F.A.I. SECTION COUNTY TOTAL SHEE SHEETS NO. 55 D-6 ITS *1 SANGAMON 56 1

D-96-021-05

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAI ROUTE 55 (I-55)
SECTION D-6 ITS #1
PROJECT: ITS-0417 (10Z)
SANGAMON COUNTY
C-96-028-05

BEGIN PROJECT -

END PROJECT -

SECTION: D-6 ITS #1

STATION 234+00 english

SECTION: D-6 ITS #1

STA. ±202+54 english

STA. 171+650 metric

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS DISTRICT 6 EXAMINED EXAMIN

INDEX OF SHEETS

- 1 COVER SHEET
- 2 LOCATION MAP
- 3 SUMMARY OF QUANTITIES 4 GENERAL NOTES AND LEGEND
- 5-6 CAMERA 1 PLAN
- 7 CAMERA 2 PLAN
- 8-10 CAMERA 3 PLAN
- 11 DMS 1 PLAN
- 12 DMS 2 PLAN
- 13-14 CAMERA 2 FIBER
- 15-40 CABLE DIAGRAMS
- 41 OVERHEAD SIGN STRUCTURE PLAN
- 42-51 OVERHEAD SIGN STRUCTURE DETAILS
- 52 INERTIAL BARRIER INSTALLATION DETAILS
- 53 CCTV CAMERA & MOUNTING EQUIPMENT
- 54 DMS MOUNTING AND WIRING DETAILS
- 55 FIBER OPTIC SYSTEM SCHEMATIC
- 56 CAMM CENTER SYSTEM SCHEMATIC

STANDARDS

000001-04

701101-01

701106-01 701400-02

701401-03

-701406 04

701411-03

702001-05

805001

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

CONTRACT NO. 72A00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED

TO S

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

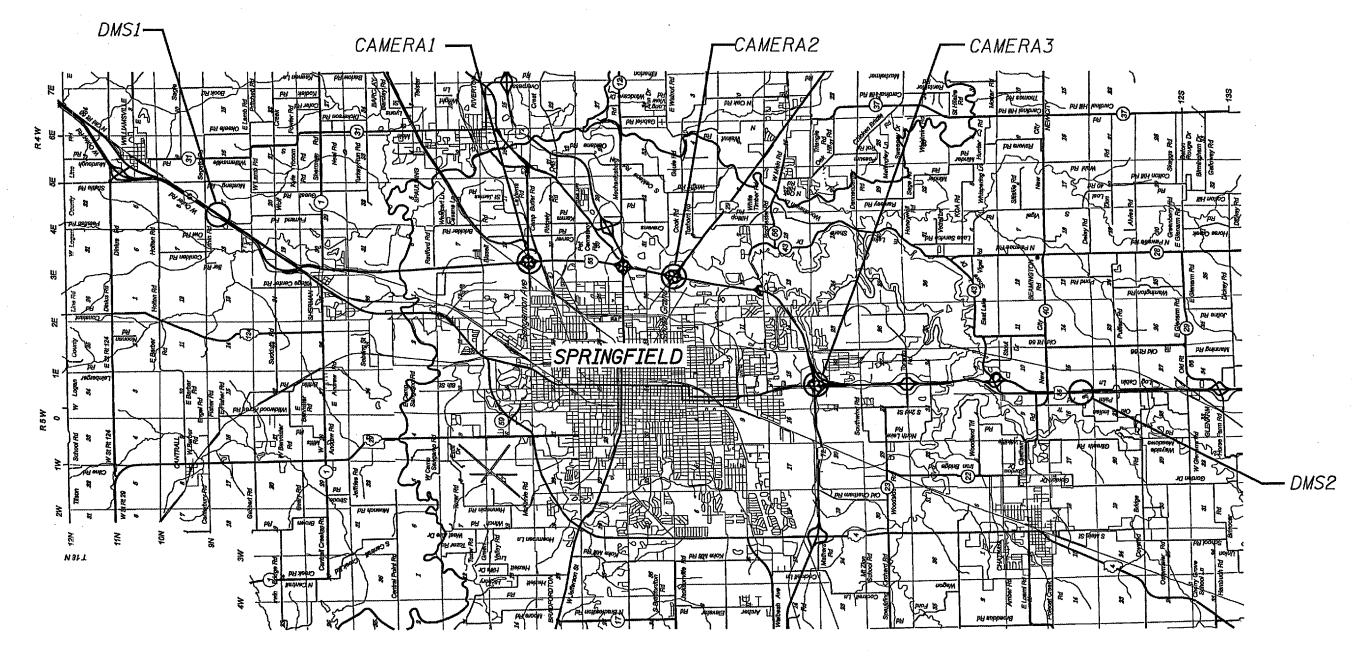
ENGINEER OF DESIGN AND ENVIRONMENT

LOCATION OF SECTION INDICATED THUS: --

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

| CONTRACT NO. 72A00 | COUNTY | TOTAL SHEE | SHEETS NO. | SHEETS NO. | COUNTY | COUN

FER ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT



DNS1 - STATION 171+650 metric - 202+54 english

DMS2 - STATION 234+00 english

CAMERA1 - STRUCTURE #6C084I055R099.7 CAMERA2 - STRUCTURE #6C084I055L096.4 CAMERA3 - STRUCTURE #6C084I072R097.5 0 10000 20000 30000 5000 15000 25000 SCALE IN FEET

REVISIONS DATE		ILLINOIS DEPARTMENT OF TRANSPORTATION		
		LOCATION MAP 👩		
		F.A.I. 55 (I-55)		
		SECTION D-6 ITS #1		
		SANGAMON COUNTY		
		SCALE: VERT. DRAWN BY		
	-	DATE CHECKED BY		

SOINED ISOINSTATE ILLINOIS DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES

HOUTE	SECTION	COUNTY	TOTAL BEETS	10EET
FAI 55	D-6 ITS #1	SANGAMON	-	3
STA.		TO STA.		

	SUMMARY OF QUANTITIES		CONSTRUCTION TYPI
CODE NO	ITEM	UNIT	TOTAL. QUANTITIES
67100100	MOBILIZATION	LSUM	1
70100305	TRAFFIC CONTROL AND PROTECTION, STANDARD 701400	LSUM	1
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	3
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	LSUM	1
73300300	OVERHEAD SIGN STRUCTURE - SPAN, TYPE III-A (5'-0" X 7'-0")	FOOT	220
73400200	DRILLED SHAFT CONCRETE FOUNDATIONS	CUYD	47. 3
80500100	SERVICE INSTALLATION, TYPE A	EACH	5
80801400	WOOD POLE, 25 FT., CLASS 4	EACH	5
81012500	CONDUIT IN TRENCH, 1 1/2" DIA., PVC	FOOT	11358
81012600	CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	3477
81021540	CONDUIT, AUGERED, 1 1/2" DIA., PVC	FOOT	738
81021550	CONDUIT, AUGERED, 2" DIA., PVC	FOOT	1179
81100500	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIAMETER, GALVANIZED STEEL	FOOT	270
81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIAMETER, GALVANIZED STEEL	FOOT	45
81102500	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIAMETER, PVC	FOOT	300
81306100	JUNCTION BOX (SPECIAL)	EACH	62
81306200	DRILL EXISTING JUNCTION BOX	EACH	2
81500200	TRENCH BACKFILL FOR ELECTRICAL WORK	FOOT	14835
87100120	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 8F	FOOT	34412
87301815	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 3/C	FOOT	1255
87900200	DRILL EXISTING HANDHOLE	EACH	4
X0323228	FURNISH AND INSTALL TRUSS DAMPER	EACH	2
X7015000	CHANGEABLE MESSAGE SIGN	CALMO	2
Z0002005	ATTENUATOR BASE	SQYD	51. 6
20030150	IMPACT ATTENUATOR (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4
X0324963	CLOSED CIRCUIT CAMERA SYSTEM COMPLETE	EACH	3
87301865	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 8 3/C	F00T	5073. 5
X0324256	↑ ĈÅBL€ Fiber optic splice	EACH	3
X0324964	COMMUNICATION CENTER SUPPORT EQUIPMENT COMPLETE	LSUM	1
73305000		FOOT	21.5
X0324965	INSTALL TRUSS MONDED DYNAMIC MESSAGE SIGN	EACH	2

	SUMMARY OF QUANTITIES		CONSTRUCTION TYPE
CODE NO	ITEM	UNIT	TOTAL QUANTITIES
	$+$ $\mu = -1$		
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			i t

EXISTING CONDITIONS:

LEGEND

ALUM	ALUMINUM
EP	EDGE OF PAVEMENT
TW SH	TWISTED SHIELOED
PWR CBL	POWER CABLE
F.O.	FIBER OPTIC
J.B.	JUNCTION BOX
GSC	GALVANIZED STEEL CONDUIT
PVCC	POLYVINYL CHLORIDE CONDUIT
	EXISTING HANDHOLE
	EXISTING DOUBLE HANDHOLE
\boxtimes	EXISTING CONTROLLER
	EXISTING SERVICE INSTALLATION
	EXISTING GALVANIZED STEEL CONDUIT
0	EXISTING JUNCTION BOX
	EXISTING SIGN TRUSS
 0	EXISTING HIGHWAY LIGHTING UNIT
-0-	EXISTING UNDERGROUND LIGHTING CABLES
	PROPOSED HANDHOLE
22	PROPOSED DOUBLE HANDHOLE
B	PROPOSED CONTROLLER
//	PROPOSED CONDUIT: "T" TRENCH, "P" PUSH, "ATS" ATTACHED TO STRUCTURE, SIZE SPECIFIED
-	PROPOSED SERVICE INSTALLATION
(D)	PROPOSED CCTV CAMERA
0	PROPOSED JUNCTION BOX, SIZE SPECIFIED
•	PROPOSED WOOD POLE, SIZE SPECIFIED
	PROPOSED LIGHT POLE, SIZE SPECIFIED

GENERAL NOTES

- 1 CCTV ARE LOCATION SENSITIVE, PROPOSED EQUIPMENT LOCATIONS ARE APROXIMATE, TO ENSURE THE OPTIMUM FIELD OF VIEW, ACTUAL LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR, PER THE MANUFACTURER REPRESENTATIVES RECOMMENDATIONS AND THE ENGINEERS APPROVAL. MR. CECIL DOWNING OF BUREAU OF OPERATIONS SHALL BE CONTACTED FOR ACTUAL CAMERA LOCATION
- A METAL CONDUIT UTILIZED TO MOUNT CCTY CAMERA ON SIGN TRUSS SHALL BE 4" DIA. (4% " DIA. O. D.) AND SHALL BE SCHEDULE 80 ALUMINUM PIPE.
- PLAN ELEVATIONS U.S.G.S. MEAN SEA LEVEL DATUM.
- ALL ELEVATIONS SHOWN ON THE PLANS ARE ESTABLISHED FORM U.S.C.S. MEAN SEA LEVEL DATUM.
- U-BOLTS SHALL BE PRODUCED FROM ASTM A276, TYPE 304, 304L, 316. CONDITION A . COLD FINISH, OR AN EQUIVALENT MATERIAL ACCEPTABLE TO THE ENGINEER, ALL NUTS SHALL BE STAINLESS STEEL CONFORMING TO ASTM A194, GRADE 8 (AISI TYPE 304) OR GRADE 8F (AISI TYPE 303), THE NUTS SHALL BE LOCKMUTS WITH NYLON OR STEEL INSERTS AND SEMI FINISHED HEXAGONAL HEADS EQUIVALENT TO THE FINISHED HEX SERIES OF THE AMERICAN NATIONAL STANDARD. ALL WASHERS SHALL BE STAINLESS STEEL CONFORMING TO ASTM 240, TYPE 302 OR 304.
- ALL BOLTS. SCREWS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.
 ANTI-SEIZE PASTE COMPOUND SHALL BE USED ON ALL MOUNTING HARDWARE FIELD CONNECTIONS. ALL CCTV MOUNTING METHODS AND MOUNTING MATERIAL SHALL BE PRE-APPROVED BY THE ENGINEER,
- UNDERGROUND CABLE MARKING TAPE SHALL BE INSTALLED WITH ALL TRENCH & BACKFILL FOR ELECTRICAL WORK IN ACCORDANCE WITH ARTICLES 815.03 (d) & 1066.05 OF THE STANDARD SPECIFICATIONS.
- A ¼" DIA. NYLON ROPE SHALL BE INSTALLED IN ALL CONDUIT RUNS. THE COST OF PULL ROPE SHALL BE INCLUDED IN THE PROPOSED ELECTRIC CABLE INSTALLATION IN THAT CONDUIT.
- THE CONTRACTOR SHALL NOT DRILL ANY HOLES IN THE BEAMS, DECK, OR SUBSTRUCTURE OF THE BRIDGE, UNLESS OTHERWISE APPROVED BY THE
- ALL GROUND RODS SUPPLIED FOR THIS PROJECT SHALL BEX" DIAMETER X 12"-0" LONG.
- THE LOCATION OF EXISTING WATER MAINS, GAS MAINS, SEWERS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE. BUT THEY ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES AND BY FIELD INSPECTION.
- ALL UTILITIES SHALL BE LOCATED IN FIELD PRIOR TO ANY ATTEMPT TO CONSTRUCT ANY COMPONENT OF THE VARIOUS CCTV CAMERA SYSTEM. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO UTILITIES BEFORE DIGGING, FIELD MARKING OF FACILITIES MAY BE OBTAINED BY PROVIDING A MINIMUM OF 96-HOURS ADVANCE NOTICE TO THE RESIDENT ENGINEER SO THAT THE UTILITY COMPANIES CAN BE NOTIFIED.
- COORDINATION WITH THE DEPARTMENTS BUREAU OF OPERATIONS IS REQUIRED BEFORE ANY TRENCHING SHALL BE DONE TO LOCATE HIGHWAY LIGHTING/PUMP STATION FACILITIES. PH: (217)558-6523 OR (217)524-9161.
- THE AREAS THAT ARE DISTURBED DUE TO THE DIGGING OR TRENCHING SHALL BE COMPLETED ON A WEEKLY BASIS USING SEEDING, CLASS 2 AND MULCH METHOD 1 AND SHALL CONFORM TO THE REQUIREMENTS OF SECTION 25) OF THE STANDARD SPECIFICATIONS EXCEPT THAT NO EMULSIFIED ASPHALT SHALL BE USED. THE COST SHALL BE INCIDENTAL TO THE
- THE DEPARTMENT CONTACT PERSON FOR THIS CONTRACT IS CECIL DOWNING. IDOT DISTRICT 6 ITS COORDINATOR, (217)-785-4036, THE CONTRACTOR MUST COORDINATE AND COOPERATE WITH THE DEPARTMENT AND THE INVOLVED PARTIES AS DIRECTED BY THE DEPARTMENT.
- 16 EXISTING CONDUIT AND PULL POINT LOCATIONS TAKEN FROM HISTORICAL DATA.
 CONTRACTOR SHALL FIELD VERIFY EXISTING CONDUIT SIZES AND LOCATIONS PRIOR TO INSTALLING PROPOSED FIBER OPTIC CABLE WITHIN EXISTING CONDUIT.
- BENDING RADIUS OF FIBER OPTIC CABLE SHALL NOT EXCEED SIX (6) INCHES.
- EXACT FIELD LOCATIONS OF ITS EQUIPMENT SHALL BE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL TAKE CARE NOT TO INSTALL ITS EQUIPMENT IN DRAINAGE AREAS.
- 19 THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, CONSTRUCTION METHODOLOGIES. PRODUCT MANUFACTURER SPECIFICATIONS, OWNERS MANUALS, AND USER MANUALS BEFORE PROCURING AND INSTALLING ANY ITS EQUIPMENT AS PART OF THIS CONTRACT. ALL PROPOSED ITS WORK SHALL BE REVIEWED AND APPROVED BY THE DEPARTMENT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING TRAFFIC CONTROL FOR THE INSTALLATION OF ITS RELATED EQUIPMENT WITH OTHER CONTRACTS AND WORK

ILLINOIS DEPARTMENT OF TRANSPORTATION

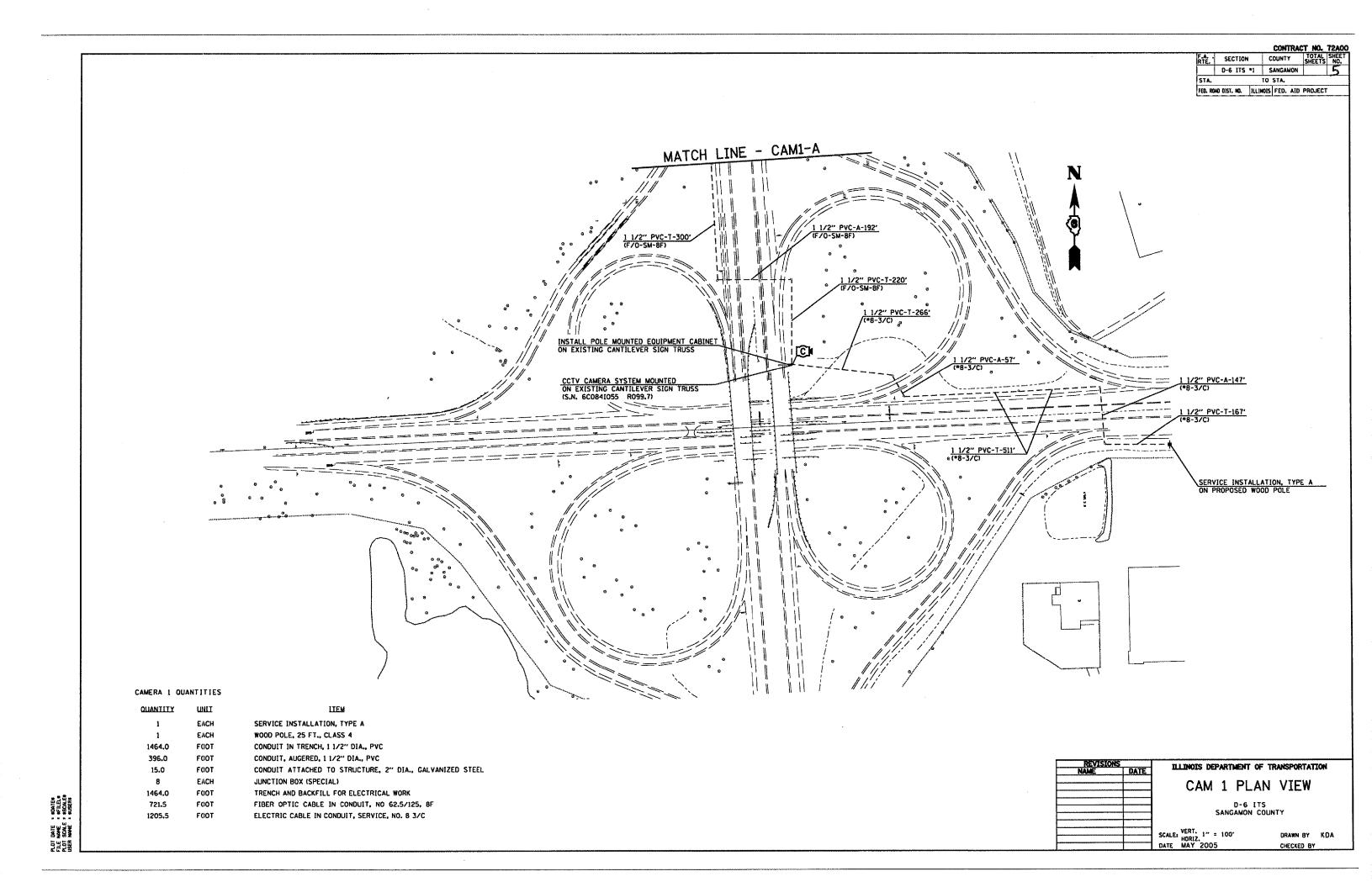
GENERAL NOTES & LEGEND

F.A.I. 55 (I-55) SECTION D-6 ITS *1 SANGAMON COUNTY

DRAWN BY:

DATE

PLOT DATE:_ .DATE-TIME.



CONTRACT NO. 72A00

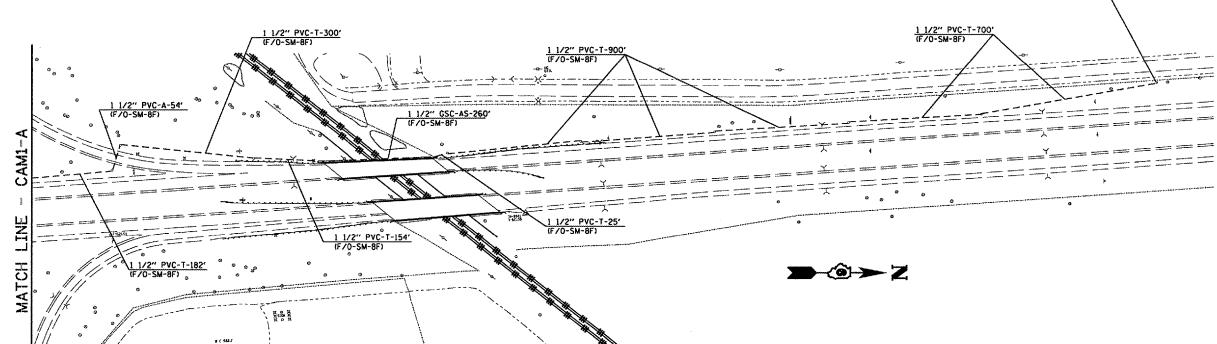
F.A. SECTION COUNTY SHEETS NO.

0-6 ITS *1 SANGAMON

STA. TO STA.

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT





CAMERA 1 QUANTITIES

QUANTITY	UNII	LIEM		
2261.0	FOOT	CONDUIT IN TRENCH, 1 1/2" DIA., PVC		
54.0	FOOT	CONDUIT, AUGERED, 1 1/2" DIA., PVC		
260.0	FOOT	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA, GALVANIZED STEEL		
8	EACH	JUNCTION BOX (SPECIAL)		
2261.0	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK		
2585.5	FOOT	FIBER OPTIC CABLE IN CONDUIT. NO 62.5/125, 8F		
1	EACH	FIBER OPTIC SPLICE		

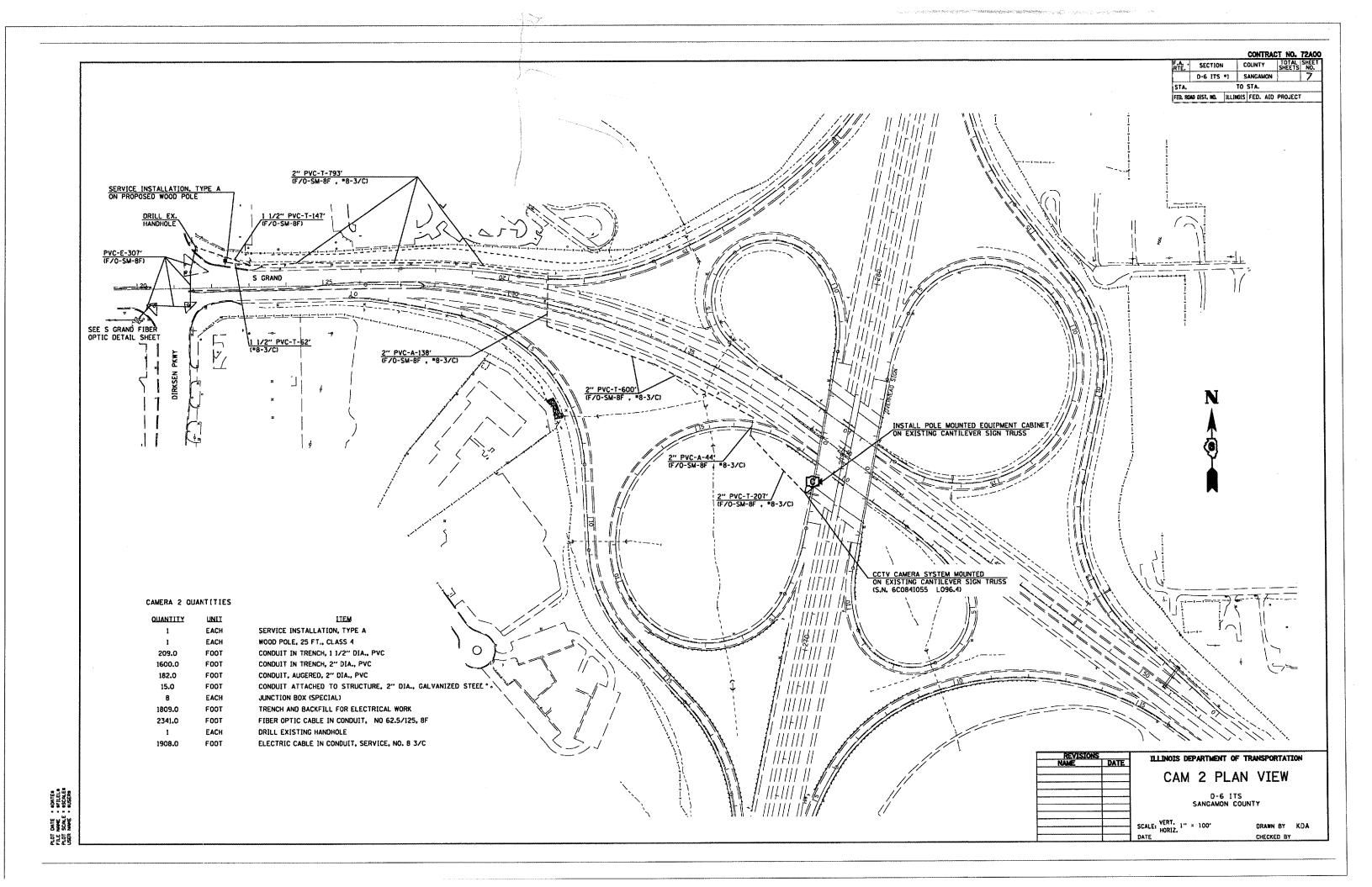
REVISIONS ILLINOIS DEPARTMENT OF TRANSPORTATION

CAM 1 PLAN VIEW

D-6 ITS SANGAMON COUNTY

SCALE; VERT. 1" = 100' HORIZ. DATE MAY 2005

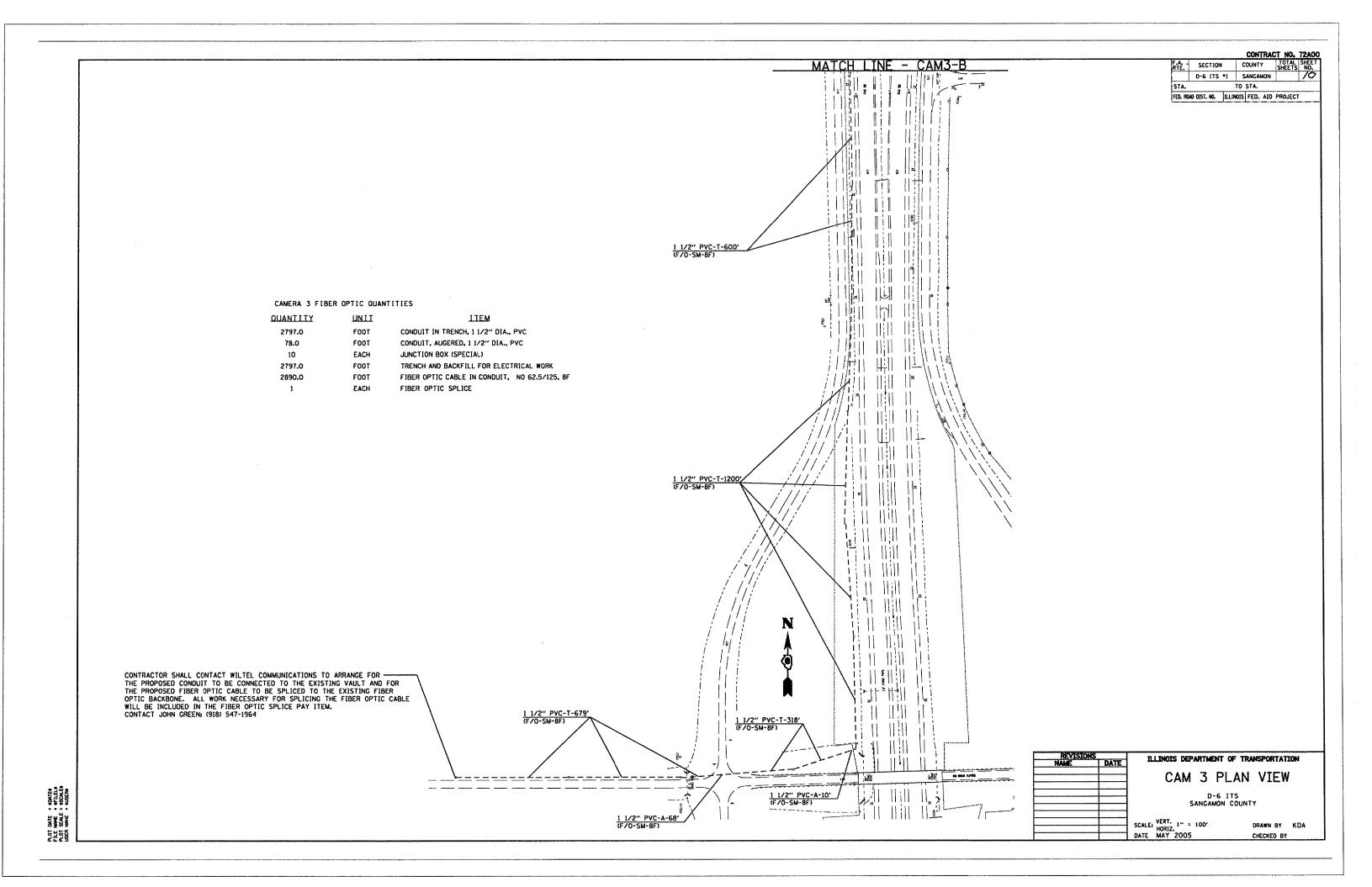
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COUNTY D-6 ITS *1 SANGAMON FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT NOTES: 1.) SEE FIBER OPTIC PLAN SHEETS FOR CONDUIT AND FIBER OPTIC CABLE QUANTITIES ALONG 6TH ST. 1 1/2" PVC-T-23' (*8-3/C) CAMERA ELECTRICAL SERVICE QUANTITIES **ITEM** QUANTITY 2" PVC-A-75' (F/O-SM-8F , #8-3/C) EACH SERVICE INSTALLATION, TYPE A EACH WOOD POLE, 25 FT., CLASS 4 FOOT ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 8 3/C 1960.0 2" PVC-T-942" (F/O-SM-8F , *8-3/C) 2" PVC-A-50" (F/O-SM-8F , *8-3/C) 2" PVC-T-343" (F/O-SM-8F , *8-3/C) 2" PVC-A-185' (F/O-SM-8F . *8-3/C) ILLINOIS DEPARTMENT OF TRANSPORTATION CAM 3 PLAN VIEW HAME * SCALES SCALE * SCALES HAME * SUSERS D-6 ITS SANGAMON COUNTY 2" PVC-A-144'
(2 - F/O-SM-8F , #8-3/C) CCTV CAMERA SYSTEM MOUNTED ON EXISTING CANTILEVER SIGN TRUSS (S.N. 6C0841072 R097.5) SCALE: VERT. 1" = 100' HORIZ. DATE MAY 2005 MATCH LINE - CAM3-A DRAWN BY KDA

F.A. SECTION COUNTY TOTAL SHEETS D-6 [TS *] SANGAMON TO STA. FEO. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT MATCH CAMERA 3 FIBER OPTIC QUANTITIES QUANTITY UNIT LIEM 3164.0 FOOT CONDUIT IN TRENCH, 1 1/2" DIA., PVC 86.0 FOOT CONDUIT, AUGERED, 1 1/2" DIA., PVC EACH JUNCTION BOX (SPECIAL) TRENCH AND BACKFILL FOR ELECTRICAL WORK 3164.0 FOOT 3268.0 FIBER OPTIC CABLE IN CONDUIT, NO 62.5/125, 8F ILLINOIS DEPARTMENT OF TRANSPORTATION CAM 3 PLAN VIEW D-6 ITS SANGAMON COUNTY SCALE: VERT. 1" = 100' DATE MAY 2005 DRAWN BY KDA

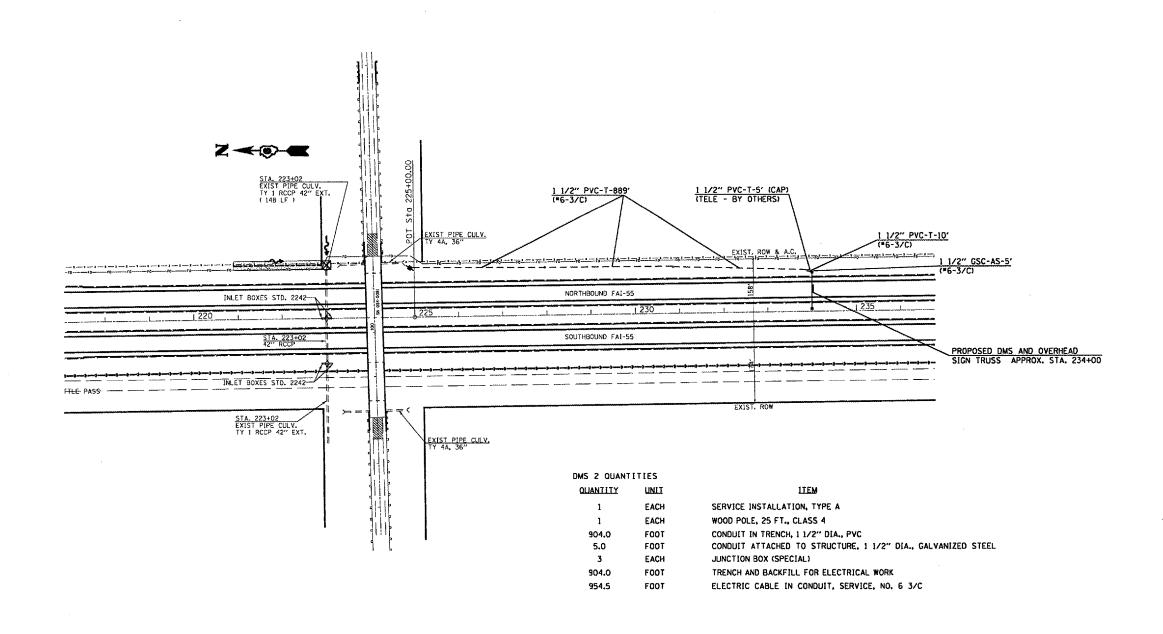
DATE : SDATES NAME : SFILELS SCALE : SSCALES NAME : SUSERS



COUNTY TOTAL SHEETS RYE. SECTION D-6 [TS "] SANGAMON TO STA. FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT 1 1/2" PVC-T-34 (#6-3/C) 1 1/2" PVC-T-16' (*6~3/C) 1 1/2" GSC-AS-5" (*6-3/C) 1 1/2" PVC-T-100" (*6-3/C) 1 1/2" PVC-A-58" DMS 1 QUANTITIES LIEM QUANTITY UNLI EACH SERVICE INSTALLATION, TYPE A WOOD POLE, 25 FT., CLASS 4 EACH 155.0 FOOT CONDUIT IN TRENCH, 1 1/2" DIA., PVC / CONDUIT, AUGERED, 1 1/2" DIA., PVC 98.0 FOOT FOOT CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., GALVANIZED STEEL / 5.0 EACH JUNCTION BOX (SPECIAL) TRENCH AND BACKFILL FOR ELECTRICAL WORK 155.0 FOOT ELECTRIC CABLE IN CONDUIT. SERVICE, NO. 6 3/C 300.5 FOOT ILLINOIS DEPARTMENT OF TRANSPORTATION DMS 1 PLAN VIEW D-6 ITS SANGAMON COUNTY SCALE: VERT. 1" = 100' HORIZ. DATE MAY 2005 DRAWN BY KDA CHECKED BY

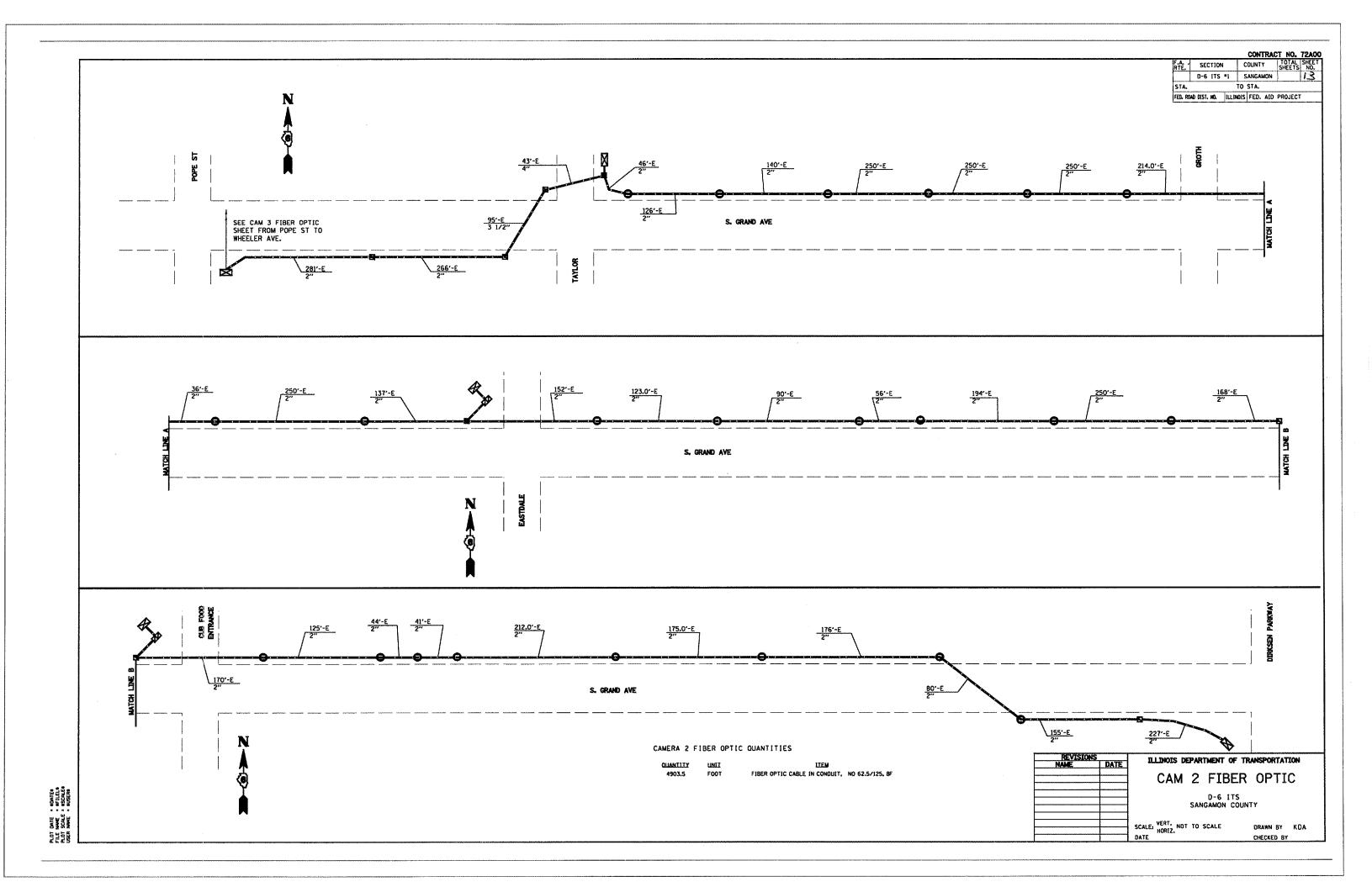
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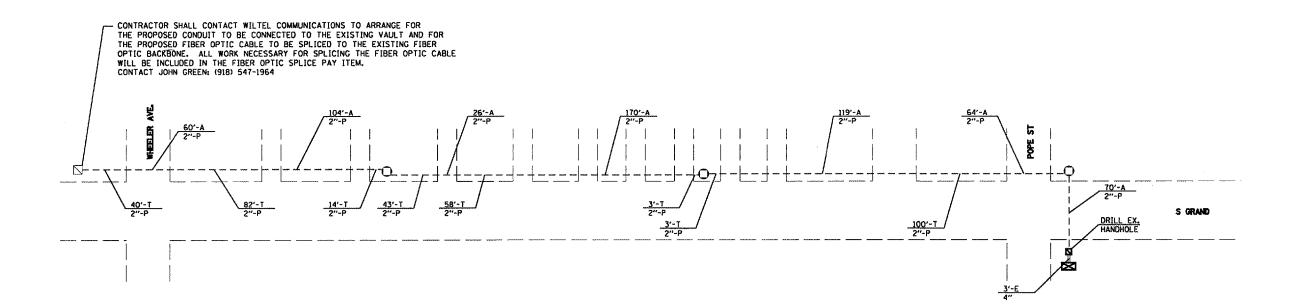


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		D-6 ITS SANGAMON CO				
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	-	DATE MAY 2005	CHECKED BY			

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F.A. SECTION D-6 ITS #1 SANGAMON TO STA. FED. ROAD DIST. NO. | ILLINDIS FED. AID PROJECT

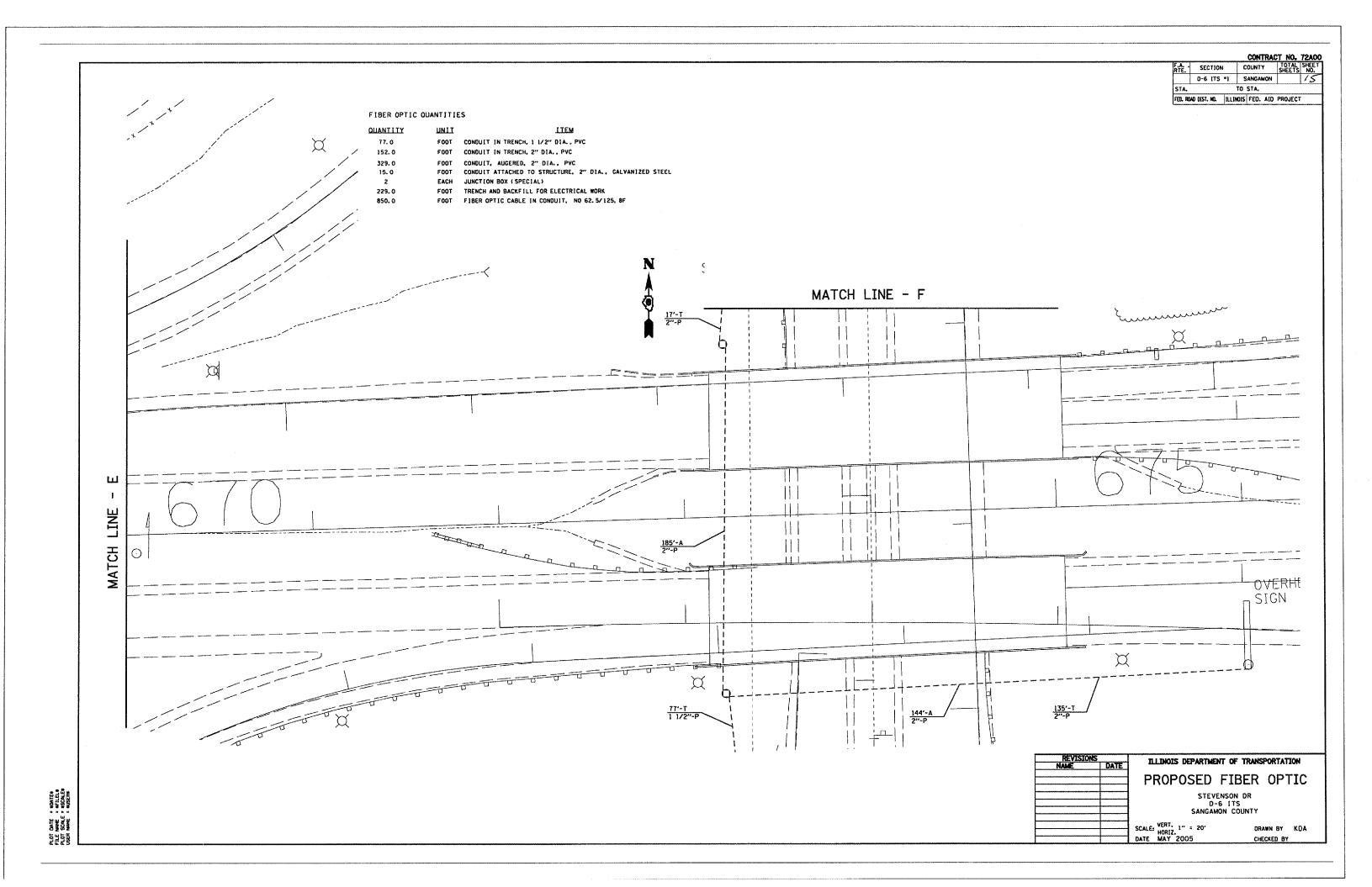


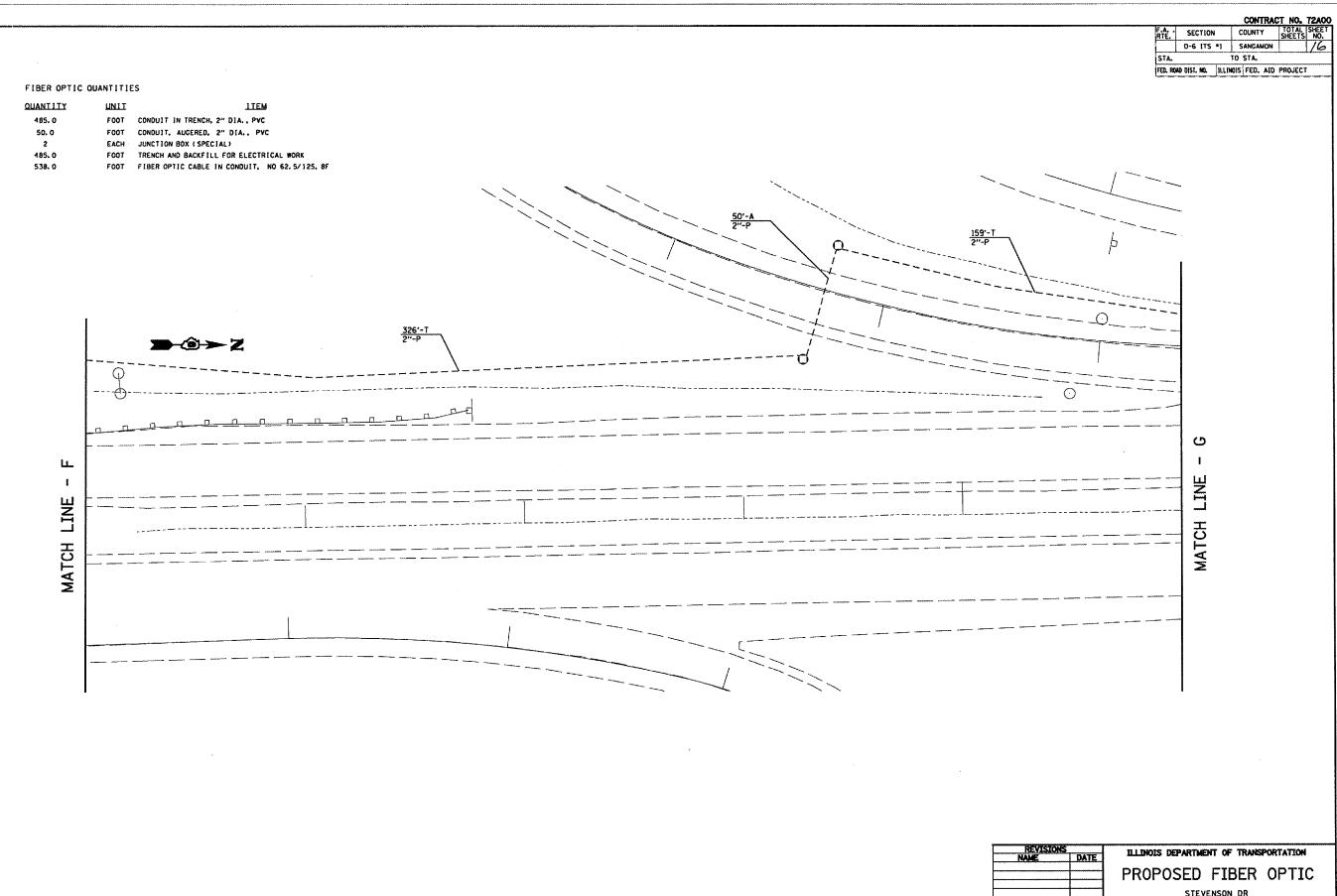
QUANTITY	UNII	ITEM	
413.0	FOOT	CONDUIT IN TRENCH, 2" DIA., PVC	
543.0	FOOT	CONDUIT, AUGERED, 2" DIA., PVC	
3	EACH	JUNCTION BOX (SPECIAL)	
413.0	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK	
973.0	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO 62.5/125, 8F	
1	EACH	DRILL EXISTING HANDHOLE	
1	EACH	FIBER OPTIC SPLICE	

CAMERA 2 FIBER OPTIC QUANTITIES



REVISIONS DATE		ILLINOIS DEPARTMENT OF TRANSPORTATION			
	VAIS	САМ	2	FIBER OPTIC	
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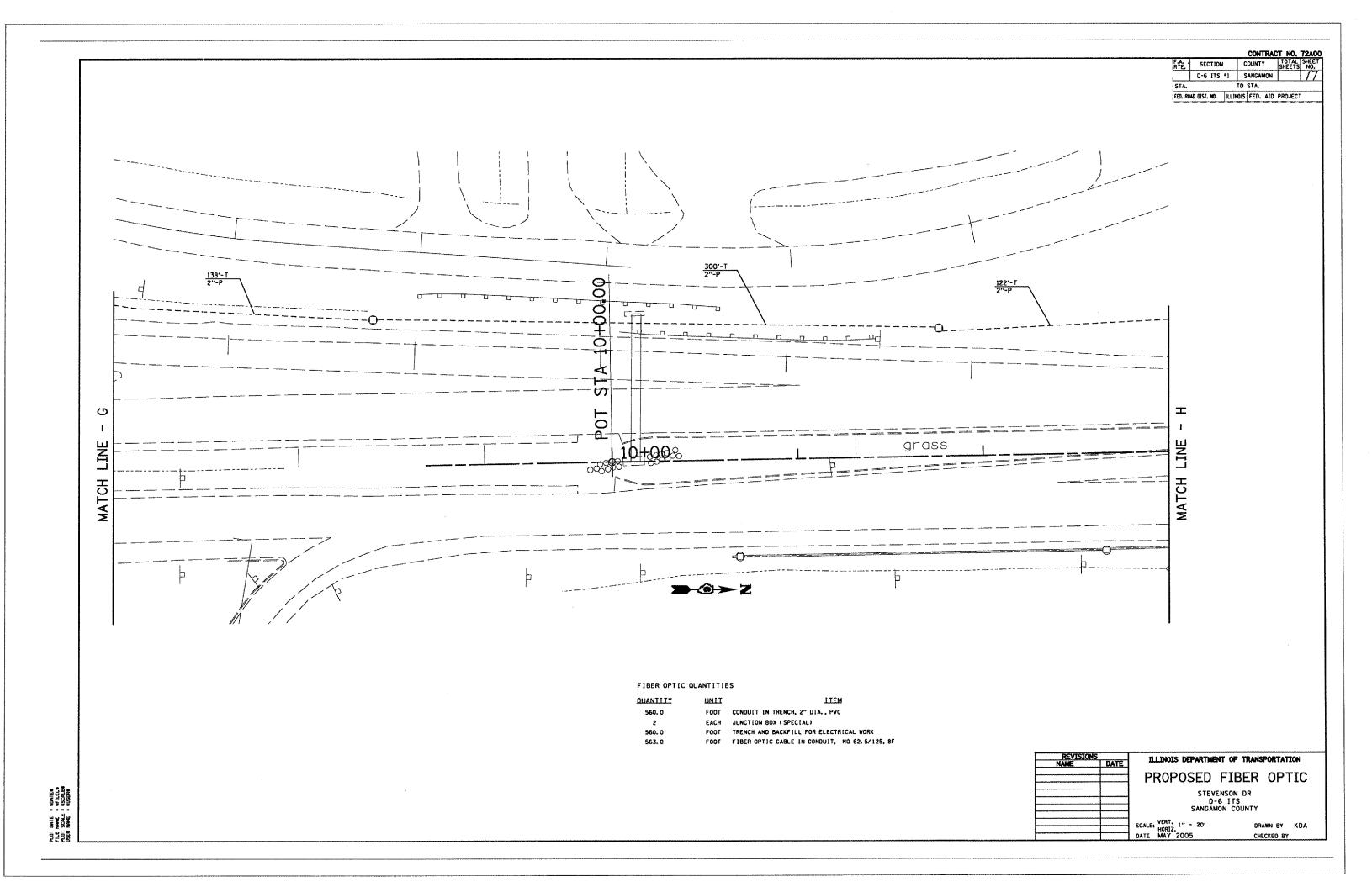


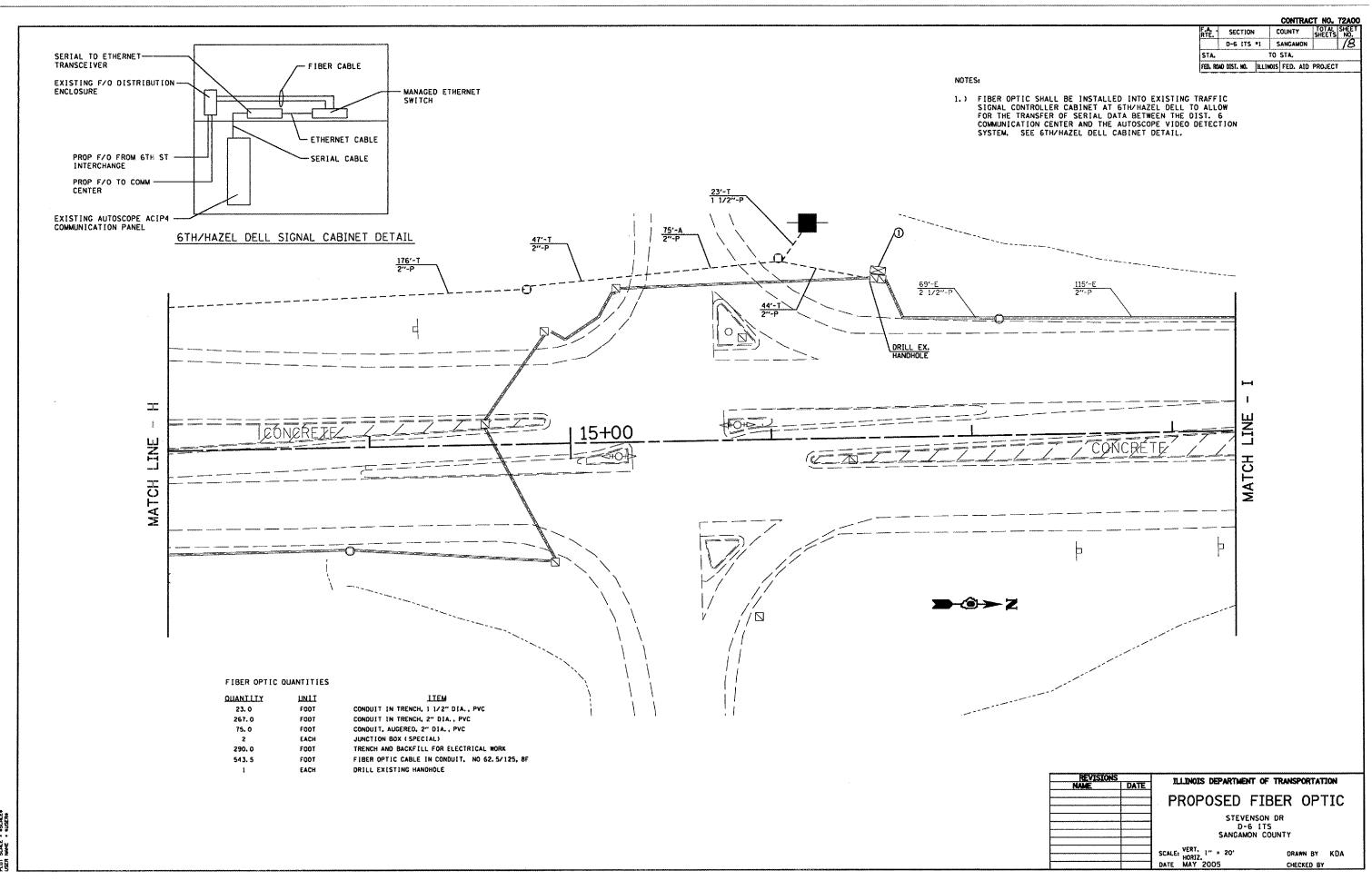


STEVENSON DR D-6 ITS SANGAMON COUNTY

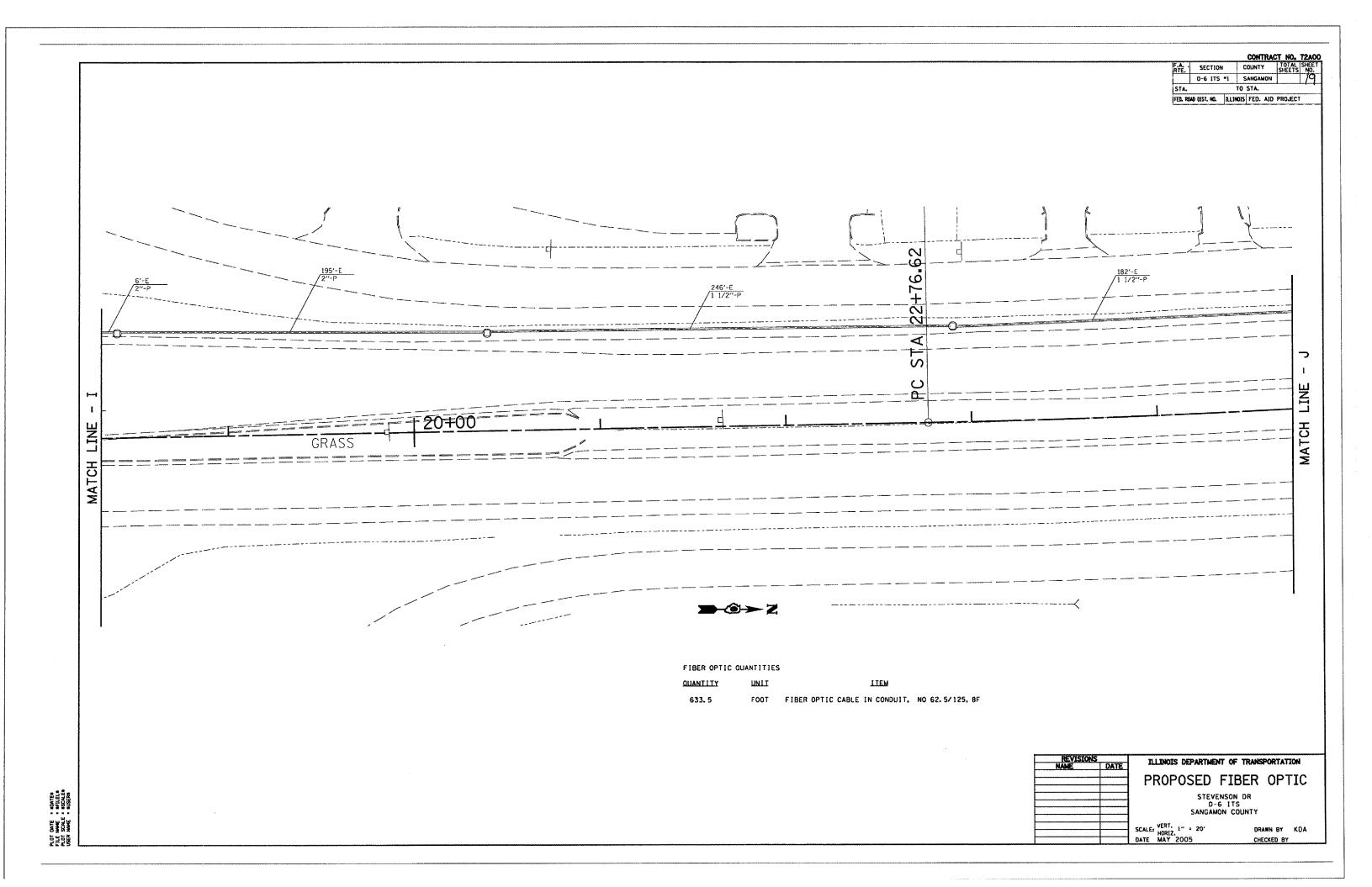
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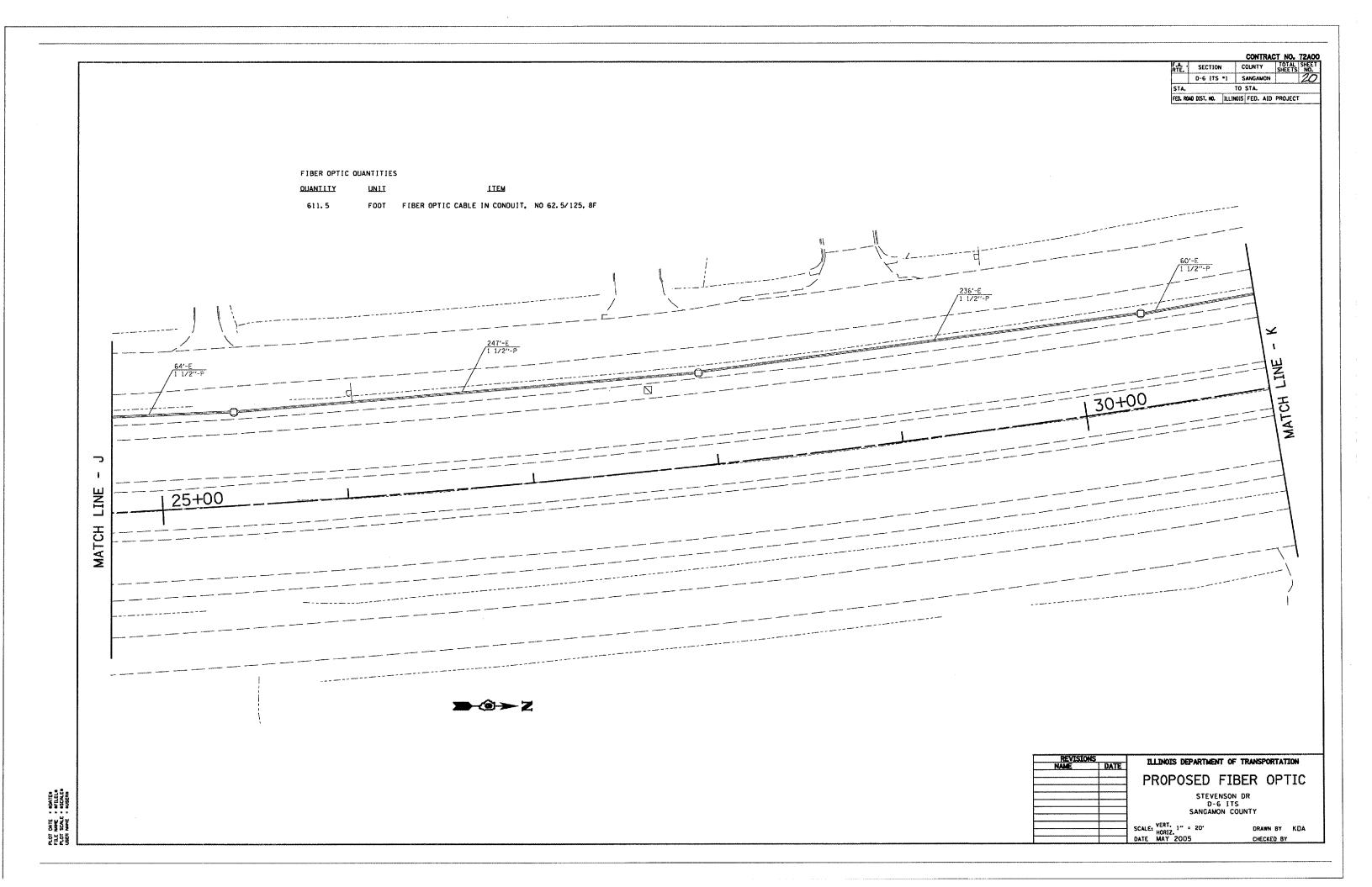
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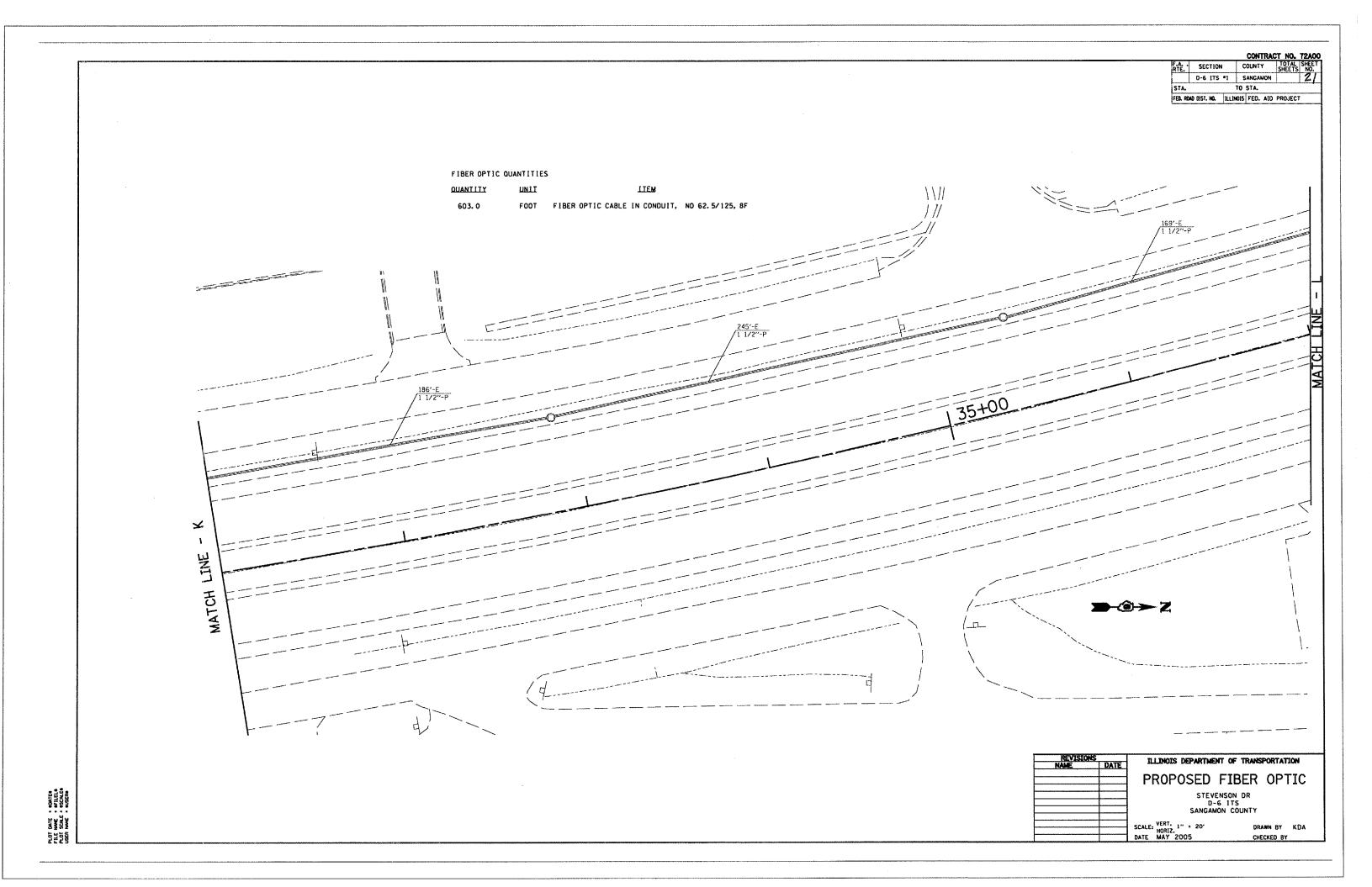


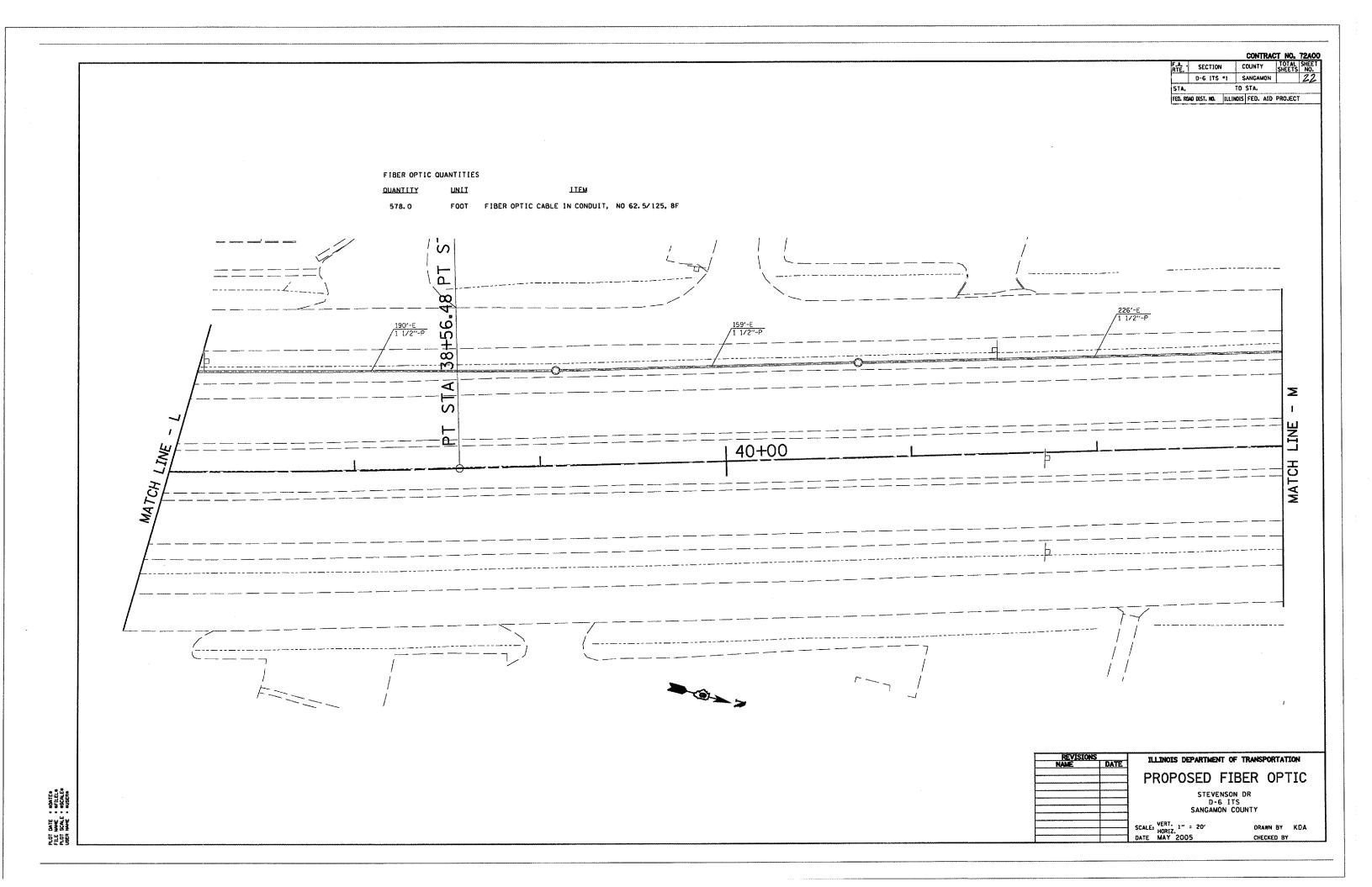


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| CONTRACT NO. 72A00 |
F.A.	SECTION	COUNTY	SHEETS	NO. 72A00
D-6 ITS *1	SANGAMON	2.3		
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID	PROJECT	

FIBER OPTIC QUANTITIES

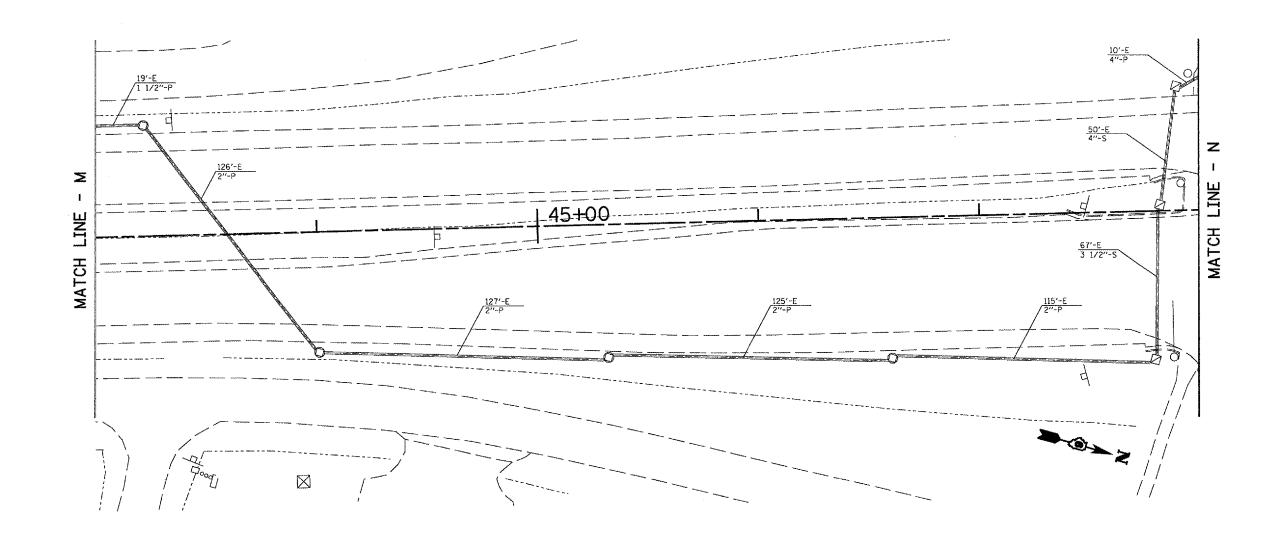
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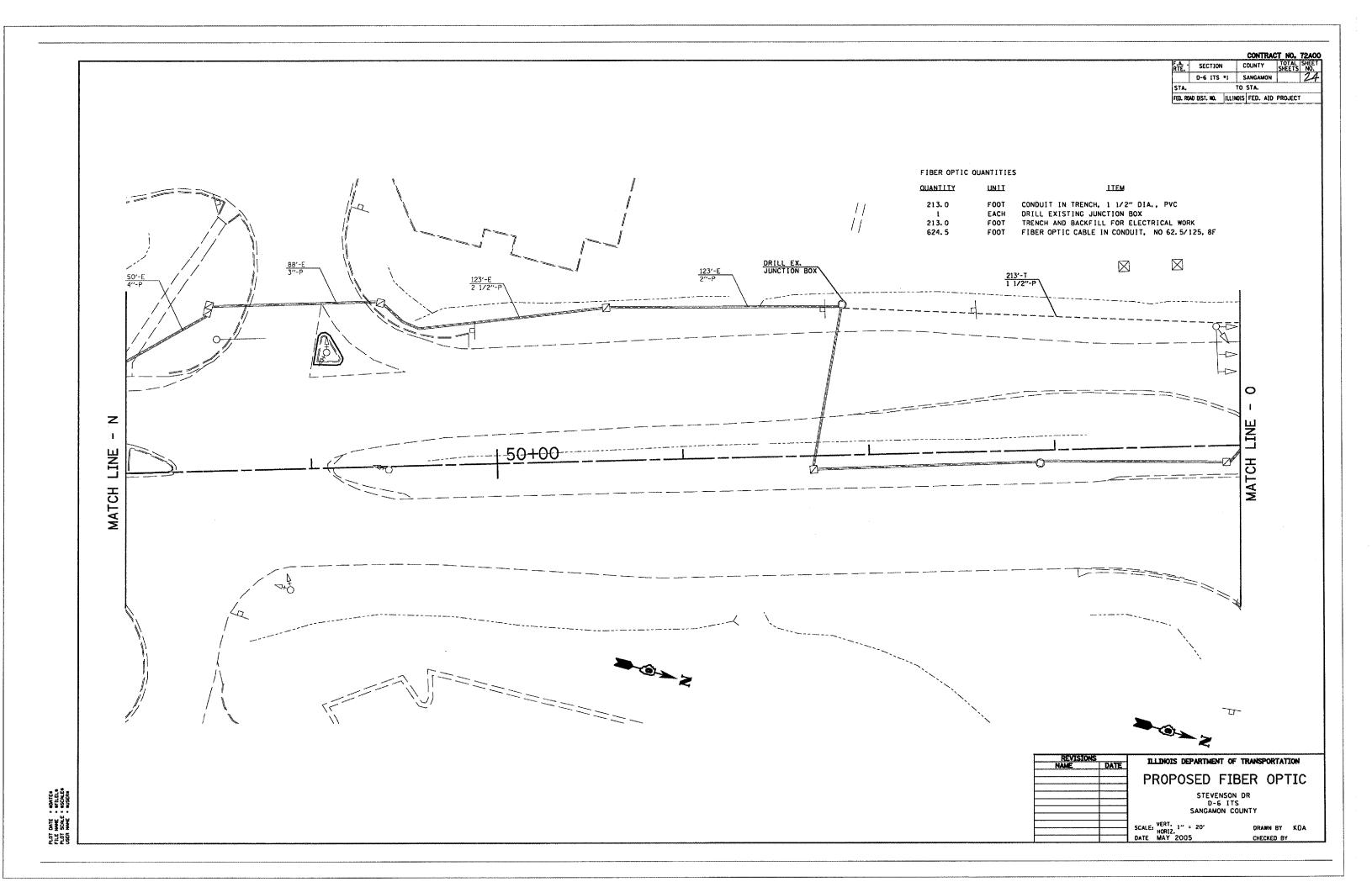
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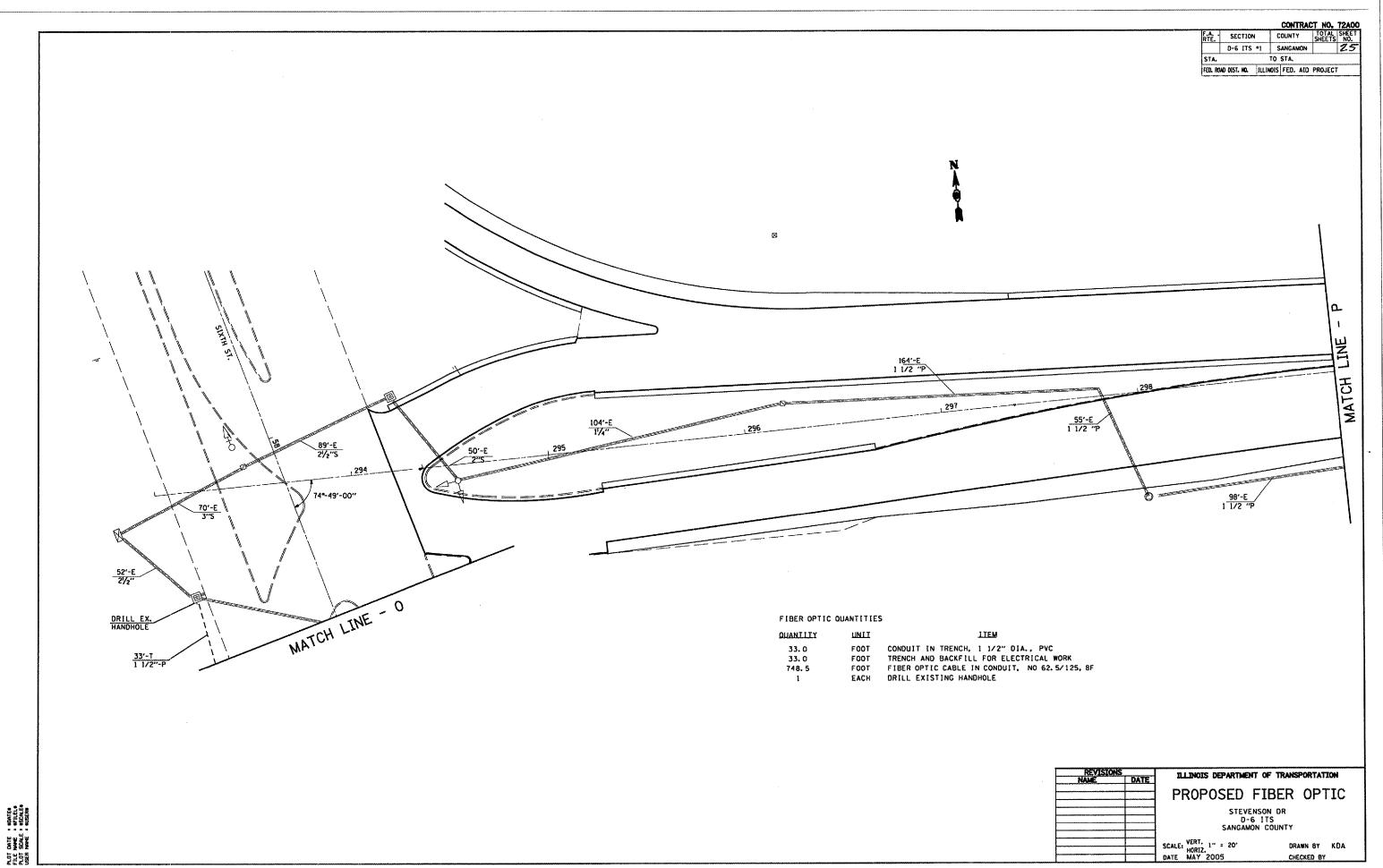
FOOT FIBER OPTIC CABLE IN CONDUIT. NO 62.5/125. 8F



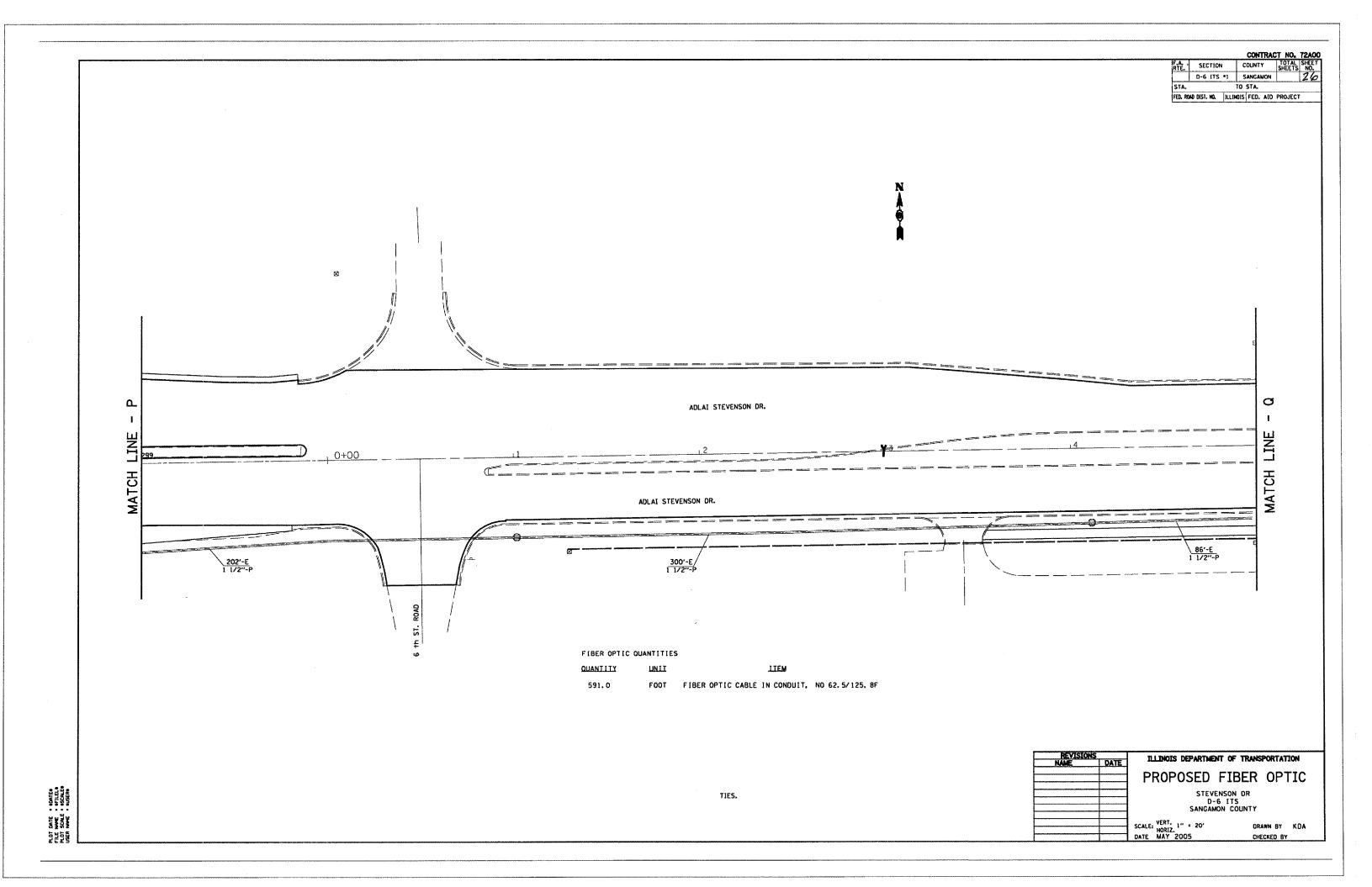
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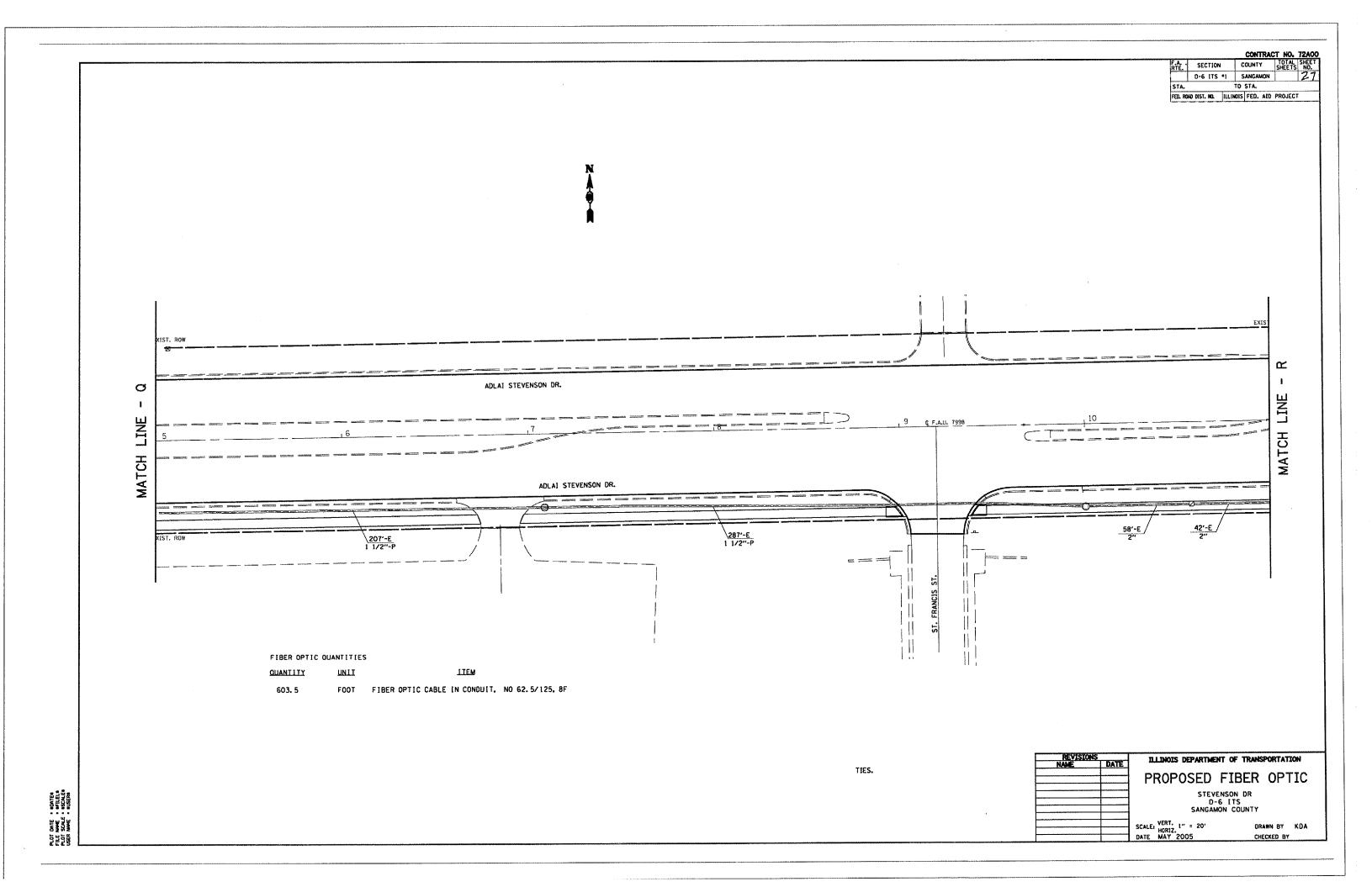
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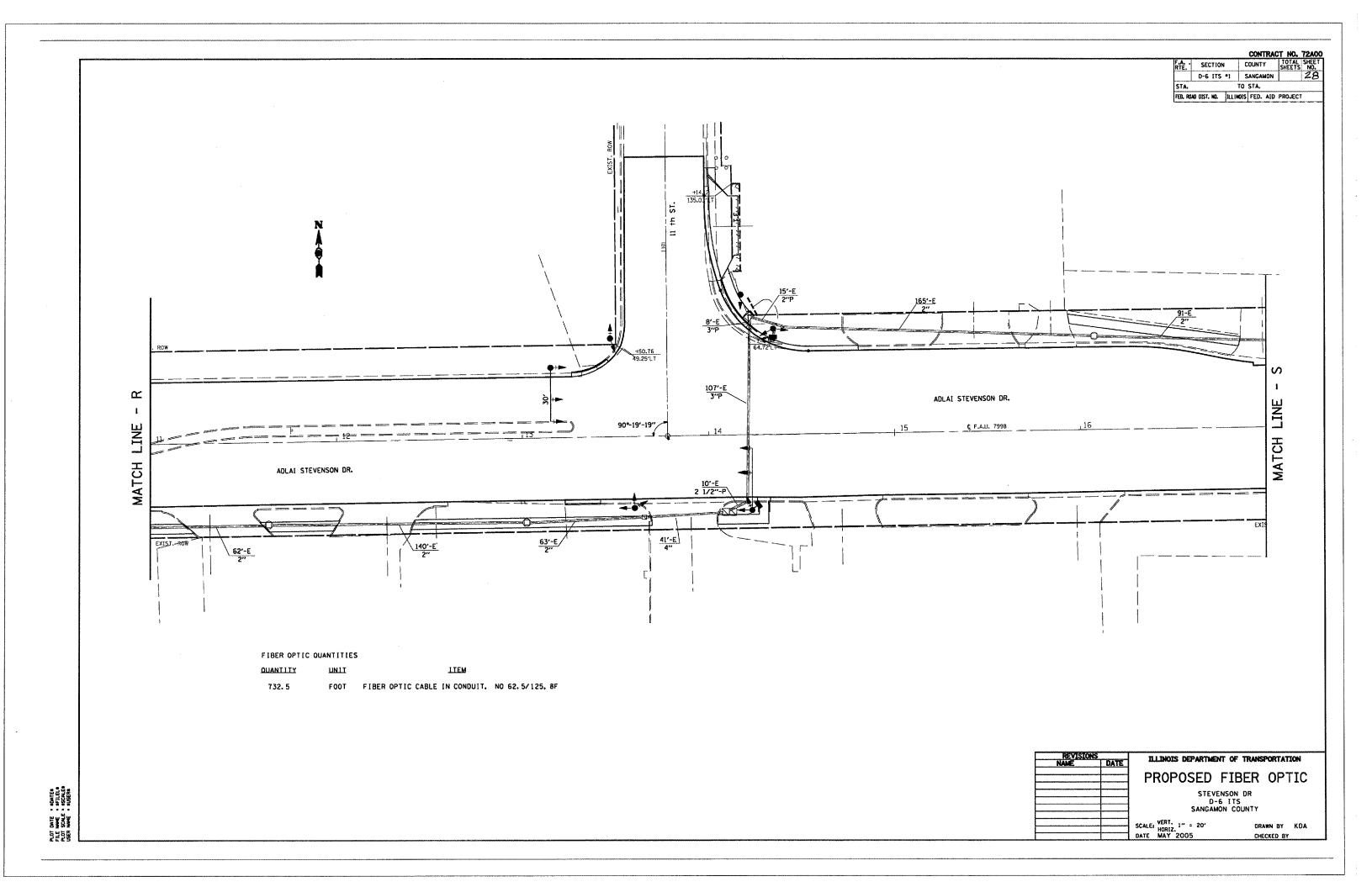


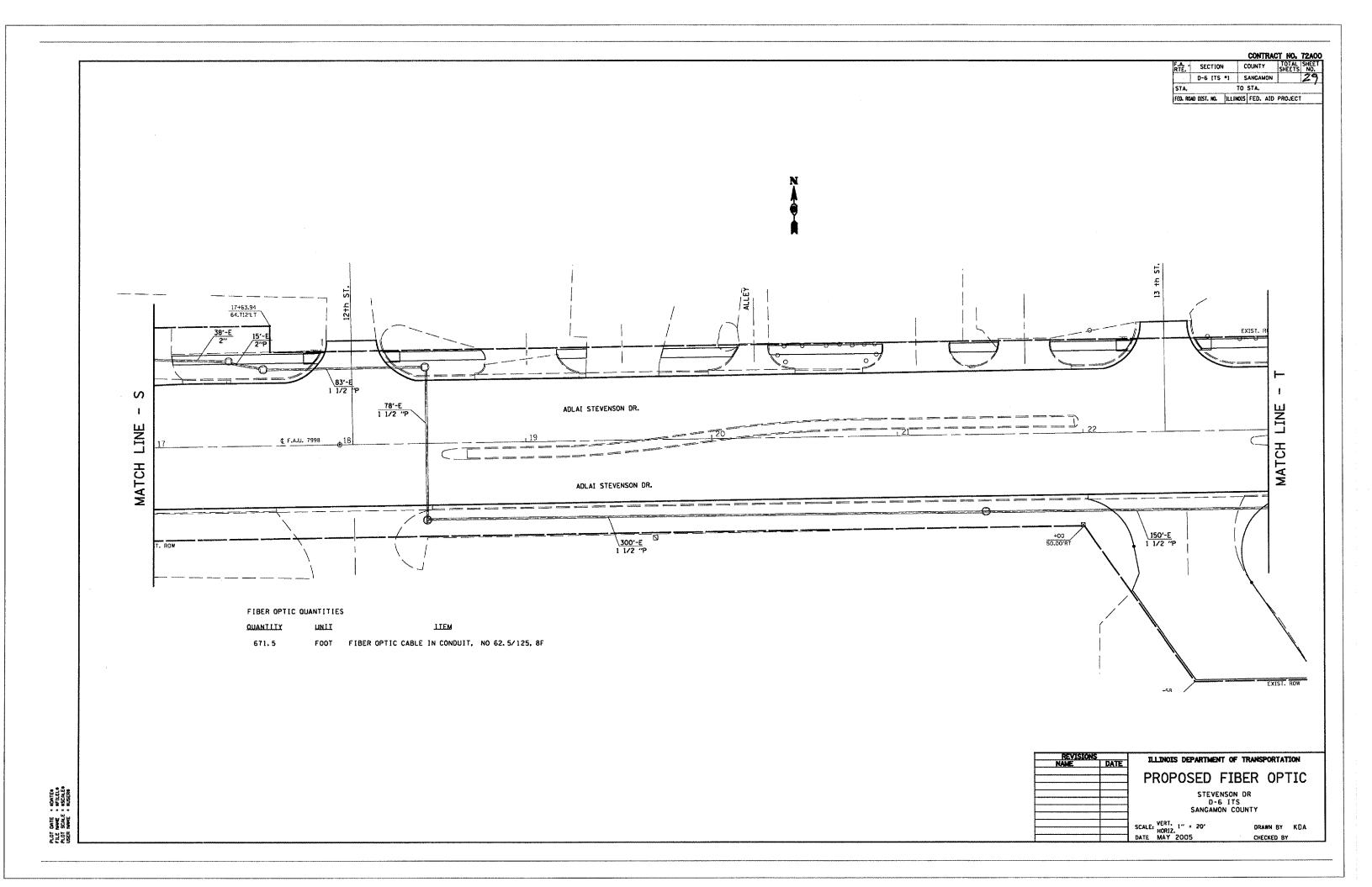


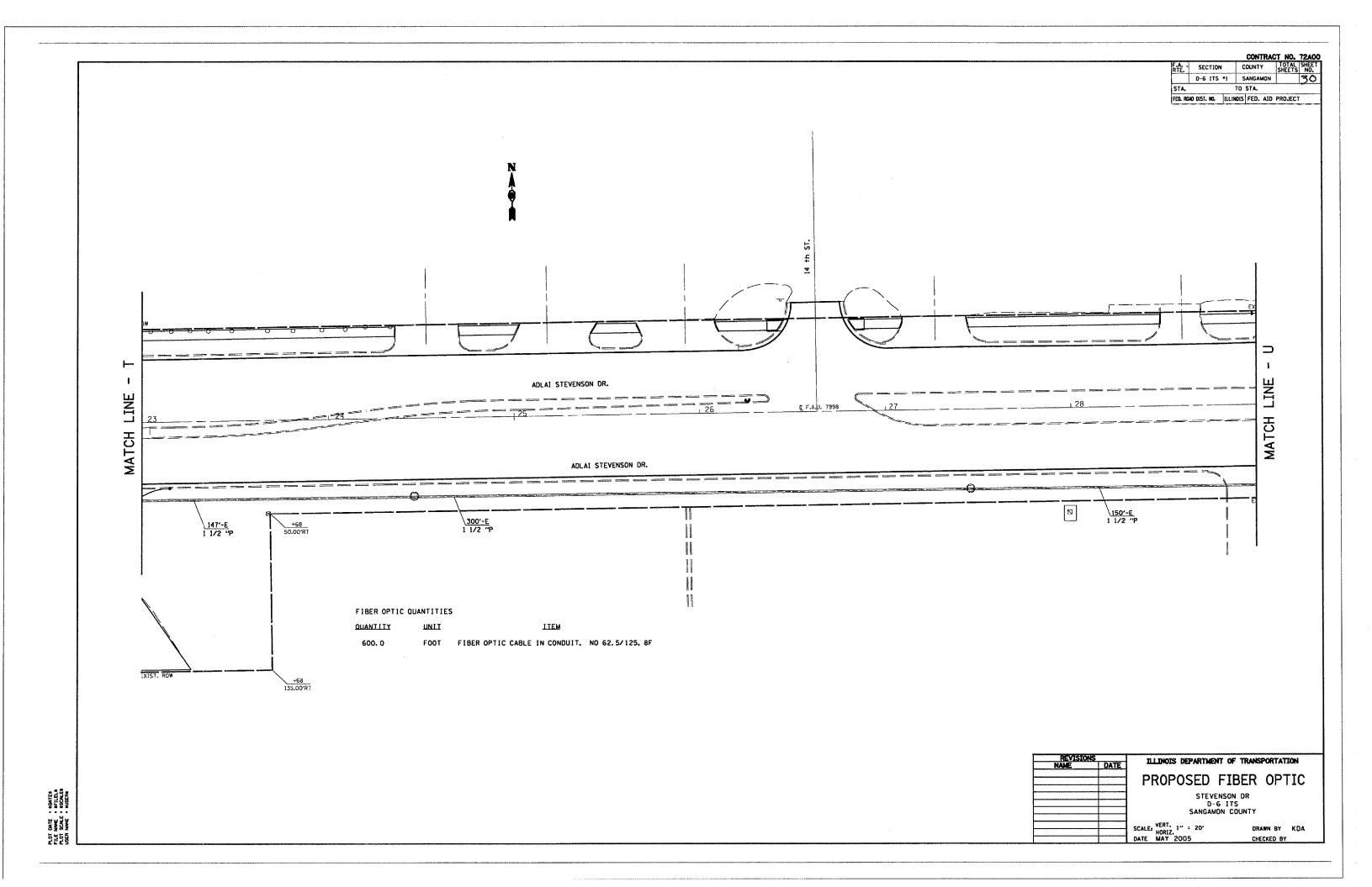
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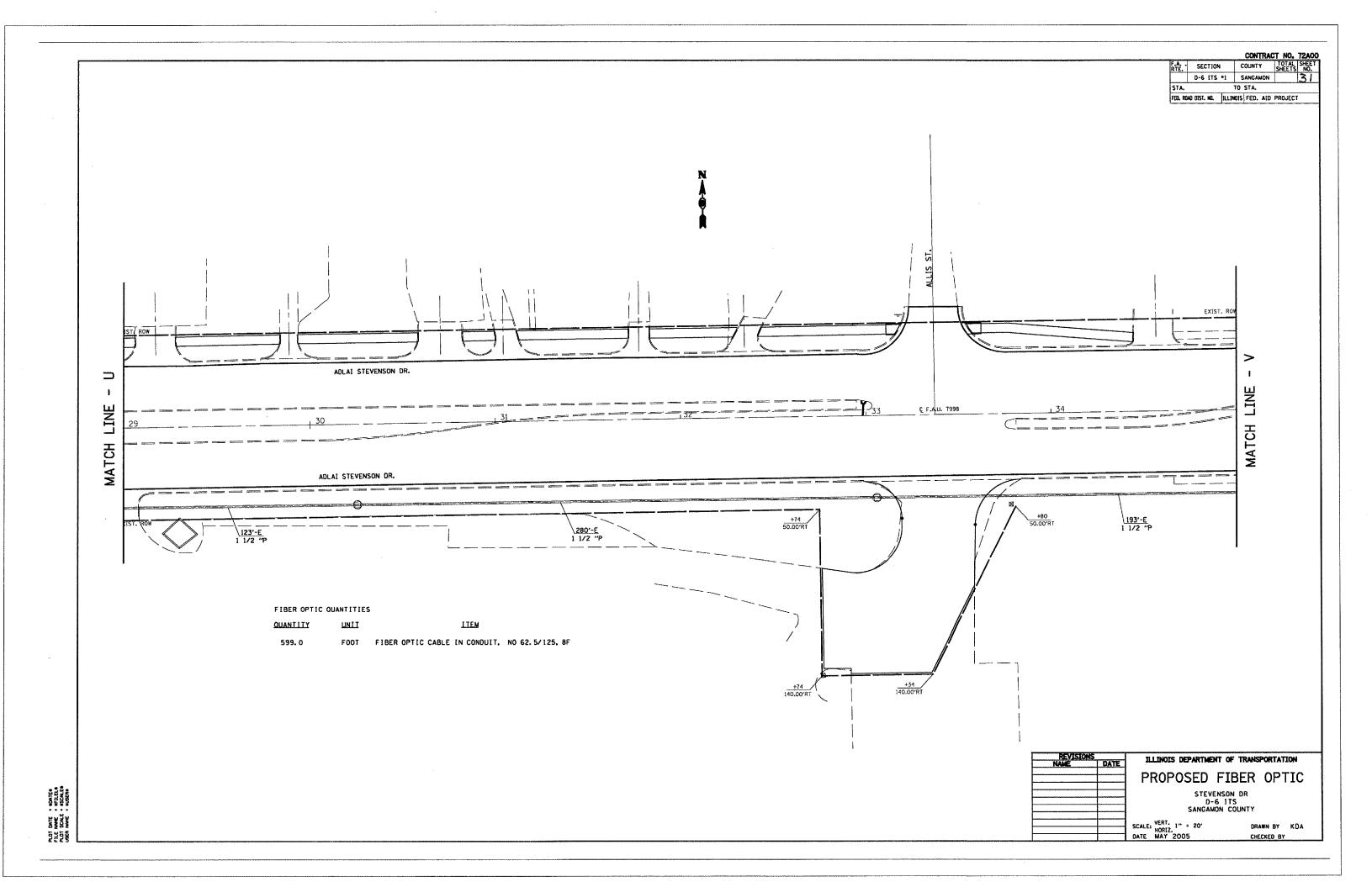


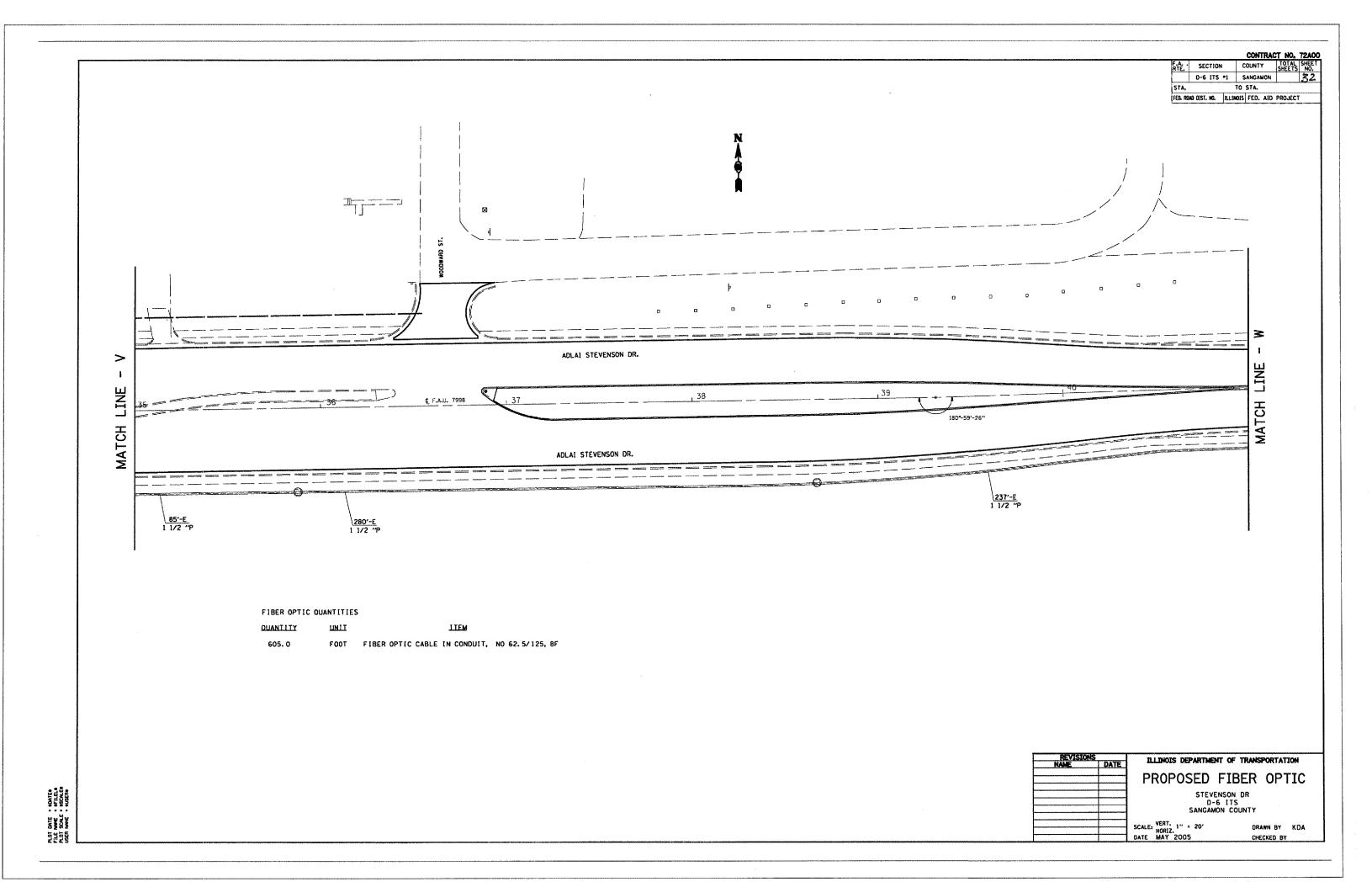


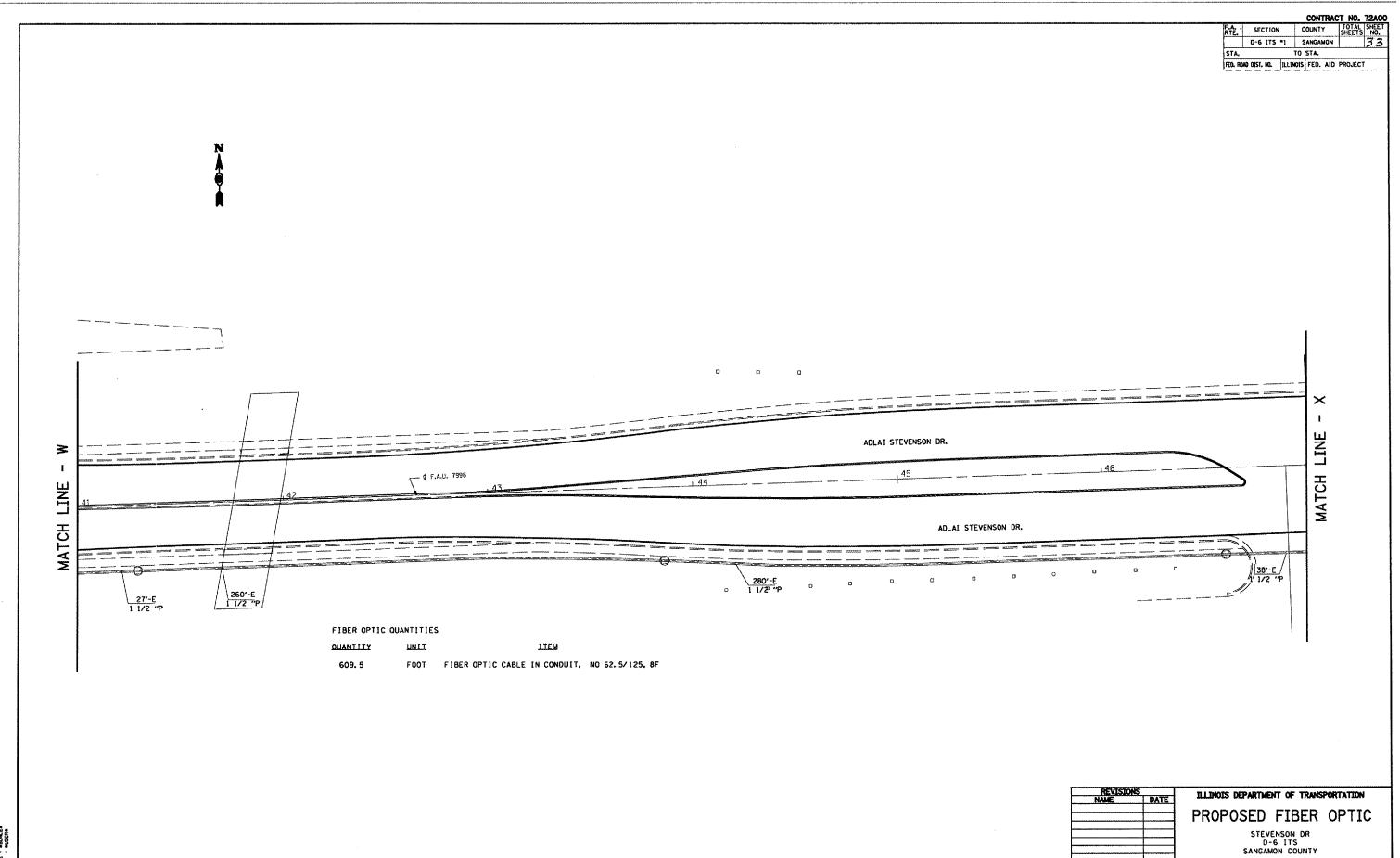








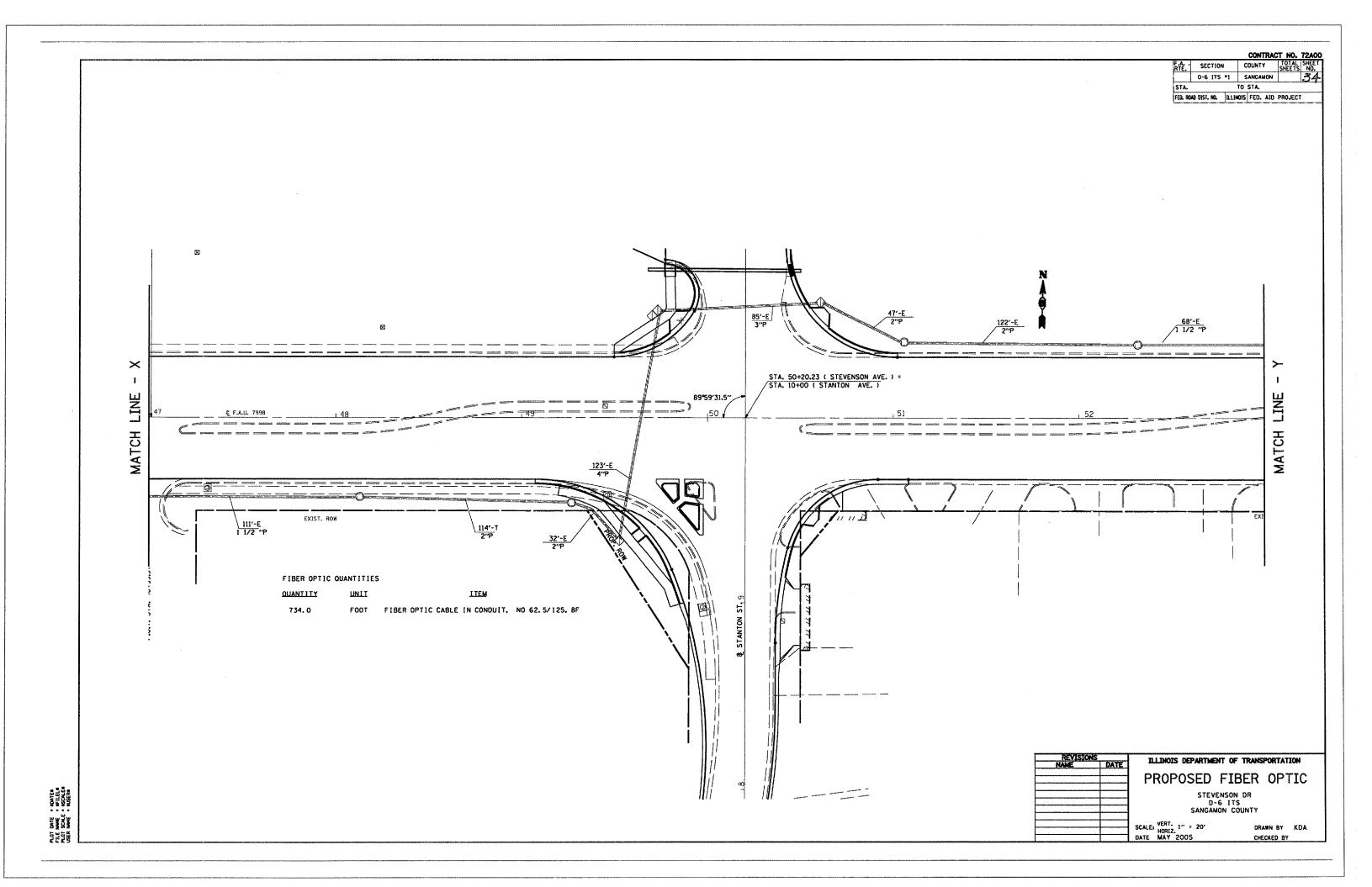


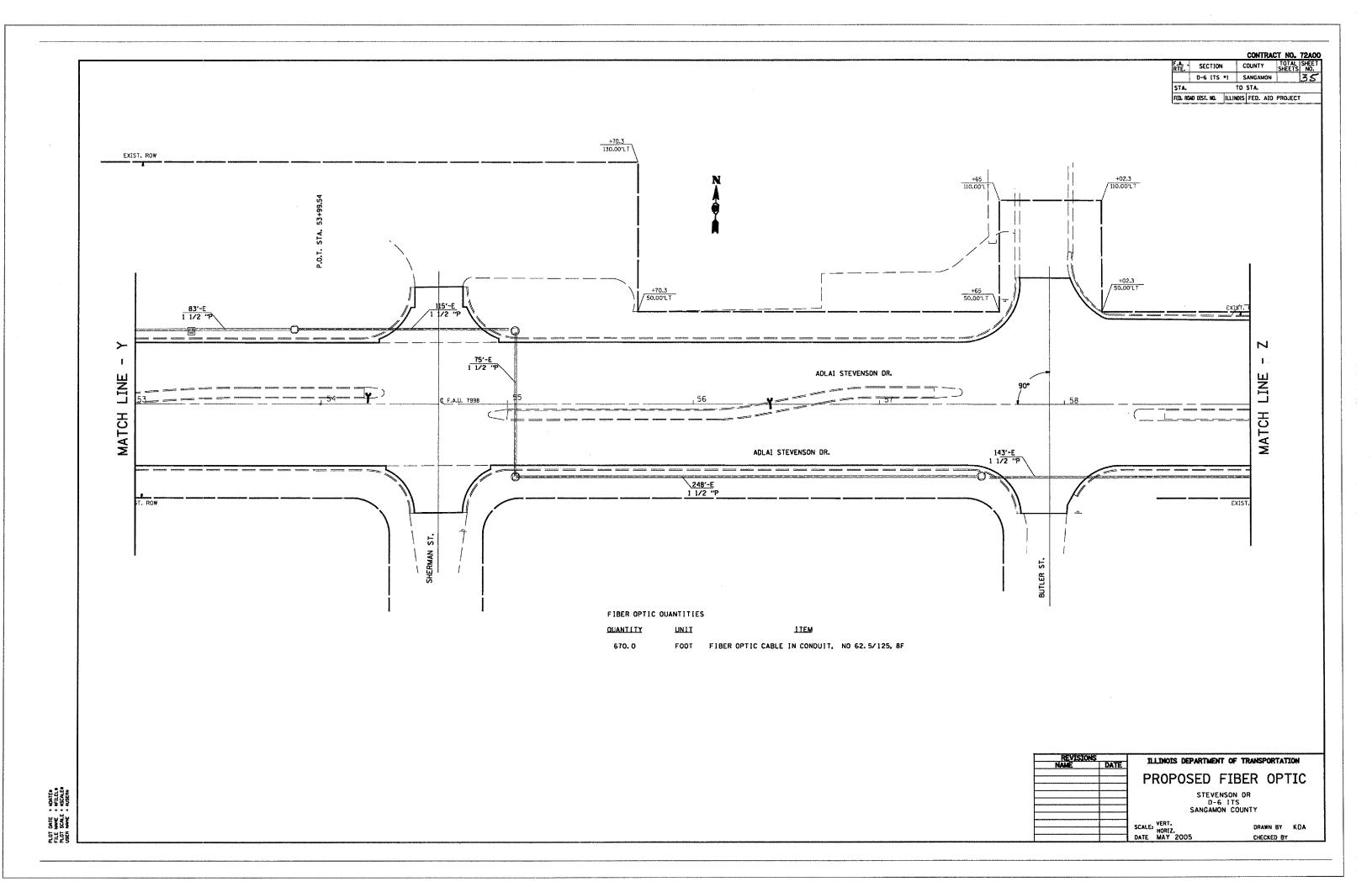


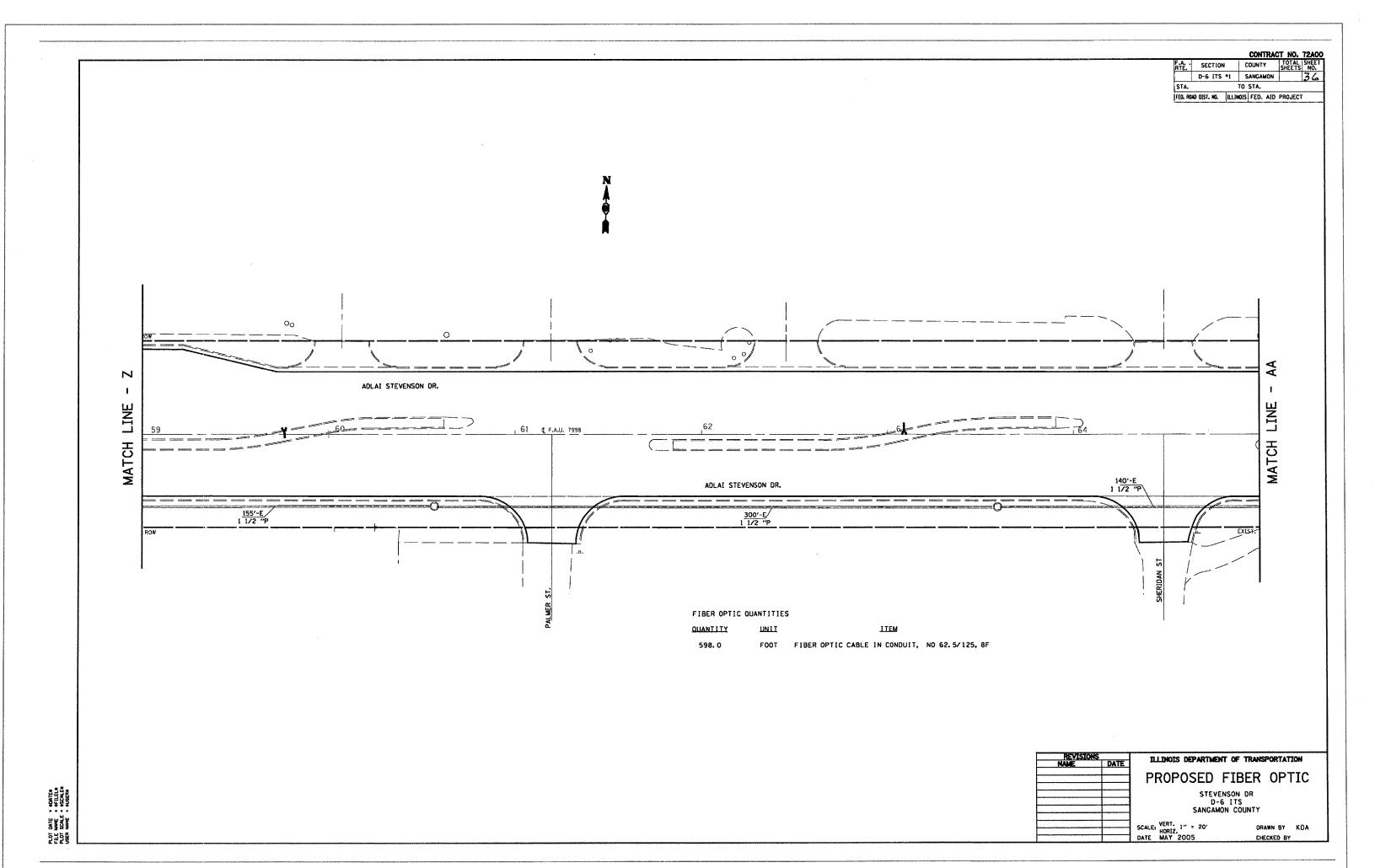
SCALE: VERT. 1" = 20' HORIZ. DATE MAY 2005

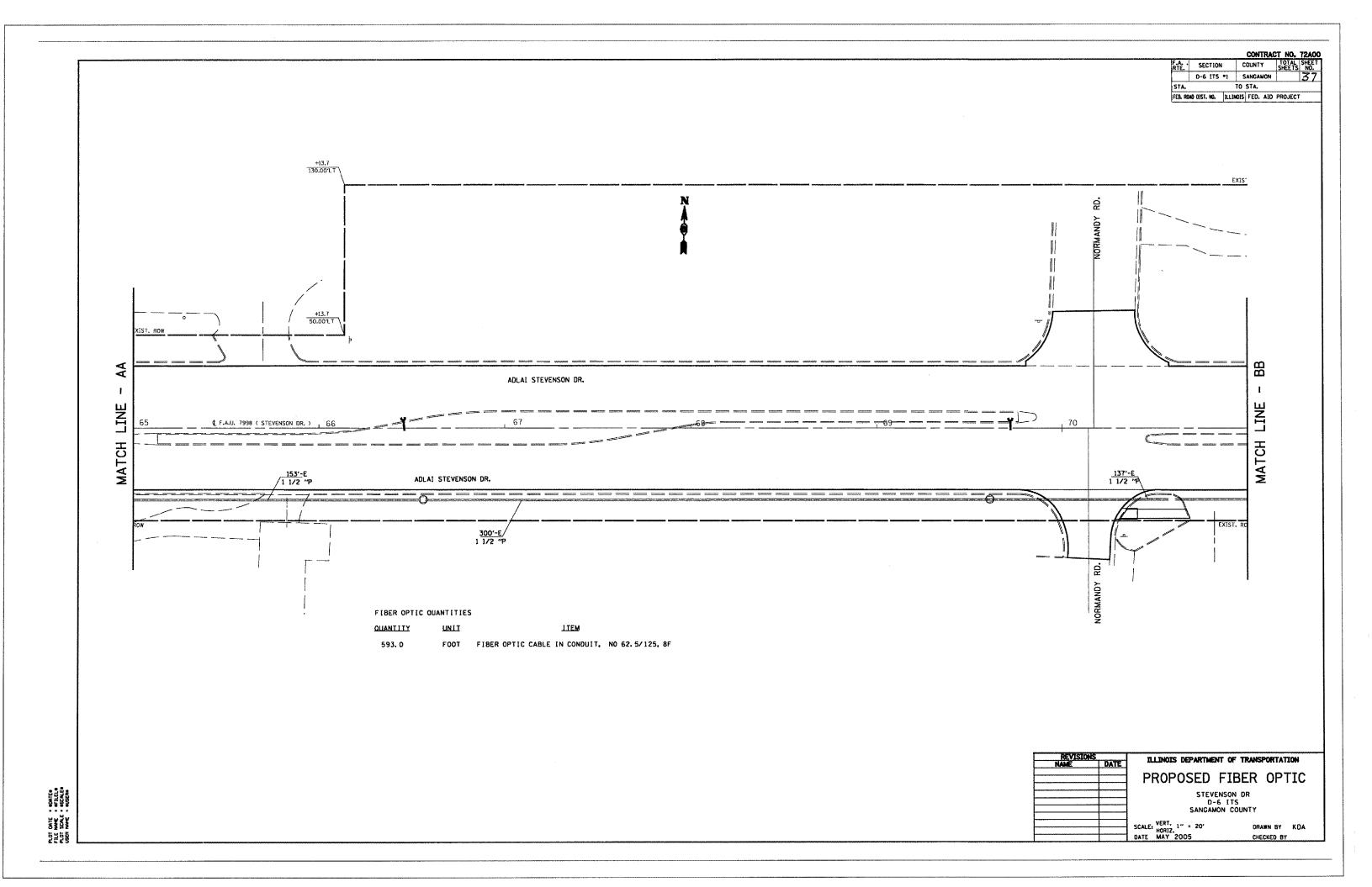
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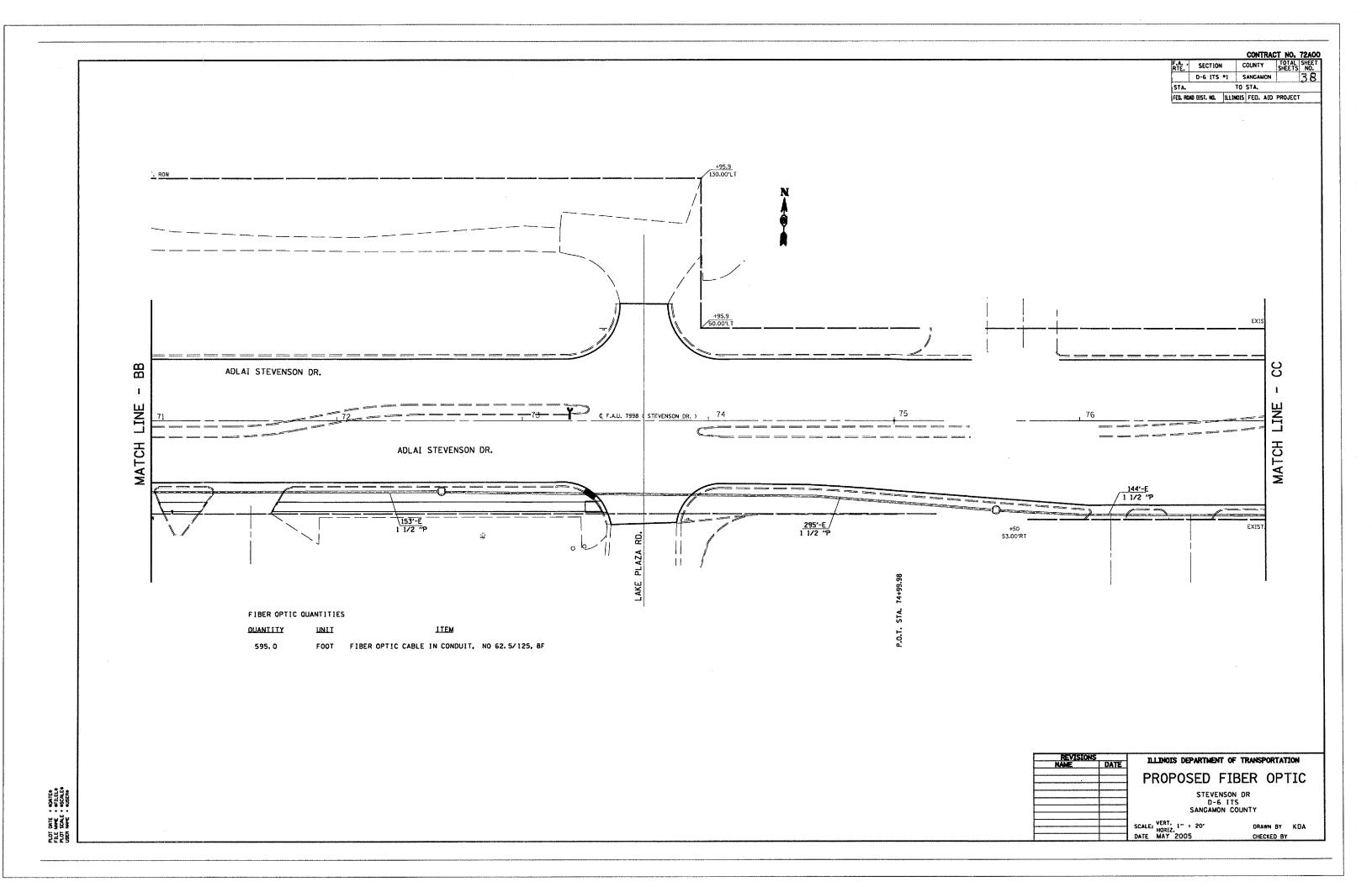
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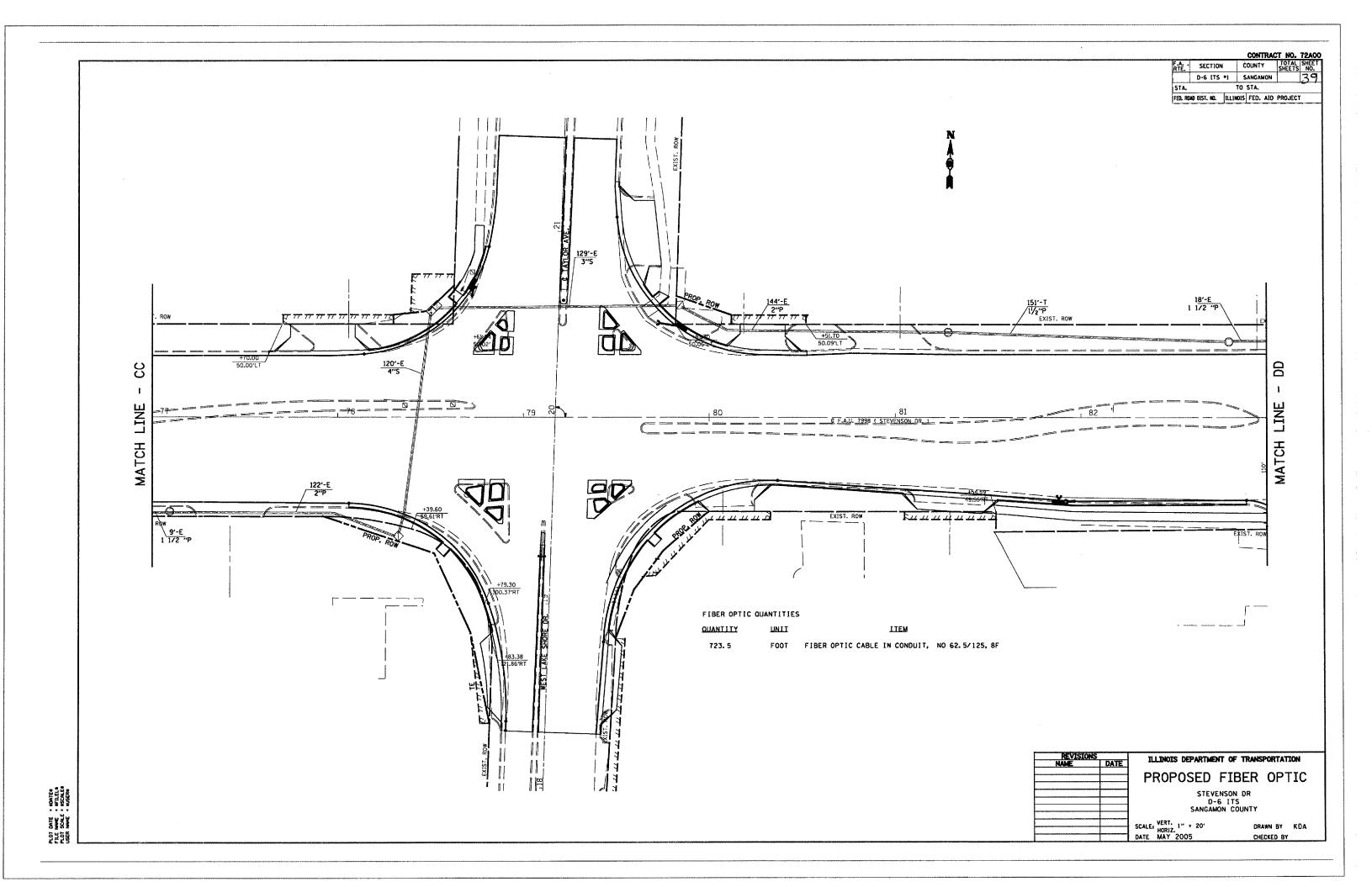


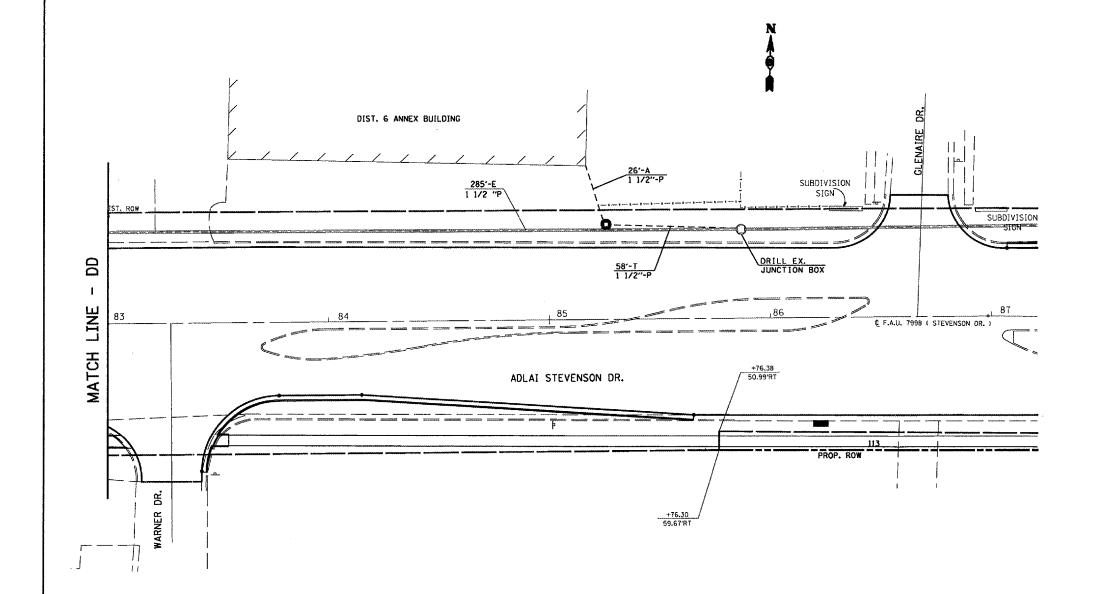












DATE MAYE SCALE MAYE

NOTES:

- 1.) CONTACT DISTRICT 6 FOR ASSISTANCE IN INSTALLING PROPOSED FIBER OPTIC CABLE TO AND WITHIN DISTRICT 6 ANNEX BUILDING.
- 2.) INSTALL 1 1/2" DIA. SCHEDULE 80 PVC CONDUIT ALONG SIDE AND ROOF OF DISTRICT 6 ANNEX BUILDING. CONDUIT SHALL BE MINIMALLY FASTENED TO SIDE OF BUILDING AND ROOF. PAID FOR AS CONDUIT ATTACHED TO STRUCTURE. 1 1/2" DIA., PVC.
- 3.) INSTALL PROPOSED FIBER OPTIC CABLE TO DISTRICT 6 ANNEX BUILDING THROUGH PROPOSED PVC CONDUIT. FIBER OPTIC CABLE SHALL BE INSTALLED THROUGH EXISTING WEATHERHEAD ON ROOF. APPROXIMATELY 50° OF FIBER OPTIC CABLE SHALL BE SUSPENDED IN CEILING AND TERMINATED IN PATCH PANEL IN DIST. 6 COMM CENTER. TOTAL LENGTH OF FIBER OPTIC CABLE FROM PROPOSED JUNCTION BOX TO COMMUNICATION CENTER WITHIN DISTRICT 6 OFFICE = 500 FT.

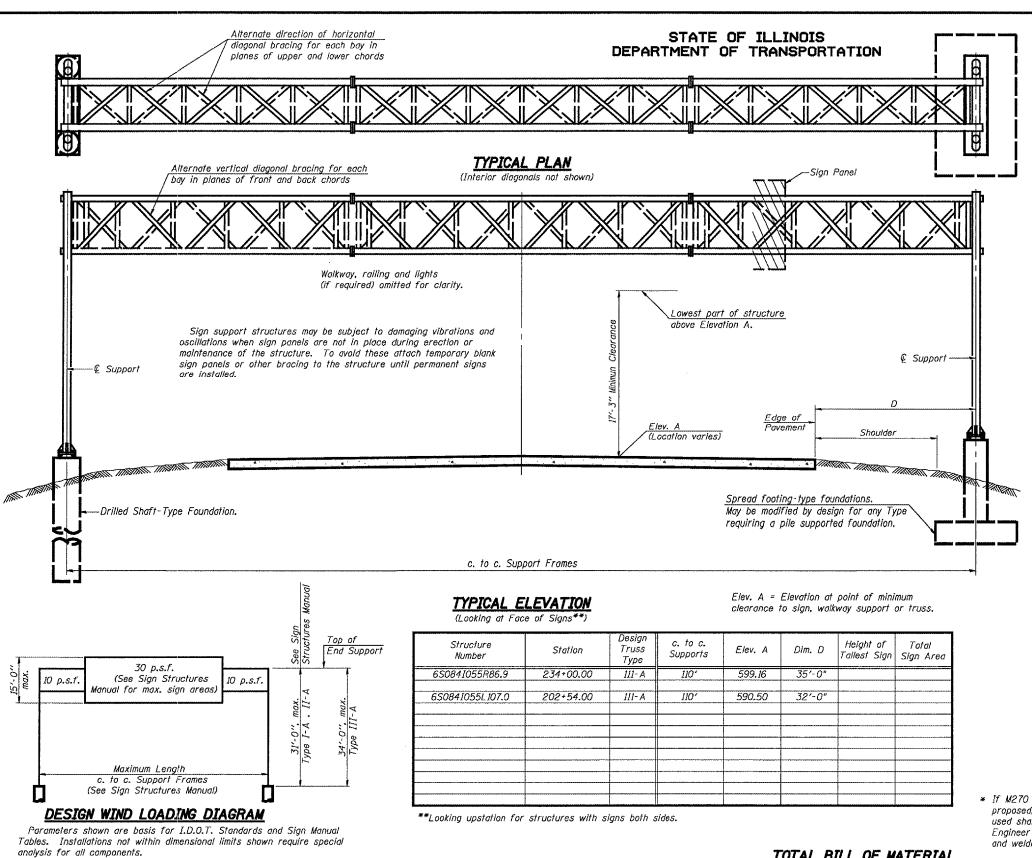
FIBER OPTIC QUANTITIES

QUANILLY	UNLI	LIEM
58. Q	FOOT	CONDUIT IN TRENCH, 1 1/2" DIA., PVC
26. 0	FOOT	CONDUIT, AUGERED, 1 1/2" DIA., PVC
300. 0	FOOT	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., PVC
1	EACH	JUNCTION BOX (SPECIAL)
1	EACH	DRILL EXISTING JUNCTION BOX
58.0	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
846.0	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO 62.5/125, 8F

REVISIONS
NAME
DATE
PROPOSED FIBER OPTIC

STEVENSON DR
D-6 ITS
SANGAMON COUNTY

SCALE: VERT, 1" = 20' DRAWN BY KDA
HORIZ.
DATE MAY 2005 CHECKED BY



ESIGNED

CHECKED

RAWN CHECKED 0S-A-1 200

EXAMINED

PARIET

1-7-05

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs. Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

F.A.I. D-6 55 | ITS #1

EG. ROAD 0(81. NO. 7

TOTAL SHEETS

SANGAMON

SHEET NO.

LOADING: 90 M.P.H. WIND VELOCITY

WIND LOADING: 30 p.s.f. normal to Sign Panel Area and truss elements not behind sign Loading Diagram.

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES: Field Units $f'_c = 3,500 \text{ p.s.i.}$

fy = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specificiations.

MATERIALS: Aluminum Alloys as shown throughout plans, All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.

All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240. Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer. The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO MI64 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO MIII. Painting is not permitted.

ANCHOR RODS: Shall conform to AASHTO M314 Gr. 36 or 55 with a minimum Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F.

CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seat Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

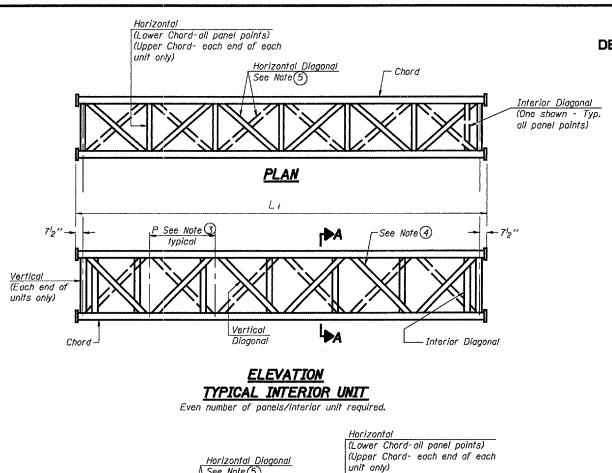
* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

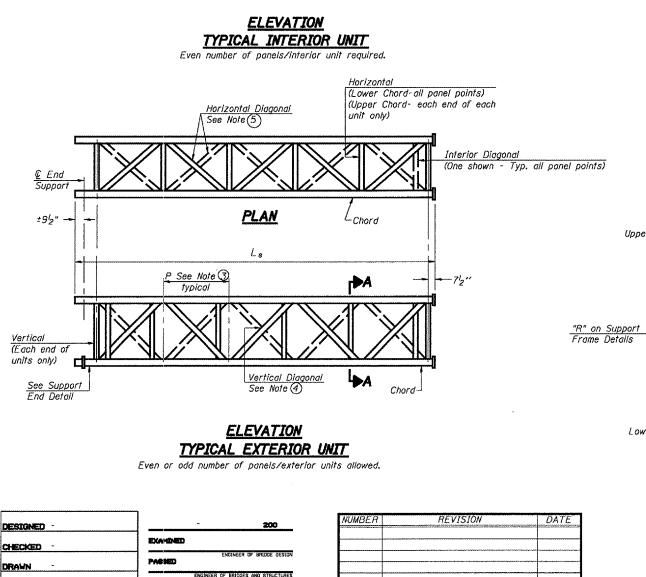
OVERHEAD SIGN STRUCTURES GENERAL PLAN & ELEVATION **ALUMINUM TRUSS & STEEL SUPPORTS**

> F.A.I. 55 (I-55) SECTION D-6 ITS #1 SANGAMON COUNTY

TOTAL BILL OF MATERIAL

REVISION	DATE	ITEM	UNIT	TOTAL
		OVERHEAD SIGN STRUCTURE TYPE I-A (4'-0" x 4'-6")	Foot	
		OVERHEAD SIGN STRUCTURE TYPE II-A (4'-6" x 5'-3")	Foot	
		OVERHEAD SIGN STRUCTURE TYPE III-A (5'-0" x 7'-0")	Foot	220.0
		OVERHEAD SIGN STRUCTURE WALKWAY TYPE A	Foot	21'-6"
		CONCRETE FOUNDATIONS	Cu. Yds.	26.0
		DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	21.2

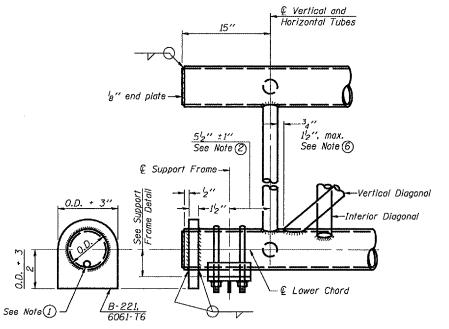




CHECKED . 0S-A-2

1-7-05

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



SUPPORT END DETAIL FOR EXTERIOR UNIT

3₄'', min. 1½'', mox. --Interior Diagonal See Note (6) <u>Horizontal</u> Horizontal Diagonal Detail A Chord -Toe edge of 9", max. See Note 6 diagonal member shall be cut back to facilitate throat thickness per AWS D1.1, Fig 3.2 Interior Diagonal TYPICAL JOINT DETAILS DETAIL A

F.A.I. D-6 55 ITS #1

FEG. RUAD GIST. NO. 2

Contract #

Horizontal --

SHEET NO.

42

SHEET NO.

SHEETS

TOTAL SHEETS

SANGAMON

NOTES

- Contractor may alternatively use standard aluminum drive-fit cap to close end. $^{l}_{2}$ " ϕ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
- 5_2^{l} " end dimension may vary by ± 1 " to provide uniform panel spacing (P).
- Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
- Vertical Diagonals in front and back face shall alternate.
- Hidden lines show wind bracing alternates direction between planes of top and
- All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a $^34^{\prime\prime}$ minimum to $l_2^{\prime\prime}$ maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

Interior Diagonal Upper Back Chord -@ Truss & @ Sign III-A II-A Reverse direction of interior diagonals at alternate panels. Sign Panel - See sign panel sheet for details. Lower Back Chord-Type I-A 4'-0" Type II-A 4'-6" Type III-A 5'-0" -Lower Front Chord "T" on Support Frame Details

SECTION A-A

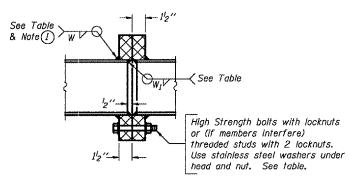
OVERHEAD SIGN STRUCTURES ALUMINUM TRUSS DETAILS FOR TRUSS TYPES I-A, II-A and III-A

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TRUSS UNIT TABLE

Structure		Design	1	rior Units	(2)		Interio	Unit		Upper	& Lower ord		zontals; Vertical, Interior Diagonals	Camber			Splicing	Flange		
Number	Station	Truss Type	No. Panels		Panel		No. Panels		Panel				Threi for Diagonals	at Midspan	Bolt			Sizes	Δ	В
		17,7	per Unit	Lgth.(Le)	Lgth.(P)	Req'd.	per Unit	Lgth.(L _i)	Lgth.(P)	0.D.	Wall	0.D.	Wall		No./Splice	Dia.	W	W _I		
6S084I055R86.9	234+00.00	111- A	7	39'-2 ¹ 2"	5'-4"	1	6	33'-3"	5'-4"	7"	5/6"	314"	⁵ /6 "	2 ¹³ 16 "	6	1"	716"	5 ₁₆ "	11'2"	15"
6S084I055L107.0	202+54.00	111-A	7	39'-22"	5'-4"	1	6	33′-3″	5'-4"	7"	5/6"	314"	5/6"	2 ¹³ i6 "	6	1"	716"	516"	11'2"	15"
																	-			

2 units

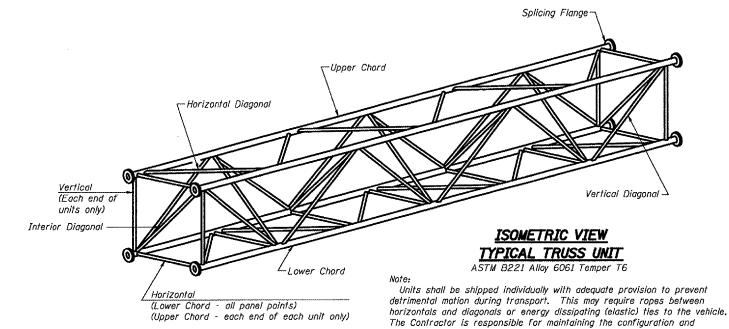


SECTION B-B

① Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.

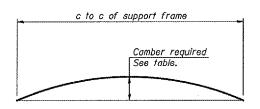
NUMBER	REVISION	DATE
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CHECKED -	EXAMPLE
DRAWN -	ENGINEER OF BRIDGE DESIGN
CHECKED .	ENGINEER OF BRIDGES AND STRUCTURES



protection of the units.

4 units

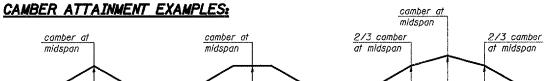


(Upper Chord - each end of each unit only)

CAMBER DIAGRAM

Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

3 units



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)

1	HOUTE NO.	9ECT304		MTY	TOTAL SHEETS	SHEET NO.	SH
	F.A.I. 55	D-6 JTS #1	SANG	AMON		43	-
į	RED. HOAD DIST	. NO. 7	ILL HOTE	FEG. ALG PRO	arect-		

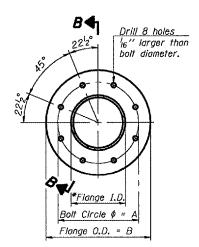
SHEETS

Contract #

Drill 6 holes 1₁₆" larger than B◀i bolt diameter. *Flange I.D.

TRUSS TYPES I-A. II-A. & III-A

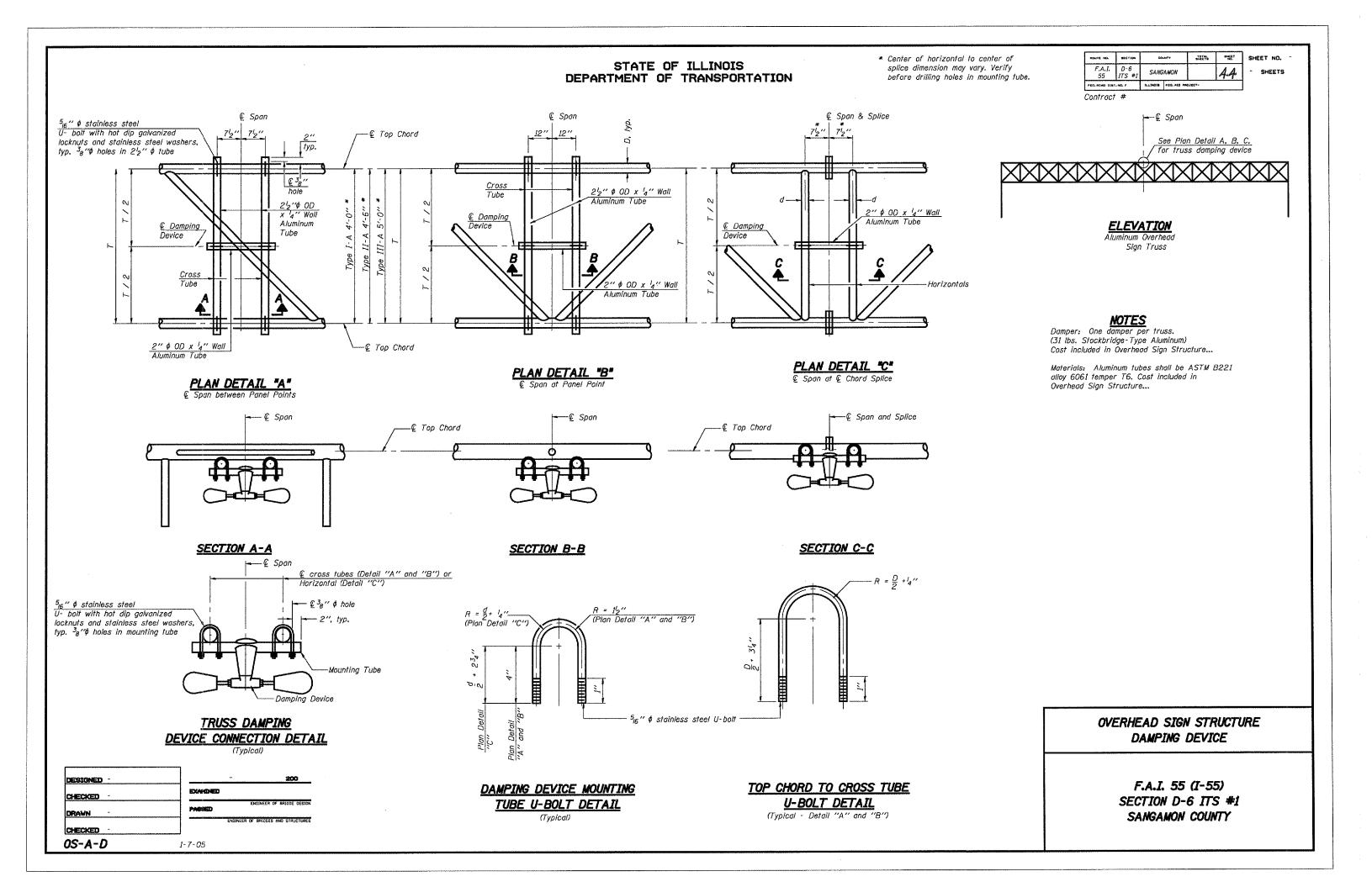
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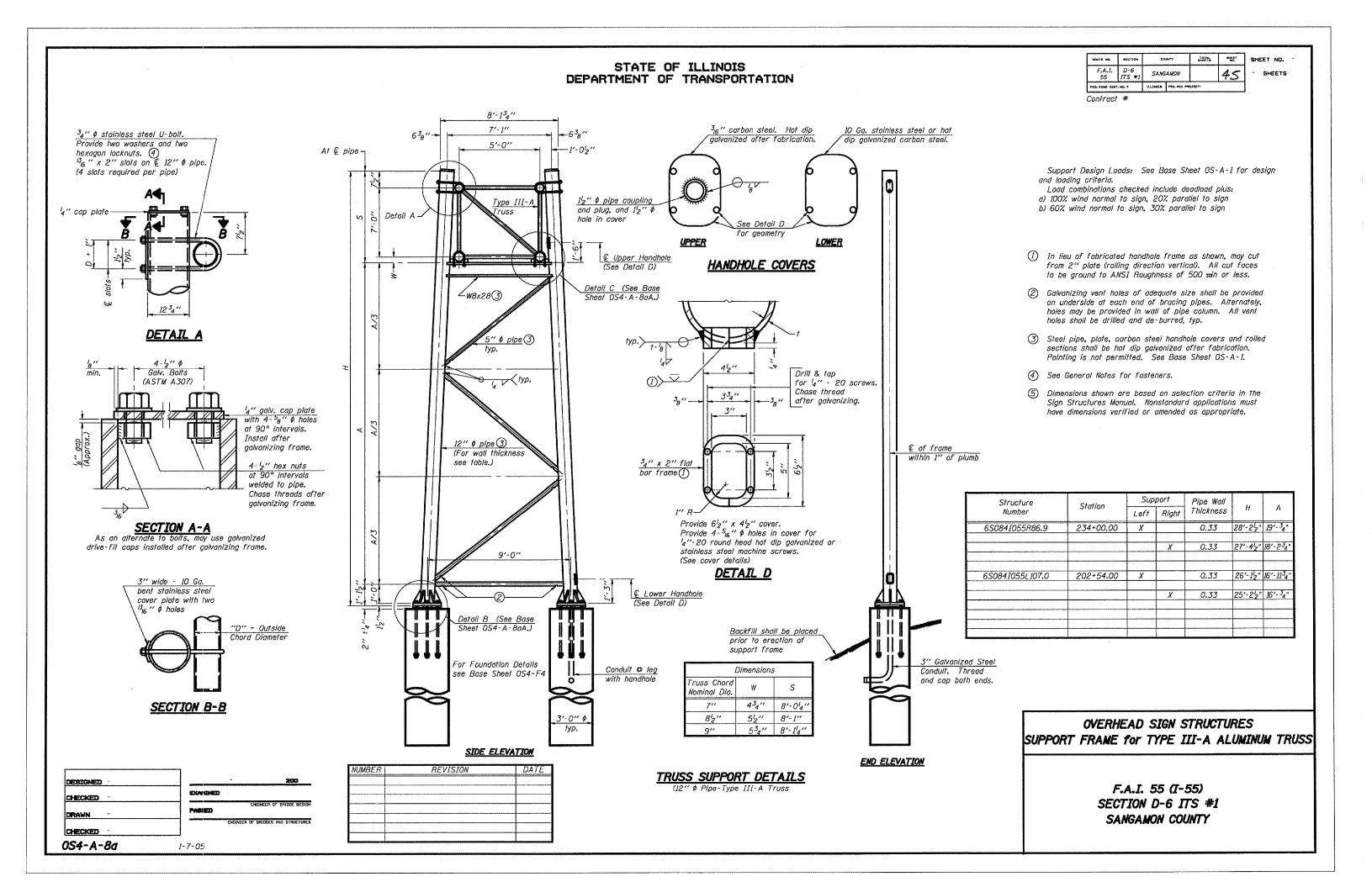


TRUSS TYPES II-A & III-A SPLICING FLANGES

ASTM B221, Alloy 6061-T6 or ASTM B209, Alloy 6061-T651 *To fit O.D. of Chord with maximum gap of 16".

OVERHEAD SIGN STRUCTURES ALUMINUM TRUSS DETAILS FOR TRUSS TYPES I-A, II-A and III-A



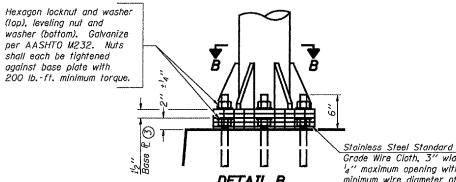


STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

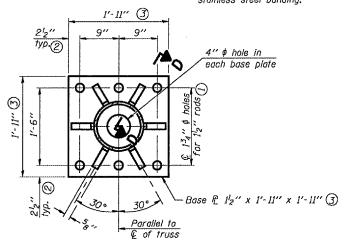
TOTAL SHEET NO. SHEET NO. ROUTE NO. F.A.I. D-6 55 ITS #1 SANGAMON

SHEETS

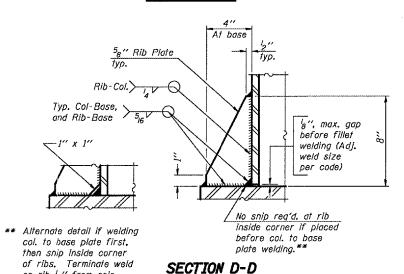
Contract #

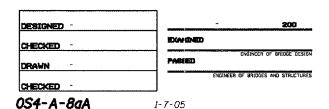


Grade Wire Cloth, 3" wide, '4" maximum opening with a DETAIL B minimum wire diameter of AWG. No. 16 with a minimum Ribs shall be cut to fit slope of pipe. 2" lap. Secure to base plate ofter erection with 34" stainless steel banding.



SECTION B-B

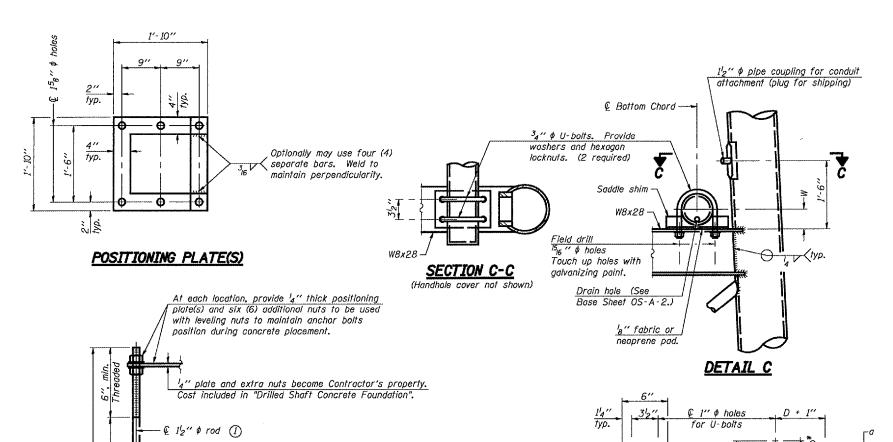


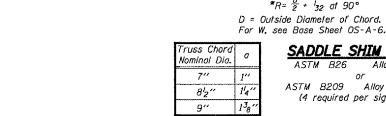


on rib 4" from snip.

NUMBER	REVISION	DATE
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<u>SADDLE SHIM DETAIL</u> ASTM B26 Alloy 356-F

*R= $\frac{D}{2}$ + $\frac{1}{32}$ at 90°

ASTM B209 Alloy 6061-T651 (4 required per sign truss)

TYPE III-A TRUSS 12" ♦ PIPE SUPPORT FRAME DETAILS

Notes:

permitted on rods.

For Type III-A Truss spans greater than 150 ft, and up to 160 ft.:

All Thread = NC (National Coarse)

Provide 1 uncoated nut

or use chemical thread

ANCHOR ROD DETAIL

Anchor rods shall conform to AASHTO M314

Grade 36 or 55 and meet Charpy V-Notch (CVN)

energy of 15 lb.-ft. at 40° F. Galvanize upper

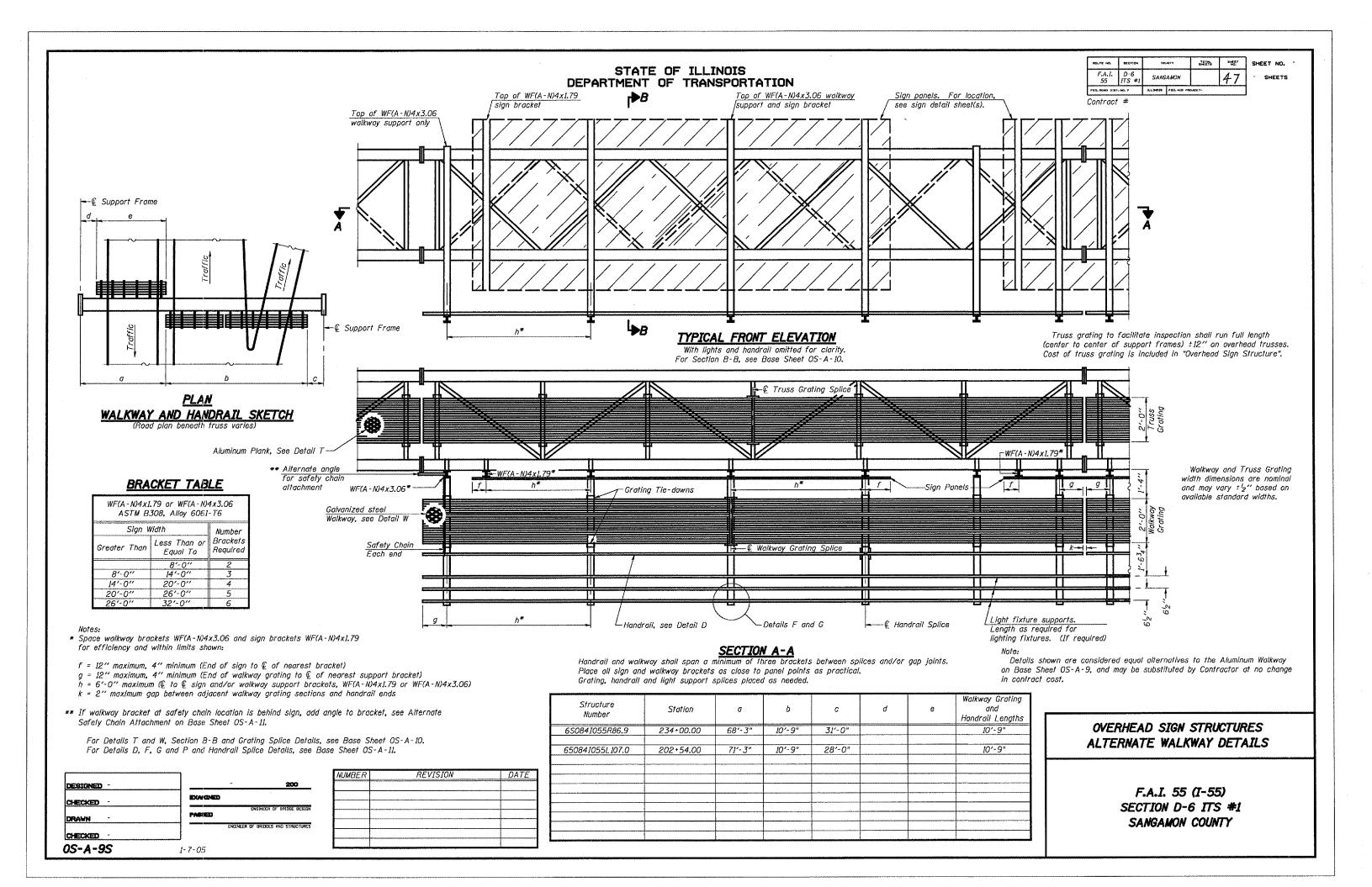
12" per AASHTO M232. No welding shall be

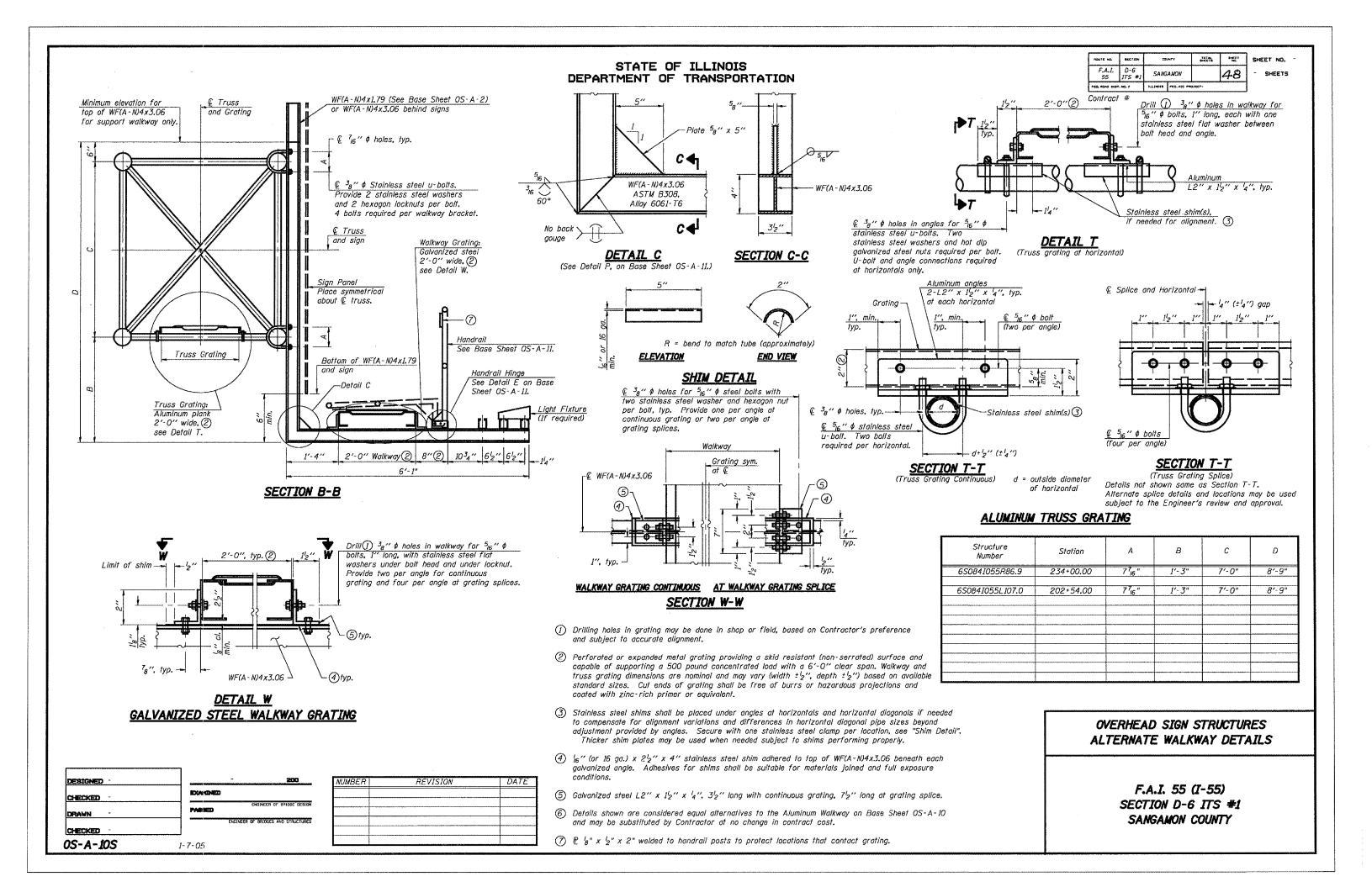
lock to secure.

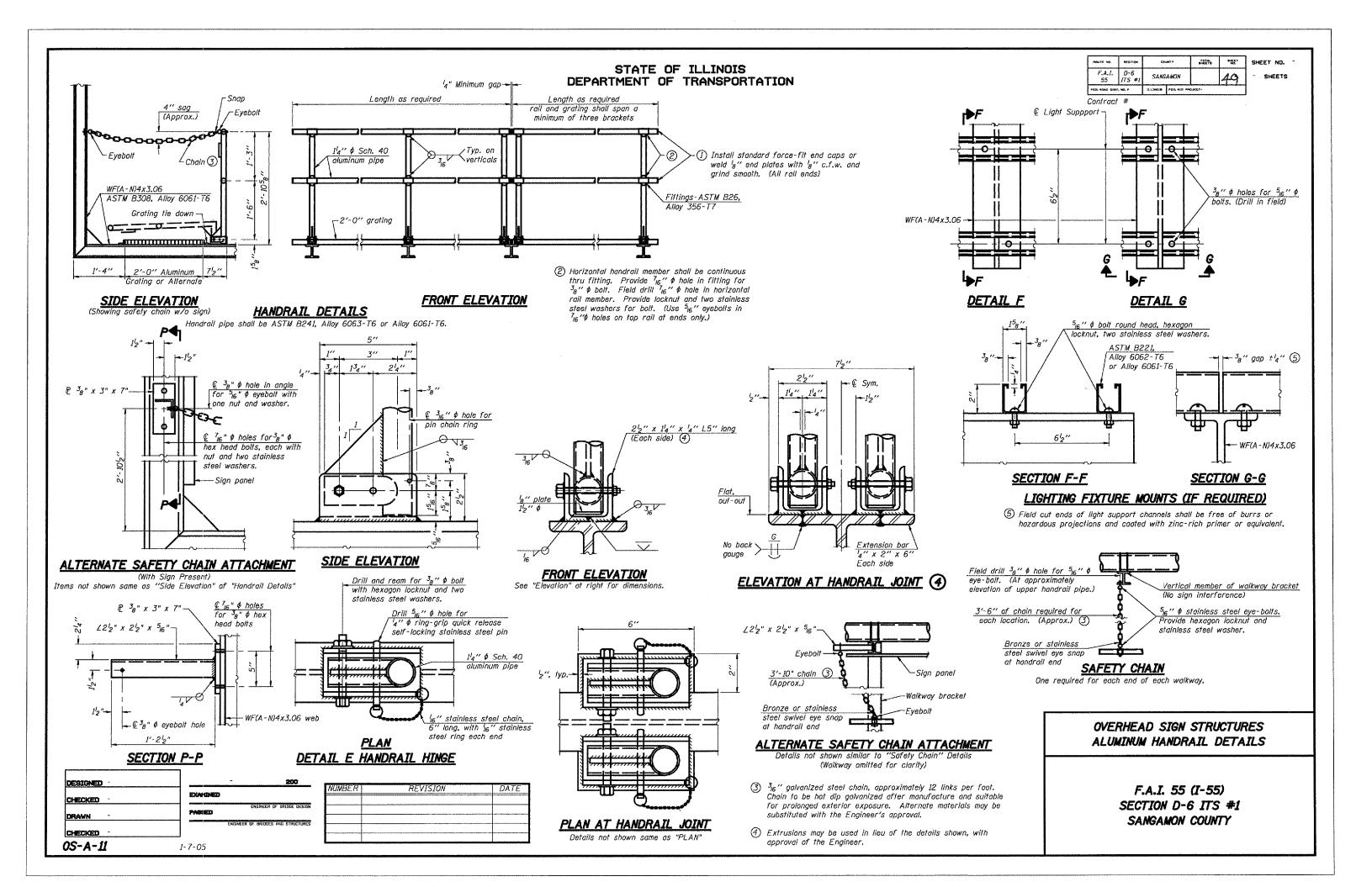
per rod. Deform thread

- 1 134" \$\phi\$ rod, 2" \$\phi\$ holes
- 2 234" edge distance
- 3 Base & 158" x 1'-11'2" x 1'-11'2"

OVERHEAD SIGN STRUCTURES SUPPORT FRAME for TYPE III-A ALUMINUM TRUSS







For anchor rod size and placement, see Support Frame Detail Sheet.

12-#9 v4(E) bars-

3 hoops minimum top and bottom

0S4-F4

* Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

3" • Galvanized Steel
Conduit. Thread

and cap both ends.

3'-6",

Elevation (Bottom)

END VIEW

Elevation (Top)

RQUTE NO.	BESTION	SANGAMON		TOTAL SHEETS	MAKET NO.
F.A.I. 55	D-6 ITS #1				50

SHEET NO.

- SHEETS

Contract #

BAR LIST - EACH FOUNDATION

Bar Number		Size	Length	Shap
V4(E)	24	#9	F less 5"	

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Ou) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.

3'-0" \$\phi\$ CL

#9 V4(E)

**SECTION A-A

9" 9" 9" 9" 9" 9"

SIDE ELEVATION

9'-0" & to &

Approved clamps
for grounding*

#6 copper wire or cable

34" \$\psi x 10'-0" copper weld ground rod driven into ground 9'-0". Cost of rod, cable, conduit, caps and clamps shall be included in Drilled Shaft Concrete Foundations.

				Left Fo	undation		Right Foundation					Class SI
Structure Number	Station	Elevation Top	Elevation Bottom	Α	В	F	Elevation Top	Elevation Bottom	Α	В	F	Concrete (Cu. Yds.)
6S084I055R86.9	234+00.00						598.00	577.90	2'-1"	18'-0"	20′-1"	10.62
6S084I055L107.0	202+54.00						591,50	571.17	2'-4"	18'-0"	20′-4"	10.60

	1	1										

<u>PLAN</u>

DESTIGNED - - 200

CHECKED - ENGINEER OF BRIDGE DESIGN

PARKED - ENGINEER OF BRIDGES AND STRUCTURES

CHECKED -

1-7-05

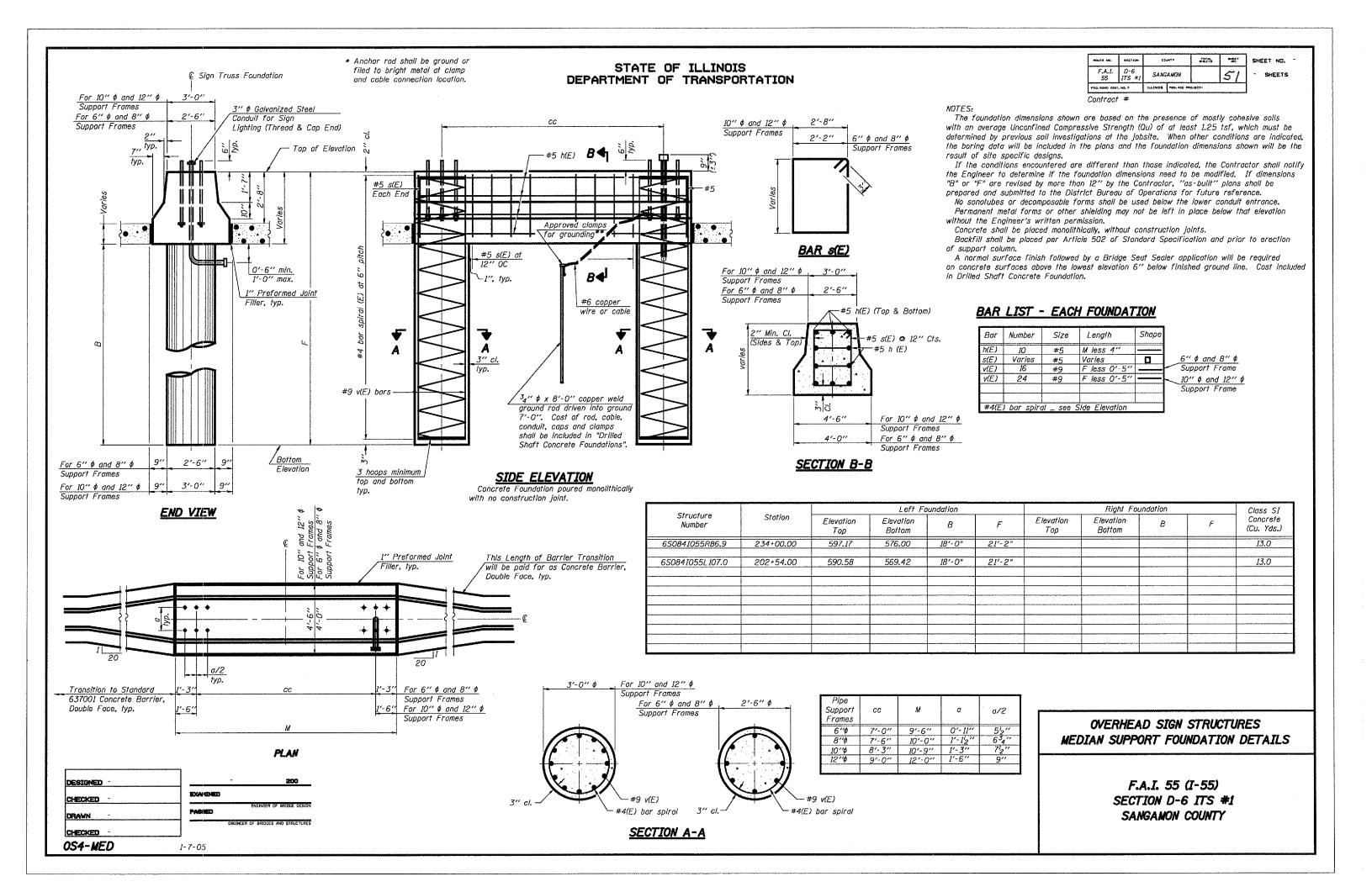
NUMBER REVISION DATE

3'-0" ¢

DETAILS FOR 12" • SUPPORT FRAME

TYPE III-A TRUSS

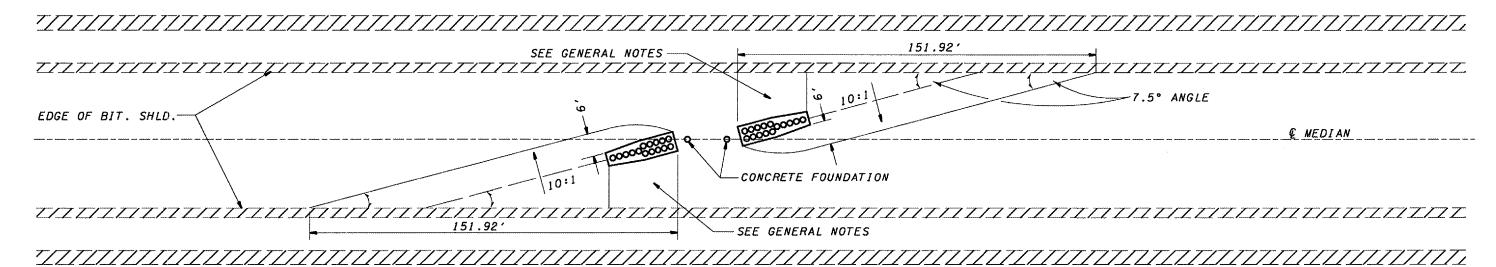
OVERHEAD SIGN STRUCTURES
DRILLED SHAFT DETAILS

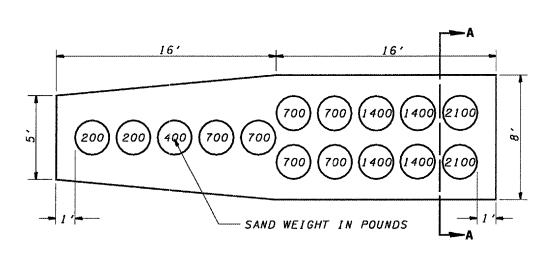


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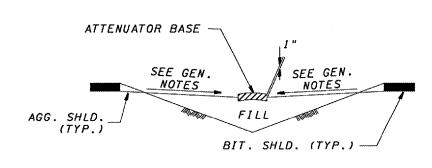
GENERAL NOTES

- 1. THE 10:1 SLOPE CONTROLS NOSE OF ATTENUATOR BASE ELEVATION.
- 2. ATTENUATOR BASE GRADE PARALLELS EDGE OF PAVEMENT GRADE.
- 3. SLOPE ADJACENT TO ATTENUATOR BASE SHALL BE 10:1 OR FLATTER.
- 4. ANY EARTHWORK, INCLUDING GRADING, COMPACTION, AND SEEDING ASSOCIATED WITH THE INSTALLATION OF THE ATTENUATOR BASE IS CONSIDERED INCLUDED IN THE PRICE OF THE ATTENUATOR BASE.
- 5. ANY EXISTING DRAINAGE STRUCTURES LOCATED WITHIN THE WORKING AREA SHALL BE MODIFIED OR LEFT IN PLACE. WHERE THE EXISTING DRAINAGE STRUCTURES ARE TO REMAIN IN PLACE, THE SLOPES ARE TO BE CONSTRUCTED AS DIRECTED BY THE ENGINEER.



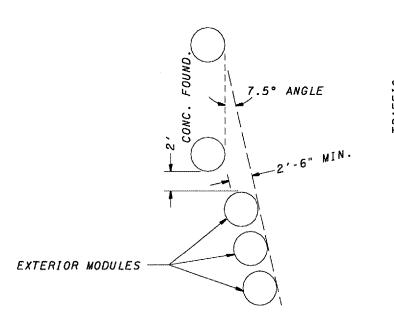


INERTIAL BARRIER MODULE ARRAY
AND ATTENUATOR BASE PLAN



INERTIAL BARRIER LAYOUT AND GRADING PLAN

SECTION A - A



EXTERIOR MODULE LAYOUT

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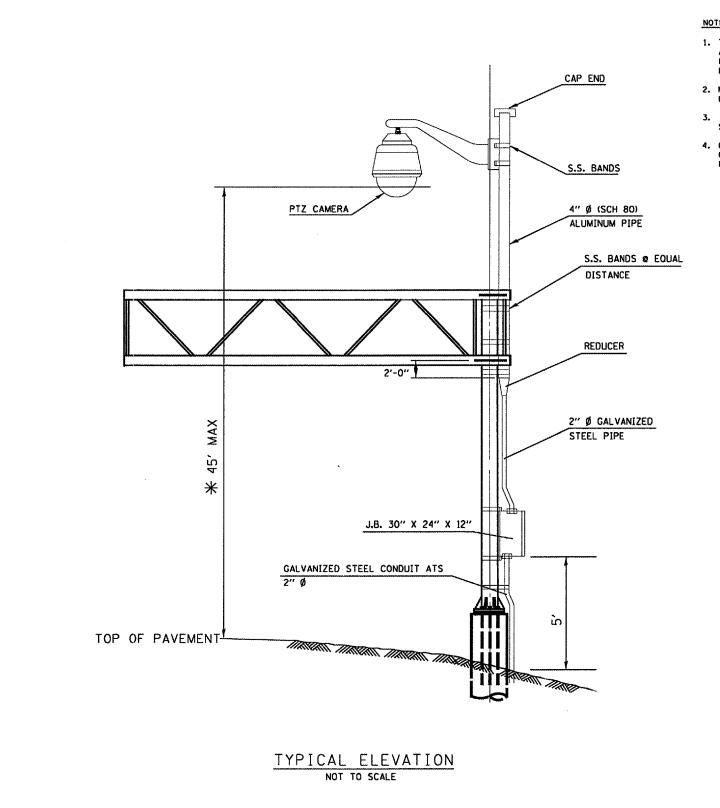
ITEM	UNIT	TOTAL
MPACT ATTENUATOR (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4
ATTENUATOR BASE	SQ. YD.	51.6

ILLINOIS	DEPARTMENT	OF	TRANSPORTATION

INERTIAL BARRIER INSTALLATION DETAILS

SCALE: VERT. HORIZ. DATE

DRAWN BY CHECKED BY



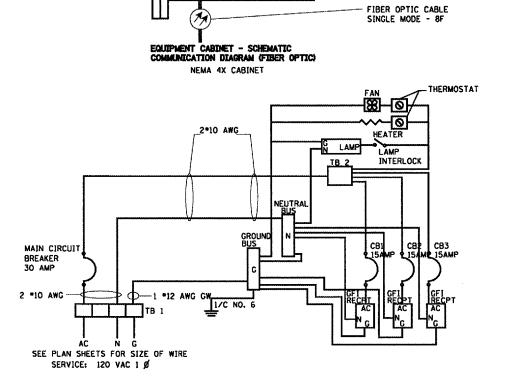
NOTES:

- 1. THE CONTRACTOR SHALL SUBMIT DETAIL PLANS AND CALCULATIONS OF CCTV ARM AND MOUNTING HARDWARE FOR THE POLE FOR APPROVAL BY THE
- 2. MOUNTING BRACKET DETAILS MAY VARY DEPENDING UPON EQUIPMENT MANUFACTURER.
- 3. INSTALL GROUNDING SYSTEM IN ACCORDANCE WITH SECTION 807 OF THE IDOT STANDARD SPECIFICATIONS.
- 4. CONTRACTOR SHALL CONTACT ENGINEER DURING CAMERA INSTALLATION TO DETERMINE ACTUAL CAMERA HEIGHT IN FIELD

GFI RECEPTACLES -

POWER CABLE

ETHERNET SWITCH



EQUIPMENT CABINET - WIRING DIAGRAM NEMA 4X CABINET

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION			
NAME	DATE				
		CCTV SYSTEM MOUNTING			
		AND WIRING DETAILS			
		D-6 1TS			
		SANGAMON COUNTY			
		SCALE: HORIZ. NOT TO SCALE DRAWN BY KOA			
		DATE MAY 2005 CHECKED BY			

RTE. SECTION

STA.

COVERED POWER SUPPLY

VIDEO COAX

CONTROL AND POWER CABLE

CATS CABLE

CAMERA CONNECTION

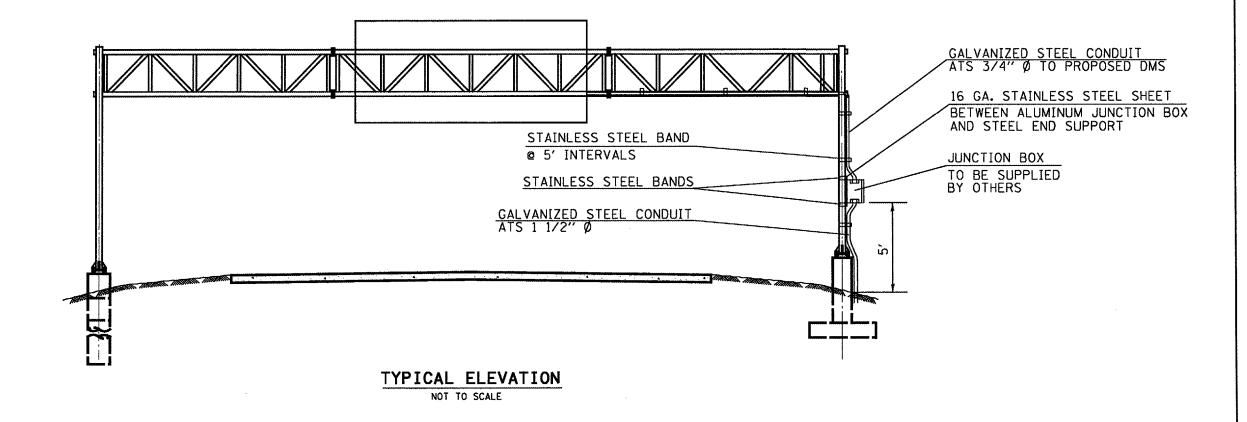
VIDEO ENCODER EQUIPMENT

CCTV CAMERA AND DOME

COUNTY

TO STA. FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT

RTE. SECTION COUNTY SHEET D-6 [TS "] SANGAMON TO STA. FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT



ILLINOIS DEPARTMENT OF TRANSPORTATION DMS MOUNTING AND WIRING DETAILS

D-6 ITS SANGAMON COUNTY

SCALE: VERT. NOT TO SCALE DRAWN BY KDA

DATE * SCATES
NAME * SFILELS
SCALE * SSCALES
I MAKE * SISERS

