STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAI 290/FAP 342 (I-290/IL. 53) FROM SOUTH OF IL. 62 (ALGONQUIN ROAD) TO NORTH OF IL. 72 (HIGGINS ROAD) SECTION: 0305-302 K-L-3

LIGHTING, CCTV, AND FIBER OPTIC SYSTEM IMPORVEMENTS

COOK COUNTY C-91-061-05

KIPCHOFF LIMIT OF IMPROVEMENT STA. 121 + 25 TOLL (90) SCHAUMBURĞ VILLAGE LIMITS HOFFMAN ESTATES SCHAUMBURG RD. SCHAUMBURG ELK GROVE VILLAGE DEAD END LIMIT OF IMPROVEMENT STA. 24 + 85

F.A.I. SECTION COUNTY
290 0305-302K-L-3 COOK 56 1

D-91-061-05

62877



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS Merch 30, 20 05 DISTRICT ENGINEER

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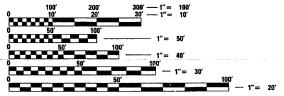
INDEX OF SHEETS:

- **COVER SHEET INDEX**
- **SUMMARY OF QUANTITIES**
- LIGHTING GENERAL NOTES LIGHTING - REMOVAL PLANS
- 14. LIGHTING PROPOSED PLANS
- 29. LIGHTING DETAILS
- 42. CCTV SYSTEM DETAILS
- 45. TRAFFIC DETAILS
- 50. SOIL BORING LOGS
- 55A. EXIST. TYPICAL CROSS SECTION

PROJECT LOCATED IN THE VILLAGE OF SCHAUMBURG AND **VILLAGE OF ROLLING MEADOWS**

DESCRIPTION OF PROJECT:

THE PROPOSED IMPROVEMENTS CONSIST OF REMOVAL AND RELOCATION OF EXISTING ROADWAY LIGHTING, INSTALLATION OF LIGHT TOWERS, CCTV MONITORING EQUIPMENT, FIBER OPTIC SYSTEM, AND MODIFICATION OF EXISTING SIGN LIGHTING, AND UNDERPASS LIGHTING.



ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

CONTRACT NO. 62877

F.A RTE.	SECTION	С	OUNT	Y	TOTAL	SHEET NO.
290	0305-302N	(-1-3	соок		55	ð
STA.		TO	STA.			
FED. RO	AD DIST. NO.	LLINOIS	FED.	AID	PROJECT	

URBAN

			URBAN		7	
	SUMMARY OF QUANTITIES		TOTAL	ROADWAY	LIGHTING	SURVEILLAN
CODE	ITEM	UNIT	100% STATE	1000	Y030-1E	Y032-1F
X8350405	LIGHTING TOWER, 120 FT. MOUNTING HEIGHT, LUMINAIRE MT12 (INSTALL ONLY)	EACH	52		52	
83700250	LIGHT TOWER FOUNDATION, 44" DIAMETER	FOOT	1,300		1,300	
82105700	LUMINAIRE, SODIUM VAPOR, HIGH MAST, HORIZONTAL MOUNT, 750 WATT	EACH	215		215	
80700 40	GROUND ROD, 5%" DIA. X 10 FT.	EACH	236		236	
X8 60395	UNIT DUCT WITH 3-1/C NO. 2 AND 1/C NO. 4 GROUND, 600V (EPR-TYPE-RHW), 11/2" DIA. POLYETHYLENE	FOOT	34,060		34,060	
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	3,240		1,890	1,350
V0324280	LIGHTING CONTROLLER, RADIO CONTROL, DUPLEX TYPE, WITH SCADA AND VIDEO POWER	EACH	2		2	
	ELECTRIC SERVICE INSTALLATION	EACH	2		2	
	ELECTRIC UTILITY SERVICE CONNECTION	Ł SUM	1		1	
30 100200	DELIGITIES OF ALL TO THE PROPERTY OF THE PROPE					
325038	BUCK BOOST TRANSFORMER, 240 VOLT, SINGLE PHASE	EACH	16		16	
X8710028	FIBER OPTIC CABLE 6 FIBERS, SINGLE MODE	FOOT	24,800			24,800
x8710035	FIBER OPTIC CABLE 96 FIBERS, SINGLE MODE	FOOT	4,700			4,700
X0323914	FIBER OPTIC SPLICE-LATERAL	EACH	6			6
(0323957	FIBER OPTIC SPLICE-MAINLINE	EACH	1			1
(0324597	CLOSED CIRCUIT TELEVISION CABINET	EACH	14		8	6
(0324807	CLOSED CIRCUIT TELEVISION CABINET EQUIPMENT	EACH	6			6
0325049	CLOSED CIRCUIT TELEVISION DOME CAMERA (MATERIAL ONLY)	EACH	6			6
(0324237	CCTV DOME CAMERA HIGH MAST TOWER INSTALLATION	EACH	6			6
0325039	CCTV DISTRIBUTION SUBSYSTEM .	L SUM	1			1
8950130	MODIFY EXISTING LIGHTING CONTROLLER	EACH	1			11
8160165	UNIT DUCT WITH 2-1/C NO. 4 AND 1/C NO. 6 GROUND, 600V (EPR-TYPE-RHW), 11/4" DIA. POLYETHYLENE	FOOT	7,225			7,225
81300820	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 18"x12"x10"	EACH	10		10	
275 N/17	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE-RHW) 3-1/C NO. 2 AND 1/C NO. 4 GROUND	FOOT	2,600		2,600	
0325048		FOOT	525			525
(B110119	CONDUIT ATTACHED TO STRUCTURE, 21/2" DIA., PVC COATED, RIGID STEEL	FOOT	2,330		1830	500
8110127	CONDUIT ATTACHED TO STRUCTURE, 4" DIA., PVC COATED, RIGID STEEL	FOOT	960			960
O HOIS I						
81400100	HANDHOLE	EACH	16			16
	HANDHOLE (SPECIAL)	EACH	1		11	
	DRILL EXISTING HANDHOLE	EACH	2			2
1300960	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 42"x36"x12"	EACH	4		ļ	4
0325040	FIBER OPTIC INNERDUCT, 11/4" DIA.	FOOT	36,000			36,000
31500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	29,800		29,800	
	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE USE) 3-1/C 350 MCM	FOOT	Z00		200	
	7 EXISTING					
8450100	REMOVE LIGHTING CONTROLLER AND SALVAGE	EACH	2		2	
	REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	EACH	193		193	
84200705	LIGHTING FOUNDATION REMOVAL, PARTIAL	EACH	159		159	
225000	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15 FT. MAST ARM (INSTALL ONLY)	EACH	22		22	
83050820	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	12		12	
X0323574	MAINTENANCE OF LIGHTING STOTEM			7		1
	REMOVE AND REPLACE LIGHTING UNIT IDENTIFICATION DECAL	EACH	100		100	

	LIRGAN					
	SUMMARY OF QUANTITIES		TOTAL	ROADWAY	LIGHTING	SURVEILLANCE
CODE	ITEM	UNIT	100% STATE	1000	Y030-1E	Y032-1F
32106400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT (INSTALL ONLY)	EACH	56		56	
	LIGHT POLE FOUNDATION, 24" DIA.	FOOT	220		220	
	MOBILIZATION	L SUM	1	1		
	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	1		
1000 100		0,12 (1.0		-		
0315041	MODIFY EXISTING CONNECTION TO SIGN STRUCTURE	EACH	8		8	
1375112	MODIFY EXISTING UNDERPASS LIGHTING- LOCATION	EACH	1	-	<u> </u>	
0275777	MODIFY EXISTING UNDERPASS LIGHTING LOCATION 2	EACH	<u>'</u>		1	
	MODIFY EXISTING UNDERPASS LIGHTING- LOCATION 3	EACH	1		1	
0325045	MODEL LEVEL THE CHAPTER WAS TRUITED & FOCK (MODEL 2)	ENCIL			,	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
DIDIBOO	TRAFFIC CONTROL & PROTECTION, SPECIAL	L SUM	1	1		
7011015	TRAFFIC CONTROL & PROTECTION, EXPRESSWAY	L SUM	1	1		
						•
81018600	CONDUIT PUSHED, 21/2" DIA., GALVANIZED STEEL	FOOT	350		350	
83800205		EACH	22		22	
X8160370		FOOT	5000	<u> </u>	5000	
VOIROZIO	UNIT DUCT WITH 3-1/C NO.4 AND 1/C NO.6 GROUND, GOOV IETH THE WHY 1/4 DIAL FOLTEMELENE		3000		3000	
89502205	MODIFY EXISTING CONTROLLER, SPECIAL	EACH	1	ļ	1	
0325046	ELECTRIC CABLE NO.19, 25 PAIR (INSTALL ONLY)	FOOT	6000			6000
	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 16"X12"X8"	EACH	1			1
63302700	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2			2
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	REVISI		ILLINOIS DEPARTMENT (OF TRANSPORTATI	ΩN
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			SUMMARY OF		c
			SUMMART OF	QUANTITE	3
HARRY O. HEFTER - ASSOCIATES, INC. 55 Eq.	st Jackson Blvd.				
	o, litinois 60604				
9	2/3468131		SCALE: VERT. NONE	DRAWN BY	WDF
PROJECT NUMBER 2672 G:\PROJECTS\2872\DGNS\FINAL_04_01_05\SEGMENT 1\	LIGHTING\E18.DGN		HORIZ.		
2012	1		DATE 2-28-2005	CHECKED BY	RER

TOTAL SHEET SHEETS NO. RTE. SECTION COUNTY 290 0305-302K-L-3 COOK TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

LEGEND: LIGHTING CONTROLLER DUPLEX TYPE PROPOSED \boxtimes LIGHTING CONTROLLER DUPLEX TYPE EXISTING \supseteq LIGHTING CONTROLLER SINGLE TYPE EXISTING UTILITY POWER POLE EXISTING \mathbb{H} TRAFFIC SIGNAL HEAVY DUTY HAND HOLE, EXISTING GROUND ROD \mathbb{R} EXISTING LIGHTING UNIT TO BE REMOVED **M---R** EXISTING TWIN MAST LIGHTING UNIT TO BE REMOVED o-Œ EXISTING LIGHTING UNIT <u>⊶</u><u>@</u> REINSTALLED EXISTING LIGHTING UNIT LIGHT TOWER BASE, PROPOSED LIGHT TOWER BASE, EXISTING HANDHOLE, PROPOSED LIGHT TOWER LUMINAIRE LIGHT TOWER MAST ARM ΟE UNDERPASS LUMINAIRE, EXISTING SOIL BORING LOCATION EXISTING SIGN LUMINAIRE FO-FO-FO-FO-FIBER OPTIC CABLE - UNIT DUCT, PROPOSED, SEE PLANS FOR SIZES -----CONDUIT CAPPED AS SPARE CONDUIT PUSHED PROPOSED, SEE PLANS FOR SIZES CONDUIT PUSHED EXIST. OVERHEAD UTILITY CABLE EXIST. \mathbb{J}_{F} J LIGHTING JUNCTION BOX PROPOSED, SEE PLAN FOR SIZES LEFT OF STATION (VIEWED IN DIRECTION OF INCREASING STATION NUMBERS) RIGHT OF STATION (VIEWED IN DIRECTION OF INCREASING STATION NUMBERS) MOUNTING HEIGHT EDGE OF PAVEMENT MAIN LINE (ROADWAY) CENTERLINE BASE LINE OF RAMP EDGE OF SHOULDER RIGHT OF WAY

GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL CODES.

CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES BEFORE TRENCHING, PUSHUNG OR AUGERING CONTRACTOR TO CONTACT ILLINOIS TOLLWAY FOR LOCATION OF UNDERGROUND TOLLWAY FACILITIES.

3. BEFORE INSTALLING STANDARDS NEAR OVERHEAD FACILITIES CALL COMED FOR APPROVAL OF LOCATION.

4. FOR LOCATION OF EXISTING UNDERGROUND ELECTRICAL CABLE CALL COMED.

6. ANY TREE TRIMMING REQUIRED AS DIRECTED BY THE ENGINEER SHALL BE PERFORMED BY THE CONTRACTOR, AND THE COST SHALL BE CONSIDERED INCIDENTAL TO CONTRACT.

7. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO RESTORE ANY SPECIALIZED LANDSCAPING, (L.G. DECORATIVE ROCKS, SHRUBS, PLANTS, SOUNDWALL, ETC.) OR SHALL REPLACE IT, THE COST OF WHICH SHALL BECONSIDERED INCIDENTAL TO CONTRACT.

8. ALL ROADWAY POLES SHALL BE UL LISTED.

10. UNLESS OTHERWISE INDICATED, ALL ITEMS AND WORK SHOWN ON THESE PLANS ARE PROPOSED NEW ITEMS AND WORK.

CONTRACTOR TO MARK AND STAKE LOCATIONS OF HIGH MAST TOWERS AND HANDHOLES. CONTRACTOR TO OBTAIN ENGINEERS APPROVAL BEFORE INSTALLATION OF SUCH.

12. EXISTING CONTROLLERS 0 & P TO BE REMOVED AFTER INSTALLATION OF PROPOSED CONTROLLERS 0 & P.

13. POLE REMOVALS TO BE PERFORMED AFTER ENERGIZATION OF HIGH MAST TOWER LIGHTING.

14. THE MAJORITY OF THE POLES BEING REMOVED BY THIS CONTRACT WILL BE STORED IN STATE STOCK. THE REMAINDER OF THESE POLES SHALL BE RELOCATED TO HIGGINS ROAD. THE CONTRACTOR SHALL REFERENCE SHEETS E-14 AND E-15 FOR THE LOCATIONS OF POLES BEING RE-INSTALLED ON HIGGINS ROAD, CONTRACTOR TO COORDINATE THE AFOREMENTIONED

15. THE DELIVERY OF POLES TO OR FROM STATE STOCK SHALL BE INCIDENTAL TO THE PAY ITEMS FOR REMOVAL OF EXISTING LIGHTING UNITS (SALVAGE), OR LIGHT POLE, ALUMINUM (INSTALL ONLY) OF A SPECIFIED TYPE OR AS DIRECTED BY THE ENGINEER.

16. LIGHT TOWERS ARE BEING FURNISHED UNDER A SEPARATE CONTRACT.

17. EXISTING FENCE SHALL REMAIN UNDISTURBED, EXCEPT AS APPROVED BY THE ENGINEER. ANY FENCE REMOVED TO FACILITATE THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO THE SATISFACTION OF THE ENGINEER, AT NO ADDITIONAL COST TO THE CONTRACT.

18. SOIL BORING REPORTS INDICATE THAT SOME AREAS MAY CONTAIN CONTAMINATED SOIL WHICH WOULD REQUIRE SPECIAL WASTE DISPOSAL.

19. UNIT DUCTS LOCATED WITHIN ONE FOOT OF EACH OTHER SHALL BE INSTALLED IN A COMMON TRENCH.

20. UNLESS OTHERWISE INDICATED ALL RACEWAY PUSHES ARE RIGID GALVANIZED STEEL CONDUIT.

IDOT HIGHWAY STANDARDS
701001-010FF-ROAD OPERATIONS 2-L, 2-W, MORE THAN 15' AWAY 701006-#20FF-ROAD OPERATIONS 2-L. 2-W. 15' TO 24" FROM PAVEMENT EDGE 701101-01 OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE TOILOG-10 FF-ROAD DEPRATIONS, MULTILANE, 15' 10 24" FROM PAYEMENT EDGE
TOILOG-10 FF-ROAD DEPRATIONS, MULTILANE, MORE THAN 15' AMAY
TOILOG-84LANE CLOSURE, 2-1., 2-N, SHORT TIME OPERATIONS
TOILOG-82APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
TOILOG-82APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
TOILOG-84LANE CLOSURE, MULTILANE AT ENTRANCE OR EXIT RAMP FOR SPEEDS ≥ 45 MPH
TOILOG-104L91 ALANE CLOSURE MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH
TOILOG-104L91 ALANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH
TOILOG TWO LANE CLOSURE, FREEWAY/EXPRESSWAY 701501-03 URBAN LANE CLOSURE 2-L, 2-W, UNDIVIDED 702001-05TRAFFIC CONTROL DEVICES

*DISTRICT ONE STANDARD DETAILS

ENTRANCE AND EXIT RAMP CLOSURE DETAILS
TRAFFIC CONTROL AND PROTECTION FOR SIDEROADS, INTERSECTIONS, AND DRIVEWAYS
TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
PARTIAL RAMP AND SHOULDET CLOSURE DETAILS
TEMPORARY INFORMATION SIGNING

* SUPPLIED BY DISTRICT ONE

LIGHT POLE LABEL LEGEND:

- CONTROL CABINET - CIRCUITRY ---- POLE NUMBER CABLE COLOR CODE X B 12 (B)

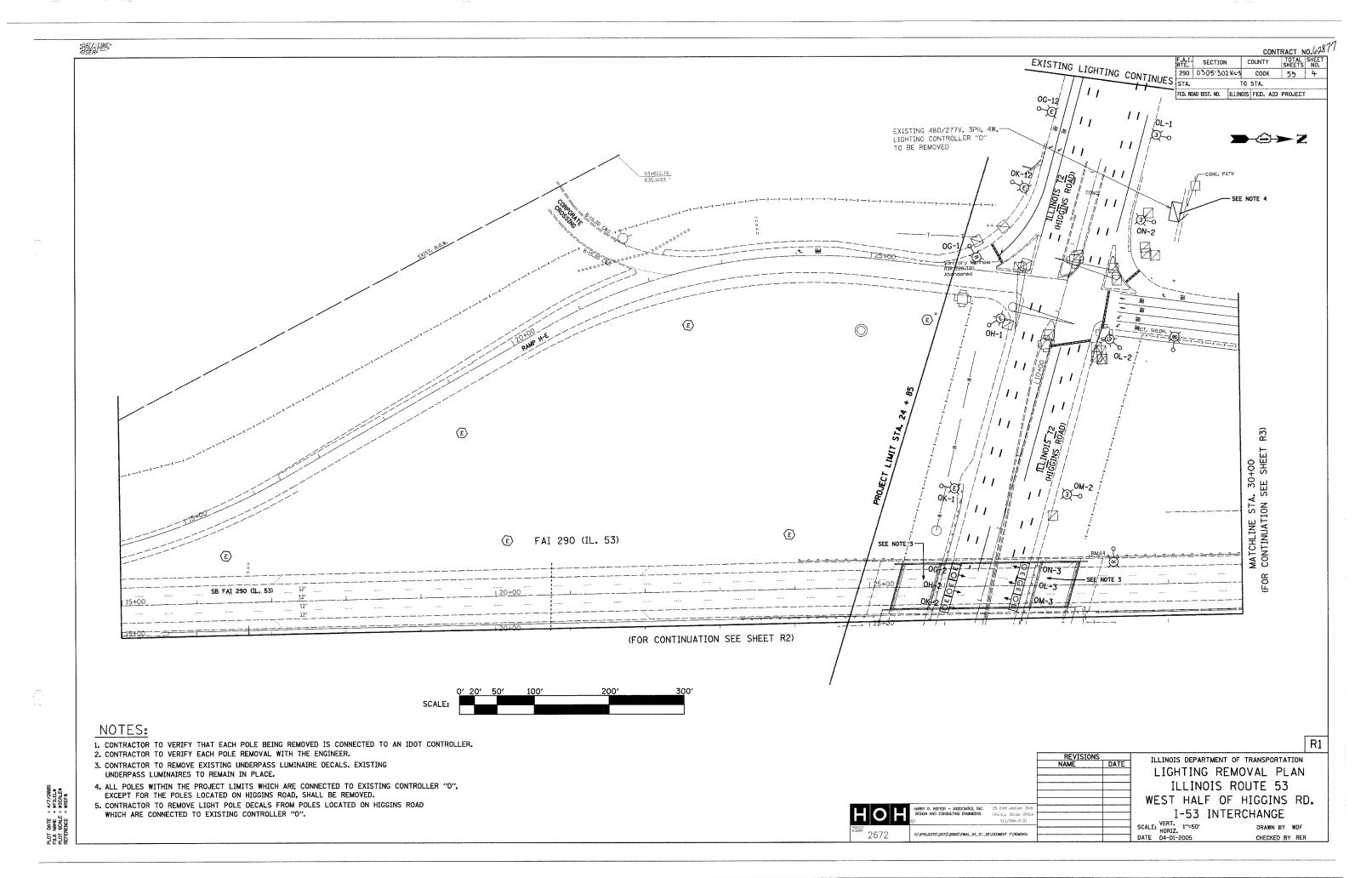
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REVISIONS NAME DATE ILLINOIS DEPARTMENT OF TRANSPORTATION ILLINOIS ROUTE 53 DRAWING LEGEND AND GENERAL NOTES SCALE: VERT. NONE DRAWN BY MEK

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0:\PROJECTS\2672\DGMS\FINAL_04_01_05\SEGMENT 1\LIGHTING\E00.D

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BATEFILE. SECTION COUNTY TOTAL SHEET SHE FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT **→②**→ Z (FOR CONTINUATION SEE SHEET R1) OL-4 NB FAI 290 (IL. 53) \$\text{C} FAI 290 (IL 53) Std. 26+40=
\$\text{L} HIGGINS ROAD Std. 6=66 $\langle E \rangle$ $\langle E \rangle$ MATCHLINE STA. 30+00 CONTINUATION SEE SHEET _@OL-5 (FOR EXISTING LIGHTING CONTINUES EAST HALF OF INTERCHANGE

NOTES:

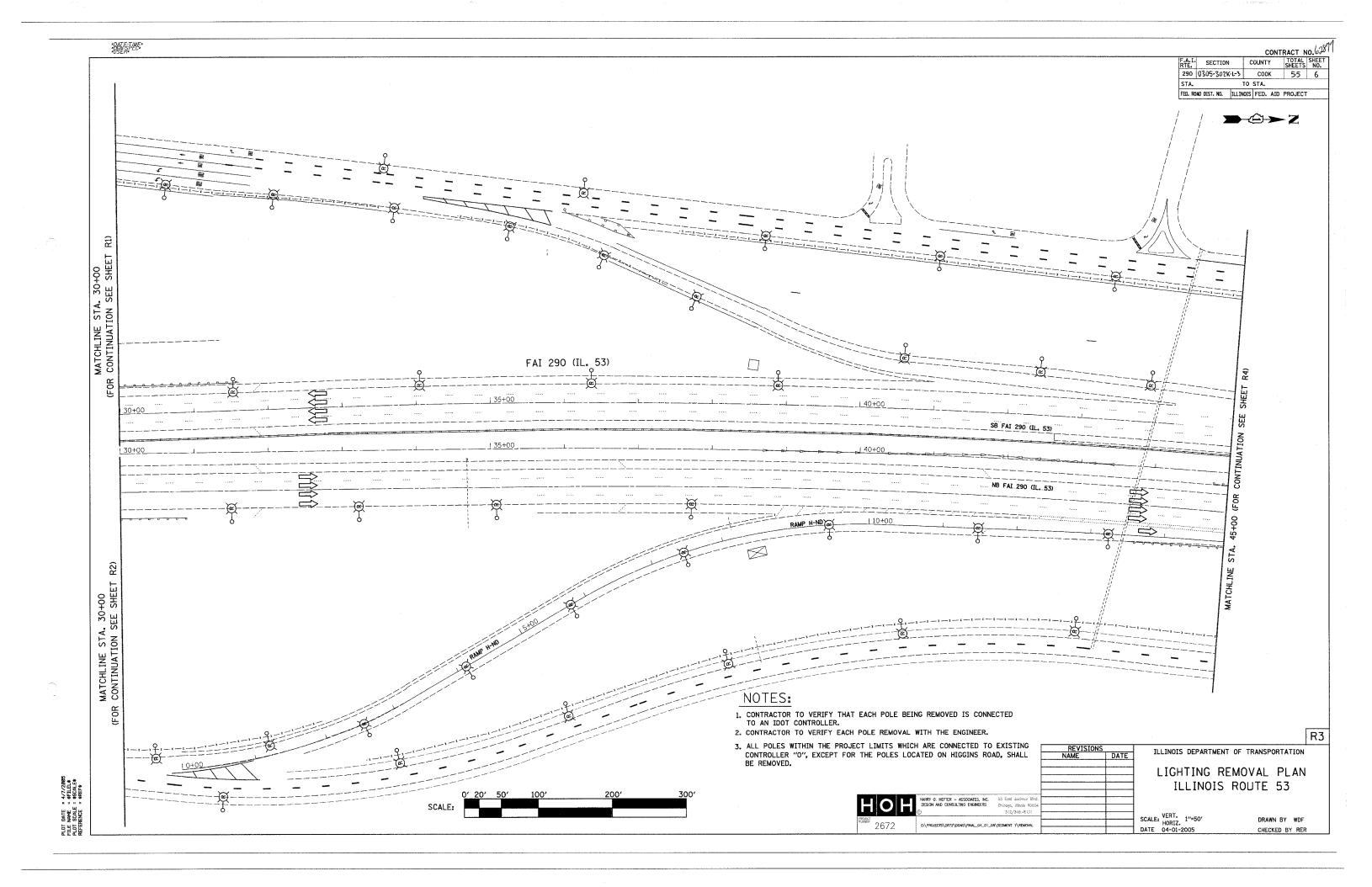
- 1. CONTRACTOR TO VERIFY THAT EACH POLE BEING REMOVED IS CONNECTED TO AN IDOT CONTROLLER.
- 2. CONTRACTOR TO VERIFY EACH POLE REMOVAL WITH THE ENGINEER.
- 3. CONTRACTOR TO REMOVE EXISTING UNDERPASS LUMINAIRE DECALS. EXISTING UNDERPASS LUMINAIRES TO REMAIN IN PLACE.
- 4. ALL POLES WITHIN THE PROJECT LIMITS WHICH ARE CONNECTED TO EXISTING CONTROLLER "O", EXCEPT FOR THE POLES LOCATED ON HIGGINS ROAD, SHALL BE REMOVED.
- 5. CONTRACTOR TO REMOVE LIGHT POLE DECALS FROM POLES LOCATED ON HIGGINS ROAD WHICH ARE CONNECTED TO EXISTING CONTROLLER "O".

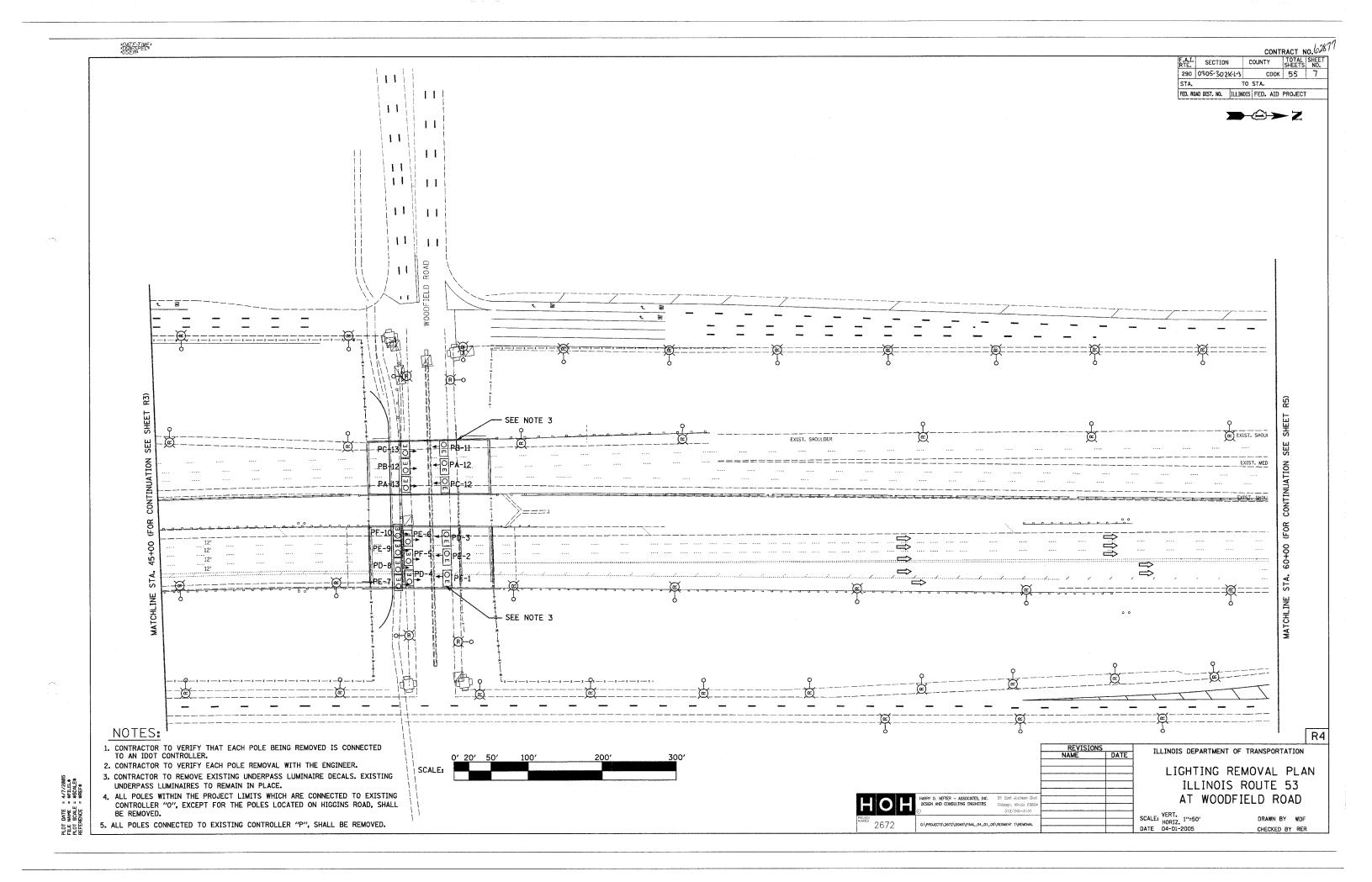
ILLINOIS DEPARTMENT OF TRANSPORTATION LIGHTING REMOVAL PLAN ILLINOIS ROUTE 53 EAST HALF OF HIGGINS RD. I-53 INTERCHANGE

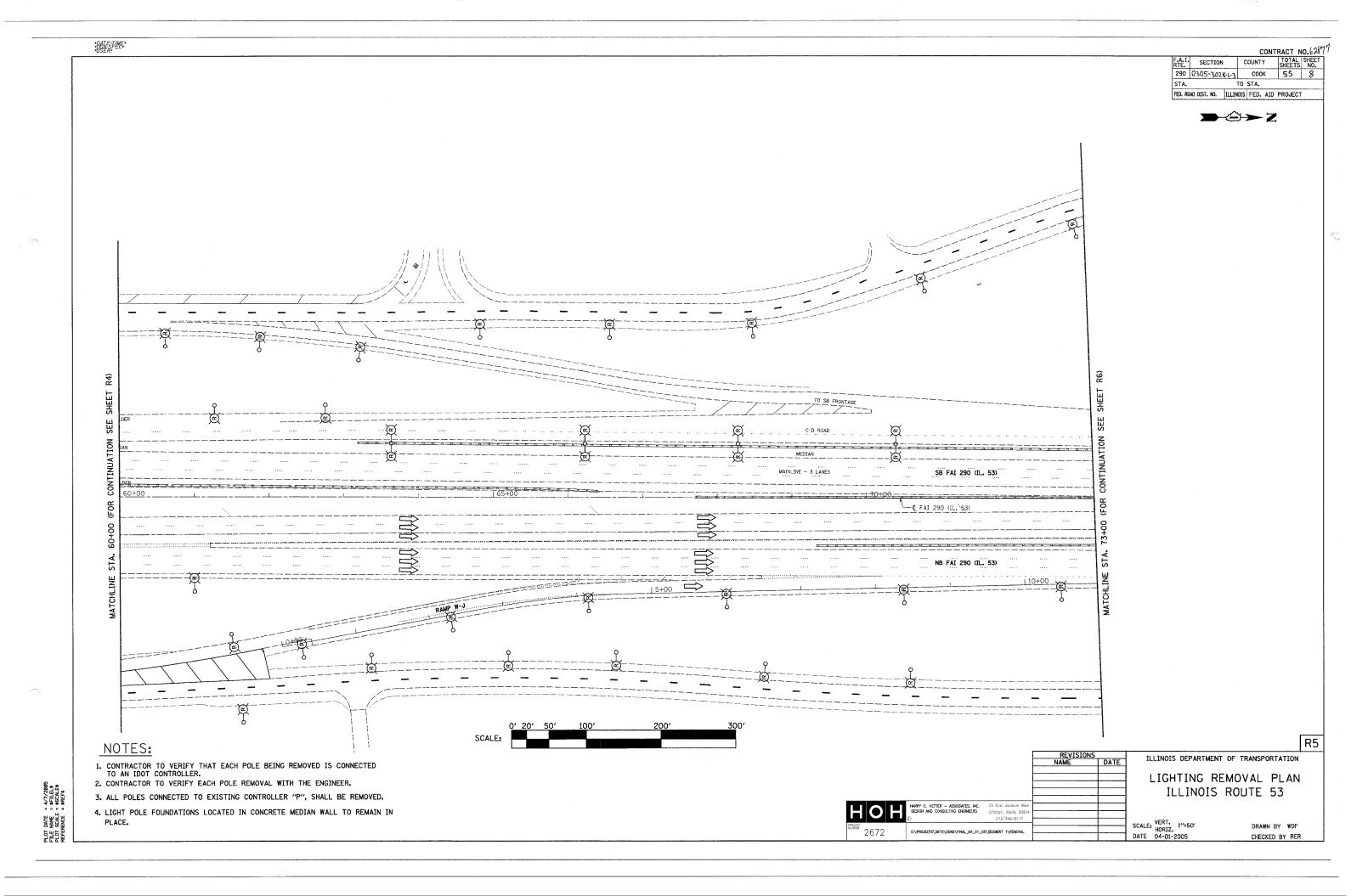
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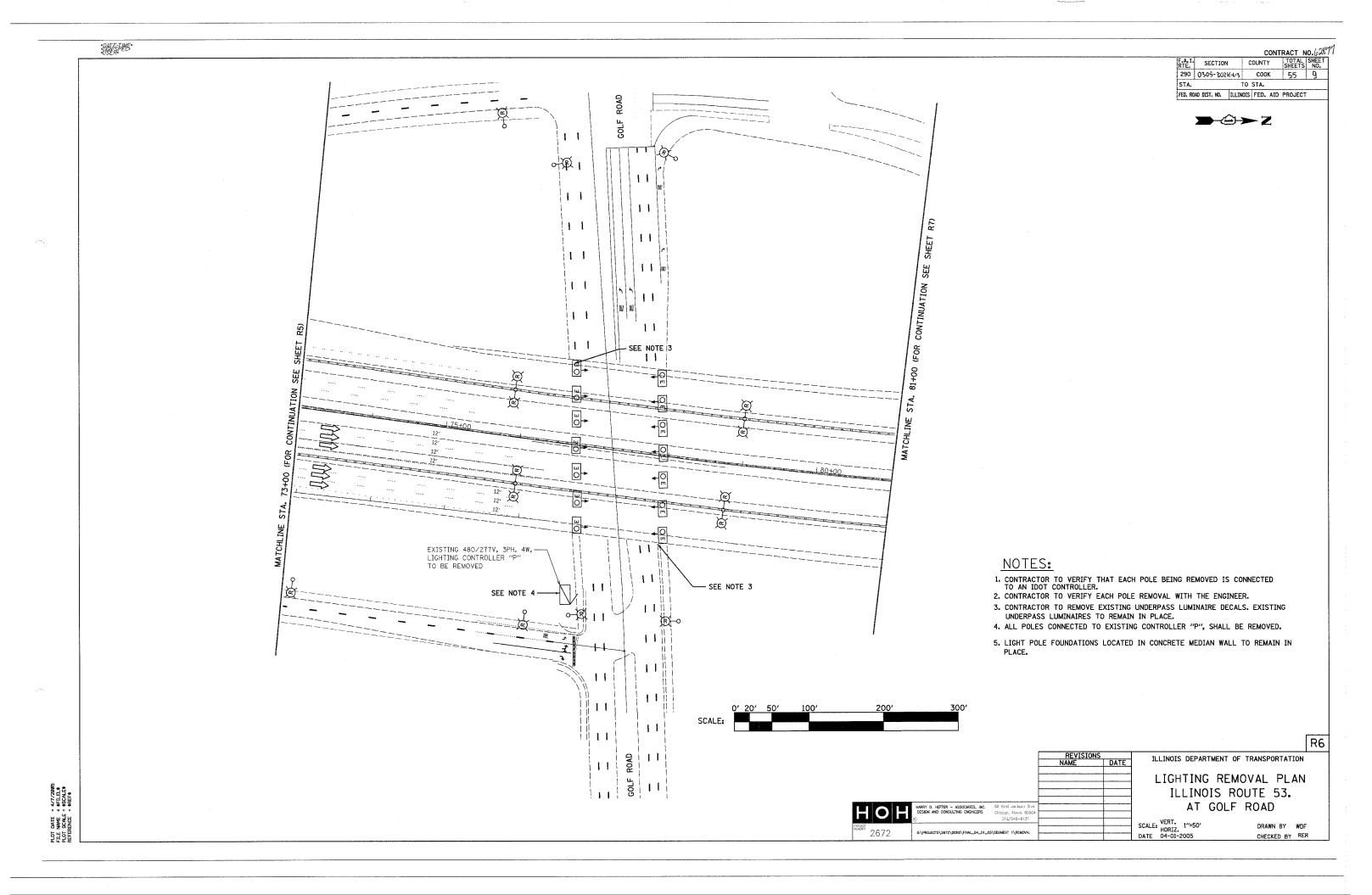
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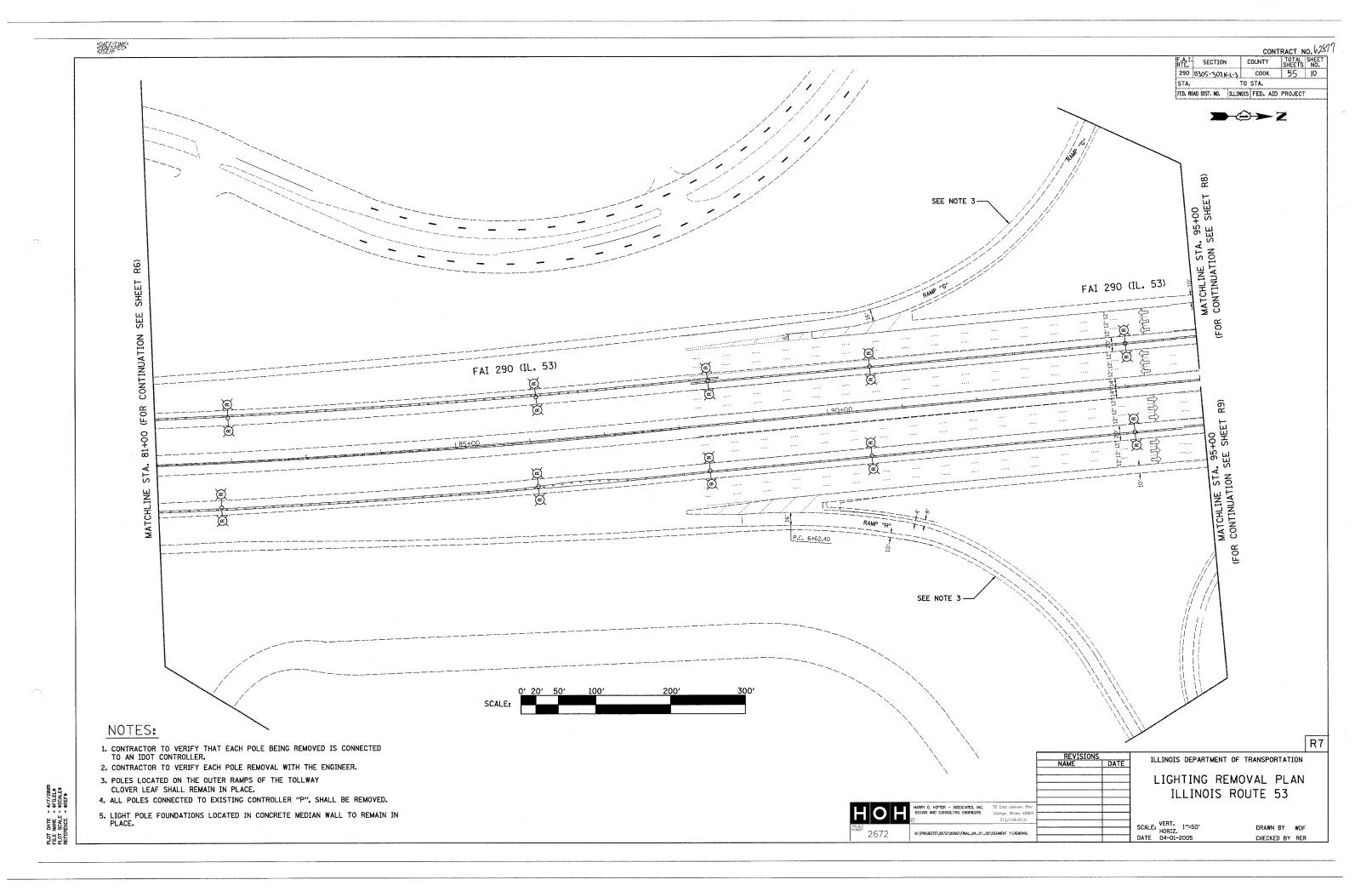
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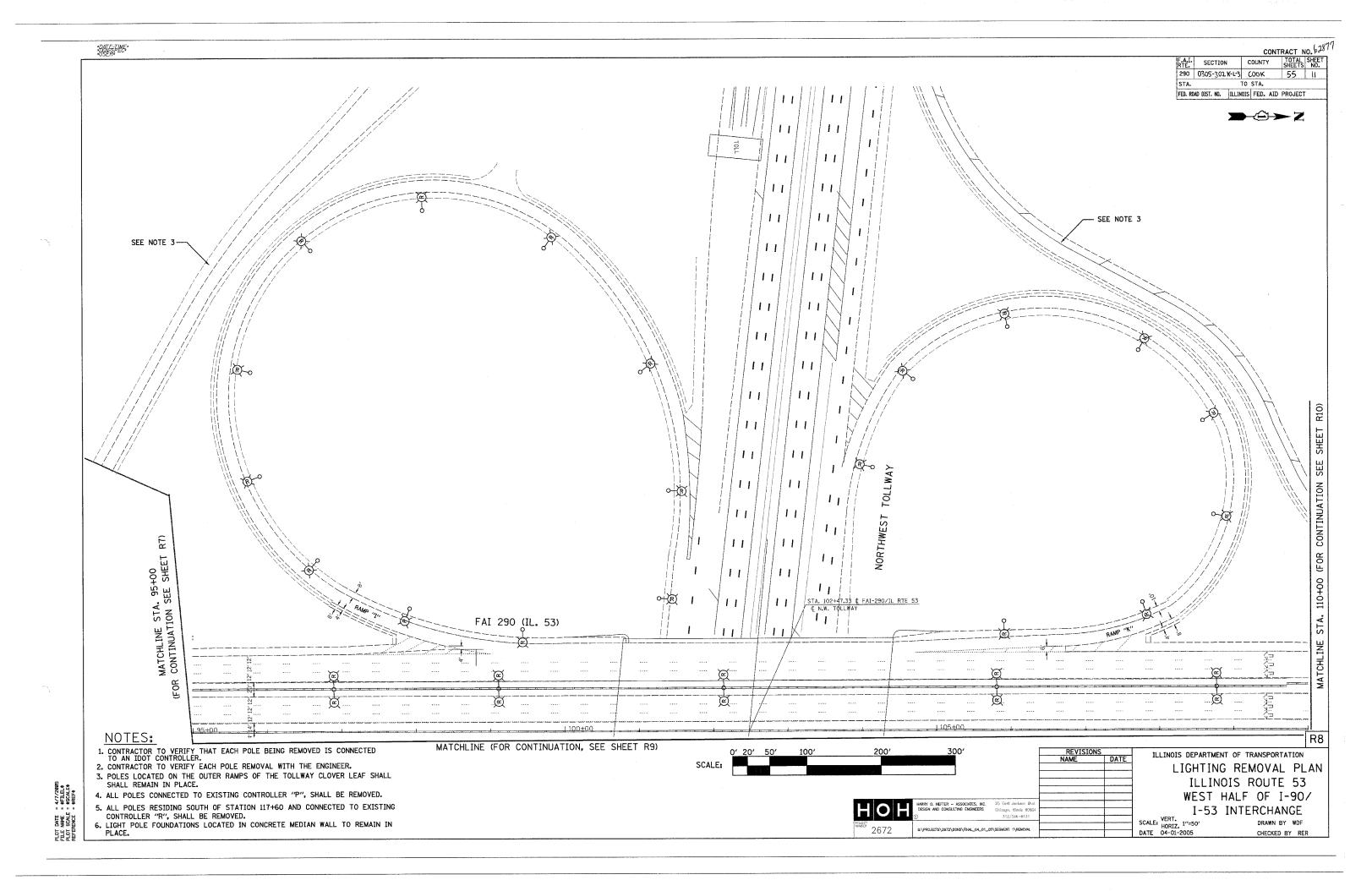


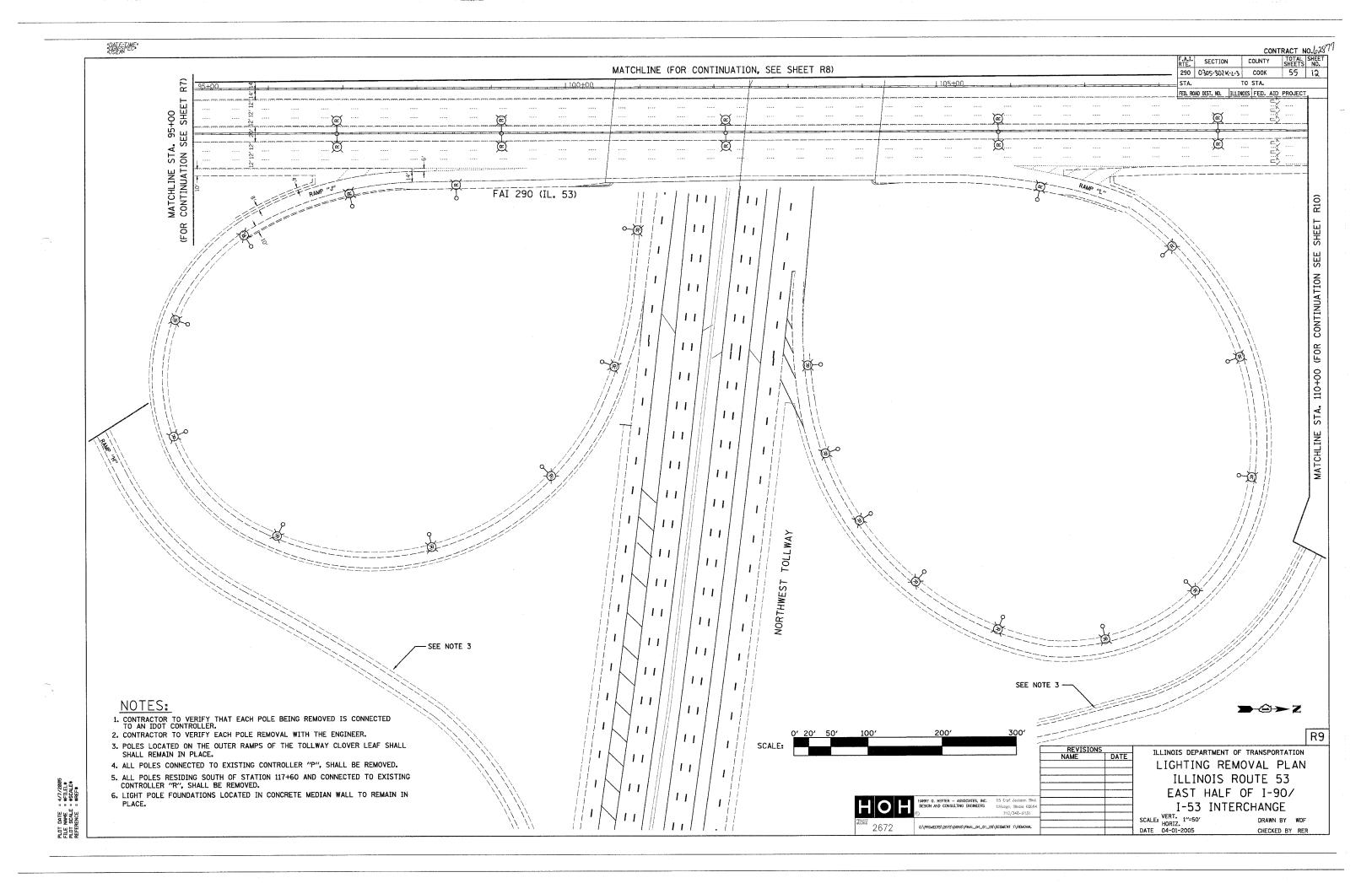


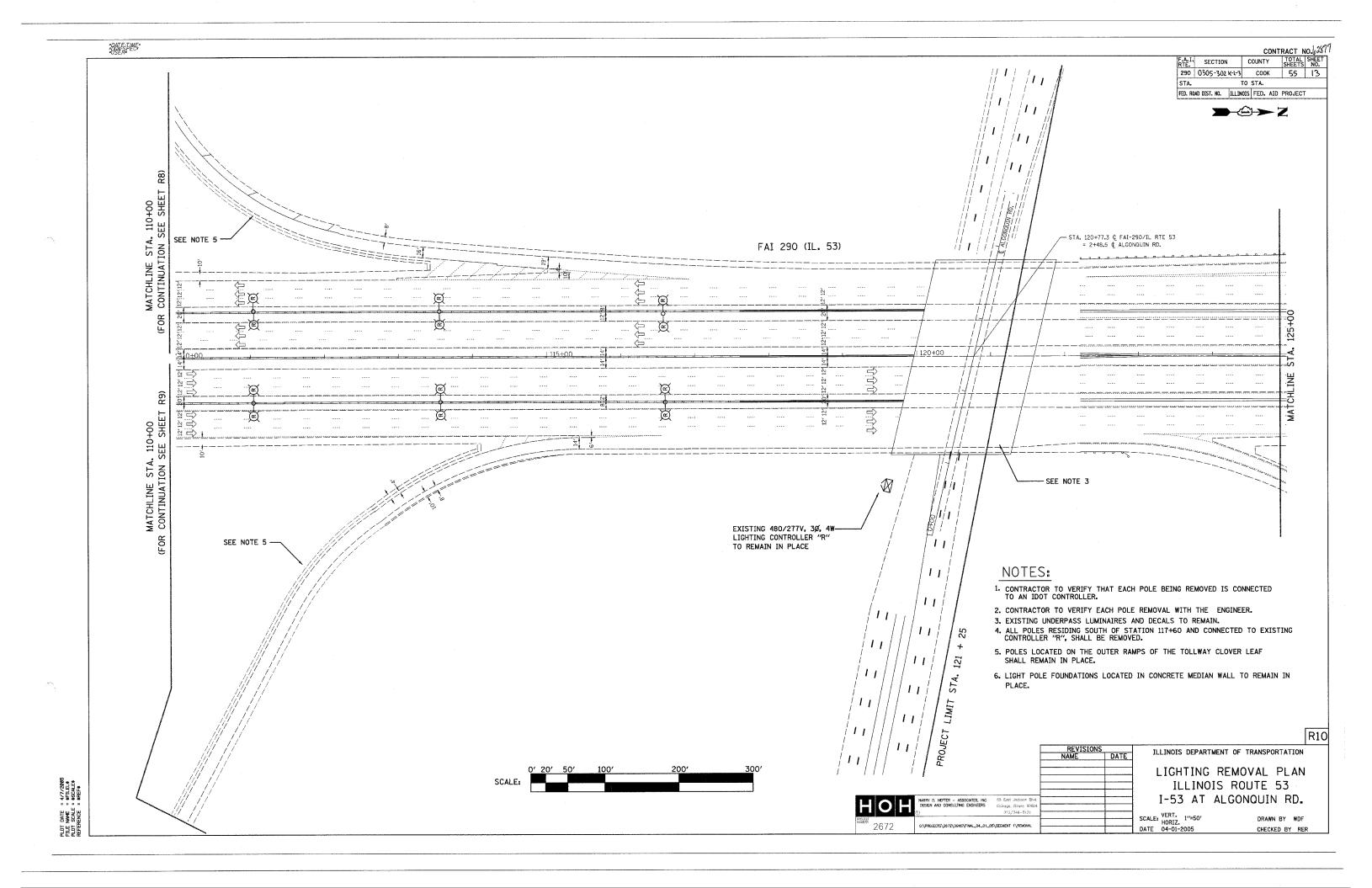


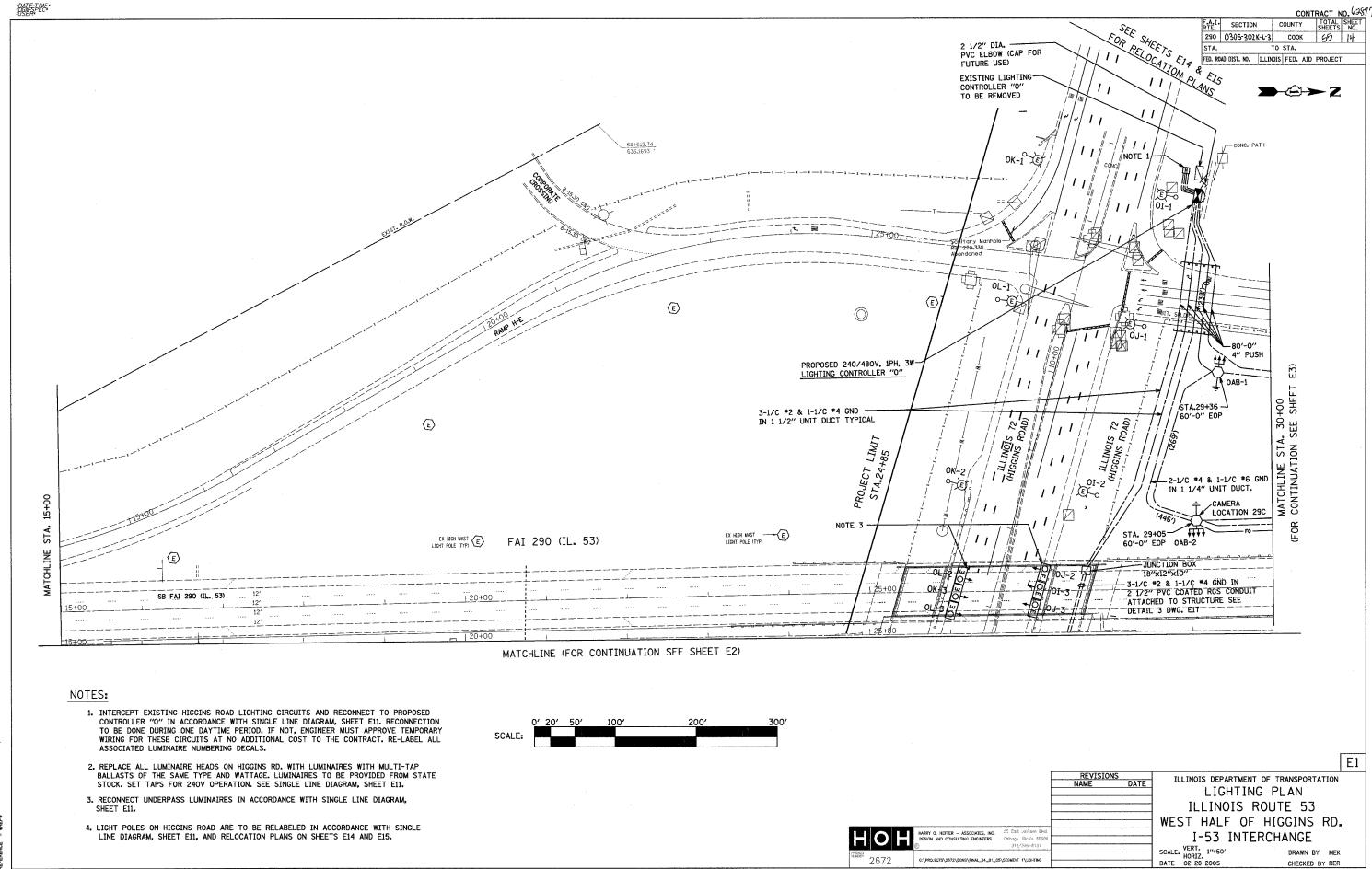




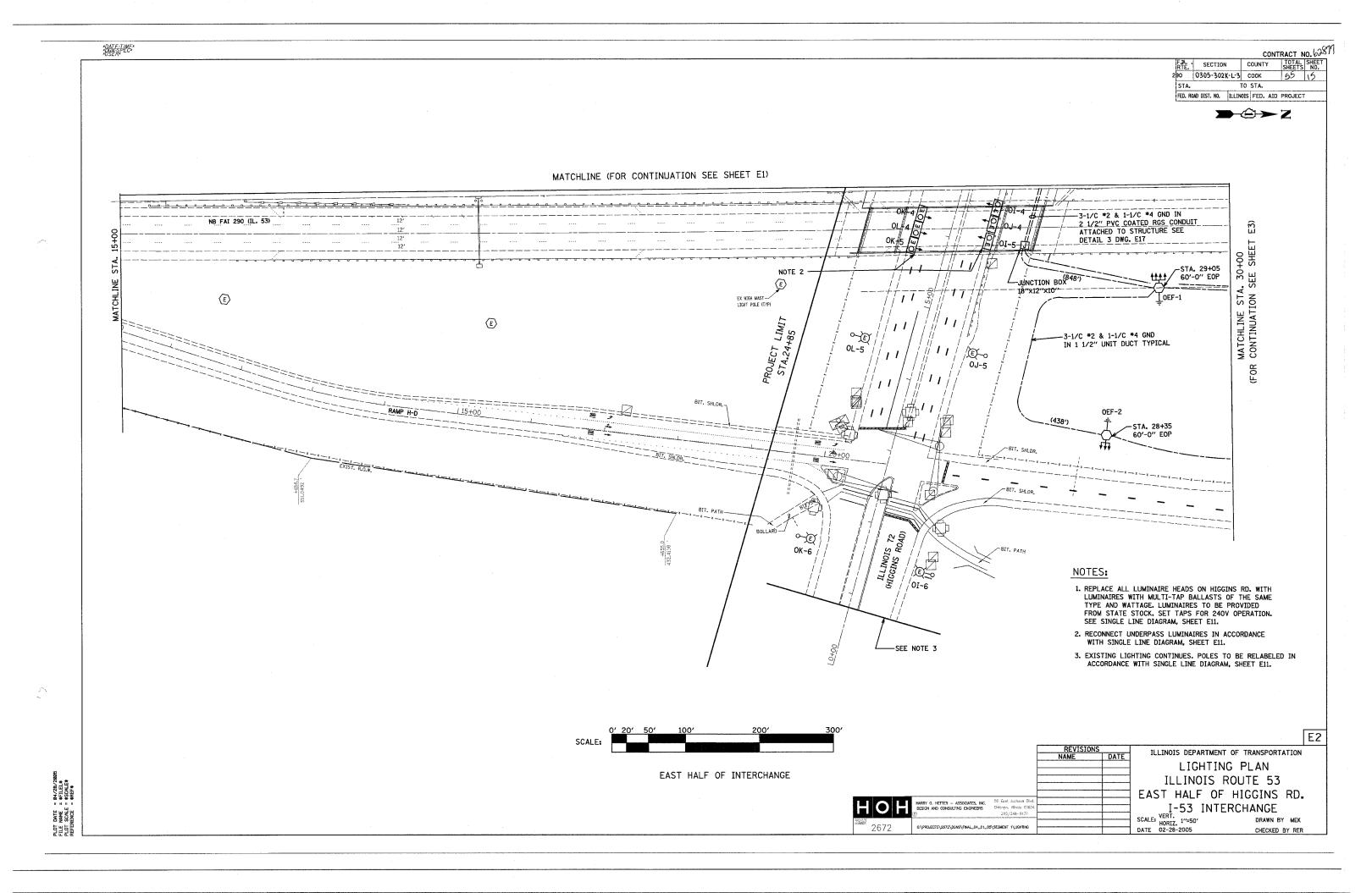


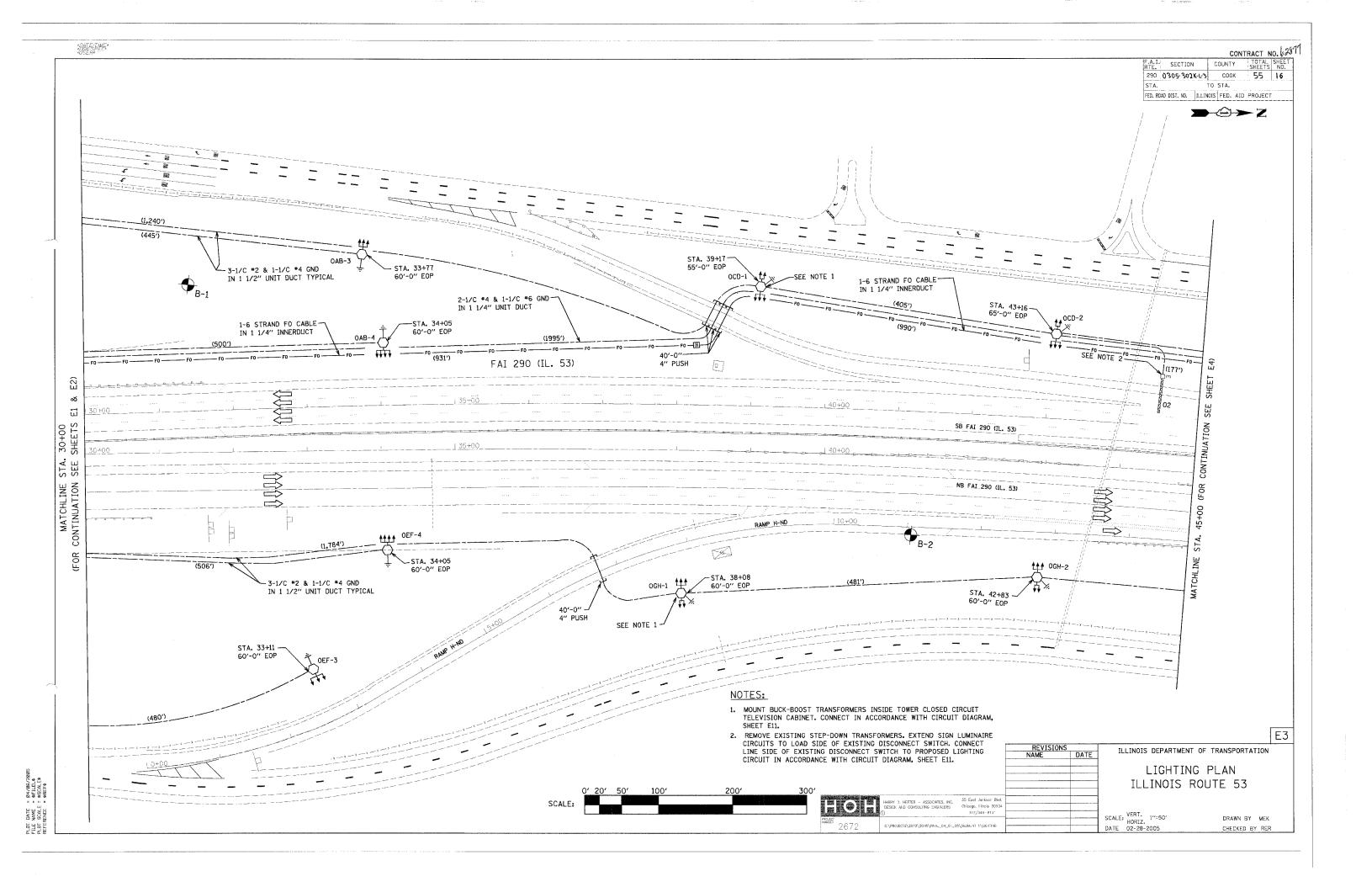


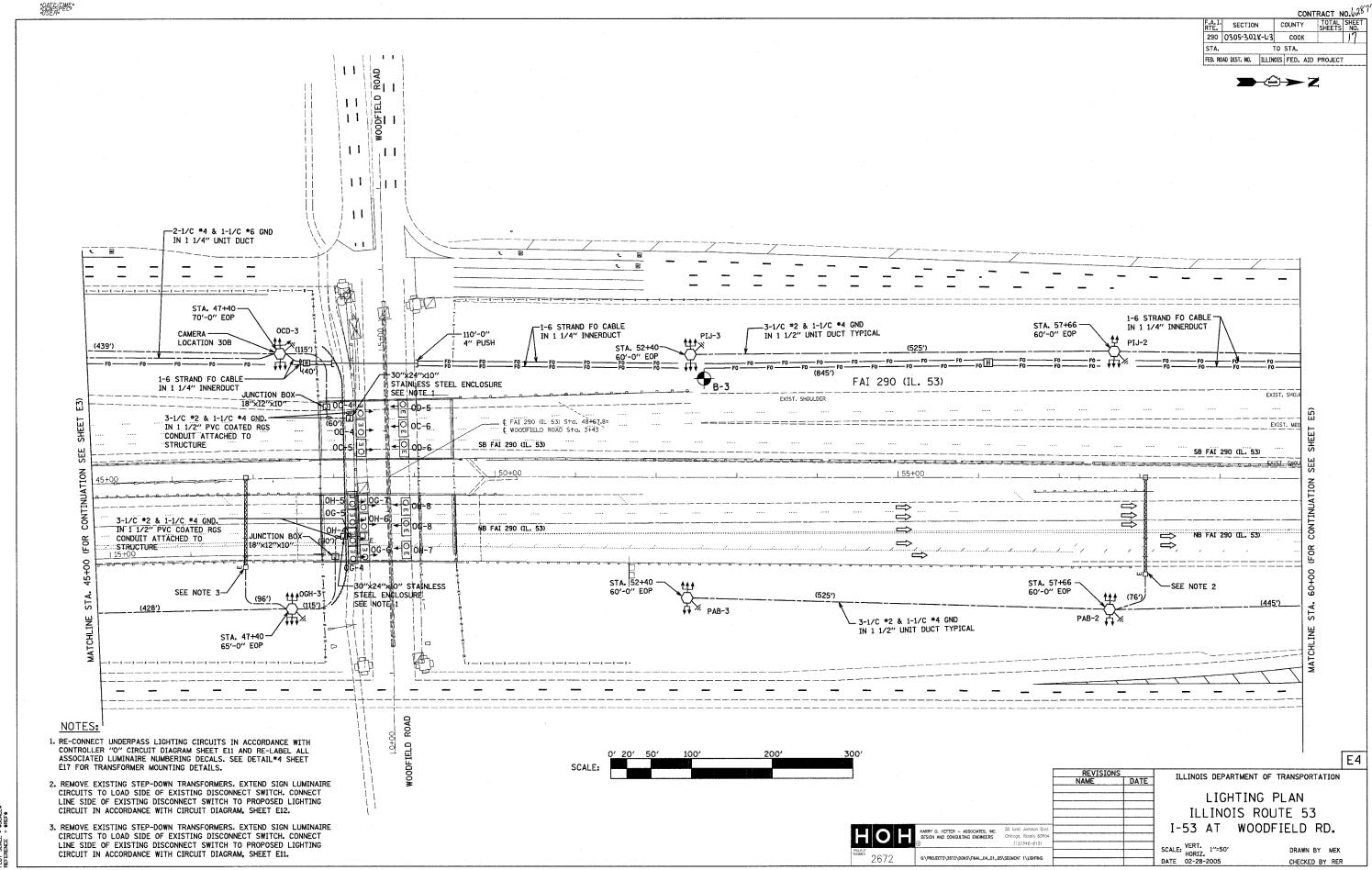




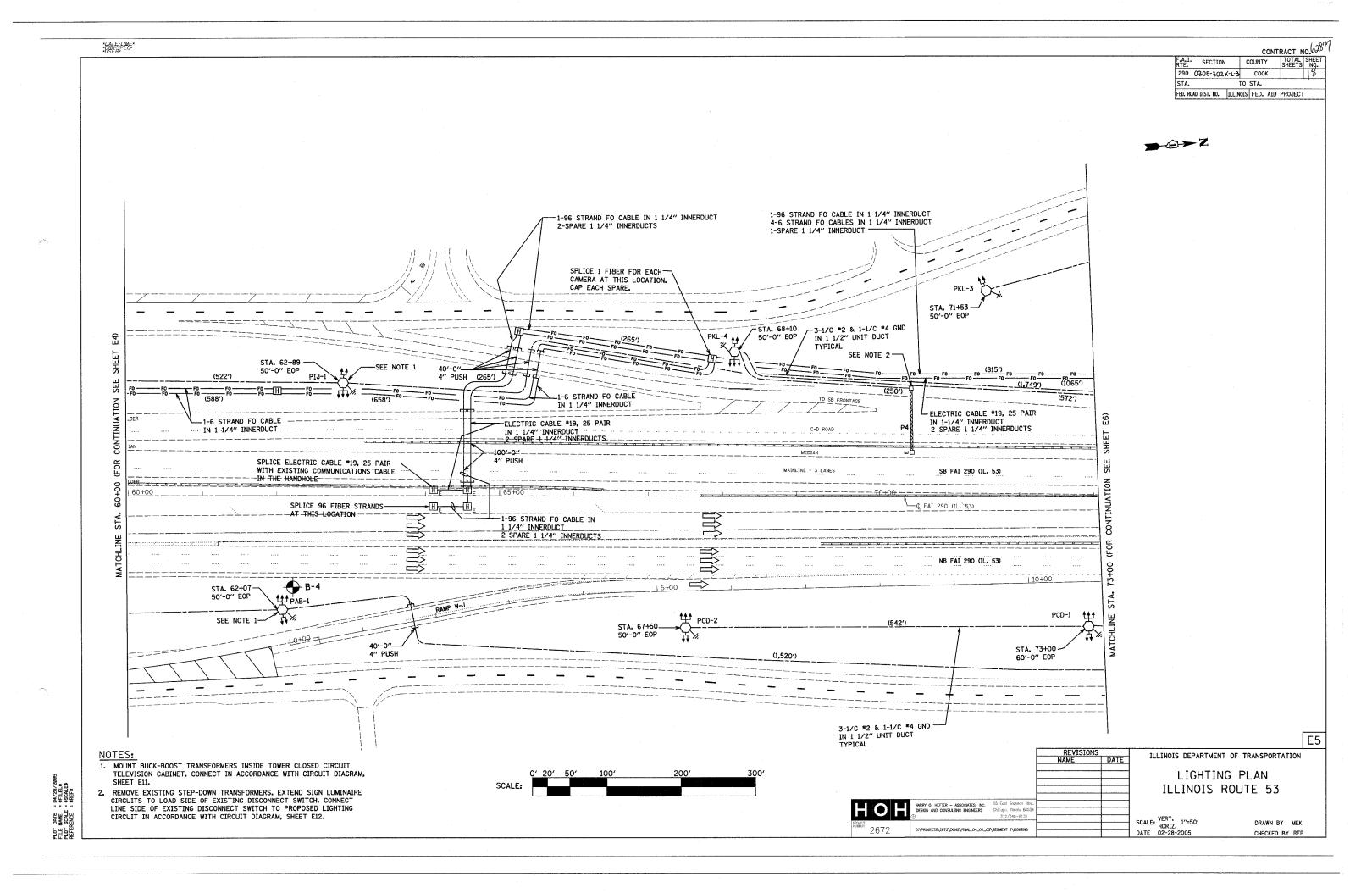
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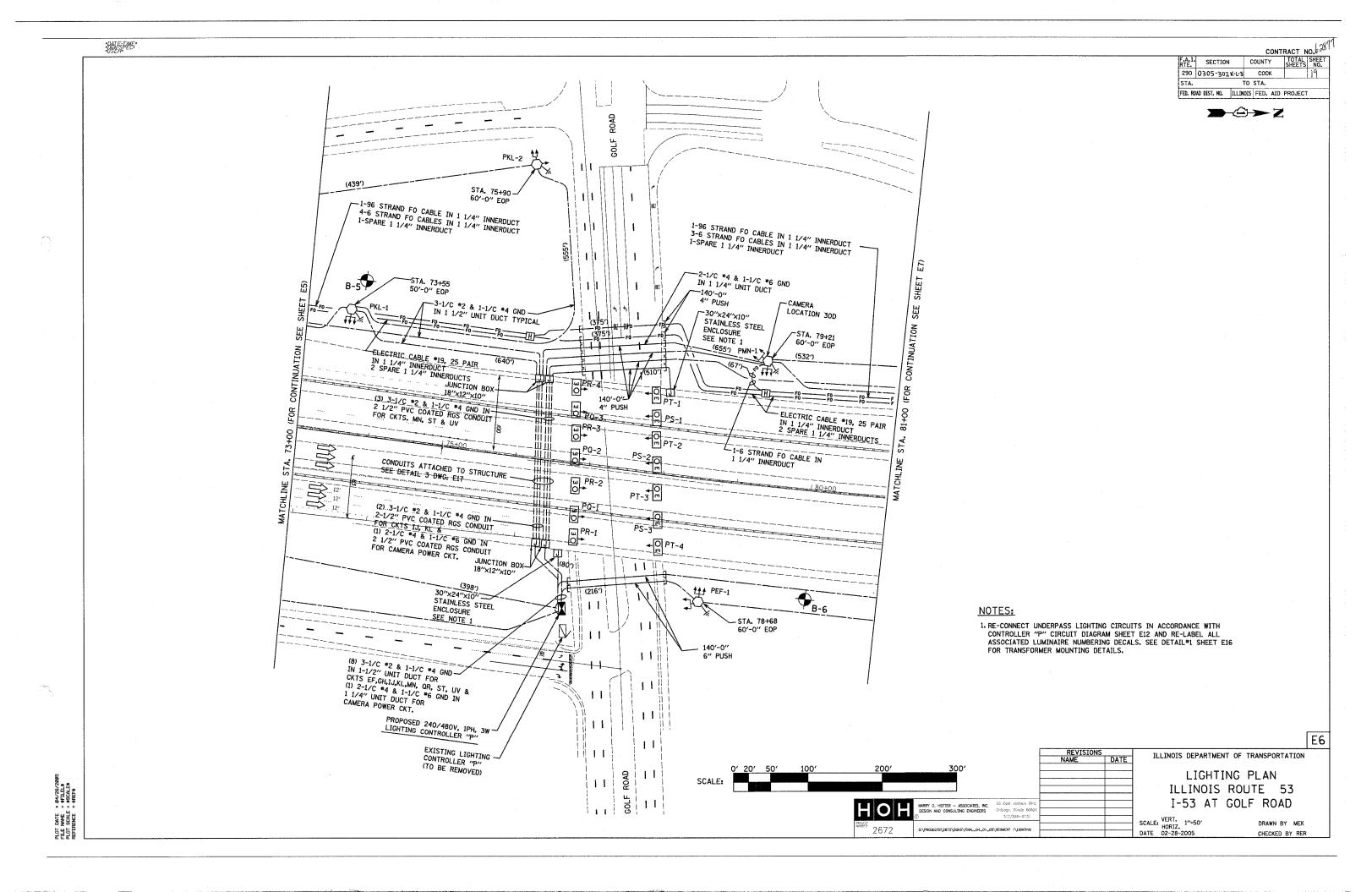


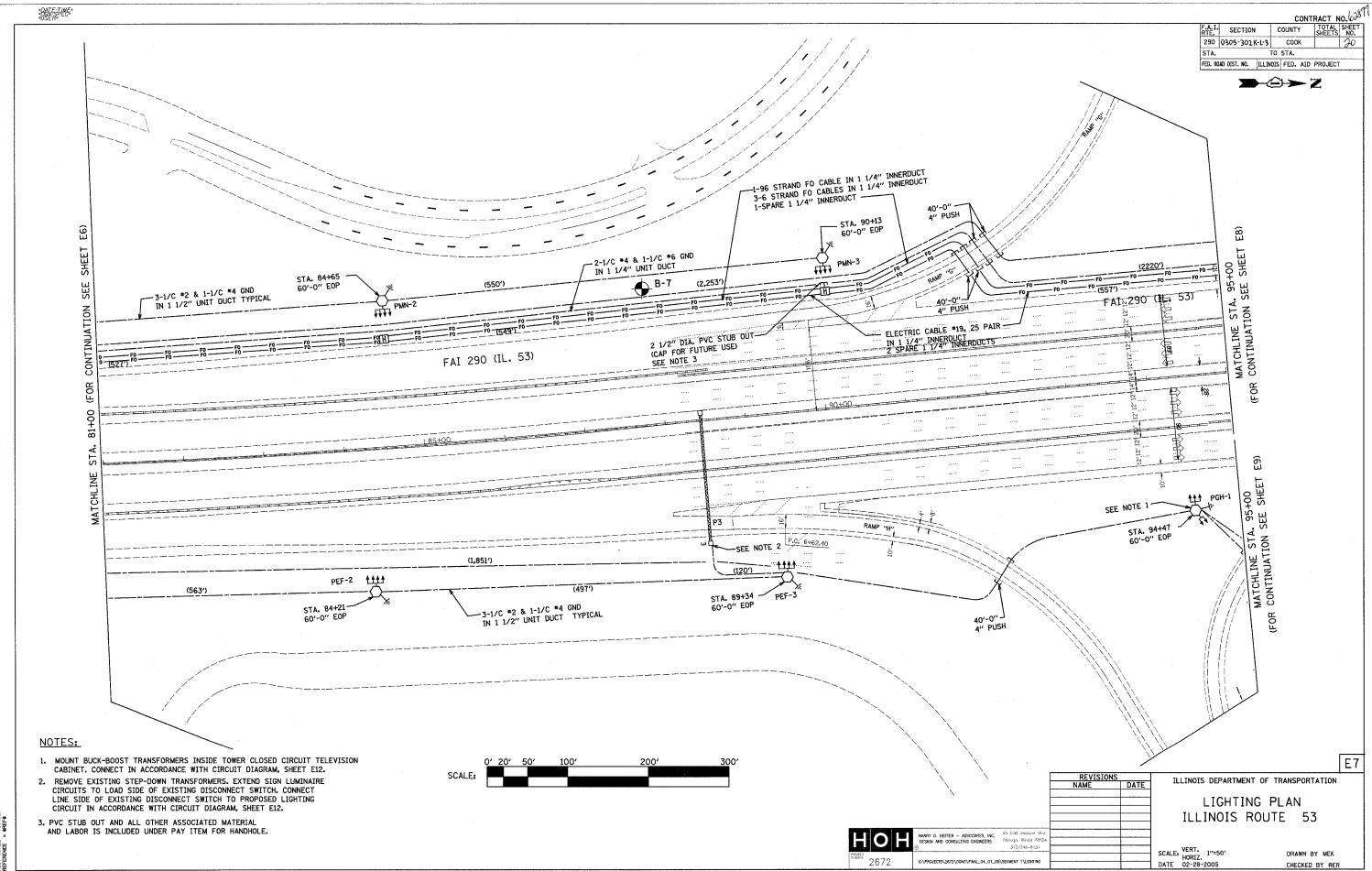




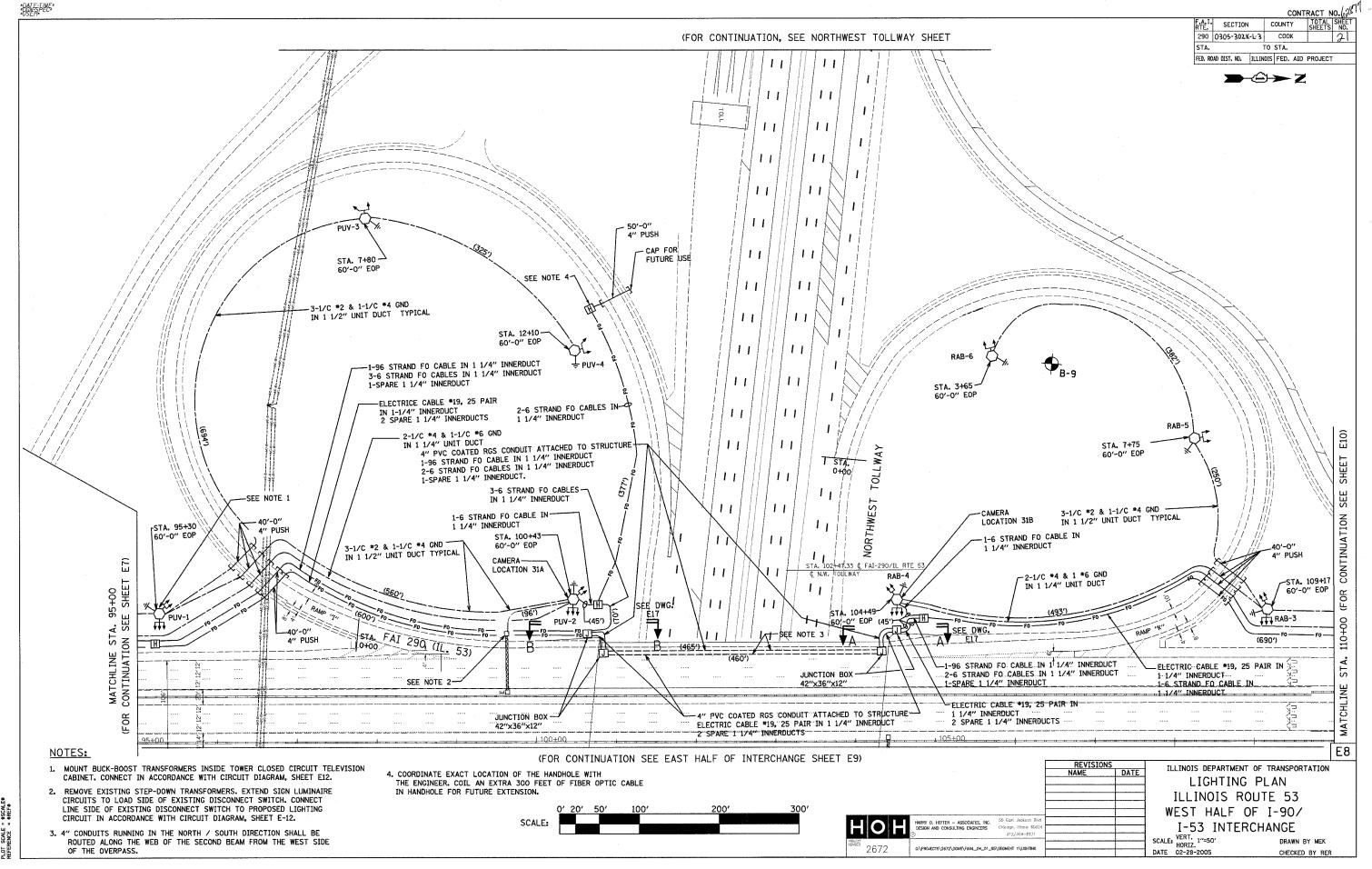
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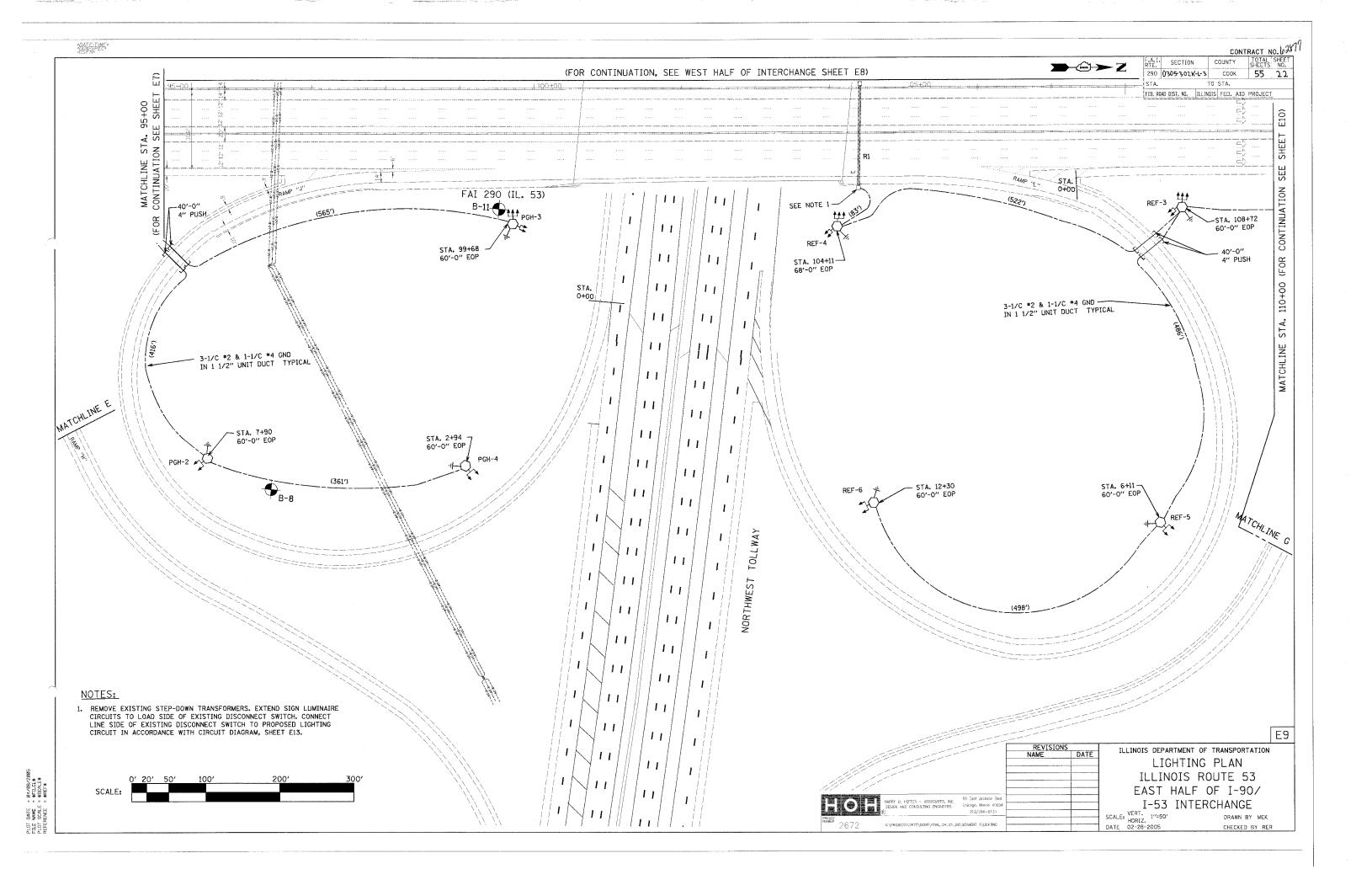


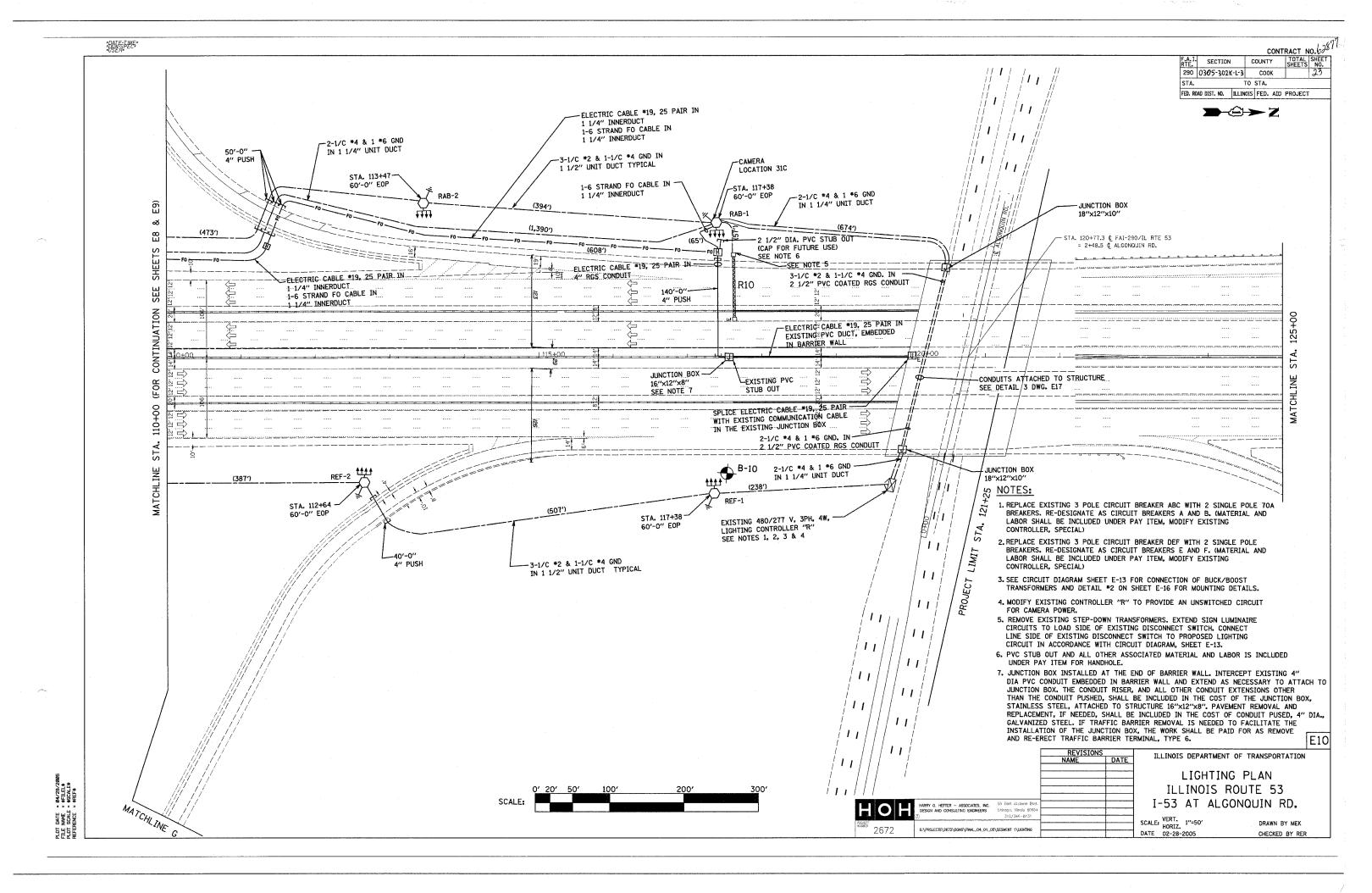


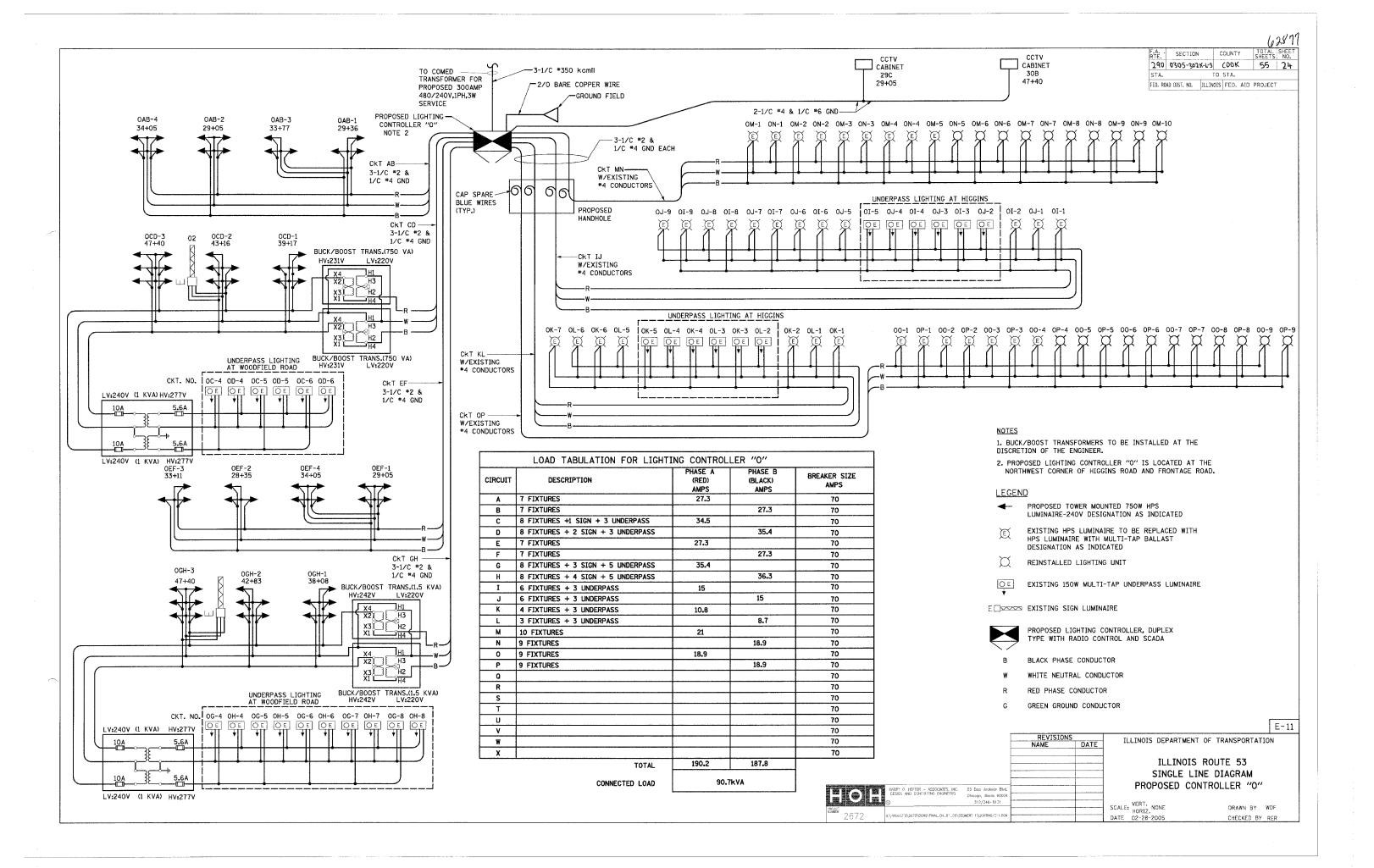
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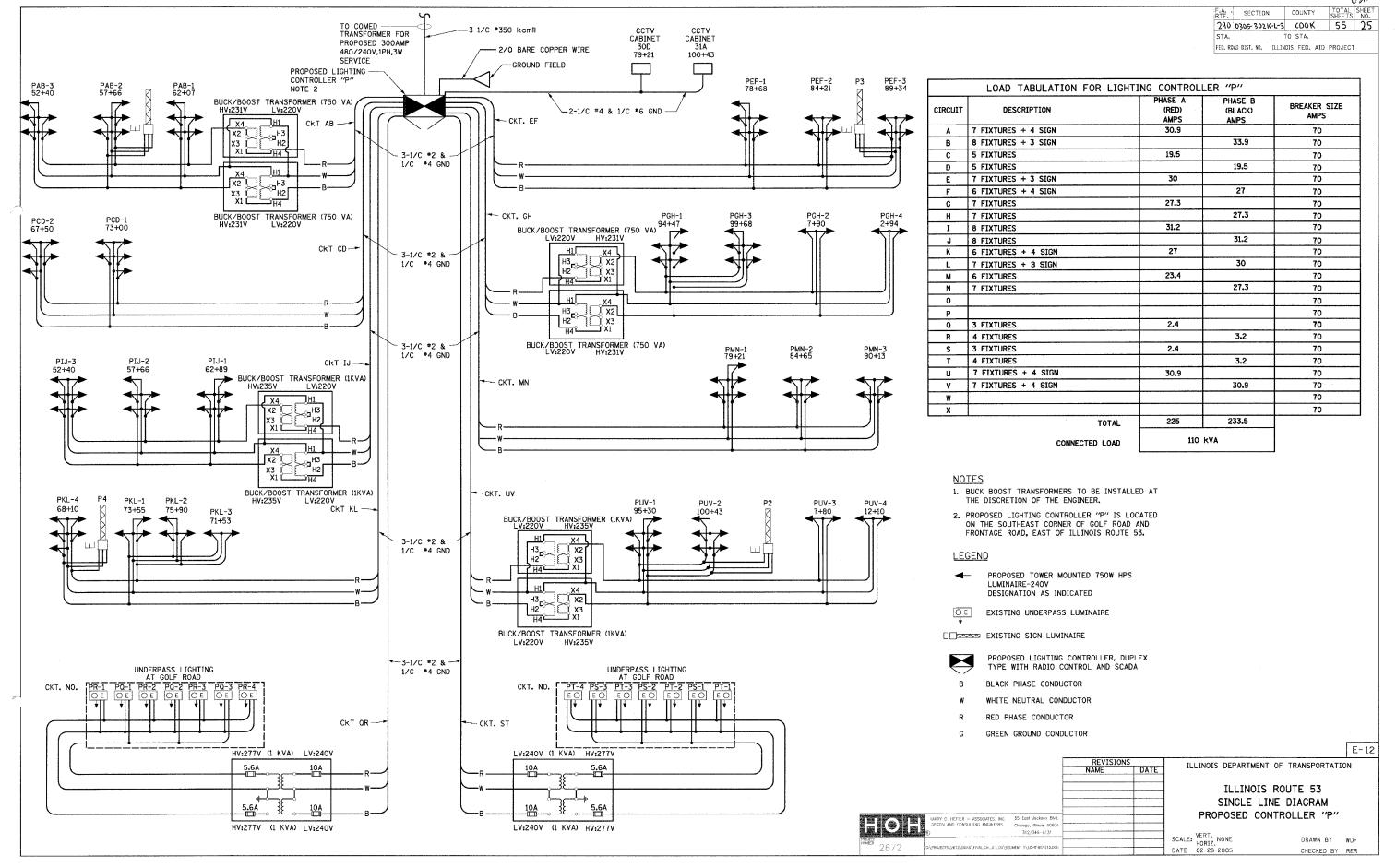


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F.A RTE.	SECTION	C	TNUC	1	TOTAL	SHEET NO.
290	0305-302K-L	3	COOH	(55	26
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FED. RO	AD DIST, NO. ILLI	NOIS	FED.	AID	PROJEC	Т

	PARTIAL LOAD TABULATION FO			"R"
CIRCUIT	DESCRIPTION	PHASE A (RED) AMPS	PHASE B (BLACK) AMPS	BREAKER SIZE AMPS
Α	11 FIXTURES + 3 SIGN	39.5		70
В	11 FIXTURES + 3 SIGN		39.5	70
С	SPACE			70
D	SPACE			70
E	11 FIXTURES + 4 SIGN	40.3		70
F	11 FIXTURES + 4 SIGN		40.3	70
G				70
Н				70
I				70
J				70
К				70
L				70
М				70
N				70
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Р				70
Q				70
R				70
S				70
Т				70
U				70
٧				70
₩				70
X				70
	TOTAL			
	CONNECTED LOAD			

NOTES

- REPLACE EXISTING 3 POLE CIRCUIT BREAKER ABC WITH 2 SINGLE POLE, 70A BREAKERS. RE-DESIGNATE AS CIRCUIT BREAKERS A AND B. (MATERIAL AND LABOR SHALL BE INCLUDED UNDER PAY ITEM, MODIFY EXISTING CONTROLLER, SPECIAL)
- 2. REPLACE EXISTING 3 POLE CIRCUIT BREAKER DEF WITH 2 SINGLE POLE BREAKERS. RE-DESIGNATE AS CIRCUIT BREAKERS E AND F. (MATERIAL AND LABOR SHALL BE INCLUDED UNDER PAY ITEM, MODIFY EXISTING CONTROLLER,
- 3. MODIFY EXISTING CONTROLLER "R" TO PROVIDE AN UNSWITCHED



CCTV CABINET 31B 104+49

RAB-4 104+49

2-1/C #4 & #6 GND -

REF-5 6+11

RAB-6 3+65

REF-6 12+30

CCTV CABINET 31C 117+38

RAB-2 113+47

REF-2 112+64

RAB-3 109+17

REF-3 108+72

- 2-1/C #4 & #6 GND

RAB-1 117+38

REF-1 117+38

R10

EXISTING 480V, 3 PHASE, 4 WIRE TIGHTING CONTROLLER "R" NOTES 1, 2, 3 & 4

--- 3-1/C #2 & 1/C #4 GND

---3-1/C #2 & 1/C #4 GND

-- CKT EF

CKT AB -

BUCK/BOOST TRANSFORMER (1.5KVA) LV:240V HV:264V

H4 X1 H2 X3 H3 X2

X4

BUCK/BOOST TRANSFORMER (1.5KVA) LV:240V HV:264V

BUCK/BOOST TRANSFORMER (2KVA) LV:240V HV:272V

H4 X1 H2 X3 H3 X2

H1 X4

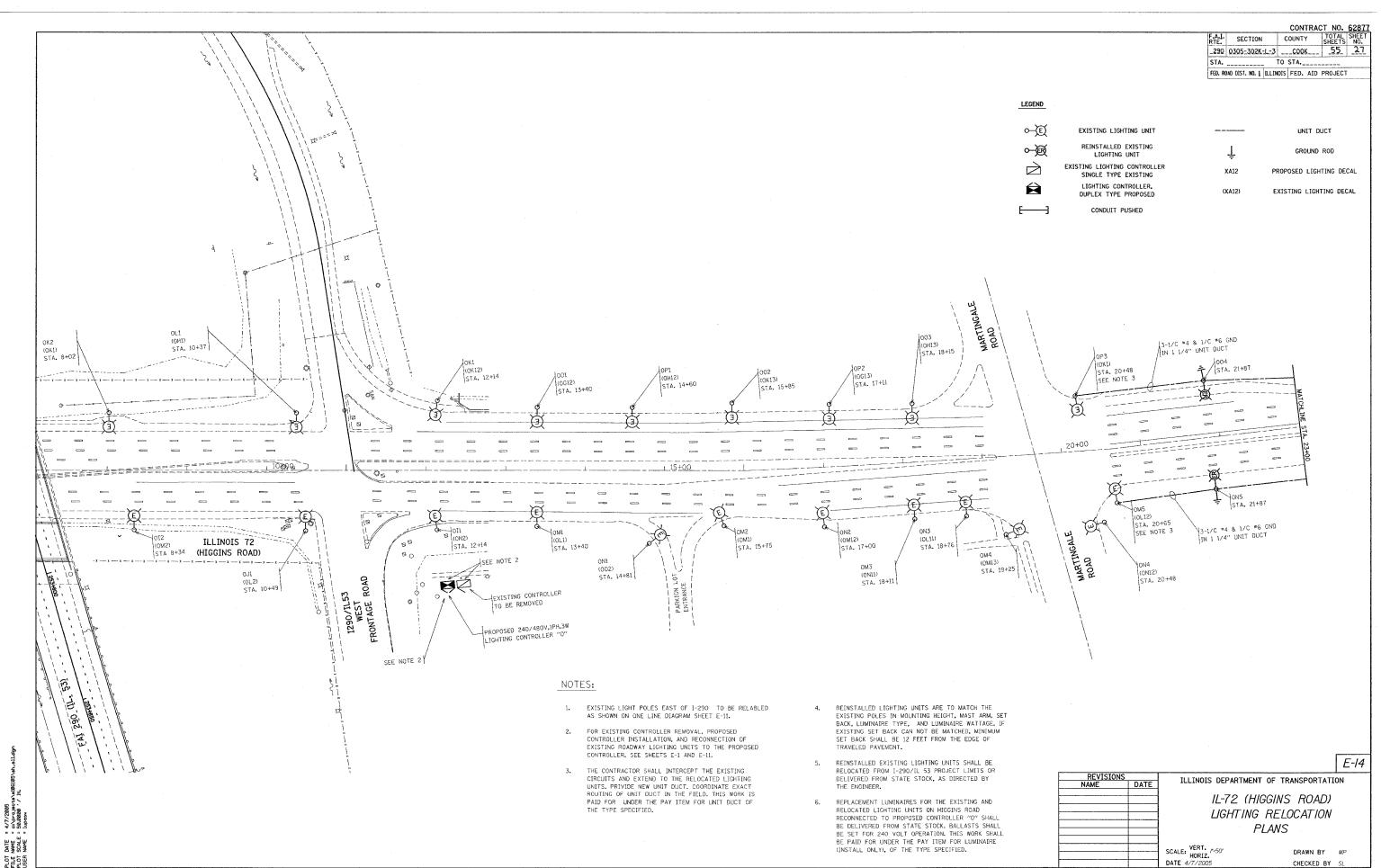
BUCK/BOOST TRANSFORMER (2KVA) LV:240V HV:272V

X4

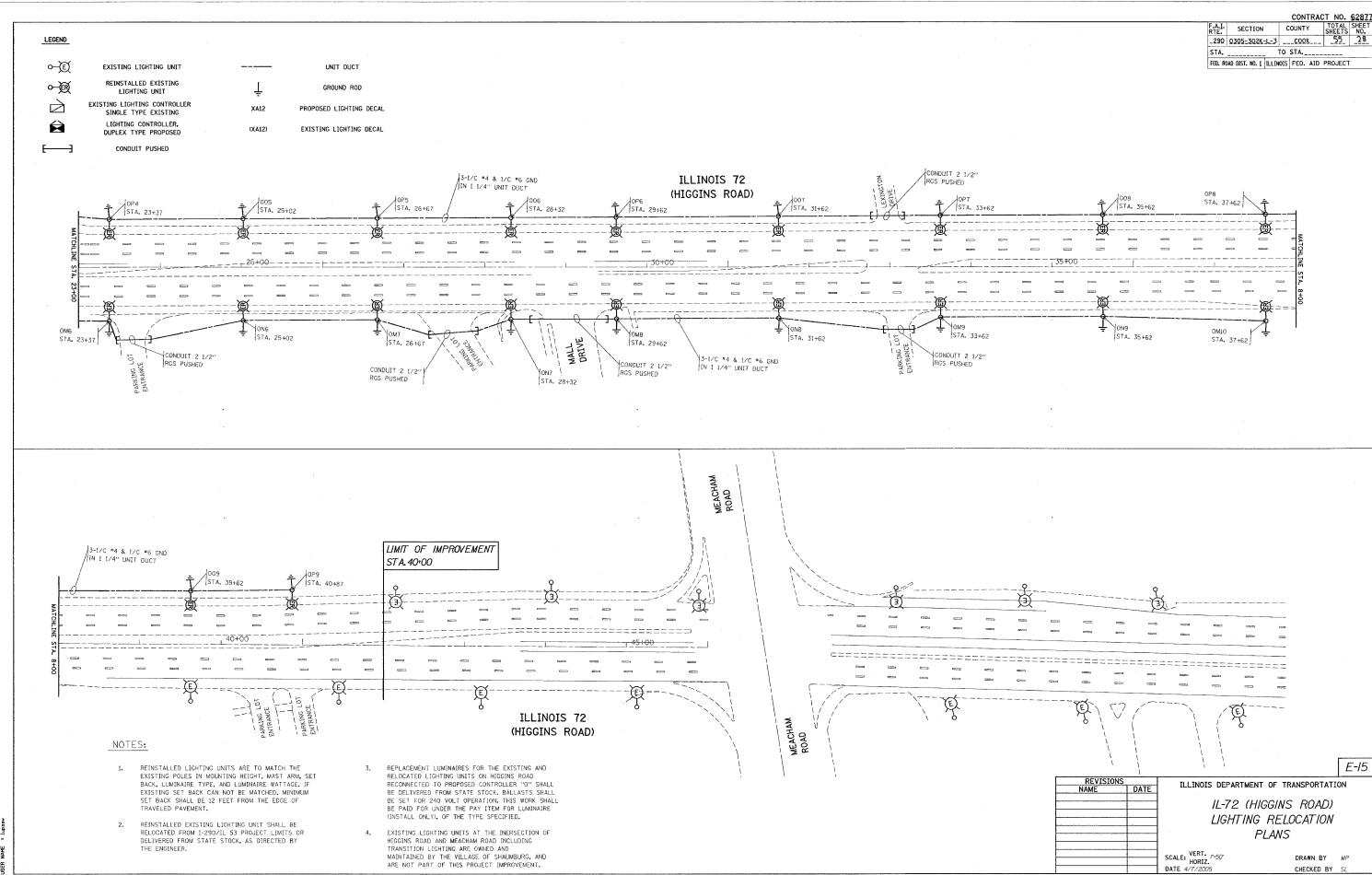
H4, H2 X3 H3 X2

H4, H2 X3 H3 X2

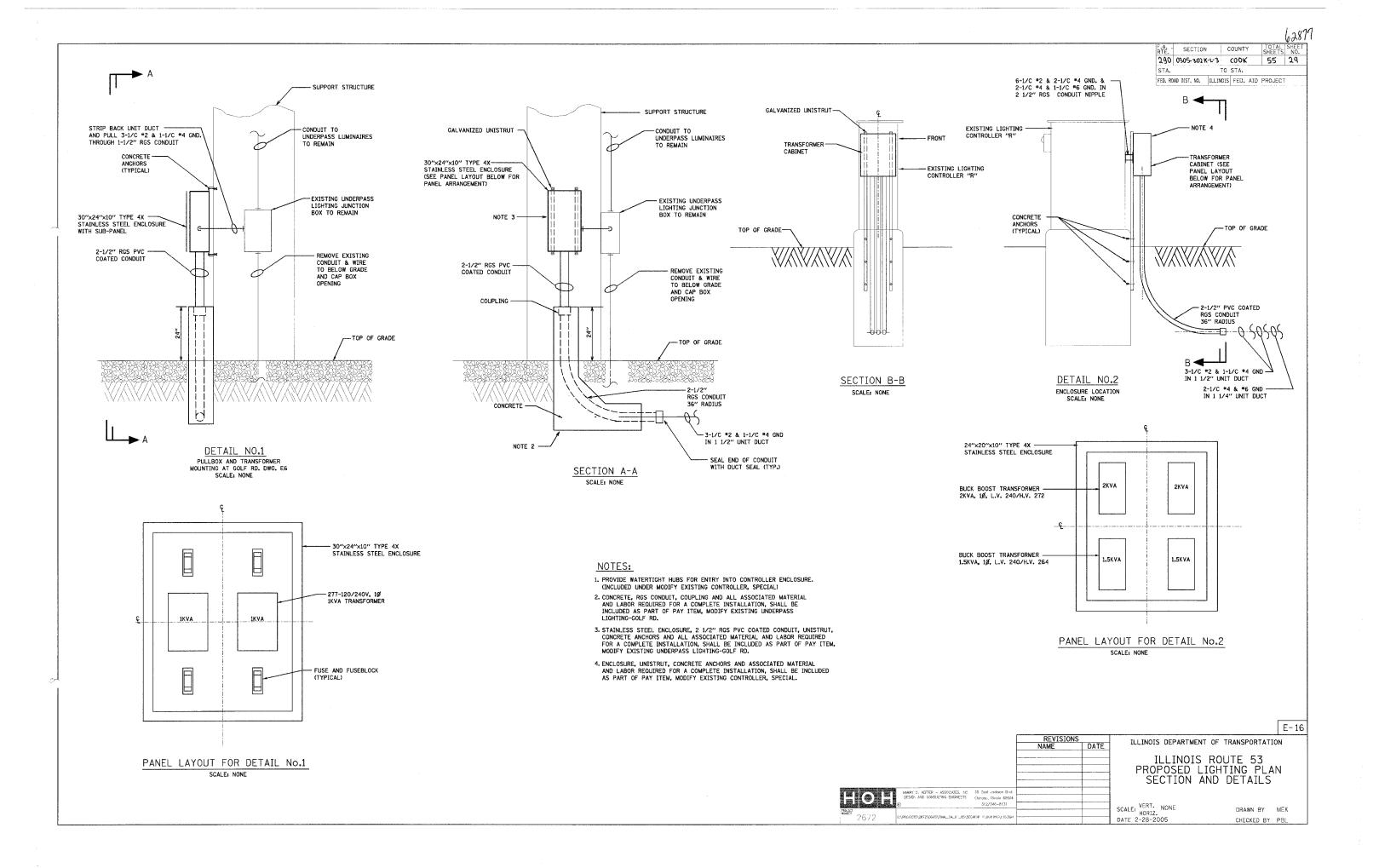
LEGEN	D				
←	PROPOSED TOWER MOUNTED 750W HPS LUMINAIRE-240V DESIGNATION AS INDICATED				
	EXISTING SIGN LUMINAIRE				
	EXISTING LIGHTING CONTROLLER, DUPLEX TYPE WITH RADIO CONTROL AND SCADA				
В	BLACK PHASE CONDUCTOR				E-1:
W	WHITE NEUTRAL CONDUCTOR	REVISIONS		ILLINOIS DEPARTMENT	
R	RED PHASE CONDUCTOR	NAME D	ATE	TELITOTO DEI PICTIMENT	OI MANOI ONTATION
G	GREEN GROUND CONDUCTOR			ILLINOIS	ROUTE 53
			***************************************	SINGLE LIN	E DIAGRAM
	HARRY O. HEFTER - ASSOCIATES, INC. DESIGN AND CONSULTING ENGINEERS Chicago, Illinois 50604 377/346-8131			EXISTING CON	TROLLER "R"
PROJECT NUMBER	2672 «\Prajects\2678\06\\$\Frau_04_61_05\550ment 1\u6nting\e13.06		SC/	ALE: VERT. NONE HORIZ. TE 02-28-2005	DRAWN BY WDF CHECKED BY RER

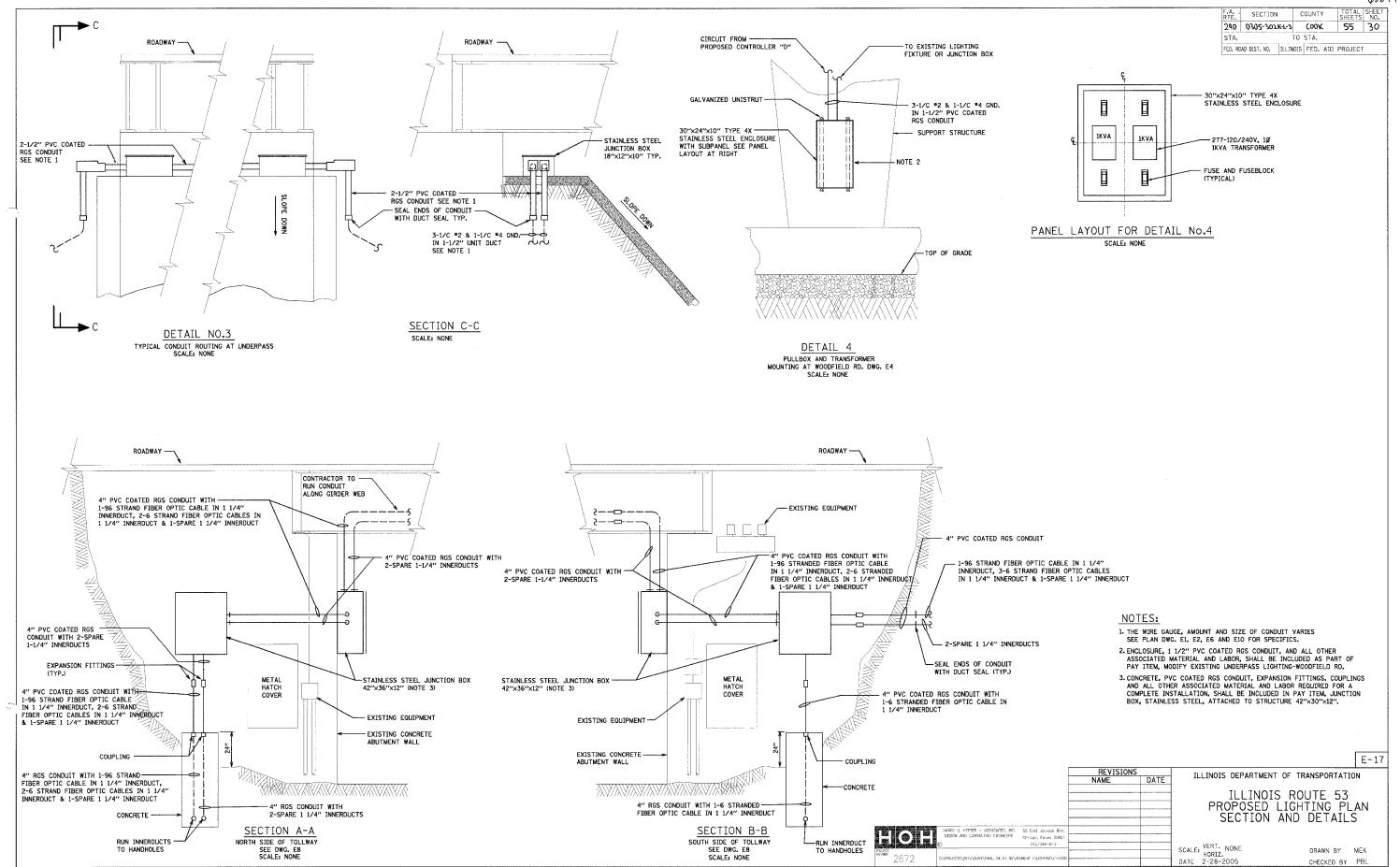


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62877

TOTAL SHEET NO. F.A. SECTION COUNTY
290 0305-3024-L-3 COOK STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

OH \bigcirc \bigcirc \circ CONTACTOR 1 CONTACTOR 2 C1 CLOCK \bigcirc \bigcirc PANEL BOARD PANEL BOARD

NEUTRAL BUS

 \bigcirc

- SCADA RADIO ANTENNA

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 \bigcirc

ACKNOWLEDGE B

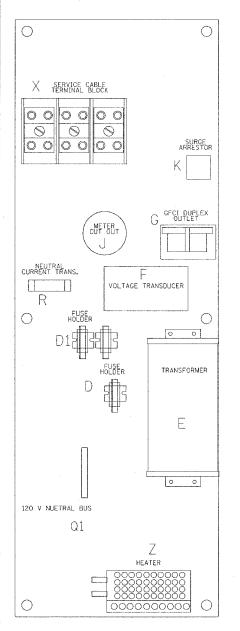
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AUTO - MAN

.

CONTROL RELAYS ASSEMBLY

LEFT SIDE PANEL



RIGHT SIDE PANEL

ITEM	QTY	DESCRI PITION
A	2	MAIN CIRCUIT BREAKERS 2 POLE 175 AMP WITH AUX CONTACT
В	1	ACKNOWLEDGE SWITCH, PUSH BUTTON WITH YELLOW INSERT
C1,C2*	2	CONTACTOR 2 POLE 200 AMP 240V COIL WITH AUX CONTACTS
D	1	FINGERSAFE FUSE HOLDER WITH KTK-15 FUSE
D1	2	FINGERSAFE FUSE HOLDER WITH KTK-1/2 FUSE
Ε	1	2.0 KVA 277V-240/120 TRANSFORMER
F	1	VOLTAGE TRANSDUCER WITH COVERED TERMINALS
G.	1	15 AMP GFCI DUPLEX OUTLET W/COVER
н	2	DOOR SWITCH
I	1	LIGHT FIXTURE
J	1	METER FITTING 1 PHASE 3 WIRE 200 AMP
К	1	SURGE ARRESTER
L .	2	PANEL BOARD 480/240V 1 PHASE, 250 AMP COPPER BUS
M	1	2 CHANNEL DIGITAL TIME CLOCK
N	1	MOMENTARY SWITCH ON - OFF
0	1	SQUARE D. 9001KS11BH13, 2 POSITION SWITCH IN 9001KY1 ENCLOSURE OR APPROVED EQUAL
Р	3	BREAKER 1P 15A
α.	2	COPPER GROUND AND NEUTRAL BUS 1 x 16 x 17
01	1	COPPER NEUTRAL BUS WITH 1 *6 AND 8 *12 CONDUCTOR POINTS
R	1	CURRENT TRANSDUCER
s	1	MOTOROLA MOSCAD-L RADIO, 240 V
T *	1	CONTROL RELAY ASSEMBLEY 240V COILS WITH 4 3 PDT 25A RELAYS (W389ACX-15) (R1,R2,R3,R4). OTY 32 TERMINAL BLOCKS
٧	20	TERMINAL BLOCKS
x *	1	620 AMP SLPICE BLOCK
Υ	1	40-80 DEG THERMOSTAT
Z	1	375 WATT HEATER

* TERMINALS SHALL BE COVERED WITH CLEAR PLEXICLASS SHEET

ILLINOIS DEPA		REVISIONS
ILLINOIS BEF	DATE	NAME
LIG	4/05	R. TOMSONS
RADIO (
WITH SO		
BE		
SCALE: VERT. NONE	ļ	

PARTMENT OF TRANSPORTATION

GHTING CONTROLLER CONTROL DUPLEX TYPE SCADA AND CCTV POWER

DATE 3/31/2005

E-207 SHT 1 OF 4 DRAWN BY CADD

CHECKED BY

BE207

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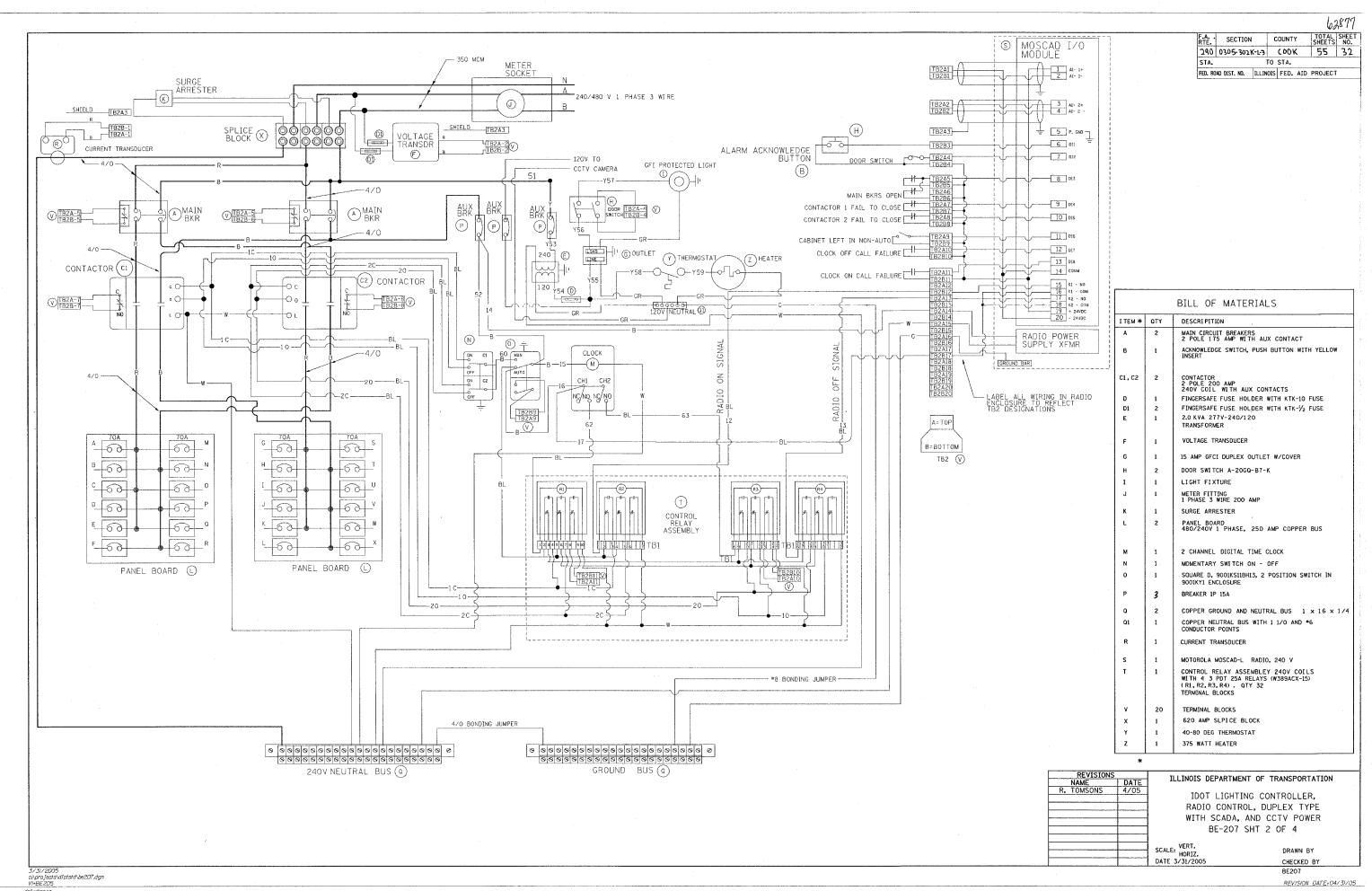
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THERMOSTAT

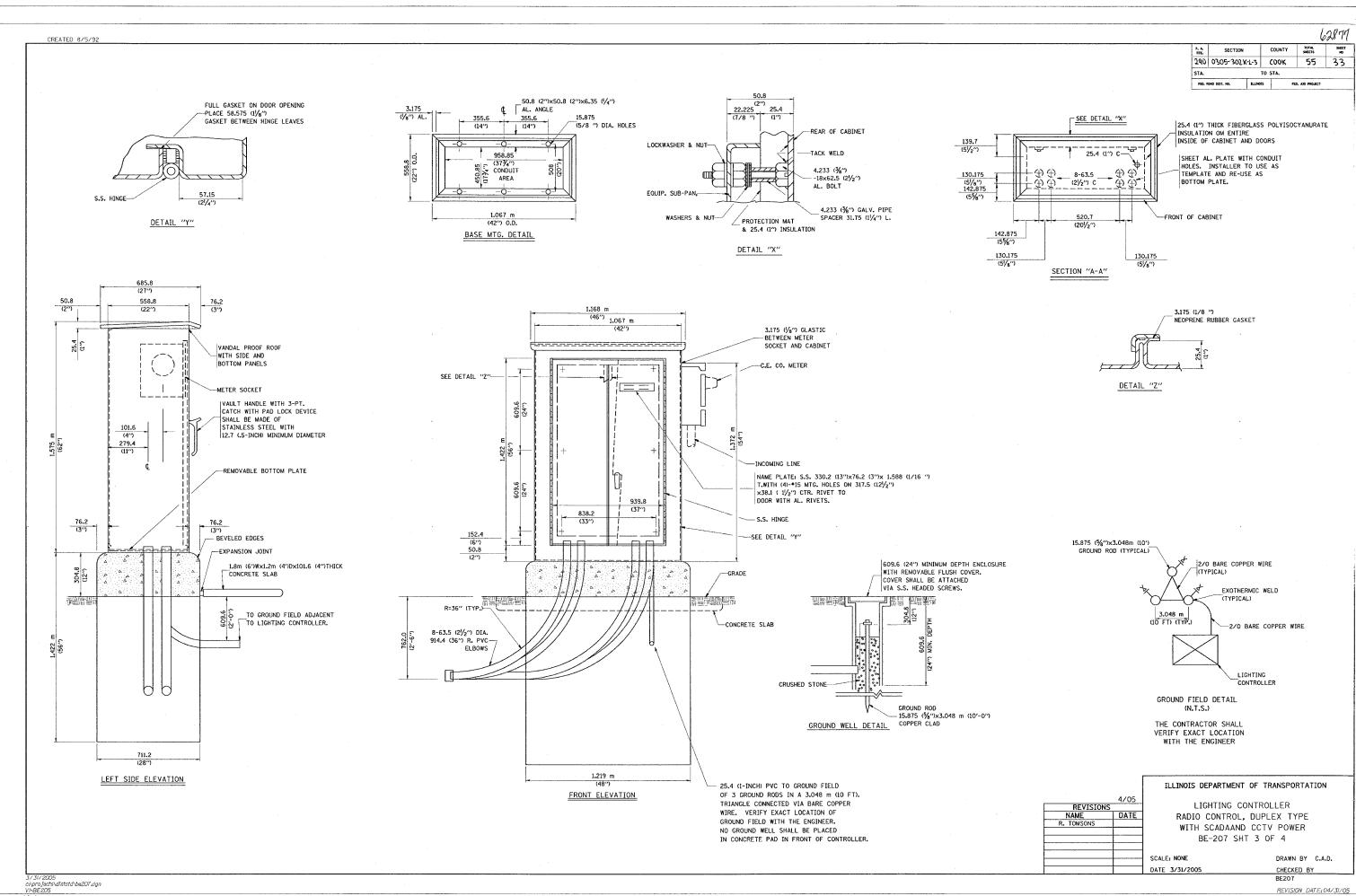
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ON - OFF

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REVISION DATE: 04/31/05



REVISION DATE: 04/31/05

62877

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

NOTES

- 1. CABINET SHALL BE FABRICATED FROM 3.175 (0.125-INCH) SHEET ALUMINUM # 3003H14, FORMED AND ARC WELDED.
- 2. ALL SCREWS AND HARDWARE SHALL BE PLATED, GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL, UNLESS OTHERWISE NOTED.
- 3. NAME PLATE SHALL HAVE ENGRAVED 19.05 (0.75-INCH) HIGH LETTERS FILLED IN BLACK: "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.
- 4. ONE INCH THICK POLYISOCYANURATE INSULATION SHALL BE INSTALL AND PERMANENTLY CEMENTED ON ALL SIDES OF THE CABINET AND DOORS.
- 5. CABINET SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- 6. ELECTRIC UTILITY METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET AS SHOWN ON THE PANEL LAYOUT DIAGRAM.
- 7. THE COMPLETED CONTROLLER SHALL BE U.L. LISTED AS AN INDUSTRIAL CONTROL PANEL UNDER UL508.
- 8. METAL MOUNTING PANEL SHALL BE FABRICATED FROM THE SAME MATERIAL AS THE CABINET AND SHALL BE FLANGED BACK 0.75-INCHES I.D. ON 4 SIDES.
- 9. CIRCUIT BREAKERS AND CONTACTORS AND OTHER COMPONENTS SHALL BE MOUNTED ON 3.175 (0.125-INCH) THICK GLASTIC INSULATION BACK PANEL.
- 10. ALL DEVICES SHALL BE FRONT REMOVABLE.
- 11. TIME CLOCK CHANNEL 1 N.O. CONTACT IS CLOSED NIGHT AND OPEN DAY (LIGHTS ON).
- 12. SET LATITUDE TO 42 DEGREES. SET CH.1 TO 25 MINUTES AFTER ASTRONOMICAL SUNSET, 40 MINUTES BEFORE ASTRONOMICAL SUNRISE. SET CH.2 TO 60 MINUTES AFTER ASTRONOMICAL SUNSET (WITH A SIGNAL LENGTH OF 1 SECOND), +20 MINUTES AFTER ASTRONOMICAL SUNRISE (WITH A SIGNAL LENGTH OF 7 SECONDS.)
- 13. BUS BAR SHALL HAVE 22 LUG TERMINALS SIZED TO ACCOMMODATE REQUIRED WIRE SIZES. 240V NEUTRAL BUS SHALL BE PAINTED WHITE, GROUND BUS SHALL BE PAINTED GREEN, AND THE 120V NEUTRAL BUS SHALL BE PAINTED GREY.
- 14. ALL LUGS SHALL BE OF COPPER SCREWS AND CONNECTORS, SPRING HELD.
- 15. ALL WIRING TERMINATIONS SHALL BE RATED NOT LESS THAN 75 DEGREE CENTIGRADE
- 16. ALL CONTROL WIRING SHALL BE 600V #12 TYPE MTW.
- 17. ALL POWER WIRING SHALL BE 600V TYPE RHH/RHW.
- 18. ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED:

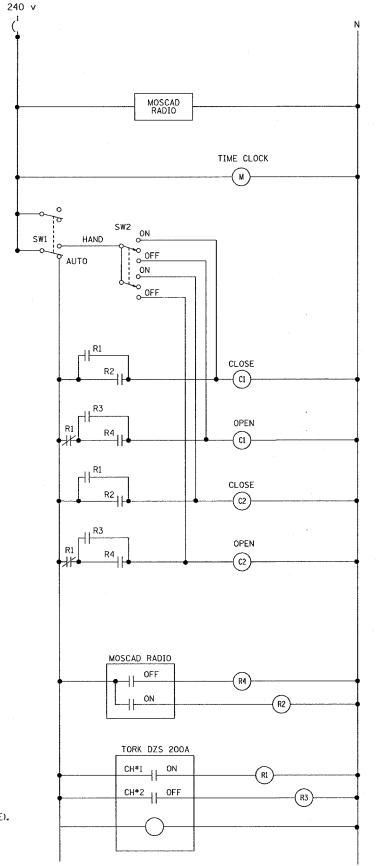
19. MOSCAD I/O WIRING SHALL BE:

DIGITAL INPUT (DI) WIRING SHALL BE #16 MTW PURPLE

ANALOG INPUT (AI) WIRING SHALL BE #18, 2/C SHIELDED.

AI AND DI WIRING MAY BE BUNDLED TOGETHER, BUT SHALL NOT BE BUNDLED WITH OTHER WIRING.

- 20. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE INDICATED.
- 21. SCHEMATIC SHOWN WITH BREAKER OPEN, CONTACTOR OPEN, CABINET DOOR CLOSED, CLOCK NOT ACTIVE (DE-ENERGIZED STATE).
- 22. A LAMINATED COPY OF THE CIRCUIT SCHEMATIC AND SCADA I/O DIAGRAM (NO SMALLER THAN 11"x17" EACH) SHALL BE ATTACHED TO THE INSIDE OF THE CONTROLLER WITH STAINLESS STEEL SCREWS.
- 23. WHEN A MODIFICATION TO AN EXISTING LIGHTING CONTROLLER IS INDICATED, A 15A CKT BREAKER AND WIRING SHALL BE ADDED AS INDICATED,



CONTROL CIRCUIT LADDER LOGIC DIAGRAM

	MOSCAD I/O ASS	IGNMENȚS
TERM	MOSCAD DESTINATION	DESCRIPTION OF INPUT
1	Analog input 1 (+)	CABINET NEUTRAL CURRENT
2	Analog Input 1 (-)	CABINET NEUTRAL CURRENT
3	Analog Input 2 (+)	CABINET SERVICE VOLTAGE
4	Analog input 2 (-)	CABINET SERVICE VOLTAGE
5	P. Ground	GROUND
6	Digital input 1	ALARM KNOWLEDGE
7	Digital input 2	DOOR OPEN
8	Digital input 3	MAIN(S) BREAKER OPEN
9	Digital input 4	CONTACTOR 1 OPEN
10	Digital input 5	CONTACTOR 2 OPEN
11	Digital input 6	CABINET IN NON-AUTO
12	Digital input 7	BACK-UP CLOCK OFF CALL
13	Digital input 8	BACK-UP CLOCK ON CALL
14	DI Common	СОММОН
15	KI NO	LIGHTS ON CALL
16	кі с	K1 COMMON
17	K2 NO	LIGHTS OFF CALL
18	K2 C	K2 COMMON
19	24 V+	24+VDC
20	24 V-	24-VDC

All analog inputs will be 4-20 mA only. Digital output relays will be Electrically energized and momentarily held

Mixed I/O module model number V436

REVISIONS		ILLINOIS DEPARTMENT	OF TRANSPORTATION
NAME	DATE	ILLINOIS DEFARTMENT	OF TRANSFORTATION
R. TOMSONS	4/05	LIGHTING CO	NTROLLER
		RADIO CONTROL,	DUPLEX TYPE
		WITH SCADA AND	CCTV POWER
		BE-207 SHT	4 OF 4
		VERT	
		SCALE: VERT. NONE HORIZ.	DRAWN BY CADD
		DATE 3/31/2005	CHECKED BY

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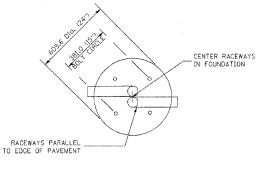
REVISION DATE: 04/31/05

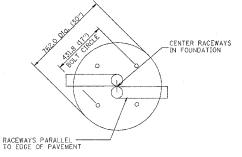
BE207



LIGHT POLE FOUNDATION DEPTH TABLE 12.192M (40 FT.) TO 14.478M (47.5 FT.) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "	D" OF FOUNDATION
201F COMPILION2	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY	3.96M	4.57M
Qu = 0.375 TON/SQ, FT.	(13'-0'')	(15'~0'')
MEDIUM CLAY	2.09M	3.23M
Qu = 0.75 TON/SQ.FT	(9'-6'')	(10'-9'')
STIFF CLAY	2.13M	2.44M
Qu = 1.50 TON/SQ. FT.	(7'-0'')	(8'-0'')
LOOSE SAND	2.74M	3,05M
Ø = 34°	(9'~0'')	(10'-0'')
MEDIUM SAND	2.52M	2.74M
Ø = 37.5°	(8'-3'')	(9'-0'')
DENSE SAND	2.36M	2,74M
Ø = 40°	(7'-9'')	(9'-0'')





TOP VIEW TOP VIEW

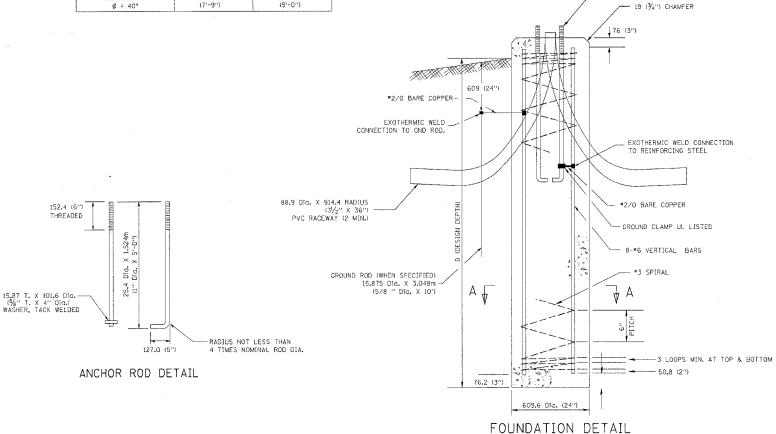
ANCHOR ROD 4-25.4 Dia. X 1.524m

(4-1" Dla, X 5'-0")



NOTES

- ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IN PLACED.
- 3. THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 1.5M (60 IN.) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- 4. THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REGULIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- 5. THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL, A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION, FOUNDATION TOP SHALL BE CHAMFERED 20MM (3/4-IN.).
- 6. THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- 7. THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- 9. ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 LIMIG MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- 10. THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 150 MM (6 INCHES) WITH A MINIMUM OF 75 MM (3 INCHES) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- 11. ANCHOR RODS SHALL PROJECT 69.9MM (2¾") ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- 12. THE CONTRACTOR SHALL USE A *3 SPIRAL AT 152.4MM (6") PITCH OR MAY SUBSTITUTE *3 TIES AT 304.8MM (12") O.C. WITH THE APPROVAL OF THE ENGINEER.
- 13. THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- 14. THE RACEWAYS SHALL PROJECT 25.4MM (1") ABOVE THE TOP OF THE FOUNDATION.



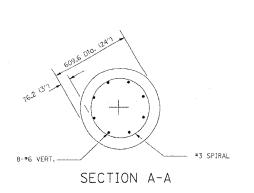
TOP OF ANCHOR ROD

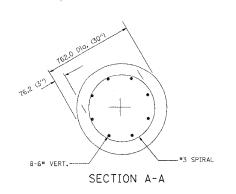
100 (4") MAX.

GROUND LINE

1500 (60")

FOUNDATION EXTENSION DETAIL





ILLINOIS DEPARTMENT OF TRANSPORTATION

REVISIONS

NAME
DATE

LIGHT POLE FOUNDATION

12.192M (40') TO 14.478M (471/2') M.H.

381 (15") BOLT CIRCLE

SCALE: NONE
DATE 10/18/2002
CHECKED BY

*DATE-TIME *DGN-SPEC*

REVISION DATE: 04/22/02

E-301

NOTES:

-DRIP GUTTER TO DIRECT WATER/DEBRIS

AWAY FROM TOWER.

SEE HANDHOLE DOOR DETAIL FOR DOOR AND LATCH INFORMATION, SHEET 3

- 1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
- 2. THE DESIGN SHALL BE BASED UPON AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" CURRENT AT THE TIME THE PROJECT IS ADVERTISED AND A TOTAL COMBINED LUMINAIRE WEIGHT OF 326 KG (720 LBS.) AND HAVING A TOTAL PROJECTED AREA OF 7.3 SQ M (24 SQ. FT.).
- 3. ALL TOWER SHAFT COMPONENTS, INCLUDING, BUT NOT LIMITED TO THE SHAFT SECTIONS, BASE PLATE, LADDER CLIPS, HANDHOLE DOOR, HANDHOLE REINFORCING, RAIN GUTTER, AND BASE PLATE, SHALL BE FABRICATED FROM HIGH-STRENGTH, LOW ALLOY, STEEL WITH A MINIMUM YIELD STRENGTH OF 345 K PA (50,000 PSD) ACCORDING TO AASHTO M 223 (ASTM A 572 GRBO)
- 4. THE ELECTRIC MOTOR, MOTOR GEAR REDUCER, WINCH DRUM ASSEMBLY AND AUTOMATIC SHUTOFF SWITCH OF THE LOWERING DEVICE SHALL BE ACCESSIBLE FROM THE FRONT OF THE TOWER FOR EASY REMOVAL AND MAINTENANCE, ALL COMPONENTS SHALL BE REMOVABLE THROUGH THE HANDHOLE.
- 5. THE LIGHT TOWER SHAFT SHALL HAVE LADDER CLIPS. CLIPS SHALL BEGIN 1.8 M (6 FT.) ABOVE THE BASE PLATE WITH ALTERNATE 900 (36 INCH) AND 250 (10 INCH) SPACING THEREAFTER, FOR THE ENTIRE LENGTH. THE TOP 3 M (10 FT.) OF THE POLE SHAFT SHALL HAVE 3 SETS OF CLIPS. EACH SET OF CLIPS SHALL BE 120 DEGREES APART. CLIPS SHALL BE 6 X 50 (0.25 X 2 INCHES) WELDED TO THE SHAFT TO PRODUCE A SLOT 15.9 (0.625 INCHES) DEEP AND 41.3 (1.625 INCHES) LONG. THE TOP INSIDE EDGE SHALL BE CHAMFERED.
- 6. A COPPER BONDING JUMPER SHALL BOND SLIP-FIT POLE SECTIONS TOGETHER WITH A FLAT COPPER MESH AND STAINLESS STEEL GROUND LUGS.
- 7. ALL TOWER SHAFT HARDWARE, SUCH AS GROUND LUGS, JUNCTION BOXES, HARDWARE FOR THE HANDHOLE DOOR, INCLUDING THE HANDLE/LATCH MECHANISM, HINGE AND DOOR STOP, SHALL BE STAINLESS STEEL. ALL CONDUIT AND CONDUIT FITTINGS SHALL BE PVC COATED GALVANIZED STEEL.
- 8. THE ENTIRE TOWER INCLUDING THE SHAFT, HANDHOLE, HANDHOLE DOOR, BASE PLATE AND ALL OTHER ELEMENTS WELDED TO THE SHAFT SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 111 (ASTM A 123) AND THEN PAINTED AS SPECIFIED. THE LUMINAIRE RING SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- THE FINISH COAT SHALL BE FEDERAL STANDARD COLOR NUMBER 16307 (HANFORD GREY). COLOR SAMPLE TO BE SUBMITTED FOR APPROVAL
- ALL MULTI-CONDUCTOR CABLES SHALL BE FITTED WITH A HEAT-SHRINK MULTI-LEC BOOT. THE BOOT SHALL MEET MILITARY SPECIFICATION MILI-181765/1.
- 11. PRIOR TO DELIVERY, THE TOWER AND ALL ITS COMPONENTS SHALL BE "INSPECTED BY THE MANUFACTURER'S REPRESENTATIVE IN THE PRESENCE OF THE ENGINEER. ANY PARTS FOUND TO BE DEFECTIVE SHALL BE REPAIRED OR REPLACED.
- 12. THE LIGHT TOWER SHALL BE STRAIGHT AND CENTERED ON ITS
 LONGITUDINAL AXIS, UNDER NO-WIND CONDITIONS, SO WHEN EXAMINED WITH A
 TRANSIT FROM ANY DIRECTION, THE DEVIATION FROM THE NORMAL SHALL NOT
 EXCEED 2 MM IN 1 M (1/8 IN. IN 3 FT) WITHIN ANY 1.5 M (5 FT)
 OF HEIGHT, WITH TOTAL DEVIATION NOT TO EXCEED 75 (3 IN.) FROM
 THE VERTICAL AXIS THROUGH THE CENTER OF THE POLE BASE.
- 13. PVC CONDUIT WILL NOT BE ALLOWED.
- 14. THE NUMBER OF COUNTER WEIGHTS TO BE SUPPLIED AS A PART OF THE LIGHT TOWER PAY ITEM IS

E-500

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE	ILLINOIS, DEI AITTMENT	OF TRANSFORTATION
		HIGH MAST L	IGHT TOWER
		27m TO 36m (90	OFT TO 120FT)
		SHEET 1	OF 3
		4	
		SCALE: VERT. NONE	DRAWN BY
		DATE	CHECKED BY

SLIP-FITTED JOINT 1.5 TIMES O.D. OF BOTTOM OF THE UPPER SECTION (TYP.) AS TAPERED STEEL SHAFT MIN. 190.5 (7.5") DIA. AT TOP MIN. 609.6 (24") DIA. AT BOTTOM LADDER CLIP (TYP.) ALL NOT ____ 254 (IO') TYP. ---- 914.4 (36") TYP. SEE DETAIL "A"

POWER CABLE WITH CORD GRIP (TYP.) TRANSITION PLATE REINFORCED HANDHOLE. ASSEMBLY WITH POSITIVE VISIBLE INDICATION THAT 305×914×229 (12"×36"×9") W/DOOR AND TIGHT COMPRESSIVE PROPER SEATING FORCE SEAL TUBULAR GASKET AS SPECIFIED. HAS BEEN APPLIED. WHOLE ASSEMBLY AND INDICATOR SHALL BE VISIBLE WITHIN LADJUSTABLE STAINLESS STEEL DRAW LATCH. HANDHOLE PROVIDE PADLOCK PROVISIONS SEE HANDHOLE DOOR DETAIL.SHEFT 3 ELECTRICAL POWER DISTRIBUTION AND LOWERING DEVICE CONTROLS IN NEMA 4 ENCLOSURE. MOTOR, CLUTCH, REDUCER, AND WINCH ASSEMBLY - HOIST CARLE WATERTIGHT SEALED BUSHING -BASE PLATE 2 STAINLESS STEEL BANDS AROUND BASE PLATE TO POWER CORD AND PLUG : HOLD SCREEN IN PLACE. STAINLESS STEEL EXPANDED SCREEN WITH MESH SIZE OF 6.4 (0.25") OR LESS. 50.8 (2") TOP OF FOUNDATION 76.2 (3") ANCHOR BOLT (QUANTITY AS REQUIRED) DETAIL- "A" 3 CABLE LOWERING & SUPPORT MECHANISM SHOWN. DRILLED HOLE 65 (2%") DIA. FOR ANCHOR BOLT (TYP.) 8 EQUALLY SPACED HOLES REQUIRED BASE PLATE I.D. --762 (30") ANCHOR BOLT CIRCLE DIA. BASE PLATE O.D.

SECTION - A-A

SUPPORT CARLES

FUTURE JUNCTION—
BOX

CCTV COMPONENT—

BOX STANDOFFS AS SPECIFIED

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SLIP-FITTED

& WELDED

SECTIONS

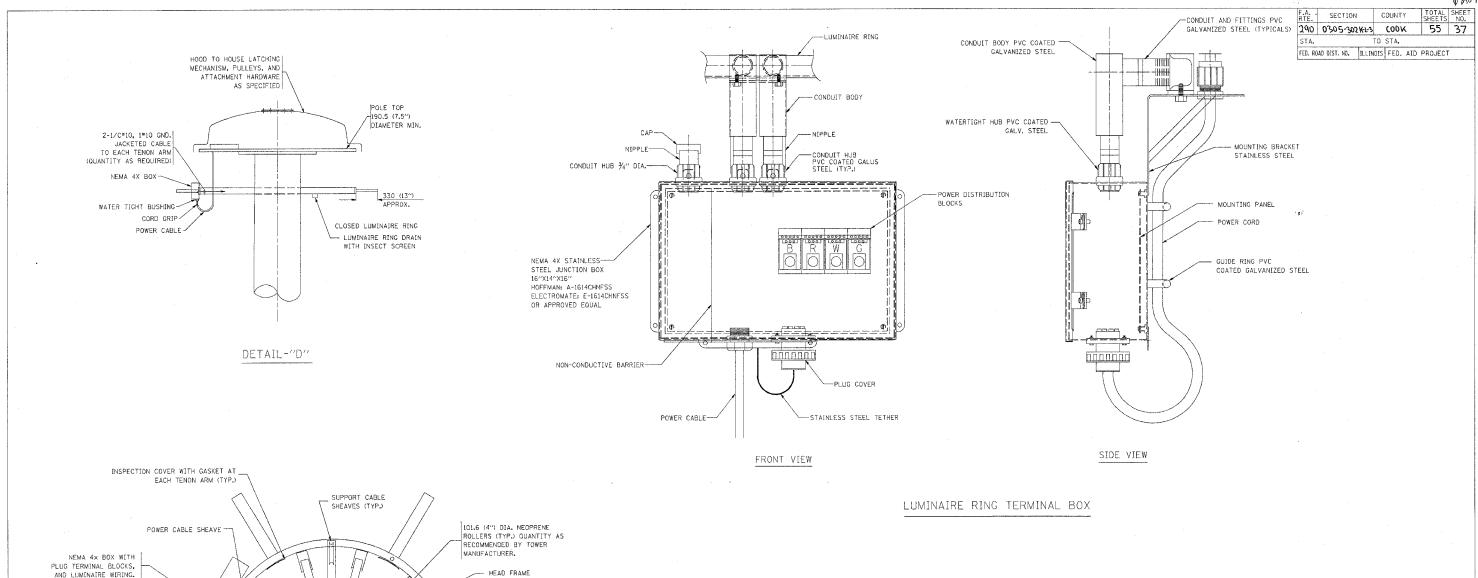
AS REOUIRE

DETAIL "D" ON

(SHEET 2 OF 3)

REVISION DATE: 08/04/03





HEAD FRAME

LUMINAIRE RING WITH FULLY ENCLOSED WIREWAY

190.5 (7,5") MIN.

SECTION A-A

"T" TYPE TENON ARM

THAN 6 FIXTURES

(DIMENSION AS

REQUIRED).

NOTES:

- 1. LUMINAIRE WIRES SHALL EXTEND 609 MM (24 INCHES) LONGER THAN THEIR RESPECTIVE TENON ARM AND SHALL BE TRAINED BACK INTO THE ARM WHICH SHALL THEN BE CLOSED WITH A CAP AS SPECIFIED ALL WIRES SHALL BE CAPPED WITH HEAT SHRINK INSULATING BOOTS, CRIMP CAPS ARE UNACCEPTABLE.
 ALL RING WIRES SHALL BE TAGGED WITH WIRE MARKERS AT BOTH ENDS THE TENON ARMS SHALL ALSO BE TAGGED CORRESPONDING TO THE WIRING CONTAINED WITHIN.
- 2. SPLICING WILL NOT BE ALLOWED WITHIN THE LUMINAIRE RING.
- 3. ALL TOWER SHAFT HARDWARE, SUCH AS GROUND LUGS, JUNCTION BOXES, HARDWARE FOR THE HANDHOLE DOOR, INCLUDING THE HANDLE/LATCH MECHANISM, HINGE AND DOOR STOP, SHALL BE STAINLESS STEEL. ALL CONDUIT AND CONDUIT FITTINGS SHALL BE PVC COATED GALVANIZED STEEL.
- 4. ALL MULTI-CONDUCTOR CABLES SHALL BE FITTED WITH A HEAT-SHRINK MULTI-LEG BOOT. THE BOOT SHALL MEET MILITARY SPECIFICATION MIL-1-81765/1.

E-500

REVISIONS NAME DATE	ILLINOIS DEPARTMEN	T OF TRANSPORTATION
	27m TO 36m (LIGHT TOWER 90FT TO 120FT) 2 OF 3
-	SCALE: VERT. NONE HORIZ. NONE DATE	DRAWN BY CHECKED BY

05/12/2004 K:\diststd\be500.dgn VI=BE500

COUNTER WEIGHTS -AS REQUIRED

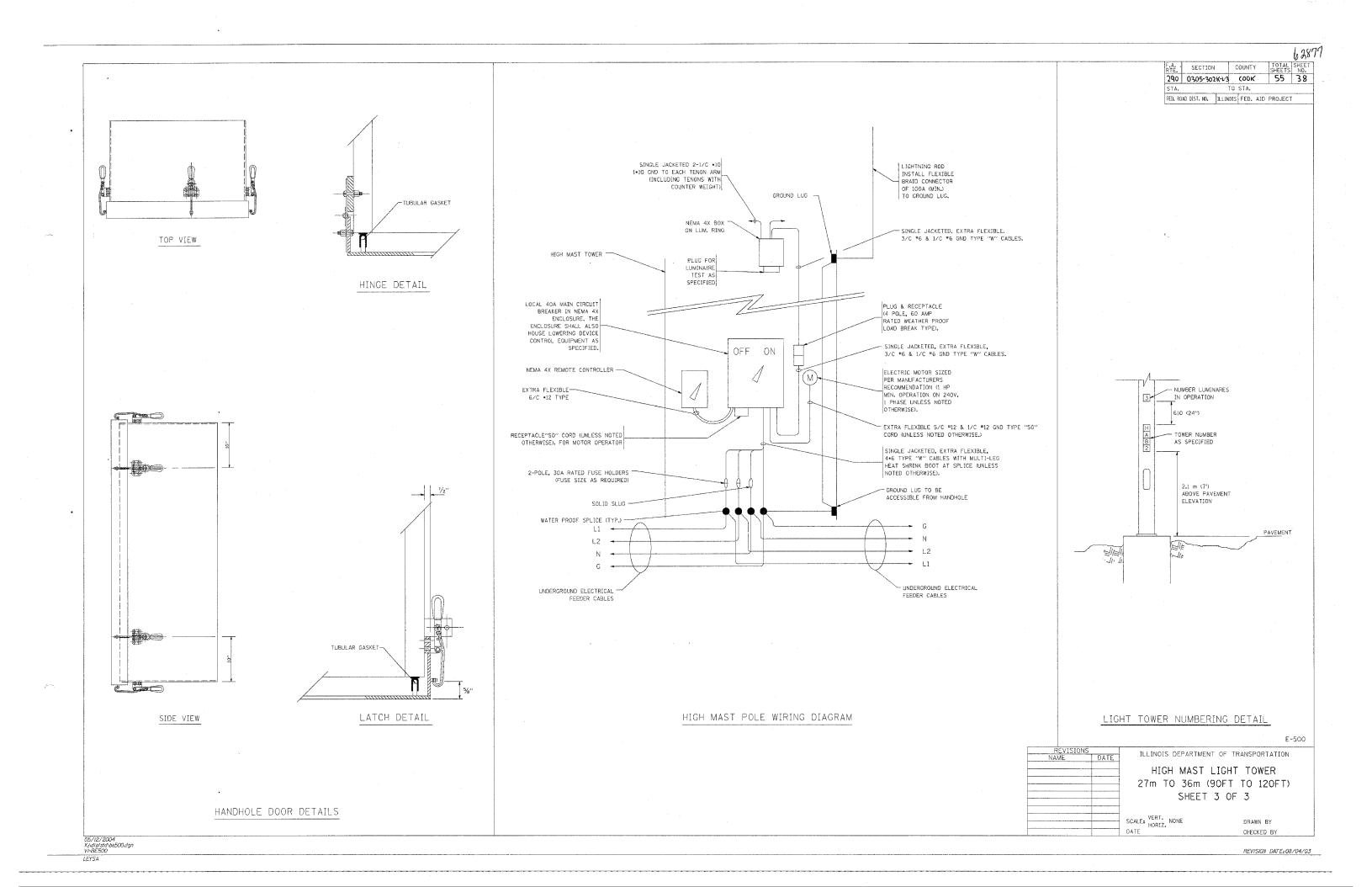
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LUMINAIRE ARM TYP. 50.8 (2") SCH.40 PIPE

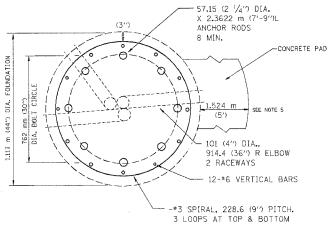
REVISION DATE: 08/04/03



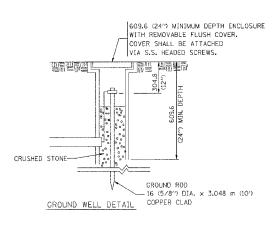
F. A. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO	
290	0305-302K-L-	3	COOK	55	39	

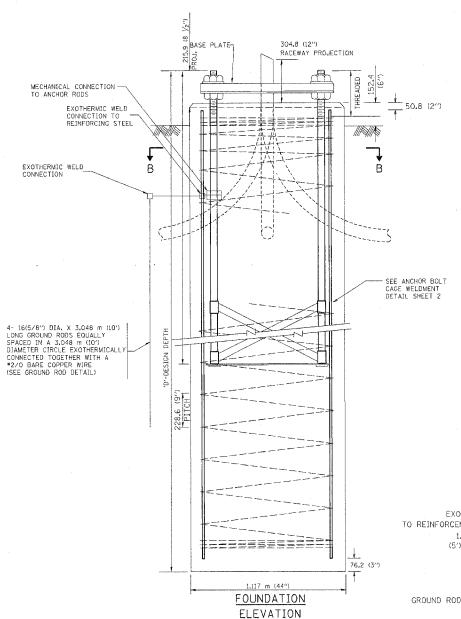
LIGHT TOWER FOUNDATION DEPTH "D"

		. S	OIL CONDITIONS			
MOUNTING HEIGHT	SOFT CLAY Qu = 0.375 TON/SQ. FT	MEDIUM CLAY Qu = 0.75 TON/SQ. FT	STIFF CLAY Qu = 1.50 TON/SQ. FT	LOOSE SAND Ø = 34°	MEDIUM SAND Ø = 37.5°	DENSE SAND Ø = 40°
27m	8.779m	6.035m	4.389m	4.389m	3.840m	3.429m
(90 ft)	(29 ft)	(20 ft)	(15 ft)	(15 ft)	(13 f+)	(12 ft)
30m	9.754m	6.706m	4.877m	4,877m	4.267m	3.81m
(100 ft)	(32 ft)	(22 ft)	(16 ft)	(16 ft)	(14 f+)	(13 ft)
33m	10.719m	7.377m	5.365m	5.365m	4.694m	4.191m
(110 f+)	(35 ft)	(24 ft)	(18 f†)	(18 ft)	(15 f+)	(14 ft)
36m	11.705m	8.046m	5.652m	5.652m	5.120m	4.572m
(120 ft)	(38 ft)	(26 ft)	(19 ft)	(19 ft)	(17 ft)	(16 ft)



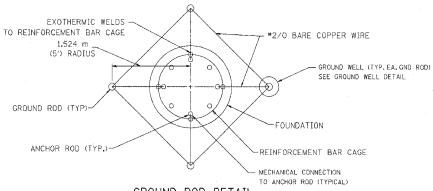
SECTION-B-B





DESIGN NOTES

- (1) ALL DIMENSIONS IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN
- (2) THE HOLE FOR THE FOUNDATION SHALL BE ACCORDING
- (3) THE ANCHOR RODS SHALL BE VERTICAL NO ADJUSTMENT SHALL BE ALLOWED AFTER THE FOUNDATION IS PLACED.
- (4) THE GAP BETWEEN THE FOUNDATION AND THE BASE PLATE SHALL BE ENCLOSED WITH A STAINLESS STEEL SCREEN FASTENED WITH A STAINLESS STEEL BAND.
- (5) THE TOP OF THE FOUNDATION TO 450 (18") BELOW GRADE SHALL BE FORMED.
- (6) A CONCRETE WORK PAD SHALL BE PROVIDED AS INDICATED IN THE PLANS AS A PART OF THIS ITEM.
- (7) SURFACE WATER WILL NOT BE PERMITTED TO ENTER THE HOLE AND ALL WATER WHICH MAY HAVE INFILTRATED INTO THE HOLE SHALL BE REMOVED BEFORE PLACING CONCRETE.
- (8) THE LIGHT TOWER SHALL NOT BE ERECTED UNTIL AFTER THE CONCRETE HAS BEEN CURED ACCORDING TO ARTICLE 1020.13.
- (9) ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING TO AASHTO M 314 OR ASTM F1554, GRADE 725(GRADE LO5) AND GALVANIZED ACCORDING TO ARTICLE 1006.9.
- (IO) ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED FOR APPROVAL WITH TOWER MANUFACTURER REQUIREMENTS.
- (II) REINFORCEMENT BARS SHALL BE ACCORDING TO ARTICLE 1006.10
- (I2) TWO ANCHOR RODS OPPOSITE EACH OTHER SHALL HAVE THE ANCHOR ROD THREADS PEENED AFTER NUTS ARE INSTALLED.



GROUND ROD DETAIL

BE501

ILLINOIS DEPARTMENT OF TRANSPORTATION HIGH MAST LIGHT TOWER 27m TO 36m (90FT TO 120FT FOUNDATION DETAIL SHEET 1 OF 2 SCALE: NONE

DATE 10/18/2002

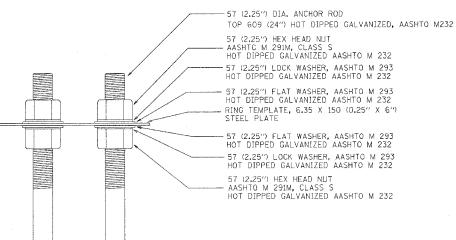
DRAWN BY

REVISION DATE: 04/22/02

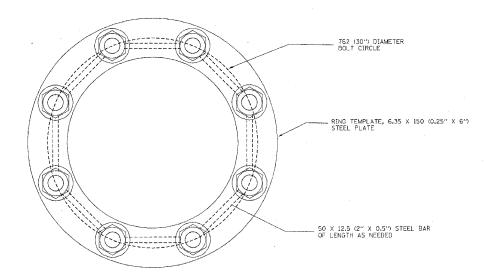


NOTES

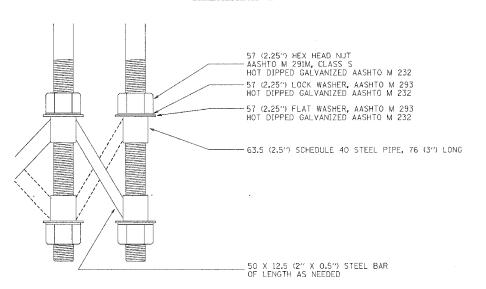
- 1. ALL DIMENSIONS IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN
- 2. ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING TO AASHTO M 314 OR ASTM F1554, GRADE 725 (GRADE 105) AND GALVANIZED ACCORDING TO ARTICLE 1006.09.
- 3. ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED WITH TOWER MANUFACTURERS REQUIREMENTS.







SECTION A-A



BOLT CAGE BOTTOM

SEE BOLT CAGE BOTTOM DETAIL

ANCHOR BOLT CAGE

REVISIONS
NAME DATE

THIGH MAST LIGHT TOWER
27m TO 36m (90FT TO 120FT)
FOUNDATION DETAIL
SHEET 2 OF 2

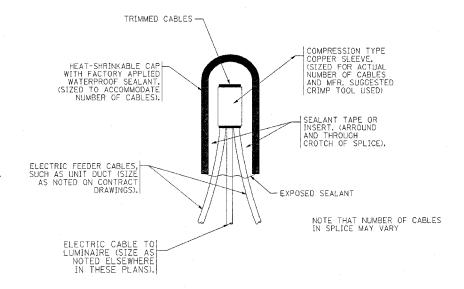
SCALE: NONE DRAWN BY
DATE 10/18/2002 CHECKED BY
BEOB (95501)

DATE-TIME *DGN-SPEC*

REVISION DATE: 04/22/02

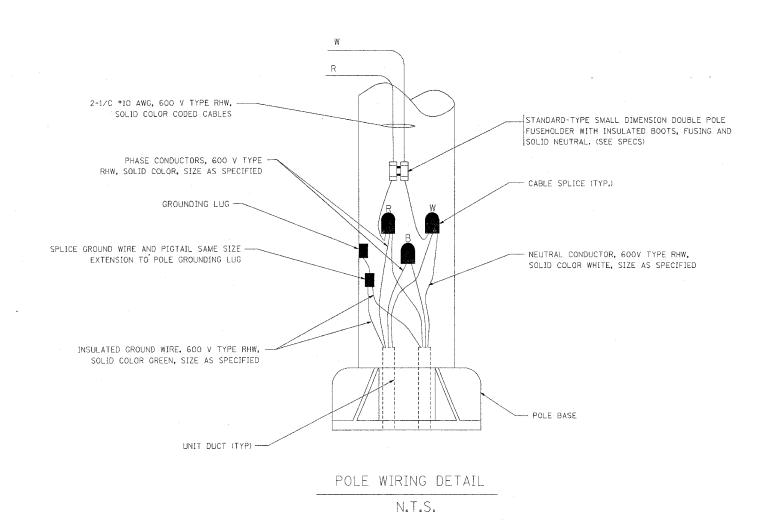
BE501

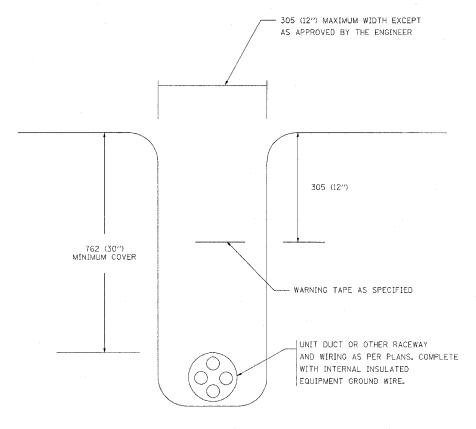




TYPICAL SPLICE DETAIL

N.T.S.



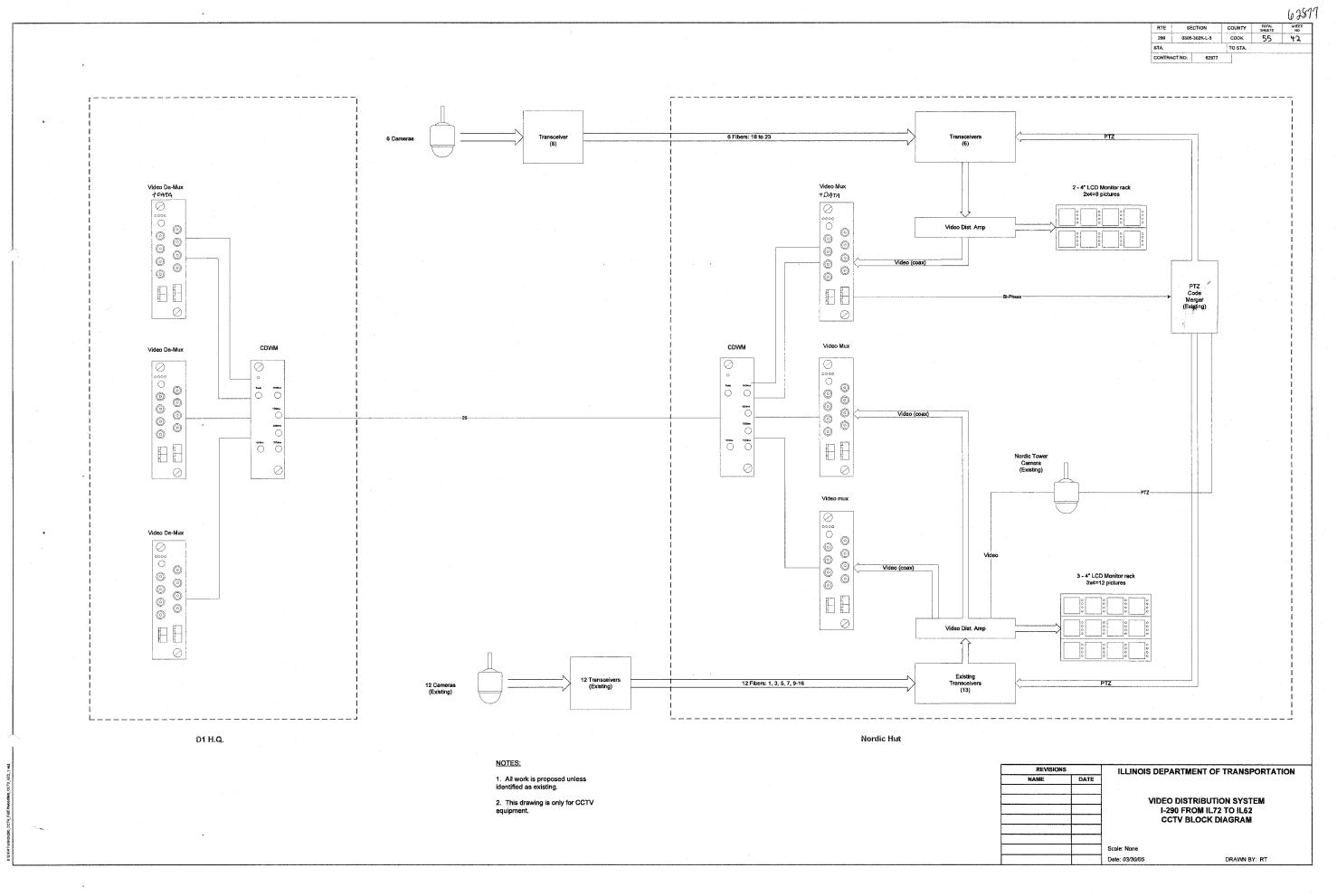


TYPICAL WIRING IN TRENCH DETAIL N.T.S.

> REVISIONS ILLINOIS DEPARTMENT OF TRANSPORTATION MISC. ELECTRICAL DETAILS SHEET A SCALE: NONE DRAWN BY DATE 05/19/2003 CHECKED BY BE-702

05/19/2003 Kı\diststd\be702.dgn

REVISION DATE:



RTE	SECTIO	N	COUNTY	TOTAL SHEETS	SHEET
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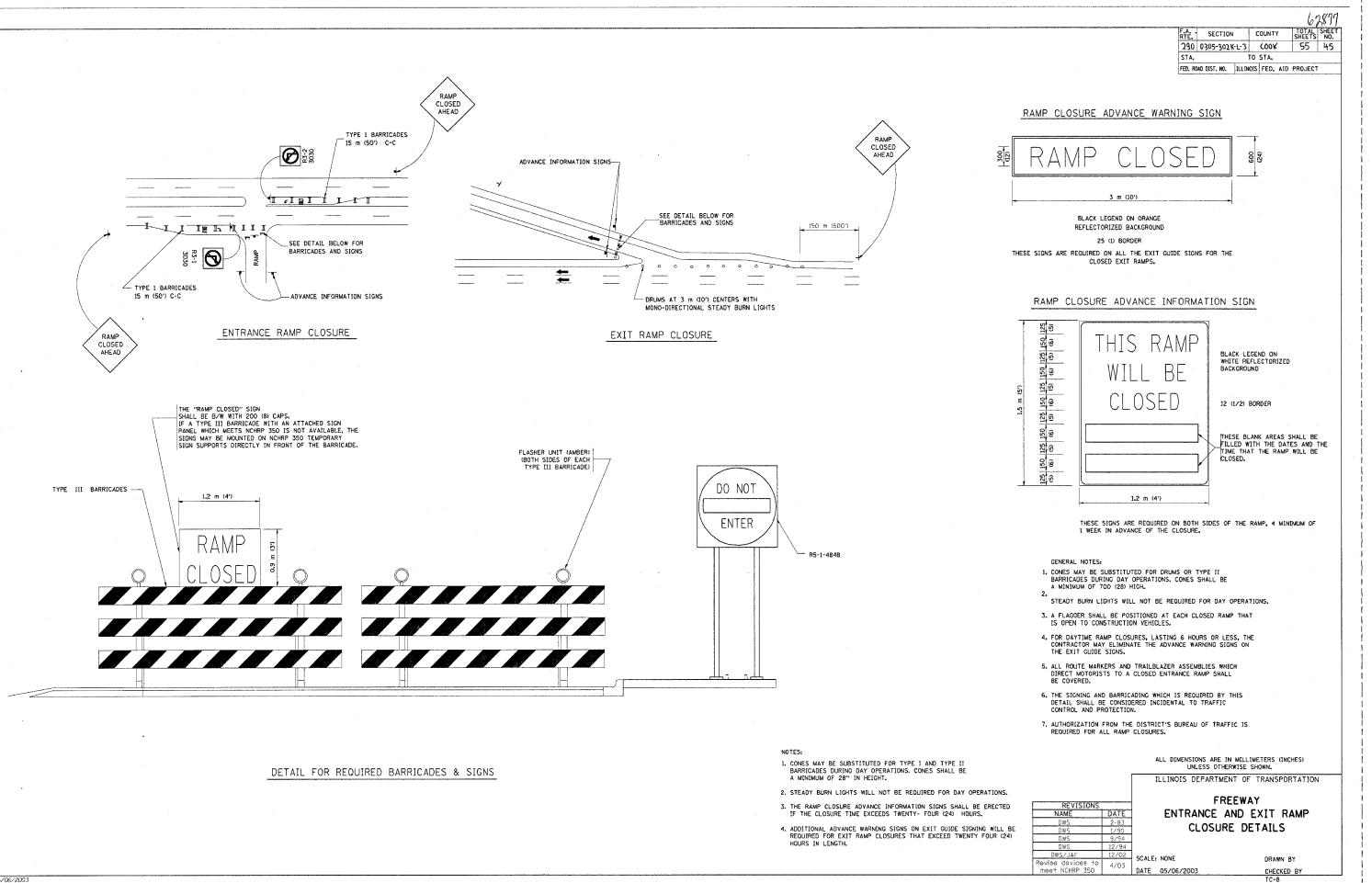
THE DEPICTED EQUIPMENT ELEVATION LAYOUT MAY VARY FROM THE ACTUAL INSTALLED CONFIGURATION, BUT GENERALLY DEPICTS THE LOCATIONS OF THE INSTALLED EQUIPMENT

REVISION	is	ILLINOIS DEPART	TMENT OF TRANSPORTATION
NAME	DATE		
		1-290	ISTRIBUTION SYSTEM FROM IL72 TO IL62 DIC EQUIPMENT ELEVATION
		Scale: None	
		Date: 03/30/05	DRAWN BY: RT

RTE	SEC	TION	COUNTY	TOTAL SHEETS	SHEET NO
290	0305-3	02K-L-3	COOK	55	i գ i գ
STA.			TO STA.		
CONTRA	T NO:	62977		***************************************	

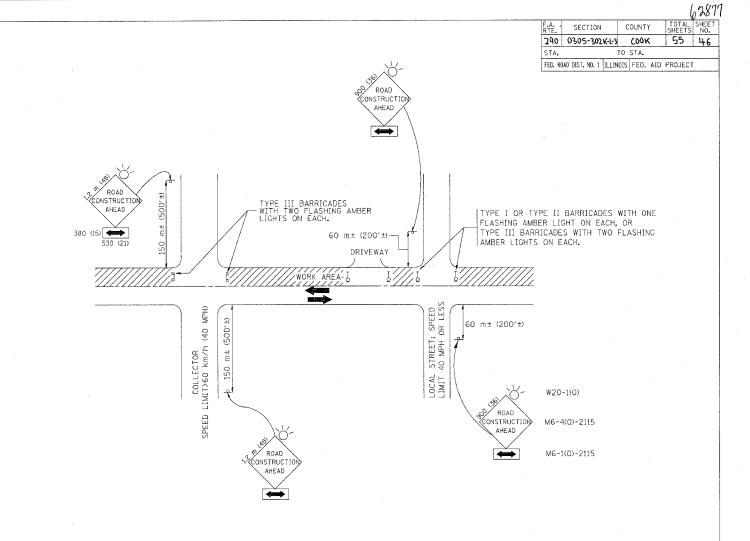
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MegaStar	MegaStar				UPS BATTERIES
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REVISIO	48	ILLINOIS DEPART	TMENT OF TRANSPORTATION
NAME	DATE		
			STRIBUTION SYSTEM
			FROM 1L72 TO 1L62 RDIC EQUIPMENT ELEVATION
		Scale: None	
		Date: 03/30/05	DRAWN BY: RT



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REVISION DATE: 04/03/03



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

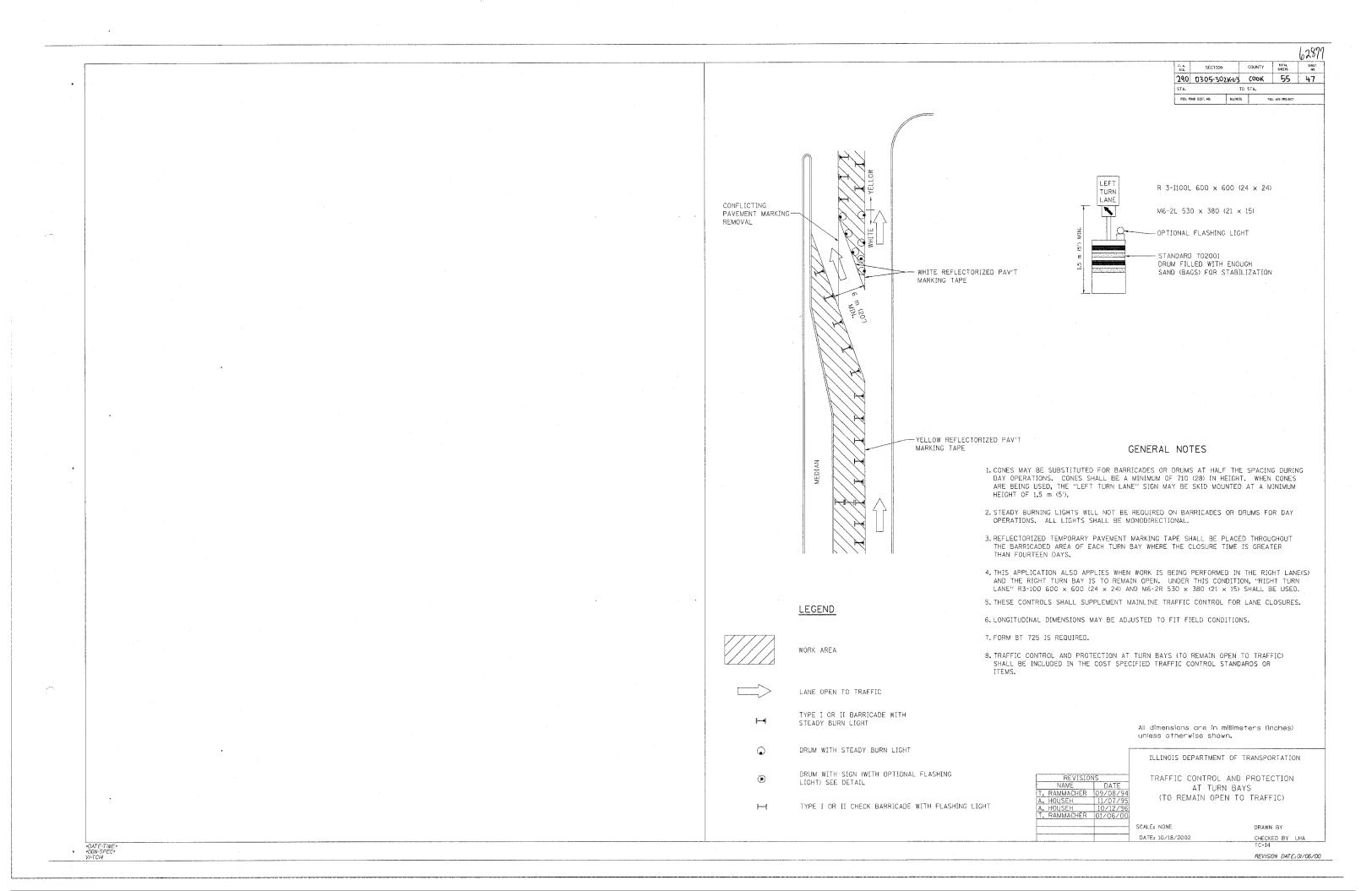
- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 1. SIDE ROAD WITH A SPEED LIMIT OF 60 km/h (40 MPH) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- O) ONE ROAD CONSTRUCTION AHEAD SIGN 900x900 (36x36) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 60 m (200') IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 60 km/h (40 MPH) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- d) ONE ROAD CONSTRUCTION AHEAD SIGN 1.2 m \times 1.2 m (48 \times 48) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 150 m (500') IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-4).

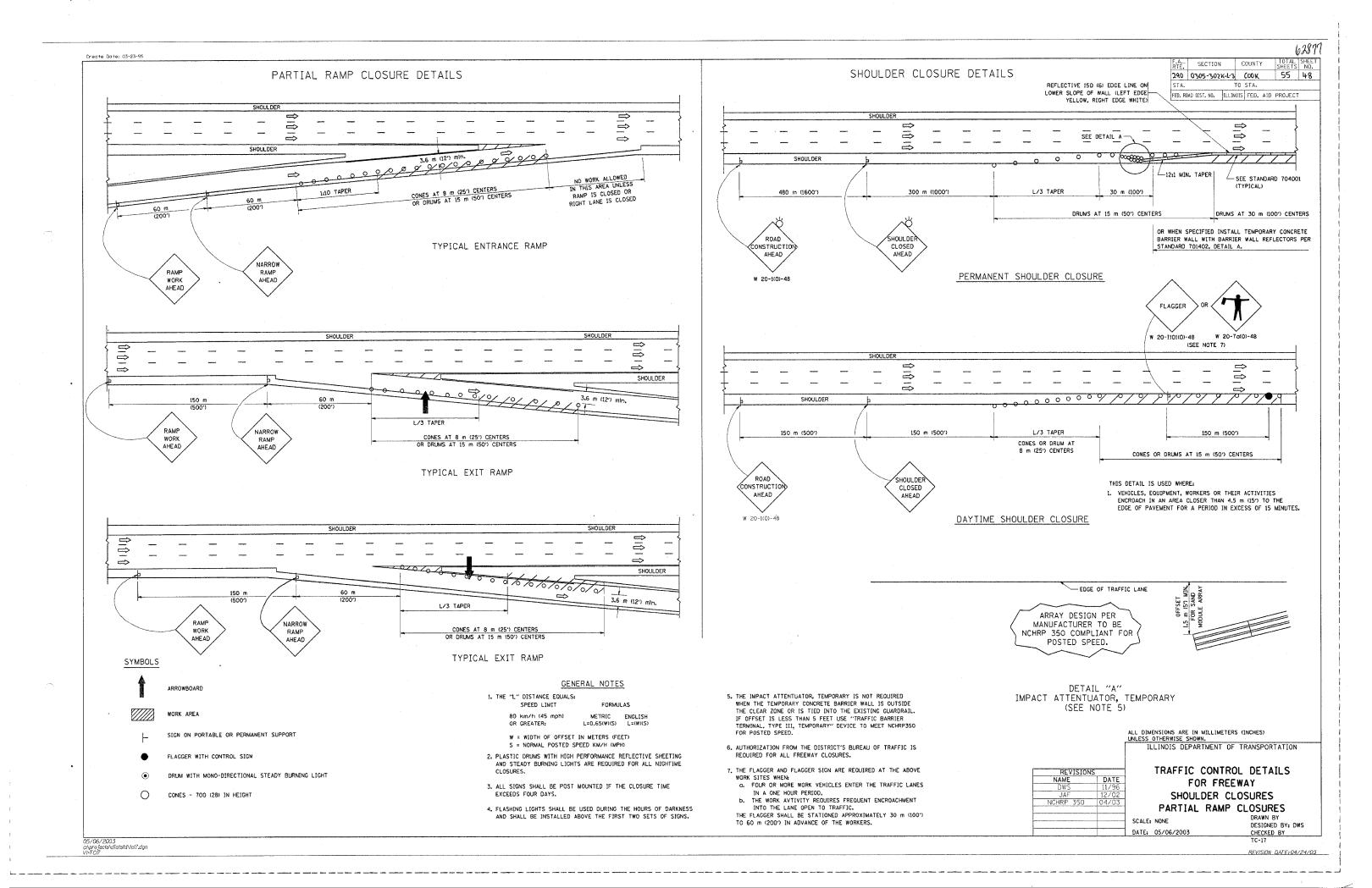
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ISTD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LAME CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

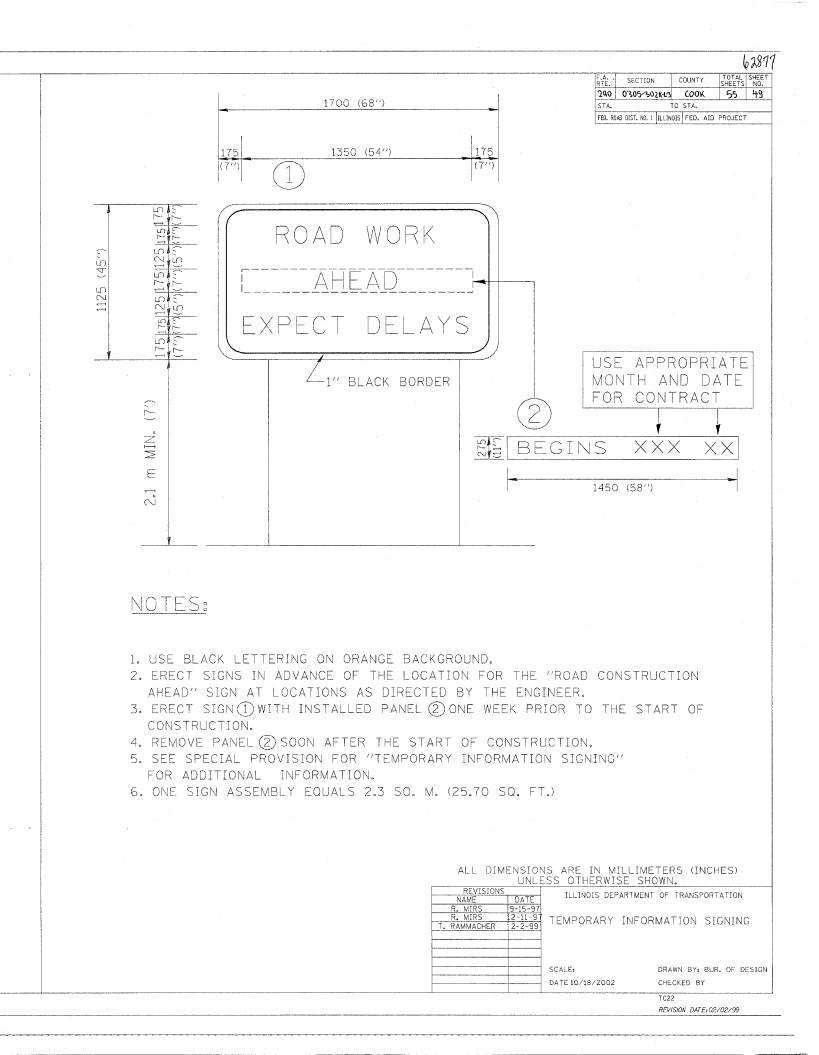
REVISIO		THINOIS DEPARTA	MENT OF TRANSPORTATION
NAME	DATE	ILLINOID DEFINITION	
LHA	6/89	TRAFFIC CONTR	ROL AND PROTECTION
T. RAMMACHER	09/08/94	THAIT IC CONTI	TOP AND LITOTECTION
J. OBERLE	10/18/95		FOR
A. HOUSEH	03/06/96	CIDE DOADS	INTERCEOTIONS AND
A. HOUSEH	10/15/96	SIDE ROADS,	INTERSECTIONS, AND
T. RAMMACHER	01/06/00	DI	RIVEWAYS
		וט	MINEMAID
***************************************		SCALE: VERT. HORIZ.	DRAWN BY
		DATE 10/18/2002	CHECKED BY
			TC-10

L Friday October 18,2002 @ 10:20:23 AM c:\projects\diststd\to10.dgn LV=35,63 4USER*

REVISION DATE: 01/06/00







Friday October 18, 2002 @ 10:25:17 AM c:\projects\diststd\tc22.dgn LV=35,63 .

BORING B-2

CONTRACT NO. 62877

Geo Bervices Inc. Geotechnical, Environmental & Chil Enginee So Sandard Churt, Asing 204 Namerilla, Illand 19955 (1995) 1995						ING LOG	DAT LOG GSI	E 1 E Febru GED BY JOB No.	RH	, 2005 602-A		
ROUTE FAI 290/IL-53	DES	SCRIP?	rion	High-	Mast	Light Pole Foundations IL 5	3/FAI 290, Higg	ins to Al	gonqui	n		
SECTION 0305-302K-L-3	LOC	CATIO	N N	W &	SW	CORNERS, SEC. 18 & 7, TW	P. 41N, RNG. 1	IE, 3rd P	M			
COUNTY Cook	DRI	LLING	ME	THOD	3.25	' Hollow Stem Auger	HAMMER TY	7PE <u>D</u> -5	0 Auto	matic		
STRUCT. NO. <u>n/a</u> Station <u>n/a</u> BORING NO. <u>B-1</u> Northing <u>1956618.5</u> Easting <u>1066266.7</u> Ground Surface Elev.		D E P T H	B L O W S	U C S Qu (tsf)	M O I S T	Surface Water Elev. Stream Bed Elev. Groundwater Elevation: First Encounter Upon Completion After Hrs.	n/a n/a 714.6 722.6	✓ ✓ V	D E P T H	B L O W S	U C S Qu (tsf)	M O I S T
TOPSOIL-black (A-7) Fill	731.6	_										
CLAY-brown, gray & black- stiff to very stiff (A-6) Fill, Wet	1010		3 7	2.5B	24	CLAY-gray-				6 7	2.7B	17
·	727.1	5	3 4 5	1.0B	25	stiff to very stiff (A-6)			-25	6 10	2.7B	20
TOPSOIL-black (A-7)	724.6	-	3 6 9	4.9B	23					3 6 9	3.4B	20
CLAY-brown & gray- stiff to hard (A-6)	. ▽		3 5 7	4.2B	18				-30	3 6 10	2.5B	20
			2 5 8	3.5B	19							
	717.1	-15	6 12	1.75P	13	End of Boring @ -35.0'		697.6	-35	7 12	2.0B	20
CLAY-gray- stiff to very stiff (A-6)	∇	3044 Anna Anna Anna Anna Anna Anna Anna An	4 5 7	1.75B	14	Boring Backfilled Upon Co Hollow Stem Augers D-50 ATV	mplition					
		20	6	1.75B	17				-40	1		

BORING B-1

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Sholly Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NB-No Recovery

Geotechnical, Environmental & Civil Engineering 805 January Curr, Acting 2018 Napoville, Illihois 19965	SO	ΙL	В	OR	ING LOG	PAGE 1 DATE Febr LOGGED BY GSI JOB No	uary 0'	7, 200	5	
ROUTE FAI 290/IL-53	DESCRIP	TION	High-	-Mast	Light Pole Foundations IL 53/FAI 2	90, Higgins to A	lgonqui	n		
SECTION _ 0805-302K-L-3	LOCATIO	N N	w &	sw	CORNERS, SEC. 18 & 7, TWP. 41N	RNG. 11E, 3rd I	PM			
	-					MER TYPE CM		utom	atic	
STRUCT. NO. n/a		T	Ι	T	Surface Water Elev. n/a		T	T		Ī
Station n/a	_ D	B	U	M	Stream Bed Elev. n/a		D E	B	U	N
BORING NO. B-2	P	o	C S	I	Groundwater Elevation:		P	0	C S	1
Northing 1957592.6	- T	W		S	First Encounter 729.9	∇	T	W		8
Easting 1066551.7	_ Н	S	Qu	T	Upon Completion Dry		H	S	Qu	r
Ground Surface Elev. 738.4	(ft)	(⁄6")	(tsf)	(%)	After Hrs.	v	(ft)	(⁄6")	(tsf)	(%
							_			
CRUSHED ASPHALT & STONE- very loose (Fill)		12						4		
very loose (rm)	_	15			CIAV brown & may			7		\vdash
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CLAY-brown & gray-	_	3						11		
very stiff to hard (A-6) Fill	5	5	2.2B	18			25	15	2.5B	17
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	****				End of Boring @ -35.0'					
	***************************************	-			Boring Grouted Upon Completion		Photo Williams			
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-20 | 7 | 3.5B | 18

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penestrometer) ST-Shelby Tube Sample VS=Vane Shear Test.
The SPT (N value) is the sum of the last two blow values in each sempling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%) NR-No Recovery

REVISIONS NAME	DATE	ILLINOIS DEPA	ARTMENT OF TRANSPORTATION
 TYME		IL 62 TO II	OFAP 342 (I-290/IL 53) (ALGONQUIN ROAD) 172 (HIGGINS ROAD) BORING LOG I
		SCALE: VERT. HORIZ. DATE	DRAWN BY CHECKED BY

E NAME : CYPTOS DE STATE DE ST

BORING B-3

							PAGE 1	of	_1	
Geo Services, Inc.	_			_	<u> </u>	T 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	DATE Febru	ary 10, 20)05	
Geo Services, nc. Geotechnical Kuvikamental A Civil Engineering 805 Amilest Court, Butty 204 Naperville, Illingia 165665	5	3O1	LL	B	OF	RING LOG	LOGGED BY	RH		
(830)-855 P838							GSI JOB No.	0502	-A:	
ROUTE FAI 290/IL-53	DE:	SCRIP'	TION	High-	-Mast	Light Pole Foundations IL 53	FAI 290, Higgins to Ala	onquin		
SECTION 0305-302K-L-3	LO	CATIO	N N	w &	sw	CORNERS, SEC. 18 & 7, TWF	. 41N, RNG. 11E, 3rd Pl	M		
COUNTY Cook	DR	ILLING	3 МЕ	THOD	3.25	" Hollow Stem Auger	HAMMER TYPE CME	1-55 Auto	matic	
STRUCT. NO. n/a		D	В	U	м	Surface Water Elev.	n/a	D I	в и	IM.
Station n/a		E	L	C	0	Stream Bed Elev.	n∕a	E	L C	0
boring no. $B-3$		P	OW	S	I	Groundwater Elevation:			o s W	S
Northing 1958855.3		H	S	Qu	T	_	Dry 💟		S Qu	T
Easting 1066475.6		(ft)	(22)	(tof)	(06)		Dry 💟	(fb) (m)	n (toda	(0)
	737.0	(16)	(46")	(tsf)	(%)	After Hrs	716.5	(ft) (6"	') (tsf)	(%
TOPSOIL-black (A-7) Fill	736.0					eontinued	710,0			
			1			CLAY LOAM-brown & gray	y		8	_
			1			hard (A-6)			5	
			2	1.6B	17		714.0		6 5.0P	23
		-	2			CLAY-brown & gray-			2	-
		-5	4 6	3.5P	13	stiff (A-6)			5 7 1.9B	15
CLAY-brown & gray-	•		-	3,31	10		711.5	-20	1 1.9D	10
stiff to hard (A-6) Fill										
		_	2						3	1
			3	1,4B	17				6 8 2.1B	17
			1-1	1,40	11				8 2.1B	11
		waste				OT AT				
			4	ļ	-	CLAY-gray- stiff to very stiff (A-6)			3	1
		-10	8	1.9B	17				7 1 OD	1.0
			1	rap	1,			-30 1	0 1.8B	16
•			7							
			11 13	0.017	10					
			10	8.3B	13					-
		www.	3		ļ				2	+-
		-15	8 10	3.0B	15		702.0		5 0 2.3B	17
			10	J.VD	10	Fnd of Powing @ 95 C'		_55 I	2.31	11
						End of Boring @ -35.0' Boring Grouted Upon Comp	letion			
		_	3	ļ	-	Hollow Stem Augers CME-55		_	-	+
			8	4.6B	16					
				4.03	10	4			_	T
			2	-	-					+
		_20	. 8	5.00	14			-40		

-20 | 9 | 5.0P | 14 |

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shehy Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO 7206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR-No Recovery

BORING B-4

CONTRACT NO.

F.A.I.	SECTION	COUNTY	TOTAL	SHEET	NO.
290	0305-302K-L-3	COOK	55	51	
STA. 24+85	TO STA.121.25				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID	PROJECT		

CONTRACT NO. 62877

							PAGE 1		of _	1	
Geo Services, Inc.	^		· -	ъ.	<u> </u>	TATO TOO	DATE _Februa	ary 21	, 2005	5	
Geotechnical, Snyingmehtal & Civil Engineering 805 Amhigus Court, Series 204 Naperville, Illiquis 50,865	2	\mathbf{OI}	L.	B	ЭK	ING LOG	LOGGED BY	RH			
(830) 855 2838							GSI JOB No.	05	02–A		
ROUTE FAI 290/IL-53	DES	SCRIP'	IION	High-	Mast	Light Pole Foundations IL 53/F/	AI 290, Higgins to Alg	onquir	n		
SECTION 0305-302K-L-3						CORNERS, SEC. 18 & 7, TWP. 4					
COUNTY Cook	DRI	LLIN	· ME	THOD	3.25		AMMER TYPE CME	55 A	utom	atic	
STRUCT. NO. n/a		D	В	U	М	Surface Water Elev. na Stream Bed Elev. na		D	В	U	M
Station n/a		E	L	C S	0 I		1	E P	L	C S	0
BORING NO. B-4	_	T	w	3	s	Groundwater Elevation:		T	w	3	S
Northing 1959736.2 Easting 1066826.5		H	S	Qu	Т		8.3	н	S	Qu	Т
Easting 1066826.5 Ground Surface Elev. 733.	3	(ft)	(6")	(tsf)	(%)	After Hrs.	8.3 \(\nabla \)	(ft)	(6°)	(tsf)	(%)
		L				continued	712.8	L	ļ		
CRUSHED ASPHALT & STONE-											
loose (Fill)			1						3		
			3			CLAY-gray-very stiff A-6)			6		
	730.8		5	NP	7				8	3.7B	16
							709.8				
		_	1						2		
CLAY-brown & gray-			4					***************************************	5		_
stiff to hard (A-6) Fill		-5	5	1.25B	17		∇	-25	7	NP	17
		-									
						SILTY SAND & GRAVEL-gr	·				
		-	7			loose to medium dense (A-2-			5		-
		***************************************	8	6.4B	14				3	NP	14

			3						2		ļ
		-10	7	1.00	10		~~	-30	3	3770	10
		10	<i>'</i>	1,4B	18	,	~	-30	3	NP	18
]								
			5								
			7								
	720.3		11	2.1B	20						-
			4				699.3		3		
			11			SILT-gray-medium dense (A-			9		
CLAY-brown & gray- very stiff to hard (A-6)		-15	12	5.1B	17		698.3	-35	10	NP	21
•						End of Boring @ -35.0'		_	-		
		***************************************	3			Boring Grouted Upon Completed Hollow Stem Augers	tion				
		_	5			CME-55				†	1
			7	4.4B	17						
			-								
			3	 	-				-	-	+-
		-20	12	3.4B	17			-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Stear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling sone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italies above moist (%)
NR-No Recovery

REVISION		TILINOIS DEPARTM	ENT OF TRANSPORTATION
NAME	DATE	ILLINOIS DEI ARTIN	ENT OF TRANSPORTATION
		IL 62 (AL TO IL 72	P 342 (I–290/L 53) GONQUIN ROAD) (HIGGINS ROAD) (ING LOG II
		SCALE: VERT. HORIZ.	DRAWN BY CHECKED BY

E NAME = 01/projecta/electrical/2004/153.m32 7 SCALE = 56,0000 / IN. R NAME = 1upsay

BORING B-6

		RTE. SECT			SHEETS
		290 0305-30	D2K-L-3	COOK	55
		STA. 24+85	T0	STA.121+	+25
DIXIC	\mathbf{D}	FED. ROAD DIST. NO). ILLINOIS	FED. AI	D PROJECT
KING	B-6	CO	NTRAC	T NO	62877

f						· · · · · · · · · · · · · · · · · · ·					
							PAGE 1		of	<u> </u>	
Geo Bervices Inc.	c	יחי	т	D4	T	INC TOO	DATE Febru	1ary 23,	2005		
Geotechnical, Environmental & Civil Engineering 805 Amharst Court, Seiter 204 Naperville, Illinois 60365	2	O	إسلاا	R	JK	ING LOG	LOGGED BY	RH			
8307-852-883							GSI JOB No.	050)2-A		
ROUTE FAI 290/IL-53	_ DES	SCRIP'	TION	High-	Mast	Light Pole Foundations IL	53/FAI 290, Higgins to Al	gonquin			
SECTION <u>0305-302K-L-3</u>	_ LOC	CATIO	N _N	W &	sw	CORNERS, SEC. 18 & 7, T	WP. 41N, RNG. 11E, 3rd F	M			
COUNTY Cook	_ DRI	ILLING	3 ме	тнор	3.25	' Hollow Stem Auger	HAMMER TYPE D-5	0 Auton	natic		
STRUCT. NO. n/a						Surface Water Elev.	_n/a		_		
Station n/a	_	D E	B	C	M O	Stream Bed Elev.	n⁄a	DE	B L	U C	M O
BORING NO. B-5	***	P	0	s	I	Groundwater Elevation:		P	0	s	1
Northing 1960896.5	_	T H	W	Qu	S	First Encounter	Dry 💛	T H	ws	Qu	S T
Easting 1066652.0	_					Upon Completion	Dry 😽				
Ground Surface Elev. 721.4		(ft)	(6")	(tsf)	(%)	After Hrs.	V	(ft) ((6")	(tsf)	(%)
TOPSOIL-dark brown & black (A-7) Fill	20.4		-					-			
	20.4		3					-	4		
CLAY-brown & gray spotted black-			4			CLAY-gray-			5		
very stiff (A-6) Fill			5	2.7B	13	stiff to hard (A-6)			7	1.8B	24
	17.9		-								
	17.9		2					-			
CLAY-dark brown, gray & black-			2		-				3		
soft (A-6) Fill, Wet Fuel odor noted.		-5	8	0.4B	29			-25	5	1.0B	14
					1						
7	15.4		-								
TOPSOIL-black (A-7)		*****	4					-	4		
			7	l _	33			\dashv	8	2.7B	17
										_=	
7	12.9			1				_			
			2						5		
CLAY-brown & gray-			4					-	8		
stiff to very stiff (A-6)		-10	6	1.25B	21			-30	13	1.0P	20
			1					\neg			
			2								
		-	5								
		****	7	3.0B	21			-			
7	07.9		1								
			2					-	2		
			5						4	1.25B	
CLAY-gray- stiff to hard (A-6)		-15	9	4.25B	18		686.4	-35	50⁄3"		27
		_	-			End of Boring @ -35.0'					
			1			Boring Backfilled Upon (Hollow Stem Augers	Completion				
		_	6			D-50 ATV					
			11	3.7B	16	-					
			-								
			1	-	-						
		-20	4	1 00	20			_40			

BORING B-5

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (8-Bulge, S-Shear, P-Penetrometer) ST-Shelhy Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

							PAGE 1		of	1	
Geo Services, Inc.	_	101	-	T) (`T	TNIC TOC	DATE Febru	ary 07	, 2008	5	
Geo Services Inc. Geotechnical Environmental & Civil Engineering 805 Amherst Court, Jenny 204 Noperville, Illingie 50965 Application of the Court of	2	5O1	L.	B	JK	ING LOG	LOGGED BY	RH			
830) 955 2838							GSI JOB No.	05	02-A		
ROUTE FAI 290/IL-53	DE	SCRIP	ION	High-	Mast :	Light Pole Foundations IL 53/FAI	290, Higgins to Al	gonquii	n		
SECTION 0305-302K-L-3	LO	CATIO	N_N	w &	sw (CORNERS, SEC. 18 & 7, TWP. 41N	I, RNG. 11E, 3rd P	M			
COUNTY Cook	DR	ILLING	. ME	THOD	3.25"	Hollow Stem Auger HAM	MER TYPE CM	E-55 A	utom	atic	
STRUCT. NO. n/a			Γ			Surface Water Elev. n/a					
Station n/a		D E	B	U	M			D	B	C	M O
BORING NO. B-6		P	O W	S	I S	Groundwater Elevation:		P	OW	s	I
Northing <u>1961514.5</u> Easting 1067065.6		H	s	Qu	T			н	s	Qu	Т
	36.5	(ft)	(6")	(tsf)	(%)	After Hrs.		(ft)	(/6")	(tsf)	(%)
SAND & GRAVEL (Fill)						Mileter and a second a second and a second a			-		
DAND & GRAVED (FIII)	735.5	*****									
,			2					· —	7		
			3	2.5B	18	CLAY-gray-stiff to hard (A-6)			10	4.9B	16
CLAY-brown & gray-											
very stiff (A-6) Fill			4					-	2		
			5						5		
		-5	6	3.5B	17			-25	8	1.8B	19
•		*****									
			3						3		
			8						5		
		-	10	2.8B	23			-	7	2.5B	18
			4					,	3		
		-10	10 8	4.0B	16		÷	-30	6	3.4B	19
•								•			
	725.5							•			
CLAY-dark brown spotted black-		-	7								
very stiff (A-6) Fill, Wet			9	2.5B	27				1		
	723.5										
		-	4					-	3		
CLAY-brown & gray-		_	8				=		5		
very stiff (A-6)		-15	8	3.5B	17		701.5	-35	7	3.1B	19
			j			End of Boring @ -35.0' Boring Grouted Upon Completion	1				
		******	4			Hollow Stem Augers CME-55		-	ļ	ļ	<u> </u>
			7 8	3.5B	19				1		
	718.5			0.015							
CLAY-gray-stiff to hard (A-6)		_									
-gray-sum to natu (A=0)			8						-	 	
		-20	12	3.5B	15			-40			

REVISIONS		THE THOT'S DEPART	MENT OF TRANSPORTATION
NAME	DATE	ILLINOIS DE ANI	MENT OF TRANSPORTATION
		IL 62 (A TO IL 7	AP 342 (I–290IL 53) LGONQUIN ROAD) 72 (HIGGINS ROAD) RING LOG III
		SCALE: VERT. HORIZ. DATE	DRAWN BY CHECKED BY

| CONTRACT NO. | F.A.I. | SECTION | COUNTY | TOTAL | SHEET | No. | S40 |

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

CONTRACT NO. 62877

BORING B-7

							PAGE 1	of _	1	
Geo Services Inc.	~	^*		ъ.	~ T	TNIG TOO	DATE Febru	ary 07, 200	5	
805 Amilyst Court, Suite 204 Naperville, Illinois 60565	S	ΟI	L	B(JK	ING LOG	LOGGED BY	RH		
8207-822-8838							GSI JOB No.	0502A		
ROUTE FAI 290/IL-53	DESC	CRIP	rion	High-	Mast	Light Pole Foundations IL 53/FAI	290, Higgins to Alg	gonquin		
SECTION <u>0305-302K-L-3</u>	LOCA	ATIO	N N	W &	sw	CORNERS, SEC. 18 & 7, TWP. 41N	, RNG. 11E, 3rd P	М		
COUNTY Cook	DRIL	LING	ME	THOD	3.25	' Hollow Stem Auger HAM	MER TYPE CMI	E Automati	c	
STRUCT. NO. <u>n/a</u>	[D	В	U	м	Surface Water Elev. n/a		D B	u	
Station n/a	-	E P	L	c	O	Stream Bed Elev. <u>n/a</u>		E L P O	c	
BORING NO. B-7	_	\mathbf{T}	W		S	Groundwater Elevation:		T W		
Northing 1962273.9 Easting 1066864.8		H	S	Qu	Т		$\overline{\nabla}$	H S	Qu	
Ground Surface Elev. 738.	1_	(ft)	(46")	(tsf)	(%)	After Hrs.		(ft) (6")	(tsf)	0
SAND & GRAVEL (Fill)	737.1					CLAY-brown & gray- very stiff to hard (A-6)	717.1			ľ
	.01.1		3				111.1	3		
	_		5			CLAY-brown & gray-		5	T	
			7	4.4B	16	stiff (A-6)	715 1	7	1.5P	L
CLAY-brown & gray- very stiff to hard (A-6) Fill	-						715.1			
	_		3 .					1		
			7					4		
	-	- -5	7	3.0B	22			-25 7	1,8B	-
		-				CLAY-gray-stiff to hard (A-6)				
	_		1			·		3		L
	-		7	F 0D	1,			6		
	730.1	********	10	5.3B	14			8	3.4B	ŀ
and the second s										
CRUSHED CONCRETE & STONE-	-		8			1		3	-	L
lense (Fill)		-10	27 13	NP	10			-30 7	3.0B	
	727.6	-10	10	INE	10			-30 7	3.08	
	_									
		-	5						-	-
	-		7 10	2.8B	16					
	_			_,,,,,,						
								_		
NT ANY h 0			6	ļ	-			6	-	H
CLAY-brown & gray- very stiff to hard (A-6)		-15	7	5.0P	17		703.1		4.25P	
	-	_				End of Boring @ -35.0'				Γ
	-					Boring Grouted Upon Completion Hollow Stem Augers	1			
			6	-		CME-55			 	t
	-	-	8	3.7B	17					L
	-							***************************************	1	
			4							
	-		8							
		-20	1	2.8B	19			-40		

-ZU | 10 | Z-St5 | 19 |

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelhy Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T205) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

PAGE 1 ____ of <u>1</u> DATE February 07, 2005 SOIL BORING LOG LOGGED BY RH GSI JOB No. 0502-A ROUTE FAI 290/L-53 DESCRIPTION High-Mast Light Pole Foundations IL 53/FAI 290, Higgins to Algonquin SECTION 0305-302K-L-3 LOCATION NW & SW CORNERS, SEC. 18 & 7, TWP. 41N, RNG. 11E, 3rd PM DRILLING METHOD 3.25" Hollow Stem Auger COUNTY Cook HAMMER TYPE D-50 Automatic STRUCT, NO. n/a Surface Water Elev. BORING NO. B-8 Northing 1963110.2 First Encounter $\mathbf{Q}\mathbf{u}$ Easting 1067567.6 Upon Completion (ft) (6") (tsf) (%) (ft) (6") (tsf) (%) Ground Surface Elev. TOPSOIL-black (A-7) Fill CLAY-graystiff to very stiff (A-6) 6 3.1B 18 720.8 CLAY Mixed with TOPSOIL-dark brown & black--5 6 0.9B 29 -25 8 2.8B 21 medium stiff (A-6/A-7) Fill, Wet 718.3 698.3 4 CLAYEY SAND-gray-8 1.6B 26 medium dense (A-2-6) NP 20 CLAY-brown & gray-695.8 stiff to very stiff (A-6) -10 7 2.7B 18 -30 4 1.0B 23 CLAY-gray-stiff to very stiff (A-6) 9 3.7B 689.3 -35 8 8.0B 17 -15 8 2.5P 12 CLAY-gray-stiff to very stiff (A-6) End of Boring @ -35.0' Boring Backfilled Upon Completion Hollow Stem Augers

D-50 ATV

BORING B-8

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (9 NE-No. Penetrometer).

5 1.0B

REVISIONS NAME DAT	E ILLINOIS DEPART	MENT OF TRANSPORTATION
	IL 62 (A TO IL 7	AP 342 (I-290/IL 53) LGONQUIN ROAD) '/2 (HIGGINS ROAD) RING LOG IV
	SCALE: VERT. HORIZ. DATE	DRAWN BY CHECKED BY

JUNIE - 4//22003 E NAME = c)projects/electricel\2004\153.m32 JT 564E = 50.8000 '/ IN.

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

CONTRACT NO. 62877

BORING B-9

	DESCRIPTION High-Mest Light Pole Foundations IL 53FAI 290, Higgins to J. 502K-L-3 LOCATION NW & SW CORNERS, SEC. 18 & 7, TWP, 41N, RNG. 11E, 3rd	1	of _	1						
Geo Services, Inc.	~~	**	T	~ T	TATO TOO	DATE _	February 2	4, 200	5	
Geotechnical, Environmental & Civil Engineering 805 Amberst Court, Seins 204 Naperville, Illinois 150565	SO	Ш	R	OR	ang log	LOGGEI	BY RH			
(830) 855 - 2838						GSI JOE	No0	502A		
ROUTE FAI 290/IL-53	DESCRIE	TION	High-	-Mast	Light Pole Foundations IL	53/FAI 290, Higgins	to Algonqui	n		
SECTION <u>0305-302K-L-3</u>	LOCATIO	ON _N	w &	sw	CORNERS, SEC. 18 & 7, T	WP. 41N, RNG. 11E,	3rd PM			
COUNTY Cook	DRILLIN	G MF	THOD	3.25	" Hollow Stem Auger	_ HAMMER TYPE	D-50 Auto	omatic		
STRUCT. NO. <u>n/a</u>		Ъ	77		Surface Water Elev.	n/a	- D	В	U	ı
Station n/a	- E	L	C	0	Stream Bed Elev.	n/a	- E	L	C	(
			S				P	O W	s	5
Northing 1964114.8	_ Н	s	Qu	Т			1	S	Qu	7
Easting 1066602.2 Ground Surface Elev. 719.5	- (ft)	(⁄6")	(tsf)	(%)			- 1.00	(6")	(tsf)	(9
		+				nazaroneza en en en en en arragen en e		<u> </u>		H
TOPSOIL-black (A-7)	18.5									
•	_							4	-	⊢
		7	3.2B	18				3 7	2.1B	1
CLAY-brown & gray- stiff to very stiff (A-6) Fill					CI AV cross					
still to very still (A-6) Fill	-							-		
	-			-				6		
	5		1.0B	16			-25	9	3,4B	1
T	13.5	١.					****	-		
CLAY LOAM-dark brown & gray-	_							6		-
stiff (A-6) Possible Fill		4	1.5P	12	,			10	6.0B	1
7		-						-		
	11.0	1						4		
	****							7		T
	10	6_	1.6B	18			-30	11	3.5B	1
CLAY-gray-	-	-					-			
stiff to hard (A-6)		2					***************************************	1		

	***	7	1.8B	21				-		
								1		
		1						2		
	_					c.		5		
	15	7	1,8B	20			84.5 –35	8	2.5B	2
					End of Boring @ -35.0' Boring Backfilled Upon (Completion		1		
		3	-	-	Hollow Stem Augers	•		-		_
	 	7	0.50	0.4	D-00 AIY			1		
	_	1	2.5B	21				T	-	-

		1	-						-	
	-20	10	2.7R	19				1		-

-20 | 10 | 2.7B | 19

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulgs, S-Shear, P-Penstrometer) ST-Shelty Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NB-No Recovery

								PAGE 1		of _	1	
Geo Services Inc.	_							DATE Febru	ary 07	, 2008	5	
Geotechnical, Environmental Civil Engineering 805 Amharst Churt, Seiter 204	S	SOI	L	B	ЭR	ING LOG		LOGGED BY	RH			
Naperville, Illiania 60565 (830) 855-2838								GSI JOB No.	05	02-A		
ROUTE FAI 290/IL-53	DES	CRIP	TION	High-	Mast	Light Pole Foundations IL 5	63/FAI 290,	Higgins to Alg	onqui	n		
						CORNERS, SEC. 18 & 7, TW						
						Hollow Stem Auger		R TYPE CME		astom:	atic	
STRUCT. NO. n/a						Surface Water Elev.		<u></u>				
Station n/a		D E	B L	U C	M O		n/a		D E	B	U	M O
BORING NO. B-10		P	0	s	I	Groundwater Elevation:			P	0	s	I
Northing 1965212.6		T	W	Qu	S		Dry	$\overline{}$	T H	ws	Qu	S
Easting 1067255.3		11	5	eşu.	•	Upon Completion	Dry		11	b	- Qu	1
Ground Surface Elev. 742.1	<u>L</u>	(ft)	(⁄6")	(tsf)	(%)	After Hrs.		v	(ft)	(⁄6")	(tsf)	(%)

CRUSHED STONE-loose (Fill)			3			CLAY-brown & gray-				4		
		_	6			very stiff (A-6)				7		
	739.6		2	NP	12					10	3.5B	17
						1844		719.1				
			3							4		-
		5	7 9	5.1B	21	CLAY-gray-			-25	7 10	3.5B	16
CLAY-brown & gray-				,		stiff to very stiff (A-6)				10	0.00	10
very stiff to hard (A-6) Fill												
			4						_	3		
			9							6		
			10	4.4B	20				_	9	2.8B	16
			7							3		
			10							5		
		10	11	6.2B	16				-30	6	1.9B	16
		-										
			4									
			7									İ
			10	5.7B	20							
		-						F00.1				
			7			SANDY CLAY LOAM-		708.1		3		
		-15	9	2.8B	24	gray-loose (A-4)		707.1	-35	3	NP	19
			Ĭ			End of Boring @ -35.0'						
						Boring Backfilled Upon Co	mpletion					
			6_	ļ		Hollow Stem Augers CME-55						
			10			OME-00						
	724,1		10	6.6B	19						<u> </u>	ļ
										1		
CLAY-brown & gray-			6									
very stiff (A-6)			9									

BORING B-10

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Palge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

REVISIONS		TI) THAT'S DEP	ARTMENT OF TRANSPORTATION
NAME	DATE	TECTION DEL	ANTIMENT OF THANSFORTATION
		IL 62 TO II	OFAP 342 (I-290/IL 53) (ALGONQUIN ROAD) , 72 (HIGGINS ROAD) BORING LOG V
		SCALE: VERT. HORIZ. DATE	DRAWN BY CHECKED BY

E NAME = 0:\projects\electricel\2004\153.m32 JT 56.00000 / IN.

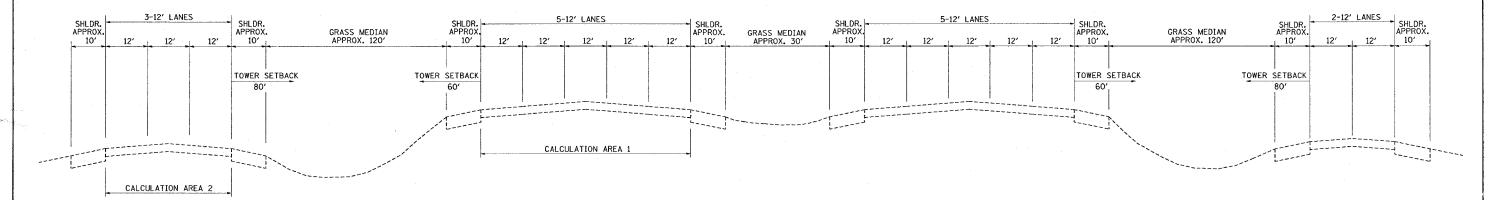


BORING B-11

						PAGE 1		ot _	1			
Geo Services Inc.	COI	т	D	ΔD	TNO TOO	DATE Febru	DATE February 24, 2005					
Geotechnical, Environmental & Civil Engineering 805 Amhrea Churt, Suitz 204 Naperville, Illinois 50366	201	نـاـ	B	JK	ING LOG	LOGGED BY	RH					
(830) 455 PS						GSI JOB No.	_ 05	02-A				
ROUTE FAI 290/IL-53	DESCRIP	TION	High-	Mast	Light Pole Foundations IL 53/FAI	290, Higgins to Alg	gonquir	1				
SECTION 0305-302K-I3	LOCATIO	N _N	w &	sw	CORNERS, SEC. 18 & 7, TWP. 411	I, RNG. 11E, 3rd P	M					
COUNTY Cook	DRILLING	з ме	THOD	3.25	' Hollow Stem Auger HAM	IMER TYPE D-5	0 Auto	matic				
STRUCT. NO. n/a	D	В	U	м	Surface Water Elev. n/a		D	В	U	l M		
Station n/a	E	L	C	0	Stream Bed Elev. n/a		E	L	С	О		
BORING NO. $ m B extstyle{-}11$		O W	s	I	Groundwater Elevation:		P T	O W	s	S		
Northing 1963412.2	H	S	Qu	Т	First Encounter Dry Upon Completion Dry		H	S	Qu	Т		
Easting <u>1067193.5</u> Ground Surface Elev. <u>741.8</u>	(ft)	(6°)	(tsf)	(%)	Upon Completion Dry After Hrs.	lacktriangledown	(ft)	(/6")	(tsf)	(%		
Ground Surface Elect.					1110.	X_	1					
TOPSOIL-dark brown & black (A-7) Fill												
TOTOGRAMME STOWN & SMALL (17.17)	_	3	-	<u> </u>				5		-		
		4 8	_	58	CLAY-brown & gray-			7 10	4.6B	17		
					stiff to hard (A-6)							
73	8.3											
CLAY-brown & gray-		2						3				
stiff (A-6) Fill	-5	4 7	1,6B	19			-25	5 11	3.9B	18		
-												
73	5.8											
	-	2 4	i					<u>4</u> 8				
		7	3.2B	22				13	3.9B	16		
CLAY-dark brown spotted black-												
stiff to very stiff (A-6) Fill, Wet	_	1				713.3						
		3 4						3 4				
	_10	4 -	1.4B	25	CLAY-gray-very stiff (A-6)		-30	9	2.8B	15		
							_					
73	0.8	2										
		6		ļ —				-		T		
	_	10	3.1B	17								
CLAY-brown & gray-	-							-				
stiff to hard (A-6)	_	1		İ			********	3				
		2	-					4		T		
	-15	5	1.9B	18		706.8	-35	10	2.7B	20		
	_	1			End of Boring @ -35.0'	i.a.u						
	anthronorman	1			Boring Backfilled Upon Complet Hollow Stem Augers	ion		1				
		2			D-50 ATV							
		5	3.7B	19						-		
		1										
		6										
		11			1				-			

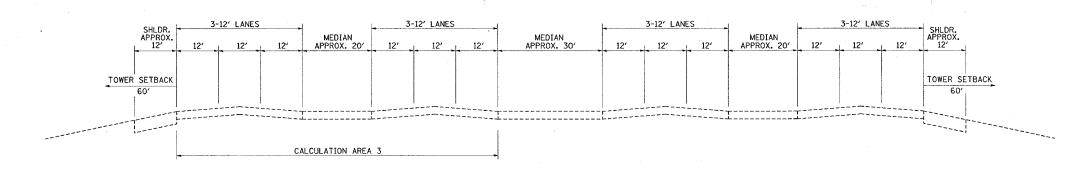
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO 7206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

REVISIONS NAME DATE	ILLINOIS DEPARTMENT OF TRANSPORTATION				
	IL 62 (ALC TO IL 72	P 342 (I–290/IL 53) GONQUIN ROAD) (HIGGINS ROAD) ING LOG VI			
	SCALE: VERT. HORIZ. DATE	DRAWN BY CHECKED BY			



EXISTING TYPICAL CROSS SECTION

IL. ROUTE 53 (NEAR STA. 54+50)



EXISTING TYPICAL CROSS SECTION

IL. ROUTE 53 (NEAR STA. 85+50)

NOTES:

AND DO NOT CONTAIN ACTUAL SLOPES OR ELEVATIONS.
THE TYPICAL SECTIONS ARE TO BE USED FOR PHOTOMETRIC CALCULATIONS ONLY.

REVISIONS NAME D	ATE	ILLINOIS DEPARTMENT OF TRANSPORTATION				
NAME D	AIL	EVICTING TYPE	CAL CROSS SECTIONS			
	-					
			ROUTE 53			
		HIGGINS RD.	TO ALGONQUIN RD.			
	\dashv	VERT. VERT				
		SCALE: VERT. NONE	DRAWN BY			
1.		DATE 4/29/2005	CHECKED BY			

PLOT DATE = FILE NAME = PLOT SCALE = HISER NAME = HISER N