CONSTRUCTION PLANS FOR GALESBURG MUNICIPAL AIRPORT

GALESBURG, KNOX COUNTY, ILLINOIS

NSTALL NEW EDGE LIGHTING SYSTEMS ON RUNWAY 3-21 AND RUNWAY 10-28

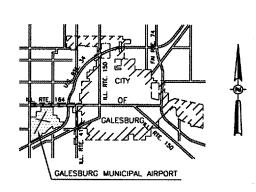
AND THEIR ASSOCIATED TAXIWAYS

CONSTRUCT NEW ELECTRICAL VAULT FOR AIRFIELD LIGHTING

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ILLINOIS PROJECT NO. GBG-3433 AIP PROJECT NO. 3-17-0047-B8

MARCH 24, 2006



VICINITY MAP



PLANS PREPARED BY :

HUTCHISON ENGINEERING, INC.

JACKSONVILLE, ILLINOIS

CITY OF GALESBURG, ILLINOIS

APPROVED Sary Cox DIRECTOR OF PUBLIC WORK

APPROVED Wagner & Clark City ENG'R.
DATE MARCH 11, 2006

SUMMARY OF QUANTITIES					
ITEM NO.	DESCRIPTION	UNIT	AS BID QUANTITY	AS BUILT QUANTITY	
AR108000	CABLE TRENCH	UN. FT.	120	**************************************	
AR108108	1/C #8 5 KV UG CABLE	UN. FT.	4,130	***************************************	
AR108158	I/C #8 5 KV UG CABLE IN UD	LIN. FT.	56,005		
AR109100	CONSTRUCT ELECTRICAL VAULT	L. SUM	1		
AR109200	INSTALL ELECTRICAL EQUIPMENT	L. SUM	1	······	
AR109311	7.5 KW REGULATOR, STYLE 1	EACH	2		
AR109341	20 KW REGULATOR, STYLE 1	EACH	1		
AR109342	20 KW REGULATOR, STYLE 2	EACH	1		
AR109530	POWER CABLE INSTALLATION	L. SUM	1		
AR109535	ELECTRIC SERVICE ENTRANCE	L. SUM	1		
AR109600	L-821 CONTROL PANEL	EACH	1	***************************************	
AR109610	L-854 PCAL SYSTEM	L. SUM	1	***************************************	
AR109902	REMOVE ELECTRICAL EQUIPMENT	L. SUM	1		
AR109903	REMOVE REGULATOR	EACH	6		
AR109909	REMOVE CONTROL PANEL	L. SUM	1		
AR109910	REMOVE ELECTRICAL TRANSCLOSURE	L. SUM	1		
AR110314	4" STEEL DUCT, JACKED	LIN. FT.	146		
AR110710	ELECTRICAL MANHOLE	EACH	1		
AR125410	MITL-STAKE MOUNTED	EACH	287		
AR125415	MITL-BASE MOUNTED	EACH	32		
AR125442	TAXI GUIDANCE SIGN, 2 CHARACTER	EACH	16	**************************************	
AR125443	TAXI GUIDANCE SIGN, 3 CHARACTER	EACH	5		
AR125444	TAXI GUIDANCE SIGN, 4 CHARACTER	EACH	7		
AR125445	TAXI GUIDANCE SIGN, 5 CHARACTER	EACH	3		
AR125448	TAXI GUIDANCE SIGN, 8 CHARACTER	EACH	1		
AR125449	TAXI GUIDANCE SIGN, 9 CHARACTER	EACH	4		
AR125505	MIRL, STAKE MOUNTED	EACH	26		
AR125510	MIRL, BASE MOUNTED	EACH	8		
AR125515	HIRL, BASE MOUNTED	EACH	62	·····	
AR125540	MI THRESHOLD LIGHT STAKE MTD	EACH	16	***************************************	
AR125550	HI THRESHOLD LIGHT BASE MTD	EACH	16	***************************************	
AR125565	SPLICE CAN	EACH	1		
AR125610	REILS	PAIR	1		
AR125901	REMOVE STAKE MOUNTED LIGHT	EACH	305		
AR125902	REMOVE BASE MOUNTED LIGHT	EACH	114		
AR125904	REMOVE TAXI GUIDANCE SIGN	EACH	50		
AR125907	REMOVE REILS	PAIR	1		
AR150530	TRAFFIC MAINTENANCE	L. SUM	1		
AR501605	5" PCC SIDEWALK	SQ. FT.	72		

GALESBURG MUNICIPAL AIRPORT GALESBURG, ILLINOIS

SUMMARY OF QUANTITIES

HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS

DRAWN BY: T.J.D. DATE: MARCH, 2006 LL. PROJ. NO. GBG-3433 AP PROJ. NO. 3-17-0047-88

RECOMMENDED CONSTRUCTION SEQUENCE

PLACE LIGHTED BARRICADES AT 15' ± CENTERS TO KEEP AIRCRAFT FROM USING TAXIWAYS TO

RUNWAY 3-21 WHILE WORK IS BEING DONE ON RUNWAY. (TYPICAL AT ALL DESIGNATED TAXIWAYS)

APPROXIMATE LOCATION OF CONTRACTOR'S EMPLOYEE PARKING - COORDINATE WITH

APPROXIMATE LOCATION OF CONTRACTOR'S EQUIPMENT STORAGE AREA - COORDINATE

EXISTING TVOR

AIRPORT MANAGEMENT.

WITH AIRPORT MANAGEMENT.

RUNWAY END 10

ELEV. 757.3

PLACE CLOSED RUNWAY MARKER OVER RUNWAY NUMERALS TO CLOSE RUNWAY 3-21 WHEN WORKING ALONG THE RUNWAY AND WITHIN 200' EACH SIDE OF THE RUNWAY CENTERLINE. (TYPICAL

EACH END OF RUNWAY)

.

LAT. 40°56'20.737"

LONG. 90°26'12.670"

CLOSED RUNWAY

--- :

ROUTE

3-

1752

PLACE CLOSED RUNWAY MARKER OVER RUNWAY NUMERALS TO CLOSE RUNWAY

10-28 WHEN WORKING ALONG THE RUNWAY AND WITHIN 200' EACH SIDE OF THE RUNWAY CENTERLINE. (TYPICAL

EACH END OF RUNWAY)

_RUNWAY 10-28//

RUNWAY END 3 LAT. 40°55'51.245" LONG. 90°26'11.362"

ELEV. 754.5

- 1. CLOSE RUNWAY 10-28 AND ITS PARALLEL TAXIWAY B. ALSO CLOSE TAXIWAY A THAT PARALLELS RUNWAY 3-21 AND THE TAXIWAYS CONNECTING TO RUNWAY 3-21 (TAXIWAYS A, C, E AND F), LEAVING TAXIWAY D AND RUNWAY 3-21 OPEN TO TRAFFIC.
- 2. REMOVE THE EXISTING LIGHTING SYSTEM COMPONENTS FROM THE CLOSED PAVEMENTS AND INSTRALL THE NEW LIGHTING SYSTEM FIXTURES AND CABLING ON THESE CLOSED PAVEMENTS. MAINTAIN OPERATION OF THE EXISTING LIGHTS ON RUNWAY 3-21 WHILE IT IS OPEN TO AIR TRAFFIC. AT SUCH TIME AS THE WORK IS COMPLETED ON THE LIGHTING SYSTEM ON TAXIWAY C, OPEN SAID TAXIWAY C TO TRAFFIC ACCESS TO RUNWAY 3-21. CLOSE TAXIWAY D AND PERFORM REMOVAL AND REPLACEMENT OF THE LIGHTING SYSTEM COMPONENTS ON TAXIWAY D.
- 3. DURING THE TIME PERIOD THAT WORK IS BEING ACCOMPLISHED ON THE PAVEMENTS IDENTIFIED IN ITEMS 1 AND 2 ABOVE, CONSTRUCT THE NEW ELECTRICAL VAULT BUILDING INCLUDING THE INSTALLATION OF THE POWER AND CONTROL EQUIPMENT TO BE INSTALLED IN THE ELECTRICAL VAULT.
- 4. OPEN RUNWAY 10-28 AND ALL TAXIWAY PAVEMENTS TO TRAFFIC AND CLOSE RUNWAY 3-21 TO TRAFFIC. MAKE SUFFICIENT CONNECTIONS AS NECESSARY TO POWER THE RUNWAY 10-28 AND TAXIWAY LIGHTING CIRCUITS FROM THE NEW VAULT. COORDINATE SHUTDOWN OF THE FAA ILS SYSTEM AND VASI UNITS THROUGH THE AIRPORT MANAGER TO COINCIDE WITH THE CLOSURE OF RUNWAY 3-21. WHEN WORKING ON THE RUNWAY 3-21 LIGHTING SYSTEM COMPONENTS IN THE AREA OF THE INTERSECTION WITH RUNWAY 10-28, TEMPORARILY CLOSE RUNWAY 10-28 DURING WORKING HOURS TO COMPLETE THE WORK. THE EDGE LIGHTS FOR RUNWAY 10-28 SHALL BE OPERABLE AT THE END OF EACH WORK DAY AND RUNWAY 10-28 SHALL BE OPEN TO AIR TRAFFIC DURING NIGHT TIME HOURS WHILE WORK IS BEING PERFORMED AT THE RUNWAY INTERSECTION. THE EXISTING METAL TRANSCLOSURE AND ITS CONCRETE BASE CAN ALSO BE REMOVED DURING THIS PHASE OF WORK.
- 5. UPON COMPLETION OF THE NEW LIGHTING INSTALLATION ON RUNWAY 3-21, COORDINATE THE RE-ACTIVATION OF THE FAA ILS SYSTEM AND VASI UNITS THROUGH THE AIRPORT MANAGER AND RE-OPEN RUNWAY 3-21 TO AIR TRAFFIC. PERFORM ALL INCIDENTAL CONSTRUCTION AND ITEMS REQUIRED TO COMPLETE THE PROJECT.
- B. ALTERNATE SEQUENCES SUGGESTED BY THE CONTRACTOR WILL BE REVIEWED AND, IF APPROVED BY THE ENGINEER AND AIRPORT MANAGER, WILL BE PERMITTED.

GENERAL NOTES

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

COUNTY - KNOX
CITY - GALESBURG
TOWNSHIP - T. 11 N., R. 1 E. 4th P.M.
SECTION NO. - 18 & 19

CLOSED RUNWAY MARKER DETAIL

1. CLOSED RUNWAY MARKER SHALL BE YELLOW IN COLOR.

RUNWAY END 21 LAT. 40°56'41.704"

ELEV. 764.2

CLOSED RUNWAY

INACTIVE CONTROL TOWER

LONG. 90°25'35.730"

amminini

LAT. 40°56'13.945"

ELEV. 757.4

RUNWAY

LONG. 90°25'26.621"

GRAPHIC SCALE IN FEET

PLACE LIGHTED BARRICADES AT 15' ± CENTERS
TO KEEP AIRCRAFT FROM USING TAXIWAYS TO
RUNWAY 10-28 WHILE WORK IS BEING DONE ON

THE RUNWAY AND TAXIWAY B

THIIIIII

. CLOSED RUNWAY MARKER SHALL BE PAINTED PLYWOOD, PLASTIC SHEETING WEIGHTED DOWN WITH SANDBAGS, OR OTHER APPROVED MATERIALS ACCEPTABLE TO THE ENGINEER.

CLOSED RUNWAY MARKER

- 3. CONTRACTOR SHALL MAINTAIN MARKERS AS DIRECTED BY THE RESIDENT ENGINEER.
- THE COST OF FURNISHING, PLACING, MAINTAINING, AND REMOVING CLOSED RUNWAY MARKERS SHALL BE PAID FOR UNDER ITEM AR150530 TRAFFIC MAINTENANCE.

CONSTRUCTION PROCEDURE NOTES

- 1. ALL CONTRACTOR EMPLOYEES WILL PARK THEIR PERSONAL VEHICLES IN THE AREA DESIGNATED BY THE AIRPORT MANAGER FOR USE AS A VEHICLE PARKING AREA. THE CONTRACTOR WILL BE RESPONSIBLE FOR TRANSPORTING EMPLOYEES TO THE PROPOSED CONSTRUCTION SITE. ONLY AUTHORIZED CONTRACTOR VEHICLES WILL BE ALLOWED ON THE AIR OPERATIONS AREA OF THE AIRPORT AND ON THE CONSTRUCTION SITE.
- 2. FLAGS WILL BE REQUIRED ON ALL CONTRACTOR'S VEHICLES AND EQUIPMENT USED ON THE AIRPORT OPERATIONS AREA AND CONSTRUCTION SITE. THE FLAGS SHALL BE THREE (3) FOOT SQUARE CHECKERED FLAGS (INTERNATIONAL ORANGE AND WHITE) DISPLAYED IN FULL VIEW ABOVE THE VEHICLE.
- 3. THE CONTRACTOR WILL USE THE DESIGNATED HAUL ROUTE AND EQUIPMENT STORAGE AREA SHOWN ON THIS SHEET. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE DESIGNATED HAUL ROUTE AND EQUIPMENT STORAGE AREA FOR THE DURATION OF THE PROJECT. ANY DAMAGE TO EXISTING PAVEMENTS USED TO HAUL MATERIAL TO THE CONSTRUCTION SITE WILL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE TO THE SATISFACTION OF THE AIRPORT MANAGER AND THE RESIDENT ENGINEER.
- 4. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND REMOVE ALL BARRICADES REQUIRED TO DELINEATE THE WORK AREA AND KEEP AIRCRAFT FROM ENCROACHING INTO SAID WORK AREA. THIS REQUIREMENT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- CONSTRUCTION ACTIVITY CONTROL AND OPERATION AREA PROTECTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH FAA ADVISORY CIRCULAR NO. 150/5370-2E.
- 6. THE MAXIMUM CONSTRUCTION EQUIPMENT HEIGHT UTILIZED ON THE AIRPORT FOR THIS PROJECT SHALL BE 30'.
- 7. THIS PROJECT CONSISTS OF WORK TO INSTALL NEW EDGE LIGHTING SYSTEMS ON RUNWAY 3-21 AND RUNWAY 10-28 AND THEIR ASSOCIATED TAXIWAYS AND TO CONSTRUCT A NEW ELECTRICAL VAULT FOR THE AIRFIELD LIGHTING.
- 8. THE CONTRACTOR SHALL COORDINATE A METHOD OF DISABLING THE RUNWAY 3-21 EDGE LIGHTS WITH THE AIRPORT MANAGEMENT SO AS TO KEEP THE LIGHTS INCPERABLE WHILE THE RUNWAY IS CLOSED TO AIR TRAFFIC. THE RUNWAY 10-28 EDGE LIGHTS SHALL ALSO BE DISABLED WHEN THAT RUNWAY IS CLOSED TO AIR TRAFFIC. THE COST OF DISABLING AND RE-ENERGIZING THE EDGE LIGHT CIRCUITS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 9. THE UNICOM FREQUENCY AT THE AIRPORT IS 123.0 MHZ. THE CONTRACTOR SHALL FURNISH A FLAGMAN WITH A RADIO IN HIS POSSESSION TO MONITOR AIR TRAFFIC ON THIS FREQUENCY AND DIRECT HAULING EQUIPMENT ACROSS ACTIVE RUNWAYS DURING CONSTRUCTION. NO VEHICLE, EQUIPMENT OR PERSON SHALL CROSS AN ACTIVE RUNWAY WITHOUT RECEIVING CLEARANCE TO CROSS FROM THE FLAGMAN. VEHICLE DRIVERS SHALL ALSO CONFIRM BY PERSONAL OBSERVATION THAT NO AIRCRAFT IS APPROACHING WHEN GIVEN CLEARANCE TO CROSS.
- 10. PRIOR TO THE OPERATION OF ANY CONSTRUCTION VEHICLES WITHIN THE AIR OPERATIONS AREA, IT WILL BE REQUIRED THAT THE CONTRACTOR RECEIVE TRAINING FROM THE AIRPORT MANAGEMENT REGARDING PROCEDURES FOR VEHICLE OPERATIONS TO ENSURE AIRCRAFT SAFETY DURING CONSTRUCTION. IT WILL BE REQUIRED THAT THE CONTRACTOR RECEIVE PERMISSION FROM THE AIRPORT MANAGEMENT IN ADVANCE OF ANY ACTIVITY SPECIFIC TO THE DAY, TIME AND EXACT PURPOSE OF ANY NEED TO ENTER THE AIRPORT OPERATIONS AREA.
- 11. THIS PROJECT WILL DISTURB LESS THAN 1 ACRE OF LAND.

LEGEND

CONTRACTOR'S ACCESS/HAUL ROUTE

LOCATION OF LIGHTED BARRICADES (USING FLASHING RED LIGHTS)

- ① INSTALL NEW EDGE LIGHTING SYSTEM ON RUNWAY 3-21.
- (2) INSTALL NEW EDGE LIGHTING SYSTEM ON RUNWAY 10-28,
- (3) INSTALL NEW EDGE LIGHTING SYSTEM ON ALL TAXIWAYS ASSOCIATED WITH RUNWAYS 3-21 AND 10-28.

GALESBURG MUNICIPAL AIRPORT GALESBURG, ILLINOIS

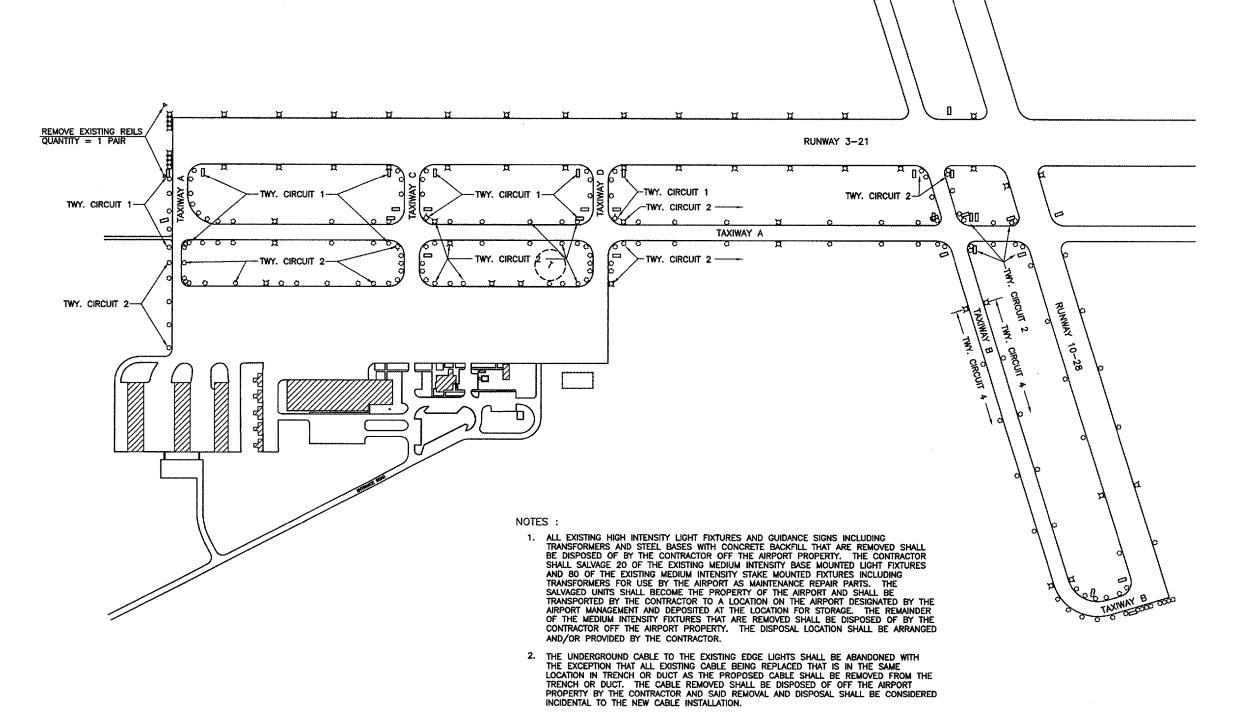
IMPROVEMENT AND SAFETY PLAN

HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS

DRAWN BY: T.J.D.

ILL. PROJ. NO. GBG-3433 AIP PROJ. NO. 3-17-0047-B8

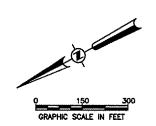




LEGEND

- X EXISTING BASE MOUNTED LIGHT TO BE REMOVED
- O EXISTING STAKE MOUNTED LIGHT TO BE REMOVED
- EXISTING TAXI GUIDANCE SIGN TO BE REMOVED

EXISTING EDGE LIGHTING UNIT REMOVAL SCHEDULE THIS SHEET						
DESCRIPTION	REMOVE BASE MOUNTED LIGHT EACH	REMOVE STAKE MOUNTED LIGHT EACH	REMOVE TAXI GUIDANCE SIGN EACH	REMOVE REILS PAIR		
EXISTING RUNWAY 3-21 CIRCUIT	36		1	1		
EXISTING RUNWAY 10-28 CIRCUIT	4	18	1			
EXISTING TAXIWAY CIRCUIT 1 (TWY. A, C & D)	4	35	13			
EXISTING TAXIWAY CIRCUIT 2 (RAMP, TWY. A, C, D & B)	10	83	13			
EXISTING TAXIWAY CIRCUIT 4 (TWY. B)	4	20	3			
TOTALS	58	156	31	1		



GALESBURG MUNICIPAL AIRPORT GALESBURG, ILLINOIS

EDGE LIGHTING UNIT REMOVAL PLAN

HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS

DRAWN BY: T.J.D. DATE : MARCH, 2006

J.D. ILL. PROJ. NO. G8G-3433 ICH, 2006 AP PROJ. NO. 3-17-0047-88

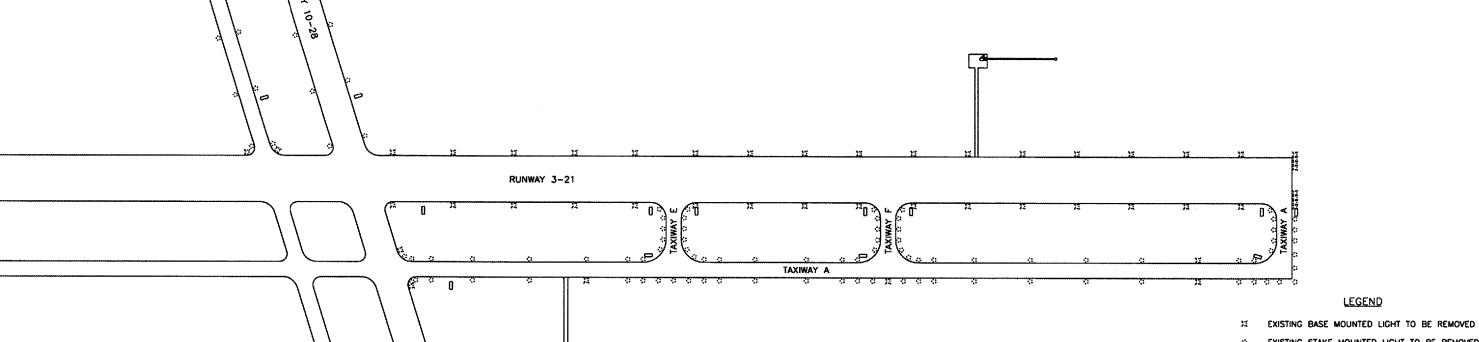
GA004

1. ALL EXISTING HIGH INTENSITY LIGHT FIXTURES AND GUIDANCE SIGNS INCLUDING
TRANSFORMERS AND STEEL BASES WITH CONCRETE BACKFILL THAT ARE REMOVED SHALL
BE DISPOSED OF BY THE CONTRACTOR OFF THE AIRPORT PROPERTY. THE CONTRACTOR
SHALL SALVAGE 20 OF THE EXISTING MEDIUM INTENSITY BASE MOUNTED LIGHT FIXTURES
AND 80 OF THE EXISTING MEDIUM INTENSITY STAKE MOUNTED FIXTURES INCLUDING
TRANSFORMERS FOR USE BY THE AIRPORT AS MAINTENANCE REPAIR PARTS. THE
SALVAGED UNITS SHALL BECOME THE PROPERTY OF THE AIRPORT AND SHALL BE
TRANSPORTED BY THE CONTRACTOR TO A LOCATION ON THE AIRPORT DESIGNATED BY THE
AIRPORT MANAGEMENT AND DEPOSITED AT THE LOCATION FOR STORAGE. THE REMAINDER
OF THE MEDIUM INTENSITY FIXTURES THAT ARE REMOVED SHALL BE DISPOSED OF BY THE
CONTRACTOR OFF THE AIRPORT PROPERTY. THE DISPOSAL LOCATION SHALL BE ARRANGED
AND/OR PROVIDED BY THE CONTRACTOR. AND/OR PROVIDED BY THE CONTRACTOR.

NOTES :

2. THE UNDERGROUND CABLE TO THE EXISTING EDGE LIGHTS SHALL BE ABANDONED WITH THE EXCEPTION THAT ALL EXISTING CABLE BEING REPLACED THAT IS IN THE SAME LOCATION IN TRENCH OR DUCT AS THE PROPOSED CABLE SHALL BE REMOVED FROM THE TRENCH OR DUCT. THE CABLE REMOVED SHALL BE DISPOSED OF OFF THE AIRPORT PROPERTY BY THE CONTRACTOR AND SAID REMOVAL AND DISPOSAL SHALL BE CONSIDERED INCORPORATION TO THE NEW CABLE INSTALLATION. INCIDENTAL TO THE NEW CABLE INSTALLATION.

EXISTING EDGE LIGHTING UNIT REMOVAL SCHEDULE THIS SHEET						
DESCRIPTION	REMOVE BASE MOUNTED LIGHT EACH	REMOVE STAKE MOUNTED LIGHT EACH	REMOVE TAXI GUIDANCE SIGN EACH			
EXISTING RUNWAY 3-21 CIRCUIT	40		1			
EXISTING RUNWAY 10-28 CIRCUIT	4	24	1			
EXISTING TAXIWAY CIRCUIT 3 (TWY. A, E & F)	6	83	10			
EXISTING TAXIWAY CIRCUIT 4 (TWY. B & G)	6	42	7			
TOTALS	56	149	19			



LEGEND

EXISTING STAKE MOUNTED LIGHT TO BE REMOVED

EXISTING TAXI GUIDANCE SIGN TO BE REMOVED

GRAPHIC SCALE IN FEET

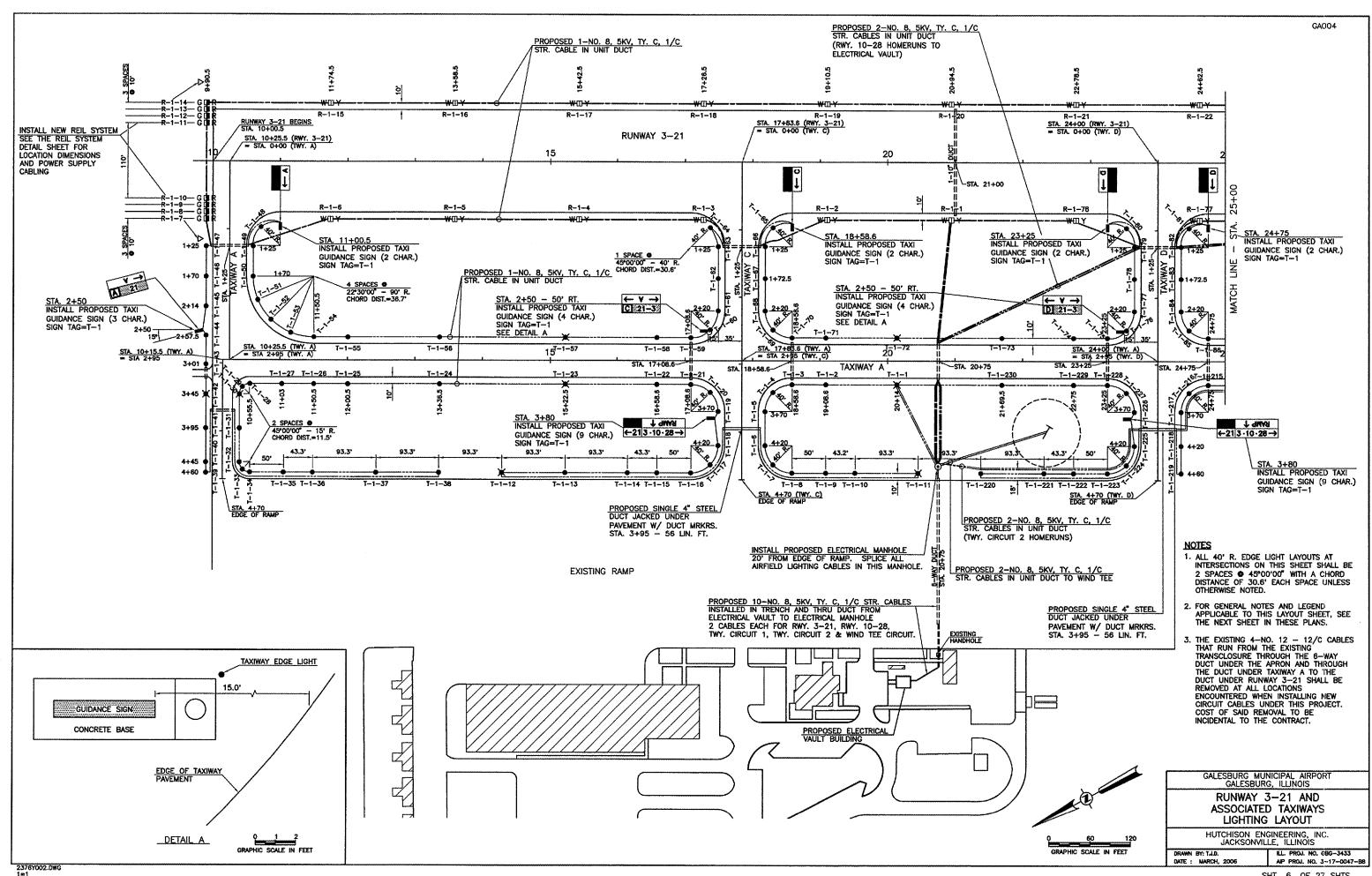
GALESBURG MUNICIPAL AIRPORT GALESBURG, ILLINOIS

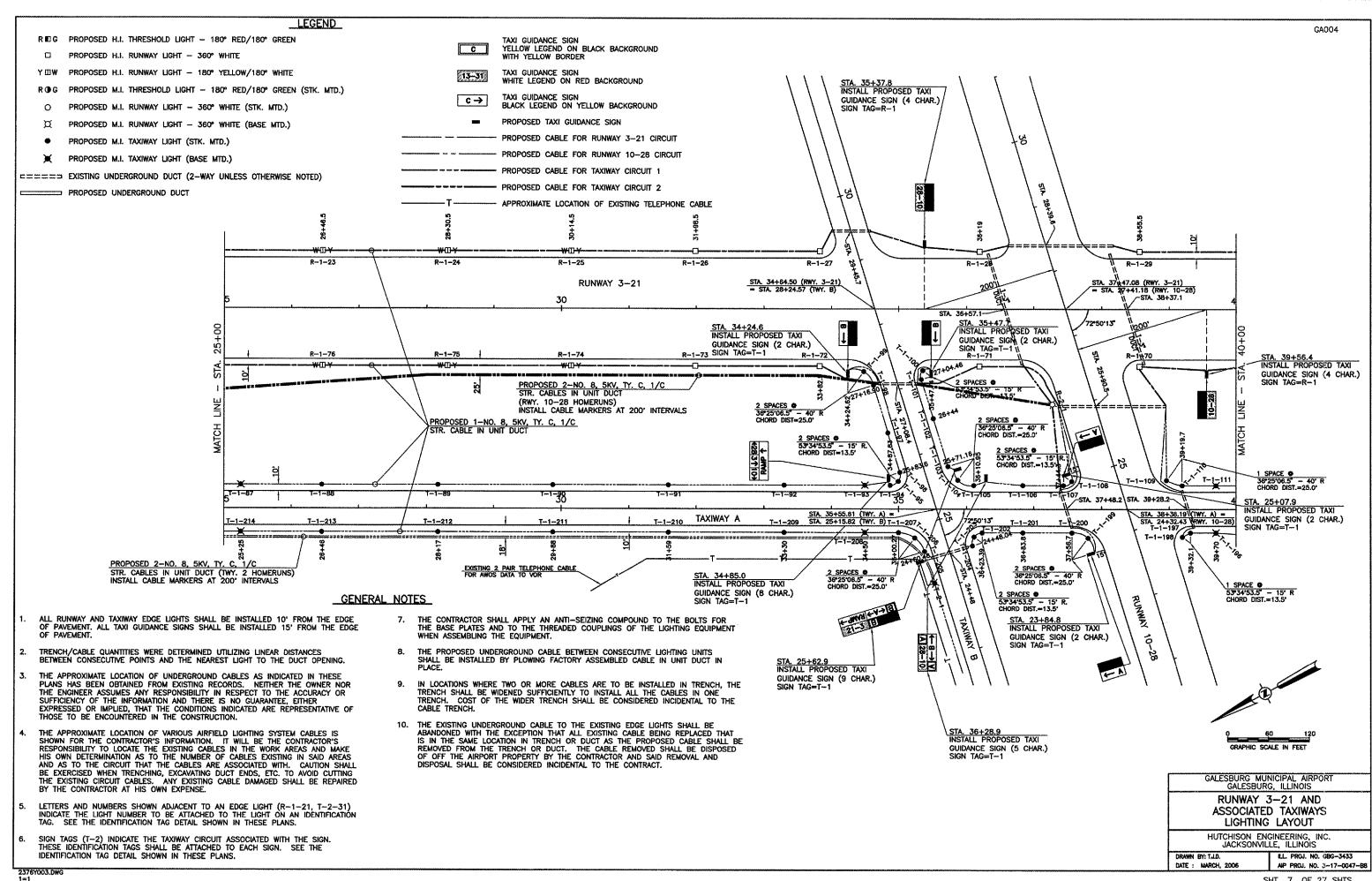
EDGE LIGHTING UNIT REMOVAL PLAN

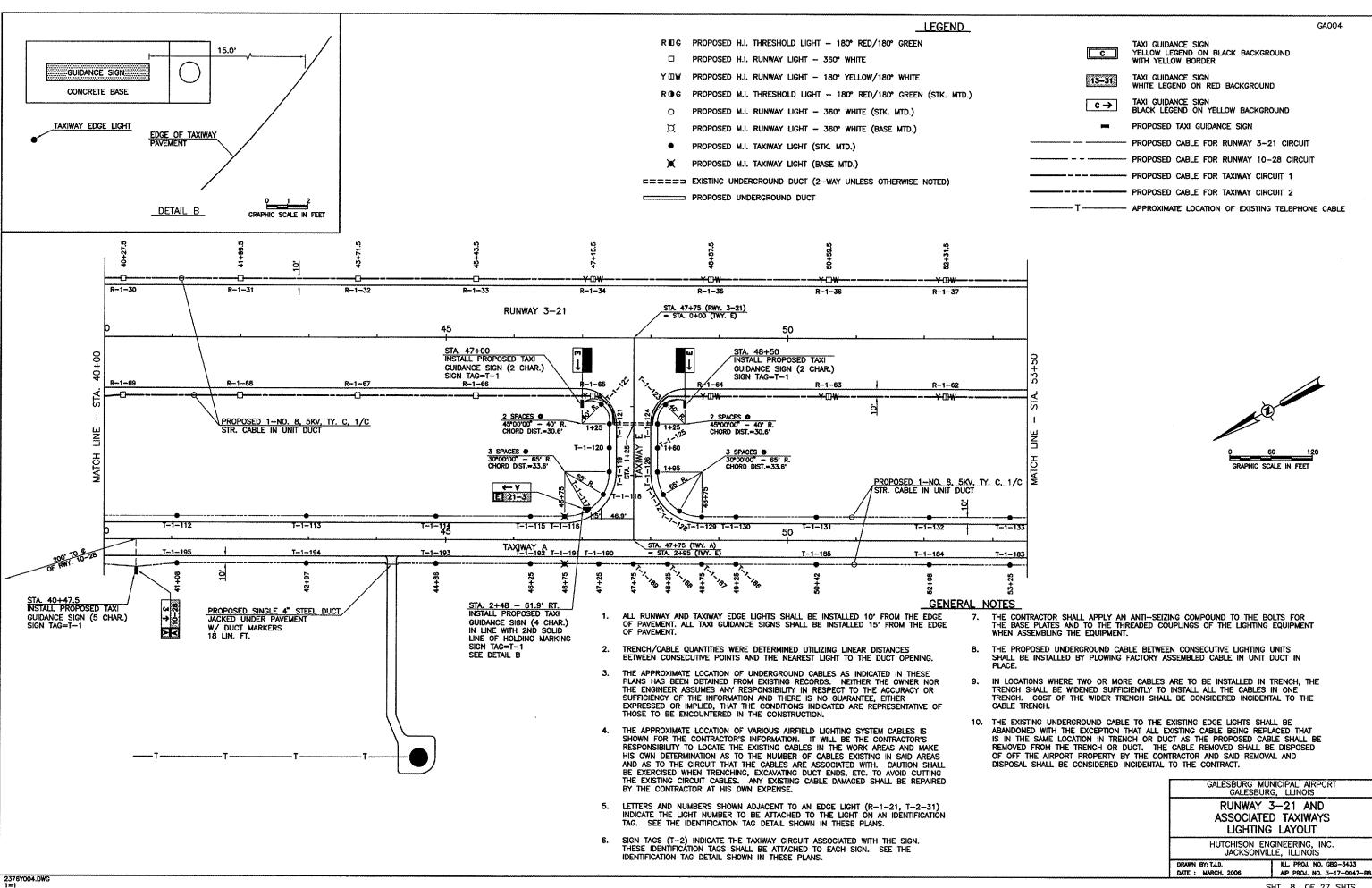
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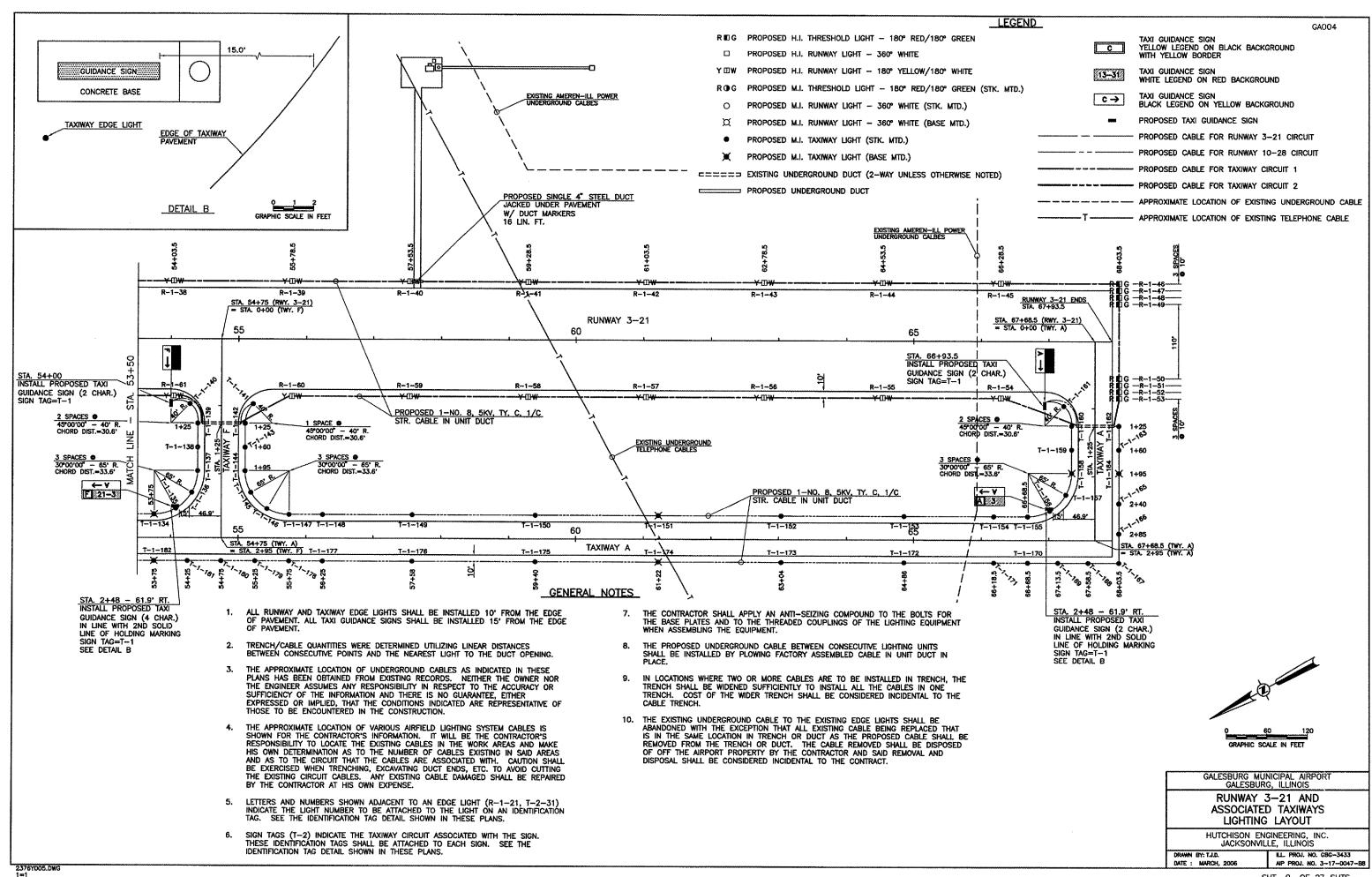
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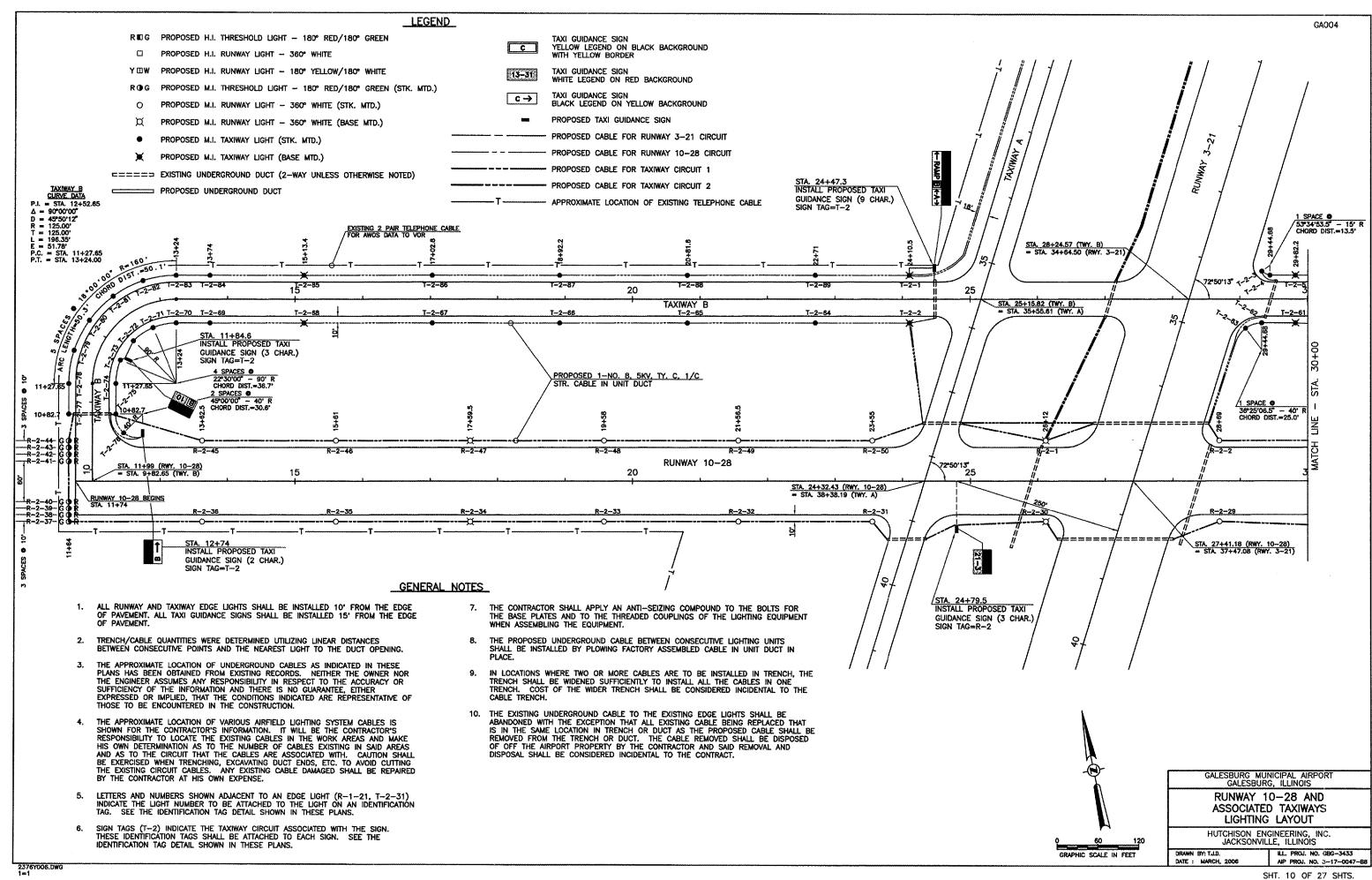
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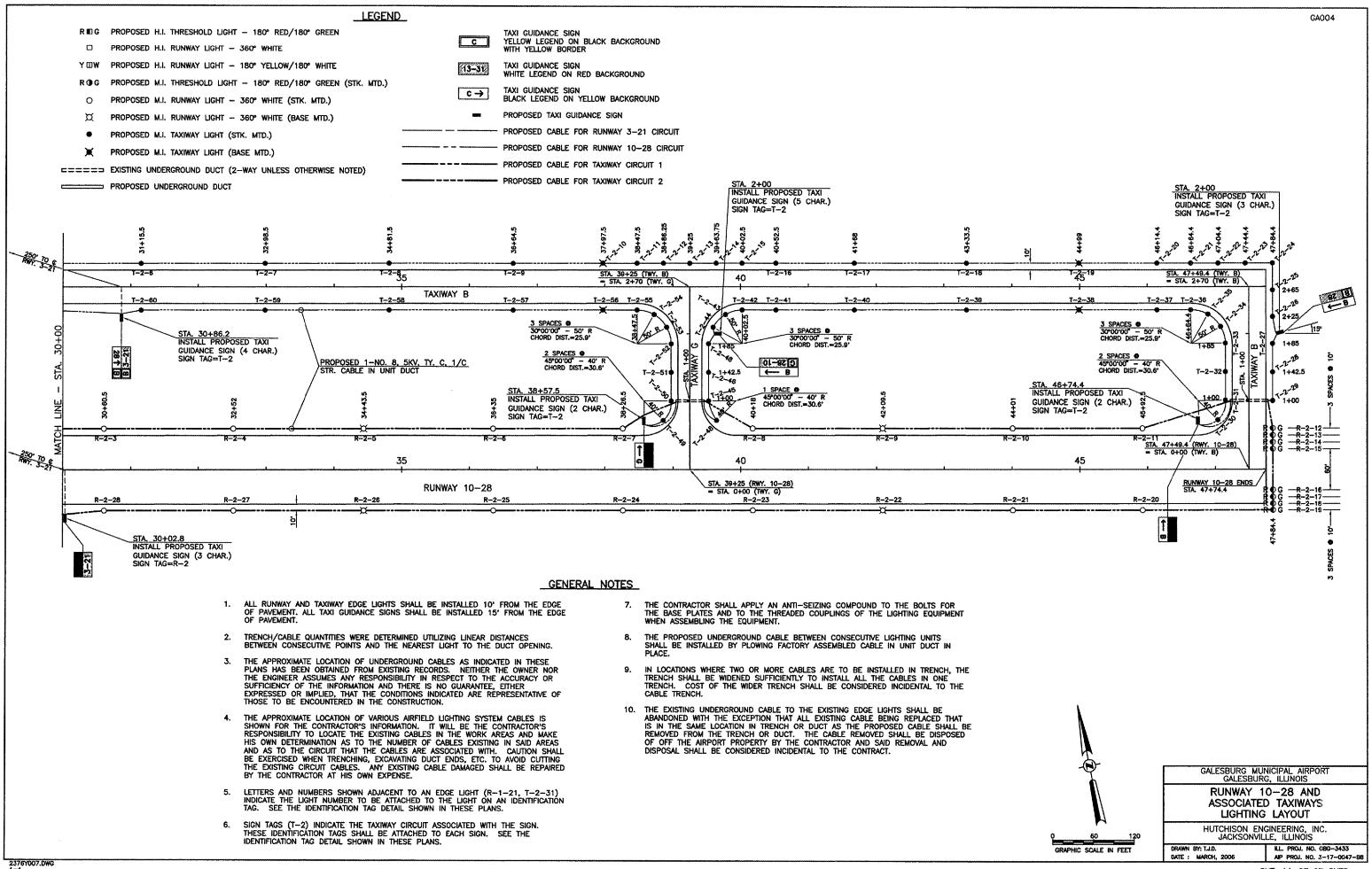


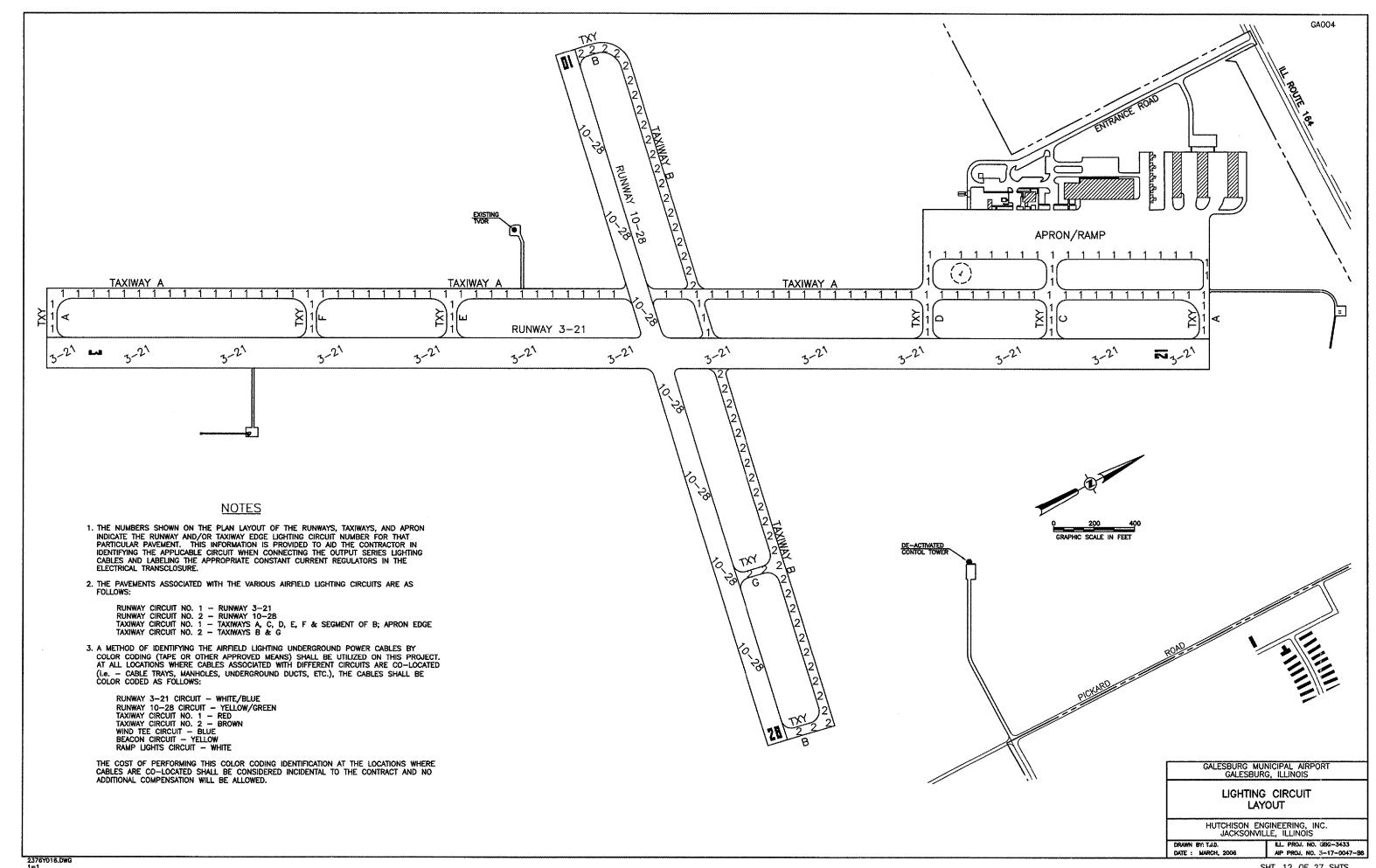




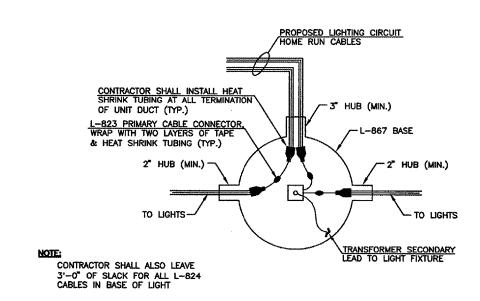








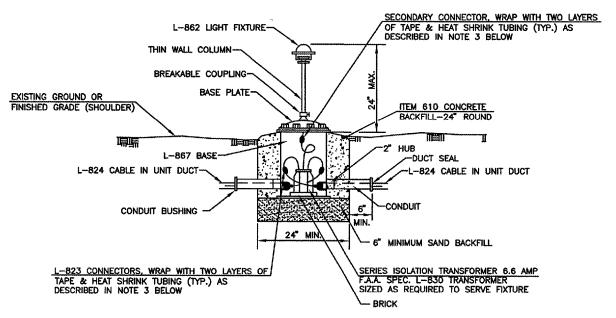
MEDIUM INTENSITY EDGE LIGHT DETAILS



PROPOSED CIRCUIT CONNECTION DETAIL BASE MOUNTED LIGHT

NOTES

- BREAKING GROOVE OF BREAKABLE COUPLINGS SHALL NOT BE OVER 3 1/2" ABOVE GROUND LINE.
- THE CONCRETE BACKFILL FOR BASE MOUNTED LIGHTS SHALL BE TROWEL FINISHED WITH A 45° BEVELED EDGE WITH THE SURFACE SLOPING TO DRAIN. THE BASE CONCRETE BACKFILL MAY BE PRECAST AT THE
- THE PRIMARY CABLE CONNECTOR JOINTS SHALL BE WRAPPED WITH ONE LAYER OF RUBBER TAPE (SCOTCH NO. 130C) AND ONE LAYER OF PLASTIC TAPE (SCOTCH NO. 88), ONE-HALF LAPPED, EXTENDING 1 1/2" EACH SIDE OF JOINT AND COVERED WITH HEAT SHRINK TUBING.



BASE MOUNTED HIGH INTENSITY RUNWAY EDGE LIGHT DETAIL

- 4. A MINIMUM OF THREE FOOT OF CABLE SLACK SHALL BE LEFT AT EACH STAKE MOUNTED LIGHT AND A MINIMUM OF THREE FEET OF CABLE SLACK AT EACH BASE MOUNTED LIGHT, HANDHOLE, OR MANHOLE. THIS REQUIRED SLACK WILL BE LEFT ON THE CABLE SIDE OF ALL PRIMARY CONNECTORS AND SPLICES. THIS REQUIRED SLACK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 5. ALL MOUNTING BOLTS SHALL BE COATED WITH AN ANTI-SEIZING LUBRICANT.
- 6. CONTRACTOR SHALL INSTALL HEAT SHRINK TUBING AT ALL TERMINATIONS OF UNIT DUCT (TYPICAL).

GALESBURG MUNICIPAL AIRPORT GALESBURG, ILLINOIS

TYPICAL LIGHTING DETAILS

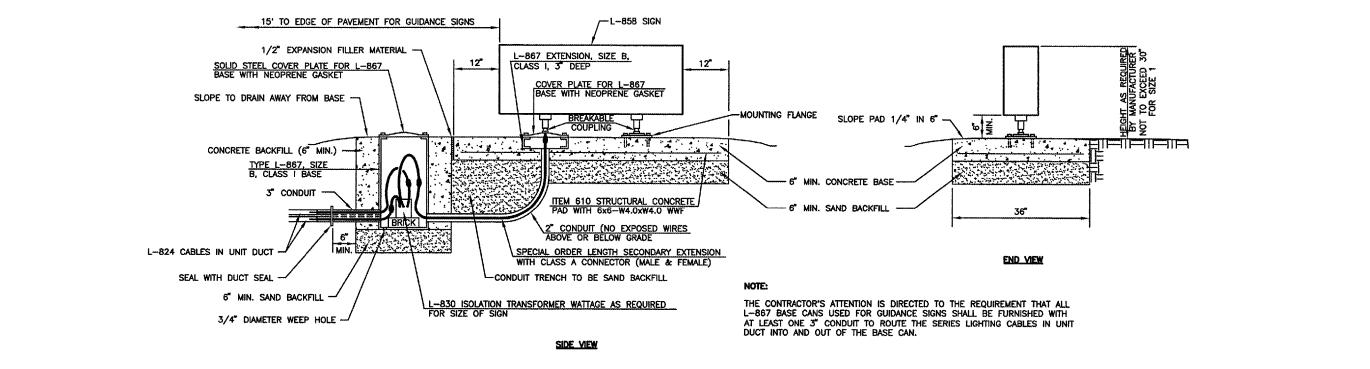
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS

ILL. PROJ. NO. GBG-3433 AIP PROJ. NO. 3-17-0047-BE

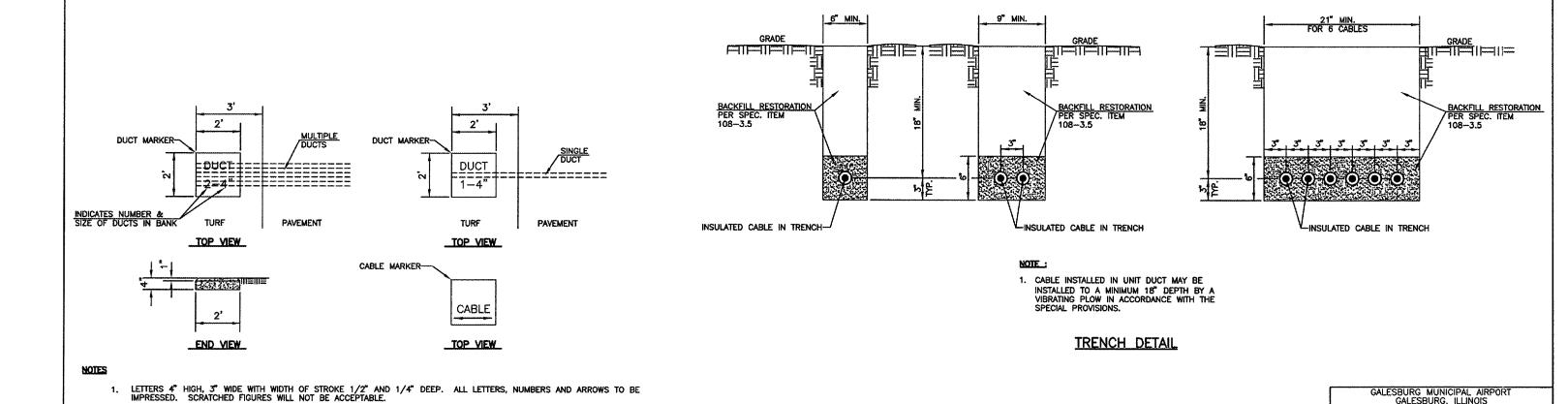
2376Y009.DWG

SHT. 13 OF 27 SHTS.

GA004



GUIDANCE SIGN BASE DETAIL



2376Y010.DWG 1=1 TYPICAL CABLE AND DUCT MARKER
DETAILS

AP PROJ. NO. 3-17-0047-8 SHT. 14 OF 27 SHTS.

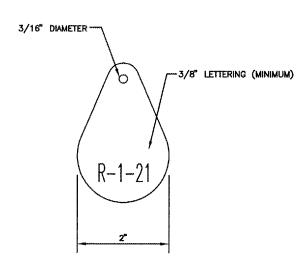
ILL. PROJ. NO. 68G-3433

TYPICAL LIGHTING DETAILS

HUTCHISON ENGINEERING, INC. JACKSONVILLE. ILLINOIS

DATE : MARCH 2006

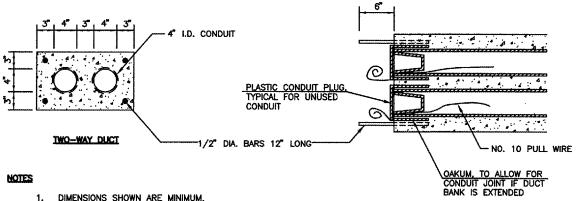
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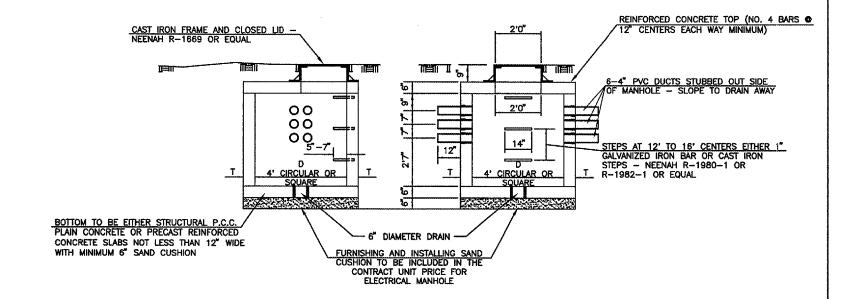
- INSTALL A NONCORROSIVE DISC OF 2 INCH MINIMUM DIAMETER WITH NUMBER PERMANENTLY STAMPED, CUT OUT OR ENGRAVED AT EACH LIGHTING UNIT.
- 2. NONCORROSIVE DISC MAY BE ATTACHED TO LIGHT FLANGE WITH SCREW OR UNDER THE HEAD OF THE BASE PLATE BOLT.

IDENTIFICATION TAG DETAIL



- DIMENSIONS SHOWN ARE MINIMUM.
- 2. TOP OF CONCRETE ENCASEMENT TO BE NOT LESS THAN 18" BELOW FINISHED SUBGRADE.
- 3. DUCT CONCRETE SHALL BE STRUCTURAL P.C. CONCRETE (PLAIN OR REINFORCED).
- 4. DUCT SHALL BE PLASTIC CONDUIT CONFORMING TO FEDERAL SPECIFICATIONS W-C-1094.
- 5. ALL DUCT TO BE 4" UNLESS OTHERWISE SPECIFIED.
- 6. INSTALL CONCRETE DUCT MARKER TWO FEET SQUARE AND 4" THICK, AT ALL ENDS OF DUCTS.
- 1/2" DIAMETER 12" LONG BARS TO BE CAST IN BOTH ENDS OF THE DUCT BANK, AND ALLOWANCES MADE FOR ADDING A JOINT OF PLASTIC CONDUIT FOR FUTURE EXTENSION OF THE DUCT BANK ON BOTH ENDS.

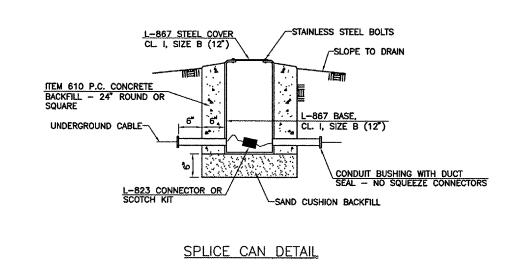
UNDERGROUND DUCT DETAILS



NOTES:

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

ELECTRICAL MANHOLE DETAIL



DT

4' 8"

4' 5"

4' 5"

4' 6"

ALTERNATE MATERIAL FOR WALLS

MONOLITHIC CONCRETE

CONCRETE BUILDING BRICK GRADE "A"
CONCRETE MASONRY UNITS

PRECAST REINFORCED CONCRETE RINGS

BUILDING BRICK GR. S.W. FROM CLAY OR SHALE 4' 8"

GALESBURG MUNICIPAL AIRPORT GALESBURG, ILLINOIS TYPICAL LIGHTING DETAILS

HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS ILL. PROJ. NO. GBG-3433

DATE : MARCH, 2006

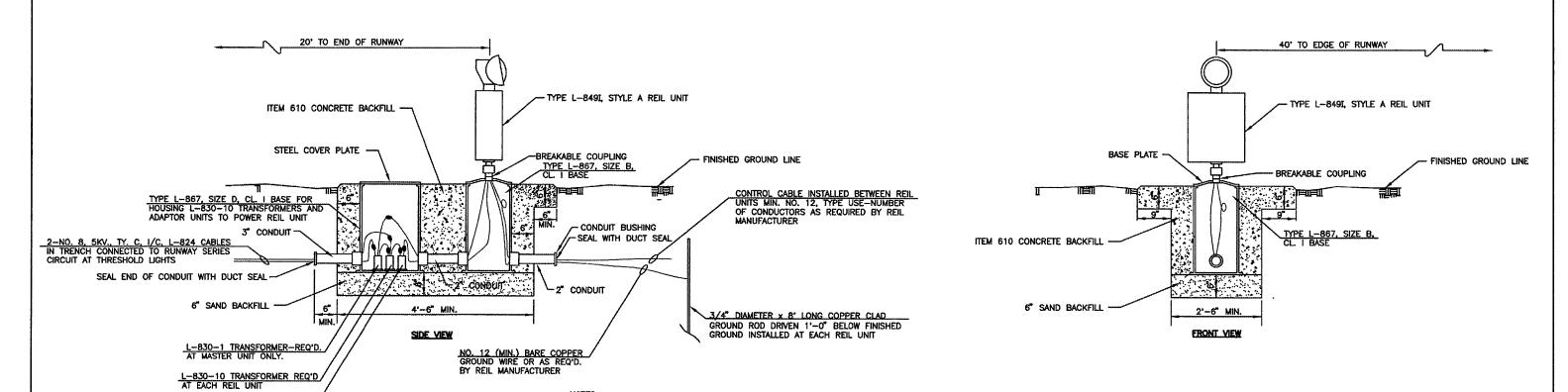
AIP PROJ. NO. 3-17-0047-98

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SHT. 15 OF 27 SHTS.



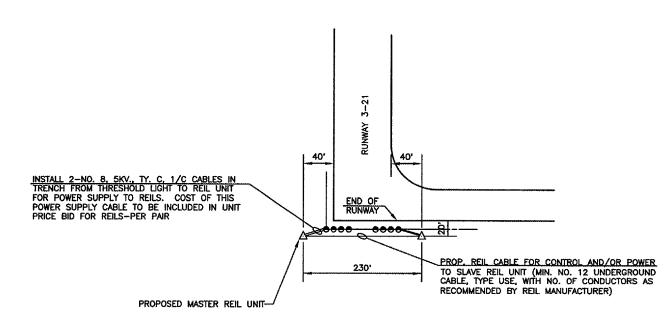


MASTER UNIT AND SLAVE UNIT ARE INSTALLED ON IDENTICAL FOUNDATIONS WITH AN L-830-1 TRANSFORMER ALSO INSTALLED IN THE MASTER UNIT SIZE D STEEL BASE.

POWER ADAPTER UNIT REQ'D AT EACH REIL UNIT

- THE REIL SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE ABOVE DETAIL AND INSTRUCTIONS PROVIDED BY THE EQUIPMENT MANUFACTURER AND SHALL COMPLY WITH TYPICAL REIL LAYOUT GUIDELINES IN ADVISORY CIRCULAR
- 2. THE BEAM CENTERLINE OF EACH LIGHT UNIT SHALL BE AIMED 15° OUTWARD FROM A LINE PARALLEL TO THE RUNWAY CENTERLINE AND INCLINED AT AN ANGLE 10° ABOVE THE HORIZONTAL.
- 3. A MINIMUM 12" WIDTH OF CONCRETE SHALL EXTEND BEYOND THE OUTER LIMITS OF ALL COMPONENTS OF THE REIL UNIT.

TYPICAL REIL UNIT INSTALLATION



TYPICAL PLAN LAYOUT FOR REIL INSTALLATION

- TAXIWAY CIRCUIT AND RUNWAY CIRCUIT CABLES ARE LOCATED BETWEEN THE EDGE LIGHTS AND THRESHOLD LIGHTS THAT ARE 10' FROM THE EDGE OF THE PAVEMENT END AND EDGE. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE THE CABLES IN THE WORK AREAS FOR REIL SYSTEM INSTALLATION AND MAKE HIS OWN DETERMINATION AS TO THE NUMBER OF CABLES EXISTING AND AS TO THE CIRCUIT THAT THE CABLES ARE ASSOCIATED WITH. CAUTION SHALL BE EXERCISED WHEN TRENCHING, ETC. TO AVOID CUTTING THE LIGHTING CIRCUIT CABLES. ANY CABLE DAMAGED SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- 2. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCK OUT THE EDGE LIGHTING CIRCUIT WHILE PERFORMING WORK ON OR NEAR SAID CIRCUIT. THE CIRCUIT SHALL BE LOCKED OUT TO INCLUDE AND INSURE THAT THE CIRCUIT CANNOT BE ENERGIZED MANUALLY OR BY THE RADIO CONTROL SYSTEM WHILE WORK IS BEING DONE.
- 3. RUNWAY 3-21 SHALL BE CLOSED TO AIR TRAFFIC WHEN THE TRENCHING, CABLE INSTALLATION AND CONCRETE BACKFILL FOR THE REIL UNITS ARE BEING PERFORMED.
- 4. ALL UNDERGROUND CABLE AND ITS INSTALLATION FOR POWER AND CONTROL TO THE REIL UNITS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR REILS-PER PAIR.

GENERAL NOTE

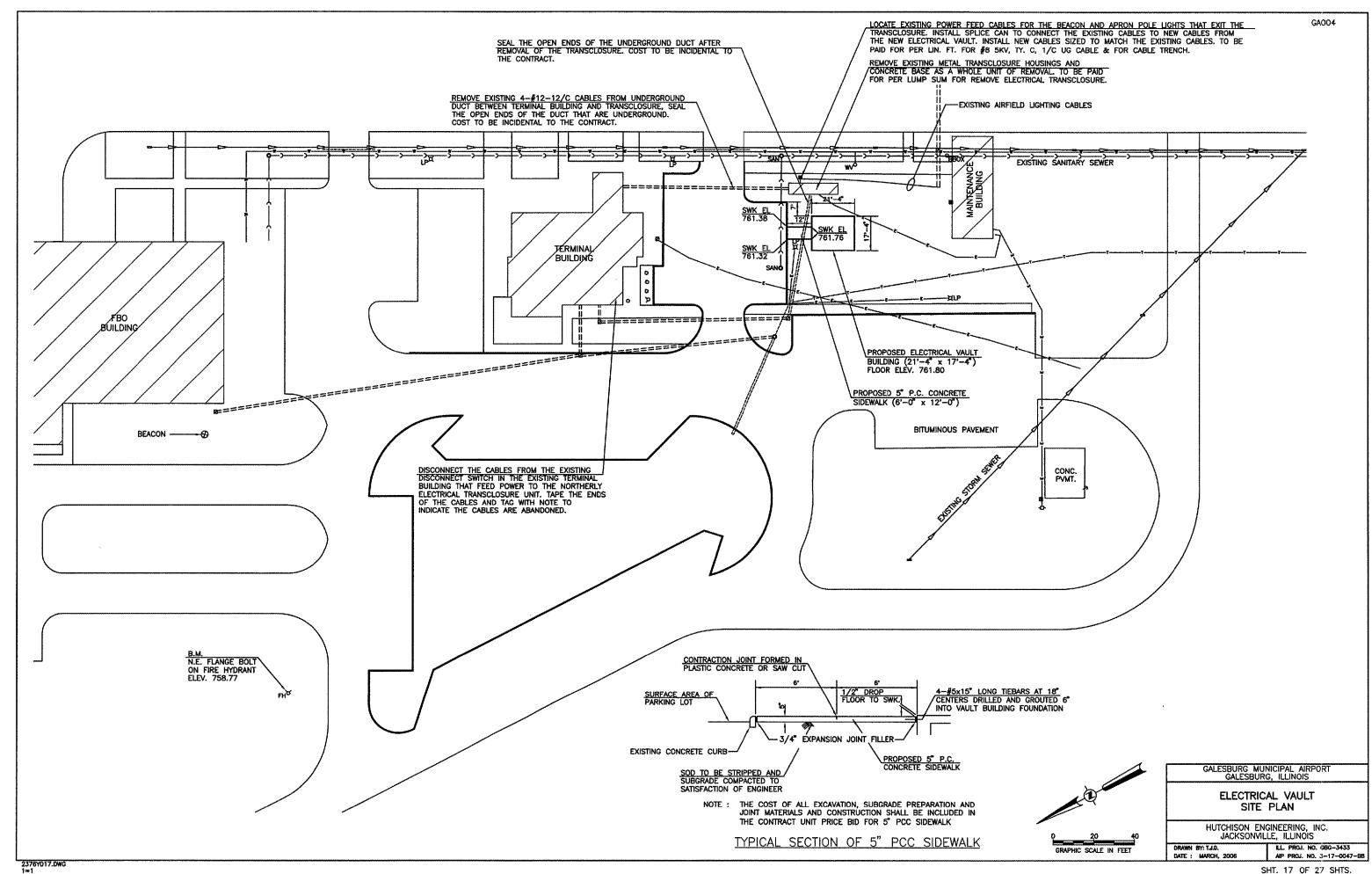
THE DETAILS SHOWN FOR THE REIL UNIT BASES AND REIL POWER SUPPLY AND CONTROL WIRING ARE INTENDED FOR ILLUSTRATIVE INFORMATION PURPOSES. ACTUAL BASE DETAILS AND WIRING CONNECTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER OF THE EQUIPMENT BEING FURNISHED. THE CONTRACTOR SHALL SUBMIT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

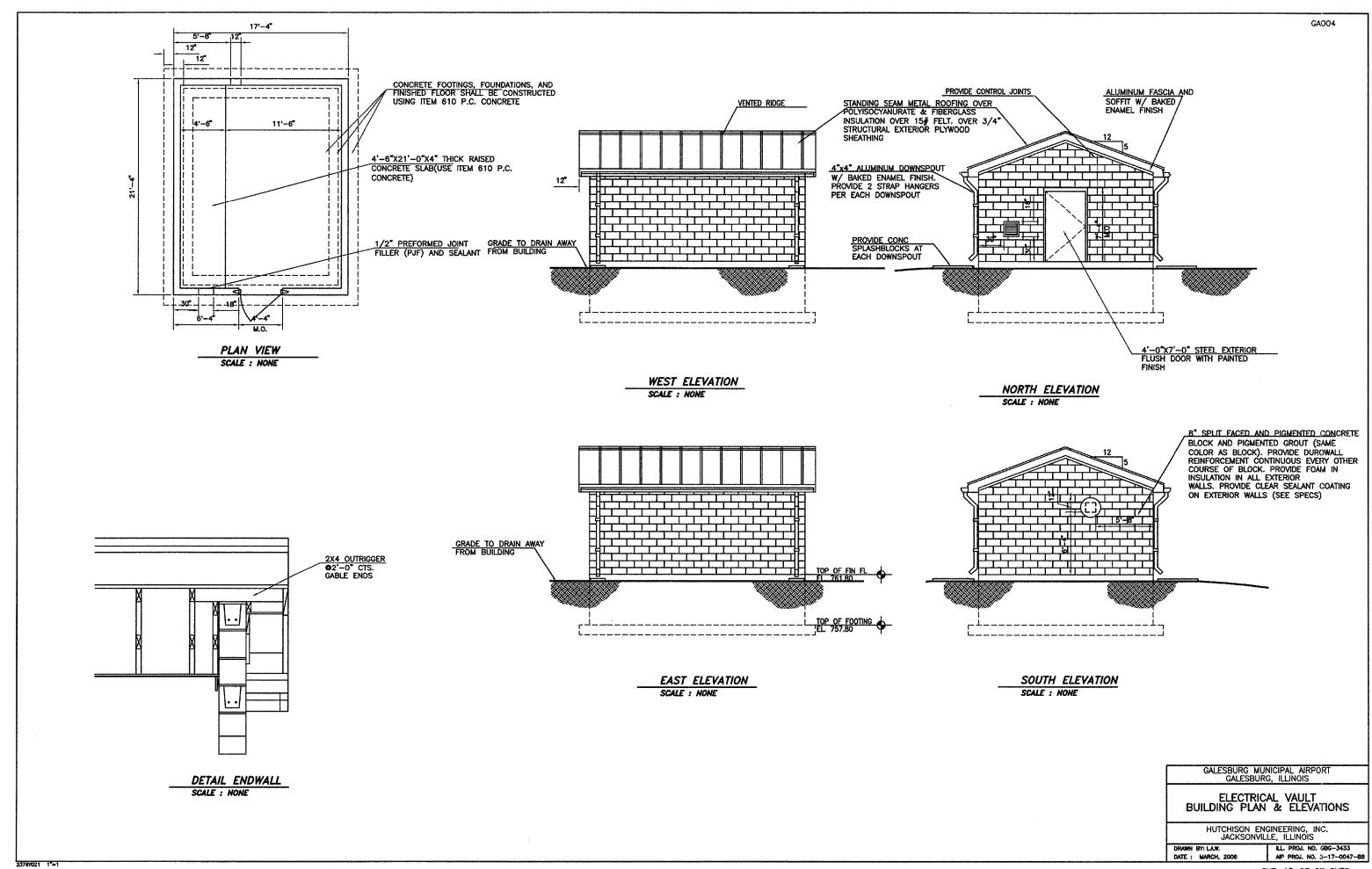
GALESBURG MUNICIPAL AIRPORT GALESBURG, ILLINOIS

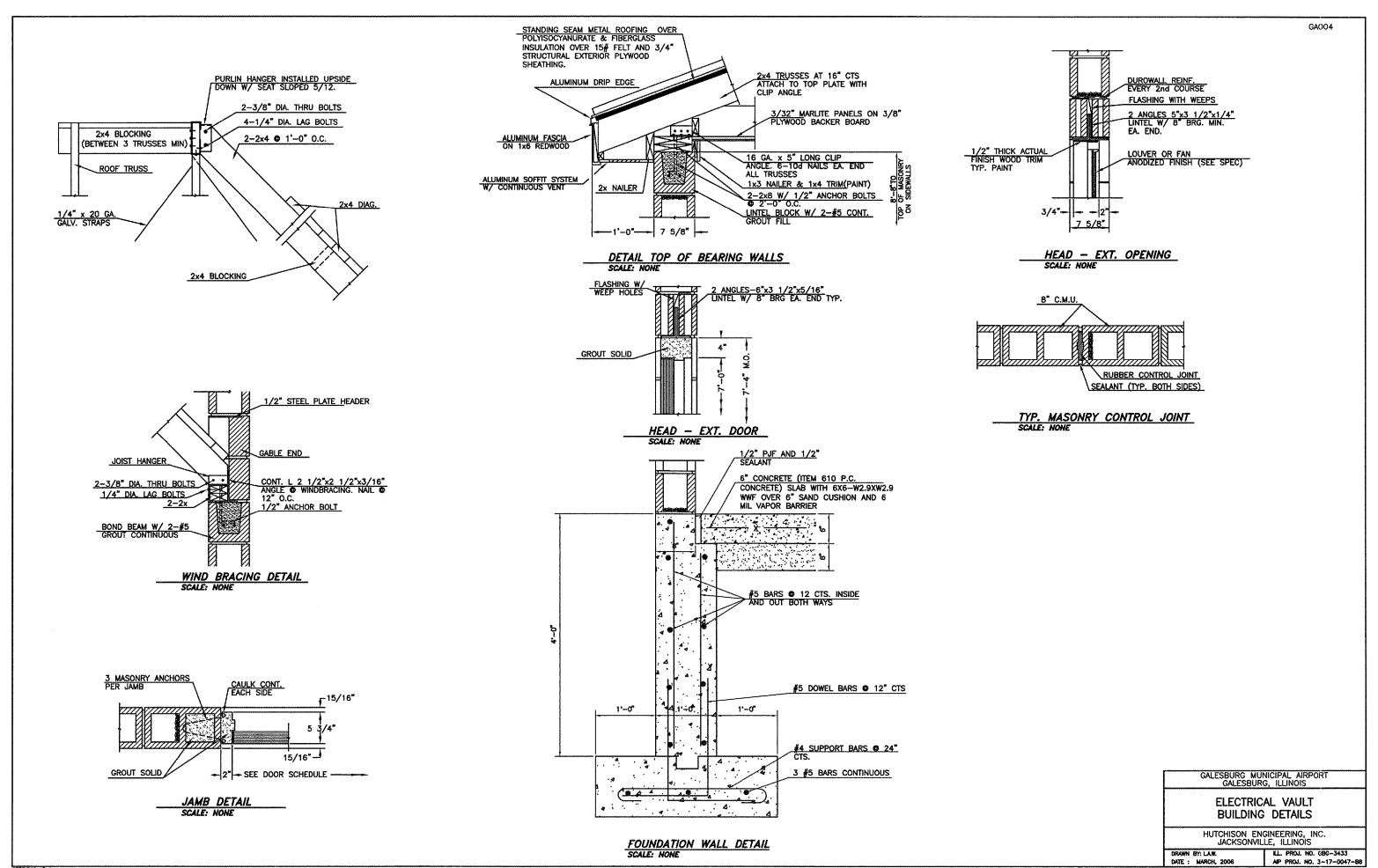
REIL SYSTEM DETAILS

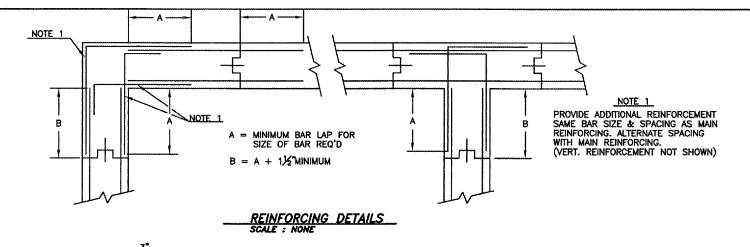
HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS

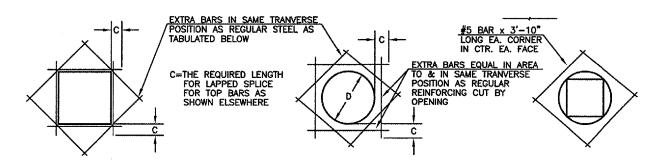
DATE: MARCH, 2006 AIP PROJ. NO. 3-17-0047-B8









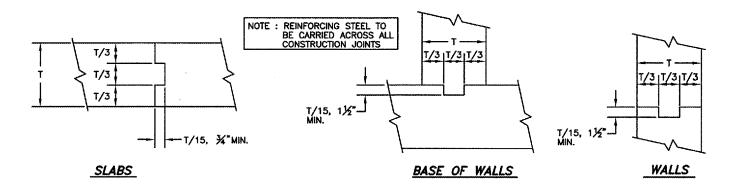


FOR RECTANGULAR OPENINGS
LARGER THAN 21" DIAMETER

FOR CIRCULAR OPENINGS
LARGER THAN 21" DIAMETER

FOR OPENINGS 21" & SMALLER IN DIA. OR DIAGONAL

TYPICAL EXTRA REINFORCING AT OPENINGS SCALE: NONE



TYPICAL CONSTRUCTION JOINTS
SCALE: NONE

THICKNESS OF CONCRETE	BAR SIZE	RECT. OPENING	CIRC. OPENING
12"	4	3'-0"	D+6"
12"-18"	5	3'-0"	D+6*
18"	6	3'-8"	D+6*

LOCATION	MINIMUM
UNFORMED SUFACES ADJACENT TO EXCAVATION	3"
FORMED OR TOP SURFACES EXPOSED TO WEATHER OR SATURATED AIR, SUBMERGED OR IN CONTACT WITH EARTH	
#6 OR LARGER BARS	2"
#5 OR SMALLER BARS OTHER LOCATIONS	1/2
BARS IN BEAMS OR GIRDERS, INCLUDING STIRRUPS & COLUMN SPIRALS OR TIES, SLABS, WALLS, & JOISTS	11/2"
#14 AND #18	11/2"
#11 AND SMALLER	34"

TOLERANCES FOR CONCRETE COVER & THE PLACING OF REINFORCMENT SHALL CONFORM TO SECTION 7.5 OF ACI 318. TOLERANCES FOR THE FABRICATION OF REINFORCMENT SHALL CONFORM TO SECTION 4.3 OF ACI 315.

	SPLICE & DEVELOPMENT LENGTHS							
BAR SIZE	LENGTH OF LAPPED SPLICES FOR REINF. (INCHES)		LENGTH OF DEVELOPMENT FOI END ANCHORAGE OF REINF. (INCHES)					
	*TOP BARS	OTHERS	*TOP BARS	OTHERS	HOOKED BARS			
3	20	20	12	12	6			
4	22	20	14	12	8			
5	29	20	17	12	10			
6	37	26	22	15	12			
7	50	36	29	21	14			
. 8	66	47	39	28	16			
9	83	60	49	35	18			
10	106	76	62	45	20			
11	130	93	77	55	22			
14			104	74	38			
18			135	96	50			

*TOP BARS ARE HORIZONTAL BARS SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR. HORIZONTAL BARS IN WALLS ARE TO BE PROVIDED WITH LAPS AS REQUIRED FOR TOP BARS.

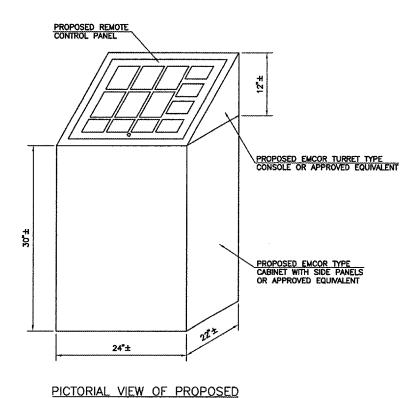
STRAIGHT BARS SPACED LESS THAN 6 INCHES ON CENTER SHALL HAVE A DEVELOPMENT LENGTH OF 1.25 TIMES THE LENGTH SHOWN.

UNLESS OTHERWISE INDICATED ON THE DRAWINGS, DEVELOPMENT LENGTHS FOR END ANCHORAGE & LAPPED SPLICES SHALL NOT BE LESS THAN (NO MINUS TOLERANCE) SHOWN ABOVE. LAPPED SPLICES SHALL NOT BE MADE AT POINTS OF MAXIMUM STRESS AS DETERMINED BY THE ENGINEER. IF SPLICES ARE STAGGERED SO THAT NO MORE THAN 1/2 ARE SPLICED IN A LAP SPLICE LENGTH, THE SPLICE LENGTH CAN BE REDUCED TO 75% OF THE LENGTHS TABULATED.

GALESBURG MUNICIPAL AIRPORT GALESBURG, ILLINOIS TYPICAL FOUNDATION STRUCTURAL DETAILS

HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS

DRAWN BY: LAW. DATE: MARCH, 2006 ILL. PROJ. NO. GBG-3433 AIP PROJ. NO. 3-17-0047-88

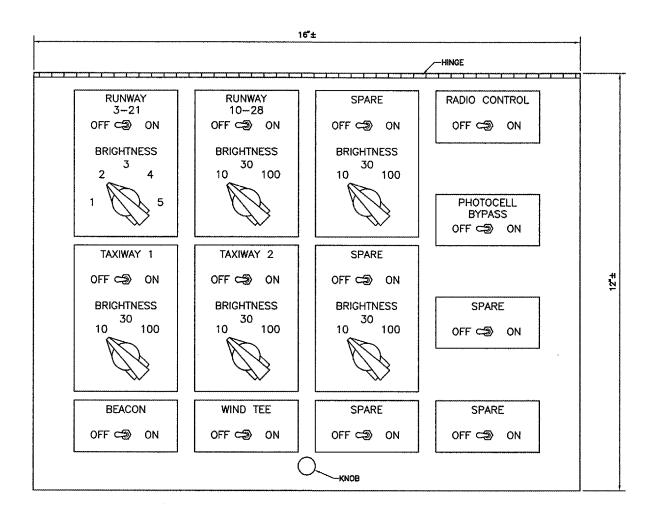


PROPOSED RADIO CONTROL SYSTEM METHOD OF OPERATION OF EDGE LIGHTING SYSTEMS

CONTROL PANEL CABINET

LIGHTING SYSTEM	NUMBER OF INTENSITY STEPS	STATUS DURING NON USE (IDLE) PERIOD	INTENSITY STEP SELECTED PER NUMBER OF MICROPHONE CLICKS			
			3 CLICKS	5 CLICKS	7 CLICKS	
HIRL - RUNWAY 3-21	5	STEP 1*	STEP 1+	STEP 3*	STEP 5	
MIRL - RUNWAY 10-28	3	LOW*	LOW*	MED*	HIGH	
MITL TAXIWAY CIRCUIT 1	3	OFF	LOW+	MED*	HIGH	
MITL - TAXIWAY CIRCUIT 2	. 3	OFF	LOW+	MED*	HIGH	
*DEACTIVATED BY PHOTOCELL DURING DAYLIGHT HOURS						

NOTE: BEACON, WIND TEE AND APRON FLOOD LIGHTS ARE TO BE CONTROLLED BY THE PHOTOCELL DURING HOURS OF DARKNESS, ACTIVATING SAID EQUIPMENT AT DUSK AND DEACTIVATING AT DAWN.



CONVENTIONAL AIRPORT LIGHTING CONTROL PANEL

NOTES

- 1. THE CONTROL PANEL LAYOUT SHOWN ON THIS SHEET IS INTENDED TO PROVIDE THE APPROXIMATE CONFIGURATION OF THE PANEL COMPONENTS REQUIRED FOR THE CONTROL PANEL. THE CONTRACTOR WILL BE ALLOWED TO PROVIDE ROTARY SWITCH POWER CONTROL ON THE CONVENTIONAL CONTROL PANEL FOR ALL RUNWAY AND TAXIWAY CIRCUITS LIGHTING CONTROL IN LIEU OF THE TOGGLE SWITCH POWER CONTROL. THE CONTROTOR SHALL SUBMIT SHOP DRAWINGS OF THE PANEL FOR REVIEW AND APPROVAL THAT INDICATES THE LAYOUT, TYPE AND SIZE OF THE PANEL COMPONENTS THAT HE PROPOSES TO FABRICATE AND FURNISH FOR INSTALLATION. THE CONTROL PANEL CONFIGURATION AND FABRICATION SHALL CONFORM TO FAA ADVISORY CIRCULAR 150/5345—3E.
- 2. THE L-821 CONVENTIONAL LIGHTING CONTROL PANEL SHALL BE TYPE 1, CLASS F, STYLE 1, MODE 1 CONFORMING TO FAA ADVISORY CIRCULAR 150/5345-3E.
- 3. THE CONTROL PANEL FURNISHED SHALL BE MANUFACTURED TO ADEQUATE DIMENSIONS SO AS TO ENSURE A PROPER FIT AND INSTALLATION IN THE CONSOLE AND CABINET THAT IS TO BE PROVIDED FOR THIS INSTALLATION. THE PAINT FINISH COLOR AND TEXTURE OF THE CONSOLE AND CABINET SHALL EITHER MATCH OR COORDINATE WITH THE FINISH ON THE CONTROL PANEL.

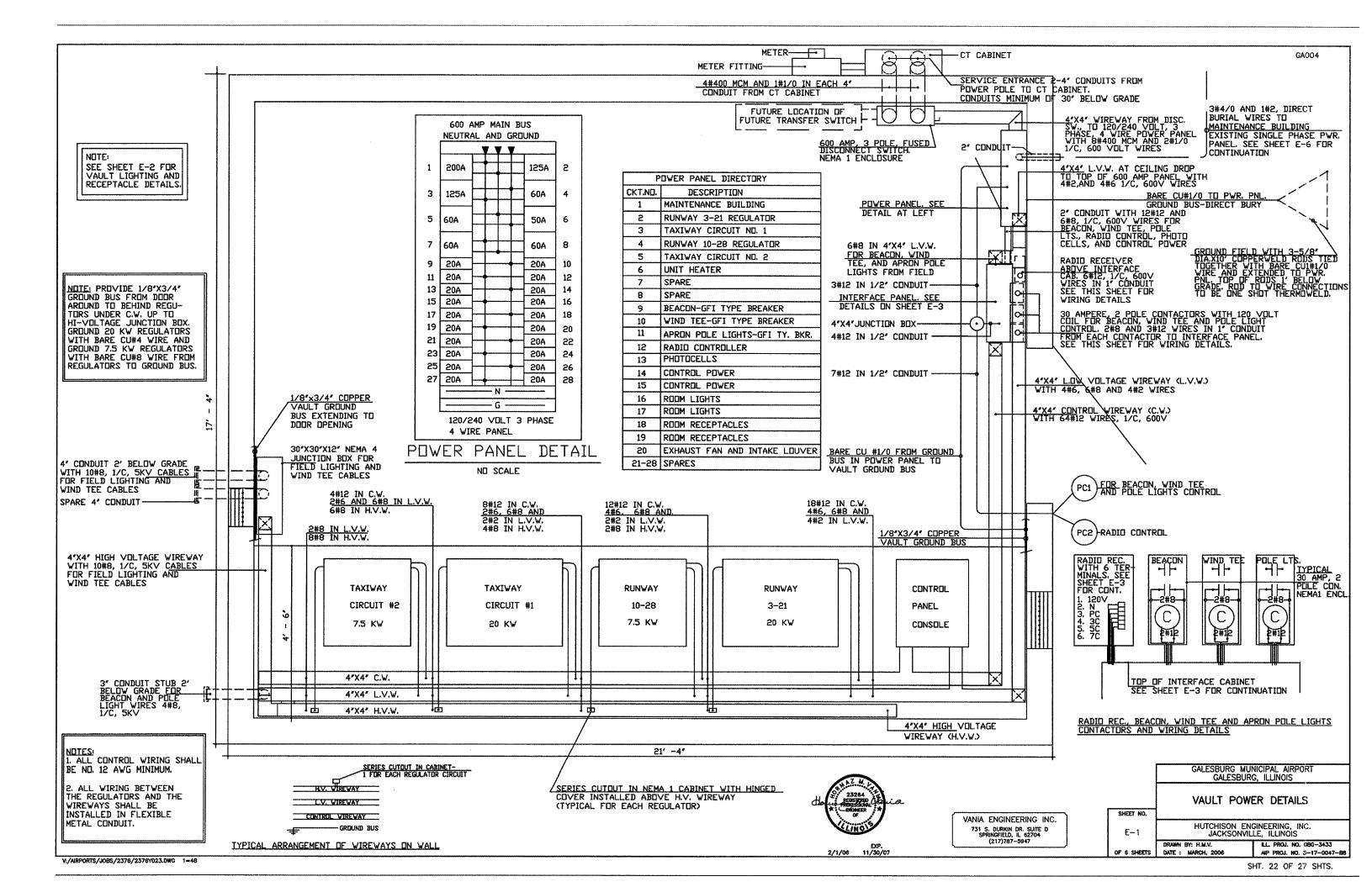
GALESBURG MUNICIPAL AIRPORT GALESBURG, ILLINOIS

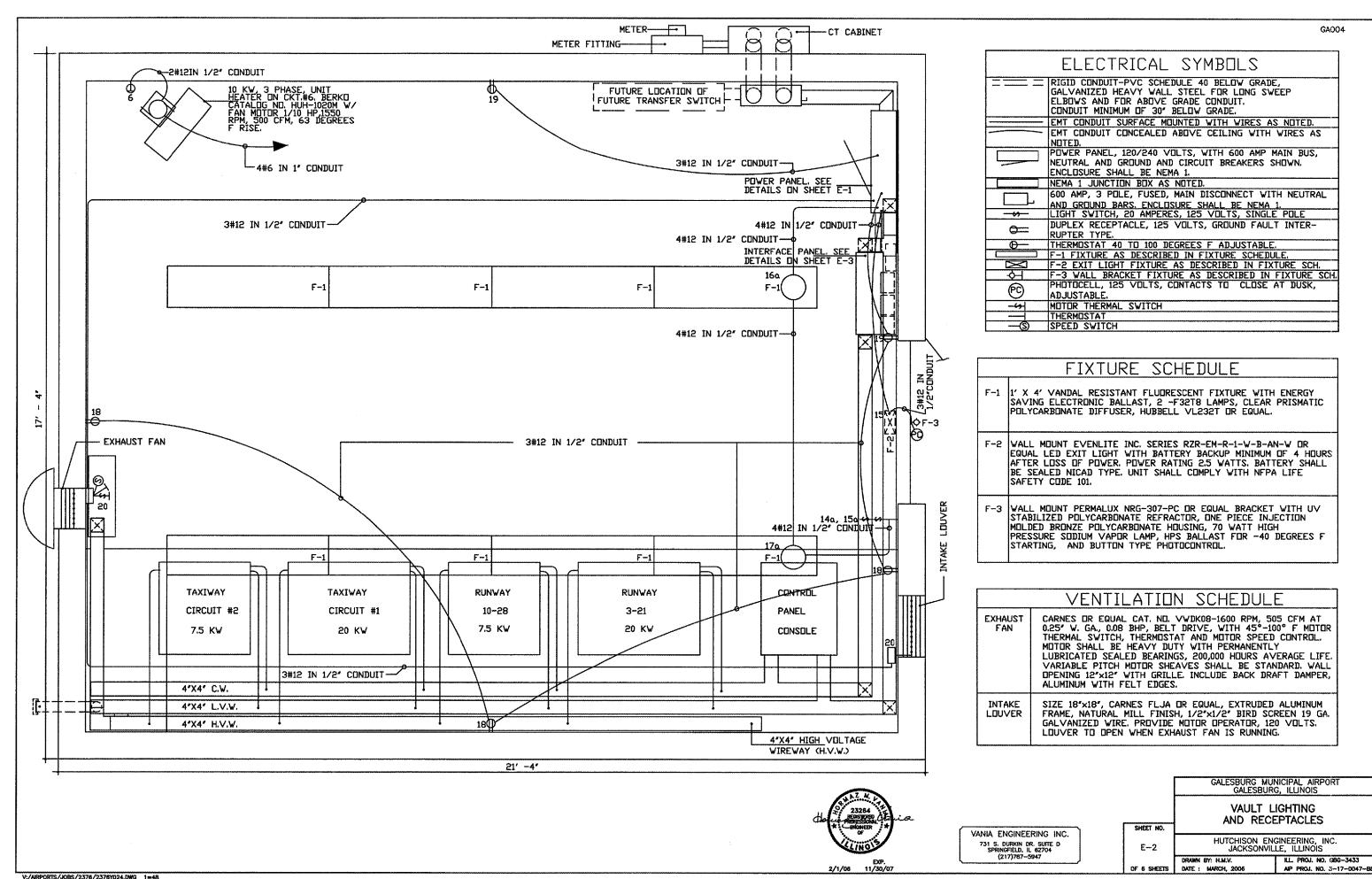
CONTROL PANEL DETAILS

HUTCHISON ENGINEERING, INC. JACKSONVILLE, ILLINOIS

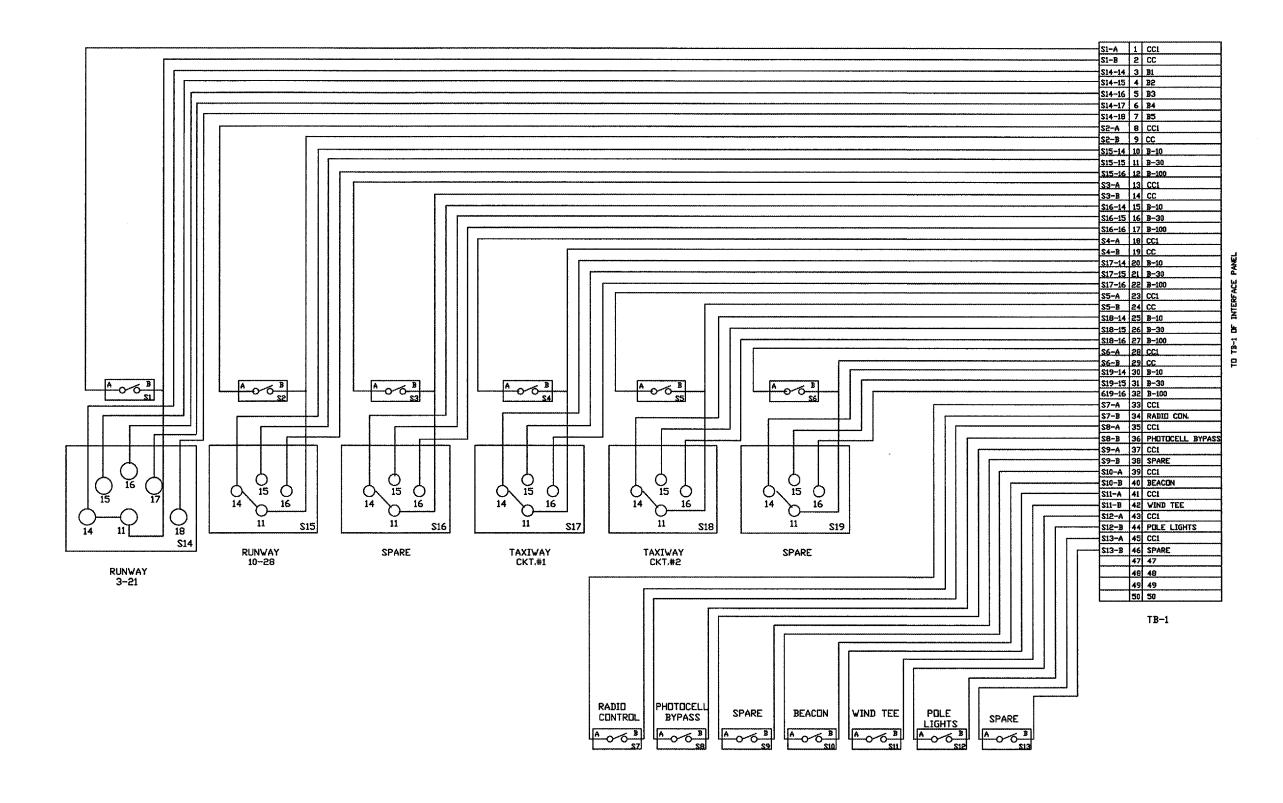
DRAWN BY: T.J.D. DATE: MARCH, 2006

ILL. PROJ. NO. GBG-3433 AIP PROJ. NO. 3-17-0047-88









VAULT L-821 CONTROL PANEL CONNECTION DETAILS



VANIA ENGINEERING INC.
731 S. DURKIN DR. SUITE D
SPRINGFIELD, IL 62704
(217)787-5947

SHEET NO.

VAULT L-821 CONTROL PANEL CONNECTION DETAILS

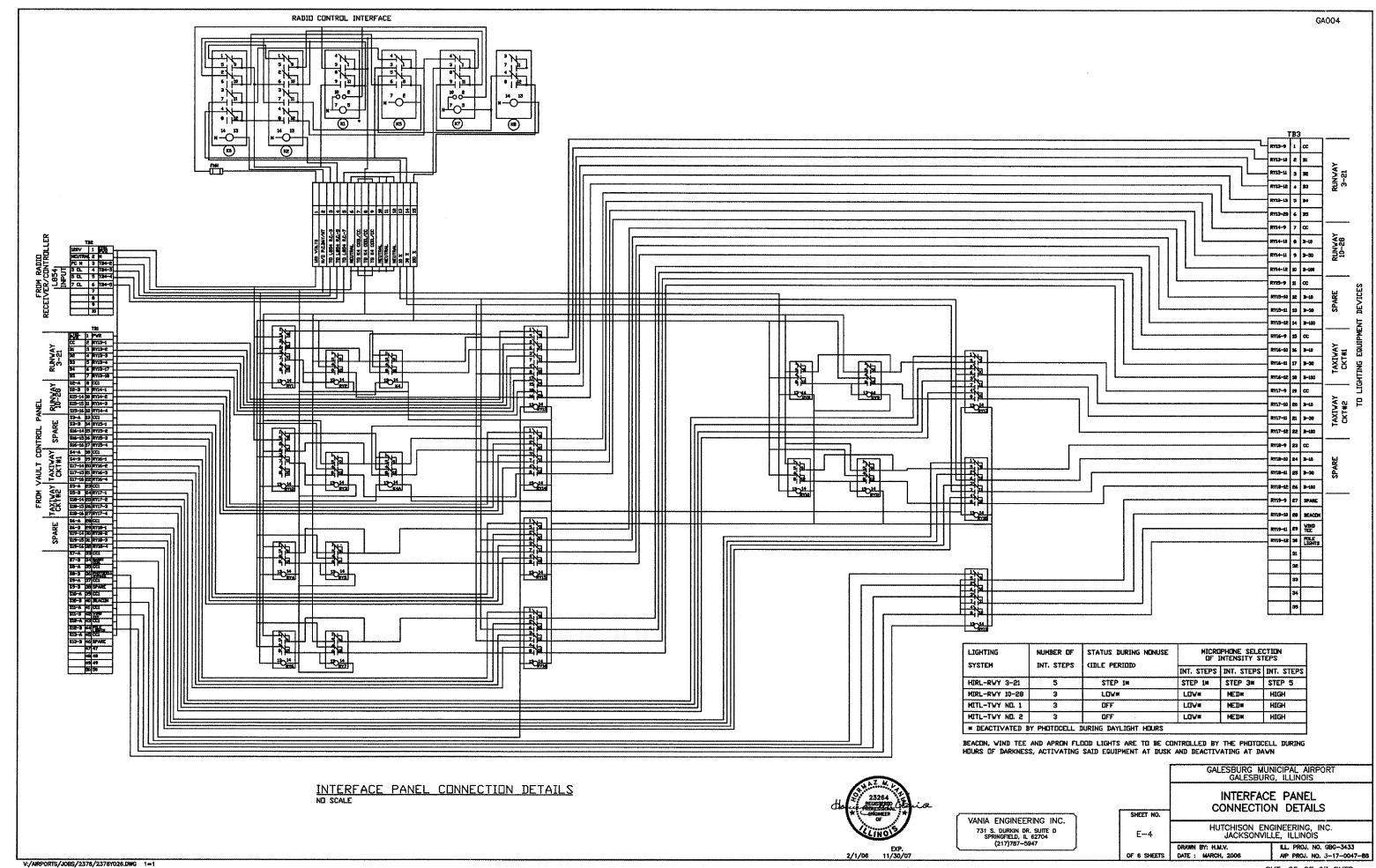
GALESBURG MUNICIPAL AIRPORT GALESBURG, ILLINOIS

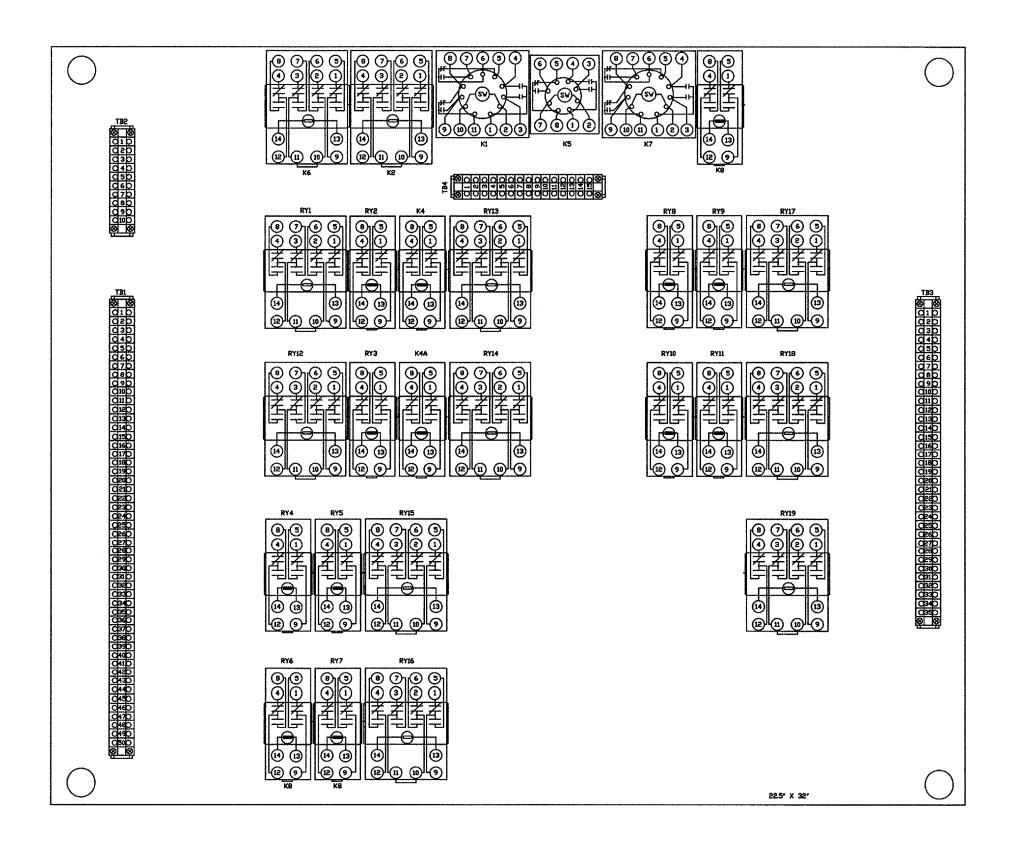
-3 HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

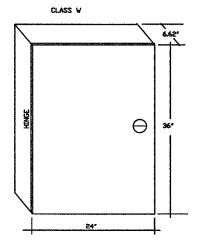
731 S. BURKIN DR. SUITE (
SPRINGFIELD, IL 62704 (217)787-5947

OF 6 SHEETS DATE : MARCH, 2006

ILL. PROJ. NO. GBG-3433 AIP PROJ. NO. 3-17-0047-B8









VANIA ENGINEERING INC. 731 S. DURKIN DR. SUITE D SPRINGFIELD, IL. 62704 (217) 787-5847 GALESBURG MUNICIPAL AIRPORT
GALESBURG, ILLINOIS
INTERFACE PANEL

LAYOUT DETAILS

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

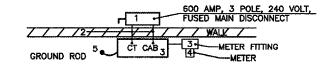
DRAWN BY: H.M.V.
DATE: MARCH, 2006

AIP PROJ. NO. 3-17-0047-88

SHEET NO.

E--5

EXP. 2/1/06 11/30/06



NOTES :

- 1. 600 AMP, 3 POLE, 240V FUSED DISCONNECT SWITCH BY CONTRACTOR
- 2. 2-4" CONDUITS FROM CT CABINET TO DISCONNECT SWITCH WITH 4-#400MCM, AND 1-#1/0, 1/C, 600 VOLT WIRES IN EACH CONDUIT BY CONTRACTOR.
- 3. CT CABINET AND METER FITTING BY CONTRACTOR
- 4. METER BY AMEREN-IP.
- GROUND ROD AND WIRE EXTENSION TO CT CABINET BY CONTRACTOR. 5/8"x10" ROD WITH 1/0 BARE CU WIRE, ROD TO WIRE CONNECTION ONE SHOT THERMOWELD TYPE.
- 6. ALL ELBOWS IN UNDERGROUND CONDUIT RUNS TO BE LONG SWEEP TYPE, RIGID STEEL HEAVY WALL.
- ALL WORK TO COMPLY WITH ILLINOIS POWER CO. (AMEREN-IP) ELECTRIC METER STANDARDS FOR 120/240 VOLT 3 PHASE, 4 WIRE SERVICE.
- SEE ILLINOIS POWER CO. (AMEREN-IP) FORM 305-69 AND ASSOCIATED STANDARDS INCLUDED IN THE SPECIAL PROVISIONS FOR INSTALLATION DETAILS.

DETAIL A

