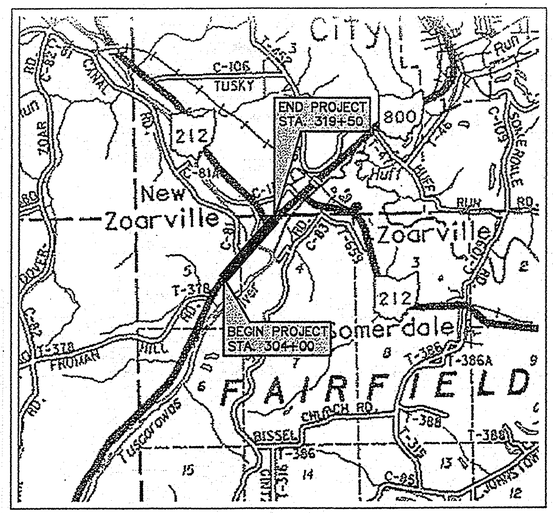


LOCATION MAP

LATITUDE: N40°34'40" LONGITUDE: W81°23'40"

SCALE IN FEET
0 1000 2000

N

PORTION TO BE IMPROVED
STATE & FEDERAL ROUTES
OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2015)	3600
DESIGN YEAR ADT (2025)	3600
DESIGN HOURLY VOLUME (2025)	320
DESIGN HOUR FACTOR	9%
DIRECTIONAL DISTRIBUTION	53%
TRUCKS (24 HOUR B&C)	216
DAILY TRUCKS FRACTION	6%
DESIGN HOUR TRUCK FRACTION	4%
DESIGN SPEED	NONE
LEGAL SPEED	NONE

DESIGN FUNCTIONAL CLASSIFICATION:
MINOR COLLECTOR (RURAL)

NHS PROJECT ____ NO

DESIGN EXCEPTION

NONE REQUIRED

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

PLAN PREPARED BY:
CIVIL DESIGN ASSOCIATES, INC.
CONSULTING ENGINEERS
1760 BRIGHTWOOD ROAD, S.E.
NEW PHILADELPHIA, OHIO

FEBRUARY, 2016

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

TUS-800-28.47

FAIRFIELD TOWNSHIP
TUSCARAWAS COUNTY

INDEX

PROJECT DESCRIPTION

CONSTRUCTION OF 0.29 MILE OF OHIO & ERIE CANAL TRAIL, BICYCLE LANES AND CROSSINGS ALONG STATE ROUTE 800.

PROJECT EARTH DISTURBED AREA	0.66 ACRES
CONTRACTOR EARTH DISTURBED AREA	0.50 ACRE
NOI EARTH DISTURBED AREA	4.90 ACRES

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

APPROVED Lloyd V. MacAdam, P.E., P.S.
DATE 2/22/16 LLOYD MACADAM, P.E., P.S., CPM,
DISTRICT DEPUTY DIRECTOR,
OHIO DEPARTMENT OF TRANSPORTATION

APPROVED Jerry Wray
DATE 6-10-16 JERRY WRAY, DIRECTOR
OHIO DEPARTMENT OF TRANSPORTATION

STANDARD CONSTRUCTION DRAWINGS				SPECIAL PROVISIONS	SUPPLEMENTAL SPECIFICATIONS	
MGS-1.1	7-19-13	MT-97.10	7-18-14		800	4-15-16
MGS-2.1	7-19-13	MT-101.90	7-17-15		813	4-17-15
MGS-3.2	7-19-13	MT-105.10	7-19-13		913	10-16-15
MGS-4.1	7-19-13					
MGS-4.2	7-19-13					
		HL-10.11	1-15-16			
TC-41.20	10-18-13	HL-10.12	1-15-16			
TC-42.20	10-18-13	HL-10.13	1-15-16			
TC-52.10	10-18-13	HL-20.11	1-16-15			
TC-52.20	7-18-14	HL-30.11	1-15-16			
		HL-30.21	1-17-14			
		HL-30.22	1-17-14			
MT-96.11	7-17-15	HL-40.10	1-17-14			
MT-96.20	7-19-13	HL-60.11	1-15-16			
MT-96.26	7-19-13	HL-60.31	7-17-15			

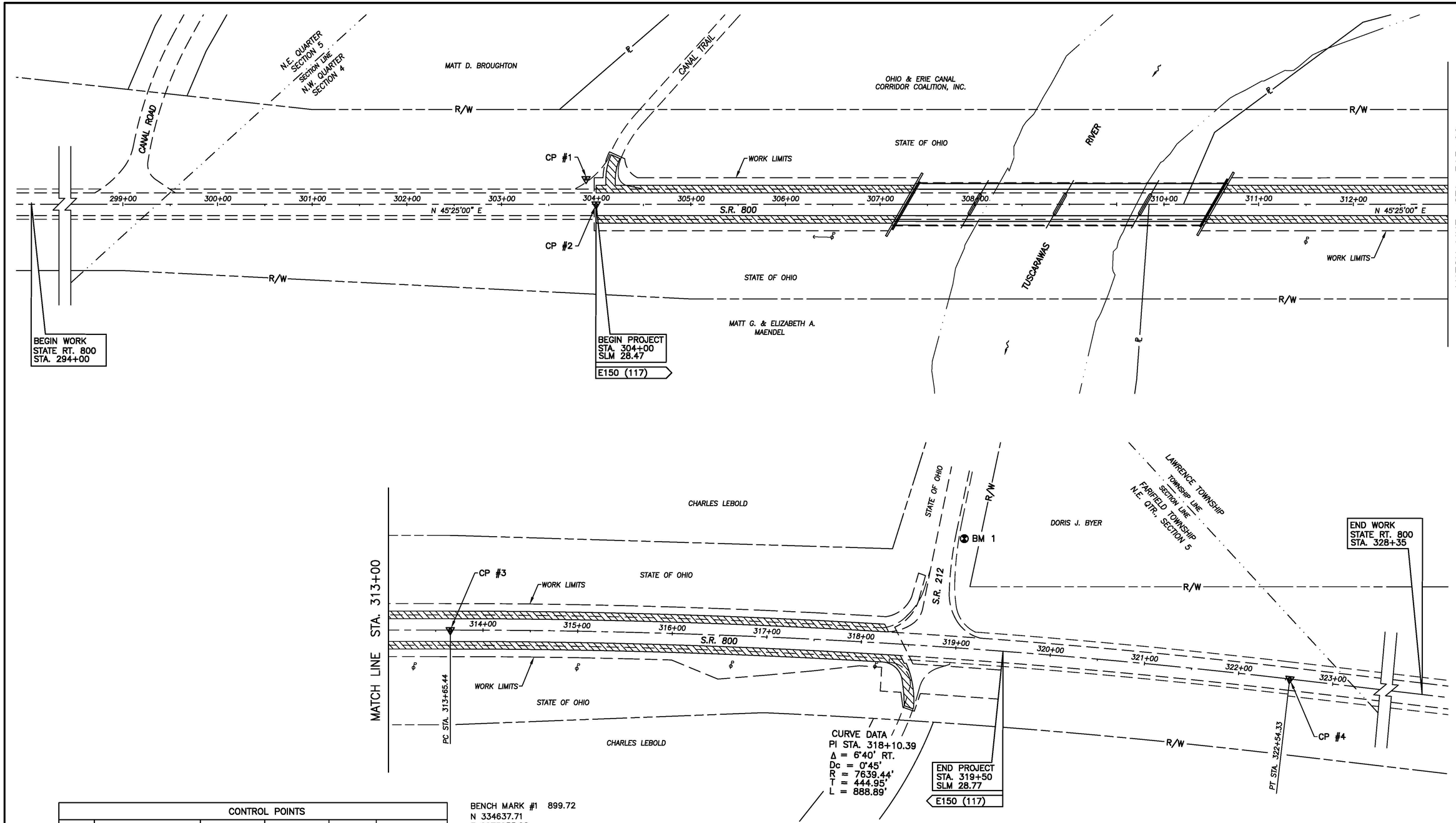
STATE OF OHIO
HARRY D. MATTER
PROFESSIONAL ENGINEER
REGISTERED
2/24/16

PID NUMBER 99411

FEDERAL PROJECT NUMBER E 150 (117)

RAILROAD INVOLVEMENT NONE

TUS-800-28.47



CONTROL POINTS					
PNT NO.	CENTERLINE STATION STATE ROUTE 800	NORTHING	EASTING	ELEV	DESCRIPTION
1	303+89.34, 26.73' LT	333472.87	2274978.28	901.59	IRON PIN
2	304+00	333458.29	2275000.04		
3	PC 313+65.44	334172.49	2275653.03		
4	PT 322+54.33	334776.06	2276259.40		

BENCH MARK #1 899.72
N 334637.71
E 2275955.92
DISK IN N.W. CORNER OF CONCRETE BASE FOR GUARDRAIL ANCHOR, 8' EAST OF S.R. 212 & 100'± NORTH OF S.R. 800.

FEBRUARY, 2016

N

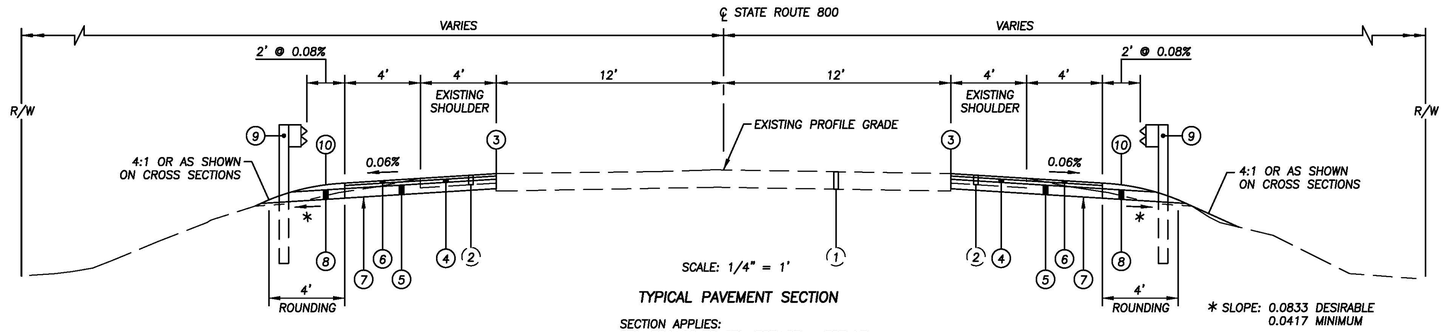
SCALE IN FEET
0 50 100

CALCULATED JM
CHECKED HDM

SCHEMATIC PLAN
STA. 294+00 TO STA. 328+35

TUS-800-28.47

2
27



SCALE: 1/4" = 1'

TYPICAL PAVEMENT SECTION

SECTION APPLIES:
STA. 304+00 TO STA. 307+27 = 327 LF
STA. 310+55 TO STA. 318+25 = 770 LF

LEGEND

(1) EXISTING PAVEMENT
(2) EXISTING SHOULDER (2" ASPHALT & 4" AGGREGATE BASE)
(3) ITEM 255 – FULL DEPTH PAVEMENT SAWING
(4) ITEM 301 – 2" ASPHALT CONCRETE BASE
(5) ITEM 304 – 6" AGGREGATE BASE
(6) ITEM 441 – 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64–22
(7) ITEM 204 – SUBGRADE COMPACTION
(8) ITEM 605 – AGGREGATE DRAIN
(9) ITEM 606 – GUARDRAIL, STANDARD TYPE MGS, LONG POSTS
ITEM 606 – GUARDRAIL, MODIFIED AS PER PLAN (@ BRIDGE CROSSING)
(10) ITEM 659 – SEEDING & MULCHING

CALCULATED JM | CHECKED HDM

TYPICAL SECTION

TUS–800–28.47

FEBRUARY, 2016

INSTALLATION OF SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON:

THE SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON WILL BE PROVIDED BY ODOT DISTRICT 11. CONTRACTOR SHALL PICK-UP ALL HARDWARE AT ODOT DISTRICT 11 LOCATED AT

2201 REISER AVENUE S.E.
NEW PHILADELPHIA, OHIO 44663

PICK-UP COORDINATION WILL BE PROVIDED AT THE PRE CONSTRUCTION CONFERENCE. THE FOUNDATION INSTALLATION WILL BE PROVIDED BY THE CONTRACTOR AS SHOWN IN ABOVE DETAIL.

UTILITIES

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

AMERICAN ELECTRIC POWER
1067 DARRELL DRIVE NE
NEW PHILADELPHIA, OHIO 44633
330-365-2454

AT & T
111 NORTH 4th STREET
COLUMBUS, OHIO 43215
614-223-4392

THERE ARE NO KNOWN UNDERGROUND UTILITIES ON THIS PROJECT.

DATUM

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET NO. 2 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

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

PROJECT CONTROL:

POSITIONING METHOD _____ GPS
MONUMENT TYPE _____ AS NOTED

VERTICAL POSITIONING:

ORTHOMETRIC HEIGHT DATUM _ NAVD 1988
GEOID _____ GEOIDIZB

HORIZONTAL POSITIONING:

REFERENCE FRAME _____ NAD 1983
MAP PROJECTION _____ LAMBERT
COORDINATE SYSTEM _____ SPC 3401 OHIO NORTH
COMBINED SCALE FACTOR ____ 0.99994081

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

UNITS ARE IN U.S. SURVEY FEET.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS CLEARLY 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 THE ITEM 201, CLEARING AND GRUBBING.

ITEM 659, SEEDING AND MULCHING

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

659, TOPSOIL _____ 50 CU. YD.
659, SEEDING AND MULCHING _____ 1804 SQ. YD.
659, REPAIR SEEDING AND MULCHING _____ 500 SQ. YD.
659, COMMERCIAL FERTILIZER _____ 0.16 TON
659, LIME _____ 0.37 ACRE
659, WATER _____ 9.74 M. GAL.

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

ROUNDING

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

BENCHING OF FOUNDATION SLOPES

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

ITEM 605, AGGREGATE DRAINS

AGGREGATE DRAINS SHALL BE PLACED AT 50 FOOT INTERVALS ON EACH SIDE OF NORMAL CROWNED SECTIONS, STAGGERED SO THAT EACH DRAIN IS 25 FEET FROM THE ADJACENT DRAIN ON THE OPPOSITE SIDE, AND AT 25 FOOT INTERVALS ON THE LOW SIDE ONLY OF SUPERELEVATED SECTIONS. AN AGGREGATE DRAIN SHALL BE PLACED AT THE LOW POINT OF EACH SAG VERTICAL CURVE.

QUANTITIES SHOWN ON SHEET 13, 15, & 17.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

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

EXISTING PLANS

EXISTING PLANS ENTITLED TUS-800-28.47 MAY BE INSPECTED IN THE ODOT DISTRICT 11 OFFICE AT 2201 REISER AVENUE, NEW PHILADELPHIA, OHIO 44663

THESE EXISTING PLANS CAN ALSO BE DOWNLOADED FROM THE FOLLOWING FTP SITE:
ftp://ftp.dot.state.oh.us/pub/Contracts/Attach

NOTIFICATION OF WORK ZONE LANE RESTRICTIONS

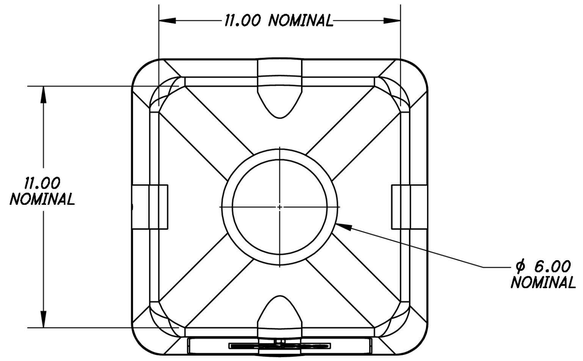
THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST EIGHTEEN (18) DAYS PRIOR TO IMPLEMENTING ANY WORK ZONE RESTRICTIONS THAT WILL REDUCE THE WIDTH OR VERTICAL CLEARANCE OF ANY LANE ON WHICH TRAFFIC WILL BE MAINTAINED DURING CONSTRUCTION.

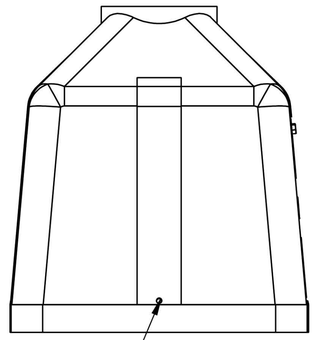
WATERS OF THE US PLAN NOTE:

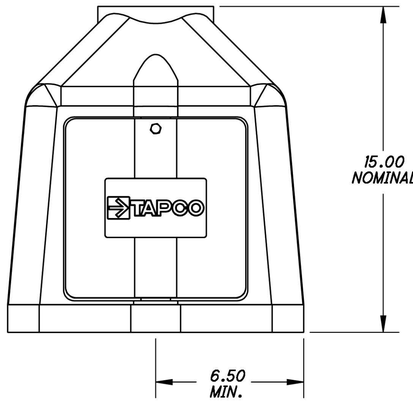
MULTIPLE WETLAND AND STREAM FEATURES HAVE BEEN IDENTIFIED WITHIN THE PROJECT AREA. THESE FEATURES ARE SHOWN IN THE CONSTRUCTION PLANS. THE CONTRACTOR SHALL EXERCISE CAUTION TO ENSURE THAT NO IMPACTS OCCUR TO ANY STREAM OR WETLAND RESOURCE. NO TEMPORARY OR PERMANENT FILL OF ANY TYPE MAY BE PLACED IN ANY STREAM OR WETLAND AS PART OF THIS PROJECT. ANY ACTIVITIES OCCURRING IN STREAMS OR WETLANDS WOULD REQUIRE PERMITS FROM THE US ARMY CORP OF ENGINEERS AND/OR THE OHIO EPA.

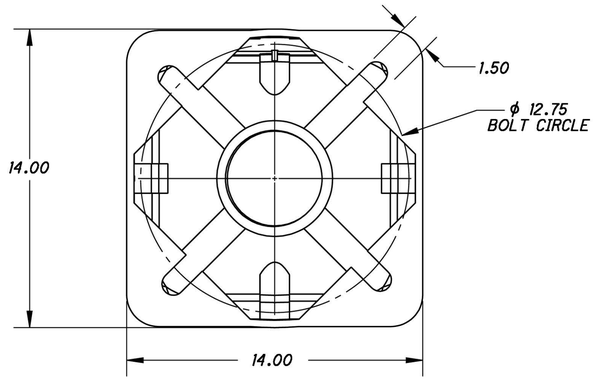
ANY OTHER SITE PROPOSED BY THE CONTRACTOR FOR OFF PROJECT ANCILLARY CONSTRUCTION (STAGING AREAS, WASTE LOCATIONS, AND/OR BORROW LOCATIONS) MUST MEET THE REQUIREMENTS OF CMS 105.16.

TOP VIEW

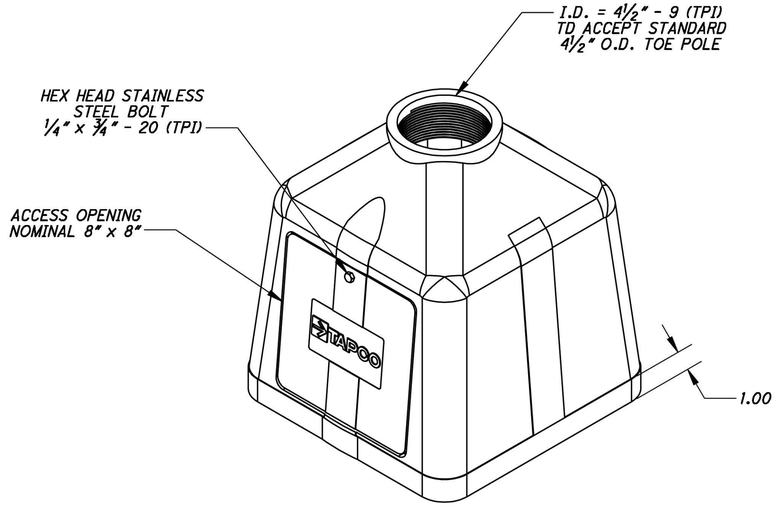




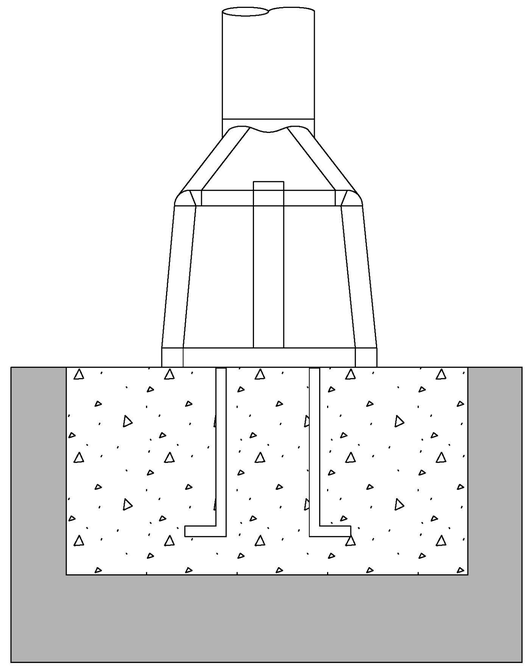




BOTTOM VIEW



ISOMETRIC VIEW



(4X) 111644 ¾" x 18" J-BOLT, NUT AND WASHER

MODERATE LOAD
STANDARD GROUND SETTINGS

INSTALLING J-BOLT ANCHORS

- Using a circular auger, dig a hole that is 1 ft. deeper that the length of J-Bolts being utilized.
- Measure the combined thickness of the base, J-bolt, washer and nut. Mark that thickness on the threaded end of each J-bolt.
- Coat the threaded end of the J-bolt with petroleum jelly to prevent wet concrete from sticking to threads
- Using the base bolt pattern template as a guide, press the curved side of the J-bolt into the concrete until the mark on each J-bolt is flush with the surface of the concrete.
- Position the J-bolt so the protruding section of the J-bolt is flush with the side of the plumb bob from at least three sides. Accuracy is very important.
- When the concrete has set up for at least 48 hours, wash off the petroleum jelly with a hot, wet soapy cloth.
- Set the Pedestal base on top of the J-bolts so the door will be facing away from traffic. Remove hex bolt and remove door so that you can screw the provided nuts down the adapter plate bolts snug to the bottom of the base. Close base door. (Use leveling shims if needed to keep base plumb)
- Line pole up above base and carefully thread pole into base with strap wrench until fully secure.

CALCULATED CCW
CHECKED TES

PEDESTAL BASE

TUS-800-28.47

MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE TWO WAY ALTERNATING TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS FOR EACH PHASE SHALL BE LIMITED TO NO MORE THAN 14 DAYS. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

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

DUST CONTROL

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

ITEM 616, WATER 50 M. GAL.

SEQUENCE OF CONSTRUCTION

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRAFFIC TO ALL DRIVES AND APPROACHES AS PER ODOT SPECIFICATION SECTION 614.02(a) DURING ALL CONSTRUCTION.

SIGNALIZED CLOSING ONE LANE OF A 2–LANE HIGHWAY SHALL BE MAINTAINED AS PER MT–96.11. TRAFFIC SHALL BE MAINTAINED DURING AND AFTER WORKING HOURS.

CONSTRUCTION OF PROJECT SHALL BE DONE IN FOUR PHASES:

PHASE 1 ~ SIGNALIZED CLOSING OF SR 800 SOUTHBOUND LANE FROM STA. 302+50 TO STA. 313+00. ALL SIGNS WILL BE ERECTED AND DRUMS LOCATED ACCORDING TO MOT PLAN SHEET NO. 6, AND SHALL REMAIN FOR THE DURATION OF THE CONSTRUCTION OF PHASE 1. PRE CONSTRUCTION PAVEMENT MARKING SHALL BE APPLIED AND EXISTING PAVEMENT MARKING REMOVED AS PER MOT PLAN SHEET NO. 6 AND REMAIN UNTIL FINAL RESURFACING IS COMPLETE IN PHASE 1. POST CONSTRUCTION PAVEMENT MARKING SHALL BE APPLIED FOR CROSSWALK LINES (BLOCK STYLE) INSIDE OF PHASE 1 WORK ZONE WHILE SR 800 SOUTHBOUND LANE IS CLOSED.

PHASE 2 ~ SIGNALIZED CLOSING OF SR 800 SOUTHBOUND LANE FROM STA. 310+00 TO STA. 321+00. ALL SIGNS AND DRUMS SHALL BE PLACED, ERECTED AND LOCATED ACCORDING TO MOT PLAN SHEET NO'S. 7 & 10, AND SHALL REMAIN FOR THE DURATION OF THE CONSTRUCTION OF PHASE 2. PRE CONSTRUCTION PAVEMENT MARKING SHALL BE APPLIED AND EXISTING PAVEMENT MARKING REMOVED AS PER MOT PLAN SHEET NO'S. 7 & 10 AND REMAIN UNTIL FINAL RESURFACING IS COMPLETE IN PHASE 2. POST CONSTRUCTION PAVEMENT MARKING SHALL BE APPLIED FOR CROSSWALK LINES (BLOCK STYLE) INSIDE OF PHASE 2 WORK ZONE WHILE SR 800 SOUTHBOUND LANE IS CLOSED.

PHASE 3 ~ SIGNALIZED CLOSING OF SR 800 NORTHBOUND LANE FROM STA. 310+00 TO STA. 321+00. ALL SIGNS AND DRUMS SHALL BE PLACED, ERECTED AND LOCATED ACCORDING TO MOT PLAN SHEET NO'S. 8 & 10, AND SHALL REMAIN FOR THE DURATION OF THE CONSTRUCTION OF PHASE 3. PRE CONSTRUCTION PAVEMENT MARKING SHALL BE APPLIED AND EXISTING PAVEMENT MARKING REMOVED AS PER MOT PLAN SHEET NO'S. 8 & 10 AND REMAIN UNTIL FINAL RESURFACING IS COMPLETE IN PHASE 3. POST CONSTRUCTION PAVEMENT MARKING SHALL BE APPLIED FOR CROSSWALK LINES (BLOCK STYLE) INSIDE OF PHASE 3 WORK ZONE WHILE SR 800 NORTHBOUND LANE IS CLOSED.

PHASE 4 ~ SIGNALIZED CLOSING OF SR 800 NORTHBOUND LANE FROM STA. 302+50 TO STA. 313+00. ALL SIGNS AND DRUMS SHALL BE ERECTED AND LOCATED ACCORDING TO MOT PLAN SHEET NO. 9, AND SHALL REMAIN FOR THE DURATION OF THE CONSTRUCTION OF PHASE 4. PRE CONSTRUCTION PAVEMENT MARKING SHALL BE APPLIED AND EXISTING PAVEMENT MARKING REMOVED AS PER MOT PLAN SHEET NO. 9 AND REMAIN UNTIL FINAL RESURFACING IS COMPLETE IN PHASE 4. POST CONSTRUCTION PAVEMENT MARKING SHALL BE APPLIED FOR CROSSWALK LINES (BLOCK STYLE) INSIDE OF PHASE 4 WORK ZONE WHILE SR 800 NORTHBOUND LANE IS CLOSED.

FINAL PAVEMENT MARKING FOR EDGE LINES & CENTER LINE SHALL BE APPLIED AFTER ALL DRUMS & TEMPORARY PAVEMENT MARKINGS FOR MOT HAVE BEEN REMOVED. MAINTAIN TRAFFIC PER SCD 97.10.

WORK ZONE MARKINGS AND SIGNS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11.

QUANTITY TO STRIPE PROJECT ONE TIME:

ITEM 614, WORK ZONE CENTERLINE, CLASS 1, 740.06 _____ 0.60 MI
ITEM 614, WORK ZONE EDGE LINE, CLASS 1, 740.06 _____ 1.40 MI.

QUANTITIES CARRIED TO GENERAL SUMMARY SHEET FROM MOT SHEET NO'S. 6, 7, 8 & 9

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTING DURING CONSTRUCTION OPERATIONS

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

IN ADDITION TO THE REQUIREMENTS OF C&MS 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.

DURING TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AND ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (e.g. DIRECTING MOTORISTS THROUGH A RED LIGHT)

IN ADDITION TO THE REQUIREMENTS OF C&MS 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) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

FOR LANE CLOSURED DURING INITIAL SET–UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN THE 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 IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OR ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOs SHOULD NOT FORGO THERE 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 CONTRACTOR. 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.

LEOs 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 RETURNED 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 120 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 A LEO ARE INCLUDED IN THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

TRENCH FOR WIDENING

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

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 2 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

FULLY–ACTUATED OPERATION OF WORK ZONE TRAFFIC SIGNAL

THE WORK ZONE SIGNAL CONTROL REQUIRED FOR THIS PROJECT AND SHOWN ON SHEETS 6 THRU 10 AND TRAFFIC SCDs MT–96.11, 96.20 AND 96.26 SHALL BE FULLY TRAFFIC ACTUATED AND OPERATE IN A MANNER SIMILAR TO THAT DESCRIBED IN SECTION 733.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

THE INITIAL CONTROLLER TIMING SHALL BE AS FOLLOWS:

	PHASE			
	1 (ALL RED) DUMMY PHASE	2 MAINLINE (DIRECTION)	3 (ALL RED) DUMMY PHASE	4 MAINLINE (DIRECTION)
MIN. GREEN		10		10
EXTENSION		4		4
MAX. GREEN		30		30
YELLOW		3.5		3.5
ALL RED	X*		X*	
RECALL	ON	OFF	OFF	OFF

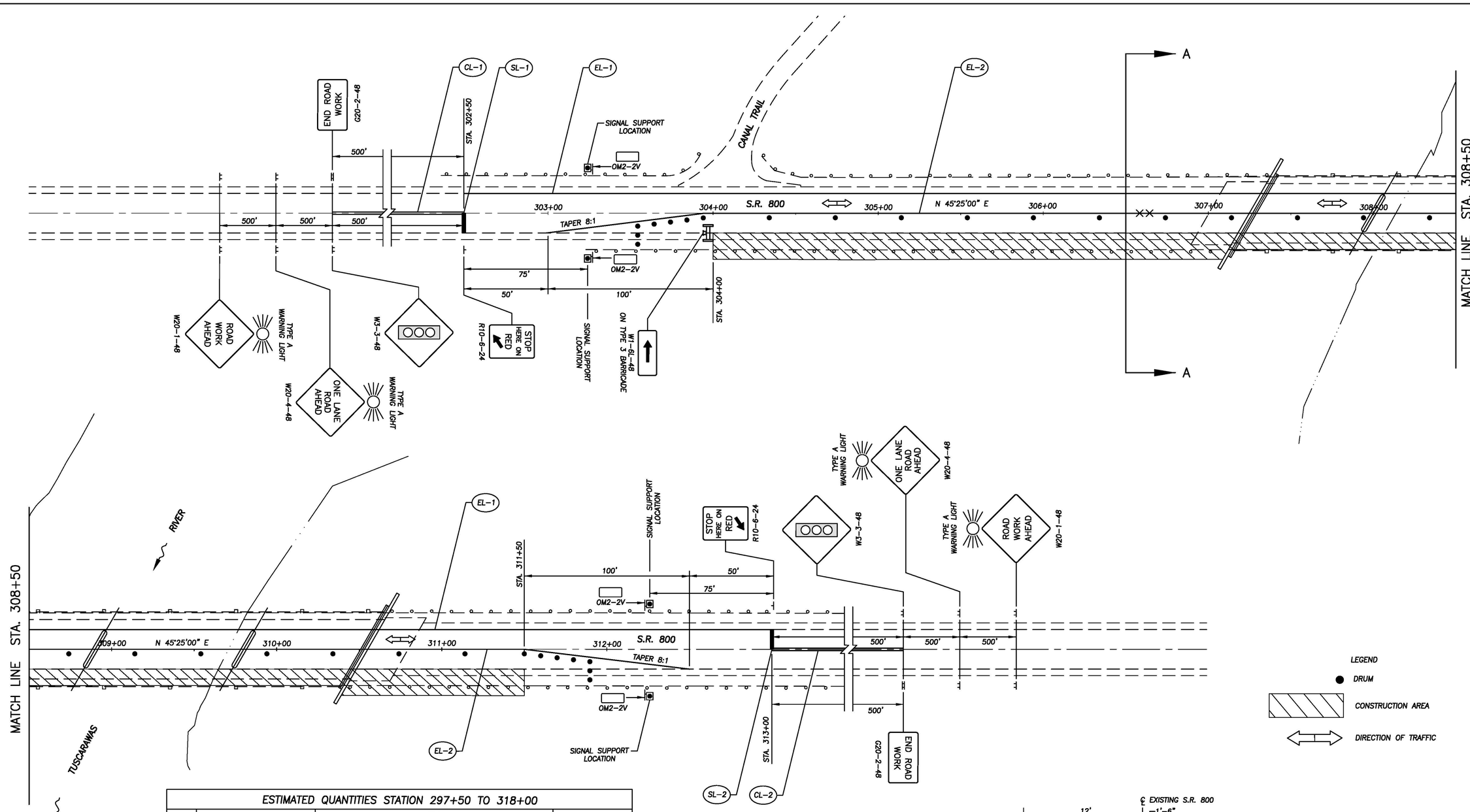
* CALCULATE CLEARANCE TIMES IN ACCORDANCE WITH TABLE 697–2 IN THE ODOT TRAFFIC AND ENGINEERING MANUAL (TEM).

THE CONTRACTOR SHALL ALSO DESIGN, FURNISH, INSTALL AND MAINTAIN A TRAFFIC DETECTOR ON EACH TRAFFIC APPROACH WHICH WILL RELIABLY DETECT ALL LEGAL TRAFFIC APPROACHING (BUT NOT LEAVING) THE SIGNAL AS IT PASSES OR WAITS IN THE DESIGNATED DETECTOR ZONE SHOWN IN THE PLANS. DETECTOR DESIGNS WHICH DO NOT PROVIDE RELIABLE DETECTION, FREE FROM FALSE CALLS, SHALL BE IMMEDIATELY REPLACED BY THE CONTRACTOR.

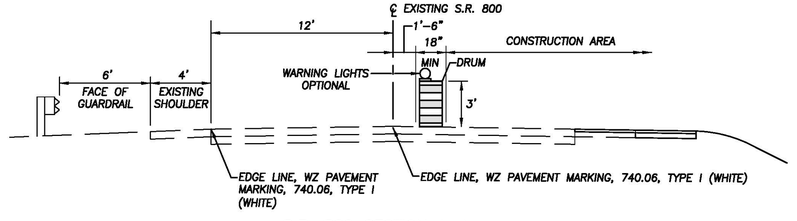
CALCULATED JM | CHECKED HDM

GENERAL NOTES

TUS–800–28.47



ESTIMATED QUANTITIES STATION 297+50 TO 318+00					
		614			
REF NO.	STATION TO STATION	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I (WHITE)	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I (DOUBLE YELLOW)	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
		MILE	MILE	LIN FT	
CL-1	297+50 TO 302+50		0.10		
CL-2	313+00 TO 318+00		0.10		
EL-1	302+50 TO 313+00	0.20			
EL-2	303+00 TO 312+50	0.18			
SL-1	302+50			12	
SL-2	313+00			12	
SUBTOTALS		0.38	0.20	24	
TOTALS CARRIED TO GENERAL SUMMARY		0.38	0.20	24	



S.R. 800 SECTION A–A

SECTION APPLIES:
STA. 304+00 TO STA. 311+50

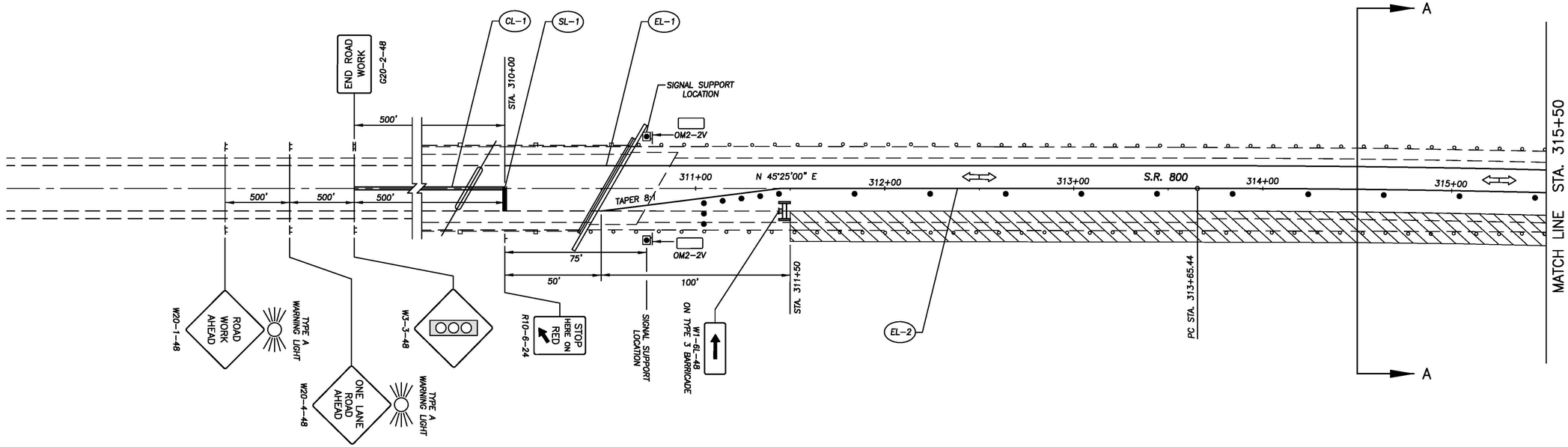
FEBRUARY, 2016

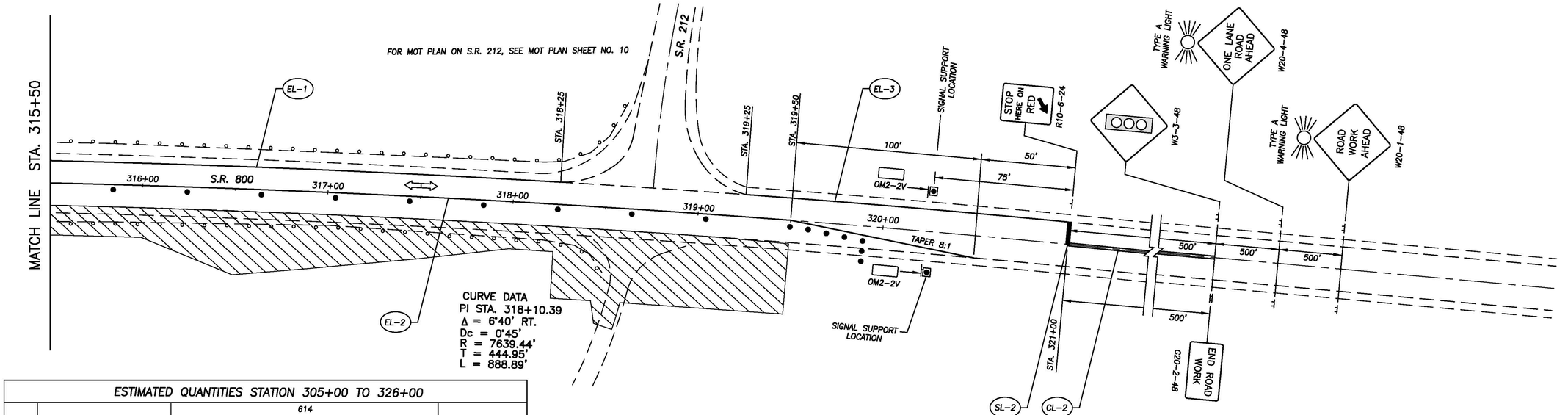
SCALE IN FEET
0 30 60

CALCULATED JM
CHECKED HDM

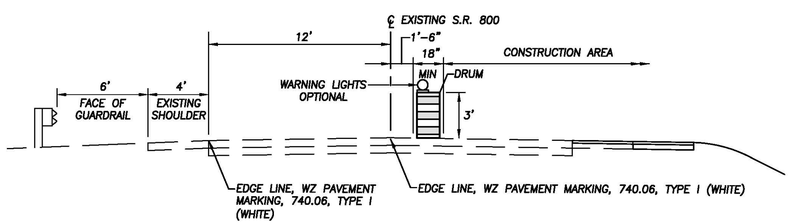
MAINTENANCE OF TRAFFIC
PHASE 1

TUS-800-28.47





ESTIMATED QUANTITIES STATION 305+00 TO 326+00					
		614			
REF NO.	STATION TO STATION	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I (WHITE)	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I (DOUBLE YELLOW)	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
		MILE	MILE	LIN FT	
CL-1	305+00 TO 310+00		0.10		
CL-2	321+00 TO 326+00		0.10		
EL-1	310+00 TO 318+25	0.17			
EL-2	310+50 TO 320+50	0.19			
EL-3	319+25 TO 321+00	0.03			
SL-1	310+00			12	
SL-2	321+00			12	
SUBTOTALS		0.39	0.20	24	
TOTALS CARRIED TO GENERAL SUMMARY		0.39	0.20	24	



S.R. 800 SECTION A–A

SECTION APPLIES:
STA. 311+50 TO STA. 319+50

LEGEND

- DRUM
- CONSTRUCTION AREA
- DIRECTION OF TRAFFIC

FEBRUARY, 2016

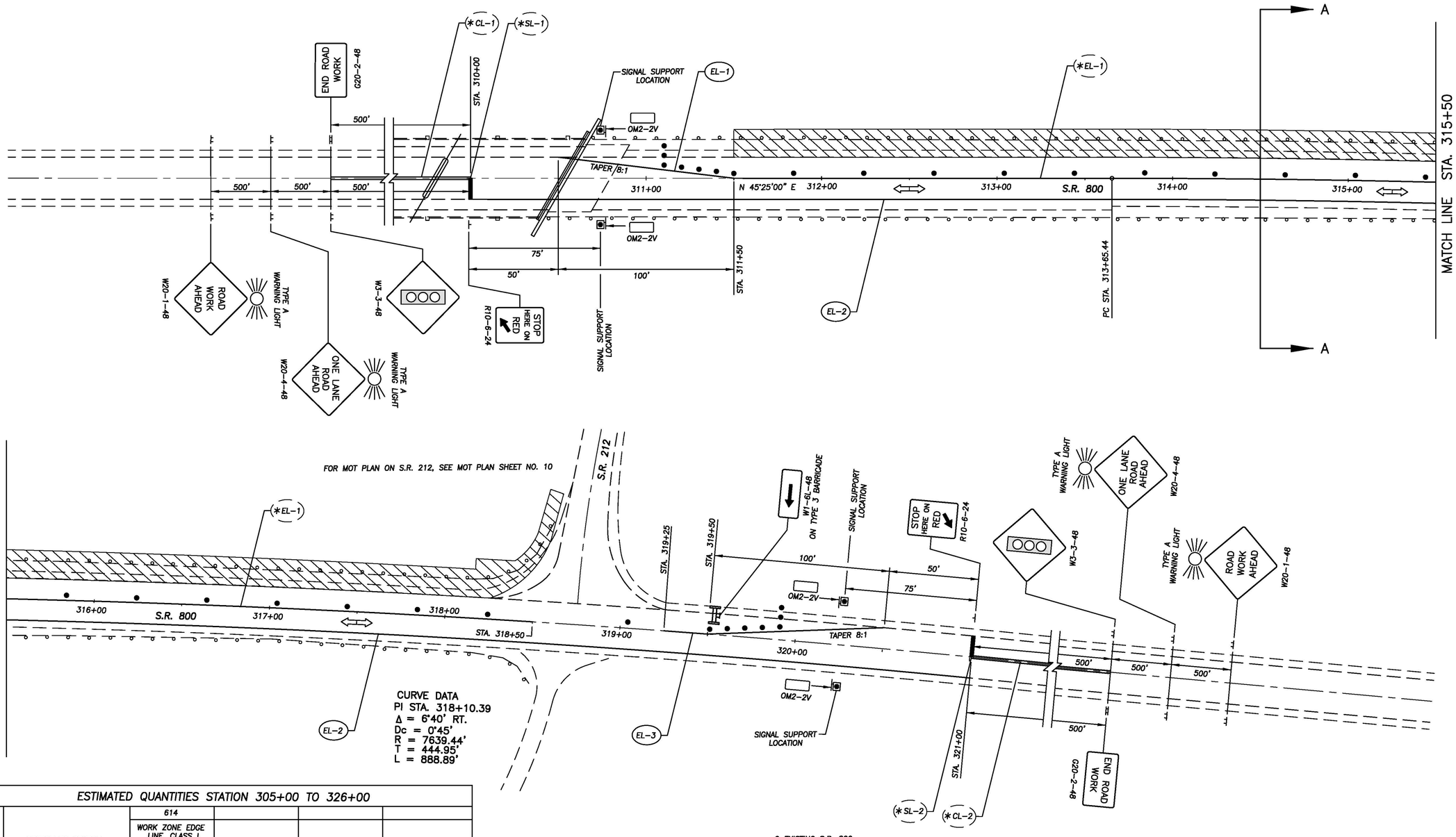
N

0 30 60 SCALE IN FEET

CALCULATED JM | CHECKED HDM

MAINTENANCE OF TRAFFIC
PHASE 2

TUS-800-28.47



S.R. 800 SECTION A–A

SECTION APPLIES:
STA. 311+50 TO STA. 319+50

ESTIMATED QUANTITIES STATION 305+00 TO 326+00					
REF NO.	STATION TO STATION	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I (WHITE) MILES			
EL–1	310+50 TO 311+50	0.02			
EL–2	310+00 TO 321+00	0.21			
EL–3	319+25 TO 320+50	0.02			
SUBTOTALS		0.25			
TOTALS CARRIED TO GENERAL SUMMARY		0.25			

* QUANTITIES FOR SL–1, SL–2, CL–1 & CL–2 ARE NOT NEEDED FOR THIS PHASE. THEY CAN BE USED FROM PREVIOUS PHASE.

* QUANTITIES FOR PARTIAL EL–1, ARE NOT NEEDED FOR THIS PHASE. THEY CAN BE USED FROM PREVIOUS PHASE.

FEBRUARY, 2016

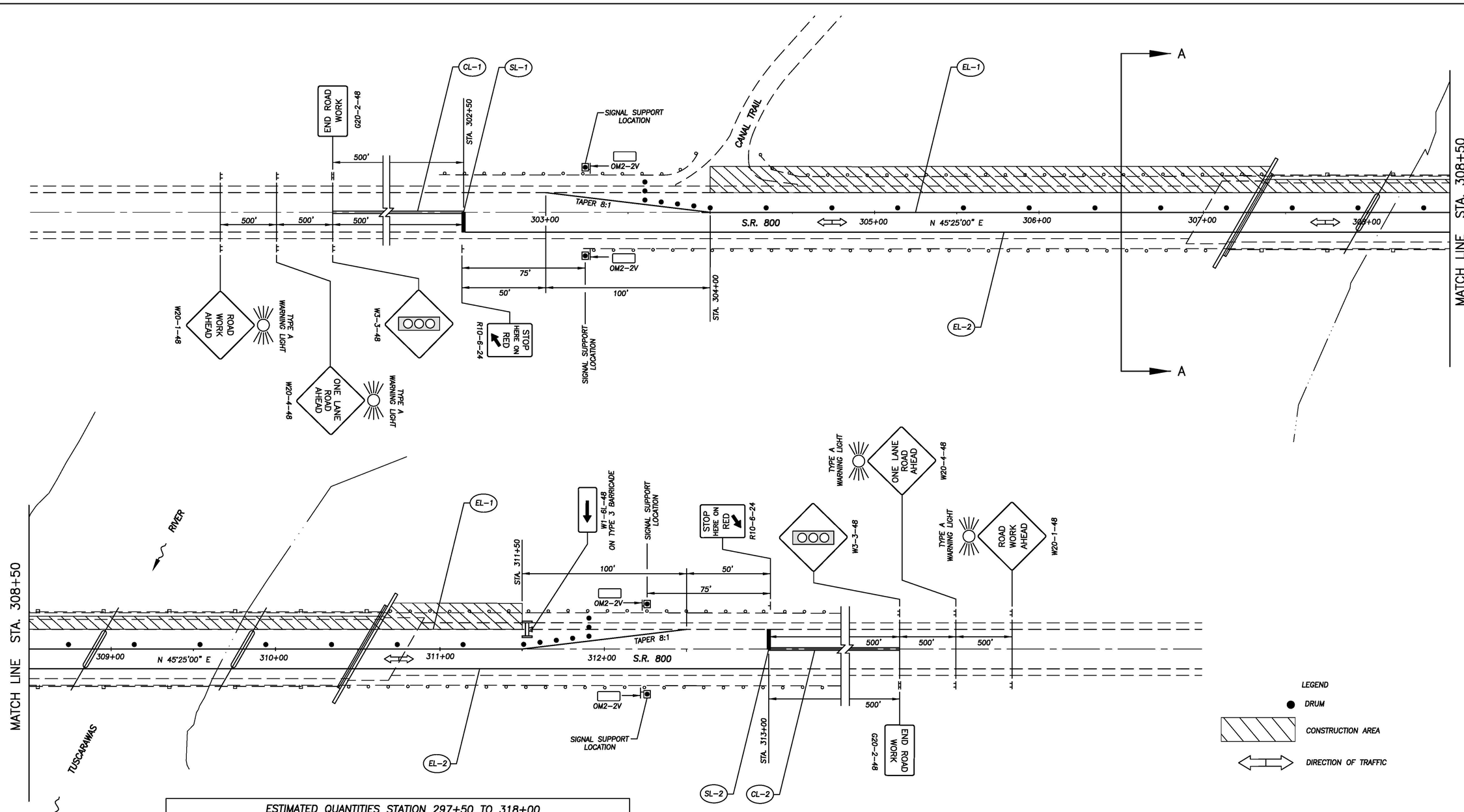
SCALE IN FEET 0 30 60

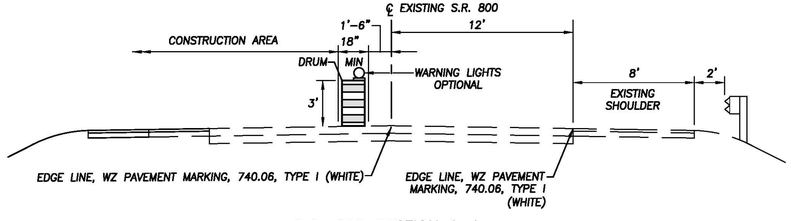
CALCULATED JM

CHECKED HDM

MAINTENANCE OF TRAFFIC
PHASE 3

TUS–800–28.47





S.R. 800 SECTION A–A

SECTION APPLIES:
STA. 304+00 TO STA. 311+50

ESTIMATED QUANTITIES STATION 297+50 TO 318+00

REF NO.	STATION TO STATION	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I (WHITE)	614 WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I (DOUBLE YELLOW)	614 WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
		MILE	MILE	LIN FT	
CL–1	297+50 TO 302+50		0.10		
CL–2	313+00 TO 318+00		0.10		
EL–1	303+00 TO 312+50	0.18			
EL–2	302+50 TO 313+00	0.20			
SL–1	302+50			12	
SL–2	313+00			12	
SUBTOTALS		0.38	0.20	24	
TOTALS CARRIED TO GENERAL SUMMARY		0.38	0.20	24	

FEBRUARY, 2016

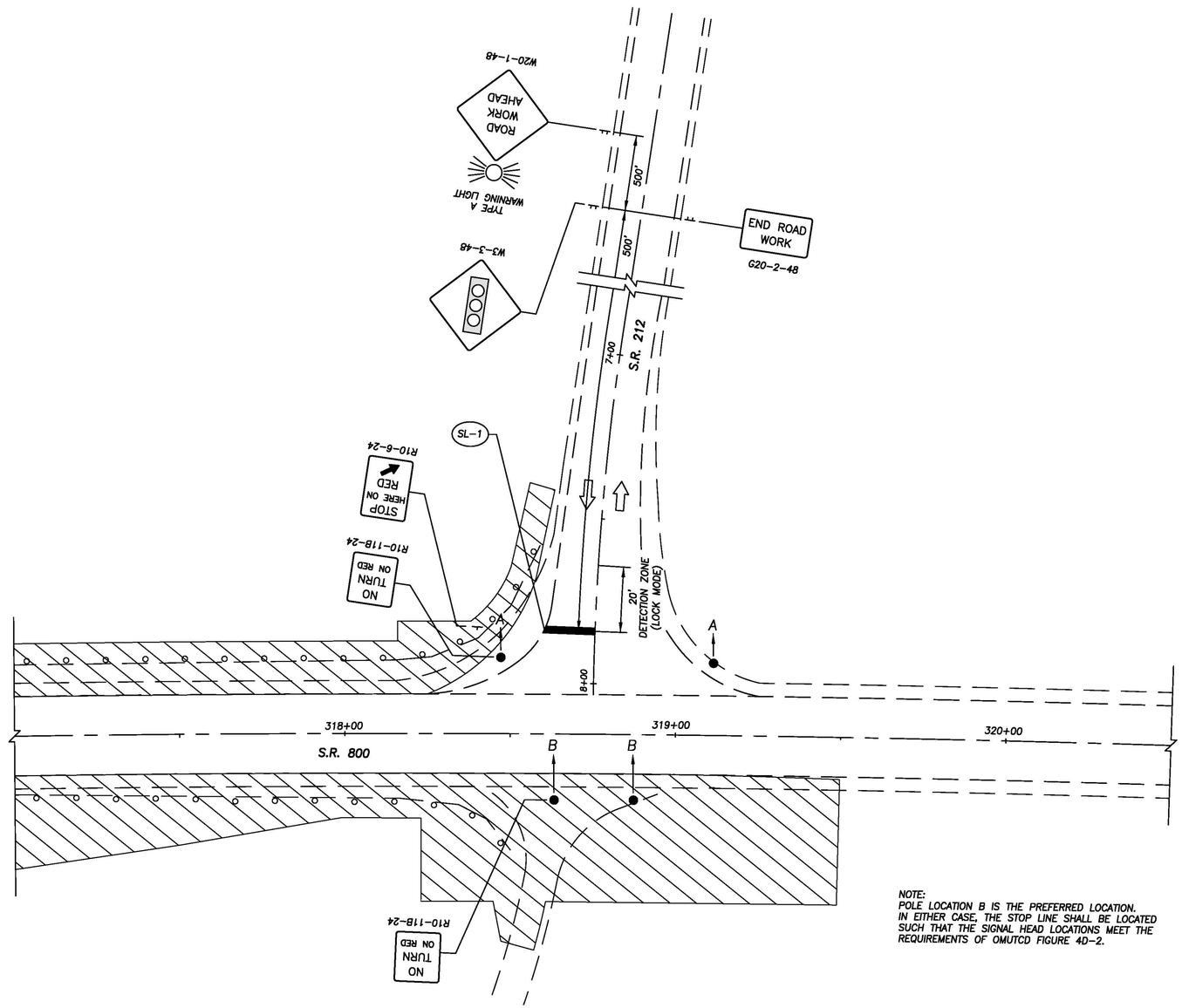
SCALE IN FEET 0 30 60

CALCULATED JM

CHECKED HDM

MAINTENANCE OF TRAFFIC PHASE 4

TUS–800–28.47



NOTE:
POLE LOCATION B IS THE PREFERRED LOCATION. IN EITHER CASE, THE STOP LINE SHALL BE LOCATED SUCH THAT THE SIGNAL HEAD LOCATIONS MEET THE REQUIREMENTS OF OMUTCD FIGURE 4D-2.

ESTIMATED QUANTITIES SR 212 STATION 7+32

REF NO.	STATION TO STATION	614 WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I			
		LIN FT			
SL-1	STA. 7+84	16			
SUBTOTALS		16			
TOTALS CARRIED TO GENERAL SUMMARY		16			

LEGEND

CONSTRUCTION AREA

DIRECTION OF TRAFFIC

N

0 20 40
SCALE IN FEET

CALCULATED JM
CHECKED HDM

MAINTENANCE OF TRAFFIC
SR 800 & SR 212 INTERSECTION

TUS-800-28.47

10
27

FEBRUARY, 2016

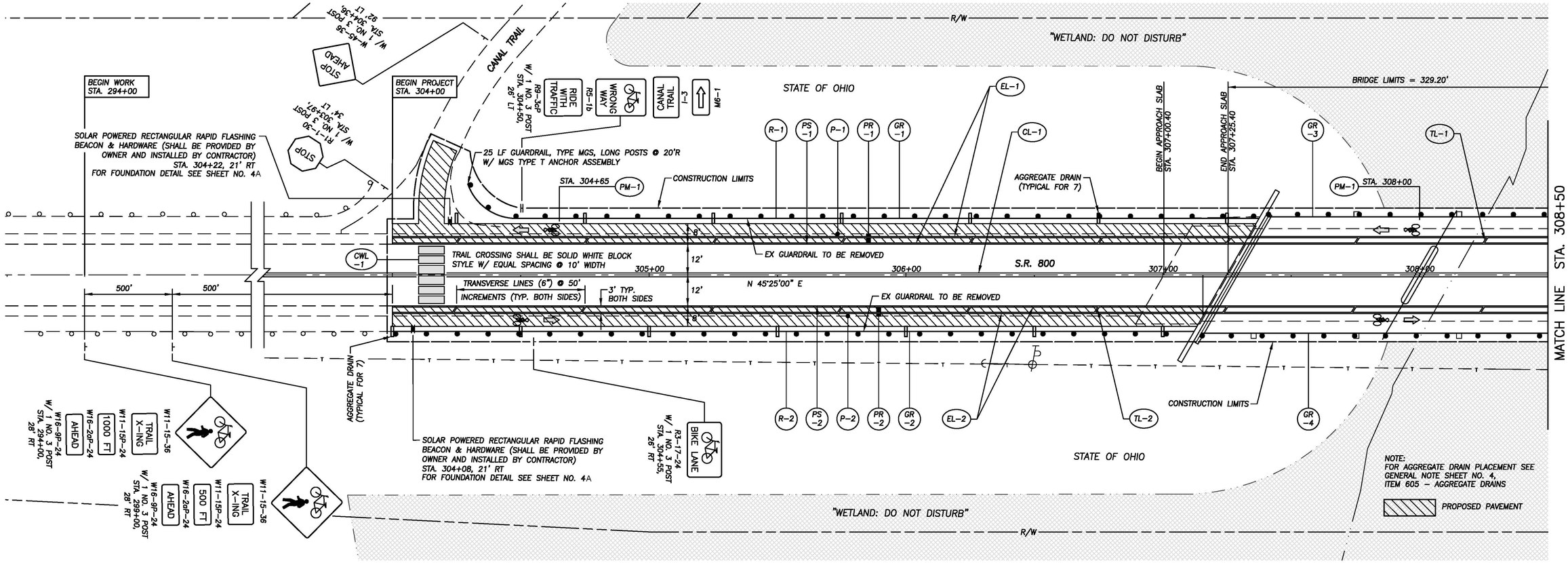
SHEET NUMBER														01/ENH/OT	02/STR/OT	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	4	5		6	7	8	9	10	13	15	17	22	26								
																				ROADWAY	
	LUMP													LUMP		201	11000	LUMP		CLEARING AND GRUBBING	
									289	351	342			982		202	23000	982	SQ YD	PAVEMENT REMOVED	
									625	800	812.5			2237.5		202	38000	2237.5	FT	GUARDRAIL REMOVED	
												588		588		203	10000	588	CU YD	EXCAVATION	
												295		295		203	20000	295	CU YD	EMBANKMENT	
									612	702	741			2055		204	10000	2055	SQ YD	SUBGRADE COMPACTION	
									250	400				650		517	76300	650	FT	RAILING MISC.: BIKEWAY HAND RAILING RETOFIT (TUS-800-2853, SFN 7906706)	
									625	800	812.5			2237.5		606	15100	2237.5	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
											1			1		606	25550	1	EACH	ANCHOR ASSEMBLY, MGS TYPE A	
									1		1			2		606	26550	2	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
																					23, 24
																				EROSION CONTROL	
	50													50		659	00300	50	CU YD	TOPSOIL	
	1804													1804		659	10000	1804	SQ YD	SEEDING AND MULCHING	
	500													500		659	14000	500	SQ YD	REPAIR SEEDING AND MULCHING	
	0.16													0.16		659	20000	0.16	TON	COMMERCIAL FERTILIZER	
	0.37													0.37		659	31000	0.37	ACRE	LIME	
	9.74													9.74		659	35000	9.74	M GAL	WATER	
														1000		832	30000	1000	EACH	EROSION CONTROL	
																				DRAINAGE	
									56	60	56			172		605	31100	172	FT	AGGREGATE DRAINS	
																				PAVEMENT	
									650	790	770			2210		255	20000	2210	FT	FULL DEPTH PAVEMENT SAWING	
									35	40	42			117		301	46000	117	CU YD	ASPHALT CONCRETE BASE, PG64-22	
									102	117	124			343		304	20000	343	CU YD	AGGREGATE BASE	
									26	29	31			86		441	50000	86	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
																				LIGHTING	
													40		40	611	00400	40	FT	4" CONDUIT, TYPE E	
													4		4	625	00450	4	EACH	CONNECTION, FUSED PULL APART	
													3		3	625	00480	3	EACH	CONNECTION, UNFUSED PERMANENT	
													2		2	625	10490	2	EACH	LIGHT POLE. CONVENTIONAL, DESIGN AT20B35	
													2		2	625	14000	2	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP	
													654		654	625	23200	654	FT	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	
													220		220	625	23400	220	FT	NO. 10 AWG POLE AND BRACKET CABLE	
													128		128	625	25500	128	FT	CONDUIT, 3", 725.04	
													60		60	625	25902	60	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3"	
													128		128	625	29000	128	FT	TRENCH	
													1		1	625	30706	1	EACH	PULL BOX, 725.08, 24"	
													2		2	625	32000	2	EACH	GROUND ROD	
													1		1	625	34001	1	EACH	POWER SERVICE, AS PER PLAN	25
													128		128	625	36000	128	FT	PLASTIC CAUTION TAPE	
																				LIGHTING ALTERNATES	
													2		2	625	26251	2	EACH	LUMINAIRE, CONVENTIONAL, AS PER PLAN (200W HPS, 480 VOLT, TYPE II)	25
													2		2	625	26253	2	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, IES-II_M-SC, EQUIVALENT TO 200W HPS LAMPS (480 VOLT) (ALTERNATE)	25
																				TRAFFIC CONTROL	
									12	13	10			35		626	00100	35	EACH	BARRIER REFLECTOR	
									84		100			184		630	03100	184	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
									61		66			127		630	80100	127	SQ FT	SIGN, FLAT SHEET	
									2		2			4		630	97700	4	EACH	SIGNING, MISC.: SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON W/ HARDWARE (LABOR ONLY)	
									0.34	0.46	0.29			1.09		646	10010	1.09	MILE	EDGE LINE, 6"	
									0.11	0.11	0.11			0.33		646	10200	0.33	MILE	CENTER LINE	
									78		91			169		646	10500	169	FT	CROSSWALK LINE	
									40	60	40			140		646	10600	140	FT	TRANSVERSE/DIAGONAL LINE	
									4	2	4			10		646	20300	10	EACH	LANE ARROW	
									4	2	4			10		646	20600	10	EACH	BIKE LANE SYMBOL MARKING	
																				MAINTENANCE OF TRAFFIC	
		120												120		614	11110	120	HOUR	LAW ENFORCEMENT OFFICER, W/ PATROL CAR FOR ASSISTANCE	
				0.20	0.20		0.20							0.60		614	21200	0.60	MILE	WORK ZONE CENTERLINE, CLASS I, 740.06, TYPE I	
				0.38	0.39	0.25	0.38							1.40		614	22200	1.40	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I	
				24	24		24	16						88		614	26400	88	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
		50												50		616	10000	50	M GAL	WATER	
																				INCIDENTALS	
		LUMP												LUMP		614	11000	LUMP		MAINTAINING TRAFFIC	
														3		619	16000	3	MNTH	FIELD OFFICE, TYPE A	
														LUMP		623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
														LUMP		624	10000	LUMP		MOBILIZATION	

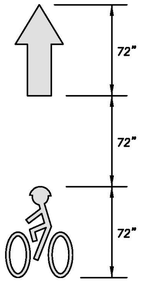
CALCULATED JM | CHECKED HDM

GENERAL SUMMARY

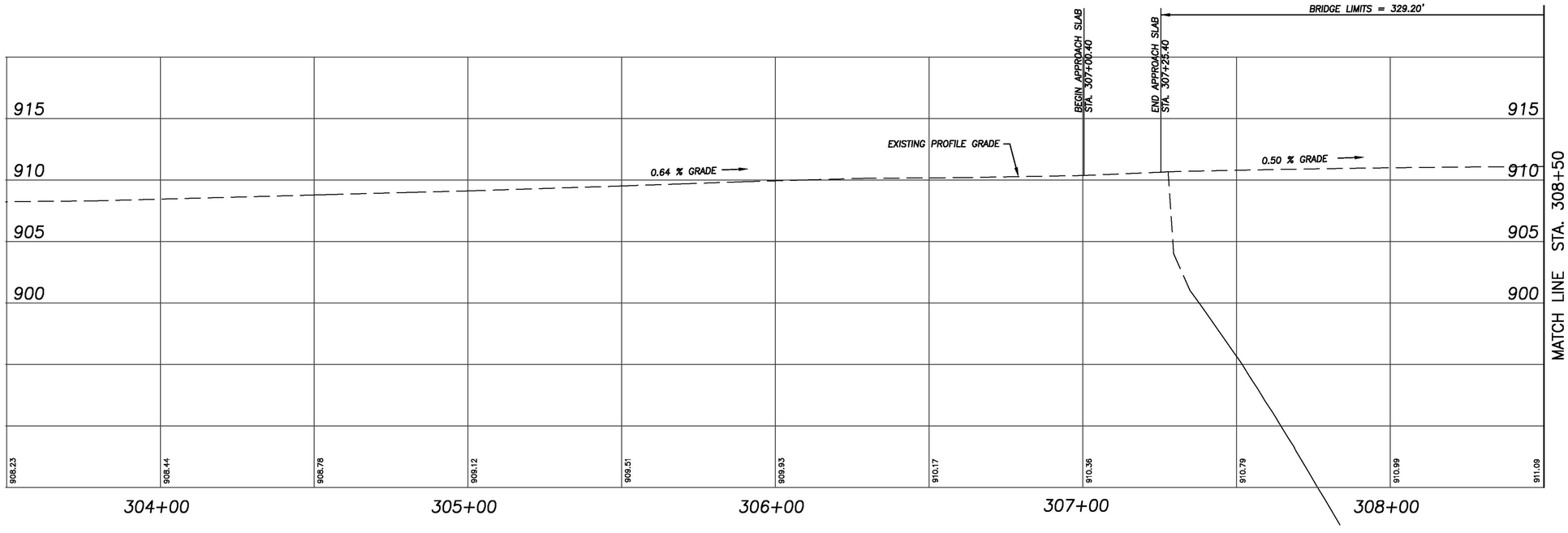
TUS-800-28.47

FEBRUARY, 2016





PAVEMENT MARKING DETAIL
(TYPICAL FOR BOTH SIDES)



FEBRUARY, 2016

N

SCALE IN FEET
0
20
40

CALCULATED JM
CHECKED HDM

PLAN & PROFILE SHEET
STA. 304+00 TO STA. 308+50

TUS-800-28.47

12
27

ESTIMATED QUANTITIES STATION 294+00 TO 308+50

REF NO.	STATION TO STATION	SIDE	202		204	255	301	304	441	605	606			626	630			646					
			GUARDRAIL REMOVED	PAVEMENT REMOVED	SUBGRADE COMPACTION	FULL DEPTH PAVEMENT SAWING	ASPHALT CONCRETE BASE	AGGREGATE BASE	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	AGGREGATE DRAIN	GUARDRAIL, TYPE MGS W/ LONG POSTS	GUARDRAIL MISC: MODIFIED AS PER PLAN @ BRIDGE CROSSING	ANCHOR ASSEMBLY, MGS TYPE T	BARRIER REFLECTOR @ 100' INCREMENTS	GROUND MOUNTED SUPPORT, NO. 3 POST	SIGN, FLAT SHEET	SIGNING, MISC.: SOLAR POWERED (RRFB) ASSEMBLY	EDGE LINE, (6")	CENTER LINE, (DOUBLE YELLOW)	TRANSVERSE LINE (6")	CROSSWALK LINE, (BLOCK STYLE)	LANE ARROW	BIKE LANE SYMBOL MARKING
			LIN FT	SQ YD	SQ YD	LIN FT	CU YD	CU YD	CU YD	LIN FT	LIN FT	LIN FT	EACH	EACH	LIN FT	SQ FT	EACH	MILE	MILE	LIN FT	LIN FT	EACH	EACH
R-1	304+29.5 TO 307+37.5	LT	312.5																				
R-2	304+00 TO 307+12.5	RT	312.5																				
PS-1	304+00 TO 307+31.7	LT				332																	
PS-2	304+00 TO 307+17.9	RT				318																	
P-1	304+00 TO 307+34.0	LT			331.36		18.78	55.23	13.81	28													
P-2	304+00 TO 307+15.6	RT			280.57		15.90	46.76	11.69	28													
PR-1	304+00 TO 307+34.0	LT		148.96																			
PR-2	304+00 TO 307+15.6	RT		139.78																			
GR-1	304+29.5 TO 307+37.5	LT									312.5		1	4									
GR-2	304+00 TO 307+12.5	RT									312.5			4									
GR-3	307+37.5 TO 308+50	LT										112.5		2									
GR-4	307+12.5 TO 308+50	RT										137.5		2									
POSTS	294+00 TO 308+50	RT&LT													83.5								
SIGNS	294+00 TO 308+50	RT&LT														60.75	2						
EL-1	304+00 TO 308+50	LT																0.17					
EL-2	304+00 TO 308+50	RT																0.17					
CL-1	302+50 TO 308+50	CNT																	0.11				
TL-1	304+00 TO 308+50	LT																		20			
TL-2	304+00 TO 308+50	RT																		20			
CWL-1	304+10 TO 304+20	RT&LT																			78		
PM-1	304+65 & 308+00	RT&LT																				4	4
SUBTOTALS			625	288.74	611.93	650	34.68	101.99	25.50	56	625	250	1	12	83.5	60.75	2	0.34	0.11	40	78	4	4
TOTALS CARRIED TO GENERAL SUMMARY			625	289	612	650	35	102	26	56	625	250	1	12	84	61	2	0.34	0.11	40	78	4	4

CALCULATED JM
CHECKED HDM

ESTIMATED QUANTITIES STA. 294+00 TO STA. 308+50

TUS-800-28.47

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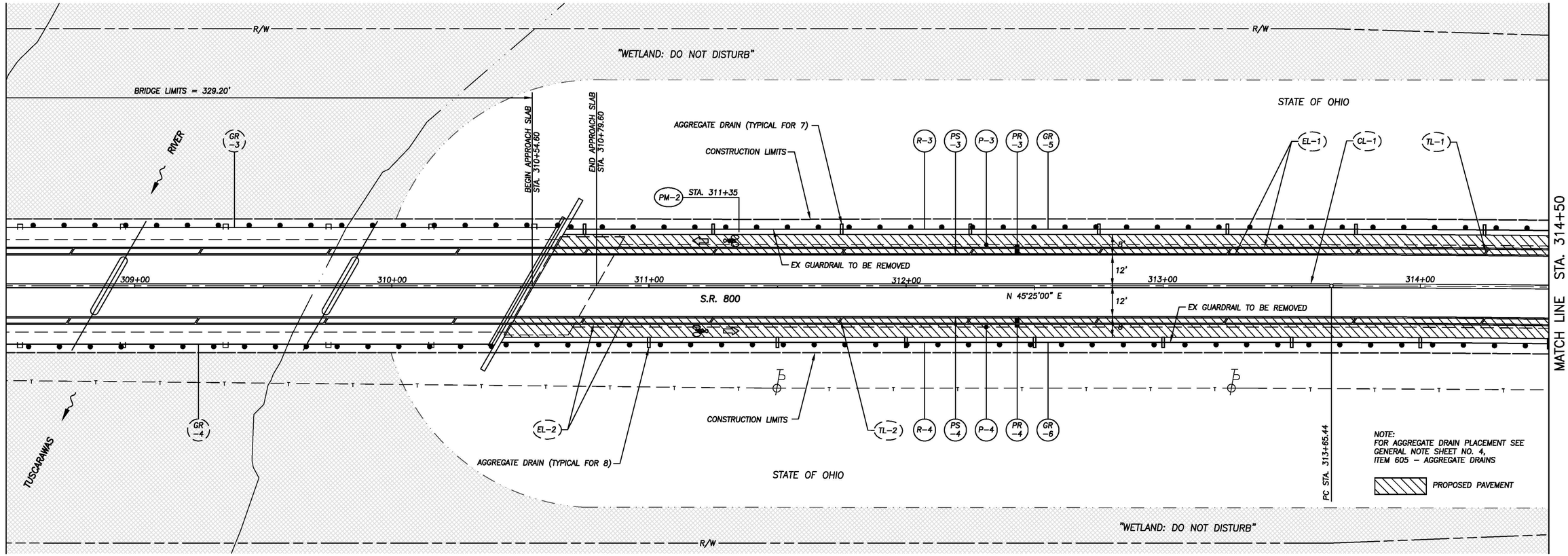
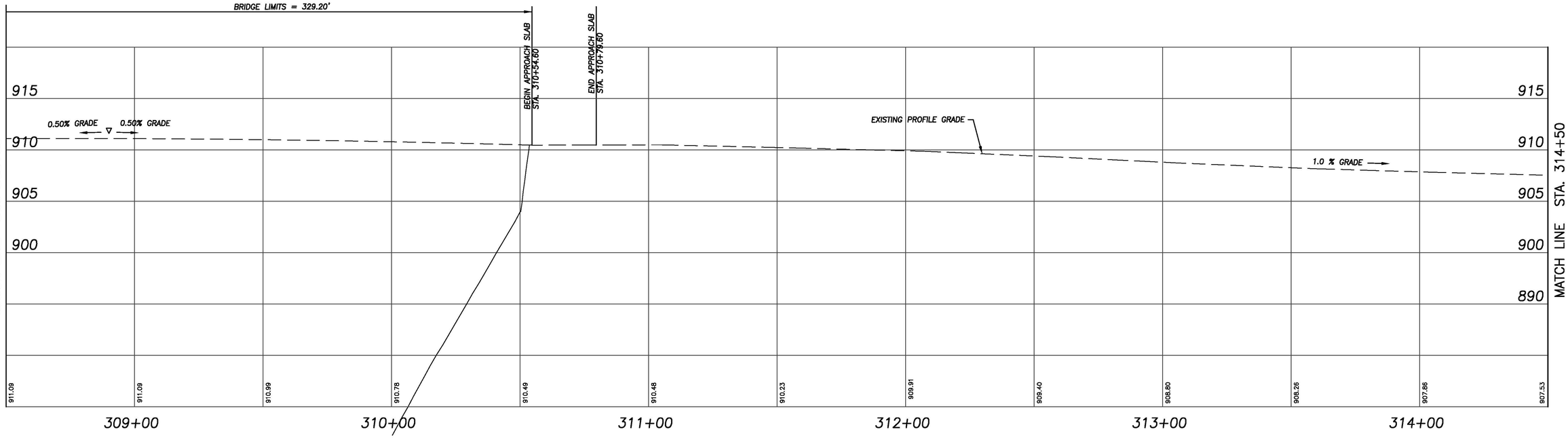
FEBRUARY, 2016





FEBRUARY, 2016

N

SCALE IN FEET
0
20
40

CALCULATED JM
CHECKED HDM

PLAN & PROFILE SHEET
STA. 308+50 TO STA. 314+50

TUS-800-28.47

14
27

ESTIMATED QUANTITIES STATION 308+50 TO 314+50

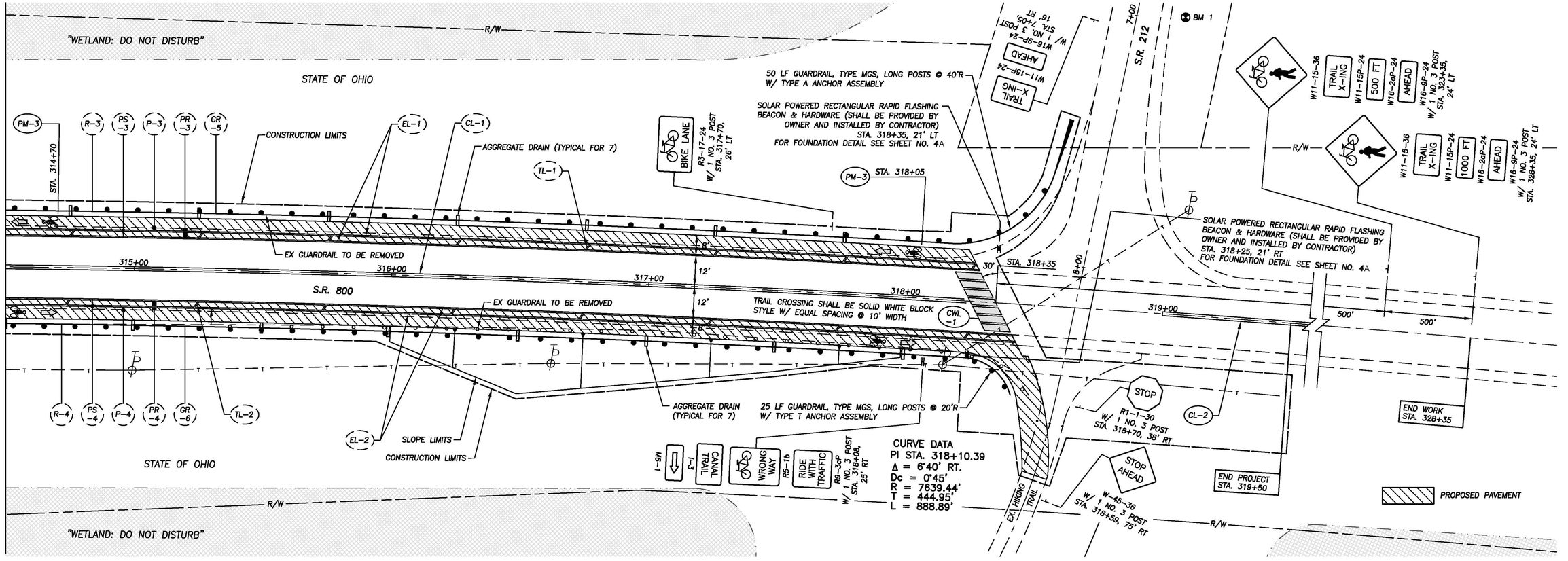
REF NO.	STATION TO STATION	SIDE	202		204	255	301	304	441	605	606			626			646				
			GUARDRAIL REMOVED	PAVEMENT REMOVED	SUBGRADE COMPACTION	FULL DEPTH PAVEMENT SAWING	ASPHALT CONCRETE BASE	AGGREGATE BASE	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	AGGREGATE DRAIN	GUARDRAIL, TYPE MGS W/ LONG POSTS	GUARDRAIL MISC: MODIFIED AS PER PLAN @ BRIDGE CROSSING		BARRIER REFLECTOR @ 100' INCREMENTS			EDGE LINE, (6")	CENTER LINE, (DOUBLE YELLOW)	TRANSVERSE LINE (6")	LANE ARROW	BIKE LANE SYMBOL MARKING
			LIN FT	SQ YD	SQ YD	LIN FT	CU YD	CU YD	CU YD	LIN FT	LIN FT	LIN FT		EACH			MILE	MILE	LIN FT	EACH	EACH
R-3	310+62.5 TO 314+50	LT	387.5																		
R-4	310+37.5 TO 314+50	RT	412.5																		
PS-3	310+62.1 TO 314+50	LT				388															
PS-4	310+48.3 TO 314+50	RT				402															
P-3	310+64.4 TO 314+50	LT			342.95		19.43	57.16	14.29	28											
P-4	310+46.0 TO 314+50	RT			358.95		20.34	59.82	14.96	32											
PR-3	310+64.4 TO 314+50	LT		171.50																	
PR-4	310+46.0 TO 314+50	RT		179.46																	
GR-3	308+50 TO 310+62.5	LT										212.5		2							
GR-4	308+50 TO 310+37.5	RT										187.5		2							
GR-5	310+62.5 TO 314+50	LT									387.5			4							
GR-6	310+37.5 TO 314+50	RT									412.5			5							
EL-1	308+50 TO 314+50	LT															0.23				
EL-2	308+50 TO 314+50	RT															0.23				
CL-1	308+50 TO 314+50	CNT																0.11			
TL-1	308+50 TO 314+50	LT																	30		
TL-2	308+50 TO 314+50	RT																	30		
PM-2	311+35	RT&LT																		2	2
SUBTOTALS			800	350.96	701.90	790	39.77	116.98	29.25	60	800	400		13			0.46	0.11	60	2	2
TOTALS CARRIED TO GENERAL SUMMARY			800	351	702	790	40	117	29	60	800	400		13			0.46	0.11	60	2	2

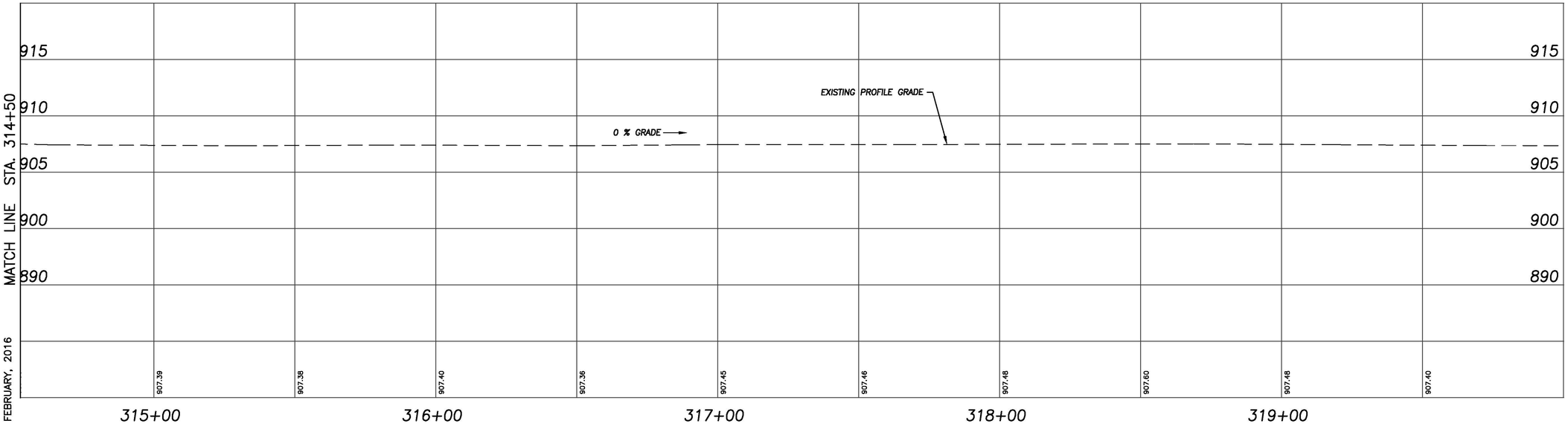
CALCULATED JM
CHECKED HDM

ESTIMATED QUANTITIES STA. 308+50 TO STA. 314+50

TUS-800-28.47

FEBRUARY, 2016





FEBRUARY, 2016

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SCALE IN FEET
0 20 40

CALCULATED JM
CHECKED HDM

PLAN & PROFILE SHEET
STA. 314+50 TO STA. 319+50

TUS-800-28.47

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ESTIMATED QUANTITIES STATION 314+50 TO 328+35

REF NO.	STATION TO STATION	SIDE	202		204	255		301	304	441	605	606			626	630			646					
			GUARDRAIL REMOVED	PAVEMENT REMOVED	SUBGRADE COMPACTION	FULL DEPTH PAVEMENT SAWING		ASPHALT CONCRETE BASE	AGGREGATE BASE	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	AGGREGATE DRAIN	GUARDRAIL, TYPE MGS W/ LONG POSTS	ANCHOR ASSEMBLY, MGS TYPE A	ANCHOR ASSEMBLY, MGS TYPE T	BARRIER REFLECTOR @ 100' INCREMENTS	GROUND MOUNTED SUPPORT, NO. 3 POST	SIGN, FLAT SHEET	SIGNING, MISC.: SOLAR POWERED (RRFB) ASSEMBLY	EDGE LINE, (6")	CENTER LINE, (DOUBLE YELLOW)	TRANSVERSE LINE (6")	CROSSWALK LINE, (BLOCK STYLE)	LANE ARROW	BIKE LANE SYMBOL MARKING
			LIN FT	SQ YD	SQ YD	LIN FT		CU YD	CU YD	CU YD	LIN FT	LIN FT	EACH	EACH	EACH	LIN FT	SQ FT	EACH	MILE	MILE	LIN FT	LIN FT	EACH	EACH
R-3	314+50 TO 318+54	LT	412.5																					
R-4	314+50 TO 318+44	RT	400																					
PS-3	314+50 TO 318+28.0	LT				378																		
PS-4	314+50 TO 318+42.0	RT				392																		
P-3	314+50 TO 318+25.8	LT			407.10			23.07	67.85	16.96	28													
P-4	314+50 TO 318+44.3	RT			334.26			18.94	55.71	13.94	28													
PR-3	314+50 TO 318+25.8	LT		167.24																				
PR-4	314+50 TO 318+44.3	RT		174.72																				
GR-5	314+50 TO 318+54	LT										412.5	1		5									
GR-6	314+50 TO 318+44	RT										400		1	5									
POSTS	294+00 TO 308+50	RT&LT														99.5								
SIGNS	294+00 TO 308+50	RT&LT															65.75	2						
EL-1	314+50 TO 318+26	LT																	0.14					
EL-2	314+50 TO 318+45	RT																	0.15					
CL-1	314+50 TO 318+22	CNT																		0.07				
CL-2	319+00 TO 321+00	CNT																		0.04				
TL-1	314+50 TO 318+26	LT																			20			
TL-2	314+50 TO 318+45	RT																			20			
CWL-1	318+25 TO 318+35	RT&LT																				91		
PM-3	314+70 & 318+05	RT&LT																					4	4
SUBTOTALS			812.5	341.96	741.36	770		42.01	123.56	30.90	56	812.5	1	1	10	99.5	65.75	2	0.29	0.11	40	91	4	4
TOTALS CARRIED TO GENERAL SUMMARY			812.5	342	741	770		42	124	31	56	812.5	1	1	10	100	66	2	0.29	0.11	40	91	4	4

CALCULATED JM | CHECKED HDM

ESTIMATED QUANTITIES STA. 314+50 TO STA. 328+35

TUS-800-28.47

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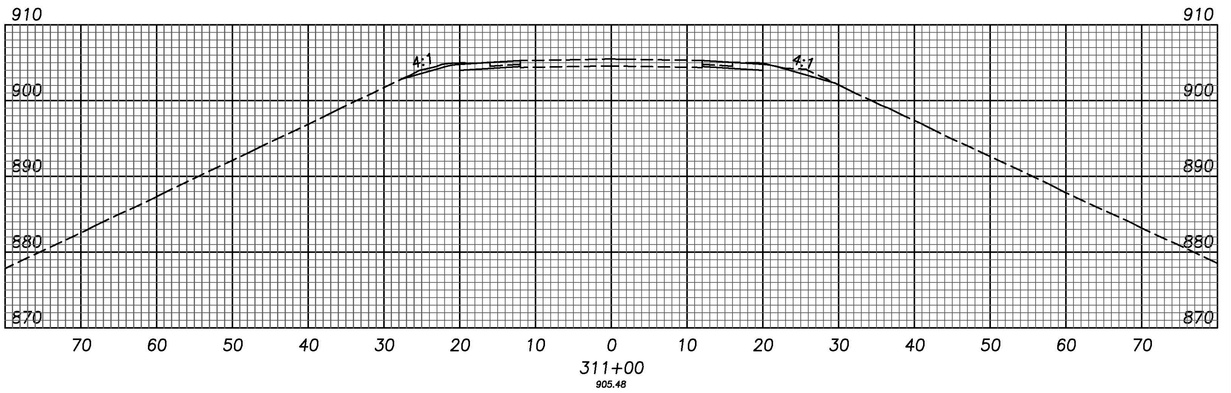
SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
	71.9				20.6	5.4
14.3		306+00 904.93	10.8	4.5		
	79.2				20.1	7.9
14.2		305+50 904.51	10.9	4.0		
	80.0				20.0	7.5
14.6		305+00 904.11	10.7	4.1		
	83.1				19.4	7.4
15.3		304+50 903.78	10.3	3.9		
	78.9				18.4	6.7
13.1		304+00 903.44	9.6	3.3		
	36.4				8.9	3.1
0		303+50 903.23	0	0		
429.5 SY			TOTAL		107.4	38.0

TUS-800-28.47

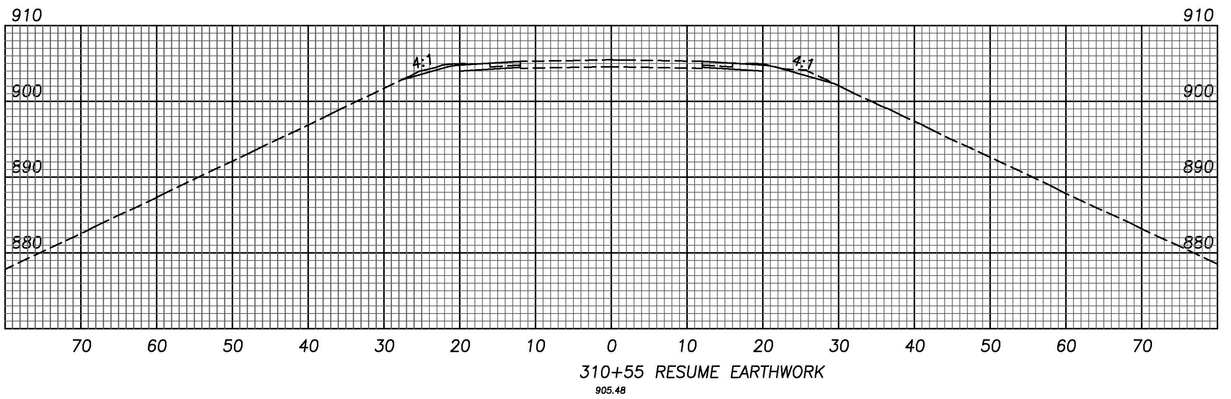
CROSS SECTIONS S.R. 800
STA. 303+50 TO STA. 306+00

CALCULATED JM
CHECKED HDM

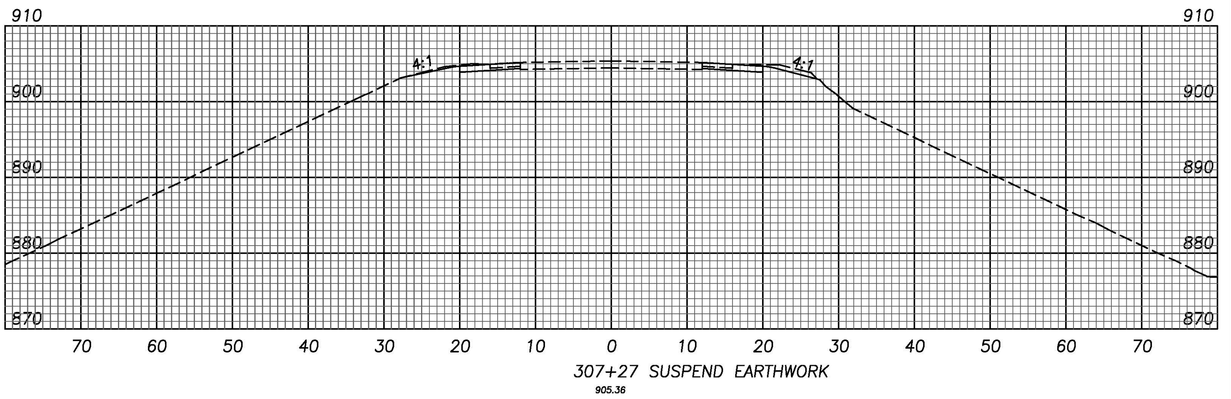
0 10 20
SCALE IN FEET



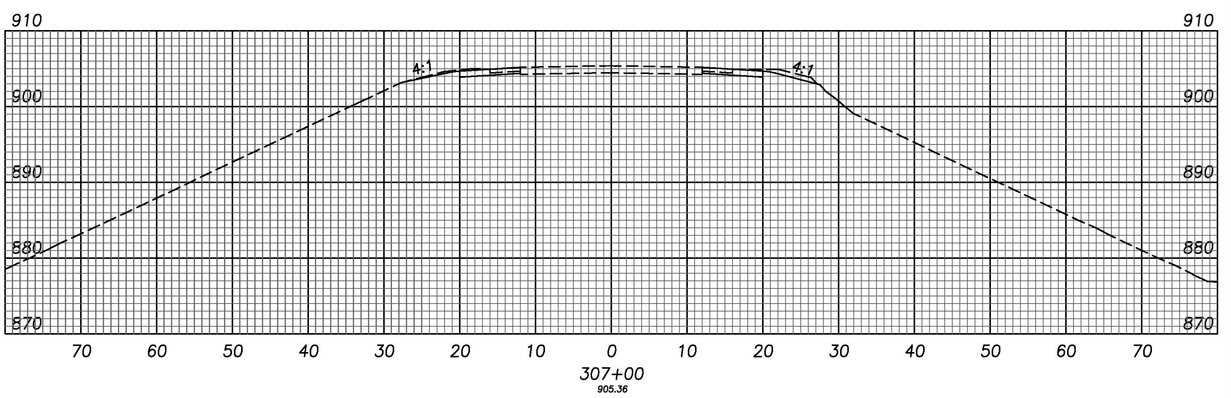
311+00
905.48



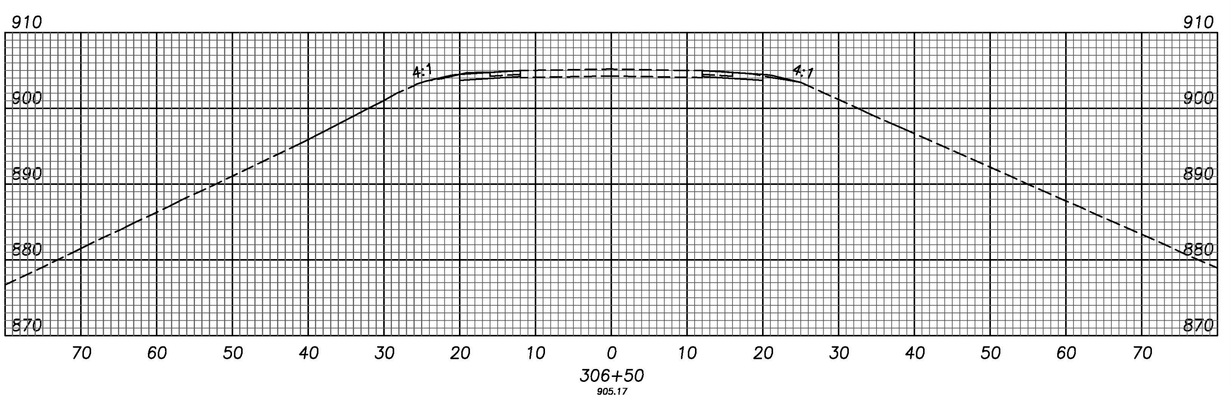
310+55 RESUME EARTHWORK
905.48



307+27 SUSPEND EARTHWORK
905.36



307+00
905.36



306+50
905.17

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
	91.4			25.9	1.1
19.8		17.1	0		
	99.0			28.4	0
19.8		17.0	0		
17.6		16.9	0		
	52.8			16.9	0
17.6		16.9	0		
	81.1			26.3	1.2
11.6		11.5	1.3		
324.3 SY		TOTAL		97.5	2.3

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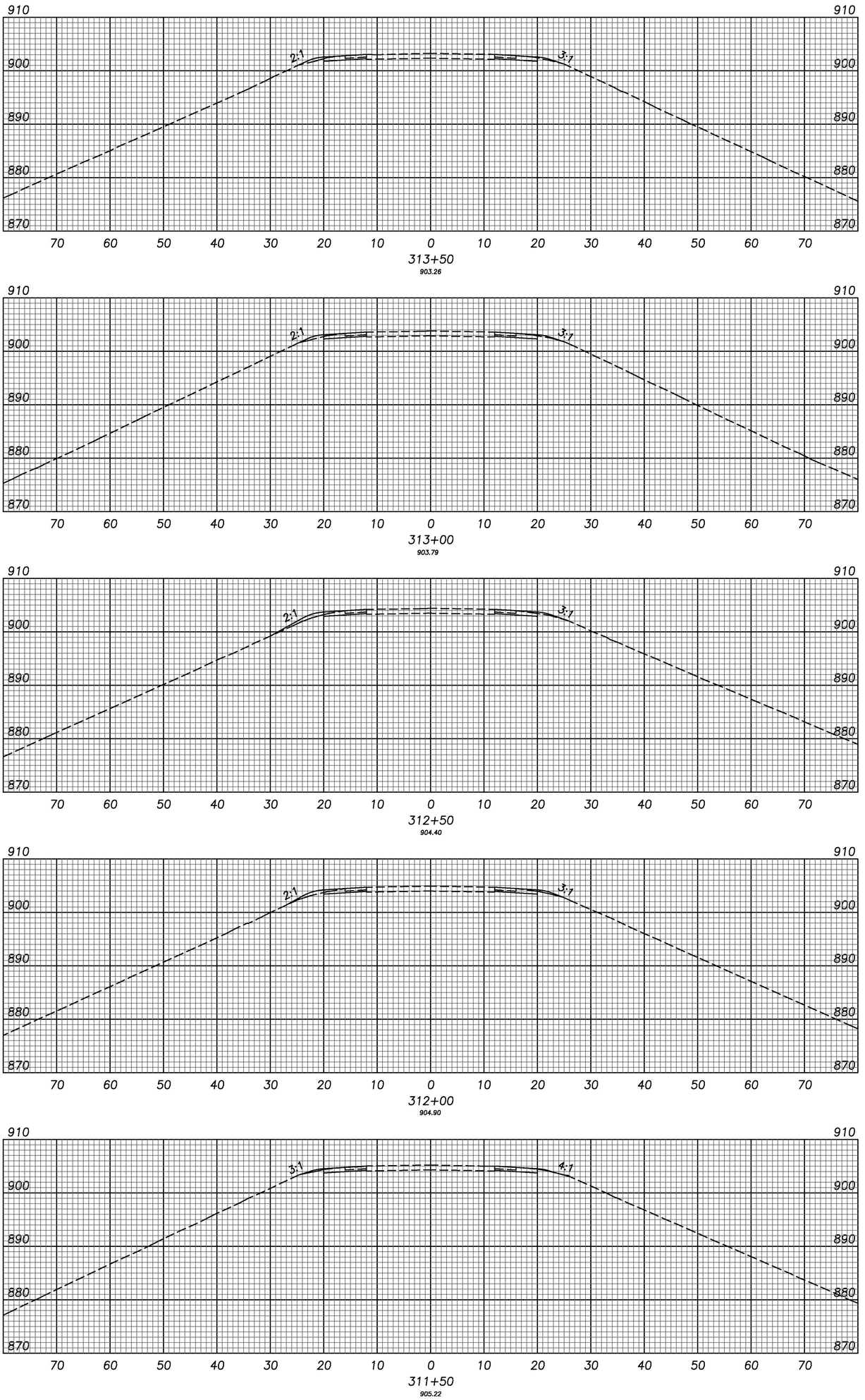
CROSS SECTIONS S.R. 800
STA. 306+50 TO STA. 311+00

CALCULATED JM
CHECKED HDM

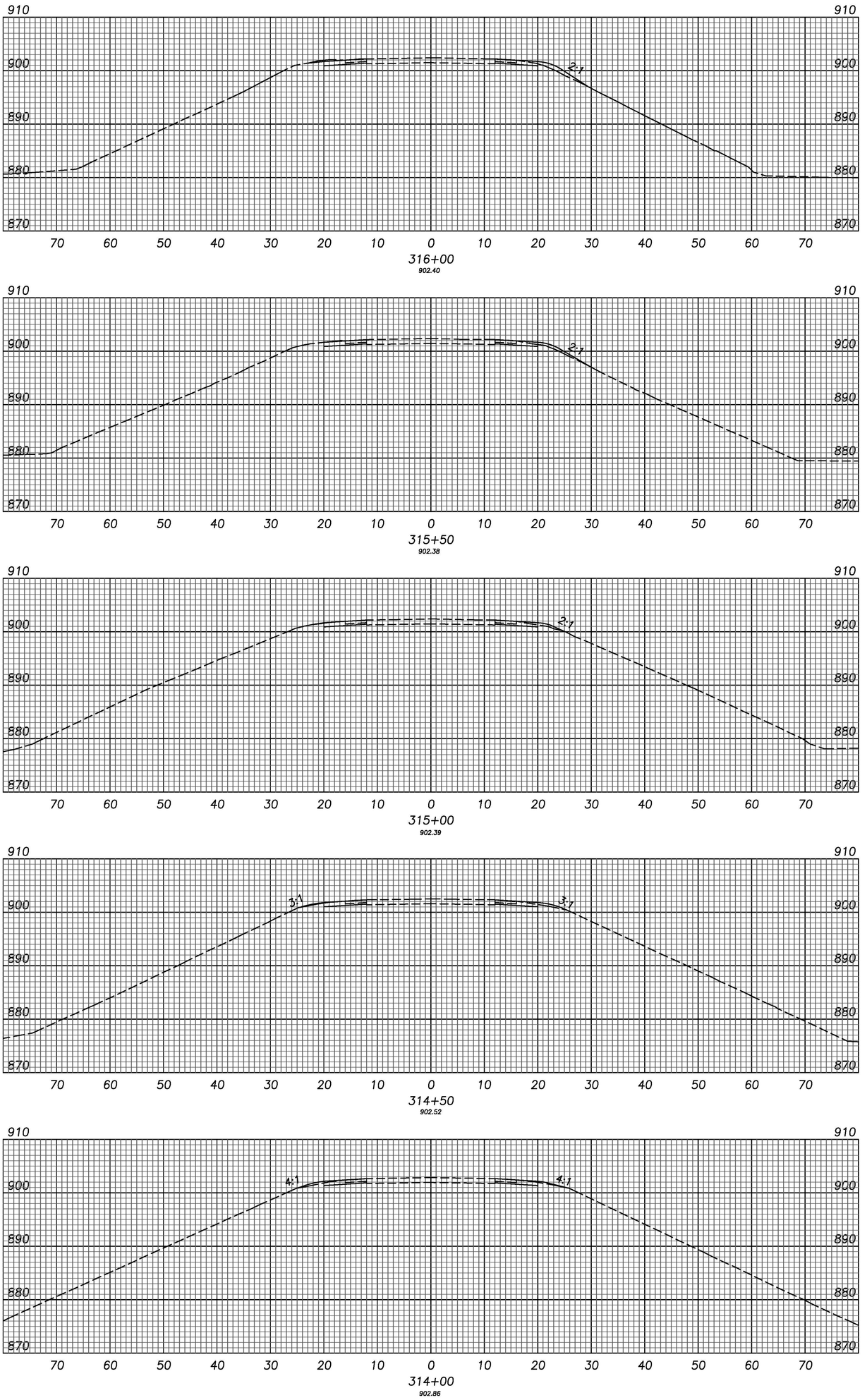
0 10 20
SCALE IN FEET

FEBRUARY, 2016



SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
	70.8			19.5	4.3
12.2		10.7	2.4		
	68.1			19.5	4.4
12.3		10.4	2.4		
	86.7			18.8	7.1
18.9		9.9	5.3		
	93.3			18.2	8.4
14.7		9.8	3.8		
	77.2			19.2	4.6
13.1		10.9	1.2		
396.1 SY		TOTAL		95.2	24.5

20 27	TUS-800-28.47	CROSS SECTIONS S.R. 800 STA. 311+50 TO STA. 313+50	CALCULATED JM CHECKED HDM	0 10 20 SCALE IN FEET



SEEDING	
END WIDTH	SQ. YDS.
15.9	91.4
	77.5
12.0	
	60.6
9.8	
	61.9
12.5	
	71.2
13.3	
362.6 SY	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		41.7	39.4
11.7	5.4		
		20.7	8.2
10.7	3.5		
		19.4	4.8
10.3	1.7		
		19.1	3.6
10.3	2.2		
		19.2	4.1
10.4	2.2		
TOTAL		120.1	60.1

TUS-800-28.47

CROSS SECTIONS S.R. 800
STA. 314+00 TO STA. 316+00

CALCULATED JM
CHECKED HDM

0 10 20
SCALE IN FEET

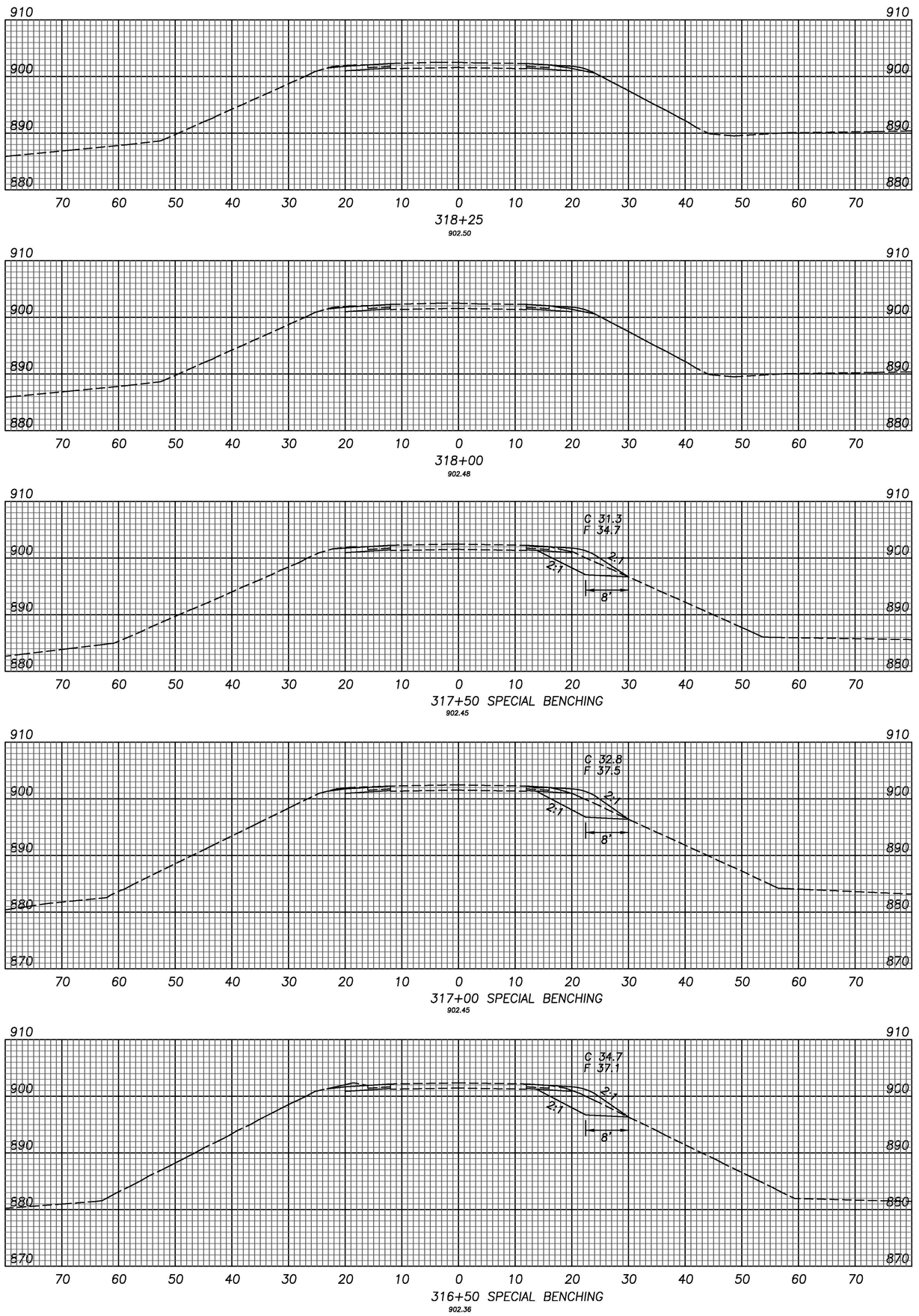
FEBRUARY, 2016

ITEM 659 – COMMERCIAL FERTILIZER
1,804 S.Y. x 9 x 20 /1000 /2000 = 0.16 TON
ITEM 659 – LIME
1,804 S.Y. x 9 /43,560 = 0.37 ACRE
ITEM 659 – WATER
(1,804 S.Y. x 9 x 300 /1000 /1000) x 2 = 9.74 M GAL.

ITEM 203 – EXCAVATION @ EXISTING HIKING TRAILS
826.7 SF X 0.8 /27 = 2.45 CY

ITEM 203 – EXCAVATION = 585.7 CY
ITEM 203 – EMBANKMENT = 295.4 CY

GRAND TOTAL
EXCAVATION = 588.2 CY
EMBANKMENT = 295.4 CY



SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
9.5		11.4	1.3		
	26.4			10.6	1.2
9.5		11.4	1.3		
	74.4			38.2	33.3
17.3		29.9	34.7		
	95.6			56.8	66.9
17.1		31.4	37.5		
	94.7			59.9	69.1
17.0		33.3	37.1		
291.1 SY		TOTAL		165.5	170.5

GRAND TOTAL
SEEDING & MULCHING = 1803.6 SY

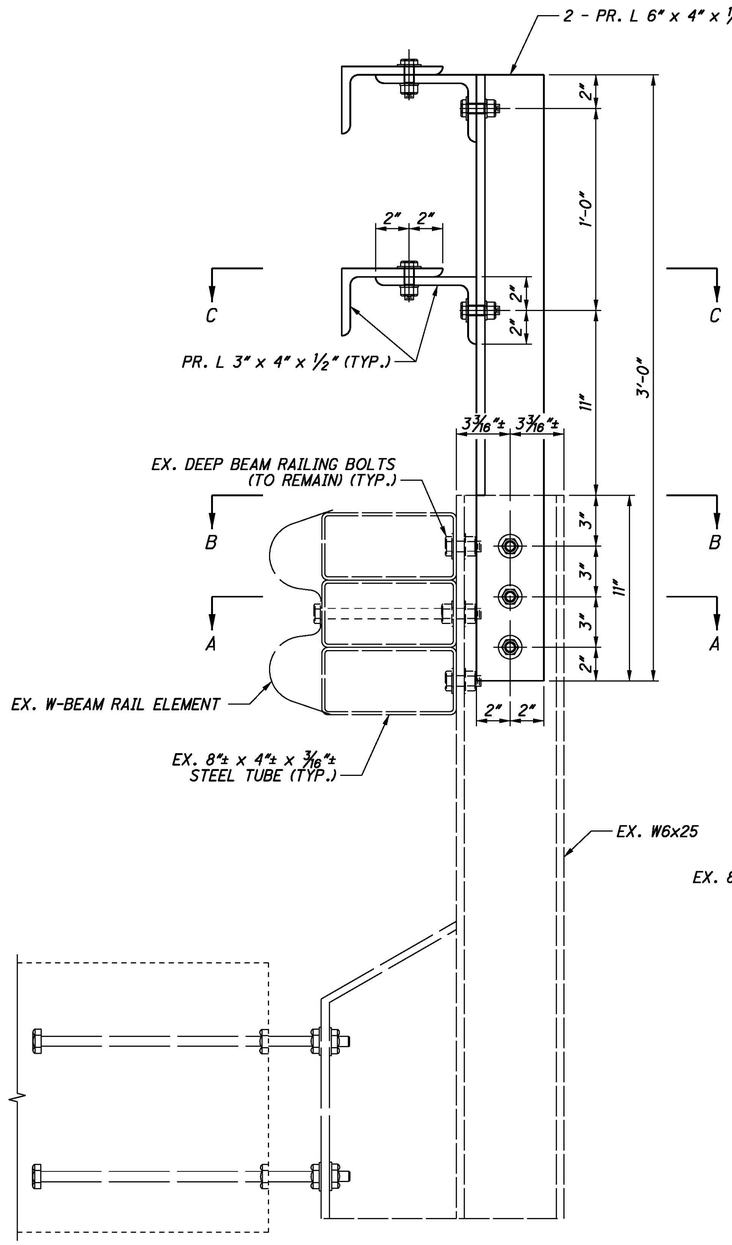
EXCAVATION = 585.7 CY
EMBANKMENT = 295.4 CY

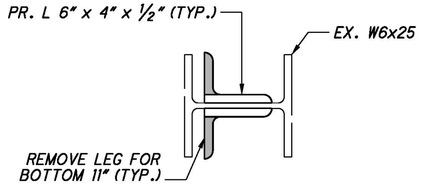
TUS–800–28.47

CROSS SECTIONS S.R. 800
STA. 316+50 TO STA. 318+25

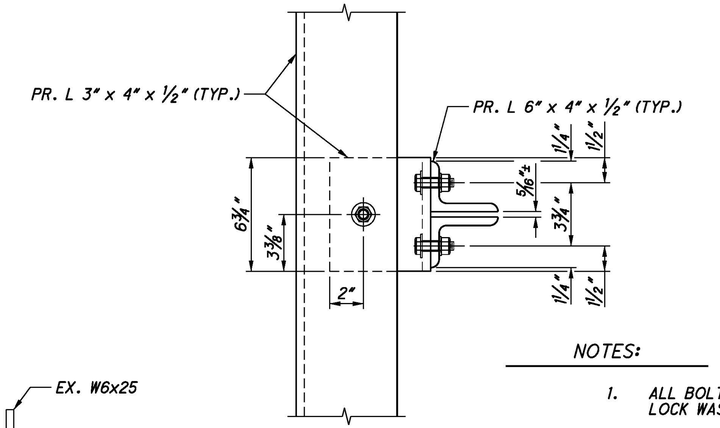
CALCULATED JM
CHECKED HDM

0 10 20
SCALE IN FEET





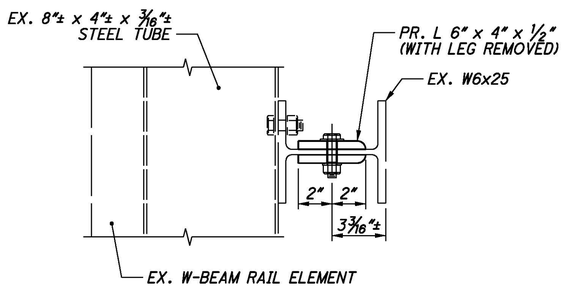
SECTION B-B



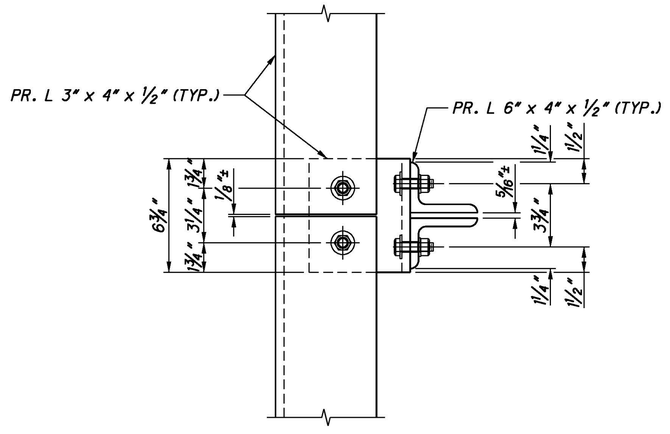
SECTION C-C (W/OUT JOINT)

NOTES:

1. ALL BOLTS ARE ½" ϕ A325, TYPE 1 BOLTS WITH, WASHERS LOCK WASHERS AND NUTS.
2. FIELD DRILL ⅝" ϕ HOLES IN THE EXISTING W6x25 DEEP BEAM RAILING POSTS. SHOP DRILL 1⅛" ϕ HOLES IN ANGLES.
3. SPLICING OF L6" x 4" x ½" HAND RAIL SHALL OCCUR AT AN EXISTING DEEP BEAM RAILING POST LOCATION. SEE DETAIL THIS SHEET.
4. HAND RAIL SHALL RADIUS TO MEET THE EXISTING 8" x 4" x 3/16" AT A 90°± ANGLE (I.E. SQUARE). SEE NEXT SHEET FOR DETAILS.
5. PAYMENT SHALL INCLUDE THE COSTS OF ALL ANGLES, FIELD DRILLING, AND MOUNTING HARDWARE AND BE MADE PER FT FOR ITEM 517, RAILING MISC.: BIKEWAY HAND RAILING RETROFIT. PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE RAILING.



SECTION A-A



SECTION C-C (W/JOINT)

DESIGN AGENCY

DESIGNED	DRAWN	REVIEWED	DATE
CHECKED	REVISED	STRUCTURE FILE NUMBER 7906706	

RAILING DETAILS
BRIDGE NO. TUS-800-2853
OVER TUSCARAWAS RIVER

TUS-800-28.47
PID No. 99411

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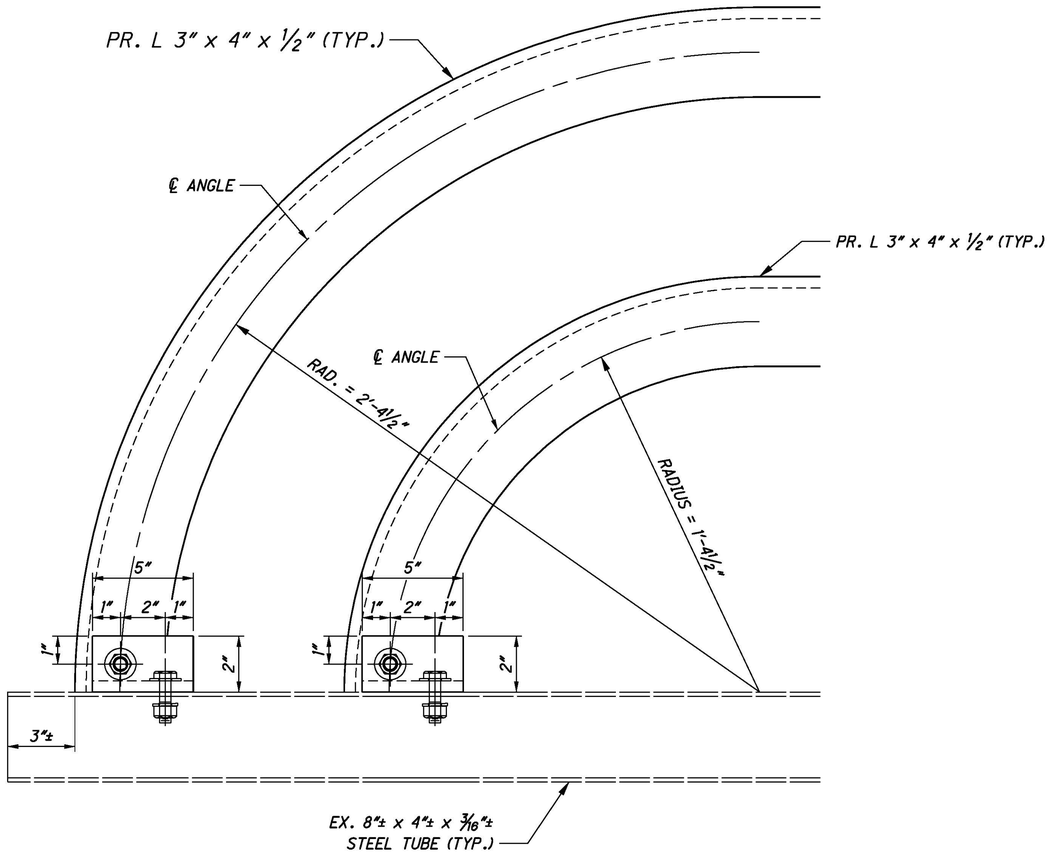

NOTES:

1. ALL BOLTS ARE ½" ϕ A325, TYPE 1 BOLTS WITH, WASHERS LOCK WASHERS AND NUTS.
2. FIELD DRILL 5/8" ϕ HOLES IN THE EXISTING W6x25 DEEP BEAM RAILING POSTS AND TUBULAR BACKUP. SHOP DRILL 11/16" ϕ HOLES IN ANGLES.
5. PAYMENT SHALL INCLUDE THE COSTS OF ALL ANGLES, FIELD DRILLING, AND MOUNTING HARDWARE AND BE MADE PER FT FOR ITEM 517, RAILING MISC.: BIKEWAY HAND RAILING RETROFIT. PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE RAILING.

DESIGN AGENCY

DESIGNED	DRAWN	REVIEWED	DATE
CHECKED	REVISED	STRUCTURE FILE NUMBER 7906706	

RAILING DETAILS
BRIDGE NO. TUS-800-2853
OVER TUSCARAWAS RIVER

TUS-800-28.47
PID No. 99411

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ITEM 625 - POWER SERVICE, AS PER PLAN

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

AEP OHIO POWER COMPANY
203 MILL AVENUE
NEW PHILADELPHIA, OH 44663
(330) 308-6145
ATTN: KEN ESTEP

POWER SERVICE SHALL BE AS PER CMS ITEM 625 AND SCD HL-40.10 WITH THE FOLLOWING EXCEPTIONS:

1. THE CONTRACTOR SHALL MEET WITH A REPRESENTATIVE FROM THE POWER SUPPLY AGENCY TO CONFIRM HOW THE PROPOSED POWER SERVICE IS TO BE WIRED, HOOKED UP, AND ITS LOCATION.

2. ALL POWER SERVICES SHALL BE METERED. THE METER SHALL HAVE A LEVER OPERATED BYPASS.

THE CONTRACTOR SHALL CONTACT THE METER SECTION OF THE POWER COMPANY FOR INFORMATION REGARDING THE METER BASE INSTALLATION PRIOR TO ORDERING POLES. THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR THE POWER SERVICE HOOK UP. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO THE POWER COMPANY'S CIRCUITS. THE NOMINAL VOLTAGE SUPPLIED SHALL BE:

240/480 VOLTS 1 ϕ 3W GROUNDED NEUTRAL

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND THE PAYING OF ALL FEES INCLUDING ANY REIMBURSEMENT TO THE POWER COMPANY FOR SUPPLYING POWER TO THE PROPOSED POWER SERVICE LOCATION. THE CONTRACTOR SHALL PAY ALL POWER CHARGES UNTIL THE LIGHTING IS ACCEPTED BY THE MAINTAINING AGENCY.

THE ENGINEER SHALL ENSURE THAT EACH POWER SERVICE ELECTRICAL ENERGY ACCOUNT IS IN THE NAME OF AND THAT THE BILLING ADDRESS IS TO THE MAINTAINING AGENCY NOTED IN THE PLANS. THIS SHALL BE DONE NOT ONLY FOR EACH NEW POWER SERVICE ESTABLISHED BY THIS PROJECT BUT ALSO FOR EACH EXISTING POWER SERVICE, SINCE THERE MAY BE A REASSIGNMENT OF THE RESPONSIBILITY FOR AN EXISTING SERVICE AS A RESULT OF THE WORK PERFORMED BY THIS PROJECT.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "POWER SERVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH CMS 631.06. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX," OSRAM SYLVANIA "LUMALUX," PHILIPS "CERAMALUX," OR EQUAL APPROVED BY THE ENGINEER.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO THE SCD FOR DETAILS OF DRAINAGE PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED 20 FEET. A QUANTITY HAS BEEN INCLUDED IN THE ESTIMATED QUANTITY WITH EACH PULL BOX AND CARRIED TO THE GENERAL SUMMARY FOR THIS PURPOSE.

ITEM 625 - LUMINAIRE, CONVENTIONAL, AS PER PLAN (200W HPS, 480 VOLT, TYPE II)

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CMS, LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AS FOLLOWS:

LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS WITH AN IES II-M-SC DISTRIBUTION AND 200 WATT HIGH PRESSURE SODIUM LAMPS SHALL BE AMERICAN ELECTRIC "SERIES 125" WITH PHOTOMETRIC DISTRIBUTION 125-20S-R2-DG, COOPER "OVX" WITH PHOTOMETRIC DISTRIBUTION OVX2S2F, GENERAL ELECTRIC "M-400" WITH PHOTOMETRIC DISTRIBUTION 451014, OR EQUAL AS APPROVED BY THE ENGINEER.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "LUMINAIRE, CONVENTIONAL, AS PER PLAN (200W HPS, 480 VOLT, TYPE II)" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, IES-II-M-SC, EQUIVALENT TO 200W HPS LAMPS (480 VOLT) (ALTERNATE)

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CMS AND SS813, LUMINAIRES FOR CONVENTIONAL LED LIGHTING UNITS SHALL BE AS FOLLOWS:

LUMINAIRES FOR CONVENTIONAL LED LIGHTING UNITS MATCHING IES II-M-SC DISTRIBUTION AND SHALL BE ONE OF THE FOLLOWING:

COOPER (NAVION) "NAV-AE-03-E-480-T2R"
ELECTROMATIC (AP SERIES) "LE3-T2M-180-E-R2-02-S-OH"
LEOTEK (E-COBRA) "EC4-14M-HV-NW-2-GY-700-RPB-WL"
AEL (AUTOBAHN) "ATBM-F-480-R2-4B"

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, " LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, IES-II-M-SC, EQUIVALENT TO 200W HPS LAMPS (480 VOLT) (ALTERNATE)" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

CALCULATED JAC
CHECKED JPB

LIGHTING GENERAL NOTES

TUS-800-28.47

REFERENCE NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	611	625																				
					4" CONDUIT, TYPE E	CONNECTION, FUSED PULL APART	CONNECTION, UNFUSED PERMANENT		LIGHT POLE CONVENTIONAL, DESIGN AT20B35	LIGHT POLE FOUNDATION, 24" x 6' DEEP	GROUND ROD		NO 4. AWG 5000 VOLT DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	CONDUIT, 725.04, 3"	CONDUIT, JACKED OR DRILLED, 725.04, 3"		LUMINAIRE, CONVENTIONAL, AS PER PLAN (200W HPS, 480 VOLT, TYPE II)	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, IES-ILM-SC, EQUIVALENT TO 200W HPS LAMSP (480 VOLT) (ALTERNATE)		TRENCH	PULL BOX, 725.08, 24"		POWER SERVICE, AS PER PLAN	PLASTIC CAUTION TAPE
					FT	EACH	EACH		EACH	EACH	EACH		FT	FT	FT	FT		EACH	EACH		FT	EACH		EACH	FT
1	27	LT.	S.R. 800	(A-2) 318+20		2			1	1	1			110				1	1						
1-3	27	LT.	S.R. 800	318+20 318+25									210			60									
2	27	RT.	S.R. 800	(A-1) 319+35		2			1	1	1			110				1	1						
2-4	27	LT./RT.	S.R. 800	319+35 319+50									84		18						18				18
3	27	LT.	S.R. 800	(PB-1) 318+25	20		3															1			
3-2	27	LT.	S.R. 800	318+25 319+35									360		110						110				110
4	27	LT.	S.R. 800	(PS-K) 319+50	20																			1	
TOTALS CARRIED TO GENERAL SUMMARY					40	4	3		2	2	2		654	220	128	60		2	2		128	1		1	128

CALCULATED JAC CHECKED JPB

LIGHTING SUBSUMMARY

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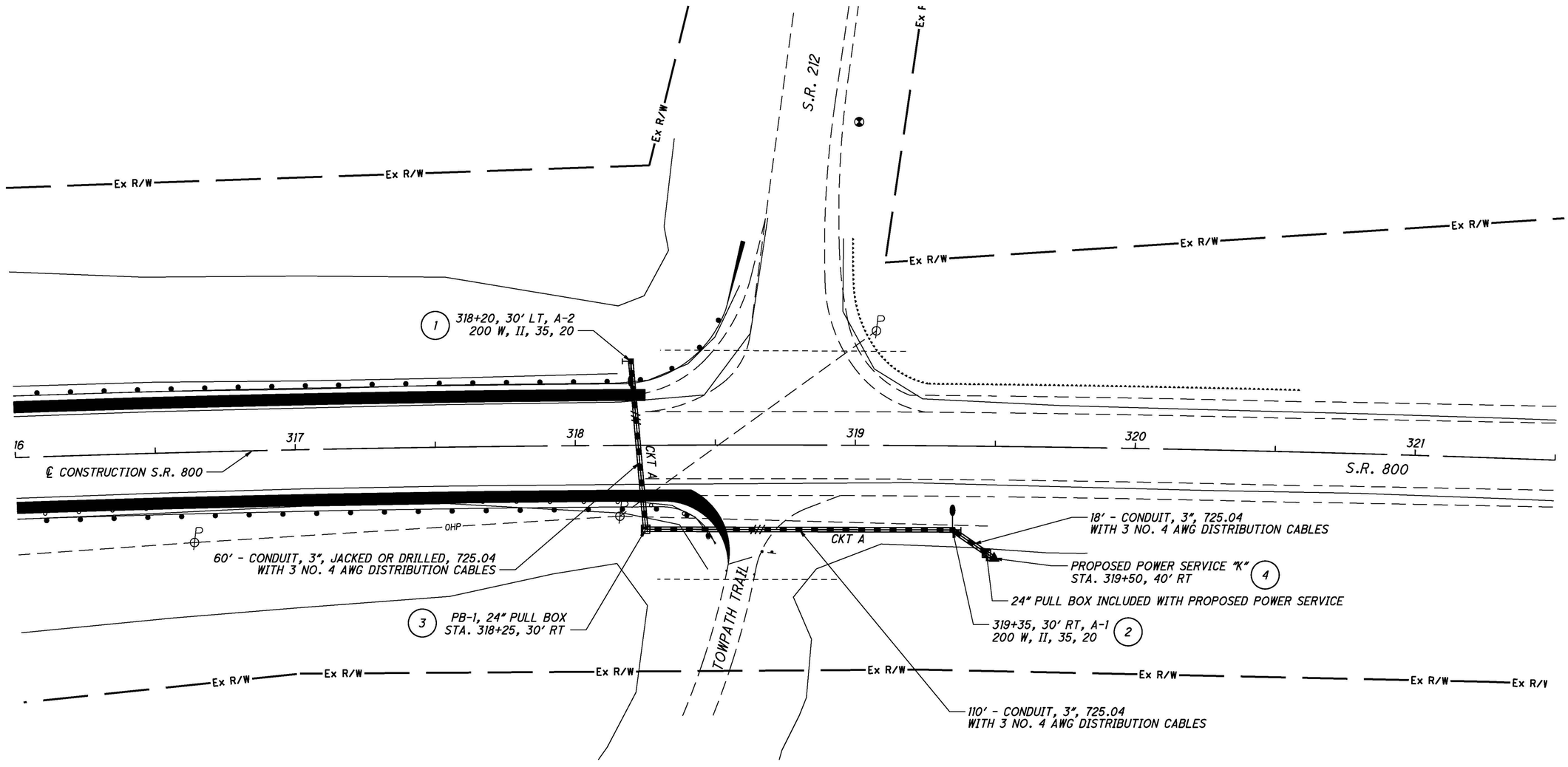

LIGHTING LEGEND

PROPOSED LUMINAIRE

PROPOSED PULL BOX

PROPOSED CIRCUIT

PROPOSED CONDUIT

STUB AND CAP CONDUIT ELL

POLE NAMING LEGEND

STATION , OFFSET , CIRCUIT NUMBER - POLE NUMBER ,

WATTAGE OF LUMINAIRE , TYPE OF LUMINAIRE , SUPPORT HEIGHT , BRACKET ARM LENGTH

CURVE DATA - S.R. 800
PC Sta. 313+65.44
PT Sta. 322+54.33
P.I. Sta. 318+10.39
Δ = 6° 40' 00" (RT)
Dc = 0° 45' 00"
R = 7,639.44'
T = 444.95'
L = 888.89'
E = 12.95'

CONTROL CENTER DATA

CONTROL CENTER	LINE VOLTS	CONNNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD (AMPS)	CIRCUIT FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE (AWG)	MAINTAINING AGENCY
"K"	480	0.5	2/0	60	A	1.08	20	4	ODOT

NOTE: FOR ADDITIONAL CONTROL CENTER DETAILS, SEE STANDARD CONSTRUCTION DRAWINGS

FOR LIGHTING QUANTITIES, SEE SHEET 26

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JAC
CHECKED JPB

LIGHTING PLAN
STA. 316+00 TO STA. 321+50

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