06-12-2015 LETTING ITEM 082 INDEX OF SHEETS

1. COVER SHEET

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- 4.-87. FIBER INSTALLATION ALONG I-74 FROM KNOXVILLE (EXIT 51) TO PEORIA (EXIT 89)
 - 88. BRIDGE CONDUIT BRACKET DETAIL
 - 89. TRAFFIC CONTROL DETAIL

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAI ROUTE 74 (1-74)
SECTION D4 FIBER OPTIC 2015
KNOX-PEORIA COUNTIES

C-94-063-15

HIGHWAY STANDARDS

701001-02 701006-05 701011-04 701101-04 701106-02 701400-08 701406-09 701428 701901-04

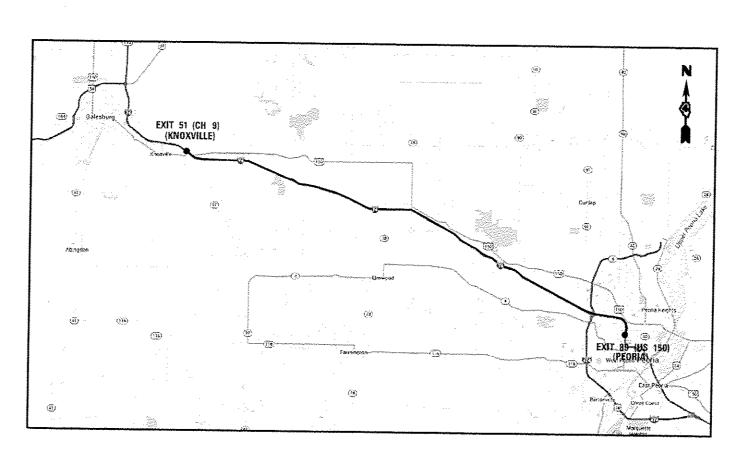
PROJECT DESCRIPTION

INSTALLATION OF COMMUNICATIONS DUCT, COMMUNICATIONS VAULTS, AND FIBER OPTIC CABLE ALONG I-74 FROM KNOXVILLE (EXIT 51) (EXIT 51 - IL 9) TO PEORIA (EAST OF EXIT 89 US 150 (WAR MEMORIAL DR)

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1–800–892–0123
OR 811

PROJECT ENGINEER: ERIC HOWALD (309) 671-4481 PROJECT MANAGER: RANDY LANINGA (309) 671-4477

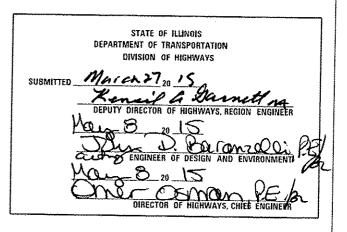
CONTRACT NO. 68C50 CATALOG NO. 035255-00D



GROSS LENGTH = 205701 FT. = 38.96 MILE NET LENGTH = 205701.0 FT. = 38.96 MILE | F.A.I. | SECTION | COUNTY | TOTAL SHEET | SHOOTH | SHEET | SHE

D-94-031-15





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CONSTRUCTION NOTES

- 1. EXISTING UTILITY LOCATION INFORMATION IS NOT SHOWN ON THE PLAN SHEETS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES AND PRIVATELY OWNED FACILITIES PRIOR TO THE INSTALLATION OF ANY COMPONENTS. THE CONTRACTOR SHALL VERIFY EXISTING FIELD CONDITIONS AND TERRAIN PRIOR TO COMMENCING WORK ON THE PROJECT.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES AT HIS/HER OWN EXPENSE IF REQUIRED. THE CONTRACTOR SHALL ALSO BE LIABLE FOR ANY DAMAGE TO IDOT FACILITIES RESULTING FROM INACCURATE LOCATING.
- 3. ELECTRICAL WORK SHALL CONFORM WITH NATIONAL, STATE, AND LOCAL CODES.
- 4 ALL SURPLUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATION.
- 5. THE COMMUNICATION VAULT SHALL BE CONSTRUCTED SO THAT THE TOP OF THE FRAME WILL BE FLUSH WITH THE SURFACE OF THE MEDIAN, SIDEWALK, OR GROUND LINE. COMMUNICATION VAULTS SHALL BE INSTALLED AT 4000 FEET MINIMUM
- 6. THE CONTRACTOR WILL BE ALLOWED TO INCREASE THE DISTANCE BETWEEN COMMUNICATION VAULTS AS NEEDED TO OPTIMIZE INSTALLATION AND TO MAKE ADJUSTMENTS FOR COMMUNICATION DUCT AND FIBER OPTIC CABLE REEL SIZES. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED CHANGES TO THE DEPARTMENT FOR REVIEW PRIOR TO ORDERING MATERIALS.
- 7. AFTER INSTALLING THE FIRST THREE MILES OF COMMUNICATIONS DUCT ALONG WITH COMMUNICATION VAULTS, THE CONTRACTOR SHALL CONDUCT A TEST TO DEMONSTRATE TO THE DEPARTMENT THAT THE PROPOSED COMMUNICATION VAULT SPACING IS OPTIMAL FOR EFFICIENT FIBER INSTALLATION. AS PART OF THE TEST, THE CONTRACTOR SHALL INSTALL FIBER OPTIC CABLE IN THE MICRODUCT ALONG THE ENTIRE THREE MILE DUCT LENGTH. IN THE EVENT THAT THE TEST IS UNSUCCESSFUL, THE CONTRACTOR CAN ADJUST COMMUNICATION VAULT SPACING AS REQUIRED FOR FIBER INSTALLATION.
- 8. THE CONTRACTOR SHALL SUBMIT A FIBER SPLICING PLAN TO THE DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO INSTALLING COMMUNICATIONS DUCT AND FIBER.
- 9. FIBER OPTIC CABLE SHALL BE SPLICED TO CREATE A CONTINUOUS LINK THROUGH THE ENTIRE PROJECT LIMITS. ALL FIBERS WITHIN THE CABLE SHALL BE FUSION SPLICED AND ALL SPLICES SHALL BE PROTECTED BY A WEATHERPROOF SPLICE ENCLOSURE. SPLICES SHALL BE MADE ONLY IN COMMUNICATION VAULTS.
- 10. THE CONTRACTOR SHALL INSTALL A #12 (XLP-TYPE USE OR THHN) TRACER WIRE ALONG WITH THE FIBER OPTIC CABLE FOR LOCATING PURPOSES. THE TRACER WIRE SHALL BE CONTINUOUS AND BE ACCESSIBLE FROM THE COMMUNICATION VAULTS.
 THE COST OF FURNISHING AND INSTALLING THE TRACER WIRE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE PAY ITEM "FIBER OPTIC CABLE 96 FIBERS, SINGLE MODE". AT THE CONTRACTOR'S OPTION, THE CONTRATOR MAY ELECT TO UTILIZE COMMUNICATION DUCT THAT CONTAINS AN INTEGRATED WIRE THAT CAN BE USED FOR UNDERGROUND LOCATING PURPOSES.
- 11. ALL COMMUNICATIONS DUCT SHALL BE INSTALLED IN AND WILL BE PAID FOR IN ACCORDANCE WITH SECTION 810 "UNDERGROUND RACEWAYS" OF THE STANDARD SPECIFICATIONS.
- 12. THE LOCATION OF THE PROPOSED CONDUIT AS SHOWN ON THE PLAN SHEETS IS APPROXIMATE AND NOT DRAWN TO SCALE. CONDUIT INSTALLED ALONG THE INTERSTATE AND ROADWAYS SHALL BE LOCATED A MAXIMUM OF 10 FT. FROM THE EDGE OF THE R.O.W UNLESS DIRECTED OTHERWISE BY THE RESIDENT ENGINEER. THE CONDUIT SHALL BE INSTALLED AT A 36" MINIMUM DEPTH EXCEPT WHEN CROSSING WATERWAYS AND DRAINAGE FLOW LINES WHERE IT SHALL BE INSTALLED AT A 60"
- 13. THE COST OF ROCK EXCAVATION, ROCK DISPOSAL, AND THE COST OF INSTALLING CONDUIT THROUGH ROCKY TERRAIN (TRENCHING, BORING, SAW-CUTTING, AND OTHER INSTALLATION METHODS AS REQUIRED) SHALL BE INCLUDED IN THE PAY ITEM
 "UNDERGROUND CONDUIT, MULTI-DUCT, 7-16MM MICRODUCTS". THERE WILL BE NO ADDITIONAL COMPENSATION FOR THIS WORK.
- 14. THE PLAN SHEETS IDENTIFY AREAS WHERE COMMUNICATION DUCT WILL NEED TO BE DIRECTIONALLY BORED UNDER ROADWAYS, RAMPS, AND STRUCTURES. THE DEPARTMENT HAS ATTEMPTED TO IDENTIFY THESE AREAS AS ACCURATELY AS POSSIBLE BY UTILIZING ALL AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL FIELD CONDITIONS PRIOR TO BIDDING. THIS INFORMATION HAS BEEN PROVIDED FOR REFERENCE ONLY AND THERE WILL BE NO ADDITIONAL COMPENSATION FOR ERRORS OR OMISSIONS.
- 15. POTHOLING TO LOCATE EXISTING UNDERGROUND UTILITIES SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR THE COMMUNICATION DUCT PAY ITEM.
- 16. REMOVAL AND REPLACEMENT OF EXISTING SIDEWALK, PAVEMENT, AND ISLANDS FOR UTILITY LOCATING PURPOSES WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR THE COMMUNICATION DUCT PAY
- 17. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN THE REQUIRED MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
- 18. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THIS COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE COMMUNICATIONS DUCT.
- 19. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS REQUIRED TO ATTACH THE CONDUITS AND JUNCTION BOXES TO THE STRUCTURE, INCLUDING, BUT NOT LIMITED TO UNI-STRUT, BRACKETS, SEAL-TITE, LBS, FITTINGS, HARDWARE, AND OTHER MISCELLANEOUS ITEMS. THESE ITEMS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE BID PRICE FOR THE CONDUIT ATTACHED TO STRUCTURE PAY ITEM.
- 20. CONDUIT ATTACHMENT BRACKETS SHALL BE INSTALLED AT 8 FT. SPACINGS (MAXIMUM) ON STRUCTURES.
- 21. THE CONTRACTOR SHALL FURNISH AND INSTALL EXPANSION/DEFLECTION COUPLINGS (OR OTHER EQUIPMENT AND METHODS AS APPROVED BY THE ENGINEER) FOR ALL BRIDGE JOINTS AS REQUIRED AND DIRECTED BY THE ENGINEER.
- 22. THE CONTRACTOR SHALL SUBMIT A COMPLETE PACKAGE (INCLUDING CONDUIT BRACKETS, HARDWARE, ATTACHMENT POINTS, ATTACHMENT METHODS, ETC.) TO THE DEPARTMENT FOR REVIEW AND SUBSEQUENT APPROVAL PRIOR TO COMMENCING
- 23. ALL SEAL-TITE CONDUIT SHALL BE NON-METALLIC AND SHALL INCLUDE CONNECTORS WITH INTEGRAL STAINLESS STEEL KELLUM GRIPS AT THE ENDS FOR INCREASED STRENGTH AND DURABILITY
- 24. ALL CONDUIT ATTACHMENT BRACKETS SHALL BE FULLY GALVANIZED AND ALL HARDWARE SHALL BE EITHER GALVANIZED OR STAINLESS STEEL
- 25. THE CONTRACTOR SHALL INSTALL THREAD LOCKER ON ALL ATTACHED CONDUIT THREADED CONNECTIONS TO PREVENT LOOSENING THROUGH VIBRATION.
- 26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING FIELD TILE, UNDERDRAIN, AND DRAINAGE STRUCTURE LOCATIONS. THE CONTRACTOR SHALL MAKE AN EFFORT TO MINIMIZE DAMAGE TO THESE FACILITIES DURING THE INSTALLATION OF CONDUIT AND COMMUNICATION VAULTS. IN THE EVENT THAT THESE FACILITIES ARE DAMAGED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING REPAIRS TO THESE ITEMS TO RESTORE FUCTIONALITY TO THE SATISFACTION OF THE ENGINEER.
- 27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MOWING, BRUSH AND SHRUB REMOVAL, AND SMALL TREE (10" DIAMETER OR LESS) REMOVAL REQUIRED TO INSTALL THE PROPOSED CONDUIT AND COMMUNICATION VAULTS. THE CONTRACTOR SHALL DISPOSE OF ALL REMOVED ITEMS OFF OF THE JOB SITE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE BID PRICES FOR THE COMMUNICATION DUCT PAY ITEM.
- 28. THE CONTRACTOR SHALL PLAN AND CONDUCT CONDUIT AND FIBER INSTALLATION OPERATIONS TO MINIMIZE THE NUMBER OF INTERSTATE AND ROAD LANE CLOSURES AND TO MINIMIZE TRAFFIC DISRUPTIONS AND DELAYS FOR THE MOTORING PUBLIC.
- 29. THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED FOR INSTALLING COMMUNICATIONS DUCT AND COMMUNICATION VAULTS UNDER AND ALONG COUNTY AND TOWNSHIP ROADWAYS.
- 30. THE CONTRACTOR MAY ELECT TO INSTALL COMMUNICATIONS DUCTS BY DIRECTIONALLY BORING CONDUIT UNDER BRIDGES AND WATERWAYS IN LEIU OF ATTACHING CONDUIT TO STRUCTURES. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER FOR APPROVAL PRIOR TO COMMENCING DUCT INSTALLATION.

COMMITMENTS: THERE ARE NO COMMITMENTS MADE IN CONJUNCTION WITH THIS PROJECT.

UNDERGROUND CONDUIT, MULTI-DUCT.

7-16MM MICRODUCTS

UNDERGROUND CONDUIT, MULTI-DUCT.

7-16MM MICRODUCTS, MULTI-DUCT.

7-16MM MICRODUCTS (PUSHED UNDER ROADWAYS, STRUCTURES, ETC.)

LEGEND

3" GALVANIZED STEEL CONDUIT

ATTACHED TO STRUCTURE

24" X 24" X 10" STAINLESS STEEL

JUNCTION BOX ATTACHED TO STRUCTURE

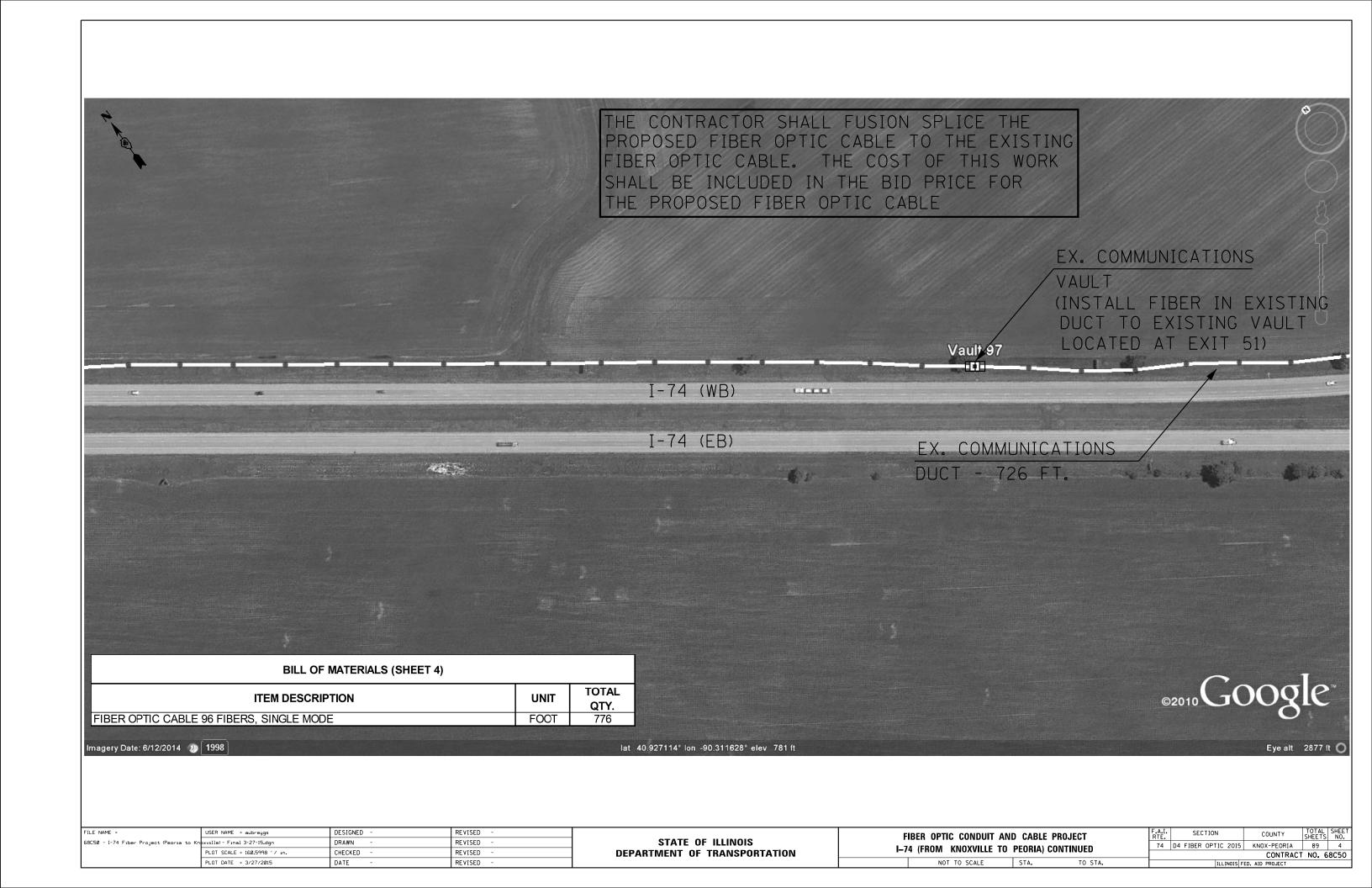
COMMUNICATIONS VAULT

FILE NAME :	USER NEME = aubreyga	DESIGNED -	REVISED -			F.A.I. SECTION COUNTY TOTAL SHEET
68050 - 1-74 Fiber Project (Peoria to Kn	oxville) - Finel 3-27-15.dgn	ORAWN -	REVISED -	STATE OF ILLINOIS	COMMITMENTS AND CONSTRUCTION NOTES	RTE. SHEETS NO. 74 D4 FIBER OPTIC 2015 KNOX-PEDRIA 89 2
-	PLOT SCALE = 160.5998 1/ 16.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		CONTRACT NO. 68C50
	PLOT DATE = 3/27/2015	DATE -	REVISED -		NOT TO SCALE STA. TO STA.	ILLINOIS FED. AID PROJECT

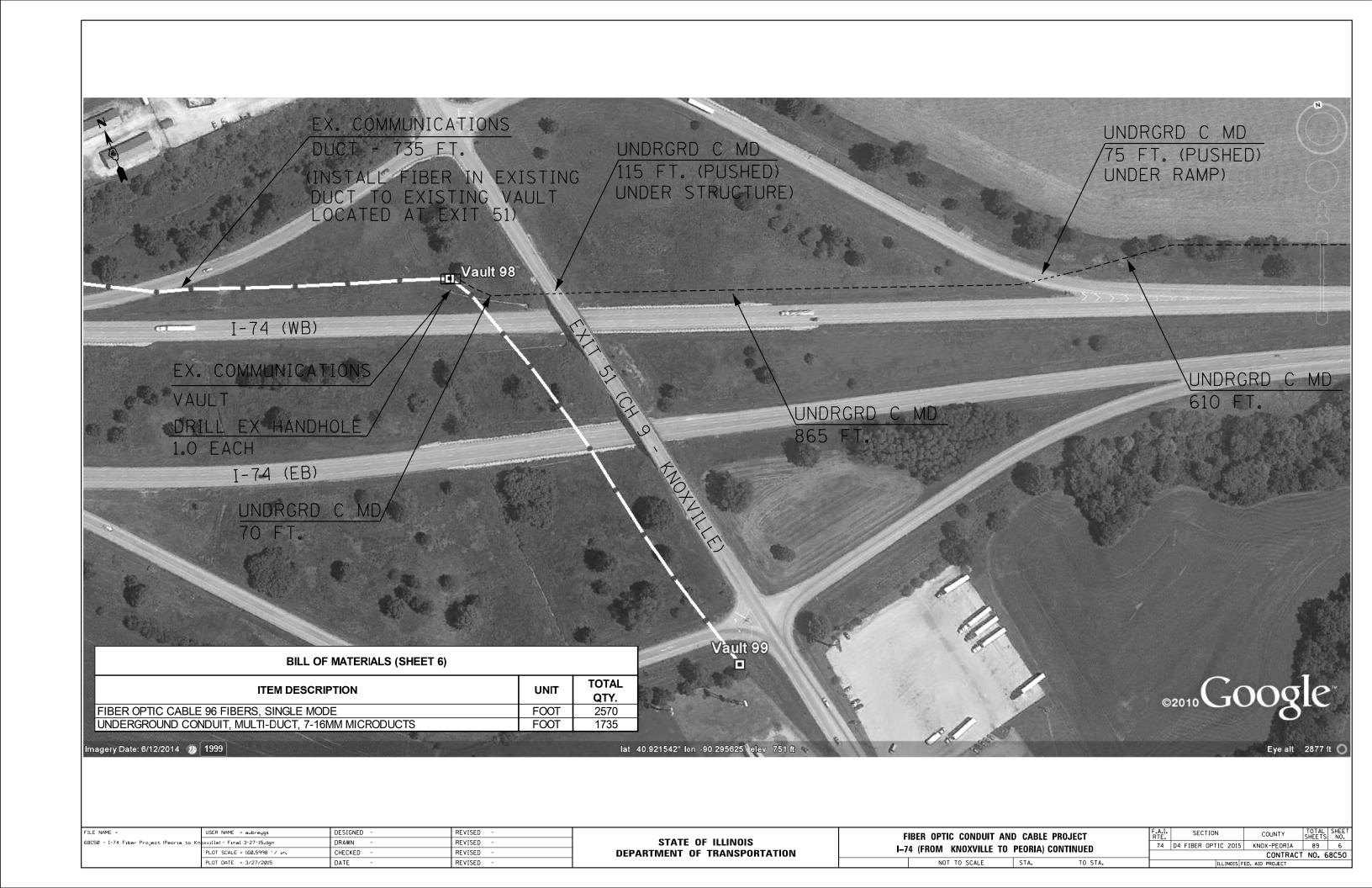
		KNOX COUNTY	PEORIA	COUNTY		
	SUMMARY OF QUANTITIES	CONST. TYPE	CONST. TYPE	CONST. TYPE		
CODE	ITEM DESCRIPTION	UNIT	TOTAL QTY.	CODE 0021 (100% STATE BROADBAND FIBER PROGRAM FUNDS) RURAL	1	CODE 0021 (100% STATE BROADBAND FIBER PROGRAM FUNDS) URBAN
67100100	MOBILIZATION	L SUM	1.0	0.45	0.44	0.11
81100800	CONDUIT ATTACHED TO STRUCTURE, 3" DIA., GALVANIZED STEEL	FOOT	1205.0	560.0	645.0	
81300948	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24" X 24" X 10"	EACH	12.0	6.0	6.0	
X7010600	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406, SPECIAL	L SUM	1.0	0.45	0.44	0.11
X8101100	UNDERGROUND CONDUIT, MULTI-DUCT, 7-16MM MICRODUCTS	FOOT	205701.0	93401.0	89090.0	23210.0
X8710035	FIBER OPTIC CABLE 96 FIBERS, SINGLE MODE	FOOT	212757.0	98827.0	90300.0	23630.0
Z0033052	COMMUNICATIONS VAULT	EACH	55.0	23.0	24.0	8.0
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FILE NAME :	USER NAME : aubrayga	DESIGNED -	REVISED -			···	F.A.I. SEC	CTION COUNTY	TOTAL SHEET		
58650 - 1-74 Fiber Project iPeor	a to Knowville) - Finel 3-27-15.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS	SUMMARY OF QUANTITIES	74 DA SIRER	OPTIC 2015 KNOY-REOF	SHEETS! NO.			
	PLOT SCALE + 160.5998 1/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				CONTRACT NO. 68C50			
	PLOT DATE * 3/27/2015	DATE -	REVISED -		NOT TO SCALE STA, TO STA.			ILLINOIS FED. AID PROJEC	1		





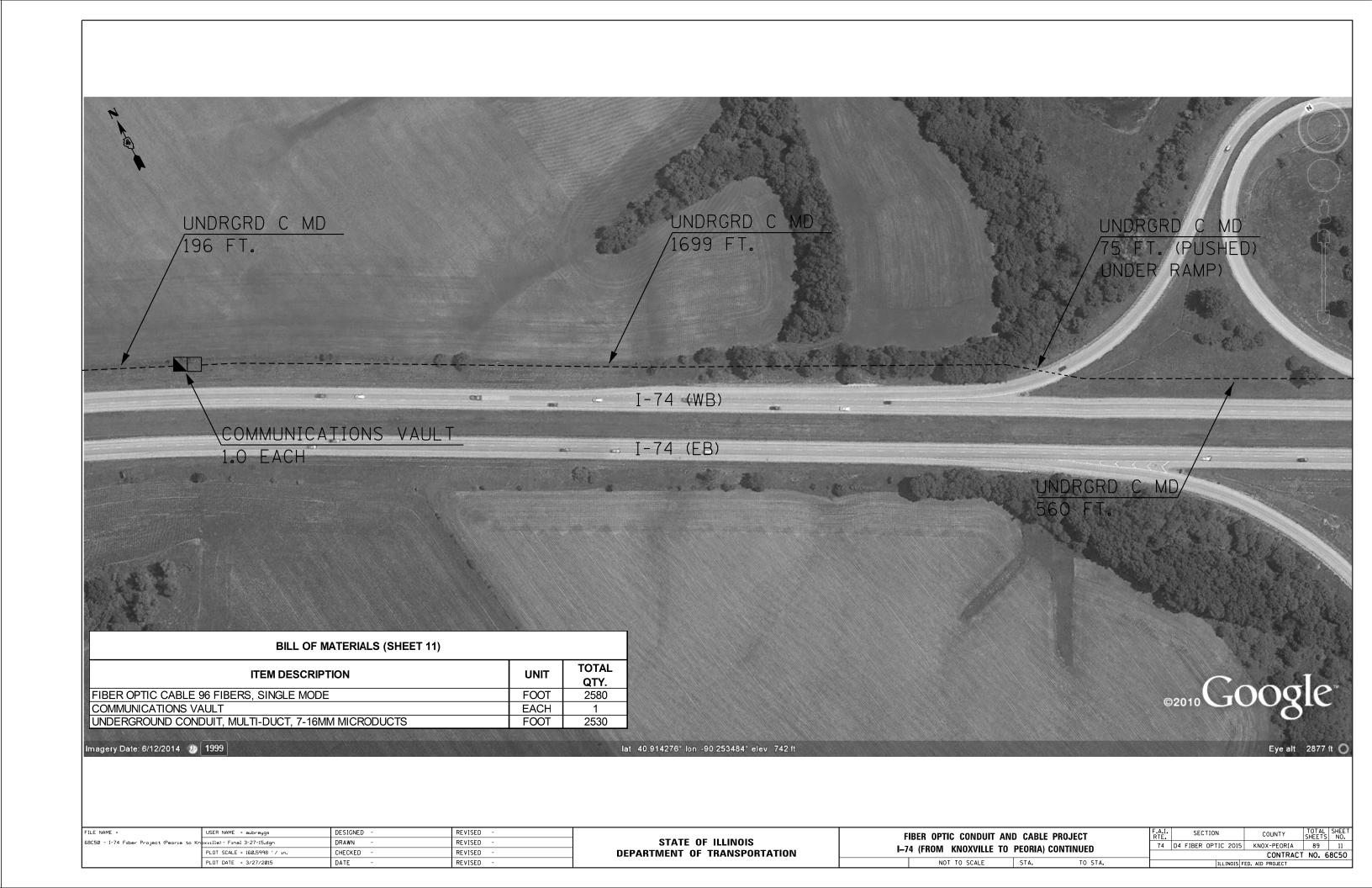


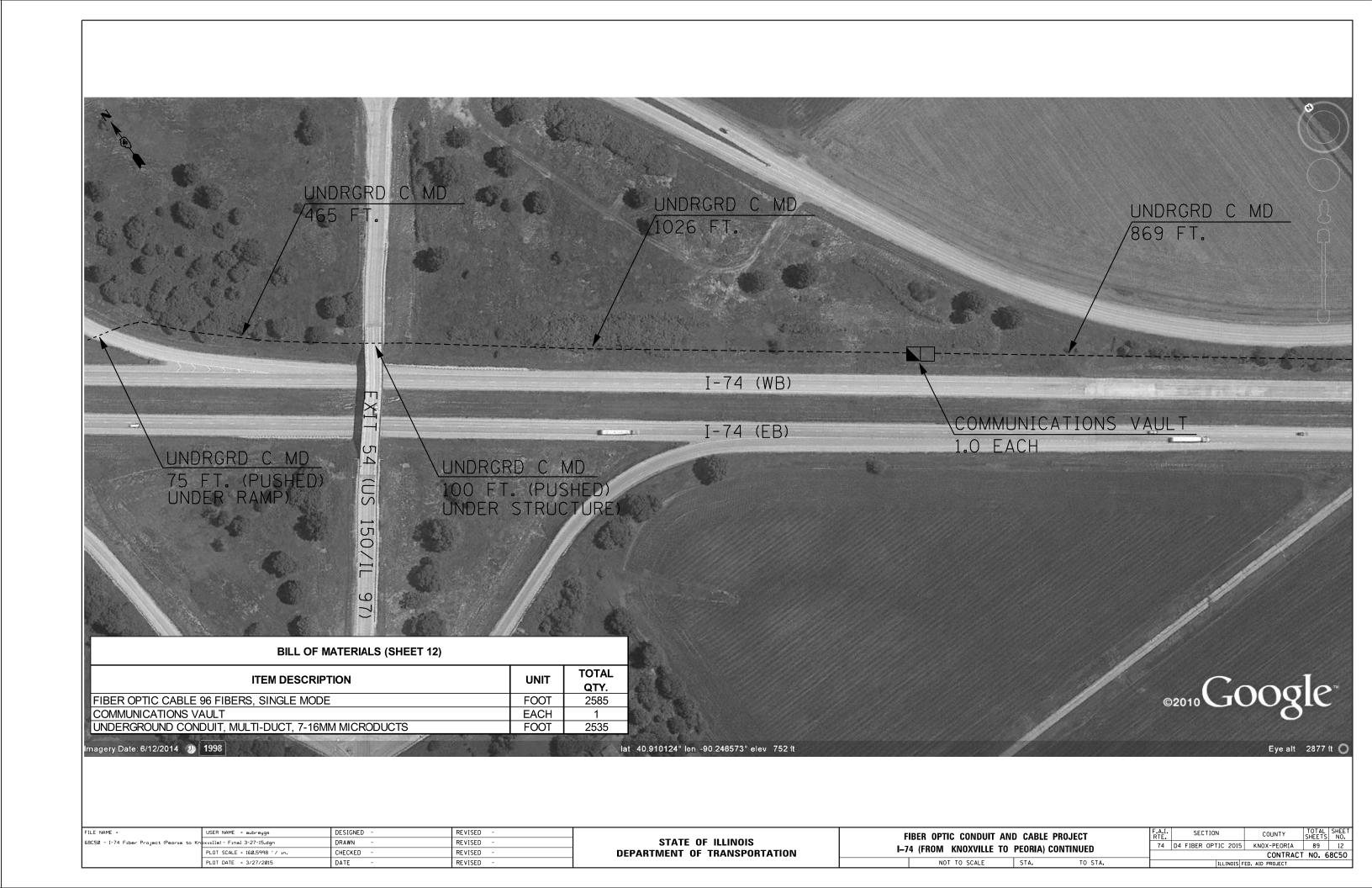


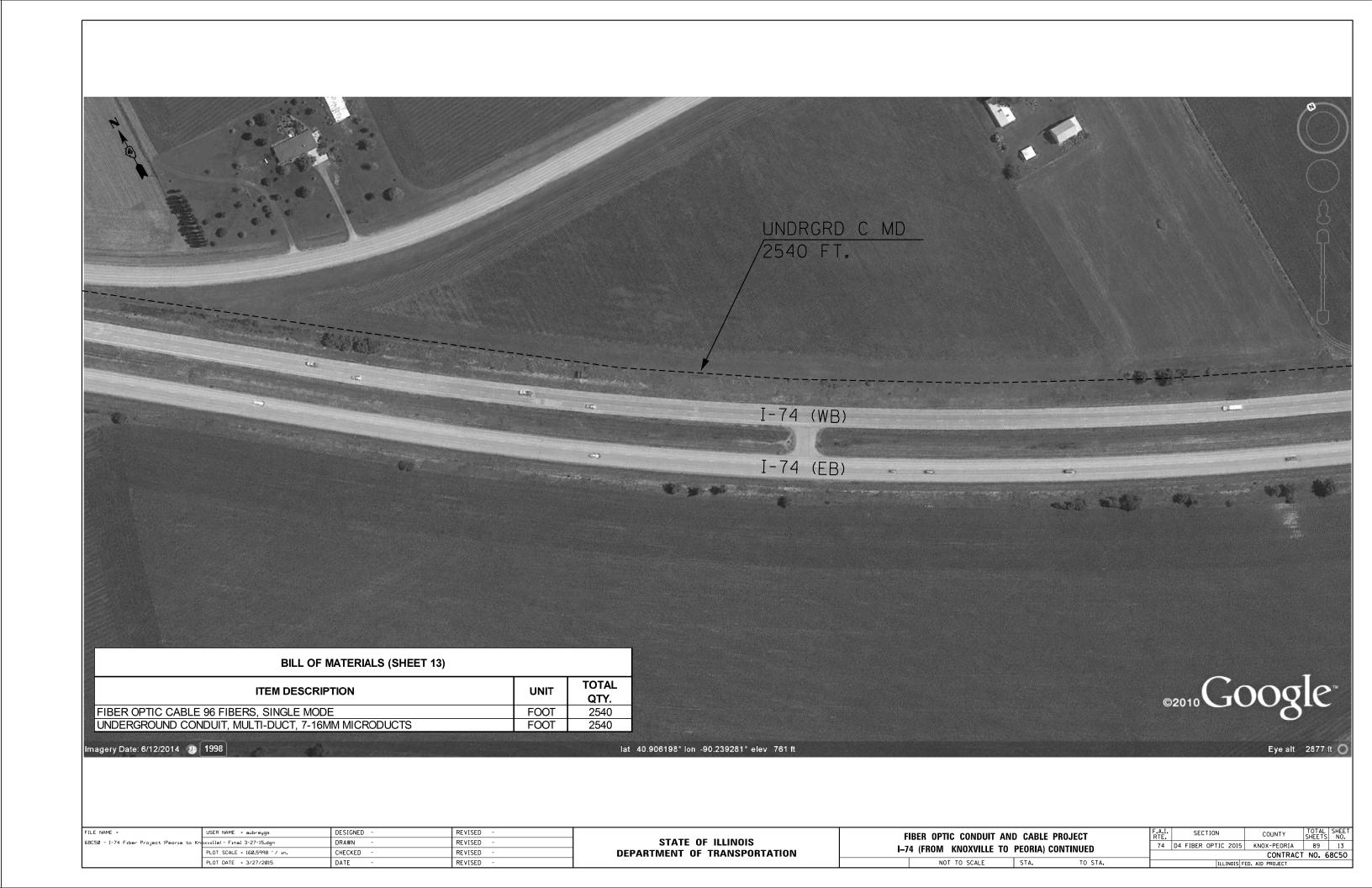


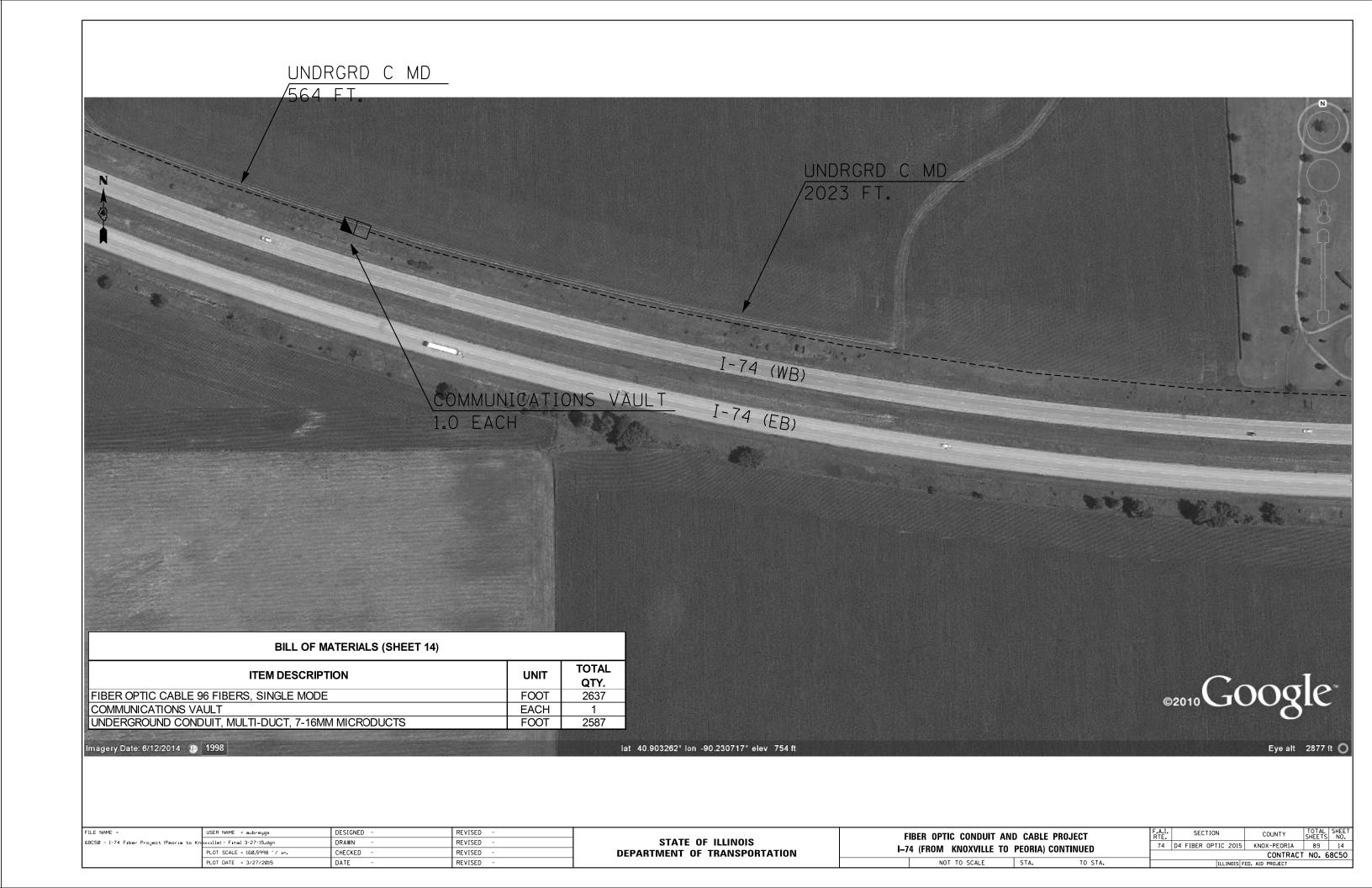


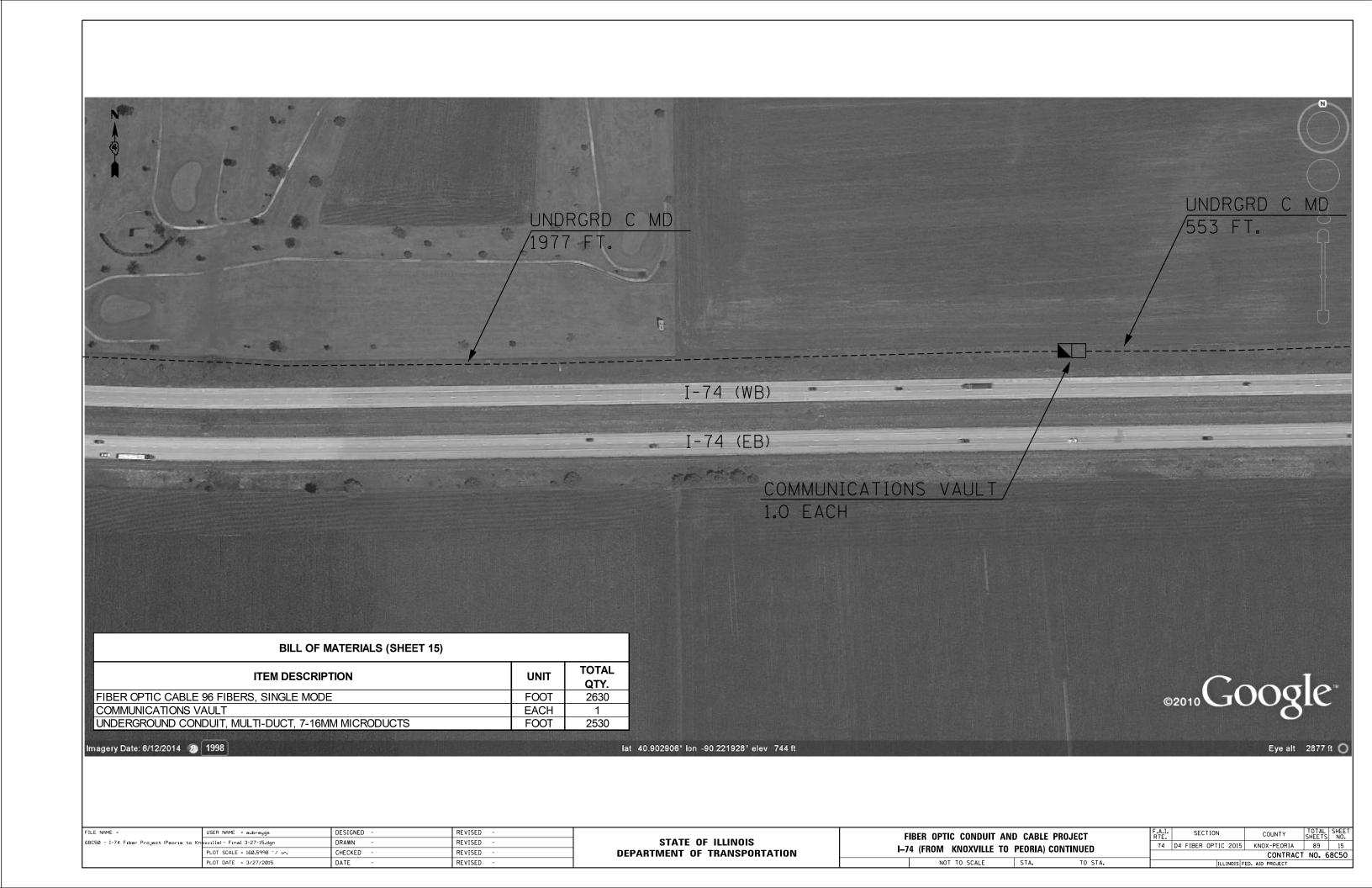




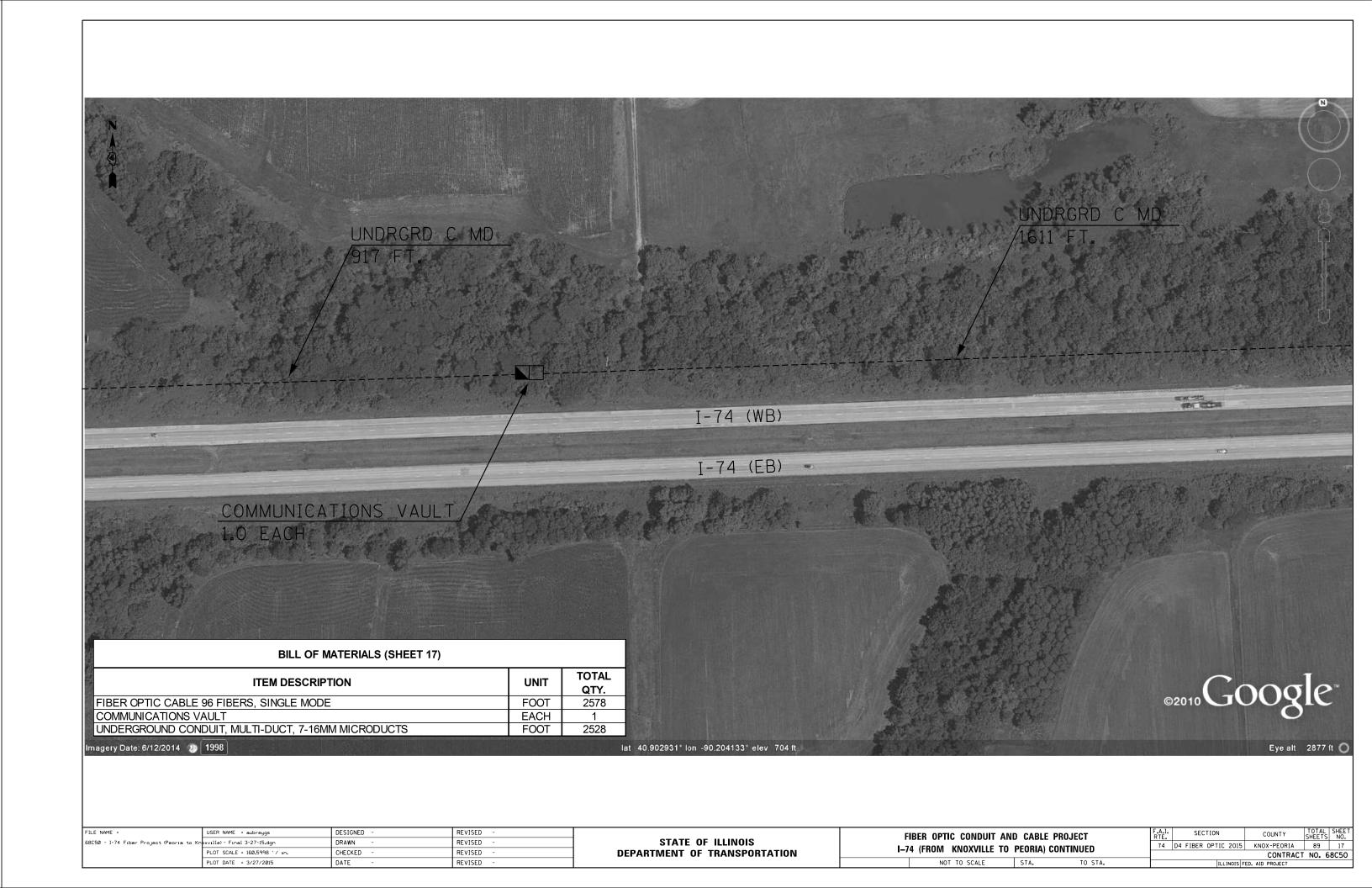


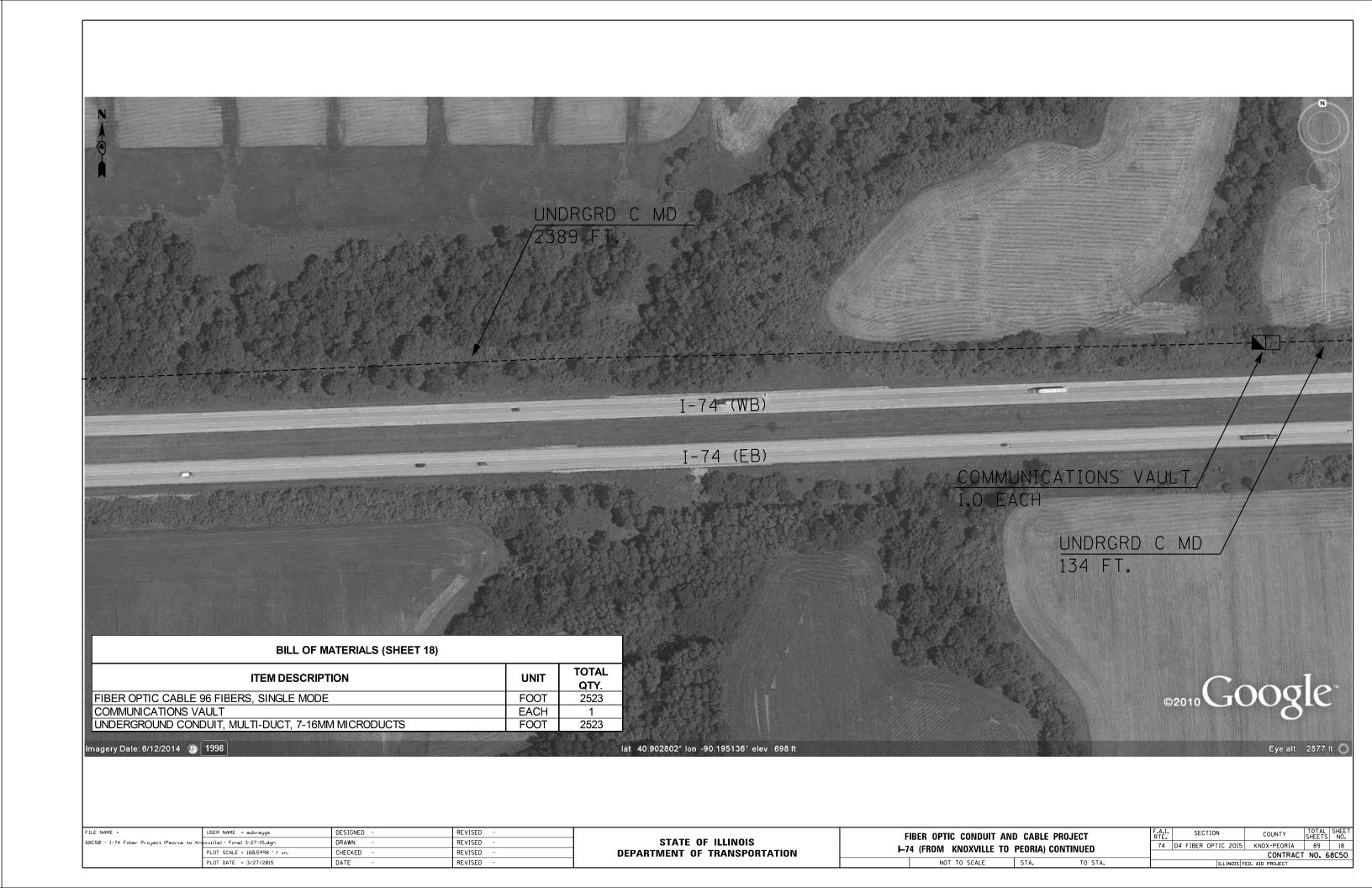
















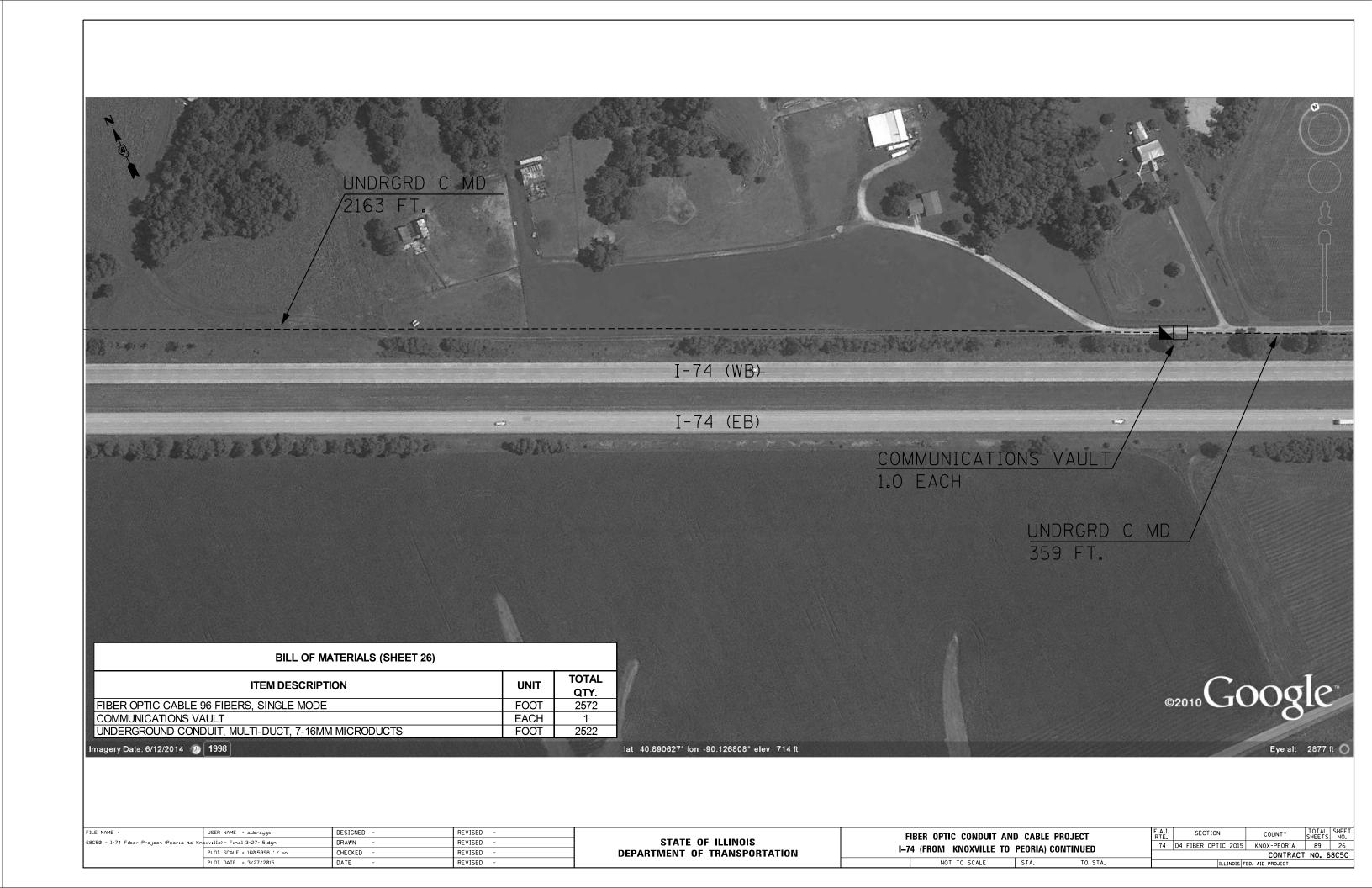


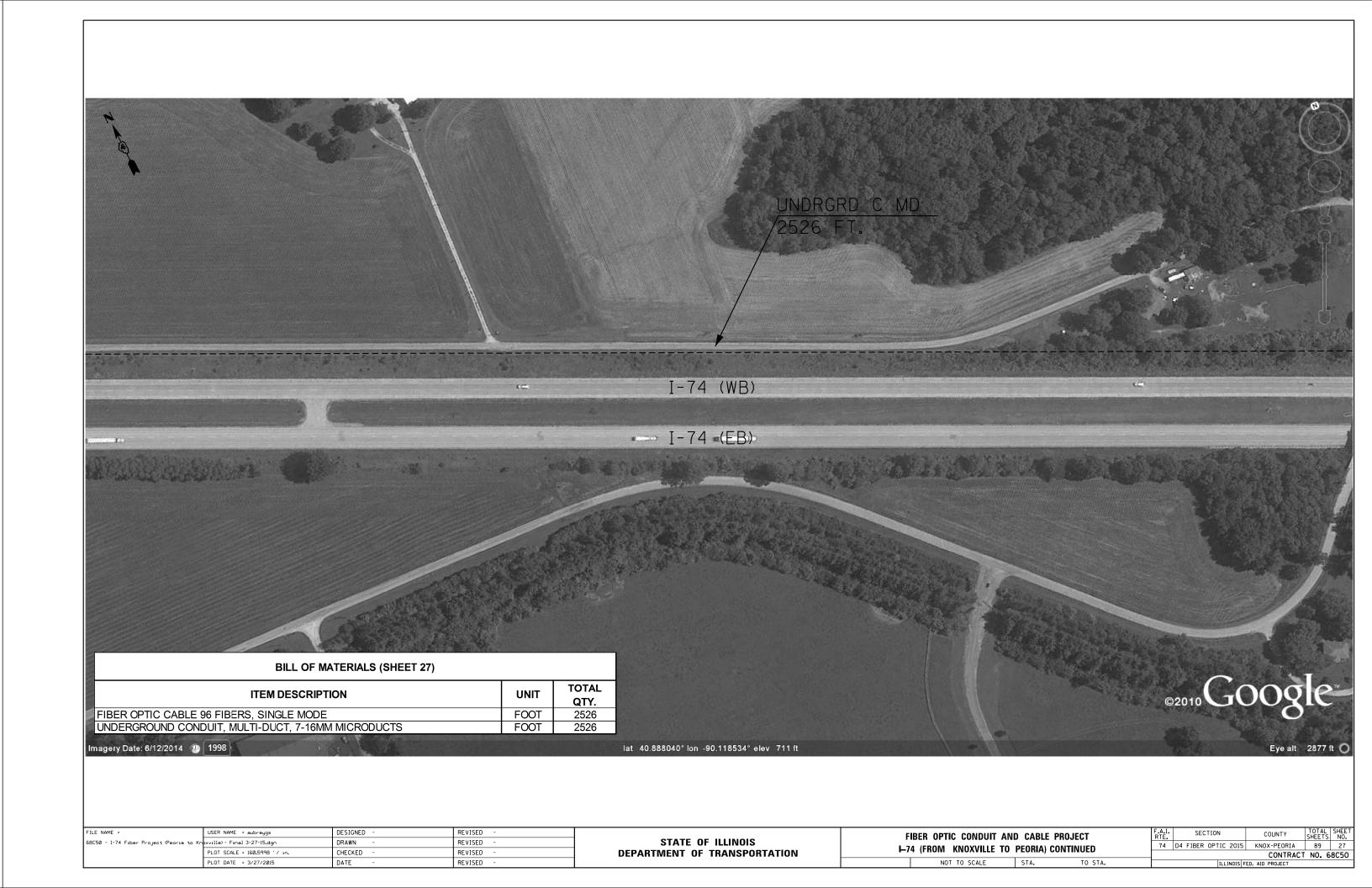


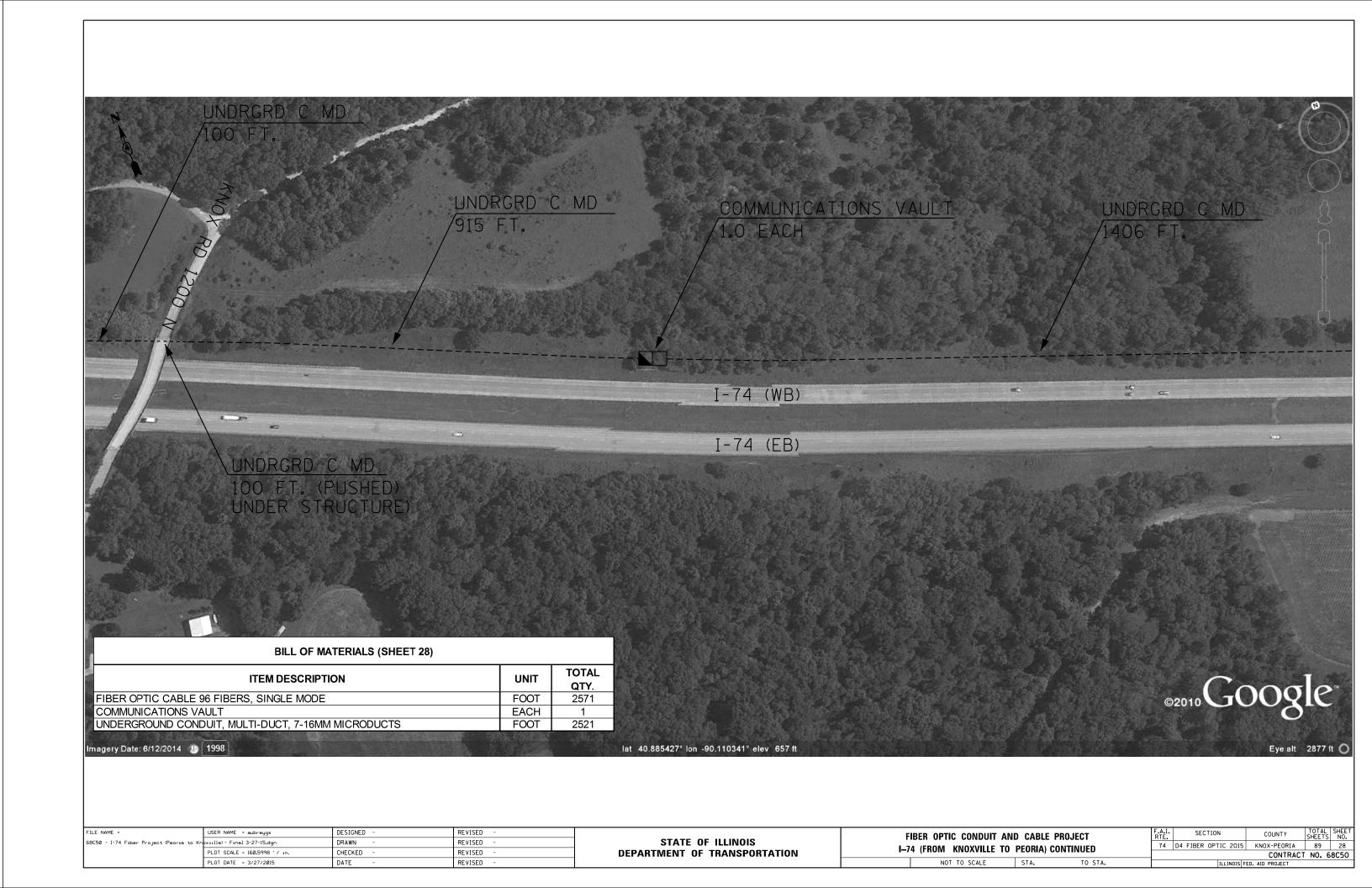


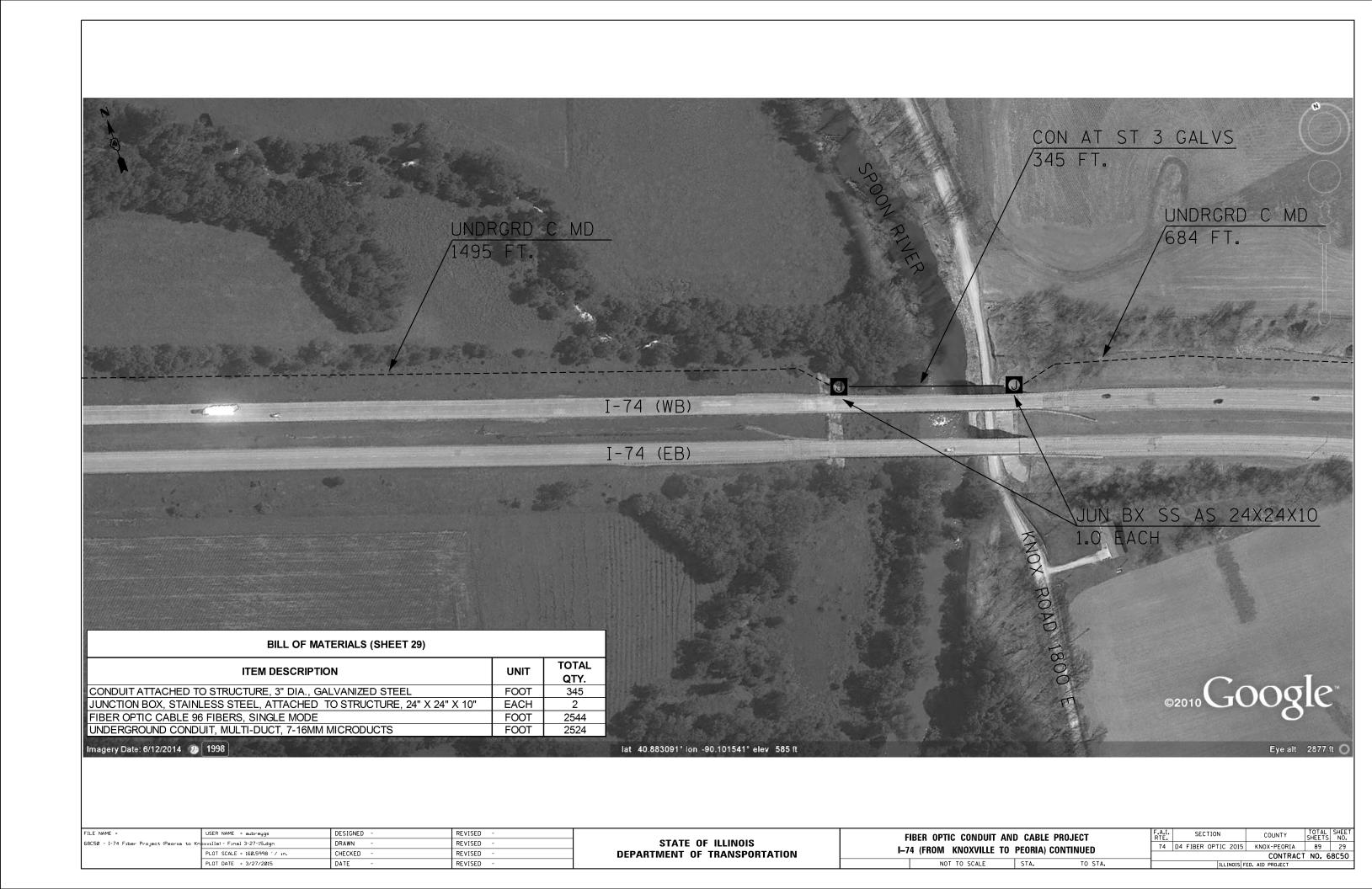


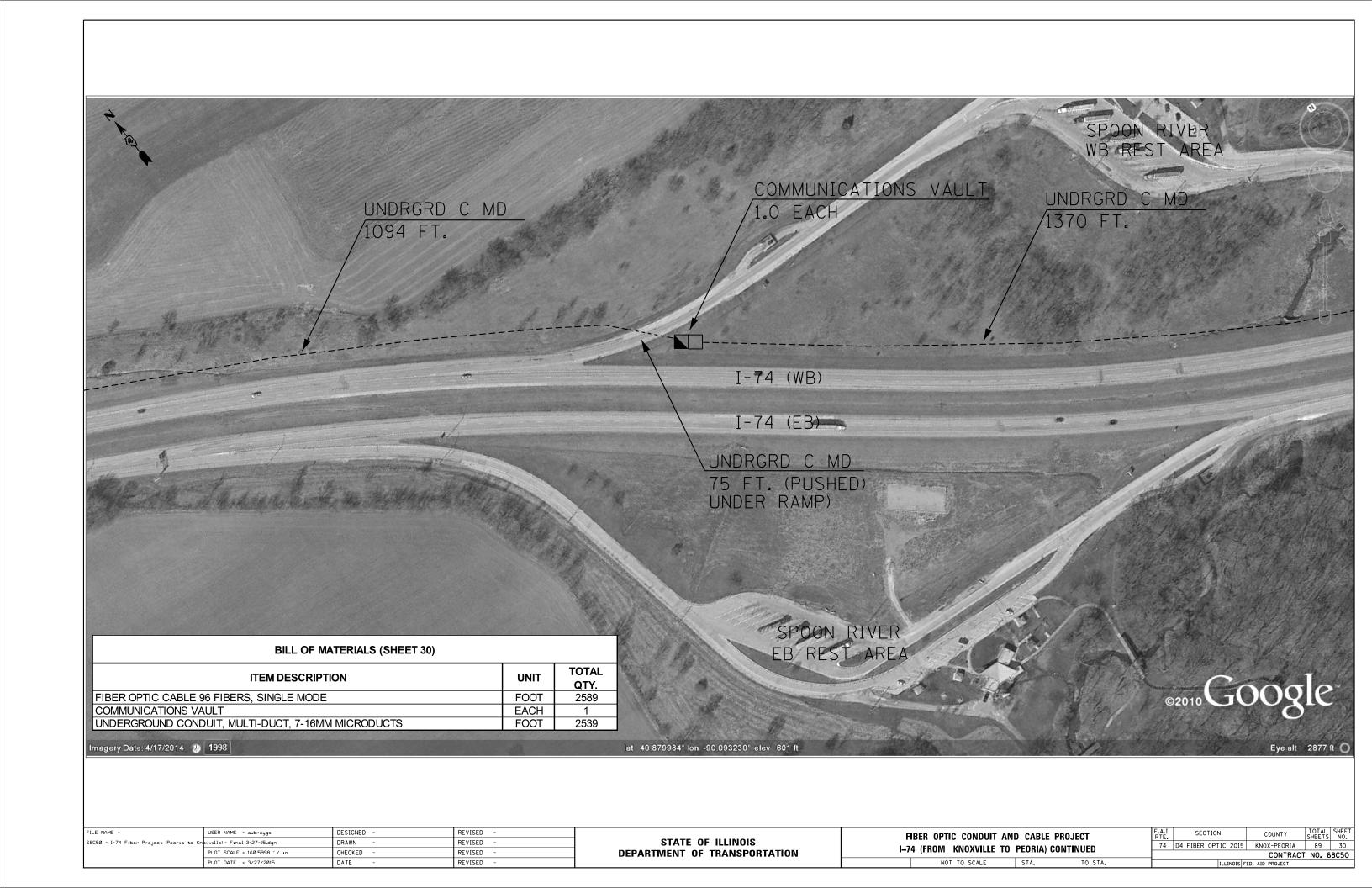




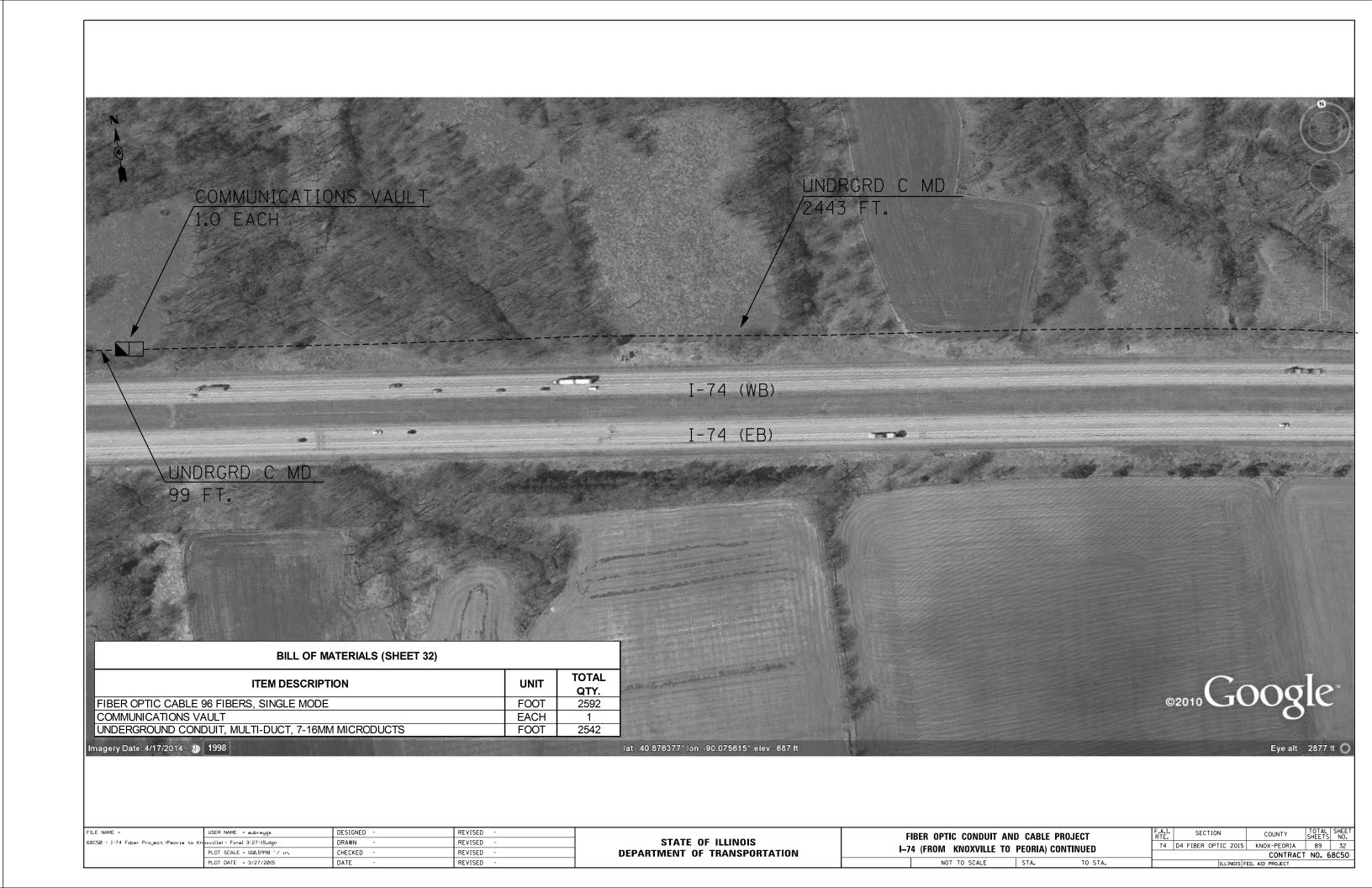














FILE NAME =	USER NAME = aubreygs	DESIGNED -	REVISED -		FIBER OPTIC CONDUIT AN	D CARLE PROJEC	CT	F.A.I. RTF.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
68C50 - I-74 Fiber Project (Peoria to Kr	oxville) - Final 3-27-15.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS	I-74 (FROM KNOXVILLE TO PEORIA) CONTINUED		74	D4 FIBER OPTIC 2015	KNOX-PEORIA	89 33	
	PLOT SCALE = 160.5998 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	1-74 (FROW KNUXVILLE TO PEURIA) CONTINUED					CONTRA	CT NO. 68C50
	PLOT DATE = 3/27/2015	DATE -	REVISED -		NOT TO SCALE	STA.	TO STA.		ILLINOIS FE	ED. AID PROJECT	





