

Index of Sheets

SHEET NO.	REVISION	SHEET NAME
1		TITLE SHEET
2		ESTIMATED QUANTITIES
3		GENERAL NOTES
4-7		TRAFFIC CONTROL PLANS

STANDARD ROADWAY AND STRUCTURE DRAWINGS

ROADWAY DESIGN STANDARDS

DWG. NO.	REVISION	DESCRIPTION
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD-L-2	9-05-01	STANDARD LEGEND FOR UTILITY INSTALLATION

TRAFFIC CONTROL APPURTENANCES

DWG. NO.	REVISION	DESCRIPTION
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-WZ-18	03-13-09	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING

HARDIN COUNTY

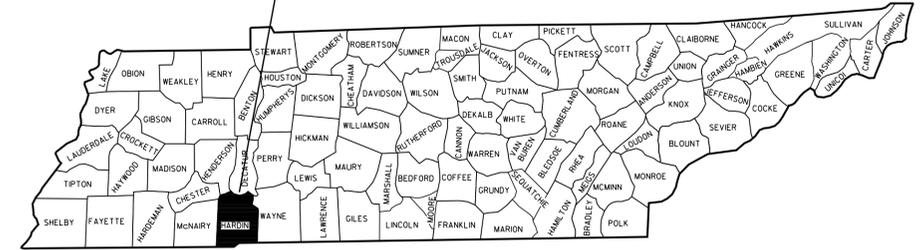
BRIDGE NO. 36-SR15-6.29
OVER TENNESSEE RIVER

BRIDGE REPAIR

STATE ROUTE 15 F.A.H.S. NO.

TENN.	YEAR	SHEET NO
	2015	1
FED AID PROJ NO		
STATE PROJ NO	36001-4291-04	

HARDIN COUNTY
PROJECT NO. 36001-4291-04



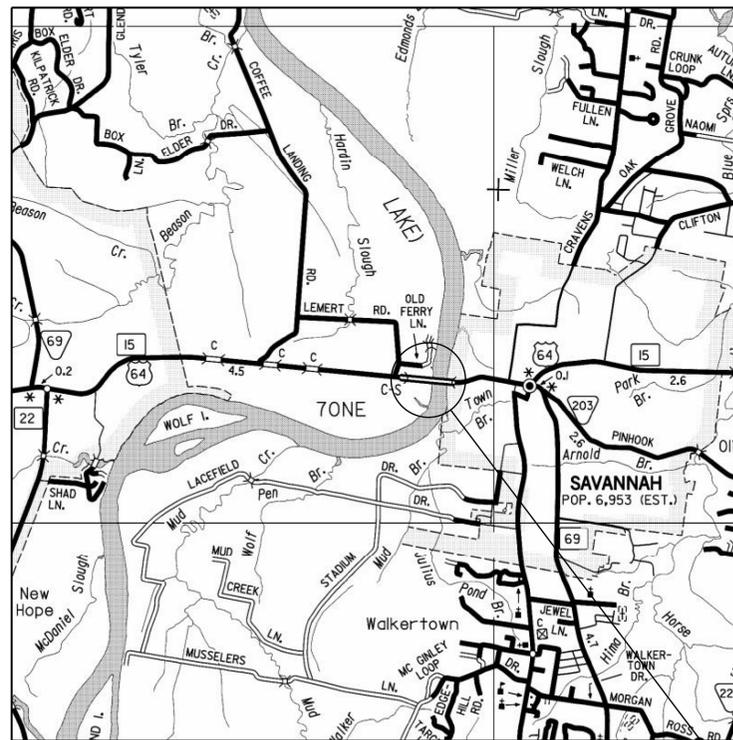
LIST OF DRAWINGS

DWG. NO.	REV. DATE	DRAWING
BR-118-174		LAYOUT OF BRIDGE TO BE REPAIRED
BR-118-175		ESTIMATED QUANTITIES
BR-118-176		GENERAL NOTES
BR-118-177		BRIDGE REPAIR DETAILS
BR-118-178		LIGHTING INSTALLATION PLAN
BR-118-179		ELECTRICAL DETAILS I
BR-118-180		ELECTRICAL DETAILS II
BR-118-181		ELECTRICAL DETAILS III

LIST OF REFERENCE DRAWINGS

DWG. NO.	DRAWING
M-59-104	
M-59-105A	
M-59-109	
M-59-114A	
M-59-117	
M-59-118	
M-59-119	
M-59-120	
M-59-121	
M-59-122	1977
M-59-127	WIDENING PLANS
M-59-128	
M-59-129	
M-59-130	
M-59-143	
M-59-144	
M-59-148	
M-59-150	
BR-2-59	
BR-2-61	
BR-2-61A	1991 BRIDGE
BR-2-61B	REHABILITATION PLANS
BR-2-65	
BR-2-65A	
M-59-104	2003
M-59-110	UTILITY PLANS

ALL REFERENCE DRAWINGS TO BE PRINTED WITH THE PLANS



PROJECT LENGTH
0.00 MILE

PROJECT NO. 36001-4291-04
SR15 - L.M. 6.29

SPECIAL NOTES

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

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED JANUARY 1, 2015 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

T.D.O.T. MANAGER MIKE LAWSON
 DESIGNED BY GARVER, LLC
 DESIGNER A. J. KHAIRI CHECKED BY J. H. RUDELL
 PE NO. 36001-4291-04 PIN. NO. 114208.01

ALL DIMENSIONS SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.

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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED: _____
DIVISION ADMINISTRATOR DATE

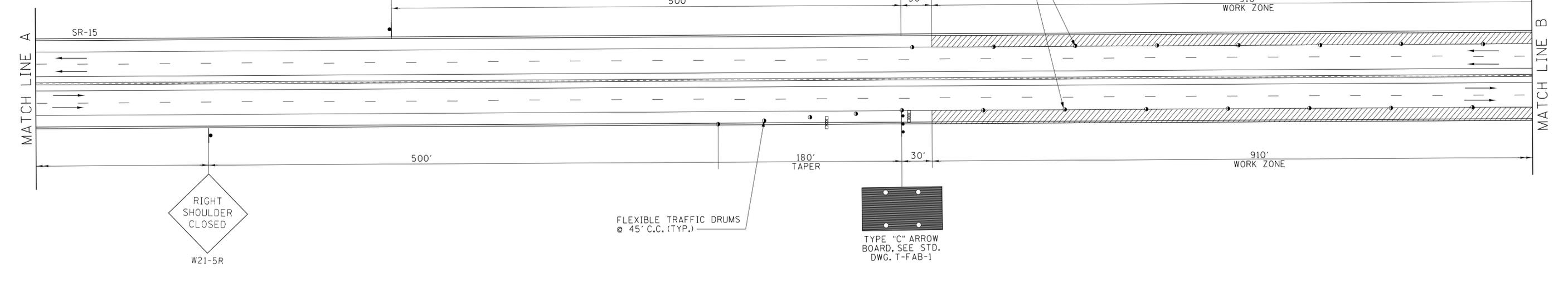
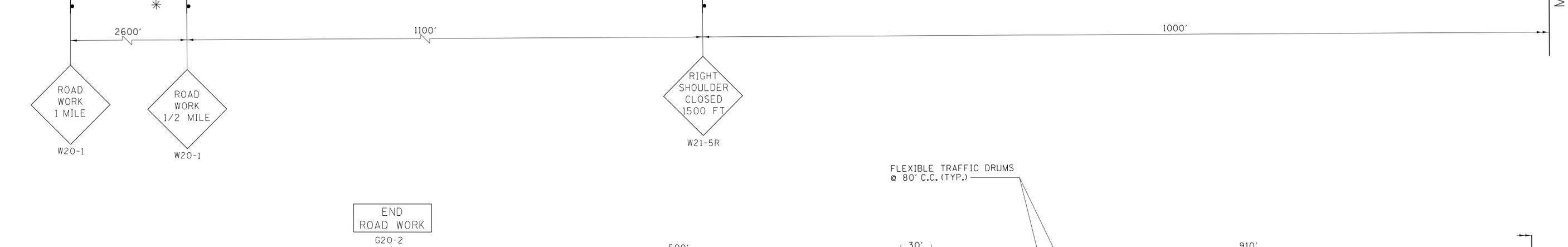
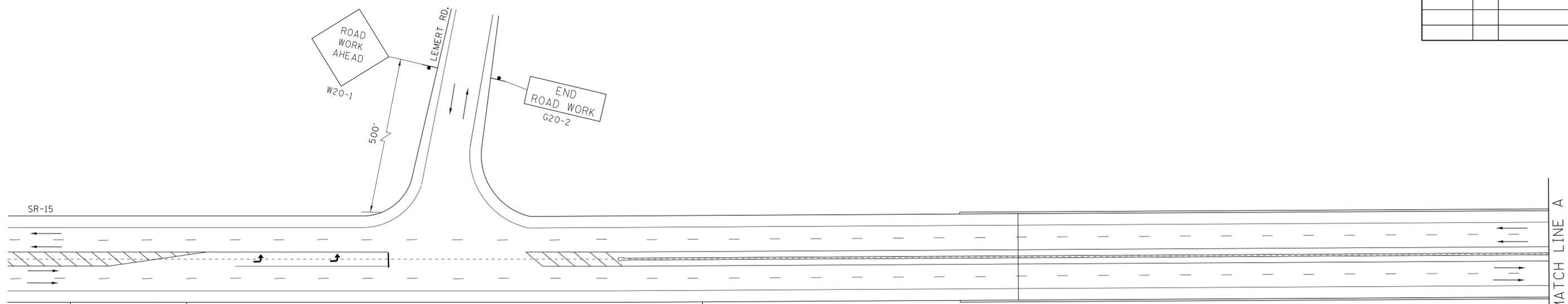
APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER

DATE _____

APPROVED: John Schroer
JOHN SCHROER, COMMISSIONER

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2015	36001-4291-04	4



LEGEND

- AREA UNDER CONSTRUCTION
- FLEXIBLE TRAFFIC DRUM
- TRAFFIC SIGN
- DIRECTION OF TRAFFIC
- TYPE "C" ARROW BOARD
- CHANGEABLE MESSAGE SIGN
- TYPE III BARRICADE

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PHASE I TRAFFIC CONTROL

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING AND DEVELOPMENT

TRAFFIC CONTROL PLAN

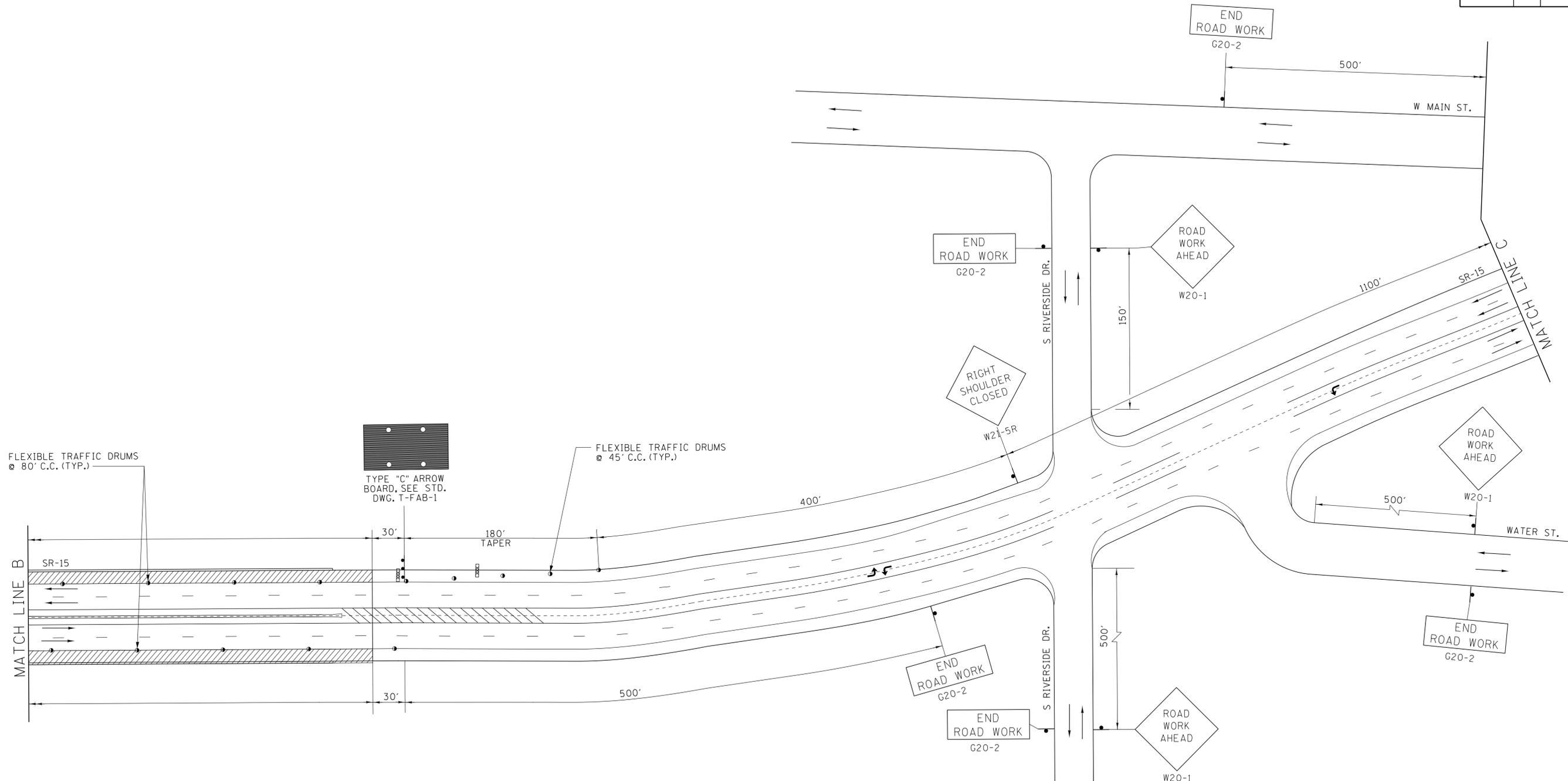
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2015	36001-429I-04	5



FLEXIBLE TRAFFIC DRUMS
 @ 80' C.C. (TYP.)

TYPE "C" ARROW BOARD
 SEE STD. DWG. T-FAB-1

FLEXIBLE TRAFFIC DRUMS
 @ 45' C.C. (TYP.)

LEGEND

- AREA UNDER CONSTRUCTION
- FLEXIBLE TRAFFIC DRUM
- TRAFFIC SIGN
- DIRECTION OF TRAFFIC
- TYPE "C" ARROW BOARD
- CHANGEABLE MESSAGE SIGN
- TYPE III BARRICADE

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PHASE I TRAFFIC CONTROL

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF PLANNING AND DEVELOPMENT

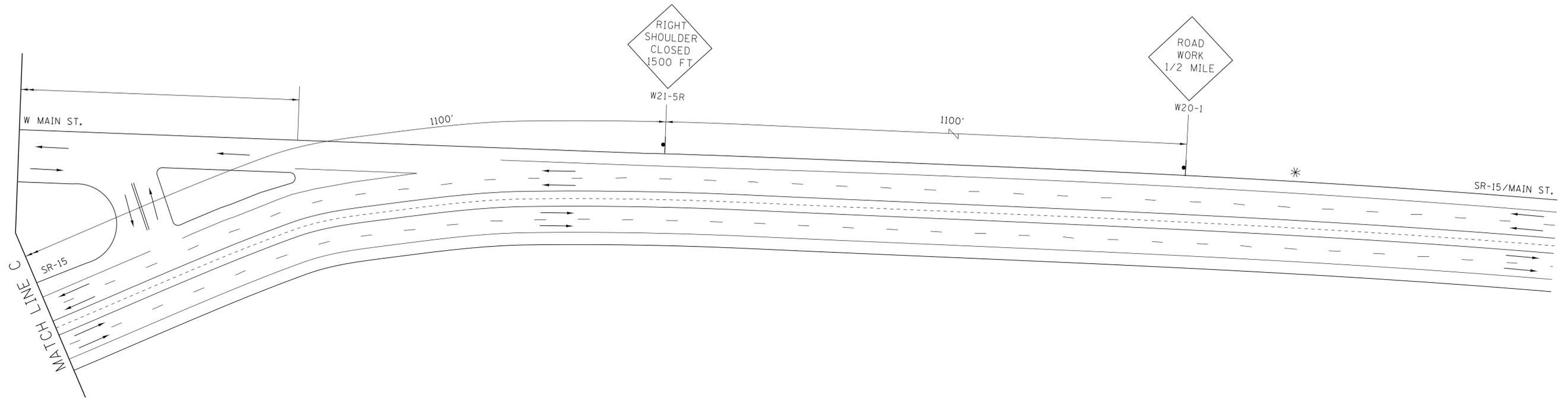
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2015	36001-4291-04	6



LEGEND

-  AREA UNDER CONSTRUCTION
-  FLEXIBLE TRAFFIC DRUM
-  TRAFFIC SIGN
-  DIRECTION OF TRAFFIC
-  TYPE "C" ARROW BOARD
-  CHANGEABLE MESSAGE SIGN
-  TYPE III BARRICADE

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PHASE I TRAFFIC CONTROL

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING AND DEVELOPMENT

TRAFFIC CONTROL PLAN

BR. NO. 36-SR15-6.29

SCALE: NONE

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2015	36001-4291-04	7

NOTES:

1. THE CONSTRUCTION SIGNING PLANS ON SHEETS 4-6 ARE TO SERVE AS A GUIDE ONLY. OTHER SIGNS MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION.
2. THE TRAFFIC CONTROL PLANS DO NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."
3. IF ADDITIONAL SIGNS ARE DEEMED NECESSARY BY THE ENGINEER, THEY SHALL BE FURNISHED AND INSTALLED AT THE UNIT PRICE BID FOR ITEM NO. 712-06, SIGNS (CONSTRUCTION).

CONSTRUCTION SIGNS					
DESCRIPTION	MUTCD NUMBER	SIZE	SR-15	BID QUANT.	TOTAL AREA (S.F.)
			I		
END ROAD WORK	G20-2	48X24	7	7	56
ROAD WORK AHEAD	W20-1	48X48	4	4	64
ROAD WORK 1 MILE	W20-1	48X48	1	1	16
ROAD WORK 1/2 MILE	W20-2	48X48	2	2	32
RIGHT SHOULDER CLOSED 1500 FT.	W21-5R	48X48	2	2	32
RIGHT SHOULDER CLOSED	W21-5R	48X48	2	2	32
				TOTAL	232

TRAFFIC CONTROL QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	SR-15	TOTAL
			I	
712-01	TRAFFIC CONTROL	L.S.	1,00	1,00
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	34	34
712-06	SIGNS (CONSTRUCTION)	SO. F.T.	232	232
712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	40	40
712-08.03	ARROW BOARD (TYPE C)	EACH	2	2
713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	2	2

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING AND DEVELOPMENT

TRAFFIC
CONTROL PLAN

BR. NO. 36-SRI5-6.29

SCALE: NONE

TRAFFIC CONTROL QUANTITIES

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PROJECT NO.	YEAR	SHEET NO.	
36001-4291-04	2015		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

LEGEND

- 360° GREEN CHANNEL CENTER MARINE NAVIGATIONAL LIGHT, MOUNTED TO SIDE OF BRIDGE
- ◐ 180° RED PIER NAVIGATIONAL LIGHT, MOUNTED TO PIER
- Ⓛ NEW 10" X 6" X 6" GALVANIZED STEEL, NEMA 4 JUNCTION BOX WITH SCREW COVER (INCLUDING SAFETY CHAIN) AND CAPTIVE-TYPE TAMPER RESISTANT SCREWS
- UTILITY POWER POLE
- CONDUIT EXPANSION JOINT
- NEW 1" GALVANIZED RIGID STEEL CONDUIT WITH NEW CONDUCTORS, MOUNTED TO PARAPET
- NEW 1" PVC CONDUIT WITH NEW CONDUCTORS, UNDERGROUND

GENERAL NOTES:

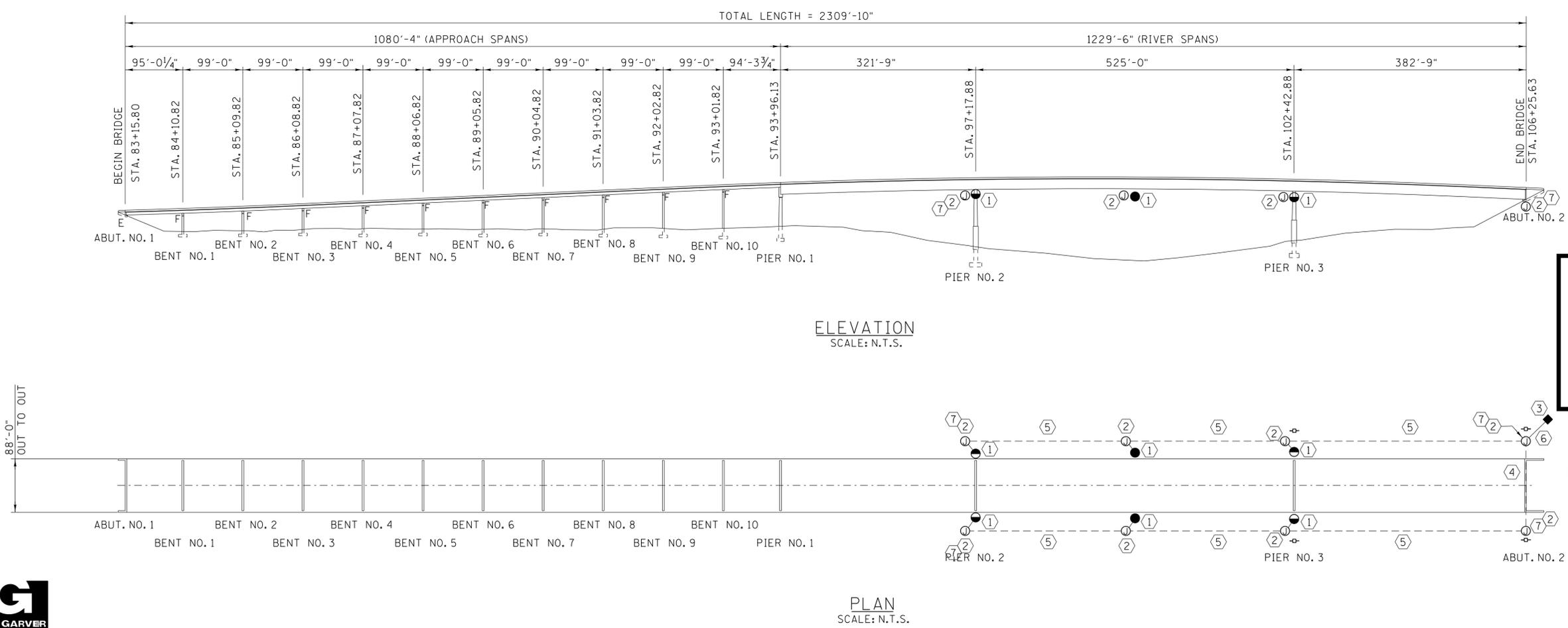
1. ALL WORK SHALL BE PERFORMED IN A MANNER ALLOWING FOR CONTINUED OPERATION OF MARINE NAVIGATION LIGHTING FROM SUNSET TO SUNRISE. EACH LIGHT REMOVED SHALL BE REPLACED WITH A TEMPORARY LIGHT BEFORE 5:00 P.M OR TWO HOURS BEFORE SUNSET, WHICHEVER OCCURS. FIRST, TEMPORARY LIGHTING SHALL BE TESTED EACH DAY PRIOR TO SUNSET TO ENSURE PROPER OPERATION.
2. ELECTRICAL DEMOLITION AND INSTALLATION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2011) NATIONAL ELECTRICAL CODE, NFPA 101 (2012) LIFE SAFETY CODE, STATE ELECTRICAL CODE, AND LOCAL ELECTRICAL CODE.
3. EXISTING POWER SERVICE IS 240/120V, 1Ø, 3W.
4. AFTER REMOVAL OF THE EXISTING LIGHT UNITS, THE CONTRACTOR SHALL TAKE MEASUREMENTS OF THE EXISTING MOUNTING AND SUPPORT LOCATIONS IN PREPARATION FOR THE INSTALLATION OF THE NEW LIGHT UNITS. IF THE EXISTING MOUNTING SYSTEM CAN NOT BE UTILIZED TO MOUNT THE NEW LIGHT UNITS, THE CONTRACTOR SHALL REVISE THE INSTALLATION PLANS FOR THE NEW LIGHT UNIT WITH ADDITIONAL ANCHOR BOLTS, PLATES, CONDUIT, CONDUCTORS, AND OTHER SUPPORTING AND MISCELLANEOUS MATERIALS AS NECESSARY FOR A COMPLETE INSTALLATION AT NO ADDITIONAL COST.
5. REMOVE ALL BRIDGE LIGHTING CONDUCTORS LOCATED IN PARAPET, BACK TO MAIN DISCONNECT.
6. MAKE ELECTRICAL CONNECTIONS TO EVERYTHING FURNISHED OR INSTALLED BY THIS CONTRACT, WHETHER INDICATED OR NOT ON THE ELECTRICAL DRAWINGS.
7. THE NEW NAVIGATION LIGHTING CIRCUIT SHALL UTILIZE TWO #10 AWG POWER CONDUCTORS AND ONE #10 AWG EQUIPMENT GROUND.

CONSTRUCTION COST NOTES:

1. COSTS OF ALL LABOR AND MATERIALS NECESSARY TO REPLACE THE EXISTING MARINE NAVIGATION LIGHTS SHALL BE INCLUDED UNDER ITEM NO. 602-10.14, NAVIGATION LIGHTS, L.S. THE COST SHALL INCLUDE THE REMOVAL OF THE EXISTING MARINE NAVIGATIONAL LIGHTS AND ALL EXISTING CONDUIT AND CONDUCTORS BACK TO THE PARAPET. THE COST SHALL INCLUDE THE INSTALLATION OF THE NEW NAVIGATIONAL LIGHTS INCLUDING ALL ANCHOR BOLTS, PLATES, AND OTHER MATERIALS NEEDED FOR MOUNTING AND SUPPORTING THE NEW LIGHT UNITS. ALL CONNECTIONS AND MEMBERS USED IN THE LIGHT SUPPORT SYSTEM SHALL BE CAPABLE OF CARRYING ALL LIVE AND DEAD LOADS AND SHALL BE DESIGNED BY A REGISTERED ENGINEER IN THE STATE OF TENNESSEE. THE COST SHALL INCLUDE THE REMOVAL OF THE EXISTING BRIDGE MARINE LIGHTING MAIN DISCONNECT, UTILITY METER, WEATHERHEAD, AND ALL APPLICABLE CONDUCTORS, CONDUITS, AND MOUNTING EQUIPMENT. THE COST SHALL INCLUDE THE INSTALLATION OF A NEW WEATHERHEAD, UTILITY METER, AND MAIN DISCONNECT SWITCH, MOUNTED TO THE EXISTING POWER POLE, AND ALL NECESSARY CONDUCTORS, CONDUITS, AND MOUNTING EQUIPMENT FOR THE INSTALLATION. THE COST SHALL INCLUDE THE REMOVAL OF ALL EXISTING BRIDGE LIGHTING CONDUCTORS LOCATED IN CONDUIT OR THE PARAPET. THE COST SHALL INCLUDE THE INSTALLATION OF NEW CONDUIT AND JUNCTION BOXES TO ALLOW FOR PROTECTION OF THE NEW MARINE NAVIGATION LIGHTING CIRCUIT, INCLUDING ALL STRAPS AND EXPANSION FITTINGS NECESSARY FOR MOUNTING AND SUPPORTING THE CONDUIT AND JUNCTION BOXES. THE COST SHALL INCLUDE THE INSTALLATION OF NEW CONDUCTORS IN THE NEW CONDUIT FOR THE CONNECTION OF THE NEW MARINE NAVIGATION LIGHTING CIRCUIT.
2. COSTS OF ALL LABOR AND MATERIALS NECESSARY TO INSTALL TEMPORARY SOLAR POWERED MARINE NAVIGATIONAL LIGHTS TO ALLOW FOR CONTINUED AND UNINTERRUPTED OPERATION OF COAST GUARD NAVIGATION LIGHT REQUIREMENTS DURING CONSTRUCTION SHALL BE PAID FOR UNDER ITEM NO. 714-16.05, TEMPORARY NAVIGATIONAL LIGHTING, L.S.

KEYED NOTES:

- ① REMOVE EXISTING MARINE NAVIGATIONAL LIGHT SYSTEM INCLUDING CONDUCTORS, CONDUITS, AND JUNCTION BOXES. INSTALL A NEW LED MARINE NAVIGATIONAL LIGHTING SYSTEM INCLUDING CONDUCTORS AND CONDUITS TO THE NEAREST JUNCTION BOXES. INSTALL A NEW 10 GAUGE GALVANIZED STEEL LINK PULL CHAIN AND INSTALL NEW COUNTERWEIGHT FOR NEW MARINE NAVIGATION LIGHT. VERIFY CORRECT LIGHT OPERATION BEFORE REMOVAL OF THE TEMPORARY LIGHT FIXTURE. (TYPICAL OF 6)
- ② INSTALL A NEW JUNCTION BOX FOR THE CONNECTION OF THE NEW MARINE NAVIGATION LIGHT, MOUNTED TO THE SIDE OF THE PARAPET.
- ③ EXISTING UTILITY POWER POLE. INSTALL NEW MAIN DISCONNECT, WEATHERHEAD, AND UTILITY METER.
- ④ ROUTE 1" GRSC CONDUIT UNDERNEATH BRIDGE BETWEEN JUNCTION BOXES LOCATED AT ABUT. NO. 2.
- ⑤ INSTALL NEW 1" DIAMETER RGS CONDUIT SYSTEM AND BRIDGE LIGHTING CONDUCTORS FROM THE JUNCTION BOX AT ABUT. NO. 2 TO PIER NO. 2 FOR THE CONNECTION OF THE NEW MARINE NAVIGATION LIGHTS. MAKE ALL FINAL CONNECTIONS TO EQUIPMENT. PROVIDE EXPANSION FITTINGS AT CONDUIT MOVEMENT LOCATIONS.
- ⑥ INSTALL A NEW NAVIGATION LIGHTING CIRCUIT HOMERUN FROM THE JUNCTION BOX LOCATED AT ABUT. NO. 2 TO THE MARINE LIGHTING MAIN DISCONNECT. CONNECT NEW ABOVE GROUND CONDUIT TO NEW UNDERGROUND CONDUIT. MAKE ALL FINAL CONNECTIONS TO EQUIPMENT.
- ⑦ INSTALL 3/4"Ø DIAMETER WEEPHOLE BREATHER HOLE AT JUNCTION BOX.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING INSTALLATION PLAN

SR15 OVER TENNESSEE RIVER
BRIDGE NO. 36-SR15-6.29

HARDIN COUNTY
2015

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DESIGNED BY J. K. SCHMITT DATE OCT. 2014
 DRAWN BY J. K. SCHMITT DATE OCT. 2014
 SUPERVISED BY E. C. FARMER DATE OCT. 2014
 CHECKED BY A. J. KHAIRI DATE OCT. 2014

TN D.O.T. ENGINEERING SUPERVISOR M. LAWSON

