LETTING ITEM NO. 18A

CONSTRUCTION PLANS
FOR

PE091
TOTAL SHEETS: 45

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

SUMMARY OF QUANTITIES

Item #	Description	Unit	Quantity
AR108158	1/C #8 5KV UG CABLE IN UD	LF	295
AR109100	CONSTRUCT ELECTRICAL VAULT	LS	1
AR109200	INSTALL ELECTRICAL EQUIPMENT	LS	1
AR109321	10 KW REGULATOR, STYLE 1	EA	4
AR109341	20 KW REGULATOR, STYLE 1	EA	2
AR109342	20 KW REGULATOR, STYLE 2	EA	1
AR109362	30 KW REGULATOR, STYLE 2	EA	1
AR109902	REMOVE ELECTRICAL EQUIPMENT	LS	1
AR110502	2-WAY CONCRETE ENCASED DUCT	LF	1,015
AR110524	24-WAY CONCRETE ENCASED DUCT	LF	665
AR110610	ELECTRICAL HANDHOLE	EA	12
AR125415	MITL-BASE MOUNTED	EA	1
AR125565	SPLICE CAN	EA	12
AR152411	UNCLASSIFIED EXCAVATION	LS	1
AR156510	SILT FENCE	LF	500
AR156520	INLET PROTECTION	EA	3
AR156540	RIP RAP	SY	65
AR201502	BITUMINOUS BASE COURSE - 2"	SY	255
AR209612	CRUSHED AGG. BASE COURSE - 12"	SY	271
AR401502	BITUMINOUS SURFACE COURSE - 2"	SY	255
AR401910	REMOVE & REPLACE BIT. PAVEMENT	SY	116
AR501910	REMOVE & REPLACE PCC PAVEMENT	SY	84
AR602510	BITUMINOUS PRIME COAT	GAL	110
AR603510	BITUMINOUS TACK COAT	GAL	26
AR701004	4" PVC STORM SEWER	LF	385
AR701212	12" CMP	LF	28
AR701518	18" RCP	LF	270
AR751410	INLET	EA	1
AR752212	METAL END SECTION 12"	EA	2
AR800250	2-1/C #8 5KV UG CABLE IN UD	LF	23,000
AR800261	2-1/C #6 600V XLP-USE, 1-#8 GND IN UD	LF	3680
AR800268	MODIFY SUPPLEMENTAL WIND CONES	EA	4
AR800273	6-STRAND FIBER OPTIC DATA CABLE	LF	3500
AR800275	6-1/C 750 MCM AL XHHW, 1-400 MCM GND	LF	4000
AR901510	SEEDING	ACRE	1.1
AR908510	MULCHING	ACRE	1.1

A.I.P. PROJECT NO.: 3-17-0080-XX
ILLINOIS PROJECT NO.: PIA-3981

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

APRIL 30, 2010

INDEX TO SHEETS

811 Know what's below. Call before you dig.

COMMON GROUND ALLIANCE
www.call811.com or
Phone: 811

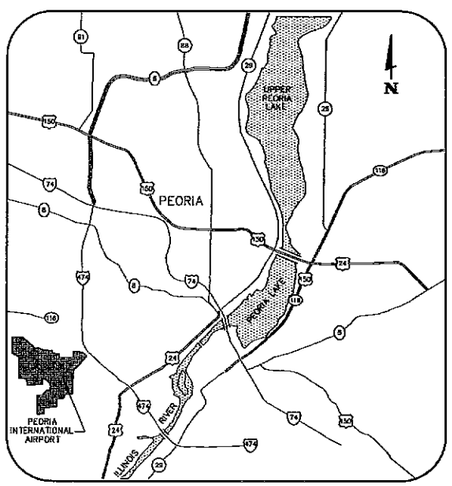
THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

CALL 911 IN THE EVENT IN WHICH DAMAGE RESULTS IN THE RELEASE OF NATURAL GAS.

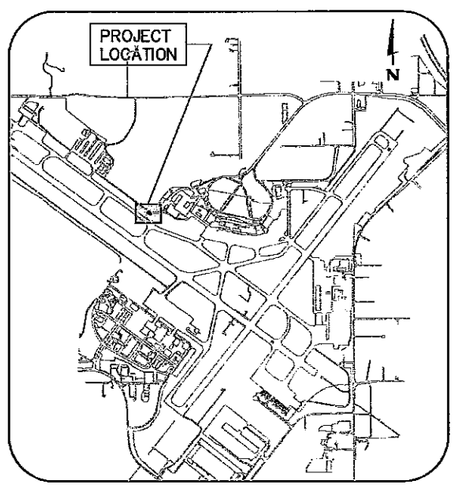
MAXIMUM EQUIPMENT HEIGHT = 25'
GROUND FREQUENCY 121.85

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

TOWNSHIP: 8 NORTH
RANGE: 7 EAST
COUNTY: PEORIA
TOWNSHIP: LIMESTONE



LOCATION MAP



SITE PLAN

4-26-10
date
HENRY E. CRAMER
062-049776
STATE OF ILLINOIS
expires: 11-30-11
signature

4-26-10
date
GERALD E. HALM
062-041035
STATE OF ILLINOIS
expires: 11-30-11
signature

LICENSED ARCHITECT
GEORGE T. CAIN
001-016369
STATE OF ILLINOIS
expires 11-30-10
signature
4-26-10
date

DATE: 4-26-10
JEFF J. FICKBOHM
081-006245
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS
SPRINGFIELD, ILLINOIS
Exp: 11-30-10

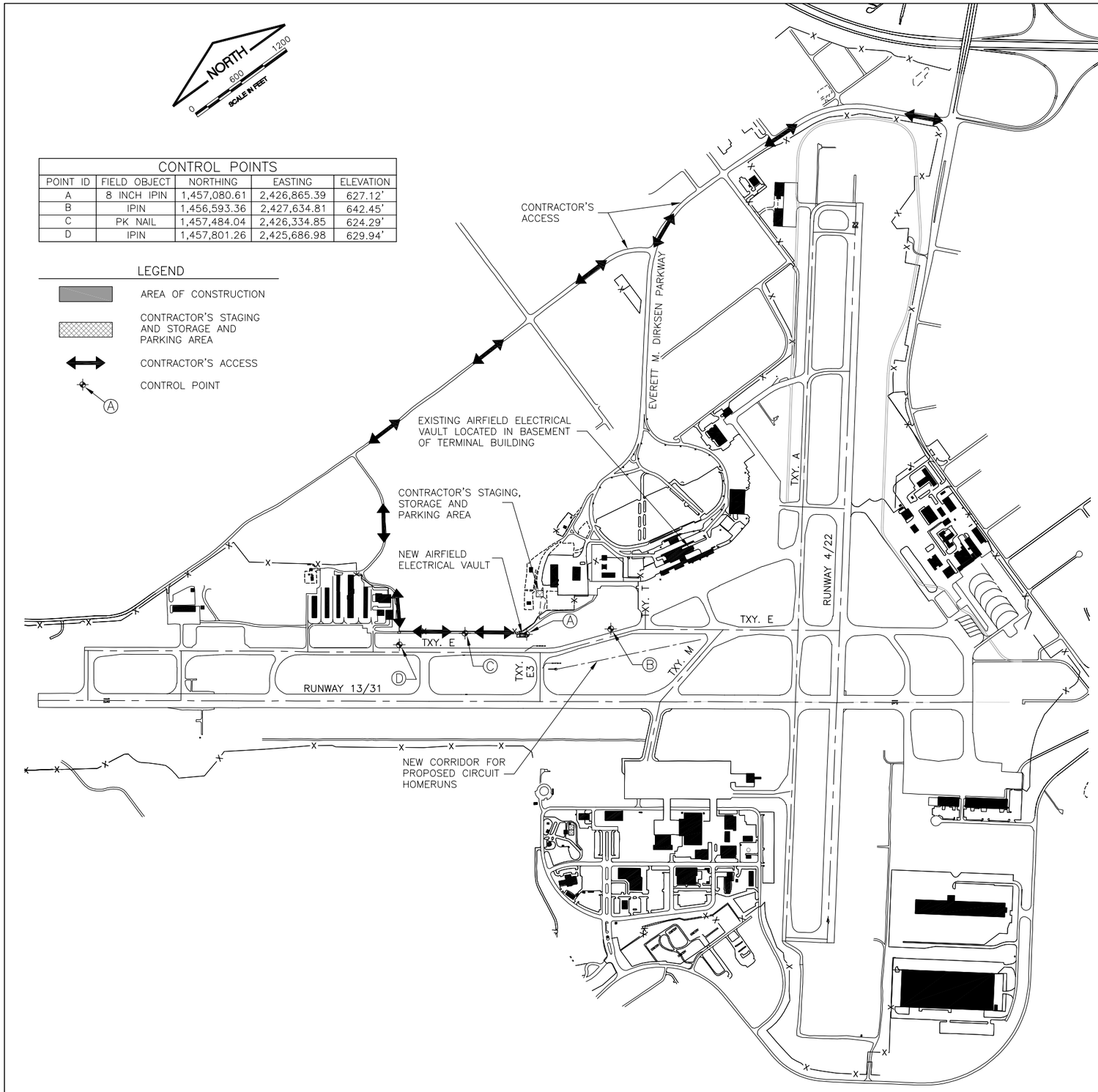
LICENSED PROFESSIONAL ENGINEER
CHARLES E. TAYLOR
062-044091
STATE OF ILLINOIS
4.22.10
Expires 11-30-2011

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

APPROVED Gene A Olson
DATE APRIL 19, 2010

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

SUBMITTED BY
DATE 4.22.10
CM&T JOB NUMBER 09061-05-00



GENERAL NOTES

1. ALL RUNWAYS, TAXIWAYS, AND APRONS SHALL BE KEPT OPEN TO AIRPORT TRAFFIC DURING CONSTRUCTION EXCEPT AS NOTED IN THE CONSTRUCTION ACTIVITY PLAN.
2. ALL CONSTRUCTION TRAFFIC OPERATING ON OR CROSSING RUNWAYS, TAXIWAYS, AND APRONS OPEN TO AIRCRAFT TRAFFIC SHALL BE UNDER CONTROL OF AN ESCORT OR A FLAGMAN IN RADIO CONTACT WITH FAA AIR TRAFFIC CONTROL TOWER PERSONNEL AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE HIS OWN RADIOS AND ONLY HIS PERSONNEL WHO HAVE SUCCESSFULLY COMPLETED THE APPROVED MAAP/FAA SAFETY COURSE MAY OPERATE THESE RADIOS.
3. WHEN CONFLICTS ARISE BETWEEN CONSTRUCTION ACTIVITIES AND AIRCRAFT OPERATIONS AND SAFETY, AIRCRAFT OPERATIONS AND SAFETY SHALL TAKE PRECEDENCE AND SHALL GOVERN. FINAL AUTHORITY IN THE APPROVAL OF CONSTRUCTION SEQUENCING LIES WITH THE AIRPORT OPERATIONS DIRECTOR.
4. THE CONTRACTOR WILL BE PERMITTED TO STORE EQUIPMENT AND MATERIALS AT THE LOCATIONS SHOWN ON THE CONSTRUCTION ACTIVITY PLAN. THE MAXIMUM HEIGHT OF EQUIPMENT, MATERIALS AND STOCKPILES SHALL BE 25' ABOVE GROUND ELEVATION.
5. EXCESS EARTH, BROKEN ASPHALT AND CONCRETE SHALL BE DISPOSED OF BY THE CONTRACTOR OFF AIRPORT PROPERTY UNLESS OTHERWISE DIRECTED BY THE AIRPORT.
6. VEHICLES AND EQUIPMENT SHALL NOT BE ALLOWED WITHIN 115' FROM THE CENTERLINE OF ACTIVE TAXIWAYS OR 250' FROM THE CENTERLINE OF ACTIVE RUNWAYS.
7. ROADS OR STORAGE AREAS SHALL BE MAINTAINED AND REPAIRED IN KIND BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AND THE AIRPORT. NO ADDITIONAL COMPENSATION SHALL BE MADE TO THE CONTRACTOR FOR THIS WORK.
8. EXISTING TURF AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY HIM AT HIS EXPENSE TO THE SATISFACTION OF THE RESIDENT ENGINEER AND THE AIRPORT.
9. THE CONTRACTOR SHALL CONTINUOUSLY CLEAN CONSTRUCTION AREAS WHICH WILL BE OPENED TO AIR TRAFFIC.
10. IT WILL BE NECESSARY FOR THE CONTRACTOR TO MAKE HIS OWN FIELD INVESTIGATION TO DETERMINE THE EXACT LOCATION OF THE UNDERGROUND UTILITIES AT CRITICAL POINTS SO AS TO AVOID ANY DAMAGE. ANY UTILITY, INCLUDING AIRFIELD ELECTRICAL CABLE AND LIGHTS, DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY HIM AT HIS OWN EXPENSE IN A MANNER WHICH IS SATISFACTORY TO THE ENGINEER AND TO THE OWNER OF THE UTILITY. ANY REPAIRS THAT MUST BE MADE BY THE OWNER OF THE UTILITY SHALL HAVE THE COST REIMBURSED TO THE UTILITY BY THE CONTRACTOR. AIRFIELD LIGHTING CABLES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY A QUALIFIED ELECTRICIAN WITH THE COSTS TO BE BORNE BY THE CONTRACTOR.
11. CONTRACTOR'S ACCESS SHALL BE AS FOLLOWS:
    - A. THE CONTRACTOR'S ACCESS TO WORK SHALL BE AS SHOWN IN THE PLANS.
    - B. THE CONTRACTOR SHALL COMPLETE A SECURITY FORM FOR ALL PERSONNEL HE PROPOSES TO USE ON THE AIRPORT. THESE FORMS SHALL BE COMPLETED PRIOR TO THAT PERSON BEING ALLOWED ON THE AIRFIELD. A LIST OF PERSONNEL AUTHORIZED TO WORK ON THE AIRFIELD SHALL BE PROVIDED TO THE AIRPORT OPERATIONS BY THE CONTRACTOR.
    - C. THE CONTRACTOR SHALL USE AN EXISTING GATE(S) FOR ACCESS TO THE AIRFIELD.
    - D. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND TEMPORARY EASEMENTS FOR THE PUBLIC ACCESS ROAD(S) SHOWN AND SHALL COMPLY WITH ALL REQUIREMENTS, LOAD RESTRICTIONS, & TRAFFIC CONTROL SIGNAGE REQUIRED BY THE CITY, COUNTY, TOWNSHIP, OR I.D.O.T.
    - E. DURING ADVERSE WEATHER THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE WORK AT NO ADDITIONAL COST TO THE CONTRACT. NO EXTENSION OF THE CONTRACT TIME WILL BE CONSIDERED FOR DELAYS DUE TO LACK OF ADEQUATE ACCESS TO THE WORK SITE.
    - F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE ACCESS GATE(S) CLOSED DURING WORK HOURS. THE CONTRACTOR SHALL POST A COMPETENT SECURITY GUARD TO CONTROL ACCESS AT THE GATE. THE CONTRACTOR SHALL REPLACE ANY UNSATISFACTORY SECURITY GUARDS AS DIRECTED.
    - G. THE CONTRACTOR SHALL CLOSE THE ACCESS GATE(S) UPON LEAVING THE SITE.
    - H. ALL COSTS RELATING TO CONTRACTOR'S ACCESS AND SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
    - I. THE CONTRACTOR SHALL STORE EQUIPMENT AND MATERIALS IN SUCH A WAY AS NOT TO VIOLATE AIRPORT PART 77 SURFACES, OR RUNWAY AND TAXIWAY SAFETY AREAS.
    - J. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ACTIVE AIRFIELD PAVEMENTS WHICH ARE CROSSED BY HIS VEHICLES ACCESSING THE WORK OR DEPARTING THE WORK IMMEDIATELY FOLLOWING SAID VEHICLE.
12. CONTRACTOR'S VEHICLES AND EQUIPMENT SHALL BE MARKED AND FLAGGED PER SECTION 50-10 OF THE STANDARD SPECIFICATIONS. MAXIMUM HEIGHT OF CONTRACTOR'S EQUIPMENT WILL BE 25'.
13. COST OF TEMPORARY EDGE LIGHTING AND CABLING IN ORDER TO MAINTAIN AIRFIELD CIRCUITS WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

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PLOT DATE: 5/6/2010 3:51 PM
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Base
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prop_pavement1
PIA TIPS 9_03_08

PE091

REVISIONS

NUMBER	BY	DATE

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

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

AIRPORT SITE PLAN

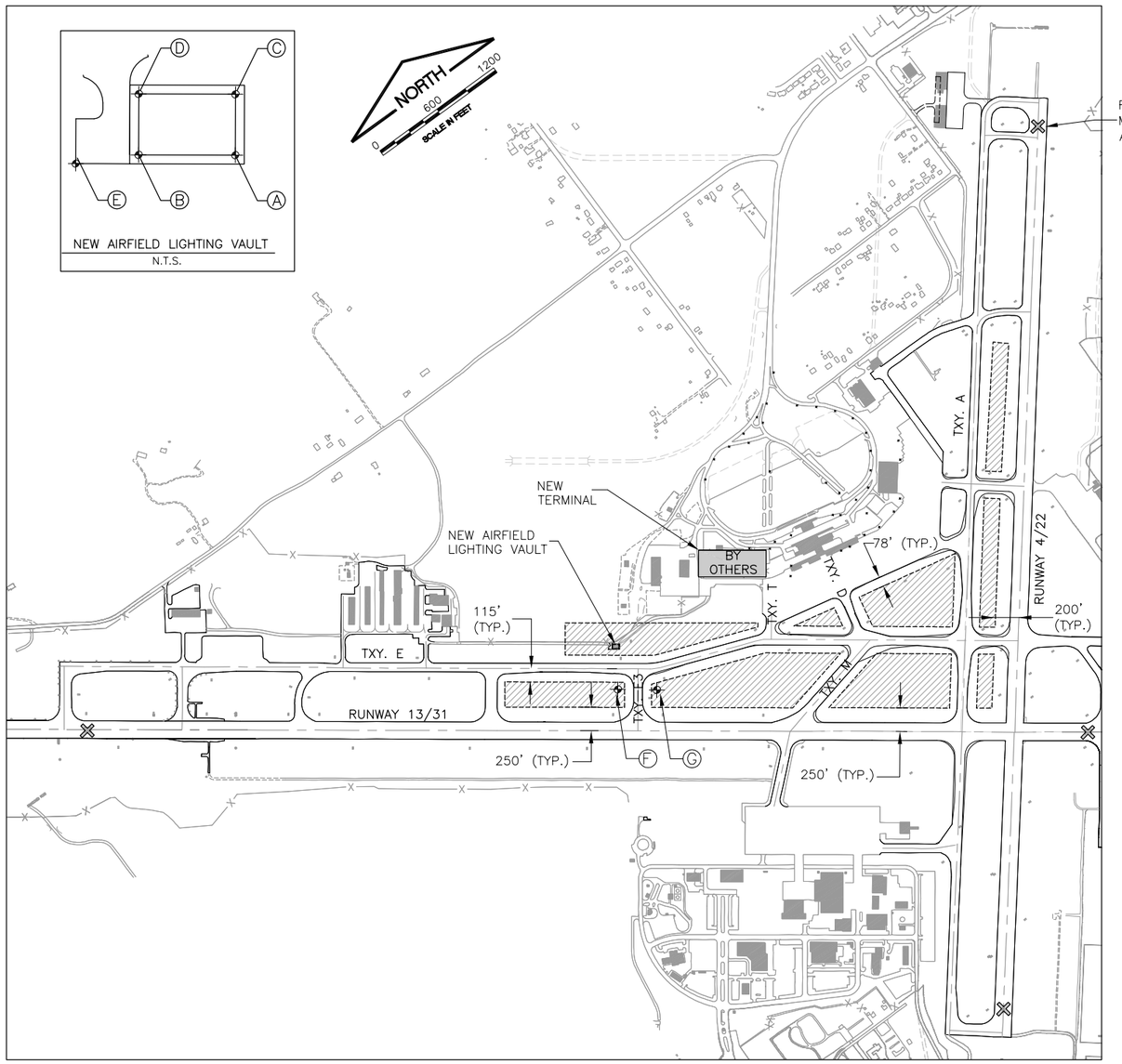
CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

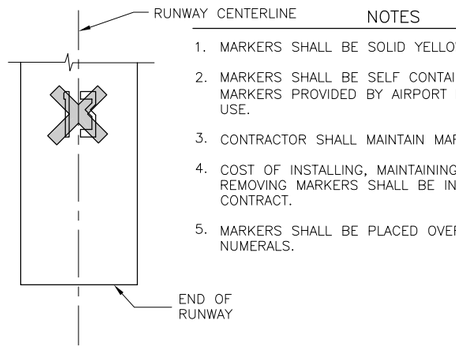
GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

DESIGN BY:	TJH
DRAWN BY:	CMT
CHECKED BY:	CET
APPROVED BY:	CET
DATE:	APRIL 30, 2010
JOB No:	0906105

IL. PROJ. NO. PIA-3981
AIP PROJ. NO. 3-17-0080-XX

SHEET 02 OF 45 SHEETS





NOTES

1. MARKERS SHALL BE SOLID YELLOW.
2. MARKERS SHALL BE SELF CONTAINED MOBILE MARKERS PROVIDED BY AIRPORT FOR CONTRACTOR'S USE.
3. CONTRACTOR SHALL MAINTAIN MARKERS.
4. COST OF INSTALLING, MAINTAINING, RELOCATING AND REMOVING MARKERS SHALL BE INCIDENTAL TO THE CONTRACT.
5. MARKERS SHALL BE PLACED OVER EXISTING RUNWAY NUMERALS.

CLOSED RUNWAY MARKER DETAIL
N.T.S.

CRITICAL POINTS

POINT ID	FIELD OBJECT	LATITUDE	LONGITUDE	GRD. ELEV.
A	BLDG. CORNER	40°39'59.98"	89°41'49.63"	627.75
B	BLDG. CORNER	40°40'00.30"	89°41'50.19"	627.75
C	BLDG. CORNER	40°40'00.25"	89°41'49.36"	627.75
D	BLDG. CORNER	40°40'00.57"	89°41'49.93"	627.75
E	PVT. CORNER	40°40'00.47"	89°41'50.59"	627.00
F	HANDHOLE PLAZA	40°39'57.27"	89°41'52.40"	626.76
G	HANDHOLE PLAZA	40°39'55.29"	89°41'48.97"	636.00

SEQUENCE OF CONSTRUCTION NOTES

GENERAL

1. THE GENERAL PROGRESSION OF THE WORK SHALL BE AS FOLLOWS:

   A. SUBMIT EQUIPMENT AND BUILDING SHOP, PLAN AND WORKING DRAWINGS FOR REVIEW. INCLUDE WITH THE SUBMITTALS ALL BUY AMERICAN CERTIFICATIONS FOR ALL MATERIALS.

   B. SUBMIT NOTICE OF OBSTRUCTION EVALUATION– AIRPORT AIRSPACE ANALYSIS (OE/AAA) INFORMATION FOR ANTICIPATED EQUIPMENT HEIGHTS IF IN EXCESS OF 25'. NOTE THAT THIS PROCESS MAY REQUIRE UP TO 90 DAYS FOR FAA APPROVAL. EQUIPMENT ABOVE 25' HEIGHT SHALL NOT BE UTILIZED UNTIL FAA APPROVAL HAS BEEN PROVIDED.

   C. SUBMIT PROJECT SCHEDULE SHOWING RELATIONSHIP BETWEEN CONSTRUCTION TIME FOR VAULT BUILDING VERSUS CONSTRUCTION TIME FOR DUCT INSTALLATION, UNDERGROUND CABLING IN AOA. SCHEDULE FOR UNDERGROUND CABLING SHALL BE COORDINATED WITH BUILDING SCHEDULE TO MINIMIZE EXPOSURE TO NEW CABLE.

   D. INITIATE CONSTRUCTION OF NEW VAULT BUILDING, INCLUDING SITEWORK. FIELD VERIFY LOCATION OF EXISTING CIRCUITS, PERFORM TESTING ON EXISTING AIRFIELD CIRCUITS TO VERIFY CONDITION OF CIRCUIT CABLES. THE RESIDENT ENGINEER SHALL BE PRESENT AT THE TIME OF TESTING AND SHALL BE GIVEN A COPY OF THE TEST RESULTS.

   E. COMPLETE THE CONSTRUCTION OF THE POWER FEED FOR THE NEW VAULT BUILDING FROM THE NEW TERMINAL.

   F. INITIATE INSTALLATION OF UNDERGROUND DUCTS AND NEW AIRFIELD LIGHTING/UNDERGROUND ELECTRICAL CABLES. COORDINATE COMPLETION OF THE AIRFIELD DUCT AND CABLE WORK WITH THE COMPLETION OF THE VAULT BUILDING AND INSTALLATION OF THE ELECTRICAL EQUIPMENT.

   G. INSTALL NEW AIRFIELD LIGHTING CONTROL PANEL IN EXISTING TOWER.

   H. COORDINATE "CUT OVER" OF EXISTING CIRCUITS DURING DAYLIGHT NON–ILS WEATHER. CIRCUITS SHALL BE CUT OVER IN EXPEDITED MANNER SO THAT ONLY ONE CIRCUIT IS OUT OF ORDER AT ANY GIVEN TIME. OVERALL CUT OVER SHALL BE EXPEDITED TO MINIMIZE REQUIREMENT FOR SIMULTANEOUS OPERATION OF DUAL CONTROL SYSTEMS.

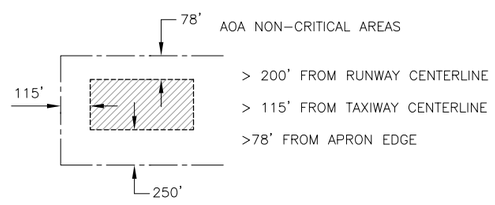
   I. RELOCATE REGULATORS AND OTHER ELECTRICAL EQUIPMENT SHOWN TO BE REMOVED FROM THE EXISTING VAULT TO THE NEW VAULT.

   J. REMAINING VAULT DEMOLITION WORK SHALL BE COMPLETED.

WORK INSIDE THE AOA THAT IS NOT INSIDE PAVEMENT CRITICAL AREAS:

1. THE CONTRACTOR SHALL CLOSE INDIVIDUAL PAVEMENT FEATURES WHEN WORKING WITHIN THE FOLLOWING LIMITS:
   WITHIN 250 FEET OF A RUNWAY CENTERLINE
   WITHIN 115' OF A TAXIWAY CENTERLINE
   WITHIN 78' OF THE EDGE ON AN AIRCRAFT APRON
2. THE CONTRACTOR SHALL PROVIDE 96 HOURS NOTICE PRIOR TO CLOSING AIRFIELD PAVEMENTS.
3. WHEN WORKING IN AREAS THAT REQUIRE PAVEMENT CLOSURES THE CONTRACTOR SHALL INSTALL AND MAINTAIN BARRICADES AS SPECIFIED ON CONSTRUCTION ACTIVITY PLAN – SHEET 2.
4. THE CONTRACTOR WILL BE ALLOWED TO WORK IN AREAS OUTSIDE OF THE PAVEMENT CRITICAL AREAS AS SHOWN ON THIS SHEET.
5. EQUIPMENT MAY BE STORED IN THE AREAS SHOWN TO MINIMIZE TRANSPORTATION OF THAT EQUIPMENT. UPON COMPLETION OF WORK IN EACH AREA THE EQUIPMENT SHALL BE REMOVED FROM THAT AREA.
6. PERSONNEL AND EQUIPMENT BEING MOVED ON OR ACROSS ACTIVE AIRFIELD PAVEMENTS SHALL BE ESCORTED BY A BADGED INDIVIDUAL WHO IS IN CONSTANT CONTACT WITH THE ATCT.
7. THE CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING THE AIRSPACE FOR THE CONSTRUCTION EQUIPMENT THAT IS TALLER THAN THAT SPECIFIED ON THE PLANS WITH THE FAA. THIS PROCESS MAY TAKE UP TO 12 WEEKS TO COMPLETE.
8. THE CONTRACTOR WILL NOT BE ALLOWED TO INTERRUPT SERVICE FOR ANY OF THE EXISTING CIRCUITS UNTIL THE NEW VAULT IS CONSTRUCTED AND READY FOR SERVICE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING ALL EXISTING CIRCUITS PRIOR TO CONSTRUCTION AND FOLLOWING CONSTRUCTION AS SPECIFIED IN THE CONTRACT DOCUMENTS.
10. WORK ON THE AIRFIELD SHALL BE CLOSELY COORDINATED WITH THE DELIVERY TIME/CONSTRUCTION OF THE VAULT.
11. THE CONTRACTOR SHALL NOTE THAT WORK WILL BE ONGOING IN THE EXISTING TERMINAL AND IN THE VICINITY OF THE TERMINAL AND THE EXISTING CABLE RUNS. THIS WORK IS BEING COMPLETED BY A CONTRACTOR(S) FOR A TENANT OF THE AIRPORT. THE CONTRACTOR SHALL COORDINATE ALL OF HIS/HER OPERATIONS WITH THE AIRPORT THROUGH THE RESIDENT ENGINEER. CONFLICTS IN CONSTRUCTION OPERATIONS OR SCHEDULE SHALL BE RESOLVED BY THE AIRPORT AS SPECIFIED IN THE CONTRACT DOCUMENTS.

LEGEND



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CONTOUR
Base
BASE_PROP_ELEC
BASE_PROP_GEO
BASE_PROP_ROAD_Phs3
KEYMAP

PE091

REVISIONS

NUMBER	BY	DATE

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

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

CONSTRUCTION ACTIVITY PLAN 1

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

DESIGN BY:	AJH/CET
DRAWN BY:	CMT
CHECKED BY:	CET
APPROVED BY:	CET
DATE:	APRIL 30, 2010
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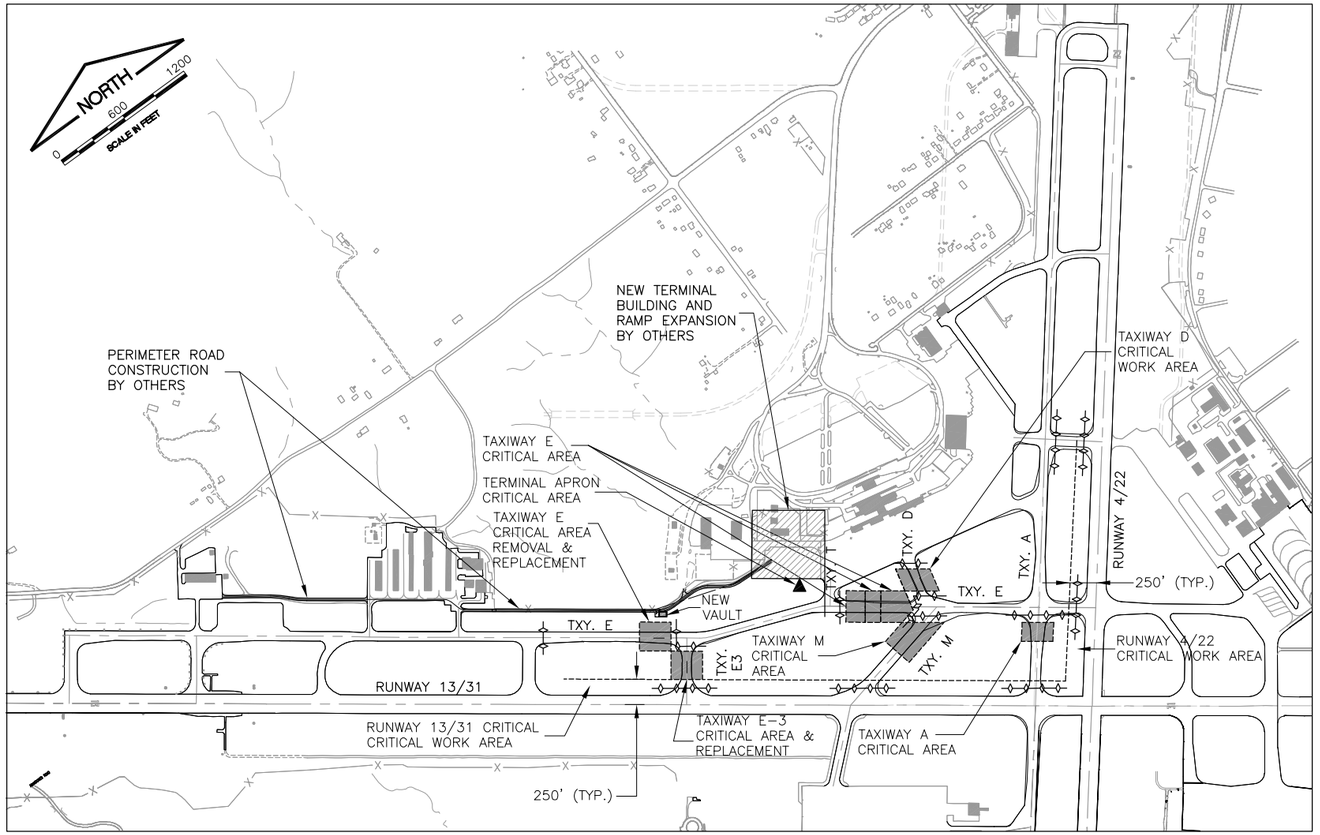
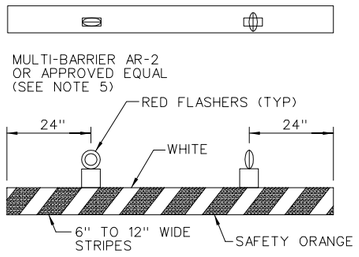
SHEET 03 OF 45 SHEETS





PLAN

BARRICADE NOTES:

1. FLASHERS SHALL BE BATTERY OPERATED. LENS SHALL BE RED AND BE ABLE TO ROTATE 90°.
2. FACING OF BARRICADE SHALL BE COVERED WITH REFLECTIVE TAPE OR PAINT.
3. BARRICADES TO BE PLACED WITH A MAXIMUM OF 15' SPACING BETWEEN ENDS OF BARRICADES ALONG OPERATIONAL PAVEMENT ADJACENT TO CONSTRUCTION OR AS DIRECTED BY THE RESIDENT ENGINEER. ALTERNATE FLASHER LENSES SO THAT EVERY OTHER LENS IS ROTATED 90°.
4. FLASHERS SHALL BE SECURED TO THE BARRICADES, AS APPROVED BY THE RESIDENT ENGINEER.
5. BARRICADES SHALL BE OF LOW MASS, EASILY COLLAPSIBLE UPON CONTACT WITH AN AIRCRAFT OR ANY OF IT COMPONENTS, AND WEIGHTED OR STURDILY ATTACHED TO THE SURFACE. IF AFFIXED TO THE SURFACE, THE BARRICADE MUST BE FRANGIBLE AT GRADE LEVEL OR LOW AS POSSIBLE, BUT NOT TO EXCEED 3 INCHES ABOVE THE GROUND.

LOW PROFILE LIGHTED BARRICADE

NTS

SEQUENCE OF CONSTRUCTION NOTES

PHASE 1

1. PHASE 1 SHALL INCLUDE THE CONSTRUCTION OF THE ELECTRICAL VAULT BUILDING WITH THE ASSOCIATED SITE WORK.

PHASE 2

1. THE CONTRACTOR SHALL COORDINATE WORK LOCATED INSIDE THE AOA WITH THE DELIVERY/ INSTALLATION SCHEDULE FOR THE VAULT. IT IS THE INTENTION TO NOT HAVE CONDUCTORS INACTIVE, UNCONNECTED AND BURIED FOR A SIGNIFICANT PERIOD OF TIME DURING THE PROJECT.
2. THE WORK IN PHASE TWO REQUIRES THE CLOSURE OF TAXIWAYS DURING WORKING HOURS. THE CONTRACTOR SHALL BE ABLE TO LEAVE EXCAVATIONS IN THE TAXIWAY SAFETY AREA OPEN DURING NON-WORKING HOURS IF THE CONTRACTOR LIGHTS THE EDGE OF THE TAXIWAY WITH APPROVED BEAM STYLE BARRICADES. NO EQUIPMENT OR STOCKPILES ARE ALLOWED IN THE TAXIWAY SAFETY AREA WHEN THE TAXIWAY IS OPEN.
3. THE CONTRACTOR SHALL COORDINATE THE CLOSURE OF THE TAXIWAYS WITH THE AIRPORT AND THE TENANTS THROUGH THE RESIDENT ENGINEER. THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE PRIOR TO CLOSING A TAXIWAY FOR COORDINATION WITH TENANTS AND THE ISSUANCE OF NOTAMS.
4. THE CONTRACTOR SHALL LOCATE EXISTING CIRCUITS AND DESIGNATE A LOCATION FOR CONNECTION OF THE EXISTING CIRCUIT TO THE NEW EXTENSION TO THE PROPOSED VAULT. WHEN THE EQUIPMENT IN THE NEW VAULT IS READY FOR OPERATION, THE CONTRACTOR SHALL COORDINATE THE "SWITCH OVER" OF EACH CIRCUIT INDIVIDUALLY WITH THE AIRPORT. THE TIMING OF THE SWITCH OVER SHALL BE APPROVED BY THE AIRPORT SO AS TO MINIMIZE THE DISTURBANCE TO OPERATIONS AT THE AIRPORT. THE CONTRACTOR SHALL PROVIDE THE AIRPORT WITH A TIME THAT EACH CIRCUIT WILL BE DISABLED. IF NECESSARY THE CONTRACTOR SHALL BE REQUIRED TO MAKE THE SWITCH OVER DURING NON PEAK HOURS.

PHASE 3

1. THE CONTRACTOR SHALL DECOMMISSION THE EXISTING VAULT FOLLOWING THE COMPLETION OF THE NEW VAULT AND AFTER THE EQUIPMENT IN THE EXISTING VAULT IS NO LONGER NEEDED.
2. THE CONTRACTOR SHALL REMOVE THE EXISTING EQUIPMENT FROM THE EXISTING VAULT AND DISPOSE OF THE EQUIPMENT OFF OF AIRPORT PROPERTY. THE REMOVAL METHODS SHALL BE SUCH THAT THE EQUIPMENT MAY BE RE-USED IF DESIRED BY THE AIRPORT. PRIOR TO REMOVAL FROM THE SITE, THE CONTRACTOR SHALL COORDINATE WITH THE AIRPORT WHICH EQUIPMENT THE AIRPORT WISHES TO RETAIN. THIS EQUIPMENT SHALL THEN BE STORED ON THE AIRPORT AT A LOCATION SPECIFIED BY THE AIRPORT MANAGER.

RUNWAY CRITICAL AREAS

1. WORK IN THE RUNWAY 13/31 CRITICAL AREA SHALL BE LIMITED TO THAT WORK NECESSARY TO ABANDON THE EXISTING HOME RUN AND CONSTRUCT THE NEW 13/31 HOME RUN WITHIN 250' OF THE RUNWAY CENTERLINE.
2. WORK IN THE RUNWAY 4/22 CRITICAL AREA SHALL BE LIMITED TO THE WORK NECESSARY TO ABANDON THE EXISTING HOME RUN AND TO CONSTRUCT THE NEW HOME RUN WITHIN 250' OF THE RUNWAY CENTERLINE. IN ADDITION THE WORK RELATED TO ABANDONING EXISTING CIRCUIT 2 AND CONSTRUCTION OF THE NEW CIRCUIT 2 HOME RUN WITHIN 250' OF THE RUNWAY 4/22 CENTERLINE SHALL BE A PART OF THIS PHASE. THIS INCLUDES THE EFFORT ASSOCIATED WITH CROSSING TAXIWAY A-4 AND E WHERE THE EXISTING DUCT IS CLOSER THAN 250' FROM THE RUNWAY CENTERLINE.
3. ONLY ONE RUNWAY MAY BE CLOSED AT ANY TIME.
4. EQUIPMENT OR PERSONNEL SHALL REMAIN CLEAR OF THE RUNWAY PAVEMENTS AT ALL TIMES.
5. RUNWAY CLOSURE MARKERS SHALL BE IN PLACE ON THE CLOSED PAVEMENT PRIOR TO INITIATING WORK IN THESE AREAS. WHEN WORKING IN THE VICINTY OF TAXIWAY A-4 AND TAXIWAY E THE TAXIWAYS SHALL BE CLOSED WITH BARRICADES AT A MAXIMUM SPACING OF 15'.
6. RUNWAYS SHALL ONLY BE CLOSED DURING WORKING HOURS. NO EQUIPMENT, STOCKPILES OR EXCAVATIONS SHALL REMAIN INSIDE THE RUNWAY SAFETY AREAS AFTER WORKING HOURS.

APRON/ TAXIWAY CRITICAL AREAS

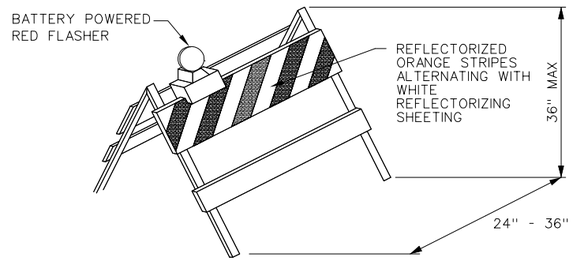
1. WORK IN THE TAXIWAY SAFETY AREAS SHALL BE LIMITED TO AREAS SURROUNDING THE ENDS OF EXISTING DUCTS OR THE ELECTRICAL HANDHOLES. TAXIWAYS SHALL ONLY BE CLOSED DURING WORKING HOURS EXCEPT AS SPECIFIED IN NOTE 2 BELOW. NO EQUIPMENT, STOCKPILES OR EXCAVATIONS SHALL REMAIN INSIDE THE TAXIWAY SAFETY AREAS AFTER WORKING HOURS.
2. IN TWO LOCATIONS THE WORK SHALL CONSIST OF OPEN CUTTING THE TAXIWAY FOR THE CONSTRUCTION OF NEW UNDERGROUND MUTI BANK DUCTS. THIS WORK SHALL BE EXPEDITED. ONLY ONE TAXIWAY MAY BE CLOSED AT ANY ONE TIME. THE CONTRACTOR SHALL HAVE SIX CONSECUTIVE CALENDER DAYS TO CONSTRUCT EACH OPEN CUT DUCT CROSSING. THE GRADING BETWEEN TAXIWAY ECHO AND RUNWAY 13/31 SHALL BE COMPLETED DURING THIS CLOSURE
3. THE TAXIWAYS OR EDGES OF APRONS SHALL BE CLOSED WITH BARRICADES AT 15' MAXIMUM SPACING PRIOR TO WORKING IN THE CRITICAL WORK AREAS.
4. THE CONTRACTOR SHALL ONLY BE ALLOWED TO WORK IN ONE TAXIWAY CRITICAL AREA AT ANY ONE TIME, UNLESS APPROVED BY AIRPORT OPERATIONS.

GENERAL NOTES

1. THE CONTRACTOR SHALL COORDINATE WORK LOCATED INSIDE THE AOA WITH THE DELIVERY/INSTALLATION SCHEDULE FOR THE VAULT. IT IS THE INTENTION TO NOT HAVE CONDUCTORS INACTIVE, UNCONNECTED AND BURIED FOR A SIGNIFICANT PERIOD OF TIME DURING THE PROJECT.
2. NO EQUIPMENT OR STOCKPILES ARE ALLOWED IN THE SAFETY AREAS WHEN THE TAXIWAY IS OPEN.
3. BARRICADES ARE TO BE PLACED AT THE EDGE OF THE NEAREST SAFETY AREA AS SHOWN ABOVE.

LEGEND

- CONSTRUCTION WORK AREAS
- CRUNWAY SAFETY AREA
- BARRICADES, IDOT TYPE 1 WITH RED LIGHTS AND 20"x20" ORANGE FLAGS AT 15' SPACING



NOTE:
BARRICADES SHALL BE PLACED AS SHOWN ON THE CONSTRUCTION ACTIVITY PLANS 15' ON CENTER AT DESIGNATED LOCATIONS. BARRICADE SHALL BE WEIGHTED WITH A MINIMUM OF 6 SAND BAGS TO PREVENT THEM FROM BEING BLOWN OVER.

ALTERNATE BARRICADE DETAIL

NOTE:
WHERE NOT SPECIFIED, THE CONTRACTOR SHALL HAVE THE OPTION AS TO WHICH TYPE OF BARRICADE IS USED.

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FILE: CONSTRUCTION ACTIVITY PLAN 2.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:51 PM
base 09-05-2007
CONTOUR
Base
BASE_PROP_ELEC
BASE_PROP_GEO
BASE_PROP_ROAD_Phs3
KEYMAP

PE091

REVISIONS

NUMBER	BY	DATE

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

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

CONSTRUCTION ACTIVITY PLAN 2

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CHECKED BY:	CET
APPROVED BY:	CET
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JOB No:	0906105

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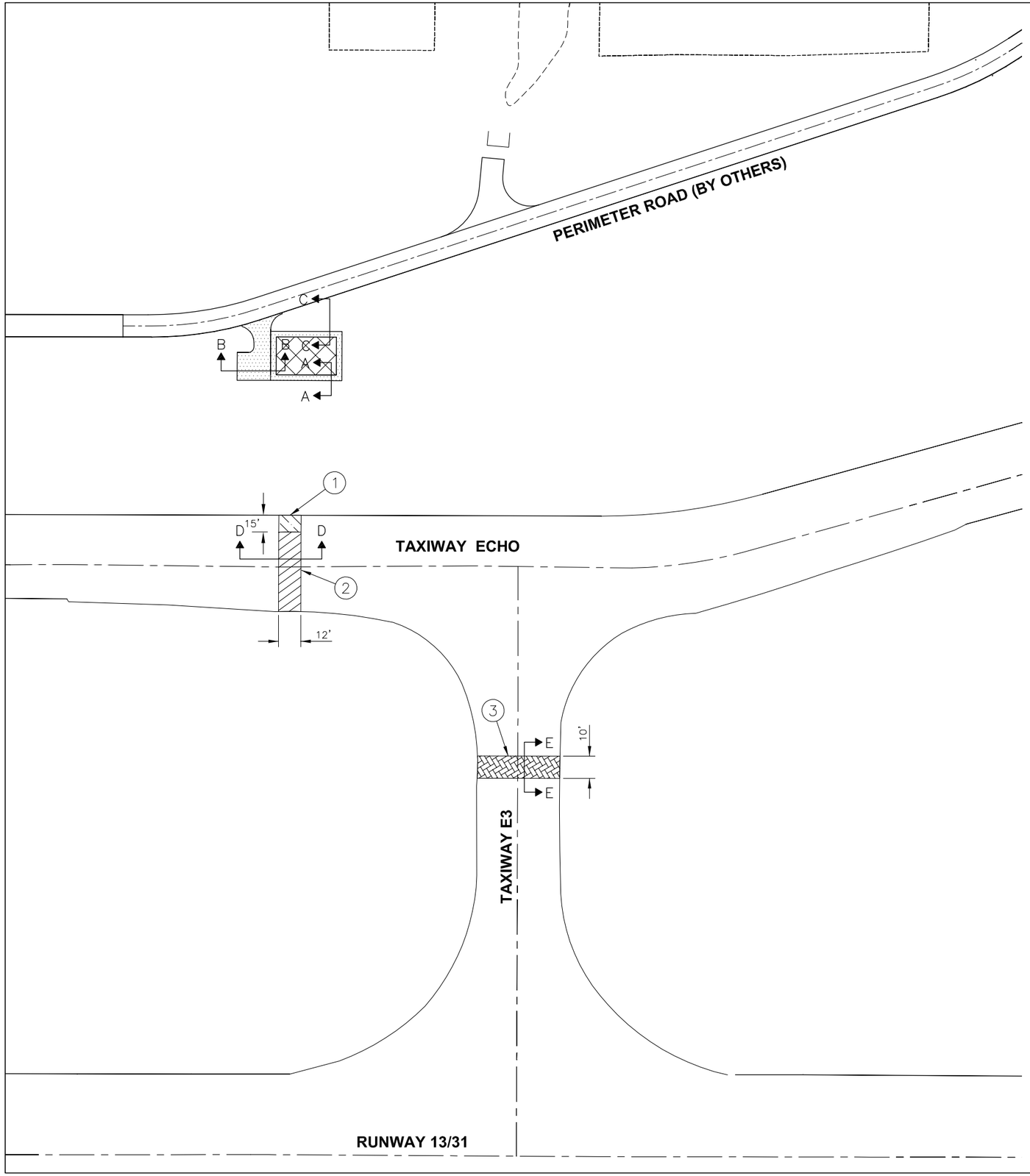
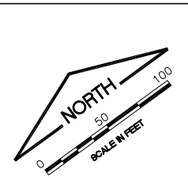
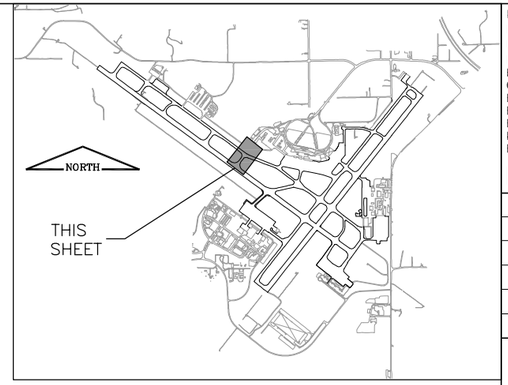
AIP PROJ. NO. 3-17-0080-XX

SHEET 04 OF 45 SHEETS







KEY MAP

LEGEND

- NEW VAULT BUILDING
- NEW 2" BITUMINOUS SURFACE COURSE (401)
  NEW 2" BITUMINOUS BASE COURSE (403)
  NEW 12" CRUSHED AGG. BASE COURSE (209)
- PAVEMENT REMOVAL
  NEW 4.5" BITUMINOUS SURFACE COURSE (401)
  NEW 9.5" BITUMINOUS BASE COURSE (403)
  NEW 12" CRUSHED AGG. BASE COURSE (209)
- PAVEMENT REMOVAL
  NEW 21" PCC PAVEMENT
- PAVEMENT REMOVAL
  NEW 4.5" BITUMINOUS SURFACE COURSE (401)
  NEW 9.5" BITUMINOUS BASE COURSE (403)
  NEW 12" CRUSHED AGG. BASE COURSE (209)

EXISTING PAVEMENT STRUCTURE

(1) 4.5" BITUMINOUS SURFACE COURSE (401)
5/8" POROUS FRICTION COURSE (402)
9.5" BITUMINOUS BASE COURSE (403)
12" CRUSHED AGGREGATE BASE COURSE (209)

(2) 9.5" BITUMINOUS PAVEMENT
6" CRUSHED AGGREGATE BASE COURSE (209)

(3) 14" PCC PAVEMENT (501)
7" BITUMINOUS BASE COURSE (403)

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Base
BASE_PROP_GEO
BASE_PROP_ROAD_Phs3
KEYMAP
BASE_PROP_DRAIN

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CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

PROPOSED IMPROVEMENTS

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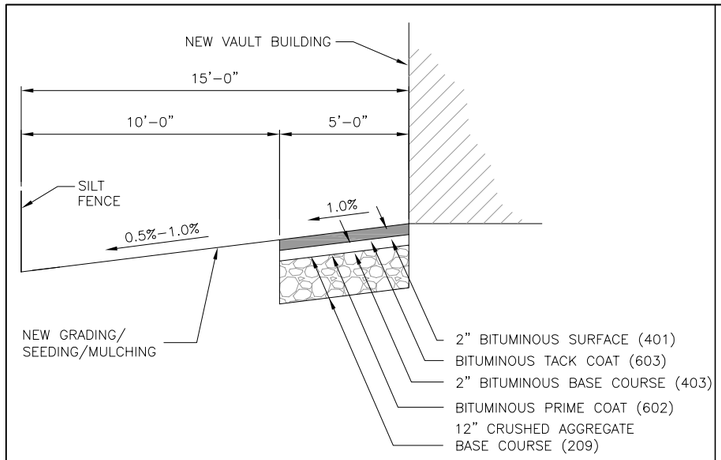
SHEET 05 OF 45 SHEETS



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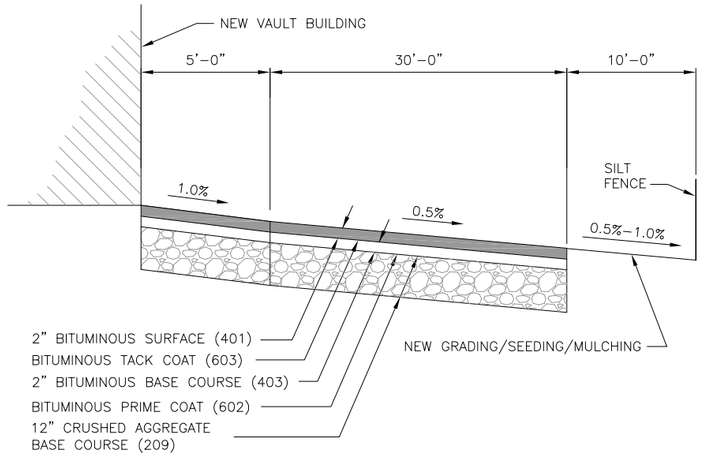

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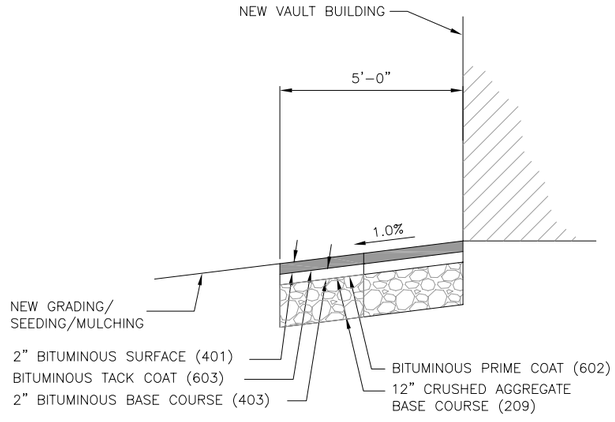

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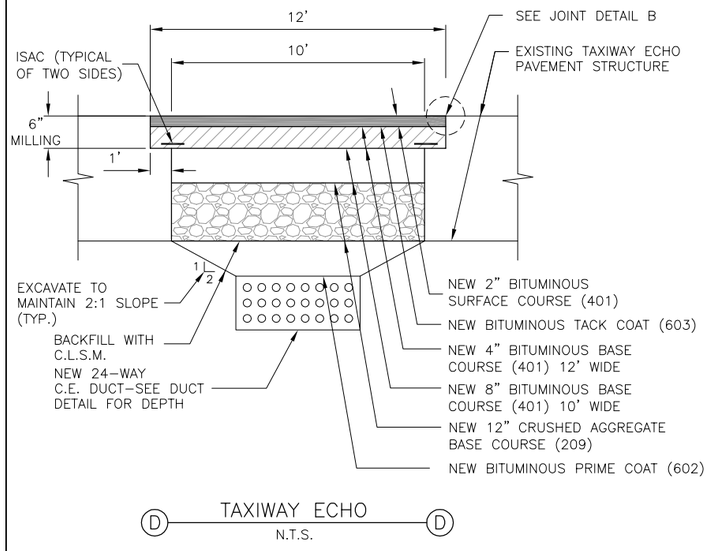
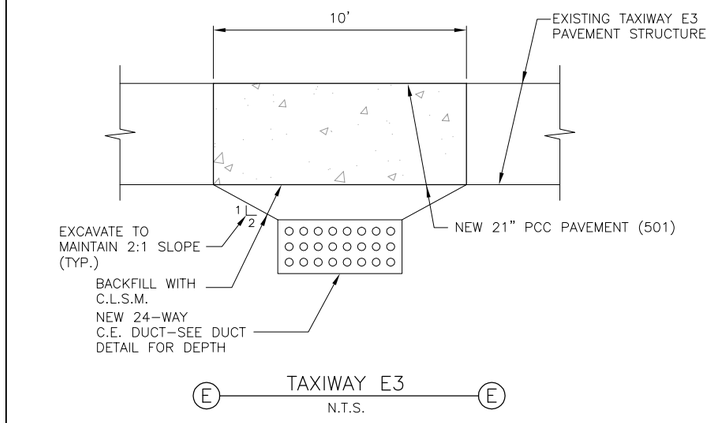
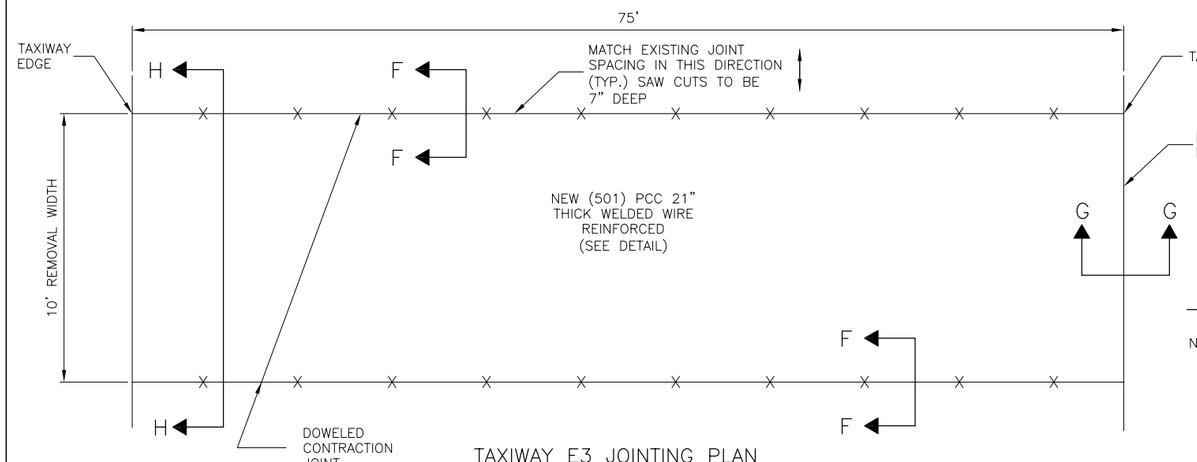


D TAXIWAY ECHO D
N.T.S.



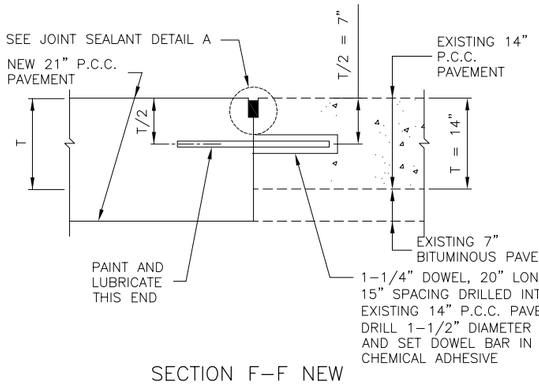
TAXIWAY E3
N.T.S.



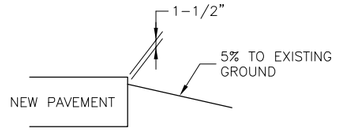
TAXIWAY E3 JOINTING PLAN
N.T.S.

NOTE:
CONTRACTOR SHALL PLACE NEW BITUMINOUS SURFACE COURSE A MAXIMUM OF 1/2" AND A MINIMUM OF 1/4" ABOVE THE EXISTING SURROUNDING PAVEMENT TO ALLOW FOR FUTURE CONSOLIDATION.

JOINT DETAIL B
N.T.S.



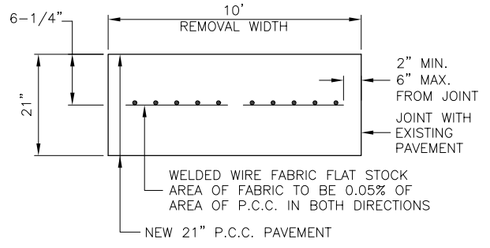
SECTION F-F NEW CONTRACTION JOINT DETAIL (TYPICAL BOTH SIDES)
N.T.S.



NOTE:
A MINIMUM 1-1/2" EDGE DROP IS REQUIRED BETWEEN EDGE OF NEW PAVEMENT AND EMBANKMENT MATERIAL. IN NO CASE WILL A DROP EXCEEDING 2-1/2" BE PERMITTED.

SECTION G-G
N.T.S.

JOINT SEALANT DETAIL A
N.T.S.



SECTION H-H MESH REINFORCEMENT DETAIL
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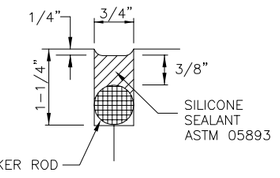

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CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

TYPICAL SECTIONS 1

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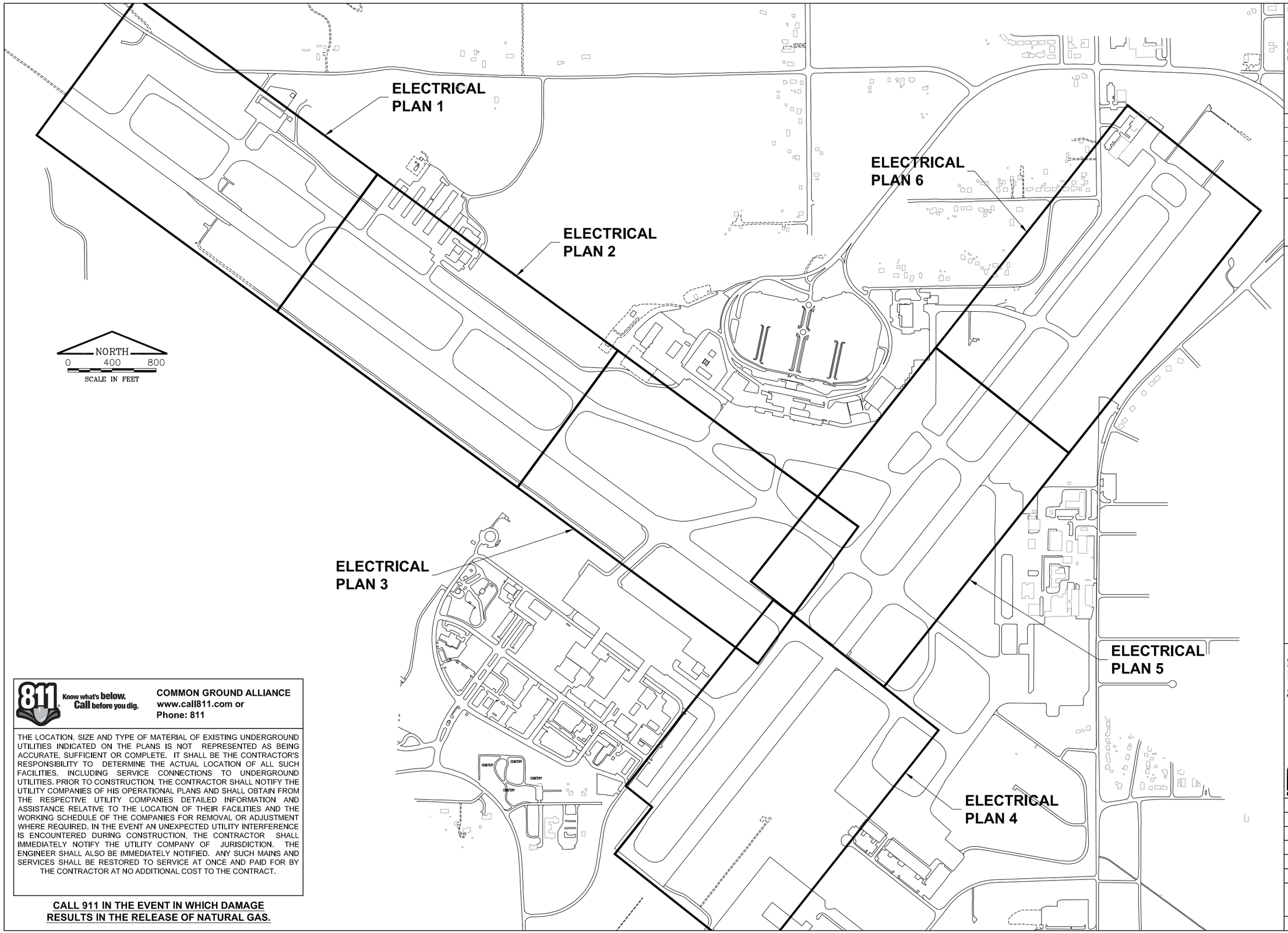
IL. PROJ. NO. PIA-3981
AIP PROJ. NO. 3-17-0080-XX

SHEET 06 OF 45 SHEETS



811 Know what's **below.** **Call** before you dig.

COMMON GROUND ALLIANCE
www.call811.com or
Phone: 811

THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. 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 COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

CALL 911 IN THE EVENT IN WHICH DAMAGE RESULTS IN THE RELEASE OF NATURAL GAS.

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base 09-05-2007
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PIA BASE 9_03_08

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ELECTRICAL PLAN SHEET INDEX

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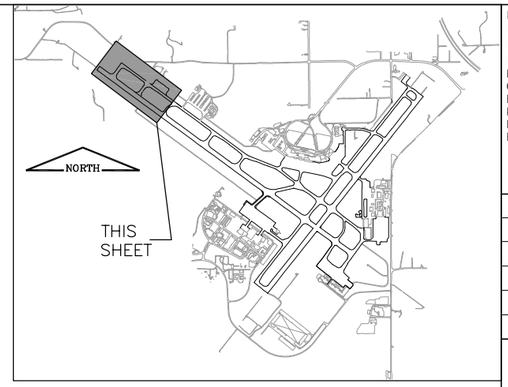
SHEET 07 OF 45 SHEETS

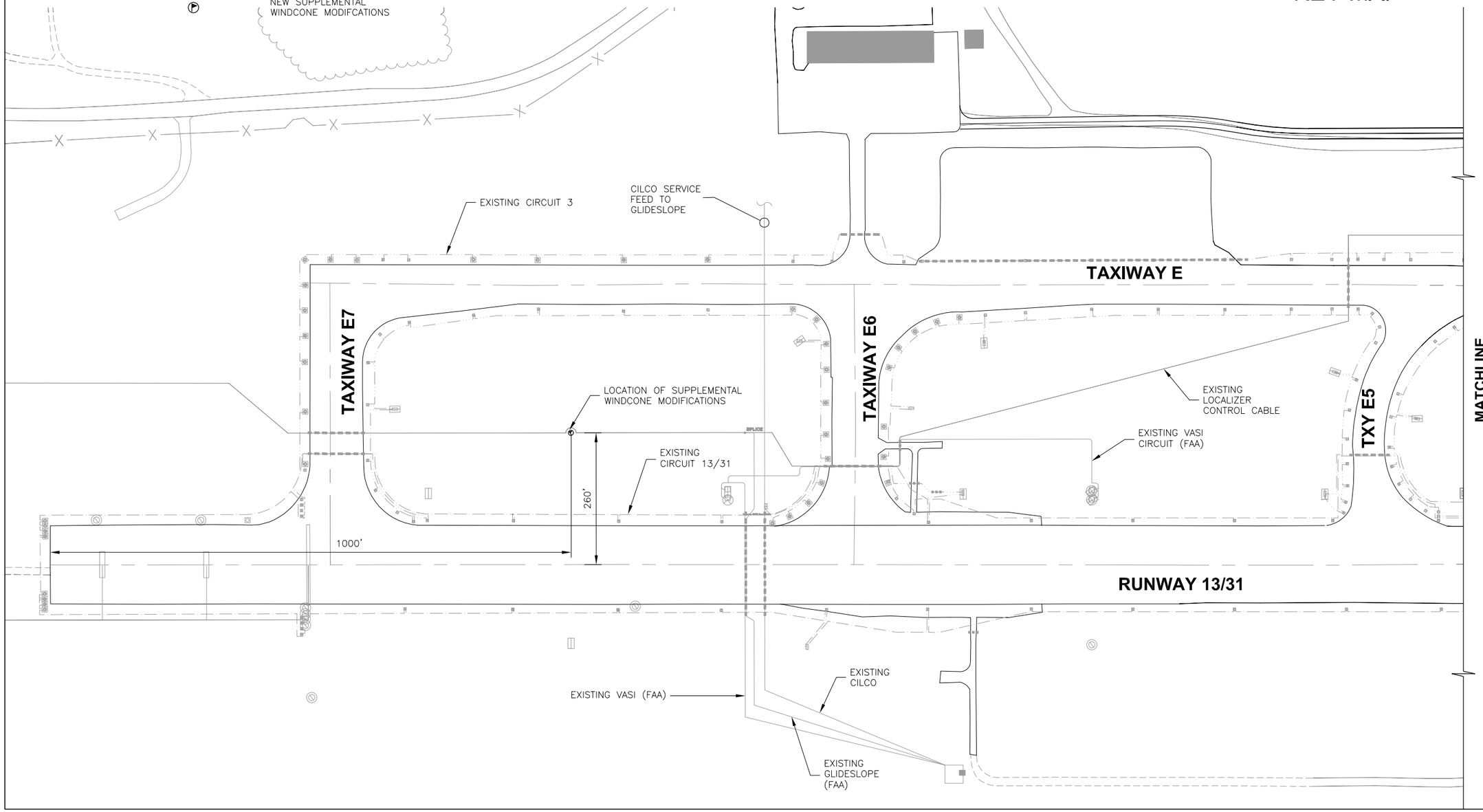
LEGEND

NEW CARGO CIRCUIT		EXIST. CARGO CIRCUIT	
NEW CIRCUIT 13/31		EXIST. CIRCUIT 13/31	
NEW CIRCUIT 2		EXIST. CIRCUIT 2	
NEW CIRCUIT 3		EXIST. CIRCUIT 3	
NEW CIRCUIT 4		EXIST. CIRCUIT 4	
NEW CIRCUIT 4/22		EXIST. CIRCUIT 4/22	
NEW CIRCUIT 5		EXIST. CIRCUIT 5	
NEW CIRCUIT D (CKT #1)		EXIST. CIRCUIT D (CKT #1)	
NEW WINDCONE CIRCUIT		EXIST. WINDCONE CIRCUIT	
NEW DATA CABLE		EXIST. RVR CIRCUIT	
NEW DUCT		EXIST. DUCT	
NEW SUPPLEMENTAL WINDCONE MODIFCATIONS			

NORTH
0 100 200
SCALE IN FEET



KEY MAP



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UPDATE BY: TJ Heavisides
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base 09-05-2007
CONTOUR
BASE_PROP_ROAD_Phs3
KEYMAP
Existing Circuits_Old_3-11-10
BASE_PROP_ELEC

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ELECTRICAL PLAN 1

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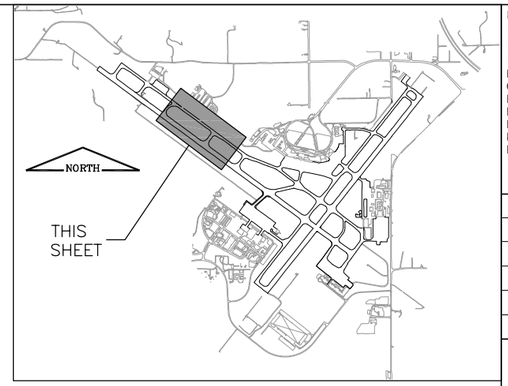
LEGEND

NEW CARGO CIRCUIT		EXIST. CARGO CIRCUIT	
NEW CIRCUIT 13/31		EXIST. CIRCUIT 13/31	
NEW CIRCUIT 2		EXIST. CIRCUIT 2	
NEW CIRCUIT 3		EXIST. CIRCUIT 3	
NEW CIRCUIT 4		EXIST. CIRCUIT 4	
NEW CIRCUIT 4/22		EXIST. CIRCUIT 4/22	
NEW CIRCUIT 5		EXIST. CIRCUIT 5	
NEW CIRCUIT D (CKT #1)		EXIST. CIRCUIT D (CKT #1)	
NEW WINDCONE CIRCUIT		EXIST. WINDCONE CIRCUIT	
NEW DATA CABLE		EXIST. RVR CIRCUIT	
NEW DUCT		EXIST. DUCT	

NORTH
0 100 200
SCALE IN FEET



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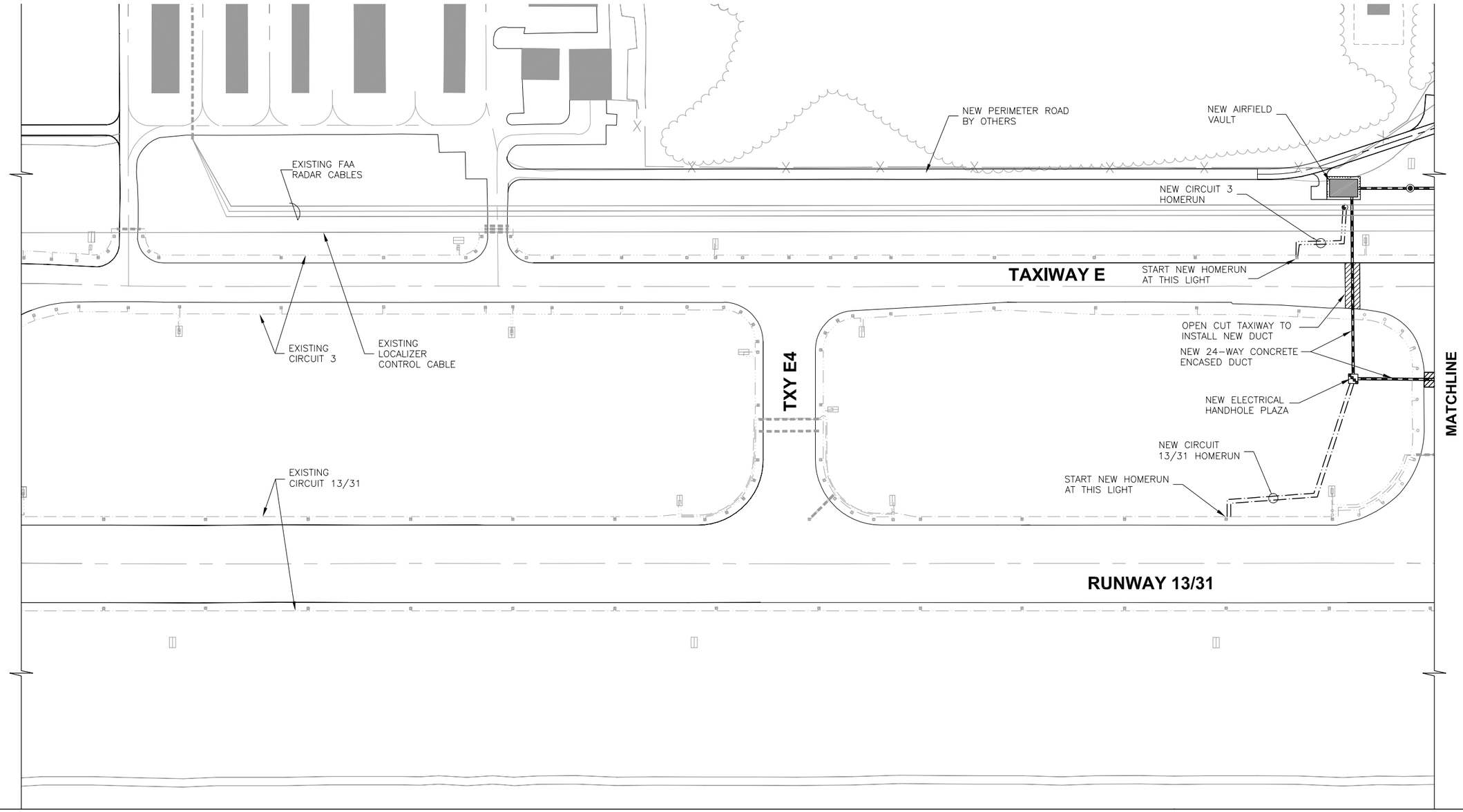

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CONTOUR
BASE_PROP_ELEC
BASE_PROP_GEO
BASE_PROP_ROAD_Phs3
KEYMAP
Existing Circuits_Old_3-11-10

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CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

ELECTRICAL PLAN 2

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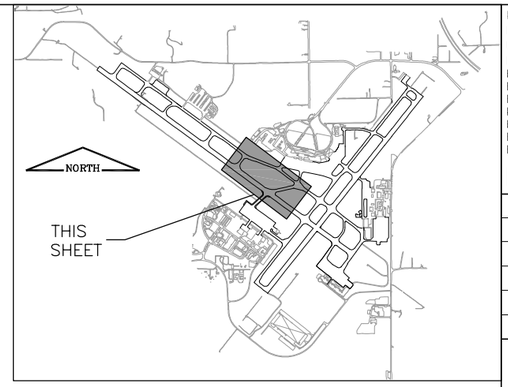
AIP PROJ. NO. 3-17-0080-XX

SHEET 09 OF 45 SHEETS

LEGEND

NEW CARGO CIRCUIT		EXIST. CARGO CIRCUIT	
NEW CIRCUIT 13/31		EXIST. CIRCUIT 13/31	
NEW CIRCUIT 2		EXIST. CIRCUIT 2	
NEW CIRCUIT 3		EXIST. CIRCUIT 3	
NEW CIRCUIT 4		EXIST. CIRCUIT 4	
NEW CIRCUIT 4/22		EXIST. CIRCUIT 4/22	
NEW CIRCUIT 5		EXIST. CIRCUIT 5	
NEW CIRCUIT D (CKT #1)		EXIST. CIRCUIT D (CKT #1)	
NEW WINDCONE CIRCUIT		EXIST. WINDCONE CIRCUIT	
NEW DATA CABLE		EXIST. RVR CIRCUIT	
NEW DUCT		EXIST. DUCT	
NEW SPLICE CAN			

NORTH
0 100 200
SCALE IN FEET



KEY MAP

NEW FIBER OPTIC DATA CABLE TO EXISTING VAULT.

BEGIN NEW CKT 5, AND PRIMARY WINDCONE CKT. HOMERUNS FROM EXISTING MANHOLE

EXIST. CKT D

BEGIN NEW CKT 4 AND CARGO CKT HOMERUNS FROM EXISTING MANHOLE

TXY T

TAXIWAY E

NEW SPLICE CAN TO RECONNECT CKT 3

NEW SPLICE CAN TO RECONNECT CKT D

TXY M

NEW 24-WAY CONC. ENCASED DUCT BANK

EXIST. CKT 3

EXIST. CKT D

EXIST. RVR CKT

NEW ELECTRICAL MANHOLE PLAZA

OPEN CUT TAXIWAY TO INSTALL NEW DUCT

NEW DATA CABLE
NEW CARGO CIRCUIT HOMERUN
NEW CIRCUIT 4 HOMERUN
NEW CIRCUIT D HOMERUN
NEW CIRCUIT 4/22 HOMERUN
NEW CIRCUIT 2 HOMERUN
NEW CIRCUIT 5 HOMERUN
NEW WINDCONE CIRCUIT HOMERUN

EXISTING CIRCUIT 13/31 HOMERUN TO REMAIN ACTIVE TO EXISTING VAULT

START NEW CIRCUIT D HOMERUN AT THIS LIGHT

NEW CIRCUIT 4/22 HOMERUN
NEW CIRCUIT 2 HOMERUN

TXY E3

RUNWAY 13/31

EXISTING CIRCUIT 13/31

TXY M

K:\PeoriaAP\090610500\Draw\Sheets
FILE: ELECTRICAL PLAN 3.dwg
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BASE_PROP_ROAD_Phs3
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Existing Circuits_Old_3-11-10
BASE_PROP_ELEC

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CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

ELECTRICAL PLAN 3

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License No. 184-000613

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

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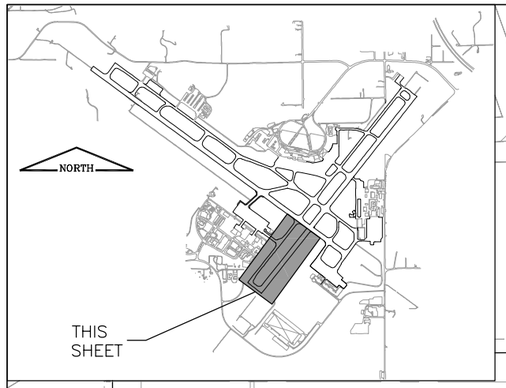
AIP PROJ. NO. 3-17-0080-XX



KEY MAP

NORTH
0
100
200
SCALE IN FEET

TAXIWAY A

EXISTING CIRCUIT D

LOCATION OF SUPPLEMENTAL WINDCONE MODIFICATIONS

EXISTING REIL CIRCUIT

EXISTING VASI CIRCUIT

260'

1000'

RUNWAY 4/22

EXISTING CIRCUIT 4/22

RUNWAY 13/31

MATCHLINE

(APPROXIMATE) LOCATION OF SUPPLEMENTAL WINDCONE MODIFICATIONS

EXISTING CARGO CIRCUIT

TAXIWAY E2

LEGEND

NEW CARGO CIRCUIT		EXIST. CARGO CIRCUIT	
NEW CIRCUIT 13/31		EXIST. CIRCUIT 13/31	
NEW CIRCUIT 2		EXIST. CIRCUIT 2	
NEW CIRCUIT 3		EXIST. CIRCUIT 3	
NEW CIRCUIT 4		EXIST. CIRCUIT 4	
NEW CIRCUIT 4/22		EXIST. CIRCUIT 4/22	
NEW CIRCUIT 5		EXIST. CIRCUIT 5	
NEW CIRCUIT D (CKT #1)		EXIST. CIRCUIT D (CKT #1)	
NEW WINDCONE CIRCUIT		EXIST. WINDCONE CIRCUIT	
NEW DATA CABLE		EXIST. RVR CIRCUIT	
NEW DUCT		EXIST. DUCT	
NEW SUPPLEMENTAL WINDCONE MODIFICATIONS			

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FILE: ELECTRICAL PLAN 4.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:53 PM
base 09-05-2007
BASE_PROP_ELEC
BASE_PROP_ROAD_Phs3
KEYMAP
Existing Circuits_Old_3-11-10

PE091

REVISIONS

NUMBER	BY	DATE

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

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

ELECTRICAL PLAN 4

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

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PEORIA INTERNATIONAL AIRPORT

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DRAWN BY:	CMT
CHECKED BY:	CET
APPROVED BY:	CET
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JOB No:	0906105

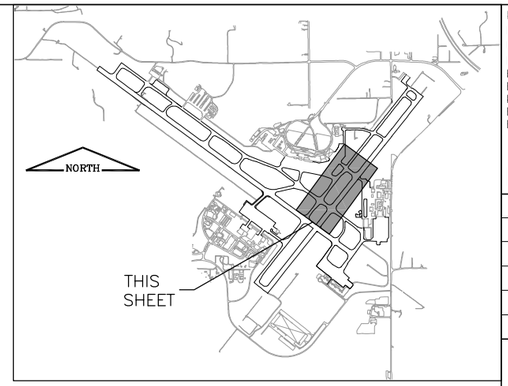
IL. PROJ. NO. PIA-3981
AIP PROJ. NO. 3-17-0080-XX

SHEET 11 OF 45 SHEETS

LEGEND

NEW CARGO CIRCUIT		EXIST. CARGO CIRCUIT	
NEW CIRCUIT 13/31		EXIST. CIRCUIT 13/31	
NEW CIRCUIT 2		EXIST. CIRCUIT 2	
NEW CIRCUIT 3		EXIST. CIRCUIT 3	
NEW CIRCUIT 4		EXIST. CIRCUIT 4	
NEW CIRCUIT 4/22		EXIST. CIRCUIT 4/22	
NEW CIRCUIT 5		EXIST. CIRCUIT 5	
NEW CIRCUIT D (CKT #1)		EXIST. CIRCUIT D (CKT #1)	
NEW WINDCONE CIRCUIT		EXIST. WINDCONE CIRCUIT	
NEW DATA CABLE		EXIST. RVR CIRCUIT	
NEW DUCT		EXIST. DUCT	
NEW SPLICE CAN	Ⓟ	EXIST. WINDCONE	

0 NORTH 100 200
SCALE IN FEET



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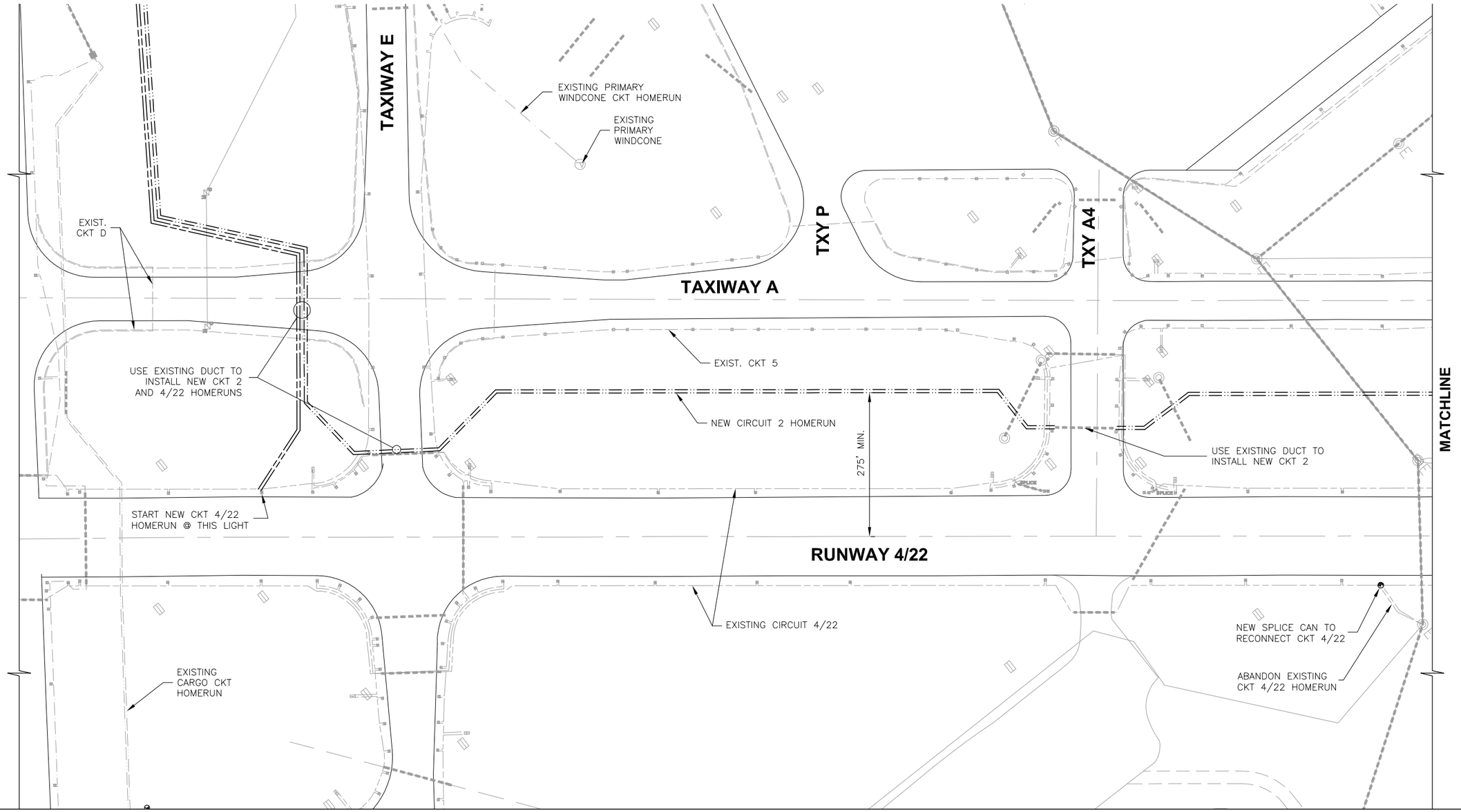

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UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:53 PM
base 09-05-2007
BASE_PROP_ROAD_Phs3
KEYMAP
Existing Circuits_Old_3-11-10
BASE_PROP_ELEC

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ELECTRICAL PLAN 5

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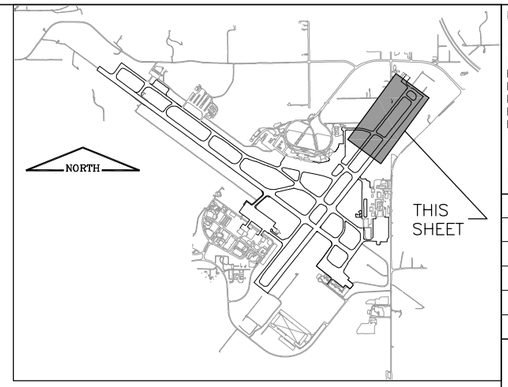
AIP PROJ. NO. 3-17-0080-XX

SHEET 12 OF 45 SHEETS

LEGEND

NEW CARGO CIRCUIT		EXIST. CARGO CIRCUIT	
NEW CIRCUIT 13/31		EXIST. CIRCUIT 13/31	
NEW CIRCUIT 2		EXIST. CIRCUIT 2	
NEW CIRCUIT 3		EXIST. CIRCUIT 3	
NEW CIRCUIT 4		EXIST. CIRCUIT 4	
NEW CIRCUIT 4/22		EXIST. CIRCUIT 4/22	
NEW CIRCUIT 5		EXIST. CIRCUIT 5	
NEW CIRCUIT D (CKT #1)		EXIST. CIRCUIT D (CKT #1)	
NEW WINDCONE CIRCUIT		EXIST. WINDCONE CIRCUIT	
NEW DATA CABLE		EXIST. RVR CIRCUIT	
NEW DUCT		EXIST. DUCT	
NEW SPLICE CAN			
NEW BASE MOUNTED TAXIAWY LIGHT			
NEW SUPPLEMENTAL WINDCONE MODIFICATION			

NORTH
0
100
200
SCALE IN FEET



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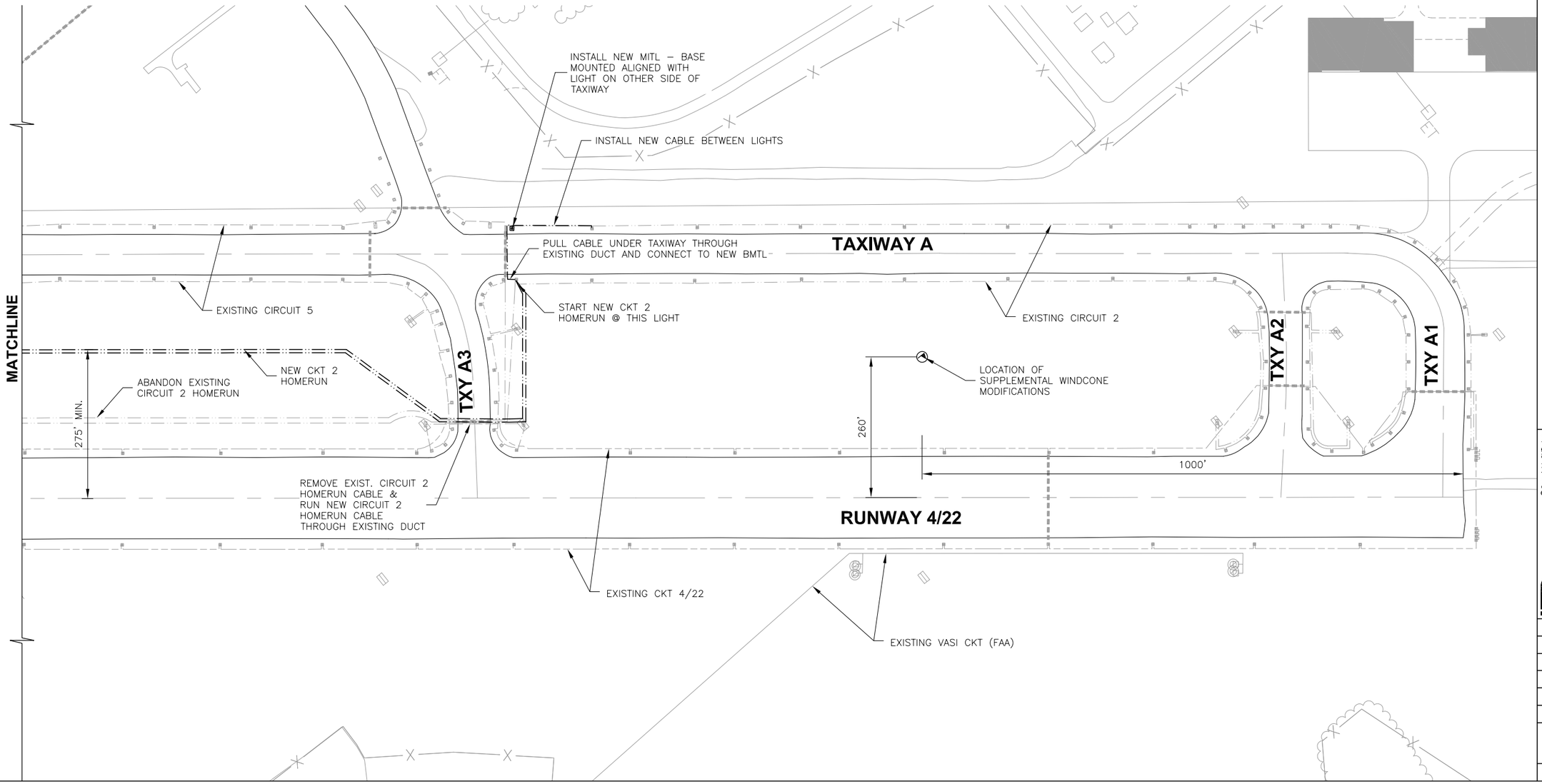

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FILE: ELECTRICAL PLAN 6.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:53 PM
base 09-05-2007
BASE_PROP_ROAD_Phs3
KEYMAP
Existing Circuits_Old_3-11-10
BASE_PROP_ELEC

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CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

ELECTRICAL PLAN 6

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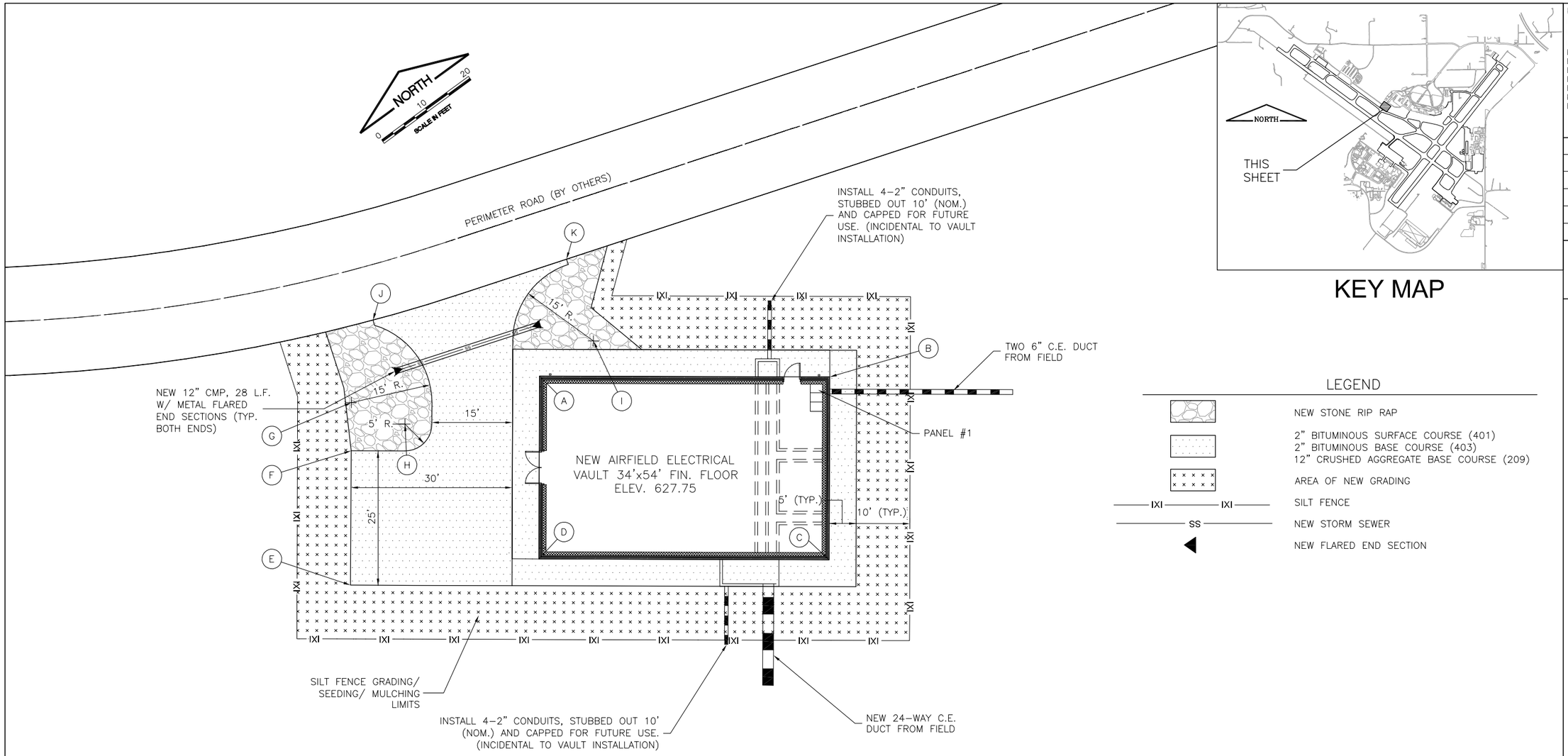

KEY MAP

LEGEND

- NEW STONE RIP RAP
- 2" BITUMINOUS SURFACE COURSE (401)
  2" BITUMINOUS BASE COURSE (403)
  12" CRUSHED AGGREGATE BASE COURSE (209)
- AREA OF NEW GRADING
- SILT FENCE
- SS — NEW STORM SEWER
- NEW FLARED END SECTION

POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
A	BUILDING CORNER	1457130.79	2426814.27	627.75
B	BUILDING CORNER	1457098.85	2426857.82	627.75
C	BUILDING CORNER	1457071.43	2426837.71	627.75
D	BUILDING CORNER	1457103.37	2426794.16	627.75
E	PAVEMENT CORNER	1457120.07	2426762.94	627.02
F	PAVEMENT CORNER	1457140.20	2426777.77	626.50
G	CENTER OF RADIUS	1457147.44	2426783.10	N/A
H	CENTER OF RADIUS	1457138.32	2426788.79	N/A
I	CENTER OF RADIUS	1457130.17	2426826.22	N/A
J	PAVEMENT CORNER	1457157.46	2426795.38	626.87
K	PAVEMENT CORNER	1457145.39	2426831.14	627.13

NOTE:
1. AS SHOWN ON THIS SHEET, THE SILT FENCE QUANTITY MEASURES 300 L.F. AN ADDITIONAL 200 L.F. HAS BEEN ADDED TO THE PLANS TO BE USED AT THE R.E.'S DIRECTION.

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FILE: NEW VAULT PLAN.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:54 PM
base 09–05–2007
Base
BASE_PROP_ELEC
BASE_PROP_GEO
BASE_PROP_ROAD_Phs3
KEYMAP
BASE_PROP_DRAIN

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CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

NEW VAULT SITE PLAN

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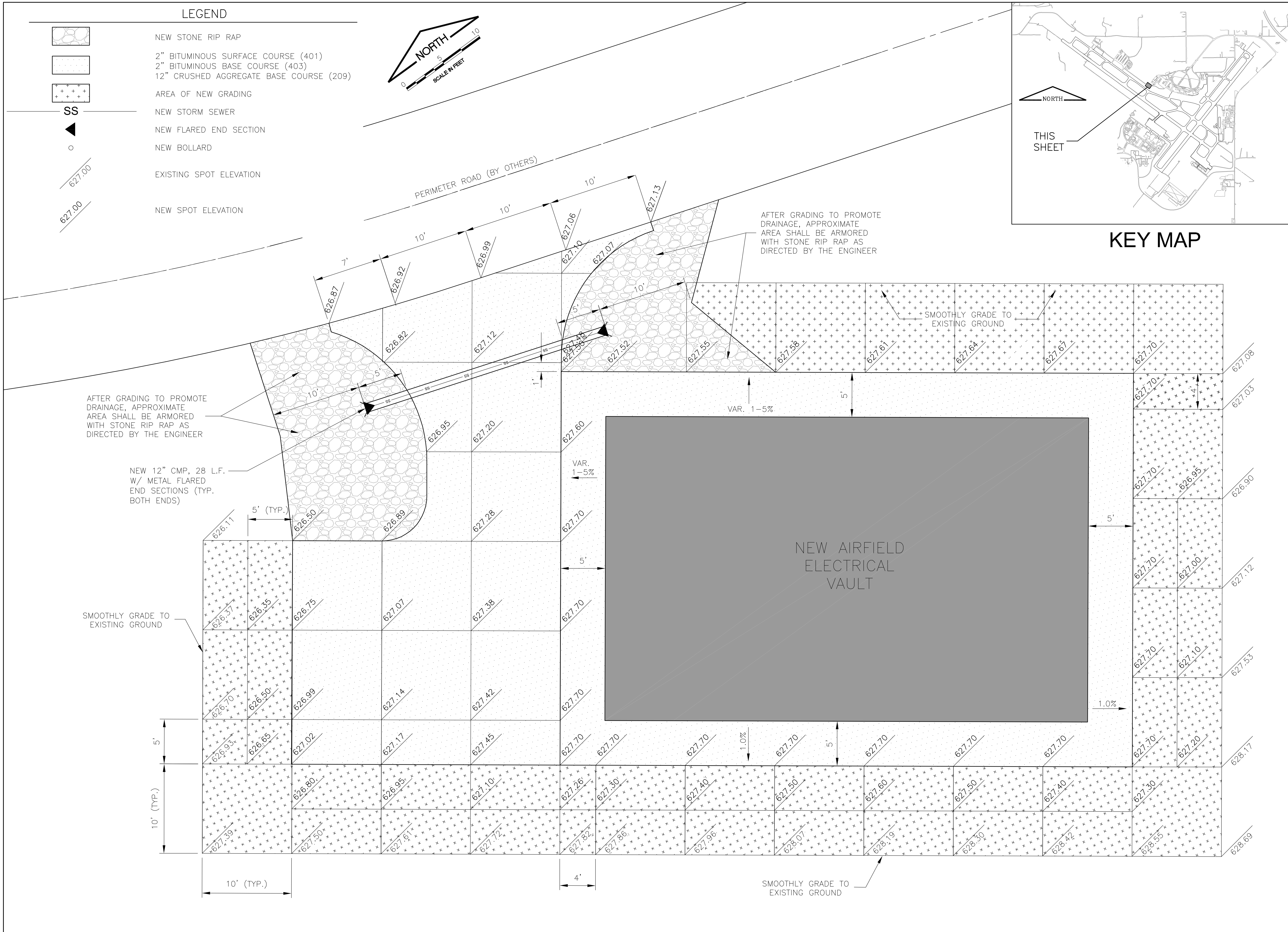
JOB No:	0906105

IL. PROJ. NO. PIA–3981
AIP PROJ. NO. 3–17–0080–XX

SHEET 14 OF 45 SHEETS



KEY MAP

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FILE: PARKING STAKING PLAN.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:52 PM
BASE_PROP_ROAD_Phs3
KEYMAP
BASE_PROP_GEO
BASE_PROP_DRAIN

PE091

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PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

PARKING LOT STAKING PLAN

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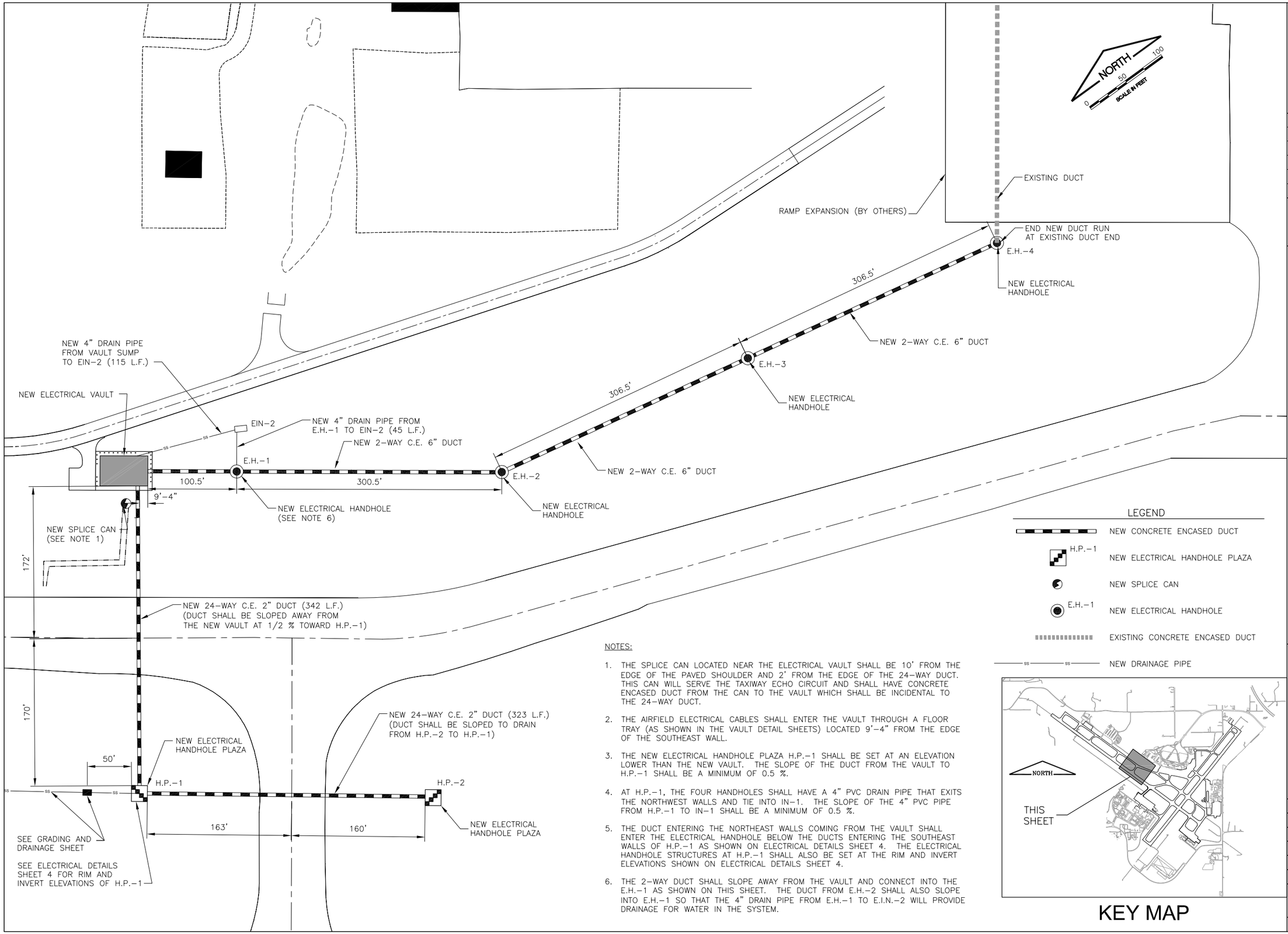

NOTES:

1. THE SPLICE CAN LOCATED NEAR THE ELECTRICAL VAULT SHALL BE 10' FROM THE EDGE OF THE PAVED SHOULDER AND 2' FROM THE EDGE OF THE 24–WAY DUCT. THIS CAN WILL SERVE THE TAXIWAY ECHO CIRCUIT AND SHALL HAVE CONCRETE ENCASED DUCT FROM THE CAN TO THE VAULT WHICH SHALL BE INCIDENTAL TO THE 24–WAY DUCT.
2. THE AIRFIELD ELECTRICAL CABLES SHALL ENTER THE VAULT THROUGH A FLOOR TRAY (AS SHOWN IN THE VAULT DETAIL SHEETS) LOCATED 9'–4" FROM THE EDGE OF THE SOUTHEAST WALL.
3. THE NEW ELECTRICAL HANDHOLE PLAZA H.P.–1 SHALL BE SET AT AN ELEVATION LOWER THAN THE NEW VAULT. THE SLOPE OF THE DUCT FROM THE VAULT TO H.P.–1 SHALL BE A MINIMUM OF 0.5 %.
4. AT H.P.–1, THE FOUR HANDHOLES SHALL HAVE A 4" PVC DRAIN PIPE THAT EXITS THE NORTHWEST WALLS AND TIE INTO IN–1. THE SLOPE OF THE 4" PVC PIPE FROM H.P.–1 TO IN–1 SHALL BE A MINIMUM OF 0.5 %.
5. THE DUCT ENTERING THE NORTHEAST WALLS COMING FROM THE VAULT SHALL ENTER THE ELECTRICAL HANDHOLE BELOW THE DUCTS ENTERING THE SOUTHEAST WALLS OF H.P.–1 AS SHOWN ON ELECTRICAL DETAILS SHEET 4. THE ELECTRICAL HANDHOLE STRUCTURES AT H.P.–1 SHALL ALSO BE SET AT THE RIM AND INVERT ELEVATIONS SHOWN ON ELECTRICAL DETAILS SHEET 4.
6. THE 2–WAY DUCT SHALL SLOPE AWAY FROM THE VAULT AND CONNECT INTO THE E.H.–1 AS SHOWN ON THIS SHEET. THE DUCT FROM E.H.–2 SHALL ALSO SLOPE INTO E.H.–1 SO THAT THE 4" DRAIN PIPE FROM E.H.–1 TO E.I.N.–2 WILL PROVIDE DRAINAGE FOR WATER IN THE SYSTEM.

LEGEND

- NEW CONCRETE ENCASED DUCT
- H.P.–1 — NEW ELECTRICAL HANDHOLE PLAZA
- NEW SPLICE CAN
- E.H.–1 — NEW ELECTRICAL HANDHOLE
- EXISTING CONCRETE ENCASED DUCT
- ss ss — NEW DRAINAGE PIPE

KEY MAP

K:\PeoriaAP\090610500\Draw\Sheets
FILE: ELECTRICAL DUCT LAYOUT PLAN.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:54 PM
base 09–05–2007
CONTOUR
Base
BASE_PROP_ELEC
BASE_PROP_GEO
BASE_PROP_ROAD_Phs3
KEYMAP
BASE_PROP_DRAIN

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PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

NEW ELECTRICAL DUCT LAYOUT PLAN 1

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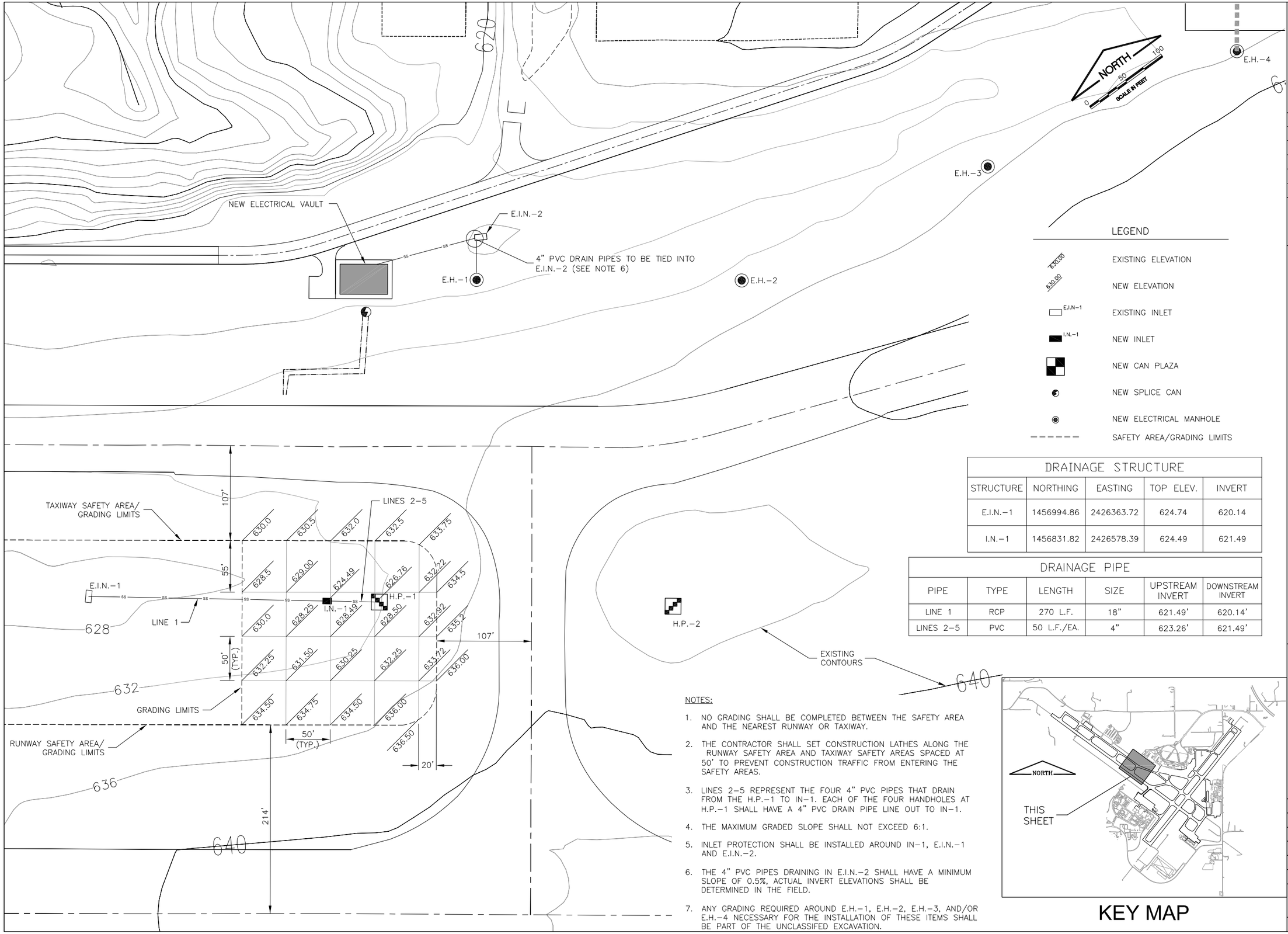
SHEET 16 OF 45 SHEETS



KEY MAP

DRAINAGE STRUCTURE				
STRUCTURE	NORTHING	EASTING	TOP ELEV.	INVERT
E.I.N.–1	1456994.86	2426363.72	624.74	620.14
I.N.–1	1456831.82	2426578.39	624.49	621.49

DRAINAGE PIPE					
PIPE	TYPE	LENGTH	SIZE	UPSTREAM INVERT	DOWNSTREAM INVERT
LINE 1	RCP	270 L.F.	18"	621.49'	620.14'
LINES 2–5	PVC	50 L.F./EA.	4"	623.26'	621.49'

NOTES:

1. NO GRADING SHALL BE COMPLETED BETWEEN THE SAFETY AREA AND THE NEAREST RUNWAY OR TAXIWAY.
2. THE CONTRACTOR SHALL SET CONSTRUCTION LATHES ALONG THE RUNWAY SAFETY AREA AND TAXIWAY SAFETY AREAS SPACED AT 50' TO PREVENT CONSTRUCTION TRAFFIC FROM ENTERING THE SAFETY AREAS.
3. LINES 2–5 REPRESENT THE FOUR 4" PVC PIPES THAT DRAIN FROM THE H.P.–1 TO IN–1. EACH OF THE FOUR HANDHOLES AT H.P.–1 SHALL HAVE A 4" PVC DRAIN PIPE LINE OUT TO IN–1.
4. THE MAXIMUM GRADED SLOPE SHALL NOT EXCEED 6:1.
5. INLET PROTECTION SHALL BE INSTALLED AROUND IN–1, E.I.N.–1 AND E.I.N.–2.
6. THE 4" PVC PIPES DRAINING IN E.I.N.–2 SHALL HAVE A MINIMUM SLOPE OF 0.5%, ACTUAL INVERT ELEVATIONS SHALL BE DETERMINED IN THE FIELD.
7. ANY GRADING REQUIRED AROUND E.H.–1, E.H.–2, E.H.–3, AND/OR E.H.–4 NECESSARY FOR THE INSTALLATION OF THESE ITEMS SHALL BE PART OF THE UNCLASSIFED EXCAVATION.

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FILE: DRAINAGE AND GRADING PLAN.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:52 PM
base 09–05–2007
CONTOUR
Base
BASE_PROP_ELEC
BASE_PROP_GEO
BASE_PROP_ROAD_Phs3
KEYMAP
BASE_PROP_DRAIN

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CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

DRAINAGE AND GRADING PLAN

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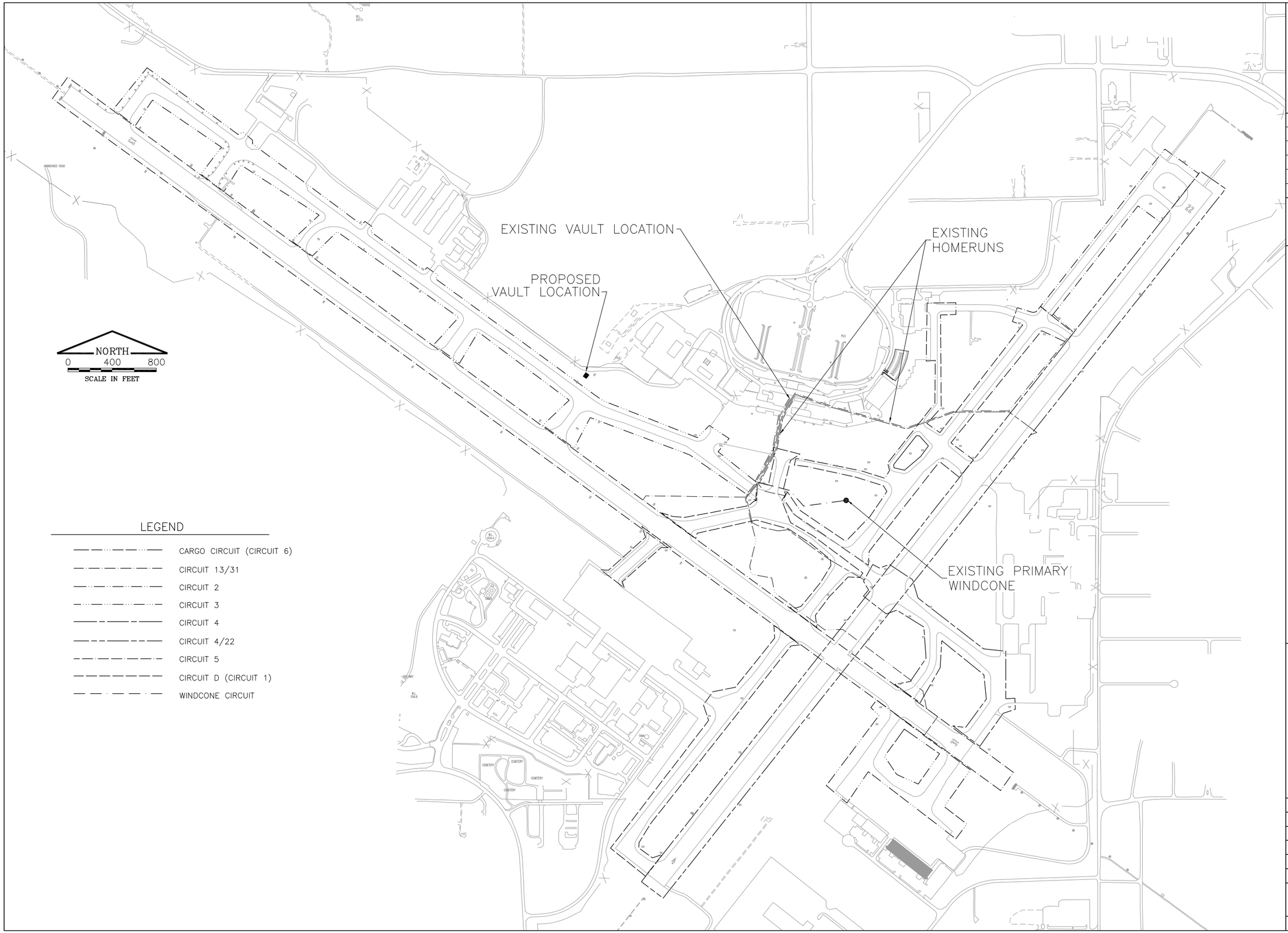

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FILE: EXISTHOMERUNCKT.dwg
UPDATE BY: TJ Heavisides
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PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

EXISTING CIRCUITS & HOMERUNS

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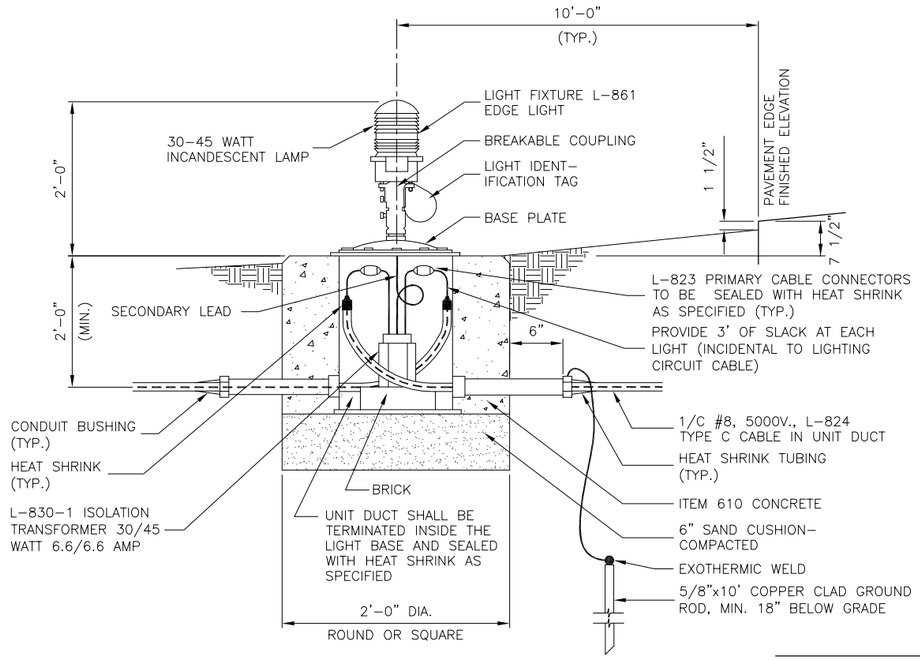
SHEET 18 OF 45 SHEETS

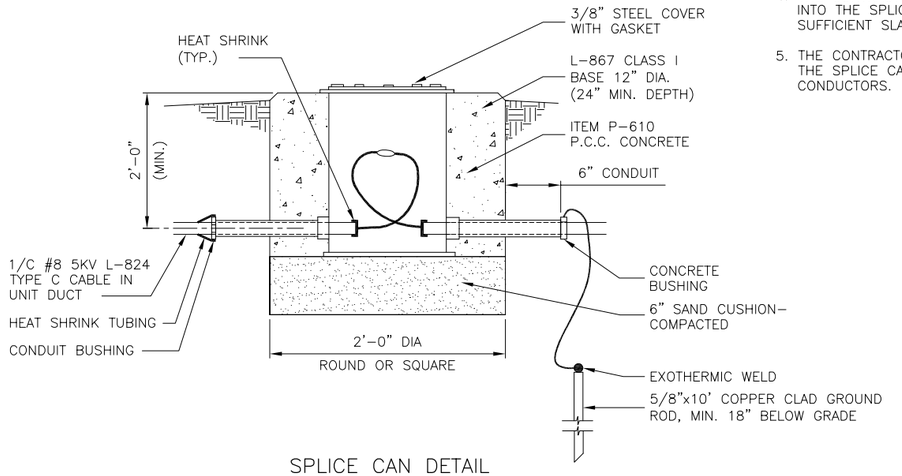


BASE MOUNTED MEDIUM INTENSITY MARKER LIGHTS

N.T.S.

SWITCH OVER NOTES

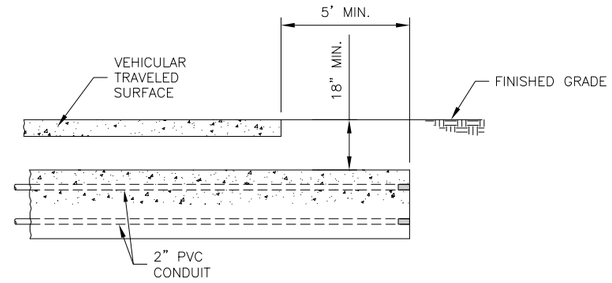
1. THE CONTRACTOR SHALL FIELD LOCATE AIRFIELD CIRCUITS AND HAND EXCAVATE AT THE LOCATION SELECTED AS THE CONNECTION POINT FOR THE NEW EXTENSION TO THE PROPOPSED VAULT.
2. THE CONTRACTOR SHALL EXPOSE SUFFICIENT CONDUCTORS TO DETERMINE CABLE SIZE AND TYPE.
3. THE CONTRACTOR SHALL INSTALL A SPLICE CAN AS DETAILED. (AT SELECT LOCATIONS THE SWITCH OVER MAY BE AT AN EXISTING BASE MOUNTED LIGHT, THESE LOCATIONS ARE SHOWN IN THE PLANS.)
4. THE CONTRACTOR SHALL FEED THE EXISTING CONDUCTORS INTO THE SPLICE CAN AS NECESSARY TO PROVIDE SUFFICIENT SLACK IN THE SYSTEM.
5. THE CONTRACTOR SHALL FEED THE NEW CONDUCTORS INTO THE SPLICE CAN AND CONNECT TO THE EXISTING CONDUCTORS.

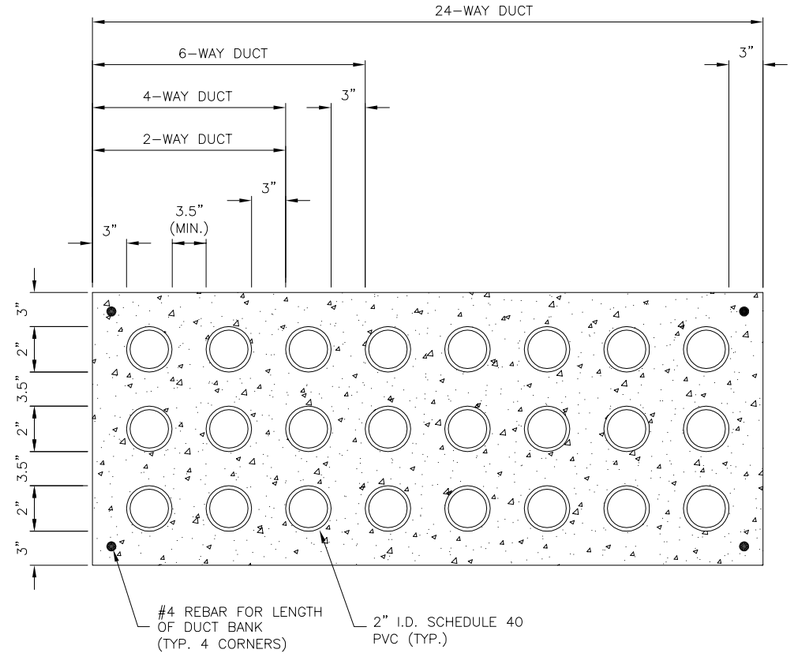


SPLICE CAN DETAIL

N.T.S.

UNIT DUCT SHALL BE TERMINATED AT THE L-823 CONNECTORS AND SEALED WITH HEAT SHRINK AS SPECIFIED.





DUCT BANK DETAILS

N.T.S.

DUCT BANK NOTES

1. DIMENSIONS SHOWN ARE MINIMUM.
2. TOP OF CONCRETE ENCASEMENT TO BE NOT LESS THAN 24" BELOW FINISHED SUBGRADE.
3. DUCT CONCRETE TO BE ITEM 610 STRUCTURAL P.C.C. CONCRETE.
4. ALL 24-WAY DUCT WILL BE 2" INSIDE DIAMETER. ALL 2-WAY DUCT WILL BE 6" INSIDE DIAMETER.
5. LOCATIONS SHOWN ARE APPROXIMATE. DUCT BANKS TO BE INSTALLED AT LOCATIONS DESIGNATED BY THE ENGINEER.
6. CONTRACTOR WILL INSTALL DUCT BANKS AT A DEPTH WHICH WILL NOT CONFLICT WITH ELEVATION SENSITIVE UTILITIES.
7. A PULL WIRE MUST BE PROVIDED IN EACH UNUSED CONDUIT. UNUSED DUCT MUST BE SEALED AT CAN PLAZA TO THE SATISFACTION OF THE ENGINEER.

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FILE: ELECTRICAL DETAILS 1.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:54 PM

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GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

ELECTRICAL DETAILS SHEET 1

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CONSULTING ENGINEERS
License No. 184-000613

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PEORIA INTERNATIONAL AIRPORT

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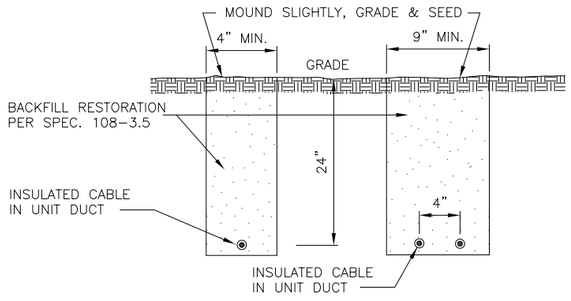


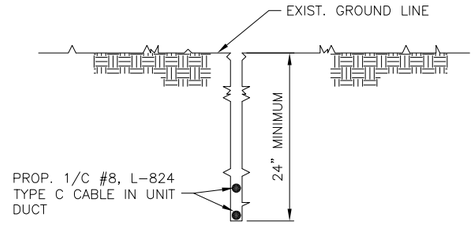
TRENCH DETAIL

N.T.S.

NOTES

1. TRENCHES WITH MORE THAN 2 CABLES SHALL BE INCREASED 3" IN WIDTH FOR EACH ADDITIONAL CABLE. IF SPECIFIED ON PLANS, TWO PARALLEL TRENCHES MAY BE CONSTRUCTED.
2. DEPTH OF TRENCHES SHALL BE AS SHOWN ABOVE UNLESS OTHERWISE SPECIFIED ON THE PLANS.
3. SAND BACKFILL SHALL BE USED IF THE EXISTING SOIL DOES NOT MEET THE BACKFILL REQUIREMENTS.
4. ALL DISTURBED SURFACES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. COST IS INCIDENTAL TO ITEM 108.

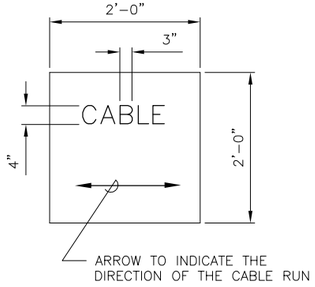
NOTE:
AT CONTRACTOR'S OPTION, CABLE PLOWING MAY BE USED IN LIEU OF TRENCHING

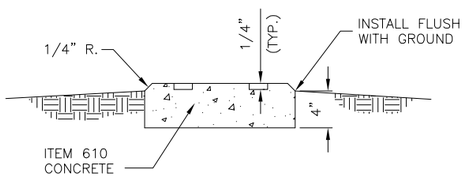


NOTE:
WHERE TWO UNIT DUCTS ARE TO BE INSTALLED, CONTRACTOR MAY PLOW UNIT DUCTS SEPARATELY (SIDE BY SIDE)

CABLE IN UNIT-DUCT - PLOWED

N.T.S.



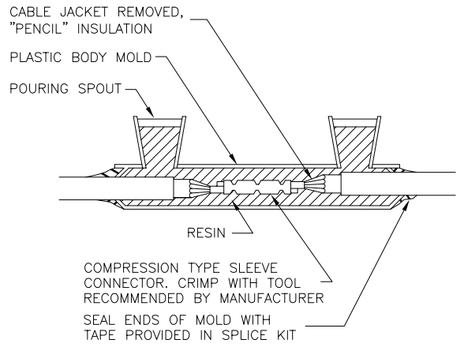


TURF CABLE / SPLICE MARKER

N.T.S.

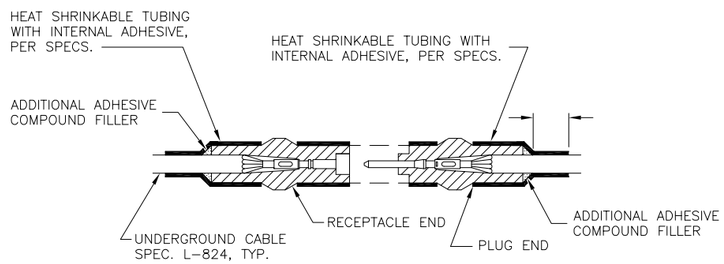
NOTES

1. CABLE MARKERS SHALL BE INSTALLED AT ALL BENDS AND EVERY 200' ALONG THE HOMERUN.
2. ITEM 610 CONCRETE SHALL BE USED.
3. ALL EXPOSED EDGES SHALL BE EDGED WITH A ¼" RADIUS TOOL.
4. THE COST OF FURNISHING AND INSTALLING NEW MARKERS SHALL BE INCIDENTAL TO THE ASSOCIATED ITEMS.
5. 0.049 CU. YD. CONCRETE PER MARKER.
6. A MARKER CONFORMING TO THIS DETAIL MARKED "SPLICE" SHALL BE INSTALLED AT ALL SPLICE LOCATIONS NOT IN LIGHT CANS OR MANHOLES.



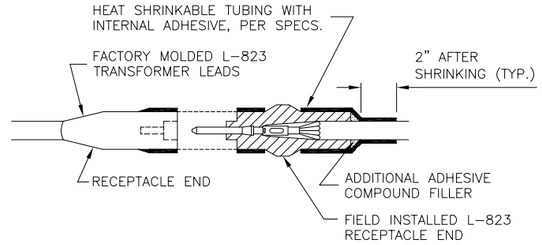
FOR IN-LINE CONNECTIONS OF EXISTING CABLES CUT DURING CONSTRUCTIONS.

TYPE A



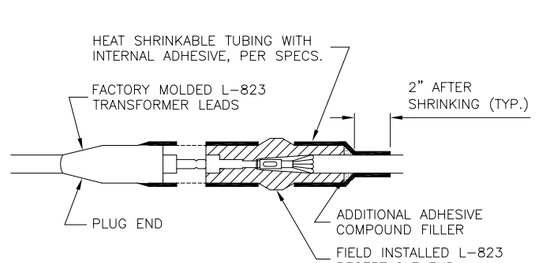
NOT TO BE USED IN THIS PROJECT UNLESS OTHERWISE DIRECTED BY ENGINEER

TYPE B



FOR SPLICES AT TAXIWAY LIGHTS AND SIGNS.

TYPE C



FOR SPLICES AT TAXIWAY LIGHTS AND SIGNS.

TYPE D

CABLE SPLICES

N.T.S.

NOTES

1. INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.
2. THE COST OF FURNISHING AND INSTALLING ALL SPLICE MATERIALS SHALL BE INCIDENTAL TO THE ASSOCIATED CABLE ITEMS.
3. THE CONTRACTOR SHALL HAVE A MINIMUM OF TWO (2) TYPE A SPLICE KITS ON THE JOB SITE AT ALL TIMES FOR EMERGENCY REPAIRS.

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UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:54 PM

PE091

REVISIONS

NUMBER	BY	DATE

0 1 2

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

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

ELECTRICAL DETAILS SHEET 2

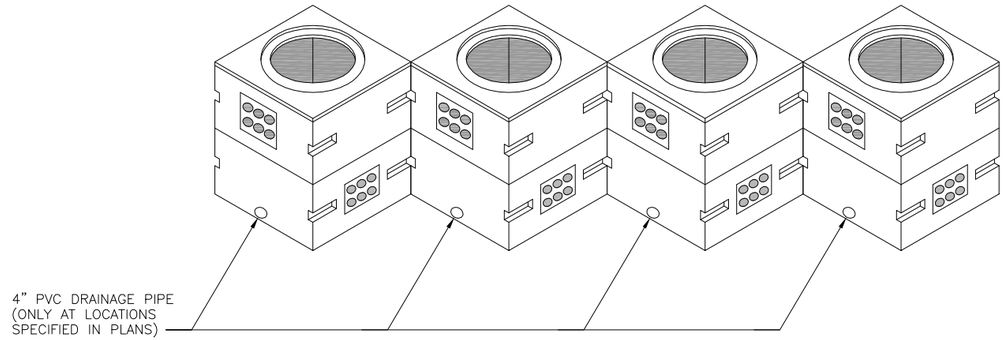
CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

DESIGN BY:	TJH
DRAWN BY:	CMT
CHECKED BY:	CET
APPROVED BY:	CET
DATE:	APRIL 30, 2010
JOB No:	0906105

IL. PROJ. NO. PIA-3981
AIP PROJ. NO. 3-17-0080-XX

SHEET 20 OF 45 SHEETS

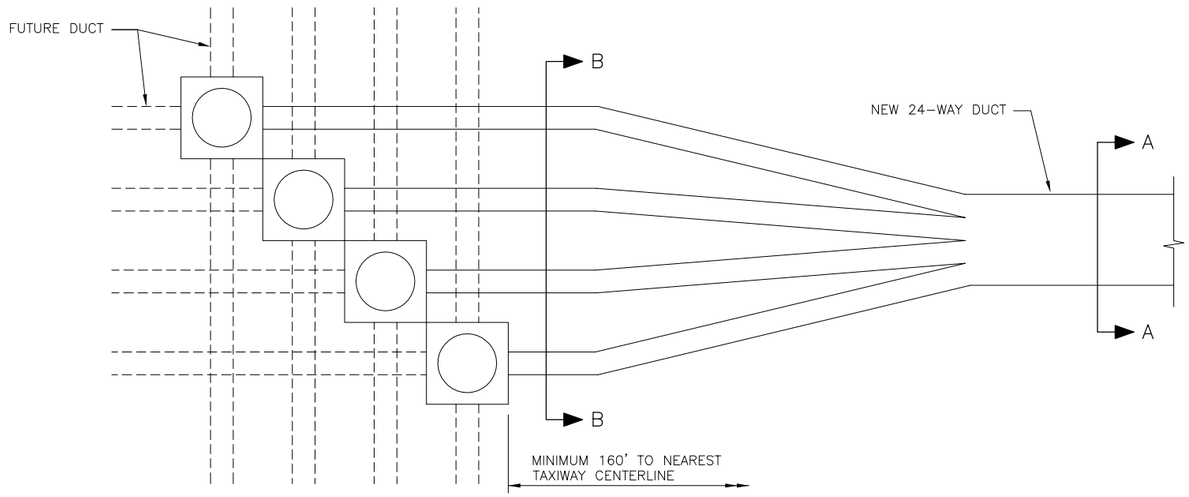


ELECTRICAL HANDHOLE PLAZA DETAIL

N.T.S.

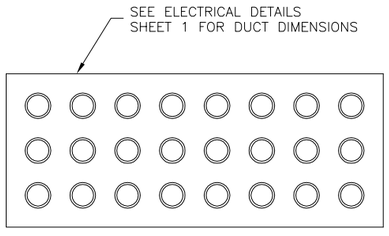
ELECTRICAL HANDHOLE PLAZA NOTES

1. ELECTRICAL HANDHOLE PLAZAS SHALL CONSIST OF A SERIES OF 4 ELECTRICAL HANDHOLES.
2. ELECTRICAL HANDHOLES SHALL BE AS DETAILED AND SPECIFIED ON ELECTRICAL DETAILS SHEET 4.
3. 4" PVC DRAINAGE PIPE TO BE INSTALLED ONLY AT LOCATIONS SHOWN IN THE PLANS.

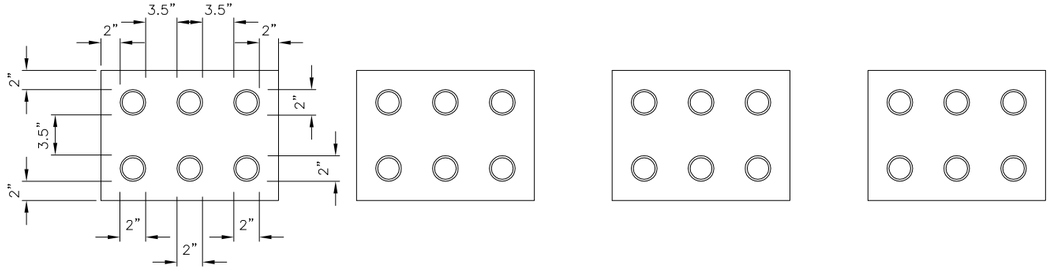


DUCT TO ELECTRICAL HANDHOLE
PLAZA TRANSITION DETAIL

N.T.S.



SECTION A–A



SECTION B–B

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PLOT DATE: 5/6/2010 3:54 PM

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GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

ELECTRICAL DETAILS SHEET 3

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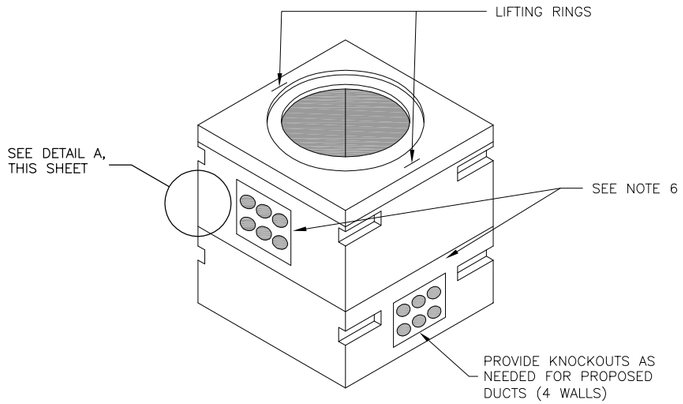
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

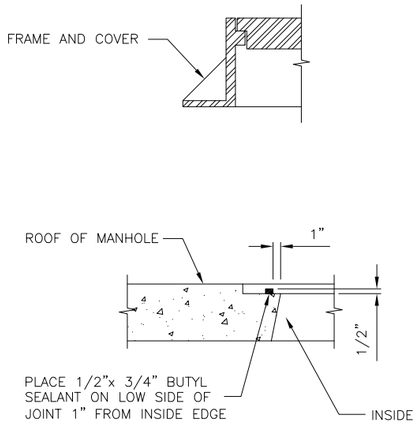
DESIGN BY:	TJH
DRAWN BY:	CMT
CHECKED BY:	CET
APPROVED BY:	CET
DATE:	APRIL 30, 2010
JOB No:	0906105

IL. PROJ. NO. PIA–3981
AIP PROJ. NO. 3–17–0080–XX



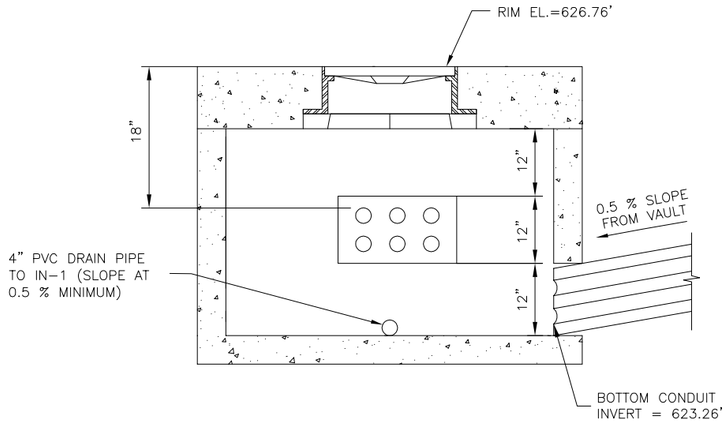
ELECTRICAL HANDHOLE DETAIL

N.T.S.



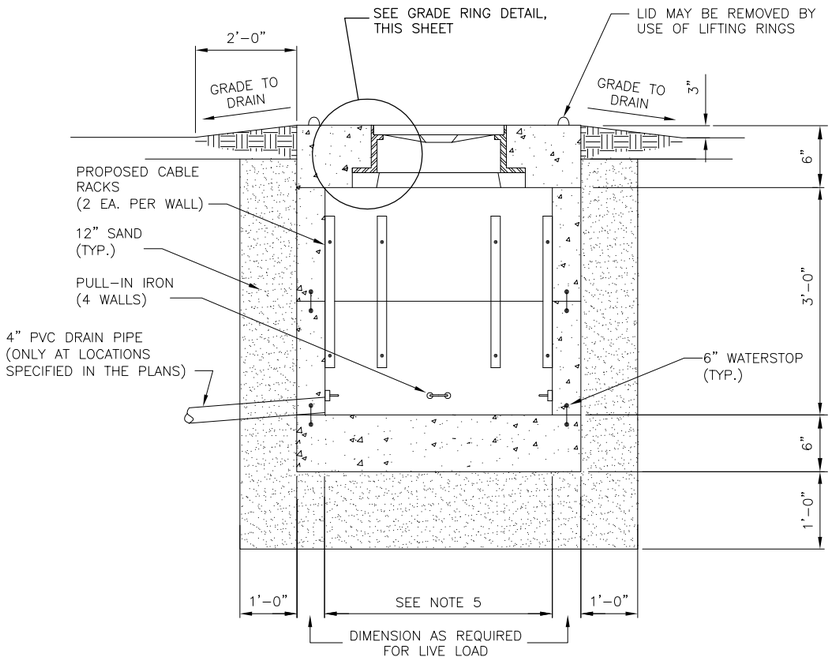
GRADE RING DETAIL

N.T.S.



TYPICAL HANDHOLE AT H.P.-1

N.T.S.



ELECTRICAL HANDHOLE DETAIL

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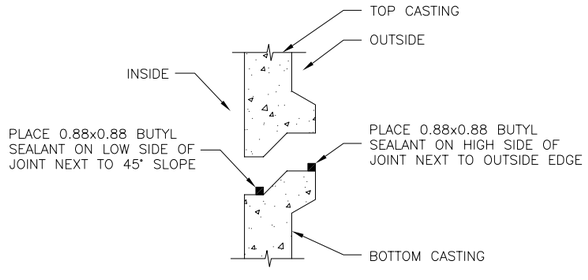

DETAIL A

N.T.S.

NOTES

1. THE HANDHOLE/GRADE RING/HANDHOLE LID ASSEMBLY SHALL BE CONSTRUCTED TO MEET OR EXCEED THE FOLLOWING LOADINGS:
   A. EARTHLOAD = 2 FEET FILL AT 130 LBS/FT^3.
   B. SURCHARD = 2 FEET FILL AT 130 LBS/FT^3.
   C. LIVE LOAD = A.A.S.H.T.O. HS-20 TRUCK WITH 20% IMPACT
   D. f'c = 4,500 P.S.I.
   E. fy = 60,000 P.S.I.
   F. ULTIMATE STRENGTH DESIGN METHOD
   THE SUPPLIER SHALL PROVIDE CERTIFICATION THAT THE HANDHOLES MEET OR EXCEED THESE REQUIREMENTS PRIOR TO INSTALLATION.
2. THE HANDHOLE CONSTRUCTION AND INSTALLATION SHALL BE WATERTIGHT. ALL CONSTRUCTION JOINTS AND DUCTS SHALL BE SEALED TO PREVENT WATER ENTRY. ALL UNUSED DUCT BANK OPENINGS IN HANDHOLE SHALL BE SEALED WITH METAL PLATES TREATED FOR CORROSION RESISTANCE AND BOLTED INTO PLACE. MATING SURFACES SHALL BE SEALED USING BUTYL SEALANT.
3. THE HANDHOLE LID ASSEMBLY SHALL BE INSTALLED SLIGHTLY ABOVE THE SURROUNDING FINAL GRADE AND THE EARTH SHALL BE GRADED UP TO IT.
4. THE HANDHOLE COVER SHALL BE LOCKABLE UTILIZING A PENTAGON BOLT ASSEMBLY.
5. PROPOSED ELECTRICAL HANDHOLE SHALL BE THE FOLLOWING INTERIOR DIMENSIONS:
   A. ELECTRICAL HANDHOLE - 4' = 4' L x 4' W x 3' H
6. THE WALL KNOCKOUTS FOR THE NORTH/SOUTH WALLS SHALL BE PLACED AT HIGHER OR LOWER ELEVATIONS THAN THE WALL KNOCKOUTS FOR THE EAST/WEST WALLS TO ALLOW THE DUCTS TO CROSS.
7. THE HANDHOLE LID BE SET THAT IF DESIRED, THE LID MAY BE REMOVED BY USE OF THE LIFTING RINGS.

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UPDATE BY: TJ Heavisides
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0 1 2
THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

ELECTRICAL DETAILS SHEET 4

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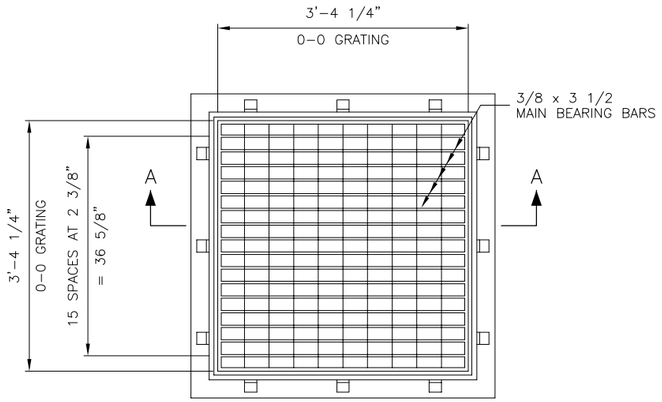
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

DESIGN BY:	TJH
DRAWN BY:	CMT
CHECKED BY:	CET
APPROVED BY:	CET
DATE:	APRIL 30, 2010
JOB No:	0906105

IL. PROJ. NO. PIA-3981
AIP PROJ. NO. 3-17-0080-XX



PLAN
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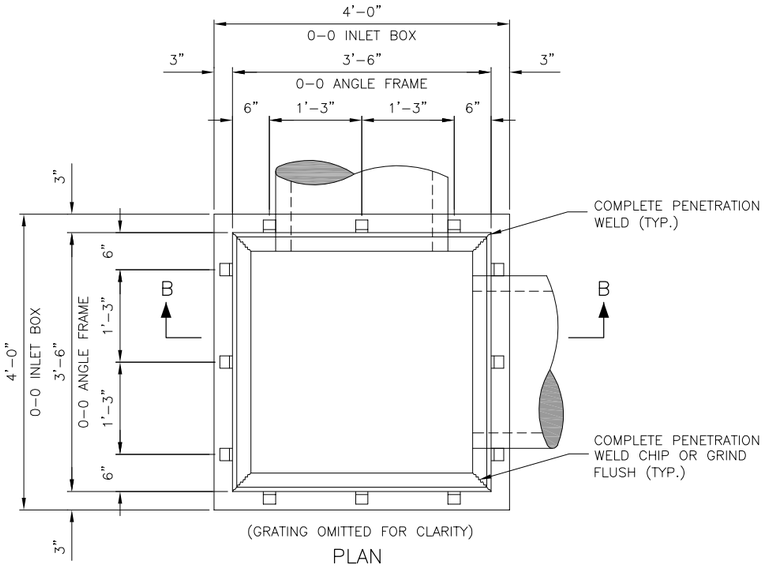

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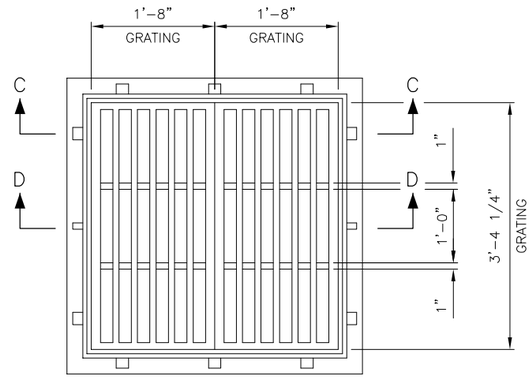

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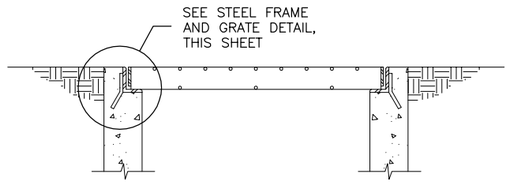
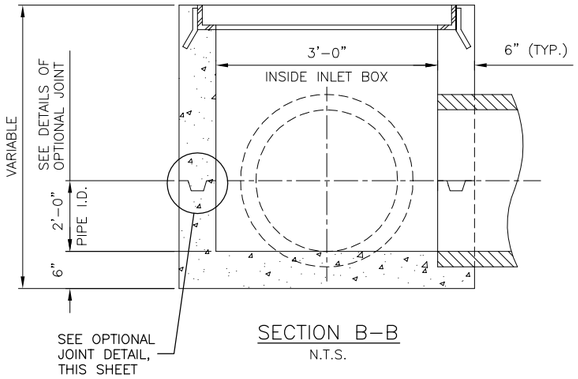


SECTION A–A
N.T.S.



SECTION B–B
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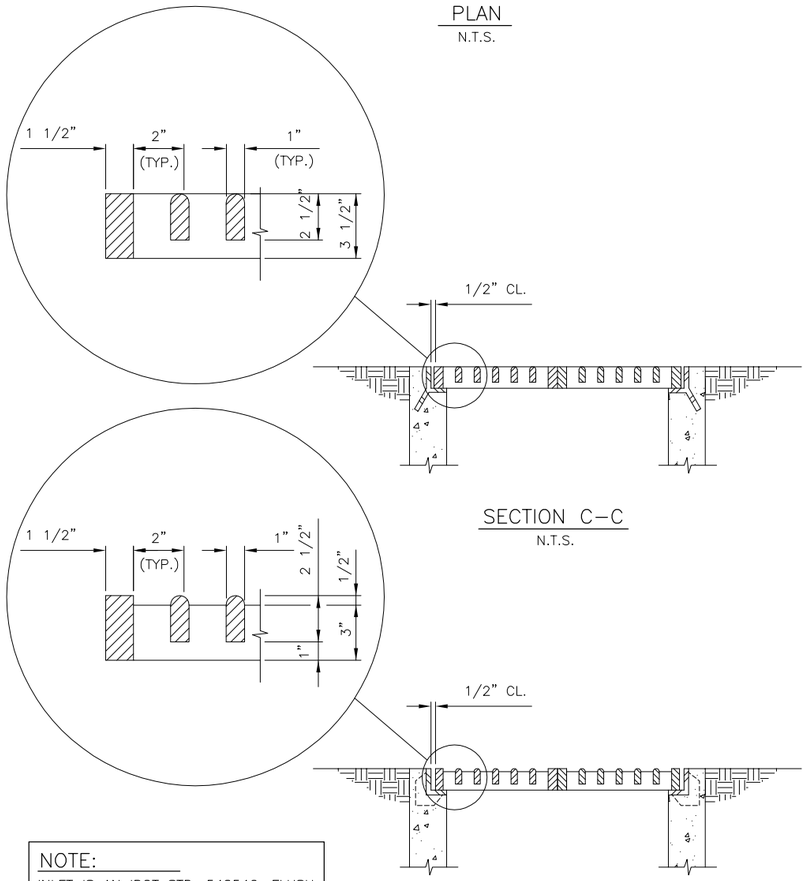
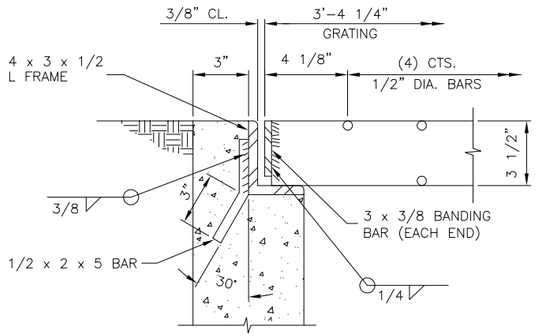


SECTION C–C
N.T.S.

SECTION D–D
CAST FRAME AND GRATE DETAIL
N.T.S.



STEEL FRAME AND GRATE DETAIL
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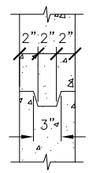

OPTIONAL JOINT DETAIL
N.T.S.

NOTE:
INLET IS AN IDOT STD. 542546, FLUSH INLET BOX FOR MEDIAN. FRAME & GRATES ARE NEENAH R-3807 OR APPROVED EQUAL.

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GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

INLET DETAILS

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PEORIA INTERNATIONAL AIRPORT

DESIGN BY:	TJH
DRAWN BY:	CMT
CHECKED BY:	CET
APPROVED BY:	CET
DATE:	APRIL 30, 2010
JOB No:	0906105

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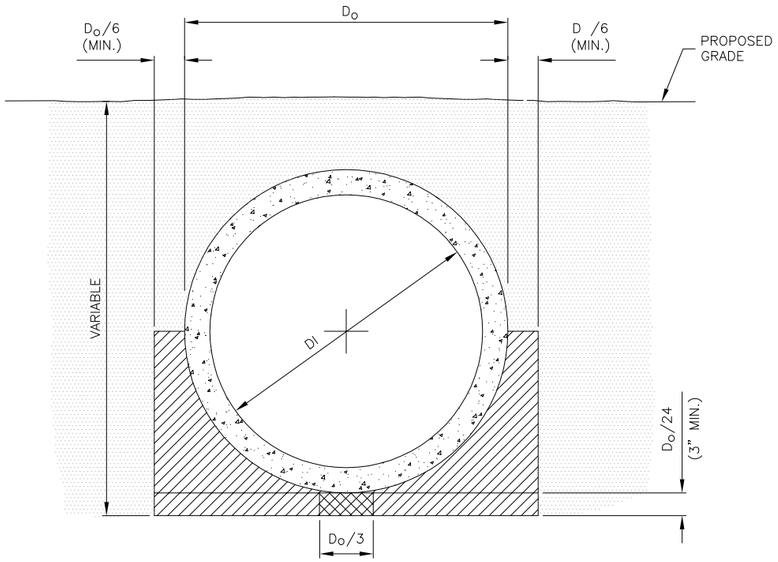
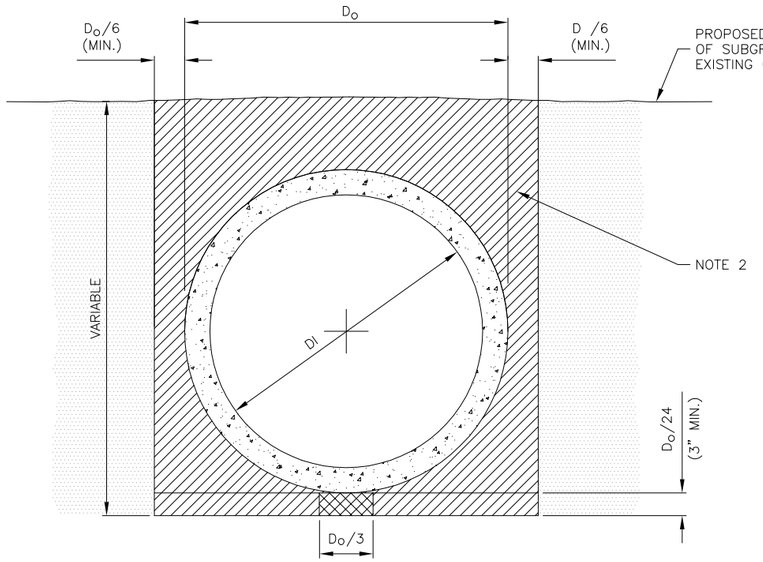
SHEET 23 OF 45 SHEETS



STANDARD TRENCH INSTALLATION
NON-PAVED AREA
N.T.S.



STANDARD TRENCH INSTALLATION
PROPOSED PAVED AREA
N.T.S.

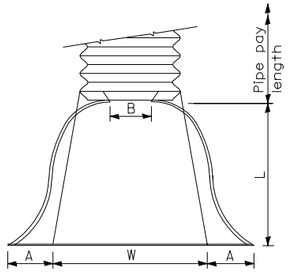
TRENCH INSTALLATION LEGEND

- DRAINAGE CONDUIT MATERIAL–CONCRETE
- MIDDLE BEDDING LOOSELY PLACED UNCOMPACTED BEDDING
- HAUNCH AND OUTER BEDDING COMPACTION– TO ENGINEER'S SATISFACTION OR 95% STANDARD PROCTOR
- LOWER SIDE AND OVERFILL COMPACTION– SAME AS EMBANKMENT REQUIREMENTS
- D_o PIPE OUTSIDE DIAMETER
- D_I PIPE INSIDE DIAMETER

TRENCH INSTALLATION NOTES

1. BEDDING SHOWN IS IN ACCORDANCE WITH "STANDARD EMBANKMENT INSTALLATIONS", STANDARD INSTALLATION & BEDDING FACTORS FOR THE INDIRECT DESIGN METHOD (DESIGN DATA 40), AMERICAN CONCRETE PIPE ASSOCIATION.
2. BACKFILL TO EXTEND 3' BEYOND EDGES OF PROPOSED PAVEMENT.

PIPE DIA.	THICK-NESS	DIMENSIONS					SLOPE (Approx.) (V:H)	BODY
		A	B	H	L	W		
		25'* (1)	(max.)	25'* (1)	38* (1-1/2)	50*: (2)		
300 (12)	1.63 (0.064)	150 (6)	150 (6)	150 (6)	535 (21)	610 (24)	1:2–1/2	1 Pc.



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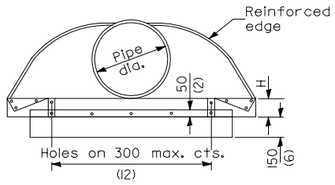
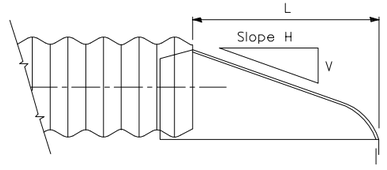


END VIEW



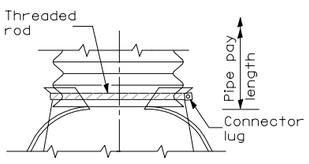
SIDE VIEW

NOTES

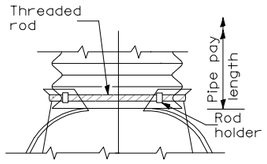
For 1500 mm (60") thru 2250 mm (84") sizes, reinforced edges shall be supplemented with stiffener angles. The angles shall be 51x51x6.4 mm (2x2x1/4") for 1500 mm (60") thru 1800 mm (72") diameter and 64x64x6.4 mm (2-1/2x2-1/2x1/4") for 1950 mm (78") thru 2250 mm (84") diameter. The angles shall be attached by M10 (3/8") rivets or bolts.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

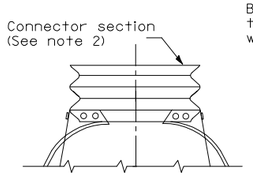
END SECTION



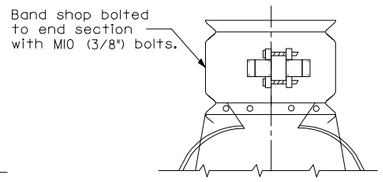
TYPE 1
For 300 (12) thru 600 (24) only
(See Note 1)



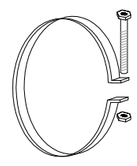
TYPE 2
For 750 (30) and 900 (36) only
(See Note 1)



TYPE 3
(See Note 2)



TYPE 4
(See Note 3)



29 (1) Wide, 2.77 (0.109) thick strap with standard M12x150 (1/2x6) band bolt and nut.

ALTERNATE STRAP CONNECTOR
(For Type 1 only)

CONNECTIONS OF END SECTIONS

NOTES

1. Types 1 and 2 for pipes with annular ends only.
2. Type 3 connection can be used for all pipe sizes and includes 300 mm (12") of the pipe length. The connector section shall be attached to the end section by rivets or bolts and shall be the same metal thickness as the end section. Stub shall be either 68 mm (2 2/3") pitch x 13 mm (1/2") depth or 75 mm (3") pitch x 25 mm (1") depth annular corrugated pipe.
3. Type 4 connection can be used for all pipe sizes. Coupler shall be 68 mm x 13 mm (2 2/3"x1/2") dimple, hugger, or annular band of 75 mm x 25 mm (3"x1"). The dimple, hugger, or annular band may be used with corrugated metal pipes having annular ends. For corrugated metal pipes having helical ends, only the dimple band will be allowed.

All dimensions are in millimeters (inches) unless otherwise shown.

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PLOT DATE: 5/6/2010 3:52 PM

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0 1 2
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GENERAL WAYNE A. DOWNING PEORIA INTERNATIONAL AIRPORT PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

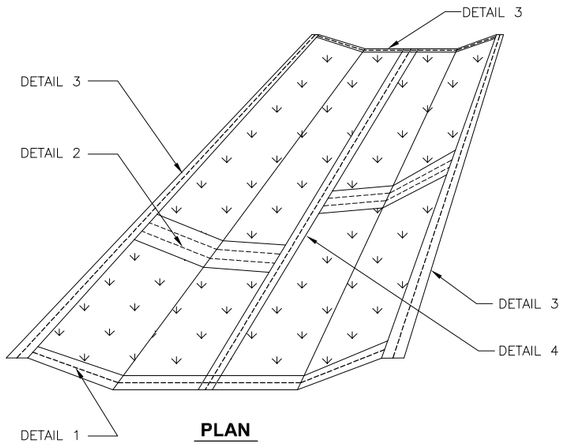
DRAINAGE DETAILS

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

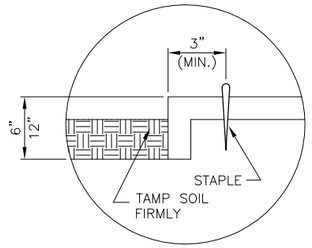
GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

DESIGN BY:	AJH
DRAWN BY:	CMT
CHECKED BY:	CET
APPROVED BY:	CET
DATE:	APRIL 30, 2010
JOB No:	0906105

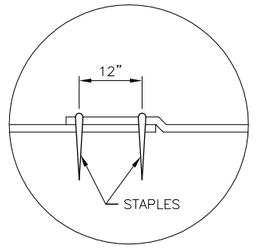
IL. PROJ. NO. PIA–3981
AIP PROJ. NO. 3–17–0080–XX



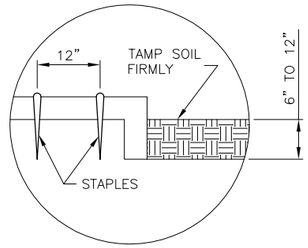
PLAN



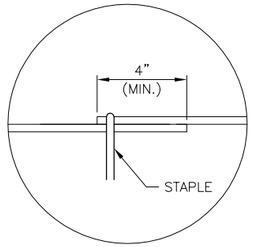
DETAIL 1 - TERMINAL FOLD



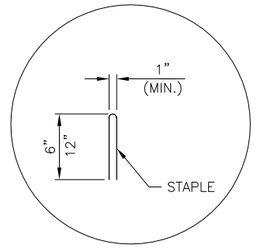
DETAIL 2 - JUNCTION SLOT



DETAIL 3 - ANCHOR SLOT



DETAIL 4 - LAP JOINT



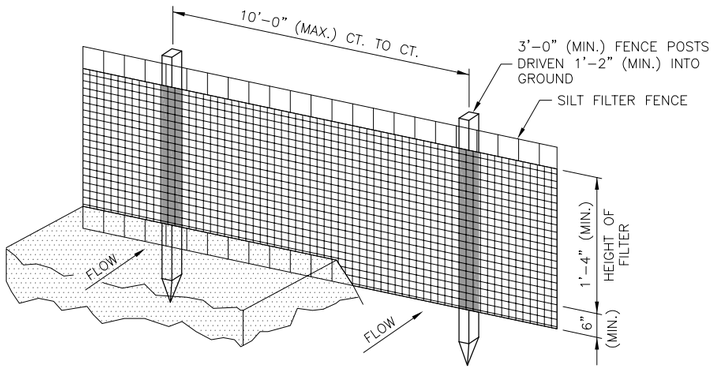
DETAIL 5 - STAPLE DETAIL

EXCELSIOR BLANKET DETAILS

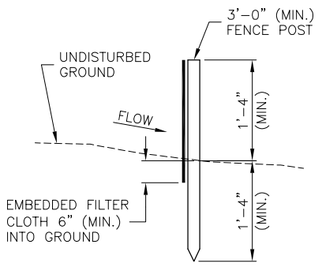
N.T.S.

EXCELSIOR BLANKET NOTES

1. STAPLES TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART.
2. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
3. ALL TERMINALS ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.



PERSPECTIVE VIEW



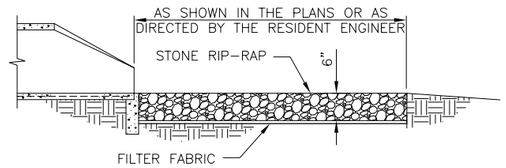
SECTION

EROSION CONTROL FABRIC FENCE DETAILS

N.T.S.

EROSION CONTROL FABRIC FENCE NOTES

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 2'-0" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" MINIMUM AND FOLDED.
4. 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.



SECTION A-A

RIP-RAP DETAILS

N.T.S.

RIP-RAP NOTES

1. THE RESIDENT ENGINEER SHALL DETERMINE THE FINAL RIP-RAP CONFIGURATION IN THE FIELD.
2. PLACE AT PIPE LOCATIONS AS DIRECTED BY THE RESIDENT ENGINEER OR AS SHOWN IN THE PLANS.

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FILE: EROSION CONTROL DETAILS.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:52 PM

PE091

REVISIONS

NUMBER	BY	DATE

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SHEET 25 OF 45 SHEETS

SYMBOLS USED AS ABBREVIATIONS:

∠	ANGLE
℄	CENTERLINE
C	CHANNEL
D	PENNY
⊥	PERPENDICULAR
PL	PLATE
ø	ROUND

ABBREVIATIONS:

ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
ASC	ABOVE SUSPENDED CEILING
ACC	ACCESS
ACFL	ACCESS FLOOR
AP	ACCESS PANEL
ACP	ACOUSTICAL CEILING PANEL
ACPL	ACOUSTICAL PLASTER
ACT	ACOUSTICAL CEILING TILE
ACR	ACRYLIC PLASTIC
ADD	ADDENDUM
ADH	ADHESIVE
ADJ	ADJACENT
ADJ	ADJUSTABLE
AGG	AGGREGATE
A/C	AIR CONDITIONING
ALT	ALTERNATE
ALUM	ALUMINUM
ANC	ANCHOR, ANCHORAGE
AB	ANCHOR BOLT
ANOD	ANODIZED
APPROX	APPROXIMATE
ARCH	ARCHITECT (URAL)
AD	AREA DRAIN
ASPH	ASPHALT
AT	ASPHALT TILE
AUTO	AUTOMATIC
BP	BACK PLASTER (ED)
BSMT	BASEMENT
BRG	BEARING
BPL	BEARING PLATE
BJT	BED JOINT
BM	BENCH MARK
BLW	BELOW
BTWN	BETWEEN
BVL	BEVELED
BIT	BITUMINOUS
BLK	BLOCK
BLKG	BLOCKING
BO	BOARD
BS	BOTH SIDES
BL	BLIND
BW	BOTH WAYS
BOT	BOTTOM
BR	BRICK
BRZ	BRONZE
BLDG	BUILDING
BUR	BUILT UP ROOFING
BBD	BULLETIN BOARD
CAB	CABINET
CAD	CADMIUM
CPT	CARPET (ED)
CSMT	CASEMENT
CI	CAST IRON
CIPC	CAST-IN-PLACE CONCRETE
CST	CAST STONE
CB	CATCH BASIN
CK	CALK (ING), CAULK (ING)
CLG	CEILING
CHT	CEILING HEIGHT
CEM	CEMENT
PCPL	CEMENT PLASTER (PORTLAND)
CM	CENTIMETER (S)
CER	CERAMIC
CT	CERAMIC TILE
CMT	CERAMIC MOSAIC (TILE)
CBD	CHALKBOARD, CK.BD
CHAM	CHAMFER
CR	CURTAIN ROD
CIR	CIRCLE
CIRC	CIRCUMFERENCE
CLR	CLEAR (ANCE)
CLS	CLOSURE
CRC	COLD ROLLED CHANNEL
COL	COLUMN
COMB	COMBINATION
COMPT	COMPARTMENT
COMPO	COMPOSITION (COMPOSITE)
COMP	COMPRESS (ED), (ION), (IBLE)
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT (BLOCK)
CX	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS OR CONTINUE
CONTR	CONTRACT (OR)
CLL	CONTRACT LIMIT LINE
CJT	CONTROL JOINT
CPR	COPPER
CG	CORNER GUARD
CORR	CORRIDOR
CTR	CENTER
CFL	COUNTERFLASHING
CS	COUNTERSINK
CTSX	COUNTERSUNK SCREW
CRS	COURSE (S)
CRG	CROSS GRAIN
CUFT	CUBIC FOOT
CYD	CUBIC YARD
DPR	DAMPER
DP	DAMPPROOFING
DL	DEAD LOAD
DEM	DEMOLISH, DEMOLITION
DMT	DEMOUNTABLE
DEP	DEPRESSED
DET	DETAIL
DIAG	DIAGONAL
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DIV	DIVISION
DR	DOOR
DA	DOUBLEACTING
DH	DOUBLE HUNG
DTA	DOVETAIL ANCHOR
DTS	DOVETAIL ANCHOR SLOT
DS	DOWNSPOUT
D	DRAIN
DRB	DRAIN BOARD
DT	DRAIN TILE
DWR	DRAWER
DWGS	DRAWINGS
DF	DRINKING FOUNTAIN
DW	DUMBWAITER
EF	EACH FACE
E.I.F.S.	EXTERIOR INSULATION & FINISH SYSTEM
EJ	EXPANSION JOINT
ELEC	ELECTRIC (AL)
EP	ELECTRICAL PANELBOARD
EWC	ELECTRIC WATER COOLER
EL	ELEVATION
ELEV	ELEVATION/ELEVATOR
EMERG	EMERGENCY
ENC	ENCLOSE (URE)
EQ	EQUAL
EQP	EQUIPMENT
EST	ESTIMATE
EXCA	EXCAVATE
EXH	EXHAUST
EXG	EXISTING
EXMP	EXPANDED METAL PLATE
EB	EXPANSION BOLT
EXP	EXPOSED
EXT	EXTERIOR
EXS	EXTRA STRONG
F. BATT	FIBERGLASS INSULATION
FBR	FACE BRICK
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FCU	FAN COIL UNIT
FAS	FASTEN, FASTENER
FN	FENCE
FBD	FIBERBOARD
FGL	FIBERGLASS
FIN	FINISH (ED)
FFE	FINISHED FLOOR ELEVATION
FFL	FINISHED FLOOR LINE
FA	FIRE ALARM
FBRK	FIRE BRICK
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HOSE STATION
FPL	FIREPLACE (S)
FP	FIREPROOF
FRC	FIRE-RESISTANT COATING
FRT	FIRE-RETARDANT
FLASH	FLASHING
FHMS	FLATHEAD MACHINE SCREW
FHWS	FLATHEAD WOOD SCREW
FSR	FLEXIBLE SHEET ROOFING
FLR	FLOOR (ING)
FND	FEMININE NAPKIN DISPENSER
FNR	FEMININE NAPKIN RECEPTOR
FLCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FPL	FLOOR PLATE
FLUOR	FLUORESCENT
FJT	FLUSH JOINT
FTG	FOOTING
FRG	FORGED
FND	FOUNDATION
FR	FRAME (D), (ING)
FRA	FRESH AIR
FS	FULL SIZE
FURR	FURRED (ING)
FUT	FUTURE
GA	GAGE, GAUGE
GALV	GALVANIZED
GI	GALVANIZED IRON
GP	GALVANIZED PIPE
GSS	GALVANIZED STEEL SHEET
GKT	GASKET (ED)
GC	GENERAL CONTRACT (OR)
GL	GLASS, GLAZING
GBL	GLASS BLOCK
GLF	GLASS FIBER
GCMU	GLAZED CONCRETE MASONRY UNITS
GST	GLAZED STRUCTURAL TILE
GB	GRAB BAR
GR	GRADE, GRADING
GRN	GRANITE
GVL	GRAVEL
GF	GROUND FACE
GT	GROUT
GPDW	GYPSUM DRYWALL
GPDW(MR)	GYPSUM DRYWALL, MOISTURE RESISTANT
GPL	GYPSUM LATH
GPPL	GYPSUM PLASTER
GPT	GYPSUM TILE
HH	HANDHOLE
HBD	HARDBOARD
HDW	HARDWARE
HWD	HARDWOOD
HJT	HEAD JOINT
HDR	HEADER
HTG	HEATING
HVAC	HEATING/VENTILATING/AIR CONDITIONING
HD	HEAVYDUTY
HT	HEIGHT
HX	HEXAGONAL
HES	HIGH EARLY-STRENGTH CEMENT
HC	HOLLOW CORE
HM	HOLLOW METAL
HK	HOOK (S)
HORZ	HORIZONTAL
HB	HOSE BIBB
WH	WATER HEATER
INCIN	INCINERATOR
INCL	INCLUDE (D), (ION)
ID	INSIDE DIAMETER
INSUL	INSULATE (D), (ION)
INSCONC	INSULATING CONCRETE
INSF	INSULATING FILL
INT	INTERIOR
ILK	INTERLOCK
INTM	INTERMEDIATE
INV	INVERT
IPS	IRON PIPE SIZE
JC	JANITOR'S CLOSET
JT	JOINT
JF	JOINT FILLER
JST	JOIST
KCPL	KEENE'S CEMENT PLASTER
KPL	KICKPLATE
KIT	KITCHEN
KO	KNOCKOUT
LBL	LABEL
LAB	LABORATORY
LAD	LADDER
LB	POUND
LAM	LAMINATE (D)
LAV	LAVATORY
LH	LEFT HAND
LG	LENGTH
LT	LIGHT
LC	LIGHT CONTROL
LP	LIGHTPROOF
LTWT	LIGHTWEIGHT
LWC	LIGHTWEIGHT CONCRETE
LMS	LIMESTONE
LTL	LINTEL
LL	LIVE LOAD
LVR	LOUVER
LPT	LOW POINT
MB	MACHINE BOLT
MI	MALLEABLE IRON
MH	MANHOLE
MFR	MANUFACTURE (ER)
MRB	MARBLE
MAS	MASONRY
MO	MASONRY OPENING
MATL	MATERIAL (S)
MAX	MAXIMUM
MECH	MECHANIC (AL)
MC	MEDICINE CABINET
MED	MEDICAL
MBR	MEMBER
MEMB	MEMBRANE
MET/MTL	METAL
MBM	METAL BUILDING MANUFACTURER
MFD	METAL FLOOR DECKING
MTFR	METAL FURRING
MRD	METAL ROOF DECKING
MTHR	METAL THRESHOLD
MS	METAL STUD
MM	MILLIMETER (S)
MWK	MILLWORK
MIN	MINIMUM/MINERAL
MIR	MIRROR
MISC	MISCELLANEOUS
MOD	MODULAR
MLD	MOLDING, MOULDING
MR	MOP RECEPTOR
MTD	MOUNT (ED), (ING)
MOV	MOVEABLE
MULL	MULLION
NL	NAILABLE
NAT	NATURAL
NI	NICKEL
NR	NOISE REDUCTION
NRC	NOISE REDUCTION COEFFICIENT
NOM	NOMINAL
NMT	NONMETALLIC
N	NORTH
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OBS	OBSCURE
OC	ON CENTER (S)
OP	OPAQUE
OPNG	OPENING
OJ	OPEN-WEB JOIST
OPP	OPPOSITE
OPH	OPPOSITE HAND
OPS	OPPOSITE SURFACE
OD	OUTSIDE DIAMETER
OHMS	OVALHEAD MACHINE SCREW
OHWS	OVALHEAD WOOD SCREW
OA	OVERALL
OH	OVERHEAD
PNT	PAINT (ED)
PNL	PANEL
PB	PANIC BAR
PTD	PAPER TOWEL DISPENSER
PTR	PAPER TOWEL RECEPTOR
PAR	PARALLEL
PK	PARKING
PBD	PARTICLE BOARD
PTN	PARTITION
PV	PAVE (D), (ING)
PVMT	PAVEMENT
PED	PEDESTAL
PERF	PERFORATE (D)
PERI	PERIMETER
PLS	PLASTER
PLAM	PLASTIC LAMINATE
PL	PLATE & PROPERTY LINE
PG	PLATE GLASS
PLW	PLYWOOD
PT	POINT
PVC	POLYVINYL CHLORIDE
PE	PORCELAIN ENAMEL
PTC	POST-TENSIONED CONCRETE
PCF	POUNDS PER CUBIC FOOT
PFL	POUNDS PER LINEAL FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PCC	PRECAST CONCRETE
PFB	PREFABRICATE (D)
PFN	PREFINISHED
PRF	PREFORMED
PSC	PRESTRESSED CONCRETE
PL	PROPERTY LINE & PLATE
QT	QUARRY TILE
RBT	RABBET, REBATE
R	RADIUS
RL	RAIL (ING)
RWC	RAINWATER CONDUCTOR
REF	REFERENCE
RFL	REFLECT (ED), (IVE), (OR)
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCE (D), (ING)
RCP	REINFORCED CONCRETE PIPE
REM	REMOVE
RES	RESILIENT
RET	RETURN
RA	RETURN AIR
REV	REVISION (S), REVISED
RH	RIGHT HAND
ROW	RIGHT OF WAY
R	RISER
RVT	REVET
RD	ROOF DRAIN
RFH	FOOR HATCH
RFG	ROOFING
RM	ROOM
RO	ROUGH OPENING
RB	RUBBER BASE
RT	RUBBER TILE
RBL	RUBBLE STONE
SFGL	SAFETY GLASS
SCH	SCHEDULE
SCN	SCREEN
SLNT	SEALANT
STG	SEATING
SECT	SECTION
SS	SERVICE SINK
SHTH	SHEATHING
SHT	SHEET
SM	SHEET METAL
SH	SHELF, SHELVING
SHO	SHORE (D), (ING)
SIM	SIMILAR
SKL	SKYLIGHT
SL	SLEEVE
SD	SOAP DISPENSER / STORM DRAIN
SC	SOLID CORE
SP	SOUNDPROOF
SB	SPLASH BLOCK
SPC	SPACER
SPK	SPEAKER
SPL	SPECIAL
SPEC	SPECIFICATION (S)
SQ	SQUARE
SST	STAINLESS STEEL
STD	STANDARD
SSR	STANDING SEAM ROOF
STA	STATION
STL	STEEL
STOR	STORAGE
STR	STRUCTURAL
SCT	STRUCTRUAL CLAY TILE
SUSP	SUSPENDED
SYM	SYMMETRY (ICAL)
SYN	SYNTHETIC
SYS	SYSTEM
TBD-TK	TACKBOARD
TKS	TACKSTRIP
TEL	TELEPHONE
TV	TELEVISION
TEMP	TEMPERED
TC	TERRA COTTA
TERR	TERRAZZO
T	THERMOSTAT
THK	THICK (NESS)
THR	THRESHOLD
TLT	TOILET
TPTN	TOILET PARTITION
TPH	TOILET PAPER HOLDER
TOL	TOLERANCE
T&G	TONGUE AND GROOVE
TF	TOP OF FOOTING
TST	TOP OF STEEL
TW	TOP OF WALL
TB	TOWEL BAR
TR	TRANSOM
TTH	TUMBLER AND TOOTHBRUSH HOLDER
TYP	TYPICAL
UC	UNDERCUT
UNF	UNFINISHED
U.N.O.	UNLESS NOTED OTHERWISE
UV	UNIT VENTILATOR
UR	URINAL
VJ	V-JOINT (ED)
VB	VAPOR BARRIER & VINYL BASE
VAR	VARNISH
VNR	VENEER
VRM	VERMICULITE
VERT	VERTICAL
VG	VERTICAL GRAIN
VIN	VINYL
VCT	VINYL COMPOSITION TILE
VB	VINYL BASE & VAPOR BARRIER
VWC	VINYL WALL COVERING
VT	VINYL TILE
WSCT	WAINSCOT
WTW	WALL TO WALL
WH	WALL HUNG
WC	WATER CLOSET
WP	WATERPROOFING
WR	WATER REPELLENT
WS	WATERSTOP
WWF	WELDED WIRE FABRIC
WHB	WHEEL BUMPER
W	WIDTH, WIDE
WDW	WINDOW
WG	WIRED GLASS
WM	WIRE MESH
WO	WITHOUT
WD	WOOD
WB	WOOD BASE
WPT	WORKING POINT
WI	WROUGHT IRON
W/D	WASHER / DRYER

MATERIAL DESIGNATIONS AND DETAIL SYMBOLS

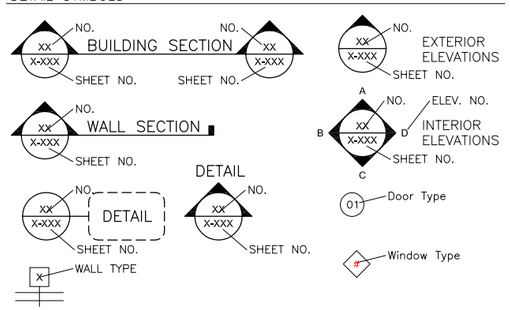
PLAN SECTION

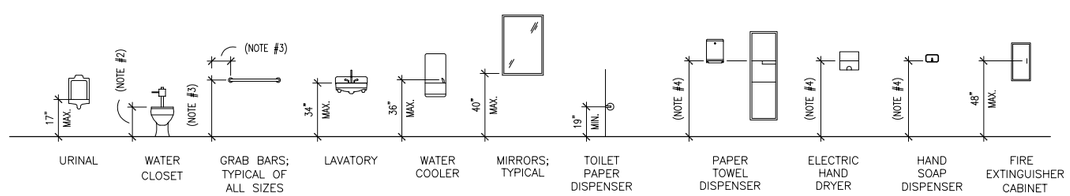
- EARTH
- POROUS FILL (STONE OR GRAVEL, ETC,)
- ROCK
- LIGHTWIEGHT CONCRETE (OR CONCRETE FILL)
- STRUCTURAL CONCRETE (CAST-IN-PLACE PRECAST CAST STONE)
- BRICK (COMMON OR FACE)
- CONCRETE BLOCK (CMU)
- CUT STONE
- ALUMINUM
- METAL, STEEL (LARGE SCALE)
- METAL (SMALL SCALE STRUCTURAL & SHEET)
- PLYWOOD (LARGE SCALE)
- WOOD FINISHED
- WOOD ROUGH
- WOOD BLOCKING
- INSULATION (LOOSE OR BATT)
- INSULATION (RIGID)
- EXPANSION MATERIAL
- EXTERIOR INSULATION & FINISH SYSTEM
- GLASS (LARGE SCALE)
- ACOUSTICAL TILE
- CERAMIC TILE
- CARPET
- PLASTER, SAND, CEMENT, GROUT
- RESILIENT FLOORING
- TERRAZZO

ELEVATION

- CONCRETE, PLASTER
- BRICK
- CERAMIC TILE
- METAL
- GLAZING

DETAIL SYMBOLS





ACCESSIBILITY DIMENSIONS:

ACCESSIBILITY NOTES:

1. THE ACCESSIBILITY DIAGRAMS INDICATE MOUNTING HEIGHTS FOR HANDICAP ACCESSIBLE FIXTURES AND ACCESSORIES.
2. RIM OF FIXTURE OF WATER CLOSET TO BE 17" MIN. A.F.F. AND 19" MAX. A.F.F.
3. ACCESSORY TO BE MOUNTED AT 33" MIN. A.F.F. AND 36" MAX. A.F.F. 36" REAR GRAB BAR SHALL BE MOUNTED 6" FROM ADJACENT WALL. 42" SIDE GRAB BAR SHALL BE MOUNTED 12" FROM REAR CORNER.
4. ACCESSORY MOUNTED AT 48" MAX. A.F.F. FOR FORWARD REACH AND 54" A.F.F. FOR SIDE REACH.
5. FOR ADDITIONAL INFORMATION REGARDING HANDICAP ACCESSIBLE FIXTURES AND/OR ACCESSORIES, SEE THE ILLINOIS ACCESSIBILITY CODE, ADA ACCESSIBILITY GUIDELINES, AND ANSI A117.1-1986. THE MOST STRINGENT SHALL BE REFERENCED.

PROJECT CRITERIA

APPLICABLE CODES

1997 ILLINOIS ACCESSIBILITY CODE	2006 IBC
2009 IECC	2006 IMC
2005 NEC	2006 IPC

DESIGN CRITERIA

BUILDING:	USE GROUP:	TYPE OF CONST.:	SPRINKLED:	FIRE PROTECTION:
OPERATIONS BLDG: DISINFECTION	U, UTILITY	TYPE 2B	NONE	UNPROTECTED

BUILDING:	SQUARE FOOTAGE:	MAX. BUILDING HEIGHT:
ELECTRICAL VAULT	= 1,836 SF.	1 STORY / 14'-4"

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FILE: A01 Architectural Abbrev & Notes.dw
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:52 PM

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DATE:	APRIL 30, 2010
JOB No:	0906105

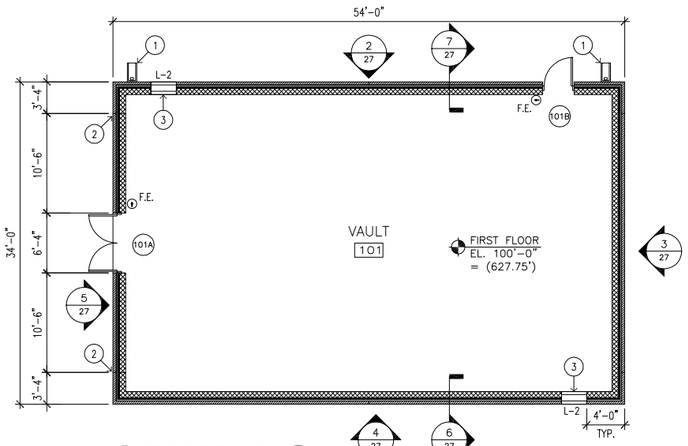
IL. PROJ. NO. PIA-3981
AIP PROJ. NO. 3-17-0080-XX

GENERAL NOTES:

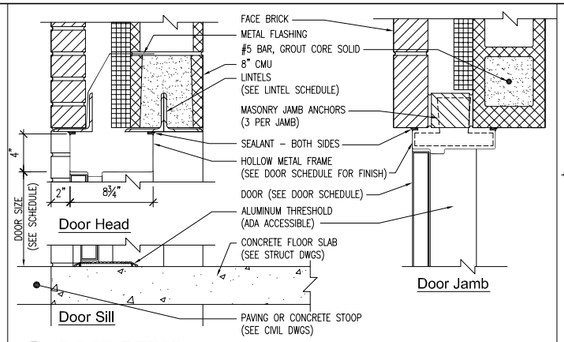
1. ALL CONCRETE FLOOR CONTROL JOINTS TO BE SEALED WITH ELASTOMERIC SEALANT.
2. CONCRETE SLABS TO BE FINISHED WITH KURE-N-SEAL.
3. INTERIOR CMU WALLS TO BE PRIMED AND FINISH PAINTED WITH 2 COATS.
4. SEE LINTEL SCHEDULE FOR DOOR AND LOUVER LOCATIONS.

KEYED NOTES:

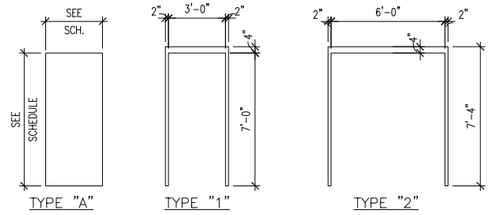
1. CONCRETE SPLASH BLOCK.
2. CONTROL JOINT THROUGH BRICK AND BLOCK WALL ASSEMBLY FOR FUTURE BUILDING EXPANSION.
3. LOUVER (SEE M.E.P. DRAWINGS)



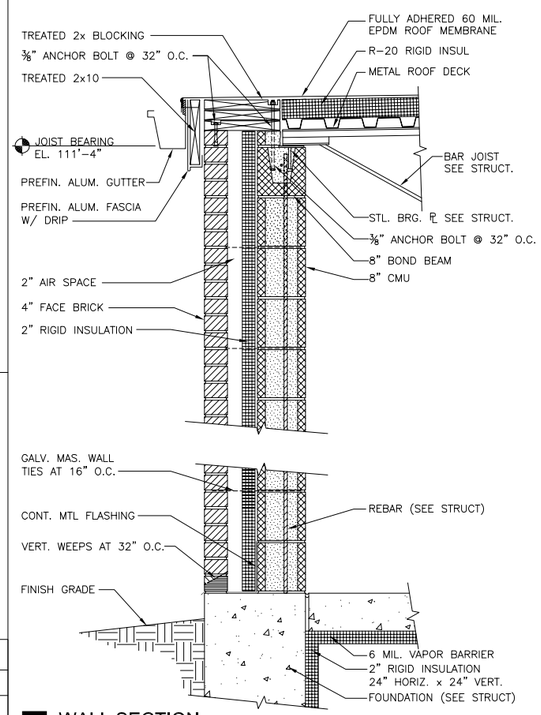
1 FLOOR PLAN
SCALE: 1/8" = 1'-0"



8 DOOR DETAIL
SCALE: 1 1/2" = 1'-0"



DOOR AND FRAME TYPES
SCALE: 1/4" = 1'-0"



7 WALL SECTION
SCALE: 1" = 1'-0"

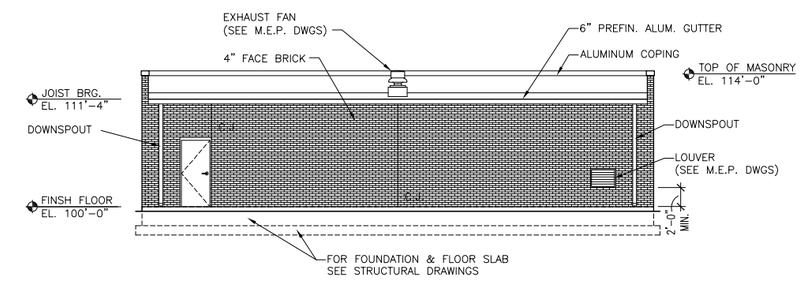
DOOR SCHEDULE

DOOR						FRAME				LABEL	DETAILS THIS SHEET			HARDWARE GROUP	LINTEL	REMARKS
NO.	SIZE	MAT'L	FINISH	CORE	TYPE	ELEV.	MAT'L	FINISH	WALL CONST.		HEAD	JAMB	SILL			
101A	2 @ 3'-0" x 7'-0" x 1 3/4"	MTL	PNT	INSUL	A	2	MTL	PNT	CMU	--	8	8	8	A	L-1	--
101B	3'-0" x 7'-0" x 1 3/4"	MTL	PNT	INSUL	A	2	MTL	PNT	CMU	--	8	8	8	B	L-2	--

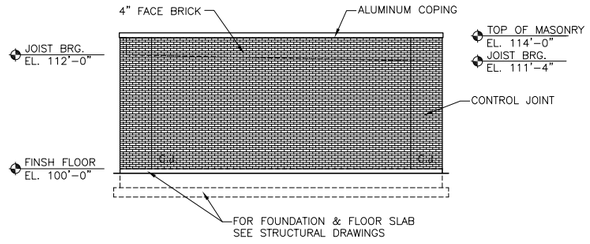
LINTEL SCHEDULE

NO.	SIZE	SHAPE	M.O.	BRG. LENGTH	REMARKS
L-1	3-L3½x3½x¼	⌟⌞	6'-0"	8"	BOTH WYTHES
L-2	3-L3½x3½x¼	⌟⌞	3'-4"	8"	BOTH WYTHES

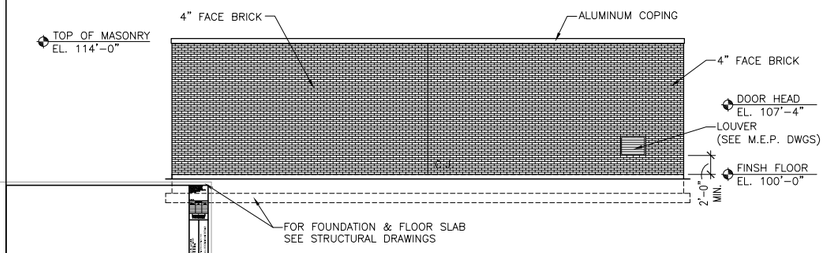
NOTE: 1. GALVANIZED LINTELS TYPICAL.



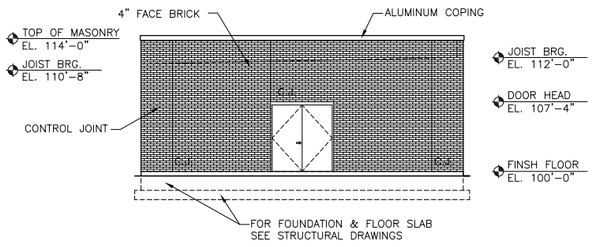
2 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



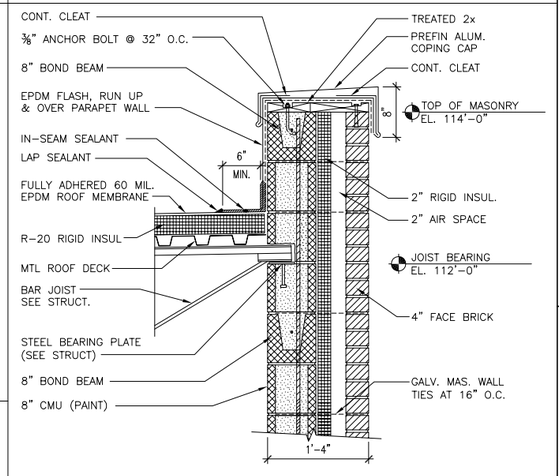
3 EAST ELEVATION
SCALE: 1/8" = 1'-0"

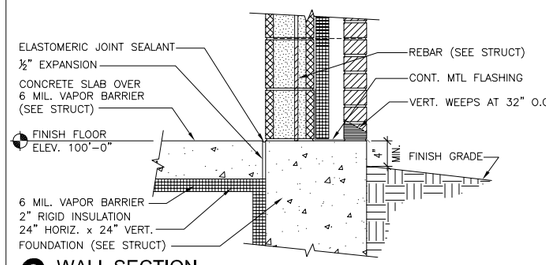


4 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



5 WEST ELEVATION
SCALE: 1/8" = 1'-0"





6 WALL SECTION
SCALE: 1" = 1'-0"

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FILE: A02 Floor Plan.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:52 PM
X_Exterior Elevations
X-Floor Plan

PE091

REVISIONS

NUMBER	BY	DATE

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

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

FLOOR PLANS, WALL SECTIONS AND DETAILS

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

DESIGN BY:	GTC
DRAWN BY:	JJ
CHECKED BY:	CET
APPROVED BY:	CET
DATE:	APRIL 30, 2010
JOB No:	0906105

IL. PROJ. NO. PIA-3981
AIP PROJ. NO. 3-17-0080-XX

GENERAL STRUCTURAL NOTES

1. DESIGN LOADS – 2006 INTERNATIONAL BUILDING CODE (IBC)

ROOFS	LIVE LOAD – SNOW INCREASE FOR DRIFT PER 2006 IBC / ASCE 7 BASIC GROUND SNOW LOAD 20 P.S.F.	
ROOFS	DEAD LOAD	20 P.S.F.
WALKWAYS	LIVE LOAD	100 PSF
LATERAL LOAD	WIND	
	BASIC WIND SPEED	90 M.P.H. EXPOSURE C
	IMPORTANCE FACTOR	1.15
SEISMIC	Ss	17.6%
	S1	7.8%
	OCCUPANCY CATEGORY	III
	SEISMIC PERFORMANCE	CATEGORY B
	SITE CLASS	D
MASONRY WALL DEAD LOADS	8" C.M.U. 4" FACE BRICK	60 P.S.F. 40 P.S.F.
ALLOWABLE SOIL BEARING PRESSURE		1500 P.S.F. (NET)

2. VERIFY DRAWINGS FOR LOCATION OF ALL OPENINGS IN WALLS AND SLABS.
3. ALL ANCHOR BOLTS, NUTS, WASHERS, ETC. SHALL BE STAINLEES STEEL IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A–276 UNLESS OTHERWISE NOTED.
4. ALL FILL OR BACKFILL WITHIN THE LIMITS OF A BUILDING OR A STRUCTURE SHALL BE COMPACTED ACCORDING TO THE SPECIFICATIONS.
5. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL BE COATED WITH UNTHINNED BITUMASTIC PAINT. ALL ALUMINUM SURFACES IN CONTACT WITH STEEL OR DISSIMILAR METAL SHALL BE ISOLATED BY 1/4" MIN. THICKNESS 60 DUROMETER NEOPRENE PADS.
6. ALL MISCELLANEOUS PLATES, ANGLES, ETC. SHALL BE ASTM A36. ALL WIDE–FLANGE MEMBERS SHALL BE ASTM A992, UNLESS NOTED OTHERWISE.
7. CONTRACTOR SHALL COORDINATE STRUCTURAL SHEETS WITH ALL OTHER SHEETS FOR PIPE SIZES AND LOCATIONS, BLOCK OUTS, ELECTRICAL REQUIREMENTS AND ANCHOR BOLTED ATTACHMENTS, AND SHALL COORDINATE THE INSTALLATION OF ELECTRICAL AND MECHANICAL EQUIPMENT WITH THE RESPECTIVE SUB–CONTRACTORS PRIOR TO THE REPLACEMENT OF THE CONCRETE. SEE HVAC, MECHANICAL, AND ELECTRICAL PLANS FOR SLEEVES, INSERTS, ETC.
8. CONTRACTOR IS RESPONSIBLE FOR ADEQUACY OF TEMPORARY SHORING, TO RESIST ALL LOADING CONDITIONS DURING CONSTRUCTION.
9. UNLESS SPECIFICALLY DETAILED HEREIN, NO PIPES OR SLEEVES SHALL PASS THROUGH STRUCTURAL MEMBERS WITHOUT PERMISSION OF THE ENGINEER.
10. ALL FOOTING EXCAVATIONS SHALL BE CLEAN AND FREE OF DEBRIS, STANDING WATER AND LOOSE SOIL AND SHALL BE INSPECTED BY THE ENGINEER PRIOR TO PLACEMENT OF CONCRETE.
11. IN STRUCTURAL AREAS (WHERE STRUCTURES DERIVE SOME OR ALL SUPPORT FROM FILL–SUPPORTED FOUNDATIONS) AND SLABS–ON–GRADE, FILL SHALL BE COMPACTED TO 98 PERCENT OF STD. PROCTOR MAXIMUM DRY DENSITY (ASTM D–698), UNLESS OTHERWISE SPECIFIED.
12. PROTECT SUBGRADE AT ALL TIMES INCLUDING PROPER DRAINAGE OF CONSTRUCTION AREAS, PREVENTION OF STANDING WATER, MINIMIZING CONSTRUCTION TRAFFIC AND PLACING FOUNDATION CONCRETE AS SOON AS POSSIBLE AFTER EXCAVATING (PREFERABLY THE SAME DAY).
13. ALL FILL MATERIAL SHALL BE ACCEPTABLE TO THE ENGINEER FOR USE IN ADVANCE OF PLACEMENT. NO FILL SHALL BE PLACED OVER FROZEN, MUDDY OR OTHER DELETERIOUS MATERIAL. LIFT THICKNESS SHALL BE MINIMIZED TO ALLOW EFFICIENT COMPACTION. NO FILL MAY BE PLACED OVER A PREVIOUS LIFT THAT HAS NOT BEEN ADEQUATELY COMPACATED AND HAS NOT BEEN ACCEPTED BY THE ENGINEER. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
14. BACKFILL AGAINST GRADE WALLS SHALL BE PLACED EVENLY ON ALL SIDES, UNLESS OTHERWISE NOTED.
15. SEE ARCHITECTURAL SHEETS FOR FINISHES REQUIRED ON ALL SURFACES.
16. DO NOT SCALE DIMENSIONS FOR CONSTRUCTION.

CONCRETE NOTES

1. ALL CAST–IN–PLACE CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I.
2. ALL REINFORCEMENT BARS SHALL CONFORM TO ASTM–A615, GRADE 60.
3. ALL WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM–A185. (FLAT STOCK ONLY)
4. ALL CONCRETE WORK SHALL CONFORM TO ACI 318–05 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE." ALL REINFORCING DETAILS NOT SHOWN SHALL CONFORM TO ACI 315 "DETAILING MANUAL," LATEST EDITION.
5. REINFORCING BAR LAP SPLICES SHALL BE CLASS "B" SPLICES UNLESS SHOWN OTHERWISE ON THE DRAWINGS. MECHANICAL SPLICES MAY BE USED IN LIEU OF LAP SPLICES. MECHANICAL SPLICES SHALL DEVELOP IN TENSION OR COMPRESSION, AT LEAST 125 PERCENT OF THE SPECIFIED YIELD STRENGTH, Fy OF THE BAR. THE CONTRACTOR SHALL SUBMIT, TO THE ENGINEER, MANUFACTURER'S LITERATURE, PRODUCT SAMPLES AND CERTIFIED TEST REPORTS PRIOR TO RECEIVING APPROVAL OF THE MECHANICAL SPLICES. LOCATIONS OF THE MECHANICAL BAR SPLICES SHALL BE SHOWN ON THE REINFORCING STEEL SHOP DRAWINGS.
6. AT CONSTRUCTION JOINTS SHOWN ON THE PLANS, WHERE DOWELS WILL PENETRATE CONSTRUCTION FORMWORK, THE CONTRACTOR MAY USE A MANUFACTURED DOWEL BAR SUBSTITUTION SYSTEM WHEN APPROVED IN WRITING BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT MANUFACTURER'S LITERATURE, PRODUCT SAMPLES AND CERTIFIED TEST REPORTS TO THE ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL ALSO INCLUDE INFORMATION ON WHERE HE PROPOSES TO USE THEM. TEST REPORTS SHALL SHOW YIELD AND ULTIMATE TENSILE LOAD CAPACITIES.
7. CONCRETE PROTECTION (MINIMUM CONCRETE COVER) FOR REINFORCEMENT SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:
   A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
   B. CONCRETE EXPOSED TO EARTH OR WEATHER 2"
   C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND
      1. SLABS 3/4"
      2. WALLS, BEAMS, COLUMNS, PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS 1–1/2"
8. ALL REINFORCEMENT BARS SHALL BE CLEAN AND FREE OF GREASE, SCALING RUST, AND OTHER FOREIGN MATERIALS.
9. UNLESS OTHERWISE INDICATED, FOR SLABS ON GRADE, USE 1/2" THICK PREMOLDED JOINT FILLER TO ISLOATE THE SLAB FROM CONTACT WITH THE STRUCTURES ALONG ITS PERIMETER AND APPLY TWO–COMPONENT POLYURETHANE SEALANT, 3/4" MINIMUM DEPTH.
10. A LEAN CONCRETE MUD SLAB 3 TO 4 INCHES THICK SHALL BE USED IN THE FOOTING EXCAVATION IF THE BOTTOM OF THE EXCAVATION TENDS TO BECOME MUDDY AND SOFT. LEAN CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,000 P.S.I.
11. ALL EXPOSED EDGES AND EQUIPMENT PADS SHALL BE CHAMFERED 3/4".
12. TWO # 5 BARS EACH FACE SHALL BE PROVIDED DIAGONALLY AT ALL CORNERS OF OPENINGS. BARS SHALL BE EXTENDED 24 IN. MINIMUM BEYOND CORNERS OF THE OPENINGS.
13. REINFORCEMENT BAR BENDING DIMENSIONS ARE OUT TO OUT.
14. UNLESS NOTED OTHERWISE, PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS–ON–GRADE AT 15'–0' MAXIMUM SPACES EACH DIRECTION OR AS SHOWN ON DRAWINGS. CONTROL JOINTS TO BE SAW CUT 1 1/2" DEEP IN SLAB OR USE A PREFORMED CONTROL JOINT FORMER APPROVED BY THE ENGINEER.
15. NO CONSTRUCTION JOINTS EXCEPT THOSE SHOWN ON THE PLANS WILL BE ALLOWED EXCEPT THOSE SUBMITTED BY THE CONTRACTOR IN WRITING AND ACCEPTABLE TO THE ENGINEER.

MASONRY NOTES

1. ALL CONCRETE MASONRY UNITS SHALL BE GRADE N–1.
2. ALL GROUT FOR MASONRY SHALL BE NON–SHRINK AND SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2500 P.S.I.
3. ALL MASONRY CELLS WITH VERTICAL REINFORCEMENT SHALL BE GROUTED SOLID.
4. ALL LINTEL BEARINGS SHALL BE GROUTED SOLID TO FOUNDATION AND SHALL CONTAIN 1 – #5 BAR FULL HEIGHT.
5. LINTEL BEARING PLATES SHALL BE FULLY GROUTED WITH 1/2" MIN. THICKNESS NON–SHRINK GROUT.
6. ANCHOR BOLTS SHALL BE PROVIDED AT ALL LINTEL MASONRY BEARINGS.
7. CONCRETE MASONRY UNITS SHALL HAVE TWO CELLS AS SPECIFIED IN DIVISION (4) OF THE SPECIFICATIONS.
8. MORTAR SHALL BE TYPE "S" WITH A MINIMUM COMPRESSIVE STRENGTH OF 1900 P.S.I. AT 28 DAYS.
9. UNITS SHALL BE PLACED IN RUNNING BOND, UNLESS OTHERWISE NOTED.
10. MASONRY CONSTRUCTION TO CONFORM TO THE REGULATIONS OF THE 2006 INTERNATIONAL BUILDING CODE AND ACI 530 BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.
11. HORIZONTAL JOINT REINFORCEMENT IN MASONRY SHALL BE PLACED IN THE FIRST THREE MORTAR JOINTS ABOVE LINTELS AND BELOW OPENINGS. EXTEND THE REINFORCEMENT AT LEAST 24" PAST JAMBS. IN ADDITION, PROVIDE WIRE TIES ALTERNATING WITH REINFORCEMENT @ 16" CENTERS VERTICALLY AND WITHIN 12" OF OPENING JAMBS.
12. REINFORCEMENT SHALL BE AS CALLED FOR ON THE DRAWINGS. ALL REINFORCEMENT BARS SHALL CONFORM TO ASTM – A615 GRADE 60.
13. IN ADDITION TO VERTICAL REINFORCING SHOWN ON THE DRAWINGS, PROVIDE #5 VERTICAL BARS FULL HEIGHT EACH SIDE OF OPENINGS, EACH SIDE OF CMU CONTROL JOINTS AND AT CORNERS.
14. MASONRY DESIGN BASED ON INSPECTED WORKMANSHIP F'm = 1500 PSI.

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UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:54 PM
X_Exterior Elevations
X–Floor Plan

PE091

REVISIONS

NUMBER	BY	DATE

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

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

GENERAL STRUCTURE NOTES

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GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

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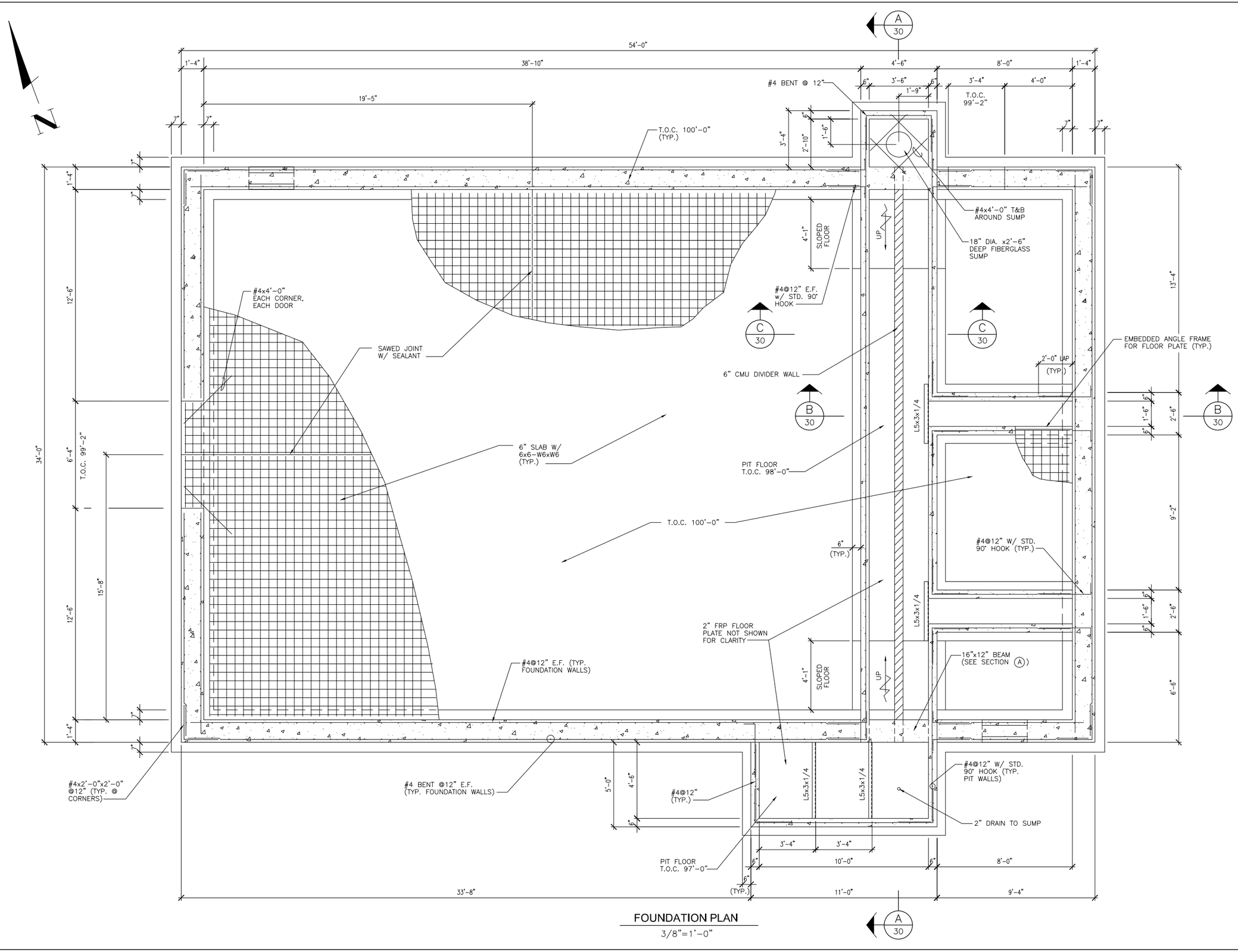

FOUNDATION PLAN

3/8"=1'-0"

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FILE: S02 Foundation Plan.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:54 PM
X_Exterior Elevations
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PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

FOUNDATION PLAN

CMT
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PEORIA INTERNATIONAL AIRPORT

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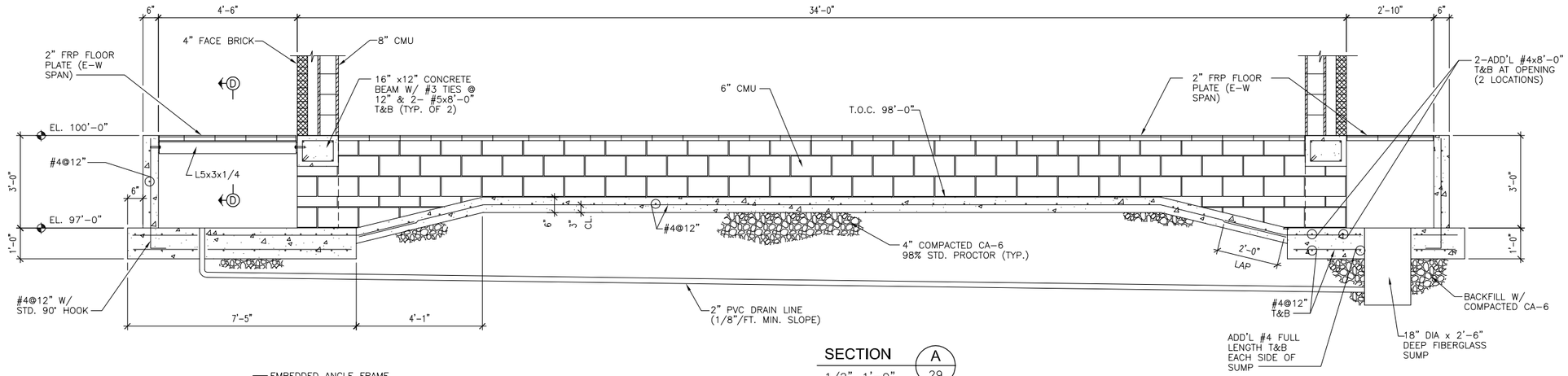
SHEET 29 OF 45 SHEETS



SECTION A
1/2"=1'-0"
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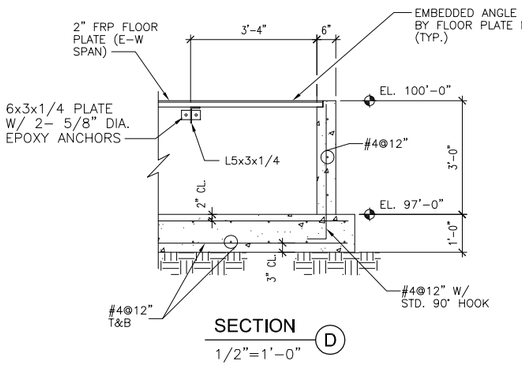

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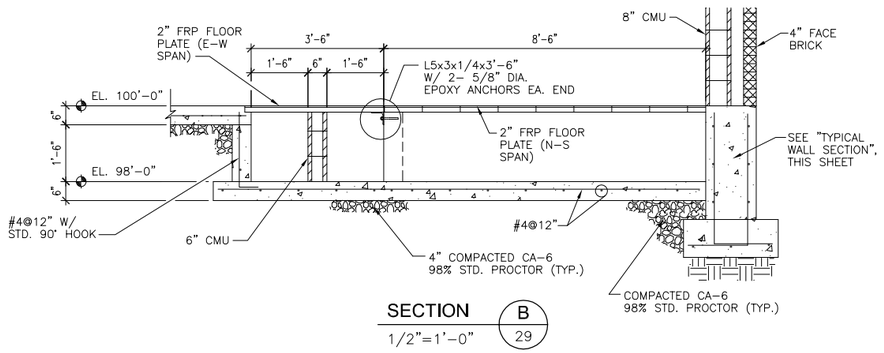

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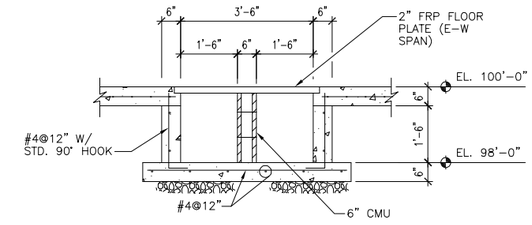

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1/2"=1'-0"
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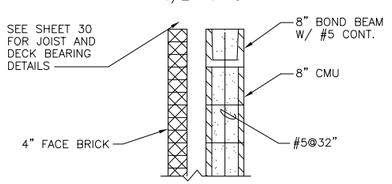
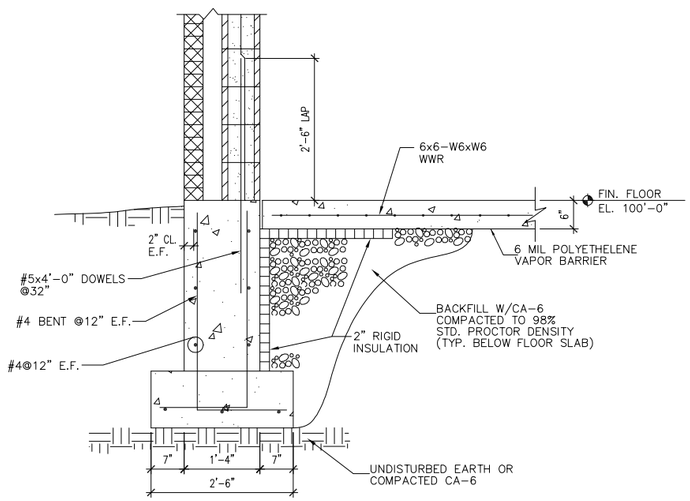
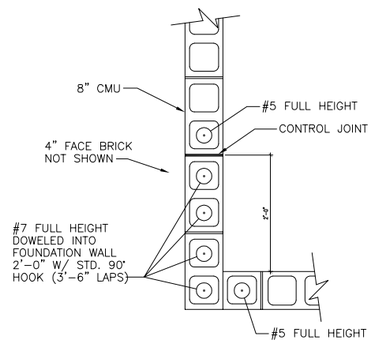
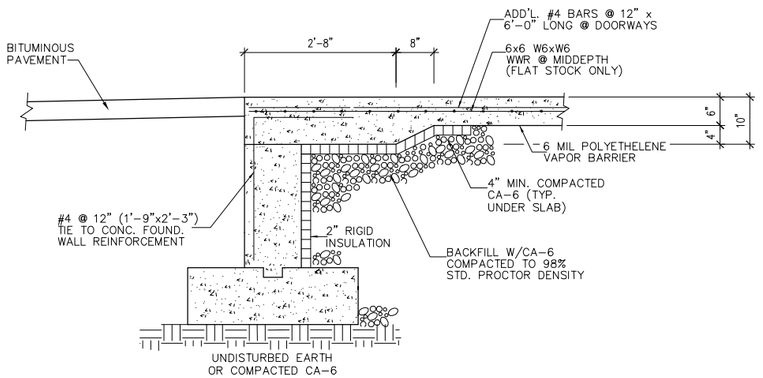




TYPICAL WALL SECTION
3/4" = 1'-0"



CMU REINFORCING AT WEST WALL JOINTS
3/4" = 1'-0"
(2 LOCATIONS)



SECTION THRU DOORWAY
3/4" = 1'-0"

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FILE: S03 Foundation Details.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:54 PM
X_Exterior Elevations
X-Floor Plan

PE091

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PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

FOUNDATION SECTIONS

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PEORIA INTERNATIONAL AIRPORT

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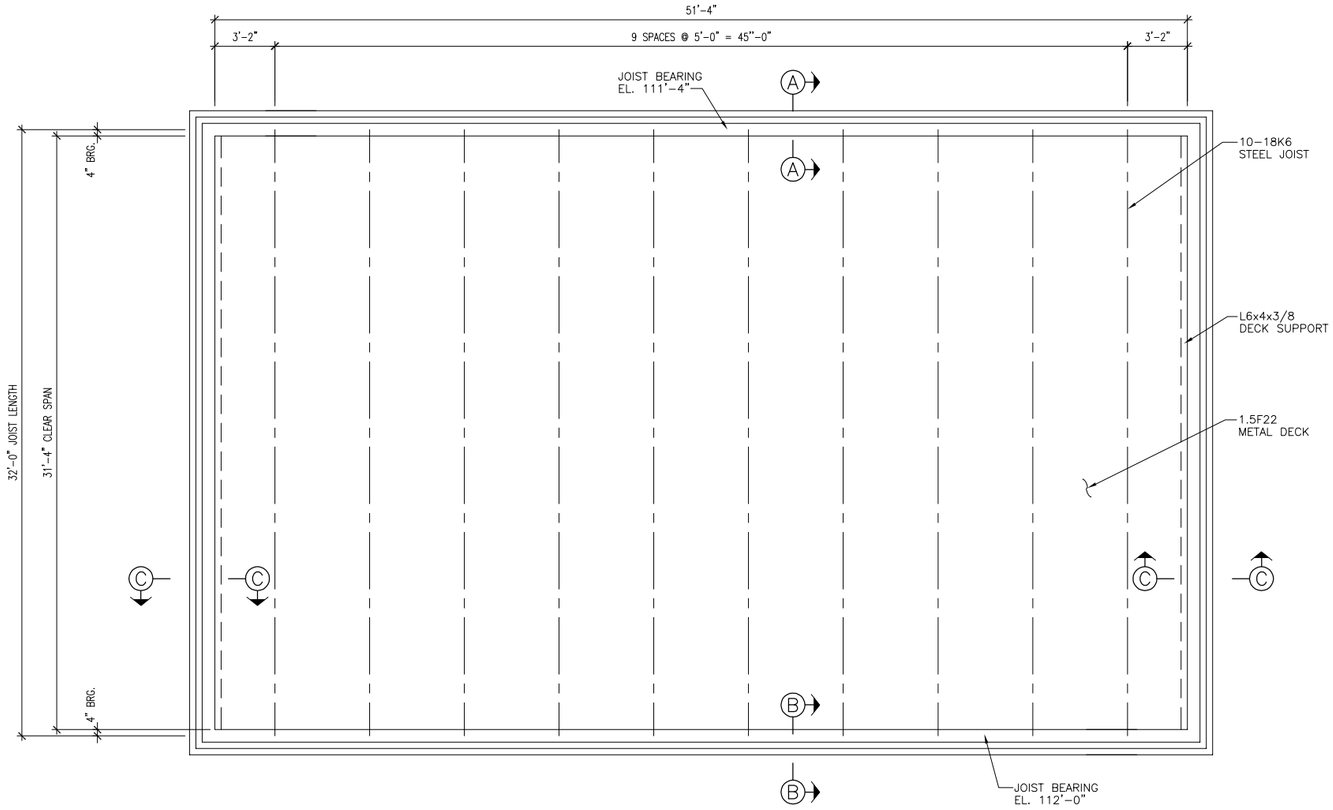
SHEET 30 OF 45 SHEETS



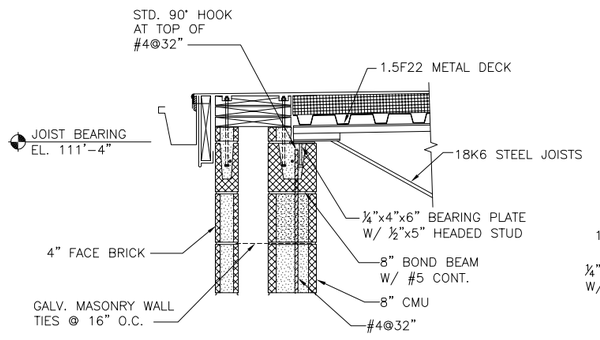
ROOF FRAMING PLAN
1/4"=1'-0"

METAL DECK NOTES

1. MANUFACTURING, DETAILING AND ERECTING OF METAL DECK SHALL BE IN ACCORDANCE WITH STEEL DECK INSTITUTE SPECIFICATION. STRUCTURAL DIAPHRAGM ACTION SHALL BE PROVIDED BY METAL DECK AND ITS WELDED ATTACHMENT.
2. METAL FLOOR DECK SHALL BE CONTINUOUS OVER AT LEAST 3 SPANS WITH JOINTS OVER SUPPORTING MEMBERS. METAL ROOF DECK SHALL ALSO BE CONTINUOUS OVER AT LEAST 3 SPANS. SEE SPECIFICATIONS FOR FURTHER INFORMATION.
3. SUPPORT FASTENER LAYOUT SHALL BE 36/3 W/ #12 TEK SCREWS. SIDELAP FASTENERS SHALL BE 2- #10 TEK SCREWS PER SPAN.

STEEL JOIST NOTES

1. THE MANUFACTURING, DETAILING AND ERECTING OF STEEL JOISTS SHALL BE IN ACCORDANCE WITH STEEL JOIST INSTITUTE (SJI), K SERIES SPECIFICATIONS.
2. JOIST BRIDGING SHALL BE STANDARD SJI BRIDGING UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
3. JOIST SPACING AND LAYOUT SHALL BE AS INDICATED ON THE DRAWINGS.
4. JOIST BEARING SHALL BE STANDARD SJI BEARINGS UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
5. BEARING CONNECTIONS SHALL BE DESIGNED TO RESIST A MINIMUM OF 2.0 KIPS LATERAL LOADS AND 3.6 KIPS VERTICAL UPLIFT LOADS FOR EACH BEARING.



SECTION A
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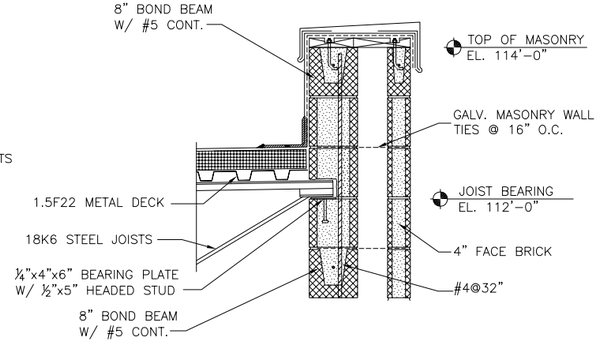

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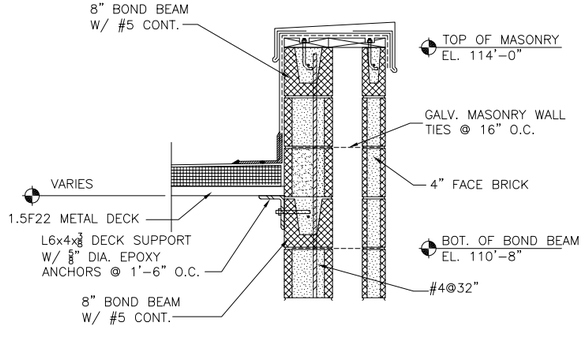
1"=1'-0"



SECTION C
1"=1'-0"

K:\PeoriaAP\090610500\Draw\Sheets
FILE: S04 Roof Plan.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:54 PM
X_Exterior Elevations
X-Floor Plan

PE091

REVISIONS

NUMBER	BY	DATE

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

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

ROOF FRAMING PLAN AND DETAILS

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

DESIGN BY:	JJF
DRAWN BY:	RDM
CHECKED BY:	JEL
APPROVED BY:	CET
DATE:	APRIL 30, 2010
JOB No:	0906105

IL. PROJ. NO. PIA-3981
AIP PROJ. NO. 3-17-0080-XX

FAN SCHEDULE

MARK		EF-1
SERVICE		VAULT
LOCATION		ROOF
TYPE		ROOFTOP CENT.
CFM		4000
S.P.		0.25"
FAN RPM		811
MOTOR	HP	3/4
	VOLT	115
	PHASE	1
	RPM	1725
ACCESSORIES		SEE NOTES 1,2,3,4,5,6,7,8
REMARKS		BELT

NOTES:
1. NEMA 4X DISCONNECT
2. 12" HIGH ROOF CURB
3. ALUMINUM BIRDSCREEN
4. BAKED ENAMEL FINISH - COLOR SELECTED BY
5. MOTORIZED DAMPER
6. CLOSE ON RISE, LINE VOLTAGE THERMOSTAT W/ H-O-A SWITCH
7. BELT DRIVE WITH GRIP NOTCH BELT
8. STAINLESS STEEL SHAFT AND FASTENERS

STATIONARY LOUVER SCHEDULE

MARK		SL-1	SL-2
SERVICE		INTAKE	INTAKE
LOCATION		VAULT	VAULT
TYPE		DRAINABLE	DRAINABLE
CFM		2000	2000
MAX. Δ S.P. (IN)		0.1	0.1
NOM. SIZE	WIDTH	32"	32"
	HEIGHT	24"	24"
	DEPTH	4"	4"
AREA (SQ. FT.)	NET	5.33	5.33
	FREE	2.8	2.8
FRAME		STANDARD	STANDARD
MATERIAL		ALUMINUM	ALUMINUM
FINISH		KYNAR	KYNAR
ACCESSORIES		SEE NOTES	SEE NOTES
REMARKS		INTERLOCK DAMPER WITH EF-1	INTERLOCK DAMPER WITH EF-1

NOTES:
1. COLOR TO BE SELECTED BY ARCHITECT
2. BIRD SCREEN
3. EXTENDED SILL
4. MOTORIZED DAMPER

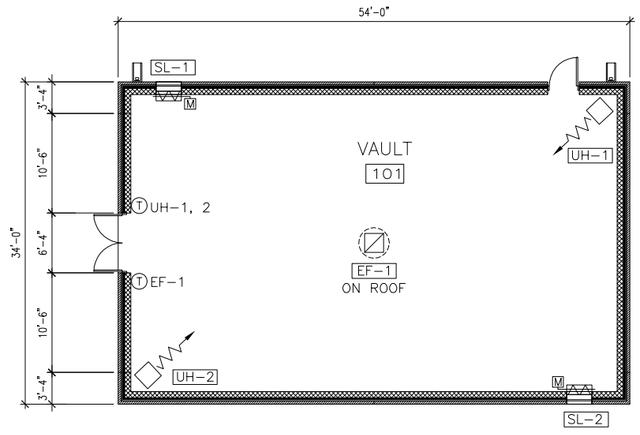
UNIT HEATER SCHEDULE

MARK		UH-1	UH-2
LOCATION		VAULT	VAULT
SERVICE		-	-
TYPE		HORIZONTAL	HORIZONTAL
INPUT KW		10	10
MBH		34130	34130
FAN	CFM	850	850
	RPM	1050	1050
	HP	1/15	1/15
ELECT.	VOLT	480	480
	PHASE	3	3
	AMPS	12.9	12.9
ACCESSORIES		SEE NOTES 1,2,3	SEE NOTES 1,2,3
REMARKS		MOUNT BOTTOM OF UNIT 8'-0" AFF	MOUNT BOTTOM OF UNIT 8'-0" AFF

NOTES:
1. WALL MOUNTING KIT
2. DISCONNECT SWITCH
3. REMOTE THERMOSTAT W/ H-O-A TO CONTROL BOTH HEATERS

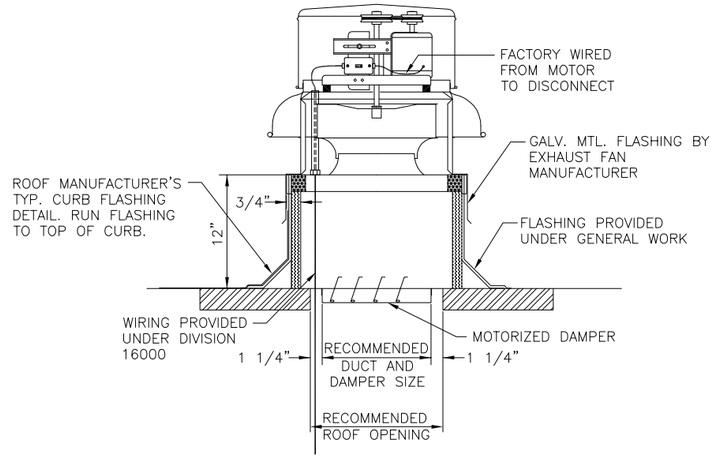
GENERAL NOTES

1. WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE LATEST CODES AND INDUSTRY STANDARDS, AS WELL AS THE LATEST OSHA, STATE OF ILLINOIS REQUIREMENTS, AND CITY OF PEORIA, ILLINOIS CODES.
2. CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES AND INSTALL ALL EQUIPMENT, DUCTWORK, AND PIPING TO AVOID INTERFERENCE WITH STRUCTURAL MEMBERS AND EQUIPMENT.
3. DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND OTHER RELATED DRAWINGS.
4. PIPING AND DUCT LAYOUT ARE APPROXIMATE AND SHALL BE COORDINATED TO AVOID FIELD INTERFERENCES.
5. REFER TO ARCHITECTURAL DRAWINGS AND/OR CONSULT ARCHITECT/ ENGINEER PRIOR TO ROUGH-IN FOR MECHANICAL WORK TO AVOID FIELD CONFLICTS.
6. MATERIALS AND EQUIPMENT USED ON THIS PROJECT SHALL BE NEW. NEW EQUIPMENT SHALL BE U.L. APPROVED AS APPLICABLE.
7. HVAC DUCTWORK AND ACCESSORIES SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS AND APPLICABLE SPECIFICATION SECTIONS.
8. HVAC DUCTWORK, ACCESSORIES AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATION SECTIONS AND MANUFACTURERS RECOMMENDATIONS.
9. THERMOSTATS SHALL BE PROVIDED BY MECHANICAL CONTRACTOR, FIELD LOCATED, AND SHALL BE MOUNTED APPROXIMATELY 54" AFF.

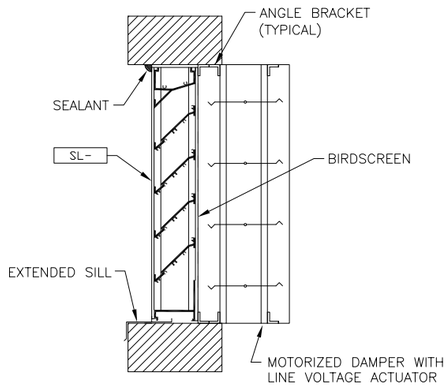


1 FLOOR PLAN
SCALE: 1/8" = 1'-0"

N
PROJECT



ROOF MOUNTED EXHAUST FAN DETAIL
N.T.S.



STATIONARY LOUVER WITH MOTORIZED DAMPER DETAIL
N.T.S.

K:\PeoriaAP\090610500\Draw\Sheets
FILE: H01-VAULT PLAN.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:55 PM
X-Floor Plan

PE091

REVISIONS

NUMBER	BY	DATE

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

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

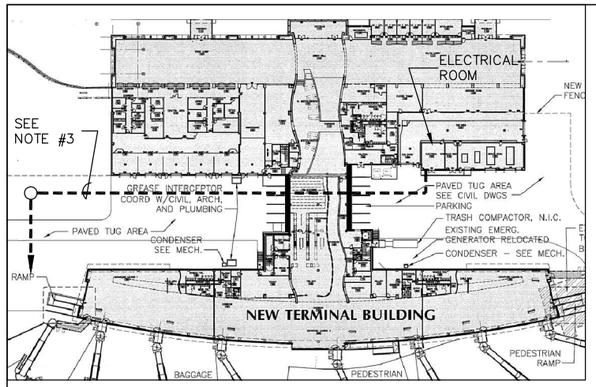
HEATING AND VENTILATION PLAN

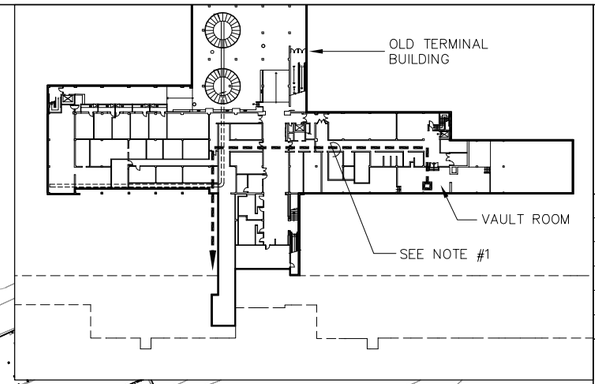
CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

DESIGN BY:	CMT
DRAWN BY:	CMT
CHECKED BY:	CET
APPROVED BY:	CET
DATE:	APRIL 30, 2010
JOB No:	0906105

IL. PROJ. NO. PIA-3981
AIP PROJ. NO. 3-17-0080-XX





ELECTRICAL SERVICE SITE PLAN NOTES

1. NEW 6-STRAND FIBER OPTIC DATA CABLE IN NEW CONDUIT, EXISTING CABLE TRAY AND EXISTING DUCT BANK.
2. NEW 6-STRAND FIBER OPTIC DATA CABLE IN ONE CONDUIT OF NEW 24-WAY DUCT BANK.
3. NEW VAULT 480V, 3-PHASE, 3-WIRE SERVICE IN TWO EXISTING 5" CONDUITS, EACH CONDUIT WITH TWO 750 MCM ALUMINUM XHHW PER PHASE, ONE #400MCM GROUND. NOTE: IN ELECTRICAL ROOM OF NEW TERMINAL BUILDING THE CONTRACTOR SHALL CONNECT NEW VAULT 480V SERVICE TO EXISTING SPARE 600A, 3P CIRCUIT BREAKER IN MAIN DISTRIBUTION SWITCHBOARD. INSTALLATION OF ANY NEW 5" CONDUITS REQUIRED TO EXTEND FROM STUB UP IN ELECTRICAL ROOM TO MAIN DISTRIBUTION SWITCHBOARD SHALL BE INCIDENTAL TO THE VAULT 480V SERVICE INSTALLATION.
4. NEW VAULT 480V, 3-PHASE, 3-WIRE SERVICE IN TWO NEW CONCRETE ENCASED 6" CONDUITS, EACH CONDUIT WITH TWO 750 MCM ALUMINUM XHHW PER PHASE, ONE #400MCM GROUND.
5. EXISTING HANDHOLE.
6. NEW HANDHOLE PLAZA.
7. NEW HANDHOLE.

K:\PeoriaAP\090610500\Draw\Sheets
FILE: ELECTRICAL- SITE PLAN.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:55 PM
Base
BASE_PROP_GEO
prop_pavement1
PIA TIPS 9_03_08
BY OTHERS
TERM_LOWER

PE091

REVISIONS

NUMBER	BY	DATE

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

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

NEW VAULT ELECTRICAL SERVICE SITE PLAN

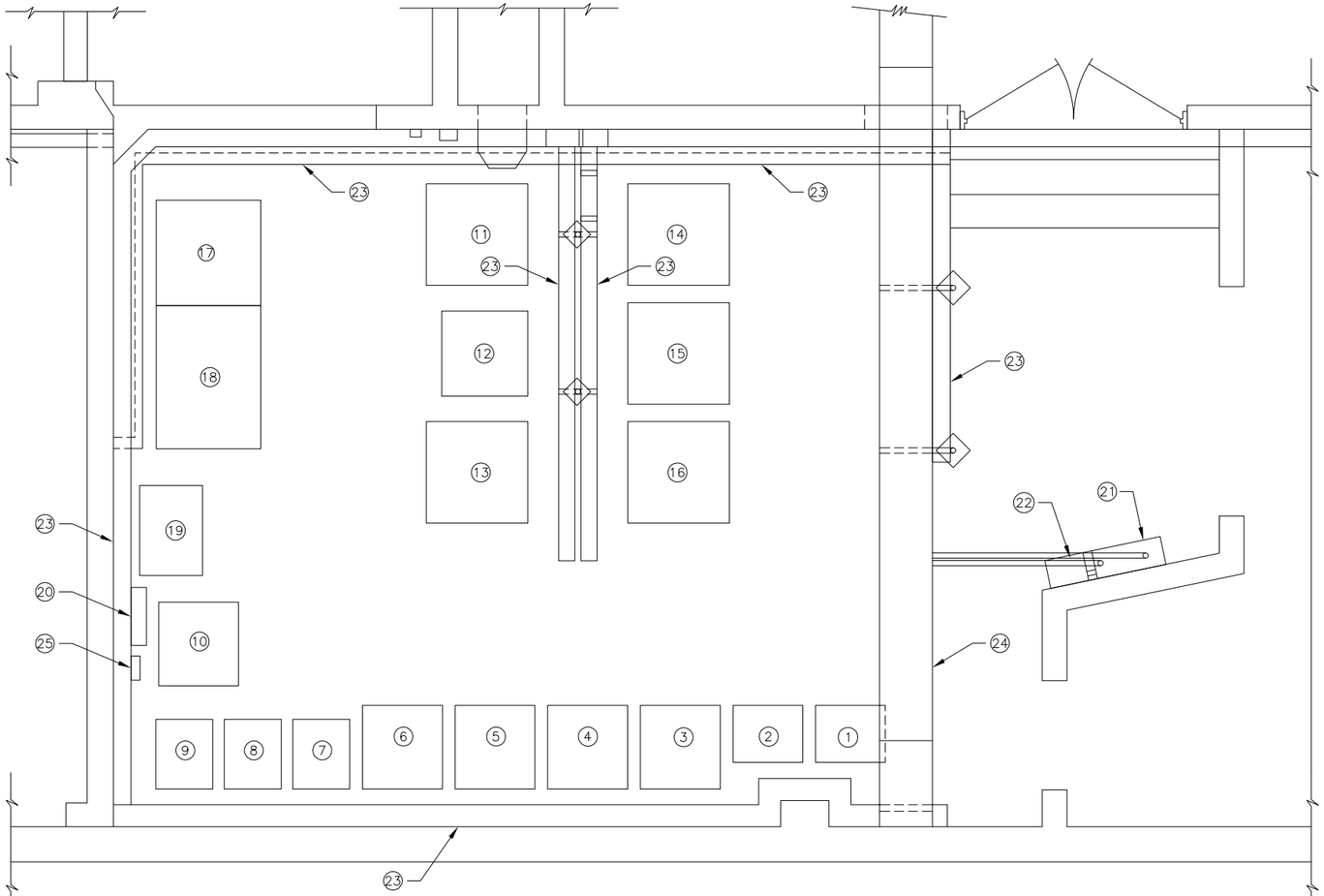
CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

DESIGN BY:	CMT
DRAWN BY:	CMT
CHECKED BY:	CET
APPROVED BY:	CET
DATE:	APRIL 30, 2010
JOB No:	0906105

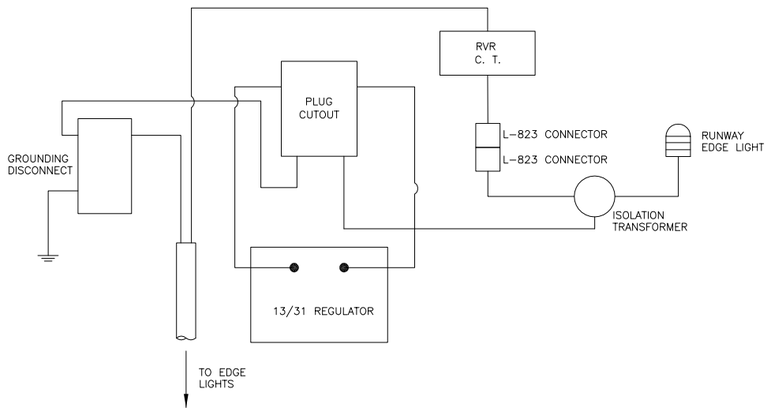
IL. PROJ. NO. PIA-3981
AIP PROJ. NO. 3-17-0080-XX

SHEET 33 OF 45 SHEETS



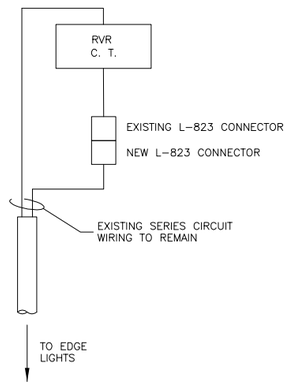
EXISTING VAULT PLAN

N.T.S.



EXISTING RUNWAY 13/31
SERIES CIRCUIT WIRING

N.T.S.



MODIFIED RUNWAY 13/31 SERIES
CIRCUIT WIRING TO REMAIN

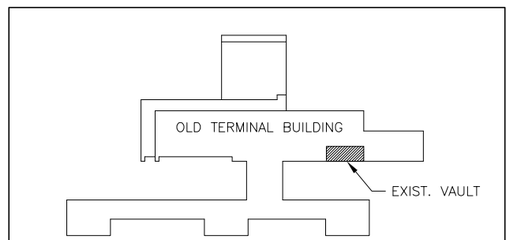
N.T.S.

EXISTING VAULT PLAN

1. SPARE REGULATOR, 10KW, 480V INPUT, 3-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND DISPOSED OF OFFSITE.
2. TAXIWAY CIRCUIT #2 REGULATOR, 10KW, 480V INPUT, 3-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND DISPOSED OF OFFSITE.
3. SPARE REGULATOR, 7.5KW, 208V INPUT, 3-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND DISPOSED OF OFFSITE.
4. TAXIWAY CIRCUIT #4 REGULATOR, 15KW, 480V INPUT, 3-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND DISPOSED OF OFFSITE.
5. SPARE REGULATOR, 7.5KW, 480V INPUT, 3-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND DISPOSED OF OFFSITE.
6. TAXIWAY CIRCUIT #6, 7.5KW, 208V INPUT, 3-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND DISPOSED OF OFFSITE.
7. SPARE REGULATOR, 7.5KW, 480V INPUT, 3-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND DISPOSED OF OFFSITE.
8. SPARE REGULATOR, 7.5KW, 480V INPUT, 3-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND DISPOSED OF OFFSITE.
9. SPARE REGULATOR, 7.5KW, 480V INPUT, 3-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND DISPOSED OF OFFSITE.
10. RUNWAY 13/31 BACKUP REGULATOR, 30KW, 480V INPUT, 5-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND DISPOSED OF OFFSITE.
11. RUNWAY 13/31 REGULATOR, 30KW, 480V INPUT, 5-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND RELOCATED AS A "SPARE REGULATOR" TO NEW VAULT. SEE NEW VAULT EQUIPMENT PLAN AND ELEVATION FOR ADDITIONAL INFORMATION.
12. SPARE REGULATOR, 10KW, 480V INPUT, 3-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND DISPOSED OF OFFSITE.
13. TAXIWAY CIRCUIT #3 REGULATOR, 20KW, 480V INPUT, 3-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND RELOCATED AS A "SPARE REGULATOR" TO NEW VAULT. SEE NEW VAULT EQUIPMENT PLAN AND ELEVATION FOR ADDITIONAL INFORMATION.
14. RUNWAY 04/22 REGULATOR, 20KW, 480V INPUT, 5-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND RELOCATED AS A "SPARE REGULATOR" TO NEW VAULT. SEE NEW VAULT EQUIPMENT PLAN AND ELEVATION FOR ADDITIONAL INFORMATION.
15. TAXIWAY CIRCUIT #1 REGULATOR, 20KW, 480V INPUT, 3-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND RELOCATED AS A "SPARE REGULATOR" TO NEW VAULT. SEE NEW VAULT EQUIPMENT PLAN AND ELEVATION FOR ADDITIONAL INFORMATION.
16. TAXIWAY CIRCUIT #5 REGULATOR, 20KW, 480V INPUT, 3-STEP 6.6A OUTPUT. TO BE DISCONNECTED AND RELOCATED AS A "SPARE REGULATOR" TO NEW VAULT. SEE NEW VAULT EQUIPMENT PLAN AND ELEVATION FOR ADDITIONAL INFORMATION.
17. VAULT HIGH VOLTAGE (4160V) DISCONNECT. TO REMAIN UNDISTURBED.
18. VAULT TRANSFORMER (4160V-480V) AND 480V DISTRIBUTION PANELBOARD. DISCONNECT AND REMOVE ALL 480V WIRING TO RUNWAY AND TAXIWAY REGULATORS. REST OF PANELBOARD TO REMAIN IN SERVICE.
19. LIGHTING PANEL TRANSFORMER, 45KVA, 480V-208Y/120V, 3-PHASE, 4-WIRE. TO REMAIN IN SERVICE.
20. LIGHTING PANEL, 20-POLE, 100A, 208Y/120V, 3-PHASE, 4-WIRE. EXISTING RUNWAY AND TAXIWAY CONTROL POWER CIRCUITS TO REMAIN IN SERVICE AS NEEDED FOR USE BY NEW PLC. EXISTING 20A, 1P CIRCUIT BREAKER FOR PRIMARY WIND CONE ("WIND TEE") SHALL BE REUSED FOR NEW PLC FEEDER CIRCUIT BREAKER. SEE NEW VAULT DETAILS - 5 FOR ADDITIONAL INFORMATION.
21. TRANSFER RELAY CABINET. SEE EXISTING VAULT DETAILS AND NEW VAULT DETAILS - 5 FOR ADDITIONAL INFORMATION.
22. AIR TO GROUND RELAY AND TERMINAL CABINET. TO REMAIN UNDISTURBED.
23. HIGH VOLTAGE AND LOW VOLTAGE WIREWAY. REMOVE POWER AND CONTROL WIRING TO RUNWAY AND TAXIWAY REGULATORS.
24. 18" WIDE CABLE TRAY. ROUTE NEW PLC DATA HIGHWAY FIBER OPTIC CABLE VIA THIS CABLE TRAY AND EXISTING AND NEW CONDUITS TO NEW VAULT.
25. PRIMARY WIND CONE ("WIND TEE") CONTACTOR AND STEP-UP TRANSFORMER (120/240V-240X480V) TO BE DISCONNECTED AND DISPOSED OF OFFSITE.

GENERAL NOTES

1. ALL EXISTING REGULATORS WILL BE DISCONNECTED AND EITHER DISPOSED OF OFFSITE OR RELOCATED TO NEW AIRFIELD LIGHTING VAULT (TO BECOME "SPARES") AS INDICATED ON THIS SHEET. DISCONNECTION SHALL INCLUDE REMOVAL AND DISPOSAL OFFSITE OF ALL POWER AND CONTROL WIRING AND ASSOCIATED EXPOSED CONDUIT.
2. EXCEPT AS DETAILED FOR MODIFICATIONS TO THE EXISTING RUNWAY 13/31 SERIES CIRCUIT WIRING TO THE RUNWAY 13/31 AIRFIELD EDGE LIGHTS, ALL PLUG CUTOUTS, GROUNDING DISCONNECTS, INDICATING EDGE LIGHTS AND SERIES CIRCUIT WIRING IN VAULT SHALL BE DISCONNECTED AND DISPOSED OF OFFSITE.
3. AS PART OF THE NEW PLC INSTALLATION, THE CONTRACTOR SHALL DISCONNECT AND DISPOSE OF OFFSITE ALL CONTROL WIRING BETWEEN TRANSFER RELAY CABINET AND RUNWAY AND TAXIWAY REGULATORS.
4. CONTRACTOR SHALL EXCERCISE CAUTION WHEN WORKING IN EXISTING VAULT TO NOT DISTURB ANY EXISTING POWER AND CONTROL WIRING TO ANY EQUIPMENT WHICH IS TO REMAIN IN SERVICE. CONTRACTOR SHALL DETERMINE ALL EXISTING CONDITIONS, WIRING, CIRCUITS, AND DUTIES PRIOR TO COMMENCING THE WORK.



LOCATION KEY MAP

N.T.S.

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FILE: EXISTING VAULT PLAN.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:55 PM

PE091

REVISIONS

NUMBER	BY	DATE

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

GENERAL WAYNE A. DOWNING PEORIA INTERNATIONAL AIRPORT PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

EXISTING VAULT PLAN

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

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AIP PROJ. NO. 3-17-0080-XX

SHEET 34 OF 45 SHEETS

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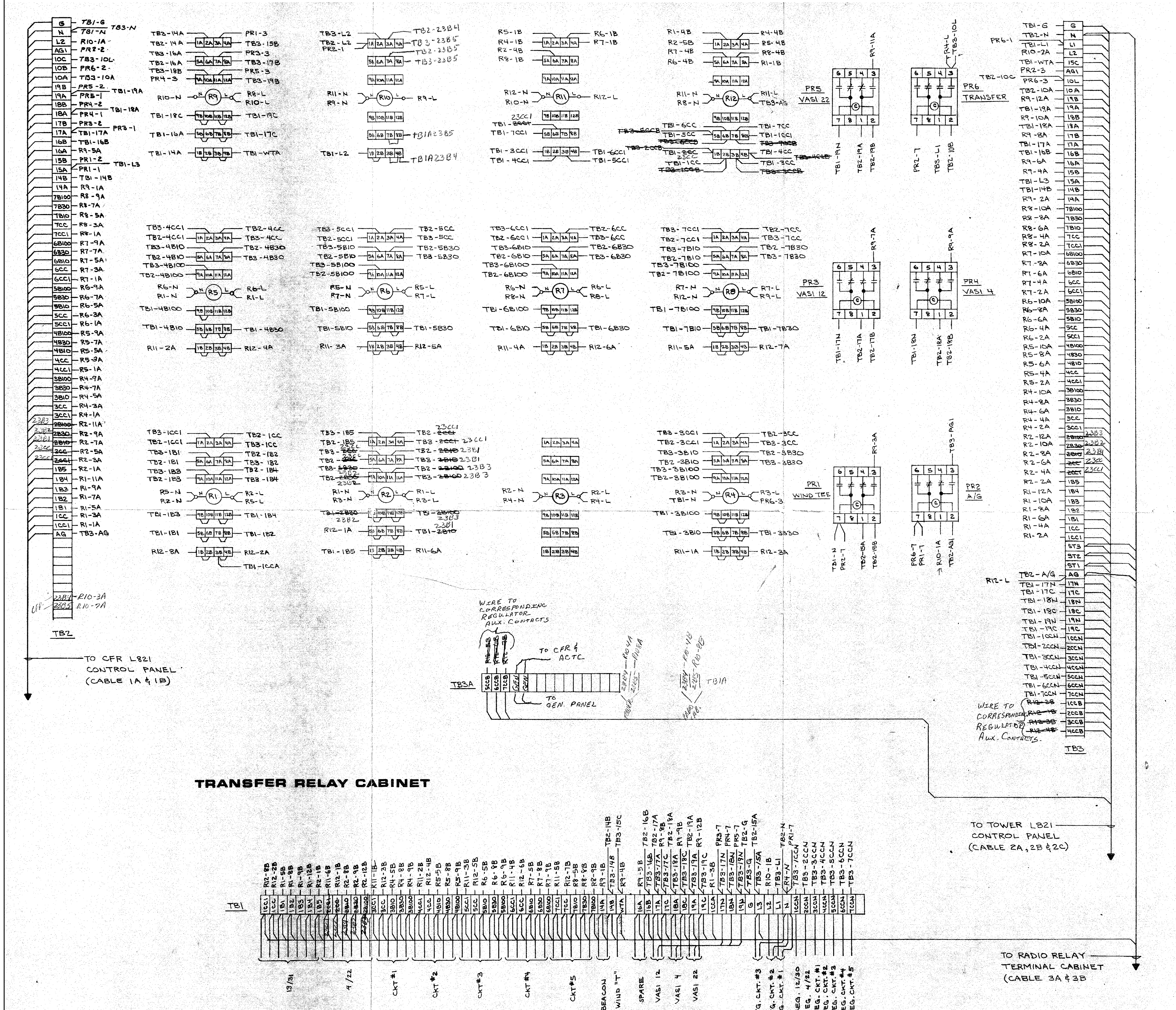
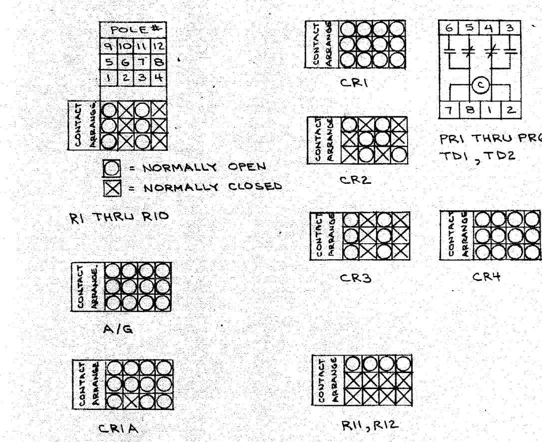
FILE: ELECTRICAL CABINET– RELAY DIAGRAM
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:55 PM

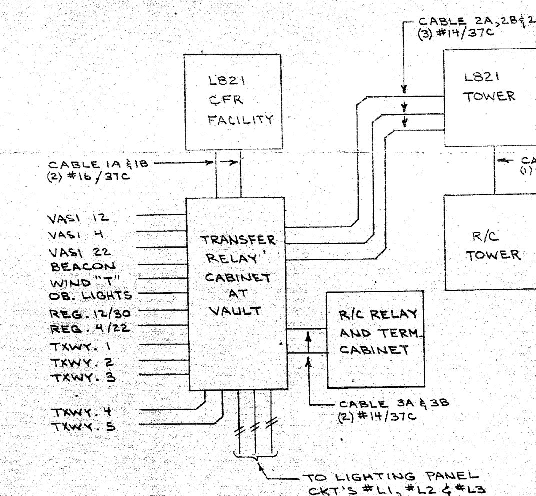
PE091



TRANSFER RELAY CABINET



RELAY CONTACT DEVELOPEMENT



CABLING BLOCK DIAGRAM

NOTES

1. THIS SHEET IS PROVIDED FOR INFORMATION ONLY TO ASSIST THE CONTRACTOR IN MAKING THE MODIFICATIONS SHOWN ON THE PLANS AND IN THE SPECIFICATIONS. THE INFORMATION PROVIDED IS BASED ON BEST–AVAILABLE RECORD DRAWINGS OF EXISTING CONDITIONS IN THE TRANSFER RELAY PANEL. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK.

2. SEE NEW VAULT DETAILS – 5 FOR ADDITIONAL INFORMATION ON MODIFICATIONS TO EXISTING TRANSFER RELAY CABINET.

3. ONLY CONTROL OF RUNAWAY AND TAXIWAY REGULATORS AND PRIMARY WIND CONE ("WIND TEE") SHALL BE MODIFIED AS PART OF THIS WORK. EXISTING WIRING TO ITEMS LABELED "BEACON", "VASI 12", "VASI 4", "VASI 22", WHETHER CURRENTLY ACTIVE OR NOT, SHALL NOT BE DISTURBED. EXISTING WIRING TO "CFR L–821 CONTROL PANEL" AND "RADIO RELAY TERMINAL CABINET", WHETHER CURRENTLY ACTIVE OR NOT, SHALL NOT BE DISTURBED.

4. EXISTING WIRING TO "TOWER L–821 CONTROL PANEL" SHALL REMAIN UNDISTURBED. HOWEVER, CONTRACTOR SHALL VERIFY THE EXISTING DUTY OF *ALL WIRING* IN THESE CABLES AS PART OF THE NEW PLC INSTALLATION.

GREATER PEORIA AIRPORT AUTHORITY
PEORIA, ILLINOIS

SCALE:	APPROVED BY:	DRAWN BY
DATE: 11/84		REVISED

TRANSFER RELAY CABINET, CABLING BLOCK DIAGRAM, CONTACT DEVELOPEMENT
OBERLANDER ELECTRIC CO., INC.
EAST PEORIA, ILLINOIS
DRAWING NUMBER E1

REVISIONS		
NUMBER	BY	DATE

0 1 2
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GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

EXISTING VAULT DETAILS

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

DESIGN BY:	CMT
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DATE:	APRIL 30, 2010
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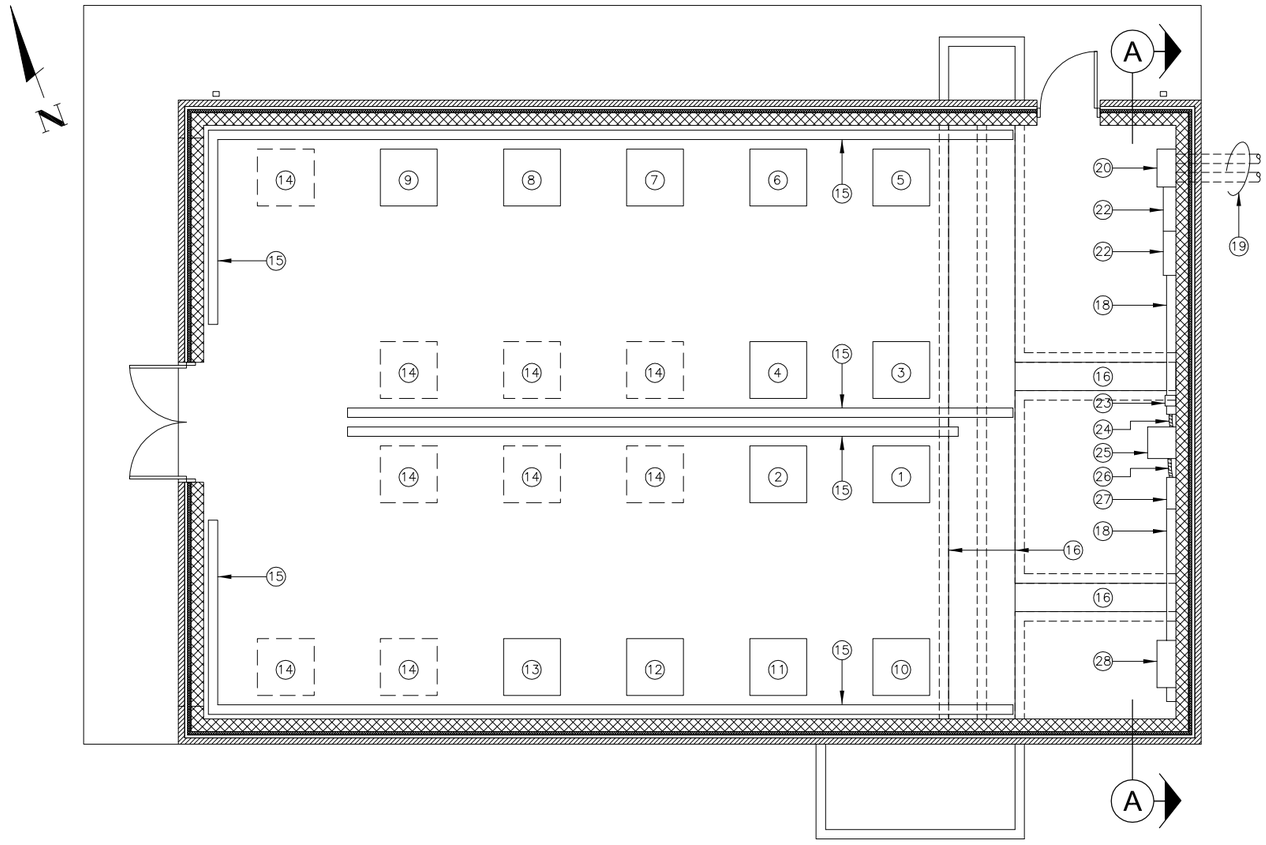
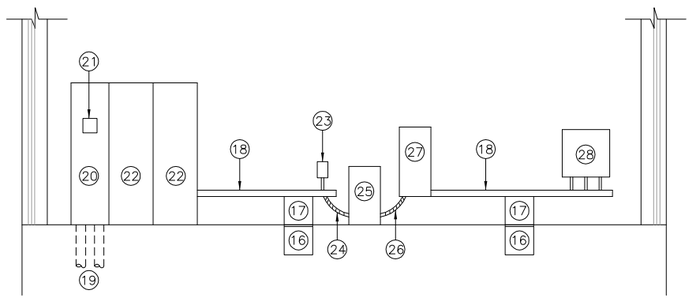
IL. PROJ. NO. PIA–3981
AIP PROJ. NO. 3–17–0080–XX



NEW VAULT EQUIPMENT PLAN
SCALE: 1/4" = 1'-0"



ELEVATION VIEW
SCALE: 1/4" = 1'-0" A

NOTES:

1. NEW RUNWAY 13/31 REGULATOR, 30KW, 480V INPUT, 5-STEP 6.6A OUTPUT. 480V POWER WIRING: TWO #3 THWN, ONE #6 GROUND.
2. RELOCATED "SPARE" REGULATOR, 30KW, 480V INPUT, 5-STEP 6.6A OUTPUT. 480V POWER WIRING: TWO #3 THWN, ONE #6 GROUND.
3. NEW RUNWAY 4/22 REGULATOR, 20KW, 480V INPUT, 5-STEP 6.6A OUTPUT. 480V POWER WIRING: TWO #6 THWN, ONE #8 GROUND.
4. RELOCATED "SPARE" REGULATOR, 20KW, 480V INPUT, 5-STEP 6.6A OUTPUT. 480V POWER WIRING: TWO #6 THWN, ONE #8 GROUND.
5. NEW TAXIWAY CKT #2 REGULATOR, 10KW, 480V INPUT, 3-STEP 6.6A OUTPUT. 480V POWER WIRING: TWO #10 THWN, ONE #8 GROUND.
6. RELOCATED "SPARE" REGULATOR, 20KW, 480V INPUT, 3-STEP 6.6A OUTPUT. 480V POWER WIRING: TWO #6 THWN, ONE #8 GROUND.
7. NEW TAXIWAY CKT #5 REGULATOR, 10KW, 480V INPUT, 3-STEP 6.6A OUTPUT. 480V POWER WIRING: TWO #10 THWN, ONE #8 GROUND.
8. NEW TAXIWAY CKT #3 REGULATOR, 20KW, 480V INPUT, 3-STEP 6.6A OUTPUT. 480V POWER WIRING: TWO #6 THWN, ONE #8 GROUND.
9. RELOCATED "SPARE" REGULATOR, 20KW, 480V INPUT, 3-STEP 6.6A OUTPUT. 480V POWER WIRING: TWO #6 THWN, ONE #8 GROUND.
10. NEW TAXIWAY CKT #6 REGULATOR, 10KW, 480V INPUT, 3-STEP 6.6A OUTPUT. 480V POWER WIRING: TWO #10 THWN, ONE #8 GROUND.
11. RELOCATED "SPARE" REGULATOR, 20KW, 480V INPUT, 3-STEP 6.6A OUTPUT. 480V POWER WIRING: TWO #6 THWN, ONE #8 GROUND.
12. NEW TAXIWAY CKT #4 REGULATOR, 10KW, 480V INPUT, 3-STEP 6.6A OUTPUT. 480V POWER WIRING: TWO #10 THWN, ONE #8 GROUND.
13. NEW TAXIWAY CKT #1 REGULATOR, 20KW, 480V INPUT, 3-STEP 6.6A OUTPUT. 480V POWER WIRING: TWO #6 THWN, ONE #8 GROUND.
14. FUTURE REGULATORS.
15. NEW HIGH VOLTAGE AND LOW VOLTAGE 6"X6" NEMA 1 HINGED COVER WIREWAYS, TWO DOWN THE MIDDLE AND TWO ALONG EACH WALL.
16. NEW IN-FLOOR CABLE TRENCH WITH REMOVABLE COVER.
17. NEW 18" WIDE WALL DUCT.
18. NEW 6"X6" NEMA 1 HINGED COVER WIREWAY.
19. NEW INCOMING 480V SERVICE FROM NEW TERMINAL BUILDING, TWO 6" CONDUITS, EACH WITH TWO 750 MCM ALUMINUM XHHW PER PHASE AND ONE 400 MCM GROUND.
20. NEW NEMA 1 PULL BOX, SIZED AS REQUIRED TO HOUSE EQUIPMENT. INSTALL POWER DISTRIBUTION BLOCKS, ILSCO PDB-26-750-1, OR EQUIVALENT, SUITABLE FOR USE WITH BOTH ALUMINUM AND COPPER CONDUCTORS, WITH MAIN AND BRANCH LUG WIRE RANGE AS REQUIRED. INSTALL THREE 250 MCM THWN COPPER PER PHASE (OR AS REQUIRED FOR POWER DISTRIBUTION BLOCK), ONE #1 INSULATED COPPER GROUND TO INCOMING LUGS ON POWER DISTRIBUTION PANEL #1.
21. NEW VOLTS/AMPS/POWER METER, EATON IQ-140-M-A-6-5, OR EQUIVALENT, WITH CT'S, PT'S, POWER SUPPLY AND FUSING AS REQUIRED. PANEL MOUNT METER IN PULL BOX.
22. NEW VAULT DISTRIBUTION PANEL #1, SECTIONS #1 & #2, 600A, 480V, 3-PHASE, 3-WIRE, WITH 600A, 3P MAIN BREAKER. SEE NEW VAULT DETAILS - 1 AND ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
23. NEW 30A,600V, 2-POLE MECHANICALLY-HELD CONTACTOR, SQUARE D TYPE S, OR EQUIVALENT, WITH 120V COIL, IN NEMA 1 ENCLOSURE. PROVIDE AN ENGRAVED LEGEND PLATE READING "PRIMARY WIND CONE CONTACTOR". WIRING SHALL BE AS FOLLOWS:
    - TWO #12 THWN, ONE #12 GROUND IN 3/4" CONDUIT TO CIRCUIT BREAKER IN POWER DISTRIBUTION PANEL #1 (480V POWER).
    - TWO #8 TYPE USE, ONE #10 GROUND IN 3/4" CONDUIT AND UNIT-DUCT TO PRIMARY WIND CONE (480V POWER). SEE AIRFIELD SITE PLANS FOR ADDITIONAL INFORMATION.
    - TWO #12 THWN, ONE #12 GROUND IN 3/4" CONDUIT TO PLC (120V CONTROL).
24. TWO #1 THWN, ONE #6 GROUND IN 1" LIQUIDTIGHT FLEXIBLE CONDUIT (480V POWER).
25. NEW LIGHTING PANEL #2 TRANSFORMER, 25KVA, 480V-120/240V, SINGLE-PHASE, 3-WIRE.
26. TWO #2 THWN, ONE #2 NEUTRAL, ONE #6 GROUND IN 1-1/4" LIQUIDTIGHT FLEXIBLE CONDUIT (120/240V POWER).
27. PANEL #2, 30-POLE, 100A, 120/240V, SINGLE-PHASE, 3-WIRE, WITH 100A, 2P MAIN CIRCUIT BREAKER. SEE PANELBOARD SCHEDULE FOR ADDITIONAL INFORMATION. PROVIDE ENGRAVED LEGEND PLATE READING: "PANEL #2, 100A, 120/240V, 1-PH., 3-W."
28. PROGRAMMABLE LOGIC CONTROLLER (PLC) IN NEMA 1 ENCLOSURE. SEE NEW VAULT DETAILS - 5 FOR ADDITIONAL INFORMATION.

RUNWAY AND TAXIWAY REGULATOR CIRCUITING

	REGULATOR DATA					
CKT. I.D.	TYPE	KW	INPUT	OUTPUT	STEP	AIRFIELD CIRCUITS POWERED
RWY 13/31	L-828	30 KW	480V	6.6A	5-STEP	RUNWAY 13/31
RWY 4/22	L-828	20 KW	480V	6.6A	5-STEP	RUNWAY 4/22
CKT. #1	L-828	20 KW	480V	6.6A	3-STEP	A FROM IANG TO CENTERFIELD D FROM TERM. RAMP TO RWY 4 APPROACH TXY D1
CKT. #2	L-828	10 KW	480V	6.6A	3-STEP	A NORTH OF B TO RWY 22 APPROACH
CKT. #3	L-828	20 KW	480V	6.6A	3-STEP	E FROM RWY 13 TO CENTERFIELD INTERSECTION T, T1, T2, E3, E4, F, G
CKT. #4	L-828	10 KW	480V	6.6A	3-STEP	E EAST OF CENTERFIELD TO: - E1 NORTH OF RWY 31 - E2 NORTH OF RWY 31
CKT. #5	L-828	10 KW	480V	6.6A	3-STEP	A NORTH OF CENTERFIELD TO TXY B P, B, BB SECTION OF BYERLY RAMP TOWARDS P.S. BLDG
CKT. #6	L-828	10 KW	480V	6.6A	3-STEP	E2 SOUTH OF RWY 31 CARGO RAMP E1 SOUTH OF RWY 31

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FILE: NEW VAULT EQUIPMENT PLAN AND EL
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:55 PM
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REVISIONS

NUMBER	BY	DATE

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

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

NEW VAULT EQUIPMENT PLAN AND ELEVATION

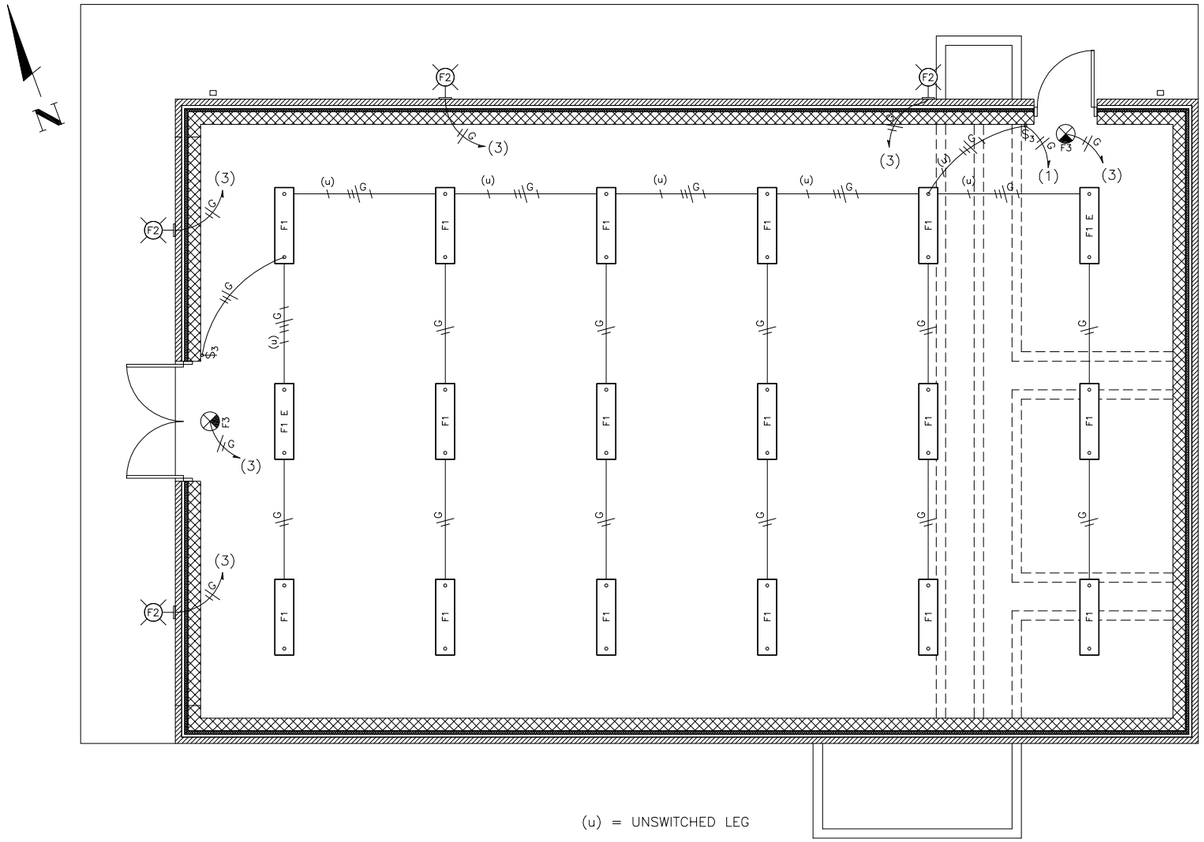
CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

DESIGN BY:	CMT
DRAWN BY:	CMT
CHECKED BY:	CET
APPROVED BY:	CET
DATE:	APRIL 30, 2010
JOB No:	0906105

IL. PROJ. NO. PIA-3981
AIP PROJ. NO. 3-17-0080-XX

SHEET 36 OF 45 SHEETS



(u) = UNSWITCHED LEG

NEW VAULT LIGHTING PLAN
SCALE: 1/4" = 1'-0"

LIGHT FIXTURE SCHEDULE

FIXTURE NO.	MANUFACTURER OR EQUAL	MAKE OR MODEL #	LAMP	LOCATION & MOUNTING
F1	METALUX	4VT2-254DR-120-GL-EBT2-RIF1 WITH CHAIN SUSPENSION KIT	2-54W-T5 FLUOR.	SUSPENDED FROM CEILING TO 12' AFF
F1E	METALUX	4VT2-254DR-120-EM-EBT2-RIF1 WITH EMERGENCY BALLAST AND CHAIN SUSPENSION KIT	2-54W-T5 FLUOR.	SUSPENDED FROM CEILING TO 12' AFF
F2	LUMARK	MPVR-PC-70-120V-LL-PC-UB-U	70W P.S. METAL HALIDE	BUILDING EXTERIOR WALL 10' ABOVE GRADE
F3	SURE-LITES	CX7-70-R-W	LED	EXIT SIGN WALL MOUNT

PANELBOARD SCHEDULE

PANEL DESIGNATION: **PANEL #2** | BOND NEUTRAL AND GROUND BAR: **NO** | POLE: **30**
LOCATION: **VAULT** | NEUTRAL BUS RATING: **100%** | SHORT CIRCUIT RATING: **22KA**
MFR & TYPE: **SQUARE D NQ, OR EQUIV.** | SERVICE ENTRANCE RATED: **NO** | SERIES OR FULLY RATED: **SERIES**
TVSS & DISCONNECT REQUIRED: **NO**

VOLTS: **120/240** | MOUNTING: **SURFACE** | BUS RATING (AMPS): **100**
PHASE: **1** | ENCL RATING: **NEMA 1** | BUS: **COPPER; SILVER OR TIN PLATED**
WIRE: **3** | MAIN CIRCUIT BREAKER: **100/2**

CKT NO.	LOAD	BREAKER SIZE	LOAD AMPS	USAGE FACTOR	PHASE AMPS A	PHASE AMPS B	POLE NO.		PHASE AMPS A	PHASE AMPS B	USAGE FACTOR	LOAD AMPS	BREAKER SIZE	LOAD	CKT NO.
1	INTERIOR LIGHTS	20/1	15	1	15		1	2	16		1	16	20/1	INTERIOR RECEPTACLES	2
3	EXTERIOR LIGHTS & EXIT LIGHTS	20/1	5	1		5	3	4		14	1	14	20/1	EXHAUST FAN & LOUVERS	4
5	PLC	20/1	10	1	10		5	6	1		1	1	20/1	HEATER CONTROL	6
7	PRIMARY WIND CONE CONTROL	20/1	6	1		6	7	8		4	0.25	16	20/1	EXTERIOR RECEPTACLES	8
9		20/1			0		9	10	0				20/1		10
11		20/1				0	11	12		0			20/1		12
13		20/1			0		13	14	0				20/1		14
15		20/1				0	15	16		0			20/1		16
17		20/1			0		17	18	0				20/1		18
19		20/1				0	19	20		0			20/1		20
21		20/1			0		21	22	0				20/1		22
23		20/1				0	23	24		0			20/1		24
25		20/1			0		25	26	0				20/1		26
27		20/1				0	27	28		0			20/1		28
29		20/1			0		29	30	0				20/1		30
	SECTION TOTAL:				25	11			17	18					

	A	B
PHASE TOTAL AMPS:	42	29
PHASE TOTAL VA:	5040	3480

MINIMUM MAIN CIRCUIT BREAKER AMPS: 55

TOTAL USAGE LOAD: 8520 VA

MIN. XFMR VA: 10650 VA

NOTES:

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FILE: NEW VAULT LIGHTING PLAN.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:55 PM
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REVISIONS

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GENERAL WAYNE A. DOWNING PEORIA INTERNATIONAL AIRPORT PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

NEW VAULT LIGHTING PLAN

CMT
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PEORIA INTERNATIONAL AIRPORT

DESIGN BY:	WDP
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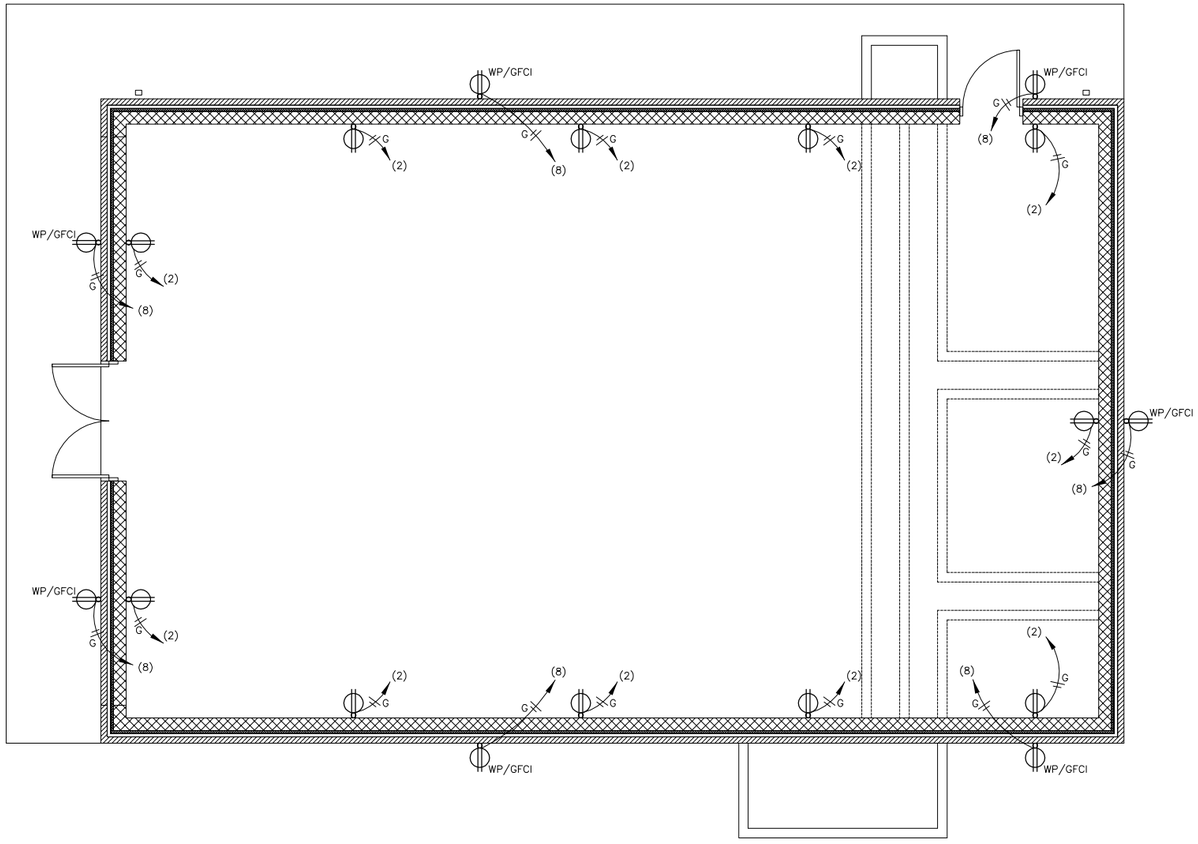
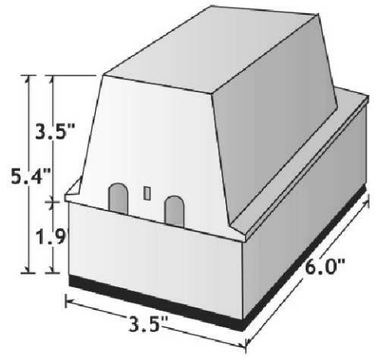
CHECKED BY:	CET
APPROVED BY:	CET
DATE:	APRIL 30, 2010
JOB No:	0906105

IL. PROJ. NO. PIA-3981
AIP PROJ. NO. 3-17-0080-XX



RECEPTACLE PLAN VIEW

SCALE: 1/4" = 1'-0"



WEATHERPROOF RECEPTACLE COVER DETAIL

RECEPTACLE NOTES

1. ALL RECEPTACLE COVERS NOTED AS "WEATHERPROOF" (WP) SHALL COMPLY WITH NEC ARTICLE 406.8B1. UNITS SHALL REMAIN RAINTIGHT WHETHER OR NOT A PLUG AND CORD IS INSERTED. COVERS SHALL BE EXTRA-DEEP, SUNLIGHT RESISTANT, PADLOCKABLE, POLYCARBONATE CONSTRUCTION AS MANUFACTURED BY TAYMAC, MM740C-B, OR EQUIVALENT.
2. INTERIOR GENERAL PURPOSE DUPLEX RECEPTACLES SHALL BE INSTALLED 4' ABOVE FLOOR. EXTERIOR RECEPTACLES SHALL BE INSTALLED 2' ABOVE GRADE.

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FILE: NEW VAULT RECEPTACLE PLAN.dwg
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NEW VAULT RECEPTACLE PLAN

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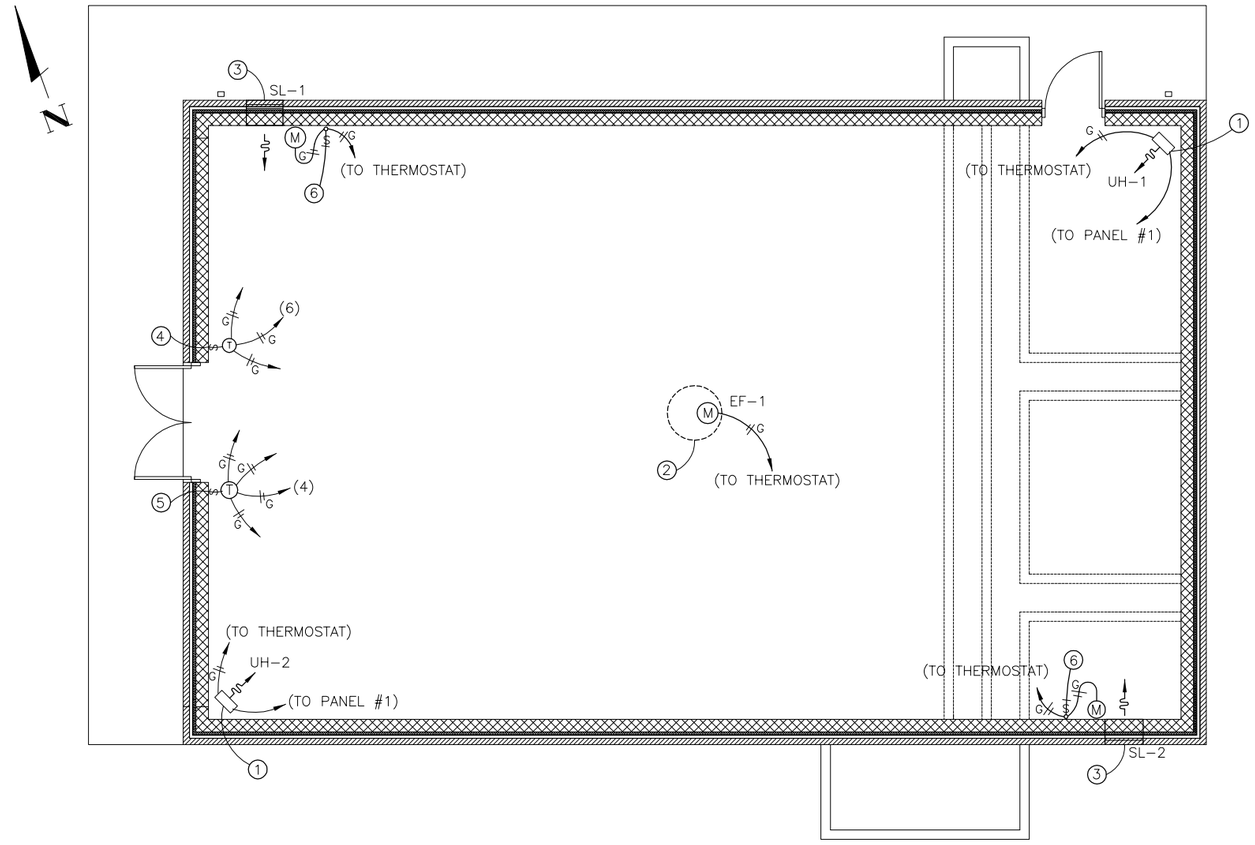
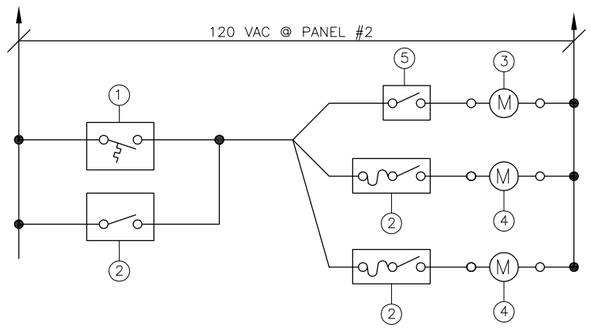
SHEET 38 OF 45 SHEETS



NEW HVAC EQUIPMENT PLAN VIEW
SCALE: 1/4" = 1'-0"

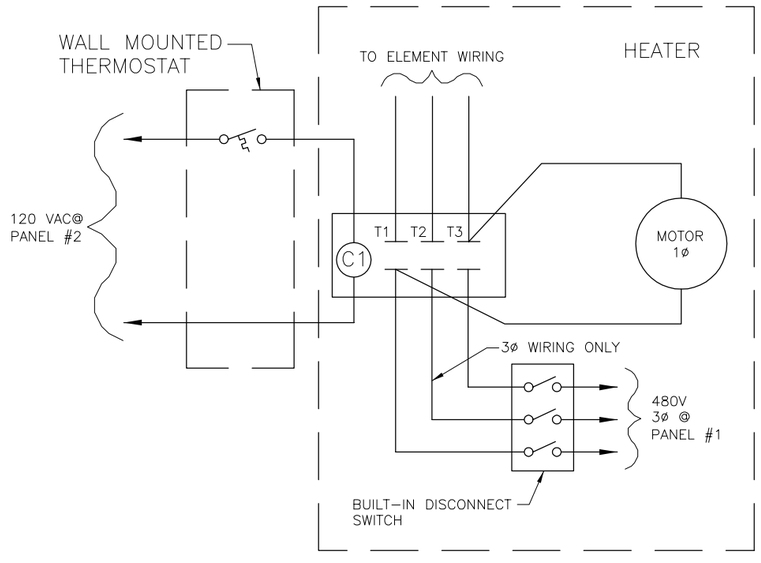
HVAC ELECTRICAL NOTES

1. WALL-MOUNTED UNIT HEATERS UH-1 & UH-2, 10KW, 480V, 3-PHASE. HEATER SHALL INCLUDE INTEGRAL POWER DISCONNECT SWITCH AND BE SUITABLE FOR USE WITH EXTERNAL THERMOSTAT AND EXTERNAL 120V CONTROL. WIRING:
   - THREE #10 THWN (480V), ONE #12 GROUND IN 3/4" CONDUIT TO PANEL #1
   - TWO #12 THWN (CONTROL), ONE #12 GROUND IN 3/4" CONDUIT TO THERMOSTAT.
2. ROOF MOUNTED EXHAUST FAN EF-1, 3/4 HP, 120V. WIRE TO COOLING THERMOSTAT FOR AUTO-OFF-ON CONTROL.
3. SUPPLY LOUVER SL-1 & SL-2 WITH MOTORIZED DAMPER. WIRE TO COOLING THERMOSTAT FOR AUTO-ON-OFF CONTROL.
4. UNIT HEATER WALL-MOUNTED THERMOSTAT, 120V, SPST, CLOSE ON FALLING TEMPERATURE. WIRING:
   - TWO #12 THWN (120V), ONE #12 GROUND TO PANEL #2 (CIRCUIT # AS SHOWN).
   - TWO #12 THWN (120V CONTROL), ONE #12 GROUND TO UNIT HEATER UH-1.
   - TWO #12 THWN (120V CONTROL), ONE #12 GROUND TO UNIT HEATER UH-2.
5. EXHAUST FAN WALL-MOUNTED THERMOSTAT, 120V, SPDT, CLOSE ON RISING TEMPERATURE, WITH "AUTO-OFF-ON" SUBBASE. WIRING:
   - TWO #12 THWN (120V), ONE #12 GROUND TO PANEL #2 (CIRCUIT # AS SHOWN).
   - TWO #12 THWN (120V), ONE #12 GROUND TO EF-1.
   - TWO #12 THWN (120V), ONE #12 GROUND TO SL-1.
   - TWO #12 THWN (120V), ONE #12 GROUND TO SL-2.
6. FRACTIONAL HORSEPOWER STARTER TO BE USED AS DISCONNECT FOR LOUVER MOTOR. PROVIDE THERMAL OVERLOADS SIZED FOR MOTORS PER MANUFACTURER INSTRUCTIONS. INTERIOR WALL MOUNT NEXT TO SUPPLY LOUVER.



EXHAUST FAN WIRING DIAGRAM

1. WALL MOUNTED THERMOSTAT WITH "AUTO-OFF-ON" SUBBASE.
2. FRACTIONAL HORSEPOWER STARTER NEAR SUPPLY LOUVER.
3. EXHAUST FAN.
4. SUPPLY LOUVER DAMPER MOTOR.
5. DISCONNECT AT EXHAUST FAN.



HEATER THERMOSTAT WIRING

NOTE:

UNIT HEATERS AND ACCESSORIES, EXHAUST FANS AND ACCESSORIES, SUPPLY LOUVERS AND ACCESSORIES, THERMOSTATS, FAN "ON-AUTO" TOGGLE SWITCH, FRACTIONAL HORSEPOWER STARTERS, ETC., SHALL BE FURNISHED COMPLETE BY HVAC EQUIPMENT SUPPLIER.

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FILE: NEW VAULT HVAC ELECTRICAL PLAN.c
UPDATE BY: TJ Heavisides
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CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

NEW VAULT ELECTRICAL HVAC PLAN

CMT
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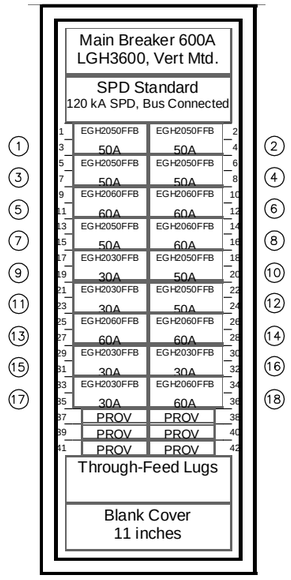
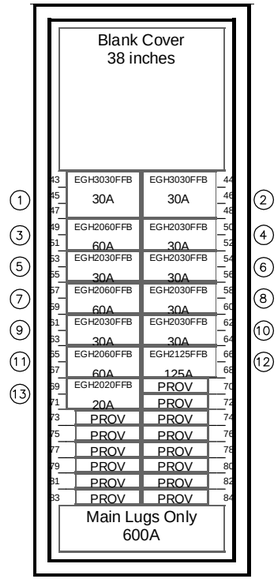


SECTION 1



SECTION 2

PANEL #1 (FUTURE CIRCUITS)

(480V, 600A, 3-PHASE, 3W, WITH 600A, 3P MAIN BREAKER AND 120 kA SPD)

SECTION 1

1. RUNWAY 13/31 EDGE LIGHTS (A), 15KW, 50A, 2P
2. RUNWAY 13/31 EDGE LIGHTS (B), 15KW, 50A, 2P
3. RUNWAY 13/31 TOUCHDOWN ZONE LIGHTS (NORTHWEST), 15KW, 50A, 2P
4. RUNWAY 13/31 TOUCHDOWN ZONE LIGHTS (SOUTHEAST), 15KW, 50A, 2P
5. RUNWAY 13/31 CENTERLINE LIGHTS (A), 20KW, 60A, 2P
6. RUNWAY 13/31 CENTERLINE LIGHTS (B), 20KW, 60A, 2P
7. RUNWAY 13/31 SIGNS, 15KW, 50A, 2P
8. RUNWAY 4/22 EDGE LIGHTS, 20KW, 60A, 2P
9. RUNWAY 4/22 SIGNS, 10KW, 30A, 2P
10. TAXIWAY E EDGE LIGHTS (NORTHWEST), 15KW, 50A, 2P
11. TAXIWAY E EDGE LIGHTS (CENTER), 10KW, 30A, 2P
12. TAXIWAY E EDGE LIGHTS (SOUTHEAST), 15KW, 50A, 2P
13. TAXIWAY E SIGNS (NORTHWEST), 20KW, 60A, 2P
14. TAXIWAY E SIGNS (SOUTHEAST), 20KW, 60A, 2P
15. TAXIWAY A EDGE LIGHTS (NORTH), 10KW, 30A, 2P
16. TAXIWAY A EDGE LIGHTS (CENTER), 10KW, 30A, 2P
17. TAXIWAY A EDGE LIGHTS (SOUTH), 10KW, 30A, 2P
18. TAXIWAY A SIGNS, 20KW, 60A, 2P

SECTION 2

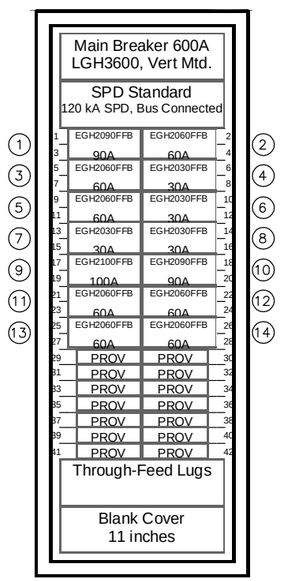
1. UNIT HEATER UH-1, 10KW, 30A, 3P
2. UNIT HEATER UH-2, 10KW, 30A, 3P
3. PARALLEL RUNWAY EDGE LIGHTS, 20KW, 60A, 2P
4. PARALLEL RUNWAY SIGNS, 10KW, 30A, 2P
5. TAXIWAY EDGE LIGHTS (1), 10KW, 30A, 2P
6. TAXIWAY EDGE LIGHTS (2), 10KW, 30A, 2P
7. TAXIWAY SIGNS, 20KW, 60A, 2P
8. CONNECTING TAXIWAY EDGE LIGHTS, 10KW, 30A, 2P
9. PARALLEL TAXIWAY EDGE LIGHTS (1), 10KW, 30A, 2P
10. PARALLEL TAXIWAY EDGE LIGHTS (2), 10KW, 30A, 2P
11. PARALLEL TAXIWAY SIGNS, 20KW, 60A, 2P
12. PANEL #2 TRANSFORMER, 25KVA, 480-120/240V, SINGLE-PHASE, 3-WIRE, 125A, 2P
13. PRIMARY WIND CONE, 20A, 2P

PANEL #1 (FUTURE CIRCUITS)

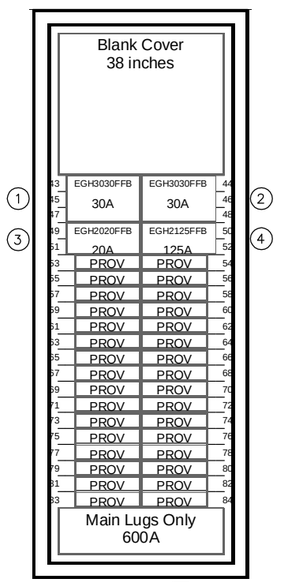
(FOR INFORMATION ONLY)

GENERAL NOTES

1. PANEL #1 (EXISTING CIRCUITS) INDICATES THE PANELBOARD CIRCUIT BREAKER LAYOUT AT COMPLETION OF CURRENT PROJECT.
2. PANEL #1 (FUTURE CIRCUITS) INDICATES THE PANELBOARD CIRCUIT BREAKER LAYOUT AFTER COMPLETION OF A FUTURE AIRFIELD LIGHTING UPGRADE PROJECT. IT IS PROVIDED HERE FOR INFORMATION ONLY.
3. TO COMPLY WITH "LOCK OUT-TAG OUT" REQUIREMENTS, ALL FEEDER CIRCUIT BREAKERS IN PANEL #1 SHALL INCLUDE FACTORY INSTALLED PADLOCK KIT.
4. FOR ADDITIONAL INFORMATION SEE NEW VAULT EQUIPMENT PLAN AND ELEVATION AND ONE-LINE DIAGRAM.



SECTION 1



SECTION 2

PANEL #1 (EXISTING CIRCUITS)

(480V, 600A, 3-PHASE, 3W, WITH 600A, 3P MAIN BREAKER AND 120 kA SPD)

SECTION 1

1. RUNWAY 13/31 EDGE LIGHTS, 30KW, 90A, 2P
2. RUNWAY 4/22 EDGE LIGHTS, 20KW, 60A, 2P
3. TAXIWAY CKT #1 (TXY A, SW END), 20KW, 60A, 2P
4. TAXIWAY CKT #2 (TXY A, NORTH END), 10KW, 30A, 2P
5. TAXIWAY CKT #3 (TXY E, WEST END), 20KW, 60A, 2P
6. TAXIWAY CKT #4 (TXY E, EAST END), 10KW, 30A, 2P
7. TAXIWAY CKT #5 (TXY A FROM A3 TO E), 10KW, 30A, 2P
8. TAXIWAY CKT #6 (AIR CARGO APRON), 10KW, 30A, 2P
9. PANEL #2 TRANSFORMER, 37.5 KVA, 100A, 2P
10. SPARE REGULATOR #1, 30KW, 90A, 2P
11. SPARE REGULATOR #2, 20KW, 60A, 2P
12. SPARE REGULATOR #3, 20KW, 60A, 2P
13. SPARE REGULATOR #4, 20KW, 60A, 2P
14. SPARE REGULATOR #5, 20KW, 60A, 2P

THE REMAINDER OF THIS SECTION IS RESERVED FOR FUTURE CIRCUITS.

SECTION 2

1. UNIT HEATER UH-1, 10KW, 30A, 3P
2. UNIT HEATER UH-2, 10KW, 30A, 3P
3. PRIMARY WIND CONE, 20A, 2P
4. PANEL #2 TRANSFORMER, 25KVA, 480-120/240V, SINGLE-PHASE, 3-WIRE, 125A, 2P

THE REMAINDER OF THIS SECTION IS RESERVED FOR FUTURE CIRCUITS.

PANEL #1 (EXISTING CIRCUITS)

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UPDATE BY: TJ Heavisides
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GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

NEW VAULT DETAILS - 1

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

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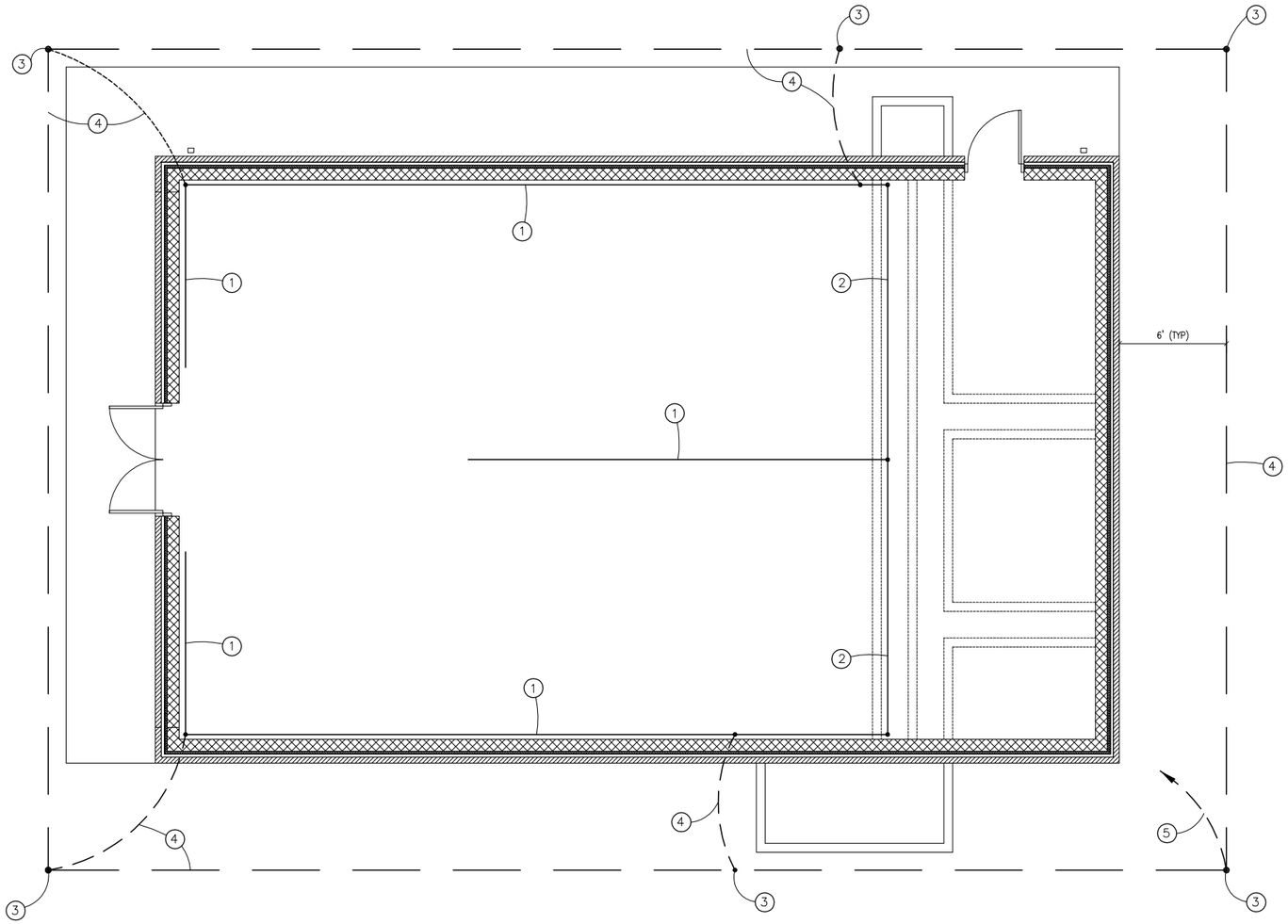
DATE:	APRIL 30, 2010
JOB No:	0906105

IL. PROJ. NO. PIA-3981
AIP PROJ. NO. 3-17-0080-XX

SHEET 40 OF 45 SHEETS



(1) VAULT GROUND BUS, 1/4" x 3/4" COPPER BUS BAR, STAND-OFF MOUNTED 6" MINIMUM ABOVE FLOOR.

(2) VAULT GROUND BUS, 1/4" x 3/4" COPPER BUS BAR, STAND-OFF MOUNTED IN THE IN-FLOOR TRENCH.

NOTE: ALL VAULT GROUND BUS SHOWN SHALL BE ELECTRICALLY BONDED TO CREATE ONE CONTINUOUS GROUND BUS AS DETAILED.

(3) 3/4" DIAMETER x 10' LONG COPPERCLAD GROUND ROD, MINIMUM BURY: 30". BOND GROUND WIRES TO GROUND RODS USING EXOTHERMIC WELD, CADWELD, OR EQUIVALENT. CLAMPED CONNECTIONS SHALL NOT BE ACCEPTABLE.

(4) #2/0 BARE COPPER GROUND WIRE, MINIMUM BURY: 30".

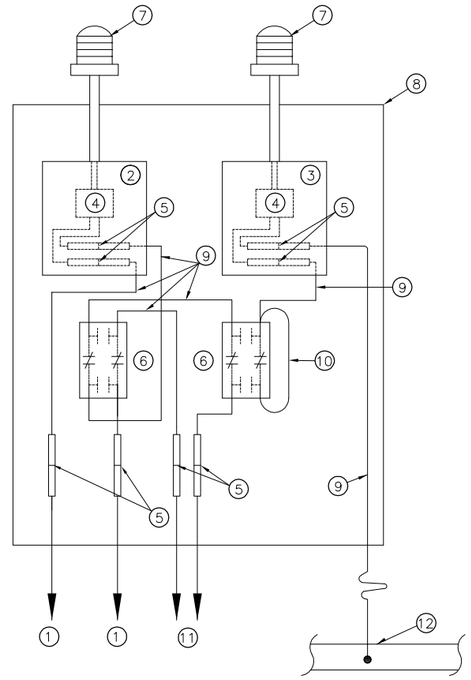
(5) #2/0 INSULATED GROUND WIRE TO AN "UFER" GROUND IN BUILDING FOUNDATION.

NOTES

1.) BELOW-GRADE GROUND ROD AND ASSOCIATED GROUND WIRE SHALL BE CLEAN AND DRY BEFORE PERFORMING THE EXOTHERMIC WELD. VERIFY THAT THE PROPER SIZE AND TYPE OF EXOTHERMIC WELD KIT IS USED BEFORE BEGINNING WORK. EXOTHERMIC WELDS SHALL BE LEFT EXPOSED FOR INSPECTION AND APPROVAL BEFORE BACKFILLING OR OTHERWISE CONCEALING. ANY UNACCEPTABLE EXOTHERMIC WELDS SHALL BE REDONE, INCLUDING ANY NECESSARY REPLACEMENT MATERIAL (GROUND RODS, GROUND WIRES, ETC.) AS NEEDED TO PROVIDE AN ACCEPTED EXOTHERMIC WELD.

VAULT GROUND BUS INSTALLATION

SCALE: 1/4" = 1'-0"



(1) 5KV L-824 CABLES TO REGULATOR.

(2) HINGED COVER NEMA 1 ENCLOSURE SIZED AS REQUIRED TO HOUSE EQUIPMENT. PROVIDE ENGRAVED NAMEPLATE READING: "CIRCUIT INDICATOR".

(3) HINGED COVER NEMA 1 ENCLOSURE SIZED AS REQUIRED TO HOUSE EQUIPMENT. PROVIDE ENGRAVED NAMEPLATE READING: "GROUND INDICATOR".

(4) L-830 ISOLATION TRANSFORMER.

(5) L-823 CONNECTOR.

(6) TYPE S-1 PLUG CUTOUT.

(7) RUNWAY OR TAXIWAY EDGE LIGHT.

(8) MOUNTING PANEL STAND-OFF MOUNTED ON WALL OR UNISTRUT BEHIND REGULATOR.

(9) 5KV L-824 CABLE.

(10) 5KV L-824 CABLE USED AS A JUMPER.

(11) REGULATOR SERIES CIRCUIT HOMERUN CABLES.

(12) CLAMP TO VAULT GROUND BUS.

MOUNTING PANEL LAYOUT

(TYPICAL EIGHT REGULATORS)
NTS

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GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

NEW VAULT DETAILS - 2

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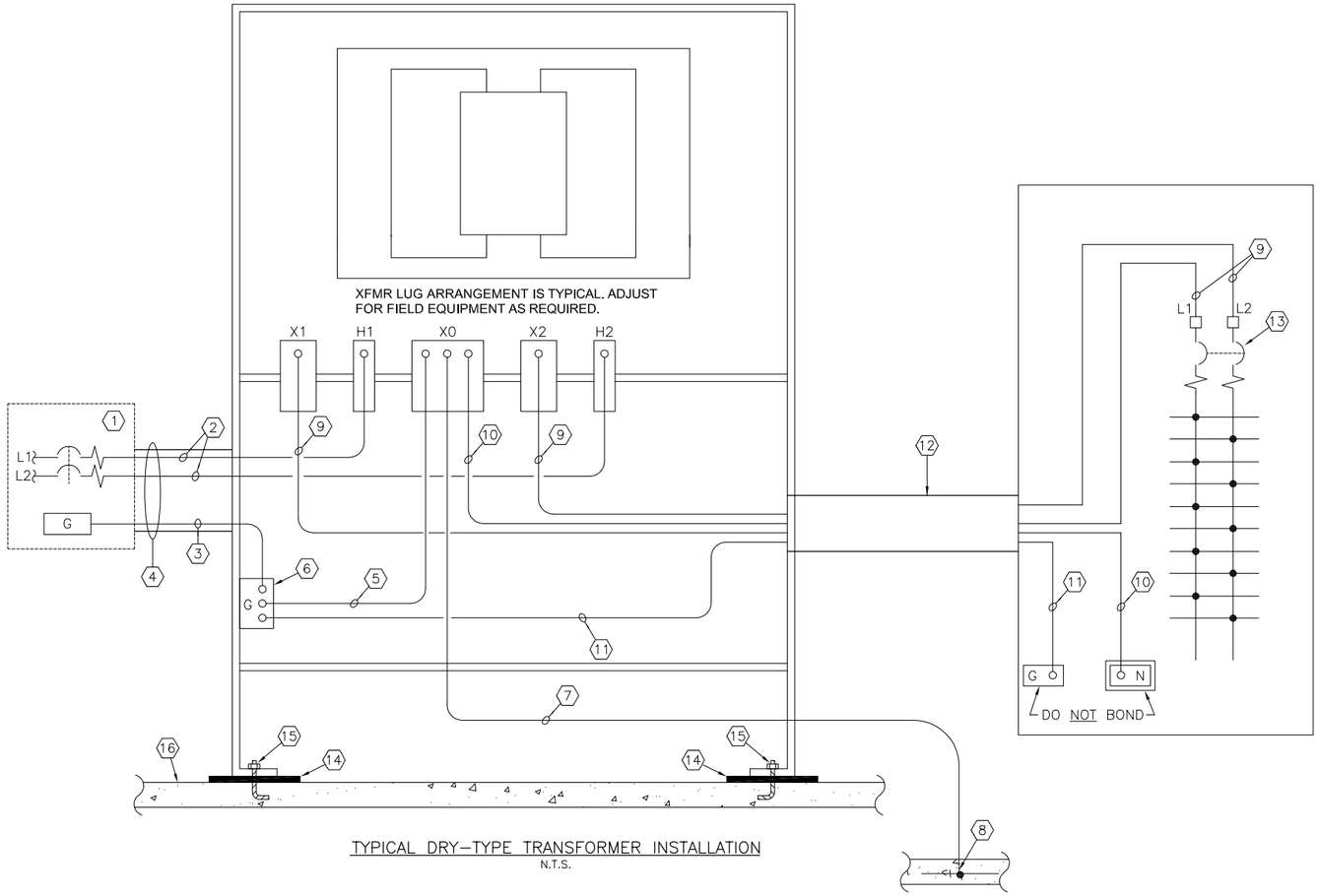


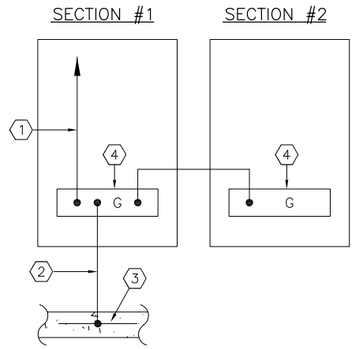
TYPICAL DRY-TYPE TRANSFORMER INSTALLATION
N.T.S.

NOTES: TYPICAL DRY-TYPE TRANSFORMER INSTALLATION

1. PRIMARY OVERCURRENT PROTECTION SIZED AS SHOWN ON ONE-LINE DIAGRAM, BUT IN NO CASE SHALL EXCEED NEC T450.3(B) REQUIREMENTS.
2. PRIMARY PHASE CONDUCTORS, SIZED TO UPSTREAM OVERCURRENT PROTECTION UNLESS OTHERWISE SHOWN ON ONE-LINE DIAGRAM
3. PRIMARY EQUIPMENT GROUNDING CONDUCTOR (EGC) SIZED TO UPSTREAM OVERCURRENT PROTECTION & NEC T250.122 UNLESS OTHERWISE SHOWN ON ONE-LINE DIAGRAM.
4. PRIMARY FEEDER IN FLEXIBLE METAL CONDUIT PER NEC A348.
5. SYSTEM BONDING JUMPER (SBJ) SIZED PER NEC A250.30(A)(1), OR U.L. LISTED BONDING LINK.
6. TRANSFORMER CASE GROUND LUG(S).
7. GROUNDING ELECTRODE CONDUCTOR (GEC) PER NEC A250.30(A)(2).
8. GROUNDING ELECTRODE SYSTEM (GES) FOR SEPARATELY DERIVED SYSTEMS PER NEC A250.30(A)(7). "UFER" GROUND.
9. SECONDARY PHASE CONDUCTORS SIZED TO DOWNSTREAM OVERCURRENT DEVICE UNLESS OTHERWISE SHOWN ON ONE-LINE DIAGRAM.
10. SECONDARY NEUTRAL CONDUCTOR; SAME GAUGE AND INSULATION TYPE NOTED IN ITEM #9 ABOVE.
11. SECONDARY EQUIPMENT GROUNDING CONDUCTOR (ECG) SIZED TO DOWNSTREAM OVERCURRENT DEVICE UNLESS OTHERWISE SHOWN ON ONE-LINE DIAGRAM.
12. SECONDARY CONDUCTORS INSTALLED IN FLEXIBLE METAL CONDUIT PER NEC A348. MAXIMUM LENGTH 10' TO COMPLY WITH NEC A240.21(C)(2).
13. DOWNSTREAM OVERCURRENT DEVICE. DEVICE PROVIDES PROTECTION FOR TRANSFORMER SECONDARY AND "TAP" CONDUCTORS (PANELBOARD MAIN CIRCUIT BREAKER SHOWN). ARRANGEMENT SHOWN PROVIDES A "SEPARATELY DERIVED SYSTEM" AS DEFINED BY NEC. DO NOT BOND NEUTRAL-TO-GROUND IN ANY DOWNSTREAM EQUIPMENT UNLESS SPECIFICALLY NOTED. NEUTRAL BUS AND GROUND BUS IN ALL DOWNSTREAM EQUIPMENT SHALL BE KEPT ISOLATED.
14. RUBBER OR NEOPRENE VIBRATION PAD UNDER EACH TRANSFORMER LEG OR STRUT.
15. ANCHOR BOLTS, WASHERS & NUTS
16. CONCRETE HOUSEKEEPING PAD 4" HIGH WITH 1" CHAMPFERED EDGE.

NOTES: PANEL #1 GROUNDING AND EARTHING

1. NEW GROUND CONDUCTOR FROM NEW TERMINAL BUILDING GROUNDING SYSTEM.
2. GROUNDING ELECTRODE CONDUCTOR. SEE SPECS.
3. "UFER GROUND". SEE SPECS.
4. PANEL #1 GROUND BARS AND WIRING PER MANUFACTURER AND NEC.



PANEL #1 GROUNDING AND EARTHING
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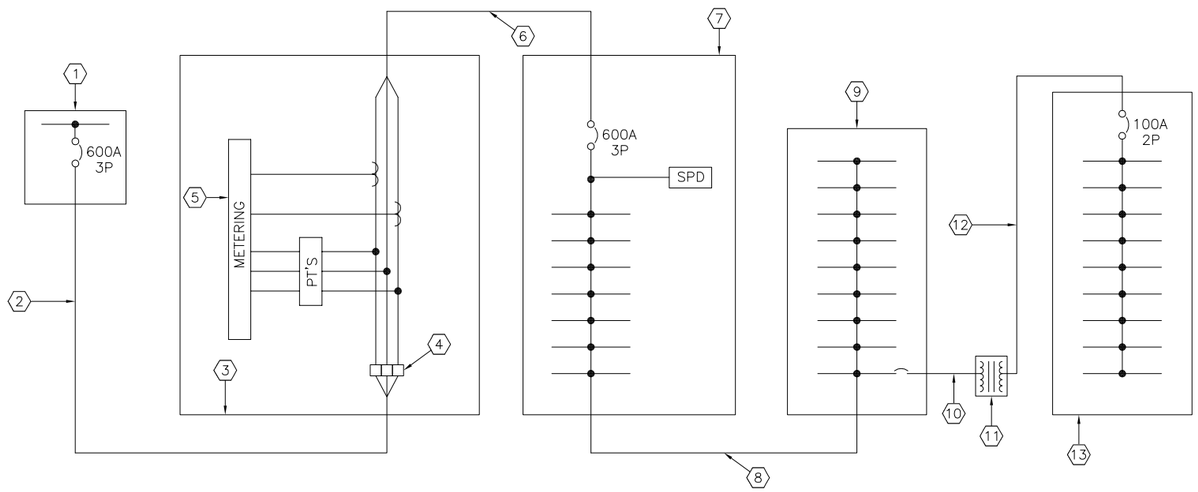

ONE-LINE DIAGRAM
N.T.S.

NOTES: ONE-LINE DIAGRAM

1. EXISTING 277Y/480V, 3-PHASE, 4-WIRE MAIN DISTRIBUTION SWITCHBOARD (MSWBD-1) IN NEW TERMINAL BUILDING WITH EXISTING SPARE 600A, 3P FEEDER CIRCUIT BREAKER TO BE USED FOR NEW VAULT DISTRIBUTION PANELBOARD FEEDER BREAKER. RELABEL CIRCUIT BREAKER LEGEND PLATE "AIRFIELD LIGHTING VAULT". NEW LABEL TO MATCH EXISTING LABELS ON SWITCHBOARD.
2. NEW FEEDER CABLES IN TWO EXISTING 5" CONDUITS AND TWO NEW 6" CONDUIT EXTENSIONS TO NEW AIRFIELD LIGHTING VAULT. EACH CONDUIT SHALL CONTAIN TWO 750 MCM ALUMINUM XHHW PER PHASE AND ONE 400 MCM INSULATED GROUND.
3. NEW PULL BOX.
4. NEW POWER DISTRIBUTION BLOCKS, ILSCO PDB-26-750-1, OR EQUIVALENT, SUITABLE FOR USE WITH BOTH ALUMINUM AND COPPER CONDUCTORS, WITH MAIN AND BRANCH LUG WIRE RANGE AS REQUIRED.
5. NEW VOLTS/AMPS/POWER METER, EATON IQ-140-M-A-6-5, OR EQUIVALENT, WITH CT'S, PT'S, POWER SUPPLY AND FUSING AS REQUIRED. PANEL MOUNT METER IN PULL BOX.
6. NEW THREE 250 MCM THWN COPPER PER PHASE (OR AS REQUIRED FOR POWER DISTRIBUTION BLOCK), ONE #1 INSULATED COPPER GROUND.
7. NEW VAULT DISTRIBUTION PANEL #1, SECTION #1, 600A, 480V, 3-PHSE, 3-WIRE, WITH 600A, 3P MAIN BREAKER. SEE NEW VAULT DETAILS - 1 AND NEW VAULT EQUIPMENT PLAN AND ELEVATION FOR ADDITIONAL INFORMATION.
8. CABLING AS REQUIRED BETWEEN SECTIONS.
9. NEW VAULT DISTRIBUTION PANEL #1 SECTION #2, 600A, 480V, 3-PHSE, 3-WIRE, MAIN LUGS ONLY. SEE NEW VAULT DETAILS - 1 AND NEW VAULT EQUIPMENT PLAN AND ELEVATION FOR ADDITIONAL INFORMATION.
10. TWO #1 THWN, ONE #6 GROUND IN 1" CONDUIT. CONNECTION TO TRANSFORMER SHALL BE LIQUIDTIGHT FLEXIBLE CONDUIT.
11. NEW LIGHTING PANEL #3 TRANSFORMER, 25KVA, 480V-120/240V, SINGLE-PHASE, 3-WIRE.
12. TWO #2 THWN, ONE #6 GROUND IN 1" CONDUIT. CONNECTION TO TRANSFORMER SHALL BE LIQUIDTIGHT FLEXIBLE CONDUIT.
13. PANEL #3, 30-POLE, 100A, 120/240V, SINGLE-PHASE, 3-WIRE, WITH 100A, 2P MAIN CIRCUIT BREAKER. SEE PANELBOARD SCHEDULE FOR ADDITIONAL INFORMATION.

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GENERAL WAYNE A. DOWNING PEORIA INTERNATIONAL AIRPORT PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

NEW VAULT DETAILS - 3

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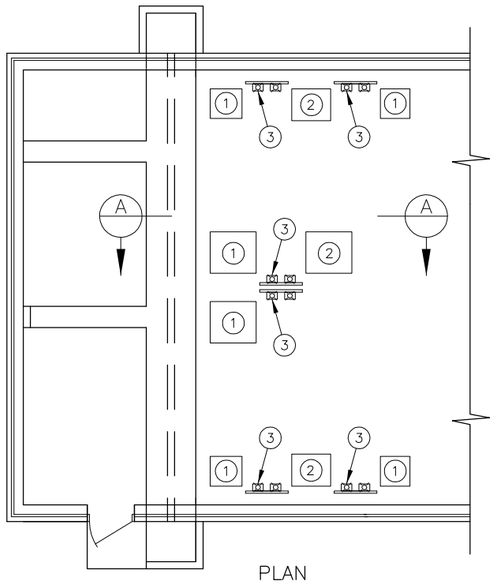


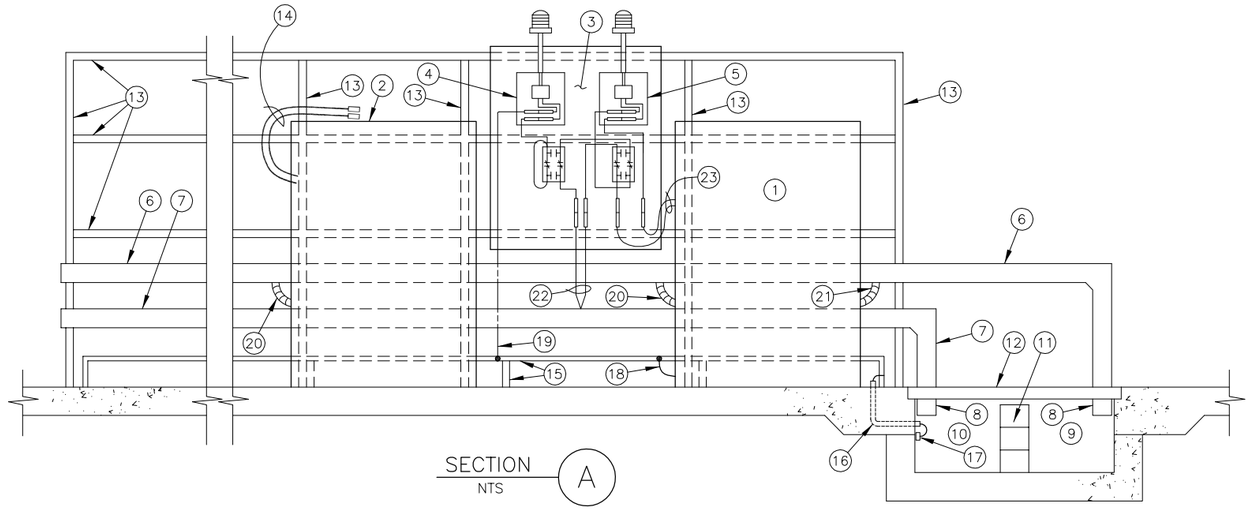
PLAN
NTS

PLAN NOMENCLATURE

(1) RUNWAY OR TAXIWAY REGULATOR.

(2) RELOCATED SPARE REGULATOR.

(3) CIRCUIT INDICATING & GROUND INDICATING MOUNTING PANEL. SEE SECTION "A" DETAIL FOR ADDITIONAL INFORMATION.



SECTION A
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SECTION A NOMENCLATURE

(1) RUNWAY 13/31 REGULATOR, 30KW, 480V INPUT, 5–STEP 6.6A OUTPUT.

(2) RELOCATED SPARE REGULATOR, 30KW, 480V INPUT, 5–STEP 6.6A OUTPUT.

(3) CIRCUIT INDICATING AND GROUND INDICATING MOUNTING PANEL. MOUNT 6'–0" MAXIMUM FROM FLOOR TO TOP OF PANEL.

(4) GROUND INDICATING LIGHT.

(5) CIRCUIT INDICATING LIGHT.

(6) 120V & 480V POWER AND CONTROL WIREWAY, 4"x4", NEMA 1. PROVIDE YELLOW LABEL READING: "CAUTION. 480V."

(7) 5KV SERIES CIRCUIT HOMERUN WIREWAY, 4"x4", NEMA 1. PROVIDE YELLOW LABEL READING: "CAUTION. 5KV."

(8) ATTACH TO IN–FLOOR CABLE TRENCH SIDE WALL.

(9) IN–FLOOR TRENCH FOR ALL WIRING 480V AND BELOW.

(10) IN–FLOOR TRENCH FOR ALL SERIES CIRCUIT HOMERUN WIRING.

(11) BRICK DIVIDING WALL.

(12) REMOVABLE GRATING.

(13) STRUT–TYPE FRAMING, UNISTRUT P–1000, OR EQUIVALENT.

(14) 5KV, L–824, TYPE C SERIES CIRCUIT CABLE AND MALE AND FEMALE L–823 CONNECTORS. PROVIDE SUFFICIENT LENGTH TO REACH ALL REGULATORS ON EITHER SIDE.

(15) VAULT GROUND BUS, 1/4" x 3/4" COPPER BUS BAR, INDEPENDENTLY SUPPORTED 6" MINIMUM ABOVE FLOOR. GROUND BUS SHALL NOT TOUCH STRUT–TYPE FRAMING OR REGULATORS.

(16) #2 BARE COPPER WIRE IN 1/2" PVC CONDUIT. CLAMP TO GROUND BUS AT EACH END.

(17) VAULT GROUND BUS, 1/4" x 3/4" COPPER BUS BAR, STAND–OFF MOUNTED INSIDE IN–FLOOR CABLE TRENCH.

NOTE: ALL VAULT GROUND BUS TO BE ELECTRICALLY BONDED TO CREATE ONE CONTINUOUS GROUND BUS.

(18) #6 GROUND WIRE CONNECTING REGULATOR TO VAULT GROUND BUS (TYPICAL ALL REGULATORS).

(19) 5KV, L–824, TYPE C CABLE. CLAMP TO GROUND BUS.

(20) 480V WIRING TO PANEL #1 VIA WIREWAY: TWO #3 THWN, ONE #8 GROUND IN 1" LIQUIDTIGHT FLEXIBLE CONDUIT.

(21) REGULATOR CONTROL WIRING TO AIRFIELD LIGHTING CONTROLS VIA WIREWAY IN 3/4" LIQUIDTIGHT FLEXIBLE CONDUIT.

(22) 5KV, L–824, TYPE C CABLE. SERIES CIRCUIT HOMERUN. INSTALL GROMMETS WHERE CABLE ENTERS WIREWAY.

(23) 5KV, L–824, TYPE C CABLE. INSTALL GROMMETS WHERE CABLE ENTERS REGULATOR.

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GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

NEW VAULT DETAILS - 4

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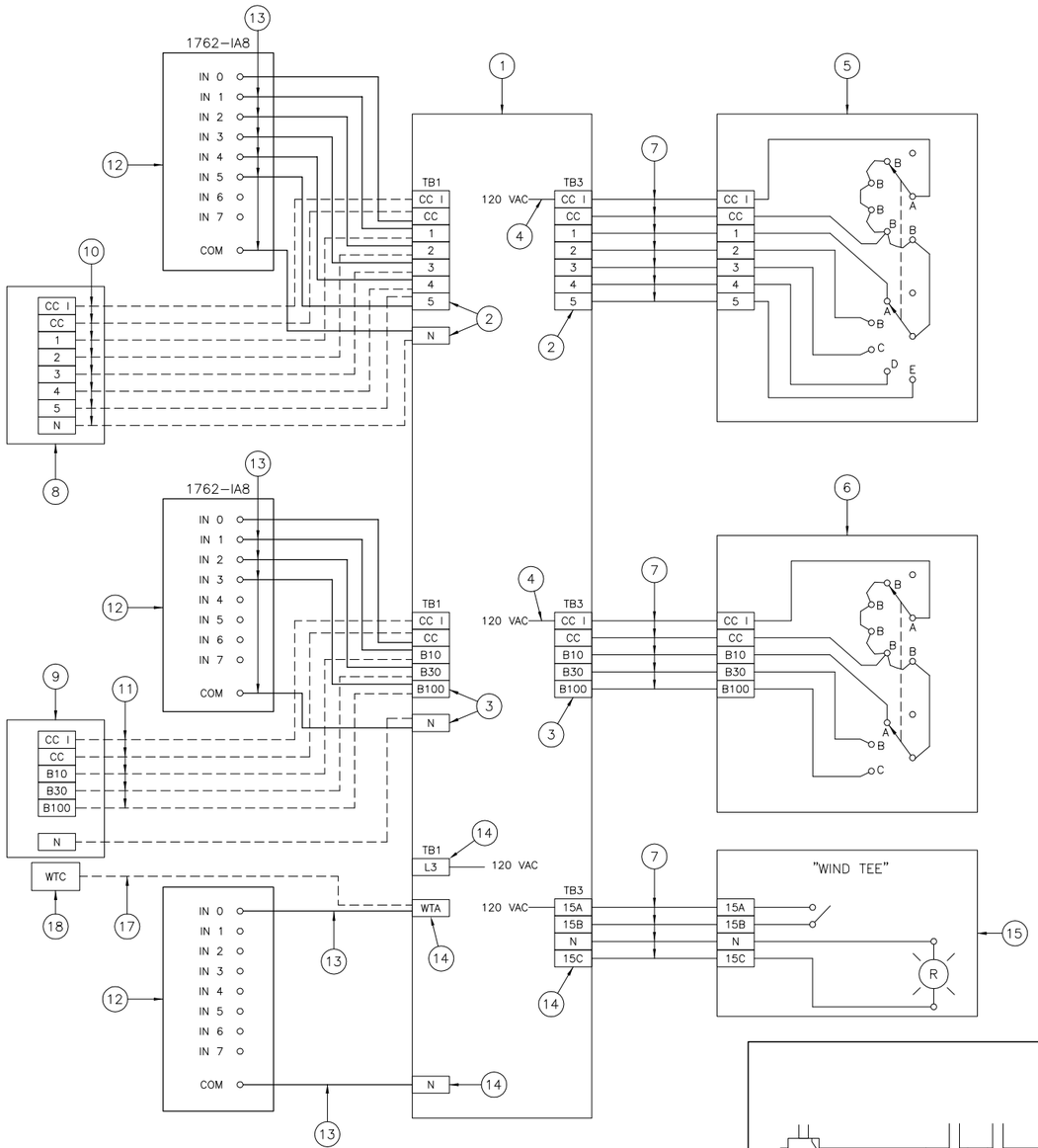

NEW PLC IN EXISTING VAULT CONTROL WIRING

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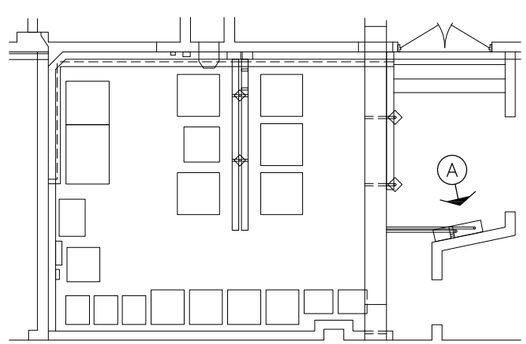

EXISTING VAULT PLAN

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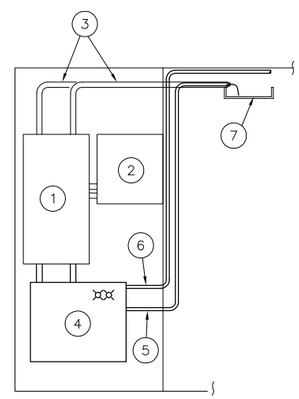

DETAIL A

N.T.S.

NEW PLC IN EXISTING VAULT CONTROL WIRING NOTES

1. EXISTING TERMINAL RELAY CABINET. EXCEPT AS NOTED OTHERWISE, EXISTING WIRING INSIDE CABINET SHALL REMAIN UNDISTURBED. SEE EXISTING VAULT DETAILS FOR ADDITIONAL INFORMATION.
2. TYPICAL EXISTING TB1 & TB3 TERMINALS FOR RUNWAY REGULATOR CONTROL WIRING. SEE EXISTING VAULT DETAILS FOR ADDITIONAL INFORMATION.
3. TYPICAL EXISTING TB1 & TB3 TERMINALS FOR TAXIWAY REGULATOR CONTROL WIRING. SEE EXISTING VAULT DETAILS FOR ADDITIONAL INFORMATION.
4. TYPICAL EXISTING RUNWAY OR TAXIWAY REGULATOR 120V CONTROL POWER. CONTRACTOR SHALL VERIFY THAT ALL 120V CONTROL POWER CIRCUITS ORIGINATE AT THE 120/240V LIGHTING PANELBOARD. SHOULD AN EXISTING RUNWAY OR TAXIWAY REGULATOR 120V CONTROL POWER CIRCUIT IN TERMINAL RELAY CABINET ORIGINATE AT THE REGULATOR (ITS INTERNAL 120V POWER), THE CONTRACTOR SHALL REMOVE THIS WIRING AND REPLACE IT WITH WIRING FROM ONE OF THE 120V CONTROL POWER CIRCUITS (LTG. CKT. 1, 2, OR 3) IN THE TERMINAL RELAY CABINET THAT DOES ORIGINATE AT THE LIGHTING PANELBOARD.
5. TYPICAL EXISTING RUNWAY BRIGHTNESS SELECTOR SWITCH IN EXISTING L-821 PANEL IN ATCT. TO REMAIN UNDISTURBED.
6. TYPICAL EXISTING TAXIWAY BRIGHTNESS SELECTOR SWITCH IN EXISTING L-821 PANEL IN ATCT. TO REMAIN UNDISTURBED.
7. EXISTING CONTROL WIRING AS PART OF MULTI-CONDUCTOR CABLE ASSEMBLIES BETWEEN L-821 PANEL IN ATCT TO TERMINAL RELAY CABINET IN EXISTING VAULT IN BASEMENT. TO REMAIN UNDISTURBED.
8. TYPICAL EXISTING RUNWAY REGULATOR CONTROL WIRING INPUT TERMINALS, AT REGULATOR.
9. TYPICAL EXISTING TAXIWAY REGULATOR CONTROL WIRING INPUT TERMINALS, AT REGULATOR.
10. TYPICAL EXISTING RUNWAY REGULATOR CONTROL WIRING. TO BE REMOVED.
11. TYPICAL EXISTING RUNWAY REGULATOR CONTROL WIRING. TO BE REMOVED.
12. NEW 8-POINT 120VAC DIGITAL INPUT CARD, ALLEN-BRADLEY MICROLOGIX 1762-1A8, OR EQUIVALENT. SEPARATE INPUT CARDS SHALL BE PROVIDED FOR EACH RUNWAY AND TAXIWAY REGULATOR AND PRIMARY WIND CONE CONTROL.
13. TYPICAL NEW RUNWAY AND TAXIWAY REGULATORCONTRO WIRING, AND PRIMARY WIND CONE CONTROL WIRING BETWEEN EXISTING TERMINAL RELAY CABINET AND NEW ALLEN-BRADLEY MICROLOGIX 1400 (OR EQUIVALENT) PLC, #14 THWN AS REQUIRED.
14. EXISTING TB1 & TB3 TERMINALS FOR PRIMARY WIND CONE ("WIND TEE") CONTROL WIRING.
15. EXISTING PRIMARY WIND CONE ("WIND TEE") ON/OFF SWITCH AND INDICATING LIGHT IN EXISTING L-821 PANEL.
16. NEW CONTROL WIRING BETWEEN EXISTING TERMINAL RELAY CABINET AND NEW ALLEN-BRADLEY MICROLOGIX 1400 (OR EQUIVALENT) PLC, #14 THWN AS REQUIRED.
17. EXISTING CONTROL WIRING. TO BE REMOVED.
18. EXISTING PRIMARY WIND CONE ("WIND TEE") CONTACTOR. TO BE REMOVED.
19. NEW 8-POINT 120VAC DIGITAL RELAY OUTPUT MODULE, ALLEN BRADLEY-1762-OW8, OR EQUIVALENT.
20. NEW 20VAC POWER AT NEW PLC, FROM EXISTING 120/240V LIGHTING PANEL BOARD (REUSE "WIND TEE" CIRCUIT BREAKER & RELABEL "PLC POWER").
21. PLC ENCLOSURE DOOR-MOUNTED 120V PUSH-TO-TEST LED INDICATING LIGHTS, COLOR AS INDICATED. WHITE LIGHT SHALL BE ILLUMINATED WHENEVER POWER IS ON TO THE PLC. RED LIGHT SHALL BE ILLUMINATED UPON LOSS OF COMMUNICATION WITH PLC IN NEW VAULT. PROVIDE ENGRAVED NAMEPLATES READING: "POWER ON" AND "COMMUNICATION FAILURE".

DETAIL A NOTES

1. EXISTING TERMINAL RELAY CABINET. SEE EXISTING VAULT DETAILS FOR ADDITIONAL INFORMATION.
2. EXISTING AIR-TO-GROUND RELAY & TERMINAL CABINET. TO REMAIN UNDISTURBED. (NOTE: THIS CABINET IS NO LONGER USED.)
3. EXISTING CONTROL WIRING FROM L-821 PANEL IN ATCT (TO REMAIN UNDISTURBED) AND EXISTING CONTROL WIRING TO EXISTING RUNWAY AND TAXIWAY REGULATORS (TO BE DISCONNECTED AND REMOVED).
4. NEW PLC, ALLEN-BRADLEY MICROLOGIX 1400, OR EQUIVALENT, IN NEMA 1 HINGED COVER ENCLOSURE, WITH DOOR-MOUNTED INDICATING LIGHTS. WALL-MOUNT BELOW EXISTING TERMINAL RELAY CABINET. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. NEW 6-STRAND FIBER OPTIC DATA CABLE, OCC # BX06-125D-WLS-900-ONFR, OR EQUIVALENT, IN NEW CONDUIT, EXISTING CABLE TRAY, EXISTING DUCT BANK AND NEW DUCT BANK FROM EXISTING VAULT TO NEW VAULT.
6. NEW 120V CIRCUIT, TWO #12 THWN, ONE #12 GROUND IN 3/4" CONDUIT FROM NEW PLC TO EXISTING 120/240V LIGHTING PANELBOARD. RE-USE EXISTING 20A, 1P CIRCUIT BREAKER FOR "WIND TEE". RELABEL CIRCUIT IN PANELBOARD "REGULATOR CONTROL PLC".
7. EXISTING CABLE TRAY.

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CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

NEW VAULT DETAILS - 5

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PEORIA INTERNATIONAL AIRPORT

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JOB No:	0906105

IL. PROJ. NO. PIA-3981
AIP PROJ. NO. 3-17-0080-XX

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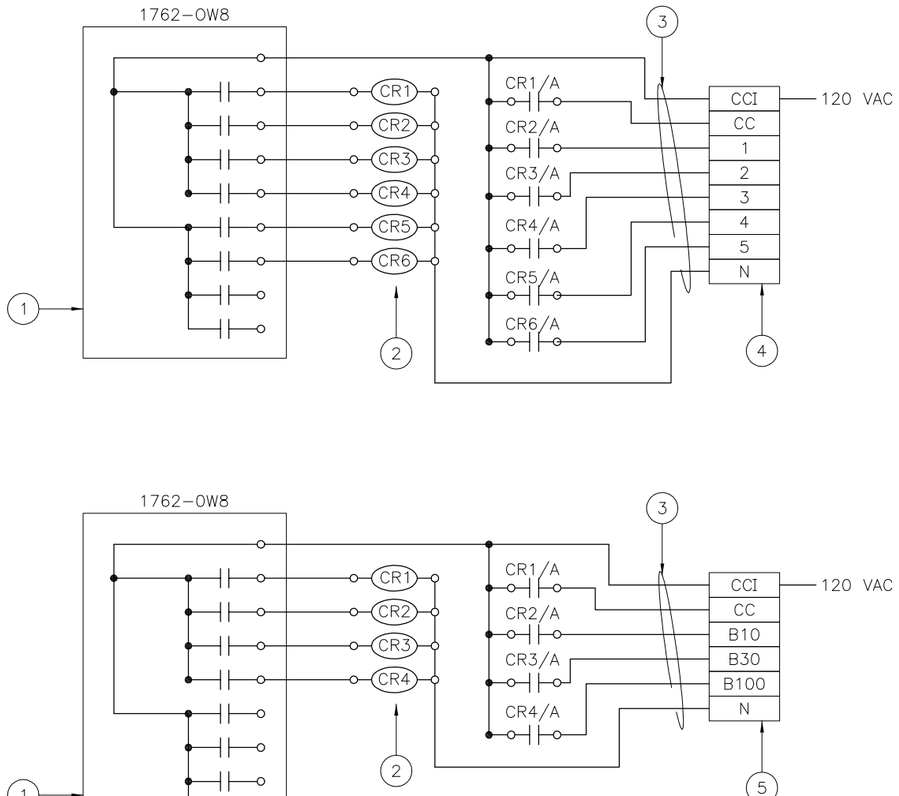
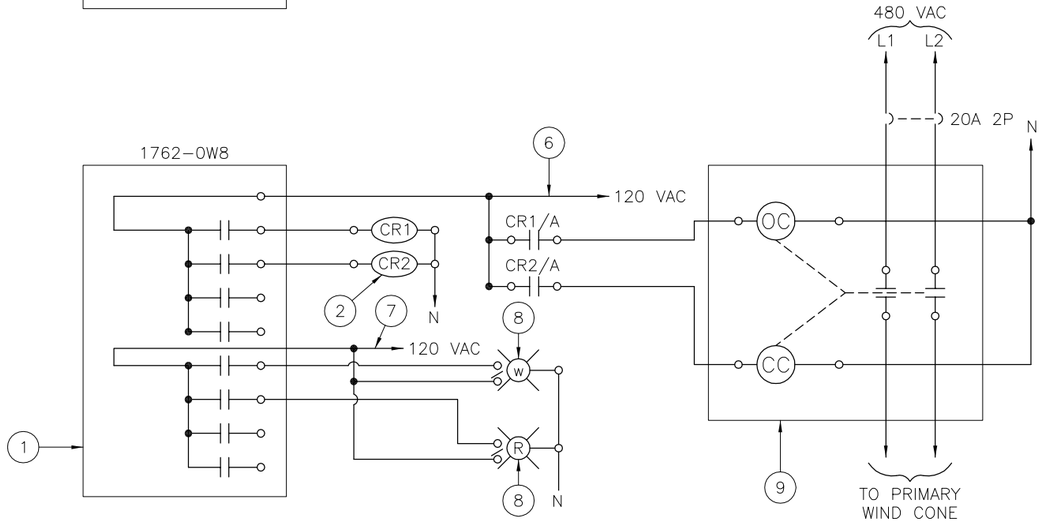
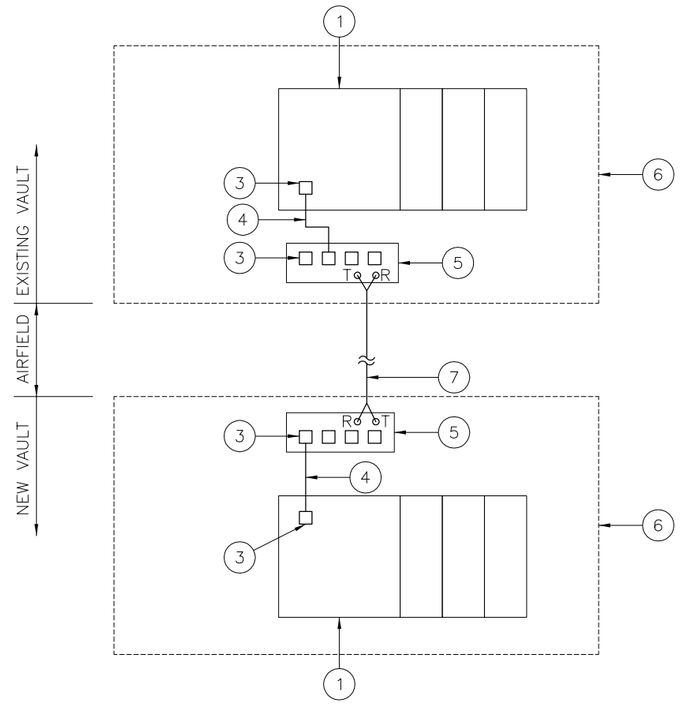




NEW VAULT PLC CONTROL WIRING

NTS



NEW PLC CONTROL BLOCK DIAGRAM

NTS

NEW PLC CONTROL BLOCK NOTES

1. NEW PLC, ALLEN-BRADLEY MICROLOGIX 1400 #1766-L32AWA, OR EQUIVALENT, WITH SECONDARY SURGE PROTECTIVE DEVICE AND UNINTERRUPTIBLE POWER SUPPLY (UPS). SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. NEW 8-POINT 120VAC DIGITAL INPUT MODULE, ALLEN-BRADLEY 1762-IA8, OR EQUIVALENT, OR NEW 8-POINT 120VAC DIGITAL RELAY OUTPUT MODULE, ALLEN BRADLEY-1762-OW8, OR EQUIVALENT, AS REQUIRED. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. ONE INPUT OR OUTPUT MODULE SHALL BE PROVIDED FOR EACH RUNWAY OR TAXIWAY REGULATOR, AND ADDITIONAL OUTPUT MODULES SHALL BE PROVIDED FOR PRIMARY WIND CONE CONTROL AND "POWER ON" AND "COMMUNICATIONS FAILURE" INDICATING LIGHTS. NOT SHOWN: EACH DIGITAL RELAY OUTPUT POINT SHALL INCLUDE AN "INTERPOSING" RELAY WITH ONE FORM "C" 7.5A/12A RATED CONTACT, IDEC RJIS-CA120 WITH DIN-RAIL SOCKET, OR EQUIVALENT.
3. NEW RJ-45 ETHERNET PORT.
4. NEW CAT-6 CABLE.
5. NEW ETHERNET SWITCH, MOXA EDS-305-M-ST, OR EQUIVALENT, WITH POWER SUPPLY.
6. NEW NEMA 1 HINGED COVER ENCLOSURE, HOFFMAN, OR EQUIVALENT, SIZED AS REQUIRED TO HOUSE PLC, INPUT/OUTPUT MODULES/ "INTERPOSING" RELAYS, ETHERNET SWITCH, POWER SUPPLIES, DIN RAILS, TERMINAL STRIPS AND MISCELLANEOUS HARDWARE AND WIRING AS NEED FOR A COMPLETE AND OPERATIONAL PROGRAMMABLE LOGIC CONTROLLER.
7. NEW FIBER OPTIC DATA CABLE, 6-STRAND, OCC # BX06-125D-WLS-900-ONFR, OR EQUIVALENT, IN NEW CONDUIT, EXISTING CABLE TRAY, EXISTING DUCT BANK AND NEW DUCT BANK FROM EXISTING VAULT TO NEW VAULT.

NEW VAULT PLC NOTES

1. NEW 8-POINT 120VAC DIGITAL RELAY OUTPUT MODULE, ALLEN BRADLEY-1762-OW8, OR EQUIVALENT, AS REQUIRED. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. ONE OUTPUT MODULE SHALL BE PROVIDED FOR EACH RUNWAY OR TAXIWAY REGULATOR AS NEEDED AND ONE OUTPUT MODULE SHALL BE PROVIDED FOR PRIMARY WIND CONE CONTROL AND "POWER ON" AND "COMMUNICATIONS FAIL" INDICATING LIGHTS.
2. EACH DIGITAL RELAY OUTPUT POINT SHALL INCLUDE AN "INTERPOSING" RELAY WITH ONE FROM "C" 7.5A/12A RATED CONTACT, IDEC RJIS-CA120 WITH DIN-RAIL SOCKET, OR EQUIVALENT.
3. NEW CONTROL WIRING BETWEEN NEW PLC AND NEW RUNWAY OR NEW TAXIWAY REGULATOR, #14 THWN AS NEEDED.
4. TYPICAL INPUT TERMINALS FOR NEW 5-STEP RUNWAY REGULATORS. CONTRACTOR SHALL VERIFY CONTROL WIRING WITH SUPPLIED REGULATOR MANUFACTURER. 120V CONTROL POWER SHALL BE INTERNALLY PROVIDED AT REGULATOR.
5. TYPICAL INPUT TERMINALS FOR NEW 3-STEP TAXIWAY REGULATORS. CONTRACTOR SHALL VERIFY CONTROL WIRING WITH SUPPLIED REGULATOR MANUFACTURER. 120V CONTROL POWER SHALL BE INTERNALLY PROVIDED AT REGULATOR.
6. 120VAC PRIMARY WIND CONE CONTROL POWER FROM NEW LIGHTING PANELBOARD #2 (CKT. #7).
7. 120VAC POWER AT NEW PLC FROM NEW LIGHTING PANEL #2 (CKT. #5).
8. PLC ENCLOSURE DOOR-MOUNTED 120V PUSH-TO-TEST LED INDICATING LIGHTS, COLOR AS INDICATED. WHITE LIGHT SHALL BE ILLUMINATED WHENEVER POWER IS ON TO THE PLC. RED LIGHT SHALL BE ILLUMINATED UPON LOSS OF COMMUNICATION WITH PLC IN NEW VAULT. PROVIDE ENGRAVED NAMEPLATES READING: "POWER ON" AND "COMMUNICATION FAILURE".
9. NEW PRIMARY WIND CONE CONTACTOR, 30A, 600V, 2-POLE MECHANICALLY HELD.

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FILE: NEW VAULT DETAILS 6.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2010 3:56 PM

PE091

REVISIONS

NUMBER	BY	DATE

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

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT
PEORIA, ILLINOIS

CONSTRUCT NEW AIRFIELD ELECTRICAL VAULT

NEW VAULT DETAILS - 6

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CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

GENERAL WAYNE A. DOWNING
PEORIA INTERNATIONAL AIRPORT

DESIGN BY:	CMT
DRAWN BY:	CMT
CHECKED BY:	CET
APPROVED BY:	CET
DATE:	APRIL 30, 2010
JOB No:	0906105

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