

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31-1-2, 31B	SALINE	199	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NUMBER	ITEM DESCRIPTION	COUNTY: SALINE					
		LOCATION:					
		CONSTRUCTION TYPE CODE:					
		FUNDING:					
		UNIT	TOTAL QUANTITY	RURAL	FED 80% STATE 20% ROAD	FED 80% STATE 20% TRAFFIC SIGNAL	FED 80% STATE 20% CULVERT SN 083-2014
72000100	SIGN PANEL - TYPE 1	SQ FT	76			76	
X7800500	POLYUREA PAVEMENT MARKING - LETTERS AND SYMBOLS, SPECIAL	SQ FT	1305		1305		
78008310	POLYUREA PAVEMENT MARKING TYPE II - LINE 4"	FOOT	18783		18783		
78008330	POLYUREA PAVEMENT MARKING TYPE II - LINE 6"	FOOT	1315		1315		
X7800540	POLYUREA PAVEMENT MARKING TYPE II - LINE 8" (SPECIAL)	FOOT	511		511		
X7800550	POLYUREA PAVEMENT MARKING TYPE II - LINE 12" (SPECIAL)	FOOT	619		619		
X7800580	POLYUREA PAVEMENT MARKING TYPE II - LINE 24" (SPECIAL)	FOOT	188		188		
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	544		544		
78300105	PAVEMENT MARKING REMOVAL	FOOT	700		700		
80300100	LOCATING UNDERGROUND CABLE	FOOT	1310			1310	
80500105	SERVICE INSTALLATION, TYPE A (MODIFIED)	EACH	1				
81012500	CONDUIT IN TRENCH, 1 1/2" DIA., PVC	FOOT	832			832	
81013000	CONDUIT IN TRENCH, 4" DIA., PVC	FOOT	30			30	
81021540	CONDUIT, AUGERED 1 1/2" DIA., PVC	FOOT	170			170	
81021550	CONDUIT, AUGERED 2" DIA., PVC	FOOT	509			509	
81021570	CONDUIT, AUGERED 3" DIA., PVC	FOOT	212			212	
81021590	CONDUIT, AUGERED 4" DIA., PVC	FOOT	85			85	
81400400	CONCRETE HANDHOLE	EACH	8			8	
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1307			1307	
81700315	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 3-1/C NO. 10	FOOT	1278			1278	
82500605	LIGHTING CONTROLLER PHOTOCELL RELAY	EACH	1			1	
<del>8300000</del>	<del>POLE FOUNDATION, METAL, 6" DIA., 3' LONG</del>	<del>EACH</del>	<del>1</del>				
<del>8400000</del>	<del>REMOVAL OF POLE FOUNDATION, CONCRETE</del>	<del>EACH</del>	<del>1</del>				
<del>8400000</del>	<del>REMOVE AND RELOCATE EXISTING LIGHTING UNIT</del>	<del>EACH</del>	<del>1</del>				
85700200	FULL - ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1			1	
86600010	GULFBOX JUNCTION	EACH	7			7	
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1889			1889	
87301275	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 12C	FOOT	743			743	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD - IN, NO. 14 1 PAIR	FOOT	4353			4353	
87700160	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	2			2	
X87700220	STEEL FOUNDATION MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	2			2	
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	12			12	
87800200	CONCRETE FOUNDATION, TYPE D	FOOT	3.5			3.5	
87800400	CONCRETE FOUNDATION, TYPE E, 30-INCH DIAMETER	FOOT	60			60	
88200100	TRAFFIC SIGNAL BACKPLATE	EACH	8			8	
88500100	INDUCTIVE LOOP DETECTOR	EACH	12			12	
88500200	INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT	EACH	6			6	
88600100	DETECTOR LOOP, TYPE I	FOOT	1656			1656	
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1			1	
X0300739	UNINTERRUPTIBLE POWER SUPPLY	EACH	1			1	
XX005096	TRENCH FRAMES AND GRATES	FOOT	32		32		
X0321156	HIGH VISIBILITY TEMPORARY FENCING	FOOT	279		279		
X0322729	MATERIAL TRANSFER DEVICE	TON	7052		7052		
X0322752	WORK ZONE PAVEMENT MARKING REMOVAL	FOOT	13900		13900		
X0323310	REMOVAL OF EXISTING SIGNAL SYSTEM	EACH	1			1	
X0323868	DRAINAGE RESTRICTOR	EACH	1		1		
X0712400	TEMPORARY PAVEMENT	SQ YD	1561		1561		
X4066528	POLYMERIZED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N90	TON	3099		3099		
X4066618	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N90	TON	9293		9293		
X4069125	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N90, 8"	SQ YD	16321		16321		
XT015000	CHANGEABLE MESSAGE SIGN	CAL MO	100		100		
X8801310	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4			4	
X8801395	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	12			12	
X8801400	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4			4	
XX220000	REMOVE EXISTING LIGHTING SYSTEM	EACH	1			1	
Z0002600	BAR SPLICERS	EACH	142				142
Z0030250	IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE, TEST LEVEL 3)	EACH	4				
Z0030350	IMPACT ATTENUATOR, RELOCATE (NON-REDIRECTIVE, TEST LEVEL 3)	EACH	2				
Z0022800	FENCE REMOVAL	FOOT	335		335		
Z0076600	TRAINERS	FOOT	1500		1500		
X0005400	BREAKER RUN CRUSHED STONE	TON	1157				1157
X0102600	CONDUIT IN TRENCH 2" DIA. PVC	FOOT	678			678	
X0202400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MT, 400W	EACH	8			8	
X0302400	LIGHT POLE ALUMINUM 40 FT. MH, 15 FT. DAVI ARM	EACH	8			8	
X0302450	LIGHT POLE FOUNDATION METAL 11" BOLT CIRCLE 8" SQ	EACH	8			8	
X0400100	LIGHTING FOUNDATION REMOVAL	EACH	4			4	
X0500310	TRAFFIC SIGNAL POST PAINTED STEEL, 1/4 FT.	EACH	4			4	
X0500805	DRAINAGE DEVICE, COLLARING, W/ ALUMINUM SKIRT	EACH	32			32	

\*SPECIALTY ITEM

△ SFTY - 3N  
 ○ Y080

DRAWN BY  
CHECKED BY

M:\98013526\ROADWAY\CONTRACT\GENERAL\ACTION - File\SUM01-8526C4.dgn

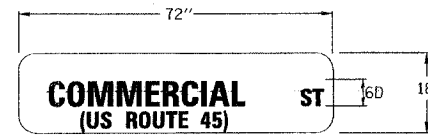
△ Rev. 7-18-05

Rev.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31-1-2, 31B	SALINE	199	92
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

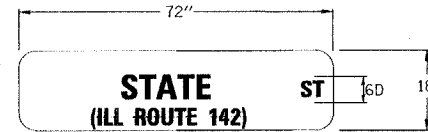
**SCHEDULE OF QUANTITIES**

PAY ITEMS	UNIT	TOTAL QUANT.
72000100 SIGN PANEL, TYPE 1	SQ FT	76
80300100 LOCATING UNDERGROUND CABLE	FOOT	1310
80500105 SERVICE INSTALLATION, TYPE A (MODIFIED)	EACH	1
81012600 CONDUIT IN TRENCH, 1 1/2" DIA., PVC	FOOT	832
81012600 CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	678
81013000 CONDUIT IN TRENCH, 4" DIA., PVC	FOOT	30
81021540 CONDUIT, AUGERED, 1 1/2" DIA., PVC	FOOT	170
81021550 CONDUIT, AUGERED, 2" DIA., PVC	FOOT	509
81021570 CONDUIT, AUGERED, 3" DIA., PVC	FOOT	212
81021590 CONDUIT, AUGERED, 4" DIA., PVC	FOOT	85
81400400 CONCRETE HANDHOLE	EACH	8
81500200 TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1307
81700315 ELECTRIC CABLE IN CONDUIT, 600V, (EPR-TYPE RHW) 3-1/C, NO. 10	FOOT	1278
82102400 LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	8
82500605 LIGHTING CONTROLLER - PHOTOCCELL RELAY	EACH	1
83002600 LIGHT POLE, ALUMINUM, 40 FT., M.H., 15 FT. DAVIT ARM	EACH	8
83600350 LIGHT POLE FOUNDATION, METAL, 11" BOLT CIRCLE, 8" X 6"	EACH	8
83800505 BREAKAWAY DEVICE, COUPLING, WITH ALUMINUM SKIRT	EACH	32
84200700 LIGHTING FOUNDATION REMOVAL	EACH	4
85700200 FULL ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
86600010 GULFBOX JUNCTION	EACH	7
87301255 ELECTRIC CABLE IN CONDUIT SIGNAL NO. 14 7C	FOOT	1889
87301275 ELECTRIC CABLE IN CONDUIT SIGNAL NO. 14 12C	FOOT	743
87301305 ELECTRIC CABLE IN CONDUIT LEAD-IN, NO. 14, 1 PAIR	FOOT	4353
87502310 TRAFFIC SIGNAL POST, PAINTED STEEL 16'	EACH	4
87700160 STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	2
87700220 STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	2
87800100 CONCRETE FOUNDATION, TYPE A	FOOT	12
87800200 CONCRETE FOUNDATION, TYPE D	FOOT	3.5
87800400 CONCRETE FOUNDATION, TYPE E, 30-INCH DIAMETER	FOOT	60
88200100 TRAFFIC SIGNAL BACKPLATE	EACH	8
88500100 INDUCTIVE LOOP DETECTOR	EACH	12
88500200 INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT	EACH	6
88600100 DETECTOR LOOP, TYPE 1	FOOT	1656
89000100 TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
X0300739 UNINTERRUPTIBLE POWER SUPPLY	EACH	1
X0323310 REMOVAL OF EXISTING SIGNAL SYSTEM	EACH	1
X8801310 SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
X8801395 SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	12
X8801400 SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
XX220000 REMOVE EXISTING LIGHTING SYSTEM	EACH	1



**STREET NAME SIGN**

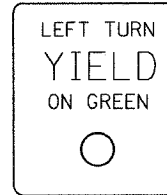
MAST ARM MOUNTED  
STA. 388+39, 40' RT.  
STA. 388+59, 38' LT.



**STATE  
(ILL ROUTE 142)**

**STREET NAME SIGN**

MAST ARM MOUNTED  
STA. 388+10, 17' LT.  
STA. 388+90, 20' RT.



R10-12  
24" X 30"  
MAST ARM MOUNTED  
STA. 388+10, 3' LT.  
STA. 388+47, 38' RT.  
STA. 388+49, 36' LT.  
STA. 388+90, 3' RT.  
BRACKET MOUNTED  
STA. 388+10, 40' LT.  
STA. 388+68, 40' LT.  
STA. 388+90, 40' RT.  
STA. 388+29, 42' RT.

**GENERAL NOTES**

- ALL ELECTRIC CABLE AND CONDUIT QUANTITIES ARE ROUNDED UP TO THE NEAREST 5 FEET.
- THE FURNISHING AND INSTALLATION OF THE 1-1/2" CONDUIT WITH ITS TRENCHING AND BACKFILL FROM THE LOOP SAWCUT TO THE SPLICE POINT WILL BE INCLUDED IN THE LOOP INSTALLATION AND SEPARATE PAYMENT WILL NOT BE MADE FOR THIS WORK.
- THE INDUCTION LOOP WIRE AND LEAD-IN WIRE WILL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION OR AS INDICATED ON THE PLANS.
- SHIELDED CABLE TO LOOP LEADS WILL BE GROUNDED AT THE CONTROLLER TERMINAL ONLY.
- ALL DETECTOR LOOP CORNERS WILL BE CORE DRILLED 2 INCHES MINIMUM DIAMETER.
- WHILE SIGNAL HEADS ARE MOUNTED IN PLACE, BUT NOT YET IN OPERATION, THEY MUST BE SECURELY COVERED IN WHITE PLASTIC.
- EXISTING SURFACE DISTURBED DURING EXCAVATION FOR FOUNDATIONS AND PUSH PITS MUST BE RESTORED TO THE LIMITS AND CONDITION SPECIFIED BY THE ENGINEER OR AS SHOWN ON THE PLANS. UNLESS NOTED OTHERWISE ON THE PLANS THE REMOVAL AND RESTORATION WILL BE INCLUDED IN THE CONTRACT.
- THE LOCATION OF THE DETECTOR LOOPS AND TRAFFIC SIGNAL FOUNDATIONS SHOWN ON THE PLANS MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER OF TRAFFIC OPERATIONS.
- IN AREAS WHERE MULTIPLE RUNS OF PARALLEL CONDUIT ARE IN THE SAME LOCATION, TRENCH AND BACKFILL WILL ONLY BE PAID FOR ONCE.
- NOT USED
- SAWED SLOTS FOR TWISTED PAIR ELECTRIC CABLE WILL BE LARGER THAN SINGLE CONDUCTOR LOOP SLOTS.
- ALL DETECTOR LOOPS MUST BE INSTALLED PRIOR TO RESURFACING.
- ALL PROPOSED MAST ARM POLES MUST BE LOCATED NO CLOSER THAN 6 FT. FROM FACE OF CURB TO THE CENTER OF POLE; ALL PROPOSED TRAFFIC SIGNAL POSTS WILL BE LOCATED NO CLOSER THAN 4-1/2' FROM THE FACE OF CURB TO CENTER OF THE POST, UNLESS OTHERWISE SHOWN ON THE PLAN.
- THE CONTRACTOR WILL NOTIFY THE ENGINEER OF TRAFFIC OPERATIONS 72 HOURS PRIOR TO THE SHUT-DOWN OR CUTTING OF EXISTING DETECTOR LOOPS.
- THE DISTRICT BUREAU OF OPERATIONS MUST BE NOTIFIED AT LEAST 10 DAYS PRIOR TO PLACEMENT OF THE FINAL PAVEMENT MARKINGS.

**RC ENGINEERS, LTD.**  
CONSULTING ENGINEERS - SPRINGFIELD, ILLINOIS

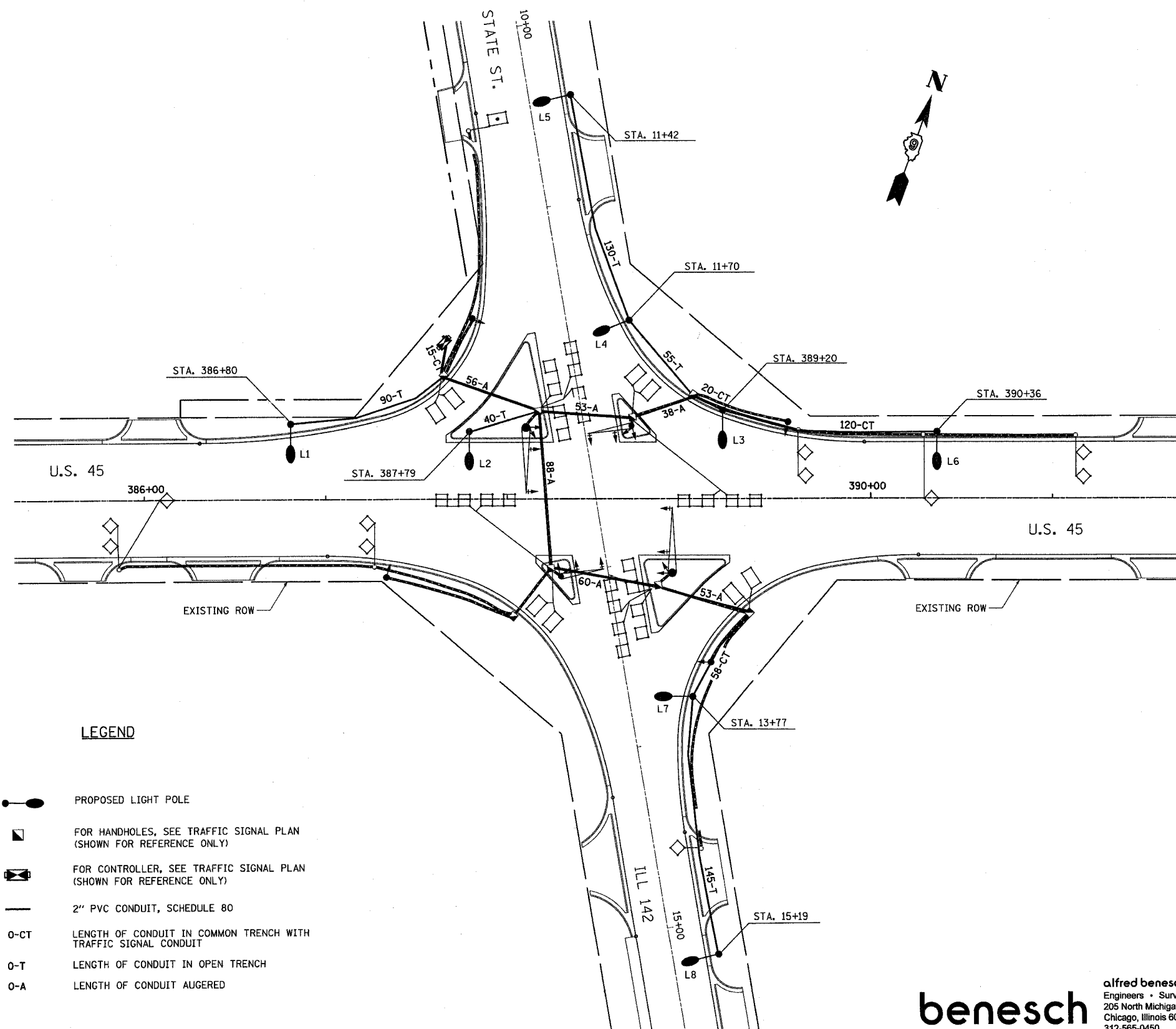
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL RTE 142  
TRAFFIC SIGNAL & LIGHTING  
SCHEDULE OF QUANTITIES  
AND SIGN DETAILS

SCALE: NONE  
DATE: 7/14/05  
DRAWN BY: LLO/DJK  
CHECKED BY: JCP/RCG

Rev. 7-18-05








CONTRACT NO. 98631				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31-1-2, 31B	SALINE	199	95
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



**GENERAL NOTES-LIGHTING PLAN**

1. THE CONTRACTOR SHALL MATCH THE BOLT CIRCLE OF THE POLE BASE WITH THE BOLT CIRCLE OF THE PROPOSED METAL FOUNDATION.
2. ANCHOR BOLTS SHALL NOT BE PAID SEPARATELY, BUT SHALL BE INCIDENTAL TO THE FOUNDATION.
3. LIGHT POLES SHALL BE LOCATED 6 FT FROM THE FACE OF THE CURB TO THE CENTER OF THE POLE.
4. LIGHT POLES SHALL BE AFFIXED WITH POLE NUMBERS TO MATCH THE EXISTING POLE NUMBERS. IF THE EXISTING POLES DO NOT SHOW ANY POLE NUMBERS, THEN THE NEW POLE NUMBERS SHALL BE AFFIXED PER PLANS. POLE NUMBER SPECIFICATIONS SHALL BE PER STANDARD SPECIFICATIONS SEC. 1069.02.
5. LIGHT POLE LOCATIONS SHALL BE PER PLAN LOCATIONS +5' OR AS DIRECTED BY THE ENGINEER TO AVOID CONFLICTS.
6. LIGHTING SHALL BE MAINTAINED OPERATIONAL EVERY NIGHT AND THE COST OF MAINTENANCE SHALL BE INCLUDED IN THE LIGHT POLE, 40 FT., MH, 15 FT. DAVIT ARM ITEM.
7. BREAKAWAY COUPLINGS TO FIT 1" DIA. STUDS SHALL BE INSTALLED AT ALL LIGHT POLE LOCATIONS.
8. FOR CONTROLLER LOCATION, SEE PROPOSED TRAFFIC SIGNAL PLAN.
9. SEE TRAFFIC SIGNAL PLANS FOR HANDHOLES, CONTROLLERS, SIGNALS, MAST AND POSTS, MAST ARM ASSEMBLIES, LOOPS AND COMMON CONDUITS. (SHOWN FOR REFERENCE ONLY)

**LEGEND**

-  PROPOSED LIGHT POLE
-  FOR HANDHOLES, SEE TRAFFIC SIGNAL PLAN (SHOWN FOR REFERENCE ONLY)
-  FOR CONTROLLER, SEE TRAFFIC SIGNAL PLAN (SHOWN FOR REFERENCE ONLY)
-  2" PVC CONDUIT, SCHEDULE 80
-  LENGTH OF CONDUIT IN COMMON TRENCH WITH TRAFFIC SIGNAL CONDUIT
-  LENGTH OF CONDUIT IN OPEN TRENCH
-  LENGTH OF CONDUIT AUGERED

**benesch**

alfred benesch & company  
 Engineers • Surveyors • Planners  
 205 North Michigan Avenue, Suite 2400  
 Chicago, Illinois 60601  
 312-565-0450

Rev. 7-18-05

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL RTE 142 AT U.S. 45  
 PROPOSED LIGHTING PLAN

SCALE: 1"=30'  
 DATE 7/14/05

DRAWN BY DJK  
 CHECKED BY RCG

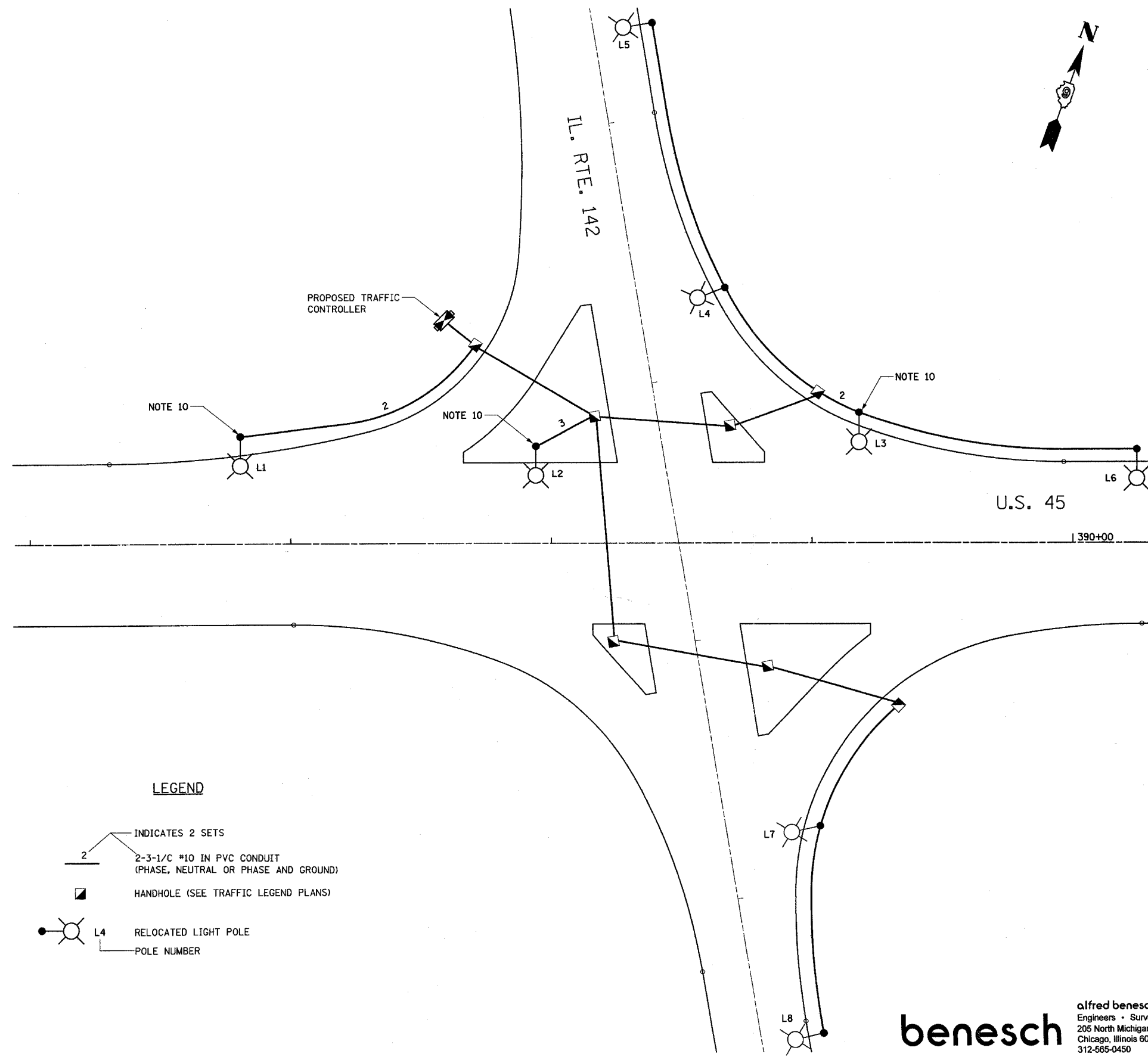
L-1

m:\pco\13526\Roadway\Final Plans Contract 4\142PRLighting.dgn

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31-1-2, 31B	SALINE	199	96
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**GENERAL NOTES-LIGHTING PLAN**

1. A 30 AMP CIRCUIT BREAKER SHALL BE ADDED TO THE PROPOSED TRAFFIC CONTROLLER. THIS CIRCUIT BREAKER WILL BE DEDICATED TO THE FEED FOR THE STREET LIGHTING IN THE AREA.
2. SPLICING OF LIGHTING CONDUCTORS SHALL NOT BE PERMITTED IN THE BELOW GRADE HANDHOLES. SPLICING SHALL BE DONE AT THE POLE HANDHOLES ONLY
3. LIGHT POLES SHALL HAVE FUSES AND FUSE HOLDERS AND SURGE PROTECTION PER SS SEC. 1065.01. THIS WORK SHALL NOT BE PAID SEPARATELY, BUT SHALL BE INCLUDED IN THE CABLE IN CONDUIT PAY ITEM.
4. CONTRACTOR SHALL VERIFY IF THE LUMINAIRE INPUT VOLTAGE IS COMPATIBLE WITH THE NEW SERVICE VOLTAGE AT THE POLE HANDHOLE. IF THE LUMINAIRE INPUT VOLTAGE IS DIFFERENT FROM THE SERVICE VOLTAGE, THE CONTRACTOR WILL BE PERMITTED TO REPLACE THE BALLAST, LUMINAIRE OR TRANSFORMER AT NO ADDITIONAL COST TO THE CONTRACT TO MAKE THE LIGHTING SYSTEM OPERATIONAL.
5. LIGHTING WILL BE MAINTAINED OPERATIONAL EVERY NIGHT AND THE COST OF MAINTENANCE IS INCLUDED IN THE RELOCATION OF LIGHT POLE, 40 FT., MH, 15 FT. DAVIT ARM ITEM.
6. SPLICE CIRCUIT CONDUCTORS AT LIGHT POLE HANDHOLE.



**LEGEND**

- INDICATES 2 SETS  
2-3-1/C #10 IN PVC CONDUIT (PHASE, NEUTRAL OR PHASE AND GROUND)
- HANDHOLE (SEE TRAFFIC LEGEND PLANS)
- RELOCATED LIGHT POLE  
POLE NUMBER

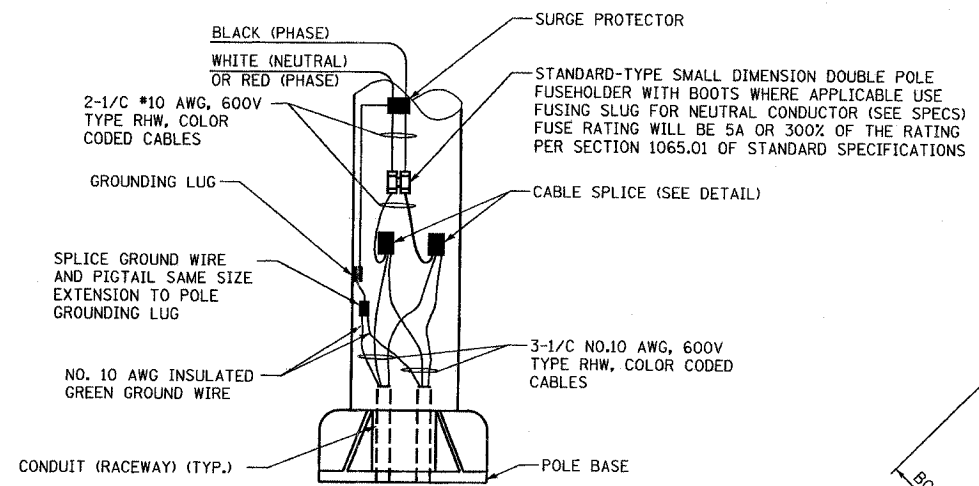
**benesch**  
 alfred benesch & company  
 Engineers • Surveyors • Planners  
 205 North Michigan Avenue, Suite 2400  
 Chicago, Illinois 60601  
 312-565-0450

Rev. 7-18-05

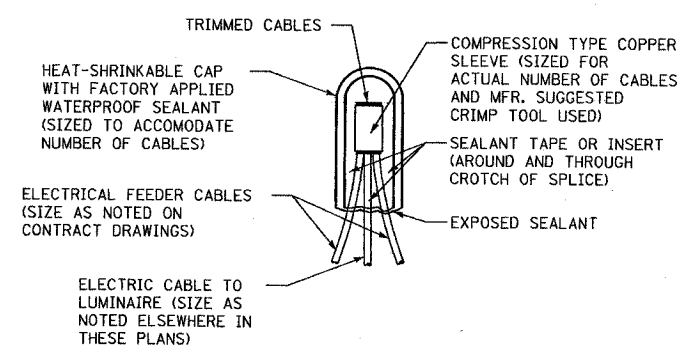
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL RTE 142 AT U.S. 45  
 LIGHTING WIRING PLAN  
 SCALE: NONE  
 DATE 7/14/05  
 DRAWN BY DJK  
 CHECKED BY RCG

m:\p\013526\Roadway\Final Plans\_Contract\_4\421twire.dgn

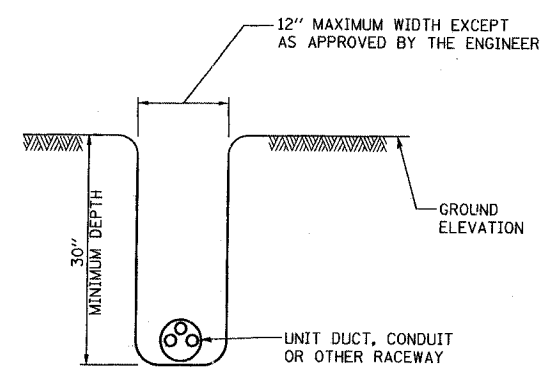


POLE WIRING DETAIL  
N.T.S.

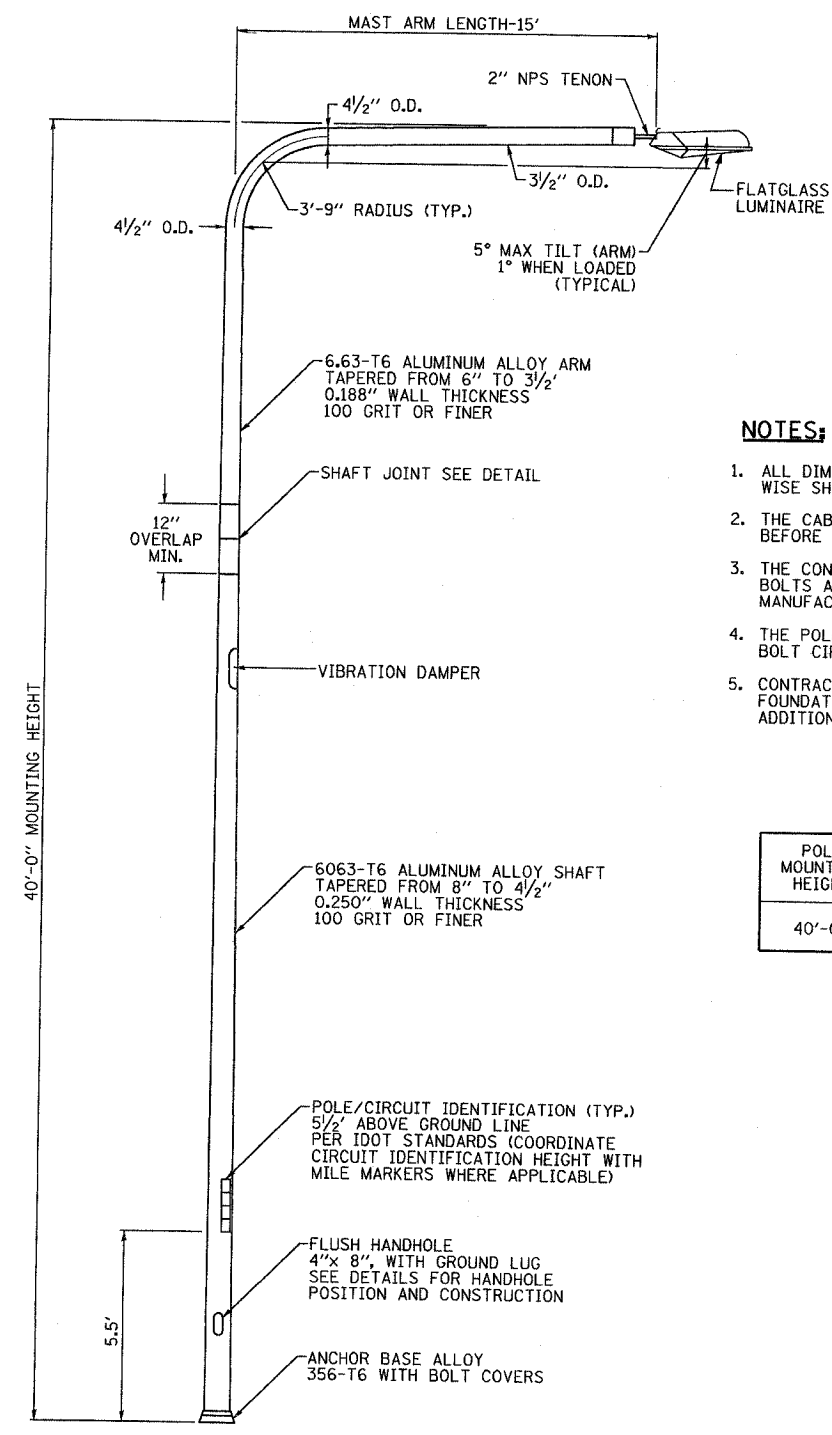
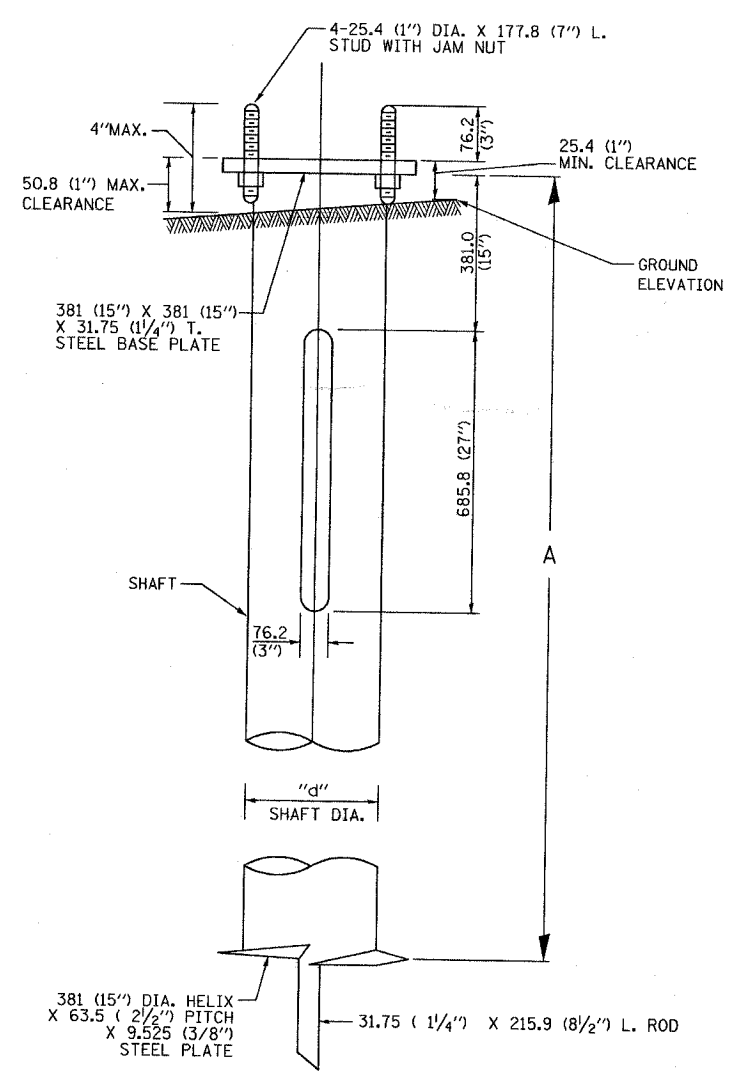
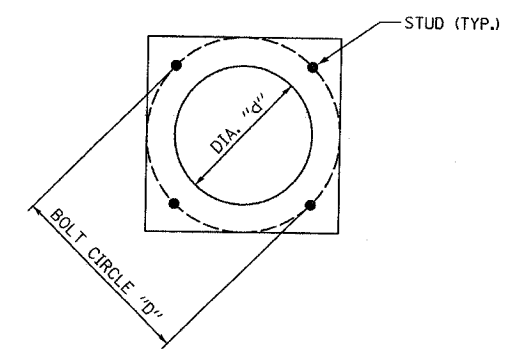


TYPICAL SPLICE DETAIL  
N.T.S.

NOTE THAT NUMBER OF CABLES IN SPLICE MAY VARY



TYPICAL TRENCH DETAIL  
N.T.S.



SINGLE ARM POLE

**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
2. THE CABLE TRENCH WILL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE INSTALLATION OF THE LIGHT POLE.
3. THE CONTRACTOR MUST COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURERS REQUIREMENTS WHERE APPLICABLE.
4. THE POLE BOLT CIRCLE SHALL MATCH THE HELIX FOUNDATION BOLT CIRCLE.
5. CONTRACTOR WILL FURNISH AND INSTALL 10' LONG SHAFT HELIX FOUNDATION AT LOCATIONS WITH 2:1 OR STEEP SLOPE AT NO ADDITIONAL COST.

**HELIX FOUNDATION SIZE**

POLE MOUNTING HEIGHT	BOLT CIRCLE "D"	SHAFT LENGTH "A"		SHAFT DIA. "d"
		ON FLAT GROUND	ON 2:1 OR STEEP SLOPE	
40'-0"	11"	6'	6'	8"

L-3

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILL. RTE. 142 AND U.S. 45  
LIGHTING DETAILS  
SCALE: NONE  
DATE 7/14/05  
DRAWN BY DJK  
CHECKED BY RCG

**benesch**

alfred benesch & company  
Engineers • Surveyors • Planners  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450

Rev. 7-18-05

m:\p\c\13526\Roadway\Final Plans\_Contract 4\1421\detail.dgn