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UTILITIES

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

AT&T - OHIO
RALPH HUTCHINSON
(216) 476-6104
13630 LORAIN AVE.
2ND FLOOR
CLEVELAND, OHIO 44111

CHARTER COMMUNICATIONS
RICK PALENCAR
(216) 575-8016
8150 DOW CIRCLE
STRONGSVILLE, OHIO 44136

CENTURY LINK
DOUG HOLLOWAY
(216) 906-6284
4000 CHESTER AVE.
CLEVELAND, OHIO 44103

CITY OF CLEVELAND -
PUBLIC POWER
CHRIS HIRZEL
(216) 563-7212
1300 LAKESIDE AVE., ROOM 152
CLEVELAND, OHIO 44114

CITY OF CLEVELAND -
PUBLIC POWER (AERIAL/LIGHTING)
CHARLES JIM MALY
(216) 664-3922 x173
1300 LAKESIDE AVE., ROOM 152
CLEVELAND, OHIO, 44114

CITY OF CLEVELAND -
WATER DEPARTMENT
FRED ROBERTS
(216) 664-2444 EXT. 75590
1201 LAKESIDE AVE.
CLEVELAND, OHIO 44114

CITY OF CLEVELAND -
WATER POLLUTION CONTROL
ELIE RAMY
(216) 664-2756
12302 KIRBY AVE.
CLEVELAND, OHIO 44108

CITY OF CLEVELAND -
TRAFFIC ENGINEERING
ANDREW CROSS
(216) 664-3197
601 LAKESIDE AVE.
ROOM 25
CLEVELAND, OHIO 44114

DOMINION ENERGY OHIO
ATTN: 2nd FLOOR RELOCATION DESIGN
(330) 664-2409
320 SPRINGSIDE DR.
SUITE 320
AKRON, OHIO 44333

CEI FIRST ENERGY - AERIAL
JOHN ZASSICK
(440) 546-8706
6896 MILLER RD.
SUITE 101
BRECKSVILLE, OHIO 44141

CEI FIRST ENERGY -
UNDERGROUND
DAN CARMAN
740-314-9986
6896 MILLER RD.
SUITE 101
BRECKSVILLE, OHIO 44141

ODOT - DISTRICT 12
KEITH HAMILTON
(216) 584-2220
5500 TRANSPORTATION BLVD.
GARFIELD HEIGHTS, OHIO 44125

WINDSTREAM
GEOFFREY HAMM
(440) 329-4245
560 TERNES AVE.
ELRIA, OHIO 44035

VERIZON
JEFF KADUSKY
(330) 819-1444
1150 WEST 3rd ST.
CLEVELAND, OHIO 44256

UTILITIES

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 9 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD:	STATIC GNSS
MONUMENT TYPE:	A

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM:	NAVD88
GEOID:	GEOID12B

HORIZONTAL POSITIONING

REFERENCE FRAME:	NAD83(2011)
ELLIPSOID:	GRS80
MAP PROJECTION:	LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM:	OHIO STATE PLANE - NORTH ZONE (3401)
COMBINED SCALE FACTOR:	1.00006274
ORIGIN OF COORDINATE SYSTEM:	0,0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

WORK LIMITS

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

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

CURBING ON APPROACH SLABS

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

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.

ROUNDING

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

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG64-22

THE COARSE VIRGIN AGGREGATE SHALL CONSIST OF A BLEND OF 60% MIN. AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. THE CITY OF CLEVELAND HAS GRANTED A VARIANCE REQUEST TO WAIVE ENFORCEMENT FOR A PERIOD OF 6 MONTHS, BETWEEN APRIL 15, 2021 AND OCTOBER 15, 2021. THE HEAVY EQUIPMENT APPROVED TO BE UTILIZED OUTSIDE OF THE NORMAL HOURS OF 7AM TO 9PM ARE MAN LIFTS, SCISSOR LIFTS, CONCRETE SAWS, HAND SAWS, EXCAVATORS, LOADERS, DUMP TRUCKS, SEMI-TRUCKS, CONCRETE TRUCKS, AND CONCRETE PUMPS.

THE NOISE ORDINANCE VARIANCE HAS THE FOLLOWING CONDITIONS:

-THE DEPARTMENT OF PUBLIC SAFETY AND THE RESPECTIVE COUNCILPERSONS SHALL BE NOTIFIED A MINIMUM OF 30 DAYS IN ADVANCE OF THE SPECIFIC DATES/TIMES THE PROJECT WILL BEGIN BETWEEN APRIL AND OCTOBER 2021.

-THE DEPARTMENT OF PUBLIC SAFETY AND THE RESPECTIVE COUNCILPERSONS SHALL BE NOTIFIED A MINIMUM OF 72 HOURS IN ADVANCE OF ANY CHANGES TO THE ORIGINAL REQUEST.

-THE DEPARTMENT OF PUBLIC SAFETY AND THE RESPECTIVE COUNCILPERSONS SHALL BE NOTIFIED 72 HOURS IN ADVANCE OF ANY WORK SCHEDULE CHANGES RELATIVE TO THE DATES AND HOURS OF OPERATION.

-THE CITY OF CLEVELAND AND THE RESPECTIVE COUNCIL-PERSONS SHALL BE NOTIFIED 72 HOURS IN ADVANCE IF ANY OTHER HEAVY EQUIPMENT IS UTILIZED OTHER THAN THOSE LISTED ABOVE OR IN THE ORIGINAL REQUEST.

NOTIFICATIONS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. THE CONTRACTOR CAN REVIEW THE EXISTING VARIANCE REQUEST AT THE DISTRICT OFFICE.

PERMITS

IN THE CITY OF CLEVELAND ALL PERMITS MUST BE OBTAINED FROM THE DIVISION OF ASSESSMENTS AND LICENSES PRIOR TO BEGINNING ANY WORK. PERMITS INCLUDE BUT ARE NOT LIMITED TO STREET OPENING PERMIT, OVERLOAD PERMIT, OBSTRUCTION PERMIT AND MAY BE OBTAINED THROUGH THE FOLLOWING CONTACT:

TRAVIS EVANS
DEPARTMENT OF FINANCE
DIVISION OF ASSESSMENTS AND LICENSES
601 LAKESIDE AVENUE, ROOM 122
PHONE: 216-664-2174
EMAIL: DALPERMITS@CITY.CLEVELAND.OH.US

ALL STREET OPENING REPAIRS, CURB REPAIRS, AND/OR SIDEWALK REPAIRS EITHER INCIDENTAL TO THE PROJECT OR PART OF THE PROJECT MUST BE PERFORMED IN ACCORDANCE TO CITY OF CLEVELAND STANDARDS. A COPY OF THE STANDARDS CAN BE OBTAINED FROM THE DIVISION OF ENGINEERING AND CONSTRUCTION BY CALLING 216-664-2381. ALL PERMITS, FEES AND CHARGES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THEIR ASSOCIATED COST SHALL BE INCLUDED IN THE CONTRACT UNIT BID PRICE FOR THE PERTINENT WORK ITEMS. FOR BIDDING PURPOSES, FEE AND CHARGES MAY BE OBTAINED FROM THE DIVISION OF ASSESSMENTS AND LICENSES AT 216-664-2174.

ITEM 619 FIELD OFFICE, TYPE B, AS PER PLAN

A TYPE B FIELD OFFICE IS REQUIRED FOR THIS PROJECT. THE FOLLOWING REVISIONS TO EQUIPMENT SUPPLIED WITH THE TYPE B FIELD OFFICE, AS SPECIFIED IN TABLE 619.02-1, FIELD OFFICE, SHALL APPLY:

THE BROADBAND INTERNET CONNECTION MUST MEET A MINIMUM UPLOAD SPEED OF 5MB PER SECOND.

CONTRACTOR SHALL FURNISH AND SET UP A WI-FI ROUTER MEETING THE REQUIREMENTS OF IEEE 802.11AC FOR THE EXCLUSIVE USE OF THE DEPARTMENT.

ALL OTHER FIELD OFFICE ITEMS SUPPLIED SHALL MEET THE REQUIREMENTS OF A TYPE B, FIELD OFFICE.

ITEM 619-FIELD OFFICE, TYPE B, AS PER PLAN 5 MONTHS

CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES

AT PROJECT LOCATIONS WHERE THE CONTRACTOR IS WORKING ADJACENT TO PROPERTY AND SERVICES OF UTILITY COMPANIES SUCH AS BUT NOT LIMITED TO POWER, TELECOMMUNICATIONS, GAS, RAILWAY, ETC. WORK SHALL NOT COMMENCE UNTIL ARRANGEMENTS FOR PROPERTY PROTECTION OF SUCH FACILITIES HAVE BEEN MADE, AS DIRECTED IN SECTION 107 OF THE ODOT CMS.

PARTICULAR CAUTION SHALL BE EXERCISED BY THE CONTRACTOR WHEN PERFORMING EXCAVATION FOR CURB AND UNDERDRAINS IN THE VICINITY OF THE ILLUMINATING COMPANY AND EAST OHIO GAS UNDERGROUND CONDUITS, MANHOLES AND ANY OTHER FACILITIES.

THE UNDERGROUND UTILITY OWNERS SHALL BE GIVEN A NOTICE OF WORK TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AT THE PLAN LOCATIONS AS PER SECTION 153.64 OF THE OHIO REVISED CODE.

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GENERAL NOTES

CUY-90-13.45

SHEET NUM.										OFFICE CALCS	PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
8	9	15	36	37	38	47	48	64			01/BRO/BR	02/BRO/BR	03/BRO/BR						
																		ROADWAY	
LUMP											LUMP			201	11000	LS		CLEARING AND GRUBBING	8
										693	693			202	23001	693	SY	PAVEMENT REMOVED, AS PER PLAN	9
										257	257			202	23901	257	SY	CONCRETE BASE REMOVED, AS PER PLAN	3
			1,161								1,161			202	30000	1,161	SF	WALK REMOVED	
			407								407			202	30701	407	FT	CONCRETE BARRIER REMOVED, AS PER PLAN	3
			317								317			202	32000	317	FT	CURB REMOVED	
			45					282			327			202	35100	327	FT	PIPE REMOVED, 24" AND UNDER	69
			313								313			202	38000	313	FT	GUARDRAIL REMOVED	
			4								4			202	47000	4	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
			2								2			202	58100	2	EACH	CATCH BASIN REMOVED	9
	750										750			SPECIAL	20270110	750	FT	PIPE CLEANOUT, 24" AND UNDER	9
			306								306			202	75000	306	FT	FENCE REMOVED	
						206	26				232			203	10000	232	CY	EXCAVATION	
						6	6				12			203	20000	12	CY	EMBANKMENT	
										713	713			204	10000	713	SY	SUBGRADE COMPACTION	
				288							288			606	15050	288	FT	GUARDRAIL, TYPE MGS	
				2							2			606	35002	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
				2							2			606	35102	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
				304							304			607	23000	304	FT	FENCE, TYPE CLT	
				602							602			608	10000	602	SF	4" CONCRETE WALK	
				351							351			608	52001	351	SF	CURB RAMP, AS PER PLAN (PER CITY OF CLEVELAND STANDARDS)	9
		4,175									4,175			618	40101	4,175	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN	11
				282							282			622	10101	282	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1, AS PER PLAN	3
				2							2			622	10200	2	EACH	BARRIER TRANSITION	74
				3							3			622	25006	3	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B1	
				4							4			625	32000	4	EACH	GROUND ROD (FENCING)	
																		EROSION CONTROL	
	65										65			659	00300	65	CY	TOPSOIL	
	382					153	51				586			659	10000	586	SY	SEEDING AND MULCHING	
	29										29			659	14000	29	SY	REPAIR SEEDING AND MULCHING	
	29										29			659	15000	29	SY	INTER-SEEDING	
	0.08										0.08			659	20000	0.08	TON	COMMERCIAL FERTILIZER	
	0.12										0.12			659	31000	0.12	ACRE	LIME	
	2										2			659	35000	2	MGAL	WATER	
																		DRAINAGE	
	40										40			605	05200	40	FT	4" UNCLASSIFIED PIPE UNDERDRAINS	9
					39						39			611	04400	39	FT	12" CONDUIT, TYPE B	
	10										10			611	05900	10	FT	15" CONDUIT, TYPE B	9
					2						2			611	98690	2	EACH	CATCH BASIN, MISC.: CLEVELAND CB-1	75
					1						1			611	99101	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B1, AS PER PLAN	9
	1										1			611	99160	1	EACH	INLET FRAME AND GRATE	9
	1										1			611	99500	1	EACH	INLET, MISC.:WALLS, STEPS AND BOTTOM SLAB	9
					1						1			611	99654	1	EACH	MANHOLE ADJUSTED TO GRADE	
																		PAVEMENT	
										364	364			254	01000	364	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.25"	13
		39,583									39,583			254	01000	39,583	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"	
										1,021	1,021			255	20000	1,021	FT	FULL DEPTH PAVEMENT SAWING	
										164	164			304	20000	164	CY	AGGREGATE BASE	
										364	364			305	13011	364	SY	9" CONCRETE BASE, CLASS QC1, AS PER PLAN	9
										55	55			407	10000	55	GAL	TACK COAT	
		3,562									3,562			407	20000	3,562	GAL	NON-TRACKING TACK COAT	13
										26	26			441	50101	26	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG64-22	8
										35	35			441	50300	35	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
		1,650									1,650			442	10000	1,650	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), PG76-22M	13
				127							127			609	26000	127	FT	CURB, TYPE 6	
																		WATER WORK	
								1			1			638	11310	1	EACH	2" AIR RELEASE VALVE, CITY OF CLEVELAND	69, 71
								292			292			638	98600	292	FT	WATER WORK, MISC.: SPECIAL - 8" GALVANIZED STEEL PIPE, CITY OF CLEVELAND	69
								2			2			638	98000	2	EACH	WATER WORK, MISC.: SPECIAL - 6" CUT-IN-VALVE ASSEMBLY WITH VALVE BOX, COMPLETE	69, 71

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GENERAL SUMMARY

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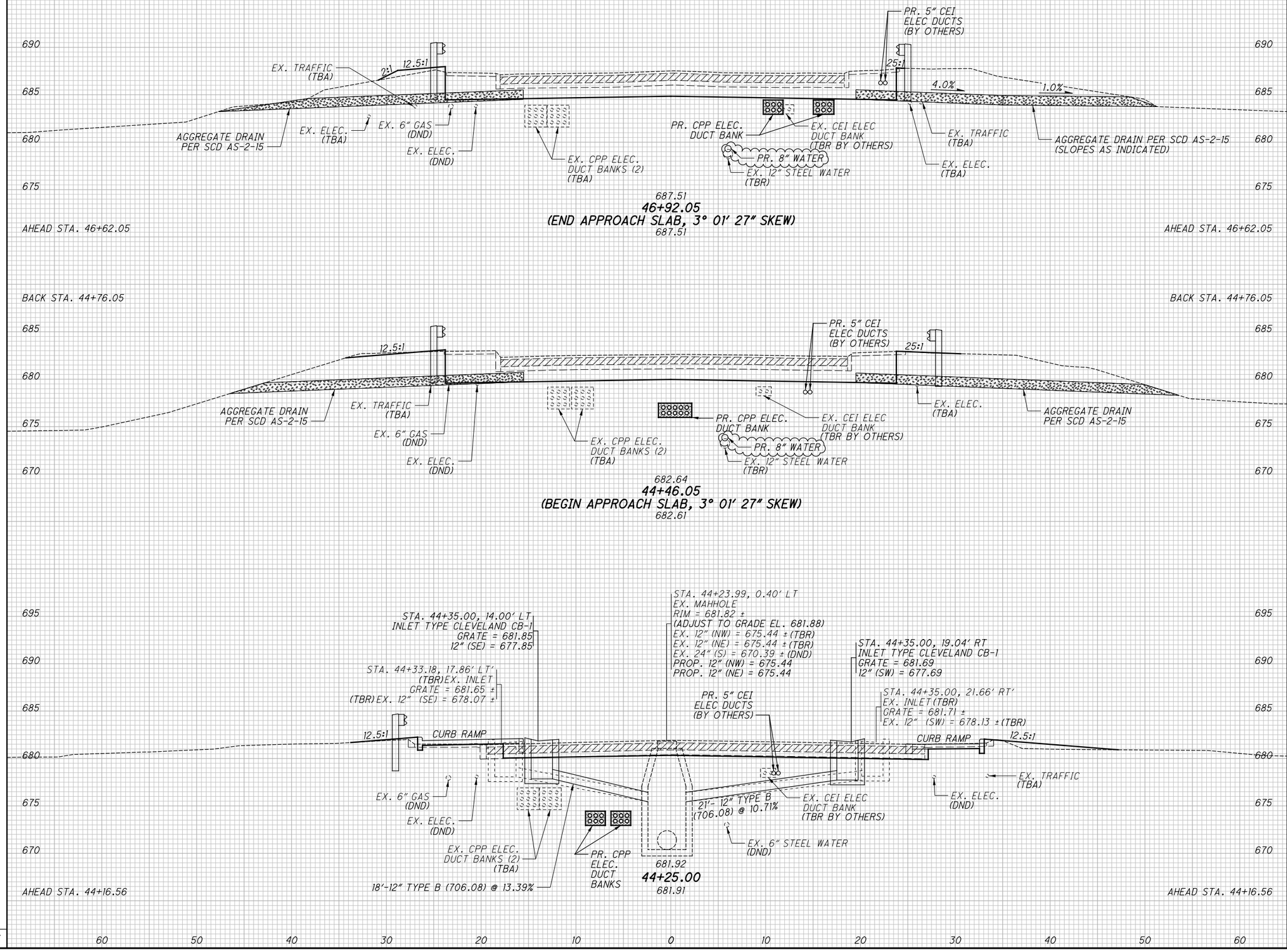
SEEDING END WIDTH	SEEDING SQ. YDS.
8	27
8	
17	57
17	
44	
21	25
32	
	153

LEGEND:
CONCRETE PAVEMENT



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
45	3		
92	0	77	2
98	0		
75	0	96	0
		31	2
5	6		
5	6	2	2
		206	6

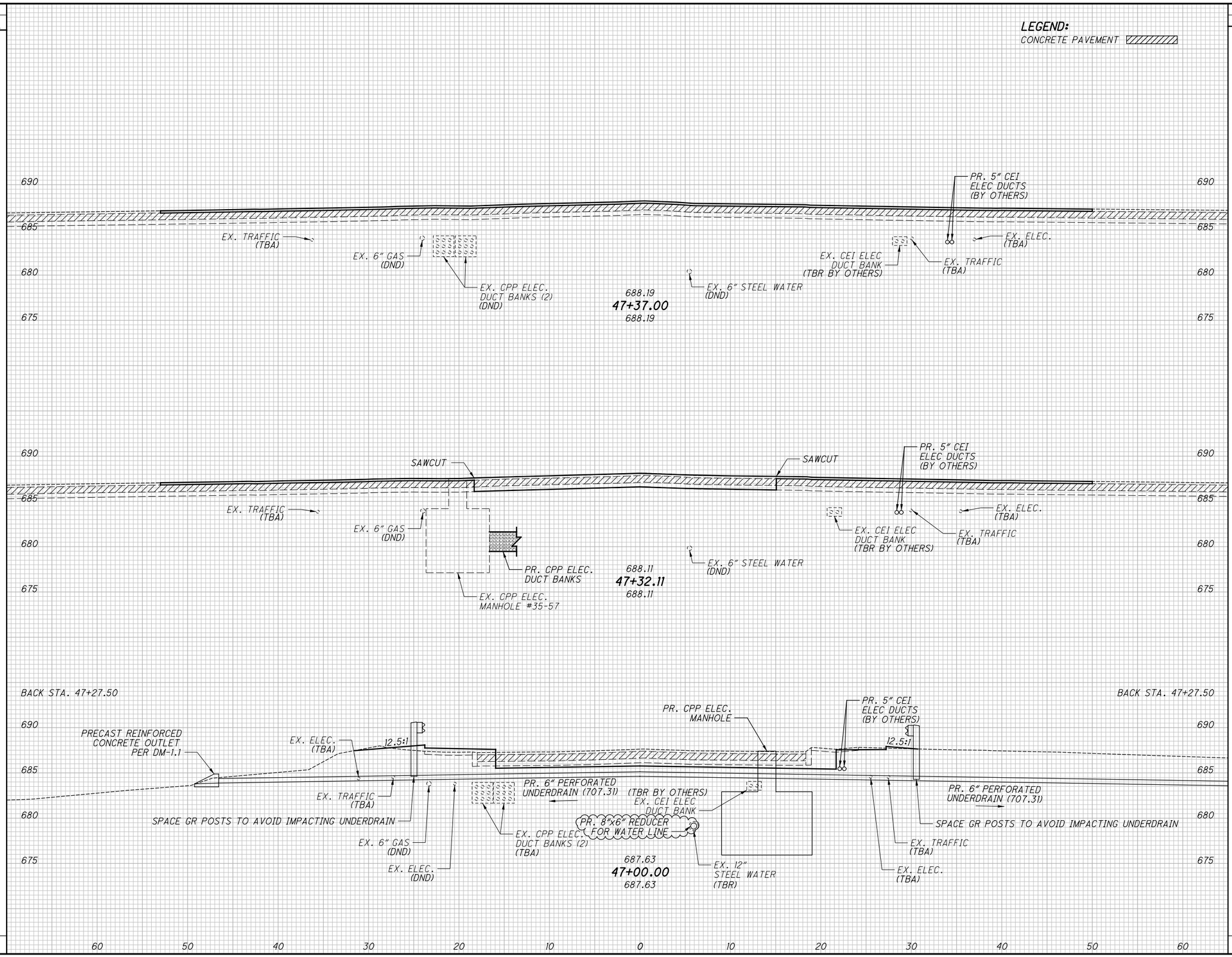
CALCULATED SSR
CHECKED SWG

CROSS SECTIONS W. 44TH ST. STA. 44+25.00 TO STA. 46+92.05

CUY-90-13.45

SEEDING	
END WIDTH	SQ. YDS.
0	0
17	43
11	8
	51

LEGEND:
CONCRETE PAVEMENT



END AREA	
CUT	FILL
0	0
17	5
17	5

VOLUME	
CUT	FILL
0	0
17	5
9	1
26	6

CALCULATED SSR
CHECKED SWG

CROSS SECTIONS W. 44TH ST. STA. 47+00.00 TO STA. 47+37.00

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ITEM 632 - POWER CABLE MISC. (VARIES) (CONT.)

I. BONDING

1. MAINTAIN SHIELD CONTINUITY AND CONNECTIONS TO METAL CONNECTION HARDWARE AT ALL CONNECTION POINTS.
2. GROUNDING CONDUCTORS: ROUTE ALONG SHORTEST AND STRAIGHTEST PATHS POSSIBLE UNLESS OTHERWISE INDICATED OR REQUIRED BY CODE. AVOID OBSTRUCTING ACCESS OR PLACING CONDUCTORS WHERE THEY MAY BE SUBJECTED TO STRAIN, IMPACT OR DAMAGE.
3. BONDING STRAPS AND JUMPERS: INSTALL IN LOCATIONS ACCESSIBLE FOR INSPECTION AND MAINTENACE EXCEPT WHERE ROUTED THROUGH SHORT LENGTHS OF CONDUIT.
4. BONDING TO STRUCTURE: BOND STRAPS DIRECTLY TO BASIC STRUCTURE, TAKING CARE NOT TO PENETRATE ANY ADJACENT PARTS.

J. TESTING

1. VISUAL AND MECHANICAL INSPECTIONS.
2. INSPECT EXPOSED CABLE SECTIONS FOR PHYSICAL DAMAGE.
3. INSPECT SHIELD GROUNDING AND CABLE SUPPORT. VISUALLY INSPECT CABLE TERMINATIONS PERFORMED BY CPP.
4. INSPECT COMPRESSION CONNECTORS FOR CORRECT CABLE MATCH AND IDENTIFICATION.
5. TESTING AGENCY: ENGAGE A QUALIFIED TESTING TO PERFORM TESTS AND INSPECTIONS.
6. PERFORM THE FOLLOWING TESTS AND INSPECTIONS WITH THE ASSISTANCE OF A FACTORY-AUTHORIZED SERVICE REPRESENTATIVE:

   PERFORM EACH VISUAL AND MECHANICAL INSPECTION AND ELECTRICAL TEST STATED IN NETA ATS. CERTIFY CERTIFY COMPLIANCE TEST PARAMETERS.

   AFTER INSTALLING MEDIUM-VOLTAGE CABLES BEFORE ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, TEST FOR COMPLIANCE WITH REQUIREMENTS.

   PERFORM DIRECT-CURRENT HIGH POTENTIAL TEST OF EACH NEW CONDUCTOR ACCORDING TO NETA ATS, CH. 7.3.3. DO NOT EXCEED MANUFACTURER'S RECOMMENDED MAXIMIM TEST VOLTAGE.

7. MEDIUM-VOLTAGE CABLES WILL BE CONSIDERED DEFECTIVE IF THEY DO NOT PASS TESTS AND INSPECTIONS.
8. PREPARE TEST AND INSPECTION REPORTS.

K. MEASUREMENT

THE NUMBER OF FEET OF CABLE TO BE PAID FOR SHALL INCLUDE CABLE LENGTH IN DUCT PLUS LENGTH IN MANHOLES PER THE CABLE WIRING PLANS, INSTALLED IN PLACE INCLUDING CABLE RACKING, TRAINING, TESTING, CABLE TAGS, SPLICE KITS, AND OTHER INCIDENTAL WORK, EXLUDING SPLICE INSTALLATION.

L. PAYMENT

THE FOOTAGE MEASURED AS PROVIDED ABOVE SHALL BE PAID FOR AT THE CONTRACTOR PRICE BID PER FOOT FOR EACH INDIVIDUAL CABLE, UNDER ITEM 632 AS DIRECTED BELOW, CLASSIFIED AS TO SIZE AND TYPE, PAID FOR UNDER:

ITEM	UNIT	DESCRIPTION
632	FT	POWER CABLE, MISC.: 750 KCMIL-1C-CU-15kV EPR
632	FT	POWER CABLE, MISC.: 4/0-1C-CU-EPR-15kV WITH 133% INSULATION

ITEM 690 - SPECIAL MISC.: PRECAST ELECTRIC MANHOLE

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING COMPLETE IN PLACE PRECAST REINFORCED CONCRETE MANHOLE (VAULT) STRUCTURES IN ACCORDANCE WITH CLEVELAND PUBLIC POWER (CPP) REQUIREMENTS AND DESIGNED TO MEET OR EXCEED THE LATEST ASTM STANDARDS FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES (ASTM C858-10E1) AND MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST UTILITY STRUCTURES (ASTM 857-14) HS25 LOADING. THE FOLLOWING CPP DEVELOPED PLAN DETAILS HAVE BEEN INCLUDED IN THE PLAN SET FOR THIS WORK:

- SAMPLE INDIVIDUAL MANHOLE DETAILS INCLUDING WINDOW OPENING DETAILS AND LIST OF MANHOLE REQUIREMENTS TYPICAL INSTALLATION DETAILS
- TYPICAL INSTALLATION DETAILS
- SAMPLE PRECAST NECK RING SCHEDULE
- GENERAL UNDERGROUND CONSTRUCTION NOTES
- BACKFILL MATERIAL AND BACKFILLING PROCEDURES
- SAMPLE RACKING DETAILS

IT IS NOTED THAT VARIOUS UNDERGROUND UTILITIES ARE PRESENT ALONG THE PROJECT THAT COULD NECESSITATE CHANGES TO MANHOLE DEPTHS AND WINDOW DIMENSIONS. THE CONTRACTOR SHALL PERFORM UTILITY TEST HOLES AT ALL VAULT LOCATIONS PRIOR TO DEVELOPING SHOP DRAWINGS FOR ELECTRIC MANHOLES. IN ADDITION, THE CONTRACTOR WILL BE SUPPLYING AND INSTALLING ELECTRICAL RACK AND BOND SYSTEMS WITHIN THE MANHOLES. CABLE RACKING ASSEMBLIES SHALL CONSIST OF STEEL, HOT-DIP GALVANIZED STANCHIONS AND ARMS, AND PORCELAIN INSULATORS MANUFACTURED BY HUBBELL POWER SYSTEMS, INC OR APPROVED EQUIVALENT.

1. STANCHIONS: NOB-LOC; 1-3/4 INCH NOMINAL SIZE; DUIB SERIES FOR CABLE-ARM ATTACHMENT.
2. ARMS: 1.97 INCHES WIDE, LENGTHS RANGING FROM 3-7/8 INCHES WITH 400 LB MINIMUM CAPACITY TO 14-7/8 INCHES WITH 200 LB MINIMUM CAPACITY. ARMS SHALL BE ARRANGED FOR SECURE MOUNTING IN HORIZONTAL POSITION AT ANY VERTICAL LOCATION ON STANCHIONS.
3. INSULATORS: HIGH GLAZE, DRY-PROCESS PORCELAIN ARRANGED FOR MOUNTING ON CABLE ARMS. THE CONTRACTOR SHALL COORDINATE MANHOLE WORK WITH CPP TO ENSURE COMPATIBILITY AND TIMELY COMPLTION OF RELATED WORK ELEMENTS.

ITEM 690 - SPECIAL MISC.: PRECAST ELECTRIC MANHOLE (CONT.)

SEALING DUCT ENDS IN MANHOLES: USE SEALING COMPOUND IN DUCT ENDS CONTAINING CABLES AND PLUGS IN SPARE DUCTS TO WITHSTAND AT LEAST 15 PSIG HYDROSTATIC PRESSURE. DUCT SEALING COMPOUND SHALL BE NON-HARDENING, SAFE FOR CONTACT WITH HUMAN SKIN, NOT DELETERIOUS TO CABLE INSULATION AND WORKABLE AT TEMPERATURES AS LOW AS 35 DEG. CAPABLE OF WITHSTANDING TEMPERATURE OF 300 DEG F WITHOUT SLUMP, AND ADHERING TO CLEAN SURFACES OF PLASTIC DUCTS, METALLIC CONDUITS, CONDUIT COATINGS, CONCRETE, MASONRY, LEAD, CABLE SHEATHS, CABLE JACKETS, INSULATION MATERIALS AND COMMON METALS.

THE MANHOLES TO BE PAID WILL BE THE ACTUAL NUMBER COMPLETED AND ACCEPTED, INCLUDING CONCRETE LEVELING PAD, GROUND ROD (5/8 INCH X LENGTH PER CPP DETAILS), CLAMP, GROUND WIRE, BONDING, RACK SYSTEM, NECK RINGS, CAP RINGS, PULLING IRONS, AND CASTINGS.

PAYMENT: THE WORK INCLUDED IN THIS ITEM AND THE CONTRACT UNIT PRICE FOR EACH MANHOLE BID UNDER "ITEM 690 MISC.: PRECAST ELECTRIC MANHOLE" IN PLACE, COMPLETED AND ACCEPTED, SHALL FORM THE BASIS OF PAYMENT AND SHALL CONSTITUTE FULL COMPENSATION FOR ALL EXCAVATION AND BACKFILL, FOR FURNISHING, HAULING AND PLACING ALL CASTINGS AND TYING EXISTING OR NEW DUCTS INTO MANHOLES INCLUDING RAISING OR LOWERING DUCTS, REINFORCING STEEL, CONCRETE BRICK AND CONCRETE MASONRY, PULLING IRONS, GROUND RODS, BONDING, RACK SYSTEM AND OTHER MATERIAL, ETC., AND FOR ALL LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THESE ITEMS. ALL MANHOLE CUT SHEETS SHALL BE APPROVED BY CPP ENGINEERING BEFORE THEY ARE CAST.

ITEM 625 - LIGHTING, MISC.: MANHOLE RECONSTRUCTED

TIE INTO EXISTING MANHOLES MH 35-56 AND 35-57

A. WHEN A NEW DUCT/BANK IS CONNECTED INTO AN EXISTING MANHOLE, A MINIMAL PART OF THE WALL SHALL BE CAREFULLY AND NEATLY CUT OR CORED TO RECEIVE THE DUCT/BANK. AFTER THE DUCT/BANK HAS BEEN INSTALLED, THE EXISTING MANHOLE SHALL BE REPAIRED, PATCHED AND SEALED WITH MORTAR OR AS DIRECTED.
B. CABLES SHALL BE PROTECTED DURING THIS WORK WITH EXTREME CARE. ANY DAMAGE TO EXISTING CABLES SHALL BE REPAIRED AT NO COST TO THE PROJECT. THIS WORK SHALL BE ACCOMPLISHED UNDER THE DIRECT SUPERVISION OF CPP.

PAYMENT SHALL BE MADE AT THE CONTRACT PRICE PER EACH BID, WHICH SHALL BE FULL COMPENSATION FOR EXCAVATION AND BACKFILL, REMOVAL AND DISPOSAL OF ALL SURPLUS EXCAVATION AND DISCARDED MATERIAL, PROTECTION OF EXISTING CABLES, ALL LABOR, EQUIPMENT TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

THIS ITEM AS PROVIDED ABOVE SHALL BE PAID FOR UNDER:

ITEM	UNIT	DESCRIPTION
625	EACH	LIGHTING, MISC.: MANHOLE RECONSTRUCTED

MAINTAIN EXISTING POWER

THE CONTRACTOR SHALL NOT INTERRUPT EXISTING POWER EXCEPT FOR SUCH PERIODS AS THE ENGINEER MAY REQUIRE FOR THE PROPER CONSTRUCTION OF NEW FACILITIES TO BE IN PLACE AND OPERATIONAL. FINAL CONNECTION SHALL BE MADE BY CPP AFTER ALL TESTING HAS BEEN CONDUCTED AND FACILITIES HAVE BEEN ACCEPTED BY CPP.

ITEM 202 - REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK

EXISTING CPP FACILITIES TO BE REMOVED WITH THIS ITEM INCLUDE THE EXISTING CONCRETE ENCASED UTILITY DUCT BANK BETWEEN MANHOLES 35-56 AND 35-57, AND A PORTION OF THE CONCRETE ENCASED UTILITY DUCT BANK TO THE SOUTH OF MANHOLE 35-56 (APPROX. 34 FT), EXCLUDING THE BRIDGE SUPPORTED CONDUITS.

THE BRIDGE SUPPORTED CONDUITS SHALL BE REMOVED PER ITEM 202, PORTIONS OF EXISTING STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN, AS NOTED ON THE BRIDGE PLANS. THE EXPOSED CONDUITS ARE MADE OF ASBESTOS CONTAINING MATERIALS (ACM) AS NOTED IN THE ASBESTOS NOTIFICATION NOTE ON THE BRIDGE PLANS.

IT IS POSSIBLE THAT THERE ARE NON-VISIBLE OR PREVIOUSLY UNIDENTIFIED ACM ENCOUNTERED DURING CONSTRUCTION. ANY MATERIAL SUSPECTED OF CONTAINING ASBESTOS SHALL BE EVALUATED BY A CERTIFIED ASBESTOS EVALUATION SPECIALIST TO DETERMINE WHETHER THE MATERIAL ACTUALLY CONTAINS ASBESTOS.

SINCE THE PRESENCE OF ACM IS UNKNOWN WITH THE CURRENTLY UN-EXPOSED CONDUITS, THE CONTRACTOR SHALL ISOLATE AND TEST THESE CONDUITS FOR ACM. IF ACM IS ENCOUNTERED, THEN THE ACM SHALL BE REMOVED AS DESCRIBED IN THE ASBESTOS NOTIFICATION NOTE ON THE BRIDGE PLANS AND SEPARATE PAYMENT WILL BE MADE FOR ADDITIONAL DISPOSAL COSTS IN ACCORDANCE WITH C&MS 109.05.

THE WORK IN THIS ITEM WILL BE PEFORMED AFTER THE EXISTING POWER CABLES ARE DE-ENERGIZED AND REMOVED BY CPP, AND AFTER RECEIVING APPROVAL FROM CPP THAT THE REMOVAL WORK CAN BE PERFORMED.

ITEM 804 - FIBER OPTIC CABLE, 24 CABLE, AS PER PLAN

THE FIBER OPTIC CABLE SHALL BE REPLACED FROM MH 44-07 TO THE CPP SUBSTATION, AS SHOWN IN THE PLANS.

CABLE SHALL MEET THE FOLLOWING REQUIREMENTS:

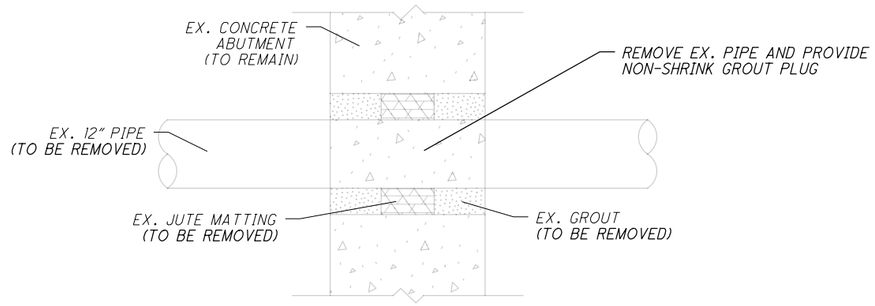
A. LOOSE TUBE GEL-FILLED FIBER OPTIC CABLE FOR INSTALLATION IN DUCTS, UNDERGROUND CONDUIT OR AERIAL/LASHED. 24 FIBER SINGLE MODE FIBERS 8.3 µM CORE DIAMETER, 125 µM CLADDING WITH A MAXIMIM ATTENUATION OF 0.4 dB/KM AT 1310 nm. COLOR CODED PER TIA/EIA 598A.
B. FIBERGLASS (EPOXY-GLASS ROD) DIELECTRIC CENTRAL STRENGTH MEMBER, ARAMID FIBER YARN OR FIBERGLASS OVERALL STRENGTH MEMBER. MAXIMUM TENSILE LOAD 600 LBS. DURING INSTALLATION AND IN SERVICE.
C. DUAL JACKET CONSTRUCTION WITH BLACK UV AND MOISTURE RESISTANT POLTETHYLENE (PE) INNER AND OUTER JACKETS.
D. THE FIBER OPTIC CABLE SHALL COMPLY WITH THE FOLLOWING, ANSI/TIA/EIA 568A, ICEA S-87-640 AND BE ETL VERIFIED.
E. GENERAL CABLE PART NUMBER AQ0244HIA-DWB OR EQUAL.

SPLICES SHALL BE COORDINATED WITH CPP BEFORE INSTALLATION.

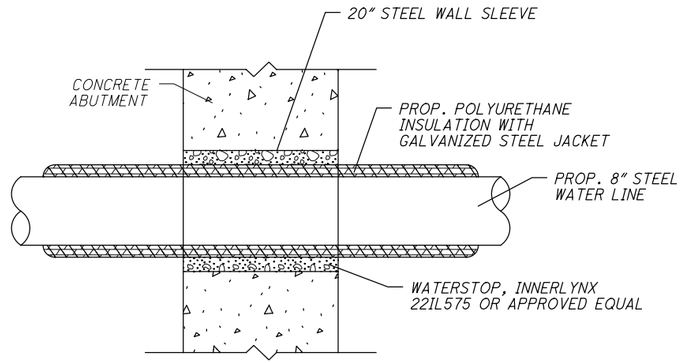
CALCULATED JDH CHECKED JJK

CLEVELAND PUBLIC POWER (CPP) NOTES

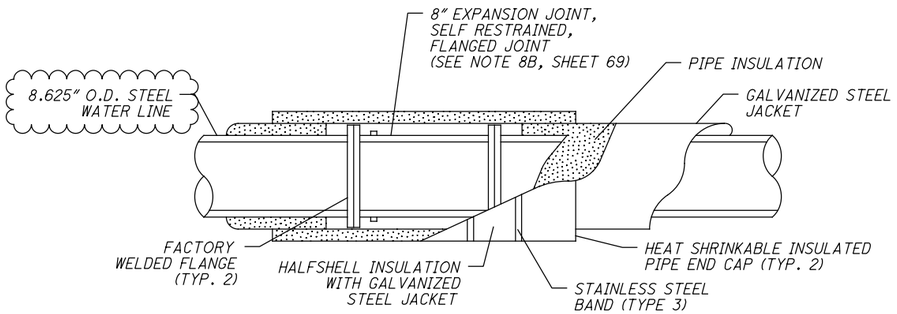
CUY-090-13.45



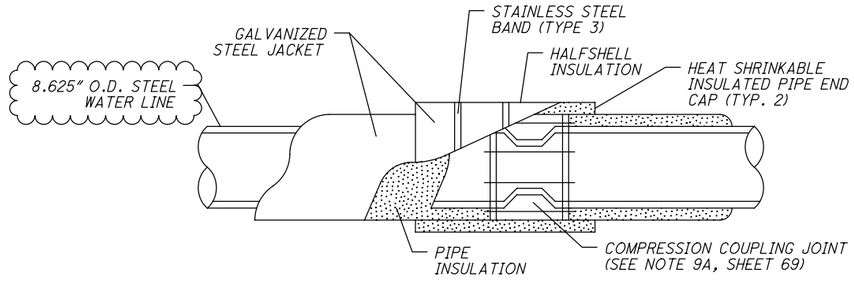
DETAIL - ABUTMENT WALL EXISTING CONNECTION
SCALE: N.T.S.



DETAIL - ABUTMENT WALL CONNECTION
SCALE: N.T.S.



DETAIL - STEEL WATER LINE PIPE
SCALE: N.T.S.



DETAIL - STEEL WATER LINE PIPE
SCALE: N.T.S.

CALCULATED EMB
CHECKED TRT

WATER LINE DETAILS

CUY-90-13.45

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ITEM SPECIAL - FORM LINER:

THIS ITEM SHALL INCLUDE THE FURNISHING OF ALL MATERIALS AND THE NECESSARY LABOR TO PROVIDE A REUSABLE ARCHITECTURAL TREATMENT ON THE INSIDE FACE OF BRIDGE AND APPROACH SLAB PARAPET RAILINGS.

ALL WORK SHALL CONFORM TO THE APPLICABLE PROVISIONS OF ITEM 511 EXCEPT AS MODIFIED AND ADDED HEREIN.

ARCHITECTURAL TREATMENT OF CONCRETE PARAPETS SHALL BE AS FOLLOWS:

GENERAL: THE WORK SHALL INCLUDE:

1. CONSTRUCTION OF TEXTURED CONCRETE SURFACES USING FORM LINERS DESIGNED TO DUPLICATE CLOSELY THE APPEARANCE OF NATURAL STONE.
2. DESIGN AND PATTERN OF THE CONCRETE SURFACES SHALL FOLLOW THE MANUFACTURER'S STANDARD DRAWING SELECTED.
3. PATTERN SHALL BE: CUSTOM ROCK #1203, NEW ENGLAND DRYSTACK; GREENSTREAK #330, ASHLAR STONE; ARCHITECTURAL POLYMERS #911, LARGE STONE DRYSTACK; OR APPROVED EQUAL.
4. SHOP DRAWINGS: PLAN, ELEVATION, AND DETAILS TO SHOW OVERALL PATTERN, JOINT LOCATIONS, FORM TIE LOCATIONS, AND END, EDGE AND OTHER SPECIAL CONSIDERATIONS.
5. SAMPLES: FORM TIES, SAMPLE AND DESCRIPTION, SHOWING METHOD OF SEPARATION WHEN FORMS ARE REMOVED.
6. MANUFACTURER OF FORM LINERS MUST HAVE A MINIMUM FIVE YEARS EXPERIENCE MAKING CUSTOM FORM LINERS AND COLOR STAINS TO CREATE FORMED CONCRETE SURFACES TO MATCH NATURAL STONE SHAPES AND SURFACE TEXTURES.
7. PRE-INSTALLATION MEETING: SCHEDULE CONFERENCE WITH MANUFACTURER'S REPRESENTATIVE TO ASSURE UNDERSTANDING OF FORM LINER USE, REQUIREMENTS FOR CONSTRUCTION OF MOCK-UP, AND TO COORDINATE THE WORK.

PRODUCTS:

1. FORM LINERS AS MANUFACTURED BY:

CUSTOM ROCK FORMLINER
2020 WEST 7TH STREET
ST. PAUL, MN 55116
(615) 699-1345
WWW.CUSTOMROCK.COM

ARCHITECTURAL POLYMERS
1220 LITTLE GAP ROAD
PALMERTON, PA 18071
(610) 824-3322
WWW.APFORMLINER.COM

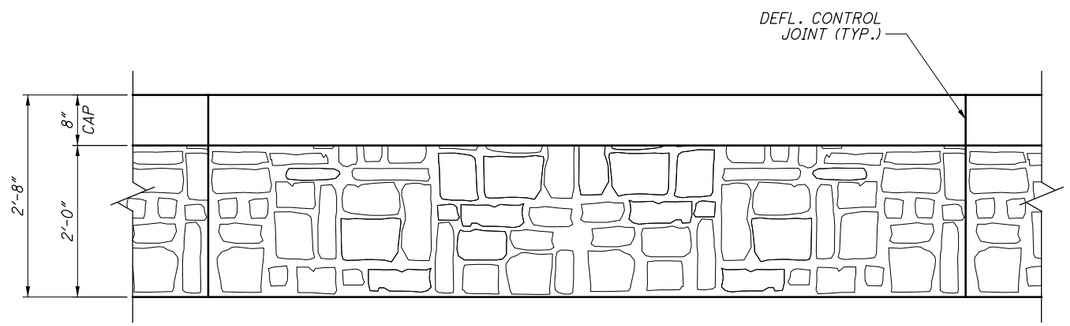
GREENSTREAK
3400 TREE COURT INDUSTRIAL BLVD.
ST. LOUIS, MO 63122-6614
(636) 225-9400
WWW.GREENSTREAK.COM

2. RELEASE AGENT: COMPATIBLE WITH FORM LINER. CONSULT MANUFACTURER.
3. FORM TIES: DESIGNED TO SEPARATE AT LEAST 1 INCH BACK FROM FINISHED SURFACE, LEAVING ONLY A NEAT HOLE THAT CAN BE PLUGGED WITH PATCHING MATERIAL.

EXECUTION:

1. FORMED CONCRETE CONSTRUCTION: INSTALLER SHALL HAVE A MINIMUM FIVE YEARS OF EXPERIENCE WITH VERTICALLY FORMED ARCHITECTURAL CONCRETE. INSTALLER SHALL BE TRAINED IN MANUFACTURER'S SPECIAL TECHNIQUES IN ORDER TO ACHIEVE REALISTIC SURFACES.
2. FORM LINER PREPARATION: CLEAN AND MAKE FREE OF BUILDUP PRIOR TO EACH POUR. INSPECT FOR BLEMISHES OR TEARS. REPAIR IF NEEDED FOLLOWING MANUFACTURER'S RECOMMENDATIONS.
3. FORM LINER ATTACHMENT: PLACE ADJACENT LINERS WITH LESS THAN 1/4 INCH SEPARATION BETWEEN LINERS. ATTACH LINERS TO FORM SECURELY, FOLLOWING MANUFACTURER'S RECOMMENDATIONS.
4. FORM RELEASE AGENT: APPLY FOLLOWING MANUFACTURER'S RECOMMENDATIONS.
5. FORM STRIPPING AND RELATED CONSTRUCTION SHALL AVOID CREATING DEFECTS IN THE FINISHED SURFACES.
6. WHERE FORM LINERS ABUT, CAREFULLY BLEND TO MATCH THE BALANCE OF THE STONE PATTERN, AVOIDING VISIBLE SEAMS OR FORM MARKS.
7. PLACE FORM TIES AT THE THINNEST POINTS OF LINER (HIGHER POINTS OF FINISHED WALL). NEATLY PATCH THE HOLE REMAINING AFTER DISENGAGING THE PROTRUDING PORTION OF THE TIE SO THAT IT WILL NOT BE VISIBLE AFTER SEALING THE CONCRETE SURFACE.
8. WHERE AN EXPANSION JOINT MUST OCCUR AT A POINT OTHER THAN AT MORTAR OR RUSTICATION JOINTS, SUCH AS AT THE FACE OF CONCRETE TEXTURE WHICH IS TO HAVE THE APPEARANCE OF STONE, CONSULT MANUFACTURER FOR PROPER TREATMENT OF EXPANSION MATERIAL.

BASIS OF PAYMENT: PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE, WILL BE MADE AT THE CONTRACT UNIT PRICE BID FOR ITEM SPECIAL - FORM LINER. THIS PRICE SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM AS SPECIFIED.



TYPICAL FORM LINER ELEVATION
(AS VIEWED FROM SIDEWALK)

ITEM 690 - DOMINION ENERGY ROLLER GUIDE/SUPPORT

UNDER THIS ITEM, THE CONTRACTOR WILL PROVIDE AND INSTALL PIPE ROLLER GUIDE/SUPPORT WHERE SHOWN ON THE PLANS TO SUPPORT THE PROPOSED DOMINION ENERGY (DE) 6" DIAMETER GAS LINE. ROLLERS/SUPPORTS WILL BE SIZED TO CARRY THE PROPOSED GAS LINE. FOR PIPE SUPPORTS, ROLLERS SHALL BE DOUBLE ROLLERS USING NON-CONDUCTIVE MATERIAL. THESE ROLLERS WILL BE FULLY FIELD-ADJUSTABLE AND BE PROVIDED WITH ALL REQUIRED HARDWARE AND FASTENERS FOR A COMPLETE OPERABLE SYSTEM. DOMINION ENERGY WILL SUPPLY AND INSTALL THE GAS MAIN. BEFORE ORDERING THE CONTRACTOR SHALL GET APPROVAL FROM DOMINION ENERGY. THE CONTRACTOR SHALL COORDINATE WITH DOMINION ENERGY TO SCHEDULE THE WORK. NO ADDITIONAL PAYMENT WILL BE MADE FOR ANY SCHEDULE DELAYS WHEN COORDINATING THIS WORK WITH DOMINION ENERGY.

PAYMENT WILL BE MADE AT THE PRICE PER EACH PER ITEM 690 - DOMINION ENERGY ROLLER GUIDE/SUPPORT.

ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN

THE ANCHORS SHALL BE CAST IN PLACE. ALL FENCE FABRIC SHALL BE BLACK VINYL COATED AND ALL RAILS, POSTS, PLATES AND ADDITIONAL VISUAL HARDWARE SHALL BE PAINTED WITH BLACK EPOXY-URETHANE SHOP APPLIED. ALL TIE WIRES AND CAULK SHALL BE BLACK.

PAYMENT SHALL BE AT THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ABBREVIATIONS

ABUT.	- ABUTMENT
APPR.	- APPROACH
APPROX.	- APPROXIMATE
BOT.	- BOTTOM
BRG.	- BEARING
C/C	- CENTER TO CENTER
CEI	- CLEVELAND ELECTRIC ILLUM.
C.J.	- CONSTRUCTION JOINT
COL.	- COLUMN
CONST.	- CONSTRUCTION
C.P.P.	- CORRUGATED PLASTIC PIPE
CPP	- CLEVELAND PUBLIC POWER
CWD	- CLEVELAND WATER DEPARTMENT
DIA.	- DIAMETER
E.F.	- EACH FACE
EL. - ELEV.	- ELEVATION
EQ. SPA.	- EQUAL SPACE
E.W.	- EACH WAY
EX. - EXIST.	- EXISTING
EXP.	- EXPANSION
F.A.	- FORWARD ABUTMENT
F.F.	- FAR FACE
FTG.	- FOOTING
FWD.	- FORWARD
H.M.W.M.	- HIGH MOLECULAR WEIGHT METHACRYLATE
MAX.	- MAXIMUM
M.O.T.	- MAINTENANCE OF TRAFFIC
MIN.	- MINIMUM
N.F.	- NEAR FACE
P.E.J.F.	- PREFORMED EXPANSION JOINT FILLER
R.A.	- REAR ABUTMENT
RT.	- RIGHT
S.B.	- SOUTHBOUND
SER.	- SERIES
SPA.	- SPACING
STA.	- STATION
T & B	- TOP AND BOTTOM
T.H.	- TEST HOLE
TYP.	- TYPICAL
T/T	- TOE TO TOE
VAR.	- VARIES
V.C.	- VERTICAL CURVE
VERT.	- VERTICAL
U.N.O.	- UNLESS NOTED OTHERWISE

CEI FIRST ENERGY COORDINATION

THE CONTRACTOR SHALL COORDINATE DE-ENERGIZING OF THE EXISTING CEI ELECTRIC CABLE(S) WHICH ARE SUPPORTED BY THE EXISTING BRIDGE GIRDERS AND WHICH EXTEND UNDERGROUND UNDER SOUTH MARGINAL AND NORTH MARGINAL ROADS. CEI WILL INSTALL TWO (2) NEW 5" DIA. DUCTS IN THE BRIDGE SIDEWALK AND APPROACH ROADWAYS, AND WILL ALSO INSTALL NEW CABLE(S) IN THE NEW CONDUITS. THE CONTRACTOR SHALL COORDINATE WITH CEI TO PROVIDE ACCESS AND TO SCHEDULE THEIR WORK.

THE EXISTING CEI CONDUITS WILL BE REMOVED BEFORE THE CPP DUCT BANK IS RELOCATED.

THE WORK FOR THIS ITEM SHALL BE INCIDENTAL TO THE PROJECT AND NO SEPARATE PAYMENT SHALL BE MADE.

ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN

THE CONCRETE PATCHING DEPTH SHALL BE 7". THE REINFORCING STEEL WITHIN THE PATCH IS INCLUDED WITH ITEM 509 EPOXY COATED REINFORCING STEEL FOR PAYMENT. ANODES SHALL BE SPACED AT 30 INCHES ON CENTERS EACH WAY.

ASBESTOS NOTIFICATION

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST SURVEYED THE BRIDGE STRUCTURE SCHEDULED FOR DEMOLTION AND/OR REHABILITATION; THE SURVEY DETERMINED THAT 6415 SQUARE FEET OF ASBESTOS IS PRESENT ON THE BRIDGE STRUCTURE.

ODOT SHALL PROVIDE A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, TO THE SUCCESSFUL BIDDER. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO ONE OF THE ADDRESSES BELOW AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION.

ASBESTOS PROGRAM
OHIO EPA, DAPC
P.O. BOX 1049
COLUMBUS, OH 43216-1049

OR

ASBESTOS PROGRAM
OHIO EPA, DAPC
50 W. TOWN ST., SUITE 700
COLUMBUS, OH 43215

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION. THE FORM SHALL INCLUDE: 1) THE CONTRACTORS NAME AND ADDRESS, 2) THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL AND 3) A DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHOD(S) TO BE USED. COPIES OF THE OEPA FORM AND BRIDGE INSPECTION REPORT ARE AVAILABLE FOR REVIEW AT THE ODOT DISTRICT 12 OFFICE, 5500 TRANSPORTATION BOULEVARD, GARFIELD HEIGHTS, OHIO 44125.

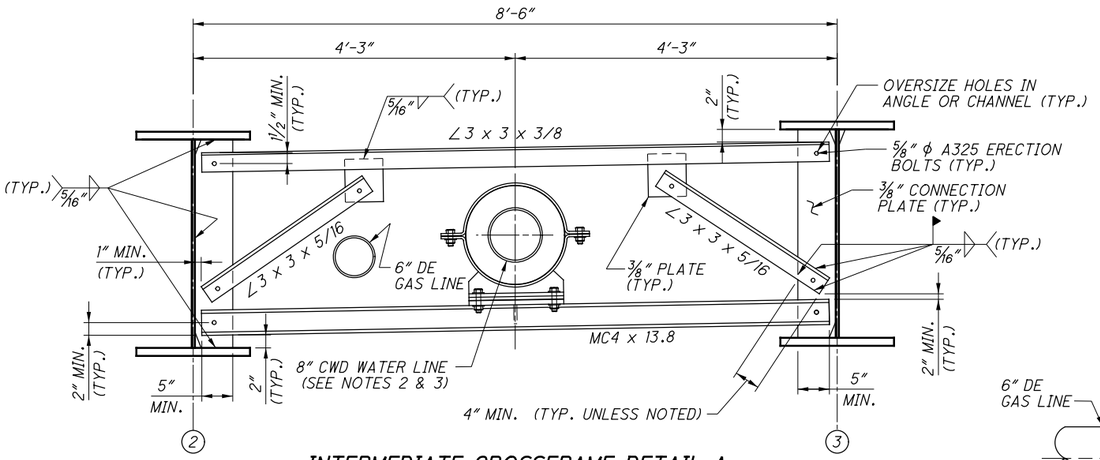
BASIS FOR PAYMENT: THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM, AND REMOVAL, HANDLING AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

DESIGN AGENCY
ms consultants, inc.
4608 St. Clair Avenue
Cleveland, Ohio 44103-1206

DESIGNED	DRAWN	REVIEWED	DATE
LAW	JSP	JDH	7/17/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
SJR	JDH	1807811	

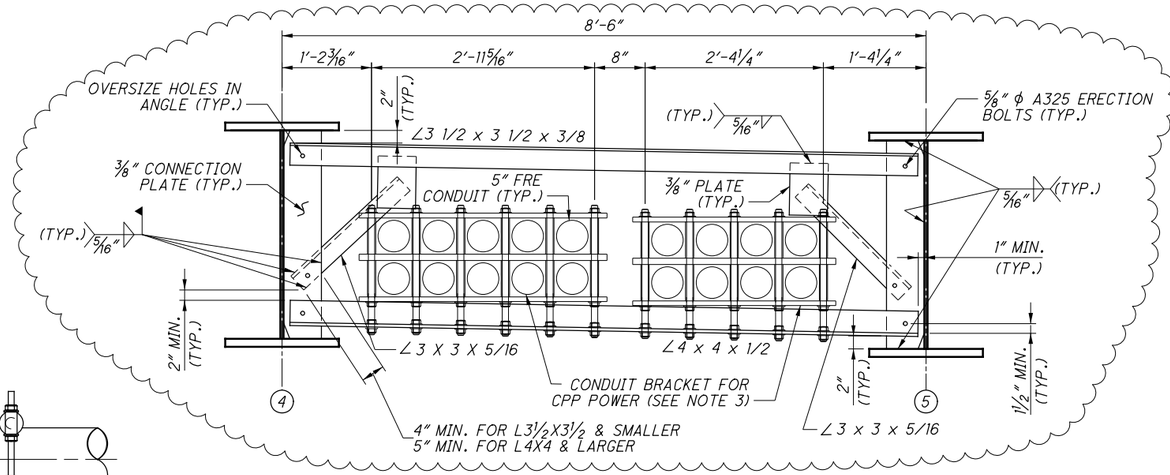
GENERAL NOTES (2 OF 2)
BRIDGE NO. CUY-090-1345
WEST 44TH STREET OVER I-90

CUY-090-13.45
PID No. 105792



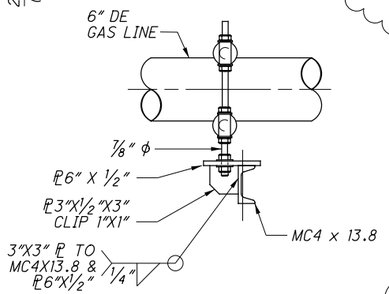
INTERMEDIATE CROSSFRAME DETAIL A

(BAY 2)

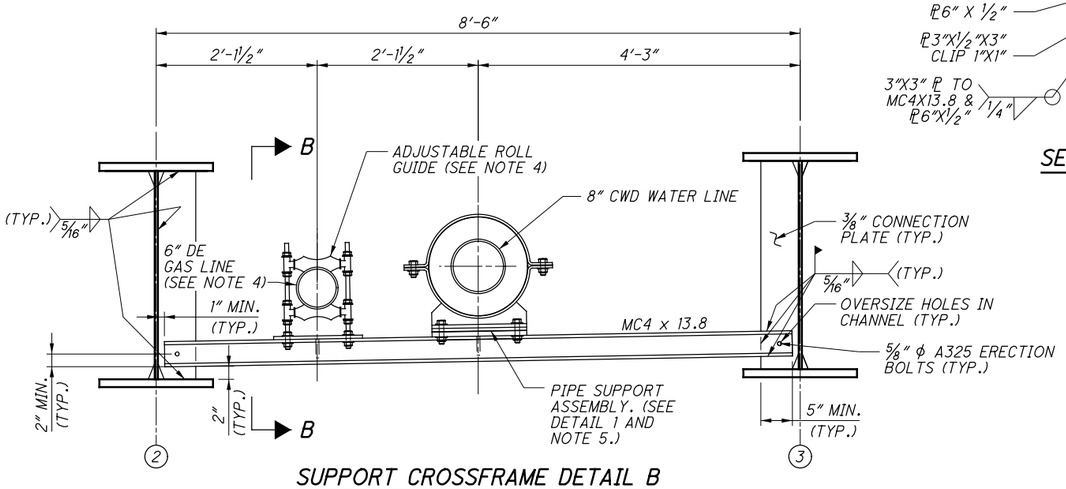


INTERMEDIATE CROSSFRAME DETAIL C

(BAY 4)

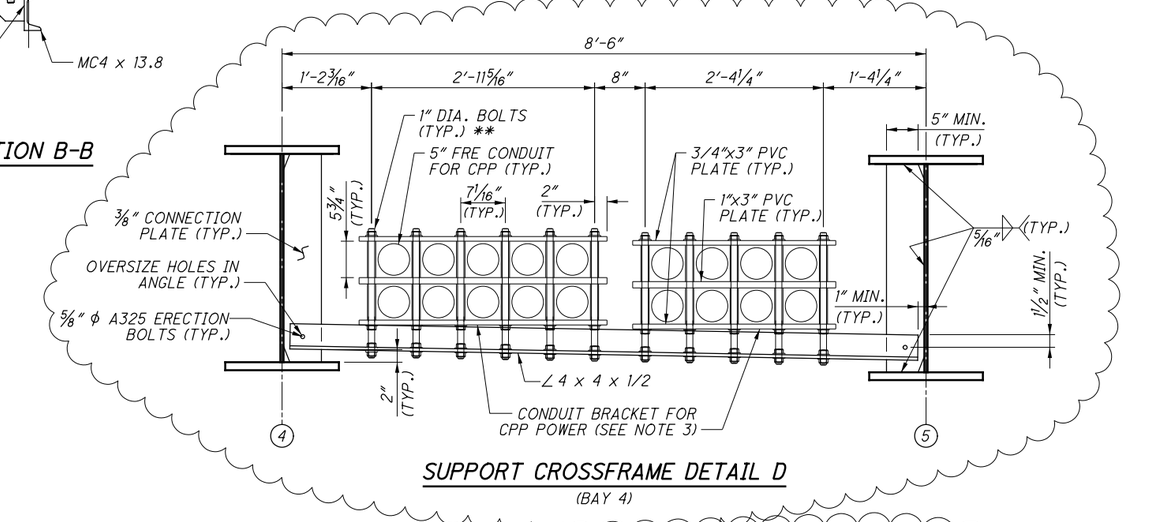


SECTION B-B



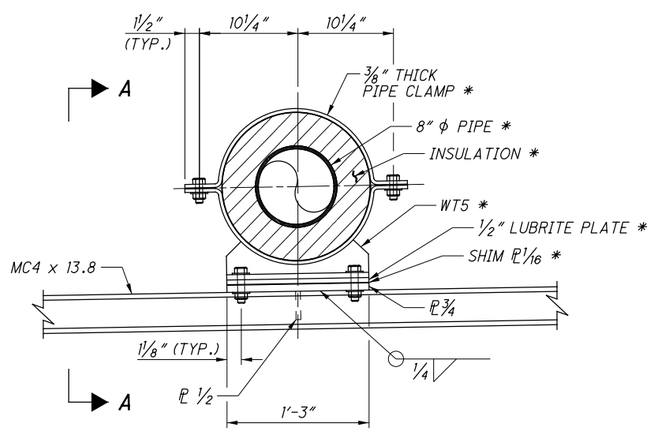
SUPPORT CROSSFRAME DETAIL B

(BAY 2)

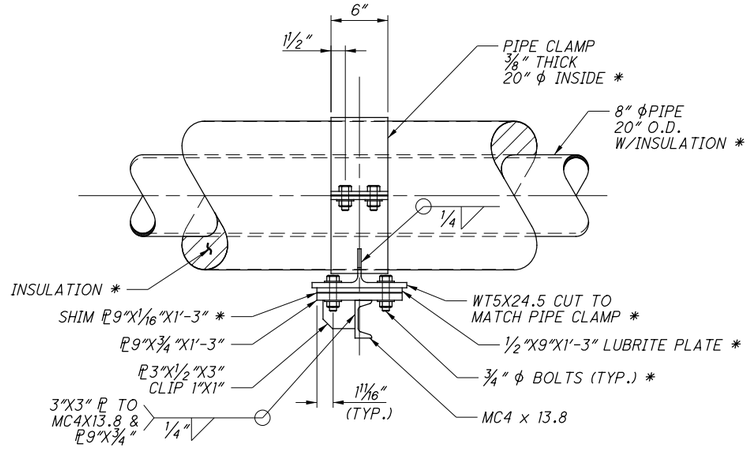


SUPPORT CROSSFRAME DETAIL D

(BAY 4)



DETAIL 1



VIEW A-A

LEGEND:

DE - DOMINION ENERGY
(4) - GIRDER NUMBER
FRE - FIBERGLASS REINFORCED EPOXY
CPP - CLEVELAND PUBLIC POWER
CWD - CLEVELAND WATER DEPARTMENT

* - INCLUDED WITH ITEM 638 - WATER WORK MISC.: SPECIAL - 8" GALVANIZED

** - 1"-8 N.C. STEEL INTERMEDIATE BOLTS, NUTS, FLAT AND LOCK WASHERS WITH 1" PVC SPACER TUBE 1.315" O.D. x 1.049" I.D., 5.75" LONG (TYP.)

NOTES:

1. FOR STRUCTURAL STEEL NOTES, SEE SHEET 16/30.
2. BRIDGE ESTIMATED QUANTITIES INCLUDES STRUCTURAL STEEL FOR UTILITY SUPPORT ANGLES, CHANNELS AND CONNECTION PLATES FOR CPP, CWD AND DE UTILITIES.
3. SEE CPP POWER PLANS FOR CPP UTILITY SUPPORT BRACKET AND FRE CONDUIT NOTES AND PAYMENT.
4. FOR DOMINION ENERGY SUPPORT NOTE, SEE BRIDGE GENERAL NOTES.
5. WATER LINE PIPE ASSEMBLY SUPPORT TO BE PER THIS PLAN SHEET, AND PAID FOR WITH ITEM 638 - WATER WORK MISC.: SPECIAL - 8" GALVANIZED STEEL PIPE, CITY OF CLEVELAND. SEE WATER LINES PLANS FOR ADDITIONAL NOTES AND DETAILS.

INTERMEDIATE AND UTILITY SUPPORT CROSSFRAME DETAILS

BRIDGE NO. CUY-090-1345
WEST 44TH STREET OVER I-90

DESIGN AGENCY
ms consultants, inc.
4608 St. Clair Avenue
Cleveland, Ohio 44103-1206

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WER		1807811	

CUY-090-13.45
PID No. 105792

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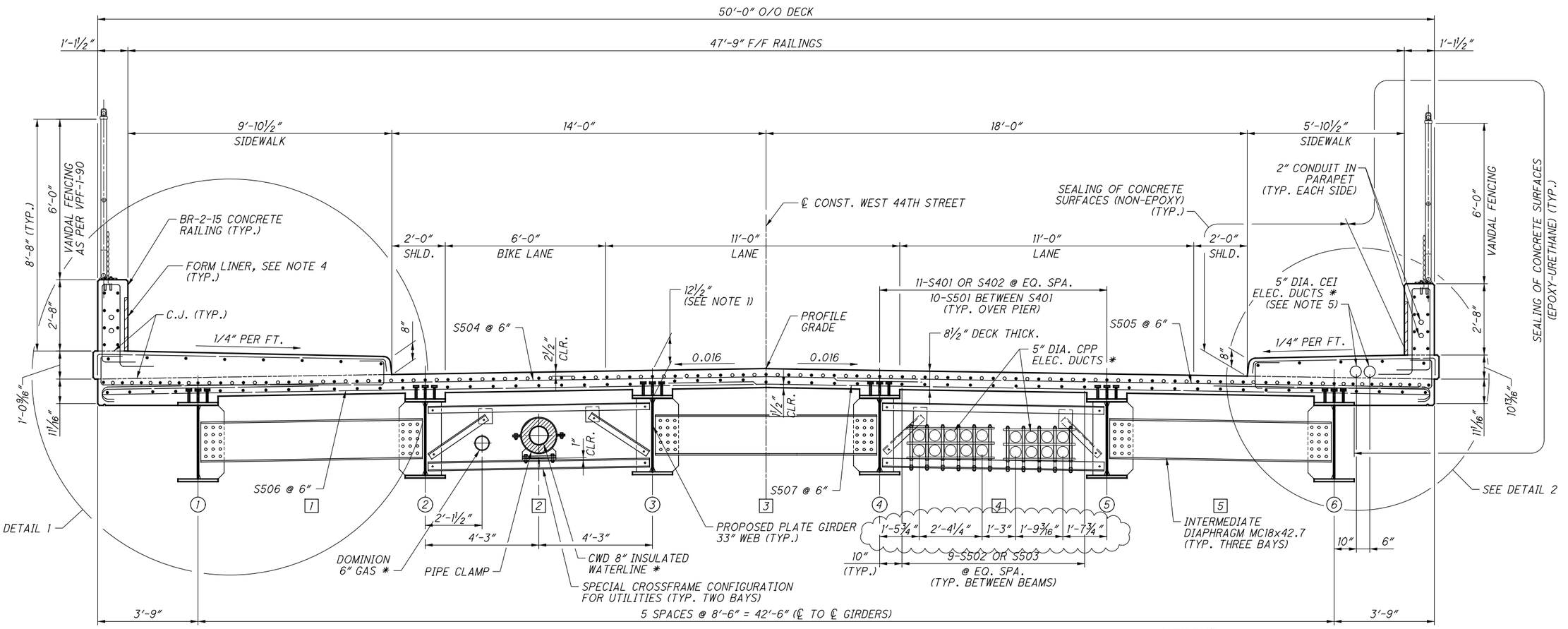
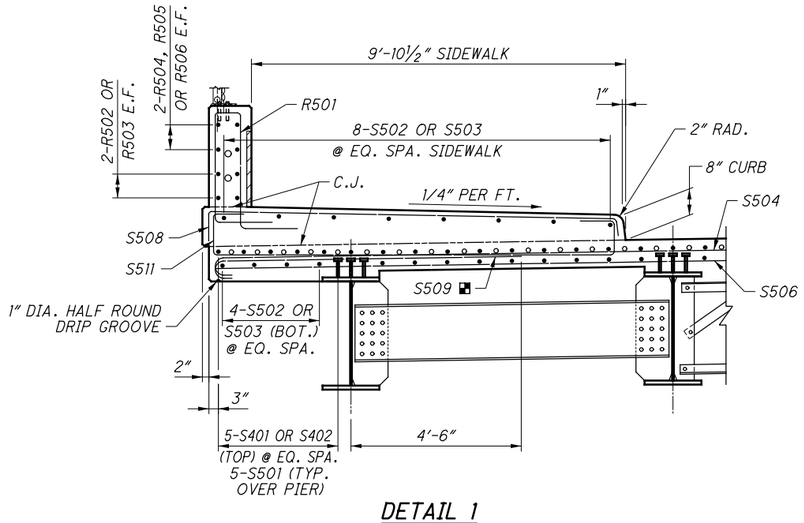
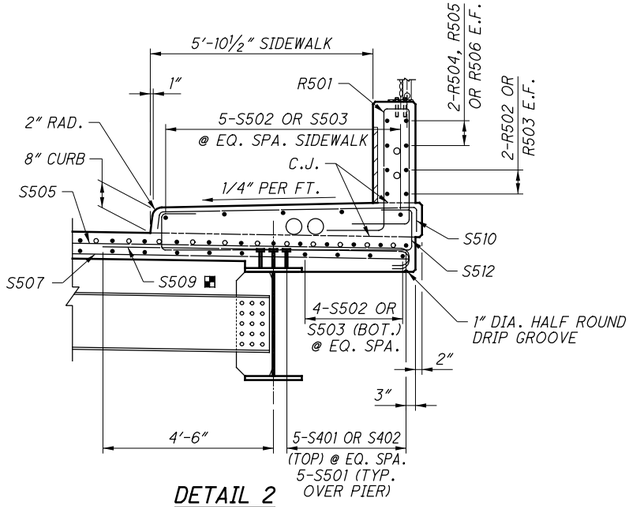


TRANSVERSE SECTION



DETAIL 1



DETAIL 2

LEGEND:

* - LOCATION OF UTLITIES TO BE COORDINATED WITH OWNERS FOR FINAL LOCATION.

(5) - INDICATES GIRDER LINE NUMBER.

■ - BUNDLED W/ S504 OR S505

[3] - BAY NUMBER

CPP - CLEVELAND PUBLIC POWER

NOTES:

1. DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 12½ INCHES AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE.

   THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN IN ACCORDANCE WITH 511.23.

2. FOR DECK PLAN, SEE SHEET 21/30.
3. SEE SCD GSD-1-19 FOR INTERMEDIATE DIAPHRAGM DETAILS.
4. 1½" MAX. DEPTH FORM LINER, FOR DETAILS SEE SHEET 3/30.
5. FOR CEI FRE CONDUIT NOTE, SEE BRIDE GENERAL NOTES.

DESIGN AGENCY
ms consultants, inc.
4608 St. Clair Avenue
Cleveland, Ohio 44103-1206

DESIGNED	DRAWN	REVIEWED	DATE
LAW	LAW	JDH	7/17/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WER		1807811	

TRANSVERSE SECTION
BRIDGE NO. CUY-090-1345
WEST 44TH STREET OVER I-90

CUY-090-13.45
PID No. 105792

20/30

125/135

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