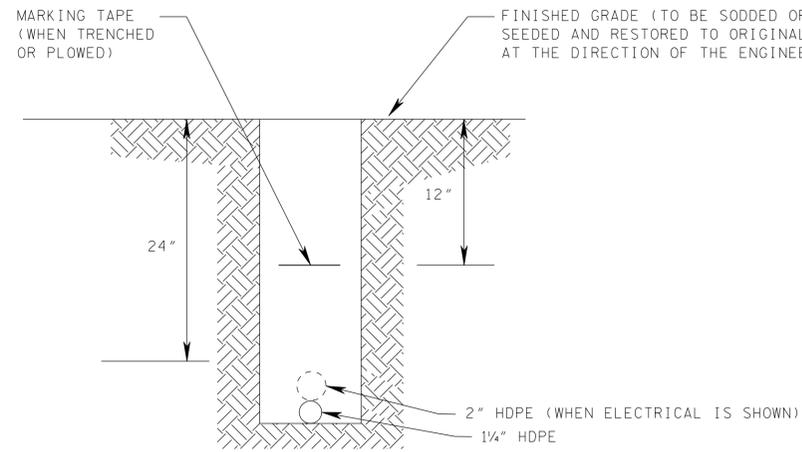
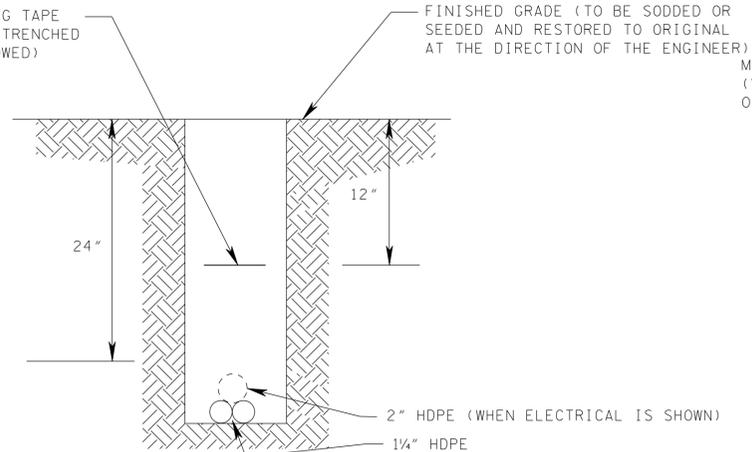


TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	IM-65-2(95)	36



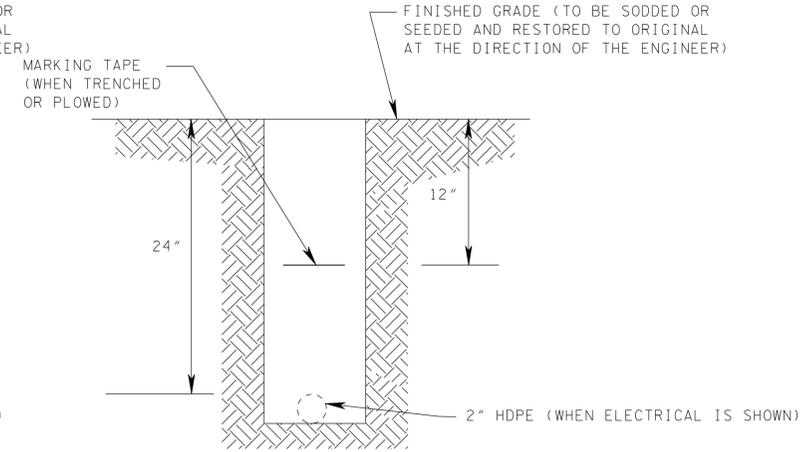
CONDUIT BANK TYPE 1
N.T.S.

ONE 1/4" HDPE COMMUNICATIONS CONDUIT WITH OR WITHOUT ONE 2" HDPE ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY



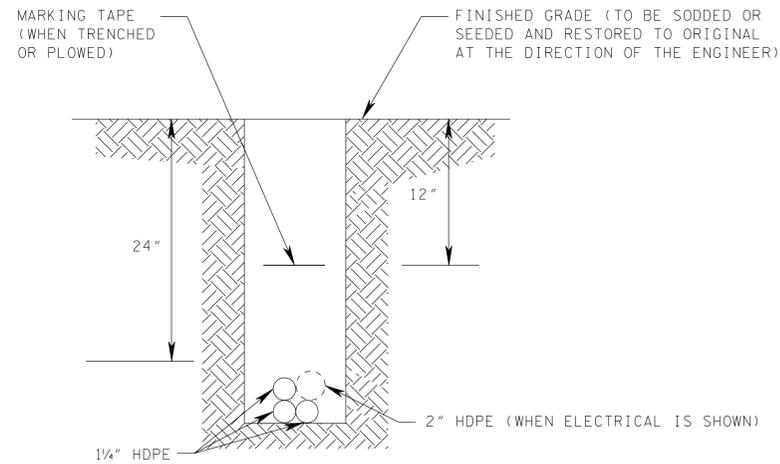
CONDUIT BANK TYPE 2
N.T.S.

TWO 1/4" HDPE COMMUNICATIONS CONDUITS WITH OR WITHOUT ONE 2" HDPE ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY



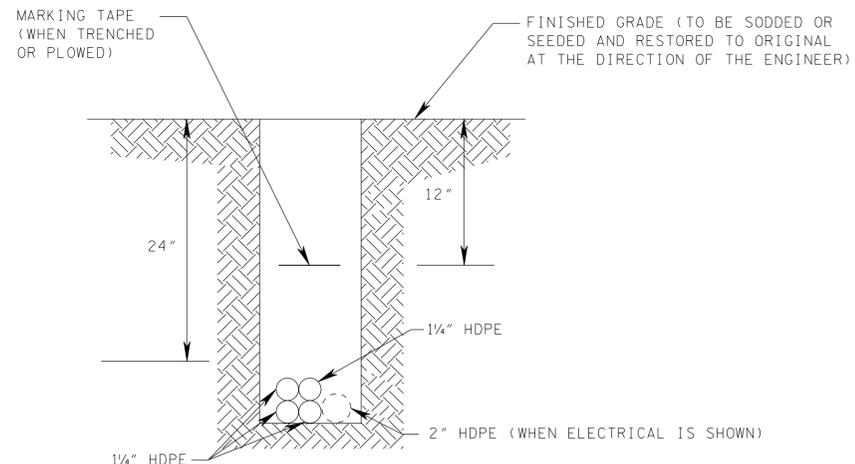
1-2" CONDUIT
N.T.S.

ONE 2" HDPE ELECTRICAL CONDUIT



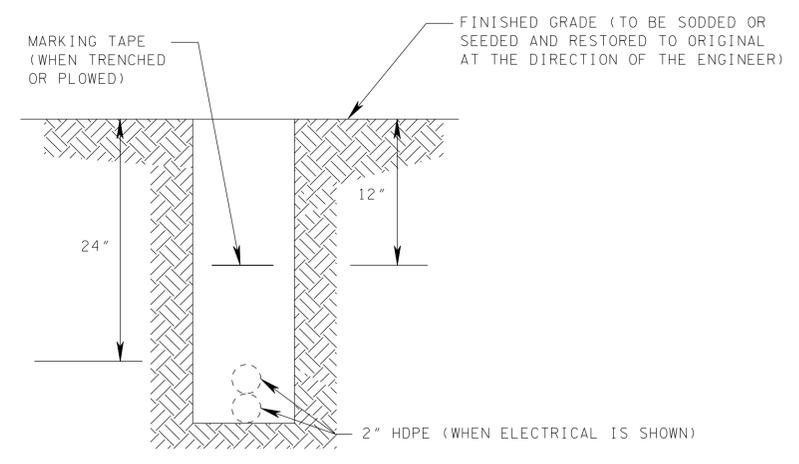
CONDUIT BANK TYPE 3
N.T.S.

THREE 1/4" HDPE COMMUNICATIONS CONDUITS WITH OR WITHOUT ONE 2" HDPE ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY



CONDUIT BANK TYPE 4
N.T.S.

FOUR 1/4" HDPE COMMUNICATIONS CONDUITS WITH OR WITHOUT ONE 2" HDPE ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY



2-2" CONDUIT
N.T.S.

TWO 2" HDPE ELECTRICAL CONDUIT

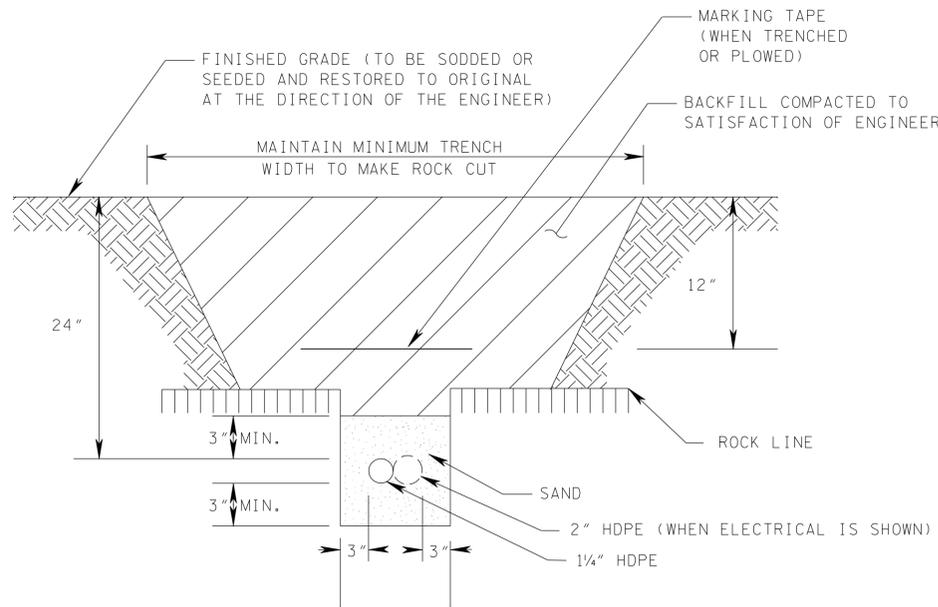
CONDUIT COLORS

ALL CONDUIT USED ON THIS PROJECT SHALL CONFORM TO THE COLOR SCHEME AND USE DESCRIBED BELOW:

- CONDUIT BANK TYPE 1: GREEN (DROP FIBER OR RDS COMM)
- CONDUIT BANK TYPE 2: GREEN (DROP FIBER OR RDS COMM)
WHITE (RDS COMM, 2ND DROP FIBER OR SPARE)
- CONDUIT BANK TYPE 3: GREEN (DROP FIBER OR RDS COMM)
BLUE (RDS COMM OR 2ND DROP FIBER)
WHITE (2ND RDS COMM OR SPARE)
- CONDUIT BANK TYPE 4: ORANGE (TRUNK FIBER CABLE)
BLUE (RDS COMM OR DROP FIBER)
WHITE (SPARE OR 2ND RDS COMM)
BROWN (SPARE)
- 2" ELECTRICAL CONDUIT: GREY (ELECTRICAL WIRE)

DETAILS FOR CONDUIT BANKS APPEAR AS TRENCHED INSTALLATION FOR GRAPHICAL PURPOSES ONLY. AS DESCRIBED IN SECTION 2, TSP 725 CONDUIT BANKS IN EARTH MAY BE TRENCHED, PLOWED, HORIZONTAL DIRECTIONAL BORED, OR DRILLED.

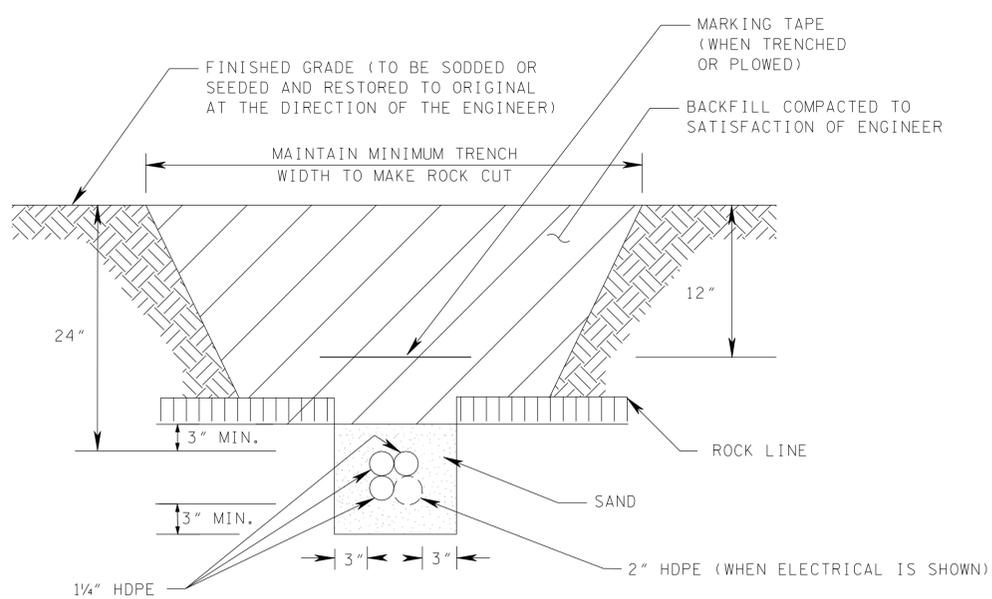
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	1M-65-2(95)	36A



CONDUIT BANK TYPE 1 IN ROCK

N.T.S.

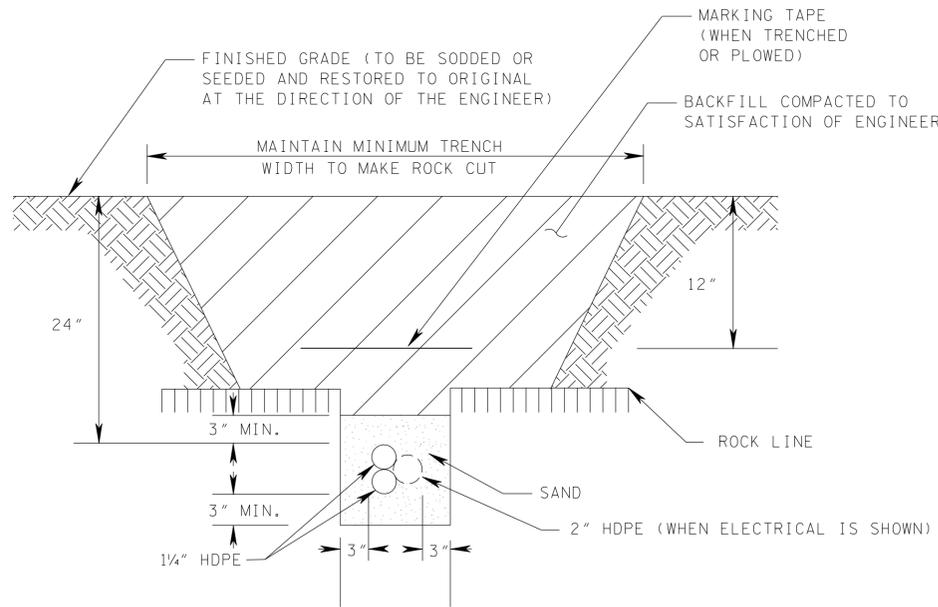
ONE 1/4" HDPE COMMUNICATIONS CONDUITS WITH OR WITHOUT ONE 2" HDPE ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY



CONDUIT BANK TYPE 3 IN ROCK

N.T.S.

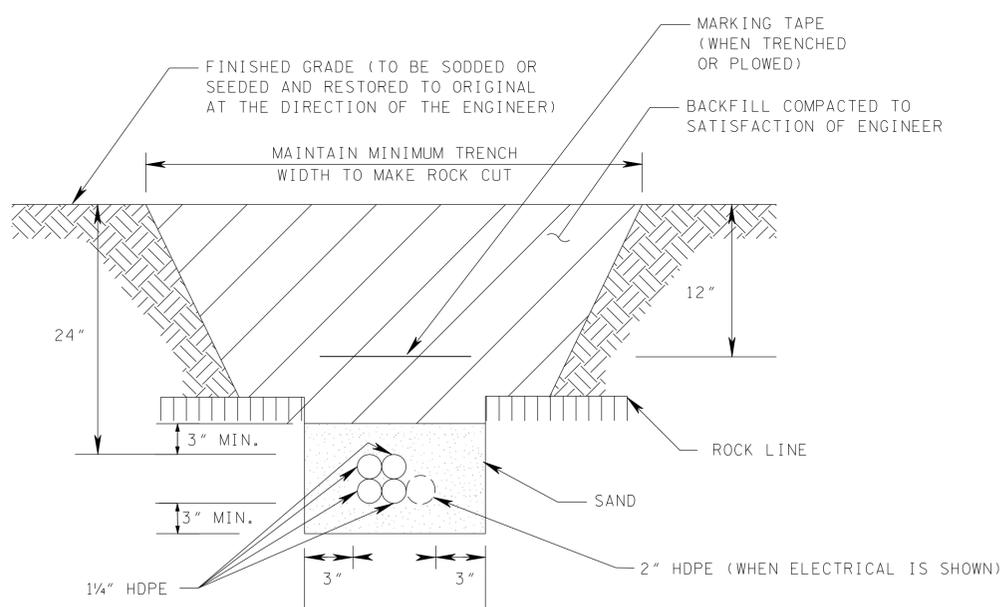
THREE 1/4" HDPE COMMUNICATIONS CONDUITS WITH OR WITHOUT ONE 2" HDPE ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY



CONDUIT BANK TYPE 2 IN ROCK

N.T.S.

TWO 1/4" HDPE COMMUNICATIONS CONDUITS WITH OR WITHOUT ONE 2" HDPE ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY



CONDUIT BANK TYPE 4 IN ROCK

N.T.S.

FOUR 1/4" HDPE COMMUNICATIONS CONDUITS WITH OR WITHOUT ONE 2" HDPE ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY

CONDUIT COLORS

ALL CONDUIT USED ON THIS PROJECT SHALL CONFORM TO THE COLOR SCHEME AND USE DESCRIBED BELOW:

CONDUIT BANK TYPE 1: GREEN (DROP FIBER OR RDS COMM)

CONDUIT BANK TYPE 2: GREEN (DROP FIBER OR RDS COMM)
WHITE (RDS COMM, 2ND DROP FIBER OR SPARE)

CONDUIT BANK TYPE 3: GREEN (DROP FIBER OR RDS COMM)
BLUE (RDS COMM OR 2ND DROP FIBER)
WHITE (2ND RDS COMM OR SPARE)

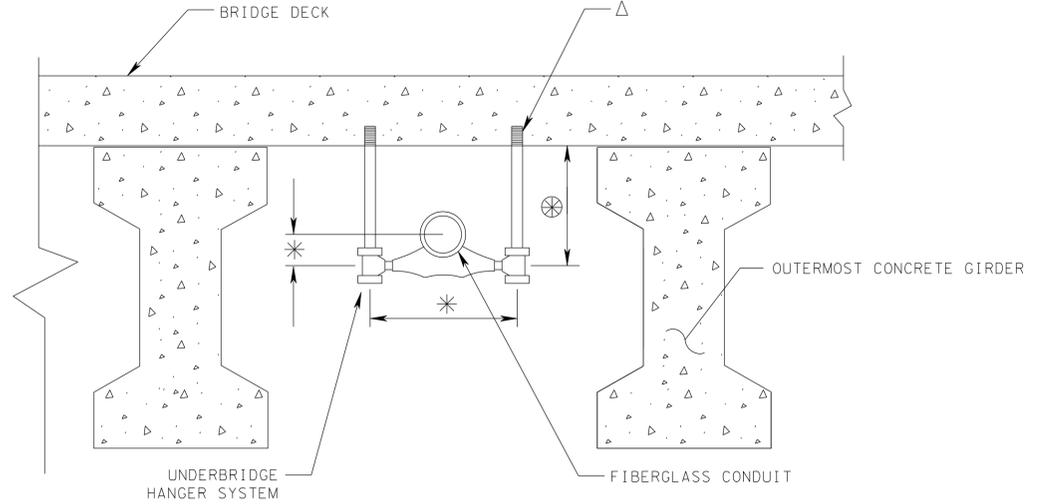
CONDUIT BANK TYPE 4: ORANGE (TRUNK FIBER CABLE)
BLUE (RDS COMM OR DROP FIBER)
WHITE (SPARE OR 2ND RDS COMM)
BROWN (SPARE)

2" ELECTRICAL CONDUIT: GREY (ELECTRICAL WIRE)

NOTES:

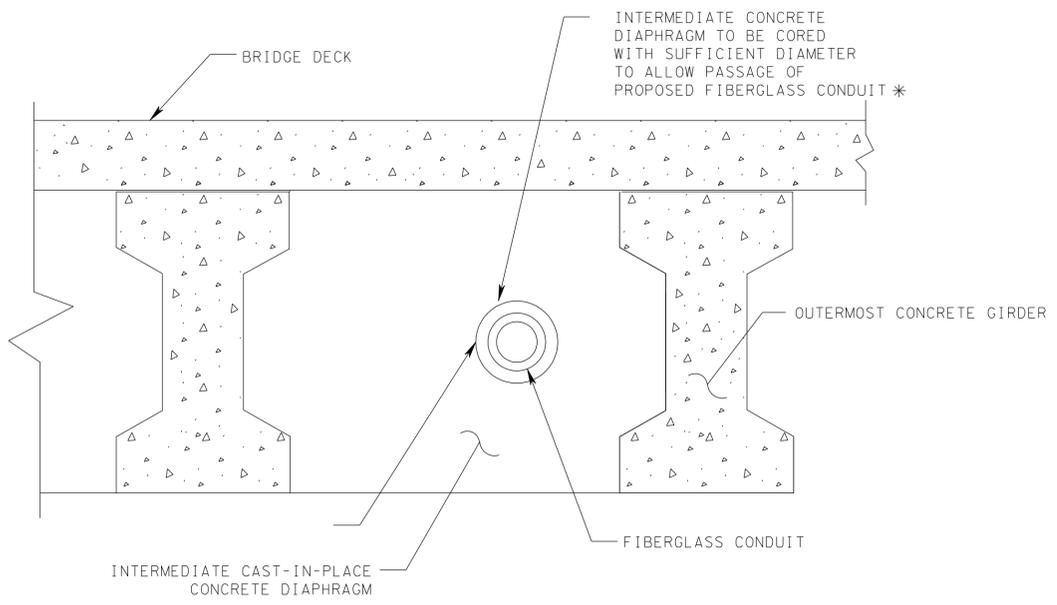
- ROCK LINE WILL VARY. ROCK EXCAVATION TO BE INCLUDED IN CONDUIT BANK.
- WHERE ROCK IS FOUND TRENCH MUST CONTAIN MINIMUM 3" SAND COVER OVER CONDUIT THEN 9" BACK FILL WITH SOIL FREE OF ROCKS OR OTHER FOREIGN MATTER. THE REMAINDER OF THE TRENCH MAY BE BACK-FILLED WITH EXISTING MATERIAL REMOVED FROM THE TRENCH PROVIDED NO STONES ARE GREATER THAN #2 STONE.

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CONST.	2010	IM-65-2(95)	36B



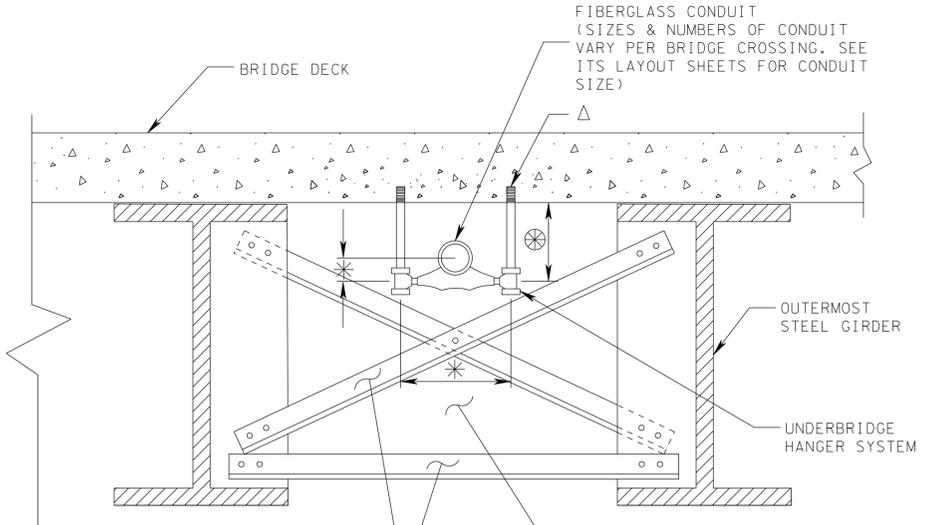
SECTION A-A
TYPICAL 1
N.T.S.

- △ ATTACHMENT TO THE BRIDGE DECK SHALL BE PER UNDERBRIDGE HANGER SYSTEM MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE ENGINEER. SPACING OF HANGERS SHALL BE 10' MAXIMUM.
- * AS RECOMMENDED BY UNDERBRIDGE HANGER SYSTEM MANUFACTURER BASED ON CONDUIT SIZE IDENTIFIED ON THE PLAN SHEET
- ⊗ AS RECOMMENDED BY UNDERBRIDGE HANGER SYSTEM MANUFACTURER BASED ON ACTUAL CONDUIT SIZES USED. HOWEVER THIS DIMENSION SHALL BE LESS THAN THE DEPTH OF THE GIRDER SO THAT THE UNDERBRIDGE HANGER SYSTEM IS NOT LOWER THAN THE BOTTOM OF THE GIRDERS.



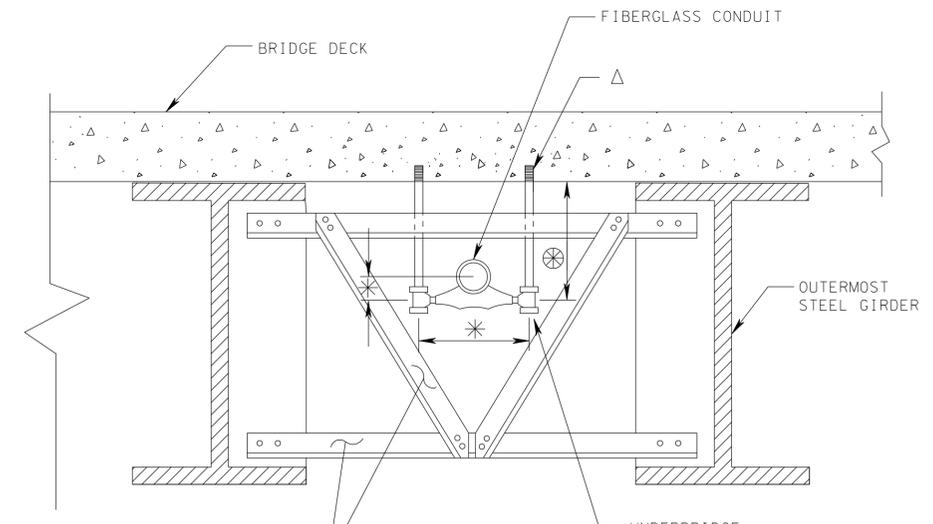
SECTION A-A
TYPICAL 2
N.T.S.

- * DIAMETER OF CORE SHALL BE 6" FOR 4" FIBERGLASS CONDUITS, 5" FOR 3" RGS CONDUITS, AND 4" FOR 2" RGS CONDUITS. A RUBBERIZED EPOXY SHALL BE PLACED IN THE VOID BETWEEN THE CONCRETE DIAPHRAGM AND THE PROPOSED CONDUIT.



SECTION A-A
TYPICAL 3
N.T.S.

- △ ATTACHMENT TO THE BRIDGE DECK SHALL BE PER UNDERBRIDGE HANGER SYSTEM MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE ENGINEER. SPACING OF HANGERS SHALL BE 10' MAXIMUM.
- * AS RECOMMENDED BY UNDERBRIDGE HANGER SYSTEM MANUFACTURER BASED ON CONDUIT SIZE IDENTIFIED ON PLAN SHEET.
- ⊗ AS RECOMMENDED BY UNDERBRIDGE HANGER SYSTEM MANUFACTURER BASED ON ACTUAL CONDUIT SIZES USED. HOWEVER THIS DIMENSION SHALL BE LESS THAN THE DEPTH OF THE GIRDER SO THAT THE UNDERBRIDGE HANGER SYSTEM IS NOT LOWER THAN THE BOTTOM OF THE GIRDERS.



SECTION A-A
TYPICAL 4
N.T.S.

- △ ATTACHMENT TO THE BRIDGE DECK SHALL BE PER UNDERBRIDGE HANGER SYSTEM MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE ENGINEER. SPACING OF HANGERS SHALL BE 10' MAXIMUM.
- * AS RECOMMENDED BY UNDERBRIDGE HANGER SYSTEM MANUFACTURER BASED ON CONDUIT SIZE IDENTIFIED ON PLAN SHEET.
- ⊗ AS RECOMMENDED BY UNDERBRIDGE HANGER SYSTEM MANUFACTURER BASED ON ACTUAL CONDUIT SIZES USED. HOWEVER THIS DIMENSION SHALL BE LESS THAN THE DEPTH OF THE GIRDER SO THAT THE UNDERBRIDGE HANGER SYSTEM IS NOT LOWER THAN THE BOTTOM OF THE GIRDERS.

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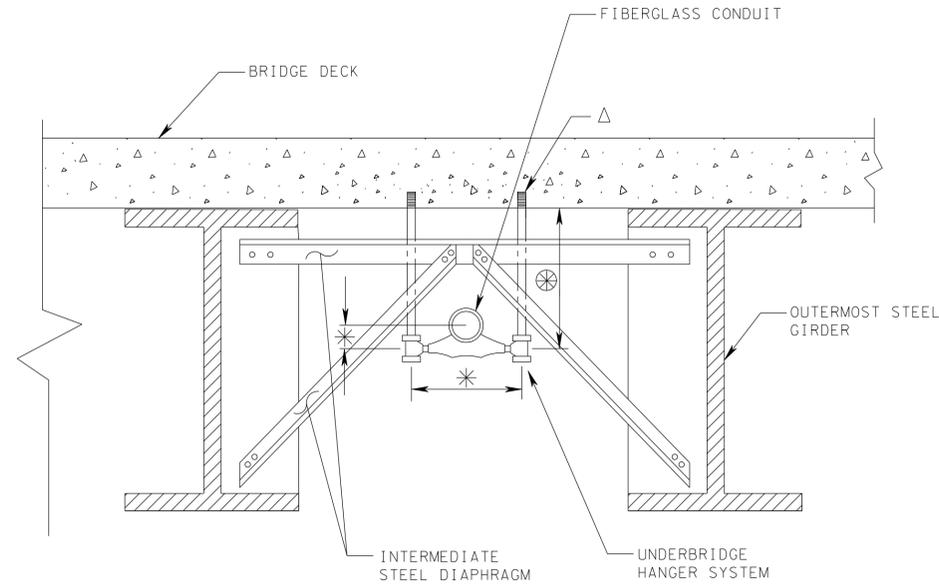
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL BRIDGE ATTACHMENT DETAILS

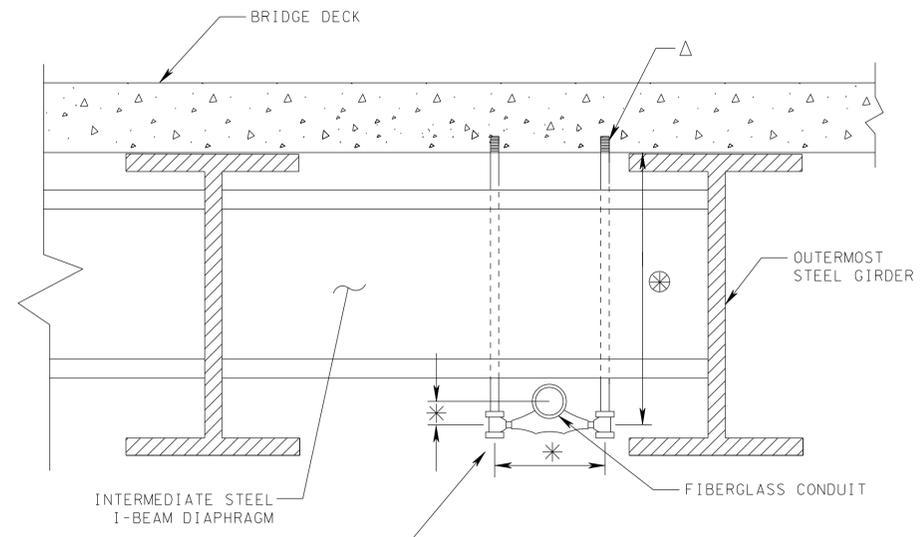
SCALE: NONE

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	IM-65-2(95)	36C



SECTION A-A
TYPICAL 5
N.T.S.

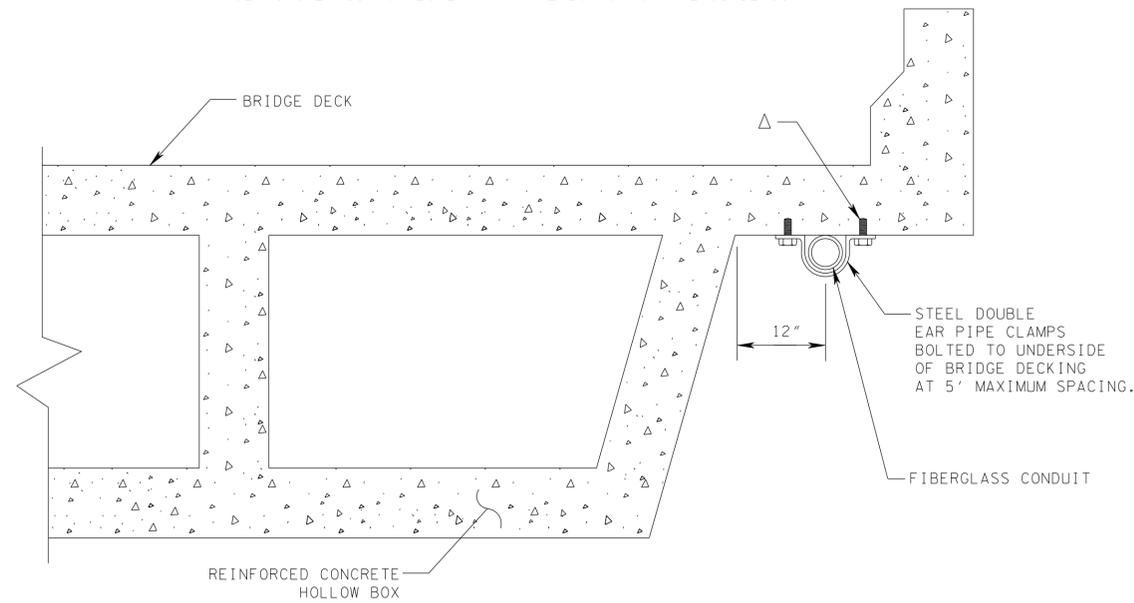
- △ ATTACHMENT TO THE BRIDGE DECK SHALL BE PER UNDERBRIDGE HANGER SYSTEM MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE ENGINEER. SPACING OF HANGERS SHALL BE 10' MAXIMUM.
- * AS RECOMMENDED BY UNDERBRIDGE HANGER SYSTEM MANUFACTURER BASED ON CONDUIT SIZE IDENTIFIED ON PLAN SHEETS
- ⊗ AS RECOMMENDED BY UNDERBRIDGE HANGER SYSTEM MANUFACTURER BASED ON ACTUAL CONDUIT SIZES USED. HOWEVER THIS DIMENSION SHALL BE LESS THAN THE DEPTH OF THE GIRDER SO THAT THE UNDERBRIDGE HANGER SYSTEM IS NOT LOWER THAN THE BOTTOM OF THE GIRDERS.



SECTION A-A
TYPICAL 6
N.T.S.

IF THERE IS SUFFICIENT SPACE, CONDUIT AND HANGER SHOULD BE INSTALLED ABOVE DIAPHRAGM.

- △ ATTACHMENT TO THE BRIDGE DECK SHALL BE PER UNDERBRIDGE HANGER SYSTEM MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE ENGINEER. SPACING OF HANGERS SHALL BE 10' MAXIMUM.
- * AS RECOMMENDED BY UNDERBRIDGE HANGER SYSTEM MANUFACTURER BASED ON CONDUIT SIZE IDENTIFIED ON PLAN SHEETS.
- ⊗ DISTANCE SHALL BE LARGE ENOUGH TO CLEAR INTERMEDIATE STEEL I-BEAM DIAPHRAGMS WHILE STILL MAINTAINING THE REQUIREMENT TO KEEP THE UNDERBRIDGE HANGER ABOVE THE LOWEST POINT OF THE SUPERSTRUCTURE.



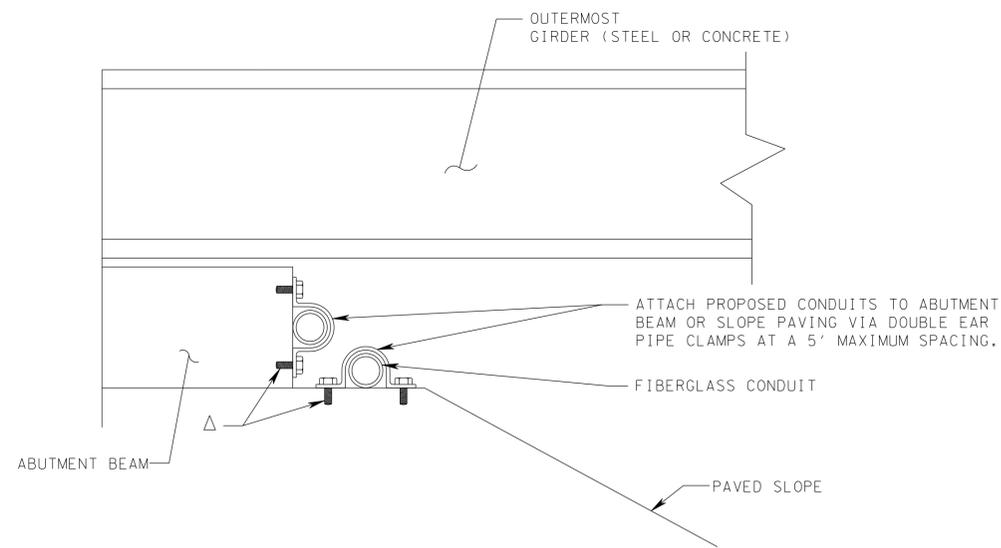
SECTION A-A
TYPICAL 7
N.T.S.

- △ ATTACHMENT TO THE BRIDGE DECK SHALL BE PER MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE ENGINEER.

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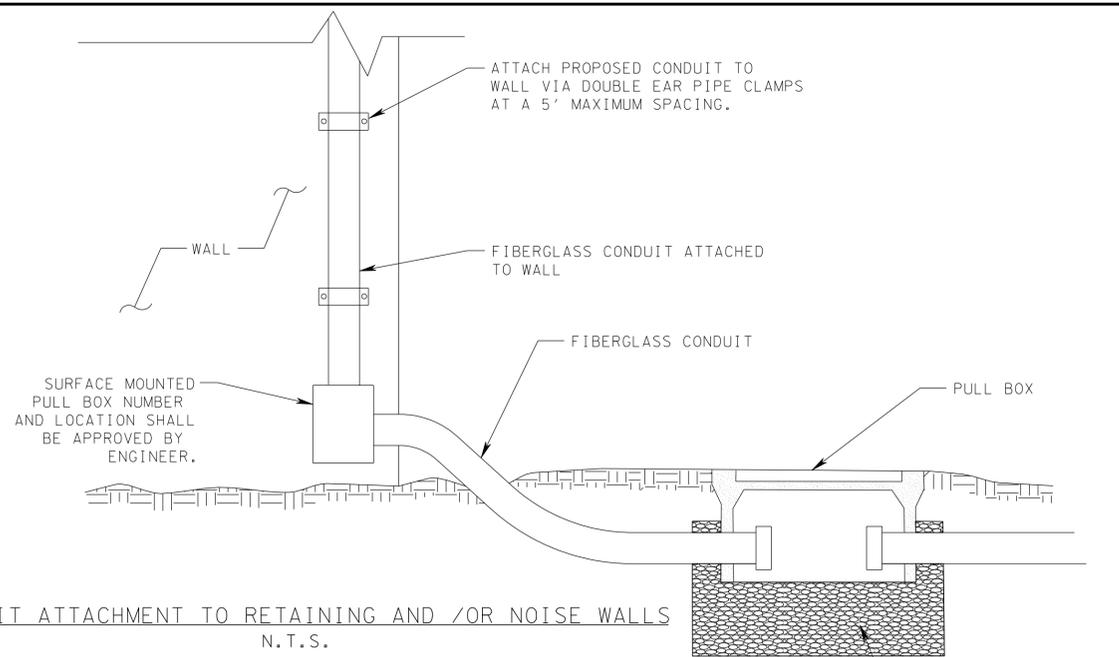
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	IM-65-2(95)	36D



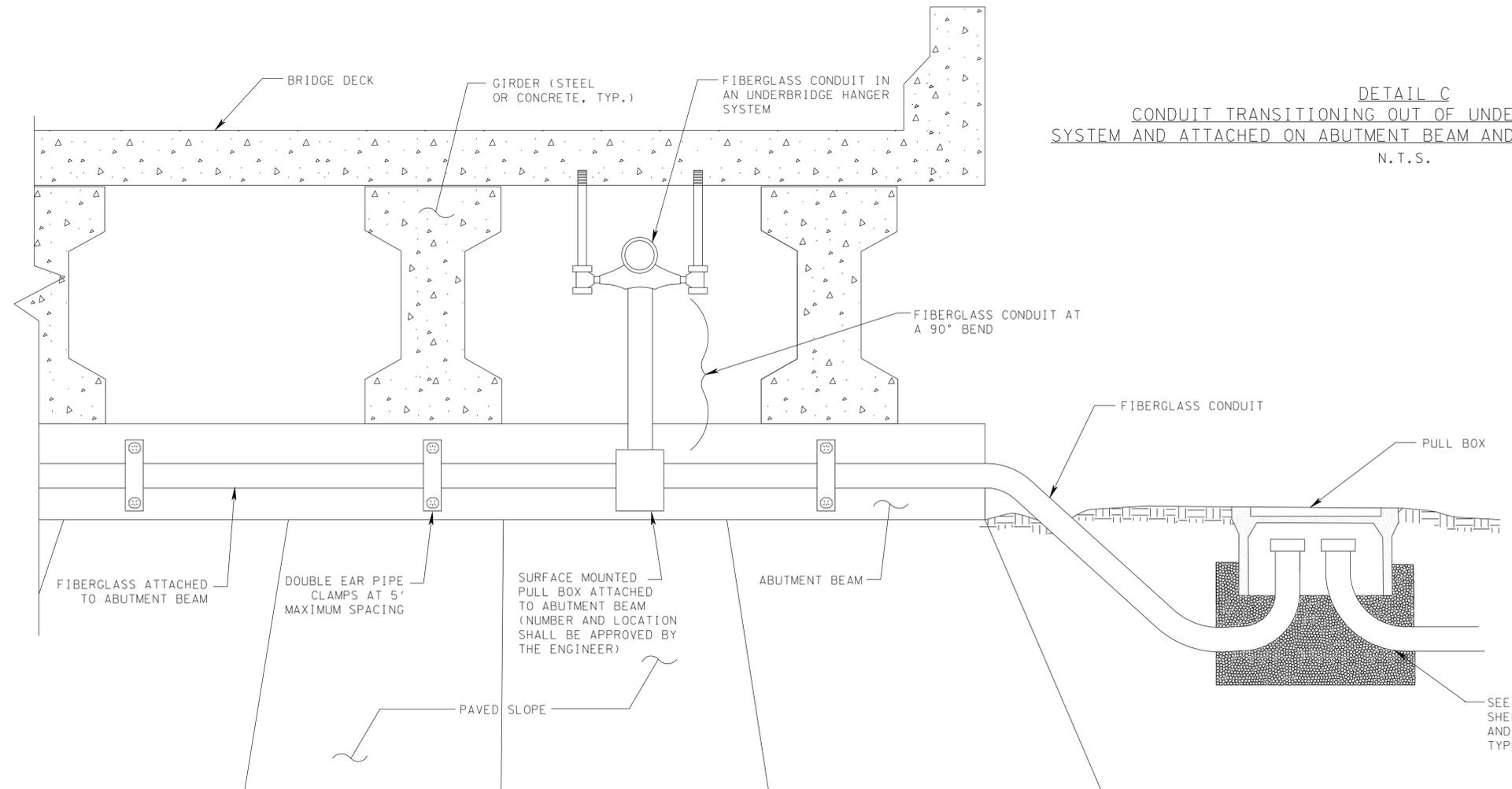
DETAIL A
CONDUIT ATTACHMENT TO ABUTMENT BEAM/PAVED SLOPE
N.T.S.

△ ATTACHMENT OF DOUBLE EAR PIPE CLAMPS TO ABUTMENT BEAM AND/OR PAVED SLOPE SHALL BE PER MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE ENGINEER.



DETAIL B
CONDUIT ATTACHMENT TO RETAINING AND /OR NOISE WALLS
N.T.S.

NOTE: TWO DETAILS ABOVE SHOULD ONLY BE USED WHERE OTHER METHODS ARE NOT POSSIBLE. WHERE POSSIBLE CONDUIT SHOULD BE BORED TO ELIMINATE ANY CONDUIT ATTACHED TO THE ABUTMENT. ALL BRIDGE ATTACHED CONDUIT SHALL BE PLACED INSIDE THE OUTERMOST GIRDER SO THAT IT IS NOT VISIBLE FROM THE SIDE OF THE BRIDGE



DETAIL C
CONDUIT TRANSITIONING OUT OF UNDERBRIDGE HANGER SYSTEM AND ATTACHED ON ABUTMENT BEAM AND/OR INTO EARTH TRENCH
N.T.S.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL BRIDGE ATTACHMENT DETAILS

SCALE: NONE

I.T.S. SPECIAL NOTES

- CONSTRUCTION OF I.T.S. INFRASTRUCTURE SHALL BE COORDINATED WITH ROADWAY CONTRACTOR TO MAXIMIZE EFFICIENCY OF ROADWAY EARTHWORK AND I.T.S. EQUIPMENT INSTALLATION. PROJECT LIMITS EXTEND BTWN STA. 311+00 TO STA. 501+92.84.
- ALL I.T.S. CONDUIT SHALL BE HDPE-TYPE CONDUIT DUCT BANK AS SPECIFIED IN THE PROJECT SPECIAL PROVISIONS DOCUMENT, UNLESS IDENTIFIED AS "BORED" IN THE I.T.S. SPECIAL NOTES OR THE TYPICAL I.T.S. LAYOUT SHEETS, CONTRACTOR SHALL BE PAID AT THE UNIT BID PRICE FOR CONDUIT BANK TYPE 4 (TRENCHED) REGARDLESS OF INSTALLATION METHOD USED.
- ALL PULL BOXES SHALL BE TYPE A F.O. PULL BOXES UNLESS OTHERWISE NOTED. SEE TDOT STANDARD DRAWING T-FO-4. GENERALLY, THE APPROXIMATE MAXIMUM DISTANCE (SPACING) BETWEEN PULL BOXES SHOULD NOT EXCEED 450', OR AS SHOWN ON LAYOUT SHEETS.
- ROCK WALL AND/OR RETAINING WALL STRUCTURES ARE PROPOSED THROUGHOUT ROADWAY PROJECT. PROPOSED CONDUIT MAY BE INSTALLED BEHIND OR IN FRONT OF WALL FACE AS SPACE ALLOWS. F.O. PULL BOXES SHALL BE INSTALLED ADJACENT TO BOTH ENDS OF WALLS TO PROVIDE ACCESS TO POSSIBLE FUTURE I.T.S. DEVICES THAT MAY BE INSTALLED ALONG ROADSIDE IN FRONT OF WALLS. FINAL POSITION OF CONDUIT DUCT BANK AND PULL BOXES SHALL BE LOCATED IN FIELD DURING CONSTRUCTION WITH PROJECT ENGINEER.
- EXISTING DRAINAGE FEATURES SUCH AS BOX CULVERTS, CONCRETE-PAVED DITCHES, FLUMES AND INLETS ARE LOCATED THROUGHOUT PROJECT LIMITS. PROPOSED CONDUIT DUCT BANK SHALL BE BORED BETWEEN PULL BOXES UNDER EXISTING DRAINAGE INFRASTRUCTURE. INSTALLATION OF I.T.S. INFRASTRUCTURE SHALL AVOID DISTURBANCE OF ALL EXISTING DRAINAGE FEATURES NOT AFFECTED BY ROADWAY CONSTRUCTION. SEE TYPICAL I.T.S. LAYOUT SHEETS AND TABULATED "LIST OF SURVEY IDENTIFIED OBSTACLES" (THIS SHEET).

- ENVIRONMENTAL REVIEW IDENTIFIED EXISTING STREAMS AND WETLANDS WITHIN PROJECT LIMITS. PROPOSED CONDUIT AND PULL BOX INSTALLATION SHALL AVOID DISTURBANCE OF WATER CONVEYANCES. CONDUIT DUCT BANK SHALL BE BORED BETWEEN PULL BOXES IN THESE AREAS. FINAL POSITION OF CONDUIT BORE AND PULL BOXES SHALL BE FIELD LOCATED WITH PROJECT ENGINEER DURING CONSTRUCTION. REFER TO TABULATED "LIST OF SURVEY IDENTIFIED OBSTACLES" (THIS SHEET). IF ROADWAY CONSTRUCTION ACTIVITIES WILL DISTURB WETLAND AREAS ANYWAY, JACK/BORE OF I.T.S. CONDUIT IS NOT REQUIRED AND WILL BE PAID FOR AT THE "TRENCHED" BID UNIT PRICE.
- PROPOSED WORK INCLUDES INSTALLATION OF CONDUIT DUCT BANK AS PART OF IMPROVEMENTS TO HARPETH RIVER BRIDGE CROSSING. FOUR (4) 1 - 1/4" CONDUITS TO BE INCORPORATED INTO BRIDGE WIDENING. IF CONDUIT DUCT BANK IS INSTALLED WITHIN BRIDGE STRUCTURE (INSIDE PARAPET), I.T.S. CONTRACTOR SHALL COORDINATE WITH BRIDGE CONTRACTOR TO INSTALL CONDUIT ALONG STRUCTURE. I.T.S. CONTRACTOR SHALL PROVIDE AND INSTALL F.O. PULL BOXES TO INTERCEPT AND ACCEPT CONDUIT DUCT BANK AT BOTH ENDS OF BRIDGE. OTHERWISE, A MULTI-CELL BULLET-RESISTANT STRUCTURE CONDUIT BANK WITH HANGER SYSTEM SHALL BE INSTALLED ACROSS THE BRIDGE (SEE PROJECT SPECIAL PROVISIONS AND CONDUIT BRIDGE CROSSING DETAILS).
- SURVEY IDENTIFIED PRESENCE OF COLUMBIA GAS TRANSMISSION HIGH-PRESSURE NATURAL GAS LINES (INCLUDING OWNER EASEMENT LIMITS) BETWEEN STA. 405 AND STA. 410. CONTRACTOR SHALL COORDINATE WITH AND MEET ALL INSTALLATION REQUIREMENTS OF UTILITY OWNER. PROPOSED FOUR (4) - 1/4" HDPE CONDUIT DUCT BANK SHALL BE ENCASED IN 6" STEEL PIPE BORED BETWEEN PULL BOXES AND MAINTAIN MINIMUM 24" VERTICAL CLEARANCE UNDER ALL GAS TRANSMISSION LINES. PULL BOXES SHALL BE LOCATED OUTSIDE UTILITY OWNER EASEMENT LIMITS. CONTRACTOR SHALL CONTACT UTILITY OWNER A MINIMUM OF 48 HRS PRIOR TO CONSTRUCTION TO REQUEST OWNER TO DETERMINE LOCATION AND DEPTH OF EXISTING GAS LINE PIPES. CONTACT OWNER AT 866-701-9582 FOR ADDITIONAL PIPELINE CROSSING SPECIFICATION DETAILS AND INFORMATION.
- EROSION CONTROL FOR CONDUIT INSTALLATION SHALL BE INCORPORATED INTO THAT REQUIRED FOR ROADWAY CONSTRUCTION EPSC MEASURES.

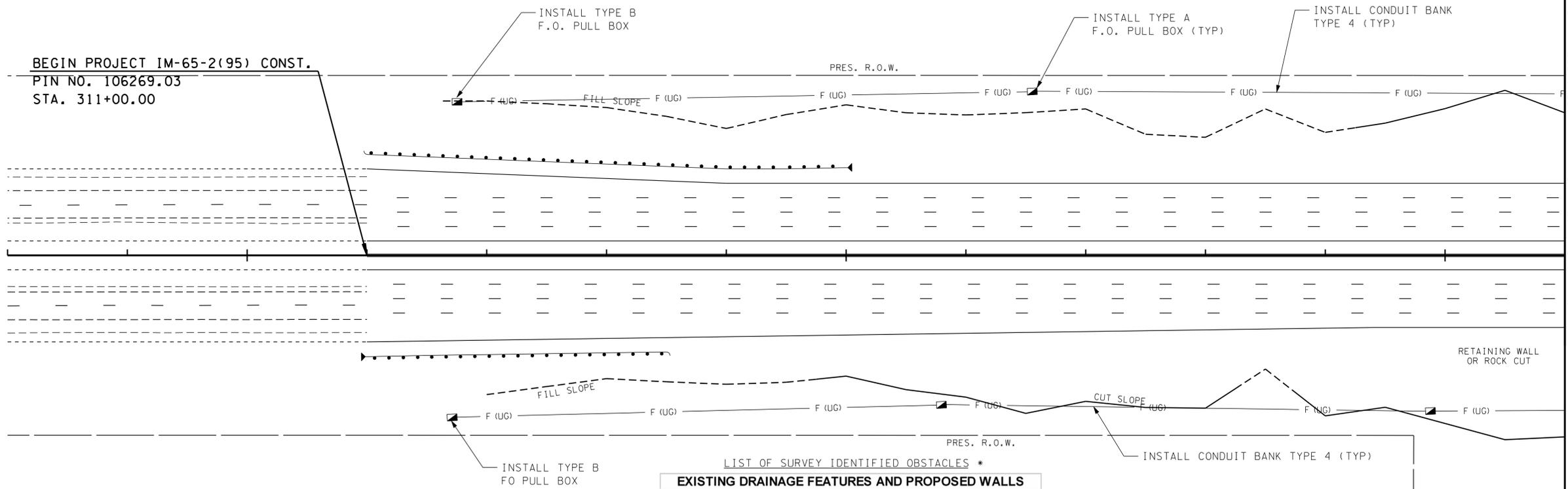
- PROPOSED I.T.S. CONDUIT DUCT BANK SHALL BE INSTALLED ACROSS STATE ROUTE 96 INTERCHANGE AS SHOWN ON TYPICAL LAYOUT. TYPE B F.O. PULL BOXES SHALL BE PROVIDED AT INTERCHANGE WHERE SHOWN TO ALLOW FOR FUTURE TDOT-CITY OF FRANKLIN CENTER-TO-CENTER COMMUNICATIONS.
- PROPOSED ROADWAY DESIGN INCLUDES INSTALLATION OF NOISE BARRIER WALL ALONG WEST SIDE OF I-65 FROM APPROX. STA. 377 TO STA. 426, EXCLUDING HARPETH BRIDGE CROSSING. LOCATION OF PROPOSED NOISE WALL WILL REQUIRE I.T.S. CONDUIT TO CROSS UNDER WALL IN MULTIPLE LOCATIONS. CONDUIT DUCT BANK SHALL BE INSTALLED AT DEPTH, BORED BTWN PULL BOXES IF NECESSARY, TO AVOID CONFLICT WITH FOUNDATION OF NOISE WALL. CONTRACTOR SHALL COORDINATE WITH PROJECT ENGINEER DURING CONSTRUCTION TO DETERMINE FINAL LOCATION AND DEPTH OF I.T.S. CONDUIT.
- IN ADDITION TO THE SPECIFIC STATIONING SHOWN, THE TYPICAL LAYOUT SHEETS ARE ALSO TO BE USED AS GUIDANCE FOR PROJECT AREAS NOT DEPICTED IN THE TYPICAL LAYOUTS. FOR LOCATIONS SHOWN IN THE LAYOUTS, INSTALLATION SHOULD BE IMPLEMENTED AS DETAILED. FOR AREAS NOT SPECIFICALLY SHOWN, THE LAYOUTS SHALL SERVE AS TYPICAL INSTALLATION METHODS BASED ON EXISTING CONDITIONS FOUND. CONTRACTOR SHALL FOLLOW I.T.S. SPECIAL NOTES AND PROJECT SPECIAL PROVISIONS. CONTRACTOR MAY USE "LIST OF SURVEY IDENTIFIED OBSTACLES" (SEE THIS SHEET) AS REFERENCE OF FIELD ITEMS TO BE AVOIDED DURING INSTALLATION OF I.T.S. CONDUIT.

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320



LIST OF SURVEY IDENTIFIED OBSTACLES *

EXISTING DRAINAGE FEATURES AND PROPOSED WALLS			
STATION		BOX CULVERT	RIGHT & LEFT
STATION 311		BOX CULVERT	RIGHT & LEFT
STATION 320-323		RETAINING WALL	RIGHT
STATION 322 - 324		DRAINAGE CULVERT	LEFT
STATION 324		CONCRETE FLUMES	RIGHT
STATION 326+75		BOX CULVERT	LEFT
STATION 346 - 351		RETAINING WALL	RIGHT
STATION 346 - 348		RETAINING WALL	LEFT
STATION 377 - 382		NOISE BARRIER	LEFT
STATION 385 - 426		NOISE BARRIER	LEFT
STATION 386 - 388		DRAINAGE CULVERT	LEFT
STATION 387 - 392		RETAINING WALL	RIGHT
STATION 387 - 391		RETAINING WALL	LEFT
STATION 402+20		BOX CULVERT	RIGHT & LEFT
STATION 423 - 430		RETAINING WALL	LEFT
STATION 438		BOX CULVERT	LEFT
STATION 439		BOX CULVERT	RIGHT
STATION 457 - 458		24" STORM DRAIN	RIGHT & LEFT
STATION 481 - 489		RETAINING WALL	RIGHT
STATION 491 - 496		RETAINING WALL	LEFT

LIST OF SURVEY IDENTIFIED OBSTACLES *

STREAMS	
STATION	
STATION 326+90	RIGHT
STATION 402+20	RIGHT
STATION 438+90	RIGHT
STATION 438+90	LEFT
STATION 439 - 465 (PARALLEL)	LEFT
STATION 443 - 465 (PARALLEL)	RIGHT

WETLANDS	
STATION	
STATION 338 - 340	RIGHT
STATION 362 - 363	SINKHOLE-LEFT
STATION 451 - 454	RIGHT
STATION 459 - 460	RIGHT

NATURAL GAS LINES	
STATION	
STATION 406 - 410	RIGHT & LEFT
STATION 461+50	RIGHT

* BASED ON INFORMATION FROM PROJECT FIELD SURVEY. ACTUAL CONDITIONS AND/OR LOCATIONS MAY VARY. FINAL POSITION OF CONDUIT AND PULL BOXES MAY BE ADJUSTED IN FIELD WITH PRIOR APPROVAL FROM PROJECT ENGINEER.

NOTES

- RETAINING WALL/ROCK WALL FACE PROPOSED BETWEEN STA. 320 AND STA. 323 (RIGHT). INSTALL PROP. CONDUIT BEHIND WALL NEAR OR JUST BEYOND ROADWAY CUT SLOPE. PROVIDE PULL BOXES AT ENDS OF WALL AS SHOWN. FIELD LOCATE WITH PROJECT ENGINEER DURING CONSTRUCTION TO DETERMINE FINAL POSITION.
- EXISTING 5'x6' BOX CULVERT LOCATED NEAR STA. 311. PROPOSED PULL BOX AND CONDUIT (EAST AND WEST SIDES) TO BE FIELD LOCATED WITH PROJECT ENGINEER TO AVOID CONFLICT WITH DRAINAGE AREA AND ADJACENT FENCE.

MATCH LINE STA. 321+00 SEE SHEET NO. 36F



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000084 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

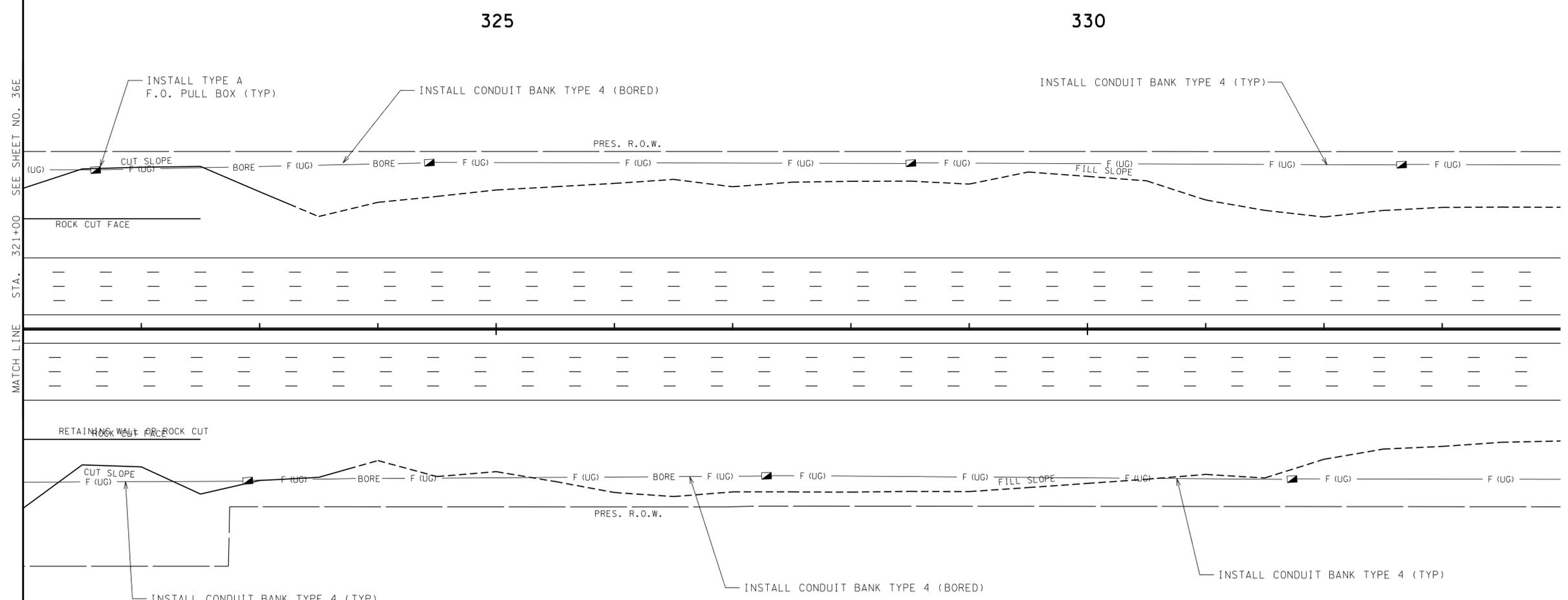
TYPICAL I.T.S. LAYOUT

SCALE: 1" = 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	IM-65-2(95)	36F

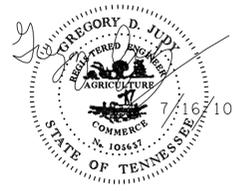


NOTES

1. RETAINING WALL/ROCK WALL FACE PROPOSED BETWEEN STA. 320 AND STA. 323 (RIGHT). INSTALL PROP. CONDUIT BEHIND WALL NEAR OR JUST BEYOND ROADWAY CUT SLOPE. PROVIDE PULL BOXES AT ENDS OF WALL AS SHOWN. FIELD LOCATE WITH PROJECT ENGINEER DURING CONSTRUCTION TO DETERMINE FINAL POSITION.
2. EXISTING CONCRETE DRAINAGE STRUCTURES LOCATED BETWEEN STA. 323 AND STA. 325 (RIGHT). STREAM IDENTIFIED NEAR STA. 326+90(RIGHT). PROP. CONDUIT TO BE BORED BETWEEN PULL BOXES TO AVOID DRAINAGE AND WATER FEATURES. PULL BOXES TO BE POSITIONED TO AVOID DISTURBANCE OF WATER COURSES. FIELD LOCATE FINAL BORE LOCATIONS WITH PROJECT ENGINEER.
3. EXISTING DRAINAGE CULVERT PRESENT BETWEEN STA. 322 AND STA. 324 (LEFT). CONDUIT TO BE BORED BETWEEN PULL BOXES TO AVOID DISTURBANCE TO EXISTING DRAINAGE INFRASTRUCTURE. LOCATE FINAL POSITIONS OF CONDUIT AND PULL BOXES IN FIELD WITH PROJECT ENGINEER.
4. IN ADDITION TO THE SPECIFIC STATIONING SHOWN, THE TYPICAL LAYOUT SHEETS ARE ALSO TO BE USED AS GUIDANCE FOR PROJECT AREAS NOT DEPICTED IN THE TYPICAL LAYOUTS. FOR LOCATIONS SHOWN IN THE LAYOUTS, INSTALLATION SHOULD BE IMPLEMENTED AS DETAILED. FOR AREAS NOT SPECIFICALLY SHOWN, THE LAYOUTS SHALL SERVE AS TYPICAL INSTALLATION METHODS BASED ON EXISTING CONDITIONS FOUND. CONTRACTOR SHALL FOLLOW I.T.S. SPECIAL NOTES AND PROJECT SPECIAL PROVISIONS. CONTRACTOR MAY USE "LIST OF SURVEY IDENTIFIED OBSTACLES" AS REFERENCE OF FIELD ITEMS TO BE AVOIDED DURING INSTALLATION OF I.T.S. CONDUIT.

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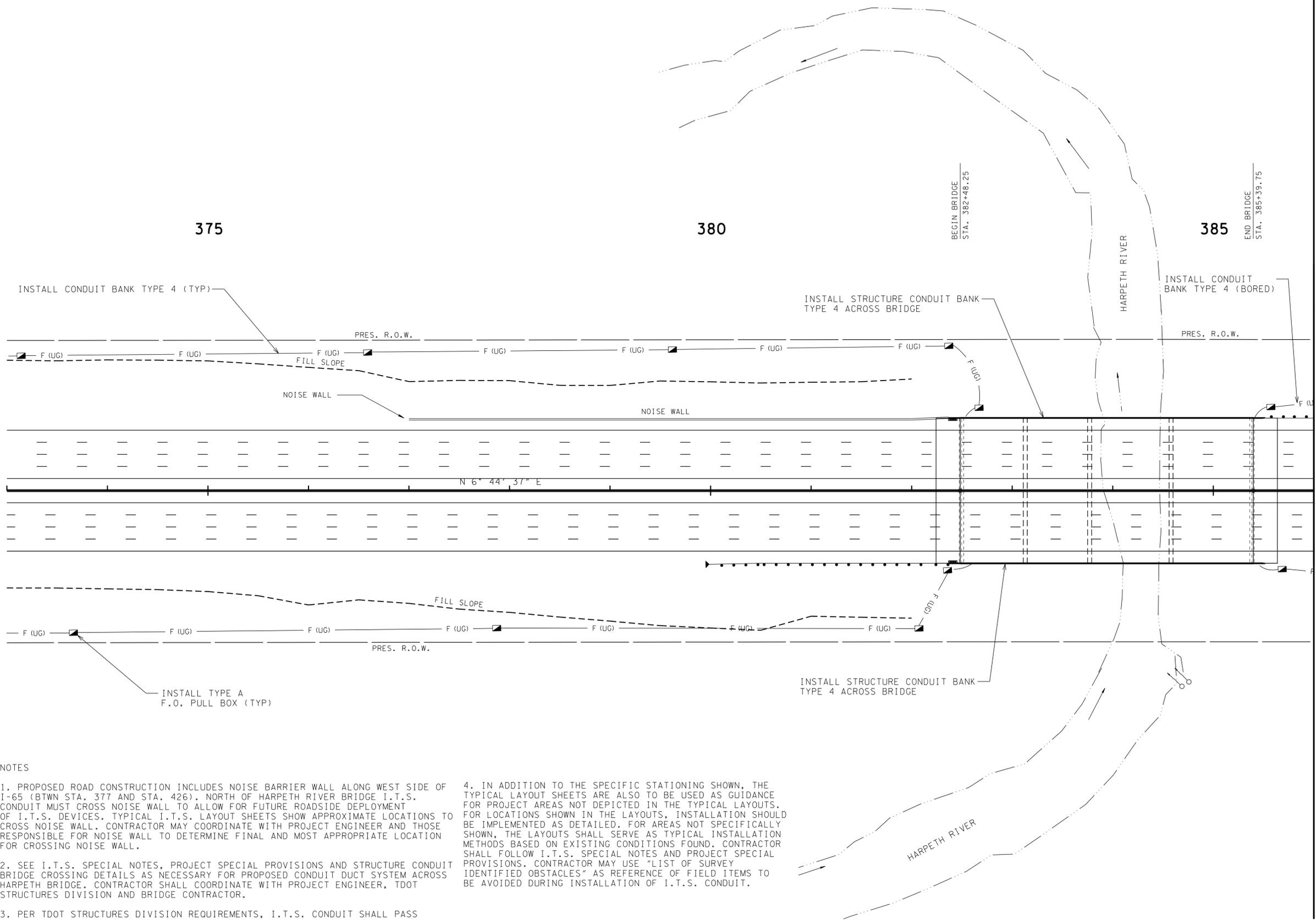
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**TYPICAL
I.T.S.
LAYOUT**

SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	IM-65-2(95)	366



MATCH LINE STA. 386+00 SEE SHEET NO. 36H

PIN NO. 106269.03

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NOTES

1. PROPOSED ROAD CONSTRUCTION INCLUDES NOISE BARRIER WALL ALONG WEST SIDE OF I-65 (BTWN STA. 377 AND STA. 426). NORTH OF HARPETH RIVER BRIDGE I.T.S. CONDUIT MUST CROSS NOISE WALL TO ALLOW FOR FUTURE ROADSIDE DEPLOYMENT OF I.T.S. DEVICES. TYPICAL I.T.S. LAYOUT SHEETS SHOW APPROXIMATE LOCATIONS TO CROSS NOISE WALL. CONTRACTOR MAY COORDINATE WITH PROJECT ENGINEER AND THOSE RESPONSIBLE FOR NOISE WALL TO DETERMINE FINAL AND MOST APPROPRIATE LOCATION FOR CROSSING NOISE WALL.
2. SEE I.T.S. SPECIAL NOTES, PROJECT SPECIAL PROVISIONS AND STRUCTURE CONDUIT BRIDGE CROSSING DETAILS AS NECESSARY FOR PROPOSED CONDUIT DUCT SYSTEM ACROSS HARPETH BRIDGE. CONTRACTOR SHALL COORDINATE WITH PROJECT ENGINEER, TDOT STRUCTURES DIVISION AND BRIDGE CONTRACTOR.
3. PER TDOT STRUCTURES DIVISION REQUIREMENTS, I.T.S. CONDUIT SHALL PASS THRU ABUTMENT BACKWALL TO INTERCEPT AND CONNECT TO STRUCTURE CONDUIT BANK. COORDINATE WITH PROJECT ENGINEER AND CONTRACTOR RESPONSIBLE FOR BRIDGE CONSTRUCTION.
4. IN ADDITION TO THE SPECIFIC STATIONING SHOWN, THE TYPICAL LAYOUT SHEETS ARE ALSO TO BE USED AS GUIDANCE FOR PROJECT AREAS NOT DEPICTED IN THE TYPICAL LAYOUTS. FOR LOCATIONS SHOWN IN THE LAYOUTS, INSTALLATION SHOULD BE IMPLEMENTED AS DETAILED. FOR AREAS NOT SPECIFICALLY SHOWN, THE LAYOUTS SHALL SERVE AS TYPICAL INSTALLATION METHODS BASED ON EXISTING CONDITIONS FOUND. CONTRACTOR SHALL FOLLOW I.T.S. SPECIAL NOTES AND PROJECT SPECIAL PROVISIONS. CONTRACTOR MAY USE "LIST OF SURVEY IDENTIFIED OBSTACLES" AS REFERENCE OF FIELD ITEMS TO BE AVOIDED DURING INSTALLATION OF I.T.S. CONDUIT.



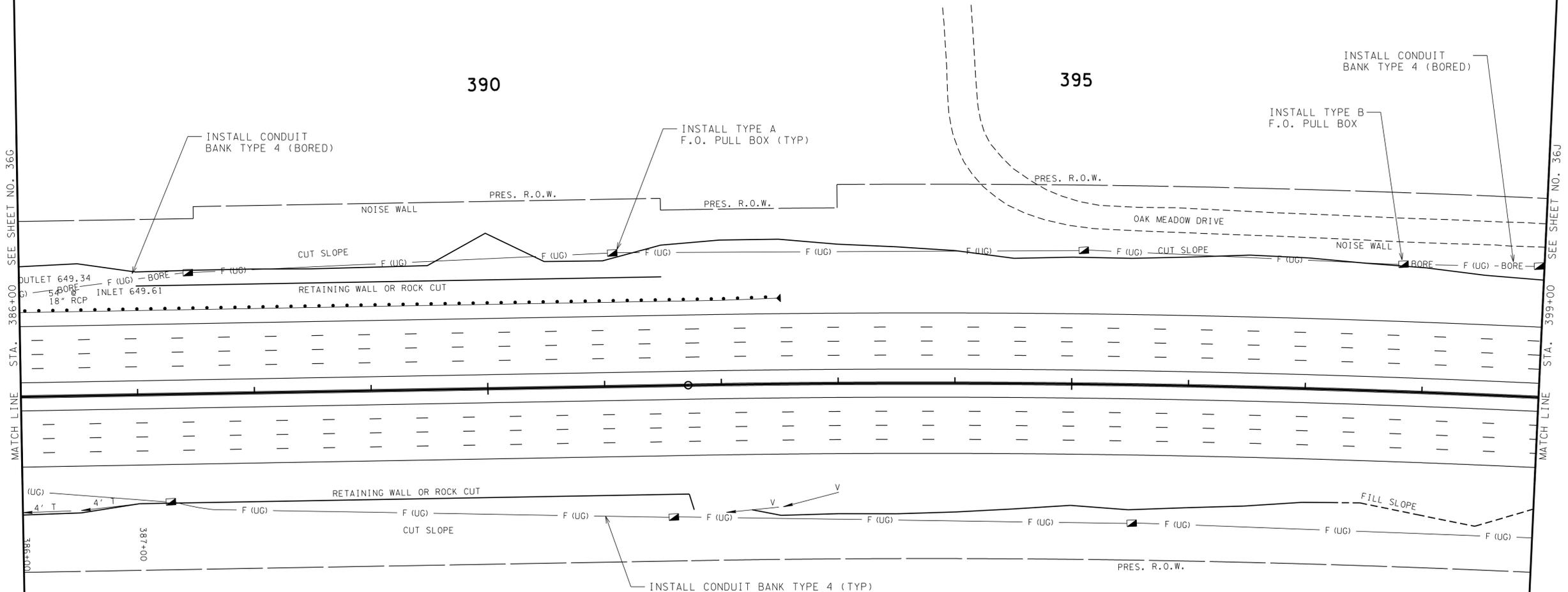
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**TYPICAL
I.T.S.
LAYOUT**

SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	IM-65-2(95)	36H



NOTES

1. PROPOSED ROAD CONSTRUCTION INCLUDES NOISE BARRIER WALL ALONG WEST SIDE OF I-65 (BTWN STA. 377 AND STA. 426). NORTH OF HARPETH RIVER BRIDGE, I.T.S. CONDUIT MUST CROSS NOISE WALL TO ALLOW FOR FUTURE ROADSIDE DEPLOYMENT OF I.T.S. DEVICES. TYPICAL I.T.S. LAYOUT SHEETS SHOW APPROXIMATE LOCATIONS TO CROSS NOISE WALL. CONTRACTOR MAY COORDINATE WITH PROJECT ENGINEER AND THOSE RESPONSIBLE FOR NOISE WALL TO DETERMINE FINAL AND MOST APPROPRIATE LOCATION FOR CROSSING NOISE WALL.
2. RETAINING WALL/ROCK WALL FACE PROPOSED AS PART OF ROADWAY WORK. INSTALL PROPOSED CONDUIT DUCT BANK BEHIND WALL ADJACENT TO ROADWAY CUT SLOPE. PROVIDE PULL BOXES AT ENDS OF WALL AS SHOWN. FIELD LOCATE WITH PROJECT ENGINEER DURING CONSTRUCTION TO DETERMINE FINAL POSITION. PROVIDE PULL BOXES AT BOTH ENDS OF WALL.
3. IN ADDITION TO THE SPECIFIC STATIONING SHOWN, THE TYPICAL LAYOUT SHEETS ARE ALSO TO BE USED AS GUIDANCE FOR PROJECT AREAS NOT DEPICTED IN THE TYPICAL LAYOUTS. FOR LOCATIONS SHOWN IN THE LAYOUTS, INSTALLATION SHOULD BE IMPLEMENTED AS DETAILED. FOR AREAS NOT SPECIFICALLY SHOWN, THE LAYOUTS SHALL SERVE AS TYPICAL INSTALLATION METHODS BASED ON EXISTING CONDITIONS FOUND. CONTRACTOR SHALL FOLLOW I.T.S. SPECIAL NOTES AND PROJECT SPECIAL PROVISIONS. CONTRACTOR MAY USE "LIST OF SURVEY IDENTIFIED OBSTACLES" AS REFERENCE OF FIELD ITEMS TO BE AVOIDED DURING INSTALLATION OF I.T.S. CONDUIT.

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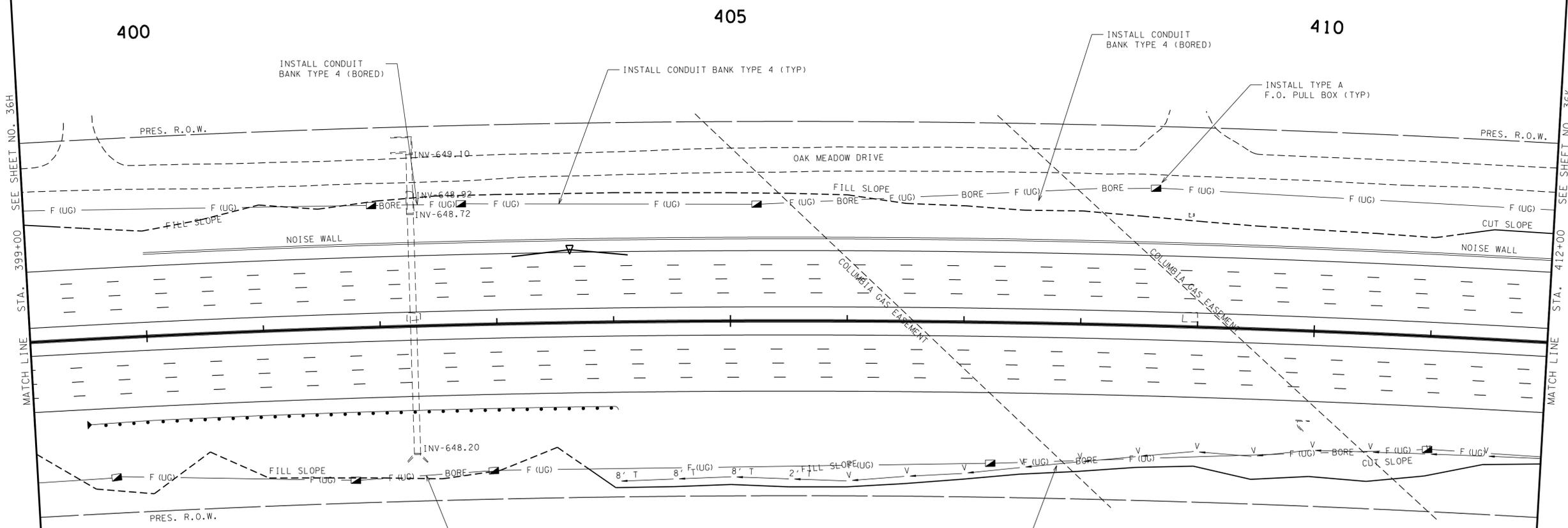
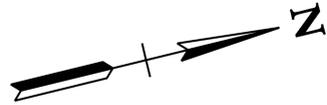
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
I.T.S.
LAYOUT

SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	IM-65-2(95)	36J



NOTES

1. SURVEY IDENTIFIED PRESENCE OF COLUMBIA GAS TRANSMISSION HIGH-PRESSURE NATURAL GAS LINES (INCLUDING OWNER EASEMENT LIMITS) BETWEEN STA. 405 AND STA. 410. CONTRACTOR SHALL COORDINATE WITH AND MEET ALL INSTALLATION REQUIREMENTS OF UTILITY OWNER. PROPOSED FOUR (4) - 1/4" HDPE CONDUIT DUCT BANK SHALL BE ENCASED IN 6" STEEL PIPE BORED BETWEEN PULL BOXES AND MAINTAIN MINIMUM 24" VERTICAL CLEARANCE UNDER ALL GAS TRANSMISSION LINES. PULL BOXES SHALL BE LOCATED OUTSIDE UTILITY OWNER EASEMENT LIMITS. CONTRACTOR SHALL CONTACT UTILITY OWNER A MINIMUM OF 48 HRS PRIOR TO CONSTRUCTION TO REQUEST OWNER TO DETERMINE LOCATION AND DEPTH OF EXISTING GAS LINE PIPES. CONTACT OWNER AT 866-701-9582 FOR ADDITIONAL PIPELINE CROSSING SPECIFICATION DETAILS AND INFORMATION.

2. EXISTING DRAINAGE BOX CULVERT LOCATED NEAR STA. 402+20 (LEFT AND RIGHT). STREAM IDENTIFIED NEAR STA. 402+20 (RIGHT). PROPOSED PULL BOXES AND CONDUIT (EAST AND WEST SIDES) TO BE FIELD LOCATED WITH PROJECT ENGINEER TO AVOID CONFLICT WITH DRAINAGE AREA.

3. IN ADDITION TO THE SPECIFIC STATIONING SHOWN, THE TYPICAL LAYOUT SHEETS ARE ALSO TO BE USED AS GUIDANCE FOR PROJECT AREAS NOT DEPICTED IN THE TYPICAL LAYOUTS. FOR LOCATIONS SHOWN IN THE LAYOUTS, INSTALLATION SHOULD BE IMPLEMENTED AS DETAILED. FOR AREAS NOT SPECIFICALLY SHOWN, THE LAYOUTS SHALL SERVE AS TYPICAL INSTALLATION METHODS BASED ON EXISTING CONDITIONS FOUND. CONTRACTOR SHALL FOLLOW I.T.S. SPECIAL NOTES AND PROJECT SPECIAL PROVISIONS. CONTRACTOR MAY USE "LIST OF SURVEY IDENTIFIED OBSTACLES" AS REFERENCE OF FIELD ITEMS TO BE AVOIDED DURING INSTALLATION OF I.T.S. CONDUIT.

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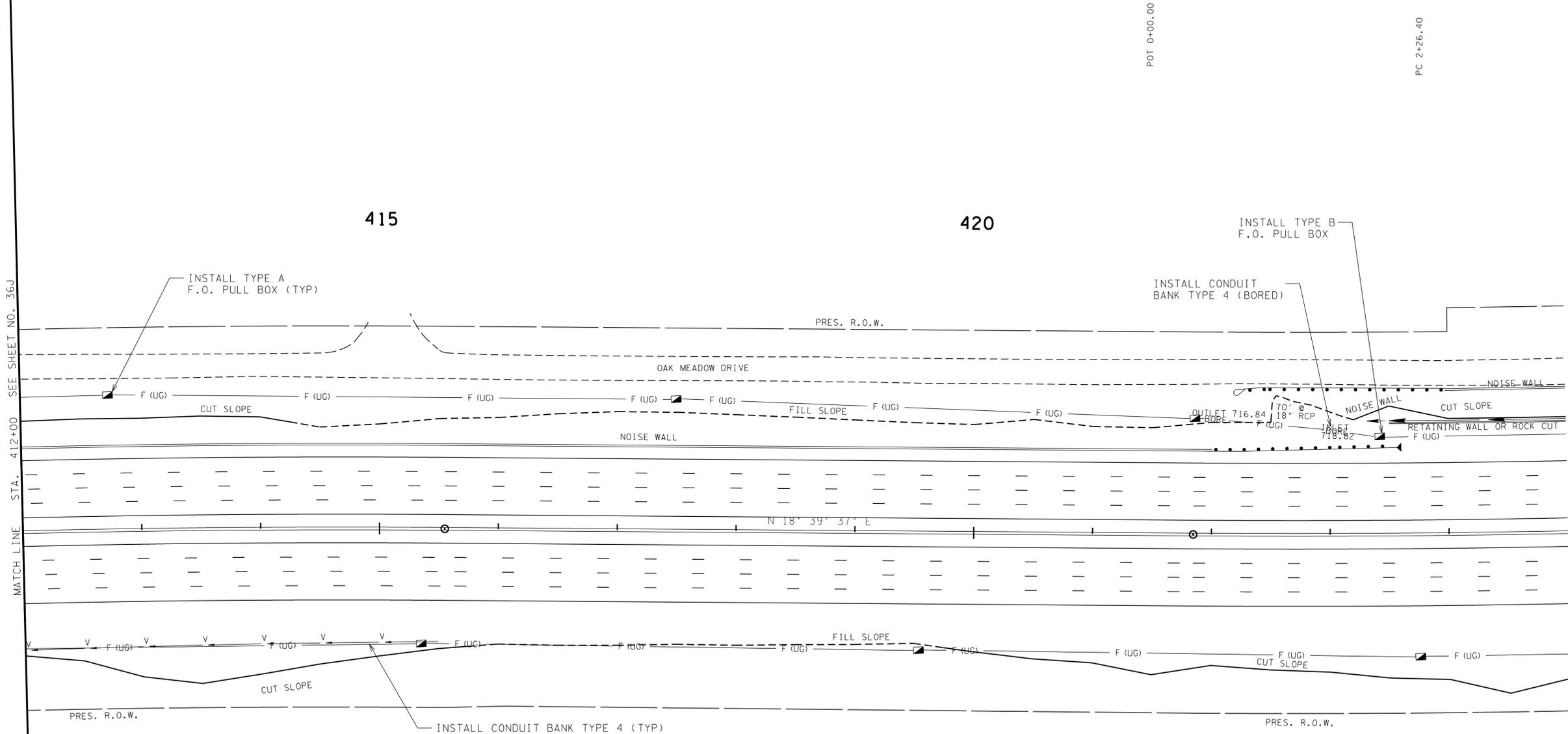
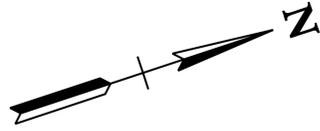
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
I.T.S.
LAYOUT

SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	IM-65-2(95)	36K



NOTES

1. PROPOSED ROAD CONSTRUCTION INCLUDES NOISE BARRIER WALL ALONG WEST SIDE OF I-65 (BTWN STA. 377 AND STA. 426), NORTH OF HARPETH RIVER BRIDGE, I.T.S. CONDUIT MUST CROSS NOISE WALL TO ALLOW FOR FUTURE ROADSIDE DEPLOYMENT OF I.T.S. DEVICES. TYPICAL I.T.S. LAYOUT SHEETS SHOW APPROXIMATE LOCATIONS TO CROSS NOISE WALL. CONTRACTOR MAY COORDINATE WITH PROJECT ENGINEER AND THOSE RESPONSIBLE FOR NOISE WALL TO DETERMINE FINAL AND MOST APPROPRIATE LOCATION FOR CROSSING NOISE WALL.

2. RETAINING WALL/ROCK WALL FACE PROPOSED AS PART OF ROADWAY WORK (STA. 423 TO STA. 430 - LEFT). INSTALL PROPOSED CONDUIT DUCT BANK IN FRONT OF WALL. POSITION CONDUIT DUCT BANK TO AVOID ROADWAY SHOULDER AND RETAINING WALL FOUNDATION. PROVIDE PULL BOXES AT BOTH ENDS OF WALL. FIELD LOCATE WITH PROJECT ENGINEER DURING CONSTRUCTION TO DETERMINE FINAL POSITION.

3. IN ADDITION TO THE SPECIFIC STATIONING SHOWN, THE TYPICAL LAYOUT SHEETS ARE ALSO TO BE USED AS GUIDANCE FOR PROJECT AREAS NOT DEPICTED IN THE TYPICAL LAYOUTS. FOR LOCATIONS SHOWN IN THE LAYOUTS, INSTALLATION SHOULD BE IMPLEMENTED AS DETAILED. FOR AREAS NOT SPECIFICALLY SHOWN, THE LAYOUTS SHALL SERVE AS TYPICAL INSTALLATION METHODS BASED ON EXISTING CONDITIONS FOUND. CONTRACTOR SHALL FOLLOW I.T.S. SPECIAL NOTES AND PROJECT SPECIAL PROVISIONS. CONTRACTOR MAY USE "LIST OF SURVEY IDENTIFIED OBSTACLES" AS REFERENCE OF FIELD ITEMS TO BE AVOIDED DURING INSTALLATION OF I.T.S. CONDUIT.

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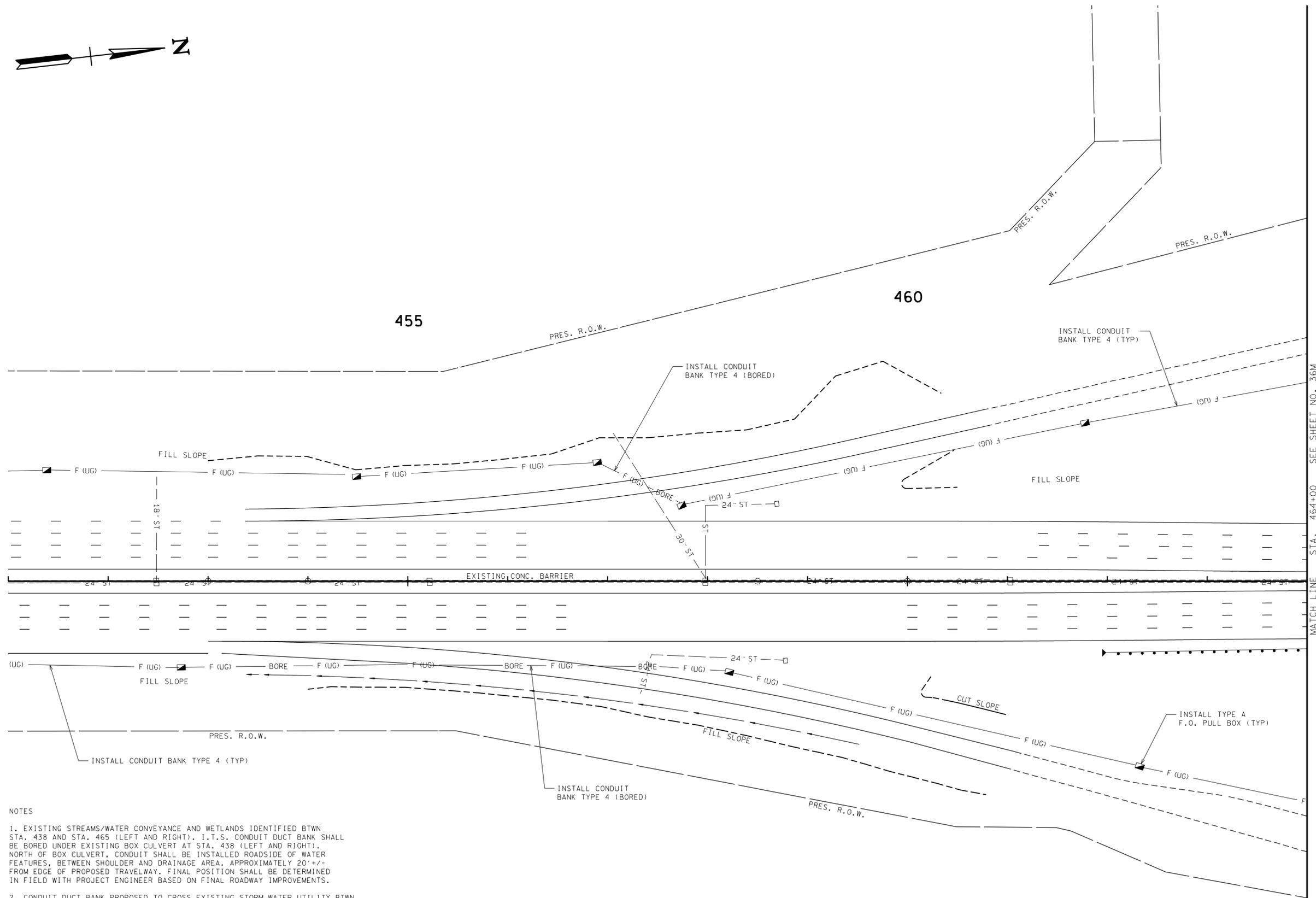
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
I.T.S.
LAYOUT

SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	IM-65-2(95)	36L



MATCH LINE STA. 464+00 SEE SHEET NO. 36M

NOTES

- EXISTING STREAMS/WATER CONVEYANCE AND WETLANDS IDENTIFIED BTWN STA. 438 AND STA. 465 (LEFT AND RIGHT). I.T.S. CONDUIT DUCT BANK SHALL BE BORED UNDER EXISTING BOX CULVERT AT STA. 438 (LEFT AND RIGHT). NORTH OF BOX CULVERT, CONDUIT SHALL BE INSTALLED ROADSIDE OF WATER FEATURES, BETWEEN SHOULDER AND DRAINAGE AREA, APPROXIMATELY 20'+/- FROM EDGE OF PROPOSED TRAVELWAY. FINAL POSITION SHALL BE DETERMINED IN FIELD WITH PROJECT ENGINEER BASED ON FINAL ROADWAY IMPROVEMENTS.
- CONDUIT DUCT BANK PROPOSED TO CROSS EXISTING STORM WATER UTILITY BTWN STA. 457 AND STA. 458 (LEFT AND RIGHT). CONDUIT SHALL BE BORED BETWEEN PULL BOXES UNDER STORM DRAIN. EXISTING GAS UTILITY LINE REPORTED BY SURVEY DATA AT I-65 NB OFF-RAMP STATION 361+80 (APPROX.). COORDINATE WITH PROJECT ENGINEER TO DETERMINE NEED TO BORE UNDER GAS LINE. REFER TO PRESENT LAYOUT SHEET OF ROADWAY PLANS FOR ADDITIONAL UTILITY LOCATION INFORMATION.
- IN ADDITION TO THE SPECIFIC STATIONING SHOWN, THE TYPICAL LAYOUT SHEETS ARE ALSO TO BE USED AS GUIDANCE FOR PROJECT AREAS NOT DEPICTED IN THE TYPICAL LAYOUTS. FOR LOCATIONS SHOWN IN THE LAYOUTS, INSTALLATION SHOULD BE IMPLEMENTED AS DETAILED. FOR AREAS NOT SPECIFICALLY SHOWN, THE LAYOUTS SHALL SERVE AS TYPICAL INSTALLATION METHODS BASED ON EXISTING CONDITIONS FOUND. CONTRACTOR SHALL FOLLOW I.T.S. SPECIAL NOTES AND PROJECT SPECIAL PROVISIONS. CONTRACTOR MAY USE "LIST OF SURVEY IDENTIFIED OBSTACLES" AS REFERENCE OF FIELD ITEMS TO BE AVOIDED DURING INSTALLATION OF I.T.S. CONDUIT.



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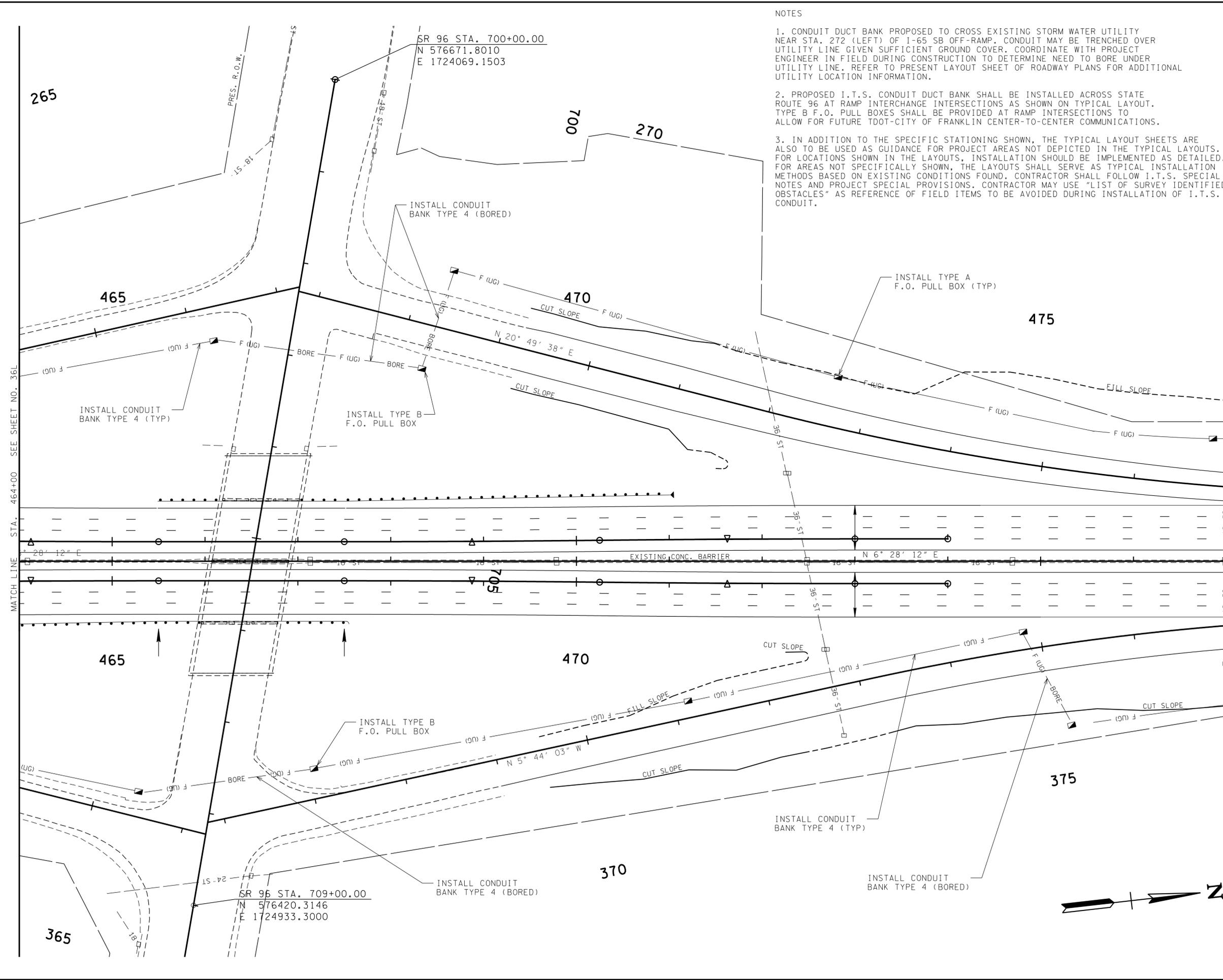
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**TYPICAL
I.T.S.
LAYOUT**

SCALE: 1" = 50'

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- NOTES
1. CONDUIT DUCT BANK PROPOSED TO CROSS EXISTING STORM WATER UTILITY NEAR STA. 272 (LEFT) OF I-65 SB OFF-RAMP. CONDUIT MAY BE TRENCHED OVER UTILITY LINE GIVEN SUFFICIENT GROUND COVER. COORDINATE WITH PROJECT ENGINEER IN FIELD DURING CONSTRUCTION TO DETERMINE NEED TO BORE UNDER UTILITY LINE. REFER TO PRESENT LAYOUT SHEET OF ROADWAY PLANS FOR ADDITIONAL UTILITY LOCATION INFORMATION.
 2. PROPOSED I.T.S. CONDUIT DUCT BANK SHALL BE INSTALLED ACROSS STATE ROUTE 96 AT RAMP INTERCHANGE INTERSECTIONS AS SHOWN ON TYPICAL LAYOUT. TYPE B F.O. PULL BOXES SHALL BE PROVIDED AT RAMP INTERSECTIONS TO ALLOW FOR FUTURE TDOT-CITY OF FRANKLIN CENTER-TO-CENTER COMMUNICATIONS.
 3. IN ADDITION TO THE SPECIFIC STATIONING SHOWN, THE TYPICAL LAYOUT SHEETS ARE ALSO TO BE USED AS GUIDANCE FOR PROJECT AREAS NOT DEPICTED IN THE TYPICAL LAYOUTS. FOR LOCATIONS SHOWN IN THE LAYOUTS, INSTALLATION SHOULD BE IMPLEMENTED AS DETAILED. FOR AREAS NOT SPECIFICALLY SHOWN, THE LAYOUTS SHALL SERVE AS TYPICAL INSTALLATION METHODS BASED ON EXISTING CONDITIONS FOUND. CONTRACTOR SHALL FOLLOW I.T.S. SPECIAL NOTES AND PROJECT SPECIAL PROVISIONS. CONTRACTOR MAY USE "LIST OF SURVEY IDENTIFIED OBSTACLES" AS REFERENCE OF FIELD ITEMS TO BE AVOIDED DURING INSTALLATION OF I.T.S. CONDUIT.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2010	IM-65-2(95)	36M



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**TYPICAL
I.T.S.
LAYOUT**

SCALE: 1" = 50'

