

STATE OF TENNESSEE

SHELBY COUNTY

DIVISION OF PUBLIC WORKS

PLAN FOR PROPOSED IMPROVEMENTS

CONGESTION MANAGEMENT PROGRAM

SIGNALIZATION OF VARIOUS LOCATIONS THROUGHOUT SHELBY COUNTY

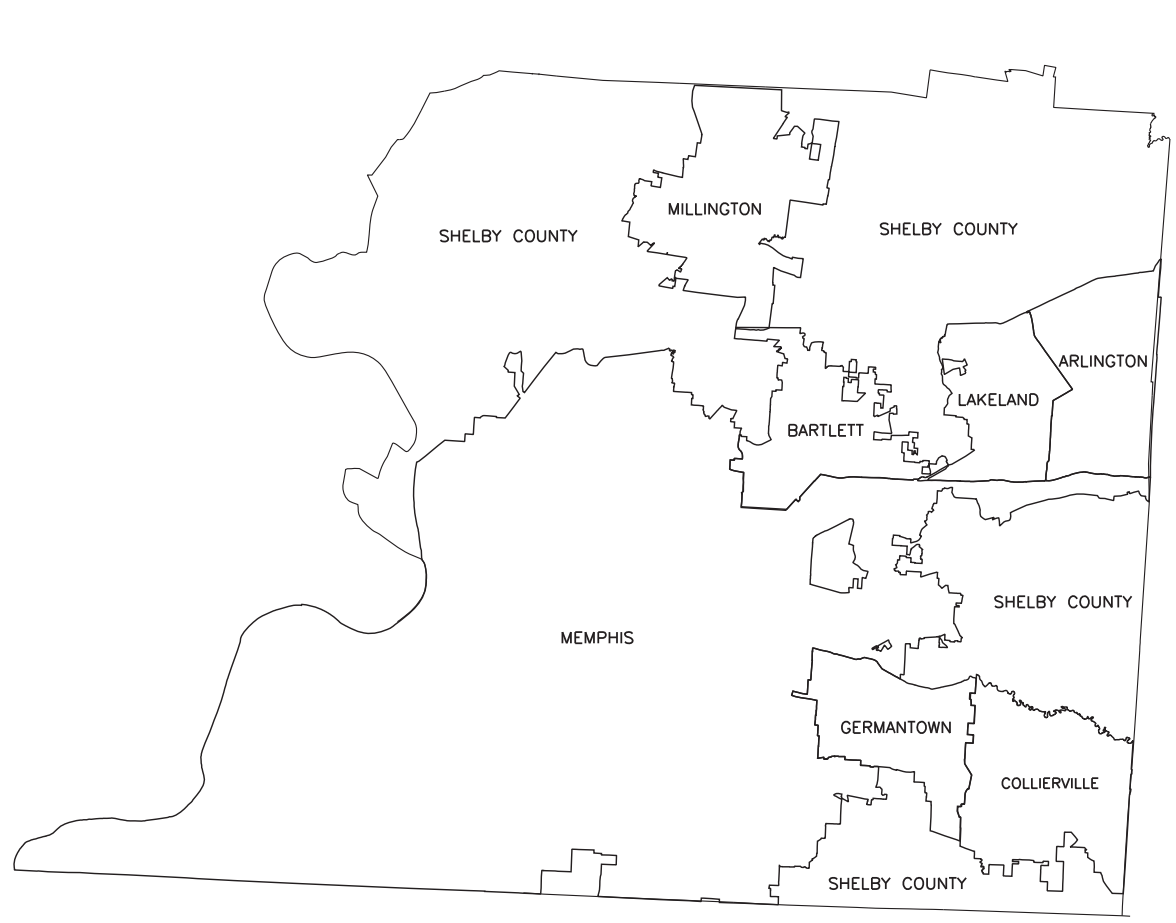
SIGNAL SYSTEM PROJECT SET #8

TDOT P.I.N.: 115241.14

FEDERAL PROJECT NO.: CM-7900(50)

STATE PROJECT NO.: 79LPLM-F3-291

LOCALLY MANAGED PROJECT



LOCATION MAP

NOT TO SCALE

NOTES:

PROPOSALS MAY BE REJECTED BY THE COUNTY ENGINEER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ANY UTILITY COMPANY WHICH MAINTAINS A UTILITY LINE WITHIN THE BOUNDARIES OF THE PROJECT PRIOR TO THE INITIATION OF ANY CONSTRUCTION ON THE PROJECT OR IN THE STREETS BORDERING THE PROJECT. THE CONTRACTOR SHALL ALSO ASSUME RESPONSIBILITY FOR ALL DAMAGE TO ANY UTILITY LINES, WHETHER SHOWN ON THE CONSTRUCTION PLANS OR NOT, DURING WORK ON THE PROJECT.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

HON. MARK H. LUTTRELL, JR, MAYOR

APPROVED: _____ DATE: _____

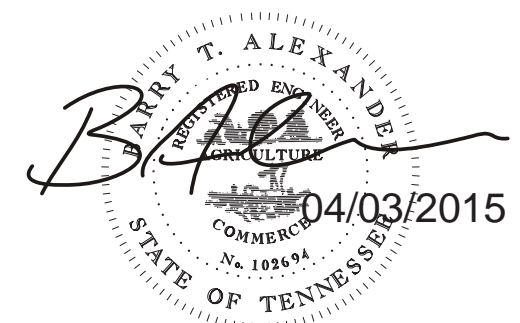
MR. DARREN SANDERS, P.E.
SHELBY COUNTY ENGINEER

APPROVED: _____ DATE: _____

CITY OF MEMPHIS ENGINEER

APPROVED: _____ DATE: _____

CITY OF MEMPHIS TRAFFIC ENGINEER



SCOPE OF WORK

THE SCOPE OF WORK INCLUDES INSTALLING CONDUIT WITH FIBER OPTIC INTERCONNECT CABLE ALONG JACKSON AVENUE/AUSTIN PEAY HIGHWAY FROM WALES ROAD TO YALE ROAD AND ALONG JAMES ROAD/STAGE ROAD FROM JACKSON AVENUE TO COVINGTON PIKE. THE SCOPE OF WORK ALSO INCLUDES THE INSTALLATION OF VIDEO DETECTION AND/OR EMERGENCY VEHICLE PREEMPTION EQUIPMENT AT SELECT INTERSECTIONS AND INSTALLATION OF RADAR DETECTION EQUIPMENT AT SELECT LOCATIONS WITHIN THE PROJECT AREA.

- PROJECT LOCATIONS
- PROJECT INTERSECTION LOCATIONS
- PROJECT RADAR DETECTION SYSTEM LOCATIONS

INDEX OF SHEETS

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CONSULTANT DESIGN CONSTRUCTION

TDOT LOCAL PROGRAM MANAGER WHITNEY SULLIVAN

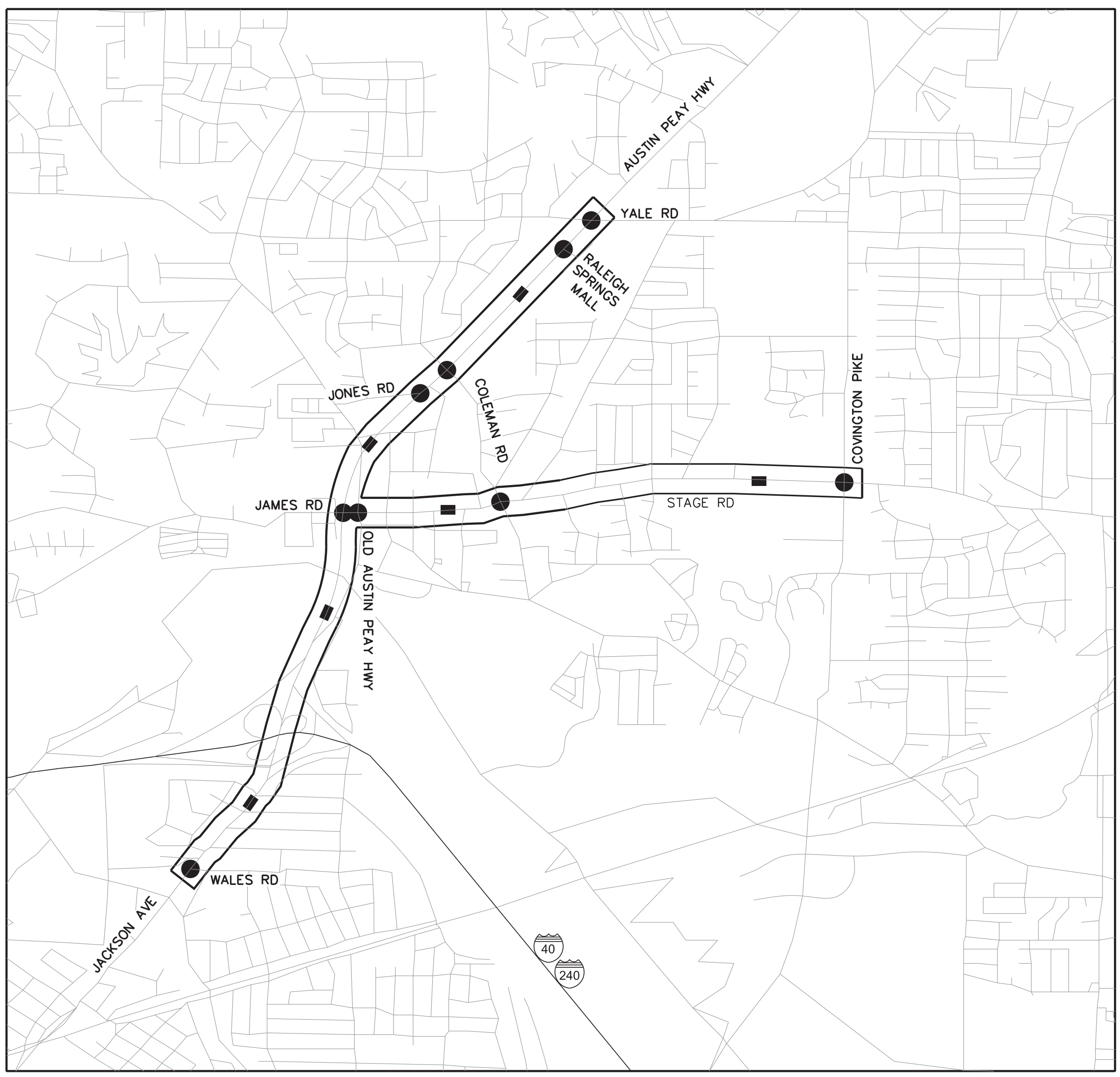
SHELBY COUNTY PROJECT MANAGER ROBERT EVANS

DESIGNED BY NEEL-SCHAFFER, INC. CHECKED BY MICHAEL AGNEW, P.E.

DESIGNER BARRY ALEXANDER, P.E.

P.E. NO. 79LPLM-F3-291

PIN NO. 115241.14



VICINITY MAP

NOT TO SCALE

EQUATIONS: NONE

EXCEPTIONS: NONE

GENERAL NOTES

UTILITIES

- (1) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF THEIR PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY.
- (2) IT IS THE CONTRACTOR'S RESPONSIBILTY TO LOCATE AND AVOID ALL UTILITIES AND UNDERGROUND STRUCTURES. THE CONTRACTOR SHOULD NOTE THAT EXISTING GAS LINES, WATER LINES, STORM DRAINAGE AND SANITARY SEWER STRUCTURES, AND OTHER UTILITIES MAY BE PRESENT.
- (3) THE CONTRACTOR SHALL CONTACT THE CITY OF MEMPHIS SIGNAL SHOP AT 901-528-2844 FOR LOCATION OF SIGNAL CONDUIT AND WIRES.
- (4) EXISTING UTILITY LOCATIONS, AS SHOWN ON THESE PLANS, WERE COMPILED BASED ON INFORMATION AVAILABLE TO THE ENGINEER. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND ARE NOT INTENDED TO BE EXACT OR COMPLETE.
- (5) SOME UTILITIES CAN BE LOCATED BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC. BY DIALING 811 (TENNESSEE 811). THE CONTRACTOR SHALL CALL THE TENNESSEE ONE CALL SYSTEM, INC. AT LEAST 72 HOURS, BUT NOT MORE THAN FIVE (5) DAYS PRIOR TO ANY PLANNED EXCAVATION BY THE CONTRACTOR.

MISCELLANEOUS

- (6) THE LOCATIONS OF ALL NEW PULL BOXES AND CABINETS ARE SCHEMATIC. ADDITIONAL PULL BOXES MAY BE REQUIRED FOR BORING UNDER DRIVEWAYS. THE ENGINEER SHALL APPROVE THE FINAL LOCATIONS OF ALL PULL BOXES IN THE FIELD. THE CONTRACTOR SHALL PROVIDE AS-BUILT DOCUMENTATION (RED-LINE OF PLAN SET) WHICH SHOWS EXACT, FINAL DIMENSIONS BETWEEN PULL BOXES AND OTHER POINTS OF CONDUIT TERMINATION.
- (7) CONTACT THE APPROPRIATE JURISDICTION IN WHICH THE WORK IS BEING DONE AT LEAST 72 HOURS BEFORE BEGINNING ANY WORK ON THIS PROJECT.
- (8) SIGNAL EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE CITY OF MEMPHIS TRAFFIC SIGNAL SPECIFICATIONS.
- (9) THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE SIGNAL TIMING IN THE CONTROLLER. CONTACT JAMES COLLINS, KIMLEY-HORN AND ASSOCIATES, INC. AT (901) 374-9109 A MINIMUM OF THIRTY (30) DAYS PRIOR TO ACTIVATION TO OBTAIN TIMINGS.
- (10) ALL SALVAGEABLE ITEMS TO BE DELIVERED TO THE JURISDICTION IN WHICH THE WORK IS BEING DONE.
- (11) THE CONTRACTOR SHALL BRING THE NEW CONTROLLER UNITS AND THE SIGNAL TIMING SHEETS TO THE CITY OF MEMPHIS TRAFFIC SIGNAL MAINTENANCE OFFICE FOR REVIEW PRIOR TO INSTALLATION OF THE CONTROLLERS IN THE CABINET.
- (12) THE CONTRACTOR SHALL COIL 50' OF (EACH) FIBER OPTIC CABLE IN ALL FIBER OPTIC PULL BOXES.
- (13) CONTRACTOR SHALL HAVE SIGNAL MAINTENANCE RESPONSIBILITY OF THE INTERSECTION ONCE WORK ON EACH INTERSECTION HAS BEGUN. THE RESPONSIBILITY SHALL EXTEND TO CONTRACT ITEMS ONLY AND SHALL END UPON SUBSTANTIAL COMPLETION AND ACCEPTANCE OF THE WORK AT THE INTERSECTION.
- (14) THE CONTRACTOR SHALL NOT SPLICE ANY VIDEO DETECTION OR EVP EQUIPMENT CABLES.
- (15) THE CONTRACTOR SHALL INSTALL EVP EQUIPMENT THAT INCLUDES MULTI-MODE GPS/IR AT INTERSECTIONS IN CITY OF MEMPHIS AND CITY OF GERMANTOWN.

CABLE MARKER NOTES

- (16) THE CONTRACTOR SHALL INSTALL CABLE MARKERS TO IDENTIFY THE DETECTION AND EMERGENCY VEHICLE PREEMPTION CABLES. LEGENDS AND COLORS FOR MARKERS ARE TO APPEAR ACCORDING TO THE INFORMATION SUPPLIED BY THE CITY OF MEMPHIS SIGNAL MAINTENANCE DEPARTMENT. MARKERS ARE TO BE PERMANENT, BRIGHTLY COLORED, NON-REFLECTIVE, WITH BLACK LETTERING. MARKERS ARE TO BE MANUFACTURED OF PLASTIC, VINYL OR FIBERGLASS MATERIAL THAT IS DURABLE, UV LIGHT-RESISTANT, WEATHER-PROOF AND SCRATCH-RESISTANT.
- (17) CURB MARKERS SHALL BE INSTALLED TO IDENTIFY CABLES THAT ARE IN OR NEAR THE STREET. CURB MARKERS ARE TO BE FOUR-INCH DIAMETER ROUND DISKS APPLIED TO CONCRETE OR METAL SURFACES WITH AN ADHESIVE ACCORDING TO THE RECOMMENDATION OF THE MANUFACTURER. CURB MARKERS ARE TO BE INSTALLED ON CABINET AND POLE FOUNDATIONS ON THE SIDE ABOVE THE CABLE. CURB MARKERS ARE ALSO TO BE PLACED ON THE CURB AT 100-FOOT SPACING ALONG ANY RUN OF CABLE THAT IS PARALLEL TO THE CURB. WHERE PAVED SHOULDER EXIST INSTEAD OF CURB, PLACE CURB MARKERS ON THE PAVEMENT SURFACE ONE FOOT FROM THE EDGE OF THE SURFACE, OR DIRECTLY OVER THE CONDUIT OR CABLE. CURB MARKERS ARE TO BE DURACAST STYLE CURB MARKERS AS MADE BY DAS MANUFACTURING, WILLIAM FRICK AND CO., OR APPROVED EQUAL. CURB MARKERS SHALL BE ABRASION AND UV-RESISTANT.

- (18) POST-TYPE CABLE MARKER SHALL BE UTILIZED IN INTERCHANGE AREAS AND OTHER LOCATIONS WHERE USE OF CURB MARKERS IS IMPRACTICAL WITHIN THESE AREAS. POST-TYPE MARKERS SHALL BE INSTALLED ADJACENT TO ALL PULLBOXES AND AT APPROXIMATELY 250 FT SPACING BETWEEN PUBLBOXES. MARKER POSTS SHALL BE 60 INCHES IN LENGTH, 3.5 INCHES IN WIDTH (MINIMUM) AND CONSTRUCTED OF UV RESISTANT FIBERGLASS COMPOSITE MATERIAL. POST COLOR AND LEGEND SHALL BE SUSTANTIALY SIMILAR TO CURB MARKERS USED ELSEWHERE ON THE PROJECT.

SPECIAL NOTES

GENERAL

- (1) NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA.

WORK ZONE TRAFFIC CONTROL

- (2) ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- (3) IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK.
- (4) A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.
- (5) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (6) USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (7) THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (8) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- (9) CONTRACTOR SHALL EXPEDITE REPLACEMENT OF SIGNAL CONTROLLERS AND CABINETS TO MINIMIZE DELAYS ON THE PUBLIC. CONTRACTOR SHALL EMPLOY OFF-DUTY POLICE TO PROVIDE ADDITIONAL TRAFFIC CONTROL DURING TIMES WHEN INTERSECTION IS DARK. TRANSFER SHALL BE ACCOMPLISHED BETWEEN THE HOURS OF 9:00 AM AND 3:00 PM OR BETWEEN 7:00 PM AND 5:00 AM. COST OF POLICE MANPOWER TO BE INCLUDED IN OTHER ITEMS.
- (10) LANES CLOSURES DURING MAINTENANCE OF TRAFFIC SHALL BE COORDINATED WITH AND APPROVED BY CITY TRAFFIC ENGINEER PRIOR TO BEGINNING WORK ACTIVITY. IN GENERAL, LANE CLOSURES SHALL NOT BE USED ON WEEKDAYS BETWEEN 7:00 AM-9:00 AM OR 4:00 PM-6:00 PM. LANE CLOSURES MAY BE FURTHER LIMITED BY CITY TRAFFIC ENGINEER AT SPECIFIC LOCATIONS.
- (11) OPENINGS IN SIDEWALKS SHALL BE BARRICADED WITH DETECTABLE PEDESTRIAN BARRICADES (IN ACCORDANCE WITH MUTCD SECTION 6F.74) UNTIL RESTORATION CAN BE ACCOMPLISHED. OPENINGS SHALL BE RESTORED AS QUICKLY AS POSSIBLE. IF SIDEWALK WIDTH DOES NOT PERMIT A MINIMUM 48 INCH PATH OF TRAVEL AROUND THE WORK AREA, THE ENTIRE SIDEWALK SEGMENT MUST BE CLOSED WITH A FULL-WIDTH CANE-DETECTABLE BARRICADE AND AN ALTERNATE PATH OF TRAVEL PROVIDED. TEMPORARY RESTORATION WITH FIRMLY-COMPACTED GRAVEL BACKFILL, METAL PLATES OR TEMPORARY PLYWOOD WALKWAY MAY BE UTILIZED UNTIL PERMANENT RESTORATION CAN BE ACCOMPLISHED. ANY TEMPORARY SURFACE MUST BE AT LEAST 48 INCHES WIDE, STABLE, SLIP-RESISTANT, AND FREE FROM ANY VERTICAL DISCONTINUITITES GREATER THAN ½ INCH (BEVELED). ANY SIDEWALK OPENINGS SHALL BE PERMANENTLY RESTORED WITHIN FIVE WORKING DAYS OF THE TIME THE OPENING IS CREATED, UNLESS A SPECIFIC REQUEST BY THE CONTRACTOR IS APPROVED BY THE ENGINEER.

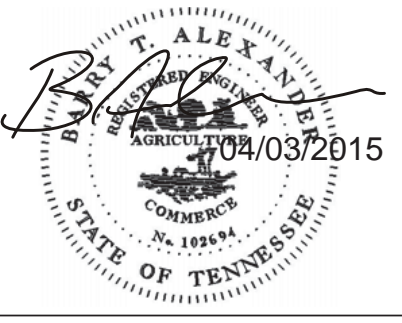
EROSION PREVENTION AND SEDIMENT CONTROL


- (12) ALL COSTS FOR EROSION PREVENTION AND SEDIMENT CONTROL WORK SHALL BE INCLUDED IN THE LUMP-SUM PRICE BID FOR EROSION AND SILTATION CONTROL. THIS SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO PROVIDE TEMPORARY STABILIZATION OF DISTURBED AREAS, CONTAIN SEDIMENT WITH THE WORK AREA, AND PREVENT POLLUTANTS FROM ENTERING WATERS OF THE STATE/US.
- (13) CLEARING, GRUBBING, AND OTHER DISTURBANCE TO EXISTING VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.
- (14) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT ON ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.
- (15) WATER PUMPED FROM WORK AREAS AND EXCAVATION MUST BE HELD IN SETTLING BASINS OR TREATED BY FILTRATION OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE INTO SURFACE WATERS. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER MUST BE HELD IN SETTLING BASINS UNTIL AT LEAST AS CLEAR AS THE RECEIVING WATERS. SETTLING BASINS SHALL NOT BE LOCATED CLOSER THAN 20 FEET FROM THE TOP BANK OF A STREAM. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL- VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. DISCHARGES FROM BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. DISCHARGES MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITH THE RECEIVING STREAM.
- (16) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT FROM EROSION ANY EXPOSED EARTH RESULTING FROM TRENCHING AND EXCAVATION, AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THIS WORK. PRIOR TO BEGINNING WORK, ADEQUATE MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFF-SITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THE WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME SHALL EXPOSED EARTH RESULTING FROM THESE OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFF-SITE AND ENTERING WATERS OF THE STATE/U.S.
- (17) SILT FENCE OR OTHER BARRIERS OF THE SPECIFIED TYPE SHALL BE INSTALLED ON THE DOWNHILL SIDE OF STOCKPILED SOIL. POLYETHYLENE SHEETING MAY BE USED TO COVER SPOILS FROM EXCAVATION.
- (18) FOR THE INSTALLATION OF CONDUITS AND CABLES, TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN SEVEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOIL OF EXCAVATED EARTH SHALL BE LOCATED WITHIN EROSION PREVENTION AND SEDIMENT CONTROL MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE CONTRACTOR UNTIL SUCH TIME AS THE TRENCH IS BACKFILLED.
- (19) MUD OR BORING FLUID RESULTING FROM BORING OPERATIONS MUST BE CONTAINED, REMOVED, AND DISPOSED OF PROPERLY.
- (20) SOLAR POWER SYSTEMS FOR RDS UNITS SHALL CONSIST OF A SOLAR PANEL, BATTERY, CHARGE REGULATOR, AND ALL CABLING AND ACCESSORIES NECESSARY TO PROVIDE A FULLY FUNCTIONAL SOLAR POWER SYSTEM CAPABLE OF POWERING THE RDS UNIT AND ASSOCIATED COMMUNICATIONS EQUIPMENT. THE SOLAR PANEL SHALL BE SIZED BY THE MANUFACTURER TO PROVIDE THE REQUIRED OUTPUT FOR RDS OPERATION AND BATTERY CHARGING. THE BATTERY SHALL BE SIZED TO PROVIDE A MINIMUM OF 3 DAYS OF CONTINUOUS OPERATION OF THE RDS UNIT WITHOUT CHARGING.

RADAR DETECTION SYSTEM


- (20) SOLAR POWER SYSTEMS FOR RDS UNITS SHALL CONSIST OF A SOLAR PANEL, BATTERY, CHARGE REGULATOR, AND ALL CABLING AND ACCESSORIES NECESSARY TO PROVIDE A FULLY FUNCTIONAL SOLAR POWER SYSTEM CAPABLE OF POWERING THE RDS UNIT AND ASSOCIATED COMMUNICATIONS EQUIPMENT. THE SOLAR PANEL SHALL BE SIZED BY THE MANUFACTURER TO PROVIDE THE REQUIRED OUTPUT FOR RDS OPERATION AND BATTERY CHARGING. THE BATTERY SHALL BE SIZED TO PROVIDE A MINIMUM OF 3 DAYS OF CONTINUOUS OPERATION OF THE RDS UNIT WITHOUT CHARGING.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED





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CIVIL ENGINEERING. CIVIL RESPONSIBILITY.



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DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.


**GENERAL NOTES &
SPECIAL NOTES**


SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 04/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 3 OF 50

TABULATED INTERSECTION AND RDS QUANTITES																									
LAYOUT DRAWING NO.	LOCATION		LOCAL CONTROLLER CABINET AND HUB CABINET				LOCAL CONTROLLER			VIDEO		FIBER OPTIC EQUIPMENT						RADAR DETECTION SYSTEM						BLUETOOTH TRAFFIC DETECTION SYSTEM	
	STREET 1	STREET 2	RETAIN EXISTING CABINET	REMOVE EXITING POLE MOUNT CABINET	INSTALL NEW 8-PHASE BASE MOUNT CABINET	INSTALL CABLE IN EXISTING CONDUIT INTO CABINET	INSTALL NEW BASE MOUNT HUB CABINET	RETAIN EXISTING CONTROLLER	REMOVE EXISTING CONTROLLER	INSTALL NEW 8-PHASE CONTROLLER	INSTALL VIDEO VEHICLE DETECTION SYSTEM	INSTALL 4-CHANNEL, RACK MOUNT VEHICLE DETECTOR	INSTALL ETHERNET CABINET SWITCH (TYPE A)	INSTALL ETHERNET HUB SWITCH (TYPE B)	INSTALL FIBER DISTRIBUTION BOX IN CABINET	INSTALL SERIAL DEVICE SERVER	INSTALL PULLBOX (FIBER OPTIC - TYPE B)	INSTALL WEATHERPROOF SPLICE ENCLOSURE IN PULLBOX	INTALL RADAR DETECTION SYSTEM	INSTALL NEW POLE MOUNT RDS CABINET (TYPE A)	INSTALL NEW POLE MOUNT RDS CABINET (TYPE D)	INSTALL 20' ALUMINUM PEDESTAL POLE	MLG&W POWER SERVICE CONNECTION		SOLAR POWER FOR RDS
ITEM NUMBER	-	-	730-15.32	-	725-24.11	-	-	730-16.02	730-13.02	730-13.03	725-03.09	725-03.10	730-03.31	725-21.22	730-03.24	725-02.79	725-21.91	725-24.01	725-24.04	730-23.30	714-25.09	725-21.97	725-21.88		
UNIT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH		
RD-01	RDS AP-1												1		1		1	1	1	1		1			
RD-01	RDS AP-2												1		1		1	1	2	1	1	2	2		
RD-01	RDS AP-3												1		1		1	1	1	1		1			
IL-01	James Rd/ Stage Rd	Jackson Ave/Austin Peay Blvd	1			1		1					1		1	1	1	1							
IL-02	Austin Peay Blvd	Jones Rd		1	1				1	1	1	3	1		1		1	1							
IL-03	Austin Peay Blvd	Coleman Rd			1				1	1	1	4	1		1		1	1							
RD-01	RDS AP-4												1		1		1	1	1	1		1			
IL-04	Austin Peay Blvd	Raleigh Springs Mall	1			1			1	1	1		1		1		1	1							
IL-05	Austin Peay Blvd	Yale Rd	1			1		1			1		1		1	1	1	1					1		
IL-06	James Rd/ Stage Rd	Old Austin Peay Hwy			1				1	1	1	4	1		1		1	1							
RD-02	RDS S-1				-								1		1		1	1	1	1		1			
IL-07	Stage Rd	Coleman Rd			1				1	1	1	4	1		1		1	1							
RD-02	RDS S-2				-								1		1		1	1	1	1		1			
IL-08	Stage Rd	Covington Pike			1		1		1	1	1	4	1	1	1		2	2					1		
TOTALS			3	1	5	3	1	2	6	6	7	19	14	1	14	2	15	15	7	6	1	7	2	5	

REVISIONS		
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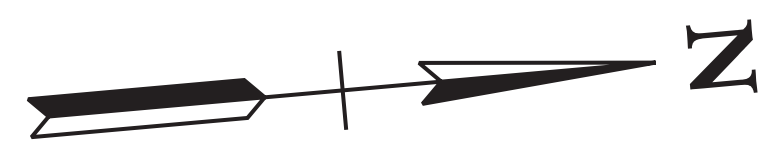
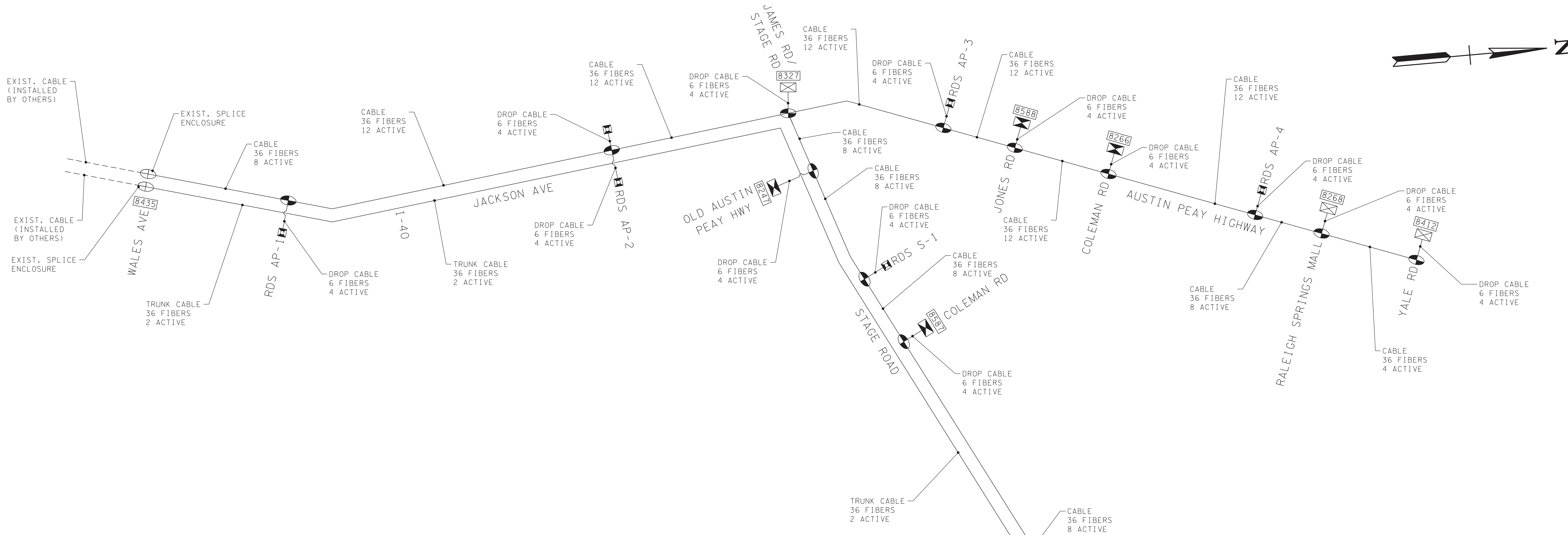
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SHELBY COUNTY, TN.

SUMMARY OF WORK
BY INTERSECTION

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 04/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 04/14 CHECKED: RTA DATE: 04/14
JURISDICTION: SHEET 4 OF 50



LEGEND

	EXISTING	PROPOSED
BASE MOUNTED CABINET		
BASE MOUNTED HUB CABINET		
POLE MOUNTED RDS CABINET		
SPLICE ENCLOSURE		
FIBER OPTIC PULL BOX		
STANDARD PULL BOX		
WOOD POLE		
METAL/ALUMINUM POLE		
SIGNAL HEAD		
PEDESTRIAN SIGNAL HEAD		
PEDESTRIAN PUSH BUTTON		
EVP CONFIRMATION BEACON		
EVP DETECTOR		
EVP CONFIRMATION LAMP		
VIDEO DETECTION CAMERA		
CONDUIT		

XXXX - INTERSECTION ID NUMBER

NOTES:
1. CABLE IDENTIFICATION IS AS SHOWN IN THE FOLLOWING EXAMPLE:

CABLE
XX FIBERS
XX ACTIVE
INDICATES THE NUMBER OF ACTIVE FIBERS WITHIN THE CABLE SHEATH.
INDICATES THE NUMBER OF FIBERS WITHIN THE CABLE SHEATH.

3. FIBER OPTIC PULL BOXES ARE NOT SHOWN ON THIS SCHEMATIC.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED

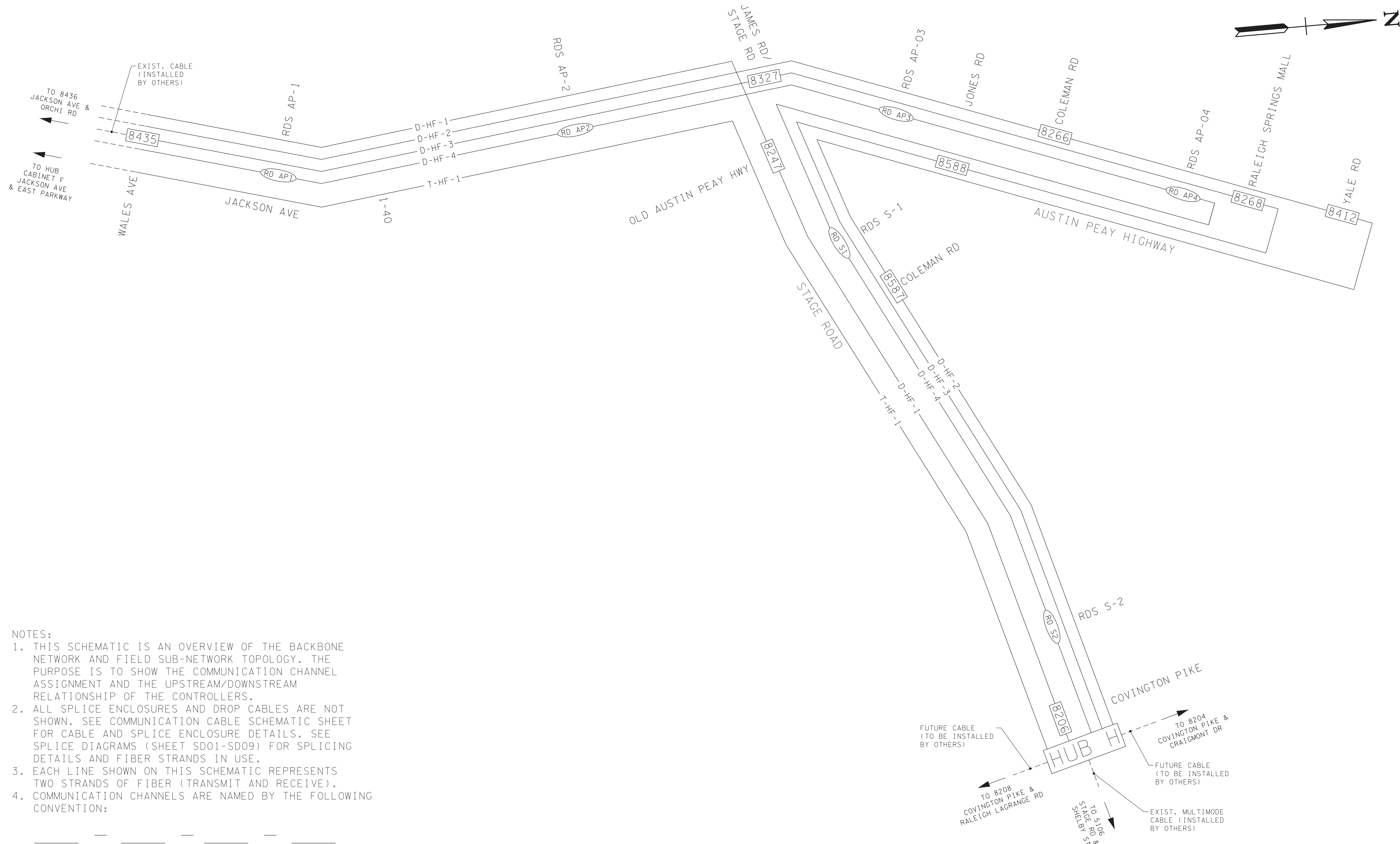


POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.
NEEL-SCHAFFER
Solutions you can build upon

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

COMMUNICATIONS CABLE SCHEMATIC & LEGEND

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 04/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 5 OF 50



- NOTES:
1. THIS SCHEMATIC IS AN OVERVIEW OF THE BACKBONE NETWORK AND FIELD SUB-NETWORK TOPOLOGY. THE PURPOSE IS TO SHOW THE COMMUNICATION CHANNEL ASSIGNMENT AND THE UPSTREAM/DOWNSTREAM RELATIONSHIP OF THE CONTROLLERS.
 2. ALL SPLICE ENCLOSURES AND DROP CABLES ARE NOT SHOWN. SEE COMMUNICATION CABLE SCHEMATIC SHEET FOR CABLE AND SPLICE ENCLOSURE DETAILS. SEE SPLICE DIAGRAMS (SHEET SD01-SD09) FOR SPLICING DETAILS AND FIBER STRANDS IN USE.
 3. EACH LINE SHOWN ON THIS SCHEMATIC REPRESENTS TWO STRANDS OF FIBER (TRANSMIT AND RECEIVE).
 4. COMMUNICATION CHANNELS ARE NAMED BY THE FOLLOWING CONVENTION:

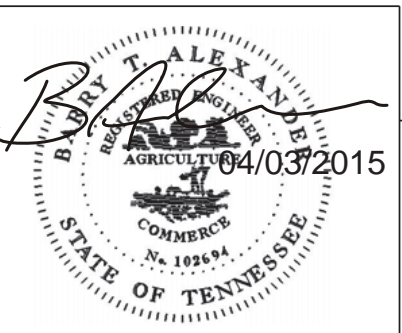
CHANNEL TYPE	FROM HUB ID	TO HUB ID	CHANNEL SEQUENCE
--------------	-------------	-----------	------------------

CHANNEL TYPE :
T - BACKBONE CHANNEL FOR HUB TO HUB COMMUNICATIONS
D - DISTRIBUTION CHANNEL FOR FIELD DEVICE COMMUNICATIONS
EXAMPLE:
T-GJ-1 BACKBONE CHANNEL #1 FROM HUB G TO J
D-JM-2 DISTRIBUTION CHANNEL #2 FROM HUB J TO M

REVISIONS		
DATE	DESCRIPTIONS	APPROVED

**POWERS HILL DESIGN**
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

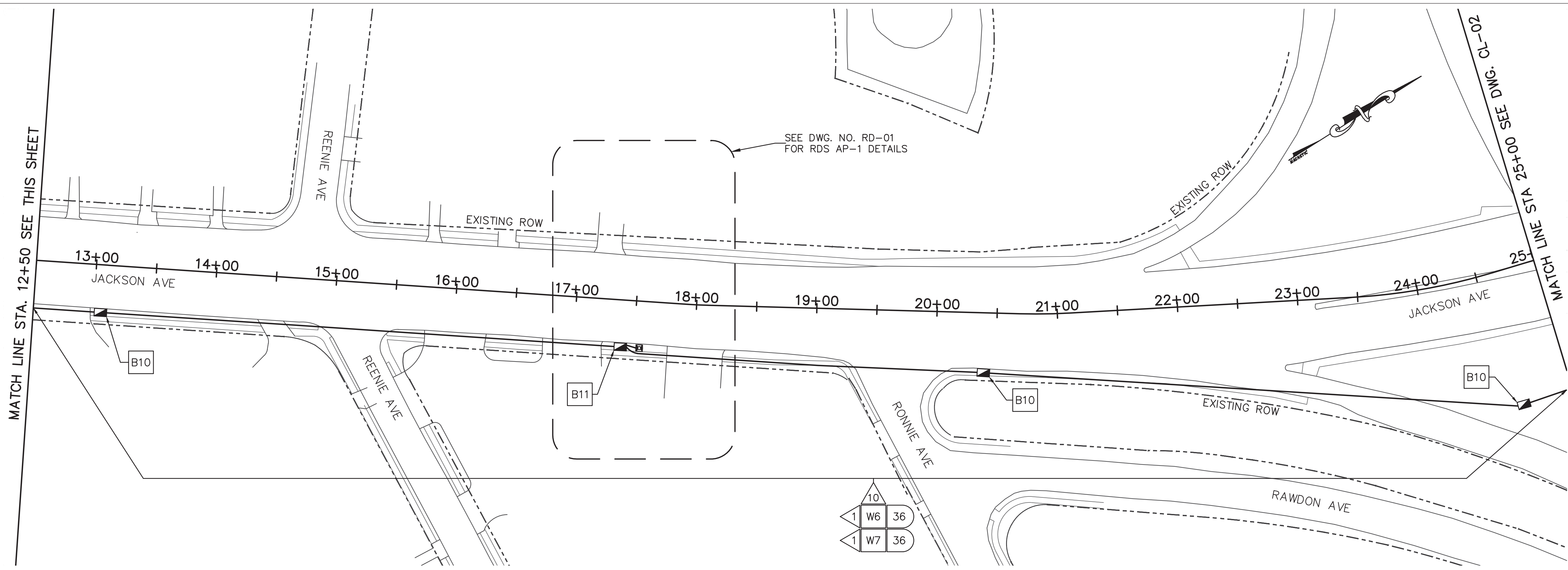
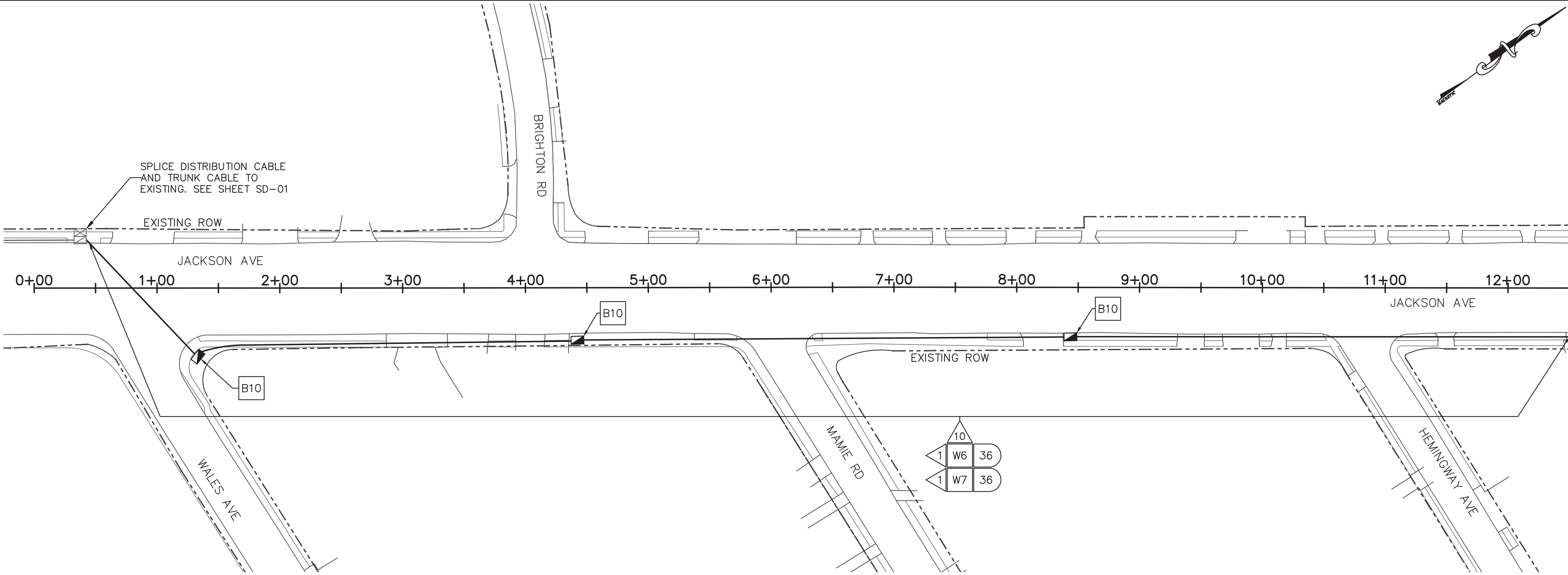
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Solutions you can build upon



APPROVED
04/03/2015

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
**COMMUNICATIONS
CHANNEL SCHEMATIC**

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 04/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 6 OF 50

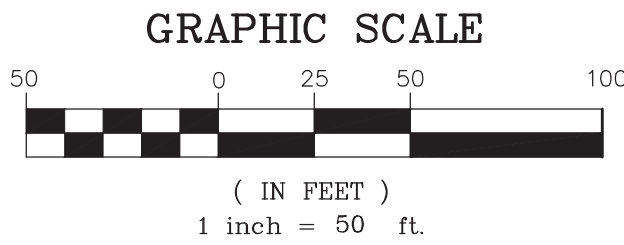


- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D15 INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 SMFO DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 5 INSTALL 2" RISER WITH SEALING BUSHING
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 7 INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE
- 8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 14 INSTALL 3" RISER WITH WEATHERHEAD
- 15 INSTALL 3" CONDUIT INTO CABINET
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 17 JACK AND BORE 3" CONDUIT
- 18 INSTALL 3" RISER INTO BOTTOM OF CABINET
- 19 REUSE EXISTING RISER WITH WEATHERHEAD
- 20 TIE CONDUIT INTO EXISTING PULLBOX
- 21 REUSE EXISTING CONDUIT
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 27 INSTALL CABLES IN EXISTING WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 29 INSTALL CABLES IN PROPOSED POLE
- 35 ATTACH CONDUIT TO BRIDGE
- X NUMBER OF CABLES, LOOPS, ETC.
- X NUMBER OF CONDUCTORS, PAIRS, ETC.

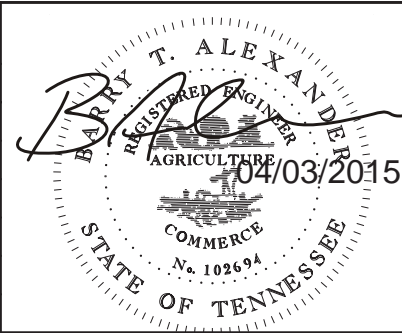
MATCH LINE STA. 12+50 SEE THIS SHEET

MATCH LINE STA. 12+50 SEE THIS SHEET

MATCH LINE STA. 25+00 SEE DWG. NO. RD-01



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



CL-01

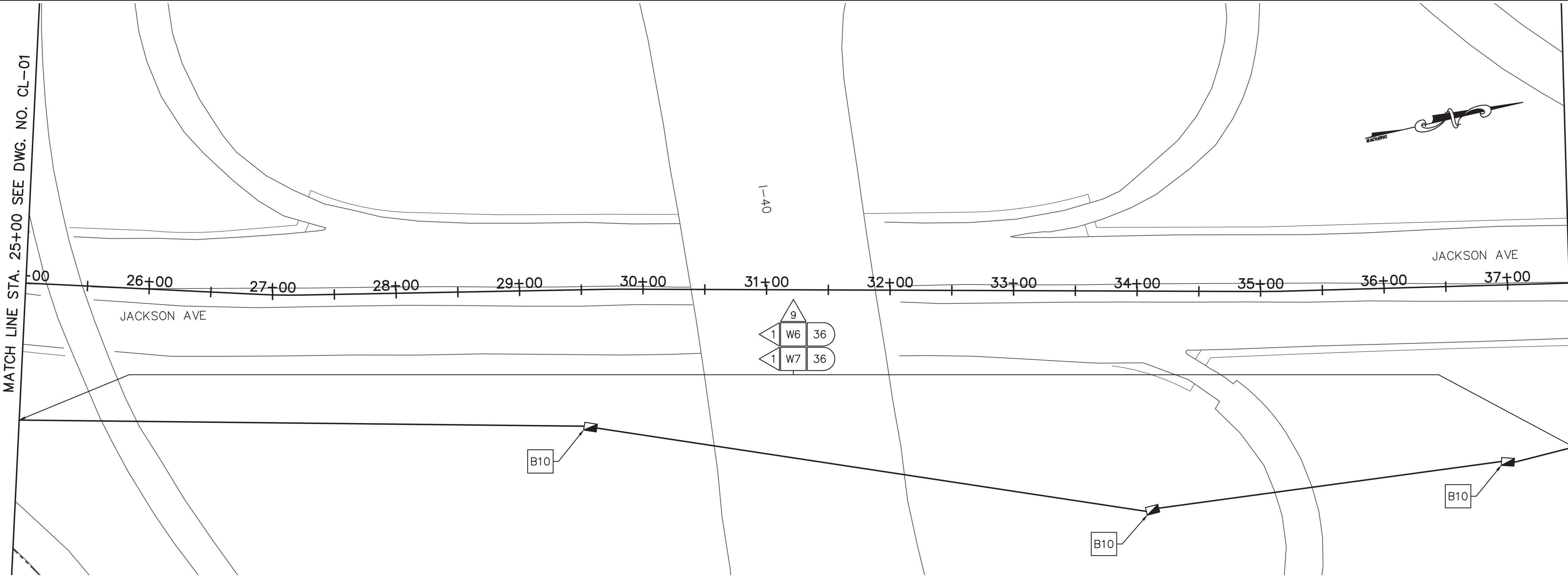
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

AUSTIN PEAY HIGHWAY
CABLE LAYOUT
FROM 0+00 TO 25+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A
JURISDICTION: _____ SHEET 7 OF 50

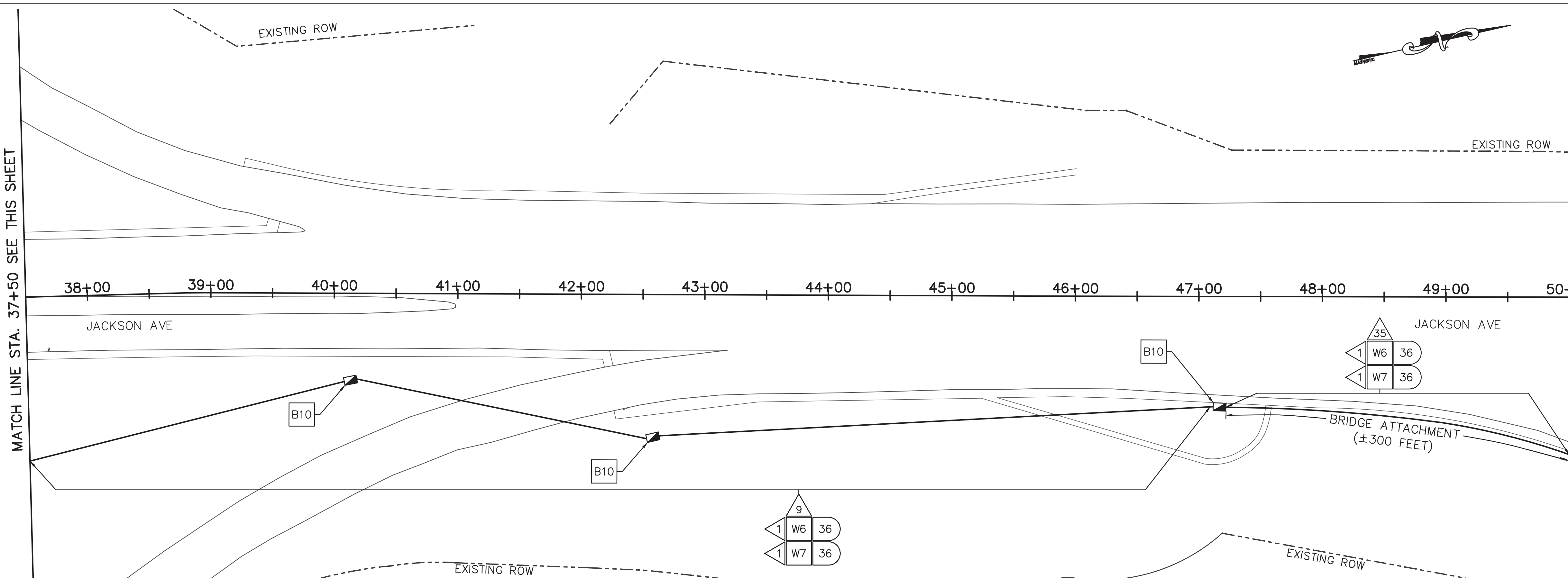
MATCH LINE STA. 25+00 SEE DWG. NO. CL-01

MATCH LINE STA. 37+50 SEE THIS SHEET

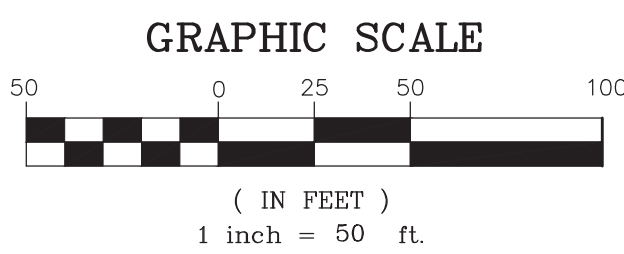


MATCH LINE STA. 37+50 SEE THIS SHEET

MATCH LINE STA. 50+00 SEE DWG. NO. CL-03



- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D15 INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 SMFO DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 5 INSTALL 2" RISER WITH SEALING BUSHING
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 7 INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE
- 8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 14 INSTALL 3" RISER WITH WEATHERHEAD
- 15 INSTALL 3" CONDUIT INTO CABINET
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 17 JACK AND BORE 3" CONDUIT
- 18 INSTALL 3" RISER INTO BOTTOM OF CABINET
- 19 REUSE EXISTING RISER WITH WEATHERHEAD
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- 21 REUSE EXISTING CONDUIT
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 27 INSTALL CABLES IN EXISTING WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 29 INSTALL CABLES IN PROPOSED POLE
- 35 ATTACH CONDUIT TO BRIDGE
- X NUMBER OF CABLES, LOOPS, ETC.
- X NUMBER OF CONDUCTORS, PAIRS, ETC.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED

POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

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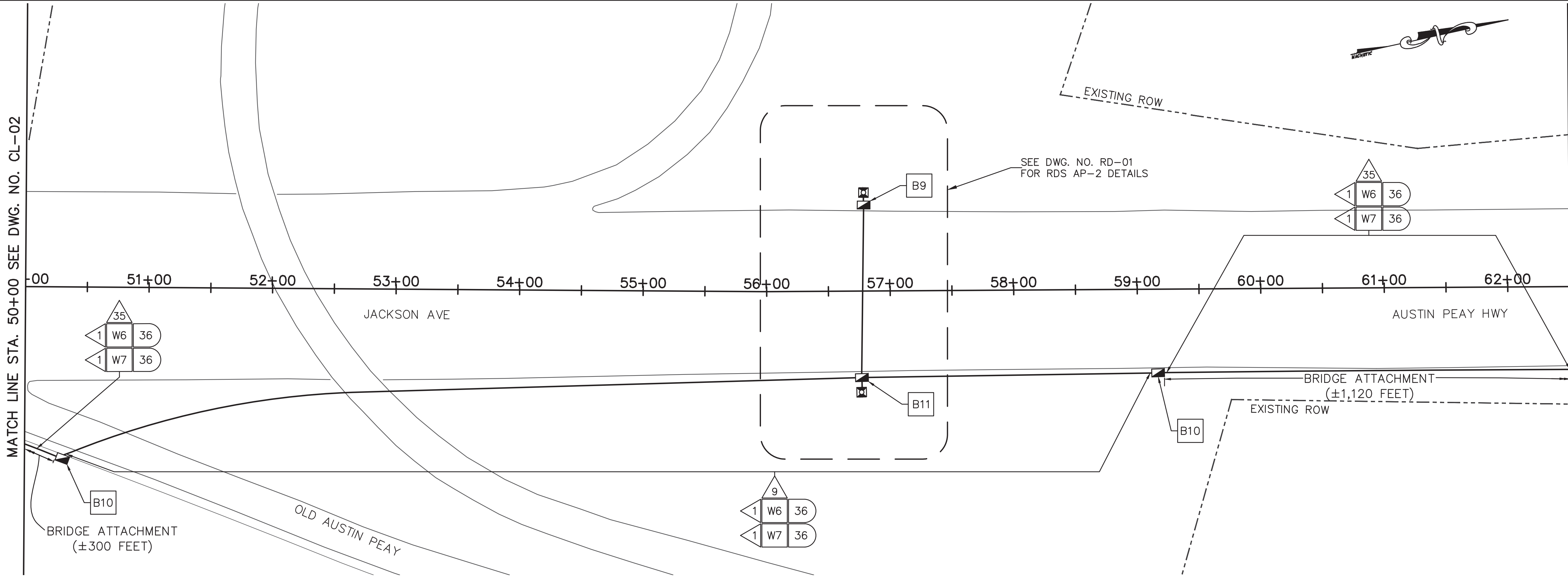
CL-02

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

AUSTIN PEAY HIGHWAY
CABLE LAYOUT
FROM 25+00 TO 50+00

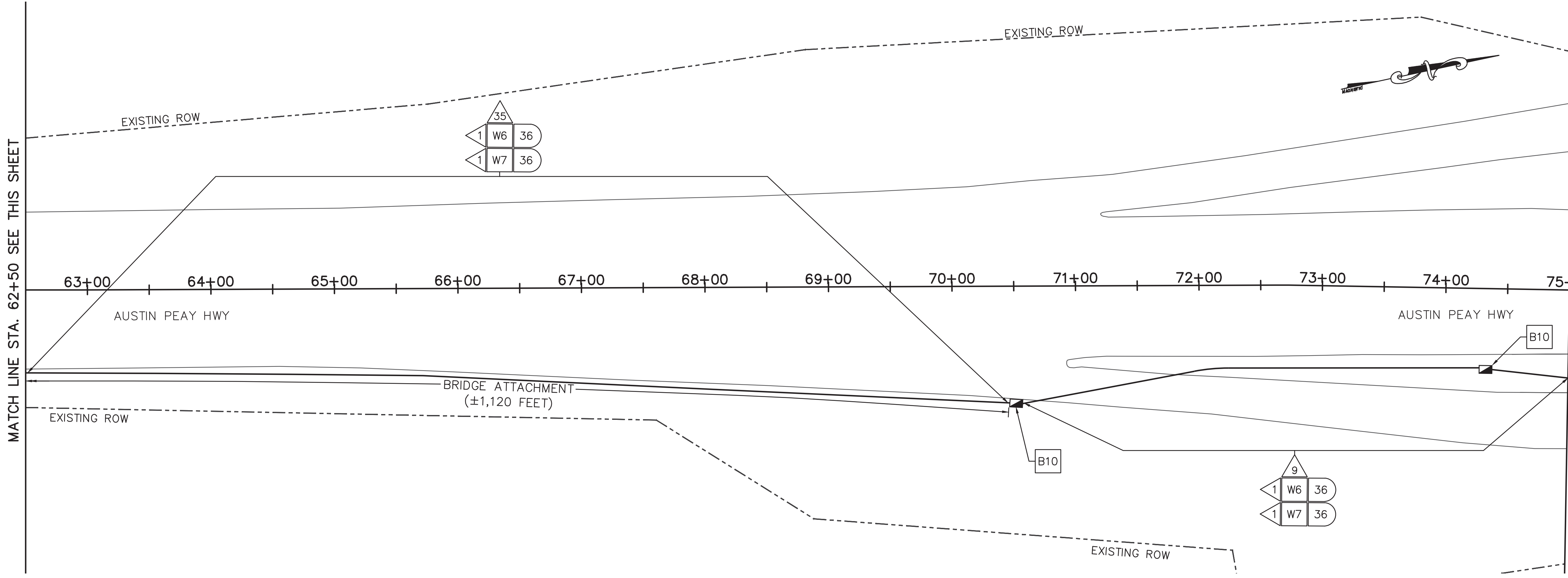
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DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 8 OF 50

MATCH LINE STA. 50+00 SEE DWG. NO. CL-02



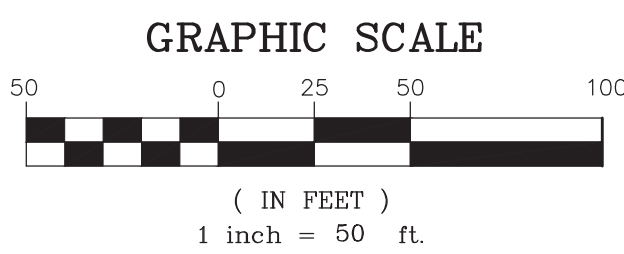
MATCH LINE STA. 62+50 SEE THIS SHEET

MATCH LINE STA. 62+50 SEE THIS SHEET



MATCH LINE STA. 75+00 SEE DWG. NO. CL-04

- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
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- D13 INSTALL RADAR DETECTION SYSTEM
- D15 INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
- W6 SMFO CABLE
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- 8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 14 INSTALL 3" RISER WITH WEATHERHEAD
- 15 INSTALL 3" CONDUIT INTO CABINET
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- 28 INSTALL CABLES IN EXISTING POLE
- 29 INSTALL CABLES IN PROPOSED POLE
- 35 ATTACH CONDUIT TO BRIDGE
- X NUMBER OF CABLES, LOOPS, ETC.
- X NUMBER OF CONDUCTORS, PAIRS, ETC.

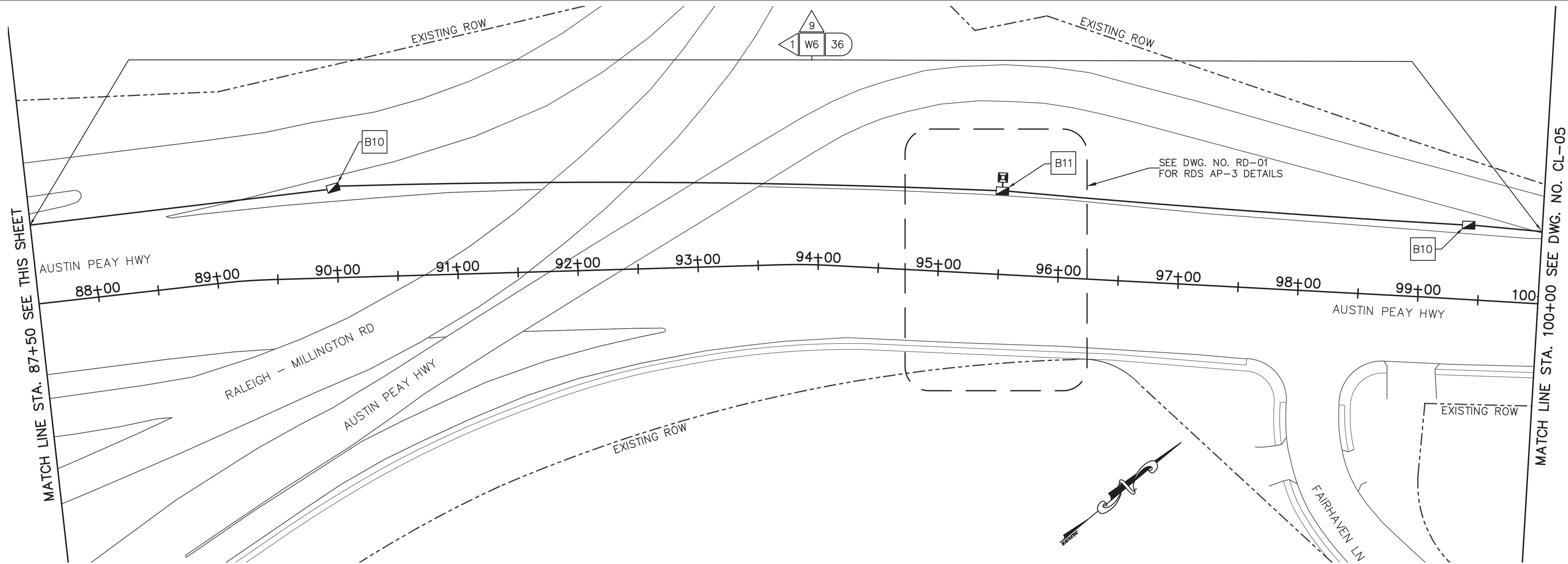
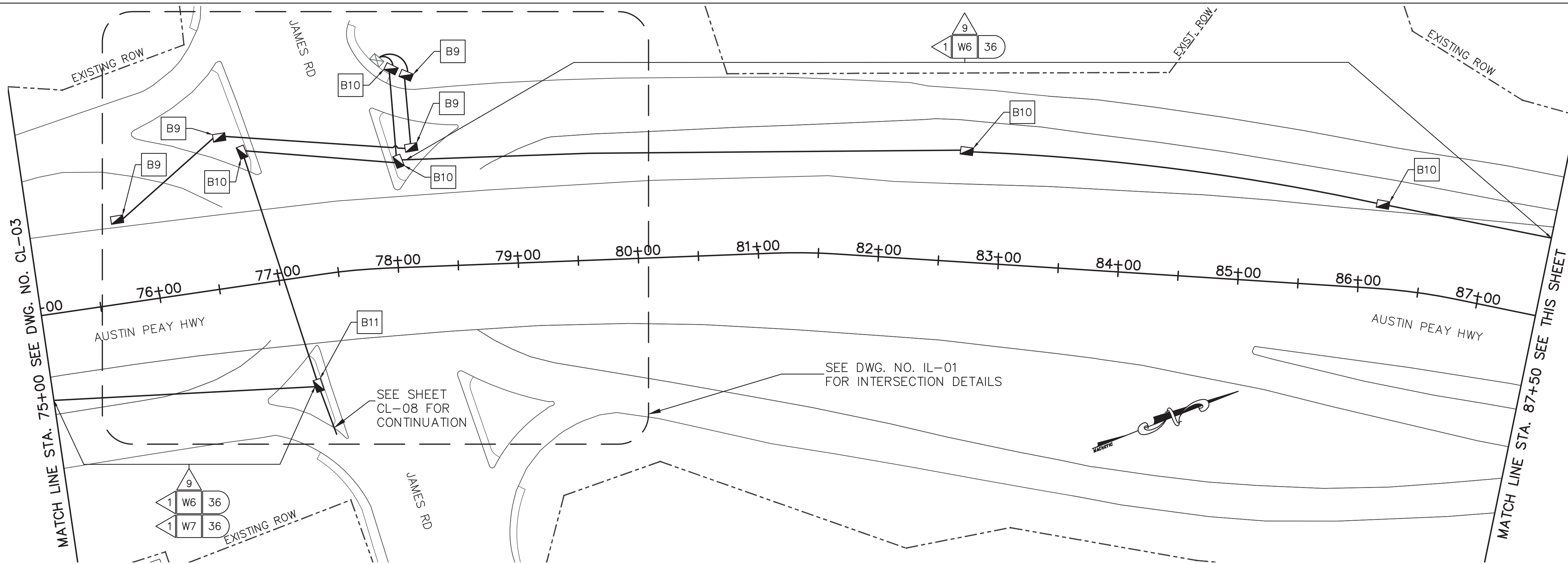


REVISIONS		
DATE	DESCRIPTIONS	APPROVED

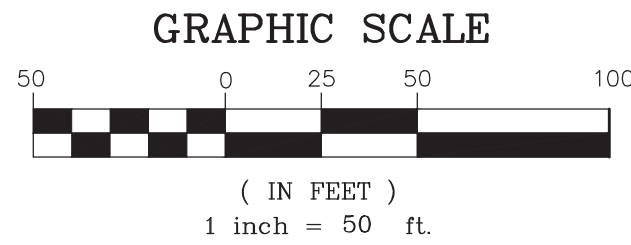
CL-03

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
AUSTIN PEAY HIGHWAY
CABLE LAYOUT
FROM 50+00 TO 75+00

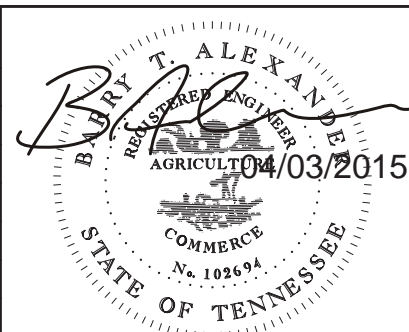
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A
JURISDICTION: _____ SHEET 9 OF 50



- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
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- 7 INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE
- 8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 14 INSTALL 3" RISER WITH WEATHERHEAD
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- 29 INSTALL CABLES IN PROPOSED POLE
- 35 ATTACH CONDUIT TO BRIDGE
- X NUMBER OF CABLES, LOOPS, ETC.
- X NUMBER OF CONDUCTORS, PAIRS, ETC.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED

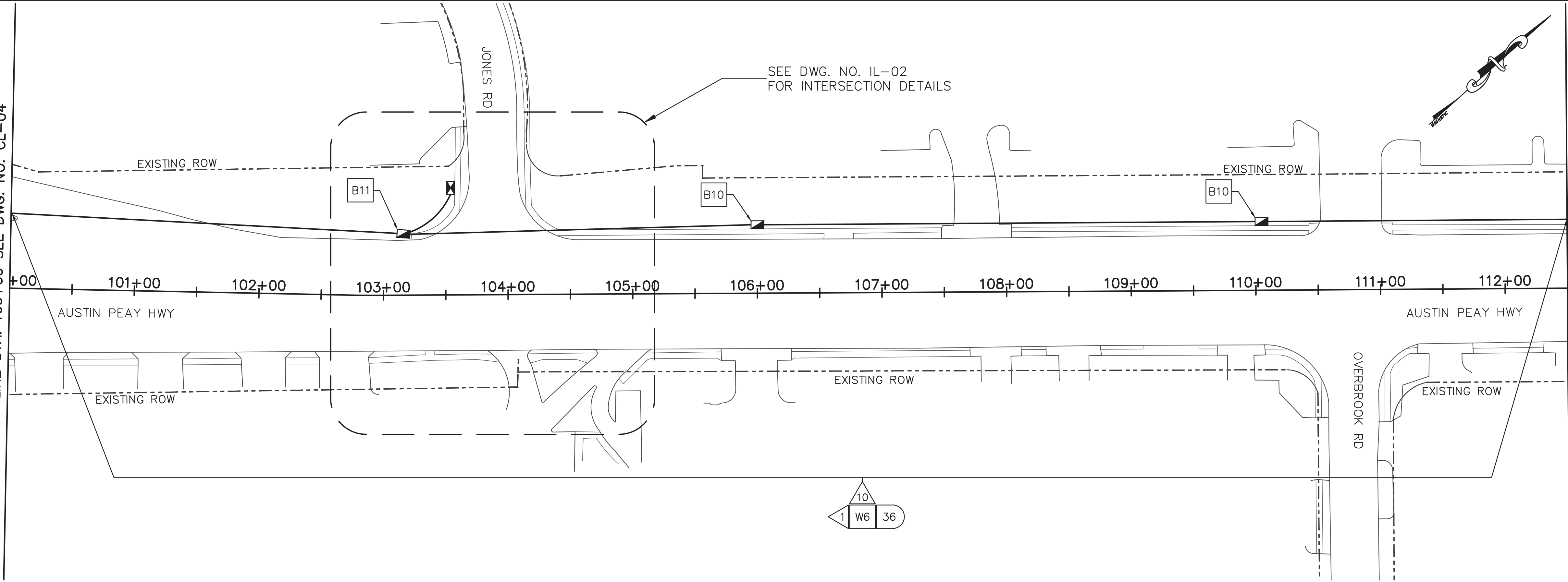


CL-04

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
AUSTIN PEAY HIGHWAY
CABLE LAYOUT

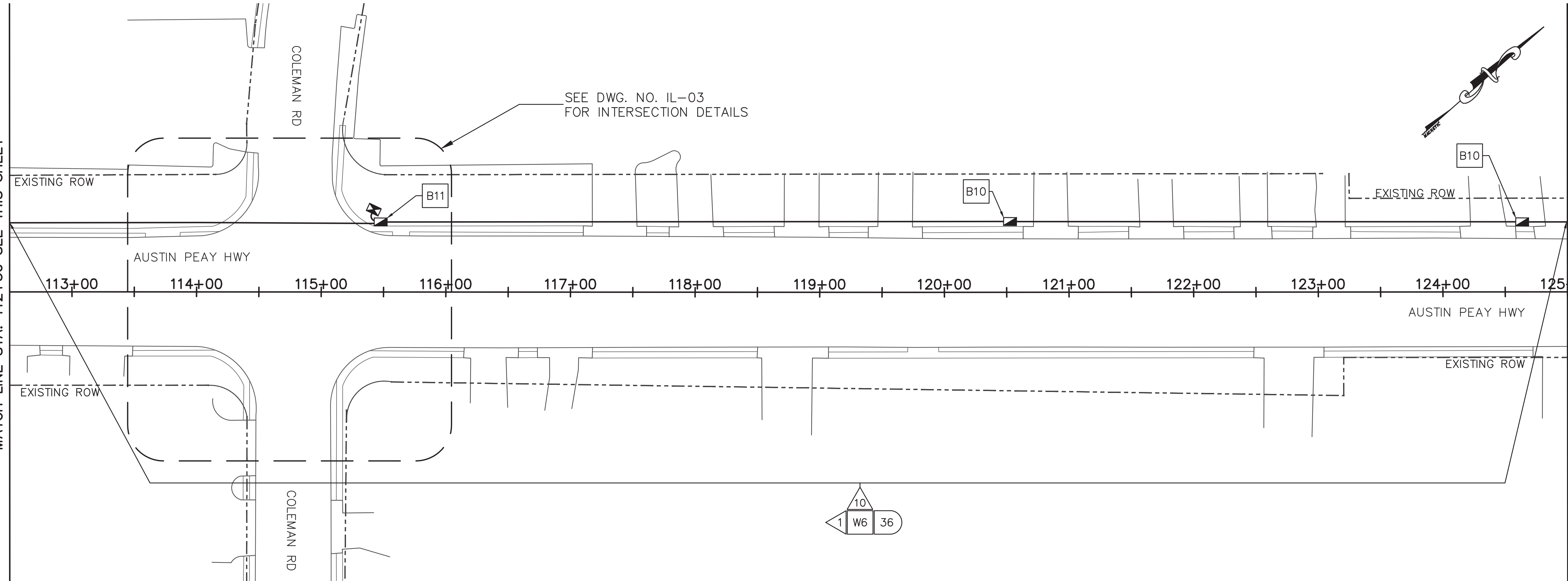
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 10 OF 50

MATCH LINE STA. 100+00 SEE DWG. NO. CL-04



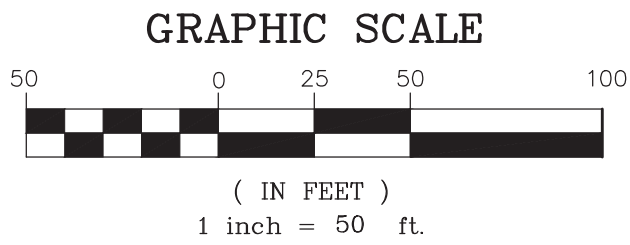
MATCH LINE STA. 112+50 SEE THIS SHEET

MATCH LINE STA. 112+50 SEE THIS SHEET

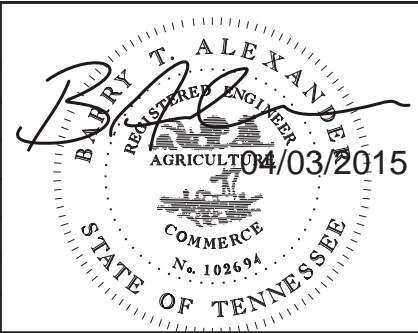


MATCH LINE STA. 125+00 SEE DWG. NO. CL-06

- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
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- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
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- 14 INSTALL 3" RISER WITH WEATHERHEAD
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- 27 INSTALL CABLES IN EXISTING WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 29 INSTALL CABLES IN PROPOSED POLE
- 35 ATTACH CONDUIT TO BRIDGE
- 4 NUMBER OF CABLES, LOOPS, ETC.
- X NUMBER OF CONDUCTORS, PAIRS, ETC.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



CL-05

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
AUSTIN PEAY HIGHWAY
CABLE LAYOUT

FROM 100+00 TO 125+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A

JURISDICTION: SHEET 11 OF 50

MATCH LINE STA. 125+00 SEE DWG. NO. CL-05

MATCH LINE STA. 137+50 SEE THIS SHEET

MATCH LINE STA. 137+50 SEE THIS SHEET

MATCH LINE STA. 150+00 SEE DWG. NO. CL-07

- B1

RETAIN AND MODIFY EXISTING CABINET

B2

REMOVE EXISTING CABINET

B3

INSTALL NEW BASE MOUNTED CONTROLLER CABINET

B5

INSTALL BASE MOUNTED HUB CABINET

B6

INSTALL WEATHER PROOF SPLICE ENCLOSURE

B7

INSTALL FIBER DISTRIBUTION BOX

B9

INSTALL TRAFFIC SIGNAL PULLBOX

B10

INSTALL FIBER OPTIC PULLBOX TYPE A

B11

INSTALL FIBER OPTIC PULLBOX TYPE B

B13

INSTALL 20' PEDESTAL POLE

B15

MLGW POWER SERVICE CONNECTION

D12

INSTALL NEW POLE MOUNTED RDS CABINET

D13

INSTALL RADAR DETECTION SYSTEM

D15

INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET

W6

SMFO CABLE

W7

SMFO TRUNK CABLE

W9

SMFO DROP CABLES (6-FIBER)

W11

RDS CABLE

3

INSTALL 2" RISER INTO BOTTOM OF CABINET

4

INSTALL 2" RISER WITH WEATHERHEAD

5

INSTALL 2" RISER WITH SEALING BUSHING

6

INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION

7

INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE

8

INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET

9

INSTALL 2" PVC CONDUIT

10

JACK AND BORE 2" CONDUIT

11

INSTALL 2" RGS CONDUIT

12

INSTALL 3" PVC CONDUIT

13

INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION

14

INSTALL 3" RISER WITH WEATHERHEAD

15

INSTALL 3" CONDUIT INTO CABINET

16

INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE

17

JACK AND BORE 3" CONDUIT

18

INSTALL 3" RISER INTO BOTTOM OF CABINET

19

REUSE EXISTING RISER WITH WEATHERHEAD

20

TIE CONDUIT INTO EXISTING PULLBOX

21

REUSE EXISTING CONDUIT

26

INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD

27

INSTALL CABLES IN EXISTING WEATHERHEAD

28

INSTALL CABLES IN EXISTING POLE

29

INSTALL CABLES IN PROPOSED POLE

35

ATTACH CONDUIT TO BRIDGE

X

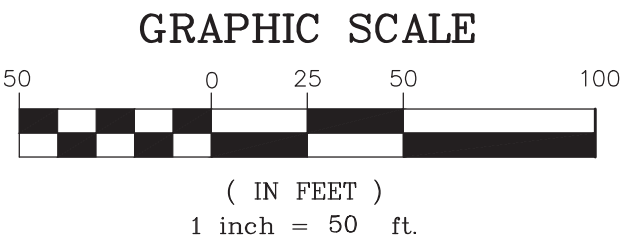
NUMBER OF CABLES, LOOPS, ETC.

X

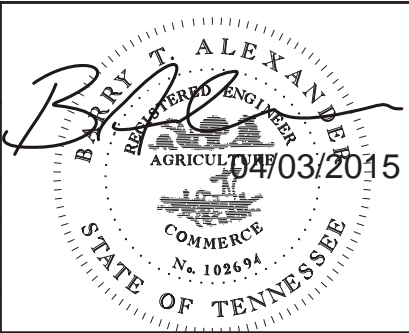
NUMBER OF CONDUCTORS, PAIRS, ETC.

SEE DWG. NO. RD-01
FOR RDS AP-4 DETAILS

SEE DWG. NO. IL-04
FOR INTERSECTION DETAILS



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



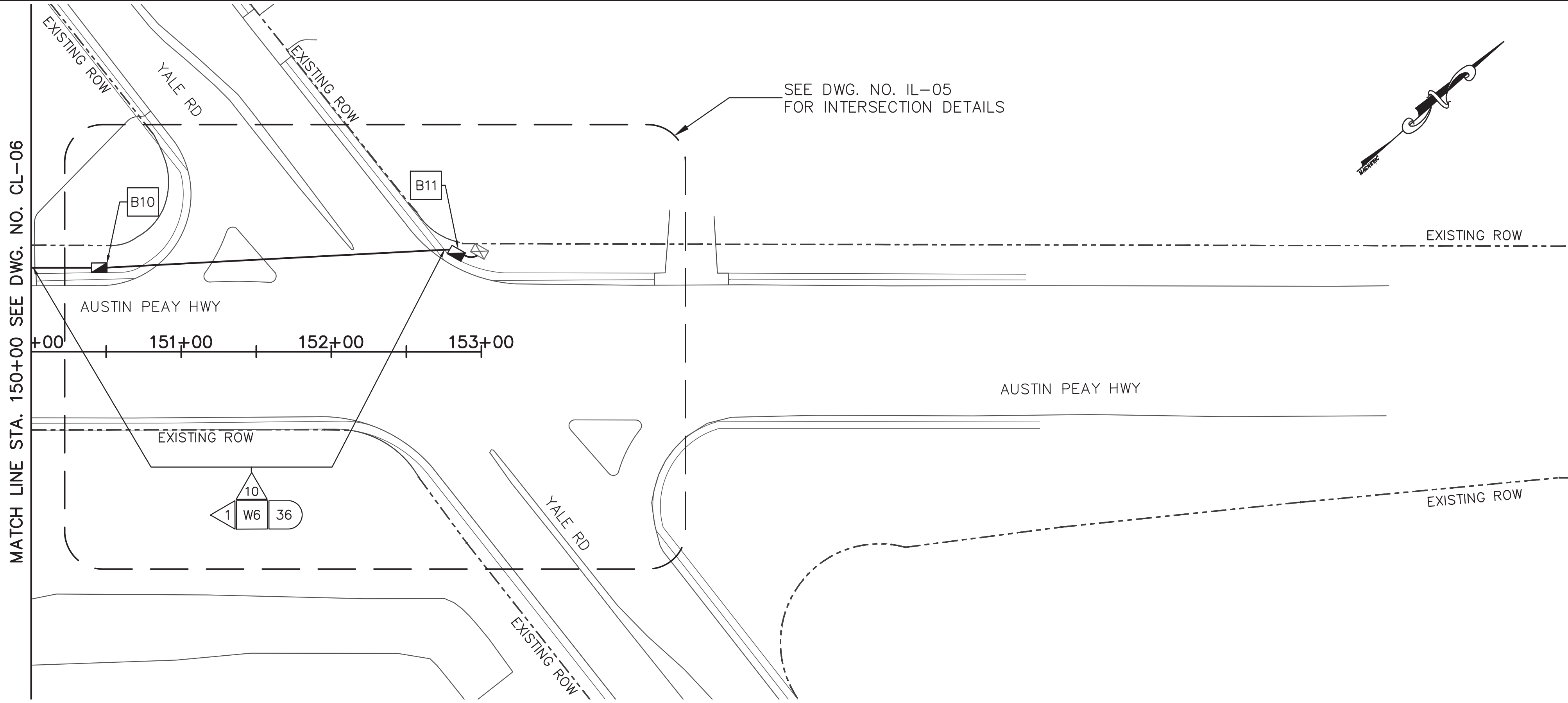
CL-06

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
AUSTIN PEAY HIGHWAY
CABLE LAYOUT

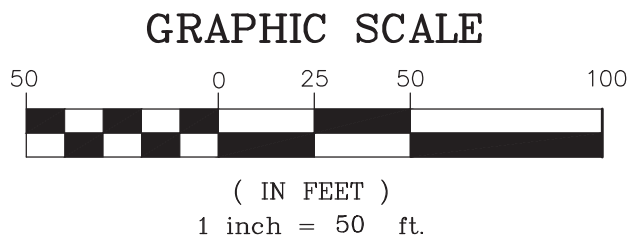
FROM 125+00 TO 150+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A

JURISDICTION: _____ SHEET 12 OF 50



- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D15 INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 SMFO DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 5 INSTALL 2" RISER WITH SEALING BUSHING
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 7 INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE
- 8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 14 INSTALL 3" RISER WITH WEATHERHEAD
- 15 INSTALL 3" CONDUIT INTO CABINET
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 17 JACK AND BORE 3" CONDUIT
- 18 INSTALL 3" RISER INTO BOTTOM OF CABINET
- 19 REUSE EXISTING RISER WITH WEATHERHEAD
- 20 TIE CONDUIT INTO EXISTING PULLBOX
- 21 REUSE EXISTING CONDUIT
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 27 INSTALL CABLES IN EXISTING WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 29 INSTALL CABLES IN PROPOSED POLE
- 35 ATTACH CONDUIT TO BRIDGE
- X NUMBER OF CABLES, LOOPS, ETC.
- X NUMBER OF CONDUCTORS, PAIRS, ETC.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED

POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

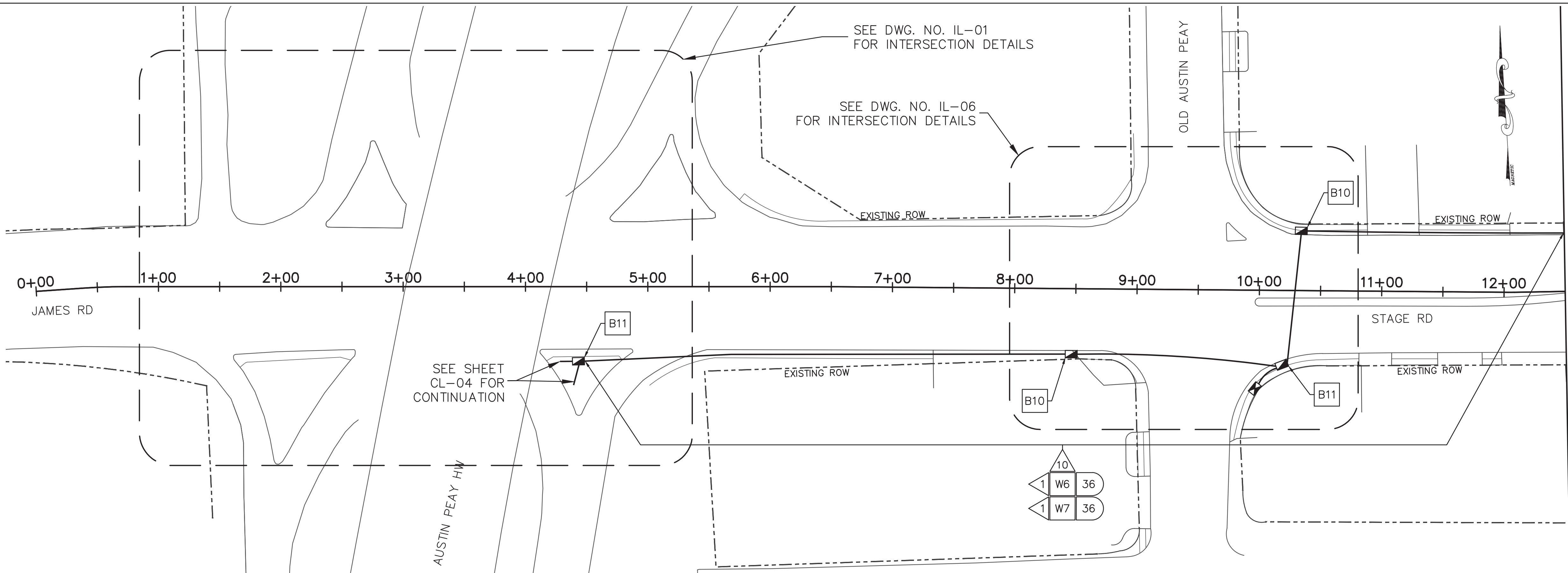
NEEL-SCHAFFER
Solutions you can build upon

CL-07

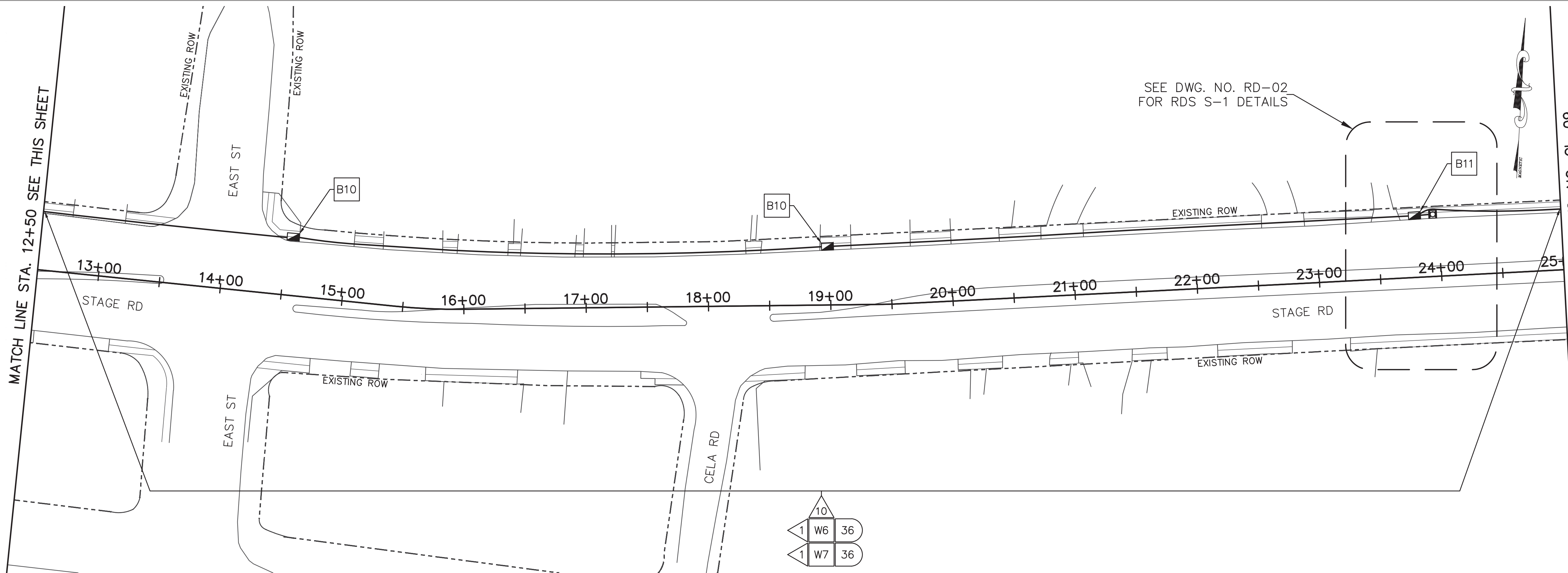
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

AUSTIN PEAY HIGHWAY
CABLE LAYOUT
FROM 150+00 TO 157+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A
JURISDICTION: _____ SHEET 13 OF 50

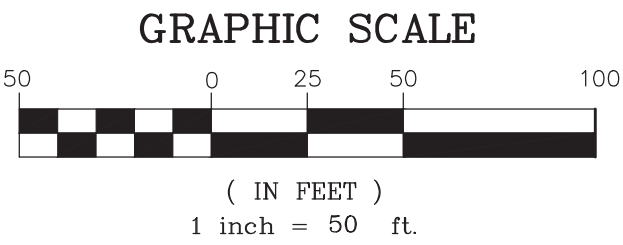


MATCH LINE STA. 12+50 SEE THIS SHEET

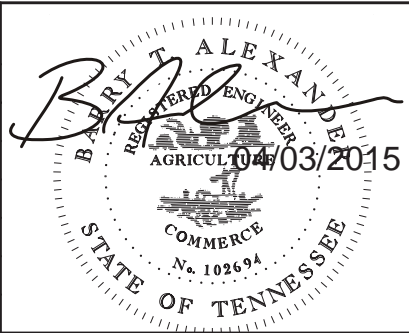


MATCH LINE STA. 25+00 SEE DWG. NO. CL-09

- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D15 INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 SMFO DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 5 INSTALL 2" RISER WITH SEALING BUSHING
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 7 INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE
- 8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 14 INSTALL 3" RISER WITH WEATHERHEAD
- 15 INSTALL 3" CONDUIT INTO CABINET
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 17 JACK AND BORE 3" CONDUIT
- 18 INSTALL 3" RISER INTO BOTTOM OF CABINET
- 19 REUSE EXISTING RISER WITH WEATHERHEAD
- 20 TIE CONDUIT INTO EXISTING PULLBOX
- 21 REUSE EXISTING CONDUIT
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 27 INSTALL CABLES IN EXISTING WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 29 INSTALL CABLES IN PROPOSED POLE
- 35 ATTACH CONDUIT TO BRIDGE
- ⊠ NUMBER OF CABLES, LOOPS, ETC.
- ⊞ NUMBER OF CONDUCTORS, PAIRS, ETC.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



CL-08

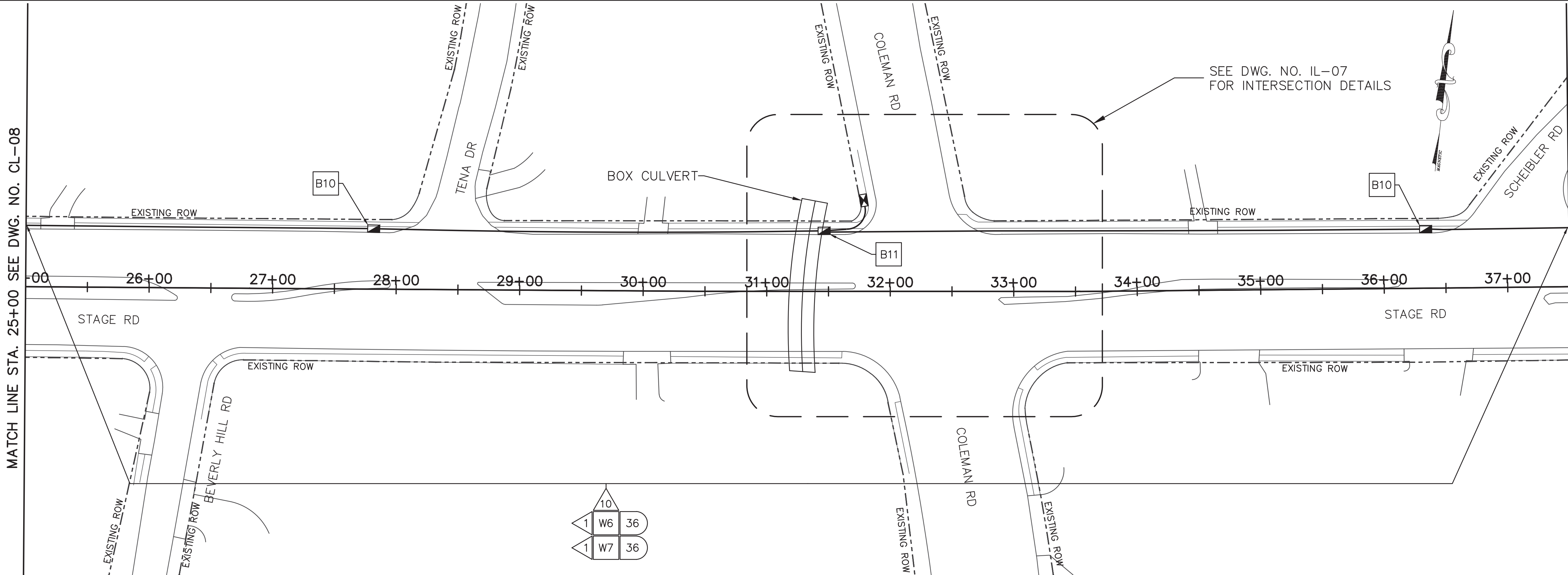
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

STAGE ROAD
CABLE LAYOUT
FROM 0+00 TO 25+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A

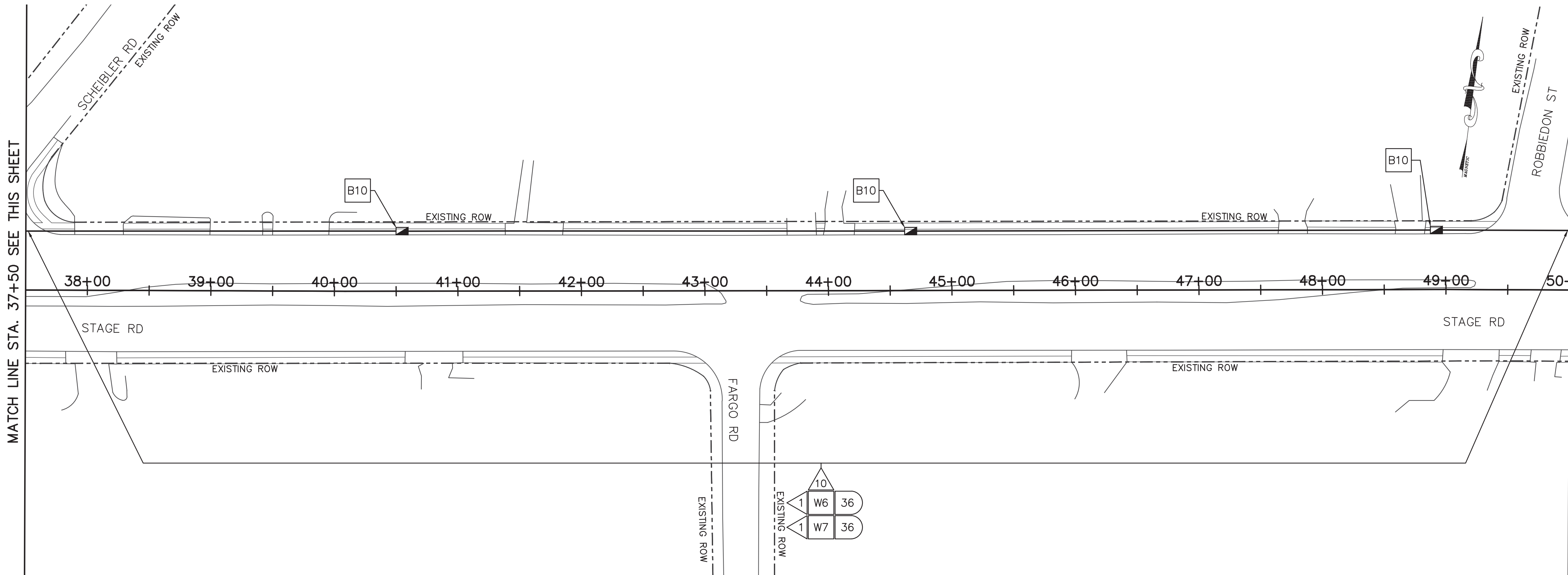
JURISDICTION: SHEET 14 OF 50

MATCH LINE STA. 25+00 SEE DWG. NO. CL-08



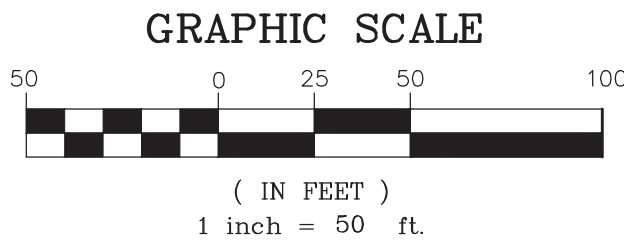
MATCH LINE STA. 37+50 SEE THIS SHEET

MATCH LINE STA. 37+50 SEE THIS SHEET

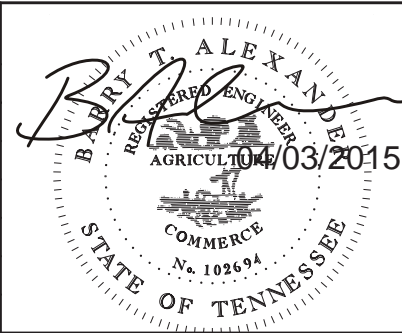


MATCH LINE STA. 50+00 SEE DWG. NO. CL-10

- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
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- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
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- D12 INSTALL NEW POLE MOUNTED RDS CABINET
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- W11 RDS CABLE
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- 8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
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- 27 INSTALL CABLES IN EXISTING WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 29 INSTALL CABLES IN PROPOSED POLE
- 35 ATTACH CONDUIT TO BRIDGE
- X NUMBER OF CABLES, LOOPS, ETC.
- X NUMBER OF CONDUCTORS, PAIRS, ETC.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



CL-09

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

STAGE ROAD
CABLE LAYOUT

FROM 25+00 TO 50+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A

JURISDICTION: _____ SHEET 15 OF 50

MATCH LINE STA. 50+00 SEE DWG. NO. CL-09

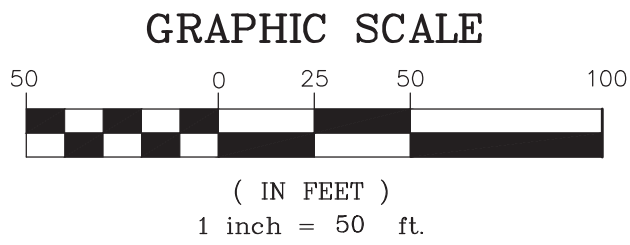
MATCH LINE STA. 62+50 SEE THIS SHEET

MATCH LINE STA. 62+50 SEE THIS SHEET

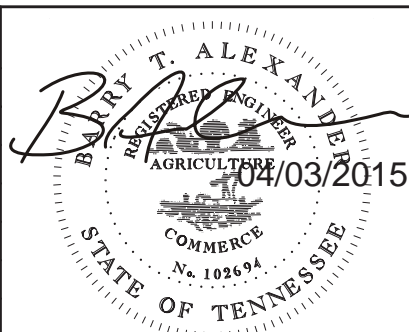
MATCH LINE STA. 75+00 SEE DWG. NO. CL-11

10		
1	W6	36
1	W7	36

9		
1	W6	36
1	W7	36



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
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- D13 INSTALL RADAR DETECTION SYSTEM
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- 8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 14 INSTALL 3" RISER WITH WEATHERHEAD
- 15 INSTALL 3" CONDUIT INTO CABINET
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
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- 27 INSTALL CABLES IN EXISTING WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 29 INSTALL CABLES IN PROPOSED POLE
- 35 ATTACH CONDUIT TO BRIDGE
- X NUMBER OF CABLES, LOOPS, ETC.
- X NUMBER OF CONDUCTORS, PAIRS, ETC.

CL-10

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

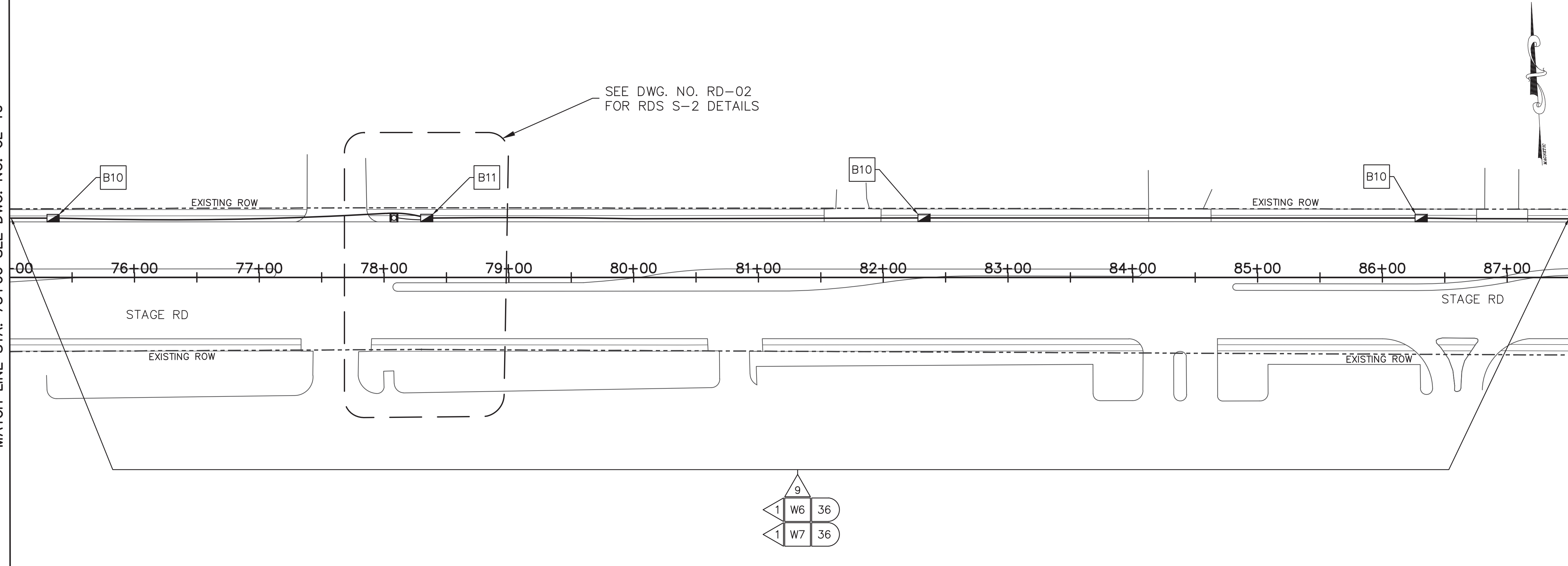
STAGE ROAD
CABLE LAYOUT

FROM 50+00 TO 75+00

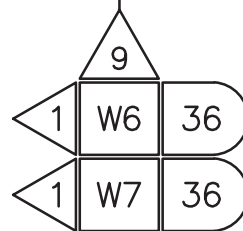
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A

JURISDICTION: SHEET 16 OF 50

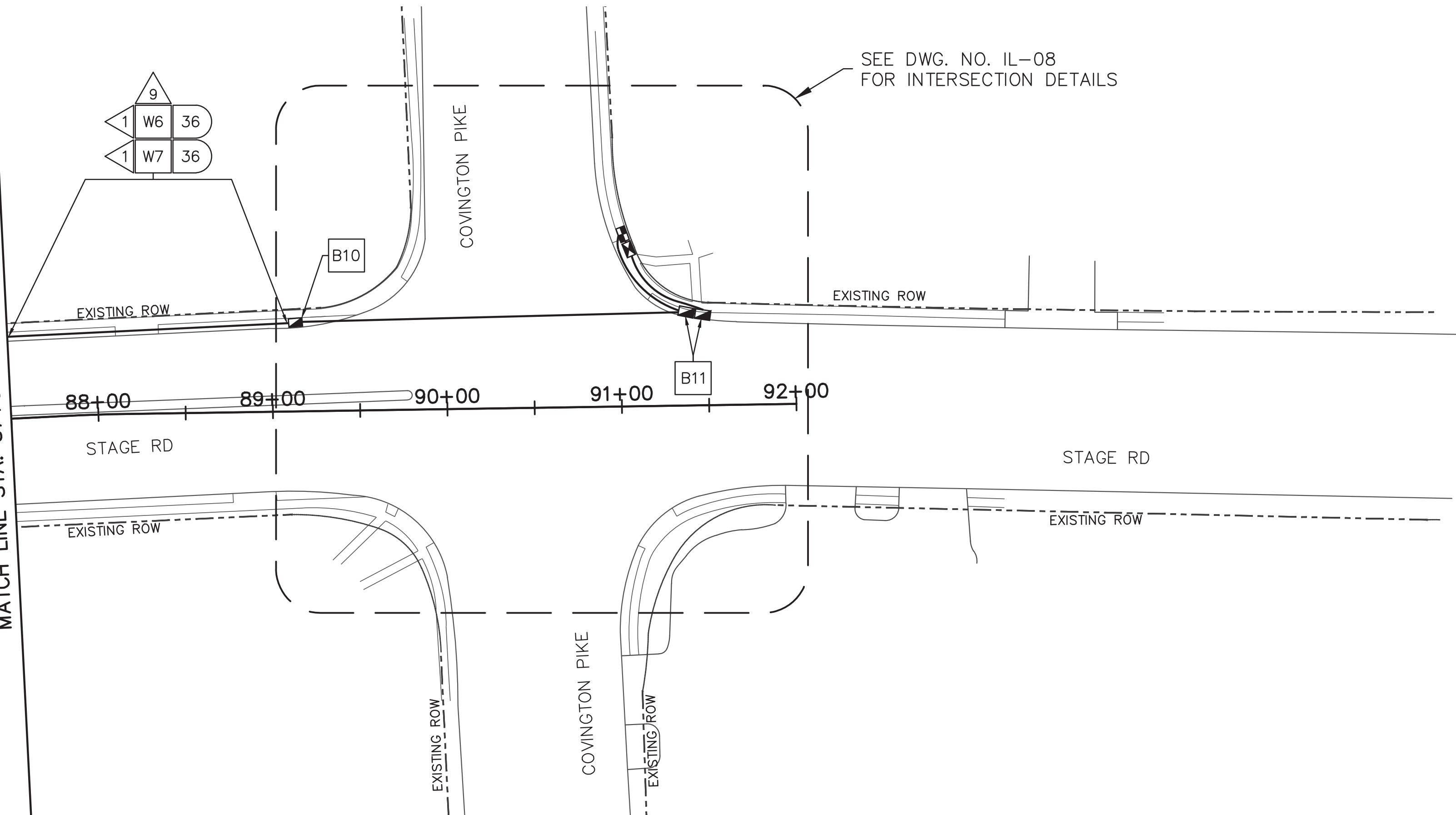
MATCH LINE STA. 75+00 SEE DWG. NO. CL-10



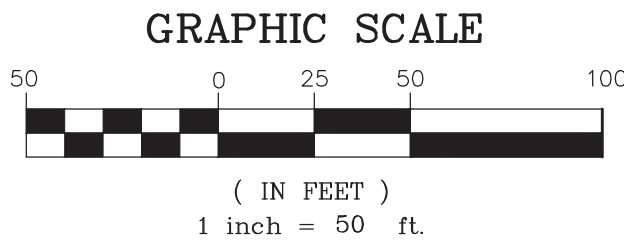
MATCH LINE STA. 87+50 SEE THIS SHEET



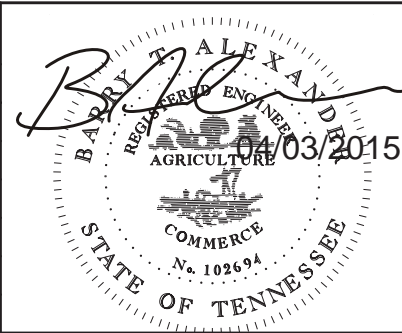
MATCH LINE STA. 87+50 SEE THIS SHEET



- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D15 INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 SMFO DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
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- 5 INSTALL 2" RISER WITH SEALING BUSHING
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
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- 8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 14 INSTALL 3" RISER WITH WEATHERHEAD
- 15 INSTALL 3" CONDUIT INTO CABINET
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 17 JACK AND BORE 3" CONDUIT
- 18 INSTALL 3" RISER INTO BOTTOM OF CABINET
- 19 REUSE EXISTING RISER WITH WEATHERHEAD
- 20 TIE CONDUIT INTO EXISTING PULLBOX
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- 27 INSTALL CABLES IN EXISTING WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 29 INSTALL CABLES IN PROPOSED POLE
- 35 ATTACH CONDUIT TO BRIDGE
- X NUMBER OF CABLES, LOOPS, ETC.
- X NUMBER OF CONDUCTORS, PAIRS, ETC.



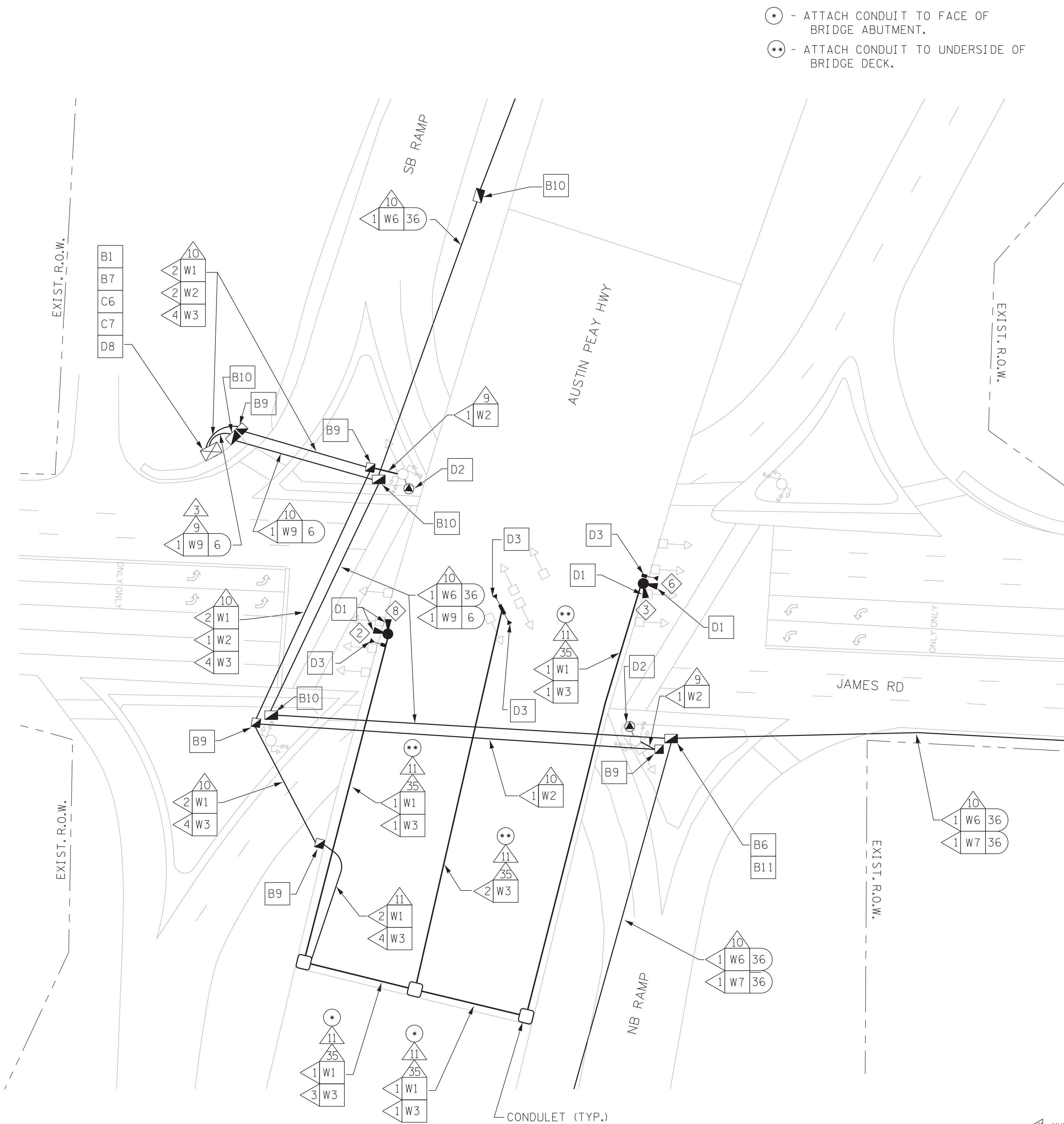
REVISIONS		
DATE	DESCRIPTIONS	APPROVED



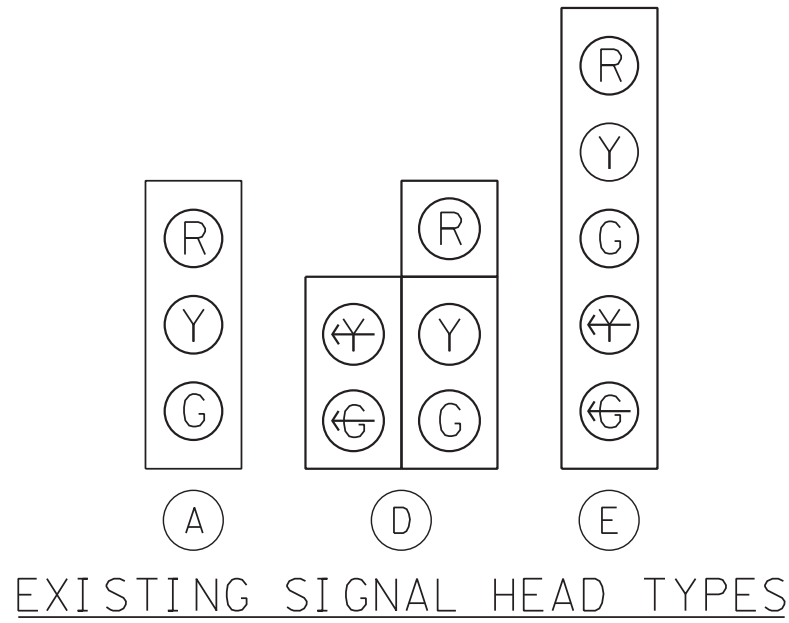
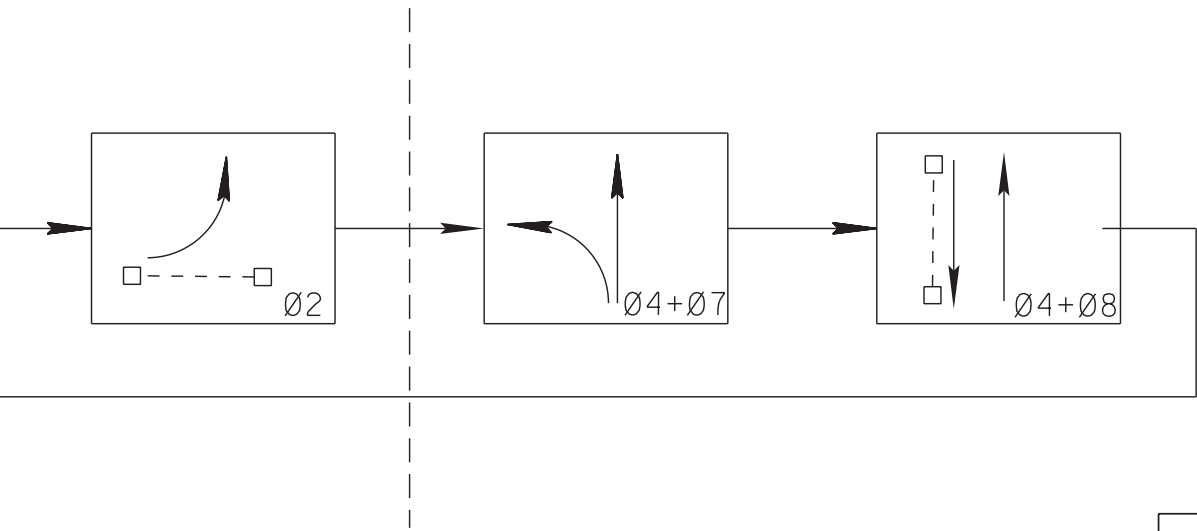
CL-11

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
STAGE ROAD
CABLE LAYOUT
FROM 75+00 TO 94+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A
JURISDICTION: _____ SHEET 17 OF 50



SIGNAL PHASING DIAGRAM

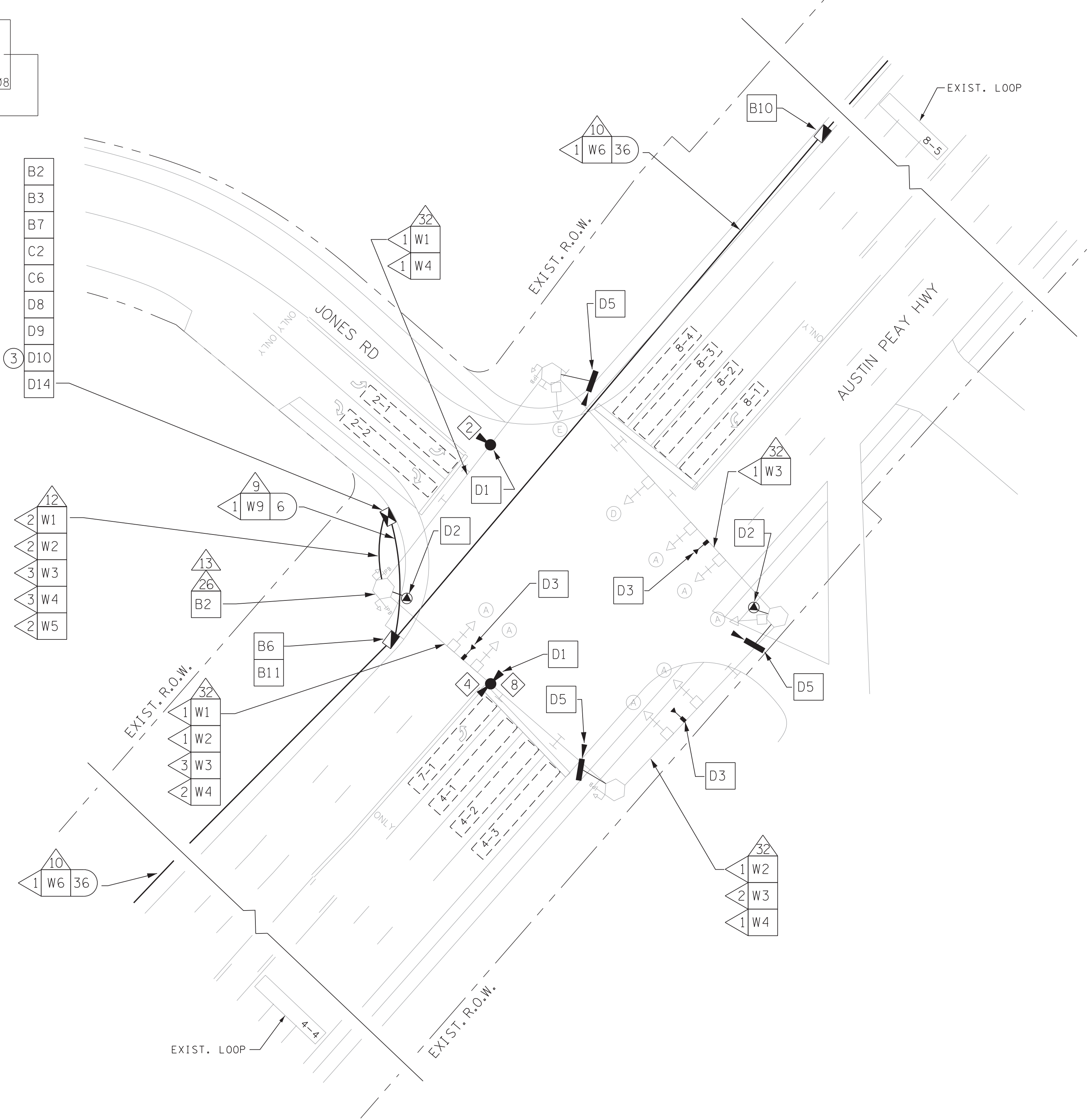


PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
2	2
4	4 + 8
8	4 + 8

DETECTOR ASSIGNMENTS		
ZONE	TYPE	TYPE
2-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE
4-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE
4-4	LOOP	PULSE
7-1	VIDEO	PRESENCE
8-1	VIDEO	PRESENCE
8-2	VIDEO	PRESENCE
8-3	VIDEO	PRESENCE
8-4	VIDEO	PRESENCE
8-5	LOOP	PULSE

- NOTES:
- EXISTING SIGNAL CABLE WIRING (3-5c, 1-7c, AND 2-2sc) SHALL BE EXTENDED TO PROPOSED BASE MOUNT CABINET LOCATION.
 - COST FOR INSTALLATION OF PROPOSED WEATHERHEAD SHALL BE ABSORBED IN COST OF OTHER ITEMS.
 - SEE DETAIL SHEET D-03 FOR TYPICAL COUNT ZONE DETAIL.

③ - INSTALL RACK MOUNT ADVANCE DETECTION AMPLIFIER (3 @ 1-PER APPROACH).



REMOVAL NOTES:
1. REMOVE EXISTING POLE MOUNT CABINET.
PLUG ALL POLE OPENINGS.

△ NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.



- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
- D2 INSTALL EVP CONFIRMATION BEACON
- D3 INSTALL EVP CONFIRMATION LAMP
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 20' DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
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- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

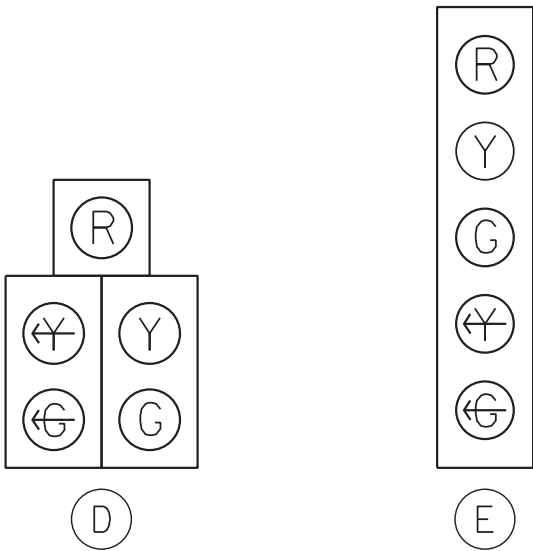
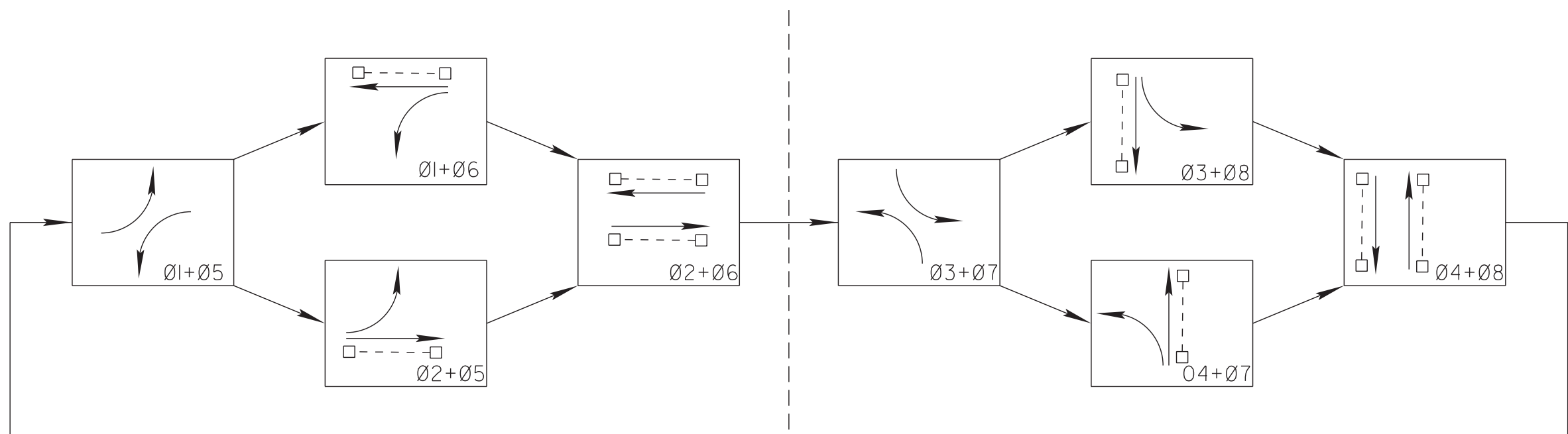
IL-02

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

AUSTIN PEAY HIGHWAY
JONES RD INTERSECTION LAYOUT

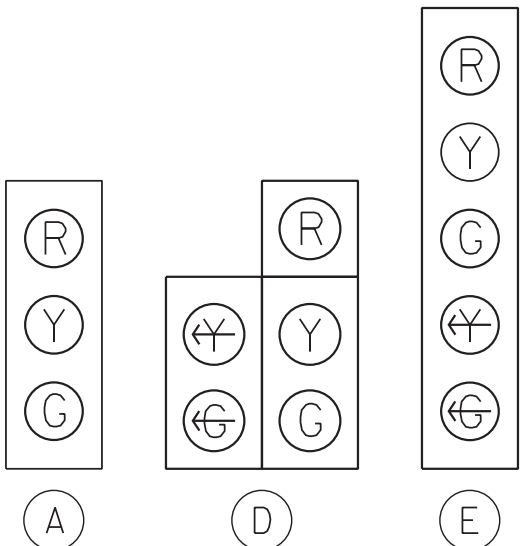
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 04/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 19 OF 50

SIGNAL PHASING DIAGRAM



TYPE 150 A2H W/BACKPLATE
TYPE 150 A2V

PROPOSED SIGNAL HEAD TYPE



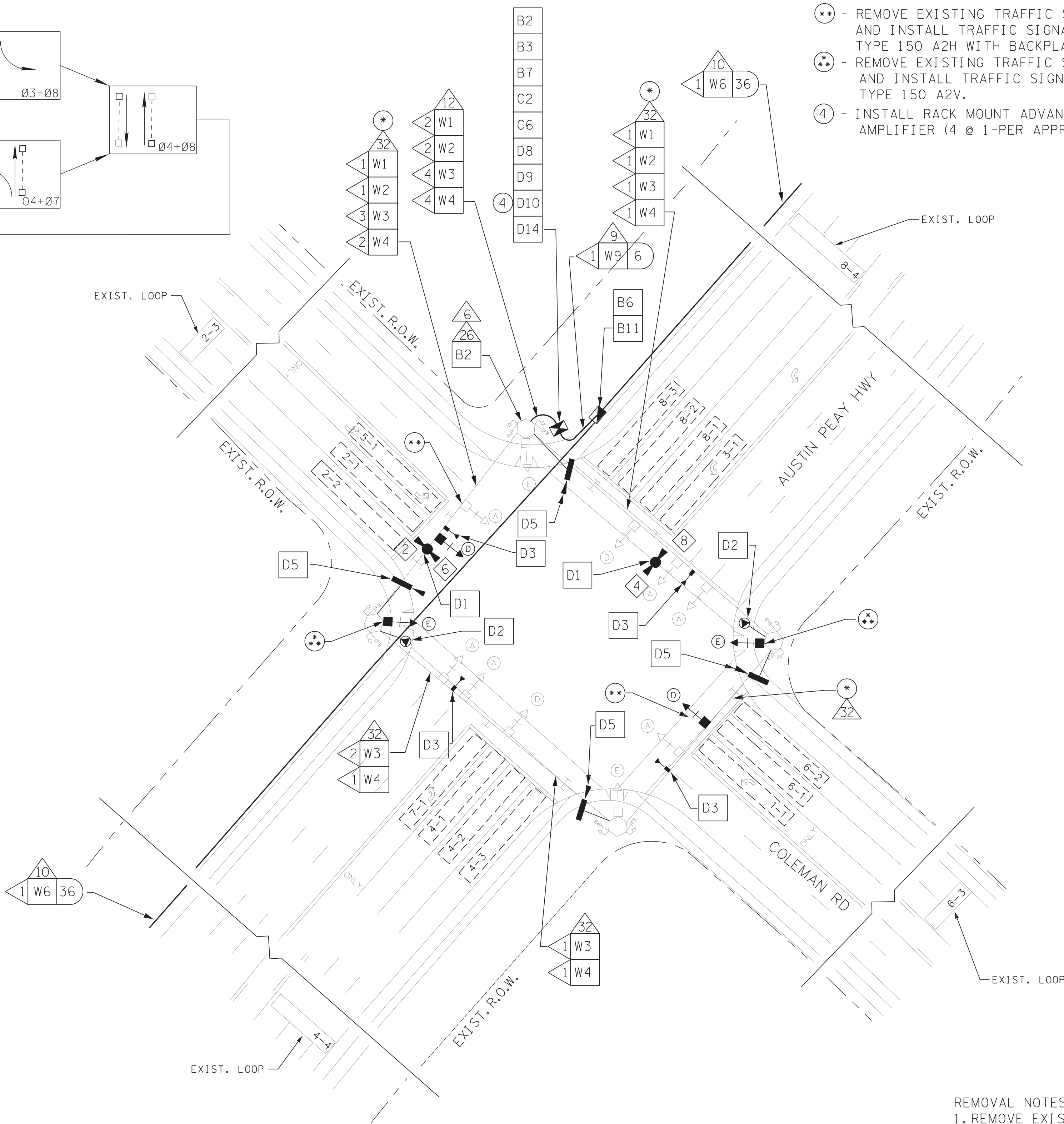
EXISTING SIGNAL HEAD TYPES

PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
2	2 + 6
4	4 + 8
6	2 + 6
8	4 + 8

DETECTOR ASSIGNMENTS					
ZONE	TYPE	TYPE	ZONE	TYPE	TYPE
1-1	VIDEO	PRESENCE	5-1	VIDEO	PRESENCE
2-1	VIDEO	PRESENCE	6-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE	6-2	VIDEO	PRESENCE
2-3	LOOP	PULSE	6-3	LOOP	PULSE
3-1	VIDEO	PRESENCE	7-1	VIDEO	PRESENCE
4-1	VIDEO	PRESENCE	8-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE	8-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE	8-3	VIDEO	PRESENCE
4-4	LOOP	PULSE	8-4	LOOP	PULSE

- NOTES:
- COST FOR INSTALLATION OF PROPOSED WEATHERHEAD SHALL BE ABSORBED IN COST OF OTHER ITEMS.
 - SEE DETAIL SHEET D-03 FOR TYPICAL COUNT ZONE DETAIL.

- INSTALL 1-7C SIGNAL CABLE WIRE FOR PROPOSED SIGNAL HEAD.
- REMOVE EXISTING TRAFFIC SIGNAL HEAD AND INSTALL TRAFFIC SIGNAL HEAD TYPE 150 A2H WITH BACKPLATE.
- REMOVE EXISTING TRAFFIC SIGNAL HEAD AND INSTALL TRAFFIC SIGNAL HEAD TYPE 150 A2V.
- INSTALL RACK MOUNT ADVANCE DETECTION AMPLIFIER (4 @ 1-PER APPROACH).



- REMOVAL NOTES:
- REMOVE EXISTING BASE MOUNT CABINET.
 - REMOVE EXISTING SIGNAL HEADS AS NOTED.
 - REMOVE UNUSED DETECTOR CABLES FROM CABINET TO NEAREST PULL BOX OR POLE BASE.

NUMBER OF CABLES, LOOPS, ETC.
NUMBER OF CONDUCTORS, PAIRS, ETC.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED

POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

NEEL-SCHAFFER
Solutions you can build upon

- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
- D2 INSTALL EVP CONFIRMATION BEACON
- D3 INSTALL EVP CONFIRMATION LAMP
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 20' DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

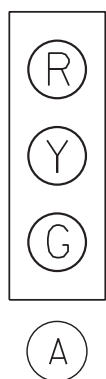
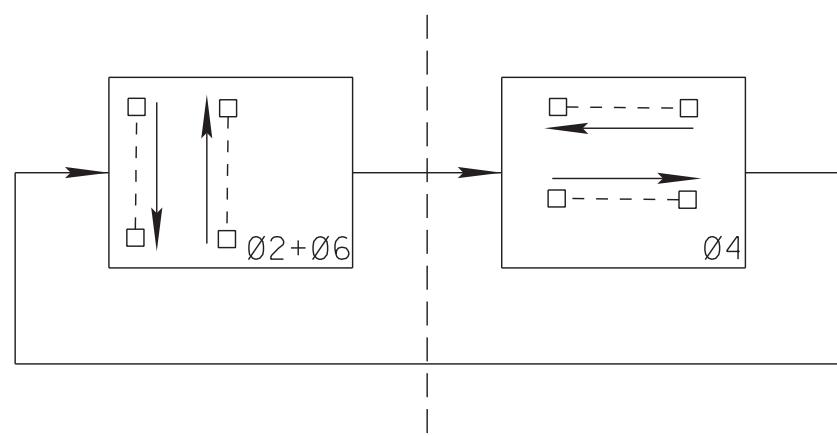
IL-03

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN

AUSTIN PEAY HIGHWAY
COLEMAN RD INTERSECTION LAYOUT

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 04/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 20 OF 50

SIGNAL PHASING DIAGRAM

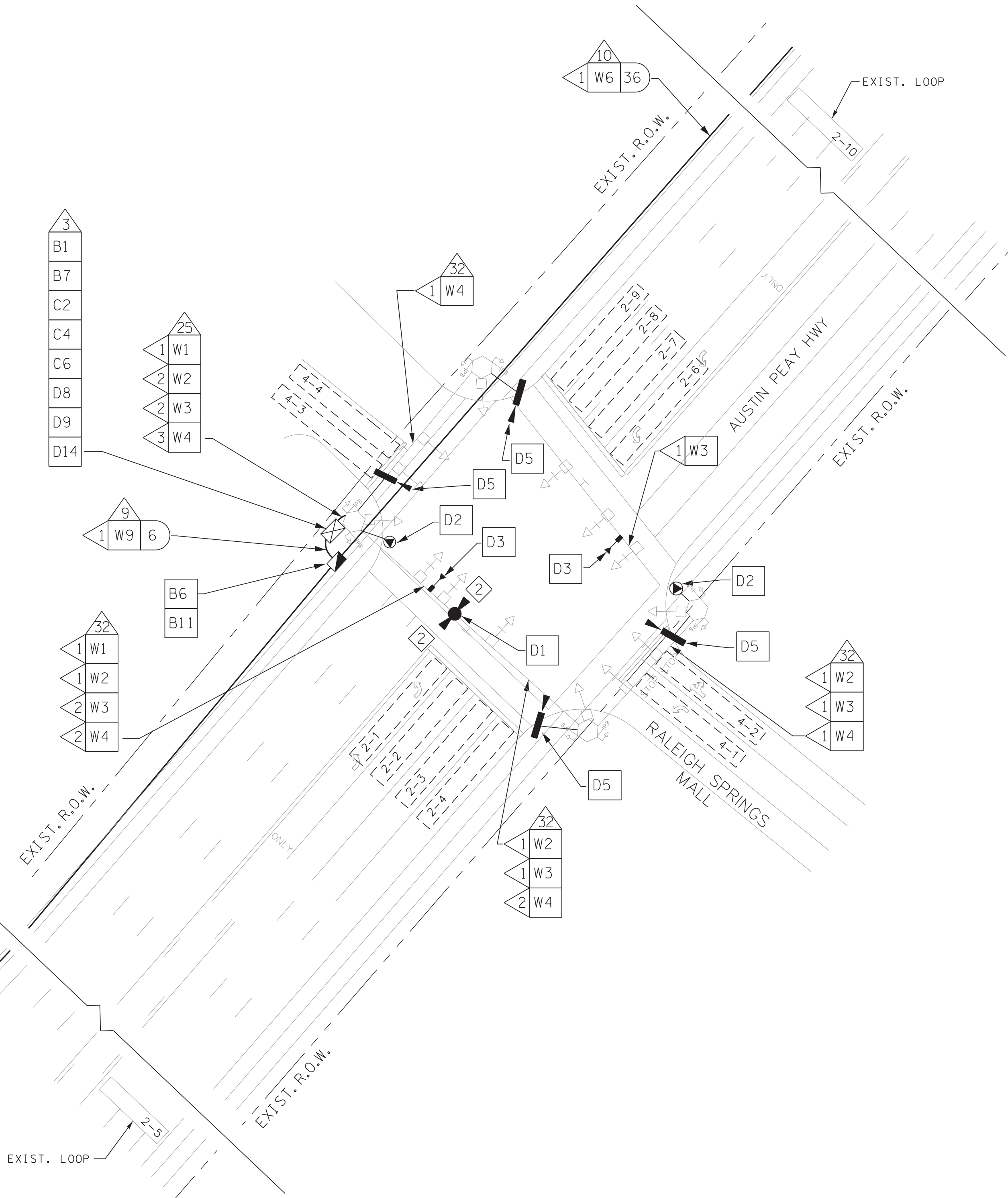


EXISTING SIGNAL HEAD TYPES

PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
2	2

DETECTOR ASSIGNMENTS		
ZONE	TYPE	TYPE
2-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE
2-3	VIDEO	PRESENCE
2-4	VIDEO	PRESENCE
2-5	LOOP	PULSE
2-6	VIDEO	PRESENCE
2-7	VIDEO	PRESENCE
2-8	VIDEO	PRESENCE
2-9	VIDEO	PRESENCE
2-10	LOOP	PULSE
4-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE
4-4	VIDEO	PRESENCE

- NOTES:
1. LOOP DETECTOR AMPLIFIERS FOR NORTHBOUND AND SOUTHBOUND ADVANCE DETECTION TO REMAIN.
 2. INSTALL DUPLEX GFI OUTLET IN EXISTING BASE MOUNT CABINET.
 3. MODIFY DETECTOR WIRING FOR INSTALLATION OF VIDEO DETECTION SYSTEM.
 4. SEE DETAIL SHEET D-03 FOR TYPICAL COUNT ZONE DETAIL.



AUSTIN PEAY HWY @ RALEIGH SPRINGS MALL



- REMOVAL NOTES:
1. REMOVE UNUSED DETECTOR CABLES FROM CABINET TO NEAREST PULL BOX OR POLE BASE.
 2. REMOVE UNUSED LOOP DETECTOR HARNESSSES.
 3. REMOVE EXISTING CONTROLLER.

- △ NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
- D2 INSTALL EVP CONFIRMATION BEACON
- D3 INSTALL EVP CONFIRMATION LAMP
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 20' DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

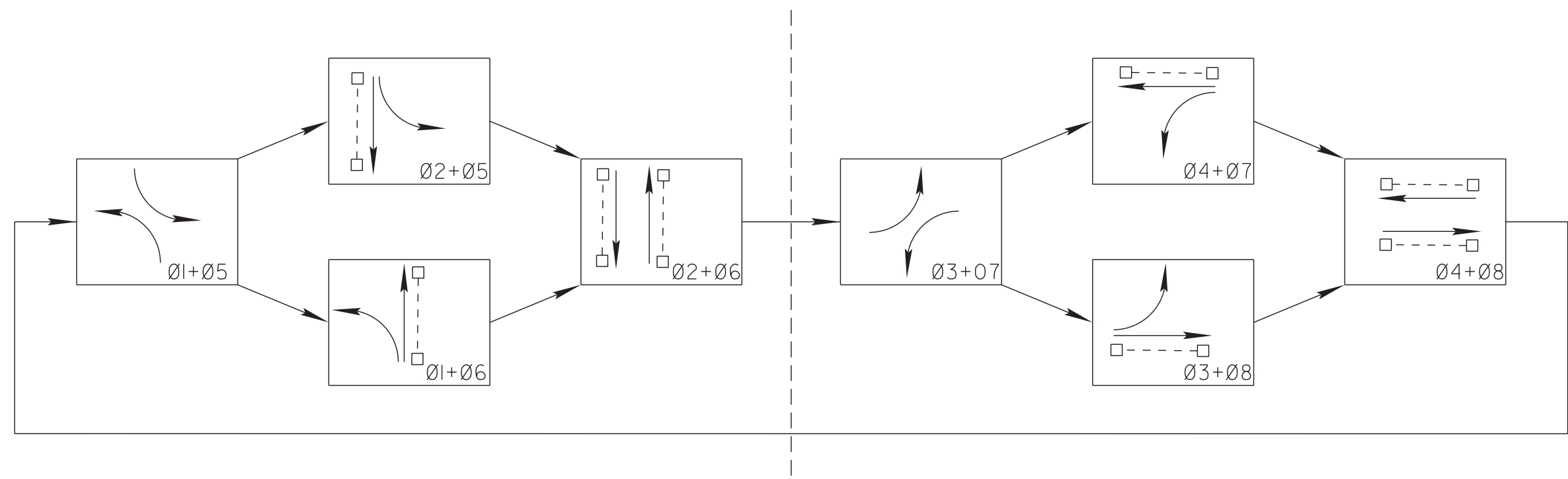
IL-04

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN

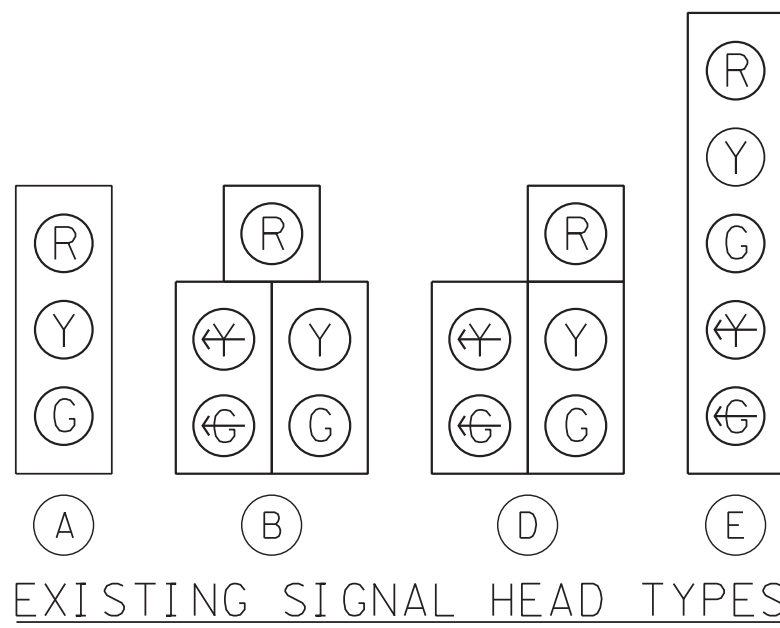
AUSTIN PEAY HIGHWAY
RALEIGH SPRINGS MALL INTERSECTION LAYOUT

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 04/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 21 OF 50

SIGNAL PHASING DIAGRAM



④ - INSTALL RACK MOUNT ADVANCE DETECTION AMPLIFIER (4 @ 1-PER APPROACH).



PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
②	2 + 6
④	4 + 8
⑥	2 + 6
⑧	4 + 8

DETECTOR ASSIGNMENTS					
ZONE	TYPE	TYPE	ZONE	TYPE	TYPE
1-1	VIDEO	PRESENCE	5-1	VIDEO	PRESENCE
2-1	VIDEO	PRESENCE	6-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE	6-2	VIDEO	PRESENCE
2-3	VIDEO	PRESENCE	6-3	VIDEO	PRESENCE
2-4	LOOP	PULSE	6-4	LOOP	PULSE
3-1	VIDEO	PRESENCE	7-1	VIDEO	PRESENCE
4-1	VIDEO	PRESENCE	8-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE	8-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE	8-3	VIDEO	PRESENCE
4-4	LOOP	PULSE	8-4	LOOP	PULSE

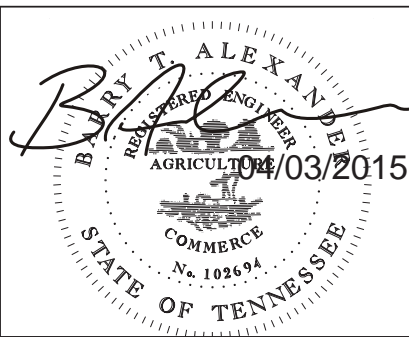
- NOTES:
1. A RED LIGHT RUNNING PHOTO ENFORCEMENT SYSTEM IS PRESENT AT THIS INTERSECTION. ANY REQUIRED ADJUSTMENT OF ASSOCIATED WIRING AND EQUIPMENT IS THE RESPONSIBILITY OF AMERICAN TRAFFIC SOLUTIONS (ATS). CONTRACTOR TO COORDINATE WITH ATS FOR ANY MODIFICATION OR INTERRUPTION OF SERVICE TO THE SYSTEM.
 2. LOOP DETECTOR AMPLIFIERS FOR NORTHBOUND, SOUTHBOUND, EASTBOUND, AND WESTBOUND ADVANCE DETECTION TO REMAIN.
 3. INSTALL DUPLEX GFI OUTLET IN EXISTING BASE MOUNT CABINET.
 4. MODIFY DETECTOR WIRING FOR INSTALLATION OF VIDEO DETECTION SYSTEM.
 5. COST FOR INSTALLATION OF PROPOSED WEATHERHEAD SHALL BE ABSORBED IN COST OF OTHER ITEMS.
 6. SEE DETAIL SHEET D-03 FOR TYPICAL COUNT ZONE DETAIL.

AUSTIN PEAY HWY @ YALE RD



△ NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
- D2 INSTALL EVP CONFIRMATION BEACON
- D3 INSTALL EVP CONFIRMATION LAMP
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 20' DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE
- ③ INSTALL 2" RISER INTO BOTTOM OF CABINET
- ⑥ INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- ⑨ INSTALL 2" PVC CONDUIT
- ⑩ JACK AND BORE 2" CONDUIT
- ⑪ INSTALL 2" RGS CONDUIT
- ⑫ INSTALL 3" PVC CONDUIT
- ⑬ INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- ⑭ INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- ⑮ INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- ⑯ INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- ⑰ INSTALL CABLES IN EXISTING POLE
- ⑱ LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- ⑳ ATTACH CONDUIT TO BRIDGE

- REMOVAL NOTES:
1. REMOVE UNUSED DETECTOR CABLES FROM CABINET TO NEAREST PULL BOX OR POLE BASE.
 2. REMOVE UNUSED LOOP DETECTOR HARNESSSES.

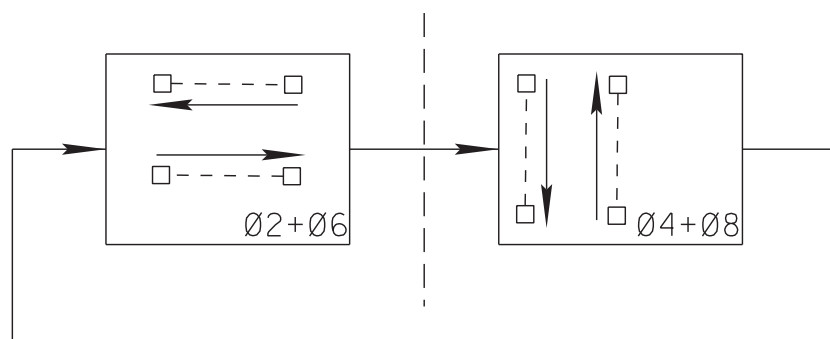
IL-05

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

AUSTIN PEAY HIGHWAY
YALE RD INTERSECTION LAYOUT

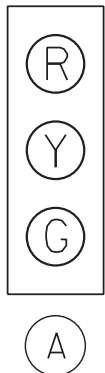
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 04/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 22 OF 50

SIGNAL PHASING DIAGRAM



④ - INSTALL RACK MOUNT ADVANCE DETECTION AMPLIFIER (4 @ 1-PER APPROACH).

EXISTING SIGNAL HEAD TYPES



PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
②	2 + 6
④	4 + 8
⑥	2 + 6
⑧	4 + 8

DETECTOR ASSIGNMENTS					
ZONE	TYPE	TYPE	ZONE	TYPE	TYPE
2-1	VIDEO	PRESENCE	6-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE	6-2	VIDEO	PRESENCE
2-3	VIDEO	PRESENCE	6-3	VIDEO	PRESENCE
2-4	VIDEO	PRESENCE	6-4	VIDEO	PRESENCE
2-5	LOOP	PULSE	6-5	LOOP	PULSE
4-1	VIDEO	PRESENCE	8-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE	8-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE	8-3	VIDEO	PRESENCE
4-4	LOOP	PULSE	8-4	LOOP	PULSE

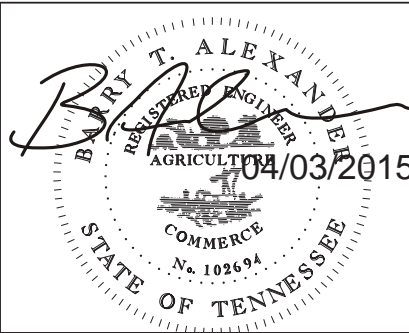
NOTES:
1. SEE DETAIL SHEET D-03 FOR TYPICAL COUNT ZONE DETAIL.

JAMES RD/STAGE RD @ OLD AUSTIN PEAY HWY



△ NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
- D2 INSTALL EVP CONFIRMATION BEACON
- D3 INSTALL EVP CONFIRMATION LAMP
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 20' DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

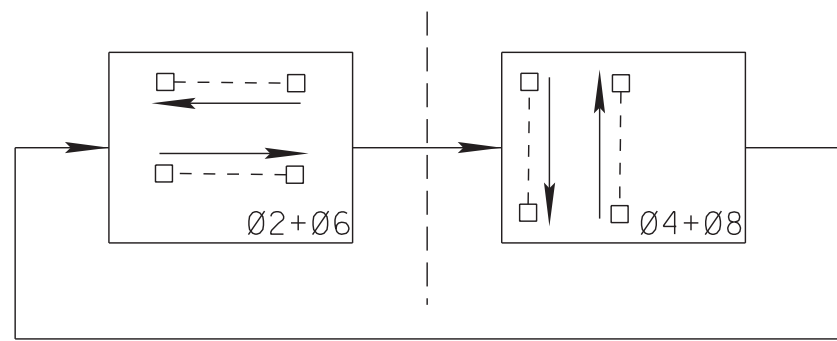
REMOVAL NOTES:
1. REMOVE EXISTING BASE MOUNT CABINET.
2. REMOVE UNUSED DETECTOR CABLES FROM CABINET TO NEAREST PULL BOX OR POLE BASE.

IL-06

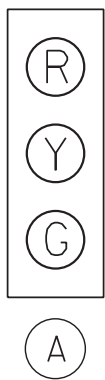
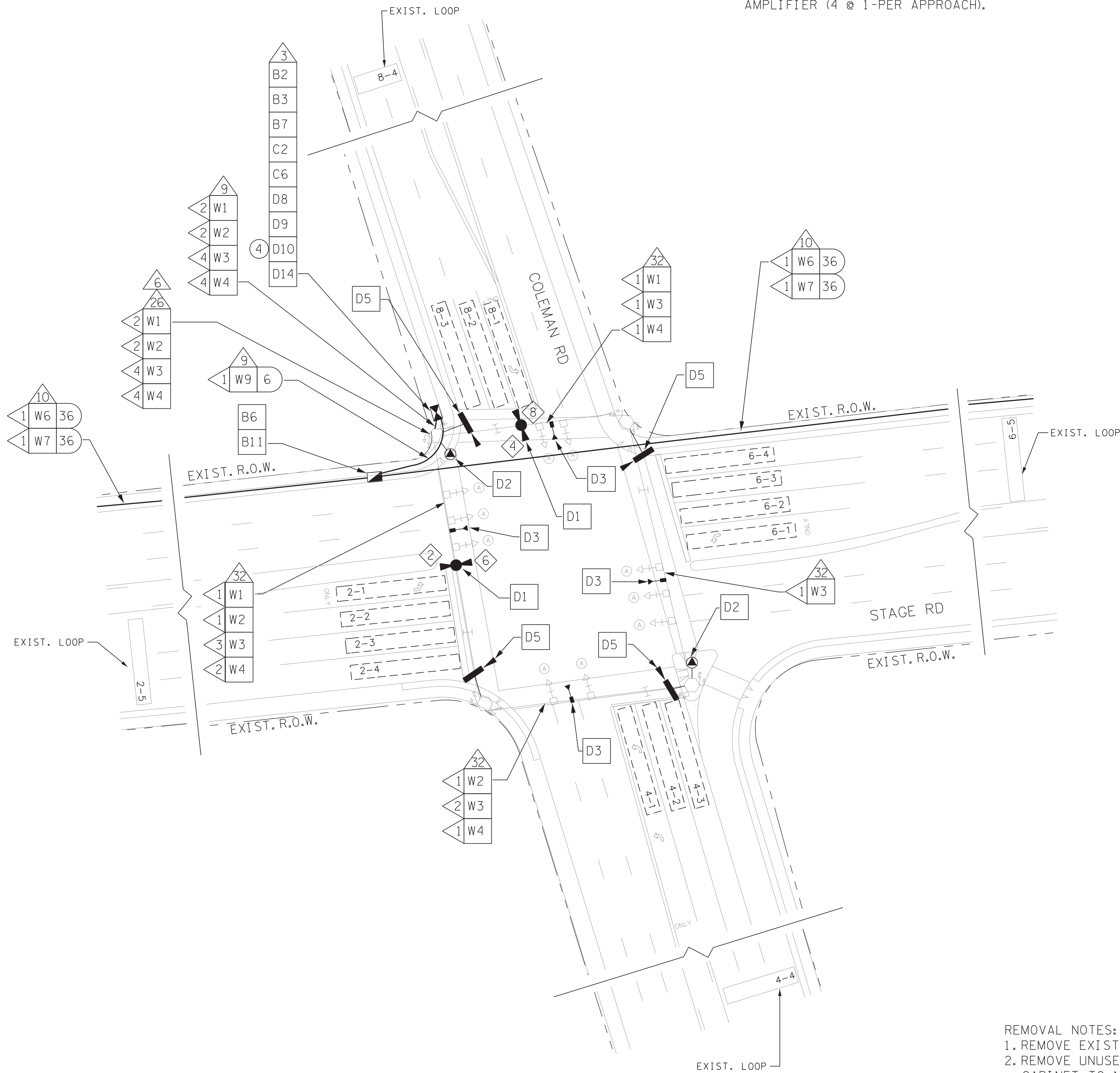
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
STAGE ROAD
OLD AUSTIN PEAY HWY INTERSECTION LAYOUT

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 04/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 23 OF 50

SIGNAL PHASING DIAGRAM



④ - INSTALL RACK MOUNT ADVANCE DETECTION AMPLIFIER (4 @ 1-PER APPROACH).



EXISTING SIGNAL HEAD TYPES

PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
②	2 + 6
④	4 + 8
⑥	2 + 6
⑧	4 + 8

DETECTOR ASSIGNMENTS					
ZONE	TYPE	TYPE	ZONE	TYPE	TYPE
2-1	VIDEO	PRESENCE	6-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE	6-2	VIDEO	PRESENCE
2-3	VIDEO	PRESENCE	6-3	VIDEO	PRESENCE
2-4	VIDEO	PRESENCE	6-4	VIDEO	PRESENCE
2-5	LOOP	PULSE	6-5	LOOP	PULSE
4-1	VIDEO	PRESENCE	4-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE	4-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE	4-3	VIDEO	PRESENCE
4-4	LOOP	PULSE	4-4	LOOP	PULSE

NOTES:
1. COST FOR INSTALLATION OF PROPOSED WEATHERHEAD SHALL BE ABSORBED IN COST OF OTHER ITEMS.
2. SEE DETAIL SHEET D-03 FOR TYPICAL COUNT ZONE DETAIL.

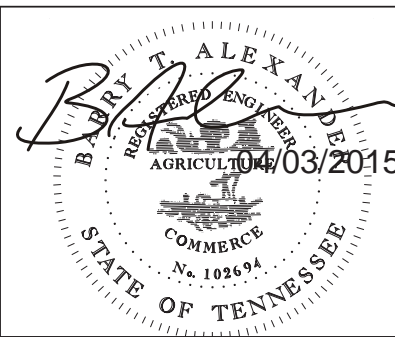
STAGE RD @ COLEMAN RD



REMOVAL NOTES:
1. REMOVE EXISTING BASE MOUNT CABINET.
2. REMOVE UNUSED DETECTOR CABLES FROM CABINET TO NEAREST PULL BOX OR POLE BASE.

△ NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



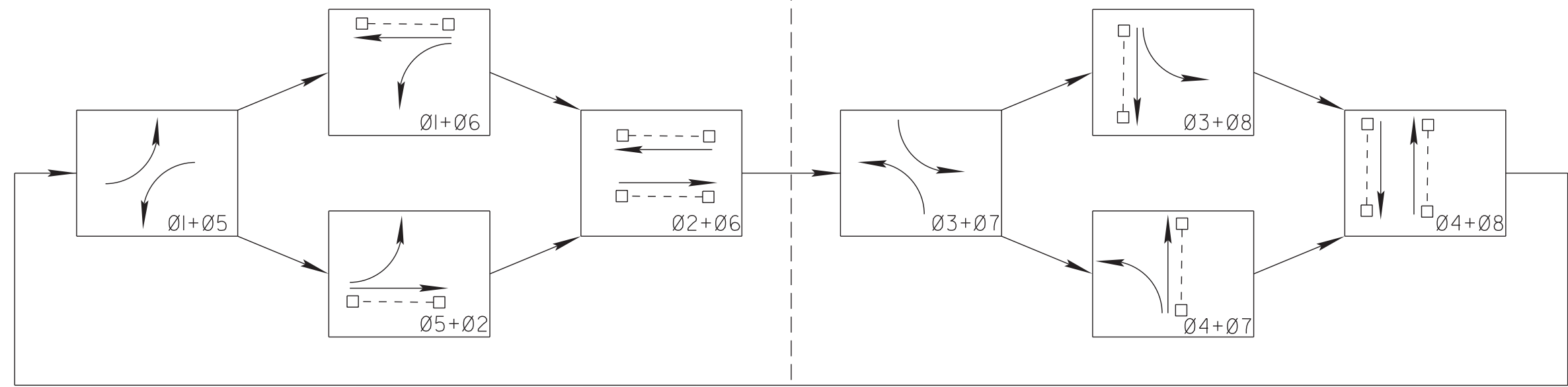
- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
- D2 INSTALL EVP CONFIRMATION BEACON
- D3 INSTALL EVP CONFIRMATION LAMP
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 20' DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE
- ③ INSTALL 2" RISER INTO BOTTOM OF CABINET
- ⑥ INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- ⑨ INSTALL 2" PVC CONDUIT
- ⑩ JACK AND BORE 2" CONDUIT
- ⑪ INSTALL 2" RGS CONDUIT
- ⑫ INSTALL 3" PVC CONDUIT
- ⑬ INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- ⑮ INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- ⑮ INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- ⑮ INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- ⑮ INSTALL CABLES IN EXISTING POLE
- ⑮ LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- ⑮ ATTACH CONDUIT TO BRIDGE

IL-07

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
STAGE ROAD
COLEMAN RD INTERSECTION LAYOUT

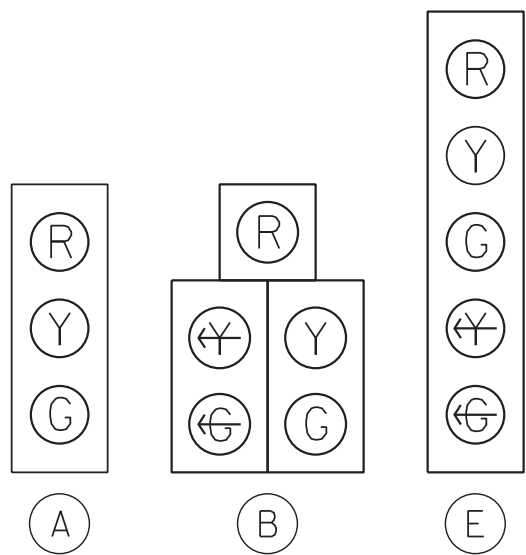
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DRAFTED: DATE: 04/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 24 OF 50

SIGNAL PHASING DIAGRAM



④ - INSTALL RACK MOUNT ADVANCE DETECTION AMPLIFIER (4 @ 1-PER APPROACH).

EXISTING SIGNAL HEAD TYPES



PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
②	2 + 6
④	4 + 8
⑥	2 + 6
⑧	4 + 8

DETECTOR ASSIGNMENTS					
ZONE	TYPE	TYPE	ZONE	TYPE	TYPE
1-1	VIDEO	PRESENCE	5-1	VIDEO	PRESENCE
2-1	VIDEO	PRESENCE	6-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE	6-2	VIDEO	PRESENCE
2-3	VIDEO	PRESENCE	6-3	VIDEO	PRESENCE
2-4	LOOP	PULSE	6-4	LOOP	PULSE
3-1	VIDEO	PRESENCE	7-1	VIDEO	PRESENCE
4-1	VIDEO	PRESENCE	8-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE	8-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE	8-3	VIDEO	PRESENCE
4-4	LOOP	PULSE	8-4	LOOP	PULSE

NOTES:
1. A RED LIGHT RUNNING PHOTO ENFORCEMENT SYSTEM IS PRESENT AT THIS INTERSECTION. ANY REQUIRED ADJUSTMENT OF ASSOCIATED WIRING AND EQUIPMENT IS THE RESPONSIBILITY OF AMERICAN TRAFFIC SOLUTIONS (ATS). CONTRACTOR TO COORDINATE WITH ATS FOR ANY MODIFICATION OR INTERRUPTION OF SERVICE TO THE SYSTEM.
2. SEE DETAIL SHEET D-03 FOR TYPICAL COUNT ZONE DETAIL.

STAGE RD @ COVINGTON PIKE



△ NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
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- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
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- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
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- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
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- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

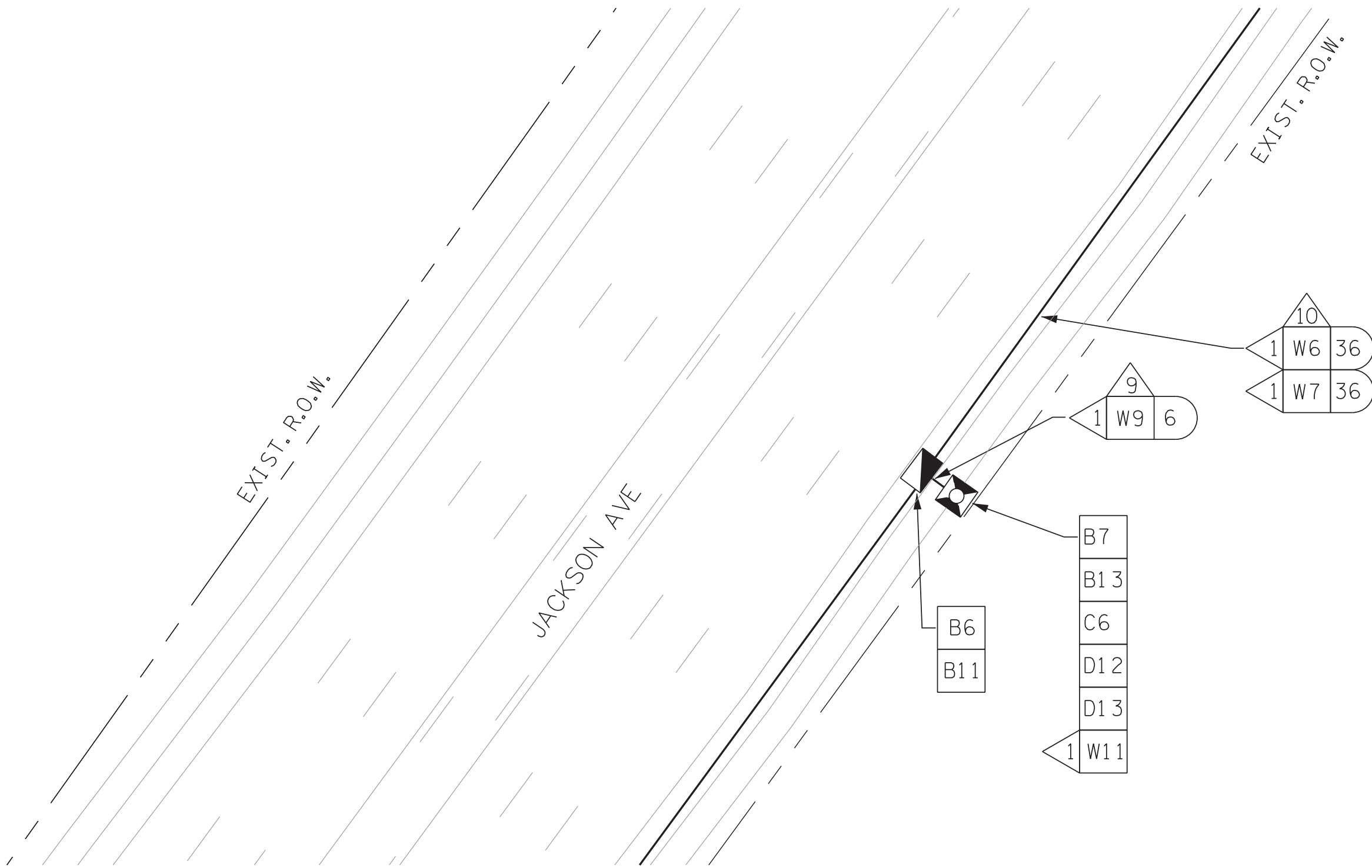
REMOVAL NOTES:
1. REMOVE EXISTING BASE MOUNT CABINET.
2. REMOVE UNUSED DETECTOR CABLES FROM CABINET TO NEAREST PULL BOX OR POLE BASE.

IL-08

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
STAGE ROAD
COVINGTON PIKE INTERSECTION LAYOUT

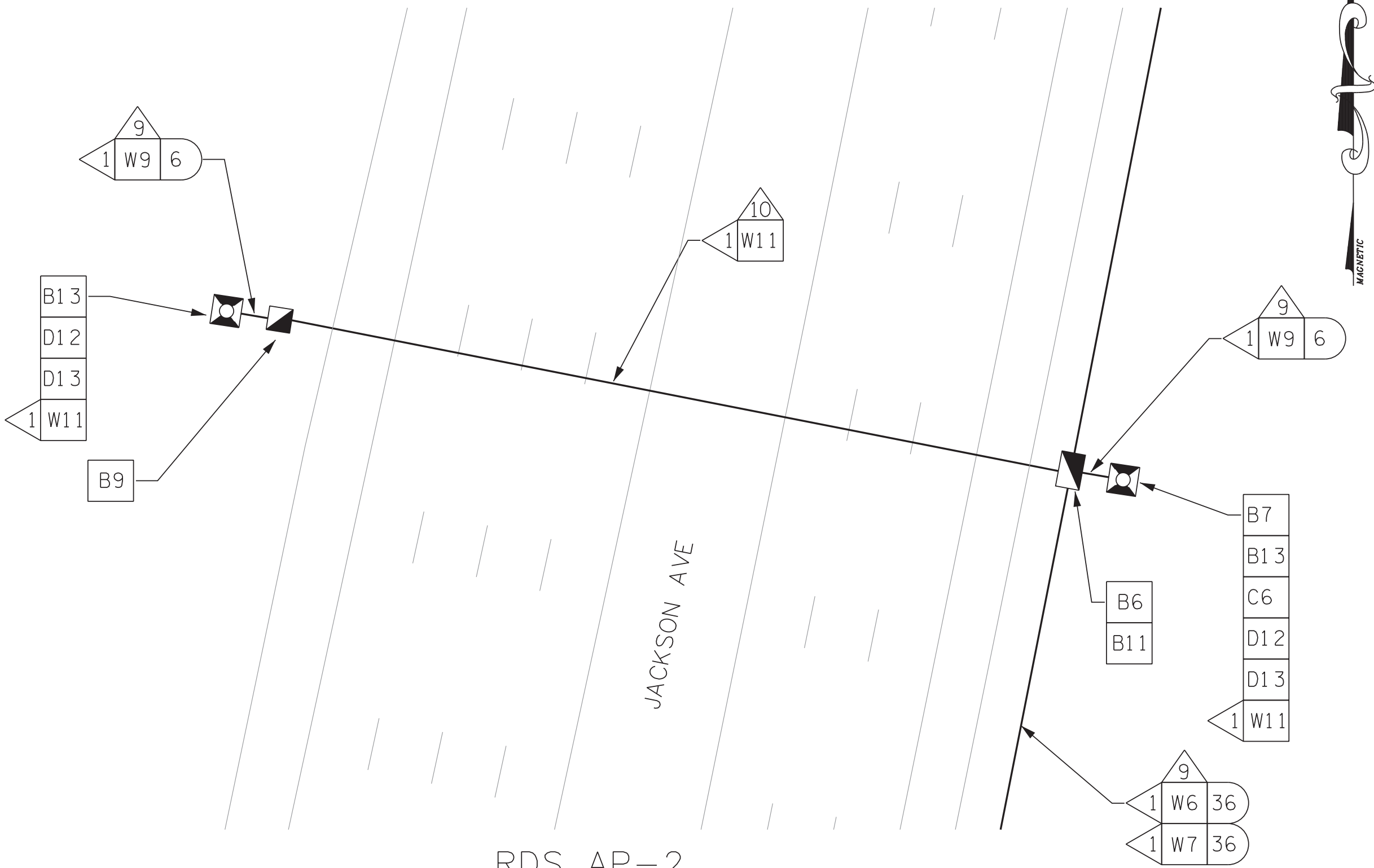
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DRAFTED: DATE: 04/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 25 OF 50

NOTE: RDS UNIT SHALL BE SOLAR POWERED.



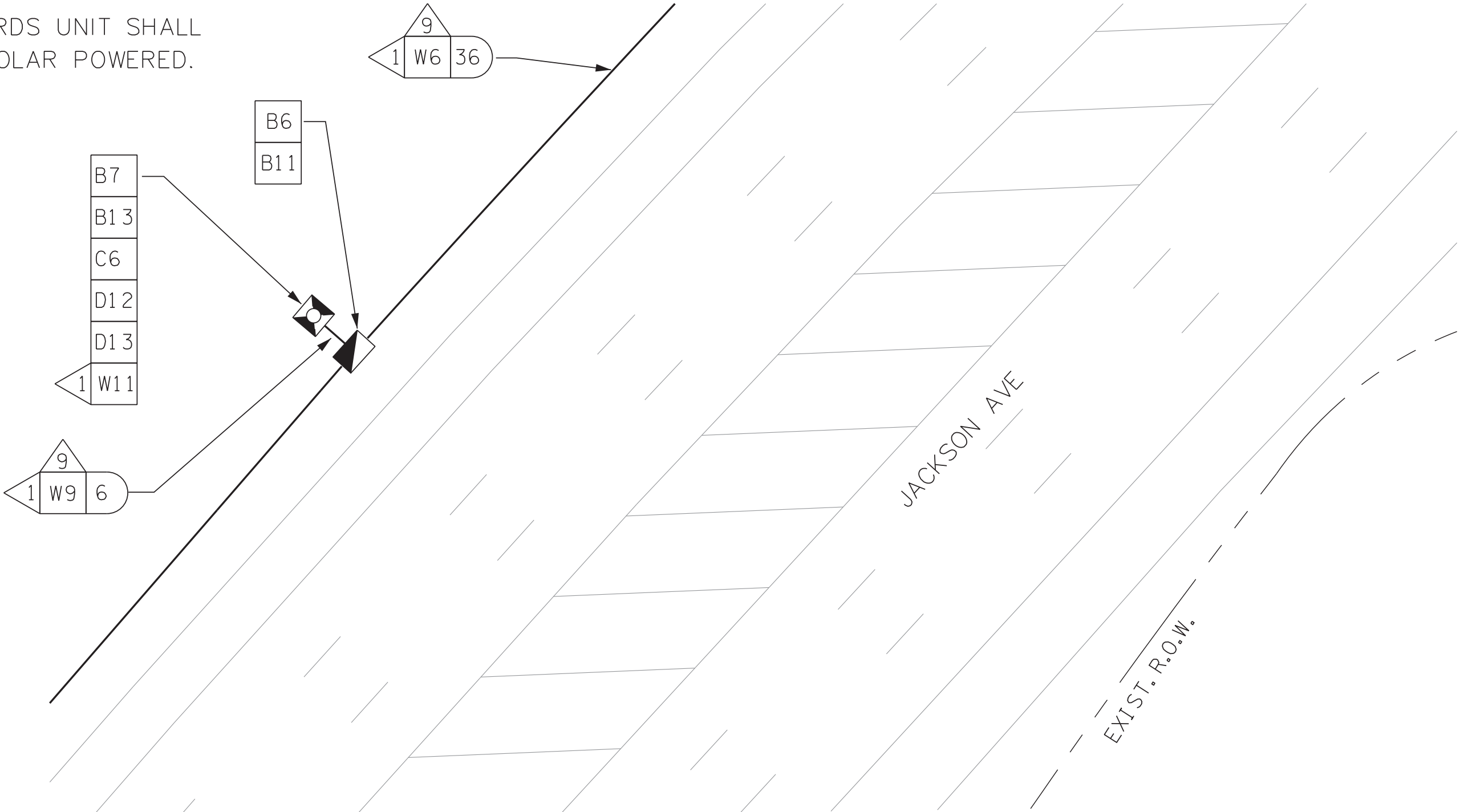
RDS AP-1
BETWEEN WALES RD & I-40

NOTE: RDS UNITS SHALL BE SOLAR POWERED.



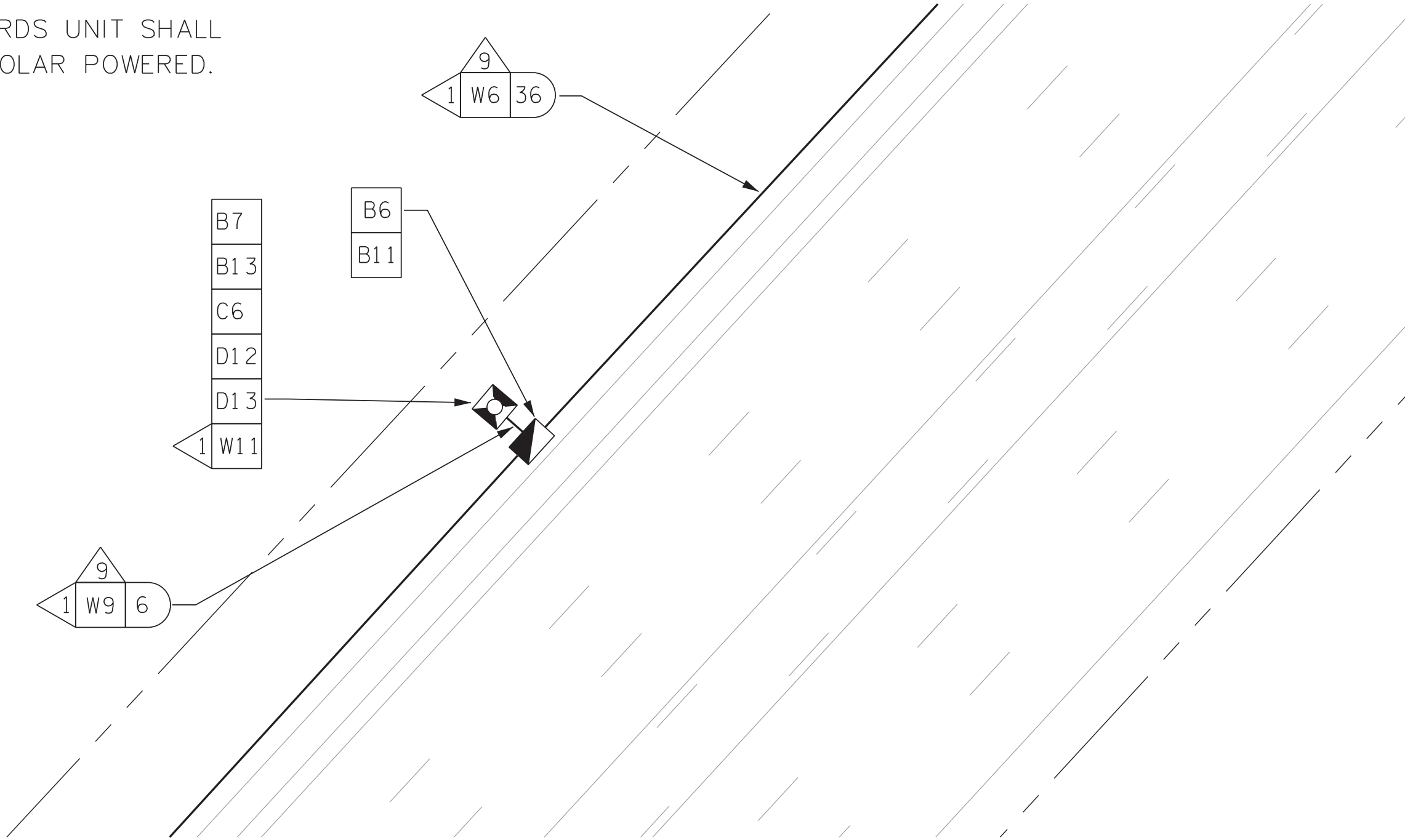
RDS AP-2
BETWEEN I-40 & JAMES RD/STAGE RD

NOTE: RDS UNIT SHALL
BE SOLAR POWERED.



RDS AP-3
BETWEEN JAMES RD/STAGE RD & JONES RD

NOTE: RDS UNIT SHALL
BE SOLAR POWERED.



RDS AP-1
BETWEEN COLEMAN RD & RALEIGH SPRINGS MALL

- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
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- D3 INSTALL EVP CONFIRMATION LAMP
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
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- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
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- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 20' DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE

- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

△ NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

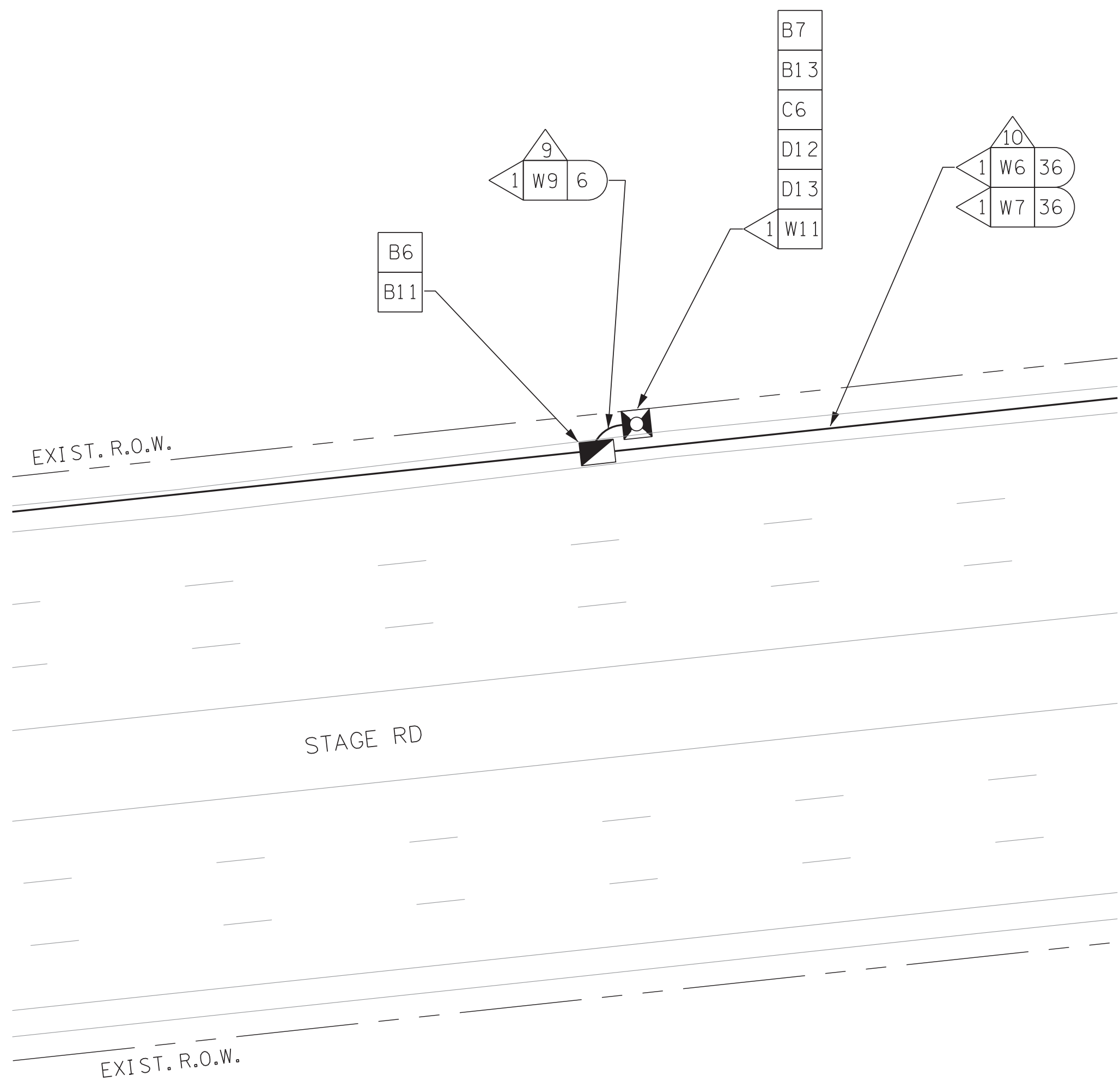
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RD-01

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
AUSTIN PEAY HIGHWAY
RADAR DETECTION SYSTEM LAYOUT

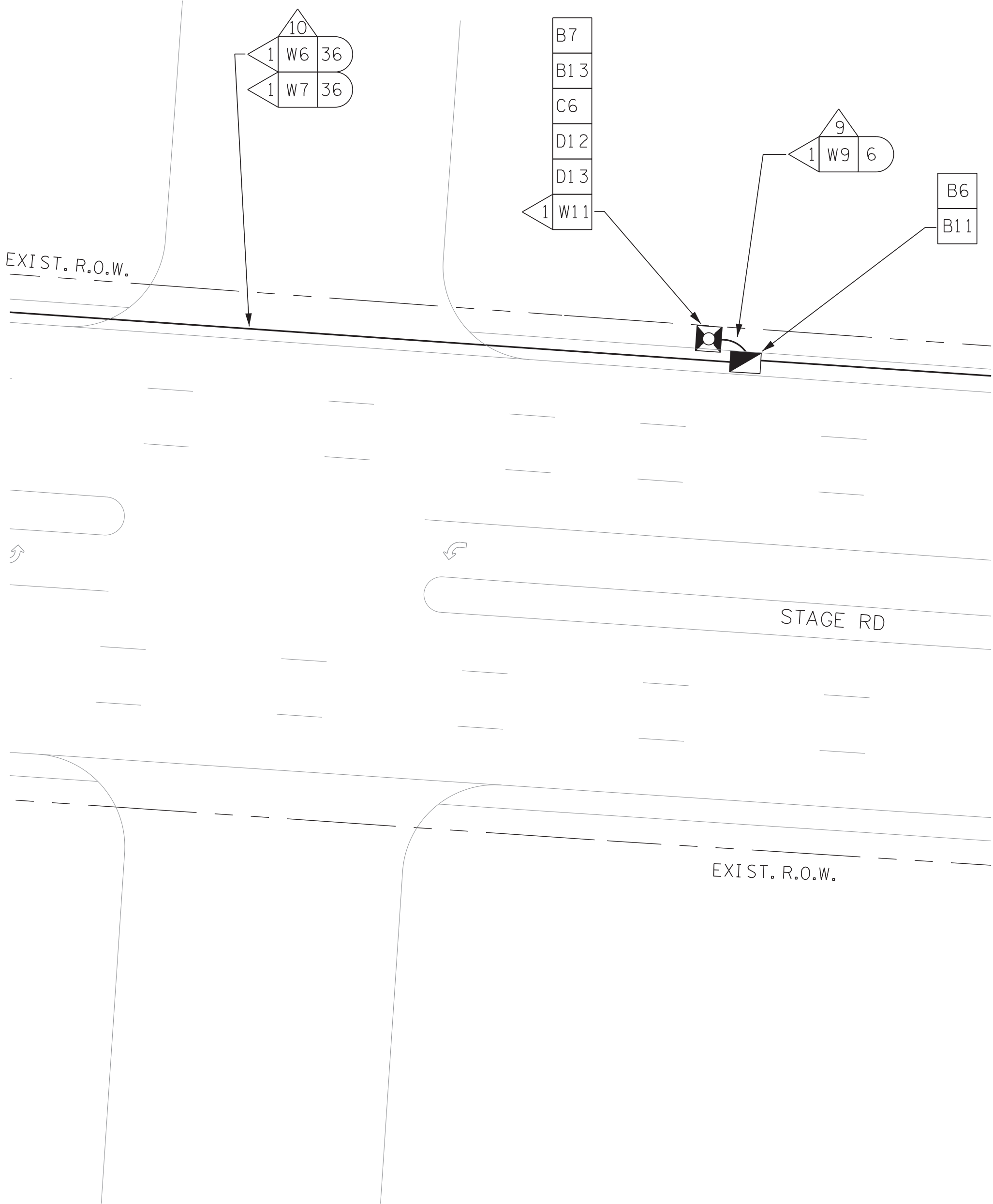
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DRAFTED: DATE: 04/14 SCALE: 1"=20'
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 26 OF 50

NOTE: CONTRACTOR SHALL COORDINATE WITH MLG&W
FOR RDS POWER CONNECTION.



RDS S-1
BETWEEN OLD AUSTIN PEAY HWY & COLEMAN RD

NOTE: CONTRACTOR SHALL COORDINATE WITH MLG&W
FOR RDS POWER CONNECTION.



RDS S-2
BETWEEN COLEMAN RD & COVINGTON PIKE

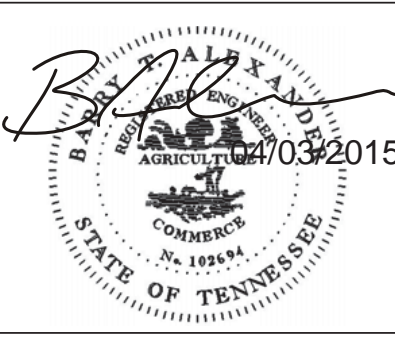


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- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
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- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
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- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

△ NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.



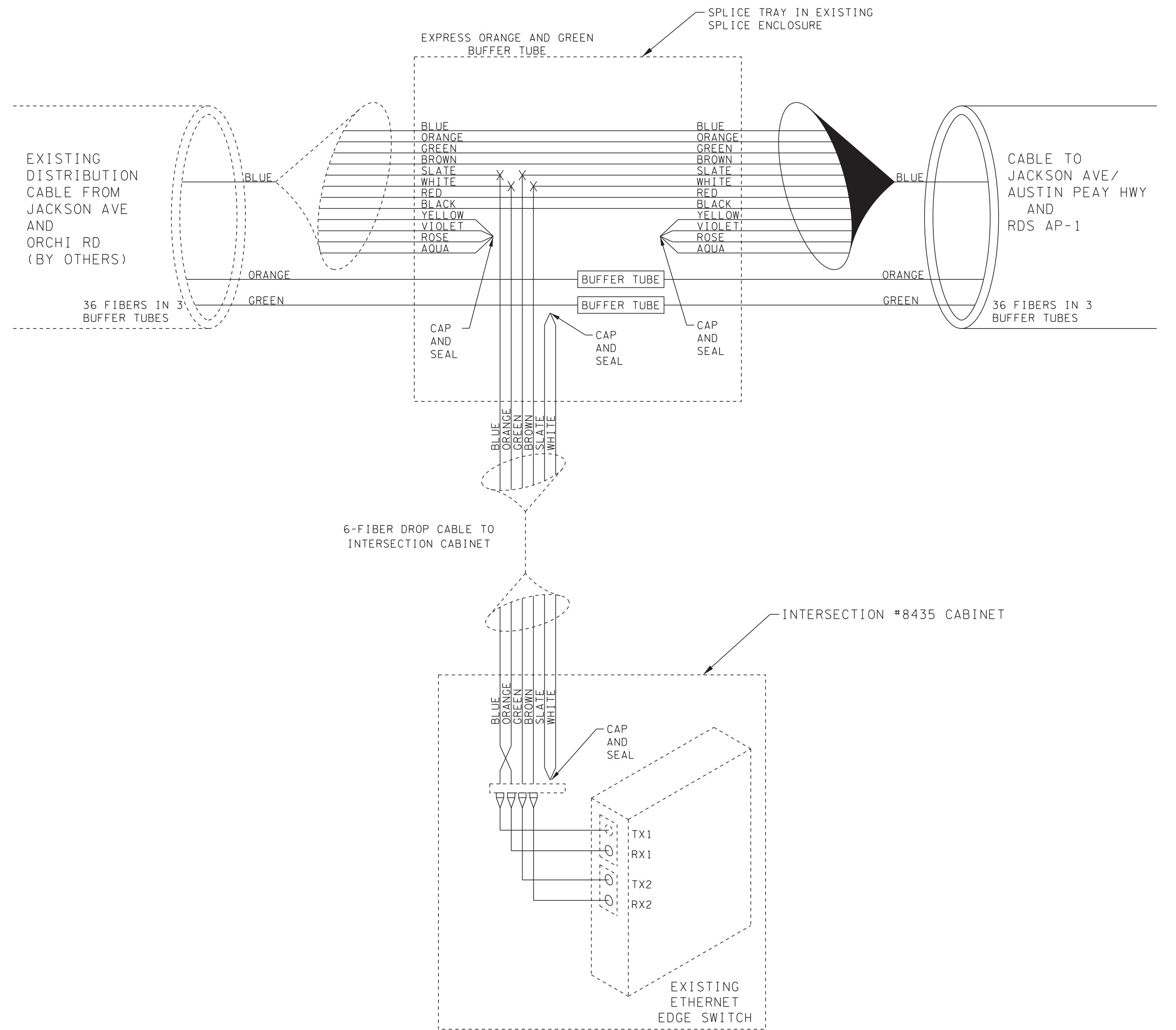
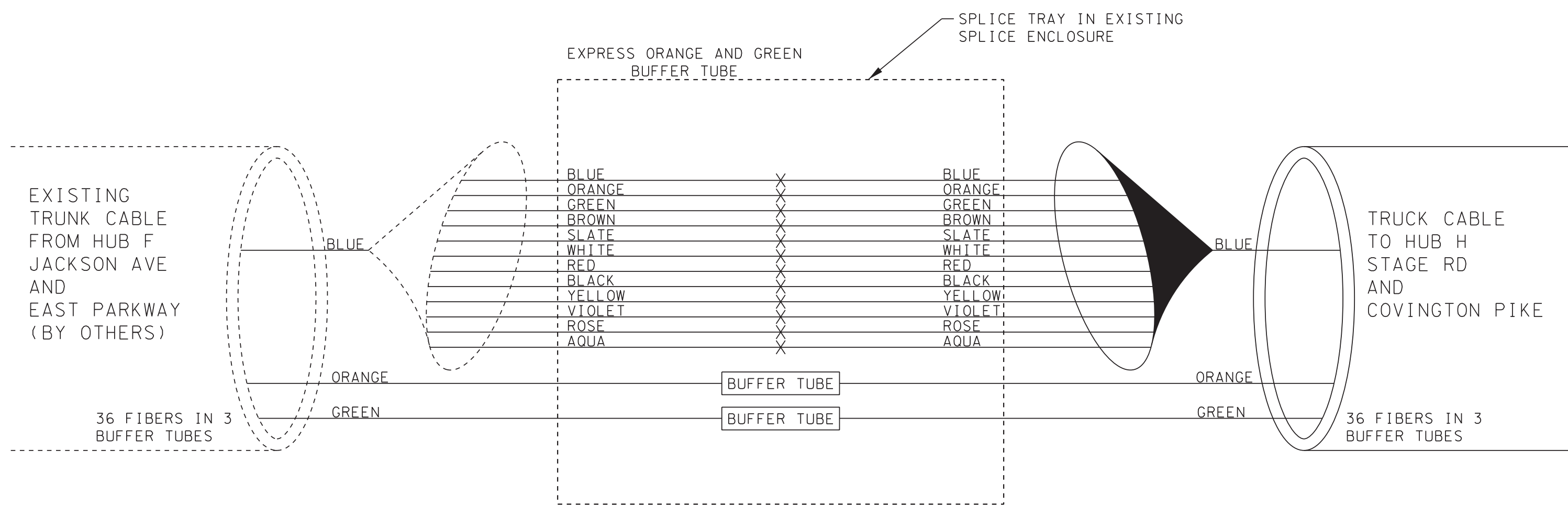
REVISIONS		
DATE	DESCRIPTIONS	APPROVED



RD-02

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
STAGE ROAD
RADAR DETECTION SYSTEM LAYOUT

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 04/14 SCALE: 1"=40'
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 27 OF 50



SPLICE DIAGRAM FOR
INTERSECTION #8435
JACKSON AVE/AUSTIN PEAY HWY
@ WALES AVE

NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

COLOR CODE
TIA/EIA 598-A

(1) BLUE	(7) RED	X - FUSION SPLICE INDIVIDUAL FIBER
(2) ORANGE	(8) BLACK	
(3) GREEN	(9) YELLOW	
(4) BROWN	(10) VIOLET	
(5) SLATE	(11) ROSE	
(6) WHITE	(12) AQUA	

----- ACTIVE FIBER
----- INACTIVE FIBER

----- SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

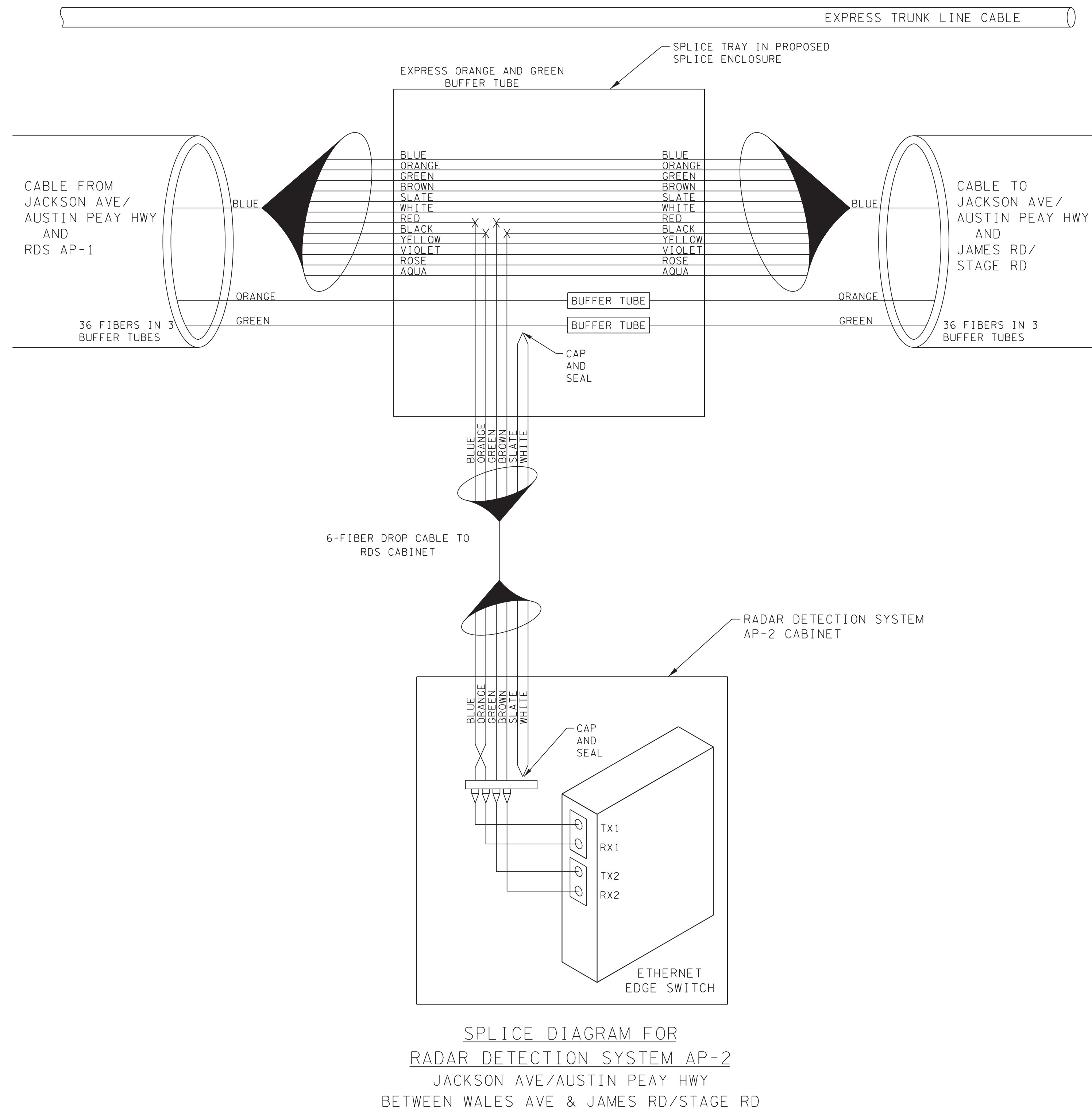
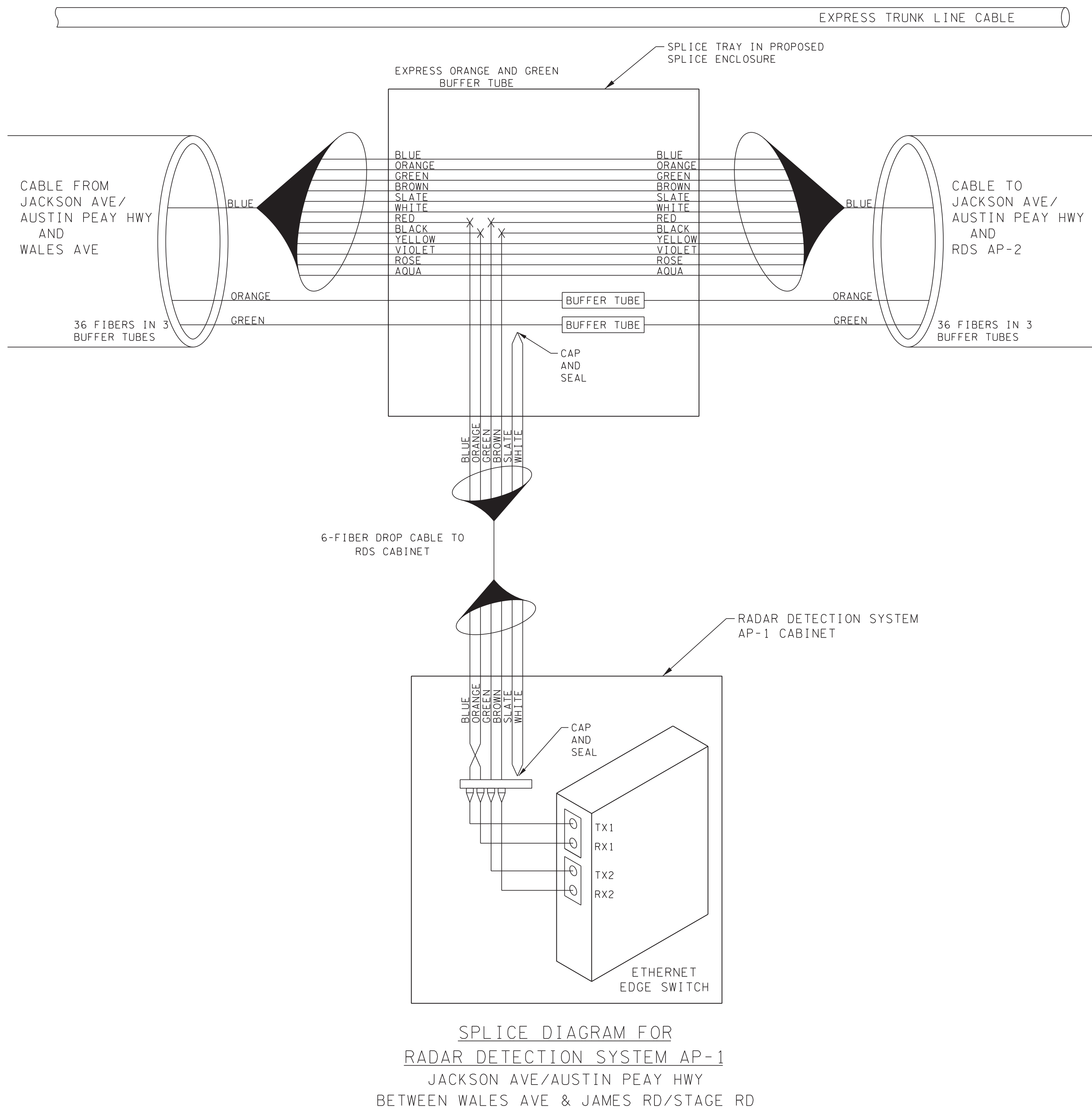
NEEL-SCHAFFER
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SD-01

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

AUSTIN PEAY HIGHWAY
SPLICE DIAGRAM

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 04/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 28 OF 50



LEGEND

COLOR CODE TIA/EIA 598-A		
(1) BLUE	(7) RED	X - FUSION SPLICE INDIVIDUAL FIBER
(2) ORANGE	(8) BLACK	
(3) GREEN	(9) YELLOW	[BUFFER TUBE] SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED
(4) BROWN	(10) VIOLET	
(5) SLATE	(11) ROSE	————— ACTIVE FIBER
(6) WHITE	(12) AQUA	----- INACTIVE FIBER

NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



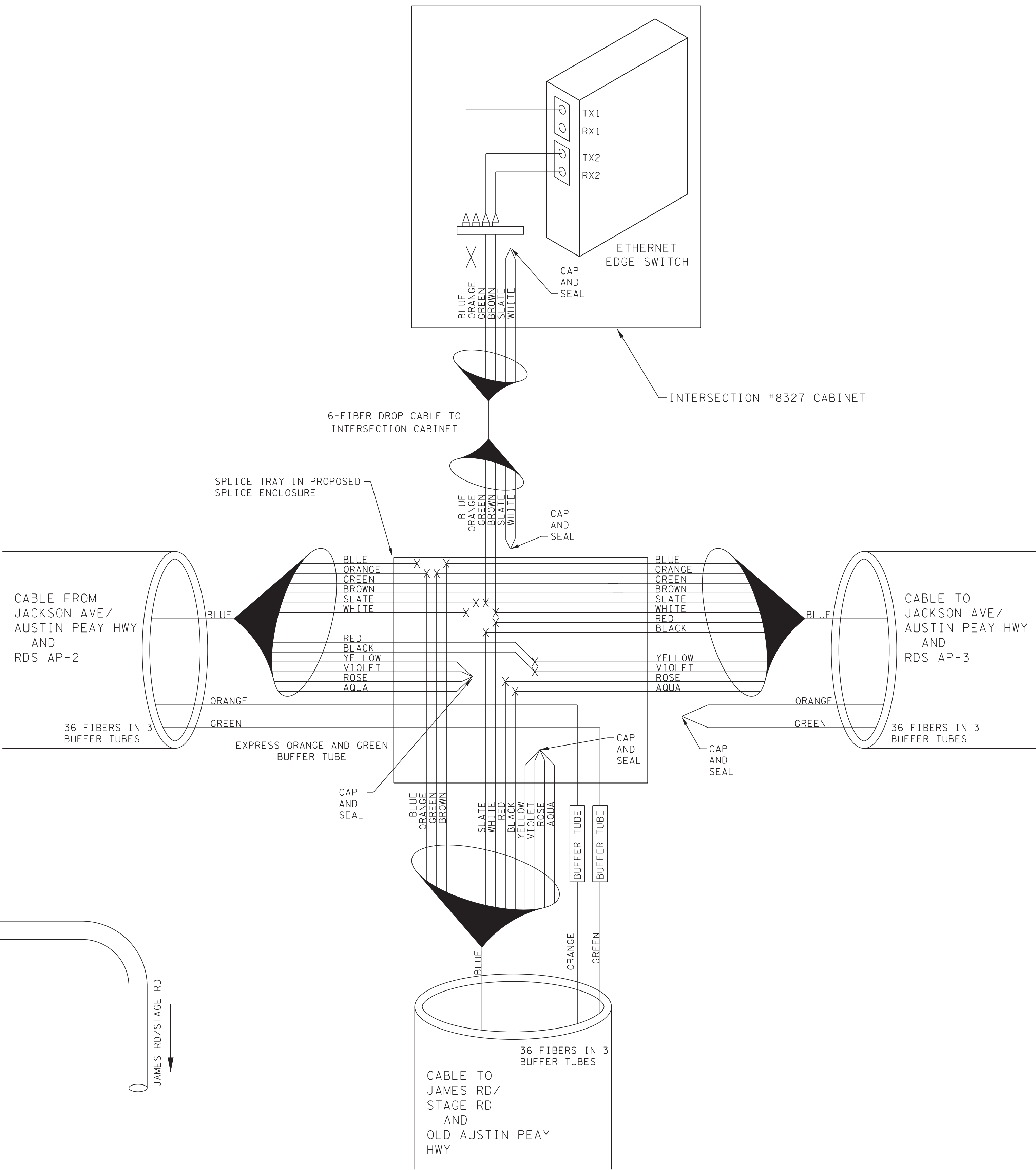
POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

NEEL-SCHAFFER
Solutions you can build upon

SD-02

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
AUSTIN PEAY HIGHWAY
SPLICE DIAGRAM

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 04/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 29 OF 50



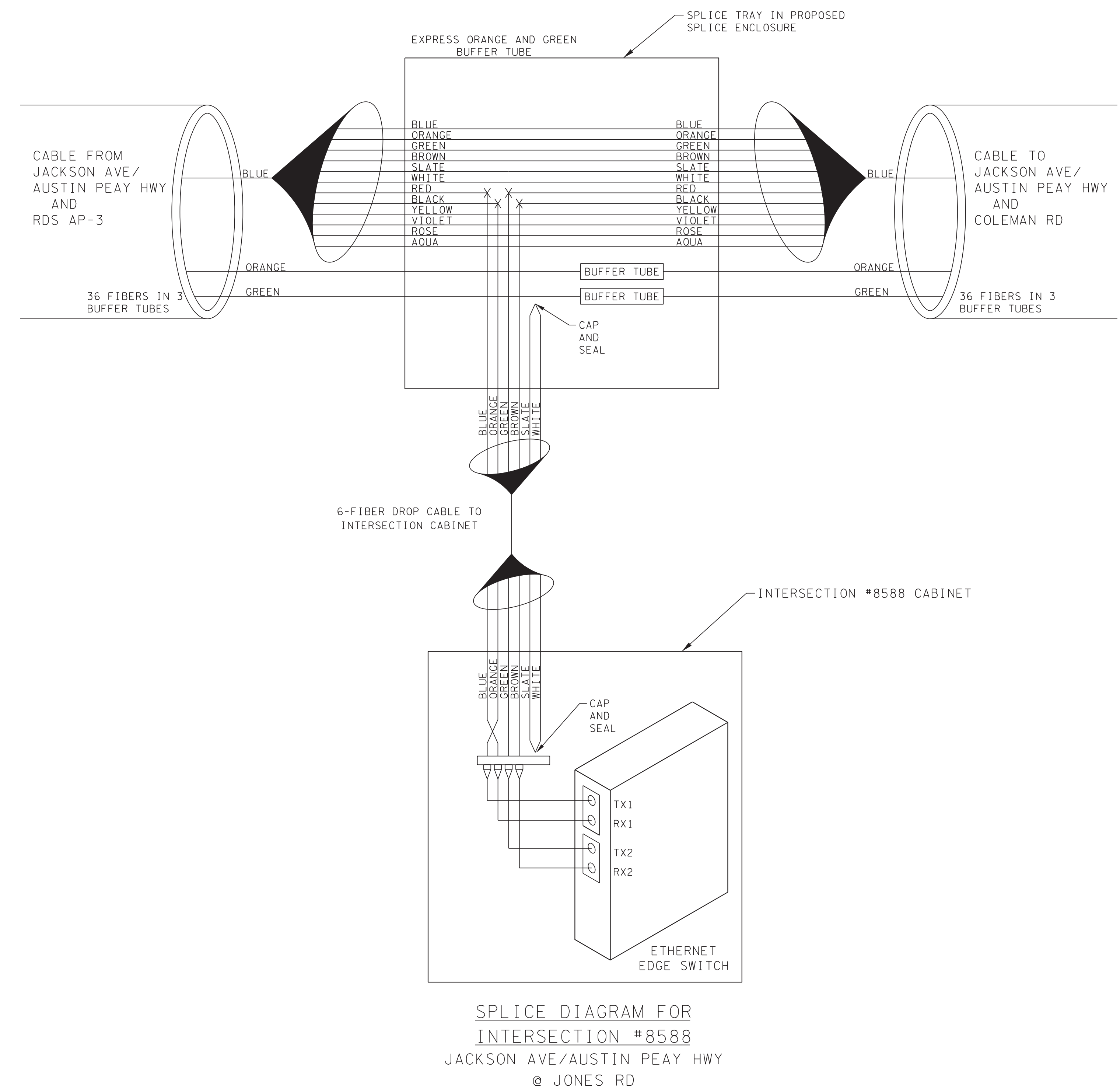
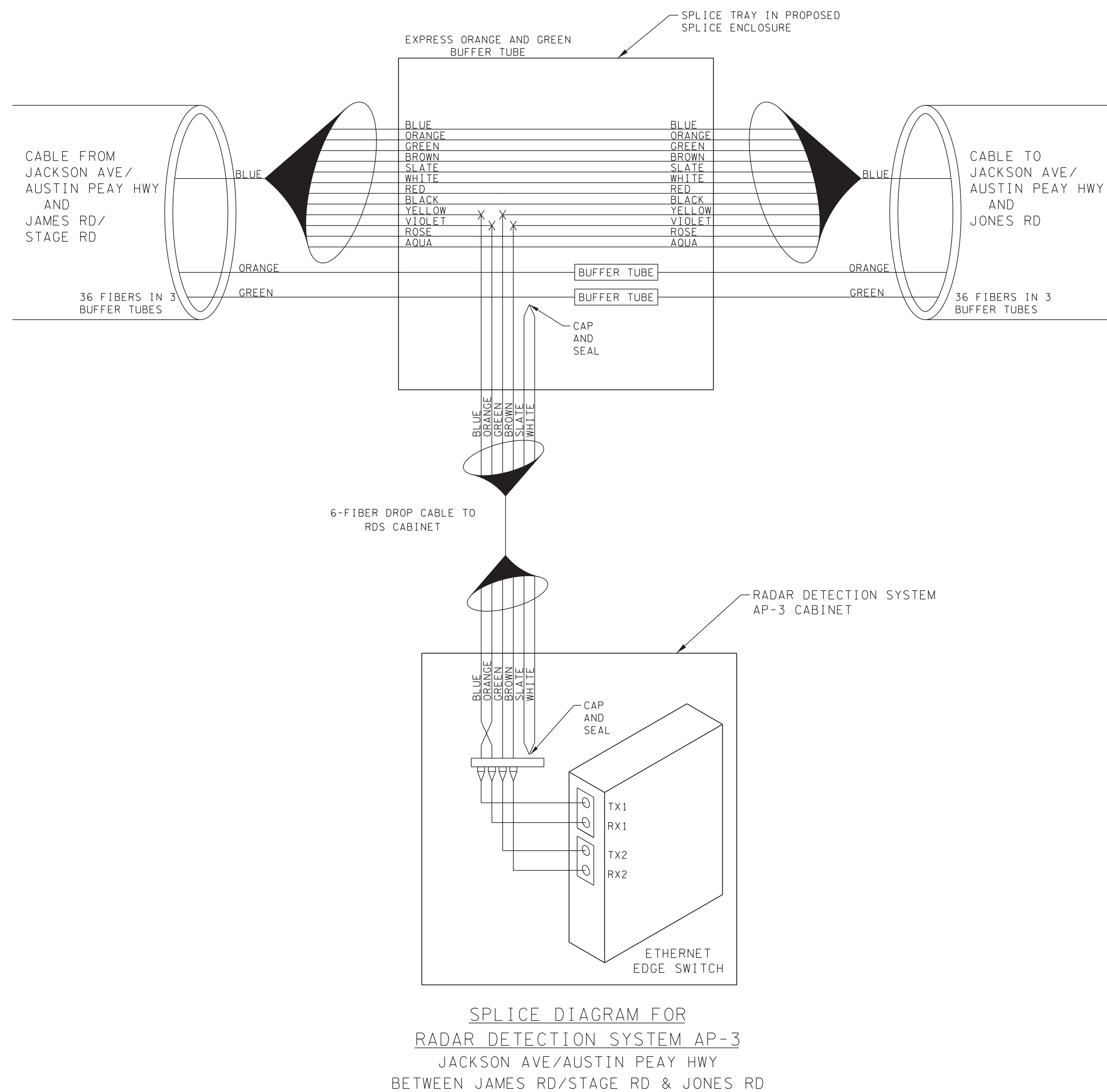
NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

COLOR CODE TIA/EIA 598-A		
(1) BLUE	(7) RED	X - FUSION SPLICE INDIVIDUAL FIBER
(2) ORANGE	(8) BLACK	
(3) GREEN	(9) YELLOW	[BUFFER TUBE] SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED
(4) BROWN	(10) VIOLET	
(5) SLATE	(11) ROSE	————— ACTIVE FIBER
(6) WHITE	(12) AQUA	
		----- INACTIVE FIBER

SPLICE DIAGRAM FOR
INTERSECTION #8327
JACKSON AVE/AUSTIN PEAY HWY
@ JAMES RD/STAGE RD

REVISIONS				SD-03	
DATE	DESCRIPTIONS	APPROVED		DIVISION OF PUBLIC WORKS CONGESTION MANAGEMENT PROGRAM SIGNAL SYSTEM PROJECT SET #8 SHELBY COUNTY, TN.	
				AUSTIN PEAY HIGHWAY @ STAGE ROAD SPLICE DIAGRAM	
				SURVEY: N/A DATE: N/A BOOK: N/A	
				DRAFTED: DATE: 04/14 SCALE: N.T.S.	
				DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14	
JURISDICTION: _____			SHEET 30 OF 50		

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LEGEND

COLOR CODE	
TIA/EIA 598-A	

(1) BLUE	(7) RED	X - FUSION SPlice INDIVIDUAL FIBER
(2) ORANGE	(8) BLACK	SLICE OR EXPRESS ENTIRE
(3) GREEN	(9) YELLOW	BUFFER TUBE BUFFER TUBE AS NOTED
(4) BROWN	(10) VIOLET	
(5) SLATE	(11) ROSE	_____ ACTIVE FIBER
(6) WHITE	(12) AQUA	----- INACTIVE FIBER

NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED

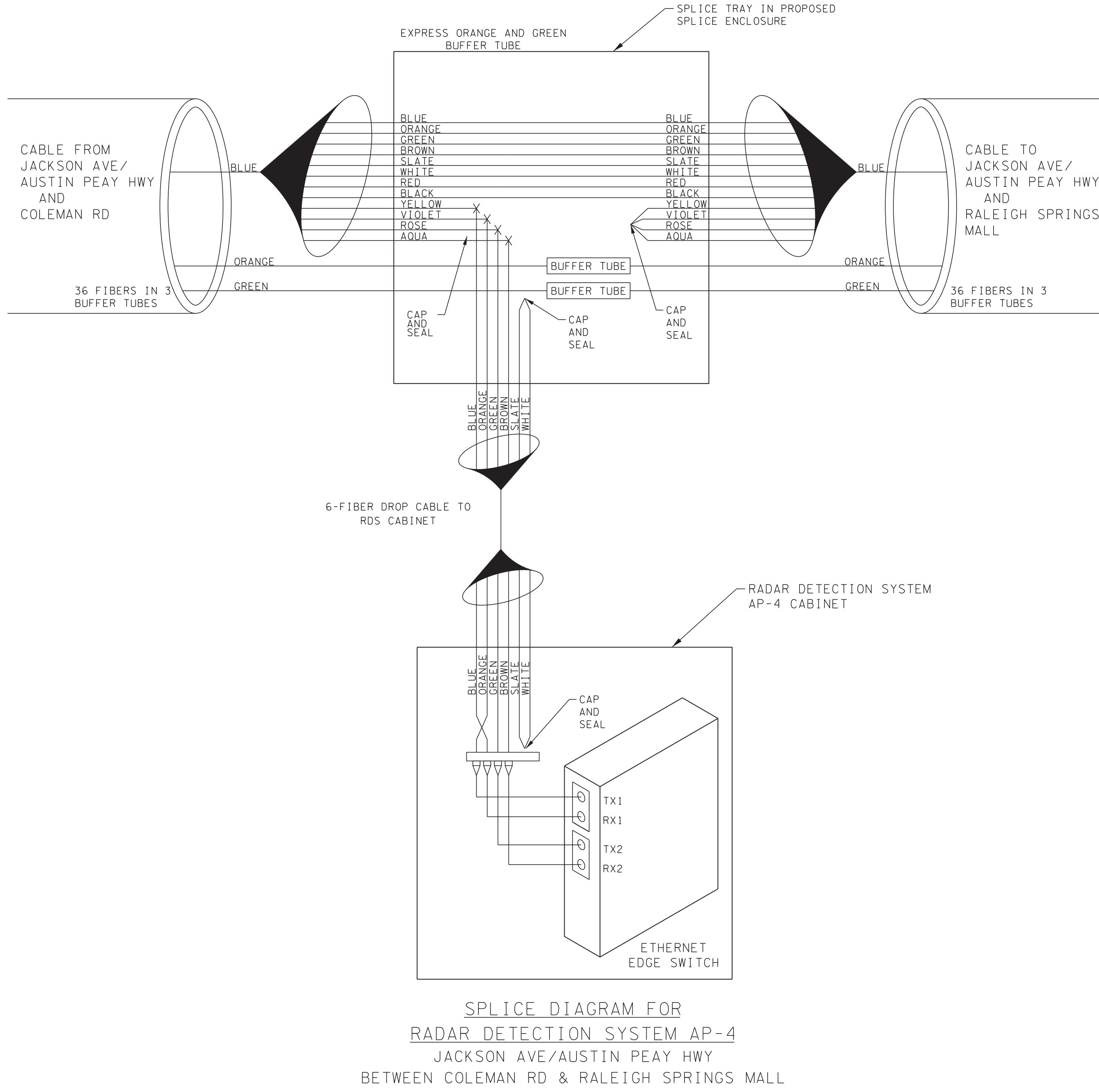
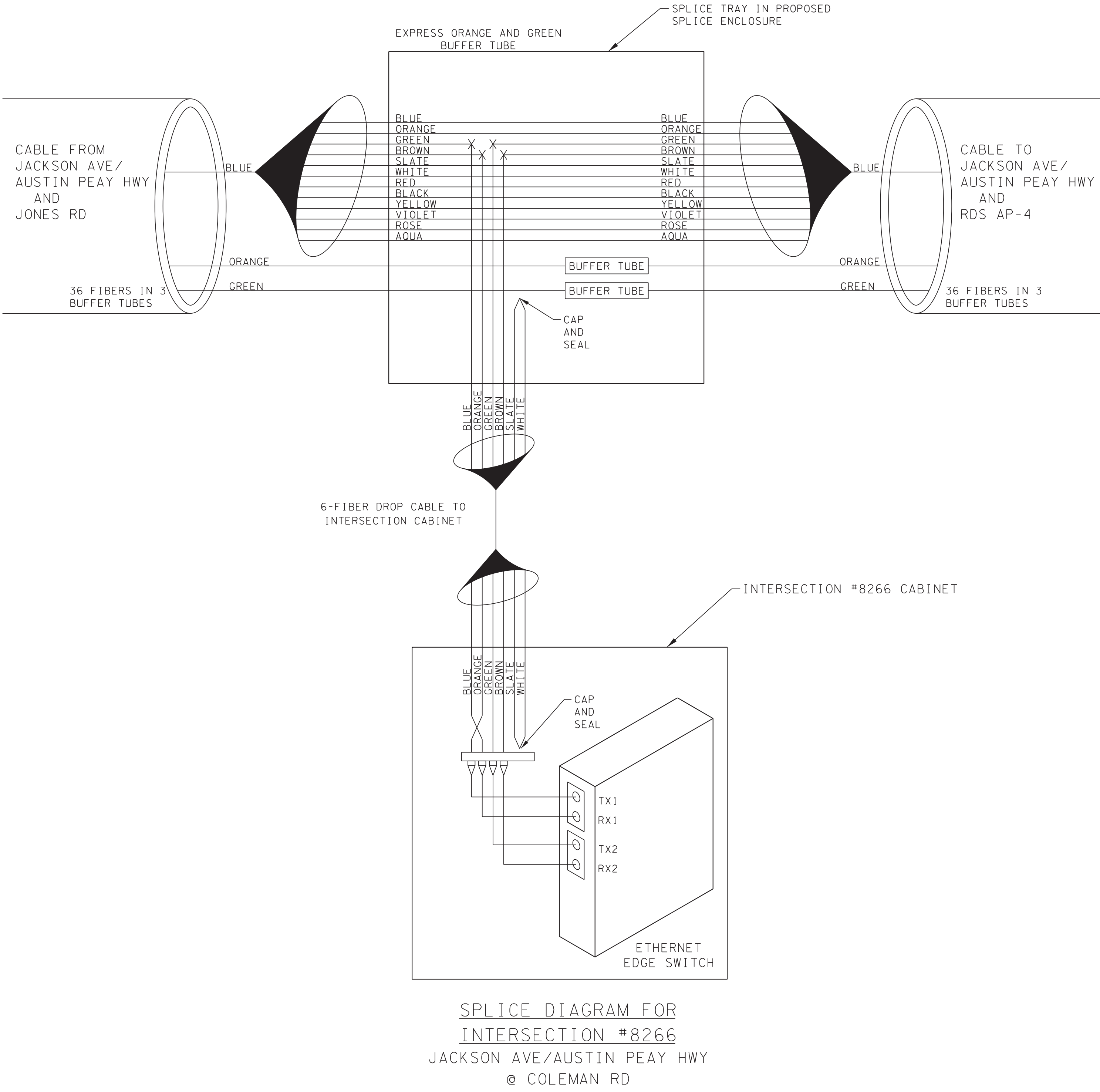


SD-04

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

AUSTIN PEAY HIGHWAY
SPLICE DIAGRAM

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: _____ DATE: 04/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: _____ SHEET 31 OF 50



LEGEND		
COLOR CODE TIA/EIA 598-A		
(1) BLUE	(7) RED	X - FUSION SPLICED INDIVIDUAL FIBER
(2) ORANGE	(8) BLACK	
(3) GREEN	(9) YELLOW	[BUFFER TUBE] SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED
(4) BROWN	(10) VIOLET	
(5) SLATE	(11) ROSE	————— ACTIVE FIBER
(6) WHITE	(12) AQUA	
		----- INACTIVE FIBER

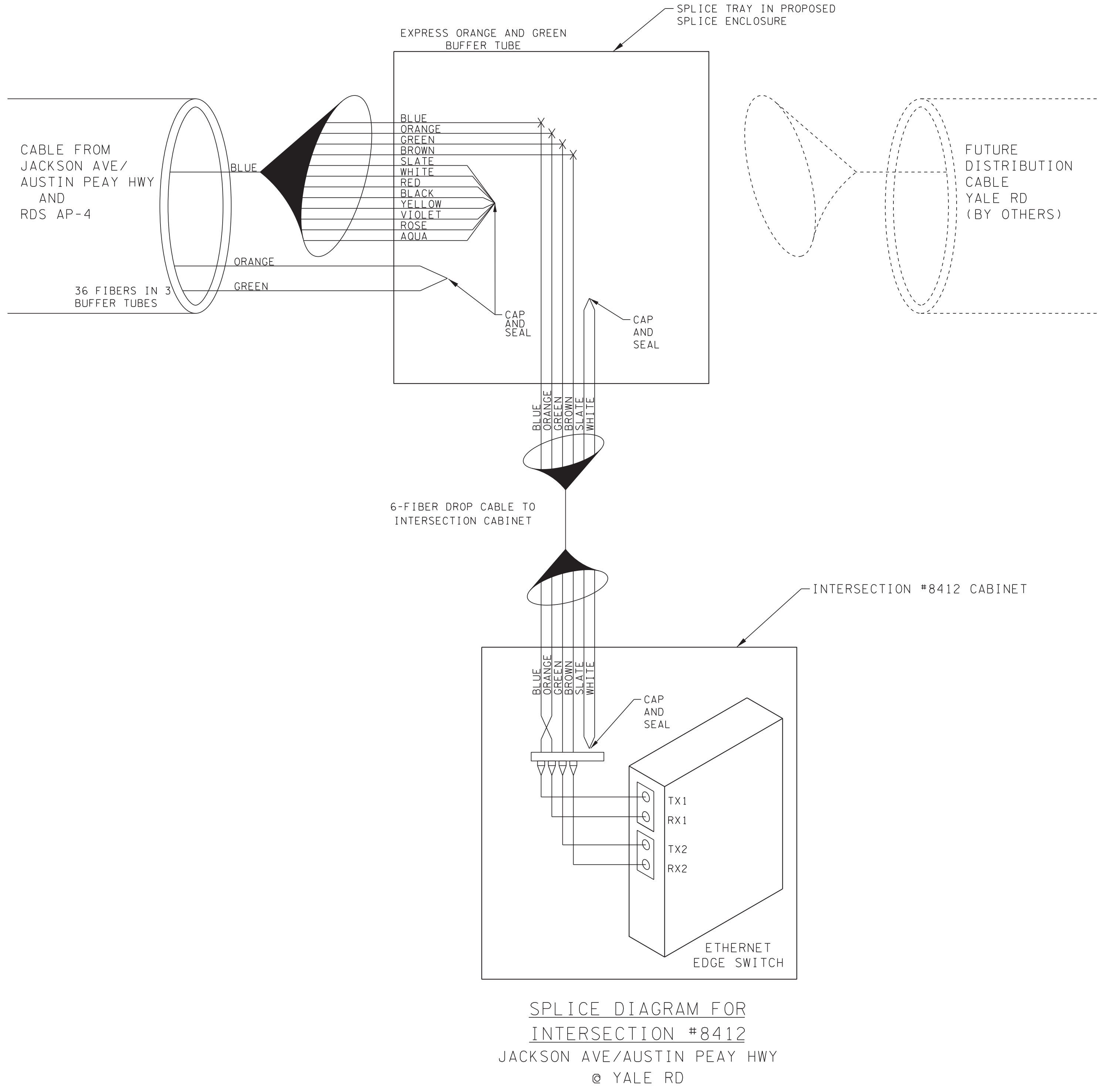
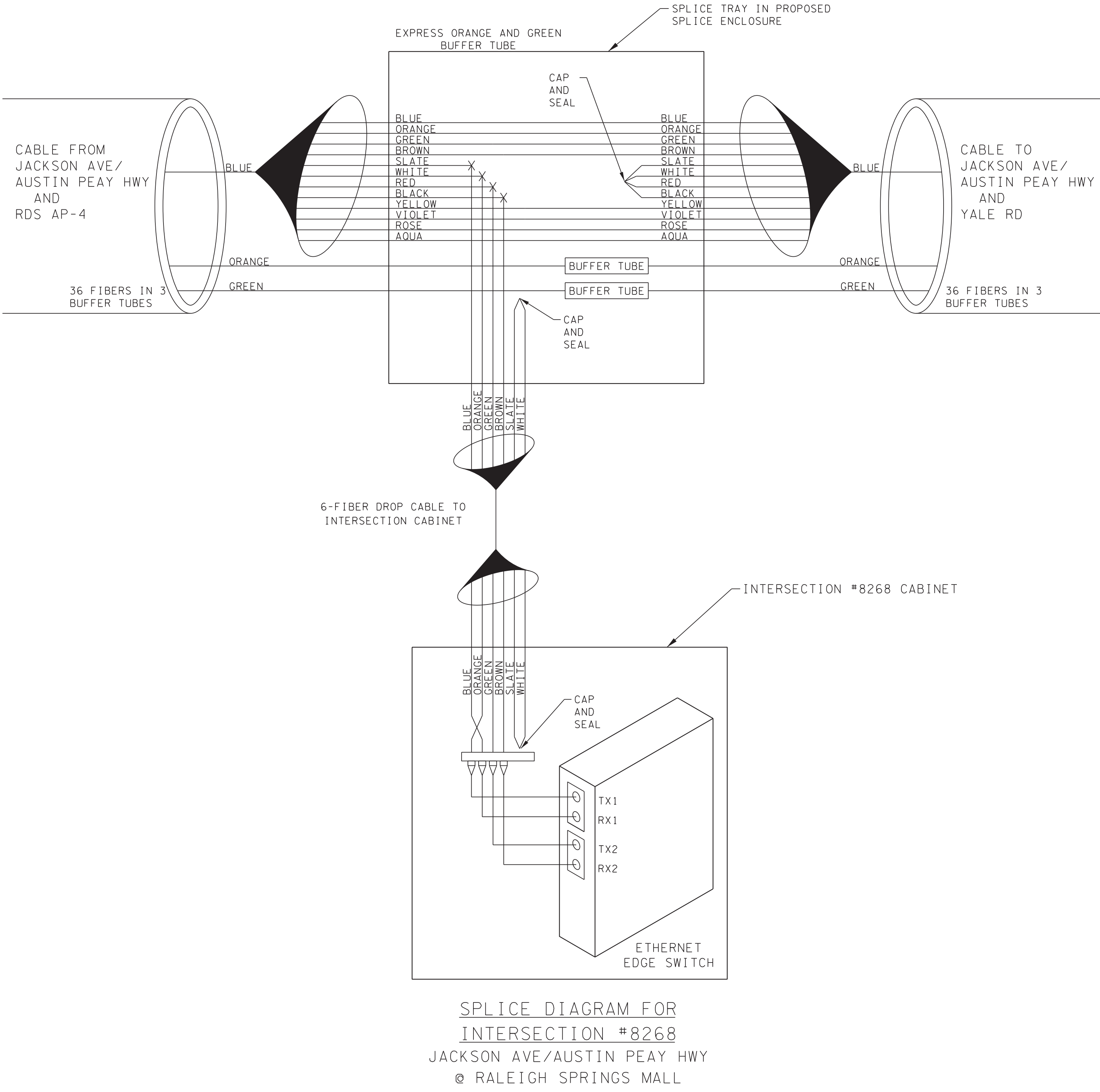
NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



SD-05
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
AUSTIN PEAY HIGHWAY
SPlice DIAGRAM

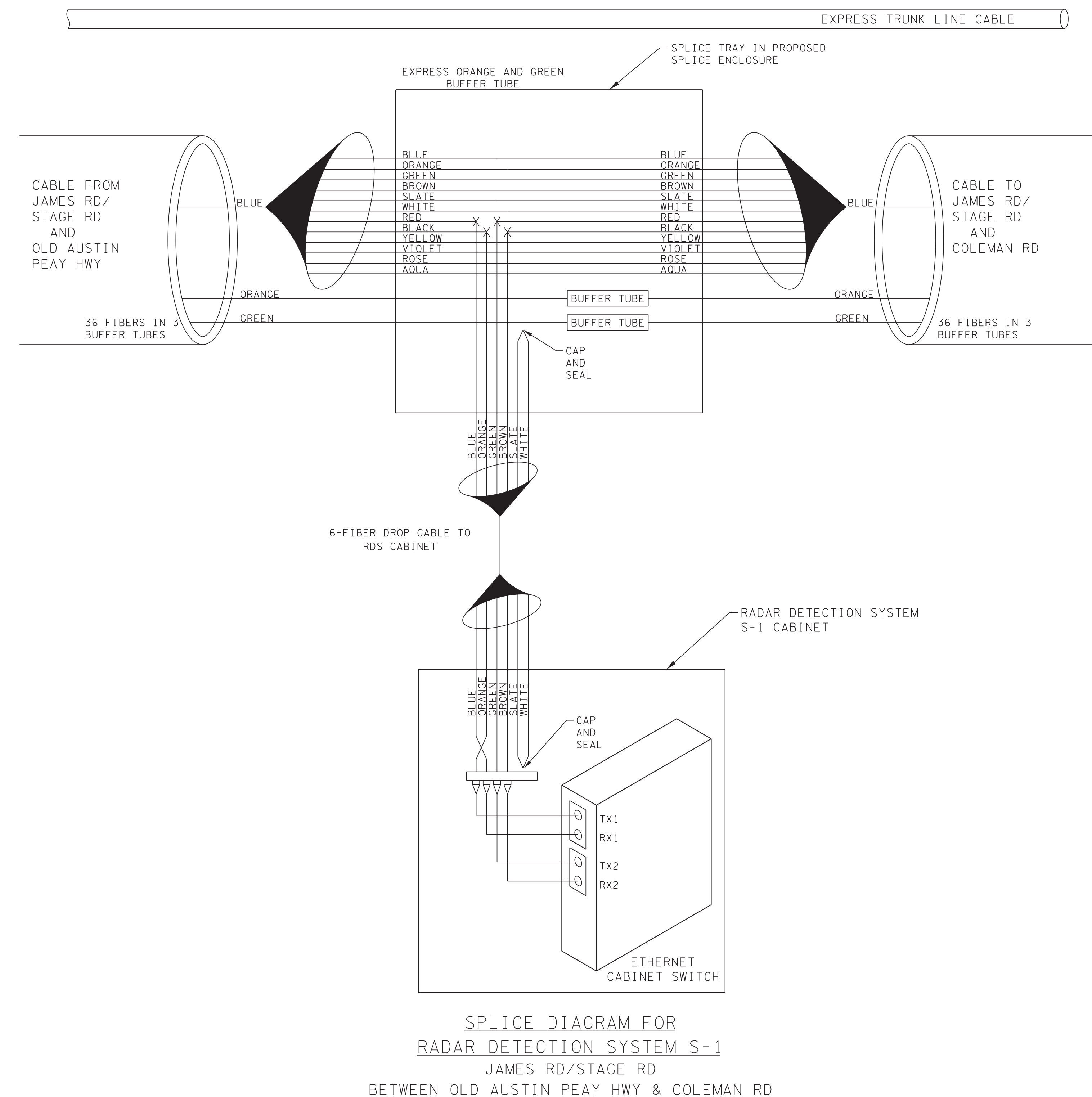
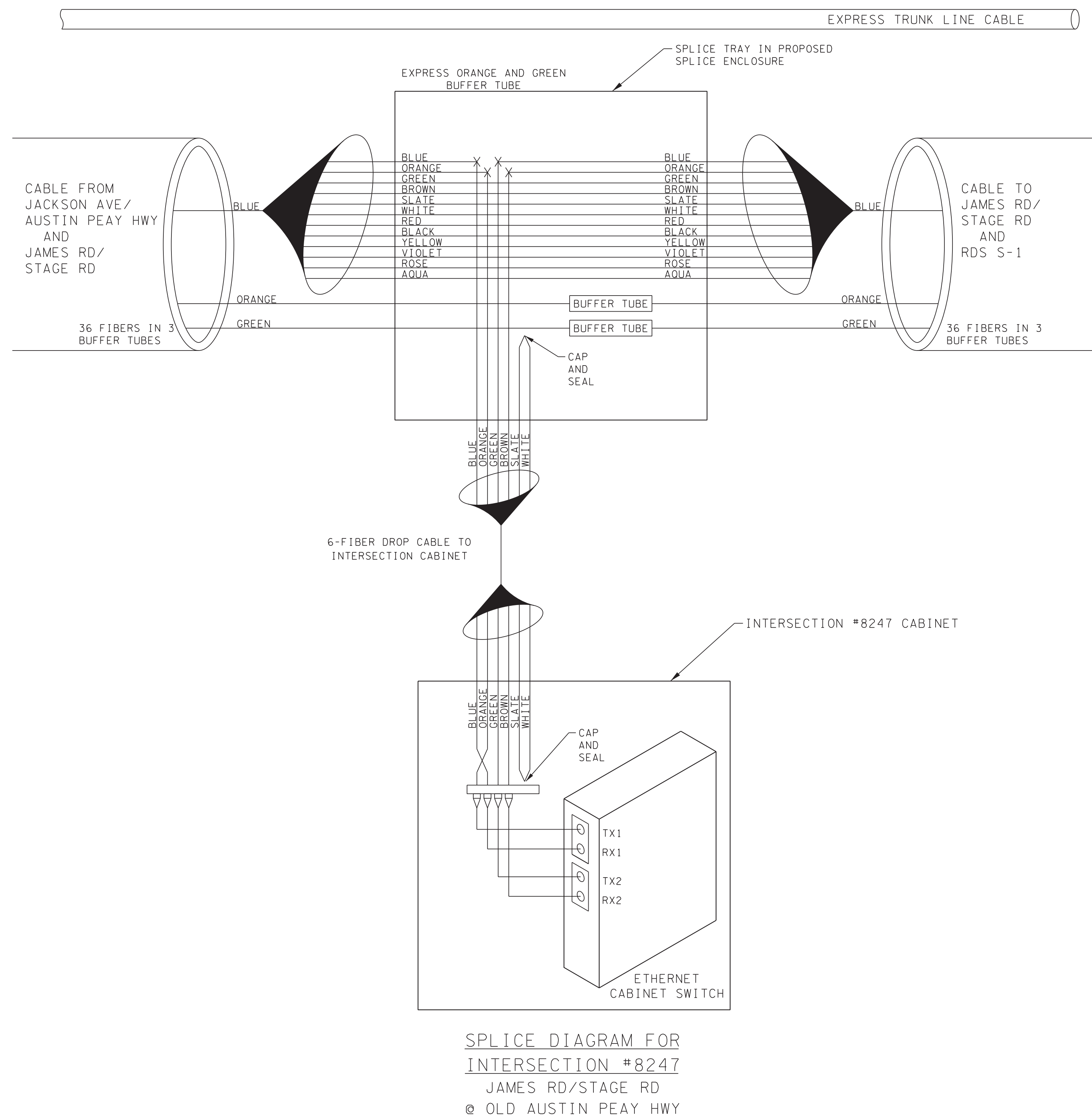
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DRAFTED: DATE: 04/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 32 OF 50



LEGEND		
COLOR CODE TIA/EIA 598-A		
(1) BLUE	(7) RED	X - FUSION SPLICE INDIVIDUAL FIBER
(2) ORANGE	(8) BLACK	
(3) GREEN	(9) YELLOW	[BUFFER TUBE] SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED
(4) BROWN	(10) VIOLET	
(5) SLATE	(11) ROSE	————— ACTIVE FIBER
(6) WHITE	(12) AQUA	----- INACTIVE FIBER

NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

REVISIONS			
DATE	DESCRIPTIONS	APPROVED	
 POWERS HILL DESIGN CIVIL ENGINEERING. CIVIL RESPONSIBILITY. NEEL-SCHAFFER Solutions you can build upon			<div>SD-06</div> <div>DIVISION OF PUBLIC WORKS CONGESTION MANAGEMENT PROGRAM SIGNAL SYSTEM PROJECT SET #8 SHELBY COUNTY, TN. AUSTIN PEAY HIGHWAY SPLICE DIAGRAM</div> <div>SURVEY: N/A DATE: N/A BOOK: N/A DRAFTED: DATE: 04/14 SCALE: N.T.S. DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14 JURISDICTION: SHEET 33 OF 50</div>



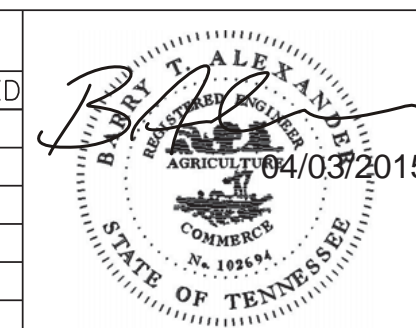
LEGEND

COLOR CODE	
TIA/EIA 598-A	

(1) BLUE	(7) RED	X - FUSION SPlice INDIVIDUAL FIBER
(2) ORANGE	(8) BLACK	SLICE OR EXPRESS ENTIRE
(3) GREEN	(9) YELLOW	BUFFER TUBE BUFFER TUBE AS NOTED
(4) BROWN	(10) VIOLET	
(5) SLATE	(11) ROSE	_____ ACTIVE FIBER
(6) WHITE	(12) AQUA	----- INACTIVE FIBER

NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

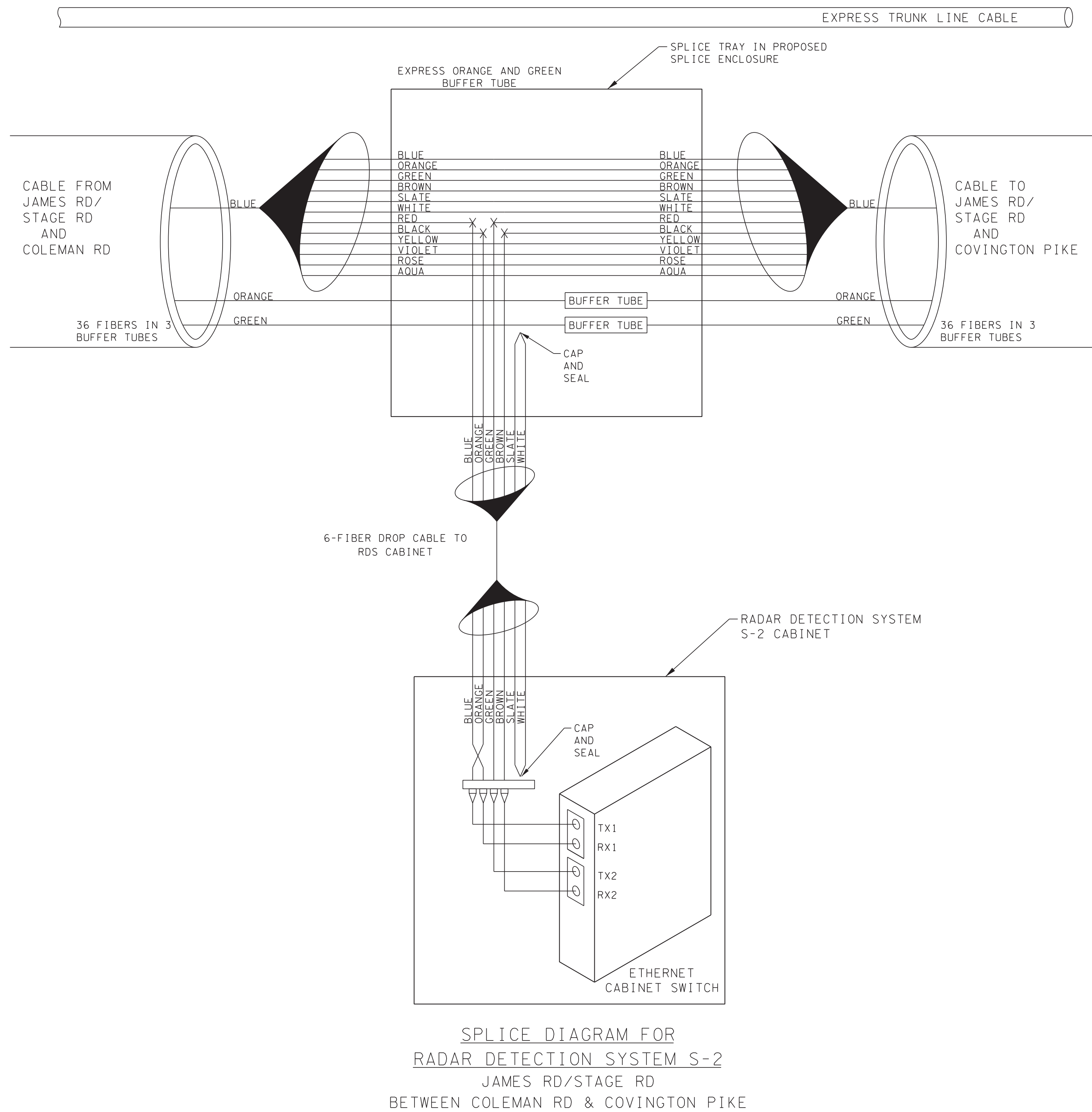
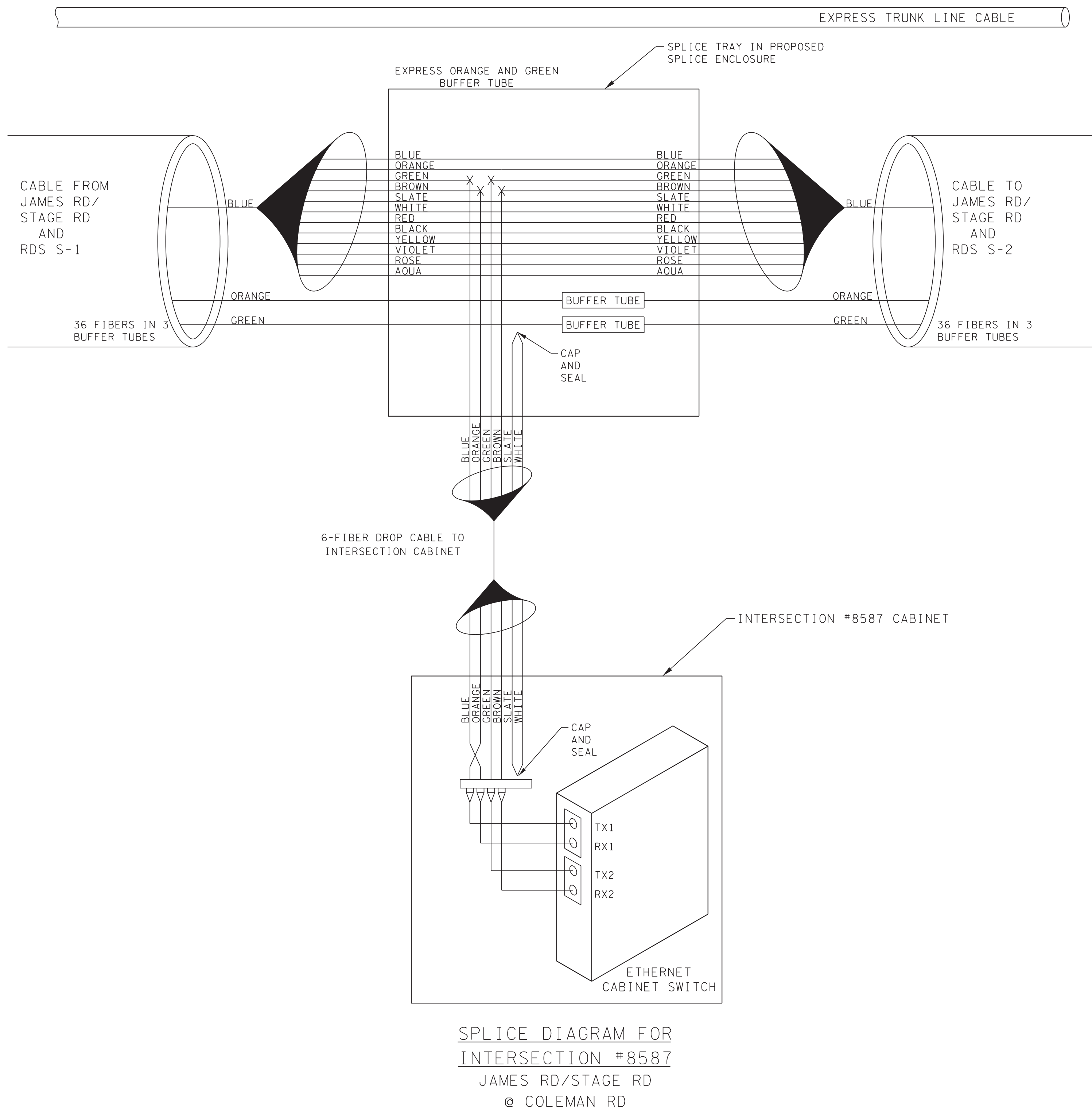
REVISIONS		
DATE	DESCRIPTIONS	APPROVED



SD-07

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
STAGE ROAD
SPLICE DIAGRAM

SURVEY: N/A DATE: N/A BOOK: N/A
 DRAFTED: _____ DATE: 04/14 SCALE: N.T.S.
 DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
 JURISDICTION: _____ SHEET 34 OF 50



LEGEND

COLOR CODE TIA/EIA 598-A		X - FUSION SPLICE INDIVIDUAL FIBER [BUFFER TUBE] SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED
(1) BLUE	(7) RED	
(2) ORANGE	(8) BLACK	
(3) GREEN	(9) YELLOW	
(4) BROWN	(10) VIOLET	
(5) SLATE	(11) ROSE	——— ACTIVE FIBER
(6) WHITE	(12) AQUA	----- INACTIVE FIBER

NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

REVISIONS

DATE	DESCRIPTIONS	APPROVED



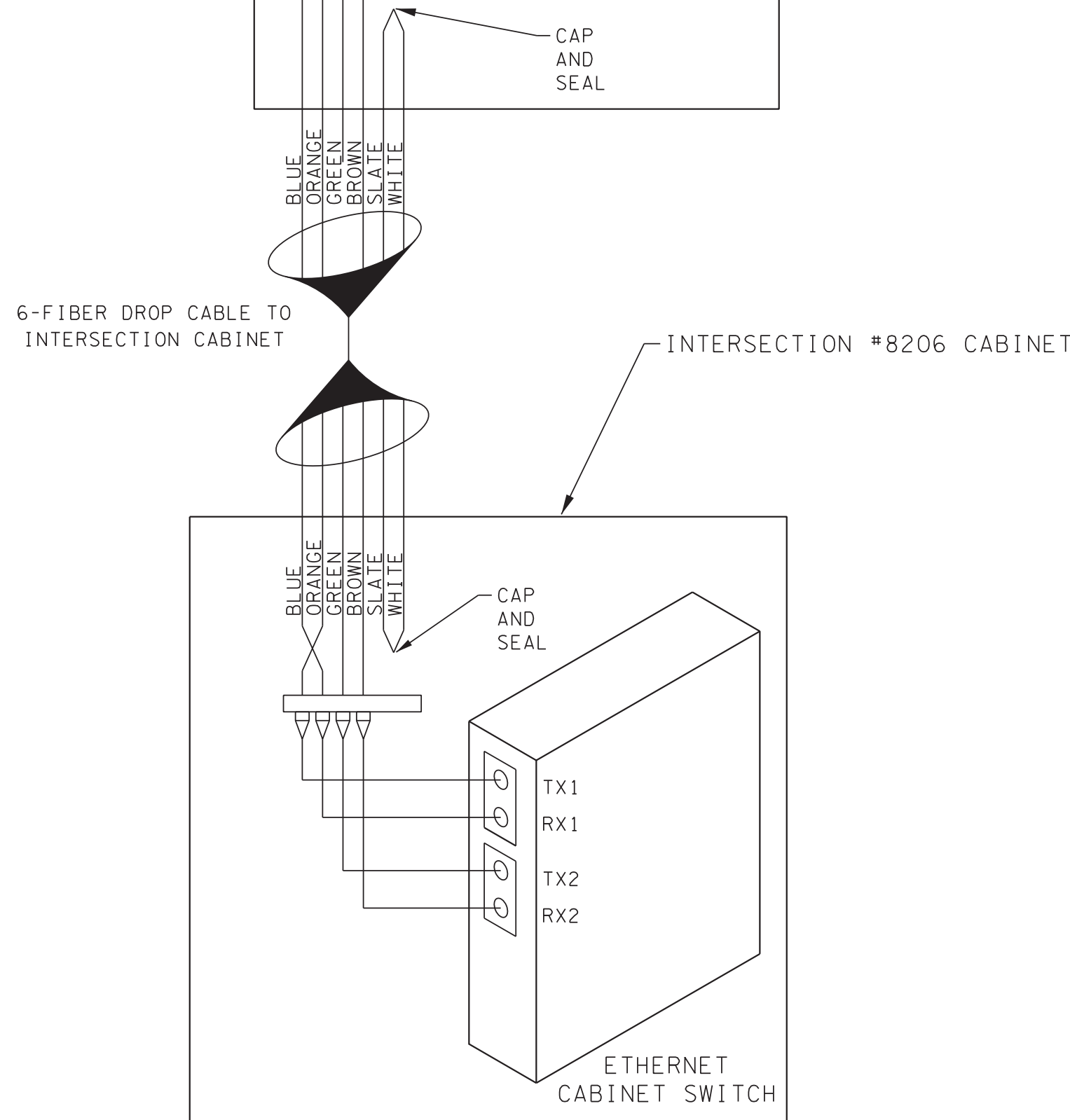
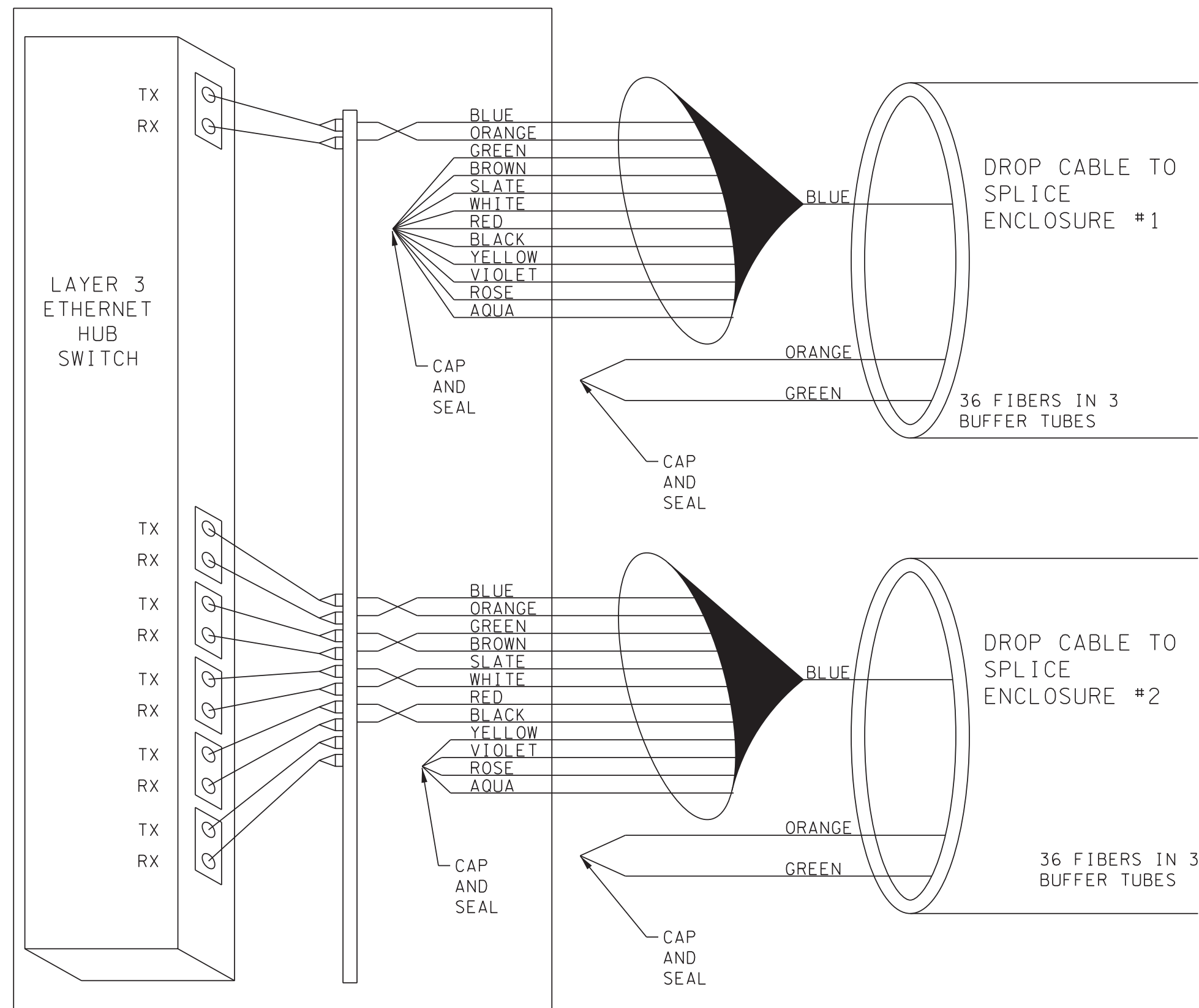
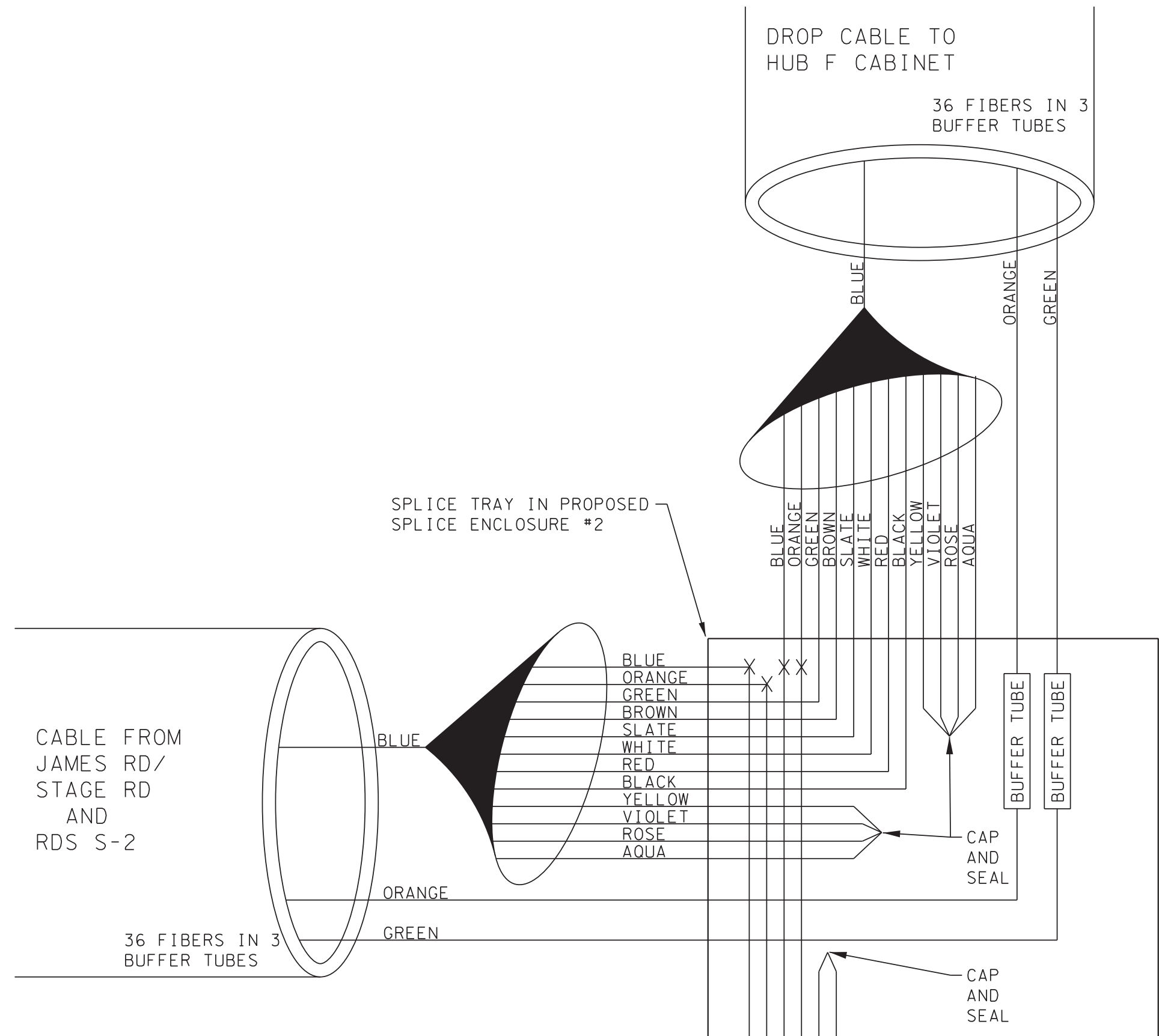
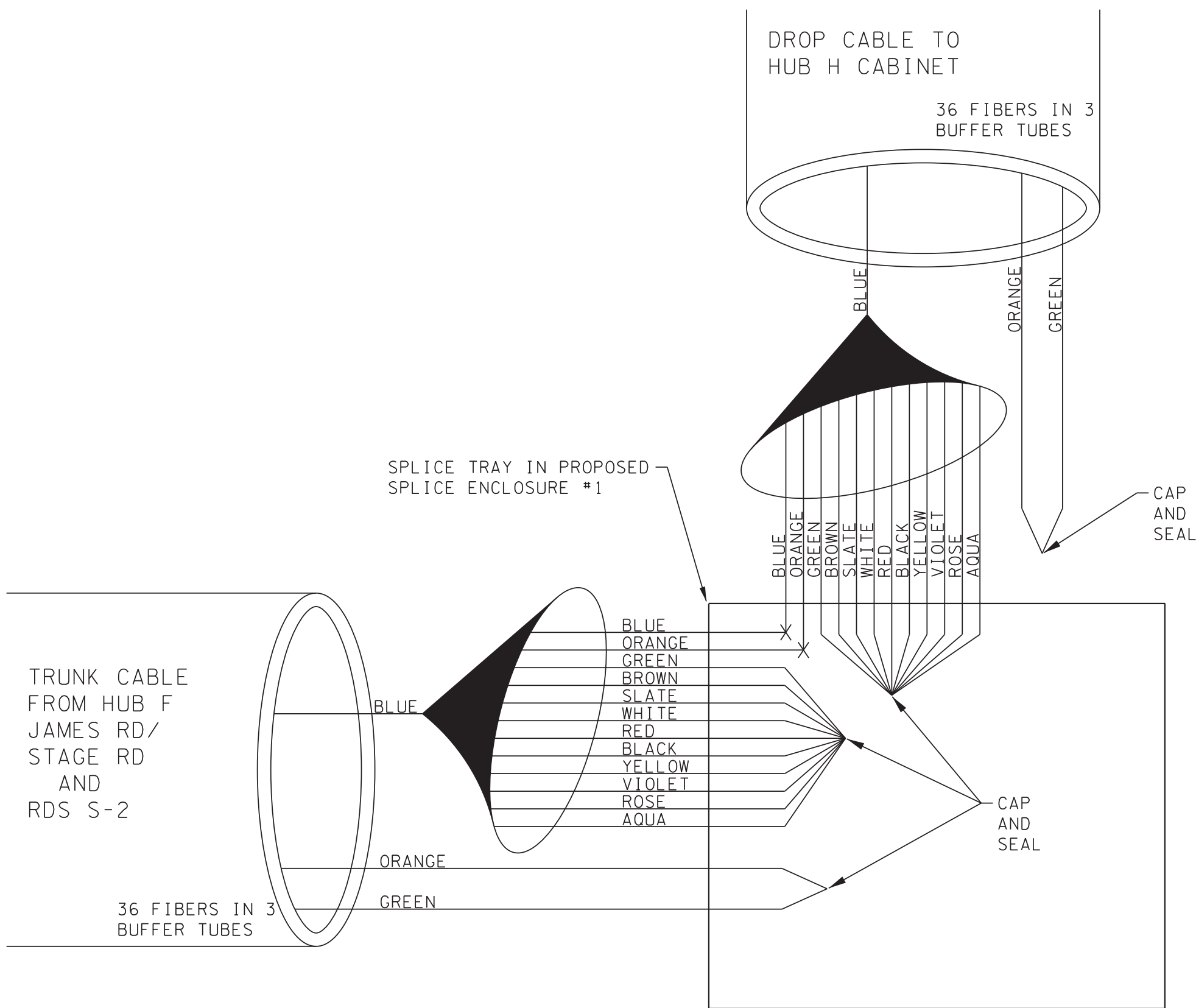
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SD-08

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
STAGE ROAD
SPLICE DIAGRAM

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 04/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 35 OF 50



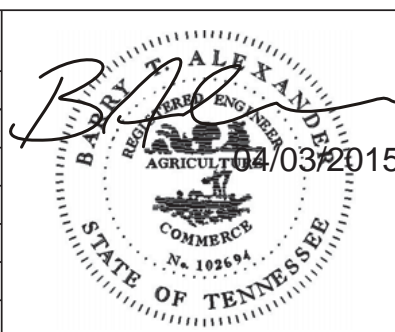
- NOTES:
- FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.
 - SPLICING AND CONNECTION OF EXISTING MULTI-MODE FIBER AT THIS LOCATION SHALL BE AS DIRECTED BY THE ENGINEER.

COLOR CODE
TIA/EIA 598-A

- | | | |
|------------|-------------|--|
| (1) BLUE | (7) RED | X - FUSION SPLICE INDIVIDUAL FIBER |
| (2) ORANGE | (8) BLACK | |
| (3) GREEN | (9) YELLOW | [BUFFER TUBE] SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED |
| (4) BROWN | (10) VIOLET | |
| (5) SLATE | (11) ROSE | ————— ACTIVE FIBER |
| (6) WHITE | (12) AQUA | |
| | | ----- INACTIVE FIBER |

SPLICE DIAGRAM FOR
INTERSECTION #8206
JAMES RD/STAGE RD
@ COVINGTON PIKE

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



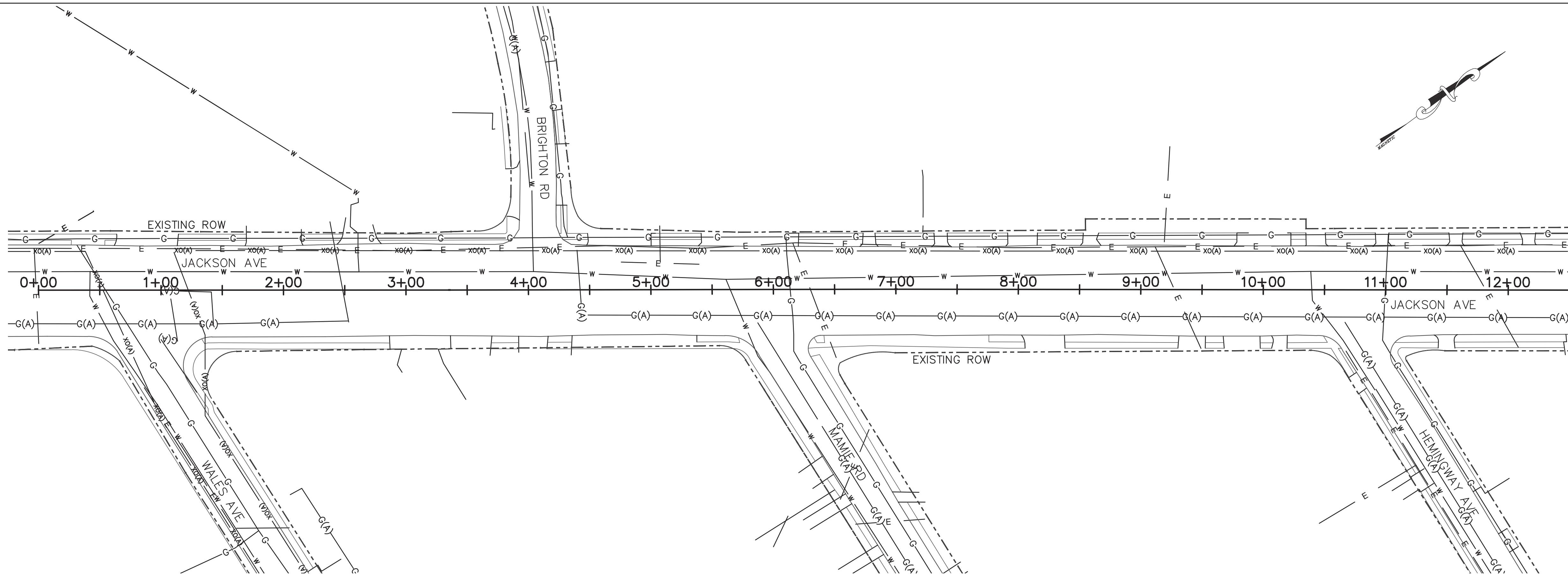
POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

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Solutions you can build upon

SD-09

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
STAGE ROAD
SPLICE DIAGRAM

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 04/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 04/14 CHECKED: BTA DATE: 04/14
JURISDICTION: SHEET 36 OF 50

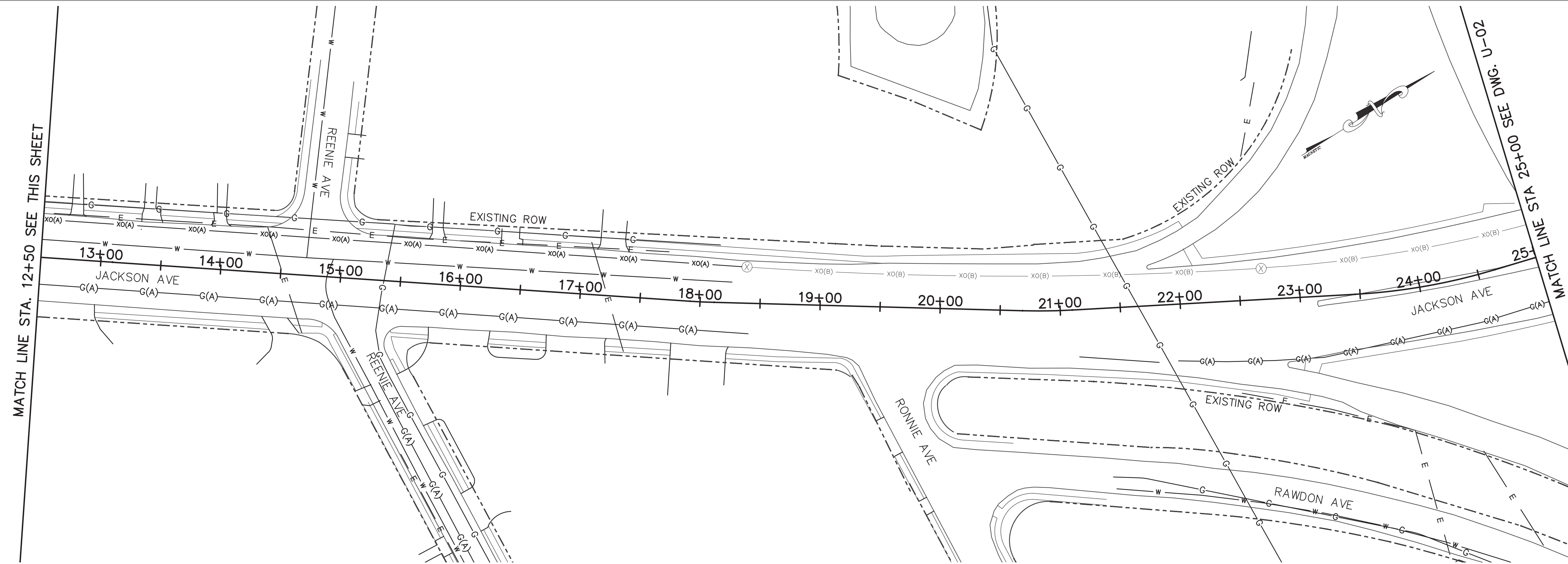


- LEGEND**
- | | | |
|-----------|-----------|------------------------|
| — E — | — E — | EXISTING ELECTRIC LINE |
| — OHE — | — OHE — | EXISTING HV ELECTRIC |
| — W — | — W — | EXISTING WATER LINE |
| — G — | — G — | EXISTING GAS LINE |
| — XO(A) — | — XO(A) — | XO FIBER AERIAL |
| — XO(B) — | — XO(B) — | XO FIBER BURIED |
| — G(A) — | — G(A) — | ABANDONED GAS LINE |
| — SS — | — SS — | SANITARY SEWER |
| | Ⓢ | SEWER MANHOLE |
| | ⓧ | MLGW/XO MANHOLE |

SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

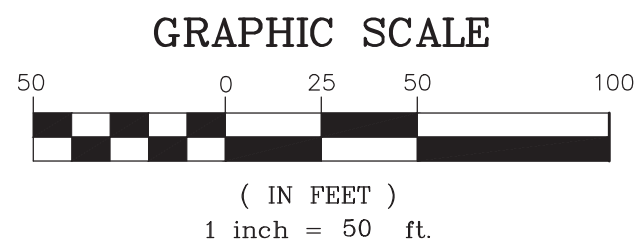
UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.

MATCH LINE STA. 12+50 SEE THIS SHEET

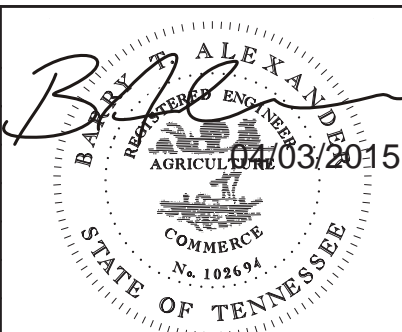


MATCH LINE STA. 12+50 SEE THIS SHEET

MATCH LINE STA 25+00 SEE DWG. U-02



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



POWERS HILL DESIGN
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U-01

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

AUSTIN PEAY HIGHWAY

EXISTING UTILITIES
FROM 0+00 TO 25+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A

JURISDICTION: _____ SHEET 37 OF 50

MATCH LINE STA. 50+00 SEE DWG. NO. U-02

MATCH LINE STA. 62+50 SEE THIS SHEET

MATCH LINE STA. 62+50 SEE THIS SHEET

MATCH LINE STA. 75+00 SEE DWG. NO. U-04

LEGEND

- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- E

OHE

W

G

XO(A)

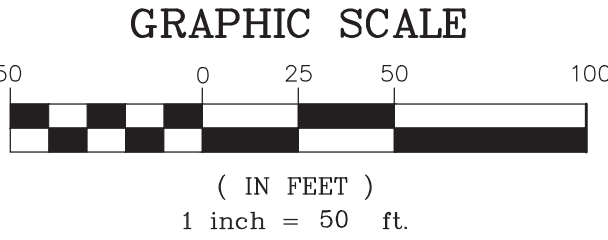
XO(B)

G(A)

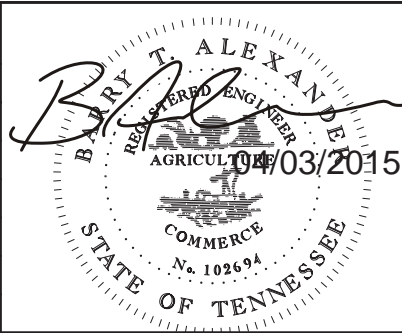
SS
- EXISTING ELECTRIC LINE
- EXISTING HV ELECTRIC
- EXISTING WATER LINE
- EXISTING GAS LINE
- XO FIBER AERIAL
- XO FIBER BURIED
- ABANDONED GAS LINE
- SANITARY SEWER
- SEWER MANHOLE
- MLGW/XO MANHOLE

SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



U-03

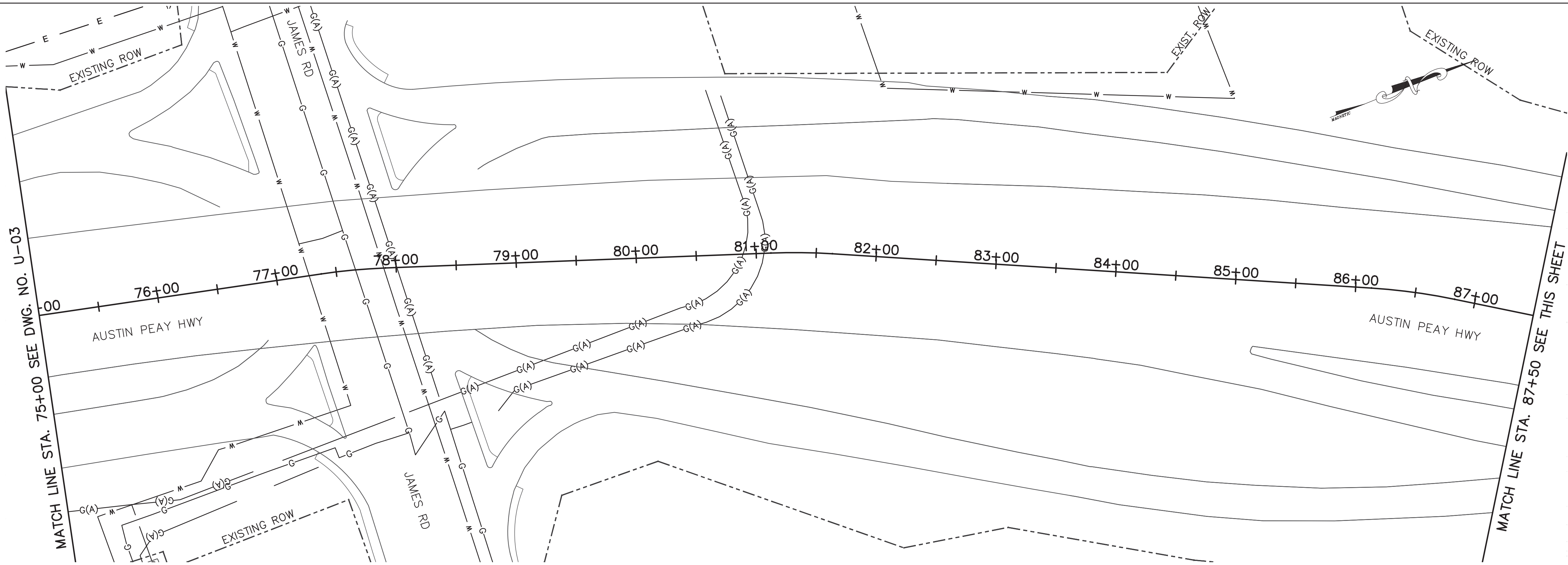
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

AUSTIN PEAY HIGHWAY

EXISTING UTILITIES
FROM 50+00 TO 75+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A

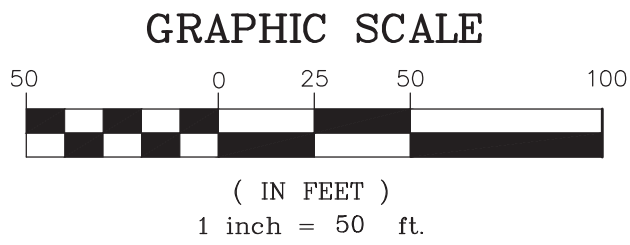
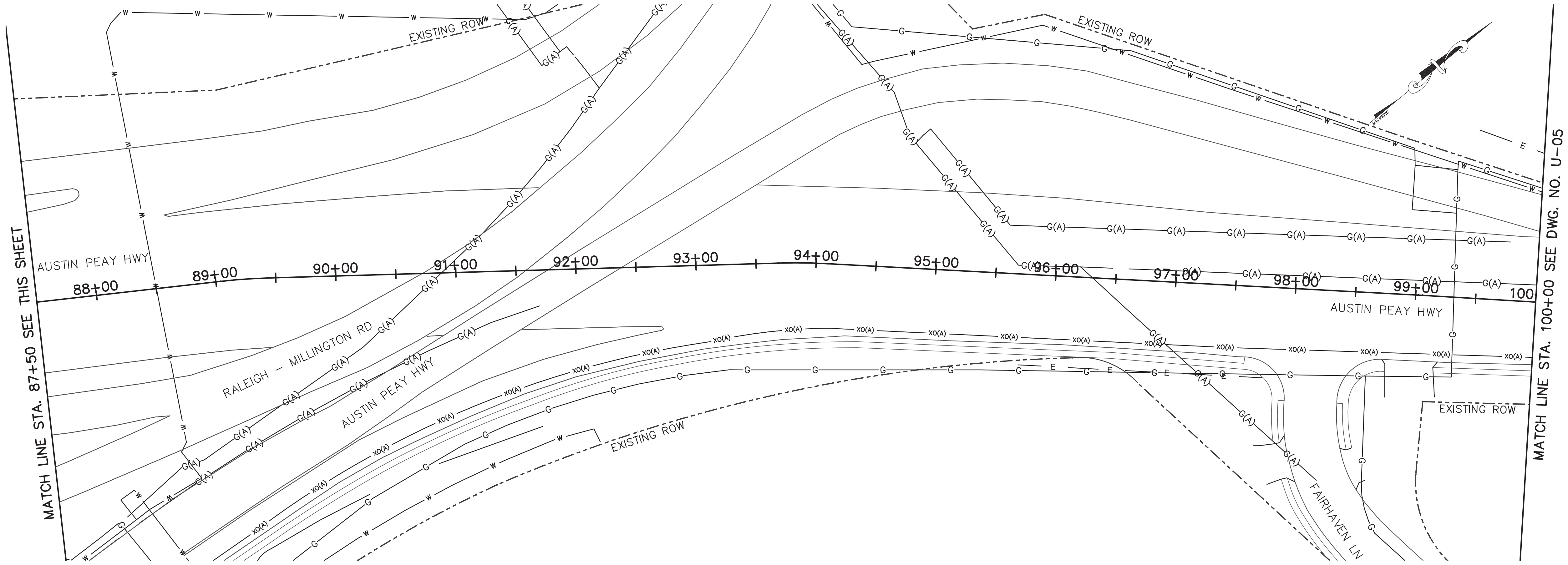
JURISDICTION: _____ SHEET 39 OF 50



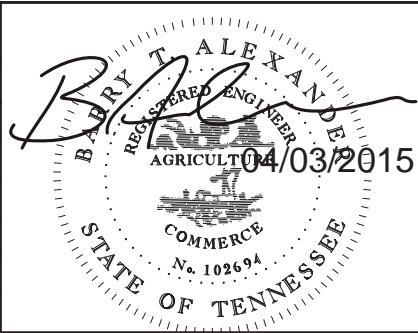
- LEGEND**
- | | | |
|-----------|-----------|------------------------|
| — E — | — E — | EXISTING ELECTRIC LINE |
| — OHE — | — OHE — | EXISTING HV ELECTRIC |
| — W — | — W — | EXISTING WATER LINE |
| — G — | — G — | EXISTING GAS LINE |
| — XO(A) — | — XO(A) — | XO FIBER AERIAL |
| — XO(B) — | — XO(B) — | XO FIBER BURIED |
| — G(A) — | — G(A) — | ABANDONED GAS LINE |
| — SS — | — SS — | SANITARY SEWER |
| | ⊙ | SEWER MANHOLE |
| | ⊗ | MLGW/XO MANHOLE |

SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.



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DATE	DESCRIPTIONS	APPROVED



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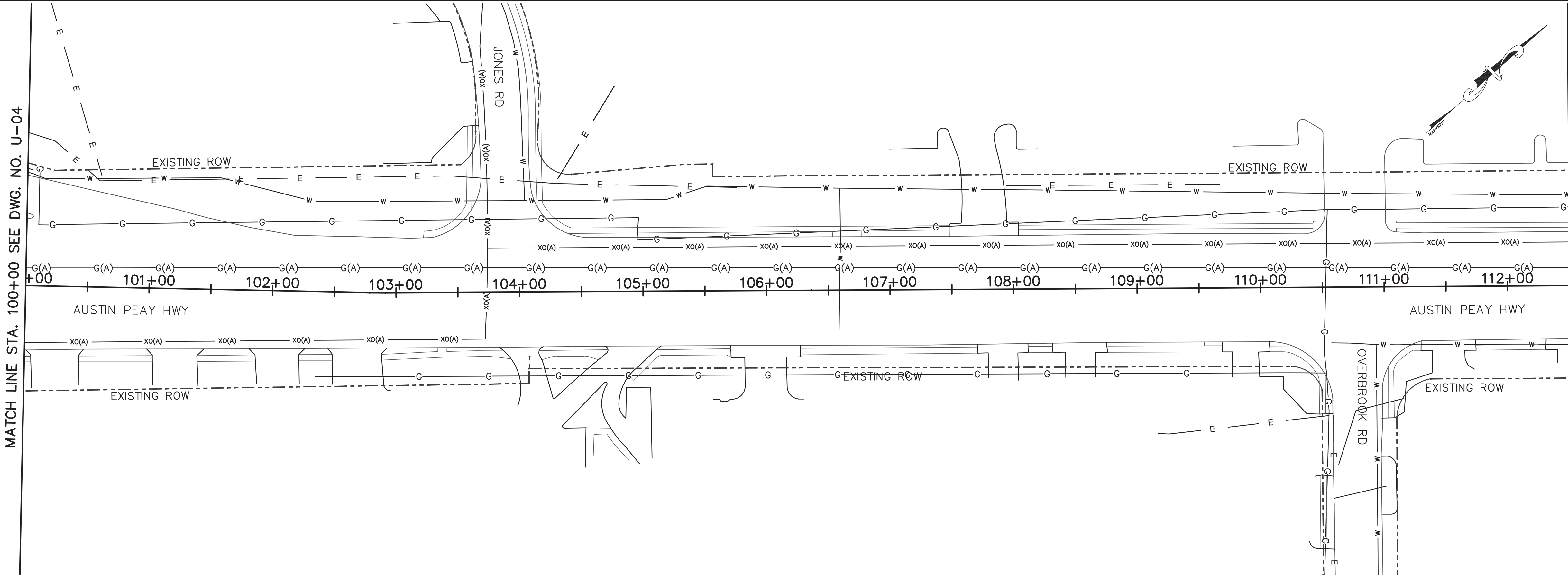
U-04

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

AUSTIN PEAY HIGHWAY
EXISTING UTILITIES
FROM 75+00 TO 100+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A
JURISDICTION: _____ SHEET 40 OF 50

MATCH LINE STA. 100+00 SEE DWG. NO. U-04



MATCH LINE STA. 112+50 SEE THIS SHEET

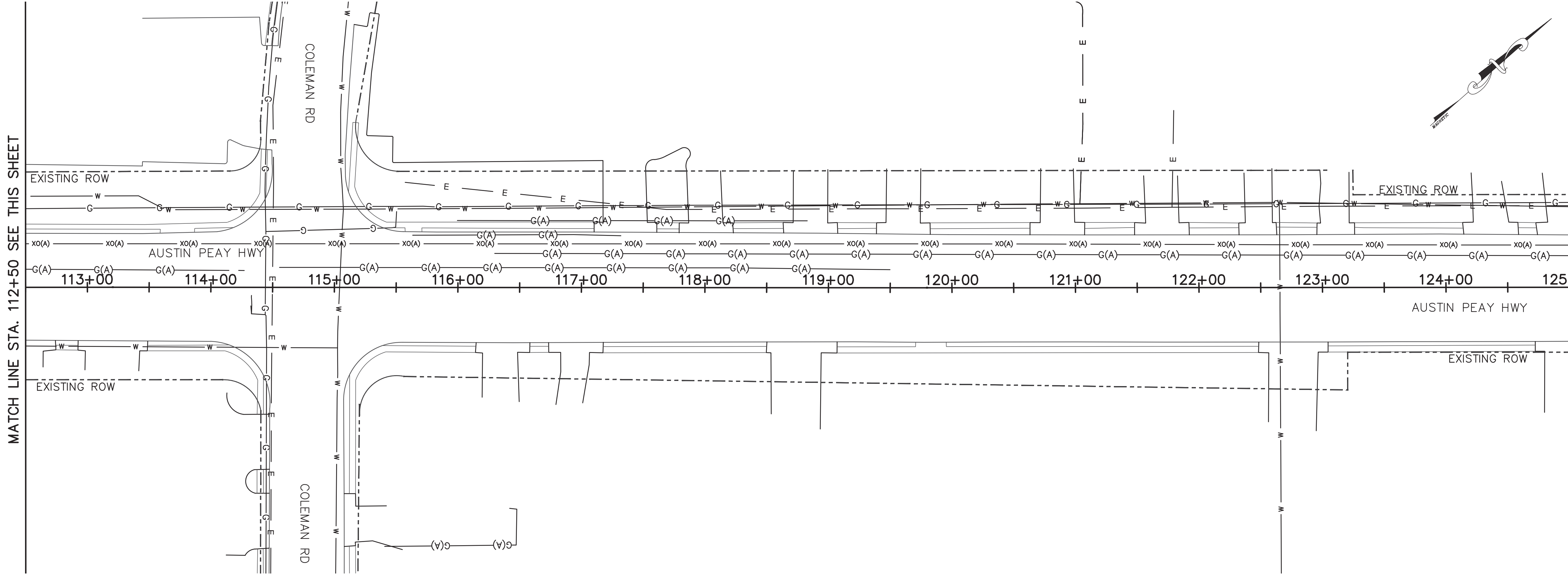
LEGEND

- E — E — EXISTING ELECTRIC LINE
- OHE — OHE — EXISTING HV ELECTRIC
- W — W — EXISTING WATER LINE
- G — G — EXISTING GAS LINE
- XO(A) — XO(A) — XO FIBER AERIAL
- XO(B) — XO(B) — XO FIBER BURIED
- G(A) — G(A) — ABANDONED GAS LINE
- SS — SS — SANITARY SEWER
- ⊙ SEWER MANHOLE
- ⊗ MLGW/XO MANHOLE

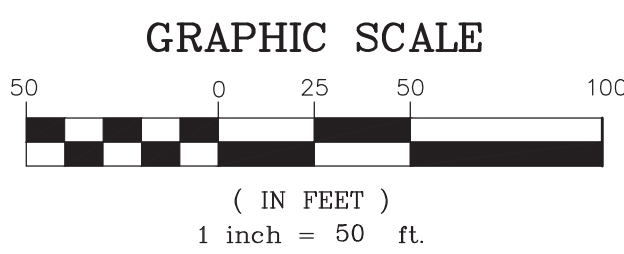
SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.

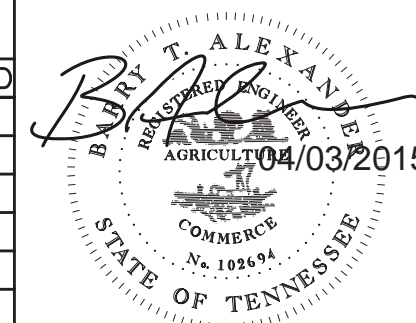
MATCH LINE STA. 112+50 SEE THIS SHEET



MATCH LINE STA. 125+00 SEE DWG. NO. U-06



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



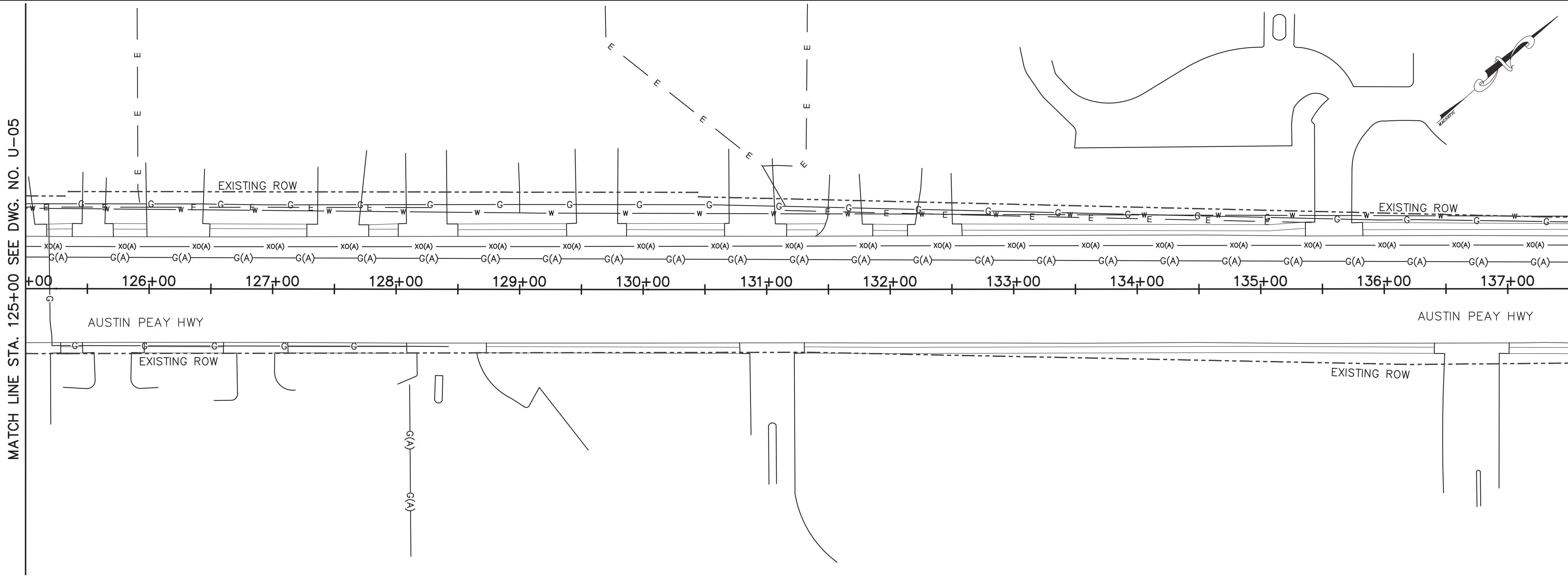
U-05

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

AUSTIN PEAY HIGHWAY
EXISTING UTILITIES
FROM 100+00 TO 125+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A
JURISDICTION: _____ SHEET 41 OF 50

MATCH LINE STA. 125+00 SEE DWG. NO. U-05



MATCH LINE STA. 137+50 SEE THIS SHEET

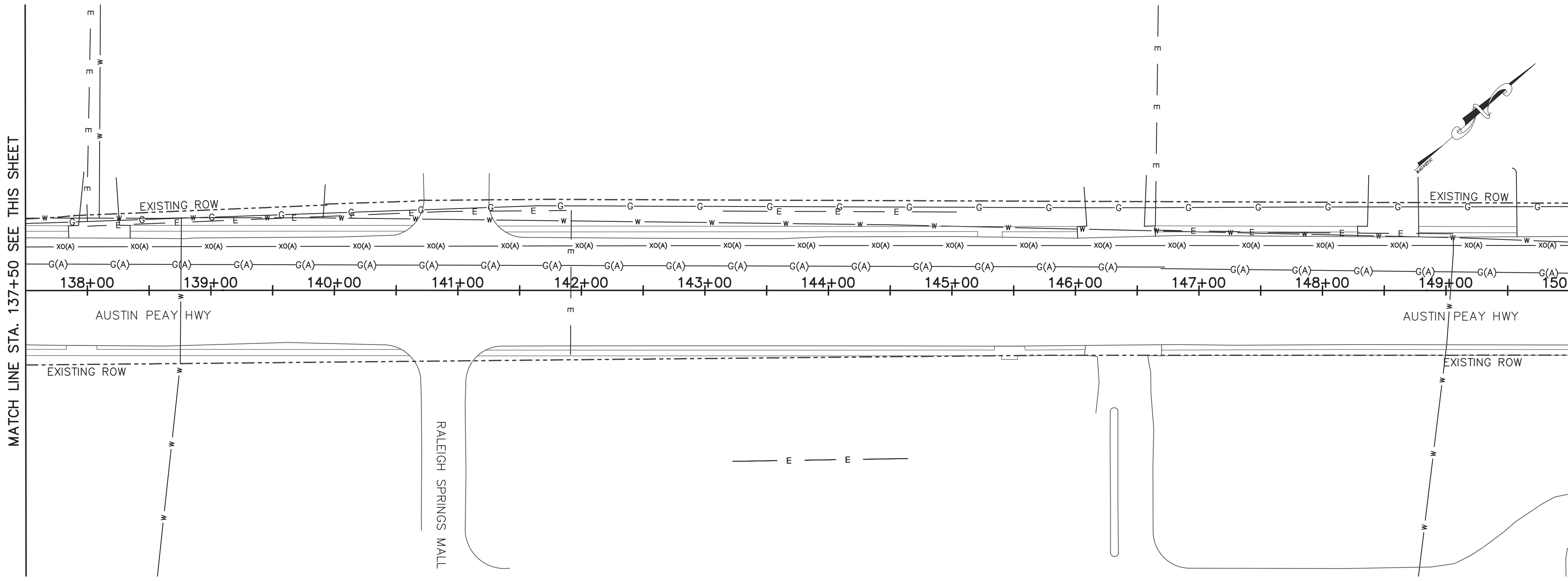
LEGEND

- E — E — EXISTING ELECTRIC LINE
- OHE — OHE — EXISTING HV ELECTRIC
- W — W — EXISTING WATER LINE
- G — G — EXISTING GAS LINE
- XO(A) — XO(A) — XO FIBER AERIAL
- XO(B) — XO(B) — XO FIBER BURIED
- G(A) — G(A) — ABANDONED GAS LINE
- SS — SS — SANITARY SEWER
- Ⓢ SEWER MANHOLE
- ⓧ MLGW/XO MANHOLE

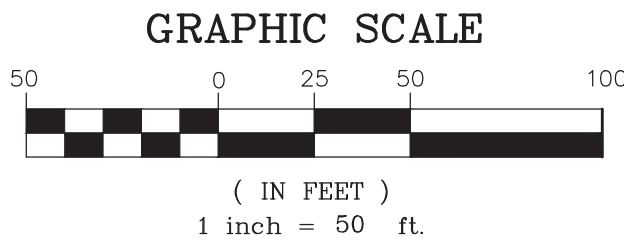
SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.

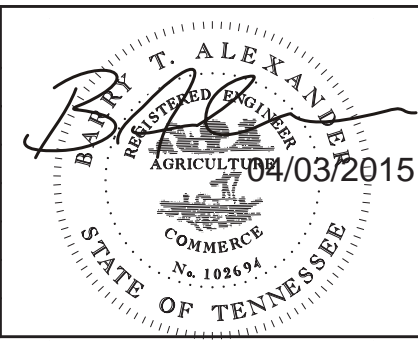
MATCH LINE STA. 137+50 SEE THIS SHEET



MATCH LINE STA. 150+00 SEE DWG. NO. U-07



REVISIONS		
DATE	DESCRIPTIONS	APPROVED

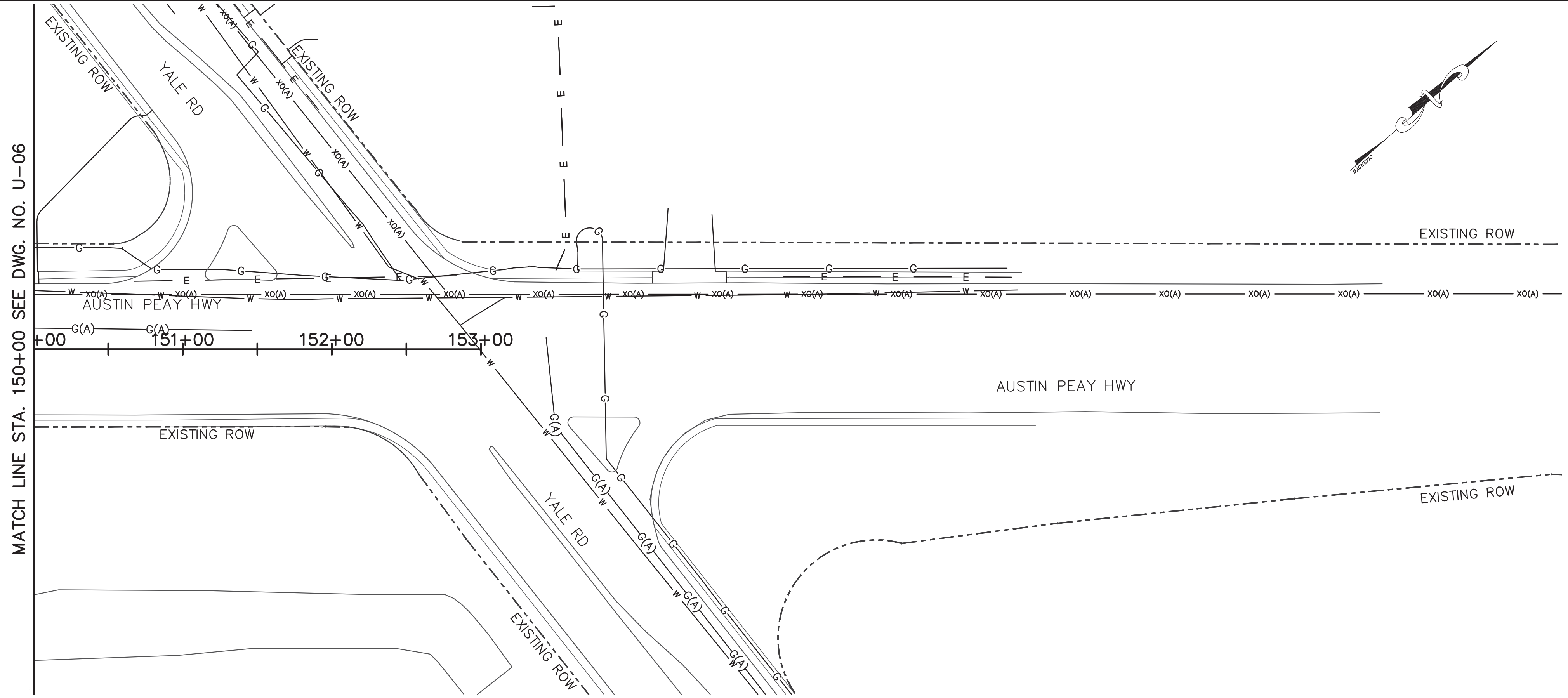


U-06

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

AUSTIN PEAY HIGHWAY
EXISTING UTILITIES
FROM 125+00 TO 150+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A
JURISDICTION: _____ SHEET 42 OF 50

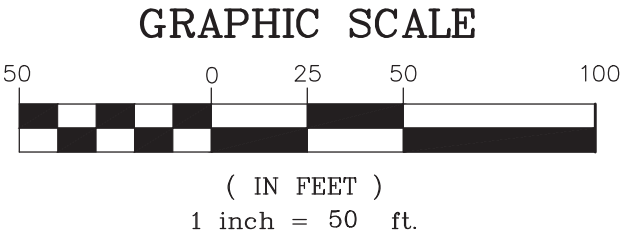


LEGEND

- E ——— E ——— EXISTING ELECTRIC LINE
- OHE ——— OHE ——— EXISTING HV ELECTRIC
- W ——— W ——— EXISTING WATER LINE
- G ——— G ——— EXISTING GAS LINE
- XO(A) ——— XO(A) ——— XO FIBER AERIAL
- XO(B) ——— XO(B) ——— XO FIBER BURIED
- G(A) ——— G(A) ——— ABANDONED GAS LINE
- SS ——— SS ——— SANITARY SEWER
- Ⓢ ——— SEWER MANHOLE
- ⓧ ——— MLGW/XO MANHOLE

SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED

POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

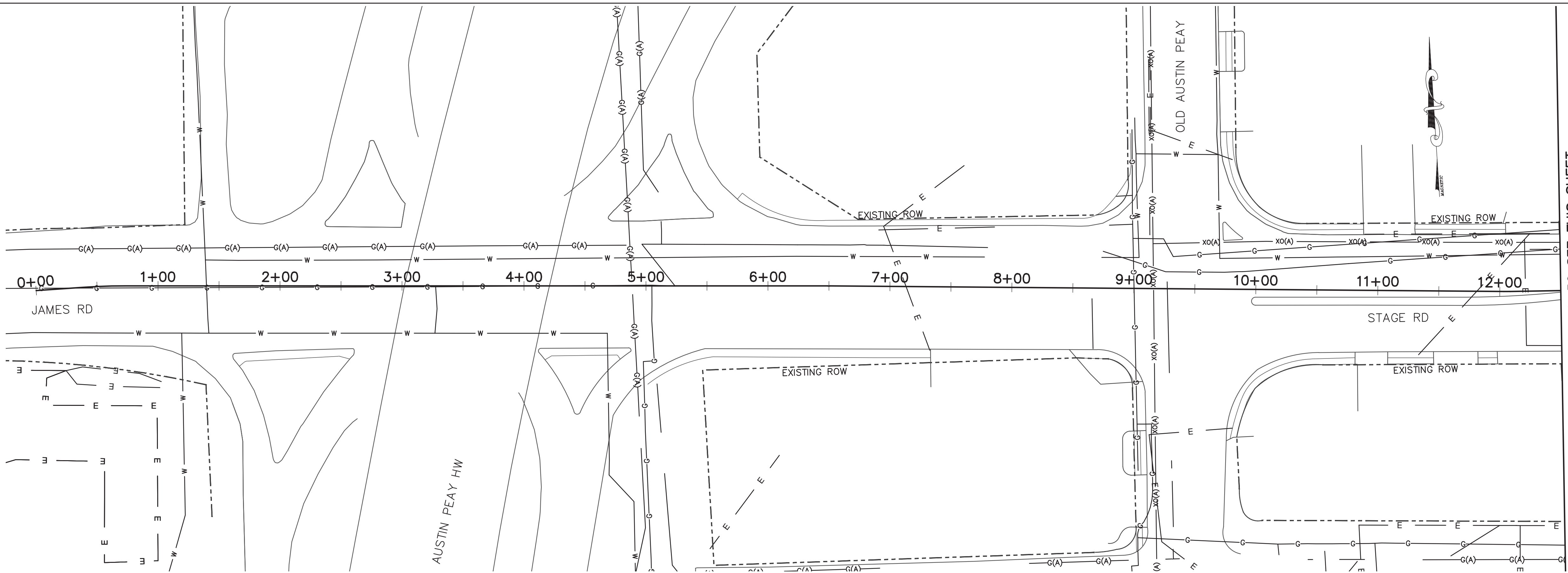
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DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

AUSTIN PEAY HIGHWAY
EXISTING UTILITIES
FROM 150+00 TO 157+00

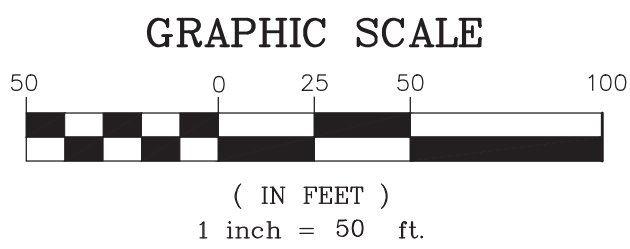
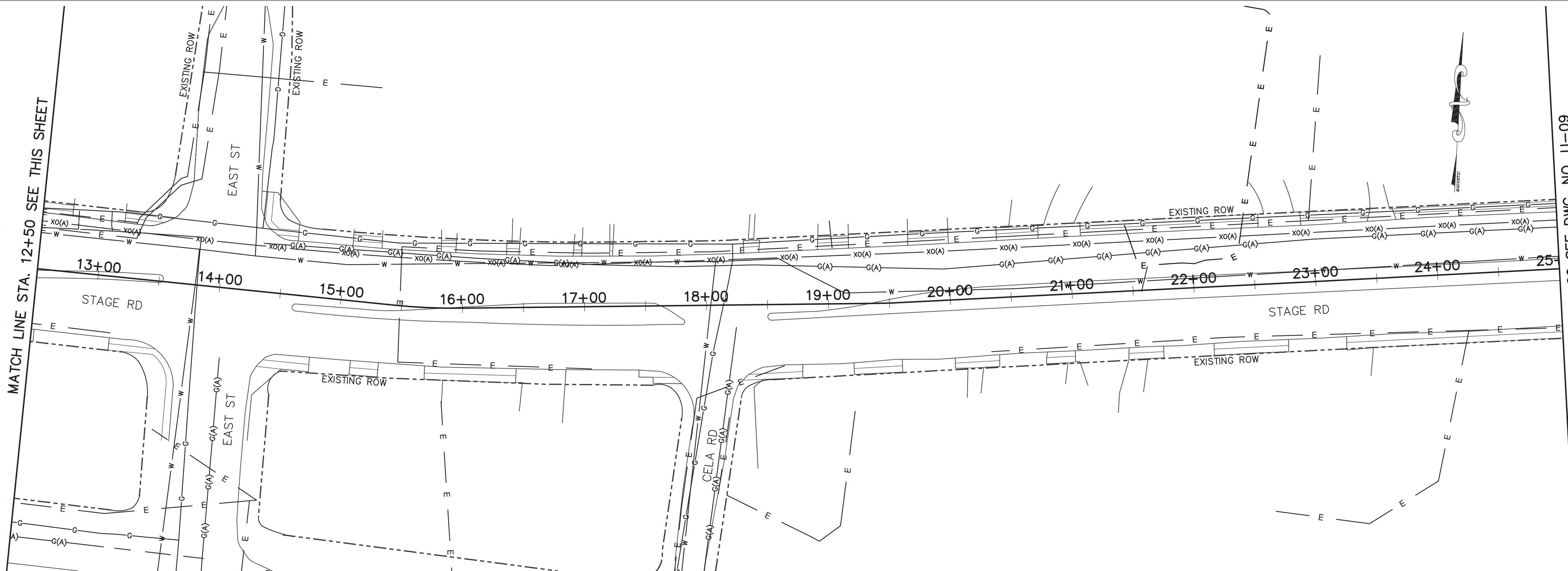
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A
JURISDICTION: _____ SHEET 43 OF 50



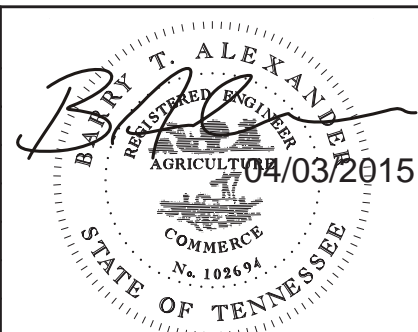
- LEGEND**
- | | | |
|-----------|-----------|------------------------|
| — E — | — E — | EXISTING ELECTRIC LINE |
| — OHE — | — OHE — | EXISTING HV ELECTRIC |
| — W — | — W — | EXISTING WATER LINE |
| — G — | — G — | EXISTING GAS LINE |
| — XO(A) — | — XO(A) — | XO FIBER AERIAL |
| — XO(B) — | — XO(B) — | XO FIBER BURIED |
| — G(A) — | — G(A) — | ABANDONED GAS LINE |
| — SS — | — SS — | SANITARY SEWER |
| ⊙ | | SEWER MANHOLE |
| ⊗ | | MLGW/XO MANHOLE |

SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



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U-08

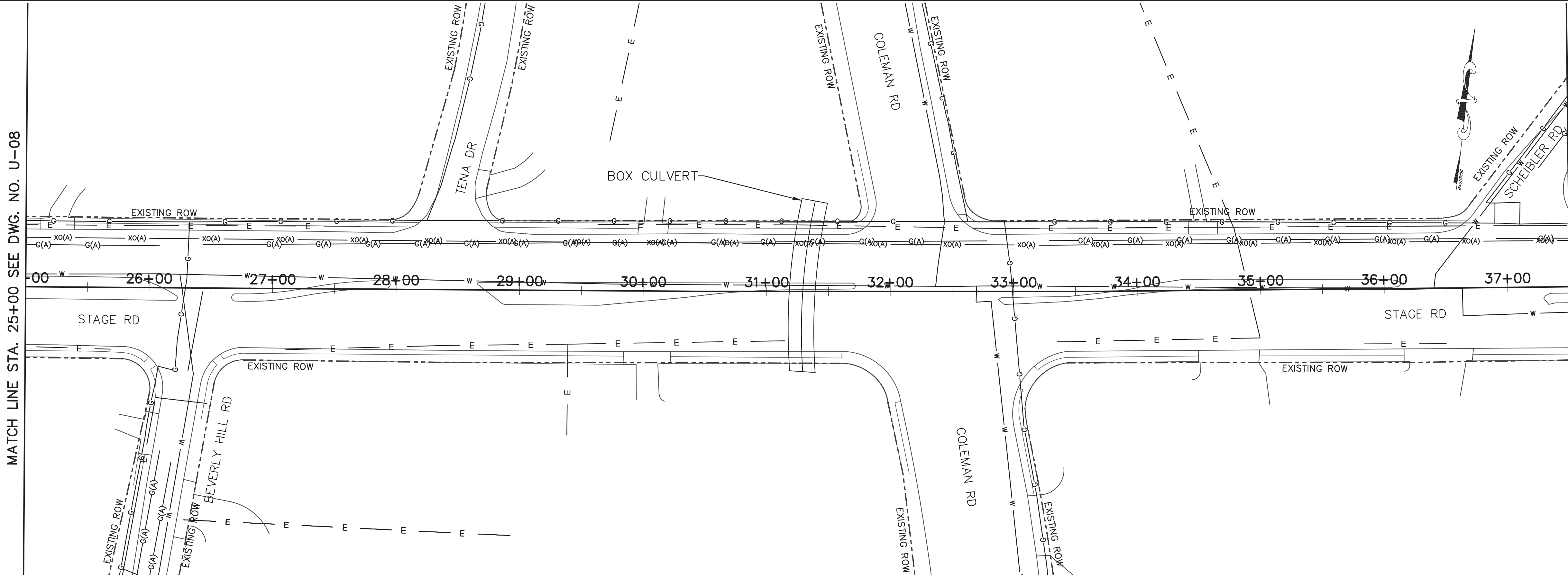
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8

STAGE ROAD
EXISTING UTILITIES
FROM 0+00 TO 25+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A

JURISDICTION: SHEET 44 OF 50

MATCH LINE STA. 25+00 SEE DWG. NO. U-08



MATCH LINE STA. 37+50 SEE THIS SHEET

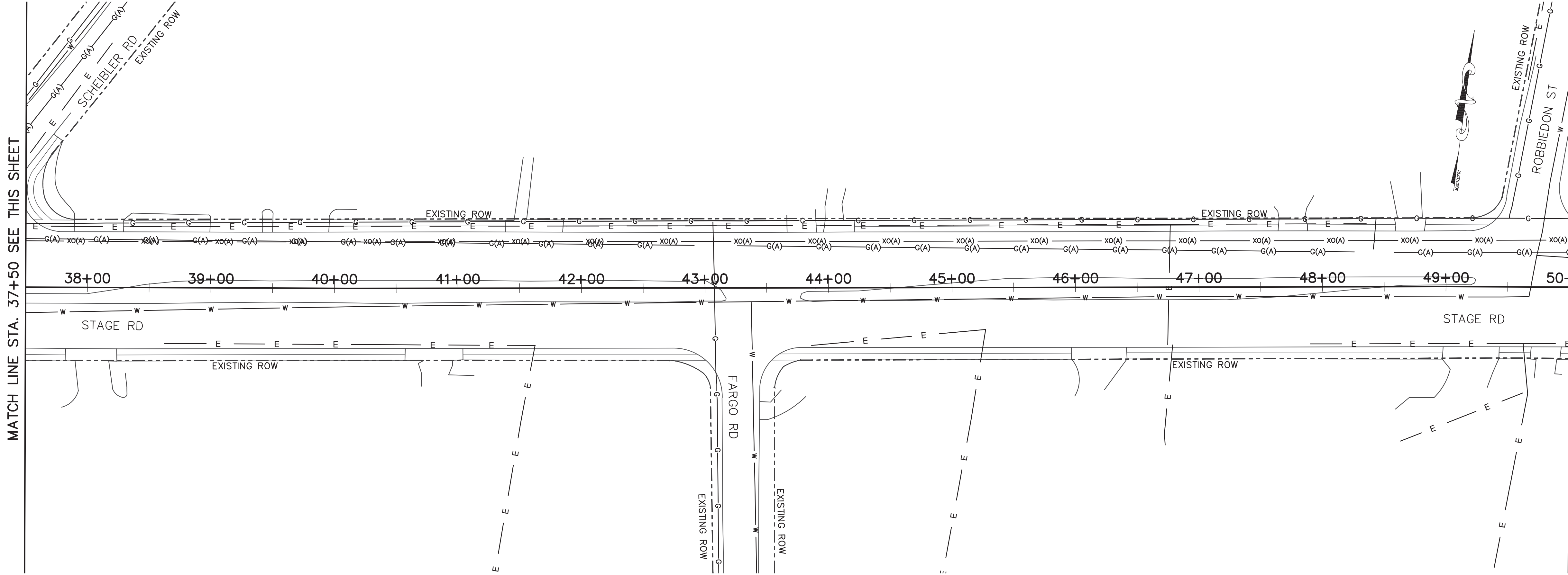
LEGEND

- E — E — EXISTING ELECTRIC LINE
- OHE — OHE — EXISTING HV ELECTRIC
- W — W — EXISTING WATER LINE
- G — G — EXISTING GAS LINE
- XO(A) — XO(A) — XO FIBER AERIAL
- XO(B) — XO(B) — XO FIBER BURIED
- G(A) — G(A) — ABANDONED GAS LINE
- SS — SS — SANITARY SEWER
- S — SEWER MANHOLE
- X — MLGW/XO MANHOLE

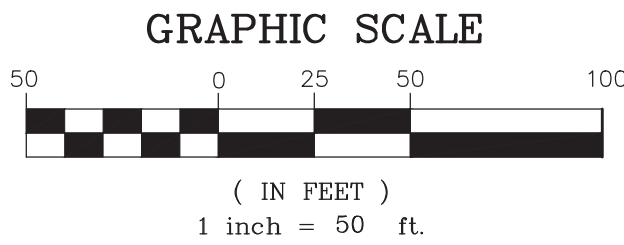
SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

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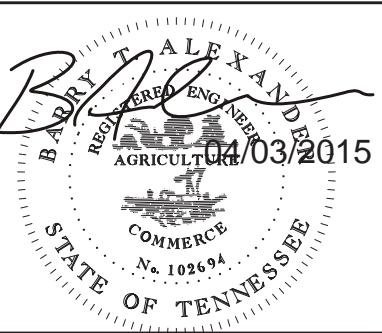
MATCH LINE STA. 37+50 SEE THIS SHEET



MATCH LINE STA. 50+00 SEE DWG. NO. U-10



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



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DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.
STAGE ROAD
EXISTING UTILITIES
FROM 25+00 TO 50+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A

JURISDICTION: SHEET 45 OF 50

MATCH LINE STA. 50+00 SEE DWG. NO. U-09

MATCH LINE STA. 62+50 SEE THIS SHEET

MATCH LINE STA. 62+50 SEE THIS SHEET

MATCH LINE STA. 75+00 SEE DWG. NO. U-11

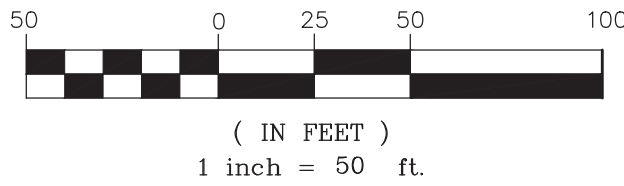
LEGEND

- E — E — EXISTING ELECTRIC LINE
— OHE — OHE — EXISTING HV ELECTRIC
— W — W — EXISTING WATER LINE
— G — G — EXISTING GAS LINE
— XO(A) — XO(A) — XO FIBER AERIAL
— XO(B) — XO(B) — XO FIBER BURIED
— G(A) — G(A) — ABANDONED GAS LINE
— SS — SS — SANITARY SEWER
⊙ SEWER MANHOLE
⊗ MLGW/XO MANHOLE

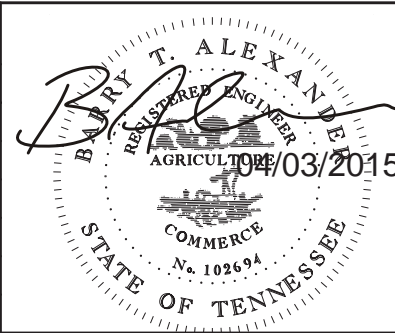
SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.

GRAPHIC SCALE



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



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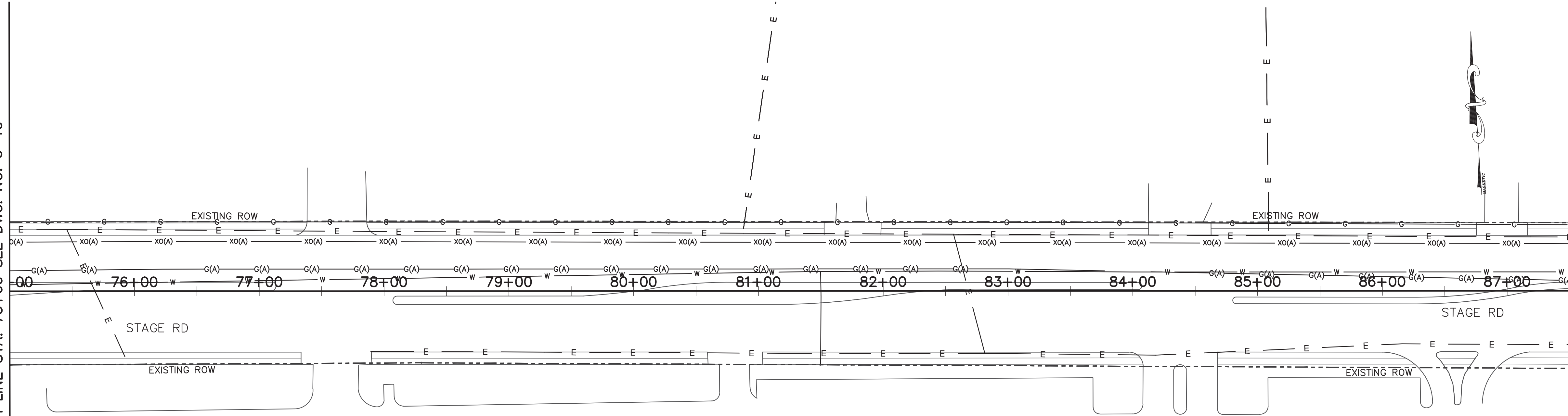
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8

STAGE ROAD
EXISTING UTILITIES
FROM 50+00 TO 75+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A

JURISDICTION: SHEET 46 OF 50

MATCH LINE STA. 75+00 SEE DWG. NO. U-10



MATCH LINE STA. 87+50 SEE THIS SHEET

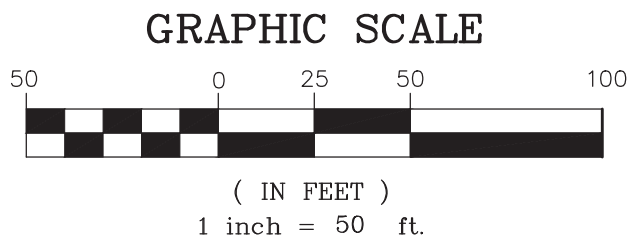
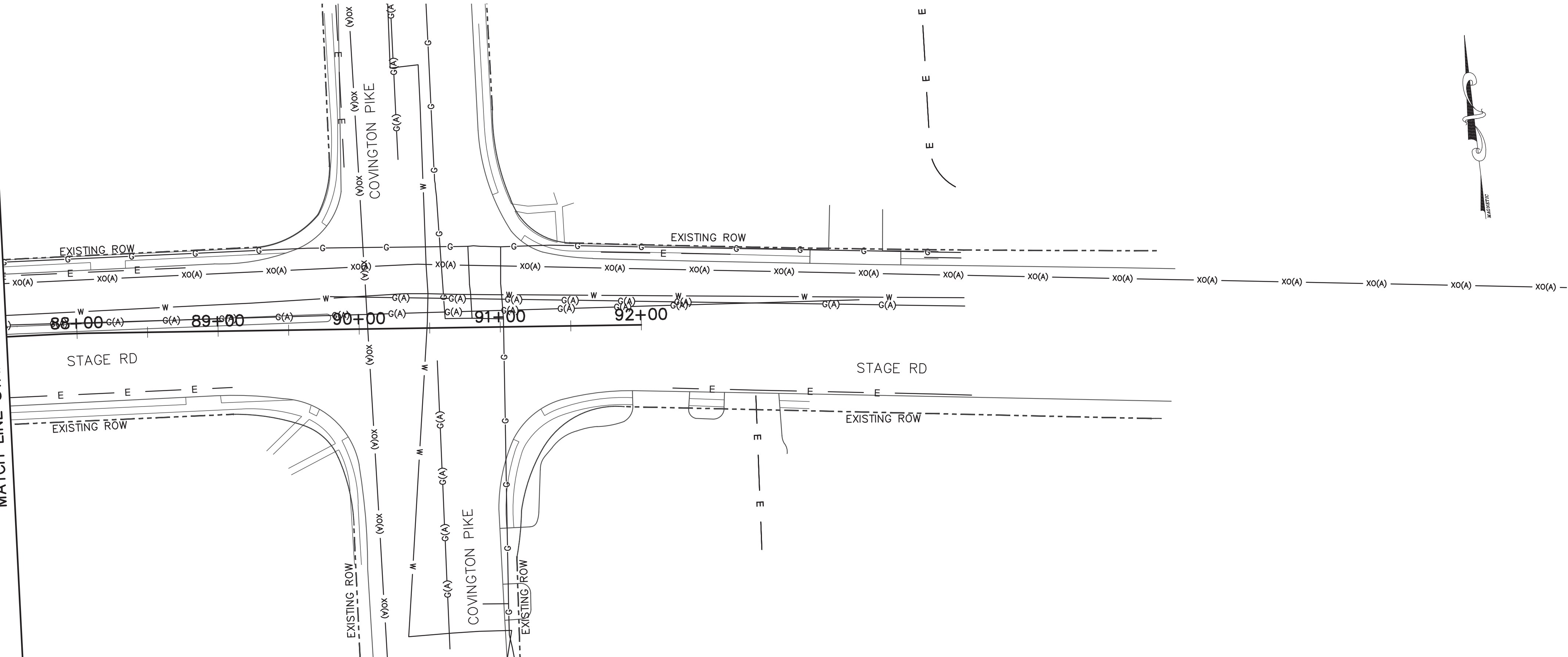
LEGEND

- | | | |
|-----------|-----------|------------------------|
| — E — | — E — | EXISTING ELECTRIC LINE |
| — OHE — | — OHE — | EXISTING HV ELECTRIC |
| — W — | — W — | EXISTING WATER LINE |
| — G — | — G — | EXISTING GAS LINE |
| — XO(A) — | — XO(A) — | XO FIBER AERIAL |
| — XO(B) — | — XO(B) — | XO FIBER BURIED |
| — G(A) — | — G(A) — | ABANDONED GAS LINE |
| — SS — | — SS — | SANITARY SEWER |
| | ⊙ | SEWER MANHOLE |
| | ⊗ | MLGW/XO MANHOLE |

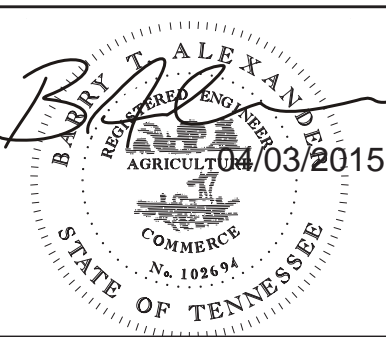
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MATCH LINE STA. 87+50 SEE THIS SHEET



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



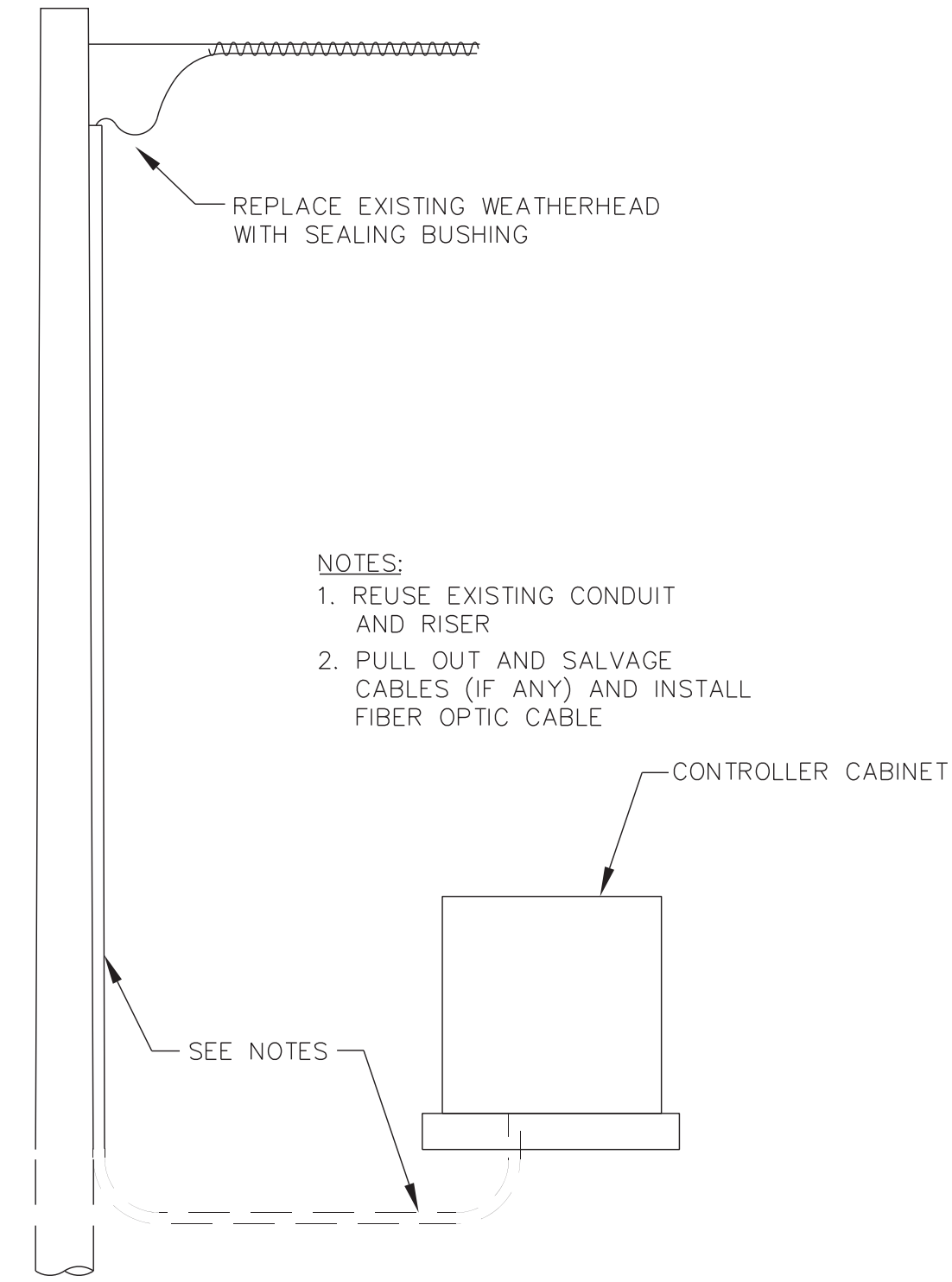
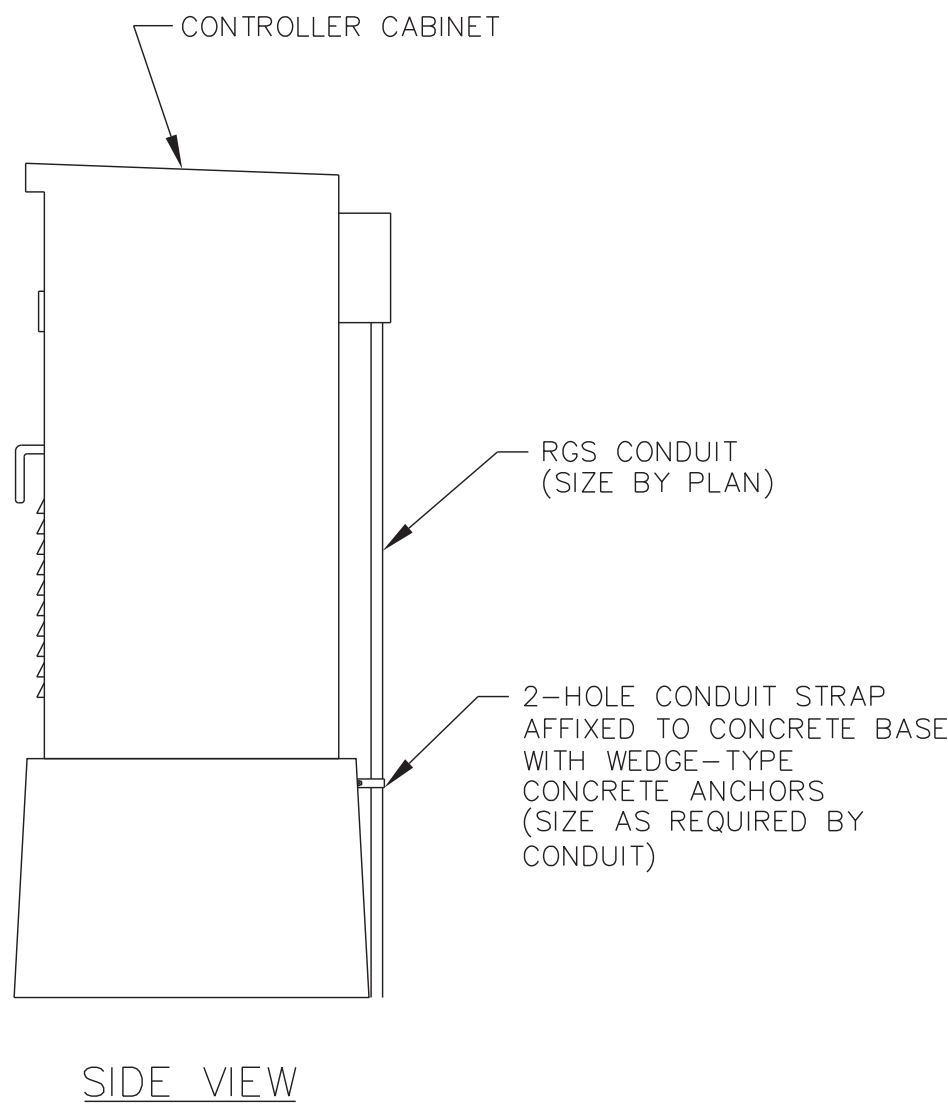
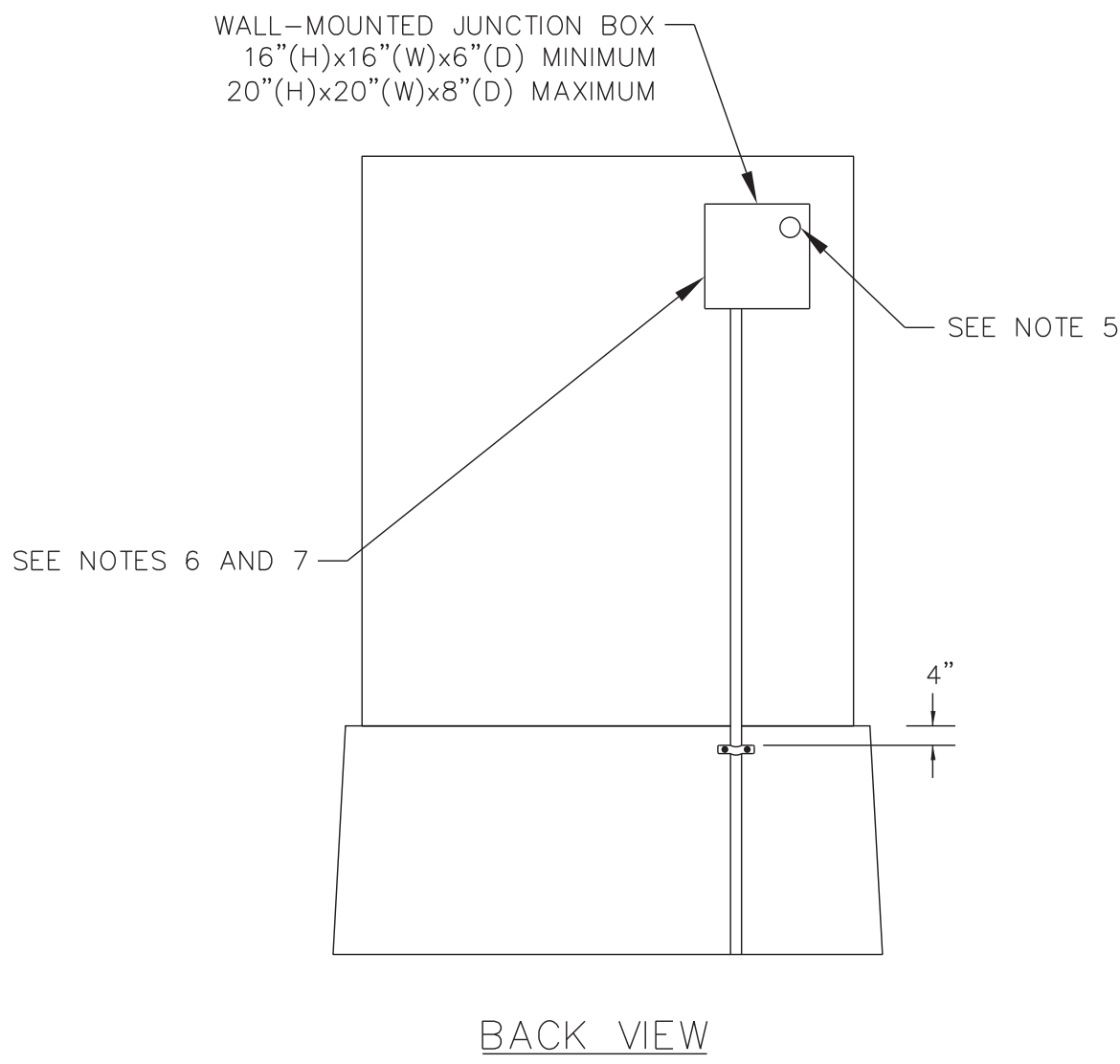
U-11

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8

STAGE ROAD
EXISTING UTILITIES
FROM 75+00 TO 94+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 02/14 SCALE: 1"=50'
DESIGNED: APL DATE: 02/14 CHECKED: N/A DATE: N/A

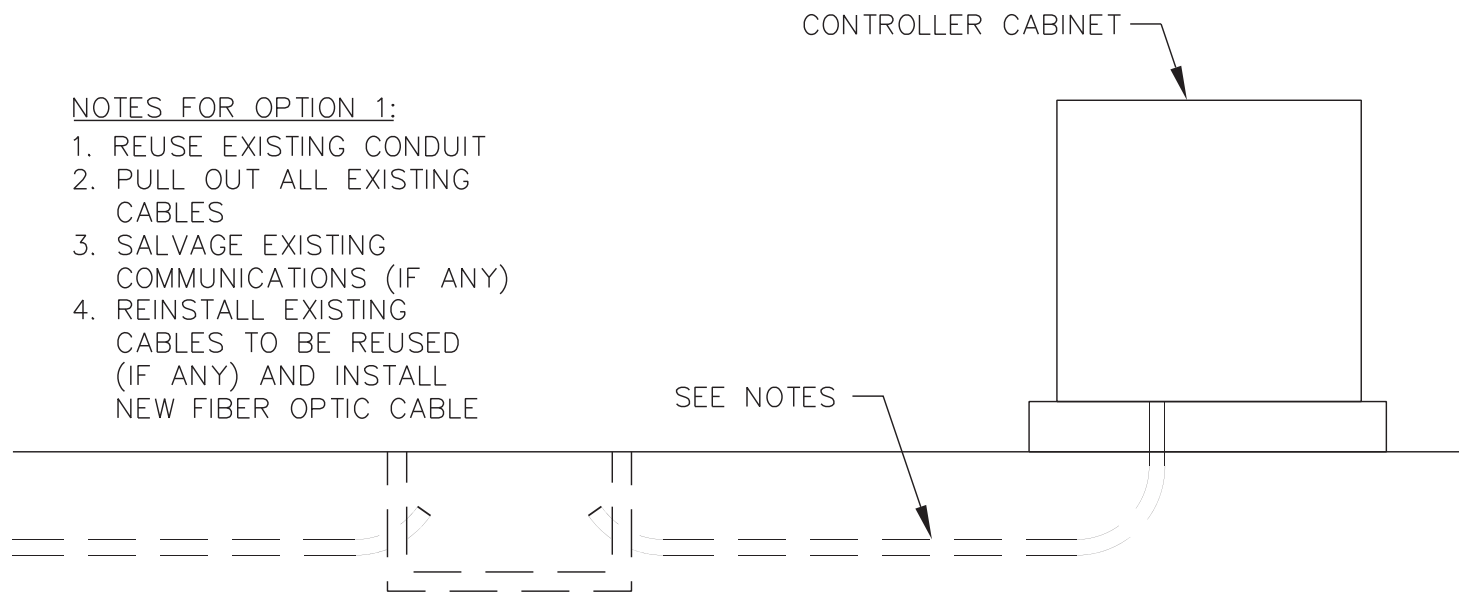
JURISDICTION: _____ SHEET 47 OF 50



OPTION 1 (SHOWN)- REUSE EXISTING RISER (USE THIS OPTION ONLY IF THERE IS A SPARE EXISTING RISER OR IF AN EXISTING RISER CONTAINS ONLY EXISTING COMMUNICATIONS CABLE)

OPTION 2 (NOT SHOWN)- INSTALL NEW CONDUIT INTO FOUNDATION AND CONNECT TO NEW RISER (SEE DETAIL THIS SHEET)

AERIAL ROUTING



NOTES FOR OPTION 1:

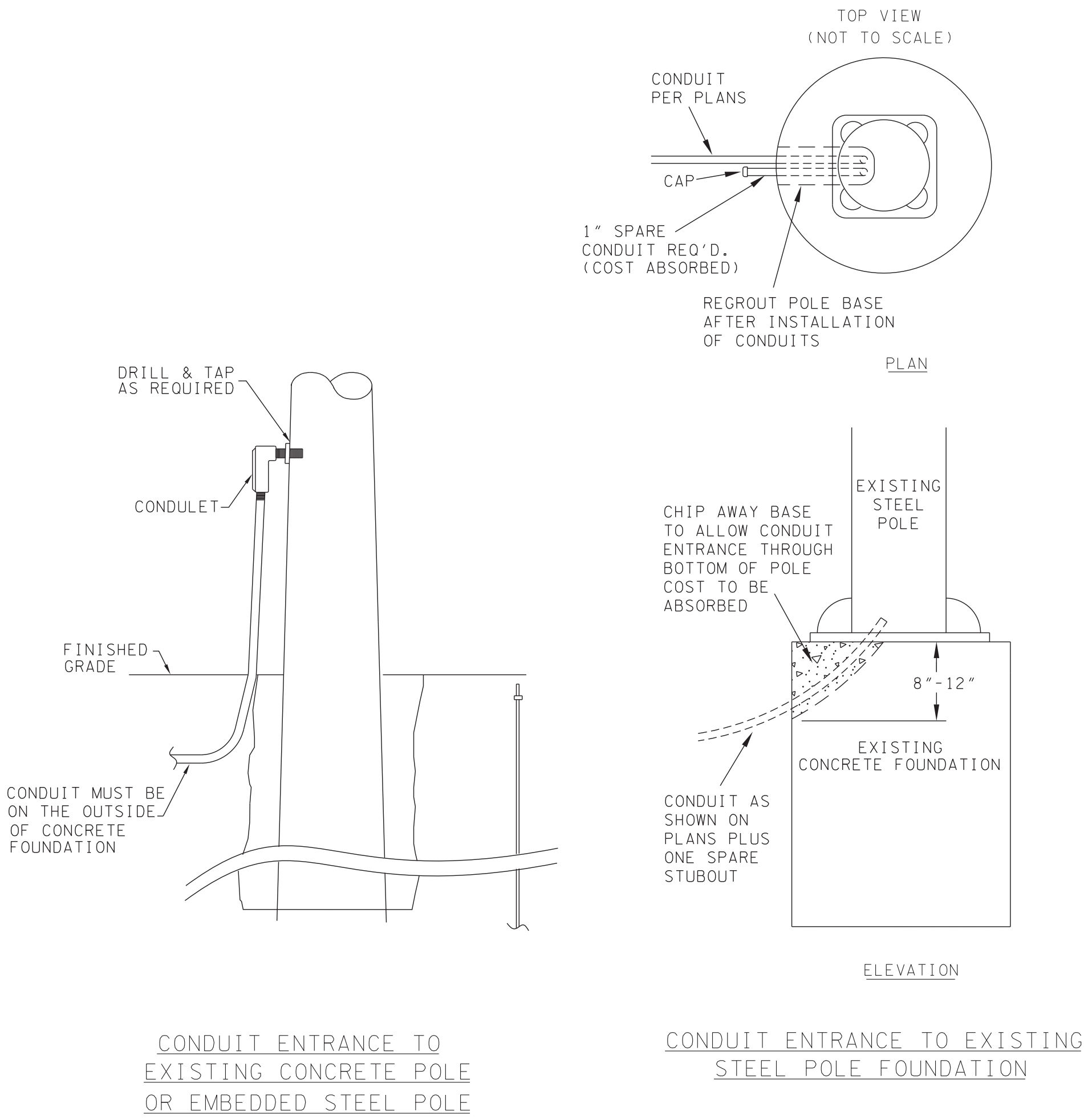
1. REUSE EXISTING CONDUIT
2. PULL OUT ALL EXISTING CABLES
3. SALVAGE EXISTING COMMUNICATIONS (IF ANY)
4. REINSTALL EXISTING CABLES TO BE REUSED (IF ANY) AND INSTALL NEW FIBER OPTIC CABLE

OPTION 1 (SHOWN)- REUSE EXISTING CONDUIT

OPTION 2 (NOT SHOWN)- INSTALL CONDUIT ENTRANCE INTO FOUNDATION AND CONNECT TO PULL BOX (SEE DETAIL THIS SHEET)

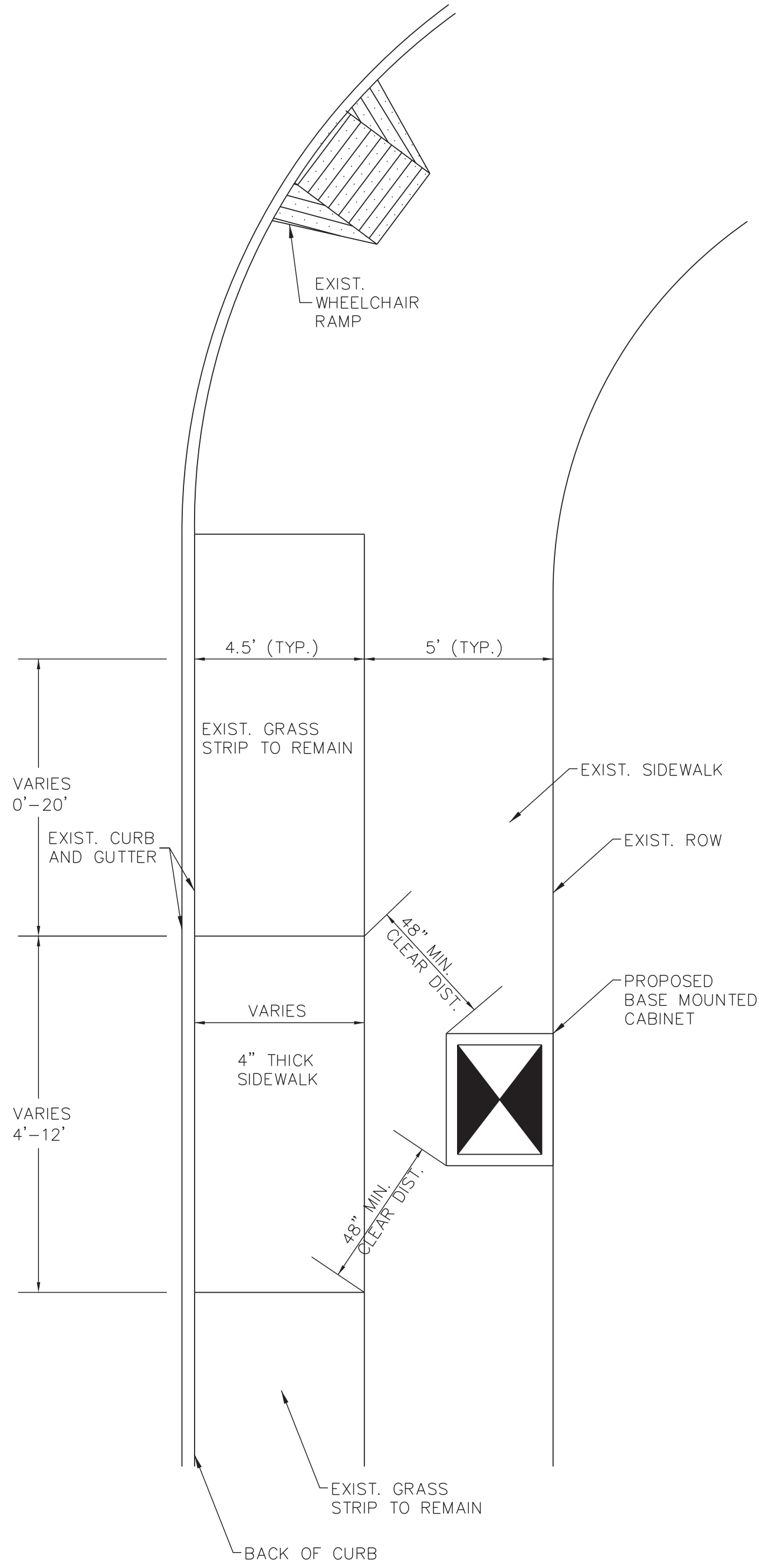
UNDERGROUND ROUTING

DETAILS FOR INSTALLING NEW CONDUIT
INTO EXISTING BASE MOUNTED CABINET FOUNDATION



NOTES:

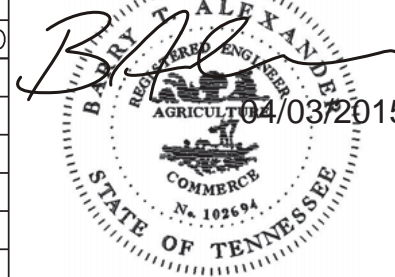


1. THIS DETAIL IS THE APPROVED METHOD FOR ENTRY INTO A SOLID-BASE CABINET FOUNDATION THAT HAS NO SPARE CONDUITS AVAILABLE. ALL OTHER CASES MUST RECEIVE PRIOR APPROVAL FROM THE CITY OF MEMPHIS.
2. WALL-MOUNTED JUNCTION BOX SHALL BE A NEMA 3R CONTINUOUS HINGED ENTRY BOX OR APPROVED EQUIVALENT. THE NEMA 3R BOX SHALL BE MADE OF GALVANIZED STEEL WITH A POWDER COATED FINISH AND SHALL HAVE A CONTINUOUS HINGE THAT IS MADE OF GALVANIZED STEEL WITH A STAINLESS STEEL PIN ON THE LEFT SIDE AND CAPTIVE SCREWS ON THE RIGHT SIDE. THE NEMA 3R BOX SHALL HAVE A HASP PROVISION (OR APPROVED ALTERNATE) ON THE RIGHT SIDE FOR PADLOCKING DOOR FOR SECURING THE DOOR.
3. THE BOX SHALL BE MOUNTED ON THE BACK SIDE OF THE CABINET NEAR THE TOP. ALTERNATIVE LOCATIONS ON THE CABINET TO SECURE THE WALL-MOUNTED JUNCTION BOX MUST HAVE PRIOR APPROVAL BY THE CITY OF MEMPHIS.
4. CONDUIT STRAP IS NOT TO BE SECURED TO THE CABINET. CONDUIT STRAP MUST BE SECURED TO THE CABINET FOUNDATION.
5. DRILL HOLE INTO CABINET AND INSTALL THREADED NIPPLE. INSTALL RUBBER GASKET, FLAT METAL WASHER AND LOCKER RING ON BOTH SIDES.
6. JUNCTION BOX SHALL BE ATTACHED SECURELY TO THE CABINET WITH FOUR METAL SCREWS. MOUNTING HOLES SHALL BE INSIDE THE BOX AROUND THE FOUR CORNERS.
7. THE CONTRACTOR SHALL APPLY SEALANT BETWEEN THE EDGE OF THE JUNCTION BOX AND THE CABINET. SEALANT SHALL BE RATED FOR OUTDOOR USE, WATER-PROOF BELOW WATER LINES, UV RESISTANT AND CLEAR OR GRAY IN COLOR.

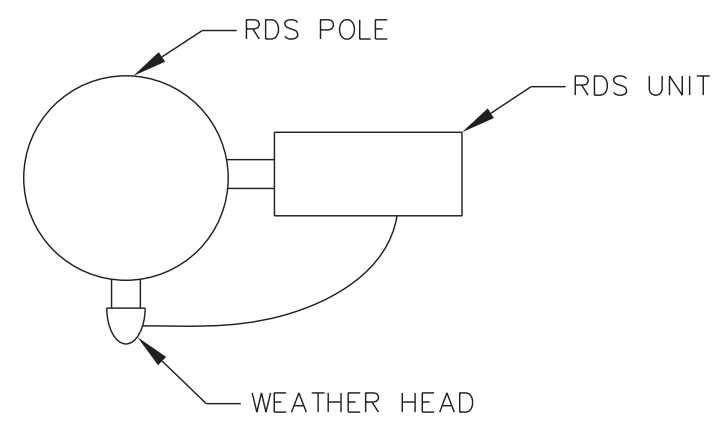


NOTES:

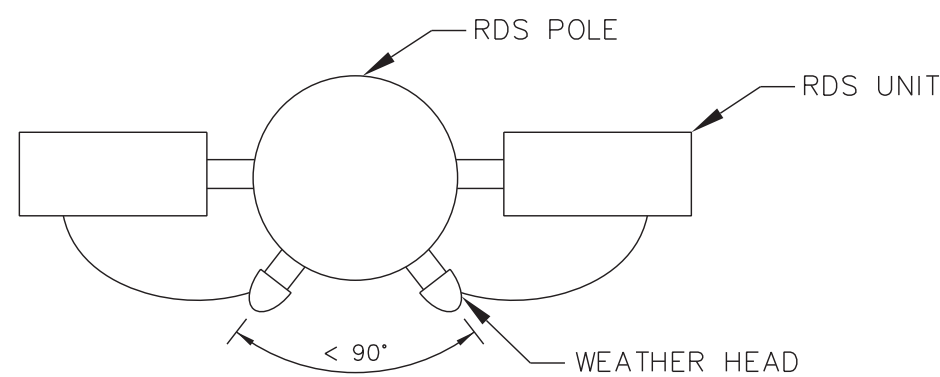
1. CABINET LOCATION AND LIMITS OF NEW SIDEWALK AS DIRECTED BY THE ENGINEER.
2. MAINTAIN A MINIMUM CLEAR PATH OF 48" FROM THE EDGE OF THE CABINET BASE TO THE EDGE OF SIDEWALK.
3. FINAL CABINET LOCATION SHALL BE APPROVED BY THE ENGINEER.

TYPICAL BASE MOUNTED CABINET INSTALLATION
AND SIDEWALK REPLACEMENT DETAILS

REVISIONS				D-01		
DATE	DESCRIPTIONS	APPROVED				
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SURVEY: N/A						
DRAFTED: _____						
DESIGNED: RSW					DATE: 02/14	
CHECKED: BTA					DATE: 02/14	
JURISDICTION: _____					SHEET 48 OF 50	



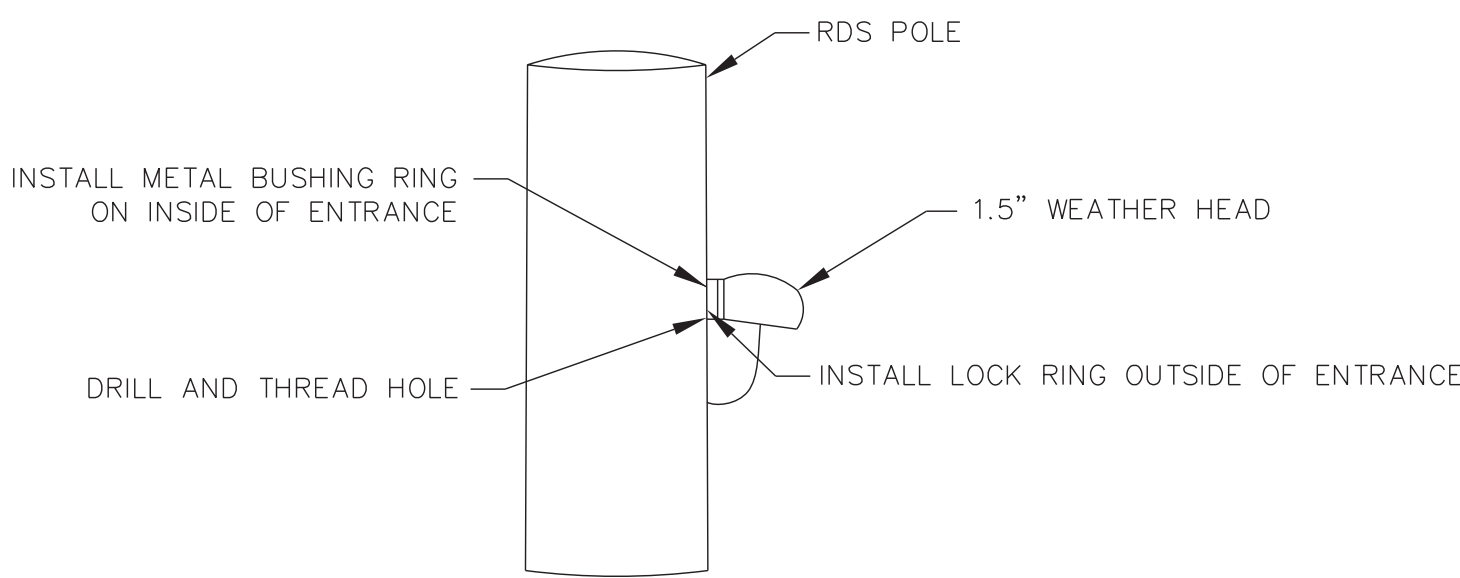
CASE 1: ONE RDS UNIT ON ONE POLE



NOTE: OFFSET HEIGHT BETWEEN WEATHER HEADS BY 2".

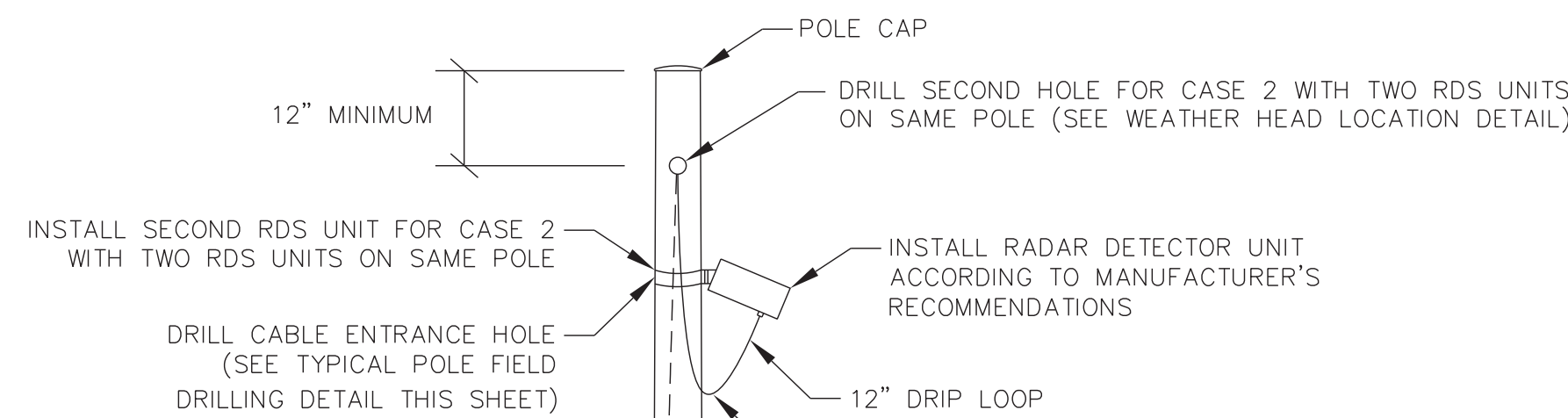
CASE 2: TWO RDS UNITS ON ONE POLE

WEATHER HEAD LOCATION DETAIL (PLAN VIEW)

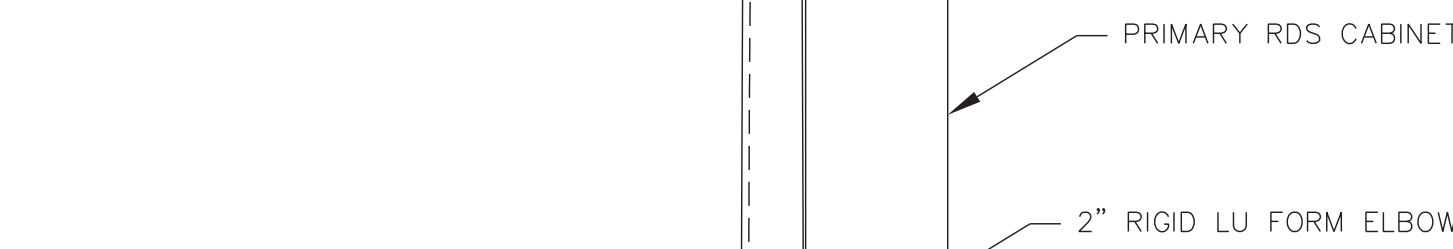


NOTE: SEE WEATHER HEAD LOCATION DETAIL FOR POSITIONING OF WEATHER HEAD(S) RELATIVE TO THE RDS UNITS.

TYPICAL POLE FIELD DRILLING DETAIL



INSTALL RDS AND UTILITY CABINETS FACING AWAY FROM THE TRAVELED WAY (VERIFY THAT RIGHT-OF-WAY IS AVAILABLE). IN CASE RIGHT-OF-WAY IS NOT AVAILABLE INSTALL RDS CABINET FACING THE TRAVELED WAY.



DRILL AND TAP (SIZE AS REQUIRED) CLOSE NIPPLE WITH POLE MANUFACTURE'S RECOMMENDED PAINT

HAND HOLE

PROPOSED 2" CONDUIT TO F.O. PULLBOX. INSTALL F.O. DROP CABLE FROM F.O. PULLBOX TO PRIMARY RDS CABINET.

PROPOSED CONDUIT FOR POWER SERVICE CONNECTION. INSTALL POWER SERVICE CABLE FROM MLGW PULLBOX TO PRIMARY RDS CABINET.

PRIMARY POLE

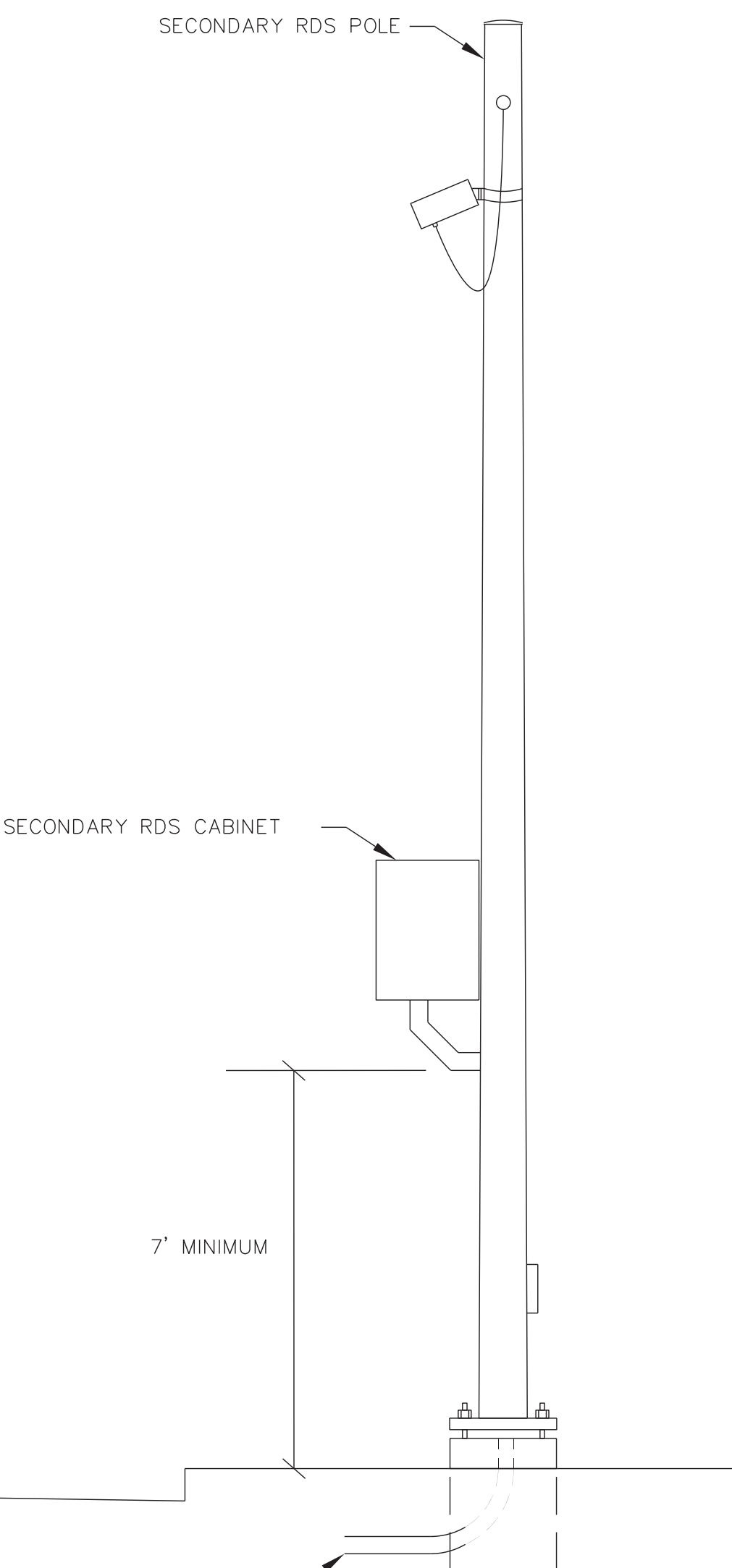
INSTALL POWER AND ETHERNET CABLES FROM SECONDARY RDS CABINET TO PRIMARY RDS CABINET (IF SECONDARY POLE AND RDS UNIT IS CALLED FOR ON PLAN SHEETS)

NOTES:

- SEE PROJECT SPECIAL PROVISIONS FOR MATERIAL AND INSTALLATION REQUIREMENTS FOR RDS UNIT, PRIMARY RDS CABINET, SECONDARY RDS CABINET AND RDS CABLE.
- SEE TDOT STANDARD DRAWING T-SG-10 FOR CONCRETE PEDESTAL POLE FOUNDATION DETAILS. ALTERNATIVELY, A STEEL SCREW-IN ANCHOR FOUNDATION CAN BE USED. SEE TDOT STANDARD DRAWING T-L-1 FOR STEEL ANCHOR FOUNDATION DETAILS.

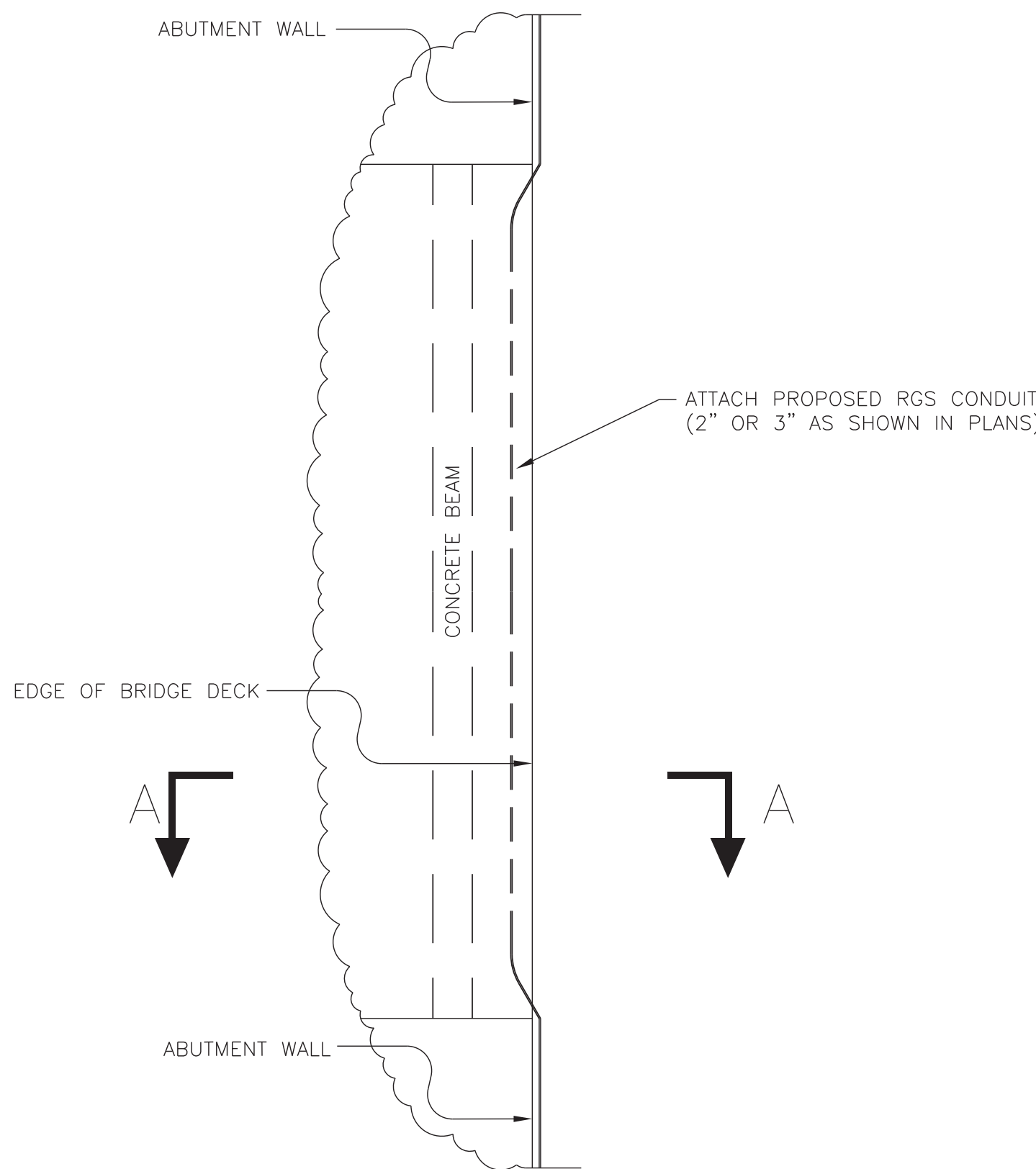
TYPICAL RADAR DETECTION SYSTEM (RDS)

ON NEW 20' ALUMINUM PEDESTAL POLE

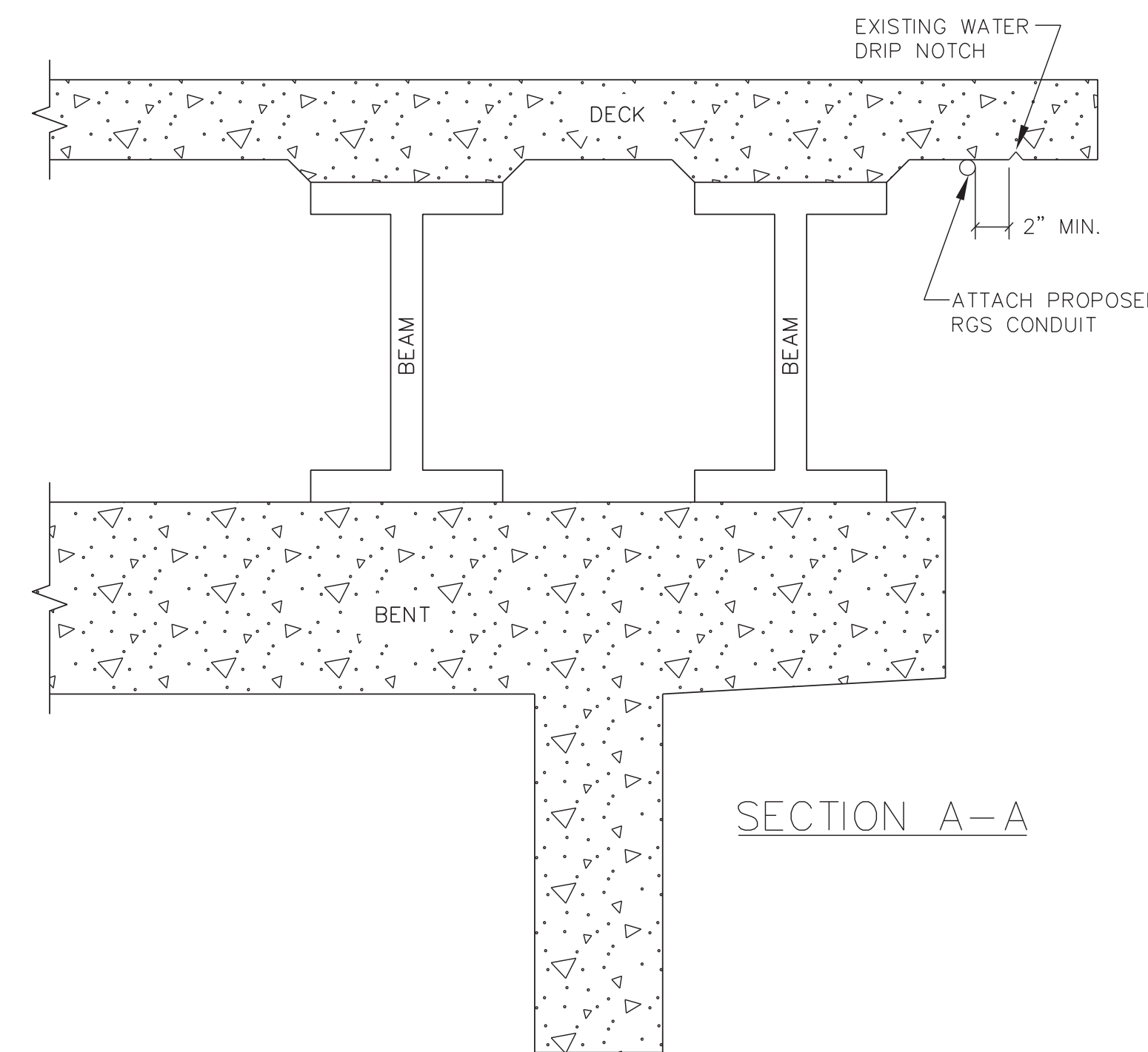


SECONDARY POLE

NOTE: INSTALL SECONDARY RDS POLE AS NEEDED FOR PLAN SHEETS.



PLAN VIEW

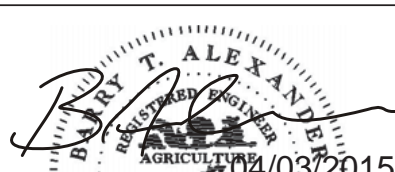




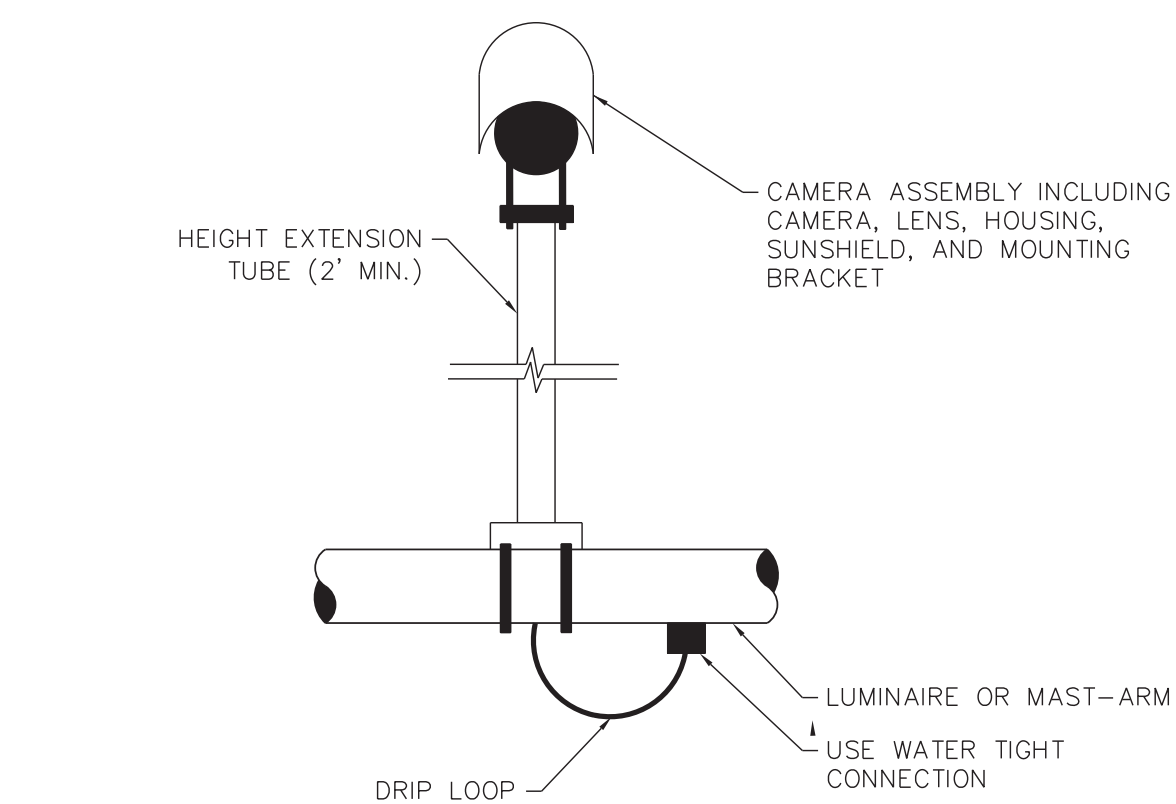
SECTION A-A

NOTES:

- ANCHOR HOLES FOR STEEL CONDUIT CLAMPS TO BE:
 - MAXIMUM DEPTH OF 1 3/4"
 - MAXIMUM DIAMETER OF 3/8"
 - SPACED 4" ON CENTER
- CONCRETE WEDGE ANCHORS WITH LOCK WASHERS SHALL BE INSTALLED

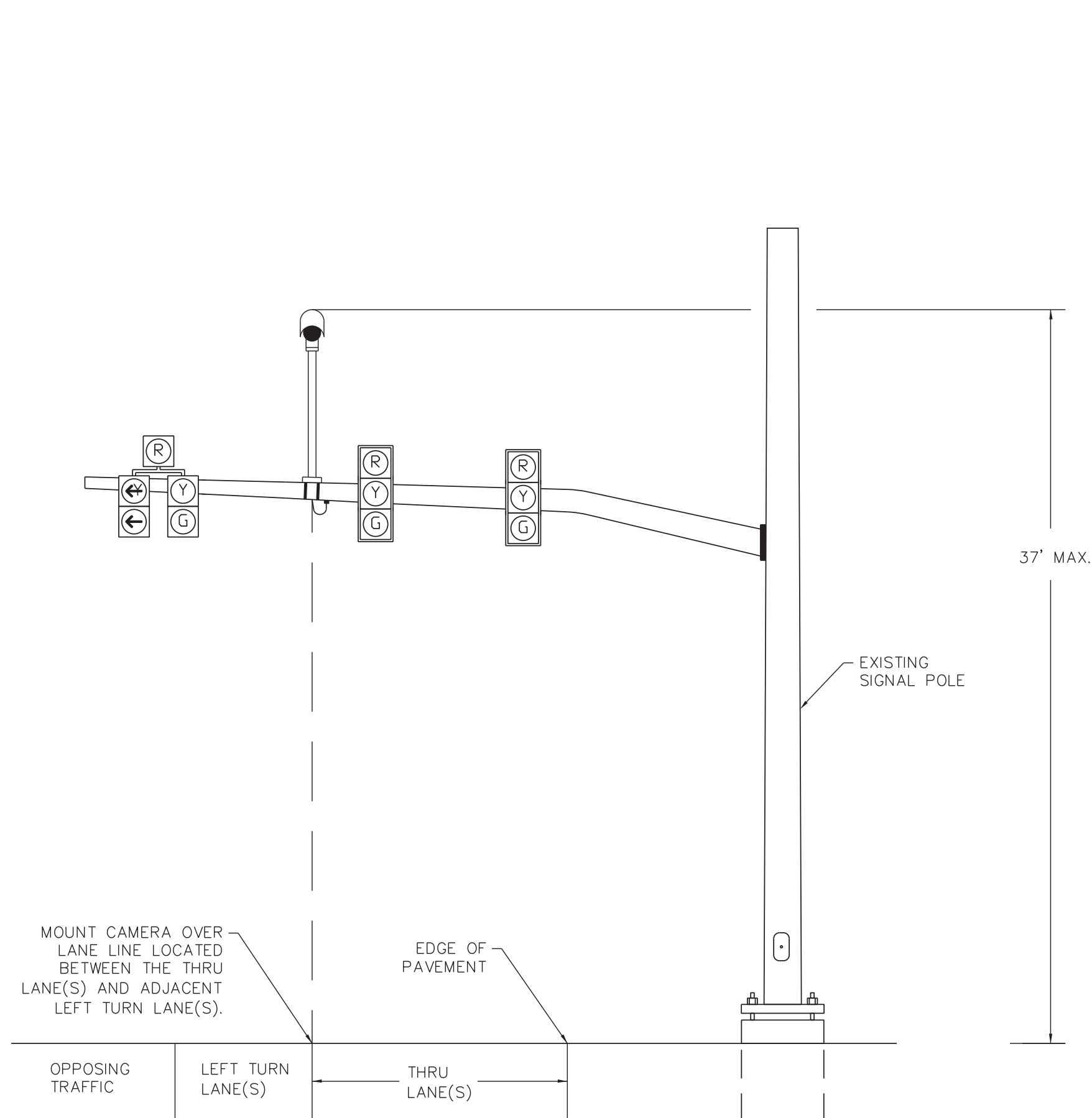
BRIDGE ATTACHMENT CONDUIT CROSSING DETAIL

REVISIONS				D-02
DATE	DESCRIPTIONS	APPROVED		
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 NEEL-SCHAFFER Solutions you can build upon				
SURVEY: <u>N/A</u>			DATE: <u>N/A</u> BOOK: <u>N/A</u>	
DRAFTED: _____			DATE: <u>02/14</u> SCALE: <u>N.T.S.</u>	
DESIGNED: <u>RSW</u>			DATE: <u>02/14</u> CHECKED: <u>BTA</u> DATE: <u>02/14</u>	
JURISDICTION: _____			SHEET 49 OF 50	

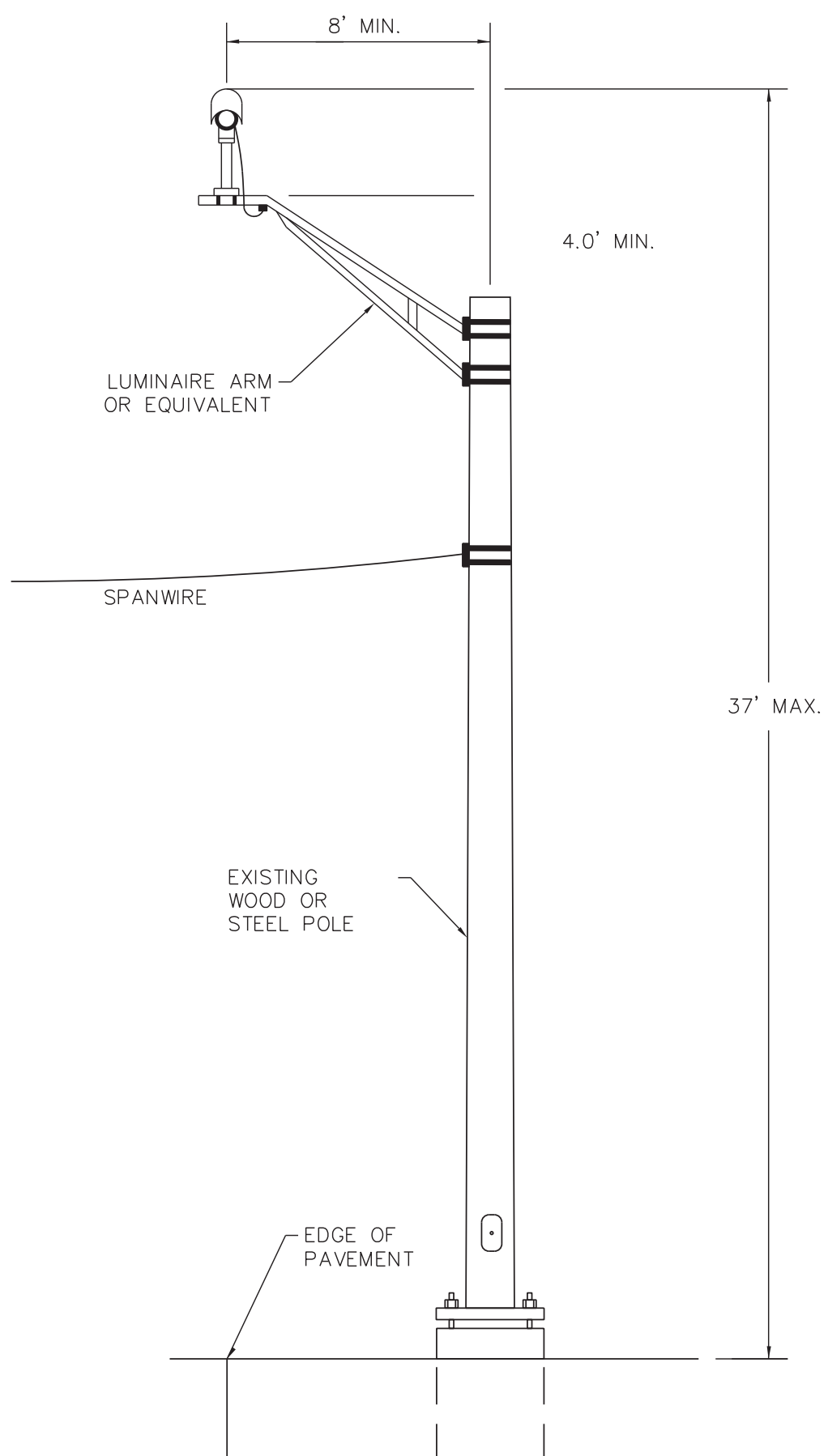


VIDEO DETECTION CAMERA MOUNTING NOTES:

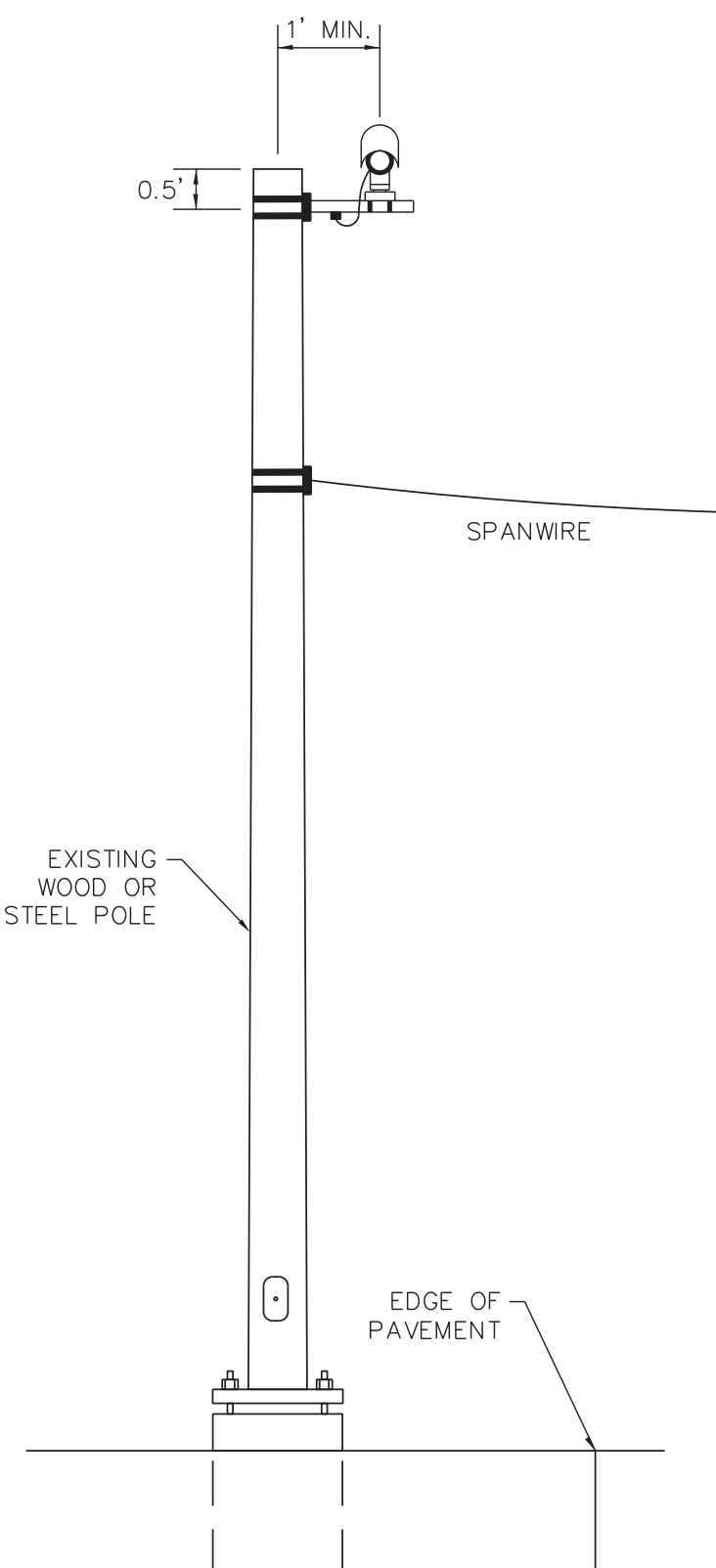
- 1. WHEN AIMING CAMERA, HORIZON SHALL NOT BE VISIBLE IN THE FIELD OF VIEW.
- 2. CAMERA ENCLOSURE ASSEMBLY SHALL BE ROTATABLE AFTER INSTALLATION TO PROVIDE PROPER ALIGNMENT.
- 3. VIDEO CABLE SHALL BE BELDEN OR ENGINEER-APPROVED EQUAL.
- 4. SUNSHIELD SHALL BE EXTENDED TO THE MAXIMUM EXTENT WITHOUT BEING IN THE CAMERA FIELD OF VIEW.



TYPE 1 MOUNT

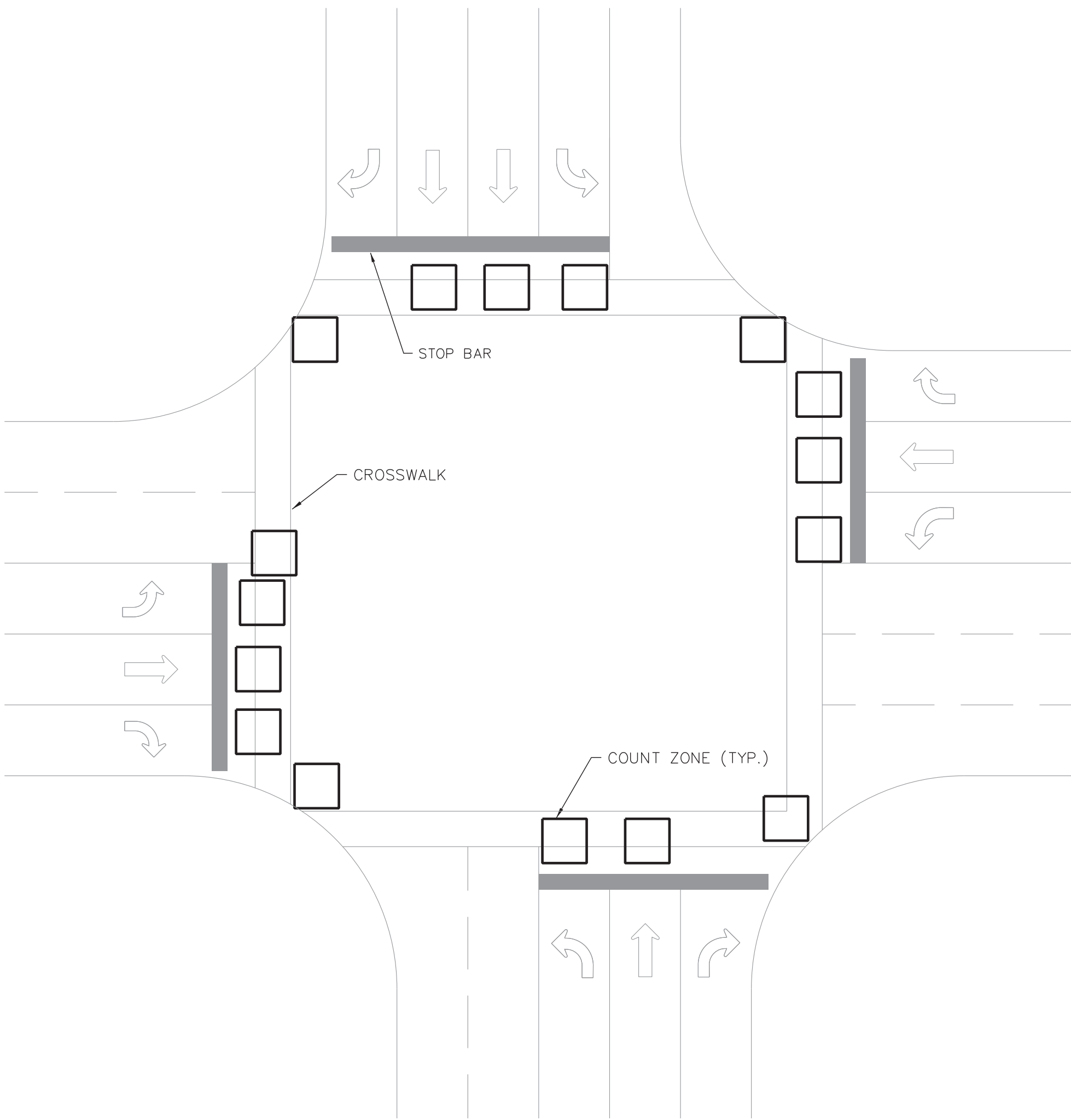


TYPE 2 MOUNT



TYPE 3 MOUNT

VIDEO DETECTION CAMERA MOUNTING DETAILS



- NOTES:
- 1. ALL COUNT ZONES TO BE DRAWN AS 6'x6' ZONES
 - 2. ALL COUNT ZONES TO BE SET TO DIRECTIONAL AND TO COUNT ALL THE TIME UNLESS DIRECTED OTHERWISE BY THE ENGINEER
 - 3. ALL COUNT ZONE LOCATIONS TO BE APPROVED BY THE ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE INTERSECTION
 - 4. COUNT ZONES TO BE NUMBERED SEQUENTIALLY AFTER THE DETECTION ZONES ACCORDING TO THE PHASE ASSIGNMENT AT THE INTERSECTION.

TYPICAL COUNT ZONE DETAIL

REVISIONS		
DATE	DESCRIPTIONS	APPROVED

D-03

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #8
SHELBY COUNTY, TN.

MISCELLANEOUS
DETAILS

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SURVEY: N/A DATE: N/A BOOK: N/A

DRAFTED: DATE: 02/14 SCALE: N.T.S.

DESIGNED: RSW DATE: 02/14 CHECKED: BTA DATE: 02/14

JURISDICTION: SHEET 50 OF 50