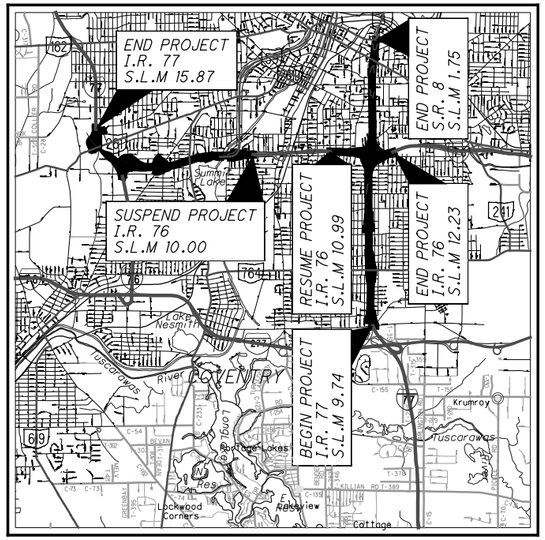
STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

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

CITY OF AKRON

SUMMIT COUNTY



LOCATION MAP

LATITUDE: 41° 03′ 43″ LONGITUDE: 81° 30′ 17″

SCALE IN MILES
0 1 2 3 4

N

PORTION TO BE IMPROVED _____
INTERSTATE HIGHWAY _____
FEDERAL ROUTES _____
STATE ROUTES _____
COUNTY & TOWNSHIP ROADS _____
OTHER ROADS _____

DESIGN DESIGNATION

ROADWAY PLANS: SEE BU-19, BU-28, BU-31, & BU-32

NHS PROJECT _____ YES

DESIGN EXCEPTIONS

N/A

INDEX OF SHEETS:

PROJECT DESCRIPTION

THE AKRON CENTRAL INTERCHANGE PROJECT (PID 102329) INCLUDES RECONSTRUCTION OF IR-76 EB/WB PAVEMENT FROM SLM 11.05 (IR-76) TO SLM (IR-76) FOR APPROX. 1.16 MILES OF MAINLINE WORK. THIS PROJECT ALSO INCLUDES REPLACEMENT OF TWO FREEWAY STRUCTURES (RAMP N AND RAMP Q) ON NEW ALIGNMENTS, WIDENING OF TWO EXISTING BRIDGES (IR-76 EB OVER BROWN STREET AND IR-76 WB OVER INMAN STREET), CONSTRUCTION OF A NEW PEDESTRIAN/MULTI-USE OVERPASS SPANNING SR-8, AND CONSTRUCTION OF NOISE BARRIERS AT THE PERIMETER OF THE INTERCHANGE. PORTIONS OF SR-9, LANE O AND LANE S ARE TO BE RESURFACED. THE EXISTING IR-76 WB TO INMAN STREET AND IR-77 SB TO LOVERS LANE WILL BE REMOVED PERMANENTLY, AS WELL AS THE EXISTING LAFOLLETTE STREET BRIDGE OVER SR-8 (SUM-77-1184).

BUILDABLE UNIT 35 DESCRIPTION

THIS BUILDABLE UNIT SHOWS CONSTRUCTION OF PROPOSED LIGHTING AND ITS ALONG IR-77 FROM STA. 177+75 TO STA. 244+64.5. THIS WORK INCLUDES INTERCHANGE LIGHTING AT VERNON ODOM AND AT IR-77/IR-76 INTERCHANGE ENDING WEST OF EAST AVENUE. THIS BUILDABLE UNIT ALSO INCLUDES MODIFICATION OF EXISTING LIGHTING ALONG SR 8 FROM BEACON STREET TO CARROLL STREET. PROPOSED ITS CONSISTS OF NEW EMPTY CONDUIT WITHIN PROPOSED MEDIAN BARRIER AND NEW CONDUIT CROSSINGS.

LIMITED ACCESS

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

2019 SPECIFICATIONS

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

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:
AMERICAN STRUCTUREPOINT INC.
2550 CORPORATE EXCHANGE DR, STE 300
COLUMBUS, OH 43231
TEL 614.901.2235 FAX 614.901.2236
www.structurepoint.com

ENGINEERS SEAL:

STATE OF OHIO · ELIZABETH M. SCHNEIDER · E77942 · REGISTERED · PROFESSIONAL ENGINEER

SIGNED: Elizabeth M. Schneider
DATE: 06/30/2021

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
HL-10.11	1/15/21	HL-60.21	7/20/18					800-2019	10/16/20	
HL-10.12	1/20/17	HL-60.31	1/17/20					821	4/20/12	
HL-10.13	4/17/20	ITS-14.11	1/15/21					829	1/20/17	
HL-10.31	4/17/20	ITS-14.50	1/15/21					831	10/21/16	
HL-20.11	1/15/21							839	1/17/20	
HL-20.13	4/17/20							804	1/15/21	
HL-20.21	1/15/21							809	1/15/21	
HL-20.24	1/15/21							904	1/15/21	
HL-30.11	1/15/21							909	1/15/21	
HL-30.21	4/17/20									
HL-30.22	1/15/21									
HL-30.41	4/17/20									
HL-40.10	7/17/20									
HL-50.21	1/15/20									
HL-60.11	7/21/17									
HL-60.12	1/15/21									

ruhlin SHELLY & SANDS
AKRON BELTWAY JV

BU-35

LIGHTING & ITS
I-76/I-77 at Vernon Odom Blvd to East Ave & SR-8 at Beacon to Carroll St

RFC PLANS
May 28, 2021

ISSUE RECORD:

NO.	DATE	DESCRIPTION
1	6/30/21	REVISED SUPPLEMENTAL SPEC 800 YEAR AND DATE

2021-06-30 - BU 35 - RFC -REV 1

FEDERAL PROJECT NO. E180(428)
PID NO. 102329
CONSTRUCTION PROJECT NO. 21-3000
RAILROAD INVOLVEMENT NONE
SUM-76/77/8-8.24/9.74/0.00
1/31

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CALCULATED JSW
CHECKED SMM

ITEM 625E25740: CONDUIT, MULTICELL, 4", 725.20
ITEM 625E25740: CONDUIT, MULTICELL, 4", 725.20, JACKED OR DRILLED

DESCRIPTION

THIS CONDUIT IS INTENDED FOR THE USE IN UNDERGROUND OR ENCASED INSIDE CONCRETE BARRIER WALL SITUATIONS REQUIRING MORE THAN ONE SINGLE CONDUIT. THIS INCLUDES THE MAIN CONDUIT RACEWAY ALONG THE FREEWAY, CONNECTION FROM PULL BOXES TO THE ROADSIDE CABINETS AND FOR RUNS OF CONDUIT FOR MULTIPLE PURPOSES, E.G., AT RAMP METER INSTALLATIONS, FOR LOOP LEAD-IN CABLE, SIGNALS CABLE FOR RAMP METER DISPLAYS, SIGNAL CABLE FOR RAMPMETER SIGNING FLASHERS & ILLUMINATION AND POWER. THE CONTRACTOR SHALL PLUG ALL UNUSED CELLS WITH CONDUIT CAPS TO ASSURE AIR AND WATER INTEGRITY OF EACH INDIVIDUAL INNERDUCT.

MATERIALS

THE TRAFFIC SURVEILLANCE RACEWAY SHALL CONSIST OF A FACTORY-ASSEMBLED SYSTEM OF FOUR (4) INNERDUCTS ASSEMBLED WITHIN A PROTECTIVE OUTER DUCT. THE CONDUIT SHALL ADHERE TO 725.20 AND BE POLYVINYL CHLORIDE (PVC) SCHEDULE 40 OR 80, HIGH DENSITY POLYETHYLENE (HDPE), OR APPROVED EQUIVALENT. THE INNERDUCTS SHALL BE A MINIMUM OF 1.10 INCH INSIDE DIAMETER. THE OUTER DUCT SHALL BE NOMINAL 4 INCH INSIDE DIAMETER AND MAXIMUM OUTSIDE DIAMETER OF 4.8 INCH.

WHERE COUPLINGS ARE NEEDED, THE COUPLING SHALL BE DESIGNED IN A MANNER TO PERMIT EASY FIELD ASSEMBLY. THE COUPLING SHALL BE MARKED OR KEYED IN A MANNER TO ENSURE THE INNERDUCTS ARE PROPERLY ALIGNED, ANY COLOR CODES ARE CONTINUED, AND THE ADJOINING SECTION IS INSERTED TO THE PROPER DEPTH IN THE BELL. ALL KEYS AND/OR MARKINGS SHALL BE VISIBLE AFTER ASSEMBLY TO ALLOW THE INSPECTION OF EACH JOINT FOR PROPER ASSEMBLY BEFORE BURIAL. THE SEALING SYSTEM SHALL BE DESIGNED TO ASSURE AIR INTEGRITY OF EACH INDIVIDUAL INNERDUCT AND WATER INTEGRITY OF THE ENTIRE SYSTEM. WHERE INNERDUCT(S) WITHIN A MULTI-CELL DUCT ARE TO REMAIN EMPTY, ONE 1/4-INCH NYLON ROPE SHALL BE INSTALLED IN EACH OF THE OPEN INNERDUCTS, THE ROPE WILL REMAIN TO BE USED FOR A FUTURE CABLE INSTALLATION. ALSO, EACH INNERDUCT SHALL BE PLUGGED TO MAINTAIN THE AIR AND WATER INTEGRITY. IN ADDITION, THE OUTER DUCT SHALL BE CAPPED TO MAINTAIN THE AIR AND WATER INTEGRITY OF THE ENTIRE SYSTEM. FOR MULTI-CELL DUCT INSTALLED IN MEDIAN WALLS, ALL ROPES AND PLUGS SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT.

INSTALLATION

FOR PVC CONDUITS, INSTALLATION WILL BE IN 30-INCH DEEP TRENCH, EXCEPT AS NOTED ON THE PLANS. PVC CONDUITS SHALL NOT BE INSTALLED INSIDE CONCRETE BARRIER WALL. ALL PVC MULTI-CELL CONDUIT INSTALLED OUTSIDE OF THE ROADWAY IN TRENCH SHALL BE SCHEDULE 40 UNLESS DIRECTED BY THE PROJECT ENGINEER.

FOR INSTALLATIONS UNDER ROADWAYS, INSTALLATION WILL BE AT LEAST 30 INCHES DEEP, JACKED OR DRILLED UNDER PAVEMENT, EXCEPT AS NOTED ON THE PLANS. ALL JOINTS WILL BE JOINED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, IN ORDER TO PROVIDE AN AIR-TIGHT ENCLOSURE OF THE INTERIOR DUCTS AND A WATER-TIGHT ENCLOSURE OF THE OUTER DUCT. ALL PVC MULTI-CELL CONDUIT INSTALLED UNDER THE ROADWAY SHALL BE SCHEDULE 80.

FOR HDPE CONDUITS, INSTALLATION WILL BE IN 30-INCH DEEP TRENCH, DRILLED OR PLOWED TO A MINIMUM OF 30-INCH DEEP, ENCASED INSIDE CONCRETE BARRIER WALL, OR AS NOTED ON THE PLANS. THE HDPE CONDUIT SHALL BE INSTALLED IN CONTINUOUS LENGTHS WITHOUT JOINTS OR COUPLINGS BETWEEN PULL BOXES OR JUNCTION BOXES.

INSTALLATION WITHIN 6 FEET OF GUARDRAIL WILL BE AT LEAST 30 INCHES DEEP TRENCH AND ENCASED IN CONCRETE.

WHEN ENTERING A PULL BOX, CONDUIT SHALL BE BROUGHT IN 3 INCHES MINIMUM AND A MAXIMUM OF 6 INCHES FROM THE EDGE OF THE PULL BOX WALL KNOCKOUT.

METHOD OF MEASUREMENT

THE CONDUIT WILL BE MEASURED BY THE AMOUNT OF CONDUIT IN FEET FURNISHED AND INSTALLED OF EACH TYPE SCHEDULE 40 OR 80 MEASURED FROM CENTER-TO-CENTER OF PULL BOXES, FOUNDATION, ETC., AND WILL INCLUDE ALL FITTINGS AND APPURTENANCES, JOINTS, BENDS, GROUNDS AND CONCRETE ENCASEMENT WHERE SPECIFIED.

ITEM 625 - MEDIAN JUNCTION BOX, AS PER PLAN

THE CONTRACTOR SHALL SUPPLY THE MEDIAN BARRIER JUNCTION PULL BOXES THAT MEET THE FOLLOWING

SPECIFICATIONS:
SHALL BE OF TYPE POLYMER-CONCRETE
SIZE: 17 INCHES (HEIGHT) X 30 INCHES (LENGTH)
MINIMUM WALL THICKNESS: 0.5 INCH
MINIMUM LID THICKNESS: 2 INCHES
ANSI TIER 22 RATING WITH A MINIMUM DESIGN LOAD OF 22,000 POUNDS
LID SHALL BE MARKED "TRAFFIC."
THE MEDIAN JUNCTION BOX SHALL BE SECURED IN THE MEDIAN BARRIER WALL USING DOWELS. (NON-SHRINK GROUT MAY BE USED WHEN NECESSARY).

MAINTAINING TRAFFIC DURING CONSTRUCTION

THE CONTRACTOR SHALL MAINTAIN ALL PREEXISTING OR NEWLY INSTALLED PERMANENT ITS/TRAFFIC DEVICES AND INFRASTRUCTURE DURING CONSTRUCTION ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 809.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

ITS GENERAL NOTES

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

2
31

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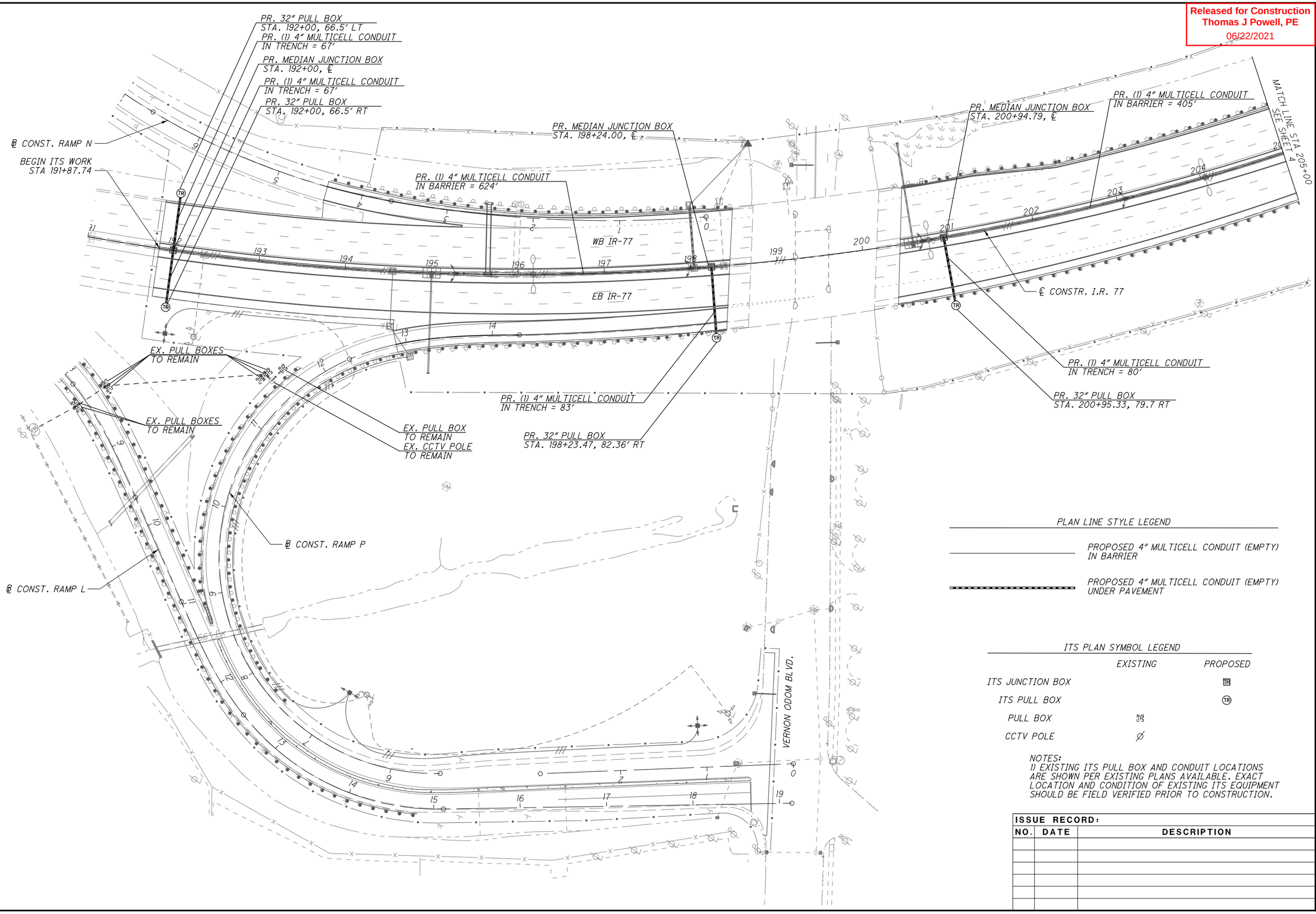

PLAN LINE STYLE LEGEND

PROPOSED 4" MULTICELL CONDUIT (EMPTY) IN BARRIER

PROPOSED 4" MULTICELL CONDUIT (EMPTY) UNDER PAVEMENT

ITS PLAN SYMBOL LEGEND

	EXISTING	PROPOSED
ITS JUNCTION BOX		TR
ITS PULL BOX		(TR)
PULL BOX	TR	
CCTV POLE	∅	

NOTES:
1) EXISTING ITS PULL BOX AND CONDUIT LOCATIONS ARE SHOWN PER EXISTING PLANS AVAILABLE. EXACT LOCATION AND CONDITION OF EXISTING ITS EQUIPMENT SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED JSW
CHECKED SMM

ITS PLAN - IR-76
STA 191+00 TO STA 205+00

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

3
31

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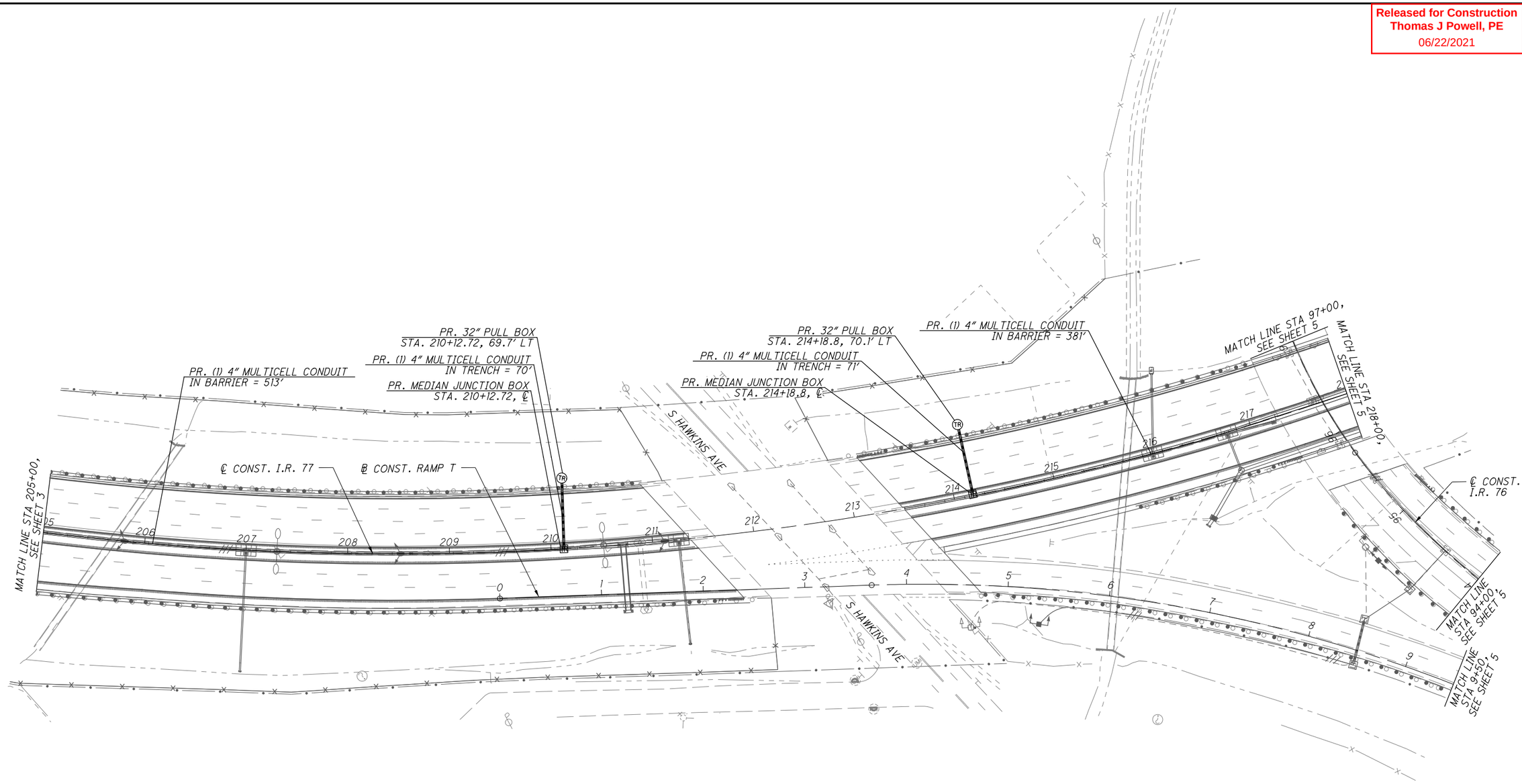
Released for Construction
Thomas J Powell, PE
06/22/2021



NOTES:
1) SEE SHEET 3 FOR PLAN LEGEND

2) EXISTING ITS PULL BOX AND CONDUIT LOCATIONS ARE SHOWN PER EXISTING PLANS AVAILABLE. EXACT LOCATION AND CONDITION OF EXISTING ITS EQUIPMENT SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

ISSUE RECORD:		
NO.	DATE	DESCRIPTION

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED JSW
CHECKED SMM

ITS PLAN - IR-76
STA 205+00 TO 218+00

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

4
31

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2021-06-15 - BU 35 - RELEASED FOR CONSTRUCTION PLANS

Released for Construction
Thomas J Powell, PE
06/22/2021

℄ CONST. I.R. 76

PR. (1) 4" MULTICELL CONDUIT
IN BARRIER = 76'

PR. MEDIAN JUNCTION BOX
STA. 218+76, ℄

MATCH LINE
STA 97+00,
SEE SHEET 4

MATCH LINE
STA 218+00,
SEE SHEET 4

℄ CONSTR. RAMP V

℄ CONST. RAMP W

MATCH LINE STA 10+00,
SEE SHEET 6

PR. (1) 4" MULTICELL CONDUIT
IN BARRIER = 542'

PR. MEDIAN JUNCTION BOX
STA. 224+18, ℄

PR. (1) 4" MULTICELL CONDUIT
IN TRENCH = 55'

PR. 32" PULL BOX
STA. 218+76.6, 55.0' RT

℄ CONST. I.R. 76

PR. (1) 4" MULTICELL CONDUIT
IN BARRIER = 582'

WB IR-76 & IR-77

EB IR-76 & IR-77

MATCH LINE STA 230+00,
SEE SHEET 6

MATCH LINE
STA 94+00,
SEE SHEET 4

MATCH LINE
STA 9+50,
SEE SHEET 4

EX. PULL BOX
TO REMAIN

EX. CCTV POLE
TO REMAIN

EX. PULL BOX
TO REMAIN

℄ CONSTR.
RAMP T

℄ CONSTR. RAMP U

℄ CONST. I.R. 76

NOTES:
1) SEE SHEET 3 FOR PLAN LEGEND

2) EXISTING ITS PULL BOX AND CONDUIT LOCATIONS ARE SHOWN PER EXISTING PLANS AVAILABLE. EXACT LOCATION AND CONDITION OF EXISTING ITS EQUIPMENT SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED JSW
CHECKED SMM

ITS PLAN - IR-76
STA 218+00 TO STA 230+00

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

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31

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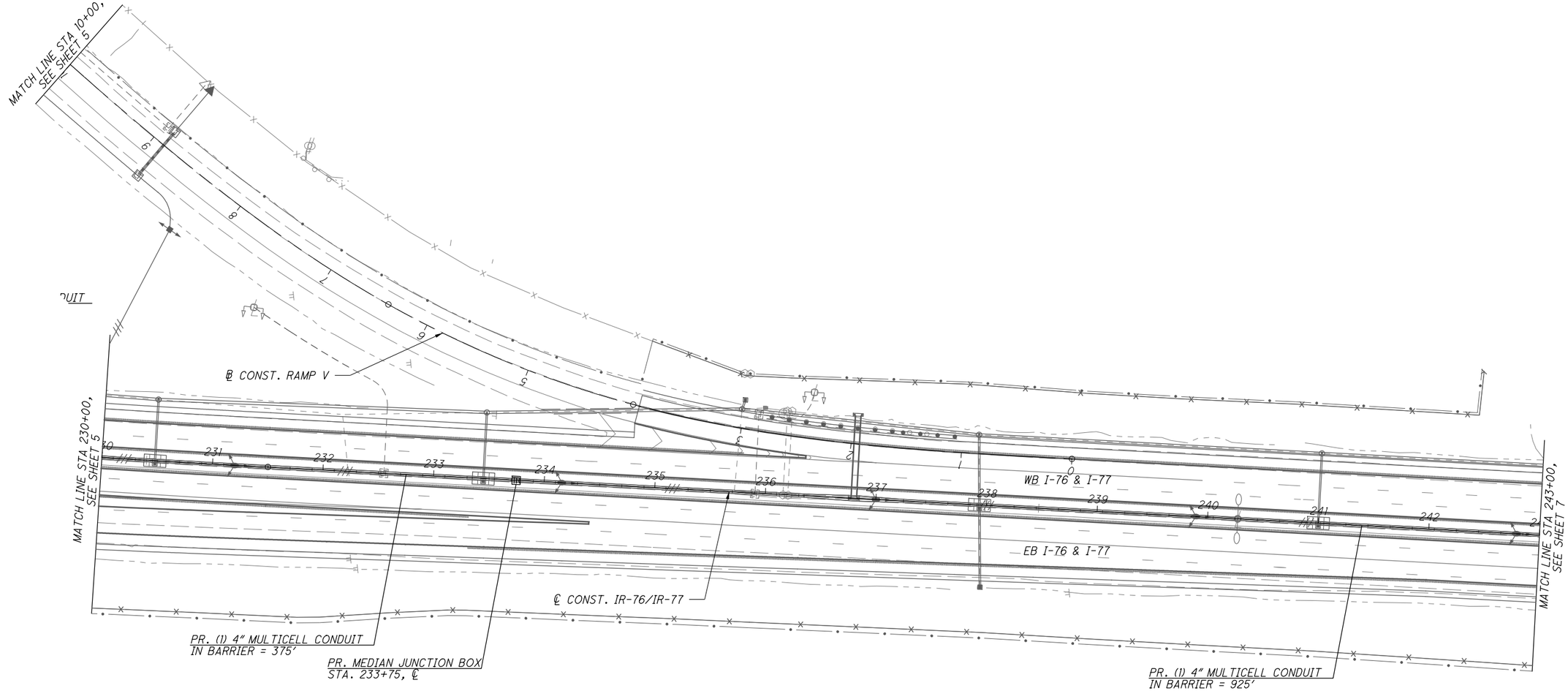
2021-06-15 - BU 35 - RELEASED FOR CONSTRUCTION PLANS

Released for Construction
Thomas J Powell, PE
06/22/2021



NOTES:
1) SEE SHEET 3 FOR PLAN LEGEND

2) EXISTING ITS PULL BOX AND CONDUIT LOCATIONS ARE SHOWN PER EXISTING PLANS AVAILABLE. EXACT LOCATION AND CONDITION OF EXISTING ITS EQUIPMENT SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

ISSUE RECORD:		
NO.	DATE	DESCRIPTION

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED JSW
CHECKED SMM

ITS PLAN - IR-76
STA 230+00 TO STA 243+00

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

6
31

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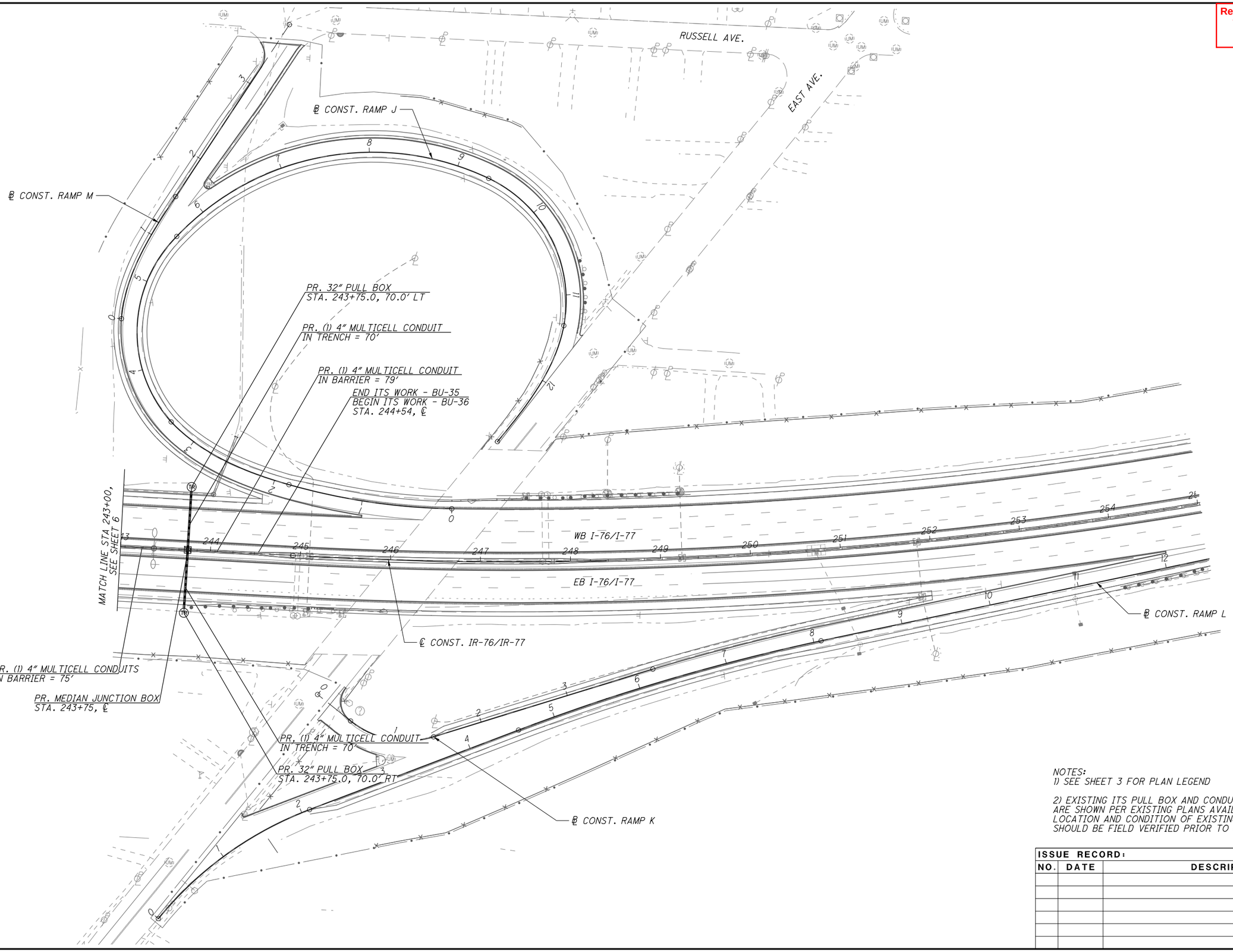
Released for Construction
Thomas J Powell, PE
06/22/2021



NOTES:
1) SEE SHEET 3 FOR PLAN LEGEND

2) EXISTING ITS PULL BOX AND CONDUIT LOCATIONS ARE SHOWN PER EXISTING PLANS AVAILABLE. EXACT LOCATION AND CONDITION OF EXISTING ITS EQUIPMENT SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

ISSUE RECORD:		
NO.	DATE	DESCRIPTION

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED JSW
CHECKED SMM

ITS PLAN
STA 243+00 TO STA 255+00

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

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31

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2021-06-15 - BU 35 - RELEASED FOR CONSTRUCTION PLANS

CALCULATED CDP
CHECKED EMS

LIGHTING

625, MEDIAN JUNCTION BOX CLEANED

THIS ITEM OF WORK SHALL CONSIST OF CLEANING AN EXISTING PULL BOX BY REMOVING ANY EXISTING CABLES NOT BEING RECONNECTED, AND DEBRIS SO THAT NEW CABLES CAN BE INSTALLED. ANY UNUSED OPENINGS SHALL BE CLOSED. DISTURBED AREAS NEAR THE PULL BOX SHALL BE CLEARED OF WEEDS OR DEBRIS AND SHALL BE FULLY DISPOSED OF OFF OF THE PROJECT SITE.

625, CONDUIT CLEANED AND CABLES REMOVED

THIS ITEM SHALL CONSIST OF CLEANING AN EXISTING CONDUIT BY REMOVING EXISTING CABLES, MUD AND DEBRIS SO THAT NEW CABLE CAN BE INSTALLED. INCIDENTAL TO THE CLEANING IS THE INSTALLATION OF BUSHINGS AND/OR COUPLINGS ON THE ENDS OF EXISTING CONDUIT AS REQUIRED. MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR PROPER DISPOSAL OFF OF THE PROJECT SITE. DISTURBED AREAS SHALL BE PROPERLY RESTORED.

HIGH VOLTAGE TEST WAIVED

THE HIGH VOLTAGE TEST SHALL NOT BE PERFORMED ON THE CIRCUITS CONSTRUCTED BY THIS PROJECT, SINCE THE TEST COULD DAMAGE THE PORTION OF THE COMPLETED CIRCUIT WHICH HAS BEEN IN SERVICE PRIOR TO THIS PROJECT.

ITEM 625, LUMINAIRE, LOW (HIGH) MAST, SOLID STATE (LED), AS PER PLAN (BY TYPE, 480V)

THE LUMINAIRE ARRAYS AND ASSOCIATED ILLUMINATION TEST AREAS SPECIFIED IN C&MS 725.11 ARE HEREBY WAIVED. INSTEAD, THE LUMINAIRES FOR HIGH-MAST LIGHTING SHALL MEET THE FOLLOWING REQUIREMENTS:

THE LUMINAIRE SHALL BE 3000K CCT. THE LUMINAIRE ARRAYS AND ASSOCIATED ILLUMINAITON TEST AREA SPECIFIED IN CMS 725.11 ARE HEREBY WAIVED. INSTEAD, THE LUMINAIRES FOR LOW-MAST LIGHTING SHALL MEET THE FOLLOWING REQUIREMENTS:

LUMINAIRES FOR HIGH MAST OR LOW MAST LIGHTING UNITS WITH SYMMETRIC DISTRIBUTION SHALL BE AS FOLLOWS OR EQUAL AS APPROVED BY THE ENGINEER.
- 295W, TYPE V - HOLOPHANE "MHLED4-P2-30K-HVOLT-H-AW"
- 429W, TYPE V HOLOPHANE "HMLED4-P3-30K-HVOLT-H-AW"

LUMINAIRES FOR HIGH MAST LIGHTING UNITS WITH ASSYMMETRIC DISTRIBUTION SHALL BE AS FOLLOWS OR EQUAL AS APPROVED BY THE ENGINEER.
- 295W, TYPE II HOLOPHANE "HMLED4 P2 30K HVOLT-H LN"
- 295W, TYPE III HOLOPHANE "HMLED4 P2 30K HVOLT-H-MAW"

IN ADDITION, OTHER LUMINAIRES WILL BE CONSIDERED IF THE DESIGNED INTENSITY AND UNIFORMITY ARE PROVIDED USING THE DESIGNED POLE LOCATIONS AND THE DESIGNED NUMBER AND TYPE OF FIXTURES PER POLE.

ITEM 625, LUMINAIRE, CONVENTIONAL, SOLID-STATE (LED), AS PER PLAN (TYPE II, 480V)

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AS FOLLOWS:

THE LUMINAIRE SHALL BE 3000K CCT. THE LUMINAIRE ARRAYS AND ASSOCIATED ILLUMINAITON TEST AREA SPECIFIED IN CMS 725.11 ARE HEREBY WAIVED. INSTEAD, THE LUMINAIRES FOR LOW-MAST LIGHTING SHALL MEET THE FOLLOWING REQUIREMENTS:

LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE HOLOPHANE "ATBL A XXXXX R2" OR EQUAL AS APPROVED BY THE ENGINEER.

CONDUIT EXPANSION AND DEFLECTION

EXPANSION FITTINGS SHALL BE OZ TYPE AX, CROUSE HINDS TYPE XJG, OR EQUAL APPROVED BY THE ENGINEER. EACH EXPANSION FITTING SHALL PROVIDE EITHER 4 OR 8 INCHES TOTAL MOVEMENT AS SPECIFIED BY THE PLAN DETAILS AND SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

DEFLECTION COUPLINGS SHALL BE OZ TYPE DX, CROUSE HINDS TYPE XD, OR EQUAL APPROVED BY THE ENGINEER. EACH DEFLECTION COUPLING SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS. MINIMUM DEFLECTION CAPABILITY: 25°.

EXPANSION AND DEFLECTION FITTINGS FULLY OR PARTIALLY EMBEDDED IN CONCRETE, SOIL, OR SIMILAR MATERIAL SHALL BE COMPLETELY WRAPPED IN A NEOPRENE SLEEVE OR SHEET OF 1/2-INCH MINIMUM THICKNESS. SECURE NEOPRENE WRAP WITH TIE-WRAPS PRIOR TO EMBEDMENT OF THE FITTING.

625, LIGHT POLE, INSTALLATION ONLY, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF INSTALLING AN EXISTING LIGHT POLE REMOVED FROM A PREVIOUS LOCATION ON THE PROJECT OR SUPPLIED TO THE PROJECT SITE BY OTHERS.

THE LIGHT POLE SHALL BE CLEANED AND REPAIRS NEEDED FOR THE POLE TO BE IN GOOD SERVICABLE CONDITION MADE. THE EXISTING POLE NUMBER DECAL SHALL BE REMOVED IF IT IS IN POOR CONDITION OR THE POLE NUMBER HAS CHANGED. A POLE NUMBER DECAL SHALL BE SUPPLIED AND APPLIED IF THE EXISTING DECAL IS REMOVED OR MISSING.

WHEN REQUIRED, NEW ANCHOR BOLTS SHALL BE FURNISHED AS PART OF THIS ITEM.

2021-10-08 - BU-35 - RELEASED FOR CONSTRUCTION PLANS

ISSUE RECORD:		
NO.	DATE	DESCRIPTION
2	10/08/21	ADD HIGH VOLTAGE TEST WAIVED NOTE

LIGHTING GENERAL NOTES

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

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31

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Released for Construction
Thomas J Powell, PE
06/22/2021

CALCULATED CDP
CHECKED EMS

PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH C&MS 631.06. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

SPECIAL, MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF THE EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF EXISTING LIGHTING SHALL BE MADE BY ODOT'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE THE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT SHALL BE MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

REPLACEMENT OF KNOCKED DOWNED UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENT.

WHEN THE SEQUENCE OF CONSTRUCTION ACTIVITIES REQUIRES, OR SHOULD THE CONTRACTOR DESIRE, THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY LIGHTING OF THIS PORTION OF THE ROADWAY.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR SETS OF THE TEMPORARY LIGHTING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATIONS OF POLES, LENGTHS OF BRACKET ARMS, STYLES OF LUMINAIRES, MOUNTING HEIGHTS, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 30 FEET, AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "B" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE OF THE LIGHTING WORK. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

POWER SERVICE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING SHALL APPLY.POWER SERVICE: 480 VOLT, 3-WIRE, SINGLE PHASE, GROUNDED NEUTRAL. THIS PROJECT HAS BEEN DESIGNED ON THE BASIS OF 5% VOLTAGE DROP WITH A MAXIMUM UNIFORMITY RATIO OF 4.0 TO 1.0 FOR CONVENTIONAL UNITS AND 3.0 TO 1.0 FOR HIGH MAST UNITS.

ALL POWER SERVICES SHALL BE METERED. THE METER BASE MOUNTING HEIGHT SHALL BE NO MORE THAN FIVE (5) FEET HIGH TO THE CENTER OF THE METER BASE FROM THE GROUND. A NON-FUSED DISCONNECT SHALL BE INSTALLED ON THE POWER SIDE OF THE METER BASE. THE CONTRACTOR SHALL SUPPLY THE NECESSARY METER BASES AND DISCONNECTS.

THE CONTRACTOR SHALL PAY ALL ELECTRICAL ENERGY CHARGES FOR NEW POWER SERVICES ESTABLISHED BY THIS PROJECT. UPON COMPLETION OF THIS PROJECT AND AFTER WRITTEN AUTHORIZATION FROM THE DISTRICT CONSTRUCTION ENGINEER, POWER SERVICE ELECTRICAL ENERGY ACCOUNTS SHALL BE TRANSFERRED TO THE MAINTAINING AGENCY. THIS SHALL INCLUDE NEW POWER SERVICE ESTABLISHED BY THIS PROJECT AS WELL AS REASSIGNMENT OF EXISTING SERVICE DUE TO WORK PERFORMED BY THIS PROJECT. IF POWER SERVICE IS TRANSFERRED PRIOR TO RECEIVING THE WRITTEN AUTHORIZATION, A DISINCENTIVE OF $100 PER DAY SHALL BE ASSESSED FOR EACH CALENDAR DAY OF NON-COMPLIANCE.

ISSUE RECORD:

NO.	DATE	DESCRIPTION

LIGHTING GENERAL NOTES

SUM-76/77/8-
8.42/9.77/0.00

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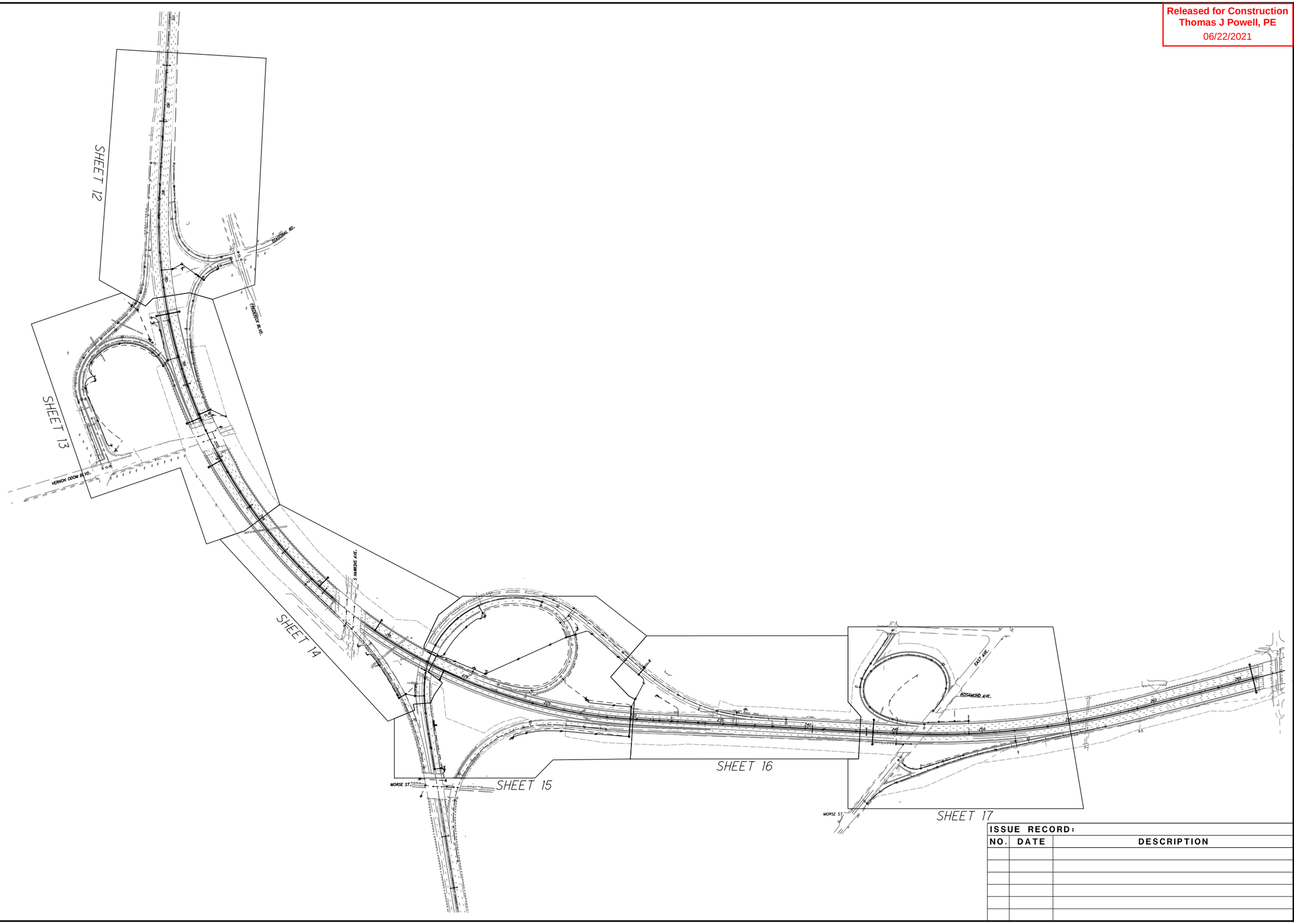

0 125 250 500 HORIZONTAL SCALE IN FEET

CALCULATED CDP
CHECKED EMS

LIGHTING PLAN
SHEET LAYOUT SCHEMATIC IR-76/77

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

10
31

ISSUE RECORD:

NO.	DATE	DESCRIPTION

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Released for Construction
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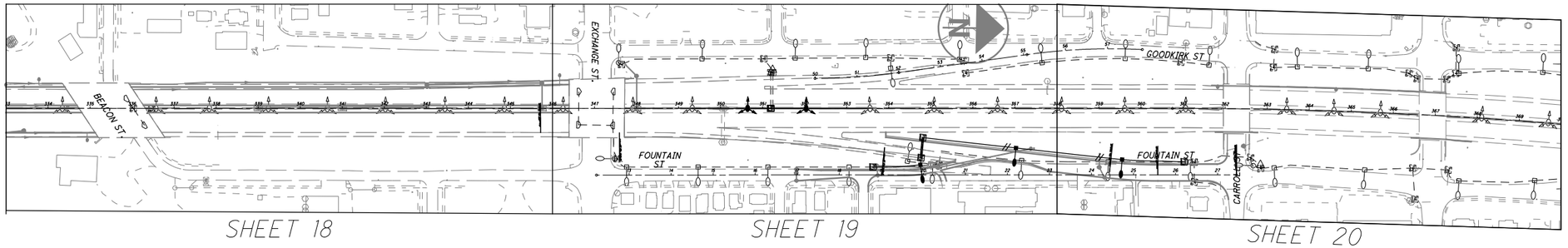
06/22/2021



SHEET 18 SHEET 19 SHEET 20

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CDP
CHECKED EMS

LIGHTING PLAN
SHEET LAYOUT SCHEMATIC SR-8

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

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ISSUE RECORD

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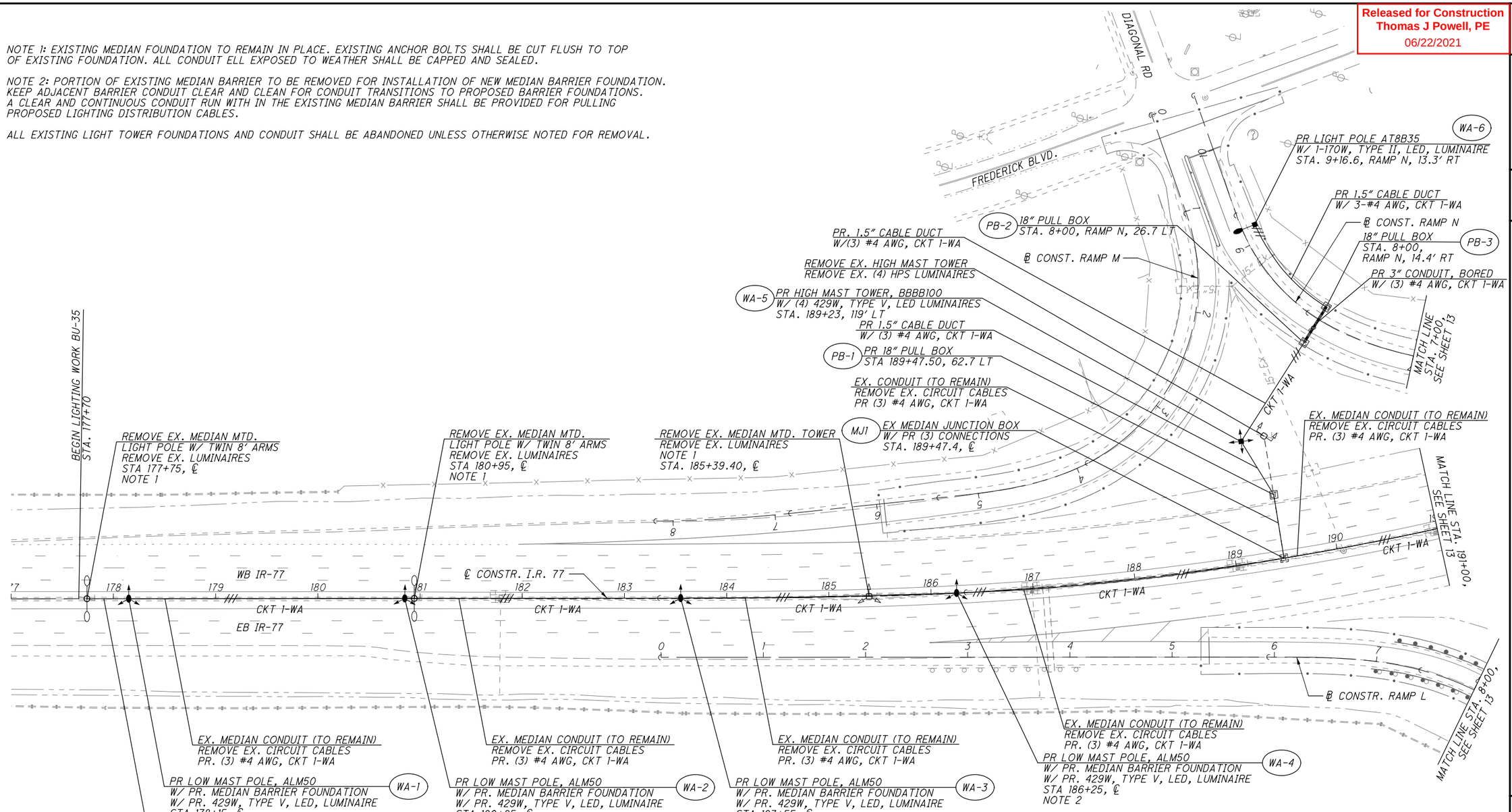
2021-06-15 - BU 35 - RELEASED FOR CONSTRUCTION PLANS

NOTE 1: EXISTING MEDIAN FOUNDATION TO REMAIN IN PLACE. EXISTING ANCHOR BOLTS SHALL BE CUT FLUSH TO TOP OF EXISTING FOUNDATION. ALL CONDUIT ELL EXPOSED TO WEATHER SHALL BE CAPPED AND SEALED.

NOTE 2: PORTION OF EXISTING MEDIAN BARRIER TO BE REMOVED FOR INSTALLATION OF NEW MEDIAN BARRIER FOUNDATION. KEEP ADJACENT BARRIER CONDUIT CLEAR AND CLEAN FOR CONDUIT TRANSITIONS TO PROPOSED BARRIER FOUNDATIONS. A CLEAR AND CONTINUOUS CONDUIT RUN WITH IN THE EXISTING MEDIAN BARRIER SHALL BE PROVIDED FOR PULLING PROPOSED LIGHTING DISTRIBUTION CABLES.

ALL EXISTING LIGHT TOWER FOUNDATIONS AND CONDUIT SHALL BE ABANDONED UNLESS OTHERWISE NOTED FOR REMOVAL.



LIGHTING PLAN LINE STYLE LEGEND

- PROPOSED 1.5" DUCT CABLE, THREE NO.4 AWG CABLES IN TRENCH (UNLESS OTHERWISE SHOWN)
- PROPOSED CONDUIT, 3" 725.04, BORED UNDER PAVEMENT W/ (3) #4 AWG DISTRIBUTION CABLES (UNLESS OTHERWISE SPECIFIED)
- EXISTING LIGHTING CIRCUIT

LIGHTING PLAN SYMBOL LEGEND

	EXISTING	PROPOSED
POWER SERVICE AND LIGHTING CONTROL CABINET	△	▲
PULL BOX/JUNCTION BOX	▯	▯
LIGHT POLE, HIGH MAST W/ SYMMETRICAL LUMINAIRES		
LIGHT POLE, LOW MAST W/ SYMMETRICAL LUMINAIRES		
LIGHT POLE, HIGH MAST W/ ASYMMETIRICAL LUMINIARES, TYPE III OR IV		
LIGHT TOWER, HIGH MAST W/ ASYMMETRICAL LUMINAIRES, TYPE II		
LIGHT POLE, CONVENTIONAL WITH BRACKET ARM		
UNDERPASS LUMINAIRE		

ISSUE RECORD:

NO.	DATE	DESCRIPTION

HORIZONTAL SCALE IN FEET: 0, 25, 50, 100

CALCULATED CDP
CHECKED EMS

LIGHTING PLAN - IR-76
STA 177+00 TO STA 191+00

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

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31

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Thomas J Powell, PE
06/22/2021

MATCH LINE STA 7+00 SEE SHEET 12

℄ CONST. RAMP N

PR 4" CONDUIT IN BARRIER
W/ (3) #4 AWG, CKT 1-WA

MJ2 PR JUNCTION BOX
PR (3) CONNECTIONS
STA 194+55.0, ℄

PB-6 PR 18" PULL BOX, 725.08
STA. 198+04.5, 73.0' LT

PR 3" CONDUIT, TRENCH
W/ (3) #4 AWG, CKT 1-WA

MJ3 PR JUNCTION BOX
PR (3) CONNECTIONS
STA. 198+04.0, ℄

PR 4" CONDUIT IN BARRIER
W/ (3) #4 AWG, CKT 1-WA

EX. LIGHT POLE
(REMOVE)

PR POWER SERVICE, AS PER PLAN
480V W/ METER, "WA"
STA. 198+74.7, 138.23' LT

PR 1.5" CABLE IN DUCT
W/ (3) #4 AWG, CKT 1-WA

REMOVE EX. POWER SERVICE
480V, 60AMP "WA"
STA 198+79.7, 138.23' LT

EX UNDERPASS LIGHT
TO REMAIN

EX CONDUIT IN BARRIER (TO REMAIN)
REMOVE EXISTING CIRCUIT CABLES
PR (3) #4 AWG, CKT 1-WA

PR 4" CONDUIT IN BARRIER
W/ (3) #4 AWG, CKT 1-WA

PR 4" CONDUIT IN BARRIER
W/ (3) #4 AWG, CKT 1-WA

MATCH LINE STA 205+00 SEE SHEET 14

MATCH LINE STA 191+00 SEE SHEET 12

CKT 1-WA

WB IR-77

EB IR-77

BEGIN MEDIAN BARRIER

PR 4" CONDUIT IN BARRIER
W/ (3) #4 AWG
CKT 1-WA

PR LOW MAST POLE, ALM50 WA-10
W/ PR. MEDIAN BARRIER FOUNDATION W/ PR. 429W, TYPE V, LED, LUMINAIRE
STA. 195+28.0, ℄

PR LOW MAST POLE, ALM50 WA-11
W/ PR. MEDIAN BARRIER FOUNDATION W/ PR. 429W, TYPE V, LED, LUMINAIRE
STA. 198+00, ℄

PR 4" CONDUIT IN BARRIER
W/ (3) #4 AWG, CKT 1-WA

℄ CONSTR. I.R. 77

EX. LIGHT POLE
(REMOVE)

PR LOW MAST POLE, ALM50 WA-13
W/ PR. MEDIAN BARRIER FOUNDATION W/ PR. 429W, TYPE V, LED, LUMINAIRE
STA. 203+10.0, ℄

EX. LIGHT POLE (REMOVE)

PR LOW MAST POLE, ALM50 WA-12
W/ PR. MEDIAN BARRIER FOUNDATION W/ PR. 429W, TYPE V, LED, LUMINAIRE
STA. 200+70.9, ℄

PR 3" CONDUIT, 725.04
W/ (3) #4 AWG, CKT 1-WA

PR 18" PULL BOX PB-5
STA 13+01.1, RAMP P, 16.9' RT

PR 3" CONDUIT, 725.04
W/ (3) #4 AWG, CKT 1-WA

18" PULL BOX PB-4
STA 194+55.0, 64.0' RT

PR 1.5" CABLE DUCT
W/ (3) #4 AWG, CKT 1-WA

REMOVE EX. MAST "1-WA-1"
REMOVE EX. LUMINAIRES

PR LIGHT TOWER, BBBB100 WA-9
W/ PR (4) 429W, TYPE V, LED LUMINAIRES
STA 192+03.63, 96.70' RT

℄ CONST. RAMP P

MATCH LINE STA 8+00 SEE SHEET 12

℄ CONST. RAMP L

REMOVE EX. MAST "1-WA-4"
REMOVE EX. LUMINAIRES

WA-7 PR HIGH MAST TOWER, BBBB100
W/ PR (4) 295W, TYPE V, LED LUMINAIRES
STA. 1+08.96, RAMP P, 48.34' RT

REMOVE EX. MAST "1-WA-3"
REMOVE EX. LUMINAIRES

PR. 1.5" CABLE DUCT
W/ (3) #4 AWG, CKT 1>WA

PR 1.5" CABLE DUCT
W/ (3) #4 AWG, CKT 1-WA

WA-8 PR LIGHT TOWER, BBBB100
W/ PR (4) 295W, TYPE II, LED LUMINAIRES
STA. 6+89.22, RAMP P, 64.86' RT

VERNON ODOM BLVD.

NOTES:
1) SEE SHEET 12 FOR PLAN LEGEND

ISSUE RECORD:

NO.	DATE	DESCRIPTION

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CDP
CHECKED EMS

LIGHTING PLAN - IR-76
STA 191+00 TO STA 205+00

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

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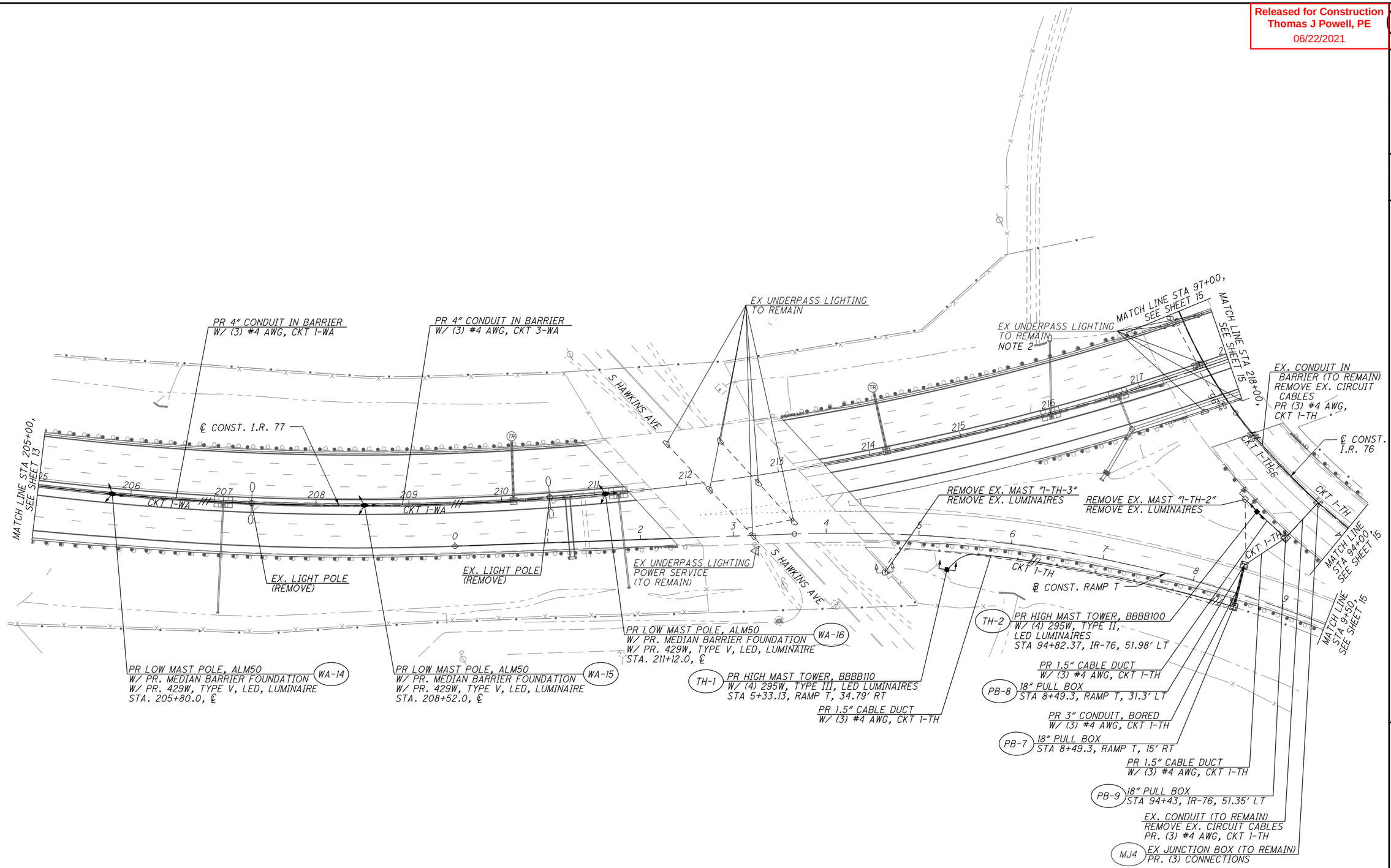
2021-06-15 - BU 35 - RELEASED FOR CONSTRUCTION PLANS



NOTES:
1) SEE SHEET 12 FOR PLAN LEGEND
2) THE CONTRACTOR WILL USE CAUTION WHEN SEALING AROUND EXISTING UNDERPASS LIGHTING ATTACHED TO SUBSTRUCTURE UNITS TO AVOID DAMAGING UNDERPASS LUMINAIRES AND CONDUITS.

ISSUE RECORD:		
NO.	DATE	DESCRIPTION

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CDP
CHECKED EMS

LIGHTING PLAN - IR-76
STA 205+00 TO STA 218+00

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

14
31

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Released for Construction
Thomas J Powell, PE
06/22/2021

MJ6 EX. JUNCTION BOX (TO REMAIN)
STA 100+85.4, IR-76, ℄

EX. CONDUIT (TO REMAIN)
REMOVE EX. CIRCUIT CABLES
PR (3) #4 AWG, CKT 1-TH

PB-11 PR 18" PULL BOX
STA 100+85.4, IR-76, 49.3' RT

℄ CONST. I.R. 76

REMOVE EX. MAST "1-TH-1"
REMOVE EX. LUMINAIRES

PR 1.5" CABLE DUCT
W/ (3) #4 AWG, CKT 1-TH

EX CONDUIT IN BARRIER
REMOVE EX. CIRCUIT CABLES
PR (3) #4 AWG, CKT 1-TH

PR HIGH MAST TOWER, BBBB110 TH-4
W/ (4) 295W, TYPE II,
LED LUMINAIRES
STA 100+65.35, IR-76, 74.10' RT

PR 1.5" CABLE DUCT
W/ (3) #4 AWG, CKT 1-TH

EX. PULL BOX, (TO REMAIN) PB-12
PR. (3) CONNECTIONS
TO EX. UNDERPASS LIGHTING
"UP1 - UP5"

PR 1.5" CABLE DUCT
W/ (3) #4 AWG, CKT 1-TH

MATCH LINE
STA 97+00,
SEE SHEET 14

REMOVE EX. MAST "1-TH-5"
REMOVE EX. LUMINAIRES

PR HIGH MAST TOWER, BBBB100 TH-6
W/ (4) 295W, TYPE II,
LED LUMINAIRES
STA 221+04.09, 97.05' LT

MATCH LINE
STA 218+00,
SEE SHEET 14

PR 1.5" CABLE DUCT
W/ (3) #4 AWG, CKT 1-TH

PR. 18" PULL BOX PB-13
PR. (3) CONNECTIONS
STA 221+03, 76.62' LT

TH-5 PR HIGH MAST TOWER, BBBB100
W/ (4) 295W, TYPE II,
LED LUMINAIRES
STA 13+95.76, RAMP V, 1119.95' LT

PR 1.5" CABLE DUCT
W/ (3) #4 AWG, CKT 1-TH

PB-14 PR. 18" PULL BOX
W/ PR CONNECTIONS
STA 2+54, RAMP W, 23.7' RT

PR 3" CONDUIT, BORED
W/ (3) #4 AWG, CKT 1-TH

PR 1.5" CABLE DUCT
W/ (3) #4 AWG, CKT 1-TH

REMOVE EX. MAST "3-TH-1"
REMOVE EX. LUMINAIRES

PR (1) 1.5" CABLE DUCT
W/ (3) #4 AWG, CKT 1-TH

℄ CONSTR. RAMP V

18" PULL BOX PB-15
STA 2+51, RAMP W,
32.46' LT

℄ CONST. RAMP W

MATCH LINE STA 10+00,
SEE SHEET 16

PR HIGH MAST TOWER, BBBB100 TH-8
W/ (4) 295W, TYPE V, LED LUMINAIRES
STA 227+14, 90.87 LT

REMOVE EX. MAST "3-TH-2"
REMOVE EX. LUMINAIRES

PR 1.5" CABLE DUCT
W/ (3) #4 AWG,
CKT 1-TH

PR 1.5" CABLE DUCT
W/ (3) #4 AWG, CKT 1-TH

PB-16 18" PULL BOX
STA 229+85.00, 69.0 LT

PR 3" CONDUIT, 725.04
W/ (3) #4 AWG, CKT 1-TH

PR 3" CONDUIT, 725.04
W/ (3) #4 AWG, CKT 1-TH

WB IR-76 & IR-77

EB IR-76 & IR-77

℄ CONST. I.R. 76

MATCH LINE STA 230+00,
SEE SHEET 16

MATCH LINE
STA 94+00,
SEE SHEET 14

MATCH LINE
STA 9+50,
SEE SHEET 14

℄ CONSTR.
RAMP T

EX. CONDUIT IN BARRIER (TO REMAIN)
REMOVE EX. CIRCUIT CABLES
PR (3) #4 AWG, CKT 1-TH

℄ CONSTR. RAMP U

EX. CONDUIT (TO REMAIN)
REMOVE EX. CIRCUIT CABLES
PR. (3) #4 AWG, CKT 1-TH

18" PULL BOX PB-10
STA 90+18, IR-76,
40.2' RT

PR 1.5" CABLE DUCT
W/ (3) #4 AWG,
CKT 1-TH

MJ5 EX JUNCTION BOX
(TO REMAIN)

PR HIGH MAST TOWER, BBBB110 TH-3
W/ (4) 295W, TYPE III, LED LUMINAIRES
STA 90+16.47, IR-76, 58.78' RT

REMOVE EX. MAST "1-TH-4"
REMOVE EX. LUMINAIRES

REMOVE EX. MAST "3-TH-3"
REMOVE EX. LUMINAIRES

PR HIGH MAST TOWER, BBBB100 TH-9
W/ (4) 295W, TYPE III, LED LUMINAIRES
STA 13+62.97, RAMP U, 39.93' RT

PR 1.5" CABLE DUCT
W/ (3) #4 AWG, CKT 1-TH

MJ7 PR JUNCTION BOX
STA 229+85, ℄

PR 3" CONDUIT, 725.04
W/ (3) #4 AWG, CKT 1-TH

PB-17 PR. 18" PULL BOX
STA 229+84.4, 101.3' RT

NOTES:
1) SEE SHEET 12 FOR PLAN LEGEND

2) THE CONTRACTOR WILL USE CAUTION WHEN SEALING AROUND EXISTING UNDERPASS LIGHTING ATTACHED TO SUBSTRUCTURE UNITS TO AVOID DAMAGING UNDERPASS LUMINAIRES AND CONDUITS.

ISSUE RECORD:		
NO.	DATE	DESCRIPTION

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CDP
CHECKED EMS

LIGHTING PLAN - IR-76
STA 218+00 TO STA 230+00

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

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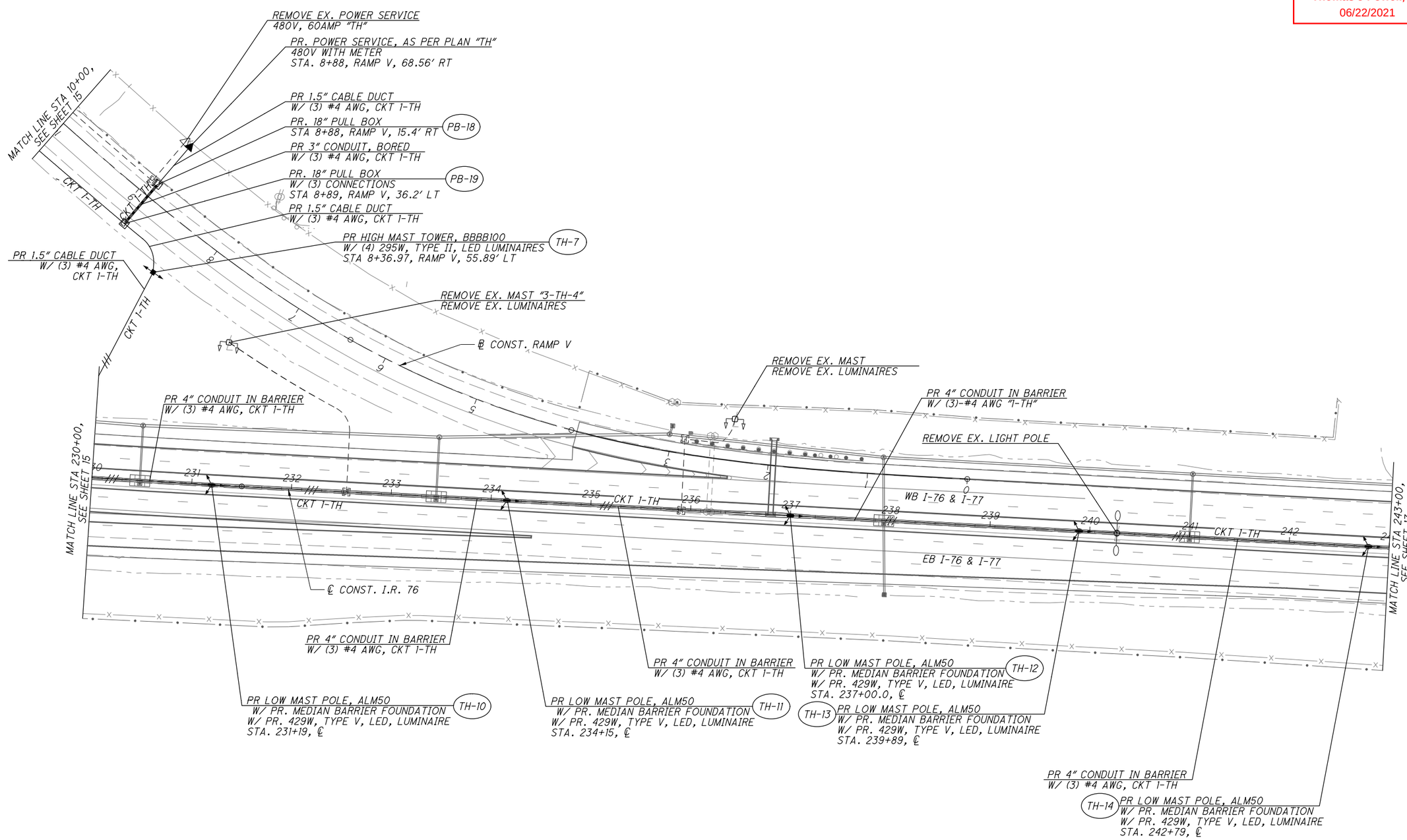
2021-06-15 - BU 35 - RELEASED FOR CONSTRUCTION PLANS



NOTES:
1) SEE SHEET 12 FOR PLAN LEGEND

ISSUE RECORD:		
NO.	DATE	DESCRIPTION

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CDP
CHECKED EMS

LIGHTING PLAN - IR-76
STA 230+00 TO STA 243+00

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

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Released for Construction
Thomas J Powell, PE
06/22/2021

RUSSELL AVE.

EAST AVE.

℄ CONST. RAMP J

℄ CONST. RAMP M

END BU-35
STA. 244+54.39

BEGIN BU-36
STA. 244+54.39

EX. CKT 1-RA
(TO REMAIN)

EX. MEDIAN JCT BOX
(TO REMAIN)

EX. CKT 1-RA
(TO REMAIN)

REMOVE EX. CIRCUIT CABLES
CKT 1-RA

REMOVE EX. LIGHT POLE

MATCH LINE STA 243+00,
SEE SHEET 16

WB I-76/I-77

EB I-76/I-77

EX. CKT 1-RA
(TO REMAIN)

℄ CONST. IR-76/IR-77

℄ CONST. RAMP L

℄ CONST. RAMP K

NOTES:
1) SEE SHEET 12 FOR PLAN LEGEND

2) THE CONTRACTOR WILL USE CAUTION WHEN SEALING AROUND EXISTING UNDERPASS LIGHTING ATTACHED TO SUBSTRUCTURE UNITS TO AVOID DAMAGING UNDERPASS LUMINAIRES AND CONDUITS.

ISSUE RECORD:		
NO.	DATE	DESCRIPTION

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CDP
CHECKED EMS

LIGHTING PLAN - IR-76
STA 243+00 TO STA 255+00

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

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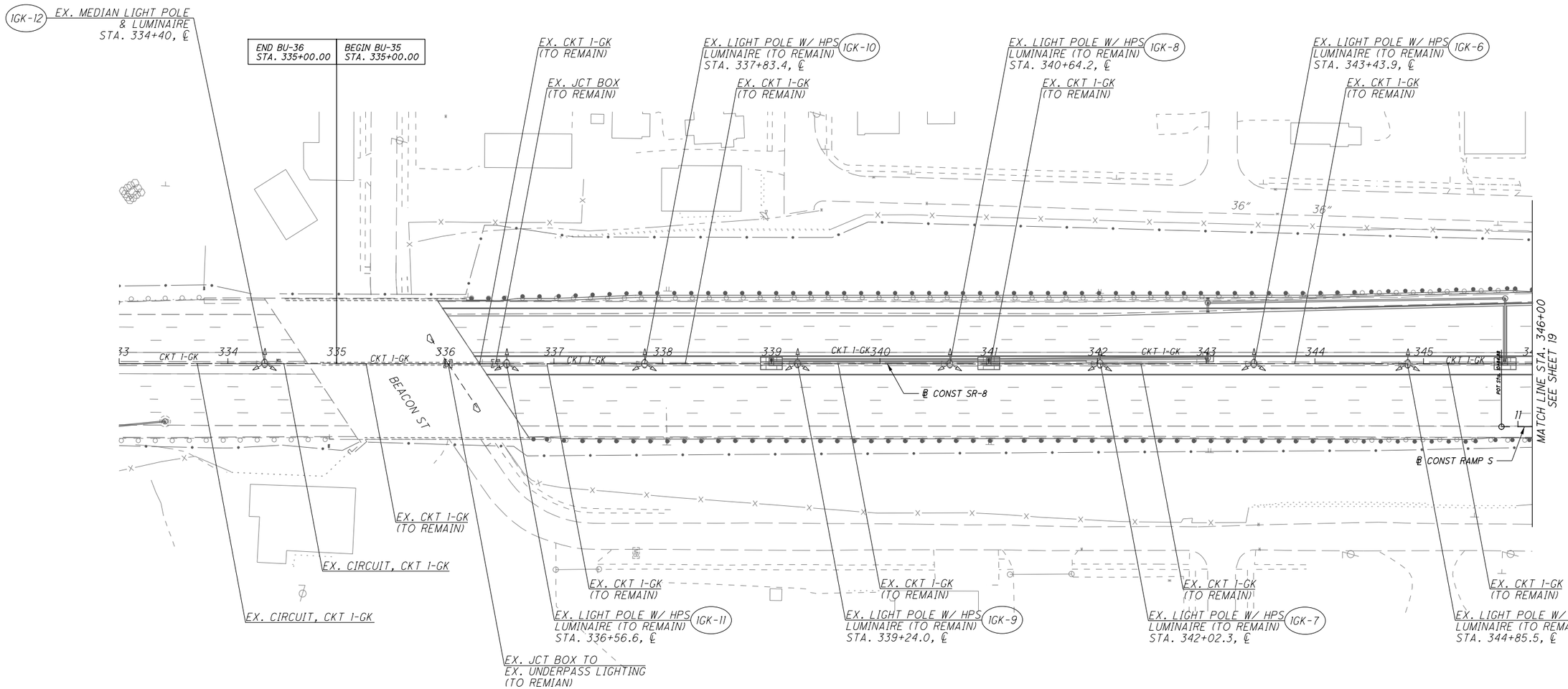
Released for Construction
Thomas J Powell, PE
06/22/2021



NOTES:
1) SEE SHEET 12 FOR PLAN LEGEND

ISSUE RECORD:		
NO.	DATE	DESCRIPTION

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED JSW
CHECKED EMS

LIGHTING PLAN - SR 8
STA. 333+00 TO STA. 346+00

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

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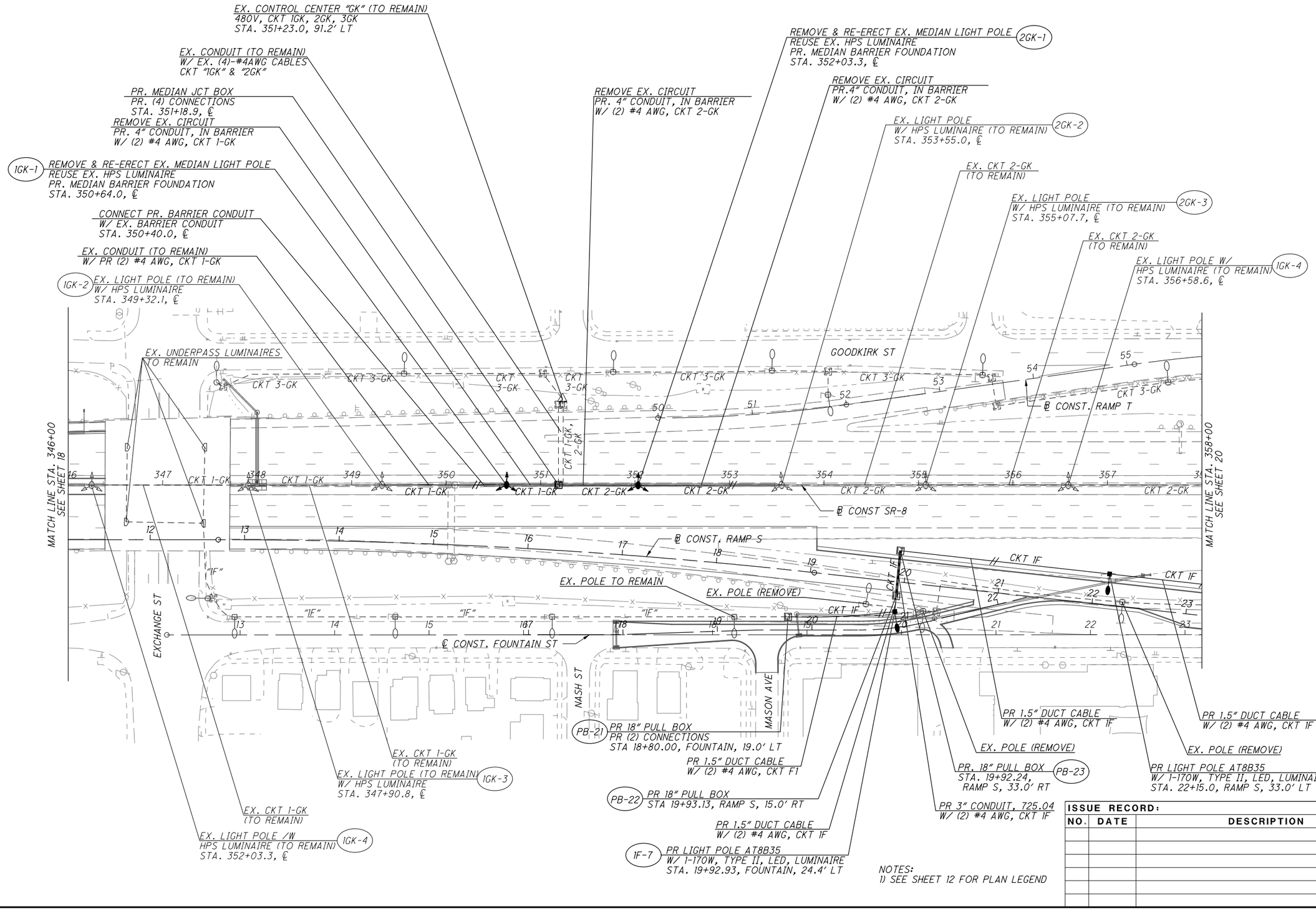
2021-06-15 - BU 35 - RELEASED FOR CONSTRUCTION PLANS

Released for Construction
Thomas J Powell, PE
06/22/2021



NOTES:
1) SEE SHEET 12 FOR PLAN LEGEND

ISSUE RECORD:		
NO.	DATE	DESCRIPTION

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED JSW
CHECKED EMS

LIGHTING PLAN - SR 8
STA. 346+00 TO STA. 358+00

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

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31

smorris
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2021-06-15 - BU 35 - RELEASED FOR CONSTRUCTION PLANS

Released for Construction
Thomas J Powell, PE
06/22/2021

EX. LIGHT POLE (TO REMAIN) 2GK-5
W/ HPS LUMINAIRE
STA. 358+10.7, ℄

EX. CKT 2-GK
(TO REMAIN)

EX. LIGHT POLE (TO REMAIN) 2GK-6
W/ HPS LUMINAIRE
STA. 359+61.2, ℄

EX. CKT 2-GK
(TO REMAIN)

EX. LIGHT POLE (TO REMAIN) 2GK-7
W/ HPS LUMINAIRE
STA. 361+06.1, ℄

EX. CKT 2-GK
(TO REMAIN)

END BU-35
STA. 362+00.00

MATCH LINE STA. 358+00
SEE SHEET 19

℄ CONST. SR-8

℄ CONST RAMP S

℄ CONST. RAMP T

℄ CONST
FOUNDATION ST

GOODKIRK ST

FOUNTAIN ST

CARROLL ST

CKT 3-GK

CKT 2-GK

CKT 1F

CKT 2F

PR. 1.5" DUCT CABLES
W/ (2) #4 AWG, CKT 1F

EX. POLE (REMOVE)

PR. 1.5" DUCT CABLES
W/ (2) #4 AWG, CKT 1F

EX. CKT "1F"
(TO REMAIN)

EX. POLE TO REMAIN
"1F-3"

PR. 18" PULL BOX PB-24
PR. (2) CONNECTIONS
STA. 26+20.20, FOUNTAIN, 31.0' LT

PR LIGHT POLE AT8B35 1F-4
W/ 1-170W, TYPE II, LED, LUMINAIRE
STA. 24+70.00, RAMP S, 33.0' LT

EX. CKT 1F
(TO REMAIN)

EX. CKT 2F
(TO REMAIN)

EX. CONTROL CENTER "F" (TO REMAIN)
480V, CKT 1F, 2F
STA. 362+86.2, SR-8, 132.5' RT

NOTES:
1) SEE SHEET 12 FOR PLAN LEGEND

ISSUE RECORD:

NO.	DATE	DESCRIPTION

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED JSW
CHECKED EMS

LIGHTING PLAN - SR 8
STA. 358+00 TO STA. 370+00

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

20
31

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6/15/2021 3:28:13 PM
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2021-06-15 - BU 35 - RELEASED FOR CONSTRUCTION PLANS

Released for Construction
Thomas J Powell, PE
07/09/2021

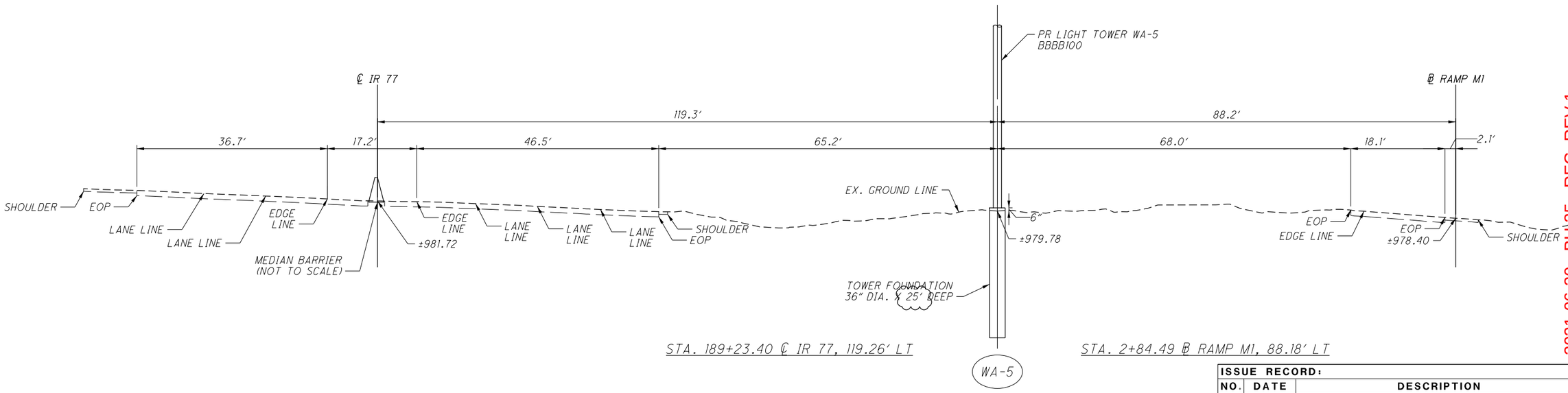
CALCULATED CDP
CHECKED EMS

LIGHTING TOWER SCHEDULE

TOWER				LOCATION				ELEV (FT.) (NOTE 2)	DETAILS			REFERENCE BORING(S)	FOR DETAIL SEE SHEET:
NO.	HEIGHT (FT.)	NO. OF LUMINAIRES		ALIGNMENT	STATION	OFFSET	SIDE		DIA. (IN)	REINF. BARS (NOTE 3)	LENGTH (FT) (NOTE 1)		
		SYM	ASYM										
WA-5	100	4		IR-77	189+23.40	119.26′	LT	979.78	36	8#10	25	B-019-0-79	21
TH-1	110		4	RAMP T	5+33.13	34.79′	RT	988.77	36	8#10	25	B-024-0-79	22
TH-8	100	4		IR 76/ IR 77	227+14.24	90.68′	LT	1019.08	36	8#10	20	B-041-0-18	22
TH-6	100		4	IR 76/ IR 77	221+04.09	97.05′	LT	997.13	36	8#10	20	B-027-0-79	23
WA-9	100	4		IR 77	192+03.63	96.70′	RT	982.53	36	8#10	25	B-020-0-79	23
WA-7	100	4		RAMP P2	1+08.96	48.34′	RT	979.00	36	8#10	25	B-023-0-79	24
WA-8	100		4	RAMP P1	6+89.22	64.86′	RT	980.26	36	8#10	20	B-022-0-79	24
TH-4	110		4	IR 76	100+65.35	74.10′	RT	1005.11	36	8#10	20	B-072-0-18	25
TH-5	100		4	RAMP V	13+95.76	119.95′	LT	1008.13	36	8#10	20	B-058-0-18	25
TH-7	100		4	RAMP V	8+36.96	55.89′	LT	1031.00	36	8#10	20	B-076-0-18	26
TH-9	100		4	RAMP U	13+62.97	39.93′	RT	1015.50	36	8#10	20	B-068-0-18	26
TH-2	100		4	IR 76	94+82.37	51.98′	LT	1018.31	36	8#10	20	B-028-0-79	27
TH-3	110		4	IR 76	90+16.47	58.78′	RT	1012.59	36	8#10	25	B-029-0-79	27

NOTES:

1. LENGTH OF THE DRILLED SHAFT IS FROM TOP OF FOUNDATION PER HL-20.24
2. ELEVATION IS FINAL GROUND SURFACE (EXISTING OR PROPOSED) AT TOWER FOUNDATION CENTERLINE.
3. SEE STANDARD DRAWING HL-20.21 FOR ADDITIONAL REINFORCING STEEL DETAILS. REINFORCING STEEL SHALL BE ITEM 509, GRADE 60. CONCRETE SHALL BE QC 1 OR QC MISC.



STA. 189+23.40 ℄ IR 77, 119.26′ LT

STA. 2+84.49 ℄ RAMP M1, 88.18′ LT

ISSUE RECORD:		
NO.	DATE	DESCRIPTION
1	6/30/21	FOUNDATION DEPTHS AND BORING INFO

2021-06-30 - BU 35 - RFC -REV 1

LIGHTING ELEVATION DETAIL & TOWER SCHEDULE
IR 76 / IR 77 & RAMP M1

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

21
31

bschneider
6/30/2021 11:54:30 AM
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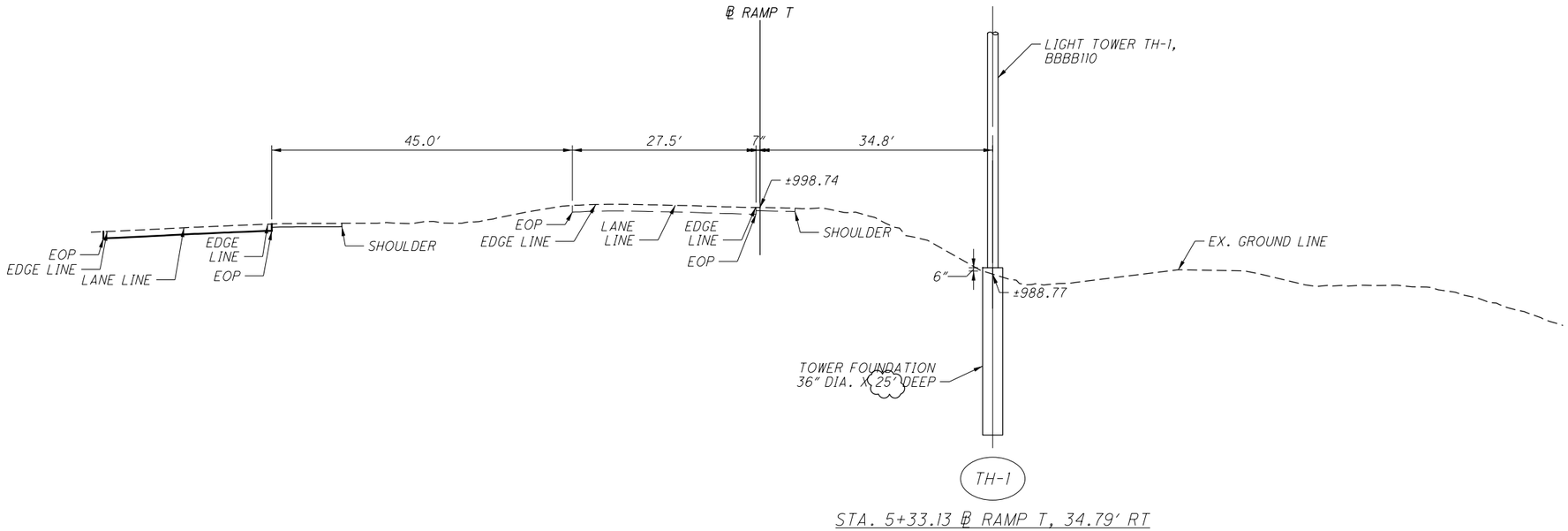
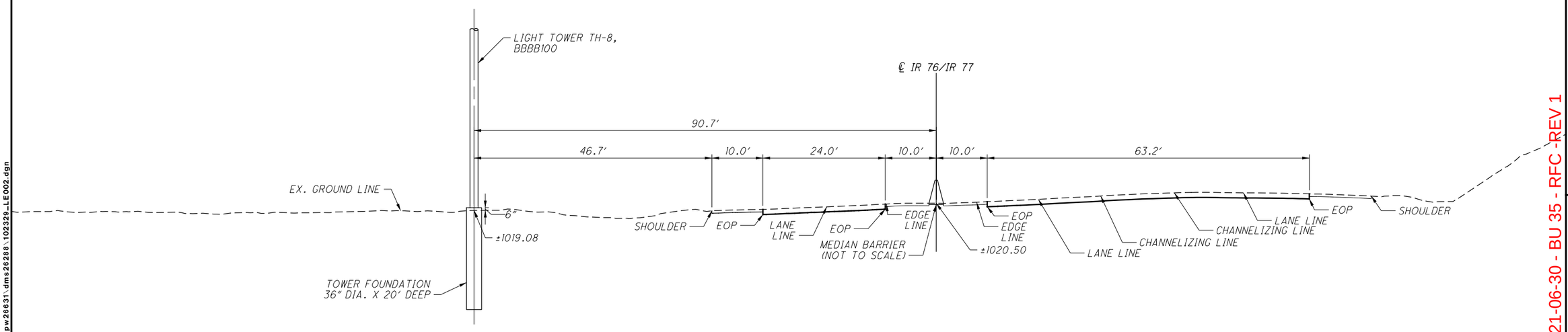
Released for Construction
Thomas J Powell, PE
07/09/2021

CALCULATED CDP
CHECKED EMS



STA. 5+33.13 ℄ RAMP T, 34.79′ RT



STA. 227+14.24 ℄ IR 76/IR 77, 90.68′ LT

2021-06-30 - BU 35 - RFC - REV 1

ISSUE RECORD:		
NO.	DATE	DESCRIPTION
1	6/30/21	FOUNDATION DEPTHS AND BORING INFO

LIGHTING ELEVATION DETAIL
RAMP T & IR 76 / IR 77

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

22
31

bschneider
6/30/2021 11:54:35 AM
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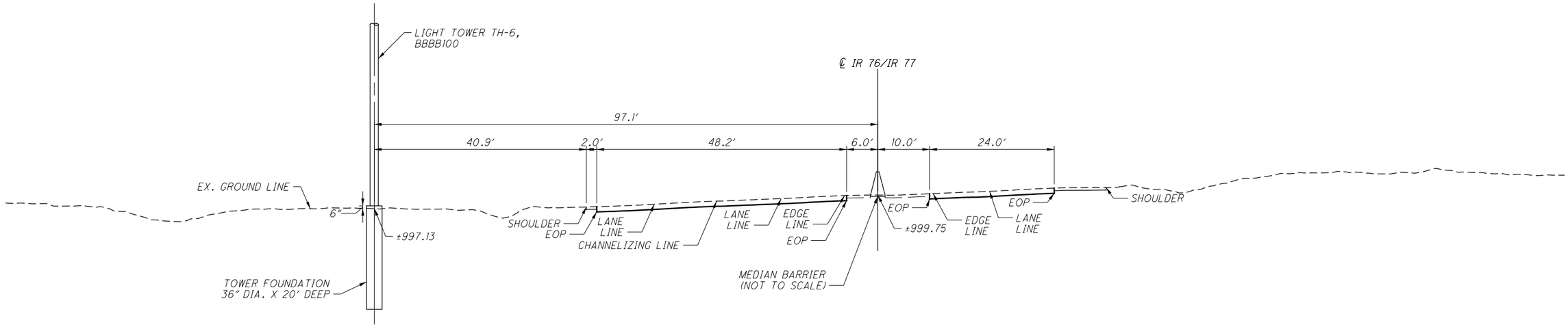
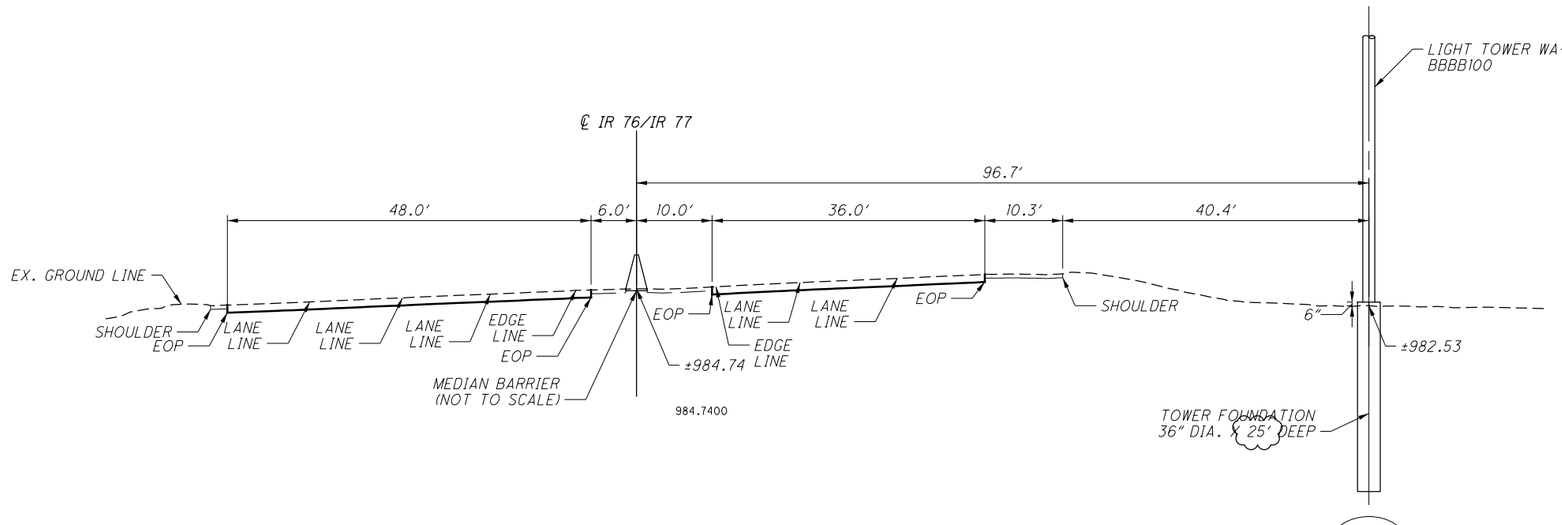
Released for Construction
Thomas J Powell, PE
07/09/2021

CALCULATED CDP
CHECKED EMS



STA. 221+04.09 ℄ IR 76/IR 77, 97.05′ LT



STA. 192+03.63 ℄ IR 77, 96.70′ RT

ISSUE RECORD:		
NO.	DATE	DESCRIPTION
1	6/30/21	FOUNDATION DEPTHS AND BORING INFO

2021-06-30 - BU 35 - RFC -REV 1

LIGHTING ELEVATION DETAIL
IR 76 / IR 77

SUM-76/77/8-9.24/9.74/0.00

23
31

bschneider
6/30/2021 11:54:39 AM
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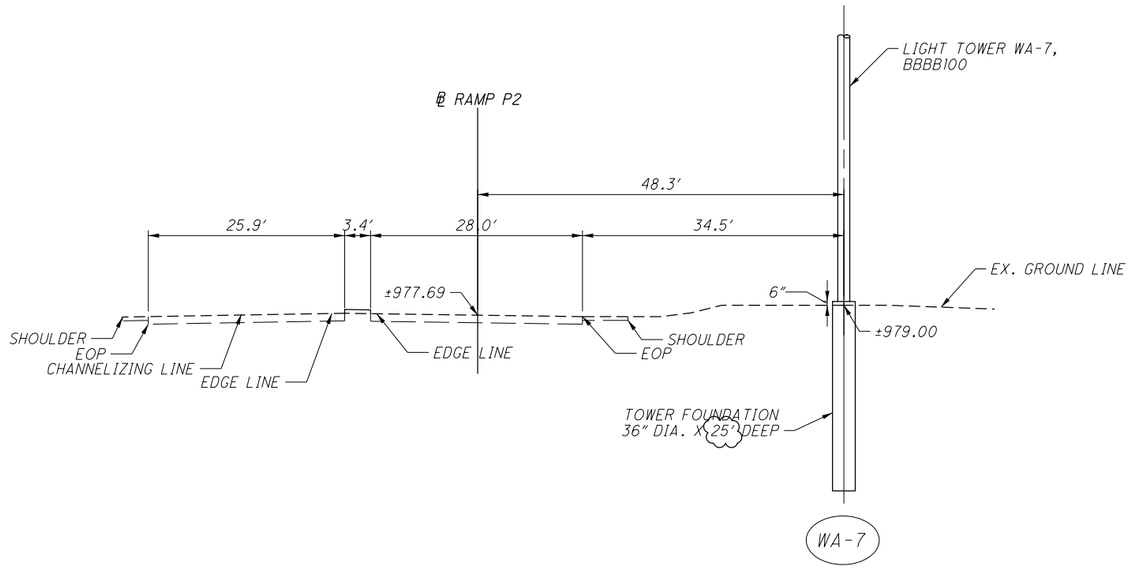
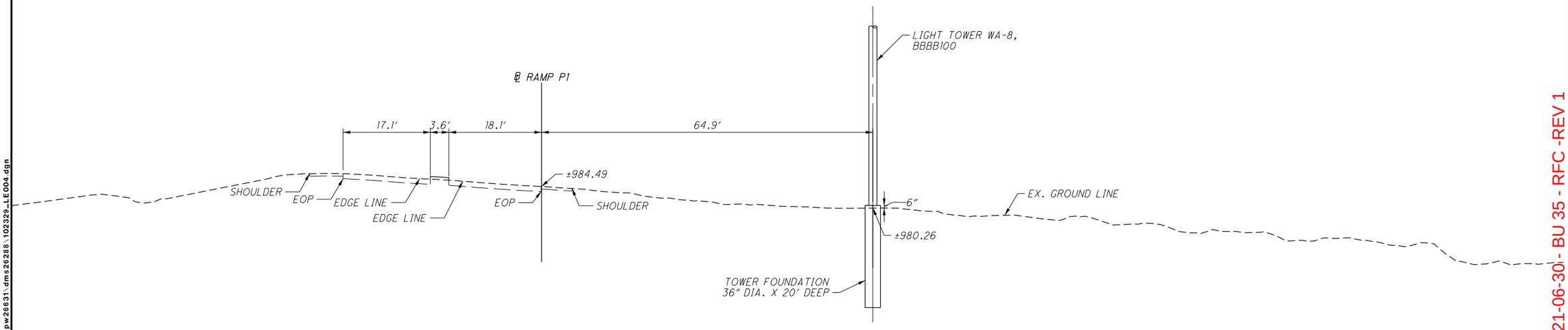
Released for Construction
Thomas J Powell, PE
07/09/2021

CALCULATED CDP
CHECKED EMS



STA. 1+08.96 ℄ RAMP P2, 48.34′ RT



STA. 6+89.22 ℄ RAMP P1, 64.86′ RT

ISSUE RECORD:		
NO.	DATE	DESCRIPTION
1	6/30/21	FOUNDATION DEPTHS AND BORING INFO

2021-06-30 - BU 35 - RFC -REV 1

LIGHTING ELEVATION DETAIL
RAMP P1 & P2

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

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6/30/2021 11:54:43 AM
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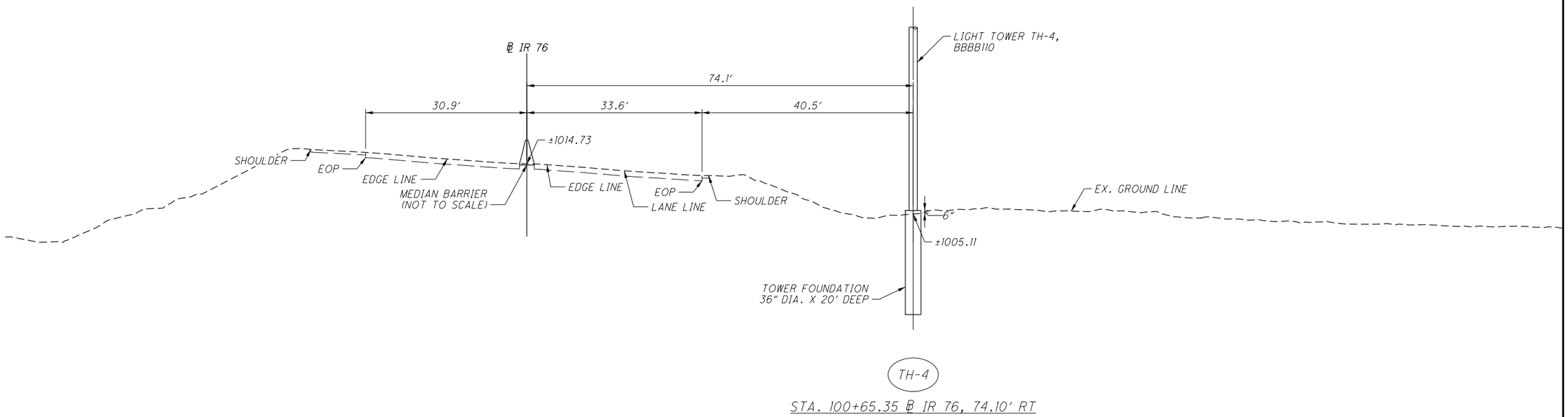
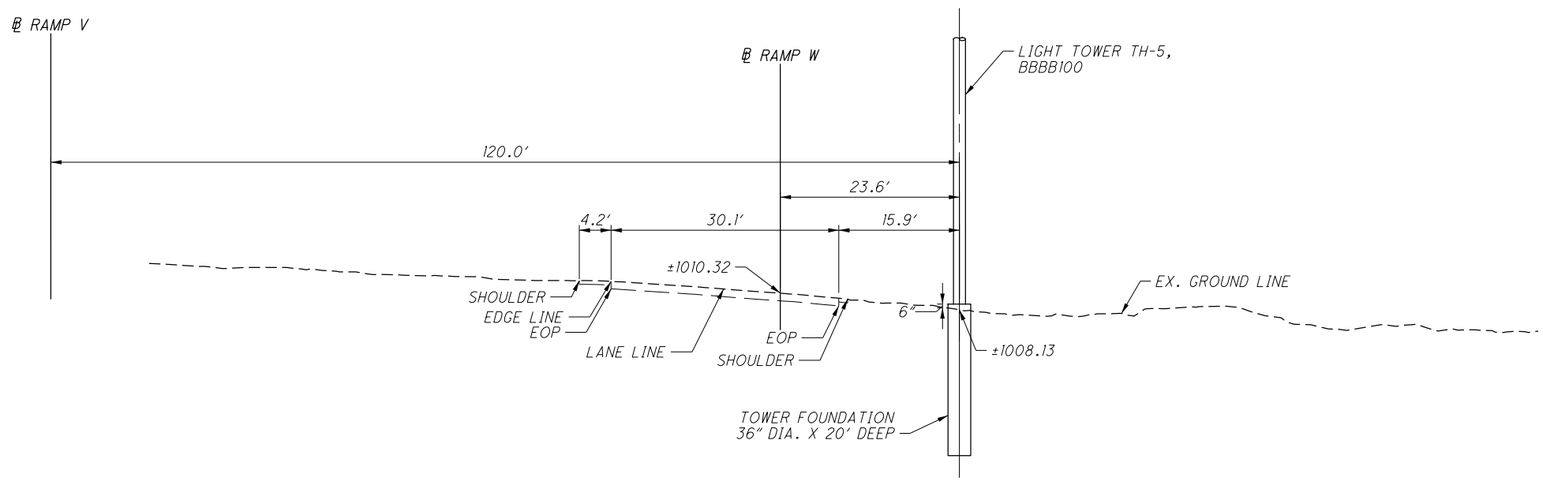
Thomas J Powell, PE
06/22/2021

CALCULATED CDP
CHECKED EMS



TH-4

STA. 100+65.35 ℄ IR 76, 74.10′ RT



TH-5

STA. 13+95.76 ℄ RAMP V, 119.95′ LT

ISSUE RECORD:

NO.	DATE	DESCRIPTION

LIGHTING ELEVATION DETAIL
IR 76 & RAMP V

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

25
31

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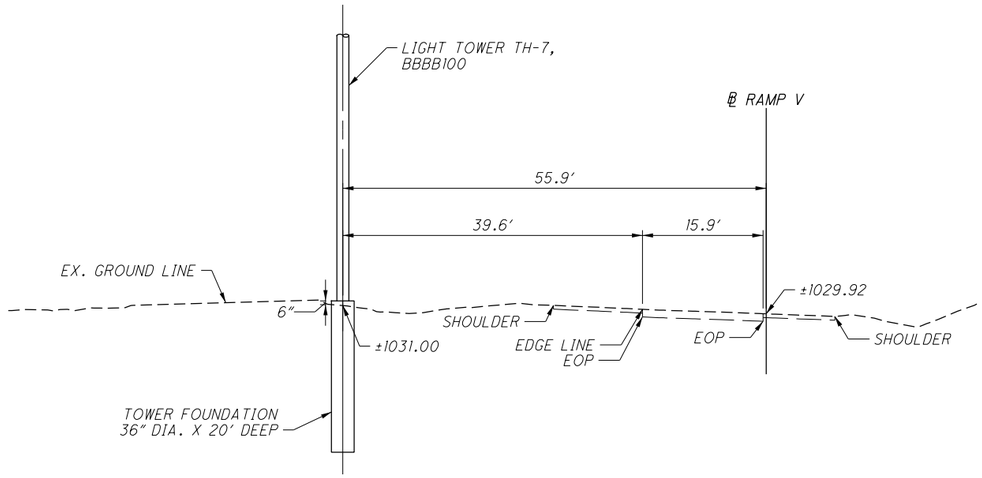
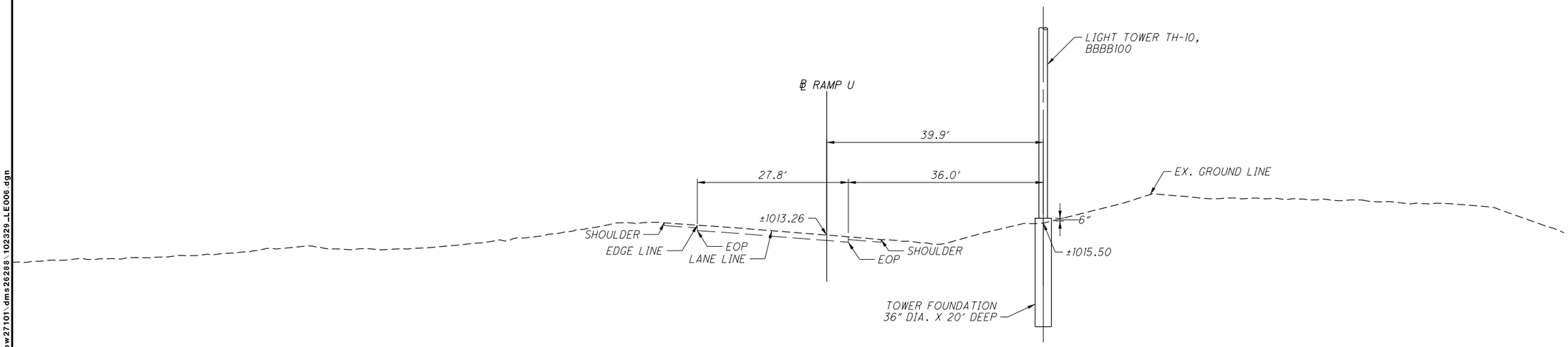
Released for Construction
Thomas J Powell, PE
06/22/2021

CALCULATED CDP
CHECKED EMS



TH-7

STA. 8+36.97 ℄ RAMP V, 55.89′ LT



TH-9

STA. 13+62.97 ℄ RAMP U, 39.93′ RT

ISSUE RECORD:		
NO.	DATE	DESCRIPTION

LIGHTING ELEVATION DETAIL
RAMP U & RAMP V

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

26
31

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6/15/2021 3:28:46 PM
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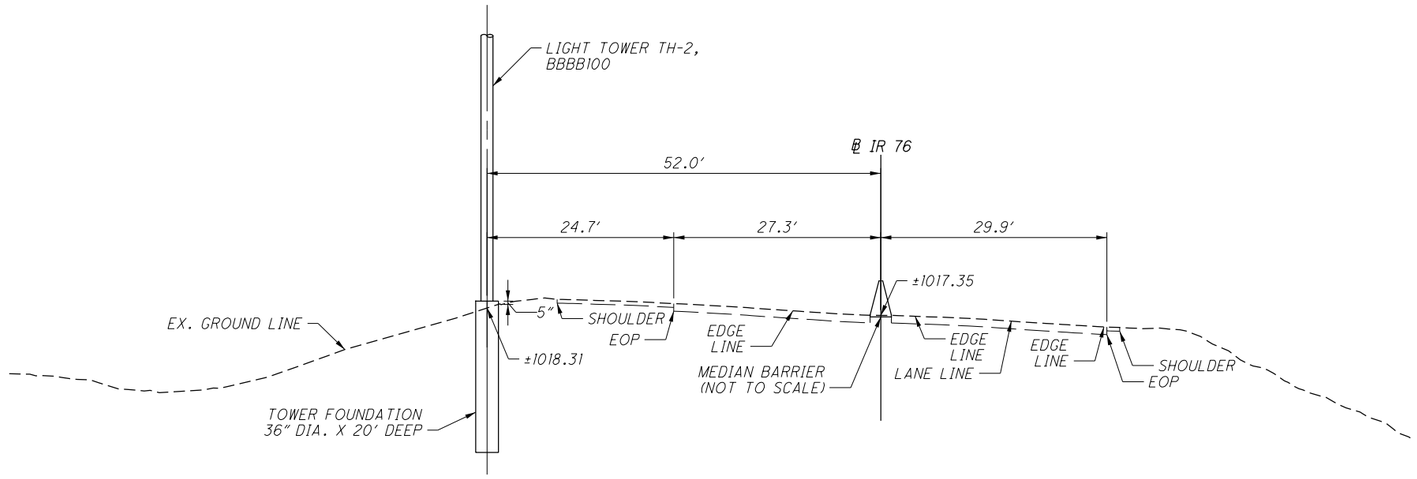
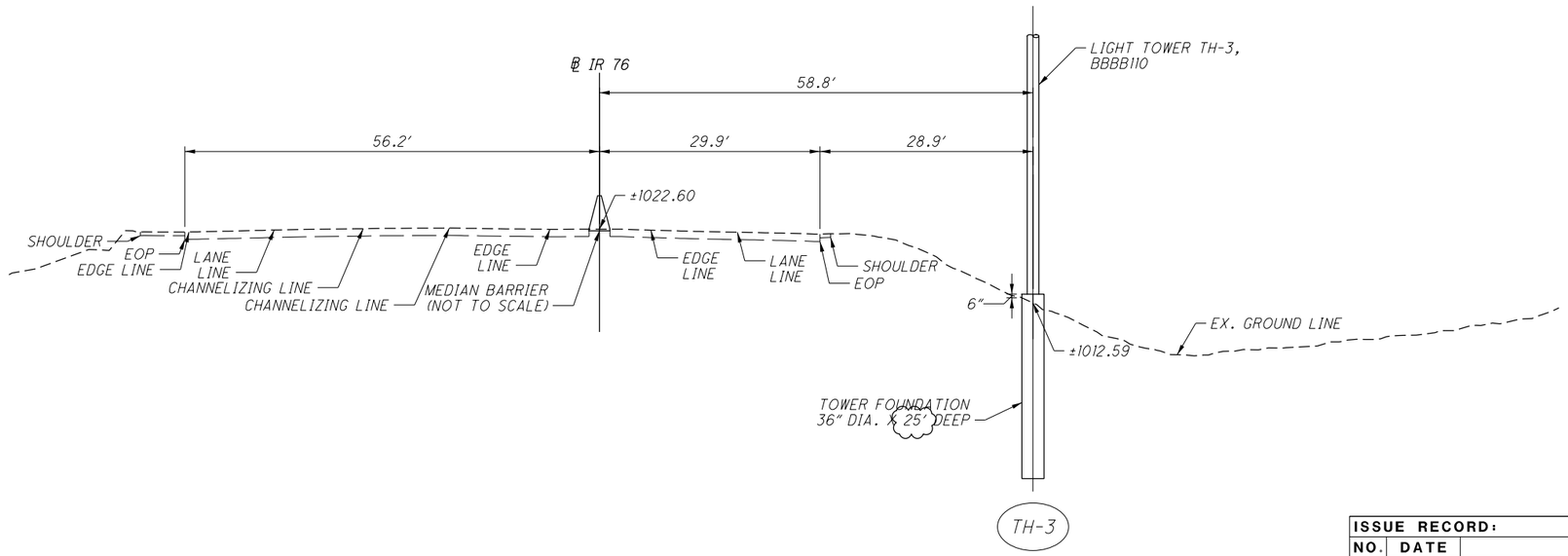
Released for Construction
Thomas J Powell, PE
07/09/2021

CALCULATED CDP
CHECKED EMS



TH-2

STA. 94+82.37 ℄ IR 76, 51.98′ LT



TH-3

STA. 90+16.47 ℄ IR 76, 58.78′ RT

ISSUE RECORD:

NO.	DATE	DESCRIPTION
1	6/30/21	FOUNDATION DEPTHS AND BORING INFO

2021-06-30 - BU 35 - RFC -REV 1

LIGHTING ELEVATION DETAIL

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

IR 76

bschneider
6/30/2021 11:54:47 AM
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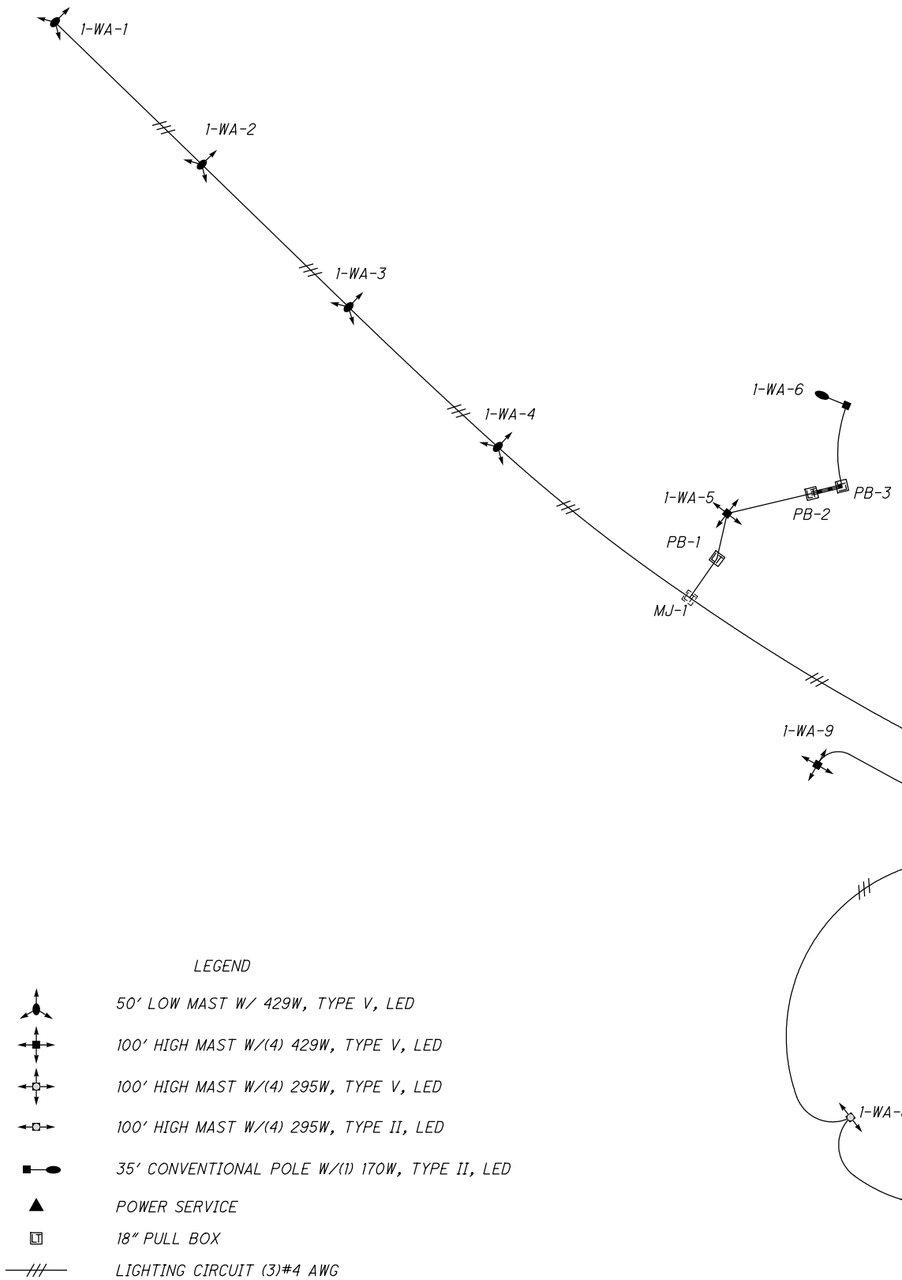
CALCULATED CDP
CHECKED EMS

CONTROL CENTER DATA

CONTROL CENTER DESIGNATION	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE - AWG	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	CIRCUIT CABLE SIZE AWG	MAINTAINING AGENCY
PROPOSED PS-WA (V. ODOM)	480	9.5	1/0	60	1-WA	19.79	30	4	ODOT
					-	-	-	-	
					-	-	-	-	



LEGEND

- 50' LOW MAST W/ 429W, TYPE V, LED
- 100' HIGH MAST W/(4) 429W, TYPE V, LED
- 100' HIGH MAST W/(4) 295W, TYPE V, LED
- 100' HIGH MAST W/(4) 295W, TYPE II, LED
- 35' CONVENTIONAL POLE W/(1) 170W, TYPE II, LED
- POWER SERVICE
- 18" PULL BOX
- LIGHTING CIRCUIT (3)#4 AWG

VOLTAGE DROP - CIRCUIT 1-WA

Voltage: 480 | Wire Factor Used (Two - No. 4 AWG Wires): 0.62 ohms/mft/1000 | Circuit: '1-WA'

Section			Amperes		Ampere-Feet	AWG	Voltage Drop			
From	To	Design Feet	At Point	Accum.			In Section	Accum.	% Drop	At Point
1-WA-01	1-WA-02	270	0.89	0.89	241	4	0.15	9.73	2.03	1-WA-01
1-WA-02	1-WA-03	270	0.89	1.79	483	4	0.30	9.58	2.00	1-WA-02
1-WA-03	1-WA-04	270	0.89	2.68	724	4	0.45	9.28	1.93	1-WA-03
1-WA-04	MJ-1	323	0.89	3.58	1,155	4	0.72	8.83	1.84	1-WA-04
1-WA-06	PB-3	108	0.35	0.35	38	4	0.02	8.48	1.77	1-WA-06
PB-3	PB-2	41	0.00	0.35	15	4	0.01	8.45	1.76	PB-3
PB-2	1-WA-05	115	0.00	0.35	41	4	0.03	8.45	1.76	PB-2
1-WA-05	PB-1	61	3.58	3.93	240	4	0.15	8.42	1.75	1-WA-05
PB-1	MJ-1	63	0.00	3.93	248	4	0.15	8.27	1.72	PB-1
MJ-1	MJ-2	508	0.00	7.50	3,812	4	2.36	8.12	1.69	MJ-1
1-WA-07	1-WA-08	471	2.46	2.46	1,158	4	0.72	7.69	1.60	1-WA-07
1-WA-08	PB-4	597	2.46	2.46	1,468	4	0.91	6.97	1.45	1-WA-08
PB-4	PB-5	42	0.00	2.46	103	4	0.06	6.06	1.26	PB-4
1-WA-09	PB-5	277	3.58	3.58	990	4	0.61	6.61	1.38	1-WA-09
PB-5	MJ-2	64	0.00	6.03	386	4	0.24	5.99	1.25	PB-5
MJ-2	1-WA-10	73	0.00	16.00	1,168	4	0.72	5.75	1.20	MJ-2
1-WA-10	1-WA-11	272	0.89	16.89	4,594	4	2.85	5.03	1.05	1-WA-10
1-WA-11	MJ-3	4	0.89	17.78	71	4	0.04	2.18	0.45	1-WA-11
1-WA-16	1-WA-15	260	0.89	0.89	232	4	0.14	4.30	0.90	1-WA-16
1-WA-15	1-WA-14	272	0.89	1.79	486	4	0.30	4.16	0.87	1-WA-15
1-WA-14	1-WA-13	270	0.89	2.68	724	4	0.45	3.86	0.80	1-WA-14
1-WA-13	1-WA-12	240	0.89	3.58	858	4	0.53	3.41	0.71	1-WA-13
1-WA-12	MJ-3	267	0.89	4.47	1,193	4	0.74	2.88	0.60	1-WA-12
MJ-3	PB-6	73	0.00	22.25	1,624	4	1.01	2.14	0.45	MJ-3
PB-6	PS-WA	82	0.00	22.25	1,825	4	1.13	1.13	0.24	PB-6
			SUM	22.25	AMPS PROPOSED LOAD			MAX %	2.03	
				10.68	Kva					

ISSUE RECORD:

NO.	DATE	DESCRIPTION

SCHEMATIC & CONTROL CENTER DATA
IR-77 * VERNON ODOM
CIRCUIT SCHEMATIC
SUM-76/77/8-8.24/9.74/0.00

cphillips
8/15/2021 3:28:58 PM
c:\pw_working\ohio\parsons_epw27101.dms26288\102329_LC001.dgn

CALCULATED CDP
CHECKED EMS

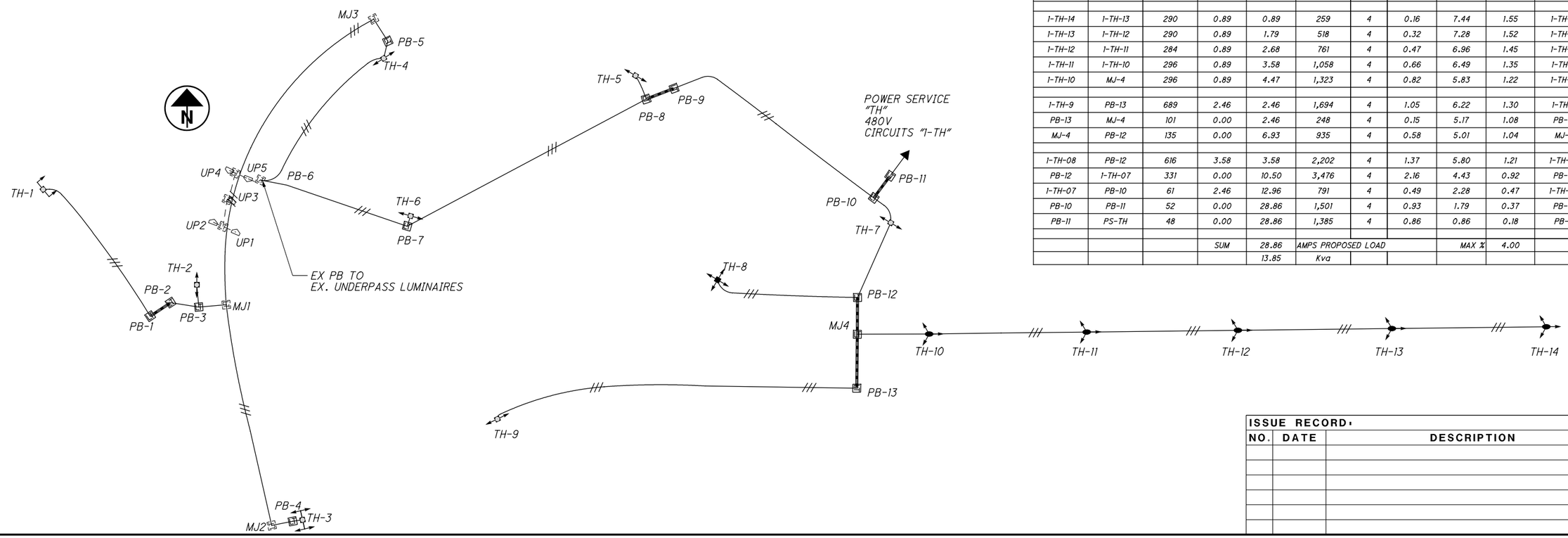
CIRCUIT SCHEMATICS & CONTROL CENTER DATA
IR-77 STA. 214+00 TO STA. 243+00
SUM-76/77/8-8.24/9.74/0.00

CONTROL CENTER DATA

CONTROL CENTER DESIGNATION	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE - AWG	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	CIRCUIT CABLE SIZE AWG	MAINTAINING AGENCY
PROPOSED PS-TH (I-76/I-77)	480	9.1	1/0	60	1-TH	19.02	30	4	ODOT
					-	-	-	-	
					-	-	-	-	

LEGEND

- PR. HIGH MAST W/(4) 295W, TYPE III, LED
- PR. HIGH MAST W/(4) 295W, TYPE II, LED
- PR. HIGH MAST W/(4) 429W, TYPE V, LED
- PR. LOW MAST W/(1) 429W, TYPE V, LED
- POWER SERVICE
- EX. POWER SERVICE
- 18" PULL BOX
- EX. PULL BOX
- LIGHTING CIRCUIT (3)#4 AWG
- EX. LIGHTING CIRCUIT



VOLTAGE DROP - CIRCUIT 1-TH

Voltage: 480 | Wire Factor Used (Two - No. 4 AWG Wires): 0.62 ohms/mft/1000 | Circuit: "1-TH"

Section From	Section To	Design Feet	Amperes At Point	Amperes Accum.	Ampere-Feet	AWG	Voltage Drop In Section	Voltage Drop Accum.	Σ Drop	At Point
1-TH-01	PB-1	321	2.46	2.46	789	4	0.49	19.21	4.00	1-TH-01
PB-1	PB-2	46	0.00	2.46	113	4	0.07	18.72	3.90	PB-1
PB-2	PB-3	54	0.00	2.46	133	4	0.08	18.65	3.89	PB-2
1-TH-02	PB-3	42	2.46	2.46	103	4	0.06	18.64	3.88	1-TH-02
PB-3	MJ-1	52	0.00	4.92	256	4	0.16	18.57	3.87	PB-3
1-TH-03	PB-4	19	2.46	2.46	47	4	0.03	19.15	3.99	1-TH-03
PB-4	MJ-2	40	0.00	2.46	98	4	0.06	19.12	3.98	PB-4
MJ-2	MJ-1	423	0.00	2.46	1,040	4	0.64	19.06	3.97	MJ-2
MJ-1	MJ-3	642	0.00	7.38	4,735	4	2.94	18.41	3.84	MJ-1
MJ-3	PB-5	50	0.00	7.38	369	4	0.23	15.48	3.22	MJ-3
PB-5	1-TH-4	33	0.00	7.38	243	4	0.15	15.25	3.18	PB-5
1-TH-4	PB-6	340	2.46	9.83	3,343	4	2.07	15.10	3.15	1-TH-4
EX UP-1	UJB-1	20	0.23	0.23	5	10	0.01	13.31	2.77	EX UP-1
EX UP-2	UJB-1	20	0.23	0.23	5	10	0.01	13.31	2.77	EX UP-2
UJB-1	UJB-2	40	0.00	0.46	18	10	0.04	13.30	2.77	UJB-1
EX UP-3	UJB-2	10	0.23	0.23	2	10	0.01	13.26	2.76	EX UP-3
UJB-2	UJB-3	55	0.00	0.69	38	10	0.09	13.25	2.76	UJB-2
EX UP-4	UJB-3	20	0.23	0.23	5	10	0.01	13.17	2.74	EX UP-4
EX UP-5	UJB-3	20	0.23	0.23	5	10	0.01	13.17	2.74	EX UP-5
UJB-3	PB-6	50	0.00	1.15	57	10	0.14	13.16	2.74	UJB-3
PB-6	PB-7	289	0.00	10.98	3,173	4	1.97	13.02	2.71	PB-6
1-TH-06	PB-7	20	2.46	2.46	49	4	0.03	11.09	2.31	1-TH-06
PB-7	PB-8	508	0.00	13.44	6,826	4	4.23	11.06	2.30	PB-7
1-TH-05	PB-8	48	2.46	2.46	118	4	0.07	6.90	1.44	1-TH-05
PB-8	PB-9	56	0.00	15.90	890	4	0.55	6.83	1.42	PB-8
PB-9	PB-10	455	0.00	15.90	7,233	4	4.48	6.27	1.31	PB-9
1-TH-14	1-TH-13	290	0.89	0.89	259	4	0.16	7.44	1.55	1-TH-14
1-TH-13	1-TH-12	290	0.89	1.79	518	4	0.32	7.28	1.52	1-TH-13
1-TH-12	1-TH-11	284	0.89	2.68	761	4	0.47	6.96	1.45	1-TH-12
1-TH-11	1-TH-10	296	0.89	3.58	1,058	4	0.66	6.49	1.35	1-TH-11
1-TH-10	MJ-4	296	0.89	4.47	1,323	4	0.82	5.83	1.22	1-TH-10
1-TH-9	PB-13	689	2.46	2.46	1,694	4	1.05	6.22	1.30	1-TH-9
PB-13	MJ-4	101	0.00	2.46	248	4	0.15	5.17	1.08	PB-13
MJ-4	PB-12	135	0.00	6.93	935	4	0.58	5.01	1.04	MJ-4
1-TH-08	PB-12	616	3.58	3.58	2,202	4	1.37	5.80	1.21	1-TH-08
PB-12	1-TH-07	331	0.00	10.50	3,476	4	2.16	4.43	0.92	PB-12
1-TH-07	PB-10	61	2.46	12.96	791	4	0.49	2.28	0.47	1-TH-07
PB-10	PB-11	52	0.00	28.86	1,501	4	0.93	1.79	0.37	PB-10
PB-11	PS-TH	48	0.00	28.86	1,385	4	0.86	0.86	0.18	PB-11
			SUM	28.86	AMPS PROPOSED LOAD			MAX %	4.00	
				13.85	Kva					

ISSUE RECORD:

NO.	DATE	DESCRIPTION

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CALCULATED CDP
CHECKED EMS

VOLTAGE DROP - CIRCUIT 1-GK

Voltage: 480 | Wire Factor Used (Two - No. 4 AWG Wires): 0.62 ohms/mft/1000 | Circuit: '1-GK'

Section			Amperes		Ampere-Feet	AWG	Voltage Drop		% Drop	At Point
From	To	Design Feet	At Point	Accum.			In Section	Accum.		
1-GK-13	1-GK-12	175	0.66	0.66	116	4	0.07	7.36	1.53	1-GK-13
1-GK-12	MJ-1	10	0.66	1.33	13	4	0.01	7.29	1.52	1-GK-12
MJ-1	MJ-2	154	0.00	1.33	205	4	0.13	7.28	1.52	MJ-1
1-GK UP1	JB	28	0.23	0.23	6	4	0.00	7.16	1.49	1-GK UP1
1 GK UP2	JB	47	0.23	0.23	11	4	0.01	7.16	1.49	1 GK UP2
JB	MJ-2	10	0.00	0.46	5	4	0.00	7.15	1.49	JB
MJ-2	1-GK-11	52	0.00	1.79	93	4	0.06	7.15	1.49	MJ-2
1-GK-11	1-GK_10	127	0.92	2.70	343	4	0.21	7.09	1.48	1-GK-11
1-GK-10	1-GK-09	141	0.92	3.62	509	4	0.32	6.88	1.43	1-GK-10
1-GK-09	1-GK-08	140	0.92	4.54	636	4	0.39	6.56	1.37	1-GK-09
1-GK-08	1-GK-07	138	0.92	5.45	754	4	0.47	6.17	1.29	1-GK-08
1-GK-07	1-GK-06	142	0.92	6.37	902	4	0.56	5.70	1.19	1-GK-07
1-GK-06	1-GK-05	142	0.92	7.29	1,033	4	0.64	5.14	1.07	1-GK-06
1-GK-05	1-GK-04	140	0.92	8.20	1,149	4	0.71	4.50	0.94	1-GK-05
1-GK-04	1-GK-03	166	0.92	9.12	1,513	4	0.94	3.79	0.79	1-GK-04
1-GK-03	1-GK-02	140	0.92	10.04	1,405	4	0.87	2.85	0.59	1-GK-03
1-GK-02	1-GK-01	132	0.92	10.95	1,446	4	0.90	1.98	0.41	1-GK-02
1-GK-01	MJ-3	55	0.92	11.87	652	4	0.40	1.08	0.23	1-GK-01
MJ-3	PB-1	85	0.00	11.87	1,009	4	0.63	0.68	0.14	MJ-3
PB-1	PS-GK	7	0.00	11.87	89	4	0.06	0.06	0.01	PB-1
			SUM	11.87	AMPS PROPOSED LOAD			MAX %	1.53	

VOLTAGE DROP - CIRCUIT 2-GK

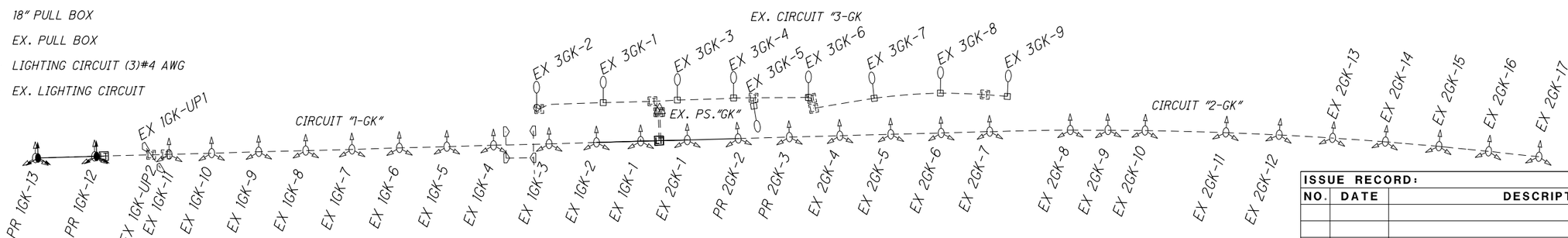
Voltage: 480 | Wire Factor Used (Two - No. 4 AWG Wires): 0.62 ohms/mft/1000 | Circuit: '2-GK'

Section			Amperes		Ampere-Feet	AWG	Voltage Drop		% Drop	At Point
From	To	Design Feet	At Point	Accum.			In Section	Accum.		
2-GK-17	2-GK-16	151	0.92	0.92	138	4	0.09	13.87	2.89	2-GK-17
2-GK-16	2-GK-15	149	0.92	1.83	273	4	0.17	13.79	2.87	2-GK-16
2-GK-15	2-GK-14	160	0.92	2.75	441	4	0.27	13.62	2.84	2-GK-15
2-GK-14	2-GK-13	158	0.92	3.67	579	4	0.36	13.34	2.78	2-GK-14
2-GK-13	2-GK-12	160	0.92	4.58	733	4	0.45	12.99	2.71	2-GK-13
2-GK-12	2-GK-11	159	0.92	5.50	874	4	0.54	12.53	2.61	2-GK-12
2-GK-11	2-GK-10	241	0.92	6.42	1,549	4	0.96	11.99	2.50	2-GK-11
2-GK-10	2-GK-09	111	0.92	7.33	811	4	0.50	11.03	2.30	2-GK-10
2-GK-09	2-GK-08	112	0.92	8.25	926	4	0.57	10.53	2.19	2-GK-09
2-GK-08	2-GK-07	240	0.92	9.17	2,204	4	1.37	9.95	2.07	2-GK-08
2-GK-07	2-GK-06	145	0.92	10.08	1,463	4	0.91	8.59	1.79	2-GK-07
2-GK-06	2-GK-05	150	0.92	11.00	1,652	4	1.02	7.68	1.60	2-GK-06
2-GK-05	2-GK-04	152	0.92	11.92	1,813	4	1.12	6.65	1.39	2-GK-05
2-GK-04	2-GK-03	151	0.92	12.83	1,937	4	1.20	5.53	1.15	2-GK-04
2-GK-03	2-GK-02	153	0.92	13.75	2,099	4	1.30	4.33	0.90	2-GK-03
2-GK-02	2-GK-01	152	0.92	14.67	2,226	4	1.38	3.03	0.63	2-GK-02
2-GK-01	MJ-4	79	0.92	15.58	1,236	4	0.77	1.65	0.34	2-GK-01
MJ-4	PB-2	85	0.00	15.58	1,323	4	0.82	0.88	0.18	MJ-4
PB-2	PS-GK	6	0.00	15.58	100	4	0.06	0.06	0.01	PB-2
			SUM	15.58	AMPS PROPOSED LOAD			MAX %	2.89	

LEGEND

- PR. 50' LOW MAST W/ LED, 319W, TYPE V
- EX. LIGHT POLE 200W HPS, TYPE II, 480V
- EX. LOW MAST 400W HPS, TYPE II, 480V
- EX. UNDERPASS LUMINAIRE, 100W HPS, 480V
- POWER SERVICE
- EX. POWER SERVICE
- 18" PULL BOX
- EX. PULL BOX
- LIGHTING CIRCUIT (3)#4 AWG
- EX. LIGHTING CIRCUIT

CONTROL CENTER DATA									
CONTROL CENTER DESIGNATION	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE - AWG	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	CIRCUIT CABLE SIZE AWG	MAINTAINING AGENCY
EXISTING PS-GK (GOODKIRK)	480	15.9	1/0	60	1-GK	11.87	20	4	ODOT
					2-GK	15.58	20	4	
					3-GK (EX)	5.77	15	4	



ISSUE RECORD:

NO.	DATE	DESCRIPTION

CIRCUIT SCHEMATICS & CONTROL CENTER DATA
SR-8
SUM-76/77/8-8.24/9.74/0.00
STA. 332+65 TO STA. 377+47

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LEGEND

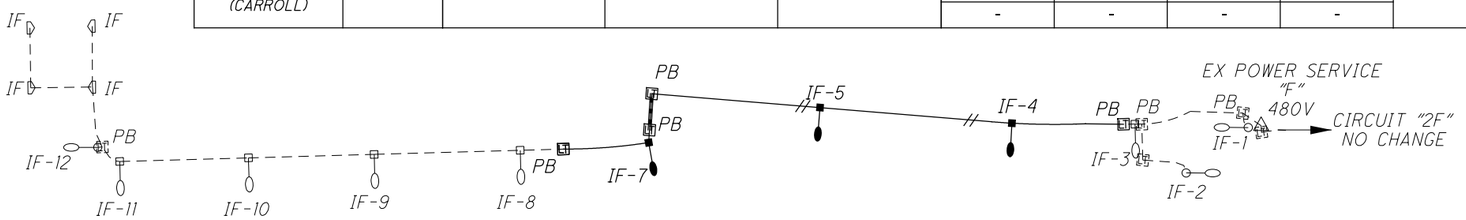
- EX. LIGHT POLE, 200W HPS, TYPE II, 480V
- PR. LIGHT POLE 170W LED, TYPE II, 480V
- EX. UNDERPASS LUMINAIRE, 70W HPS, 480V
- POWER SERVICE
- EX. POWER SERVICE
- 18" PULL BOX
- EX. PULL BOX
- LIGHTING CIRCUIT (2)#4 AWG
- EX. LIGHTING CIRCUIT

VOLTAGE DROP - CIRCUIT 1-F

Voltage: 480	Wire Factor Used (Two - No. 4 AWG Wires):	0.62	ohms/mft/1000	Circuit: "1-F"

Section			Amperes		Ampere-Feet	AWG	Voltage Drop		% Drop	At Point
From	To	Design Feet	At Point	Accum.			In Section	Accum.		
1-1F-UP1	1-1F-UP2	79	0.16	0.16	13	4	0.01	3.17	0.66	1-1F-UP1
1-1F-15	1-1F-UP3	82	0.16	0.32	26	4	0.02	3.17	0.66	1-1F-15
1-1F-UP4	1-1F-UP3	80	0.16	0.16	13	4	0.01	3.16	0.66	1-1F-UP4
1-1F-UP3	PB-3	81	0.16	0.64	52	4	0.03	3.15	0.66	1-1F-UP3
1-1F-12	PB-3	6	0.46	0.46	3	4	0.00	3.12	0.65	1-1F-12
PB-3	1-1F-11	32	0.00	1.10	35	4	0.02	3.12	0.65	PB-3
1-1F-11	1-1F-10	170	0.46	1.56	265	4	0.16	3.10	0.64	1-1F-11
1-1F-10	1-1F-09	166	0.46	2.02	335	4	0.21	2.93	0.61	1-1F-10
1-1F-09	1-1F-08	193	0.46	2.48	477	4	0.30	2.72	0.57	1-1F-09
1-1F-08	PB-4	57	0.46	2.93	167	4	0.10	2.43	0.51	1-1F-08
PB-4	1-1F-07	113	0.00	2.93	331	4	0.21	2.32	0.48	PB-4
1-1F-07	PB-5	25	0.35	3.29	82	4	0.05	2.12	0.44	1-1F-07
PB-5	PB-6	48	0.00	3.29	158	4	0.10	2.07	0.43	PB-5
PB-6	1-1F-05	224	0.00	3.29	736	4	0.46	1.97	0.41	PB-6
1-1F-05	1-1F-04	255	0.35	3.64	929	4	0.58	1.51	0.32	1-1F-05
1-1F-04	PB-7	152	0.35	4.00	607	4	0.38	0.94	0.20	1-1F-04
PB-7	1-1F-03	9	0.00	4.00	36	4	0.02	0.56	0.12	PB-7
1-1F-03	PB-8	9	0.46	4.45	40	4	0.02	0.54	0.11	1-1F-03
1-1F-02	PB-8	115	0.46	0.46	53	4	0.03	0.55	0.11	1-1F-02
PB-8	PB-10	137	0.00	4.91	673	4	0.42	0.51	0.11	PB-8
1-1F-01	PB-10	21	0.46	0.46	10	4	0.01	0.10	0.02	1-1F-01
PB-10	PS-1F	29	0.00	5.37	156	4	0.10	0.10	0.02	PB-10
			SUM	5.37	AMPS PROPOSED LOAD			MAX %	0.66	

CONTROL CENTER DATA									
CONTROL CENTER DESIGNATION	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE - AWG	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	CIRCUIT CABLE SIZE AWG	MAINTAINING AGENCY
EXISTING PS-F (CARROLL)	480	6.2	EX	60	1-F	5.29	15	4	ODOT
					2-F (EX)	7.70	15	4	
					-	-	-	-	



MODIFICIATION TO CIRCUIT "1F"
- REMOVE EXISITING POLES "1F-4, 1F-5, 1F-6, 1F-7"

ISSUE RECORD:		
NO.	DATE	DESCRIPTION

Released for Construction
Thomas J Powell, PE
06/22/2021

CALCULATED CDP
CHECKED EMS

CIRCUIT SCHEMATICS & CONTROL CENTER DATA
SR-8 STA. 346+50 TO STA. 363+00

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

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