

# PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF TOTAL RECONSTRUCTION OF 2.0 MILES OF I-75 THROUGH HAMILTON COUNTY FROM APPROXIMATELY 0.2 MILES NORTH OF GLENDALE-MILFORD INTERCHANGE TO I-275 INTERCHANGE. IN ADDITION TO TOTAL RECONSTRUCTION OF 1.0 MILE OF ALL RAMPS AT THE SHARON ROAD INTERCHANGE AND STRUCTURE REPLACEMENT OF HAM-75-15.39 L&R OVER SHARON ROAD. THIS PROJECT ALSO INVOLVES PLANING & RESURFACING WITH WIDENING AND RECONSTRUCTION ALONG PORTIONS OF SHARON ROAD AND CHESTER ROAD

IN ADDITION, IT INCLUDES DRAINAGE AND BMP'S, MODIFICATION OF THREE (3) TRAFFIC SIGNALS ALONG SHARON ROAD, HIGHWAY LIGHTING AND TRAFFIC SURVELLIANCE ALONG I-75, TRAFFIC CONTROL, WATER WORKS ALONG SHARON ROAD, AND STRUCTURE REPAIR AT HAM-75-16.42 L OVER KEMPER ROAD.

THIS PROJECT IS PHASE 8 OF THE BROADER I-75 TTV "THRU THE VALLEY" PROJECT, WHICH WILL RECONSTRUCT A PORTION OF THE I-75 CORRIDOR TO ADD CAPACITY TO EFFECTIVELY HANDLE HIGH TRAFFIC VOLUMES AND AND HIGH PERCENTAGES OF COMMERCIAL TRAFFIC USING THIS SECTION OF ROADWAY.

# EARTH DISTURBED AREA (E.D.A.)

PROJECT E.D.A. ESTIMATED CONTRACTOR E.D.A. TOTAL PROJECT E.D.A. NOTICE OF INTENT E.D.A.

LIMITED ACCESS

(\*) ADDITIONAL

SHEETS USED:

SUPPLEMENTAL

SPECIFICATIONS

800-2019 4-17-202

4-17-2020

1-18-20

1-17-2020

10-19-201

10-18-2019

4-20-2012

1-18-201

10-19-201

1-19-201

1-17-2020

10-18-201

4-17-2015

4-21-201

1-18-201

1-17-2020

7-19-201

7-19-201

10-18.2019

10-20-201

4-21-201

1-19-201

4-20-2012

4-17-200

SPECIAL

PROVISIONS

1454.1504.

804

308

836

840

843

846

866

867

878

902

904

907

908

913

159A,165A-B

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

# 2019 SPECIFICATIONS

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

HEREBY APPROVED THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED. DATE 5-8-2020 DISTRICT DEPUTY DIRECTOR

APPROVED.

DATE 5-8-2020 DIRECTOR. DEPARTMENT OF TRANSPORTATION

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	PROPOSED LEGEND	EXISTING LEGEND		4" (TYP.)	<b>-</b> 1	ETTYP)
	1 ITEM 442 - (1.5″) ASPHALT CONCRETE SURFACE COURSE, 1 12.5 MM, TYPE A (447), AS PER PLAN	(A) EXISTING ASPHALT CONCRETE	AN CUARON ROAD - ZN CUESTER ROAD	6" (TYP.)		18" (TYP.)
	(2A) ITEM 442 - (1.75") ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), PG64-28	$(5 \pm 1-75 \text{ MAINLINE}, 5 \pm \text{RAMPS}, 4)$	SHARON ROAD, 5 CHESTER ROAL	$\frac{6'''(TYP.)}{2'''(TYP.)} \rightarrow \boxed{-}$		
	(2B) \$ ITEM 442 - (VAR DEPTH, 2" AVG) ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), AS PER PLAN (0" MIN, 4" MAX)	(B) EXISTING REINFORCED CONCRET (9" RAMPS, 9" SHARON ROAD, 1	TE PAVEMENT 10″ I-75 MAINLINE)			
	(3) ITEM 302 - 11" ASPHALT CONCRETE BASE, PG64-22 (PLACED IN TWO 5.5" LIFTS WITH 6" EDGE COURSE)	$\left(\widehat{c}\right)$ EXISTING SUBBASE (VARIES 6-8	3", 6" TYP.)		5 4 4	
	(4) ITEM 407 - NON-TRACKING TACK COAT (APPLIED @ AVG 0.055 GAL/SY FOR NEW ASPHALT)	$\left(\begin{array}{c} D \\ D \end{array}\right)$ EXISTING 3" WATERPROOFED BI	ITUMINOUS BASE COURSE, TYPE	$B \qquad \qquad \left  \frac{18''}{(TYP.)} \right  $	$ \underbrace{6}(3)(2A)(1) $	
dno	(APPLIED @ AVG 0.085 GAL/SY FOR MILLED ASPHALT SURFACE (5) ITEM 304 - (8") AGGREGATE BASE	$(\widetilde{E})$ EXISTING 5" STABILIZED CRUSH	IED AGGREGATE SHOULDERS	PAVED EDGE CO	SHOULDER NURSE DETATI	PAVE EDGE (
I Gro	CHEMICALLY STABILIZED SUBGRADE:	(F) EXISTING CONCRETE CURB AND	GUTTER	(FLEXIBL	E PAVEMENT)	(RIGIL
tbl IB	(APPLIED @ 1 HR/2000 SY FOR RECONSTRUCTION)	(G) EXISTING CONCRETE WALK		ΡΛΥΕΠ	_	
-ME.	ITEM 206 – CEMENT (APPLIED @ 5% PER 115 LB/CF SOIL)	$\left(\begin{array}{c} 0 \end{array}\right) = \left(\begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	с.	SHOULDER TRAVELED WAY	-	
i_Per	ITEM 206 – CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP ITEM 206 – CURING COAT	$(\overline{1})$ EVICTING 10" ASI MALT CONCRETE DASI		VARIES:/% MAX. 0.04 TOBREAK	<u>10"</u>	→ ←
0TV8	ITEM 206 - MIXIURE DESIGN FOR CHEMICALLY STABILIZED SOILS (SPECIFIED ON PROJECTS > 40,000 SY, SEE SUPPLEMENT 1120) -	(T) EXISTING 12" BITUMINOUS SUI E		0.01 0.06 MAX		
ŌŌ	ITEM 442 - (1.5") ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)	(J) EXISTING 6" BITUMINOUS 301 B.	ASE			
Itcfg	(8A) ITEM 442 - (1.75") ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448), PG64-28	(K) EXISTING 5" BITUMINOUS 301 B.	ASE PAVi	ED SHOULDER (3' TO 10' W	 14 (ער קון אר	3″
PDF.p	(8B) \$ ITEM 442 - (VAR. DEPTH, 2" AVG) ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448), AS PER PLAN (0" MIN, 4" MAX)	, ( L ) FUTURE EXISTING ITEM 442 - 1.5" AS COURSE, 12.5 MM, TYPE A (446) (SEE	SPHALT CONCRETE SURFACE E HAM-75-12.60, PID 82288)	CROSS SLOPE DETAILS FOR HIGH SIDE OF	· · · · · · ·	
_bbp	9A) ITEM 301 - ASPHALT CONCRETE BASE, PG64-22 (10" SHARON ROAD (PLACED IN TWO 5" LIFTS), 6" CHESTER ROAD)	( M) FUTURE EXISTING ITEM 442 - 1.75" A	ASPHALT CONCRETE INTERMEDIATE	SUPERELEVATED SECTION	/	(15) (5)
DOTo	(9B) <b>\$</b> ITEM 301 - (VAR. DEPTH, 2" AVG) ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN (4" MIN)	COURSE, 19 MM, TYPE A (446) (SEE H	HAM-75-12.60, PID 82288)		ITEM 203 – EXCAVATIC	N APPROXIMA
0	10 ITEM 204 - SUBGRADE COMPACTION ITEM 204 - PROOF ROLLING	$\left(\begin{array}{c} N \end{array}\right)$ FUTURE EXISTING ITEM 302 - 13" AS	SPHALT CONCRETE BASE, PG64-22	TRAVELED WAY SHOULDER	ITEM 203 - EMBANKMEN	IT UNSTABLE
×ton''	(APPLIED @ 1 HR/2000 SY FOR RECONSTRUCTION) (APPLIED @ 1 HR/3000 SY FOR NEW CONSTRUCTION)	$(\widehat{0})$ eliture existing item 304 - 4	ACCDECATE RASE	PVT.	CUI	RB AND GUTTER EDGE COUR
n.cro	(11) ITEM 605 - 6" BASE PIPE UNDERDRAINS (18" DEPTH)	(SEE HAM-75-12.60, PID 82288)	)		<u>20"</u>	••
williar	(12) ITEM 605 - 6" SHALLOW PIPE UNDERDRAINS (24" OR 30" DEPTH)	$\left( \stackrel{\frown}{P} \right)$ FUTURE EXISTING ITEM 622 - CONCR	RETE BARRIER, SINGLE SLOPE,	<u>}</u>	$\int \frac{6'''(TYP.)}{6'''(TYP.)} =$	$ \begin{bmatrix} \bullet \\ - \end{bmatrix} $ $ (14) $
Σ	13) ITEM 659 – SEEDING AND MULCHING	TYPE B1 (STA. 324+00 TO STA. 327 TYPE C1 (STA. 327+00 TO STA. 329	?+00 樘 CONST. I-75 SB) OR P+34.11 뤋 CONST. I-75 SB)	 PAVED_SHOULDER		
:17 P	(14) ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D	(SEE HAM-75-12.60, PID 82288)	)	CROSS SLOPE DETAILS FOR LOW SIDE OF	2" (TYP)	
6:28	(15) UNDERCUT AND REPLACE: ITEM 204 - EXCAVATION OF SUBGRADE, 18 INCHES DEEP	(Q) EXISTING NON-REINFORCED CON (13.5" RAMP C. RAMP G)	NCRETE PAVEMENT	SUPERELEVATED SECTION		
12 - 18	ITEM 204 - GRANULAR MATERIAL, TYPE C ITEM 204 - GEOTEXTILE FABRIC	NOTES	A	0.040 OR SAME SLOPE AS RAT SUPERELEVATION, WHICHEVER I	E OF IS GREATER 19/	
021-0	(16) ITEM 606 - GUARDRAIL, TYPE MGS	I. STATION EQUATION FOR I-75 MAI	INLINE SPLIT:		(TYP.)	$\left  \left( 5 \right) \right  \left( 4 \right) \right  \left( 1 \right)$
2	(17) ITEM 452 - 13.5" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1	STA. 358+82.52 ₽ CONST. I-75 SB 2. THE PAVED SHOULDER WIDTHS ID	BK.= STA. 359+17.48 ₿ CONST. ENTIFIED WITH "#" INDICATES	I-75 NB BK.=STA. 359+00.00 4	₿ CONST. I-75 AH.	$\begin{pmatrix} 6 \end{pmatrix} \begin{pmatrix} 3 \end{pmatrix} \begin{pmatrix} 24 \end{pmatrix}$
1.dgn	(18) ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 2	THE PAVED WIDTH IS EQUAL TO THE 3. THE EXISTING PAVEMENT BUILDUE	E GRADED SHOULDER WIDTH. P (COMPOSITION AND DEPTHS) A)	RF BASED	PAVED SF SINGLE SLOPE	HOULDER AND
JG Υ 10	(19) ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN (13.25" THICK)	ON EXISTING PLAN INFORMATION AN	ND AVERAGE RESULTS OF BORING	G LOCATIONS	EDGE CO	URSE DETAIL
0000	(20) ITEM 608 - 4" CONCRETE WALK	OCTOBER 2016	. ONT DI NESCORCE INTERNATIC	NIAL VAILU	UETAII STA. 325+00, LT. TO	STA. 342+00, LT.
ets∖(	(21) ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=17")	\$ SEE SHEET 24 FOR	2'-3/4'' / NC (2.06')	DTE: MATCH LIFT	2'-3/4"	NOTE: MATCH LIF
\\she	23) ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE (1"–3.25") (1" MIN, 3.25" MAX)	PLAN NOTES FOR APPLICATION REQUIREMENTS OF 2B, 8B, 9B		EM 302 TO DTTOM OF 9" BASE	$\frac{(2.06')}{5}$	ITEM 302 TO BOTTOM OF 9" B4
(owbo	24) ITEM 252 - FULL DEPTH PAVEMENT SAWING		- FC	DR BARRIER		FOR BARRIER
0/ro	25) ITEM 601 - PAVED GUTTER, TYPE 4					
AM\000C	ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLA (26) ITEM 622 - INLET NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN ITEM 622 - CONCRETE BARRIER, END SECTION. TYPE D, AS PER PLAN	N N				
-75\H	(27) ITEM 202 - PAVEMENT REMOVED					
_HAM			$\begin{pmatrix} 6 \end{pmatrix} \begin{pmatrix} 3 \end{pmatrix} \begin{pmatrix} 2 \end{pmatrix}$	(1) (1)	$\begin{pmatrix} 6 \end{pmatrix} \begin{pmatrix} 3 \end{pmatrix}$	(2A) $(1)$
6\06-386	29) ITEM 202 - WEARING COURSE REMOVED		PAVED SHOULDER EDGE CONCRETE BARRIER, END ANCI TYPE D, AS PER PLAN	COURSE DETAIL F HORAGE, REINFORCED, N (15' LENGTH)	YAVED SHOULDER EDU INLET NO. 3 FOR SING TYPE D, AS PER PL	GE COURSE DET 'LE SLOPE BARRIEF AN (25.5' LENGTH)
-int<0			DETAIL APPLIES (REGIN (	OF BARRIER RUN):	DETATI ΔΡΡΙΤΕς (ΜΠΟΠΙ	F OF BARRIER RU

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UETAIL APPLIES (BEGIN OF BARRIER RUN): SEE SHEET 444 FOR LIMITING STATIONS (I-75) DETAIL APPLIES (MIDDLE OF BARRIER RUN): SEE SHEET 444 FOR LIMITING STATIONS (I-75)



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#### UTILITIES:

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

DUKE ELECTRIC 139 E. 4TH STREET, ROOM 467A CINCINNATI, OH 45202 513-287-3674 AARON WRIGHT AARON.WRIGHT@DUKE-ENERGY.COM

DUKE GAS 139 E. 4TH STREET. ROOM 460A CINCINNATI, OH 45202 513-287-1232 RICHARD HACKER

SPECTRUM 11254 CORNELL PARK DRIVE, STE 430B 1600 GEST STREET CINCINNATI, OH 45242 513-386-5499 KENT RIFGER KENT.RIEGER@CHARTER.COM

SOUTHWESTERN OHIO WATER COMPANY (SOWC) 600 SHEPHERD AVE., SUITE 1 CINCINNATI, OHIO 45215 513-489-4844 MICHAEL C. FLAVIN. PE MIKE.FLAVIN@FUSE.NET

METROPOLITAN SEWER DISTRICT 1600 GEST STREE CINCINNATI. OH 45204 513-557-7188 ROB FRANKI IN ROB.FRANKLIN@CINCINNATI-OH.GOV

VILLAGE OF GLENDALE UTILITY DEPARTMENT **30 VILLAGE SQUARE** GLENDALE. OH 45246 513-678-0992 KEVIN BELL KBELL@GLENDALEOHIO.ORG 513-200-5627 LORETTA ROKEY

DUKE ENERGY (TRANSMISSION) 139 E. 4TH STREET, ROOM 552A CINCINNATI, OH 45202 513-287-1266 TIM MFYFR TIM.MEYER@DUKE-ENERGY.COM

CINCINNATI BELL TELEPHONE 221 E. 4TH STREET, BLDG 121-900 CINCINNATI, OH 45201 513-565-7043 MARK CONNER RICHARD.HACKER@DUKE-ENERGY.COM MARK.CONNER@CINBELL.COM

> GREATER CINCINNATI WATER WORKS CINCINNATI, OH 45204 513-557-5799 JON HUNSEDER JON.HUNSEDER@GCWW.CINCINNATI-OH.GOV

ITS (FORMERI Y ARTIMIS) ODOT CENTRAL OFFICE OF TRAFFIC ENGINEERING 1980 WEST BROAD STREET COLUMBUS. OH 43223 614-466-2168 JASON M. YERAY. P.E. CEN.ITS.LAB@DOT.OHIO.GOV

CITY OF SHARONVILLE 10900 READING ROAD SHARONVILLE, OH 45241 503-563-1177 JOSEPH KEMPE JKEMPE@CITYOFSHARONVILLE.COM

VILLAGE OF EVENDALE 10500 READING ROAD EVENDALE. OH 45241 513-563-2244 JAMES JEFFERS JJEFFERS@PEGROUPLLC.COM

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

## UTILITY NOTIFICATION

THE OHIO DEPARTMENT OF TRANSPORTATION HAS UTILITY FACILITIES (HIGHWAY LIGHTING, TRAFFIC SIGNALS, ARTIMIS) WITHIN THE LIMITS OF THIS PROJECT.

IN ADDITION TO THE INFORMATION OUTLINED IN THE 4A NOTES OF THIS CONTRACT, AND EVEN THOUGH ODOT IS LISTED AS A MEMBER OF THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE CONTRACTOR ON THIS PROJECT IS REQUIRED TO CONTACT ODOT, DISTRICT 8, TRAFFIC DEPARTMENT, AND ARTIMIS DIRECTLY SO THAT THE ODOT UTILITIES, LOCATED WITHIN THIS PROJECT, ARE MARKED.

THE CONTRACTOR SHALL NOTIFY DISTRICT 8, TRAFFIC AT (513) 933-6689, CENTRAL OFFICE ITS AT (614) 387-4113 OR CEN.ITS.Lab@dot.ohio.gov, AND THE PROJECT ENGINEER, FOURTEEN (14) CALENDAR DAYS IN ADVANCE OF WORK, FOR THE NEED TO MARK ODOT OWNED UTILITIES. CONTRACTOR SHALL RE-MARK EXISTING AND NEW ITS UTILITIES AFTER EXISTING IS MARKED FIRST TIME BY ODOT ACCORDING TO SS809.

THE ABOVE REQUIREMENTS ARE IN ADDITION TO SECTION 105.07 & 107.16 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE 4A PROPOSAL NOTE.

THE CONTRACTOR SHALL NOTIFY OTHER UTILITIES THROUGH OUPS OR DIRECTLY A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY WORK.

THE COST FOR THE ABOVE DESCRIBED WORK IS INCIDENTAL TO THE OVERALL BID PRICE OF THE PROJECT.

# UTILITY NOTIFICATION (CONT.)

UTILITY LINE AT STA. 390+56:

THE UNKNOWN UTILITY LINE APPEARS TO BE ABANDONED AS THE UTILITY COMPANIES LISTED ON THIS SHEET PROVIDED NO RECORD OF CURRENT USAGE OF THIS LINE. PRIOR TO CONSTRUCTION NEAR THIS LINE, THE CONTRACTOR SHALL EXPOSE THE LINE IN THREE (3) LOCATIONS AS DETERMINED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE TYPE, SIZE, AND DEPTH OF THE UNKNOWN UTILITY LINE TO THE ENGINEER FOR FURTHER COORDINATION. THE COST FOR THE ABOVE DESCRIBED WORK SHALL BE INCIDENTAL TO THE OVERALL BID PRICE OF THE PROJECT.

# EXISTING PLANS:

THE FOLLOWING EXISTING PLANS MAY BE INSPECTED AT ODOT DISTRICT 8:

1958 - HAM-25-13.84 BY VOGT, IVERS, SEAMAN & ASSOCIATES

1958 - HAM-25-15.60 & HAM-50B-22.02 BY VOGT. IVERS. SEAMAN & ASSOCIATES

1992 - HAM-75-14.26 BY HAZELET & ERDAL, INC.

2011 - HAM-75-15.34 (PID 86798) BY M-E COMPANIES

2013 - GRE/HAM-PPS-FY2013 (PID 75909) BY ODOT DISTRICT 8

THE FOLLOWING EXISTING PLANS MAY BE INSPECTED AT THE CITY OF SHARONVILLE:

2012 - CHESTER RD. AT SHARON RD. ROADWAY IMPROVEMENTS BY KLEINGERS & ASSOCIATES

# SURVEYING PARAMETERS:

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEETS 2-4 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

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

VERTICAL POSITIONING: ORTHOMETRIC HEIGHT DATUM: NAVD88 GEOID: GEOID 09

HORIZONTAL POSITIONING:

REFERENCE FRAME: NAD83 (CORS96) ELLIPSOID: GRS80 MAP PROJECTION: LAMBERT CONFORMAL CONIC COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE COMBINED SCALE FACTOR: 0.999916593 ORIGIN OF COORDINATE SYSTEM: OHIO SOUTH ZONE (0,0)

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

UNITS ARE IS U.S. SURVEY FEET.

#### ROUNDING:

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

# CONSTRUCTION NOISE:

THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND COMPLYING WITH ALL LOCAL NOISE ORDINANCES FOR CITY OF SHARONVILLE & CITY OF GLENDALE AND THESE LOCAL ORDINANCES. IF IN PLACE. SHALL SUPERSEDE THE MINIMUM TIME FRAMES MENTIONED ABOVE.

#### WORK LIMITS:

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

# FENCE LENGTHS

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.

#### BENCHING OF FOUNDATION SLOPES:

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

# CONTRACT REQUIREMENT:

THE CONTRACTOR SHALL NOT BEGIN WORK UNTIL ON OR AFTER AUGUST 1, 2021.

## CONSTRUCTION DATES:

THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING CONSTRUCTION DATES FOR THIS PROJECT:

- START DATE: ON OR AFTER 8-1-2021
- INTERIM COMPLETION: 9-30-2023
- END CONSTRUCTION: 6-30-2024

# INTERIM COMPLETION REQUIREMENTS:

THE PROJECT HAS AN INTERIM COMPLETION DATE OF 9-30-2023. ON OR BEFORE THE INTERIM COMPLETION DATE, ALL ROADWAYS SHALL BE PLACED IN THEIR FINAL TRAFFIC CONFIGURATION WITH ALL CONTRACT ITEMS OF WORK COMPLETE EXCEPT FOR THE FINAL ASPHALT CONCRETE SURFACE COURSE, FINAL PAVEMENT MARKINGS, RAISED PAVEMENT MARKERS AND RUMBLE STRIPS.

THE CONTRACTOR WILL BE SUBJECT TO DAILY DISCENTIVES IN THE AMOUNT OF \$3500 PER DAY FOR FAILURE TO COMPLETE ALL THE REQUIRED WORK AND ASSOCIATED INCIDENTALS RELATED TO THE WORK PRIOR TO THE INTERIM COMPLETION DATE. DAILY DISINCENTIVES ARE APPLICABLE TO THE WORK REQUIRED TO THE INTERIM COMPLETION DATE ONLY. THE CONTRACTOR IS STILL SUBJECT TO LIQUIDATED DAMAGES AS OUTLINED IN CMS 108.07 FOR THE REMAINDER OF THE CONTRACT.

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ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING: CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.

2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE UNSUITABLE SUBGRADE IS A BEDROCK UNDERCUT. APPROXIMATE LIMITS FOR EXCAVATION OF UNSUITABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE ALONG I-75 SOUTHBOUND. THE LIMITING STATIONS HAVE BEEN ESTIMATED BASED ON BEDROCK ELEVATIONS FROM HISTORIC BORINGS PER ORIGINAL I-75 CONSTRUCTION PLANS. IT IS ANTICIPATED THAT THE TOP OF EXISTING BEDROCK IS PRESENT AT OR NEAR THE PROPOSED SUBGRADE ALONG I-75 SOUTHBOUND FROM APPROXIMATELY STA. 325+00 TO STA. 351+00. WITH AGGREGATE BASE BEING PART OF THE PAVEMENT DESIGN AND PER ODOT CMS 204.05, A TOTAL EXCAVATION DEPTH OF 18" SHALL BE MAINTAINED BELOW THE BOTTOM OF SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05.

IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

3. APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSTABLE SUBGRADE ALONG SHARON RD. AND CHESTER RD. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06.

4. COMPACT THE SUBGRADE ACCORDING TO 204.03.

5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.

7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 -EXCAVATION OF SUBGRADE.

THE PAY ITEMS FOR REPLACING THE UNSUITABLE SUBGRADE IS PAID UNDER ITEM 204 - EMBANKMENT, AS PER PLAN

THE PAY ITEMS FOR REPLACING THE UNSTABLE SUBGRADE IS PAID UNDER ITEM 204 - GRANULAR MATERIAL, TYPE C AND ITEM 204 - GEOTEXTILE FABRIC.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL:

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

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# ITEM 201-CLEARING AND GRUBBING:

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

# ITEM SPECIAL-FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULK-HEADS IN AN EXISTING 12" DIAMETER CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS- SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED IN ACCORDANCE WITH THE PROVISIONS OF 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

# ITEM 204- EMBANKMENT, AS PER PLAN:

THE REQUIREMENTS OF ITEM 204 WILL APPLY; DEVIATIONS FROM THESE ARE AS FOLLOWS:

THE CONTRACTOR SHALL REPLACE UNSUITABLE SUBGRADE WITH NEW EMBANKMENT WITH A PLASTICITY INDEX OF 20 OR LESS. APPROXIMATE LIMITS FOR EXCAVATION OF UNSUITABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE ALONG I-75 SOUTHBOUND FROM APPROXIMATELY STA. 325+00 TO STA. 351+00. THE USE OF EXISTING SHALE BEDROCK AS A REPLACEMENT MATERIAL FOR UNSUITABLE SUBGRADE IS NOT PERMITTED.

# ITEM 606-ANCHOR ASSEMBLY, MGS TYPE B:

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

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

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

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

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

# ITEM 606- ANCHOR ASSEMBLY, MGS TYPE E:

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

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

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

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

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

# ITEM 606-IMPACT ATTENUATOR, TYPE 3 (UNIDIRECTIONAL) (DS=70 MPH, W=90 INCHES)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 3 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI- DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. THE FACE OF THE IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 3 [(SPEED (IN MPH), HAZARD WIDTH (IN INCHES)), (UNIDIRECTIONAL OR BIDIRECTIONAL)], EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

# ITEM 607-FENCE MISC.: TEMPORARY CONSTRUCTION FENCE

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING TEMPORARY CONSTRUCTION FENCE ALONG THE PRINCETON CITY SCHOOL DISTRICT PROPERTY TO IMPROVE SAFETY DURING CONSTRUCTION ALONG I-75 AT LOCATIONS IN WHICH LIMITED ACCESS FENCE IS TO BE REMOVED. BEFORE ANY FENCE WORK, THE CONTRACTOR SHALL CONTACT THE SCHOOL DISTRICT FOR PERMISSION TO ACCESS THE PROPERTY AND TO MUTUALLY DETERMINE APPROPRIATE LOCATION TO CONSTRUCT TEMPORARY CONSTRUCTION FENCE ON PRIVATE PROPERTY.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 607 - FENCE MISC.: TEMPORARY CONSTRUCTION FENCE 2000 FT

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ITEM 622-CONCRETE BARRIER, END SECTION, TYPE D, AS PER PLAN IN ADDITION TO THE REQUIREMENTS OF CMS 622, THE CONCRETE BARRIER SHALL BE CONSTRUCTED AS SHOWN ON SHEET 444 AND SHEET 444A. THE CONCRETE SHALL UTILIZE SELF-COMPACTING CONCRETE AS SPECIFIED ON SHEET 609 AND SHEET 645. ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER EACH FOR ITEM 622-CONCRETE BARRIER, END SECTION, TYPE D, AS PER PLAN

# ITEM 622-CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 622, THE CONCRETE BARRIER SHALL BE CONSTRUCTED AS SHOWN ON SHEET 444 AND SHEET 444A. THE CONCRETE SHALL UTILIZE SELF-COMPACTING CONCRETE AS SPECIFIED ON SHEET 609 AND SHEET 645. REINFORCING STEEL FROM ODOT SCD RM-4.5 SHALL BE UTILIZED EXCEPT WHERE NOTED WITHIN THE PLANS. ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER EACH FOR ITEM 622-CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN.

**ITEM 623-MONUMENT ASSEMBLY, ITEM 623-RIGHT OF WAY ASSEMBLY** CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE ODOT SCD RM-1.1 AND AT THE LOCATIONS SHOWN IN THE RIGHT OF WAY PLANS ON SHEETS 692-693.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 623	- MONUMENT ASSEMBLY	4 EACH
ITEM 623	- RIGHT OF WAY MONUMENT	2 EACH

# ITEM SPECIAL, MISC.: BOLLARD REMOVED AND RESET

IN ADDITION TO THE REQUIREMENTS OF SCD RM-5.1, THE EXISTING BOLLARDS SHALL BE REMOVED AND RESET AT LOCATIONS SHOWN IN THE PLANS. THE BOLLARDS SHALL BE RESET INTO THE EXISTING ASPHALT CONCRETE DRIVEWAY PAVEMENT AT A DISTANCE OF 1-FOOT BEYOND THE LIMITS OF PROPOSED ASPHALT CONCRETE DRIVEWAY PAVEMENT. THE CENTER BOLLARD SHALL BE CONSTRUCTED AT CENTER OF EXISTING DRIVEWAY. THE OUTER BOLLARDS SHALL BE CONSTRUCTED AT 6-FOOT SPACING FROM CENTER BOLLARD. ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER EACH FOR ITEM SPECIAL, MISC.: BOLLARD REMOVED AND RESET.

HAM-75-14.6



# ITEM SPECIAL-CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION

ALL CONCRETE SHALL BE TESTED. ALL TESTING, INSPECTION AND QUALITY CONTROL FOR CONCRETE, NOT INCLUDED UNDER QC/QA PAY ITEMS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A CONCRETE TESTING CONSULTANT WITH PREVIOUS EXPERIENCE AND FAMILIARITY IN ODOT PROCEDURES, CONCRETE TESTING REQUIREMENTS AND CONCRETE TESTING DOCUMENTATION. AT LEAST 30 DAYS PRIOR TO CONCRETE PLACEMENT, SUBMIT TO THE ENGINEER FOR APPROVAL, THE PROPOSED CONCRETE TESTING CONSULTANT ALONG WITH THE RESUMES OF THE PROPOSED TESTING PERSONNEL.

TESTING CONCRETE FOR STRUCTURES AND PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE PERFORMED AS OUTLINED IN CMS SPECIFICATIONS 455 RESPECTIVELY.

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THROUGH THE CONTRACTOR, THE CONSULTANT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONCRETE PLACED IS IN ACCORDANCE WITH THE SPECIFICATIONS. SUCH WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE ODOT CONSTRUCTION INSPECTION MANUAL OF PROCEDURES FOR CONCRETE. THE CONCRETE CONSULTANT SHALL PROVIDE THE NECESSARY TRAINED TECHNICIAN(S), ALL EQUIPMENT, AND SHALL FURNISH THE PROJECT ENGINEER WITH TWO (2) COPIES OF ALL TEST RESULTS WITHIN 24 HOURS AFTER COMPLETION OF CONCRETE PLACEMENT.

THE TECHNICIAN SHALL BE ACI LEVEL 1 CERTIFIED AND WILL BE REQUIRED TO DEMONSTRATE HIS/HER COMPETENCE AND EXPERIENCE LEVELS TO THE ENGINEER PRIOR TO BEGINNING WORK. THE ENGINEER WILL ORDER THE CONTRACTOR TO REPLACE ANY TECHNICIAN THAT IS NOT VERSED IN THE REQUIRED TESTING PROCEDURE.

THE TECHNICIAN SHALL VERBALLY NOTIFY THE ODOT PROJECT ENGINEER OF ANY FAILING TEST AND SHALL SUBMIT FOLLOW-UP WRITTEN NOTIFICATION TO THE PROJECT ENGINEER OF REMEDIAL ACTION(S) TAKEN. TESTS SHALL BE TAKEN AS SPECIFIED WITHIN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, CONCRETE MANUAL OR APPROPRIATE SUPPLEMENTAL SPECIFICATION AS LISTED IN THE PROPOSAL GOVERNING THE PROJECT. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO MAKE IMMEDIATE CORRECTIONS OR ADJUSTMENTS TO THE CONCRETE MIX VIA DIRECT COMMUNICATION WITH THE CONCRETE SUPPLIER'S PLANT PERSONNEL TO MAINTAIN UNINTERRUPTED COMPLIANCE WITH THE SPECIFICATIONS UPON NOTIFICATION OF CONCRETE MIX NON-COMPLIANCE BY THE CONSULTANT TECHNICIAN. THE PROJECT ENGINEER MAY REQUIRE MORE FREQUENT TESTING AS CONDITIONS WARRANT.

UPON COMPLETION OF DAILY CONCRETE PLACEMENT(S), THE CONCRETE CONSULTANT SHALL PROVIDE THE PROJECT ENGINEER WITH DAILY TEST REPORTS, TE-45'S, INSPECTORS DAILY REPORT AND SUPPORTING DOCUMENTATION FOR EACH ITEM OF CONCRETE WORK PERFORMED SEPARATED BY MIX DESIGN. SUBSEQUENTLY, UPON COMPLETION OF AN ENTIRE CONCRETE SPECIFICATION ITEM, THE CONCRETE CONSULTANT SHALL ALSO PROVIDE THE PROJECT ENGINEER WITH TWO (2) COPIES OF AN ADDITIONAL INSPECTION REPORT BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHICH CONTAINS THE TESTING-RESULTS SUMMARY FOR EACH ITEM BY CONTRACT REFERENCE NUMBER AND THE CONSULTANT'S CONCLUSIONS RELATIVE TO SPECIFICATION COMPLIANCE FOR ALL CONCRETE-TESTING WORK.

THE ODOT PROJECT ENGINEER RESERVES THE RIGHT TO MAKE UNANNOUNCED QUALITY-CONTROL TESTS TO VERIFY PROCEDURES USED AND RESULTS BEING OBTAINED BY THE CONTRACTOR.

# ITEM SPECIAL-CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION (CONTINUED)

THE CONCRETE TECHNICIAN SHALL WORK UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHO WILL MONITOR THE CONCRETE TEST RESULTS. THE FINAL INSPECTION REPORTS FOR EACH COMPLETED ITEM SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, CERTIFYING THAT ALL CONCRETE TESTS PROVIDED BY THE CONTRACTOR MET APPLICABLE CONTRACT REQUIREMENTS. A FINAL REPORT ISSUED BY THE CONSULTING FIRM SHALL CONTAIN A CERTIFIED STATEMENT OF COMPLIANCE WITH ODOT SPECIFICATIONS AND ANY OTHER CONCLUSIONS REGARDING THE CONCRETE MATERIALS INCORPORATED INTO THE PROJECT. SUCH STATEMENT SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO. AND, THE CONCRETE CONSULTANT SHALL BE REQUIRED TO ATTEND MONTHLY PROGRESS MEETINGS AS REQUIRED BY THE PROJECT ENGINEER.

ADDITIONALLY, THE CONTRACTOR SHALL BE REQUIRED TO KEEP A POSTED LIST OF BEAM AND CYLINDER IDENTIFICATION NUMBERS FOR THE PURPOSE OF IDENTIFYING THE CORRESPONDING PLACEMENT LOCATION AND CONCRETE SPECIFICATION ITEM.

PAYMENT SHALL BE BID AS LUMP SUM FOR ITEM SPECIAL MISC.: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION. THE ITEM WILL BE PAID FOR AS FOLLOWS:

UPON APPROVAL OF CONSULTANT......20% PROGRESSIVE EQUIVALENT PAYMENTS....50% UPON SUBMISSION OF FINAL REPORT.....30%

THE TECHNICIAN SHALL HAVE FULL EFFECT AND AUTHORITY OF AN ODOT PROJECT INSPECTOR IN DETERMINING ACCEPTABILITY OF MATERIAL AND CONCRETE PLACEMENT PRACTICES.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM SPECIAL-CONSULTANT FOR CONCRETE LS QUALITY CONTROL INCLUDING TESTING AND INSPECTION

# SEEDING AND MULCHING:

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT OF WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT OF WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

# POST CONSTRUCTION STORM WATER TREATMENT:

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

1.) BIORETENTION CELLS - 1-75 MEDIAN DITCH THE CONTRACTOR SHALL PLACE BIORETENTION CELLS TO SATISFY BMP REQUIREMENTS AT THE FOLLOWING I-75 MEDIAN LOCATIONS:

#### STA 331+53 TO STA 366+20

SEE PLAN SHEETS 216, 218, 220, 222 FOR LOCATIONS AND BMP DETAIL SHEETS 450C-450D FOR ADDITIONAL DETAILS. SEE SHEET 450D FOR PAY ITEMS.

2.) VEGETATED FILTER STRIPS - I-75 MEDIAN DITCH THE CONTRACTOR SHALL PLACE VEGETATED FILTER STRIPS TO SATISFY BMP REQUIREMENTS AT THE FOLLOWING I-75 MEDIAN LOCATIONS:

STA 372+50 TO STA 392+66 AND STA 392+84 TO STA 415+00

SEE PLAN SHEETS 223, 225-226, 228 FOR LOCATIONS AND CROSS SECTION SHEETS 284-308 AND 330-354 FOR ADDITIONAL DETAILS. SEE SHEET 205 FOR PAY ITEMS. QUANTITY CALCULATIONS BASED ON 25-FOOT WIDTH FOR ITEM 670-SLOPE EROSION PROTECTION & ITEM 659-TOPSOIL AND 6-INCH DEPTH FOR ITEM 659-TOPSOIL **CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES:** WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

# **REVIEW OF DRAINAGE FACILITIES:**

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE AND LOCAL GOVERNMENT AGENCIES, REPRESENTATIVES OF THE STATE AND LOCAL GOVERNMENT AGENCIES AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE AND LOCAL GOVERNMENT AGENCIES.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

# UNRECORDED STORM WATER DRAINAGE:

FURNISH A CONTINUANCE FOR ALL UNRECORDED STORM WATER DRAINAGE, SUCH AS ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSTRUCTED CONTINUANCE BY CONNECT-ING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER. ALL SUCH CONTINUANCE REQUIRES A RIGHT OF WAY USE PERMIT.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41, NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 611 - 4" CONDUIT,	TYPE B	100 FT
ITEM 611 - 6" CONDUIT,	TYPE B	100 FT
ITEM 611 - 4" CONDUIT,	TYPE C	100 FT
ITEM 611 - 6″ CONDUIT,	TYPE C	100 FT

# EXISTING UNDERDRAINS

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDER-DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE.

UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 601 - TIED CONCRETE BLOCK MAT, TYPE 1	10 SY
ITEM 611 - 6" CONDUIT, TYPE F	100 FT
ITEM 611 - PRECAST REINFORCED CONCRETE OUTLET	5 EACH
ITEM 605 – 6" UNCLASSIFIED PIPE UNDERDRAINS	100 FT

ITEM 602-MASONRY, MISC.: SPECIAL HALF-HEIGHT HEADWALL IN ADDITION TO THE REQUIREMENTS OF CMS 602 AND SCD HW-2.2, THE CONCRETE HEADWALL SHALL BE CONSTRUCTED AS SHOWN ON SHEET 452. ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER CUBIC YARD FOR ITEM 602-MASONRY, MISC.: SPECIAL HALF-HEIGHT HEADWALL

# ITEM 611-CONDUIT BORED OR JACKED

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN 25 FEET TO THE EDGE OF THE PAVEMENT. PROVIDE A 0.50 INCH (12.7 MM) UNGALVANIZED CASING PIPE CONFORMING TO 748.06 THAT HAS JOINTS WITH A CIRCUMFERENCIAL FULLY PENETRATING B-U4B WELD THAT IS PERFORMED BY AN ODOT APPROVED FIELD WELDER. THE INSTALLED CASING PIPE IS THE STORM WATER CONVEYANCE CARRIER UNLESS OTHERWISE SPECIFIED IN THE PLANS. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE.

# ITEM 611-INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 611, THE CONCRETE BARRIER SHALL BE CONSTRUCTED AS SHOWN ON SHEET 444 AND SHEET 444A. THE CONCRETE SHALL UTILIZE SELF-COMPACTING CONCRETE AS SPECIFIED ON SHEET 609 AND SHEET 645. REINFORCING STEEL FROM ODOT SCD I-2.3 SHALL BE UTILIZED EXCEPT WHERE NOTED WITHIN THE PLANS. IN ADDITION TO THE END SECTION, THE ADJACENT SECTION OF UNREINFORCED BARRIER SHALL BE PAID FOR UNDER THIS ITEM ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER EACH FOR ITEM 611-INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN.

# ITEM SPECIAL-MISCELLANEOUS METAL:

THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY ENGINEER (ADBE) AND SHALL CONSIST OF PROVIDING CASTINGS OF THE TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR ANY STRUCTURE THAT MAY PROVE TO BE UNSUITABLE FOR REUSE PER ITEM 611 SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM SPECIAL - MISCELLANEOUS METAL

GENERAL NOTES (3 OF

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# PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS:

THIS ITEM SHALL CONSIST OF RESTORATION OF ASPHALT PAVEMENT AREAS FOLLOWING INSTALLATION AND/OR REMOVAL OF PIPES OUTSIDE OF PAVEMENT LIMITS ALREADY ITEMIZED IN THE ROADWAY PLANS.

AREAS INCLUDED IN THIS ESTIMATION ARE AS FOLLOWS:

SHARON RD : 11 SY CHESTER RD.: 27 SY

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 204-SUBGRADE COMPACTION	38 SY
ITEM 204-PROOF ROLLING	1 HR
(38 SY) X (1/3000) = 0.13 HR	
ITEM 302-ASPHALT CONCRETE BASE, PG64-22	7 CY
(38 SY) X (6") X (1/12) X (1/3) = 6.3 CY	
ITEM 304-AGGREGATE BASE	7 CY
(38 SY) X (6") X (1/12) X (1/3) = 6.3 CY	
ITEM 407-NON-TRACKING TACK COAT	5 GAL
(38 SY) X 0.055 (2) = 4.18 GAL	
*ITEM 442-ASPHALT CONCRETE SURFACE COURSE,	2 CY
12.5 MM, TYPE A, (448)	
(38 SY) X (1.5") X (1/12) X (1/3) = 1.6 CY	
*ITEM 442-ASPHALT CONCRETE INTERMEDIATE COURSE,	2 CY

19MM, TYPE A (448)

(38 SY) X (1.75") X (1/12) X (1/3) = 1.8 CY

\* FOR AREAS WITHIN PAVEMENT PLANING & RESURFACING AREAS, ITEM 302 MAY BE INSTALLED TO EXISTING SURFACE IN PLACE OF ITEM 442 ITEMS.

THE ABOVE QUANTITIES ARE BASED ON THE PAVEMENT REPLACEMENT DETAIL BELOW AND A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.



PAVEMENT REPLACEMENT DETAIL (NOT TO SCALE)

# CONTRACTION AND/OR EXPANSION JOINTS:

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES. THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

# CONTRACTION JOINTS IN CONCRETE PAVEMENT OR BASE WIDENING:

WHERE NEW CONCRETE IS PLACED ADJACENT TO EXISTING CONCRETE, PROVIDE CONTRACTION JOINTS IN THE NEW CONCRETE TO FORM CONTINUOUS JOINTS WITH THOSE IN THE EXISTING CONCRETE.

THE MAXIMUM DISTANCE BETWEEN THE JOINTS IN THE NEW CONCRETE ARE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2, IF NECESSARY, ADDITIONAL JOINTS MAY BE PROVIDED IN THE NEW CONCRETE AT APPROXIMATELY EQUAL INTERVALS BETWEEN EXISTING JOINTS THAT EXCEED THE MAXIMUM SPACING.

# PART-WIDTH CONSTRUCTION:

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

# ITEM 301 - ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING A VARIABLE DEPTH ITEM 301 ASPHALT WEDGE COURSE (4" MIN) IN BETWEEN THE EXISTING PLANED PAVEMENT SURFACE AND INTERMEDIATE COURSE TO ACCOUNT FOR DIFFERENCES IN EXISTING/PROPOSED PROFILE GRADE ELEVATIONS AND CROWN SHIFTS WITHIN THE PLANING & RESURFACING AREA (1" MIN, 3.25" MAX) AS SHOWN IN THE CROSS SECTIONS. THIS ITEM SHALL BE USED AS A WEDGE COURSE TO FILL AND MAKE UP ELEVATION DIFFERENCES IN EXCESS OF THE UNIFORM 3.25" DEPTH OF OVERLYING SURFACE AND INTERMEDIATE COURSES. IN AREAS WHERE THIS ITEM 442 ASPHALT WEDGE COURSE (AS PER PLAN) EXCEEDS 4". AN ITEM 301 ASPHALT WEDGE COURSE (AS PER PLAN) SHALL BE CONSTRUCTED UNDERNEATH TO SUPPLEMENT THE ITEM 442 ASPHALT WEDGE COURSE IN THICKENED SECTIONS. QUANTITY CALCULATIONS ARE BASED ON AN AVERAGE 2" DEPTH

ALL REQUIREMENTS OF ITEM 301 ARE APPLICABLE.

# ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN

PLACE THE MAINLINE PAVEMENT SURFACE COURSE WITH A SINGLE COLD LONGITUDINAL JOINT LOCATED BETWEEN LANES 2 AND 3. WHERE THE NUMBER OF MAININE LANES EXCEEDS FOUR (4) LANES. AN ADDITIONAL COLD JOINT IS PERMITTED.

NO OTHER COLD JOINTS ARE PERMITTED IN THE SURFACE COURSE OF MAINLINE PAVEMENT UNLESS APPROVED BY THE ENGINEER.

# ITEM 442 - ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446). AS PER PLAN. PG64-28

THIS ITEM SHALL CONSIST OF CONSTRUCTING A VARIABLE DEPTH ITEM 442 ASPHALT WEDGE COURSE (O" MIN, 4" MAX) IN BETWEEN THE EXISTING PLANED PAVEMENT SURFACE AND INTERMEDIATE COURSE TO ACCOUNT FOR DIFFERENCES IN EXISTING/PROPOSED PROFILE GRADE ELEVATIONS AND CROWN SHIFTS WITHIN THE PLANING & RESURFACING AREA (1" MIN, 3.25" MAX) AS SHOWN IN THE CROSS SECTIONS. THIS ITEM SHALL BE USED AS A WEDGE COURSE TO FILL AND MAKE UP ELEVATION DIFFERENCES IN EXCESS OF THE UNIFORM 3.25" DEPTH OF OVERLYING SURFACE AND INTERMEDIATE COURSES. QUANTITY CALCULATIONS ARE BASED ON AN AVERAGE 2" DEPTH

ALL REQUIREMENTS OF ITEM 442 ARE APPLICABLE.

# ITEM 442 - ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448), AS PER PLAN, PG64-28

THIS ITEM SHALL CONSIST OF CONSTRUCTING A VARIABLE DEPTH ITEM 442 ASPHALT WEDGE COURSE (O" MIN. 4" MAX) IN BETWEEN THE EXISTING PLANED PAVEMENT SURFACE AND INTERMEDIATE COURSE TO ACCOUNT FOR DIFFERENCES IN EXISTING/PROPOSED PROFILE GRADE ELEVATIONS AND CROWN SHIFTS WITHIN THE PLANING & RESURFACING AREA (1" MIN, 3.25" MAX) AS SHOWN IN THE CROSS SECTIONS. THIS ITEM SHALL BE USED AS A WEDGE COURSE TO FILL AND MAKE UP ELEVATION DIFFERENCES IN EXCESS OF THE UNIFORM 3.25" DEPTH OF OVERLYING SURFACE AND INTERMEDIATE COURSES. IN AREAS WHERE THE ITEM 442 ASPHALT WEDGE COURSE (AS PER PLAN) EXCEEDS 4", AN ITEM 301 ASPHALT WEDGE COURSE (AS PER PLAN) SHALL BE CONSTRUCTED UNDERNEATH TO SUPPLEMENT THE ITEM 442 ASPHALT WEDGE COURSE IN THICKENED SECTIONS. QUANTITY CALCULATIONS ARE BASED ON AN AVERAGE 2" DEPTH

ALL REQUIREMENTS OF ITEM 442 ARE APPLICABLE.

ITEM 609 - COMBINATION CURB AND GUTTER. TYPE 2. AS PER PLAN THE REQUIREMENTS OF ITEM 609 AND STANDARD CONSTRUCTION DRAWING BP-5.1 WILL APPLY: DEVIATIONS FROM THESE ARE AS FOLLOWS:

THE GUTTER PLATE THICKNESS SHALL BE 13.25 INCHES TO MATCH PROPOSED ASPHALT BUILDUP DEPTH OF ITEM 442 AND ITEM 301 ALONG SHARON RD.

# ITEM 618 - RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE) AS PER PLAN

RUMBLE STRIPS SHALL BE PLACED ALONG I-75 PER SCD BP-9.1; HOWEVER, THEY SHALL BE PLACED 5' FROM THE EDGE OF PAVEMENT FOR BOTH THE INSIDE AND OUTSIDE SHOULDERS. WHEN TRANSITIONING FROM A NORMAL SHOULDER WIDTH TO AN EXISTING SHOULDER WIDTH, THE OFFSET DISTANCE SHALL VARY FROM 5' TO THE MIDPOINT OF THE EXISTING SHOULDER WIDTH.

# ITEM SPECIAL - SANITARY SEWER, MSD SANITARY SEWER PROTECTION

THE CONTRACTOR SHALL BE REQUIRED TO VIDEO INSPECT ALL SANITARY SEWER FACILITIES BOTH PRE AND POST CONSTRUCTION. THE CONTRACTOR SHALL CONTACT WASTEWATER COLLECTION (WWC) DIVISION OF MSD (513-352-4204) AND REQUEST ADVANCE NOTIFICATION/COORDINATION OF AT LEAST 7 DAYS PRIOR TO ANY VIDEO WORK. ONE (1) COPY OF THE VIDEO INSPECTION SHALL BE PROVIDED TO THE PROJECT ENGINEER AND MSD FOR REVIEW. IF DAMAGE IS FOUND IN THE PRE-CONSTRUCTION VIDEO. THE CONTRACTOR SHALL DOCUMENT THE DAMAGE AND PROVIDE THE DOCUMENTATION TO THE PROJECT ENGINEER. IF DAMAGE IS FOUND IN THE POST-CONSTRUCTION VIDEO, THEN REPAIRS TO THE SATISFACTION OF THE DEPARTMENT AND MSD SHALL BE PERFORMED BY THE CONTRACTOR AT CONTRACTOR EXPENSE.

ALL LABOR, MATERIAL AND INCIDENTALS FOR THE ABOVE WORK SHALL BE PAID FOR BY LUMP SUM, ITEM SPECIAL - SANITARY SEWER, MSD SANITARY SEWER PROTECTION.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

LS ITEM SPECIAL-SANITARY SEWER, MSD SANITARY SEWER PROTECTION

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# WATERWAY PERMITS:

ALL NECESSARY 404/401 WATERWAY PERMITS WILL BE ACQUIRED PRIOR TO ANY CONSTRUCTION ACTIVITY. PER THE NOVEMBER 9. 2007 COMMENTS RECEIVED FROM ODNR. NO IN-STREAM WORK WILL OCCUR BETWEEN APRIL 15 AND JUNE 30.

# ENDANGERED BAT HABITAT REMOVAL:

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT.

# WETLANDS

WETLANDS AVOIDANCE - UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR IMPACT THE WETLANDS (WETLANDS ID A AND B) INDICATED ON THE SCHEMATIC PLAN. NO EXCAVATION. GRADING OR FILLING OPERATIONS SHALL BE PERFORMED IN THESE WETLANDS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE CONSTRUCTION EQUIPMENT AND/OR MATERIALS IN THESE WETLANDS. TEMPORARY CONSTRUCTION FENCE AND FILTER FABRIC FENCE SHALL BE INSTALLED BY THE CONTRACTOR TO PROTECT THE BOUNDARY OF THESE WETLAND PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES WITHIN THESE LIMITS AND ADJACENT AREA AND MAINTAINED BY THE CONTRACTOR THROUGHOUT PROJECT CONSTRUCTION. BEST MANAGEMENT PRACTICES AND PRACTICES FOR SOIL EROSION CONTROL SHALL BE FULLY COMPLIED WITH, AS WELL AS, ALL OF THE REGULATIONS AND CONDITIONS ASSOCIATED WITH THE REQUIRED SWPPP AND NPDES PERMIT.

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# ITEM 614 - MAINTAINING TRAFFIC

# IR-75 AND RAMPS

MAINTAIN THE SAME NUMBER OF LANES AS CURRENTLY EXISTS IN EACH DIRECTION AND RAMPS AT ALL TIMES. EXCEPT IN ACCORDANCE WITH THE UNAUTHORIZED LANE USE TABLE (SEE SHEET 34), BY USE OF THE EXISTING PAVEMENT, COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC AND ITEM 615 ROADS FOR MAINTAINING TRAFFIC.

# SHARON RD

A MINIMUM OF 2 LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY UTILIZING A COMBINATION OF EXISTING PAVEMENT, THE COMPLETED PAVEMENT. ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC. ITEM 615 ROADS FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410, AND 614.

## CHESTER RD

DAY OF HOLTDAY

A MINIMUM OF I LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD WHEN TRAFFIC MAY BE MAINTAINED USING A FLAGGER OPERATION AS DETAILED IN SCD MT-97.10.

NO WORK SHALL BE PERFORMED ON I-75 AND A MINIMUM OF THREE LANES OF TRAFFIC IN EACH DIRECTION ON I-75 SHALL BE OPEN TO TRAFFIC ALONG WITH NO WORK ON THE RAMPS, SHARON ROAD. AND CHESTER ROAD DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

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

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

DAY OF HOL	IDAY TIME ALL LANES MUST
OR EVEI	NT BE OPEN TO TRAFFIC
SUNDA Y	6:00 AM FRIDAY THROUGH 9:00 PM MONDAY
MONDA Y	6:00 AM FRIDAY THROUGH 9:00 PM TUESDAY
TUESDAY	6:00 AM MONDAY THROUGH 9:00 PM WEDNESDA
WEDNESDAY	6:00 AM TUESDAY THROUGH 9:00 PM THURSDA
THURSDA Y	6:00 AM WEDNESDAY THROUGH 9:00 PM FRIDAY
	(THANKSGIVING ONLY)
	6:00 AM WEDNESDAY THROUGH 9:00 PM MONDA
FRIDA Y	6:00 AM THURSDAY THROUGH 9:00 PM MONDAY
SA TURDA Y	6:00 AM FRIDAY THROUGH 9:00 PM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT SHOWN IN THE UNAUTHORIZED LANE USE TABLE ON SHEET 34 WHEN THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

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

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. AT THE APPROVAL OF THE ENGINEER. PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

	TTEN	DUBATION OF CLOSURE	SIGN DISPLAYED			
	11 EM	DURATION OF LLOSURE	TO PUBLIC			
ļ		1- 2 WEEKS	14 CALENDAR DAYS			
	RAMP & ROAD	V- Z WEEKS	PRIOR TO CLOSURE			
			7 CALENDAR DAYS			
		12 HOURS & C 2 WEEKS	PRIOR TO CLOSURE			
	CLUSURES	< 12 HOURS	2 BUSINESS DAYS			
			PRIOR TO CLOSURE			

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

SHARON ROAD AT CURB RETURN TO I-75 SB EXIT RAMP SHARON ROAD AT CURB RETURN TO I-75 SB ENTRANCE RAMP SHARON ROAD AT CURB RETURN TO I-75 NB EXIT RAMP SHARON ROAD AT CURB RETURN TO I-75 SB ENTRANCE RAMP CHESTER ROAD STA. 95+00 AND STA. 96+50

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE A OR B	100 CU YD
ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	100 CU YD
ITEM 616. WATER	50 M GAL

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

# TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

# OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 5 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UN-COMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

# DRUM REQUIREMENTS

IN ADDITION TO THE REQUIREMENTS OF THE PLANS, SPECIFICATION AND PROPOSAL. DRUMS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AT THE TIME OF ARRIVAL ON THE PROJECT. ANY DRUMS BROUGHT ON THE PROJECT, WHICH HAVE PREVIOUSLY BEEN USED ELSEWHERE, SHALL NOT BE ACCEPTED.

PAYMENT FOR DRUMS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED.

# DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER

2,500 M GAL

#### ITEM 614 - REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM. AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 100 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

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# EARTHWORK FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY:

EXCAVATION FOR MAINTAINING TRAFFIC 5000 CY EMBANKMENT FOR MAINTAINING TRAFFIC 3000 CY

PAYMENT FOR ALL LABOR. EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

# ITEM 614 - REPLACEMENT SIGN

FLATSHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED. BUT GOOD CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 20 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

# ITEM 614 - MAINTAINING TRAFFIC, MISC.: RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)

THE CONTRACTOR SHALL MILL 2" DEEP BY 4' WIDE OF THE EXISTING ASPHALT SHOULDER IN ORDER TO ELIMINATE THE EXISTING EDGE LINE AND RUMBLE STRIPS ALONG I-75 IN THE AREA WHERE TRAFFIC IS SHIFTED. NEXT THE CONTRACTOR SHALL PLACE ITEM 407-NON-TRACKING TACK COAT (APPLIED AT 0.85 GAL/SY) AND 2" OF ITEM 442-ASPHALT CONCRETE SURFACE COURSE. 12.5 MM. TYPE A (447). AS PER PLAN. ALL COST ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER MILE OF ITEM 614-MAINTAINING TRAFFIC, MISC,: RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)

AN ESTIMATED QUANTITY OF 14,000 FT HAS BEEN CARRIED TO THE GENERAL SUMMARY.

# ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN:

THE TEMPORARY PAVEMENT BUILD-UP SHALL BE CONSTRUCTED AS SPECIFIED PER CMS 615 FOR CLASS A FLEXIBLE PAVEMENT WITH THE EXCEPTION THAT A SINGLE LAYER OF 2" OF ITEM 448, TYPE 2, PG64-22 PLACED ABOVE 8" ITEM 302 AND 6" ITEM 304.

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# FIELD OFFICE, TYPE C, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 619, THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE WITH A MINIMUM OF 2000 S.F. OF USABLE OFFICE SPACE. OFFICE TO INCLUDE A SEPARATE MINIMUM 12' X 36' CONFERENCE ROOM, AND EIGHT (8) SEPARATE OFFICES WITH SHELVING UNITS. FURTHER ITEMS ARE AS FOLLOWS:

- 1. FURNITURE
  - ELEVAN (11) SETS OF DESK, OFFICE CHAIR, AND 4 DRAWER LEGAL SIZE LOCKABLE FILE CABINETS
  - TWO (2) LOCKABLE CABINETS
  - FOURTEEN (14) 2' X 8' COLLAPSIBLE TABLES
  - TWENTY (20) FOLDING CHAIRS
- 2. COPY MACHINE WITH SCAN/PRINT/FAX/INTERNET HOOK UP CAPABILITIES. THE COPIER WILL PRINT 25 PPM AND CAPABLE OF COLOR PRINTING SHEETS 8.5"X11", 8.5"X14", AND 11"X17". COPIER PAPER SUPPLIES AND MAINTENANCE TO BE INCLUDED.
- 3. CONTRACTOR TO SUPPLY INTERNET SERVICE WITH MINIMUM SPEED OF 200 MBPS. THE CONTRACTOR SHALL SUPPLY THE PROJECT WITH THE IP ADDRESS SO THAT ODOT CAN ATTACH AN ODOT OWNED HUB. ODOT'S OWNED HUB WILL PROVIDE THE ODOT STAFF WITH A WIRELESS ROUTER AND ODOT FIREWAL.
- 4. ONE (1) SEPARATE WATER COOLER AND SERVICE.
- 5. FIELD OFFICE SHALL INCLUDE A SECURE PARKING AREA OF NOT LESS THAN 4000 S.F. CAPABLE OF SUPPLYING 20 EACH "ALL WEATHER" PARKING SPOTS. "ALL WEATHER" SHALL BE DEFINED AS A HARD SMOOTH SURFACE THAT WILL ALLOW FOR SNOW REMOVAL. GRAVEL SURFACE IS NOT ACCEPTABLE. PARKING AREA TO BE SURROUNDED BY A 6 FT. HIGH SECURITY FENCE WITH A LOCKABLE GATE INCLUDING KEYS AND ILLUMINATED BY SECURITY LIGHTING.
- 6. SNOW REMOVAL SHALL BE REQUIRED FOR PARKING AREA.
- 7. BI-WEEKLY CLEANING SERVICE.
- 8. DUMPSTER WITH NECESSARY SERVICE.
- 9. FIVE (5) EACH TELEPHONES.

THE CONTRACTOR SHALL OBTAIN APPROVAL OF THE PROPOSED FACILITY FROM THE ENGINEER PRIOR TO USE. THIS FACILITY SHALL BE AVAILABLE FOR ODOT USE NOT MORE THAN 30 DAYS FROM AWARD OF CONTRACT.

# PERMITTED LANE CLOSURE TIMES

SHORT TERM LANE CLOSURES ARE THOSE WHICH ARE PERMITTED BY THE PERMITTED LANE CLOSURE NOTE. THESE TIMES SHALL NOT BE REVISED WITHOUT PRIOR APPROVAL FROM THE DISTRICT 8 WORK ZONE TRAFFIC CONTROL MANAGER. SHORT TERM LANE CLOSURES SHALL ONLY BE IMPLEMENTED WHEN WORK IS BEING CONTINUOSLY PERFORMED IN THE LANE. THE CLOSURE SHALL BE REMOVED AS SOON AS POSSIBLE AFTER WORK HAS STOPPED. PERMITTED LANE CLOSURES SHALL ONLY BE ALLOWED DURING THE TIMES SPECIFIED IN THE UNAUTHORIZED LANE USE TABLE INCLUDED AT THE BOTTOM OF THIS SHEET.

# UNAUTHORIZED LANE USE TABLE NOTES

- 1. NORTHBOUND I-75: NO CLOSURES FROM 2 HOURS BEFORE TO THE SCHEDULED START TIME OF EVENTS AT GREAT AMERICAN BALL PARK, PAUL BROWN STADIUM, OR US BANK ARENA. THIS RESTRICTION ALSO APPLIES TO EVENTS REACHING AN ATTENDANCE OF 10,000+.
- 2. SOUTHBOUND I-75: NO CLOSURES FROM THE SCHEDULED START TIME TO 2 HOURS AFTER EVENTS AT GREAT AMERICAN BALL PARK, PAUL BROWN STADIUM, OR US BANK ARENA. THIS RESTRICTION ALSO APPLIES TO EVENTS REACHING AN ATTENDANCE OF 10,000+.
- 3. NO SHORT-TERM SHOULDER CLOSURE BETWEEN THE HOURS OF 6 AM TO 9 AM AND 3 PM TO 7 PM MONDAY THROUGH FRIDAY.
- 4. NO SHORT-TERM RAMP SHOULDER CLOSURE BETWEEN 6 AM TO 9 AM AND 3 PM TO 7 PM MONDAY THROUGH FRIDAY.
- 5. CHESTER RD SHALL HAVE A MINIMUM OF I LANE OF TRAFFIC IN EACH DIRECTION MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD WHEN TRAFFIC MAY BE MAINTAINED USING A FLAGGER OPERATION AS DETAILED IN SCD MT-97.10.
- 6. RAMP CLOSURES ARE PERMITTED FOR TRAFFIC SWITCHES ONLY. ONLY 1 RAMP IS PERMITTED TO BE CLOSED AT A TIME. CLOSUREOF AN I-75/1-275 RAMP REQUIRES THE USE OF 2 PCMS FOR DETOUR INFORMATION.

	UNAUTHORIZED LANE USE TABLE									
		EX. NO. OF	1 LANE CLOSED		2 LANES CLOSED		15 MIN. SHORT		THE	
LOCATION	DIRECTION		WEEKDAY	WEEKEND	WEEKDAY	WEEKEND	DURATION COMPLETE CLOSURE	COMPLETE CLOSURE	UNIT	TIME UNIT PER LANE
I-75	NB/SB	3	8 PM - 6 AM	8 PM - 8 AM	11 PM - 5 AM	11 PM - 6 AM	12 AM - 4 AM	NONE	1 MIN.	\$495
DAMOS	ALL	1	NONE	NONE	NONE	NONE	NONE	10PM-5PM;	1 NATNI	\$105
TAME 5		2	8 PM - 6 AM	8 PM - 8 AM	NONE			RAMPS ONLY	1 1/1111.	#435
SHARON RD	ВОТН	2	9 AM - 3 PM 7 PM - 6 AM	7 PM - 3 PM	NONE	NONE	11 PM - 5 AM	NONE	1 MIN.	<b>\$</b> 115
CHESTER RD	BOTH	1	9 AM - 4 PM 7 PM - 6 AM	ALL TIMES	NONE	NONE	NONE	NONE	1 MIN.	<b>\$</b> 35
KEMPER RD	ВОТН	2	7 PM - 6 AM	7 PM - 6 AM	NONE	NONE	NONE	NONE	1 MIN.	\$70

#### NOTES:

1. SHARON ROAD RAMP CLOSURES ARE PERMITTED FOR MOT TRAFFIC SWITCHES ONLY. WHEN CLOSING THE ENTRANCE/EXIT RAMP IN ONE DIRECTION, THE OPPOSITE DIRECTION RAMPS SHALL REMAIN OPEN.

2. SHOULDER CLOSURES ARE NOT PERMITTED BETWEEN THE HOURS OF 6AM-9AM AND 3PM-7PM MONDAY THRU FRIDAY.

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MAINTENANCE OF TRAFFIC INDEX OF	SHEETS	JLATED TC CKED DH
MAINTENANCE OF TRAFFIC SUBSUMMARIES	35 TO 48	
MAINTENANCE OF TRAFFIC PLANS: I-75 MAINLINE PHASE 1 I-75 MAINLINE PHASE 2 I-75 MAINLINE PHASE 3 I-75 MAINLINE PHASE 4 I-75 MAINLINE PHASE 5	49 TO 65 66 TO 85 86 TO 105 106 TO 125 126 TO 135	ICTION
RAMP C PHASE 1 RAMP C PHASE 2 RAMP C PHASE 3-4 RAMP A PHASE 1 RAMP A PHASE 2 RAMP A PHASE 3A	136 137 138 139 140 141	CONSTRU
RAMP A PHASE 3 RAMP A PHASE 4 RAMP G PHASE 1 RAMP G PHASE 2	142 143 144 145	ICE OF S INDE
RAMP G PHASE 2-1 RAMP G PHASE 3 RAMP G PHASE 4 RAMP E PHASE 1 RAMP E PHASE 2	145A 146 147 148	EQUEN
RAMP E PHASE 2 RAMP E PHASE 4 RAMP E PHASE 4-2 RAMP E PHASE 5	149 150 150A 151	FFIC S RAFFIC
SHARON RD PHASE 1 SHARON RD PHASE 2 SHARON RD PHASE 2-1 SHARON RD PHASE 3 SHARON RD PHASE 4 SHARON RD PHASE 4-1 SHARON RD PHASE 4-2 SHARON RD PHASE 5	152 TO 155 156 TO 159 159A 160 TO 162 163 TO 165 165A 165B 166 TO 168	E OF TRAN
CHESTER ROAD PHASE 1 E KEMPER RD PHASE 2	169 170	ANC
E KEMPER RD PHASE 3 MAINTENANCE OF TRAFFIC SECTIONS: I-75 RAMP C RAMP A RAMP G RAMP E SHARON ROAD	171 172 TO 178 179 TO 182 183 TO 184 185 TO 187 188 TO 189 190	MAINTEN MAINTI
PLAN INSERT SHEETS: PCB "Y" CONNECTOR SEGMENT	191	<i>\</i> -75-14₀61

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					SHEET	I NUM.								PART.			,,,,	ITEM	GRAND	11417-	
22	23	24	48	202	203	204	206	212	445	450C	450D	01/IMS/PV	02/NHS/0 T	03/IMS/01	04/IMS/BR	05/IMS/BR	ITEM	EXT	TOTAL	UNIT	
1.5													15				201	11000	15		CLEARING
20							3					1	2				202	20010	3	EACH	HEADWALL
								88,203	201			50,937	37,467				202	23000	88,404	SY	PAVEMENT
								39,444				19,254	20,190				202	23010	39,444	SY	PAVEMENT
								127,644				70,189	57,455				202	23500	127,644	SY	WEARING (
				10,228								010	10,228				202	30000	10,228	SF	WALK REM
				3/5								212	103				202	30700	3/5	F I ET	CURB REM
				1.391									1.391				202	32500	1.391	FT	CURB AND
				1,419			75					345	1,149				202	35100	1,494	FT	PIPE REMO
							68					30	38				202	35200	68	FT	PIPE REM
				10,069								5,684.5	4,384.5				202	38000	10,069	FT	GUARDRAI
						5							5				202	53100	5	EACH	MAILBOX
				3								1	2				202	58000	3	EACH	MANHOLE
				23								2	21				202	30100	23	LACII	
				3								7 4 1	3		<u> </u>	<u> </u>	202	58500	3	EACH	CATCH BA
				341								541	1 770		-		SPECIAL	20270000	341		FILL AND
				2,300	114.258							63.495	50.763				202	10000	2,500		FXCAVATI
					111,200						4,459	00,100	00,700	4,459			203	10000	4,459	CY	EXCAVATI
					156 142							91 274	64 868	275			203	20000	156 417	CY	EMBANKME
		38			100,142			11,120	114			819	10.453	210			203	10000	11,272	SY	SUBGRADE
					17,915							9,170	8,745				204	13000	17,915	CY	EXCAVATI
					13,866							9,845	4,021				204	20001	13,866	CY	EMBANKME
					5,041								5,041				204	30020	5,041	CY	GRANULAR
		1						73	1			42	33				204	45000	75	HOUR	PROOF RC
								9,966				7 500	9,966				204	50000	9,966	SY	GEOTEXTI
								5,759				3,588	2,1/1				206	10500	5,759	TON	CEMENT
								190,682				118,822	71,860				200	15020	190,682	SY SY	CEMENT S
								15				15	15				206	30000	15		
						12,037.5		20				9,237.5	2,800				606	15050	12,037.5	FT	GUARDRAI
						9							9				606	26050	9	EACH	ANCHOR A
						11						4	7				606	26150	11	EACH	ANCHOR A
						16						4	12				606	26550	16	EACH	ANCHOR A
						6						2	4				606	35002	6	EACH	MGS BRID
						3						3					606	35102	3	EACH	MGS BRID
						1						451	1				606	60040	1	EACH	IMPACT A
						2,017						451	1,566				607	70000	2,017	FT	FENCE, T
0.000													2.000				C07	00000	2.000	<i>CT</i>	
2,000						13.636							13.636				608	10000	13.636	F I SE	4" CONCR
						390							390				608	15000	390	SF	8" CONCR
			6,410										6,410				608	21200	6,410	SF	TEMPORA
						761							761				608	52000	761	SF	CURB RAM
						80							80				622	10140	80	FT	CONCRETE
						1,590							1,590				622	10160	1,590	FT	CONCRETE
						/   7							7				622	25000	/ 	ЕАСН БАСН	CONCRETE
						2							2				622	25014	2	EACH	CONCRETE
						5							5				622	25050	5	EACU	CONCRET
						5							5				622	25050	5	EACH	CONCRETE
4													4				623	38500	4	EACH	MONUMEN
2													2				623	40520	2	EACH	RIGHT-OF
						3							3				SPECIAL	69098000	3	EACH	BOLLARD
	LS											LS	LS				SPECIAL	69098400	LS		CONSUL TA
																		05000			TESTING A
						LS						LS	LS				878	25000	LS		INSPECTIC
																			•		

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DESCRIPTION	SEE SHEET NO.	CALCULATEC WLC CHECKED JDH
ROADWAY		
AND GRUBBING		
REMOVED		
REMOVED		
REMOVED, ASPHALT		
COURSE REMOVED		
RARRIER REMOVED		
OVED	-	
GUTTER REMOVED	+	
DVED. 24" AND UNDER		
	+	
OVED, OVER 24"		
REMOVED		ÍÔÍ
REMOVED		<b>—</b>
REMOVED		
SIN REMOVED		
SIN ABANDONED		
PLUG EXISTING CONDUIT	23	~
NOVED		
DN	4500	
JN, AS PER PLAN	4500	
NT		
	+	≥
ON OF SUBGRADE 18 INCHES DEEP	-	Σ
NT AS PER PLAN	22	
MATERIAL. TYPE C		S S
DLLING		
LE FABRIC		
DAT		=
TABILIZED SUBGRADE, 14 INCHES DEEP		
DESIGN FOR CHEMICALLY STABILIZED SOILS	_	
_, IYPE MGS		
SSEMBLY, MGS TYPE B		
SSEMDLI, MGS TIPE E, MASH 2010 SSEMDLY MGS TYDE T		
SSEMDLT, MGS TIFE T	-	
SE TERMINAL ASSEMBLY TYPE 1		
GE TERMINAL ASSEMBLY, TYPE 2	-	
TTENUATOR, TYPE 3 UNIDIRECTIONAL ,(DS=70 MPH, W=90 INCHES)	+	
PE CLT		
SEEDING AND MULCHING		
SC.:TEMPORARY CONSTRUCTION FENCE	22	
ETE WALK		
TE WALK	_	
Y ASPHALI CONCRETE WALK		
P		_
RARRIER SINGLE SLOPE TYPE CI	-	i i o i i
BARRIER, SINGLE SLOPE, THE CH	+	, the second sec
BARRIER END SECTION. TYPE D		I
BARRIER END SECTION, TYPE D, AS PER PLAN	22	
BARRIER, END ANCHORAGE, REINFORCED, TYPE CI		2
		'`
BARRIER, END ANCHORAGE, REINFORCED, TYPE D		5
BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN	22	
ASSEMBLY		
WAY MONUMENT		-
REMOVED AND RESET	22	
NT FOR ADMORTE AUXITY ADMITCAL THOUSENS		
NI FOR CONCRETE QUALITY CONTROL INCLUDING	23	
NV INSECTION TESTING OF THROTHD MATERIALS	-	( 192 )
TA AND CONTRACTION TESTING OF UNDOUND MATERIALS	+	∖^08/

	SHEET NUM.						PART.				ITEM	GRAND				
23	203	205	206	450C	450D	458	01/IMS/PV	02/NHS/O T	03/IMS/01	04/IMS/BR	05/IMS/BR	ITEM	EXT	TOTAL	UNIT	DES
																EROS.
			9		1 700	70		9				601	11000	9	SY	RIPRAP, TYPE D
10			1		1,320	38	28	20	1,320			601	21050	1,368	SY	TIED CONCRETE BLOCK MAT, TYPE T
			4 29				20	4				601	32104	4		ROCK CHANNEL PROTECTION, TYPE A WITH GEOTEXTILE FABRIC
			33				3	30				601	32204	33	CY	ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC
		1,626						1,626				601	39000	1,626	FT	PAVED GUTTER, TYPE 4
		Г			4,459				4,459			601	45050	4,459	CY	BIORETENTION CELL
		28 300						28 300				659	00100	29 300	EACH	SOIL ANALYSIS TEST
	220.445	20,000					132.320	88.125				659	10000	220,330	SY	SEEDING AND MULCHING
							,									
		11,023						11,023				659	14000	11,023	SY	REPAIR SEEDING AND MULCHING
		11,023						11,023				659	15000	11,023	SY	INTER-SEEDING
		30.74						30.74				659	20000	30.74	TON	COMMERCIAL FERTILIZER
		45.55						45.55				659	31000	45.55	ACRE	LIME
		1,221						1,221				003	33000	1,221	INIGAL	
		497				1		497				659	40000	497	MSF	MOWING
				3,350		1			3,350	1		659	98000	3,350	SY	SEEDING, MISC.: BIORETENTION CELLS
		23,512						23,512				670	00500	23,512	SY	SLOPE EROSION PROTECTION
		4,425					974	3,451				670	00700	4,425	SY	DITCH EROSION PROTECTION
					3,937				3,937			671	15000	3,937	SY	ERUSION CONTROL MAT, TYPE A
		15						15				832	15000	10		STORM WATER POLITION PREVENTION PLAN
		15						15				8.32	15002	15		STORM WATER POLLUTION PREVENTION INSPECTIONS
		LS						LS				832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE
-		1,248,307						1,248,307				832	30000	1,248,307	EACH	EROSION CONTROL
		2,531					382	2,149				836	10000	2,531	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT
		050					450					070	10,000	050	<u> </u>	
		658					458	200				836	10020	658	57	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT
			6.72				0.02	5.8				602	20000	6.72	CY	L CONCRETE MASONRY
			4				4	5.0				602	98200	4		MASONRY MISC : SPECIAL HALE-HEIGHT HEADWALL
			r				1					002	00200	1	01	MASSINITY, MISSING RECERCINAL THEIGHT THE BURKEL
						50,564	30,070	20,494				605	11110	50,564	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC
20								100				605	13300	100	FT	6" UNCLASSIFIED PIPE UNDERDRAINS
						389	44	345				605	13410	389	FT	6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC
			-			51,887	23,924	27,963				605	14020	51,887	+1	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC
00								100				611	00100	100	FT	4" CONDUIT TYPE B
00						1		100				611	00200	100	FT	4" CONDUIT, TYPE C
					2,709	1			2,709	1		611	00200	2,709	FT	4" CONDUIT, TYPE C, 707.41 (PERFORATED)
					627				627			611	00200	627	FT	4" CONDUIT, TYPE C, 707.41 (NON-PERFORATED)
						7		0.515					0.0511	7.007		
100						3,922	1,403	2,519				611	00510	3,922		6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS
00						53	21	100				611 611	00900	100	FT FT	6" CONDUIT, TYPE C
0								100				611	01500	100	FT	6" CONDUIT, TYPE F
			325					325				611	04400	325	FT	12" CONDUIT, TYPE B
			66					66				611	04400	66	FT	12" CONDUIT, TYPE B, 706.02
			20					20				611	04600	20	FT.	IZ" LONDUIT, TYPE C
			87					87				611	05.900	87	FT	15" CONDUIT. TYPE B
			123					123				611	05900	123	FT	15" CONDUIT, TYPE B, 706.02
			339					339				611	07400	339	FT	18" CONDUIT, TYPE B
			150				150	401				611	07400	150	FT	18" CONDUIT, TYPE B, 706.02
			401					401				611	07600	401	+1	Ισ΄ LUNUUII, ITPE L
			17					17				611	08900	17	FT	21" CONDUIT. TYPE B. 706.02
												011				
			50					50				611	10400	50	FT	24" CONDUIT, TYPE B
			87					87				611	10400	87	FT	24" CONDUIT, TYPE B, 706.02
			17									011	1010.0	+7		
			1/					1/				611	12100	1/	FT.	21" LONDUIT, TYPE C, 106.02
				1		1	1	1		I	I	1	1	1		

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CRIPTION	SEE SHEET NO.	CALCULATED WLC CHECKED JDH
ON CONTROL		
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	450C	<u>8</u>
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TYPE 1		l S
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TYPE 2		
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		5	SHEET NUN	<i>I</i> .					PART.			ITEM	ITEM	GRAND	I INIT T	DES
204	476	479	480	484	548		01/IMS/PV	02/NHS/O T	03/IMS/01	04/IMS/BR	05/IMS/BR	11 LW	EXT	TOTAL	0111	
				1.693				1.693				621	00100	1.693	ЕЛСН	TRAFI
				1,524				1,524				621	54000	1,524	EACH	RAISED PAVEMENT MARKER REMOVED
		0	22					70				625	72000	70	FACU	
28		8	22					28				625	00102	28	EACH FACH	BARRIER REFLECTOR TYPE 1 ONE-WAY
20								8				626	00102	8	FACH	BARRIER REFLECTOR, TYPE 1, BI-DIRECTIONAL
139								139				626	00110	139	EACH	BARRIER REFLECTOR, TYPE 2, ONE-WAY
27								27				626	00110	27	EACH	BARRIER REFLECTOR, TYPE 2, BI-DIRECTIONAL
		1 774			AE			1 410				670	07100	1 410	ГТ	CROUND NOUNTER SURPORT NO 3 ROST
		99.9			43			99.9				630	05100	1,419 99.9	FT	CROUND MOUNTED SUPPORT, NO. 5 POST
		348.7						348.7				630	07500	348.7	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X22
		172.6						172.6				630	07600	172.6	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12
		120						120				630	08004	120	FT	ONE WAY SUPPORT, NO. 3 POST
		18						18				630	08600	18	EACH	SIGN POST REFLECTOR
		14						14				630	09000	14	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION
			2					2				630	20800	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8
		2					<u> </u>	2				630	74500	2	EACH	OVERHEAD SIGN SUPPORT, MISC.: TYPE TC-16.22 DESIGN 13
		2						2				630	74500	2	EACH	OVERHEAD SIGN SUPPORT, MISC .: IYPE 10-17.11 DESIGN 8
			2				+	2				630	74500	2	EALH FACH	OVERHEAD SIGN SUPPORT MISC : TYPE TO-12 31 DESIGN O
			4					4				630	74500	4	EACH	OVERHEAD SIGN SUPPORT, MISC.: TYPE TC-12, 31 DESIGN 0
			6					6				630	74500	6	EACH	OVERHEAD SIGN SUPPORT. MISC.: TYPE TC-15.116 DESIGN 2
			1					1				630	74500	1	EACH	OVERHEAD SIGN SUPPORT, MISC.: TYPE TC-15.116 DESIGN 3
		3			11			14				630	79100	14	EACH	SIGN HANGER ASSEMBLY, MAST ARM
					2			2				630	79500	2	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED
		1,087.7			115			1,202.7				630	80100	1,202.7	SF	SIGN, FLAT SHEET
		549	7 400 5					549				630	80200	549	SF	SIGN, GROUND MOUNTED EXTRUSHEET
		1	3,429.5					3,429.5				630	80224	3,429.5	SF	SIGN, OVERHEAD EXTRUSHEET
		1	1					1				630	84010	1	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDAT
		28	,					28				630	84500	28	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION
		2	19					21				630	84510	21	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION
		6						6				630	84520	6	EACH	SPAN WIRE SIGN SUPPORT FOUNDATION
	130							130				630	84900	130	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL
	6							6				630	85400	6	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL
	7							7				630	85600	7	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION
	112							112				630	86102	112	EACH	REMOVAL OF GROUND MOUNTED FOST SUPPORT AND DISPOSAL
	- 45							43				630	86310	45	EACH	REMOVAL OF STRUCTURE MOUNTED STRUCTURAL DEAM SOFTORT AT
	-				1			1				630	87100	1	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION
	41				1			42				630	87400	42	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL
	4							4				630	87500	4	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL
	5							5				630	89706	5	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE T
	5							5				630	89802	5	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE T
	4							4				630	89810	4	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE T
	1							/				630	89812	1	EACH	REMOVAL OF WOOD POLE AND DISPOSAL
	1							1				631	94406	1	EACH	REMOVAL OF SIGNS WIRED
	1				2			2				631	97700	2	EACH	SIGN LIGHTING MISC.: REMOVE AND REERECT ILLUMINATED SIGN
				15.1				15.1				642	00104	15.1	MILE	EDGE LINE, 6", TYPE 1
				18.14				18.14				642	00204	18.14	MILE	LANE LINE, 6", TYPE 1
				20,866				20,866				642	00404	20,866	FT	CHANNELIZING LINE, 12", TYPE 1
				9,705				9,705				642	01510	9,705	FT	DOTTED LINE, 6", TYPE 1
				0.1				0.1				644	00100	0.1	MILE	EDGE LINE, 4"
				0.41				0.41				644	00104	0.41	MILE MILE	LINE, O
				1				1				644	00300	1	MILE	CENTER LINE
		1		6,531			1	6,531	1			644	00400	6,531	FT	CHANNELIZING LINE, 8"
				1,162				1,162				644	00404	1,162	FT	CHANNELIZING LINE, 12"
				392				392				644	00500	392	FT	STOP LINE
				630				630				644	00600	630	FT	CROSSWALK LINE
				735				735				644	00700	735	FT	TRANSVERSE/DIAGONAL LINE
				887				887				644	00720	887	FŤ	CHEVRON MARKING
				640 2				640 2				644 611	00900	040 2	SF	ISLANU MARKING SCHOOL SYMBOL MARKING 120/
				86				2 86				644	0120	2	EACH FACH	I ANF ARROW
				620				620				644	01500	620	FT	DOTTED LINE, 4"
		1		3 72		1	1	3 72	1			644	30030	3.72	MILE	REMOVAL OF PAVEMENT MARKING

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CRIPTION	SEE SHEET NO.	CALCULATED WLC CHECKED JDH
IC CONTROL		
		10
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	496 512	9
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ION, TYPE TC-21.50		
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IN DISPOSAL		
C-12.30		
C-7.65		
C-17.10		
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484	545	548	549			01/IMS/PV	02/NHS/0 T	03/IMS/OT	04/IMS/BR	05/IMS/BR	1, 5, 6, 6, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7,	EXT	TOTAL	0111	
16.9							16.9				646	10400	16.9	FT	TRAFFIC C
265							265				646	10500	265	FT	CROSSWALK LINE
31							31				646	20300	31	EACH	LANE ARROW
4							4				646	20320	4	EACH	WRONG WAY ARROW
276							276				646	20502	276	FT	DOTTED LINE, 4"
															Трле
	100						100				611	00400	100	FT	4" CONDUIT. TYPE E
		2					2				625	00450	2	EACH	CONNECTION, FUSED PULL APART
		2					2				625	00460	2	EACH	CONNECTION, UNFUSED PULL APART
		2					2				625	18401	2	EACH	BRACKET ARM, 20', AS PER PLAN
		646					646				625	23304	646	FT	NO. 8 AWG 600 VOLT DISTRIBUTION CABLE
		420					420				625	23400	420	FT	NO. 10 AWG POLE AND BRACKET CABLE
		272					272				625	25400	272	FT	CONDUIT, 2", 725.04
		187					187				625	25600	187	FT	CONDUIT, 4", 725.04
		2					2				625	27551	2	EACH	LUMINAIRE, DECORATIVE, AS PER PLAN (SHARONVILLE)
		459					459				625	29000	459	FT	TRENCH
											005	70700		5400	
		- /					/				625	30700	7	EACH	FULL BUX, 725.08, 18"
		 					) 0				625	3/506	3	EACH	COUND DOD AS DED DIAN
		272					272				625	36000	272	EAUN	PLASTIC CAUTION TAPE
		4					4				632	05007	4	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, P
		10					10				632	05007	10	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, F
		2					2				632	05087	2	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, P
		5					5				632	20731	5	EACH	COVERING OF VEHICULAR SIGNAL HEAD
		7					7				632	25010	7	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD
		3					3				632	26000	3	EACH	PEDESTRIAN PUSHBUTTON
			3				3				632	26501	3	EACH	DETECTOR LOOP, AS PER PLAN
			1,975				1,975				632	40500	1,975	F1	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG
			3				1,340				632	64010	3	FACH	SIGNAL CABLE, T CONDUCTOR, NO. 14 AWG
			5				5				<i>632</i>	64020	5	EACH	PEDESTAL FOUNDATION
			7				7				632	70400	7	EACH	CONDUIT RISER, 2" DIAMETER
			3				3				632	80700	3	EACH	SIGNAL SUPPORT, MISC.:SIGNAL SUPPORT, MECHANICAL DAMPER
			1				1				632	80700	1	EACH	SIGNAL SUPPORT, MISC. SIGNAL SUPPORT, TYPE TC-81.22, DESI
			2				2				032	01100	2	LAUN	COMPLIATION SIGNAL SOLT ONT, MISC. COMPLINATION SIGNAL SOL
			4				4				632	89900	4	EACH	PEDESTAL, 8', TRANSFORMER BASE
			1				1				632	89901	1	EACH	PEDESTAL, 8', TRANSFORMER BASE, AS PER PLAN
			3				3				<i>632</i>	90100	3	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION
			9				9				632	90200	9	EACH	REUSE OF VEHICULAR SIGNAL HEAD
			2				2				632	90202	2	EACH	REUSE OF PEDESTRIAN SIGNAL HEAD
			LS				LS				633	99300	LS		CONTROLLER ITEM. MISC.: PREEMPTION REUSE / REINSTALLATIO
			4				4				804	30000	4	EACH	FAN-OUT KIT, 6 FIBER
			4				4				804	32020	4	FT	DROP CABLE, 6 FIBER
			4				4				804	34000	4	EACH	FIBER TERMINATION PANEL, 6 FIBER
			4				4				804	36000	4	EACH	SLACK INSTALLATION
			4				4				804	37001	4	EACH	SPLICE ENCLOSURE. AS PER PLAN
			LS				LS				804	37700	LS		FIBER OPTIC CABLE TESTING
			4				4				804	38000	4	EACH	FIBER OPTIC CABLE MODEM
			100				100				804	98000	100	FT	FIBER OPTIC CABLE, MISC.: FIBER OPTIC CABLE, ARMORED, 6 F
			1,686				1,686				804	98000	1,686	FT	FIBER OPTIC CABLE, MISC.: REROUTE EXISTING FIBER OPTIC IN
			6				6				809	69100	6	EACH	STOP LINE RADAR DETECTION
			2				2				816	30001	2	EACH	VIDEO DETECTION SYSTEM, AS PER PLAN
			LS				LS				824	00010	LS		SYSTEM ANALYSIS
]															
															RETAINING WALLS (A
							298				203	20000	298	СҮ	EMBANKMENT
							1,025				203	35110	1,025	СҮ	GRANULAR MATERIAL, TYPE B
					 1	1	518		1		512	10101	518	SY	SEALING OF CONCRETE SURFACES (EPOXY-LIRETHANE) AS PER P

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OLYCARBONATE, AS PER PLAN (NO BACKPLATES)	545	
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EOR TYPE TC-81.22 MAST ARM (GREATER THAN 39' IN LENGTH)	546	1 1
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PPORT, TYPE TC-81.22, DESIGN 13 (SHARONVILLE)	546	]
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			SHEET NUN	И.					PART.			TTTH	ITEM	GRAND		
25	26	27	28	29	31	48	01/IMS/PV	02/NHS/0	03/IMS/OT	04/IMS/BR	05/IMS/BR	ITEM	EXT	TOTAL	UNIT	UESU
								/								MAINTENAL
100								100				410	12000	100	СҮ	TRAFFIC COMPACTED SURFACE, TYPE A OR B
			3,000					3,000				614	11110	3,000	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
			11,680					11,680				614	11630	11,680	FT	INCREASED BARRIER DELINEATION
						38		38				614	12380	38	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIREC
		20						20				614	12484	20	EACH	WORK ZONE INCREASED PENALTIES SIGN
20								20				614	125.0.0	20	БАСЦ	REDI ACEMENT SIGN
100								100				614	12500	100	FACH	REPLACEMENT DRUM
100				12,500				12,500				614	12801	12,500	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN
100								100				614	13000	100	СҮ	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
			2,720			2,213		4,933				614	13310	4,933	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY
													17710	5.	51011	
			50			0.017		50				614	13312	50	EACH	BARRIER REFLECTOR, TYPE 2, ONE-WAY
			2,110			2,213		4,905				614	13350	4,905	EACH	MAINTAINING TRAFFIC MISC · MAINTENANCE OF MAJOR CUIDE S
		15				15		15				614	18002	15	LACH	MAINTAINING TRAFFIC, MISC.: MAINTENANCE OF MADON DOIDE SI
14,000								14,000				614	18030	14,000	FT	MAINTAINING TRAFFIC, MISC.: RUMBLE STRIPS, SHOULDER (ASPH
	60							60				614	18601	60	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
				7.75		L		7.75				614	20011	7.75	MILE	WORK ZONE LANE LINE, CLASS I, 6", SPRAY THERMOPLASTIC, A
				2		1.34		3.34				614	20100	3.34	MILE	WORK ZONE LANE LINE, CLASS I, 4", 642 PAINT
				24.75		15.62		40.37				614	20110	40.57	MILE MILE	WORK ZONE LANE LINE, ULASS 1, 6", 642 PAINT
				0.11				0.11				014	20000	0.11	INILL	NONK ZONE LANE LINE, CEASS III, 4, 042 / AINT
				17				17				614	20560	17	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT
				2.25		1.25		3.5				614	21100	3.5	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT
				1				1				614	21550	1	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT
				22.06				22.06				614	22011	22.06	MILE	WORK ZONE EDGE LINE, CLASS I, 6", SPRAY THERMOPLASTIC, A
				1.62		1.52		3.14				614	22100	3.14	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT
				34.8		39.47		74 27				614	22110	74 27	MTLE	WORK TONE EDGE LINE CLASS I 6" 642 PAINT
				0.1		55.47		0.1				614	22350	0.1	MILE MILF	WORK ZONE EDGE LINE, CLASS II, 6, 042 FAINT
				12.74				12.74				614	22360	12.74	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT
				60,114				60,114				614	23011	60,114	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", SPRAY THERMOPI
				12,042		5,282		17,324				614	23200	17,324	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT
				78,870		113,522		192,392				614	23210	192,392	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT
				18 756				18 756				614	23690	18 756	F I FT	WORK ZONE CHANNELIZING LINE, CLASS III, 6, 642 PAINT
				15.842				15.842				614	23000	15.842	FT	WORK ZONE DOTTED LINE. CLASS I. 6". SPRAY THERMOPLASTIC
				2,093		1,374		3,467				614	24200	3,467	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT
				25,547		27,159		52,706				614	24202	52,706	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT
				620				620				614	24610	620	FT	WORK ZONE DOTTED LINE, CLASS III, 4", 642 PAINT
				9,705		400		9,705				614	24612	9,705	F1 57	WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT
				890 392		498		7,388				614	26200	7,388	F I FT	WORK ZONE STOP LINE, CLASS 1, 642 PAINT
				332			1	552					20010	552		TOTAL 2012 STOP LINE, CLASS 111, OTZ TAINT
						1,071		1,071				614	27200	1,071	FT	WORK ZONE CROSSWALK LINE, CLASS I, 642 PAINT
						1,112		1,112				614	28200	1,112	FT	WORK ZONE GORE MARKING, CLASS II, 642 PAINT
				163		77		240				614	30200	240	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT
				86				86				614	30650	86	EACH	WORK ZONE ARROW, CLASS III, 642 PAINT
		2						2				614	40051	2	EACH	BUSINESS ENTRANCE SIGN, AS PER PLAN
						15		15				615	10000	15		ROADS FOR MAINTAINING TRAFFIC
						38.914		38.914				615	20001	38.914	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
2,550			1					2,550				616	10000	2,550	MGAL	WATER
						105,800		105,800				622	41100	105,800	FT	PORTABLE BARRIER, UNANCHORED
						1,528		1,528				622	41110	1,528	FT	PORTABLE BARRIER, ANCHORED
						6		6				622	41050	6	EACH	PORTABLE BARRIER, "Y" CONNECTOR
					162			162				808	18700	162	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY
			-													11/0
						-	-	15				103	05000	15		INC. PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMEN
			1			1	1	LS				108	10000	LS		CPM PROGRESS SCHEDULE
								LS				614	11000	LS		MAINTAINING TRAFFIC
								36				619	16021	36	MNTH	FIELD OFFICE, TYPE C, AS PER PLAN
								LS				623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING
								LS				623	11000	LS		PROVIDING ELECTRONIC INSTRUMENTATION
	1	1	1	1	1	1	1	LS	1	1		624	10000	LS	1	MOBILIZATION

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# BIORETENTION CELLS

CONSTRUCT THE BIORETENTION CELLS AFTER ALL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED AS SHOWN ON THE CONTRACT PLANS AND TO THE SATISFACTION OF THE ENGINEER. DO NOT USE THE COMPLETED BIORETENTION CELLS AS TEMPORARY SEDIMENT CONTROL FACILITIES DURING CONSTRUCTION. DO NOT OPERATE HEAVY EQUIPMENT WITHIN THE PERIMETER OF A BIORETENTION FACILITY DURING EXCAVATION, UNDERDRAIN PLACEMENT, BACKFILLING, PLANTING, OR MULCHING OF THE FACILITY. USE ALL SUITABLE EXCAVATED MATERIAL IN THE WORK. ALTERNATIVELY, LEGALLY USE, RECYCLE, OR DISPOSE OF ALL EXCAVATED MATERIALS ACCORDING TO 105.16 AND 105.17.

EXCAVATE THE BIORETENTION CELLS TO THE DIMENSIONS, SIDE SLOPES, AND ELEVATIONS SHOWN ON THE CONTRACT PLANS. MINIMIZE THE COMPACTION OF THE BOTTOM OF THE BIORETENTION FACILITY BY THE METHOD OF EXCAVATION. EMBANKMENT WILL BE MEASURED AND PAID AS ITEM 203, EMBANKMENT, USING NATURAL SOIL. 703.16.A.

THE BIORETENTION SOIL SHALL BE A UNIFORM MIX THAT IS FREE OF STONES, STUMPS, ROOTS, OR ANY OTHER OBJECT THAT IS LARGER THAN TWO INCHES. THE SOIL MAY CONSIST OF EXISTING SOIL, FURNISHED SOIL, OR A COMBINATION OF BOTH PROVIDED THAT IT MEETS THE FOLLOWING REQUIREMENTS:

PH RANGE: 5.2-7.0

COMPOSITION BY VOLUME: 4 PARTS SAND - CMS FINE AGGREGATE AS PER 703 2 PARTS COMPOST - CMS 659.06 2 PARTS TOPSOIL - CMS 659.05

THOROUGHLY MIX THE BIORETENTION SOIL PRIOR TO PLACEMENT. TEST AND ADJUST THE PH AS PER CMS 659.02.B. ALL SAND USED SHALL MEET CMS 203.02.H, NATURAL GRANULAR MATERIALS.

PLACE THE SOIL IN 12 INCH LIFTS AND CONSOLIDATE BY WATERING UNTIL SATURATED.

CONSTRUCT THE UNDERDRAIN SYSTEM AS PER CMS 605. PLACE THE GRANULAR BACKFILL MATERIAL TO THE INVERT OF THE BIORETENTION SOIL. ENSURE A MINIMUM OF 2 INCHES OF GRANULAR COVER OVER THE UNDERDRAIN PRIOR TO PLACEMENT OF THE BIORETENTION SOIL.

PLACE OBSERVATION WELLS (CLEAN-OUTS) WHERE SHOWN IN THE PLANS. CONNECT THE OBSERVATION WELLS TO THE PERFORATED 4" CONDUIT, TYPE C WITH THE APPROPRIATE MANUFACTURED CONNECTIONS. THE OBSERVATION WELLS SHALL EXTEND 4 INCHES ABOVE THE TOP ELEVATION OF THE BIORETENTION FACILITY MULCH. CAP THE OBSERVATION WELLS WITH A THREADED SCREW CAP. CAP THE ENDS OF 4" CONDUIT, TYPE C NOT TERMINATING IN AN OBSERVATION WELL OR CONNECTED TO OTHER CONDUITS/STRUCTURES. MANUFACTURED CONNECTIONS AND CAPS ARE INCLUDED IN THE COST OF THE 4" CONDUIT, TYPE C.

PLACE SEED AS SPECIFIED IN THE BIORENTETION CELL SEEDING NOTE ON THIS SHEET.

BIORETENTION CELLS WILL BE PAID FOR AS ITEM 601-BIORETENTION CELLS BY THE CUBIC YARD, COMPLETED AND ACCEPTED IN PLACE ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS. THE PAYMENT WILL BE FULL COMPENSATION FOR ALL APPLICABLE INCIDENTALS NECESSARY TO SATISFACTORILY COMPLETE THE WORK. UNLESS ITEMIZED ON THE BIORETENTION CELL NOTES AND DETAIL SHEETS.

# BIORETENTION CELL SEEDING

THE CONTRACTOR SHALL APPLY SEED TO THE BIORETENTION CELL AREAS ACCORDING TO THE SEED MIX SPECIFIED IN THE PLANS. ENSURE THAT THE BIORETENTION CELL AREAS ARE NOT COMPACTED, OR RAKE LIGHTLY TO LOOSEN BED AREA PRIOR TO SEED APPLICATION.

THOROUGHLY MIX ALL SEED, AND EVENLY SOW THE SEED OVER THE PREPARED AREAS AT THE REQUIRED RATES. DO NOT SOW SEED DURING HIGH WINDS. BROADCAST SEED DIRECTLY TO BIORETENTION CELL AREA; DO NOT APPLY USING HYDRO SEEDING METHODS. BIORETENTION CELL SEEDING SHALL BE COMPLETED BETWEEN MARCH 15 AND MAY 31 OR BETWEEN AUGUST 15 AND NOVEMBER 15.

BIORETENTION NATIVE GRASS SEED MIX: APPLY AT A RATE OF TO LB/ACRE 32% LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM) 6% SIDEOATS GRAMA GRASS (BOUTELOUA CURTIPENDULA) 6% PRAIRIE DROPSEED (SPOROBOLUS HETEROLEPIS) 28% GRAIN OATS (AVENA SATIVA) 28% GRAIN RYE (SECALE CEREAL) DO NOT ROLL OR COMPACT THE SEEDED AREA WITH EQUIPMENT AFTER BROADCASTING. THOROUGHLY WATER ALL SEEDED AREAS TO HELP INCORPORATE THE SEED. DO NOT APPLY LIME OR FERTILIZER TO THE BIORETENTION CELL AREAS.

WITHIN 48 HOURS OF APPLYING SEED TO BIORETENTION AREAS, CONSTRUCT EROSION CONTROL MAT TYPES A PER CMS 671 OVER THE SURFACE OF ALL BIORETENTION CELLS. PLACE EROSION CONTROL MATS SUCH THAT THEY EXTEND A MINIMUM OF 1 FOOT OUTSIDE THE PERIMETER OF THE BIORETENTION CELLS ON ALL SIDES TO ENABLE THE MATS TO BE SECURED TO THE SOIL OUTSIDE OF THE BIORETENTION CELLS THOROUGHLY WATER THE BIORETENTION CELL AREAS AFTER INSTALLATION OF EROSION CONTROL MAT.

CONTRACTOR SHALL WATER ONE INCH PER WEEK FOR THE FIRST SIX TO EIGHT WEEKS KEEPING THE SEEDED AREA MOIST UNTIL ESTABLISHMENT. NO SEPARATE PAYMENTS WILL BE MADE.

ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED WITHIN THE UNIT PRICE BID ITEM.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 659 SEEDING, MISC .: BIORETENTION CELLS 3350 SY

# ITEM 203-EXCAVATION, AS PER PLAN

IN ADDITION TO THE REQUIREMENT OF ITEM 203-EXCAVATION, PERFORM EXCAVATION TO THE LINES AND GRADES REQUIRED FOR INSTALLATION OF THE BIORETENTION CELLS. BASED ON THE EXISTING BORING INFORMATION, WEATHERED AND UNWEATHERED INTERBEDDED SHALE AND LIMESTONE BEDROCK IS EXPECTED WHEN EXCAVATING FOR THE BIORETENTION CELLS, ESPECIALLY FROM STA 332+00 TO 353+00. BEDROCK ELEVATION AND DIFFICULTY TO REMOVE MAY VARY ALONG THE PROJECT LENGTH AND WITH DEPTH. ALL EXCAVATION FOR THE BIORETENTION CELLS IS UNCLASSIFIED AND ADDITIONAL COMPENSATION WILL NOT BE CONSIDERED FOR BEDROCK REMOVAL. ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO EXCAVATE FOR THE BIORETENTION CELLS IS INCLUDED WITHIN THE UNIT PRICE OF ITEM 203-EXCAVATION, AS PER PLAN.

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NOTES 1. SC IN 2. CC VE 3. 4" IN CC	: ARIFY THE SUBSOIL 3" MINIMUM FORE INSTALLATION OF AGGREGATE TO BIORETENTION CELL. NSTRUCT BIORETENTION CELLS WITH RTICAL SIDES. CONDUIT FITTINGS AND CAPS ARE CLUDED IN THE COST FOR THE 4" NDUIT.	CALCULATED ODOT D8 CHECKED ODOT D8
ATED QUANTITIES (C UNIT CY EXCAVATION CY EMBANKMENT SY TIED CONCRE CY BIORETENTIC FT 4" CONDUIT,	ARRIED TO GENERAL SUMMARY) DESCRIPTION , AS PER PLAN ETE BLOCK MAT, TYPE 1 DN CELL TYPE C, 707.41 (PERFORATED) TYPE C, 707.41 (NON-PERFORATED)	BIORETENTION CELL DETAILS
FT       4" CONDUIT,         SY       EROSION CO         OBSERVAT       4" PVC CA         Ir       Ir         + + + + + + +       + + + + + +         + + + + + + +       + + + + + +         + + + + + + +       + + + + + +         + + + + + + +       + + + + + +         + + + + + + +       + + + + + +         + + + + + + +       + + + + + +         + + + + + + +       + + + + +         + + + + + +       + + + + +         + + + + + +       + + + + +         + + + + + +       + + + + +	$\frac{1}{1} \frac{1}{1} \frac{1}$	.M-75-14.61
CRFORATED PVC UNDER OBSERVATION WELL NOT TO SC	DRAIN	<b>4</b> 50D 708

						6	21			642										6	44				—
SHEET NO.	REFERENCE NO.	LOCATION	STA	TION	SIDE	RPM	RAISED PAVEMENT MARKER REMOVED	EDGE LINE, 6", TYPE I (WHITE)	EDGE LINE, 6", TYPE I (YELLOW)	LANE LINE, 6", TYPE 1	CHANNELIZING LINE, 12", TYPE 1	DOTTED LINE, 6", TYPE 1 (WHITE)	EDGE LINE, 4" (WHITE)	EDGE LINE, 6" (WHITE)	EDGE LINE, 6" (YELLOW)	LANE LINE, 4"	CENTER LINE	CHANNELIZING LINE, 8"	CHANNELIZING LINE, 12"	STOP LINE	CROSSWALK LINE	TRANSVERSE/ DIAGONAL LINE (YELLOW)	CHEVRON MARKING	ISLAND MARKING	SCHOOL SYMBOL MARKING
			FROM	TO		EACH	EACH	MILE	MILE	MĨLE	FT	FŤ	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	FT	SF	E,
496-507	EY-1	I-75 MAINLINE SB	198+50	444+25	LT/RT				4.47																
496-507	EY-2 DW-1	I-75 MAINLINE NB	213+75	429+80	LI/RI RT				4.09			1000													+
496-507	 	I-75 MAINLINE SB	208+50	444+25	LT/RT	189				4.28		1000													$\vdash$
496-505	LL-2	I-75 MAINLINE NB	215+00	406+00	LT/RT	160				3.62															
497-507	LL-3	I-75 MAINLINE	306+85	444+25	LT	115				2.60															
497-507	LL-4	I-75 MAINLINE	306+85	429+79	LT	103				2.33													'		
497	LL-5	RAMP B	309+85	314+00		6 22				0.08	820														┝
497	 	I-75 MAINI INF	310+60	318+14	17	20					754														$\vdash$
497-507	EW-1	I-75 MAINLINE	309+85	426+60	LT			2.21																	$\vdash$
497	CV-1	I-75 MAINLINE	311+50	318+14	LT																		370		
497-507	LL-6	I-75 MAINLINE	311+54	429+80	RT	99				2.24															
497-507	LL-7	I-75 MAINLINE	311+54	429+80	RT	99				2.24	000														-
497-498	EW-2	I-75 MAINLINE I-75 MAINI INF	315+00	323+00 429+80	RT LI	24		2 17			900														-
497-498	CH-4	I-75 MAINLINE	315+46	329+34	RT			2.11			1388														
497-498	CH-5	RAMP DR	315+46	329+34	RT	36					1388														
5 <i>498-499</i>	DW-2	I-75 MAINLINE	323+00	334+00	LT							1100													
<sup>+</sup> × 498-500	DW-3	I-75 MAINLINE	329+34	347+47	RT						1057	1813													
5 499-500	СН-6	I-75 MAINLINE	334+00	352+57	LI	17					1857												'		⊢
E 433 500 ≡ 500-501	CH-8	RAMP G	347+47	356+71	17	25					924														-
500-509	EY-3	RAMP A	352+30	367+42	RT	19			0.29		027														
500-509	EW-3	RAMP A	352+30	367+31	LT			0.28																	
<u>500-509</u>	LL-8	RAMP A	353+39	366+86	RT	17				0.26															
500 FOI	SL-1	RAMP A	353	3+39	RT	11					764													'	-
500-501	CH-10	RAMP G	352+90	356+71	17	11					381														⊢
<ul> <li></li></ul>	CV-2	RAMP G	352+90	356+71	LT						501												165		┢
501-510	EY-4	RAMP G	356+71	366+73	LT	18			0.19																
÷ 501-510	EW-4	RAMP G	356+71	366+62	RT	18		0.19																	
SO1-510	LL-9	RAMP G	356+71	362+70	LT	9				0.11															
501	A-56 EY-5	RAMP G	368+45	780+22	LI RT	21			0.22																⊢
502-508	 FW-5	RAMP C	356+84	380+22	17	21		0.44	0.22																-
⊆ 502-508	LL-10	RAMP C	371+30	380+22	RT	14				0.17															
9. 502-511	EY-6	RAMP E	366+96	376+29	LT	12			0.18																
07 <i>502-511</i>	EW-6	RAMP E	367+08	376+29	RT			0.17																	
502-511		RAMP E	367+50	3/4+19		9				0.13														'	_
0 502 502-504	SL-2 CH-11	RAMP E RAMP F	376+29	394+50		47					1821														+
502-504	CH-12	I-75 MAINLINE	376+28	394+50	RT						1822														$\vdash$
te 503-504	СН-13	RAMP C	380+22	390+00	RT	26					978														
503	CH-14	RAMP C	380+22	385+02	RT	13					480														
₩ <u>503</u>	CH-15	I-75 MAINLINE	380+22	385+02	LT	13					480												- 205	<u> </u>	⊢
504-506	DW-4	Γ-75 MAINI INF	3.90+00	303+UZ 419+42	<i>KI</i> <i>IT</i>							2942											205		$\vdash$
§ 504-505	DW-5	I-75 MAINLINE	394+50	409+00	RT							1450													$\vdash$
8 505-506	DW-6	I-75 MAINLINE	406+00	420+00	RT							1400													
₹ 505-506	СН-16	RAMP D	409+00	417+46	LT	23					846														Ļ
± 506	CH-17	I-75 MAINLINE	413+68	417+48	RT	11					380												<u> </u>	<sup> </sup>	⊢
506	CV-4	κάμε υ Βάμε σ	413+68	411+46 417+46		- //					518		-		-	-	-				-		147	'	⊢
₹ 1 506	EY-7	RAMP D	417+46	422+50	LT	7			0.10																$\vdash$
g 506	<i>EW-7</i>	RAMP D	417+46	422+50	CL			0.10																	
rr̃ 506	LL-12	RAMP D	417+46	422+50	LT	7				0.10															
506-507	CH-19	I-75 MAINLINE	419+42	426+60	LT	19					718												ļ		⊢
00506-507	LH-20	I-15 MAINLINE	419+42	426+60							/ 18												<u> </u> '		$\vdash$
-i-						-								-									<u> </u> '		$\vdash$
bre			TO SHEET AG	• • <i>л</i>		1700		E 57	0 57	10 11	10270	0705	0.00	0.00	0.00	0.00	0.00						007		$\vdash$
		IUIALS LARRIED	IU SHEET 48	4		1502	0	0.57	3.00	10.14	13230	3105	0.00	0.00	0.00	0.00	0.00	Ű					001		

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CALCULATED BSS CHECKED JDH		(WHITE)	ROW	646	INE			'EMENT	(WHITE) EMENT	V (WHITE) EMENT
		DOTTED LINE, 4"	WRONG WAY AF	LANE ARRO	CROSSWALK L	STOP LINE	REMOVAL OF PAI MARKING	DOTTED LINE, 4"	LANE ARRO	
		FT	EACH	EACH	FT	FT	MILE	FT	EACH	
IMARY							0.19 1.68 1.85			
N N N										_
SUBS										-
U Z										
RKI										
MAI										
⊢ Z										
Σ						24				
× −										
P 4										
			2							
						24				
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75										
Σ										
ΉΗ Ι										
481 708		0	2	0	0	48	3.72	0	0	

			1		1	6	21	-		612			I							6	11				
SHEET NO.	REFERENCE NO.	LOCATION	STA	TION	SIDE	RPM	RAISED PAVEMENT MARKER	EDGE LINE, 6", TYPE 1 (WHITE)	EDGE LINE, 6", TYPE 1 (YELLOW)	LANE LINE, 6", TYPE 1	CHANNELIZING LINE, 12", TYPE 1	DOTTED LINE, 6", TYPE 1 (WHITE)	EDGE LINE, 4" (WHITE)	EDGE LINE, 6" (WHITE)	EDGE LINE, 6" (YELLOW)	LANE LINE, 4"	CENTER LINE	CHANNELIZING LINE, 8"	CHANNELIZING LINE, 12"	STOP LINE	CROSSWALK LINE	TRANSVERSE / DIAGONAL LINE (YELLOW)	CHEVRON MARKING	ISLAND MARKING	
			FROM	TO		EACH	EACH	MILE	MILE	MILE	FT	FT	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	FT	SF	E
507	EY-8	I-275 RAMP A	426+60	433+20	LT	10									0.14							L			
507	EW-8	I-275 RAMP A	426+60	433+20	LT	10								0.14					501	<u> </u> '			<u> </u>		_
507	CH-21	I-75 MAINLINE	429+79	435+60		16													581	<u> </u>		<u> </u>	<u> </u>		┝
507	FY-9	I-275 WB TO I-75 SB RAMP	435+60	439+50	17	5									0.07				507	<u> </u>		<u> </u>	<u> </u>		┢
507	EW-9	I-275 WB TO I-75 SB RAMP	435+60	438+48	LT	Ű								0.05	0.07									-	t
508	XW-1	RAMP C	368+35	368+45	LT/RT																				T
508	SL-3	RAMP C	368	+50	LT/RT																				
508	СН-23	RAMP C	368+50	368+79	LT	2					30									'		<b>_</b>	<u> </u>		+
508	CH-24	RAMP C	368+50	371+30		/					280												<u> </u>		╞
508	CH-26	RAMP C	368+50	371+30	RT	7					280										<u> </u>	<u> </u>	<u> </u>	+	+
508	A-1	RAMP C	368	R+60	LT/RT	, 					1	1									<u> </u>	<u> </u>		<u> </u>	$\dagger$
508	A-2	RAMP C	369	9+26	LT/RT																				
508	A-3	RAMP C	369	9+92	LT/RT																	$\vdash$		$\vdash$	$\perp$
508	A-4	RAMP C	371	+20	LT/RT															'	<b> </b>	—	──	<u> </u>	+
508	A-55 CH-27	RAMP C	372	7+50	RI CI	0					380											<u> </u>			+
510	CH-28	RAMP G	362+70	366+50	1 T	9					380											<u> </u>	<u> </u>	<u> </u>	+
5 510	A-5	RAMP G	362	2+80	LT/RT																				t
× 510	A-6	RAMP G	364	+00	LT/RT																				
ວ <u>.</u> 510	A-7	RAMP G	365	+08	LT/RT																		<u> </u>		
510	A-8	RAMP G	365	0+/4 2+40	LI/RI															'		──	──	──	+
510 510	A-9 SI-4	RAMP G RAMP G	366	5+40 5+50	LT/RT															'				+	+
≥ 511	XW-2	RAMP E	367+23	367+42	LT/RT																			-	+
5 <i>12</i>	EW-10	SHARON RD	2+30	7+33	RT								0.10											-	T
5 <i>12-517</i>	CL-1	SHARON RD	2+76	28+00	LT/RT	33											0.48								
512	CL-8	SHARON RD	2+76	4+40	LT	4											0.03			<u> </u>			<u> </u>	<b></b>	╞
ອ <u></u> 512	1Y-6	SHARON RD	2+76	4+40		7												00		'		60			╞
NO 512	<u>4-50</u>	SHARON RD SHARON RD	2+05	-95		5												00				<u> </u>			┢
512	A-51	SHARON RD	3+	-52	LT																			-	┢
<sup>∼</sup> 512	A-52	SHARON RD	4+	-80	RT																				Τ
± ⊕ 512	A-53	SHARON RD	6+	-37	RT																				
512 512 512	A-54	SHARON RD	7+	-03	RT	0												700		<u> </u>	<u> </u>	<b> </b>	<u> </u>		╞
512-513	LH-29 1-55	SHARON RD SHARON RD	4+60	-70		9												320			<u> </u>	<u> </u>			╋
513	SL-5	SHARON RD	7+	-80	LT/RT															27		<u> </u>			┢
513	XW-3	SHARON RD	7+88	8+00	LT/RT																120				t
õg <i>513</i>	XW-8	SHARON RD	8+97	9+07	LT/RT																156				$\Box$
513	SL-16	SHARON RD	97	+15	LT							<u> </u>				0.70				48	<u> </u>	<u> </u>	<u> </u>	<u> </u>	$\downarrow$
0 513-517	LL-13 CU_71	SHAKON RD	9+15 0±15	28+00 11±15		24										0.36		530		<u> </u> '	<u> </u>	<u> </u>	──	+	╀
513-514	CH-32	SHARON RD	9+15	14+65	17	15												550			<u> </u>	<u> </u>	<u> </u>	+	+
	CH-33	SHARON RD	9+15	14+65	LT	15	1	1	1	1	1	1			1		1	550				<u> </u>	1	<u> </u>	$\dagger$
513	A-10	SHARON RD	9+	-25	LT																				
513	A-11	SHARON RD	9-	+91	LT							<u> </u>										$\vdash$	$\vdash$	$\vdash$	Ļ
513	A-12	SHARON RD	10 + 70	+57		15												E70		<u> </u>	<u> </u>	──	──	<u> </u>	+
0 513-514	LH-3U ∆-13		10+10	+78	RT	15												550		'	<u> </u>	<u> </u>	<u> </u>	<u> </u>	+
₹ 1 513-514	CL-2	SHARON RD	11+25	16+00	LT	7						1					0.09				<u> </u>	<u> </u>	<u> </u>	<u> </u>	+
ຼ ທ <u>513-514</u>		SHARON RD	11+25	16+00	LT/RT	L							L									213			T
<u> </u> 513-514	СН-34	SHARON RD	11+45	16+00	RT	13												455						$\square$	
1 513	A-14	SHARON RD	11+	-70	RT																<b> </b>			_	+
980 513	A-15 1-16	SHAKON KU SHARON PD	121	+50 +50		-						-								<u> </u>	<u> </u>	──	──	+	+
- 90	A 10	SHANON ND	127								-	1									<u> </u>	<u> </u>	<u> </u>	$\vdash$	+
)6\(												1										<u> </u>			t
																						$\vdash$	<u> </u>	$\square$	F
				<u> </u>																├───'	├──	┣──	├──	┼──	+
		IOTALS CARRIED	IO SHEET 48	4		225	0	0.00	0.00	0.00	1630	0	0.10	0.20	0.21	0.36	0.60	3015	1162	75	276	273	0	0	

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	ユ     DOTTED LINE, 4" (WHITE)       CALCULATED       CALCULATED       BSS       UDH
) LINE, 4" (WHITE)	T DOTTEL
	HONG WAY ARROW
040	HANE ARROW
	CROSSWALK LINE
	국 STOP LINE
	REMOVAL OF PAVEMENT
	DOTTED LINE, 4" (WHITE)
	HOW LANE ARROW
	H H H J J J J J J J J J J J J J J J J J

					6	521			642										64	44				
SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	RPM	RAISED PAVEMENT MARKER REMOVED	EDGE LINE, 6", TYPE 1 (WHITE)	EDGE LINE, 6", TYPE 1 (YELLOW)	LANE LINE, 6", TYPE I	CHANNELIZING LINE, 12", TYPE 1	DOTTED LINE, 6", TYPE I (WHITE)	EDGE LINE, 4" (WHITE)	EDGE LINE, 6″ (WHITE)	EDGE LINE, 6" (YELLOW)	LANE LINE, 4"	CENTER LINE	CHANNELIZING LINE, 8"	CHANNELIZING LINE, 12"	STOP LINE	CROSSWALK LINE	TRANSVERSE/ DIAGONAL LINE (YELLOW)	CHEVRON MARKING	ISLAND MARKING	SCHOOL SYMBOL MARKING
			FROM TO		EACH	EACH	MILE	MILE	MILE	FT	FT	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	FT	SF	E/
514	SS-1	SHARON RD	14+00														175			<u> </u>	<u> </u>	<u> </u>	<b>_</b>	
514	CH-35	SHARON RD	14+25 16+00	D RI	6												1/5			<u> </u>	<u> </u>	<u> </u>		-
514	A-17 A-18	SHARON RD	14+35	1.7																<u> </u>	<u> </u>	<u> </u>		+
514-517	LL-14	SHARON RD	14+65 28+0	0 LT	17										0.25								-	
514	A-19	SHARON RD	15+24	RT																		$\square$		
514	A-20	SHARON RD	15+90	RT	_	-													07	┣───	<u> </u>	—		-
514	SL-6 IY-1	SHARON RD SHARON RD	16+00																63	<u> </u>	<u> </u>	<u> </u>	190	-
514	DW-7	SHARON RD	16+00 16+72	2 RT																<u> </u>	<u> </u>	<u> </u>		+
514	DW-8	SHARON RD	16+60 17+00	D LT/RT																			-	
514	DW-9	SHARON RD	16+65 17+10	) LT/RT																				
514	SL-7	SHARON RD	17+00	LT															36	L	<b>_</b>	<u> </u>	<u> </u>	
514-516	CH-36	SHARON RD	17+00 22+10	$\frac{D}{LT}$	14						-						510			├──	<u> </u>		──	-
514-515	сн-зт 11-15	SHARON RD SHARON RD	17+10 17+90	D = LT D = RT	1										0.02		150			<u> </u>		<u> </u>		+
514	A-21	SHARON RD	17+10	LT		1									0.02								-	+
514	SL-8	SHARON RD	17+25	LT															12					
514	A-22	SHARON RD	17+35	LT																	L	<u> </u>		
515	A-23	SHARON RD	17+76		15												E 7 E			<u> </u>	<b> </b>	<u> </u>	<b> </b>	+
515-510	LH-30 4-24	SHARON RD SHARON RD	17+90 23+23		15												535			<u> </u>		<u> </u>		+
<u>515</u>	A-25	SHARON RD	18+28	RT																<u> </u>		<u> </u>		+
515	CL-3	SHARON RD	18+50 19+50	) LT	3											0.02							-	
515	TY-2	SHARON RD	18+50 19+50	) <i>LT</i>																	60			
₹ <u>515</u>	A-26	SHARON RD	18+94	RT																L		<u> </u>		_
5 515	A-27	SHARON RD	19+00		10												770			<u> </u>		<u> </u>		+
515-510	<u>сн-39</u> 4-28	SHARON RD	20+26	RT	10												550			<u> </u>		<u> </u>		+
ଦ୍ର <i>515</i>	A-29	SHARON RD	20+35	LT																			-	1
515	A-30	SHARON RD	21+58	RT																				
515	A-31	SHARON RD	21+85	LT																L	<b>_</b>	<u> </u>	<b>_</b>	_
0 516 N 516-517	A-32	SHARON RD	22+24	RI	0											0 11					<u> </u>	<u> </u>		-
± 510-517	TY-3	SHARON RD	22+30 23+0	$\frac{D}{D}$	9											0.11				<u> </u>	54	<u> </u>		+
ы 516	A-33	SHARON RD	22+90	RT																			-	
<u>с</u> 516	SL-9	SHARON RD	23+00	LT/RT															24					
₽. 516 N	IY-2	SHARON RD	23+00 23+0	6 LT																L		<u> </u>	66	
0 516	DW-10	SHARON RD	23+00 23+70	6 LT/RT																<u> </u>	<b> </b>	<u> </u>	<b>_</b>	+
510 516	51 -10	SHARON RD SHARON RD	23+00 23+4	4 LT RT															24	<u> </u>	<u> </u>	<u> </u>		+
516	DW-12	SHARON RD	23+44 24+0	0 LT															2,			<u> </u>	-	-
ິງ 516	IY-3	SHARON RD	23+84 24+0	0 LT/RT																			384	
⊕ 516	SL-11	SHARON RD	24+00	LT		L													51	L		<u> </u>		
0 516 0 E16 E17	CH-40	SHARON RD	24+00 25+5	5 LI	5												155			──	<u> </u>	—	──	-
516-517	TY-4	SHARON RD SHARON RD	24+00 28+0	D = LT	/												205			<u> </u>	268	<u> </u>		+
516	A-34	SHARON RD	24+10	LT																<u> </u>	200	<u> </u>		$\vdash$
8 516-517	CH-42	SHARON RD	24+75 28+0	O RT	10												325							
516	A-35	SHARON RD	24+76	LT																$\vdash$	$\vdash$	$\vdash$	+	$\vdash$
516	A-36	SHARON RD	25+00	RT														<u> </u>		┣──	<u> </u>	—	<u> </u>	+
1 516	A-37 ∆-38	SHARON RD	25+42		+	+	-				1							'		├──	<u> </u>	├──	+	+
5,0 ↓ 517	A-39	SHARON RD	26+58	RT		+					1									<u> </u>	<u> </u>	<u> </u>	+	$\vdash$
₹ <u>517</u>	A-40	SHARON RD	27+24	RT							L													1
ຜ <mark>ຼ</mark> ່ 517	A-41	SHARON RD	27+90	RT																		1		$\square$
n 517	SL-12	SHARON RD	28+00	RT		<b> </b>					<b> </b>								36		──	─	─	$\vdash$
0 511 6 517	XW-4 XW-5	SHAKUN KU SHARON PD	28+33 28+50	2 LI 4 IT/DT														<u> </u>		46	<u> </u>	<u> </u>	+	$\vdash$
	A <b>n</b> U	SHANON IND	20,07 2970			1					1										<u> </u>	<u> </u>	+	$\vdash$
: \pre-in		TOTALS CARRIED	TO SHEET 484		102	0	0.00	0.00	0.00	0	0	0.00	0.00	0.00	0.27	0.13	2365	0	246	68	382	0	640	F

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122 30 65 65 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0	HAM-75-14.61

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	NO.					6	MARKER	TYPE 1	TYPE 1	1 JAL	VE, 12",	TYPE 1	WHITE)	WHITE)	ELLOW)	4"	E	NE, 8″	NE, 12"	6-	INE THE	4GONAL W)	SNIX	INC	0141/011
SHEET Nu	REFERENCE	LOCATION	STA	TION	SIDE	RPM	RAISED PAVEMENT REMOVED	EDGE LINE, 6", (WHITE)	EDGE LINE, 6", (YELLOW)	LANE LINE, 6",	CHANNELIZING LI TYPE 1	DOTTED LINE, 6", (MHITE)	EDGE LINE, 4" (	EDGE LINE, 6" (	EDGE LINE, 6" (Y	LANE LINE,	CENTER LIN	CHANNELIZING LI	CHANNELIZING LI	STOP LINE	CROSSWALK L	TRANSVERSE/ DI LINE (YELLC	CHEVRON MAR	ISLAND MARK	
			FROM	ΤΟ	_	ЕЛСИ	ЕЛСИ	MILE	MILE	MILE	FT	FT	MILE	MILE	MILE	MILE	MIE	FT	ET	FT	FT	ET	FT		+
518	CL-5	CHESTER RD	94+10	99+30	LT	8 8	LACH	WILL	WILL	WILL	11		WILL	WILL	WILL	WILL	0.10	11	11	11		11			ť
518	CL-6	CHESTER RD	94+94	99+30	LT	7											0.08								
518	TY-5	CHESTER RD	94+94	99+30	LT																	80		<u> </u>	
518	CH-43	CHESTER RD	96+95	<u> </u>	CL PT	8												252							+
518	A 42 A-43	CHESTER RD	97-	+93	RT																				+
518	CH-44	CHESTER RD	98+50	99+47	LT	4												97						-	t
518	A-44	CHESTER RD	98	+61	LT/RT																				
518	A-45	CHESTER RD	99	+17	LT/RT																			<u> </u>	_
518	SL-13	CHESTER RD	99-	+30																10			<u> </u>	<u> </u>	+
518	51 -14	CHESTER RD	99+30	+47	LI IT/RT															25					+
518	XW-6	CHESTER RD	99+52	99+62	LT/RT															20	126			+	+
519	DW-14	CHESTER RD	99+86	100+53	LT/RT																				t
519	DW-15	CHESTER RD	100+34	100+53	RT																				
519	XW-7	CHESTER RD	100+55	100+65	LT/RT															70	160		<u> </u>	<u> </u>	_
519	SL-15 CL - 7	CHESTER RD	100+74	+/4		7											0.00			36					+
519	CH-45	CHESTER RD	100+74	104+75		12											0.00	401					<u> </u>		+
519	СН-46	CHESTER RD	100+74	104+75	LT	12												401						-	t
519	LL-16	CHESTER RD	100+74	105+45	RT	6										0.09									
519	A-45	CHESTER RD	100	+84	LT/RT																		<u> </u>	<u> </u>	_
519	A-46	CHESTER RD	101-	+50	LI/RI																				+
519	A-47 SS-2	CHESTER RD	102	+92	RT																				╋
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		TOTALS FROM	SHEET 482			225	Ő	0.00	0.00	0.00	1630	0	0.10	0.20	0.21	0.36	0.60	3015	1162	75	276	273	0	T O	+
		TOTALS FROM	SHEET 483			102	0	0.00	0.00	0.00	0	0	0.00	0.00	0.00	0.27	0.13	2365	0	246	68	382	0	640	T
		TOTALS CARRIED TO	GENERAL SUM	MARY		1693	1524	15	.10	18.14	20866	9705	0.10	0	.41	0.71	1.00	6531	1162	392	630	735	887	640	
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120"	LANE ARROW	DOTTED LINE, 4" (WHITE)	REMOVAL OF PAVEMENT MARKING	STOP LINE	CROSSWALK LINE	LANE ARROW	WRONG WAY ARROW	DOTTED LINE, 4" (WHITE)		CALCULAT DHECKED UDH
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2	86	620	3.72	169	265	31	4	276		<u>\(08)</u>



1. INSTALL RAISED PAVEMENT MARKERS DRAWINGS TC-65.10 AND TC-65.11

# 12, TC-15.116 DESIGN 2, TC-15.116 DESIGN 3, OR TC-17.11 DESIGN 8)



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# STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15 DATED/REVISED 7-17-15 AS-2-15 DATED/REVISED 1-18-19

PCB-91 DATED/REVISED 1-18-13

PSID-1-13 DATED/REVISED 7-20-18

SBR-1-13 DATED/REVISED 7-20-18

SICD-1-96 DATED/REVISED 7-18-14

SICD-2-14 DATED/REVISED 7-18-14

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

- 840 DATED 4-17-20
- 846 DATED 4-17-15
- 866 DATED 4-21-17

867 DATED 1-18-19

878 DATED 1-17-20

# DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

# LOAD MODIFIER FOR OPERATIONAL IMPORTANCE

OPERATIONAL IMPORTANCE: A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCOR-DANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

#### DESIGN LOADING

## DESIGN LOADING: HL-93

FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ.FT.

#### <u>DESIGN DATA</u>

CONCRETE CLASS QC3 - COMPRESSIVE STRENGTH 4.5 KSI (BRIDGE DECK, DIAPHRAGM, APPROACH SLAB) CONCRETE CLASS CO SCC - COMPRESSIVE STRENGTH 4.5 KSI (PARAPETS) CONCRETE CLASS QCI - COMPRESSIVE STRENGTH 4.0 KSI

(SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI STEEL PIPE PILES - GRADE A 252 - GRADE 3 - YIELD STRENGTH 45 KSI STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD

STRENGTH 50 KSI CONCRETE FOR PRESTRESSED BEAMS:

CONCRETE FOR PRESTRESSED BEAMS: COMPRESSIVE STRENGTH (FINAL) - 9.5 KSI COMPRESSIVE STRENGTH (RELEASE) - 7 KSI

WELDED WIRE FABRIC: YIELD STRENGTH - 70 KSI

PRESTRESSING STRAND: AREA = 0.217 IN2 ULTIMATE STRENGTH = 270 KSI INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

# DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL

2.5" CONCRETE COVER

# MONOLITHIC WEARING SURFACE

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

# EXISTING STRUCTURE PLANS:

CONSTRUCTION PLANS FOR EXISTING BRIDGE ARE ON FILE AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH STATE ROUTE 741, LEBANON, OHIO AND ARE AVAILABLE FOR REFERENCE.

# PILE DRIVING CONSTRAINTS

PRIOR TO DRIVING ABUTMENT PILES TO THE ULTIMATE BEARING VALUE (UBV), CONSTRUCT THE MSE WALL AND THE BRIDGE APPROACH EMBANKMENT UP TO THE BOTTOM OF THE FOOTINGS. PROVIDE A SURCHARGE FROM THE BOTTOM OF THE ABUTMENT FOOTING TO THE BOTTOM OF THE SUBGRADE FOR A MINIMUM DISTANCE OF 100 FEET BEHIND THE ABUTMENT. SURCHARGE LOADS SHALL REMAIN UNTIL THE REOUIRED SETTLEMENT HAS OCCURRED AND AS DIRECTED BY THE ENGINEER. COMPLETE THE MSE WALL CONSTRUCTION IMMEDIATELY FOLLOWING THE SURCHARGE REMOVAL.

THE CONTRACTOR MAY PRE-DRIVE ABUTMENT PILES BEFORE CONSTRUCTING MSE WALLS. PRE-DRIVING CONSISTS OF INSTALLING THE ABUTMENT PILES INTO THE SOIL ONLY AS FAR AS NECESSARY SO THAT THE PILE WILL REMAIN VERTICAL DURING MSE WALL CONSTRUCTION. IF PRE-DRIVING PILES, INSTALL PILE SLEEVES AROUND PILES BEFORE CONSTRUCTING THE MSE WALL. AT LEAST THREE FEET OF PILE MUST EXTEND ABOVE THE TOP OF THE PILE SLEEVE TO MEET THE REOUIRE-MENTS OF CMS 507.09 REGARDING SPLICES. DO NOT DRIVE ABUTMENT PILES TO THE UBV UNTIL AFTER THE ABOVE RE-QUIRED MSE WALL AND EMBANKMENT HAVE BEEN CONSTRUCTED AND THE SPECIFIED WAITING PERIOD HAS ELAPSED.

IF NOT PRE-DRIVING ABUTMENT PILES, INSTALL THE ABUTMENT PILES THROUGH PILE SLEEVES AFTER THE ABOVE REQUIRED MSE WALL AND EMBANKMENT HAVE BEEN CONSTRUCTED AND THE SPECIFIED WAITING PERIOD HAS ELAPSED.

ABUTMENT PILE DRIVING TO THE UBV (FOR PILES DRIVEN AFTER MSE CONSTRUCTION) OR PILE REDRIVING (FOR PILES PRE-DRIVEN BEFORE MSE CONSTRUCTION) MAY NOT BEGIN UNTIL A MINIMUM 30 DAY CALENDAR DAY WAITING PERIOD HAS ELAPSED AFTER THE COMPLETION OF EMBANKMENT AND SURCHARGE CONSTRUCT-ION. THE WAITING PERIOD BEGINS ONCE THE APPROACH EMBANK-MENT HAS REACHED THE PROPOSED SUBGRADE ELEVATION. THE WAITING PERIOD WILL BE EVALUATED ON A PER READING BASIS AND MAY BE EXTENDED OR TERMINATED BY THE DEPARTMENT BASED ON THE SETTLEMENT PLATFORM READINGS. CONSECUTIVE SETTLEMENT READINGS SHOULD BE RECORDED AT LEAST ONE WEEK AFTER EMBANKMENT CONSTRUCTION IS COMPLETE. TERMINATION OF THE SETTLEMENT MONITORING WILL BE EVALUATED AFTER THE 30 DAY WAITING PERIOD, PROVIDED THE SETTLEMENT PLATFORMS HAVE INDICATED 1/8" OR LESS OF SETTLEMENT FOR EACH OF THE LAST TWO WEEKS OF READING.

AFTER THE SPECIFIED WAITING PERIOD HAS ELAPSED, DRIVE PILES TO THE UBV. IN ORDER TO REMOVE ANY NEGATIVE SKIN FRICTION THAT HAS DEVELOPED DURING THE WAITING PERIOD, DRIVE EACH ABUTMENT PILE A DISTANCE OF AT LEAST 0.5 INCH.

# PROPRIETARY RETAINING WALL DATA

THE PROPRIETARY WALL SUPPLIER SHALL DESIGN THE INTERNAL STABILITY OF A MECHANICALLY STABILIZED EARTH (MSE) WALL IN ACCORDANCE WITH SS840 TO SUPPORT THE ABUTMENT. THE DESIGN FOR INTERNAL STABILITY SHALL INCLUDE A NOMINAL (I.E. UNFACTORED) HORIZONTAL STRIP LOAD DUE TO FRICTION (FR) FROM THE SUPERSTRUCTURE OF 6.0 K/FT APPLIED PER-PENDICULAR TO THE FACE OF WALL AT THE BASE OF THE CON-CRETE FOOTING. THIS STRIP LOAD DOES NOT INCLUDE EARTH PRESSURE LOADS FROM THE ABUTMENT BACKFILL. HOWEVER, THE PROPRIETARY WALL SUPPLIER SHALL INCLUDE EARTH PRESSURE LOADS FROM THE ABUTMENT BACKFILL IN THE DE-SIGN CALCULATIONS.

# 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 ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.4 KIPS.

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

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".

#### PILES DRIVEN TO TIP ELEVATION FOR PILE/SOIL SETUP

THE ULTIMATE BEARING VALUE IS 330 KIPS PER PILE FOR THE ABUTMENT PILES. PART OF THE ULTIMATE BEARING VALUE WILL BE ACHIEVED THROUGH PILE/SOIL SETUP, WHICH IS A TIME-DEPENDENT INCREASE IN RESISTANCE THAT OCCURS IN SOME SOILS.

NOTIFY THE ENGINEER AT LEAST 5 DAYS BEFORE DRIVING PILES SO THAT THE ENGINEER CAN NOTIFY THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF STRUCTURAL ENGINEERING. DRIVE THE FIRST TWO PILES IN EACH SUBSTRUCTURE TO THE TIP ELEVATION GIVEN BELOW FOR THE SUBSTRUCTURE. DRIVE THE THIRD AND FORTH PILES TO 75% AND 85% OF THE LENGTH OF THE FIRST TWO PILES. PERFORM DYNAMIC LOAD TESTING ON ALL FOUR PILES WHILE DRIVING. AFTER DRIVING THE FOUR PILES, CEASE ALL DRIVING OPERATIONS AT THE SUBSTRUCTURE FOR A MINIMUM OF 7 DAYS. INCLUDE THE WAITING PERIOD AS A SEPARATE ACTIVITY IN THE PROGRESS SCHEDULE. AFTER THE WAITING PERIOD, PERFORM PILE RESTRIKES ON THE FOUR PILES (TWO RESTRIKE ITEMS). SUBMIT ALL TEST RESULTS TO THE ENGINEER. THE ENGINEER WILL REVIEW THE TEST RESULTS AND ESTABLISH DRIVING CRITERIA FOR THE PILING IN THE SUB-STRUCTURE WITH ASSISTANCE OF THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF STRUCTURAL ENGINEERING.

IF THE DYNAMIC LOAD TESTING INDICATES A PILE HAS ACHIEVED THE ULTIMATE BEARING VALUE ABOVE THE TIP ELEVATION DURING THE INITIAL DRIVING (BEFORE THE WAITING PERIOD), STOP DRIVING AND NOTIFY THE ENGINEER. IF THE RESTRIKE TEST RESULTS ON THE FOUR PILES INDICATE THAT A PILE DID NOT ACHIEVE THE REQUIRED ULTIMATE BEARING VALUE, DRIVE THE PILE TO THE ESTABLISHED DRIVING CRITERIA.

REAR ABUTMENT PILES: 36 PILES 70 FEET LONG, ORDER LENGTH TIP ELEVATION, 558.00 FEET 2 DYNAMIC LOAD TESTING ITEMS 2 RESTRIKES

FORWARD ABUTMENT PILES: 36 PILES 75 FEET LONG, ORDER LENGTH TIP ELEVATION, 550.30 FEET 2 DYNAMIC LOAD TESTING ITEMS 2 RESTRIKES

# ITEM 503, COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN:

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 C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CON-TRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.

# ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

THE EXISTING STRUCTURE SHALL BE REMOVED IN ACCORDANCE WITH ITEM 202 EXCEPT THAT THE EXISTING ABUTMENTS SHALL BE REMOVED IN THEIR ENTIRETY.

# ITEM 511 CLASS QC3 CONCRETE, MISC.: WITH QC/QA, BRIDGE DECK & ITEM 511 CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK PARAPET

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

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:

# PORTLAND CEMENT CONCRETE

499.03, CLASS OC3 MEETING A DESIGN STRENGTH OF 4,500 PSI, WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02 FIBERS FOR CONCRETE: ASTM C 1116, TYPE III CORROSION INHIBITOR: 515.15

THE CLASS OC3 CONCRETE FOR THE SUPERSTRUCTURE SHALL MEET THE FOLLOWING CRITERIA: WATER/CEMENT RATIO = 0.40 MAXIMUM; MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.5 IN. MIN. TO 2.5 IN. MAX.) MEETING ASTM CING TYPE III SHALL BE ADDED TO THE MIX.

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 APPLY.

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ITEM 511 CLASS QC3 CONCRETE, MISC.: WITH QC/QA, BRIDGE DECK. & ITEM 511 CLASS QC CONCRETE WITH QC/QA, BRIDGE DECK	LACE 43215
(PARAPET) CONTINUED 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 DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE, AND MACRO-SYNTHETIC FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR	DESIGN AGENCY TWO MIRANOVA P SUITE 450 COLUMBUS, OHIO
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, AND ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.0 AND 2.5 INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURE'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT AND MOISTURE. PLACING THE BAG THAT THE FIBERS COME IN INTO THE CONCRETE MIX IS NOT PERMITTED.	REVIEWED DATE RLC MJZ 4/24/20 EVISED STRUCTURE FILE NUMBER 3110931
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 FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C 1609. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ARE TO BE	DESIGNED T RLC CHECKED R SAP
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.	ы. D.
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 QUANITITIES 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.	GENERAL NOTES BRIDGE NO. HAM-75-153 I-75 SB OVER SHARON R
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 A 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 DESIGN REQUIREMENTS. PLEASE BE ADVISED THAT SOME PRODUCTS ON THE LIST	
EFFELT THE UELIVERED MIX PROPERTIES GREATLY WHILE OTHER PRODUCTS DO NOT. APPROACH SLABS, DIAPHRAGMS, AND BRIDGE RAILING CONCRETE (WHEN APPLICABLE) 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.	HAM-75-14.61 PID No. 76256
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.	3/36 609 708

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<u>S402</u>	94	23'- 07''	1,481	STR							
S403	563	8'- 11''	3,354	16	8'-5"					ā.	
5404	28	4'- 01''	86	35	3'-9"	/"				2"	
S405	4	4'- 00''		STR							
5406	8	6'- 01''	36	SIR							
5407	8	6'- 04''	34	SIR	44 0 #	14.04					
5408	32	5'- 11''	127	28	4'-0"	1'-0"					
5409	48	4'- 00''	129	SIR	<u> </u>	74 10 #	<u> </u>				
5410	32	5'- 00''	107	2	8"	5'-10"	8"				
5411	364	3'- 00"	/30	11	1'-1"	/-8"	1'-1"				
5412	364	1'- 08''	406	19	10"	2"	10*				
5501	420	30'- 00''	13,142	SIR							
5502	105	28'- 07"	3,131	SIR							
5504	276	20'- 03''	5,830	SIR							
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	1	5'- 10''									
S511	SER. OF	TO	125	STR							2'-7"
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	1	1'- 08''									
* \$512	SER. OF	TO	113	STR							2'-7"
	9	22'- 04''									
	1	1'- 07''									
S513	SER. OF	ΤO	112	STR							2'-7"
	9	22'- 03''									
	1	5'- 11''									
S514	SER. OF	TO	78	STR							2'-7"
	6	18'- 10''									
S516	274	25'- 11''	7,407	STR							
* S517	275	19'- 11''	5,713	STR							
* S518	276	16'- 01''	4,630	STR							
S519	273	27'- 07''	7,855	STR							
S520	12	7'- 06''	94	STR							
S521	NOT USED										
	1	6'- 04''									
S522	SER. OF	TO	103	STR							2'-7"
	7	21'- 10''									
	1	3'- 00''									
S523	SER. OF	TO	153	STR							2'-7"
	10	26'- 03''									
	1	2'- 05''									
* S524	SER. OF	TO	96	STR							2'-7"
	8	20'- 06''									
	1	6'- 01''									
S525	SER. OF	TO	79	STR							2'-7"
	6	19'- 00''									
	1	5'- 07''									
S526	SER. OF	TO	57	STR							2'-7"
	5	15'- 11''									
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55 <i>28</i>	I SER OF	T- 07	167	STR							2'-7"

	NUMBER			Lu				IMENSION	S			ы
MARK	TOTAL	LENGTH	WEIGHT	TYPI	A	В	С	D	Ε	R	INC	WA PLA
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S529	SER. OF	TO	133	STR							2'-7"	SIGN
	8	24'- 11''										DE
S530	116	8'- 05''	1,019	2	2'-7"	3'-6"	2'-7"					
S531	244	13'- 01''	3,330	2	4'-8"	4'-0"	4'-8"					
S532	NOT USED											
S533	6	11'- 05''	72	2	3'-10"	4'-0"	3'-10"					
<u>S534</u>	40	30'- 00''	1,252	STR		71 74	74.04			0.7.44		,20
5535	368	/'- 04''	2,815	23	11‴	3'-3"	3'-0"	74.04		2 3/4"		DATE
5536	120	8'- 05''	1,054	29	//″	'-/"	3'-2"	3'-0"				4/1
5537	54	4'- 11''	211	3	11"	1'-3"						
5538	54	5'- 03''	296	3	11"	1'-5"						JZ
5539	4	6'- 05''	27	7	1-8	1-5						₩ Evie N
5540	4 0	5 - 09	29		1-0	1-5						æ
5541	0	5'- 08''	40	25	1'-10"	2'-5"	1'-5"	11/2"	5″			ξU
5543	10	J = 00 7'- 07''	80	23 STP	1 -10	2 -3	1-5	11/2	5			RL RL
5544	220	6'- 05''	1 473	STR								
5545	10	8'- 05''	88	STR								
5546	10	7'- 03"	76	STR								IC C
<u>5547</u>	8	29'- 07''	247	STR								DES R
S548	8	25'- 0.9''	215	STR			1					
S549	4	12'- 0.3''	52	STR			1					
				1								
S601	46	6'- 05''	444	STR								
S602	488	5'- 02''	3,788	1	1′-6″	3'-10"						
S603	492	3'- 01''	2,279	28	11‴	1'-7"						
S604	4	2'- 05''	15	1	1'-0"	1'-7"						
	4	3'- 11''				3'-1"						
S605	SER. OF	TO	316	1	1'-0"	TO					1‴	
	12	4'- 10''				4'-0"						
5606	12	4'- 00''	73	1	1'-0"	3'-2"						1
S607	2	8'- 05''	26	STR								lä ª
5608	2	7'- 07''	23	STR								
S609	2	4'- 06''	14	STR								
5610	2	1'- 03''	22	SIR								E
6001	70	0.44 0.744	0.771	670						_		
5801	36	24'- 03''	2,331	SIR	701 54	1/ ///						<u>I</u> Z
5802	8	31-07"	675	1	30'-5"	1'-4"						_ <u>[</u> ]
5003	0	6'- 07''	111	10	1-1"	1-4"	1/_1//					jo y
5004	10	2'- 06"	202	10 <u> <u> </u> </u>	4-2	1-1	1-1					
5805	20	10'- 08''	570	STR						-		
5807	10	7'- 03"	194	STR						-		<u>۳</u>
5808	30	9'- 10''	788	STR								
5809	64	25'- 04''	4 329	STR								
5810	4	7'- 11''	85	STR		1	1					
5811	6	7'- 01''	114	STR								
S812	2	1'- 02''	7	STR			1					
5813	2	5'- 11''	32	STR			1					
S814	6	7'- 01''	114	STR								
S815	6	30'- 05''	488	STR								
S816	4	2'- 01''	23	STR								
S817	10	12'- 06''	334	17	10'-8″							
D801	116	4'- 11''	1,523	18	2'-7"	1'-0"	1'-0"					5
SUPI	ERSTRUCTURE	TOTAL	115,101									4
	NI IMBER			T .				ISTONS			1	2-1
MARK	ΤΟΤΔΙ	LENGTH	TOTAL	LYPE	4	R	C.	D	R	INC.		1-7
					// · · · · · · · · · · · · · · · · · ·							<b>∧</b>
65601	144	SUPERSTRUC	1 URE (PARA 648'-0"	PET G	LASS FIB	ER POLYN	NER REINF	URCING)				-
RP TOTA	L		648'-0"	5/11			1			+		
				1		1						1 7 6 /

 $\bigcirc$ 

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LENGTH	LENGTH	TYF	A	В	С	D	R	INC
PERSTRUC	TURE (PARAF	PET G	LASS FIB	ER POLYM	IER REINFO	ORCING)		
4'- 06''	648′-0″	STR						
	648′-0″							
INCLUDED W	VITH ITEM 509	NO X	X GFRP DEF	ORMED BAR	S FOR PAY	MENT		

30/36

		NUMBER				E		DIMENS	SIONS	
MARK	REAR	FWD.	TOTAL	LENGTH	WEIGHT	ТҮР	A	В	С	INC
				ABUTI	MENTS					
A501	32	32	64	30'- 00''	2,003	STR				
* A502	7	7	14	9'- 03''	136	STR				
* A503	7	7	14	11'- 06''	168	STR				
A504	8	8	16	23'- 01''	386	STR				
* A505	2	2	4	13'- 09''	58	STR				
* A506	2	2	4	15'- 11''	67	STR				
A507	122	122	244	18'- 01''	4.603	3	6'-2"	2'-7"		
A508	81	81	162	15'- 05''	2.605	3	4'-0"	3'-5"		
4509	22	22	44	14'- 03''	654	2	6'-2"	2'-2"	6'-2"	
4510	4	3	7	15'- 07''	114	3	4'-1"	3'-5"		
4511	2	1	3	18'- 05''	58	3	6'-3"	2'-8"		
4512	2	2	4	13'- 01''	55	3	2'-2"	4'-1"		
45/3	2	2	4	13'- 11''	59	3	2'-2"	4'-6"		
A013	2	2	4	15'- 03''		5	22	5'-2"		
4514	SER OF	SER OF	SER OF	TO	514	7	2'-2"			9 3/8"
7017	7	7	7	19'- 11''	517		~ ~ ~	7'-6"		0 570
	2	2	1	10'- 05''			4'-3"	, 0	4'-3"	
1515	SER OF	SER OF		10 03 TO	370	2	το ΤΟ	2'-2"	J TO	<i>Q″</i>
AJIJ	3LN: 01	7 JLN: 01	3LN.07	10	570	2	6'=6"	22	6'=6"	3
1516	1	/	2	14 - 11	35	2	7'-3"	21-2"	7'-3"	
AJ/0 4517	1	1	2	10 - 05	147	2	7' 7"	2 - 2	7' 7"	
A517	4	4	8	17 - 01	143	2	7 - 1	2-2	7/ 11//	
A310	3	3	0	17 - 09	112	2	7 -11	2-2	7 -11	
4.5.10				3°- 08°	15.0	CTD				2/ 4 7 /0
A519	SER. OF	SER. UF	SER.OF	10	159	SIR				2'-4 1/8
	/	1	/	18 - 00						
4520				5 - 05	15.7	670				2/ 4 7 /0
A520	SER. OF	SER. OF	SER.OF	10	153	SIR				2'-4 1/8
1501	/	/	/	1/- 0/"	10	10	1/ 7//	101 5 "	74.0%	
A521	1	/	2	21'- 07"	46	19	1'-1"	18'-5"	7'-9"	
A522	/	1	2	21'- 02''	45	19	1'-2"	18'-5"	7'-9"	
<u>A523</u>	1	1	2	15'- 11''	34	2	/'-0"	2'-2"	7'-0"	
A524	1	1	2	16'- 09''	35	2	/'-5″	2'-2"	7'-5"	
	/	/	2	3'- 04''						
A525	SER. OF	SER. OF	SER.OF	10	159	SIR				2'-6"
		/	/	18'- 04''						
	/	/	2	3'- 09''						
1500	SER. OF	SER. OF	SEK.OF	10	165	SIR				2'-6"
A526	~	~			1 ·	1				
A526	7	7	/	10 - 09				101 5 "		
A526 A527	7	7	2	21'- 01''	44	19	1'-3″	18'-5"	7'-5"	
A526 A527 A528	7 1 1	7 1 1	7 2 2	21'- 01'' 21'- 05''	44	19 19	1'-3" 1'-7"	18'-5" 18'-5"	7′-5″ 7′-5″	
A526 A527 A528 A801	7 1 1 32	7 1 1 32	7 2 2 64	21'- 01'' 21'- 05'' 30'- 00''	44 45 5,127	19 19 STR	1'-3" 1'-7"	18'-5" 18'-5"	7′-5″	
A526 A527 A528 A801 * A802	7 1 1 32 5	7 1 1 32 5	7 2 2 64 10	18 - 09 21'- 01'' 21'- 05'' 30'- 00'' 12'- 03''	44 45 5,127 328	19 19 STR STR	1'-3" 1'-7"	18'-5" 18'-5"	7′-5″	
A526 A527 A528 A801 * A802 * A803	7 1 1 32 5 5 5	7 1 32 5 5 5	7 2 64 10 10	18 - 09 21'- 01'' 21'- 05'' 30'- 00'' 12'- 03'' 14'- 05''	44 45 5,127 328 385	19 19 STR STR STR	1'-3" 1'-7"	18'-5" 18'-5"	7'-5"	
A526 A527 A528 A801 * A802 * A803 * A804	7 1 32 5 5 6	7 1 32 5 5 6	7 2 64 10 10 12	18 - 03         21'- 01''         21'- 05''         30'- 00''         12'- 03''         14'- 05''         19'- 10''	44 45 5,127 328 385 636	19 19 STR STR STR STR STR	1'-3" 1'-7"	18'-5" 18'-5"	7'-5"	
A526 A527 A528 A801 * A802 * A803 * A804 * A805	7 1 32 5 5 6 6 6	7 1 32 5 5 6 6	7 2 64 10 10 12 12	18       03         21'-       01''         21'-       05''         30'-       00''         12'-       03''         14'-       05''         19'-       10''         17'-       08''	44 45 5,127 328 385 636 567	19 19 STR STR STR STR STR STR	1'-3" 1'-7"	18'-5" 18'-5"	7'-5"	
A526 A527 A528 A801 * A802 * A803 * A804 * A804 * A805	7 1 32 5 5 6 6 6 8	7 1 32 5 5 6 6 BUTMENT TO	7 2 64 10 10 12 12 7AL	18 - 03         21' - 01''         21' - 05''         30' - 00''         12' - 03''         14' - 05''         19' - 10''         17' - 08''	44 45 5,127 328 385 636 567 20,068	19 19 STR STR STR STR STR	1'-3" 1'-7"	18'-5" 18'-5"	7'-5" 7'-5"	
A526 A527 A528 A801 * A802 * A803 * A804 * A804 * A805	7 1 32 5 5 6 6 6 4	7 1 32 5 5 6 6 BUTMENT TO	7 2 64 10 10 12 12 12 TAL	18 - 03         21' - 01''         21' - 05''         30' - 00''         12' - 03''         14' - 05''         19' - 10''         17' - 08''	44 45 5,127 328 385 636 567 20,068	19 19 STR STR STR STR STR	l'-3" l'-7"	18'-5" 18'-5"	7'-5" 7'-5"	
A526 A527 A528 A801 * A802 * A803 * A804 * A805 MARK	7 1 32 5 5 6 6 6 8 <i>REAR</i>	7 1 32 5 6 6 8 8 0 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 2 64 10 10 12 12 7AL	21'- 01'' 21'- 05'' 30'- 00'' 12'- 03'' 14'- 05'' 19'- 10'' 17'- 08''	44 45 5,127 328 385 636 567 20,068 WEIGHT	I9 I9 STR STR STR STR STR STR	1'-3" 1'-7" 	18'-5" 18'-5" DIMEN: B	7'-5" 7'-5" SIONS C	INC
A526 A527 A528 A801 * A802 * A803 * A804 * A805 MARK	7 1 32 5 5 6 6 6 8 <i>A</i> <i>REAR</i>	7 1 32 5 6 6 8 0 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 2 64 10 10 12 12 TAL TOTAL	18 - 03 21'- 01'' 30'- 00'' 12'- 03'' 14'- 05'' 19'- 10'' 17'- 08'' LENGTH DIAPHRAO	44 45 5,127 328 385 636 567 20,068 WEIGHT WEIGHT	I9 I9 STR STR STR STR STR	1'-3" 1'-7" 	18'-5" 18'-5" DIMEN: B	7'-5" 7'-5" SIONS C	INC
A526 A527 A528 A801 * A802 * A803 * A804 * A805 MARK DG601	7 1 32 5 5 6 6 6 8 <i>A</i> <i>REAR</i>	7 1 32 5 6 6 8 8 0 8 0 0 8 0 0 8 0 0 8 0 7 8 0 7 8 7 8	7 2 64 10 10 12 12 TAL TOTAL	21'- 01'' 21'- 05'' 30'- 00'' 12'- 03'' 14'- 05'' 19'- 10'' 17'- 08'' LENGTH DIAPHRAQ 16'- 09''	44 45 5,127 328 385 636 567 20,068 WEIGHT WEIGHT GM GUIDE 252	I9 I9 STR STR STR STR STR STR STR STR	1'-3" 1'-7" 	18'-5" 18'-5" DIMEN: B 3'-8 1/2"	77-57 77-57 SIONS C	INC

MADY	NUMBER		WETCUT	ΡE		DIMEN	SIONS	
ΜΑΓΓΛ	TOTAL	LENGIH	WE1GH I	77	Α	В	С	D
		SUPERSTRUC	TURE (INTER	MEDIA	TE DIAPH	IRAGMS)		
SI401	198	10'- 08''	1,411	3	6″	4′-9″		
SI601	72	9'- 08''	1,045	STR				
SI602	84	11'- 00''	1,388	13	3′-10″	7″	1′-2″	6'-0"
SI603	54	10'- 06''	<i>852</i>	STR				
INTERMEL	DIATE DIAPHRI	AGM TOTAL	4,696					
	F	OR INFORMATI	ION ONLY NOT	' INCLU	DED WITH I	ТЕМ 509.		



Α



# <u>NOTES:</u>

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

2. ALL REINFORCEMENT IS TO BE EPOXY COATED.

3. \* - MECHANICALLY SPLICED BAR: LENGTH GIVEN INCLUDES 2 INCHES OF CLEARANCE AT EACH END. CONTRACTOR SHALL ADJUST LENGTH AS REQUIRED FOR TYPE OF MECHANICAL SPLICE USED.

DESIGN AGENCY	TWO MIRANOVA PI ACE	SUITE 450	COLUMBUS, OHIO 43215
DATE	4/24/20	FILE NUMBER	1590
REVIEWED	ZCM	STRUCTURE	31
DRAWN	RLC	REVISED	
DESIGNED	RLC	CHECKED	SΔP

# STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15 DATED/REVISED 7-17-15 AS-2-15 DATED/REVISED 1-18-19

PCB-91 DATED/REVISED 1-18-13

PSID-1-13 DATED/REVISED 7-20-18

SBR-1-13 DATED/REVISED 7-20-18

SICD-1-96 DATED/REVISED 7-18-14

SICD-2-14 DATED/REVISED 7-18-14

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

- 840 DATED 4-17-20
- 846 DATED 4-17-15
- 866 DATED 4-21-17

867 DATED 1-18-19

878 DATED 1-17-20

# DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

# LOAD MODIFIER FOR OPERATIONAL IMPORTANCE

OPERATIONAL IMPORTANCE: A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCOR-DANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

#### DESIGN LOADING

# DESIGN LOADING: HL-93

FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ.FT.

#### DESIGN DATA

CONCRETE CLASS QC3 - COMPRESSIVE STRENGTH 4.5 KSI (BRIDGE DECK, DIAPHRAGM, APPROACH SLAB) CONCRETE CLASS CO SCC - COMPRESSIVE STRENGTH 4.5 KSI (PARAPETS) CONCRETE CLASS QCI - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI STEEL PIPE PILES - GRADE A 252 - GRADE 3 - YIELD STRENGTH 45 KSI STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI

CONCRETE FOR PRESTRESSED BEAMS: COMPRESSIVE STRENGTH (FINAL) - 9.5 KSI COMPRESSIVE STRENGTH (RELEASE) - 7 KSI

WELDED WIRE FABRIC: YIELD STRENGTH - 70 KSI

PRESTRESSING STRAND: AREA = 0.217 IN2 ULTIMATE STRENGTH = 270 KSI INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

# DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL

2.5" CONCRETE COVER

# MONOLITHIC WEARING SURFACE

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

# EXISTING STRUCTURE PLANS:

CONSTRUCTION PLANS FOR EXISTING BRIDGE ARE ON FILE AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH STATE ROUTE 741, LEBANON, OHIO AND ARE AVAILABLE FOR REFERENCE.

# PILE DRIVING CONSTRAINTS

PRIOR TO DRIVING ABUTMENT PILES TO THE ULTIMATE BEARING VALUE (UBV), CONSTRUCT THE MSE WALL AND THE BRIDGE APPROACH EMBANKMENT UP TO THE BOTTOM OF THE FOOTINGS. PROVIDE A SURCHARGE FROM THE BOTTOM OF THE ABUTMENT FOOTING TO THE BOTTOM OF THE SUBGRADE FOR A MINIMUM DISTANCE OF 100 FEET BEHIND THE ABUTMENT. SURCHARGE LOADS SHALL REMAIN UNTIL THE REOUIRED SETTLEMENT HAS OCCURRED AND AS DIRECTED BY THE ENGINEER. COMPLETE THE MSE WALL CONSTRUCTION IMMEDIATELY FOLLOWING THE SURCHARGE REMOVAL.

THE CONTRACTOR MAY PRE-DRIVE ABUTMENT PILES BEFORE CONSTRUCTING MSE WALLS. PRE-DRIVING CONSISTS OF INSTALLING THE ABUTMENT PILES INTO THE SOIL ONLY AS FAR AS NECESSARY SO THAT THE PILE WILL REMAIN VERTICAL DURING MSE WALL CONSTRUCTION. IF PRE-DRIVING PILES, INSTALL PILE SLEEVES AROUND PILES BEFORE CONSTRUCTING THE MSE WALL. AT LEAST THREE FEET OF PILE MUST EXTEND ABOVE THE TOP OF THE PILE SLEEVE TO MEET THE REOUIRE-MENTS OF CMS 507.09 REGARDING SPLICES. DO NOT DRIVE ABUTMENT PILES TO THE UBV UNTIL AFTER THE ABOVE RE-QUIRED MSE WALL AND EMBANKMENT HAVE BEEN CONSTRUCTED AND THE SPECIFIED WAITING PERIOD HAS ELAPSED.

IF NOT PRE-DRIVING ABUTMENT PILES, INSTALL THE ABUTMENT PILES THROUGH PILE SLEEVES AFTER THE ABOVE REOUIRED MSE WALL AND EMBANKMENT HAVE BEEN CONSTRUCTED AND THE SPECIFIED WAITING PERIOD HAS ELAPSED.

ABUTMENT PILE DRIVING TO THE UBV (FOR PILES DRIVEN AFTER MSE CONSTRUCTION) OR PILE REDRIVING (FOR PILES PRE-DRIVEN BEFORE MSE CONSTRUCTION) MAY NOT BEGIN UNTIL A MINIMUM 30 DAY CALENDAR DAY WAITING PERIOD HAS ELAPSED AFTER THE COMPLETION OF EMBANKMENT AND SURCHARGE CONSTRUCT-ION. THE WAITING PERIOD BEGINS ONCE THE APPROACH EMBANK-MENT HAS REACHED THE PROPOSED SUBGRADE ELEVATION. THE WAITING PERIOD WILL BE EVALUATED ON A PER READING BASIS AND MAY BE EXTENDED OR TERMINATED BY THE DEPARTMENT BASED ON THE SETTLEMENT PLATFORM READINGS. CONSECUTIVE SETTLEMENT PLATFORM READINGS. AT LEAST ONE WEEK AFTER EMBANKMENT CONSTRUCTION IS COMPLETE. TERMINATION OF THE SETTLEMENT MONITORING WILL BE EVALUATED AFTER THE 30 DAY WAITING PERIOD, PROVIDED THE SETTLEMENT PLATFORMS HAVE INDICATED 1/8" OR LESS OF SETTLEMENT FOR EACH OF THE LAST TWO WEEKS OF READING.

AFTER THE SPECIFIED WAITING PERIOD HAS ELAPSED, DRIVE PILES TO THE UBV. IN ORDER TO REMOVE ANY NEGATIVE SKIN FRICTION THAT HAS DEVELOPED DURING THE WAITING PERIOD, DRIVE EACH ABUTMENT PILE A DISTANCE OF AT LEAST 0.5 INCH.

# PROPRIETARY RETAINING WALL DATA

THE PROPRIETARY WALL SUPPLIER SHALL DESIGN THE INTERNAL STABILITY OF A MECHANICALLY STABILIZED EARTH (MSE) WALL IN ACCORDANCE WITH SS840 TO SUPPORT THE ABUTMENT. THE DESIGN FOR INTERNAL STABILITY SHALL INCLUDE A NOMINAL (I.E. UNFACTORED) HORIZONTAL STRIP LOAD DUE TO FRICTION (FR) FROM THE SUPERSTRUCTURE OF 6.0 K/FT APPLIED PER-PENDICULAR TO THE FACE OF WALL AT THE BASE OF THE CON-CRETE FOOTING. THIS STRIP LOAD DOES NOT INCLUDE EARTH PRESSURE LOADS FROM THE ABUTMENT BACKFILL. HOWEVER, THE PROPRIETARY WALL SUPPLIER SHALL INCLUDE EARTH PRESSURE LOADS FROM THE ABUTMENT BACKFILL IN THE DE-SIGN CALCULATIONS.

# 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 ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.4 KIPS.

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

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".

#### PILES DRIVEN TO TIP ELEVATION FOR PILE/SOIL SETUP

THE ULTIMATE BEARING VALUE IS 330 KIPS PER PILE FOR THE ABUTMENT PILES. PART OF THE ULTIMATE BEARING VALUE WILL BE ACHIEVED THROUGH PILE/SOIL SETUP, WHICH IS A TIME-DEPENDENT INCREASE IN RESISTANCE THAT OCCURS IN SOME SOILS.

NOTIFY THE ENGINEER AT LEAST 5 DAYS BEFORE DRIVING PILES SO THAT THE ENGINEER CAN NOTIFY THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF STRUCTURAL ENGINEERING. DRIVE THE FIRST TWO PILES IN EACH SUBSTRUCTURE TO THE TIP ELEVATION GIVEN BELOW FOR THE SUBSTRUCTURE. DRIVE THE THIRD AND FORTH PILES TO 75% AND 85% OF THE LENGTH OF THE FIRST TWO PILES. PERFORM DYNAMIC LOAD TESTING ON ALL FOUR PILES WHILE DRIVING. AFTER DRIVING THE FOUR PILES, CEASE ALL DRIVING OPERATIONS AT THE SUBSTRUCTURE FOR A MINIMUM OF 7 DAYS. INCLUDE THE WAITING PERIOD AS A SEPARATE ACTIVITY IN THE PROGRESS SCHEDULE. AFTER THE WAITING PERIOD, PERFORM PILE RESTRIKES ON THE FOUR PILES (TWO RESTRIKE ITEMS). SUBMIT ALL TEST RESULTS TO THE ENGINEER. THE ENGINEER WILL REVIEW THE TEST RESULTS AND ESTABLISH DRIVING CRITERIA FOR THE PILING IN THE SUB-STRUCTURE WITH ASSISTANCE OF THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF STRUCTURAL ENGINEERING.

IF THE DYNAMIC LOAD TESTING INDICATES A PILE HAS ACHIEVED THE ULTIMATE BEARING VALUE ABOVE THE TIP ELEVATION DURING THE INITIAL DRIVING (BEFORE THE WAITING PERIOD), STOP DRIVING AND NOTIFY THE ENGINEER. IF THE RESTRIKE TEST RESULTS ON THE FOUR PILES INDICATE THAT A PILE DID NOT ACHIEVE THE REQUIRED ULTIMATE BEARING VALUE, DRIVE THE PILE TO THE ESTABLISHED DRIVING CRITERIA.

REAR ABUTMENT PILES: 36 PILES 75 FEET LONG, ORDER LENGTH TIP ELEVATION, 558.00 FEET 2 DYNAMIC LOAD TESTING ITEMS 2 RESTRIKES

FORWARD ABUTMENT PILES: 36 PILES 65 FEET LONG, ORDER LENGTH TIP ELEVATION, 550.30 FEET 2 DYNAMIC LOAD TESTING ITEMS 2 RESTRIKES

# ITEM 503, COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN:

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 C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CON-TRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.

# ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

THE EXISTING STRUCTURE SHALL BE REMOVED IN ACCORDANCE WITH ITEM 202 EXCEPT THAT THE EXISTING ABUTMENTS SHALL BE REMOVED IN THEIR ENTIRETY.

# ITEM 511 CLASS QC3 CONCRETE. MISC.: WITH QC/QA. BRIDGE DECK & ITEM 511 CLASS QC SCC CONCRETE WITH QC/QA. BRIDGE DECK (PARAPET)

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

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:

#### PORTLAND CEMENT CONCRETE

499.03, CLASS OC 3 MEETING A DESIGN STRENGTH OF 4,500 PSI, WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02 FIBERS FOR CONCRETE: ASTM C 1116, TYPE 111 CORROSION INHIBITOR: 515.15

THE CLASS OC3 CONCRETE FOR THE SUPERSTRUCTURE SHALL MEET THE FOLLOWING CRITERIA:WATER/CEMENT RATIO = 0.40 MAXIMUM; MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.5 IN. MIN. TO 2.5 IN. MAX.) MEETING ASTM CING TYPE III SHALL BE ADDED TO THE MIX.

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 APPLY.

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ITEM 511 CLASS QC3 CONCRETE, MISC.: WITH QC/QA, BRIDGE DECK, & ITEM 511 CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET) CONTINUED	A PLACE 110 43215
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 DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE, AND MACRO-SYNTHETIC FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM	DESIGN AGENCY TWO MIRANOVA SUITE 450 COLUMBUS, OH
VIRGIN FOLIEROFIENCE, FUELE, FUELE, OK 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, AND ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.0 AND 2.5 INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURE'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT AND MOISTURE. PLACING THE BAG THAT THE FIBERS COME IN INTO THE CONCRETE MIX IS NOT PERMITTED.	REVIEWED DATE RLC MJZ 4/20 EVISED STRUCTURE FILE NUMBER 3110966
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 FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C 1609. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE	DESIGNED C RLC CHECKED RI SAP
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.	9R KD.
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.	GENERAL NOTES BRIDCE NO. HAM-75-153 I-75 NB OVER SHARON F
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 A 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 DESIGN REOUIREMENTS. PLEASE BE ADVISED THAT SOME PRODUCTS ON THE LIST EFFECT THE DELIVERED MIX PROPERTIES GREATLY WHILE OTHER PRODUCTS DO NOT.	
APPROACH SLABS, DIAPHRAGMS, AND BRIDGE RAILING CONCRETE (WHEN APPLICABLE) 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.	HAM-75-14.61 PID No. 76256
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.	3/36 645 708

	NUMBER			ГМ			Ľ	DIMENSIO	vs		
MARK	TOTAL	LENGTH	WEIGHT	77	A	В	С	D	E	R	INC
				S	UPERSTR	UCTURE		1			1
S401	396	30'- 00''	7,936	STR							
S402	94	23'- 07''	1,481	STR							
S403	563	8'- 11''	3,354	16	8′-5″						
S404	28	4'- 07''	86	35	3′-9″	7″				2"	
S405	4	4'- 00''	11	STR							
S406	8	6'- 07''	36	STR							
S407	8	6'- 04''	34	STR							
S408	32	5'- 11''	127	28	4'-0"	1'-0"					
\$409	48	4'- 00''	129	STR							
5410	32	5'- 00''	107	2	8″	3'-10"	8″				
5411	364	3'- 00''	730	11	1'-1"	1'-8"	1'-1"				
5412	364	1'- 08''	406	19	10″	2"	10″				
5501	420	30'- 00''	13 142	STR	10	2	10				
5502	105	28'- 07''	3 131	STP							
5502	276	20 01	5,151								
3004 * CEAE	270	20-05	7,005								
* 3303	213	24 - 11	7,095	5/1							
* 3300	548	21-00	12,209	5/#							
6507		5-10"	<b>F</b> 0	CT0							0, 7
5507	SER. UF	10	58	SIR							2'-/"
	5	10'- 02''		+ +							
0505	/	5'- 00"									
5508	SER. OF	10	101	SIR							2'-7'
	8	21'- 01''									-
	1	5'- 00''									
* S509	SER. OF	TO	144	STR							2'-7"
	9	25'- 08''									
	1	5'- 11''									
S510	SER. OF	TO	125	STR							2'-7"
	8	24'- 00''									
	1	5'- 10''									
S511	SER. OF	TO	125	STR							2'-7"
	8	23'- 11''									
	1	1'- 08''									
* 5512	SER. OF	TO	113	STR							2'-7"
00.2	9	22'- 04''									
	1	1'- 07''									
\$513	SER OF	TO	112	STR							2'-7"
5015	9	22'- 03''	112	5//							2 1
	1	5'- 11''									
CEIA		<u> </u>	70	CTD							21-74
5514	SEN. OF	10/ 10//	10	374							2 -1
CE IC	274	10 - 10	7 407	CTD							
3310	274	25 - 11	7,407	5/17							
* SOIL	213	19 - 11"	5,115	SIR							
* 3518	270	10'- UI''	4,030								
5519	213	21'- 01"	1,855	SIR							
5520	12	1'- 06''	94	SIR							
5521	NUT USED								-		-
	/	6'- 04''									
S522	SER. OF	TO	103	STR							2'-7"
	7	21'- 10''									
	1	3'- 00''									
S523	SER. OF	TO	153	STR							2'-7"
	10	26'- 03''									
	1	2'- 05''									
* 5524	SER. OF	TO	96	STR							2'-7"
	8	20'- 06''									
	1	6'- 01''									
S525	SER. OF	TO	79	STR							2'-7"
	6	19'- 00''									
	1	5'- 07''									
S526	SER. OF	TO	57	STR						1	2'-7"
5020	5	15'- 11''									
	1	1'- 02"		+ +					-		+
¥ (5)7		1 - UO TO	60	стп							0/ 74
* JJ2/	SER. UF	10	09	518							2'-1"
	· · ·	11'- 02''		+ +							
	/	1'- 0/"									
S528	SER. OF	TO	167	STR							2'-7"
	11	27'- 05''									

	NUMBER			Lı				IMENSION	S			
MARK	TOTAL	LENGTH	WEIGHT	TYPL	A	В	C	D	Ε	R	INC	
				SUPE	RSTRUCTU	IRE (CONT	Г.)					ENCY
	1	6'- 10''										A AGI
S529	SER. OF	TO	133	STR							2'-7"	SIGN
	8	24'- 11''										B
S530	116	8'- 05''	1,019	2	2'-7"	3'-6"	2'-7"					
S531	244	13'- 01''	3,330	2	4'-8"	4'-0"	4'-8"					
5532	NOT USED	11/ 05//	70	2	7/ 10//	41.0%	7/ 10//					
5533	6	70' 00''	12		5'-10"	4'-0"	5'-10"					
5534	40	50 - 00	1,252	27	11//	2/ 7//	7/ 0//			2 7 / / //		
5536	120	8'- 05''	2,013	20	11″	1'-7"	3'-2"	3'-0"		2 3/4		DAT
S537	54	<i>4'- 11''</i>	277	3	11″	1'-3"	52	50				
5538	54	5'- 0.3''	296	.3	11″	1'-5"						e
S539	4	6'- 05''	27	3	1'-8"	1'-3"						IEWE
S540	4	6'- 09''	29	3	1'-8″	1'-5″						REV
S541	8	5'- 08''	48	STR								
S542	8	5'- 08''	48	25	1'-10"	2'-5"	1'-5″	1 1/2″	5″			AWN
S543	10	7'- 07''	80	STR								DR
S544	220	6'- 05''	1,473	STR								- H-
S545	10	8'- 05''	88	STR								NED
S546	10	7'- 03''	76	STR								ESIG
5547	8	29'- 07''	247	STR								ă
5548	8	25'- 09''	215	SIR								
5549	4	12 - 03	52	518								
5601	46	6'- 05''	444	STR								
5602	488	5'- 02''	3,788	1	1'-6"	3'-10"						
5603	492	3'- 01"	2,279	28	11″	1'-7"						
S604	4	2'- 05''	15	1	1'-0"	1'-7"						
	4	3'- 11''				3'-1"						
S605	SER. OF	TO	316	1	1'-0″	TO					1″	
	12	4'- 10''				4'-0"						
S606	12	4'- 00''	73	1	1'-0″	3'-2"						- I-
S607	2	8'- 05''	26	STR								۲I ا
S608	2	7'- 07''	23	STR								
S609	2	4'- 06''	14	STR								
S610	2	7'- 03''	22	STR								JI S
C 001	76	241 0711	2 771	CTD								()
SOUT	30	31'- 07''	675	1	30'-5"	1'-1"						Ž
5803	8	8'- 03''	177	1	7'-1"	1'-4"						l 2 2
	16	6'- 07''	282	18	4'-2"	1'-1"	1'-1"					0
5805	30	2'- 06''	201	STR								
S806	20	10'- 08''	570	STR								ᇣ
€ <i>\$807</i>	10	7'- 03''	194	STR								
S808	30	9'- 10''	788	STR								
* S809	64	25'- 04''	4,329	STR								
S810	4	7'- 11''	85	STR								
5811	6	7'- 01''	114	STR								
5812	2	l'- 02''	70	SIR								
5013	2	5'- II'' 7'- 01''	32	SIK								
5014 5815	6	30'- 05"	114	SIR			-			-		
5816	4	2'- 01''	23	STR								
5817	10	12'- 06''	334	17	10'-8"					-		
							1					
D801	116	4'- 11''	1,523	18	2'-7"	1'-0"	1'-0"					
SUPL	<u>ERSTRUC</u> TURE	TOTAL	115,101									
												·   ·
	NUMBER		TOTAL	ų			DIMEN	ISIONS				:
MARK	TOTAL	LENGTH	LENGTH	TYP	A	В	С	D	R	INC		
CSEAT	144	SUPERSTRUC		rei G	LASS FIB	ER POLYN	NEK KEINF	UKCING)				
DOCU	144 I	4 - 00	648'-0"	511								
IN IVIA	-		070 0					1			1	

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		NUMBER				ш		DIMEN	SIONS	
MARK	REAR	FWD.	TOTAL	LENGTH	WEIGHT	TYP	A	В	C	INC
				ADIITI						
1501	70	72	61	ADUII	VIEIVIS	CTD				
4501 * 4502	J2 7	32	04	30 - 00	2,005	SIR				
* A502	7	7	14	9-03	156	SIR				
* A505	/	/	14	11 - 06	168	SIR				
A504	8	8	16	23'- 01"	386	SIR				
* A505	2	2	4	13- 09-	58	SIR				
* A506	2	2	4	15'- 11''	67	SIR	o. o	01.74		
A507	122	122	244	18'- 01''	4,603	3	6'-2"	2'-1"		
A508	81	8/	162	15'- 05''	2,605	3	4'-0"	3'-5"		
A509	22	22	44	14'- 03''	654	2	6'-2"	2'-2"	6'-2"	
A510	4	4	8	15'- 07''	131	3	4'-1"	3'-5"		
A511	2	2	4	18'- 05''	77	3	6'-3"	2'-8"		
A512	2	2	4	13'- 01''	55	3	2'-2"	4'-1"		
A513	2	2	4	13'- 11''	59	3	2'-2"	4'-6"		
	2	2	4	15'- 01''				5'-1"		
A514	SER. OF	SER. OF	SER.OF	TO	507	3	2'-2"	TO		9″
	7	7	7	19'- 07''				7'-4"		
	1	1	2	10'- 03''			4'-2"		4'-2"	
A515	SER. OF	SER. OF	SER.OF	TO	183	2	ΤO	2'-2"	ΤΟ	9″
	7	7	7	14'- 09''			6′-5″		6′-5″	
A516	1	1	2	15'- 11''	34	2	7′-0″	2'-2"	7'-0"	
A517	2	2	4	16'- 05''	69	2	7'-3″	2'-2"	7'-3"	
A518	4	4	8	17'- 03''	144	2	7′-8″	2'-2"	7′-8″	
	1	1	2	3'- 08''						
A519	SER. OF	SER. OF	SFR.OF	TO	15.9	STR				2'-4 7/8
	7	7	7	18'- 00''						2
	1	1	2	3'- 03''						
1520	SER OF		SER OF	<u> </u>	153	STR				2'-4 7/8
A020	7	7	7	17'- 07''	100	5//				2 1 170
1521	1	1	2	21'- 07''	46	10	1'-7"	18'-5"	7'-0"	
4527	1	1	2	21 01	40	10	1/_2//	10' 5"	7'_0"	
A322	7	7	2	21-02	43	19	0/ 1//	10 - 5	0/ 1//	
A323	3	5	0	10 - 01	114	2	0 -1	2-2	0-1	
1504	1	1	2	10 09-	10.0		4'-5"	01.04	4'-5"	0."
A524	SER. OF	SER. OF	SER.OF	10	190	2	10	2'-2"	10	9"
	/	1	/	15'- 03''			6'-8"		6'-8"	
	1	1	2	3'- 04''						
A525	SER. OF	SER. OF	SER.OF	10	159	STR				2'-6"
	7	7	7	18'- 04''						
	1	1	2	3'- 09''						
A526	SER. OF	SER. OF	SER.OF	TO	165	STR				2'-6"
	7	7	7	18'- 09''						
A527	1	1	2	21'- 01''	44	19	1'-3″	18'-5"	7′-5″	
A528	1	1	2	21'- 05''	45	19	1'-7″	18'-5"	7′-5″	
A801	32	32	64	30'- 00''	5,127	STR				
* A802	5	5	10	12'- 03''	328	STR				
* A803	5	5	10	14'- 05''	385	STR				
* A804	6	6	12	19'- 10''	636	STR				
* A805	6	6	12	17'- 08''	567	STR				
	A	BUTMENT TO	TAL		20,102					
				-					1	
1400		NUMBER			WETOUT	L M		DIMEN	SIONS	
МАКК	REAR	FWD.	TOTAL	LENGIH	WEIGHI	1	A	B	С	INC
1					CM CLITDE			•	•	- •
		-	- ·	DIALINA	SIM GOIDE					1
DG601	5	5	10	16'- 09''	252	3	4'-0 3/4"	3'-8 1/2"	Q1 1"	

MADK	NUMBER		WETCUT	ΡE		DIMEN	SIONS	
ΜΑΠΛ	TOTAL	LENGIH	MEIGHI	ž	Α	В	С	D
		SUPERSTRUC	TURE (INTER	RMEDIA	TE DIAPH	HRAGMS)		
SI401	198	10'- 08''	1,411	3	6″	4'-9"		
SI601	72	9'- 08''	1,045	STR				
SI602	84	11'- 00''	1,388	13	3′-10″	7″	1'-2"	6'-0"
SI603	54	10'- 06''	852	STR				
INTERMEL	DIATE DIAPHRI	AGM TOTAL	4,696					
	F	OR INFORMAT.	ION ONLY NOT	T INCLU	DED WITH I	TEM 509.		

			B
<u> TYPE-1</u>	<u>TYPE-2</u>	<u>TYPE-3</u>	



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# <u>NOTES:</u>

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

2. ALL REINFORCEMENT IS TO BE EPOXY COATED.

3. \* - MECHANICALLY SPLICED BAR: LENGTH GIVEN INCLUDES 2 INCHES OF CLEARANCE AT EACH END. CONTRACTOR SHALL ADJUST LENGTH AS REQUIRED FOR TYPE OF MECHANICAL SPLICE USED.

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RETNEORCTNG STEEL I IST	DESIGNED	DRAWN	REVIEWED D	DATE	DESIGN AGENCY
	RLC	LEL	MJZ 4/2	24/20	
BRIDGE NO. HAM- /5-1539K	CHECKED	REVISED	STRUCTURE FILE	NUMBER	SUITE 450
I-75 NB OVER SHARON RD.	CCC		3110966	9	COLUMBUS, OHIO 43215