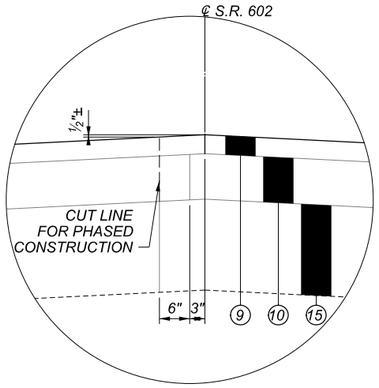
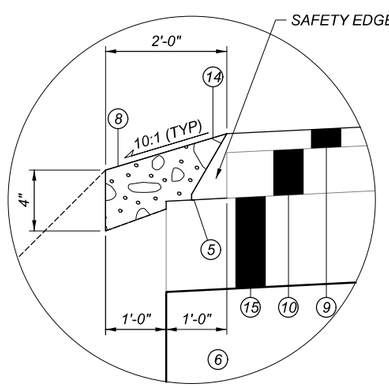
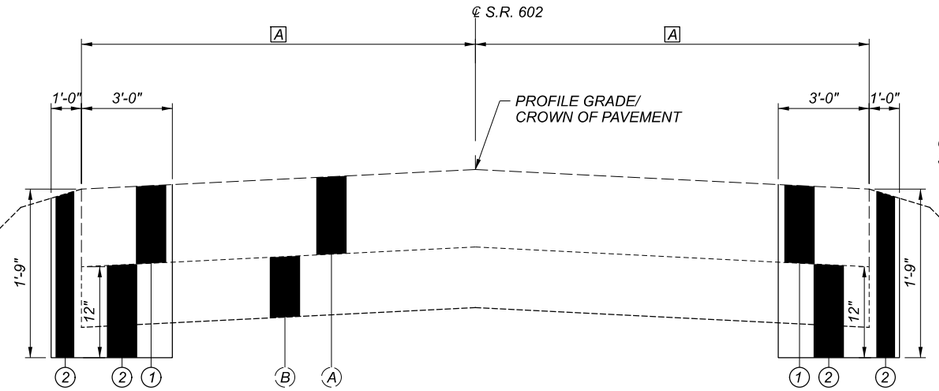


DETAIL A



DETAIL B



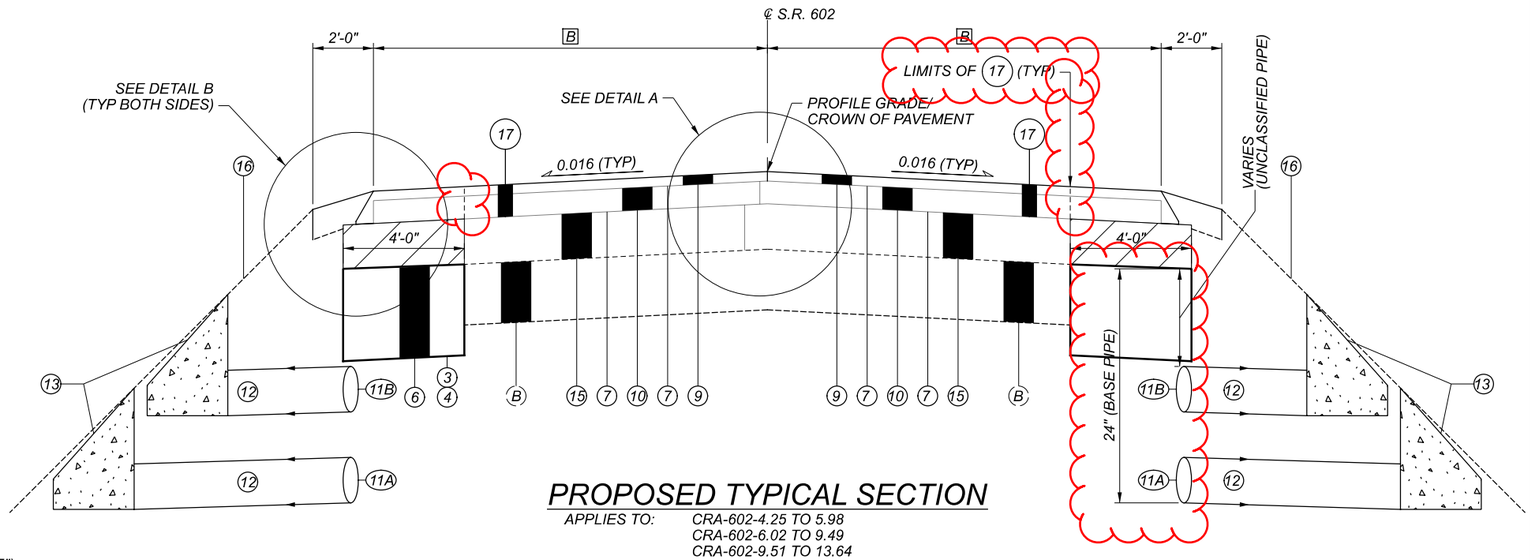
A VARIES FROM 12'-6" TO 20'-0"

B VARIES FROM 13'-0" TO 20'-0"; SEE PAVEMENT AND SHOULDER DATA SHEET

GUARDRAIL NOT SHOWN FOR CLARITY; SEE GUARDRAIL DETAIL SHEETS

EXCAVATION TYPICAL SECTION

APPLIES TO: CRA-602-4.25 TO 13.64
APPROACH SLABS NOT SHOWN FOR CLARITY



PROPOSED TYPICAL SECTION

APPLIES TO: CRA-602-4.25 TO 5.98
CRA-602-6.02 TO 9.49
CRA-602-9.51 TO 13.64

PROPOSED LEGEND

1. ITEM 202 - PAVEMENT REMOVED (10.25"±)
2. ITEM 203 - EXCAVATION (12" - 21" DEEP)
3. ITEM 204 - SUBGRADE COMPACTION
4. ITEM 204 - GEOGRID
5. ITEM 209 - PREPARING SUBGRADE FOR SHOULDER PAVING
6. ITEM 304 - AGGREGATE BASE (12" THICK)
7. ITEM 407 - TACK COAT (0.06 GAL/SY)
8. ITEM 408 - PRIME COAT, AS PER PLAN
9. ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A, (446), AS PER PLAN, PG64-22 (1.25")
10. ITEM 442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A, (446), AS PER PLAN, PG64-22 (3.00")

11A. ITEM 605 - 6" BASE PIPE UNDERDRAINS, AS PER PLAN
11B. ITEM 605 - 6" UNCLASSIFIED PIPE UNDERDRAINS
(SEE UNDERDRAIN DATA SHEET FOR LOCATIONS)

12. ITEM 611 - 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS
13. ITEM 611 - PRECAST REINFORCED CONCRETE OUTLET
14. ITEM 617 - COMPACTED AGGREGATE (4.00" THICK)
15. ITEM 690 - SPECIAL - FULL DEPTH RECLAIMED BASE COURSE, 6.00 INCHES DEEP
    ITEM 690 - SPECIAL - EMULSIFIED ASPHALT
    ITEM 690 - SPECIAL - ADDITIONAL ADDITIVES (CEMENT, FLY ASH, LIME)
    ITEM 690 - SPECIAL - CORRECTIVE AGGREGATE FOR FDR (FINE, COARSE OR RAP)
    ITEM 690 - SPECIAL - MIXTURE DESIGN FOR FULL DEPTH RECLAIMED BASE COURSE
16. ITEM 209 - LINEAR GRADING (6' AVERAGE WIDTH)
17. ITEM 202 - PAVEMENT REMOVED, AS PER PLAN (4.25" THICK)

6" THICK ASPHALT CONCRETE GRINDINGS RETAINED FROM ITEM 202 - PAVEMENT REMOVED AS PER PLAN (4.25" THICK), TO BE INCORPORATED INTO ITEM 690 - FULL DEPTH RECLAIMED BASE COURSE, 6.00 INCHES DEEP

EXISTING LEGEND

A. EXISTING ASPHALT PAVEMENT (10.25"±)
B. EXISTING MACADAM BASE (8.00"±)
C. EXISTING APPROACH SLAB (13.00"±)

VERTICAL DIMENSIONS SHOWN ON THIS SHEET EXAGERATED BY A FACTOR OF 3.

TYPICAL SECTIONS

CRA-602-4.25

MODEL: TYPICAL SECTIONS 1 PAPERSIZE: 17x11 (in.) DATE: 3/2/2022 TIME: 2:55:53 PM USER: jdark8
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Crawford\102939\400-Engineering\Roadway\Sheets\102939_GY001.dgn

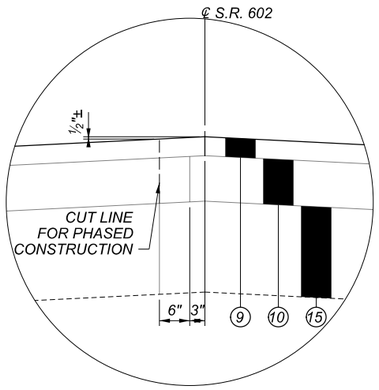
DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM FOUR

DESIGNER
JNC

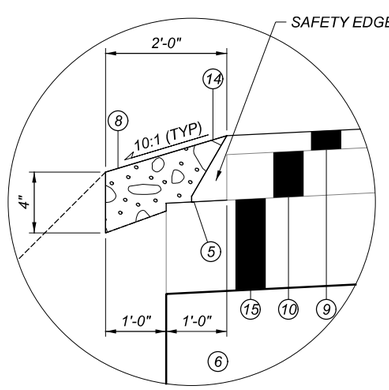
REVIEWER
NRF 12-06-21

PROJECT ID
102939

SHEET 3 TOTAL 38



DETAIL A

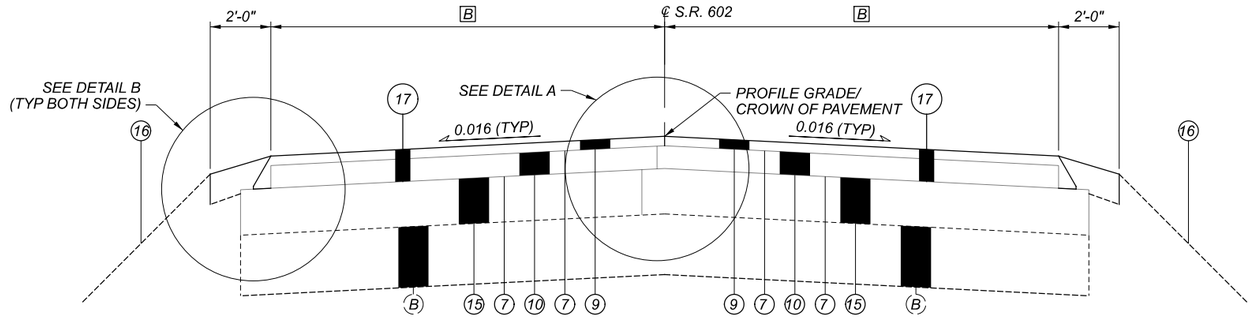


DETAIL B

A VARIES FROM 12'-6" TO 20'-0"

B VARIES FROM 13'-0" TO 20'-0"; SEE PAVEMENT AND SHOULDER DATA SHEET

GUARDRAIL NOT SHOWN FOR CLARITY; SEE GUARDRAIL DETAIL SHEETS



PROPOSED TYPICAL SECTION

APPLIES TO: 10' BEFORE AND AFTER CULVERTS AT THE FOLLOWING LOCATIONS:

CRA-602-4.36	CRA-602-7.86	CRA-602-4.58	CRA-602-8.24
CRA-602-4.93	CRA-602-8.43	CRA-602-5.68	CRA-602-8.93
CRA-602-5.77	CRA-602-9.19	CRA-602-6.26	CRA-602-10.50
CRA-602-6.74			

PROPOSED LEGEND

1. ITEM 202 - PAVEMENT REMOVED (10.25"±)
2. ITEM 203 - EXCAVATION (12" - 21" DEEP)
3. ITEM 204 - SUBGRADE COMPACTION
4. ITEM 204 - GEOGRID
5. ITEM 209 - PREPARING SUBGRADE FOR SHOULDER PAVING
6. ITEM 304 - AGGREGATE BASE (12" THICK)
7. ITEM 407 - TACK COAT (0.06 GAL/SY)
8. ITEM 408 - PRIME COAT, AS PER PLAN
9. ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A, (446), AS PER PLAN, PG64-22 (1.25")
10. ITEM 442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A, (446), AS PER PLAN, PG64-22 (3.00")
- 11A. ITEM 605 - 6" BASE PIPE UNDERDRAINS, AS PER PLAN
- 11B. ITEM 605 - 6" UNCLASSIFIED PIPE UNDERDRAINS

(SEE UNDERDRAIN DATA SHEET FOR LOCATIONS)

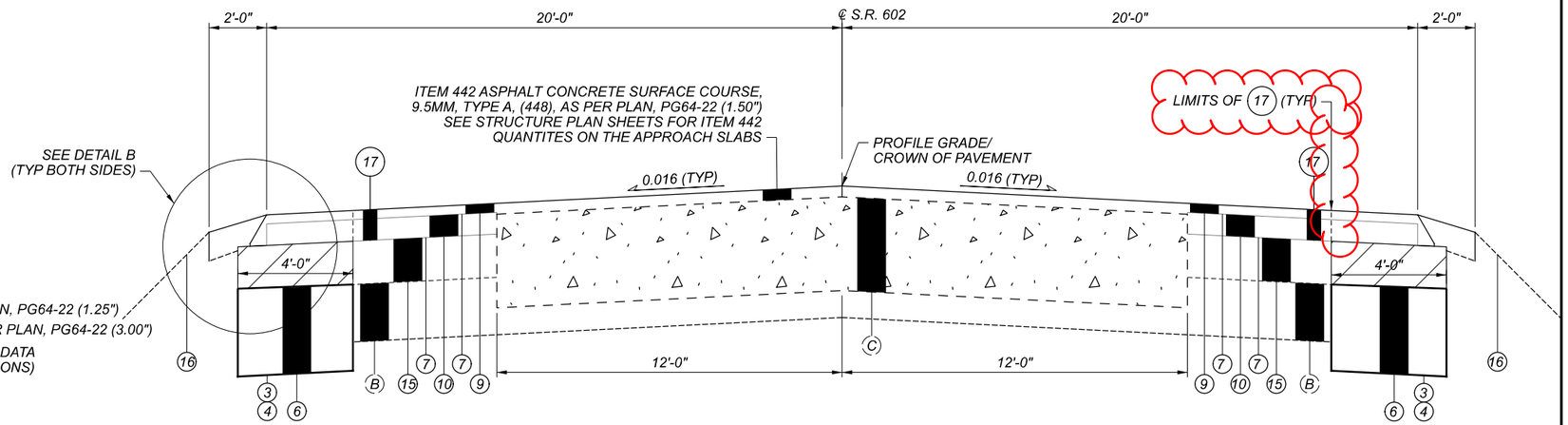
12. ITEM 611 - 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS
13. ITEM 611 - PRECAST REINFORCED CONCRETE OUTLET
14. ITEM 617 - COMPACTED AGGREGATE (4.00" THICK)
15. ITEM 690 - SPECIAL - FULL DEPTH RECLAIMED BASE COURSE, 6.00 INCHES DEEP
    ITEM 690 - SPECIAL - EMULSIFIED ASPHALT
    ITEM 690 - SPECIAL - ADDITIONAL ADDITIVES (CEMENT, FLY ASH, LIME)
    ITEM 690 - SPECIAL - CORRECTIVE AGGREGATE FOR FDR (FINE, COARSE OR RAP)
    ITEM 690 - SPECIAL - MIXTURE DESIGN FOR FULL DEPTH RECLAIMED BASE COURSE
16. ITEM 209 - LINEAR GRADING (6' AVERAGE WIDTH)
17. ITEM 202 - PAVEMENT REMOVED, AS PER PLAN (4.25" THICK)

6" THICK ASPHALT CONCRETE GRINDINGS RETAINED FROM ITEM 202 - PAVEMENT REMOVED AS PER PLAN (4.25" THICK), TO BE INCORPORATED INTO ITEM 690 - FULL DEPTH RECLAIMED BASE COURSE, 6.00 INCHES DEEP

EXISTING LEGEND

- A. EXISTING ASPHALT PAVEMENT (10.25"±)
- B. EXISTING MACADAM BASE (8.00"±)
- C. EXISTING APPROACH SLAB (13.00"±)

VERTICAL DIMENSIONS SHOWN ON THIS SHEET EXAGERATED BY A FACTOR OF 3.



PROPOSED TYPICAL SECTION AT APPROACH SLABS, STRUCTURE CRA-602-0949

APPLIES TO: CRA-602-9.49 (25 FT) CRA-602-9.51 (25 FT)

TYPICAL SECTIONS

CRA-602-4.25

MODEL: TYPICAL SECTIONS 2 PAPERSIZE: 17x11 (in.) DATE: 3/22/2022 TIME: 2:55:56 PM USER: jdark8
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Crawford\102939\400-Engineering\Roadway\Sheets\102939_GY001.dgn

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM FOUR

DESIGNER
JNC

REVIEWER
NRF 12-06-21

PROJECT ID
102939

SHEET 4 TOTAL 38

ITEM 202 - ANCHOR ASSEMBLY REMOVED, TYPE A

THIS ITEM SHALL INCLUDE THE REMOVAL OF THE EXISTING TYPE A, ANCHOR ASSEMBLY INCLUDING ALL POSTS, HARDWARE, RAIL ELEMENTS, AND CONCRETE ANCHORS. ALL ITEMS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF.

THE EXISTING CONCRETE ANCHOR AND CONCRETE AT POSTS SHALL BE REMOVED ENTIRELY. ALL HOLES REMAINING AFTER REMOVAL SHALL BE FILLED WITH GRANULAR MATERIAL OR EXCESS MATERIAL RESULTING FROM GUARDRAIL CONSTRUCTION. ALL FILL MATERIAL SHALL BE THOROUGHLY COMPACTED AND LEVELED, AS DIRECTED BY THE ENGINEER.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 202, ANCHOR ASSEMBLY REMOVED, TYPE A.

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

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

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

THE CONTRACTOR MAY USE A SALVAGED EXTRUDER WHEN ASSEMBLING THE ITEM 606 ANCHOR ASSEMBLY, TYPE E OR ITEM 606 ANCHOR ASSEMBLY, MGS TYPE E. ALL WELDS ON THE EXTERIOR OF THE SALVAGED EXTRUDER SHALL NOT BE DAMAGED AND THE FEEDER SHUTE SHALL NOT BE BENT.

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 27 3/4 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 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, TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ALL TYPE E ANCHOR ASSEMBLIES SUPPLIED ON THIS PROJECT SHALL MEET THE REQUIREMENTS OF MASH 2016 TESTING.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 203 – EMBANKMENT, AS PER PLAN

THE INTENT OF ITEM 203 – EMBANKMENT, AS PER PLAN, IS TO REPAIR WASHED-OUT OR OTHERWISE DEFICIENT SHOULDER LOCATIONS IDENTIFIED ON THE GUARDRAIL DETAIL SHEETS AND AS DIRECTED BY THE ENGINEER. PLACE AND COMPACT ACCORDING TO C&MS 203, TO MATCH SURROUNDING SLOPES AND PROVIDE ACCEPTABLE SLOPE AND ELEVATION UNDERNEATH AND SURROUNDING EXISTING OR PROPOSED GUARDRAIL.

PERFORM THE ABOVE WORK PRIOR TO PERFORMING ITEM 209 – PREPARATION FOR SHOULDER PAVING AND PLACEMENT OF ITEM 617 – COMPACTED AGGREGATE.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER CUBIC YARD OF ITEM 203 – EMBANKMENT, AS PER PLAN.

ITEM 659 – SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659	COMMERCIAL FERTILIZER	0.93	TON
659	LIME	1.38	ACRE
659	WATER	37	M GAL
659	REPAIR SEEDING AND MULCHING	334	SQ YD
659	INTERSEEDING	334	SQ YD
659	TOPSOIL	741	CU YD
659	SOIL ANALYSIS TEST	2	EACH
659	SEEDING AND MULCHING	6672	SQ YD

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF PLACED ITEM 203 – EMBANKMENT, AS PER PLAN, AND ITEM 670 – SLOPE EROSION PROTECTION. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS. QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY.

AC GAUGE OFFSET

FOLLOW 403, EXCEPT AS FOLLOWS:

- OFFSET THE AC GAUGE FOR EACH JMF FOR THE PROJECT PRIOR TO THE PROJECT'S START USING 403.06.A. AND THE MODIFIED SUPPLEMENT 1043 PROCEDURE BELOW.
- DURING S-1043.07 PROCESS, A RAP SAMPLE OBTAINED FROM THE JMF-DESIGNATED RAP PILE WILL BE EXTRACTED IN THE ASPHALT LEVEL 3 LAB TO VERIFY THE RAP AC %. THE RAP AC % WILL BE WITHIN 0.3% OF THE AVERAGE RAP AC % FROM THE JMF. IF RAP AC % IS OUTSIDE OF THE 0.3%, THE VERIFICATION PAN PROCESS WILL STOP, AND DISTRICT TESTING WILL ALLOW ONE OPPORTUNITY TO REWORK THE RAP PILE AT THE MIX PLANT AND RESAMPLE. RESAMPLING REQUIRES DISTRICT TESTING TO BE PRESENT. IF THE RESAMPLE IS STILL OUTSIDE OF THE 0.3%, THE JMF WILL BE RESCINDED AND NEED TO BE REDESIGNED.

FOLLOW 403.06 EXCEPT AS FOLLOWS:

- ENSURE ASPHALT BINDER CONTENT DOES NOT EXCEED TABLE 403.06.G-1. ADJUSTMENTS TO MIX PLANT CONTROL SETTINGS MUST BE SUBMITTED TO AND APPROVED BY DISTRICT TESTING PRIOR TO MAKING THE ADJUSTMENT. THE ADJUSTMENT CANNOT EXCEED +/- 0.2% FROM DESIGN AC % FROM JMF. DO NOT LOWER VIRGIN BINDER CONTENT OR INCREASE RAP PERCENT. ENSURE PLANT TICKET SHOWS THE ADJUSTMENT AND IS SET TO THE ADJUSTED TOTAL AC % AT ALL TIMES AFTERWARDS.
- RECORD THE DAILY VERIFICATION PAN RESULTS IN A SEPARATE WORKSHEET AND MAKE SURE IT'S POSTED IN THE PLANT FACILITY AND AVAILABLE TO THE MONITORS. INCLUDE THE DATE RAN, VERIFICATION PAN RESULT, AND INITIALS OF WHO RAN IT. ENSURE A PRINTOUT OF THE DAILY VERIFICATION PAN IS ALSO INCLUDED WITH THE TE-199.

FOLLOW SUPPLEMENT 1043 FOR AC GAUGE OFFSET, EXCEPT AS MODIFIED BELOW:

- FOLLOW 1043.07 EXCEPT AS FOLLOWED:
  - NOTIFY DISTRICT TESTING A MINIMUM OF ONE WEEK PRIOR TO MAKING VERIFICATION PANS.
  - DISTRICT TESTING WILL WITNESS A SOLVENT EXTRACTION FROM A SAMPLE FROM THE RAP PILE THAT IS TO BE USED IN THE JMF TO VERIFY THE RAP AC %. RAP AC % WILL BE WITHIN 0.3% OF RAP AC % DETERMINED IN JMF. IF OUTSIDE OF 0.3%, DO NOT PROCEED AND THE JMF WILL NEED TO BE REDESIGNED.
  - DISTRICT TESTING WILL WITNESS THE VERIFICATION PANS BEING BLENDED, MIXED, AND COMPACTED.
  - MAKE A MINIMUM OF THREE VERIFICATION PANS FOR THE JMF THAT ARE AT THE JMF ASPHALT BINDER CONTENT. MAKE ONE ADDITIONAL VERIFICATION PAN FOR EACH ADDITIONAL DISTRICT THE JMF WILL BE USED IN.
  - IN ADDITION, TURN POSSESSION OVER OF THE CALIBRATION AC GAUGE PANS USED TO DETERMINE THE FIT COEFFICIENT TO DISTRICT TESTING.

- FOR AC CONTENT PAY ACCEPTANCE, REPLACE 1043.08 WITH THE FOLLOWING:

CALCULATE AN AC GAUGE OFFSET AMOUNT FOR EACH JMF AND MIX PLANT IN ACCORDANCE WITH THE FOLLOWING PROCEDURE PRIOR TO START OF ANY PRODUCTION FOR THE JMF. NOTIFY DISTRICT TESTING 24 HOURS PRIOR TO OFFSETTING GAUGE.

1. ENSURE PRINTER IS ON AND PLACE THE FIRST VERIFICATION PAN IN THE AC GAUGE AND RUN.
2. AFTER THE 16-MINUTE TEST, TAKE THE VERIFICATION PAN OUT AND TURN 180 DEGREES AND PLACE BACK IN AC GAUGE AND RUN.
3. REPEAT STEPS 1 AND 2 WITH SECOND AND THIRD VERIFICATION PANS.
4. FOR EACH RUN, TAKE THE JMF ASPHALT BINDER CONTENT MINUS THE AC GAUGE AC % TO OBTAIN THE OFFSET FOR THAT RUN.
5. AVERAGE ALL OFFSETS FOR A FINAL OFFSET.
6. RETAIN ALL OF THE VERIFICATION PANS. AFTER THE FINAL OFFSET IS DETERMINED, DISTRICT TESTING WILL CHOOSE TWO OF THE VERIFICATION PANS AND SEND ONE OF THESE TWO TO OMM TO EXTRACT AND REFLUX.
7. DISTRICT TESTING WILL USE THE TWO VERIFICATION PANS TO OFFSET THEIR AC GAUGE.

BEFORE THE BEGINNING OF A PRODUCTION DAY, RUN THE VERIFICATION PAN IN THE AC GAUGE AND ENSURE THE OFFSET AC GAUGE AMOUNT IS WITHIN 0.14% OF THE JMF ASPHALT BINDER CONTENT. DURING THE START OF PRODUCTION FOR THE JMF, SOLVENT EXTRACT THE FIRST TWO QC SAMPLES AND COMPARE TO THE OFFSET AC GAUGE. ENSURE SOLVENT EXTRACTION IS WITHIN 0.3% OF OFFSET AC GAUGE. IF MORE THAN 0.3% OFF, IMMEDIATELY RESAMPLE AND RUN AC GAUGE AND SOLVENT EXTRACT IMMEDIATELY. IF TWO CONSECUTIVE SAMPLES ARE MORE THAN 0.3% OFF, IMMEDIATELY STOP PRODUCTION, CONTACT MONITORING TEAM, AND INVESTIGATE THE REASON FOR THE PROBLEM. ONCE TWO CONSECUTIVE QC SAMPLES ARE WITHIN 0.3% OF OFFSET AC GAUGE, THE FINAL OFFSET GAUGE IS CONFIRMED.
AFTER CONFIRMING THE AC GAUGE OFFSET AMOUNT PROCEED WITH DETERMINING AC CONTENTS OF PRODUCTION SAMPLES BY THE AC GAUGE ACCORDING TO 1043.09.
ONLY DETERMINE ONE AC GAUGE OFFSET AMOUNT PER JMF. IF MORE THAN 30 DAYS HAS LAPSED SINCE THE JMF WAS LAST TESTED, RE-DO THE OFFSET PROCEDURE ABOVE WITH TWO VERIFICATION PANS (ONE FROM THE CONTRACTOR AND ONE FROM THE DISTRICT). IF AN AC GAUGE OFFSET AMOUNT IS LATER DETERMINED, BY AN INVESTIGATION OF BOTH THE CONTRACTOR AND THE DISTRICT, TO BE INCORRECT RE-DO THE OFFSET PROCEDURE.
IN ADDITION, ALSO DETERMINE THE AC GAUGE OFFSET FOLLOWING THE CURRENT PROCEDURE AS OUTLINED IN SUPPLEMENT 1043 DATED JANUARY 21, 2022 AND PROVIDE THE INFORMATION TO THE DEPARTMENT. THIS AC GAUGE OFFSET NUMBER WILL NOT BE USED DURING QC TESTING.

IDEAL-CT MIX DESIGN ACCEPTANCE

FOLLOW ALL REQUIREMENTS OF THE SPECIFICATIONS WITH THE ADDITION OF THE FOLLOWING:

PERFORM THE IDEAL-CT FOR THE MIX DESIGN SUBMITTAL PER SUPPLEMENT 1033 ON THE JMF ASPHALT BINDER CONTENT DETERMINED FROM THE DESIGN AIR VOIDS AND ENSURE THE MINIMUM IN THE TABLE BELOW IS MET FOR THE MIX TYPE. THE IDEAL-CT ONLY NEEDS TO BE RAN FOR MIX DESIGN ACCEPTANCE.

PROVIDE RESULTS PER SUPPLEMENT 1033 WITH THE MIX DESIGN. SUPPLY SIX GYRATORY COMPACTED SPECIMENS TO THE HEIGHT MENTIONED IN SUPPLEMENT 1033 FOR THE MIX TYPE SPECIFIED. ALLOW MORE THAN TWO WEEKS FOR MIX DESIGN REVIEW AND PRELIMINARY APPROVAL DUE TO OMM VERIFYING THE MIX.

MIX TYPE	MINIMUM CT_{INDEX}
ITEM 442 (SUPERPAVE) 9.5 MM	80
ITEM 442 (SUPERPAVE) 19 MM (INTERMEDIATE)	60

ELECTRONIC TICKETING

PROVIDE ELECTRONIC MATERIAL TICKETS IN AN ELECTRONIC FORMAT DIRECTLY RECORDED FROM THE MATERIAL LOADING SOURCE FOR THE FOLLOWING MATERIALS:

- AGGREGATE
- ASPHALT CONCRETE
- PORTLAND CONCRETE

THIS NOTE IN NO WAY SUPERSEDES ANY OTHER COMMERCIAL REGULATIONS OR ANY OTHER LEGAL REQUIREMENTS REGULATING THE TRANSPORTATION OF COMMERCIAL MATERIALS.

AT THE PRE-CONSTRUCTION MEETING, SUBMIT AN ELECTRONIC TICKETING PLAN TO THE ENGINEER DESCRIBING THE PROPOSED ELECTRONIC TICKET DELIVERY METHOD. THE ELECTRONIC MATERIAL TICKET SHALL CONTAIN INFORMATION AS REQUIRED PER THE APPLICABLE MATERIAL SPECIFICATION FOR WEIGHT MEASUREMENT AND OTHER MATERIAL CHARACTERISTICS; PROVIDE AN EXAMPLE(S) OR A "MOCK-UP" OF THE PROPOSED ELECTRONIC TICKET TO SHOW THE DETAILS ON WHAT IS TO BE TRANSMITTED TO THE DEPARTMENT. NAMING OF THE ELECTRONIC MATERIAL TICKET FILES SHALL BE DISTINCT SUCH THAT THE TICKET'S REPRESENTED MATERIAL IS EASILY DETERMINED; INCLUDE THE PROPOSED NAMING CONVENTION. DELIVERY MAY BE THROUGH A PRODUCER WEBSITE UPLOAD ACCESSIBLE TO THE ENGINEER, ODOT PROJECT SPECIFIC SHAREPOINT DOCUMENTATION SITE UPLOAD, OR ANOTHER SECURE ELECTRONIC TRANSMITTAL MEANS. EMAILING OF A TICKET TO AN ODOT CONTACT IS ACCEPTABLE BUT IS NOT PREFERRED. THE ELECTRONIC TICKETING PLAN SHALL IDENTIFY A CONTINGENCY METHOD FOR MANUALLY CAPTURING AND DELIVERING TICKET INFORMATION IF ELECTRONIC TRANSMISSION IS TEMPORARILY UNAVAILABLE. AN ELECTRONIC TICKETING PLAN WHICH INCLUDES SOLELY THE USE OF DIGITAL PHOTOS OF PAPER TICKETS IS NOT ACCEPTABLE.

THE DEPARTMENT RECOGNIZES THAT VARIOUS DIGITAL TICKETING SYSTEMS MAY BE COMMERCIALLY AVAILABLE AND USED TO ACCOMMODATE INDIVIDUAL CONTRACTORS AND MATERIAL SUPPLIER CAPABILITIES. THE CONTRACTOR MAY PROVIDE A DIGITAL TICKETING SYSTEM GIVING SECURE ACCESS TO ORGANIZED DIGITAL DATA. IF UTILIZED, THE DIGITAL TICKETING SYSTEM MAY ALSO BE ACCESSIBLE BY REAL-TIME MONITORING WITH A MOBILE COMMUNICATION DEVICE SUCH AS A TABLET, SMARTPHONE, ETC. THROUGH MOBILE DEVICE APPLICATIONS ("MOBILE APP") IF ACCEPTABLE TO THE DEPARTMENT. IF A DIGITAL TICKETING SYSTEM REQUIRES A MOBILE APP, THE MOBILE APP SHALL BE AT NO COST TO THE DEPARTMENT. THE DIGITAL DATA MUST BE ABLE TO BE EXPORTED IN A FORMAT USABLE BY THE ENGINEER UPON REQUEST (I.E. MICROSOFT WORD, MICROSOFT EXCEL, PDF FORMATS).

DELIVER EACH ELECTRONIC MATERIAL TICKET TO THE ENGINEER PRIOR TO THE PLACEMENT OF MATERIAL, BUT NOT PRIOR TO THE LOADING OF MATERIAL AT THE SOURCE.

PROVIDE THE ENGINEER A DAILY MATERIAL SUMMARY REPORT BY THE END OF THE DAY'S HAULING ACTIVITIES, OR AT A TIME AS APPROVED BY THE ENGINEER. THE DAILY MATERIAL SUMMARY REPORT INCLUDES SUMMARY INFORMATION LISTED FOR EACH MATERIAL AS OUTLINED IN THE RESPECTIVE MATERIAL SPECIFICATION.

COSTS FOR THE ELECTRONIC TICKETING SHALL BE INCIDENTAL TO THE RESPECTIVE ITEMS TO WHICH THE DELIVERED QUANTITIES BELONG.

ITEM 605 – BASE PIPE UNDERDRAINS, AS PER PLAN

BASE PIPE UNDERDRAINS SHALL BE INSTALLED PER C&MS 605, EXCEPT THE DEPTH SHALL BE MEASURED AT 24" FROM THE BOTTOM OF THE PROPOSED FDR BASE COURSE, RATHER THAN 18" THE BOTTOM OF THE EXISTING OR PROPOSED SUBGRADE. SEE TYPICAL SECTIONS.

GENERAL NOTES

CRA-602-4.25

MODEL: GENERAL NOTES 3 PAPERSIZE: 17x11 (in.) DATE: 3/2/2022 TIME: 11:23:44 AM USER: jdark8
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Crawford\102939\400-Engineering\Roadway\Sheets\102939_GN001.dgn

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM FOUR
DESIGNER JNC
REVIEWER NRF 12-06-21
PROJECT ID 102939
SHEET 7 TOTAL 38

SHEET NUM.										PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
5	6	7	11	12	18	19	20	21	25	01/STR/PV	02/STR/BR						
																ROADWAY	
					32,807					32,807		202	23000	32,807	SY	PAVEMENT REMOVED (10.25"+/-)	
					109,874					109,874		202	23001	109,874	SY	PAVEMENT REMOVED, AS PER PLAN (4.25"+/-)	5
								581		581		202	38000	581	FT	GUARDRAIL REMOVED	
								15		15		202	42000	15	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A	
								4		4		202	47000	4	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
					17,317					17,317		203	10000	17,317	CY	EXCAVATION	
								342		342		203	20001	342	CY	EMBANKMENT, AS PER PLAN	7
2,000					43,747					45,747		204	10000	45,747	SY	SUBGRADE COMPACTION	
2,000										2,000		204	13000	2,000	CY	EXCAVATION OF SUBGRADE	
2,000										2,000		204	20000	2,000	CY	EMBANKMENT	
1					22					23		204	45000	23	HOUR	PROOF ROLLING	
					43,747					43,747		204	51000	43,747	SY	GEOGRID	
	345									345		205	10050	345	CY	LIME STABILIZED EMBANKMENT	
								0.4		0.4		209	15000	0.4	STA	RESHAPING UNDER GUARDRAIL	
					19					19		209	60500	19	MILE	LINEAR GRADING	
					19					19		209	72050	19	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING	
								175		175		606	15050	175	FT	GUARDRAIL, TYPE MGS	
								137.5		137.5		606	17000	137.5	FT	RAISING TYPE 5 GUARDRAIL	
								1		1		606	17700	1	EACH	REPLACE EXISTING GUARDRAIL BLOCKOUT	
								11		11		606	26100	11	EACH	ANCHOR ASSEMBLY, TYPE E	
								4		4		606	26150	4	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
								4		4		606	34600	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE TST-2	
										LS		623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	6
	23									23		623	38501	23	EACH	MONUMENT ASSEMBLY, AS PER PLAN	6
	23									23		623	40900	23	EACH	MONUMENT, MISC.: LOCATING MONUMENT STONES	6
								8		8		626	00110	8	EACH	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	
																EROSION CONTROL	
		2								2		659	00100	2	EACH	SOIL ANALYSIS TEST	
		741								741		659	00300	741	CY	TOPSOIL	
	528									528		659	00300	528	CY	TOPSOIL (4" THICK)	
		6,672								6,672		659	10000	6,672	SY	SEEDING AND MULCHING	
		334								334		659	14000	334	SY	REPAIR SEEDING AND MULCHING	
		334								334		659	15000	334	SY	INTER-SEEDING	
		0.93								0.93		659	20000	0.93	TON	COMMERCIAL FERTILIZER	
		1.38								1.38		659	31000	1.38	ACRE	LIME	
		37								37		659	35000	37	MGAL	WATER	
	4,752									4,752		670	00500	4,752	SY	SLOPE EROSION PROTECTION	
	LS									LS		832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
	LS									LS		832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
	LS									LS		832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
										150,000		832	30000	150,000	EACH	EROSION CONTROL	
																DRAINAGE	
							14,257			14,257		605	13300	14,257	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
							84,903			84,903		605	14001	84,903	FT	6" BASE PIPE UNDERDRAINS, AS PER PLAN	7
							3,105			3,105		611	00510	3,105	FT	6" CONDUIT, TYPE E FOR UNDERDRAIN OUTLETS	
							207			207		611	99710	207	EACH	PRECAST REINFORCED CONCRETE OUTLET	
																PAVEMENT	
					3,078					3,078		254	01000	3,078	SY	PAVEMENT PLANING, ASPHALT CONCRETE (1.25" DEEP)	
					18					18		254	01600	18	SY	PATCHING PLANED SURFACE	
					14,597					14,597		304	20000	14,597	CY	AGGREGATE BASE (12" THICK)	
					17,695					17,695		407	10000	17,695	GAL	TACK COAT	
					8,800					8,800		408	10001	8,800	GAL	PRIME COAT, AS PER PLAN	6
					5,785					5,785		442	00201	5,785	CY	ASPHALT CONCRETE SURFACE COURSE, 9.5 MM, TYPE A (446), AS PER PLAN, PG64-22	5
					11,900					11,900		442	10101	11,900	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), AS PER PLAN, PG64-22	5
					2,456					2,456		617	10100	2,456	CY	COMPACTED AGGREGATE	
					153,615					153,615		SPECIAL	69098300	153,615	SY	FULL DEPTH RECLAIMED BASE COURSE, 6.00 INCHES DEEP	7
										LS		SPECIAL	69098400	LS		MIXTURE DESIGN FOR RECLAIMED BASE COURSE	9
					826					826		SPECIAL	69098800	826	TON	ADDITIONAL ADDITIVES (CEMENT, FLY ASH, LIME)	7
					5,128					5,128		SPECIAL	69098800	5,128	TON	CORRECTIVE AGGREGATE FOR FDR (FINE, COARSE OR RAP)	7
					345,624					345,624		SPECIAL	69098900	345,624	GAL	EMULSIFIED ASPHALT	7

GENERAL SUMMARY

CRA-602-4.25

MODEL: GENERAL SUMMARY 1 PAPERSIZE: 17x11 (in.) DATE: 3/3/2022 TIME: 9:45:05 AM USER: jdark8
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Crawford\102939\400-Engineering\Roadway\Sheets\102939_GG001.dgn

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM FOUR

DESIGNER: JNC
REVIEWER: NRF 12-06-21
PROJECT ID: 102939
SHEET 16 TOTAL 38

PLAN SPLIT: | 01/STR/PV

COUNTY	ROUTE	LOG POINT TO LOG POINT SLM		LENGTH MILE	LENGTH FEET	TRAVELLED WAY WIDTH FT	LEFT SHOULDER WIDTH FT	RIGHT SHOULDER WIDTH FT	TOTAL PAVED WIDTH FT	PAVEMENT AREA SY	202 PAVEMENT REMOVED (10.25"+/-) SY	202 PAVEMENT REMOVED, AS PER PLAN (4.25"+/-) SY	203 EXCAVATION (12"-21" DEEP) CY	204 SUBGRADE COMPACTION SY	204 GEOGRID SY	204 PROOF ROLLING HOURS	209 PREPARING SUBGRADE FOR SHOULDER PAVING MILE	254 PAVEMENT PLANING, ASPHALT CONCRETE (1.25" DEEP) SY	254 PATCHING PLANED SURFACE SY	304 AGGREGATE BASE (12" THICK) CY	407 TACK COAT (0.06 GAL/SY) GAL	407 TACK COAT (0.09 GAL/SY) GAL	442 ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A, (446), AS PER PLAN, PG64-22 (1.25") CY	442 ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A, (446), AS PER PLAN, PG64-22 (SAFETY EDGE) CY	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A, (446), AS PER PLAN, PG64-22 (3.00") CY	690 SPECIAL - FULL DEPTH RECLAIMED BASE COURSE, 6.00 INCHES DEEP SY	690 SPECIAL - EMULSIFIED ASPHALT* GAL	690 SPECIAL - ADDITIONAL ADDITIVES (CEMENT, FLY ASH, LIME)* TON	690 SPECIAL - CORRECTIVE AGGREGATE FOR FDR (FINE, COARSE OR RAP)* TON	AGGREGATE SHOULDER WIDTH L FT	AGGREGATE SHOULDER WIDTH R FT	AGGREGATE SHOULDER AREA SY	209 LINEAR GRADING MILE	408 PRIME COAT, AS PER PLAN GAL	617 COMPACTED AGGREGATE (4.00" THICK) CY
CRA	602	4.25	4.50	0.25	1320	22	2	2	26	3814	880	2,934	465	1174	1,174	0.59	0.50			392	458		133	19	318	4107	9241	22	137	2.00	2.00	587	0.50	235	66
CRA	602	4.50	5.00	0.50	2640	22	2	2	26	7627	1,760	5,867	929	2347	2,347	1.17	1.00			783	916		265	38	636	8214	18480	44	274	2.00	2.00	1174	1.00	470	131
CRA	602	5.00	5.50	0.50	2640	22	2	2	26	7627	1,760	5,867	929	2347	2,347	1.17	1.00			783	916		265	38	636	8214	18480	44	274	2.00	2.00	1174	1.00	470	131
CRA	602	5.50	5.97	0.47	2482	22	2	2	26	7170	1,655	5,515	874	2206	2,206	1.10	0.94			736	861		249	36	598	7721	17373	41	258	2.00	2.00	1103	0.94	442	123
CRA	602	5.97	5.98	0.01	53	22	7	7	36	212	36	176	19	47	47	0.02	0.02			16	26		8	1	18	224	504	2	8	2.00	2.00	24	0.02	10	3
CRA	602	5.98	6.02	0.04	211	SUSPEND AND RESUME PAVING OVER STRUCTURE CRA-602-0600																														
CRA	602	6.02	6.04	0.02	125	22	7	7	36	500	84	416	44	112	112	0.06	0.05			38	60		18	2	42	528	1188	3	18	2.00	2.00	56	0.05	23	7
CRA	602	6.04	6.50	0.46	2409	22	2	2	26	6961	1,607	5,354	848	2142	2,142	1.07	0.91			714	836		242	35	581	7496	16866	40	250	2.00	2.00	1071	0.91	429	119
CRA	602	6.50	7.00	0.50	2640	22	2	2	26	7627	1,760	5,867	929	2347	2,347	1.17	1.00			783	916		265	38	636	8214	18480	44	274	2.00	2.00	1174	1.00	470	131
CRA	602	7.00	7.50	0.50	2640	22	2	2	26	7627	1,760	5,867	929	2347	2,347	1.17	1.00			783	916		265	38	636	8214	18480	44	274	2.00	2.00	1174	1.00	470	131
CRA	602	7.50	8.00	0.50	2640	22	2	2	26	7627	1,760	5,867	929	2347	2,347	1.17	1.00			783	916		265	38	636	8214	18480	44	274	2.00	2.00	1174	1.00	470	131
CRA	602	8.00	8.50	0.50	2640	22	2	2	26	7627	1,760	5,867	929	2347	2,347	1.17	1.00			783	916		265	38	636	8214	18480	44	274	2.00	2.00	1174	1.00	470	131
CRA	602	8.50	9.00	0.50	2640	22	2	2	26	7627	1,760	5,867	929	2347	2,347	1.17	1.00			783	916		265	38	636	8214	18480	44	274	2.00	2.00	1174	1.00	470	131
CRA	602	9.00	9.45	0.45	2376	22	2	2	26	6864	1,584	5,280	836	2112	2,112	1.06	0.90			704	824		239	34	572	7392	16632	39	247	2.00	2.00	1056	0.90	423	118
CRA	602	9.47	9.49	0.02	125	22	9	9	40	556	84	472	44	112	112	0.06	0.05			38	67		20	2	47	584	1314	4	20	2.00	2.00	56	0.05	23	7
CRA	602	9.49	9.49	0.00	25		8	8	16	45	17	28	9	23	23	0.01	0.01			8	6		4	1	4	51	114	1	2	2.00	2.00	12	0.01	5	2
CRA	602	9.49	9.51	0.02	80	SUSPEND AND RESUME PAVING OVER STRUCTURE CRA-602-0949																														
CRA	602	9.51	9.51	0.00	25		8	8	16	45	17	28	9	23	23	0.01	0.01			8	6		2	1	4	51	114	1	2	2.00	2.00	12	0.01	5	2
CRA	602	9.51	9.54	0.02	125	22	9	9	40	556	84	472	44	112	112	0.06	0.05			38	67		20	2	47	584	1314	4	20	2.00	2.00	56	0.05	23	7
CRA	602	9.54	10.00	0.46	2438	22	2	2	26	7044	1,626	5,418	858	2168	2,168	1.08	0.92			723	846		245	35	587	7586	17068	40	253	2.00	2.00	1084	0.92	434	121
CRA	602	10.00	10.50	0.50	2640	22	2	2	26	7627	1,760	5,867	929	2347	2,347	1.17	1.00			783	916		265	38	636	8214	18480	44	274	2.00	2.00	1174	1.00	470	131
CRA	602	10.50	11.00	0.50	2640	22	2	2	26	7627	1,760	5,867	929	2347	2,347	1.17	1.00			783	916		265	38	636	8214	18480	44	274	2.00	2.00	1174	1.00	470	131
CRA	602	11.00	11.50	0.50	2640	22	2	2	26	7627	1,760	5,867	929	2347	2,347	1.17	1.00			783	916		265	38	636	8214	18480	44	274	2.00	2.00	1174	1.00	470	131
CRA	602	11.50	12.00	0.50	2640	22	2	2	26	7627	1,760	5,867	929	2347	2,347	1.17	1.00			783	916		265	38	636	8214	18480	44	274	2.00	2.00	1174	1.00	470	131
CRA	602	12.00	12.50	0.50	2640	22	2	2	26	7627	1,760	5,867	929	2347	2,347	1.17	1.00			783	916		265	38	636	8214	18480	44	274	2.00	2.00	1174	1.00	470	131
CRA	602	12.50	13.00	0.50	2640	22	2	2	26	7627	1,760	5,867	929	2347	2,347	1.17	1.00			783	916		265	38	636	8214	18480	44	274	2.00	2.00	1174	1.00	470	131
CRA	602	13.00	13.50	0.50	2640	22	2	2	26	7627	1,760	5,867	929	2347	2,347	1.17	1.00			783	916		265	38	636	8214	18480	44	274	2.00	2.00	1174	1.00	470	131
CRA	602	13.50	13.64	0.14	739	22	2	2	26	2136	493	1,643	261	658	658	0.33	0.28			220	257		75	11	178	2300	5176	13	77	2.00	2.00	329	0.28	132	37
RAMP TO S.R. 96										541								541	3			98	19						2.0	2.0	90	0.08	36	10
EXTRA AREA FOR INTERSECTIONS										1528								1528	8			276	54											
EXTRA AREA FOR PAVED DRIVES										63								63	1			12	3											
EXTRA AREA FOR AGGREGATE DRIVES										486								486	3			88	17											
EXTRA AREA FOR EX. MAILBOX APPROACHES										460								460	3			83	16											
TOTALS CARRIED TO GENERAL SUMMARY										145,759	32,807	109,874	17,317	43,747	43,747	22	19	3,078	18	14,597	17,695		5,785		11,900	153,615	345,624	826	5,128				19	8,800	2,456

* THESE QUANTITIES ARE PROVIDED FOR ESTIMATION PURPOSES ONLY. ACTUAL QUANTITIES WILL BE AS DETERMINED PER ITEM 609 - MIXTURE DESIGN FOR RECLAIMED BASE COURSE, WHICH SHALL BE PAID FOR ON A LUMP SUM BASIS. SEE THE "FULL DEPTH RECLAMATION WITH EMULSIFIED ASPHALT" NOTE IN THESE PLANS.

PAVEMENT AND SHOULDER DATA

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM FOUR

DESIGNER: JNC
REVIEWER: NRF 12-06-21
PROJECT ID: 102939
SHEET 18 TOTAL 38

CRA-602-4.25

UNDERDRAIN LAYOUT & QUANTITIES - LEFT SIDE

				PLAN SPLIT:		01/STR/PV			
				LENGTH		605		611	
COUNTY	ROUTE	LOG POINT TO LOG POINT				6" UNCLASSIFIED PIPE UNDERDRAINS	6" BASE PIPE UNDERDRAINS, AS PER PLAN	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	PRECAST REINFORCED CONCRETE OUTLET
		SLM		MILE	FEET	FT	FT	FT	EACH
CRA	602	4.25	4.33	0.08	422	422		30	2
CRA	602	4.33	5.44	1.11	5861		5,861	210	14
CRA	602	5.44	6.07	0.63	3326		3,326	105	7
CRA	602	6.07	11.24	5.17	27298		27,298	1020	68
CRA	602	11.24	11.75	0.51	2693	2,693		105	7
CRA	602	11.75	13.55	1.80	9504		9,504	360	24
CRA	602	13.55	13.64	0.09	475	475		30	2
TOTALS CARRIED TO GENERAL SUMMARY						3,591	45,989	1,860	124

UNDERDRAIN LAYOUT & QUANTITIES- RIGHT SIDE

				PLAN SPLIT:		01/STR/PV			
				LENGTH		605		611	
COUNTY	ROUTE	LOG POINT TO LOG POINT				6" UNCLASSIFIED PIPE UNDERDRAINS	6" BASE PIPE UNDERDRAINS, AS PER PLAN	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	PRECAST REINFORCED CONCRETE OUTLET
		SLM		MILE	FEET	FT	FT	FT	EACH
CRA	602	4.25	4.55	0.30	1584	1,584		60	4
CRA	602	4.55	8.02	3.47	18322		18,322	360	24
CRA	602	8.02	9.53	1.51	7973	7,973		300	20
CRA	602	9.53	13.11	3.58	18902		18,902	405	27
CRA	602	13.11	13.21	0.10	528	528		30	2
CRA	602	13.21	13.53	0.32	1690		1,690	60	4
CRA	602	13.53	13.64	0.11	581	581		30	2
TOTALS CARRIED TO GENERAL SUMMARY						10,666	38,914	1245	83

NOTE: THE LOCATIONS, LENGTHS, AND UNDERDRAIN TYPES SHOWN ON THIS SHEET ARE BASED ON AERIAL LIDAR DATA AND SHALL BE CONSIDERED APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE OUTLET LOCATIONS AND UNDERDRAIN TYPE INSTALLED AT EACH LOCATION ALLOW FOR POSITIVE DRAINAGE OUTLETTING NOT LESS THAN 6" ABOVE THE DITCHLINE.

THE OUTLET TYPES, SPACING, AND QUANTITES SHOWN ARE CONSERVATIVE, AND ARE INTENDED TO ALLOW FOR ADJUSTMENT AND/OR LIMITED OMISSION OF OUTLET LOCATIONS AT THE DISCRETION OF THE ENGINEER, AS FIELD CONDITIONS INDICATE. SPACING OF OUTLETS AT 500' OR LESS IS PREFERRED, WITH 1000' MAXIMUM SPACING.

LEFT SIDE ESTIMATED OUTLET LOCATIONS

SLM	DIST. FROM PREVIOUS OUTLET [FT]	UNDERDRAIN TYPE	SLM	DIST. FROM PREVIOUS OUTLET [FT]	UNDERDRAIN TYPE
4.27		UNCLASSIFIED	9.06	422	BASE PIPE
4.33	317	UNCLASSIFIED	9.14	422	BASE PIPE
4.40	370	BASE PIPE	9.21	370	BASE PIPE
4.48	422	BASE PIPE	9.29	422	BASE PIPE
4.55	370	BASE PIPE	9.36	370	BASE PIPE
4.63	422	BASE PIPE	9.44	422	BASE PIPE
4.70	370	BASE PIPE	9.52	422	BASE PIPE
4.78	422	BASE PIPE	9.59	370	BASE PIPE
4.86	422	BASE PIPE	9.67	422	BASE PIPE
4.93	370	BASE PIPE	9.74	370	BASE PIPE
5.01	422	BASE PIPE	9.82	422	BASE PIPE
5.08	370	BASE PIPE	9.89	370	BASE PIPE
5.16	422	BASE PIPE	9.97	422	BASE PIPE
5.23	370	BASE PIPE	10.05	422	BASE PIPE
5.31	422	BASE PIPE	10.12	370	BASE PIPE
5.39	422	BASE PIPE	10.20	422	BASE PIPE
5.44	264	BASE PIPE	10.27	370	BASE PIPE
5.52	422	BASE PIPE	10.35	422	BASE PIPE
5.59	370	BASE PIPE	10.42	370	BASE PIPE
5.67	422	BASE PIPE	10.50	422	BASE PIPE
5.78	581	BASE PIPE	10.58	422	BASE PIPE
5.97	1003	BASE PIPE	10.65	370	BASE PIPE
6.05	422	BASE PIPE	10.73	422	BASE PIPE
6.11	317	BASE PIPE	10.80	370	BASE PIPE
6.18	370	BASE PIPE	10.88	422	BASE PIPE
6.26	422	BASE PIPE	10.95	370	BASE PIPE
6.33	370	BASE PIPE	11.03	422	BASE PIPE
6.41	422	BASE PIPE	11.11	422	BASE PIPE
6.48	370	BASE PIPE	11.18	370	BASE PIPE
6.56	422	BASE PIPE	11.26	422	UNCLASSIFIED
6.64	422	BASE PIPE	11.33	370	UNCLASSIFIED
6.71	370	BASE PIPE	11.41	422	UNCLASSIFIED
6.79	422	BASE PIPE	11.48	370	UNCLASSIFIED
6.86	370	BASE PIPE	11.56	422	UNCLASSIFIED
6.94	422	BASE PIPE	11.64	422	UNCLASSIFIED
7.02	422	BASE PIPE	11.71	370	UNCLASSIFIED
7.09	370	BASE PIPE	11.79	422	BASE PIPE
7.17	422	BASE PIPE	11.86	370	BASE PIPE
7.24	370	BASE PIPE	11.94	422	BASE PIPE
7.32	422	BASE PIPE	12.02	422	BASE PIPE
7.39	370	BASE PIPE	12.09	370	BASE PIPE
7.47	422	BASE PIPE	12.17	422	BASE PIPE
7.55	422	BASE PIPE	12.24	370	BASE PIPE
7.62	370	BASE PIPE	12.32	422	BASE PIPE
7.70	422	BASE PIPE	12.39	370	BASE PIPE
7.77	370	BASE PIPE	12.47	422	BASE PIPE
7.85	422	BASE PIPE	12.55	422	BASE PIPE
7.92	370	BASE PIPE	12.62	370	BASE PIPE
8.00	422	BASE PIPE	12.70	422	BASE PIPE
8.08	422	BASE PIPE	12.77	370	BASE PIPE
8.15	370	BASE PIPE	12.85	422	BASE PIPE
8.23	422	BASE PIPE	12.92	370	BASE PIPE
8.30	370	BASE PIPE	13.00	422	BASE PIPE
8.38	422	BASE PIPE	13.08	422	BASE PIPE
8.45	370	BASE PIPE	13.15	370	BASE PIPE
8.53	422	BASE PIPE	13.23	422	BASE PIPE
8.61	422	BASE PIPE	13.30	370	BASE PIPE
8.68	370	BASE PIPE	13.38	422	BASE PIPE
8.76	422	BASE PIPE	13.45	370	BASE PIPE
8.83	370	BASE PIPE	13.53	422	BASE PIPE
8.91	422	BASE PIPE	13.55	106	UNCLASSIFIED
8.98	370	BASE PIPE	13.63	422	UNCLASSIFIED

RIGHT SIDE ESTIMATED OUTLET LOCATIONS

SLM	DIST. FROM PREVIOUS OUTLET [FT]	UNDERDRAIN TYPE	SLM	DIST. FROM PREVIOUS OUTLET [FT]	UNDERDRAIN TYPE
4.27		UNCLASSIFIED	9.00	370	UNCLASSIFIED
4.34	370	UNCLASSIFIED	9.08	422	UNCLASSIFIED
4.42	422	UNCLASSIFIED	9.16	422	UNCLASSIFIED
4.50	422	UNCLASSIFIED	9.23	370	UNCLASSIFIED
4.57	370	BASE PIPE	9.31	422	UNCLASSIFIED
4.65	422	BASE PIPE	9.38	370	UNCLASSIFIED
4.72	370	BASE PIPE	9.46	422	UNCLASSIFIED
4.80	422	BASE PIPE	9.55	475	BASE PIPE
4.88	422	BASE PIPE	9.63	422	BASE PIPE
4.95	370	BASE PIPE	9.70	370	BASE PIPE
5.03	422	BASE PIPE	9.78	422	BASE PIPE
5.10	370	BASE PIPE	9.86	422	BASE PIPE
5.18	422	BASE PIPE	9.93	370	BASE PIPE
5.25	370	BASE PIPE	10.01	422	BASE PIPE
5.33	422	BASE PIPE	10.08	370	BASE PIPE
5.41	422	BASE PIPE	10.16	422	BASE PIPE
5.48	370	BASE PIPE	10.23	370	BASE PIPE
5.56	422	BASE PIPE	10.31	422	BASE PIPE
5.63	370	BASE PIPE	10.39	422	BASE PIPE
5.71	422	BASE PIPE	10.46	370	BASE PIPE
5.78	370	BASE PIPE	10.54	422	BASE PIPE
5.86	422	BASE PIPE	10.61	370	BASE PIPE
5.94	422	BASE PIPE	10.69	422	BASE PIPE
6.01	370	BASE PIPE	10.77	422	BASE PIPE
6.09	422	BASE PIPE	10.84	370	BASE PIPE
6.16	370	BASE PIPE	10.92	422	BASE PIPE
6.24	422	BASE PIPE	10.99	370	BASE PIPE
6.31	370	BASE PIPE	11.07	422	BASE PIPE
6.39	422	BASE PIPE	11.14	370	BASE PIPE
6.47	422	BASE PIPE	11.22	422	BASE PIPE
6.54	370	BASE PIPE	11.30	422	BASE PIPE
6.62	422	BASE PIPE	11.37	370	BASE PIPE
6.69	370	BASE PIPE	11.45	422	BASE PIPE
6.77	422	BASE PIPE	11.52	370	BASE PIPE
6.84	370	BASE PIPE	11.60	422	BASE PIPE
6.92	422	BASE PIPE	11.67	370	BASE PIPE
7.00	422	BASE PIPE	11.75	422	BASE PIPE
7.07	370	BASE PIPE	11.83	422	BASE PIPE
7.15	422	BASE PIPE	11.90	370	BASE PIPE
7.24	475	BASE PIPE	11.98	422	BASE PIPE
7.32	422	BASE PIPE	12.05	370	BASE PIPE
7.39	370	BASE PIPE	12.13	422	BASE PIPE
7.47	422	BASE PIPE	12.20	370	BASE PIPE
7.55	422	BASE PIPE	12.28	422	BASE PIPE
7.62	370	BASE PIPE	12.36	422	BASE PIPE
7.70	422	BASE PIPE	12.43	370	BASE PIPE
7.77	370	BASE PIPE	12.51	422	BASE PIPE
7.85	422	BASE PIPE	12.58	370	BASE PIPE
7.92	370	BASE PIPE	12.66	422	BASE PIPE
8.02	528	UNCLASSIFIED	12.73	370	BASE PIPE
8.09	370	UNCLASSIFIED	12.81	422	BASE PIPE
8.17	422	UNCLASSIFIED	12.89	422	BASE PIPE
8.25	422	UNCLASSIFIED	12.96	370	BASE PIPE
8.32	370	UNCLASSIFIED	13.04	422	BASE PIPE
8.40	422	UNCLASSIFIED	13.11	370	UNCLASSIFIED
8.47	370	UNCLASSIFIED	13.19	422	UNCLASSIFIED
8.55	422	UNCLASSIFIED	13.25	317	BASE PIPE
8.63	422	UNCLASSIFIED	13.32	370	BASE PIPE
8.70	370	UNCLASSIFIED	13.40	422	BASE PIPE
8.78	422	UNCLASSIFIED	13.47	370	BASE PIPE
8.85	370	UNCLASSIFIED	13.55	422	UNCLASSIFIED
8.93	422	UNCLASSIFIED	13.63	422	UNCLASSIFIED

UNDERDRAIN DATA

CRA-602-4.25

MODEL: UNDERDRAIN DATA PAPERSIZE: 17X11 (in.) DATE: 3/22/2022 TIME: 11:24:14 AM USER: jdark8
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 03\Crawford\102939\400-Engineering\Roadway\Sheets\102939_GS001.dgn

DESIGN AGENCY
DISTRICT 3
ENGINEERING TEAM FOUR

DESIGNER
JNC

REVIEWER
NRF 12-06-21

PROJECT ID
102939

SHEET 20 TOTAL 38