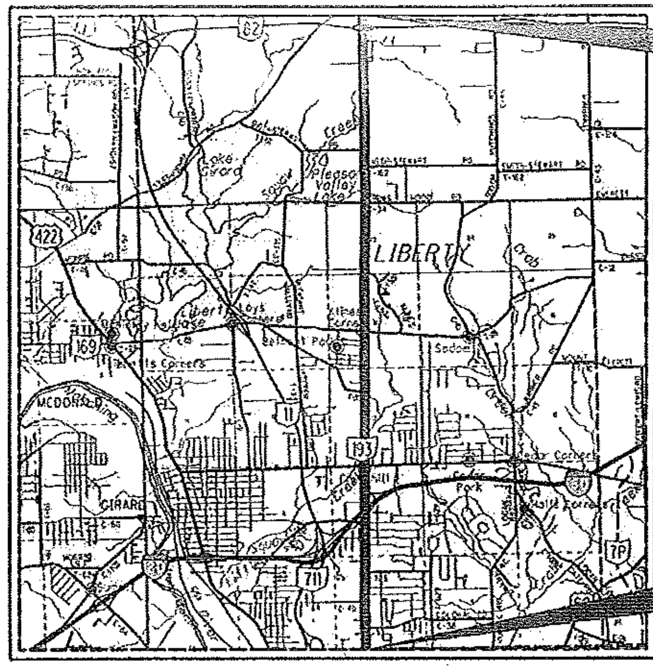


LOCATION MAP

LATITUDE: 41°08'02" LONGITUDE: 80°39'56"

SCALE IN MILES 0 1 2 3 4

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

DESIGN DESIGNATION

DESIGN FUNCTIONAL CLASSIFICATION:
RURAL MAJOR COLLECTOR
NHS PROJECT .... NO

DESIGN EXCEPTIONS

NONE

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

TRU-193-0.00

LIBERTY AND VIENNA TOWNSHIP
TRUMBULL COUNTY

INDEX OF SHEETS:

PROJECT DESCRIPTION

IMPROVEMENT OF 6.78 MILES OF SR 193 BY PLANING AND RESURFACING INCLUDING PARTIAL DEPTH, FULL DEPTH REPAIRS, AND CURB INLET REPAIRS. AS WELL AS VARIOUS STRUCTURE WORK AT TRU-193-0491 AND TRU-193-0618.

PROJECT EARTH DISTURBED AREA: 3.78 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES
NOTICE OF INTENT EDA: N/A (MAINTEANCE PROJECT)

2016 SPECIFICATIONS

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

I HEREBY APPROVE 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.

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.

OHIO Utilities Protection Service
Call Before You Dig
1-800-362-2764
(Non-members must be called directly)

OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE
1-800-925-0988

PLAN PREPARED BY:
ODOT-- DISTRICT 4 PLANNING AND ENGINEERING
2008 S ARLINGTON RD
AKRON, OH 44306

ENGINEERS SEAL:

STATE OF OHIO
THOMAS J. POWELL
E-61151
REGISTERED PROFESSIONAL ENGINEER

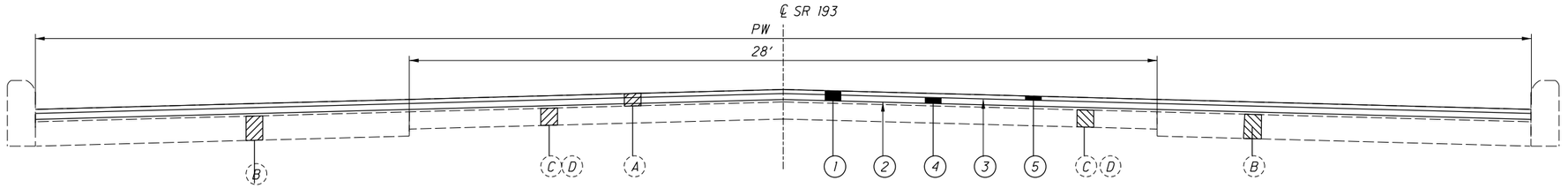
SIGNED: [signature]
DATE: 01/31/17

STANDARD CONSTRUCTION DRAWINGS							SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
BP-3.1	7/18/14	TC-41.20	10/18/13				800-2016	4/21/17	
BP-5.1	7/19/13	TC-42.10	10/18/13				821	4/20/12	
BP-7.1	7/18/14	TC-42.20	10/18/13				832	1/17/14	
		TC-52.10	10/18/13				897	1/16/15	
CB-2.1	1/15/16	TC-52.20	7/15/16				921	4/20/12	
		TC-61.30	1/20/17						
DM-1.1	1/15/16	TC-65.10	1/17/14						
DM-4.3	1/15/16	TC-65.11	7/15/16						
DM-4.4	1/15/16	TC-71.10	1/20/17						
		TC-82.10	7/17/15						
MT-95.31	1/20/17								
MT-95.32	1/20/17								
MT-99.20	7/19/13								
MT-101.90	7/17/15								
MT-105.10	7/19/13								

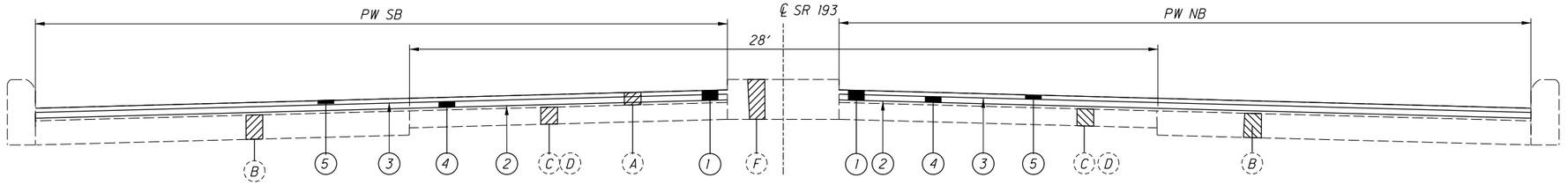
APPROVED [signature]
DATE 1.31.17 DISTRICT DEPUTY DIRECTOR

APPROVED [signature]
DATE 3-20-17 DIRECTOR, DEPARTMENT OF TRANSPORTATION

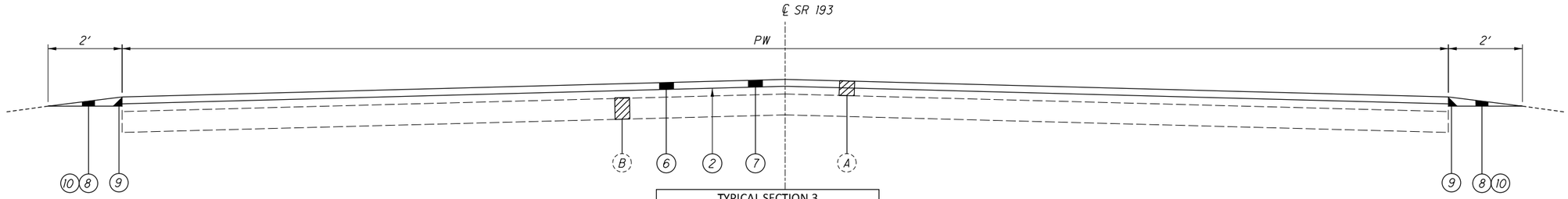
FEDERAL PROJECT NO. E130(865)
PID NO. 88916
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
TRU-193-0.00



TYPICAL SECTION 1			
SLM		PW (FT)	LENGTH (MILES)
FROM	TO		
0.00	0.87	56.00	0.87
0.87	0.92	69.00	0.05
0.92	0.97	56.00	0.05
0.97	1.03	69.00	0.06
1.03	1.36	56.00	0.33
1.73	1.78	56.00	0.05
1.78	1.90	68.00	0.12
1.90	1.97	80.00	0.07



TYPICAL SECTION 2				
SLM		PW NB(FT)	PW SB (FT)	LENGTH (MILES)
FROM	TO			
1.36	1.56	24.00	32.00	0.20
1.56	1.68	50.00	29.00	0.12
1.68	1.73	22.00	33.00	0.05



TYPICAL SECTION 3			
SLM		PW (FT)	LENGTH (MILES)
FROM	TO		
1.97	2.05	71.00	0.08
2.05	3.39	65.00	1.34

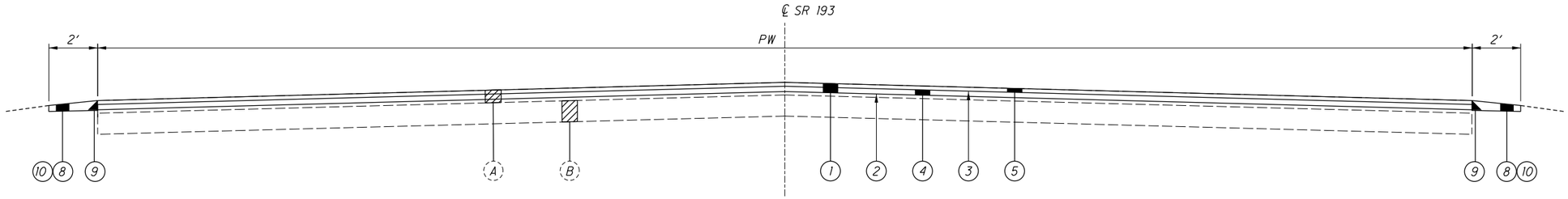
LEGEND

(1) ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T=3")
(2) ITEM 407, NON-TRACKING TACK COAT @ 0.08 GAL/SY
(3) ITEM 407, NON-TRACKING TACK COAT @ 0.05 GAL/SY
(4) ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446) (T 1 3/4")
(5) ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (446), AS PER PLAN (PG70-22M) (T= 1 1/4")
(6) ITEM 897, PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T= 1 1/4")
(7) ITEM 424, FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN (T = 1 1/4")
(8) 617, COMPACTED AGGREGATE, AS PER PLAN (T = 2")
(9) SAFETY EDGE, REFER TO SAFETY EDGE DETAIL SHEET 4
(10) PRIME COAT, AS PER PLAN @ 0.4 GAL/SY

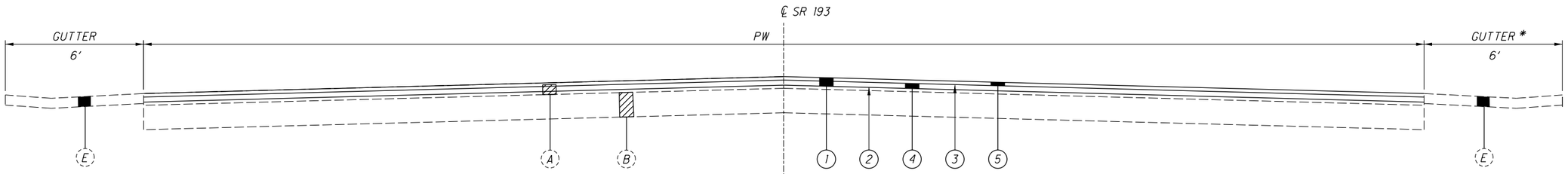
(A) EXISTING ASPHALT
(B) EXISTING CONCRETE BASE
(C) EXISTING CONCRETE BASE (SLM 0.00 TO SLM 1.77)
(D) EXISTING ASPHALT BASE (SLM 1.77 TO SLM 1.97)
(E) EXISTING CONCRETE GUTTER
(F) EXISTING CONCRETE ISLAND

TYPICAL SECTIONS

TRU-193-0.00

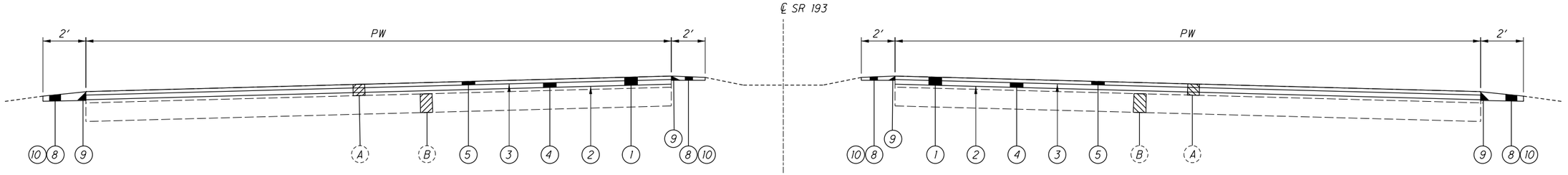


TYPICAL SECTION 4			
SLM		PW (FT)	LENGTH (MILES)
FROM	TO		
3.39	3.50	67.00	0.11
3.50	3.96	54.00	0.46
3.96	4.05	65.00	0.09
4.05	5.13	54.00	1.08
5.38	6.56	54.00	1.18
6.56	6.60	64.00	0.04
6.7	6.78	64.00	0.08



TYPICAL SECTION 5			
SLM		PW (FT)	LENGTH (MILES)
FROM	TO		
5.13	5.18	54.00	0.05
5.18	5.38	54.00	0.20

* NO RIGHT GUTTER SLM 5.13 TO SLM 5.18
PLACE COMPACTED AGGREGATE AND SAFETY
EDGE AS SHOWN IN TYPICAL 3



TYPICAL SECTION 6			
SLM		PW (FT)	LENGTH (MILES)
FROM	TO		
6.60	6.70	29.00	0.10

TYPICAL SECTIONS

TRU-193-0.00

SAFETY EDGE (ASPHALT CONCRETE)

IN ADDITION TO THE REQUIREMENTS OF 401.12, ATTACH A DEVICE TO THE SCREED OF THE PAVER THAT CONFINES THE MATERIAL AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A COMPACTED WEDGE SHAPE PAVEMENT EDGE OF APPROXIMATELY 30 DEGREES (NOT STEEPER THAN 40 DEGREES). ENSURE THE DEVICE MAINTAINS CONTACT WITH THE EXISTING SURFACE, AND ALLOW FOR AUTOMATIC TRANSITION TO CROSS ROADS, DRIVEWAYS AND OBSTRUCTIONS. DO NOT USE CONVENTIONAL SINGLE PLATE STRIKE OFF.

CONSTRUCTION OF SAFETY EDGE CAN BE OMITTED AT LOCATIONS WHERE EXISTING WIDTH OF GRADED SHOULDER OR BERM IS LESS THAN 12". PROJECTS WITH VARYING CONDITIONS SHOULD USE SAFETY EDGE WHERE POSSIBLE. PLAN PREPARATION HAS MADE EVERY REASONABLE ATTEMPT TO IDENTIFY POSSIBLE SAFETY EDGE LOCATIONS.

USE THE TRANSTECH SHOULDER WEDGE MAKER, THE CARLSON SAFETY EDGE END GATE, THE ADVANT-EDGER, THE TROXLER SAFETY SLOPE OR A SIMILAR APPROVED-EQUAL DEVICE THAT PRODUCES THE SAME WEDGE CONSOLIDATION RESULTS. CONTACT INFORMATION FOR THESE WEDGE SHAPE COMPACTION DEVICES IS THE FOLLOWING:

TRANSTECH SYSTEMS, INC.
1594 STATE STREET
SCHENECTADY, NY 12304
1-800-724-6306
WWW.TRANSTECHSYS.COM

ADVANT-EDGE PAVING EQUIPMENT LLC
P.O. BOX 9163
NISKAYUNA, NY 12309-0163
518-280-6090
WWW.ADVANTAEDGEPAVING.COM

CARLSON SAFETY EDGE END GATE
18425 50TH AVENUE EAST
TACOMA, WA 98446
253-875-8000

TROXLER ELECTRONIC LABORATORIES, INC.
3008 E. CORNWALLIS RD.
RESEARCH TRIANGLE PARK, NC 27709
1-877-TROXLER
WWW.TROXLERLABS.COM

IF ELECTING TO USE A SIMILAR DEVICE, PROVIDE PROOF THAT THE DEVICE HAS BEEN USED ON PREVIOUS PROJECTS WITH ACCEPTABLE RESULTS OR CONSTRUCT A TEST SECTION PRIOR TO THE BEGINNING OF WORK AND DEMONSTRATE WEDGE COMPACTION TO THE SATISFACTION OF THE ENGINEER. SHORT SECTIONS OF HANDWORK WILL BE ALLOWED WHEN NECESSARY FOR TRANSITIONS AND TURNOUTS OR OTHERWISE AUTHORIZED BY THE ENGINEER.

IN ADDITION TO THE REQUIREMENTS OF 401.16, MAKE THE FIRST ROLLER PASS 8 TO 12 INCHES AWAY FROM TAPERED EDGE. DO NOT ROLL THE TAPER.

ITEM 209, PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN.

PREPARE THE SHOULDER FOR PAVING A CONSISTENT SAFETY EDGE IN BOTH THICKNESS AND WIDTH.

PRIOR TO PAVING THE SAFETY EDGE, GRADE AN AREA 10 INCHES WIDE, BEGINNING AT THE EDGE OF THE PAVED ROADWAY, TO PROVIDE A LEVEL SURFACE FREE OF VEGETATION FOR CONSTRUCTION OF THE SAFETY EDGE. IF NECESSARY, EXCAVATE THE GRADED AREA TO THE DEPTH NECESSARY TO CONSTRUCT THE SAFETY EDGE. THE MATERIAL REMOVED DURING THIS PROCESS SHOULD BE REMOVED IMMEDIATELY. COMPACT THE GRADED SHOULDER ACCORDING TO 617.05, OR AS DIRECTED BY THE ENGINEER.

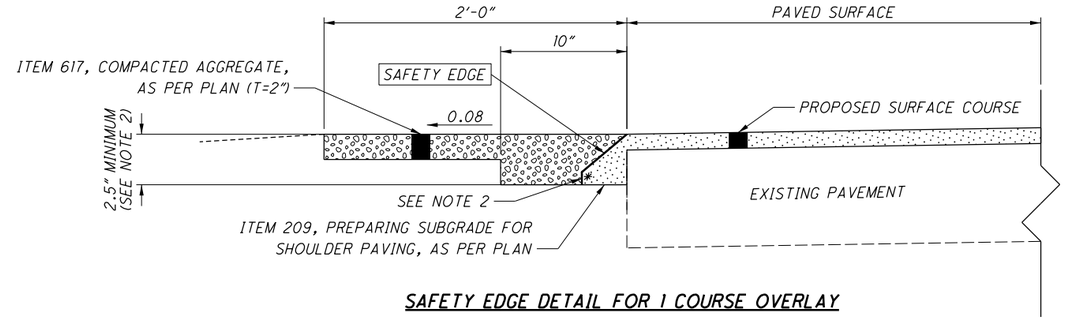
NOTES:

1.) SAFETY EDGES ARE REQUIRED AT THE OUTSIDE EDGES OF THE PAVED ROADWAY (EDGE OF TRAVEL LANE OR EDGE OF PAVED SHOULDER).

2.) CONSTRUCT THE SAFETY EDGE THE FULL ASPHALT CONCRETE OVERLAY THICKNESS OR 2.5" WHICHEVER IS GREATER, NOT TO EXCEED THE MAXIMUM SAFETY EDGE THICKNESS OF 6". CONSTRUCT A NEAR-VERTICAL FACE BELOW THE SAFETY EDGE FOR THICKNESS GREATER THAN 6".

3.) BLADE AND SHAPE EXISTING SHOULDER MATERIAL TO FORM A UNIFORM SURFACE UNDER THE SAFETY EDGE PRIOR TO PLACEMENT OF THE ASPHALT CONCRETE OVERLAY.

* 40° MAX



SAFETY EDGE DETAIL FOR 1 COURSE OVERLAY

ESTIMATED QUANTITIES

ROUTE	SAFETY EDGE THICKNESS (IN.)	S.L.M TO S.L.M.			SIDE	209 PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN (STA)	424 FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B (CY)	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), AS PER PLAN, PG70-22M (CY)
193	2.5	1.97	TO	3.39	L/R	150.0	14.44	
193	3	3.39	TO	5.13	L/R	183.7		25.18
193	3	5.13	TO	5.18	R	2.6		0.36
193	3	5.38	TO	6.60	L/R	128.8		17.65
193NB	3	6.60	TO	6.70	L/R	10.6		1.45
193SB	3	6.60	TO	6.70	L/R	10.6		1.45
193	3	6.70	TO	6.78	L/R	8.4		1.16
TOTALS CARRIED TO GENERAL SUMMARY						495	15	48

REVISED: 07/13/16

DISTRICT 4 - PLANNING & ENGINEERING

DESIGNED MAC | REVIEWED TJP

REVISION DATE 07/13/16 | CHECKED TJP

SAFETY EDGE DETAIL (RESURFACING)

TRU-193-0.00

4
22

I:\ProjectData\TRU\88916_193_0.00\Design\Roadway\Sheets\88916_GY001.dgn Sheet3 1/31/2017 8:38:19 AM ccopelan

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 HEADQUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION 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 EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

PAVEMENT MARKING DETAILS

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

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.

INTERSECTIONS

INTERSECTIONS WILL BE RESURFACED 25 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. A BUTT JOINT, AS PER STANDARD CONSTRUCTION DRAWING BP-3.1, SHALL BE USED TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT UNLESS SHOWN OTHERWISE ON THE ASPHALT CONCRETE CALCULATIONS SHEET. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE PERTINENT BID ITEM.

CURB RAMPS / DETECTABLE WARNINGS

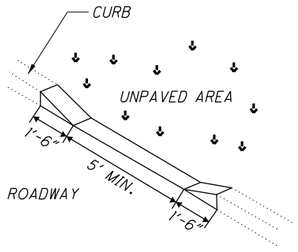
UNLESS OTHERWISE DIRECTED BY THE ENGINEER, INSTALLATION OF THE CURB RAMPS / DETECTABLE WARNINGS WILL BE PERFORMED PRIOR TO MAINLINE RESURFACING.

PEDESTRIAN CURB CUTS

THE CONTRACTOR WILL PROVIDE CURB CUTS, AS DETAILED BELOW WHERE CURB CURRENTLY EXISTS. THE FOLLOWING ITEMS WILL BE USED TO REMOVE THE EXISTING CURB AND INSTALL NEW PEDESTRIAN CURB CUTS (ALL ITEMS MAY NOT BE USED AT ALL LOCATIONS):

ITEM 202, CURB REMOVED
ITEM 203, EXCAVATION
ITEM 203, EMBANKMENT
ITEM 609, COMBINATION CURB AND GUTTER, TYPE 2
ITEM 609, CURB, TYPE 6
ITEM 659, SEEDING AND MULCHING

REFER TO THE CURB RAMP SUB-SUMMARY FOR LOCATIONS AND QUANTITIES.



PEDESTRIAN CURB CUT

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441)

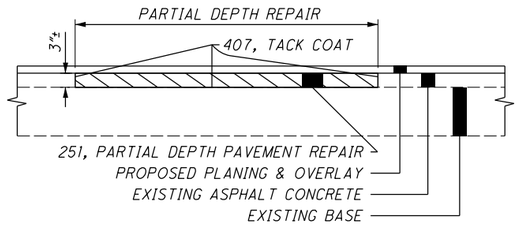
A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 441 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL 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:

SLM 0.00 TO SLM 1.97
251, PARTIAL DEPTH PAVEMENT REPAIR (441), 600 SQ. YD.

SLM 1.97 TO SLM 3.39
251, PARTIAL DEPTH PAVEMENT REPAIR (441), 200 SQ YD

SLM 3.39 TO SLM 5.37
251, PARTIAL DEPTH PAVEMENT REPAIR (441), 300 SQ YD

SLM 5.37 TO SLM 6.78
251, PARTIAL DEPTH PAVEMENT REPAIR (441), 200 SQ YD



ITEM 203 - EXCAVATION (FOR PAVEMENT REPAIR)

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND DISPOSING OF ALL UNSUITABLE MATERIAL BY EXCAVATING THE EXISTING SUBGRADE AND SUBBASE TO AN AVERAGE DEPTH OF 6 INCHES OR AS DIRECTED BY THE ENGINEER. EXACT LIMITS OF REMOVAL SHALL BE DETERMINED BY THE ENGINEER. ALL EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

SLM 0.00 TO SLM 1.97
203, EXCAVATION (FOR PAVEMENT REPAIR) 200 CU YD

SLM 3.39 TO SLM 5.37
203, EXCAVATION (FOR PAVEMENT REPAIR) 8 CU YD

SLM 5.37 TO SLM 6.78
203, EXCAVATION (FOR PAVEMENT REPAIR) 8 CU YD

ITEM 304 - AGGREGATE BASE (FOR PAVEMENT REPAIR)

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED AS DIRECTED BY THE ENGINEER TO BACKFILL AREAS WHICH WERE EXCAVATED UNDER ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATEDQUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

SLM 0.00 TO SLM 1.97
304, AGGREGATE BASE (FOR PAVEMENT REPAIR), 200 CU YD

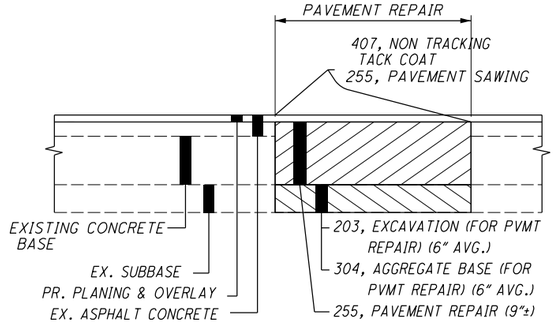
SLM 3.39 TO SLM 5.37
304, AGGREGATE BASE (FOR PAVEMENT REPAIR), 8 CU YD

SLM 5.37 TO SLM 6.78
304, AGGREGATE BASE (FOR PAVEMENT REPAIR), 8 CU YD

ITEM 255- FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS (SLM 0.00 TO SLM 1.97)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 9" CONCRETE, CLASS QC MS. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

SLM 0.00 TO SLM 1.97
255, FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT, CLASS QC MS, 1200 SQ YD
255, FULL DEPTH PAVEMENT SAWING, 5400 FT



ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN

THIS ITEM OF WORK SHALL BE PERFORMED IN CONFORMANCE WITH ITEM 254 IN THE CMS EXCEPT THE DEPTH SHALL VARY FROM 3" TO THE TOP OF THE CONCRETE WHICHEVER IS FIRST. THIS WORK SHALL BE PERFORMED SO THAT THE CONCRETE BASE IS NOT DISTURBED. ALL EQUIPMENT, LABOR, TOOLS, AND OTHER INCIDENTALS REQUIRED TO PERFORM THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

CALCULATED CNC
CHECKED MAC

GENERAL NOTES

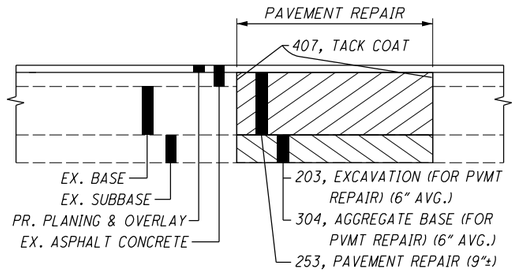
TRU-193-0.00

ITEM 253 - PAVEMENT REPAIR

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 9"± 301 ASPHALT CONCRETE BASE, PG64-22. THE MAXIMUM COMPACTED DEPTH OF ANY ONE LAYER SHALL BE 6 INCHES. 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. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

SLM 3.39 TO SLM 5.37
253, PAVEMENT REPAIR, 50 SQ YD
255, FULL DEPTH PAVEMENT SAWING, 225 FT

SLM 5.37 TO SLM 6.78
253, PAVEMENT REPAIR, 50 SQ YD
255, FULL DEPTH PAVEMENT SAWING, 225 FT



ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AS PER PLAN (PG70-22M)

ITEM 424- FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN

703.05 DO NOT USE FINE 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 408 - PRIME COAT, AS PER PLAN

APPLY "MC-70" AT A RATE OF 0.4 GALLONS PER SQUARE YARD, OR AS DETERMINED BY THE ENGINEER, TO THE COMPLETED COMPACTED AGGREGATE SHOULDER.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1-1/2"	100
3/4"	50-100
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

ROADWAY, MISC.: VERTICAL CLEARANCE

AFTER ALL CONSTRUCTION HAS BEEN COMPLETED, A REGISTERED SURVEYOR WILL TAKE VERTICAL CLEARANCE MEASUREMENTS AT LOCATIONS INDICATED ON THE APPROVED ODOT FORM (AVAILABLE IN THE DISTRICT 4 STRUCTURES AND PAVEMENT OFFICE). THE FINAL MEASUREMENTS SHALL BE RECORDED ON THE FORM AND SUBMITTED TO THE PROJECT ENGINEER AND THE DISTRICT 4 STRUCTURES AND PAVEMENT ENGINEER. THE RECORD SHALL BEAR THE SEAL OF THE LECENSED SURVEYOR WHO HAS TAKEN THE MEASUREMENTS. THIS WORK SHALL BE PERFORMED AT THE FOLLOWING STRUCTURES:
TRU-80-0420L/R
TRU-82-2212L/R

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
ROADWAY, MISC.: VERTICAL CLEARANCE, 4 EACH

LINEAR GRADING

SHOULDER WIDTH BEYOND THE LIMITS OF THE COMPACTED AGGREGATE WILL BE GRADED TO PROVIDE POSITIVE DRAINAGE ND WILL BE PERFORMED ONLY IN THE AREAS NECESSARY. THIS WORK WILL NOT BE PERFORMED ON THE ENTIRE PROJECT. THE AREAS FOR THE WORK WILL BE MARKED BY THE PROJECT ENGINEER. UNDER NO CIRCUMSTANCES WILL THIS WORK BE PERFORMED CONCURRENTLY WITH ANY OTHER OPERATION.

GRADING WILL BE ACCOMPLISHED BY THE REMOVAL OF, OR ADDITION OF MATERIAL TO PROVIDE A 0.08 POSITIVE SLOPE. EXCESS MATERIAL WILL BE WINDROWED ON THE SHOULDER. THE GRADED AREAS WILL BE COMPACTED TO A SUFFICIENT DENSITY TO PREVENT EROSION UNTIL SEEDING AND MULCHING IS PERFORMED. ALL EXCESS MATERIAL WILL BE REMOVED FROM THE BERMS AND WILL BE DISPOSED OF OFF THE PROJECT BY THE CONTRACTOR.

SEEDING AND MUCHING, FERTILIZER AND LIME WILL BE PERFORMED WITHIN A PERIOD NOT TO EXCEED 10 DAYS AFTER THE LINEAR GRADING.

THE QUANTITY OF ITEM 209 IS NOT PERMITED TO BE INCREASED. REDUCTIONS IN QUANTITIES ARE PERMITTED AS DETERMINED BY THE PROJECT ENGINEER.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK WILL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT BID ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:
SLM 0.00 TO SLM 5.37
209, LINEAR GRADING, 180 STA.
659, SEEDING AND MULCHING, 10,000 SQ YD
659, COMMERCIAL FERTILIZER, 1.35 TON
659, LIME, 2.07 ACRES
659, WATER, 54 M. GAL.

SLM 5.37 TO SLM 6.78
209, LINEAR GRADING, 149 STA.
659, SEEDING AND MULCHING, 8,278 SQ YD
659, COMMERCIAL FERTILIZER, 1.37 TON
659, LIME, 1.71 ACRES
659, WATER, 45 M. GAL.

CALCULATED CNC
CHECKED MAC

GENERAL NOTES

TRU-193-0.00

ITEM SPECIAL - MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIAL SHALL MEET ITEM 611 OF THE SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

SPECIAL, MISCELLANEOUS METAL 40,000 POUNDS

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.

ITEMS ADJUSTED TO GRADE

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO ADJUST EXISTING CATCH BASINS AND MANHOLES TO GRADE.

611, MANHOLE ADJUSTED TO GRADE, 28 EACH
623, MONUMENT BOX ADJUSTED TO GRADE, 19 EACH

ITEM 611 -CATCH BASIN RECONSTRUCTED TO GRADE

THIS ITEM SHALL CONSIST OF RECONSTRUCTING 9 EXISITING CATCH BASINS. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

611, CATCH BASIN RECONSTRUCTED TO GRADE, 9 EACH

ITEM 611- INLET RECONSTRUCTED TO GRADE, AS PER PLAN

THIS ITEM SHALL CONSIST OF RECONSTRUCTING 50 EXISTING CURB INLETS TO GRADE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL REFER TO STANDARD CONSTRUCTION DRAWING C.B-2.1 OR THE "RAISED CUERB INLET DETAIL" SHOW ON SHEET 8 FOR EACH CURB INLET REPAIR.

WHEN A CURB INLET AS SHOWN ON SHEET 8 IS TO BE RECONSTRUCTED TO GRADE, A NEW CONCRETE TOP SHALL ALSO BE PROVIDED.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 611, INLET RECONSTRUCTED TO GRADE AND SHALL INCLUDE ALL SAW CUTTING, LABOR, TOOLS, EQUIPMENT, AND MATERIALS NECESSARY TO RECONSTRUCT A COMPLETE AND FUCTIONAL PAVEMENT INLET.

EACH INLET RECONSTRUCTION LOCATION SHALL RECONSTRUCT A TOTAL OF 10FT OF CURB SURROUNDING THE INLET.

ITEM 202, CURB REMOVED, 670FT
ITEM 609, CURB TYPE 6, 670FT
ITEM 611, INLET RECONSTRUCTED TO GRADE, AS PER PLAN 67 EACH
ITEM 611, 12" CONDUIT, TYPE B, 130FT
ITEM 611, 15" CONDUIT, TYPE B, 50FT
ITEM 611, 21" CONDUIT, TYPE B, 30FT
ITEM 611, 24" CONDUIT, TYPE B, 20FT
ITEM 611, 27" CONDUIT, TYPE B, 10 FT

CURB REPAIR

THIS ITEM SHALL BE USED TO REPLACE MISSING OR DAMAGED CURB ALONG SR 193 FROM SLM 0.00 TO SLM 1.97. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED SECTION WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAVEMENT SHALL BE BASED UPON THE ACTUAL NUMBER OF FEET OF CURB REPLACED. ANY SAW CUTTING NECESSARY TO REMOVE THE EXISTING CURB SHALL BE INCIDENTIAL TO THE UNIT BID PRICE FOR ITEM 202, CURB REMOVED.

ITEM 202, CURB REMOVED, 8,000FT
ITEM 609, CURB TYPE 6, 8,000FT

BEST MANAGEMENT PRACTICES/SOIL EROSION AND SEDIMENTATION CONTROL

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 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. THESE SHALL COMPLY WITH ODOT'S HANDBOOK FOR SEDIMENT AND ROSION CONTROL, WHICH MAY BE FOUND AT: HTTP://WWW.DOT.STATE.OH.US/DRRC/.

COMMUNITY NOTIFICATION

THE CONTRACTOR WILL ADVISE THE ODOT PROJECT ENGINEER A MINIMUM OF TWENTY-ONE (21) DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST ALSO PROVIDE NOTIFICATION TO THE ODOT PROJECT ENGINEER A MINIMUM OF TWENTY-ONE (21) DAYS PRIOR TO ANY LANE RESTRICTIONS. THE ODOT PROJECT ENGINEER WILL FORWARD THE INFORMATION TO THE ODOT, DISTRICT 4 OFFICE OF PUBLIC INFORMATION FOR USE TO NOTIFY EMERGENCY SERVICES, SCHOOL SYSTEMS AND COMMUNITIES A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE START OF PROJECT CONSTRUCTION. INCLUDED IN THIS NOTIFICATION WILL BE THE PROJECTED DATES OF ANY LANE RESTRICTIONS, ROADWAY CLOSURES AND DETOUR ROUTES REQUIRED BY THE PROJECT.

STRUCTURE PAINTING/CONCRETE 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.

STREAM AVOIDANCE

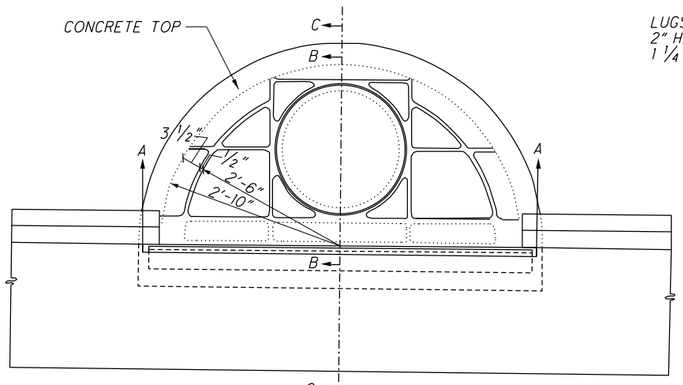
NO EXCAVATION, GRADING OR FILLING OPERATIONS SHALL BE PERFORMED IN THE STREAMS LOCATED AT TRU-193-4.91 AND TRU-193-6.18. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE CONSTRUCTION EQUIPMENT AND/OR MATERIALS IN THIS STREAM. ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION 107.10 (PROTECTION AND RESTORATION OF PROPERTY) PROHIBIT THE CONTRACTOR FROM CREATING STAGING AREAS NEAR STREAMS AND/OR WETLANDS.

CALCULATED CNC
CHECKED MAC

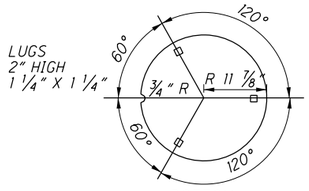
GENERAL NOTES

TRU-193-0.00

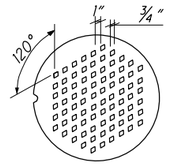
RAISED CURB INLET DETAIL



FRONT VIEW

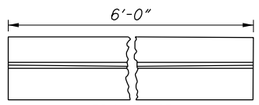


BOTTOM

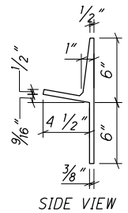


TOP

COVER DETAIL

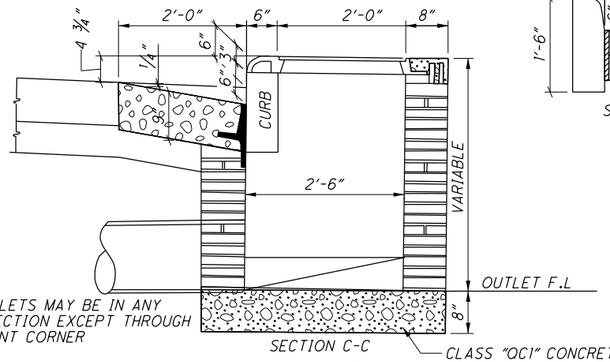


FRONT VIEW



SIDE VIEW

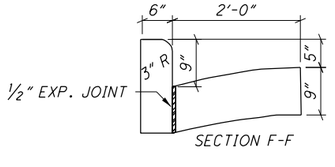
DETAIL OF PAVEMENT SUPPORT FOR OPENINGS
APPROXIMATE WEIGHT 160 LBS.



OUTLETS MAY BE IN ANY
DIRECTION EXCEPT THROUGH
FRONT CORNER

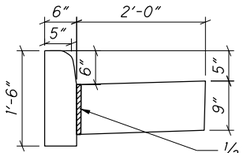
SECTION C-C

CLASS "QC1" CONCRETE



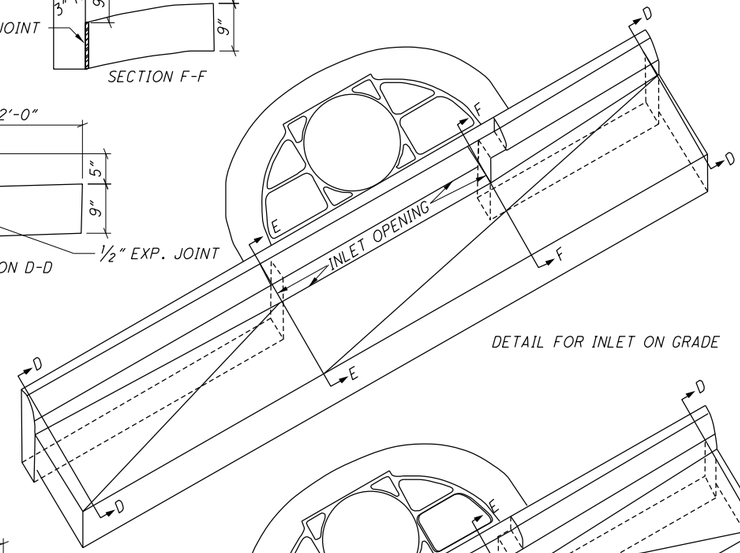
1/2" EXP. JOINT

SECTION F-F

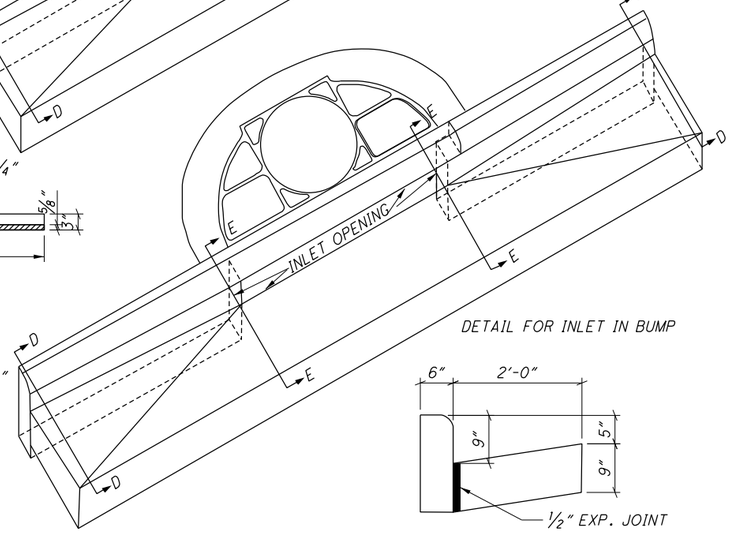


SECTION D-D

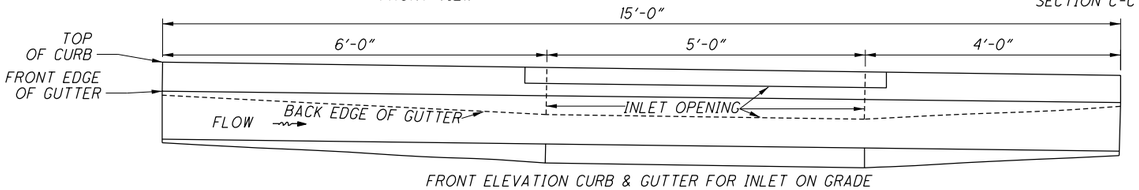
1/2" EXP. JOINT



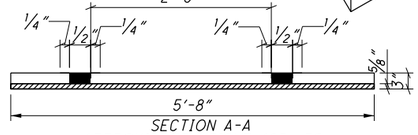
DETAIL FOR INLET ON GRADE



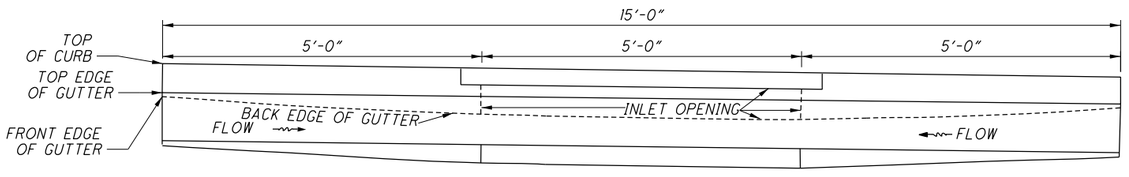
DETAIL FOR INLET IN BUMP



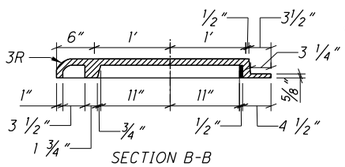
FRONT ELEVATION CURB & GUTTER FOR INLET ON GRADE



SECTION A-A
APPROXIMATE WEIGHT 485 LBS.



FRONT ELEVATION CURB & GUTTER FOR INLET IN BUMP



SECTION B-B

SECTION E-E

CALCULATED
CHECKED

RAISED CURB INLET DETAIL

TRU-193-0.00

8
22

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. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PRO- TECTED AS PER STANDARD CONSTRUCTION DRAWING MT-101.90.

4. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES.

5. 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.

6. 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.

7. 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.

8. THE CONTRACTOR SHALL PLACE THE SIGNS: W8-1 [BUMP] PER OMUTCD 2C.28; W8-11 [UNEVEN LANES] PER OMUCTD 6F.45; AND W6-3 [TWO-WAY TRAFFIC] PER OMUTCD 6F.32. PAYMENT FOR THESE SIGNS SHALL BE INCIDENTAL TO THE LUMP SUM ITEM 614-MAINTAINING TRAFFIC. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGNS HAS BEEN INCLUDED IN THE PLANS PER CMS 614.04.

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

PHASE I- PLANED SURFACE (SLM 0.00 TO SLM 5.37)
ITEM 614, WORK ZONE CENTER LINE, CLASS I, 6.73 MILE
ITEM 614, WORK ZONE LANE LINE, CLASS I, 5.37 MILE
ITEM 614, WORK ZONE MARKING SIGNS
(ALL PHASES, SLM 0.00 TO SLM 5.37), 24 EACH

PHASE I- PLANED SURFACE (SLM 5.37 TO SLM 6.78)
ITEM 614, WORK ZONE CENTER LINE, CLASS I, 2.01 MILE
ITEM 614, WORK ZONE LANE LINE, CLASS I, 2.82 MILE
ITEM 614, WORK ZONE MARKING SIGNS
(ALL PHASES, SLM 5.37 TO 6.78), 5 EACH

PHASE II- INTERMEDIATE COURSE
SLM 0.00 TO SLM 1.97, SLM 3.39 TO SLM 5.37)
ITEM 614, WORK ZONE CENTER LINE, CLASS I, 4.84 MILE
ITEM 614, WORK ZONE LANE LINE, CLASS I, 3.95 MILE

PHASE II- INTERMEDIATE COURSE (SLM 5.37 TO SLM 6.78)
ITEM 614, WORK ZONE CENTER LINE, CLASS I, 2.01 MILE
ITEM 614, WORK ZONE LANE LINE, CLASS I, 2.82 MILE

PHASE III- SURFACE COURSE (SLM 0.00 TO SLM 5.37)
ITEM 614, WORK ZONE CENTER LINE, CLASS III,
642 PAINT, 6.73 MILE
ITEM 614, WORK ZONE LANE LINE, CLASS III,
642 PAINT, 5.37 MILE

PHASE III- SURFACE COURSE (SLM 5.37 TO SLM 6.78)
ITEM 614, WORK ZONE CENTER LINE, CLASS III,
642 PAINT, 2.01 MILE
ITEM 614, WORK ZONE LANE LINE, CLASS III, 642 PAINT, 2.82 MILE

TO BE USED AS DIRECTED BY THE ENGINEER:
SLM 1.98 TO SLM 5.37
ITEM 614, WORK ZONE EDGE LINE, CLASS III, 642 PAINT, 6.78 MILE

SLM 5.37 TO 6.74
ITEM 614, WORK ZONE EDGE LINE, CLASS III, 642 PAINT, 3.10 MILE

ITEM 614, MAINTAINING TRAFFIC (WINTER TIME LIMITATIONS)

ALL EXISTING LANES, INCLUDING RAMPS, SHALL BE OPEN AND AVAILABLE TO TRAFFIC IN THE ORIGINAL OR PROPOSED FINAL ALIGNMENT BETWEEN OCTOBER 31 AND APRIL 1. SHOULD THE CONTRACTOR FAIL TO MEET THESE REQUIREMENTS, A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $3000 PER CALENDAR DAY.

ITEM 614, MAINTAINING TRAFFIC (ESTIMATED QUANTITIES)

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

ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	200 CU. YD.

TIME LIMITATION, TRAFFIC ON A MILLED SURFACE

THE MAXIMUM ALLOWABLE TIME FOR TRAFFIC TO BE PLACED ON A MILLED SURFACE SHALL BE 7 CONSECUTIVE CALENDAR DAYS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSSESSED A DISINCENTIVE IN THE AMOUNT OF $3000 PER DAY THAT THE TRAFFIC IS PLACED ON A MILLED SURFACE BEYOND THE SPECIFIED LIMT.

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.

LANE CLOSURE RESTRICTIONS DURING PAVING OPERATIONS (SLM 0.00 TO SLM 1.97)

DURING PAVING OPERATIONS FROM SLM 0.00 TO SLM 1.97, ALL LANES SHALL BE OPEN TO TRAFFIC FROM 6AM TO 7PM DAILY. SHOULD THE CONTRACTOR FAIL TO MEET THE ABOVE REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $3000 FOR EACH HOUR THAT ABOVE LANE RESTRICTION IS VIOLATED.

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 REP- RESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISS- ING 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.

INLET REPAIRS

INLET REPAIRS ON SR 193 FROM SLM 0.00 TO SLM 1.97 SHALL NOT BE PERFORMED ON NORTH AND SOUTHBOUND SIMULTANEOUSLY.

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 DEP-ENDS 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)	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

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

INTERIM COMPLETION DATE (SLM 0.00 TO SLM 1.97)

ALL WORK ON TRU- SR 193 FROM SLM 0.00 (GYSPY LANE) TO SLM 1.97 (SR 304) SHALL BE COMPLETED BY OCTOBER 31,2017. ALL WORK SHALL INCLUDE BUT NOT LIMITED TO INLET RECONSTRUCTION, CURB AND CURB RAMP INSTALLATION, AND ALL RESUFACING WORK. SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $3000 PER CALENDAR DAY.

INTERIM START DATE (SLM 1.97 TO SLM 6.78)

NO WORK ON SR 193 FROM SLM 1.97 (SR 304) TO SLM 6.78 (END OF PROJECT) SHALL BEGIN PRIOR TO APRIL 1, 2018 WITHOUT WRITTEN APPROVAL FROM THE DISTRICT CONSTRUCTION ENGINEER.

CALCULATED CNC CHECKED LAB

MAINTENANCE OF TRAFFIC GENERAL NOTES

MAINTENANCE

TRU-193-0.00

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 FOLLOWING INTERSECTIONS WITH SR 193:

GYPSY LANE
COLONIAL DR
TRUMBULL AVE
GOLDIE RD
LIBERTY PLAZA
LIBERTY ST
RAMP FROM I-80
CHURCHILL RD
TIBBITS WICK RD

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, 49 EACH

SR 193 AND GYPSY LANE
1- POWERHEAD (8' X 30') ON 193SB

SR 193 AND COLONIAL DR
1- POWERHEAD (8' X 30') ON COLONIAL DR
2 SYSTEM LOOPS ON SR 193 NB

SR 193 AND TRUMBULL AVE
1 POWERHEAD (6' X 25') ON SR 193NB
2 POWERHEAD (6' X 30') ON TRUMBULL AVE WEST

SR 193 AND GOLDIE RD
1 POWERHEAD (6' X 25') ON SR 193SB
1 POWERHEAD (8' X 30') ON GOLDIE WB
1 POWERHEAD (8' X 25') ON GOLDIE EB
1 POWERHEAD (6' X 25') ON GOLDIE EB

SR 193 AND LIBERTY PLAZA
1 POWERHEAD (6' X 25') ON SR 193 NB
1 POWERHEAD (6' X 25') ON SR 193SB
4 POWERHEADS (6' X 25) ON LIBERTY PLAZA (2 EACH SIDE)

SR 193 AND LIBERTY ST
1 POWERHEAD (6' X 25') ON SR 193 NB
1 POWERHEAD (6' X 25') ON SR 193 SB
2 SYSTEM LOOPS SR 193 ON SR 193 NB
2 SYSTEM LOOPS SR 193 ON SR 193 SB
1 POWERHEAD (6' X 25') ON LIBERTY E LT LANE
1 POWERHEAD (8' X 30') ON LIBERTY E RT LANE
1 POWERHEAD (8' X 30') ON LIBERTY W LT LANE
1 POWERHEAD (6' X 25') ON LIBERTY W RT LANE

SR 193 AND I-80WB OFF RAMP
1 POWERHEAD (6' X 25') ON SR 193 NB
1 POWERHEAD (6' X 25') ON SR 193 SB
2 SYSTEM LOOPS SR 193 ON SR 193 NB
2 SYSTEM LOOPS SR 193 ON SR 193 SB
1 POWERHEAD (8' X 30') I-80 OFF RAMP RT LANE
1 POWERHEAD (6' X 30') I-80 OFF RAMP LT LANE

SR 193 AND SR 304
1 POWERHEAD (6' X 25') ON SR 193 NB
1 POWERHEAD (6' X 25') ON SR 193 SB
2 POWERHEADS (6' X 30') ON SR 304 WEST
2 POWERHEADS (6' X 30') ON SR 304 EAST

SR 193 AND TIBBETSWICK
1 POWERHEAD (8' X 20') ON SR 193 NB
1 POWERHEAD (8' X 20') ON SR 193 SB
2 A.D.D ON SR 193 NB
2 A.D.D ON SR 193 SB
1 POWERHEAD (8' X 30') ON TIBBETSWICK EAST
1 POWERHEAD (8' X 30') ON TIBBETSWICK WEST

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE OFFICE OF COMMUNICATIONS. THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL AND SHALL LLIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTICE TO OFFICE OF COMMUNICATIONS TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO OFFICE OF COMMUNICATIONS
RAMP & RAMP CLOSURES	>= 2WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<12 HOURS	4 BUSINESS DAYS PRIOR TO CLSOURE
LANE CLOSURES & RESTRICTIONS	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	2 BUSINESS DAYS PRIOR TO CLSOURE
START OF CONSTRUCTION & TRAFFIC PATTERNS CHANGES	N/A	14CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTICE TO OFFICE OF COMMUNICATIONS TIME TABLE.

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RE- TURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 400 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

CALCULATED CNC CHECKED LAB

MAINTENANCE OF TRAFFIC GENERAL NOTES

TRU-193-0.00

SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	4	5	6	7	10	13	14	15	16	18	19	01/S>2/PV	02/STR/PV						
																		ROADWAY	
								1,302	816			2,118		202	30000	2,118	SF	WALK REMOVED	
				8,670				91	131			8,892		202	32000	8,892	FT	CURB REMOVED	
		216						1	6			215	8	203	10000	223	CY	EXCAVATION	
									6			6		203	20000	6	CY	EMBANKMENT	
			4									2	2	203	98600	4	EACH	ROADWAY, MISC.:VERTICAL CLEARANCE	6
			329									180	149	209	60200	329	STA	LINEAR GRADING	
	495											337	158	209	72001	495	STA	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	4
								160				160		608	13000	160	SF	6" CONCRETE WALK	
								1,336	821			2,157		608	52000	2,157	SF	CURB RAMP	
				19								19		623	39500	19	EACH	MONUMENT BOX ADJUSTED TO GRADE	
																		EROSION CONTROL	
			18,278						18			10,018	8,278	659	10000	18,296	SY	SEEDING AND MULCHING	
			2.72									1.35	1.37	659	20000	2.72	TON	COMMERCIAL FERTILIZER	
			3.78									2.07	1.71	659	31000	3.78	ACRE	LIME	
			99									54	45	659	35000	99	MGAL	WATER	
												800	200	832	30000	1,000	EACH	EROSION CONTROL	
																		DRAINAGE	
				130								130		611	04400	130	FT	12" CONDUIT, TYPE B	
				50								50		611	05900	50	FT	15" CONDUIT, TYPE B	
				30								30		611	08900	30	FT	21" CONDUIT, TYPE B	
				20								20		611	10400	20	FT	24" CONDUIT, TYPE B	
				10								10		611	11900	10	FT	27" CONDUIT, TYPE B	
				9								9		611	98634	9	EACH	CATCH BASIN RECONSTRUCTED TO GRADE	
				67								67		611	99155	67	EACH	INLET RECONSTRUCTED TO GRADE, AS PER PLAN	7
				28								28		611	99654	28	EACH	MANHOLE ADJUSTED TO GRADE	
				40,000								40,000		SPECIAL	61199820	40,000	LB	MISCELLANEOUS METAL	7
																		PAVEMENT	
		1,300										1,100	200	251	01000	1,300	SY	PARTIAL DEPTH PAVEMENT REPAIR (441)	
			100									50	50	253	01000	100	SY	PAVEMENT REPAIR	
						68,981	114,760					137,639	46,102	254	01001	183,741	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN(T=3")	5
		1,200										1,200		255	10160	1,200	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS	
		5,400	450									5,625	225	255	20000	5,850	FT	FULL DEPTH PAVEMENT SAWING	
		216										208	8	304	20000	216	CY	AGGREGATE BASE	
						13,323	14,826					22,195	5,954	407	20000	28,149	GAL	NON-TRACKING TACK COAT	
						1,333	3,065					2,990	1,408	408	10001	4,398	GAL	PRIME COAT, AS PER PLAN	6
	15					1,890	35					1,940		424	12001	1,940	CY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN	6
	48					2,396	3,985					4,806	1,623	441	10101	6,429	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), AS PER PLAN(PG70-22M)	6
						3,354	5,579					6,691	2,242	441	10200	8,933	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)	
				8,670				137	98			8,905		609	26000	8,905	FT	CURB, TYPE 6	
						186	426					416	196	617	10101	612	CY	COMPACTED AGGREGATE, AS PER PLAN	6
						54,431	991					55,422		897	01010	55,422	SY	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A(T= 1 1/4")	
																		TRAFFIC CONTROL	
											1,627	1,324	303	621	00100	1,627	EACH	RPM	
											1,304	1,061	243	621	54000	1,304	EACH	RAISED PAVEMENT MARKER REMOVED	
										9.88		6.78	3.1	644	00104	9.88	MILE	EDGE LINE, 6"	
										13.56		10.74	2.82	644	00204	13.56	MILE	LANE LINE, 6"	
										8.74		6.73	2.01	644	00300	8.74	MILE	CENTER LINE	
										4,128		4,128		644	00400	4,128	FT	CHANNELIZING LINE, 8"	
										651		651		644	00500	651	FT	STOP LINE	
										862		862		644	00600	862	FT	CROSSWALK LINE	
										329			329	644	00700	329	FT	TRANSVERSE/DIAGONAL LINE	
										91		91		644	01300	91	EACH	LANE ARROW	
																		TRAFFIC SIGNALS	
					49							49		632	26501	49	EACH	DETECTOR LOOP, AS PER PLAN	10
																		STRUCTURE REPAIRS	
																		FOR TRU-193-0491 ESTIMATED QUANTITIES	21
																		FOR TRU-193-0618 ESTIMATED QUANTITIES	21

CALCULATED CNC
CHECKED MAC

GENERAL SUMMARY

TRU-193-0.00

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SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
										9	10	01/S>2/PV	02/STR/PV						
																		MAINTENANCE OF TRAFFIC	
											400	400		614	11110	400	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
										29		24	5	614	12460	29	EACH	WORK ZONE MARKING SIGN	
										200		190	10	614	13000	200	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
										14.96		9.32	5.64	614	20000	14.96	MILE	WORK ZONE LANE LINE, CLASS I	
										8.19		5.37	2.82	614	20550	8.19	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT	
										15.59		11.57	4.02	614	21000	15.59	MILE	WORK ZONE CENTER LINE, CLASS I	
										8.74		6.73	2.01	614	21550	8.74	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
										9.88		6.78	3.1	614	22350	9.88	MILE	WORK ZONE EDGE LINE, CLASS III, 642 PAINT	
																		INCIDENTALS	
												LS		614	11000	LS		MAINTAINING TRAFFIC	
												12		619	16010	12	MNTH	FIELD OFFICE, TYPE B	
												LS		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
												LS		624	10000	LS		MOBILIZATION	

CALCULATED CNC
CHECKED MAC

GENERAL SUMMARY

TRU-193-0.00

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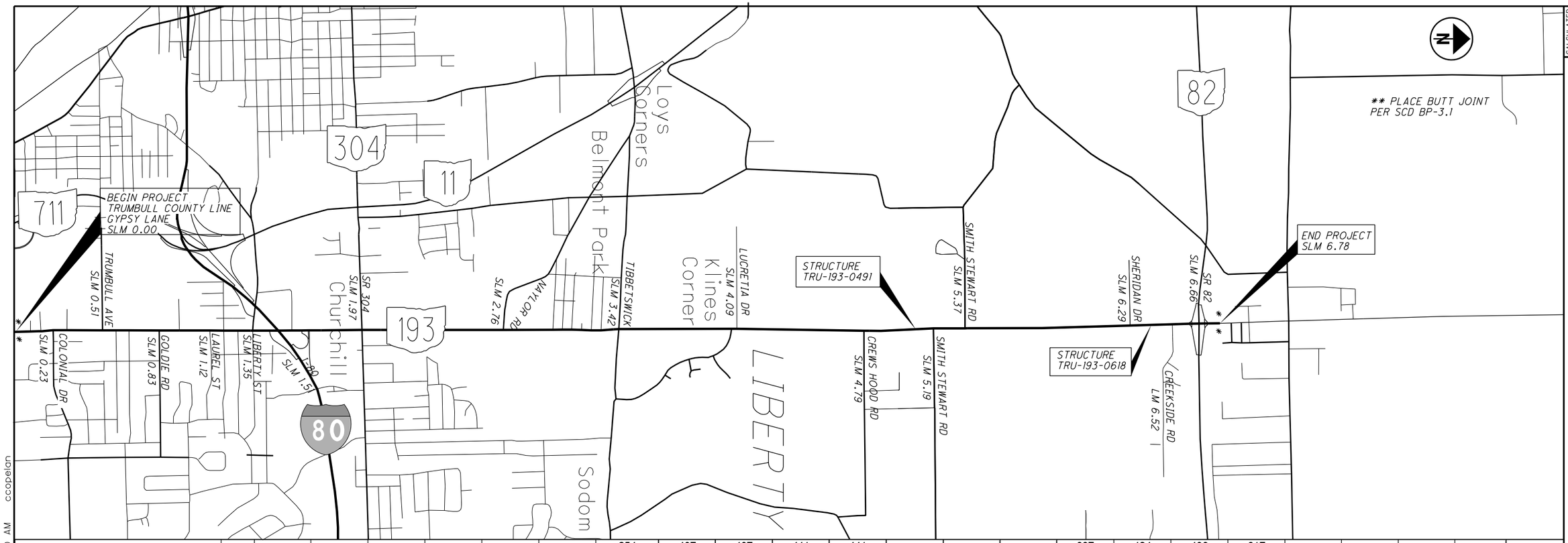
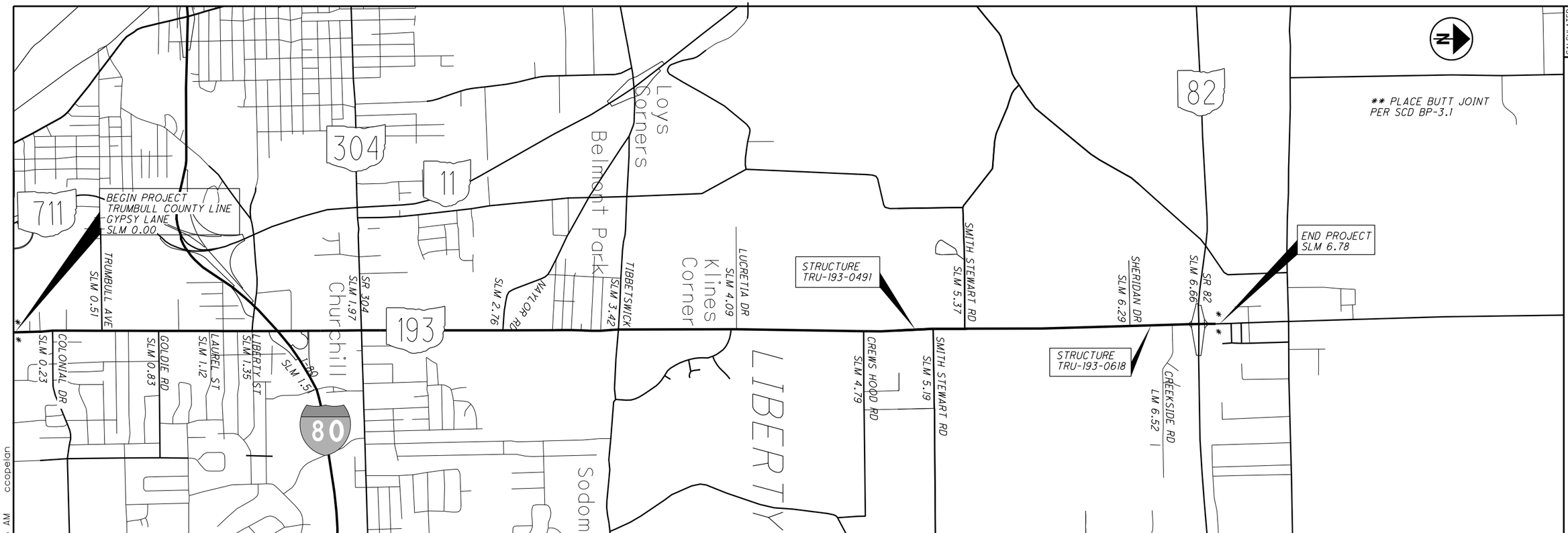


SLM RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA		254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN(T=3")	407 NON-TRACKING TACK COAT @0.08 GAL/SY	407 NON-TRACKING TACK COAT @ 0.05 GAL/SY	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)(T=1 3/4")	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), AS PER PLAN(PG70-22M) (T= 1 1/4")				897 PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T= 1/2")	424 FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN(T= 1 1/4")	408 PRIME COAT, AS PER PLAN @ 0.40 GAL/SY	617 COMPACTED AGGREGATE, AS PER PLAN					
					FT	FT	SY	SY		SY	GAL	GAL	CY	CY				SY	CY	GAL	CY							
0.00	TO	0.87	1		4593.60	56.00	28582.40			28582.40	2286.59	1429.12	1389.42	992.44														
0.87	TO	0.92	1		264.00	69.00	2024.00			2024.00	161.92	101.20	98.39	70.28														
0.92	TO	0.97	1		264.00	56.00	1642.67			1642.67	131.41	82.13	79.85	57.04														
0.97	TO	1.03	1		316.80	69.00	2428.80			2428.80	194.30	121.44	118.07	84.33														
1.03	TO	1.36	1		1742.40	56.00	10841.60			10841.60	867.33	542.08	527.02	376.44														
1.36	TO	1.56	2	NB	1056.00	24.00	2816.00			2816.00	225.28	140.80	136.89	97.78														
1.36	TO	1.56	2	SB	1056.00	32.00	3754.67			3754.67	300.37	187.73	182.52	130.37														
1.56	TO	1.68	2	NB	633.60	50.00	3520.00			3520.00	281.60	176.00	171.11	122.22														
1.56	TO	1.68	2	SB	633.60	29.00	2041.60			2041.60	163.33	102.08	99.24	70.89														
1.68	TO	1.73	2	NB	264.00	22.00	645.33			645.33	51.63	32.27	31.37	22.41														
1.68	TO	1.73	2	SB	264.00	33.00	968.00			968.00	77.44	48.40	47.06	33.61														
1.73	TO	1.78	1		264.00	56.00	1642.67			1642.67	131.41	82.13	79.85	57.04														
1.78	TO	1.90	1		633.60	68.00	4787.20			4787.20	382.98	239.36	232.71	166.22														
1.90	TO	1.97	1		369.60	80.00	3285.33			3285.33	262.83	164.27	159.70	114.07														
1.97	TO	2.05	3		422.40	71.00	3332.27				266.58							3332.27	115.70	75.09	10.43							
2.05	TO	3.39	3		7075.20	65.00	51098.67				4087.89							51098.67	1774.26	1257.81	174.70							
									SUBTOTALS	0.00	68980.27	9872.90	3449.01	3353.21	2395.15	0.00	0.00	0.00	54430.93	1889.96	1332.91	185.13	0.00	0.00	0.00	0.00	0.00
									TOTALS CARRIED TO GENERAL SUMMARY	0	68981	9873	3450	3354	2396	0	0	0	54431	1890	1333	186	0	0	0	0	0

CALCULATED CNC
CHECKED MAC

PAVEMENT CALCULATIONS

TRU-193-0.00



SLM RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA		254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN(T=3")	407 NON-TRACKING TACK COAT @0.08 GAL/SY	407 NON-TRACKING TACK COAT @ 0.05 GAL/SY	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)(T=1 3/4")	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), AS PER PLAN(PG70-22M) (T= 1 1/4")			408 PRIME COAT, AS PER PLAN @ 0.40 GAL/SY	617 COMPACTED AGGREGATE, AS PER PLAN		897 PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T= 1/2")	424 FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN(T= 1 1/4")					
					FT	FT	SY	SY		SY	GAL	GAL	CY	CY			GAL	CY		SY	SY						
3.39	TO	3.50	4		580.80	67.00	4323.73			4323.73	345.90	216.19	210.18	150.13			103.25	14.34									
3.50	TO	3.96	4		2428.80	54.00	14572.80			14572.80	1165.82	728.64	708.40	506.00			431.79	59.97									
3.96	TO	4.05	4		475.20	65.00	3432.00			3432.00	274.56	171.60	166.83	119.17			84.48	11.73									
4.05	TO	5.13	4		5702.40	54.00	34214.40			34214.40	2737.15	1710.72	1663.20	1188.00			1013.76	140.80									
5.13	TO	5.18	5		264.00	54.00	1584.00			1584.00	126.72	79.20	77.00	55.00			23.47	3.26									
5.18	TO	5.37	5		1003.20	54.00	6019.20			6019.20	481.54	300.96	292.60	209.00													
5.37	TO	5.38	5		52.80	54.00	316.80			316.80	25.34	15.84	15.40	11.00													
5.38	TO	6.56	4		6230.40	54.00	37382.40			37382.40	2990.59	1869.12	1817.20	1298.00			1107.63	153.84									
6.56	TO	6.60	4		211.20	64.00	1501.87			1501.87	120.15	75.09	73.01	52.15			37.55	5.21									
6.6	TO	6.7	6	NB	528.00	29.00	1701.33			1701.33	136.11	85.07	82.70	59.07			93.87	13.04									
6.6	TO	6.7	6	SB	528.00	29.00	1701.33			1701.33	136.11	85.07	82.70	59.07			93.87	13.04									
6.70	TO	6.78	4		422.40	64.00	3003.73			3003.73	240.30	150.19	146.01	104.30			75.09	10.43									
INTERSECTIONS (SLM 0.00 TO SLM 1.97)					25.00	VARIES		2848.61		2848.61	227.89	142.43	138.47	98.91													
INTERSECTIONS (SLM 1.97 TO 3.39)					25.00	VARIES		990.28			79.22									990.28	34.38						
INTERSECTIONS (SLM 3.39 TO SLM 5.37)					25.00	VARIES		1662.50		1662.50		83.13	80.82	57.73													
INTERSECTIONS (SLM 5.37 TO 6.78)					25.00	VARIES		494.44		494.44		24.72	24.04	17.17													
SUBTOTALS									0.00	114759.16	9087.40	5737.96	5578.57	3984.69	0.00	0.00	3064.75	425.66	0.00	990.28	34.38	0.00	0.00	0.00	0.00	0.00	
TOTALS CARRIED TO GENERAL SUMMARY									0	114760	9088	5738	5579	3985	0	0	3065	426	0	991	35	0	0	0	0	0	

CALCULATED CNC
CHECKED MAC

PAVEMENT CALCULATIONS

TRU-193-0.00

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22

I:\Projects\Data\TRU\88916_I93_0.00\Design\Roadway\Sheets\88916_GA001.dgn Sheet 2 1/31/2017 8:38:45 AM ccopelan

MAIN ROUTE	INTERSECTING ROUTE	QUADRANT RL=REAR LT, RR=REAR RT FL=FWD LT, FR=FWD RT (LOOKING UPSTATION)	CURB RAMP TYPE (SCD BP-7.1, SHEET 2/3)	202 WALK REMOVED SF	202 CURB REMOVED FT	202 CURB AND GUTTER REMOVED FT	203 EXCAVATION (FOR ROCK REMOVAL) CY	608 4" CONCRETE WALK SF	608 6" CONCRETE WALK SF	608 CURB RAMP SF	609 COMBINATION CURB AND GUTTER, TYPE 2 FT		609 CURB, TYPE 6 FT	659 SEEDING AND MULCHING SY		COMMENTS
SR 193	GYSPY LANE	FL		32.00	6.00					32.00						
SR 193	GYSPY LANE	FR		32.00	6.00					32.00						
SR 193	GYSPY LANE	RR		20.00	6.00					20.00						
SR 193	GYSPY LANE	RL		24.00	6.00					24.00						
SR 193	BENCH STOP (SLM 0.04)	L		16.00					20.00				7.00			REMOVE CURB RAMP, PLACE CURB AND NEW 5' WIDE WALK
SR 193	BENCH STOP (SLM 0.10)	R		72.00					60.00				7.00			REMOVE CURB RAMP, PLACE CURB AND NEW 5' WIDE WALK
SR 193	CRUMRINE ST	FL		15.00						15.00						
SR 193	CRUMRINE ST	RL		20.00						20.00						
SR 193	BELGRADE AVE	FL		40.00						40.00						
SR 193	BELGRADE AVE	RL		20.00						20.00						
SR 193	FAIRLAWN AVE	FR		20.00						20.00						
SR 193	FAIRLAWN AVE	RR		20.00						20.00						
SR 193	COLONIAL DR	FR		44.00						44.00						
SR 193	COLONIAL DR	RR		55.00						55.00						
SR 193	COLONIAL DR	FL		35.00			1.00		35.00	55.00			18.00			SEE DETAIL A ON SHEET 17
SR 193	COLONIAL DR	RL		45.00						45.00						
SR 193	COLONIAL DR (CROSSING COLONIAL)	FR		32.00	6.00					32.00			6.00			
SR 193	COLONIAL DR (CROSSING COLONIAL)	RR		50.00	7.00					50.00			7.00			
SR 193	AMHERST ST	FL		32.00						32.00						
SR 193	AMHERST ST	RL		32.00						32.00						
SR 193	BENCH STOP (SLM 0.47)	R		16.00					20.00				7.00			REMOVE CURB RAMP, PLACE CURB AND NEW 5' WIDE WALK
SR 193	BENCH STOP (SLM 0.54)	L		25.00					25.00				7.00			REMOVE CURB RAMP, PLACE CURB AND NEW 5' WIDE WALK
SR 193	DARLINGTON AVE	FL		28.00						28.00						
SR 193	DARLINGTON AVE	RL		20.00						20.00						
SR 193	TRUMBULL AVE (CROSSING SR 193)	RL		12.00	11.00					35.00			10.00			RELOCATE CURB RAMP PER DETAIL B ON SHEET 17
SR 193	TRUMBULL AVE (CROSSING TRUMBULL)	RL		60.00						60.00						SEE DETAIL B ON SHEET 17
SR 193	TRUMBULL AVE	RR		28.00						35.00			24.00			RELOCATE CURB RAMP PER DETAIL B ON SHEET 17
SR 193	TRUMBULL AVE	FR		36.00						36.00						
SR 193	TRUMBULL (CROSSING SR 193)	FL		32.00	2.00					32.00			2.00			
SR 193	EUCLID BLVD	FR		20.00						20.00						
SR 193	EUCLID BLVD	RR		35.00						35.00						
SR 193	MANSELL DR	FR		44.00	10.00					44.00						
SR 193	MANSELL DR	RR		44.00	10.00					44.00						
SR 193	HAZELWOOD DR	FL		24.00						24.00						
SR 193	HAZELWOOD DR	RL								75.00						
SR 193	BENCH STOP (SLM 1.04)	R		16.00						20.00			7.00			REMOVE CURB RAMP, PLACE CURB AND NEW 5' WIDE WALK
SR 193	BENCH STOP (SLM 1.06)	L		16.00						20.00			7.00			REMOVE CURB RAMP, PLACE CURB AND NEW 5' WIDE WALK
SR 193	BENCH STOP (SLM 1.33)	R		70.00	7.00					70.00			7.00			REMOVE CURB RAMP, PLACE CURB AND NEW 5' WIDE WALK
SR 193	BENCH STOP (SLM 1.61)	L		48.00	7.00					60.00			7.00			REMOVE CURB RAMP, PLACE CURB AND NEW 5' WIDE WALK
SR 193	BENCH STOP (SLM 1.74)	R		40.00	7.00					50.00			7.00			REMOVE CURB RAMP, PLACE CURB AND NEW 5' WIDE WALK
SR 193	BENCH STOP (SLM 1.80)	L		32.00						40.00			7.00			REMOVE CURB RAMP, PLACE CURB AND NEW 5' WIDE WALK
			SUBTOTALS	1302.00	91.00	0.00	1.00	0.00	160.00	1336.00	0.00	0.00	137.00	0.00	0.00	
			TOTALS CARRIED TO GENERAL SUMMARY	1302	91	0	1	0	160	1336	0	0	137	0	0	

CALCULATED CNC
CHECKED MAC

CURB RAMP SUBSUMMARY

TRU-193-0.00

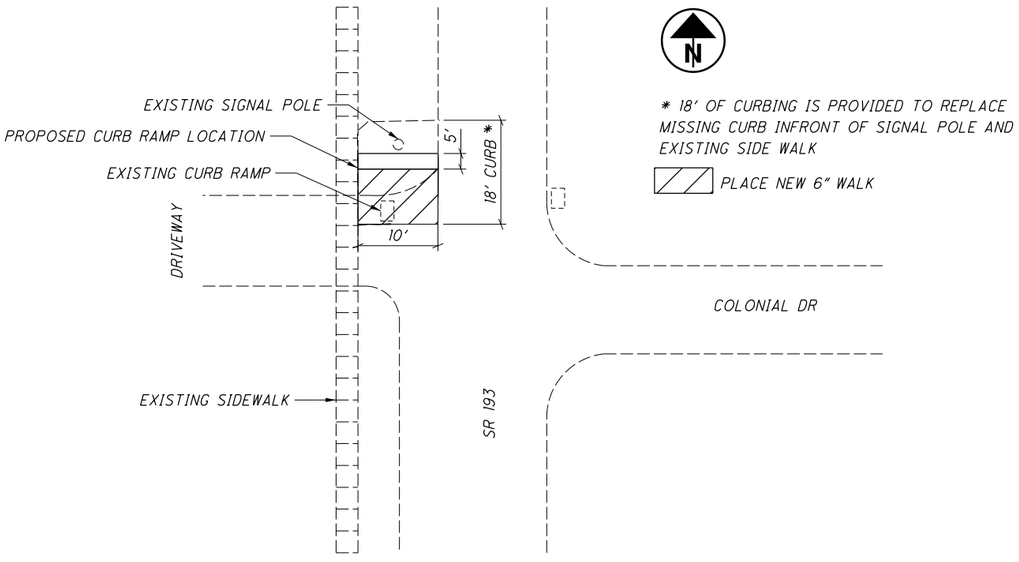
MAIN ROUTE	INTERSECTING ROUTE	QUADRANT RL=REAR LT, RR=REAR RT FL=FWD LT, FR=FWD RT (LOOKING UPSTATION)	CURB RAMP TYPE (SCD BP-7.1, SHEET 2/3)	202 WALK REMOVED	202 CURB REMOVED	202 CURB AND GUTTER REMOVED	203 EXCAVATION(FOR WALK OR CURB RAMP INSTALLATION)	203 EMBANKMENT	608 6" CONCRETE WALK	608 CURB RAMP	609 COMBINATION CURB AND GUTTER, TYPE 2 (FOR WALK OR CURB RAMP INSTALLATION)		609 CURB, TYPE 6	659 SEEDING AND MULCHING		COMMENTS
				SF	FT	FT	CY	CY	SF	SF	FT		FT	SY		
SR 193	LIBERTY PLAZA	FR		20.00	2.00					20.00			2.00			
SR 193	LIBERTY PLAZA (CROSSING PLAZA)	FR		40.00						40.00						
SR 193	LIBERTY PLAZA (CROSSING PLAZA)	RR		75.00	2.00					75.00			2.00			
SR 193	LIBERTY PLAZA	FL		28.00	2.00					28.00			2.00			
SR 193	LIBERTY PLAZA	RL		44.00	2.00					44.00			2.00			
SR 193	LIBERTY PLAZA (CROSSING Mc. DON.)	FL		24.00	2.00					24.00			2.00			
SR 193	LIBERTY PLAZA (CROSSING Mc. DON.)	RL		28.00	2.00					28.00			2.00			
SR 193	LAUREL ST	FL		20.00						20.00						
SR 193	LAUREL ST	RL		56.00						56.00						
SR 193	MONTROSE ST	FL		25.00						25.00						
SR 193	MONTROSE ST	RL		30.00						30.00						
SR 193	MONTROSE ST	FR		35.00						35.00						
SR 193	MONTROSE ST	RR		20.00						20.00						
SR 193	CATHERINE ST	FL		20.00						20.00						
SR 193	CATHERINE ST	RL		35.00						35.00						
SR 193	LIBERTY	FL	CURBCUT		13.00		1.00	1.00					13.00	3.00		
SR 193	LIBERTY	FR		65.00	16.00					65.00						
SR 193	MONTOR INN DR	FR		40.00	10.00					40.00			2.00			
SR 193	MOTOR INN DR	RR		28.00						28.00			2.00			
SR 193	SPEEDWAY DR AT I-80	FR		55.00	2.00					55.00			2.00			
SR 193	SPEEDWAY DR AT I-80	RR		58.00	2.00					63.00			2.00			
SR 193	GOLDIE (CROSSING GOLDIE)	FR		42.00	7.00					42.00						
SR 193	GOLDIE (CROSSING GOLDIE)	RR		28.00	4.00					28.00						
SR 193	GOLDIE (CROSSING SR 193)	RR	CURBCUT		13.00		1.00	1.00					13.00	3.00		
SR 193	GOLDIE (CROSSING SR 193)	RL	CURBCUT		13.00		1.00	1.00					13.00	3.00		
SR 193	GOLDIE (CROSSING GOLDIE)	RL	CURBCUT		13.00		1.00	1.00					13.00	3.00		
SR 193	GOLDIE (CROSSING SR 193)	FL	CURBCUT		13.00		1.00	1.00					13.00	3.00		
SR 193	GOLDIE (CROSSING GOLDIE)	FL	CURBCUT		13.00		1.00	1.00					13.00	3.00		
			SUBTOTALS	816.00	131.00	0.00	6.00	6.00	0.00	821.00	0.00	0.00	98.00	18.00	0.00	
			TOTALS CARRIED TO GENERAL SUMMARY	816	131	0	6	6	0	821	0	0	98	18	0	

CALCULATED CNC
CHECKED XXX

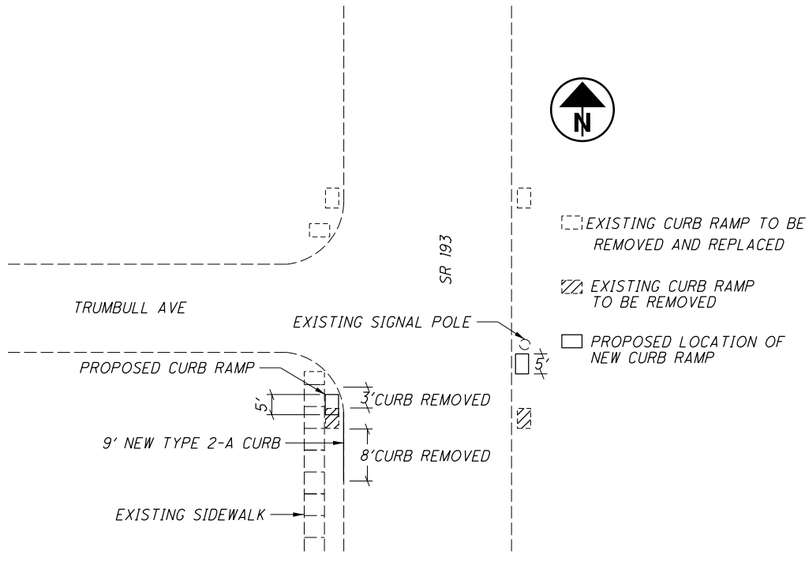
CURB RAMP SUBSUMMARY

TRU-193-0.00

DETAIL A



DETAIL B



CURB RAMP DETAIL

CALCULATED CNC
CHECKED XXX

TRU-193-0.00

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EDGE LINE,6"

GENERAL SPEC: 640
MATERIAL TYPE: 644

CALCULATED CNC
CHECKED MAC

CTY	ROUTE	FROM TRUE LOG	FROM	TO TRUE LOG	TO	WHITE EDGE LINE TOTAL	WHITE EDGE LINE HIGHWAY	WHITE EDGE LINE RAMP	YELLOW EDGE LINE TOTAL	YELLOW EDGE LINE HIGHWAY	YELLOW EDGE LINE RAMP	COMMENTS
TRU	193	1.98	S.R. 304	5.37	SMITH STEWART RD	6.78						
TRU	193	5.37	SMITH STEWART RD	6.60	RAMP TO S.R. 82 EAST	2.46						
TRU	193	6.60	RAMP TO S.R. 82 EAST	6.74	0.02 MILES S OF SR 82 EXIT RAMP	0.28	0.28		0.28	0.28		
TRU	193	6.74	0.02 MILES S OF SR 82 EXIT RAMP	6.78	PAVEMENT JOINT N OF SR 82	0.08						
TOTAL						9.60	0.28		0.28	0.28		

LANE LINE

CTY	ROUTE	FROM TRUE LOG	FROM	TO TRUE LOG	TO	TOTAL MILES	6" LANE LINE DASHED	6" LANE LINE SOLID	COMMENTS
TRU	193	0.00	MAHONING COUNTY LINE	5.37	SMITH STEWART RD	10.74			
TRU	193	5.37	SMITH STEWART RD	6.78	PAVEMENT JOINT N OF SR 82	2.82			
TOTAL						13.56			

CENTER LINE

CTY	ROUTE	FROM TRUE LOG	FROM	TO TRUE LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS
TRU	193	0.00	MAHONING COUNTY LINE	5.37	SMITH STEWART RD	6.73	14.58	
TRU	193	5.37	SMITH STEWART RD	6.78	PAVEMENT JOINT N OF SR 82	2.01	2.70	
TOTAL						8.74	17.27	

AUXILIARY

CTY	ROUTE LOCATION	TRUE LOG	CHANNEL LINE	STOP LINE	CROSS WALK LINES	TRANSVERSE DIAGONAL LINES WHITE	TRANSVERSE DIAGONAL LINES YELLOW	ISLAND MARKING	SYMBOL MARKINGS RxR	SYMBOL MARKINGS SCHOOL 72"	SYMBOL MARKINGS SCHOOL 96"	LANE ARROWS TURN LEFT	LANE ARROWS TURN RIGHT	LANE ARROWS THRU	LANE ARROWS COMB.	LANE ARROWS MERGE	COMMENTS
			FT	FT	FT	FT	FT	SQ FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
TRU	GYPSY LANE	0	240	40	180							5					
TRU	COLONIAL DR.	0.23	140	66	212							4					
TRU	TRUMBULL AVE.	0.51	155	70	220							5					RELOCATE S. CROSSWALK LINE TO PROPOSED CURB RAMP
TRU	GOLDIE RD.	0.82	490	80								4	3				
TRU	LIBERTY PLAZA	1.03	445	85	250							10	3				
TRU	LIBERTY JONES	1.25	460	75								6					
TRU	I.R. 80 EB RAMPS	1.500	1000	70								9					
TRU	S.R. 304 (SOUTH)	1.973	208	50								7	3				
TRU	S.R. 304 (NORTH)	1.973	265	50								5	2				
TRU	GIANT EAGLE	2.030	200									4					
TRU	2.03 - 3.45	2.040										14					
TRU	TIBBETTS-WICK ROAD	3.420	285	65								4					
TRU	KLINES DRIVE	4.050	240									3					
TRU	SR 82	6.614					181										
TRU	SR 82	6.742					148										
TOTAL			4128	651	862		329					80	11				

PAVEMENT MARKING SUB SUMMARY

TRU-193-0.00

LOCATION								621	621	621	621		621	
COUNTY	ROUTE	SECTION (S.L.M.)						RPM (YELLOW/YELLOW)	RPM (WHITE/RED)	RPM (WHITE)	RPM (YELLOW/RED)		RAISED PAVEMENT MARKER REMOVED	REMARKS
		FROM	TO					EACH	EACH	EACH	EACH		EACH	
TRU	193	0.00	0.51					58	75				107	GYSPY LN TO TRUMBULL AVE
TRU	193	0.51	0.83					39	47				69	GYSPY LN TO GOLDIE AVE
TRU	193	0.83	1.97					91	196				230	GOLDIE AVE TO SR 304
TRU	193	1.97	5.37					305	465	48			655	GOLDIE AVE TO SMITH STEWART RD
TRU	193	5.37	6.78					115	188				243	SMITH STEWARD RD TO PAVEMENT JOINT
SUB TOTALS								608	971	48				
TOTALS CARRIED TO GENERAL SUMMARY									1627				1304	

CALCULATED CNC
CHECKED MAC

RAISED PAVEMENT MARKER SUB SUMMARY

TRU-193-0.00

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DESIGN SPECIFICATIONS

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

EXISTING STRUCTURE VERIFICATION

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 SECTIONS 102.05, 105.02 AND 513.04.

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

PROPOSED WORK

TRU-193-0491 (BRANCH SQUAW CREEK)
- SEAL CONCRETE HEADWALLS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- PROVIDE NEW CORRECT STRUCTURE IDENTIFICATION SIGNS

TRU-193-0618 (SQUAW CREEK)
- SEAL CONCRETE HEADWALLS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- PROVIDE NEW CORRECT 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.

STRUCTURE/CULVERT IDENTIFICATION SIGNS

STRUCTURE IDENTIFICATION SIGNS (I-H25b) 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:
TRU-193-0491 (2 APPROACHES)
TRU-193-0618 (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
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
CNC	CNC	MJA	1/16/17
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MJA	CNC		

STRUCTURE GENERAL NOTES

TRU-193-0491 (BRANCH SQUAW CREEK)
& TRU-193-0618 (SQUAW CREEK)

TRU-193-0.00
PID No. 88916

CALC:	CNC	DATE: 12/12/2016
CHECKED:		DATE:

ESTIMATED QUANTITIES

BRIDGE NO. / STRUCTURE FILE NO.								ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
TRU-193-0491 7806256 03/STR/BR	TRU-193-0618 7806280 04/S>2/BR											
LUMP	LUMP							201	11000		CLEARING AND GRUBBING	
36	55							512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
36	55							512	74000	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
15	15							630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
2	2							630	80100	SF	SIGN, FLAT SHEET, 730.20	
2	2							630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
2	2							630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
CNC	CNC	MJA	1/16/17
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MJA	CNC	0	

STRUCTURE ESTIMATED QUANTITIES
TRU-193-0491 (BRANCH SQUAW CREEK)
& TRU-193-0618 (SQUAW CREEK)

TRU-193-0.00
PID No. 88916

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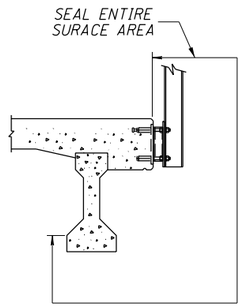
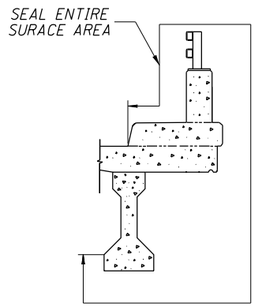
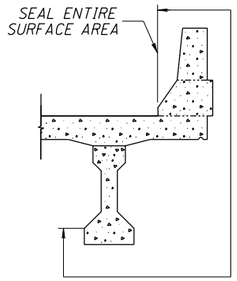


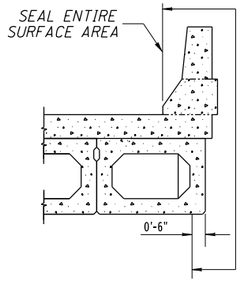
DETAIL A
CONCRETE DECKS WITH
OVER THE SIDE DRAINAGE



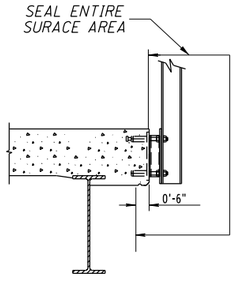
DETAIL B
CONCRETE DECKS WITH CURBS,
SIDEWALKS AND PARAPET



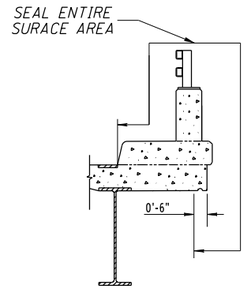
DETAIL C
CONCRETE DECK WITH
DEFLECTOR PARAPET



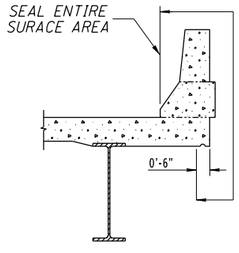
DETAIL D
PRESTRESSED BOX BEAM DECK
WITH DEFLECTOR PARAPET



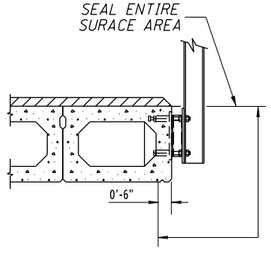
DETAIL E
CONCRETE DECKS WITH
OVER THE SIDE DRAINAGE



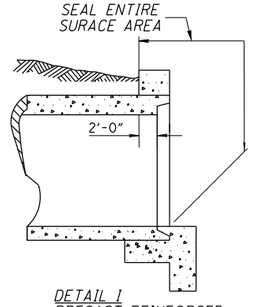
DETAIL F
CONCRETE DECKS WITH CURBS,
SIDEWALKS AND PARAPET



DETAIL G
CONCRETE DECK WITH
DEFLECTOR PARAPET



DETAIL H
PRESTRESSED BOX BEAM DECK
WITH OVER THE SIDE DRAINAGE



DETAIL I
PRECAST REINFORCED
CONCRETE BOX CULVERT

BRIDGE NUMBER	STRUCTURE TYPE	PROPOSED SEALING	FEDERAL COLOR NUMBER	ESTIMATED QUANTITIES				
				ABUT (SQ YD)	PIER (SQ YD)	SUPER (SQ YD)	GENERAL (SQ YD)	TOTAL (SQ YD)
TRU-193-0491	CONCRETE CULVERT FILLED	SEAL ALL EXPOSED CONCRETE AT HEADWALLS PER DETAIL I	PER CMS				36	36
TRU-193-0618	CONCRETE CULVERT FILLED	SEAL ALL EXPOSED CONCRETE AT HEADWALLS PER DETAIL I	PER CMS				55	55

NOTES:
- EPOXY-URETHANE SEALER SHALL BE USED UNLESS SHOWN OTHERWISE
- DETAILS E, F, G AND H ALSO APPLY TO CONCRETE SLAB BRIDGES

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
CNC	CNC	MJA	1/16/17
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MJA	CNC	0	

CONCRETE SEALING DETAILS
TRU-193-0491 (BRANCH SQUAW CREEK)
& TRU-193-0681 (SQUAW CREEK)

TRU-193-0.00
PID No. 88916

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