OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

TRANSYSTEMS PLAN PREPARED BY:

0 SUPERIOR AVE. E., STE 1000 CLEVELAND, OHIO 44114

OHIO811, org

}

MGS-3.2

/18/13

HL-30.31 HL-40.20 HL-50.21 HL-60.11 HL-60.31

SBR-1-20 SBR-2-20 SICD-2-14

7/21/23 MT-95.30

MT-98.30

10/18/13

MGS-4.2

7/21/23

7/15/22 MGS-1.1

1/20/23

HL-30.22

MT-102.10 MT-102.20 MT-103.10

TC-71.10 TC-72.20 TC-82.10

800-2023 807

SPECIFICATIONS

SUPPLEMENTAL

MT-105.10

829 832 836 850 872 872

ROAD, BRIDGE, WALLS, MOT, LIGHTING FOR TRANSYSTEMS ENGINEER'S SEAL 1-3C, 3C1

RM-4.6 AS-1-15

STANDARD CONSTRUCTION DRAWINGS

ADA DESIGN WAIVERS

<u>DESIGN FEATURE</u> SHOULDER WIDTH

<u>SHEET NUMBERS</u> P.006, P.152 - P.153

NONE REQUIRED

UNDERGROUND UTILITIES

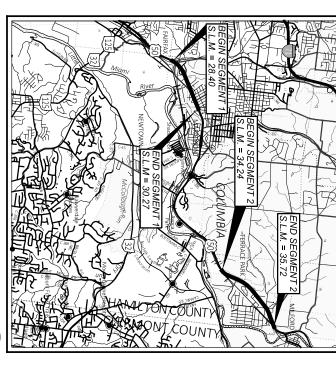
Contact Two Working Days

Before You Dig

DESIGN EXCEPTIONS

VHS PROJECT

8



LOCATION MAP

LATITUDE: 39°08'18" N LONGITUDE: 84°24'06" W



COUNTY & TOWNSHIP ROADS STATE ROUTES INTERSTATE HIGHWAY_ DESIGN DI OTHER ROADS . FEDERAL ROUTES ORTION TO BE IMPROVED

DESIGN DESIGNATION SLM	28.47- 29.28	29.28- 29.38	29.38- 29.86	29.86- 34.11	34.11- 36.04	
CURRENT ADT (2024)	32,500	33,000	15,500	16,500	10,500	
DESIGN YEAR ADT (2044)	40,833	44,667	23,833	18,167	14,667	
DESIGN HOURLY VOLUME (2044)	4,962	5,479	3,038	1,873	1,506	
DIRECTIONAL DISTRIBUTION	60%	52%	52%	60%	56%	
TRUCKS (24 HOUR B&C)	3.0%	3.0%	4.0%	5.0%	3.0%	
DESIGN SPEED	50	50	35	35	35	
LEGAL SPEED	50	50	35	35	35	
DESIGN FUNCTIONAL CLASSIFICATION	03	03	04	04	04	
[03] PRINCIPAL ARTERIAL OTHER (URBAN) / [04] MINOR ARTERIAL (URBAN)	TERIAL (URBAN)				

DEPARTMENT OF TRANSPORTATION STATE OF OHIO

IAM-US 50-29.00

AGE OF MARIENTA *MARIEMONT*

INDEX OF SHEETS:

FEDERAL PROJECT NUMBER

E191 (891)

RAILROAD INVOLVEMENT

REHABILITATE TWO BRIDGES (HAM-50-29.100 & 29.280) BY REMOVING AND REPLACING THE EXISTING DECK WITH A NEW COMPOSITE, REINFORCED CONCRETE DECK: UPGRADE BRIDGES TO MEET CURRENT DESIGN REQUIREMENTS; ADD WOOD LAGGING TO THE EXISTING RETAINING WALL ALONG US-50 EASTBOUND; MINOR PAVEMENT APPROACH WORK. LOWER THE RAMPS TO RED BANK ROAD UNDER THE 29.280 BRIDGE TO INCREASE THE VERTICAL CLEARANCE; REPAIR AND RESURFACE THE US-50 PAVEMENT, WITH CHARANCE; REPAIR AND TERRAGE PARK. REPAIR SLOPE FAILURE ALONG US-50 EASTBOUND NEAR RED BANK RD, REPAIR SLOPE FAILURE ALONG US-50 EASTBOUND NEAR RED BANK RD. NORFOLK SOUTHERN RY - NS MIDWEST DIVISION, MILE POST CV-112.40 & INDIANA & OHIO RY PROJECT DESCRIPTION

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:

1.75 ACRES 0.35 ACRES 2.10 ACRES

NOTICE OF INTENT EARTH DISTURBED AREA:

ESTIMATED CONTRACTOR EARTH DISTURBED AREA:

LIMITED ACCESS

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

HAS E

2023 SPECIFICATIONS

SIHT THE S SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN IMPROVEMENT. TANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF

PLANS AND ESTIMATES. HIGHWAY EXCEPT AS NOTED ON SHEET <u>P.014</u>, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS

Tammy K. Campbell, P.E. District 08 Deputy Director S 1

Jack Marchbanks, PhD Director, Department of Transportation	Just Make m
portation	2

SLOPE FAILURE REPAIR ENGINEER'S SEAL

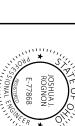
GARRET T. FREEMAN



SPECIAL PROVISIONS

921 WATERWAY

905



P.001

208

110570

SEGMENT 2 ROADWAY & MOT FOR 2LMN ENGINEER'S SEAL 3HM 08/22/23 MSW

TRANSYSTEMS
1100 SUPERIOR AVE. E., STE 1000
CLEVELAND, OHIO 44114

TITLE SHEET

HAM-US 50-29.00 MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/31/2024 TIME: 2:09:15 PM USER: gfreen -02\Documents\01 Active Projects\District 08\Hamilton\110570\400-Engineering\Roadway\Sheets\110570_GY001.dgi ▲ - THIS DETAIL IS TO BE USED FOR PAVEMENT REPAIR ASSOCIATED WITH SLOPE REPAIR STA, 99+98,00 TO STA, 100+70.00 Σ - APPLY HALF WIDTH AND HALF RATE AS PER VRAM APPLICATION ψ - APPLY FULL WIDTH AND FULL RATE AS PER VRAM APPLICATION $\begin{pmatrix} 1 \\ \infty \end{pmatrix}$ (7)(g) $\binom{1}{5}$ **(**4**)** (\circ) (5) (4) (ω) (2) (1) (8)(9) (N)REQUIREMENTS IN ODOT SS 872, TABLE 872.04-1. (LOCATIONS ARE APPROXIMATELY AS SHOWN IN THE TYPICAL SECTION DETAILS. ACTUAL REQUIREMENTS IN ODOT SS 872, TABLE 872.04-1 LOCATIONS IN THE FIELD WILL BE SLIGHTLY OFF THE LANE LINES.) ITEM 204 - SUBGRADE COMPACTION ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE C1 ITEM 204 - GRANULAR MATERIAL, TYPE C ITEM 204 - GEOTEXTILE FABRIC APPROACH SLAB (T = 15")ITEM 606 - GUARDRAIL, TYPE MGS ITEM 622 - BARRIER, MISC.: MC-9.3, TYPE A ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D ITEM 204 - PROOF ROLLING ITEM 605 - 6" BASE PIPE UNDERDRAIN ITEM 422 - SINGLE SLOPE CONCRETE BRIDGE RAILING ITEM 304 - 6" AGGREGATE BASE ITEM 301 - 9" ASPHALT CONCRETE BASE, PG64-22 (449) (PLACE IN 2 LIFTS) ITEM 442 - 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446) ITEM 407 - NON TRACKING TACK COAT (0.06 or 0.09 GAL/SY, PER CMS TABLE 407.06-1) ITEM 872 - VOID REDUCING ASPHALT MEMBRANE (VRAM) ITEM 442 - 1-1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) 3"± EXISTING ASPHALT PAVEMENT ITEM 204 - EXCAVATION OF SUBGRADE, 12 INCHES DEEP ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (1.5" THICK) 7-9"± EXISTING CONCRETE PAVEMENT LEGEND EXISTING LEGEND **SEGMENT** LOG POINT TO LOG POINT 29.92 TO 29.94 29.94 TO 29.95 29.95 TO 29.99 29.31 TO 29.35 29.35 TO 29.45 29.45 TO 29.46 29.75 TO 29.79 29.79 TO 29.85 29.86 TO 29.92 29.85 TO 29.86 29.53 TO 29.59 30.10 TO 30.11 30.08 TO 30.10 29.99 TO 30.02 29.46 TO 29.53 TOTAL CARRIED TO GENERAL SUMMARY 30.11 TO 30.14 30.02 TO 30.05 29.59 TO 29.75 30.05 TO 30.07 US-50 SLM 0.04 0.04 0.03 0.01 TRAVEL LANE LENGTH 10 ASPHALT EDGE COURSE DETAIL 40.0 AVG WIDTH **TYPICAL** (ω) **PAVEMENT** 188 939 4517 282 235 329 651 223 493 546 1091 YPICAL SECTION 1 **AREA** 145.8 146 PARTIAL DEPTH PAVEMENT REPAIR (442) 1,749 FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN 31,489.9 31,490 (34) 982 401 169 845 845 491 491 586 586 253 253 211 211 211 296 602 296 4066 950 232 FULL DEPTH PAVEMENT SAWING 34,988.8 34,989 PAVEMENT PLANING, ASPHALT CONCRETE (1.5' RAVEL LANE DEEP) 10 3,498.9 12 65 45 19 94 109 PATCHING PLANED SURFACE 3,149 16.9 84.5 2 49.1 20.1 NON-TRACKING TACK COAT (8)1,457.9 5 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPA A (446) 39.1 6 28,564.8 28,565 2851 6758 1056 634 211 3696 872 1056 211 422 106 634 422 106 845 634 VOID REDUCING ASPHALT MEMBRANE (VRAM) EACH DETECTOR LOOP SEE TRAFFIC CONTROL 632 300 300 150 LOOP DETECTOR LEAD-IN CABLE 0.00 0.00 0.00 0.00 0.02 (\sim) EDGE LINE, 6" 4 $\begin{array}{c} 0.06 \\ 0.00 \\ 0.$ SUBSUMMARY OF SEGMENT 1 FOR THE QUANTITIES WITHIN THESE SLM POINTS. CENTER LINE TYPICAL SECTION 2 GUARDRAIL TYPE MGS ASPHALT EDGE COURSE DETAIL 344 344 644 0 | 6 CHANNELIZING LINE, 8" 70 20 644 63 63 12 26 STOP LINE 644 647 647 84 CROSSWALK LINE, 12" (%) 5 60 411 644 411 0 8 0 0 8 0 50 TRANSVERSE/DIAGONAL LINE 6 (~) 644 10 10 LANE ARROW 297 297 644 DOTTED LINE, 6" EACH 644 BIKE LANE SYMBOL MARKING 644 24 24 YIELD LINE P.007 TRANSYSTEMS MSW 08/22/23 TYPICAL SECTIONS - US-50

HAM-US 50-29.00

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/26/2024 TIME: 3:05:36 PM USER: Josh_Rognon V:\Projects\TRAN_110570_HAM-50_BRIDGES\400-Engineering\Roadway\Sheets\110570_GN001.dgn

CONTINGENCY QUANTITIES

ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE GOVERNING COMPLETION OF THE PROJECT. BY INCORPORATION INTO THE FINAL CHANGE ORDER ENGINEER'S DIRECTION SHALL BE MADE A MATTER OF RECORD WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE

DEBRIS, AND FREE OF POTHOLES. SHALL NOT BE LOCATED WITHIN AN INTERSECTION OR RAMP. OPEN TO TRAFFIC. ADDITIONALLY, THE MILLED AHEAD SURFACE COURSE. THE MILLED AHEAD SURFACE SHALL BE COVERED BY THE LANE TO TRAFFIC, EXCEPT THE CONTRACTOR IS PERMITTED BE COVERED BY THE SURFACE COURSE PRIOR TO REOPENING THE MILLED AHEAD SURFACE SHALL BE SMOOTH, FREE OF THE SURFACE COURSE ASPHALT WITHIN 72 HOURS OF BEING TO MILL AHEAD 1000 FEET BEYOND THE PLACED SURFACE THE SEGMENT 1 PAVEMENT PLANING SHALL BE SCHEDULED TO

THE SEGMENT 2 PAVEMENT PLANING SHALL BE SCHEDULED SUCH THAT THE MILLED SURFACE SHALL BE COVERED BY THE SURFACE COURSE ASPHALT WITHIN 72 HOURS OF BEING OPEN A DISINCENTIVE IN THE AMOUNT OF \$9,300 SHALL BE ASSESSED AND FREE OF POTHOLES. THE MILLED SURFACE SHALL BE SMOOTH, FREE OF

REQUIREMENTS.

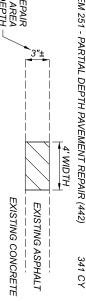
FOR EACH DAY THE CONTRACTOR FAILS TO MEET ANY OF THESE

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (442)

THIS OPERATION SHALL BE PERFORMED BEFORE RESURFACING OF ROADWAY.

P.009 AND CARRIED TO THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PARTIAL DEPTH PAVEMENT REPAIR: THE FOLLOWING QUANTITY IS GENERATED ON SHEETS P.007 &

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (442)



PLACING AND COMPACTING ASPHALT CONCRETE. THE LOCATION DETERIORATION AT THE SURFACE, APPLYING TACK COAT, AND REMOVAL OF EXISTING PAVEMENT IN AREAS EXHIBITING THE ENGINEER. THIS WORK CONSISTS OF PARTIAL DEPTH DEPTH OF 3"± AND MINIMUM WIDTH OF 4' OR AS DIRECTED BY EXISTING DETERIORATED ASPHALT SHALL BE REMOVED TO A THE EXISTING CONCRETE SURFACE SHALL NOT BE

AND SIZE OF THE REPAIR SHALL BE DETERMINED BY THE

INTERMEDIATE COURSE, 12.5MM, TYPE A (449) INTO THE REPAIR. ITEM 252 - FULL DEPTH RIGID PAVEMENT REMOVAL AND

FLEXIBLE REPLACEMENT, AS PER PLAN

PLACE ITEM 442 - ASPHALT CONCRETE

REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ITEM 252 - FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED PAVEMENT FULL DEPTH AND PLACING 10"-12"± THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT MAINLINE PAVEMENT PLANING. PAYMENT SHALL BE BASED ON ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE BEGINNING OF SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. THIS DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING

7" -9"±

EXISTING CONCRETE **EXISTING ASPHALT**

ITEM 252 - PAVEMENT REPAIR (10"-12"±)

3″±

REPLACEMENT FLEXIBLE

STONE AS ILLUSTRATED IN THE PLANS. OVERLAP ADJACENT SECTIONS OF GEOTEXTILE FABRIC A MINIMUM OF 18 INCHES. PROVID AND PLACE TYPE D GEOTEXTILE FABRIC TO WRAP NO. 57 ITEM 204 - GEOTEXTILE FABRIC, AS PER PLAN

BENCHING OF FOUNDATION SLOPES

FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS PROVISIONS OF SECTION 203.05. WILL BE MADE FOR BENCHING REQUIRED UNDER THE MATERIAL SPECIFICATIONS (C&MS). NO ADDITIONAL PAYMENT SET FORTH IN SECTION 203.05 OF THE CONSTRUCTION AND ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS

TEM 203 - GRANULAR MATERIAL, TYPE E, AS PER PLAN

SIX PASSES OF A MECHANICAL TAMPER OR PLATE COMPACTOR THAT FABRIC, AS PER PLAN. FABRIC METTING THE SPECIFICATIONS OF ITEM 204 GEOTEXTILE COMPLETELY WRAP THE NO. 57 STONE WITH A TYPE D GEOTECTILE DO NOT PERFORM COMPACTION TESTING ON THE NO. 57 STONE. PLATE COMPACTOR. COMPACT THE NO. 57 STONE WITH A MINIMUM OF STONE IN MAXIMUM 12 INCH LIFTS AND COMPACT WITH A VIBRATORY GRADATION FOR THE BLANKET DRAIN AGGREGATE. PLACE THE NO. PROVIDE AND INSTALL CRUSHED CARBONATE STONE WITH A NO. 57 APPLIES AN IMPACT OR CENTRIFUGAL FORCE BETWEEN % AND 2 TONS.

PLACE ITEM 301 - ASPHALT CONCRETE BASE (449) INTO THE REPAIR.

DEL: General Summary Sheet 0					Roadway	\Sheets\1	10570_G	GG001.dg	n													T				LS	P.011
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			INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	BARRIER, MISC.: MC-9.3, TYPE A CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION	BARRIER, EI	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1, AS CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1, AS	BARRIER EN	BARRIER TRANSITION	BARRIER, SI	FENCELINE SEEDING AND MULCHING CONCRETE BARRIER, SINGLE SLOPE, TYPE C1	PE CLT	GE TERMINA GE TERMINA	ANCHOR ASSEMBLY, MGS TYPE E [MASH 2016] ANCHOR ASSEMBLY, MGS TYPE T	GUARDRAIL, TYPE MGS	E FABRIC	GRANULAR MATERIAL, TYPE C	COMPACIA	EMBANKMENT	MOVED DN	IOVED	CATCH BASIN REMOVED	BRIDGE TERMINAL ASSEMBLY REMOVED	ANCHOR ASSEMBLY REMOVED, TYPE A ANCHOR ASSEMBLY REMOVED, TYPE E	IL REMOVED	BARRIER RE	AND GRUBB	
			PACTION TES	3, TYPE A	ND ANCHOR	ND ANCHORAND ANCHORA	ID SECTION, ID ANCHORA		NGLE SLOPE,	NGLE SLOPE,		L ASSEMBLY,	GS TYPE E [N			TYPE C		2			D	EMBLY REMO	MOVED, TYP		MOVED ID UNDER	ING, AS PER	
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				P.098 P.012		P.093 P.093		P.099	P.093																	P.011	NO.

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VOID REDUCING ASPHALT MEMBRANE (VRAM)	CURB, TYPE 6	CURB, TYPE 4-C	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	NON-TRACKING TACK COAT	ASPHALI CONCRETE BASE, PG64-22, (449)		1	PAVEMENT DI ANING ASPHAIT CONCRETE (1 5" DEED)	FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN		PAVEMENT	MISC: DRAINAGE SYSTEM CLEANING, 36" AND UNDER	PRECAST REINFORCED CONCRETE OUTLET	MANHOLE ADJUSTED TO GRADE		MANHOIF NO 3	NIET MISC : -3A	2, ,	NIET NO 3 FOR SINGLE SLOPE BARRIER TYPE C1 AS PER PLAN B	TYPE C1, AS		PRECAST REINFORCED CONCRETE OUTLET	CATCH BASIN, NO. 6	CATCH BASIN, NO. 3A	15" CONDUIT, TYPE F,707.05 TYPE C OR 707.21	24" CONDUIT, TYPE B	15" CONDUIT TOPE R	12" CONDUIT TYPE B, 700.02	12" CONDUIT TYPE B 706.03	12" CONDUIT, TYPE B	6" CONDUIT, TYPE F	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	6" CONSTRUCTION UNDERDRAINS703.31 (PERFORATED)	6" BASE PIPE UNDERDRAINS		DRAINAGE		EROSION CONTROL	STORM WATER FOLEOTION FREVENTION INSPECTION SOFTWARE	STORM WATER POLICITION PREVENTION INSPECTIONS	STORM WATER BOLLITION PREVENTION INCRECTIONS	STORM WATER ROLLITION BREVENTION DLAN	MOWING	WATER	LIME	COMMERCIAL FERTILIZER	INTER-SEEDING	REPAIR SEEDING AND MULCHING	SEEDING LIND INICECIIING	SEEDING AND MULCHING	TOPSOIL ANALYSIS LEST	CONCRETE MASONNY	ROCK CHANNEL PROTECTION, TYPE C WITH HILLER	IIED CONCRETE BLOCK MIAT WITH TYPE 2 UNDERKATIWENT	TIED CONCRETE BLOCK MAT WITH TYPE 2 LINDERLAYMENT	TIED CONCEETE BLOCK MAT WITH TYPE 1 HINDER AVMENT		-
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UCTURE N CABLE NOVED TRAFFIC CONTROL SHT POLE, AS PER PLAN G TAPE NARKING, CHANNELIZING LINE, 6" MARKING, CHANNELIZING LINE, 12" MARKING, DOTTED LINE, 12" NAYEMENT MARKING, EDGE LINE, 6" NAVEMENT MARKING, CHANNELIZING LINE, 6" NAVEMENT MARKING, DOTTED LINE, 6" NAVEMENT MARKING, CASPHALT) MENT MARKING, (ASPHALT) MENT MARKING, (ASPHALT) MENT MARKING, (CONCRETE) MENT MARKING, (CONCRETE) MENT MARKING, (CONCRETE)		MILE	MILE	MILE	<u> </u>	3	되 =	MILE	MILE	FF	Ŧ	MILE	MILE	EACH	ㅋ	EACH	-	1 4	F	MILE	MILE	FI	EACH	EACH	EACH	EACH	5	EACH	EACH	FACH					EACH	EACH	EACH	괴	1 4	Ξ:	되	EACH	EACH	FACH	2		
'		GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING (ASPHAIT)	איני סיני הסיני הייני איני איני איני איני איני איני	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 12"	WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12"	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"	BIKE LANE SYMBOL MARKING	DOTTED LINE, 6"	LANE ARROW	TRANSVERSE/DIAGONALLINE		NE,	CENTER LINE	LANE LINE, 6"	LOOP DETECTOR LEAD-IN CABLE		BARRIER REFLECTOR, TYPE 2 (TWO WAY)	RAISED PAVEMENT MARKER REMOVED RARRIFR REFLECTOR. TYPE 1 (TWO WAY)			REPLACEMENT OF EXISTING LIGHTING UNIT	MAINTAIN EXISTING LIGHTING	UNDERGROUND WARNING/MARKING TAPE	3H1 POLE, AS PER		STRUCTURE GROUNDING SYSTEM		PULL BOX, 725.08, 18"	STRUCTURE JUNCTION BOX	L OF LUMINAIRE AND REERECTION, AS PER	CONDUIT CLEANED AND CABLES REMOVED	CONDUIT, 2", 725.04	NO. 10 AWG POLE AND BRACKET CABLE	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	LIGHT POLE FOUNDATION	LIIGHT POLE ANCHOR BOLTS ON STRUCTURE	CONNECTION, FUSED PULL APART			

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TOTAL STATE LS PORTIONS OF STRUCTURE REMOVED, AS PER PLAN A756 SF RETAINING WALL, TIMBER LAGGING STRUCTURE OVER STRUCTURE OVER STRUCTURE OVER STRUCTURE OVER STRUCTURE OVER STRUCTURE OVER MAIN 500 HOUR LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR 1,520 FT INCREASED BARBIER DELINERTION LAGD LAGD HOUR LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR 1,520 FT INCREASED BARBIER DELINERTION LAGD LAGD HOUR COME INSEED PAYEMENT MARKER, AS PER PLAN LOG CY ASSPHALT CONCRETE FOR MAINTAINING SYSTEM LAGD MORK ZONE ENSEED PAYEMENT MARKER, AS PER PLAN 1,521 EACH WORK ZONE LANE LIVE, CLASS, I. 6" BARBIER REFLECTOR, TYPE 1 (ONE WAY) 1,551 EACH WORK ZONE LANE LIVE, CLASS, I. 6" EACH BARRIER REFLECTOR, TYPE 1 (ONE WAY) 1,551 EACH WORK ZONE LANE LIVE, CLASS, I. 6", 502 PAINT 2,661 MILE WORK ZONE LANE LIVE, CLASS, II, 642 PAINT 2,662 MILE WORK ZONE CHANNELLIZING LIVE, CLASS, II, 6", 642 PAINT 2,673 MILE WORK ZONE CHANNELLIZING LIVE, CLASS, II, 6", 642 PAINT 2,674 MORK ZONE CONE CHANNELLIZING LIVE, CLASS, II, 2", 642 PAINT 2,675 MILE WORK ZONE CHANNELLIZING LIVE, CLASS, II, 642 PAINT 4,635 FT WORK ZONE CHANNELLIZING LIVE, CLASS, II, 642 PAINT 4,635 FT WORK ZONE DOTTED LIVE, CLASS, II, 642 PAINT 4,635 FT WORK ZONE DOTTED LIVE, CLASS, II, 642 PAINT 4,635 FT WORK ZONE ENDOTTED LIVE, CLASS, II, 642 PAINT 50 EACH WORK ZONE EARNER, LUNANCHORED MORAL WATER TO WORK ZONE FOR MAINTAINING TRAFFIC, CLASS, II, 642 PAINT MORAL WORK ZONE FOR MAINTAINING TRAFFIC, CLASS, II, 642 PAINT 1,453 FT WORK ZONE ENDOTTED LIVE, CLASS, II, 642 PAINT MORK ZONE ENDOTTED LIVE, CLASS, II, 642 P	10000	10000	16020	10000	00100	83000	41100 41110	TOOO	20000	10000	26610	24102	24000	23690	23010	22360	22056	21550	20560	20056	20010	13360	13350	13312	13310	12801	12756	12484	12420	12380	11110				יזייייייי	11201	X
PORTIONS OF STRUCTURE REMOVED, AS PER PLAN STRUCTURE OVER STRUCTURE OVER WAIN LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR INCREASED BARRIER DELINEATION WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZAF DETOUR SIGNING WORK ZONE INCREASED PENALITES SIGN WORK ZONE CROSSOVER LIDENTIANING TRAFFIC BARRIER REFLECTOR, TYPE 1 (ONE WAY) BARRIER REFLECTOR, TYPE 2 (ONE WAY) BARRIER REFLECTOR, TYPE 1 (ONE WAY) BARRIER REFLECTOR, TYPE 2 (ONE WAY) BARRIER REFLECTOR, TYPE 1 (ONE WAY) BARRIER REFLECTOR, TYPE 2 (ONE WAY) BARRIER REFLECTOR, TYPE 2 (ONE WAY) BARRIER REFLECTOR, TYPE 1 (ONE WAY) BARRIER REFLECTOR, TYPE 2 (ONE WAY) BARRIER REFLE	ಒ	LS	∞ 5	2 2	60.000	10	7,560 3.592	20	424	LS 2	50	2,011	2,708	775	1,453 4 635	2.8	3.6	2.66	0.05	1.67	0.2	161	109	15	426	192 30	4	8	LS	1,620	500						TOTAL
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		CONSTRUCTION LAYOUT STAKES AND					PORTABLE BARRIER, UNANCHORED PORTABLE BARRIER. ANCHORED	WATER	ENT FOR MAINTAINING TRAFFIC, CLASS	ROADS FOR MAINTAINING TRAFFIC	WORK ZONE STOP LINE, CLASS III, 642 PAINT WORK ZONE ARROW CLASS III, 642 PAINT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	WORK ZONE DOTTED LINE, CLASS I	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I, 12" NACHOUS JONE CHANNELIZING LINE CLASS I, 12" 807 DAINT	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	WORK ZONE LANE LINE, CLASS I, 6",	WORK ZONE LANE LINE, CLASS I, 6"	OBJECT MARKER, TWO WAY				WORK ZONE RAISED PAVEMENT MARKER, AS PER	WORK ZONE CROSSOVER LIGHTING SYSTEM					MAINTENANCE OF TRAFFIC			תב האואואס שאבר, וואוטנית באסטוואס	RET DF STRUCTURE REMOVED, AS PER PLAN WALL THARES I ACCURC.	

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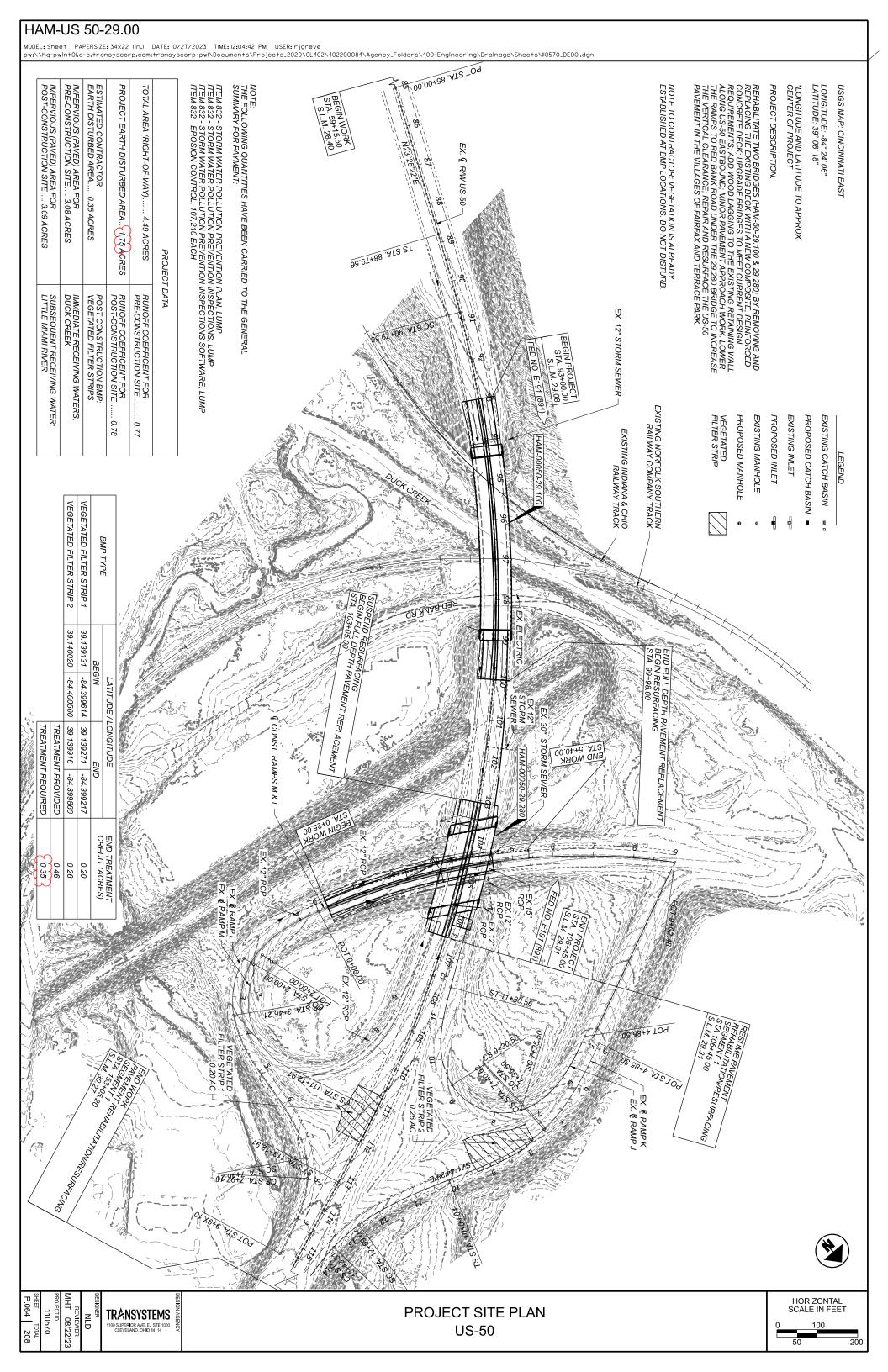
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TALS CARRIED			RAMPS M & L	RAMPS M & L	RAMPS M & L	00-30	US-50	US-50	US-50	US-50	US-50	US-50	US-50	US-50	US-50	US-50	US-50		ALIGNMENT
TO GENERAL SUMMARY			2+87.17 3+20.23	0+25.00	1+99.03 4+49.41	105+62.99	103+50.68	105+62.98	103+05.00	99+00.70	101+90.53	98+99.51	99+01.12	98+67.73	93+99.06	93+70.76	93+00.00	FROM	STATION T
SUMMARY			4+27.68 4+50.00	4+50.00	2+88.02 5+35.67	103+80.80	103+69.18	106+84.90	103+55.67	99+18.61	103+33.18	99+27-00	100+54.84	98+77.21	94+17.44	94+20.06	93+99.83	TO	STATION TO STATION
			디즈	LT/RT	드 꼭		- 기기	٦ ₋	2 2 2	디	꼭 드	i R	RT	그 꼭	RT	<u> </u>	찍 은		SIDE
1062.5					50.0		9	87.5			125.0	5.781				37.5	112 5	FT	GUARDRAIL, TYPE MGS
ω							-											EACH	ANCHOR ASSEMBLY, MGS TYPE E [MASH 2016]
_													3					EACH	ANCHOR ASSEMBLY, MGS TYPE T
7							-	_				. 3						EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
4																		EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2
ω ₆													3	36				FT	FENCE, TYPE CLT
36 8														36				FT	FENCELINE SEEDING AND MULCHING
73						0. 0	18.15			18.15			3		18.15			FT	CURB, TYPE 4-C
155													155					FT	CURB, TYPE 6
78									0.7				7	၁၈ ဝ			49.8	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1
20														20 0				FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1, AS PER PLAN
212			109.0										3					FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D
4									<u> </u>	+			7		+		_	EACH	BARRIER TRANSITION
2													\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\					EACH	
7									2 2			8	3	<u> </u>	+		2	+	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE
_										+			3	_	+				CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE
_												<u>8</u> <u>8</u> <u>8</u>	3		+			+	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE
Ν												33	3						CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE
385				385.0								<u>8</u> <u>8</u> <u>8</u>	3		+				D BARRIER, MISC.: MC-9.3, TYPE A
DESIGN AGENCY DESIGN AGENCY TRÂNSYSTEMS TOTAL PROJECT ID 110570 SHEET TOTAL P.059 208				0								<u> </u>	}						,

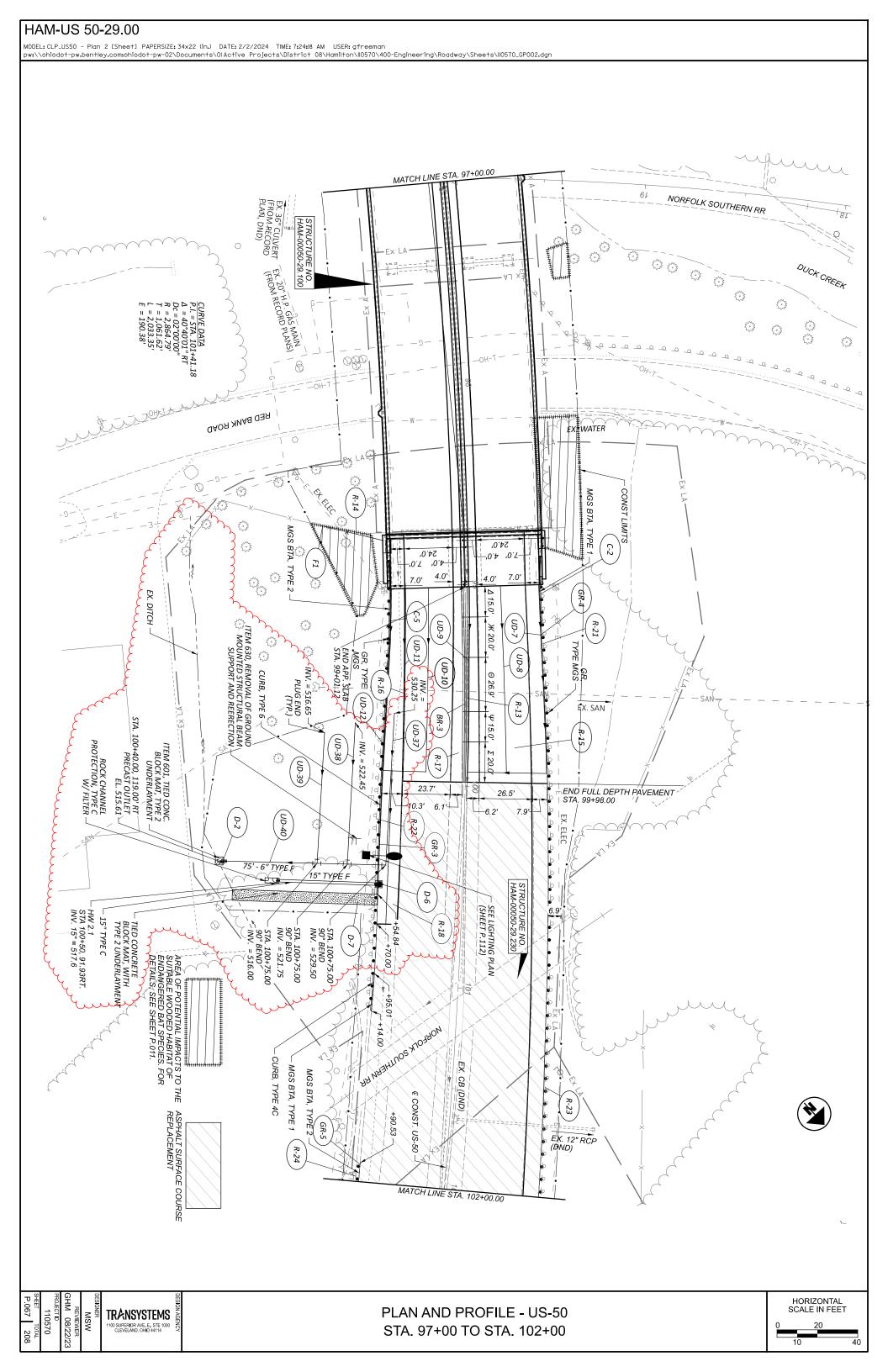
HAM-US 50-29.00 MODEL: Drainage Estimated Quantities PAPERSIZE: 34x22 (i pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\C	n.) DATE: 2/1/2024 TIME: 10:58:21 AM USER: gfreeman 11 Active Projects\District 08\Hamilton\110570\400-Engineering\Drainage\Sheets\110570_DQ001.dgn
	D-17 D-18 D-18 D-18 D-18 D-18 D-18 D-18 D-18
	P.069
TOTALS CARRIED	US 50
TOTALS CARRIED TO GENERAL SUMMARY	FROM TO STATION FROM FROM 100+40 100+50 100+54 1019+67 105+88 105+88 105+85 2+35 2+35 2+35 3+10 3+10 3+10 3+20 3+18 3+20 3+10 3+449 3+449 4+49 4+49 4-49 4-49 4-49
MMARY	TO 2+00 2+00 2+35 3+10 4+49 4+00 3+00
	다 콕 콕 우 디 디 디 디 디 디 디 디 디 디 디 디 디 디 디 디 디
50.5	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT
	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER
0.27	Q CONCRETE MASONARY
371	8 8 명 기 23 기 21 기 12" CONDUIT, TYPE B
98	₩ 8 3 3 12" CONDUIT, TYPE B, 706.02
22	지 12" CONDUIT, TYPE B, 707.42
14	上 I5" CONDUIT, TYPE B
141	14 기 24" CONDUIT, TYPE B
(52)	55 3 3 3 15" CONDUIT, TYPE F, 707.05 TYPE C OR 707.21
	CATCH BASIN, NO. 3A
2	CATCH BASIN, NO. 6
12	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1, AS PER PLAN A
1	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1, AS PER PLAN B
1	INLET ADJUSTED TO GRADE, AS PER PLAN
2	→ → F INLET, MISC.:I-3A
ω	P P P P P MANHOLE, NO. 3
12	→ MANHOLE ADJUSTED TO GRADE
	PRECAST REINFORCED CONCRETE OUTLET
188	42 146 SY DITCH EROSION PROTECTION MAT, TYPE B
DESIGNUE TOTAL PROJECT ID 110570 SHEET TOTAL P.060 208	DRAINAGE ESTIMATED QUANTITIES

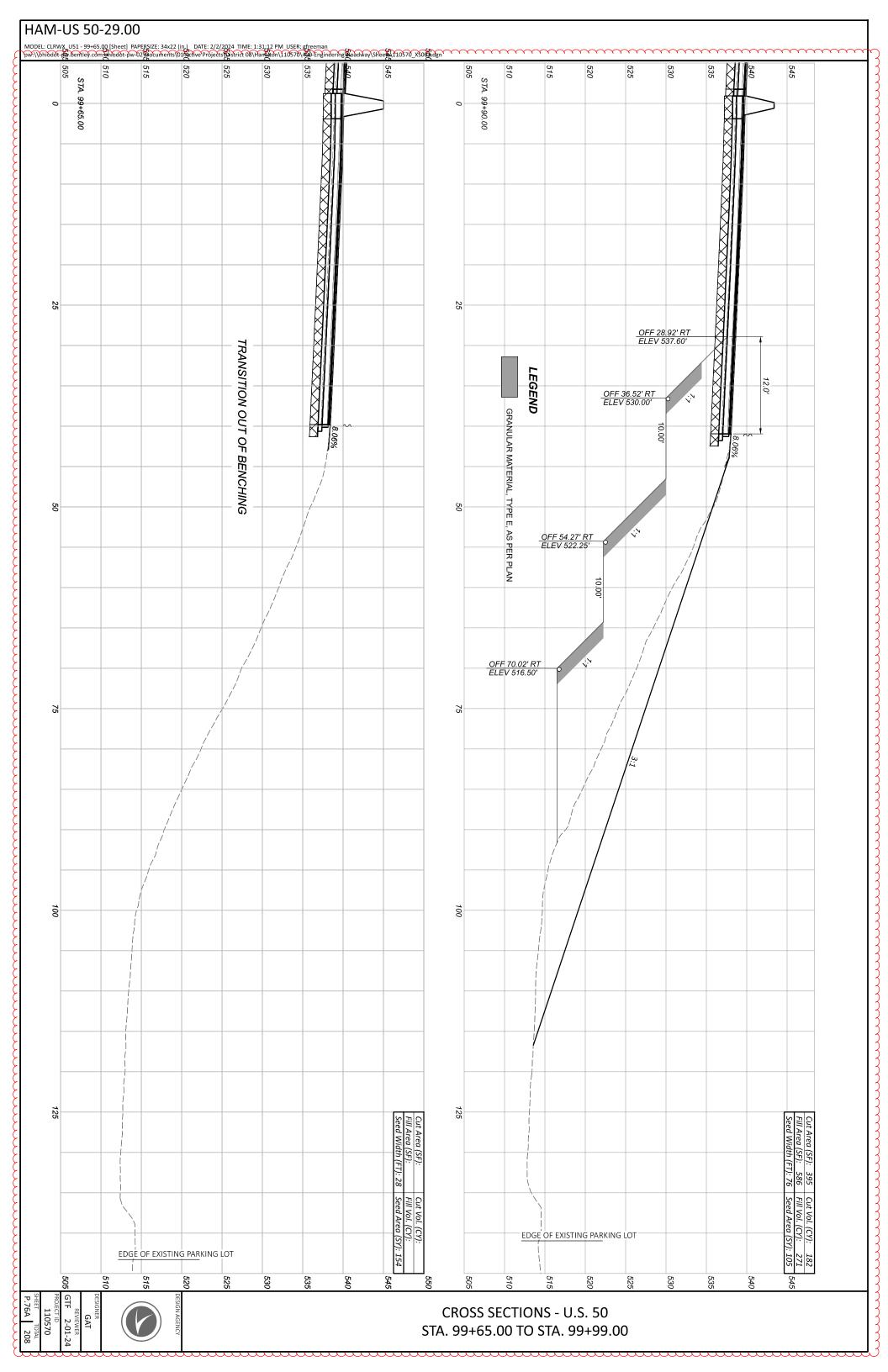
	niodot-pw-02\Documents\0:				UD-32	T			UD-27					UD-21				UD-16 UD-17		UD-14	I.qn	UD-4	UD-35	UD-37	UD-12	5	UD-9	ND-8	UD-6	dn	UD-4	UD-3		5		REF NO.	
	6 P.069				2 P.069	+	+		7 P.069		+	4 P.067		+	+		+	6 P.067 7 P.067		4 P.067	+	\vdash	9 P.067		2 P.065	++	9 P.065 0 P.065				P.063	+	+	+	S	HEET NO.	
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ARRIED TO	RAMPS M & L	≤	≤ ∞	≤ &	RAMPS M & L	MDS M O I	MPS M & L	MPS M & L	RAMPS M & L	US 50	US 50	US 50	US 50	US 50	US 50	US 50	US 50	US 50		US 50	US 50	US 50	US 50	US 50	US 50	ic EO	US 50	US 50	US 50	US 50	US 50	US 50	02.50	TO TO		CHAIN	
OTALS CARRIED TO GENERAL SLIMMARY	4+32	4+33	4+40	4+45	2+42	2	0+25	0+25	0+25	106+48	106+48	106+48	106+48	106+15	106+15	103+05	103+05	103+05		103+05	103+05	100+40	99+75	99+65	99+02	200	99+01 99+01	99+01	93+00 99+01	93+00	93+00	93+00	93+00	FROM		STATION TO STATION	
RV	3+34	3+34	3+20	3+20	3+20	3 10	3+08	3+08	2+35	106+17	106+17	106+17	105+88	105+88	105+88	103+54	103+47	103+47 103+47		103+4/	103+46	100+40	100+40	100+40	100+70	00 1	99+98 99+93	99+93	94+10	94+10	94+10	94+10	94+03	N-O3		STATION	
	R	RT	CL	5	5 =	4	직 3	BI C	1 5	RT	RT	지 :	= -	4 5		RT	RT	꼭 꼭		5 -	LT/KT	직	찍 2	목 곡	RT	7	꼭 드	- I	그 꼭		김곡	5 5	= =	7		SIDE	
			509.04	511.17	509.04	E11 17		510.68	511.55			EX UD	532.93		532.93	EX UD						515.61	516.00	529.50	EX UD		EX UD		544.23			544.23			OUTL	et elevatio	N
135																							65	70										F		JCTION UNDERDF 1 (PERFORATED)	RAINS
3363	97	100	110	126	62	5	280	280	205	30	31	31	50	27	2/	40	41	42		42	25			75	163	2	87 91	93	135	110	110	99	104	10 <u>E</u>	6" BASE	PIPE UNDERDRAII	NS
A76	28		10	10	10	3	28	TO.	10			39	1		5.	13		ω			OIL				10		10		10			10	35); 		IDUIT, TYPE F FOR RDRAIN OUTLETS	
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v				1																														EACH	6" X 1:	1.25* BEND	*
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22	2							2				2			2)					6				1		1 1		1 2				-	EACH	6".	X 6" TEE	* DENOTES TO CONNECT TO EXISTING UD
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DESIGNER NLD REVIEWER MHT 08/22/23 PROJECT ID 110570 SHEET TOTAL P.061 208	DESIGN AGENCYSTEMS 100 SUPERIOR AVE. E., STE 1000 CLEVELAND, OHIO 44114		1					1	1							1 1 1	<u> </u>		<u> </u>			<u> </u>			TED	<u> </u>	I A N	· · ·	T154		1				<u>.</u>		

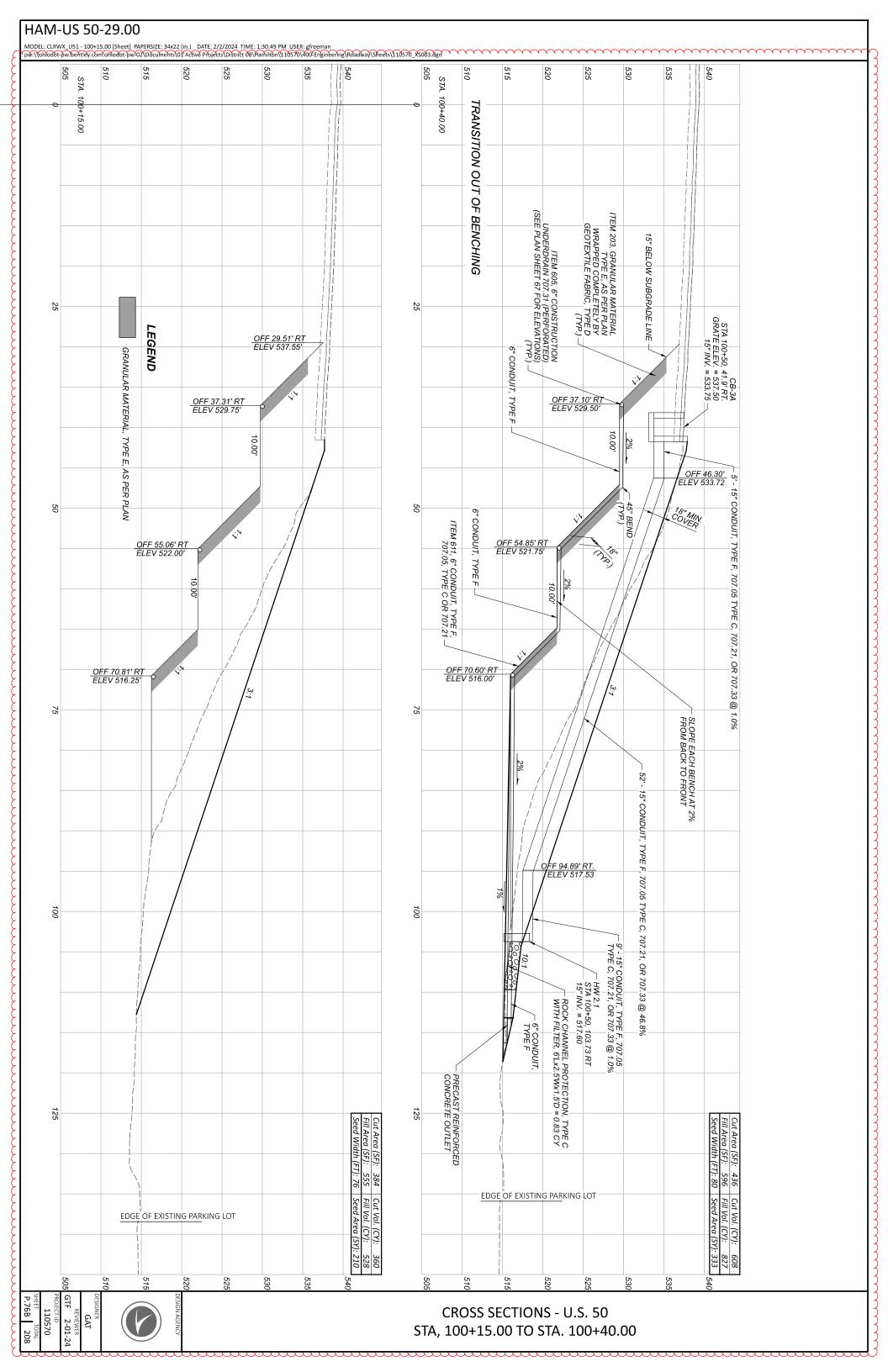
	x22 (in.) DATE: 2/2/2024 TIME: 10:43:46 AM USER: gfreeman tilve Projects\District 08\Hamilton\110570\400-Engineering\Roadwa			570_GS002	2.dgn																
	MEDIAN BARRIEK AREA	MEDIAN BARRIER AREA	FULL DEPTH ASPHALT FOR SLIDE REPAIR	FULL DEPTH ASPHALT +ASPH. EDGE COURSE	+ASPH. EDGE COURSE	FULL DEPTH ASPHALT +CURB, TYPE 4C	APPROACH SLAB	APPROACH SLAB	AFFROACT SLAD	APPROACH SLAB	אורטיטא טטאאורט	MEDIAN BARRIER AREA	+ASPH. EUGE COURSE +CURB, TYPE 4C	FULL DEPTH ASPHALT	+ASPH. EDGE COURSE	TO THE TOTAL	RESTIREACING FOR MOT	RESURFACING FOR MOT			PAV'T AREA
SUBTO	99+01.12	99+01 17	99+98.00	99+01.12 99+01.12		99+01.12 99+01.12	98+73.95	98+73.95	94+17.00	94+17.80	0.4		93+00.00		93+00.00		65+19 00	82+08.00		FROM	STATI
SUBTOTALS THIS SHEET	00.86+66	00 86+66	100+70.00	99+98.00 99+98.00	99+98.00	99+98.00 99+98.00	99+01.12	99+01.12	94+44.90	94+44.96	04 H	94+17.80	94+17.80	94+17.80	94+17.80	000000000000000000000000000000000000000	93+00 00	93+00.00	5	10	STATION RANGE
		IT/RT	~~	꼭 꼭	5	5 5	RT	5	2	PT		IT/RT	곱 조	뭐꾸	5 5	i 3	R	5			SIDE
	9/.10	97 10	72.00	96.60 95.26	80.52	97.17 18.15	27.16	27.18	20.97	27.53	33.53	117.69	18.15	117.47	119.78	2,702.00	2 781 00	1,092.00	:	듸	DISTANCE (D)
	3.0	30	12.0	37.1		37.6	37.7	37.7	2.00	3/.2	2	28		37.5	38.4		28 8	28.0	:	7	AVERAGE WIDTH (W)
	289	789	722	3,582		3,649	1,023	1,024	T,UST	1,023	2	335		4,408	4,530	00,100	80 183	30,578	9	SF	CADD GENERATED AREA
455.7							113.7	113.7											9	SY	SUBGRADE COMPACTION
672.6	10.7	10.7	26.8	132.7 5.3	4.5	135.1					1.1	12.4	1.0	163.3	6.7				9	Q	EXCAVATION OF SUBGRADE (12" DEEP)
672.6	10./	10.7	26.8	132.7 5.3	4.5	135.1					1.1	12.4	1.0	163.3	6.7				!	2	GRANULAR MATERIAL, TYPE C
1.24	0.02	0.02	0.04	0.20	0.01	0.20	0.06	0.06	0.00	0.06	0.00	0.00	0.002	0.24	0.01	0				HOUR	PROOF ROLLING
2017.7.	32.1	301	80.3	398.0 15.9	13.4	405.4 3.0					,	37.2	3.0	489.8	20.0				9	SY	GEOTEXTILE FABRIC
12306.8																	89093	3397.5	9	SY	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEEP)
1230.7																	890 9	339.8	9	SY	PATCHING PLANED SURFACE
492	a a a a a a a a a a a a a a a a a a a	80	20.1	99.5 1.3	1.1	101.4					į	9 3	1.4	122.4	1.7	200			9	2 A	ASPHALT CONCRETE BASE, PG64-22, (449)
408.6		5.3	13.4	66.3 1.8	1.5	67.6 0.5	18.9	19.0	15.1	19.0	2 2	6.2	0.5	81.6	2.2				!	2	AGGREGATE BASE
1341.1	μ. α	3 & &	9.6	47.8		48.7					1	4 5		58.8	60.4		801 8	305.8	9	GAL	NON-TRACKING TACK COAT
590.9		3	3.3	16.6		16.9								20.4	0.17			141.6	9	Q	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
94.6	1.6	16	3.9	19.3		19.7					i i	1.8		23.8	24.5				9	ر ا	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446)
13061.6	194.2	194.7	39.0	193.2		291.5 18.1					1.003	235.4		234.9	236.2	0,010	0 202 0	3,276.0		FT	VOID REDUCING ASPHALT MEMBRANE (VRAM)
DESIGNER MSW REVIEWER GHM 08/22/23 PROJECT ID 110570 SHEET TOTAL P.062 208	DECIGN WOENCY				PA	VEN	<u> </u> 1EN	T E	STI	MA ⁻	ΓED) Q	.UA	.NT	ITIES						

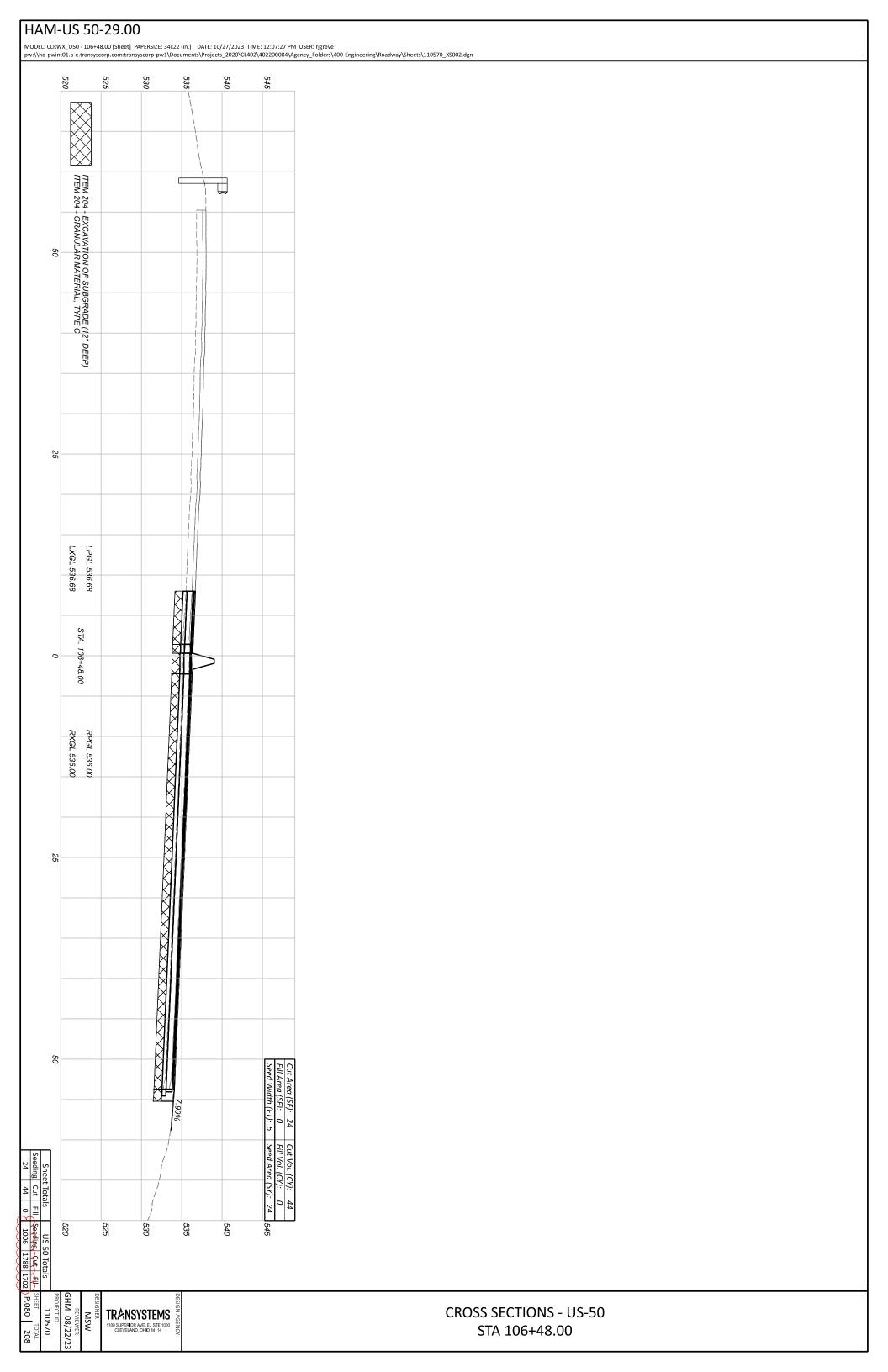
HAM-US 50-29.00 MODEL: Pavement SubSummary Sheet 02 PAPERSIZE: pw:\lohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01			.dgn
1101 15	FULL DEPTH ASPHALT +ASPH. EDGE COURSE +CONC. BAR. TYPE D +ASPH. EDGE COURSE +CURB, TYPE 4C +CONC. BAR. TYPE D +ASPH. EDGE COURSE	FULL DEPTH ASPHALT +CURB, TYPE 4C +ASPH. EDGE COURSE FULL DEPTH ASPHALT MEDIAN BARRIER AREA FULL DEPTH ASPHALT +ASPH. EDGE COURSE	PAV'T AREA RESURFACING RESURFACING RESURFACING RESURFACING RESURFACING RESURFACING RESURFACING FULL DEPTH ASPHALT +ASPH. EDGE COURSE HOULD DEPTH ASPHALT +ASPH. EDGE COURSE +CURB, TYPE 4C APPROACH MEDIAN BARRIER FULL DEPTH APPROACH SLAB FULL DEPTH APPROACH SLAB FULL DEPTH ASPH. APPROACH APPROACH MEDIAN BARRIER FULL DEPTH ASPH. APPROACH APPROACH MEDIAN BARRIER FULL DEPTH ASPH. APPROACH APPROACH MEDIAN BARRIER FULL DEPTH ASPH. APPROACH APPROACH SLAB FULL DEPTH ASPH. APPROACH APPROACH SLAB FULL DEPTH ASPH. APPROACH APPROACH SLAB
SUBTO BTOTALS F	0+25,00 0+25,00 3+20,22 0+25,00 2+68.96 2+87,42 4+27.77	105+62.98 105+62.98 105+80.81 105+84.65 105+88.15 105+88.15 106+16.61	FROM FROM 99+98.00 99+98.00 103+05.00 103+05.00 103+55.71 103+55.71 103+55.71 103+55.72 103+55.72 103+55.73 105+68.39 105+68.39
SUBTOTALS THIS SHEET SUBTOTALS FROM PREVIOUS SHEET OTALS CARRIED TO GENERAL SUMMARY	4+50.00 3+20.22 4+50.00 2+68.96 2+87.42 4+27.77 4+50.00	98 106+15.00 98 105+80.81 81 106+15.00 65 106+48.00 15 106+48.00 73 106+48.00 61 106+48.00 61 106+48.00	STATION RANGE US-50 US-50 US-50 103+05.00 98.00 103+51.45 +05.00 103+52.57 +05.00 103+73.59 +05.01 103+73.59 +55.71 103+73.59 +55.42 103+73.64 103+73.69 155.42 103+80.50 105+84.65 159.76 105+84.65 105+88.15 105+89.73 105+89.73 105+89.73 105+89.73
LSUMMM.	R R R G G G	LT/RT RT RT	
T	131.88 239.87 18.15 137.99 21.86	48.35 18.15 34.84 63.50 T 58.70 54.59 31.41	25, 25, 25, 25, 25, 25, 25, 25, 18, 49, 50, 46, 26, 43, 30, 30, 30, 7, DISTANCE
	54.0 00 00 55 5 5 6 6	5 39.3 5 7.1 0 7.1 0 2.7 9 42.8	(D) (D) (A) (D) (D) (D) (D) (D) (D) (D) (D) (D) (D
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518.5 455.7 974	,934	,900 449 161 338	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
1306.3 645.8 1952	849.4 16.7 15.5 13.3 1.0 16.2 1.2	70.4 1.0 1.9 16.6 6.0 86.6 1.7	6.4 6.5 8.6 1.0 97.1 4.7 1.5 9.9 PEXCAVATION OF SUBGRADE (12" DEEP)
1306.3 645.8 1952	849.4 16.7 15.5 13.3 1.0 16.2 1.2	70.4 1.0 1.9 16.6 6.0 86.6 1.7	6.4 1.5 97.1 4.7 15 99 99 99 99 99 99 99 99 99 99 99 99 99
2.2	1.27 0.03 0.02 0.02 0.02 0.002 0.002 0.002	0.11 0.002 0.003 0.02 0.01 0.01	0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00
3918.8 1937.4 5856	2,548.2 50.0 46.4 40.0 3.0 48.6 3.6	211.1 3.0 5.8 49.9 17.9 259.8 5.2	SY GEOTEXTILE FABRIC 19.3 3.0
2820 12306.8 15126			131 150 SY PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEEP)
281 8 230.7 8 251230.7			130.92 SY PATCHING PLANED SURFACE
7 3930.2 7 471.9 1422	637.0 4.2 9.77 3.3 10.22	52.8 0.5 12.5 4.5 65.0 0.4	0. 72 3. 5. 4. 4. 4. ASPHALT CONCRETE BASE, PG64-22, (449)
749.0 408.6 1144	424.7 5.6 7.7 4.4 0.5 8.1 0.4	35.2 0.5 0.6 8.3 3.0 43.3 0.6	CY AGGREGATE BASE 21.5 21.5 6.4 48.6 43.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1
764 5 1331.5 2096	1.9	25.3 6.0 2.2 31.2	115.5 15.6 15.5 15.6 15.5 15.6 15.6 15.6
5 291 5 587.6 880	3 106.2	2.1	5. 0 0 5. 4 4 8 8 8 4 12.1 8.7 5.8 6.2 C ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
208.1 5 94.2 302.3	2 123.9 1.5 1.6	10.3 2.4 0.9 12.6	6. 0. 0. 6. 3. 6. 1. 0. 1. 0. 1. 0. 1. 0. 2. 4. 4. 0. 7. 10. 2. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.
6147.8 13061 19178	2,550.0 131.9 18.1 138.0	145.0 18.1 18.1 117.4 163.8	125.0 125.0
DESIGNER MSW REVIEWER GHM 08/22/23 PROJECT ID 110570 SHEET TOTAL P.063 208	DESIGN AGENCI		PAVEMENT ESTIMATED QUANTITIES











HAN MODEL: St	heet P	PAPER	RSIZE	≣: 34>	(22 (i	n.)	DA	TE:											0\40	0-En	ginee	ering	y\Ligh	nting\:	Shee	ets\11	10570	_LS	001.dç	gn	_									_	~)						_					
																													L22	<u> </u>	121	3	7	116	L13			L 11 13	5		L23	L9A	Г9	L8	۲7	F6 5	55	L3-L4	[2				REF NO.
TOTAL																													P 113	+	P 113		-	P 113	D 113	5	-	D 113	2		P 112	P.112	P.112	P.112	P.112	P.112	P.112	P.112	P.112	P.112			SHEET NO.
S CARRIED																													RAMPS M &L	NAIVIFO IVI QL	RAMPS M &L		000	118-50	US-50		0	US-50			US-50	US-50	US-50	US-50	US-50	US-50	US-50	US-50	US-50	US-50			ALIGNMENT
OTALS CARRIED TO GENERAL SLIMMARY																													UP-A-2-14		LP-40	5		104+68	PB-2			- PB-3	BRIDGE NO. H		LP-1	PB-1	96+50	PB-1	LP-2	LP-3	PB-2	LP-9	- LP-8	PB-5	BRIDGE NO. H	FROM	STATION
SIIMMARY																																		70-0	LP-22		-	DB 5	BRIDGE NO. HAM-00050-29.280		PB-1	CC-1		CC-1	PB-1	LP-2	LP-3	PB-4	LP-9	LP-8	BRIDGE NO. HAM 00050-29.100	TO	STATION TO STATION
																																										\											SIDE
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מ																																		-	_		-	_				}			_	_						EACH	LIGHT POLE ANCHOR BOLTS ON STRUCTURE
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																															645)		400	360		G	630	5		440	240		100	990	690	555	645	705	270		듸	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE
																														20	30	3		ų.	သ		6	3 0			30	}			30	30		30	30			긔	NO. 10 AWG POLE AND BRACKET CABLE
																																		100	100		200	300			*	7			320	220	175	205	225	80		긔	CONDUIT, 2", 725.04
																															205	0									131	70										듸	CONDUIT, 3", 725.051
3																													_	-	_			-	_		-	_				}			_	_		_				EACH	REMOVAL OF LUMINAIRE AND REERECTION, AS PER PLAN
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																																		-	_		-	_			*	7		_								EACH	PULL BOX, 725.08, 18"
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			+														-													-	_			-	_		-				\	1			_	_		_				EACH	GROUND ROD
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			+																		-									-				-	_		-	_		+	1	\			_	_					\dashv	EACH	REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN
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110570 SHEET TOTAL P 111 208	PROJECT ID	쮸	НВ	DESIGNER	TRA 100 SI CL	JPER EVEL	S\ OR A	/ST VE. E. OHIO	EN ,STE 44114	1S	DESIGN AGENCY	000000000000000000000000000000000000000	_	_	_	_	_	 _	 _	_	_		_	_								L	IG	H٦	ΓIN	١G	Sl	JB	SU	M	M	ΑF	RΥ							_			

HAM-US 50-29.00

MODEL: 110570_MP203 PAPERSIZE: 34x22 (In.) DATE: 2/2/2024 TIME: 6:56:46 AM USER: gfreeman
pw:\\ohlodot-pw.bentley.com:ohlodot-pw-02\Documents\OlActive Projects\District 08\Hamilton\110570\400-Engineering\Lighting\Sheets\110570_LP00l.dgr

3. BRIDGE MOUNTED LIGHT POLES AND JUNCTION BOXES SHALL BE INSTALLED PER SCD HL-20.14. SEE BRIDGE PLANS FOR ADDITIONAL DETAILS OR QUANTITIES.

- 2. EXISTING LIGHTING CIRCUIT INFORMATION OBTAINED FROM PROJECT HAM-(28.13)(29.83) AS BUILT DRAWINGS. CONTRACTOR TO FIELD VERIFY CIRCUIT/ROUTING. 1. MAINTAIN EXISTING POWER SERVICE AS NOTED ON THE PLANS.

UTILITY POLE

EXISTING PROPOSED

LIGHTING PLAN SHEET LEGEND

 \triangleright

- PULL BOX / JUNCTION BOX (SIZE AS INDICATED) CONTROL CENTER
- DISTRIBUTION CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES
- QUANTITY REFERENCE NUMBER CONDUIT (TYPE, SIZE & INSTALLATION AS CODED)

LIGHT POLE, GROUND MOUNTED (REMOVED AND REINSTALLED) LIGHT POLE, STRUCTURE MOUNTED (REMOVED AND REINSTALLED)

10-10-

(#)

(F1) STA. 94+17, 44.5'LT.
EX LIGHTING
PULL BOX (PB-5)
TO BE CLEANED;
RECONNECT CABLES -

(L2) STA. 94+81, 38.1'LT. EX BRIDGE MTD. LIGHT POLE (LP-8) (TBRR) –

L3) STA. 97+02, 38.3' LT.
EX BRIDGE MTD.
LIGHT POLE (LP-9)
(TBRR) -

STA. 96+50, ©
STRUCTURE
GROUNDING
SYSTEM -

BRIDGE NO. HAM-00050-29.100

B

CKT #1 -

· EX LIGHT POLE (#6) (DND)

€ CONST US 50

EX LIGHT POLE (#7) (DND) -

EX LIGHTING POWER SERVICE
WI DISCONNECT SWITCH
AND ADJACENT PULL BOX
(DND)

- EX LIGHTING PB (#3) (DND)

0_0_0_0

EX LIGHT POLE (#4)

STA. 95+91, 38.8' RT.

(L6) EX BRIDGE MTD,

(LP-3)

(TBRR) -

CKT #2

95

96

PROP 2" CONDUIT (SEE BRIDGE PLANS)

OUCA CREEK

EXISTING NORFOLK SOUTHERN RAILWAY COMPANY MAIN

STA. 98+41, 82.4' RT.

EX LIGHTING
CONTROL
CENTER, CC-1,
POLE MTD (DND) -

STA. 98#13, 38.4'RT.
EX BRIDGE MTD.
LIGHT POLE (LP-2)
(TBRR)

RED BANK RD

TO BE CLEANED:
RECONNECT CABLES

STA. 99+19, 45.6' LT.
EX LIGHTING
LIGHT POLE
(#10)

VAWJIAR WRESTERN RAILWAN

CKT #1

HORIZONTAL SCALE IN FEET

08/22/23 ΝE

MAINTAIN`EX.
POWER SOURCE
ON WOOD POLE
WTRANSFORMER (DND) —

(L9A)PROP 3" CONDUIT

EX LIGHTING PB (#1) (TBR)

TR*k***NSYSTEMS**

LIGHTING PLAN US-50 - STA. 88+00 TO STA. 100+50

AND TO THE FOLL	SBR-2-20 VPF-1-90	PCB-91 SBR-1-20	AS-2-15 EXJ-4-87	AS-1-15	STRUCTURE GENERAL NOTES
OWING SUP	REVISED REVISED	REVISED REVISED	REVISED REVISED	REVISED	GENERA
AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION: 800 DATED 10-20-2023	07-21-2023 07-21-2023	07-17-2020 07-21-2023	07-21-2023 07-21-2023	REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS: AS-1-15 REVISED 01-20-2023	<u>L NOTES</u>

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE REQUIREMENTS OF THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN LOADING:

VEHICULAR LIVE LOAD: HL-93 FUTURE WEARING SURFACE (FWS) OF 0.00KSF STAY-IN-PLACE (SIP) FORMS OF 0.015KSF

A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

EXISTING BEAMS - AS LOAD RATED, WEHICLIAR LIVE LOAD: HL-93 FUTURE WEARING SURFACE (FWS) OF 0.00KSF STAY-IN-PLACE (SIP) FORMS OF 0.015KSF - SPANS 1 AND 2 ONLY

EXISTING SUBSTRUCTURE VEHICULAR LIVE LOAD: CF 2000 (57) FUTURE WEARING SURFACE (FWS) OF 0.00KSF

EXISTING FOUNDATIONS VEHICULAR LIVE LOAD: CF 2000 (57) FUTURE WEARING SURFACE (FWS) OF 0.00KSF

CONCRETE CLASS QC3 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE REINFORCEMENT: GALVANIZED STEEL REINFORCEMENT
- MINIMUM YIELD STRENGTH 60 KSI
(DECK, BRIDGE RAHLING, BACKWALLS,
WINGWALLS, APPROACH SLABS)

GFRP REINFORCEMENT (BRIDGE RAILING)

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1-INCH THICK.

PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE AND SUBSTRUCTURE, SUBMIT PLANS FOR THE PROTECTION OF VEHICULAR TRAFFIC ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE ENGINEER AT LEAST 30 DAYS BEFORE DEMOLITION BEGINS. THE CONTRACTOR SHALL ALSO SUBMIT DEMOLITION BEGINS. THE CONTRACTOR SHALL ALSO SUBMIT DEMOLITION PLANS IN ACCORDANCE WITH THE NORFOLK SOUTHERN "SPECIAL PROVISIONS FOR PROTECTION OF RAILWAY INTERESTS", AND THE INDIANA & OHIO RAILWAY "CONSTRUCTION SUBMISSION CRITERIA" TO EACH RESPECTIVE RAILROAD COMPANY PRIOR TO STARTING ANY DEMOLITION OPERATIONS. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT WILL BE NECESSARY TO ENSURE SUCH PROTECTION. THE RAILROADS WILL EXPECT FALSEMORK PROTECTION UNDER THE ENTIRE BRIDGE WITHIN THE INMITS OF THE RAILROAD RIGHT-OF-WAY. ODOT EXPECTS FALSEMORK PROTECTION UNDER THE ENTIRE BRIDGE TO PROTECT RED BANK ROAD USERS. ALL COSTS ASSOCIATED WITH THIS TRAFFIC PROTECTION WILL BE INCLUDED WITH ITEM 202 FOR PAYMENT.

NON-USE OF ASBESTOS-CONTAINING MATERIALS:

THE CONTRACTOR SHALL AT NO TIME INCORPORATE ANY MATERIALS WHICH ARE COMPOSED OF OR CONTAIN ANY AMOUNTS OF ASBESTOS. THE SUBSTITUTION OF MATERIALS WHICH CONTAIN ANY AMOUNTS OF ASBESTOS WILL IN NO CIRCUMSTANCES BE ACCEPTABLE. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF CERTIFICATION ASSERTING THAT NO ASBESTOS CONTAINING MATERIALS WERE USED IN ANY PORTION OF

FOR MAINTENANCE OF TRAFFIC NOTES, PERMITTED LANE CLOSURES AND DETAILS, REFER TO MAINTENANCE OF TRAFFIC PLANS.

CLOSE COORDINATION WITH NORFOLK SOUTHERN RAILWAY COMPANY AND INDIANA & OHIO RAILWAY COMPANY WILL BE REQUIRED FOR CONSTRUCTION ACTIVITIES OVER THE TRACKS. IT IS ESSENTIAL THAT THE CONSTRUCTION BE PERFORMED WITH A MINIMUM INTERFERENCE WITH RAIL TRAFFIC. CONTINUINITY OF SAFE RAIL OPERATIONS WILL BE REQUIRED FOR THE DURATION OF THE PROJECT.

CONSTRUCTION PLANS FOR THE EXISTING BRIDGE ARE ON FILE AT THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 S. STATE ROUTE 741, LEBANON, OH 45036 AND ARE AVAILABLE FOR REFERENCE. EXISTING PLANS HAVE BEEN INCLUDED IN THE REFERENCE FOLDER ON THE OFFICE OF CONTRACTS WEB PAGE FOR

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02, AND 513.04. BASE CONTRACT BIO PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREDID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

DECK PLACEMENT DESIGN ASSUMPTIONS:

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN

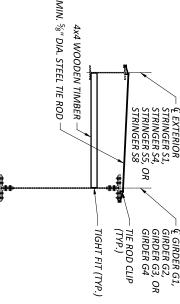
AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.23 KIPS FOR THE LEFT AND RIGHT BRIDGES.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103 INCHES.

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 INCHES.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA BEAM TO THE FACE OF THE SAFETY HANDRAIL OF 65 INCHES.

THE LEFT AND RIGHT BRIDGES REQUIRE TEMPORARY TIMBER BLOCKING AND TENSION TIE ROD SUPPORTS OF THE EXISTING EXTERIOR STRINGER TO PREVENT ROTATION DUE DECK PLACEMENT. THE LOCATIONS OF THE TEMPORARY SUPPORTS ARE SHOWN ON THE LEFT AND RIGHT BRIDGE FRAMING PLAN, SHEETS 25 AND 26 OF 50, RESPECTIVELY. SEE TEMPORARY SUPPORT DETAIL BELOW FOR ADDITIONAL DETAILS. THE STEEL TIE ROD SHALL BE GALVANIZED AND HAVE A MINIMUM TENSILE STRENGTH OF 105 KSI. THE TIE ROD CLIP SHALL BE A GAMCO BH-85 TYPE 1 TIE BAR HANGER WITH INTERLOCK END, OR AN APPROVED EQUAL.



ALL MATERIAL, LABOR, AND EQUIPMENT NECESSARY TO PROVIDE TEMPORARY SUPPORT OF THE EXISTING STRINGERS AS SHOWN IN THE PLANS SHALL BE INCLUDED WITH ITEM 511 - CLASS QC3 CONCRETE, MISC.: CLASS QC3 CONCRETE WITH QC/QA, SUPERSTRUCTURE FOR PAYMENT. TEMPORARY SUPPORT DETAIL (LEFT BRIDGE OUTSIDE SHOWN, OTHER LOCATIONS SIMILAR)

ELDRIDGE CHAMBERS
PUBLIC IMPROVEMENTS ENGINEER
NORFOLK SOUTHERN CORPORATION
650 WEST PEACHTREE STREET, NW, BOX 45
ATLANTA, GA 30308
(1470) 463-6307 (OFFICE)

- Q EXTERIOR STRINGER S1, STRINGER S4, STRINGER S5, OR STRINGER S8 Q GIRDER G1, GIRDER G2, GIRDER G3, OR GIRDER G4 THE FOLLOWING CONTACT INFORMATION SHALL BE USED FOR COORDINATION WITH NS RAILROAD:

MAINTAIN A CONSTRUCTION CLEARANCE OF 14 FEET HORIZONTALLY FROM THE CENTER OF TRACKS AND 22 FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL, AND 6 FEET FROM THE CENTER OF TRACKS, AT ALL TIMES.

NORFOLK SOUTHERN RAILROAD COORDINATION:

ALL WORK TO BE PERFORMED ON, OVER, UNDER, OR ADJACENT TO THE RAILROAD RIGHT-OF-WAY SHALL COMPLY WITH THE NORFOLK SOUTHERN RAILWAY COMPANY ("RAILROAD", "NSR", OR "NS") PUBLIC PROJECTS MANUAL (APPENDIX E, SPECIAL POO", "NSR", OR THE PROTECTION OF RAILWAY INTERESTS, AND APPENDIX H1, OVERHEAD GRADE SEPARATION DESIGN CRITERIA). WHEN IN CONFLICT WITH OTHER PROJECT SPECIFICATIONS, THE MOST STRINGENT ONE SHALL APPENDIX

SEE NS PUBLIC PROJECTS MANUAL, APPENDIX E, SECTIONS 2 AND 3, AND APPENDIX H1, SECTIONS 8.F AND 8.G:

THE CONTRACTOR SHALL NOT COMMENCE ANY WORK ON RAILROAD RIGHTS-OF-WAY UNTIL HE HAS MET THE CONDITIONS PRESENTED IN NS PUBLIC PROJECTS MANUAL (SEE APPENDIX E, NORFOLK SOUTHERN - SPECIAL PROVISIONS FOR PROTECTION OF RAILWAY INTERESTS).

THE CONTRACTOR SHALL SO ARRANGE AND CONDUCT HIS WORK THAT THERE WILL BE NO INTERFERENCE WITH RAILROAD'S OPERATIONS. WHENEVER WORK IS LIABLE TO AFFECT THE OPERATIONS OR SAFETY OF TRAINS, THE METHODS OF DOING SUCH WORK SHALL FIRST BE SUBMITTED TO THE RAILROAD ENGINEER FOR APPROVAL, BUT SUCH APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FROM ANY LIABILITY. RIGHT-OF-WAY AND/OR SECURITY FENCE SHALL BE PROVIDED AS DIRECTED BY THE NS PUBLIC PROJECT

"ONE CALL" SERVICES DO NOT LOCATE BURIED NORFOLK SOUTHERN SIGNALS AND COMMUNICATIONS LINES. THE CONTRACTOR SHALL CONTACT THE RAILROAD'S REPRESENTATIVE SEVEN (7) DAYS IN ADVANCE OF WORK AT THOSE PLACES WHERE EXCAVATION, PILE DRIVING, OR HEAVY LOADS MAY DAMAGE THE RAILROAD'S UNDERGROUND FACILITIES. UPON REQUEST FROM THE CONTRACTOR OR SPONSOR, RAILROAD SIGNAL FORCES WILL LOCATE AND PAINT MARK OR FLAG THE RAILROAD'S UNDERGROUND FACILITIES IN THE AREA TO BE DISTURBED FOR THE CONTRACTOR. THE CONTRACTOR SHALL AVOID EXCAVATION OR OTHER DISTURBANCE OF THESE LINES WHICH ARE CRITICAL TO THE SAFETY OF THE RAILROAD AND THE PUBLIC. IF DISTURBANCE OR EXCAVATION IS REQUIRED NEAR A BURIED RAILROAD FACILITY, THE LINE SHALL BE POTHOLED MANUALLY WITH CAREFUL HAND EXCAVATION BY THE CONTRACTOR AND PROTECTED BY THE CONTRACTOR DURING THE COURSE OF THE DISTURBANCE UNDER THE SUPERVISION AND DIRECTION OF THE RAILROAD'S REPRESENTATIVE.

RAILROAD PROTECTIVE SERVICES WILL LIKELY BE REQUIRED FOR MUCH OF THE WORK AT THE TRACK LEVEL. THE CONTRACTOR WILL BE RESPONSIBLE FOR SECURING RAILROAD PROTECTIVE SERVICE PERSONNEL FROM A THIRD-PARTY PROVIDER APPROVED BY THE NS RAILROAD AND THE SPONSOR.

AS PART OF THE PROJECT PROVIDED THE CONSTRUCTION IS PERFORMED BY THE PROJECT CONTRACTOR OR PROJECT CONTRACTOR. HOWEVER, THE UTILITY MUST CONTRACTOR'S SUB-CONTRACTOR. HOWEVER, THE UTILITY MUST SUBMIT AN APPLICATION FOR THE INSTALLATION OR RELOCATION TO AECOM FOR APPROPRIATE HANDLING FOR LICENSE AGREEMENT AND APPLICABLE FEES, FOR UTILITY APPLICATIONS OF TO THE WARDLING FOR LICENSE AGREEMENT AND APPLICABLE FEES, FOR UTILITY APPLICATIONS OF TO. www.nscorp.com > real estate > ns services > wire, pipeline, and fiber optics projects
NOTE: LICENSE AGREFMENT AND ICT BY THE PROJECT STATES. ALL UTILITY INSTALLATIONS OR RELOCATIONS THAT ARE REQUIRED IN CONJUNCTION WITH THIS PROJECT CAN BE INSTALLED OR RELOCATED LICENSE AGREEMENT MUST BE EXECUTED PRIOR TO UTILITY

FOR PROJECTS EXCEEDING 30 DAYS OF CONSTRUCTION, CONTRACTOR SHALL PROVIDE THE RAILROAD PROTECTIVE SERVICES PERSONNEL A SMALL WORK AREA WITH A DESK/COUNTER AND CHAIR WITHIN THE FIELD/SITE TRAILER, INCLUDING THE USE OF BATHROOM FACILITIES, WHERE THE RAILROAD PROTECTIVE SERVICES PERSONNEL CAN CHECK INVOUT WITH THE PROJECT, AS WELL AS TO THE RAILROAD PROTECTIVE SERVICES PERSONNEL'S HOME TERMINAL. THE WORK AREA SHOULD PROVIDE ACCESS TO TWO (2) ELECTRICAL OUTLETS FOR RECHARGING RADIO(S), AND A LAPTOP COMPUTER; AND HAVE THE ABILITY TO PRINT OFF NEEDED DOCUMENTATION AND ORDERS AS NEEDED AT THE FIELD/SITE TRAILER. THIS SHOULD AID IN MAXIMIZING THE RAILROAD PROTECTIVE SERVICES PERSONNEL'S TIME AND EFFICIENCY ON THE PROJECT.

ISTRUCTION SCHEDULE: SUBMIT A DETAILED CONSTRUCTION

EDULE FOR THE DURATION OF THE PROJECT CLEARLY INDICATING

CONTRACTOR TO NOTIFY G&W PUBLIC PROJECTS DEPARTMENT 30 DAYS PRIOR TO STARTING CONSTRUCTION.

INDIANA & OHIO RAILROAD COORDINATION:

G&W FLAGGING SERVICES WILL BE REQUIRED FOR ALL WORK WITHIN G&W RIGHT-OF-WAY OR ANY WORK THAT HAS A "POTENTIAL TO FOUL".

WORK PERFORMED ON, ABOVE, OR ADJACENT TO RAILROAD PERTY SHALL BE IN ACCORDANCE WITH THE PUBLIC PROJECT CONTRACTOR MUST NOT USE THE RAILROAD RIGHT-OF-WAY FOR RAGE OF MATERIALS OF REQUIPMENT DURING CONSTRUCTION. RAILROAD'S RIGHT-OF-WAY MUST REMAIN CLEAR AT ALL TIMES. CONTRACTOR MUST PLAN AND PERFORM THE WORK IN A

ISTRUCTION SUBMISSION CRITERIA. WATER MANAGEMENT, BALLAST PROTECTION, DEMOLITION, TRAINMENT, CONCRETE FORWWORK, AND ALL OTHER WORK THAT TRAINMENT, CONCRETE FORWWORK, AND ALL OTHER WORK THAT ENTIALLY AFFECTS RAILROAD PROPERTY OR OPERATIONS. ALL REVIEW PLANS SHALL BE PREPARED AND SUBMITTED TO THE RAILROAD DHERENCE WITH THE PUBLIC PROJECT MANUAL, SECTION 1.11 JAL, CURRENT EDITION. WORK PLANS SHALL BE SUBMITTED FOR W TO THE RAILROAD FOR TASKS RELATED TO SITE ACCESS, SOIL

THE CONTRACTOR WILL BE REQUIRED TO REACH OUT TO ESTATE FOR AN ROE APPLICATION AND AGREEMENT FOR TAKE PLACE ON THE G&W ROW. HERE IS THE WEBSITE FOINFORMATION:
https://www.gwrr.com/real_estate/accessing_property CONTRACTOR WILL BE REQUIRED TO REACH OUT TO G&W REAL 4TE FOR AN ROE APPLICATION AND AGREEMENT FOR WORK TO E PLACE ON THE G&W ROW. HERE IS THE WEBSITE FOR ROE DRMATION:

ROAD PROJECT COORDINATION:

CONTRACTOR SHALL PERFORM ONGOING COORDINATION OF R DESIGN AND CONSTRUCTION ACTIVITIES WITH THE ROAD(S) THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL VIDE A CURRENT SCHEDULE ON A MONTHLY BASIS INCLUDING ICIPATED DATES OF THE FOLLOWING ITEMS:

- CONSTRUCTION SUBMITTALS REQUIRING RAILROAD REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION (PER THE RAIL AGREEMENT(S)).
- CONSTRUCTION START AND END DATES FOR WORK THAT MAY CREATE AN IMPACT TO THE RAIL FACILITY/OPERATIONS.
- ANY OTHER MILESTONES THAT MAY IMPACT RAIL FACILITIES OR OPERATIONS.

WITH SPECIFIC TIMES WHEN TAKES WILL BE PERFORMED FOR WORK ACTIVITIES THAT ARE ON OR IN THE VICINITY OF THE RAILROAD PROPERTY. THIS SUBMISSION MAY REQUIRE A WALKTHROUGH AT WHICH TIME THE RAILROAD AND/OR THEIR REPRESENTATIVE WILL BE PRESENT. WORK WILL NOT BE PERMITTED TO COMMENCE UNTIL THE CONTRACTOR HAS PROVIDED THE RAILROADS WITH A SATISFACTORY PLAN THAT THE PROJECT WILL BE UNDERTAKEN WITHOUT SCHEDULING, PERFORMANCE, OR SAFETY PELATED ISSUES. PROVIDE A LIST OF THE AUTICIPATED EQUIPMENT TO BE USED, AND ENSURE A CONTINGENCY PLAN OF ACTION IS IN PLACE SHOULD A PRIMARY PIECE OF MINGENCY PLAN OF ACTION IS IN PLACE SHOULD A PRIMARY PIECE OF THE RAILROAD PROPERTY THAT HAS THE POTENTIAL OF AFFECTING TRAIN OPERATIONS MUST BE SUBMITTED AND APROVED BY THE RAILROAD PRIOR TO WORK BEING PERFORMED. THIS SUBMISSION WILL ALSO OPERATIONS MUST BE SUBMITTED AND APROVED BY THE RAILROAD PRIOR TO WORK BEING PERFORMED. THIS SUBMISSION WILL ALSO PROJECT SAFETY ISSUES BETWEEN THE CONTRACTOR AND THE RAILROAD AND AND AND THE RAILROAD AND AND DAY, SPECIFIC WORK OPERATIONS INCILIDING CRANF AND EQUIPMENT

TO SIXTY (60) CALENDAR DAYS WILL BE REQUIRED TO REVIEW ALL NSTRUCTION SUBMISSIONS. UP TO AN ADDITIONAL SIXTY (60) LENDAR DAYS WILL BE REQUIRED TO REVIEW ANY SUBSEQUENT BMISSIONS RETURNED NOT APPROVED.

tr*i*nsystems

P.122	LEET	8	TESBUS	110	PROJECT ID	NFF 0	REVIE	ZTW	DESIGNER
208	TOTAL	50	TOTAL	110570	,	08/22/23	REVIEWER	RSB	CHECKER

GENERAL NOTES - 1 BRIDGE NO. HAM-00050-29.100 US-50 OVER NSRR, IORY, DUCK CREEK, & RED BANK ROAD

ITEM 511 - CLASS QC3 CONCRETE, MISC.: CLASS QC3 CONCRETE WITH QC/QA, SUPERSTRUCTURE (CONTINUED): ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA [T=15"], AS PER PLAN (CONTINUED):

FABRICATE THE SIP FORMING SYSTEM ACCORDING TO ITEM 513
EXCEPT THAT FABRICATOR PRE-QUALIFICATION IS NOT REQUIRED.
SUBMIT MILL TEST REPORTS FOR THE SIP FORMS ACCORDING TO
501.06. SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS FOR
THE SIP FORMS ACCORDING TO 513.06. FURNISH FORM MATERIALS
CONFORMING TO ASTM A653 WITH 6235 COATING WEIGHT WITH A
MINIMUM THICKNESS OF 20 GAGE. HOT DIP GALVANIZE ALL
HARDWARE, HANGERS, AND INCIDENTALS.

DO NOT WELD SIP FORMS OR THEIR SUPPORTS TO THE STEEL BRIDGE MEMBERS.

PLACE CONCRETE ACCORDING TO THE CONTRACT SPECIFICATIONS:
-FILL THE ENTIRE FORM WITH DECK CONCRETE.
-UTILIZE PROPER CONSTRUCTION TECHNIQUES TO PREVENT VOIDS
AND HONEYCOMBS ESPECIALLY AT ENDS OF SIP FORM SHEETS. ACHIEVE A ONE-INCH MINIMUM BEARING LENGTH ON ALL SUPPORTS OF A FLUTE.

INSTALL SIP FORMS ACCORDING TO THESE NOTES:

PROVIDE THE ENGINEER WITH A WRITTEN INSTALLATION AND INSPECTION PROCEDURE. INCLUDE METHODS FOR ADJUSTING SUPPORT HEIGHTS, SIP ATTACHMENT SEQUENCE, PLACEMENT METHODS USED TO MINIMIZE COATING DAMAGE, COATING REPAIR METHODS, ACCEPTABLE TOLERANCES, AND INSPECTION CRITERIA.

FIELD CUT SIP FORMS USING MECHANICAL CUTTING METHODS THERMAL CUTTING IS NOT PERMITTED.

SET THE HEIGHT OF THE FORM SUPPORTS SO SIP FORMS DO NOT REST DIRECTLY ON THE BRIDGE'S STRUCTURAL MEMBERS AND TO DEVELOP THE SPECIFIED DECK THICKNESS. PLACE FORM SUPPORTS IN DIRECT CONTACT WITH THE TOP OF THE BRIDGE'S STRUCTURAL MEMBERS.

4

PLACE THE SIP FORMS DIRECTLY ON THE SUPPORTS.

6. 5

CONNECT SIP FORMS TO SUPPORTS BEFORE USING THE SIP AS A WORKING SURFACE AND BEFORE THE END OF EACH WORK

PROVIDE SAFETY STOPS TO ELIMINATE HAZARDS FROM SUDDEN UPLIFT AND LATERAL MOVEMENT.

IN ADDITION TO THE REQUIREMENTS OF 105.10, FURNISH, ERECT, AND MOVE APPROPRIATE EQUIPMENT OR SCAFFOLDING TO ALLOI THE FOLLOWING INSPECTION ACCESS. PROVIDE COMPLETED INSPECTION CHECK LISTS TO DOCUMENT THE FOLLOWING INSPECTIONS: ALLÓW

PRIOR TO PLACING CONCRETE, VISUALLY INSPECT SIP FORMS FOR DAMAGE.

TWO DAYS AFTER CONCRETE PLACEMENT, TEST DECK FOR SOUNDNESS OR BONDING OF THE FORMS BY SOUNDING ON THE FORMS WITH A HAMMER. SOUND ALL SURFACES OR AT LEAST 10% OF THE PANELS WITH THE ENGINEER.

IF DEFECTS ARE DISCOVERED DURING THE SPECIFIED INSPECTIONS, TEST THE COMPLETE DECK AND PROPOSE REPAIR OR REMOVAL METHODS ACCEPTABLE TO THE DEPARTMENT. THE DEPARTMENT MAY REQUIRE ADVANCED NONDESTRUCTIVE TESTING METHODS SUCH AS GROUND PENETRATING RADAR TO VERIFY THE DECK CONDITION ACCORDING TO 105.11. REMOVE SIP FORMS IN AREAS WITH DOUBTFUL SOUNDNESS OR BONDING FOR THE ENGINEER'S VISUAL INSPECTION. DO NOT REPLACE SIP FORMS REMOVED FOR INSPECTION. REMOVE FORMS SO THAT ADJACENT FORMS OR WORK IS NOT DEBONDED OR OTHERWISE DAMAGED.

FURNISH GALVANIZED STEEL REINFORCEMENT 709.16 IN LIEU OF EPOXY COATED STEEL REINFORCEMENT FOR REINFORCED CONCRETE APPROACH SLABS.

ALL LABOR, MATERIALS AND INCIDENTALS FOR THE FABRICATION, DESIGN, AND INSTALLATION OF THE SIP FORMS SHALL BE INCLUDED WITH ITEM 5.11 - CLASS QC3 CONCRETE, MISC.: CLASS QC3 CONCRETE WITH QC/QA, SUPERSTRUCTURE FOR PAYMENT.

ITEM 511 - CLASS QC3 CONCRETE, MISC.: CLASS QC3 CONCRETE WITH QC/QA, SUPERSTRUCTURE BRIDGE RAILING:

THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE LIGHTWEIGHT AGGREGATE, MACROSYNTHETIC FIBERS, AND CORROSION INHIBITORS INTO THE SUPERSTRUCTURE RAILING CONCRETE. THIS ITEM SHALL CONFORM TO 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:

PORTLAND CEMENT CONCRETE 499.03, CLASS QC3 MEETING A
DESIGN STRENGTH OF 4,500 PSI WITH
MACRO-SYNTHETIC FIBERS AND WITH
MODIFICATION PER 511.02

ASTM C1116, TYPE III

FIBERS FOR CONCRETE

LIGHTWEIGHT AGGREGATE ASTM C3300

THE CLASS QC3 CONCRETE FOR THE SUPERSTRUCTURE RAILING SHALL MEET THE FOLLOWING CRITERIA:

MATER/CEMENT RATIO = 0.40 MAXIMUM; MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.5 INCHES MIN. TO 2.5 INCHES MAX.)

MEETING ASTM C1116 TYPE III SHALL BE ADDED TO THE MIX. THE FINAL CONCRETE MIX SHALL HAVE A MAXIMUM DRY WEIGHT OF 120 LBS/CF WITH THE LIGHTWEIGHT AGGREGATE MEETING THE REQUIREMENTS OF ASTM C330.

MIX SHALL INCLUDE A MIGRATING CORROSION INHIBITOR AS MANUFACTURED BY AN APPROVED SUPPLIER LISTED ON ODOT'S QUALIFIED APPROVED SUPPLIERS, ITEM 515.15. THE DOSAGE RATE LISTED ON THE ODOT QUALIFIED APPROVED SUPPLIERS LIST WILL

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO 'BALLING' OCCURS, UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME EURING THE POUR, IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE, AND MACRO-SYNTHETIC FIBERS PROOF TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC FIBERS THAT ARE MONOFLAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK. ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI, A MINIMUM MODULUS OF ELASTICITY OF 800 KSI, A MINIMUM FILAMENT DIAMETER OF 0.012 INCHES, AN ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.5 AND 2.5 INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURE'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DRIT, AND MOISTURE. PLACING THE BAG THAT THE FIBERS COME IN INTO THE CONCRETE MIX IS NOT PERMITTED.

LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE RATE THROUGH MIX TESTING. ENSURE THE FIBER EINFORCED CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C 1609. ENSURE THE FIBER REINFORCED SUCH THAT BALLING OR CLUMPING TO ASTM C 1609. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE EGINEER. UTILIZE A LABORATORY REGULARLY INSPECTED BY THE CEMINIT AND CONCRETE REFERENCE LABORATORY, TO PERFORM THE TESTING. BEFORE USE, SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING BOTH THE MACRO-SYNTHETIC FIBERS AND THE TESTING. BEFORE USE, SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING BOTH THE MACRO-SYNTHETIC FIBERS AND THE MIX MEET OR EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MODISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED. THE TRANSIT MIXER CHARGE SHALL BE LIMITED TO 3/4 OF ITS RATED CAPACITY OR 6 CUBIC YARDS, WHICHEVER IS SMALLER. THE FIRST THARE TRANSIT MIXER LOADS ARE REQUIRED TO BE AT THE MINIMUM YARDAGE LISTED ABOVE TO SHOW PROOF OF THE SUCCESSFUL BATCHING OPERATION. AFTER CONSISTENCY IN THE DELIVERED MATERIAL HAS BEEN ESTABLISHED, THE CONCRETE SUPPLIER MAY INCREASE THE BATCH DELIVERED QUANITIES AS LONG AS THE QUALITY REMAINS ACCEPTABLE TO THE ENGINEER. THE ENGINEER CAN REDUCE THE BATCH LOAD SIZE AT ANY TIME AS NEEDED TO CORRECT/IMPROVE CONCRETE QUALITY.

INHIBITOR AND ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE CORROSION INHIBITOR IS SUGGESTED TO BE AN MCI PRODUCT BY CORTEC OR AN APPROVED EQUAL FROM THE QUALIFIED PRODUCTS LIST. THE CONCRETE SUPPLIER'S CHOICE OF ONE OF THESE CORROSION INHIBITORS DOES NOT ALLEVIATE MEETING BESIGN REQUIREMENTS. PLEASE BE ADVISED THAT SOME PRODUCTS ON THE LIST AFFECT THE DELIVERED MIX PROPERTIES GREATLY WHILE OTHER PRODUCTS DO NOT. CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT THE CORROSION

THIS LIGHTWEIGHT CONCRETE WILL ONLY BE USED ON THE SUPERSTRUCTURE RAILINGS AND NOT ON THE RAILINGS ON ANY APPROACH SLAB OR ABUTIMENT BACKWALL. THE CONTRACTOR SHOULD BE ADVISED THAT CONCRETE RETARDING AGENTS MAY NEED TO BE ADDED TO OFFSET THE EFFECTS OF THE MIGRATING CORROSION INHIBITOR SELECTED.

EXISTING STEEL AREAS SHALL RECEIVE A PRIME, INTERMEDIATE, AND FINISH COAT APPLIED IN THE FIELD. PROPOSED STEEL, IF APPLICABLE, SHALL BE SHOP PRIMED AND RECEIVE AN INTERMEDIATE AND FINISH COAT APPLIED IN THE FIELD.

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN:

PRIOR TO THE SURFACE CLEANING SPECIFIED IN CMS 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED STEEL REINFORCEMENT. ACCEPTABLE METHODS INCLIDING THE WATER, WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

ITEM SPECIAL - STRUCTURES: SITE ACCESS:

THIS ITEM SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO ACCESS THE BRIDGE, INCLUDING BUT NOT LIMITED TO, COORDINATION WITH THE RAILROAD(S) ON THEIR REQUIREMENTS OF A TEMPORARY GRADE CROSSING AT THEIR TRACKS, ANY CLEARING AND GRUBBING REQUIRED TO GAIN ACCESS THAT IS NOT ACCOUNTED FOR IN OTHER WORK ITEMS, AND THE INSTALLATION, MAINTENANCE, AND REMOVAL OF RAILROAD TEMPORARY GRADE CROSSINGS. THIS ITEM ALSO INCLUDES REPAIR OF OLD RED BANK ROAD TO BE DONE AS DIRECTED BY THE ENGINEER, AND THE REPLACEMENT OF ANY EXISTING ROAD FEATURES, TO THE SATISFACTION OF THE ENGINEER, THAT ARE DAMAGED DUE TO THE CONTRACTOR'S CHOSEN SITE

ITEM 601 - CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN:

WHERE ADDITIONAL MATERIAL IS REQUIRED, FURNISH AND PLACE CRUSHED AGGREGATE IN ACCORDANCE WITH CMS 601. AN ESTIMATED QUANTITY OF 100 COUDARE YARDS HAS BEEN INCLUDED FOR THIS WORK, ACTUAL QUANTITIES OF SLOPE TO BE REDRESSED AND NEW MATERIAL TO BE PLACED SHALL BE AS DIRECTED BY THE ENGINEER. WITH PRIOR APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY REDRESS THE SLOPES WITH THE EXISTING CRUSHED AGGREGATE.

ITEM 511 - CLASS QC3 CONCRETE, MISC.: CLASS QC3 CONCRETE WITH QC/QA, SUPERSTRUCTURE BRIDGE RAILING (CONTINUED):

ITEM 514 - SURFACE PREPARATION OF EXISTING STEEL:
ITEM 514 - FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME
(COAT, AS PER PLAN:
COAT, AS PER PLAN:
ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE
(COAT, AS PER PLAN:
ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER
PLAN:

NO SPECIFIC AREAS HAVE BEEN DESIGNATED IN THE PLANS THAT WILL REQUIRE PAINTING. HOWEVER, AN ESTIMATED QUANITY OF 100 SF HAS BEEN PROVIDED IF THE ENGINEER DETERMINES AN AREA REQUIRES PAINTING. THE CONTRACTOR MUST RECEIVE APPROVAL FROM THE ENGINEER BEFORE PERFORMING THIS WORK.

THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH ALL NECESSARY EQUIPMENT TO INSPECT THIS WORK.

THE FINISH COAT SHALL MATCH THE EXISTING BEAM'S COLOR. OBTAIN THE ENGINEER'S APPROVAL OF PAINT COLOR BEFORE APPLYING FINISH COAT.

PRIOR TO THE START OF WORK ON THE STRUCTURE, THE CONTRACTOR SHALL DOCUMENT THE EXISTING CONDITION OF THE PAINTED STRUCTURE TO IDENTIFY AREAS PRIOR OLLY DAMAGED THAT ARE OUTSIDE THE LIMITS OF THE CURRENT PAY ITEMS. PAINTED AREAS THAT WERE NOT PREVIOUSLY DAMAGED THAT RECEIVE DAMAGE BY THE CONTRACTOR'S ACTIVITIES ONCE WORK BEGINS WILL BE REPAIRED AT THE CONTRACTOR'S COST.

ALL NECESSARY CHANGES TO THE RAILROAD TRACK CLEARANCES (VERTICAL AND HORIZONTAL) AND DEPTH, SIZE, AND LOCATION OF FOUNDATION COMPONENTS MADE IN THE FIELD TO THIS CONSTRUCTION PLAN SHALL BE CAREFULLY DOCUMENTED AND PRESENTED TO EACH RAILROAD COMPANY AT THE CONCLUSION OF THE PROJECT, THEREFORE, STRICT ADHERENCE TO THE PLANS IS IN THE BEST INTEREST OF ALL PARTIES. HOWEVER, IF CHANGES MUST BE MADE IN THE FIELD, THE CONTRACTOR SHALL CAREFULLY AND CLEARLY RECORD THEM. AT THE CONCLUSION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT THESE CHANGES (IF ANY) TO THE PROJECT ENGINEER IN A DOCUMENT SIGNED, DATED, AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER OR SURVEYOR IN THE STATE OF OHIO, THE PROJECT ENGINEER SHALL SUBMIT THE COMPLETED DOCUMENT TO EACH RAILROAD COMPANY.

ALL LABOR, MATERIALS, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY TO PERFORM THIS WORK SHALL BE INCLUDED IN ITEM SPECIAL - AS-BUILT CONSTRUCTION PLANS FOR PAYMENT.

ABBREVIATONS:

R.F. RT. SPA. STA. TYP.	MAX. MIN. N.F. P.E.J.F. PT.	T.F. NV.	CONST. DIA. DIM. E.F. EL. EX. EXP.
RIGHT FORWARD RIGHT SPACING/SPACES STATION TYPICAL	LEFI MAXIMUM MINIMUM NEAR FACE PREFORMED EXPANSION JOINT FILLER POINT	FAR FACE FIXED FOOT/FEET HIGH PRESSURE INVERT LEFT FORWARD	CONSTRUCTION DIAMETER DIMENSION EACH FACE ELEVATION EXISTING EXPANSION

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

THE STANDARD DRAWING VPF-1-90 SHALL BE FOLLOWED CONCERNING THE VANDAL PROTECTION FENCE EXCEPT FOR THE FOLLOWING:
THE FABRIC SHALL CONSIST OF A 1 INCH DIAMOND MESH USING 0.148 INCH DIAMETER (9 GAGE) WIRE CONFORMING TO ASTM F668 CLASS 2A OR 2B. ITEM SPECIAL - AS-BUILT CONSTRUCTION PLANS:

GENERAL NOTES - 3
BRIDGE NO. HAM-00050-29.100
US-50 OVER NSRR, IORY, DUCK CREEK, & RED BANK ROAD

HAM-US 50-29.00 APPROACH SLAB SURFACE ELEVATIONS 94+18.09 94+18.05 94+17.84 94+17.80 94+42.77 94+42.78 94+42.79 94+42.79 STATION EDGE OF SLEEPER SLAB -36.36' LT. 31.36' LT. 5.36' LT. 1.36' LT. 1.36' LT. 36.40' LT. 31.40' LT. 5.40' LT. 1.40' LT. OFFSET 38'-3" (PHASE 2 CONSTRUCTION) REAR APPROACH SLAB LOCATIONS ,,9-,9 EDGE OF SLEEPER SLAB -,,0-,97 ELEVATION ,,6-,5 548.69 547.52 547.33 548.23 548.39 547.21 547.02 548.53 7,-3,, 4'-0" ,,9-,T 4'-0" 94+14.14 94+14.09 94+13.84 94+13.81 94+22.04 94+22.00 94+21.83 94+21.83 STATION * 14'-0" TRANSITION SLEEPER SLAB ELEVATIONS В **-** *D* EDGE OF SLEEPER SLAB 8'-0" SLEEPER SLAB <u>LEFT BRIDGE</u> REAR APPROACH SLAB PLAN ≥ 36.36' LT. 31.36' LT. 5.36' LT. 1.86' LT. 1.86' LT. 36.37' LT. 31.37' LT. 5.37' LT. 1.37' LT. BEGIN APPROACH SLAB TYPE A INSTALLATION * 25'-0" - € ROUNDING – LEFT PROFILE GRADE 547.33 547.49 546.31 546.15 547.24 547.29 546.22 546.03 ,,6-,T * 11'-0" Η APPROACH SLAB SURFACE ELEVATIONS 98+76.03 98+76.05 98+76.11 98+76.12 99+00.72 99+00.77 99+01.06 99+01.10 STATION 2'-5" - Q BEARING REAR ABUTMENT- END APPROACH SLAB 36.76'LT. 31.76'LT. 5.76'LT. 1.76'LT. 1.76'LT. 36.76'LT. 31.76'LT. 5.76'LT. 1.76'LT. FORWARD APPROACH SLAB LOCATIONS OFFSET ELEVATION 542.71 542.86 541.68 541.50 542.38 542.38 542.53 541.35 541.16 ,,9-,9 "%t ,,0-,97 .,6-,5 38'-3" (PHASE 2 CONSTRUCTION) AA BB CCC DD FF 98+96.82 98+97.07 98+97.10 99+04.67 99+04.73 99+05.05 99+05.12 98+96.77 REFERENCE CHORD (N 37°00'58" E) STATION SLEEPER SLAB ELEVATIONS 36.76'LT. 31.76'LT. 5.76'LT. 1.76'LT. 1.76'LT. 36.76'LT. 31.76'LT. 5.76'LT. 0.01'LT. 38'-3" (PHASE 2 CONSTRUCTION) 5′-9" 26'-0" 6'-6" BEGIN APPROACH SLAB 541.18 541.34 540.16 539.97 541.08 541.23 540.05 € BEARING FORWARD ABUTMENT -2'-101/2" <u>LEFT BRIDGE</u> FORWARD APPROACH SLAB PLAN LEFT PROFILE GRADE 0 TYPE A INSTALLATION -— € ROUNDING 1'-9" END APPROACH SLAB -* 25'-0" 8'-0" SLEEPER SLAB EDGE OF SI 14'-0" TRANSITION ВВ AA* MEASURED ALONG EDGE OF APPROACH SLAB LEGEND: FOR ROUNDING DETAIL, SEE SHEET 37 OF 50 FOR APPROACH SLAB RAILING DETAILS, SEE SHEETS 42 THROUGH 44 OF 50. FOR APPROACH SLAB TYPE A INSTALLATION REQUIREMENTS, SEE ODOT STANDARD DRAWING AS-2-15. EE DD - EDGE OF SLEEPER SLAB 38'-3" (PHASE 2 CONSTRUCTION)

HAM-US 50-29.00 $MODEL: Sheet \ PAPERSIZE: 34x22 \ (in.) \quad DATE: 1/24/2024 \ TIME: 9:52:57 \ AM \ USER: hidegeorge \\ pw:\hq-pwint01.a-e.transyscorp.com:transyscorp-pw1\Documents\Projects_2020\CL402\402200084\Agency_Folders\400-Engineering\Structures\SFN_3103811\Sheets\110570_SFN_3103811_SM002.dgr$ APPROACH SLAB SURFACE ELEVATIONS 94+17.74 94+17.48 94+42.79 94+42.80 94+42.80 94+42.81 94+17.77 94+17.76 2.30' RT. 4.30' RT. 6.30' RT. 37.30' RT. 2.27' RT. 4.27' RT. 4.27' RT. 6.27' RT. OFFSET REAR APPROACH SLAB LOCATIONS 38'-3" (PHASE 3 CONSTRUCTION) EDGE OF SLEEPER SLAB -..0-,7-..9-,78 ELEVATION 7,-3 547.05 547.08 547.03 545.58 546.75 546.78 546.73 545.28 4'-0" 94+13.75 94+13.73 94+13.43 94+21.78 94+21.76 94+21.75 94+21.54 4'-0" STATION .,9-,T SLEEPER SLAB ELEVATIONS В -D8'-0" SLEEPER SLAB 14'-0" TRANSITION <u>RIGHT BRIDGE</u> REAR APPROACH SLAB PLAN > 3 EDGE OF SLEEPER SLAB Ö 2.81' RT. 4.31' RT. 6.31' RT. 37.31' RT. 2.30' RT. 4.30' RT. 6.30' RT. 6.30' RT. BEGIN APPROACH SLAB * 25'-0" TYPE A INSTALLATION € ROUNDING ,,6-,T RIGHT PROFILE GRADE * 25'-0" 545.86 545.88 545.83 544.38 545.75 545.79 545.79 545.73 11'-0" Ξ APPROACH SLAB SURFACE ELEVATIONS 98+76.13 98+76.13 98+76.14 98+76.21 99+01.14 99+01.16 99+01.54 1.91'RT. 3.91'RT. 5.91'RT. 36.91'RT. 1.91'RT. 3.91'RT. 3.91'RT. 5.91'RT. 5.91'RT. FORWARD APPROACH SLAB LOCATIONS END APPROACH SLAB € BEARING REAR ABUTMENT ELEVATION 541.16 541.19 541.14 539.69 540.81 540.85 540.80 539.33 "%9 ..0-,7-"9-,ZE 38'-3" (PHASE 3 CONSTRUCTION) AA BB CCC DD FF REFERENCE CHORD (N 37°00'58" E) 98+97.18 98+97.48 99+05.12 99+05.17 99+05.20 99+05.59 98+97.14 98+97.16 STATION SLEEPER SLAB ELEVATIONS 1.91'RT. 3.91'RT. 5.91'RT. 36.91'RT. 0.16'RT. 3.91'RT. 3.91'RT. 5.91'RT. 38'-3" (PHASE 3 CONSTRUCTION) OFFSET 2'-0"-3'-9" BEGIN APPROACH SLAB & BEARING FORWARD ABUTMENT -539.62 539.65 539.60 538.14 539.50 539.54 539.54 539.49 2'-10%"

<u>LEGEND:</u>

* MEASURED ALONG EDGE OF APPROACH SLAB

<u>RIGHT BRIDGE</u> FORWARD APPROACH SLAB PLAN

25'-0"

14'-0" TRANSITION

4'-0"

EDGE OF SLEEPER SLAE

1'-6"

SLEEPER SLAB

NOTES:

ITES:

FOR THE 25-FT-ARPROACH SLAB REINKORGEMENT REQUIREMENTS,

AND ADDITIONAL STANDARD APPROACH SLAB DETAILS, SEE

GENERAL NOTE ITEM 526 - REINFORCED CONCRETE APPROACH

SLABS WITH QC/QA (T=15"), AS PER PLAN AND ODOT STANDARD

GENERAL NOTE ITEM 526 - REINFORCED CONCRETE APPROACH
SLABS WITH QC/QA (T=15"), AS PER PLAN AND ODOT STANDARD
DRAWING AS-1-15.

FOR APPROACH SLAB TYPE A INSTALLATION REQUIREMENTS, SEE
ODOT STANDARD DRAWING AS-2-15.

FOR APPROACH SLAB RAILING DETAILS, SEE SHEETS 42THROUGH 44
OF 50.

FOR ROUNDING DETAIL, SEE SHEET 37 OF 50.

GJZ

TOR

TRANSYSTEMS
1100 SUPERIOR AVE. E., STE 1000
CLEVELAND, OHIO 44114

IFF 08/22/23

110570

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RIGHT BRIDGE APPROACH SLAB BRIDGE NO. HAM-00050-29.100 US-50 OVER NSRR, IORY, DUCK CREEK, & RED BANK ROAD

32'-6'

38'-3" (PHASE 3 CONSTRUCTION)

TYPE A INSTALLATION

RIGHT PROFILE GRADE

8'-0" SLEEPER SLAB € ROUNDING

A

- DD

 \mathcal{C}

Ω

1'-9"

PROTECTION OF TRAFFIC:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS: AS-1-15 REVISED 01-20-2023 AS-2-15 REVISED 07-17-2020 PCB-91 REVISED 07-17-2020 SBR-1-20 REVISED 07-21-2023 SBR-2-20 REVISED 07-21-2023 SIBR-2-20 REVISED 07-15-2021 STRUCTURE GENERAL NOTES

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION.
800 DATED 10-20-2023

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE REQUIREMENTS OF THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020. **OPERATIONAL IMPORTANCE:**

DESIGN LOADING:

A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL. SUPERSTRUCTURE: EXISTING BEAMS - AS LOAD RATED, VEHICULAR LIVE LOAD: HL-93 FUTURE WEARING SURFACE (FWS) OF 0.00KSF VEHICULAR LIVE LOAD: HL-93 FUTURE WEARING SURFACE (FWS) OF 0.00KSF

EXISTING SUBSTRUCTURE VEHICULAR LIVE LOAD: CF 2000 (57) FUTURE WEARING SURFACE (FWS) OF 0.00KSF

EXISTING FOUNDATIONS VEHICULAR LIVE LOAD: CF 2000 (57) FUTURE WEARING SURFACE (FWS) OF 0.00KSF

DESIGN DATA.

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE) CONCRETE CLASS QC3 - COMPRESSIVE STRENGTH 4.5 KSI
(SUPERSTRUCTURE)

CONCRETE REINFORCEMENT: GALVANIZED STEEL REINFORCEMENT -MINIMUM YIELD STRENGTH 60 KSI (DECK, BRIDGE RANING, DIARHRAGM, WINGWALLS, APPROACH SLABS)

GFRP REINFORCEMENT (BRIDGE RAILING)

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1-INCH THICK.

PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE AND SUBSTRUCTURE, SUBMIT PLANS FOR THE PROTECTION OF VEHICULAR TRAFFIC ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE ENGINEER AT LEAST 30 DAYS BEFORE DEMOLITION BEGINS. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT WILL BE NECESSARY TO ENSURE SUCH PROTECTION. ALL COSTS ASSOCIATED WITH THIS TRAFFIC PROTECTION WILL BE INCLUDED WITH ITEM 202 FOR PAYMENT.

FOR MAINTENANCE OF TRAFFIC NOTES, PERMITTED LANE CLOSURES AND DETAILS, REFER TO MAINTENANCE OF TRAFFIC PLANS.

STATE ROUTE 741, LEBANON, OH 45036 AND ARE AVAILABLE FOR REFERENCE. EXISTING PLANS HAVE BEEN INCLUDED IN THE REFERENCE FOLDER ON THE OFFICE OF CONTRACTS WEB PAGE FOR DOWNLOAD. CONSTRUCTION PLANS FOR THE EXISTING BRIDGE ARE ON FILE AT THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 S.

EXISTING STRUCTURE VERIFICATION:

EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02, AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRICES DEPARTMENT ON OF THE EXISTING STRUCTURE. HOWEVER THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD. DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.58 KIPS FOR THE LEFT AND RIGHT BRIDGES.

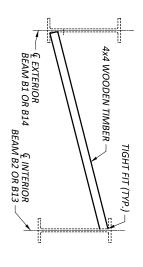
A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103 INCHES.

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 INCHES.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA BEAM TO THE FACE OF THE SAFETY HANDRAIL OF 65 INCHES.

THE EXISTING BEAMS REQUIRE LATERAL RESTRAINT DURING THE DECK POURING OPERATION AT THE CENTERLINE OF ABUTMENT BEAMNOS IF THE DIAPHRAGM CONCRETE ENCASING THE BEAM ENDS IS PLACED CONCURRENTLY WITH THE DECK CONCRETE. THE CONTRACTOR SHALL PROVIDE A MEANS OF TEMPORARILY BRACING THE EXISTING BEAMS TO PREVENT ROTATION, SUDING, TIPPING, OR OTHER MOVEMENT THAT MAY RESULT FROM THE DECK POURING OPERATION IN A MANNER SATISFACTORY TO THE ENGINEER. SUBMIT SEALED CONSTRUCTION PLANS AND CALCULATIONS FOR THE BEAM RESTRAINT PER CMS 501.05.

THE LEFT AND RIGHT BRIDGES REQUIRE TEMPORARY TIMBER BLOCKING OF THE EXISTING EXTERIOR BEAM BOTTOM FLANGE TO BREVENT ROTATION DURING DECK PLACEMENT. THE LOCATIONS OF THE TEMPORARY TIMBER BLOCKING ARE SHOWN ON THE LEFT AND RIGHT BRIDGE FRAMING PLAN, SHEETS 21 AND 22 OF 44, FRESPECTIVELY. SEE TEMPORARY TIMBER BLOCKING DETAIL BELOW FOR ADDITIONAL DETAILS.



TEMPORARY TIMBER BLOCKING DETAIL (LEFT BRIDGE SHOWN, RIGHT BRIDGE SIMILAR)

ALL MATERIAL, LABOR, AND EQUIPMENT NECESSARY TO PROVIDE RESTRAINT OF THE EXISTING BEAMS AT THE G. OF ABUTIMENT BEARING DURING EXPENDENT, AS WELLOW THE PERMPORARY TIMBER BLOCKING AS SHOWN IN THE PLANS, SHALL BE INCLUDED WITH ITEM 511 - CLASS QC3 CONCRETE, MISC.: CLASS QC3 CONCRETE WITH QC/QA, BRIDGE DECK FOR PAYMENT.

NON-USE OF ASBESTOS-CONTAINING MATERIALS:

THE CONTRACTOR SHALL AT NO TIME INCORPORATE ANY MATERIALS WHICH ARE COMPOSED OF OR CONTAIN ANY AMOUNTS OF ASBESTOS. THE SUBSTITUTION OF MATERIALS WHICH CONTAIN ANY AMOUNTS OF ASBESTOS WILL IN NO CIRCUMSTANCES BE ACCEPTABLE. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF CERTIFICATION ASSERTING THAT NO ASBESTOS CONTAINING MATERIALS WERE USED IN ANY PORTION OF THE CONSTRUCTION.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:

THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS
INCLUDING CONCRETE BRIDGE RAILINGS, DECK JOINTS, BEARINGS,
EXISTING UTILITY LINES, AND OTHER APPURITENANCES FROM STEEL
SUPPORTING SYSTEMS (BEAMS, END CROSS-FRAMES, SCUPPERS, ETC.)
THIS ITEM INCLUDES TAKING SURVEY SHOTS OF THE BEAM FLANGES
BEFORE AND AFTER DECK REMOVAL AND CALCULATING THE
REQUIRED ITEMS TO DETERMINE THE SCREED AND TOP OF HAUNCH
ELEVATIONS, IT SHALL ALSO INCLUDE THE REMOVAL OF ABUTMENT
BACKWALLS, PORTIONS OF THE WINGWALLS, POROUS BACKFILL,
PLUGGING OF WEEPHOLES, AND OTHER APPURTENANCES AS SHOWN
IN THE PLANS. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS
SPECIFIED BY THE FOLLOWING NOTES, PERFORM WORK CAREFULLY
DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS
THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSSED
STRUCTURE. THE DEPARTMENT WILL NOT PERMIT THE USE OF
EXPLOSIVES, HEADACHE BALLS, AND/OR HOE RAM TYPE OF
EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS
ACCORDING TO CMS 501.05.

MAXIMUM REMOVAL LIMITS:
SOUND THE CONCRETE TO DETERMINE THE LIMITS OF THE CONCRETE
TO BE REMOVED AND COMPARE THESE LIMITS TO THE AREAS SHOWN
IN THE PLANS. IF NEW AREAS ARE DISCOVERED OR IF THE
DIMENSIONS OF THE PLAN AREAS INCREASE BY MORE THAN 25% IN
ANY DIRECTION, DOCUMENT THE AREAS AND NOTIFY THE ENGINEER
FOR EVALUATION TWO WEEKS PRIOR TO REMOVAL. THE ENGINEER
WILL DETERMINE IF PATCHING IN DISCRETE SECTIONS/STAGES IS
WIEDED OR IF THE INSTALLATION OF TEMPORARY FALSEWORK IS

PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF THE DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF CONCRETE REINFORCEMENT IN THE DECK SLAB. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS THE DECK SLAB TO THE DECK SLAB CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROPOSED AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER, TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR. DRAW THE OUTLINE OF

EXISTING WELDED ATTACHMENTS:

REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE

MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING AND BY THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (STEEL BEAMS, STEEL GIRDER, ETC.), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS. DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G., FINISHING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER TO THE ENGINEER. REMOVAL METHODS: THE CONTRACTOR MA PERFORMING REPAIR.

CUT LINE CONSTRUCTION JOINT PREPARATION:
SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH
DEEP, REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE
EXISTING CONCRETE REINFORCEMENT, IF REQUITED IN THE PLANS, IN
PLACE. INSTALL DOWNEL BARS IF SPECIFIED. PRIOR TO CONCRETE
PLACEMENT, ABRASIVELY CLEAN JOINT SURFACES AND EXISTING
EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED
CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT
SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST
OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER
PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY
RESULTS. EXISTING STEEL REINFORCEMENT DOES NOT HAVE TO HAVE
A BRIGHT STEEL FINISH BUT REMOVE ALL PACK AND LOOSE RUST.
THOROUGHLY DRENICH EXISTING CONCRETE SURFACES WITH CLEAN
WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING
CONCRETE.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (CONTINUED):

SUBSTRUCTURE CONCRETE REMOVAL:

REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE DEPARTMENT WILL NOT PERMIT HYDRAULIC HOE-RAM TYPE HAMMERS. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH CONCRETE REINFORCEMENT THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

PLUGGING EXISTING WEEPHOLES: THE EXISTING WEEPHOLES SHALL BE FLUSHED OUT TO REMOVE ANY LOOSE DEBRIS AND FILLED ENTIRELY WITH CLASS QC1 CONCRETE AS PER ITEM 499.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVAL AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ITEM 202 - REMOVAL MISC.: PORTION OF STRUCTURE REMOVED, BULB ANGLE, AS PER PLAN:

THIS WORK CONSISTS OF REMOVING IN ITS ENTIRETY THE EXISTING BULB ANGLES THAT WERE CAST INTO THE DECK WHEN THE EXISTING DECK WAS CONSTRUCTED. THE USE OF EXPLOSIVES, HEADACHE BALLS, AND/OR HOE-RAMAS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER, PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE, OR DAMAGE THE STRUCTURAL STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LINEAR FOOT BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVAL AT THE CONTRACT PRICE FOR ITEM 202 - REMOVAL MISC.: PORTION OF STRUCTURE REMOVED, BULB ANGLE, AS PER PLAN. EXISTING WELDED ATTACHMENTS:

GRIND THE FLANGE SURFACES SMOOTH WHERE THE EXISTING
WELDED BULB ANGLE ATTACHES TO THE FLANGES LOCATED IN THE
DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING
STEEL MEMBERS.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (TEMPORARY WALL 1): ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (TEMPORARY WALL 2):

THIS ITEM SHALL INCLUDE THE INSTALLATION AND REMOVAL OF THE TEMPORARY WALLS AS SHOWN IN THE PLANS.

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATIONS. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH CMS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE BID FOR COFFERDAMS AND EXCAVATION BRACING. THE DEPARTMENT WILL NOT MAKE ADDITIONAL PAYMENT FOR PROVIDING AN ALTERNATE

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN:

UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH PERTINENT SECTIONS OF CMS SECTION 503 AND SHALL INCLUDE THE EXCAVATION AND BACKFILLING REQUIRED TO CONSTRUCT THE NEW PORTIONS OF THE ABUTMENT DIAPHRAGMS AND WINGWALLS. EXCAVATION AND BACKFILLING FOR SUBSTRUCTURE REMOVAL AND STRUCTURE DRAINAGE SHALL BE INCLUDED WITH RESPECTIVE ITEMS 202 AND 518.

TRANSYSTEMS

SHEET	3	TESBUS	110	PROJECT ID	NFF 0	REVIE	ZTW	DESIGNER	
TOTAL	44	TOTAL	110570	Û	08/22/23	REVIEWER	RSB	CHECKER	

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GENERAL NOTES - 1 BRIDGE NO. HAM-00050-29.280 US-50 OVER RAMPS TO RED BANK ROAD

ITEM 509 - CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN:

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT CONCRETE REINFORCEMENT BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. REPLACE ALL EXISTING STEEL REINFORCEMENT BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW CONCRETE REINFORCEMENT OF THE SAME SIZE, COATING, AND MATERIAL AT NO COST TO THE DEPARTMENT. AN ESTIMATED QUANTITY OF 100 POUNDS HAS BEEN INCLUDED FOR THIS WORK.

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE STEEL REINFORCEMENT DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE GALVANIZED COATING, AS A RESULT OF THIS WORK, ACCORDING TO CMS 711.02. ITEM 509 - GALVANIZED STEEL REINFORCEMENT, AS PER PLAN:

GROUT PER CMS 510 AND ACI 355.4. ALL EXISTING CONCRETE REINFORCEMENT IN THE AREA OF THE BOWEL HOLE SHALL BE LOCATED WITH THE AID OF A CONCRETE REINFORCEMENT LOCATOR (PACHOMETER) PRIOR TO DRILLING THE HOLES. IF EXISTING CONCRETE REINFORCEMENT IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED DOWEL HOLE, THE DOWEL HOLE SHALL BE MOVED TO EITHER SIDE OF THE EXISTING CONCRETE ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN: DOWEL BARS SHALL BE INSTALLED USING NONSHRINK, NONMETALLIC GROUT PER CMS 510 AND ACI 355.4. ALL EXISTING CONCRETE

ITEM 511 - CLASS QC3 CONCRETE, MISC.: CLASS QC3 CONCRETE WITH QC/QA, BRIDGE DECK: ITEM 511 - CLASS QC3 CONCRETE, MISC.: CLASS QC3 CONCRETE WITH QC/QA, BRIDGE RAILING: ITEM 511 - CLASS QC3 CONCRETE, MISC.: CLASS QC3 CONCRETE WITH QC/QA, DIAPHRAGINS: ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA,(T=15"), AS PER PLAN:

THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC FIBERS AND CORROSION INHIBITORS INTO THE SUPERSTRUCTURE CONCRETE. THIS ITEM SHALL CONFORM TO 511 WITH THE FOLLOWING CONDITIONS

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:

499.03, CLASS QC3 MEETING A
DESIGN STRENGTH OF 4,500 PSI WITH
MACRO-SYNTHETIC FIBERS AND WITH
MODIFICATION PER \$11.02

ASTM C1116, TYPE III

MIX SHALL INCLUDE A MIGRATING CORROSION INHIBITOR AS MANUFACTURED BY AN APPROVED SUPPLIER LISTED ON ODOT'S QUALIFIED APPROVED SUPPLIERS, ITEM 515.15. THE DOSAGE RATE CONTROL ON THE ODOT QUALIFIED APPROVED SUPPLIERS LIST WILL THE CLASS QC3 CONCRETE FOR THE SUPERSTRUCTURE SHALL MEET THE FOLLOWING CRITERIA:
WATER/CEMENT RATIO = 0.40 MAXIMUM; MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.5 INCHES MIN. TO 2.5 INCHES MAX.)
MEETING ASTM C1116 TYPE III SHALL BE ADDED TO THE MIX.

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO 'BALLING' OCCURS, UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE, AND MACRO-SYNTHETIC FIBERS PROOF TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK, ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM TENSILE STRENGTH OF 70 KSJ, A MINIMUM MODULUS OF ELASTICITY OF 800 KSJ, A MINIMUM FILAMENT DIAMETER OF 0.012 INCHES, AN ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.5 AND 2.5 INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURE'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DRIT, AND MOISTURE. PLACING THE BAG THAT THE FIBERS COME IN INTO THE CONCRETE MIX IS NOT PERMITTED.

ITEM 511 - CLASS QC3 CONCRETE, MISC.: CLASS QC3 CONCRETE WITH QC/QA, BRIDGE DECK (CONTINUED):
ITEM 511 - CLASS QC3 CONCRETE, MISC.: CLASS QC3 CONCRETE WITH QC/QA, BRIDGE RAILING (CONTINUED):
ITEM 511 - CLASS QC3 CONCRETE, MISC.: CLASS QC3 CONCRETE WITH QC/QA, DIAPHRAGMS (CONTINUED):
ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA, [T=15"], AS PER PLAN (CONTINUED):

USE A MINIMUM DOSAGE RATE OF MACRO-SYNTHETIC FIBERS OF 4.0
LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE
RATE THROUGH MIX TESTING. ENSURE THE FIBER REINFORCED
CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURA
STRENGTH RATIO OF 25% ACCORDING TO ASTIM C 1609. ENSURE THE
FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED
SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM
AS DETERMINED BY THE ENGINEER. UTILIZE A LABORATORY
REGULARLY INSPECTED BY THE CEMENT AND CONCRETE REFERENCE
LABORATORY (CCRL) OF THE NATIONAL INSTITUTE OF STANDARDS
AND TECHNOLOGY, OR OTHER APPROVED REFERENCE LABORATORY,
TO PERFORM THE TESTING. BEFORE USE, SUBMIT DOCUMENTATION
TO THE PROJECT ENGINEER CERTIFYING BOTH THE MACRO-SYNTHETIC
FIBERS AND THE MIX MEET OR EXCEED THE REQUIRED PROPERTIES.
SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A
DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX MAY BE
REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON
THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED. THE TRANSIT MIXER CHARGE SHALL BE LIMITED TO 3/4 OF ITS RATED CAPACITY OR 6 CUBIC YARDS, WHICHEVER IS SMALLER. THE FIRST THREE TRANSIT MIXER LOADS ARE REQUIRED TO BE AT THE MINIMUM YARDAGE LISTED ABOVE TO SHOW PROOF OF THE SUCCESSFUL BATCHING OPERATION. AFTER CONSISTENCY IN THE DELIVERED MATERIAL HAS BEEN ESTABLISHED, THE CONCRETE SUPPLIER MAY INCREASE THE BATCH DELIVERED QUANTITIES AS LONG AS THE QUALITY REMAINS ACCEPTABLE TO THE ENGINEER. THE ENGINEER CAN REDUCE THE BATCH LOAD SIZE AT ANY TIME AS NEEDED TO CORRECT/IMPROVE CONCRETE QUALITY.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT THE CORROSION INHIBITOR AND ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE CORROSION INHIBITOR IS SUGGESTED TO BE AN MCI PRODUCT BY CORTEC OR AN APPROVED EQUAL FROM THE QUALIFIED PRODUCTS LIST. THE CONCRETE SUPPLIER'S CHOICE OF ONE OF THESE CONCRETIC SUPPLIER'S CHOICE OF ONE OF THESE CONCREMENTS. PLEASE BE ADVISED THAT SOME PRODUCTS ON THE LIST AFFECT THE DELIVERED MIX PROPERTIES GREATLY WHILE OTHER PRODUCTS DO NOT.

APPROACH SLABS, DIAPHRAGMS, AND BRIDGE RAILING CONCRETE ARE TO USE THE SAME MIX DESIGN AS THE BRIDGE DECK. THE CONTRACTOR SHOULD BE ADVISED THAT CONCRETE RETARDING AGENTS MAY NEED TO BE ADDED TO OFFSET THE EFFECTS OF THE MIGRATING CORROSION INHIBITOR SELECTED. USE SELF-COMPACTING CONCRETE ON DECORATIVE RAILING SIMILAR TO TEXAS RAILING AND MACRO-SYNTHETIC CONCRETE PER THIS SPECIFICATION ON TRADITIONAL CONCRETE RAILING WHEN APPLICABLE.

THE CONTRACTOR SHALL PROVIDE TRADITIONAL BRIDGE DECK FORMS CONFORMING TO CMS 508. PERMANENT STAY-IN-PLACE (SIP) FORMS ARE NOT ALLOWED. THE PLACING OF THE DECK AND THE APPROACH SLABS IN THE SAME CONCRETE POUR IS NOT PERMITTED.

FURNISH GALVANIZED STEEL REINFORCEMENT 709.16 IN LIEU OF EPOXY COATED STEEL REINFORCEMENT FOR REINFORCED CONCRETE APPROACH SLABS.

CONSTRUCTION
DIAMETER
DIMMENSION
EACH FACE
ELEVATION
EXISTING
EXPANSION
FAR FACE
FIXED
FOOT/FEET
HIGH PRESSURE
INVERT
LEFT
MAXIMUM MINIMUM NEAR FACE PREFORMED EXPANSION JOINT FILLER POINT SPACING/SPACES STATION

ITEM 513 - STRUCTURAL STEEL, MISC.: MOMENT PLATE RETROFIT ITEM 513 - STRUCTURAL STEEL, MISC.: FIELD DRILLING HOLES

THE EXISTING BEAMS SHALL HAVE RETROFIT SPLICE PLATES INSTALLED AS INDICATED IN THE PLANS. STEEL SHALL BE ASTM A709 GRADE 50 (YIELD STRENGTH 50 KSI) AND BOLTS SHALL BE ASTM F3125 GRADE A325, TYPE 1.

IF THE ENGINEER SUSPECTS THAT A CRACK HAS ADVANCED INTO THE BASE METAL OF THE BEAM, IMMEDIATELY ALERT THE OFFICE OF CONSTRUCTION ADMINISTRATION - BRIDGE CONSTRUCTION SPECIALIST. PROVIDE THE LOCATION OF THE CRACK, LENGTH, AND DEPTH SO AN EVALUATION AND REPAIR OR REPLACEMENT RECOMMENDATION CAN BE MADE.

AFTER APPROVAL FROM THE ENGINEER, EXISTING MOMENT PLATES WITH ADEQUATE TRANSVERSE WELDS OR TRANSVERSE WELD AREAS THAT HAVE BEEN REPAIRED TO THE SATISFACTION OF THE ENGINEER, SHALL BE RETROFITTED WITH BOLTED SPLICE PLATES AS SHOWN IN

APPLY ORGANIC ZINC PRIME COAT TO THE EXISTING STRUCTURAL STEEL IN THE RETROFIT AREA TO THE SURFACE PREPARATION LIMITS. NEW STRUCTURAL STEEL FOR THE MOMENT PLATE RETROFIT SHALL HAVE SHOP DRILLED BOIT HOLES AND SHALL BE DELIVERED TO THE SITE WITH A SHOP APPLIED INORGANIC ZINC PRIME COAT.

FIELD DRILL BOLT HOLES THROUGH THE EXISTING STEEL MOMENT PLATES AND EXISTING BEAM FLANGES USING THE NEW RETROFIT SPLICE PLATES AS A TEMPLATE. INSTALL BOLTED RETROFIT SPLICE PLATES AT EACH END OF ALL TOP MOMENT PLATES OF BOTH LEFT AND RIGHT BRIDGES (56 LOCATIONS).

APPLY INTERMEDIATE AND FINISH PAINT COATS TO THE NEW AND EXISTING STEEL AT EACH MOMENT PLATE RETROFIT LOCATION. SEE SHEET 23 OF 44 FOR ADDITIONAL MOMENT PLATE RETROFIT/FLANGE PAINTING LIMITS. PAINT COLOR SHALL MATCH EXISTING.

STEEL MEMBERS TO BE FABRICATED UNDER THIS ITEM DO NOT REQUIRE SHOP DRAWINGS PRIOR TO FABRICATION. HOWEVER, THE CONTRACTOR SHALL MAKE NECESSARY MEASUREMENTS AND PREPARE SKETCHES, DRAWINGS, TABLES, ETC. TO ENSURE ADEQUATE INFORMATION IS PROVIDED TO THE FABRICATOR. THE ENGINEER SHALL HAVE THE AUTHORITY AND RESPONSIBILITY FOR ENSURING THE FABRICATED STEEL IS ACCEPTABLE. TECHNICAL ASSISTANCE WILL BE PROVIDED TO THE ENGINEER, IF REQUESTED, BY THE OFFICE OF STRUCTURAL ENGINEERING.

IN ACCORDANCE WITH CMS 501.06, MILL TEST REPORTS AND SHIPPING DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INCORPORATING NEW STEEL ITEMS INTO THE WORK. AFTER FABRICATION, THE CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL TO ENSURE THE DRAWINGS DEPICT THE STEEL AS ACTUALLY INCORPORATED INTO THE WORK. THE ENGINEER WILL THEN SEND AN APPROVED SET OF DRAWINGS TO THE OFFICE OF STRUCTURAL ENGINEERING FOR INFORMATION, PAY WEIGHTS SHALL BE COMPUTED IN COMPLIANCE WITH CMS 513 AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.

ALL NECESSARY LABOR, EQUIPMENT, AND MATERIAL TO PERFORM THE INITIAL INSPECTION, APPLY A SHOP PRIME COAT, AND INSTALL THE BOLTED RETROFIT SPLICE PLATES AS DESCRIBED ABOVE SHALL BE INCLUDED WITH ITEM 513 - STRUCTURAL STEEL, MISC.: MOMENT PLATE RETROFIT FOR PAYMENT.

SURFACE PREPARATION AND PAINTING OF NEW AND EXISTING STRUCTURAL STEEL AS DESCRIBED SHALL BE INCLUDED WITH ITEM 514 FOR PAYMENT.

AFTER THE DECK HAS BEEN REMOVED, PERFORM SURFACE PREPARATION OF THE TOP FLANGE RETROFIT AREAS TO REMOVE THE EXISTING PAINT SYSTEM. THE SURFACE PREPARATION LIMITS SHALL EXTEND 1-FT. PAST EACH END OF THE TOP RETROFIT SPLICE PLATES. THE ENGINEER SHALL CAREFULLY VISUALLY INSPECT THE CLEANED AREA AT EACH END OF ALL THE TOP FLANGE MOMENT PLATES.

IF THE ENGINEER DETERMINES THE TRANSVERSE MOMENT PLATE WELD IS STILL PERFORMING ADEQUATELY, LEAVE THE WELD IN PLACE. IF THE WELD APPEARS RUSTED OR HAS SEPARATED FROM THE EXISTING BEAM OR MOMENT PLATE, THE CONTRACTOR SHALL REMOVE THE EXISTING TRANSVERSE MOMENT PLATE WELD AND INSPECT FOR DAMAGE TO THE BASE METAL OF THE BEAM. GRINDING MAY BE DIRECTED BY THE ENGINEER TO ENHANCE THE INVESTIGATION FOR CRACK PRESENCE. ALL STEEL GRINDING MUST BE DONE CAUTIOUSLY ON A CASE-BY-CASE BASIS.

ALL NECESSARY LABOR, EQUIPMENT, AND MATERIAL TO PERFORM THE FIELD DRILLING OF BOIT HOLES THROUGH THE EXISTING STRUCTURAL STEEL BEAM FLANGES AND EXISTING MOMENT PLATES SHALL BE INCLUDED WITH ITEM 513 - STRUCTURAL STEEL, MISC.: FIELD DRILLING HOLES FOR PAYMENT.

ITEM 514 - FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT.
ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE
COAT, AS PER PLAN:
ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN:

PAINTED AREAS THAT ARE DAMAGED BY WELDING, DRILLING, CUTTING, OR OTHER MEANS TO REHABILITATE THIS BRIDGE ARE DESIGNATED IN THE PROJECT PLANS.

TING STEEL AREAS SHALL RECEIVE A PRIME, INTERMEDIATE, AND SH COAT APPLIED IN THE FIELD. PROPOSED STEEL SHALL BE SHOP MED AND RECEIVE AN INTERMEDIATE AND FINISH COAT APPLIED CONTRACTOR SHALL PROVIDE THE ENGINEER WITH ALL ESSARY EQUIPMENT TO INSPECT THIS WORK. THE MAJORITY OF AREAS TO BE REPAIR PAINTED ARE:

EXISTING BEAM MOMENT PLATE RETROFIT LOCATIONS

FINISH COAT SHALL MATCH THE EXISTING BEAM'S COLOR. OBTAIN ENGINEER'S APPROVAL OF PAINT COLOR BEFORE APPLYING

PRIOR TO THE START OF WORK ON THE STRUCTURE, THE CONTRACTOR SHALL DOCUMENT THE EXISTING CONDITION OF THE PAINTED STRUCTURE TO IDENTIFY AREAS PREVIOUSLY DAMAGED THAT ARE OUTSIDE THE LIMITS OF THE CURRENT PAY ITEMS. PAINTED AREAS THAT WERE NOT PREVIOUSLY DAMAGED THAT RECEIVE DAMAGE BY THE CONTRACTOR'S ACTIVITIES ONCE WORK BEGINS WILL BE REPAIRED AT THE CONTRACTOR'S COST.

ITEM 514 - FIELD PAINTING, MISC.: COATING OF BEAM ENDS:

PRIOR TO ENCASING THE BEAM ENDS, PREPARE THE ENDS PER SSPC SP10 OR SSPC SP11 TO BARE METAL ACHIEVING A 1.5 TO 3.5 MIL PROFILE. PAINT THE BEAM ENDS WITH ORGANIC ZINC PRIME COAT PER CMS 514.1.4. PROVIDE THE PRIME COAT THICKNESS AS PER CMS 514.20. EXTEND THE LIMITS OF THE BEAM PREPARATION AND PAINTING 1 FOOT BEYOND THE LIMITS OF THE END DIAPHRAGM CONCRETE.

AFTER THE DIAPHRAGM IS SET, SEAL THE INTERFACE BETWEEN THE BEAM AND CONCRETE WITH CAULK.

E DEPARTMENT WILL PAY FOR ALL MATERIAL, LABOR, AND UIPMENT NECESSARY TO PERFORM WORK AS DESCRIBED ABOVE THE CONTRACT BID PRICE FOR ITEM 514 - FIELD PAINTING, MISC.: TING OF BEAM ENDS.

1 516 - JACKING AND TEMPORARY SUPPORT OF ERSTRUCTURE, AS PER PLAN:

ACKING OPERATION AND INSTALL SUPPORTS TO THE EATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS. THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516-JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN. THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS. SUBMIT CONSTRUCTION PLANS IN ACCORDANG WITH CMS 501.05. IF, DURING THE LACKING OPERATIONS, DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THI JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL PROJECT PLANS. SUBMIT CONSTRUCTION PLANS IN ACCORDANCE H CMS 501.05. IF, DURING THE JACKING OPERATIONS, DAMAGE HE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN:

PRIOR TO THE SURFACE CLEANING SPECIFIED IN CMS 519,04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED FREEL REINFORCEMENT. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE

ITEM 601 - CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN:

WITH PRIOR APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY REDRESS THE SLOPES WITH THE EXISTING CRUSHED AGGREGATE. WHERE ADDITIONAL MATERIAL IS REQUIRED, FURNISH AND PLACE CRUSHED AGGREGATE IN ACCORDANCE WITH CMS 601. AN ESTIMATED QUANTITY OF 100 SQUARE YARDS HAS BEEN INCLUDED ESTIMATED QUANTITY OF 100 SQUARE YARDS HAS BEEN INCLUDED. ERE ADDITIONAL MATERIAL IS REQUIRED, FURNISH AND PLACE ISHED AGGREGATE IN ACCORDANCE WITH CMS 601. AN INMATED QUANTITY OF 100 SQUARE YARDS HAS BEEN INCLUDED THIS WORK. ACTUAL QUANTITIES OF SLOPE TO BE REDRESSED NIEW MATERIAL TO BE PLACED SHALL BE AS DIRECTED BY THE

REVIEWER NFF 08/22	DESIGNER ZTW	Т
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GENERAL NOTES - 2 BRIDGE NO. HAM-00050-29.280 US-50 OVER RAMPS TO RED BANK ROAD

