

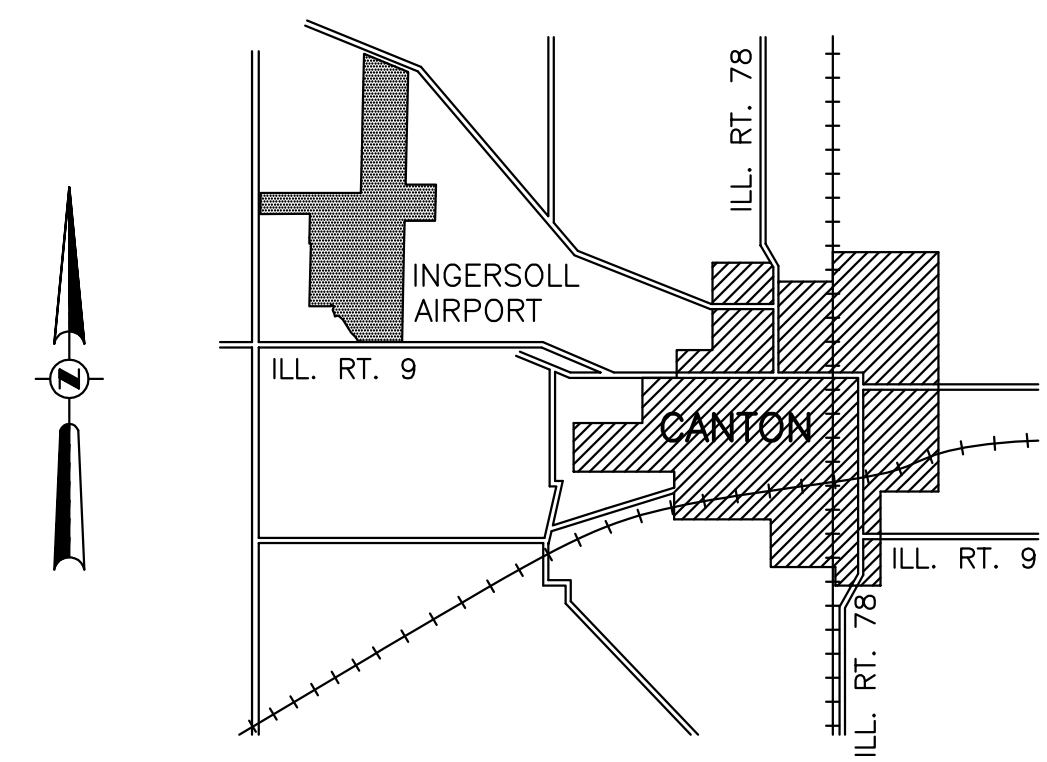
CONSTRUCTION PLANS FOR INGERSOLL AIRPORT

CANTON, FULTON COUNTY, ILLINOIS

NEW MIRLS ON RUNWAYS 9-27 & 18-36;
NEW MITLS ON TAXIWAYS B & G

ILLINOIS PROJECT NO. CTK-4350
SBG PROJECT NO. 3-17-SBGP-76

MARCH 20, 2015



VICINITY MAP

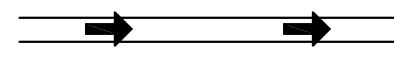
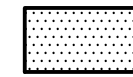

SUMMARY OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	AS BID QUANTITY	AS BUILT QUANTITY
AR108000	CABLE TRENCH	LIN. FT.	45	
AR108108	1/C #8 5KV UG CABLE	LIN. FT.	3,240	
AR108158	1/C #8 5KV UG CABLE IN UD	LIN. FT.	20,450	
AR109301	4 KW REGULATOR, STYLE 1	EACH	2	
AR109311	7.5 KW REGULATOR, STYLE 1	EACH	1	
AR109903	REMOVE REGULATOR	EACH	3	
AR110316	6" STEEL DUCT - JACKED	LIN. FT.	10	
AR110710	ELECTRICAL MANHOLE	EACH	1	
AR125410	MITL - STAKE MOUNTED	EACH	39	
AR125415	MITL - BASE MOUNTED	EACH	6	
AR125442	TAXI GUIDANCE SIGN, 2 CHARACTER	EACH	4	
AR125444	TAXI GUIDANCE SIGN, 4 CHARACTER	EACH	2	
AR125445	TAXI GUIDANCE SIGN, 5 CHARACTER	EACH	3	
AR125446	TAXI GUIDANCE SIGN, 6 CHARACTER	EACH	1	
AR125505	MIRL, STAKE MOUNTED	EACH	55	
AR125510	MIRL, BASE MOUNTED	EACH	18	
AR125540	MI THRESHOLD LIGHT STAKE MTD	EACH	28	
AR125610	REILS	PAIR	1	
AR125901	REMOVE STAKE MOUNTED LIGHT	EACH	117	
AR125902	REMOVE BASE MOUNTED LIGHT	EACH	24	
AR125904	REMOVE TAXI GUIDANCE SIGN	EACH	6	
AR125907	REMOVE REILS	PAIR	1	
AR150530	TRAFFIC MAINTENANCE	L. SUM	1	
AR800250	2-1/C #8 5KV UG CABLE IN UD	LIN. FT.	2,630	

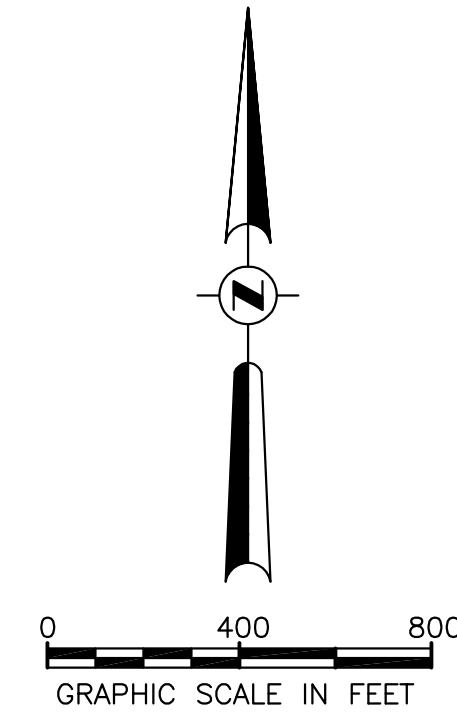
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NO.	DESCRIPTION
1	COVER SHEET
2	IMPROVEMENT AND SAFETY PLAN
3-4	EDGE LIGHTING UNIT REMOVAL PLAN
5	RUNWAY 9-27 LIGHTING PLAN
6	RUNWAY 18-36 LIGHTING PLAN
7	TAXIWAY B & G LIGHTING LAYOUT
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	PLANS PREPARED BY :	CANTON PARK DISTRICT
	HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	APPROVED <i>Will R. Bruck</i> PRESIDENT DATE <i>March 9, 2015</i>
EXPIRES 11/30/2015 ENGINEER'S SEAL	SUBMITTED <i>Gary L. Hutchison</i> DATE <i>February 26, 2015</i>	APPROVED <i>Robert L. White</i> SECRETARY DATE <i>March 9, 2015</i>

CRITICAL POINTS			
NO.	LATITUDE	LONGITUDE	ELEVATION
CP-1	40° 34' 13.24"	90° 04' 31.38"	678.2
CP-2	40° 34' 04.35"	90° 04' 29.03"	673.3
CP-3	40° 33' 58.27"	90° 04' 36.32"	668.4
CP-4	40° 33' 59.76"	90° 04' 36.28"	670.0
CP-5	40° 34' 15.74"	90° 04' 26.13"	680.1
CP-6	40° 34' 14.52"	90° 04' 23.57"	679.6
CP-7	40° 34' 13.27"	90° 04' 26.20"	679.4
CP-8	40° 34' 14.49"	90° 04' 28.75"	679.6

LEGEND

-  CONTRACTOR'S ACCESS ROUTE
-  DENOTES PAVEMENTS THAT MIRLS AND MITLS ARE TO BE INSTALLED ADJACENT TO PAVEMENT EDGES
-  LOCATION OF LIGHTED BARRICADES @15'± CTRS. TO CLOSE A PAVEMENT TO AIRCRAFT



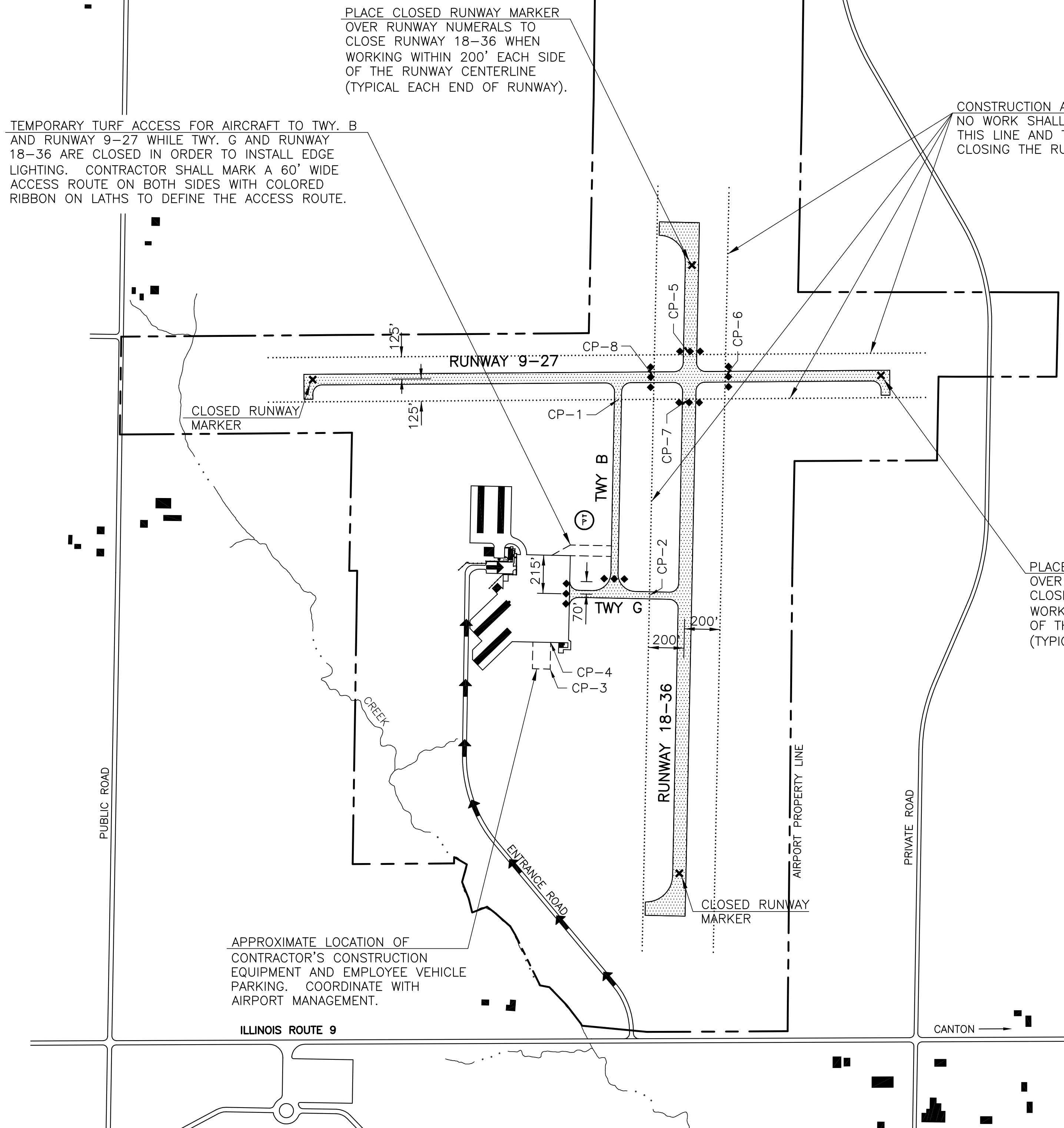
CONSTRUCTION PROCEDURE NOTES

1. ALL CONTRACTOR EMPLOYEES WILL PARK THEIR PERSONAL VEHICLES IN THE AREA DESIGNATED BY THE AIRPORT MANAGER FOR USE AS A VEHICLE PARKING AREA. THE CONTRACTOR WILL BE RESPONSIBLE FOR TRANSPORTING EMPLOYEES TO THE PROPOSED CONSTRUCTION SITE. ONLY AUTHORIZED CONTRACTOR VEHICLES WILL BE ALLOWED ON THE AIR OPERATIONS AREA OF THE AIRPORT AND ON THE CONSTRUCTION SITE.
2. THE CONTRACTOR SHALL FURNISH ALL EMPLOYEES WITH SOME TYPE OF TAG OR GARMENT TO IDENTIFY THEM AS BEING PART OF THE CONSTRUCTION CREW.
3. FLAGS WILL BE REQUIRED ON ALL CONTRACTOR'S VEHICLES AND EQUIPMENT USED ON THE AIRPORT OPERATIONS AREA AND CONSTRUCTION SITE. THE FLAGS SHALL BE THREE (3) FOOT SQUARE CHECKERED FLAGS (INTERNATIONAL ORANGE AND WHITE) DISPLAYED IN FULL VIEW ABOVE THE VEHICLE.
4. THE CONTRACTOR WILL USE THE DESIGNATED HAUL ROUTE AND EQUIPMENT STORAGE AREA SHOWN ON THIS SHEET. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE DESIGNATED HAUL ROUTE AND EQUIPMENT STORAGE AREA FOR THE DURATION OF THE PROJECT. ANY DAMAGE TO EXISTING PAVEMENTS USED TO HAUL MATERIAL TO THE CONSTRUCTION SITE WILL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE TO THE SATISFACTION OF THE AIRPORT MANAGER AND THE RESIDENT ENGINEER.
5. CONSTRUCTION ACTIVITY CONTROL AND OPERATION AREA PROTECTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH FAA ADVISORY CIRCULAR NO. 150/5370-2F.
6. THE MAXIMUM CONSTRUCTION EQUIPMENT HEIGHT UTILIZED ON THE AIRPORT FOR THIS PROJECT SHALL BE 20'.
7. THIS PROJECT CONSISTS OF WORK TO INSTALL NEW MIRLS ON RUNWAY 9-27 & 18-36; AND INSTALL NEW MITLS ON TAXIWAYS B & G.
8. THIS PROJECT WILL DISTURB LESS THAN 1 ACRE OF LAND.
9. THE EXISTING RUNWAY DESIGN CODE IS B-II FOR RUNWAY 18-36 AND IS B-1 FOR RUNWAY 9-27.
10. PHASE 1 - RUNWAY 9-27 AND TAXIWAY B FROM NORTH OF TAXIWAY G TO RUNWAY 9-27 SHALL BE CLOSED TO AIRCRAFT TRAFFIC WHILE WORK IS ACCOMPLISHED ON TAXIWAY B AND RUNWAY 9-27. PLACE BARRICADES AT CP-6 AND CP-8 ON RUNWAY 9-27 AND ON TAXIWAY B AT 70' NORTH OF THE TAXIWAY G CENTERLINE TO DENY AIRCRAFT ACCESS TO RUNWAY 9-27 AND TO TAXIWAY B. AIRCRAFT SHALL USE TAXIWAY G AND RUNWAY 18-36 DURING THIS PERIOD.
11. PHASE 2 - OPEN TAXIWAY B AND RUNWAY 9-27 TO AIRCRAFT TRAFFIC AND CLOSE TAXIWAY G AND RUNWAY 18-36. AIRCRAFT SHALL USE THE TEMPORARY TURF ACCESS FROM THE APRON TO TAXIWAY B AT 215' NORTH OF TAXIWAY G, THENCE NORTH ON TAXIWAY B TO RUNWAY 9-27. PLACE BARRICADES ON TAXIWAY B AT 70' NORTH OF THE TAXIWAY G CENTERLINE AND AT THE APRON/TAXIWAY G INTERSECTION. PLACE BARRICADES AT CP-5 AND CP-7 ON RUNWAY 18-36 TO DENY AIRCRAFT ACCESS TO RUNWAY 18-36. PERFORM THE WORK ON TAXIWAY G AND ITS INTERSECTION WITH TAXIWAY B AND ON RUNWAY 18-36.
12. UPON COMPLETION OF WORK ON TAXIWAY G AND RUNWAY 18-36, REMOVE BARRICADES FROM TAXIWAYS AND RUNWAY 18-36 AND OPEN THE TAXIWAYS AND RUNWAY 18-36 TO AIRCRAFT.
13. THE CONTRACTOR SHALL GIVE THE AIRPORT MANAGEMENT THREE DAYS NOTICE PRIOR TO STARTING ANY CONSTRUCTION WHICH WOULD NECESSITATE CLOSURE OF RUNWAYS AND TAXIWAYS. AIRPORT MANAGEMENT SHALL GIVE PROPER NOTICE (NOTAMS) TO THE NEAREST FAA FLIGHT SERVICE STATION PRIOR TO THE START OF CONSTRUCTION AND CLOSURE OF RUNWAYS AND TAXIWAYS.

GENERAL NOTES

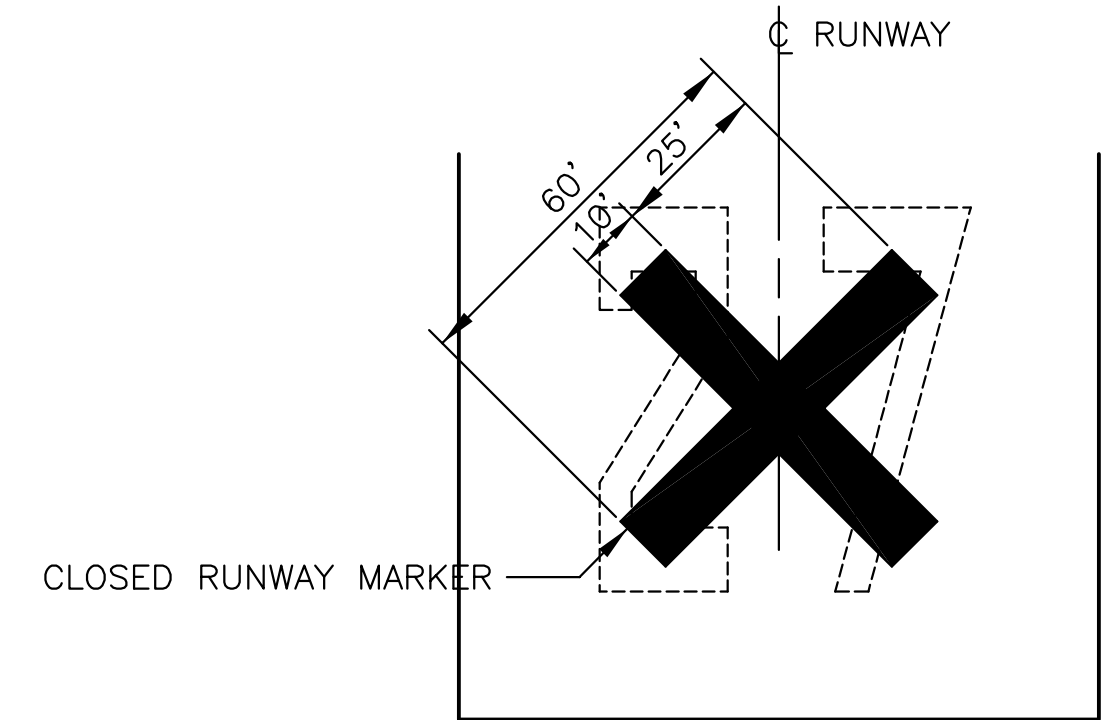
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS. PRIOR TO STARTING WORK, THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS) PHONE 1-800-892-0123 OR 811 TO ARRANGE FOR LOCATION OF UTILITIES IN THE WORK AREA. A MINIMUM OF FORTY-EIGHT HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK.

COUNTY - FULTON
 CITY - CANTON
 TOWNSHIP - T. 7 N., R. 4 E. 4th P.M. (CANTON)
 SECTION NO. - 20 & 29



CONSTRUCTION ACTIVITY SETBACK LINE
 NO WORK SHALL BE PERMITTED BETWEEN THIS LINE AND THE RUNWAY WITHOUT CLOSING THE RUNWAY TO AIRCRAFT TRAFFIC.

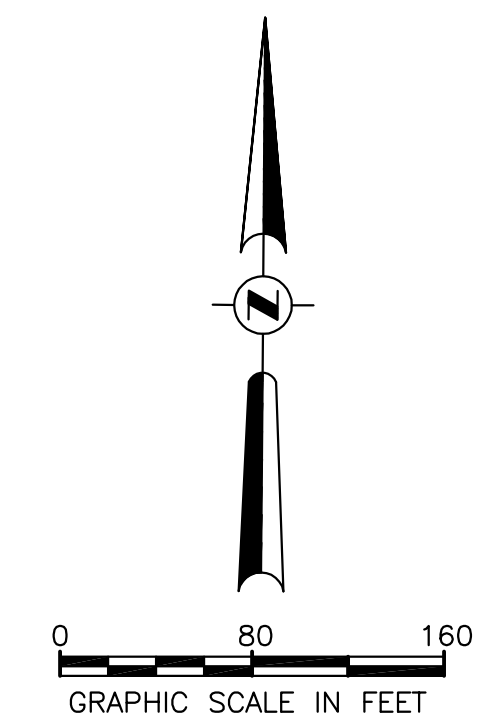
PLACE CLOSED RUNWAY MARKER
 OVER RUNWAY NUMERALS TO CLOSE RUNWAY 9-27 WHEN WORKING WITHIN 125' EACH SIDE OF THE RUNWAY CENTERLINE (TYPICAL EACH END OF RUNWAY).



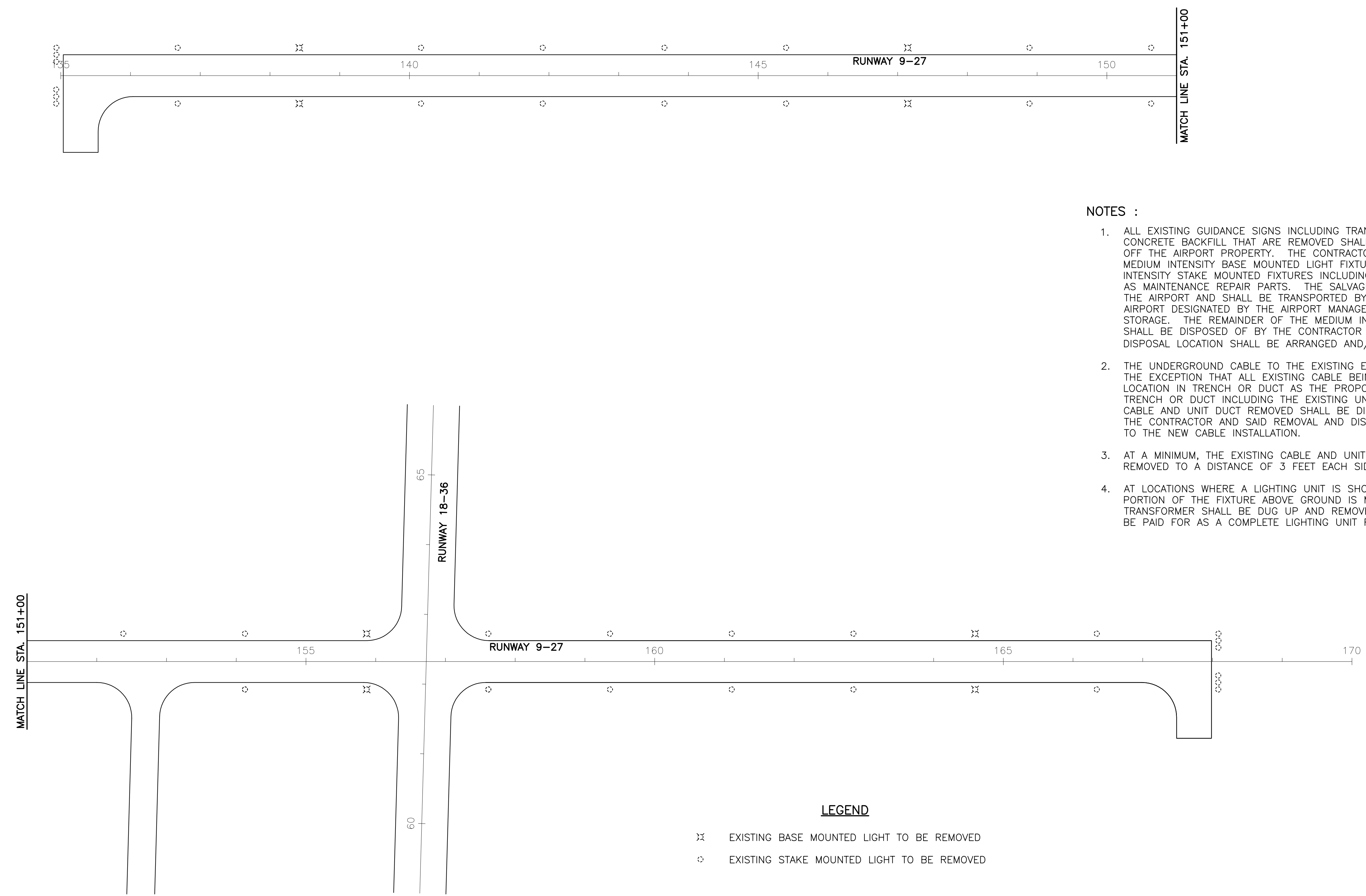
CLOSED RUNWAY MARKER DETAIL

1. CLOSED RUNWAY MARKER SHALL BE YELLOW IN COLOR.
2. CLOSED RUNWAY MARKER SHALL BE PAINTED PLYWOOD, PLASTIC OR FABRIC SHEETING WEIGHTED DOWN WITH SANDBAGS, OR OTHER APPROVED MATERIALS ACCEPTABLE TO THE ENGINEER.
3. CONTRACTOR SHALL MAINTAIN MARKERS AS DIRECTED BY THE RESIDENT ENGINEER.
4. THE COST OF FURNISHING, PLACING, MAINTAINING, AND REMOVING CLOSED RUNWAY MARKERS SHALL BE PAID FOR UNDER ITEM AR150530 TRAFFIC MAINTENANCE.

INGERSOLL AIRPORT CANTON, ILLINOIS	
IMPROVEMENT AND SAFETY PLAN	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
DRAWN BY: R.L.R. DATE : FEBRUARY, 2015	ILL. PROJ. NO. CTK-4350 SBG PROJ. NO. 3-17-SBGP-76



EXISTING EDGE LIGHTING UNIT REMOVAL SCHEDULE		
DESCRIPTION	REMOVE BASE MOUNTED LIGHT EACH	REMOVE STAKE MOUNTED LIGHT EACH
EXISTING RUNWAY 9-27 CIRCUIT NO. 2	8	39
TOTALS THIS SHEET	8	39



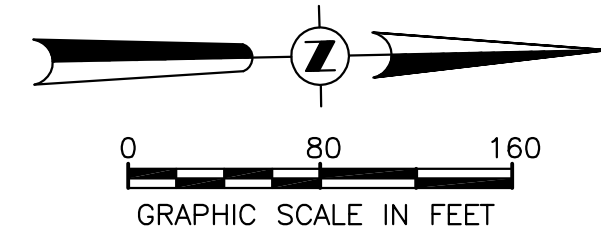
NOTES :

1. ALL EXISTING GUIDANCE SIGNS INCLUDING TRANSFORMERS AND STEEL BASES WITH CONCRETE BACKFILL THAT ARE REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR OFF THE AIRPORT PROPERTY. THE CONTRACTOR SHALL SALVAGE 8 OF THE EXISTING MEDIUM INTENSITY BASE MOUNTED LIGHT FIXTURES AND 24 OF THE EXISTING MEDIUM INTENSITY STAKE MOUNTED FIXTURES INCLUDING TRANSFORMERS FOR USE BY THE AIRPORT AS MAINTENANCE REPAIR PARTS. THE SALVAGED UNITS SHALL BECOME THE PROPERTY OF THE AIRPORT AND SHALL BE TRANSPORTED BY THE CONTRACTOR TO A LOCATION ON THE AIRPORT DESIGNATED BY THE AIRPORT MANAGEMENT AND DEPOSITED AT THE LOCATION FOR STORAGE. THE REMAINDER OF THE MEDIUM INTENSITY FIXTURES THAT ARE REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR OFF THE AIRPORT PROPERTY. THE DISPOSAL LOCATION SHALL BE ARRANGED AND/OR PROVIDED BY THE CONTRACTOR.
2. THE UNDERGROUND CABLE TO THE EXISTING EDGE LIGHTS SHALL BE ABANDONED WITH THE EXCEPTION THAT ALL EXISTING CABLE BEING REPLACED THAT IS IN THE SAME LOCATION IN TRENCH OR DUCT AS THE PROPOSED CABLE SHALL BE REMOVED FROM THE TRENCH OR DUCT INCLUDING THE EXISTING UNIT DUCT THAT CONTAINS THE CABLE. THE CABLE AND UNIT DUCT REMOVED SHALL BE DISPOSED OF OFF THE AIRPORT PROPERTY BY THE CONTRACTOR AND SAID REMOVAL AND DISPOSAL SHALL BE CONSIDERED INCIDENTAL TO THE NEW CABLE INSTALLATION.
3. AT A MINIMUM, THE EXISTING CABLE AND UNIT DUCT BEING ABANDONED SHALL BE REMOVED TO A DISTANCE OF 3 FEET EACH SIDE OF A NEW LIGHTING FIXTURE LOCATION.
4. AT LOCATIONS WHERE A LIGHTING UNIT IS SHOWN TO BE REMOVED AND ALL OR A PORTION OF THE FIXTURE ABOVE GROUND IS MISSING, THE BASE OR STAKE AND TRANSFORMER SHALL BE DUG UP AND REMOVED. THIS REMOVAL SHALL CONSTITUTE AND BE PAID FOR AS A COMPLETE LIGHTING UNIT REMOVAL.

LEGEND

- ⌘ EXISTING BASE MOUNTED LIGHT TO BE REMOVED
- EXISTING STAKE MOUNTED LIGHT TO BE REMOVED

INGERSOLL AIRPORT CANTON, ILLINOIS	
EDGE LIGHTING UNIT REMOVAL PLAN	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
DRAWN BY: R.L.R. DATE : FEBRUARY, 2015	ILL. PROJ. NO. CTK-4350 SBG PROJ. NO. 3-17-SBGP-76

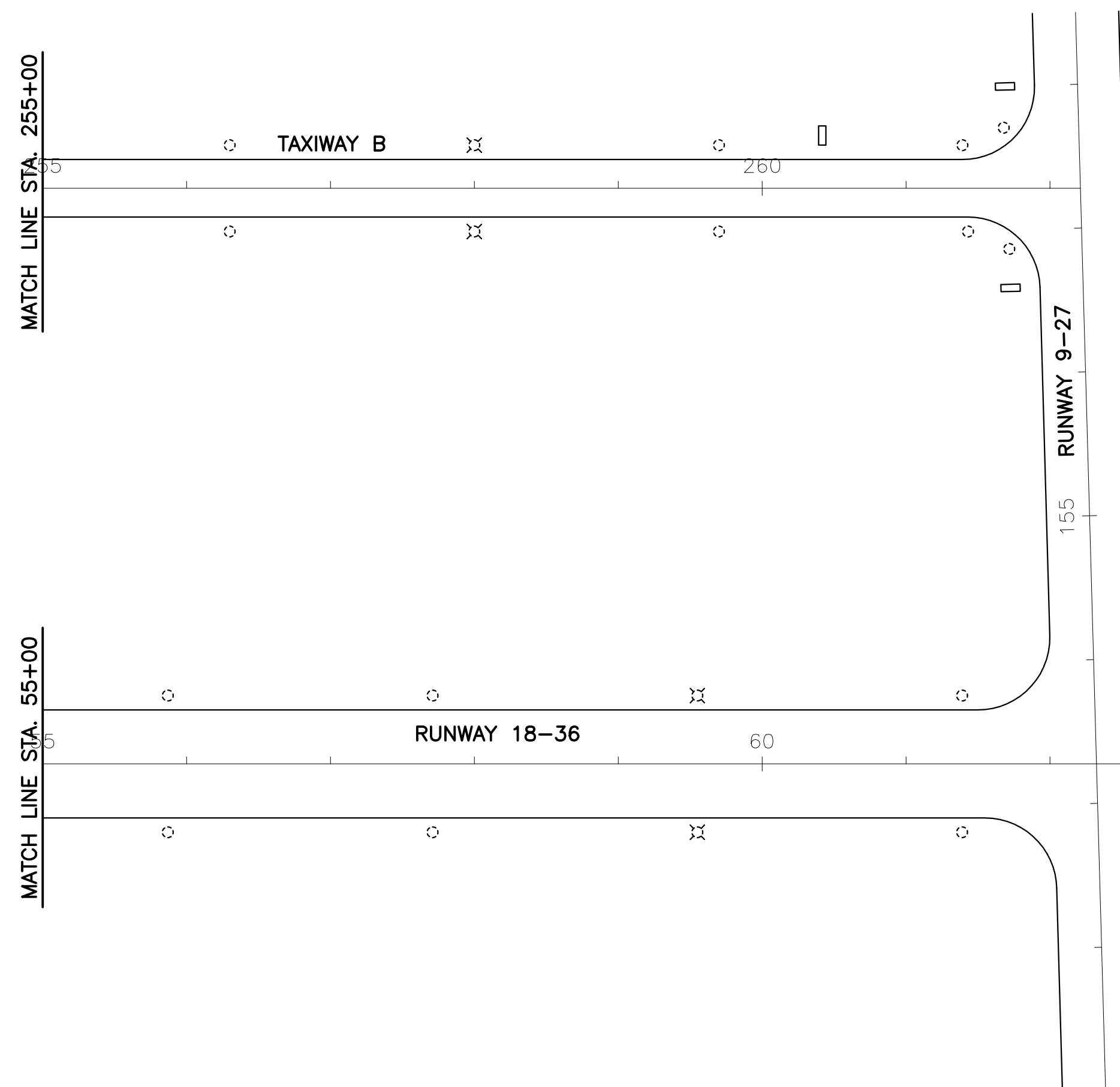
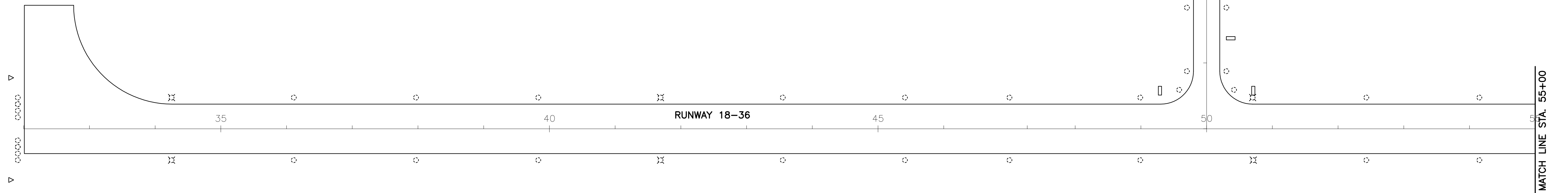


LEGEND

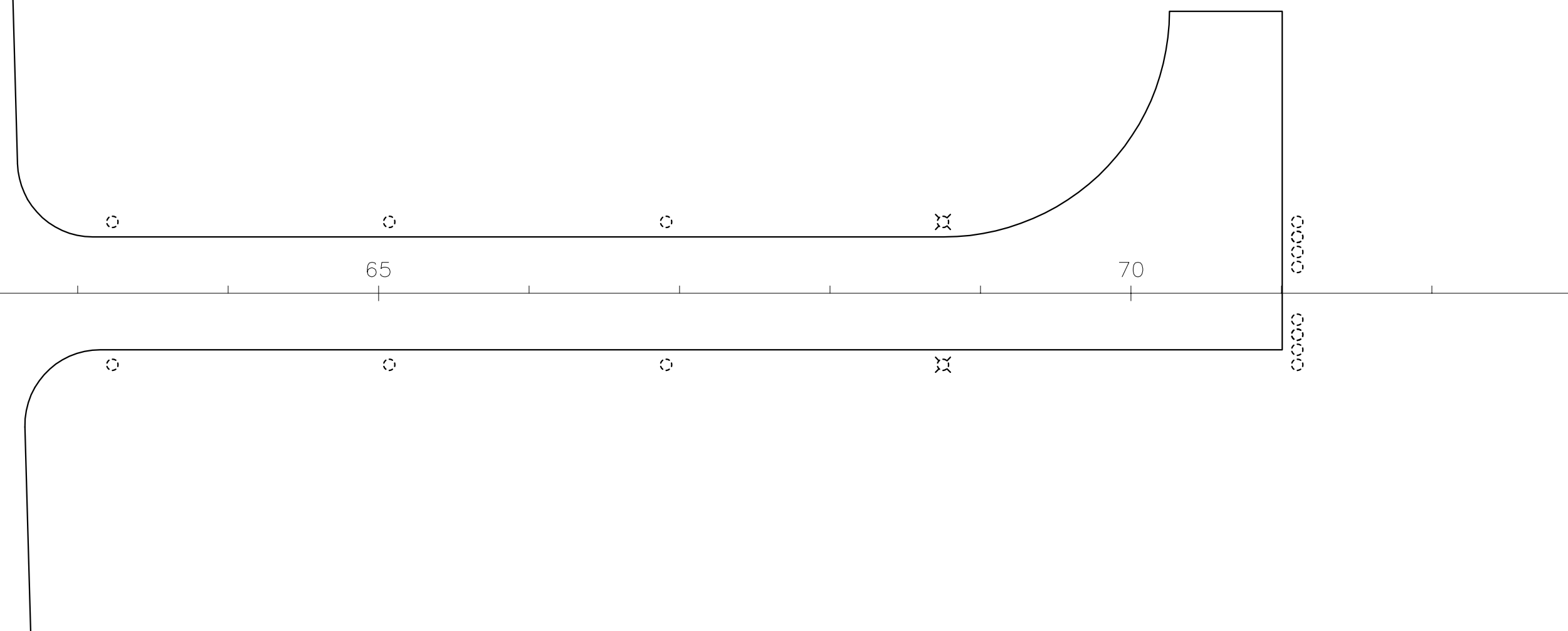
- ⌘ EXISTING BASE MOUNTED LIGHT TO BE REMOVED
- ⊙ EXISTING STAKE MOUNTED LIGHT TO BE REMOVED
- EXISTING TAXI GUIDANCE SIGN TO BE REMOVED
- ▷ EXISTING REILS PAIR TO BE REMOVED

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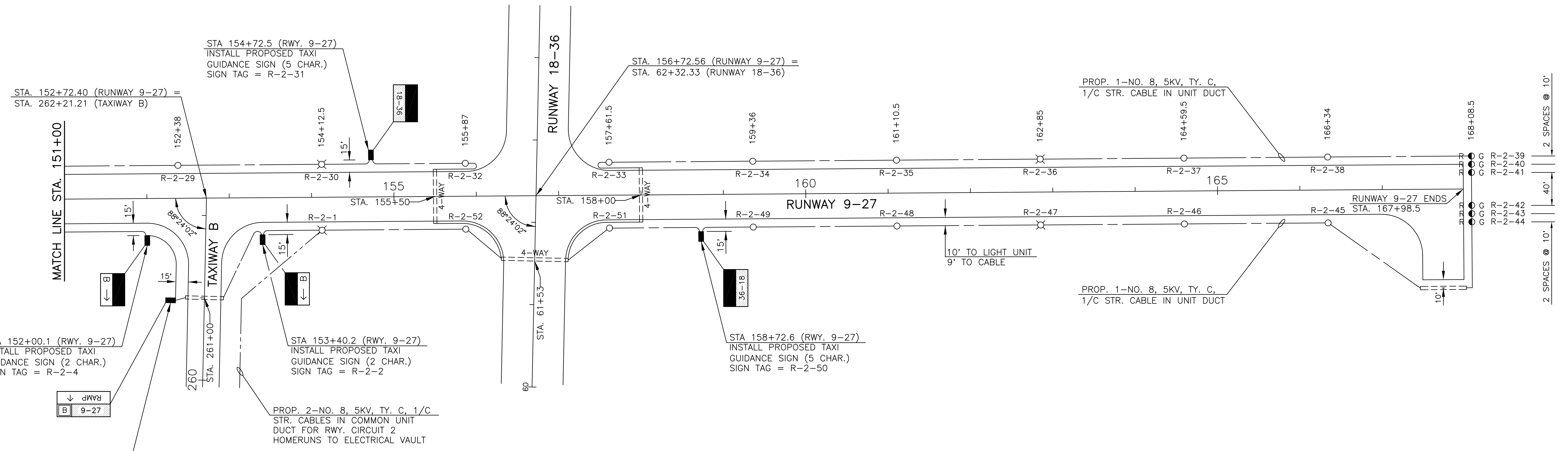
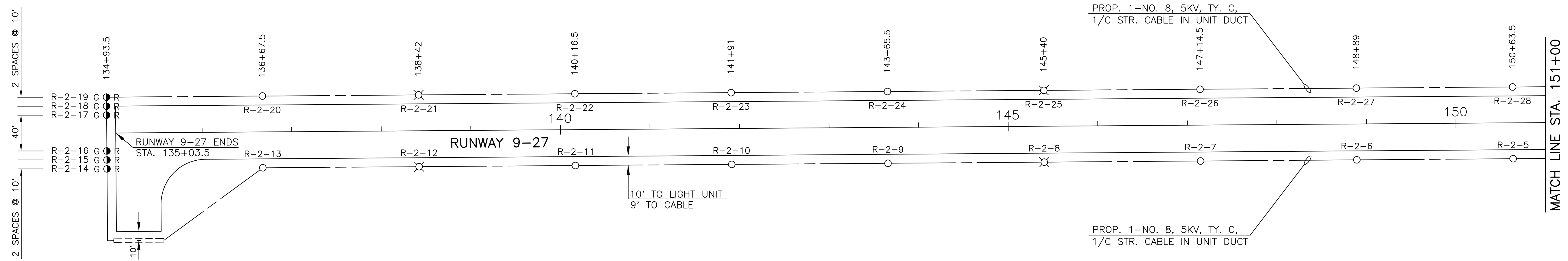
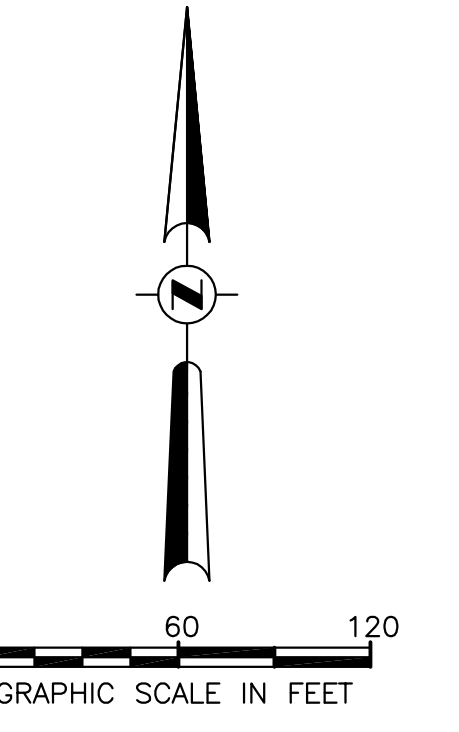


EXISTING EDGE LIGHTING UNIT REMOVAL SCHEDULE				
DESCRIPTION	REMOVE BASE MOUNTED LIGHT EACH	REMOVE STAKE MOUNTED LIGHT EACH	REMOVE TAXI GUIDANCE SIGN EACH	REMOVE REILS PAIR
EXISTING RUNWAY 18-36 CIRCUIT NO. 1	10	46		1
EXISTING TAXIWAY CIRCUIT NO. 1 (TWY. B & G)	6	32	6	
TOTALS THIS SHEET	16	78	6	1



INGERSOLL AIRPORT CANTON, ILLINOIS	
EDGE LIGHTING UNIT REMOVAL PLAN	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
DRAWN BY: R.L.R. DATE : FEBRUARY, 2015	ILL. PROJ. NO. CTK-4350 SBG PROJ. NO. 3-17-SBGP-76

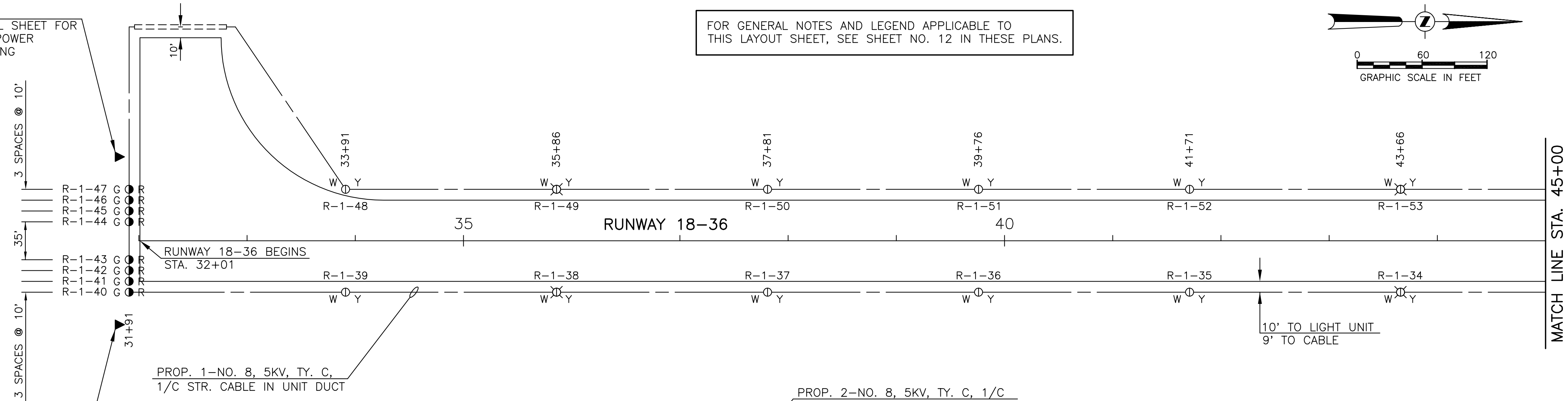
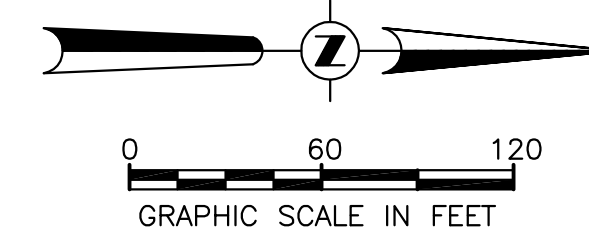
FOR GENERAL NOTES AND LEGEND APPLICABLE TO THIS LAYOUT SHEET, SEE SHEET NO. 12 IN THESE PLANS.



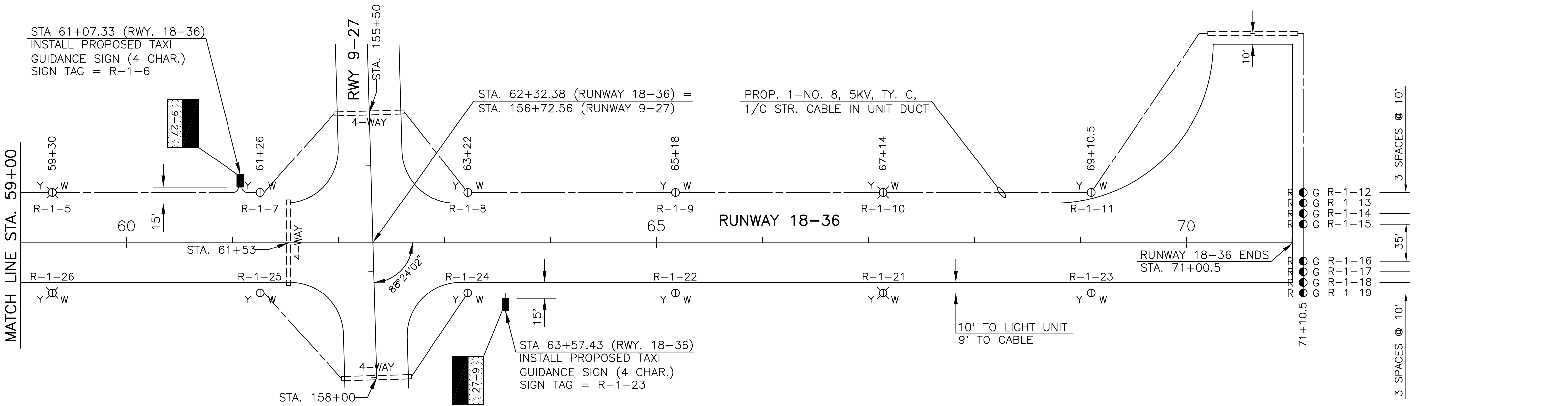
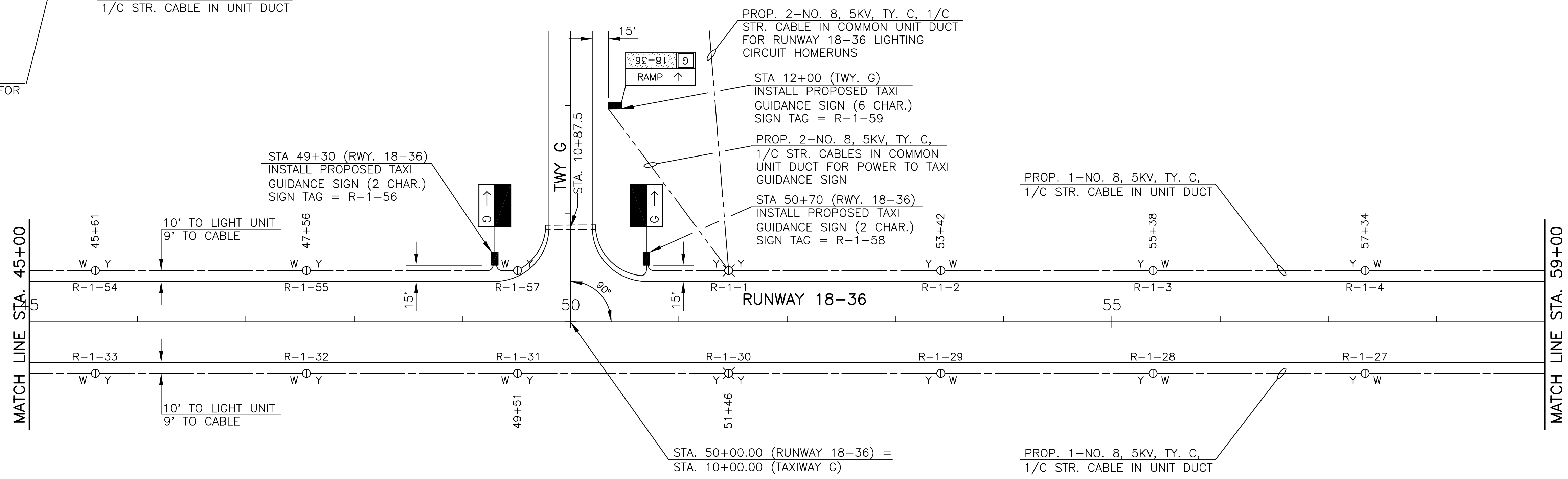
INGERSOLL AIRPORT CANTON, ILLINOIS	
RUNWAY 9-27 LIGHTING LAYOUT	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
DRAWN BY: R.L.R. DATE: FEBRUARY, 2015	ILL. PROJ. NO. CTK-4350 SBG PROJ. NO. 3-17-SBGP-76

INSTALL NEW REIL SYSTEM
SEE THE REIL SYSTEM DETAIL SHEET FOR
LOCATION DIMENSIONS AND POWER
SUPPLY AND CONTROL CABLING

FOR GENERAL NOTES AND LEGEND APPLICABLE TO
THIS LAYOUT SHEET, SEE SHEET NO. 12 IN THESE PLANS.



INSTALL NEW REIL SYSTEM
SEE THE REIL SYSTEM DETAIL SHEET FOR
LOCATION DIMENSIONS AND POWER
SUPPLY AND CONTROL CABLING



INGERSOLL AIRPORT CANTON, ILLINOIS	
RUNWAY 18-36 LIGHTING LAYOUT	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
DRAWN BY: R.L.R. DATE: FEBRUARY, 2015	ILL. PROJ. NO. CTK-4350 SBC PROJ. NO. 3-17-SBCP-76

GENERAL LOCATION OF EXISTING POWER CABLES TO BEACON, GATE OPERATOR, ETC. CONTRACTOR SHALL LOCATE EXISTING CABLES AND PROTECT DURING PROPOSED CABLE INSTALLATION

EXISTING ELECTRICAL VAULT LOCATED IN S.W. CORNER OF ADMIN. BUILDING. REMOVE EXISTING REGULATORS AND PLACE AT LOCATION ON AIRPORT DESIGNATED BY AIRPORT MANAGEMENT FOR STORAGE. INSTALL PROPOSED 7.5 KW REGULATOR FOR RWY. 18-36 AND 4 KW REGULATORS FOR RWY. 9-27 AND FOR TAXIWAY CIRCUIT. RECONNECT EXISTING CONTROL WIRING, POWER SUPPLY WIRING AND EQUIPMENT GROUNDING TO THE NEW REGULATORS. CONNECT PROPOSED HOMERUN CABLES TO THE SERIES OUTPUT TERMINALS OF THE PROPOSED REGULATORS AND TO THE EXISTING WIND CONE RELAY.

PROPOSED SINGLE 6" STEEL DUCT JACKED UNDER SIDEWALK WITH DUCT MARKERS - 10 LIN. FT.

INSTALL PROPOSED ELECTRICAL MANHOLE 20' FROM EDGE OF APRON. SPLICE ALL AIRFIELD LIGHTING CABLES IN THIS MANHOLE

PROP. 2-NO. 8, 5KV, TY. C, 1/C STR. CABLES IN COMMON UNIT DUCT FOR TAXIWAY CIRCUIT HOMERUNS

15+20 - 4 SPACES @ 22°30'00" = 90'R - CHORD DIST. = 35.1'

STA. 16+50
EDGE OF APRON

PROP. 8-NO. 8, 5KV, TY. C, 1/C STR. CABLES INSTALLED IN TRENCH AND THRU DUCT FROM ELECTRICAL VAULT TO ELECTRICAL MANHOLE. 2 CABLES EACH FOR RWY. 9-27, RWY. 18-36, TWY. CIRCUIT 1 AND WIND CONE CIRCUIT HOMERUNS

PROP. 2-NO. 8, 5KV, TY. C, 1/C STR. CABLES IN COMMON UNIT DUCT FOR WIND CONE CIRCUIT HOMERUNS

PROP. HOMERUN CABLES FOR RWY. 9-27 AND RWY. 18-36 CIRCUITS

PROP. 1-NO. 8, 5KV, TY. C, 1/C STR. CABLE IN UNIT DUCT

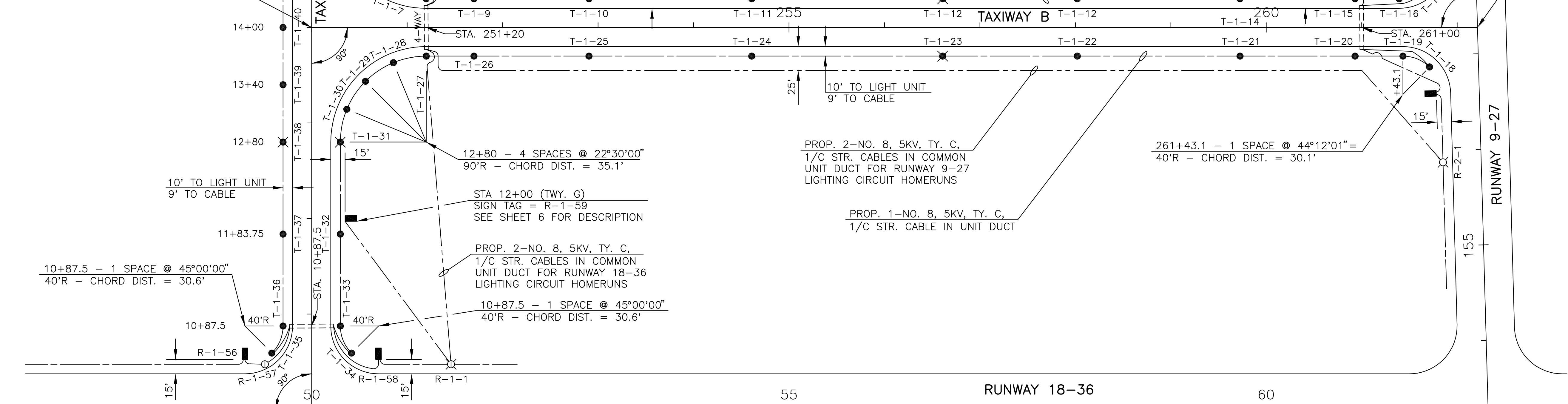
PROP. 1-NO. 8, 5KV, TY. C, 1/C STR. CABLES IN UNIT DUCT

STA. 250+00.00 (TAXIWAY B) =
STA. 14+00.00 (TAXIWAY G)

STA 260+96.2 (TWY. B)
SIGN TAG = R-2-3
SEE SHEET 5 FOR DESCRIPTION

261+39.2 - 1 SPACE @ 45°47'59" = 40'R - CHORD DIST. = 31.1'

STA. 261+21.21 (TAXIWAY B) =
STA. 152+72.40 (RUNWAY 9-27)



10' TO LIGHT UNIT
9' TO CABLE

12+80 - 4 SPACES @ 22°30'00" = 90'R - CHORD DIST. = 35.1'

STA 12+00 (TWY. G)
SIGN TAG = R-1-59
SEE SHEET 6 FOR DESCRIPTION

PROP. 2-NO. 8, 5KV, TY. C, 1/C STR. CABLES IN COMMON UNIT DUCT FOR RUNWAY 18-36 LIGHTING CIRCUIT HOMERUNS

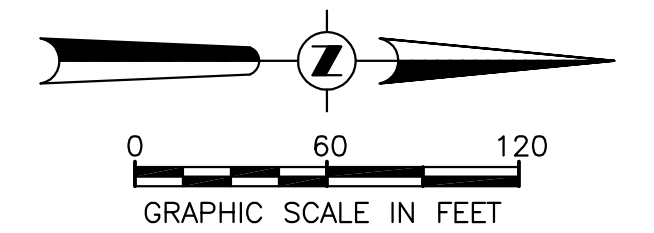
10+87.5 - 1 SPACE @ 45°00'00" = 40'R - CHORD DIST. = 30.6'

10' TO LIGHT UNIT
9' TO CABLE

PROP. 2-NO. 8, 5KV, TY. C, 1/C STR. CABLES IN COMMON UNIT DUCT FOR RUNWAY 9-27 LIGHTING CIRCUIT HOMERUNS

PROP. 1-NO. 8, 5KV, TY. C, 1/C STR. CABLE IN UNIT DUCT

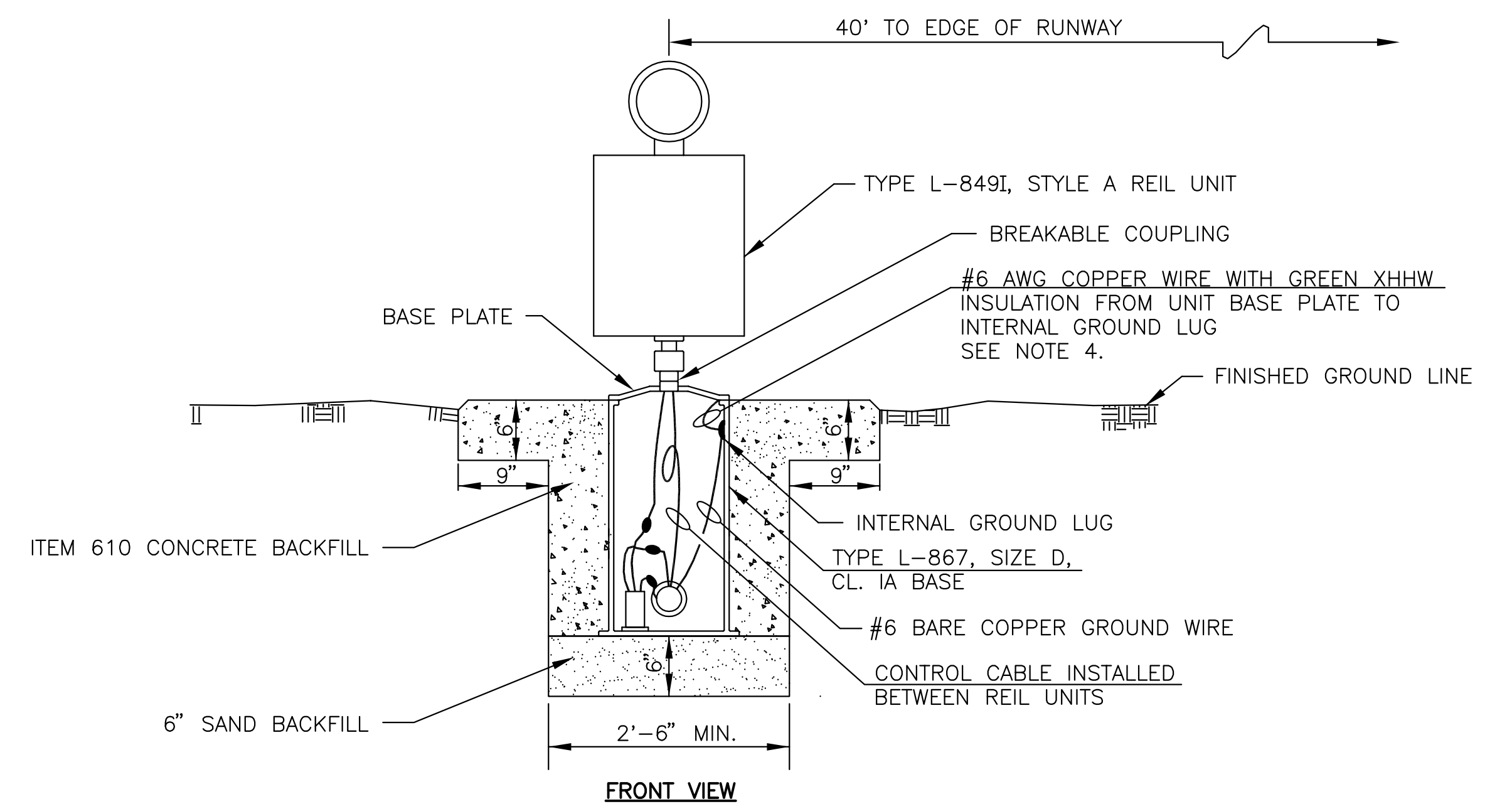
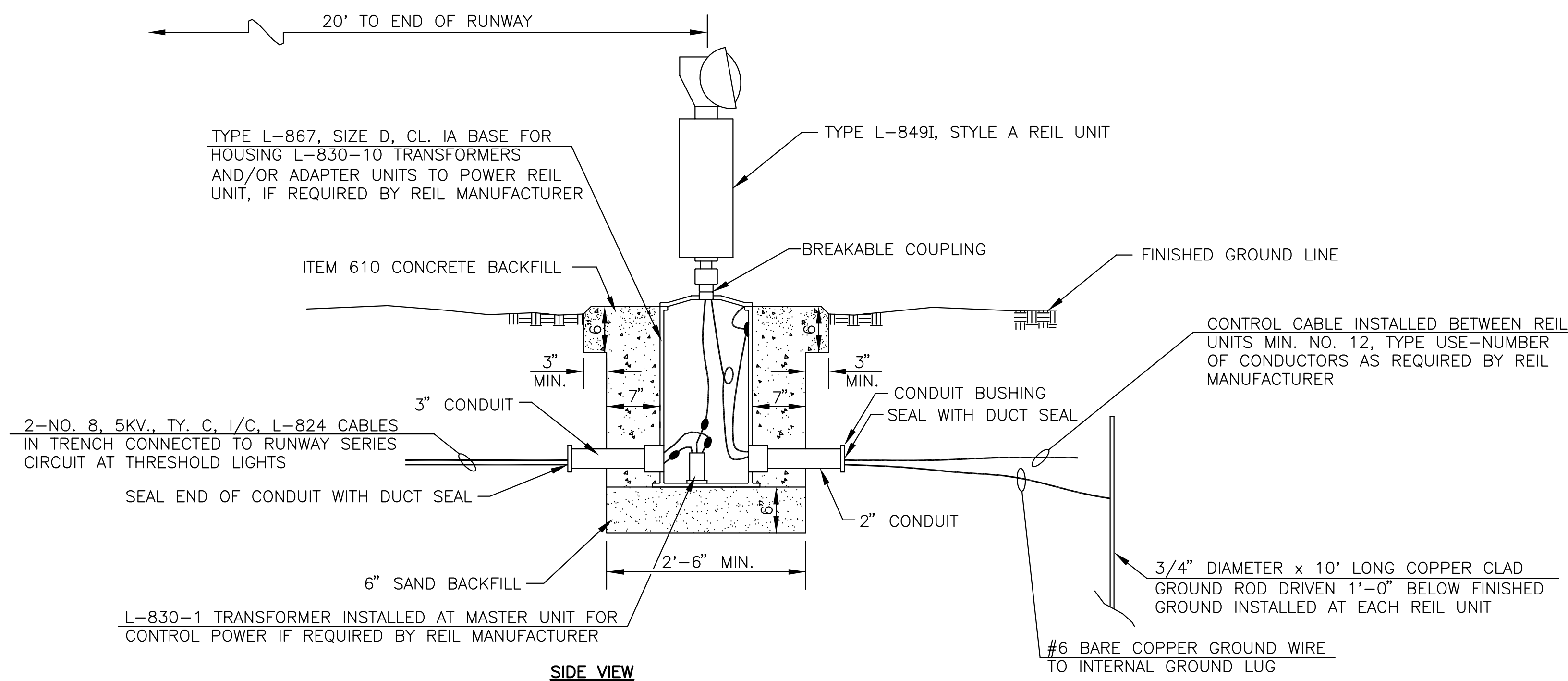
261+43.1 - 1 SPACE @ 44°12'01" = 40'R - CHORD DIST. = 30.1'



STA. 50+00.00 (RUNWAY 18-36) =
STA. 100+00.00 (TAXIWAY G)

FOR GENERAL NOTES AND LEGEND APPLICABLE TO THIS LAYOUT SHEET, SEE SHEET NO. 12 IN THESE PLANS.

INGERSOLL AIRPORT CANTON, ILLINOIS	
TAXIWAYS B & G LIGHTING LAYOUT	
HUTCHINSON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
DRAWN BY: R.L.R. DATE: FEBRUARY, 2015	ILL. PROJ. NO. CTK-4350 SBG PROJ. NO. 3-17-SBGP-76



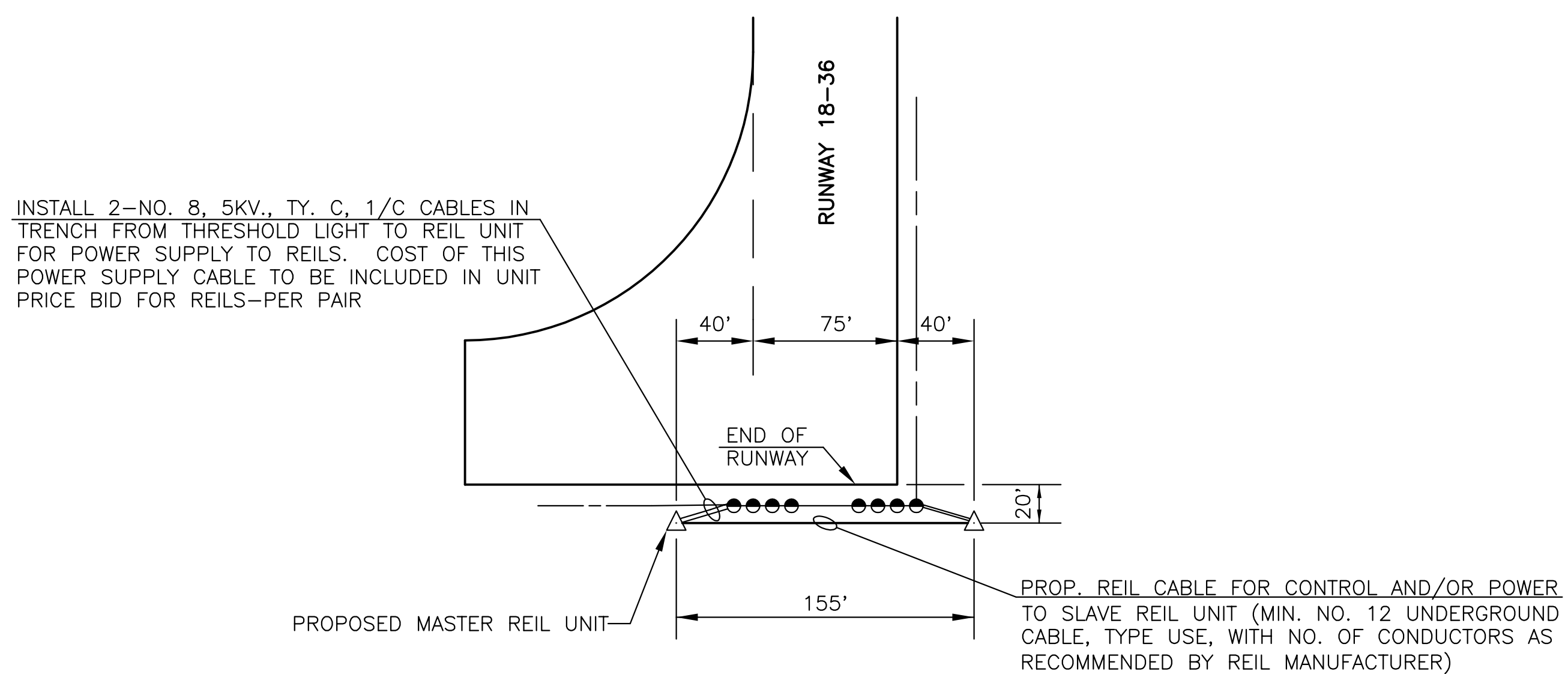
GENERAL NOTE :

MASTER UNIT AND SLAVE UNIT ARE INSTALLED ON IDENTICAL FOUNDATIONS WITH AN L-830-10 TRANSFORMER AND/OR ADAPTER UNIT ALSO INSTALLED IN EACH SIZE D STEEL BASE, IF REQUIRED BY REIL MANUFACTURER.

SYSTEM NOTES :

1. THE REIL SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE ABOVE DETAIL AND INSTRUCTIONS PROVIDED BY THE EQUIPMENT MANUFACTURER AND SHALL COMPLY WITH TYPICAL REIL LAYOUT GUIDELINES IN ADVISORY CIRCULAR 150/5340-30H.
2. THE BEAM CENTERLINE OF EACH LIGHT UNIT SHALL BE AIMED 15° OUTWARD FROM A LINE PARALLEL TO THE RUNWAY CENTERLINE AND INCLINED AT AN ANGLE 10° ABOVE THE HORIZONTAL.
3. A MINIMUM 12" WIDTH OF CONCRETE SHALL EXTEND BEYOND THE OUTER LIMITS OF ALL COMPONENTS OF THE REIL UNIT.
4. THE GROUND WIRE LENGTH FROM THE REIL UNIT BASE PLATE TO THE INTERNAL GROUND LUG SHALL BE SUFFICIENT TO ALLOW THE REMOVAL OF THE REIL UNIT FROM THE STEEL BASE FOR ROUTINE MAINTENANCE.

TYPICAL REIL UNIT INSTALLATION



TYPICAL PLAN LAYOUT FOR REIL INSTALLATION

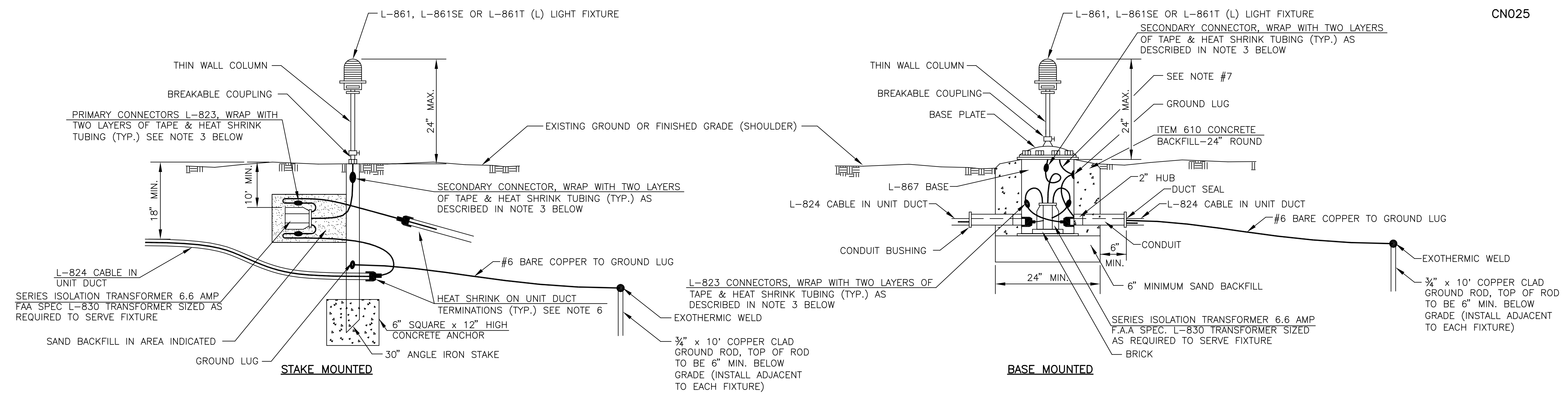
INSTALLATION NOTES :

1. RUNWAY CIRCUIT CABLES ARE LOCATED BETWEEN THE EDGE LIGHTS AND THRESHOLD LIGHTS THAT ARE 10' FROM THE EDGE OF THE PAVEMENT END AND EDGE. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT THE EDGE LIGHTING CIRCUIT CABLES IN THE WORK AREAS FOR REIL SYSTEM INSTALLATION, CAUTION SHALL BE EXERCISED WHEN TRENCHING, ETC. TO AVOID CUTTING THE LIGHTING CIRCUIT CABLES. ANY CABLE DAMAGED SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
2. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCK OUT THE EDGE LIGHTING CIRCUIT WHILE PERFORMING WORK ON OR NEAR SAID CIRCUIT. THE CIRCUIT SHALL BE LOCKED OUT TO INCLUDE AND INSURE THAT THE CIRCUIT CANNOT BE ENERGIZED MANUALLY OR BY THE RADIO CONTROL SYSTEM WHILE WORK IS BEING DONE.
3. RUNWAY 18-36 SHALL BE CLOSED TO AIR TRAFFIC WHEN THE TRENCHING, CABLE INSTALLATION AND CONCRETE BACKFILL FOR THE REIL UNITS ARE BEING PERFORMED.
4. ALL UNDERGROUND CABLE AND ITS INSTALLATION FOR POWER AND CONTROL TO THE REIL UNITS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR REILS—PER PAIR.

GENERAL NOTE

THE DETAILS SHOWN FOR THE REIL UNIT BASES AND REIL POWER SUPPLY AND CONTROL WIRING ARE INTENDED FOR ILLUSTRATIVE INFORMATION PURPOSES. ACTUAL BASE DETAILS AND WIRING CONNECTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER OF THE EQUIPMENT BEING FURNISHED. THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS OF THE REIL INSTALLATION TO THE PROJECT ENGINEER FOR ACCEPTANCE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

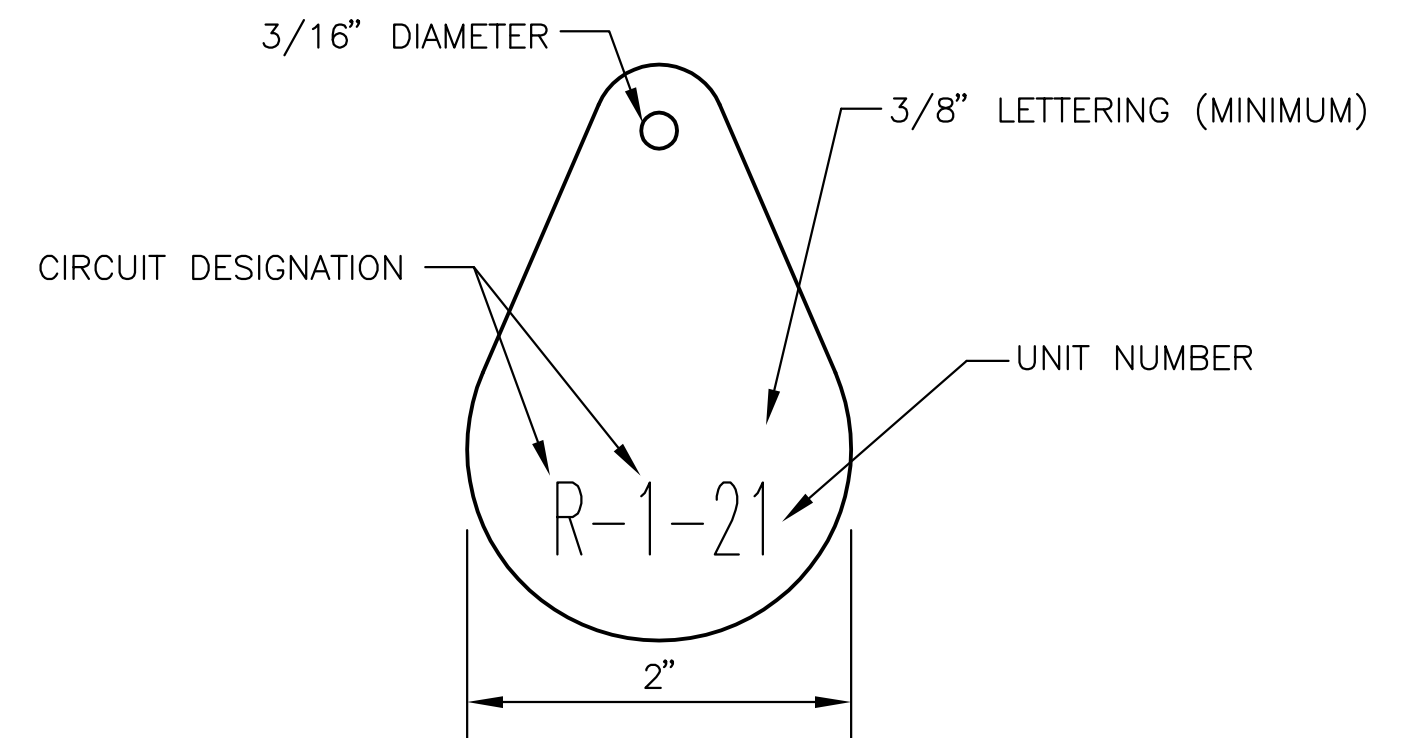
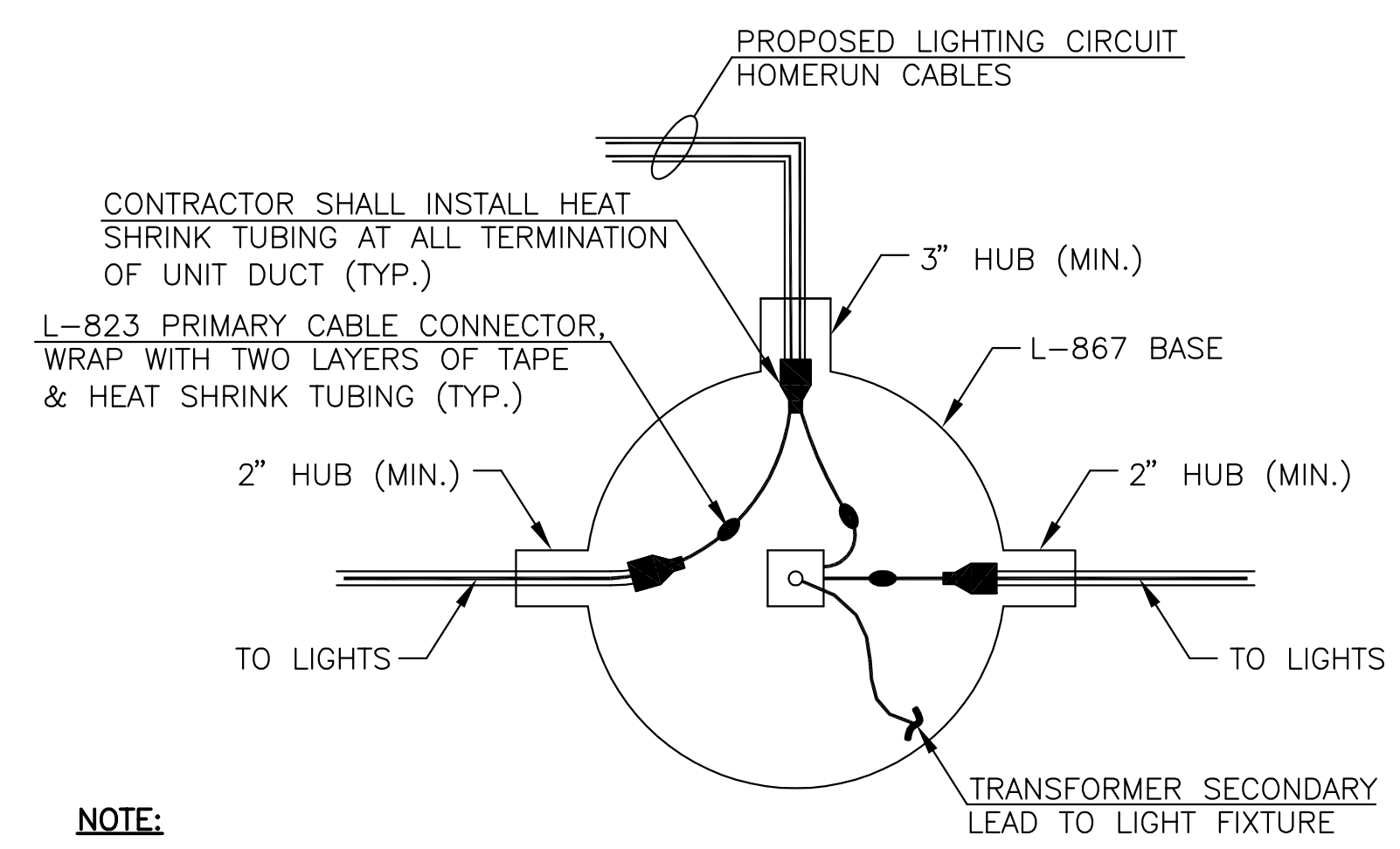
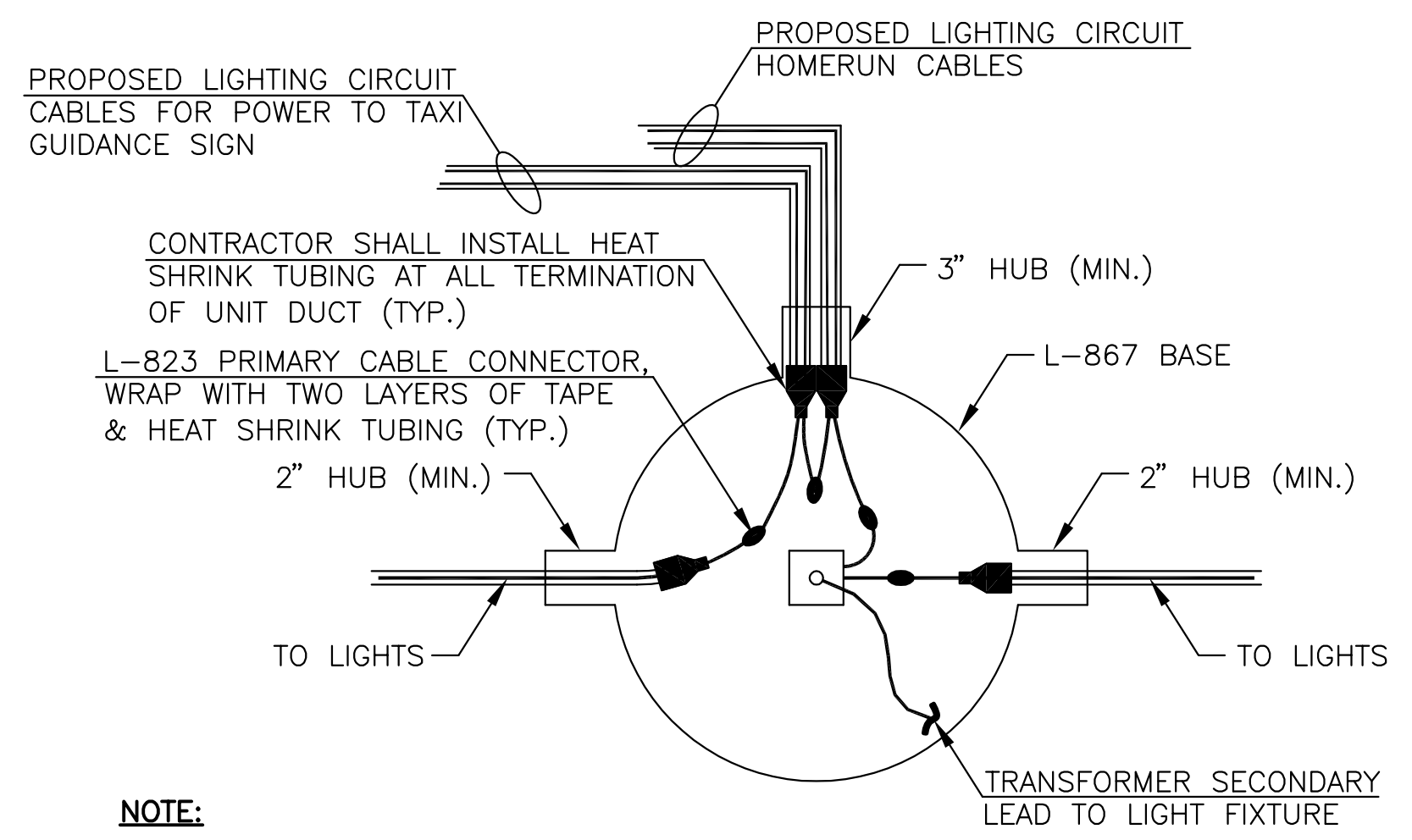
INGERSOLL AIRPORT CANTON, ILLINOIS	
REIL SYSTEM DETAILS	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
DRAWN BY: R.L.R. DATE : FEBRUARY, 2015	ILL. PROJ. NO. CTK-4350 SBG PROJ. NO. 3-17-SBGP-76



MEDIUM INTENSITY EDGE LIGHT DETAILS

EDGE LIGHT NOTES :

- BREAKING GROOVE OF BREAKABLE COUPLINGS SHALL NOT BE OVER 3 1/2" ABOVE GROUND LINE.
- THE CONCRETE BACKFILL FOR BASE MOUNTED LIGHTS SHALL BE TROWEL FINISHED WITH A 45° BEVELED EDGE WITH THE SURFACE SLOPING TO DRAIN. THE BASE CONCRETE BACKFILL MAY BE PRECAST AT THE CONTRACTOR'S OPTION.
- THE PRIMARY CABLE CONNECTOR JOINTS SHALL BE WRAPPED WITH ONE LAYER OF RUBBER TAPE (SCOTCH NO. 130C) AND ONE LAYER OF PLASTIC TAPE (SCOTCH NO. 88), ONE-HALF LAPPED, EXTENDING 1 1/2" EACH SIDE OF JOINT AND COVERED WITH HEAT SHRINK TUBING.
- A MINIMUM OF THREE FEET OF CABLE SLACK SHALL BE LEFT AT EACH STAKE MOUNTED LIGHT AND A MINIMUM OF THREE FEET OF CABLE SLACK AT EACH BASE MOUNTED LIGHT, HANDHOLE, OR MANHOLE. THIS REQUIRED SLACK WILL BE LEFT ON THE CABLE SIDE OF ALL PRIMARY CONNECTORS AND SPLICES. THIS REQUIRED SLACK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- ALL MOUNTING BOLTS SHALL BE COATED WITH AN ANTI-SEIZING LUBRICANT.
- CONTRACTOR SHALL INSTALL HEAT SHRINK TUBING AT ALL TERMINATIONS OF UNIT DUCT (TYPICAL).
- THE LIGHT FIXTURE SHALL BE BONDED TO THE LIGHT BASE INTERNAL GROUND LUG VIA A #6 AWG STRANDED COPPER WIRE RATED FOR 600 VOLTS WITH GREEN XHW INSULATION. THE GROUND WIRE LENGTH SHALL BE SUFFICIENT TO ALLOW THE REMOVAL OF THE LIGHT FIXTURE FROM THE LIGHT BASE FOR ROUTINE MAINTENANCE. SEE THE LIGHT FIXTURE MANUFACTURER'S INSTRUCTIONS FOR PROPER METHODS OF ATTACHING THIS BONDING WIRE.



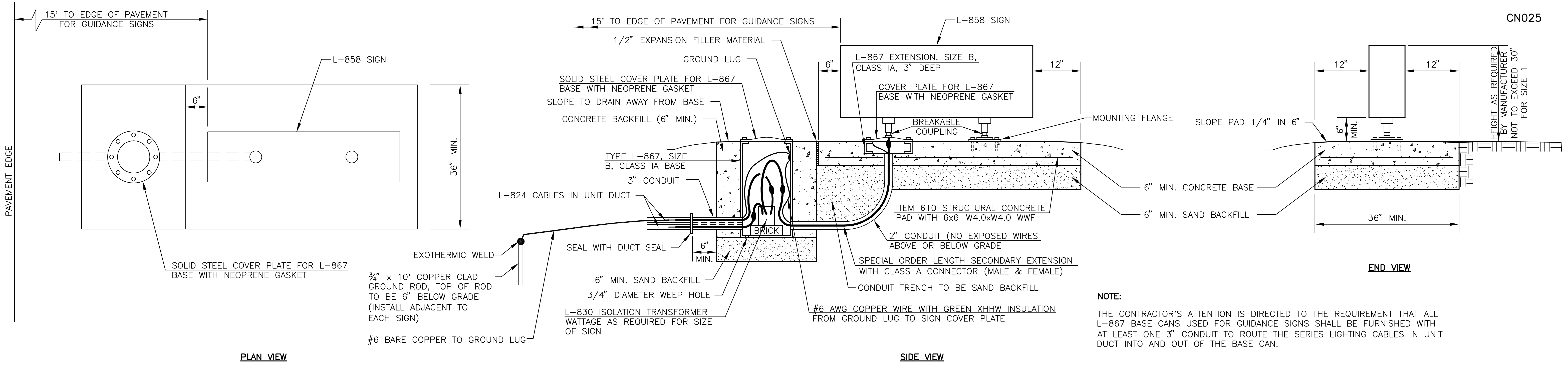
NOTES

- INSTALL A NONCORROSIVE DISC OF 2 INCH MINIMUM DIAMETER WITH NUMBER PERMANENTLY STAMPED, CUT OUT OR ENGRAVED AT EACH LIGHTING UNIT.
- NONCORROSIVE DISC MAY BE ATTACHED TO LIGHT FLANGE WITH SCREW OR UNDER THE HEAD OF THE BASE PLATE BOLT.
- THE CONTRACTOR SHALL NUMBER THE PROPOSED LIGHTS AND SIGNS IN EACH CIRCUIT STARTING AT THE HOMERUN CONTINUING AROUND THE ENTIRE CIRCUIT BACK TO THE HOMERUN.
- AIRFIELD SIGNS SHALL BE TAGGED AND NUMBERED.

IDENTIFICATION TAG DETAIL

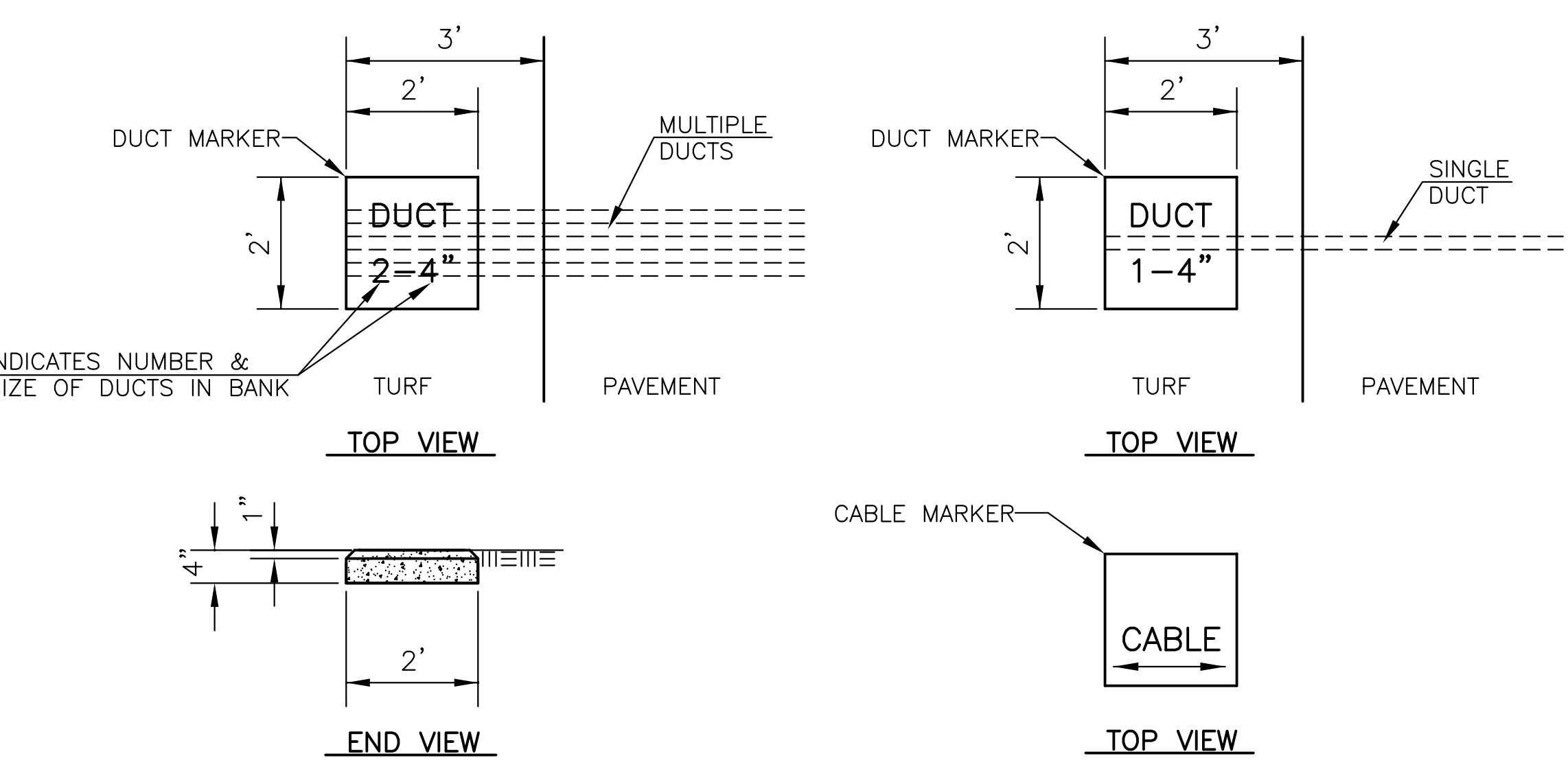
**PROPOSED CIRCUIT CONNECTION DETAILS
BASE MOUNTED LIGHT**

INGERSOLL AIRPORT CANTON, ILLINOIS	
TYPICAL LIGHTING DETAILS	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
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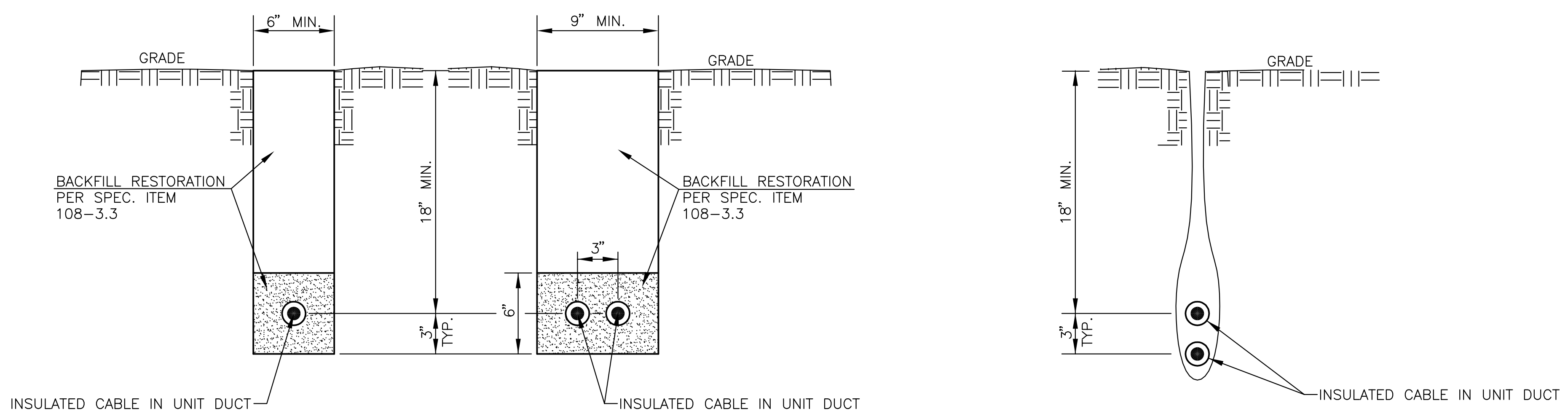
NOTE:
 THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENT THAT ALL L-867 BASE CANS USED FOR GUIDANCE SIGNS SHALL BE FURNISHED WITH AT LEAST ONE 3" CONDUIT TO ROUTE THE SERIES LIGHTING CABLES IN UNIT DUCT INTO AND OUT OF THE BASE CAN.

GUIDANCE SIGN BASE DETAIL



NOTES
 1. LETTERS 4" HIGH, 3" WIDE WITH WIDTH OF STROKE 1/2" AND 1/4" DEEP. ALL LETTERS, NUMBERS AND ARROWS TO BE IMPRESSED. SCRATCHED FIGURES WILL NOT BE ACCEPTABLE.

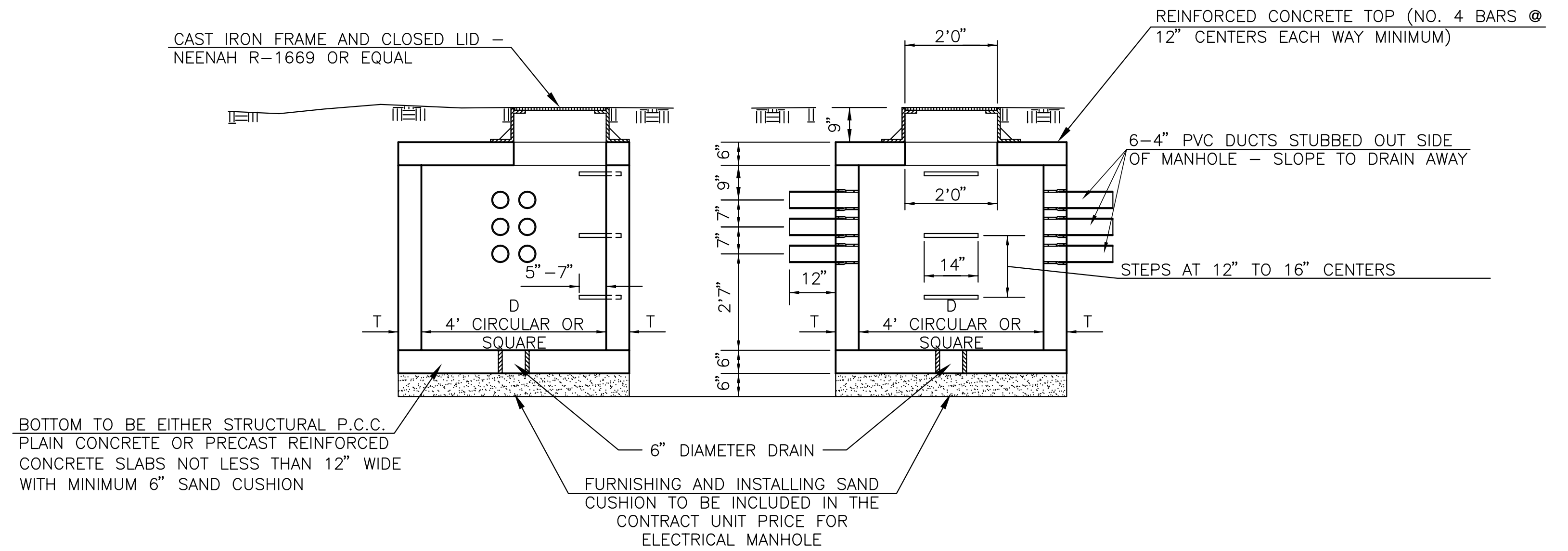
TYPICAL CABLE AND DUCT MARKER DETAILS



NOTE :
 1. CABLE INSTALLED IN UNIT DUCT MAY BE INSTALLED TO A MINIMUM 18" DEPTH BY A VIBRATING PLOW IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
 2. WHERE TWO UNIT DUCTS ARE TO BE INSTALLED, CONTRACTOR MAY PLOW UNIT DUCTS SEPARATELY (SIDE BY SIDE).

TRENCH DETAILS

INGERSOLL AIRPORT CANTON, ILLINOIS	
TYPICAL LIGHTING DETAILS	
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BOTTOM TO BE EITHER STRUCTURAL P.C.C. PLAIN CONCRETE OR PRECAST REINFORCED CONCRETE SLABS NOT LESS THAN 12" WIDE WITH MINIMUM 6" SAND CUSHION

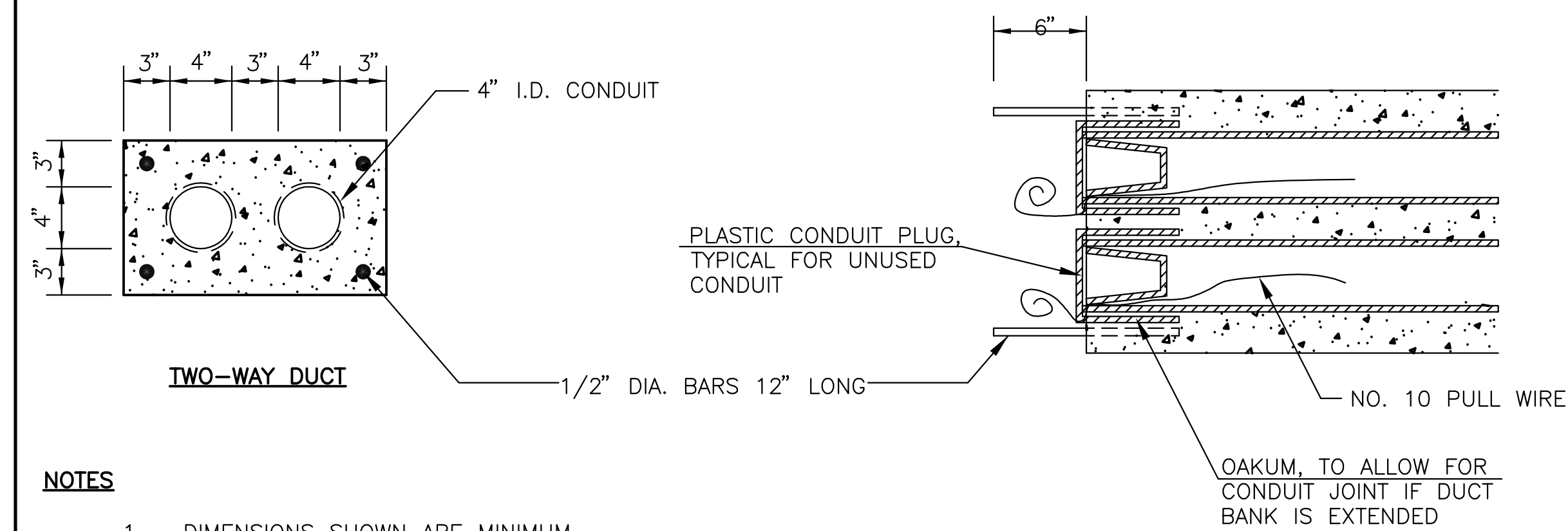
FURNISHING AND INSTALLING SAND CUSHION TO BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ELECTRICAL MANHOLE

NOTES:

- BRICKS, CONCRETE MASONRY UNITS AND RINGS ARE TO BE LAID IN FULL MORTAR BEDS WITH FLUSH JOINTS.
- ELECTRICAL MANHOLE SHALL BE PROVIDED WITH CAST IRON FRAME AND CLOSED LID AS SPECIFIED.
- THE CONTRACT UNIT PRICE FOR ELECTRICAL MANHOLE SHALL INCLUDE THE FRAME AND CLOSED LID AS SPECIFIED.

ALTERNATE MATERIAL FOR WALLS	D	T
CONCRETE BUILDING BRICK GRADE "A"	4' 8"	
CONCRETE MASONRY UNITS	4' 5"	
BUILDING BRICK GR. S.W. FROM CLAY OR SHALE	4' 8"	
PRECAST REINFORCED CONCRETE RINGS	4' 5"	
MONOLITHIC CONCRETE	4' 6"	

ELECTRICAL MANHOLE DETAIL



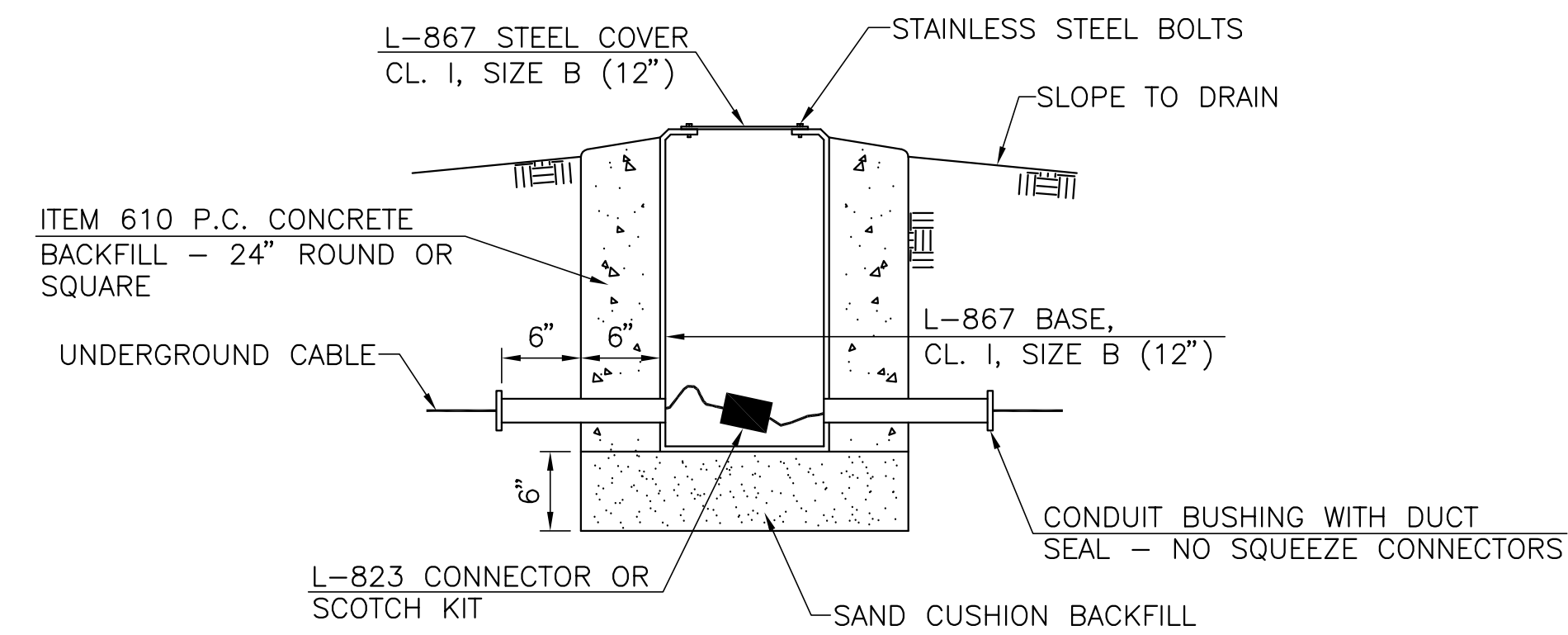
TWO-WAY DUCT

OAKUM, TO ALLOW FOR CONDUIT JOINT IF DUCT BANK IS EXTENDED

NOTES

- DIMENSIONS SHOWN ARE MINIMUM.
- TOP OF CONCRETE ENCASUREMENT TO BE NOT LESS THAN 18" BELOW FINISHED SUBGRADE.
- DUCT CONCRETE SHALL BE STRUCTURAL P.C. CONCRETE (PLAIN OR REINFORCED).
- DUCT SHALL BE PLASTIC CONDUIT CONFORMING TO ASTM D 1784.
- ALL DUCT TO BE 4" UNLESS OTHERWISE SPECIFIED.
- INSTALL CONCRETE DUCT MARKER TWO FEET SQUARE AND 4" THICK, AT ALL ENDS OF DUCTS.
- 1/2" DIAMETER 12" LONG BARS TO BE CAST IN BOTH ENDS OF THE DUCT BANK, AND ALLOWANCES MADE FOR ADDING A JOINT OF PLASTIC CONDUIT FOR FUTURE EXTENSION OF THE DUCT BANK ON BOTH ENDS.

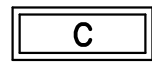
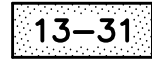
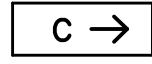
UNDERGROUND DUCT DETAILS



SPLICE CAN DETAIL

INGERSOLL AIRPORT CANTON, ILLINOIS	
TYPICAL LIGHTING DETAILS	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
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LEGEND

- | | | | |
|-------|--|---|--|
| R ● G | PROPOSED M.I. THRESHOLD LIGHT – 180° RED/180° GREEN (STK. MTD.), L-861SE |  | TAXI GUIDANCE SIGN
YELLOW LEGEND ON BLACK BACKGROUND
WITH YELLOW BORDER |
| Y ○ W | PROPOSED M.I. RUNWAY LIGHT – 180° YELLOW/180° WHITE (STK. MTD.), L-861 |  | TAXI GUIDANCE SIGN
WHITE LEGEND ON RED BACKGROUND |
| Y ○ W | PROPOSED M.I. RUNWAY LIGHT – 180° YELLOW/180° WHITE (BASE MTD.), L-861 |  | TAXI GUIDANCE SIGN
BLACK LEGEND ON YELLOW BACKGROUND |
| ● | PROPOSED M.I. TAXIWAY LIGHT (STK. MTD.), L-861T(L) | ■ | PROPOSED TAXI GUIDANCE SIGN |
| ● | PROPOSED M.I. TAXIWAY LIGHT (BASE MTD.), L-861T(L) | □ | EXISTING GUIDANCE SIGN |
| ○ | PROPOSED M.I. RUNWAY LIGHT – 360° WHITE (STK. MTD.) L-861 | ----- | PROPOSED CABLE FOR AIRFIELD LIGHTING
(1-NO. 8 5KV, TY. C, STR. IN UNIT DUCT) |
| ○ | PROPOSED M.I. RUNWAY LIGHT – 360° (BASE MTD.) L-861 | ----- | PROPOSED CABLE FOR AIRFIELD LIGHTING HOMERUN
(2-NO. 8 5KV, TY. C, STR. IN COMMON UNIT DUCT) |
| □ | EXISTING UNDERGROUND DUCT (2-WAY UNLESS OTHERWISE NOTED) | | |
| □ | PROPOSED UNDERGROUND DUCT | | |
| ▶ | PROPOSED REIL UNIT | | |

GENERAL NOTES

- ALL RUNWAY AND TAXIWAY EDGE LIGHTS SHALL BE INSTALLED 10' FROM THE EDGE OF PAVEMENT. ALL TAXI GUIDANCE SIGNS SHALL BE INSTALLED 15' FROM THE EDGE OF PAVEMENT.
- TRENCH/CABLE QUANTITIES WERE DETERMINED UTILIZING LINEAR DISTANCES BETWEEN CONSECUTIVE POINTS AND THE NEAREST LIGHT TO THE DUCT OPENING.
- THE APPROXIMATE LOCATION OF UNDERGROUND CABLES AS INDICATED IN THESE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY IN RESPECT TO THE ACCURACY OR SUFFICIENCY OF THE INFORMATION AND THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE CONDITIONS INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION.
- THE APPROXIMATE LOCATION OF VARIOUS AIRFIELD LIGHTING SYSTEM CABLES IS SHOWN FOR THE CONTRACTOR'S INFORMATION. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE THE EXISTING CABLES IN THE WORK AREAS AND MAKE HIS OWN DETERMINATION AS TO THE NUMBER OF CABLES EXISTING IN SAID AREAS AND AS TO THE CIRCUIT THAT THE CABLES ARE ASSOCIATED WITH. CAUTION SHALL BE EXERCISED WHEN TRENCHING, EXCAVATING DUCT ENDS, ETC. TO AVOID CUTTING THE EXISTING ACTIVE CIRCUIT CABLES. ANY EXISTING ACTIVE CABLE DAMAGED SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- LETTERS AND NUMBERS SHOWN ADJACENT TO AN EDGE LIGHT OR SIGN (R-1-21, T-2-31) INDICATE THE LIGHT NUMBER TO BE ATTACHED TO THE LIGHTING UNIT ON AN IDENTIFICATION TAG. SEE THE IDENTIFICATION TAG DETAIL SHOWN IN THESE PLANS.
- THE CONTRACTOR SHALL APPLY AN ANTI-SEIZING COMPOUND TO THE BOLTS FOR THE BASE PLATES AND TO THE THREADED COUPLINGS OF THE LIGHTING EQUIPMENT WHEN ASSEMBLING THE EQUIPMENT.
- THE PROPOSED UNDERGROUND CABLE BETWEEN CONSECUTIVE LIGHTING UNITS SHALL BE INSTALLED BY PLOWING FACTORY ASSEMBLED CABLE IN UNIT DUCT IN PLACE.
- IN LOCATIONS WHERE TWO OR MORE CABLES ARE INSTALLED IN ONE LOCATION, THE TRENCH OR PLOWING SHALL BE WIDENED OR DEEPENED SUFFICIENTLY TO INSTALL ALL THE CABLES IN ONE LOCATION. COST OF THE LARGER TRENCH OR PLOWING SHALL BE CONSIDERED INCIDENTAL TO THE CABLE INSTALLATION.
- THE UNDERGROUND CABLE BETWEEN LIGHTING UNITS SHALL BE INSTALLED AT 9½" FROM THE EDGE OF PAVEMENT TO AVOID ENCOUNTERING THE EXISTING EDGE LIGHTING CABLES THAT ARE LOCATED AT 10' TO 12' FROM THE EDGE OF PAVEMENT.
- THE EXISTING UNDERGROUND CABLE TO THE EXISTING EDGE LIGHTS SHALL BE ABANDONED WITH THE EXCEPTION THAT ALL EXISTING CABLE BEING REPLACED THAT IS IN THE SAME LOCATION IN TRENCH OR DUCT AS THE PROPOSED CABLE SHALL BE REMOVED FROM THE TRENCH OR DUCT. THE CABLE REMOVED SHALL BE DISPOSED OF OFF THE AIRPORT PROPERTY BY THE CONTRACTOR AND SAID REMOVAL AND DISPOSAL SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- THE NEW RUNWAY AND TAXIWAY EDGE LIGHTING SHALL NOT BE TURNED ON FOR NIGHTTIME OPERATIONS ON A TEMPORARY OR PARTIAL BASIS. ALL COMPONENTS OF THE EDGE LIGHTING SYSTEMS SHALL BE COMPLETE AND OPERATIONAL BEFORE THE CIRCUITS ARE OPERATED.

INGERSOLL AIRPORT CANTON, ILLINOIS	
GENERAL NOTES AND LEGEND	
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS	
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