

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

DO4-BH-FY2015

CITIES OF CANTON AND MASSILLON
CANTON AND SUGAR CREEK TOWNSHIPS
STARK COUNTY

PROJECT DESCRIPTION

IMPROVEMENT OF 0.88 MILES OF SR 172 BY PLANING THE SURFACE AND PLACING AN ASPHALT LAYER. MAINTENANCE WORK TO STRUCTURES STA-172-0755, STA-212-0134, STA-627-0432, AND STA-800-0333. ALSO STORM SEWER IMPROVEMENTS ON SR 172 AT SLM: 7.55.

PROJECT EDA: 0.18 ACRES
ESTIMATED CONTRACTOR EDA: N/A (MAINTENANCE PROJECT)
NOTICE OF INTENT EDA: N/A (MAINTENANCE PROJECT)

SEE SHEET 2
FOR LOCATION MAP

DESIGN DESIGNATION

DESIGN FUNCTIONAL CLASSIFICATION:
STA-172-0755: URBAN PRINCIPAL ARTERIAL
STA-212-0134: RURAL MAJOR COLLECTOR
STA-627-0432: URBAN MINOR ARTERIAL
STA-800-0833: URBAN PRINCIPLE ARTERIAL

NHS PROJECT ----- NO
STA-172-0755
STA-212-0134
STA-627-0432
STA-800-0833

DESIGN EXCEPTIONS

NONE

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2013 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.

I 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.

STAGE 2 - 05/08/2014

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG
CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY
OIL & GAS PRODUCERS UNDERGROUND
PROTECTION SERVICE CALL: 1-800-925-0988

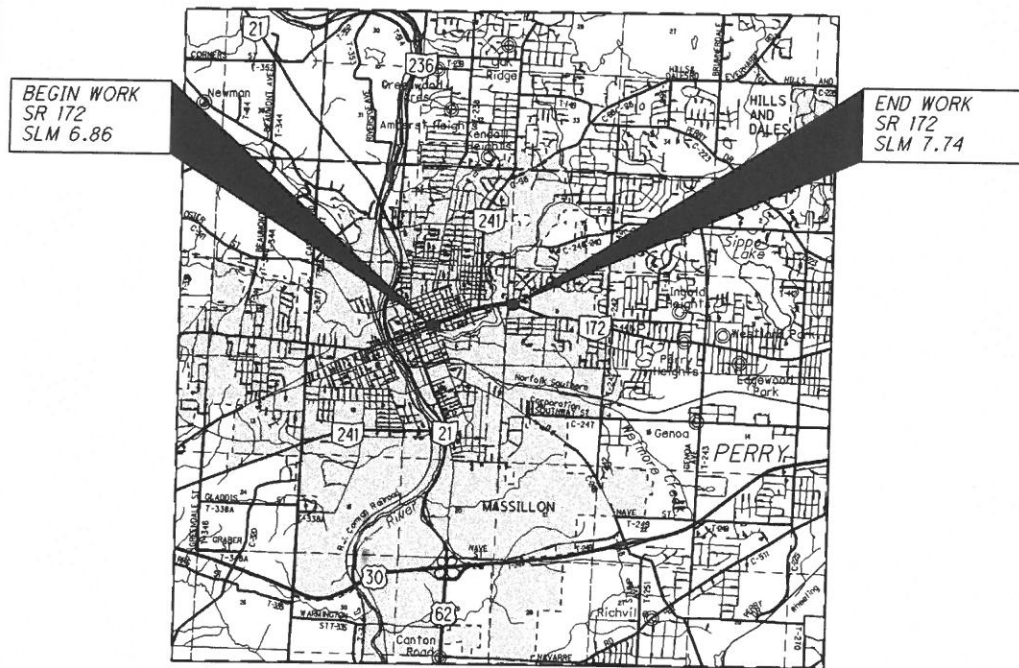
PLAN PREPARED BY:
ODOT--- DISTRICT 4
20888 S. ARLINGTON RD
AKRON, OH 44306

ENGINEERS SEAL:	STANDARD CONSTRUCTION DRAWINGS					SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
	BP-4.1	7/19/13				800-2013	7/18/14
	DM-4.3	7/19/13				832	1/17/14
	DM-4.4	7/20/12				843	4/18/03
	MT-95.30	7/19/13					
	MT-97.10	7/19/13					
	TC-41.20	10/18/13					
SIGNED:							
DATE:							

APPROVED _____
DATE _____ DISTRICT DEPUTY DIRECTOR

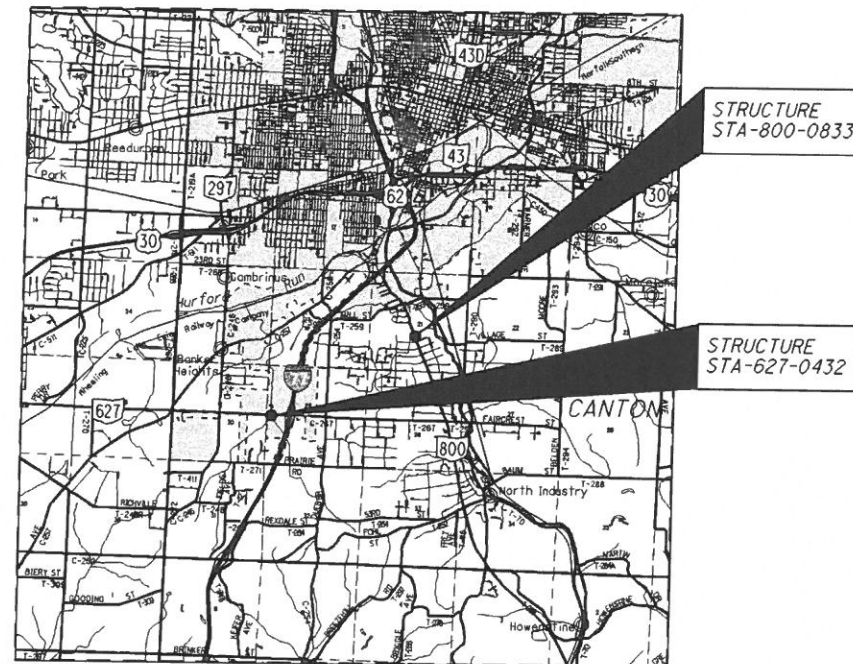
APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO.	NON-FEDERAL
PID NO.	92444
CONSTRUCTION PROJECT NO.	
RAILROAD INVOLVEMENT	NONE
DO4-BH-FY2015	
1	17



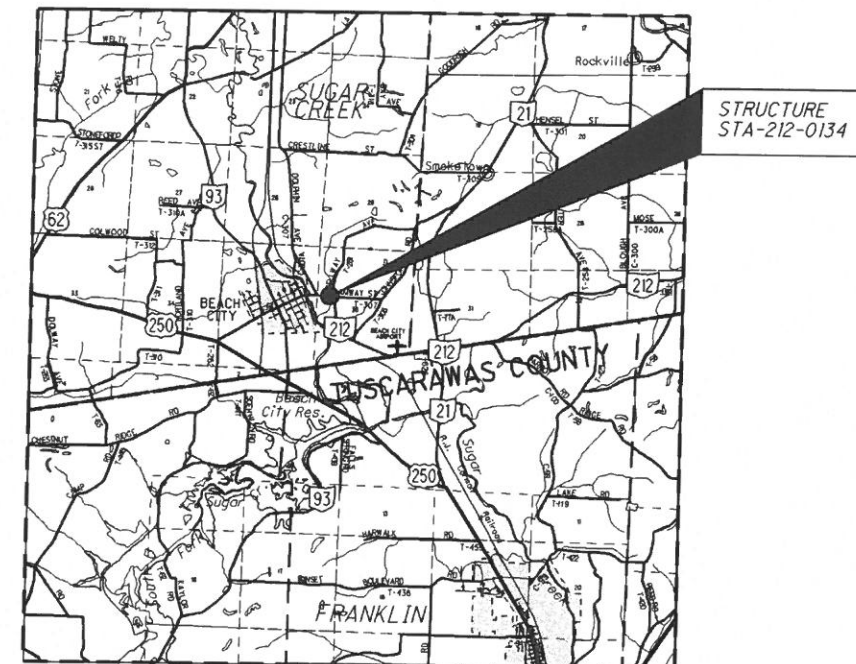
LOCATION MAP

STA-172-0755: LATITUDE: 40°48'1" LONGITUDE: 81°30'25"



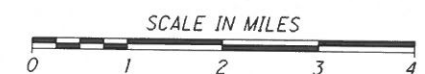
LOCATION MAP

STA-800-0833: LATITUDE: 40°45'47" LONGITUDE: 81°22'50"
STA-627-0432: LATITUDE: 40°45'4" LONGITUDE: 81°24'31"



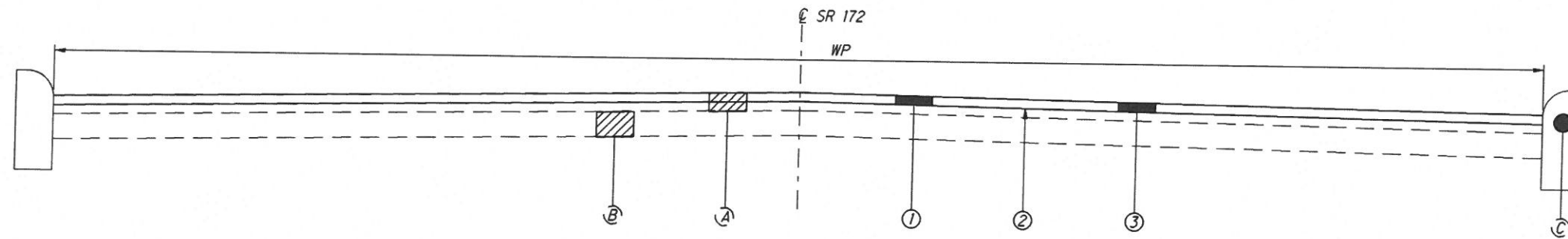
LOCATION MAP

STA-212-0134: LATITUDE: 40°39'14" LONGITUDE: 81°34'11"



PORTION TO BE IMPROVED - - - - -
INTERSTATE HIGHWAY - - - - -
FEDERAL ROUTES - - - - -
STATE ROUTES - - - - -
COUNTY & TOWNSHIP ROADS - - - - -
OTHER ROADS - - - - -

- LEGEND**
- ① ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (T= 1½")
 - ② ITEM 407, TACK COAT @ 0.15 GAL/SY
 - ③ ITEM 448, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AS PER PLAN (T= 1½")
 - Ⓐ EXISTING ASPHALT SURFACE
 - Ⓑ EXISTING BRICK AND ASPHALT BASE
 - Ⓒ EXISTING CURB



SR 172			
SLM		AVG WP (FT)	LENGTH (MILES)
FROM	TO		
6.86	6.93	60	0.07
6.93	7.29	48	0.36
7.29	7.39	55	0.10
7.39	7.45	66	0.06
7.45	7.58	55	0.13
7.58	7.75	60	0.17

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UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS:

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE OHIO & GAS PROCEDURES UNDERGROUND PROTECTION SERVICE (OGPUPS), THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEAD-QUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)
OGPUPS 1-800-925-0988
ODOT 330-786-3145 KEN GREENE

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.

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

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

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.

PAVEMENT MARKING DETAILS

THE PAVEMENT MARKING DETAIL SHEETS WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.

PAVEMENT MARKING LANE WIDTHS

THE NORMAL LANE WIDTH FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS FOLLOWS [AT LEAST 3 DAYS PRIOR TO PERFORMING THE WORK CONTACT THE TRAFFIC OFFICE AT 330-786-3147 TO CONFIRM THE WIDTHS]:

ROUTE	S.L.M. TO S.L.M.	LANE WIDTH
172	6.86 TO 7.74	12'

INTERSECTIONS

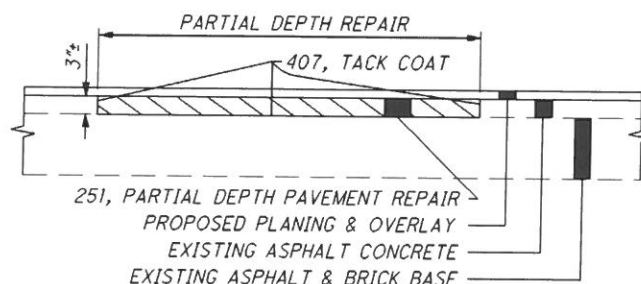
INTERSECTIONS WILL BE RESURFACED 2 FT. BEYOND THE EDGE LINE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE OR WITH THE MAINLINE PAVEMENT IF THIS CAN BE ACCOMPLISHED WITHOUT CHANGING THE VELOCITY AND DIRECTION OF THE PAVER. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT. PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE PERTINENT BID ITEM.

CURB RAMPS / DETECTABLE WARNINGS

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, INSTALLATION OF THE CURB RAMPS / DETECTABLE WARNINGS WILL BE PERFORMED PRIOR TO MAINLINE RESURFACING.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETEIORATION AND PLACING ITEM 448 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE 1 PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETEIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
251, PARTIAL DEPTH PAVEMENT REPAIR, 250 SQ. YD.



ITEM 448- ASPHALT CONCRETE SURFACE COURSE, TYPE 1 PG70-22M, AS PER PLAN

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

GUARDRAIL WORK

THE GUARDRAIL ON THE RIGHT SIDE OF STRUCTURE STA-800-0833 SHALL BE REPLACED. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 202, GUARDRAIL REMOVED --- FT
ITEM 606, GUARDRAIL, TYPE MGS -- FT
ITEM 606, ANCHOR ASSEMBLY, TYPE B, -- EACH
ITEM 606, ACHOR ASSEMBLY, TYPE E -- EACH

ITEM 611- MANHOLE ADJUSTED TO GRADE, AS PER PLAN

GRADE RINGS SHALL NOT BE USED TO ADJUST MANHOLES TO GRADE. ALL OTHER REQUIREMENTS SHALL STILL BE APPLICABLE.

ITEM 611, MANHOLE ADJUSTED TO GRADE, AS PER PLAN --- EACH

ITEM 611- CATCH BASIN ADJUSTED TO GRADE

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY AND IS TO BE USED AS DIRECTED BY THE ENGINEER TO ADJUST CATCH BASINS TO GRADE.

ITEM 611, CATCH BASIN ADJUSTED TO GRADE, -- EACH

ITEM 638- VALVE BOX ADJUSTED TO GRADE

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY AND IS TO BE USED AS DIRECTED BY THE ENGINEER TO ADJUST EXISTING VALVE BOXES TO GRADE.

ITEM 638, VALVE BOX ADJUSTED TO GRADE, -- EACH

ITEM 623 - MONUMENT ASSEMBLY, AS PER PLAN

ADJUSTABLE MONUMENT ASSEMBLIES AS SHOWN ON STANDARD CONSTRUCTION DRAWING RM-1.1 WILL BE PLACED BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION.

THE CONTRACTOR WILL BE PROVIDED A LOCATION LIST OF EXISTING MONUMENTATION WHICH IS TO BE REPLACED WITH NEW ADJUSTABLE MONUMENT BOX ASSEMBLIES AT THE PRE-CONSTRUCTION MEETING. THIS LIST MAY INCLUDE BOTH EXPOSED AND BURIED MONUMENTATION AND MAY ALSO INCLUDE SOME TIES TO AID IN RECOVERY.

PAYMENT FOR THE REMOVAL OF ANY EXISTING MONUMENT ASSEMBLIES SHALL ALSO BE INCLUDED IN THIS ITEM.

QUANTITY THAT WILL BE CARRIED TO THE GENERAL SUMMARY:
623, MONUMENT ASSEMBLY, AS PER PLAN, ----- EACH

GENERAL NOTES

D04-BH-FY2015

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MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF ONE TEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING PAVEMENT AND COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.
2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.
3. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.
4. TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.
5. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS ONE [1] MILE.
6. ONLY DURING OFF-PEAK PERIODS (ie ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.
7. IN ADDITION TO THE REQUIREMENTS OF 614.11 WORK ZONE PAVEMENT MARKINGS, AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, CENTER, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.
8. A QUANTITY OF 10 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.
9. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

10. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGN HAS BEEN INCLUDED IN THE PLAN. THIS QUANTITY SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING SIGNS: W8-1 [BUMP], W6-3 [TWO-WAY TRAFFIC], W8-H13 [NO EDGE LINES], R4-1 [DO NOT PASS], R4-2 [PASS WITH CARE], W8-11 [UNEVEN LANES]. THESE QUANTITIES SHALL BE AS PER 614.04.

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:

PHASE I- PLANED SURFACE

614, WORK ZONE CENTER LINE, CLASS II, 1.10 MILE
614, WORK ZONE LANE LINE, CLASS II, 1.76 MILE
614, WORK ZONE STOP LINE, CLASS I, 311 FT
614, WORK ZONE CHANNELIZING LINE, CLASS I, 704 FT
614, WORK ZONE MARKING SIGN, (ALL PHASES) 12 EACH

PHASE II- SURFACE COURE

614, WORK ZONE CENTERLINE, CLASS III, 642 PAINT 1.10 MILE
614, WORK ZONE LANE LINE, CLASS III, 642 PAINT 1.76 MILE
614, WORK ZONE STOP LINE, CLASS III, 642 PAINT 311 FT
614, WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT 704 FT

ADVANCED NOTICE TO PAVE

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE DISTRICT CONSTRUCTION ENGINEER A DETAILED SCHEDULE 15 DAYS PRIOR TO THE PLACEMENT OF THE OVERLAY COURSES, ON HOW THEY PROPOSE TO PROSECUTE THE PAVING OPERATIONS. THE DETAILS SHALL SHOW THE ORDER OF PERFORMANCE OF EACH STAGE (START TO FINISH) OF THE WORK INCLUDING THE MAINTENANCE OF TRAFFIC THAT WILL BE USED.

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

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

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING

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:

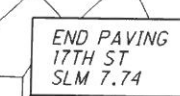
DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY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

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$3000 FOR EACH HOUR THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

WINTER TRAFFIC LIMITATIONS

ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC BETWEEN NOVEMBER 15 AND APRIL 1. NOVEMBER 14 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND DISINCENTIVES OF \$500 SHALL BE ASSESSED FOR EACH CALENDAR DAY THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THE CONTRACTOR MAY CLOSE LANES PRIOR TO APRIL 1 WITH WRITTEN APPROVAL FROM THE DISTRICT CONSTRUCTION ENGINEER.



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SURVEYING POSITIONAL PARAMETERS

USE THE FOLLOWING VERTICAL AND HORIZONTAL POSITIONING PARAMETERS FOR THIS PROJECT:

COUNTY: STA ROUTE: 172 SECTION: 7.55
PID#:92444
SURVEY DATE: 9/2013

VERTICAL POSITIONING:

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 2012a

HORIZONTAL POSITIONING:

REFERENCE FRAME: NAD 83 (2011) (EPOCH: 2010.0000)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO NORTH ZONE (3401)
COMBINED SCALE FACTOR: 0.99990645995
ORIGIN OF SCALE (X,Y) - EASTING (X): 0, NORTHING (Y): 0

UNITS:

FURNISH UNITS IN U.S. SURVEY FEET. USE THE FOLLOWING
CONVERSION FACTOR: 1 METER = 3.2808333333 U.S. SURVEY
FEET.

CONTROL POINTS

POINT #	DESCR.	NORTHING	EASTING
231	PK NAIL	414595.49926	2243129.99482
219	PK NAIL	414638.38916	2243480.45228
212	PK NAIL	414668.05811	2243627.99847
PC C1	PK NAIL	414710.76382	2243865.66866

BENCHMARKS

POINT #	DESCR.	NORTHING	EASTING	ELEVATION
SV350	BM	414678.5280	2243486.4550	1007.94
T300	IPINS	414657.4060	2243350.9990	1010.35
T301	IPINS	414592.2980	2243494.8410	1008.41
T302	IPINS	414515.7200	2243600.1310	979.62
T304	NAIL	414765.5260	2243559.9880	980.32

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.

PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR PAVEMENT
RESTORATION FOLLOWING INSTALLATION AND/OR REMOVAL OF
PIPES.

STA. 397+00.00 TO 398+10.00 LT. (D6-D8) [110'x5.1'±]
202, PAVEMENT REMOVED 62.8 SQ. YDS.
204, SUBGRADE COMPACTION 81.1 SQ. YDS.
252, FULL DEPTH PAVEMENT SAWING 136 FT.
301, ASPHALT CONCRETE BASE, PG64-22 15.7 CU. YDS.
304, AGGREGATE BASE, AS PER PLAN 10.5 CU. YDS.

STA. 396+92.58 TO 397+64.00 RT. (D1-D3) [71.42'x5'±]
202, PAVEMENT REMOVED 40 SQ. YDS.
204, SUBGRADE COMPACTION 51.9 SQ. YDS.
252, FULL DEPTH PAVEMENT SAWING 84 FT.
301, ASPHALT CONCRETE BASE, PG64-22 10 CU. YDS.
304, AGGREGATE BASE, AS PER PLAN 6.67 CU. YDS.

STA. 398+12.40 TO 398+22.40 RT. (D4) [10'x5'±]
202, PAVEMENT REMOVED 5.6 SQ. YDS.
204, SUBGRADE COMPACTION 7.2 SQ. YDS.
252, FULL DEPTH PAVEMENT SAWING 21 FT.
301, ASPHALT CONCRETE BASE, PG64-22 1.4 CU. YDS.
304, AGGREGATE BASE, AS PER PLAN 0.9 CU. YDS.

THE ABOVE QUANTITIES ARE BASED ON A 301 THICKNESS OF
9 INCHES, A 304 THICKNESS OF 6 INCHES AND A PAVEMENT
RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS
TWO FEET ON EACH SIDE OF THE TRENCH. SEE STANDARD
CONSTRUCTION DRAWING DM-1.4 FOR TRENCH WIDTH FORMULA
AND CALCULATION.

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

SLOPE RESTORATION

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR SLOPE
RESTORATION FROM STA. 396+75 LT. TO STA. 398+25 LT.
AND STA. 397+00 RT. TO STA. 398+25 RT.

STA. 396+75 LT. TO STA. 398+25 LT. [150'x15']
203, EMBANKMENT 42 CU. YDS.
601, DUMPED ROCK FILL, TYPE B 167 CU. YDS.

STA. 397+00 RT. TO STA. 398+25 RT. [125'x15']
203, EMBANKMENT 35 CU. YDS.
601, DUMPED ROCK FILL, TYPE B 139 CU. YDS.

THE ABOVE QUANTITIES ARE BASED ON A 203 THICKNESS OF
6 INCHES, A 601 THICKNESS OF 2 FEET AND A SLOPE
RESTORATION WIDTH OF 15 FEET MEASURED FROM THE BACK
OF THE HEADWALL TO THE TOP OF SLOPE.

GENERAL NOTES
DRAINAGE S.R. 172

STA-172-7.55

11
17

CALCULATED
RCB
CHECKED
LMP

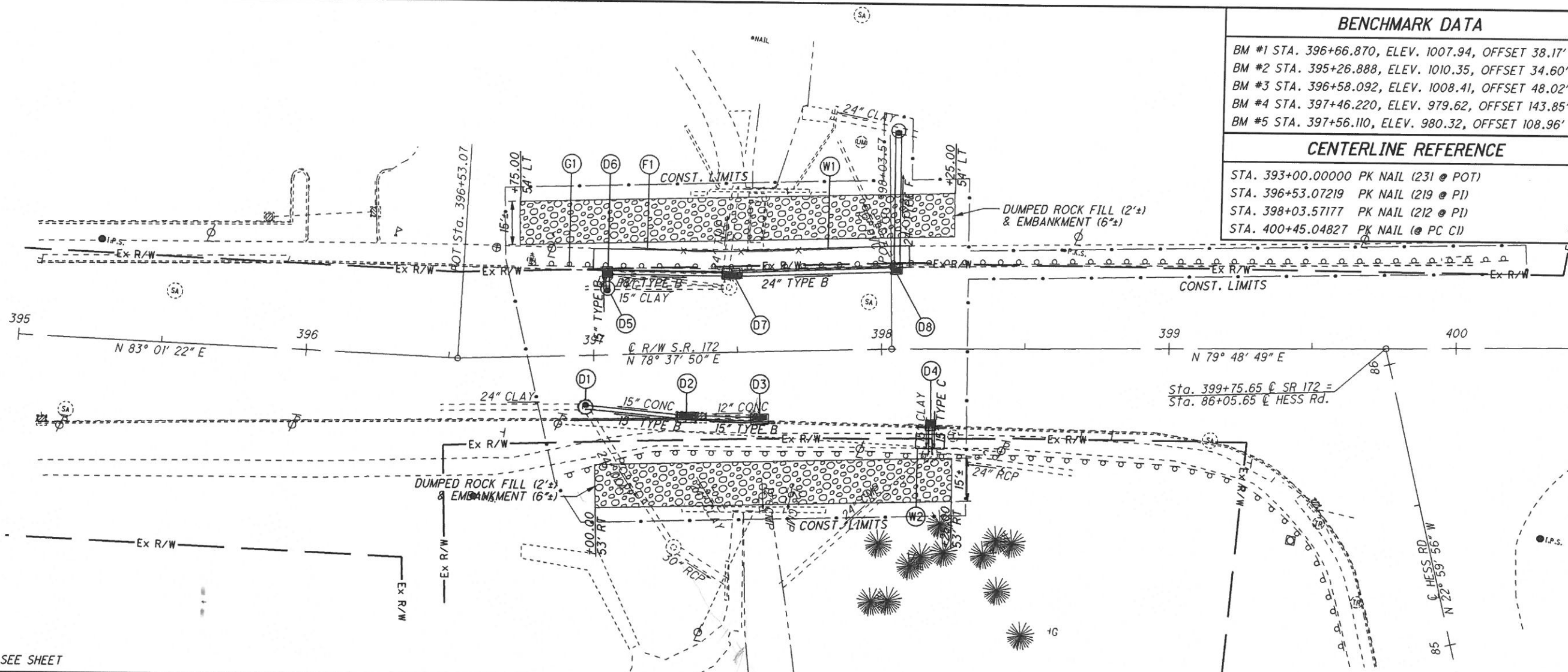
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REF NO.	SHEET NO.	STATION TO STATION					202	202	202	202	202	202	SPEC	202		608	609	611	611	611	611	611	611	611			
							WALK REMOVED	CURB REMOVED	PIPE REMOVED 24" AND UNDER	GUARDRAIL REMOVED	MANHOLE REMOVED	CATCH BASIN REMOVED	FILL AND PLUG EXISTING CONDUIT	FENCE REMOVED		6" CONCRETE WALK	CURB, TYPE 6	15" CONDUIT, TYPE B	15" CONDUIT, TYPE C	18" CONDUIT, TYPE B	24" CONDUIT, TYPE B	24" CONDUIT, TYPE F	CATCH BASIN, NO. 3	CATCH BASIN, NO. 3A	MANHOLE, NO. 3		
D1	PP	396+92.00	RT	TO	397+02.00	RT			10		1																
D2	PP	397+02.00	RT	TO	397+32.00	RT		40	31		3									5	5			1			
D3	PP	397+32.00	RT	TO	397+57.50	RT		31	16		1						40	35					1				
D4	PP	398+17.40	RT						10		1						31	26					1				
D5	PP	397+05.00	LT	TO	397+48.00	LT			10		1		38					10						1			
D6	PP	397+05.00	LT	TO	397+48.00	LT			15		1		25												1		
D7	PP	397+48.00	LT	TO	398+05.00	LT			10		1		25						43					1		1	
D8	PP	398+05.00	LT						15		1		43							58			1		1		
F1	PP	397+13.00	LT	TO	397+90.00	LT								77								58					
G1	PP	396+77.00	LT	TO	400+20.00	LT				343																	
W1	PP	397+00.00	LT	TO	398+10.00	LT	825									825											
W2	PP	398+12.40	RT	TO	398+22.40	RT	50	10								50	10										
TOTALS CARRIED TO GENERAL SUMMARY							875	81	117	343	3	9	131	77	0	875	81	72	10	43	63	63	3	3	3	0	0

SUBSUMMARY
DRAINAGE S.R. 172

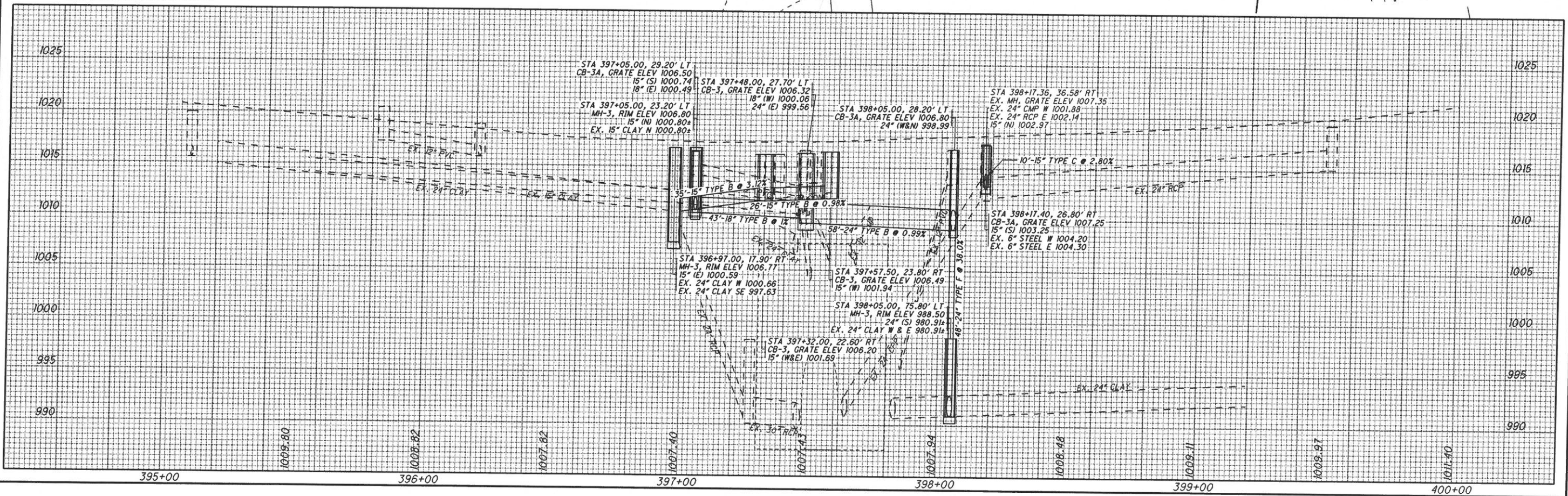
STA - 172 - 7.55

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BENCHMARK DATA	
BM #1 STA. 396+66.870, ELEV. 1007.94, OFFSET 38.17' LT	
BM #2 STA. 395+26.888, ELEV. 1010.35, OFFSET 34.60' LT	
BM #3 STA. 396+58.092, ELEV. 1008.41, OFFSET 48.02' RT	
BM #4 STA. 397+46.220, ELEV. 979.62, OFFSET 143.85' RT	
BM #5 STA. 397+56.110, ELEV. 980.32, OFFSET 108.96' LT	
CENTERLINE REFERENCE	
STA. 393+00.00000 PK NAIL (231 @ POT)	
STA. 396+53.07219 PK NAIL (219 @ PI)	
STA. 398+03.57177 PK NAIL (212 @ PI)	
STA. 400+45.04827 PK NAIL (@ PC CI)	

FOR QUANTITIES SEE SHEET



PAVEMENT MARKING SUB SUMMARY

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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

----- DATED/REVISED -----

----- DATED/REVISED -----

----- DATED/REVISED -----

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

843 DATED 4/18/03

----- DATED -----

----- DATED -----

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2002 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS, CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTON 102.05, 105.02, AND 513.04.

BASE CONTRACT BID PRICES UPON RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VARIFIED IN THE FIELD.

PROPOSED WORK - STA-172-0755 (OVER TUSCARAWAS RIVER)
- PATCH EXISTING CONCRETE HEADWALLS
- REMOVE AND REPLACE EXISTING CONDUIT AND LIGHTING
- NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - STA-212-0134 (OVER BRANCH SUGAR CREEK)
- REPAIR EXISTING PAVED CONCRETE INVERT
- CLEARING AND GRUBBING 15' FROM STRUCTURE TO REMOVE ALL VEGETATION
- NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - STA-627-0432 (OVER STREAM)
- PAVE EXISTING INVERT WITH CONCRETE
- REPAIR SCOUR AT INLET END
- CLEARING AND GRUBBING 15' FROM STRUCTURE TO REMOVE ALL VEGETATION
- NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - STA-800-0833 (BRANCH NIMISHILLEN CREEK)
- PAVE EXISTING INVERT WITH CONCRETE
- REPLACE GUARDRAIL ON RIGHT SIDE OF STRUCTURE
- CLEARING AND GRUBBING 15' FROM STRUCTURE TO REMOVE ALL VEGETATION
- NEW STRUCTURE IDENTIFICATION SIGNS

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 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN: PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

ITEM 613- LOW STRENGTH MORTAR BACKFILL

THIS ITEM SHALL BE USED TO REPAIR THE PAVED CONCRETE INLET OF STRUCTURE STA-212-0134. THE LOW STRENGTH MORTAR BACKFILL WILL BE PUMPED UNDER THE EXISTING CONCRETE INLET. THIS WORK WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 613- LOW STRENGTH MORTAR BACKFILL. THESE PRICES WILL INCLUDE THE COST FOR BACKFILL, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

ITEM SPECIAL - PIPE CLEANOUT

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SPECIFIED IN THE PLANS. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 105.16 AND 105.17. ALL SEWERS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CLEANOUT OF THE PIPE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL - PIPE CLEANOUT. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE NOTED WORK:

STA-627-0432: SPECIAL, PIPE CLEANOUT 42 FT.
STA-800-0833: SPECIAL, PIPE CLEANOUT 72 FT.

ITEM 601, ROCK CHANNEL PROTECTION, TYPE __ WITH AGGREGATE FILTER

THIS WORK SHALL CONSIST OF REPAIRING THE SCOUR AT THE INLET END OF STRUCTURE STA-627-0432. THIS WORK WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 601- ROCK CHANNEL PROTECTION, TYPE __ WITH AGGREGATE FILTER. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

CORRECTING BRIDGE IDENTIFICATION SIGN NUMBERS:

SOME OF THE EXISTING BRIDGE NUMBER SIGNS HAVE INCORRECT BRIDGE NUMBERS ON THEM. THE FOLLOWING BRIDGE NUMBERS ARE THE CORRECT ONES AND WILL BE USED ON THE NEW BRIDGE IDENTIFICATIONS SIGNS.

STRUCTURE STA-172-0755 (SFN: 7600755) THE EXISTING SIGN SHOWS 0750. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0755.

STRUCTURE STA-212-0134 (SFN: 7605889) THE EXISTING SIGN SHOWS 0140. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0134.

STRUCTURE IDENTIFICATION SIGNS

STRUCTURE IDENTIFICATION SIGNS (I-H25a) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:

STA-172-0755 (2 APPROACHES)
STA-212-0134 (2 APPROACHES)
STA-627-0432 (2 APPROACHES)
STA-800-0833 (2 APPROACHES)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:

ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT
ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 7.5 FT
ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 1 EACH
ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 1 EACH

D04-BH-FY2015
PID No. 92444

STRUCTURE GENERAL NOTES
STA-172-0755, STA-212-0134, STA-627-0432, STA-800-0833
SFN: 7600755, 7605889, 7606516, 7606753

DESIGN AGENCY
ODOT -- DISTRICT 4
PLANNING AND ENGINEERING

DATE
REVIEWED
DRAWN
DESIGNED
CNC
CNC
CNC
CNC
REVISED
CHECKED

1 / 3

15
17

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STA-627-0432
8'-4" X 12'-10" CORRUGATED METAL ARCH

STA-800-0833
8'-11" X 14'-3" CORRUGATED METAL ARCH

AREAS TO BE PAVED WILL BE CLEANED TO REMOVE ALL
DEBRIS AND SEDIMENT AND WILL BE PAID FOR UNDER
ITEM SPECIAL - PIPE CLEANOUT.

ALL EROSION UNDER THE PIPE AND IN THE VOIDS WHERE THE PIPE IS RUSTED THROUGH WILL BE FILLED WITH ITEM 613 LOW STRENGTH MORTAR BACKFILL.

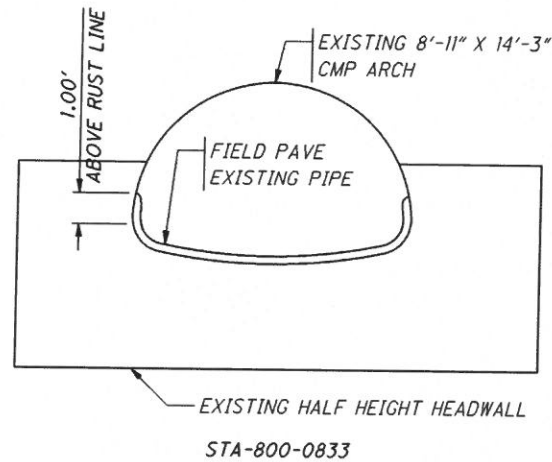
1.00' ABOVE RUST LINE

EXISTING 8'-4" X 12'-10" CMP ARCH

FIELD PAVE
EXISTING PIPE

EXISTING HALF HEIGHT HEADWALL

STA-627-0432



THIS ITEM OF WORK SHALL INCLUDE REPLACING THE BREAKER BOX FOR TUNNEL LIGHTING. TUNNEL AND PARK LIGHTING IS CURRENTLY SERVICED FROM A METER AND DISCONNECT LOCATED APPROXIMATELY 450 FT SOUTH OF THE STRUCTURE NEAR A PAVILION. NO WORK IS TO BE PERFORMED AT THIS LOCATION. PARK LIGHTING SHALL BE MAINTAINED. A SEPERATE SERVICE POLE WITH BREAKER BOX IS LOCATED ALONG THE CIRCUIT APPROXIMATELY 75 FT SOUTH OF THE STRUCTURE TO SPECIFICALLY SERVICE THE TUNNEL LIGHTING.

ANY AND ALL PERMITS, INSPECTION, OR OTHER COORDINATION TO COMPLETE THIS WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. POWER IS PROVIDED BY ----- AND THE EXISTING CIRCUITRY IS MAINTAINED BY THE CITY OF MASSILLON, 330-832-1172, JOE HAUSER. THE CONTRACTOR SHALL ENSURE THAT THE POWER SERVICE ELECTRICAL ENERGY ACCOUNT IS IN THE NAME OF THE MAINTAINING AGENCY.

ITEM 625 - JUNCTION BOX

WHEN SURFACE MOUNTED, THE JUNCTION BOX MAY HAVE IN LIEU OF BOSSED DRILLED AND TAPPED CONNECTIONS, FIELD INSTALLED HUBS TO ACCOMMODATE THE CONDUITS ENTERING THE BOX.

IN ADDITION TO THE REQUIREMENTS OF 625 AND 725.04, CONDUITS INSTALLED UNDER THIS ITEM SHALL BE ATTACHED TO THE CEILING OF THE STRUCTURE. THE CONDUIT SHALL BE SECURED TO THE STRUCTURE BY TWO-HOLE STRAPS SPACED AT 5 FOOT INTERVALS. TWO HOLES SHALL BE DRILLED 1 INCH INTO THE CONCRETE TO ACCOMMODATE 1/4 INCH DIAMETER STAINLESS STEEL AND/OR EPOXY CONCRETE ANCHORS.

ITEM 625- LUMINAIRE, MISC: LED, BY TYPE, CEILING MOUNTED

LUMINAIRES SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10-AMPERE FUSES. LIGHTING ILLUMINATION SHALL BE A MINIMUM OF 1.0 FOOT-CANDLES. LIGHTING FIXTURES SHALL BE VANDAL RESISTANT.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE UNDER CMS
"ITEM 625 LUMINAIRE, MISC.: LED, BY TYPE, CEILING MOUNTED,"
WHICH SHALL BE FULL COMPENSATION FOR LABOR,
MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE
THIS ITEM IN A SATISFACTORY WORKMANLIKE MANNER.

LOCATION	625	625	625	625	625	625	625
	NO. 14 AWG 800 VOLT DISTRIBUTION CABLE	CONDUIT, 1-1/4", 725 04, AS PER PLAN	LUMINAIRE, MISC. LED, BY TYPE, CEILING MOUNTED	GROUND ROD	POWER SERVICE, AS PER PLAN	LIGHTING, MISC. REMOVAL OF EXISTING LIGHTING SYSTEM	JUNCTION BOX, AS PER PLAN
	FT	FT	EACH	EACH	EACH	LUMP	EACH
STA-172-0755	180	105	4	1	1	LUMP	4
TOTALS CARRIED TO GENERAL SUMMARY	180	105	4	1	1	LUMP	4

CALC:	CNC	DATE:
CHECKED:		DATE:

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

D04-BH-FY2015

CITIES OF CANTON AND MASSILLON
CANTON AND SUGAR CREEK TOWNSHIPS
STARK COUNTY

SEE SHEET 2
FOR LOCATION MAP

DESIGN DESIGNATION

DESIGN FUNCTIONAL CLASSIFICATION:
STA-172-0755: URBAN PRINCIPAL ARTERIAL
STA-212-0134: RURAL MAJOR COLLECTOR
STA-627-0432: URBAN MINOR ARTERIAL
STA-800-0833: URBAN PRINCIPLE ARTERIAL

NHS PROJECT ----- NO
STA-172-0755
STA-212-0134
STA-627-0432
STA-800-0833

DESIGN EXCEPTIONS

NONE

INDEX OF SHEETS:

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TYPICAL SECTION	3
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MAINTENANCE OF TRAFFIC	6
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CURB RAMP SUB SUMMARY	10
DRAINAGE (STA-172-0755)	11-13
PAVEMENT MARKING SUB SUMMARY	14
STRUCTURES	15-18

PROJECT DESCRIPTION

IMPROVEMENT OF 0.88 MILES OF SR 172 BY PLANING THE SURFACE AND PLACING AN ASPHALT LAYER. MAINTENANCE WORK TO STRUCTURES STA-172-0755, STA-212-0134, STA-627-0432, AND STA-800-0833. ALSO STORM SEWER IMPROVEMENTS ON SR 172 AT SLM: 7.55.

PROJECT EDA: 0.18 ACRES
ESTIMATED CONTRACTOR EDA: N/A (MAINTENANCE PROJECT)
NOTICE OF INTENT EDA: N/A (MAINTENANCE PROJECT)

2013 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.

I 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.

STAGE 3 - REVISED - 7/14/2017

UNDERGROUND UTILITIES	
CONTACT BOTH SERVICES CALL TWO WORKING DAYS BEFORE YOU DIG	
	
CALL 1-800-362-2764 (TOLL FREE)	
OHIO UTILITIES PROTECTION SERVICE NON-MEMBERS MUST BE CALLED DIRECTLY	
OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE CALL: 1-800-925-0988	

PLAN PREPARED BY:
ODOT--- DISTRICT 4
20888 S. ARLINGTON RD
AKRON, OH 44306

ENGINEERS SEAL:



SIGNED:

DATE:

STANDARD CONSTRUCTION DRAWINGS

BP-3.1	4/20/12	MGS-5.2	7/19/13	TC-71.10	1/17/14
BP-4.1	7/19/13	MGS-5.3	7/19/13		
BP-7.1	10/15/10				
		RM-5.2	1/17/14		
CB-2.1	1/18/13				
CB-2.2	1/17/14	MT-95.31	7/19/13		
		MT-95.32	7/19/13		
MH-1.1	1/18/13	MT-97.10	7/19/13		
MH-1.2	1/18/13	MT-97.11	7/19/13		
		MT-99.20	7/19/13		
DM-1.4	1/18/13	MT-101.90	7/19/13		
DM-4.3	7/19/13	MT-105.10	7/19/13		
DM-4.4	7/20/12				
		TC-41.20	10/18/13		
MGS-1.1	7/19/13	TC-42.10	10/18/13		
MGS-4.2	7/19/13	TC-42.20	10/18/13		

SUPPLEMENTAL
SPECIFICATIONS

SPECIAL
PROVISIONS

800-2013	7/18/14
832	1/17/14
843	4/18/03

APPROVED _____
DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF
TRANSPORTATION

FEDERAL PROJECT NO.
NON-FEDERAL

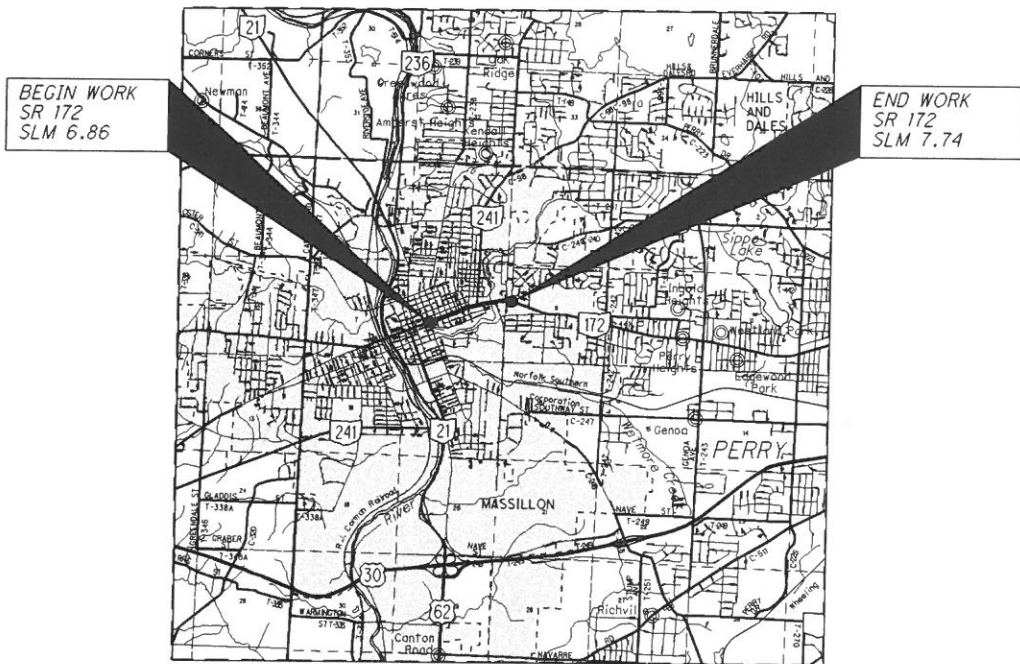
PID NO.
92444

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
NONE

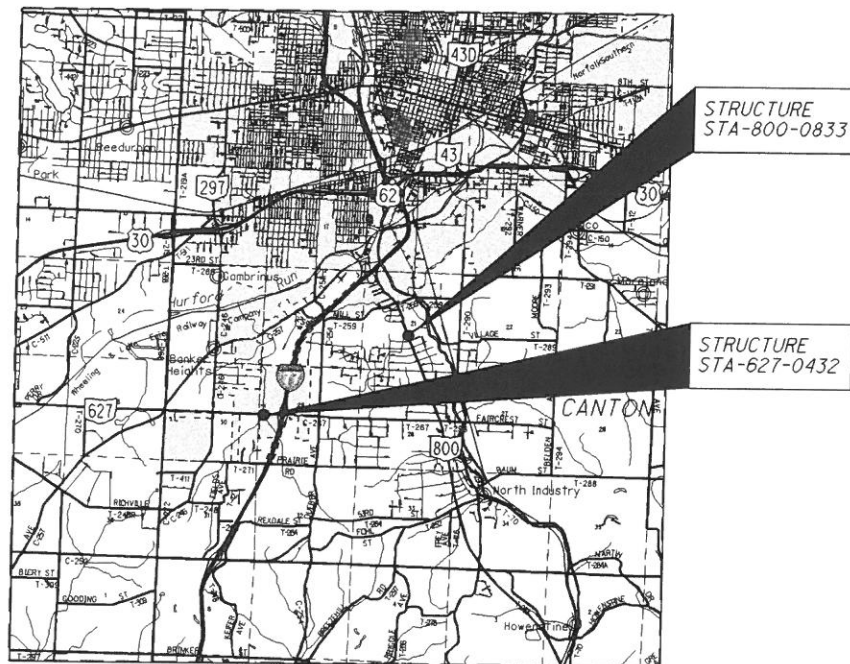
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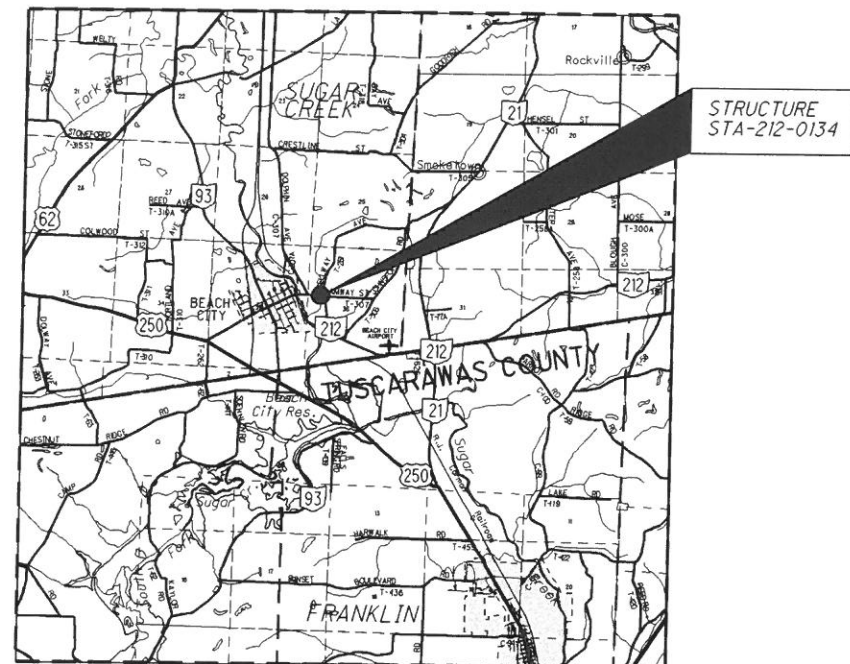
LOCATION MAP

STA-172-0755: LATITUDE: 40°48'1" LONGITUDE: 81°30'25"



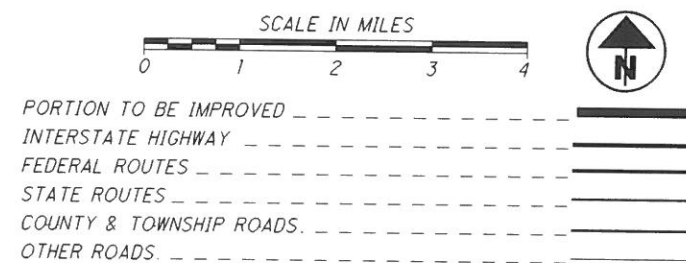
LOCATION MAP

STA-800-0833: LATITUDE: 40°45'47" LONGITUDE: 81°22'50"
STA-627-0432: LATITUDE: 40°45'4" LONGITUDE: 81°24'31"



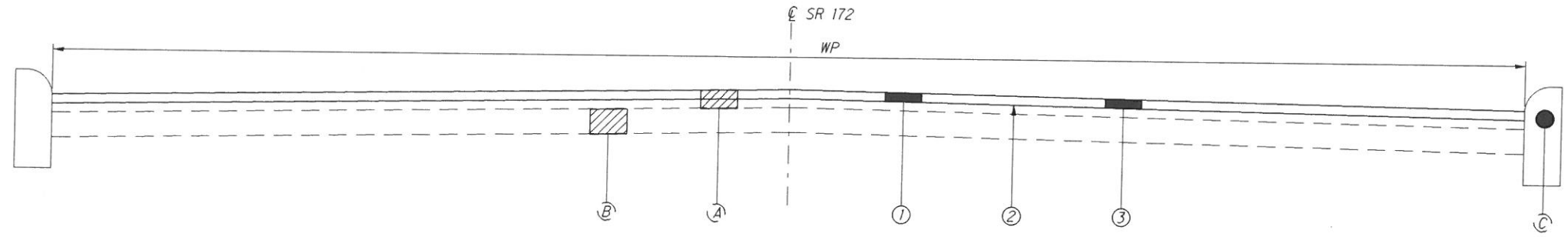
LOCATION MAP

STA-212-0134: LATITUDE: 40°39'14" LONGITUDE: 81°34'11"



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- LEGEND
- ① ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (T= 1½")
 - ② ITEM 407, TACK COAT @ 0.15 GAL/SY
 - ③ ITEM 448, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M AS PER PLAN (T= 1½")
 - Ⓐ EXISTING ASPHALT SURFACE
 - Ⓑ EXISTING BRICK AND ASPHALT BASE
 - Ⓒ EXISTING CURB



SR 172			
SLM		AVG WP (FT)	LENGTH (MILES)
FROM	TO		
6.86	6.93	63	0.07
6.93	7.29	50	0.36
7.29	7.39	53	0.10
7.39	7.45	65	0.06
7.45	7.58	55	0.13
7.58	7.74	60	0.16

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UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS:

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE OHIO & GAS PROCEDURES UNDERGROUND PROTECTION SERVICE (OGPUPS), THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEAD-QUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)
OGPUPS 1-800-925-0988
ODOT 330-786-3145 KEN GREENE

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.

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

AEP
Distribution Lines
ATTN: Kathy A. Mossbarger
301 Cleveland Avenue, SW
P.O. Box 24400
Canton, Ohio 44701
330-438-7061

AT&T
The Ohio Bell
Telephone Company
ATTN: Cindy Zuchegno
50 W. Bowery St.
4th Floor
Akron, OH 44308
330-384-3561

City of Canton
Water Department
ATTN: Lewis Miller
2664 Harrisburg Ave. N.E.
Canton, OH 44705
330-489-3310
330-489-3073 Fax

Dominion East Ohio Gas
Christopher Sayre
320 Springside Drive Suite 320
Akron, OH 44333
330-664-2463

Massillon Cable
ATTN: Jeff Campbell
814 Cable Court NW
Massillon, OH 44648
330-833-0202
330-833-7522 Fax

Time Warner Cable
ATTN: Justin Freudeman
5520 Whipple Ave. NW
Canton, OH 44720
330-494-9200 ext. 330-555-3192

Aqua Ohio
ATTN: Don Snyder
870 3rd Street, NW.
Massillon, OH 44647
330-832-5764 EXT: 205
330-832-5770 Fax

City of Canton
Sewer Collection
ATTN: James DiMarzio
City Service Center
2901 Regent Ave. NE
Canton, OH 44705
330-489-3031
330-489-3057 Fax

City of Massillon- Sanitary
ATTN: Tony Ulrich
100 Big Indian Dr. SW
Massillon, OH 44646
330-833-3304
330-830-3646 Fax

Frontier Communications
ATTN: Brent Fiala
6223 Norwalk Road
Medina, OH 44256
330-722-9453

Ohio Edison
ATTN: Kevin McClusky
2600 S. Erie St.
Massillon, OH 44646
330-830-7083

Utility Pipeline
ATTN: Kyle Underwood
4100 Holiday Street, N.W.
Suite 201
Canton, OH 44718
330-498-9130 ext. 310

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

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.

PAVEMENT MARKING DETAILS

THE PAVEMENT MARKING DETAIL SHEETS WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.

PAVEMENT MARKING LANE WIDTHS

THE NORMAL LANE WIDTH FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS FOLLOWS [AT LEAST 3 DAYS PRIOR TO PERFORMING THE WORK CONTACT THE TRAFFIC OFFICE AT 330-786-3147 TO CONFIRM THE WIDTHS]:

ROUTE	S.L.M. TO S.L.M.	LANE WIDTH
172	6.86 TO 7.74	12'

INTERSECTIONS

INTERSECTIONS WILL BE RESURFACED 2 FT. BEYOND THE EDGE LINE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE OR WITH THE MAINLINE PAVEMENT IF THIS CAN BE ACCOMPLISHED WITHOUT CHANGING THE VELOCITY AND DIRECTION OF THE PAVER. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT. PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE PERTINENT BID ITEM.

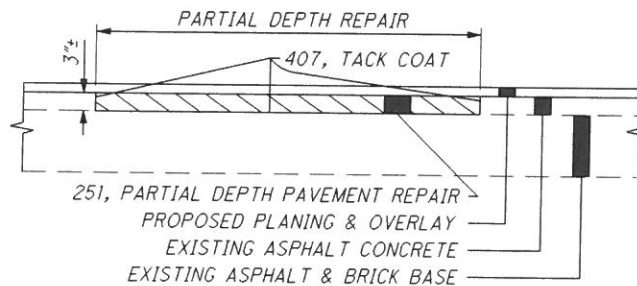
CURB RAMPS / DETECTABLE WARNINGS

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, INSTALLATION OF THE CURB RAMPS / DETECTABLE WARNINGS WILL BE PERFORMED PRIOR TO MAINLINE RESURFACING.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 448 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE 1 PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

251, PARTIAL DEPTH PAVEMENT REPAIR, 250 SQ. YD.



ITEM 448- ASPHALT CONCRETE SURFACE COURSE, TYPE 1 PG70-22M, AS PER PLAN

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

ITEM 611- MANHOLE ADJUSTED TO GRADE

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY AND IS TO BE USED AS DIRECTED BY THE ENGINEER TO ADJUST MANHOLES TO GRADE.

ITEM 611, MANHOLE ADJUSTED TO GRADE, 20 EACH

ITEM 611- CATCH BASIN ADJUSTED TO GRADE

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY AND IS TO BE USED AS DIRECTED BY THE ENGINEER TO ADJUST CATCH BASINS TO GRADE.

ITEM 611, CATCH BASIN ADJUSTED TO GRADE, 17 EACH

ITEM 638- VALVE BOX ADJUSTED TO GRADE

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY AND IS TO BE USED AS DIRECTED BY THE ENGINEER TO ADJUST EXISTING VALVE BOXES TO GRADE.

ITEM 638, VALVE BOX ADJUSTED TO GRADE, 4 EACH

ITEM 254- PATCHING PLANED SURFACE

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS ACCORDING TO 254.04. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PATCHING PLANED SURFACE. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 254, PATCHING A PLANED SURFACE, 250 SQ YD

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE 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.

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.

ENDANGERED SPECIES HABITAT

TREES WITHIN THE PROJECT CONSTRUCTION LIMITS SHALL BE CLEARED BETWEEN SEPTEMBER 30 AND APRIL 1, WHENEVER PRACTICABLE. IF SOME TREE REMOVAL MUST BE CONDUCTED BETWEEN APRIL 1 AND SEPTEMBER 30, TREES CONTAINING SUITABLE INDIANA BAT ROOSTING HABITAT SHALL BE MARKED FOR AVOIDANCE DURING THESE MONTHS, IF AT ALL POSSIBLE. PRIOR TO ANY BRIDGE MAINTENANCE, THE UNDERSIDE OF THE STA-172-0755 BRIDGE SHALL BE CAREFULLY EXAMINED FOR THE PRESENCE OF BATS, ESPECIALLY FORM APRIL 1 TO SEPTEMBER 30. IF ANY BATS ARE FOUND ROOSTING ON THE UNDERSIDE OF THE BRIDGE, THE USFWS, ECOLOGICAL SERVICES DIVISION (614-416-8993), ODOT OFFICE OF ENVIRONMENTAL SERVICES (614-466-7880) AND ODOT DISTRICT 4 ENVIRONMENTAL SECTION (330-786-4930) SHALL BE CONTACTED TO PROVIDE THIS INFORMATION. SHOULD ADDITIONAL INFORMATION ON LISTED ENDANGERED/THREATENED/POTENTIALLY THREATENED SPECIES OR THEIR CRITICAL HABITAT BECOME AVAILABLE, OR IF NEW INFORMATION REVEALS EFFECTS OF THIS PROJECT THAT WERE NOT PREVIOUSLY CONSIDERED, ODOT WILL REINITIATE CONSULTATION WITH THE USFWS AND ODNR TO ASSESS WHETHER THE PROJECT DETERMINATIONS ARE STILL VALID.

BEST MANAGEMENT PRACTICES

WATER COLUMN AND SEDIMENTATION IMPACTS SHALL BE KEPT TO A MINIMUM THROUGH THE USE OF BEST MANAGEMENT PRACTICES FOR SOIL EROSION AND SEDIMENTATION CONTROL. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY EXCAVATION, GRADING OR FILLING OPERATIONS AND INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. THEY SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND THE AREA IS STABILIZED AS ACCEPTED BY THE ENGINEER. SPECIFICATIONS SET FORTH IN THE MOST CURRENT VERSION OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LOCATION AND DESIGN MANUAL AND STANDARD DRAWINGS SHALL BE USED TO ENSURE ADEQUATE EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION.

NATURAL BUFFERS ADJACENT TO STREAMS SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE. EQUIPMENT STAGING AREAS SHALL BE KEPT WELL AWAY FROM STREAMS AND WETLANDS TO THE EXTENT PRACTICABLE. ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION 107.10 (PROTECTION AND RESTORATION OF PROPERTY) PROHIBIT THE CONTRACTOR FROM CREATING STAGING AREAS NEAR STREAMS/WETLANDS. AREAS DISTURBED BY THE PROJECT SHALL BE SEEDED/REVEGETATED WITH NATIVE PLANT SPECIES AND MULCHED DURING CONSTRUCTION TO ENCOURAGE ESTABLISHMENT OF VEGETATION COVER, DECREASE EROSION AND PREVENT EROSION OF SEDIMENTS INTO WATERS OF THE UNITED STATES.

WATERWAY PERMIT DETERMINATION (404/401)- ODOT PROJECTS

ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. THE WATERWAY PERMITS CONDITIONS VERIFIED FOR THE PROJECT HAVE BEEN INCORPORATED INTO THE PROJECT CONSTRUCTION PLAN AS SPECIAL PROVISIONS. THE PROJECT CONTRACTOR SHALL ADHERE TO ALL WATERWAY PERMIT TERMS AND CONDITIONS THROUGHOUT PROJECT CONSTRUCTION. NO IN-STREAM WORK (I.E., WORK BELOW THE ORDINARY HIGH WATER MARK) SHALL BE PERFORMED IN SIPPO CREEK FROM APRIL 1 TO JUNE 30. THE ORDINARY HIGH WATER MARK IS THE LINE ON THE SHORES ESTABLISHED BY THE FLUCTUATIONS OF WATER AND INDICATED BY PHYSICAL CHARACTERISTICS SUCH AS A CLEAR, NATURAL LINE IMPRESSED ON THE BANK; SHELVEING; CHANGES IN THE CHARACTER OF THE SOIL; DESTRUCTION OF TERRESTRIAL VEGETATION; THE PRESENCE OF LITTER AND DEBRIS; OR THE APPROPRIATE MEANS THAT CONSIDER THE CHARACTERISTICS OF THE SURROUNDING AREAS.

STREAM CHANNEL EXCAVATION

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL FROM STREAMS. THIS PERTAINS TO ANY EXCAVATION OPERATION SUCH AS, FOUNDATION PIER OR ABUTMENT EXCAVATION, CHANNEL CLEAN OUT, EXCAVATION FOR ROCK CHANNEL PROTECTION. ALL MATERIALS REMOVED FROM THE STREAMS MUST BE IMMEDIATELY REMOVED TO AN UPLAND SITE AND STABILIZED (I.E., SEEDED) TO PREVENT REDISTRIBUTION INTO ANY WATERS OF THE UNITED STATES. IMMEDIATE REMOVAL IS DEFINED BY THE UNITED STATES ARMY CORPS OF ENGINEERS AS DEPOSITING THE REMOVED MATERIALS DIRECTLY INTO A TRUCK AND REMOVING THE MATERIAL FROM THE SITE. PLACEMENT OF REMOVED MATERIALS INTO A WETLANDS OR ON THE BANKS OF A STREAM EVEN TEMPORARILY IS CONSIDERED A FILL AND REQUIRES A PERMIT ACTION.

PAINTING AND SEALING OPERATIONS

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT EPOXY-URETHANE SEALER, PAINT OR OTHER MATERIALS USED TO REPAIR, CLEAN, PAINT, SEAL OR TREAT ANY STRUCTURE FROM ENTERING ANY STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE.

WETLANDS AVOIDANCE

UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR IMPACT ANY WETLANDS. NO EXCAVATION, GRADING OR FILLING OPERATIONS SHALL BE PERFORMED WITHIN ANY WETLANDS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE CONSTRUCTION EQUIPMENT AND/OR MATERIALS IN ANY WETLANDS.

CONSTRUCTION AND DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT CONSTRUCTION AND DEMOLITION DEBRIS FROM ENTERING WETLANDS AND STREAMS. ANY DEBRIS THAT DOES FALL INTO WETLANDS AND/OR STREAMS SHALL BE REMOVED AS SOON AS POSSIBLE WITHIN 72 HOURS.

MECHANICAL EQUIPMENT OPERATION AT STREAM CHANNEL

THE MECHANICAL EQUIPMENT USED TO EXECUTE THE WORK AUTHORIZED HEREIN SHALL BE OPERATED IN SUCH A WAY AS TO MINIMIZE TURBIDITY THAT COULD DEGRADE WATER QUALITY AND ADVERSELY AFFECT AQUATIC PLANT AND ANIMAL LIFE.

SECTION 4(F) PROPERTY - SIPPO CREEK PARK

TEMPORARY CONSTRUCTION FENCING SHALL BE INSTALLED BY THE CONTRACTOR ALONG PROPOSED PROJECT LIMITS AT THE STA-172-0755 BRIDGE LOCATION PRIOR TO THE START OF CONSTRUCTION ACTIVITIES TO PROTECT THE EXISTING SIPPO CREEK PARK PROPERTY AND THE PUBLIC. ACCESS TO RECREATIONAL FACILITIES LOCATED ON OR ASSOCIATED WITH SIPPO CREEK PARK SHALL BE MAINTAINED AT ALL TIMES DURING THE DURATION OF CONSTRUCTION ACTIVITIES. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND/OR MATERIALS ON OR OTHERWISE IMPACT THE SIPPO CREEK PARK AND ASSOCIATED FACILITIES.

PUBLIC USE OF THE SIPPO CREEK PARK AND TRAIL FACILITY AT AND UNDER THE STA-172-0755 BRIDGE STRUCTURE SHALL BE MAINTAINED BY THE CONTRACTOR AT ALL TIMES DURING CONSTRUCTION WITH FLAGGERS. THE CONTRACTOR SHALL PROVIDE THE APPROPRIATE LEVEL OF PROTECTION FOR PEDESTRIANS PASSING UNDER THE STA-172-0755 BRIDGE STRUCTURE DURING CONSTRUCTION AND FLAGGERS SHALL BE ON SITE FOR ALL TRAIL CROSSINGS AND WHEN STRUCTURE MAINTENANCE OPERATIONS ARE BEING PERFORMED OVERHEAD. ADVANCE NOTICE OF THE PROJECT'S CONSTRUCTION SCHEDULE AND POTENTIAL FOR PARK USERS TO ENCOUNTER FLAGGERS ON THE TRAIL SHALL BE PROVIDED BY THE CONTRACTOR NO LESS THAN 24 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. NOTICES SHALL BE POSTED IN AN AREA THAT CAN BE SEEN BY USERS OF THE PARK AND EXISTING TRAIL.

24-HOUR NOTIFICATION SHALL BE PROVIDED BY THE CONTRACTOR IN WRITING TO THE ODOT PROJECT ENGINEER AND THE CITY OF MASSILLON PARKS AND RECREATION DEPARTMENT FOR ALL WORK PERFORMED IN PROXIMITY OF SIPPO CREEK PARK AT THE STA-172-0755 BRIDGE STRUCTURE. NO WORK SHALL BE PERFORMED OVER THE SIPPO CREEK PARK TRAIL FACILITY AT THE STA-172-0755 BRIDGE STRUCTURE ON WEEKENDS. WORK ON WEEKDAY EVENINGS AFTER 5:00PM IS PROHIBITED IN SIPPO CREEK PARK. THE CONTRACTOR SHALL CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH THE CITY OF MASSILLON PARK DEPARTMENT.

CITY OF MASSILLON PARKS AND RECREATION DEPARTMENT
MR. DOUG NIST - PARKS AND RECREATION DIRECTOR
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FAX: (330) 832-0456
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OFFICE: 505 ERIE STREET NORTH, MASSILLON, OHIO 44646

ANY DISTURBANCE/DAMAGE CAUSED TO THE TRAIL SURFACE AND/OR PARK LAND AS A RESULT OF EQUIPMENT USE SHALL BE REPAIRED IMMEDIATELY TO A CONDITION AT LEAST AS GOOD AS OR BETTER THAN EXISTING PRIOR TO CONSTRUCTION ACTIVITIES.

GENERAL NOTES

D04-BH-FY 2015

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MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF ONE TEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING PAVEMENT AND COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.
2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.
3. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.
4. TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.
5. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS ONE (1) MILE.
6. ONLY DURING OFF-PEAK PERIODS (ie ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.
7. IN ADDITION TO THE REQUIREMENTS OF 614.11 WORK ZONE PAVEMENT MARKINGS, AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, CENTER, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.
8. A QUANTITY OF 10 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.
9. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

10. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGN HAS BEEN INCLUDED IN THE PLAN. THIS QUANTITY SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING SIGNS: W8-1 [BUMP], W6-3 [TWO-WAY TRAFFIC], W8-H13 [NO EDGE LINES], R4-1 [DO NOT PASS], R4-2 [PASS WITH CARE], W8-11 [UNEVEN LANES]. THESE QUANTITIES SHALL BE AS PER 614.04.

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:

PHASE I- PLANED SURFACE

- 614, WORK ZONE CENTER LINE, CLASS II, 1.10 MILE
- 614, WORK ZONE LANE LINE, CLASS II, 1.76 MILE
- 614, WORK ZONE STOP LINE, CLASS I, 311 FT
- 614, WORK ZONE CHANNELIZING LINE, CLASS I, 704 FT
- 614, WORK ZONE MARKING SIGN, (ALL PHASES) 12 EACH

PHASE II- SURFACE COURE

- 614, WORK ZONE CENTERLINE, CLASS III, 642 PAINT 1.10 MILE
- 614, WORK ZONE LANE LINE, CLASS III, 642 PAINT 1.76 MILE
- 614, WORK ZONE STOP LINE, CLASS III, 642 PAINT 311 FT
- 614, WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT 704 FT

ADVANCED NOTICE TO PAVE

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE DISTRICT CONSTRUCTION ENGINEER A DETAILED SCHEDULE 15 DAYS PRIOR TO THE PLACEMENT OF THE OVERLAY COURSES, ON HOW THEY PROPOSE TO PROSECUTE THE PAVING OPERATIONS. THE DETAILS SHALL SHOW THE ORDER OF PERFORMANCE OF EACH STAGE (START TO FINISH) OF THE WORK INCLUDING THE MAINTENANCE OF TRAFFIC THAT WILL BE USED.

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

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

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING

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

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$3000 FOR EACH HOUR THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

INTERMIN COMPLETION DATE

ALL WORK ON STA-172, INCLUDING STRUCTURE STA-172-0755, SHALL BE COMPLETED BY JULY 15, 2015. THIS DATE WILL BE CONSIDERED AN INTERIM COMPLETION DATE AND DISINCENTIVES IN THE AMOUNT OF \$1000 SHALL BE ASSESSED FOR EACH CALENDAR DAY THAT TRAFFIC REMAINS RESTRICTED ON STA-172 BEYOND THIS DATE.

INTERIM START DATE

NO PAVING WORK ON STA-172 SHALL BEGIN UNTIL , , 2015.

WORK ON STRUCTURE STA-172-0755

ALL WORK FOR STRUCTURE STA-172-0755 ON STA-172 MAINLINE SHALL BE COMPLETED ONE DIRECTION AT A TIME.

PEDESTRIAN MOT- SIPPO CREEK PARK

PUBLIC USE OF THE SIPPO CREEK PARK AND TRAIL FACILITY PASSING UNDER THE STA-172-0755 BRIDGE STRUCTURE SHALL BE MAINTAINED BY THE CONTRACTOR AT ALL TIMES DURING CONSTRUCTION WITH FLAGGERS. FLAGGERS SHALL BE ON SITE FOR ALL TRAIL CROSSINGS AND WHEN PATCHING AND SEALING OR OTHER MAINTENANCE OPERATIONS ARE BEING PERFORMED OVERHEAD. ADVANCE NOTICE OF THE PROJECT'S CONSTRUCTION SCHEDULE AND POTENTIAL FOR USERS TO ENCOUNTER FLAGGERS ON THE TRAIL SHALL BE PROVIDED BY THE CONTRACTOR NO LESS THAN 24 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. NOTICES SHALL BE POSTED IN AN AREA THAT CAN BE SEEN BY USERS OF THE PARK AND EXISTING TRAIL.

24-HOUR NOTIFICATION SHALL BE PROVIDED BY THE CONTRACTOR IN WRITING TO THE ODOT PROJECT ENGINEER AND THE CITY OF MASSILLON PARKS AND RECREATION DEPARTMENT FOR ALL WORK PERFORMED IN PROXIMITY OF SIPPO CREEK PARK AT THE STA-172-0755 BRIDGE STRUCTURE. NO WORK SHALL BE PERFORMED OVER THE SIPPO CREEK PARK TRAIL FACILITY AT THE STA-172-0755 BRIDGE STRUCTURE ON WEEKENDS AND WORK ON WEEKDAY EVENINGS AFTER 5:00PM IS PROHIBITED. THE CONTRACTOR SHALL CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH THE CITY OF MASSILLON PARK DEPARTMENT.

CITY OF MASSILLON PARKS AND RECREATION DEPARTMENT
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ITEM 632 - DETECTOR LOOP, AS PER PLAN

THE CONTRACTOR SHALL CONTACT THE DISTRICT OFFICE (330-786-3146) THREE WORKING DAYS PRIOR TO ANY PLANING OR TRENCHING AT THE INTERSECTION OF SR 172 AND SR 241. LOOP DETECTORS DISTURBED BY PAVEMENT PLANING OR TRENCHING SHALL BE ABANDONED IN PLACE. THE LOOP DETECTOR WIRE WILL BE CUT INTO THE PAVEMENT AFTER THE PROPOSED SURFACE COURSE HAS BEEN PLACED. ALL STOP LINE INDUCTANCE DETECTOR LOOPS SHALL BE THE POWERHEAD CONFIGURATION SHOWN ON TC-82.10. THE WIDTH SHALL BE AS SPECIFIED ON TC-82.10 AND THE LENGTH SHALL BE AS SPECIFIED BELOW. THE LOCATION OF THESE LOOPS SHALL BE SUCH THAT THE POWERHEAD IS LOCATED AT THE STOP LINE, NOT PAST IT. ALL DILEMMA ZONE INDUCTANCE DETECTOR LOOPS CALLED FOR IN THE PLANS SHALL BE THE ANGULAR DESIGN DETECTION (ADD) LOOP AS SHOWN ON TC-82.10. DIMENSIONS SHALL BE AS SPECIFIED ON TC-82.10 AND THE LOOP SHALL BE PLACED AT THE SAME LOCATION AS THE EXISTING LOOPS.

THE QUANTITIES LISTED BELOW HAVE BEEN CARRIED TO THE GENERAL SUMMARY. THE NEW LOOP DETECTOR WIRES SHALL BE RUN INTO THE EXISTING CONTROL BOX OR THE EXISTING PULLBOX. INCLUDED IN THIS ITEM IS THE POURED EPOXY TYPE CABLE SPLICE KIT (CONFORMING TO 725.15E) THAT MUST BE USED IN MAKING THESE CONNECTIONS. ALL NECESSARY MATERIAL, LABOR, SPLICE KITS AND EQUIPMENT SHALL BE INCIDENTAL TO PAYMENT OF THESE ITEMS.

632 DETECTOR LOOP, AS PER PLAN, 2 EACH

DESCRIPTION	LOCATION	SIZE
EB		
WB		

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SHEET NUMBER											PARTICIPATION			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	CALCULATED	CNC	CHECKED
4	6	9	10	11	12	14					02/NFP/OT/MAS	03/NHS/PV										
				LS								LS		201	11000	LS		ROADWAY				
			48	109							157			202	23000	157	SY	CLEARING AND GRUBBING				
		322										322		202	23500	322	SY	PAVEMENT REMOVED				
			592		875						1467			202	30000	1467	SF	WEARING COURSE REMOVED				
																		WALK REMOVED				
			122		81						203			202	32000	203	FT	CURB REMOVED				
					132						132			202	35100	132	FT	PIPE REMOVED, 24" AND UNDER				
					456						456			202	38000	456	FT	GUARDRAIL REMOVED				
					3						3			202	58000	3	EACH	MANHOLE REMOVED				
					9						9			202	58100	9	EACH	CATCH BASIN REMOVED				
					131						131			SPECIAL	20270000	131	FT	FILL AND PLUG EXSTING CONDUIT				
					77						77			202	75000	77	FT	FENCE REMOVED	11			
				77							77			203	20000	77	CY	EMBANKMENT				
				141							141			204	10000	141	SY	SUBGRADE COMPACTION				
					1						1			606	26550	1	EACH	ANCHOR ASSEMBLY, MGS TYPE T				
					281						281			607	98000	281	FT	FENCE, MISC.: WOOD FENCE	11			
			416		875						1291			608	13000	1291	SF	6" CONCRETE WALK				
			304								304			608	53020	304	SF	DETECTABLE WARNING				
																		EROSION CONTROL				
				306							306	1000		601	34400	306	CY	ROCK CHANNEL PROTECTION, WITH GROUT, TYPE C				
														832	30000	1000	EACH	EROSION CONTROL				
					72						72			611	05900	72	FT	DRAINAGE				
					10						10			611	06100	10	FT	15" CONDUIT, TYPE B				
					43						43			611	07400	43	FT	15" CONDUIT, TYPE C				
					63						63			611	10400	63	FT	18" CONDUIT, TYPE B				
														611			FT	24" CONDUIT, TYPE B				
					63						63			611	11200	63	FT	24" CONDUIT, TYPE F				
					3						3			611	98150	3	EACH	CATCH BASIN, NO. 3				
17					3						3			611	98180	3	EACH	CATCH BASIN, NO. 3A				
											17			611	98630	17	EACH	CATCH BASIN ADJUSTED TO GRADE				
				3							3			611	99574	3	EACH	MANHOLE, NO. 3				
20											20			611	99654	20	EACH	MANHOLE ADJUSTED TO GRADE				
																		PAVEMENT				
250				241							250			251	01000	250	SY	PARTIAL DEPTH PAVEMENT REPAIR				
		28372									241			252	01500	241	FT	FULL DEPTH PAVEMENT SAWING				
250												28372		254	01000	28372	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T= 1 1/2")				
											250			254	01600	250	SY	PATCHING PLANED SURFACE				
				28							28			301	46000	28	CY	ASPHALT CONCRETE BASE, PG64-22				
		4296		19							19			304	20001	19	CY	AGGREGATE BASE, AS PER PLAN				
												4296		407	10000	4296	GAL	TACK COAT @0.15 GA/SY	10			
		1194										1194										
			96		81						177			448	46905	1194	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M, AS PER PLAN (T= 1 1/2")	4			
														609	26000	177	FT	CURB, TYPE 6				
4											4							WATER WORK				
														638	10800	4	EACH	VALVE BOX ADJUSTED TO GRADE				
																		TRAFFIC CONTROL				
					1.76						1.76			644	00200	1.76	MILE	LANE LINE, 4"				
					1.1						1.1			644	00300	1.1	MILE	CENTER LINE				
					704						704			644	00400	704	FT	CHANNELIZING LINE, 8"				
					311						311			644	00500	311	FT	STOP LINE				
					1335						1335			644	00600	1335	FT					
					20						20			644	00900	20	SF	CROSSWALK LINE				
					19						19			644	01300	19	EACH	ISLAND MARKING				
																		LANE ARROW				
																		TRAFFIC SURVEILLANCE				
											2			632	26501	2	EACH	DETECTOR LOOP, AS PER PLAN				
2																						

GENERAL SUMMARY

D04-BH-FY2015

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GENERAL SUMMARY



PAVEMENT DETAILS

D04-BH-FY2015

dggn

	CALCULATED
	CNC

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SURVEYING POSITIONAL PARAMETERS

USE THE FOLLOWING VERTICAL AND HORIZONTAL POSITIONING PARAMETERS FOR THIS PROJECT:

COUNTY: STA ROUTE: 172 SECTION: 7.55
PID#:92444
SURVEY DATE: 9/2013

VERTICAL POSITIONING:

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 2012a

HORIZONTAL POSITIONING:

REFERENCE FRAME: NAD 83 (2011) (EPOCH: 2010.0000)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO NORTH ZONE (3401)
COMBINED SCALE FACTOR: 0.99990645995
ORIGIN OF SCALE (X,Y) - EASTING (X): 0, NORTHING (Y): 0

UNITS:

FURNISH UNITS IN U.S. SURVEY FEET. USE THE FOLLOWING
CONVERSION FACTOR: 1 METER = 3.2808333333 U.S. SURVEY
FEET.

CONTROL POINTS

POINT #	DESCR.	NORTHING	EASTING
231	PK NAIL	414595.49926	2243129.99482
219	PK NAIL	414638.38916	2243480.45228
212	PK NAIL	414668.05811	2243627.99847
PC CI	PK NAIL	414710.76382	2243865.66866

BENCHMARKS

POINT #	DESCR.	NORTHING	EASTING	ELEVATION
SV350	BM	414678.5280	2243486.4550	1007.94
T300	IPINS	414657.4060	2243350.9990	1010.35
T301	IPINS	414592.2980	2243494.8410	1008.41
T302	IPINS	414515.7200	2243600.1310	979.62
T304	NAIL	414765.5260	2243559.9880	980.32

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.

**PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR
REMOVALS**

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR PAVEMENT
RESTORATION FOLLOWING INSTALLATION AND/OR REMOVAL OF
PIPES.

STA. 397+00.00 TO 398+10.00 LT. (D6-D8) [110'x5.1'±]
202, PAVEMENT REMOVED 62.8 SQ. YDS.
204, SUBGRADE COMPACTION 81.1 SQ. YDS.
252, FULL DEPTH PAVEMENT SAWING 136 FT.
301, ASPHALT CONCRETE BASE, PG64-22 15.7 CU. YDS.
304, AGGREGATE BASE, AS PER PLAN 10.5 CU. YDS.

STA. 396+92.58 TO 397+64.00 RT. (D1-D3) [71.42'x5'±]
202, PAVEMENT REMOVED 40 SQ. YDS.
204, SUBGRADE COMPACTION 51.9 SQ. YDS.
252, FULL DEPTH PAVEMENT SAWING 84 FT.
301, ASPHALT CONCRETE BASE, PG64-22 10 CU. YDS.
304, AGGREGATE BASE, AS PER PLAN 6.67 CU. YDS.

STA. 398+12.40 TO 398+22.40 RT. (D4) [10'x5'±]
202, PAVEMENT REMOVED 5.6 SQ. YDS.
204, SUBGRADE COMPACTION 7.2 SQ. YDS.
252, FULL DEPTH PAVEMENT SAWING 21 FT.
301, ASPHALT CONCRETE BASE, PG64-22 1.4 CU. YDS.
304, AGGREGATE BASE, AS PER PLAN 0.9 CU. YDS.

THE ABOVE QUANTITIES ARE BASED ON A 301 THICKNESS OF
9 INCHES, A 304 THICKNESS OF 6 INCHES AND A PAVEMENT
RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS
TWO FEET ON EACH SIDE OF THE TRENCH. SEE STANDARD
CONSTRUCTION DRAWING DM-1.4 FOR TRENCH WIDTH FORMULA
AND CALCULATION.

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

ITEM 304 - AGGREGATE BASE, AS PER PLAN

GRANULATED SLAG (GS) SHALL NOT BE PERMITTED FOR THIS
ITEM. ALL OTHER REQUIREMENTS OF SECTIONS 304 AND 703.17
OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL
STILL BE APPLICABLE.

SLOPE RESTORATION

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR SLOPE
RESTORATION FROM STA. 396+75 LT. TO STA. 398+25 LT.
AND STA. 397+00 RT. TO STA. 398+25 RT.

STA. 396+75 LT. TO STA. 398+25 LT. [150'x15']
203, EMBANKMENT 42 CU. YDS.
601, ROCK CHANNEL PROTECTION, WITH GROUT,
TYPE C 167 CU. YDS.

STA. 397+00 RT. TO STA. 398+25 RT. [125'x15']
203, EMBANKMENT 35 CU. YDS.
601, ROCK CHANNEL PROTECTION, WITH GROUT,
TYPE C 139 CU. YDS.

THE ABOVE QUANTITIES ARE BASED ON A 203 THICKNESS OF
6 INCHES, A 601 THICKNESS OF 2 FEET AND A SLOPE
RESTORATION WIDTH OF 15 FEET MEASURED FROM THE BACK
OF THE HEADWALL TO THE TOP OF SLOPE.

ITEM 607 - FENCE, MISC.: WOOD FENCE

THIS ITEM OF WORK WILL BE PLACED TO THE OUTSIDE OF
EXISTING/PROPOSED SIDEWALK AS INDICATED IN THE PLANS.
THE REQUIREMENT SHOWN ON SCD RM 5-2 FOR THE 1'-0"
MINIMUM OFFSET FROM THE EDGE WILL BE WAIVED SO THAT
THE WOOD POST MAY BE PLACED AT THE OUTSIDE EDGE OF
SIDEWALK. ALL OTHER REQUIREMENTS OF THE BIKEWAY
RAILING WILL BE AS INDICATED ON SCD RM 5-2.

ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULK-
HEADS IN AN EXISTING PIPES UNDER 24 IN 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.

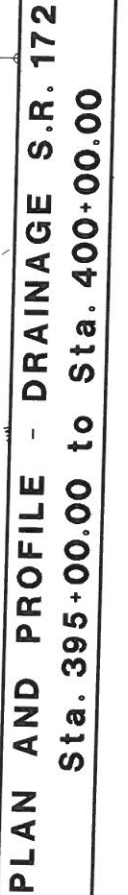
GENERAL NOTES
DRAINAGE S.R. 172

STA -172-7.55

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CALCULATED
RCB
CHECKED
LMP

STA-172-7.55



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EDGE LINE															GENERAL SPEC: 640		CALCULATED	CNC	CHECKED	LMP
CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	WHITE EDGE LINE			YELLOW EDGE LINE			COMMENTS	MATERIAL TYPE: 644							
						TOTAL	HIGHWAY	RAMP	TOTAL	HIGHWAY	RAMP									

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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

843 DATED 4/18/03

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2002 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS, CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTION 102.05, 105.02, AND 513.04.

BASE CONTRACT BID PRICES UPON RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VARIFIED IN THE FIELD.

PROPOSED WORK - STA-172-0755 (OVER SIPPO CREEK)

- REMOVE AND REPLACE EXISTING CONDUIT AND LIGHTING
- PLUG ALL OUTLET PIPES AT THE TOP OF THE INLET HEADWALL WITH ITEM 519, PATCHING CONCRETE STRUCTURE, AS PER PLAN
- CLEARING AND GRUBBING 15' FROM STRUCTURE TO REMOVE ALL VEGETATION
- NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - STA-212-0134 (OVER BRANCH SUGAR CREEK)

- REPAIR EXISTING PAVED CONCRETE INVERT
- REPAIR SCOUR AT OUTLET
- REPAIR EROSION AT LEFT AND RIGHT GUARDRAIL
- CLEARING AND GRUBBING 15' FROM STRUCTURE TO REMOVE ALL VEGETATION
- NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - STA-627-0432 (OVER STREAM)

- PAVE EXISTING INVERT WITH CONCRETE
- REPAIR SCOUR AT INLET END
- CLEARING AND GRUBBING 15' FROM STRUCTURE TO REMOVE ALL VEGETATION
- NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - STA-800-0833 (BRANCH NIMISHILLEN CREEK)

- PAVE EXISTING INVERT WITH CONCRETE
- REPLACE GUARDRAIL ON BOTH SIDE OF STRUCTURE
- CLEARING AND GRUBBING 15' FROM STRUCTURE TO REMOVE ALL VEGETATION
- NEW STRUCTURE IDENTIFICATION SIGNS

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.

GUARDRAIL WORK (STA-800-0833)

THE GUARDRAIL ON THE RIGHT SIDE OF STRUCTURE STA-800-0833 SHALL BE REPLACED. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 202, GUARDRAIL REMOVED 475 FT
ITEM 606, GUARDRAIL, TYPE MGS 325 FT
ITEM 606, ANCHOR ASSEMBLY, TYPE B, 1 EACH
ITEM 606, ACHOR ASSEMBLY, TYPE E, 2 EACH
ITEM 606, ACHOR ASSEMBLY, TYPE T, 1 EACH

ITEM 203 - BORROW

THIS ITEM SHALL CONSIST OF REPAIRING THE EROSION AT THE LEFT AND RIGHT GUARDRAIL AT STRUCTURE STA-212-0134. THIS WORK WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 203-BORROW. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

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

PAVED CONCRETE INVERT REPAIR

THIS WORK SHALL BE PERFORMED TO REPAIR THE PAVED CONCRETE INVERT OF STA-212-0134. LOW STRENGTH MORTAR BACKFILL WILL BE PUMPED UNDER THE EXISTING CONCRETE INLET. THIS WORK WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM-613 LOW STRENGTH MORTAR BACKFILL AND ITEM 503- COFFERDAM AND EXCAVATION BRACING. THESE PRICES WILL INCLUDE THE COST FOR BACKFILL, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

ITEM SPECIAL - PIPE CLEANOUT

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SPECIFIED IN THE PLANS. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 105.16 AND 105.17. ALL SEWERS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CLEANOUT OF THE PIPE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL - PIPE CLEANOUT. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE NOTED WORK:

STA-212-0134: SPECIAL, PIPE CLEANOUT 52 FT.
STA-627-0432: SPECIAL, PIPE CLEANOUT 42 FT.
STA-800-0833: SPECIAL, PIPE CLEANOUT 72 FT.

ITEM 601, ROCK CHANNEL PROTECTION, TYPE A WITH AGGREGATE FILTER

THIS WORK SHALL CONSIST OF REPAIRING THE SCOUR AT THE INLET END OF STRUCTURE STA-627-0432. THIS WORK WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 601- ROCK CHANNEL PROTECTION, TYPE A WITH AGGREGATE FILTER. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

CORRECTING BRIDGE IDENTIFICATION SIGN NUMBERS:

SOME OF THE EXISTING BRIDGE NUMBER SIGNS HAVE INCORRECT BRIDGE NUMBERS ON THEM. THE FOLLOWING BRIDGE NUMBERS ARE THE CORRECT ONES AND WILL BE USED ON THE NEW BRIDGE IDENTIFICATIONS SIGNS.

STRUCTURE STA-172-0755 (SFN: 7600755) THE EXISTING SIGN SHOWS 0750. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0755.

STRUCTURE STA-212-0134 (SFN: 7605889) THE EXISTING SIGN SHOWS 0140. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0134.

STRUCTURE IDENTIFICATION SIGNS

STRUCTURE IDENTIFICATION SIGNS (I-H25a) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:

STA-172-0755 (2 APPROACHES)
STA-212-0134 (2 APPROACHES)
STA-627-0432 (2 APPROACHES)
STA-800-0833 (2 APPROACHES)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:

ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT
ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 7.5 FT
ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 1 EACH
ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 1 EACH

DESIGN AGENCY	DATE	REVIEWED	DRAWN	CHECKED	DESIGNED
ODOT-- DISTRICT 4			CNC	CNC	CNC
PLANNING AND ENGINEERING	STRUCTURE FILE NUMBER	REVIS	LMP		
STRUCTURE GENERAL NOTES					
STA-172-0755, STA-212-0134, STA-627-0432, STA-800-0833 SFN: 7600755, 7605889, 7606516, 7606753					
D04-BH-FY2015 PID No. 92444					
1 / 4					
15 18					

ITEM 611 - FIELD PAVING OF EXISTING PIPE

FIELD PAVE THE FOLLOWING EXISTING STRUCTURES:

STA-627-0432
8'-4" X 12'-10" CORRUGATED METAL ARCH

STA-800-0833
8'-11" X 14'-3" CORRUGATED METAL ARCH

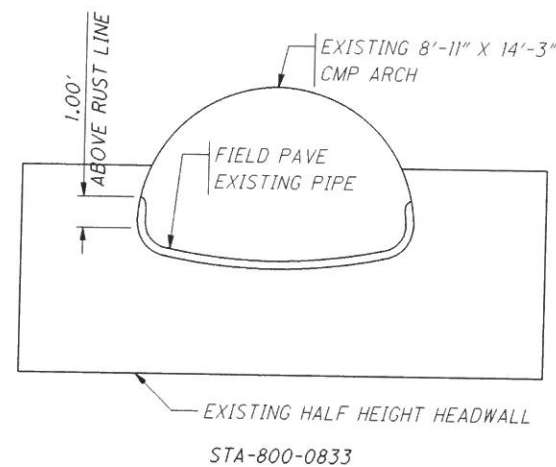
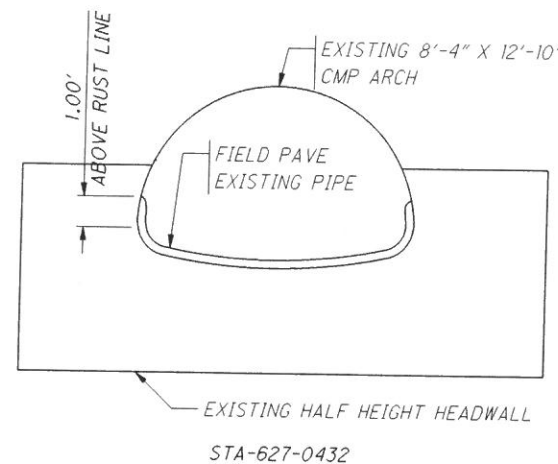
THE CONTRACTOR WILL PAVE THE BOTTOM OF THE EXISTING PIPE AS SHOWN IN THE DETAIL.

AREAS TO BE PAVED WILL BE CLEANED TO REMOVE ALL DEBRIS AND SEDIMENT AND WILL BE PAID FOR UNDER ITEM SPECIAL - PIPE CLEANOUT.

THE CONTRACTOR WILL BE REQUIRED TO USE ITEM 503 - COFFERDAMS AND EXCAVATION BRACING (CRIBS, AND SHEETING) TO DEWATER THE EXISTING PIPE PRIOR TO THE PREPARATION AND FIELD PAVING. AFTER THE PIPE HAS BEEN CLEANED OF ALL DEBRIS AND SEDIMENT, NO WATER WILL BE ALLOWED TO CONTAMINATE THE PIPE. IF ANY CONTAMINATION OCCURS, THE CONTRACTOR WILL RESEAL THE AREA AND RECLEAN THE PIPE AT NO ADDITIONAL COST.

ALL EROSION UNDER THE PIPE AND IN THE VOIDS WHERE THE PIPE IS RUSTED THROUGH WILL BE FILLED WITH ITEM 613 LOW STRENGTH MORTAR BACKFILL.

ANY TREES LOCATED WITHIN 10' OF THE HEADWALLS THAT MAY POTENTIALLY DAMAGE THE CULVERT IN THE FUTURE OR ENCROACH UPON THE STREAM BED OR FIELD PAVING OPERATIONS WILL BE REMOVED. REMOVAL WILL BE DETERMINED BY THE PROJECT ENGINEER AND REMOVED UNDER ITEM 201 - CLEARING AND GRUBBING.



ITEM 625- LIGHTING, MISC.: REMOVAL OF EXISTING LIGHTING SYSTEM

ALL LIGHTING REMOVAL WORK FOR STRUCTURE STA-172-0755 SHALL BE INCLUDED IN THE LUM SUM BID ITEM 625- LIGHTING, MISC.: REMOVAL OF EXISTING LIGHTING SYSTEM. THIS ITEM SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO PERFORM THIS ITEM OF WORK.

625 POWER SERVICE, AS PER PLAN

THIS ITEM OF WORK SHALL INCLUDE REPLACING THE BREAKER BOX FOR TUNNEL LIGHTING. TUNNEL AND PARK LIGHTING IS CURRENTLY SERVICED FROM A METER AND DISCONNECT LOCATED APPROXIMATELY 450 FT SOUTH OF THE STRUCTURE NEAR A PAVILION. NO WORK IS TO BE PERFORMED AT THIS LOCATION. PARK LIGHTING SHALL BE MAINTAINED. A SEPERATE SERVICE POLE WITH BREAKER BOX IS LOCATED ALONG THE CIRCUIT APPROXIMATELY 75 FT SOUTH OF THE STRUCTURE TO SPECIFICALLY SERVICE THE TUNNEL LIGHTING.

WORK UNDER THIS ITEM SHALL INCLUDE, BUT IS NOT LIMITED TO, CUTTING CIRCUIT TAPS AT THE IDENTIFIED POLE AND REMOVING AND REPLACING WITH NEW: CONDUIT RISER WITH WEATHER HEAD, 30 AMP WEATHER PROOF NEMA BREAKER BOX, BREAKER(S), SERVICE WIRING, GROUNDING CABLE AND ALL CONNECTIONS AND FITTINGS. SERVICE TAPS SHALL THEN BE RESTORED. THE EXISTING POLE IS TO BE REUSED. A NEW GROUND ROD IS PAID SEPERETLY.

ANY AND ALL PERMITS, INSPECTION, OR OTHER COORDINATION TO COMPLETE THIS WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. POWER IS PROVIDED BY FIRST ENERGY AND THE EXISTING CIRCUITRY IS MAINTAINED BY THE CITY OF MASSILLON, 330-832-1172, JOE HAUSER. THE CONTRACTOR SHALL ENSURE THAT THE POWER SERVICE ELECTRICAL ENERGY ACCOUNT IS IN THE NAME OF THE MAINTAINING AGENCY.

UNLESS OTHERWISE SPECIFIED, ALL WORK TO REMOVE AND REPLACE WITH NEW TUNNEL LIGHTING SERVICE AT THIS LOCATION SHALL BE INCLUDED AND PAID UNDER THE 625:POWER SERVICE AS PER PLAN ITEM.

ITEM 625 - JUNCTION BOX

THE JUNCTION BOX SHALL HAVE AN EMBOSSEMENT IN THE BACK OF THE BOX THAT SHALL BE DRILLED AND TAPPED FOR A 1/4" - 20 CAP SCREW FOR CONNECTION OF GROUNDS.

WHEN SURFACE MOUNTED, THE JUNCTION BOX MAY HAVE IN LIEU OF BOSSED DRILLED AND TAPPED CONNECTIONS, FIELD INSTALLED HUBS TO ACCOMMODATE THE CONDUITS ENTERING THE BOX.

ITEM 625 - CONDUIT, 1/4", 725.04, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 625 AND 725.04, CONDUITS INSTALLED UNDER THIS ITEM SHALL BE ATTACHED TO THE BRICK CEILING OF THE STRUCTURE. THE CONDUIT SHALL BE SECURED TO THE STRUCTURE BY TWO-HOLE STRAPS SPACED AT 5 FOOT INTERVALS. TWO HOLES SHALL BE DRILLED 1 INCH INTO THE CONCRETE TO ACCOMMODATE 1/4 INCH DIAMETER STAINLESS STEEL AND/OR EPOXY CONCRETE ANCHORS.

PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE BID, PER FOOT, OF ITEM 625 CONDUIT, 1/4", 725.04, AS PER PLAN, FURNISHED AND INSTALLED INCLUDING ALL FITTINGS AND APPURTENANCES, JOINTS, BENDS AND GROUND, IN PLACE AND ACCEPTED.

ITEM 625- LUMINAIRE, MISC: LED, BY TYPE, CEILING MOUNTED

IN ADDITION TO THE REQUIREMENTS OF 625, LUMINAIRES FOR THE TUNNEL LIGHTING UNITS SHALL BE AS FOLLOWS:

LUMINAIRES SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10-AMPERE FUSES. LIGHTING ILLUMINATION SHALL BE A MINIMUM OF 1.0 FOOT-CANDLES. LIGHTING FIXTURES SHALL BE VANDAL RESISTANT.

LUMINARIES SHALL BE GENERAL ELECTRIC TUNNEL LED/ASY3/60, COPPER VALCOILEDEUGL2, OR COOPER/CROUSE-HINDS V2LW/UNVI.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE UNDER CMS "ITEM 625 LUMINAIRE, MISC.: LED, BY TYPE, CEILING MOUNTED," WHICH SHALL BE FULL COMPENSATION FOR LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY WORKMANLIKE MANNER.

LOCATION	625	625	625	625	625	625	625
	NO. 14 AWG 600 VOLT DISTRIBUTION CABLE	CONDUIT, 1-1/4" 725 04 AS PER PLAN	LUMINAIRE MISC. LED BY TYPE, CEILING MOUNTED	GROUND ROD	POWER SERVICE, AS PER PLAN	LIGHTING, MISC. REMOVAL OF EXISTING LIGHTING SYSTEM	JUNCTION BOX, AS PER PLAN
	FT	FT	EACH	EACH	EACH	LUMP	EACH
STA-172-0755	180	105	4	1	1	LUMP	4
TOTALS CARRIED TO GENERAL SUMMARY	180	105	4	1	1	LUMP	4

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GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

1. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH.
 - A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.
 - B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.
 - C. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.
 - D. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.
 - E. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.
 - F. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.
2. CONDUITS.
 - A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.
 - B. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.
 - C. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
 - D. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
3. WIRE FOR GROUNDING AND BONDING.
 - A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:
 - I. USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.
 - II. USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.
 - III. USE A MINIMUM 8 AWG BETWEEN THE "PREPARE TO STOP WHEN FLASHING" INSTALLATION (INCLUDING SUPPORT) AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.
 - IV. THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.

- B. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.
4. GROUND ROD.
 - A. $\frac{3}{4}$ INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.
 - B. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.
5. THE GREEN CONDUCTOR IN SIGNAL CABLES (CONDUCTOR #4) SHALL NOT BE USED TO SUPPLY POWER TO A SIGNAL INDICATION. IT WILL BE CONNECTED TO THE SIGNAL BODY AS AN EQUIPMENT GROUND IN ALUMINUM HEADS AND IT WILL BE UNUSED IN PLASTIC HEADS. UNUSED CONDUCTORS SHALL BE GROUNDED IN THE CABINET. TYPICAL USE OF CONDUCTORS IS AS FOLLOWS:

COND. NO.	COLOR	VEHICLE SIGNAL	PEDESTRIAN SIGNAL
1	BLACK	GREEN BALL	#1 WALK
2	WHITE	AC NEUTRAL	AC NEUTRAL
3	RED	RED BALL	#1 DW/FDW
4	GREEN	EQUIPMENT GROUND	EQUIPMENT GROUND
5	ORANGE	YELLOW BALL	#2 DW/FDW
6	BLUE	GREEN ARROW	#2 WALK
7	WHITE/BLACK STRIPE	YELLOW ARROW	NOT USED
6. POWER SERVICE AND DISCONNECT SWITCH.
 - A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPICE.
 - B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.
 - I. NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CONTROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.
 - II. IF SECONDARY DISCONNECT SWITCHES ARE CONNECTED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CONDUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SECONDARY AND PRIMARY SWITCHES.
7. PAYMENT - ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

D04-BH-FY2015
PID No. 92444

STRUCTURE GENERAL NOTES
STA-172-0755, STA-212-0134, STA-627-0432, STA-800-0833
SFN: 7600755, 76055889, 7606516, 7606753

DESIGNED	DRAWN	REVIEWED	DATE
CNC	CNC		
CHECKED	REVISED	STRUCTURE FILE NUMBER	
LMP			

DESIGN AGENCY
ODOT-- DISTRICT 4
PLANNING AND ENGINEERING

DESIGN AGENCY
ODOT -- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED CNC	DRAWN CNC	REVIEWED	DATE
CHECKED LMP	REVISED	STRUCTURE FILE NUMBER	

STRUCTURES ESTIMATED QUANTITIES
STA-172-0755, STA-212-0134, STA-627-0435, STA-800-0833
SFN: 7600755, 7605889, 7606516, 7606753

	3	D04-BH-FY 2015 PID No. 92444
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