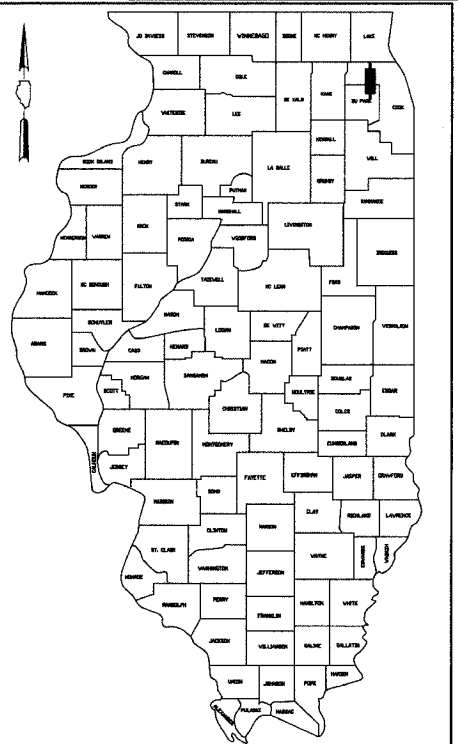


FED. ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7	06-00052-00-LT	COOK	10	1

COVER SHEET

FED. ROAD DISTRICT NO. 7 ILLINOIS FED. AID PROJECT M-8003(819)



LOCATION OF SECTION INDICATED THIS: - ■ -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED July 10 20 07
Alan P. Dine
DIRECTOR OF ENGINEERING AND COMMUNITY DEVELOPMENT
VILLAGE OF ELK GROVE VILLAGE

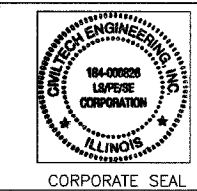
PASSED July 16 20 07
Chris C. Helt
DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR
BID BASED ON
LIMITED REVIEW July 18 20 07
Diane O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

P.E. SIGNATURE: *David Mertz*
P.E. NAME: DAVID MERTZ
DATE: 10 JULY 2007
IL LICENSE NO.: 062-052068
LICENSE EXPIRATION: 11/30/2007



P.E. SIGNATURE: *Derek H. Mall*
P.E. NAME: DEREK MALL
DATE: July 12, 2007
IL LICENSE NO.: 062-051308
LICENSE EXPIRATION: 11/30/2007



PLANS PREPARED BY:

CIVILTECH
450 E. Devon Ave., Suite 300 - Itasca, Illinois 60143
Tel: 630.773.3900 - Fax: 630.773.3975
www.civiltechinc.com



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID PROJECT

BUSSE ROAD (IL 83)
TOUHY AVENUE TO HOWARD STREET

SECTION 06-00052-00-LT
PROJECT NO. M-8003(819)

LIGHTING
COOK COUNTY
C-91-310-07

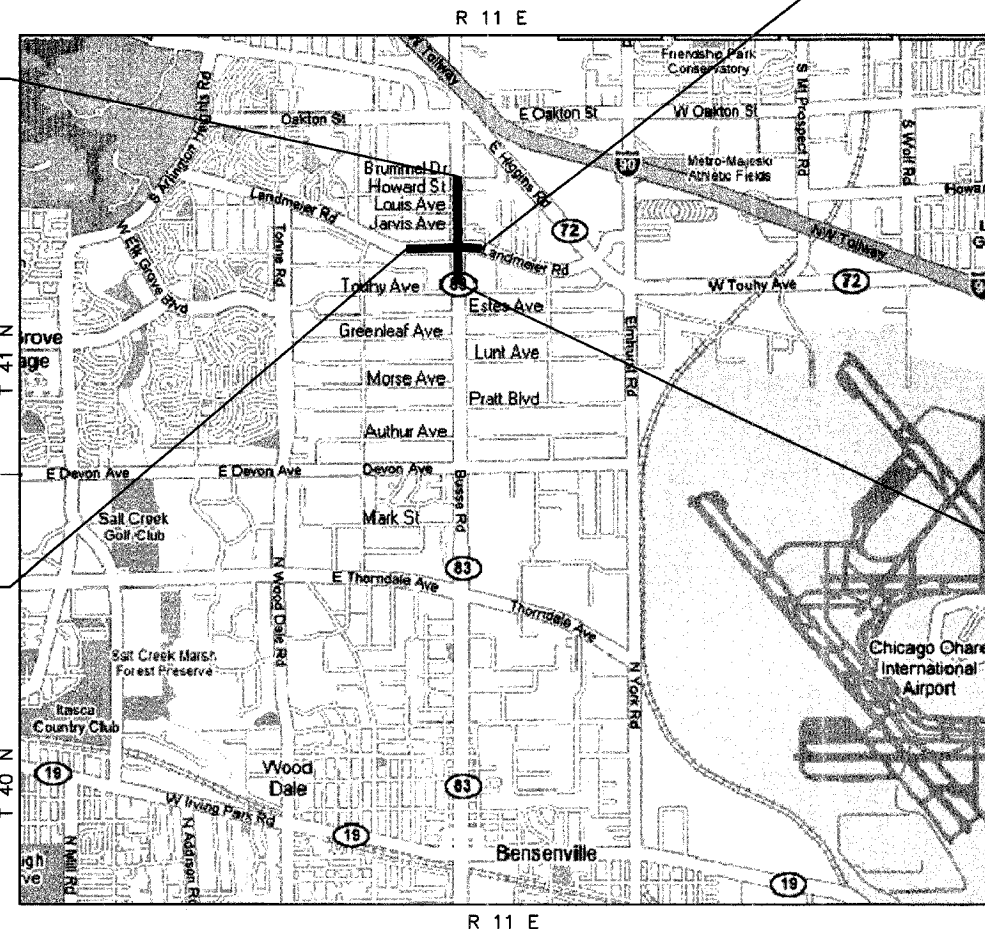
END IMPROVEMENT
LANDMEIER ROAD
STA. 624+71

PROJECT LOCATED IN VILLAGE
OF ELK GROVE VILLAGE

BEGIN IMPROVEMENT
BUSSE ROAD
STA. 1078+33

END IMPROVEMENT
BUSSE ROAD
STA. 1108+50

BEGIN IMPROVEMENT
LANDMEIER ROAD
STA. 607+98



LOCATION MAP (NOT TO SCALE)

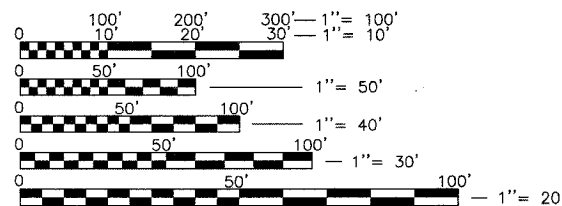
NET AND GROSS PROJECT LENGTH: 4,690 FEET (0.89 MILES)

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SUMMARY OF QUANTITIES, GENERAL NOTES AND LEGEND
3-5	LIGHTING PLANS
6	WIRING DIAGRAM
7-10	LIGHTING DETAILS

INDEX OF STATE STANDARDS

NO.	DESCRIPTION
701101-01	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-06	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701421-01	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701501-03	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701601-04	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NON TRAVERSABLE MEDIAN
701606-04	URBAN LANE CLOSURE, MULTILANE 2W WITH MOUNTABLE MEDIAN
701701-04	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-03	LANE CLOSURE, MULTILANE, 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
702001-06	TRAFFIC CONTROL DEVICES



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.

THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2007 BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION, SHALL GOVERN THIS WORK.



1-800-892-0123

FEDERAL AID DESIGN ENGINEER: PHIL MARCYN 847-705-4189
CONSULTANT ENGINEER: DEREK MALL, P.E. CIVILTECH ENGINEERING, INC.

CONTRACT NO. 83955

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
06-00052-00-LT	COOK	10	2
BUSSE ROAD (IL 83)			
SUMMARY OF QUANTITIES, GENERAL NOTES AND LEGEND			

GENERAL NOTES

SPECIFICATIONS, STANDARDS AND SPECIAL PROVISIONS

1. ALL REFERENCES TO "STANDARD SPECIFICATIONS" IN THESE GENERAL NOTES SHALL BE INTERPRETED TO MEAN THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION ON JANUARY 1, 2007.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS"; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED JANUARY 1, 2007; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"; THE "SPECIAL PROVISIONS AND IDOT STANDARD DRAWINGS" INCLUDED IN THE CONTRACT DOCUMENTS; NATIONAL ELECTRICAL CODE (NEC) 2005 EDITION; AND THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) "AMERICAN NATIONAL STANDARD PRACTICE FOR ROADWAY LIGHTING" (RP-8-00).
3. ANY REFERENCE TO "STANDARD" THROUGHOUT THE PLANS, SPECIAL PROVISIONS OR THESE GENERAL NOTES SHALL BE INTERPRETED TO MEAN THE LATEST VERSION OF THAT IDOT STANDARD DRAWING.
4. ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 700 OF THE "STANDARD SPECIFICATIONS".
5. ALL REFERENCES TO "ENGINEER" SHALL BE INTERPRETED TO MEAN THE RESIDENT ENGINEER. ALL REFERENCES TO "VILLAGE" SHALL BE INTERPRETED TO MEAN THE VILLAGE OF ELK GROVE VILLAGE.

LANDSCAPING

1. WHEN DIRECTED BY THE ENGINEER, SUPPLEMENTAL WATERING SHALL BE APPLIED TO ALL SODDED AREAS PRIOR TO FINAL ACCEPTANCE, AT A RATE SPECIFIED BY THE ENGINEER AND IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS".

UTILITIES

1. THE CONTRACTOR SHALL COOPERATE WITH THE VILLAGE IN ANY UNDERGROUND UTILITY CONSTRUCTION THAT THE VILLAGE MAY WANT TO INITIATE DURING THE CONTRACTOR'S OPERATIONS.
2. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES. THE LOCATIONS OF PUBLIC OR PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE, AND THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY. THE CONTRACTOR WILL BE REQUIRED TO ASCERTAIN THE EXACT LOCATIONS OF SUCH UTILITIES AND EXERCISE CARE DURING HIS CONSTRUCTION OPERATIONS SO AS NOT TO DAMAGE THEM, IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND ARTICLE 107.31 OF THE "STANDARD SPECIFICATIONS". THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL EXISTING UTILITIES SO THAT THEIR FACILITIES MAY BE LOCATED AND ADJUSTED OR MOVED, IN NECESSARY, PRIOR TO THE START OF CONSTRUCTION OPERATIONS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AND THE VILLAGE. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.
4. COORDINATION OF ANY UTILITY WORK INVOLVED IN THE CONSTRUCTION AREA WILL BE DISCUSSED AT THE PRECONSTRUCTION CONFERENCE.
5. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS, WATER, SEWER AND CABLE TELEVISION FACILITIES (48 HOUR NOTIFICATION IS REQUIRED).
6. THE CONTRACTOR SHALL RECEIVE NO ADDITIONAL COMPENSATION FOR CONSTRUCTION STAGING NECESSARY TO ACCOMMODATE UTILITY RELOCATION OR ADJUSTMENT, AND/OR FOR DELAYS CAUSED BY UTILITY RELOCATION OR ADJUSTMENT.

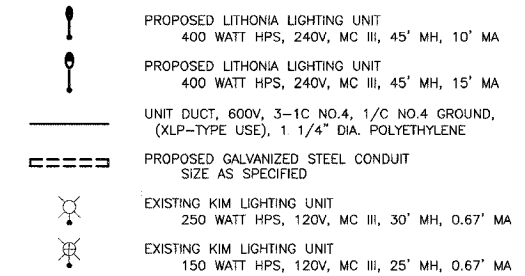
MISCELLANEOUS

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
2. THE CONTRACTOR SHALL PROVIDE AND INSTALL 2 WEIGHTED SANDBAGS ON ANY TYPE I OR TYPE II BARRICADE USED (1 SANDBAG SHALL BE PLACED ACROSS EACH BOTTOM RAIL).
3. PAY ITEMS IN THE SUMMARY OF QUANTITIES HAVE BEEN ESTIMATED. IF, IN THE ENGINEER'S OPINION, ANY WORK IS NOT REQUIRED, THAT ITEM WILL BE DEDUCTED FROM THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
4. ALL WASTE MATERIAL SHALL BE LEGALLY DISPOSED OF OUTSIDE THE LIMITS OF THE R.O.W. AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROMPT CLEANUP AND DISPOSAL OF ANY AND ALL DEBRIS GENERATED BY OR INCIDENTAL TO WORK COVERED BY THIS CONTRACT.
5. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL CODES, ORDINANCES AND REGULATIONS CONCERNING MAINTENANCE OF TRAFFIC.
6. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE ANY LIGHT STANDARD IS ERECTED.
7. ALL PUSHED CONDUITS ON PLANS SHALL BE DIRECTIONAL BORE AND QUANTITY SHALL BE PAID FOR AS CONDUIT PUSHED.
8. INSTALLATION METHOD OF THE UNIT DUCT SHALL BE DIRECTIONAL BORING. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR TRENCHING WHEN DIRECTIONAL BORING IS NOT POSSIBLE BECAUSE OF UTILITY OR OTHER CONFLICTS.
9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLES FOR EXAMINATION AND CONFIRMATION WITH THE ENGINEER PRIOR TO INSTALLATION OF LIGHTING FOUNDATIONS.
10. GROUNDING CONNECTIONS AT THE FOUNDATION SHALL BE EXOTHERMICALLY WELDED AND SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER PRIOR TO POURING CONCRETE OR BACKFILLING AS APPLICABLE.
11. THE INSTALLATION OF BURIED WARNING TAPE SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER.
12. ALL STREET LIGHT POLES ON LANDMEIER ROAD SHALL BE SET BACK A MINIMUM OF 6 FEET FROM THE BACK OF CURB.
13. NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED, AS APPROVED BY ENGINEER.

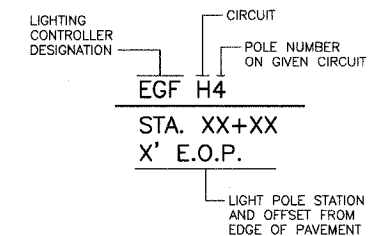
SUMMARY OF QUANTITIES YO30-1E

ITEM NO.	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	1000
21300010	EXPLORATION TRENCH, SPECIAL	FOOT	1020
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	19
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	19
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	19
25200100	SODDING	SQ YD	1000
25200200	SUPPLEMENTAL WATERING	UNIT	9
67100100	MOBILIZATION	L SUM	1
70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	690
81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	75
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	518
81400100	HANDHOLE	EACH	5
81603085	UNIT DUCT, 600V, 3-1C NO.4, 1/C NO.4 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	10,000
81702460	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 3/0	FOOT	85
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	540
82500505	LIGHTING CONTROLLER, SPECIAL	EACH	1
83017400	LIGHT POLE, ALUMINUM, TRANSFORMER BASE, 45 FT. M.H., 10 FT. DAVIT ARM	EACH	42
83017600	LIGHT POLE, ALUMINUM, TRANSFORMER BASE, 45 FT. M.H., 15 FT. DAVIT ARM	EACH	10
83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	480
83600215	LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET	FOOT	60
X0325379	DIRECTIONAL BORING	FOOT	8,700
XX006352	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT (SPECIAL)	EACH	52

LEGEND



CIRCUIT DESIGNATION SCHEME (TYPICAL)



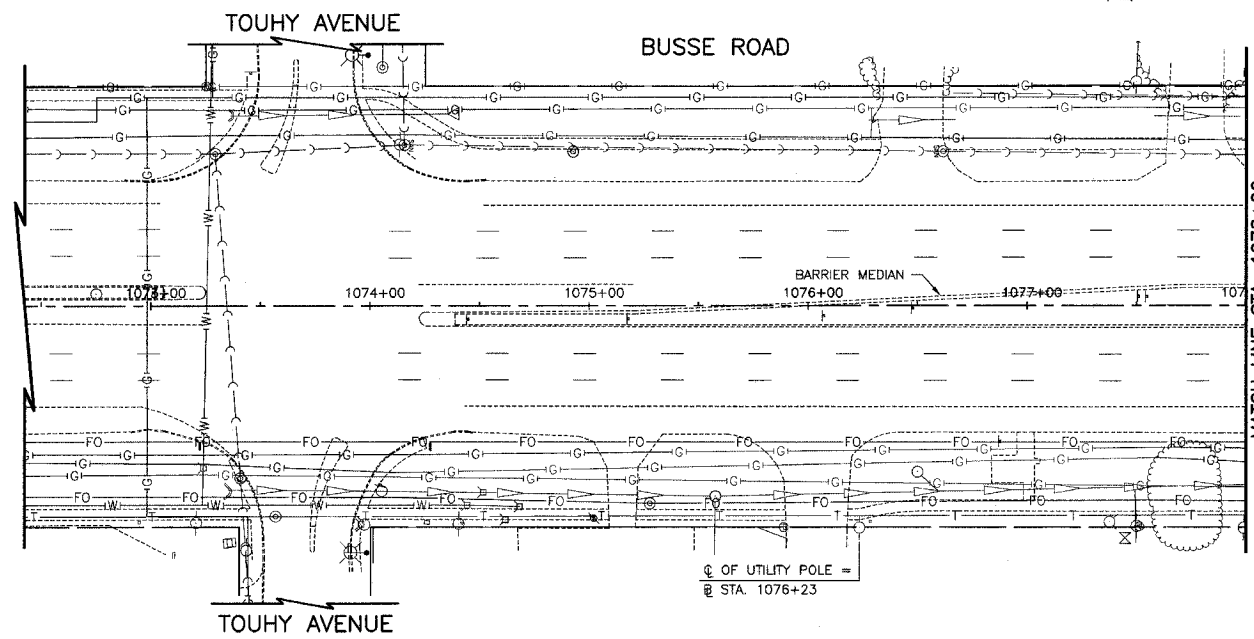
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 BUSSE ROAD (IL 83)
 ROADWAY LIGHTING
**SUMMARY OF QUANTITIES,
 GENERAL NOTES AND LEGEND**
 DATE: 07/10/2007
 CHECKED BY: D.N.M.

1. The information on this drawing was prepared by the Civiltech Engineering, Inc. on 07/10/2007. The drawing is the property of Civiltech Engineering, Inc. and shall not be reproduced or used in any manner without the written consent of Civiltech Engineering, Inc.

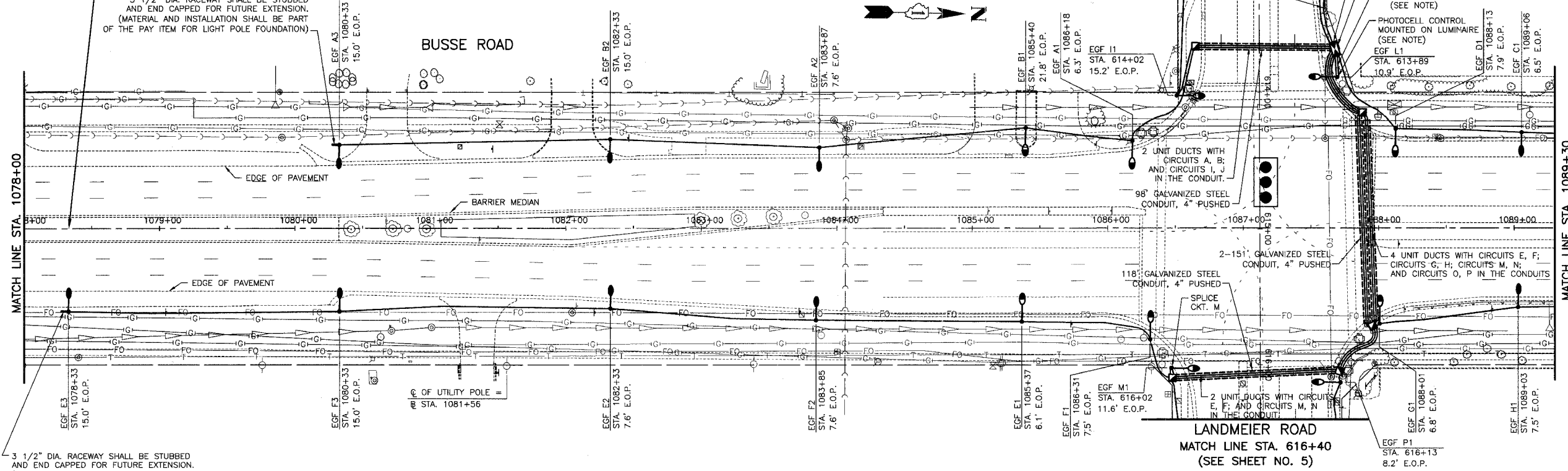


SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
06-00052-00-LT	COOK	10	3
BUSSE RD. - STA. 1078+33 TO STA. 1089+30			
LIGHTING PLAN			



**BEGIN IMPROVEMENT
STA. 1078+33**

3 1/2" DIA. RACEWAY SHALL BE STUBBED AND END CAPPED FOR FUTURE EXTENSION. (MATERIAL AND INSTALLATION SHALL BE PART OF THE PAY ITEM FOR LIGHT POLE FOUNDATION)



3 1/2" DIA. RACEWAY SHALL BE STUBBED AND END CAPPED FOR FUTURE EXTENSION. (MATERIAL AND INSTALLATION SHALL BE PART OF THE PAY ITEM FOR LIGHT POLE FOUNDATION)

**LANDMEIER ROAD
MATCH LINE STA. 613+00
(SEE SHEET NO. 5)**

PROPOSED COMMONWEALTH EDISON POWER POLE PROPOSED SERVICE CONNECTION 240/480V, 1 PHASE, 3 WIRES, 60 HZ

SPLICE CKT. L

PROPOSED LIGHTING CONTROLLER EGF, 200 AMP, 240/480V

ELECTRIC CABLE IN 2" GALVANIZED STEEL CONDUIT, 600 V (XLP-TYPE USE) 3-1/C NO. 10 FOR PHOTOCELL CONNECTION (SEE NOTE)

PHOTOCELL CONTROL MOUNTED ON LUMINAIRE (SEE NOTE)

EGF L1 STA. 613+89 10.9' E.O.P.

EGF D1 STA. 1088+13 7.9' E.O.P.

EGF C1 STA. 1089+06 6.5' E.O.P.

**LANDMEIER ROAD
MATCH LINE STA. 616+40
(SEE SHEET NO. 5)**

EGF G1 STA. 1088+01 6.8' E.O.P.

EGF P1 STA. 616+13 8.2' E.O.P.

MATCH LINE STA. 1089+30
(SEE SHEET NO. 4)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BUSSE ROAD (IL 83)
ROADWAY LIGHTING
LIGHTING PLAN
BUSSE ROAD
STA. 1078+33 TO STA. 1089+30

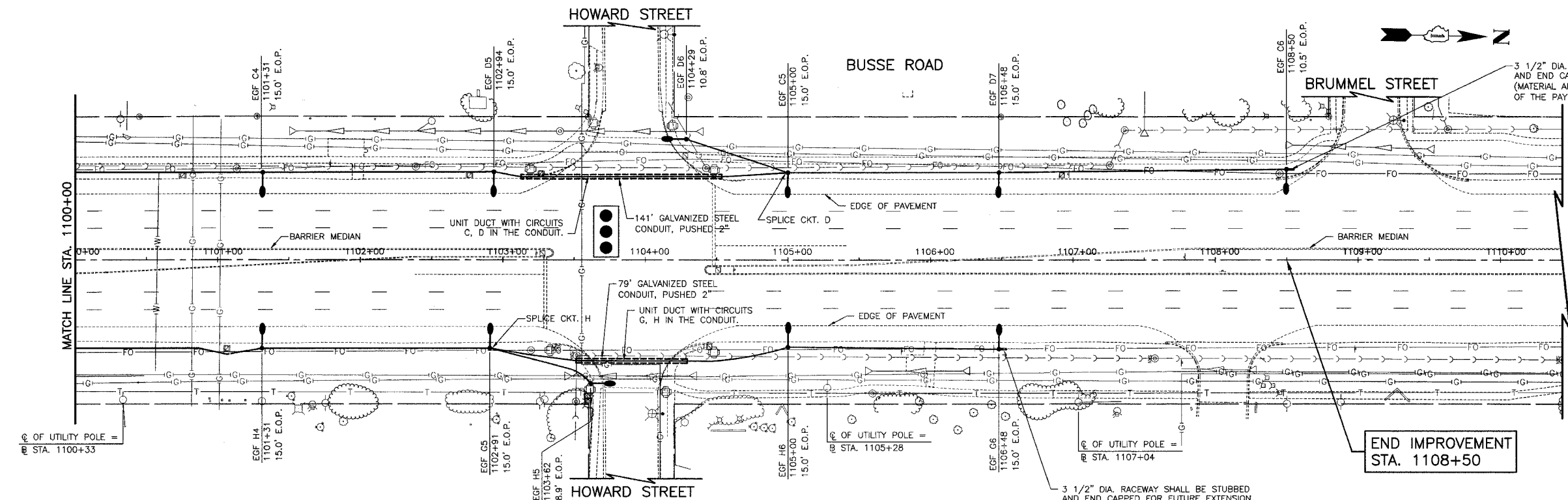
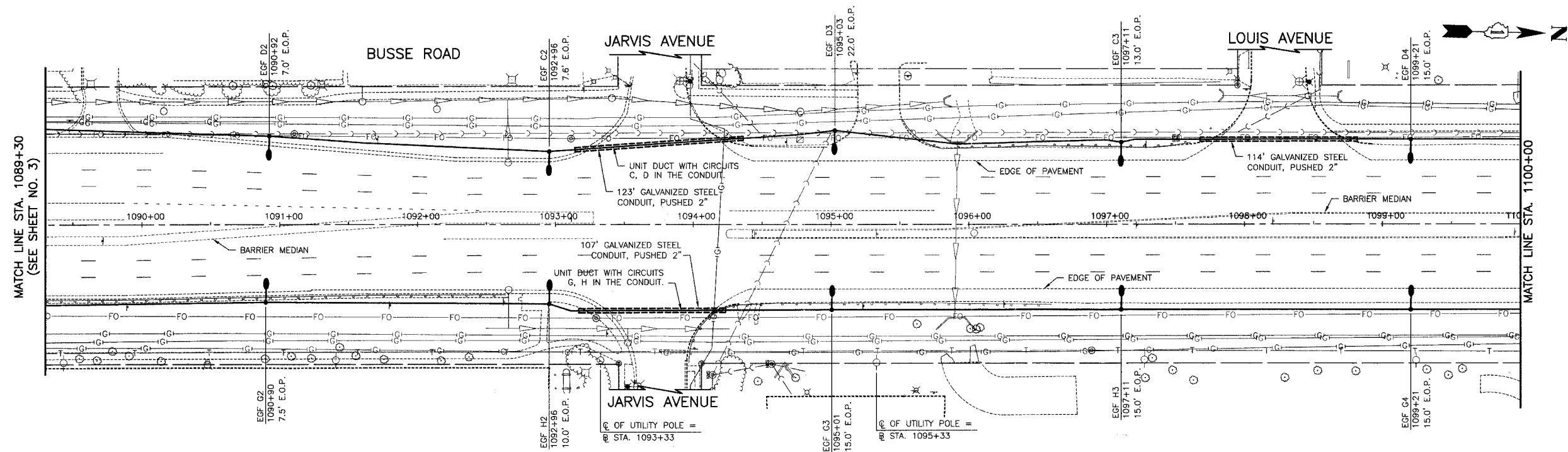
DATE: 07/10/2007
CHECKED BY: D.N.M.

SCALE IN FEET

NOTE:
ALL PHOTOCELL MATERIAL AND INSTALLATION SHALL BE PART OF THE PAY ITEM "LIGHTING CONTROLLER, SPECIAL".



SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
06-00052-00-LT	COOK	10	4
BUSSE RD. - STA. 1089+30 TO STA. 1108+50			
LIGHTING PLAN			



3 1/2" DIA. RACEWAY SHALL BE STUBBED AND END CAPPED FOR FUTURE EXTENSION. (MATERIAL AND INSTALLATION SHALL BE PART OF THE PAY ITEM FOR LIGHT POLE FOUNDATION)

END IMPROVEMENT STA. 1108+50

3 1/2" DIA. RACEWAY SHALL BE STUBBED AND END CAPPED FOR FUTURE EXTENSION. (MATERIAL AND INSTALLATION SHALL BE PART OF THE PAY ITEM FOR LIGHT POLE FOUNDATION)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 BUSSE ROAD (IL 83)
 ROADWAY LIGHTING
LIGHTING PLAN
 BUSSE ROAD
 STA. 1089+30 TO STA. 1108+50

DATE: 07/10/2007
 CHECKED BY: D.N.M.

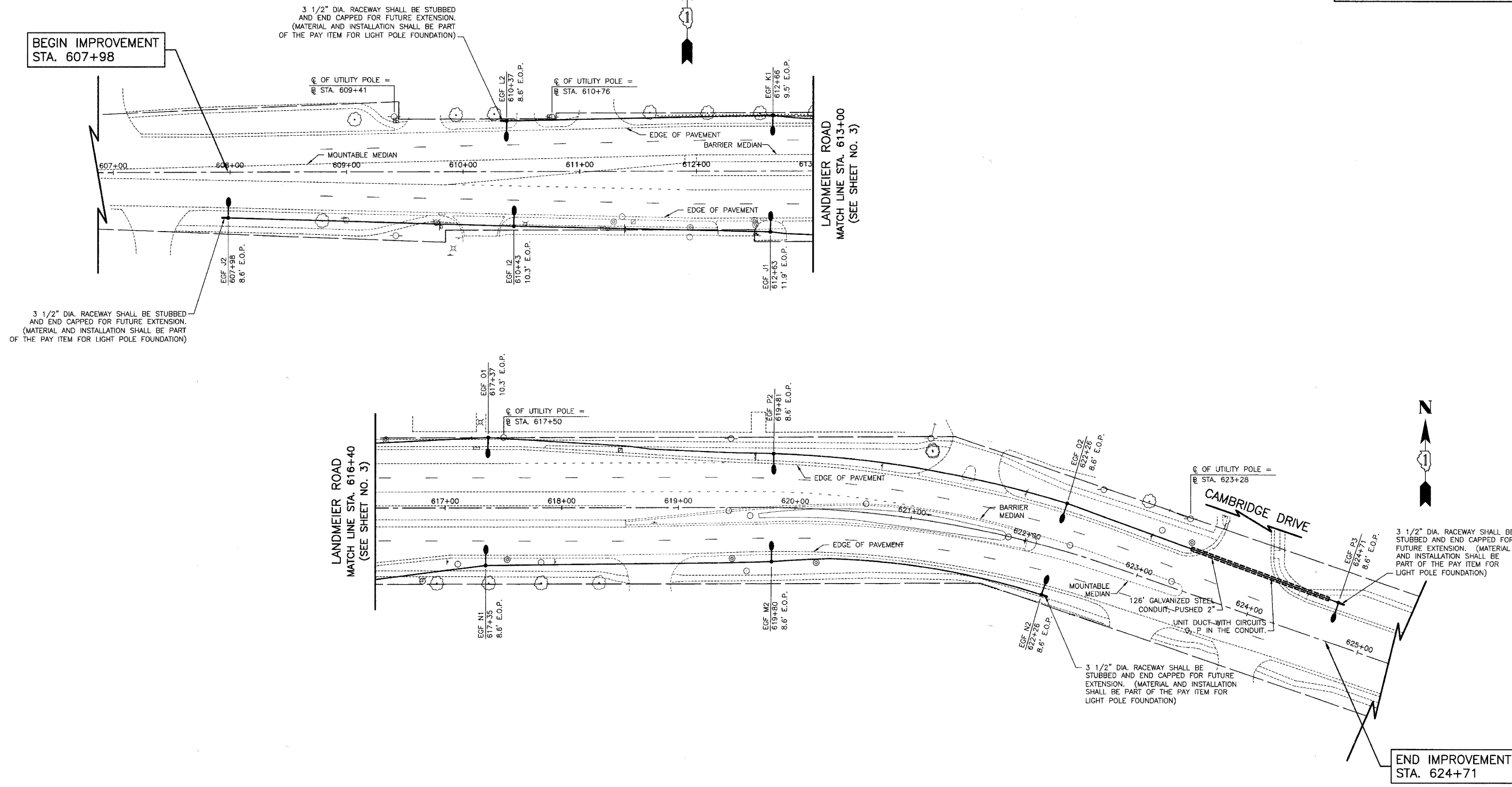
SCALE IN FEET: 0, 40

1. All dimensions are in feet and inches unless otherwise noted.
 2. All utility poles are to be installed in accordance with the applicable utility code.
 3. All conduits are to be installed in accordance with the applicable utility code.
 4. All raceways are to be installed in accordance with the applicable utility code.
 5. All lighting fixtures are to be installed in accordance with the applicable utility code.
 6. All lighting poles are to be installed in accordance with the applicable utility code.
 7. All lighting plans are to be installed in accordance with the applicable utility code.
 8. All lighting plans are to be installed in accordance with the applicable utility code.
 9. All lighting plans are to be installed in accordance with the applicable utility code.
 10. All lighting plans are to be installed in accordance with the applicable utility code.



CONTRACT NO. 83955

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
06-00052-00-LT	COOK	10	5
LANDMEIER ROAD			
LIGHTING PLAN			



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 BUSSE ROAD (IL 83)
 ROADWAY LIGHTING
LIGHTING PLAN
 LANDMEIER ROAD
 STA. 607+98 TO STA. 624+71

DATE: 07/10/2007
 CHECKED BY: D.N.M.

SCALE IN FEET

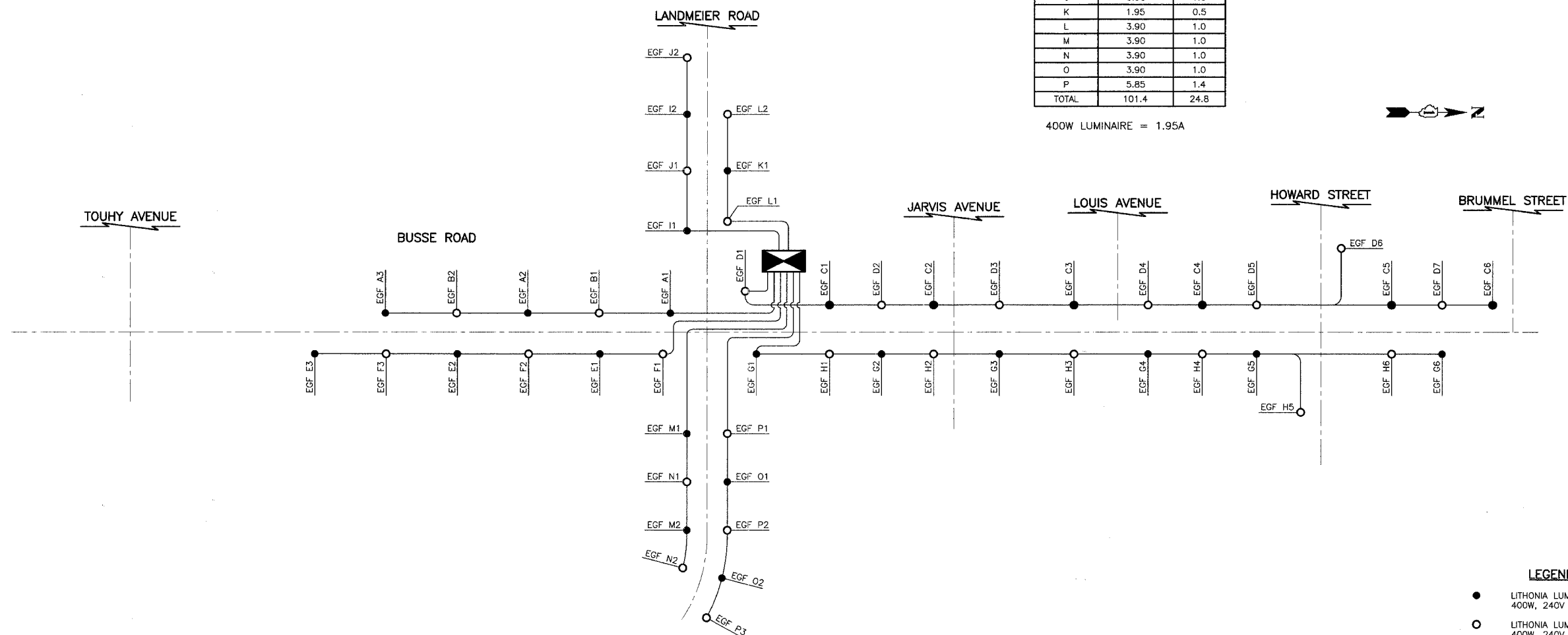
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 2007-10-25 10:51:12 AM



SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
06-00052-00-LT	COOK	10	6
BUSSE ROAD (IL 83)			
WIRING DIAGRAM			

CIRCUIT NO.	TOTAL FIXTURE AMPS	KW LOAD
A	5.85	1.4
B	3.90	1.0
C	11.70	2.8
D	13.65	3.3
E	5.85	1.4
F	5.85	1.4
G	11.70	2.8
H	11.70	2.8
I	3.90	1.0
J	3.90	1.0
K	1.95	0.5
L	3.90	1.0
M	3.90	1.0
N	3.90	1.0
O	3.90	1.0
P	5.85	1.4
TOTAL	101.4	24.8

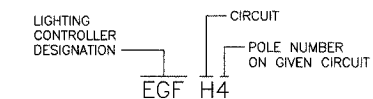
400W LUMINAIRE = 1.95A



LEGEND

- LITHONIA LUMINAIRE, SODIUM VAPOR 400W, 240V ON BLACK WIRE
- LITHONIA LUMINAIRE, SODIUM VAPOR 400W, 240V ON RED WIRE
- ⊠ PROPOSED LIGHTING CONTROLLER 200 AMP, 240/480V, 1Ø, 3-WIRE
- UNIT DUCT, 600V 3-1C NO.4, 1/4" NO.4 GROUND (XLP-TYPE USE), 1 1/4" DIA. POLY.

CIRCUIT DESIGNATION SCHEME (TYPICAL)

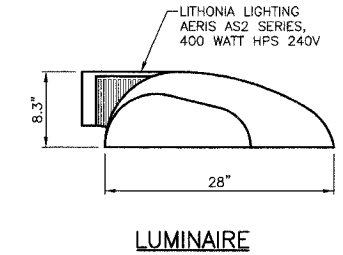
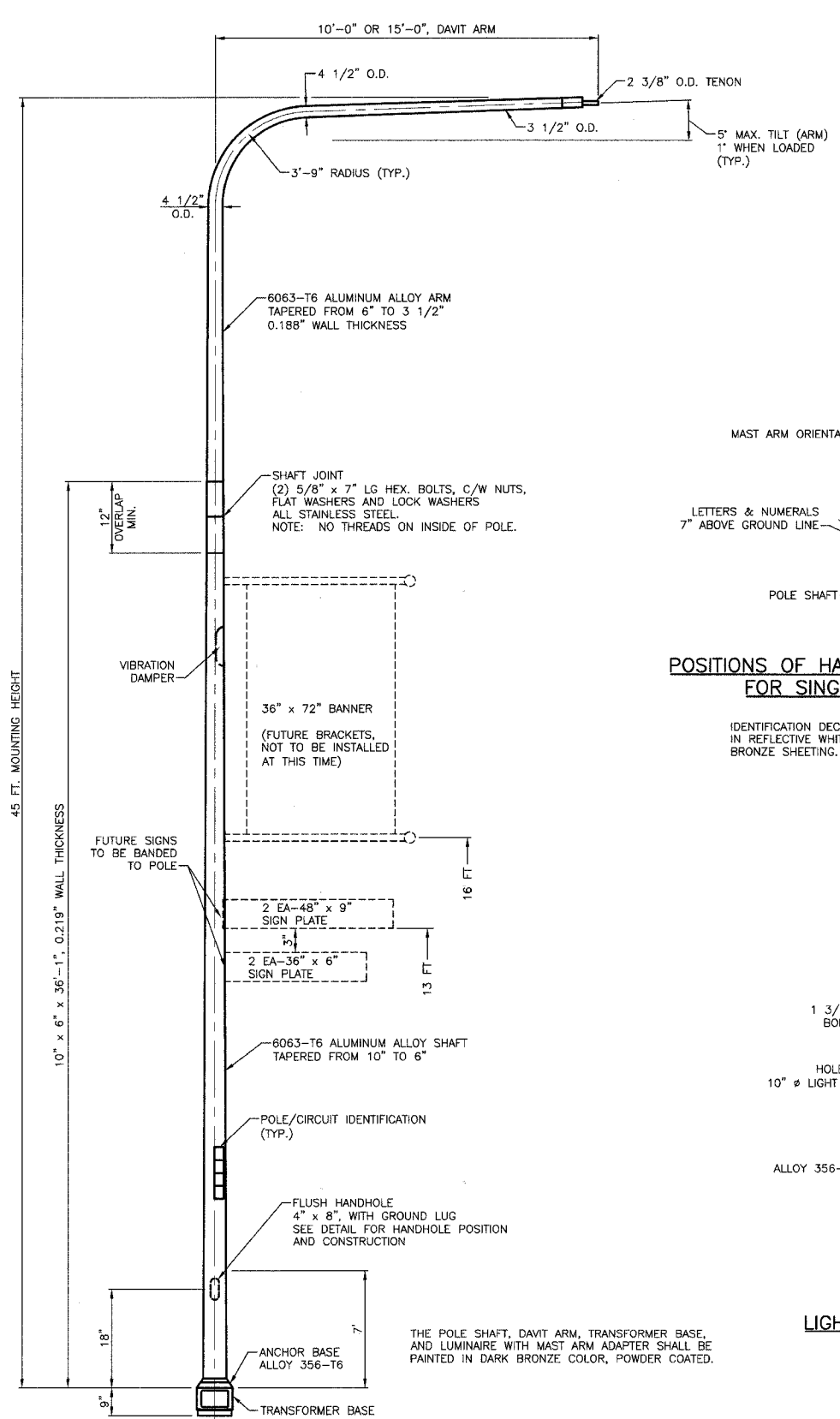


REVISIONS	
NAME	DATE

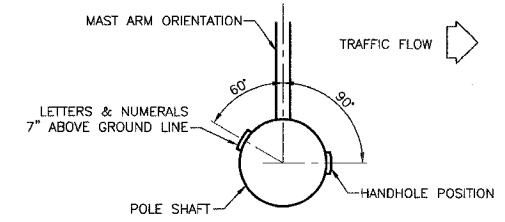
ILLINOIS DEPARTMENT OF TRANSPORTATION
 BUSSE ROAD (IL 83)
 ROADWAY LIGHTING
WIRING DIAGRAM

DATE: 07/10/2007
 CHECKED BY: D.N.M.

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
06-00052-00-LT	COOK	10	7
BUSSE ROAD (IL 83)			
LIGHTING DETAILS			

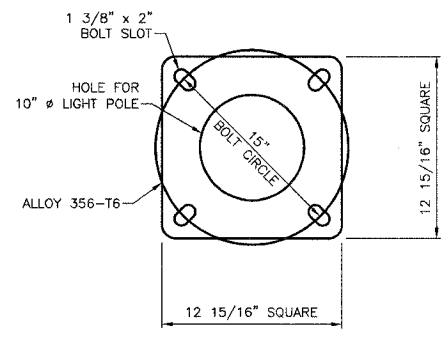


LUMINAIRE

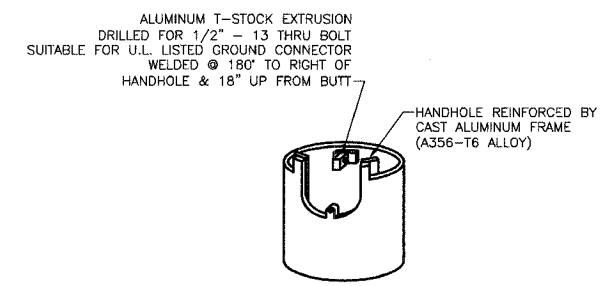


POSITIONS OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES

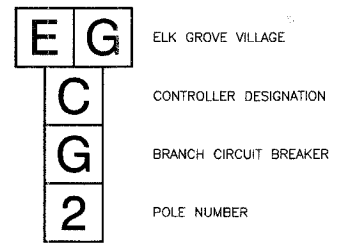
IDENTIFICATION DECALS - LETTER AND NUMERALS SHALL BE IN REFLECTIVE WHITE ON PRESSURE SENSITIVE REFLECTIVE BRONZE SHEETING.



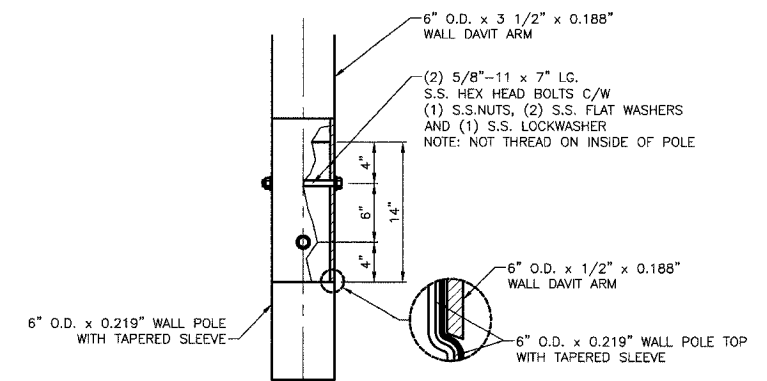
LIGHT POLE BASE PLATE DETAIL



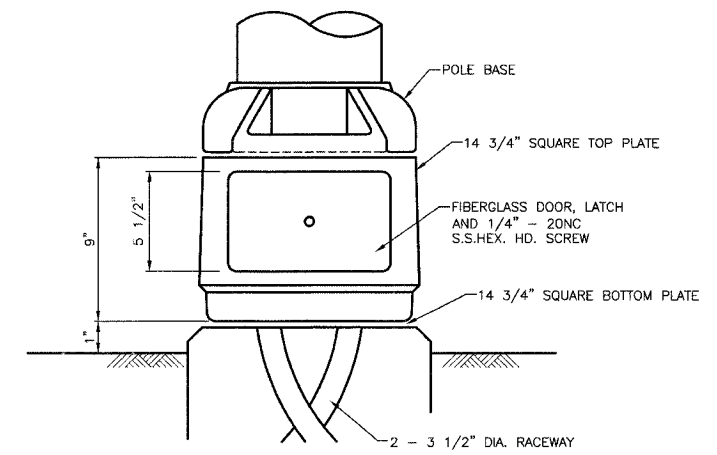
HANDHOLE AND GROUND LUG DETAIL



POLE NUMBERING TYP.



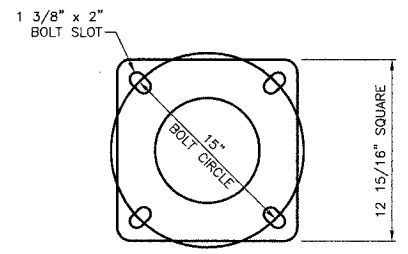
DAVIT ARM CONNECTION (14" OVERLAP SHOWN)



BREAKAWAY DEVICE, TRANSFORMER BASE

THE BREAKAWAY TRANSFORMER BASE SHALL HAVE A LISTING OF APPROVAL BY FHWA COMPLIANCE TO 1985 AASHTO REQUIREMENTS.

- NOTES:
- MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
 - BOLT SLOTS WILL BE 1 3/8" x 2" CENTERED.
 - TWO PIECE SHAFT WILL BE MATCH MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. STUD BOLT WILL BE 5/8" DIA. WITH NUT, FLAT WASHER, AND LOCK WASHER. THERE WILL BE NO THREADS ON THE BOLT INSIDE THE POLE SHAFT.
 - THE LIGHT POLE SHALL MEET A.A.S.H.T.O. DESIGN CRITERIA.



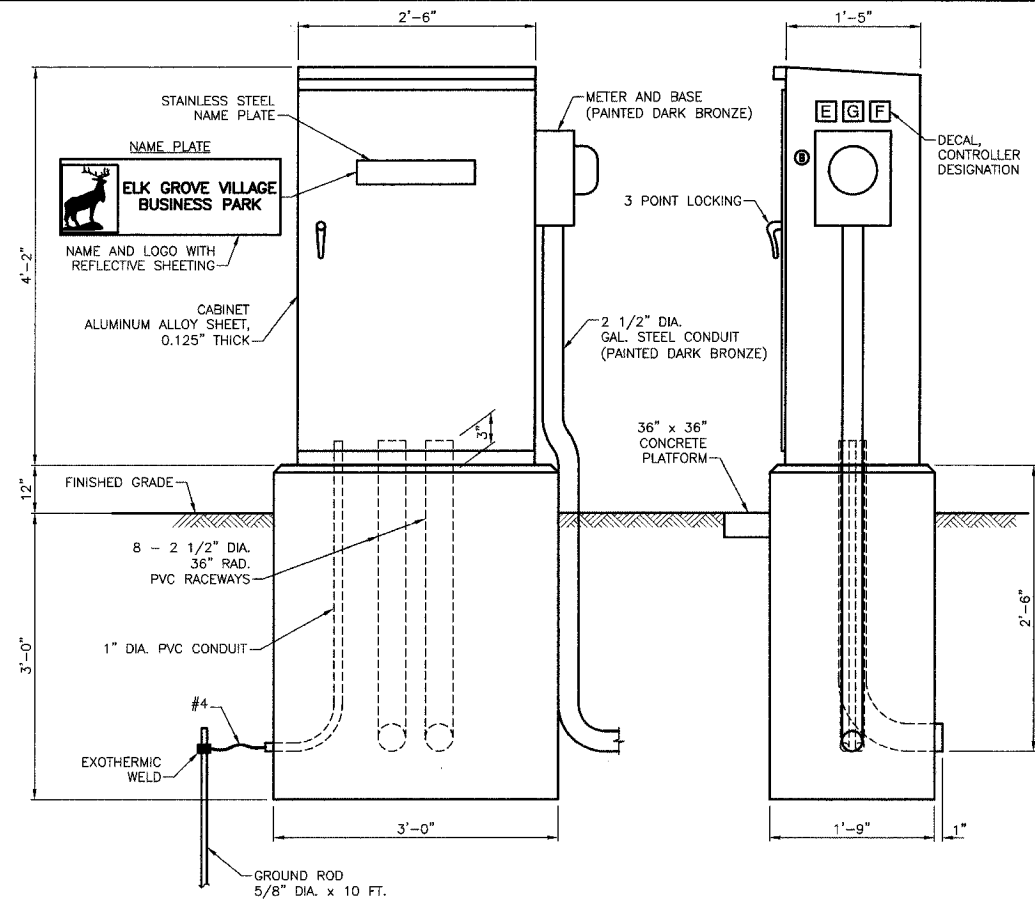
TOP/BOTTOM DETAIL TRANSFORMER BASE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BUSSE ROAD (IL 83)
ROADWAY LIGHTING
LIGHTING DETAILS

DATE: 07/10/2007
CHECKED BY: D.N.M.

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
06-00052-00-LT	COOK	10	8
BUSSE ROAD (IL 83)			
LIGHTING DETAILS			



LIGHTING CONTROLLER, SPECIAL
CONTROL CABINET DETAILS

NOTES

THE CABINET SHALL BE FABRICATED FROM 0.125" THICK ALUMINUM ALLOY SHEET AND SHALL BE REINFORCED WITH ALUMINUM ANGLES. THE CABINET DOOR SHALL BE NEMA TYPE 3R CONSTRUCTION WITH NEOPRENE GASKET. THE DOOR SHALL HAVE STAINLESS STEEL HINGES AND THREE POINT LOCKING SYSTEM.

THE CONTRACTOR SHALL REMOVE VEGETATION AND TOPSOIL, LEVEL THE AREA IN FRONT OF THE CONTROL CABINET DOOR AND PLACE LENGTHWISE, PARALLEL TO CONTROL CABINET, A PRECAST PAD, 36" x 36" x 3" MINIMUM SIZE. THE COST OF LABOR AND MATERIALS SHALL BE INCIDENTAL TO THE CONTROL CABINET.

CONTROL WIRE SHALL BE #12 AWG, 600V, TYPE "SIS" STRANDED COPPER GRAY SWITCH BOARD WIRE. THE ENDS OF ALL CONTROL WIRES SHALL BE IDENTIFIED.

ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.
R = RED BL = BLUE W = WHITE
B = BLACK Y = YELLOW G = GREEN

THE ELECTRIC METER BOX SHALL BE MOUNTED ON THE SIDE OF THE CONTROL CABINET, NEAR THE SERVICE POLE AND/OR AS DIRECTED BY THE ENGINEER.

ALL CONTROL CABINET ITEMS SHALL HAVE SUITABLE IDENTIFICATION. OPEN CIRCUIT BREAKERS, CONTACTORS AND OTHER OPEN DEVICES SHALL HAVE PERMANENT SELF STICKING TAGS. DEVICES IN ENCLOSURES SHALL HAVE ENGRAVED 2-COLOR LAMINATED PLASTIC NAMEPLATES ATTACHED TO ENCLOSURES WITH SCREWS. NAMEPLATES SHALL BE ENGRAVED TO CORRESPOND TO DESIGNATIONS ON THE DRAWINGS. INTERNAL CABINET WIRING SHALL BE IDENTIFIED AS INDICATED OR AS DIRECTED BY THE ENGINEER BY MEANS OF SELF-STICKING TAGS APPLIED AT EACH CONNECTED END. IDENTIFICATION SHALL BE MADE BY THE CABINET MANUFACTURER.

ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

THE HEADS OF CONNECTOR SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BUSS CONNECTION AND GREEN FOR GROUND BUSS CONNECTORS.

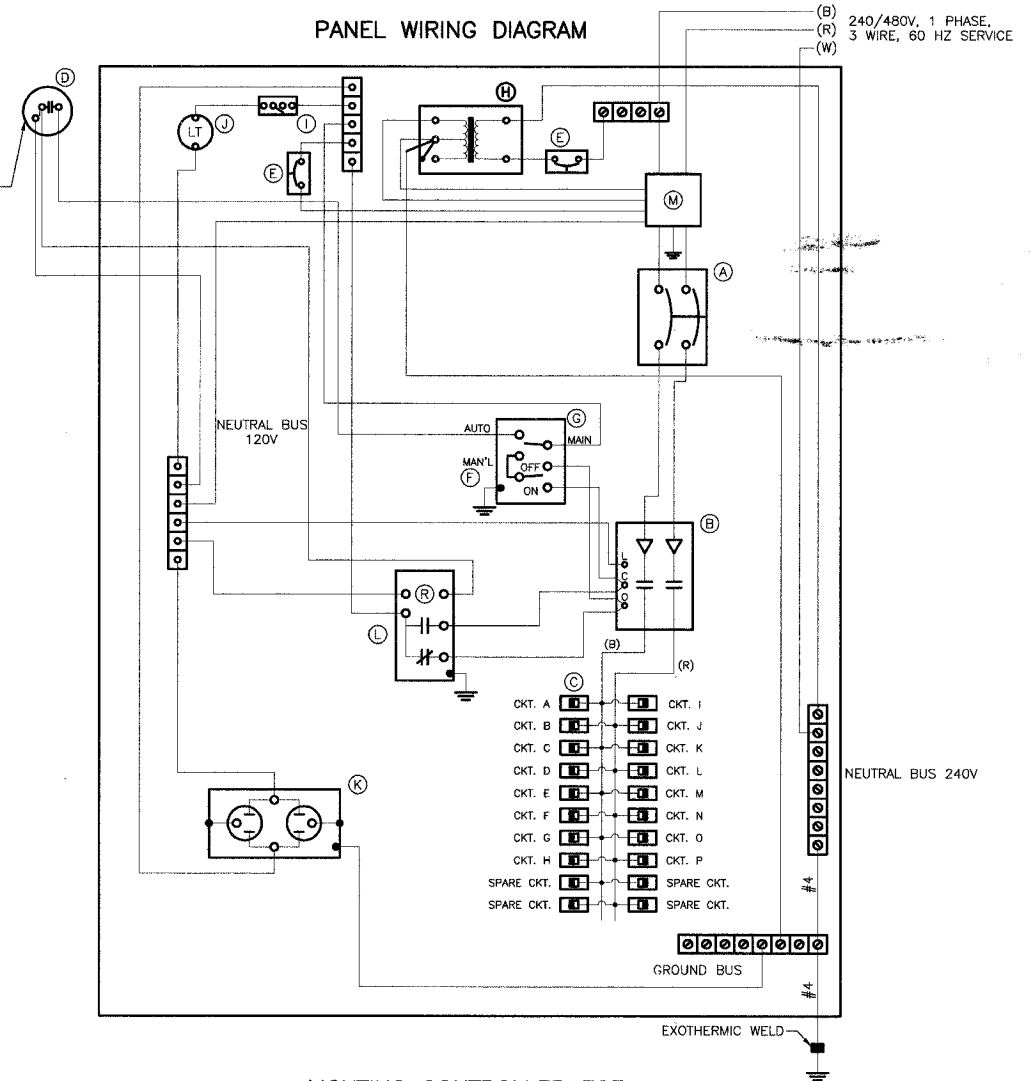
PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES WITHIN THE CONTROL CABINET.

THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".

PROVIDE A HOLDER AND WATERPROOF POUCH ON THE INNER SIDE OF THE CONTROLLER DOOR. THE HOLDER AND POUCH SHALL BE MOUNTED SO THAT RAINWATER OR CONDENSED WATER CANNOT ENTER THE POUCH WITH THE CABINET DOOR OPEN. FURNISH THE APPROVED COPY OF THE "CONTROL CABINET WIRING DIAGRAM".

THE CABINET, METER AND BASE, AND CONDUIT FOR THE METER SHALL BE PAINTED IN DARK BRONZE FINISH.

DEVICE SCHEDULE		
ITEM	QUANT.	DESCRIPTION
(A)	1	200 AMP CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 2-POLE, SINGLE THROW, 600V FRAME, NON-INTERCHANGEABLE TRIP, BOLT ON TYPE, INTERRUPTING CAPACITY OF NOT LESS THAN 25,000 RMS SYMMETRICAL AMPERES AT 600V
(B)	1	200 A., ELECTRICALLY OPERATED AND MECHANICALLY HELD LIGHTING CONTACTOR, 2-POLE, 600 V. WITH 120 V. COIL
(C)	12	240/480 V. 1 PHASE PANEL BOARD WITH 200 A. COPPER MAINS SINGLE POLE, 30 A., 277 V. BOLT ON BRANCH CIRCUIT BREAKERS INTERRUPTING CAPACITY OF NOT LESS THAN 14,000 RMS SYMMETRICAL AMPERES AT 277 V.
(D)	1	PHOTO-ELECTRIC CELL, 120 V, MOUNT ON LIGHT POLE NEAREST CONTROLLER
(E)	2	THERMAL MAGNETIC, MOLDED CASE CIRCUIT BREAKER, 1 POLE, 15 A., 277 V. BOLT ON TYPE, INTERRUPTING CAPACITY OF NOT LESS THAN 14,000 RMS SYMMETRICAL AMPERES AT 277 V.
(F)	1	CONTROL SWITCH, MOMENTARY CONTACT, SPDT, 15 A., 240 V.
(G)	1	CONTROL SWITCH, TOGGLE TYPE, SPDT, 20 A., 240 V. SPEC. GRADE
(H)	1	240/120V. STEP DOWN CONTROL TRANSFORMER 750 VA RATED
(I)	1	MICRO SWITCH (MOUNTED WITH ACTUATOR TO SWITCH WHEN DOOR IS OPEN)
(J)	1	60 WATT LIGHT FIXTURE VAPORTIGHT WITH GLOBE, GUARD AND MOUNTING BOX
(K)	1	120 VOLT, 15 A. GFCI RECEPTACLE, SPECIFICATION GRADE IN NEMA 5-15R WEATHERPROOF BOX WITH FLAP-TYPE COVER
(L)	1	POWER RELAY WITH CONTACTS RATED FOR CONTACTOR INRUSH CURRENT - 120 V COIL
(M)	1	SURGE ARRESTOR, 5 WIRE EDCO "4803" OR EQUAL



LIGHTING CONTROLLER EGF WIRING DIAGRAM

REVISIONS	
NAME	DATE

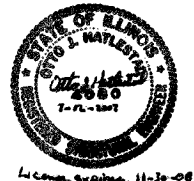
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUSSE ROAD (IL 83)
ROADWAY LIGHTING
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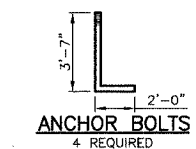
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
06-00052-00-LT	COOK	10	9
BUSSE ROAD (IL 83)			
LIGHTING DETAILS			

**DESIGN TABLE
LIGHT POLE FOUNDATION,
24" DIAMETER, OFFSET**

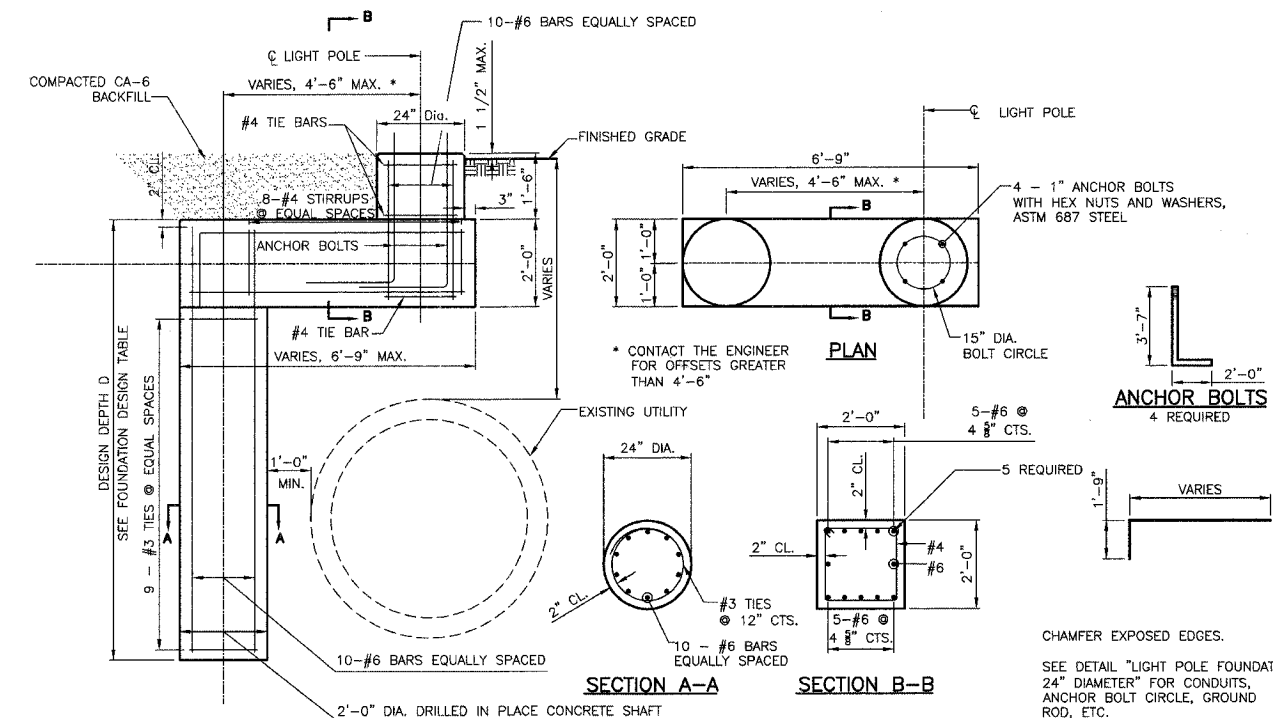
TYPE OF SOIL	DESIGN DEPTH OF FOUNDATION D
SOFT CLAY	13'-0"
MEDIUM CLAY	9'-6"
STIFF CLAY	7'-0"
LOOSE SAND	9'-0"
MEDIUM SAND	8'-3"
DENSE SAND	7'-9"



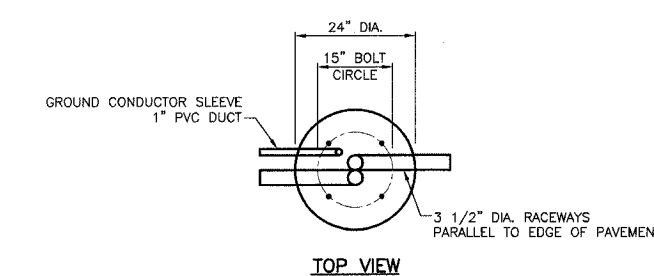
CHAMFER EXPOSED EDGES.
SEE DETAIL "LIGHT POLE FOUNDATION,
24" DIAMETER" FOR CONDUITS,
ANCHOR BOLT CIRCLE, GROUND
ROD, ETC.



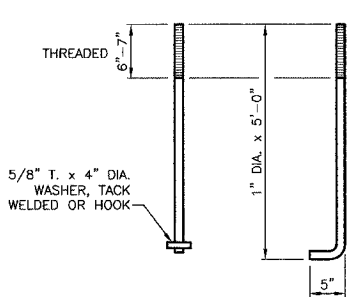
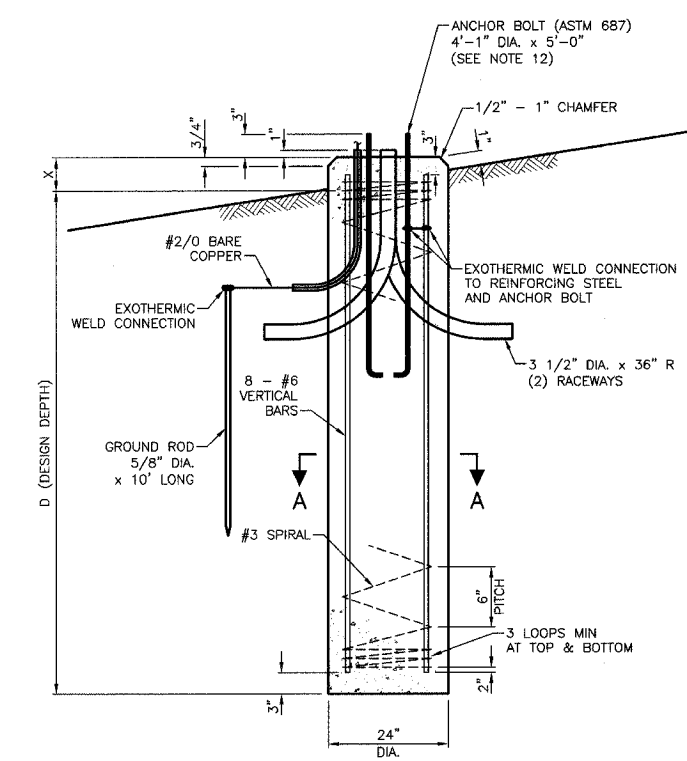
ANCHOR BOLTS
4 REQUIRED



LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET



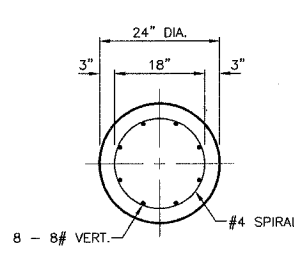
TOP VIEW



ANCHOR BOLT DETAIL

DESIGN TABLE - LIGHT POLE FOUNDATION, 24" DIAMETER

TYPE OF SOIL	DESIGN DEPTH OF FOUNDATION		REINFORCEMENT IN FOUNDATION			
	SINGLE ARM D	TWIN ARM D	SINGLE ARM		TWIN ARM	
			VERT. BARS	SPIRAL	VERT. BARS	SPIRAL
SOFT CLAY	13'-0"	15'-0"	8-#6 x 12'-6"	#3 x 122'	8-#6 x 14'-3"	#3 x 141'
MEDIUM CLAY	9'-6"	10'-9"	8-#6 x 9'-0"	#3 x 90'	8-#6 x 10'-0"	#3 x 100'
STIFF CLAY	7'-0"	8'-0"	8-#6 x 6'-6"	#3 x 66'	8-#6 x 7'-6"	#3 x 76'
LOOSE SAND	10'-0"	11'-0"	8-#6 x 9'-6"	#3 x 94'	8-#6 x 10'-6"	#3 x 103'
MEDIUM SAND	8'-3"	9'-0"	8-#6 x 8'-0"	#3 x 78'	8-#6 x 8'-6"	#3 x 85'
DENSE SAND	7'-9"	9'-0"	8-#6 x 7'-6"	#3 x 73'	8-#6 x 8'-6"	#3 x 85'
ROCK OR SOLIDIFIED SLAG	5'-0"	5'-0"	NONE	NONE	NONE	NONE



SECTION A-A

LIGHT POLE FOUNDATION, 24" DIAMETER

NOTES:

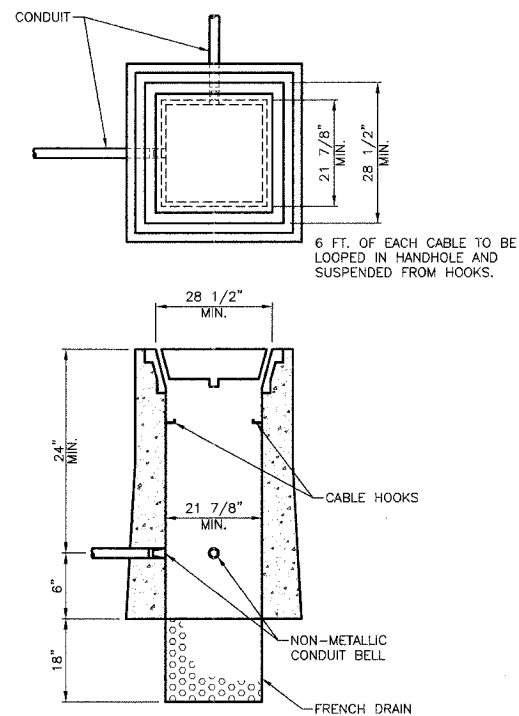
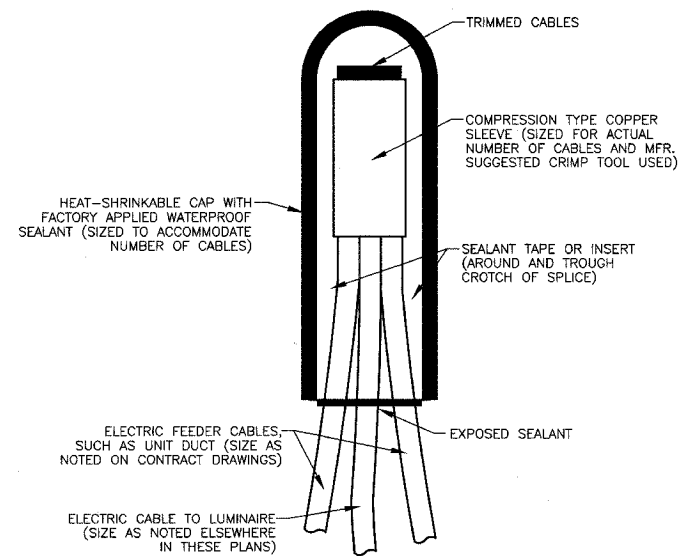
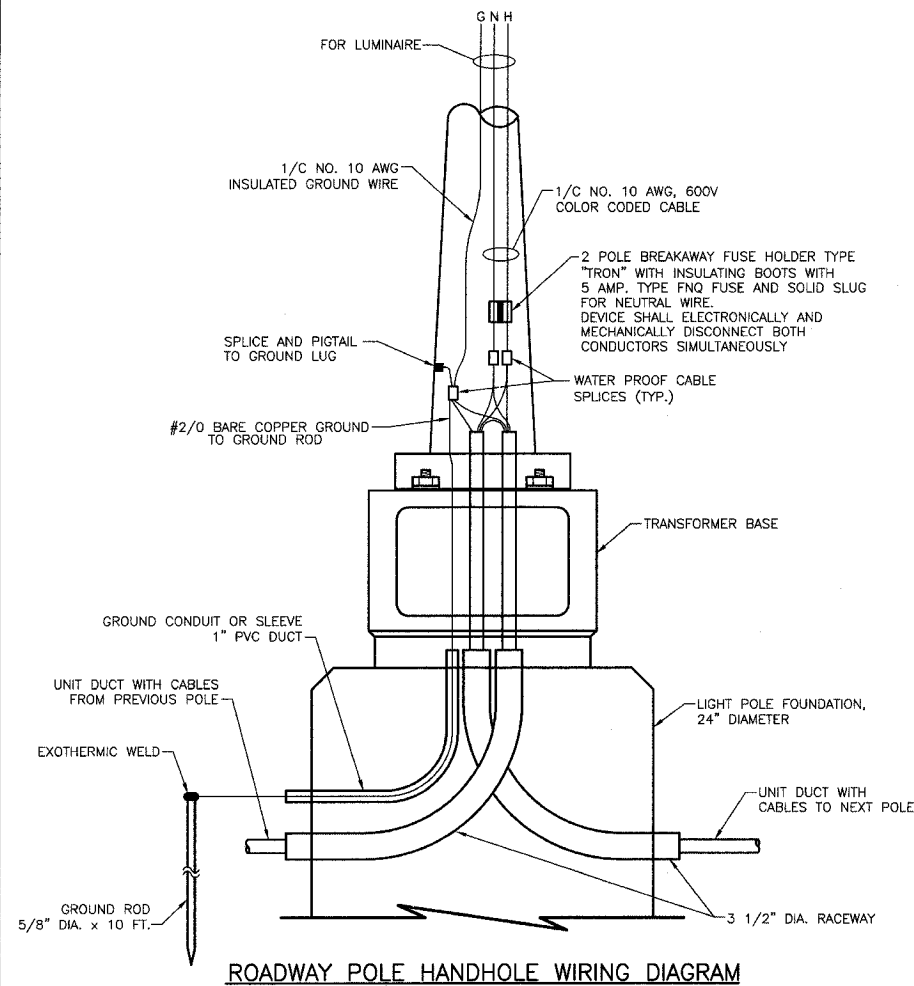
- THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE. THE CONTRACTOR SHALL NOT ORDER REINFORCEMENT BARS UNTIL THE OFFSET AND DIMENSION D ARE DETERMINED.
- EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24" OR 30" IN DIAMETER.
- THE CONTRACTOR SHALL USE #3 SPIRAL AT 6" PITCH OR AT HIS OPTION MAY SUBSTITUTE #3 TIES AT 12" CENTER.
- THE ANCHOR SHALL BE A TACK WELDED TYPE BOLT OR HOOK TYPE BOLT. COLD BENDING OF THE HOOK BOLT WILL NOT BE ALLOWED.
- THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
- THE ENTIRE LENGTH OF THE ANCHOR BOLTS AS WELL AS THE NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM DESIGNATION A 153.
- CONCRETE SHALL BE CLASS "SI". CONCRETE FOUNDATION MUST BE CURED FOR (10) TEN DAYS BEFORE THE LIGHT STANDARD IS ERECTED.
- THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERECTED.
- ANCHOR BOLTS SHALL PROJECT 3" ABOVE THE TOP OF THE FOUNDATION.
- RACEWAYS SHALL PROJECT 1" ABOVE THE TOP OF THE FOUNDATION.
- THE CONTRACTOR SHALL COORDINATE THE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS.
- A MINIMUM OF 3" OF THE THREADING ON THE ANCHOR BOLTS SHALL REMAIN BELOW THE TOP OF THE FOUNDATION.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BUSSE ROAD (IL 83) ROADWAY LIGHTING LIGHTING DETAILS
NAME	DATE	

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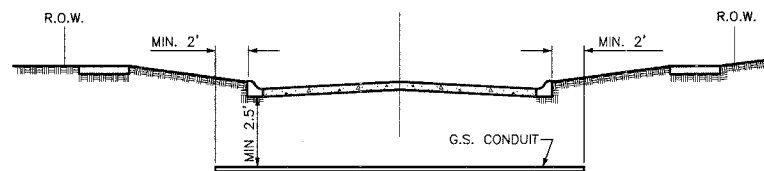


SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
06-00052-00-LT	COOK	10	10
BUSSE ROAD (IL 83)			
LIGHTING DETAILS			



- NOTES:
- COVER SHALL HAVE "STREET LIGHTING" CAST INTO LID.
 - FRAMES SHALL BE FURNISHED WITH TYPE "G" LIFTING HANDLES AND TYPE "H" HINGES WITH A SAFETY BAR.
 - FRAME SHALL BE GROUNDED PER N.E.C.

STANDARD HANDHOLE

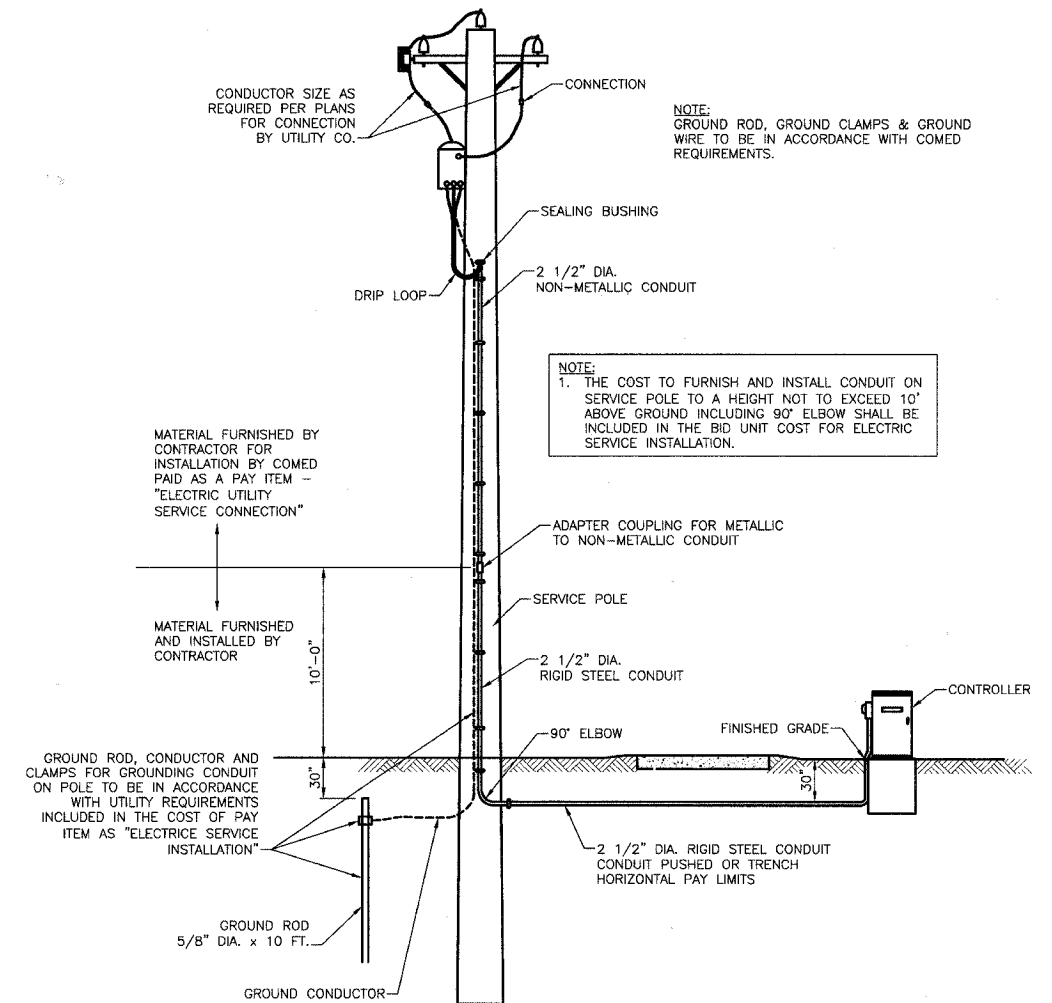
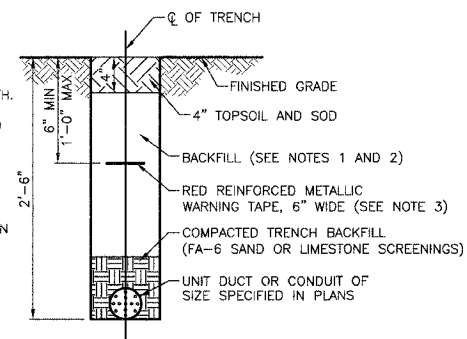


- CONDUIT SHALL BE HEAVY WALL RIGID G.S. CONDUIT.
- CONDUIT SHALL EXTEND A MINIMUM OF 2 FT. BEYOND BACK OF CURB.
- CONDUIT SHALL BE A MINIMUM OF 2.5 FT. BELOW BOTTOM OF CURB.

ELECTRICAL CONDUIT UNDER PAVEMENT

NOTES:

- IN GRASS COVERED AREAS, THE BACKFILL MAY BE COMPACTED EARTH.
- TRENCHES WITHIN 2' OF PROPOSED OR EXISTING STREETS, DRIVEWAYS, OR SIDEWALKS WILL BE BACKFILLED WITH COMPACTED FA-6 SAND OR LIMESTONE SCREENINGS.
- WARNING TAPE WILL BE RED WITH BLACK LETTERING TO READ "CAUTION - ELECTRIC LINE BURIED BELOW".
- ALL GRASS COVERED AREAS DISTURBED DURING CONSTRUCTION WILL BE RESTORED WITH 4" OF TOPSOIL AND SOD.



**PROPOSED SERVICE INSTALLATION
POLE TOP MOUNTED TRANSFORMER**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BUSSE ROAD (IL 83)
ROADWAY LIGHTING
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