

# CITY OF AURORA AURORA, ILLINOIS

## CONSTRUCTION PLANS FOR AURORA MUNICIPAL AIRPORT

CONSTRUCT RUNWAY 33  
INSTRUMENT LANDING SYSTEM;  
RELOCATE RUNWAY 9 LOCALIZER

CALL J.U.L.I.E  
BEFORE EXCAVATING  
1-800-892-0123

AURORA MUNICIPAL AIRPORT

SECTION: 7, 17 AND 18      COUNTY: KANE  
RANGE: 7 EAST              U.S. ROUTE 30  
TOWNSHIP: 38 NORTH      SUGAR GROVE TOWNSHIP

**DESIGN INFORMATION**

DESIGN AIRCRAFT APPROACH CATEGORY D  
DESIGN AIRCRAFT GROUP III

**CITY OF AURORA, ILLINOIS**

APPROVED: *Thomas Weisner* MAYOR  
THOMAS WEISNER

DATE: 3-13-06 20\_\_

APPROVED: *Robert A. Rieser* AIRPORT DIRECTOR  
ROBERT A. RIESER, P.E., A.A.E.

DATE: 3-10-06 20\_\_

**CMT** 04285-04  
CRAWFORD, MURPHY & TILLY, INC.  
CONSULTING ENGINEERS

REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS  
DAVID K. PEABODY  
062-048437  
3-16-06  
EXP. 11-30-07

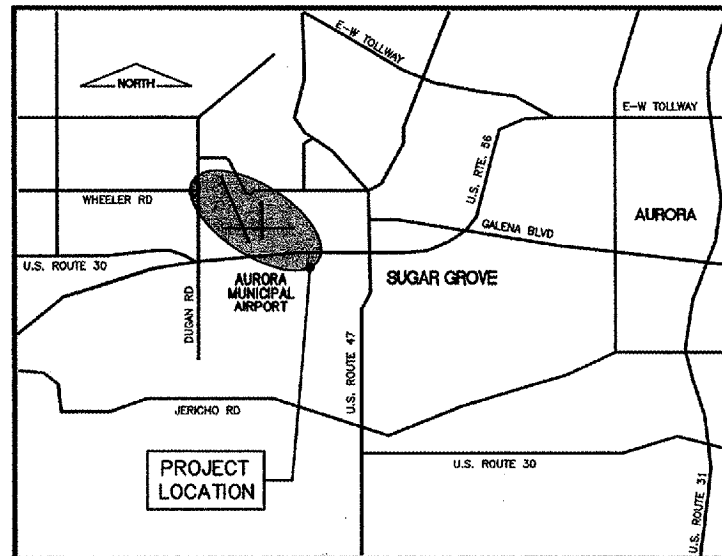
SUBMITTED BY: *D. Kyle Peabody*  
D. KYLE PEABODY, P.E.

DATE: 3-16-06 20\_\_

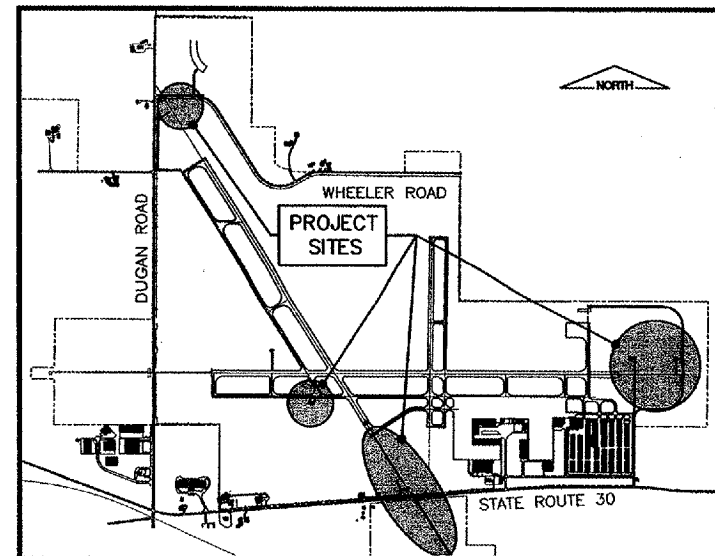
■ SPRINGFIELD, I. ■ AURORA, I. ■ CHICAGO, I. ■ COLUMBUS, OH ■ EDWARDSVILLE, I.  
■ INDIANAPOLIS, IN ■ PEORIA, I. ■ ROCKFORD, I. ■ ST. LOUIS, MO

ILLINOIS PROJECT: ARR-3468  
A.I.P. PROJECT: 3-17-0003-B31

JUNE 28, 2006



LOCATION MAP



SITE PLAN

THIS DRAWING PRODUCED ON THE GREAT LAKES REGION INFORMATION SYSTEM

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25	ARR-D-MALSR33-C02	RUNWAY 33 MALSR PLAN AND PROFILE - MALSR STATIONS 13+20 - 24+00
26	ARR-D-MALSR33-C03	RUNWAY 33 MALSR SHELTER SITE PLAN
27	ARR-D-MALSR33-C04	FOUNDATION DETAILS FOR STEADY-BURNING LIGHT BAR AT RUNWAY THRESHOLD
28	ARR-D-MALSR33-C05	FOUNDATION DETAILS FOR STEADY-BURNING LIGHT BARS AT STATIONS 2+20, 4+40, AND 6+60
29	ARR-D-MALSR33-C06	FOUNDATION DETAILS FOR STEADY-BURNING LIGHT BAR AT STATION 8+80 AND 15+00
30	ARR-D-MALSR33-C07	FOUNDATION DETAILS FOR STEADY-BURNING LIGHT BARS AT STATION 11+00
31	ARR-D-MALSR33-C08	FOUNDATION DETAILS FOR STEADY-BURNING LIGHT BAR AT STATION 13+20
32	ARR-D-MALSR33-C09	FOUNDATION DETAILS FOR FLASHER AT STATION 16+80, 18+60, AND 20+40
33	ARR-D-MALSR33-C10	FOUNDATION DETAILS FOR FLASHER AT STATIONS 22+20 AND 24+00
34	ARR-D-MALSR33-C11	CRUSHED ROCK PLOT DETAILS
35	ARR-D-MALSR33-C12	MISCELLANEOUS DETAILS
36	ARR-D-MALSR33-A01	EXTERIOR ELEVATIONS AND FOUNDATION
37	ARR-D-MALSR33-A02	FLOOR PLAN AND INTERIOR ELEVATIONS
38	ARR-D-MALSR33-E01	LIGHTING PROTECTION FOR SMALL ALS/ILS BUILDINGS
39	ARR-D-MALSR33-E02	ONE-LINE WIRING DIAGRAM FOR MALSR TYPE FA-I150I
40	ARR-D-MALSR33-E03	EQUIPMENT WIRING DIAGRAM FOR MALSR TYPE FA-I150I
41	ARR-D-MALSR33-E04	WIRING DIAGRAMS FOR REMOTE RADIO CONTROL SYSTEM FOR MALSR TYPE FA-I150I
42	ARR-D-MALSR33-S01	STRUCTURE ASSEMBLY DETAILS FOR LIR TOWER, TYPE MG-20
43	ARR-D-MALSR33-S02	STRUCTURE ASSEMBLY DETAILS FOR LIR TOWER, TYPES MG-30
44	ARR-D-MALSR33-S03	MOUNTING PLATE FABRICATION DETAILS FOR MG-20 LIR TOWER AND WINCH
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## DRAWINGS FOR RUNWAY 33 GLIDE SLOPE CONSTRUCTION

SHEET NUMBER	DRAWING NUMBER	DRAWING TITLE
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47	ARR-D-GS33-C02	ANTENNA TOWER FOUNDATION DETAILS
48	ARR-D-GS33-S01	ANTENNA TOWER ASSEMBLY DETAILS
49	ARR-D-GS33-E01	ANTENNA TOWER ELECTRICAL AND GROUNDING DETAILS
50	ARR-D-GS33-A01	EXTERIOR ELEVATIONS AND FOUNDATION
51	ARR-D-GS33-A02	FLOOR PLAN AND INTERIOR ELEVATIONS

## DRAWINGS FOR RUNWAY 33 LOCALIZER CONSTRUCTION

SHEET NUMBER	DRAWING NUMBER	DRAWING TITLE
52	ARR-D-LOC33-C01	RUNWAY 33 LOCALIZER/DME SITE PLAN
53	ARR-D-LOC33-C02	RUNWAY 33 LOCALIZER/DME SHELTER SITE PLAN
54	ARR-D-LOC33-C03	MARK-20 ANTENNA ARRAY FOUNDATION DETAILS
55	ARR-D-LOC33-S01	ANTENNA ARRAY INSTALLATION DETAILS
56	ARR-D-LOC33-A01	EXTERIOR ELEVATIONS AND FOUNDATION
57	ARR-D-LOC33-A02	FLOOR PLAN AND INTERIOR ELEVATIONS

## DRAWINGS FOR RUNWAY 33 PAPI RELOCATION

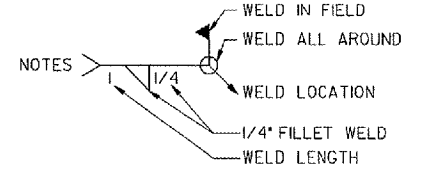
SHEET NUMBER	DRAWING NUMBER	DRAWING TITLE
58	ARR-D-PAPI33-C01	RUNWAY 33 PAPI SITE PLAN
59	ARR-D-PAPI33-S01	LAMP HOUSING ASSEMBLY (LHA) AND FOUNDATION DETAILS
60	ARR-D-PAPI33-S02	EQUIPMENT RACK DETAILS
61	ARR-D-PAPI33-E01	PAPI SYSTEM WIRING DIAGRAM

## DRAWINGS FOR RUNWAY 09 LOCALIZER ANTENNA RELOCATION

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62	ARR-D-LOC09-C01	RUNWAY 9 LOCALIZER SITE PLAN
63	ARR-D-LOC09-C02	RUNWAY 9 LOCALIZER SHELTER SITE PLAN
64	ARR-D-LOC09-C03	MARK-IF ANTENNA ARRAY FOUNDATION DETAILS
65	ARR-D-LOC09-A01	10' X 14' EQUIPMENT SHELTER FOUNDATION AND FRAMING DETAILS
66	ARR-D-LOC09-A02	10' X 14' EQUIPMENT SHELTER FLOOR PLAN AND INTERIOR ELEVATIONS
67	ARR-D-LOC09-E01	GROUNDING PLATE AND COVER DETAILS

# SYMBOLS LEGEND

- 645 — EXISTING CONTOUR
- 645 — PROPOSED CONTOUR
- 646.0 — PROPOSED SPOT GRADE
- 646.1 — EXISTING SPOT GRADE
- E — EXISTING BURIED ELECTRIC CABLE
- E — PROPOSED BURIED ELECTRIC CABLE
- C — EXISTING BURIED CONTROL CABLE
- C — PROPOSED BURIED CONTROL CABLE
- FO — EXISTING BURIED FIBER OPTIC CABLE
- OHE — EXISTING OVERHEAD ELECTRIC
- T — EXISTING BURIED TELEPHONE CABLE
- W — EXISTING BURIED WATER LINE
- G — EXISTING BURIED GAS LINE
- S — EXISTING STORM SEWER LINE
- — EXISTING MANHOLE
- — EXISTING INLET
- E — EXISTING HEADWALL
- E — LIGHTNING ARRESTER
- PAPI — NEW PAPI CIRCUIT
- PAPI — EXISTING PAPI CIRCUIT
- — EXISTING BASE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHT
- — EXISTING STAKE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHT
- — EXISTING STAKE MOUNTED MEDIUM INTENSITY RUNWAY LIGHT
- — EXISTING BASE MOUNTED HIGH INTENSITY RUNWAY LIGHT
- ⊙ — EXISTING FLUSH MOUNTED HIGH INTENSITY RUNWAY LIGHT
- UD --- EXISTING UNDERDRAIN
- ⊕ — EXISTING UTILITY POLE
- △ — EXISTING REILS
- — NEW SPLICE CAN
- VASI — NEW VASI CIRCUIT
- — EXISTING PAPI CIRCUIT
- — NEW PAPI SYSTEM
- — EXISTING AIRFIELD GUIDANCE SIGN
- (4) — EXISTING CONCRETE ENCASED DUCT (NUMBER OF WAYS NOTED)
- GRS — EXISTING GRS CONDUIT
- CKT #1 — EXISTING EDGE LIGHTING CIRCUIT



# ABBREVIATIONS

LIR	LOW IMPACT-RESISTANT
ALSF-II	APPROACH LIGHTING SYSTEM WITH SEQUENCED FLASHERS - REVISION II
MALSR	MEDIUM-INTENSITY APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATING LIGHTS
REIL	RUNWAY END IDENTIFIER LIGHTS
TYP	TYPICAL
DEB	DIRECT EARTH BURY
GRSC	GALVANIZED RIGID STEEL CONDUIT
PVC	POLY-VINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL PIPE
DIP	DUCTILE IRON PIPE
NPT	NATIONAL PIPE THREAD
NEC	NATIONAL ELECTRIC CODE
FAR	FEDERAL AVIATION REGULATION
KVA	KILO-VOLT AMPERES
AFF	ABOVE FINISHED FLOOR
CB	CIRCUIT BREAKER
CCR	CONSTANT CURRENT REGULATOR
TB	TERMINAL BLOCK
RV	SURGE ARRESTER
UPS	UNINTERRUPTABLE POWER SUPPLY
EES	EARTH ELECTRODE SYSTEM
GP	GROUNDING PAD
RVR	RUNWAY VISUAL RANGE
LOC	LOCALIZER FACILITY
IM	INNER MARKER
GFM	GOVERNMENT-FURNISHED MATERIAL
GS	GLIDE SLOPE FACILITY

SHEET 2 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

MALSR/ILS

DRAWING INDEX

REVIEWED BY	SUBMITTED BY	APPROVED BY
PROJ ENGR. TIMOTHY DYER		PLATFORM MGR. CLELAND MICHEEL
DESIGNED	TAD	ISSUED BY
DRAWN	TAD	DATE 02/17/2006
CHECKED	EGS	DRAWING NO
		ARR-D-MALSR33-G01

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APPROV

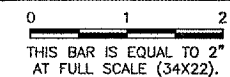
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5/17/2006 5:22:48 PM NAME

# SUMMARY OF QUANTITIES

ITEM No.	DESCRIPTION	UNIT	RUNWAY 33 ILS		RUNWAY 9 LOCALIZER RELOC.		TOTAL	
			ESTIMATED	RECORD	ESTIMATED	RECORD	ESTIMATED	RECORD
AR107960	RELOCATE WINDCONE	EACH	1				1	
AR108082	1/C #2 XLP-USE	LF	225		60		285	
AR108158	1/C #8 5 KV UG CABLE IN UD	LF	850				850	
AR110212	2" STEEL DUCT, DIRECT BURY	LF	130				130	
AR110214	4" STEEL DUCT, DIRECT BURY	LF	76				76	
AR110314	4" STEEL DUCT, JACKED	LF	172				172	
AR110550	SPLIT DUCT	LF	18				18	
AR125565	SPLICE CAN	EACH	1		1		2	
AR125907	REMOVE REILS	PAIR	1				1	
AR125942	ADJUST BASE MOUNTED LIGHT	EACH	8				8	
AR125968	RELOCATE PAPI	EACH	1				1	
AR127410	LOCALIZER	LS	1				1	
AR127415	DME	LS	1				1	
AR127420	GLIDESLOPE	LS	1				1	
AR127430	SHELTER BUILDING	EACH	3		1		4	
AR127450	MALSR INSTALLATION	LS	1				1	
AR127903	REMOVE SHELTER BUILDING	EACH			1		1	
AR127961	RELOCATE LOCALIZER	LS			1		1	
AR150510	ENGINEER'S FIELD OFFICE	LS	1				1	
AR151410	CLEARING	ACRE	0.50				1	
AR152410	UNCLASSIFIED EXCAVATION	CY	5,700		530		6,230	
AR156510	SILT FENCE	LF	5,000				5,000	
AR156513	SEPARATION FABRIC	SY	8,050		625		8,675	
AR156520	INLET PROTECTION	EACH	3				3	
AR162506	CLASS E FENCE 6"	LF	410				410	
AR162716	ELECTRIC GATE - 16"	EACH	1				1	
AR209606	CRUSHED AGG. BASE COURSE - 6"	SY	1,460		225		1,685	
AR209608	CRUSHED AGG. BASE COURSE - 8"	SY	6,590		400		6,990	
AR401610	BITUMINOUS SURFACE COURSE	TON	90		10		100	
AR602510	BITUMINOUS PRIME COAT	GAL	80		10		90	
AR620520	PAVEMENT MARKING - WATERBORNE	SF	38,100				38,100	
AR620525	PAVEMENT MARKING - BLACK BORDER	SF	7,525				7,525	
AR701218	18" CMP	LF			47		47	
AR701224	24" CMP	LF	72				72	
AR701900	REMOVE PIPE	LF	72		45		117	
AR705900	REMOVE UNDERDRAIN	LF	50				50	
AR752218	METAL END SECTION 18"	EACH			2		2	
AR752224	METAL END SECTION 24"	EACH	4				4	
AR800025	3-1/C #4 XLP-USE, 1/C #8 GND. IN UD	LF	185				185	
AR800030	ILS POWER MODIFICATIONS	LS	1				1	
AR800033	TREE CLEARING AND GRUBBING (6" - 15")	IN-DIA	12				12	
AR800034	TREE CLEARING AND GRUBBING (+15")	IN-DIA	165				165	
AR800101	DELINEATOR	EACH			3		3	
AR800119	REMOVE GRAVEL	CY			1,440		1,440	
AR800123	CABLE BARRIER GATE	EACH			1		1	
AR800124	ADJUST GLIDESLOPE	LS	1				1	
AR800127	RELOCATE GATE	EACH	1				1	
AR800145	LOCALIZER GROUND CHECK POINT	EACH	4		2		6	
AR800158	3-1/C #6 XLP-USE 600V, 1/C #8 GND IN UD	LF			950		950	
AR901510	SEEDING	ACRE	33.0		10.0		43.0	
AR908510	MULCHING	ACRE	33.0		10.0		43.0	
AR910420	BOLLARD	EACH	6		2		8	

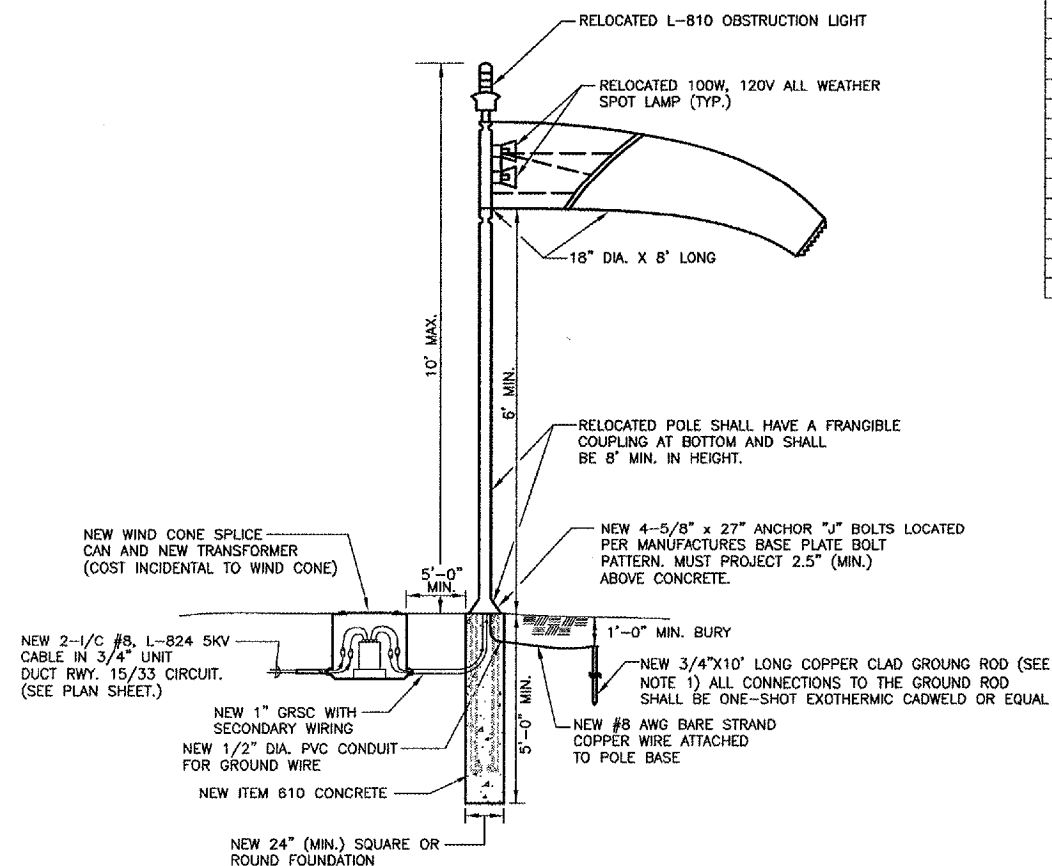
REVISIONS

NUMBER	BY	DATE



**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER**

**SUMMARY OF QUANTITIES**



**RELOCATED EXTERNALLY LIGHTED WIND CONE AND BASE DETAIL**

NOT TO SCALE

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DESIGN BY:	CAL
DRAWN BY:	JRO
CHECKED BY:	CAL
APPROVED BY:	
DATE:	05/12/06
JOB No:	04285-04
ILLINOIS PROJECT:	ARR-3468
A.I.P. PROJECT:	3-17-0003-B31
<b>FINAL SUBMITTAL</b>	
SHEET	3 OF 67 SHEETS

AURORA MUNICIPAL AIRPORT, AURORA, IL
GOVERNMENT FURNISHED PROPERTY LIST

March 1, 2006

Government Furnished Property List for ILS

Table with columns: Item, NSN, Description, Qty, Unit, Source. Lists various MALS equipment, lamps, filters, and interface units.

The above material will be furnished to the contractor at the Aurora Municipal Airport, or at local FAA storage facility. For access to these items, contact Dan Geist SSC technician 815/509-3200 or the FAA contacting officer for FAA purchased material.

Table with columns: Qty, Nomenclature, FAA Type No., Overall Dimensions, Weight and Volume. Lists electronic subsystems, antennas, and antenna installation kits.

Government Furnished Property Parts List for LOC

Table with columns: ITEM, QTY, DESCRIPTION, WPN. Lists various support assemblies, bolts, washers, nuts, and other hardware.

Government Furnished Property Parts List for Glide Slope

Table with columns: ITEM, QTY, DESCRIPTION, WPN. Lists washers, nuts, tower sections, rails, plates, bolts, clamps, light, bulb, assembly, frame, channel, angle, lock, nut, and cable parts.

\*(Note 3) Part of Glide Slope Tower (WPN 447820-0003) No Wilcox Part Number Available
\*(Note 4) Wilcox provides 36 of items 2 and 3 for assembly of Tower sections.

Contractor Furnished Property Parts List for LOC

Table with columns: ITEM, QTY, DESCRIPTION, WPN. Lists contractor furnished parts like bolts, washers, nuts, EL sweep, PVC rigid, sealing locknut, grounding bushing, CND, grounding lock nut, CND rod, EL sweep.

Table listing various shop accessories like storage cabinets, extinguisher, magnifier bench lamp, wall clock, first aid kit, waste basket, flashlight, battery, ESD wrist strap, ESD wrist strap tester, chair foot stool, stool, test lead holder, step stool, and various wattmeters.

FILE: govlist.dwg
LAYOUT: Layout1
UPDATE BY: johse
SURVEY BOOK #
DATE: Wed 5/10/06 10:25am
XREF DWG: tbcint.dwg
tb.dwg

REVISIONS

Table with columns: NUMBER, BY, DATE for revision tracking.

Scale bar: 0, 1, 2. THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

AURORA MUNICIPAL AIRPORT
AURORA, ILLINOIS
CONSTRUCT RUNWAY 33 ILS,
RELOCATE RUNWAY 9 LOCALIZER
GOVERNMENT FURNISHED PROPERTY LIST

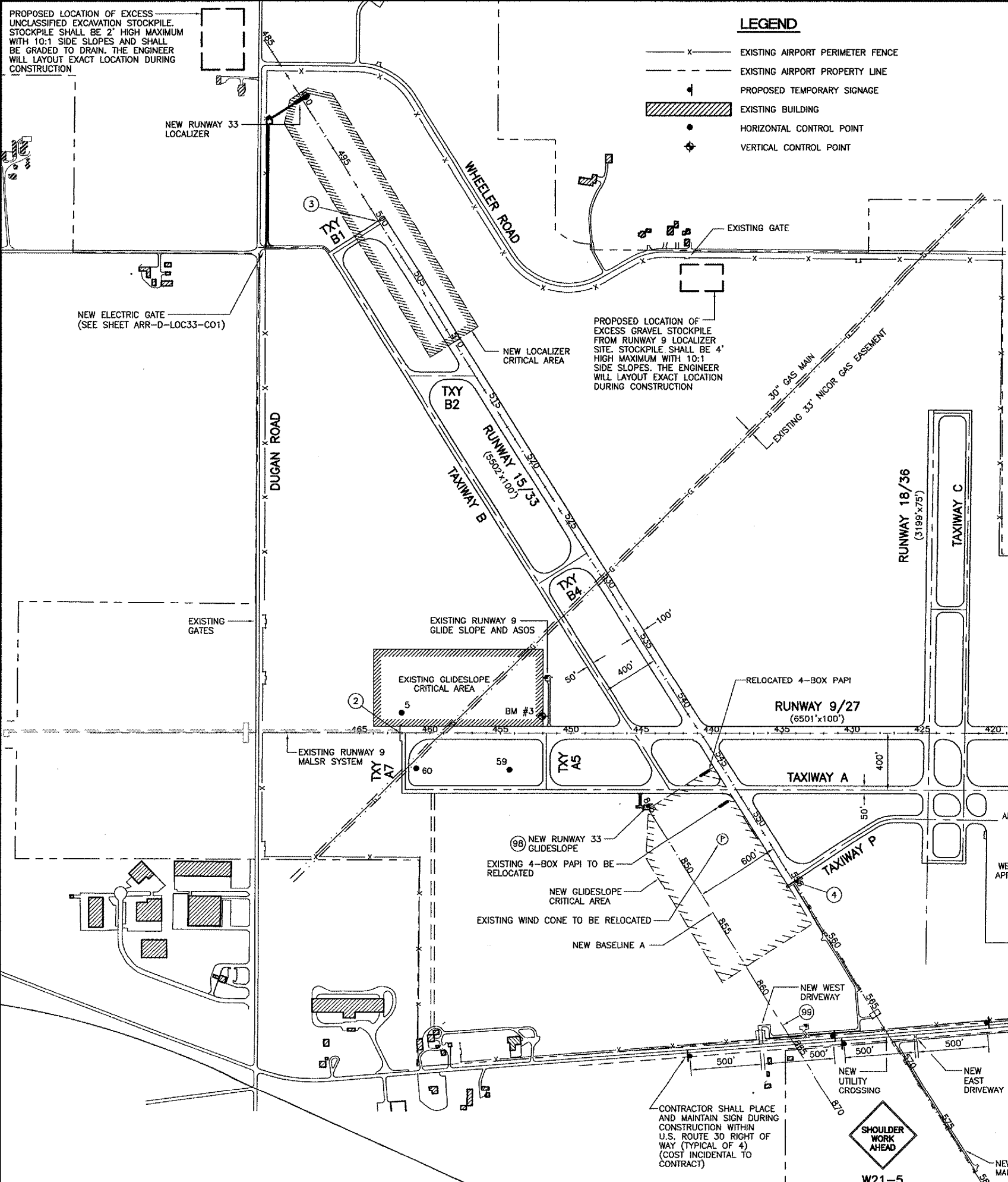
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Table with design and approval information: DESIGN BY: CAL, DRAWN BY: JRO, CHECKED BY: CAL, APPROVED BY: (blank), DATE: 05/12/06, JOB No: 04285-04

ILLINOIS PROJECT: ARR-3468
A.I.P. PROJECT: 3-17-0003-831
FINAL SUBMITTAL





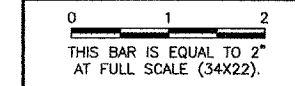
**LEGEND**

- x — EXISTING AIRPORT PERIMETER FENCE
- - - EXISTING AIRPORT PROPERTY LINE
- + — PROPOSED TEMPORARY SIGNAGE
- ▨ EXISTING BUILDING
- HORIZONTAL CONTROL POINT
- ⊕ VERTICAL CONTROL POINT

HORIZONTAL CONTROL				
PT	DESCRIPTION	NORTHING	EASTING	STATION
1	RUNWAY 27 END	1858958.041	949277.645	STA. 397+01.69 @ RWY 9/27
2	RUNWAY 9 END	1858871.623	949277.070	STA. 462+03.35 @ RWY 9/27
3	RUNWAY 15 END	1862470.141	942567.455	STA. 499+99.45 @ RWY 15/33
4	RUNWAY 33 END	1857865.361	945579.865	STA. 555+02.05 @ RWY 15/33
5	PERMANENT SURVEY MARKER	1859021.610	942775.869	STA. 462+02.05, 150' RT RWY 9/27
52	IRON ROD W/ CAP	1859279.410	947616.670	STA. 413+58.25, 343.42' RT RWY 9/27
53	IRON ROD W/ CAP	1859218.465	949556.498	STA. 394+19.40, 256.69' RT RWY 9/27
55	IRON ROD W/ CAP	1858693.794	948993.585	STA. 399+89.24, 260.45' LT RWY 9/27
56	CUT "X" ON CONCRETE	1858375.244	948380.373	STA. 406+06.63, 570.82' LT RWY 9/27
59	IRON ROD W/ CAP	1858620.205	943547.025	STA. 454+36.29, 261.62' LT RWY 9/27
60	IRON ROD W/ CAP	1858620.804	942884.514	STA. 460+98.74, 252.21' LT RWY 9/27
98	RUNWAY 33 GUIDE SLOPE	1858359.936	944539.435	STA. 845+18.47 BASELINE A
99	STA. 863+00 BASELINE A	1858689.016	945514.650	STA. 863+00 BASELINE A

VERTICAL CONTROL		
NO.	DESCRIPTION	ELEVATION
BM #1	STA. ±401+02, 143' RT. @ RUNWAY 9/27 USGS MONUMENT STAMPED "ARR A 1981"	703.51
BM #3	STA. ±452+01, 124' RT. @ RUNWAY 9/27 BRASS DISC	696.77
BM #4	STA. ±10+41 @ TAXIWAY A3 EXTENDED NORTHWEST CORNER FLAG POLE FOUNDATION	703.61

REVISIONS		
NUMBER	BY	DATE

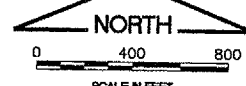


**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER  
 SITE PLAN/  
 PROJECT CONTROL PLAN**

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DESIGN BY:	CAL
DRAWN BY:	JRO
CHECKED BY:	CAL
APPROVED BY:	
DATE:	05/12/06
JOB No:	04285-04
ILLINOIS PROJECT: ARR-3468 A.I.P. PROJECT: 3-17-003-B31 <b>FINAL SUBMITTAL</b>	
SHEET 5 OF 67 SHEETS	

EXISTING AIRPORT ENTRANCE ROAD SHALL NOT BE USED AS A HAUL ROAD BY CONTRACTORS OR THEIR EMPLOYEES. CONTRACTOR SHALL PLACE AND MAINTAIN CONSTRUCTION SIGNS SAYING "NO CONSTRUCTION TRAFFIC" COST INCIDENTAL TO CONTRACT.



CONTRACTOR SHALL PLACE AND MAINTAIN SIGN DURING CONSTRUCTION WITHIN U.S. ROUTE 30 RIGHT OF WAY (TYPICAL OF 4) (COST INCIDENTAL TO CONTRACT)

**GENERAL NOTES**

- THE SUGGESTED SEQUENCE OF CONSTRUCTION SHOWN IS INTENDED TO ALLOW FOR THE ORDERLY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS WHILE MAINTAINING AIRCRAFT ACCESS AT ALL TIMES. THE PHASING SHOWN IS A SUGGESTED SEQUENCE OF CONSTRUCTION ONLY. THIS SEQUENCE MAY BE MODIFIED HOWEVER, ALTERNATE STAGING PLANS MUST MAINTAIN AIRPORT OPERATIONS TO THE SATISFACTION OF THE AIRPORT DIRECTOR AND RESIDENT ENGINEER AND BE APPROVED BY THE DIVISION OF AERONAUTICS AND FEDERAL AVIATION ADMINISTRATION.
- ALL OPERATIONS SHALL BE IN CONFORMANCE WITH AC 150/5370-2E (LATEST EDITION) SAFETY DURING CONSTRUCTION.
- CONTRACTOR'S EQUIPMENT SHALL BE STORED IN THE EQUIPMENT AND MATERIAL STORAGE AREA WHEN CONSTRUCTION IS NOT IN PROGRESS.
- THE AIRPORT DIRECTOR IN CONSULTATION WITH THE RESIDENT ENGINEER SHALL HAVE FINAL SAY IN THE APPROVAL OF THE CONSTRUCTION OPERATING SEQUENCE AS IT RELATES TO PEDESTRIAN, VEHICULAR AND AIRCRAFT SAFETY.
- ALL EXISTING PAVEMENTS, DRIVES OR ANY OTHER AREAS USED AS A HAUL ROAD OR STORAGE AREA BY THE CONTRACTOR SHALL BE RESTORED IN KIND TO THEIR PRE-CONSTRUCTION CONDITION OR TO THE SATISFACTION OF THE RESIDENT ENGINEER AND AIRPORT DIRECTOR. THE COST OF MAINTAINING, REPAIRING OR CONSTRUCTING THESE PAVEMENTS AND AREAS SHALL BE INCIDENTAL TO THE CONTRACT. EXISTING AREAS OUTSIDE THE PROJECT LIMITS WHICH ARE DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY HIM AT HIS EXPENSE TO THE SATISFACTION OF THE RESIDENT ENGINEER AND THE AIRPORT DIRECTOR.
- THE CONTRACTOR SHALL KEEP ALL TRUCKS, EQUIPMENT AND MATERIALS OFF OF THE EXISTING TAXIWAYS, APRONS AND RUNWAYS OUTSIDE OF THE PROJECT LIMITS EXCEPT AS SHOWN OR WITH THE PRIOR PERMISSION OF THE ENGINEER.
- WORK PERFORMED BY THE CONTRACTOR OUTSIDE OF DAYLIGHT HOURS SHALL BE DONE UNDER SUFFICIENT ARTIFICIAL LIGHTING TO ALLOW FOR PROPER CONSTRUCTION METHODS AND INSPECTIONS. LIGHT SHALL CONSIST OF MOVABLE POLE MOUNTED FLOODLIGHTS AND/OR SPOTLIGHTS OF SUFFICIENT NUMBER TO ILLUMINATE THE WORK AREA. VEHICLE HEADLIGHTS WILL BE ALLOWED ONLY IN ADDITION TO OTHER LIGHTS MENTIONED ABOVE. LIGHTING SHALL BE AS APPROVED BY THE ENGINEER AND SHALL NOT BE USED IF IT AFFECTS FLIGHT SAFETY AND AIRPORT OPERATIONS. CONTRACTOR'S WORK HOURS SHALL BE IN ACCORDANCE WITH LOCAL ORDINANCES.
- THE CONTRACTOR WILL BE REQUIRED TO HAVE A SWEEPER AVAILABLE FOR USE AT ALL TIMES. WHEN ACTIVE AIRFIELD PAVEMENTS ARE UTILIZED AS HAUL ROADS BY THE CONTRACTOR, MATERIAL TRACKED ON TO THE PAVEMENT SHALL BE CONTINUALLY REMOVED WITH SAID SWEEPER. THIS SWEEPING SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- MATERIALS REMOVED FROM THE PROJECT WILL BE DISPOSED OF OFF AIRPORT PROPERTY, UNLESS NOTED OTHERWISE.
- PAYMENT FOR TRAFFIC CONTROL INCLUDING, BUT NOT LIMITED TO BARRICADES, SIGNING, RUNWAY CLOSED MARKERS, AIR OPERATIONS AREA (A.O.A.) LATHE AND RIBBON, ETC. SHALL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. BARRICADES AT 10-FOOT CENTERS WITH ONE ORANGE FLAG (24" x 24") BETWEEN EACH SET OF BARRICADES SHALL BE PLACED AT THE LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. BARRICADES SHALL BE WEIGHED TO PREVENT BLOWING OVER. BARRICADES SHALL HAVE A FLASHING RED LIGHT AND CONFORM TO DOT STANDARD 702001, TYPE II. BARRICADE INSTALLATION WILL BE REQUIRED PRIOR TO ACCESS TO THE A.O.A. BY CONTRACTOR'S WORKERS. EQUIPMENT OR MATERIAL, SIGNS SHALL BE PLACED AT EACH TAXIWAY/RUNWAY CLOSURE LOCATION AND SHALL BE ATTACHED TO THE BARRICADES. EACH BARRICADE LOCATION SHALL CONSIST OF ONE "DO NOT ENTER" SIGN AND ONE "AIRCRAFT MOVEMENT AREA" SIGN. SIGNS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- THE CONTRACTOR SHALL CONTACT THE AIRPORT DIRECTOR AND RESIDENT ENGINEER FIVE (5) WORKING DAYS IN ADVANCE OF THE START OF CONSTRUCTION SO THAT THE APPROPRIATE NOTAMS MAY BE ISSUED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL CONSTRUCTION ACCESS GATES CLOSED DURING NON WORKING HOURS. THE CONTRACTOR SHALL PROVIDE A SIGN AT THE ACCESS GATE SAYING "AUTHORIZED PERSONNEL ONLY". THE CONTRACTOR SHALL CLOSE AND LOCK THE ACCESS GATE UPON LEAVING THE SITE. THROUGHOUT THE DURATION OF THE CONTRACT, ANY DAMAGES TO THE ACCESS ROAD, ACCESS GATE OR FENCING ADJACENT TO THE PROJECT SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE RESIDENT ENGINEER. ALL COSTS RELATING TO CONTRACTOR'S ACCESS AND SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR WILL BE REQUIRED TO PUT AIRPORT FLAGS AND HAVE BEACON LIGHTS ON ALL EQUIPMENT AT ALL TIMES DURING CONSTRUCTION. SEE FLAG DETAIL ON THE SEQUENCE OF CONSTRUCTION DETAIL SHEET.
- IN THE CASE OF AN EMERGENCY, CONTRACTOR SHALL NOTIFY AIRPORT DIRECTOR AND THE RESIDENT ENGINEER IMMEDIATELY.
- DURING ADVERSE WEATHER, THE CONTRACTOR SHALL MAKE PROVISIONS FOR ACCESS TO THE WORK AT NO ADDITIONAL COST TO THE CONTRACT. NO EXTENSION OF CONTRACT TIME WILL BE CONSIDERED FOR DELAYS DUE TO LACK OF ADEQUATE ACCESS TO THE WORK.
- THE TALLEST PIECE OF CONSTRUCTION EQUIPMENT IS ANTICIPATED TO CRANE WHICH HAS A MAXIMUM HEIGHT OF 65 FEET TO ERECT THE GLIDESLOPE ANTENNA.
- IF RUNWAY NUMERALS ARE PRESENT DURING CONSTRUCTION, CONTRACTOR SHALL PLACE CLOSED RUNWAY MARKER OVER NUMERALS AS DETAILED, OTHERWISE PLACE IN TURF OFF END OF RUNWAY AS DETAILED ON THE SEQUENCE OF CONSTRUCTION DETAILS SHEET.
- AURORA MUNICIPAL AIRPORT WILL BE IN OPERATION DURING THE CONSTRUCTION OF THIS PROJECT. COORDINATION OF WORK WITH THE AIRPORT IS MANDATORY SO AS TO MINIMIZE IMPACTS ON AIRPORT OPERATIONS.
- APPROXIMATE LOCATION OF HAUL ROUTES ON THE AIRPORT SITE ARE SHOWN ON THE GENERAL PROJECT LAYOUT AND THE SEQUENCE OF CONSTRUCTION PLAN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES (STATE HIGHWAYS, COUNTY ROADS OR CITY STREETS) WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. ON-SITE ROADS USED AS HAUL ROUTES SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE TO THEIR ORIGINAL CONDITION UPON COMPLETION OF BEING USED AS A HAUL ROUTE. THE BEFORE AND AFTER CONDITION OF ON-SITE HAUL ROUTES SHALL BE JOINTLY INSPECTED AND DETERMINED BY THE CONTRACTOR AND THE ENGINEER. FENCING, DRAINAGE, GRADING AND OTHER MISCELLANEOUS CONSTRUCTION REQUIRED TO CONSTRUCT TEMPORARY HAUL ROUTES OR ACCESS POINTS ON THE AIRPORT WILL BE THE CONTRACTOR'S TOTAL RESPONSIBILITY AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO THE WORK. ALL ON-SITE ACCESS ROADS TO AIRPORT FACILITIES SHALL REMAIN OPEN AND MAINTAINED AT ALL TIMES.

- MOBILIZATION/EQUIPMENT STORAGE AREA WILL BE MADE AVAILABLE FOR CONTRACTOR'S MOBILIZATION AND STORAGE AS SHOWN ON THE PLANS. THIS AREA SHALL BE RESTORED TO THE ORIGINAL CONDITION UPON COMPLETION OF THE PROJECT AT THE CONTRACTOR'S EXPENSE.
- LOCATION OF KNOWN EXISTING AIRPORT UNDERGROUND CABLES ARE SHOWN ON THE PLANS AND MUST BE VERIFIED BY THE CONTRACTOR. REPAIR OF DAMAGED CABLE MUST BE STARTED IMMEDIATELY AND CONTINUED UNTIL COMPLETED. ALL SUCH REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS, OR AS DIRECTED BY THE OWNER OF THE CABLE, AND SHALL BE AT THE CONTRACTOR'S EXPENSE. IF FAA CABLES ARE DAMAGED, REPAIRS SHALL BE DONE FROM POINT TO POINT IN ACCORDANCE WITH FAA REQUIREMENTS AND IN THE PRESENCE OF A FAA REPRESENTATIVE. THE OWNER MAY ELECT TO HAVE THE REPAIR PERFORMED BY OTHERS IN WHICH CASE THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING THE INCURRED COSTS OF REPAIRS.
- COORDINATION MEETINGS - THE CONTRACTOR SHALL CONDUCT WEEKLY COORDINATION MEETINGS TO DISCUSS WORK AREAS AND SCHEDULING, ETC. WITH THE ENGINEER, AIRPORT OPERATIONS, FAA, AND OTHER APPROPRIATE OFFICIALS. MINUTES FROM THE WEEKLY MEETINGS SHALL BE PREPARED BY THE CONTRACTOR, FURNISHED TO ALL ATTENDEES PRIOR TO THE SUBSEQUENT MEETING, AND KEPT ON FILE AT THE FIELD OFFICE. THE COORDINATION MEETING COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- THE CONTRACTOR SHALL PROVIDE THE PHONE NUMBERS OF THREE PERSONNEL, INCLUDING THE PROJECT SUPERINTENDENT, WHO MAY BE CONTACTED IN AN EMERGENCY. PERSONNEL SHALL BE ON CALL 24 HOURS PER DAY FOR MAINTAINING AIRPORT HAZARD LIGHTING AND BARRICADES.
- DRAINAGE MODIFICATIONS SHALL BE SEQUENCED TO PROVIDE POSITIVE DRAINAGE AT ALL TIMES AT NO ADDITIONAL COST TO THE CONTRACT.
- VEHICLES AND EQUIPMENT SHALL NOT BE ALLOWED WITHIN 65' FROM ACTIVE TAXIWAYS AND 200' FROM ACTIVE RUNWAYS UNLESS OTHERWISE APPROVED BY THE AIRPORT DIRECTOR.
- CONTRACTOR SHALL STORE EQUIPMENT AND MATERIALS/STOCKPILE IN SUCH A MANNER AS NOT TO VIOLATE FEDERAL AVIATION ADMINISTRATION PART 77 SURFACES OR RUNWAY AND TAXIWAY SAFETY AREAS.
- ALL EXISTING TAXIWAY AND RUNWAY AIRFIELD LIGHTING CIRCUITS, FAA CABLES AND OTHER ELECTRICAL CABLES SHALL REMAIN IN SERVICE AT ALL TIMES. ALL EXISTING LIGHTING AND VAULT EQUIPMENT SHALL REMAIN IN SERVICE UNTIL PROPOSED IMPROVEMENTS ARE INSTALLED AND OPERATIONAL, UNLESS OTHERWISE APPROVED BY THE ENGINEER. ANY CABLES DAMAGED BY THE CONTRACTOR SHALL BE IMMEDIATELY REPAIRED AT HIS EXPENSE.
- COORDINATION BY THE CONTRACTOR WITH THE EXISTING UTILITIES SHALL BE COMPLETED BEFORE CONSTRUCTION IS STARTED. CONTRACTOR IS REFERRED TO SECTION 50-17 OF THE SPECIAL PROVISIONS FOR SPECIFIC REQUIREMENTS. THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER OR THE DESIGN ENGINEER ASSUME ANY RESPONSIBILITY WHATEVER IN RESPECT TO THE ACCURACY, COMPLETENESS OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED THAT THE LOCATIONS, SIZE AND TYPE MATERIAL OF EXISTING UNDERGROUND UTILITIES AS INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED DURING CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY OF HIS OPERATIONAL PLANS. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR DETAILED INFORMATION AND ASSISTANCE IN LOCATING UTILITIES. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY, THE RESIDENT ENGINEER AND THE AIRPORT DIRECTOR. ANY SUCH MAINS AND/OR SERVICES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED IMMEDIATELY AT HIS EXPENSE TO THE SATISFACTION OF THE RESIDENT ENGINEER AND AIRPORT DIRECTOR.
- ALL AIRFIELD LIGHTING AND LIGHTING GUIDANCE SYSTEMS (NAVAIDS) LOCATED WITHIN AND IMMEDIATELY ADJACENT TO THE CONTRACTOR'S WORK ZONE SHALL BE CHECKED FOR OPERATIONAL CONDITION PRIOR TO THE DEPARTURE FROM THE AIRPORT WITH THE AIRPORT MAINTENANCE DIRECTOR. ANY DEFICIENCIES IN THESE SYSTEMS DUE TO THE ACTS OF CONTRACTOR OR HIS SUBCONTRACTORS, SUPPLIERS OR CONSULTANTS SHALL BE REPAIRED IMMEDIATELY.
- CONTRACTOR SHALL BE LICENSED WITH THE VILLAGE OF SUGAR GROVE.
- BY 12 P.M. EVERY FRIDAY THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL PROVIDE THE RESIDENT ENGINEER WITH A LIST OF SCHEDULED WORK FOR THE FOLLOWING WEEK.

**CONTRACTOR CROSSING RUNWAY AND TAXIWAY AIR OPERATIONS AREA (A.O.A.)**

- ANYTIME THE CONTRACTOR IS REQUIRED TO UTILIZE OR CROSS ACTIVE AIRFIELD PAVEMENTS FOR ACCESS TO AND FROM THE WORK ZONE, A FULL TIME CROSSING GUARD IN RADIO CONTACT WITH THE CONTROL TOWER SHALL BE FURNISHED BY THE CONTRACTOR FOR MOVEMENTS OF VEHICLES OR EQUIPMENT TO AND FROM THE WORK ZONE. THE RADIO OPERATOR SHALL BE FAMILIAR WITH AIRPORT GROUND CONTROL PROCEDURES AND DEMONSTRATE KNOWLEDGE OF SAME TO THE AIRPORT. THE AIRPORT RESERVES THE RIGHT TO APPROVE THE CROSSING GUARDS. THE CONTRACTOR SHALL PROVIDE THEIR OWN RADIOS. THIS COST SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF MUNICIPAL FINES (\$500 PER OCCURRENCE) DUE TO AIRFIELD INCURSIONS BY HIS EMPLOYEES, SUBCONTRACTORS, SUPPLIERS, CONSULTANTS AND/OR AGENTS.
- ANY PAVEMENT DAMAGED BY CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY HIM TO THE SATISFACTION OF THE RESIDENT ENGINEER AND AIRPORT DIRECTOR AT NO ADDITIONAL COST TO THE OWNER. PAVEMENT SHALL BE CONTINUALLY SWEEPED TO PROVIDE DEBRIS FREE SURFACE DURING ALL HAUL ROAD OPERATIONS. THIS COST SHALL NOT BE PAID SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- WORK WITHIN THE A.O.A. SHALL BE EXPEDITED. ANY DROP OFF SHALL BE ADEQUATELY LIGHTED, SIGNED AND BARRICADED. NO MATERIAL SHALL BE STOCKPILED WITHIN THE A.O.A. SHOULD IT BE NECESSARY FOR THE CONTRACTOR TO TEMPORARILY RELOCATE EQUIPMENT TO ALLOW AIRCRAFT TO PASS, THEY SHALL DO SO AT NO EXTRA COST TO THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT DIRECTOR TWO (2) WORKING DAYS IN ADVANCE OF ANY PLANNED CONSTRUCTION WITHIN THESE LIMITS.

**LIMITATIONS ON CONSTRUCTION WITHIN AIRPORT OPERATIONS AREA (A.O.A.)**

**RUNWAYS:**  
 ANY WORK WITHIN 200' OF THE CENTERLINE OF AN ACTIVE RUNWAY SHALL BE DONE AS SHOWN ON THE SEQUENCE OF CONSTRUCTION PLAN SHEETS, ON ANY DAY WHEN CONSTRUCTION IS WITHIN 200' OF THE CENTERLINE OF THE RUNWAY, THE RUNWAY SHALL BE CLOSED. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT DIRECTOR TWO (2) WORKING DAYS IN ADVANCE OF ANY PLANNED CONSTRUCTION WITHIN THESE LIMITS. WORK SHALL BE EXPEDITED IN THESE AREAS AND AT THE COMPLETION OF THE PHASE THE AREAS SHALL BE SMOOTHLY GRADED TO ALLOW THE RUNWAY TO BE REOPENED. AT LEAST ONE OF THE RUNWAYS SHALL REMAIN IN OPERATION AT ALL TIMES. IF NECESSARY STEEL PLATES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR TO COVER ANY OPEN TRENCHES OR EXCAVATION WITHIN THE A.O.A. IF DURING RUNWAY CLOSURE AN EMERGENCY IS DECLARED, THE CONTRACTOR SHALL IMMEDIATELY CLEAR THE RUNWAY OF ALL VEHICLES, MEN AND EQUIPMENT.

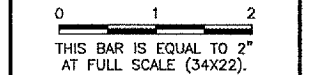
**TAXIWAYS:**  
 CONSTRUCTION WILL BE ALLOWED UP TO THE EDGE OF THE TAXIWAY PAVEMENTS WITHOUT CLOSURE ON A LIMITED BASIS. WORK WITHIN THE A.O.A. SHALL BE EXPEDITED. ANY DROP OFF SHALL BE ADEQUATELY LIGHTED, SIGNED AND BARRICADED. NO MATERIAL SHALL BE STOCKPILED WITHIN THE A.O.A. SHOULD IT BE NECESSARY FOR THE CONTRACTOR TO TEMPORARILY RELOCATE EQUIPMENT TO ALLOW AIRCRAFT TO PASS, THEY SHALL DO SO AT NO EXTRA COST TO THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT DIRECTOR TWO (2) WORKING DAYS IN ADVANCE OF ANY PLANNED CONSTRUCTION WITHIN THESE LIMITS.

**NOTE - ALL PHASES**  
 ALL EXISTING TAXIWAY AND RUNWAY AIRFIELD LIGHTING CIRCUITS, FAA CABLES AND OTHER AIRPORT ELECTRICAL CABLES SHALL REMAIN IN SERVICE UNTIL REPLACED AS ACCEPTABLE TO THE RESIDENT ENGINEER. ALL TEMPORARY CABLING AND SPLICING NECESSARY TO KEEP THE CIRCUITS IN OPERATION SHALL BE CONSIDERED INCIDENTAL TO CONTRACT.

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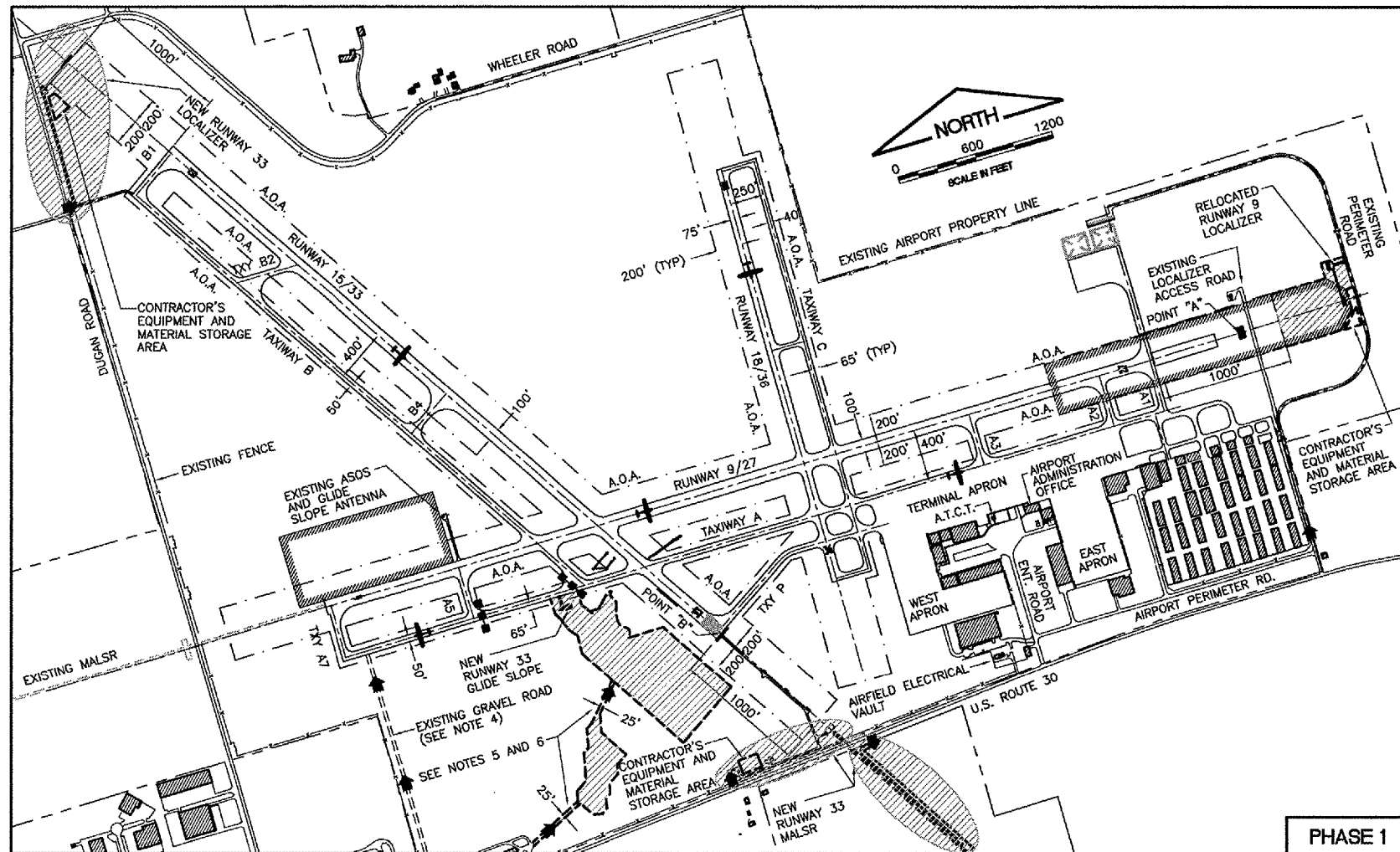


**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS;  
 RELOCATE RUNWAY 9 LOCALIZER**

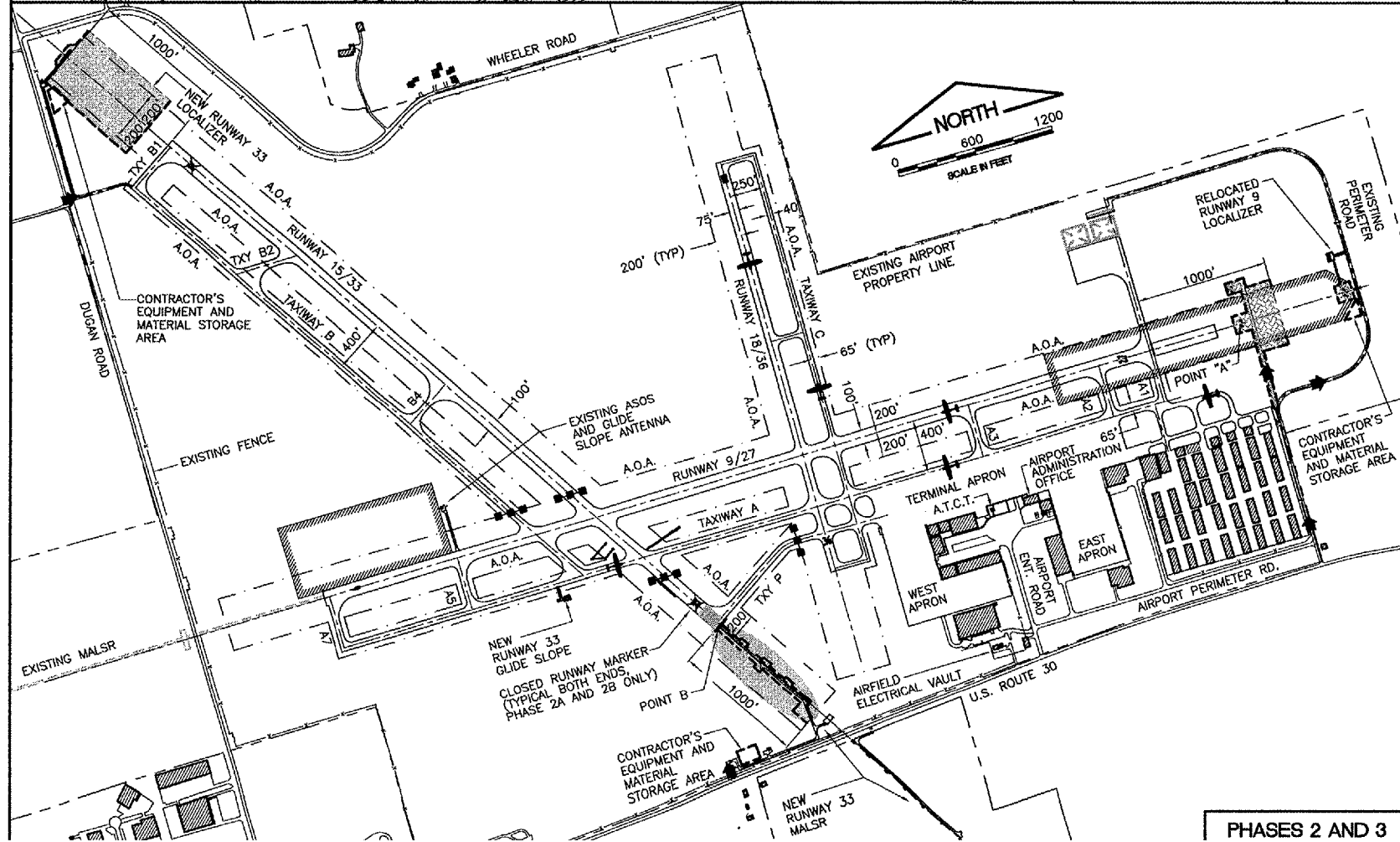
**SEQUENCE OF CONSTRUCTION  
 GENERAL NOTES**

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DRAWN BY:	JRO
CHECKED BY:	CAL
APPROVED BY:	
DATE:	05/12/06
JOB No:	04285-04
ILLINOIS PROJECT: ARR-346B A.I.P. PROJECT: 3-17-0003-B31 <b>FINAL SUBMITTAL</b>	
SHEET	6 OF 67 SHEETS



PHASE 1



PHASES 2 AND 3

**LEGEND**

- PROPOSED GRADING/WORK LIMITS
- [Diagonal Hatching] PROPOSED PHASE 1 IMPROVEMENTS
- [Cross-hatch] PROPOSED PHASE 2 IMPROVEMENTS
- [Stippled] PROPOSED PHASE 3 IMPROVEMENTS
- X TEMPORARY CLOSED RUNWAY MARKER
- AOA AIR OPERATIONS AREA (A.O.A.)  
ACTIVE RUNWAYS 200' CENTERLINE TO A.O.A.  
ACTIVE TAXIWAYS 65' CENTERLINE TO A.O.A.
- ✚ AIRCRAFT MOVEMENT AREAS
- [Dashed Line] BARRICADES WITH FLASHING RED LIGHTS AND SIGNS  
"DO NOT ENTER" AND "AIRCRAFT MOVEMENT AREA"  
(SEE GENERAL NOTE 11 ON PREVIOUS SHEET)
- [Arrow] CONTRACTOR'S ACCESS/HAUL ROAD

**DESIGN AIRCRAFT APPROACH CATEGORY: D  
DESIGN AIRPORT GROUP: III**

GROUND CONTROL FREQUENCY: 121.70  
AIR CONTROL FREQUENCY: 120.60  
MAXIMUM ANTICIPATED HEIGHT  
OF CONSTRUCTION EQUIPMENT: 65'  
(CRANE FOR GLIDESLOPE INSTALLATION)  
CLOSEST CONSTRUCTION POINT TO  
RUNWAY 9/27 (POINT A)  
ELEV. = 702.30  
LATITUDE: 41°46'13.61"  
LONGITUDE: 88°27'32.40"  
RUNWAY 15/33 (POINT B)  
ELEV. = 698.60  
LATITUDE: 41°46'02.68"  
LONGITUDE: 88°28'30.32"

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0 1 2  
THIS BAR IS EQUAL TO 2"  
AT FULL SCALE (34x22).

WORK AREA	ALLOWABLE WORK PERIODS	OPERATIONAL STATUS/RESTRICTIONS
<b>PHASE 1A</b> • RELOCATED RUNWAY 9 LOCALIZER • RUNWAY 33 MALSR OUTSIDE • RUNWAY 15/33 AIR OPERATIONS AREA • RUNWAY 33 LOCALIZER OUTSIDE • RUNWAY 15/33 AIR OPERATIONS AREA • RUNWAY 33 GLIDESLOPE OUTSIDE • TAXIWAY A AIR OPERATIONS AREA	NO RESTRICTIONS	ALL AIRFIELD PAVEMENTS OPEN
<b>PHASE 1B</b> • RUNWAY 33 GLIDESLOPE INSIDE • TAXIWAY A AIR OPERATIONS AREA	AFTER PHASE 1A RUNWAY 33 GLIDESLOPE CRUSHED AGGREGATE BASE OUTSIDE A.O.A. IS COMPLETE	TAXIWAY A CLOSED BETWEEN TAXIWAYS B AND A5 7-DAY MAXIMUM CLOSURE (SEE NOTE 4)
<b>PHASE 2A</b> • RUNWAY 33 MALSR THRESHOLD BAR AND RUNWAY 33 PAPI RELOCATION	AFTER PHASE 1 IS COMPLETE	RUNWAY 15/33 CLOSED 14-DAY MAXIMUM CLOSURE
<b>PHASE 2B</b> • RUNWAY 15/33 PAVEMENT MARKING • RUNWAY 33 MALSR AND LOCALIZER WITHIN RUNWAY 15/33 AIR OPERATIONS AREA	AFTER PHASE 1 IS COMPLETE. WORK SHALL BE CONCURRENT WITH PHASE 2A	RUNWAY 15/33 CLOSED DAILY BETWEEN 7:00 A.M. AND 5:00 P.M. (SEE NOTE 2)
<b>PHASE 3</b> • EXISTING RUNWAY 9 LOCALIZER RELOCATION • SITE RESTORATION WITHIN RUNWAY 9/27 AIR OPERATIONS AREA • LANDSCAPING AS SHOWN ON STORMWATER POLLUTION PREVENTION PLANS	AFTER PHASE 2 IS COMPLETE AND RUNWAY 33 ILS IS OPERATIONAL AND COMMISSIONED (SEE NOTE 3)	RUNWAY 9/27 OR RUNWAY 15/33 CLOSED DAILY BETWEEN 7:00 A.M. AND 5:00 P.M. (SEE NOTES 1 AND 2)

**NOTES**

- RUNWAY 15/33 AND RUNWAY 9/27 MAY NOT BE CLOSED AT THE SAME TIME.
- DURING PERIODS OF RUNWAY DAY CLOSURES, NO OPEN EXCAVATIONS, CONSTRUCTION EQUIPMENT OR STOCKPILED MATERIAL MAY BE LEFT WITHIN THE A.O.A. AT THE END OF EACH WORKING DAY. THE A.O.A. MUST ALSO BE GRADED SMOOTHLY TO THE SATISFACTION OF THE AIRPORT. REFER TO FAA ADVISORY CIRCULAR 150/5370-2E FOR MORE INFORMATION.
- BEFORE STARTING PHASE 3, THE CONTRACTOR IS REQUIRED TO COORDINATE WITH FAA PERSONNEL, THE AIRPORT AND ENGINEER TO ENSURE THAT THE COMPLETE RUNWAY 15/33 ILS IS OPERATIONAL AND COMMISSIONED. THE COMPLETE RUNWAY 15/33 ILS MUST BE OPERATIONAL AND COMMISSIONED BEFORE THE EXISTING RUNWAY 9 LOCALIZER IS TAKEN OUT OF SERVICE AND RELOCATED.
- IN ORDER TO ACCESS THE SITE FOR PHASE 1B, THE CONTRACTOR SHALL BE IN RADIO CONTACT WITH THE AIR TRAFFIC CONTROL TOWER. SEE NOTE 32 ON SHEET 6.
- THE ENGINEER WILL LAYOUT CONTRACTOR ACCESS ROUTE TO WORK AREAS BEFORE CONSTRUCTION BEGINS.
- IF ANY CROPS ARE DAMAGED BY THE CONTRACTOR, HE SHALL BE RESPONSIBLE FOR COMPENSATING THE AIRPORT FOR THE CROP DAMAGE.

**PHASE 1: SUGGESTED SEQUENCE OF CONSTRUCTION**

- MARK AIR OPERATIONS AREA (A.O.A.) AND ADJACENT AIRPORT PROPERTY LINE WITH LATHE AND RIBBON.
- PLACE BARRICADES AS SHOWN OR AS DIRECTED BY THE ENGINEER.
- CONSTRUCT PROPOSED IMPROVEMENTS.

**PHASE 2: SUGGESTED SEQUENCE OF CONSTRUCTION**

- FOR PHASE 2A, COORDINATE CLOSURE OF RUNWAY 15/33 WITH THE ENGINEER. PLACE CLOSED RUNWAY MARKERS.
- PLACE BARRICADES AS SHOWN OR AS DIRECTED BY THE ENGINEER.
- CONSTRUCT PROPOSED IMPROVEMENTS.
- CLEAN PAVEMENTS AND REMOVE BARRICADES.
- OPEN RUNWAY 15/33.
- FOR PHASE 2B, UPON COMPLETION OF PHASE 2A, COORDINATE DAY CLOSURES OF RUNWAY 15/33 WITH THE ENGINEER AND PLACE CLOSED RUNWAY MARKERS (SEE NOTE 2).
- CONSTRUCT PROPOSED IMPROVEMENTS AND SMOOTHLY GRADE WORK AREA.
- OPEN RUNWAY 15/33 AT THE END OF EACH DAY.

**PHASE 3: SUGGESTED SEQUENCE OF CONSTRUCTION**

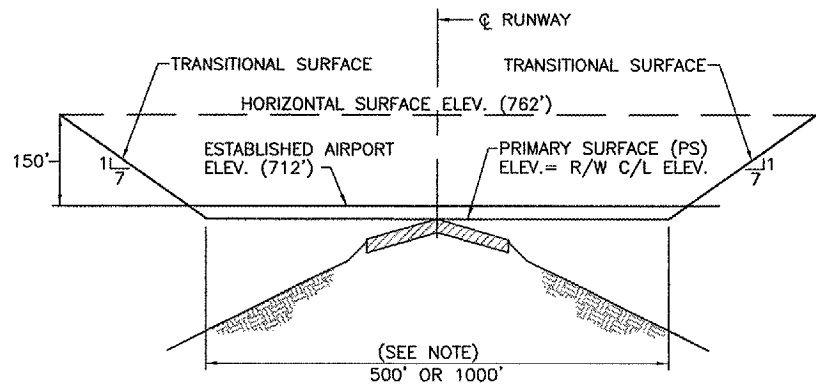
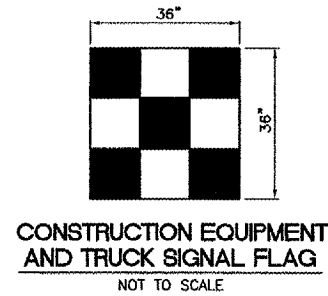
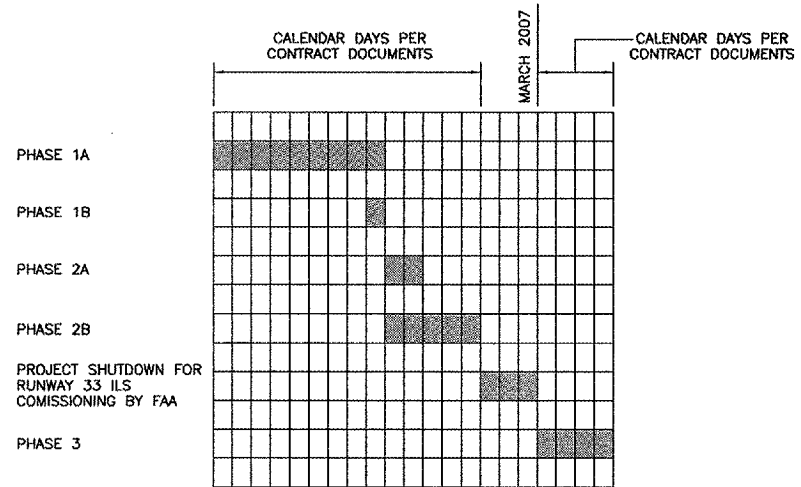
- COORDINATE DAY CLOSURES OF RUNWAY 9/27 OR RUNWAY 15/33 WITH THE ENGINEER AND PLACE CLOSED RUNWAY MARKERS (SEE NOTES 1 AND 2).
- CONSTRUCT PROPOSED IMPROVEMENTS AND SMOOTHLY GRADE WORK AREA.
- LANDSCAPE AS SHOWN ON STORMWATER POLLUTION PREVENTION PLANS.
- OPEN RUNWAY 9/27 OR RUNWAY 15/33 AT THE END OF EACH DAY.

**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER**

**SEQUENCE OF CONSTRUCTION  
 PER AC 150/5370-2E  
 (LATEST EDITION)**

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APPROVED BY:	
DATE:	05/12/06
JOB No:	04285-04
ILLINOIS PROJECT: ARR-3468 A.I.P. PROJECT: 3-17-0003-B31	
<b>FINAL SUBMITTAL</b>	
SHEET 7 OF 67 SHEETS	

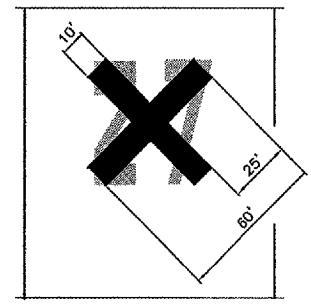


**TYPICAL SECTION F.A.R. PART 77 IMAGINARY SURFACES**  
 NO SCALE

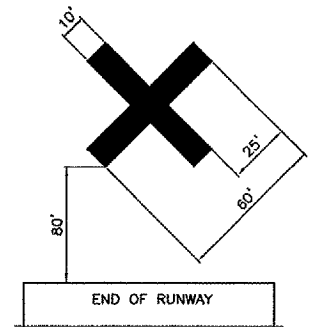
**NOTE:**  
 IMAGINARY SURFACE REQUIREMENTS FOR EXISTING ACTIVE RUNWAYS (R/W) ARE SIMILAR EXCEPT PRIMARY SURFACE (PS) DIMENSIONS VARY  
 R/W 18-36 500' PS (250' LT & RT OF C)  
 R/W 9-27,15/33 1000' PS (500' LT & RT OF C)

**NOTES**

1. THE GENERAL PHASE DURATIONS SHOWN ARE ESTIMATED AND ARE FOR REFERENCE ONLY.
2. NO CALENDAR DAYS WILL BE CHARGED DURING PROJECT SHUTDOWN FOR RUNWAY 33 ILS COMMISSIONING BY FAA.
3. COMMISSIONING OF THE RUNWAY 33 ILS IS ANTICIPATED IN MARCH 2007.
4. THE TOTAL NUMBER OF CALENDAR DAYS SHOWN IN THE CONTRACT DOCUMENTS ARE TO BE DIVIDED AMONGST ALL PHASES AT THE CONTRACTOR'S DISCRETION.



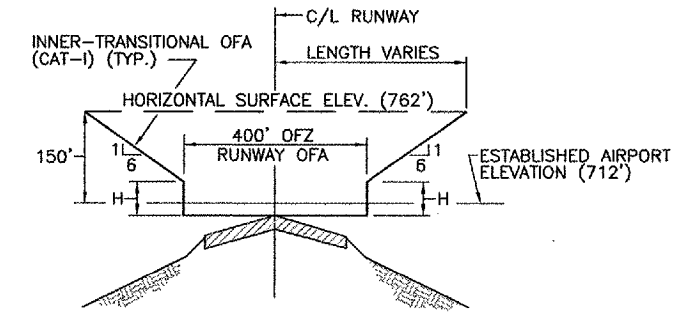
**ON PAVEMENT CLOSED RUNWAY MARKER DETAIL**  
 NOT TO SCALE



**OFF PAVEMENT CLOSED RUNWAY MARKER DETAIL**  
 NOT TO SCALE

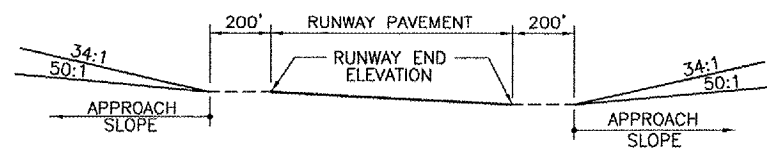
**CLOSED RUNWAY MARKER DETAIL NOTES**

1. CLOSED RUNWAY MARKERS SHALL BE YELLOW.
2. MARKERS SHALL BE MATERIAL APPROVED BY THE ENGINEER. YELLOW SNOW FENCE WILL NOT BE ALLOWED.
3. CONTRACTOR SHALL MAINTAIN AND RELOCATE MARKERS AS SHOWN ON THE PLANS OR AS NEEDED TO FACILITATE CONSTRUCTION
4. MARKERS ON PAVEMENT SHALL BE PLACED OVER EXISTING RUNWAY NUMERALS AS SHOWN.
5. COST OF FURNISHING, INSTALLING, MAINTAINING AND REMOVING MARKERS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
6. DURING VARIOUS PHASES OF WORK, IT WILL BE NECESSARY TO CLOSE RUNWAYS TO AIR TRAFFIC ON A TEMPORARY BASIS AS COORDINATED WITH THE AIRPORT AND TOWER PERSONNEL. THE CONTRACTOR SHALL MARK THE RUNWAYS TO BE CLOSED BY PLACING A YELLOW CROSS AT THE LOCATION AND DIMENSIONS DETAILED ON THIS SHEET. THE CROSSES ARE SHOWN ON THE RESPECTIVE RUNWAYS ACCORDING TO THE VARIOUS PHASES OF WORK AS DELINEATED IN THE SUGGESTED SEQUENCE OF CONSTRUCTION.



**TYPICAL SECTION OBSTACLE FREE ZONE (OFZ)**  
 NO SCALE

RUNWAY	TYPE OF RUNWAY	H (FEET)
9-27	PRECISION (CAT I)	43
15-33	VISUAL	150
18-36		

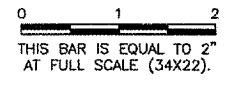


**TYPICAL PROFILE F.A.R. PART 77 IMAGINARY SURFACES**  
 NO SCALE

RUNWAY END	ELEVATION	APPROACH SLOPE
9	707	50:1
27	706	34:1
18	700	20:1
36	700	20:1
15	712	20:1
33	699	20:1

**REVISIONS**

NUMBER	BY	DATE



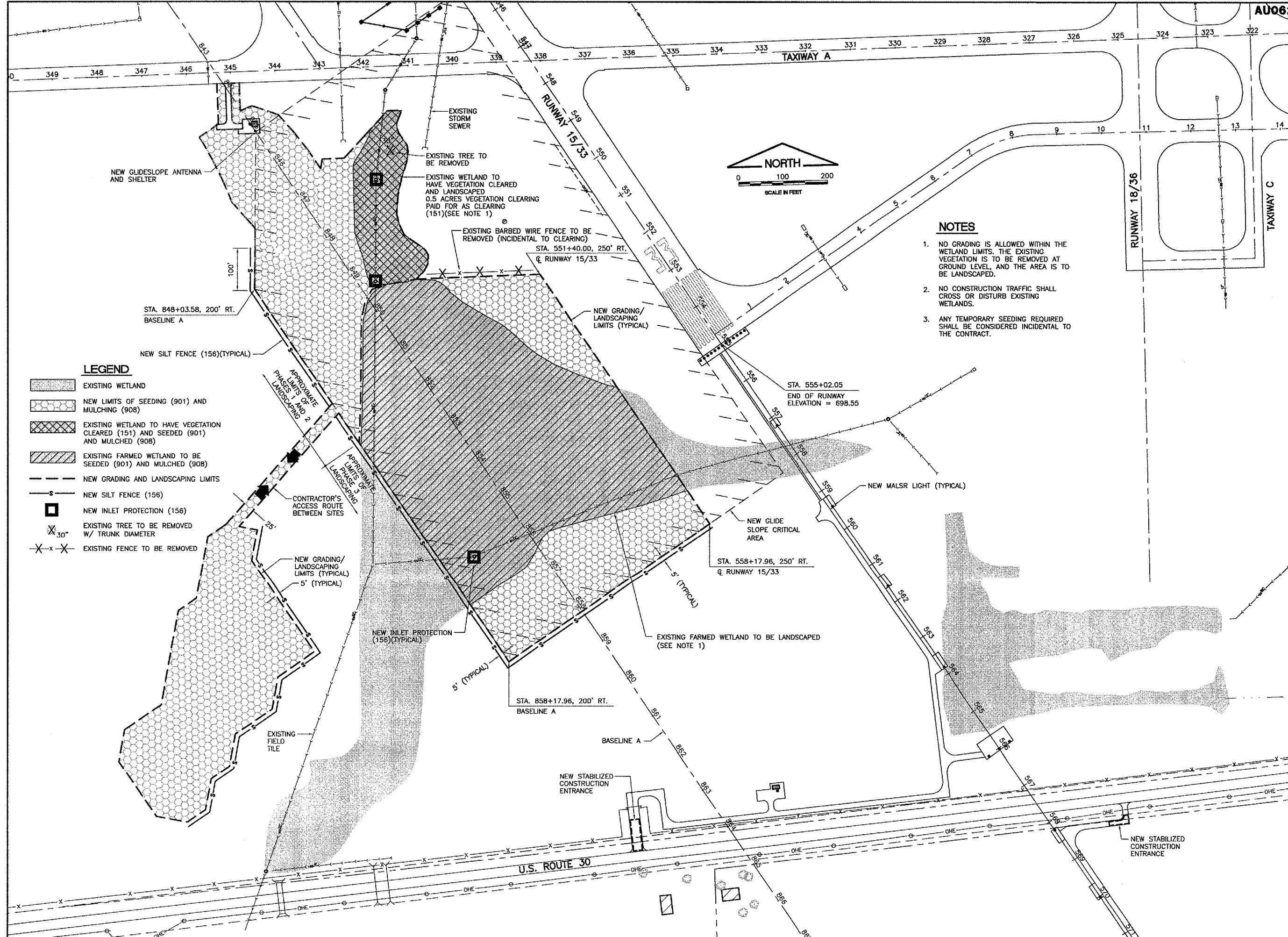
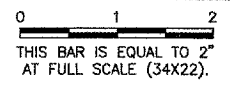
**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER**  
**SEQUENCE OF CONSTRUCTION  
 DETAILS**

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 APPROVED BY:  
 DATE: 05/12/06  
 JOB No: 04285-04  
 ILLINOIS PROJECT: ARR-3468  
 A.I.P. PROJECT: 3-17-0003-B31  
**FINAL SUBMITTAL**  
 SHEET 8 OF 67 SHEETS



REVISIONS		
NUMBER	BY	DATE



- NOTES**
1. NO GRADING IS ALLOWED WITHIN THE WETLAND LIMITS. THE EXISTING VEGETATION IS TO BE REMOVED AT GROUND LEVEL, AND THE AREA IS TO BE LANDSCAPED.
  2. NO CONSTRUCTION TRAFFIC SHALL CROSS OR DISTURB EXISTING WETLANDS.
  3. ANY TEMPORARY SEEDING REQUIRED SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

- LEGEND**
- EXISTING WETLAND
  - NEW LIMITS OF SEEDING (901) AND MULCHING (908)
  - EXISTING WETLAND TO HAVE VEGETATION CLEARED (151) AND SEEDED (901) AND MULCHED (908)
  - EXISTING FARMED WETLAND TO BE SEEDED (901) AND MULCHED (908)
  - NEW GRADING AND LANDSCAPING LIMITS
  - NEW SILT FENCE (156)
  - NEW INLET PROTECTION (156)
  - EXISTING TREE TO BE REMOVED W/ TRUNK DIAMETER
  - EXISTING FENCE TO BE REMOVED

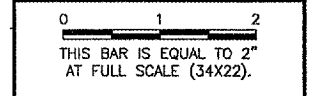
**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER  
 RUNWAY 33 GLIDE SLOPE STORMWATER  
 PREVENTION PLAN**

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ILLINOIS PROJECT: ARR-3468 A.I.P. PROJECT: 3-17-0003-B31 <b>FINAL SUBMITTAL</b>	
SHEET 9 OF 67 SHEETS	



REVISIONS		
NUMBER	BY	DATE

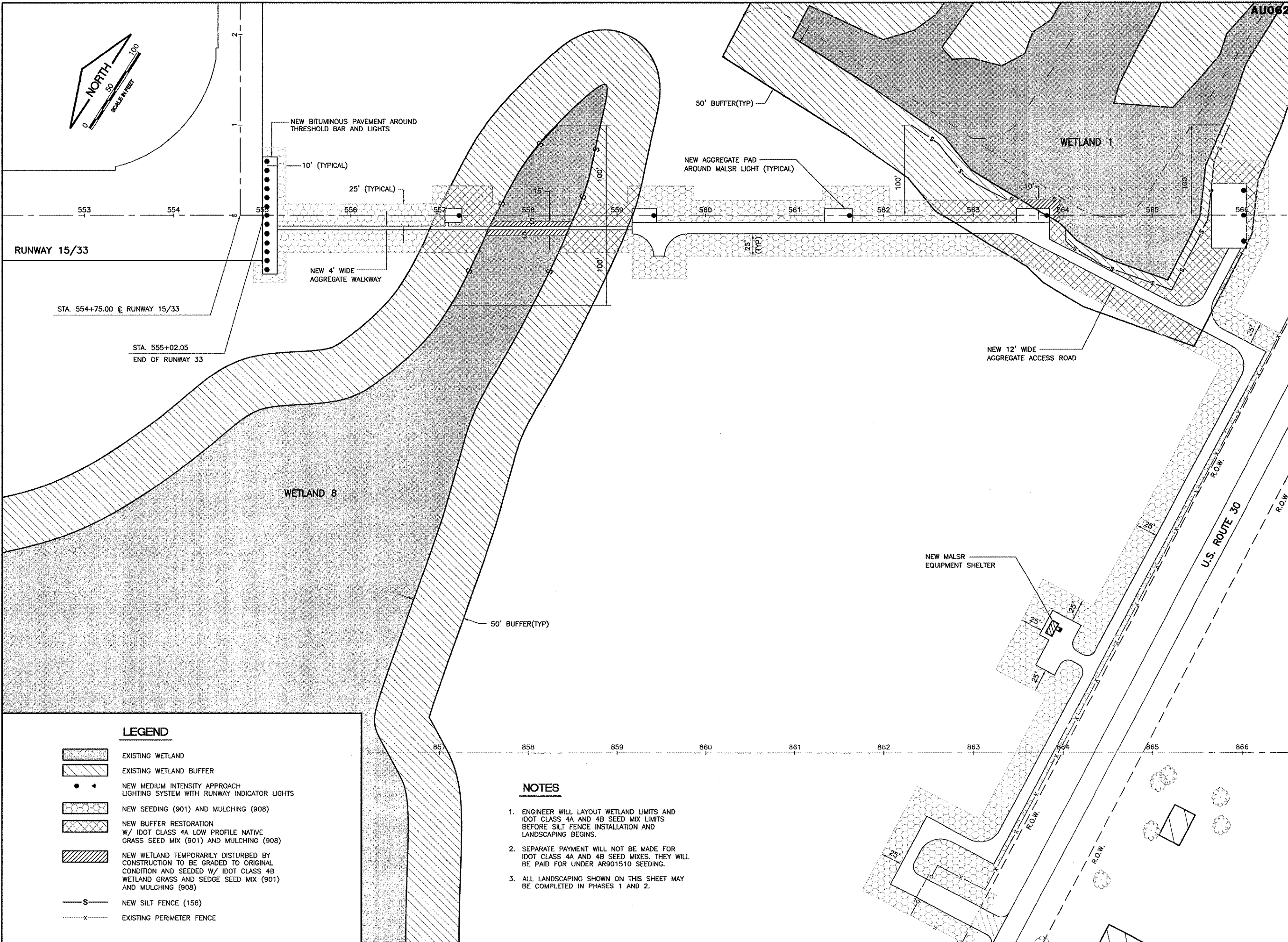


**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS;  
 RELOCATE RUNWAY 9 LOCALIZER**

**RUNWAY 33 MALSr STORMWATER  
 POLLUTION PREVENTION PLAN -  
 SHEET 1**

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SHEET 10 OF 67 SHEETS	



**LEGEND**

	EXISTING WETLAND
	EXISTING WETLAND BUFFER
	NEW MEDIUM INTENSITY APPROACH LIGHTING SYSTEM WITH RUNWAY INDICATOR LIGHTS
	NEW SEEDING (901) AND MULCHING (908)
	NEW BUFFER RESTORATION W/ IDOT CLASS 4A LOW PROFILE NATIVE GRASS SEED MIX (901) AND MULCHING (908)
	NEW WETLAND TEMPORARILY DISTURBED BY CONSTRUCTION TO BE GRADED TO ORIGINAL CONDITION AND SEEDED W/ IDOT CLASS 4B WETLAND GRASS AND SEDGE SEED MIX (901) AND MULCHING (908)
	NEW SILT FENCE (156)
	EXISTING PERIMETER FENCE

- NOTES**
- ENGINEER WILL LAYOUT WETLAND LIMITS AND IDOT CLASS 4A AND 4B SEED MIX LIMITS BEFORE SILT FENCE INSTALLATION AND LANDSCAPING BEGINS.
  - SEPARATE PAYMENT WILL NOT BE MADE FOR IDOT CLASS 4A AND 4B SEED MIXES. THEY WILL BE PAID FOR UNDER AR901510 SEEDING.
  - ALL LANDSCAPING SHOWN ON THIS SHEET MAY BE COMPLETED IN PHASES 1 AND 2.

AU062

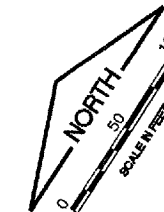
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XREF DWG:  
XREF DWG:  
DATE: .

REVISIONS

NUMBER	BY	DATE



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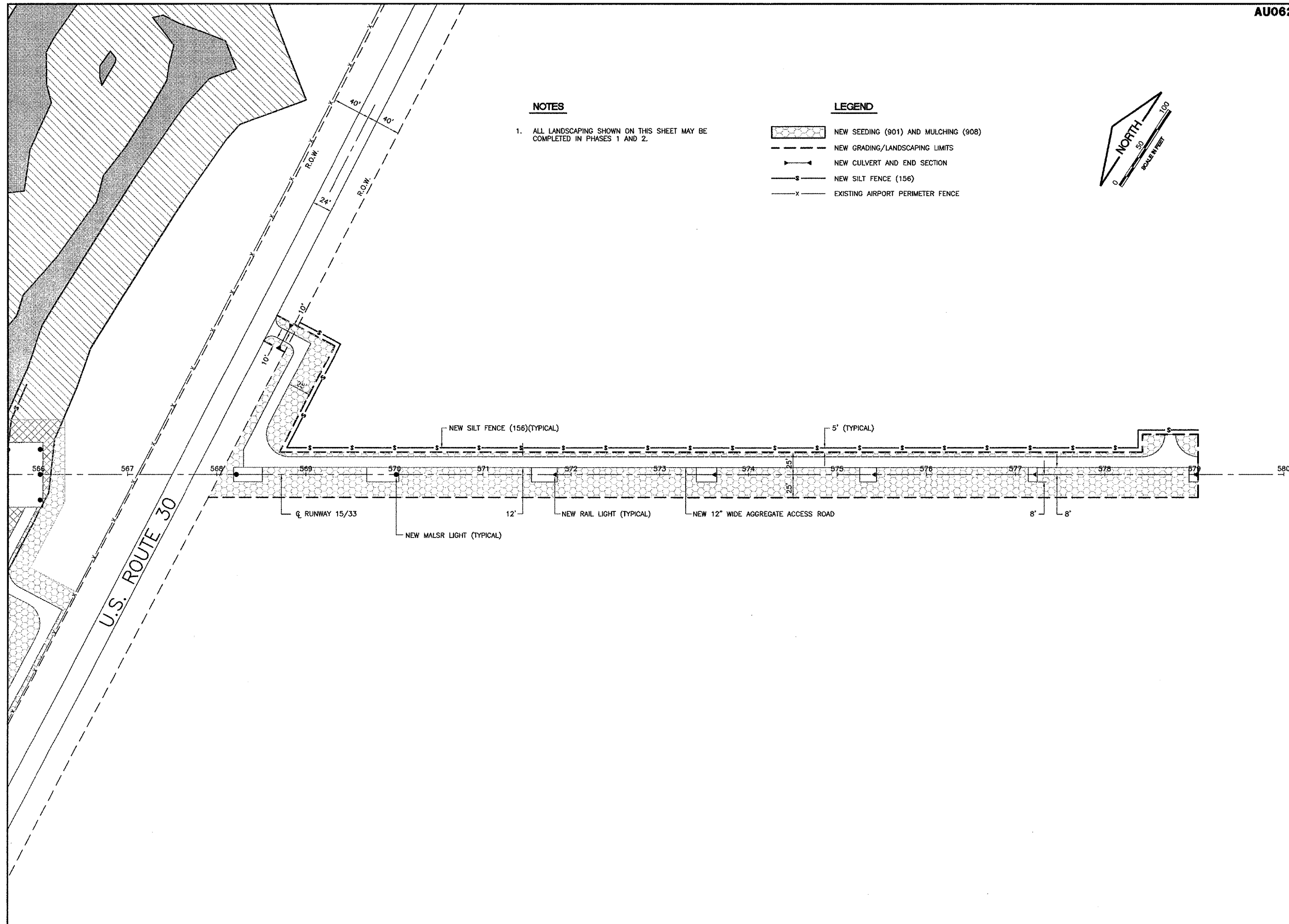


NOTES

1. ALL LANDSCAPING SHOWN ON THIS SHEET MAY BE COMPLETED IN PHASES 1 AND 2.

LEGEND

- NEW SEEDING (901) AND MULCHING (908)
- NEW GRADING/LANDSCAPING LIMITS
- NEW CULVERT AND END SECTION
- NEW SILT FENCE (156)
- EXISTING AIRPORT PERIMETER FENCE

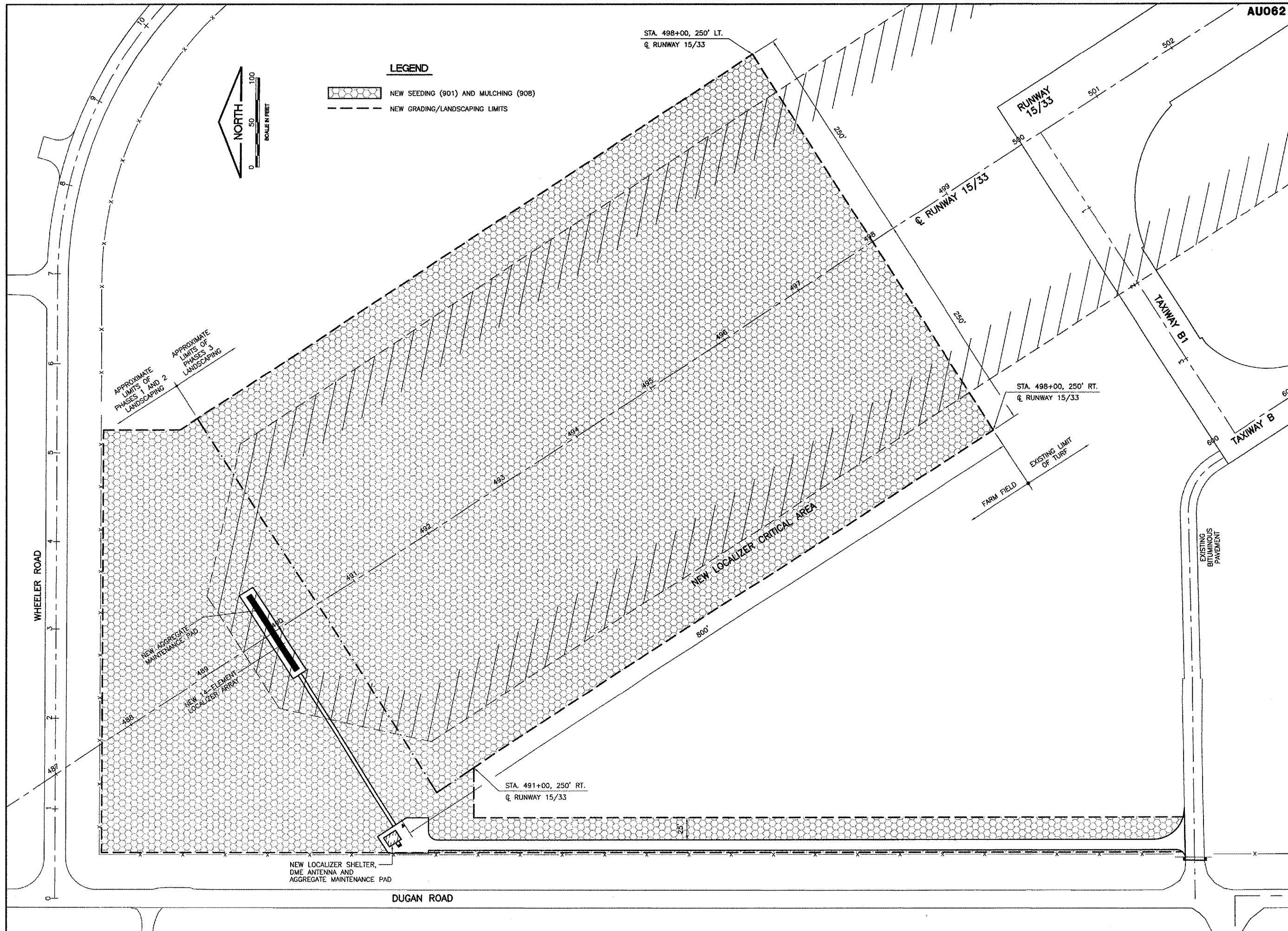




**AURORA MUNICIPAL AIRPORT  
AURORA, ILLINOIS  
CONSTRUCT RUNWAY 33 ILS,  
RELOCATE RUNWAY 9 LOCALIZER  
  
RUNWAY 33 MALS R STORMWATER  
POLLUTION PREVENTION PLAN - SHEET 2**

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ILLINOIS PROJECT: ARR-3468  
A.I.P. PROJECT: 3-17-0003-B31  
**FINAL SUBMITTAL**



**LEGEND**  
 NEW SEEDING (901) AND MULCHING (908)  
 NEW GRADING/LANDSCAPING LIMITS

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 XREF DWG:  
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NUMBER	BY	DATE

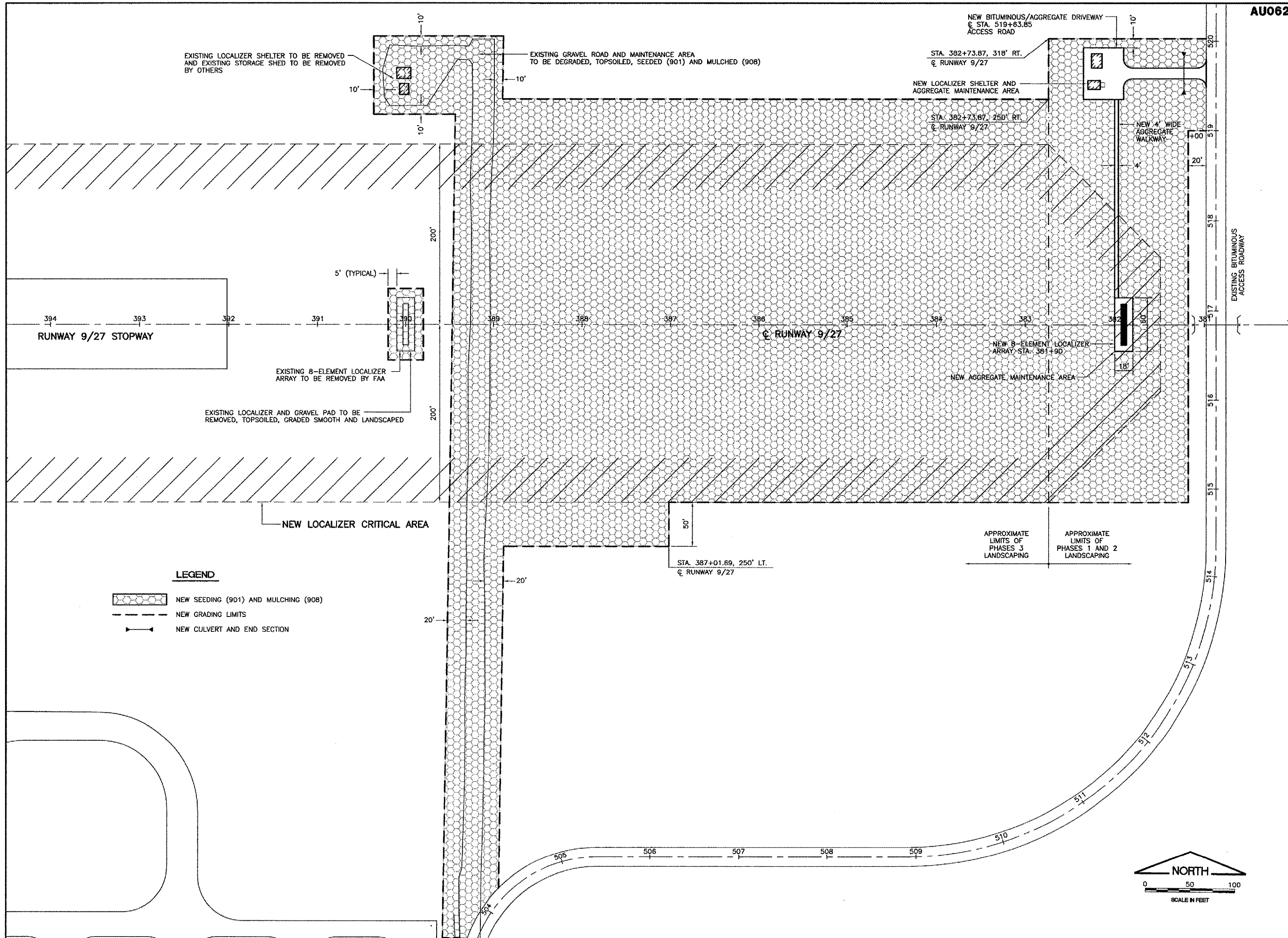
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 AT FULL SCALE (34X22).

**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER  
 RUNWAY 33 LOCALIZER STORMWATER  
 POLLUTION PREVENTION PLAN**

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SHEET 12 OF 67 SHEETS	

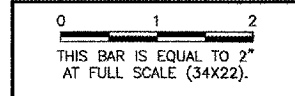




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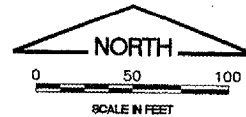
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NUMBER	BY	DATE



**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER  
 RUNWAY 9 LOCALIZER STORMWATER  
 POLLUTION PREVENTION PLAN**

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<b>FINAL SUBMITTAL</b>	
SHEET 13 OF 67 SHEETS	



# STORM WATER POLLUTION PREVENTION PLAN

THE FOLLOWING PLAN IS ESTABLISHED AND INCORPORATED IN THE PROJECT TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE WITH NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE EROSION WITHIN THE CONSTRUCTION SITE AND TO LIMIT SEDIMENTS FROM LEAVING THE SITE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN EROSION CONTROL FACILITIES SHALL BE INSTALLED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION DEPENDING ON THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL INSTALL PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A TIMEFRAME SPECIFIED HEREIN AND AS DIRECTED BY THE ENGINEER, THEREFORE MINIMIZING THE AMOUNT OF AREA SUSCEPTIBLE TO EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING, WHICH WILL BE THE CONTRACTOR'S COST. THE ENGINEER WILL DETERMINE IF ANY TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS, WHICH ARE NOT INCLUDED IN THIS PLAN, SHALL BE ADDED. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN ON THE PLANS.

## SITE DESCRIPTION

THE FOLLOWING IS A DESCRIPTION OF THE CONSTRUCTION ACTIVITY WHICH IS THE SUBJECT OF THIS PLAN:

THIS PROJECT CONSISTS OF CONSTRUCTING A NEW NAVIAD AT THE AURORA AIRPORT. THE PROJECT INCLUDES EXCAVATION, EMBANKMENT, DRAINAGE, VARIOUS PAVEMENT ITEMS, FENCING, ELECTRICAL IMPROVEMENTS AND OTHER MISCELLANEOUS CONSTRUCTION WORK.

THE FOLLOWING IS A DESCRIPTION OF THE INTENDED SEQUENCE OF MAJOR ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE, SUCH AS EXCAVATION AND GRADING:

1. EXCAVATION AND EMBANKMENT WILL BE COMPLETED WITHIN THE PROJECT LIMITS TO GRADE OUT FOR THE PROPOSED ELECTRICAL AND PAVEMENT IMPROVEMENTS.
2. PLACEMENT, MAINTENANCE, REMOVAL AND PROPER CLEAN-UP OF TEMPORARY EROSION CONTROL, SUCH AS PERIMETER SILT FENCE AND INLET PROTECTION.
3. PAVEMENT CONSTRUCTION.
4. ELECTRICAL IMPROVEMENTS AND SHELTER ERECTION.
5. FINAL GRADING AND OTHER MISCELLANEOUS ITEMS.
6. PLACEMENT OF PERMANENT EROSION CONTROL, SUCH AS SEEDING AND MULCHING.

## AREA OF CONSTRUCTION SITE

THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 45 ACRES OF WHICH 9 ACRES WILL BE DISTURBED BY EXCAVATION, GRADING AND OTHER ACTIVITIES.

## OTHER REPORTS, STUDIES AND PLANS WHICH AID IN THE DEVELOPMENT OF THE STORM WATER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS:

1. INFORMATION OF THE SOILS AND TERRAIN WITHIN THE SITE WAS OBTAINED FROM TOPOGRAPHIC SURVEYS AND SOIL BORINGS FROM PREVIOUS PROJECTS THAT WERE UTILIZED FOR THE DEVELOPMENT OF THE PROPOSED TEMPORARY EROSION CONTROL SYSTEMS.
2. PROJECT PLAN DOCUMENTS, SPECIFICATION AND SPECIAL PROVISIONS, AND PLAN DRAWINGS INDICATING DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED AFTER GRADING ACTIVITIES WERE UTILIZED FOR THE PROPOSED PLACEMENT OF THE TEMPORARY EROSION CONTROL SYSTEMS.

## DRAINAGE TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF FROM THIS CONSTRUCTION SITE:

THE CONSTRUCTION SITE DRAINS INTO THE WELCH CREEK THROUGH A STORM SEWER SYSTEM.

## CONTROLS--EROSION CONTROLS AND SEDIMENT CONTROL

DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION

1. THE DRAWINGS, SPECIFICATIONS AND SPECIAL PROVISIONS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES INCLUDE SEEDING AND MULCHING AS DIRECTED BY THE ENGINEER. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. WHERE WORK IS COMPLETE, PERMANENT STABILIZATION SHALL OCCUR WITHIN 14 DAYS OF COMPLETION, AND IN AREAS WHERE WORK HAS TEMPORARILY CEASED FOR 21 DAYS OR MORE, TEMPORARY STABILIZATION SHALL OCCUR BY THE 14TH DAY AFTER WORK HAS CEASED.

AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, INLET PROTECTION AND PERIMETER SILT FENCE SHALL BE INSTALLED AS CALLED OUT IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER 1LR10, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES.

## DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:

DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED. THE CONTRACTOR SHALL NOT USE THIS AREA FOR STAGING (EXCEPT AS DESCRIBED ON THE PLANS AND DIRECTED BY THE ENGINEER), PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.

1. WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.
2. EARTH STOCKPILES AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE MORE THAN (3) DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES AND SHALL BE INCIDENTAL TO THE CONTRACT. STOCKPILES SHALL BE TEMPORARILY SEEDED AND MULCHED, WHICH WILL BE INCIDENTAL TO THE CONTRACT. IF THEY ARE TO REMAIN UNUSED FOR MORE THAN 30 DAYS, STOCKPILES SHALL NOT BE LOCATED IN SPECIAL MANAGEMENT AREAS.
3. AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL INSTITUTE THE FOLLOWING AS DIRECTED BY THE ENGINEER:
  - A. PLACE TEMPORARY EROSION CONTROL FACILITIES AT LOCATIONS SHOWN ON THE PLANS.
  - B. CONSTRUCT DITCHES AND PROVIDE TEMPORARY EROSION CONTROL SYSTEMS.
  - C. BUILD NECESSARY EMBANKMENT AT CULVERT/STORM SEWER LOCATIONS AND THEN EXCAVATE AND PLACE PIPE.
  - D. EXCAVATED AREAS AND EMBANKMENT AREAS SHALL BE PERMANENTLY SEEDED IMMEDIATELY AFTER FINAL GRADING. IF NOT, THEY SHALL BE TEMPORARILY SEEDED, AT THE CONTRACTOR'S COST, IF NO CONSTRUCTION ACTIVITY IN THE AREA IS PLANNED FOR SEVEN DAYS.
  - E. ANY WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING CONSTRUCTION SHALL BE FILTERED.
4. CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNATED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR POLLUTANT IN ACCORDANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.
5. THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT DAILY DURING CONSTRUCTION ACTIVITIES. INSPECTION SHALL ALSO BE DONE WEEKLY AND AFTER RAINS OF 1/2 INCH OR GREATER OR EQUIVALENT SNOWFALL AND DURING WINTER SHUTDOWN PERIOD.
6. SEDIMENT COLLECTED DURING CONSTRUCTION OF THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON SITE ON A REGULAR BASIS AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR UNCLASSIFIED EXCAVATION AND EROSION CONTROL ITEMS.
7. THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING. THE COST OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR VARIOUS TEMPORARY EROSION CONTROL PAY ITEMS.

## DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING:

TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS ARE SEEDED AND ESTABLISHED.

ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP, AND DISTURBED TURF RESEEDED.

## MAINTENANCE AFTER CONSTRUCTION

CONSTRUCTION IS COMPLETE AFTER FINAL ACCEPTANCE BY THE ILLINOIS DIVISION OF AERONAUTICS. MAINTENANCE UP TO THIS DATE WILL BE REQUIRED BY THE CONTRACTOR.

## CONTRACTORS

1. THE STORM WATER POLLUTION PREVENTION PLAN MUST CLEARLY IDENTIFY FOR EACH MEASURE IDENTIFIED IN THE PLAN, THE CONTRACTOR(S) OR SUBCONTRACTOR(S) THAT WILL IMPLEMENT THE MEASURE. ALL CONTRACTORS AND SUBCONTRACTORS IDENTIFIED IN THE PLAN MUST SIGN A COPY OF THE CERTIFICATION STATEMENT IN PARAGRAPH 2 BELOW IN ACCORDANCE WITH PART VI.G (SIGNATORY REQUIREMENTS) OF THIS PERMIT. ALL CERTIFICATIONS MUST BE INCLUDED IN THE STORM WATER POLLUTION PREVENTION PLAN EXCEPT FOR OWNERS THAT ARE ACTING AS CONTRACTOR.
2. CERTIFICATION STATEMENT. ALL CONTRACTORS AND SUBCONTRACTORS IDENTIFIED IN A STORM WATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH PARAGRAPH 1 ABOVE SHALL SIGN A COPY OF THE FOLLOWING CERTIFICATION STATEMENT BEFORE CONDUCTING ANY PROFESSIONAL SERVICE AT THE SITE IDENTIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN:

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (1LR10) THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION."

THE CERTIFICATION MUST INCLUDE THE NAME AND TITLE OF THE PERSON PROVIDING THE SIGNATURE IN ACCORDANCE WITH PART VI.G OF THIS PERMIT: THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE CONTRACTING FIRM; THE ADDRESS (OR OTHER IDENTIFYING DESCRIPTION) OF THE SITE; AND THE DATE THE CERTIFICATION IS MADE.

### CONTRACTOR CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (1LR10) THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION."

### GENERAL CONTRACTOR

SIGNATURE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 COMPANY \_\_\_\_\_



## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY NOTICE OF INTENT (NOI) GENERAL PERMIT TO DISCHARGE STORM SEWER CONSTRUCTION SITE ACTIVITIES

IMPORTANT: FORM MUST BE TYPED TO ENABLE AUTOMATED OPTICAL PROCESSING.  
SUBMIT ORIGINAL - DO NOT SUBMIT PHOTOCOPIES

### OWNER INFORMATION

NAME: LAST FIRST MI. (SEE INSTRUCTIONS)	OWNER TYPE (SELECT ONE AND TYPE "X")
CITY OF AURORA ILLINOIS	<input type="checkbox"/> PRIVATE <input type="checkbox"/> COUNTY <input type="checkbox"/> STATE
MAILING ADDRESS: 43 W 636 ROUTE 30	<input checked="" type="checkbox"/> CITY <input type="checkbox"/> SPECIAL DISTRICT
CITY: SUGAR GROVE ST. IL ZIP: 60554	<input type="checkbox"/> FEDERAL
CONTACT PERSON: ROBERT A. RIESER	TELEPHONE AREA CODE NUMBER NUMBERS: 630 466-7000

### CONTRACTOR INFORMATION

NAME: LAST FIRST MI. (SEE INSTRUCTIONS)	TELEPHONE AREA CODE NUMBER
MAILING ADDRESS:	NUMBERS:
CITY:	ST. ZIP:

### CONSTRUCTION SITE INFORMATION

SELECT ONE AND TYPE "X"	<input checked="" type="checkbox"/> EXISTING SITE <input type="checkbox"/> NEW SITE <input type="checkbox"/> CHANGE OF INFORMATION	GENERAL NPDES PERMIT NO.	GRAT TYPES
FACILITY NAME: AURORA MUNICIPAL AIRPORT	PERMIT NUMBER (IF APPLICABLE)	N/A	
MAILING ADDRESS: 43 W 636 ROUTE 30	TELEPHONE AREA CODE NUMBER	630 466-7000	
CITY: SUGAR GROVE ST. IL ZIP: 60554	LATITUDE (DEG. MIN. SEC.)	LONGITUDE (DEG. MIN. SEC.)	
COUNTY: KANE SECTION: 17	TOWNSHIP: 38 NORTH RANGE: 7 EAST		
START CONSTRUCTION DATE: MM/DD/YY	END CONSTRUCTION DATE: MM/DD/YY	TOTAL SIZE OF CONSTRUCTION SITE IN ACRES	45 ACRES

### TYPE OF CONSTRUCTION

RESIDENTIAL  COMMERCIAL  INDUSTRIAL  RECONSTRUCTION  TRANSPORTATION  OTHER

### HISTORIC PRESERVATION AND ENDANGERED SPECIES COMPLIANCE (OPTIONAL)

HAS THIS PROJECT SATISFIED APPLICABLE REQUIREMENTS FOR COMPLIANCE WITH ILLINOIS LAW OR:

HISTORIC PRESERVATION  YES  NO, AND  
 ENDANGERED SPECIES  YES  NO.

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the development and implementation of a Storm Water Pollution Prevention Plan and a Spill Response Plan, will be complied with.

OWNER SIGNATURE: _____	DATE: _____
MAL COMPLETED FORM TO: DO NOT SUBMIT ADDITIONAL DOCUMENTATION UNLESS REQUESTED	FOR OFFICE USE ONLY
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF WATER POLLUTION CONTROL ATTN: PERMIT SECTION 2300 EDWARDS ROAD POST OFFICE BOX 10278 SPRINGFIELD, IL 62784-0278	LOG PERMIT DATE

This Agency is authorized to require this information under Illinois Revised Statute, 1991, Chapter 111 1/2, section 1038. Information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

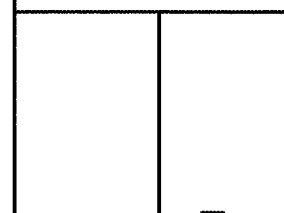
### NOTES FOR EROSION CONTROL

1. THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER PERMIT FOR CONSTRUCTION SITE ACTIVITIES.
2. ALL PROJECT AREAS, INCLUDING CONTRACTOR'S STOCKPILE AREA, ABANDONED HAUL ROADS AND STAGING AREAS, AS SHOWN ON THE PLANS, SHALL HAVE 4 INCHES OF TOPSOIL PLACED AND BE SEEDED AND MULCHED IN ACCORDANCE WITH THE SPECIFICATIONS. AREAS DISTURBED OUTSIDE THE PROJECT LIMITS WILL BE SEEDED AND MULCHED BY THE CONTRACTOR AT HIS COST AND RESTORED TO ORIGINAL CONDITIONS.
3. ANY FIELD/DRAIN TILES THAT ARE DAMAGED IN ANY WAY SHALL BE IMMEDIATELY REPAIRED ACCORDING TO THE PLANS/SPECIFICATIONS AND SHALL BE PROTECTED FROM SEDIMENT-LADEN WATER.
4. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH 1/2" RAIN EVENT.
5. THE CONTRACTOR SHALL HAVE A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MAINTAINED ON THE SITE AT ALL TIMES.
6. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE OWNER FOR REVIEW BY THE KANE-DUPAGE SOIL AND WATER CONSERVATION DISTRICT (KDSWCD).
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE KDSWCD.
8. DURING DEWATERING OPERATION, WATER SHALL BE PUMPED INTO SEDIMENT BASINS OR SILT TRAPS.
9. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL REVISED FEBRUARY 2002.
10. KDSWCD MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRECONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

AU062

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 SURVEY BOOK #  
 DATE: Wed 5/10/06 10:22am  
 XREF DWG: tbcont.dwg  
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REVISIONS		
NUMBER	BY	DATE



**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER**

**STORM WATER POLLUTION  
 PREVENTION PLAN  
 NOTES**

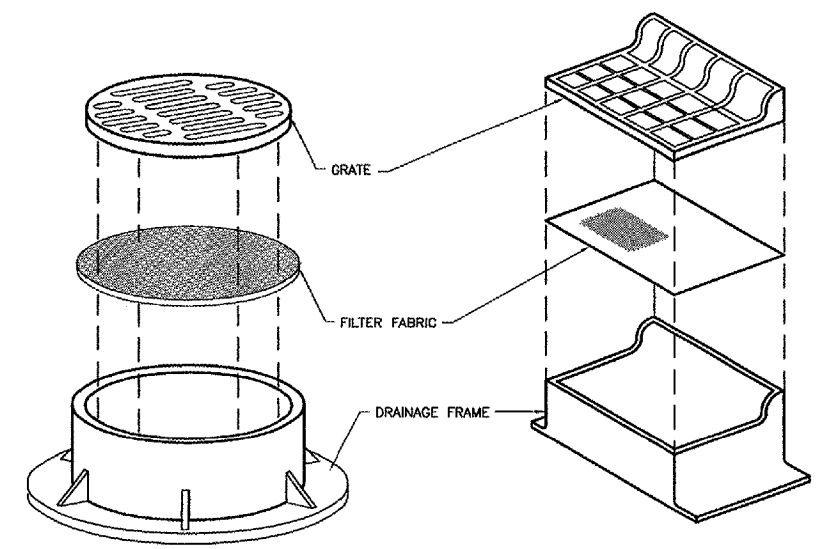
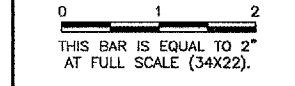
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APPROVED BY:	
DATE:	05/12/06
JOB No:	04285-04
ILLINOIS PROJECT: ARR-3468 A.I.P. PROJECT: 3-17-0003-831 <b>FINAL SUBMITTAL</b>	



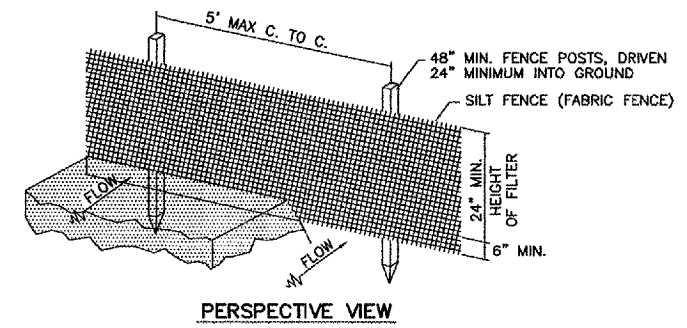
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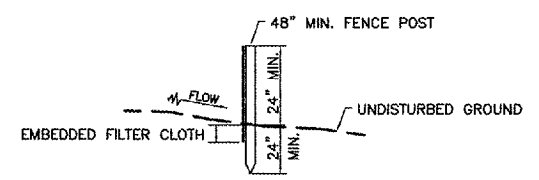
**NOTES:**

1. FILTER WRAP TO BE PLACED IN ALL SLOPE BOXES, INLETS, MANHOLES, TRENCH DRAINS AND CATCH BASINS LOCATED IN PAVED AREAS AND NONPAVED AREAS.
2. FABRIC SHALL BE IN CONFORMANCE WITH MATERIALS SPECIFIED FOR FABRIC FENCE.
3. FABRIC SHALL OVERLAY FRAME BY 2-INCH (MINIMUM).
4. CONTRACTOR SHALL CLEAR DEBRIS AND SILT AS REQUIRED FROM FABRIC TO MAINTAIN DRAINAGE THROUGH THE STRUCTURE.
5. FABRIC SHALL REMAIN IN PLACE UNTIL TURFED AREAS HAVE DEVELOPED A MINIMUM OF 80% OF COVERAGE.
6. COST OF FILTER WRAP SHALL BE CONSIDERED INCIDENTAL TO INLET PROTECTION.

**DRAINAGE STRUCTURE FILTER WRAP**  
 NOT TO SCALE



**PERSPECTIVE VIEW**



**SECTION**

**EROSION CONTROL FABRIC FENCE DETAIL**  
 NOT TO SCALE

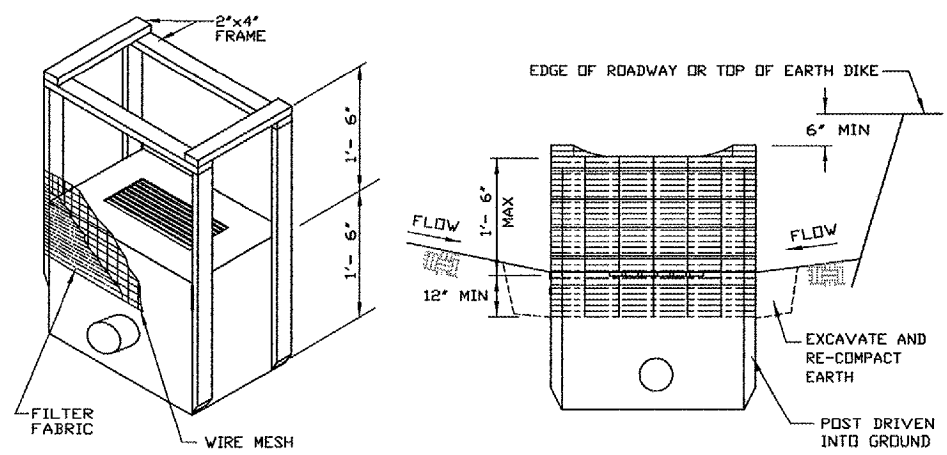
**CONSTRUCTION NOTES FOR SILT (FABRIC) FENCE**

1. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6-INCH MIN. AND FOLDED.
2. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE. MAINTENANCE, WHICH INCLUDES THE REPLACEMENT OF DAMAGED FENCE, SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE EROSION CONTROL FENCE.
3. SILT FENCE SHALL BE INSTALLED PER STORM WATER POLLUTION PREVENTION PLAN OR AS DIRECTED BY THE ENGINEER.

**SOIL PROTECTION CHART**  
 CHART PROVIDED BY KDSWCD

STABILIZATION TYPE	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
PERMANENT SEEDING			+ A		+ A1	*	*			+ A1		
DORMANT SEEDING	B										+ B	
TEMPORARY SEEDING			+ C				D					
SODDING			+ E **									
MULCHING	F											

- A KENTUCKY BLUEGRASS 100 LBS/ACRE  
 PERENNIAL RYEGRASS 60 LBS/ACRE  
 CREEPING RED FESCUE 40 LBS/ACRE
- B KENTUCKY BLUEGRASS 100 LBS/ACRE  
 PERENNIAL RYEGRASS 60 LBS/ACRE  
 CREEPING RED FESCUE 40 LBS/ACRES  
 + 1 TON HYDROMULCH
- C SPRING OATS 100 LBS/ACRE
- D WHEAT OR CEREAL RYE  
 150 LBS/ACRE
- E SOD
- F HYDROMULCH 1 TON/ACRE
- \* IRRIGATION NEEDED DURING JUNE AND JULY
- \*\* IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD
- A1 NATIVE SEEDING

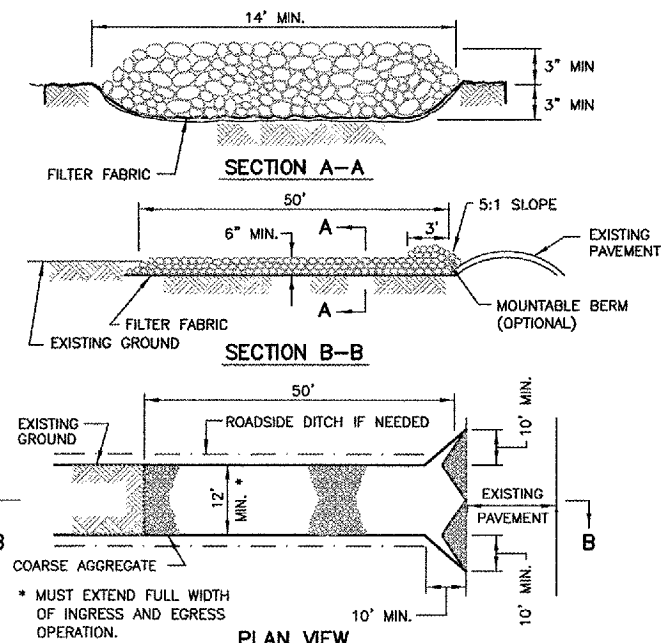


**INLET PROTECTION**

FROM NRCS STANDARD DRAWING NO. IL-560

**NOTES:**

1. FILTER FABRIC SHALL MEET THE REQUIREMENT OF AR156510 SILT FENCE.
2. THE WIRE MESH SHALL HAVE A MAXIMUM OPENING OF AT LEAST 6 INCHES.



**STABILIZED CONSTRUCTION ENTRANCE**

FROM NRCS STANDARD DRAWING NO. IL-630

1. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFIED FOR AR152540 IN THE ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF AERONAUTICS SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS.
2. ROCK OR RECLAIMED CONCRETE SHALL MEET ONE OF THE FOLLOWING IDOT COARSE AGGREGATE GRADATION, CA-1, CA-2, CA-3 OR CA-4.
3. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHALL BE CONSTRUCTED ACCORDING TO MANUFACTURERS SPECIFICATIONS AND SHALL BE INCIDENTAL TO THE CONTRACT.
4. MINIMUM WIDTH IS 12' FOR ONE-WAY TRAFFIC AND 20' FOR TWO WAY TRAFFIC. TWO-WAY TRAFFIC WIDTHS SHALL BE INCREASED A MINIMUM OF 4' FOR TRAILER TRAFFIC. DEPENDING ON THE TYPE OF VEHICLE OR EQUIPMENT, SPEED, LOADS, CLIMATIC AND OTHER CONDITIONS UNDER WHICH VEHICLES AND EQUIPMENT OPERATE AN INCREASE IN THE MINIMUM WIDTHS MAY BE REQUIRED.
5. ROADWAY SHALL FOLLOW THE CONTOUR OF THE NATURAL TERRAIN TO THE EXTENT POSSIBLE.
6. STABILIZED CONSTRUCTION ENTRANCE SHALL BE INCIDENTAL TO THE CONTRACT.

**AURORA MUNICIPAL AIRPORT**  
**AURORA, ILLINOIS**  
**CONSTRUCT RUNWAY 33 ILS,**  
**RELOCATE RUNWAY 9 LOCALIZER**  
**STORMWATER POLLUTION**  
**PREVENTION PLAN**  
**DETAILS**

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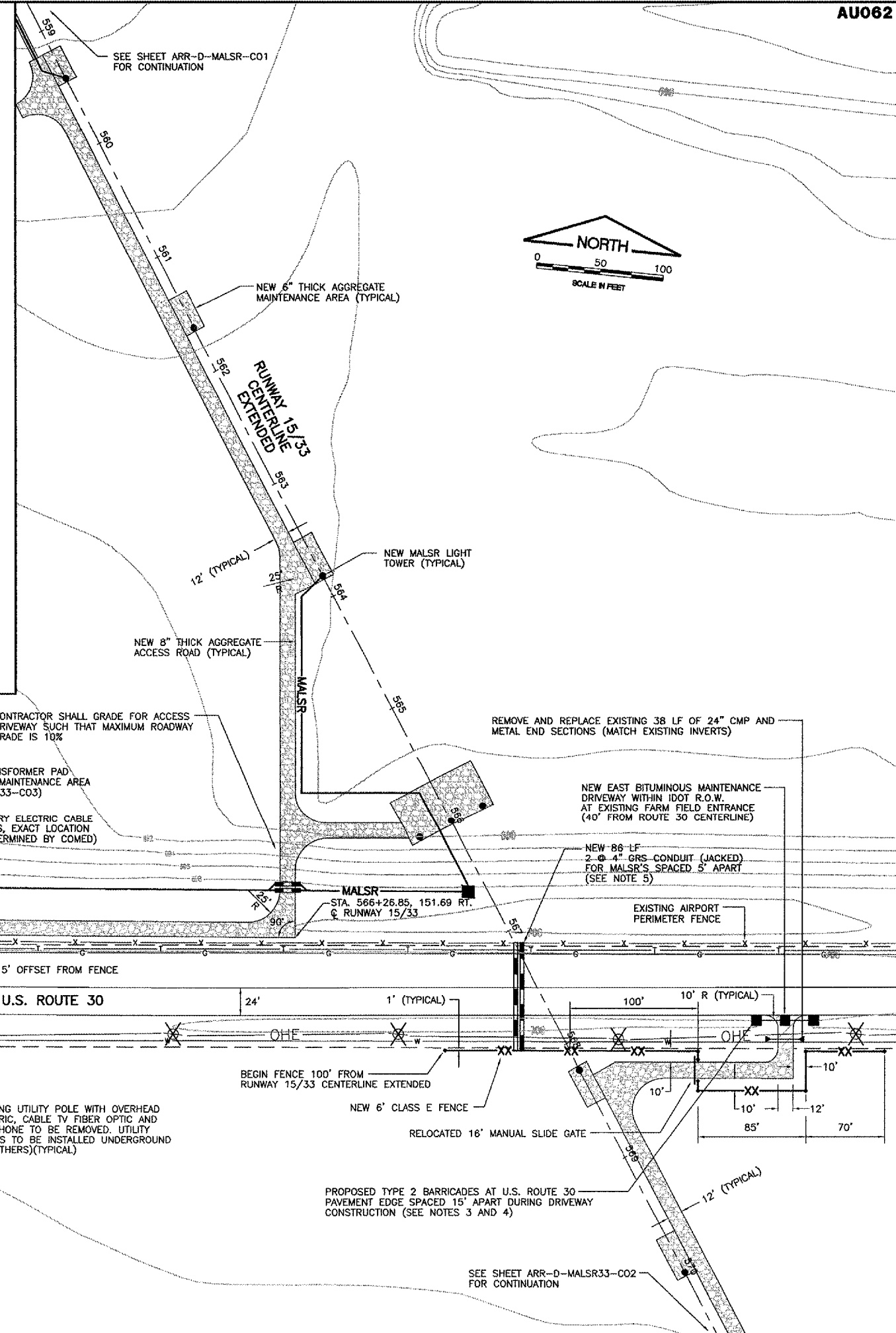
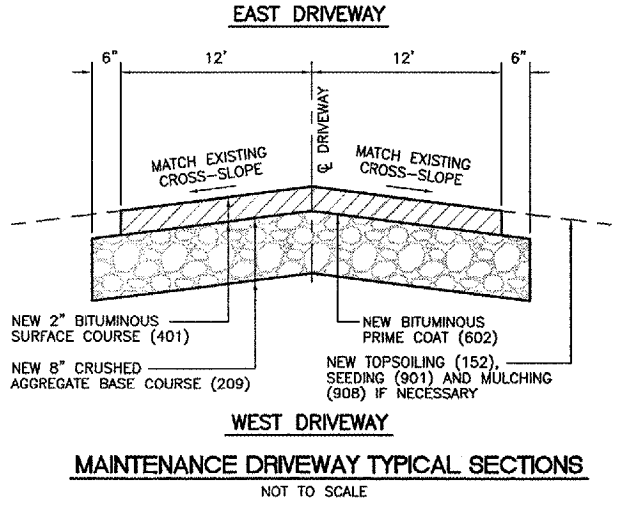
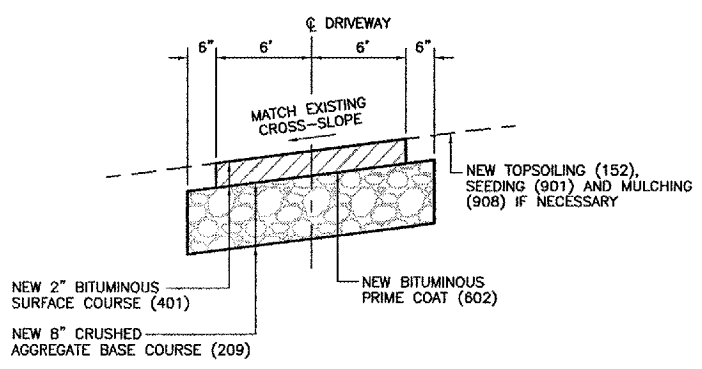
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CHECKED BY:	CAL
APPROVED BY:	
DATE:	05/12/06
JOB No:	04285-04
ILLINOIS PROJECT:	ARR-3468
A.I.P. PROJECT:	3-17-0003-B31
<b>FINAL SUBMITTAL</b>	
SHEET	15 OF 67 SHEETS

**NOTES**

- AREAS ADJACENT TO PROPOSED BITUMINOUS MAINTENANCE DRIVEWAYS DISTURBED BY CONSTRUCTION WILL BE TOPSOILED, (152) LANDSCAPED USING IDOT CLASS 1 SEED MIX (901) AND MULCHED (908).
- EXISTING AGGREGATE SHOULDER AND GRAVEL FIELD ENTRANCE REMOVAL TO FACILITATE NEW MAINTENANCE DRIVEWAY CONSTRUCTION SHALL BE PAID FOR AS UNCLASSIFIED EXCAVATION (152).
- TYPE 2 BARRICADES WITH LONG LEGS ARE REQUIRED FOR U.S. ROUTE 30 EDGE DROP-OFFS GREATER THAN 2" (COST INCIDENTAL TO THE CONTRACT).
- TEMPORARY FLAGGING ON U.S. ROUTE 30 MAY BE REQUIRED FOR MATERIAL DELIVERIES (COST INCIDENTAL TO THE CONTRACT).
- CONTRACTOR SHALL INSTALL UTILITY MARKER BY FLEXSTAKE OR EQUAL AT EACH END OF CONDUITS (COST INCIDENTAL TO CONDUITS).
- THE CONTRACTOR WILL BE REQUIRED TO OBTAIN A CONSTRUCTION PERMIT FROM IDOT FOR WORK WITHIN U.S. ROUTE 30 RIGHT-OF-WAY. THE COST WILL BE INCIDENTAL TO THE CONTRACT. COORDINATE PERMIT REQUEST WITH THE ENGINEER.

**LEGEND**

- NEW BITUMINOUS PAVEMENT
- NEW GRAVEL ACCESS ROADWAY/MAINTENANCE AREA
- NEW GRS CONDUIT
- MALS R NEW POWER AND CONTROL CABLES
- PROPOSED TYPE 2 BARRICADES
- EXISTING RIGHT OF WAY (R.O.W.)
- EXISTING FENCE
- EXISTING OVERHEAD ELECTRIC
- EXISTING UTILITY POLE
- EXISTING WATERMAIN
- EXISTING TELEPHONE LINE
- EXISTING GAS LINE
- EXISTING CONTOUR
- EXISTING BUILDING
- EXISTING TREE TO BE REMOVED W/ TRUNK DIAMETER



**REVISIONS**

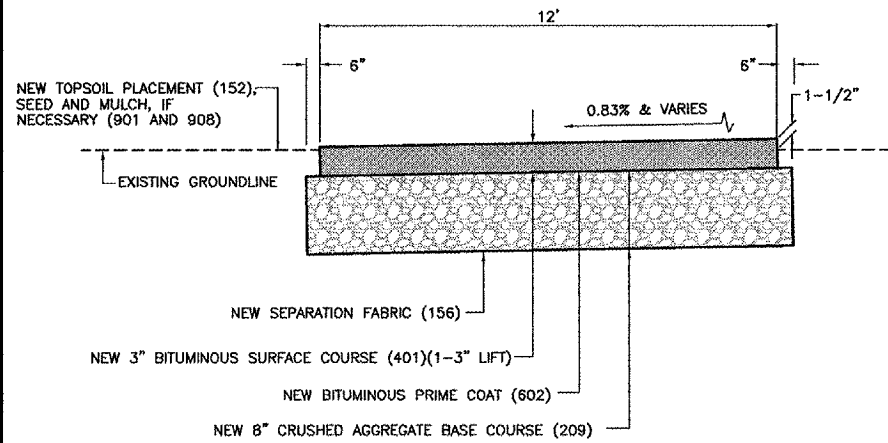
NUMBER	BY	DATE

**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER**

**RUNWAY 33 MALS R U.S. ROUTE 30  
 SITE PLAN**

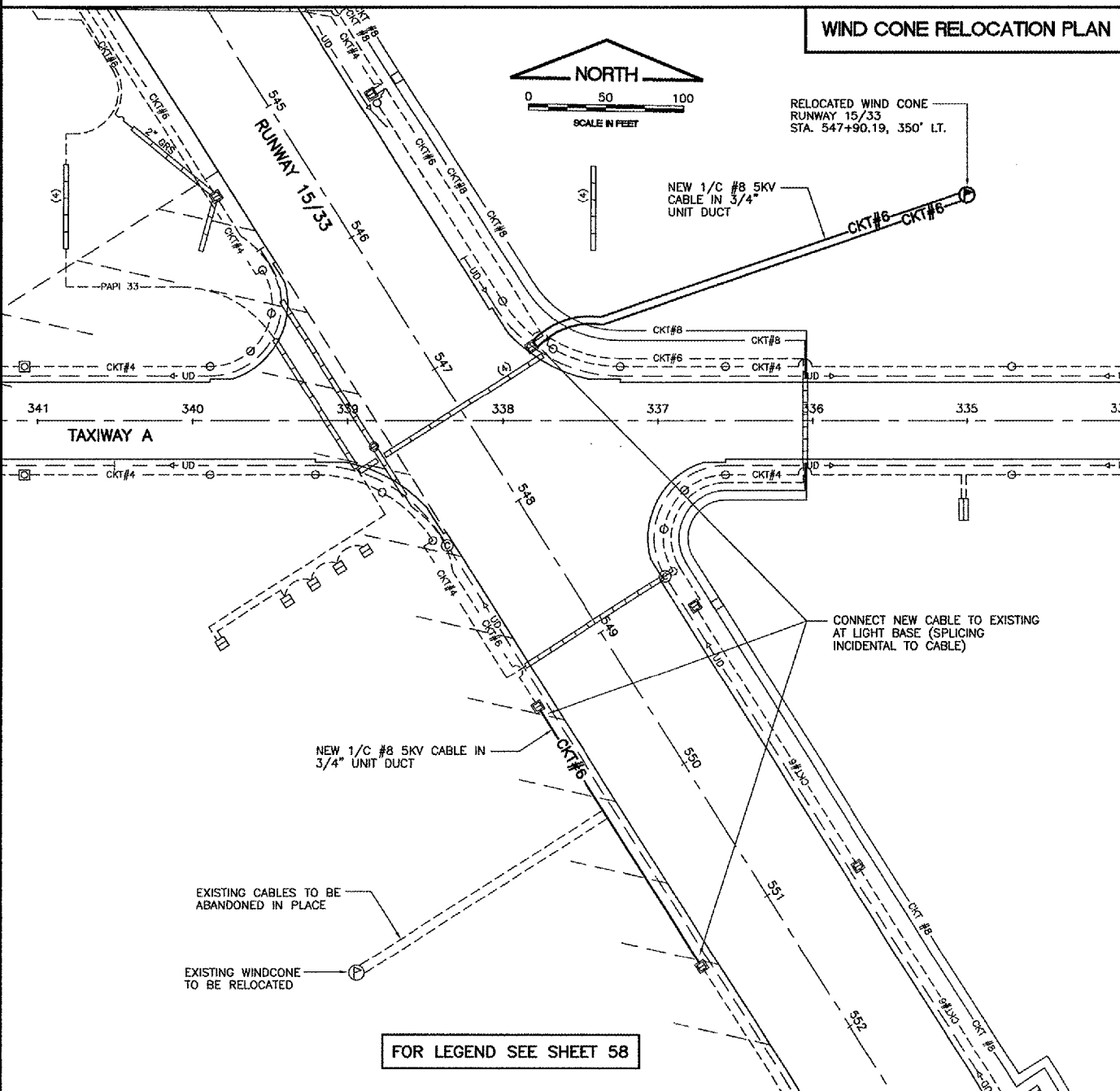
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DATE:	05/12/06
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ILLINOIS PROJECT: ARR-3468 A.I.P. PROJECT: 3-17-0003-B31 <b>FINAL SUBMITTAL</b>	
SHEET 16 OF 67 SHEETS	



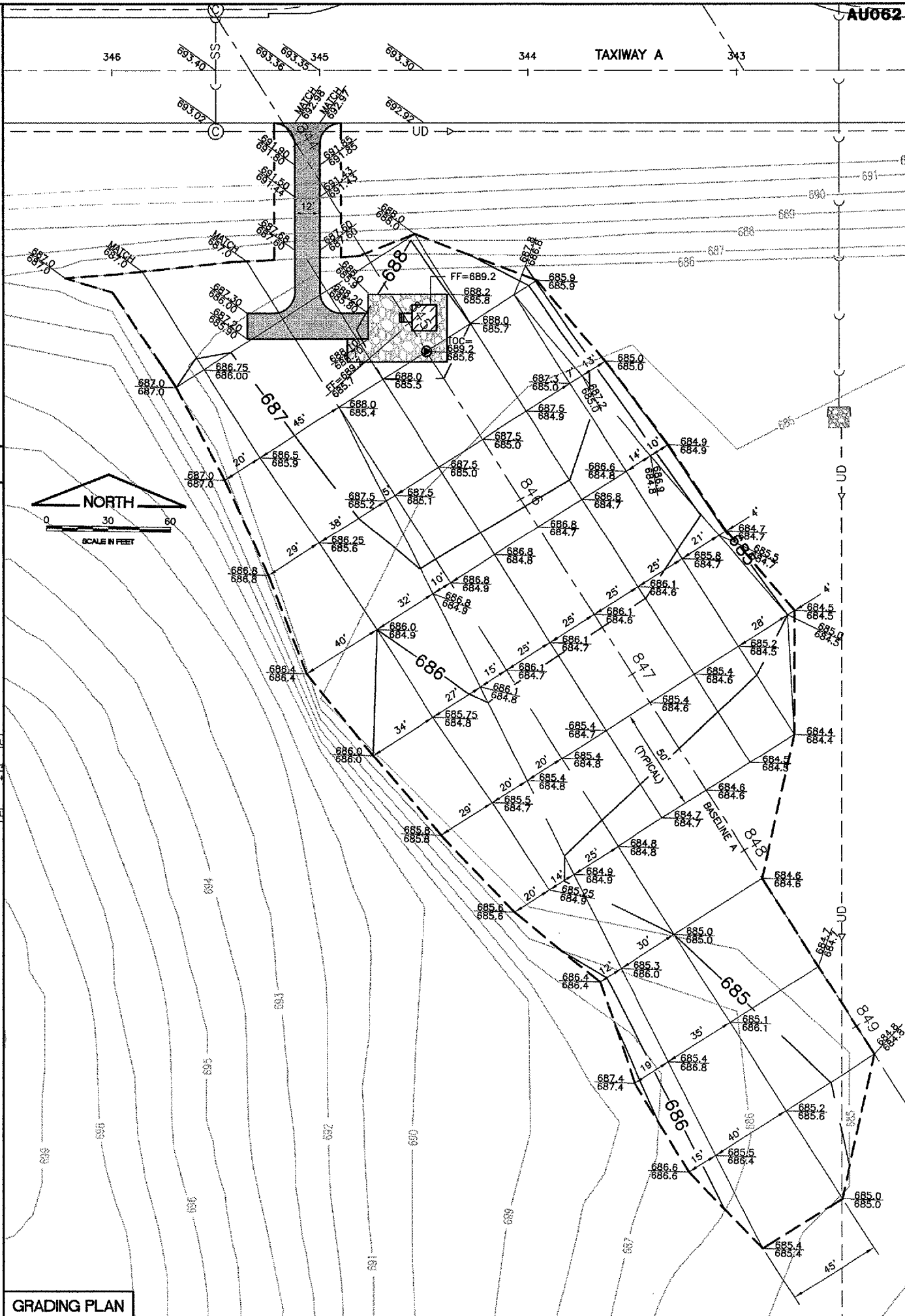
**BITUMINOUS ACCESS ROAD - TYPICAL SECTION**  
N.T.S.

- LEGEND**
- NEW/EXISTING END SECTION
  - NEW GLIDESLOPE SHELTER
  - NEW GLIDESLOPE ANTENNA
  - NEW BITUMINOUS PAVEMENT
  - NEW 6" THICK AGGREGATE MAINTENANCE AREA
  - NEW ELEVATION (613.60)  
PROPOSED ELEVATION (613.45)
  - NEW GRADING LIMITS
  - EXISTING CONTOUR
  - PROPOSED CONTOUR



**WIND CONE RELOCATION PLAN**

FOR LEGEND SEE SHEET 58

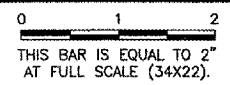


**GRADING PLAN**

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SURVEY BOOK #  
XREF DWG:  
XREF DWG:  
DATE: .

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**AURORA MUNICIPAL AIRPORT  
AURORA, ILLINOIS  
CONSTRUCT RUNWAY 33 ILS,  
RELOCATE RUNWAY 9 LOCALIZER  
RUNWAY 33 GLIDE SLOPE  
GRADING PLAN/TYPICAL SECTION**

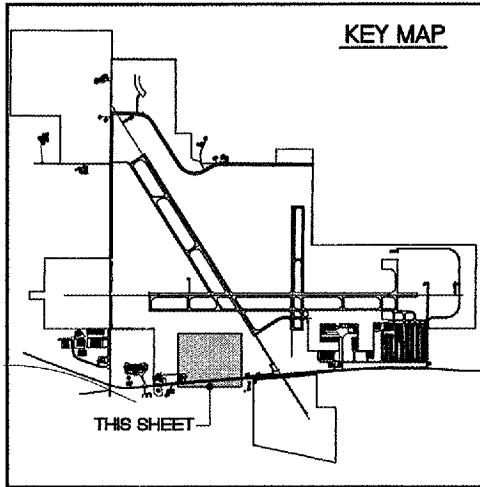
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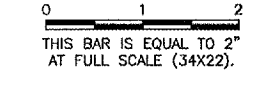
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ILLINOIS PROJECT: ARR-3468  
A.I.P. PROJECT: 3-17-0003-B31  
**FINAL SUBMITTAL**

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REVISIONS		
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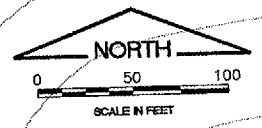
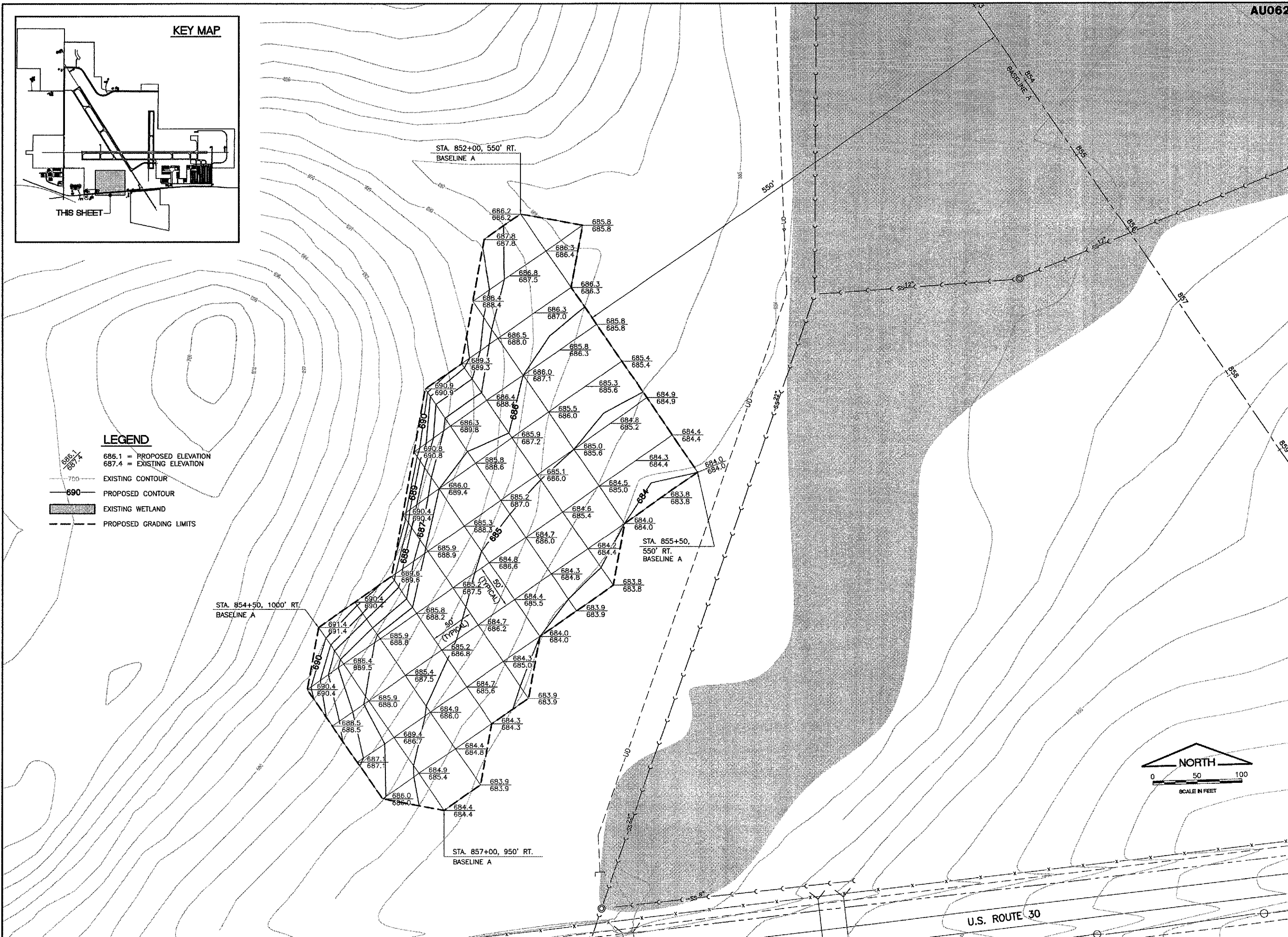
**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER  
 BORROW SITE GRADING PLAN**

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SHEET 18 OF 67 SHEETS	

**LEGEND**

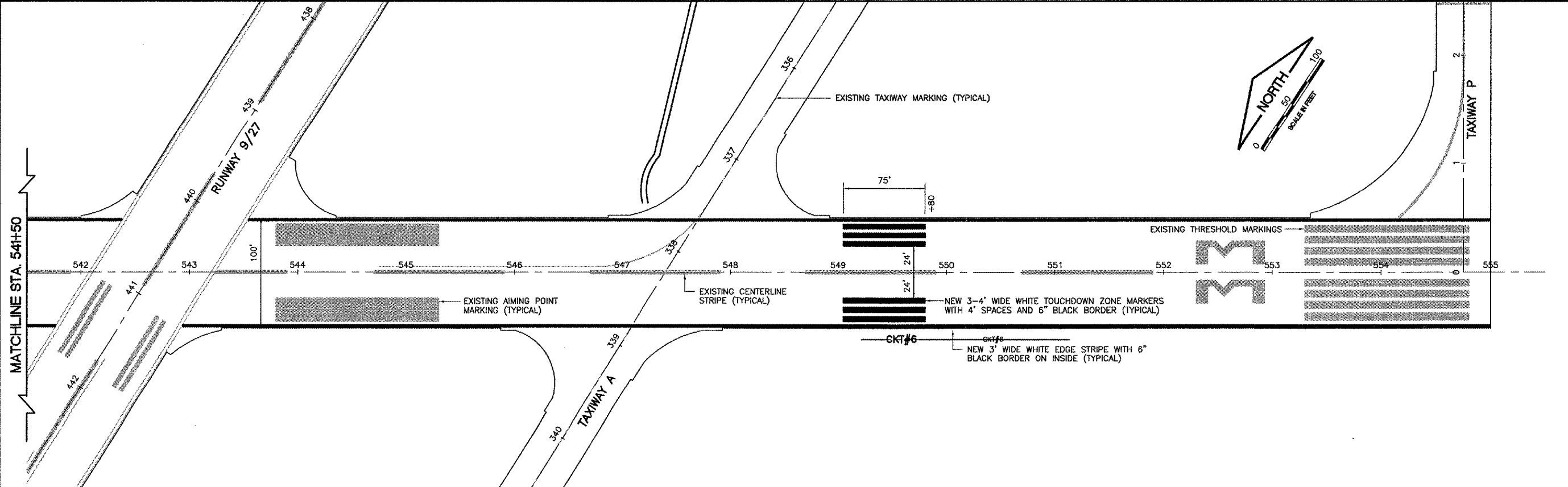
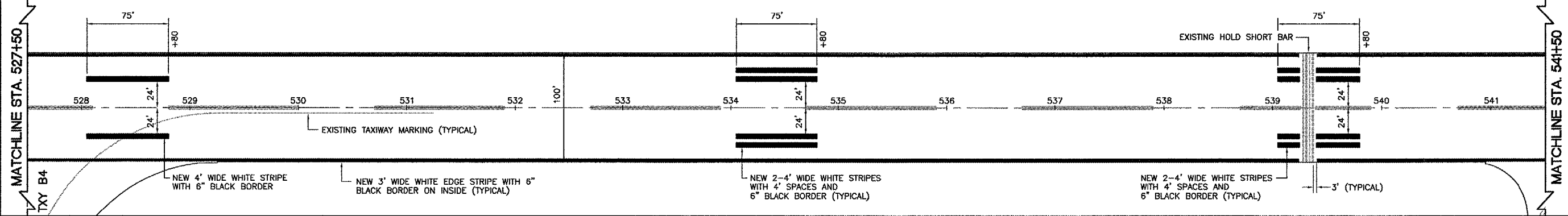
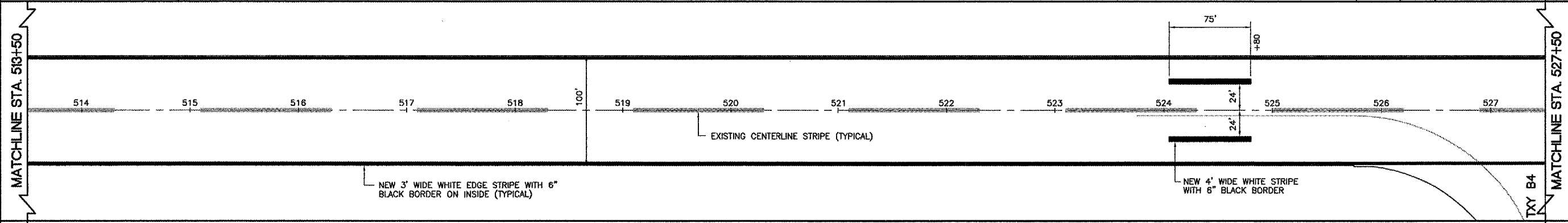
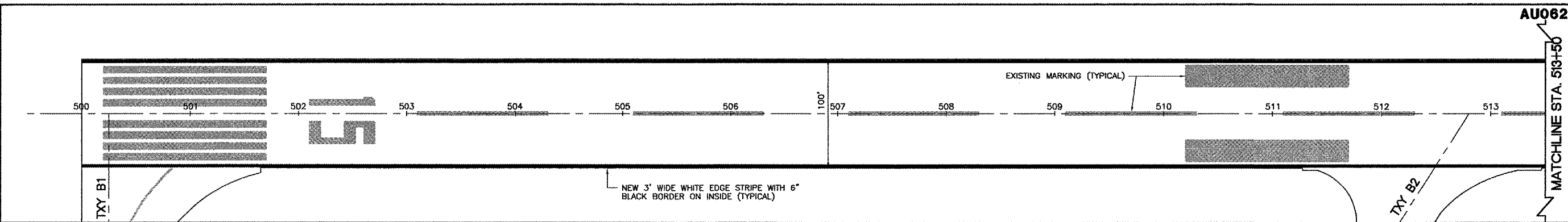
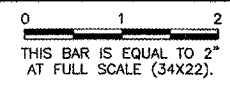
- 686.1 = PROPOSED ELEVATION  
687.4 = EXISTING ELEVATION
- 700 EXISTING CONTOUR
- 690 PROPOSED CONTOUR
- EXISTING WETLAND
- PROPOSED GRADING LIMITS



U.S. ROUTE 30



REVISIONS		
NUMBER	BY	DATE



**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER**

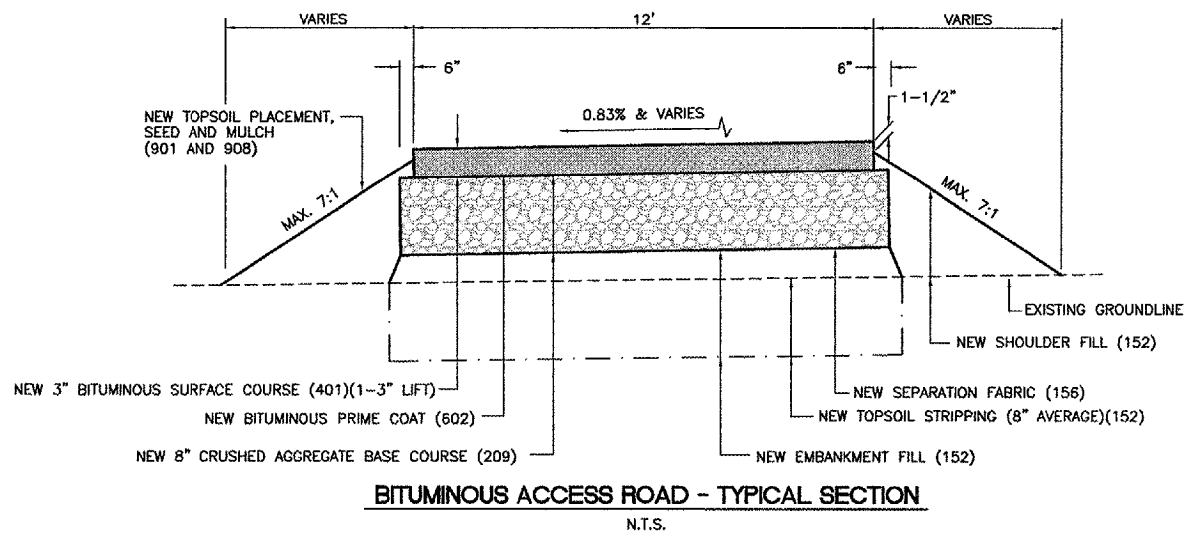
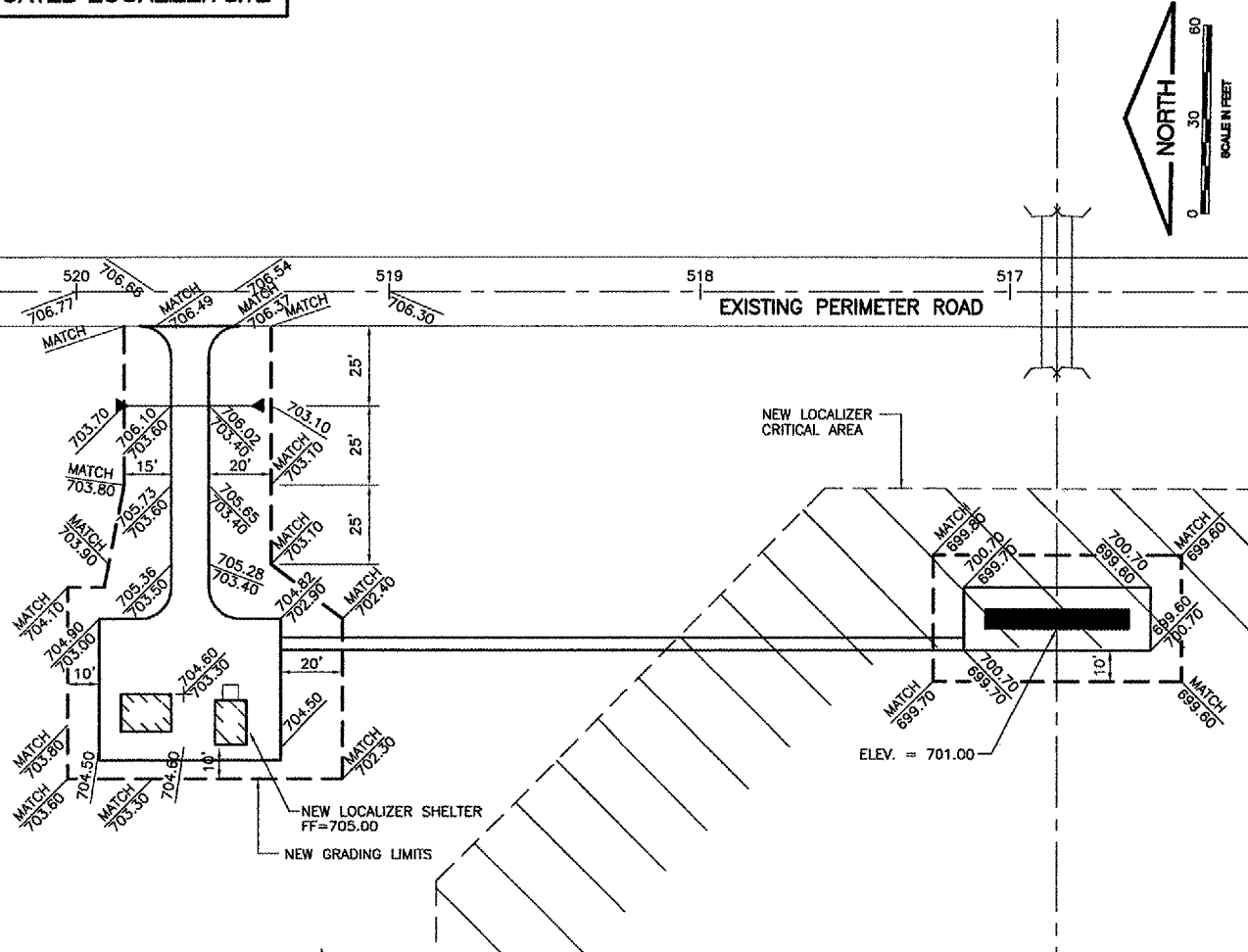
**RUNWAY 15/33  
 PAVEMENT MARKING PLAN**

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SHEET 19 OF 67 SHEETS	



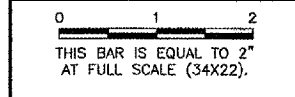
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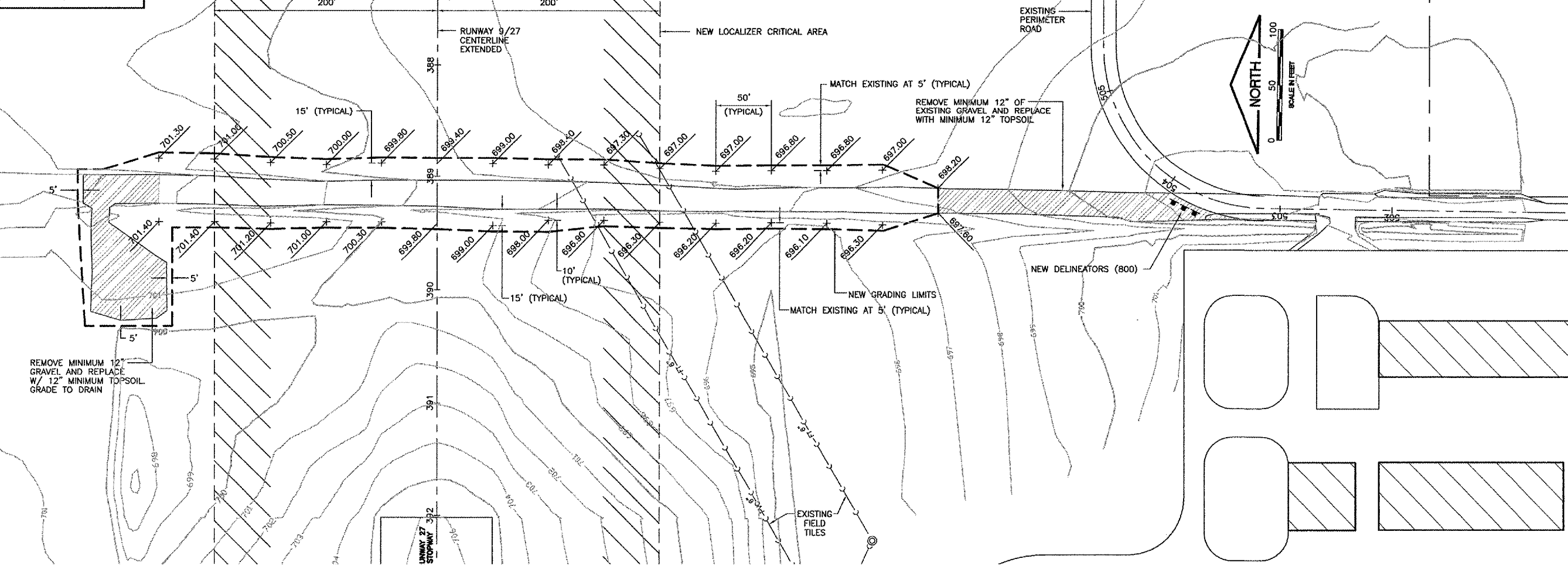
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REVISIONS		
NUMBER	BY	DATE



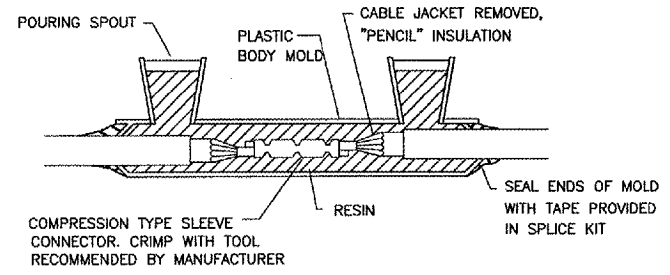
EXISTING LOCALIZER SITE



**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER  
 RUNWAY 9 LOCALIZER  
 GRADING PLAN/TYPICAL SECTION**

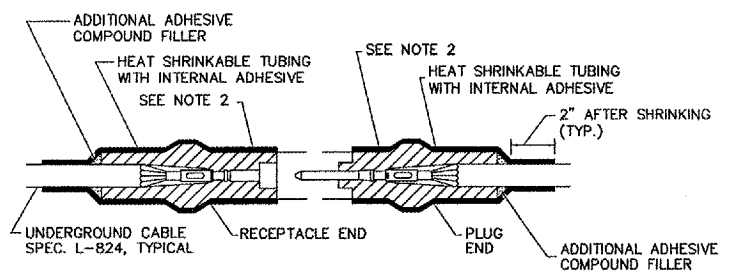
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ILLINOIS PROJECT:	ARR-3468
A.I.P. PROJECT:	3-17-0003-B31
<b>FINAL SUBMITTAL</b>	
SHEET	30 OF 57 SHEETS



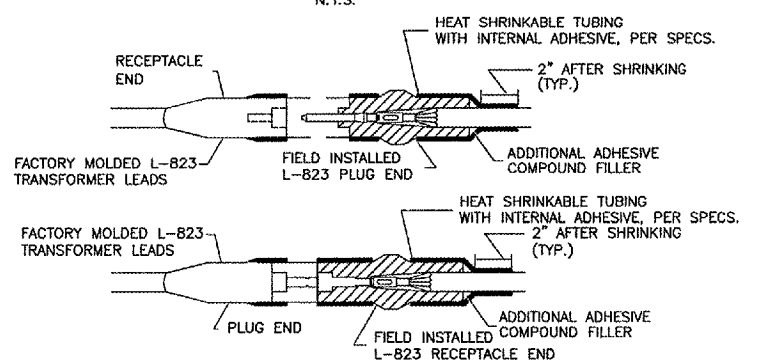
**TYPE A - CABLE SPLICE**

FOR SPLICES IN HOMERUNS AND FOR EXTENSIONS TO EXISTING CABLES ONLY  
 N.T.S.



**TYPE B - CABLE SPLICE**

FOR SPLICES FOR USE AT JUNCTION OF HOMERUN WITH LOOP CIRCUIT  
 N.T.S.

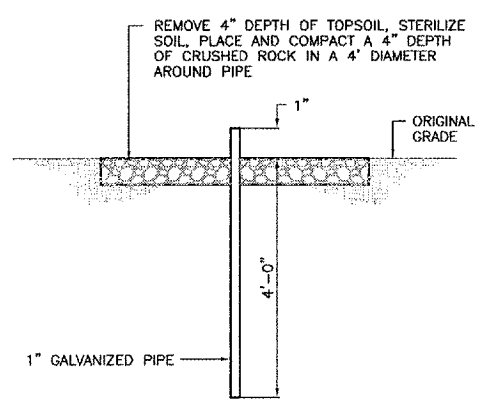


**TYPE C AND D - CABLE SPLICE**

FOR SPLICES AT RUNWAY/TAXIWAY LIGHTS AND SIGNS  
 N.T.S.

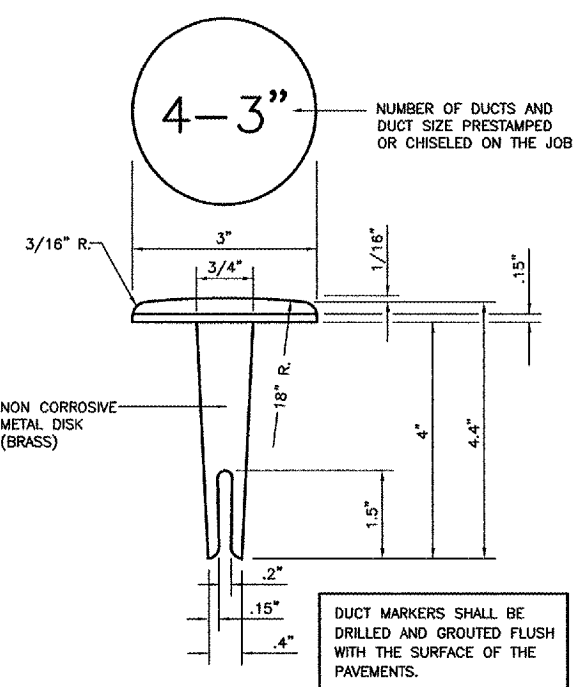
**NOTES**

1. INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.
2. WRAP WITH AT LEAST ONE LAYER OF RUBBER OR SYNTHETIC RUBBER TAPE AND ONE LAYER OF PLASTIC TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1-1/2 INCHES ON EACH SIDE OF JOINT.
3. THE COST OF FURNISHING AND INSTALLING ALL SPLICE MATERIALS SHALL BE INCIDENTAL TO THE ASSOCIATED CABLE ITEMS.
4. THE CONTRACTOR SHALL HAVE A MINIMUM OF TWO (2) TYPE A SPLICE KITS ON THE JOB SITE AT ALL TIMES FOR EMERGENCY REPAIRS.



**LOCALIZER GROUND CHECK POINT IN SOIL**

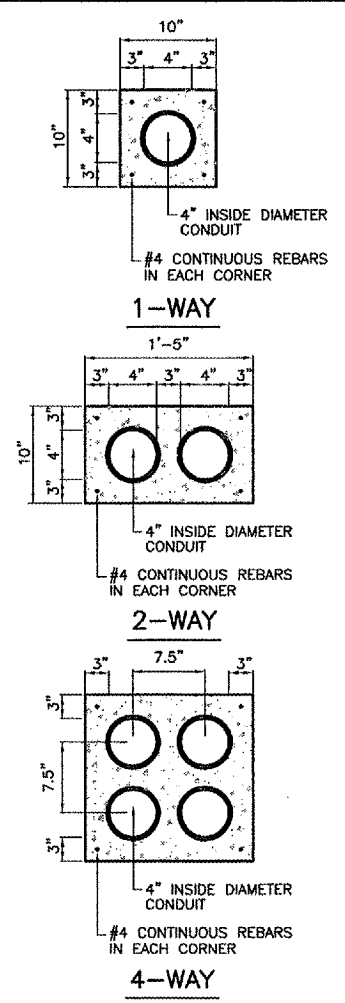
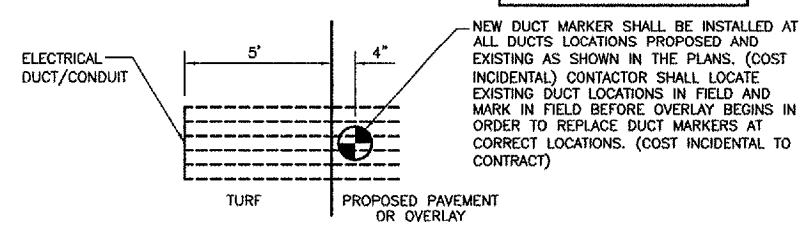
N.T.S.



**DUCT/CONDUIT MARKER DETAIL**

NOT TO SCALE

DUCT MARKERS SHALL BE DRILLED AND GROUTED FLUSH WITH THE SURFACE OF THE PAVEMENTS.

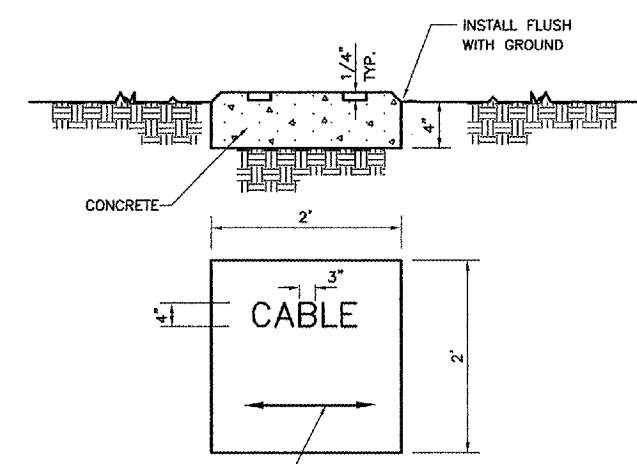


**CONCRETE ENCASED DUCT BANKS**

NOT TO SCALE

**NOTES:**

1. DIMENSIONS ARE MINIMUM.
2. CONCRETE SHALL CONFORM TO ITEM 610.
3. ALL CONDUIT SHALL BE SCHEDULE 40 PVC.
4. TOP OF CONCRETE ENCASEMENT IN TURF AREAS SHALL NOT BE LESS THAN 24\"/>

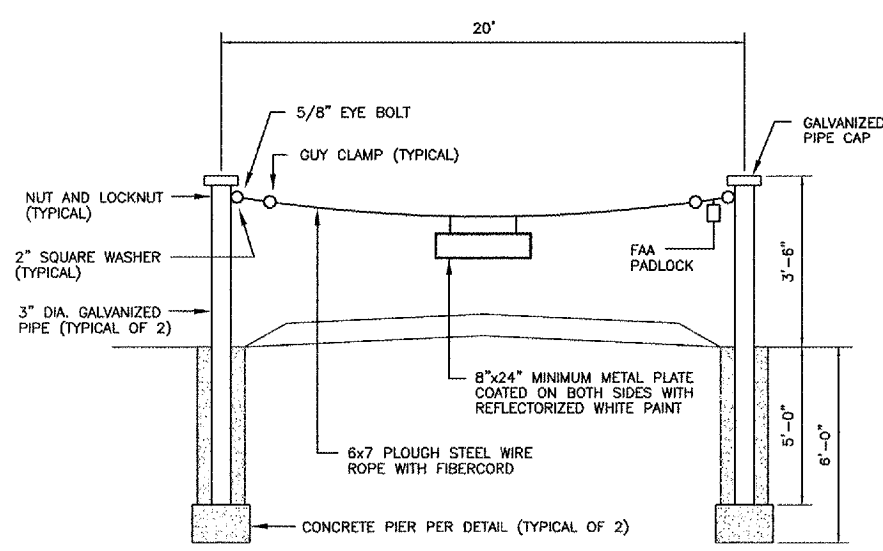


**TURF CABLE MARKER DETAIL**

NO SCALE

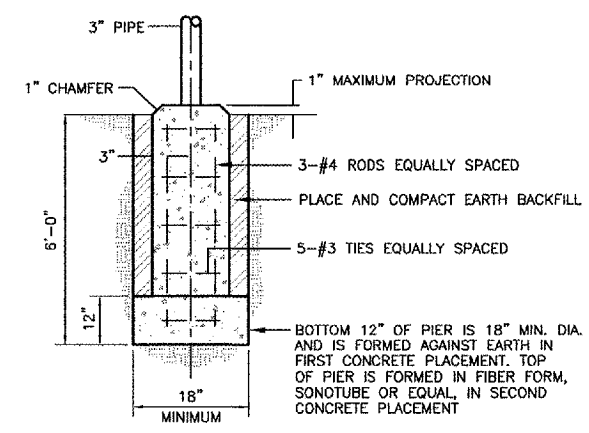
**NOTES**

- 1.) CABLE MARKERS SHALL BE INSTALLED AT ALL BENDS AND EVERY 200' ALONG THE CABLE RUN.
- 2.) ITEM 610 CONCRETE SHALL BE USED.
- 3.) ALL EXPOSED EDGES SHALL BE EDGED WITH A 1/4\"/>



**CABLE BARRIER**

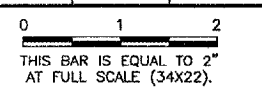
NOT TO SCALE



**PIER FOUNDATION**

NOT TO SCALE

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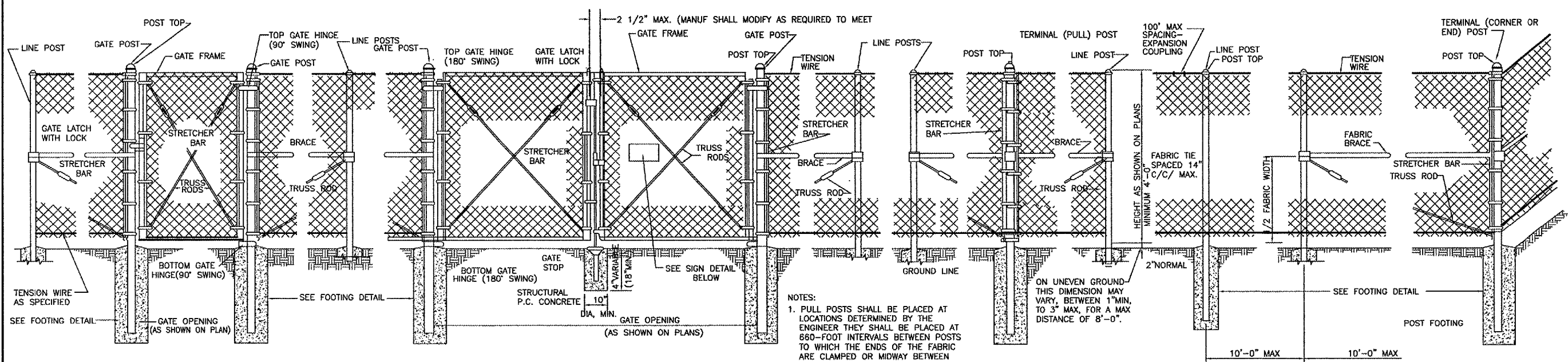


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 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER**

**ELECTRICAL/MISCELLANEOUS DETAILS**

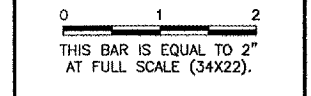
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SHEET 21 OF 67 SHEETS	



NOTES:  
 1. PULL POSTS SHALL BE PLACED AT LOCATIONS DETERMINED BY THE ENGINEER THEY SHALL BE PLACED AT 660-FOOT INTERVALS BETWEEN POSTS TO WHICH THE ENDS OF THE FABRIC ARE CLAMPED OR MIDWAY BETWEEN SUCH POSTS WHEN THE DISTANCE IS LESS THAN 1320' AND GREATER THAN 660'  
 2. WHERE FENCE HAS A CHANGE IN DIRECTION OF 15° OR MORE, A TERMINAL POST SHALL BE PLACED AS SHOWN ABOVE.

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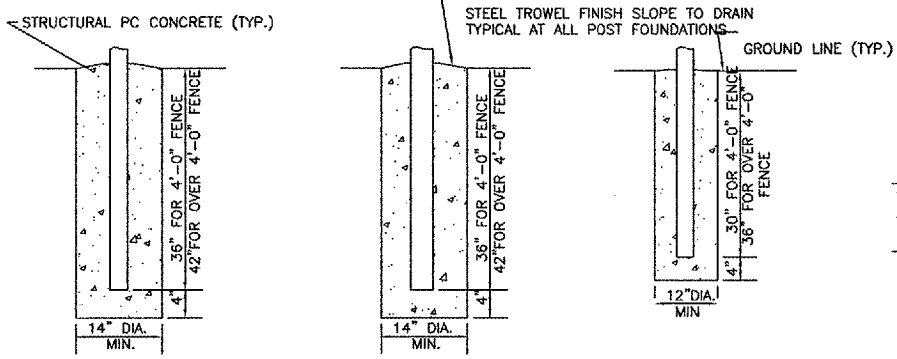
PEDESTRIAN GATE ARRANGEMENT

VEHICLE GATE ARRANGEMENT

PULL POST ARRANGEMENT

LINE POST ARRANGEMENT

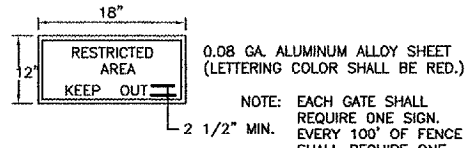
CORNER OF END POST ARRANGEMENT



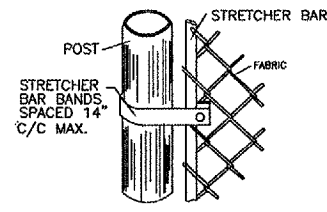
FOOTING FOR TERMINAL POST

FOOTING FOR GATE POST

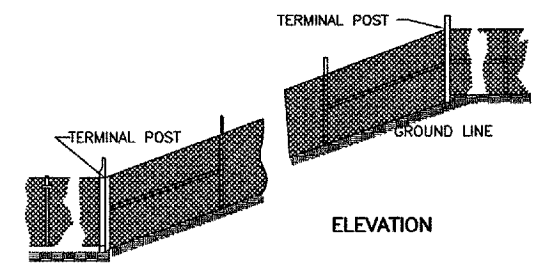
FOOTING FOR LINE POST



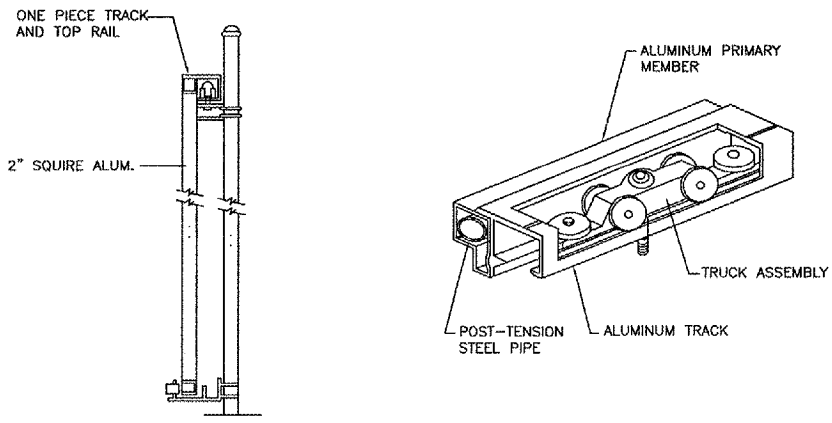
SIGN DETAIL



METHOD OF FASTENING STRETCHER BAR TO POST

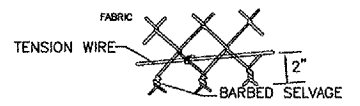


FENCE INSTALLATION ON SLOPES

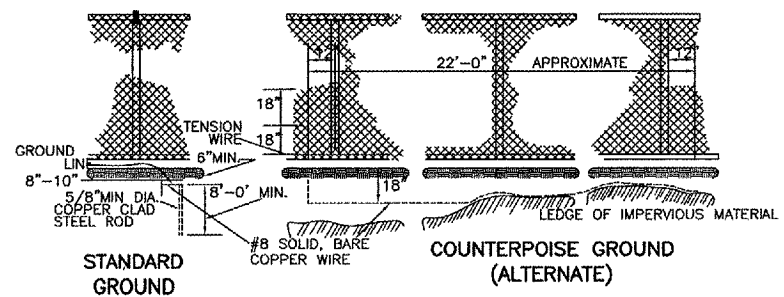


ROLLER ASSEMBLY FOR SLIDING DRIVEWAY GATE

NOTE: GATE AND ROLLERS SHALL BE MOUNTED INBOARD CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ENCLOSED TRUCK ROLLER ASSEMBLY FOR SLIDING DRIVEWAY GATES.



METHOD OF TYING FABRIC TO TENSION WIRE



PROTECTIVE ELECTRICAL GROUND

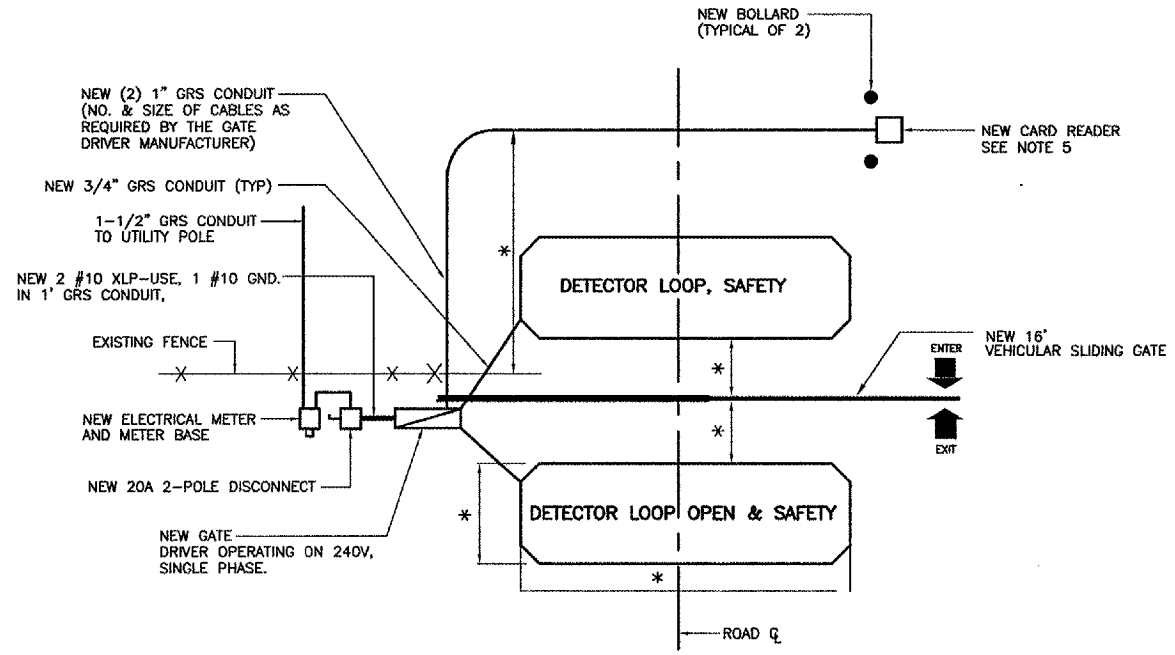
NOTES:  
 1. CONTINUOUS FENCE SHALL BE GROUNDED AT INTERVALS NOT EXCEEDING 1000' EXCEPT THERE SHALL BE A GROUND NOT EXCEEDING 100 FT. FROM A GATE IN EACH SECTION OF THE FENCE ADJACENT TO THE GATE.  
 2. FENCE UNDER POWER LINE SHALL BE GROUNDED BY THREE GROUNDS, ONE DIRECTLY UNDER THE CROSSING AND ONE ON EACH SIDE 25 TO 50 FT. AWAY. A SINGLE GROUND SHALL BE LOCATED DIRECTLY UNDER EACH TELEPHONE WIRE OR CABLE CROSSING.  
 3. THE COUNTERPOISE SHALL BE USED ONLY WHERE IT IS IMPOSSIBLE TO DRIVE A GROUND ROD BECAUSE OF AN IMPERVIOUS EARTH STRUCTURES.  
 4. THE GROUND WIRE SHALL BE CONNECTED TO FABRIC, TENSION WIRE, AND THE GROUND ROD BY A MECHANICAL CLAMP OF CAST BRONZE BODY AND BRONZE OR STAINLESS STEEL BOLTS AND WASHERS.

**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER**

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SHEET 22 OF 67 SHEETS	



**NEW KEY PAD OPERATED GATE AND DETECTOR LOOP LAYOUT**

NOT TO SCALE  
 \* PER MANUFACTURERS RECOMMENDATION CONTRACTOR SHALL COORDINATE THIS WORK WITH ENGINEER.

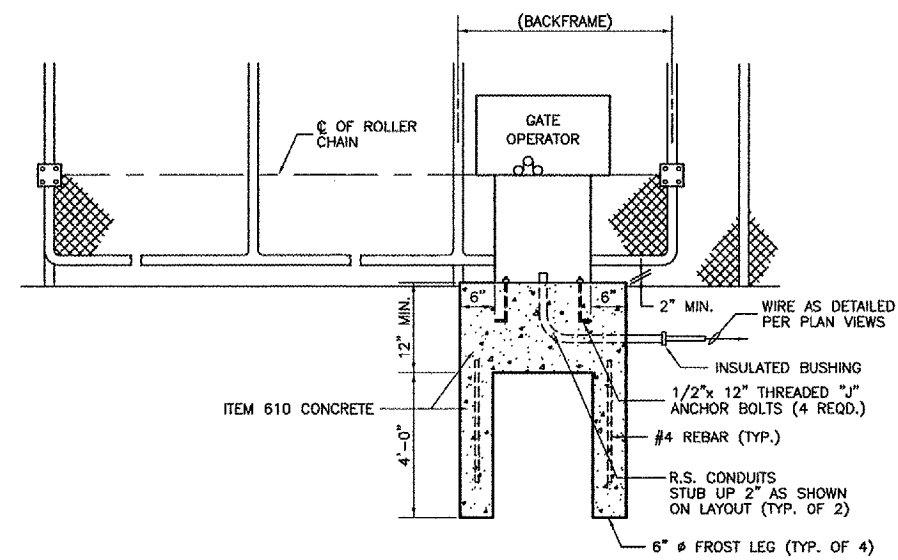
**NOTES:**

1. THE LOCATION OF THE PROPOSED KEY PAD OPERATED GATE DRIVER, DISCONNECT, CARD READER, AND DETECTOR LOOPS ARE FOR INFORMATION ONLY AND SHALL BE FIELD ADJUSTED PER THE MANUFACTURER RECOMMENDATION.
2. THE MINIMUM BURIAL DEPTH FOR GRS CONDUIT IS 24" BELOW FINISHED GRADE.
3. NO DIRECT BURIED CABLE WILL BE ALLOWED IN THE INSTALLATION OF THE NEW KEY PAD OPERATED GATE DRIVER.
4. NEW KEY PAD SHALL BE MODEL # 55-LCK1000 BY LINK CONTROLS OR EQUAL.
5. CONTRACTOR SHALL PROVIDE AND INSTALL ELECTRIC GATE COMPONENTS AS A COMPLETE WORKING UNIT. THE GATE WORK SHALL INCLUDE, BUT NOT BE LIMITED TO THE GATE OPERATOR AND FOUNDATION, AND POWER CABLES CONDUIT, KEY PAD, TRENCHING, CIRCUIT BREAKERS, AND ALL CONNECTIONS, LABOR AND MATERIALS NECESSARY TO COMPLETE OPERATION. BOLLARDS SHALL BE PAID FOR SEPARATELY.
6. LOCATION OF THE GATE OPERATOR SHALL BE AS RECOMMENDED BY THE MANUFACTURER.

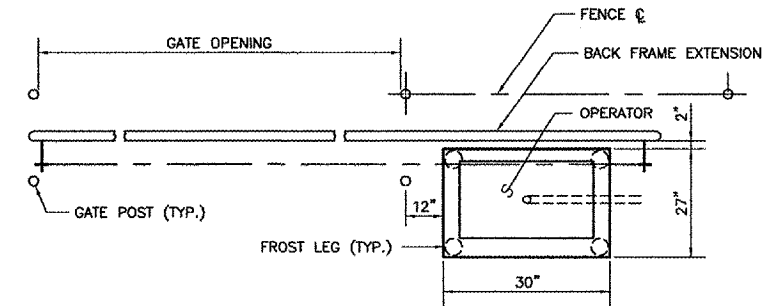
GATE TYPE	GATE
A	DISTANCE BETWEEN GATE POSTS (INSIDE FACE TO INSIDE FACE) 16'-0"
B	DISTANCE BETWEEN HANGER POSTS (CENTER TO CENTER) 10'-0"*
C	OVERALL GATE LENGTH 26'-6"*
D	OVERALL GATE HEIGHT 8'-0"
E	HEIGHT OF FABRIC IN GATE 8'-0"
F	COUNTER BALANCE LENGTH 10'-6"
G	HEIGHT OF 4" POSTS ABOVE GRADE 8'-6"

\* OR AS RECOMMENDED BY MFG.

LOCATIONS, DETAILS AND CHARACTER OF EQUIPMENT SHOWN ON THIS SHEET ARE GENERIC. EQUIPMENT LOCATIONS SHALL BE AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.



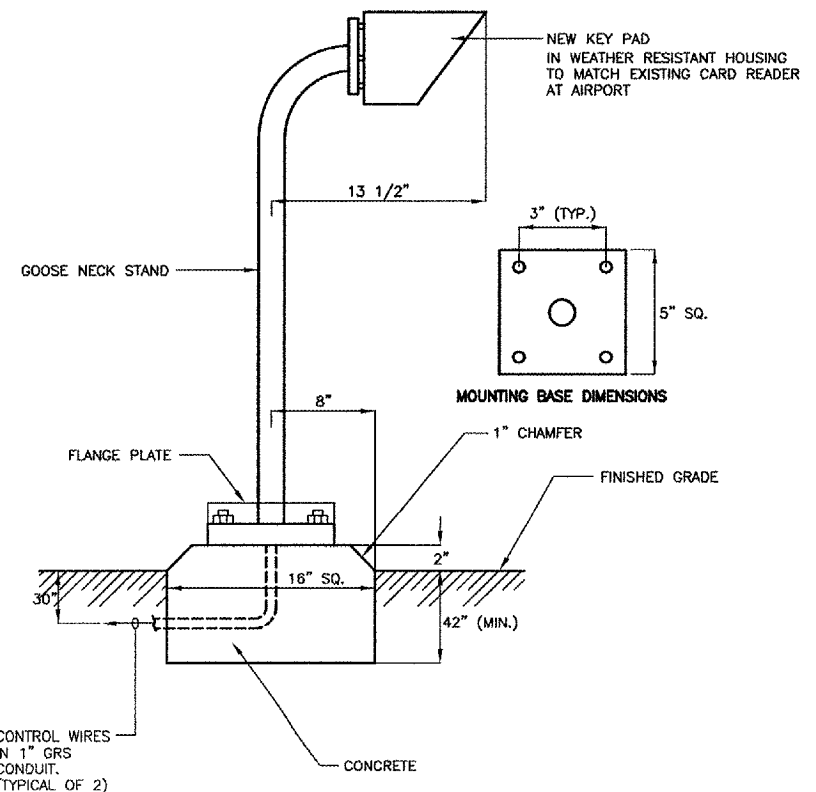
**SECTION**



**PLAN**

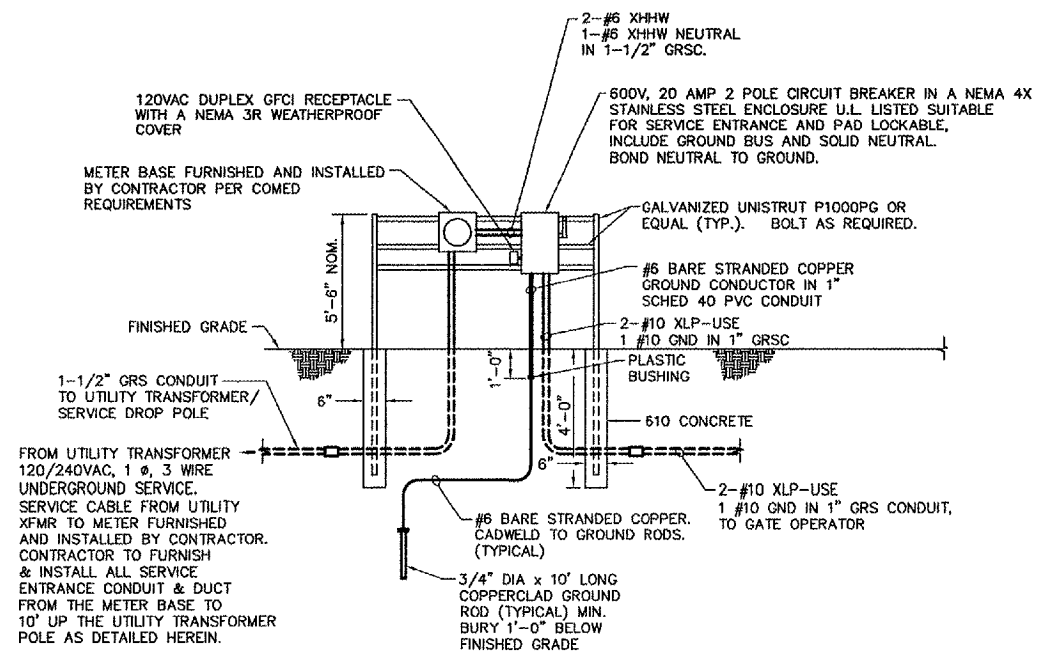
**GATE OPERATOR DETAIL**

NOT TO SCALE



**CARD READER MOUNTING DETAIL**

NOT TO SCALE

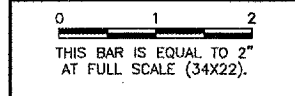


**SERVICE ENTRANCE AND DISCONNECT**

NOT TO SCALE

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 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER**

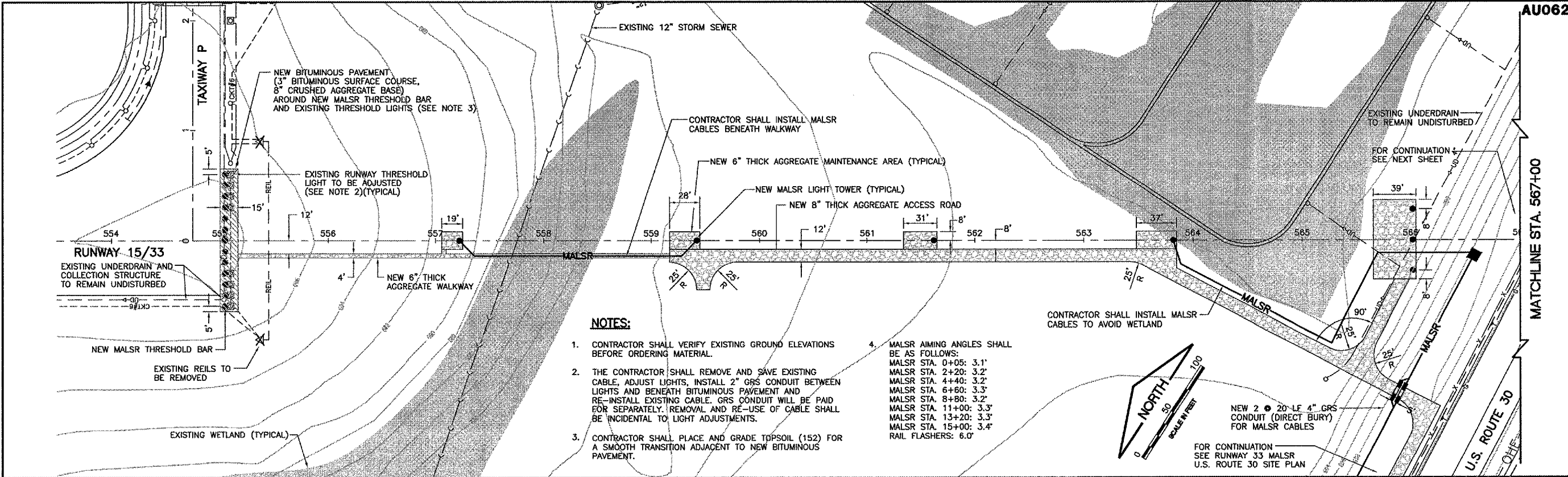
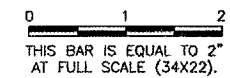
**GATE DETAILS**

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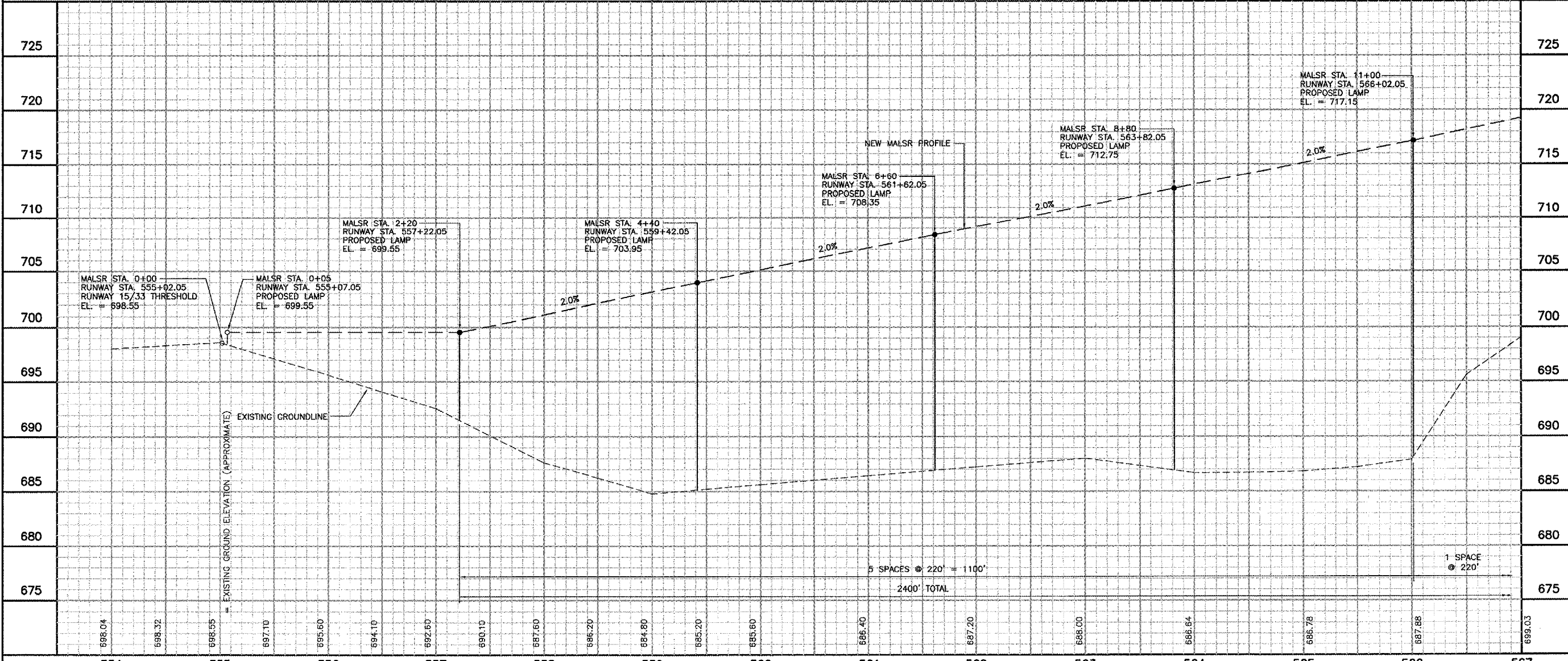
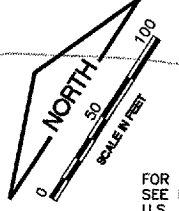


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**NOTES:**

- CONTRACTOR SHALL VERIFY EXISTING GROUND ELEVATIONS BEFORE ORDERING MATERIAL.
- THE CONTRACTOR SHALL REMOVE AND SAVE EXISTING CABLE, ADJUST LIGHTS, INSTALL 2" GRS CONDUIT BETWEEN LIGHTS AND BENEATH BITUMINOUS PAVEMENT AND RE-INSTALL EXISTING CABLE. GRS CONDUIT WILL BE PAID FOR SEPARATELY. REMOVAL AND RE-USE OF CABLE SHALL BE INCIDENTAL TO LIGHT ADJUSTMENTS.
- CONTRACTOR SHALL PLACE AND GRADE TOPSOIL (152) FOR A SMOOTH TRANSITION ADJACENT TO NEW BITUMINOUS PAVEMENT.
- MALSRR AIMING ANGLES SHALL BE AS FOLLOWS:  
 MALSRR STA. 0+05: 3.1'  
 MALSRR STA. 2+20: 3.2'  
 MALSRR STA. 4+40: 3.2'  
 MALSRR STA. 6+60: 3.3'  
 MALSRR STA. 8+80: 3.2'  
 MALSRR STA. 11+00: 3.3'  
 MALSRR STA. 13+20: 3.3'  
 MALSRR STA. 15+00: 3.4'  
 RAIL FLASHERS: 6.0'



**AURORA MUNICIPAL AIRPORT  
AURORA, ILLINOIS  
CONSTRUCT RUNWAY 33 ILS  
RELOCATE RUNWAY 9 LOCALIZER**

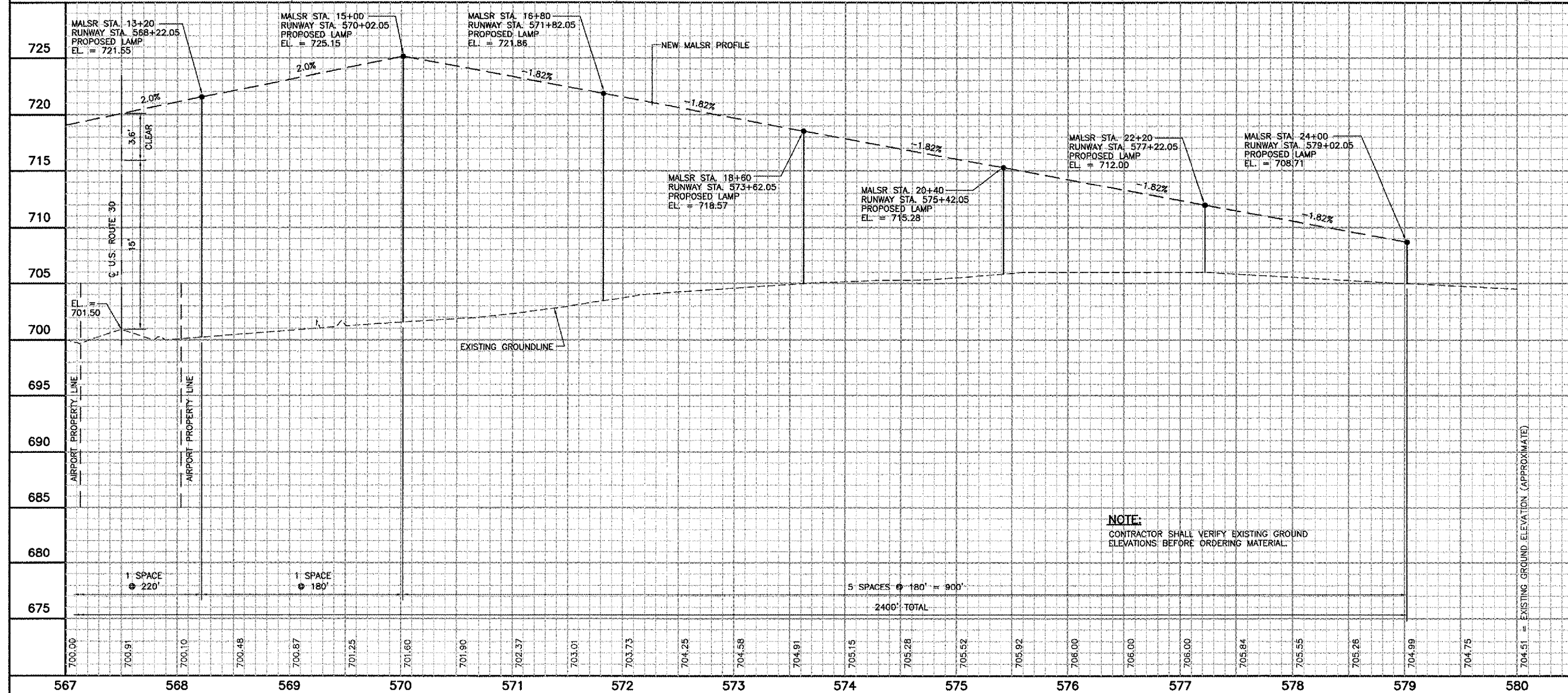
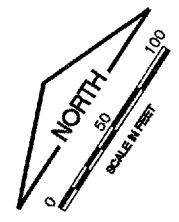
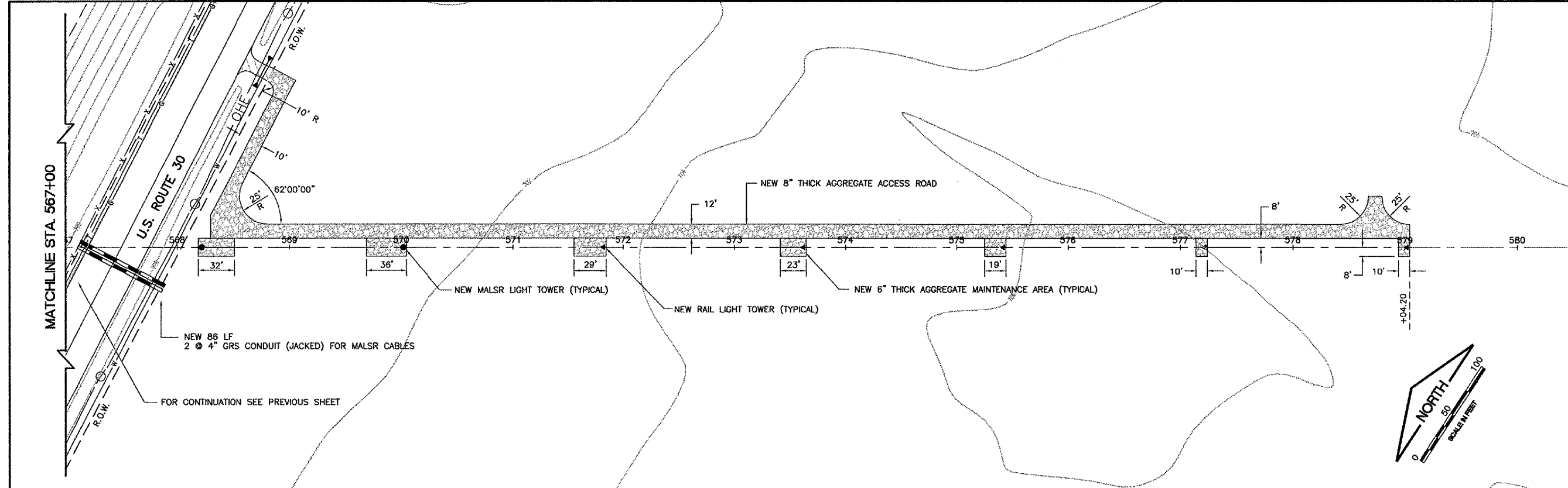
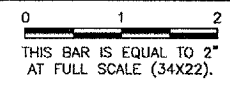
**RUNWAY 33 MALSRR PLAN AND PROFILE  
MALSRR STATIONS 0+05 - 11+00  
ARR-D-MALSRR33-C01**

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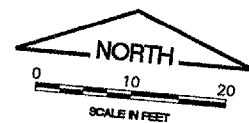


**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER  
 RUNWAY 33 MALSR PLAN AND PROFILE  
 MALSR STATIONS 13+20 - 24+00  
 ARR-D-MALSR33-C02**

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FOR LEGEND, SEE RUNWAY 33 MALSR  
 U.S. ROUTE 30 SITE PLAN

**NOTES**

1. CONTRACTOR SHALL INSTALL CONCRETE PAD, CONDUITS AND GROUNDING ELECTRODES FOR THE TRANSFORMER PER UTILITY COMPANY REQUIREMENTS. COST INCIDENTAL TO EQUIPMENT SHELTER.
2. WHERE SPECIFIC MANUFACTURERS OF EQUIPMENT ARE GIVEN, THE CONTRACTOR MAY SUBMIT ALTERNATE EQUIPMENT EQUAL TO THAT PROPOSED FOR CONSIDERATION BY THE ENGINEER.
3. TO ENSURE CONFORMANCE TO SPECIFICATIONS, AN FAA REPRESENTATIVE MAY VISIT THE SITE AT ANY TIME.
4. COMED 25 KVA PAD-MOUNTED TRANSFORMER, PRIMARY TO 120/240V, SINGLE PHASE (BY OTHERS).
5. THE CONTRACTOR SHALL FURNISH AND INSTALL UTILITY METER AND METER BASE PER UTILITY REQUIREMENTS. COMED SHALL SUPPLY METER.
6. CONTRACTOR SHALL INSTALL (2) 4" GRS CONDUITS EXTENDED MINIMUM 5' AWAY FROM TRANSFORMER PAD: 1 FOR PRIMARY POWER CABLES AND 1 SPARE.
7. CONTRACTOR SHALL INSTALL (1) 2" GRS CONDUIT FROM TRANSFORMER PAD TO ELECTRIC METER.
8. CONTRACTOR SHALL COORDINATE NEW ELECTRIC SERVICE FOR RUNWAY 33 MALSR WITH COMED. NEW ELECTRIC SERVICE SHALL BE 100A, 120/240V, 1-PHASE.

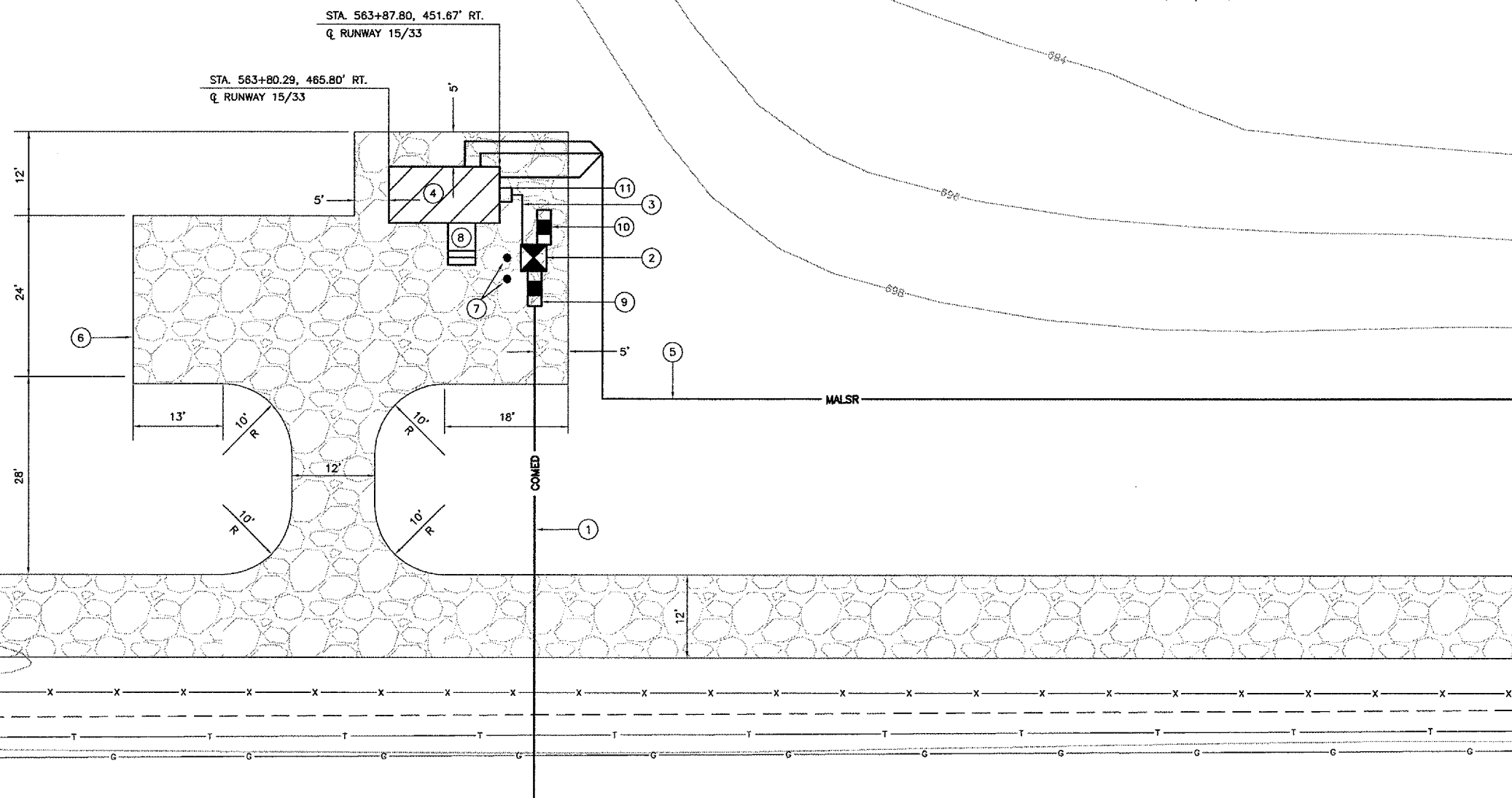
**REVISIONS**

NUMBER	BY	DATE

0 1 2  
 THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (34X22).

**NUMBERED LEGEND**

1. COMED UNDERGROUND PRIMARY ELECTRIC CABLE (BY OTHERS). (EXACT LOCATION TO BE DETERMINED BY COMED)
2. COMED 25KVA PAD-MOUNTED TRANSFORMER, PRIMARY TO 120/240V, SINGLE PHASE (BY OTHERS) SEE NOTES 1, 4, 6 AND 7.
3. 3-1/C#2 TYPE U.S.E. AND #2 GREEN U.S.E. GROUND POWER CABLES IN 2" GRS CONDUIT FROM UTILITY TRANSFORMER TO UTILITY METER.
4. 8'x16' MALSR EQUIPMENT SHELTER
5. NEW MALSR CABLES
6. NEW 8" THICK AGGREGATE TURNAROUND/MAINTENANCE AREA
7. NEW BOLLARD
8. 4'x6' CONCRETE STAIRS
9. 4" GRS CONDUIT EXTENDED MIN. 5' AWAY FROM TRANSFORMER PAD FOR ITEM 1.
10. 4" GRS CONDUIT (SPARE), EXTENDED AND CAPPED MIN. 5' AWAY FROM TRANSFORMER PAD.
11. UTILITY METER AND METER BASE. METER TO BE SUPPLIED BY UTILITY COMPANY AND BASE TO BE FURNISHED & INSTALLED BY CONTRACTOR PER UTILITY REQUIREMENTS.



**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILSI  
 RELOCATE RUNWAY 9 LOCALIZER  
 RUNWAY 33 MALSR  
 SHELTER SITE PLAN  
 ARR-D-MALSR33-C03**

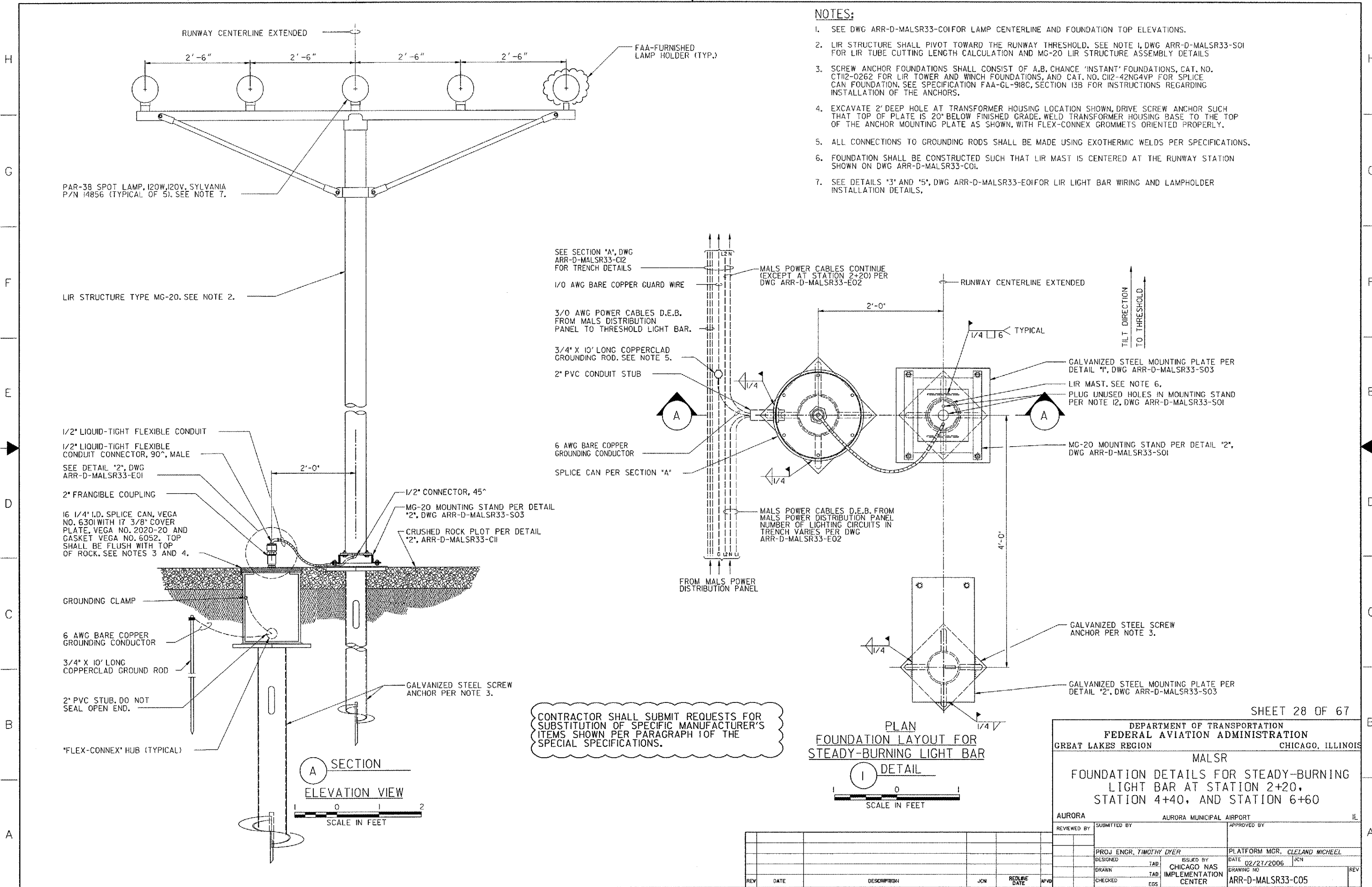
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THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM

8 7 6 5 4 3 2 1



**NOTES:**

1. SEE DWG ARR-D-MALSR33-COIFOR LAMP CENTERLINE AND FOUNDATION TOP ELEVATIONS.
2. LIR STRUCTURE SHALL PIVOT TOWARD THE RUNWAY THRESHOLD. SEE NOTE 1, DWG ARR-D-MALSR33-SO1 FOR LIR TUBE CUTTING LENGTH CALCULATION AND MG-20 LIR STRUCTURE ASSEMBLY DETAILS
3. SCREW ANCHOR FOUNDATIONS SHALL CONSIST OF A.B. CHANCE 'INSTANT' FOUNDATIONS, CAT. NO. CTII2-0262 FOR LIR TOWER AND WINCH FOUNDATIONS, AND CAT. NO. CII2-42NG4VP FOR SPLICE CAN FOUNDATION. SEE SPECIFICATION FAA-GL-918C, SECTION 13B FOR INSTRUCTIONS REGARDING INSTALLATION OF THE ANCHORS.
4. EXCAVATE 2' DEEP HOLE AT TRANSFORMER HOUSING LOCATION SHOWN, DRIVE SCREW ANCHOR SUCH THAT TOP OF PLATE IS 20" BELOW FINISHED GRADE, WELD TRANSFORMER HOUSING BASE TO THE TOP OF THE ANCHOR MOUNTING PLATE AS SHOWN, WITH FLEX-CONNEX GROMMETS ORIENTED PROPERLY.
5. ALL CONNECTIONS TO GROUNDING RODS SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATIONS.
6. FOUNDATION SHALL BE CONSTRUCTED SUCH THAT LIR MAST IS CENTERED AT THE RUNWAY STATION SHOWN ON DWG ARR-D-MALSR33-CO1.
7. SEE DETAILS '3' AND '5', DWG ARR-D-MALSR33-E0IFOR LIR LIGHT BAR WIRING AND LAMPHOLDER INSTALLATION DETAILS.

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

PLAN  
FOUNDATION LAYOUT FOR  
STEADY-BURNING LIGHT BAR

(I) DETAIL  
SCALE IN FEET

SHEET 28 OF 67

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION GREAT LAKES REGION CHICAGO, ILLINOIS			
MALS R			
FOUNDATION DETAILS FOR STEADY-BURNING LIGHT BAR AT STATION 2+20, STATION 4+40, AND STATION 6+60			
AURORA	AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY	SUBMITTED BY	APPROVED BY	
DESIGNED BY	TAD	PLATFORM MGR,	CLELAND MICHEEL
DRAWN	TAD	ISSUED BY	CHICAGO NAS
CHECKED	EGS	IMPLEMENTATION	CENTER
DATE	DATE	DATE	DATE
02/21/2006	JUN	ARR-D-MALSR33-C05	

REV	DATE	DESCRIPTION	CHK	REDLINE DATE	APVD

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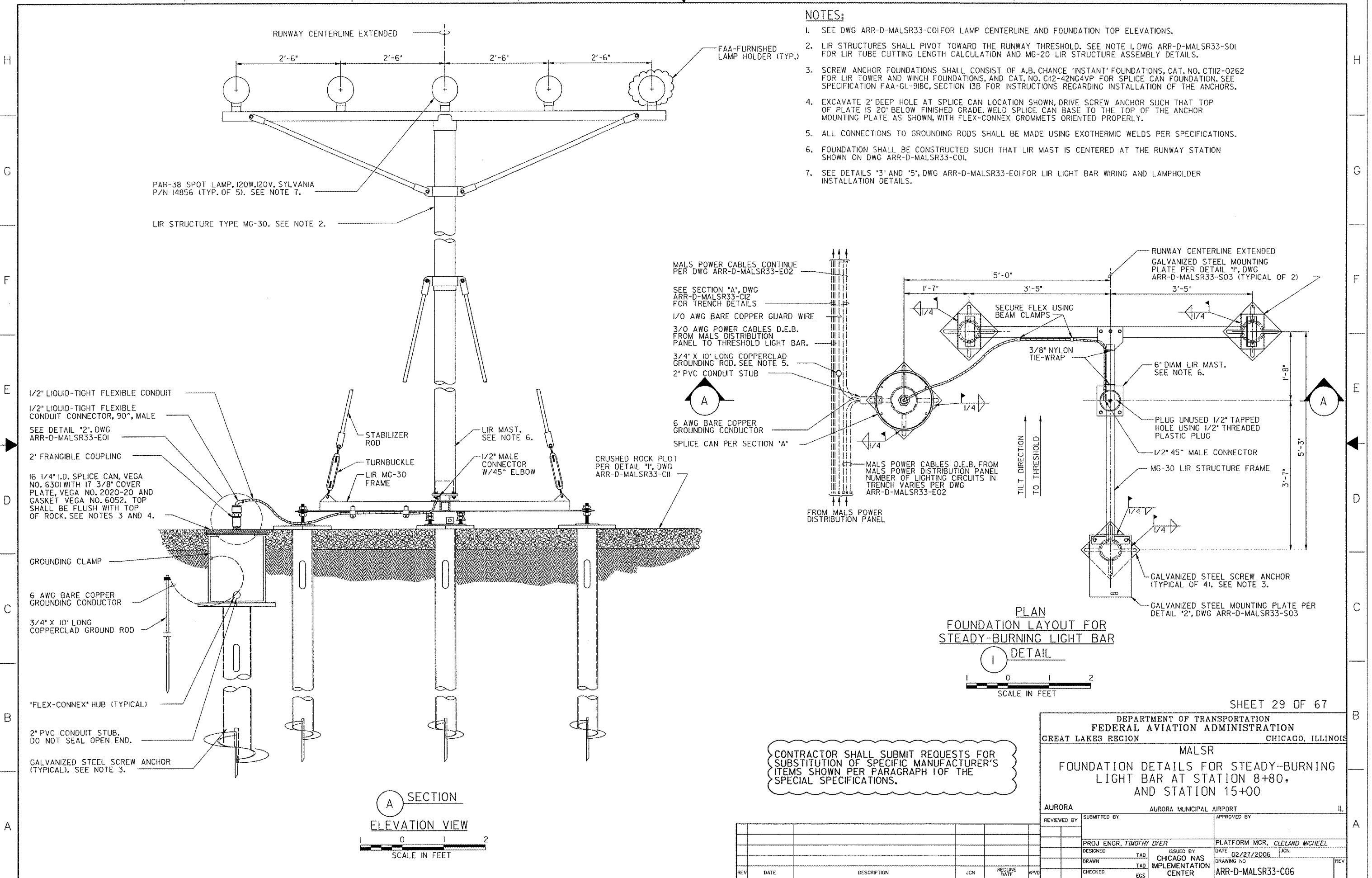
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THIS DRAWING PRODUCED BY THE GREAT LAKES REGION MICROSTATION SYSTEM

8 7 6 5 4 3 2 1



**NOTES:**

1. SEE DWG ARR-D-MALSR33-CO1 FOR LAMP CENTERLINE AND FOUNDATION TOP ELEVATIONS.
2. LIR STRUCTURES SHALL PIVOT TOWARD THE RUNWAY THRESHOLD. SEE NOTE 1, DWG ARR-D-MALSR33-SO1 FOR LIR TUBE CUTTING LENGTH CALCULATION AND MG-20 LIR STRUCTURE ASSEMBLY DETAILS.
3. SCREW ANCHOR FOUNDATIONS SHALL CONSIST OF A.B. CHANCE 'INSTANT' FOUNDATIONS, CAT. NO. CT112-0262 FOR LIR TOWER AND WINCH FOUNDATIONS, AND CAT. NO. CT12-42NG4VP FOR SPLICE CAN FOUNDATION. SEE SPECIFICATION FAA-GL-918C, SECTION 13B FOR INSTRUCTIONS REGARDING INSTALLATION OF THE ANCHORS.
4. EXCAVATE 2' DEEP HOLE AT SPLICE CAN LOCATION SHOWN, DRIVE SCREW ANCHOR SUCH THAT TOP OF PLATE IS 20" BELOW FINISHED GRADE. WELD SPLICE CAN BASE TO THE TOP OF THE ANCHOR MOUNTING PLATE AS SHOWN, WITH FLEX-CONNEX GROMMETS ORIENTED PROPERLY.
5. ALL CONNECTIONS TO GROUNDING RODS SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATIONS.
6. FOUNDATION SHALL BE CONSTRUCTED SUCH THAT LIR MAST IS CENTERED AT THE RUNWAY STATION SHOWN ON DWG ARR-D-MALSR33-CO1.
7. SEE DETAILS '3' AND '5', DWG ARR-D-MALSR33-E01 FOR LIR LIGHT BAR WIRING AND LAMPHOLDER INSTALLATION DETAILS.

PAR-38 SPOT LAMP, 120W, 120V, SYLVANIA P/N 14856 (TYP. OF 5). SEE NOTE 7.

LIR STRUCTURE TYPE MG-30. SEE NOTE 2.

1/2" LIQUID-TIGHT FLEXIBLE CONDUIT

1/2" LIQUID-TIGHT FLEXIBLE CONDUIT CONNECTOR, 90°, MALE

SEE DETAIL "2", DWG ARR-D-MALSR33-E01

2" FRANGIBLE COUPLING

16 1/4" I.D. SPLICE CAN, VEGA NO. 6301 WITH 17 3/8" COVER PLATE, VEGA NO. 2020-20 AND GASKET VEGA NO. 6052. TOP SHALL BE FLUSH WITH TOP OF ROCK. SEE NOTES 3 AND 4.

GROUNDING CLAMP

6 AWG BARE COPPER GROUNDING CONDUCTOR

3/4" X 10' LONG COPPERCLAD GROUND ROD

"FLEX-CONNEX" HUB (TYPICAL)

2" PVC CONDUIT STUB. DO NOT SEAL OPEN END.

GALVANIZED STEEL SCREW ANCHOR (TYPICAL). SEE NOTE 3.

STABILIZER ROD

TURNBUCKLE

LIR MG-30 FRAME

LIR MAST, SEE NOTE 6.

1/2" MALE CONNECTOR W/45° ELBOW

CRUSHED ROCK PLOT PER DETAIL "1", DWG ARR-D-MALSR33-C11

MALS POWER CABLES CONTINUE PER DWG ARR-D-MALSR33-E02

SEE SECTION "A", DWG ARR-D-MALSR33-C12 FOR TRENCH DETAILS

1/0 AWG BARE COPPER GUARD WIRE

3/0 AWG POWER CABLES D.E.B. FROM MALS DISTRIBUTION PANEL TO THRESHOLD LIGHT BAR.

3/4" X 10' LONG COPPERCLAD GROUNDING ROD. SEE NOTE 5.

2" PVC CONDUIT STUB

6 AWG BARE COPPER GROUNDING CONDUCTOR

SPLICE CAN PER SECTION "A"

MALS POWER CABLES D.E.B. FROM MALS POWER DISTRIBUTION PANEL NUMBER OF LIGHTING CIRCUITS IN TRENCH VARIES PER DWG ARR-D-MALSR33-E02

FROM MALS POWER DISTRIBUTION PANEL

PLAN FOUNDATION LAYOUT FOR STEADY-BURNING LIGHT BAR

DETAIL 1 SCALE IN FEET

SECTION A ELEVATION VIEW

SCALE IN FEET

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

SHEET 29 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

MALS R  
FOUNDATION DETAILS FOR STEADY-BURNING  
LIGHT BAR AT STATION 8+80,  
AND STATION 15+00

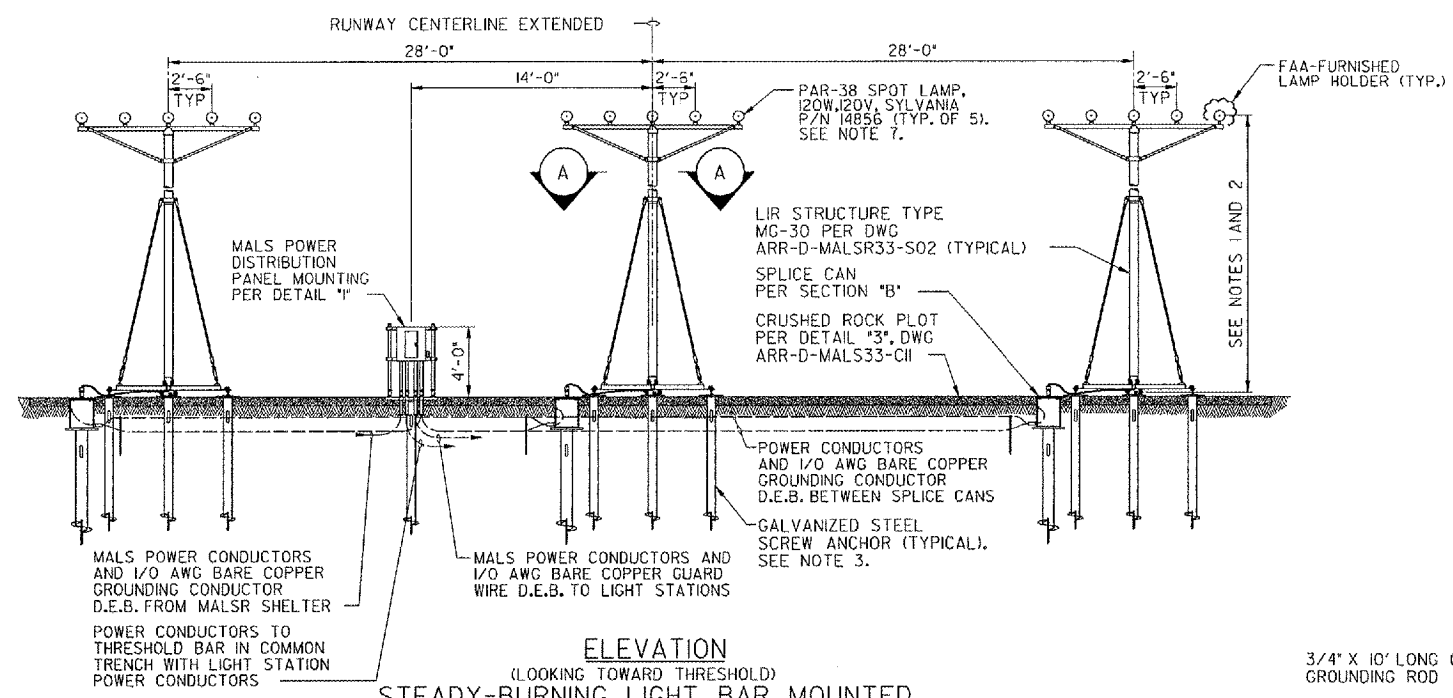
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REVIEWED BY	SUBMITTED BY	APPROVED BY
DESIGNED	DATE	PLATFORM MGR.
DRAWN	ISSUED BY	CHICAGO NAS IMPLEMENTATION CENTER
CHECKED	DRAWING NO	ARR-D-MALSR33-C06

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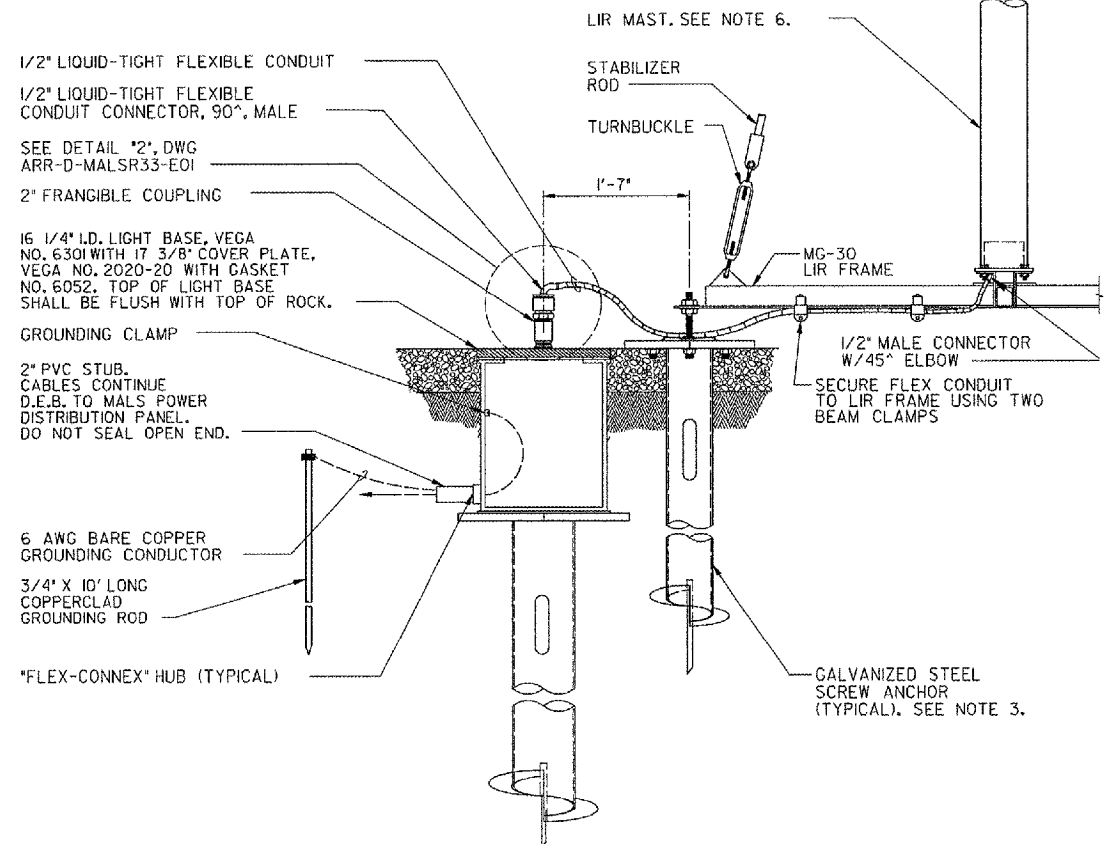
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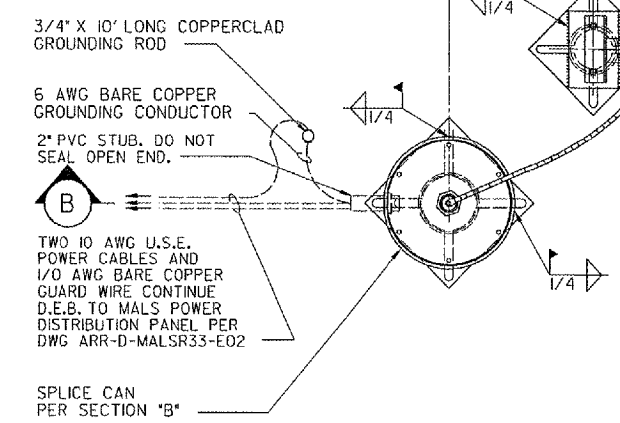
**ELEVATION**  
(LOOKING TOWARD THRESHOLD)  
**STEADY-BURNING LIGHT BAR MOUNTED ON MG-30 LIR TOWER**  
SCALE IN FEET

**NOTES:**

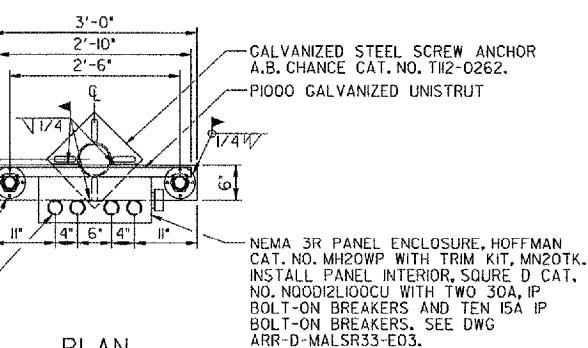
- SEE DWG ARR-D-MALSR33-CO1 FOR LAMP CENTERLINE AND FOUNDATION TOP ELEVATIONS.
- LIR STRUCTURES SHALL PIVOT TOWARD THE RUNWAY THRESHOLD. SEE NOTE 1, DWG ARR-D-MALSR33-SO1 FOR LIR TUBE CUTTING LENGTH CALCULATION AND MG-20 LIR STRUCTURE ASSEMBLY DETAILS.
- SCREW ANCHOR FOUNDATIONS SHALL CONSIST OF A.B. CHANCE 'INSTANT' FOUNDATIONS, CAT. NO. CT112-0262 FOR LIR TOWER AND WINCH FOUNDATIONS, AND CAT. NO. C112-42NG4VP FOR SPLICE CAN FOUNDATION. SEE SPECIFICATION FAA-GL-918C, SECTION 13B FOR INSTRUCTIONS REGARDING INSTALLATION OF THE ANCHORS.
- EXCAVATE 2' DEEP HOLE AT SPLICE CAN LOCATION SHOWN, DRIVE SCREW ANCHOR SUCH THAT TOP OF PLATE IS 20" BELOW FINISHED GRADE, WELD SPLICE CAN BASE TO THE TOP OF THE ANCHOR MOUNTING PLATE AS SHOWN, WITH FLEX-CONNEX GROMMETS ORIENTED PROPERLY.
- ALL CONNECTIONS TO GROUNDING RODS SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATIONS.
- FOUNDATION SHALL BE CONSTRUCTED SUCH THAT LIR MAST IS CENTERED AT THE RUNWAY STATION AND OFFSET DISTANCE FROM RUNWAY CENTERLINE AS SHOWN.
- SEE DETAILS \*3\* AND \*5\*, DWG ARR-D-MALSR33-E01 FOR LIR LIGHT BAR WIRING AND LAMPHOLDER INSTALLATION DETAILS.



**SPLICE CAN FOUNDATION**  
SECTION B  
SCALE IN FEET



**PLAN**  
**MALS POWER DISTRIBUTION PANEL MOUNTING CHANNEL DETAIL**  
DETAIL 1  
SCALE IN FEET



**PLAN**  
**MG-30 LIR STRUCTURE FOUNDATION LAYOUT**  
SECTION A  
SCALE IN FEET

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 10F OF THE SPECIAL SPECIFICATIONS.

REV.	DATE	DESCRIPTION	JCN	REDLINE DATE	APP'D

SHEET 30 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

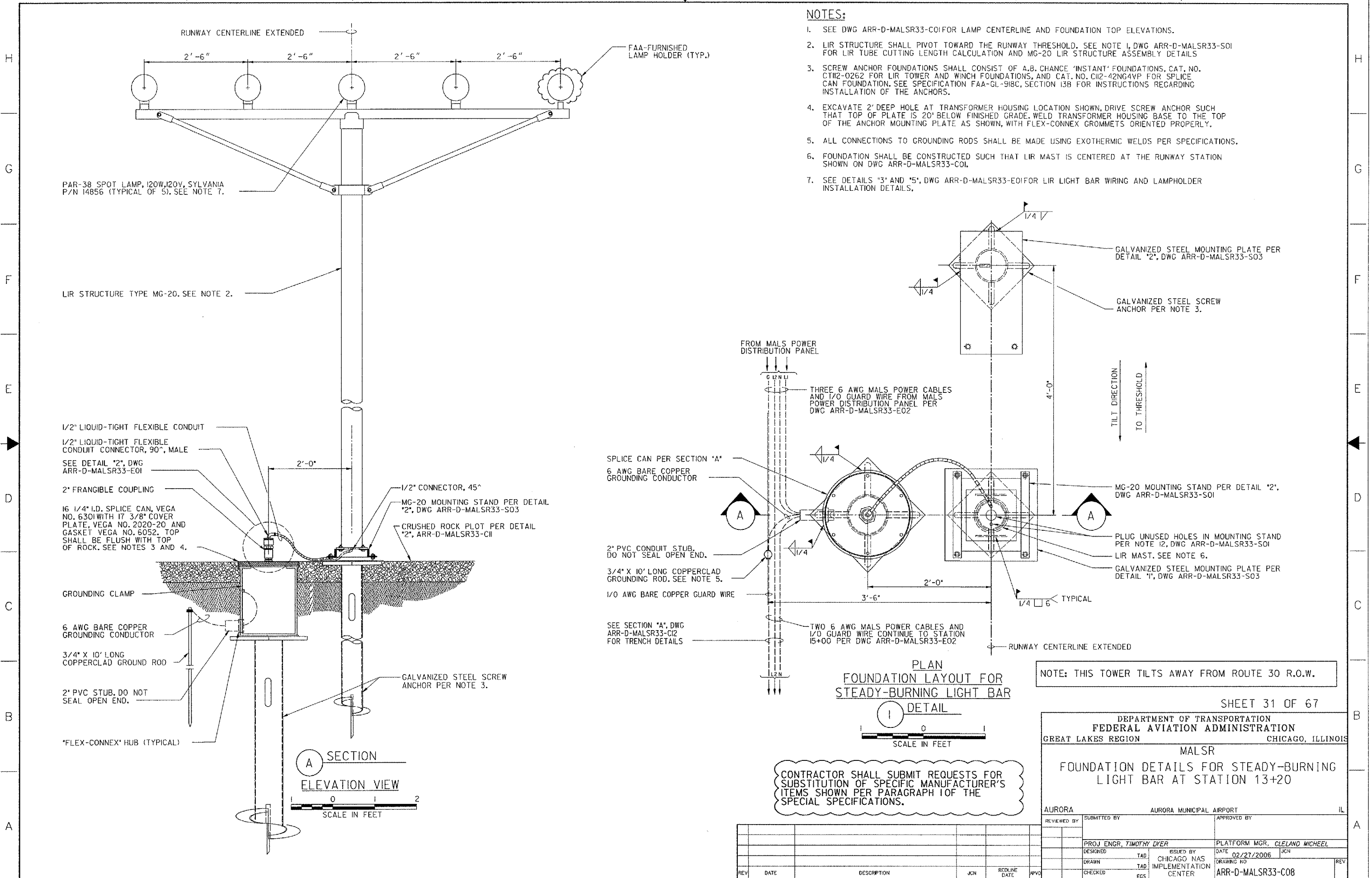
MALSR  
FOUNDATION DETAILS FOR STEADY-BURNING LIGHT BARS AT STATION 11+00

AURORA		AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY	SUBMITTED BY	APPROVED BY		
DESIGNED BY	TAD	PLATFORM MGR,	CLELAND MICHEEL	
DATE	02/27/2006	JCN		
DRAWN	TAD	ISSUED BY	CHICAGO NAS	
CHECKED	EGS	IMPLEMENTATION CENTER		
		DRAWING NO	ARR-D-MALSR33-C07	
		REV		

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THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM

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**NOTES:**

1. SEE DWG ARR-D-MALSR33-CO1 FOR LAMP CENTERLINE AND FOUNDATION TOP ELEVATIONS.
2. LIR STRUCTURE SHALL PIVOT TOWARD THE RUNWAY THRESHOLD. SEE NOTE 1, DWG ARR-D-MALSR33-SO1 FOR LIR TUBE CUTTING LENGTH CALCULATION AND MG-20 LIR STRUCTURE ASSEMBLY DETAILS.
3. SCREW ANCHOR FOUNDATIONS SHALL CONSIST OF A.B. CHANCE 'INSTANT' FOUNDATIONS, CAT. NO. CT112-0262 FOR LIR TOWER AND WINCH FOUNDATIONS, AND CAT. NO. CI12-42NG4VP FOR SPLICE CAN FOUNDATION. SEE SPECIFICATION FAA-GL-918C, SECTION 13B FOR INSTRUCTIONS REGARDING INSTALLATION OF THE ANCHORS.
4. EXCAVATE 2' DEEP HOLE AT TRANSFORMER HOUSING LOCATION SHOWN, DRIVE SCREW ANCHOR SUCH THAT TOP OF PLATE IS 20" BELOW FINISHED GRADE, WELD TRANSFORMER HOUSING BASE TO THE TOP OF THE ANCHOR MOUNTING PLATE AS SHOWN, WITH FLEX-CONNEX GROMMETS ORIENTED PROPERLY.
5. ALL CONNECTIONS TO GROUNDING RODS SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATIONS.
6. FOUNDATION SHALL BE CONSTRUCTED SUCH THAT LIR MAST IS CENTERED AT THE RUNWAY STATION SHOWN ON DWG ARR-D-MALSR33-CO1.
7. SEE DETAILS '3' AND '5', DWG ARR-D-MALSR33-E01 FOR LIR LIGHT BAR WIRING AND LAMPHOLDER INSTALLATION DETAILS.

NOTE: THIS TOWER TILTS AWAY FROM ROUTE 30 R.O.W.

PLAN FOUNDATION LAYOUT FOR STEADY-BURNING LIGHT BAR  
DETAIL 1



CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

SHEET 31 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

MALSR  
FOUNDATION DETAILS FOR STEADY-BURNING LIGHT BAR AT STATION 13+20

AURORA		AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY	SUBMITTED BY	APPROVED BY		
DESIGNED	TAD	ISSUED BY	DATE	CHK
DRAWN	TAD	IMPLEMENTATION CENTER	02/27/2006	JCN
CHECKED	EGS	DRAWING NO	ARR-D-MALSR33-C08	

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APV

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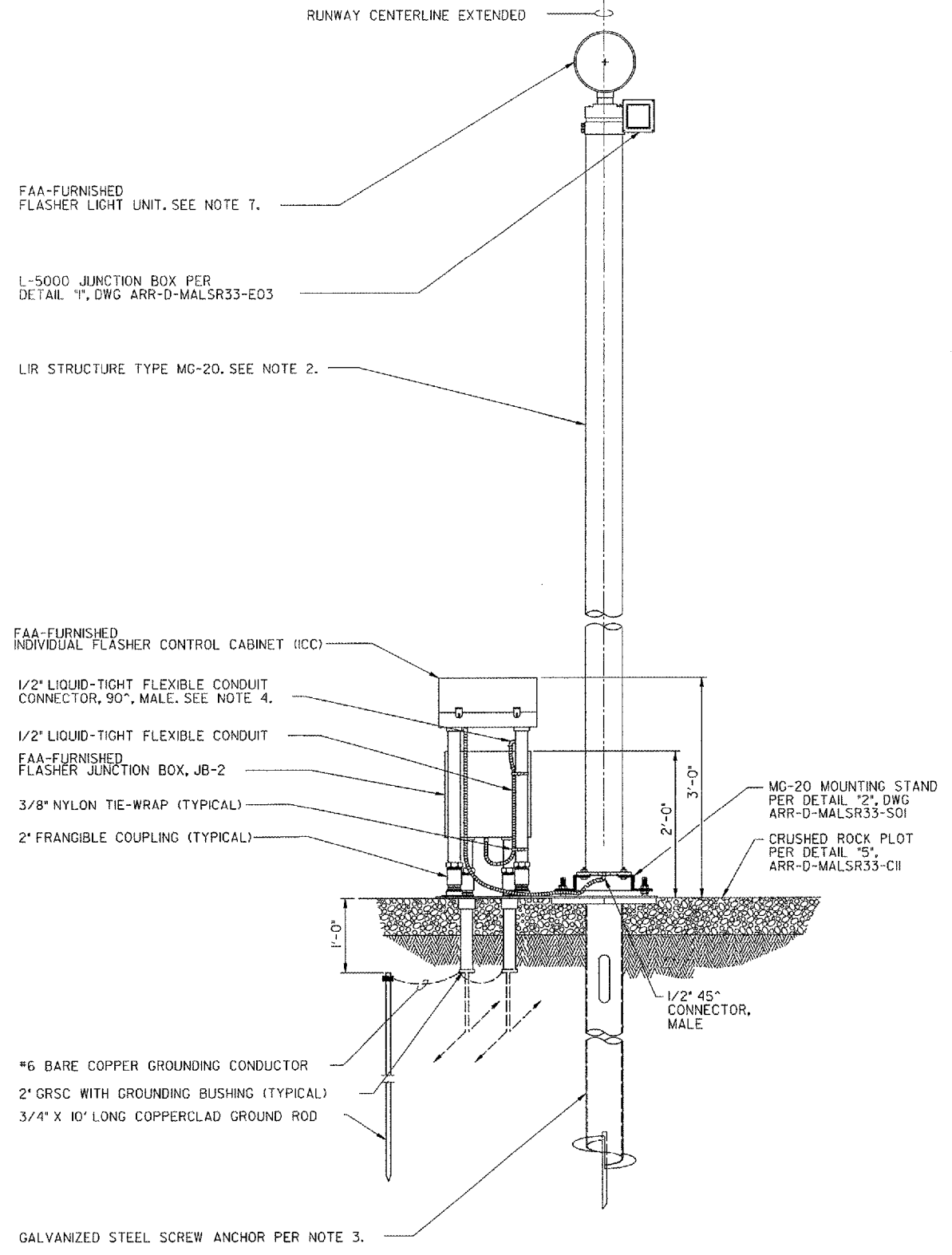
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THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM

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FAA-FURNISHED  
FLASHER LIGHT UNIT. SEE NOTE 7.

L-5000 JUNCTION BOX PER  
DETAIL "1", DWG ARR-D-MALSR33-E03

LIR STRUCTURE TYPE MG-20. SEE NOTE 2.

FAA-FURNISHED  
INDIVIDUAL FLASHER CONTROL CABINET (ICC)

1/2" LIQUID-TIGHT FLEXIBLE CONDUIT  
CONNECTOR, 90°, MALE. SEE NOTE 4.

1/2" LIQUID-TIGHT FLEXIBLE CONDUIT

FAA-FURNISHED  
FLASHER JUNCTION BOX, JB-2

3/8" NYLON TIE-WRAP (TYPICAL)

2" FRANGIBLE COUPLING (TYPICAL)

#6 BARE COPPER GROUNDING CONDUCTOR

2" GRSC WITH GROUNDING BUSHING (TYPICAL)

3/4" X 10" LONG COPPERCLAD GROUND ROD

GALVANIZED STEEL SCREW ANCHOR PER NOTE 3.

RUNWAY CENTERLINE EXTENDED

**A SECTION**  
**ELEVATION VIEW**  
SCALE IN FEET

FLASHER POWER AND CONTROL  
CABLES IN COMMON TRENCH D.E.B.  
FROM FLASHER JUNCTION BOX  
AT PREVIOUS LIGHT STATION OR  
MALSR EQUIPMENT SHELTER  
PER DWG ARR-D-MALSR33-C02.

1/0 AWG BARE COPPER GUARD WIRE

3/4" X 10" LONG COPPERCLAD  
GROUNDING ROD. SEE NOTE 5.

6 AWG BARE COPPER GROUNDING  
CONDUCTOR. SEE NOTE 8.

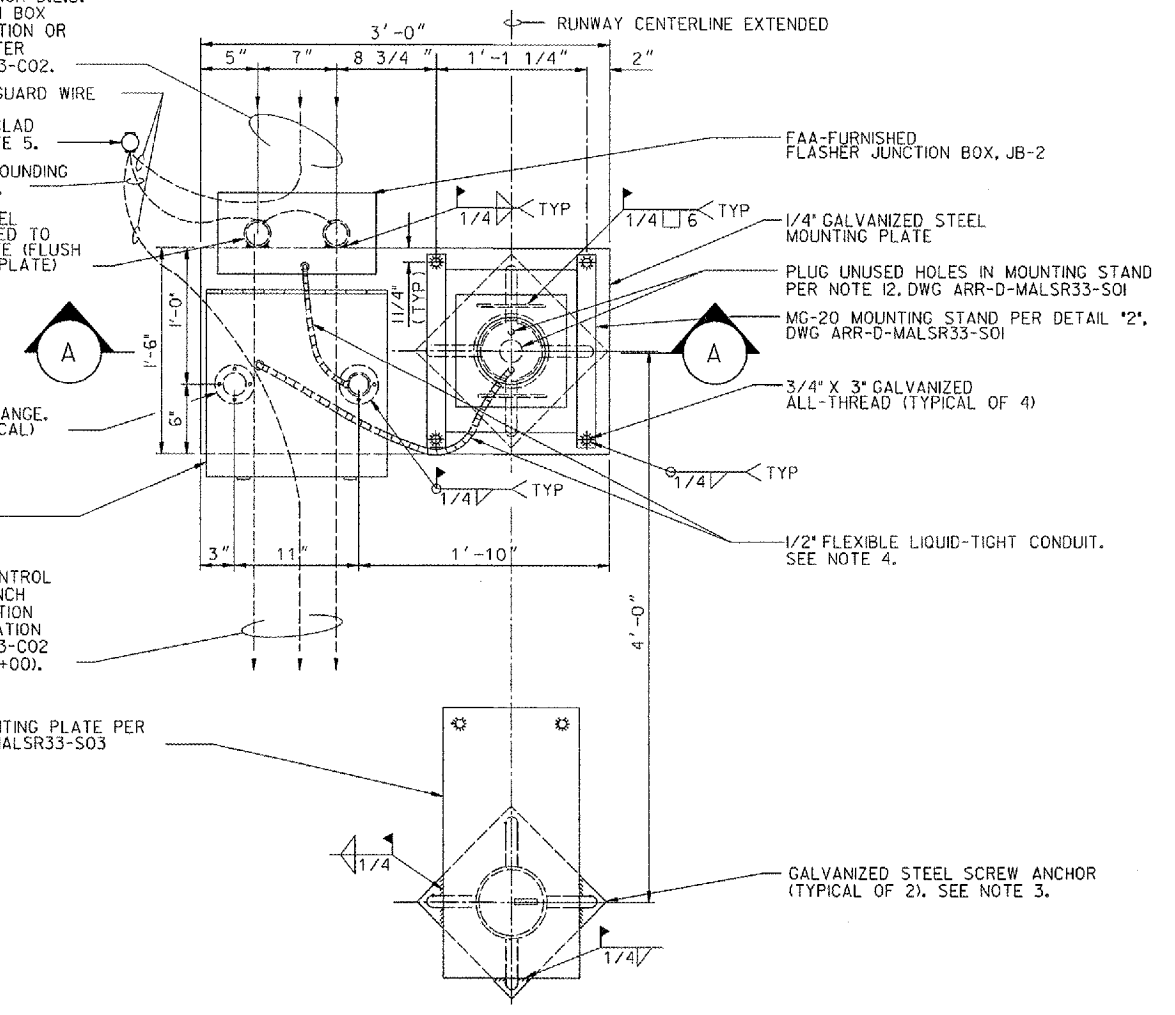
2" GALVANIZED RIGID STEEL  
CONDUIT COUPLING WELDED TO  
EDGE OF MOUNTING PLATE (FLUSH  
WITH TOP OF MOUNTING PLATE)

2" GALVANIZED FLOOR FLANGE,  
WELDED TO PLATE (TYPICAL)

FAA-FURNISHED  
INDIVIDUAL FLASHER  
CONTROL CABINET (ICC)

FLASHER POWER AND CONTROL  
CABLES IN COMMON TRENCH  
D.E.B. TO FLASHER JUNCTION  
BOX AT NEXT LIGHT STATION  
PER DWG ARR-D-MALSR33-C02  
(EXCEPT AT STATION 24+00).

GALVANIZED STEEL MOUNTING PLATE PER  
DETAIL "2", DWG ARR-D-MALSR33-S03



**PLAN**  
**FOUNDATION LAYOUT FOR MALSR FLASHER**

**1 DETAIL**

SCALE IN FEET

**NOTES:**

1. SEE DWG ARR-D-MALSR33-COIFOR LAMP CENTERLINE AND FOUNDATION TOP ELEVATIONS.
2. LIR STRUCTURES SHALL PIVOT TOWARD THE RUNWAY THRESHOLD. SEE NOTE 1, DWG ARR-D-MALSR33-S01 FOR LIR TUBE CUTTING LENGTH CALCULATION AND MG-20 LIR STRUCTURE ASSEMBLY DETAILS.
3. ALL SCREW ANCHOR FOUNDATIONS SHALL CONSIST OF A.B. CHANCE 'INSTANT' FOUNDATIONS, CAT. NO. CT112-0262. SEE SPECIFICATION FAA-GL-918C, SECTION 13B FOR INSTRUCTIONS REGARDING INSTALLATION OF THE ANCHOR.
4. DRILL HOLE IN SIDE OF 2" EMT CONDUIT LEG OF ICC AND INSTALL 90° 1/2" FLEX CONDUIT CONNECTOR WITH 1/2" FLEX CONDUIT FROM JUNCTION BOX. ROUTE POWER AND CONTROL CABLES THROUGH FLEX CONDUIT, INTO EMT LEG AND INTO ICC. SEAL PENETRATION USING SILICONE SEALER.
5. ALL CONNECTIONS TO GROUNDING RODS SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATIONS.
6. FOUNDATION SHALL BE CONSTRUCTED SUCH THAT LIR MAST IS CENTERED AT THE RUNWAY STATION SHOWN ON DWG ARR-D-MALSR33-C02.
7. SEE DWG ARR-D-MALSR33-E03 FOR FLASHER WIRING AND LAMPHOLDER INSTALLATION DETAILS.

TILT DIRECTION  
TO THRESHOLD

CONTRACTOR SHALL SUBMIT REQUESTS FOR  
SUBSTITUTION OF SPECIFIC MANUFACTURER'S  
ITEMS SHOWN PER PARAGRAPH 1 OF THE  
SPECIAL SPECIFICATIONS.

SHEET 32 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

MALSR  
FOUNDATION DETAILS FOR FLASHER  
AT STATION 16+80, 18+60, AND 20+40

AURORA		AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY	SUBMITTED BY	APPROVED BY		
	PROJ ENGR, TIMOTHY DYER	PLATFORM MGR, CLELAND MICHEEL		
DESIGNED BY	TAD	ISSUED BY	CHICAGO NAS	DATE 02/27/2006
DRAWN	TAD	TAD	IMPLEMENTATION	DRAWING NO
CHECKED	EGS		CENTER	ARR-D-MALSR33-C09

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

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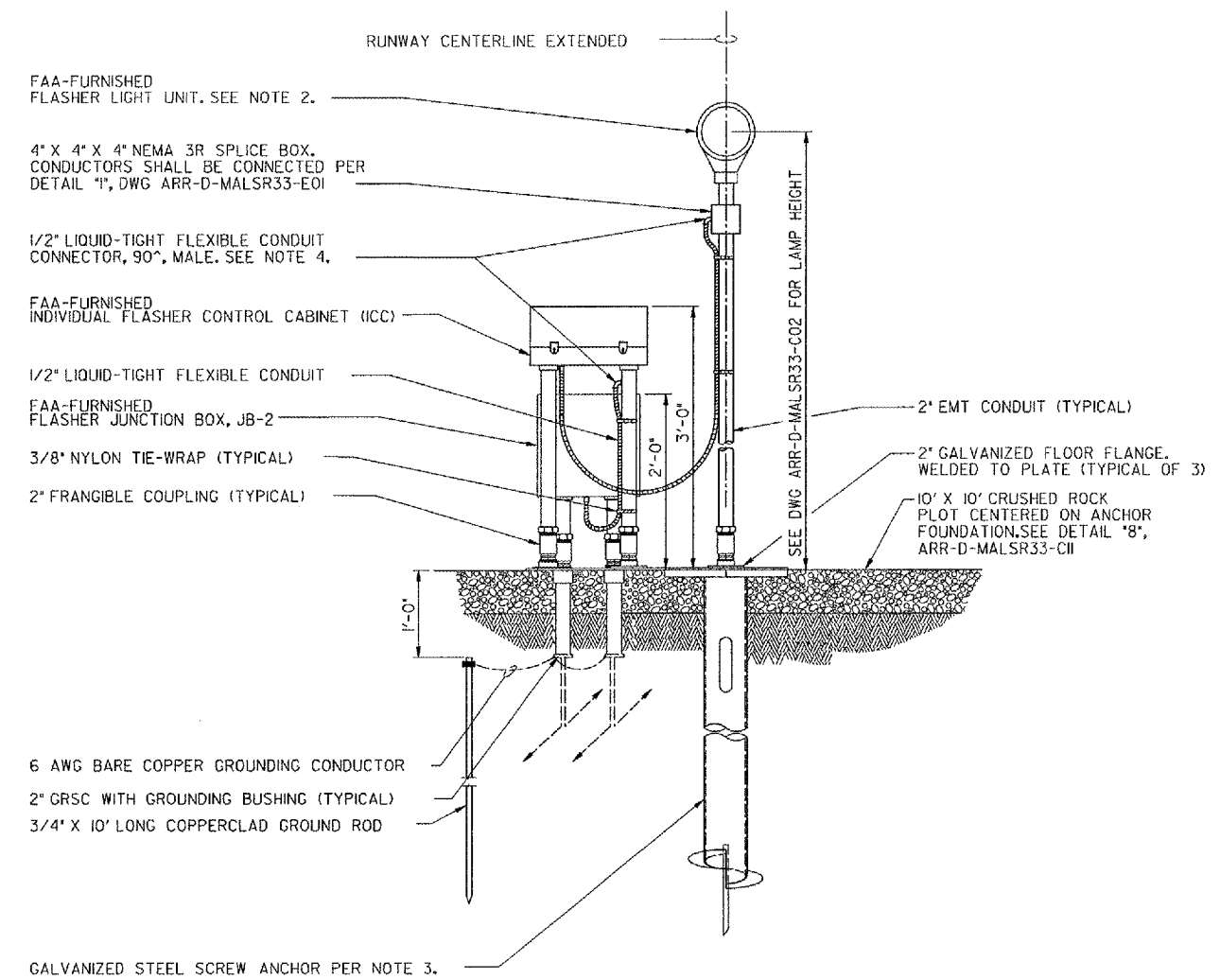
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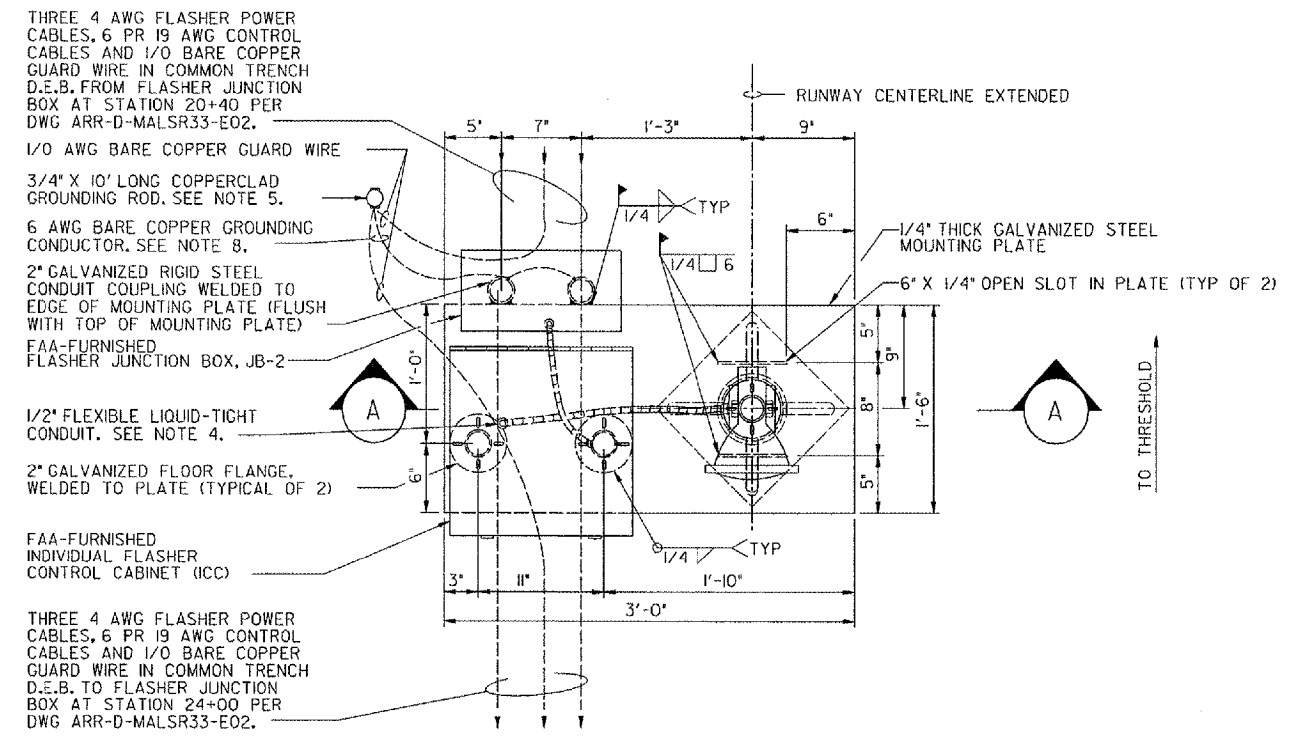
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**NOTES:**

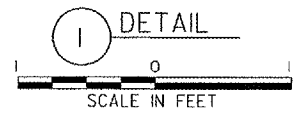
- SEE DWG ARR-D-MALSR33-C02 FOR LAMP CENTERLINE AND FOUNDATION TOP ELEVATIONS.
- SEE DWG ARR-D-MALSR33-E03 FOR FLASHER WIRING AND LAMPHOLDER INSTALLATION DETAILS.
- SCREW ANCHOR FOUNDATION SHALL BE A.B. CHANGE CAT. NO. CTH2-Q262 'INSTANT' FOUNDATION, SEE SPECIFICATION FAA-GL-918C, SECTION 13B FOR INSTRUCTIONS REGARDING INSTALLATION OF THE ANCHOR.
- DRILL HOLE IN SIDE OF 2" EMT CONDUIT LEG OF ICC AND INSTALL 90° 1/2" FLEX CONDUIT CONNECTOR WITH 1/2" FLEX CONDUIT FROM JUNCTION BOX. ROUTE POWER AND CONTROL CABLES THROUGH FLEX CONDUIT, INTO EMT LEG AND INTO ICC. SEAL PENETRATION USING SILICONE SEALER.
- ALL CONNECTIONS TO GROUNDING RODS SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATIONS.
- FOUNDATION SHALL BE CONSTRUCTED SUCH THAT THE FLASHER IS CENTERED AT THE RUNWAY STATION SHOWN ON DWG ARR-D-MALSR33-C02.



**A SECTION**  
ELEVATION VIEW  
SCALE IN FEET



**PLAN**  
FOUNDATION LAYOUT FOR MALSR FLASHER  
NOTE: STATION 22+20 IS SHOWN ABOVE, STATION 24+00 IS TYPICAL



CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APPR

SHEET 33 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

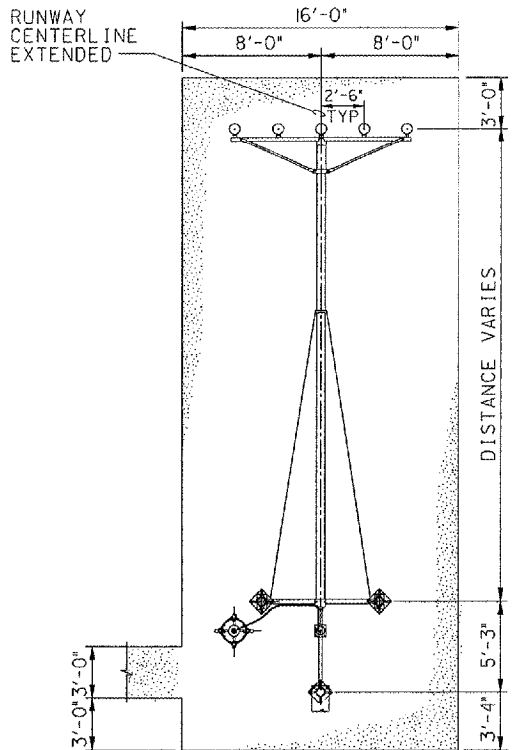
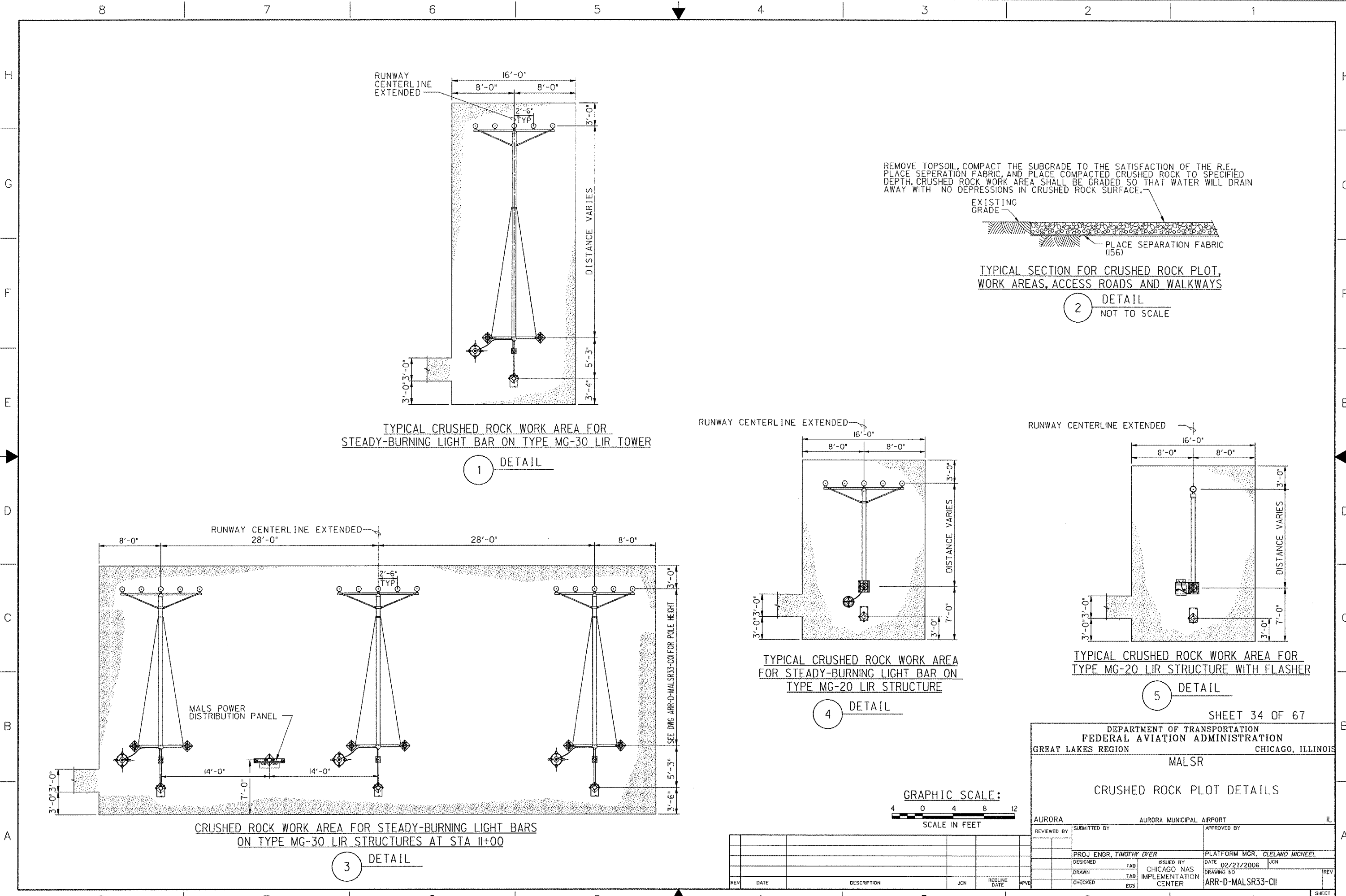
MALSR  
FOUNDATION DETAILS FOR FLASHER  
AT STATIONS 22+20 AND 24+00

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REVIEWED BY	SUBMITTED BY	APPROVED BY		
PROJ ENGR, <i>TIMOTHY DYER</i>	PLATFORM MGR, <i>CLELAND MICHEEL</i>			
DESIGNED	TAD	ISSUED BY	DATE	JCN
DRAWN	TAD	CHICAGO NAS IMPLEMENTATION CENTER	02/27/2006	
CHECKED	ECS	DRAWING NO	ARR-D-MALSR33-C10	

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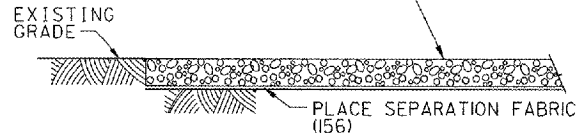
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TYPICAL CRUSHED ROCK WORK AREA FOR STEADY-BURNING LIGHT BAR ON TYPE MG-30 LIR TOWER

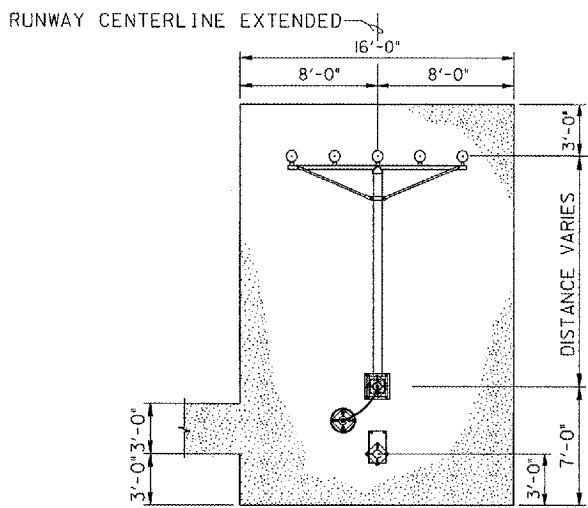
1 DETAIL

REMOVE TOPSOIL, COMPACT THE SUBGRADE TO THE SATISFACTION OF THE R.E., PLACE SEPARATION FABRIC, AND PLACE COMPACTED CRUSHED ROCK TO SPECIFIED DEPTH. CRUSHED ROCK WORK AREA SHALL BE GRADED SO THAT WATER WILL DRAIN AWAY WITH NO DEPRESSIONS IN CRUSHED ROCK SURFACE.



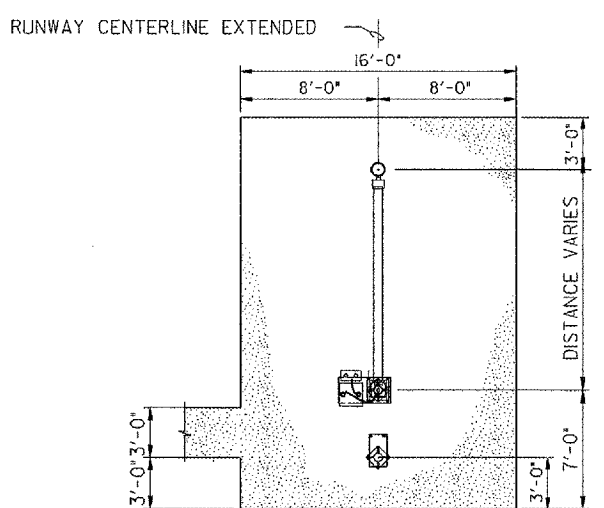
TYPICAL SECTION FOR CRUSHED ROCK PLOT, WORK AREAS, ACCESS ROADS AND WALKWAYS

2 DETAIL NOT TO SCALE



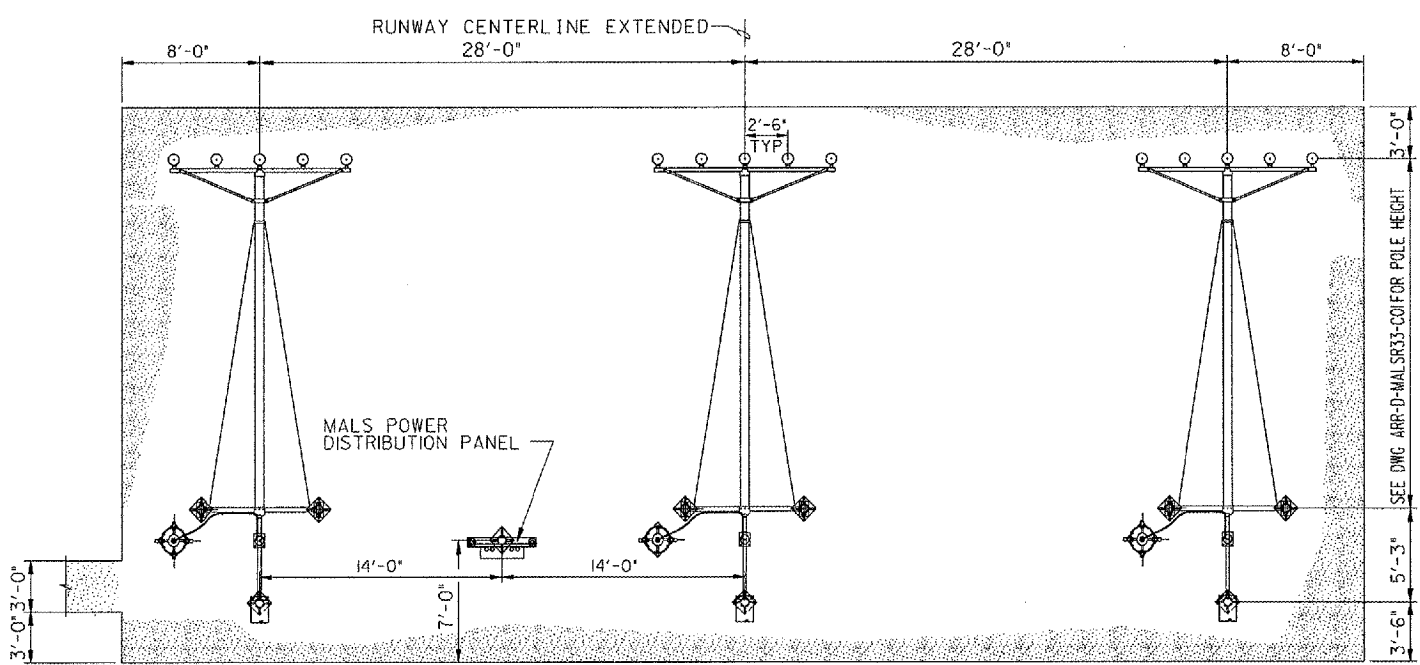
TYPICAL CRUSHED ROCK WORK AREA FOR STEADY-BURNING LIGHT BAR ON TYPE MG-20 LIR STRUCTURE

4 DETAIL



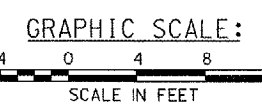
TYPICAL CRUSHED ROCK WORK AREA FOR TYPE MG-20 LIR STRUCTURE WITH FLASHER

5 DETAIL



CRUSHED ROCK WORK AREA FOR STEADY-BURNING LIGHT BARS ON TYPE MG-30 LIR STRUCTURES AT STA II+00

3 DETAIL



SHEET 34 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

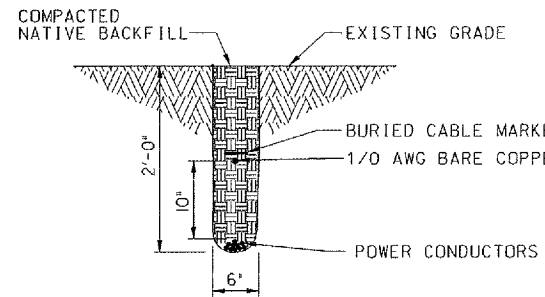
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CRUSHED ROCK PLOT DETAILS			
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REVIEWED BY	SUBMITTED BY	APPROVED BY	
DESIGNED BY	ISSUED BY	PLATFORM MGR,	CLELAND MICHEEL
DATE	02/27/2006	JCN	
DRAWN	CHICAGO NAS	DRAWING NO	
CHECKED	IMPLEMENTATION	ARR-D-MALS-R33-CII	
EGS	CENTER		

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APV

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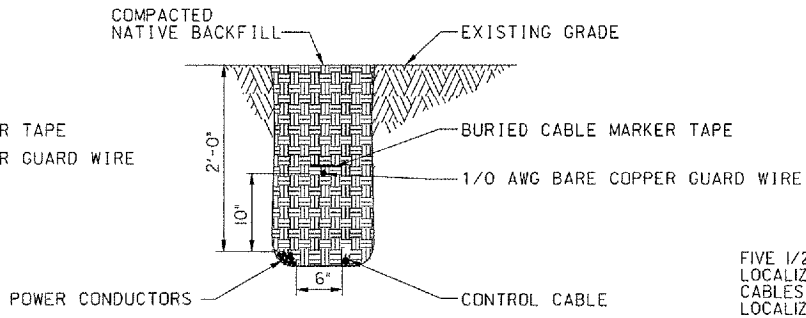
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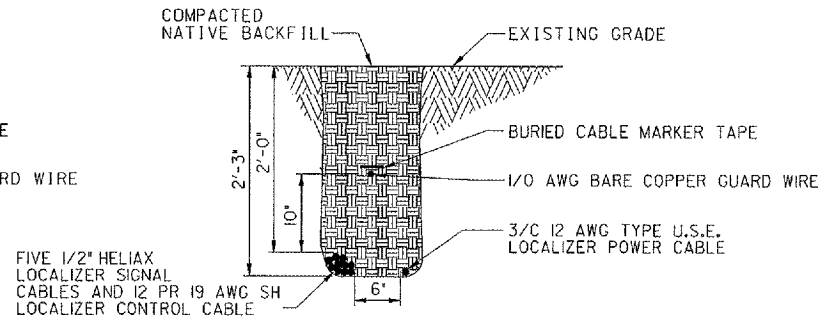
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(A) SECTION



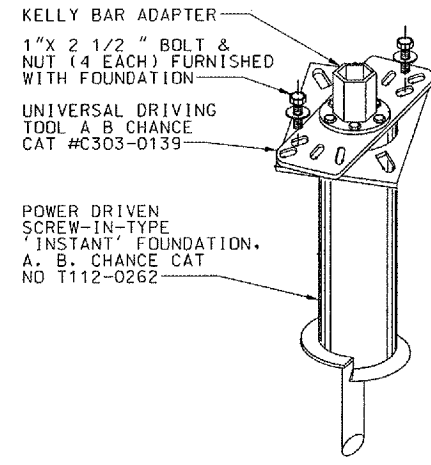
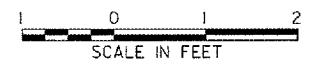
TYPICAL D.E.B. TRENCH FOR POWER AND CONTROL CABLES IN COMMON TRENCH

(B) SECTION



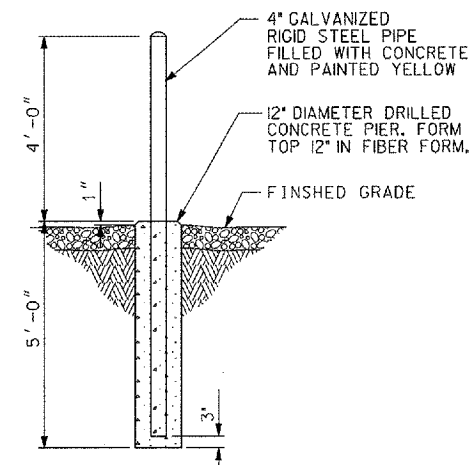
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(C) SECTION



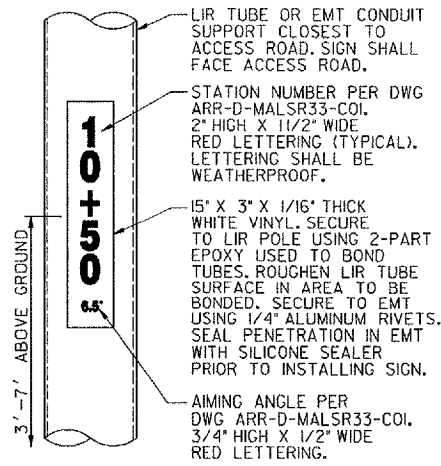
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GALVANIZED STEEL SCREW ANCHOR FOUNDATION ADAPTATION TO POWER DRIVING EQUIPMENT (SEE SECTION 13D OF SPECIFICATION FAA-GL-918C)



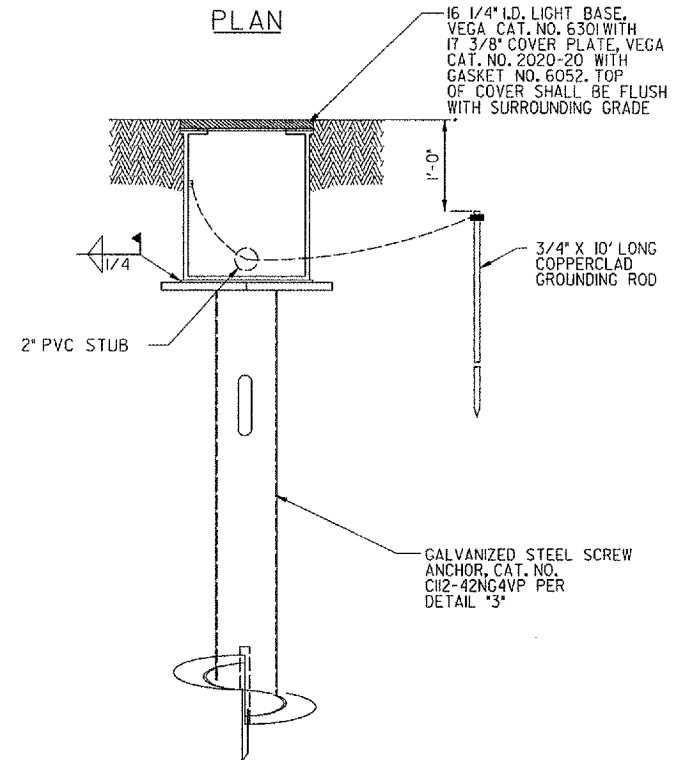
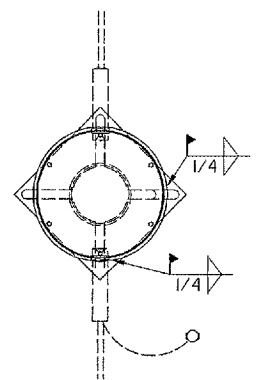
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STATION NUMBER AND AIMING ANGLE IDENTIFICATION

(4) DETAIL NOT TO SCALE



SPLICE CAN INSTALLATION

(5) DETAIL



CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 10F OF THE SPECIAL SPECIFICATIONS.

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

SHEET 35 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

MALSR

MISCELLANEOUS DETAILS

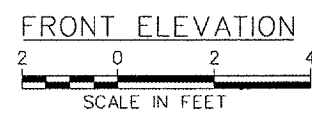
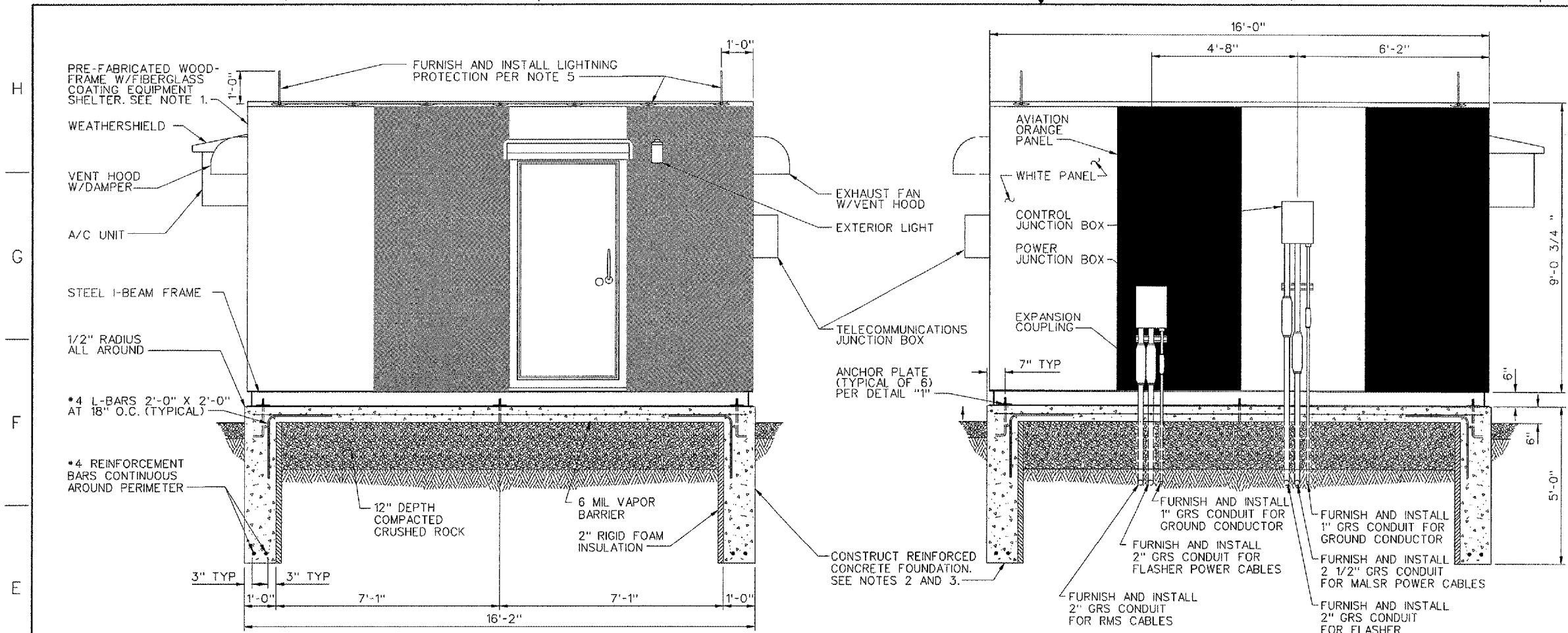
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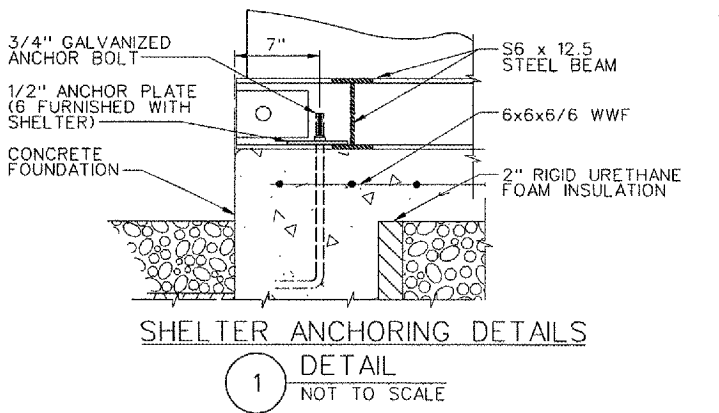
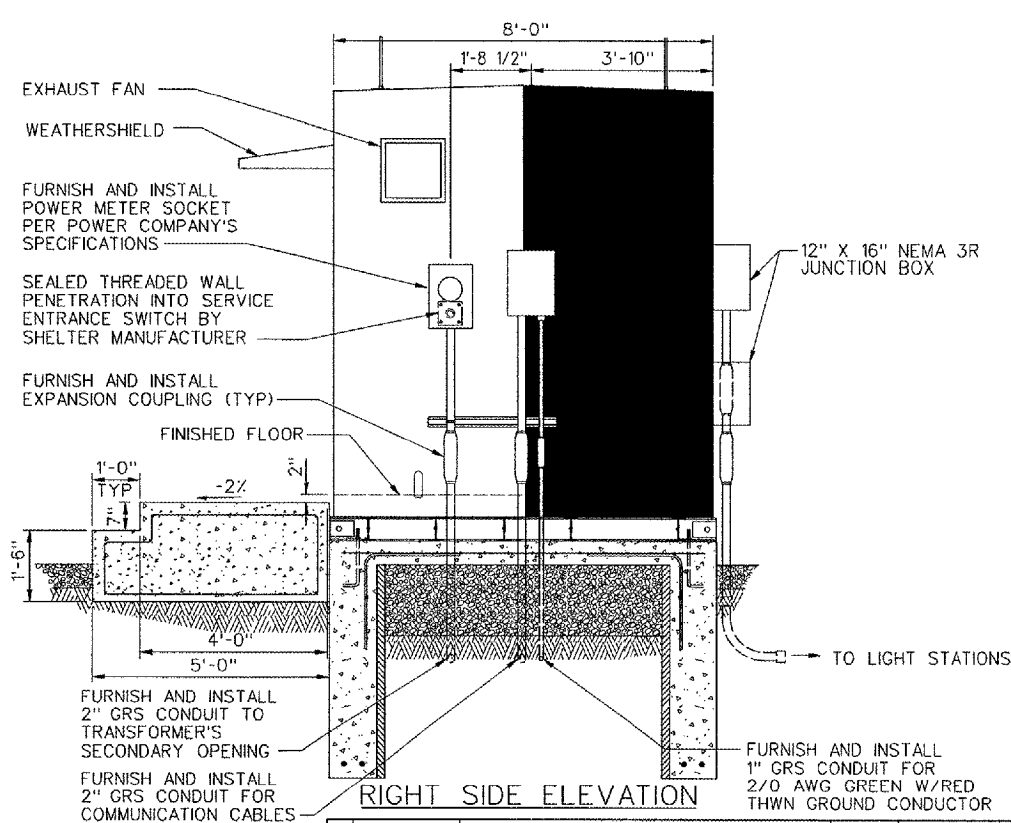
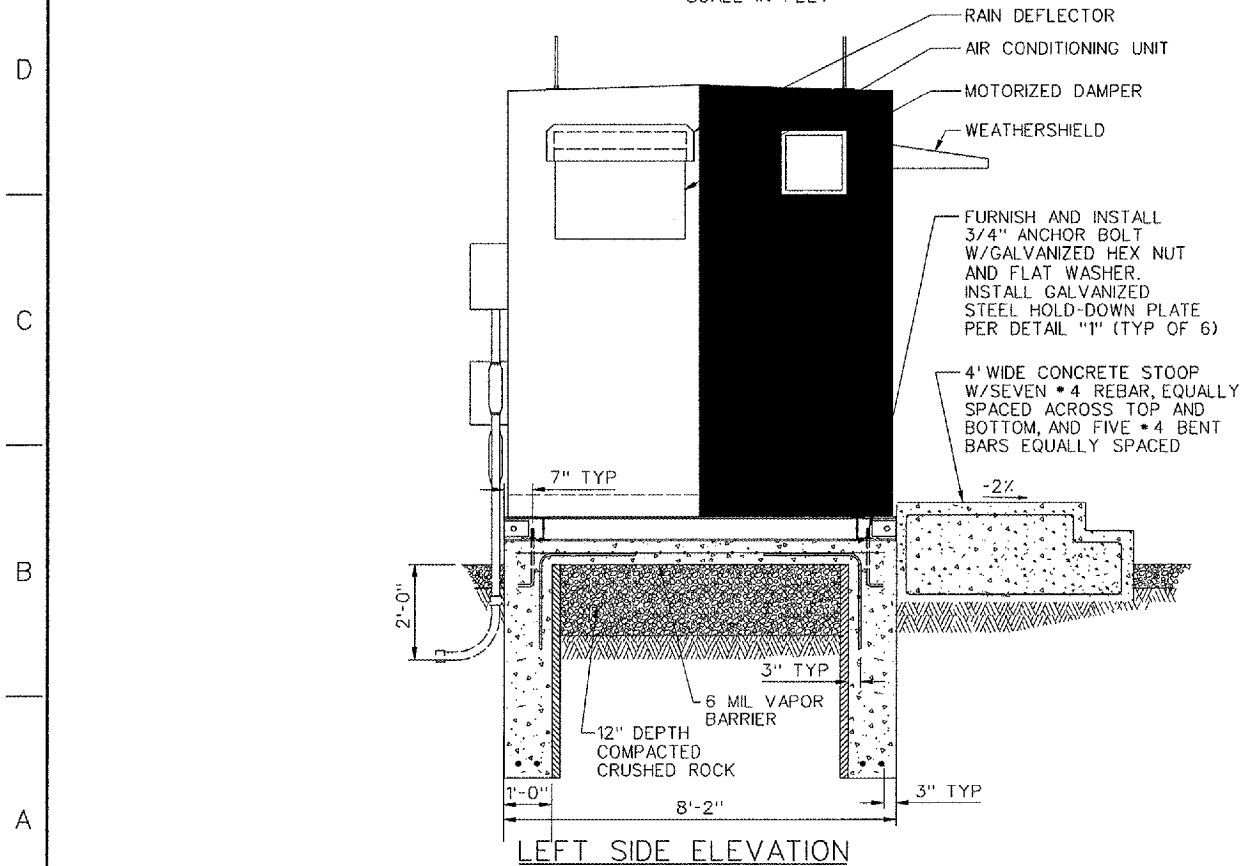
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- NOTES:**
1. PREFABRICATED EQUIPMENT SHELTER WILL BE DELIVERED TO THE SITE PER THE LOCAL FAA SECTOR FIELD OFFICE'S INSTRUCTIONS. CONTRACTOR SHALL CONTACT MR. DAN GEIST AT (815) 509-3200 TO ARRANGE PICK-UP OF THE SHELTER FROM ITS STORAGE LOCATION AND RELOCATION TO THE SITE.
  2. REFER TO CMT SPECIFICATIONS FOR EXCAVATION DETAILS.
  3. REFER TO CMT SPECIFICATIONS FOR CONCRETE DETAILS.
  4. SHELTER IS DELIVERED TO SITE WITH ELECTRICAL LIGHTS, SWITCHES, RECEPTACLES, AND LOCALIZER EQUIPMENT RACK MOUNTED INSIDE SHELTER. SEE GOVERNMENT-FURNISHED PROPERTY LIST FOR A COMPLETE LIST OF ITEMS DELIVERED WITH THE SHELTER.
  5. FURNISH AND INSTALL LIGHTNING PROTECTION SYSTEM INCLUDING AIR TERMINAL ASSEMBLY (4 REQUIRED) CONSISTING OF A 5/8" DIA X 12" LONG COPPER AIR TERMINAL WITH NICKEL-PLATED ROUNDED BLUNT TIP AND ADAPTER, THOMPSON CAT. NO. 665. SECURE TO ROOF AT EACH CORNER USING ROUND ADHESIVE BASE, THOMPSON CAT. NO. 688. INSTALL THOMPSON CAT. NO. 32 ROOF PERIMETER GROUNDING CONDUCTOR, SECURED TO SHELTER ROOF USING STAMPED ADHESIVE CABLE HOLDERS, THOMPSON CAT. NO. 730 SPACED 30" O.C. MAXIMUM. CONNECT AIR TERMINALS AND THOMPSON CAT. NO. 32 DOWN CONDUCTOR (INSTALL AT OPPOSITE CORNERS) TO ROOF PERIMETER GROUNDING CONDUCTOR USING PARALLEL CLAMPS, THOMPSON CAT. NO. 744M. SECURE DOWN CONDUCTOR AND BONDING CONDUCTOR TO SHELTER EXTERIOR USING STAMPED ADHESIVE CABLE HOLDERS, THOMPSON CAT. NO. 730 SPACED 30" O.C. MAXIMUM. CONNECT DOWN CONDUCTORS TO GROUNDING ROD USING EXOTHERMIC WELD.

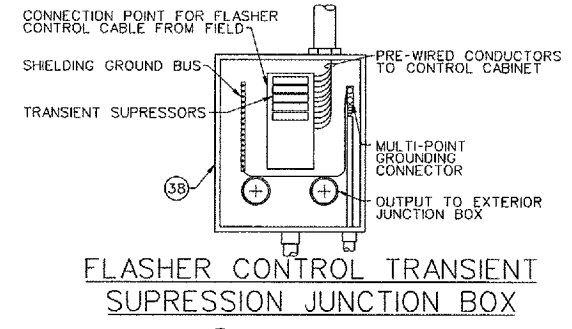
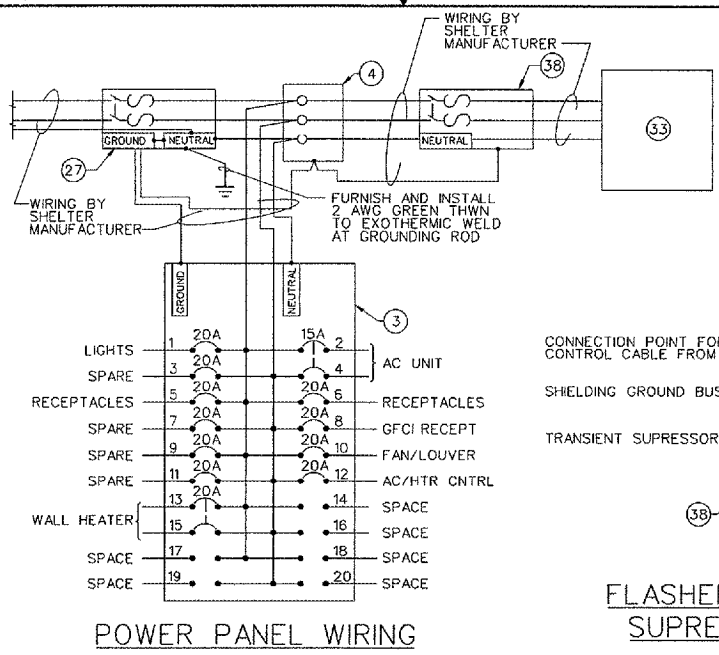
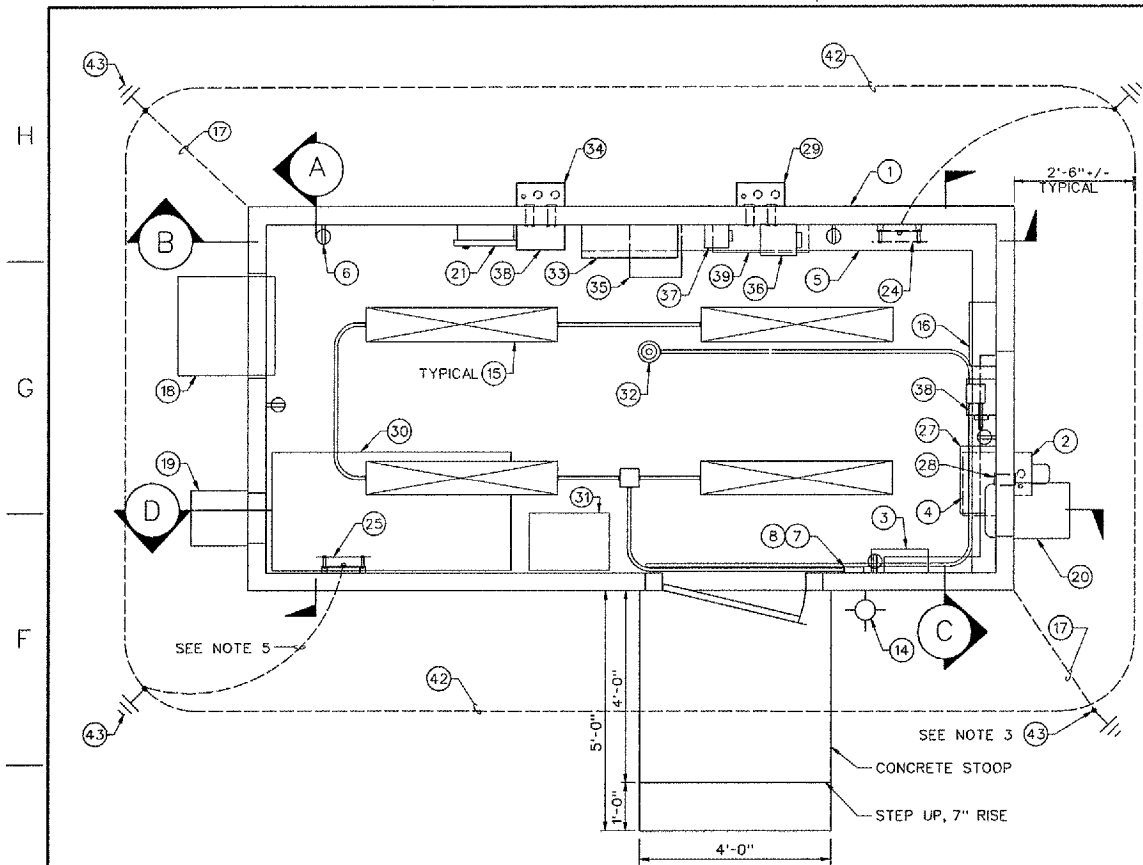


SHEET 36 OF 67

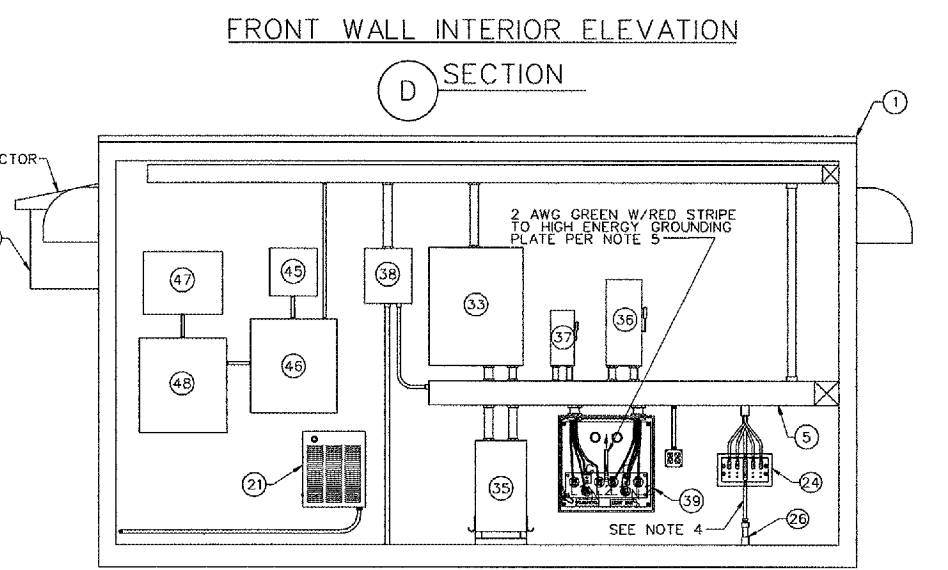
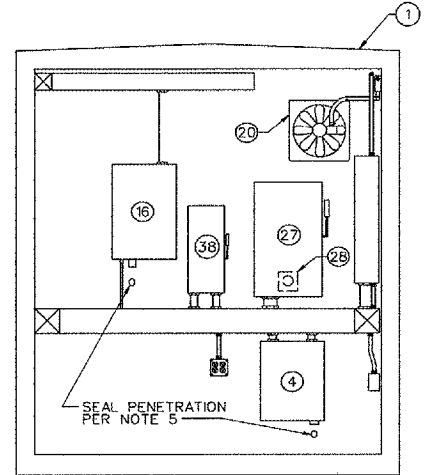
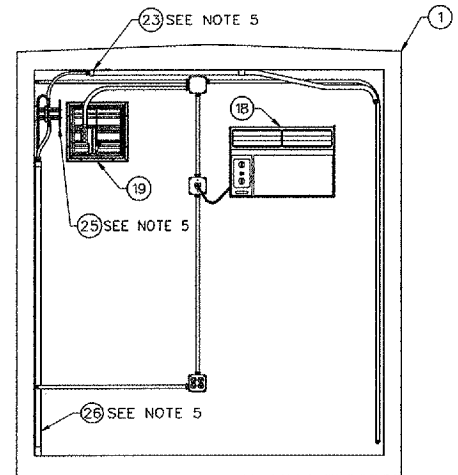
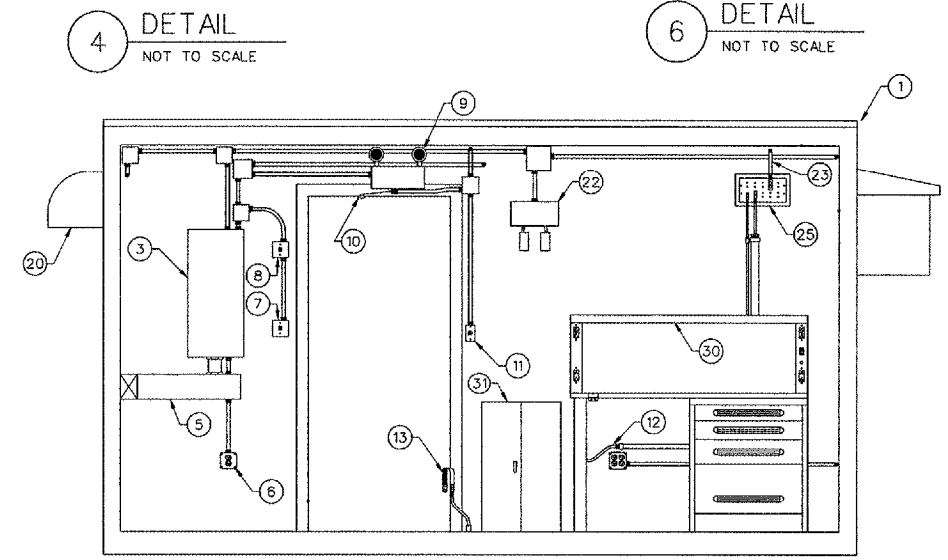
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION GREAT LAKES REGION		CHICAGO, ILLINOIS	
MALSR			
EXTERIOR ELEVATIONS AND FOUNDATION 8' X 16' PRE-FABRICATED EQUIPMENT SHELTER RUNWAY 33			
AURORA	AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY	SUBMITTED BY	APPROVED BY	
PROJ ENGR, TIMOTHY DYER	ISSUED BY CHICAGO NAS IMPLEMENTATION CENTER	PLATFORM MGR, CLELAND MICHEEL	
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- NUMBERED LEGEND:**
- 1 - CONTRACTOR SHALL INSTALL ITEM, F&I - CONTRACTOR SHALL FURNISH & INSTALL ITEM, M - MODIFY EXISTING, BO - SHALL BE INSTALLED BY FAA INSTALLATION PERSONNEL OR IS ALREADY INSTALLED IN PRE-FABRICATED EQUIPMENT SHELTER
  - 1 ① WOOD FRAME EQUIPMENT SHELTER W/FIBERGLASS EXTERIOR FINISH PER DWG ARR-D-GSXX-A01
  - F&I ② METER BASE FOR USE WITH UNDERGROUND SERVICE PER POWER COMPANY'S SPECIFICATIONS SHALL BE INSTALLED OVER WALL PENETRATION (INSTALLED BY SHELTER MANUFACTURER). INSTALL 3-1/2" #2 TYPE THWN POWER CABLES AND #8 GREEN THWN GROUND CONDUCTOR TO SECONDARY LEADS OF METER BASE AND PRIMARY LEADS OF SERVICE ENTRANCE DISCONNECT SWITCH. INSTALL 3-1/2" #2 TYPE U.S.E. POWER CABLES AND #2 GREEN THWN GROUND CONDUCTOR IN 2" GALVANIZED RIGID STEEL CONDUIT, 2" BELOW GRADE (MIN) FROM TRANSFORMER'S SECONDARY. CONNECTIONS AT TRANSFORMER WILL BE MADE BY COMMONWEALTH EDISON REPRESENTATIVES. CONTACT KATIE OLIVA AT (847) 608-2338 WHEN READY.
  - BO ③ 100A BREAKER PANEL, LUGS ONLY, 20 CIRCUITS, W/BOLT ON BREAKERS
  - BO ④ INCOMING POWER SURGE ARRESTOR, 120V/240V
  - BO ⑤ 6" SQUARE DUCT
  - BO ⑥ ELECTRICAL RECEPTACLE
  - BO ⑦ INTERIOR LIGHT SWITCH
  - BO ⑧ EXTERIOR LIGHT SWITCH
  - BO ⑨ EMERGENCY LIGHT
  - BO ⑩ INTRUSION SENSOR
  - BO ⑪ SMOKE DETECTOR RESET SWITCH
  - BO ⑫ WORKSTATION GROUND
  - BO ⑬ GROUNDING STRAP
  - BO ⑭ WALL-MOUNTED EXTERIOR LIGHT WITH PHOTO CONTROL
  - BO ⑮ 4'-LONG 2-LAMP-TUBE FLUORESCENT LIGHT FIXTURE, 120-VOLT
  - BO ⑯ TELECOMMUNICATIONS ENCLOSURE PER DETAIL "2"
  - F&I ⑰ THOMPSON CAT. NO. 32 DOWN CONDUCTOR FROM ROOF PERIMETER GROUND TO EXOTHERMIC WELD AT GROUNDING ROD.
  - BO ⑱ A/C THRU-WALL UNIT, 12,000 BTU,
  - BO ⑲ 12" SQUARE MOTORIZED LOUVER WITH FILTER AND HOOD
  - BO ⑳ EXHAUST FAN WITH VENT HOOD
  - BO ㉑ WALL-MOUNTED ELECTRIC HEATER
  - BO ㉒ ENVIRONMENTAL CONTROL PANEL
  - BO ㉓ 1" PVC CONDUIT CARRYING 4/0 AWG GREEN THWN W/ORANGE STRIPE FROM MAIN GROUNDING PLATE TO MULTIPOINT GROUNDING PLATE. SEE NOTE 5.
  - BO ㉔ MAIN COPPER GROUNDING PLATE WITH PLASTIC COVER. SEE NOTE 4.
  - BO ㉕ HIGH ENERGY ELECTRONIC GROUNDING PLATE WITH PLASTIC COVER. SEE NOTE 5.
  - BO ㉖ 2" PVC CONDUIT STUB THROUGH FLOOR TO ACCOMMODATE INSTALLATION OF GROUNDING CONDUCTOR. SEE NOTES 4 AND 5.
  - BO ㉗ SERVICE ENTRANCE DISCONNECT SWITCH, 100A, 240V, W/FUSES
  - BO ㉘ THRU-WALL PENETRATION FROM SERVICE ENTRANCE DISCONNECT SWITCH TO EXTERIOR TO ACCOMMODATE INSTALLATION OF SERVICE ENTRANCE CONDUCTORS
  - BO ㉙ MALS POWER JUNCTION BOX, 12" X 16", NEMA 3R
  - BO ㉚ WORK BENCH/DESK
  - BO ㉛ DRAWER STORAGE UNIT
  - BO ㉜ SMOKE DETECTOR ON CEILING
  - BO ㉝ MALS POWER AND CONTROL CABINET
  - BO ㉞ FLASHER CONTROL JUNCTION BOX, 12" X 16", NEMA 3R
  - BO ㉟ MALS POWER TRANSFORMER
  - BO ㊱ MALS POWER DISCONNECT SWITCH
  - BO ㊲ FLASHER POWER DISCONNECT SWITCH
  - BO ㊳ MALS CONTROL CABINET DISCONNECT SWITCH
  - BO ㊴ MALS AND FLASHER POWER SURGE ARRESTOR
  - BO ㊵ FLASHER CONTROL TRANSIENT SUPPRESSION JUNCTION BOX
  - F&I ㊶ 6 AWG BARE COPPER GROUNDING AND BONDING CONDUCTOR
  - F&I ㊷ 4/0 BARE COPPER PERIMETER GROUNDING CONDUCTOR, 2"-6" BELOW GRADE. SEE NOTE 3.
  - F&I ㊸ 3/4" X 10' COPPERCLAD GROUNDING ROD
  - F&I ㊹ 1" GRSC WITH EXPANSION COUPLING FOR GROUNDING CONDUCTOR
  - BO ㊺ AIR-TO-GROUND RADIO RECEIVER/CONTROLLER
  - BO ㊻ RADIO INTERFACE UNIT
  - BO ㊼ GROUND-TO-GROUND RADIO RECEIVER
  - BO ㊽ GROUND-TO-GROUND RADIO DECODER



LEFT WALL INTERIOR ELEVATION (A) SECTION      RIGHT WALL INTERIOR ELEVATION (C) SECTION

FRONT WALL INTERIOR ELEVATION (D) SECTION

REAR WALL INTERIOR ELEVATION (B) SECTION

- NOTES:**
1. ELECTRICAL EQUIPMENT SHOWN ON THIS SHEET IS SURFACE MOUNTED BY FAA REPRESENTATIVES PRIOR TO SHIPMENT OF SHELTER UNLESS OTHERWISE NOTED.
  2. CONTRACTOR SHALL NOTIFY RESIDENT ENGINEER IF SHELTER IS DAMAGED OR MISSING ITEMS AT PRECONSTRUCTION CONFERENCE..
  3. ALL GROUNDING CONDUCTORS SHALL BE ATTACHED TO GROUNDING RODS OR PERIMETER GROUNDING CONDUCTOR USING EXOTHERMIC WELDS PER SPECIFICATIONS.
  4. INSTALL GREEN THWN GROUNDING CONDUCTOR (WELDING CABLE SHIPPED LOOSE WITH SHELTER) FROM MAIN GROUNDING PLATE THROUGH EXISTING FLOOR PENETRATION, OVER FOUNDATION, AND TO PERIMETER GROUNDING CONDUCTOR. CONNECT USING EXOTHERMIC WELD PER SPECIFICATIONS.
  5. DISCONNECT EXISTING 4/0 AWG GREEN W/ORANGE STRIPE GROUNDING CABLE FROM MAIN GROUNDING PLATE AND INSTALL GREEN THWN GROUNDING CONDUCTOR (WELDING CABLE SHIPPED LOOSE WITH SHELTER) FROM GROUNDING PLATE THROUGH EXISTING FLOOR PENETRATION, OVER FOUNDATION, AND TO PERIMETER GROUNDING CONDUCTOR. CONNECT USING EXOTHERMIC WELD PER SPECIFICATIONS. FURNISH AND INSTALL NEW PLASTIC COVER LABELLED "CAUTION: ELECTRONIC HIGH ENERGY GROUND" AND CONNECT ALL HIGH ENERGY GROUNDS (GREEN WITH RED STRIPE) FROM SURGE ARRESTERS TO THIS PLATE. PLUG ALL THRU-WALL OPENINGS WITH SILICONE SEALER OR PVC PIPE CAPS.

SHEET 37 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION      CHICAGO, ILLINOIS

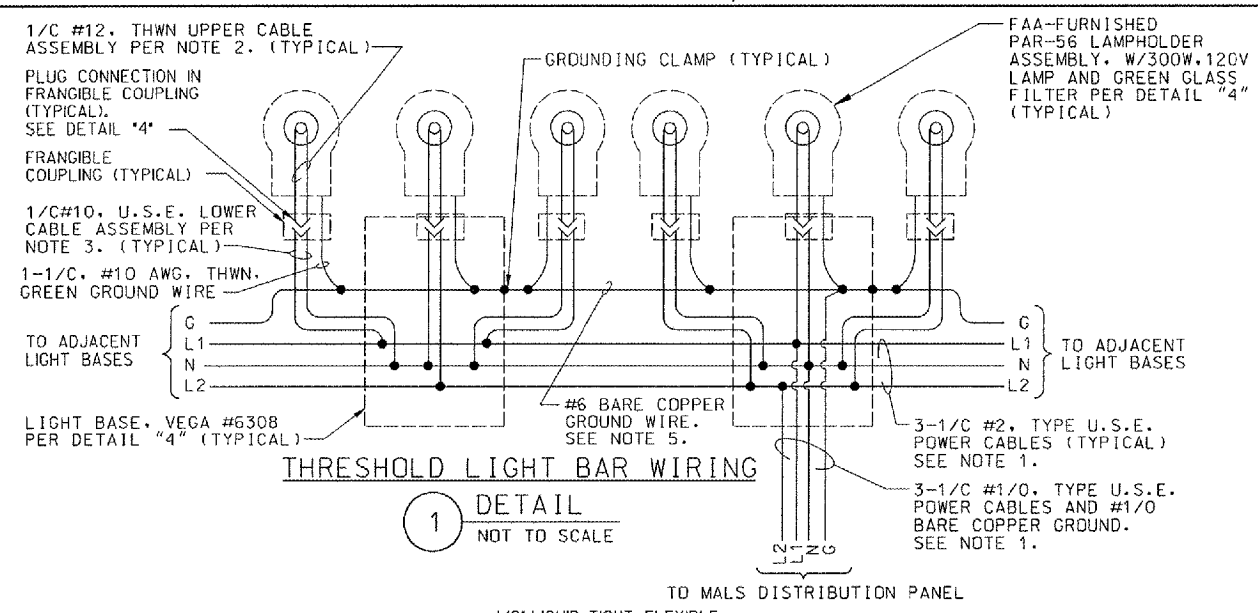
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FLOOR PLAN AND INTERIOR ELEVATIONS  
8' X 16' PRE-FABRICATED EQUIPMENT SHELTER  
RUNWAY 33

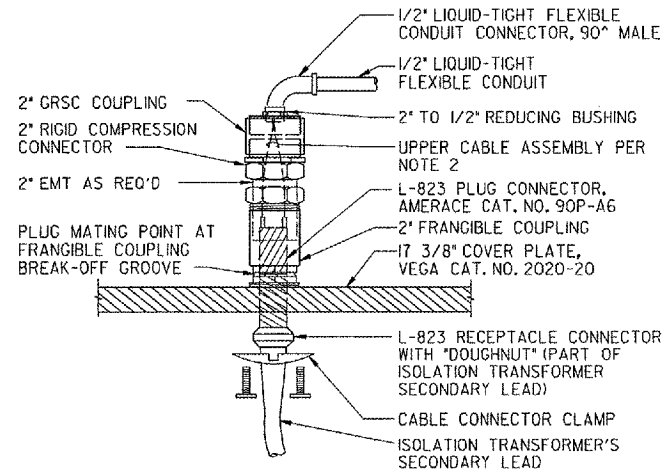
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CHECKED	EGS		ARR-D-MALS R33-A02

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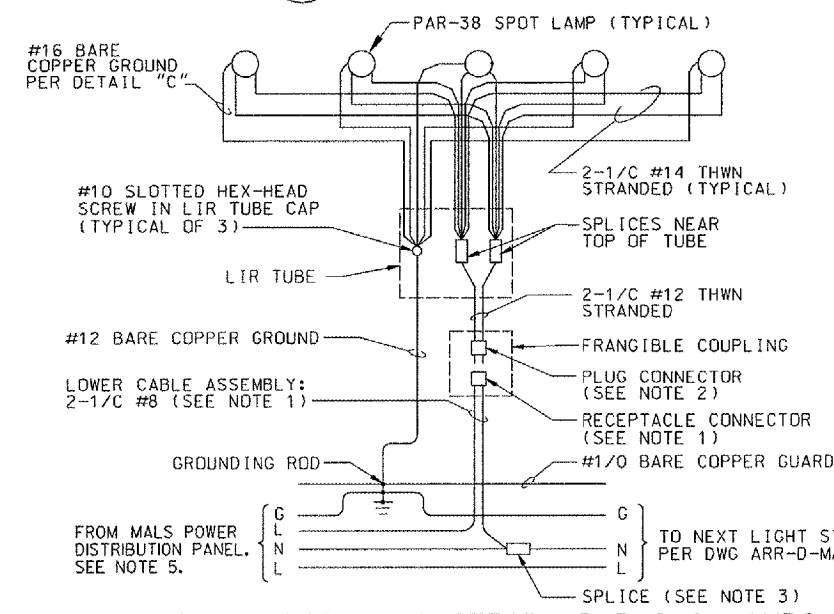
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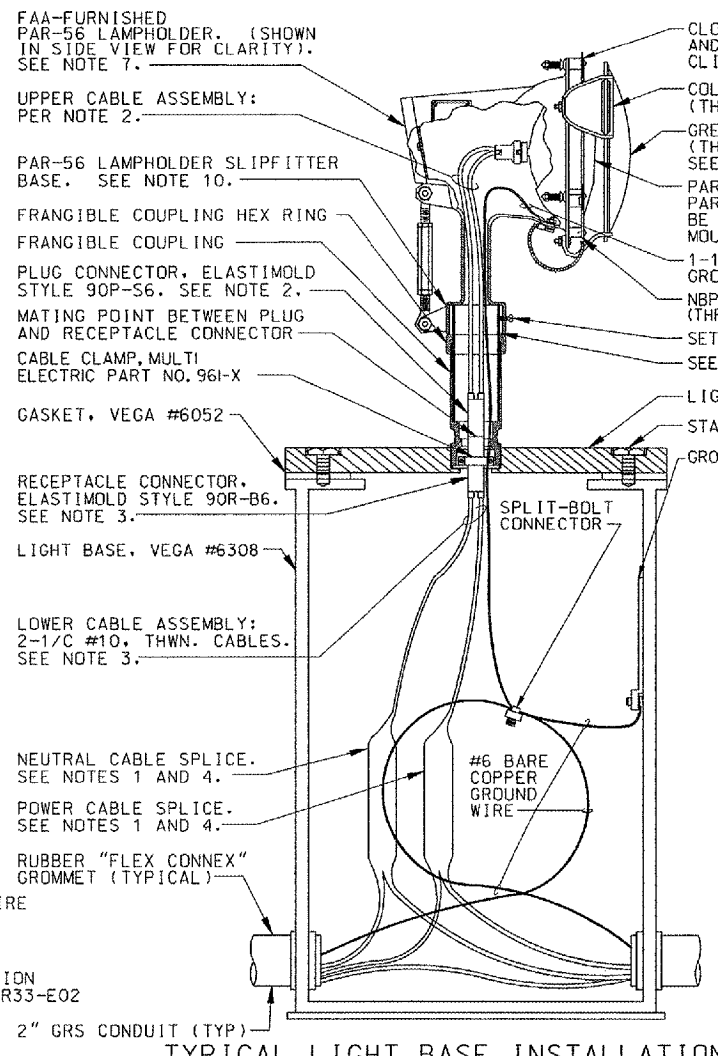
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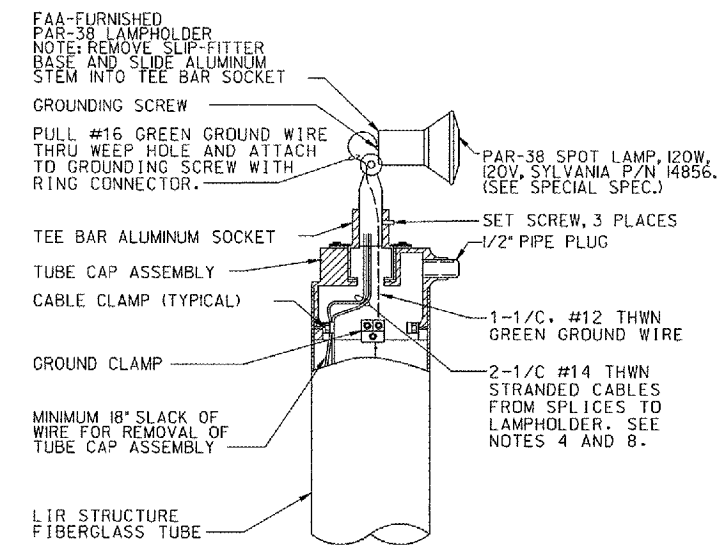
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3 DETAIL  
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TYPICAL PAR-38 LAMPHOLDER MOUNTED ON LIR TOWER

**NOTES:**

1. EACH CURRENT-CARRYING CABLE MAKING A CONNECTION IN THE LIGHT BASE SHALL HAVE A MINIMUM 4' SLACK LOOP COILED NEATLY INSIDE THE LIGHT BASE. (SLACK LOOP NOT REQUIRED FOR CABLE PASSING THROUGH LIGHT BASE WITHOUT CONNECTION).
2. THE UPPER CABLE ASSEMBLY SHALL BE 2-1/C#14 STRANDED THWN CABLES AND ELASTIMOLD WATERTIGHT PLUG CONNECTOR, STYLE 90P-S8 FOR LIGHT BARS MOUNTED ON EMT SUPPORTS (EXCEPT THRESHOLD BAR). AT THE THRESHOLD BAR AND FOR STEADY-BURNING LAMPS MOUNTED ON LIR TOWERS, THE UPPER CABLE ASSEMBLY SHALL BE 2-1/C#12 STRANDED THWN CABLES AND ELASTIMOLD WATERTIGHT PLUG CONNECTOR, STYLE 90P-S6.
3. THE LOWER CABLE ASSEMBLY SHALL BE 2-1/C #10 TYPE U.S.E. CABLES WITH ELASTIMOLD RECEPTACLE CONNECTOR, STYLE #90R-B6 AT LIGHT BARS MOUNTED ON EMT SUPPORTS (INCLUDING THE THRESHOLD BAR). FOR STEADY-BURNING LIGHT BARS MOUNTED ON LIR TOWERS, THE LOWER CABLE ASSEMBLY SHALL BE 2-1/C #8 TYPE U.S.E. CABLES WITH ELASTIMOLD RECEPTACLE CONNECTOR, STYLE #90R-C4.
4. CONNECTIONS OF #10 CABLES TO #2 CABLES ARE MADE WITH BURNDY CAT. NO. YPC2ABU STREET LIGHTING TAPS. CONNECTIONS OF #2 CABLES TO 1/0 CABLES, IN FEED-THROUGH SPLICES ONLY, ARE MADE WITH BURNDY CAT. NO. YC26C2 COPPER CRIMPTS. SPLICE BODIES ARE MADE WITH 3M SCOTCHCAST MULTI-MOLD SPLICING KITS, 3M NO. 85-16.
5. ALL CONNECTIONS TO GROUNDING RODS SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATIONS.
6. ALL THREADS ON BOLTS SHALL BE COATED WITH ANTI-SEIZE COMPOUND.
7. A SILICONE RUBBER INSULATOR DISK (GFM) SHALL BE SECURELY INSTALLED BETWEEN THE LAMPHOLDER AND THE PAR-56 LAMP (THRESHOLD BAR ONLY).
8. EACH GREEN GLASS FILTER, WHICH ARE FAA-FURNISHED, (THRESHOLD BAR ONLY) IS SECURED WITH THREE STAINLESS STEEL FILTER CLIPS. THE CONTRACTOR SHALL BEND THE FILTER CLIPS SUCH THAT THEY HOLD THE FILTER SECURELY WHEN THEY ARE BOLTED.
9. THE CONTRACTOR SHALL FURNISH AND INSTALL AN NBP PAR-56 LAMPHOLDER RING ON EACH PAR-56 LAMPHOLDER (THRESHOLD BAR ONLY). THIS RING FITS OVER THE LAMP-RETAINING CLIPS, AND HOLDS THE LAMP POSITIVELY IN PLACE. THE RING COMES WITH AN ATTACHED CHAIN HAVING A SS BOLT AT THE FREE END. REPLACE THE LAMPHOLDER'S EXISTING STAINLESS STEEL GROUNDING BOLT WITH THE CHAIN'S BOLT.
10. WHEN INSTALLING PAR-38 LAMPHOLDER, FEED PIGTAIL ENDS OF CABLE INTO LAMPHOLDER AND CONNECT TO TERMINALS IN LAMPHOLDER SOCKET. USE CARE TO PREVENT THE SOCKET RETENTION BOLTS FROM DAMAGING CABLE INSULATION.
11. SEE DWG ARR-D-MALSR33-C01 DRAWING FOR LAMP CENTERLINE ELEVATION TO DETERMINE LENGTH OF 2" EMT REQUIRED. AT THE THRESHOLD BAR, THE CONDUIT SHALL BE SIZED SO THAT THE BOTTOM OF THE PAR-56 LAMPHOLDER BASE IS IN CONTACT WITH THE TOP OF THE FRANGIBLE COUPLING.

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

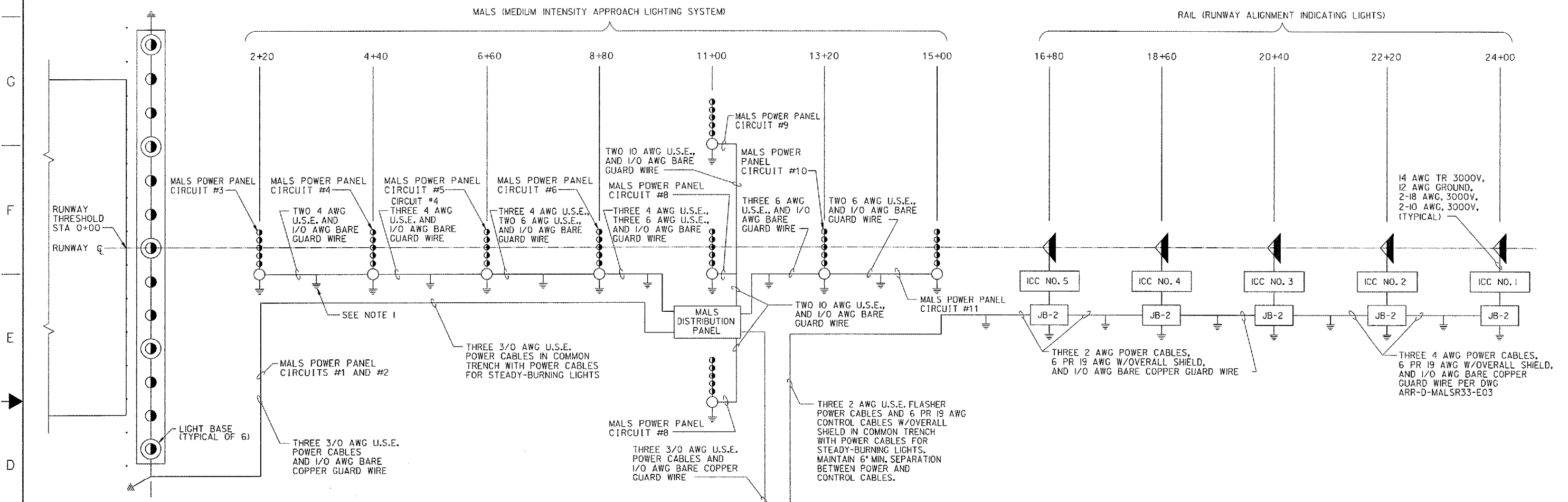
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION GREAT LAKES REGION CHICAGO, ILLINOIS			
MALSR WIRING DIAGRAMS FOR STEADY-BURNING LIGHT BARS RUNWAY 33			
AURORA REVIEWED BY	AURORA MUNICIPAL AIRPORT SUBMITTED BY	IL APPROVED BY	PLATFORM MGR, CLELAND MICHEEL DATE 02/21/2006 JCN
PROJ ENGR, TIMOTHY DYER DESIGNED TAD DRAWN TAD CHECKED EDS	ISSUED BY CHICAGO NAS IMPLEMENTATION CENTER	DATE 02/21/2006 JCN DRAWING NO ARR-D-MALSR33-E01	REV

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THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM

SYMBOL	DESCRIPTION
●●●●●	LIGHT BAR, 5 EACH, PAR 38, 120 V 120W MISER
◀	SEQUENCED FLASHERS
⊥	GROUND ROD



- NOTES:**
- THE GUARD WIRE SHALL BE 10" ABOVE AND IN THE SAME TRENCH AS THE POWER CABLES RUNNING FROM STATION TO STATION. THE GUARD WIRE IS A 1/0 AWG BARE WIRE EXOTHERMICALLY WELDED TO GROUND RODS AT EACH LIGHT STATION AND MID-POINT BETWEEN LIGHT STATIONS AS SHOWN.
  - ALL UNUSED CONDUCTORS OF THE CONTROL CABLE SHALL BE GROUNDED AT BOTH ENDS.

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

SHEET 39 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

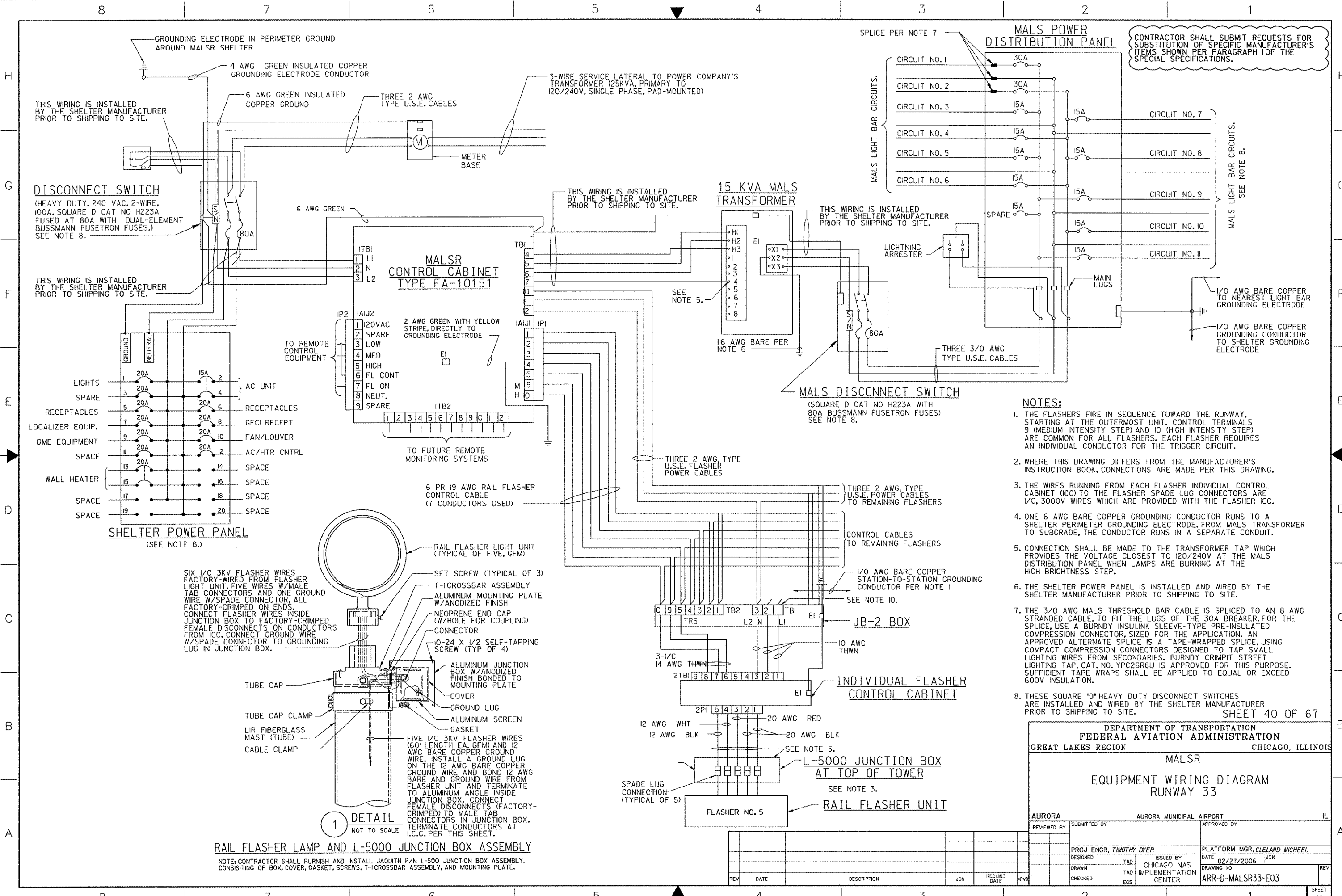
MALSR  
ONE-LINE SYSTEM WIRING DIAGRAM  
RUNWAY 33

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PLATFORM MGR, CLELAND MICHEEL		ARR-D-MALSR33-E02		

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APPROVED

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**DISCONNECT SWITCH**  
(HEAVY DUTY, 240 VAC, 2-WIRE, 100A, SQUARE D CAT NO H223A FUSED AT 80A WITH DUAL-ELEMENT BUSSMANN FUSETRON FUSES.) SEE NOTE 8.

THIS WIRING IS INSTALLED BY THE SHELTER MANUFACTURER PRIOR TO SHIPPING TO SITE.

**SHELTER POWER PANEL**  
(SEE NOTE 6.)

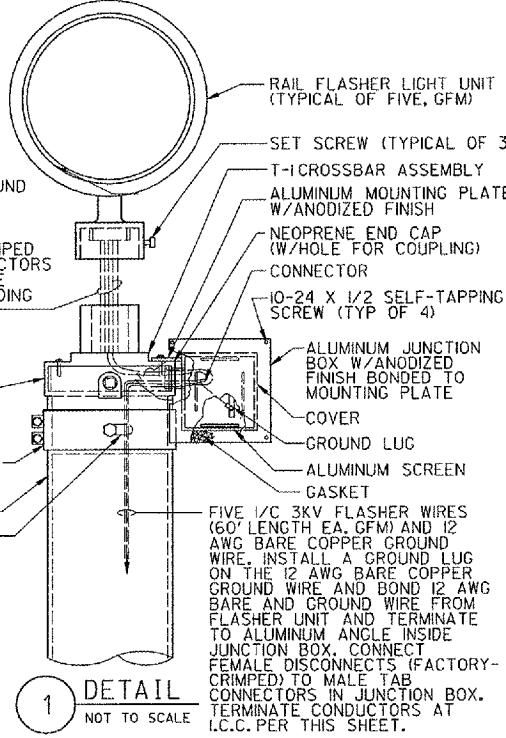
**MALS CONTROL CABINET**  
TYPE FA-10151

**15 KVA MALS TRANSFORMER**

**MALS POWER DISTRIBUTION PANEL**

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

- NOTES:**
1. THE FLASHERS FIRE IN SEQUENCE TOWARD THE RUNWAY, STARTING AT THE OUTERMOST UNIT. CONTROL TERMINALS 9 (MEDIUM INTENSITY STEP) AND 10 (HIGH INTENSITY STEP) ARE COMMON FOR ALL FLASHERS. EACH Flasher REQUIRES AN INDIVIDUAL CONDUCTOR FOR THE TRIGGER CIRCUIT.
  2. WHERE THIS DRAWING DIFFERS FROM THE MANUFACTURER'S INSTRUCTION BOOK, CONNECTIONS ARE MADE PER THIS DRAWING.
  3. THE WIRES RUNNING FROM EACH Flasher INDIVIDUAL CONTROL CABINET (ICC) TO THE Flasher SPADE LUG CONNECTORS ARE 1/2, 3000V WIRES WHICH ARE PROVIDED WITH THE Flasher ICC.
  4. ONE 6 AWG BARE COPPER GROUNDING CONDUCTOR RUNS TO A SHELTER PERIMETER GROUNDING ELECTRODE. FROM MALS TRANSFORMER TO SUBGRADE, THE CONDUCTOR RUNS IN A SEPARATE CONDUIT.
  5. CONNECTION SHALL BE MADE TO THE TRANSFORMER TAP WHICH PROVIDES THE VOLTAGE CLOSEST TO 120/240V AT THE MALS DISTRIBUTION PANEL WHEN LAMPS ARE BURNING AT THE HIGH BRIGHTNESS STEP.
  6. THE SHELTER POWER PANEL IS INSTALLED AND WIRED BY THE SHELTER MANUFACTURER PRIOR TO SHIPPING TO SITE.
  7. THE 3/0 AWG MALS THRESHOLD BAR CABLE IS SPLICED TO AN 8 AWG STRANDED CABLE, TO FIT THE LUGS OF THE 30A BREAKER. FOR THE SPLICE, USE A BURNDY INSULINK SLEEVE-TYPE PRE-INSULATED COMPRESSION CONNECTOR, SIZED FOR THE APPLICATION. AN APPROVED ALTERNATE SPLICE IS A TAPE-WRAPPED SPLICE, USING COMPACT COMPRESSION CONNECTORS DESIGNED TO TAP SMALL LIGHTING WIRES FROM SECONDARIES. BURNDY CRIMPIT STREET LIGHTING TAP, CAT. NO. YPC26R8U IS APPROVED FOR THIS PURPOSE. SUFFICIENT TAPE WRAPS SHALL BE APPLIED TO EQUAL OR EXCEED 600V INSULATION.
  8. THESE SQUARE "D" HEAVY DUTY DISCONNECT SWITCHES ARE INSTALLED AND WIRED BY THE SHELTER MANUFACTURER PRIOR TO SHIPPING TO SITE.
- SHEET 40 OF 67



NOTE: CONTRACTOR SHALL FURNISH AND INSTALL JAQUITH P/N L-500 JUNCTION BOX ASSEMBLY, CONSISTING OF BOX, COVER, GASKET, SCREWS, T-CROSSBAR ASSEMBLY, AND MOUNTING PLATE.

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APPD

DEPARTMENT OF TRANSPORTATION  
**FEDERAL AVIATION ADMINISTRATION**  
 GREAT LAKES REGION CHICAGO, ILLINOIS

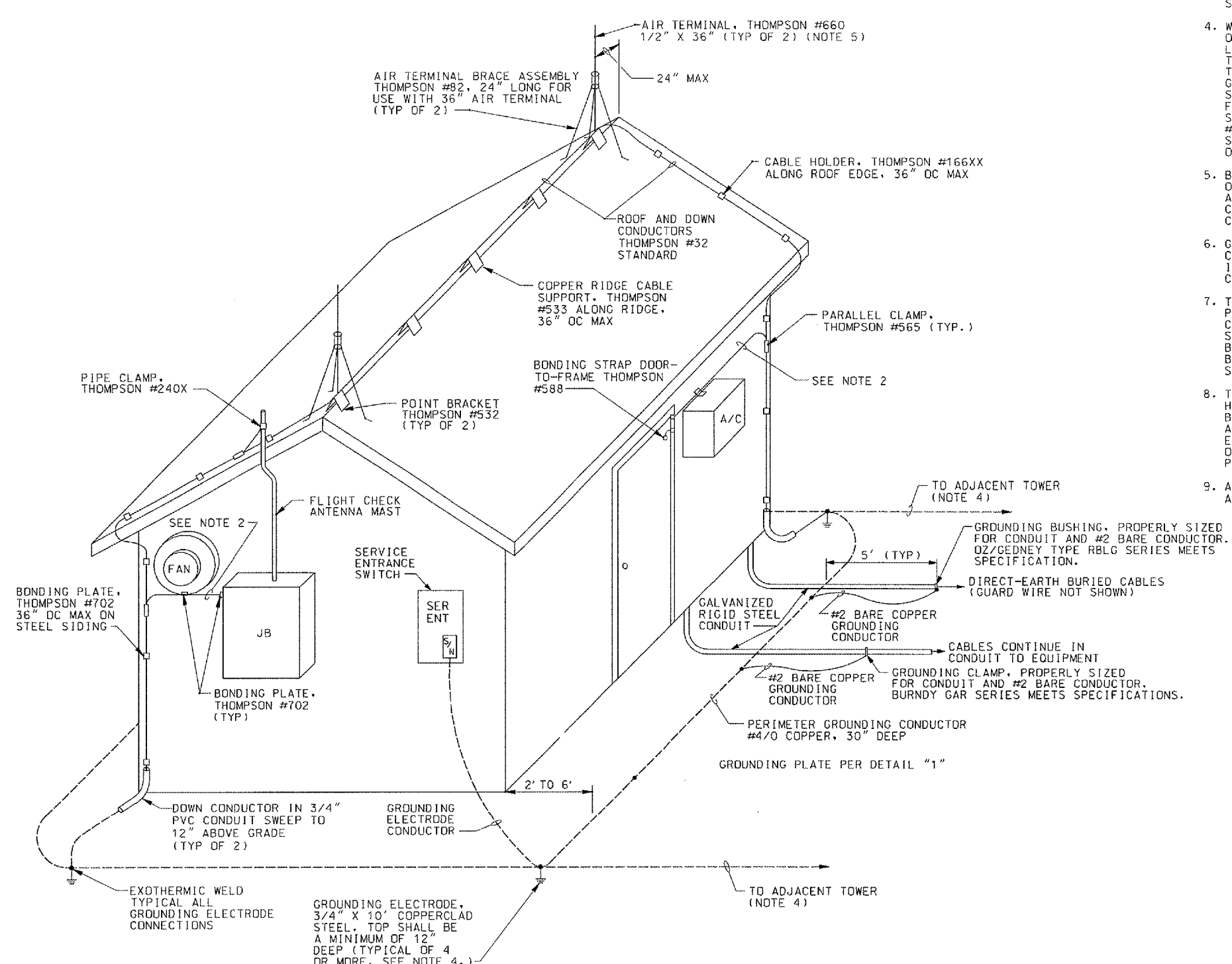
**MALSRR**  
**EQUIPMENT WIRING DIAGRAM**  
**RUNWAY 33**

AURORA AURORA MUNICIPAL AIRPORT IL  
 REVIEWED BY SUBMITTED BY APPROVED BY  
 PROJ ENGR, TIMOTHY DYER PLATFORM MGR, CLELAND MICHEEL  
 DESIGNED TAD DATE 02/21/2006 JCN  
 DRAWN TAD ISSUED BY CHICAGO NAS  
 IMPLEMENTATION CENTER DRAWING NO  
 CHECKED EGS ARR-D-MALSRR33-E03 REV

SHEET OF



THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM



**NOTES:**

1. ALL CLAMPS AND BONDING DEVICES SHALL BE BRONZE, ALL CABLES AND STRAPS SHALL BE COPPER, AND ALL BOLTS, SCREWS, AND FASTENING HARDWARE SHALL BE BRONZE OR BRASS UNLESS OTHERWISE SHOWN.
2. BOND A/C, VENT FAN, HOOD, FLIGHT CHECK ANTENNA MAST, DDDR FRAME, JUNCTION BOXES, AND ANY MISC EXTERIOR METAL OBJECTS TO DOWN CONDUCTORS WITH MIN #6 BARE - THOMPSON #14X OR #509X.
3. NO CONDUCTOR SHALL BE BENT TO LESS THAN AN 8" RADIUS NOR SHALL BE BENT TO LESS THAN A 90° ANGLE.
4. WHERE TOWERS OR MASTS SUCH AS GLIDE SLOPE, MIDDLE MARKER, OUTER MARKER, OR FAR FIELD MONITOR TOWERS OR MASTS ARE LOCATED WITHIN 30 FEET OF THE NEAREST PART OF THE BUILDING, THE PERIMETER #4/0 GROUNDING CONDUCTOR SHALL EXTEND AROUND THE ASSOCIATED TOWER OR MAST AND CONNECT TO TWO ADDITIONAL GROUNDING ELECTRODES PLACED ON EITHER SIDE OF THE ASSOCIATED STRUCTURE. ASSOCIATED TOWERS OR MASTS LOCATED FARTHER THAN 30 FEET FROM THE BUILDING SHALL HAVE THEIR OWN PERIMETER GROUNDING SYSTEM CONSISTING OF FOUR GROUNDING ELECTRODES AND SURROUNDING #4/0 COUNTERPOISE. THE SEPARATE PERIMETER GROUNDING SYSTEM SHALL BE CONNECTED TO THE BUILDING SYSTEM BY A BARE CONDUCTOR OF MINIMUM #4/0 SIZE.
5. BUILDINGS WITH FLAT ROOFS REQUIRE A THOMPSON #660LA AIR TERMINAL ON #688F-4 ADHESIVE BASE AND #82 TRIPOD BRACE WITH ADHESIVE FEET AT EACH CORNER AND A PERIMETER ROOF CONDUCTOR (THOMPSON #32) CONNECTING ALL TERMINALS IN PLACE OF RIDGE TERMINALS AND CONDUCTOR AS SHOWN.
6. GROUNDING BUSHINGS SHALL BE INSTALLED AT EACH END OF METALLIC CONDUITS. A #6 BARE COPPER GROUNDING CONDUCTOR SHALL BE ROUTED INSIDE CONDUIT AND SHALL BE BONDED TO EACH GROUNDING BUSHING. CONNECT CONDUCTOR TO A GROUNDING ROD USING AN EXOTHERMIC WELD.
7. THE STAND-OFF INSULATORS SHALL BE SECURED TO THE WALL USING A PAINTED PLYWOOD PANEL SHIMMED OUT FROM THE WALL, GALVANIZED CHANNEL OR METAL MOUNTING BRACKET SCREWED TO THE WALL, OR AS SHOWN ON THE EQUIPMENT SHELTER DRAWING. THE FASTENERS SHALL BE OF SUFFICIENT LENGTH TO PASS THROUGH THE MOUNTING CHANNEL, BRACKET, OR OTHER MOUNTING BODY (INCLUDING WASHERS OR OTHER SHIMS), AND BE SNUG WHEN FULLY ENGAGED IN THE STAND-OFF INSULATOR.
8. TWO-BOLT CONNECTORS WITH SILICON BRONZE 3/8"-16UNC X 1 1/2" HEX HEAD BOLT, NUT, AND LOCK WASHER ARE REQUIRED FOR ALL CONDUCTORS TO BE CONNECTED TO THE GROUNDING PLATES. ONE-BOLT CONNECTORS ARE NOT ACCEPTABLE. NOTE THAT ONLY ONE OF THE HOLES REQUIRED FOR INSTALLING EACH 2-BOLT CONNECTOR IS SPECIFIED IN DETAIL "1". THE INSTALLER OF THE CONNECTOR SHALL DRILL THE SECOND HOLE TO MATCH THE BOLT PATTERN OF THE SELECTED CONNECTOR.
9. ALL EXTERIOR GROUNDING MATERIALS FOR THE SHELTERS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

SHEET 41 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

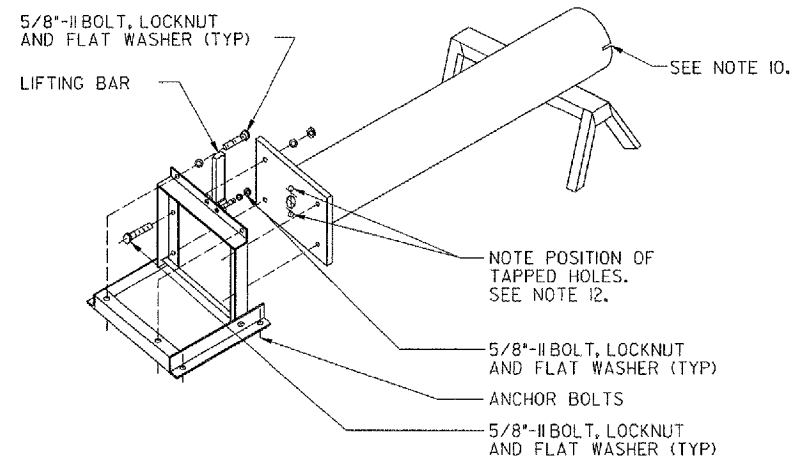
LIGHTNING PROTECTION  
FOR SMALL ILS/ALS BUILDINGS

AURORA AURORA MUNICIPAL AIRPORT IL

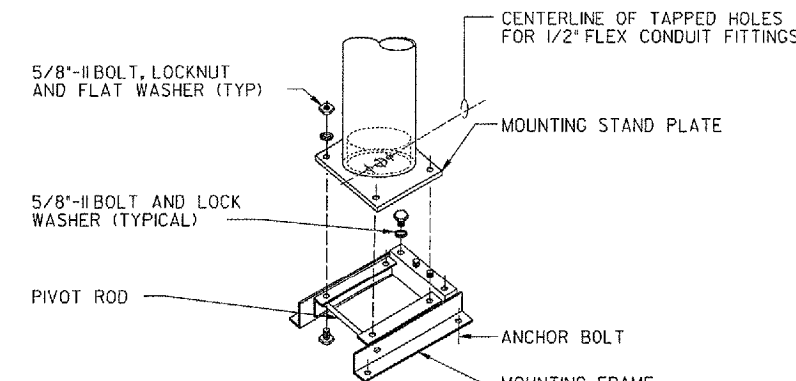
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	DESIGNED TAD	ISSUED BY CHICAGO NAS IMPLEMENTATION CENTER	DATE 02/21/2006
	DRAWN TAD	DRAWING NO	
	CHECKED EGS	ARR-D-MALSR33-E04	

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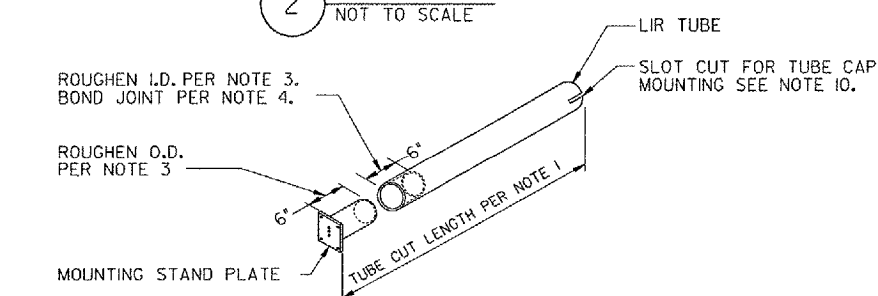


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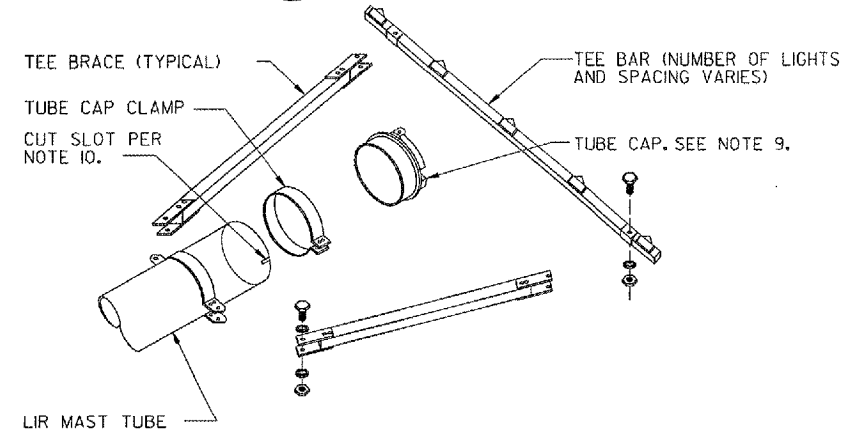
MOUNTING STAND ASSEMBLY DETAILS

2 DETAIL NOT TO SCALE



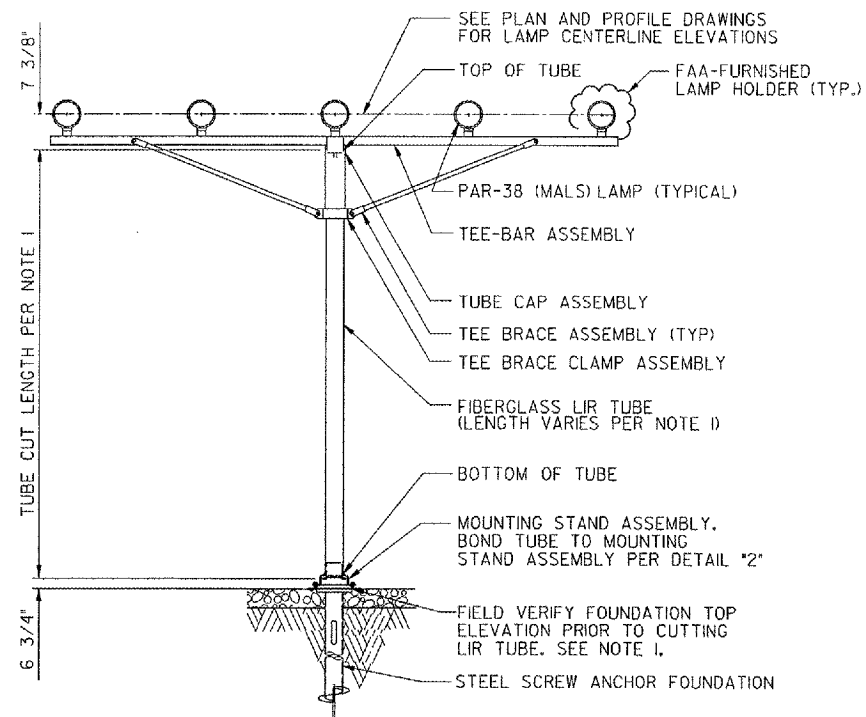
LIR MAST BONDING DETAILS

3 DETAIL NOT TO SCALE



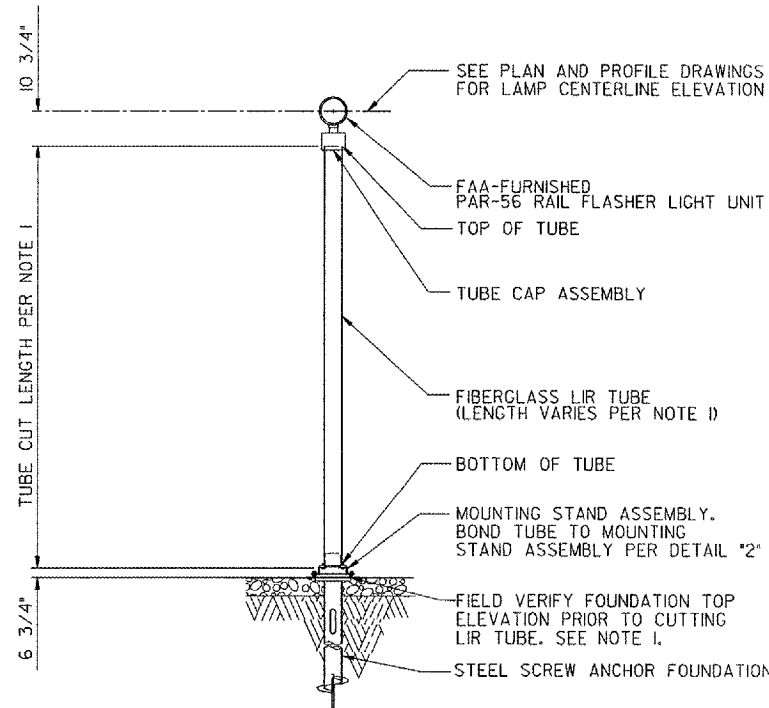
TEE BRACE ASSEMBLY DETAILS

4 DETAIL NOT TO SCALE



ELEVATION MALSR LIGHT BAR ON MG-20 LIR STRUCTURE

1 DETAIL NOT TO SCALE



ELEVATION MALSR FLASHER ON MG-20 LIR STRUCTURE

5 DETAIL NOT TO SCALE

NOTES:

- THE CONTRACTOR SHALL ESTABLISH TOP OF FOUNDATION ELEVATION PER PLAN AND PROFILE DRAWINGS. FOR EACH LIR TOWER TO BE INSTALLED, THE CONTRACTOR SHALL FIELD-VERIFY THE ACTUAL FOUNDATION TOP ELEVATION PRIOR TO CUTTING LIR TUBE. THE REQUIRED TUBE CUT LENGTH SHALL BE DETERMINE AS FOLLOWS:  
 FOR MALS STEADY-BURNING LIGHT BARS  
 TUBE CUT LENGTH = LAMP @ ELEVATION - FDN TOP ELEVATION (FIELD-VERIFIED) - 1.2 FT.  
 FOR RAIL FLASHERS:  
 TUBE CUT LENGTH = LAMP @ ELEVATION - FDN TOP ELEVATION (FIELD-VERIFIED) - 1.5 FT.
- CUT TUBE LENGTH FROM THE 20 FOOT TUBE "A" STOCK AS REQUIRED, USING A TABLE SAW WITH A DIAMOND OR CARBIDE ABRASIVE BLADE. ALL SAW CUTS SHALL BE PERPENDICULAR TO THE TUBE'S LONGITUDINAL AXIS. DEBURR CUT EDGES.
- USE SAND PAPER TO ROUGHEN THE SURFACES TO BE BONDED TO THE STAND PLATE PER DETAIL "3". CLEAN THE ROUGHENED SURFACES WITH A SOLVENT (TRICHLOROETHYLENE, ACETONE, OR METHYL ETHYL KETONE).
- CONTRACTOR SHALL BOND EACH JOINT BY SPREADING A LIGHT COAT OF MIXED ADHESIVE ON BOTH SURFACES TO BE BONDED. SLOWLY SLIDE THE TUBE ONTO THE STAND PLATE, WHILE ROTATING IT TO EXCLUDE AIR. THE BONDING ADHESIVE MATERIALS, 2-PART EPOXY, FUSOR 304-1-RESIN AND 304-2 HARDENER, FUSOR 304-1-AND 304-2 ARE AVAILABLE FROM LORD CORP CHEMICAL PRODUCTS GROUP, ERIE PA. THE ADHESIVE MUST BE MIXED AND CURED IN AIR TEMPERATURES WHICH DO NOT DROP BELOW 67°F. CURING IS COMPLETE AFTER 48 HOURS. FOLLOW MANUFACTURER'S INSTRUCTIONS.
- ASSEMBLE LIR STRUCTURES IN HORIZONTAL POSITION PER DETAIL "2". WHEN LOWERING TOWER, SECURE MOUNTING STAND ON ANCHOR BOLTS, REMOVE TWO 5/8" BOLTS AT REAR OF MOUNTING STAND ASSEMBLY, AND PIVOT INNER SECTION UP TO VERTICAL POSITION. PLACE STAND PLATE (BOTTOM OF MAST) OVER FOUR 5/8" STUDS IN MOUNTING STAND, AND FASTEN WITH HEX NUTS. NOTE POSITION OF TAPPED HOLES IN STAND PLATE. HOLES MUST BE POSITIONED TO ACCOMMODATE INSTALLATION OF TUBE CAP AND TEE BAR ASSEMBLY PER DETAIL "4".
- SEE INSTRUCTION BOOK TI6850.77 FOR ADDITIONAL ASSEMBLY INSTRUCTIONS.
- CONTRACTOR SHALL PROVIDE FAA WITH TWO SPARE "A" TUBES. PROVIDE TO FAA ANY TUBE SECTION GREATER THAN 10' LONG.
- TEE BAR SHALL BE ALIGNED PEPENDICULAR TO RUNWAY CENTERLINE +/- 1°.
- A SMALL HOLE MUST BE CUT IN THE RUBBER LINER OF TUBE CAP TO ALLOW ACCESS FOR TEE BAR WIRING INSTALLATION. DO NOT REMOVE RUBBER LINER.
- SAWCUT FOUR 2" LONG SLOTS, EQUALLY SPACED AROUND PERIMETER, IN TOP OF LIR TUBE TO ALLOW EASY INSERTION OF TUBE CAP.
- LIR SWIVEL IS REQUIRED ONLY FOR STATIONS WHICH PIVOT AT AN ANGLE TO RUNWAY CENTERLINE. SPLICE SECTION ALLOWS CROSSBAR ASSEMBLY (WHEN CLAMPS ARE LOOSENED) TO BE ROTATED 90° TO ALLOW COMPLETE LOWERING OF TOWER.
- THE CONTRACTOR SHALL COVER THE 2" CENTER HOLE OF THE MG-20 MOUNTING STAND PLATE ASSEMBLY WITH A 2"-DIA PLASTIC OR ALUMINUM MINI-LOUVER, McMASTER-CARR CAT. NO. 2016K23, 2016K13, AND 2016K3 MINI-LOUVERS MEET THIS REQUIREMENT. SEAL UNUSED HOLE IN THE MOUNTING STAND PLATE WITH A 1/2" THREADED PLASTIC PLUG.

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 10 OF THE SPECIAL SPECIFICATIONS.

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION GREAT LAKES REGION CHICAGO, ILLINOIS			
MALSR STRUCTURE ASSEMBLY DETAILS FOR LIR TOWER, TYPE MG-20 RUNWAY 33			
AURORA	AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY:	SUBMITTED BY:	APPROVED BY:	
	PROJ ENGR, TIMOTHY DYER	PLATFORM MGR, CLELAND MICHEEL	
DESIGNED	TAD	ISSUED BY	DATE 02/18/2006 JCN
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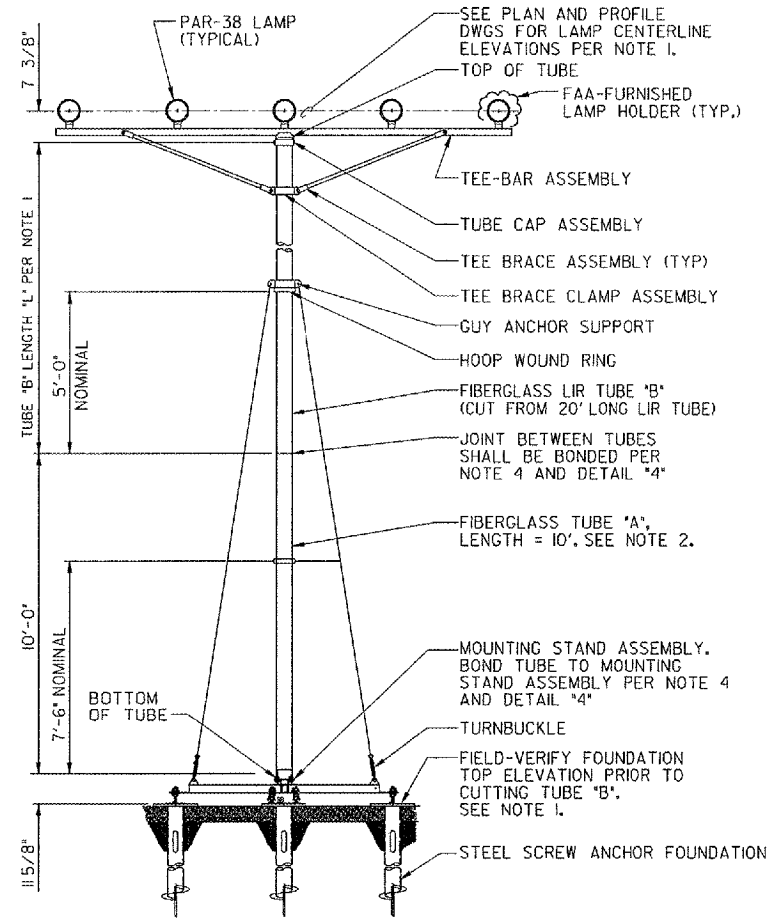
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THE DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM

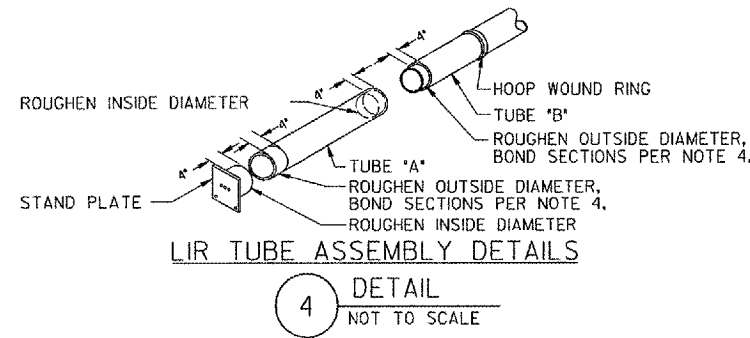
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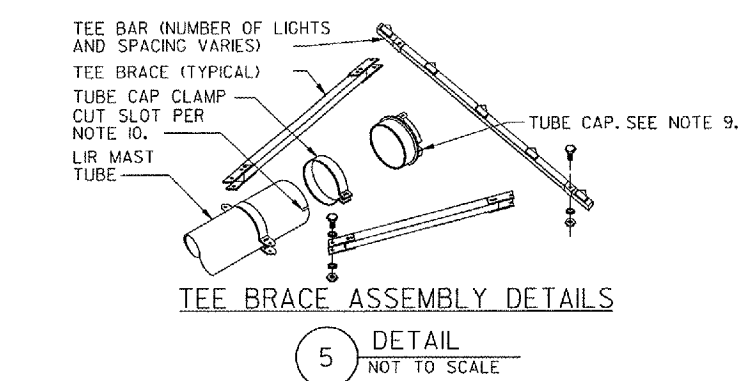


**ELEVATION  
MALSR STEADY-BURNING LIGHT  
BAR ON MG-30 LIR STRUCTURE**

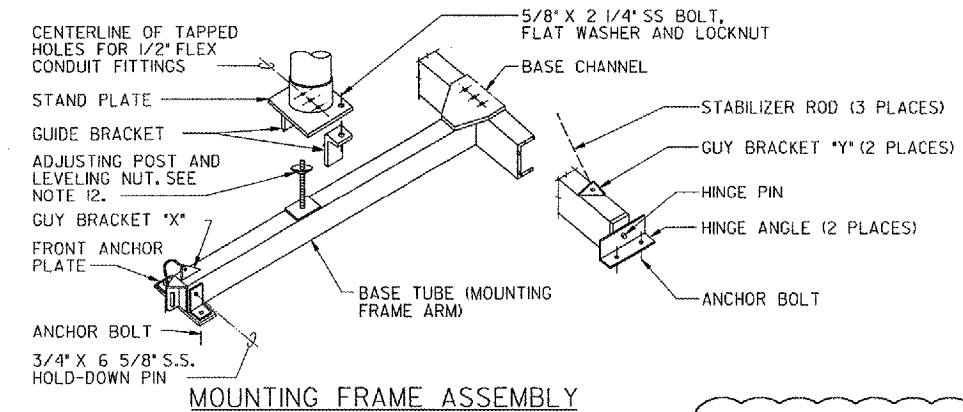
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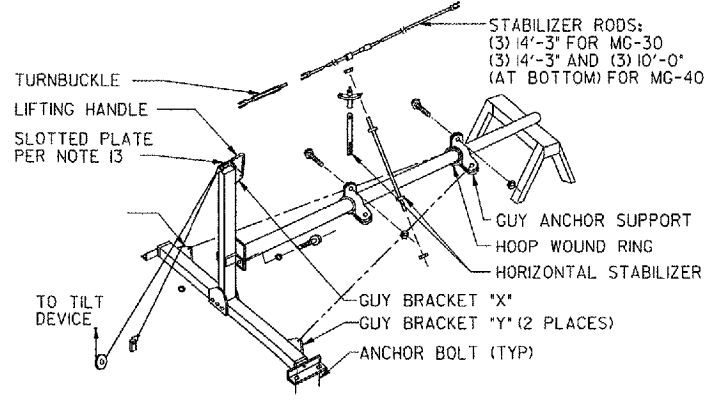
**4** DETAIL  
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**5** DETAIL  
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**6** DETAIL  
NOT TO SCALE



**7** DETAIL  
NOT TO SCALE

**NOTES:**

- THE CONTRACTOR SHALL ESTABLISH TOP OF FOUNDATION ELEVATION PER PLAN AND PROFILE DWGS. FOR EACH LIR TOWER PER LIGHT STATION. THE CONTRACTOR SHALL FIELD-VERIFY THE ACTUAL FOUNDATION TOP ELEVATION PRIOR TO CUTTING LIR TUBE 'B'. THE CONTRACTOR SHALL DETERMINE THE REQUIRED TUBE 'B' LENGTH 'L' AS FOLLOWS:  
FOR MALSR STEADY-BURNING:  
L = LAMP Q ELEVATION - FOUNDATION TOP ELEVATION (FIELD-VERIFIED) - TUBE 'A' LENGTH - 1.6 FT.  
FOR RAIL FLASHER:  
L = LAMP Q ELEVATION - FOUNDATION TOP ELEVATION (FIELD-VERIFIED) - TUBE 'A' LENGTH - 1.9 FT.
- CUT TUBE LENGTH FROM THE 20 FOOT TUBE 'A' STOCK AS REQUIRED, USING A TABLE SAW WITH A DIAMOND OR CARBIDE ABRASIVE BLADE. ALL SAW CUTS SHALL PERPENDICULAR TO THE TUBE AXIS. DEBURR CUT EDGES.
- USE EMERY CLOTH TO ROUGHEN THE SURFACES TO BE BONDED TO THE STAND PLATE PER DETAIL '4'. CLEAN THE ROUGHENED SURFACES WITH A SOLVENT (TRICHLOROETHYLENE, ACETONE, OR METHYL ETHYL KETONE).
- CONTRACTOR SHALL BOND EACH JOINT BY SPREADING A LIGHT COAT OF MIXED ADHESIVE ON BOTH SURFACES TO BE BONDED. SLOWLY SLIDE THE TUBE ONTO THE STAND PLATE, WHILE ROTATING IT TO EXCLUDE AIR. THE BONDING ADHESIVE MATERIALS, 2-PART EPOXY, FUSOR 304-1 RESIN AND 304-2 HARDENER, FUSOR 304-1 AND 304-2 ARE AVAILABLE FROM LORD CORP. CHEMICAL PRODUCTS GROUP, ERIE, PA. FOR BEST RESULTS, THE ADHESIVE SHOULD BE MIXED AND CURED IN AIR TEMPERATURES ABOVE 67°F. CURING IS COMPLETE AFTER 48 HOURS. FOLLOW MANUFACTURER'S INSTRUCTIONS.
- ASSEMBLE LIR STRUCTURES IN HORIZONTAL POSITION PER DETAIL '7'. INSERT HINGE PINS WHICH ARE ATTACHED TO BASE CHANNEL, INTO LEFT AND RIGHT ANCHOR PLATES. PLACE THE FRONT, THE LEFT, AND THE RIGHT ANCHOR PLATES OVER THE 3/4" ANCHOR BOLTS. CONNECT BASE TUBE TO BASE CHANNEL, MAKING SURE MOUNTING FRAME ASSEMBLY SWINGS FREELY ON HINGE PINS. SECURE ANCHOR PLATES TO FOUNDATION AND RAISE MOUNTING FRAME ARM TO VERTICAL (VERIFY). ATTACH THE GUY ANCHOR SUPPORT ABOVE THE HOOP WOUND RING. ATTACH STABILIZER RODS TO THREE GUY ANCHOR ENDS. BOLT TWO GUIDE BRACKETS TO BOTTOM OF MAST STAND PLATE WITH THE 5/8" x 2 1/4" STAINLESS STEEL BOLTS AND NUTS. DO NOT TIGHTEN. POSITION STAND PLATE WITH TAPPED HOLES ALIGNED PER DETAIL '6'. SET STAND PLATE OVER ADJUSTING POST. POST IS INSERTED INTO HOLE IN CENTER OF STAND PLATE. ADJUST NUT FOR PROPER HEIGHT. SUPPORT UPPER END OF MAST SO IT IS APPROXIMATELY PARALLEL WITH GROUND. CLAMP GUIDE BRACKETS TO BASE TUBE, AND SECURE. FASTEN TURNBUCKLES (ATTACHED TO STABILIZER RODS) TO GUY BRACKETS 'X' AND 'Y'. TIGHTEN TURNBUCKLE AT GUY BRACKET 'X' UNTIL MAST IS EXACTLY PERPENDICULAR TO MOUNTING FRAME. TIGHTEN THE OTHER TWO TURNBUCKLES AT GUY BRACKETS 'Y'. ATTACH HORIZONTAL STABILIZER ASSEMBLY. USE THE APPROPRIATE NUMBER AND SIZE OF STABILIZER RODS DEPENDING ON THE TOWER TYPE (MG-30 OR MG-40). SEE DETAIL '7'.
- SEE INSTRUCTION BOOK T16850.77 FOR ADDITIONAL ASSEMBLY INSTRUCTIONS.
- CONTRACTOR SHALL SUPPLY TWO SPARE 'A' TUBES TO DAN GEIST-FAA, PHONE NUMBER (815)509-3200. PROVIDE FAA WITH ANY TUBE REMNANT GREATER THAN 10' LONG.
- TEE BAR SHALL BE ALIGNED PERPENDICULAR TO RUNWAY CENTERLINE +/- 1".
- A SMALL HOLE MUST BE CUT IN THE RUBBER LINER OF TUBE CAP TO ALLOW ACCESS FOR TEE BAR WIRING INSTALLATION. DO NOT REMOVE RUBBER LINER.
- SAWCUT FOUR 2" LONG SLOTS, EQUALLY SPACED AROUND PERIMETER, IN TOP OF LIR TUBE TO ALLOW EASY INSERTION OF TUBE CAP.
- NOT USED.
- AFTER LEVELING AND PLUMBING THE MAST, LIFT THE MAST BY ONE COMPLETE TURN OF THE LEVELING NUT. THIS IS INTENDED TO CREATE UNIFORM TENSION IN (200-500 LBS) IN ALL STABILIZER RODS.
- WHEN LIFTING OR LOWERING THE TOWER, THE TILT DEVICE HOOK SHALL BE CONNECTED TO THE SLOTTED PLATE ON THE END OF THE LIFTING FRAME AND SHALL NOT BE CONNECTED TO THE LIFTING HANDLE.

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

SHEET 43 OF 67

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION GREAT LAKES REGION CHICAGO, ILLINOIS			
MALSR STRUCTURE ASSEMBLY DETAILS FOR LIR TOWER, TYPES MG-30 RUNWAY 33			
AURORA REVIEWED BY	AURORA MUNICIPAL AIRPORT SUBMITTED BY	IL APPROVED BY	JCN
PROJ ENGR, <b>TIMOTHY DYER</b>	ISSUED BY CHICAGO NAS IMPLEMENTATION CENTER	DATE 02/18/2006	JCN
DRAWN EGS	TAD	DRAWING NO ARR-D-MALSR33-S02	REV

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APPR

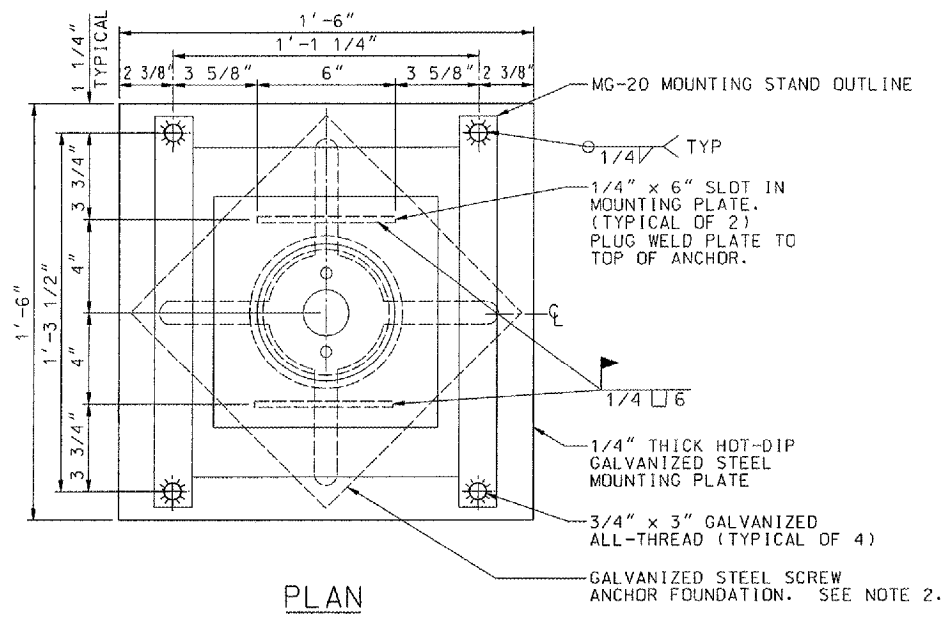
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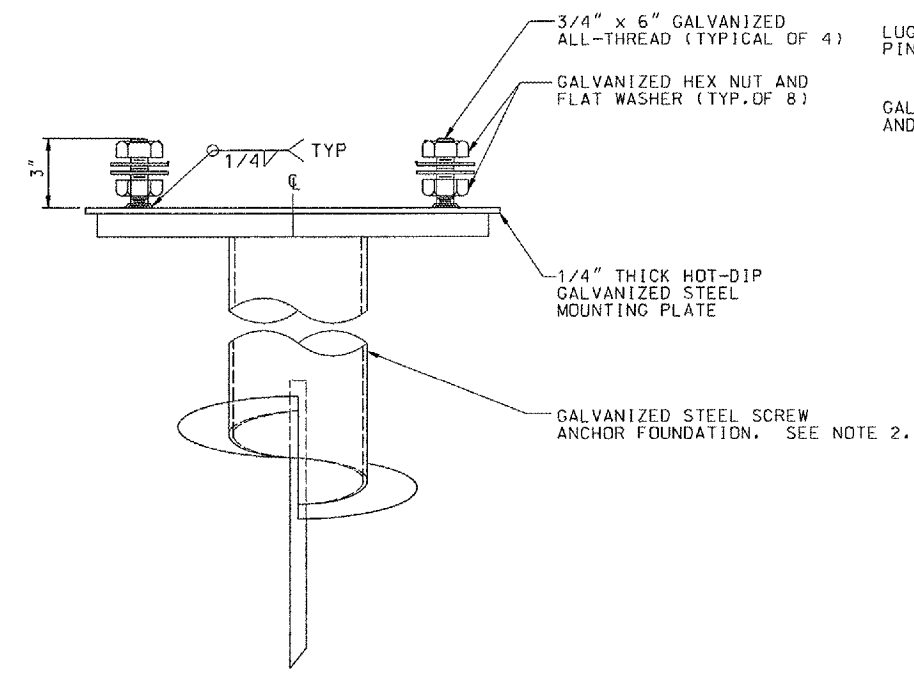
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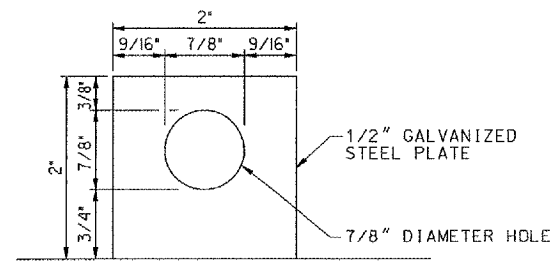
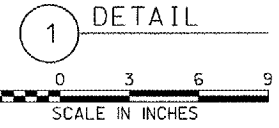
THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM



PLAN

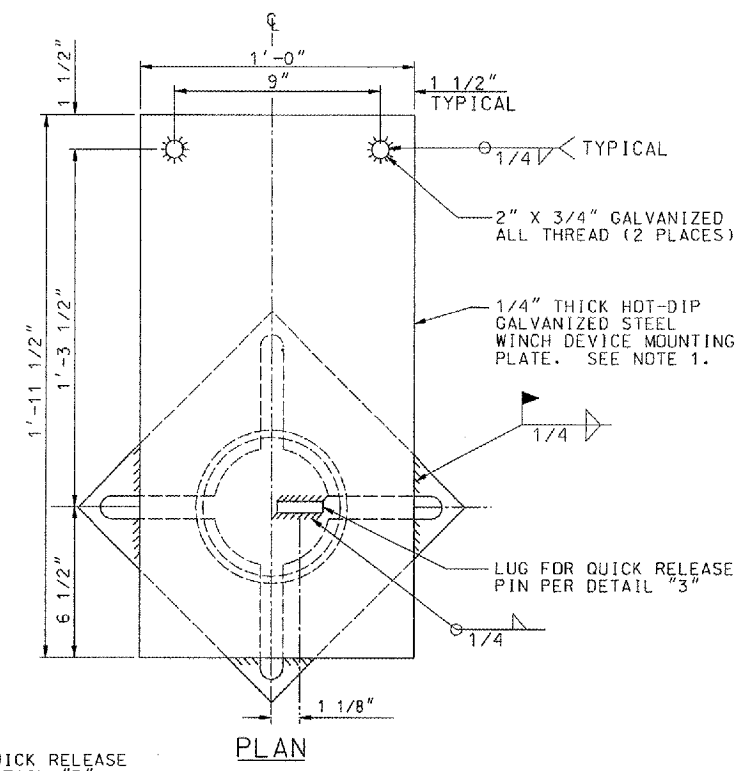


ELEVATION  
MG-20 MOUNTING PLATE

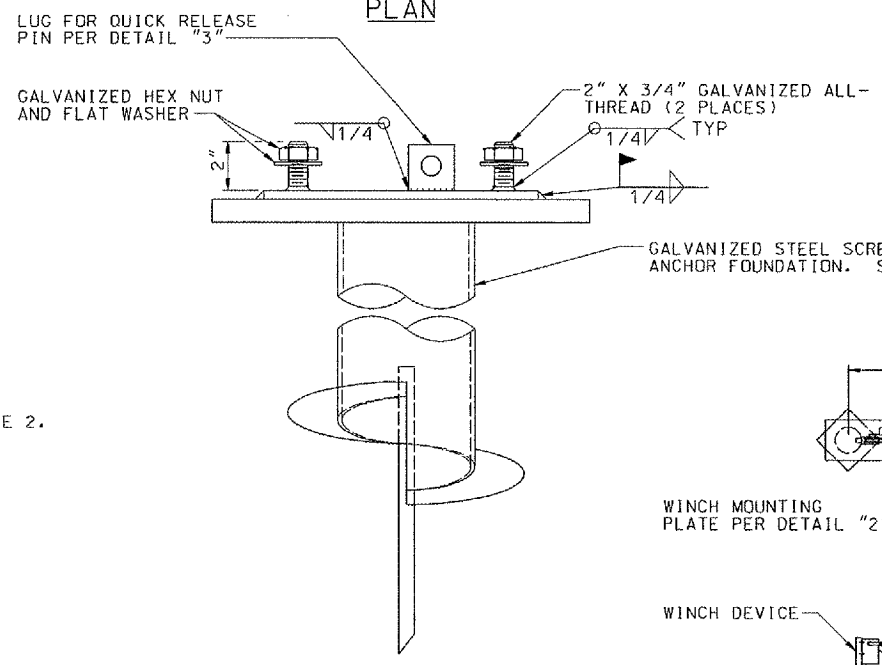


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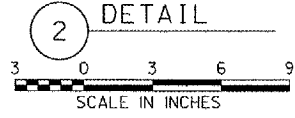
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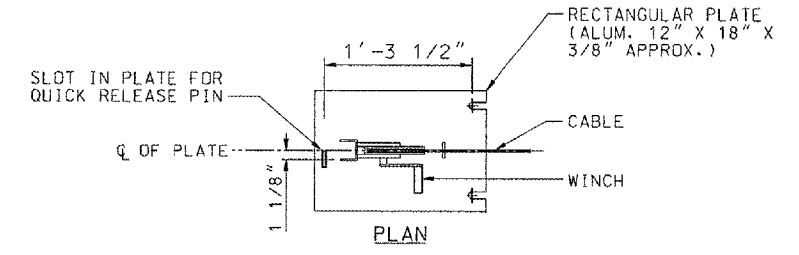
ELEVATION  
WINCH MOUNTING PLATE



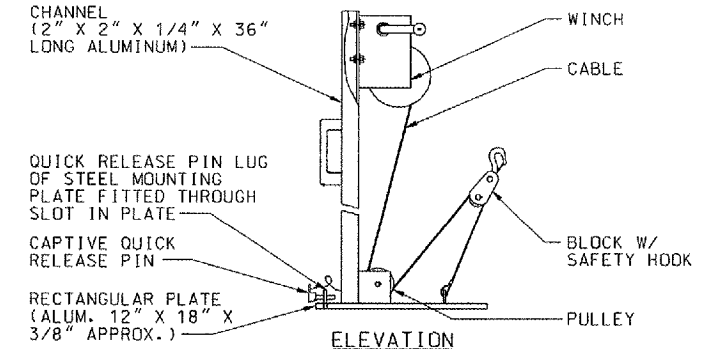
CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

**NOTES:**

- WINCH IS PROVIDED BY THE FAA WITH MALSR EQUIPMENT; DETAILS ARE FOR REFERENCE ONLY. WINCH SHALL BE DELIVERED TO RESIDENT ENGINEER AFTER TOWER INSTALLATION.
- SCREW ANCHOR FOUNDATIONS SHALL BE STEEL STREETLIGHT FOUNDATIONS, A.B. CHANCE CAT. NO. CT112-0262. SEE THE SECTION 13D OF THE SPECIFICATION FAA-GL-918C FOR INSTRUCTIONS REGARDING INSTALLATION OF THE SCREW ANCHORS.

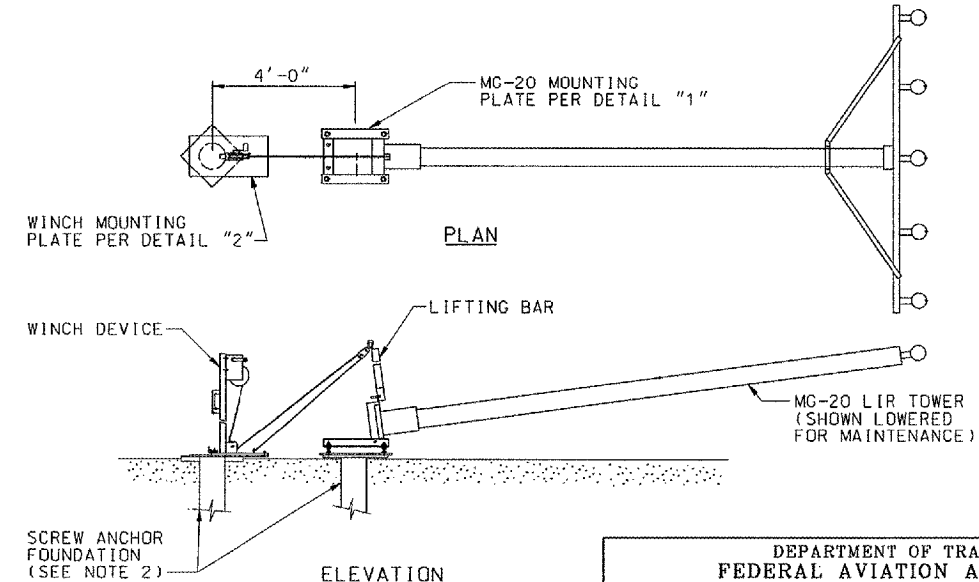


PLAN



ELEVATION

DETAIL 4  
NOT TO SCALE  
WINCH DEVICE ATTACHED TO MOUNTING STAND ILLUSTRATION  
SEE NOTE 1



ELEVATION  
WINCH OPERATION ILLUSTRATION

DETAIL 5  
NOT TO SCALE

SHEET 44 OF 67

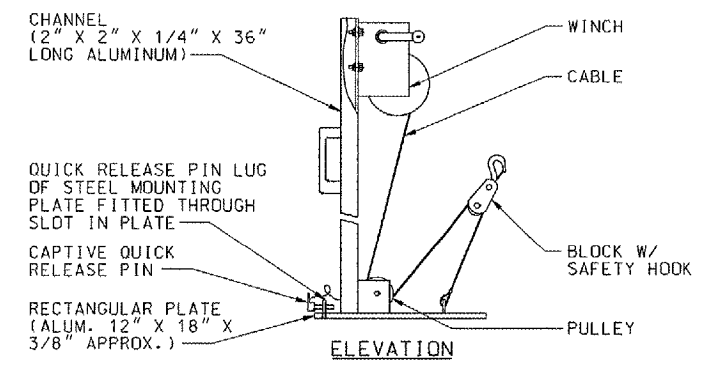
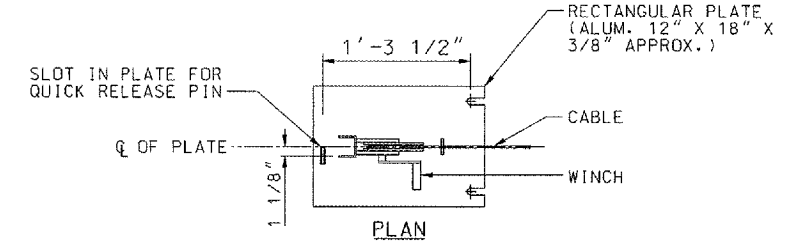
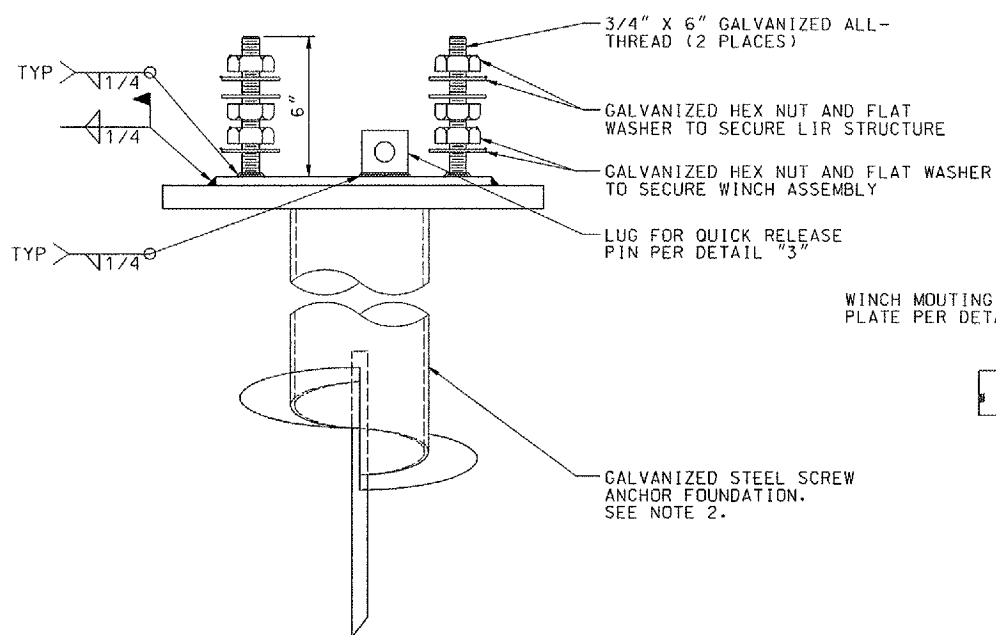
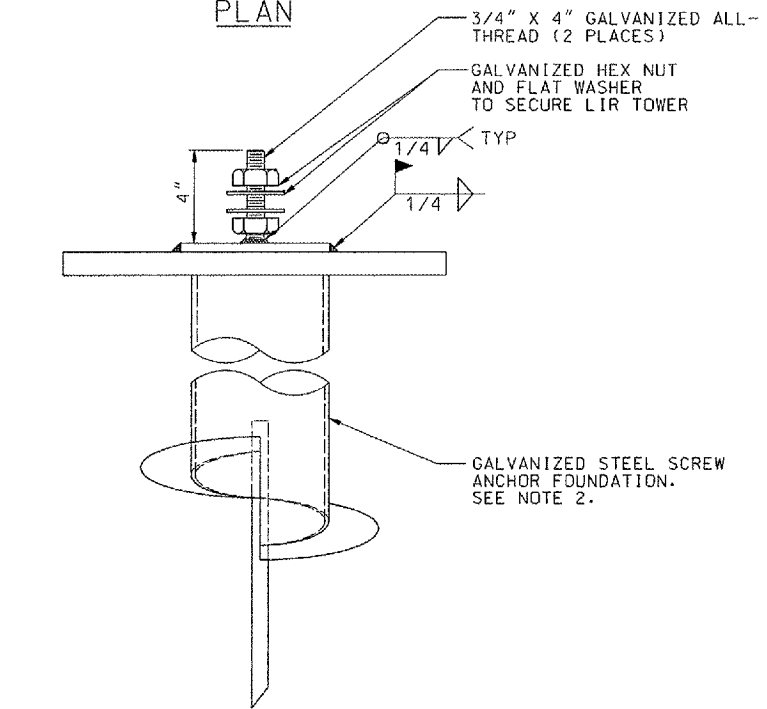
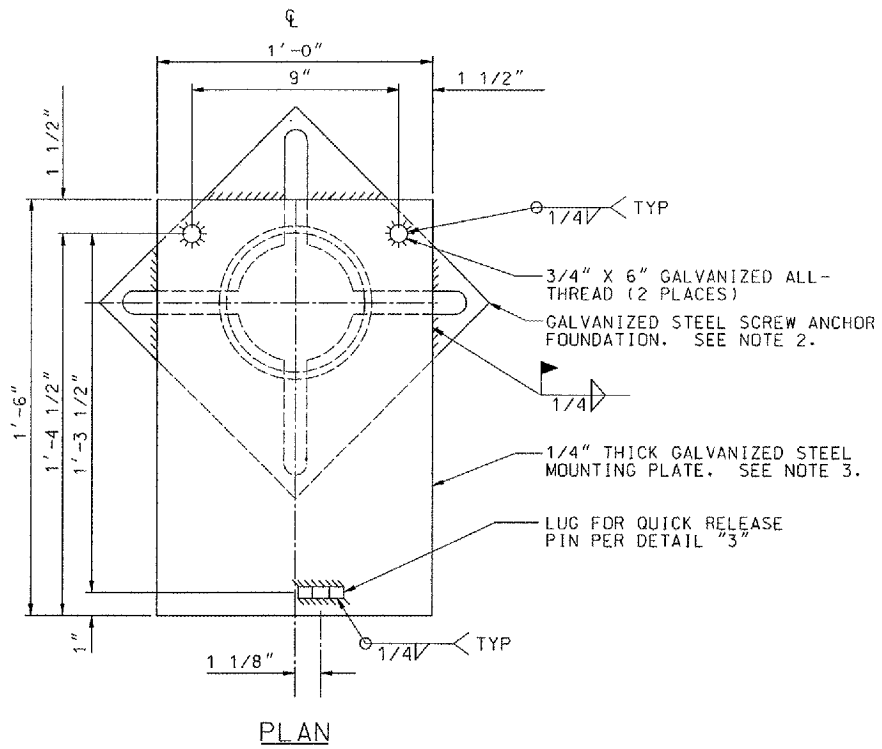
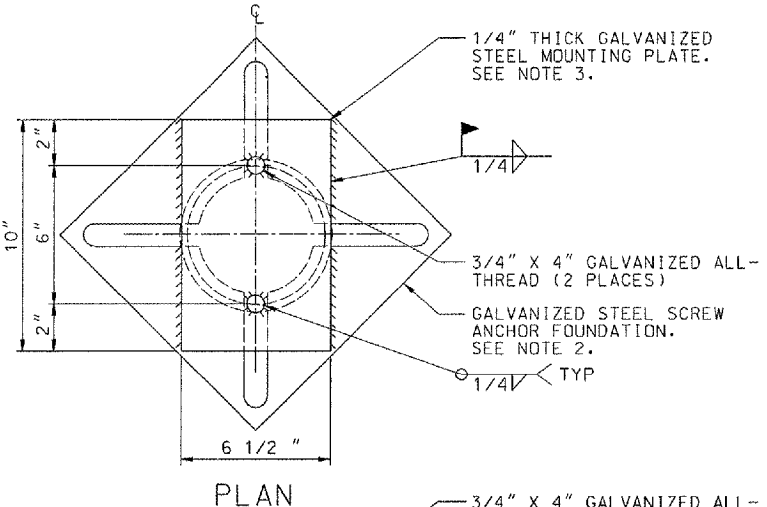
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION GREAT LAKES REGION CHICAGO, ILLINOIS			
MALSR MOUNTING PLATE FABRICATION DETAILS FOR MG-20 LIR TOWER AND WINCH RUNWAY 33			
AURORA	AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY	SUBMITTED BY	APPROVED BY	
DESIGNED BY TAD	ISSUED BY CHICAGO HAS	DATE 02/27/2006	JCN
DRAWN TAD	IMPLEMENTATION CENTER	DRAWING NO. ARR-D-MALSR33-S03	REV
CHECKED EGS			

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APPROVED

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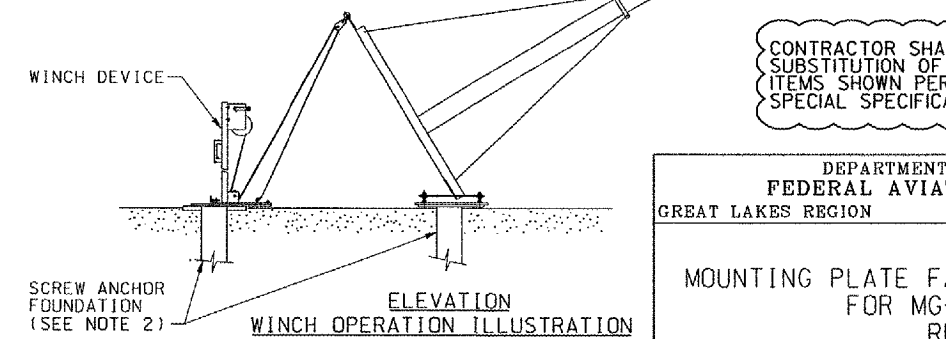
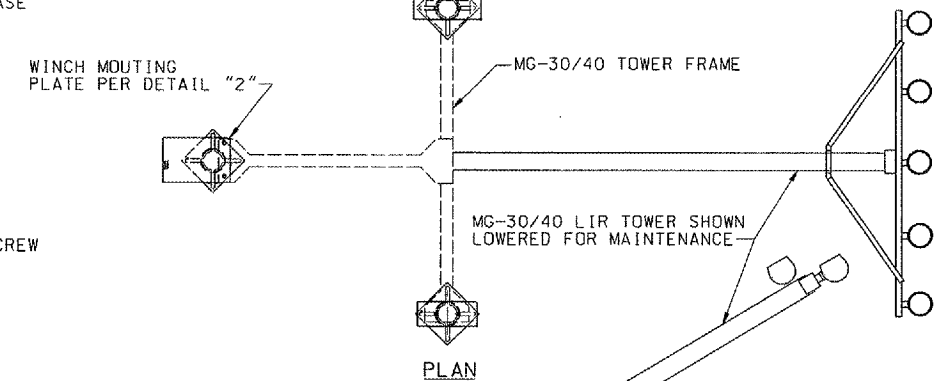
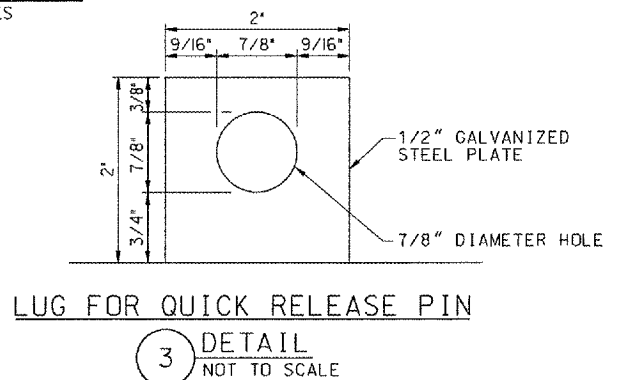
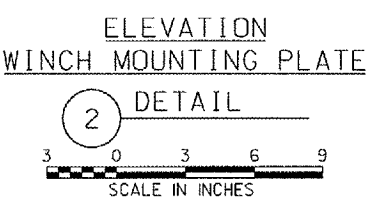
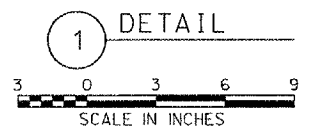


THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM



4 DETAIL NOT TO SCALE

WINCH DEVICE ATTACHED TO MOUNTING STAND ILLUSTRATION SEE NOTE 1



CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

SHEET 45 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

MALSR  
MOUNTING PLATE FABRICATION DETAILS FOR  
FOR MG-30 LIR TOWER  
RUNWAY 33

REVIEWED BY	SUBMITTED BY	APPROVED BY	IL
PROJ ENGR, TIMOTHY DYER	PLATFORM MGR, CLELAND MICHEEL	DATE 02/18/2006	JCN
DRAWN	ISSUED BY CHICAGO NAS IMPLEMENTATION CENTER	DRAWING NO	REV
CHECKED	EGS	ARR-D-MALSR33-S04	

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APPROVED

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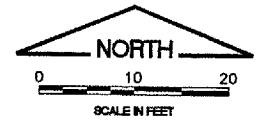
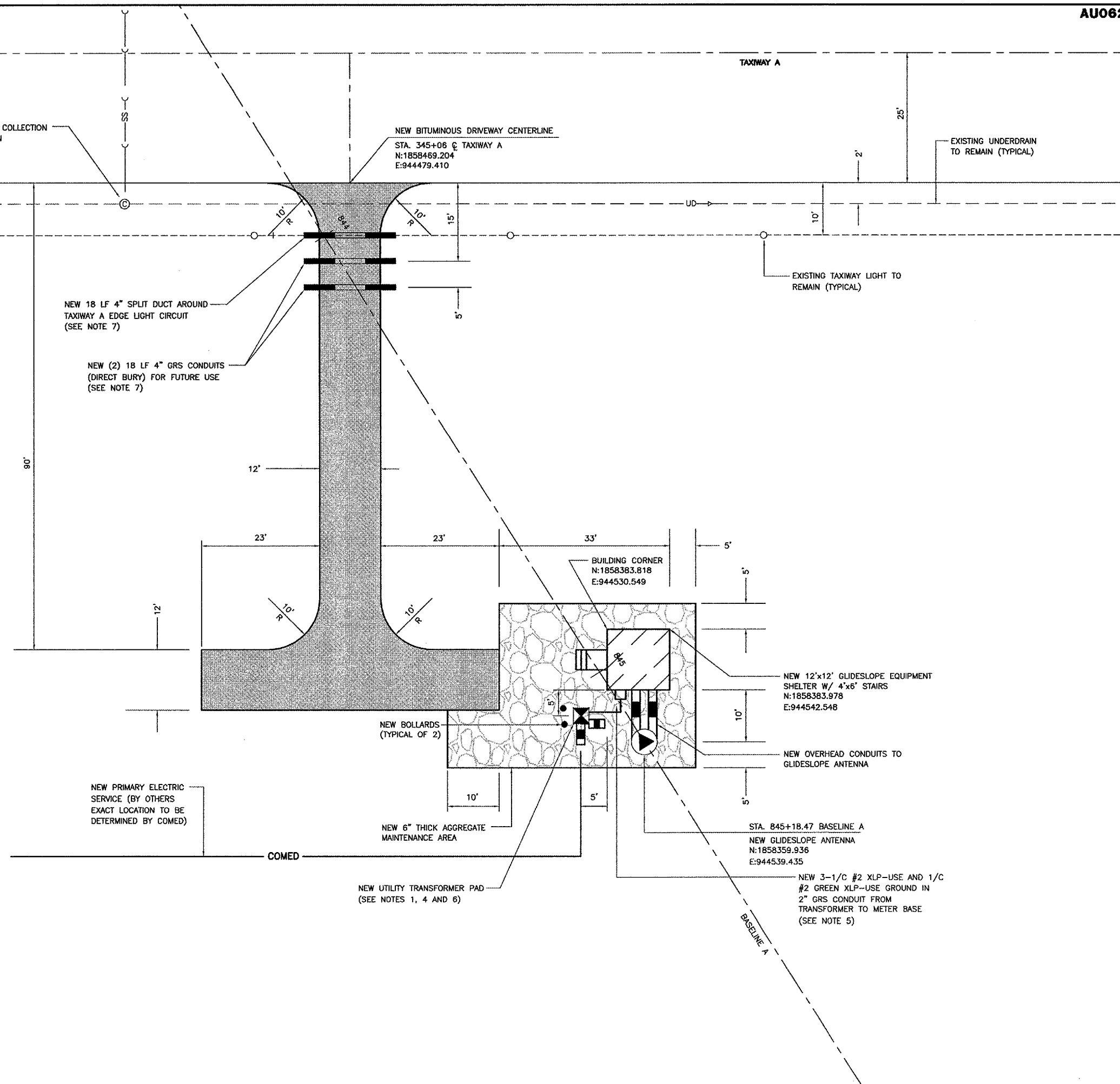
REVISIONS		
NUMBER	BY	DATE



**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER  
 RUNWAY 33 GLIDE SLOPE  
 SITE PLAN  
 ARR-D-GS33-C01**

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DESIGN BY:	CAL
DRAWN BY:	JRO
CHECKED BY:	CAL
APPROVED BY:	
DATE:	05/12/06
JOB No:	04285-04
ILLINOIS PROJECT: ARR-3468 A.I.P. PROJECT: 3-17-0003-B31 <b>FINAL SUBMITTAL</b>	
SHEET 48 OF 67 SHEETS	

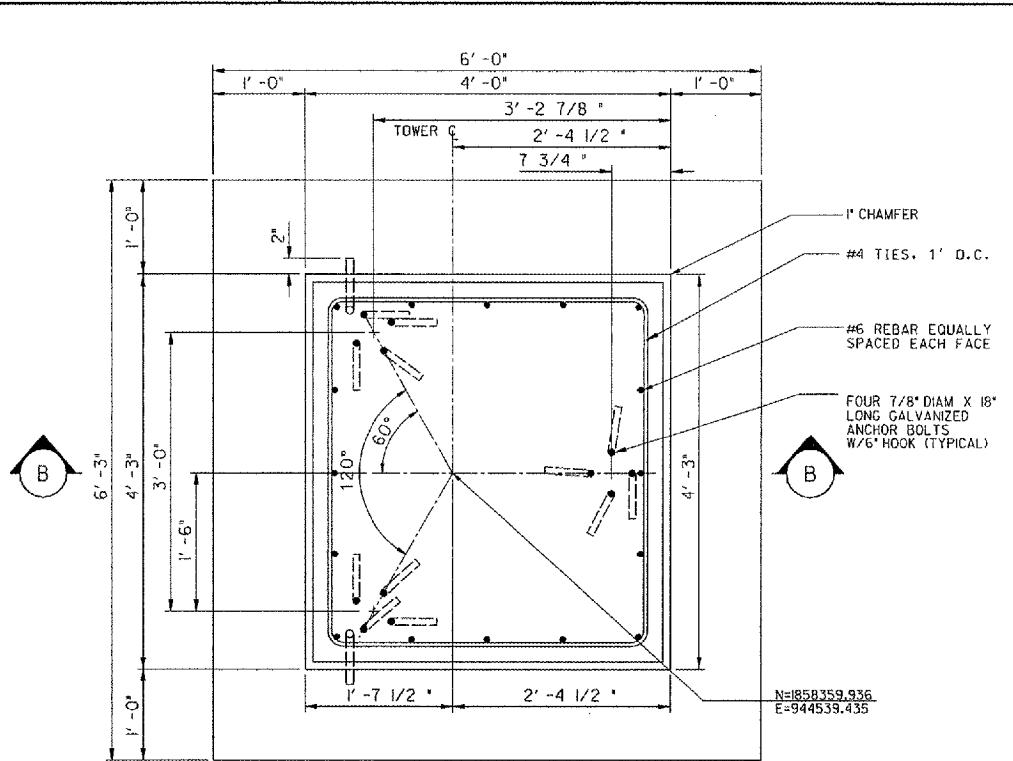
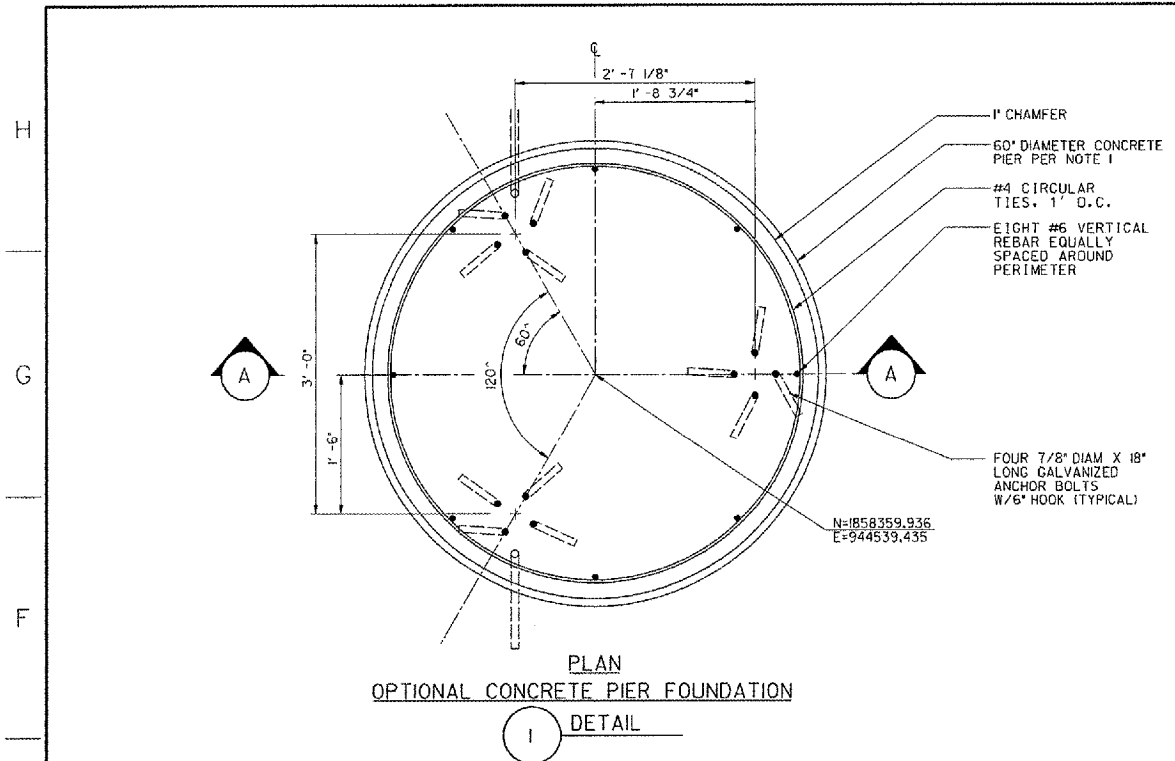


**NOTES**

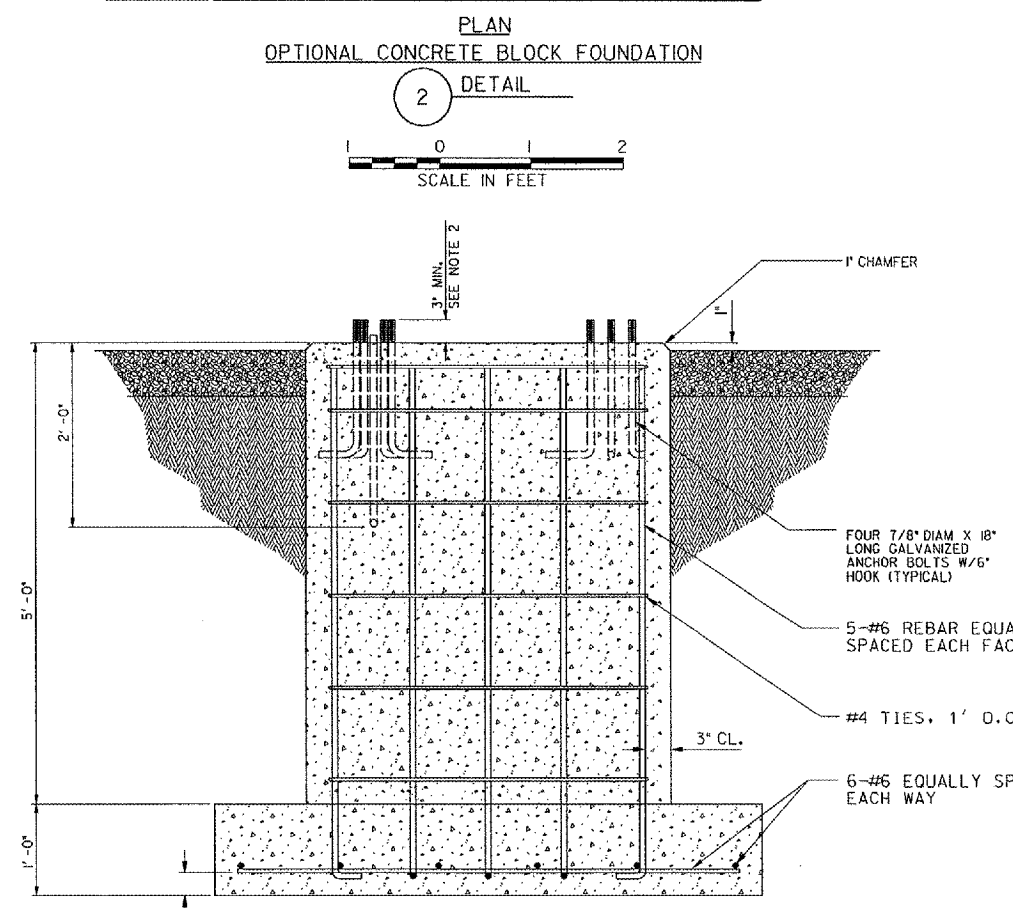
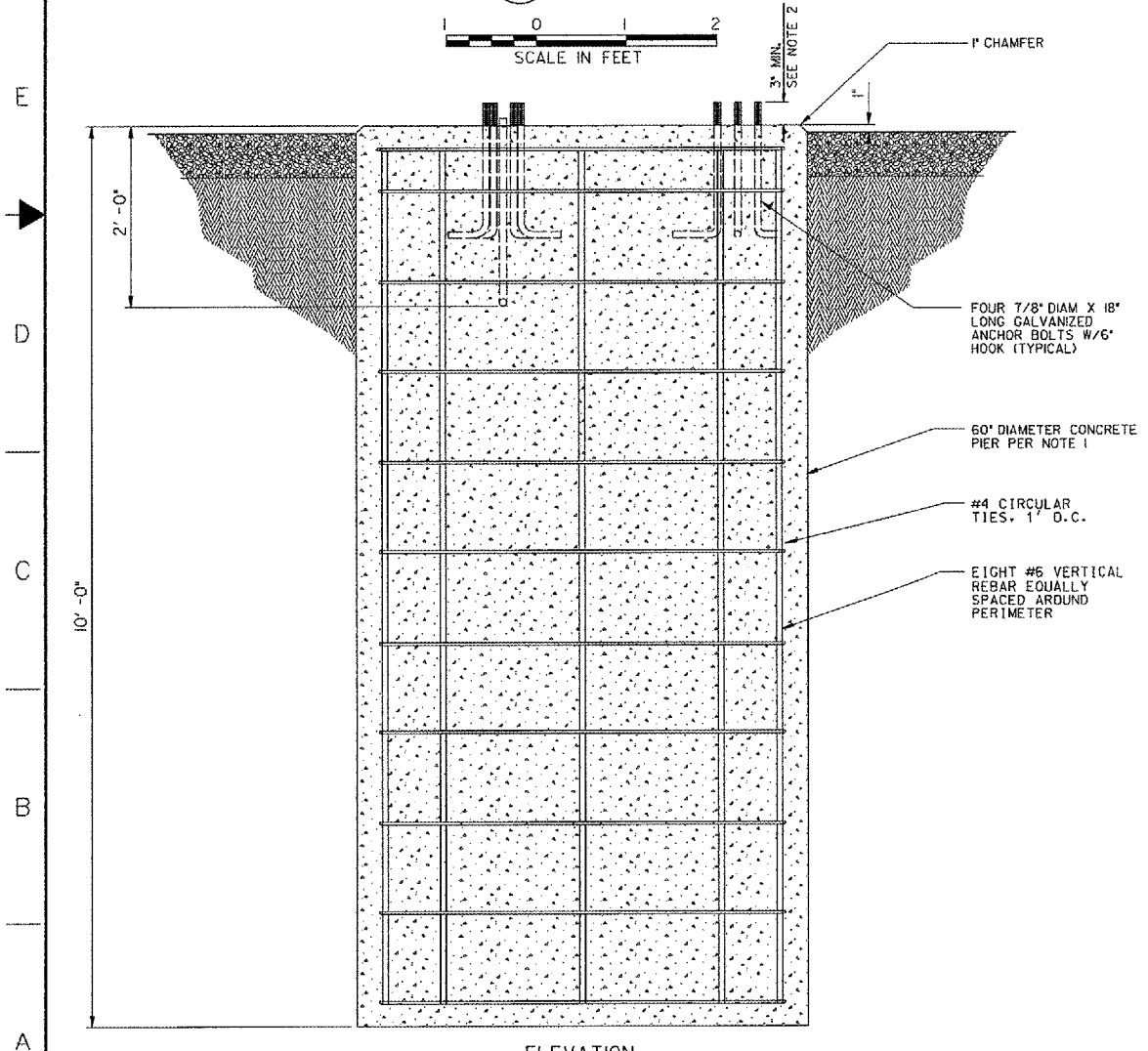
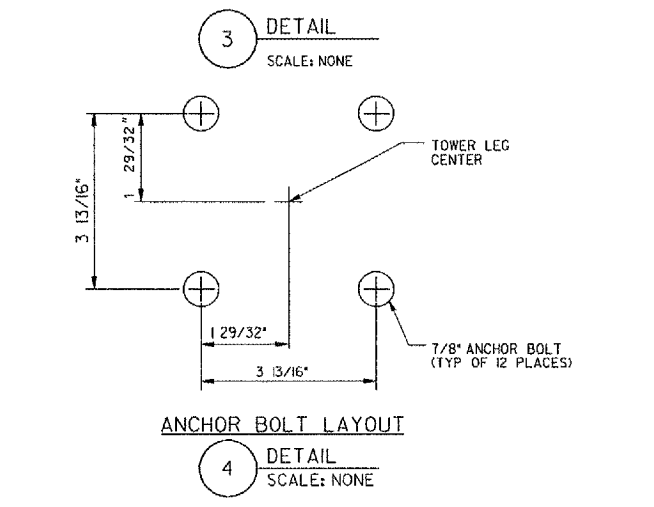
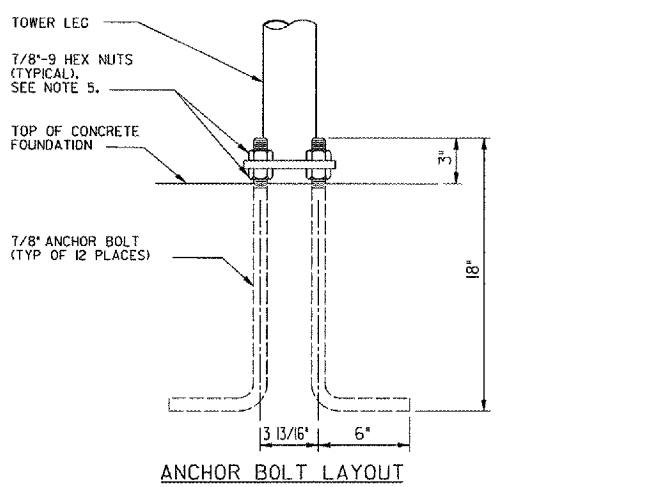
- CONTRACTOR SHALL INSTALL CONCRETE PAD, CONDUITS AND GROUNDING ELECTRODES FOR THE TRANSFORMER PER UTILITY COMPANY REQUIREMENTS. COST INCIDENTAL TO EQUIPMENT SHELTER.
- WHERE SPECIFIC MANUFACTURERS OF EQUIPMENT ARE GIVEN, THE CONTRACTOR MAY SUBMIT ALTERNATE EQUIPMENT EQUAL TO THAT PROPOSED FOR CONSIDERATION BY THE ENGINEER.
- TO ENSURE CONFORMANCE TO SPECIFICATIONS, AN FAA REPRESENTATIVE MAY VISIT THE SITE AT ANY TIME.
- COMED 25 KVA PAD-MOUNTED TRANSFORMER, PRIMARY TO 120/240V, SINGLE PHASE (BY OTHERS).
- THE CONTRACTOR SHALL FURNISH AND INSTALL UTILITY METER AND METER BASE PER UTILITY REQUIREMENTS. COMED SHALL SUPPLY METER.
- CONTRACTOR SHALL INSTALL (2) 4" GRS CONDUITS EXTENDED MINIMUM 5' AWAY FROM TRANSFORMER PAD: 1 FOR PRIMARY POWER AND 1 SPARE.
- CONTRACTOR SHALL PLACE AND COMPACT CA-6 DUCT/CONDUIT BACKFILL TO 95% STANDARD PROCTOR BENEATH BITUMINOUS PAVEMENT.
- CONTRACTOR SHALL INSTALL (1) 2" GRS CONDUIT FROM TRANSFORMER PAD TO ELECTRIC METER.
- CONTRACTOR SHALL COORDINATE NEW ELECTRIC SERVICE FOR RUNWAY 33 GLIDESLOPE WITH COMED. NEW ELECTRIC SERVICE SHALL BE 100A, 120/240V, 1-PHASE.

THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM

8 7 6 5 4 3 2 1



- NOTES:**
1. SEE DWG ARR-D-GS33-C01 FOR FOUNDATION LOCATION AND TOP ELEVATION.
  2. HORIZONTAL TOLERANCES FOR GLIDE SLOPE ANTENNA MAST ANCHOR BOLTS ARE +/- 1/16" OF DIMENSIONS SHOWN. VERIFY ANCHOR BOLT TEMPLATE WITH REFERENCE TO TOWER BASE PRIOR TO PLACING CONCRETE.
  3. REFER TO PROJECT SPECIAL REVISIONS FOR EXCAVATION DETAILS.
  4. REFER TO PROJECT SPECIAL REVISIONS FOR CONCRETE DETAILS.
  5. TOWER IS GROUTED UNDER ALL ANCHOR PLATES AFTER FINAL LEVELING ADJUSTMENT.



SHEET 47 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

GLIDE SLOPE  
ANTENNA TOWER FOUNDATION DETAILS

AURORA AURORA MUNICIPAL AIRPORT IL

REVIEWED BY: [ ] SUBMITTED BY: [ ] APPROVED BY: [ ]

DESIGNED: TAD PROJ ENGR, TIMOTHY DYER DATE: 02/27/2006  
DRAWN: TAD CHICAGO NAS IMPLEMENTATION CENTER  
CHECKED: EGS PLATFORM MGR, CLELAND MICHEEL  
DRAWING NO: ARR-D-GS33-C02

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

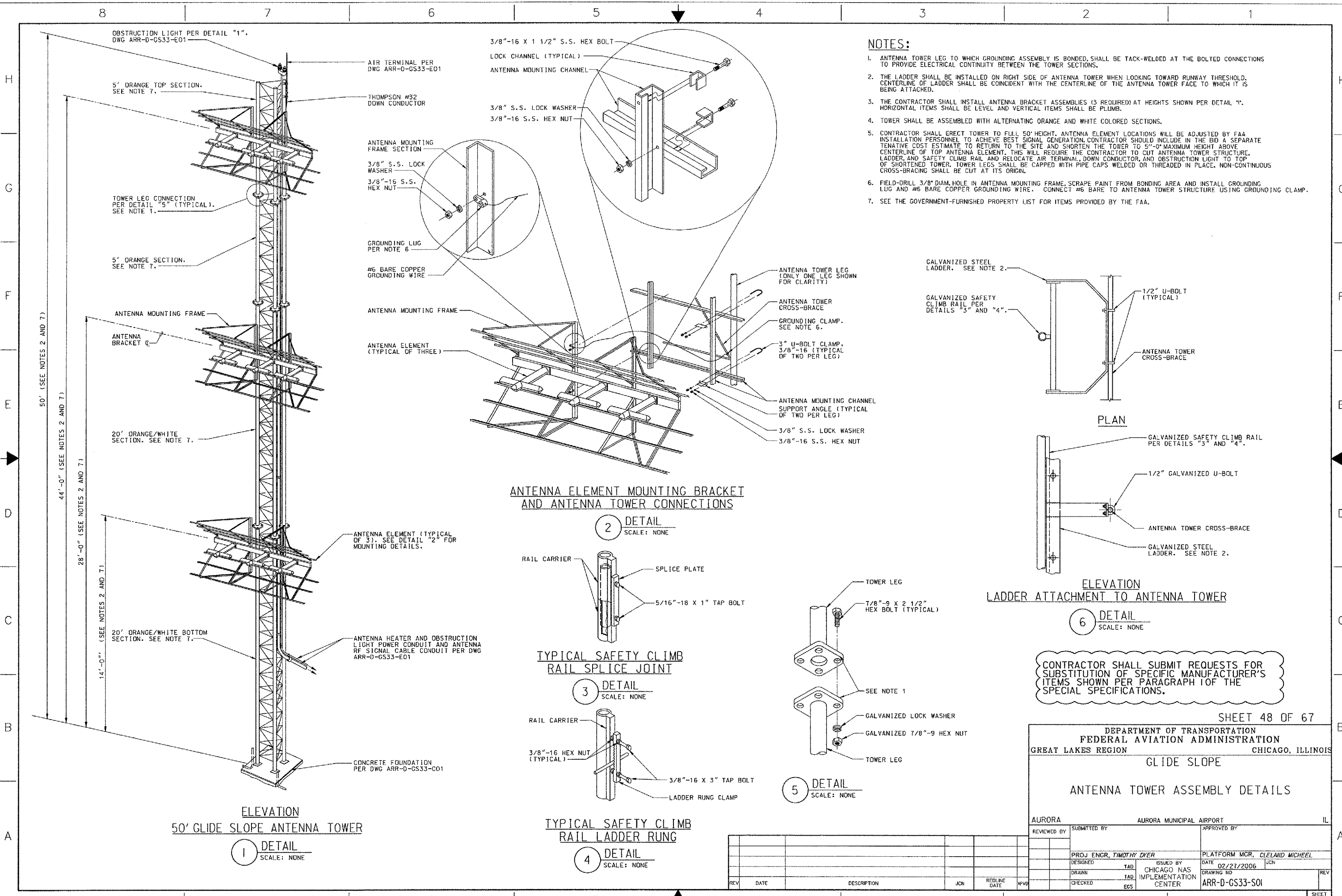
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SHEET OF

THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM

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46729



OBSTRUCTION LIGHT PER DETAIL "1", DWG ARR-D-GS33-E01

AIR TERMINAL PER DWG ARR-D-GS33-E01

THOMPSON #32 DOWN CONDUCTOR

ANTENNA MOUNTING FRAME SECTION

3/8" S.S. LOCK WASHER  
3/8"-16 S.S. HEX NUT

TOWER LEG CONNECTION PER DETAIL "5" (TYPICAL). SEE NOTE 1.

5' ORANGE SECTION. SEE NOTE 7.

ANTENNA MOUNTING FRAME

ANTENNA BRACKET

20' ORANGE/WHITE SECTION. SEE NOTE 7.

20' ORANGE/WHITE BOTTOM SECTION. SEE NOTE 7.

ANTENNA HEATER AND OBSTRUCTION LIGHT POWER CONDUIT AND ANTENNA RF SIGNAL CABLE CONDUIT PER DWG ARR-D-GS33-E01

CONCRETE FOUNDATION PER DWG ARR-D-GS33-C01

3/8"-16 X 1 1/2" S.S. HEX BOLT

LOCK CHANNEL (TYPICAL)

ANTENNA MOUNTING CHANNEL

3/8" S.S. LOCK WASHER  
3/8"-16 S.S. HEX NUT

GROUNDING LUG PER NOTE 6

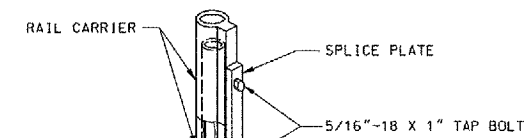
#6 BARE COPPER GROUNDING WIRE

ANTENNA MOUNTING FRAME

ANTENNA ELEMENT (TYPICAL OF THREE)

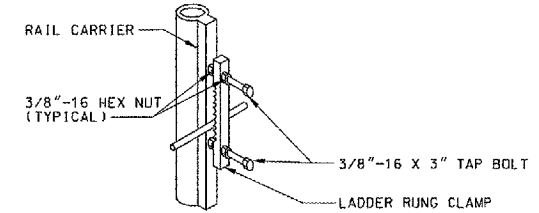
**ANTENNA ELEMENT MOUNTING BRACKET AND ANTENNA TOWER CONNECTIONS**

2 DETAIL SCALE: NONE



**TYPICAL SAFETY CLIMB RAIL SPLICE JOINT**

3 DETAIL SCALE: NONE



**TYPICAL SAFETY CLIMB RAIL LADDER RUNG**

4 DETAIL SCALE: NONE

**NOTES:**

1. ANTENNA TOWER LEG TO WHICH GROUNDING ASSEMBLY IS BONDED, SHALL BE TACK-WELDED AT THE BOLTED CONNECTIONS TO PROVIDE ELECTRICAL CONTINUITY BETWEEN THE TOWER SECTIONS.
2. THE LADDER SHALL BE INSTALLED ON RIGHT SIDE OF ANTENNA TOWER WHEN LOOKING TOWARD RUNWAY THRESHOLD. CENTERLINE OF LADDER SHALL BE COINCIDENT WITH THE CENTERLINE OF THE ANTENNA TOWER FACE TO WHICH IT IS BEING ATTACHED.
3. THE CONTRACTOR SHALL INSTALL ANTENNA BRACKET ASSEMBLIES (3 REQUIRED) AT HEIGHTS SHOWN PER DETAIL "1". HORIZONTAL ITEMS SHALL BE LEVEL AND VERTICAL ITEMS SHALL BE PLUMB.
4. TOWER SHALL BE ASSEMBLED WITH ALTERNATING ORANGE AND WHITE COLORED SECTIONS.
5. CONTRACTOR SHALL ERECT TOWER TO FULL 50' HEIGHT. ANTENNA ELEMENT LOCATIONS WILL BE ADJUSTED BY FAA INSTALLATION PERSONNEL TO ACHIEVE BEST SIGNAL GENERATION. CONTRACTOR SHOULD INCLUDE IN THE BID A SEPARATE TENTATIVE COST ESTIMATE TO RETURN TO THE SITE AND SHORTEN THE TOWER TO 5'-0" MAXIMUM HEIGHT ABOVE CENTERLINE OF TOP ANTENNA ELEMENT. THIS WILL REQUIRE THE CONTRACTOR TO CUT ANTENNA TOWER STRUCTURE, LADDER, AND SAFETY CLIMB RAIL AND RELOCATE AIR TERMINAL, DOWN CONDUCTOR, AND OBSTRUCTION LIGHT TO TOP OF SHORTENED TOWER. TOWER LEGS SHALL BE CAPPED WITH PIPE CAPS WELDED OR THREADED IN PLACE. NON-CONTINUOUS CROSS-BRACING SHALL BE CUT AT ITS ORIGIN.
6. FIELD-DRILL 3/8" DIAM. HOLE IN ANTENNA MOUNTING FRAME, SCRAPE PAINT FROM BONDING AREA AND INSTALL GROUNDING LUG AND #6 BARE COPPER GROUNDING WIRE. CONNECT #6 BARE TO ANTENNA TOWER STRUCTURE USING GROUNDING CLAMP.
7. SEE THE GOVERNMENT-FURNISHED PROPERTY LIST FOR ITEMS PROVIDED BY THE FAA.

GALVANIZED STEEL LADDER. SEE NOTE 2.

GALVANIZED SAFETY CLIMB RAIL PER DETAILS "3" AND "4".

ANTENNA TOWER LEG (ONLY ONE LEG SHOWN FOR CLARITY)

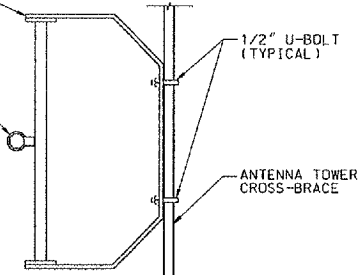
ANTENNA TOWER CROSS-BRACE

GROUNDING CLAMP. SEE NOTE 6.

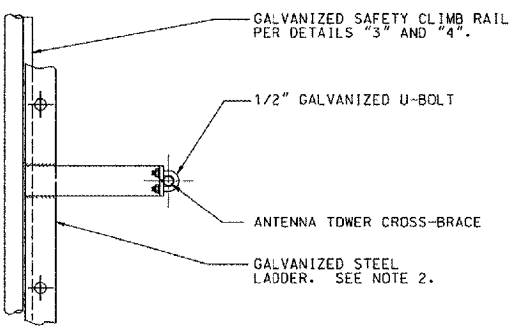
3" U-BOLT CLAMP. 3/8"-16 (TYPICAL OF TWO PER LEG)

ANTENNA MOUNTING CHANNEL SUPPORT ANGLE (TYPICAL OF TWO PER LEG)

3/8" S.S. LOCK WASHER  
3/8"-16 S.S. HEX NUT



**PLAN**



**ELEVATION LADDER ATTACHMENT TO ANTENNA TOWER**

6 DETAIL SCALE: NONE

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

SHEET 48 OF 67

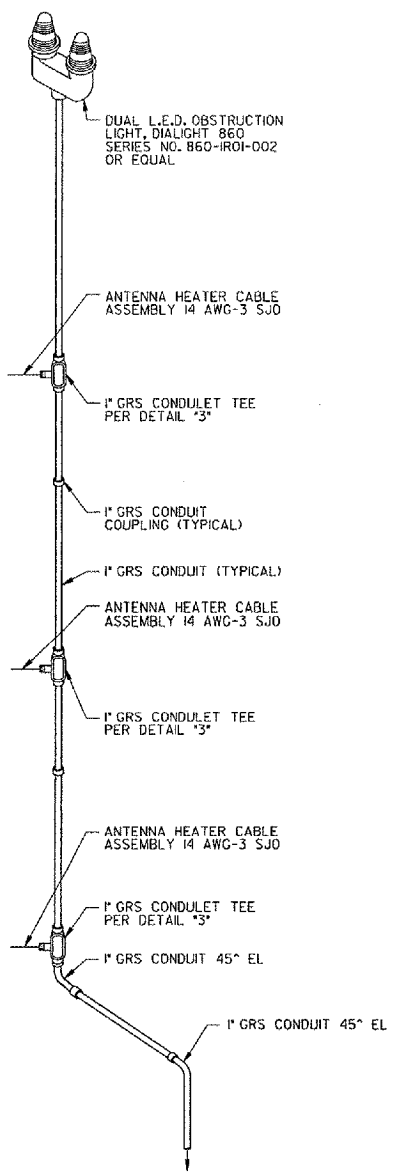
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION GREAT LAKES REGION CHICAGO, ILLINOIS			
GLIDE SLOPE			
ANTENNA TOWER ASSEMBLY DETAILS			
AURORA	AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY	SUBMITTED BY	APPROVED BY	
	PROJ ENCR, TIMOTHY DYER	PLATFORM MGR, CLELAND MICHEEL	
DESIGNED	TAD	ISSUED BY	DATE 02/21/2006 JCN
DRAWN	TAD	CHICAGO NAS IMPLEMENTATION CENTER	DRAWING NO
CHECKED	EGS		ARR-D-GS33-S01

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APPROVED

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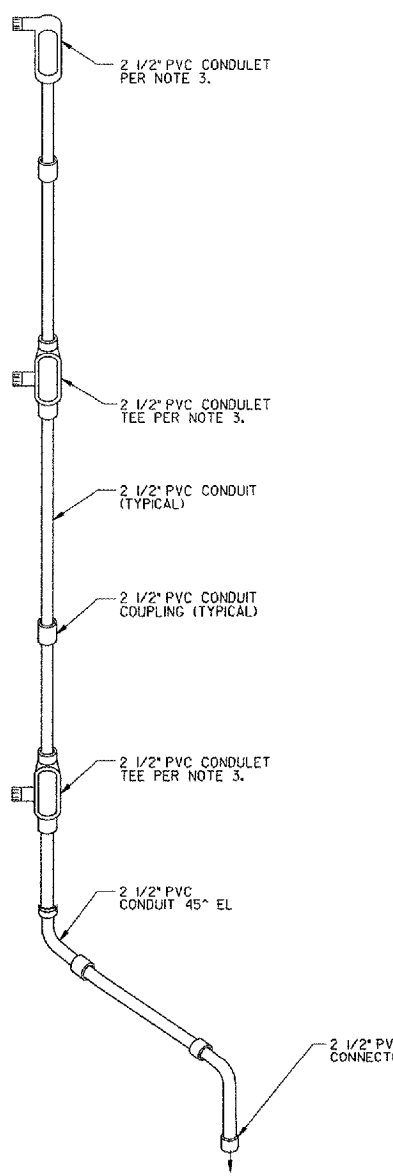


THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM



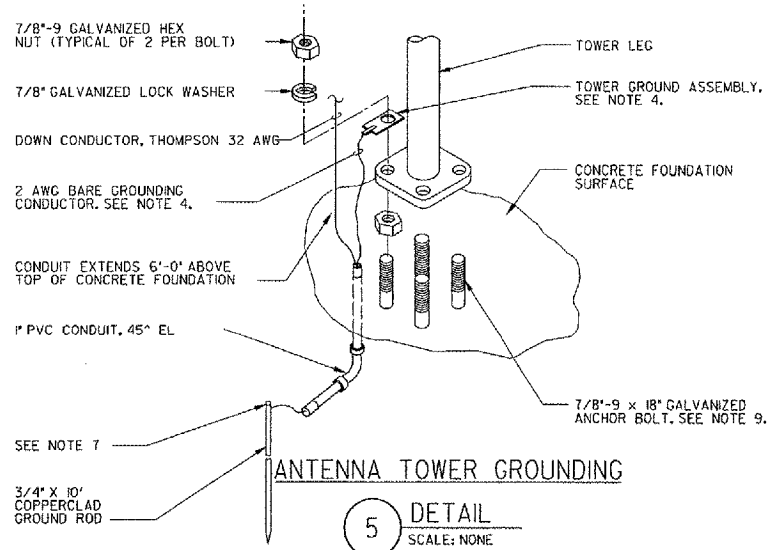
ANTENNA TOWER ELECTRICAL EQUIPMENT INSTALLATION

1 DETAIL SCALE: NONE



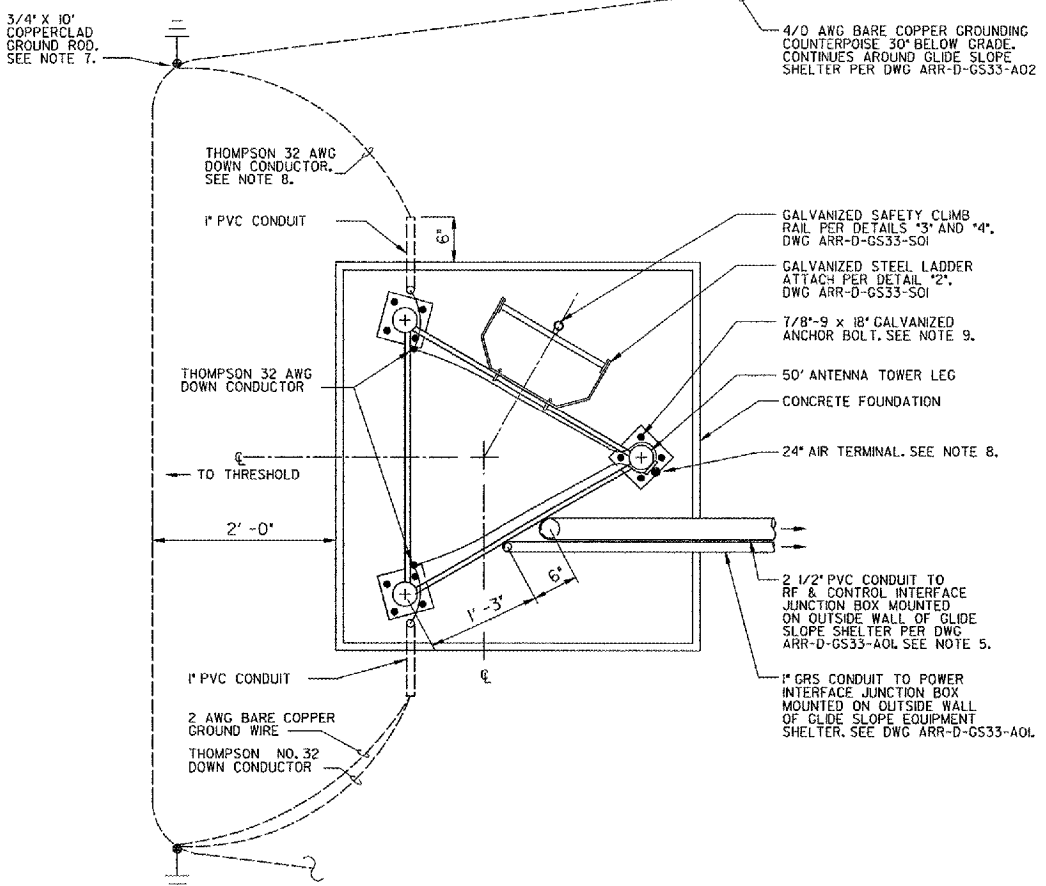
ANTENNA TOWER RF EQUIPMENT INSTALLATION

2 DETAIL SCALE: NONE



ANTENNA TOWER GROUNDING

5 DETAIL SCALE: NONE

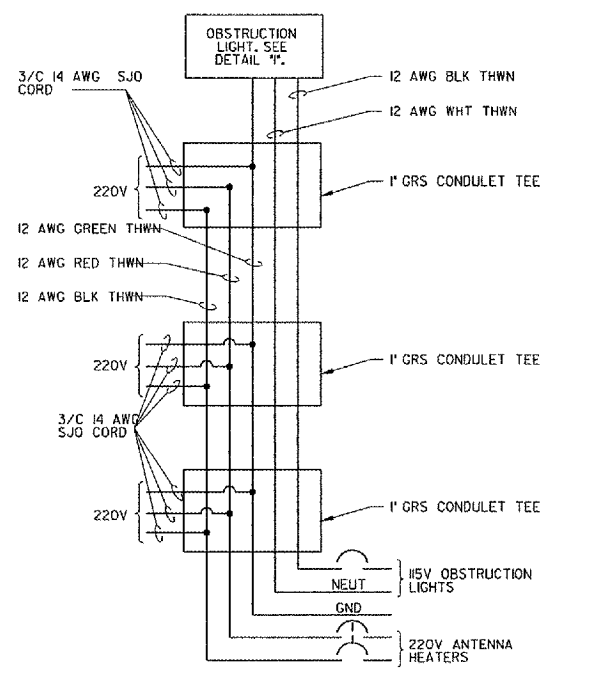


ANTENNA TOWER LIGHTNING PROTECTION

6 DETAIL SCALE IN FEET

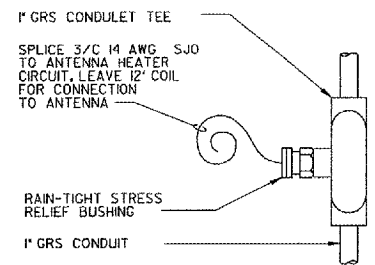
NOTES:

- 1. THE OBSTRUCTION LIGHT SHALL BE OPERATIONAL BEFORE DUSK OF THE FIRST DAY THAT THE ANTENNA TOWER IS ERECTED.
2. CONDUITS SHALL BE CLAMPED TO ANTENNA TOWER STRUCTURAL MEMBERS ON TOWER FACE OPPOSITE FACE WITH LADDER AT 5'-0" O.C. MAX.
3. 1" RIGID GALVANIZED STEEL CONDUIT AND 2 1/2" PVC CONDUIT SHALL BE INSTALLED PER DETAIL "6". A 2 1/2" PVC CONDUIT SHALL BE INSTALLED ON THE 2 1/2" PVC CONDUIT FOR EACH GLIDE SLOPE ANTENNA, CENTERED AT THE ANTENNA'S HEIGHT ABOVE GRADE. THE TEE OF EACH CONDUIT SHALL BE ORIENTED TOWARD THE ANTENNA. INSTALL REDUCING BUSHINGS IN THE TEE TO FACILITATE INSTALLATION OF A 1" CONDUIT.
4. TOWER GROUND ASSEMBLY IS PROVIDED WITH A 6 AWG BARE COPPER WIRE ATTACHED. THE 6 AWG BARE COPPER SHALL BE REMOVED AND REPLACED WITH A 2 AWG BARE COPPER WIRE. SEE NOTE 7.
5. ANTENNA RF CABLES WILL BE FURNISHED AND INSTALLED BY FAA INSTALLATION PERSONNEL.
6. THE CONDUIT SHALL ENTER THE TOP OF THE RF AND CONTROL INTERFACE JUNCTION BOX AS CLOSE TO THE SIDE AS POSSIBLE, CENTERED 4" FROM THE BACK.
7. ALL CONNECTIONS TO GROUNDING RODS SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATIONS.
8. ANTENNA TOWER LIGHTNING PROTECTION SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR PER THE REQUIREMENTS OF NFPA 78. CONTRACTOR SHALL INSTALL A 24" LONG AIR TERMINAL, THOMPSON NO. 572, AND THOMPSON 32 AWG DOWN CONDUCTOR ON THE INSIDE OF TWO TOWER LEGS, SECURED TO THE TOWER USING THOMPSON CLAMPS @ 3' O.C. MAX. DOWN CONDUCTORS SHALL TERMINATE AT SEPARATE GROUNDING RODS. SEE NOTE 7.
9. REFER TO GOVERNMENT-FURNISHED PROPERTY LIST (GFPL) FOR ITEMS FURNISHED BY THE FAA.



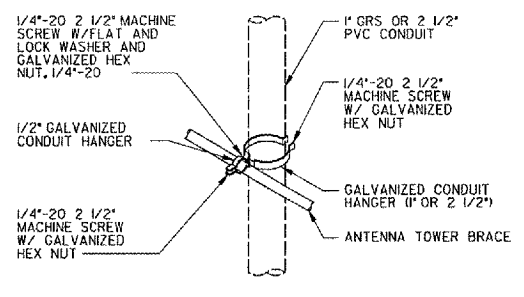
ANTENNA HEATER AND OBSTRUCTION LIGHT WIRING

7 DETAIL SCALE: NONE



TYPICAL POWER CONDUIT

3 DETAIL SCALE: NONE



TYPICAL CONDUIT ATTACHMENT

4 DETAIL SCALE: NONE

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 10 OF THE SPECIAL SPECIFICATIONS.

Table with columns: REV, DATE, DESCRIPTION, JCN, REDLINE DATE, APV. Includes a revision history table.

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION GREAT LAKES REGION CHICAGO, ILLINOIS. GLIDE SLOPE ANTENNA TOWER ELECTRICAL AND GROUNDING DETAILS. Includes project information and approval signatures.

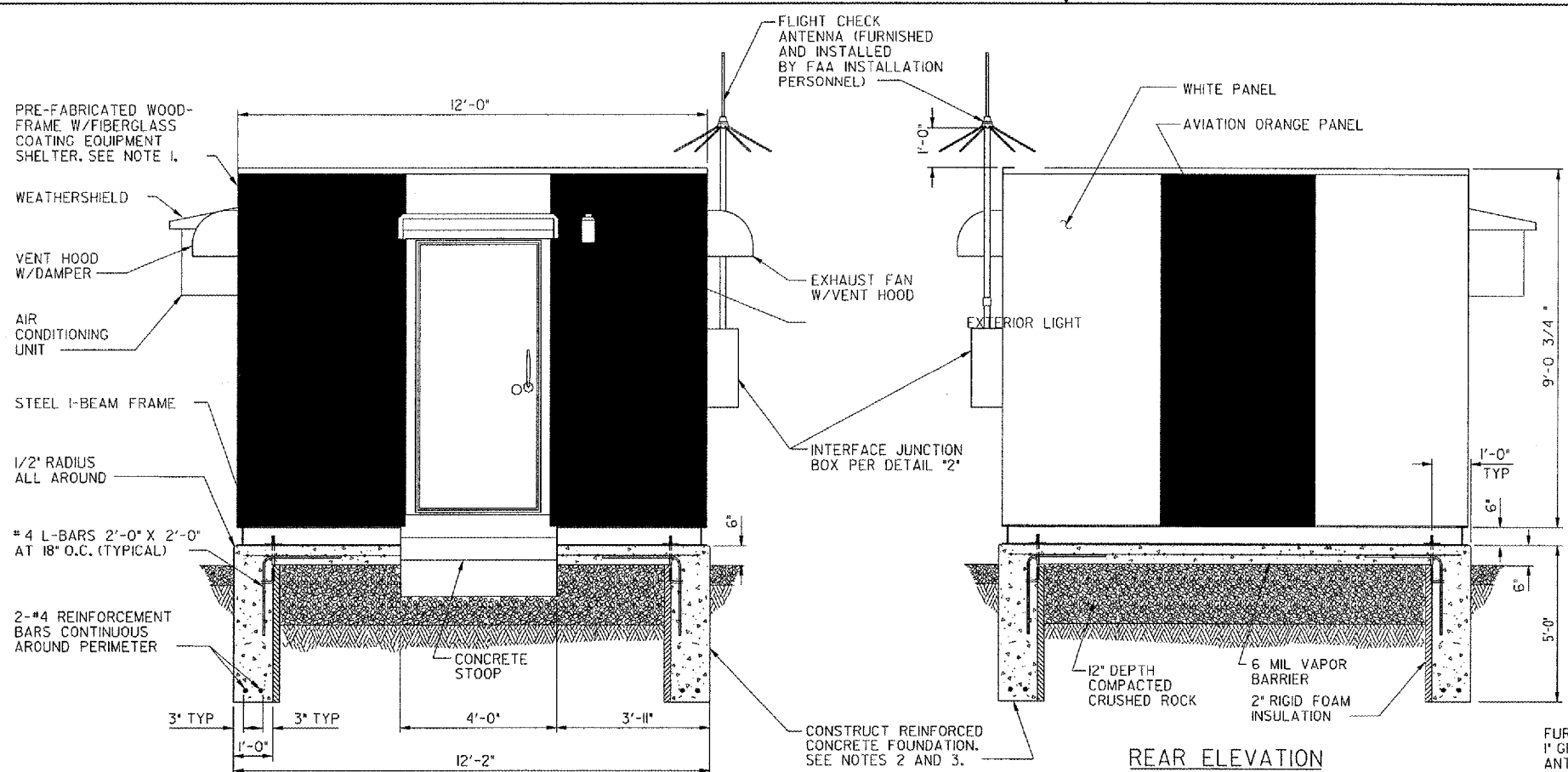
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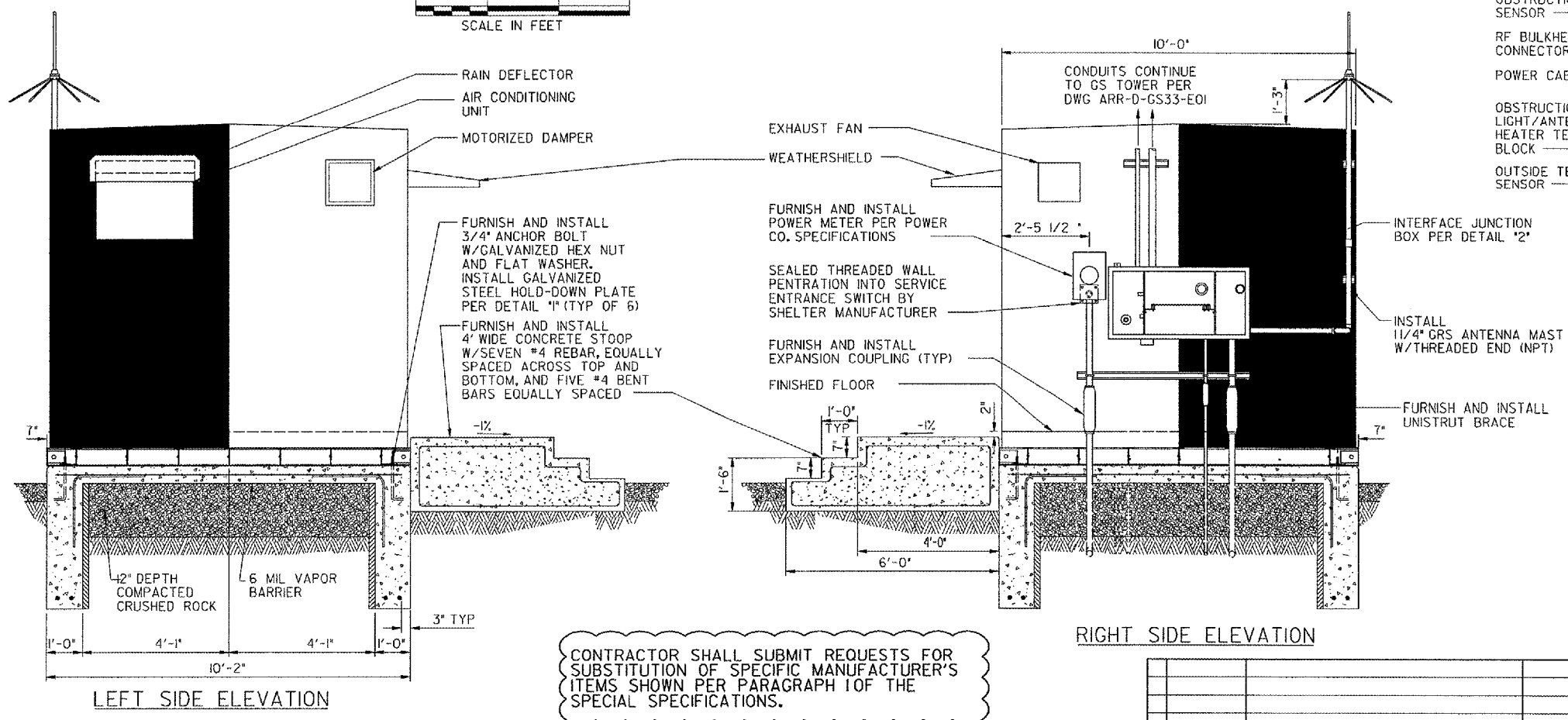
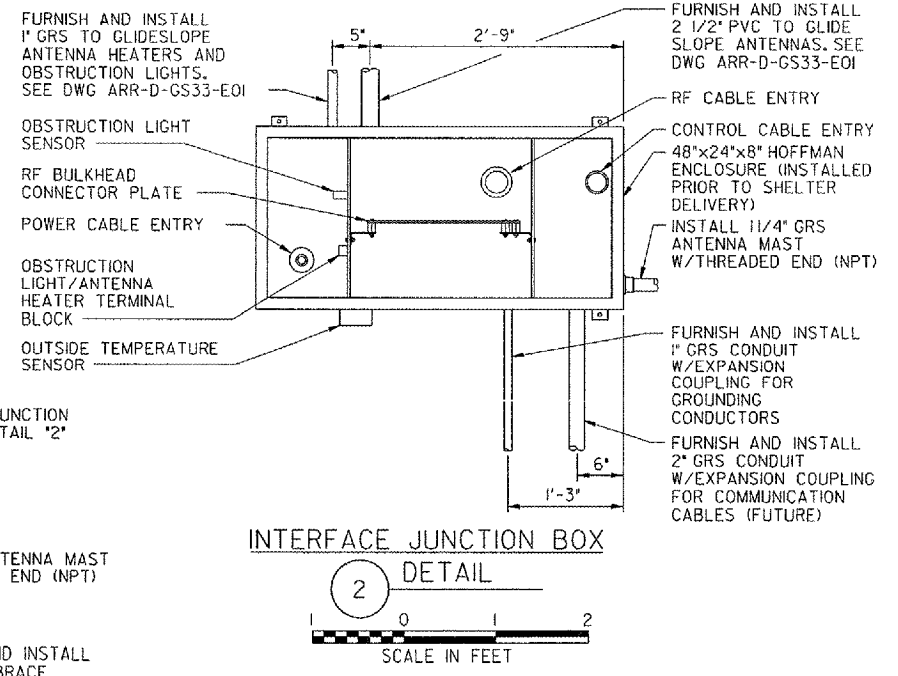
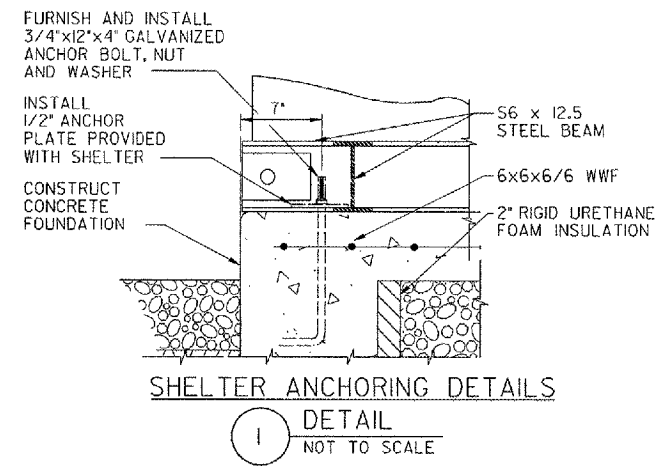
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- NOTES:**
1. PREFABRICATED EQUIPMENT SHELTER WILL BE DELIVERED TO THE AIRPORT PER THE LOCAL FAA SECTOR FIELD OFFICE'S INSTRUCTIONS. CONTRACTOR SHALL CONTACT MR. DAN GEIST AT (815) 509-3200 TO ARRANGE PICK-UP OF THE SHELTER FROM ITS STORAGE LOCATION AND RELOCATION TO THE SITE.
  2. REFER TO PROJECT SPECIAL PROVISIONS FOR EXCAVATION DETAILS.
  3. REFER TO PROJECT SPECIAL PROVISIONS FOR CONCRETE DETAILS.
  4. SHELTER IS DELIVERED TO SITE WITH ELECTRICAL LIGHTS, SWITCHES, RECEPTACLES, AND LOCALIZER EQUIPMENT RACK MOUNTED INSIDE. EXTERIOR ELEMENTS ARE TO BE INSTALLED BY THE CONTRACTOR AND ARE SHIPPED LOOSE INSIDE SHELTER. SEE GOVERNMENT-FURNISHED PROPERTY LIST (GFPL) FOR A COMPLETE LIST OF ITEMS DELIVERED WITH OR INSTALLED IN EQUIPMENT SHELTER.



CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

SHEET 50 OF 67

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION GREAT LAKES REGION CHICAGO, ILLINOIS			
GLIDE SLOPE EXTERIOR ELEVATIONS AND FOUNDATION 10' X 12' PRE-FABRICATED EQUIPMENT SHELTER			
AURORA REVIEWED BY	AURORA MUNICIPAL AIRPORT SUBMITTED BY	ILLINOIS APPROVED BY	IL
DESIGNED PROJ ENGR. TIMOTHY DYER	TAD CHICAGO NAS IMPLEMENTATION CENTER	DATE 02/21/2006	JCN PLATFORM MGR. CLELAND MICHEEL
DRAWN TAD	EGS EGS	DRAWING NO. ARR-D-GS33-A01	REV

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

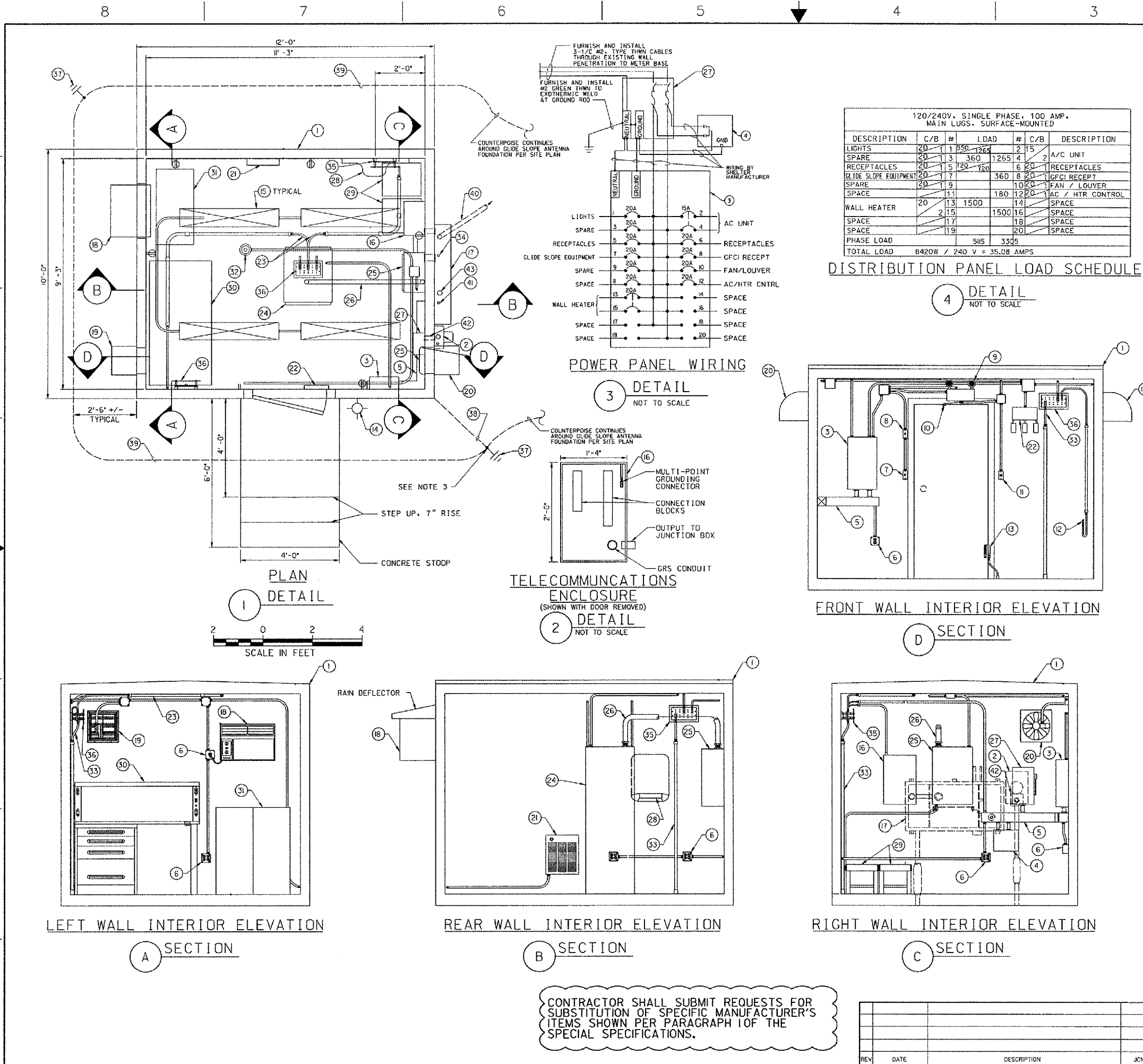
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 NAME

8 7 6 5 4 3 2 1

SHEET OF

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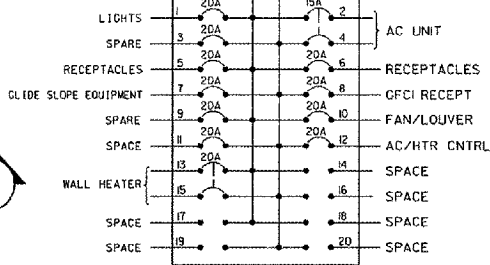
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5/10/2006 5:03:55 PM INMEE #9727



120/240V, SINGLE PHASE, 100 AMP, MAIN LUGS, SURFACE-MOUNTED

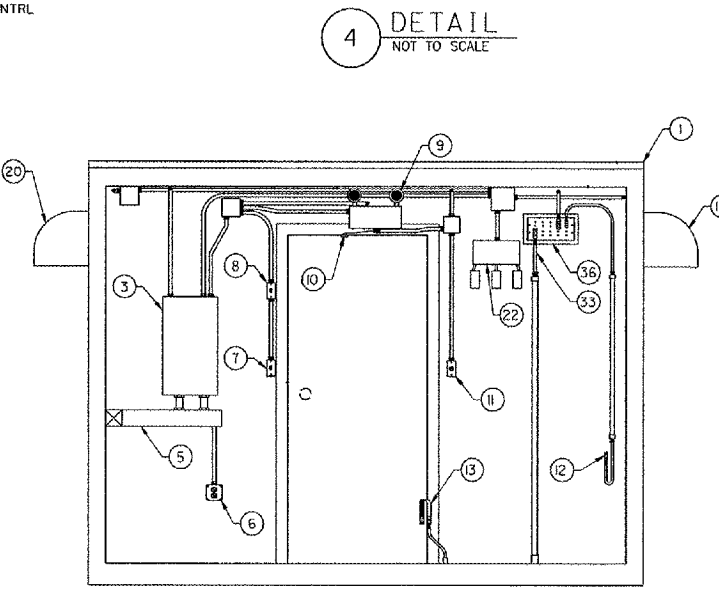
DESCRIPTION	C/B	#	LOAD	#	C/B	DESCRIPTION
LIGHTS	20	1	550	2	15	A/C UNIT
SPARE	20	3	360	4	2	RECEPTACLES
RECEPTACLES	20	5	120	6	20	GFCI RECEPT
GLIDE SLOPE EQUIPMENT	20	7	360	8	20	FAN / LOUVER
SPARE	20	9	1020	10	14	AC / HTR CONTROL
SPACE		11	180	12	14	SPACE
WALL HEATER	20	13	1500	15	16	SPACE
SPACE		2		15	16	SPACE
SPACE		17		18	18	SPACE
SPACE		19		20	20	SPACE
PHASE LOAD			515		3335	
TOTAL LOAD			8420W / 240 V = 35.08 AMPS			

DISTRIBUTION PANEL LOAD SCHEDULE



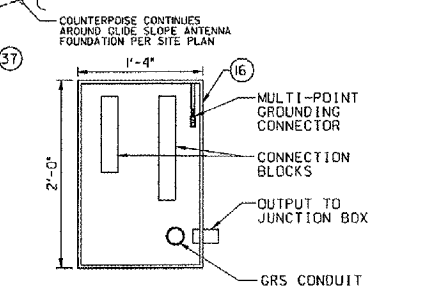
POWER PANEL WIRING

3 DETAIL NOT TO SCALE



FRONT WALL INTERIOR ELEVATION

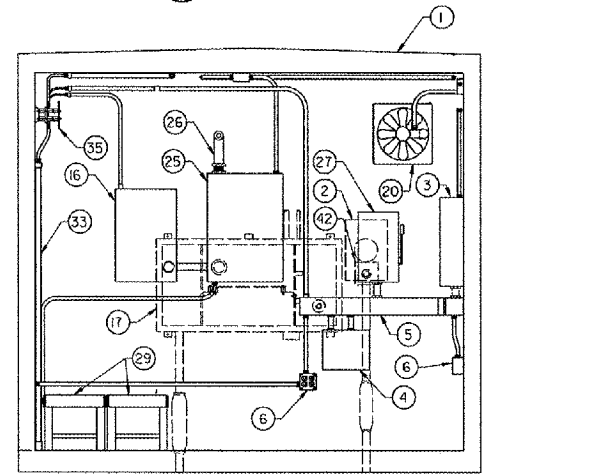
D SECTION



TELECOMMUNICATIONS ENCLOSURE

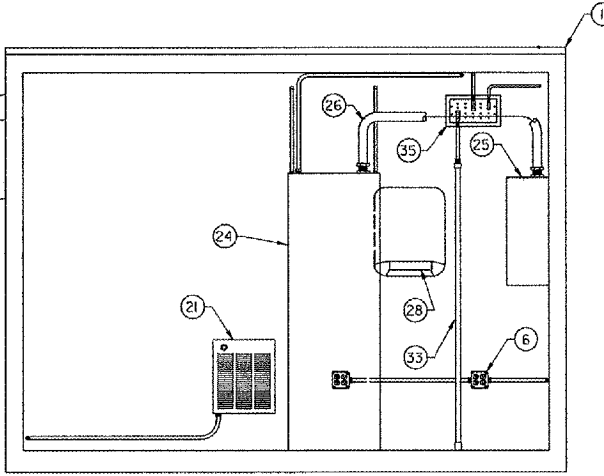
(SHOWN WITH DOOR REMOVED)

2 DETAIL NOT TO SCALE



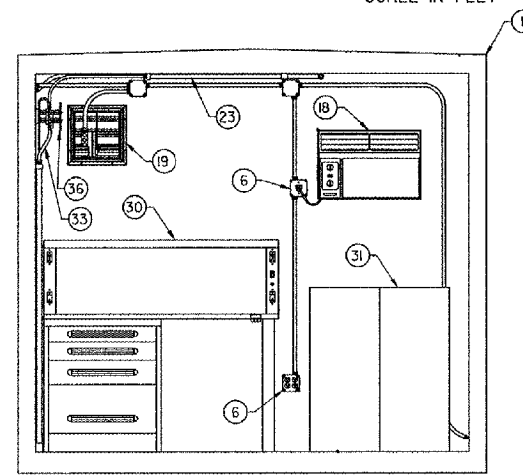
RIGHT WALL INTERIOR ELEVATION

C SECTION



REAR WALL INTERIOR ELEVATION

B SECTION



LEFT WALL INTERIOR ELEVATION

A SECTION

NUMBERED LEGEND:

- I = CONTRACTOR SHALL INSTALL ITEM, F&I = CONTRACTOR SHALL FURNISH & INSTALL ITEM, BO = SHALL BE INSTALLED BY FAA INSTALLATION PERSONNEL OR IS ALREADY INSTALLED IN PRE-FABRICATED EQUIPMENT SHELTER
- 1 (1) WOOD FRAME EQUIPMENT SHELTER W/FIBERGLASS EXTERIOR FINISH PER DWG ARR-D-GS33-A01
- F&I (2) METER BASE FOR USE WITH UNDERGROUND SERVICE PER POWER COMPANY'S SPECIFICATIONS SHALL BE INSTALLED OVER WALL PENETRATION (INSTALLED BY SHELTER MANUFACTURER). INSTALL 3-1/2" #2 TYPE THWN POWER CABLES AND #6 GREEN THWN GROUND CONDUCTOR TO SECONDARY LEADS OF METER BASE AND PRIMARY LEADS OF SERVICE ENTRANCE DISCONNECT SWITCH. INSTALL 3-1/2" #2 TYPE U.S.E. POWER CABLES AND #2 GREEN TYPE U.S.E. GROUND CONDUCTOR IN 2" GALVANIZED RIGID STEEL CONDUIT, 2" BELOW GRADE (MIN) FROM TRANSFORMER'S SECONDARY CONNECTIONS AT TRANSFORMER WILL BE MADE BY COMED REPRESENTATIVES. CONTACT KATIE OLIVA AT (847) 608-2338 WHEN READY.
- BO (3) 100A BREAKER PANEL, 20 CIRCUITS, W/BOLT ON BREAKERS
- BO (4) AC SURGE ARRESTOR, 120/240V
- BO (5) 4" SQUARE DUCT
- BO (6) ELECTRICAL RECEPTACLE
- BO (7) INTERIOR LIGHT SWITCH
- BO (8) EXTERIOR LIGHT SWITCH
- BO (9) EMERGENCY LIGHT
- BO (10) INTRUSION SENSOR
- BO (11) SMOKE DETECTOR RESET SWITCH
- BO (12) WORKSTATION GROUND
- BO (13) GROUNDING STRAP
- BO (14) WALL-MOUNTED EXTERIOR LIGHT WITH PHOTO CONTROL
- BO (15) 4'-LONG 2-LAMP-TUBE FLUORESCENT LIGHT FIXTURE, 120-VOLT
- BO (16) TELECOMMUNICATIONS ENCLOSURE PER DETAIL '2'
- BO (17) POWER, CONTROL AND RF INTERFACE JUNCTION BOX
- BO (18) A/C THRU-WALL UNIT, 12,000 BTU.
- BO (19) 12" SQUARE MOTORIZED LOUVER WITH FILTER AND HOOD
- BO (20) EXHAUST FAN WITH VENT HOOD
- BO (21) WALL-MOUNTED ELECTRIC HEATER
- BO (22) ENVIRONMENTAL CONTROL PANEL
- BO (23) 1" PVC CONDUIT CARRYING 4/0 AWG GREEN THWN W/ORANGE STRIPE FROM MAIN GROUNDING PLATE TO MULTIPOINT GROUNDING PLATE.
- BO (24) GLIDE SLOPE ELECTRONIC EQUIPMENT RACK
- BO (25) GLIDE SLOPE DISTRIBUTION AND COMBINING UNIT
- BO (26) 2" EMT CONDUIT CARRYING SIGNAL CABLES.
- BO (27) MAIN DISCONNECT, 100A, 240V, W/FUSES
- BO (28) EYE WASH STATION
- BO (29) FLOOR-MOUNTED BATTERY BOXES
- BO (30) WORK BENCH/DESK
- BO (31) DRAWER STORAGE UNIT
- BO (32) SMOKE DETECTOR ON CEILING
- F&I (33) TWO 4/0 AWG THWN GROUNDING CONDUCTORS FROM MAIN AND FROM MULTI-POINT GROUNDING PLATES TO COUNTERPOISE
- F&I (34) 2/0 AWG GROUNDING CONDUCTOR, GREEN THWN WITH RED STRIPE IN 1" GRS CONDUIT. LEAVE 5' LENGTH OF CONDUIT IN POWER, CONTROL AND RF INTERFACE JUNCTION BOX FOR TERMINATION BY FAA INSTALLATION PERSONNEL. SEE NOTE 3.
- BO (35) MAIN COPPER GROUNDING PLATE WITH PLASTIC COVER
- BO (36) MULTIPOINT COPPER GROUNDING PLATE WITH PLASTIC COVER
- F&I (37) 3/4" X 10' COPPERCLAD GROUNDING ROD
- F&I (38) #6 BARE COPPER GROUNDING AND BONDING CONDUCTOR
- F&I (39) #4/0 BARE COPPER COUNTERPOISE 2'-6" BELOW GRADE. SEE NOTE 3.
- F&I (40) 2" GRSC WITH EXPANSION COUPLING FOR COMMUNICATIONS CABLES. TERMINATE CONDUIT 5' BEYOND COUNTERPOISE AND CAP END. MARK LOCATION OF DUCT END WITH CABLE MARKER
- F&I (41) 1" GRSC FOR GLIDE SLOPE ANTENNA HEATER AND OBSTRUCTION LIGHT POWER CABLES
- BO (42) BUILDING WALL PENETRATION TO OUTSIDE FROM SERVICE ENTRANCE DISCONNECT SWITCH
- F&I (43) 2 1/2" PVC CONDUIT FOR GLIDE SLOPE ANTENNA COMMUNICATION CABLES

NOTES:

1. ELECTRICAL EQUIPMENT SHOWN ON THIS SHEET IS SURFACE MOUNTED BY FAA REPRESENTATIVES PRIOR TO SHIPMENT OF SHELTER UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL NOTIFY RESIDENT ENGINEER IF SHELTER IS DAMAGED OR MISSING ITEMS WHEN SHIPMENT ARRIVES.
3. ALL GROUNDING CONDUCTORS AND COUNTERPOISE SHALL BE ATTACHED TO GROUNDING RODS USING EXOTHERMIC WELDS PER SPECIFICATIONS.

SHEET 51 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

GLIDE SLOPE  
FLOOR PLAN AND INTERIOR ELEVATIONS  
10' X 12' PRE-FABRICATED EQUIPMENT SHELTER

AURORA AURORA MUNICIPAL AIRPORT IL

REVIEWED BY	SUBMITTED BY	APPROVED BY
PROJ ENGR, TIMOTHY DYER	PLATFORM MGR, CLELAND MICHEEL	
DESIGNED	ISSUED BY	DATE
	CHICAGO NAS	02/27/2006
DRAWN	TAB	JCN
	IMPLEMENTATION	
CHECKED	EGS	ARR-D-GS33-A02

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

**NOTES**

1. CONTRACTOR SHALL INSTALL LOCALIZER GROUND CHECKPOINTS PER FAA REQUIREMENTS. COORDINATE INSTALLATION W/ FAA AND RESIDENT ENGINEER.
2. CONTRACTOR INSTALL 1-1/2" GRS CONDUIT RISER 10'-0" ABOVE GRADE ON UTILITY POLE AND PROVIDE SUFFICIENT LENGTH OF CABLE TO BE TERMINATED BY UTILITY COMPANY.
3. NEW ELECTRIC SERVICE SHALL BE 80A, 120/240V, 1-PHASE. COORDINATE ALL WORK WITH UTILITY COMPANY.
4. ALL COST OF NEW ELECTRIC SERVICE, PUSHED AND TRENCHED CONDUIT, CABLE, DISCONNECT, UNISTRUT MOUNTING, GATE OPERATOR, KEYPAD AND MISCELLANEOUS ITEM SHOWN ARE INCIDENTAL TO NEW ELECTRIC GATE.

**REVISIONS**

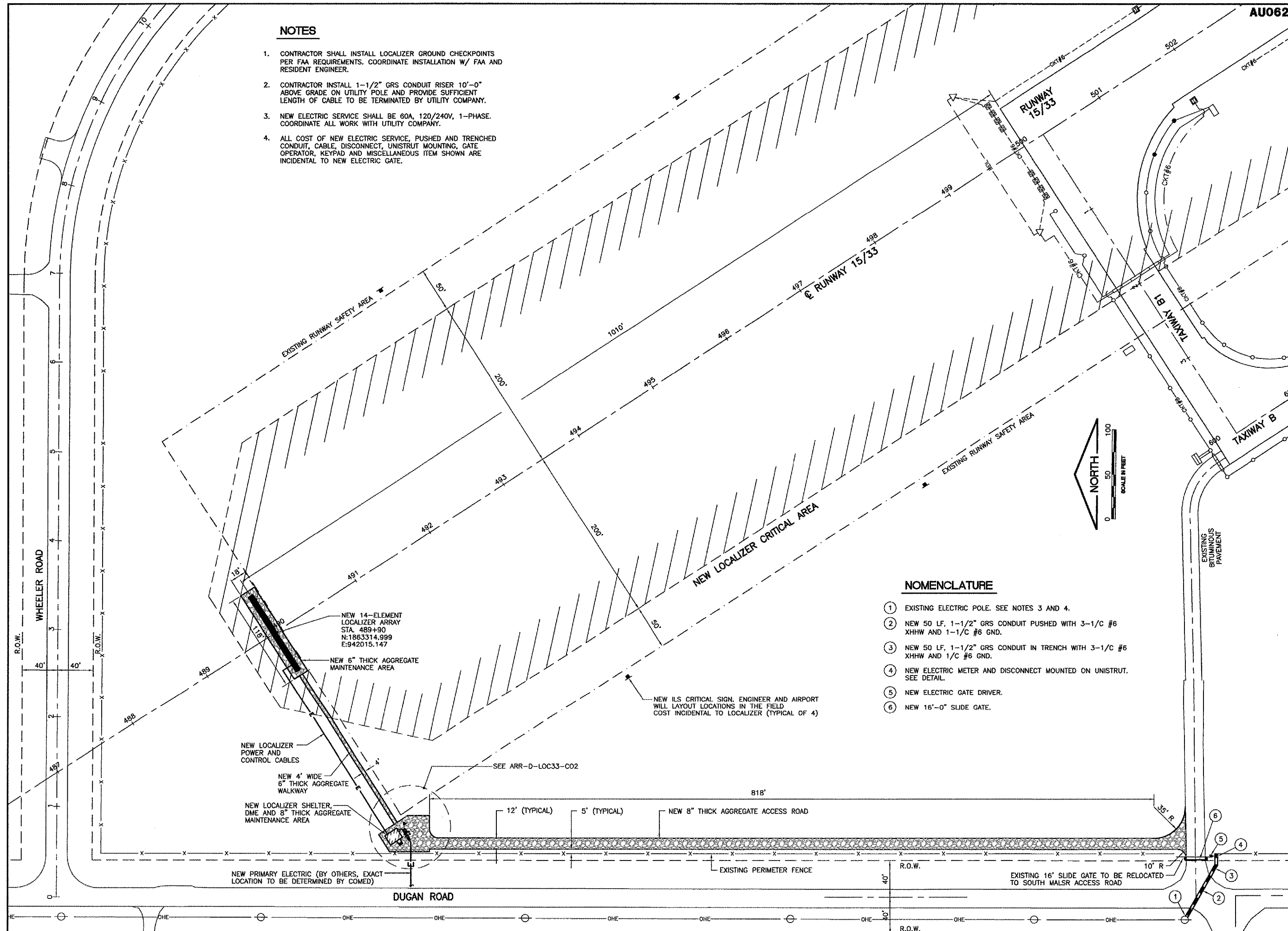
NUMBER	BY	DATE

0 1 2  
 THIS BAR IS EQUAL TO 2'  
 AT FULL SCALE (34X22).

**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER  
 RUNWAY 33 LOCALIZER/DME  
 SITE PLAN  
 ARR-D-LOC33-C01**

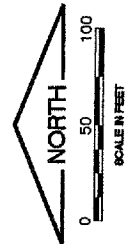
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 CONSULTING ENGINEERS  
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DESIGN BY: CAL  
 DRAWN BY: JRO  
 CHECKED BY: CAL  
 APPROVED BY:  
 DATE: 05/12/06  
 JOB No: 04285-04  
 ILLINOIS PROJECT: ARR-3468  
 A.I.P. PROJECT: 3-17-0003-B31  
**FINAL SUBMITTAL**



**NOMENCLATURE**

- 1 EXISTING ELECTRIC POLE. SEE NOTES 3 AND 4.
- 2 NEW 50 LF, 1-1/2" GRS CONDUIT PUSHED WITH 3-1/C #6 XHHW AND 1-1/C #6 GND.
- 3 NEW 50 LF, 1-1/2" GRS CONDUIT IN TRENCH WITH 3-1/C #6 XHHW AND 1/C #6 GND.
- 4 NEW ELECTRIC METER AND DISCONNECT MOUNTED ON UNISTRUT. SEE DETAIL.
- 5 NEW ELECTRIC GATE DRIVER.
- 6 NEW 16'-0" SLIDE GATE.



NEW 14-ELEMENT LOCALIZER ARRAY  
 STA. 489+90  
 N:1863314.999  
 E:942015.147

NEW 6" THICK AGGREGATE MAINTENANCE AREA

NEW LOCALIZER POWER AND CONTROL CABLES

NEW 4' WIDE 6" THICK AGGREGATE WALKWAY

NEW LOCALIZER SHELTER, DME AND 8" THICK AGGREGATE MAINTENANCE AREA

NEW ILS CRITICAL SIGN, ENGINEER AND AIRPORT WILL LAYOUT LOCATIONS IN THE FIELD COST INCIDENTAL TO LOCALIZER (TYPICAL OF 4)

SEE ARR-D-LOC33-C02

NEW PRIMARY ELECTRIC (BY OTHERS, EXACT LOCATION TO BE DETERMINED BY COMED)

NEW 8" THICK AGGREGATE ACCESS ROAD

EXISTING PERIMETER FENCE

EXISTING 16' SLIDE GATE TO BE RELOCATED TO SOUTH MALSR ACCESS ROAD

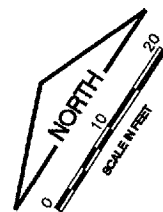
WHEELER ROAD

DUGAN ROAD

R.O.W.

R.O.W.





**NUMBERED LEGEND**

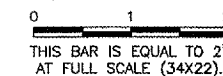
- ① COMED UNDERGROUND PRIMARY CABLE (BY OTHERS EXACT LOCATION TO BE DETERMINED BY COMED).
- ② COMED 25KVA PAD-MOUNTED TRANSFORMER, PRIMARY TO 120/240V, SINGLE PHASE (BY OTHERS) SEE NOTES 1, 3, 5 AND 6.
- ③ 3-1/C#2 TYPE U.S.E. AND #2 GREEN TYPE U.S.E. GROUND POWER CABLES FROM UTILITY TRANSFORMER TO UTILITY METER IN 2" GRS CONDUIT.
- ④ 12'x16' LOCALIZER EQUIPMENT SHELTER.
- ⑤ LOCALIZER CABLES TO LOCALIZER ANTENNA FOUNDATION.
- ⑥ NEW 8" THICK AGGREGATE PARKING/MAINTENANCE AREA.
- ⑦ 4' WIDE 6" THICK CRUSHED STONE WALKWAY TO LOCALIZER ANTENNA (6" THICK).
- ⑧ 4" GRS CONDUIT (SPARE), EXTENDED AND CAPPED MIN. 5' AWAY FROM TRANSFORMER PAD.
- ⑨ NEW BOLLARDS
- ⑩ 4" GRS CONDUIT EXTENDED MIN. 5' AWAY FROM TRANSFORMER PAD FOR ITEM ①.
- ⑪ UTILITY METER AND METER BASE. METER TO BE SUPPLIED BY UTILITY COMPANY AND BASE TO BE FURNISHED & INSTALLED BY CONTRACTOR PER UTILITY REQUIREMENTS (SEE NOTE 4).
- ⑫ 4'x6' CONCRETE STAIRS.
- ⑬ NEW DME ANTENNA. STA. 489+98, 260' LT. Q. RUNWAY 15/33

**NOTES**

1. CONTRACTOR SHALL INSTALL CONCRETE PAD, CONDUITS AND GROUNDING ELECTRODES FOR THE TRANSFORMER PER UTILITY COMPANY REQUIREMENTS. COST INCIDENTAL TO EQUIPMENT SHELTER.
2. TO ENSURE CONFORMANCE TO SPECIFICATIONS, AN FAA REPRESENTATIVE MAY VISIT THE SITE AT ANY TIME.
3. COMED 25 KVA PAD-MOUNTED TRANSFORMER, PRIMARY TO 120/240V, SINGLE PHASE (BY OTHERS).
4. THE CONTRACTOR SHALL FURNISH AND INSTALL UTILITY METER AND METER BASE PER UTILITY REQUIREMENTS. COMED SHALL SUPPLY METER.
5. CONTRACTOR SHALL INSTALL (2) 4" GRS CONDUITS EXTENDED MINIMUM 5' AWAY FROM TRANSFORMER PAD: 1 FOR PRIMARY POWER AND 1 SPARE.
6. CONTRACTOR SHALL INSTALL (1) 2" GRS CONDUIT FROM TRANSFORMER PAD TO UTILITY METER FOR SECONDARY CABLES.
7. CONTRACTOR SHALL COORDINATE NEW ELECTRIC SERVICE FOR RUNWAY 33 LOCALIZER WITH COMED. NEW ELECTRIC SERVICE SHALL BE 100A, 120/240V, 1-PHASE.

**REVISIONS**

NUMBER	BY	DATE



**AURORA MUNICIPAL AIRPORT  
AURORA, ILLINOIS  
CONSTRUCT RUNWAY 33 ILS;  
RELOCATE RUNWAY 9 LOCALIZER  
RUNWAY 33 LOCALIZER/DME  
SHELTER SITE PLAN  
ARR-D-LOC33-C02**

**CMT**  
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CONSULTING ENGINEERS  
License No. 184-000613

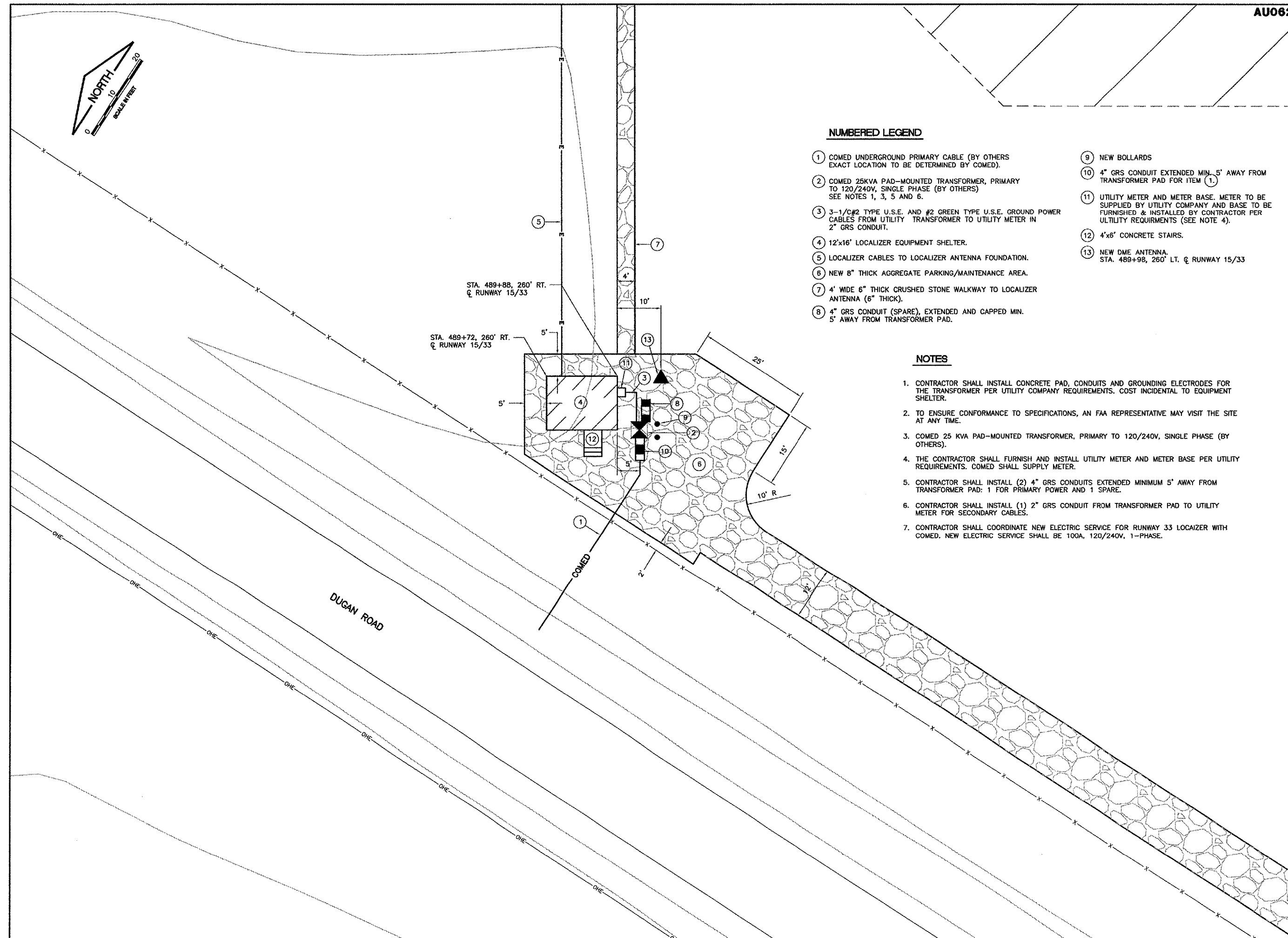


DESIGN BY: CAL  
DRAWN BY: JRO  
CHECKED BY: CAL  
APPROVED BY:

DATE: 05/12/06

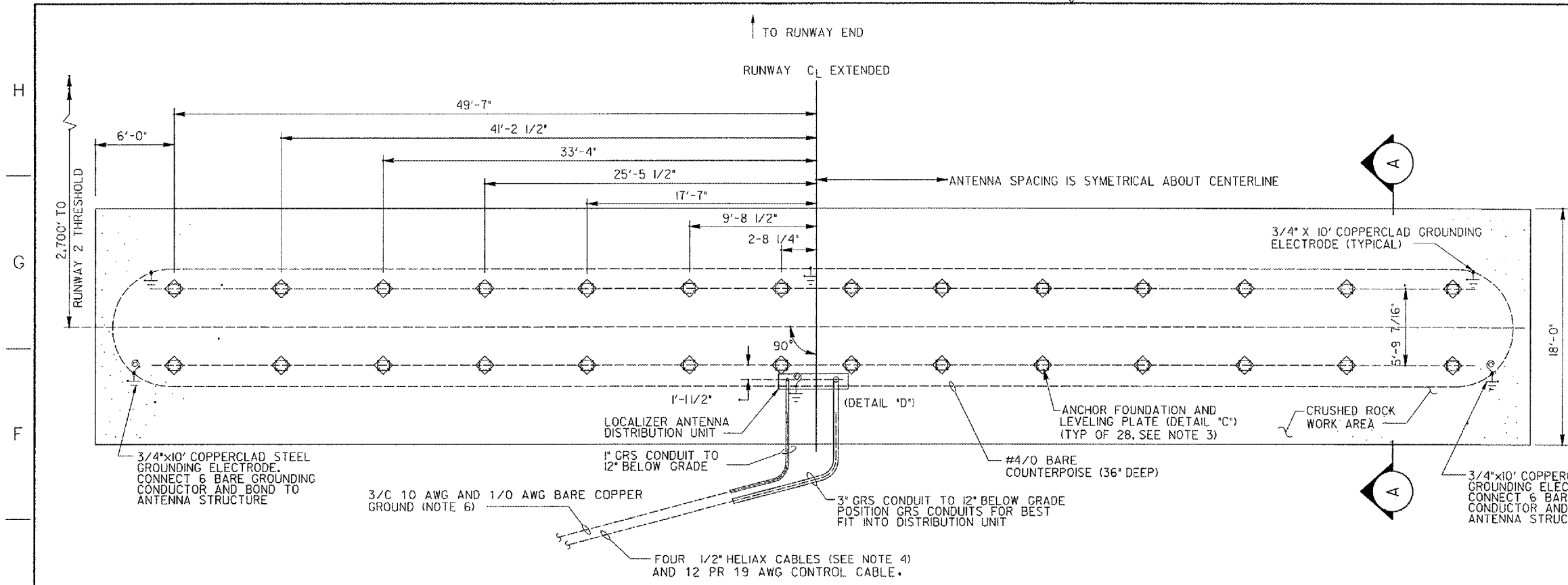
JOB No: 04285-04

ILLINOIS PROJECT: ARR-3488  
A.I.P. PROJECT: 3-17-0003-B31  
**FINAL SUBMITTAL**

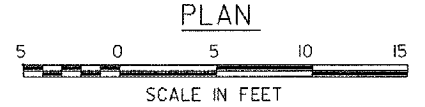


**NOTES:**

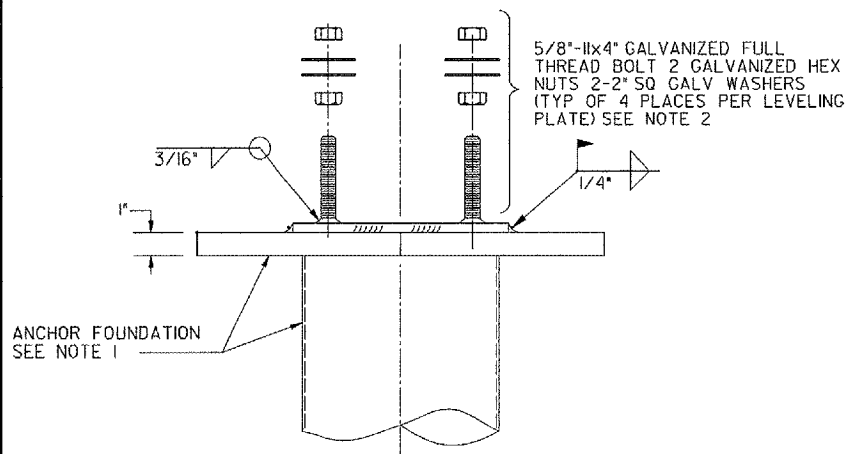
1. SCREW ANCHOR FOUNDATIONS SHALL BE LOCATED WITHIN ~2" OF DIMENSIONS SHOWN. LEVELING PLATE SHALL BE WELDED TO EACH FOUNDATION TOP AFTER PLATE CENTER IS LOCATED WITHIN ~1/8" OF DIMENSIONS SHOWN.
2. ALL SCREW ANCHOR FOUNDATION TOPS SHALL BE INSTALLED TO THE SAME ELEVATION WITHIN 1/8" MAXIMUM TOTAL VARIATION.
3. LONGITUDINAL CENTERLINE OF ANTENNA ARRAY SHALL BE PERPENDICULAR TO RUNWAY CENTER-LINE WITHIN ~0.05 DEGREES. CENTER OF ANTENNA ARRAY SHALL BE ON RUNWAY CENTERLINE EXTENDED WITHIN ~3".
4. 15' COILS OF ALL SIGNAL AND CONTROL CABLES SHALL BE LEFT AT THE DISTRIBUTION UNIT FOR TERMINATION BY FAA INSTALLATION PERSONNEL.
5. ALL BURIED CABLE CONNECTIONS SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATION FAA-GL-918C.
6. TERMINATE POWER CONDUCTORS INSIDE DISTRIBUTION UNIT FOR OBSTRUCTION LIGHTING AND CONVENIENCE OUTLET.



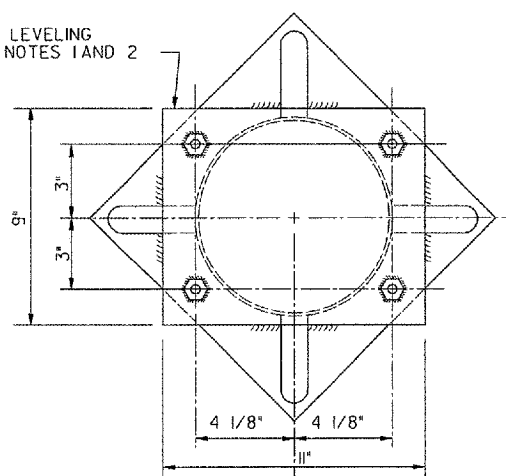
**LOCALIZER ANCHOR FOUNDATION LAYOUT PLAN**



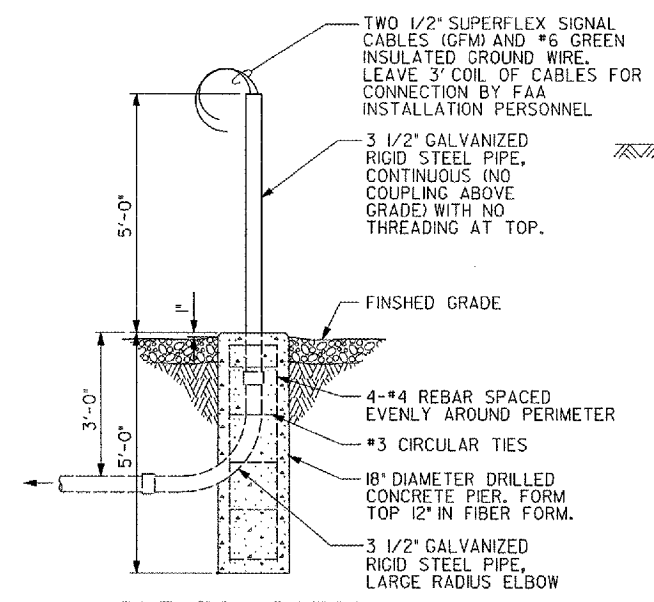
3" GRS CONDUIT TO 12" BELOW GRADE POSITION GRS CONDUITS FOR BEST FIT INTO DISTRIBUTION UNIT



**1** DETAIL - LEVELING BOLT  
SCALE: NONE



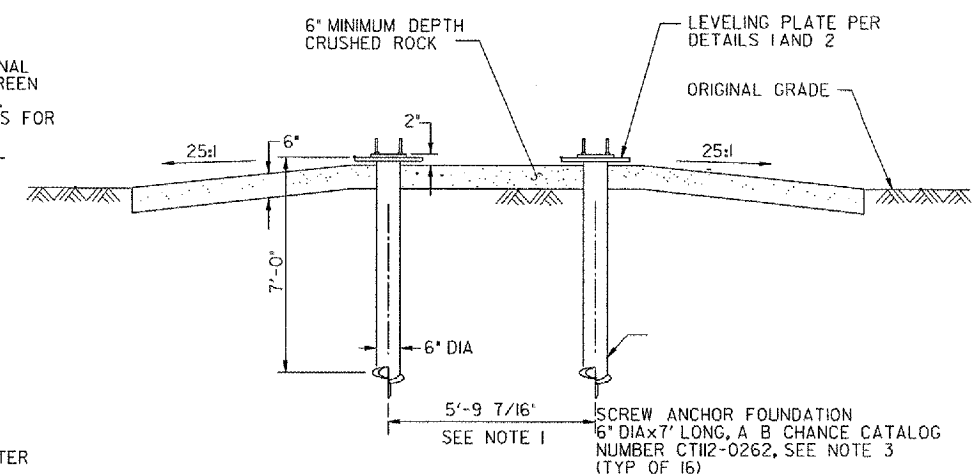
**2** DETAIL  
SCALE: NONE (TYP OF 16)



**DME FOUNDATION**  
**3** DETAIL  
NOT TO SCALE

NOTE:  
1. FAA INSTALLATION PERSONNEL WILL INSTALL DME ANTENNA AND MAKE CABLE CONNECTIONS.

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.



**A** SECTION  
SCALE: NONE

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APV

SHEET 54 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

LOCALIZER  
MK-20A ANTENNA ARRAY FOUNDATION DETAILS  
RUNWAY 33

AURORA		AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY	SUBMITTED BY	APPROVED BY		
DESIGNED	TAD	ISSUED BY	DATE	JCN
		CHICAGO NAS IMPLEMENTATION CENTER	02/27/2006	
DRAWN	TAD	DRAWING NO		
		ARR-D-LOC33-C03		
CHECKED	TAD			

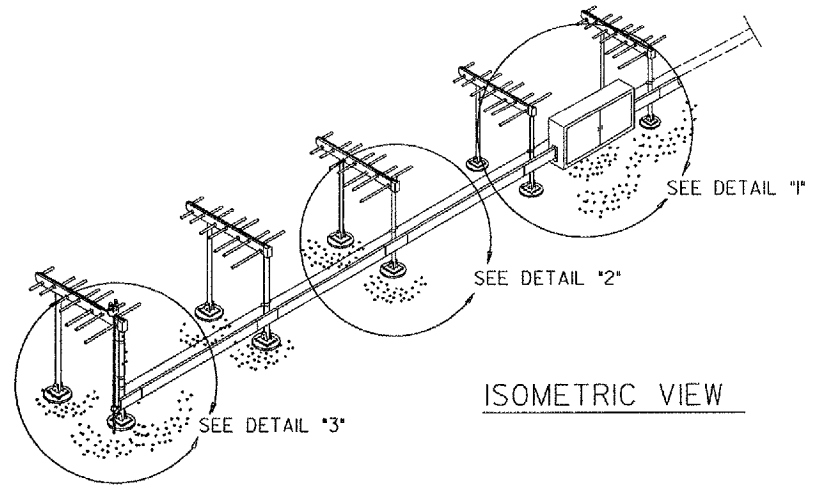
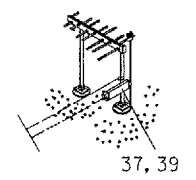
K:\Aurora\04285004\Draw\Sheets\F1A LS DGRs. DIT mod. 5-10-06\ARR-D-LOC33-C03.dgn  
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THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM

8 7 6 5 4 3 2 1

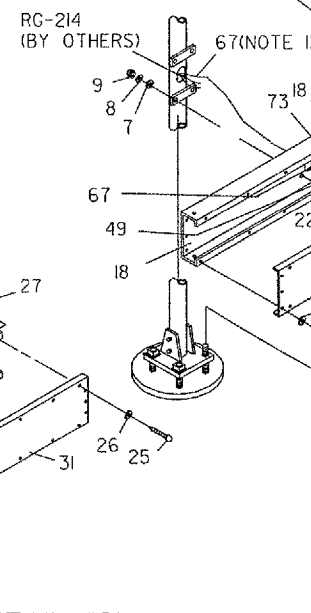
**NOTES:** CONSTRUCTION SHALL BE DONE SUCH THAT:

- CONNECTIONS TO #6 BARE AND #2 BARE COPPER GROUNDING CONDUCTORS ARE MADE WITH SPLIT BOLT CONNECTORS, ITEMS 73 AND 42, RESPECTIVELY, INSIDE CABLE TROUGH.
- ITEMS 33, 34, 35, AND 36 ARE FACTORY ASSEMBLED.
- REFER TO LOCALIZER SITE PLAN FOR TRENCH ROUTING AND CONDUIT REQUIREMENTS.
- CONTRACTOR SHALL FURNISH AND INSTALL ALL REQUIRED CABLES, CONDUIT, AND FITTINGS FROM EQUIPMENT IN LOCALIZER EQUIPMENT SHELTER TO ANTENNA DISTRIBUTION UNIT. LEAVE 3' LENGTHS OF ALL CONDUCTORS IN ENCLOSURES FOR TERMINATION BY OTHERS.
- ITEMS ARE TO BE USED AS SPARE HARDWARE FOR THE ANTENNA RADOME ASSEMBLIES.
- FOUNDATION SHOWN ON THIS DRAWING IS FOR REFERENCE ONLY. REFER TO FOUNDATION PLAN FOR SITE SPECIFIC FOUNDATION TYPE AND MATERIAL REQUIREMENTS.
- CONNECT #2 BARE COPPER TO GROUND LUG AND CONTINUE TO GROUNDING BUSHINGS ON ENTRANCE CONDUITS IN DISTRIBUTION UNIT USING #6 BARE COPPER. CONNECT #2 BARE TO GROUND ROD USING EXOTHERMIC WELD.

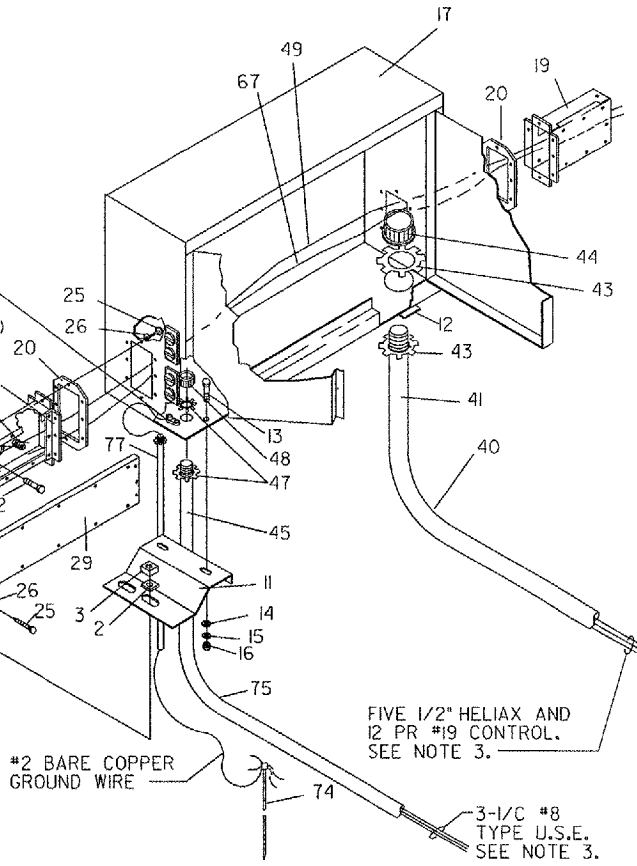


ISOMETRIC VIEW

FACTORY-INSTALLED GROUND LUG SEE NOTE 7.



DETAIL \*2\* MIDDLE ANTENNA ARRAY SUPPORT DETAILS



DETAIL \*1\* DISTRIBUTION UNIT & INNER ANTENNA ARRAY SUPPORT DETAILS

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

PARTS LIST			
ITEM	QTY	DESCRIPTION	WPN
1	112	BOLT, ANCHOR GALV 5/8"-11 X 12" (SEE NOTE 6)	CONTRACTOR-FURNISHED
2	224	WASHER, FLAT, SQ GALV 5/8" (SEE NOTE 6)	CONTRACTOR-FURNISHED
3	224	NUT, SQ GALV 5/8"-11 (SEE NOTE 6)	CONTRACTOR-FURNISHED
4	14	SUPPORT ASSY, REAR	119006-0001
5	14	SUPPORT ASSY, FRONT	119007-0001
6	56	BOLT, HEX 5/16"-18 X 1-1/2"	919063-0032
7	112	WASHER, FLAT 5/16"	925001-0008
8	112	WASHER, LOCK 5/16"	926001-0083
9	112	NUT, HEX 5/16"-18	930000-2314
10	14	ELEMENT, ANT.	447837-0100
11	1	BRACKET, MTG DISTR UNIT, RIGHT	093431-0001
12	1	BRACKET, MTG DISTR UNIT, LEFT	093431-0002
13	4	BOLT, HEX 1/4"-20 X 3/4"	919065-0005
14	16	WASHER, FLAT 1/4"	925001-0007
15	12	WASHER, LOCK 1/4"	926001-0082
16	12	NUT, HEX 1/4"-20	930000-2254
17	1	UNIT, DISTR ASSY	120354-0001
18	1	RACEWAY, CABLE ADAPTER (RT)	282220-0001
19	1	RACEWAY, CABLE ADAPTER (LT)	282220-0002
20	2	GASKET, RACEWAY ADAPTER (DU)	265050-0001
21	10	RACEWAY, CABLE WRAPPER (CTR) 26"	282173-0001
22	56	BOLT, HEX 5/16"-18 X 1"	919063-0030
23	12	RACEWAY, CABLE SECT TOP 94" L	282217-0001
24	12	RACEWAY, CABLE SECT BOT 94" L	282218-0001
25	310	SCREW, MACH, #8-32 X 1/2" PPHMS	915014-0045
26	310	WASHER, FLAT #8	925000-0807
27	130	NUT, SELF-LOCKING #8-32	100482-0008
28	164	NUT, SPEED #8-32	100999-0001
29	2	COVER, ADAPTER RACEWAY (DU)	489113-0001
30	2	CAP, END RACEWAY	281621-0001
31	10	COVER, WRAPPER RACEWAY (CTR)	489043-0001
32	14	CAP, WEATHER SHIELD (NOTE 2)	265048-0001
33	28	BOLT, HEX 1/4"-20 X 4-1/4" (NOTE 2)	919070-0024
34	28	WASHER, FLAT 1/4" (NOTE 2)	925000-0810
35	28	NUT, HEX 1/4"-20 (NOTE 2)	930026-0003
36	14	GASKET, CHAN WEATHERCAP (NOTE 2)	265047-0001
37	1	RACEWAY, CABLE ADAPTER END (LT)	282219-0002
38	1	RACEWAY, CABLE ADAPTER END (RT)	282219-0001
39	2	COVER, ADAPTER RACEWAY END	489114-0001
40	1	EL, SWEEP 4" GRS 90°	CONTRACTOR-FURNISHED
41	1	CND, PVC RIGID 4"	CONTRACTOR-FURNISHED
42	1	CONN, SPLIT BOLT (KS23)	229911-0012
43	1	SEALING LOCKNUT, CND 4"	CONTRACTOR-FURNISHED
44	1	GROUNDING BUSHING, INSULATED 4"	CONTRACTOR-FURNISHED
45	1	CND, GRS 2"	CONTRACTOR-FURNISHED
46	1	KIT, IDENT CBL SLEEVE	069200-0001
47	1	SEALING LOCK NUT, CND 2"	CONTRACTOR-FURNISHED
48	1	GROUNDING BUSHING, INSULATED 2"	CONTRACTOR-FURNISHED
49	200'	CABLE, POWER, #12-2 UF	111456-0002
50	2	NIPPLE, CND 3/4" X 5"	033586-0006
51	4	NUT, LOCK 3/4"	033514-0000
52	2	BUSHING, INSULATED 3/4"	033516-0000
53	2	UNILET, "T" 3/4"	033588-0001
54	2	COVER, UNILET	033590-0001
55	2	GASKET, COVER	033728-0003
56	2	CND, 3/4" X 30" L	033671-0004
57	2	NIPPLE, CND 3/4" X 3" L	033586-0001
58	2	NIPPLE, CND 3/4" X 10" L	033586-0005
59	4	EL, 45 CND	033754-0002
60	2	CND, 3/4" X 48" L	033671-0001
61	2	LIGHT, OBS	035707-0001
62	4	BULB, LIGHT	035623-0000
63	4	HANGER, CND 3/4"	033786-0002
64	4	HANGER, CND 2-1/2"	033786-0008
65	4	SPACER, HEX TAPPED, 2-1/2" L	270706-6677
66	8	SCREW, MACH, 1/4"-20 X 1/2"	915016-0079
67	250'	WIRE, #6 BARE	110041-0001
68	12	LUG, GND SOLDERLESS	025478-0001
69	12	SCREW, MACH, #10-32 X 1/2"	916012-0272
70	12	WASHER, FLAT #10	925000-0808
71	12	WASHER, LOCK #10	926001-0081
72	12	NUT, HEX #10-32	930001-0304
73	16	CONN, SPLIT BOLT (KS17)	229911-0004
74	3	GND ROD 3/4" X 10' COPPERCLAD	CONTRACTOR-FURNISHED
75	1	EL, SWEEP 2" GRS 90°	CONTRACTOR-FURNISHED
76	1	CABLE, RF 1/4" HELIAX 1700' L	111588-1700
77	70	CND, 3/4" GRS	230161-0001
78	24	BOLT, HEX NYLON 1/4"-20 X 1" L (SEE NOTE 5)	502644-0053
79	24	NUT, HEX NYLON 1/4"-20 (SEE NOTE 5)	300658-0007

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

INSTRUMENT LANDING SYSTEM  
CAPTURE EFFECT LOCALIZER ANTENNA ARRAY  
INSTALLATION DETAILS  
TYPE NO. FA-10582

AURORA		AURORA MUNICIPAL AIRPORT	
REVIEWED BY	SUBMITTED BY	APPROVED BY	
DESIGNED	TAD	PLATFORM MGR	CLELAND MICHEEL
DRAWN	TAD	ISSUED BY	CHICAGO NAS
CHECKED	EGS	IMPLEMENTATION	CENTER
		DATE	02/27/2006
		DRAWING NO	ARR-D-LOC33-S01

SHEET 55 OF 67

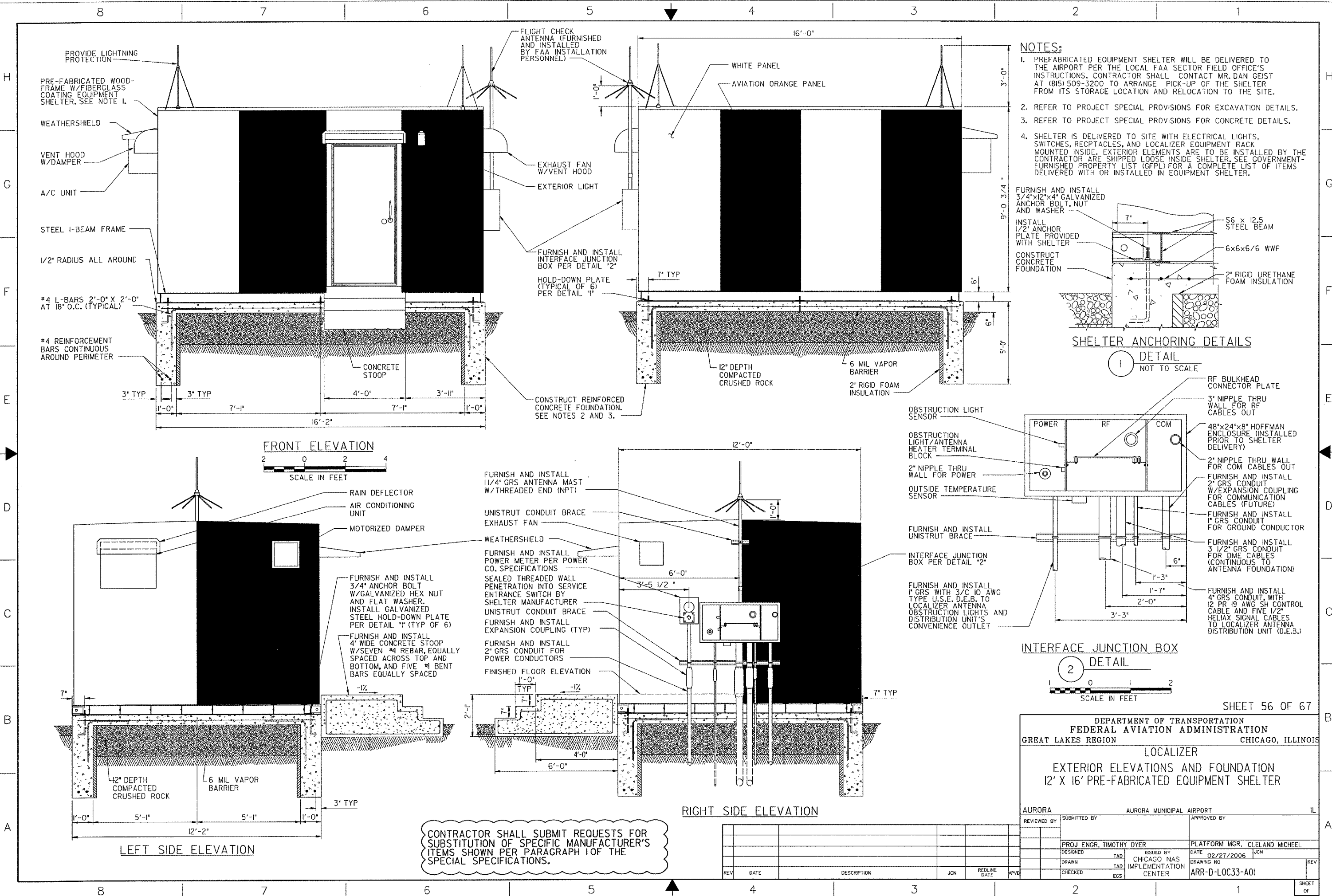
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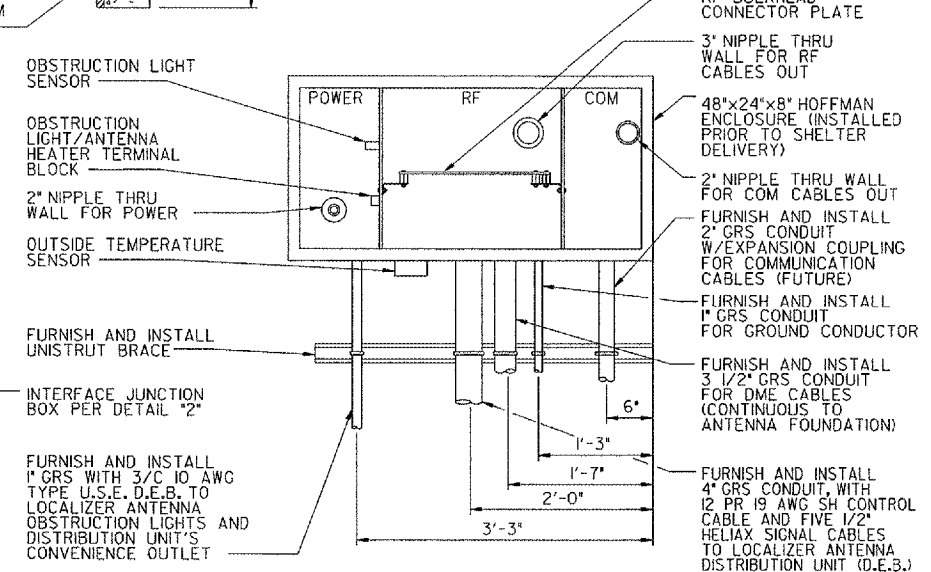
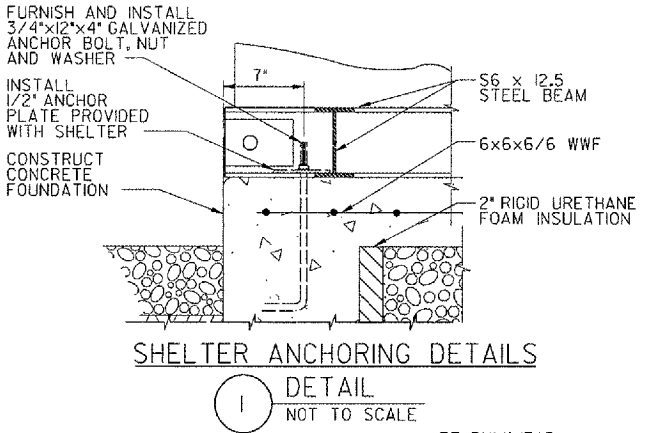
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SHEET OF

THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM



- NOTES:**
1. PREFABRICATED EQUIPMENT SHELTER WILL BE DELIVERED TO THE AIRPORT PER THE LOCAL FAA SECTOR FIELD OFFICE'S INSTRUCTIONS. CONTRACTOR SHALL CONTACT MR. DAN GEIST AT (815) 509-3200 TO ARRANGE PICK-UP OF THE SHELTER FROM ITS STORAGE LOCATION AND RELOCATION TO THE SITE.
  2. REFER TO PROJECT SPECIAL PROVISIONS FOR EXCAVATION DETAILS.
  3. REFER TO PROJECT SPECIAL PROVISIONS FOR CONCRETE DETAILS.
  4. SHELTER IS DELIVERED TO SITE WITH ELECTRICAL LIGHTS, SWITCHES, RECEPTACLES, AND LOCALIZER EQUIPMENT RACK MOUNTED INSIDE. EXTERIOR ELEMENTS ARE TO BE INSTALLED BY THE CONTRACTOR AND SHIPPED LOOSE INSIDE SHELTER. SEE GOVERNMENT-FURNISHED PROPERTY LIST (GFPL) FOR A COMPLETE LIST OF ITEMS DELIVERED WITH OR INSTALLED IN EQUIPMENT SHELTER.



CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

SHEET 56 OF 67

DEPARTMENT OF TRANSPORTATION  
 FEDERAL AVIATION ADMINISTRATION  
 GREAT LAKES REGION CHICAGO, ILLINOIS

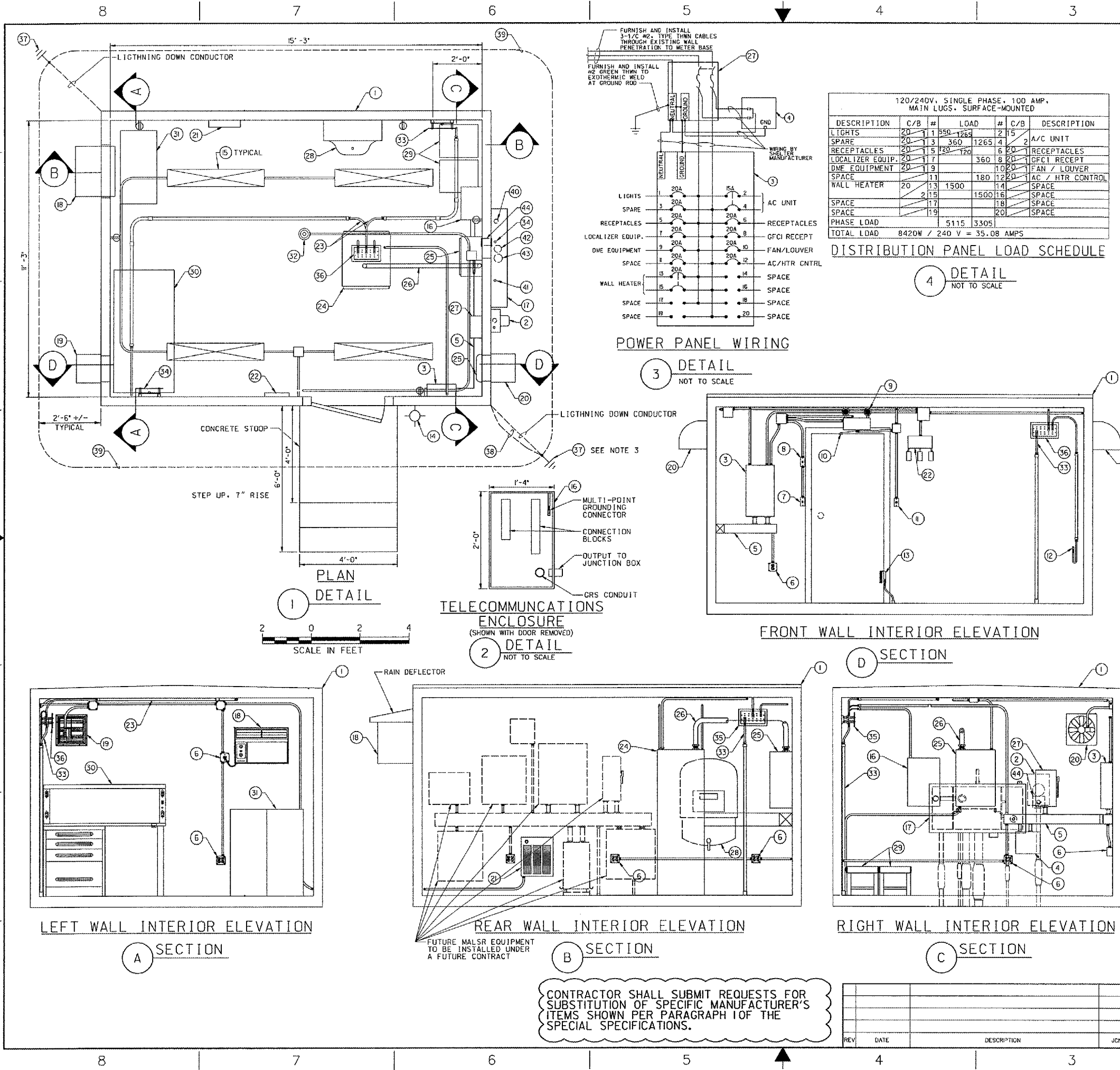
LOCALIZER  
 EXTERIOR ELEVATIONS AND FOUNDATION  
 12' X 16' PRE-FABRICATED EQUIPMENT SHELTER

AURORA		AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY	SUBMITTED BY	APPROVED BY		
		PLATFORM MGR. CLELAND MICHEEL		
DESIGNED	TAD	ISSUED BY	DATE	JCN
DRAWN	TAD	CHICAGO NAS IMPLEMENTATION CENTER	02/27/2006	
CHECKED	ECS	DRAWING NO.	ARR-D-LOC33-AOI	REV

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THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM



120/240V, SINGLE PHASE, 100 AMP, MAIN LUGS, SURFACE-MOUNTED

DESCRIPTION	C/B	#	LOAD	#	C/B	DESCRIPTION
LIGHTS	20	1	550	1268	2	A/C UNIT
SPARE	20	1	360	1265	4	
RECEPTACLES	20	15	20	120	6	RECEPTACLES
LOCALIZER EQUIP.	20	1	7	360	8	GFCI RECEPT
DME EQUIPMENT	20	1	9	10	20	FAN / LOUVER
SPACE						AC / HTR CONTROL
WALL HEATER	20	1	11	180	12	SPACE
SPACE						SPACE
SPACE						SPACE
SPACE						SPACE
PHASE LOAD			5115	3305		
TOTAL LOAD			8420W / 240 V = 35.08 AMPS			

DISTRIBUTION PANEL LOAD SCHEDULE

- NUMBERED LEGEND:**
- I = CONTRACTOR SHALL INSTALL ITEM, F&I = CONTRACTOR SHALL FURNISH & INSTALL ITEM.
  - BO = SHALL BE INSTALLED BY FAA INSTALLATION PERSONNEL OR IS ALREADY INSTALLED IN PRE-FABRICATED EQUIPMENT SHELTER
- 1 WOOD FRAME EQUIPMENT SHELTER W/FIBERGLASS EXTERIOR FINISH PER DWG ARR-D-LOC33-A01
  - F&I 2 METER BASE FOR USE WITH UNDERGROUND SERVICE PER POWER COMPANY'S SPECIFICATIONS SHALL BE INSTALLED OVER WALL PENETRATION INSTALLED BY SHELTER MANUFACTURER, INSTALL 3-1/8" TYPE THWN POWER CABLES AND #6 GREEN THWN GROUND CONDUCTOR TO SECONDARY LEADS OF METER BASE AND PRIMARY LEADS OF SERVICE ENTRANCE DISCONNECT SWITCH. INSTALL 3-1/8" TYPE U.S.E. POWER CABLES AND #2 GREEN TYPE U.S.E. GROUND CONDUCTOR IN 2" GALVANIZED RIGID STEEL CONDUIT, 2" BELOW GRADE (MIN) FROM TRANSFORMER'S SECONDARY. CONNECTIONS AT TRANSFORMER WILL BE MADE BY COMED REPRESENTATIVES. CONTACT KATIE OLIVA AT (847) 608-2336 WHEN READY.
  - BO 3 100A BREAKER PANEL, 20 CIRCUITS, W/BOLT ON BREAKERS
  - BO 4 AC SURGE ARRESTOR, 120/240V
  - BO 5 4" SQUARE DUCT
  - BO 6 ELECTRICAL RECEPTACLE
  - BO 7 INTERIOR LIGHT SWITCH
  - BO 8 EXTERIOR LIGHT SWITCH
  - BO 9 EMERGENCY LIGHT
  - BO 10 INTRUSION SENSOR
  - BO 11 SMOKE DETECTOR RESET SWITCH
  - BO 12 WORKSTATION GROUND
  - BO 13 GROUNDING STRAP
  - BO 14 WALL-MOUNTED EXTERIOR LIGHT WITH PHOTO CONTROL
  - BO 15 4'-LONG 2-LAMP-TUBE FLUORESCENT LIGHT FIXTURE, 120-VOLT
  - BO 16 TELECOMMUNICATIONS ENCLOSURE PER DETAIL '2'
  - BO 17 POWER, CONTROL AND RF INTERFACE JUNCTION BOX
  - BO 18 A/C THRU-WALL UNIT, 12,000 BTU.
  - BO 19 12" SQUARE MOTORIZED LOUVER WITH FILTER AND HOOD
  - BO 20 EXHAUST FAN WITH VENT HOOD
  - BO 21 WALL-MOUNTED ELECTRIC HEATER
  - BO 22 ENVIRONMENTAL CONTROL PANEL
  - BO 23 1" PVC CONDUIT CARRYING #4/0 GREEN THWN W/ORANGE STRIPE FROM MAIN GROUNDING PLATE TO MULTIPPOINT GROUNDING PLATE.
  - BO 24 LOCALIZER ELECTRONIC EQUIPMENT RACK
  - BO 25 LOCALIZER EQUIPMENT JUNCTION BOX
  - BO 26 2" EMT CONDUIT CARRYING SIGNAL CABLES.
  - BO 27 MAIN DISCONNECT, 100A, 240V, W/FUSES
  - BO 28 EYE WASH STATION
  - BO 29 FLOOR-MOUNTED BATTERY BOXES
  - BO 30 WORK BENCH/DESK
  - BO 31 DRAWER STORAGE UNIT
  - BO 32 SMOKE DETECTOR ON CEILING
  - F&I 33 TWO 4/0 AWG THWN GROUNDING CONDUCTORS FROM MAIN AND FROM MULTI-POINT GROUNDING PLATES TO COUNTERPOISE
  - F&I 34 #2/0 GROUNDING CONDUCTOR, GREEN THWN WITH RED STRIPE IN 1" GRS CONDUIT, LEAVE 5' LENGTH OF CONDUCTOR IN POWER, CONTROL AND RF INTERFACE JUNCTION BOX FOR TERMINATION BY FAA INSTALLATION PERSONNEL.
  - BO 35 MAIN COPPER GROUNDING PLATE WITH PLASTIC COVER
  - BO 36 MULTIPPOINT COPPER GROUNDING PLATE WITH PLASTIC COVER
  - F&I 37 3/4" X 10' COPPERCLAD GROUNDING ROD
  - F&I 38 #6 BARE COPPER GROUNDING AND BONDING CONDUCTOR
  - F&I 39 #4/0 BARE COPPER COUNTERPOISE 2'-6" BELOW GRADE. SEE NOTE 3.
  - F&I 40 2" CRSC WITH EXPANSION COUPLING FOR COMMUNICATIONS CABLES, TERMINATE CONDUIT 5' BEYOND COUNTERPOISE AND CAP END. MARK LOCATION OF DUCT END WITH CABLE MARKER
  - F&I 41 1" CRSC WITH EXPANSION COUPLING FOR LOCALIZER ANTENNA POWER CONDUCTORS
  - F&I 42 3 1/2" CRSC WITH EXPANSION COUPLING CONTINUOUS TO DME ANTENNA
  - F&I 43 4" CRSC WITH EXPANSION COUPLING FOR LOCALIZER ANTENNA SIGNAL AND COMMUNICATION CABLES
  - BO 44 BUILDING WALL PENETRATION TO OUTSIDE FROM SERVICE ENTRANCE DISCONNECT SWITCH

**NOTES:**

1. ELECTRICAL EQUIPMENT SHOWN ON THIS SHEET IS SURFACE MOUNTED BY FAA REPRESENTATIVES PRIOR TO SHIPMENT OF SHELTER UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL NOTIFY RESIDENT ENGINEER IF SHELTER IS DAMAGED OR MISSING ITEMS WHEN SHIPMENT ARRIVES.
3. ALL GROUNDING CONDUCTORS AND COUNTERPOISE SHALL BE ATTACHED TO GROUNDING RODS USING EXOTHERMIC WELDS PER SPECIFICATIONS. SHEET 57 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

LOCALIZER  
FLOOR PLAN AND INTERIOR ELEVATIONS  
12' X 16' PRE-FABRICATED EQUIPMENT SHELTER

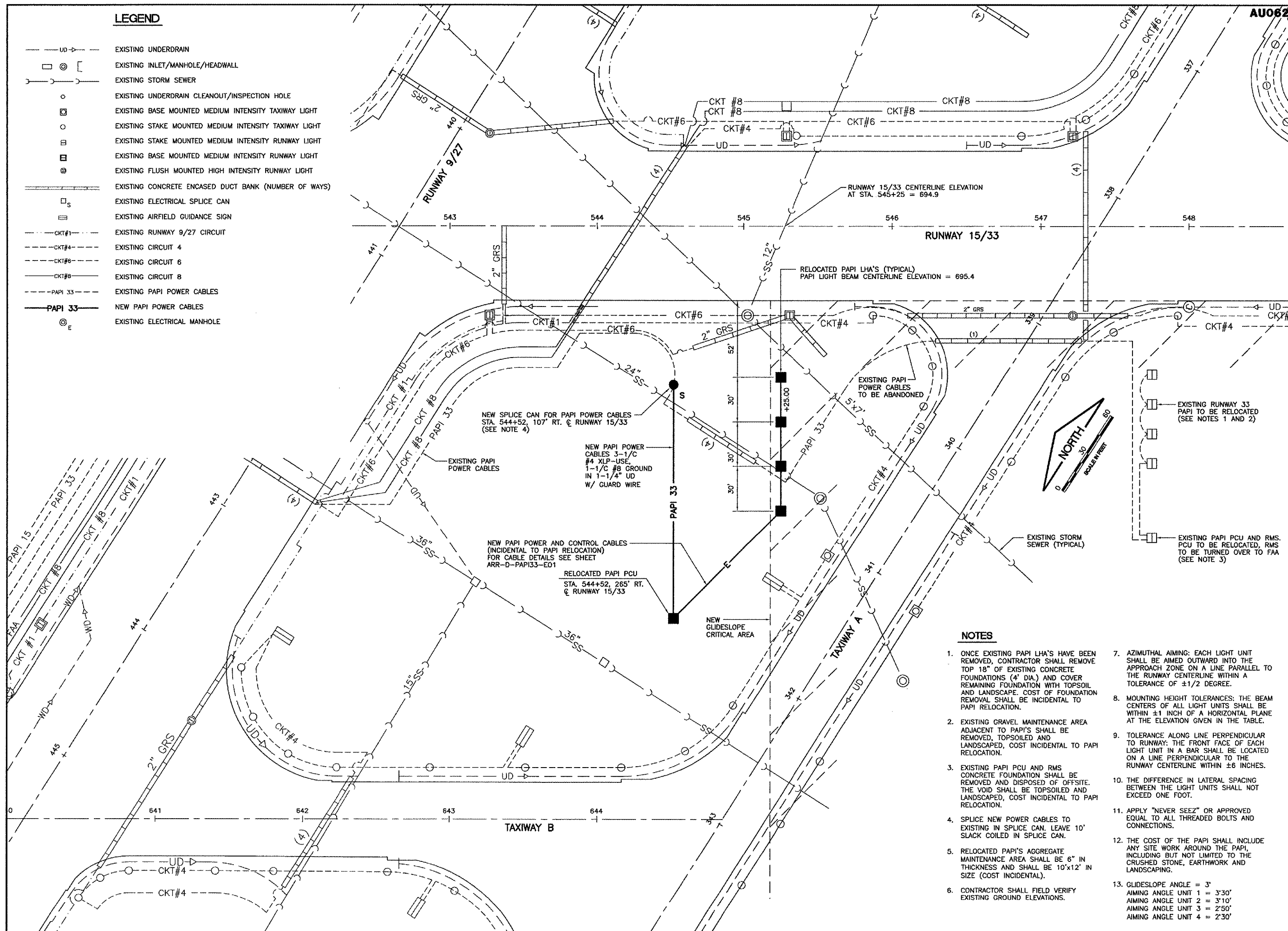
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REVIEWED BY	SUBMITTED BY	APPROVED BY		
PROJ ENGR. TIMOTHY DYER	DESIGNED BY	PLATFORM MGR. CLELAND MICHEEL		
DRAWN	DATE	ISSUED BY	DATE	REV
JCN	02/27/2006	CHICAGO NAS	JCN	
CHECKED	TAD	IMPLEMENTATION	DRAWING NO	
EGS	EGS	CENTER	ARR-D-LOC33-A02	

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

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**LEGEND**

- UD — EXISTING UNDERDRAIN
- ⊙ [ EXISTING INLET/MANHOLE/HEADWALL
- S — EXISTING STORM SEWER
- EXISTING UNDERDRAIN CLEANOUT/INSPECTION HOLE
- ⊙ EXISTING BASE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHT
- EXISTING STAKE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHT
- ⊙ EXISTING STAKE MOUNTED MEDIUM INTENSITY RUNWAY LIGHT
- ⊙ EXISTING BASE MOUNTED MEDIUM INTENSITY RUNWAY LIGHT
- ⊙ EXISTING FLUSH MOUNTED HIGH INTENSITY RUNWAY LIGHT
- (NUMBER OF WAYS) — EXISTING CONCRETE ENCASED DUCT BANK
- S EXISTING ELECTRICAL SPLICE CAN
- EXISTING AIRFIELD GUIDANCE SIGN
- CKT#1 — EXISTING RUNWAY 9/27 CIRCUIT
- CKT#4 — EXISTING CIRCUIT 4
- CKT#6 — EXISTING CIRCUIT 6
- CKT#8 — EXISTING CIRCUIT 8
- PAPI 33 — EXISTING PAPI POWER CABLES
- PAPI 33 — NEW PAPI POWER CABLES
- ⊙ E EXISTING ELECTRICAL MANHOLE



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 SURVEY BOOK #  
 XREF DWG:  
 XREF DWG:  
 DATE: .

REVISIONS		
NUMBER	BY	DATE

0 1 2  
 THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER  
 RUNWAY 33 PAPI SITE PLAN  
 ARR-D-PAPI33-C01**

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DESIGN BY:	CAL
DRAWN BY:	JRO
CHECKED BY:	CAL
APPROVED BY:	
DATE:	05/12/06
JOB No:	04285-04
ILLINOIS PROJECT:	ARR-3488
A.I.P. PROJECT:	3-17-0003-B31
<b>FINAL SUBMITTAL</b>	
SHEET 58 OF 67 SHEETS	

**NOTES**

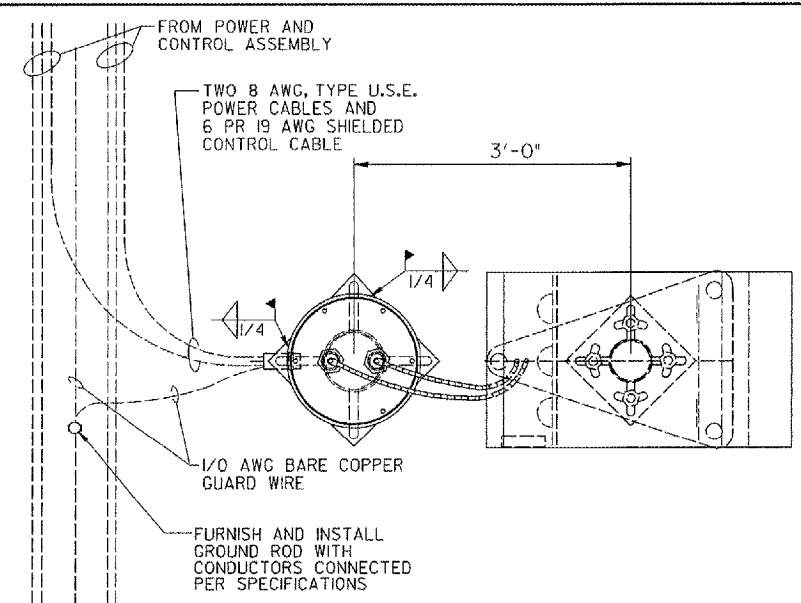
1. ONCE EXISTING PAPI LHA'S HAVE BEEN REMOVED, CONTRACTOR SHALL REMOVE TOP 18" OF EXISTING CONCRETE FOUNDATIONS (4" DIA.) AND COVER REMAINING FOUNDATION WITH TOPSOIL AND LANDSCAPE. COST OF FOUNDATION REMOVAL SHALL BE INCIDENTAL TO PAPI RELOCATION.
2. EXISTING GRAVEL MAINTENANCE AREA ADJACENT TO PAPI'S SHALL BE REMOVED, TOPSOILED AND LANDSCAPED, COST INCIDENTAL TO PAPI RELOCATION.
3. EXISTING PAPI PCU AND RMS CONCRETE FOUNDATION SHALL BE REMOVED AND DISPOSED OF OFFSITE. THE VOID SHALL BE TOPSOILED AND LANDSCAPED, COST INCIDENTAL TO PAPI RELOCATION.
4. SPLICE NEW POWER CABLES TO EXISTING IN SPLICE CAN. LEAVE 10' SLACK COILED IN SPLICE CAN.
5. RELOCATED PAPI'S AGGREGATE MAINTENANCE AREA SHALL BE 6" IN THICKNESS AND SHALL BE 10'x12' IN SIZE (COST INCIDENTAL).
6. CONTRACTOR SHALL FIELD VERIFY EXISTING GROUND ELEVATIONS.
7. AZIMUTHAL AIMING: EACH LIGHT UNIT SHALL BE AIMED OUTWARD INTO THE APPROACH ZONE ON A LINE PARALLEL TO THE RUNWAY CENTERLINE WITHIN A TOLERANCE OF ±1/2 DEGREE.
8. MOUNTING HEIGHT TOLERANCES: THE BEAM CENTERS OF ALL LIGHT UNITS SHALL BE WITHIN ±1 INCH OF A HORIZONTAL PLANE AT THE ELEVATION GIVEN IN THE TABLE.
9. TOLERANCE ALONG LINE PERPENDICULAR TO RUNWAY: THE FRONT FACE OF EACH LIGHT UNIT IN A BAR SHALL BE LOCATED ON A LINE PERPENDICULAR TO THE RUNWAY CENTERLINE WITHIN ±6 INCHES.
10. THE DIFFERENCE IN LATERAL SPACING BETWEEN THE LIGHT UNITS SHALL NOT EXCEED ONE FOOT.
11. APPLY "NEVER SEEZ" OR APPROVED EQUAL TO ALL THREADED BOLTS AND CONNECTIONS.
12. THE COST OF THE PAPI SHALL INCLUDE ANY SITE WORK AROUND THE PAPI, INCLUDING BUT NOT LIMITED TO THE CRUSHED STONE, EARTHWORK AND LANDSCAPING.
13. GLIDESLOPE ANGLE = 3"  
 AIMING ANGLE UNIT 1 = 3°30'  
 AIMING ANGLE UNIT 2 = 3°10'  
 AIMING ANGLE UNIT 3 = 2°50'  
 AIMING ANGLE UNIT 4 = 2°30'

THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM

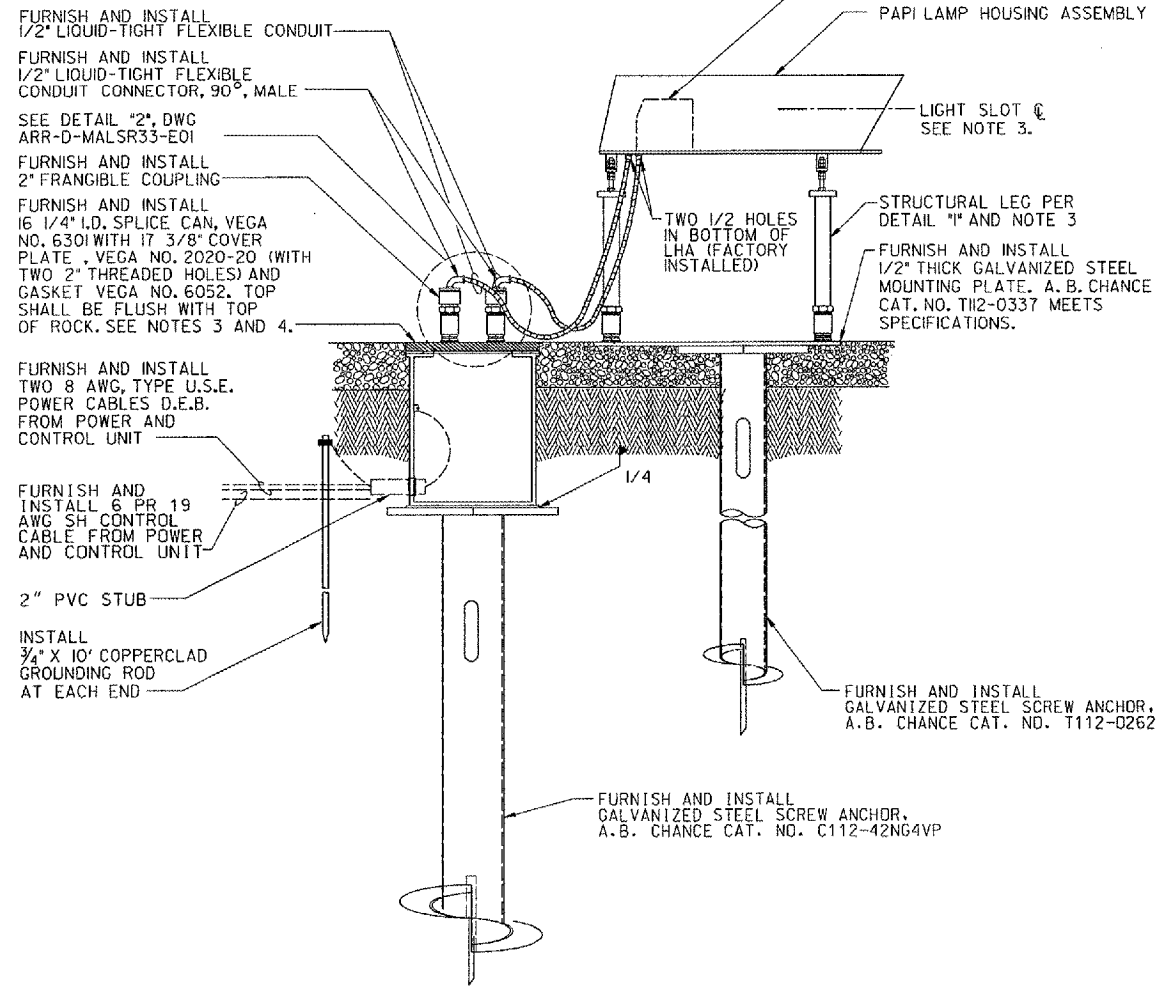
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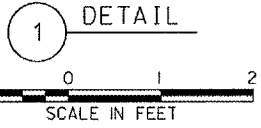


PLAN VIEW

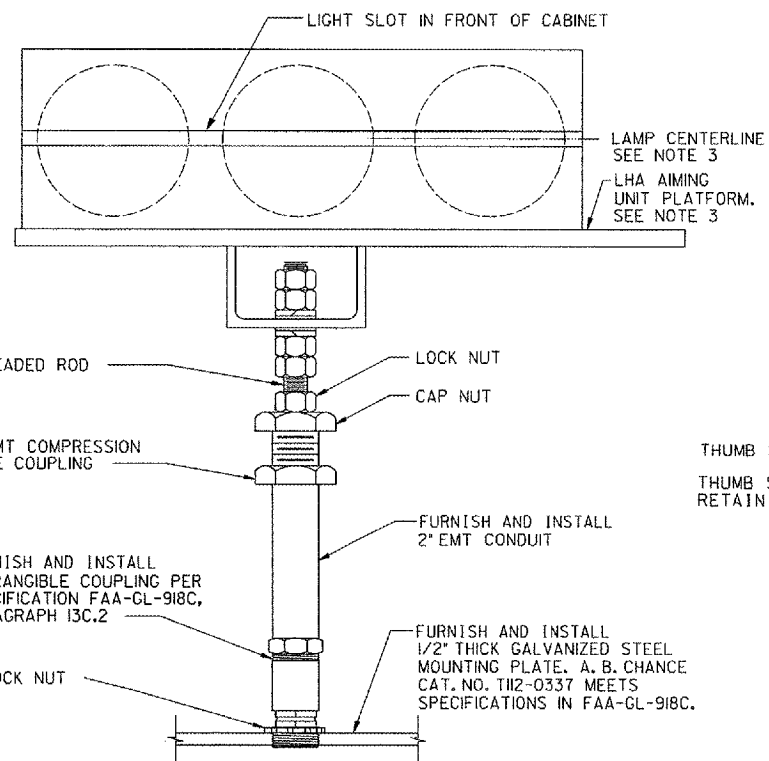


ELEVATION VIEW

PAPILAMP HOUSING ASSEMBLY (LHA) INSTALLATION

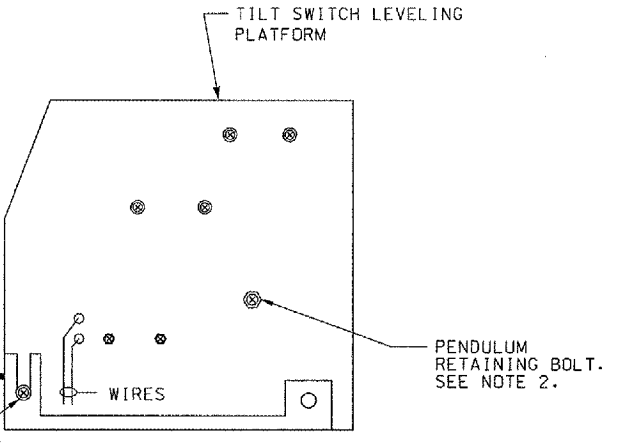


1 DETAIL



LAMP HOUSING ASSEMBLY STRUCTURAL LEG

2 DETAIL NOT TO SCALE



TILT SWITCH DETAILS

3 DETAIL NOT TO SCALE

- NOTES:**
1. REMOVE INSULATION AND SHIELD FROM A LENGTH OF 6 PR 19 AWG SH CONTROL CABLE SUFFICIENT TO PERMIT 5 CONDUCTORS TO REACH THEIR TERMINATIONS IN THE PAPI LAMP HOUSING UNIT WITHOUT STRAIN. INSIDE THE SPLICE CAN, GROUND THE END OF THE UNUSED SEVEN 19 AWG CABLES AND SHIELD TO THE 6 AWG BARE COPPER GROUND WIRE USING A SPLIT BOLT CONNECTOR.
  2. CONTRACTOR SHALL INSTALL A SMALL SCREW (FIELD FIT) IN THE PENDULUM RETAINING BOLT HOLE TO SECURE PENDULUM PRIOR TO REMOVING LHA FROM MOUNTING LEGS. REMOVE PENDULUM RETAINING SCREW PRIOR TO AIMING THE PAPI UNIT, AND COVER HOLE WITH TAPE. AIM THE PAPI LHA UNIT USING THE AIMING INSTRUMENT (AVAILABLE FROM FAA. CONTACT DAN GEIST 815-509-3200) AND TIGHTEN ADJUSTING NUTS. SET AIMING INSTRUMENT TO 0°00' AND SET ON TOP OF TILT SWITCH PLATFORM. LOOSEN THUMB SCREW RETAINING SCREW AND ADJUST TILT SWITCH UNTIL PLATFORM IS LEVELED. TIGHTEN THUMB SCREW RETAINING SCREW. TILT SWITCH IS NOW SET.
  3. SEE DWG ARR-D-PAPI33-COIFOR LAMP HOUSING ASSEMBLY LAMP CENTERLINE ELEVATION AND AIMING ANGLE. THE LAMP HOUSING ASSEMBLIES SHALL BE INSTALLED SUCH THAT THE LAMP CENTERLINE OF ALL THE UNITS ARE WITHIN 1 INCH (+/-) OF ELEVATION SHOWN AND ARE THE SAME FROM UNIT TO UNIT.
  4. INSTALL THE 4 AWG/0 AWG BARE COPPER PERIMETER GROUND IN A CLOSED LOOP ENCOMPASSING ALL FOUR LAMP HOUSING ASSEMBLIES. INSTALL GROUNDING RODS AT FOUR CORNERS.

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

SHEET 59 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

PAPI  
LAMP HOUSING ASSEMBLY (LHA)  
AND FOUNDATION DETAILS  
RUNWAY 33

AURORA	AURORA MUNICIPAL AIRPORT	IL	
REVIEWED BY	SUBMITTED BY	APPROVED BY	
DESIGNED BY TIMOTHY DYER	DATE 02/21/2006	PLATFORM MGR, CLELAND MICHEEL	JCH
DRAWN TAD	ISSUED BY CHICAGO NAS IMPLEMENTATION CENTER	DRAWING NO ARR-D-PAPI33-S01	REV

REV	DATE	DESCRIPTION	JCH	REDLINE DATE	APVD

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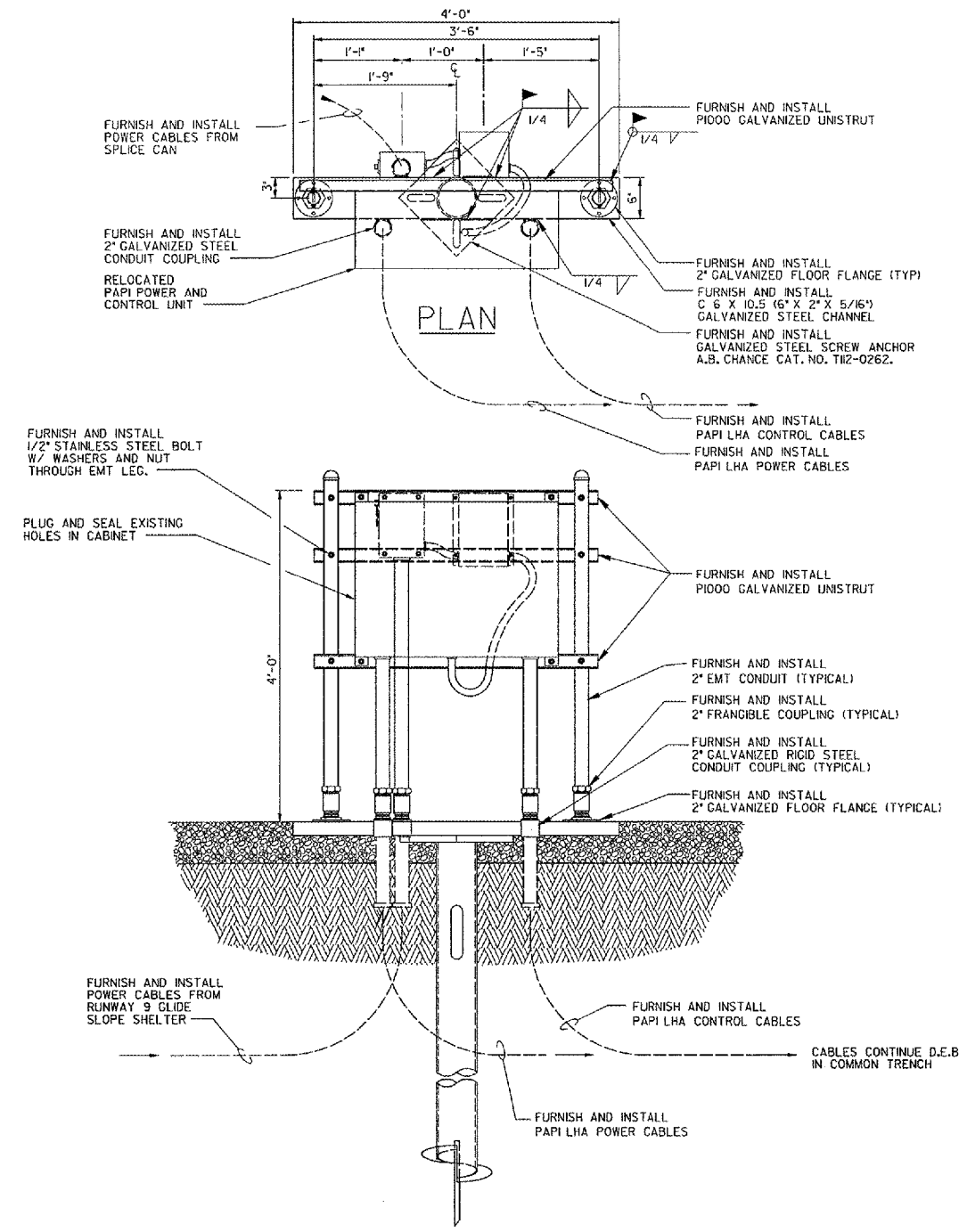
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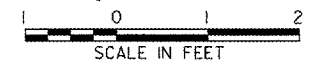
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PLAN  
PAPI POWER AND  
CONTROL RACK DETAILS

1 DETAIL



CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 10F OF THE SPECIAL SPECIFICATIONS.

SHEET 60 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

AURORA		AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY	SUBMITTED BY	APPROVED BY		
DESIGNED	PROJ ENGR. <i>TIMOTHY DYER</i>	PLATFORM MGR.	<i>CLELAND MICHEEL</i>	
DRAWN	ISSUED BY	DATE	02/27/2006	
CHECKED	CHICAGO NAS IMPLEMENTATION CENTER	DRAWING NO	ARR-D-PAP133-S02	
		REV		

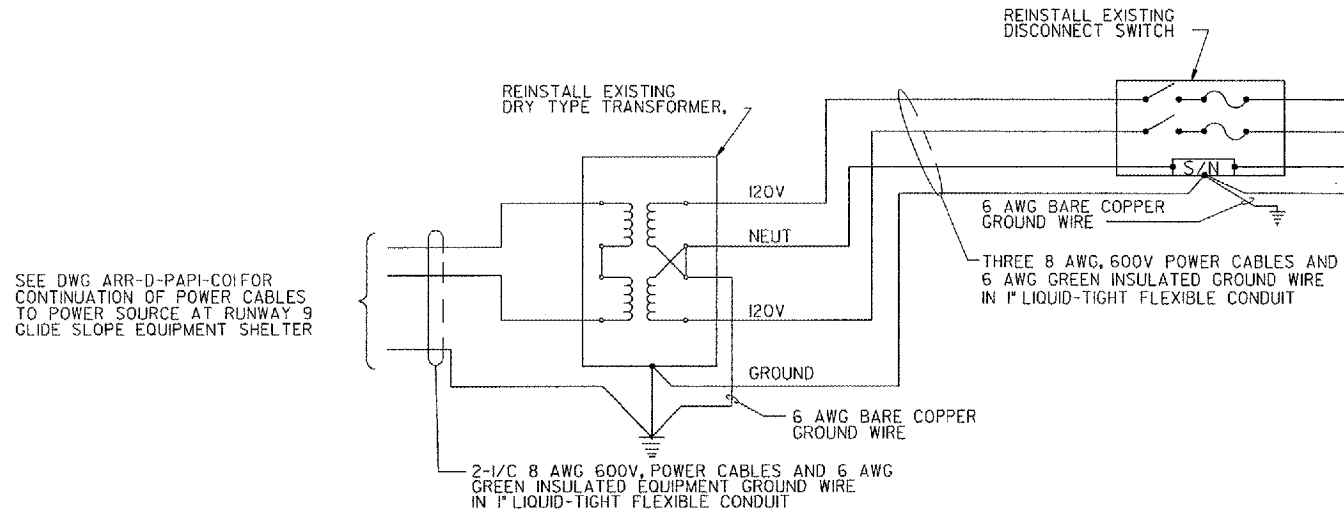
REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

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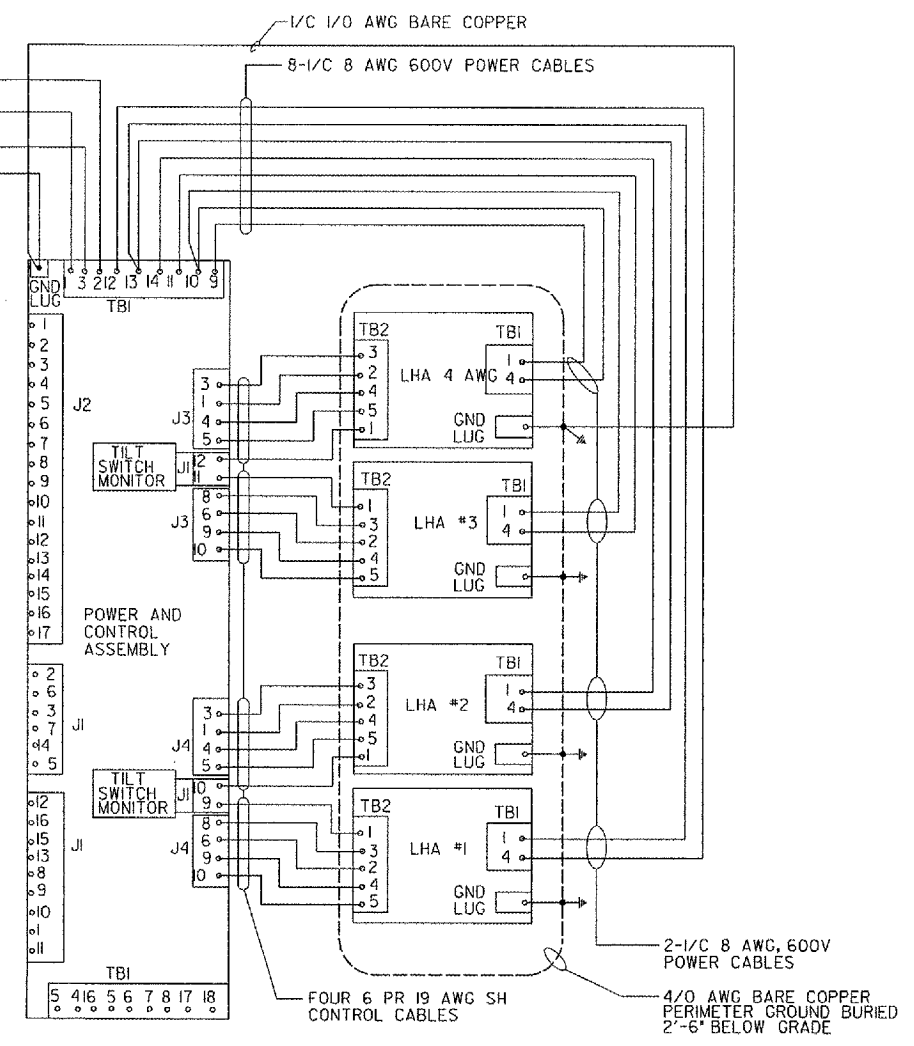
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SHEET OF

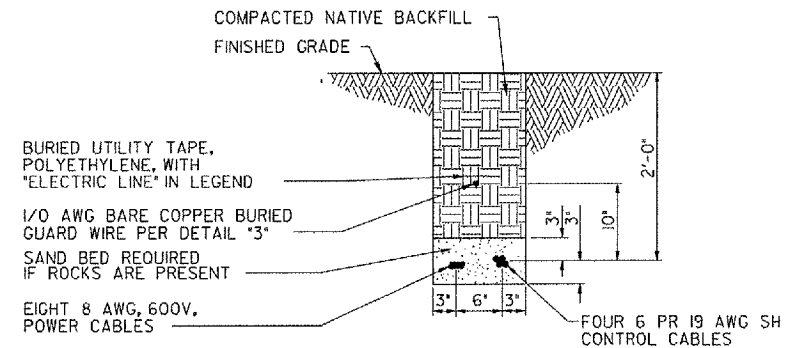
THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM



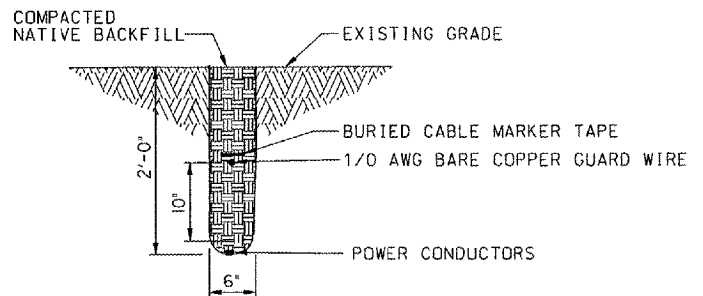
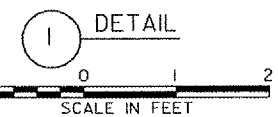
NOTE:  
RMS SYSTEM WILL NOT BE RE-INSTALLED. DELIVER RMS CABINET TO FAA SSC REPRESENTATIVE DAN GEIST FOR STORAGE.



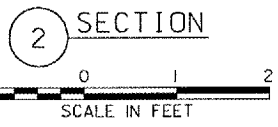
PAPI SYSTEM WIRING DIAGRAM



TRENCH DETAIL FOR PAPI LHA POWER AND CONTROL CABLES IN COMMON TRENCH



TYPICAL D.E.B. TRENCH FOR POWER CABLES



CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APPROVED

SHEET 61 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

PAPI  
SYSTEM WIRING DIAGRAM  
RUNWAY 33

AURORA		AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY	SUBMITTED BY	DESIGNED BY	ISSUED BY	DATE
		PROJ ENGR, TIMOTHY DYER	PLATFORM MGR, CLELAND MICHEEL	02/27/2006
		DRAWN	IMPLEMENTATION CENTER	JCN
		CHECKED	EGS	DRAWING NO
				ARR-D-PAPI33-E01

K:\Aurora\0428584\Draw\Sheets\FAA\_LS\_DRAW\CAI mod. 5-10-06\ARR-D-PAPI33-E01.dgn  
5/10/2006 5:24:28 PM NAME  
ARR33



REVISIONS		
NUMBER	BY	DATE

0 1 2  
 THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

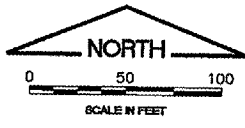
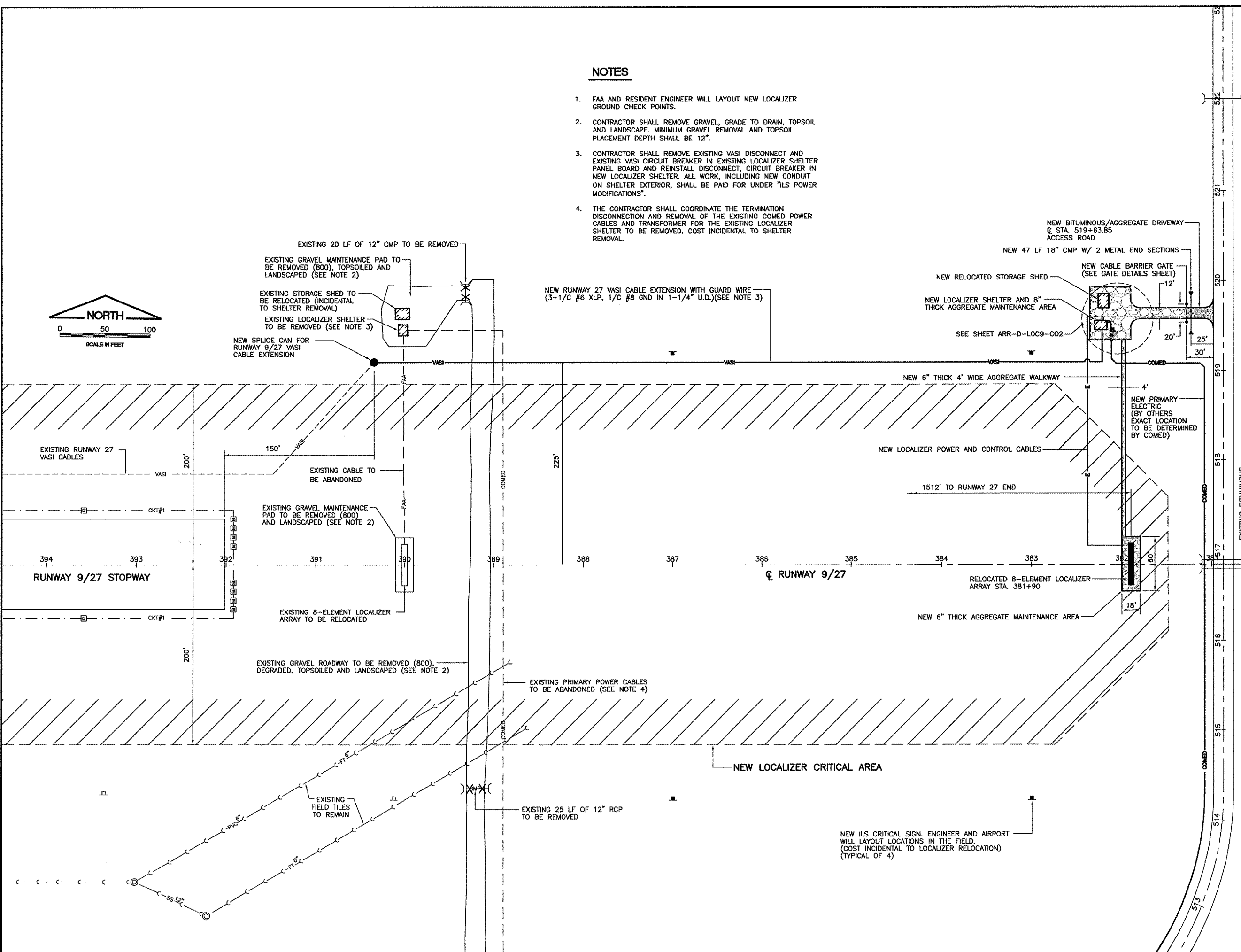
**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER  
 RUNWAY 9 LOCALIZER  
 SITE PLAN  
 ARR-D-LOC9-C01**

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DESIGN BY:	CAL
DRAWN BY:	JRO
CHECKED BY:	CAL
APPROVED BY:	
DATE:	05/12/06
JOB No:	04285-04
ILLINOIS PROJECT: ARR-3468 A.I.P. PROJECT: 3-17-0003-B31 <b>FINAL SUBMITTAL</b>	
SHEET 62 OF 67 SHEETS	

**NOTES**

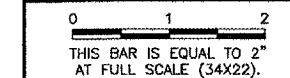
1. FAA AND RESIDENT ENGINEER WILL LAYOUT NEW LOCALIZER GROUND CHECK POINTS.
2. CONTRACTOR SHALL REMOVE GRAVEL, GRADE TO DRAIN, TOPSOIL AND LANDSCAPE. MINIMUM GRAVEL REMOVAL AND TOPSOIL PLACEMENT DEPTH SHALL BE 12".
3. CONTRACTOR SHALL REMOVE EXISTING VASI DISCONNECT AND EXISTING VASI CIRCUIT BREAKER IN EXISTING LOCALIZER SHELTER PANEL BOARD AND REINSTALL DISCONNECT, CIRCUIT BREAKER IN NEW LOCALIZER SHELTER. ALL WORK, INCLUDING NEW CONDUIT ON SHELTER EXTERIOR, SHALL BE PAID FOR UNDER "ILS POWER MODIFICATIONS".
4. THE CONTRACTOR SHALL COORDINATE THE TERMINATION DISCONNECTION AND REMOVAL OF THE EXISTING COMED POWER CABLES AND TRANSFORMER FOR THE EXISTING LOCALIZER SHELTER TO BE REMOVED. COST INCIDENTAL TO SHELTER REMOVAL.



NEW ILS CRITICAL SIGN. ENGINEER AND AIRPORT WILL LAYOUT LOCATIONS IN THE FIELD. (COST INCIDENTAL TO LOCALIZER RELOCATION) (TYPICAL OF 4)



REVISIONS		
NUMBER	BY	DATE



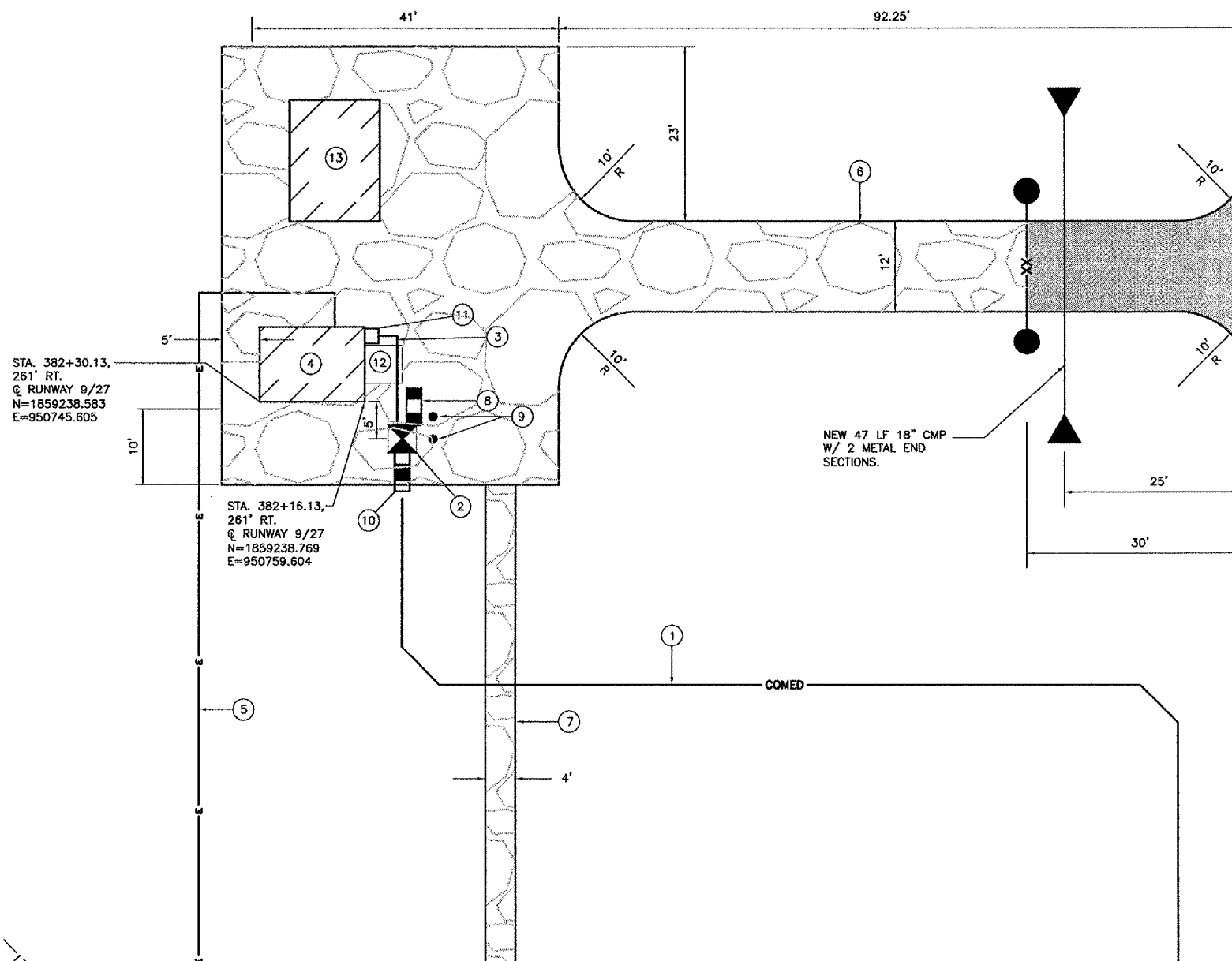
**NUMBERED LEGEND**

- ① COMED UNDERGROUND PRIMARY CABLE (BY OTHERS EXACT LOCATION TO BE DETERMINED BY COMED).
- ② COMED 25KVA PAD-MOUNTED TRANSFORMER, PRIMARY TO 120/240V, SINGLE PHASE (BY OTHERS) SEE NOTES 1, 4, 6 AND 7.
- ③ 3-1/C#2 TYPE U.S.E. AND #2 GREEN TYPE U.S.E. POWER CABLES IN 2" GRS CONDUIT FROM UTILITY TRANSFORMER TO UTILITY METER.
- ④ 10'x14' LOCALIZER EQUIPMENT SHELTER.
- ⑤ LOCALIZER CABLES TO LOCALIZER ANTENNA FOUNDATION.
- ⑥ NEW BITUMINOUS/AGGREGATE (8" THICK) ACCESS ROAD/TURNAROUND AREA.
- ⑦ 4' WIDE CRUSHED STONE WALKWAY TO LOCALIZER ANTENNA (6" THICK).
- ⑧ 4" GRS CONDUIT (SPARE), EXTENDED AND CAPPED MIN. 5' AWAY FROM TRANSFORMER PAD.

- ⑨ NEW BOLLARD
- ⑩ 4" GRS CONDUIT EXTENDED MIN. 5' AWAY FROM TRANSFORMER PAD FOR ITEM ①.
- ⑪ UTILITY METER AND METER BASE. METER TO BE SUPPLIED BY UTILITY COMPANY AND BASE TO BE FURNISHED & INSTALLED BY CONTRACTOR PER UTILITY REQUIREMENTS.
- ⑫ 4'x4'x8" CONCRETE PAD.
- ⑬ RELOCATED 12'x16' STORAGE SHED

**NOTES**

1. CONTRACTOR SHALL INSTALL CONCRETE PAD, CONDUITS AND GROUNDING ELECTRODES FOR THE TRANSFORMER PER UTILITY COMPANY REQUIREMENTS. COST INCIDENTAL TO EQUIPMENT SHELTER.
2. WHERE SPECIFIC MANUFACTURERS OF EQUIPMENT ARE GIVEN, THE CONTRACTOR MAY SUBMIT ALTERNATE EQUIPMENT EQUAL TO THAT PROPOSED FOR CONSIDERATION BY THE ENGINEER.
3. TO ENSURE CONFORMANCE TO SPECIFICATIONS, AN FAA REPRESENTATIVE MAY VISIT THE SITE AT ANY TIME.
4. COMED 25 KVA PAD-MOUNTED TRANSFORMER, PRIMARY TO 120/240V, SINGLE PHASE (BY OTHERS).
5. THE CONTRACTOR SHALL FURNISH AND INSTALL UTILITY METER AND METER BASE PER UTILITY REQUIREMENTS. COMED SHALL SUPPLY METER.
6. CONTRACTOR SHALL INSTALL (2) 4" GRS CONDUITS EXTENDED MINIMUM 5' AWAY FROM TRANSFORMER PAD: 1 FOR PRIMARY POWER AND 1 SPARE.
7. CONTRACTOR SHALL INSTALL (1) 2" GRS CONDUIT FROM TRANSFORMER PAD TO UTILITY METER FOR SECONDARY CABLES.
8. CONTRACTOR SHALL COORDINATE NEW ELECTRIC SERVICE FOR RELOCATED RUNWAY 9 LOCALIZER WITH COMED. NEW ELECTRIC SERVICE SHALL BE 100A, 120/240V, 1-PHASE.



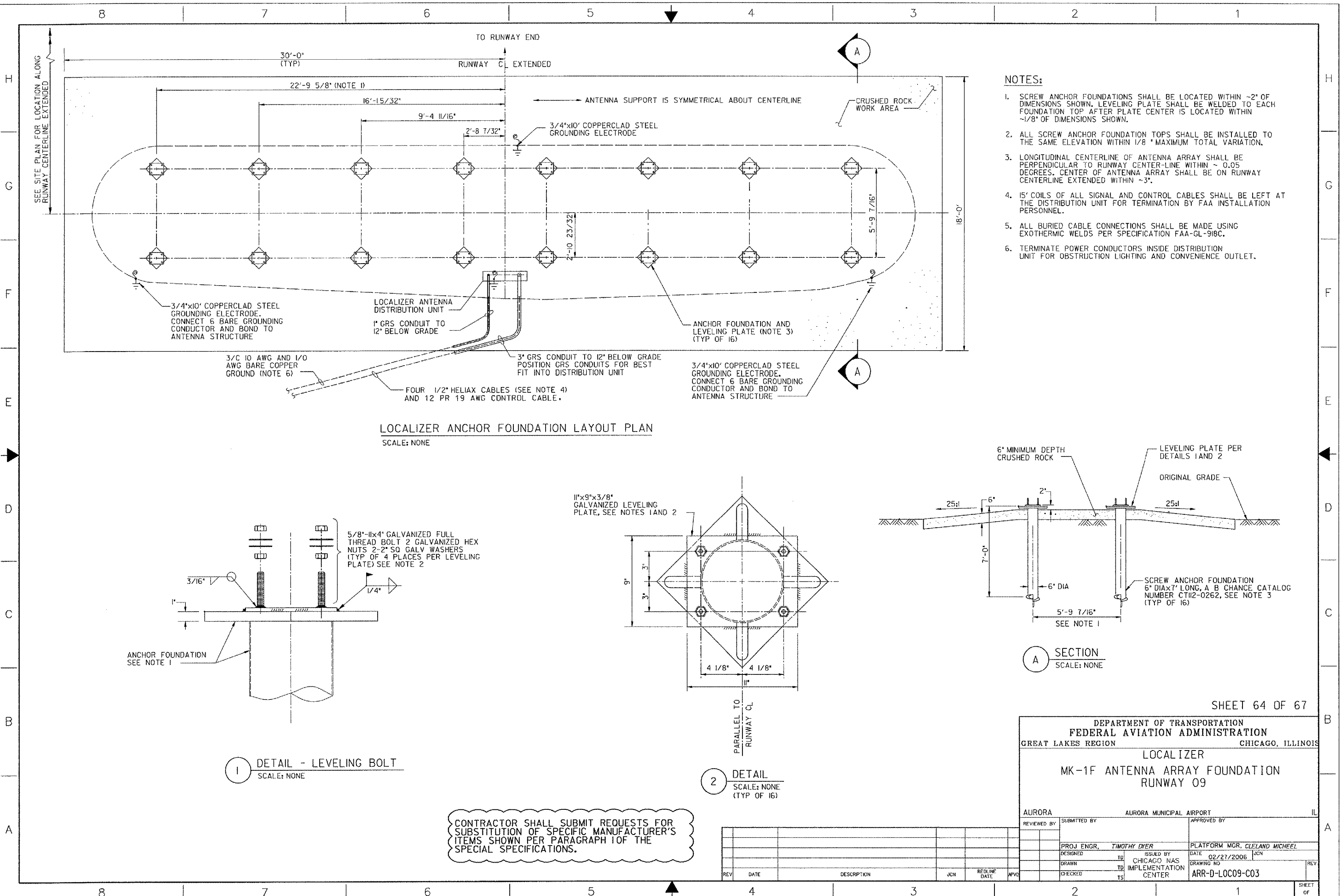
EXISTING BITUMINOUS ROADWAY

**AURORA MUNICIPAL AIRPORT  
 AURORA, ILLINOIS  
 CONSTRUCT RUNWAY 33 ILS,  
 RELOCATE RUNWAY 9 LOCALIZER  
 RUNWAY 9 LOCALIZER  
 SHELTER SITE PLAN  
 ARR-D-LOC9-C02**

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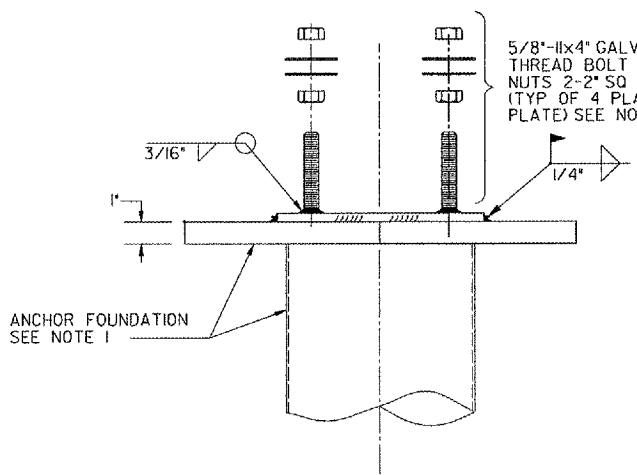
DESIGN BY:	CAL
DRAWN BY:	JRO
CHECKED BY:	CAL
APPROVED BY:	
DATE:	05/12/06
JOB No:	04285-04
ILLINOIS PROJECT: ARR-3468 A.I.P. PROJECT: 3-17-0003-B31 <b>FINAL SUBMITTAL</b>	
SHEET 63 OF 67 SHEETS	

THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MICROSTATION SYSTEM

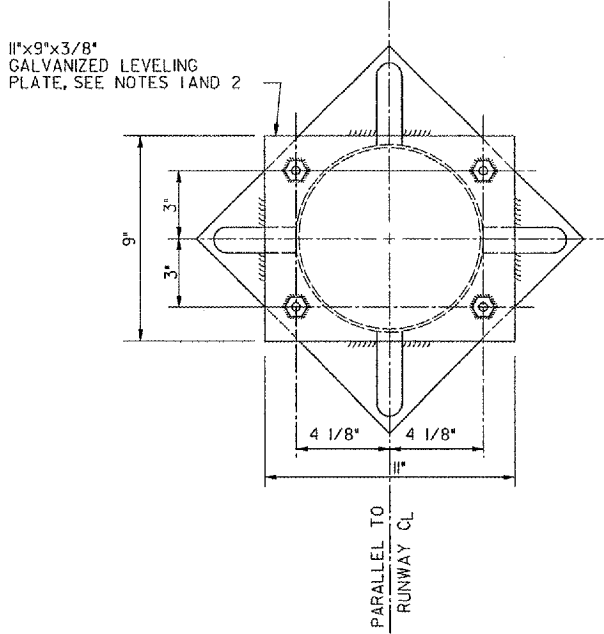


- NOTES:**
1. SCREW ANCHOR FOUNDATIONS SHALL BE LOCATED WITHIN  $\pm 2"$  OF DIMENSIONS SHOWN. LEVELING PLATE SHALL BE WELDED TO EACH FOUNDATION TOP AFTER PLATE CENTER IS LOCATED WITHIN  $\pm 1/8"$  OF DIMENSIONS SHOWN.
  2. ALL SCREW ANCHOR FOUNDATION TOPS SHALL BE INSTALLED TO THE SAME ELEVATION WITHIN  $1/8"$  MAXIMUM TOTAL VARIATION.
  3. LONGITUDINAL CENTERLINE OF ANTENNA ARRAY SHALL BE PERPENDICULAR TO RUNWAY CENTER-LINE WITHIN  $\sim 0.05$  DEGREES. CENTER OF ANTENNA ARRAY SHALL BE ON RUNWAY CENTERLINE EXTENDED WITHIN  $\sim 3"$ .
  4. 15' COILS OF ALL SIGNAL AND CONTROL CABLES SHALL BE LEFT AT THE DISTRIBUTION UNIT FOR TERMINATION BY FAA INSTALLATION PERSONNEL.
  5. ALL BURIED CABLE CONNECTIONS SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATION FAA-GL-918C.
  6. TERMINATE POWER CONDUCTORS INSIDE DISTRIBUTION UNIT FOR OBSTRUCTION LIGHTING AND CONVENIENCE OUTLET.

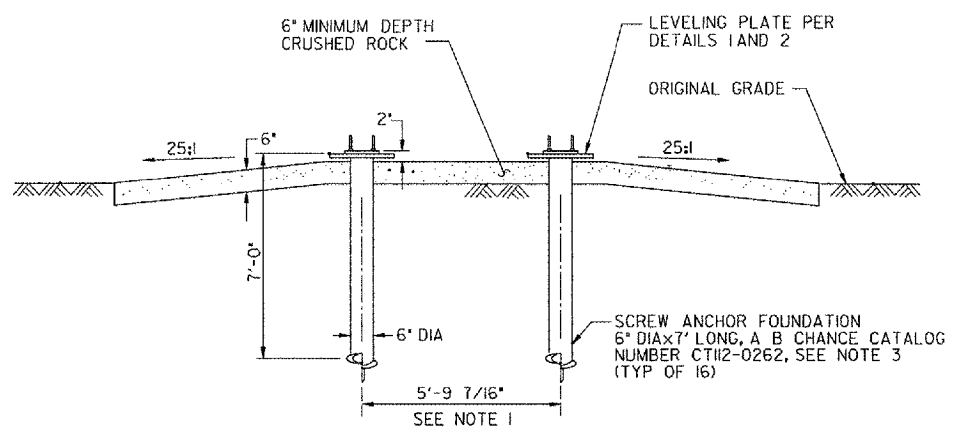
**LOCALIZER ANCHOR FOUNDATION LAYOUT PLAN**  
SCALE: NONE



**1** DETAIL - LEVELING BOLT  
SCALE: NONE



**2** DETAIL  
SCALE: NONE  
(TYP OF 16)



**A** SECTION  
SCALE: NONE

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APPROVED

SHEET 64 OF 67

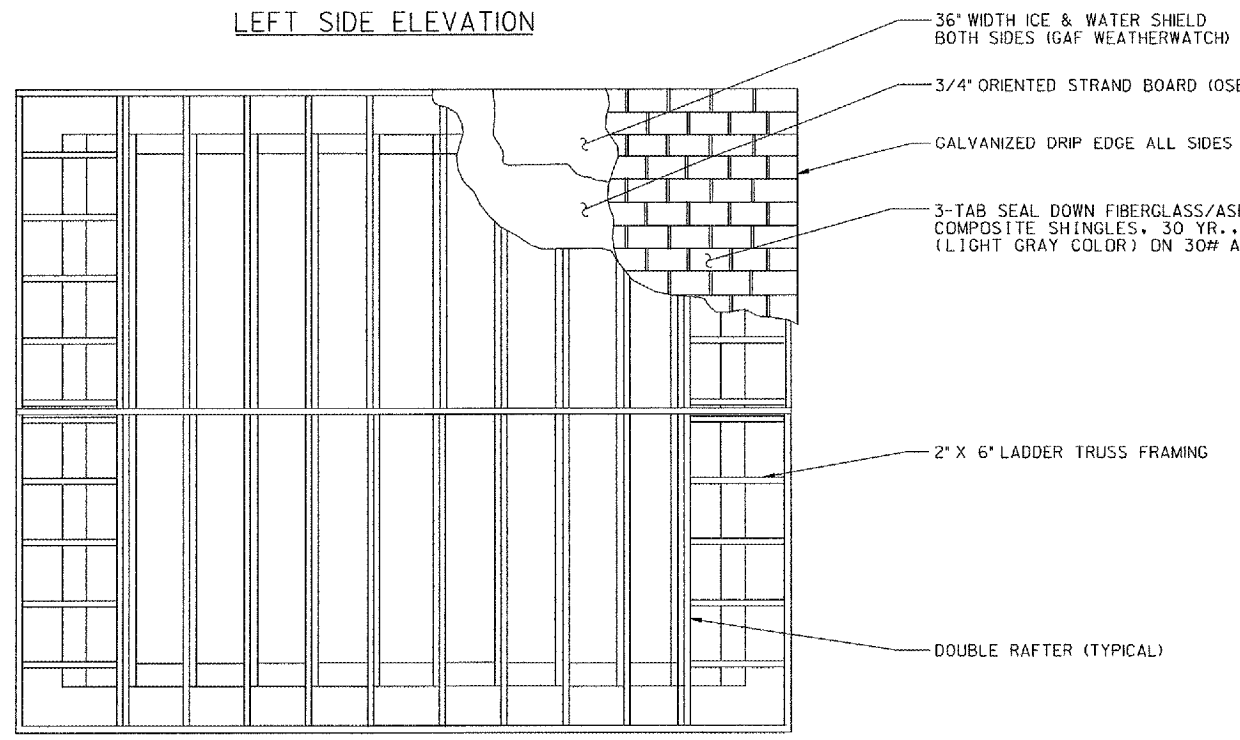
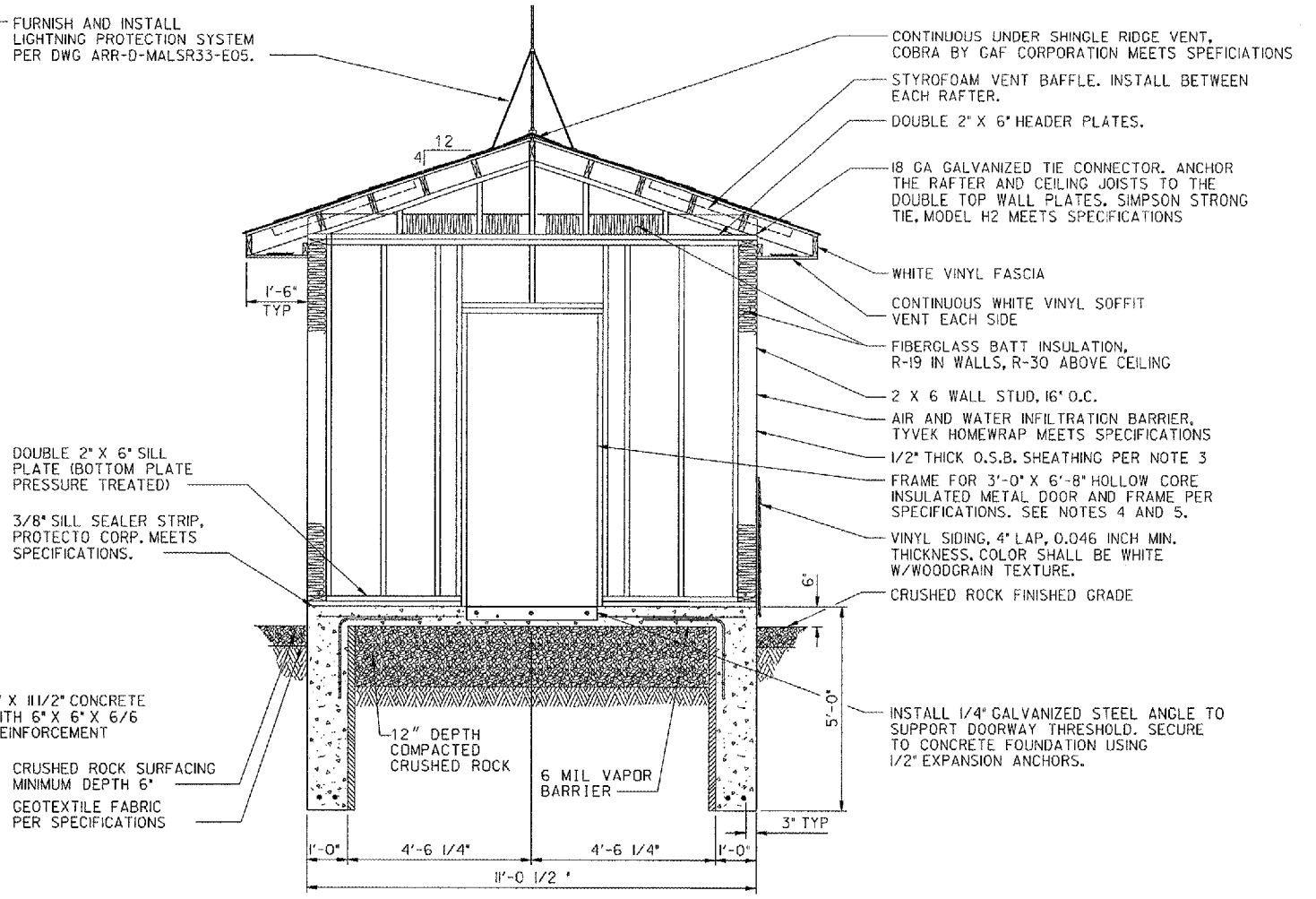
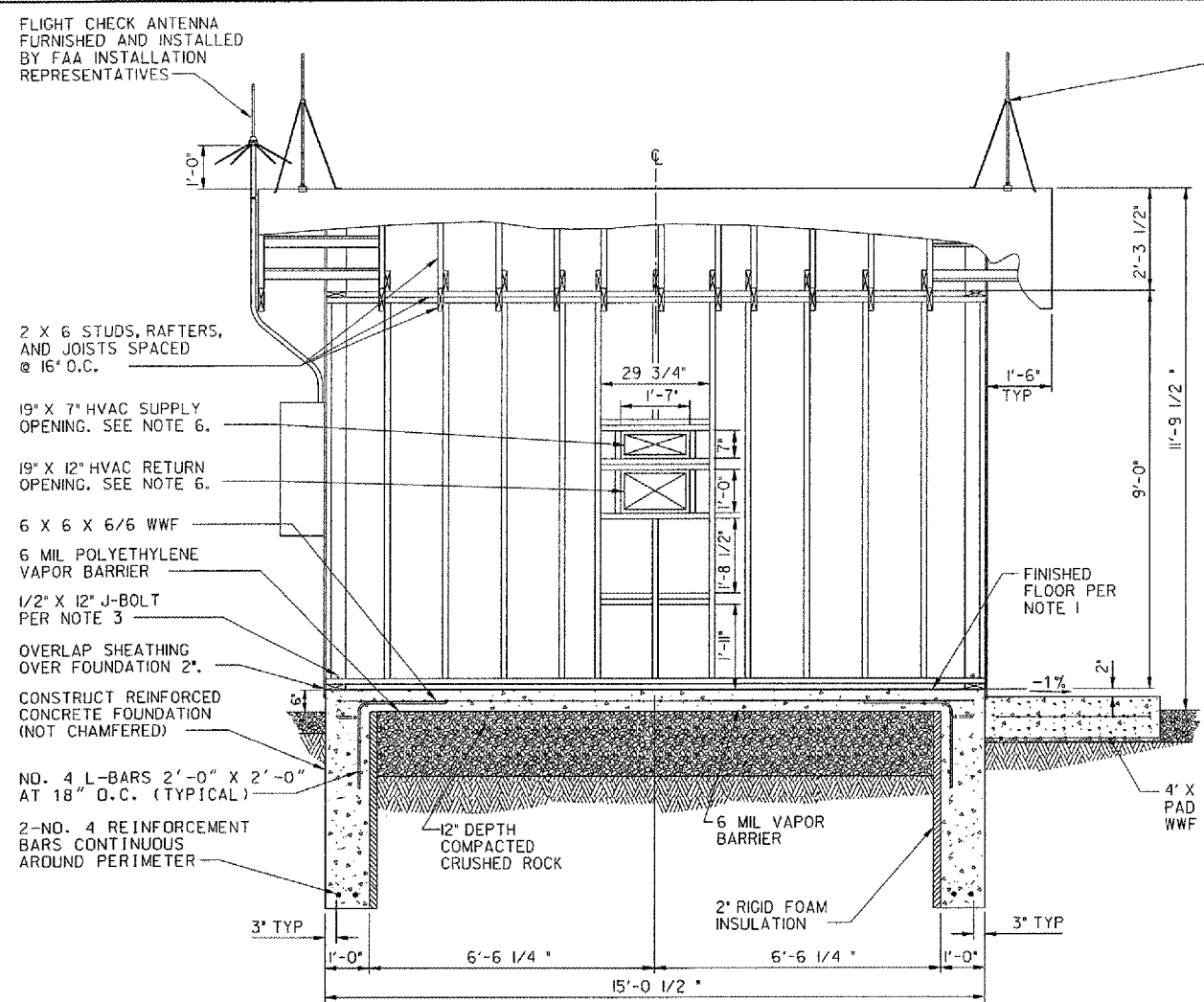
**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**  
GREAT LAKES REGION CHICAGO, ILLINOIS

**LOCALIZER  
MK-1F ANTENNA ARRAY FOUNDATION  
RUNWAY 09**

AURORA		AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY	SUBMITTED BY	APPROVED BY		
DESIGNED	TIMOTHY DYER	PLATFORM MGR,	CLELAND MICHEEL	
DRAWN	CHICAGO NAS	ISSUED BY	DATE 02/27/2006	JCN
CHECKED	IMPLEMENTATION CENTER	DRAWING NO	ARR-D-LOC09-C03	REV

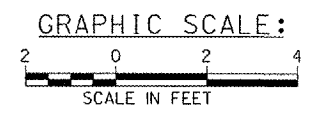
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THIS DRAWING PRODUCED ON THE GREAT LAKES REGION MODIFICATION SYSTEM



- NOTES:**
- 12" SQUARE X 1/8" THICK VINYL FLOOR TILE, ARMSTRONG IMPERIAL OR APPROVED EQUAL, SHALL BE INSTALLED OVER CONCRETE FLOOR SLAB. INSTALL COMPLEMENTING 4" VINYL BASE.
  - INTERIOR FACE OF PLYWOOD SHEATHING ON CEILING AND WALLS SHALL BE APA PANEL GRADE "B". SECURE PLYWOOD TO EACH STUD USING WOOD SCREWS SPACED 16" O.C. BUTT JOINTS SHALL BE BEVELED AND FILLED FLUSH WITH PAINTABLE CAULK. COVER CEILING-TO-WALL SEAMS WITH 1 X 2 WOOD TRIM. INTERIOR SURFACES SHALL BE SANDED SMOOTH AND PAINTED WHITE USING ONE OIL-BASED PRIMER COAT AND TWO COATS OF SEMI-GLOSS LATEX INTERIOR PAINT.
  - EXTERIOR WALLS SHALL BE SHEATHED WITH 1/2" ORIENTED STRAND BOARD (OSB) SHEATHING. SECURE PLYWOOD TO EACH STUD USING RING-SHANK NAILS SPACED 16" O.C. SECURE WALLS TO FOUNDATION USING 1/2" X 12" J-BOLT ANCHORS 3' O.C. MAX. AROUND PERIMETER.
  - DOOR SHALL BE A HOLLOW METAL INSULATED EXTERIOR DOOR, 3'-0" X 6'-8" X 1 3/4", WITH BEST LOCK SET 35H-7-F-3-J-626-LHRB. SUBSTITUTIONS FOR BEST LOCK CORPORATION LOCK SETS WILL BE PERMITTED FOR LOCK SETS THAT ACCEPT BEST CORP. CORES.
  - PAINT DOORS AND FRAMES LIGHT GRAY USING EXTERIOR LATEX PAINT. REFER TO DOOR MANUFACTURER'S FINISHING INSTRUCTIONS.
  - REFER TO HVAC MANUFACTURER'S FRAMING REQUIREMENTS.

CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

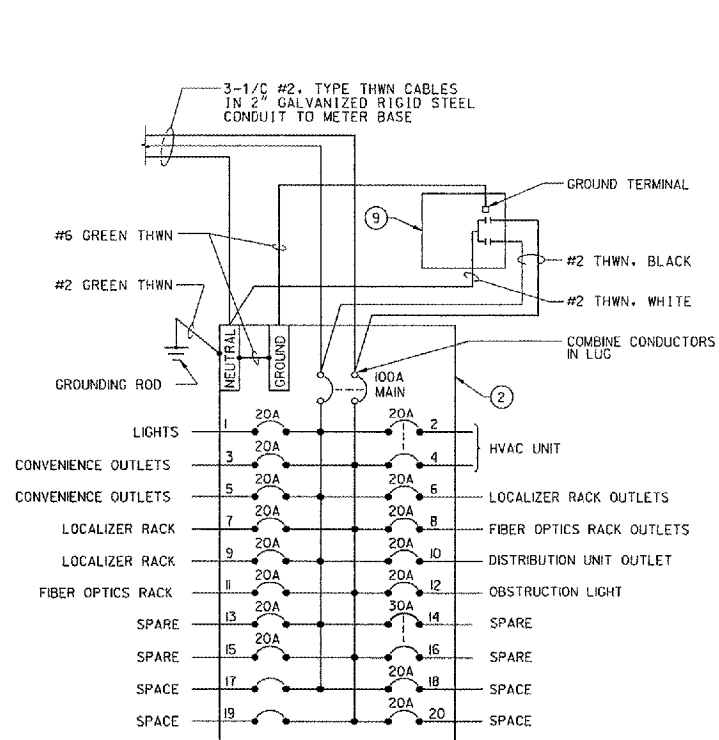
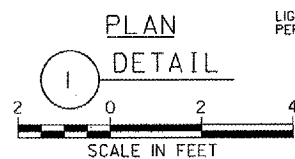
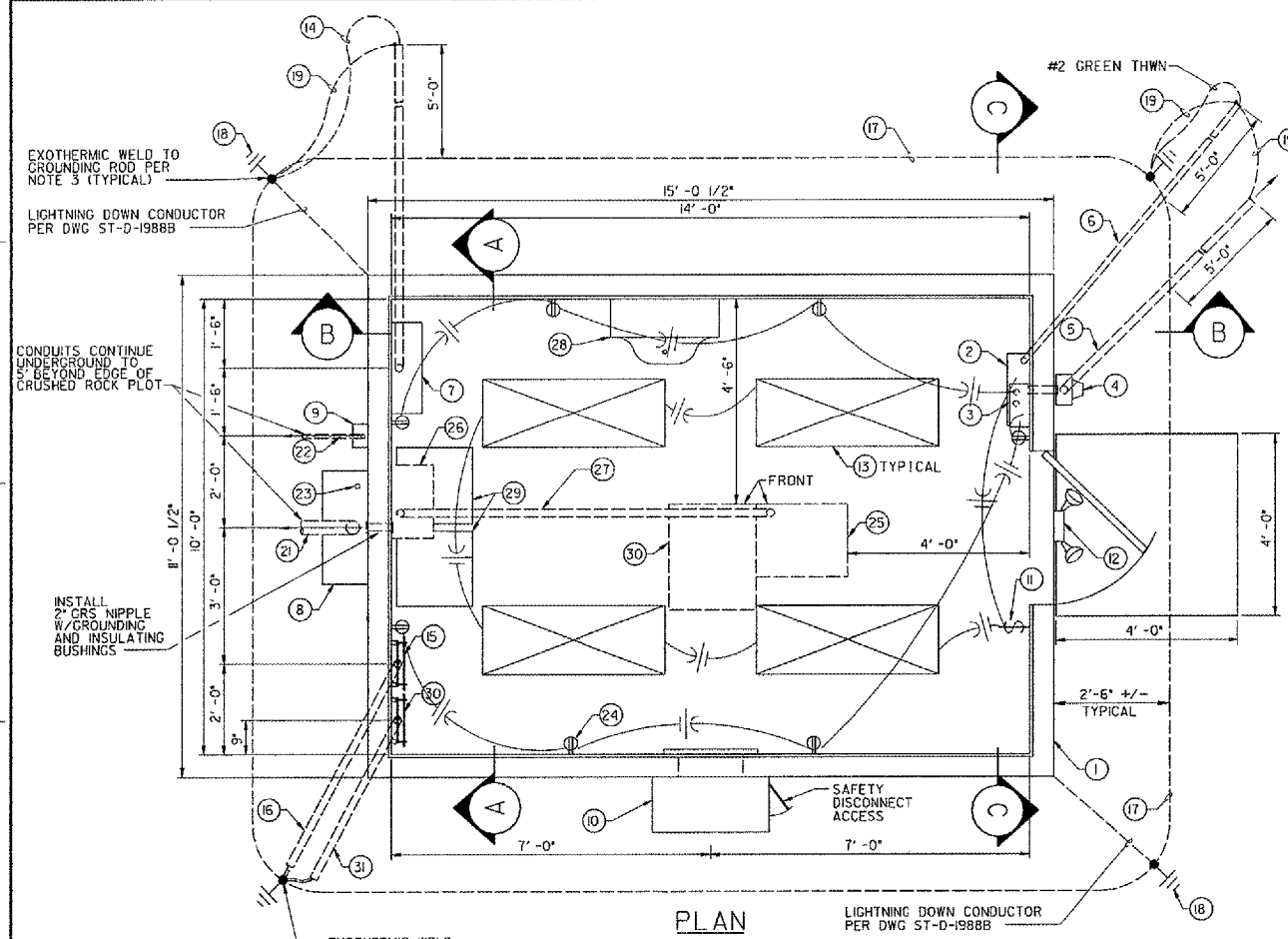


DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION GREAT LAKES REGION		CHICAGO, ILLINOIS	
LOCALIZER			
10' X 14' EQUIPMENT SHELTER FOUNDATION AND FRAMING DETAILS RUNWAY 9			
AURORA	AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY	SUBMITTED BY	APPROVED BY	
DESIGNED	TAD	ISSUED BY	PLATFORM MGR, CLELAND MICHEEL
DRAWN	TAD	DATE	05/03/2006
CHECKED	EGS	IMPLEMENTATION	ARR-D-LOC09-A01

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THIS DRAWING PRODUCED ON THE GREAT LAKES REGION INFORMATION SYSTEM

8 7 6 5 4 3 2 1



POWER PANEL WIRING  
2 DETAIL  
NOT TO SCALE

- NUMBERED LEGEND:** (F&I = FURNISH & INSTALL, I = INSTALL, BO = INSTALLED BY FAA INSTALLATION PERSONNEL)
- F&I 1 REINFORCED CONCRETE FOUNDATION AND WOOD FRAME EQUIPMENT SHELTER PER DWG ARR-D-LOC09-A01.
  - F&I 2 POWER PANEL, SQUARE 'D' CAT NO. N00D20M00C0 IN NEMA 1 ENCLOSURE WITH BOLT-ON BREAKERS. SEE DETAIL '2' FOR BREAKER ASSIGNMENTS.
  - F&I 3 AC SURGE ARRESTER, LIGHTING PROTECTION CORP. CAT. NO. LPC 20206-TAC.
  - F&I 4 ELECTRIC POWER METER. SEE SITE PLAN FOR POWER PROVISION DETAILS.
  - F&I 5 3-1/2\"/>

- NOTES:**
1. LIGHT FIXTURES, POWER PANEL, SURGE ARRESTER, RECEPTACLES, AND LIGHT SWITCHES SHALL BE SURFACE MOUNTED. CONDUIT RUNS SHALL BE INSTALLED PLUMB OR HORIZONTAL WITH MINIMUM NUMBER OF BENDS.
  2. EXTERIOR WALL PENETRATIONS SHALL BE SEALED WITH WATERPROOF SILICONE CAULK.
  3. ALL GROUNDING CONDUCTOR CONNECTIONS TO COUNTERPOISE SHALL BE ATTACHED TO GROUNDING RODS USING EXOTHERMIC WELDS PER SPECIFICATIONS.

SHEET 66 OF 67

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

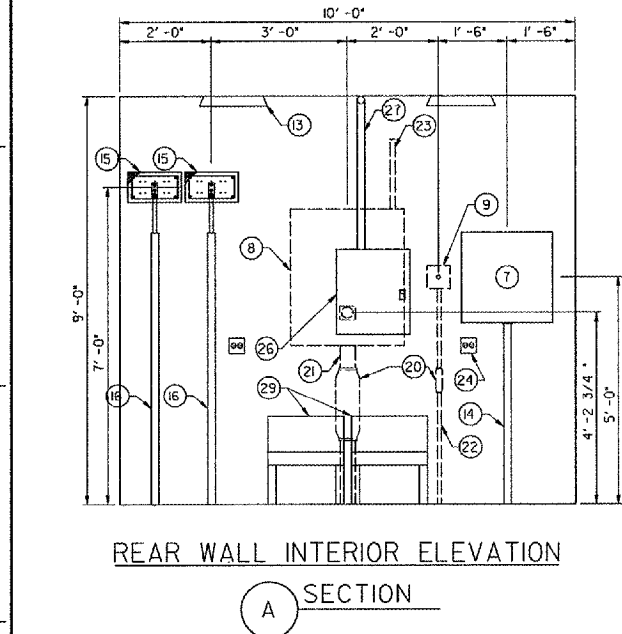
LOCALIZER  
10' X 14' EQUIPMENT SHELTER  
FLOOR PLAN AND INTERIOR ELEVATIONS  
RUNWAY 9

AURORA		AURORA MUNICIPAL AIRPORT		IL
REVIEWED BY	SUBMITTED BY	APPROVED BY		
DESIGNED	TAD	ISSUED BY	PLATFORM MGR,	CLELAND MICHEEL
DRAWN	TAD	IMPLEMENTATION	DATE	05/03/2006
CHECKED	EGS	CENTER	DRAWING NO	ARR-D-LOC09-A02

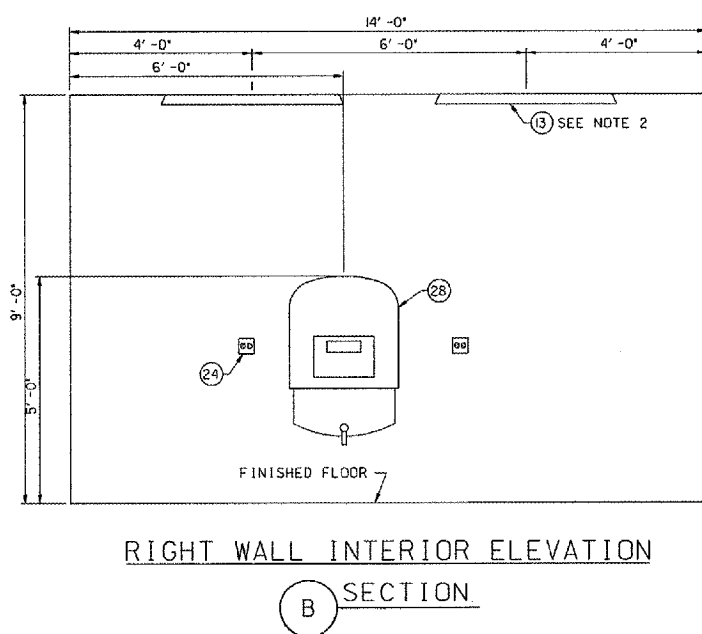
CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH 1 OF THE SPECIAL SPECIFICATIONS.

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

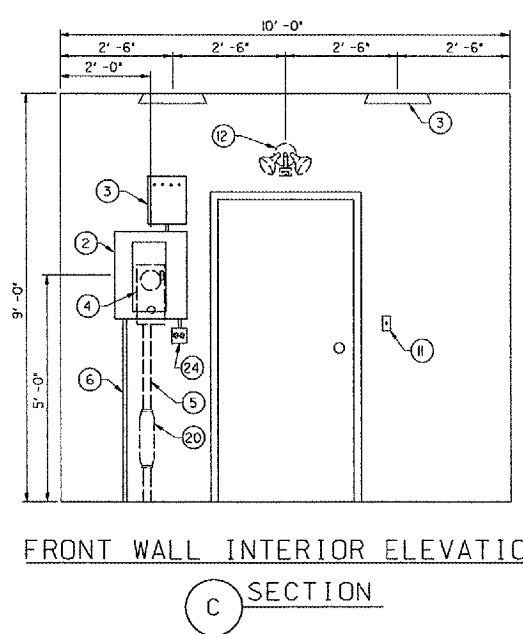
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5/16/2008 5:11:33 PM SHANE3



REAR WALL INTERIOR ELEVATION  
A SECTION



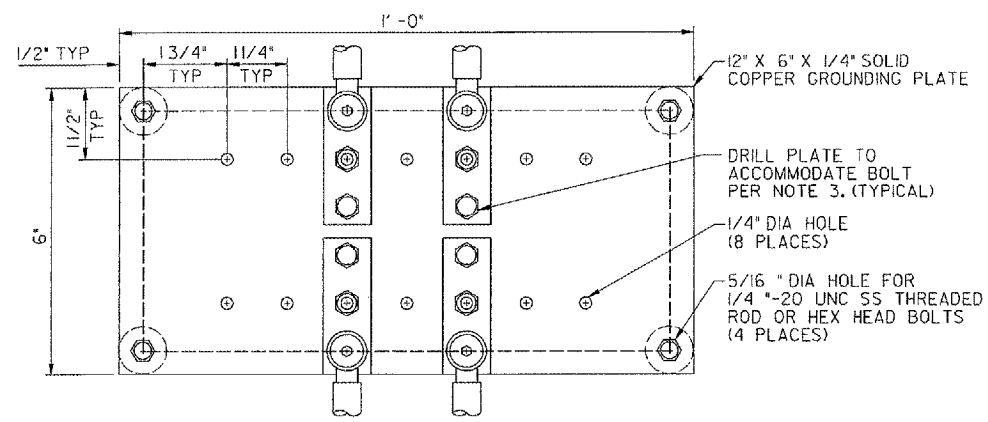
RIGHT WALL INTERIOR ELEVATION  
B SECTION



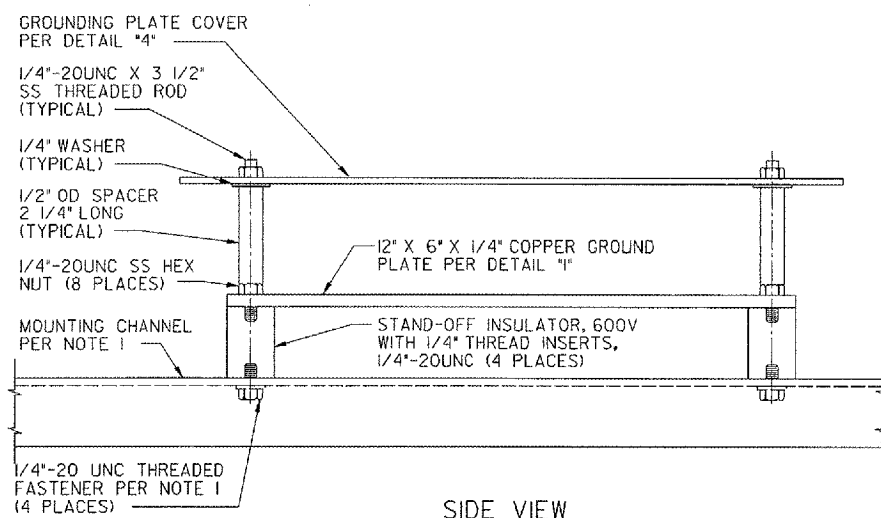
FRONT WALL INTERIOR ELEVATION  
C SECTION

8 7 6 5 4 3 2 1





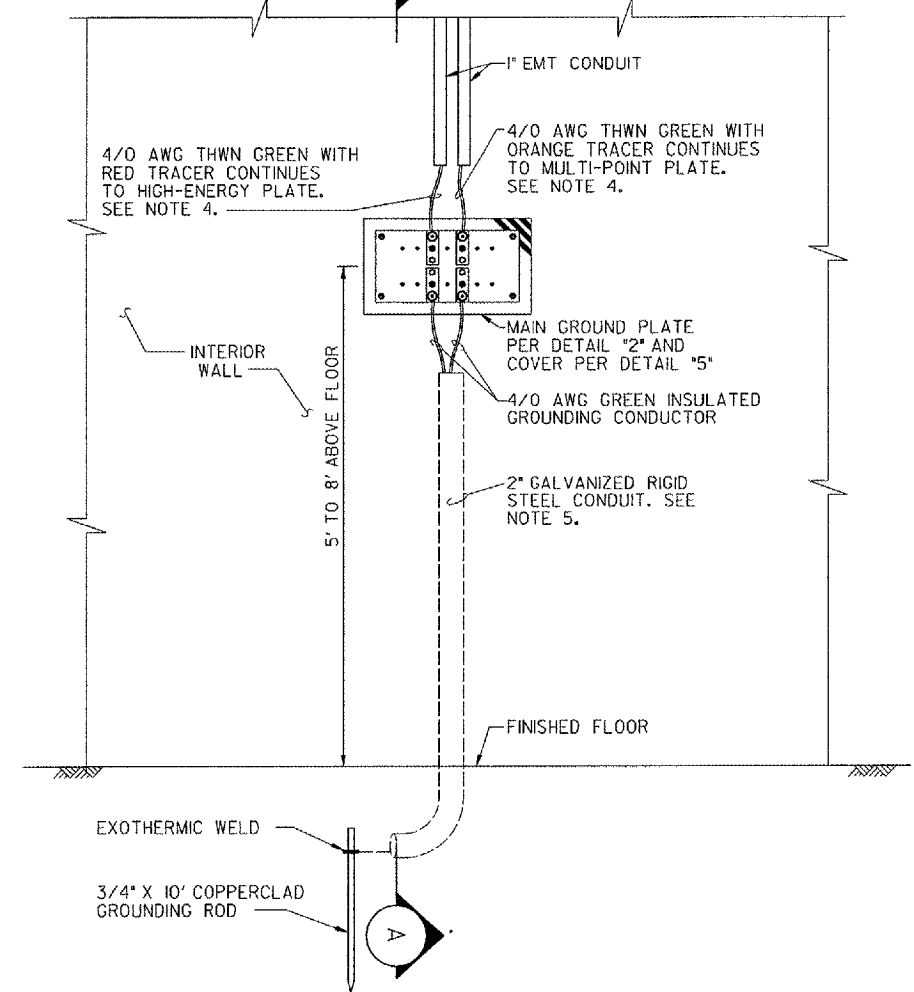
PLAN  
COPPER GROUNDING PLATE  
1 DETAIL  
NOT TO SCALE



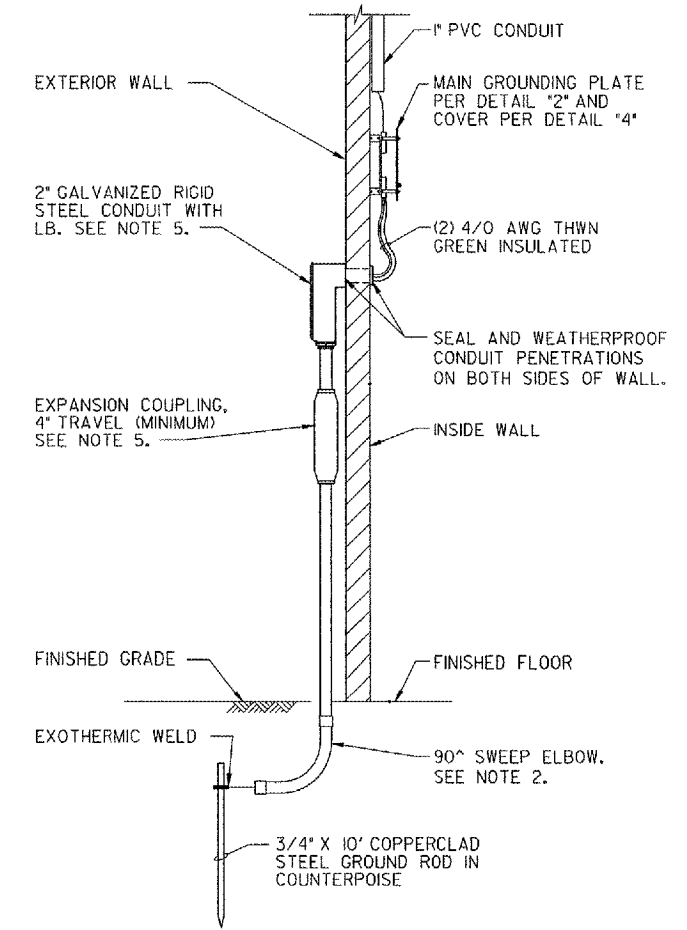
SIDE VIEW  
GROUNDING PLATE ASSEMBLY  
2 DETAIL  
NOT TO SCALE

NOTES:

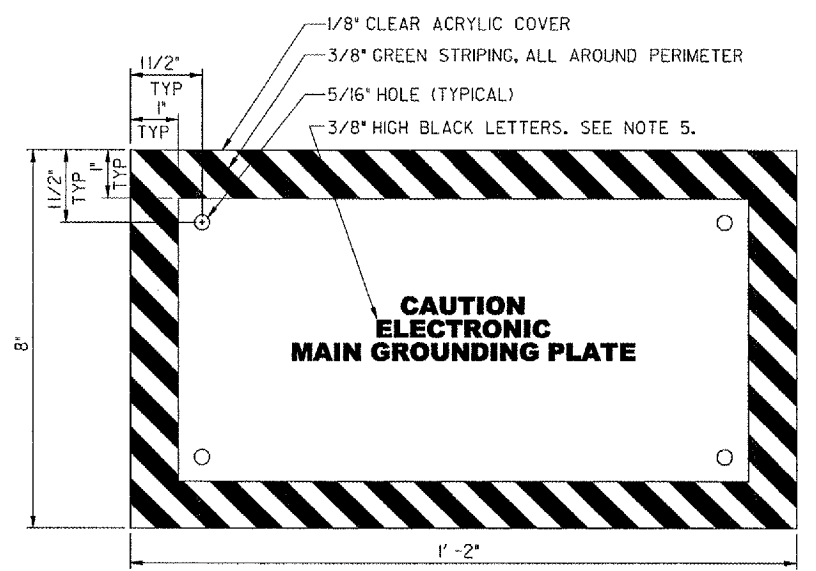
1. P1000 GALVANIZED UNISTRUT CHANNEL SHALL BE USED TO SECURE THE STAND-OFF INSULATORS TO THE WALL.
2. GRS CONDUITS SHALL BE INSTALLED WITH GROUNDING BUSHINGS AT EACH END INTER-CONNECTED USING A 6 AWG BARE COPPER GROUNDING CONDUCTOR. CONNECT CONDUCTOR TO A GROUNDING ROD USING AN EXOTHERMIC WELD.
3. TWO-BOLT CONNECTORS WITH SILICON BRONZE 3/8"-16 UNC X 11/2" HEX HEAD BOLT, NUT, AND LOCK WASHER ARE REQUIRED FOR ALL CONDUCTORS TO BE CONNECTED TO THE GROUNDING PLATES. ONE-BOLT CONNECTORS ARE NOT ACCEPTABLE. NOTE THAT ONLY ONE OF THE HOLES REQUIRED FOR INSTALLING EACH 2-BOLT CONNECTOR IS SPECIFIED IN DETAIL 1. THE INSTALLER OF THE CONNECTOR SHALL DRILL THE SECOND HOLE TO MATCH THE BOLT PATTERN OF THE SELECTED CONNECTOR.
4. GROUNDING PLATES AND COVERS FOR HIGH ENERGY GROUNDING PLATE AND MULTI-POINT GROUNDING PLATES ARE CONSTRUCTED IDENTICALLY TO THE MAIN GROUNDING PLATE WITH THE EXCEPTION THAT THE COVER SHOULD BE LABELLED "HIGH ENERGY GROUNDING PLATE" AND "MULTI-POINT GROUNDING PLATE" INSTEAD OF "MAIN GROUNDING PLATE". SEE DWG ARR-D-LOC04-A01 FOR GROUNDING PLATE TYPE AND LOCATION DETAILS.
5. CONDUIT SHALL BE INSTALLED ON THE INSIDE WALL FOR NEW SHELTER CONSTRUCTION. WHEN INSTALLED ON INSIDE WALL, EXPANSION COUPLING AND LB ARE NOT REQUIRED.



ELEVATION VIEW  
MAIN GROUNDING PLATE INSTALLATION  
3 DETAIL  
NOT TO SCALE



GROUNDING CONDUCTORS IN  
CONDUIT ON OUTSIDE WALL  
A SECTION  
NOT TO SCALE



TYPICAL PLASTIC COVER  
FOR GROUNDING PLATES  
4 DETAIL  
NOT TO SCALE

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
GREAT LAKES REGION CHICAGO, ILLINOIS

LOCALIZER

GROUNDING PLATE AND COVER DETAILS  
RUNWAY 9

AURORA AURORA MUNICIPAL AIRPORT IL

REVIEWED BY	SUBMITTED BY	APPROVED BY
DESIGNED	ISSUED BY	DATE
DRAWN	IMPLEMENTATION	DRAWING NO
CHECKED	EGS	ARR-D-LOC09-E01

PROJ ENGR, TIMOTHY DYER  
PLATFORM MGR, CLELAND MICHEEL  
DATE 05/03/2006  
JCN  
CHICAGO NAS  
CENTER

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

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