

# RANTOUL NATIONAL AVIATION CENTER

## RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE

### RANTOUL, ILLINOIS

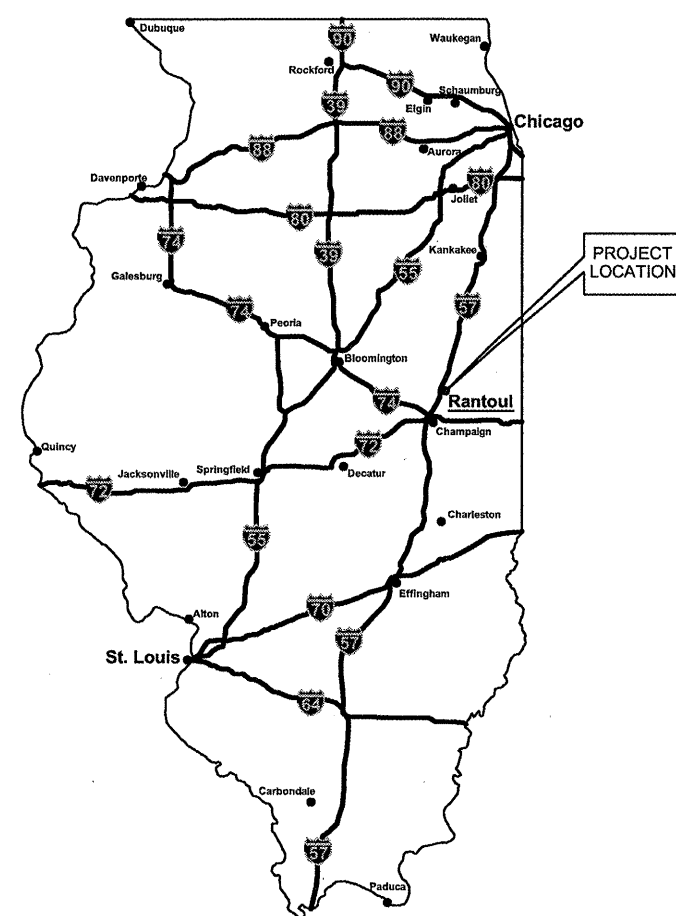
### AIP PROJECT 3-17-0-136-B9

### IL PROJECT TIP-3310

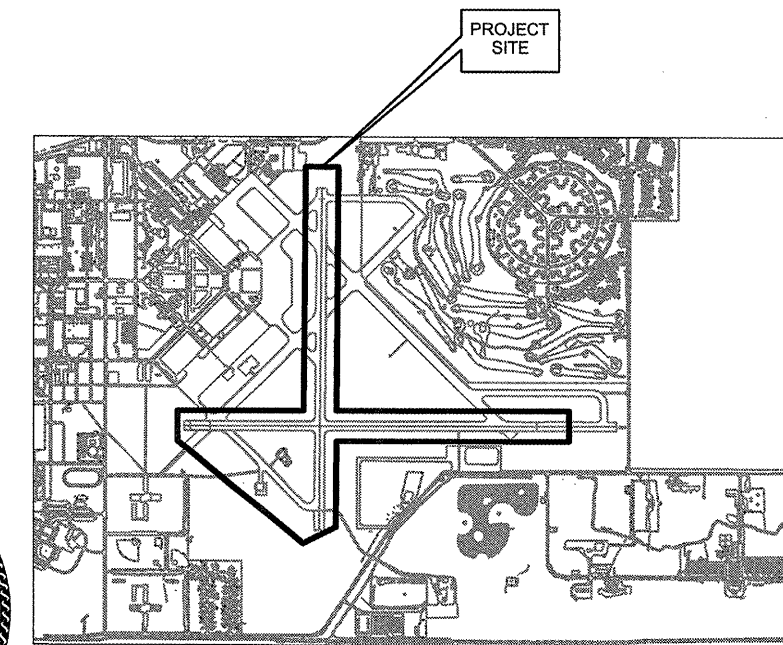
### Contract Drawings

APRIL 25, 2008

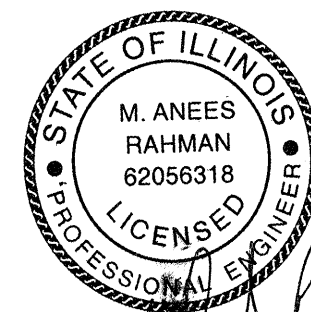
PROJECT NO. 47463



LOCATION MAP



SITE MAP



no.	date	by	ckd	description
0	04/25/08	BJQ	MAR	ISSUED FOR BID

DESIGN APPROACH CATEGORY: B  
DESIGN GROUP: II

# COVER

# Rantoul National Aviation Center

no.	date	by	ckd	description
0	04/25/08	BJQ	MAR	ISSUED FOR BID

## LEGEND

<b>EXISTING</b>	<b>NEW</b>		<b>EXISTING</b>	<b>NEW</b>	
•	•	TAXIWAY EDGE LIGHT, STAKE MOUNTED	—	—	BORED CONDUIT (SEE PLANS FOR DETAILS)
■	■	TAXIWAY EDGE LIGHT, BASE MOUNTED	■	■	4"x4" ELECTRICAL HANDHOLE
⊙	⊙	RUNWAY EDGE LIGHT, STAKE MOUNTED	⊙	⊙	STORM SEWER (MANHOLE/INLET)
○	○	SEGMENTED CIRCLE	⊕	⊕	120/240V POWER PANEL AND UTILITY METER
□	□	AIRFIELD GUIDANCE SIGN	⊕	⊕	BENCHMARK
■	■	RUNWAY THRESHOLD LIGHT, BASE MOUNTED	R	R	INDICATES ITEM TO BE REMOVED
■	■	RUNWAY EDGE LIGHT, BASE MOUNTED	⊕	⊕	5/8"x8" LONG GROUND ROD WITH EXOTHERMIC WELD AND #6 BARE COPPER GROUND (MIN.)
■	■	RUNWAY END IDENTIFIER LIGHTS (REIL)			
■	■	PRECISION APPROACH PATH INDICATOR (PAPI)			
⊕	⊕	BEACON			
⊕	⊕	SUPPLEMENTAL WIND CONE			
■	■	AIRFIELD SPLICE CAN (WITH ISOLATION TRANSFORMER)			
□	□	ISOLATION TRANSFORMER (DIRECT BURIED)			
---	---	CABLE IN UNIT DUCT			
---	---	SANITARY SEWER FORCE MAIN (SSFM)			
---	---	STORM SEWER (ST)			
---	---	CONTROL WIRING (REILS)			
---	---	LOW VOLTAGE (600V) WIRING			

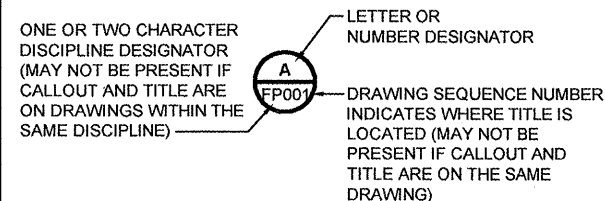
## ABBREVIATIONS

AOA	AIR OPERATIONS AREA	OC	ON-CENTER
AWOS	AUTOMATED WEATHER OBSERVATION SYSTEM	PAPI	PRECISION APPROACH PATH INDICATOR
BM	BENCHMARK	PC	POINT OF CURVATURE
CL	CENTERLINE	PT	POINT OF TANGENCY
CLSM	CONTROLLED LOW STRENGTH MATERIAL	PVC	POLYVINYL CHLORIDE
CM	CABLE MARKER	R	RADIUS
CRL	CONSTRUCTION RESTRICTION LINE	REIL	RUNWAY END INDICATOR LIGHTS
CY	CUBIC YARD	RT	RIGHT
DM	DUCT MARKER	S	SOUTH
E	EAST	SCH	SCHEDULE
ELEV	ELEVATION	SSFM	SANITARY SEWER FORCE MAIN
FAA	FEDERAL AVIATION ADMINISTRATION	ST	STORM SEWER
FOD	FOREIGN OBJECT DEBRIS	STA	STATION
GND	GROUND	SW	SOUTHWEST
GRSC	GALVANIZED RIGID STEEL CONDUIT	TBM	TEMPORARY BENCHMARK
KV	KILOVOLT	THWN	THERMOPLASTIC, HEAT RESISTANT, WATER RESISTANT, WITH A NYLON JACKET
LED	LIGHT EMITTING DIODE	TW	TAXIWAY
LF	LINEAL FOOT	TYP	TYPICAL
LS	LUMP SUM	UD	UNIT DUCT
LT	LEFT	UG	UNDERGROUND
MIRL	MEDIUM INTENSITY RUNWAY LIGHTS	UON	UNLESS OTHERWISE NOTED
MITHL	MEDIUM INTENSITY THRESHOLD LIGHTS	VASI	VISUAL APPROACH SLOPE INDICATOR
MITL	MEDIUM INTENSITY TAXIWAY LIGHTS	W	WEST
N	NORTH		
NE	NORTHEAST		
NW	NORTHWEST		

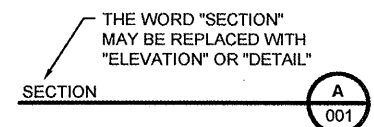
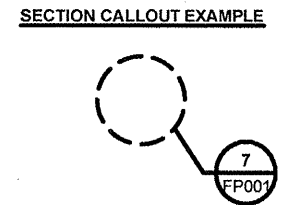


## SUMMARY OF QUANTITIES

ITEM NO.	BID ITEM NO.	DESCRIPTION OF WORK	UNITS	ESTIMATED QUANTITY
1	AR101920	BEACON REPLACEMENT	EACH	1
2	AR107408	L-806 WIND CONE - 8' LIGHTED	EACH	3
3	AR108083	1/C #3 XLP-USE	L.F.	1,050
4	AR108086	1/C #6 XLP-USE	L.F.	13,000
5	AR108092	1/C #12 XLP-USE	L.F.	5,500
6	AR108158	1/C #6 5 KV UG CABLE IN UD	L.F.	16,500
7	AR108542	1/C #8 GROUND	L.F.	7,000
8	AR108706	1/C #6 COUNTERPOISE	L.F.	15,000
9	AR108756	1/C #6 GROUND	L.F.	300
10	AR110012	2" DIRECTIONAL BORE	L.F.	500
11	AR110014	4" DIRECTIONAL BORE	L.F.	850
12	AR110201	1" PVC DUCT, DIRECT BURY	L.F.	6,500
13	AR110217	1 1/2" STEEL DUCT, DIRECT BURY	L.F.	350
14	AR110501	1-WAY CONC. ENCASED DUCT	L.F.	450
15	AR110610	ELECTRICAL HANDHOLE	EACH	3
16	AR125444	TAXI GUIDANCE SIGN, 4 CHARACTER	EACH	8
17	AR125505	MIRL, STAKE MOUNTED	EACH	47
18	AR125510	MIRL, BASE MOUNTED	EACH	1
19	AR125545	MI THRESHOLD LIGHT BASE MTD	EACH	16
20	AR125565	SPLICE CAN	EACH	63
21	AR125610	REILS	PAIR	2
22	AR125615	PAPI (L-880 SYSTEM)	EACH	2
23	AR125901	REMOVE STAKE MOUNTED LIGHT	EACH	47
24	AR125902	REMOVE BASE MOUNTED LIGHT	EACH	12
25	AR125907	REMOVE REILS	PAIR	2
26	AR150510	ENGINEER'S FIELD OFFICE	L.S.	1
27	AR150520	MOBILIZATION	L.S.	1
28	AR803053	SEGMENTED CIRCLE	EACH	1
29	AR803054	REPLACE WINDSOCKS	EACH	2
30	AR803055	1/2" PVC CONDUIT, IN SAWKERF	L.F.	2,500
31	AR803056	GROUND ROD, 5/8" x 8'	EACH	118
32	AR803057	30/45W, 6.6A/6.6A ISOLATION TRANSFORMER	EACH	70
33	AR803058	100W, 6.6A/6.6A ISOLATION TRANSFORMER	EACH	6
34	AR803059	120/240V, 1-PHASE, 100A ELECT. SERVICE	L.S.	2
35	AR901511	SEEDING	ACRE	2
36	AR908510	MULCHING	ACRE	2



### SECTION, DETAIL, AND ELEVATION SYMBOL IDENTIFIERS



### SECTION, DETAIL, AND ELEVATION IDENTIFICATION SYSTEM

## INDEX OF DRAWINGS

SHEET NO.	DRAWING NO.	DRAWING TITLE
1 of 21	CVR	COVER
2 of 21	G001	INDEX OF DRAWINGS, SUMMARY OF QUANTITIES, LEGEND AND ABBREVIATIONS
3 of 21	G002	CONSTRUCTION SAFETY PHASING PLAN AND DETAILS
4 of 21	G003	CONSTRUCTION SAFETY PHASING NOTES AND GENERAL NOTES
5 of 21	D101	ELECTRICAL DEMOLITION PLAN TAXIWAY E STA. 0+00 TO STA. 5+50
6 of 21	D102	ELECTRICAL DEMOLITION PLAN RUNWAY 9-27 STA. 23+50 TO STA. 34+00
7 of 21	D103	ELECTRICAL DEMOLITION PLAN RUNWAY 9-27 STA. 34+00 TO STA. 57+50
8 of 21	D104	ELECTRICAL DEMOLITION PLAN RUNWAY 9-27 STA. 57+50 TO STA. 80+00
9 of 21	E101	ELECTRICAL SITE PLAN TAXIWAY E STA. 0+00 TO STA. 5+50
10 of 21	E102	ELECTRICAL SITE PLAN RUNWAY 9-27 STA. 23+00 TO STA. 35+50
11 of 21	E103	ELECTRICAL SITE PLAN RUNWAY 9-27 STA. 35+50 TO STA. 59+50
12 of 21	E104	ELECTRICAL SITE PLAN RUNWAY 9-27 STA. 59+50 TO STA. 80+00
13 of 21	E105	ELECTRICAL SITE PLAN RUNWAY 18-36 STA. 100+00 TO STA. 125+00
14 of 21	E106	ELECTRICAL SITE PLAN RUNWAY 18-36 STA. 125+00 TO STA. 149+00
15 of 21	E201	ELECTRICAL DETAILS 1
16 of 21	E202	ELECTRICAL DETAILS 2
17 of 21	E203	ELECTRICAL DETAILS 3
18 of 21	E204	ELECTRICAL DETAILS 4
19 of 21	E205	ELECTRICAL DETAILS 5
20 of 21	E206	ELECTRICAL DETAILS 6
21 of 21	E207	ELECTRICAL DETAILS 7



date	02/13/08	detailed	L. TUCKER
designed	B. QUINLAN	checked	A. RAHMAN

## RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE

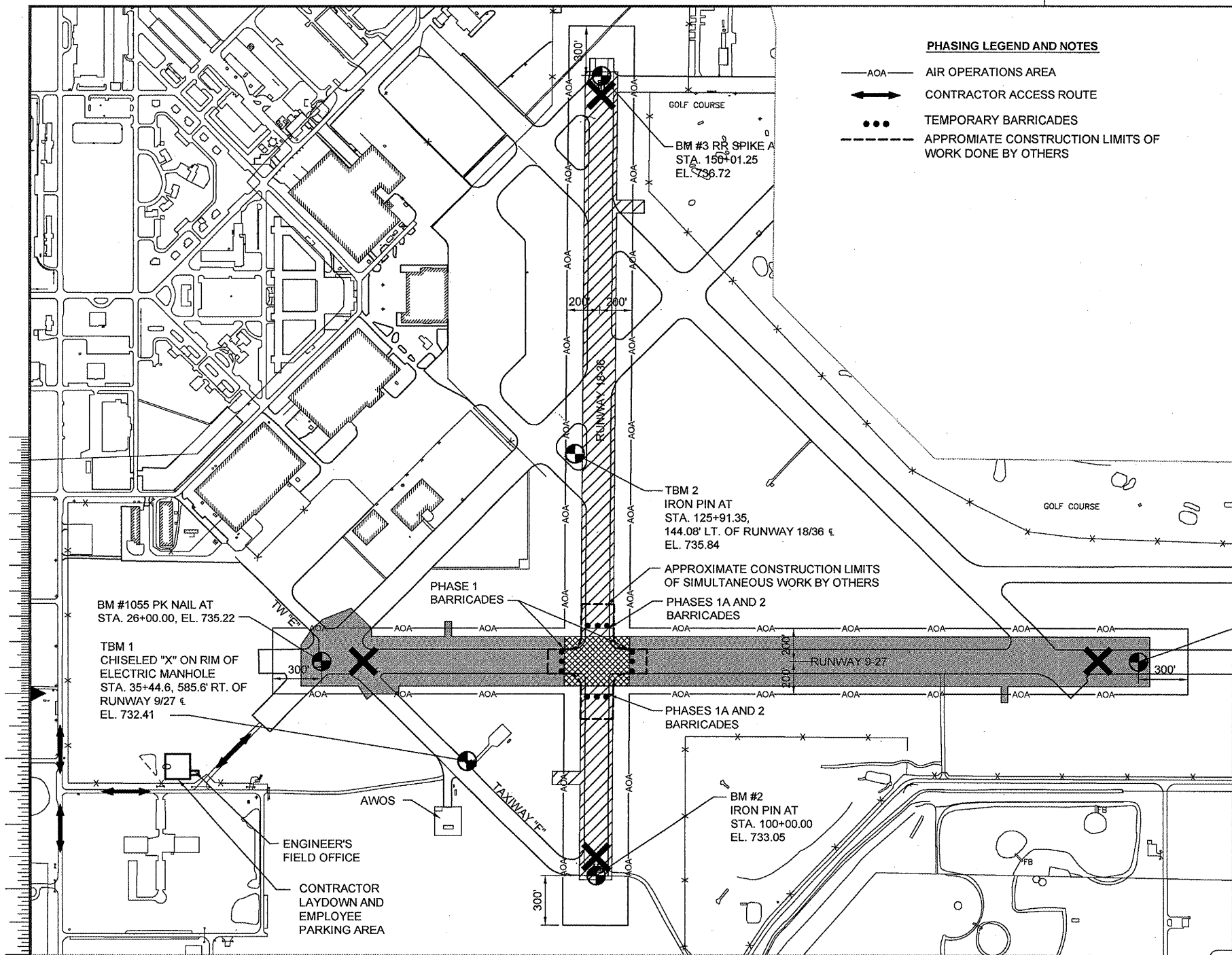
### INDEX OF DRAWINGS, SUMMARY OF QUANTITIES, LEGEND AND ABBREVIATIONS

project	contract
drawing	rev.
<b>G001</b>	<b>0</b>
sheet 2 of 21 sheets	
file 47463G001.DWG	

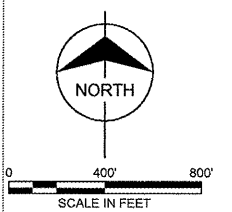
Scale For Microworld

Inches

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- PHASING LEGEND AND NOTES**
- AOA — AIR OPERATIONS AREA
  - ↔ CONTRACTOR ACCESS ROUTE
  - TEMPORARY BARRICADES
  - - - - - APPROXIMATE CONSTRUCTION LIMITS OF WORK DONE BY OTHERS



- PHASE 1 - RW 9/27 CLOSED (DAY AND NIGHT)**  
 MAJOR WORK ITEMS:  
 - INSTALL RUNWAY EDGE LIGHTING  
 - INSTALL CABLE IN UNIT DUCT  
 - INSTALL GUIDANCE SIGNS  
 - INSTALL PAPIS  
 - INSTALL REILS  
 SAFETY REQUIREMENTS:  
 - PLACE AND MAINTAIN PHASE 1 BARRICADES  
 - REMOVE BARRICADES AFTER COMPLETION OF WORK  
 - PLACE AND MAINTAIN RUNWAY CLOSURE X'S  
 GENERAL SAFETY REQUIREMENTS:  
 - REFER TO ACCESS AND SAFETY NOTES ON DRAWING G003
- PHASE 1A - RW 9/27 AND RW 18/36 CLOSED (DAYTIME ONLY)**  
 MAJOR WORK ITEMS:  
 - INSTALL BORED CONDUIT UNDER RW 18/36  
 - INSTALL CABLE IN UNIT DUCT  
 - INSTALL RUNWAY 9/27 MIRLS INSIDE RW 18/36 AOA  
 SPECIFIC SAFETY REQUIREMENTS:  
 - PLACE AND MAINTAIN PHASE 1A BARRICADES  
 - REMOVE BARRICADES AFTER COMPLETION OF WORK  
 - PLACE AND MAINTAIN RUNWAY 9/27 AND RUNWAY 18/36 CLOSURE X'S  
 GENERAL SAFETY REQUIREMENTS:  
 - REFER TO ACCESS AND SAFETY NOTES ON DRAWING G003
- PHASE 2 - RW 18/36 CLOSED (DAYTIME ONLY)**  
 MAJOR WORK ITEMS:  
 - INSTALL NEW GUIDANCE SIGNS  
 - INSTALL NEW WIND CONES  
 SPECIFIC SAFETY REQUIREMENTS:  
 - PLACE AND MAINTAIN BARRICADES  
 - REMOVE BARRICADES AFTER COMPLETION OF WORK  
 - PLACE AND MAINTAIN RUNWAY 18/36 CLOSURE X'S  
 GENERAL SAFETY REQUIREMENTS:  
 - REFER TO ACCESS AND SAFETY NOTES ON DRAWING G003
- PHASE 3 - RW 9/27 AND RW 18/36 OPEN**  
 MAJOR WORK ITEMS:  
 - INSTALL NEW SEGMENTED CIRCLE, WIND SOCKS, AND REPLACEMENT BEACON  
 - INSTALL NEW BASE CANS FOR TAXIWAY LIGHTS  
 - INSTALL NEW POWER FEEDS  
 GENERAL SAFETY REQUIREMENTS:  
 - REFER TO ACCESS AND SAFETY NOTES ON DRAWING G003

**GENERAL NOTE:** ALL WORK SHALL BE COMPLETED IN 78 CALENDAR DAYS. CONTRACTOR WILL BE PERMITTED TO WORK IN PHASES 1, 1A AND 3 WORK AREAS SIMULTANEOUSLY, HOWEVER ALL PHASE 1 AND 1A WORK SHALL BE COMPLETED IN 52 CALENDAR DAYS.

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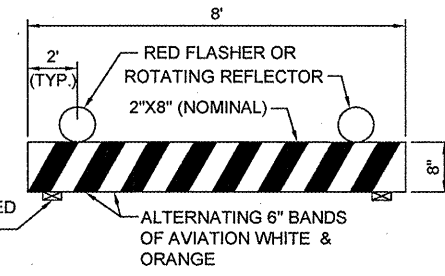
CONSTRUCTION SAFETY PHASING PLAN AND DETAILS

project	contract
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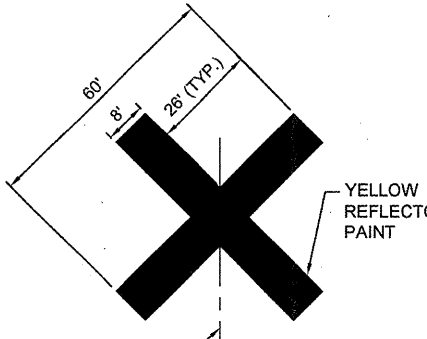
drawing **G002** rev. **0**

sheet 3 of 21 sheets  
 file 47463G002.DWG

- NOTES:**
- FLASHERS SHALL BE BATTERY OPERATED. LENS SHALL BE RED AND BE ABLE TO ROTATE 90°.
  - SUPPORT BRACES SHALL BE SECURELY ATTACHED TO 2"x8".
  - SAND BAGS SHALL BE PLACED ON EACH SUPPORT BRACE.
  - FACING OF 8"x8" TO BE COVERED WITH REFLECTIVE TAPE OR PAINT.
  - LOW-PROFILE BARRICADES TO BE SPACED 8 FT O.C. ACROSS THE FULL WIDTH OF PAVEMENT.
  - BARRICADES SHALL BE BRACES TO PREVENT TIP OVER OR DISPLACEMENT AS MAY BE INDUCED BY WEATHER OR AIRCRAFT OPERATIONS.
  - BARRICADES CONSTRUCTED OF HIGH IMPACT, UV-RESISTANT POLYETHYLENE AS MANUFACTURED BY NEUBERT AERO CORP. OR SIMILAR APPROVED EQUAL MAY ALSO BE USED.



**LOW PROFILE BARRICADE DETAIL**  
 DETAIL NOT TO SCALE



**FAA RUNWAY CLOSED SYMBOL**  
 DETAIL NOT TO SCALE

**NOTE:** CLOSED RUNWAY CROSS TO BE CONSTRUCTED OF PLYWOOD, DOUBLE-LAYERED PAINTED SNOW FENCE, COLORED PLASTIC, OR SIMILAR MATERIAL APPROVED BY ENGINEER. CROSS SHALL BE CONSTRUCTED FOR TEMPORARY USE AND EASY REMOVAL, AND NOT SUBJECT TO MOVEMENT BY WIND. ANCHOR WITH SAND BAGS AS REQUIRED.

**THRESHOLD LOCATION TABLE**

RUNWAY THRESHOLD	LATITUDE	LONGITUDE	ELEVATION
9	40° 17' 31.11841"	88° 08' 59.62096"	735.52
27	40° 17' 31.47419"	88° 07' 55.09473"	728.47
36	40° 17' 18.94840"	88° 08' 37.87045"	733.43
18	40° 18' 07.31820"	88° 08' 37.90095"	736.88

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**ACCESS AND SAFETY NOTES:**

**I. ACCESS AND VEHICLE PARKING:**

- A. ACCESS POINT AND HAUL ROUTE FOR ALL CONTRACTOR PERSONNEL, VEHICLES AND EQUIPMENT ARE AS SHOWN ON THE CONSTRUCTION SAFETY PHASING PLAN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN PERMITS AND COORDINATE OFF SITE HAUL ROUTES WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. ON-SITE HAUL ROUTES SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UPON COMPLETION OF BEING USED AS A HAUL ROUTE. HAUL ROUTES ARE TO REMAIN CLEAN AT ALL TIMES.
- B. CONTRACTOR SHALL PROVIDE AND INSTALL A PROFESSIONALLY PAINTED SIGN MEETING AIRPORT MANAGER APPROVAL AT THE CONSTRUCTION ENTRANCE TO DIRECT MATERIAL SUPPLIERS AND EMPLOYEES TO THE CONSTRUCTION SITE. THE SIGN SHALL READ "CONSTRUCTION VEHICLES ONLY - NO VENDORS ALLOWED".
- C. ALL CONTRACTOR VEHICLES AND PERSONNEL SHALL REMAIN WITHIN THE DESIGNATED CONSTRUCTION LIMITS OR HAUL ROUTES. NO CONTRACTOR VEHICLES WILL BE ALLOWED ON OTHER AIRFIELD OPERATIONS AREAS.
- D. THE LIMITS OF CONSTRUCTION, MATERIAL STORAGE AREAS, EQUIPMENT STORAGE AREA, PARKING AREA AND OTHER AREAS DEFINED AS REQUIRED FOR THE CONTRACTOR'S EXCLUSIVE USE DURING CONSTRUCTION SHALL BE MARKED BY THE CONTRACTOR. TEMPORARY BARRICADES, FLAGGING AND FLASHING WARNING LIGHTS WILL BE REQUIRED AT CRITICAL ACCESS POINTS. TYPE OF MARKING AND WARNING DEVICES SHALL BE APPROVED BY THE ENGINEER AND AIRPORT MANAGER.
- E. ALL ACCESS GATES SHALL BE KEPT CLOSED DURING CONTRACTORS WORK HOURS. THE CONTRACTOR SHALL CLOSE AND LOCK ACCESS GATE AT THE COMPLETION OF EACH WORK DAY. AIRPORT MANAGER WILL PROVIDE LOCK AND KEYS FOR ACCESS GATE.

**II. COORDINATION AND COMMUNICATION DURING CONSTRUCTION:**

- A. CONTRACTOR SHALL ADVISE AND THEN VERIFY WITH AIRPORT MANAGER 72 HOURS IN ADVANCE AS TO THE NEED FOR NOTICES TO AIRMEN (NOTAMS). NO RUNWAY, TAXIWAY OR APRON SHALL BE CLOSED WITHOUT APPROVAL FROM THE AIRPORT MANAGER.
- B. CONTRACTOR SHALL APPOINT A CONSTRUCTION SUPERINTENDENT, SUBJECT TO THE APPROVAL OF THE AIRPORT MANAGER, WHO SHALL BE PRESENT ON THE CONSTRUCTION SITE AT ALL TIMES DURING WORKING HOURS WHILE JOB IS IN PROGRESS. THE SUPERINTENDENT SHALL BE DESIGNATED THE RESPONSIBLE CONTRACTOR'S REPRESENTATIVE WHO SHALL BE AVAILABLE ON A 24-HOUR BASIS.
- C. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CORDON OFF THE WORK AREA AS SHOWN ON SHEET G002 BY USING BARRICADES WITH ALTERNATE ORANGE AND WHITE MARKINGS. THE BARRICADES SHALL ALSO BE FITTED WITH FLASHING RED LIGHTS. CONTRACTOR SHALL MAINTAIN, MOVE AND REMOVE BARRICADES (AS DIRECTED) TO DELINEATE AREAS CLOSED TO AIRCRAFT TRAFFIC.
- D. PRIOR TO COMMENCEMENT OF CONSTRUCTION, CONTRACTOR SHALL SUBMIT TO AIRPORT MANAGER THE NAME AND TELEPHONE NUMBER OF THE INDIVIDUAL(S) WHO WILL BE ON CALL 24 HOURS PER DAY FOR EMERGENCY MAINTENANCE OF AIRPORT HAZARD LIGHTING & BARRICADES.
- E. CONTRACTOR SHALL FURNISH AN AIRPORT RADIO AND CONTINUOUSLY MONITOR AIRCRAFT TRAFFIC ON AND AROUND THE AIRPORT. THE FREQUENCY FOR LOCAL TRAFFIC IS 123.0 MHz.
- F. THE FOLLOWING CONTACT INFORMATION IS PROVIDED FOR CONTRACTOR'S USE IN CASE OF EMERGENCY:

EMERGENCY  
911

RANTOUL MUNICIPAL BUILDING  
(217) 893-1661

RANTOUL NATIONAL AVIATION CENTER  
AIRPORT MANAGER, BILL CLAYTON  
(217) 893-4291, (217) 841-3787

RANTOUL PUBLIC WORKS DEPARTMENT  
(ELECTRIC, GAS, WATER & SEWER)  
GREG HAZEL  
(217) 892-2178

VERSION COMMUNICATIONS  
JOE BIRCH  
(217) 892-3338, (217) 493-7786

OTHER CONTACTS AS DIRECTED AT  
PRE-CONSTRUCTION MEETING

- G. PRIOR TO THE COMPLETION OF EACH WORK DAY, ALL AIRFIELD PAVEMENT SURFACES WITHIN AND ADJACENT TO THE WORK AREA AND THOSE USED AS HAUL ROUTES SHALL BE SWEEPED CLEAN.
  - H. PRIOR TO THE OPENING OF A CLOSED RUNWAY OR TAXIWAY, THE CONTRACTOR SHALL REQUEST THE ENGINEER TO SCHEDULE AN INSPECTION. NO TAXIWAY OR RUNWAY SHALL BE RE-OPENED UNTIL ENGINEER HAS COMPLETED INSPECTION AND APPROVED THE RE-OPENING OF ACTIVE AREAS.
  - I. THERE WILL BE OTHER CONSTRUCTION WORK OCCURRING SIMULTANEOUSLY WITH THIS PROJECT. CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH ALL OTHER CONTRACTORS WORKING ON THE AIRPORT. ANY SCHEDULE DELAYS OR DAMAGE TO EQUIPMENT OR MATERIALS INSTALLED AS PART OF THIS PROJECT INCURRED AS A RESULT OF OTHER CONTRACTOR'S ACTIVITIES SHALL BE REMEDIATED AT NO COST TO THE OWNER.
- III. TRAFFIC CONTROL:**
- A. ALL CONSTRUCTION EQUIPMENT AND VEHICLES SHALL BE MARKED WITH COMPANY PAINT DESIGNS, INSIGNIAS OR OTHER COMPANY MARKINGS, WHICH ARE CLEARLY VISIBLE. CONTRACTOR SHALL PROVIDE EACH VEHICLE WITH A FLAG ON A STAFF ATTACHED TO THE VEHICLE SO THAT THE FLAG WILL BE READILY VISIBLE. THE FLAG SHOULD BE AT LEAST 3 FOOT SQUARE, AND HAVE A CHECKERED PATTERN OF INTERNATIONAL ORANGE AND WHITE.
  - B. CONSTRUCTION EQUIPMENT SHALL HAVE AUTOMATIC SIGNALLING DEVICES TO SOUND AN ALARM WHEN MOVING IN REVERSE.
  - C. RUBBER Tired VEHICLES ONLY WILL BE ALLOWED ON PAVEMENT.
  - D. NO PEDESTRIAN TRAFFIC OUTSIDE THE CONSTRUCTION WORK SITE WILL BE PERMITTED.
  - E. ANY DAMAGE TO AIRPORT ROADS, AIRFIELD PAVEMENT, OR TURF AREAS DUE TO CONSTRUCTION EQUIPMENT OR CONSTRUCTION TRAFFIC SHALL BE REPAIRED TO ORIGINAL CONDITION TO THE SATISFACTION OF AND AT NO EXPENSE TO THE OWNER.
  - F. ANY WORKERS AND/OR EQUIPMENT NOT IN COMPLIANCE WITH SAFETY PLAN SHALL IMMEDIATELY BE REMOVED FROM THE WORK AREA AND THEY WILL NOT BE PERMITTED TO WORK ON THE SITE THROUGHOUT THE REMAINDER OF THE PROJECT.

**IV. EQUIPMENT AND STOCKPILE HEIGHT:**

- A. THE MAXIMUM ALLOWABLE HEIGHT OF CONSTRUCTION EQUIPMENT OPERATING IN THE AOA IS 25'.
  - B. CONTRACTOR SHALL NOT STOCKPILE CONSTRUCTION MATERIALS, SPOILS, DEBRIS OR REFUSE IN ANY AREA WHERE SUCH STOCKPILES WOULD PENETRATE APPROACH SURFACES. STOCKPILING OF MATERIAL WITHIN THE SAFETY AREA OF AN ACTIVE RUNWAY OR TAXIWAY IS PROHIBITED.
  - C. ALL STOCKPILES ADJACENT TO RUNWAY SAFETY AREAS OR OBSTACLE FREE ZONES SHALL BE IDENTIFIED WITH A 360 DEGREE RED OBSTRUCTION LIGHT PLACED AT THE HIGHEST POINT OF THE STOCKPILE.
  - D. STOCKPILED MATERIAL SHALL BE CONTAINED IN A MANNER TO PREVENT MOVEMENT RESULTING FROM AIRCRAFT PROP WASH OR WIND CONDITIONS. IN ADDITION, STOCKPILED MATERIAL SHALL HAVE SILT FENCE PLACED AROUND IT TO PREVENT FOD FROM MOVING ONTO THE AIRFIELD PAVEMENTS OR POLLUTING WATERCOURSES.
- V. EXCAVATION AND TRENCHES:**
- A. OPEN TRENCHES AND EXCAVATIONS AT THE CONSTRUCTION SITE SHALL BE PROMINENTLY MARKED WITH ORANGE BARRICADES WITH FLASHING RED LIGHTS ACCEPTABLE TO THE AIRPORT MANAGER.
  - B. ALL CONSTRUCTION AREAS THAT POSE A HAZARD TO OPERATING AIRCRAFT SHALL BE PROPERLY MARKED WITH LOW-PROFILE BARRICADES.
  - C. ALL BARRICADES LOCATED WITHIN OR ADJACENT TO AREAS OF AIRCRAFT OPERATION SHALL BE LOW PROFILE TYPE WITH ORANGE MARKINGS AND RED FLASHING LIGHTS.
  - D. LOW PROFILE BARRICADES SHALL BE KEPT OUTSIDE THE LIMITS OF ANY ACTIVE RUNWAY SAFETY AREA OR TAXIWAY SAFETY AREA.

**VI. OTHER SAFETY REQUIREMENTS:**

- A. CONTRACTOR SHALL MAINTAIN SAFETY PRACTICES THAT CONFORM TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.
  - B. DEBRIS - WASTE AND LOOSE MATERIALS CAPABLE OF CAUSING DAMAGE TO AIRCRAFT AND HELICOPTER LANDING GEAR, PROPELLERS AND ROTORS SHALL NOT BE LEFT WITHIN ACTIVE AIRCRAFT MOVEMENT AREAS. MATERIAL DROPPED WITHIN THESE AREAS SHALL BE REMOVED CONTINUOUSLY DURING WORKING HOURS.
  - C. THE CONTRACTOR SHALL CONTROL BLOWING DUST FROM ANY HAUL ROUTE OR WORK AREA REGARDLESS OF SOURCE.
- VII. CONTRACTOR SAFETY PLAN SUBMITTALS:**
- A. CONTRACTOR SHALL FURNISH DETAILED INFORMATION REGARDING COMPLIANCE WITH THE PROJECT SAFETY PLAN IN CONJUNCTION WITH HIS/HER PROJECT SCHEDULE. CONTRACTOR SHALL PROVIDE SAFETY PLAN 7 DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING. INFORMATION SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING ITEMS:
    1. PROPOSED ACCESS POINTS, STAGING AREA AND HAUL ROUTES.
    2. ANY TEMPORARY MARKINGS TO BE USED.
    3. THE LOCATION AND TYPE OF BARRICADES OR OTHER TRAFFIC CONTROL DEVICES.
    4. AREAS TO WHICH CONSTRUCTION OPERATIONS WILL BE LIMITED, ALONG WITH PROPOSED MEASURES TO MINIMIZE THE POSSIBILITY OF CONTRACTOR EQUIPMENT AND/OR WORKERS ACCIDENTALLY ENTERING ANY AOA.
    5. ANY REQUESTED TEMPORARY AMENDMENTS TO THE AIRPORT SECURITY PLAN FOR SPECIAL CONDITION OR MODIFICATIONS.
  - B. CONTRACTOR SAFETY PLAN SHALL COMPLY WITH ALL REQUIREMENTS INDICATED IN FAA ADVISORY CIRCULAR (AC) 150/5370-2E, OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION, CURRENT EDITION.

**GENERAL NOTES:**

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AND PAY FOR ALL APPLICABLE PERMITS, FEES AND LICENSES FOR CONSTRUCTION AND EQUIPMENT.
2. THE COST OF TRAFFIC CONTROL IS INCIDENTAL TO THE PROJECT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONSTANT COORDINATION BETWEEN THE SUBCONTRACTORS AND THE ENGINEER. ALL CONSTRUCTION ACTIVITIES PLANNED BY THE CONTRACTOR SHALL BE REVIEWED AND APPROVED BY THE ENGINEER AND OWNER.
4. LIMITS OF WORK SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND THE ENGINEER PRIOR TO BEGINNING WORK.
5. THERE SHALL BE NO PERMANENT WASTE SITES ON AIRPORT PROPERTY. ANY TEMPORARY WASTE AREA WILL BE APPROVED BY THE ENGINEER AND SHALL BE KEPT IN A NEAT CONDITION. THE OWNER MAY DIRECT THE CONTRACTOR TO REMOVE WASTE IF NOT PROPERLY MAINTAINED.
6. PRIOR TO COMPLETION OF THE PROJECT THE CONTRACTOR SHALL RESTORE ALL DAMAGED AREAS (NOT DESIGNATED FOR CONSTRUCTION) TO THEIR PRE-CONSTRUCTION CONDITION.
7. CONTRACTOR MUST ATTEND A MANDATORY PRE-BID CONFERENCE FOR THIS PROJECT IN ORDER FOR BID TO BE CONSIDERED. THE PRE-BID CONFERENCE WILL BE HELD AT 10:00AM ON MAY 30, 2008 AT THE RANTOUL NATIONAL AVIATION CENTER.
8. LOCATING, FLAGGING, AND PROTECTING THE EXISTING UTILITIES DURING THE DURATION OF THE CONSTRUCTION PROJECT IS THE RESPONSIBILITY OF THE CONTRACTOR. THE LOCATIONS OF THE EXISTING UTILITIES ON THE CONTRACT DRAWINGS WERE OBTAINED FROM EXISTING RECORDS AND NO GUARANTEE OF ACCURACY OR SUFFICIENCY FOR THIS INFORMATION IS ASSUMED BY THE OWNER OR ENGINEER.
9. CONTRACTOR SHALL PAY SPECIAL ATTENTION TO THE EXISTING STORM SEWER (ST) AND SANITARY SEWER FORCE MAIN (SSFM) WITHIN CONSTRUCTION LIMITS. ANY DAMAGE TO ANY EXISTING UTILITIES WILL BE REPAIRED OR REPLACED TO THE SATISFACTION OF AND AT NO EXPENSE TO THE OWNER.

11. THE CONSTRUCTION COVERED BY THE PLANS SHALL CONFORM TO ALL APPLICABLE STANDARDS AND SPECIFICATIONS OF THE FAA.
12. ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL OF THE ENGINEER.
13. THE CONTRACTOR SHALL MEGGER EXISTING AIRFIELD LIGHTING CABLE PRIOR TO WORK. AND REPORT THE RESULTS TO THE ENGINEER. AT THE COMPLETION OF THE CONSTRUCTION, CONTRACTOR SHALL RE-MEGGER ALL CIRCUITS. EXISTING CIRCUITS SHALL MEGGER THE SAME OR BETTER THAN PREVIOUS READINGS. CIRCUITS MEGGERING LESS THAN PREVIOUS READINGS SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE PROJECT. (WEATHER CONDITIONS SHALL BE NOTED DURING MEGGER READINGS). THIS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF PROPOSED WIRING.
14. THE CONTRACTOR SHALL REPLACE, AT NO ADDITIONAL COST, ANY DAMAGED EQUIPMENT OR CABLE CAUSED BY CONTRACTOR.
15. THE CONTRACTOR SHALL PROVIDE TEMPORARY JUMPERS FOR ANY AIRFIELD LIGHTING OR EQUIPMENT TO BE LEFT IN OPERATION DURING THE CONSTRUCTION PERIOD. THIS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OR PROPOSED WIRING.
16. THE CONTRACTOR SHALL TURN OVER ALL EDGE LIGHTS AND ISOLATION TRANSFORMERS TO THE OWNER UNLESS OTHERWISE DIRECTED BY THE OWNER OR ENGINEER. ALL OTHER EQUIPMENT SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR.
17. RUNWAY 18/36 AND TAXIWAY "F" EDGE LIGHT CIRCUITS SHALL BE MAINTAINED OPERATIONAL DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 72 HOURS PRIOR TO MAKING CONNECTIONS TO THE CIRCUITS.
18. DUE TO LIMITED SPACE, PROPOSED WIRING WILL, IN GENERAL BE INSTALLED AT THE SAME LOCATION AS EXISTING WIRING. EXISTING WIRING AND EXISTING UNIT DUCT SHALL BE REMOVED FROM ALL DUCT BANKS, CONDUITS, HANDHOLES, MANHOLES AND TRENCHES WHERE PROPOSED WIRING IS BEING INSTALLED. COST OF EXISTING WIRING AND UNIT DUCT REMOVAL SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE PROPOSED WIRING.
19. CONDUIT TRENCHES, BORE PITS, TRENCH RESTORATIONS OR OTHER ITEMS REQUIRED FOR THE INSTALLATION OF THE ASSOCIATED CONDUITS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE CONDUITS.

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designed	B. QUINLAN	checked	A. RAHMAN

**RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE**

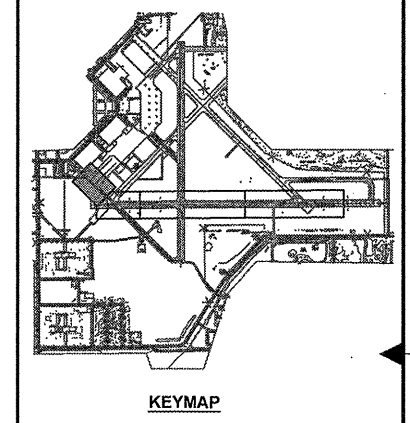
CONSTRUCTION SAFETY PHASING NOTES AND GENERAL NOTES

project	contract
drawing	rev.
<b>G003 - 0</b>	
sheet 4 of 21 sheets	file 47463G003.DWG

Scale For Microfilming  
Inches  
Millimeters

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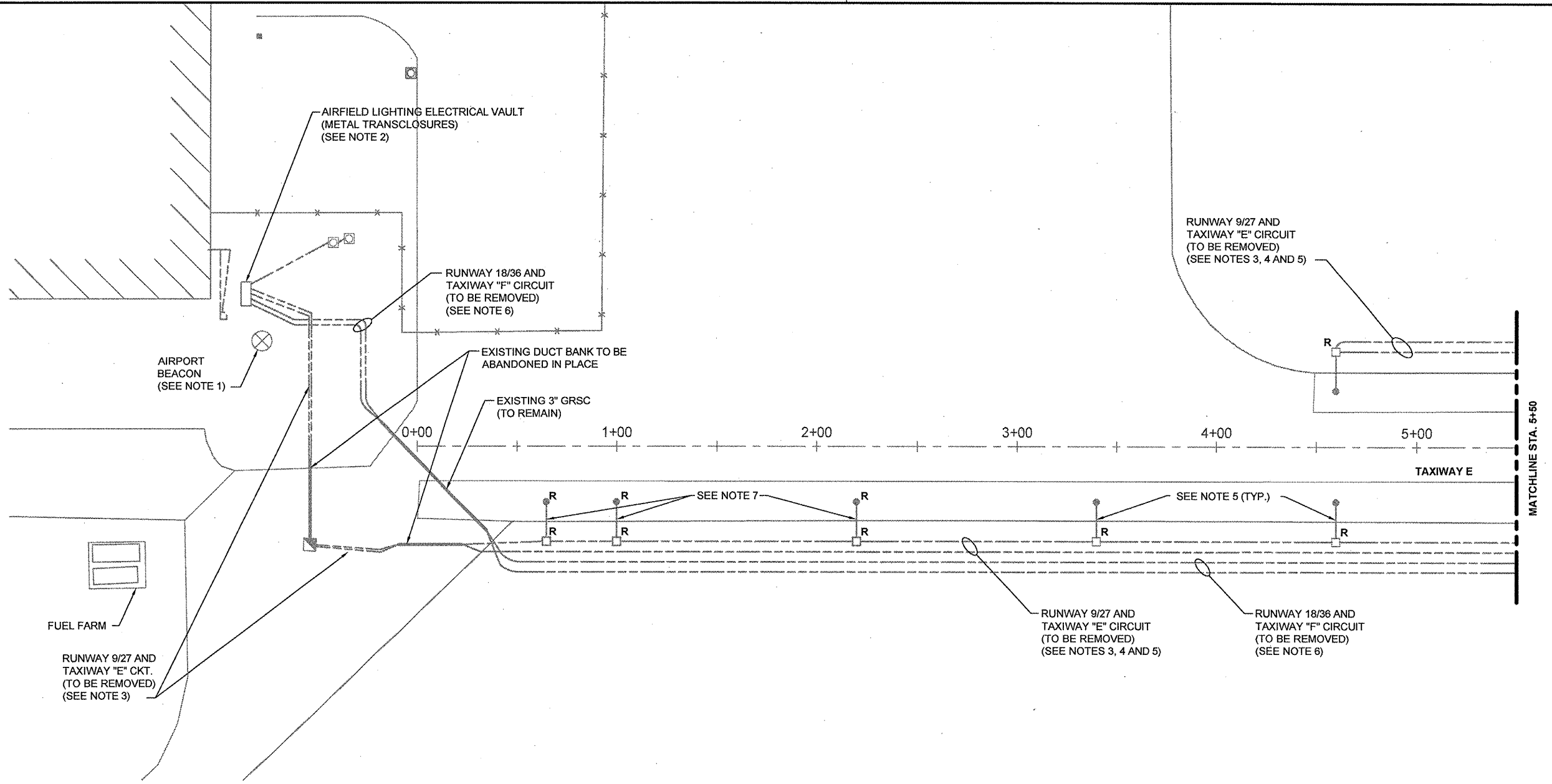


date	02/13/08	detailed	L. TUCKER
designed	B. QUINLAN	checked	A. RAHMAN

**RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE**

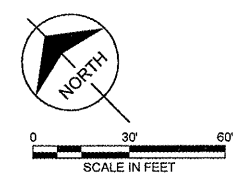
ELECTRICAL DEMOLITION PLAN  
TAXIWAY E STA. 0+00 TO STA. 5+50

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sheet 5 of 21 sheets	file 47463D101.DWG



**NOTES:**

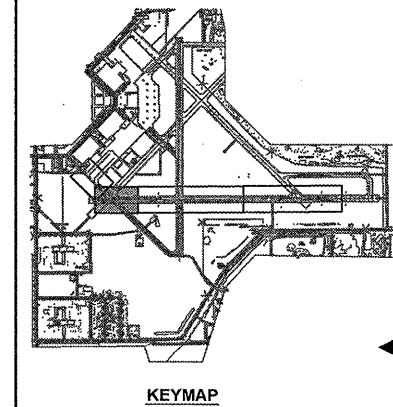
- EXISTING BEACON TO BE REMOVED AND REPLACED. CONTRACTOR SHALL CONFIRM COMPATIBILITY OF NEW BEACON WITH EXISTING MOUNTING SYSTEM AND HARDWARE. EXISTING POWER SUPPLY AND BEACON POLE TO BE REUSED.
- ELECTRICAL VAULT MODIFICATIONS ARE VERY MINIMAL. CONTRACTOR SHALL REMOVE EXISTING RUNWAY 9/27 AND TAXIWAY "E" HOMERUN WIRING AND RUNWAY 18/36 AND TAXIWAY "F" HOMERUN WIRING FROM EXISTING CONDUITS, DUCT BANKS, HANDHOLES OR MANHOLES. DIRECT BURIED WIRING AND ASSOCIATED UNIT DUCT SHALL ALSO BE REMOVED AND REPLACED WITH NEW WIRING IN UNIT DUCT. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE NEW CABLE.
- RUNWAY 9/27 WIRING (IN UNIT DUCT), ISOLATION TRANSFORMERS, SPLICES, LIGHTS, BASE CANS, LIGHT STAKES, COUNTERPOISE AND SAFETY GROUND SYSTEM TO BE REMOVED AND REPLACED IN ITS ENTIRETY.
- TAXIWAY "E" WIRING (IN UNIT DUCT), ISOLATION TRANSFORMERS, BASE CANS AND SPLICES SHALL BE REPLACED. LIGHT FIXTURES AND STAKES SHALL REMAIN AS-IS, UNLESS OTHERWISE NOTED.
- RUNWAY 18/36 AND TAXIWAY "F" CIRCUIT HOMERUN TO BE REMOVED AND REPLACED. SEE SHEETS E101 AND E102 FOR NEW WIRING LAYOUT.
- RUNWAY 9/27 WIRING (IN UNIT DUCT), ISOLATION TRANSFORMERS, SPLICES, LIGHTS, BASE CANS, LIGHT STAKES, COUNTERPOISE AND SAFETY GROUND SYSTEM TO BE REMOVED AND REPLACED WITH RETROREFLECTIVE MARKERS.



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designed	B. QUINLAN	checked	A. RAHMAN

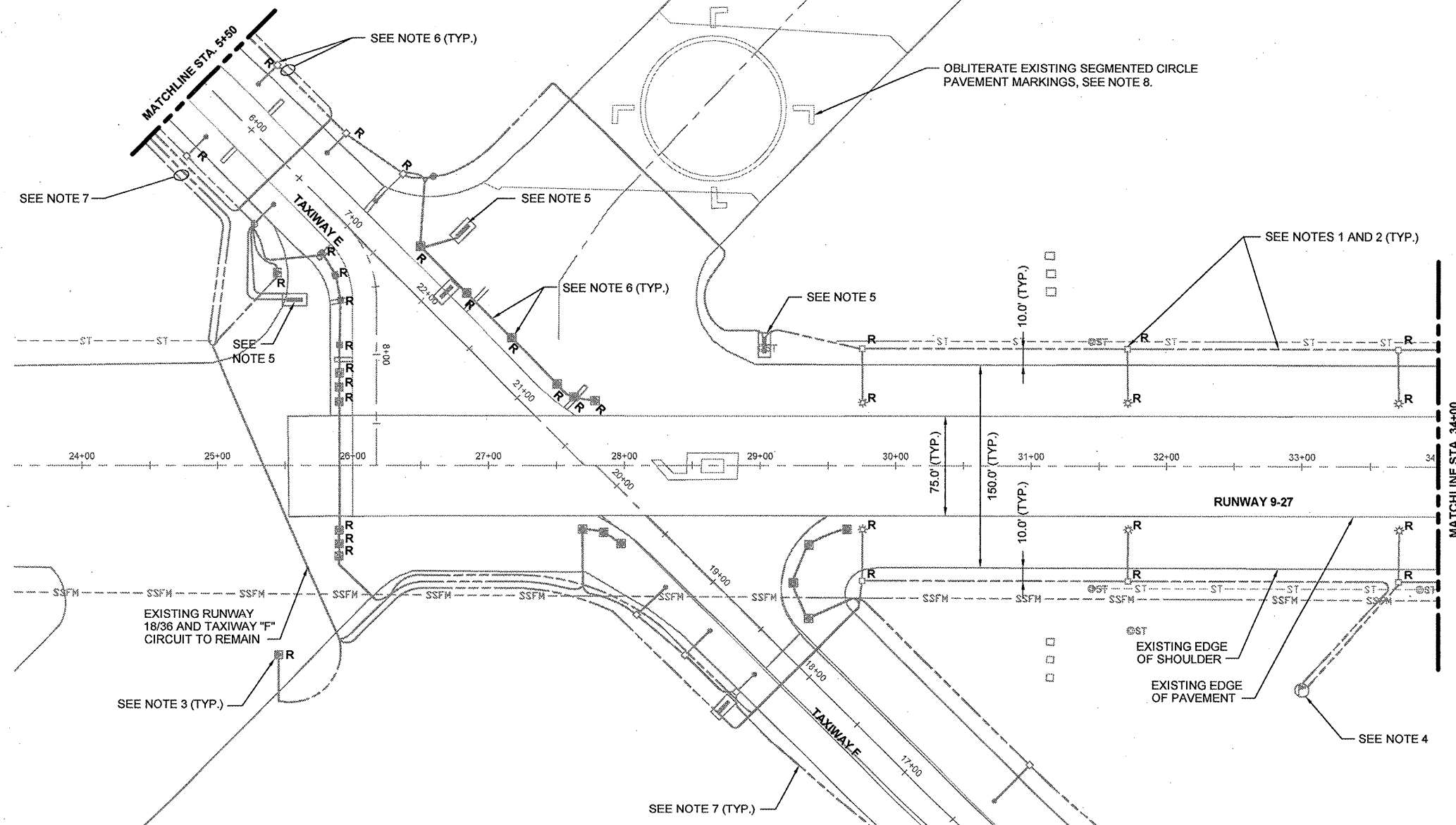
**RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE**

ELECTRICAL DEMOLITION PLAN  
RUNWAY 9-27 STA. 23+50 TO STA. 34+00

project \_\_\_\_\_ contract \_\_\_\_\_

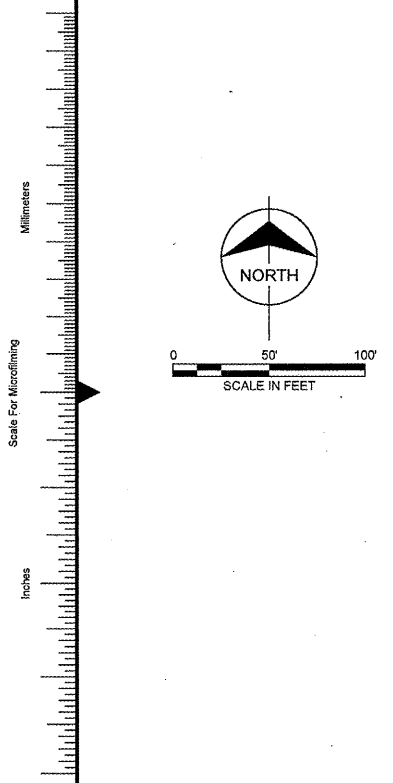
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sheet 6 of 21 sheets  
file 47463D102.DWG



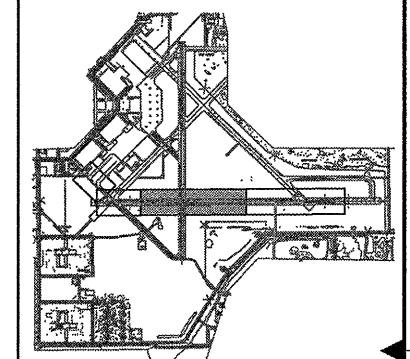
**NOTES:**

- ALL WIRING AND UNIT DUCT BEING DISCONNECTED OR DECOMMISSIONED UNDER THIS PROJECT SHALL BE REMOVED FROM ALL CONDUITS, DUCT BANKS, HANDHOLES OR MANHOLES. DIRECT BURIED WIRING AND ASSOCIATED UNIT DUCT SHALL ALSO BE REMOVED AND REPLACED WITH NEW WIRING IN UNIT DUCT.
- RUNWAY 9/27 WIRING (IN UNIT DUCT), ISOLATION TRANSFORMERS, SPLICES, LIGHTS, BASE CANS, LIGHT STAKES, COUNTERPOISE AND SAFETY GROUND SYSTEM TO BE REMOVED AND REPLACED IN ITS ENTIRETY.
- EXISTING REIL SYSTEM TO BE REMOVED. THIS SHALL INCLUDE MASTER REIL, SLAVE REIL, GROUNDING SYSTEM, 5KV WIRING, CONTROL WIRING AND CONCRETE BASES. AREA TO BE REGRADED OR REPAIRED TO MATCH SURROUNDING FINISHED GRADE.
- EXISTING WIND CONE SOCK TO BE REMOVED AND REPLACED. EXISTING 5KV WIRING, POWER ADAPTOR AND BASE CAN TO BE DISCONNECTED AND REMOVED. EXISTING GROUND ROD TO REMAIN IN PLACE. OLD EQUIPMENT SHALL BE RETURNED TO THE OWNER UNLESS DIRECTED OTHERWISE.
- EXISTING 5KV WIRING, ISOLATION TRANSFORMER AND SPLICES TO BE REMOVED AND REPLACED. EXISTING SIGN AND BASE TO REMAIN.
- TAXIWAY "E" WIRING (IN UNIT DUCT), ISOLATION TRANSFORMERS AND SPLICES SHALL BE REPLACED. LIGHT FIXTURES, BASE CANS AND STAKES SHALL REMAIN AS-IS.
- RUNWAY 18/36 AND TAXIWAY "F" CIRCUIT HOMERUN TO BE REMOVED AND REPLACED. SEE SHEETS E101 AND E102 FOR NEW WIRING LAYOUT.
- HIGH PRESSURE WATER, SAND BLASTING OR COLD MILLING MAY BE USED. ANY METHODS USED SHALL NOT CAUSE MAJOR DAMAGE TO THE PAVEMENT OR ALTER THE PAVEMENT SURFACE BY MORE THAN 1/8". ALL WASTES SHALL BE DISPOSED OF OFF SITE.



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KEYMAP



date	02/13/08	detailed	L. TUCKER
designed	B. QUINLAN	checked	A. RAHMAN

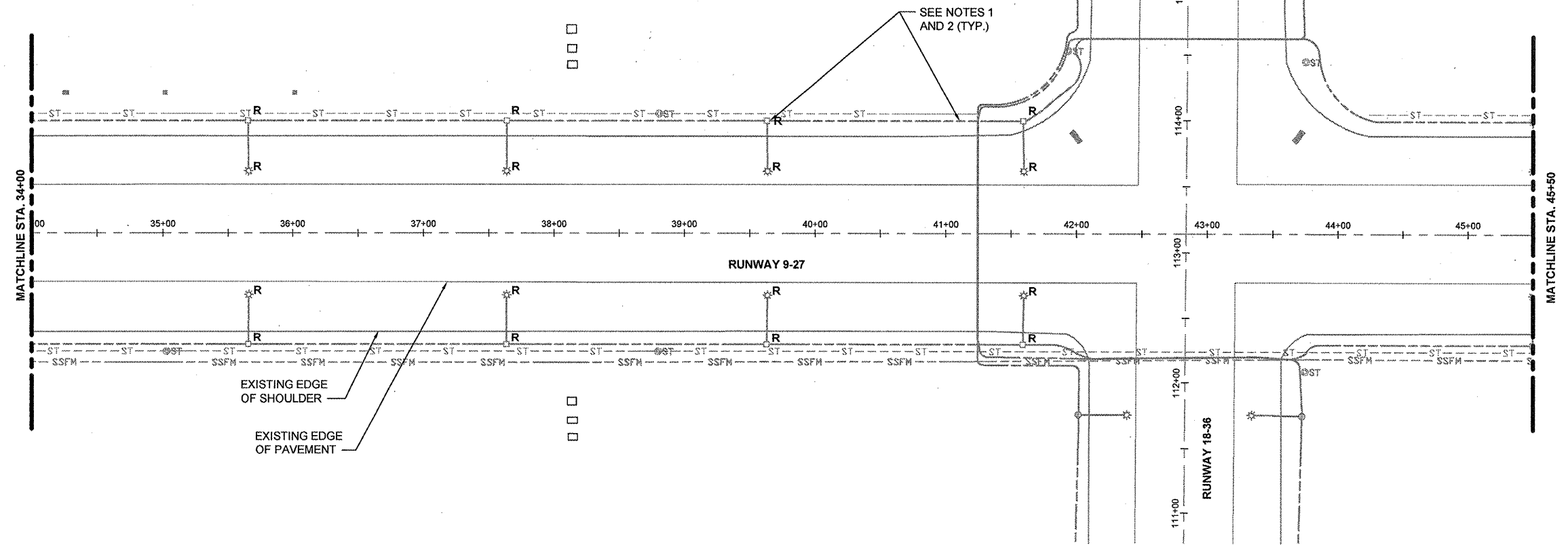
**RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE**

**ELECTRICAL DEMOLITION PLAN  
RUNWAY 9-27 STA. 34+00 TO 57+50**

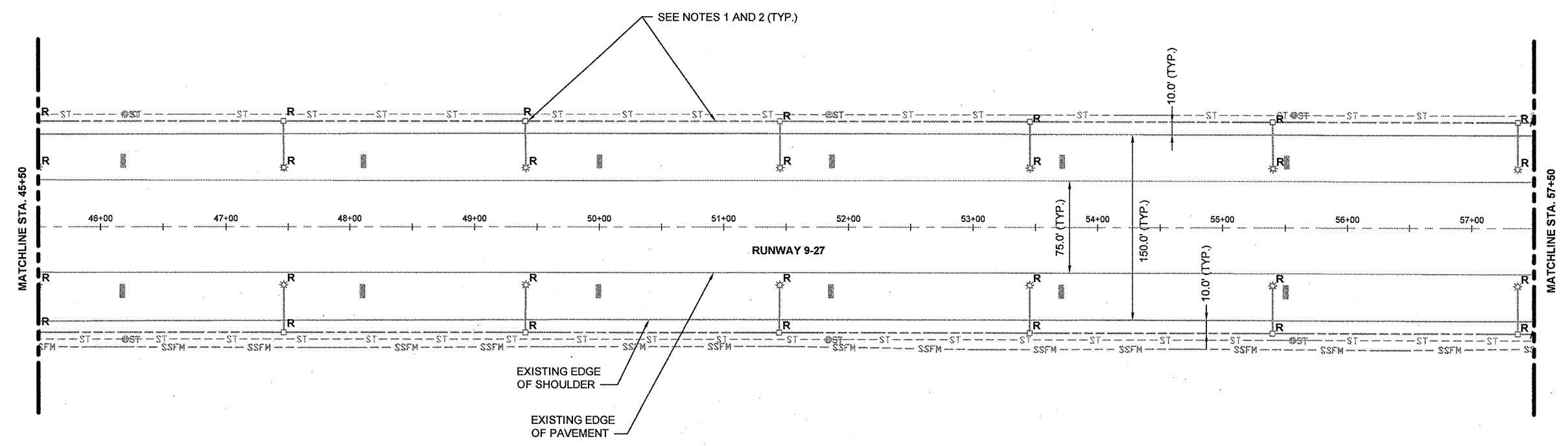
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sheet 7 of 21 sheets  
file 47463D103.DWG

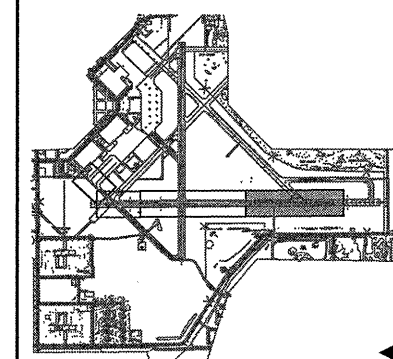


- NOTES:**
1. ALL WIRING AND UNIT DUCT BEING DISCONNECTED OR DECOMMISSIONED UNDER THIS PROJECT SHALL BE REMOVED FROM ALL CONDUITS, DUCT BANKS, HANDHOLES OR MANHOLES. DIRECT BURIED WIRING AND ASSOCIATED UNIT DUCT SHALL ALSO BE REMOVED AND REPLACED WITH NEW WIRING IN UNIT DUCT.
  2. RUNWAY 9/27 WIRING (IN UNIT DUCT), ISOLATION TRANSFORMERS, SPLICES, LIGHTS, BASE CANS, LIGHT STAKES, COUNTERPOISE AND SAFETY GROUND SYSTEM TO BE REMOVED AND REPLACED IN ITS ENTIRETY.



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designed	B. QUINLAN	checked	A. RAHMAN

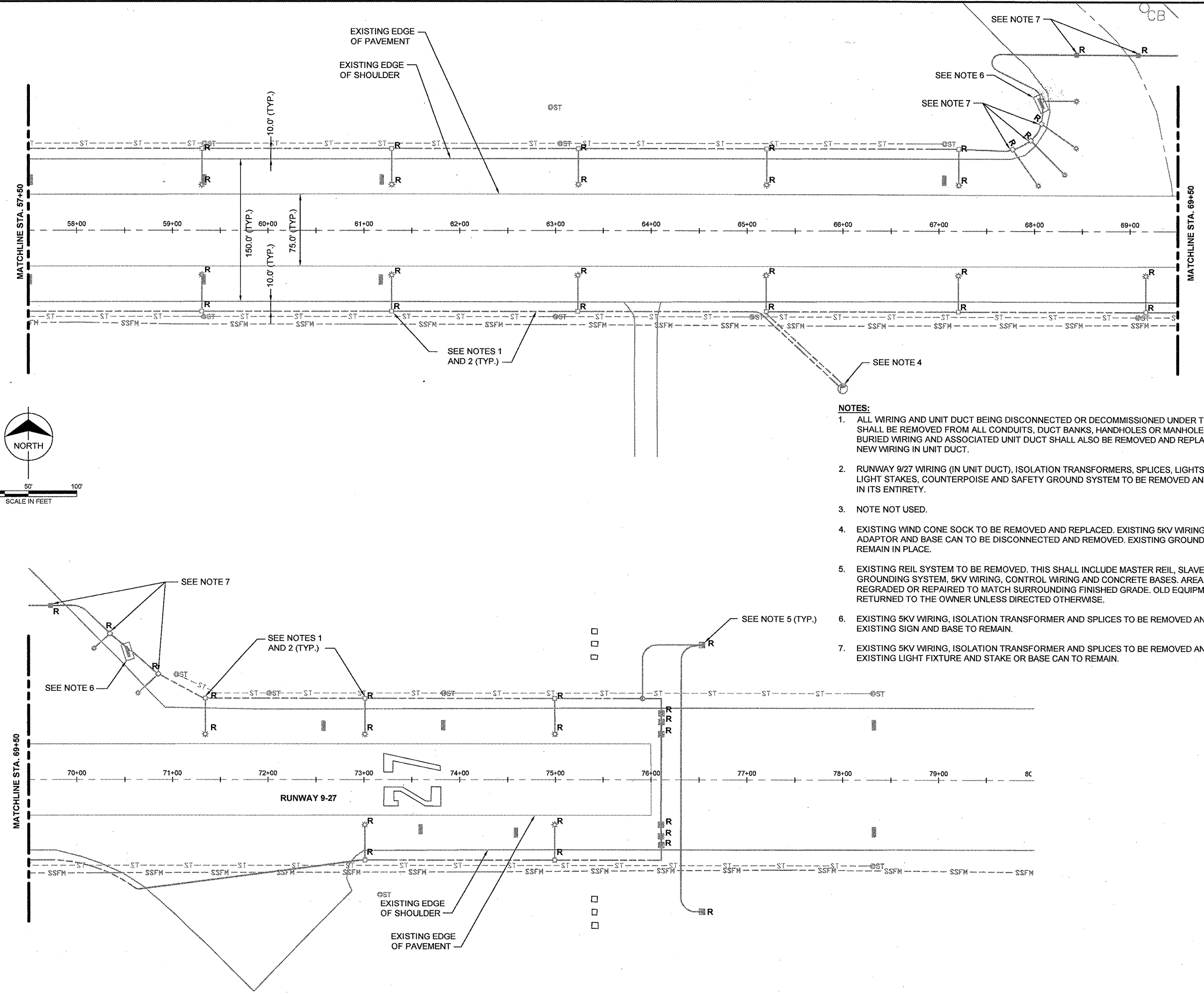
RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE

ELECTRICAL DEMOLITION PLAN  
RUNWAY 9-27 STA. 57+50 TO STA. 80+00

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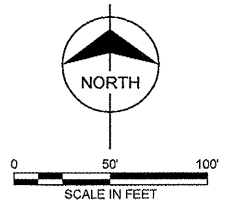
sheet 8 of 21 sheets  
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- NOTES:**
1. ALL WIRING AND UNIT DUCT BEING DISCONNECTED OR DECOMMISSIONED UNDER THIS PROJECT SHALL BE REMOVED FROM ALL CONDUITS, DUCT BANKS, HANDHOLES OR MANHOLES. DIRECT BURIED WIRING AND ASSOCIATED UNIT DUCT SHALL ALSO BE REMOVED AND REPLACED WITH NEW WIRING IN UNIT DUCT.
  2. RUNWAY 9/27 WIRING (IN UNIT DUCT), ISOLATION TRANSFORMERS, SPLICES, LIGHTS, BASE CANS, LIGHT STAKES, COUNTERPOISE AND SAFETY GROUND SYSTEM TO BE REMOVED AND REPLACED IN ITS ENTIRETY.
  3. NOTE NOT USED.
  4. EXISTING WIND CONE SOCK TO BE REMOVED AND REPLACED. EXISTING 5KV WIRING, POWER ADAPTOR AND BASE CAN TO BE DISCONNECTED AND REMOVED. EXISTING GROUND ROD TO REMAIN IN PLACE.
  5. EXISTING REIL SYSTEM TO BE REMOVED. THIS SHALL INCLUDE MASTER REIL, SLAVE REIL, GROUNDING SYSTEM, 5KV WIRING, CONTROL WIRING AND CONCRETE BASES. AREA TO BE REGRADED OR REPAIRED TO MATCH SURROUNDING FINISHED GRADE. OLD EQUIPMENT SHALL BE RETURNED TO THE OWNER UNLESS DIRECTED OTHERWISE.
  6. EXISTING 5KV WIRING, ISOLATION TRANSFORMER AND SPLICES TO BE REMOVED AND REPLACED. EXISTING SIGN AND BASE TO REMAIN.
  7. EXISTING 5KV WIRING, ISOLATION TRANSFORMER AND SPLICES TO BE REMOVED AND REPLACED. EXISTING LIGHT FIXTURE AND STAKE OR BASE CAN TO REMAIN.

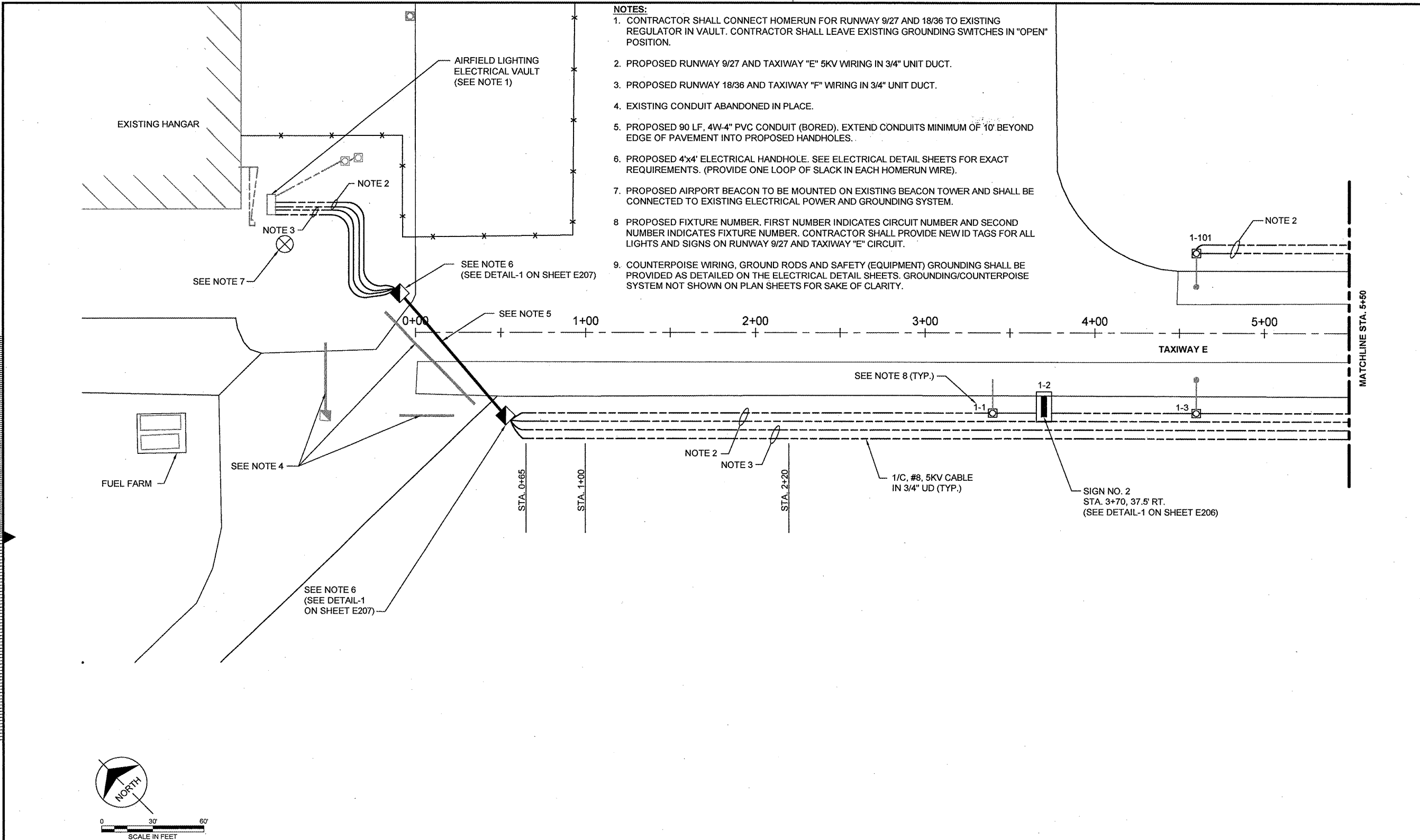
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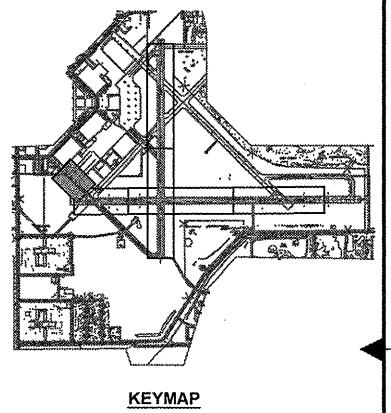
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- NOTES:**
1. CONTRACTOR SHALL CONNECT HOMERUN FOR RUNWAY 9/27 AND 18/36 TO EXISTING REGULATOR IN VAULT. CONTRACTOR SHALL LEAVE EXISTING GROUNDING SWITCHES IN "OPEN" POSITION.
  2. PROPOSED RUNWAY 9/27 AND TAXIWAY "E" 5KV WIRING IN 3/4" UNIT DUCT.
  3. PROPOSED RUNWAY 18/36 AND TAXIWAY "F" WRING IN 3/4" UNIT DUCT.
  4. EXISTING CONDUIT ABANDONED IN PLACE.
  5. PROPOSED 90 LF, 4W-4" PVC CONDUIT (BORED). EXTEND CONDUITS MINIMUM OF 10' BEYOND EDGE OF PAVEMENT INTO PROPOSED HANDHOLES.
  6. PROPOSED 4x4' ELECTRICAL HANDHOLE. SEE ELECTRICAL DETAIL SHEETS FOR EXACT REQUIREMENTS. (PROVIDE ONE LOOP OF SLACK IN EACH HOMERUN WIRE).
  7. PROPOSED AIRPORT BEACON TO BE MOUNTED ON EXISTING BEACON TOWER AND SHALL BE CONNECTED TO EXISTING ELECTRICAL POWER AND GROUNDING SYSTEM.
  8. PROPOSED FIXTURE NUMBER. FIRST NUMBER INDICATES CIRCUIT NUMBER AND SECOND NUMBER INDICATES FIXTURE NUMBER. CONTRACTOR SHALL PROVIDE NEW ID TAGS FOR ALL LIGHTS AND SIGNS ON RUNWAY 9/27 AND TAXIWAY "E" CIRCUIT.
  9. COUNTERPOISE WIRING, GROUND RODS AND SAFETY (EQUIPMENT) GROUNDING SHALL BE PROVIDED AS DETAILED ON THE ELECTRICAL DETAIL SHEETS. GROUNDING/COUNTERPOISE SYSTEM NOT SHOWN ON PLAN SHEETS FOR SAKE OF CLARITY.

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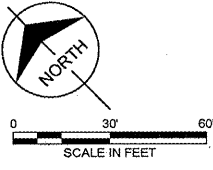
date	02/13/08	detailed	L. TUCKER
designed	B. QUINLAN	checked	A. RAHMAN

**RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE**

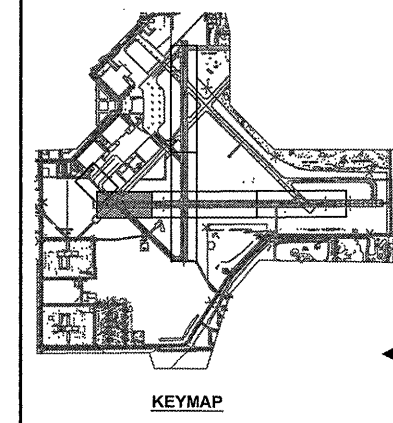
**ELECTRICAL SITE PLAN  
TAXIWAY E STA. 0+00 TO STA. 5+50**

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sheet 9 of 21 sheets	file 47463E101.DWG

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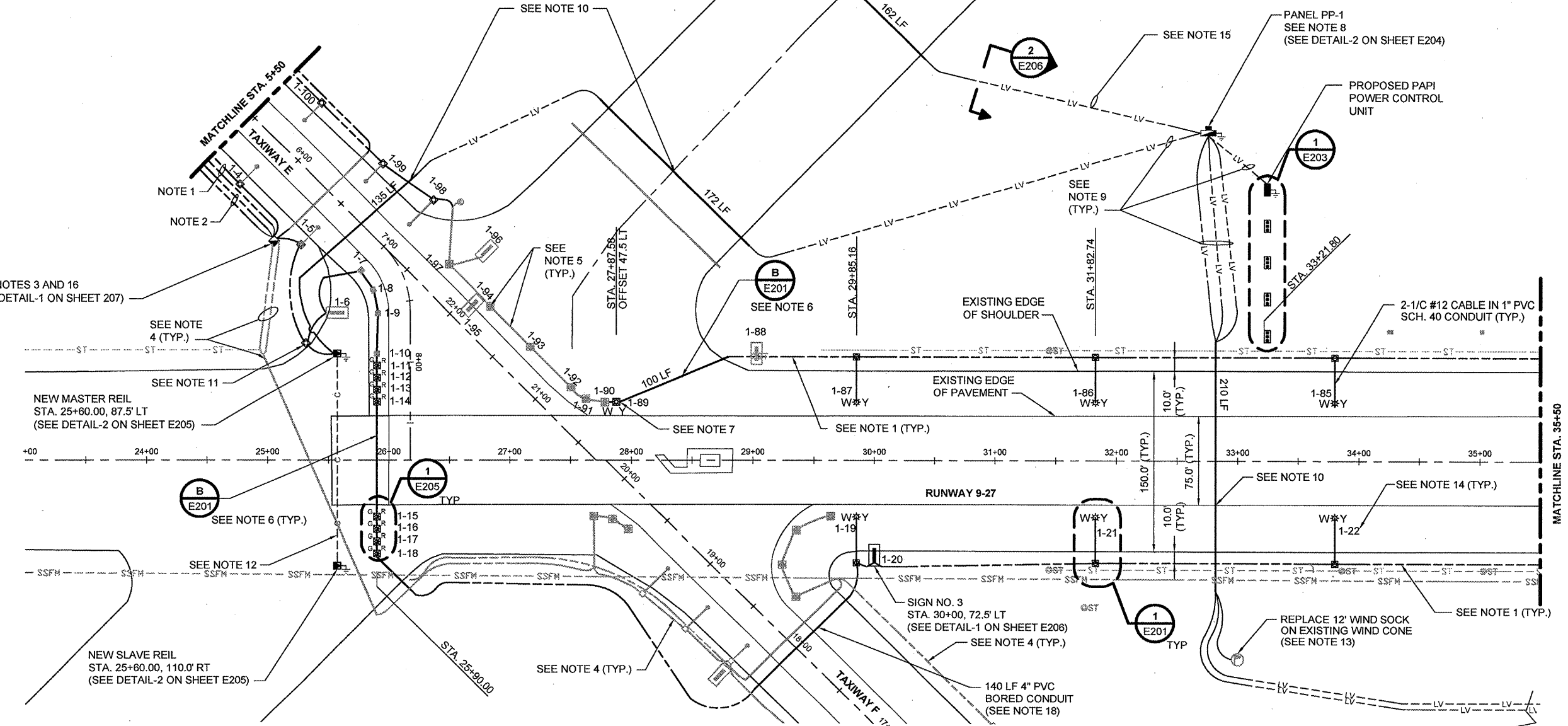
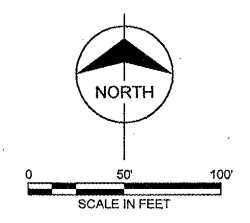
**RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE**

ELECTRICAL SITE PLAN  
RUNWAY 9-27 STA. 23+00 TO STA. 35+50

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drawing **E102** rev. **0**

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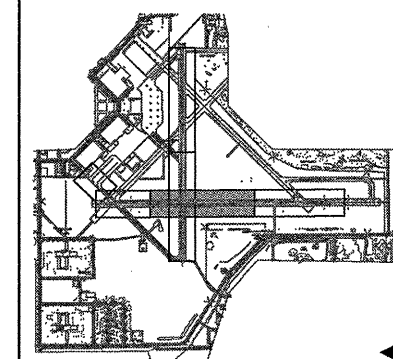


**NOTES:**

- PROPOSED RUNWAY 9/27 AND TAXIWAY "E" 5KV WIRING IN 3/4" UNIT DUCT.
- PROPOSED RUNWAY 18/36 AND TAXIWAY "F" WIRING IN 3/4" UNIT DUCT.
- SPLICE PROPOSED RUNWAY 18/36 AND TAXIWAY "F" WIRING TO EXISTING WIRING IN PROPOSED HANDHOLD. PROVIDE L-823 CONNECTORS (TAPED AND HEAT SHRUNK) FOR ALL FOUR (4) HOMERUN WIRES. PROVIDE ONE LOOP OF SLACK IN EACH HOMERUN WIRE.
- EXISTING RUNWAY 18/36 AND TAXIWAY "F" WIRING TO REMAIN.
- REMOVE EXISTING RUNWAY 9/27 AND TAXIWAY "E" WIRING IN EXISTING CONDUIT AND REPLACE IN KIND. PROVIDE NEW ISOLATION TRANSFORMER AND SPLICES AT EXISTING LIGHT BASES.
- PROPOSED 2" PVC CONDUIT, CONCRETE ENCASED. RUN PROPOSED RUNWAY 9/27 AND TAXIWAY "E" WIRING IN 2" PVC CONDUIT.
- INSTALL PROPOSED BASE MOUNTED MIRL AND CONNECT FIXTURE 1-89 AND 1-90 WITH 2" PVC CONDUIT, CONCRETE ENCASED.
- PROPOSED 120/240V, 1-PHASE POWER PANEL AND UTILITY METER. CONTRACTOR SHALL COORDINATE INSTALLATION OF NEW ELECTRICAL SERVICE WITH RANTOUL PUBLIC WORKS DEPARTMENT. PROVIDE METER BASE AND GROUNDING PER UTILITY REQUIREMENTS. SEE PANEL DETAILS SHEET E204.
- PROPOSED 2-#6 XLP-USE, 1-#8 GROUND (600V) IN 1" PVC CONDUIT (24" MINIMUM BURY). EXACT ROUTING TO BE FIELD COORDINATED.
- PROPOSED 2" PVC CONDUIT (BORED).
- PROPOSED SPLICE CAN WITH ISOLATION TRANSFORMER FOR MASTER REIL CURRENT SENSING OPTION.
- PROPOSED MASTER-SLAVE REIL CONTROL WIRING IN 2" PVC CONDUIT. WIRING REQUIREMENTS SHALL BE COORDINATED WITH MANUFACTURER. EXACT ROUTING TO BE FIELD COORDINATED. REPAIR CONDUIT TRENCH TO MATCH EXISTING CONDITIONS.
- CONTRACTOR SHALL TIE PROPOSED 120V SERVICE TO EXISTING DISCONNECT AT REIL.
- PROPOSED FIXTURE NUMBER. FIRST NUMBER INDICATES CIRCUIT NUMBER AND SECOND NUMBER INDICATES FIXTURE NUMBER. CONTRACTOR SHALL PROVIDE NEW ID TAGS FOR ALL LIGHTS AND SIGNS ON RUNWAY 9/27 AND TAXIWAY "E" CIRCUIT.
- PROPOSED 3-#3 XLP-USE, 1-#8 GROUND IN 1 1/2" GRSC (SERVICE ENTRANCE).
- PROPOSED 4'x4' ELECTRICAL HANDHOLD. SEE ELECTRICAL DETAIL SHEETS FOR EXACT REQUIREMENTS. (PROVIDE ONE LOOP OF SLACK IN EACH HOMERUN WIRE).
- PROPOSED WIND CONES AND SEGMENTED CIRCLE FOR RUNWAY 18/36. SEE SHEET E105 FOR LOCATION. WIND CONES SHALL BE PROVIDED WITH WEATHER PROOF 120V DISCONNECTS AND WEATHERPROOF GFCI RECEPTACLE.
- PROPOSED RUNWAY 9/27 AND TAXIWAY "E" WIRING IN 4" CONDUIT.
- COUNTERPOISE WIRING, GROUND RODS AND SAFETY (EQUIPMENT) GROUNDING SHALL BE PROVIDED AS DETAILED ON THE ELECTRICAL DETAIL SHEETS. GROUNDING / COUNTERPOISE SYSTEM NOT SHOWN ON PLAN SHEETS FOR SAKE OF CLARITY.

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designed	B. QUINLAN	checked	A. RAHMAN

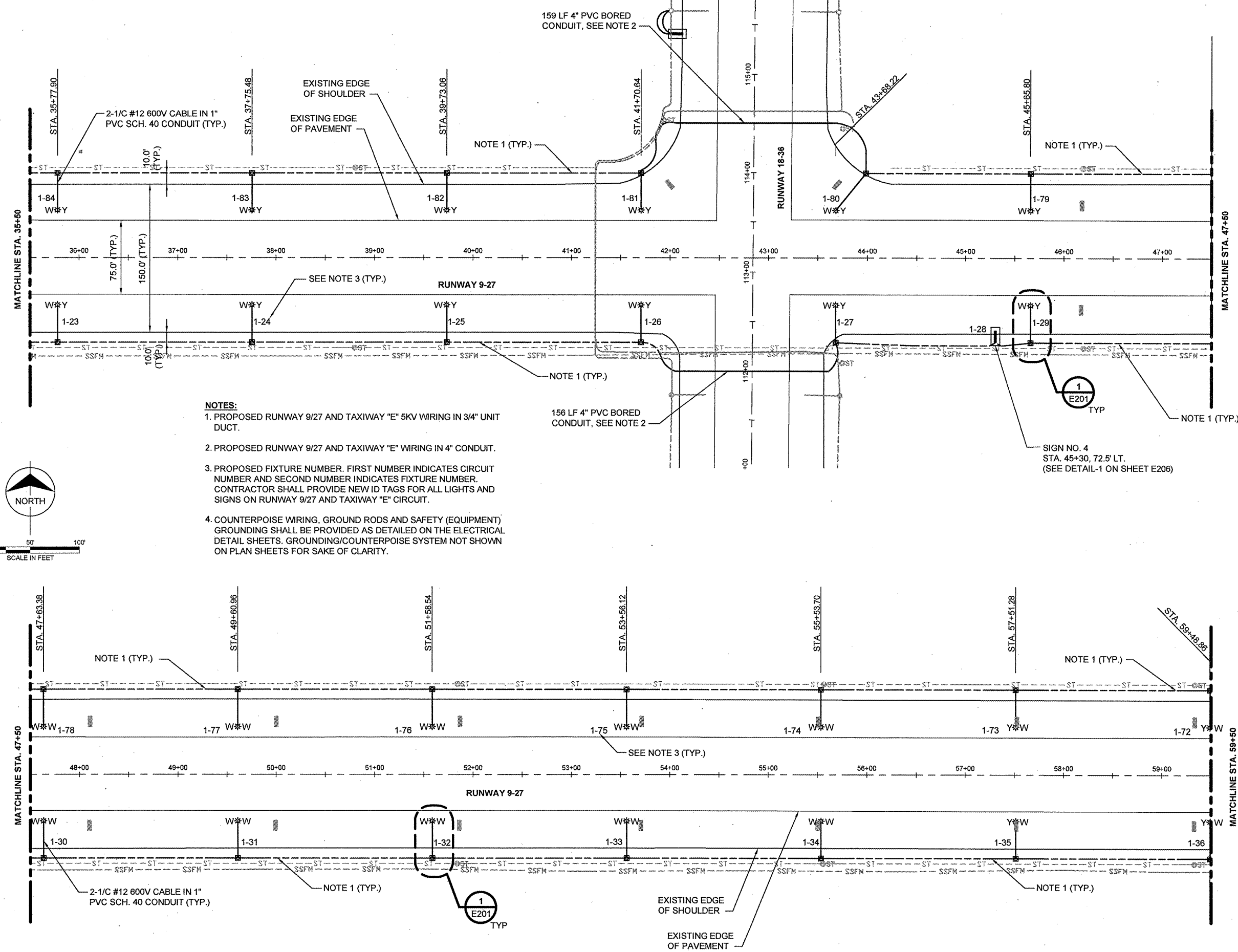
**RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE**

ELECTRICAL SITE PLAN  
RUNWAY 9-27 STA. 35+50 TO 59+50

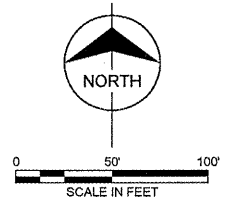
project	contract
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drawing **E103** rev. **0**

sheet 11 of 21 sheets  
file 47463E103.DWG



- NOTES:**
1. PROPOSED RUNWAY 9/27 AND TAXIWAY "E" 5KV WIRING IN 3/4" UNIT DUCT.
  2. PROPOSED RUNWAY 9/27 AND TAXIWAY "E" WIRING IN 4" CONDUIT.
  3. PROPOSED FIXTURE NUMBER. FIRST NUMBER INDICATES CIRCUIT NUMBER AND SECOND NUMBER INDICATES FIXTURE NUMBER. CONTRACTOR SHALL PROVIDE NEW ID TAGS FOR ALL LIGHTS AND SIGNS ON RUNWAY 9/27 AND TAXIWAY "E" CIRCUIT.
  4. COUNTERPOISE WIRING, GROUND RODS AND SAFETY (EQUIPMENT) GROUNDING SHALL BE PROVIDED AS DETAILED ON THE ELECTRICAL DETAIL SHEETS. GROUNDING/COUNTERPOISE SYSTEM NOT SHOWN ON PLAN SHEETS FOR SAKE OF CLARITY.

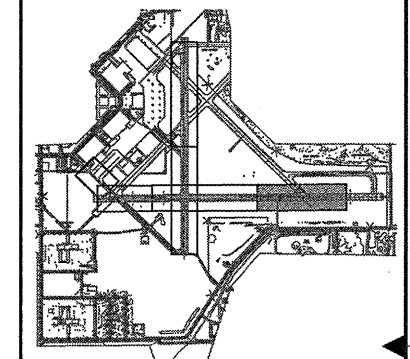


Scale For Micromirring

Inches

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KEYMAP

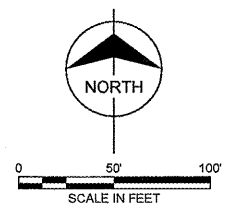
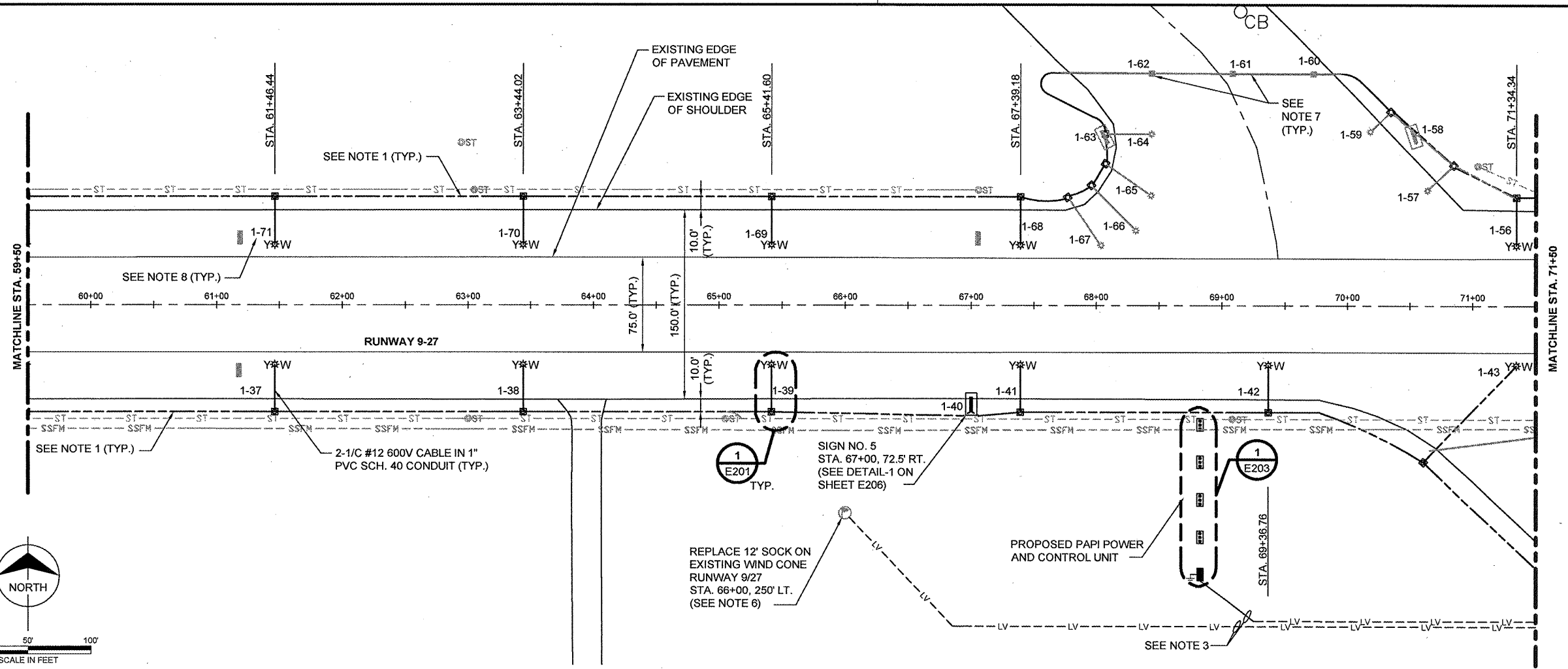


date	02/13/08	detailed	L. TUCKER
designed	B. QUINLAN	checked	A. RAHMAN

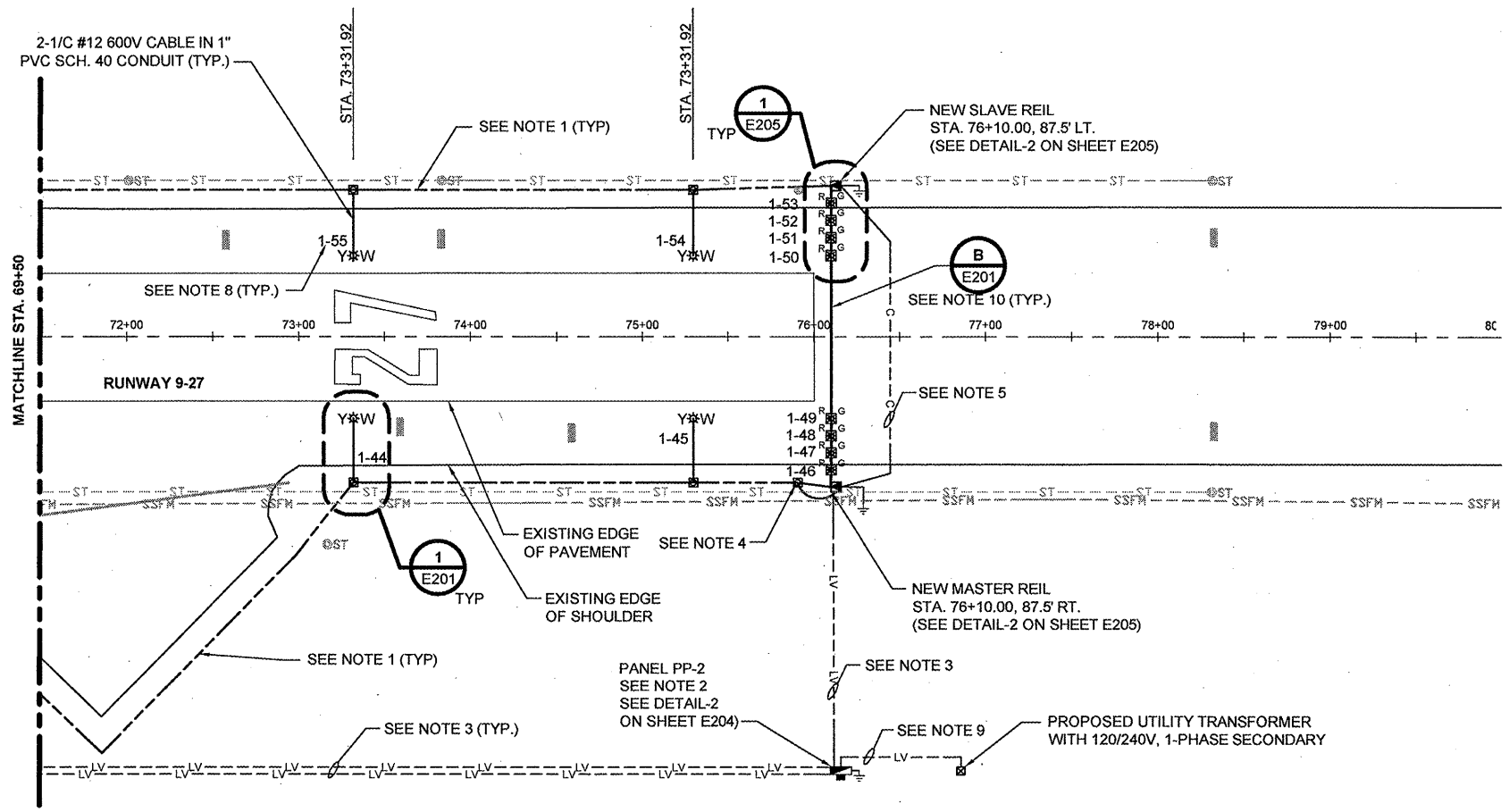
RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE

ELECTRICAL SITE PLAN  
RUNWAY 9-27 STA. 59+50 TO 80+00

project	contract
drawing	rev.
<b>E104 - 0</b>	
sheet 12	of 21 sheets
file 47463E104.DWG	

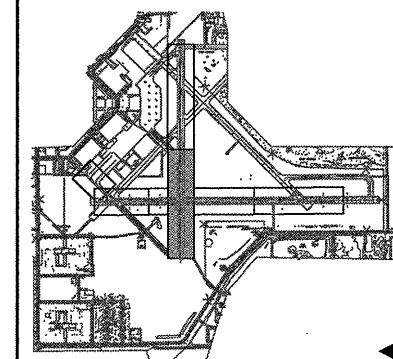


- NOTES:**
- PROPOSED RUNWAY 9/27 AND TAXIWAY "E" 5KV WIRING IN 3/4" UNIT DUCT.
  - PROPOSED 120/240V, 1-PHASE POWER PANEL AND UTILITY METER. CONTRACTOR SHALL COORDINATE INSTALLATION OF NEW ELECTRIC SERVICE WITH RANTOUL PUBLIC WORKS DEPARTMENT. PROVIDE METER BASE AND GROUNDING PER UTILITY REQUIREMENTS. SEE PANEL DETAILS SHEET E304.
  - PROPOSED 2-#6 XHHW, 1-#8 GROUND (600V) IN 1" PVC CONDUIT (24" MINIMUM BURY). EXACT ROUTING TO BE FIELD COORDINATED.
  - PROPOSED SPLICE CAN WITH ISOLATION TRANSFORMER FOR MASTER REIL CURRENT SENSING OPTION.
  - PROPOSED MASTER-SLAVE REIL CONTROL WIRING IN 2" PVC CONDUIT. WIRING REQUIREMENTS SHALL BE COORDINATED WITH MANUFACTURER. EXACT ROUTING TO BE FIELD COORDINATED. REPAIR CONDUIT TRENCH TO MATCH EXISTING CONDITIONS.
  - CONTRACTOR SHALL TIE PROPOSED 120V SERVICE TO EXISTING DISCONNECT AT REIL.
  - REMOVE EXISTING RUNWAY 9/27 AND TAXIWAY "E" WIRING IN EXISTING CONDUIT AND REPLACE IN KIND. PROVIDE NEW ISOLATION TRANSFORMER AND SPLICES AT EXISTING LIGHT BASES.
  - PROPOSED FIXTURE NUMBER. FIRST NUMBER INDICATES CIRCUIT NUMBER AND SECOND NUMBER INDICATES FIXTURE NUMBER. CONTRACTOR SHALL PROVIDE NEW ID TAGS FOR ALL LIGHTS AND SIGNS ON RUNWAY 9/27 AND TAXIWAY "E" CIRCUIT.
  - PROPOSED 3-#3 XHHW, 1-#8 GROUND IN 1 1/2" GRSC (SERVICE ENTRANCE).
  - PROPOSED 2" PVC CONDUIT, CONCRETE ENCASED. RUN PROPOSED RUNWAY 9/27 AND TAXIWAY "E" WIRING IN 2" PVC CONDUIT.
  - COUNTERPOISE WIRING, GROUND RODS AND SAFETY (EQUIPMENT) GROUNDING SHALL BE PROVIDED AS DETAILED ON THE ELECTRICAL DETAIL SHEETS. GROUNDING/COUNTERPOISE SYSTEM NOT SHOWN ON PLAN SHEETS FOR SAKE OF CLARITY.



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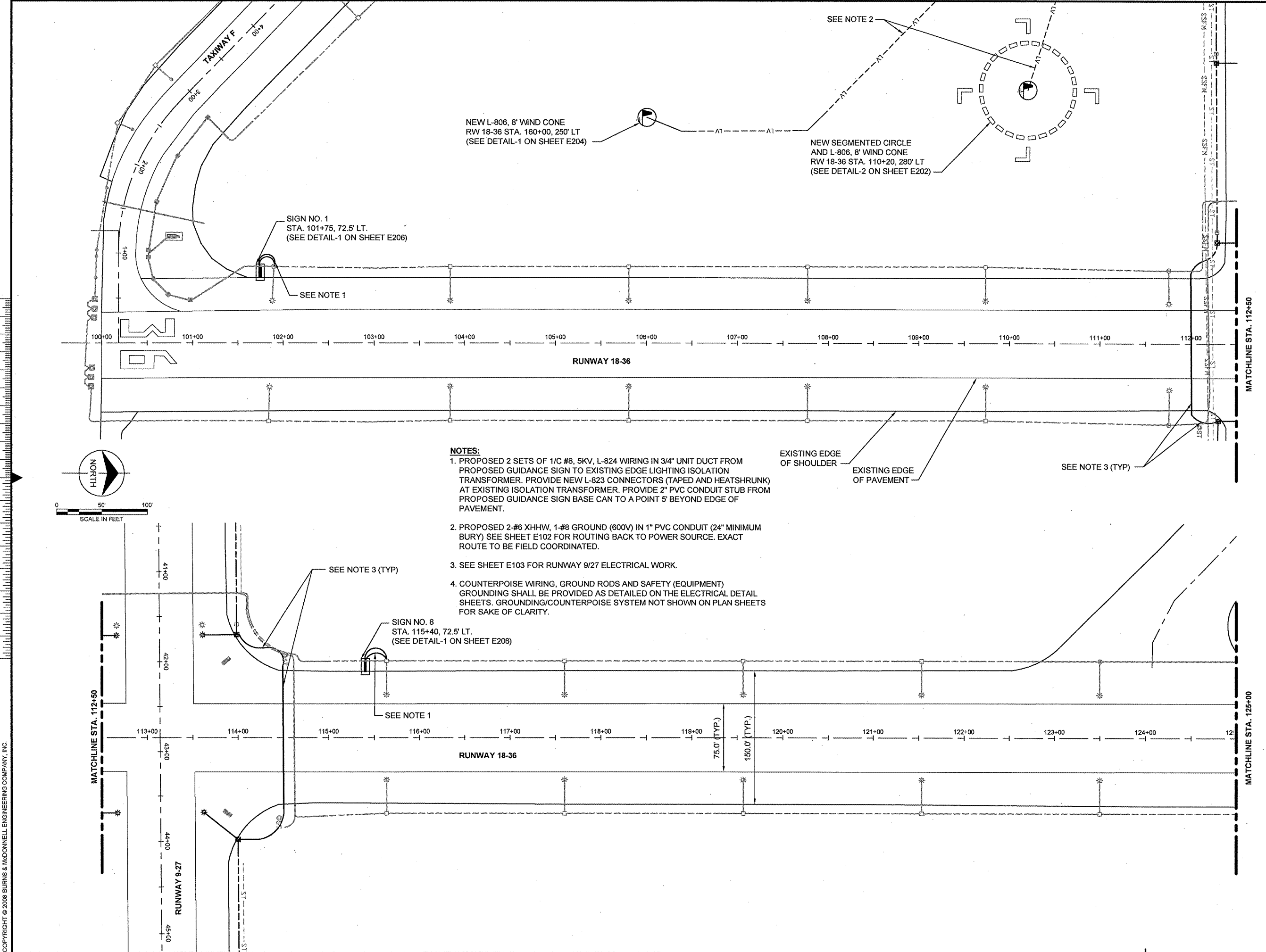
**RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE**

ELECTRICAL SITE PLAN  
RUNWAY 18-36 STA. 100+00 TO STA. 125+00

project	contract
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drawing **E105** - rev. **0**

sheet 13 of 21 sheets  
file 47463E105.DWG



NEW L-806, 8' WIND CONE  
RW 18-36 STA. 160+00, 250' LT  
(SEE DETAIL-1 ON SHEET E204)

NEW SEGMENTED CIRCLE  
AND L-806, 8' WIND CONE  
RW 18-36 STA. 110+20, 280' LT  
(SEE DETAIL-2 ON SHEET E202)

SIGN NO. 1  
STA. 101+75, 72.5' LT.  
(SEE DETAIL-1 ON SHEET E206)

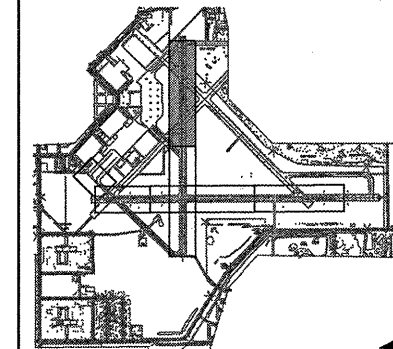
**NOTES:**

1. PROPOSED 2 SETS OF 1/C #8, 5KV, L-824 WIRING IN 3/4" UNIT DUCT FROM PROPOSED GUIDANCE SIGN TO EXISTING EDGE LIGHTING ISOLATION TRANSFORMER. PROVIDE NEW L-823 CONNECTORS (TAPED AND HEATSHRUNK) AT EXISTING ISOLATION TRANSFORMER. PROVIDE 2" PVC CONDUIT STUB FROM PROPOSED GUIDANCE SIGN BASE CAN TO A POINT 5' BEYOND EDGE OF PAVEMENT.
2. PROPOSED 2-#6 XHHW, 1-#8 GROUND (600V) IN 1" PVC CONDUIT (24" MINIMUM BURY) SEE SHEET E102 FOR ROUTING BACK TO POWER SOURCE. EXACT ROUTE TO BE FIELD COORDINATED.
3. SEE SHEET E103 FOR RUNWAY 9/27 ELECTRICAL WORK.
4. COUNTERPOISE WIRING, GROUND RODS AND SAFETY (EQUIPMENT) GROUNDING SHALL BE PROVIDED AS DETAILED ON THE ELECTRICAL DETAIL SHEETS. GROUNDING/COUNTERPOISE SYSTEM NOT SHOWN ON PLAN SHEETS FOR SAKE OF CLARITY.

SIGN NO. 8  
STA. 115+40, 72.5' LT.  
(SEE DETAIL-1 ON SHEET E206)

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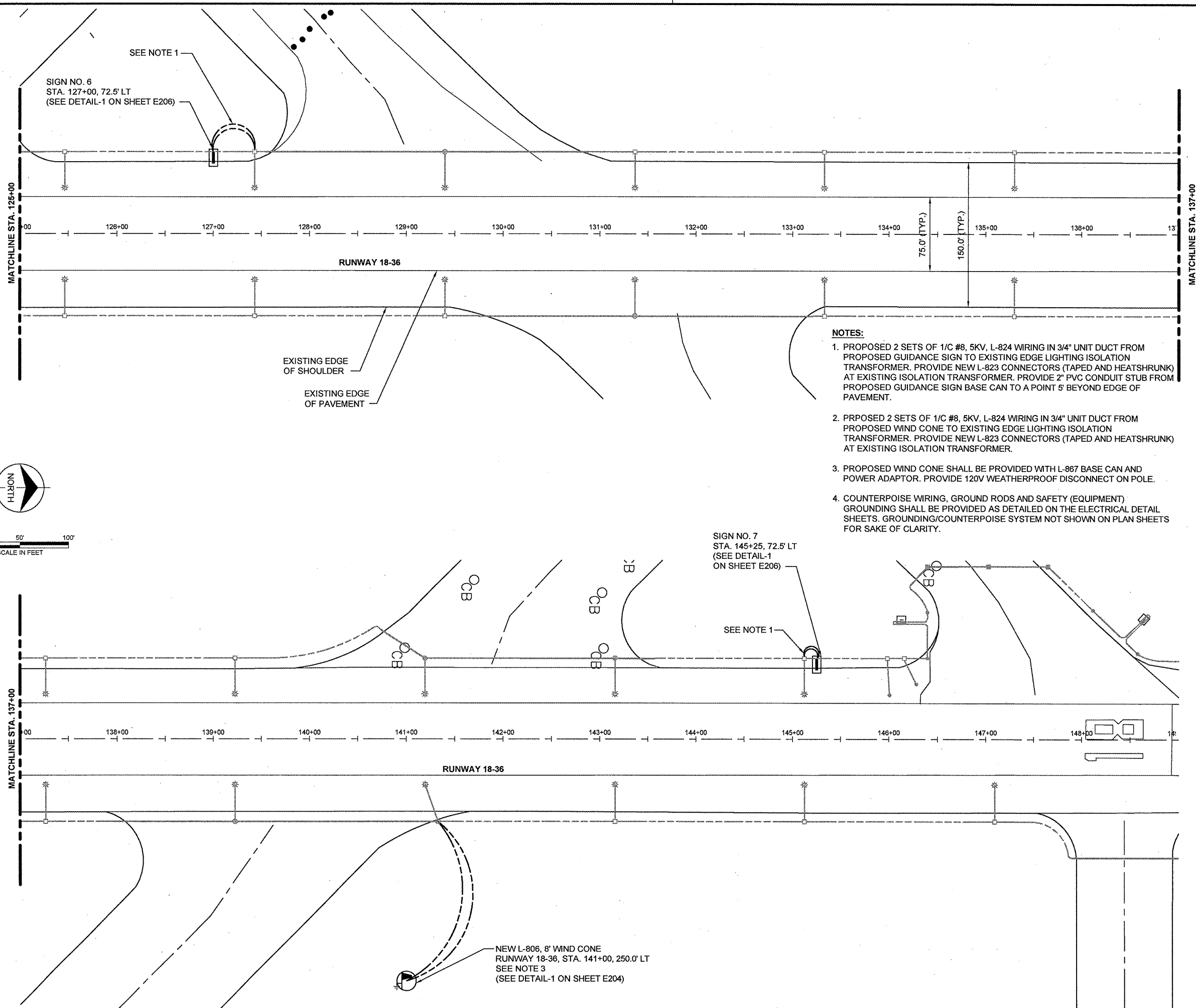


date	02/13/08	detailed	L. TUCKER
designed	B. QUINLAN	checked	A. RAHMAN

RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE

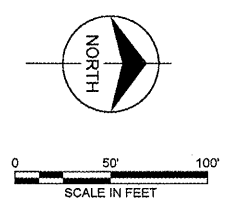
ELECTRICAL SITE PLAN  
RUNWAY 18-36 STA. 125+00 TO STA. 149+00

project	contract
drawing	rev.
<b>E106</b>	<b>0</b>
sheet 14 of 21 sheets	file 47463E106.DWG



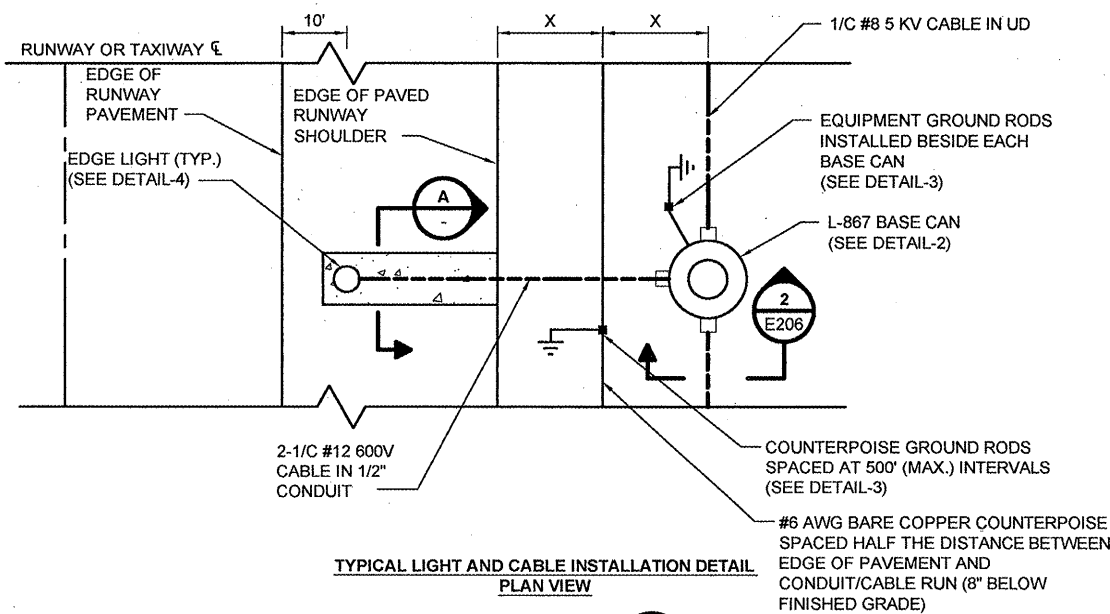
- NOTES:**
1. PROPOSED 2 SETS OF 1/C #8, 5KV, L-824 WIRING IN 3/4" UNIT DUCT FROM PROPOSED GUIDANCE SIGN TO EXISTING EDGE LIGHTING ISOLATION TRANSFORMER. PROVIDE NEW L-823 CONNECTORS (TAPED AND HEATSHRUNK) AT EXISTING ISOLATION TRANSFORMER. PROVIDE 2" PVC CONDUIT STUB FROM PROPOSED GUIDANCE SIGN BASE CAN TO A POINT 5' BEYOND EDGE OF PAVEMENT.
  2. PROPOSED 2 SETS OF 1/C #8, 5KV, L-824 WIRING IN 3/4" UNIT DUCT FROM PROPOSED WIND CONE TO EXISTING EDGE LIGHTING ISOLATION TRANSFORMER. PROVIDE NEW L-823 CONNECTORS (TAPED AND HEATSHRUNK) AT EXISTING ISOLATION TRANSFORMER.
  3. PROPOSED WIND CONE SHALL BE PROVIDED WITH L-867 BASE CAN AND POWER ADAPTOR. PROVIDE 120V WEATHERPROOF DISCONNECT ON POLE.
  4. COUNTERPOISE WIRING, GROUND RODS AND SAFETY (EQUIPMENT) GROUNDING SHALL BE PROVIDED AS DETAILED ON THE ELECTRICAL DETAIL SHEETS. GROUNDING/COUNTERPOISE SYSTEM NOT SHOWN ON PLAN SHEETS FOR SAKE OF CLARITY.

Scale For Microfilming  
Millimeters  
Inches



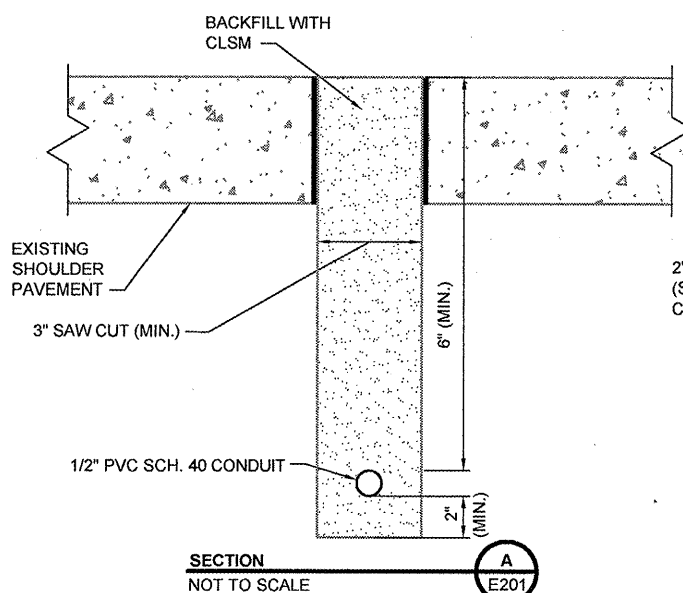
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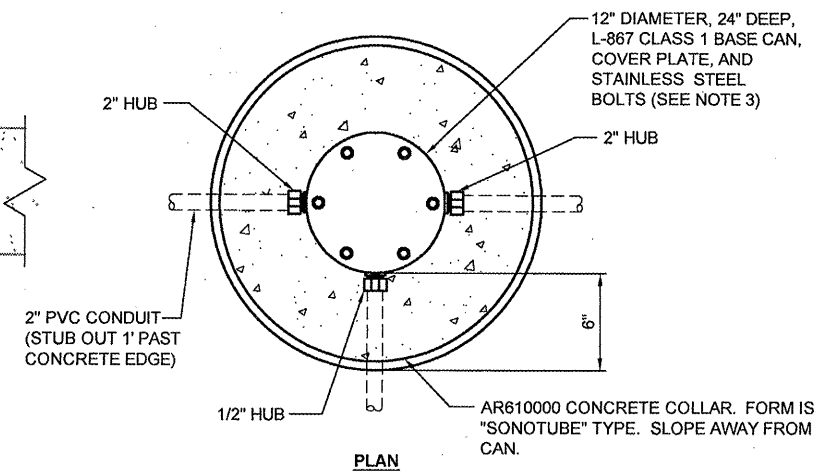


TYPICAL LIGHT AND CABLE INSTALLATION DETAIL  
PLAN VIEW

DETAIL 1  
NOT TO SCALE  
E102  
E103  
E104

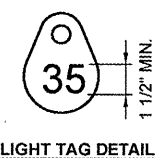


SECTION  
NOT TO SCALE  
A  
E201



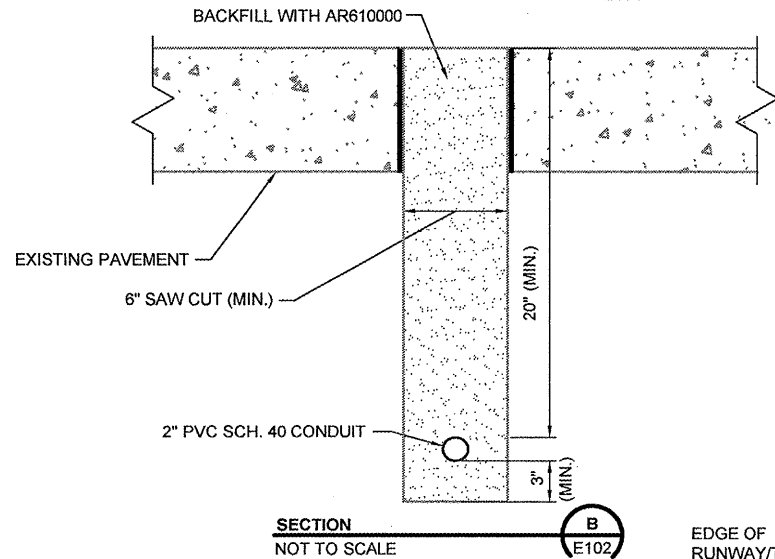
L-867 BASE CAN INSTALLATION  
DETAIL 2  
NOT TO SCALE  
E101  
E102  
E103  
E104

- NOTES:
- COLLARS NOT ROUND AND CENTERED SHALL BE REPLACED AT CONTRACTORS EXPENSE.
  - SEE DETAIL-5 FOR WIRING INFORMATION.
  - ALL BASE CAN BOLTS SHALL BE COATED WITH ANTI-SIEZE COMPOUND PRIOR TO INSTALLATION.
  - SEE DETAIL-1 FOR GROUNDING INFORMATION.
  - PROVIDE ONE (1) SNOW WAND FOR EACH BASE CAN. SNOW WAND SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO EACH BASE CAN.

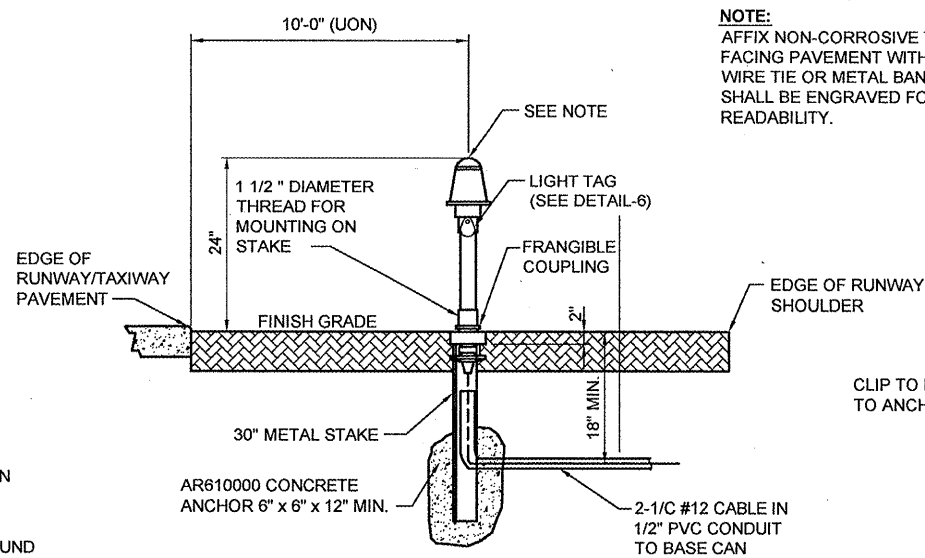


DETAIL 6  
NOT TO SCALE  
E101  
E102  
E103  
E104

NOTE:  
AFFIX NON-CORROSIVE TAG TO FIXTURE FACING PAVEMENT WITH SET SCREW, WIRE TIE OR METAL BAND. NUMERALS SHALL BE ENGRAVED FOR PERMANENT READABILITY.

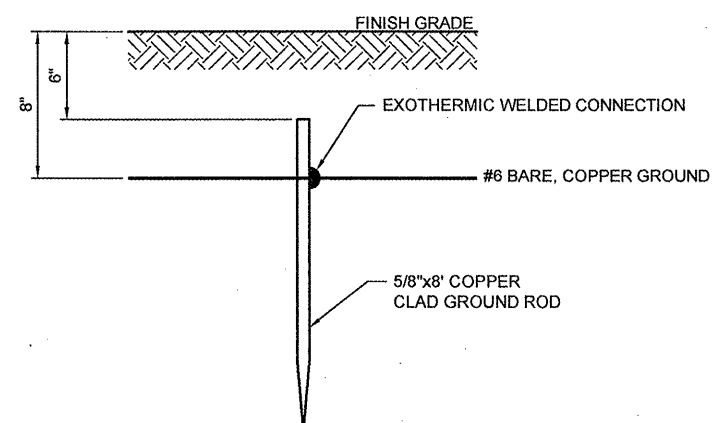


SECTION  
NOT TO SCALE  
B  
E102  
E104

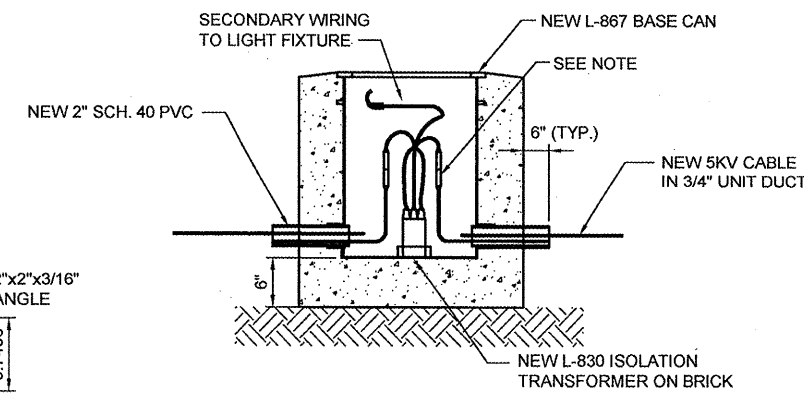


STAKE MOUNTED EDGE LIGHT  
DETAIL 4  
NOT TO SCALE  
E102  
E103  
E104  
E105  
E108

NOTE:  
L-861 MIRL OR MITL WITH 30W QUARTZ LAMP, LENS COLOR AS INDICATED ON DRAWINGS.

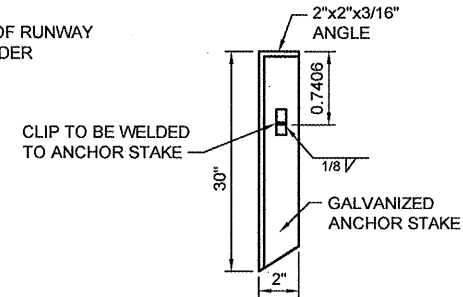


DETAIL 3  
NOT TO SCALE  
E201

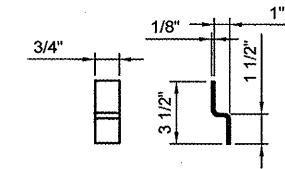


TYPICAL BASE CAN - WIRING  
DETAIL 5  
NOT TO SCALE  
E201

NOTE:  
L-823 CONNECTORS SHALL BE HALF-LAP-TAPED WITH ELECTRICAL TAPE. PROVIDE 1-PIECE HEAT SHRINK TUBING OVER ENTIRE L-823 CONNECTOR. HEAT SHRINK SHALL HAVE INTERNAL ADHESIVE AT ENDS ONLY. (SEE DETAIL-3, SHEET E207)



ANCHOR STAKE  
NOT TO SCALE



STEEL CLIP (FOR ANCHOR STAKE)  
NOT TO SCALE



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RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE

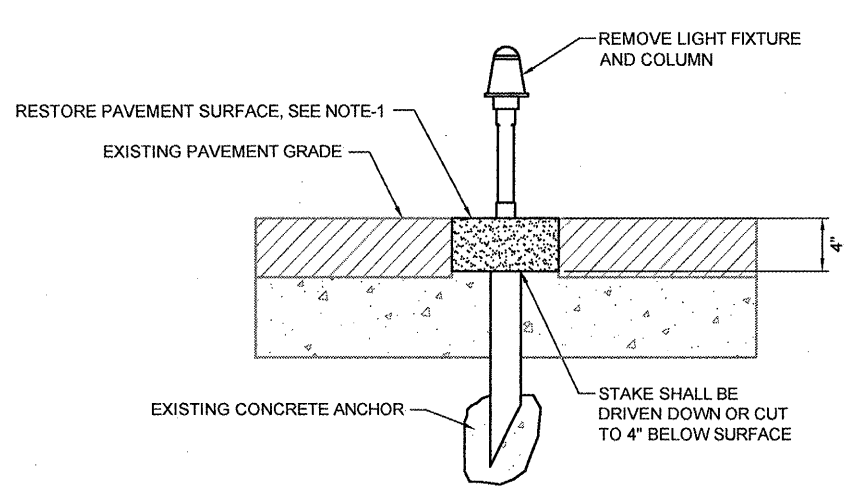
ELECTRICAL DETAILS 1

project	contract
drawing	rev.
<b>E201 - 0</b>	
sheet 15	of 21 sheets
file 47463E201.DWG	

Scale For Microfitting  
Millimeters  
Inches

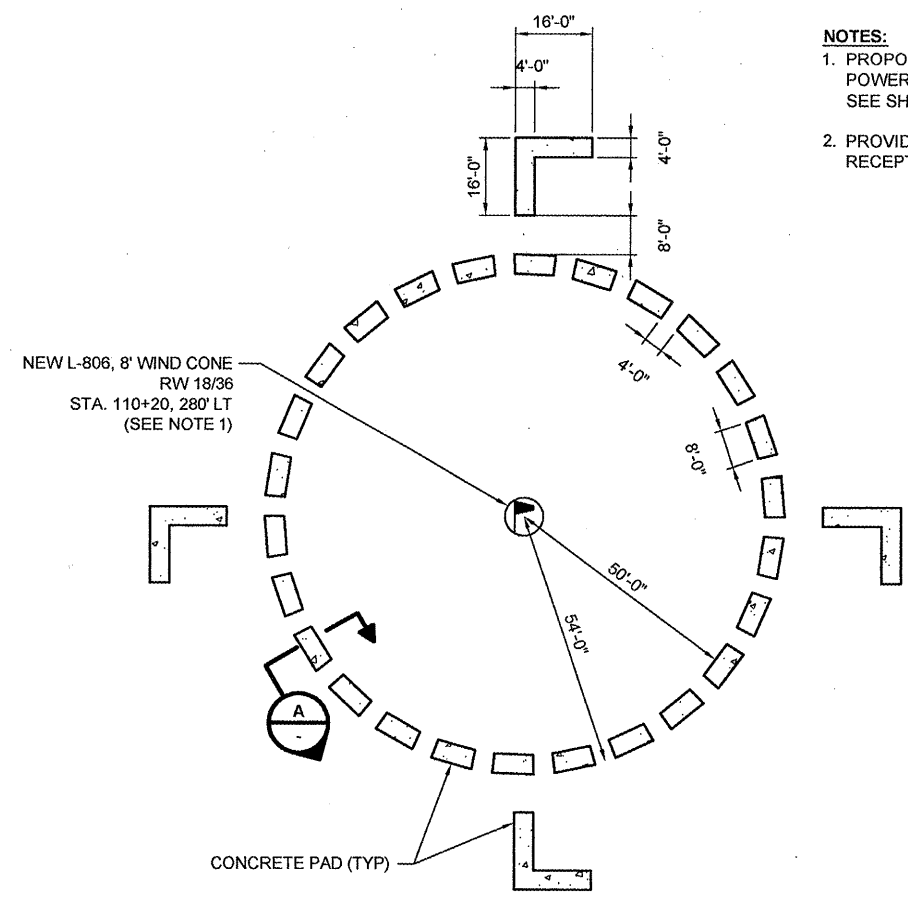
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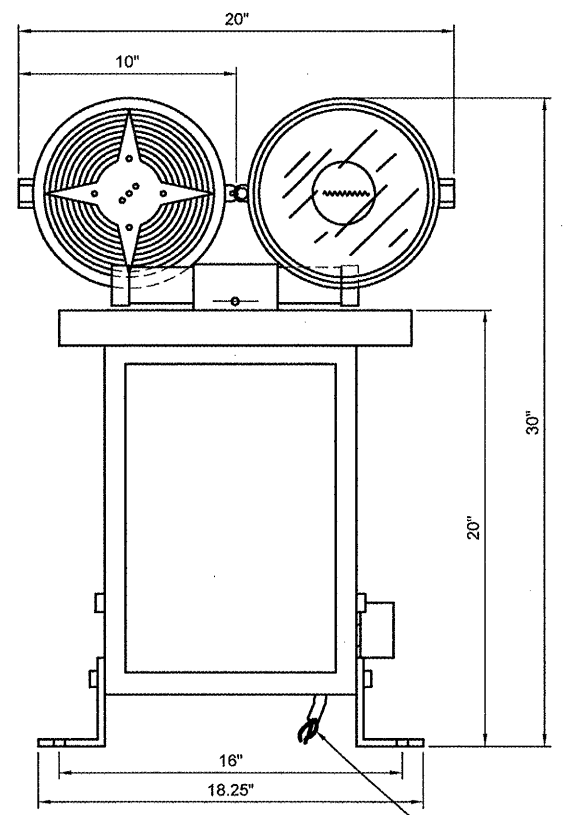


**STAKE MOUNTED LIGHT REMOVAL**  
**DETAIL**  
 NOT TO SCALE

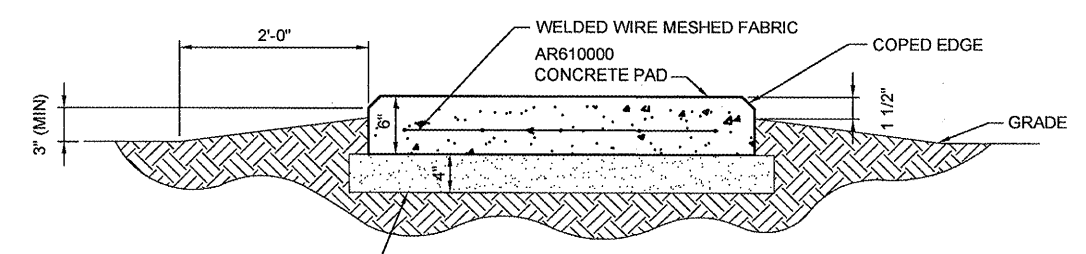
- NOTES:**
1. RESTORATION OF PAVEMENT SURFACE SHALL BE CONSIDERED INCIDENTAL TO EXISTING STAKE MOUNTED LIGHT REMOVAL.
  2. ALL REMOVED LIGHT ASSEMBLIES AND ISOLATION TRANSFORMERS SHALL BE TURNED OVER TO THE AIRPORT MANAGER UNLESS OTHERWISE DIRECTED.



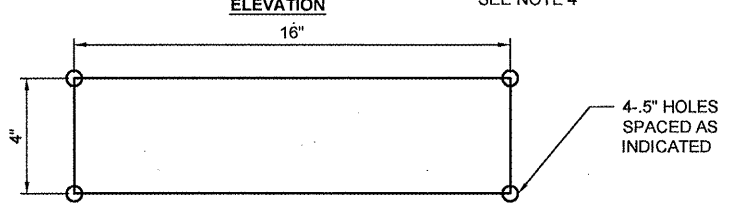
- NOTES:**
1. PROPOSED WIND CONE SHALL BE 120VAC POWERED. SEE SHEET E105 FOR LOCATION AND SEE SHEET E204 FOR INSTALLATION DETAILS.
  2. PROVIDE LOCAL DISCONNECT, 120V, WP/GFCI RECEPTACLE AND PHOTO CELL ON WIND CONE.



- NOTES:**
1. PROPOSED BEACON SHALL BE HALI-BRITE MODEL HBM-175/2 (OR EQUAL) BEACON SHALL BE L-801A, CLASS 2.
  2. DIMENSIONS SHOWN ON THIS DETAIL SHALL BE VERIFIED WITH MANUFACTURER.
  3. CONTRACTOR SHALL REMOVE EXISTING BEACON AND INSTALL NEW BEACON IN IT'S PLACE ON EXISTING BEACON TOWER. CONTRACTOR SHALL PROVIDE ALL NECESSARY HARDWARE FOR A COMPLETE AND OPERATIONAL BEACON TO THE SATISFACTION OF THE ENGINEER.
  4. CONTRACTOR SHALL RE-CONNECT EXISTING ELECTRIC SERVICE AND GROUNDING SYSTEM TO PROPOSED BEACON/WIRING.
  5. BEACON LAMPS SHALL BE 175W, METAL HALIDE. CONTRACTOR SHALL PROVIDE ONE SPARE SET OF LAMPS TO OWNER FOR FUTURE REPLACEMENT.



**SECTION**  
 NOT TO SCALE



**BEACON**  
**DETAIL**  
 NOT TO SCALE

**SEGMENTED CIRCLE AND WIND CONE**  
**DETAIL**  
 NOT TO SCALE



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designed	B. QUINLAN	checked	A. RAHMAN

**RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE**

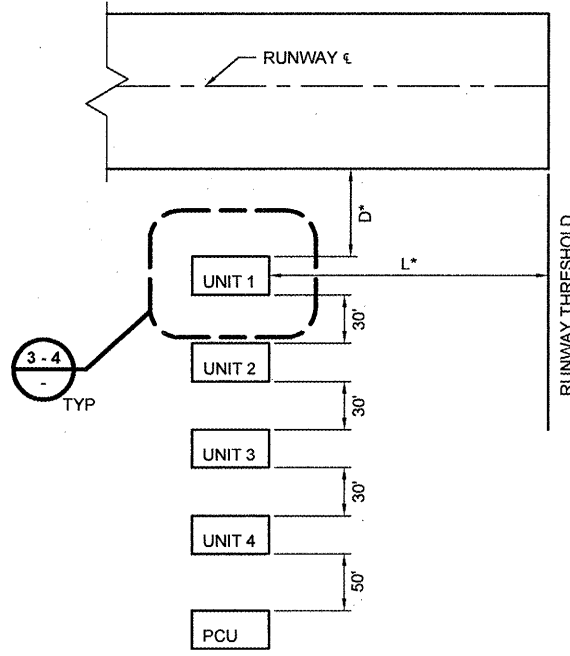
**ELECTRICAL DETAILS 2**

project	contract
drawing	rev.
<b>E202</b>	<b>0</b>
sheet 16	of 21 sheets
file 47463E202.dwg	

Scale For Microfilming  
 Millimeters  
 Inches

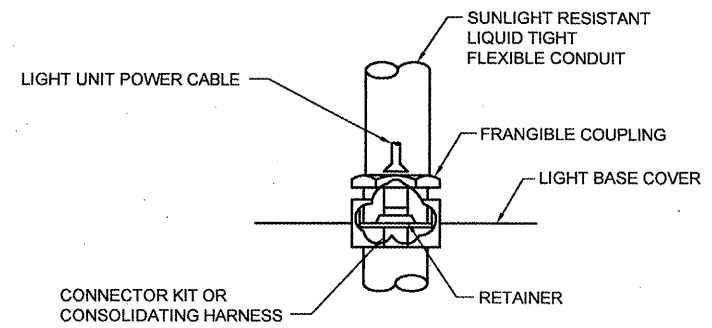
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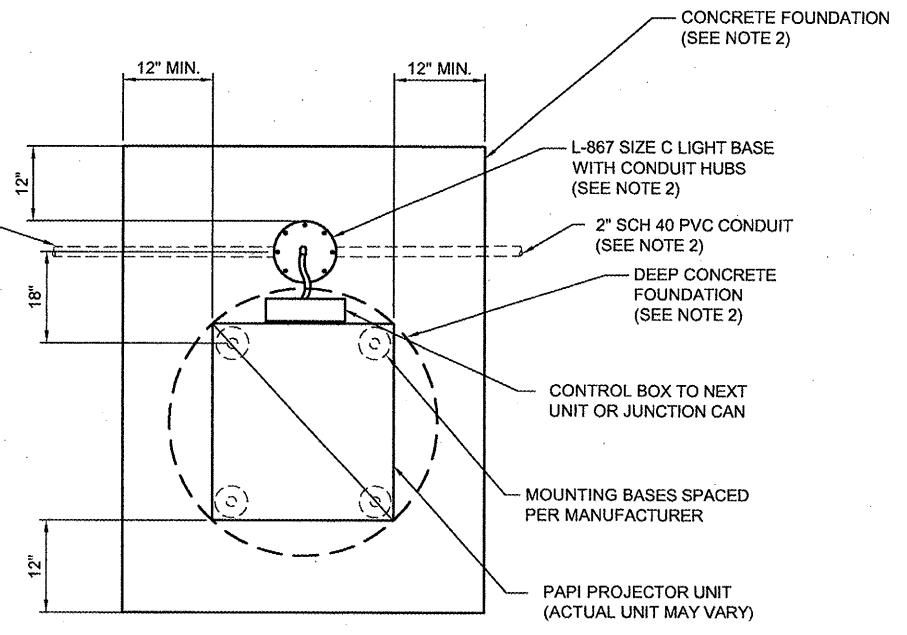
\* SEE PAPI SITING DATA TABLE FOR DIMENSIONS

**PAPI INSTALLATION PLAN**  
 DETAIL 1  
 NOT TO SCALE  
 E102  
 E104



**CABLE CONNECTIONS DETAIL**  
 DETAIL 2  
 NOT TO SCALE

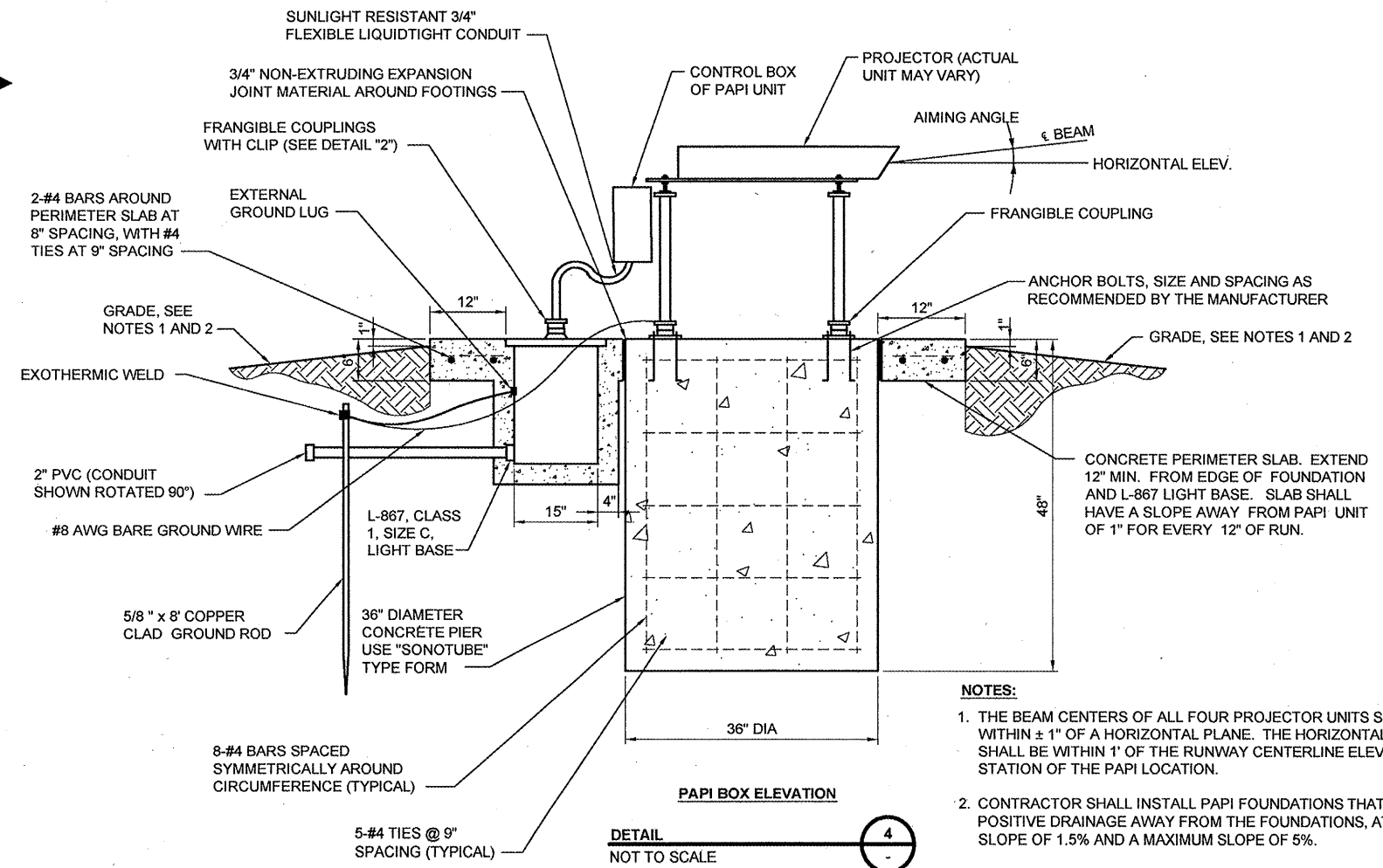
2" SCH 40 PVC CONDUIT TO NEXT UNIT OR JUNCTION CAN (SEE NOTE 3)



**L-880 STYLE A PAPI SYSTEM INSTALLATION DETAIL**  
**PAPI BOX PLAN**

**DETAIL 3**  
 NOT TO SCALE

- NOTES:**
- PAPI SYSTEM SHALL BE TYPE 880, STYLE A, CLASS 2.
  - PAPI FOUNDATIONS, CONDUITS, POWER/CONTROL WIRING, L-867 BASE CAN AND ALL INCIDENTALS SHALL BE CONSIDERED INCIDENTAL TO PAPI PAY ITEM.
  - PROVIDE POWER AND CONTROL WIRING BETWEEN UNITS AS REQUIRED BY MANUFACTURER.



**PAPI BOX ELEVATION**  
 DETAIL 4  
 NOT TO SCALE

- NOTES:**
- THE BEAM CENTERS OF ALL FOUR PROJECTOR UNITS SHALL BE WITHIN  $\pm 1"$  OF A HORIZONTAL PLANE. THE HORIZONTAL PLANE SHALL BE WITHIN 1' OF THE RUNWAY CENTERLINE ELEVATION AT THE STATION OF THE PAPI LOCATION.
  - CONTRACTOR SHALL INSTALL PAPI FOUNDATIONS THAT THERE IS POSITIVE DRAINAGE AWAY FROM THE FOUNDATIONS, AT A MINIMUM SLOPE OF 1.5% AND A MAXIMUM SLOPE OF 5%.
  - ANY EARTHWORK ASSOCIATED WITH THE FOUNDATION INSTALLATION INCLUDING EXCAVATION, EMBANKMENT OR GRADING SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PAPI INSTALLATION.

PAPI SITING DATA TABLE		
RW 9	CALCULATED	ACTUAL MEASUREMENT (BY REGISTERED SURVEYOR)
THRESHOLD CROSSING HEIGHT	35'	
AIMING ANGLE	2°50'	
THRESHOLD LOCATION	STA. 26+00	
PAPI LOCATION (FRONT OF UNITS)	STA. 33+21.80, 97.5' LT.	
RUNWAY CENTERLINE THRESHOLD ELEV.	735.52	
RUNWAY CENTERLINE ELEV., PAPI LOCATION	734.80	
ELEVATION OF PAPI UNIT BEAM CENTER	735.80	
DISTANCE FROM THRESHOLD (L) (FT)	721.80	
DISTANCE FROM EDGE OF PAVEMENT (D) (FT)	60.00	
RW 27	CALCULATED	ACTUAL MEASUREMENT (BY REGISTERED SURVEYOR)
THRESHOLD CROSSING HEIGHT	35'	
AIMING ANGLE	2°50'	
THRESHOLD LOCATION	STA. 76+00	
PAPI LOCATION (FRONT OF UNITS)	STA. 68+85.30, 95' RT.	
RUNWAY CENTERLINE THRESHOLD ELEV.	728.71	
RUNWAY CENTERLINE ELEV., PAPI LOCATION	728.34	
ELEVATION OF PAPI UNIT BEAM CENTER	729.34	
DISTANCE FROM THRESHOLD (L) (FT)	714.70	
DISTANCE FROM EDGE OF PAVEMENT (D) (FT)	52.37	
ALL PAPI INSTALLATIONS SHALL BE PER FAA AS 150/5340-30 CURRENT EDITION		
ALL ELEVATIONS AS RECORDED BY THE SURVEYOR SHALL BE IN NAVD88 VERTICAL DATUM		

- NOTES:**
- EXISTING THRESHOLD AND RUNWAY CENTERLINE ELEVATIONS WERE OBTAINED FROM RECORD DRAWINGS. CONTRACTOR SHALL HAVE REGISTERED LAND SURVEYOR VERIFY ELEVATIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY, AS ANY VARIATION WILL EFFECT PLACEMENT OF PAPI UNITS.
  - CONTRACTOR SHALL HAVE REGISTERED SURVEYOR COMPLETE SITING TABLE WHERE INDICATED.
  - SURVEY SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE PAPI INSTALLATION.

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RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE

ELECTRICAL DETAILS 3

project	contract
drawing	rev.
<b>E203 - 0</b>	
sheet 17	of 21 sheets
file 47463E203.dwg	

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Inches

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- NOTES:**
- PANEL SHALL BE 120/240V, 1-PHASE, 100A RATED WITH 100A MAIN CIRCUIT BREAKER SERVICE ENTRANCE RATED, WEATHERPROOF WITH BRANCH BREAKERS AS SHOWN IN THE PANEL SCHEDULE (THIS SHEET).
  - MOUNT PANEL ON UNI-STRUT TYPE MATERIAL. PROVIDE DETAILED SHOP DRAWINGS FOR REVIEW BY ENGINEER.
  - PROVIDE METER BASE ON BACK SIDE OF PANEL PER UTILITY REQUIREMENTS.

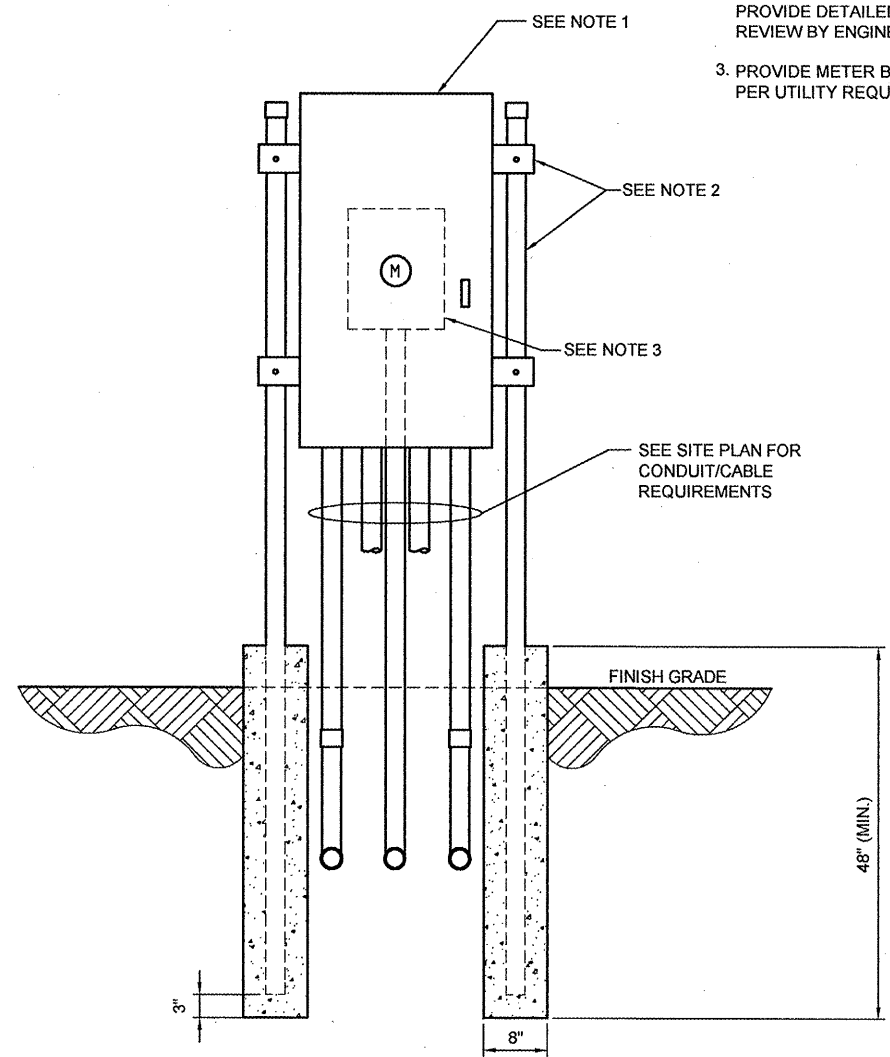


date	02/13/08	detailed	L. TUCKER
designed	B. QUINLAN	checked	A. RAHMAN

RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE

ELECTRICAL DETAILS 4

project	contract
drawing	rev.
<b>E204</b>	<b>0</b>
sheet 18 of 21 sheets	file 47463E204.dwg

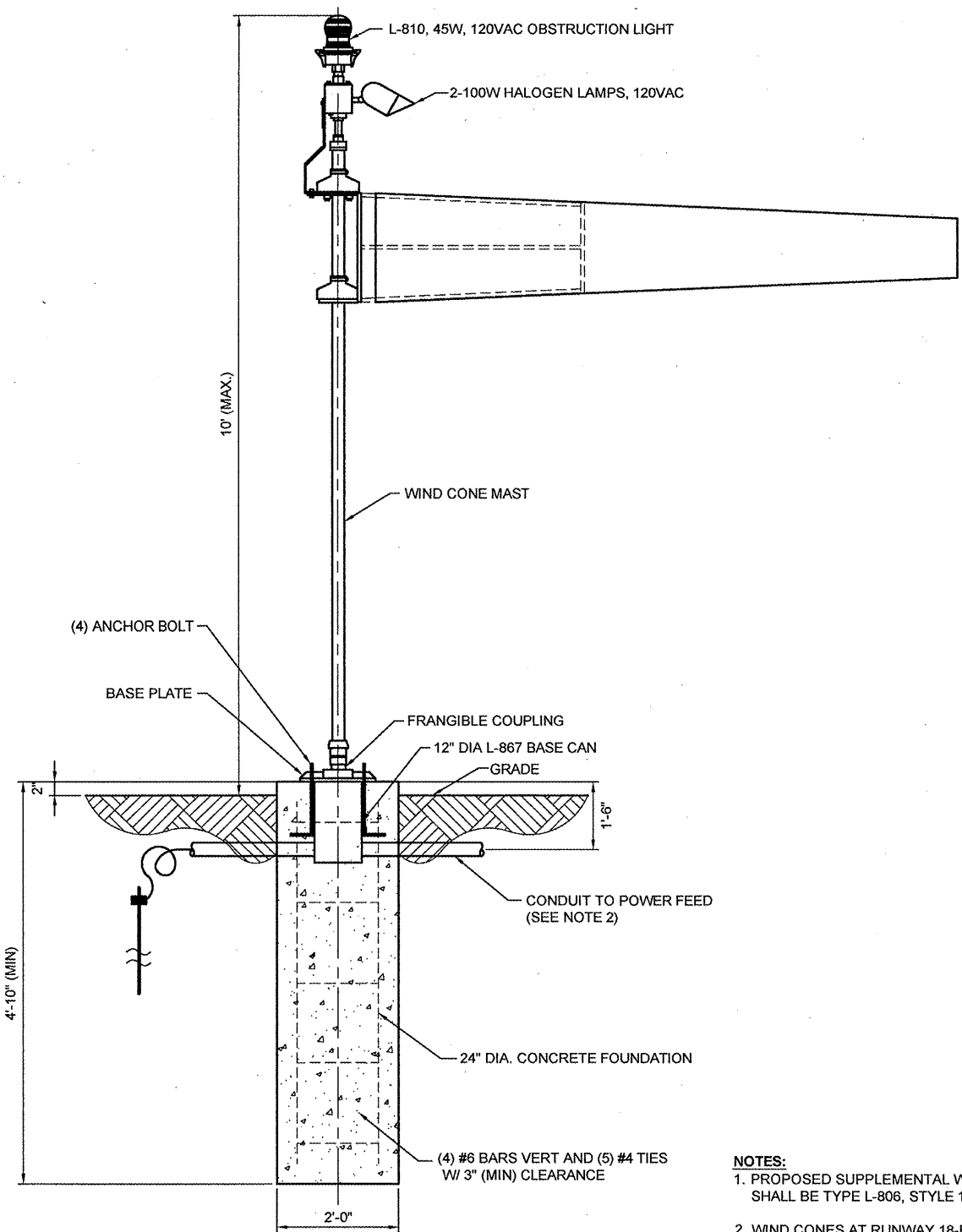


120/240V, 1-PHASE POWER PANEL  
FRONT ELEVATION

DETAIL 2  
NOT TO SCALE  
E102  
E104

PANELBOARD:PP-1								
VOLTS: 240/120								
100A MCB	POLE NUMBER	TRIP AMPS	NUMBER OF POLES	LOAD SERVED	POLE NUMBER	TRIP AMPS	NUMBER OF POLES	LOAD SERVED
	1	20A	1	WIND CONE	2	20A	2	REIL
	3	20A	1	WIND CONE	4	20A	-	REIL
	5	20A	2	PAPI	6			
	7	20A	-	PAPI	8			
	9				10			
	11				12			

PANELBOARD:PP-2								
VOLTS: 240/120								
100A MCB	POLE NUMBER	TRIP AMPS	NUMBER OF POLES	LOAD SERVED	POLE NUMBER	TRIP AMPS	NUMBER OF POLES	LOAD SERVED
	1	20A	1	WIND CONE	2	20A	2	REIL
	3	20A	2	PAPI	4	20A	-	REIL
	5	20A	-	PAPI	6			
	7				8			
	9				10			
	11				12			



L-806 LIGHTED WIND CONE DETAIL

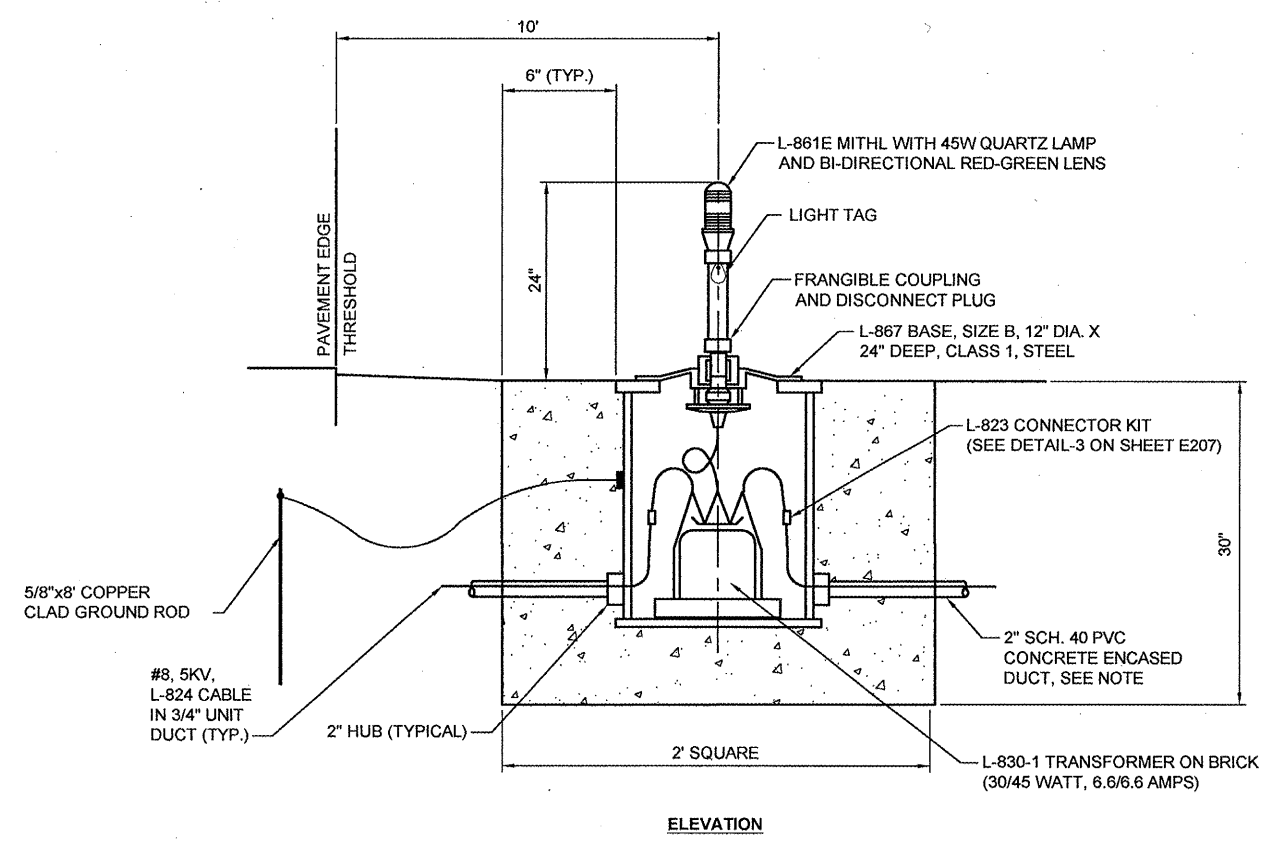
DETAIL 1  
NOT TO SCALE  
E102  
E105  
E106

- NOTES:**
- PROPOSED SUPPLEMENTAL WIND CONES ON RUNWAY 18/36 SHALL BE TYPE L-806, STYLE 1A, SIZE 1.
  - WIND CONES AT RUNWAY 18-END SHALL BE POWERED BY A PARALLEL CIRCUIT. THE WIND CONE AT RUNWAY 36-END SHALL BE POWERED BY A SERIES RUNWAY 18/36 CIRCUIT.
  - PROVIDE WEATHERPROOF DISCONNECTS AND GROUND RODS AT ALL WIND CONES.
  - PROVIDE L-867 BASE CAN AND POWER ADAPTER AT RUNWAY 36-END WIND CONE.
  - PROVIDE A 120V, WEATHERPROOF, GFCI RECEPTACLE AND PHOTOCELL AT THE RUNWAY 18 WIND CONE.
  - POWER ADAPTERS, FOUNDATIONS, DISCONNECT SWITCHES, GROUND RODS, BASE CANS, RECEPTACLES, PHOTOCELLS AND ALL OTHER HARDWARE SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO EACH WIND CONE PAY ITEM.

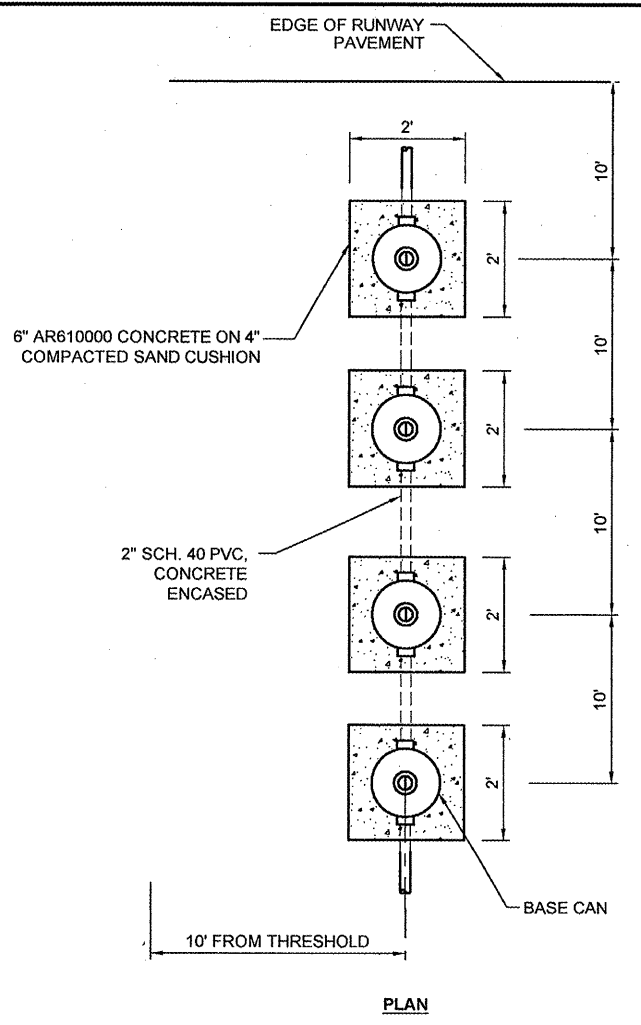
Scale For Microdrilling  
Inches  
Millimeters

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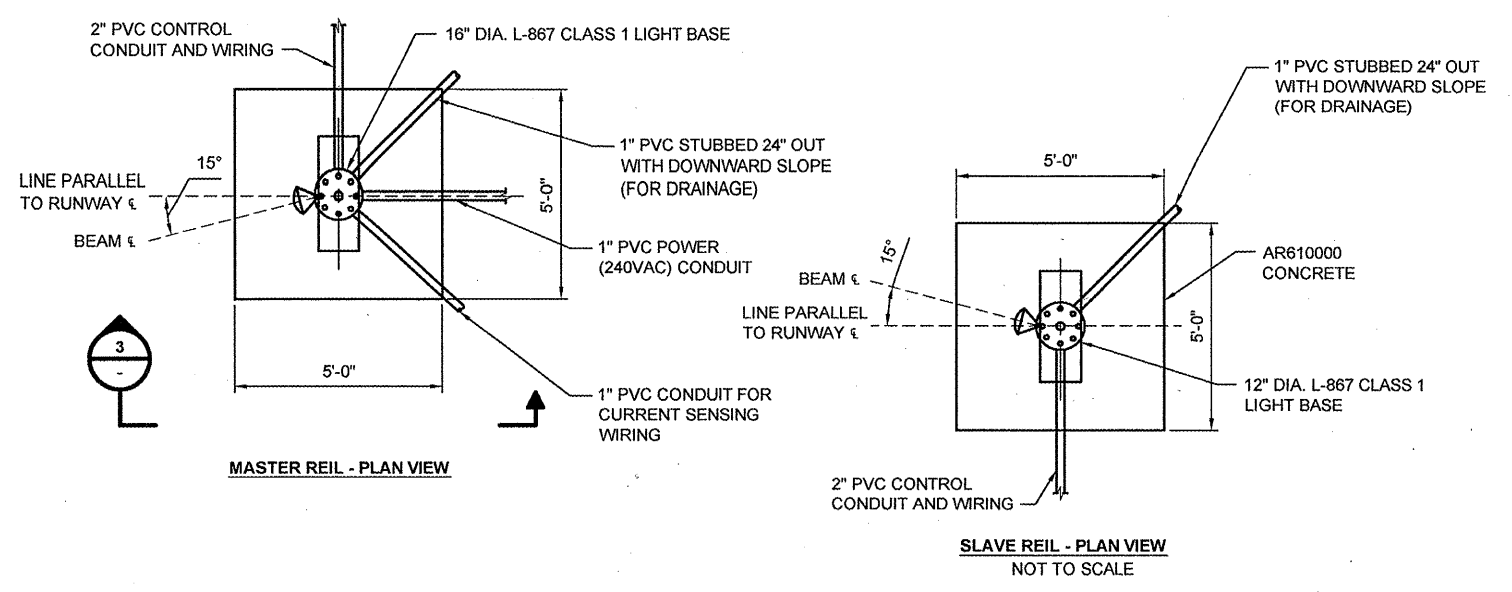


**NOTE:**  
CONDUIT ALIGNMENT SHOWN ROTATED  
90° FOR PURPOSE OF ILLUSTRATION.

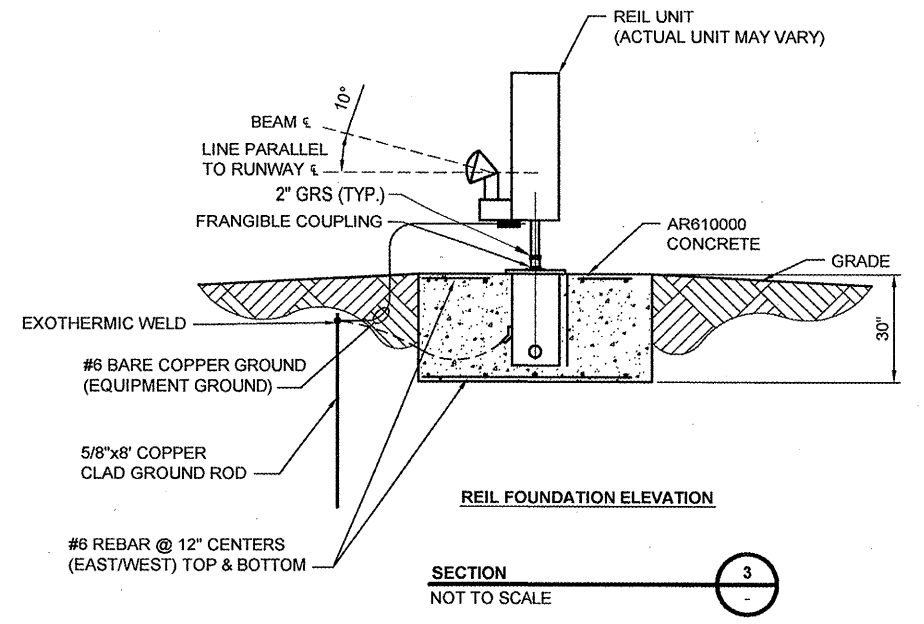


**TYPICAL BASE MOUNTED THRESHOLD FIXTURE DETAIL**

**DETAIL 1**  
NOT TO SCALE  
E102  
E104



**DETAIL 2**  
NOT TO SCALE  
E102  
E104



**SECTION 3**  
NOT TO SCALE



date	02/13/08	detailed	L. TUCKER
designed	B. QUINLAN	checked	A. RAHMAN

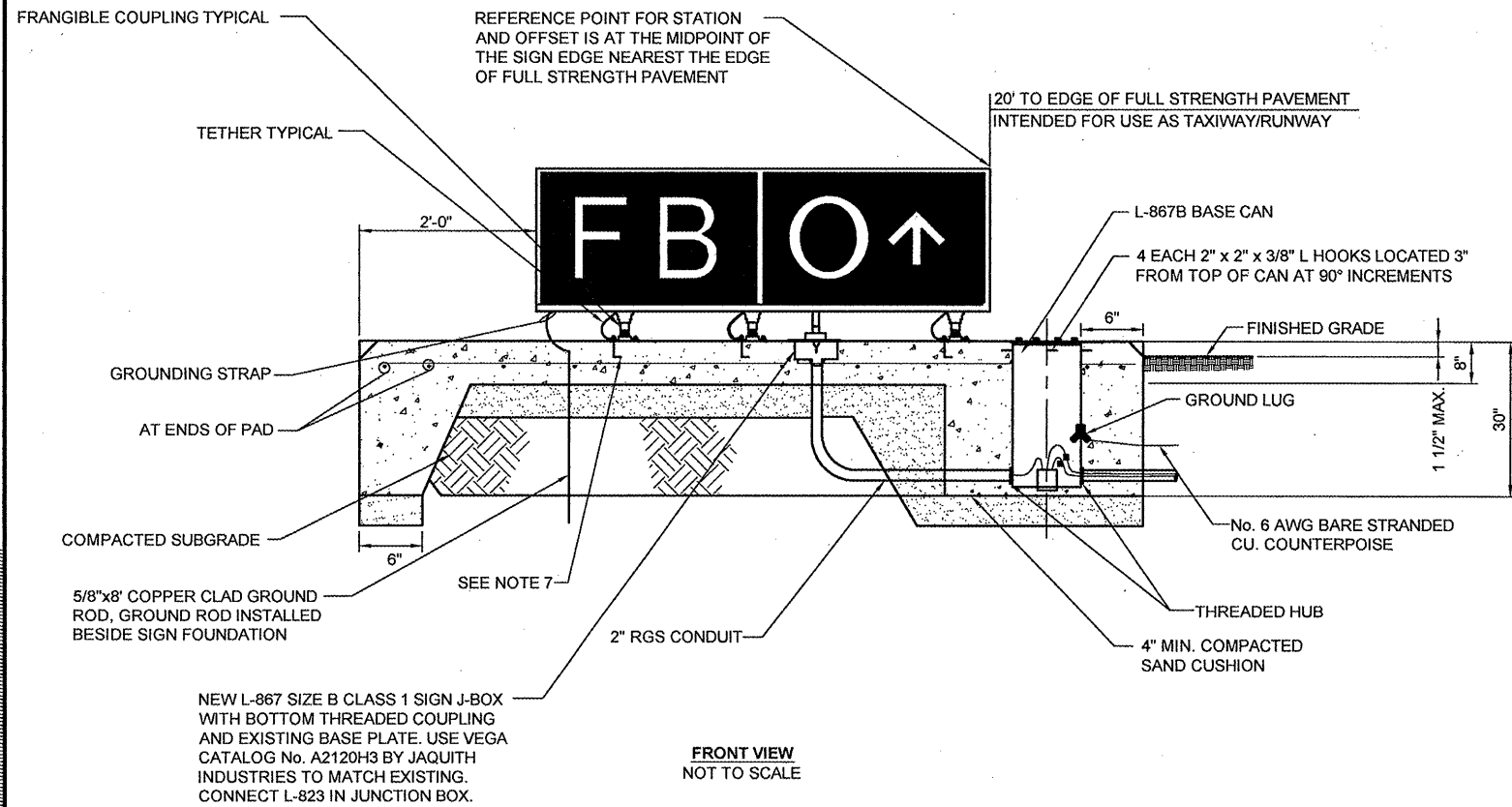
**RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE**

ELECTRICAL DETAILS 5

project	contract
drawing	rev.
<b>E205</b>	<b>0</b>
sheet 19 of 21 sheets	file 47463E205.dwg

Scale For Microlining  
Millimeters  
Inches

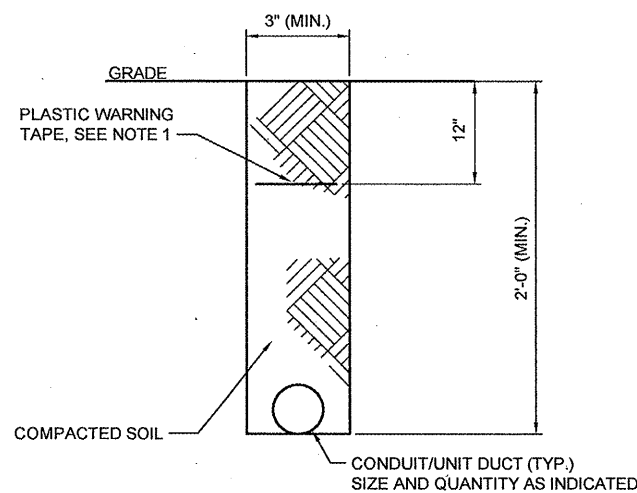
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FRONT VIEW  
NOT TO SCALE

TYPICAL TAXIWAY GUIDANCE SIGN

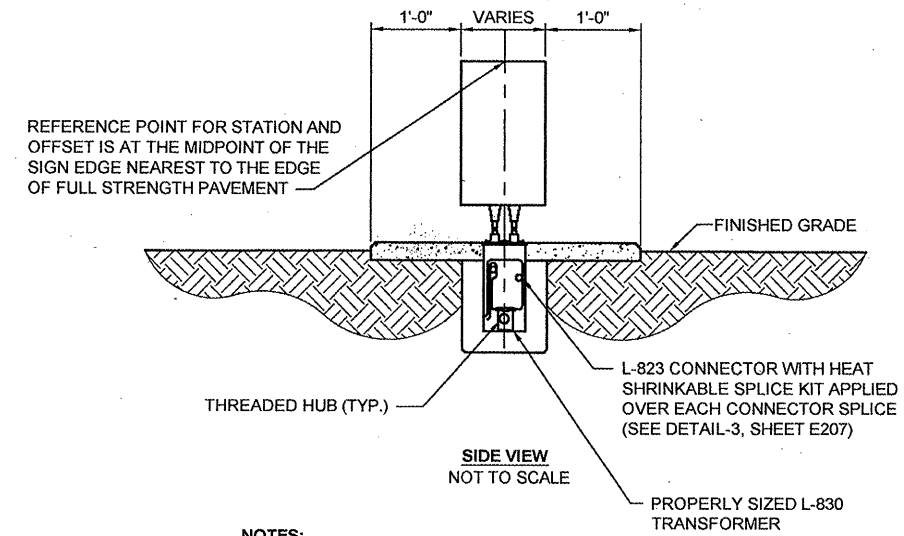
DETAIL	1
NOT TO SCALE	E101
	E102
	E103
	E104
	E105
	E106



TYPICAL CONDUIT/UNIT DUCT TRENCH

DETAIL	2
NOT TO SCALE	E102
	E201

**NOTE:**  
INSTALL A APPROVED DETECTABLE, MAGNETIC, 6" WIDE TAPE 12" BELOW FINISHED GRADE ABOVE ALL PORTIONS OF DUCTS. TAPE SHALL BE RED WITH "CAUTION BURIED ELECTRICAL LINE BELOW".



NOTES:

1. ALL NEW MATERIALS, BASE DETAILS ETC SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
2. CONCRETE FOR SIGN BASE SHALL CONFORM TO SPECIFICATION AR610000.
3. REINFORCEMENT FOR SIGN BASE SHALL BE #4 TYPE ASTM GRADE 60. REINFORCEMENT SHALL HAVE A MINIMUM 2" COVER.
4. THE SIGN'S BOLTING PATTERN AND ANCHORING METHOD ETC SHALL BE PER CROUSE-HINDS RECOMENDATIONS AND MATCH EXISTING SIGNS.
5. ALL CONDUITS SHALL BE PVC 2" DIAMETER SCHEDULE 40 UNLESS OTHERWISE NOTED.
6. THE CONCRETE BASE SHALL EXTEND 2'-0" MINIMUM BEYOND EACH SIDE OF THE SIGN. THE EDGE OF THE CONCRETE BASE SHALL EXTEND 20" BEYOND THE CENTERLINE OF THE L-867B BASE CAN. CONCRETE BASE SHALL BE INSTALLED LEVEL.
7. CONTRACTOR SHALL PROVIDE NEW ANCHOR BOLTS AS RECOMMENDED BY THE SIGN MANUFACTURER (CROUSE-HINDS), BUT NO LESS THAN 4" LONG AND 1/2" DIAMETER.
8. CONTRACTOR SHALL INSTALL NEW L-830 ISOLATION TRANSFORMER AND WIRING.

NEW SIGNAGE SCHEDULE				
SIGN NO.	SIGN FACE	LEGEND	TYPE	LOCATION
1	SOUTH			
	NORTH	FB O →	Y	SEE ELECTRICAL SITE PLAN
2	SOUTH	FB O →	Y	SEE ELECTRICAL SITE PLAN
	NORTH			
3	EAST	FB O ↗	Y	SEE ELECTRICAL SITE PLAN
	WEST			
4	EAST	FB O ↑	Y	SEE ELECTRICAL SITE PLAN
	WEST			
5	EAST	FB O ↑	Y	SEE ELECTRICAL SITE PLAN
	WEST			
6	SOUTH			
	NORTH	FB O ↑	Y	SEE ELECTRICAL SITE PLAN
7	SOUTH			
	NORTH	FB O ↑	Y	SEE ELECTRICAL SITE PLAN
8	SOUTH			
	NORTH	FB O →	Y	SEE ELECTRICAL SITE PLAN

SIGN TYPE DESCRIPTIONS

Y: L-858Y DIRECTION, DESTINATION AND BOUNDARY SIGN - BLACK LEGEND ON A YELLOW BACKGROUND

R: L-858R MANDATORY INSTRUCTION SIGN - 3/4" BLACK OUTLINE ON OUTSIDE EDGE OF WHITE LEGEND ON RED BACKGROUND

L: L-858L TAXIWAY AND RUNWAY LOCATION SIGN - YELLOW LEGEND AND BORDER ON A BLACK BACKGROUND

no.	date	by	ckd	description
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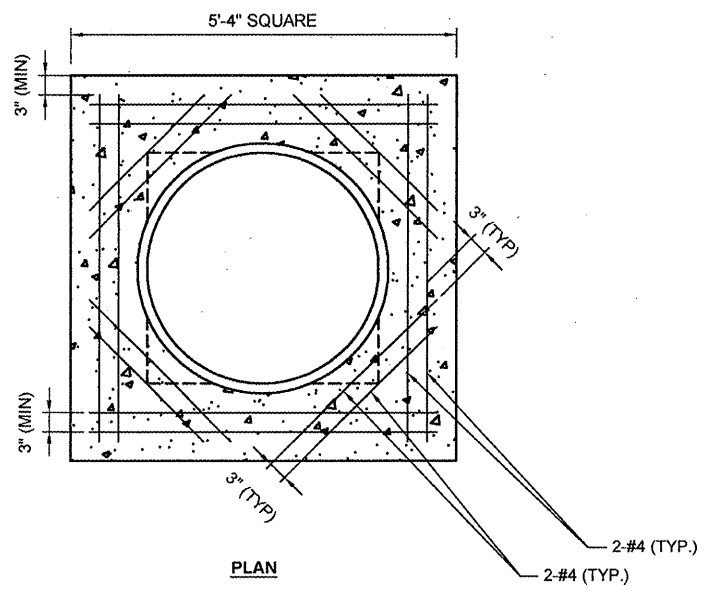
date	02/13/08	detailed	L. TUCKER
designed	B. QUINLAN	checked	A. RAHMAN

RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE

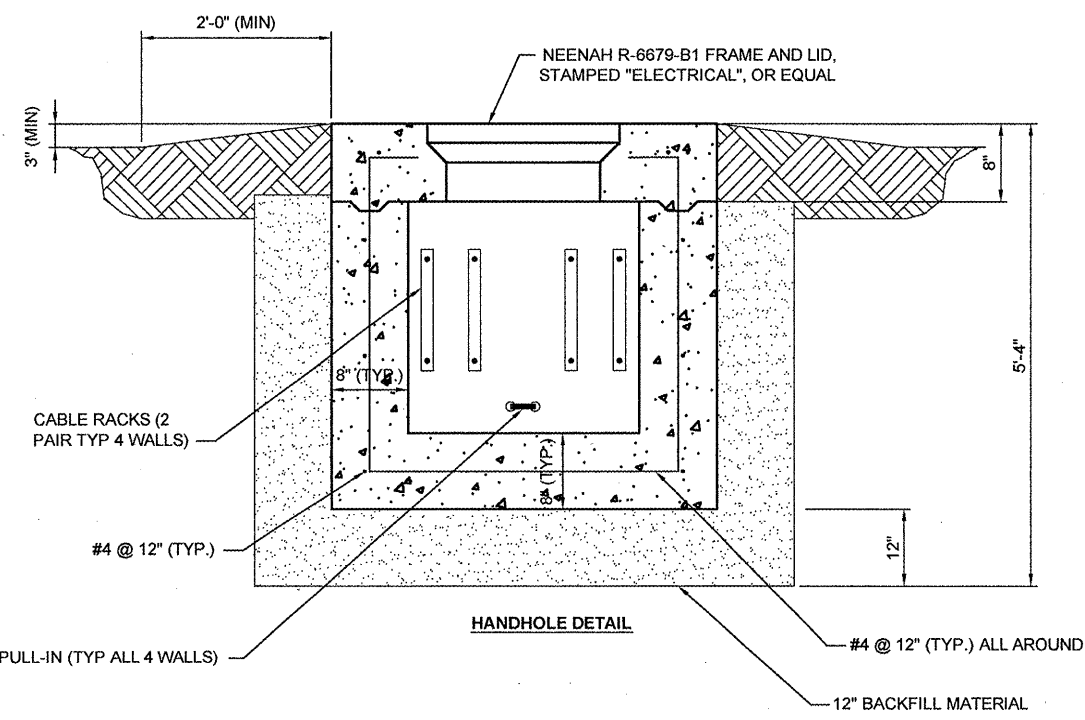
ELECTRICAL DETAILS 6

project	contract
drawing	rev.
<b>E206 - 0</b>	
sheet 20	of 21 sheets
file 47463E206.dwg	

Scale For Microlining  
Inches  
Millimeters

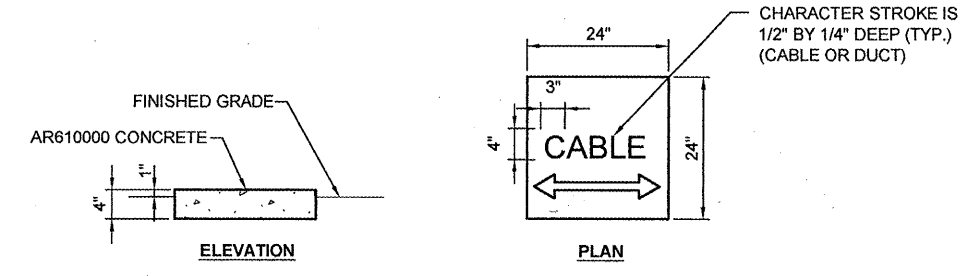


PLAN



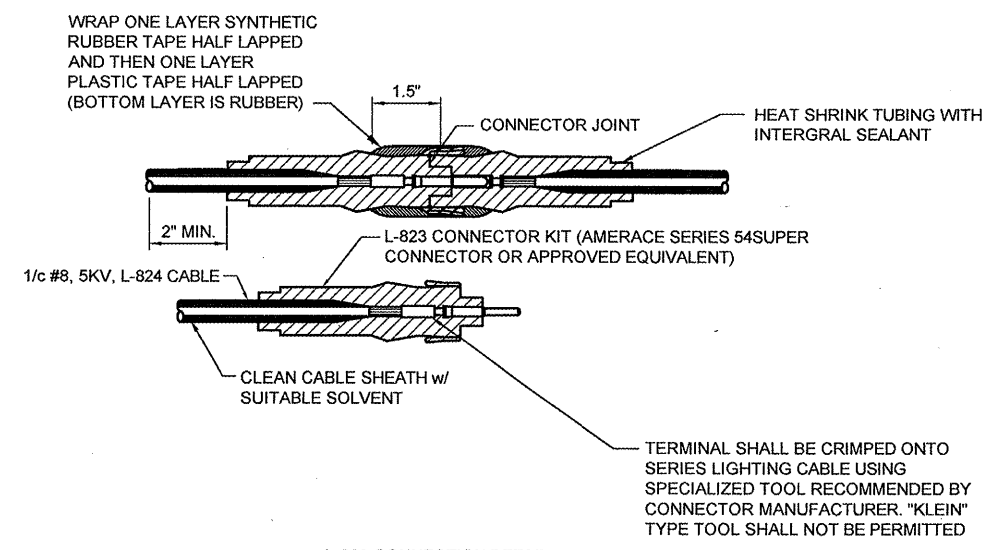
HANDHOLE DETAIL

DETAIL 1  
NOT TO SCALE



CABLE OR DUCT MARKER DETAIL

DETAIL 2  
NOT TO SCALE

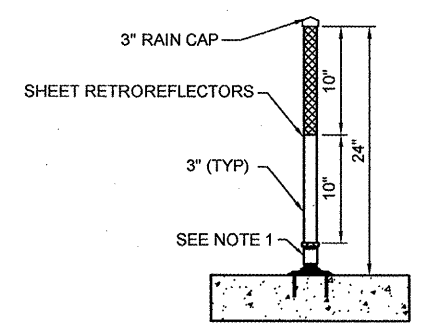


L-823 CONNECTION DETAIL

- NOTES:**
- CONTRACTOR SHALL PROVIDE CABLE IDENTIFICATION MARKERS ATTACHED TO BOTH SIDES OF EACH CABLE CONNECTION. CABLE IDENTIFICATION MARKERS SHALL BE 3M SCOTCH HEAT-BONDING #SCS-HB21 OR EQUIVALENT.
  - ENTIRE CONNECTOR SHALL BE ENCASED IN HEAT SHRINK TUBING HAVING INTEGRAL GLUE SEALANT AT ENDS ONLY.

TYPICAL SPLICE AND CONNECTOR DETAIL

DETAIL 3  
NOT TO SCALE



DETAIL 4  
NOT TO SCALE

**NOTE:**  
2" FRANGIBLE COUPLING, FLOOR FLANGE, AND STAINLESS STEEL ANCHOR BOLTS SHALL BE PROVIDED AS REQUIRED.

no.	date	by	ckd	description
0	04/25/08	BJQ	MAR	ISSUED FOR BID



date	02/13/08	detailed	L. TUCKER
designed	B. QUINLAN	checked	A. RAHMAN

RUNWAY 9/27 LIGHTING, NAVAIDS AND SIGNAGE; RUNWAY 18/36 WIND CONES AND SIGNAGE

ELECTRICAL DETAILS 7

project	contract
drawing	rev.
<b>E207</b>	<b>0</b>
sheet 21 of 21 sheets	file 47463E207.dwg