS.
6. DURING BROAD STREET PHASE 2B MOT, PLACE ANY ADDITIONAL TEMPORARY SHORING AND REDIRECT TRAFFIC TO NEW RIGHT SIDE OF SUPERSTRUCTURE.
7. REMOVE REMAINING PORTIONS OF EXISTING STRUCTURE AND COMPLETE PHASE 2 CONSTRUCTION AS SHOWN IN THESE PLANS.
8. PLACE CROSSFRAMES AND DECK IN CLOSURE BAY IN PHASE 3 AS SHOWN IN THESE PLANS.

SEE SHEETS 11 / 58 TO 15 / 58 FOR ADDITIONAL DETAILS ABOUT STRUCTURE PHASE CONSTRUCTION.

SEE SHEETS 71 AND 146 TO 178 FOR ADDITIONAL DETAILS ABOUT MAINTENANCE OF TRAFFIC.

SEE SHEETS 474 TO 481 FOR ADDITIONAL DETAILS ABOUT SIPHON.

BRIDGE - ESTIMATED QUANTITIES

ITEM	ITEM EXT.	PARTICIPATION										TOTAL	UNIT	DESCRIPTION	ABUTS.	PIERS	SUPER.	GENERAL	SHT. REF.	CALC.	DATE	CHK'D	DATE
		03/IMS/BR	04/NHS/BR	06/AMPO/OT/CoIs	07/S2/OT/CoIs	08/ENH/OT/CoIs	09/IMS/OT/AEP	10/IMS/OT/ATT	11/IMS/OT/TW	12/IMS/OT/VER	RMK									12/28/2018	JS/JHL	12/28/2018	
202	11003	LUMP										LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (FRA-040-1351)									5 / 58
202	11003	LUMP										LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (FRA-040-1352)									5 / 58
202	22900	489										489	SY	APPROACH SLAB REMOVED					489				
202	23500	1650										1650	SY	WEARING COURSE REMOVED					1650				
503	11101	LUMP										LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN									5 , 13 / 58
503	21100	3200	1298									4498	CY	UNCLASSIFIED EXCAVATION	3958	540							
509	10000	345806	140280	26074								512160	LB	EPOXY COATED REINFORCING STEEL	139790	71579	300791						
511	34447	709	288									997	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN			997						5 / 58
511	34451			162								162	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN			162						5 / 58
511	41013	122	49									171	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS, AS PER PLAN		171							33 / 58
511	44113	518	210									728	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN	728								5, 19, 22 / 58
511	46513	602	57									659	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING, AS PER PLAN	462	197							6 / 58
511	51513	149		56								205	CY	CLASS QC2 CONCRETE WITH QC/QA, SIDEWALK, AS PER PLAN									5 / 58
512	10050	1564										1564	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)			205						
512	10100	1121										1121	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	777	344	1564						
512	33000	32										32	SY	TYPE 2 WATERPROOFING	32								
513	10280	678685	275315									954000	LB	STRUCTURAL STEEL MEMBERS, LEVEL 4			954000						
513	20000	5933	2407									8340	EACH	WELDED STUD SHEAR CONNECTORS			8340						
513	95030	23						12	35	11	11	92	EACH	STRUCTURAL STEEL, MISC.: CONDUIT SUPPORT BRACKETS			92						38 / 58
514	00060	43752	17748									61500	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			61500						
514	00066	43752	17748									61500	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			61500						
516	11210	213	87									300	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL			300						
516	13600	51										51	SF	1" PREFORMED EXPANSION JOINT FILLER		51							
516	13900	7										7	SF	2" PREFORMED EXPANSION JOINT FILLER	7								
516	14000	231										231	SF	PREFORMED EXPANSION JOINT FILLER, MISC.: 1/4" THICK	231								
516	44100	4	2									6	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-4" x 1'-0" x 2 1/16"			6						
516	44200	7	3									10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-4" x 10" x 3 5/16"			10						
516	44200	8	2									10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (2'-0" x 1'-4" x 3 3/4"			10						
516	44200	4	2									6	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-4" x 10" x 3 5/16"			6						
516	44200	3	1									4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-2" x 10" x 3 5/16"			4						
516	44200	4	2									6	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-0" x 1'-0" x 3 3/4"			6						
516	44300	4	2									6	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (2'-0" x 1'-8" x 4 1/4"			6						
518	21200	398	161									559	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	559								
518	40000	217	88									305	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	305								
518	40010	16										16	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	16								
526	25000	444	100									544	SY	REINFORCED CONCRETE APPROACH SLABS (T=15")				544					
607	39994	390										390	FT	TEMPORARY VANDAL FENCE, TYPE B			390						
625	10620	4				12						16	EACH	LIGHT POLE ANCHOR BOLTS, MISC.: ANCHOR BOLT ASSEMBLIES EMBEDDED IN CONCRETE BRIDGE DECK			16						5 / 58
625	25920	227										227	FT	CONDUIT, MISC.: 1/2" FIBERGLASS, EXTRA HEAVY WALL, AS PER PLAN (INTERCONNECT TRACER)				227					6 / 58
625	25920	453										453	FT	CONDUIT, MISC.: 3" FIBERGLASS, EXTRA HEAVY WALL, AS PER PLAN (INTERCONNECT)				453					6 / 58
625	25920	453										453	FT	CONDUIT, MISC.: 4" FIBERGLASS, EXTRA HEAVY WALL, AS PER PLAN (INTERCONNECT)				453					6 / 58
625	25920								4074			4074	FT	CONDUIT, MISC.: 4" FIBERGLASS, EXTRA HEAVY WALL, AS PER PLAN (AT&T)				4074					6 / 58
625	25920									227		227	FT	CONDUIT, MISC.: 4" FIBERGLASS, EXTRA HEAVY WALL, AS PER PLAN (TWC)				227					6 / 58
625	25920									227		227	FT	CONDUIT, MISC.: 4" FIBERGLASS, EXTRA HEAVY WALL, AS PER PLAN (VER)				227					6 / 58
625	25920									1811		1811	FT	CONDUIT, MISC.: 5" FIBERGLASS, EXTRA HEAVY WALL, AS PER PLAN (AEP)				1811					6 / 58

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BURGESS & NIPLÉ
Engineers - Architects - Planners
5085 REED ROAD, COLUMBUS, OHIO 43220

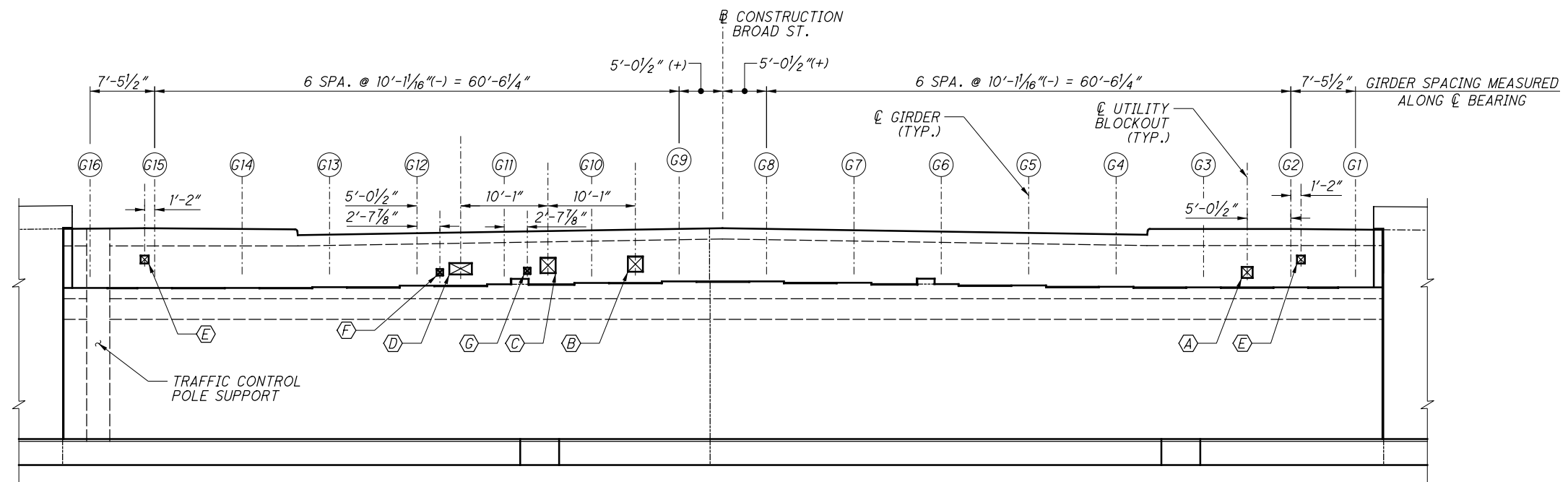
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REVISED:
REVIEWED: JCS
DATE: 12/28/18
STRUCTURE FILE NUMBER: 2502623

BRIDGE ESTIMATED QUANTITIES
BRIDGE NO. FRA-040-1351
U.S. 40/BROAD ST. OVER I-71

FRA-71-17.46
PID No. 105453

9 / 58

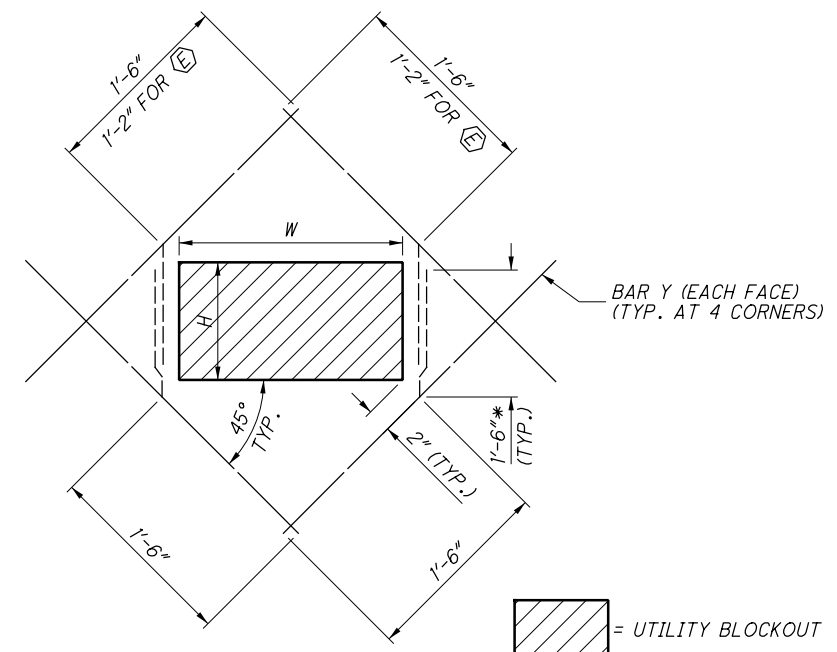
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881



ELEVATION - REAR ABUTMENT

REAR ABUTMENT UTILITY BLOCKOUT TABLE				
BLOCKOUT	DESCRIPTION OF UTILITY	BLOCKOUT SIZE (WxH)	ELEV. @ BOT. OF BLOCKOUT	BAR Y
A	TRAFFIC CONDUIT	1'-3" x 1'-3"	788.52	RA504
B	AT&T CONDUIT	1'-9" x 1'-9"	789.23	
C	AT&T CONDUIT	1'-9" x 1'-9"	789.07	RA504 (LEFT SIDE) RA515 (RIGHT SIDE)
D	AEP CONDUIT BANK	2'-7" x 1'-4"	788.90	RA504 (LEFT SIDE) RA515 (RIGHT SIDE)
E	6" DIA. PLANTER DRAIN	11" x 11"	790.17	RA504
F	4" TIME WARNER CONDUIT	9" x 9"	788.82	RA515 (LEFT SIDE) RA504 (RIGHT SIDE)
G	4" TIME VERIZON CONDUIT	9" x 9"	788.98	RA515 (LEFT SIDE) RA504 (RIGHT SIDE)

DIRECTIONS LEFT AND RIGHT ARE BASED ON LOOKING AHEAD IN STATIONING



UTILITY BLOCKOUT REINFORCEMENT DETAIL

* = FOR BENT "Y" BARS

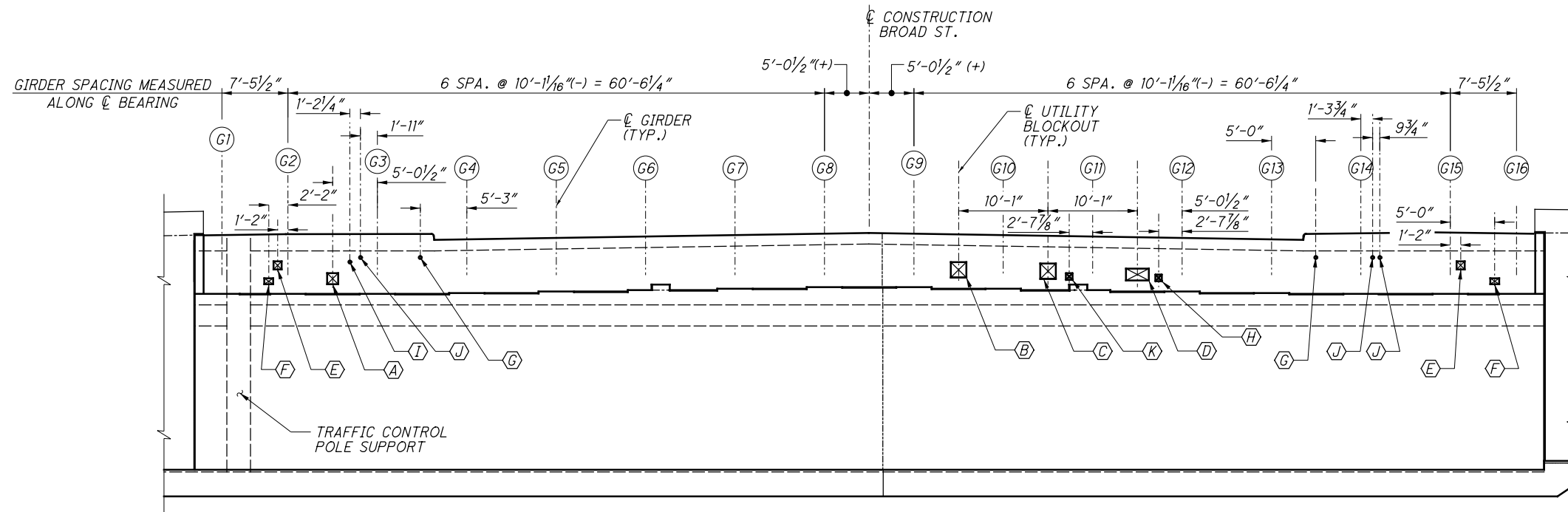
LEGEND:

- DIA. = DIAMETER
- G. = GIRDER DESIGNATION

NOTES:

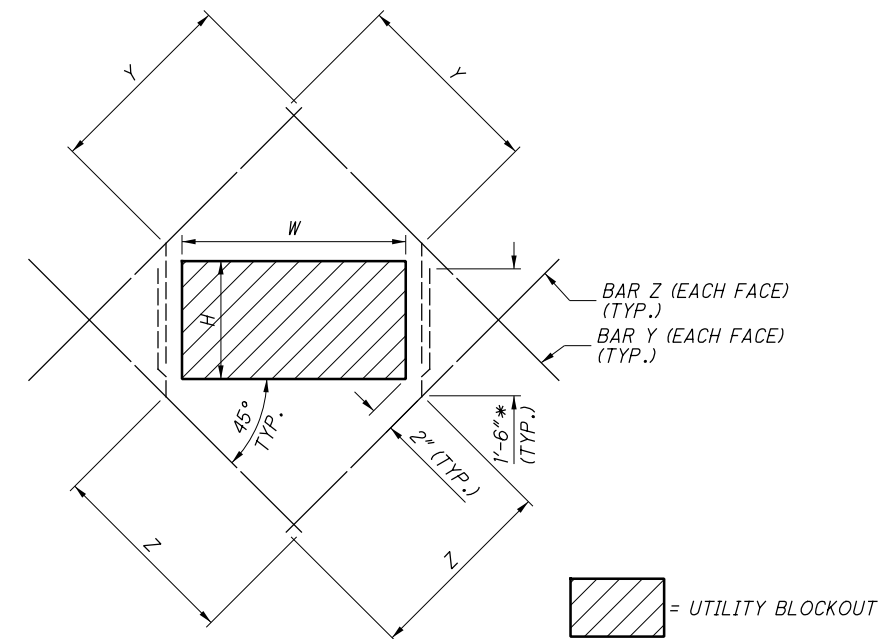
1. SEE SHEET 18 / 58 FOR DIMENSIONS NOT SHOWN.
2. DIMENSIONS SHOWN ARE MEASURED ALONG FRONT FACE OF BACKWALL UNLESS NOTED OTHERWISE.

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ELEVATION - FORWARD ABUTMENT

FORWARD ABUTMENT UTILITY BLOCKOUT TABLE							
BLOCKOUT	DESCRIPTION OF UTILITY	BLOCKOUT SIZE (WxH)	ELEV. @ BOT. OF BLOCKOUT	Y	Z	BAR Y	BAR Z
A	TRAFFIC CONDUIT	1'-3" x 1'-3"	791.02	1'-6"	1'-4 1/2"	FA504	
B	AT&T CONDUIT	1'-9" x 1'-9"	791.77	1'-6"	1'-6"	FA504	
C	AT&T CONDUIT	1'-9" x 1'-9"	791.61	1'-6"	1'-6"	FA504 (LEFT SIDE) FA517 (RIGHT SIDE)	
D	AEP CONDUIT BANK	2'-7" x 1'-4"	791.45	1'-6"	1'-6"	FA504 (LEFT SIDE) FA517 (RIGHT SIDE)	
E	6" DIA. PLANTER DRAIN	11" x 11"	792.68	1'-3"	1'-1"	FA504	FA516
F	4" WATER SLEEVE FOR IRRIGATION	1'-0" x 8"	791.03	1'-2"	1'-4 1/2"	FA504	
G	2" CITY LIGHTING	4" DIAM.	794.03	-	-	NONE	
H	4" TIME WARNER CONDUIT	9" x 9"	791.35	1'-6"	1'-6"	FA517 (LEFT SIDE) FA504 (RIGHT SIDE)	
I	1" AESTHETIC LIGHTING	4" DIAM.	793.53	-	-	NONE	
J	1" AESTHETIC LIGHTING	4" DIAM.	794.03	-	-	NONE	
K	4" TIME VERIZON CONDUIT	9" x 9"	791.51	1'-6"	1'-6"	FA517 (LEFT SIDE) FA504 (RIGHT SIDE)	



UTILITY BLOCKOUT REINFORCEMENT DETAIL

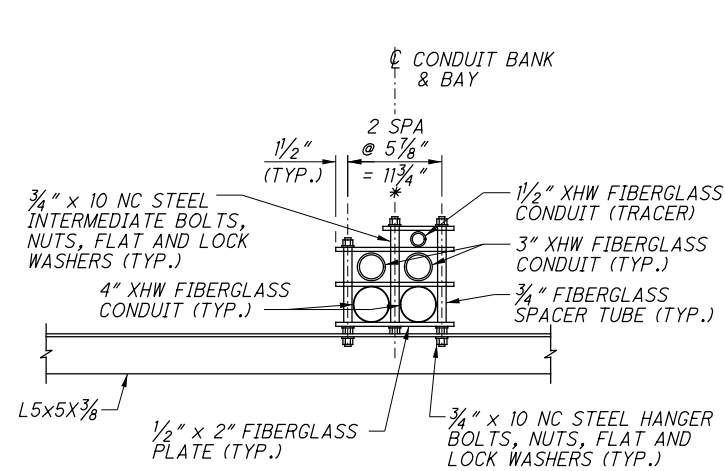
* = FOR BENT "Y" OR "Z" BARS

LEGEND:

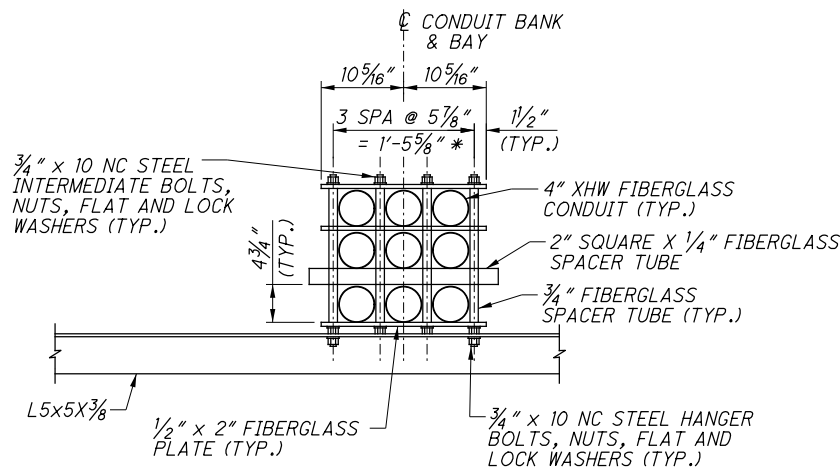
- ELEC. = ELECTRIC
- DIA. = DIAMETER
- G- = GIRDER DESIGNATION

NOTES:

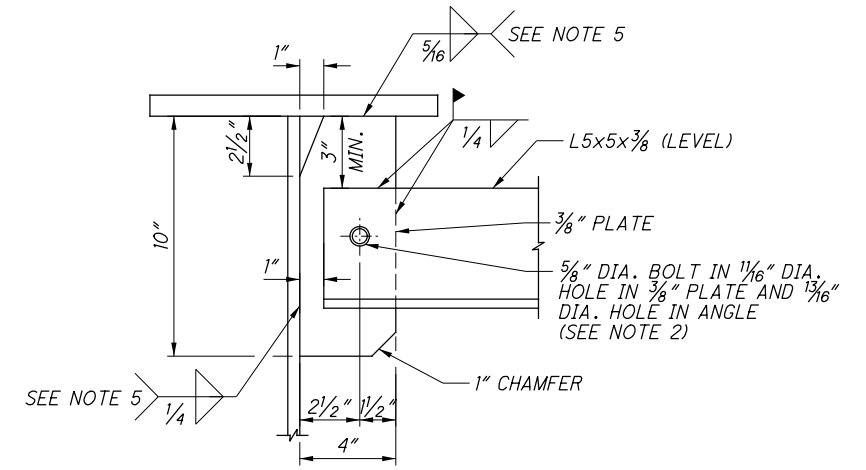
1. SEE SHEET 21 / 58 FOR DIMENSIONS NOT SHOWN.
2. DIMENSIONS SHOWN ARE MEASURED ALONG FRONT FACE OF BACKWALL UNLESS NOTED OTHERWISE.



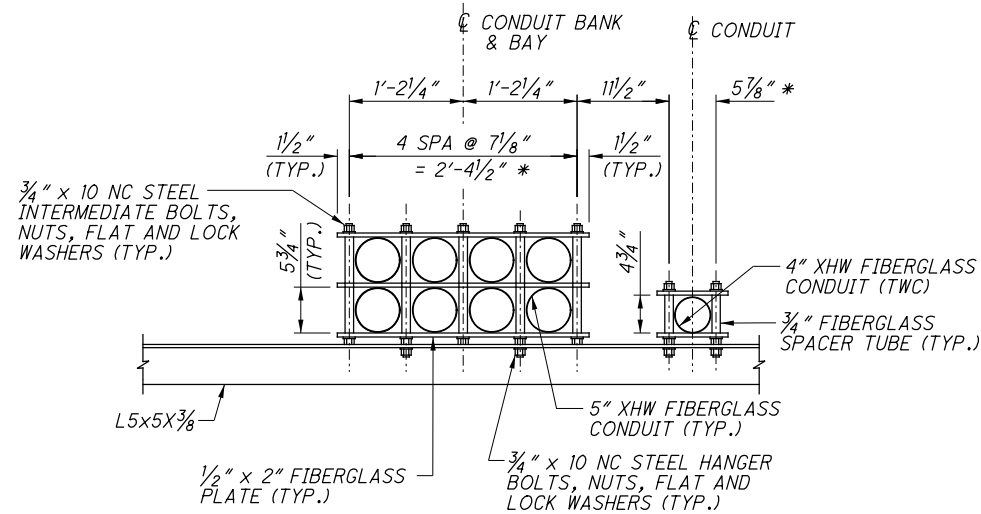
UTILITY SUPPORT, TYPE 1
BETWEEN GIRDERS 2 & 3
(TRAFFIC INTERCONNECT)



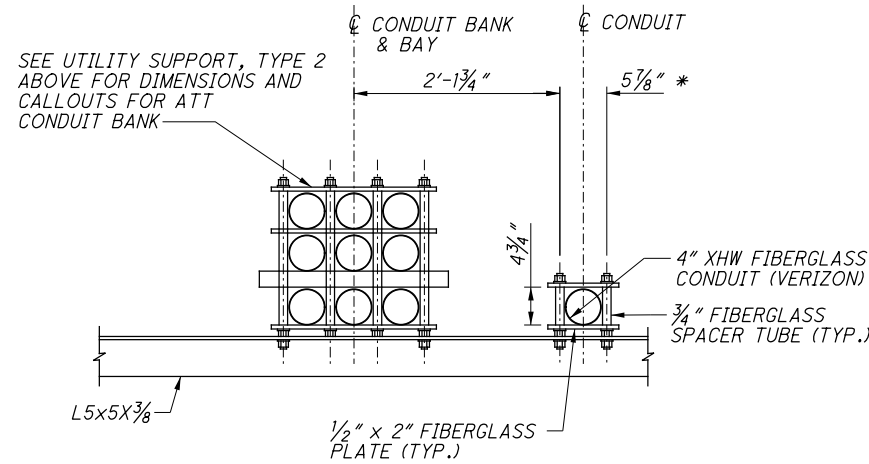
UTILITY SUPPORT, TYPE 2
BETWEEN GIRDERS 9 & 10
(AT&T)



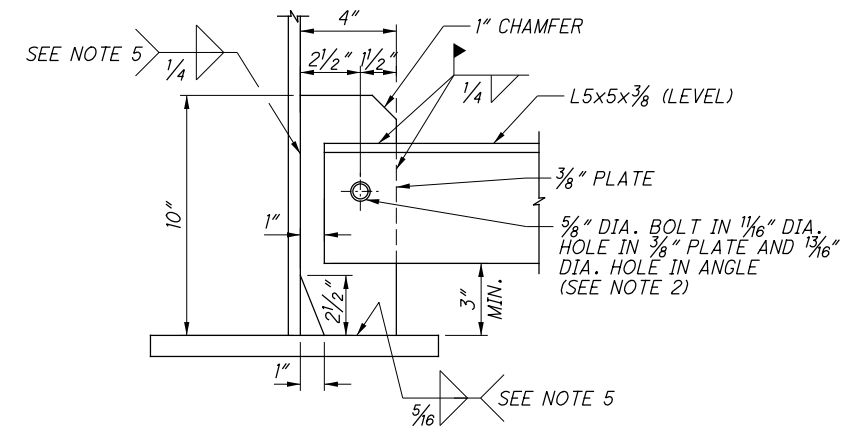
DRAIN PIPE SUPPORT



UTILITY SUPPORT, TYPE 3
BETWEEN GIRDERS 11 & 12
(AEP & TWC)



UTILITY SUPPORT, TYPE 4
BETWEEN GIRDERS 10 & 11
(AT&T & VERIZON)



CONNECTION DETAIL AT GIRDER

LEGEND:

- * = VERIFY THESE DIMENSIONS WITH THE CONDUIT SUPPORT SUPPLIER OR MANUFACTURER PRIOR TO DRILLING HOLES IN THE ANGLE
- NC = NATIONAL COARSE THREAD
- XHW = EXTRA HEAVY WALL

NOTES:

1. UTILITY BANKS ARE CENTERED BETWEEN GIRDERS.
2. BOLTS SHALL BE A325, TYPE 1 GALVANIZED, AND INSTALLED ACCORDING TO CMS 513.20.
3. FOR UTILITY SUPPORTS, INCLUDE L5x5x3/8, 3/8" PLATE, 5/8" BOLTS AND WELDING WITH ITEM 513, STRUCTURAL STEEL, MISC.: CONDUIT SUPPORT BRACKETS, FOR PAYMENT.
4. SEE SHEET 34 / 58 FOR SPACING OF L5x5x3/8 ANGLES.
5. TERMINATE WELDS PER CMS 513.13.

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2.8 BROAD STREET LUMINAIRE LIGHTING:

- RGB LUMINAIRES AT BROAD STREET TO BE RGB COLOR CHANGING, MOUNTED TO INTERIOR METAL BACKER ORIENTED TO ILLUMINATE ENTIRE INTERIOR OF PANEL ENCLOSURE.
- A. LUMINAIRE TO BE FABRICATED OUT OF ALUMINUM 6061 T6 SHEET ALUMINUM TO BE WELDED, GROUND SMOOTH, AND POWDERCOATED BLACK SHERWIN WILLIAMS GRAPHITE BLACK RAL 9011 (RBS8-00006).
- B. ALUMINUM AT INTERIOR OF ILLUMINATED SPACE TO BE POWDERCOATED SIGNAL WHITE RAL 9003.
- C. LUMINAIRE SHALL BE ANCHORED INTO CONCRETE THROUGH WEDGE ANCHORS; FASTENERS WHERE POSSIBLE TO BE CONCEALED.
- D. BEAM ANGLE TO BE 120°
- E. EACH LUMINAIRE PANEL ASSEMBLY WITH RGB LIGHTING TO BE PAIRED TO DRIVER CONTROLLABLE BY DMX DIMMER AND INDIVIDUALLY CONTROLLABLE. DMX 3 CHANNEL DIMMER WILL REQUIRE 120 VOLT INPUT AT EACH PANEL ASSEMBLY.
- F. CAT5 CABLING TO BE PROVIDED FROM BRIDGE MAIN CONTROL TO EACH INDIVIDUAL LUMINAIRE IN SERIES FOR CONTROL OF THE DMX DIMMER.
- G. LIGHTING SHALL MOUNT TO ALL FACES OF HEXAGONAL INTERIOR SPINE TO ILLUMINATE TOWARDS OUTSIDE OF LUMINAIRE.
- H. SUPPLIER TO PROVIDE 60W DRIVER EACH LUMINAIRE ASSEMBLY SUITABLE FOR WET LOCATION OR ENCLOSED IN NEMA 4R OR 4X RATED ENCLOSURE FOR DRIVER.
- I. ALL ELECTRICAL COMPONENTS TO BE PRE-ASSEMBLED AND INSTALLED PRIOR TO DELIVERY TO JOB SITE.
- J. QUICK DISCONNECT BETWEEN DRIVER AND LINE VOLTAGE SHALL BE PROVIDED WITHIN THE NEMA ENCLOSURE, OR RATED ACCORDINGLY IF WET LOCATION DRIVER USED. #8 AWG MAINLINE SHALL BE USED TO PROVIDE POWER TO EACH INDIVIDUAL LUMINAIRE, WITH #12 AWG MC TO BE USED FROM MAIN LINE TO DRIVER.
- K. NEMA ENCLOSURES, DRIVERS, AND CABLING SHALL ALL NEST WITHIN RECESSES OF ALUMINUM FRAMEWORK AND NOT SHADOW OR IMPEDE LIGHTING OF PANELS.
- L. PROGRAMMING FOR THE DMX TO BE PROVIDED BY DMX PROFESSIONAL ONSITE AFTER INSTALLATION OF ALL SYSTEMS.

2.9 DMX CONTROL EQUIPMENT FOR BROAD STREET SCREENWALLS AND LUMINAIRES-

- A. DMX CONTROL EQUIPMENT TO BE LOCATED IN NEMA 4R OR 4X CABINET MEASURING 16"X16"X6" MINIMUM, BASIS OF DESIGN IS WEIGMAN LOH161606 OR EQUAL. POWER TO BE PROVIDED TO THIS CABINET AND (4) CAT5 CONDUIT TO THE SCREEN WALLS AND LUMINAIRES. CONTROL EQUIPMENT TO INCLUDE A DMX PROGRAMMABLE CONTROLLER AND POWER SUPPLY, 4 PORT MINIMUM GIGABIT NETWORK SWITCH, AND JUNCTION BOX.
- B. ALL JUNCTION BOXES AND PULL BOX COVERS ASSOCIATED WITH AESTHETIC LIGHTING SHALL BE LABELLED "LIGHTING"
- C. PROVIDE A RACK MOUNTED #CCH-01U CASSETTE [CCH PIGTAIL SPLICE CASSETTE, 24F, LC APC DUPLEX, SINGLE-MODE (OS2), SINGLE-FIBER (250 UM)] AS PART OF THE BRIDGE LIGHTING CONTROLLER. THE CCH-01U WILL BE PART OF THE LUMP SUM FOR THE BRIDGE LIGHTING CONTROLLER.

2.10 RECESSED WALL LUMINAIRE:

- A. BASIS OF DESIGN: TO MATCH SPRING AND LONG STREET BRIDGE RECESSED WALL LUMINAIRE: BEGA #2204LED
- B. INTEGRAL 120V-277V ELECTRONIC LED DRIVER
- C. LED 3000K, 6.6W
- D. ENCLOSURE MATERIALS: ONE PIECE, DIE CAST ALUMINUM FACE PLATE, 3/8" THICK CLEAR TEMPERED GLASS, MACHINED FLUSH WITH FACEPLATE SURFACE WITH INTERNAL TRANSLUCENT WHITE CERAMIC COATING. FACEPLATE SECURED BY FOUR (4) FLUSH SOCKET HEAD STAINLESS STEEL SCREWS THREADED INTO STAINLESS STEEL INSERTS IN THE HOUSING CASTING AND TO MATCH THE COLOR OF THE FACE PLATE. CONTINUOUS HIGH TEMPERATURE O-RING GASKET FOR WEATHER PROTECTION.
- E. SIZE: 5 7/8" X 5 7/8"
- F. FINISH: BLACK
- G. UL LISTED FOR WET LOCATIONS WITHIN 3 FEET OF GROUND. TYPE NON-IC. PROTECTION CLASS: IP 65
- H. CUSTOM BACK BOX ASSEMBLY: SUPPLY MODIFIED BACK BOX TO PRECAST WALL FABRICATOR FOR CASTING INTO PLANTER WALL PANELS.

3.0 FABRICATION:

COMPLY WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS FOR FABRICATION.

3.1 MACHINING:

- ACCEPTABLE MEANS OF MACHINING ARE LISTED BELOW. ENSURE THAT MATERIAL IS NOT CHIPPED OR WARPED BY MACHINING OPERATIONS.
- A. SAWING: SELECT EQUIPMENT AND BLADES SUITABLE FOR TYPE OF CUT REQUIRED.
- B. DRILLING: DRILLS SPECIFICALLY DESIGNED FOR USE WITH PLASTIC PRODUCTS.
- C. FORMING: FORM PRODUCTS TO SHAPES INDICATED USING THE APPROPRIATE METHOD LISTED BELOW. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
- D. COLD BENDING, HOT BENDING, THERMOFORMING IS ACCEPTABLE ONLY ON UNCOATED MATERIAL.
- E. DRAPE FORMING, MATCHED MOLD FORMING, MECHANICAL FORMING, LAMINATING: LAMINATE TO SUBSTRATES INDICATED USING ADHESIVES AND TECHNIQUES RECOMMENDED BY MANUFACTURER.

3.2 MISCELLANEOUS MATERIALS:

- A. GENERAL: PROVIDE PRODUCTS OF MATERIAL, SIZE, AND SHAPE REQUIRED FOR APPLICATION INDICATED, AND WITH A PROVEN RECORD OF COMPATIBILITY WITH SURFACES CONTACTED IN INSTALLATION.
- B. CLEANER: TYPE RECOMMENDED BY MANUFACTURER.
- C. FASTENERS: USE SCREWS DESIGNED SPECIFICALLY FOR PLASTICS. PROVIDE THREADED METAL INSERTS FOR APPLICATIONS REQUIRING FREQUENT DISASSEMBLY SUCH AS LIGHT FIXTURES.
- D. BONDING CEMENTS: MAY BE ACHIEVED WITH SOLVENTS OR ADHESIVES, SUITABLE FOR USE WITH PRODUCT AND APPLICATION.

3.3 EXAMINATION:

- A. EXAMINE SUBSTRATES, AREAS, AND CONDITIONS WHERE INSTALLATION OF PLASTIC FABRICATIONS WILL OCCUR, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH MANUFACTURER'S REQUIREMENTS. VERIFY THAT SUBSTRATES AND CONDITIONS ARE SATISFACTORY FOR INSTALLATION AND COMPLY WITH REQUIREMENTS SPECIFIED.

3.4 INSTALLATION:

- A. MANUFACTURER'S SHOP TO FABRICATE ITEMS TO THE GREATEST DEGREE POSSIBLE.
- B. INSTALLATION TO BE PERFORMED BY AN AUTHORIZED MANUFACTURER PARTNER.
- C. UTILIZE FASTENERS, ADHESIVES AND BONDING AGENTS RECOMMENDED BY MANUFACTURER FOR TYPE OF INSTALLATION INDICATED.
- D. MATERIAL THAT IS CHIPPED, WARPED, HAZED OR DISCOLORED AS A RESULT OF INSTALLATION OR FABRICATION METHODS WILL BE REJECTED.
- E. INSTALL COMPONENTS PLUMB, LEVEL AND RIGID, SCRIBED TO ADJACENT FINISHES, IN ACCORDANCE WITH APPROVED SHOP DRAWINGS AND PRODUCT DATA.
- F. FORM FIELD JOINTS USING MANUFACTURER'S RECOMMENDED PROCEDURES.
- G. LOCATE SEAMS IN PANELS SO THAT THEY ARE NOT DIRECTLY IN LINE WITH SEAMS IN SUBSTRATES.

3.5 CLEANING AND PROTECTION:

- A. PROTECT SURFACES FROM DAMAGE UNTIL DATE OF SUBSTANTIAL COMPLETION. REPAIR WORK OR REPLACE DAMAGED WORK, WHICH CANNOT BE REPAIRED TO PROJECT ENGINEER'S SATISFACTION.

MKSK

LANDSCAPE ARCHITECTURE + URBAN PLANNING

CALCULATED

CHECKED

SPECIFICATION - SCREEN WALL SYSTEM AESTHETIC ENHANCEMENTS

FRA-71.17.46

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