

UTILITIES

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

ELECTRIC OHIO EDISON 1717 ASHLAND ROAD MANSFIELD, OH 44905 419.521.6214	CABLE CHARTER COMMUNICATIONS 5520 WHIPPLE AVENUE NW NORTH CANTON, OH 44720 330.494.9200
TRAFFIC ODOT DISTRICT THREE 906 CLARK AVENUE ASHLAND, OH 44805 419.207.2868	COMMUNICATION BRIGHTSPEED 203 W. 9TH STREET LORAIN, OH 44052 440.244.8330
COUNTY ERIE COUNTY ENGINEERS 2700 COLUMBUS AVENUE SANDUSKY, OH 44870 419.627.7710	WATER ERIE COUNTY WATER 2614 COLUMBUS AVENUE SANDUSKY, OH 44870 419.627.7666
COUNTY ERIE COUNTY SEWER 554 RIVER ROAD HURON, OH 44839 419.433.7303	GAS COLUMBIA GAS OF OHIO 3101 NORTH RIDGE RD E LORAIN, OH 44055 440.240.6144
GAS TC ENERGY 589 N STATE ROAD MEDINA, OH 44256 330.721.4163	

THE AFOREMENTIONED UTILITY COMPANIES AND AGENCIES HAVE VARIOUS FACILITIES IN THE AREA THAT WILL REMAIN IN PLACE DURING CONSTRUCTION.

EXTREME CAUTION SHOULD BE EXERCISED IN AREAS WITH UTILITIES. SECTIONS 105.07 AND 107.16 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS REQUIRE, AMONG OTHER THINGS, THAT THE CONTRACTOR COOPERATE WITH ALL UTILITIES LOCATED WITHIN THE LIMITS OF THIS CONSTRUCTION PROJECT AND TAKE RESPONSIBILITY FOR THE PROTECTION OF THE UTILITY PROPERTY AND SERVICES.

LOCATIONS OF GUARDRAIL

THE GUARDRAIL PROTECTION PROVIDED IN THIS PLAN SHALL BE LOCATED IN THE FIELD TO ASSURE THAT THE INSTALLATION WILL AFFORD THE MAXIMUM PROTECTION FOR TRAFFIC. THIS LOCATION SHALL BE POSITIONED AS FAR AS POSSIBLE FROM THE EDGE OF PAVEMENT WHILE MAINTAINING PROPER GRADE IN FRONT OF GUARDRAIL AS PER STANDARD DRAWINGS AND PLAN DETAILS.

ITEM 606 – ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)

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

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE J, ASTM D4956 TYPE XI REFLECTIVE SHEETING, PER CMS 730.193.

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

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

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

ITEM 622 – CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN
ITEM 622 – CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN
ITEM 622 – CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN (TRANSITION SECTION, FULL WIDTH CONCRETE)

ALL ASPECTS OF STANDARD CONSTRUCTION DRAWINGS RM-4.4, RM-4.5, AND RM-4.6 APPLY, AS APPLICABLE, EXCEPT AS NOTED ON THE CONCRETE MEDIAN BARRIER DETAIL SHEETS INCLUDED IN THESE PLANS.

ITEM 606 - IMPACT ATTENUATOR, TYPE 3 (BIDIRECTIONAL) (62 MPH, 30" WIDTH)

THE ENERGY ABSORPTION SYSTEMS, INC. REACT 350 SYSTEM (MODEL NUMBER 62C036) WAS USED FOR THE DESIGN OF THIS PROJECT. THIS SYSTEM, OR APPROVED BIDIRECTIONAL EQUIVALENT OF THE SAME OR SHORTER LENGTH, IS TO BE USED ON THIS PROJECT. A UNIDIRECTIONAL IMPACT ATTENUATOR IS NOT PERMITTED. ANY ALTERNATE, OTHER THAN THE ABOVE SPECIFIED MODEL, MUST BE APPROVED BY THE ENGINEER OF RECORD VIA SUBMISSION OF SHOP DRAWINGS A MINIMUM OF 30 DAYS PRIOR TO PLANNED INSTALLATION.

ITEM 614 – MAINTAINING TRAFFIC (GENERAL)

MAINTAIN TRAFFIC DURING PHASE 1 AND PHASE 2 AS OUTLINE BELOW.

SUBMIT, IN WRITING, A SCHEDULE OF OPERATIONS, PROPOSED EQUIPMENT, PROPOSED MOT PLAN, AND MATERIALS LIST TO THE ENGINEER AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT. PRIOR TO BEGINNING WORK, COORDINATE THE MAINTENANCE OF TRAFFIC OPERATIONS WITH THE LOCAL STATE HIGHWAY PATROL.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION WITH THE LATEST REVISIONS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

PHASE 1

THE CONTRACTOR SHALL CONSTRUCT THE SHOULDER BARRIER AND GUARDRAIL UTILIZING STANDARD CONSTRUCTION DRAWING MT-95.45, CLOSING THE OUTSIDE SHOULDERS SIMULTANEOUSLY AS DIRECTED BY THE ENGINEER. MAINTAIN ALL LANES OF EXISTING TRAFFIC AT ALL TIMES. UTILIZE ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (BLACK) TO COVER ANY CONFLICTING PAVEMENT MARKINGS AND INSTALL ITEM 614 – WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (WHITE) TO REPLACE ANY EFFECTED EXISTING EDGE LINE, MAINTAINING A MINIMUM OF A 10 FOOT LANE WIDTH IN THE LANES' EXISTING CONFIGURATION.

PHASE 2

THE CONTRACTOR SHALL CONSTRUCT THE MEDIAN REMOVAL AND REPLACEMENT, AS WELL AS THE MEDIAN PIER PROTECTION REMOVAL AND REPLACEMENT IN THIS PHASE. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE 10' LANE IN EACH DIRECTION AT ALL TIMES. MAINTAIN ACCESS TO ALL RAMPS AT ALL TIMES. SOUTHBOUND: UTILIZE STANDARD CONSTRUCTION DRAWING MT-95.40 LANE CLOSURE WITH PCB] TO CLOSE THE INSIDE LANE. NORTHBOUND: UTILIZE STANDARD CONSTRUCTION DRAWINGS MT-95.41 LANE CLOSURE WITH PCB, SHOULDER CLOSURE WITH PCB, ACCEL LANE CLOSURE WITH PCB, LANE SHIFT WITH PCB] TO CLOSE THE INSIDE LANE AND/OR SHOULDER. UTILIZE THE EXISTING LEFT TURN LANE AT SLM 8.18 CONCURRENTLY WITH THE MAINTAINED LANE.

FOR BOTH PHASES

FOR ALL LOCATIONS, PLACE UNANCHORED PORTABLE CONCRETE BARRIER, WHITE AND YELLOW WORK ZONE EDGE LINE, AND OTHER LINES AS DIRECTED BY THE ENGINEER. UTILIZE BLACK WORK ZONE EDGE LINE TAPE TO COVER CONFLICTING MARKINGS. AT THE BEGINNING OF EACH WORKING DAY, SURVEY THE PROJECT LOCATION FOR ANY DAMAGED WORK ZONE PAVEMENT MARKINGS. REPAIR ANY DAMAGED WORK ZONE MARKINGS AS DIRECTED BY THE ENGINEER EACH DAY.

THE FOLLOWING QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY FOR USE BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER FOR MAINTENANCE OF TRAFFIC FOR THE DURATION OF THE PROJECT:

PHASE 1

8.01 – 8.18 SHOULDER	
ITEM 614 - WORK ZONE IMPACT ATTENUATOR, OVER 24" AND LESS THAN 36" WIDE HAZARDS, (UNIDIRECTIONAL)	4 EA
ITEM 614 – BARRIER REFLECTOR, TYPE 1 (1 WAY)	11 EA
ITEM 614 – OBJECT MARKER, ONE WAY	11 EA
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (BLACK)	0.10 MI
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (YELLOW)	0.10 MI
ITEM 622 - PORTABLE BARRIER, UNANCHORED	500 FT

PHASE 2

7.88 - 8.01	
ITEM 614 - WORK ZONE IMPACT ATTENUATOR, OVER 24" AND LESS THAN 36" WIDE HAZARDS, (UNIDIRECTIONAL)	4 EA
ITEM 614 – BARRIER REFLECTOR, TYPE 1 (1 WAY)	11 EA
ITEM 614 – OBJECT MARKER, ONE WAY	11 EA
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (YELLOW)	0.10 MI
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (WHITE)	0.10 MI
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (BLACK)	0.20 MI
ITEM 622 - PORTABLE BARRIER, UNANCHORED	500 FT

8.01 – 8.18

ITEM 614 - WORK ZONE IMPACT ATTENUATOR, OVER 24" AND LESS THAN 36" WIDE HAZARDS, (UNIDIRECTIONAL)	4 EA
ITEM 614 – BARRIER REFLECTOR, TYPE 1 (1 WAY)	34 EA
ITEM 614 – OBJECT MARKER, ONE WAY	34 EA
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (WHITE)	0.31 MI
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (YELLOW)	0.31 MI
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (BLACK)	0.62 MI
ITEM 622 - PORTABLE BARRIER, UNANCHORED	1640 FT

8.18 – 8.34

ITEM 614 - WORK ZONE IMPACT ATTENUATOR, OVER 24" AND LESS THAN 36" WIDE HAZARDS, (UNIDIRECTIONAL)	4 EA
ITEM 614 – BARRIER REFLECTOR, TYPE 1 (1 WAY)	17 EA
ITEM 614 – OBJECT MARKER, ONE WAY	17 EA
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (WHITE)	0.16 FT
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (YELLOW)	0.16 MI
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (BLACK)	0.32 MI
ITEM 622 - PORTABLE BARRIER, UNANCHORED	820 FT

ITEM 614 – MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS) (TEM 642-6)

NO WORK SHALL BE PERFORMED, AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	FOURTH OF JULY
NEW YEARS DAY	LABOR DAY
MEMORIAL DAY	THANKSGIVING

THE PERIOD OF TIME THAT LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THANKSGIVING	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$50 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

ITEM 614 – MAINTAINING TRAFFIC (LANE CLOSURE/REDUCTION REQUIRED) (TEM 642-7)

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

DENSITY SPECIFICATION EXCEPTION

THE 448 DENSITY SPECIFICATION WILL BE WAIVED FOR ASPHALT PLACED DIRECTLY UNDER THE CONCRETE BARRIER.

DESIGN AGENCY

DISTRICT 3



ENGINEERING TEAM ONE

DESIGNER

CVH

REVIEWER

KRB MM-DD-YY

PROJECT ID


118636

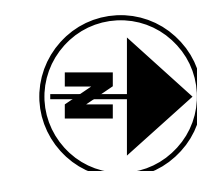
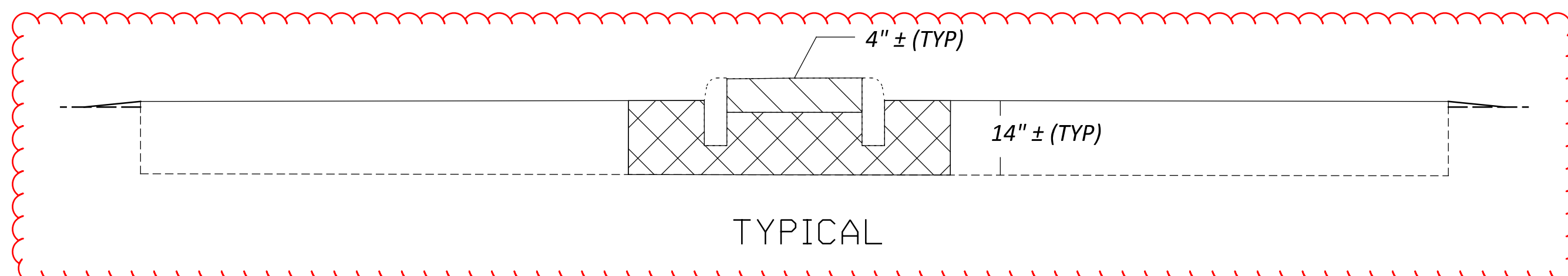
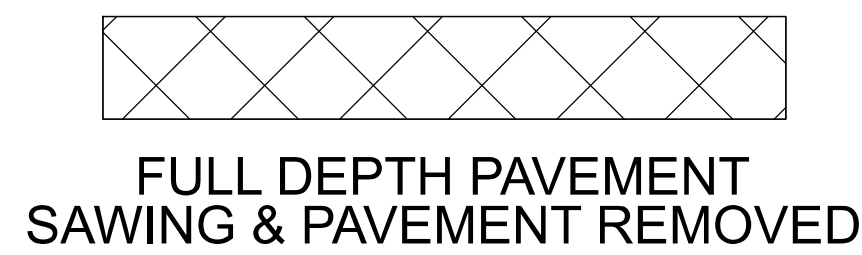
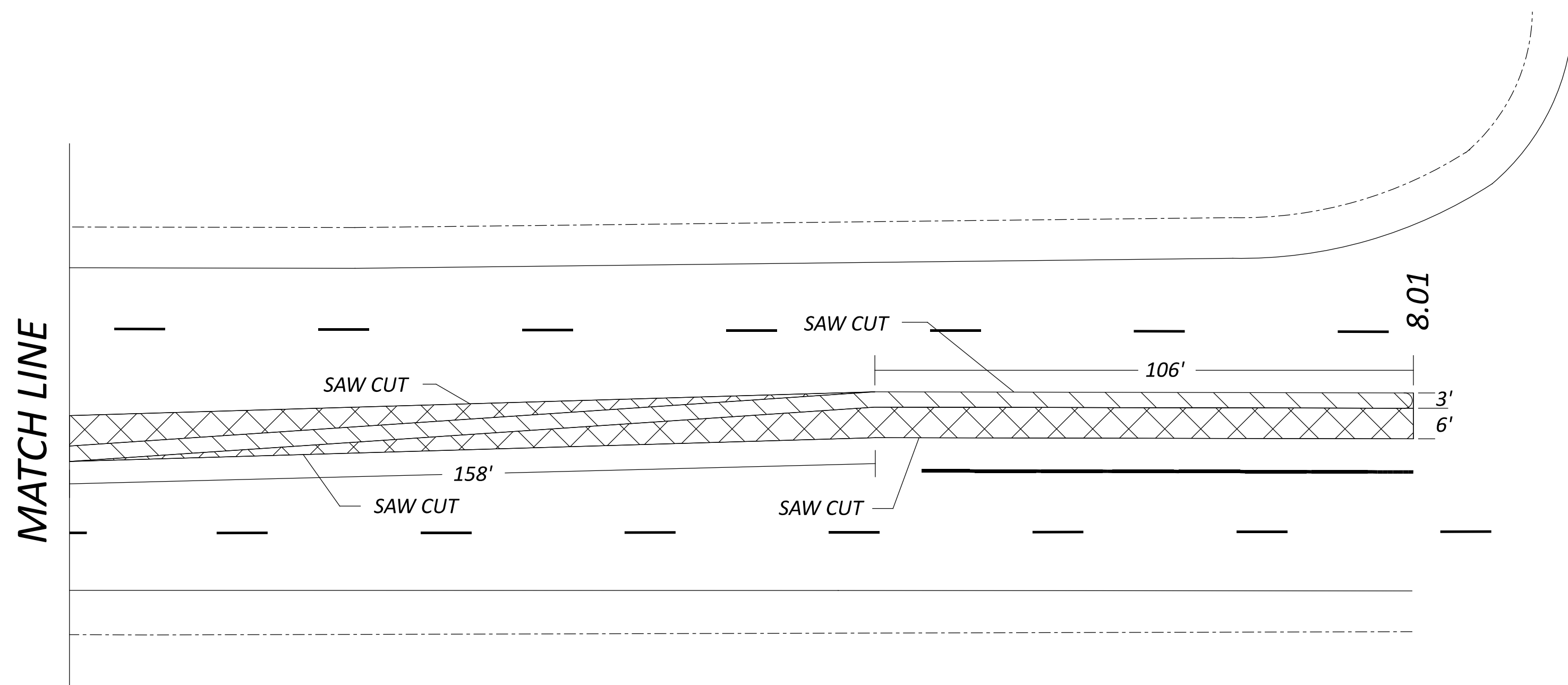
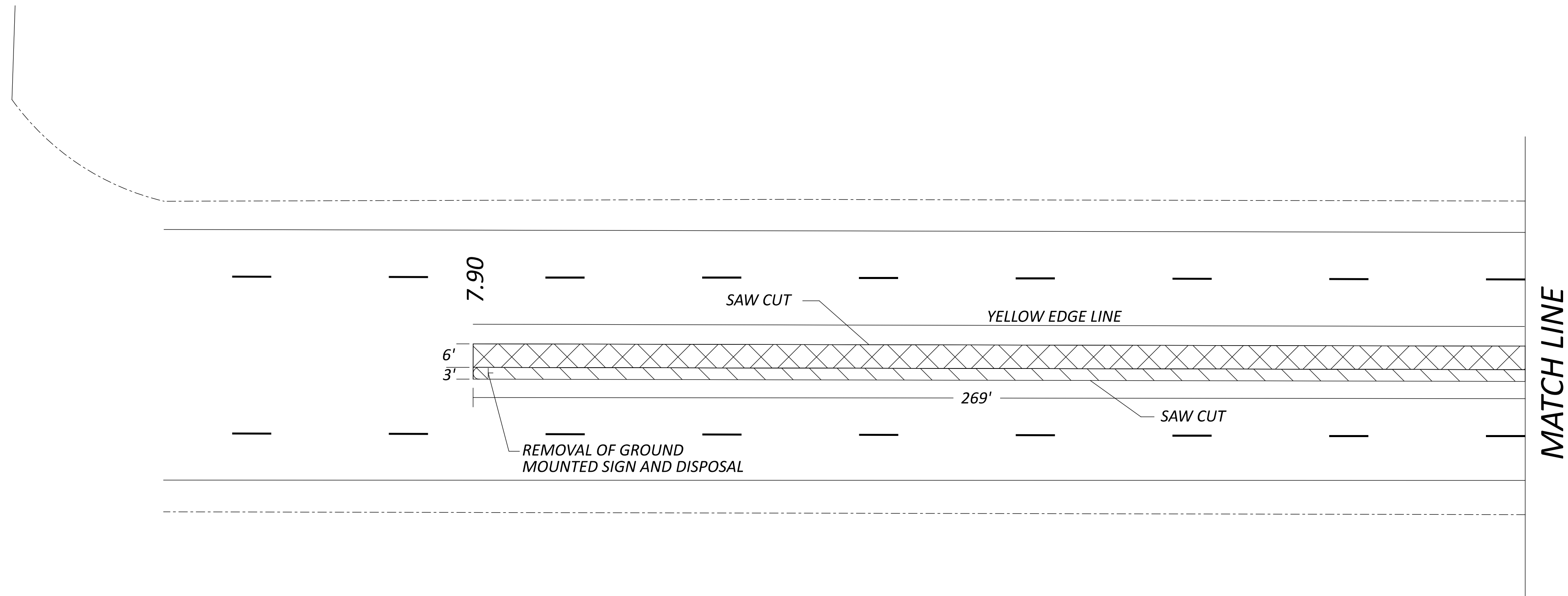
SHEET TOTAL

3 | 10

SHEET NUM.											PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
3	5										01/SAF/21	EXT	TOTAL				
															ROADWAY		
	633										633	202	23000	633	SY	PAVEMENT REMOVED	
	2,189										2,189	202	30600	2,189	SY	CONCRETE MEDIAN REMOVED	
	1,785										1,785	202	32000	1,785	FT	CURB REMOVED	
	1,237.5										1,237.5	202	38000	1,237.5	FT	GUARDRAIL REMOVED	
	50										50	202	38300	50	FT	GUARDRAIL REMOVED, BARRIER DESIGN	
	3										3	202	42000	3	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A	
	1										1	202	42040	1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
	2										2	202	42210	2	EACH	ANCHOR ASSEMBLY REMOVED, BARRIER DESIGN	
	726										726	203	10000	726	CY	EXCAVATION	
	2,823										2,823	204	10000	2,823	SY	SUBGRADE COMPACTION	
	162.5										162.5	606	15050	162.5	FT	GUARDRAIL, TYPE MGS	
	1										1	606	26150	1	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
	2										2	606	26550	2	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
	2										2	606	35002	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
	2										2	606	60050	2	EACH	IMPACT ATTENUATOR, TYPE 3 (BIDIRECTIONAL) (62 MPH, 30" WIDTH)	
	80										80	622	10061	80	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN (TRANSITION SECTION, FULL WIDTH CONCRETE)	3
	165.5										165.5	622	10061	165.5	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN	3
	280										280	622	10160	280	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
	2										2	622	24841	2	EACH	CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN	3
	2										2	622	25000	2	EACH	CONCRETE BARRIER END SECTION, TYPE D	
	2										2	622	25050	2	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
																EROSION CONTROL	
											5,000	832	30000	5,000	EACH	EROSION CONTROL	
																PAVEMENT	
	3,486										3,486	252	01500	3,486	FT	FULL DEPTH PAVEMENT SAWING	
	471										471	301	56000	471	CY	ASPHALT CONCRETE BASE, PG64-22, (449) (6")	
	471										471	304	20000	471	CY	AGGREGATE BASE (6")	
	226										226	407	10000	226	GAL	TACK COAT (SURFACE COURSE 0.08 GAL/SY)	
	112										112	407	10000	112	GAL	TACK COAT (FOR INTERM. COURSE 0.04 GAL/SY)	
	117										117	442	20000	117	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448) (1.50")	
	117										117	442	20170	117	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (448) (1.50")	
																TRAFFIC CONTROL	
	54										54	621	00100	54	EACH	RPM	
	4										4	621	54000	4	EACH	RAISED PAVEMENT MARKER REMOVED	
	20										20	626	00102	20	EACH	BARRIER REFLECTOR, TYPE 1 (1 WAY)	
	4										4	630	84900	4	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
	1.58										1.58	642	00104	1.58	MILE	EDGE LINE, 6", TYPE 1	
	0.81										0.81	642	00204	0.81	MILE	LANE LINE, 6", TYPE 1	
	875										875	644	00404	875	FT	CHANNELIZING LINE, 12"	
	885										885	644	00700	885	FT	TRANSVERSE/DIAGONAL LINE	
	10										10	644	01300	10	EACH	LANE ARROW	
																MAINTENANCE OF TRAFFIC	
	16										16	614	12390	16	EACH	WORK ZONE IMPACT ATTENUATOR, OVER 24" AND LESS THAN 36" WIDE HAZARDS, (UNIDIRECTIONAL)	
	73										73	614	13310	73	EACH	BARRIER REFLECTOR, TYPE 1 (1 WAY)	
	73										73	614	13350	73	EACH	OBJECT MARKER, ONE WAY	
	2.48										2.48	614	22210	2.48	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	
	3,460										3,460	622	41100	3,460	FT	PORTABLE BARRIER, UNANCHORED	
																INCIDENTALS	
	LS										LS	614	11000	LS		MAINTAINING TRAFFIC	
											3	619	16010	3	MNTH	FIELD OFFICE, TYPE B	
	LS										LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY
 DISTRICT 3

 ENGINEERING TEAM ONE
 DESIGNER
 CVH
 REVIEWER
 KRB 07/2023
 PROJECT ID
 118636
 SHEET TOTAL
 4 10



PAVEMENT & GUARDRAIL DETAILS

DESIGN AGENCY	DISTRICT 3
ENGINEERING TEAM ONE	
DESIGNER	CVH
REVIEWER	KRB 07/2023
PROJECT ID	118636
SHEET	TOTAL
6	10