

**ITEM 614 - MAINTAINING TRAFFIC**

THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 614. IT IS THE INTENT TO PERFORM THE REQUIRED WORK WITH THE LEAST INCONVENIENCE TO, AND THE MAXIMUM SAFETY OF, THE CONTRACTOR AND THE TRAVELLING PUBLIC. ANY VARIANCES FROM THE INTENT OF THESE MAINTENANCE OF TRAFFIC NOTES MUST BE APPROVED IN ADVANCE IN WRITING BY ODOT. EXCEPT AS MODIFIED BELOW OR AS SHOWN IN THE MAINTENANCE OF TRAFFIC PLANS, THE REQUIREMENTS FOR MAINTAINING TRAFFIC AS INDICATED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, AND PERTINENT ITEMS OF THE SPECIFICATIONS AND PROPOSAL SHALL APPLY.

A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY THE USE OF EXISTING PAVEMENT.

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

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING

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

DAY OF HOLIDAY OR EVENT      TIME ALL LANES  
OR EVENT                              MUST BE OPEN TO TRAFFIC

SUNDAY	12:00N	FRIDAY THROUGH	6:00AM	MONDAY
MONDAY	12:00N	FRIDAY THROUGH	6:00AM	TUESDAY
TUESDAY	12:00N	MONDAY THROUGH	6:00AM	WEDNESDAY
WEDNESDAY	12:00N	TUESDAY THROUGH	6:00AM	THURSDAY
THURSDAY	12:00N	WEDNESDAY THROUGH	6:00AM	FRIDAY
THURSDAY	(THANKSGIVING ONLY)			
	6:00AM	WEDNESDAY THROUGH	6:00AM	MONDAY
FRIDAY	12:00N	THURSDAY THROUGH	6:00AM	MONDAY
SATURDAY	12:00N	FRIDAY THROUGH	6:00AM	MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

DESCRIPTION OF CRITICAL LANE TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$ PER TIME UNIT
CR 25A (IN EACH DIRECTION) ALL LANES OPEN TO TRAFFIC	TIMES NOTED ABOVE	1 MIN.	\$35/LANE

**DUST CONTROL**

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

ITEM 616	WATER	50 M. GAL.
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**ITEM 614 - MAINTAINING TRAFFIC (CONT.)**

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&M 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 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLANS.

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

ITEM 410	TRAFFIC COMPACTED SURFACE, TYPE A OR B	20 CU. YD.
ITEM 410	TRAFFIC COMPACTED SURFACE, TYPE C	20 CU. YD.
ITEM 614	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	20 CU. YD.

**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 ODOT INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&M 614 AND THE ODOT, 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 A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&M 614 AND THE ODOT, 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 CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN A 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 OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

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

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 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.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&M 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING THE 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. 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      80 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 WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

**NOTIFICATION OF TRAFFIC RESTRICTIONS**

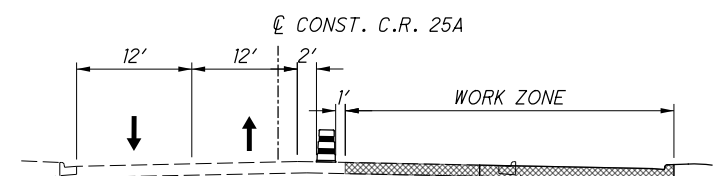
THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). 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 CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
	N/A	14 CALENDAR 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 NOTIFICATION TIME TABLE.

**MAINTENANCE OF TRAFFIC TYPICAL SECTION**



(SEE SHEETS 11 - 17 FOR ADDITIONAL MAINTENANCE OF TRAFFIC TYPICAL SECTIONS)

**MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

1. EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.
2. NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLES OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROLLER EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION, THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT, THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

**MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION (CONT.)**

WHERE THE CONTRACTOR HAS FAILED TO, OR CANNOT RESPOND TO, AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE OR THE CITY OF TIPP CITY FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED ---- HOURS AND SHALL NOT INCLUDE THE HOURS OF 8:00 AM TO 5:00 PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OR EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS, EXCEPT FOR THE FOLLOWING INTERSECTIONS WHICH SHALL BE PROTECTED BY AN OFF-DUTY POLICE OFFICER, HIRED BY THE CONTRACTOR:

1. C.R. 25A AND KESSLER-COWLESVILLE ROAD
2. C.R. 25A AND MEIJER DRIVE

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

1. TIME OF NOTIFICATION OF MALFUNCTION;
2. TIME OF WORK CREW'S ARRIVAL TO CORRECT THE MALFUNCTION;
3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;
4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OR REOCCURRENCE;
5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

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

**ITEM 614. REPLACEMENT SIGN**

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

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

AN ESTIMATED QUANTITY OF 6 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

**ITEM 614. REPLACEMENT DRUM**

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

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

AN ESTIMATED QUANTITY OF 50 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

**FLOODLIGHTING**

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

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

**SEQUENCE OF CONSTRUCTION**

TRAFFIC SHALL BE SHIFTED TO THE WEST SIDE OF C.R. 25A, WITH ONE (1) 12-FOOT LANE OF TRAFFIC IN EACH DIRECTION TO ALLOW FOR A WORK ZONE ALONG THE EAST SIDE OF C.R. 25A. ALL WORK ASSOCIATED WITH THE WIDENING OF C.R. 25A, INCLUDING BUT NOT LIMITED TO, SAWCUTTING OF EXISTING PAVEMENT, PLACEMENT OF NEW ASPHALT PAVEMENT AND INSTALLATION OF CONCRETE CURB AND CONCRETE WALK SHALL BE COMPLETED DURING THIS PHASE. AT ALL TIMES DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN ACCESS TO SIDE STREETS AND PROPERTIES WITHIN THE WORK ZONE.

THE CONTRACTOR SHALL USE WORK ZONE PAVEMENT MARKINGS CLASS III TO SHIFT TRAFFIC INTO FINAL LANE CONFIGURATION PRIOR TO APPLYING FINAL PAVEMENT MARKINGS. THE FOLLOWING ITEM 614 QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614 – WORK ZONE CENTER LINE, CLASS III, PAINT  
1.06 MILE

ITEM 614 – WORK ZONE EDGE LINE, 4", CLASS III, 642 PAINT  
0.24 MILE

ITEM 614 – WORK ZONE STOP LINE, CLASS III, 642 PAINT  
248 FT

ITEM 614 – WORK ZONE LANE LINE, 4", CLASS III, 642 PAINT  
1.36 MILE

ITEM 614 – WORK ZONE CHANNELIZING LINE, CLASS III, 8", 642 PAINT  
759 FT

ITEM 614 – WORK ZONE CROSSWALK LINE, CLASS III, 642 PAINT  
151 FT

ALL FINAL SURFACE ASPHALT COURSE AND PERMANENT MARKINGS SHALL BE IN THE FINAL LANE CONFIGURATION BY AN INTERIM COMPLETION DATE OF 10/15/21. IF THE PERMANENT SIGNAL SUPPORTS ARE NOT AVAILABLE TO BE INSTALLED, THE TEMPORARY SIGNAL HEADS NOTED BELOW WILL REQUIRE SHIFTING TO MATCH THE FINAL SIGNAL ALIGNMENT UNTIL THE PERMANENT SIGNAL CAN BE CONSTRUCTED.

AT MEIJER DR - 2A, 2B  
AT KESSLER-COWLESVILLE RD - 2A, 2B, 6A, 6B  
SHIFTING TEMPORARY SIGNAL HEADS AND RADAR DETECTION TO ACCOMMODATE THE SWITCH TO FINAL LANE CONFIGURATION SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR MAINTAINING TRAFFIC. FAILURE TO MEET THE INTERIM COMPLETION DATE WILL RESULT IN A DAILY DISINCENTIVE PER CM&S 108.07.

**PROJECT DESCRIPTION**

IT IS PROPOSED TO WIDEN CR25A FROM 4 TO 5 LANES FROM THE EXISTING IR-75 SOUTHBOUND ON- AND OFF-RAMPS TO JUST SOUTH OF SPRINGMEADE LANE, A DISTANCE OF APPROXIMATELY 3,450 LINEAR FEET. THE PROPOSED WIDENING IS TO OCCUR TO THE EAST OF THE EXISTING PAVEMENT, WITH THE EXISTING PAVEMENT BEING LEFT IN PLACE AND OVERLAIN. THE SUBGRADE EXPLORATION ALSO INCLUDED SOIL BORINGS AT THE LOCATIONS OF 4 NEW TRAFFIC SIGNAL POLES.

**HISTORIC RECORDS**

HISTORIC SOIL PROFILES WERE LOCATED FOR A PORTION OF CR25A NEAR THE INTERCHANGE WITH I-75; HOWEVER, THESE PROFILES COULD NOT BE USED TO SUPPLEMENT THE CURRENT PROJECT AND NO HISTORIC BORING LOGS WERE LOCATED.

**GEOLOGY**

THE PROJECT SITE IS LOCATED WITHIN A PREVIOUSLY GLACIATED PORTION OF THE STATE IN THE SOUTHERN OHIO LOAMY TILL PLAIN PHYSIOGRAPHIC REGION. SOIL OVERBURDEN TYPICALLY CONSISTS OF HIGH-LIME WISCONSINAN-AGE LOAMY TILL, OUTWASH, AND LOESS OVER LOWER PALEOZOIC-AGE CARBONATE ROCKS AND MISSISSIPPIAN-AGE SHALES. USGS BEDROCK TOPOGRAPHY MAPS INDICATE THAT BEDROCK IS LOCATED AT DEPTHS LESS THAN 15 FEET BELOW THE GROUND SURFACE. THE ODNR "OHIO KARST AREAS" MAP DOES NOT INDICATE THE PRESENCE OF MAPPED KARST DEPOSITS IN THE IMMEDIATE VICINITY OF THE SITE.

**RECONNAISSANCE**

A SITE RECONNAISSANCE VISIT WAS MADE ON SEPTEMBER 21, 2017, TO OBSERVE THE PROJECT SITE AND FIELD MARK THE PLANNED ROADWAY BORING LOCATIONS. THE EXISTING ROADWAY PAVEMENT WAS OBSERVED TO HAVE BEEN RECENTLY RESURFACED; HOWEVER, EARLIER AERIAL IMAGERY INDICATED THE PRESENCE OF MANY TRANSVERSE CRACKS PRIOR TO THE RESURFACING. EXISTING UNDERGROUND UTILITY MARKERS WERE NOTED ON BOTH SIDES OF THE ROADWAY, AND ABOVE-GROUND UTILITIES ARE LOCATED ALONG THE WEST SIDE OF THE ROAD. A STORM SEWER WAS LOCATED ALONG WITH EAST SIDE OF THE ROAD ALONG WITH CURB INLETS LOCATED ALONG THE BOTH SIDE OF THE ROAD.

**SUBSURFACE EXPLORATION**

ON OCTOBER 25, 2017, TWELVE (12) BORINGS WERE PERFORMED ALONG THE PROJECT ALIGNMENT. THE SUBGRADE EXPLORATION BORINGS WERE ADVANCED TO TERMINATION DEPTHS RANGING FROM 5.5 TO 7.5 FEET BELOW THE EXISTING GROUND OR PAVEMENT SURFACE, AND THE TRAFFIC SIGNAL POLE BORINGS WERE ADVANCED TO DEPTHS 11.8 TO 16.9 FEET, AND INCLUDED A MINIMUM OF 5 FEET OF ROCK CORE. THE BORINGS WERE ADVANCED BY AN ATV-MOUNTED DRILL RIG USING A 4-1/4-INCH HOLLOW-STEM AUGER. DISTURBED, BUT REPRESENTATIVE, SOIL SAMPLES WERE PROCURED BY LOWERING A 2-INCH O.D. SPLIT-BARREL SAMPLER TO THE BOTTOM OF THE BORING AND THEN DRIVING THE SAMPLER INTO THE SOIL WITH BLOWS FROM A 140-POUND HAMMER FREELY FALLING 30 INCHES (ASTM D 1586 - STANDARD PENETRATION TEST), UP TO SIX (6) FEET OF CONTINUOUS SPT SAMPLING WAS ATTEMPTED BENEATH THE EXISTING PAVEMENT OR BASE SECTION IN THE SUBGRADE BORINGS. IN THE TRAFFIC SIGNAL MAST BORINGS, SPT SAMPLING WAS ATTEMPTED AT 2.5 FOOT SPACING BELOW THE EXISTING GROUND SURFACE TO ROCK AND 5 FEET OF ROCK WAS CORED WITH AN NQ CORE BARREL. THE SPT HAMMER WAS CALIBRATED ON JULY 3, 2017, WITH AN ENERGY RATIO OF 90.3%. THE BORINGS WERE BACKFILLED OR SEALED IN ACCORDANCE WITH ODOT REQUIREMENTS AT COMPLETION, AND WHERE THE BORINGS WERE ADVANCED THROUGH THE EXISTING PAVEMENT, THE SURFACE OF THE PAVEMENT WAS REPAIRED WITH QUICK-SET CONCRETE. CORES OF THE EXISTING PAVEMENT WERE ALSO OBTAINED AT BORINGS B-001-0-17, B-003-0-17, AND B-008-0-17.

**EXPLORATION FINDINGS**

FILL AND POSSIBLE FILL WERE ENCOUNTERED IN ELEVEN (11) OF THE TWELVE (12) BORINGS TO DEPTHS RANGING FROM 2.5 TO 5.5 FEET. THE FILL/POSSIBLE FILL CONSISTED OF STIFF TO HARD SANDY SILT (A-4a), SILT AND CLAY (A-6a), AND SILTY CLAY (A-6b), OR LOOSE TO MEDIUM DENSE GRAVEL WITH SAND (A-1-b), GRAVEL WITH SAND AND SILT (A-2-4), AND GRAVEL WITH SAND, SILT, AND CLAY (A-2-6). A ZONE OF MEDIUM-STIFF SANDY SILT (A-4a) WAS NOTED AT A DEPTH OF 2.5 FEET IN BORING B-011-0-17.

THE NATURAL SOIL ENCOUNTERED BELOW THE FILL CONSISTED PRIMARILY OF COHESIVE STIFF TO HARD SILT AND CLAY (A-6a), SILTY CLAY (A-6b), AND CLAY (A-7-6), WITH A FEW ZONES OF GRANULAR MEDIUM-DENSE TO VERY-DENSE GRAVEL WITH SAND (A-1-b). A ZONE OF SOFT SILT AND CLAY (A-6a) WAS ENCOUNTERED IN BORING B-010-0-17 BETWEEN 3.0 TO 5.5 FEET. BORINGS B-001-0-17 AND B-003-0-17 WERE TERMINATED FOLLOWING SAMPLER REFUSAL AT THE DEPTHS OF 5.5 AND 7.1 FEET, RESPECTIVELY. BORINGS B-004-0-17, B-005-0-17, B-009-0-17, AND B-010-0-17 WERE EXTENDED 5 FEET INTO CORABLE ROCK AND WERE TERMINATED AT DEPTHS OF 11.8 TO 16.9 IN MEDIUM-STRONG TO STRONG DOLOMITE.

DURING DRILLING, NO GROUNDWATER WAS NOTED IN THE BORINGS PRIOR TO CORING BEDROCK.

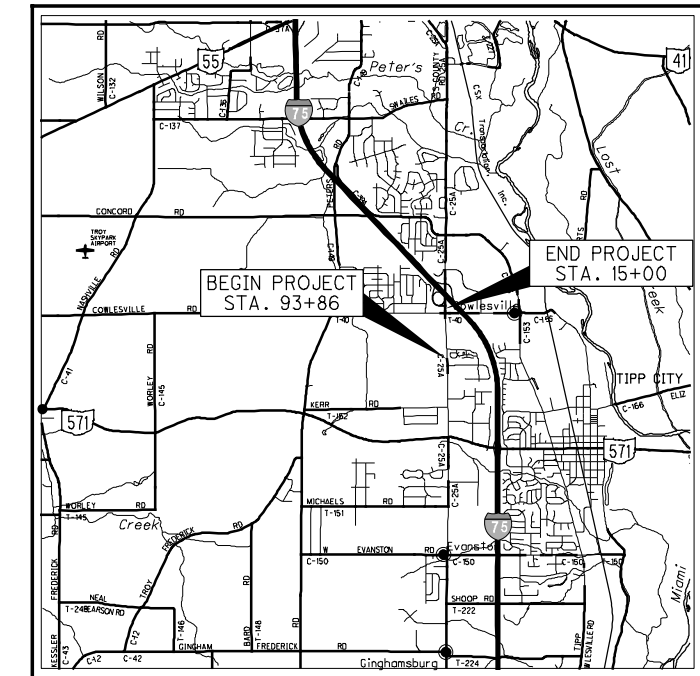
**SPECIFICATIONS**

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JULY 2017.

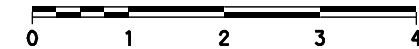
**AVAILABLE INFORMATION**

ALL AVAILABLE SOIL AND BEDROCK INFORMATION THAT CAN BE CONVENIENTLY SHOWN ON THESE GEOTECHNICAL EXPLORATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL EXPLORATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, OR THE OFFICE OF GEOTECHNICAL ENGINEERING AT 1980 WEST BROAD STREET, COLUMBUS, OHIO.

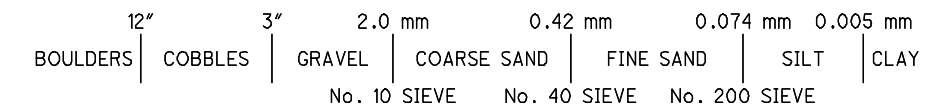
LEGEND		ODOT CLASS	CLASSIFIED MECH./VISUAL	
DESCRIPTION				
	GRAVEL WITH SAND	A-1-b	1	9
	GRAVEL WITH SAND AND SILT	A-2-4	2	-
	GRAVEL WITH SAND, SILT AND CLAY	A-2-6	1	-
	SANDY SILT	A-4a	2	2
	SILT AND CLAY	A-6a	3	5
	SILTY CLAY	A-6b	5	9
	CLAY	A-7-6	4	7
	TOTAL		10	18
	DOLOMITE	VISUAL		
	PAVEMENT OR BASE = X = APPROXIMATE THICKNESS	VISUAL		
	SOD AND TOPSOIL = X = APPROXIMATE THICKNESS	VISUAL		
	BORING LOCATION - PLAN VIEW			
	DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.			
WC	INDICATES WATER CONTENT IN PERCENT.			
N <sub>60</sub>	INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.			
X/Y/Z/D"	NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT): X= NUMBER OF BLOWS (UNCORRECTED) FOR FIRST 6 INCHES. Y= NUMBER OF BLOWS (UNCORRECTED) FOR SECOND 6 INCHES. Z/D"= NUMBER OF BLOWS (UNCORRECTED) FOR D" OF PENETRATION AT REFUSAL.			
W—	INDICATES FREE WATER ELEVATION.			
TR—	INDICATES TOP OF ROCK			
NP	INDICATES A NON-PLASTIC SAMPLE.			
SS	INDICATES A SPLIT SPOON SAMPLE, STANDARD PENETRATION TEST.			



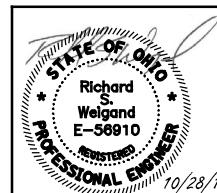
LOCATION MAP  
SCALE IN MILES



**PARTICLE SIZE DEFINITIONS**



RECON. -	S&ME	(9/21/2017)
DRILLING -	S&ME	(10/25/2017)
DRAWN -	KJD	(7/23/2018, 8/1/2018)
	KAH	(10/23/2019 - 10/28/19)
REVIEWED -	RSW	(12/13/2018, 10/16/2019)



SUMMARY OF SOIL TEST DATA


EXPLORATION NUMBER AND LOCATION	SAMPLE INTERVAL (FROM - TO)	N <sub>60</sub>	SAMPLE ID	% REC	HP (tsf)	% AGG	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS	ppm SO <sub>4</sub>		
B-001-0-17 STA. 92+94, 27' RT LATITUDE: 39.974254 LONGITUDE: -84.199596	3.0 - 4.5 4.5 - 5.0	9 -	SS-1 SS-2	33 50	3.0 -	14 29	7 21	14 25	29 18	36 7	40 NP	19 NP	21 NP	19 5	A-6b (10) A-1-b (0)	501		
B-002-0-17 STA. 96+40, 29' RT LATITUDE: 39.975202 LONGITUDE: -84.199676	1.0 - 2.5 2.5 - 4.0 4.0 - 5.5 5.5 - 6.1 6.1 - 7.0	17 17 8 32	SS-1 SS-2 SS-3 SS-4A SS-4B	100 67 67 56 22	2.0 - 0.5-1.1 1.1 -	33 34 18 13 22	14 18 13 15 17	14 13 20 15 17	22 20 15 23 17	28 33 19 14 12	16 16 12 12 10	12 12 14 14 12	10 12 23 22 -	A-6a (1) A-2-6 (1) A-6b (VISUAL) A-6b (VISUAL) A-1-b (VISUAL)	68			
B-003-0-17 STA. 100+15, 21' RT LATITUDE: 39.976227 LONGITUDE: -84.199800	2.5 - 4.0 4.0 - 5.0 5.0 - 5.2 5.5 - 5.8 7.0 - 7.1	5 - - - -	SS-1 SS-2A SS-2B SS-3 SS-4	27 100 71 100 100	1.0-2.1 1.0 - - -	34 2 6 20 24	13 6 20 48 51	12 20 24 48 18	18 24 48 51 18	23 48 51 18 23	40 17 18 33 25	17 18 33 25 16	23 4 - - -	A-6b (5) A-7-6 (17) A-1-b (VISUAL) A-1-b (VISUAL) A-1-b (VISUAL)	247			
B-004-0-17 STA. 103+84, 32' RT LATITUDE: 39.97724 LONGITUDE: -84.199854	1.0 - 2.5 2.5 - 4.0 4.0 - 5.5 5.5 - 5.7 8.5 - 8.6	33 11 14 - -	SS-1 SS-2 SS-3 SS-4 SS-5	100 39 67 29 100	4.5 1.6-2.2 2.1-3.2 - -	21 29 10 12 28	15 10 12 28 21	13 12 28 21 34	32 28 21 34 22	19 21 34 22 12	25 17 8 12 14	17 22 12 12 14	8 12 14 18 -	A-4a (3) A-6a (3) A-6b (VISUAL) A-6b (VISUAL) Rock (VISUAL)	<40			
B-005-0-17 STA. 105+17, 33' RT LATITUDE: 39.977602 LONGITUDE: +84.199885	1.0 - 2.5 3.5 - 5.0 6.0 - 6.9	41 17 -	SS-1 SS-2 SS-3	41 11 67	4.5 1.2 1.0-3.0	POSSIBLE FILL: HARD BROWN SANDY SILT STIFF TO VERY-STIFF BROWN AND GRAY SILTY CLAY SAME AS SS-2										9 20 19	A-4a (VISUAL) A-6b (VISUAL) A-6b (VISUAL)	214
B-006-0-17 STA. 107+86, 30' RT LATITUDE: 39.978339 LONGITUDE: -84.199966	1.0 - 1.7 1.7 - 2.5 2.5 - 4.0 4.0 - 5.5 5.5 - 7.0	29 11 9 8	SS-1A SS-1B SS-2 SS-3 SS-4	89 75 100 72 100	3.6-4.1 - 1.5-2.5 2.2-2.5 1.0-2.4	FILL: VERY-STIFF BROWN SANDY SILT FILL: LOOSE TO MEDIUM-DENSE GRAY GRAVEL WITH SAND 16 11 13 36 24 41 22 19 21 1 1 15 43 40 41 18 23 21 SAME AS SS-3										9 3 21 21 22	A-4a (VISUAL) A-1-b (VISUAL) A-7-6 (9) A-7-6 (13) A-7-6 (VISUAL)	<40
B-007-0-17 STA. 111+62, 31' RT LATITUDE: 39.979367 LONGITUDE: -84.200058	1.0 - 2.5 2.5 - 4.0 4.0 - 5.5 5.5 - 6.1 6.1 - 7.0	18 12 12 24	SS-1 SS-2 SS-3 SS-4A SS-4B	100 56 67 56 22	2.7 1.5-3.0 2.7-3.0 2.5 -	17 1 5 15 30	13 15 15 30 49	15 29 26 33 17	29 26 33 17 16	26 33 17 16 12	33 17 16 12 12	17 16 20 20 23	16 20 28 23 6	A-6b (6) A-7-6 (VISUAL) A-7-6 (16) A-7-6 (VISUAL) A-1-b (VISUAL)	<40			
B-008-0-17 STA. 115+48, 18' RT LATITUDE: 39.980423 LONGITUDE: -84.200201	1.5 - 3.0 3.0 - 4.5 4.5 - 6.0 6.0 - 6.7 6.7 - 7.5	6 6 8 29	SS-1 SS-2 SS-3 SS-4A SS-4B	100 28 100 67 38	1.3-2.2 0.5 0.7-1.2 0.7-1.1 -	23 17 9 17 31	14 9 17 31 26	11 17 31 26 31	29 31 26 31 15	23 26 31 15 16	34 18 16 19 14	18 16 19 14 6	16 17 19 14 6	A-6b (6) A-6b (VISUAL) A-6b (7) A-6b (VISUAL) A-1-b (VISUAL)	-			
B-009-0-17 STA. 9+24, 41' RT LATITUDE: 39.980996 LONGITUDE: -84.200168	1.0 - 2.5 3.5 - 5.0 6.0 - 6.3 6.3 - 6.6	17 8 - -	SS-1 SS-2 SS-3A SS-3B	50 33 100 33	4.5 1.0-2.1 2.0 -	POSSIBLE FILL: HARD DARK-BROWN SILT AND CLAY STIFF TO VERY-STIFF DARK-BROWN CLAY SAME AS SS-2 VERY-DENSE BROWN GRAVEL WITH SAND										14 24 25 -	A-6a (VISUAL) A-7-6 (VISUAL) A-7-6 (VISUAL) A-1-b (VISUAL)	-
B-010-0-17 STA. 10+58, 42' LT LATITUDE: 39.981354 LONGITUDE: -84.200482	1.0 - 2.5 3.5 - 5.0 6.0 - 7.5 8.5 - 10.0	15 8 12 36	SS-1 SS-2 SS-3 SS-4	39 72 61 50	4.5 0.3 1.2-2.1 1.0-3.5	POSSIBLE FILL: HARD DARK-BROWN SILT AND CLAY SOFT BROWN SILT AND CLAY STIFF TO VERY-STIFF BROWN CLAY STIFF TO VERY-STIFF BROWN SILT AND CLAY										16 16 26 13	A-6a (VISUAL) A-6a (VISUAL) A-7-6 (VISUAL) A-6a (VISUAL)	-
B-011-0-17 STA. 11+20, 35' RT LATITUDE: 39.98153 LONGITUDE: -84.200213	1.0 - 2.5 2.5 - 4.0 4.0 - 5.5 5.5 - 7.0	15 9 14 24	SS-1 SS-2 SS-3 SS-4	100 61 78 67	- 0.6-1.6 2.0-4.1 4.5	40 32 15 14 21	19 14 14 18 29	11 14 18 21 19	17 18 29 19 10	13 27 17 10 9	27 17 10 9 9	17 10 10 14 14	10 14 18 22 -	A-2-4 (0) A-4a (1) A-6b (VISUAL) A-7-6 (VISUAL)	138			
B-012-0-17 STA. 14+71, 32' RT LATITUDE: 39.982491 LONGITUDE: -84.200234	1.0 - 2.5 2.5 - 4.0 4.0 - 5.5 5.5 - 7.0	11 12 15 11	SS-1 SS-2 SS-3 SS-4	33 72 100 78	- 1.5-2.0 - 1.0-1.7	FILL: STIFF TO VERY-STIFF DARK-BROWN SILT AND CLAY 26 17 14 23 20 30 16 14 12 39 19 13 17 12 25 17 8 10 STIFF DARK-BROWN SILT AND CLAY										- 12 10 12	A-1-b (VISUAL) A-6a (3) A-2-4 (0) A-6a (VISUAL)	149

SOIL PROFILE SUMMARY OF SOIL TEST DATA

MIA - CR25A - 3.54



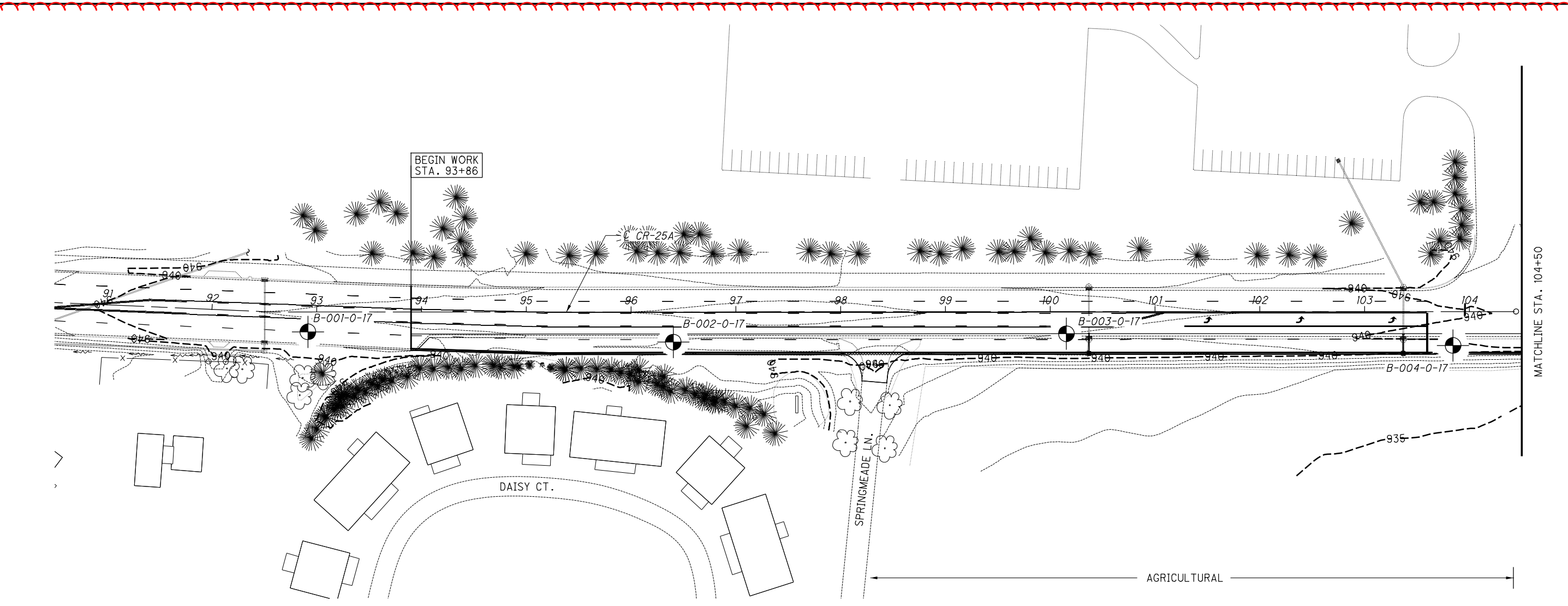
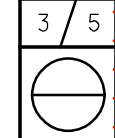
DRAWN  
KAH  
CHECKED  
PSW

  
 0 50 100  
 HORIZONTAL  
 SCALE IN FEET

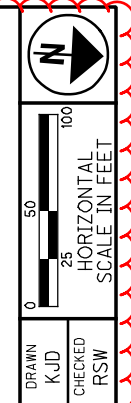
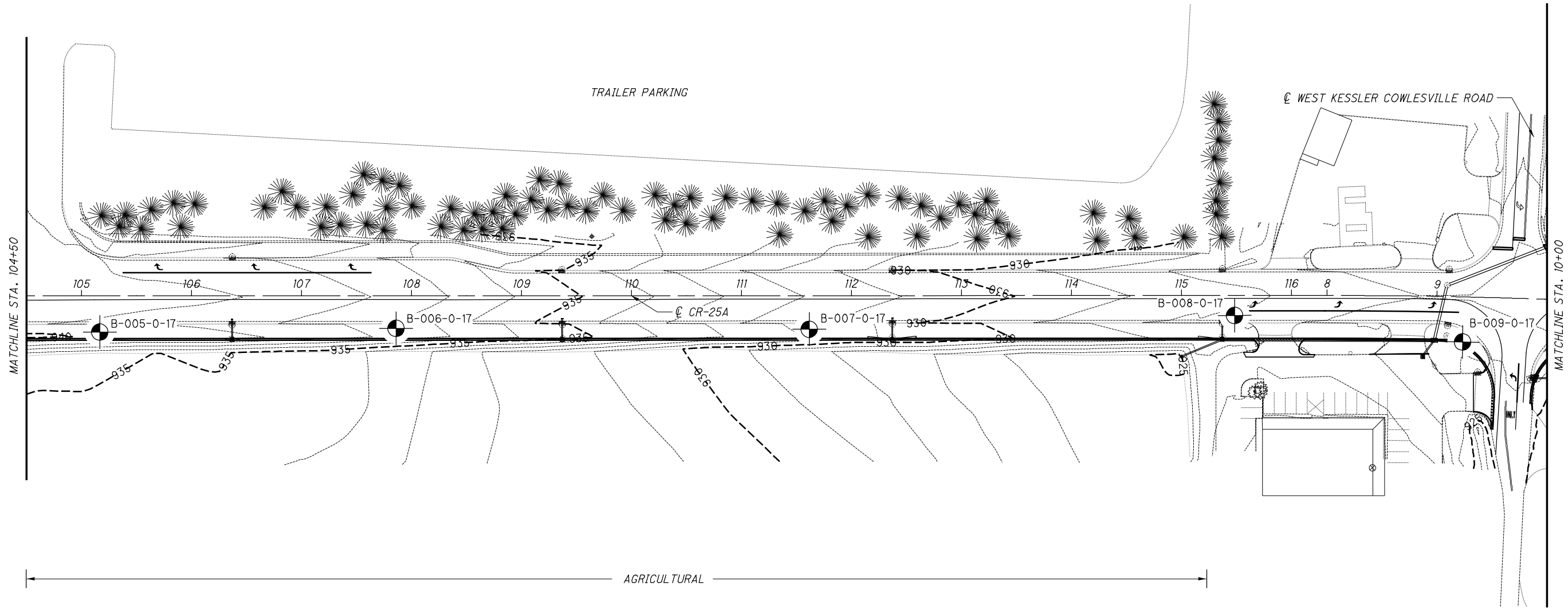
DRAWN  
 KAH  
 CHECKED  
 RSW

**SOIL PROFILE**  
**STA. 90+50 TO STA. 104+50**

**MIA - CR25A - 3.54**

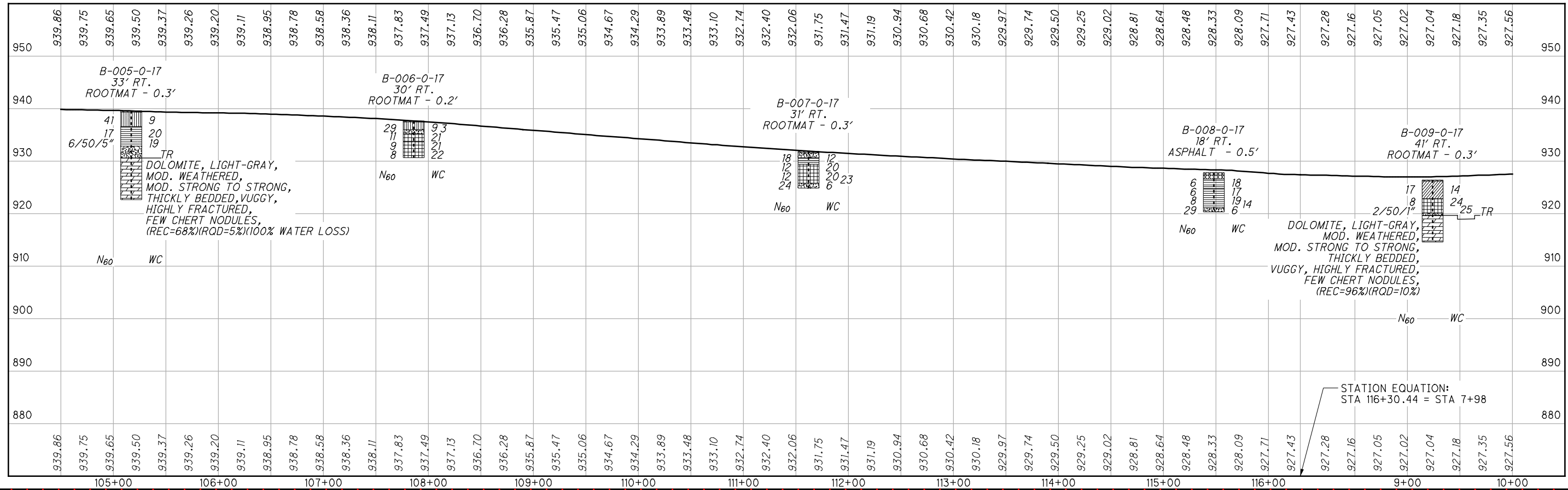


939.50	939.84	940.10	940.35	940.55	940.74	940.82	940.90	941.01	941.09	941.14	941.18	941.24	941.30	941.35	941.44	941.49	941.51	941.62	941.72	941.85	941.95	941.99	942.04	942.11	942.18	942.25	942.31	942.32	942.28	942.23	942.18	942.10	942.01	941.88	941.76	941.73	941.69	941.60	941.50	941.39	941.29	941.19	941.10	941.04	940.98	940.93	940.89	940.82	940.71	940.54	940.38	940.26	940.14	940.07	939.97	939.86	960																																						
										B-001-0-17 27' RT. ASPHALT - 1.2' 36/50/4*9 195 TR		B-002-0-17 29' RT. ROOTMAT - 0.3' 17 10 17 12 8 23 32 22 N <sub>60</sub> WC												B-003-0-17 21' RT. ASPHALT - 1.5' 2/22/50/2", 50/3" 50/1" 5 16 4 25 N <sub>60</sub> WC				B-004-0-17 32' RT. ROOTMAT - 0.3' 33 11 11/50/1"14 50/1" 9 9 14 23 18 TR N <sub>60</sub> WC										960																																																									
													DOLOMITE, LIGHT-GRAY, HIGHLY WEATHERED, HIGHLY FRACTURED															DOLOMITE, LIGHT-GRAY, HIGHLY WEATHERED, MOD. STRONG TO STRONG, VERY THICKLY BEDDED, HIGHLY FRACTURED, VUGGY. (REC=96%)(RQD=24%)															960																																																				
																							N <sub>60</sub> WC																																				N <sub>60</sub> WC																																				960
920																																			920																																																												
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91+00	92+00	93+00	94+00	95+00	96+00	97+00	98+00	99+00	100+00	101+00	102+00	103+00	104+00																							104+00	939.50																																																										



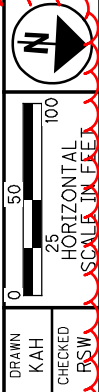
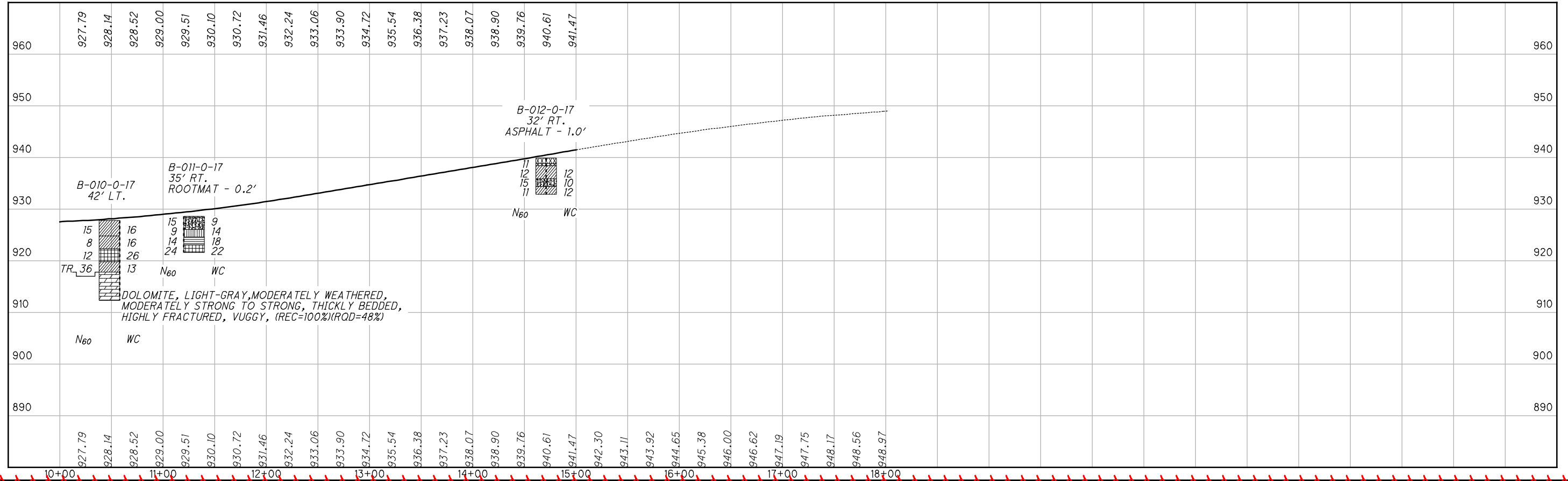
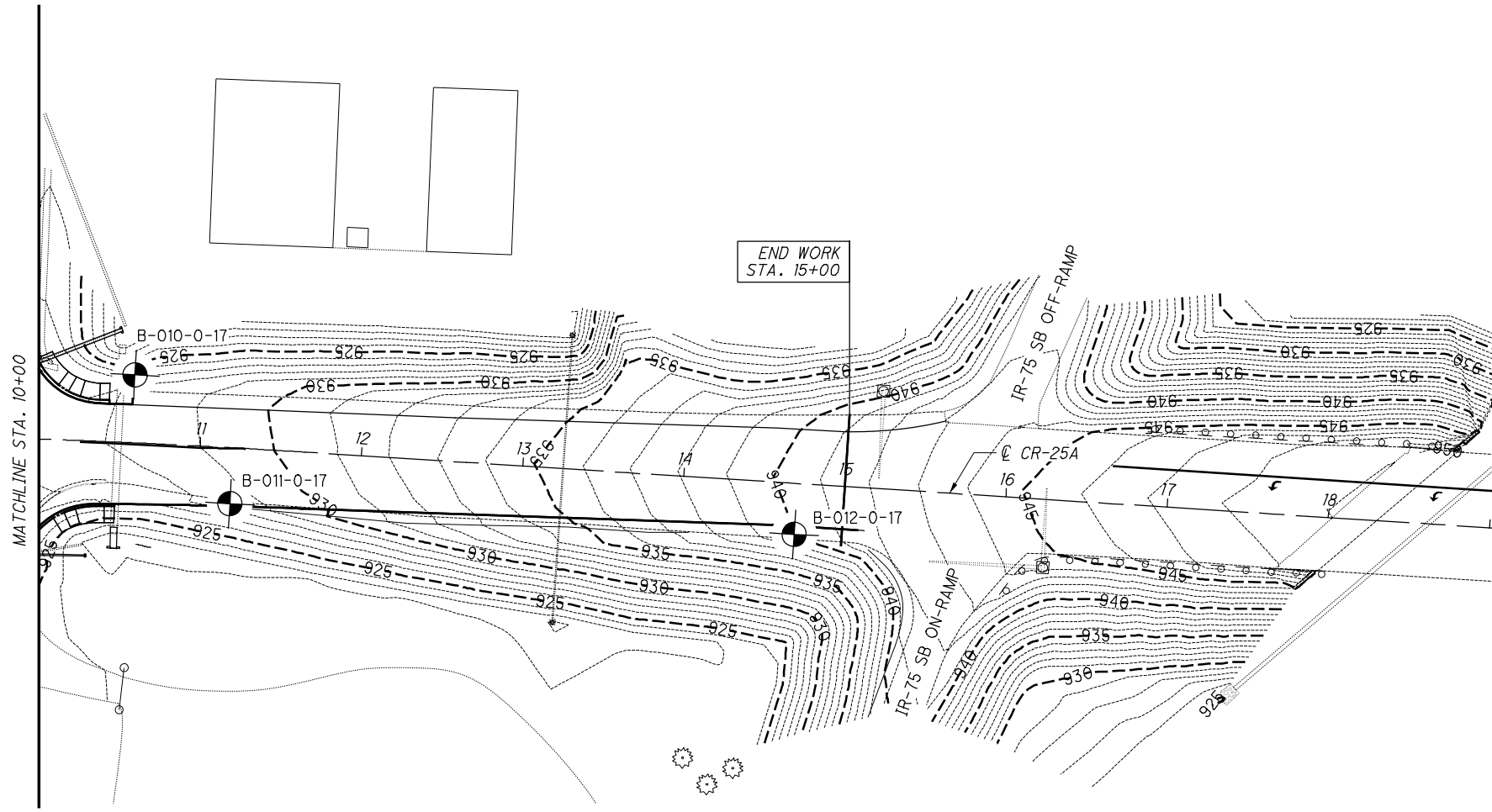
DRAWN  
KJD  
CHECKED  
RSW

**SOIL PROFILE**  
**STA. 104+50 TO STA. 10+00**



**MIA-CR25A-3.54**

STATION EQUATION:  
STA 116+30.44 = STA 7+98



DRAWN  
KAH

CHECKED  
FSW

**SOIL PROFILE**  
**STA. 10+00 TO STA. 15+43**

**MIA - CR25A - 3.54**

