

# CONSTRUCTION PLANS FOR QUINCY REGIONAL AIRPORT

CITY OF QUINCY  
QUINCY, IL

BID ISSUE

IL. PROJ. NO: UIN-5051

AIP PROJ. NO: 3-17-0085-XX

## RECONSTRUCT RUNWAY 4/22 PHASE 4

MARCH 8, 2023

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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.

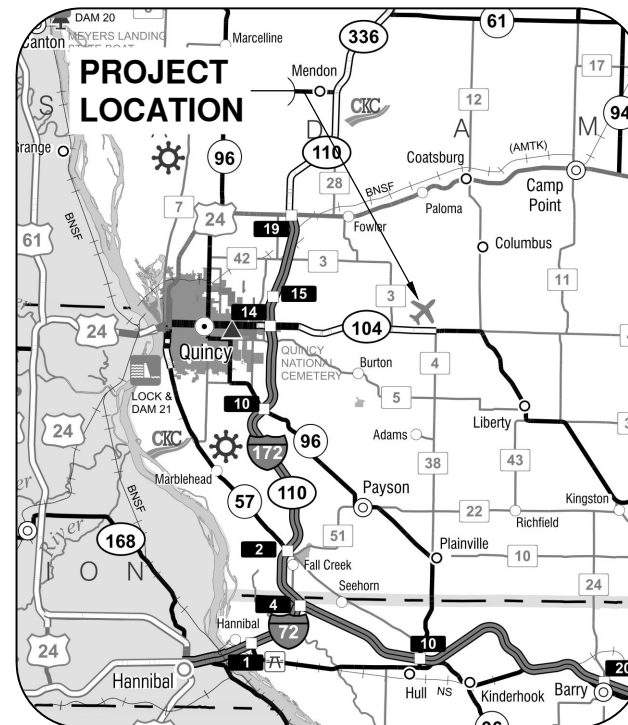
**DESIGN INFORMATION**

**GEOMETRIC CRITERIA**

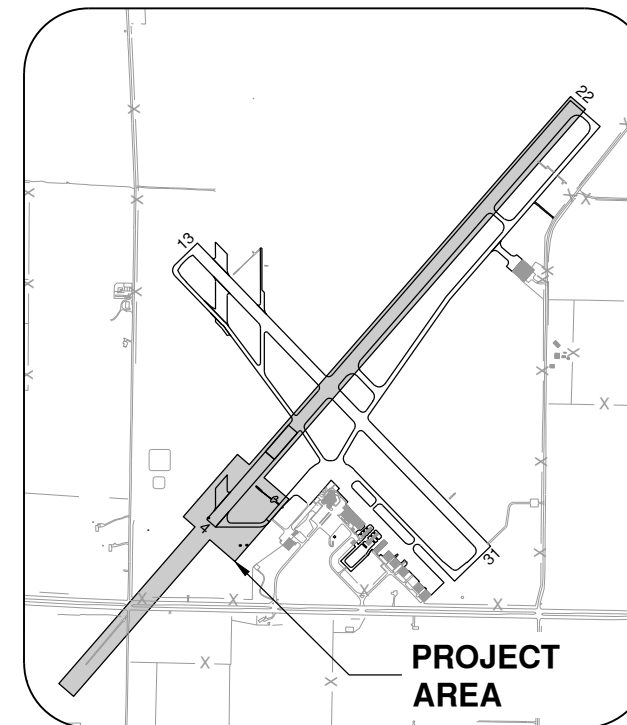
AIRCRAFT APPROACH CATEGORY (AAC): C  
AIRPLANE DESIGN GROUP (ADG): III  
TAXIWAY DESIGN GROUP (TDG): 3  
TAXIWAY SAFETY AREA (TSA): 118'  
TAXIWAY OBJECT FREE AREA (TOFA): 186'  
RUNWAY SAFETY AREA (RSA): 500'  
RUNWAY OBJECT FREE AREA (ROFA): 800'

**QUINCY REGIONAL AIRPORT**

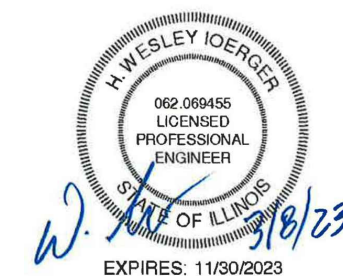
TOWNSHIP: 1 SOUTH  
RANGE: 7 WEST  
SECTION: 34  
COUNTY: ADAMS  
CIVIL TOWNSHIP: GILMER



LOCATION MAP



SITE PLAN



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, ILLINOIS  
APPROVED: *[Signature]*  
AIRPORT DIRECTOR  
DATE: 3/8/23



■ SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO  
SUBMITTED BY: *[Signature]*  
DATE: 3/8/23  
CMT JOB NUMBER: 180020-01-00





License No. 184-000613

CONSULTANTS

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK | DATE | DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 GI002.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: MJD

APPROVED BY: RLV

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SHEET TITLE

SUMMARY OF  
QUANTITIES

G1003  
SHEET 3 OF 143

SUMMARY OF QUANTITIES  
BASE BID - BASE BID - RECONSTRUCT RUNWAY 4/22

Table with 4 columns: ITEM NO., ITEM DESCRIPTION, UNITS, QTY. Lists various construction items like cables, duct markers, signs, and pavement materials.

SUMMARY OF QUANTITIES  
ALTERNATE 1 - RECONSTRUCT TAXIWAY B

Table with 4 columns: ITEM NO., ITEM DESCRIPTION, UNITS, QTY. Lists items for Taxiway B reconstruction such as cables, markers, and pavement.

SUMMARY OF QUANTITIES  
ALTERNATE 2 - INSTALL MALSR

Table with 4 columns: ITEM NO., ITEM DESCRIPTION, UNITS, QTY. Lists items for MALSR installation including junction boxes, lights, and ground rods.

NOTES TO BIDDERS

THE BASE BID SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING MAJOR WORK ITEMS:

- 1. ALL PAVEMENT REMOVALS.
2. ALL ELECTRICAL REMOVALS INCLUDING MALSR.
3. ALL EMBANKMENT CONSTRUCTION AND TURFING.
4. RUNWAY 4/22 PAVEMENT, LIGHTING AND SIGNAGE.
5. RUNWAY 4/22 HOME RUN.
6. RUNWAY 4/22 REGULATOR AND VAULT IMPROVEMENTS.
7. RUNWAY 4/22 PAPI ADJUSTMENT.
8. ALL STORM SEWER IMPROVEMENTS.
9. RUNWAY 4/22 UNDERDRAINS.

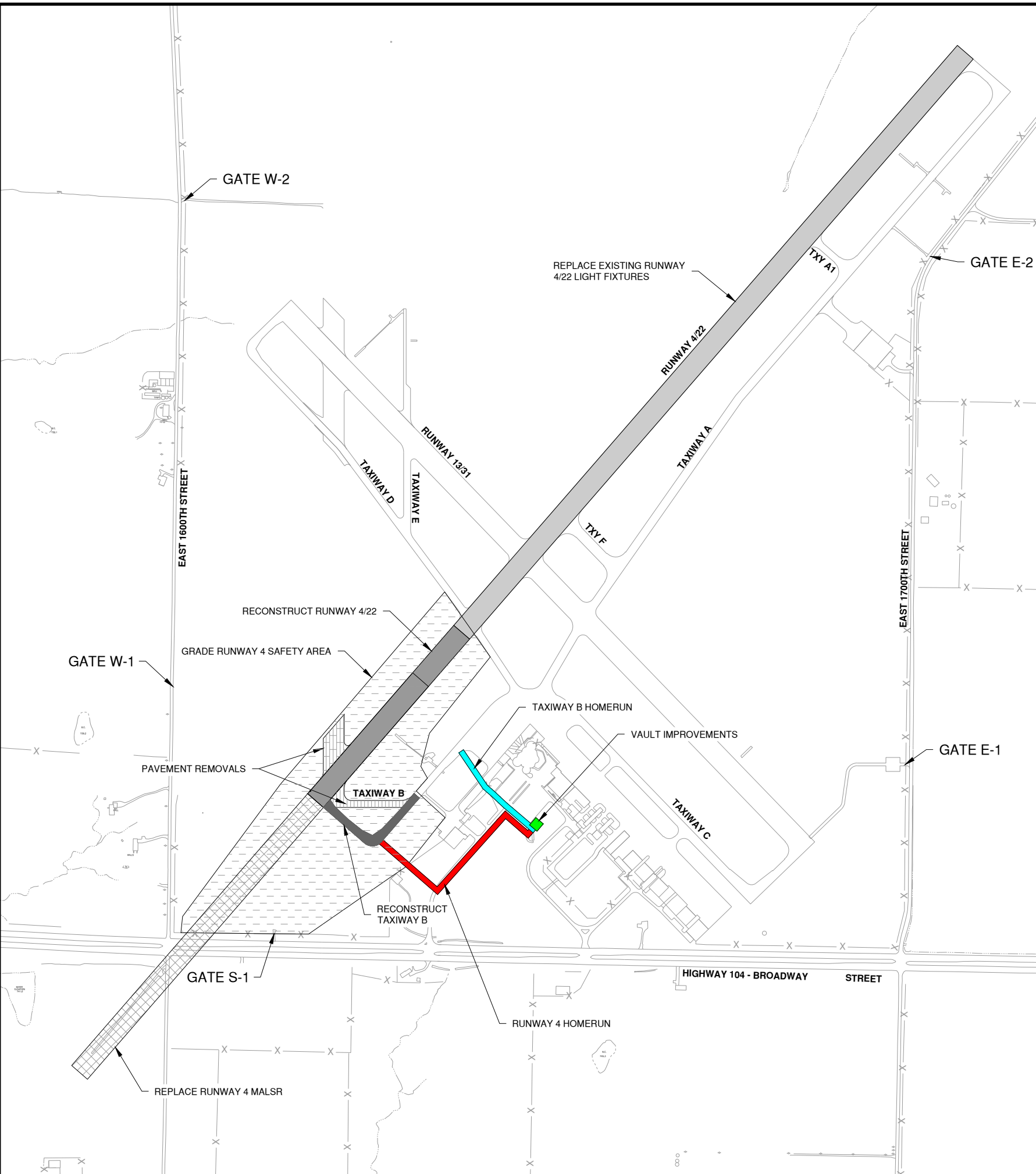
ADDITIVE ALTERNATE 1 SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING MAJOR WORK ITEMS:

- 1. TAXIWAY B PAVING AND ELECTRICAL IMPROVEMENTS.
2. TAXIWAY B UNDERDRAIN CONSTRUCTION, TURFING, MARKING, & EROSION CONTROL









ADDITIVE ALTERNATE 2 SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING MAJOR WORK ITEMS:

- 1. MALSR INSTALLATION, INCLUDING FOUNDATIONS, CABLING, LIGHT STATION, & CRUSHED ROCK PLOT

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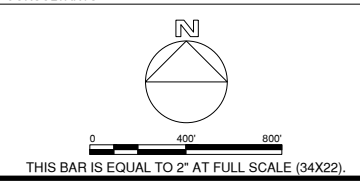


**LEGEND**

-  REPLACE EXISTING RUNWAY 4/22 LIGHT FIXTURES
-  RECONSTRUCT RUNWAY 4/22 (BASE BID)
-  TAXIWAY B (ADD. ALT. 1)
-  GRADE RUNWAY 4 SAFETY AREA
-  RUNWAY 4/22 HOME RUN
-  TAXIWAY B HOME RUN
-  VAULT IMPROVEMENTS
-  REPLACE RUNWAY 4 MALS (ADD. ALT. 2)
-  PAVEMENT REMOVALS



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CHECKED BY:	MJD
APPROVED BY:	RLV
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**AIRPORT SITE PLAN**



(NOTES CONTINUED FROM SHEET GC001)

17. LIGHTING FOR NIGHTTIME CONSTRUCTION

- 1. THE CONTRACTOR SHALL PROVIDE ADEQUATE LIGHTING DURING NIGHTTIME CONSTRUCTION.
2. ARTIFICIAL AREA LIGHTING SHALL CONSIST OF VEHICLE OR POLE MOUNTED FLOODLIGHTS OF SUFFICIENT NUMBER TO ILLUMINATE THE WORK AREA.
3. ARTIFICIAL AREA LIGHTING SHALL NOT INTERFERE WITH AIR TRAFFIC OR ATCT OPERATIONS.
4. PLACEMENT & AIMING OF ARTIFICIAL LIGHTING SHALL BE APPROVED BY THE AIRPORT PRIOR TO START OF OPERATIONS.

18. PROTECTION OF AREAS & SURFACES

- 1. ALL WORK REQUIRED INSIDE OF THE RUNWAY 4-22 OR 13-31 SAFETY AREAS, WHICH EXTENDS 250' FROM THE RUNWAY CENTERLINE, WILL REQUIRE THE RUNWAY TO BE CLOSED.
2. ALL WORK REQUIRED ON AN ACTIVE TAXIWAY OR INSIDE OF AN ACTIVE TAXIWAY OBJECT FREE AREA, WHICH EXTENDS 93' FROM THE TAXIWAY CENTERLINE, WILL REQUIRE THE TAXIWAY TO BE CLOSED.
3. ALL WORK REQUIRED ON AN ACTIVE TAXILANE OBJECT FREE AREA, WHICH EXTENDS 81' FROM THE TAXILANE/APRON CENTERLINE, WILL REQUIRE A PORTION OF THAT APRON TO BE CLOSED.

19. OTHER LIMITATIONS OF CONSTRUCTION

- 1. IF, DURING CONSTRUCTION, AN EMERGENCY IS DECLARED BY THE AIRPORT, THE CONTRACTOR SHALL IMMEDIATELY CLEAR THE PAVEMENT OF ALL VEHICLES, PERSONNEL AND EQUIPMENT.
2. BROKEN CONCRETE, BROKEN ASPHALT, RUBBISH FROM DEMO, AND OTHER MISCELLANEOUS DEBRIS SHALL BE DISPOSED OF OFF AIRPORT PROPERTY, UNLESS OTHERWISE SPECIFIED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEGGAR TESTING ALL EXISTING CIRCUITS PRIOR TO CONSTRUCTION AND FOLLOWING CONSTRUCTION AS SPECIFIED IN THE SPECIFICATIONS.

20. AIRPORT SECURITY REQUIREMENTS

- 1. MAINTAINING THE SECURITY REQUIREMENTS OF THE AIRPORT SHALL BE A PRIMARY CONCERN FOR THE CONTRACTOR.
2. A LIST OF PERSONNEL AUTHORIZED TO WORK ON THE AIRFIELD SHALL BE PROVIDED TO THE RESIDENT ENGINEER BY THE CONTRACTOR.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING AIRPORT SECURITY BY SUPERVISING OPENINGS OR MAINTAINING THE AIRPORT PERIMETER FENCE LINE AT ALL TIMES.
4. THE CONTRACTOR SHALL COMPLETE A SECURITY FORM FOR ALL PERSONNEL THEY PROPOSE TO USE ON THE AIRPORT.
5. THE CONTRACTOR SHALL INSTALL AND USE TEMPORARY GATE(S) FOR ACCESS TO THE AIRFIELD.
6. AS A MINIMUM, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY DURING CONSTRUCTION AS FOLLOWS:

20. AIRPORT SECURITY REQUIREMENTS (CONT'D)

- a. POSSESS A COPY OF THE AIRPORT'S SECURITY PLAN.
b. VISIBLY DELINEATE THE CONSTRUCTION ZONE BY PLACING A LINE OF BARRICADES OR FLAGGING AROUND THE ENTIRE WORK ZONE DURING EACH PHASE OF THE CONTRACT.
c. COMPLY WITH THE AIRPORT'S SECURITY PLAN ASSOCIATED WITH THE CONSTRUCTION PROJECT AND ENSURE THAT CONSTRUCTION PERSONNEL ARE FAMILIAR WITH SECURITY PROCEDURES AND REGULATIONS ON THE AIRPORT.
d. ENSURE THAT NO CONSTRUCTION EMPLOYEES, EMPLOYEES OF SUBCONTRACTORS OR SUPPLIERS, OR OTHER PERSONS ENTER ANY PART OF THE AIRCRAFT OPERATIONS AREA FROM CONSTRUCTION SITE UNLESS AUTHORIZED.
e. THE AIRPORT MAY REQUIRE THAT ALL SECURITY GUARDS UNDERGO ADDITIONAL TRAINING NECESSARY TO MEET THE AIRPORT'S SECURITY NEEDS.
f. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN SECURITY ON THE AIRPORT AS SPECIFIED OR AS DIRECTED BY THE AIRPORT.
g. THE CONTRACTOR'S SUPERINTENDENT, FOREMAN, SECURITY GUARDS, AND ANY SUPERVISORY PERSONNEL IN CHARGE OF OTHER WORKERS SHALL OBTAIN AN AIRPORT SECURITY BADGE AND DISPLAY THIS BADGE WHILE ON SITE IN ACCORDANCE WITH FAA AND TSA REGULATIONS.
h. TO OBTAIN AIRPORT SECURITY BADGES, CONTRACTORS MUST COMPLETE A CRIMINAL HISTORY RECORDS CHECK TWO WEEKS PRIOR TO EMPLOYEES BEING ALLOWED ACCESS TO THE SITE.
i. THE CONTRACTOR WILL DESIGNATE A MINIMUM OF ONE INDIVIDUAL TO BE THE 24-HOUR POINT OF CONTACT AND ASSUME ALL ON-SITE SECURITY RESPONSIBILITIES FOR ALL EMPLOYEES DURING THE PROJECT.
j. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE ACCESS GATE CLOSED AND LOCKED DURING WORK HOURS.
k. THE CONTRACTOR SHALL PROVIDE A SIGN AT ALL ACCESS GATES STATING " AUTHORIZED PERSONNEL ONLY."
l. THE AIRPORT OPERATOR HAS A PROGRAM IN WHICH THE CONTRACTOR HAS THE ABILITY TO HAVE PERSONNEL APPROVED TO ACQUIRE ACCESS TO THE AIR OPERATIONS AREA (AOA) WITHOUT DRIVING PRIVILEGES FOR PURPOSES OF THIS CONTRACT.



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RECONSTRUCT RUNWAY 4/22 PHASE 4

OWNER



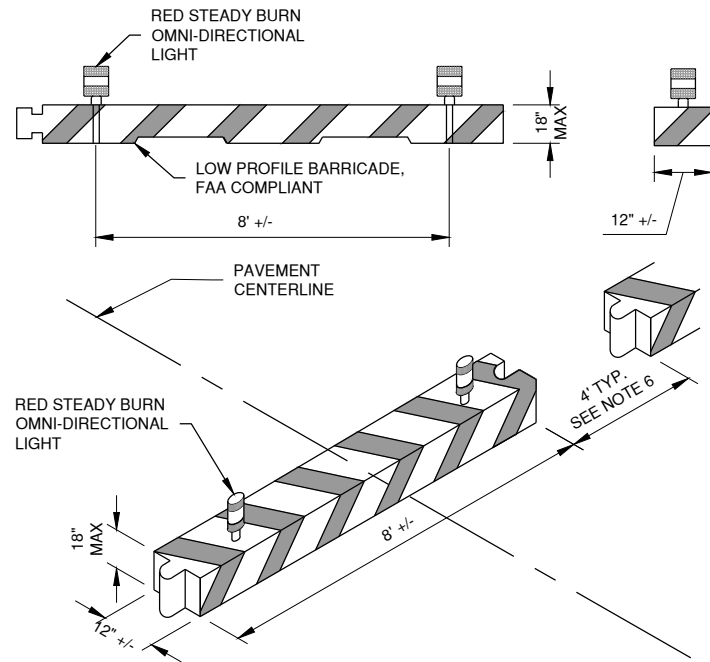
CITY OF QUINCY QUINCY REGIONAL AIRPORT QUINCY, IL

MARK DATE DESCRIPTION

Table with project details: AIP PROJ. NO: 3-17-0085-XX, IL PROJ. NO: UIN-5051, CMT PROJECT NO: 18002001, CAD DWG FILE: 180020-01 PH4 GC001.DWG, DESIGNED BY: HWI, DRAWN BY: DPA, CHECKED BY: MJD, APPROVED BY: RLV, COPYRIGHT:

SHEET TITLE CONSTRUCTION ACTIVITY NOTES 2

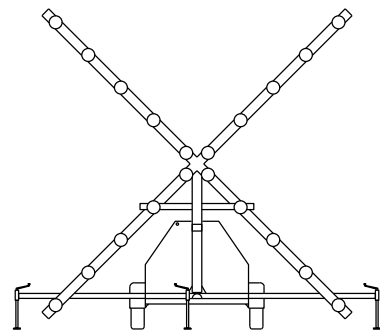
GC002 SHEET 6 OF 143



**1 BEAM BARRICADE DETAIL**  
N.T.S.

**BEAM BARRICADE NOTES**

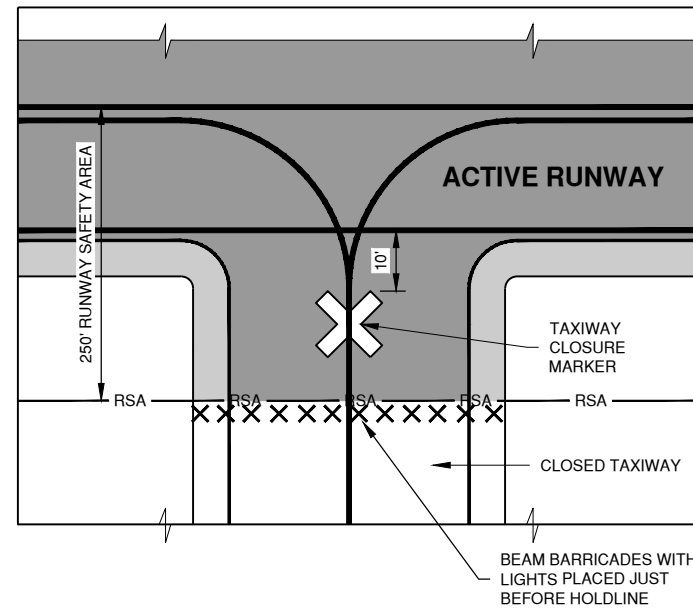
- BARRICADE SHALL BE WEIGHTED TO WITHSTAND DISPLACEMENT BY WIND, JET OR PROP BLAST.
- BARRICADE MUST BE OF LOW MASS AND EASILY COLLAPSIBLE UPON CONTACT WITH AN AIRCRAFT.
- NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM. COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- PLACE AS SHOWN IN PLANS AND AS DIRECTED BY THE ENGINEER.
- BARRICADES SHALL BE COMPLIANT WITH FAA AC 150/5370-2 (LATEST VERSION).
- THE TYPICAL GAP BETWEEN BARRICADES SHALL BE 4 FEET. ONE 15' WIDE GAP MAY BE PROVIDED FOR VEHICLE ACCESS IN EACH BARRICADE LINE.
- PLACE INTIAL BARRICADE ON PAVEMENT CENTERLINE



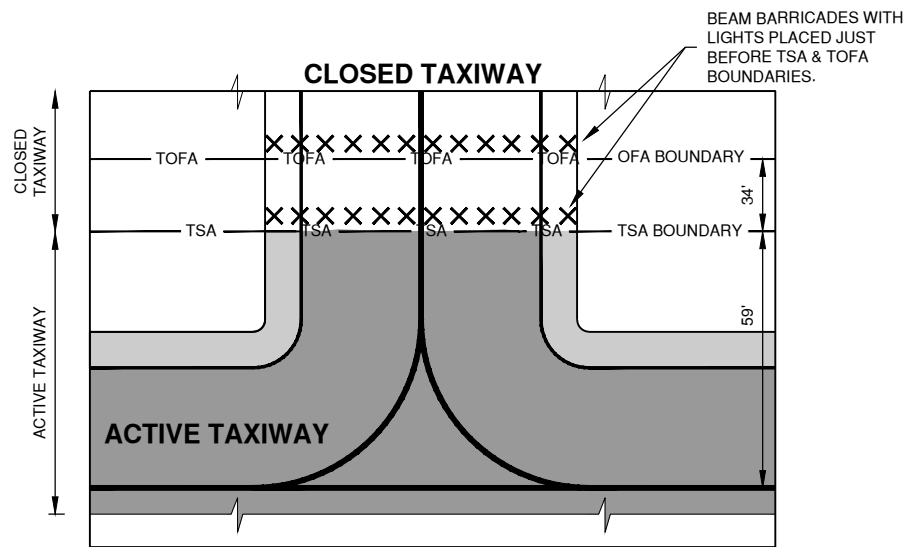
**2 LIGHTED RUNWAY CLOSURE MARKER**  
N.T.S.

**LIGHTED RUNWAY CLOSURE MARKER NOTES**

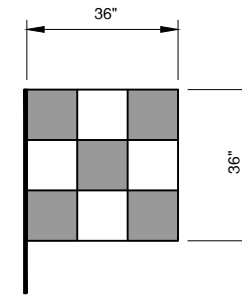
- TO BE PLACED ON PAVEMENT AT THE RUNWAY NUMERALS FOR NIGHTTIME CLOSURE.
- THE CONTRACTOR SHALL PROVIDE TWO CLOSURE MARKERS (2 PAIR) AND MAINTAIN THEM (FUEL, OIL, LIGHT BULBS) WHEN USED DURING CONSTRUCTION CLOSURES.
- NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM. COSTS ASSOCIATED WITH PROVIDING AND MAINTAINING THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.



**3 CLOSED TAXIWAY/ACTIVE RUNWAY BARRICADE DETAIL**  
N.T.S.



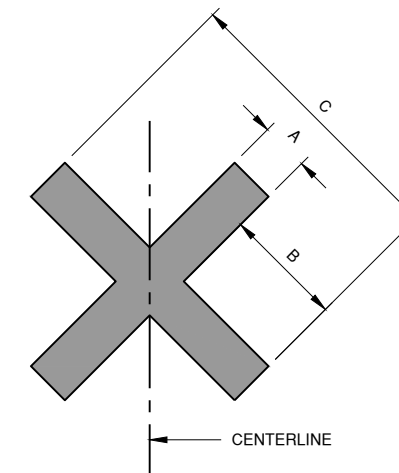
**4 CLOSED TAXIWAY/ACTIVE TAXIWAY BARRICADE DETAIL**  
N.T.S.



**5 EQUIPMENT & VEHICLE SIGNAL FLAG**  
N.T.S. (ORANGE / WHITE)

**SIGNAL FLAG NOTES**

- ALL CONTRACTOR VEHICLES AND EQUIPMENT SHALL DISPLAY COMPANY LOGO PLACARDS AND FLAG.
- WHEN WORKING PRIOR TO DAWN OR AFTER DUSK, A 360 DEGREE ROTATING AMBER BEACON IS REQUIRED ON ALL EQUIPMENT AND TRUCKS.
- CONTRACTOR SHALL REPLACE FLAGS THAT ARE WORN AND INEFFECTIVE.



SYMBOL TYPE	DIMENSION	A	B	C
CLOSED TAXIWAY		5'-0"	12'-6"	30'-0"
CLOSED RUNWAY		10'-0"	25'-0"	60'-0"

**6 NON-LIGHTED CLOSURE MARKER**  
N.T.S.

**NOTES**

- CLOSURE MARKERS SHALL BE SOLID YELLOW.
- MARKERS SHALL BE PLACED ON TAXIWAYS AT THE RUNWAY INTERSECTIONS INSIDE THE RUNWAY SAFETY AREA.
- MARKERS SHALL BE PLACED ON RUNWAYS TO COVER THE NUMERALS ON BOTH ENDS.
- MARKERS MAY BE CONSTRUCTED OF FABRIC, COLORED PLASTIC, PAINTED SHEETS OF PLYWOOD OR SIMILAR MATERIALS.
- MARKERS SHALL BE SECURED TO PREVENT MOVEMENT BY PROP WASH, JET BLAST OR OTHER WIND CURRENTS. METHODS OF SECURING THE MARKERS SHALL NOT PROTRUDE MORE THAN 3" ABOVE THE PAVEMENT.

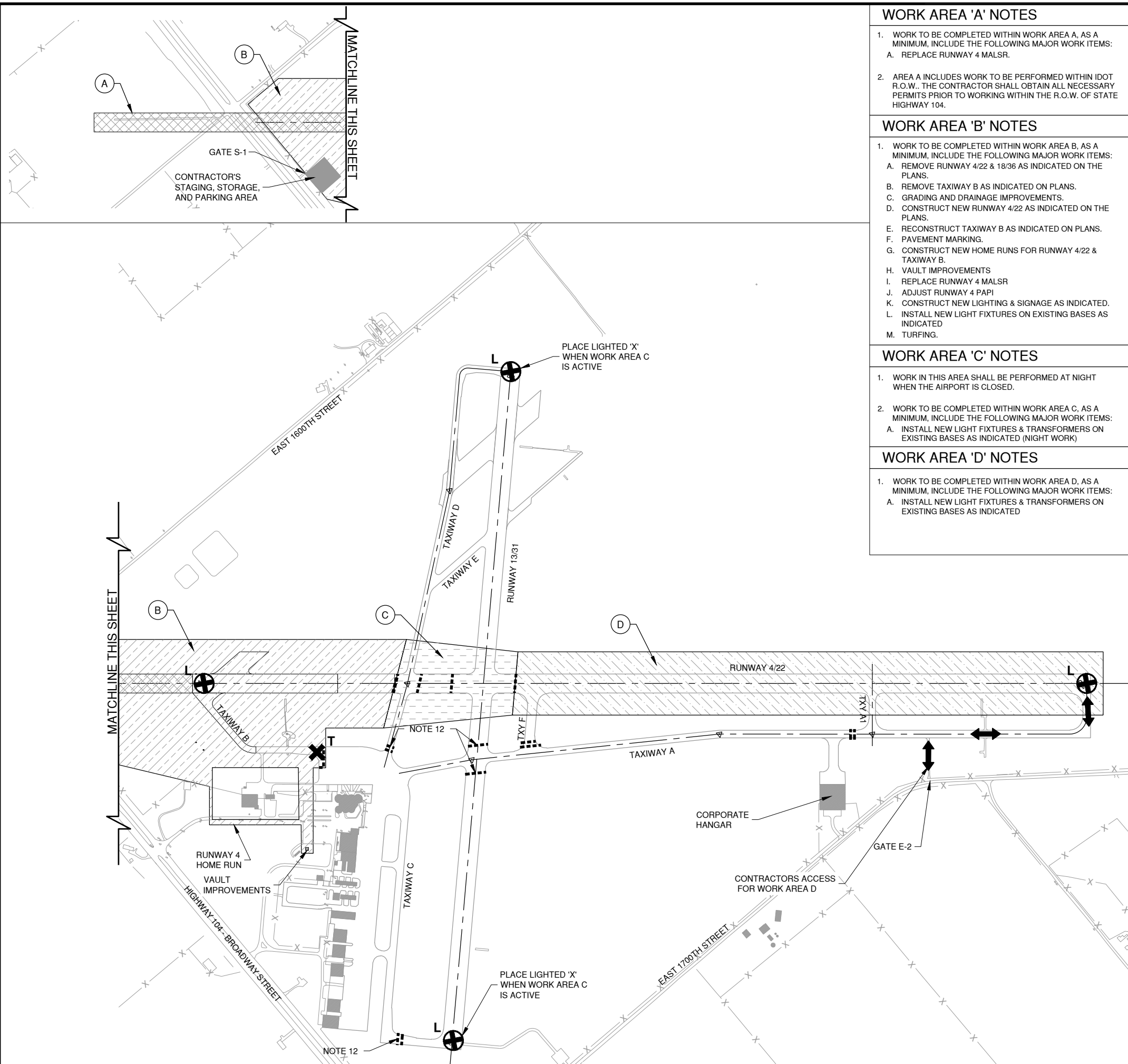
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DRAWN BY: DPA
CHECKED BY: MJD
APPROVED BY: RLV
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**CONSTRUCTION  
ACTIVITY DETAILS 1**







**WORK AREA 'A' NOTES**

- WORK TO BE COMPLETED WITHIN WORK AREA A, AS A MINIMUM, INCLUDE THE FOLLOWING MAJOR WORK ITEMS:
  - REPLACE RUNWAY 4 MALSR.
- AREA A INCLUDES WORK TO BE PERFORMED WITHIN IDOT R.O.W.. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO WORKING WITHIN THE R.O.W. OF STATE HIGHWAY 104.

**WORK AREA 'B' NOTES**

- WORK TO BE COMPLETED WITHIN WORK AREA B, AS A MINIMUM, INCLUDE THE FOLLOWING MAJOR WORK ITEMS:
  - REMOVE RUNWAY 4/22 & 18/36 AS INDICATED ON THE PLANS.
  - REMOVE TAXIWAY B AS INDICATED ON PLANS.
  - GRADING AND DRAINAGE IMPROVEMENTS.
  - CONSTRUCT NEW RUNWAY 4/22 AS INDICATED ON THE PLANS.
  - RECONSTRUCT TAXIWAY B AS INDICATED ON PLANS.
  - PAVEMENT MARKING.
  - CONSTRUCT NEW HOME RUNS FOR RUNWAY 4/22 & TAXIWAY B.
  - VAULT IMPROVEMENTS
  - REPLACE RUNWAY 4 MALSR
  - ADJUST RUNWAY 4 PAPI
  - CONSTRUCT NEW LIGHTING & SIGNAGE AS INDICATED.
  - INSTALL NEW LIGHT FIXTURES ON EXISTING BASES AS INDICATED
  - TURFING.

**WORK AREA 'C' NOTES**

- WORK IN THIS AREA SHALL BE PERFORMED AT NIGHT WHEN THE AIRPORT IS CLOSED.
- WORK TO BE COMPLETED WITHIN WORK AREA C, AS A MINIMUM, INCLUDE THE FOLLOWING MAJOR WORK ITEMS:
  - INSTALL NEW LIGHT FIXTURES & TRANSFORMERS ON EXISTING BASES AS INDICATED (NIGHT WORK)

**WORK AREA 'D' NOTES**

- WORK TO BE COMPLETED WITHIN WORK AREA D, AS A MINIMUM, INCLUDE THE FOLLOWING MAJOR WORK ITEMS:
  - INSTALL NEW LIGHT FIXTURES & TRANSFORMERS ON EXISTING BASES AS INDICATED

**LEGEND**

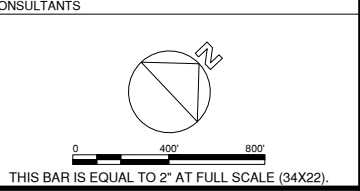
- WORK AREA A LIMITS
- WORK AREA B LIMITS
- WORK AREA C LIMITS (NIGHT WORK)
- WORK AREA D LIMITS
- CONTRACTOR'S STAGING, STORAGE & PARKING AREA
- BEAM BARRICADES (NOTE 6)
- RUNWAY CLOSURE MARKER (LIGHTED)
- TAXIWAY CLOSURE MARKER (TEMPORARY)
- CONTRACTOR'S ACCESS ROUTE
- WORK AREA IDENTIFIER

**PAVEMENT STATUS**

PAVEMENT	STATUS
RUNWAY 18/36	DECOMMISSIONED
RUNWAY 4/22	CLOSED
RUNWAY 13/31	CLOSED WHEN WORK AREA C IS ACTIVE (NIGHT HOURS ONLY)
TAXIWAY A	CLOSED NORTH OF CORPORATE HANGAR
TAXIWAY A1	CLOSED
TAXIWAY B	CLOSED WEST OF TERMINAL APRON
TAXIWAY C	OPEN
TAXIWAY D	CLOSED WHEN WORK AREA C IS ACTIVE (NIGHT HOURS ONLY)
TAXIWAY E	CLOSED NORTH OF RUNWAY 13/31
TAXIWAY F	CLOSED

**GENERAL NOTES**

- THE CONTRACTOR SHALL PROVIDE 72 HOUR NOTICE TO THE AIRPORT PRIOR TO INITIATING WORK IN ANY WORK AREA.
- CONTRACTOR ACCESS SHALL BE THROUGH EXISTING GATES S-1 AND E-2.
- WORK IN AREA C SHALL BE PERFORMED ONLY AT NIGHT WHILE THE AIRPORT IS CLOSED.
- ALL WORK AREAS MAY BE CONCURRENTLY ACTIVE.
- THE CONTRACTOR SHALL PLACE ALL RUNWAY CLOSURE MARKERS, TAXIWAY CLOSURE MARKERS, AND BARRICADES PRIOR TO STARTING WORK ON ANY PHASE.
- BEAM BARRICADES SHALL BE PLACED AT 255 FEET FROM RUNWAY CENTERLINES, 59 FEET AND 93 FEET FROM TAXIWAY CENTERLINES (GC003), AS SHOWN ON THE PLANS OR AS SPECIFIED BY THE RPR.
- THE CONTRACTOR SHALL CONTINUOUSLY CLEAN ACTIVE PAVEMENTS DURING HAULING OPERATIONS AND AT THE END OF EACH WORKDAY.
- AIRCRAFT & AIRPORT VEHICLES SHALL HAVE THE RIGHT OF WAY AT ALL TIMES.
- THE CONTRACTOR SHALL MONITOR CTAF (FREQ. 123.0) AT ALL TIMES DURING CONSTRUCTION OPERATIONS.
- SHOULD THE CONTRACTOR CHOOSE TO USE MULTIPLE CONSTRUCTION CREWS IN MULTIPLE LOCATIONS TO PERFORM THE WORK, MULTIPLE FLAGMEN / RADIO OPERATORS WILL BE REQUIRED FOR EACH CREW.
- THE MAXIMUM ALLOWABLE HEIGHT OF STOCKPILED MATERIALS SHALL BE 10' ABOVE EXISTING GRADE.
- BARRICADES SPECIFIED IN PLANS WILL ONLY BE IN PLACE WHEN WORK AREA C IS ACTIVE. WHEN WORK AREA C IS NOT ACTIVE, THESE BARRICADES SHALL BE REMOVED AND STORED OFF OF ACTIVE PAVEMENT BY CONTRACTOR.



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PHASE 4**

OWNER



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**CONSTRUCTION  
ACTIVITY PLAN**

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Date: Wednesday, March 8, 2023 2:42:16 PM



EXISTING PAVEMENT SECTIONS FROM IDA PAVEMENT HISTORY

SECTION	THICKNESS	MATERIAL	SECTION	THICKNESS	MATERIAL	SECTION	THICKNESS	MATERIAL	SECTION	THICKNESS	MATERIAL	SECTION	THICKNESS	MATERIAL
A	9"	ASPHALT MIX	I	9"	ASPHALT MIX	P	10"	ASPHALT MIX	W	13"	ASPHALT MIX	AD	4"	ASPHALT MIX
	8-9"	CEMENT CONCRETE		8-9"	CEMENT CONCRETE		8-9"	CEMENT CONCRETE		8-9"	CEMENT CONCRETE		8-9"	CEMENT CONCRETE
	7"	AGG BASE		7"	AGG BASE		7"	AGG BASE		7"	AGG BASE		7"	AGG BASE
B	14"	ASPHALT MIX	J	9"	ASPHALT MIX	Q	14"	ASPHALT MIX	X	13"	CEMENT CONCRETE	AE	<1"	POROUS FRICTION COURSE
	8-9"	CEMENT CONCRETE		8-9"	CEMENT CONCRETE		8-9"	CEMENT CONCRETE		4"	ASPHALT MIX		8-9"	CEMENT CONCRETE
	7"	AGG BASE		7"	AGG BASE		7"	AGG BASE		5"	AGG BASE		7"	AGG BASE
C	9"	ASPHALT MIX	K	9"	ASPHALT MIX	R	9"	ASPHALT MIX	Y	16"	LIME TREATED SUBGRADE	AF	<1"	POROUS FRICTION COURSE
	8-9"	CEMENT CONCRETE		8-9"	CEMENT CONCRETE		8-9"	CEMENT CONCRETE		11"	ASPHALT MIX		8-9"	CEMENT CONCRETE
	7"	AGG BASE		7"	AGG BASE		7"	AGG BASE		8-9"	CEMENT CONCRETE		7"	AGG BASE
D	14"	ASPHALT MIX	L	5"	ASPHALT MIX	S	4"	ASPHALT MIX	Z	7"	AGG BASE	AG	9"	CEMENT CONCRETE
	8-9"	CEMENT CONCRETE		8-9"	CEMENT CONCRETE		8-9"	CEMENT CONCRETE		10"	CEMENT CONCRETE		6"	AGG BASE
	7"	AGG BASE		7"	AGG BASE		7"	AGG BASE		6"	AGG BASE		12"	LIME TREATED SUBGRADE
E	9"	ASPHALT MIX	M	<1"	POROUS FRICTION COURSE	T	3.5"	ASPHALT MIX	AA	16"	LIME TREATED SUBGRADE	AH	4"	ASPHALT MIX
	8-9"	CEMENT CONCRETE		8-9"	CEMENT CONCRETE		8-0"	ASPHALT TAPER		8"	ASPHALT MIX		8-9"	CEMENT CONCRETE
	7"	AGG BASE		7"	AGG BASE		8-9"	CEMENT CONCRETE		7"	AGG BASE		7"	AGG BASE
F	9"	ASPHALT MIX	N	2"	ASPHALT MIX	U	9.5"	ASPHALT MIX	AB	8-9"	CEMENT CONCRETE	AI	4"	ASPHALT MIX
	9"	CEMENT CONCRETE		8-0"	ASPHALT TAPER		8-9"	CEMENT CONCRETE		7"	AGG BASE		8-9"	CEMENT CONCRETE
	9"	GRANULAR SUBBASE		8-9"	CEMENT CONCRETE		7"	AGG BASE		8"	ASPHALT MIX		7"	AGG BASE
G	9"	CEMENT CONCRETE	O	8"	ASPHALT MIX	V	11.5"	ASPHALT MIX	AC	8-9"	CEMENT CONCRETE			
	9"	GRANULAR SUBBASE		8-9"	CEMENT CONCRETE		8-9"	CEMENT CONCRETE		7"	AGG BASE			
H	10"	CEMENT CONCRETE		7"	AGG BASE									
	9"	GRANULAR SUBBASE												

NOTES  
 PAVEMENT STRUCTURES SHOWN WERE TAKEN FROM RECORD DRAWINGS AND ARE CONSIDERED GENERALLY REPRESENTATIVE OF THE "AS CONSTRUCTED" PAVEMENT SECTION WITH SOME VARIABILITY FROM THE THICKNESS INDICATED TO BE EXPECTED. THERE WILL BE NO ADDITIONAL PAYMENT TO THE CONTRACTOR DUE TO VARIATIONS IN SIZE OR QUANTITY OF EXISTING FEATURES.



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0 100' 200'

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

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RECONSTRUCT RUNWAY 4/22  
 PHASE 4

OWNER



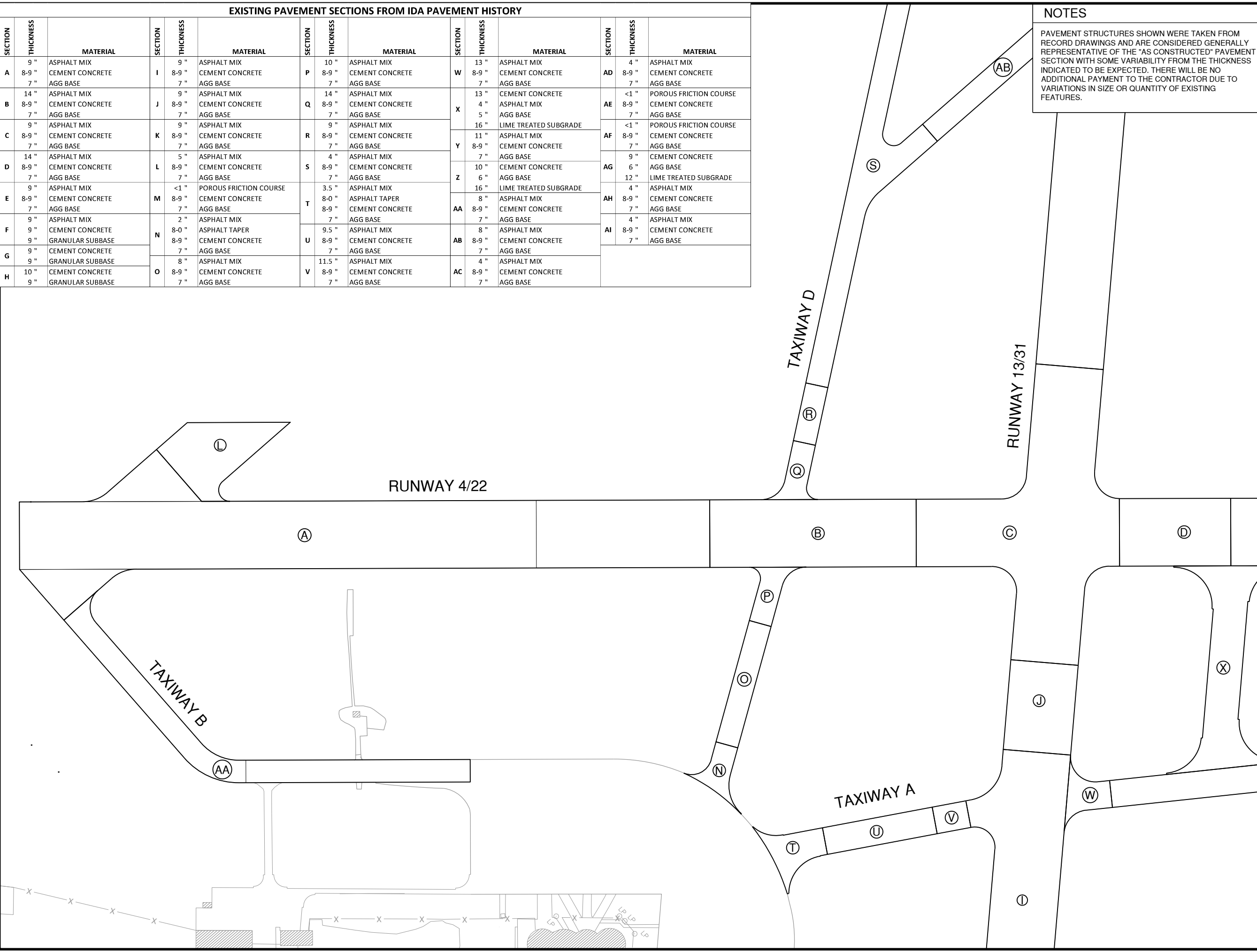
CITY OF QUINCY  
 QUINCY REGIONAL AIRPORT  
 QUINCY, IL

MARK | DATE | DESCRIPTION

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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CD001.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
APPROVED BY:	RLV
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SHEET TITLE  
**EXISTING PAVEMENT STRUCTURES**

CD001  
 SHEET 11 OF 143



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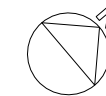




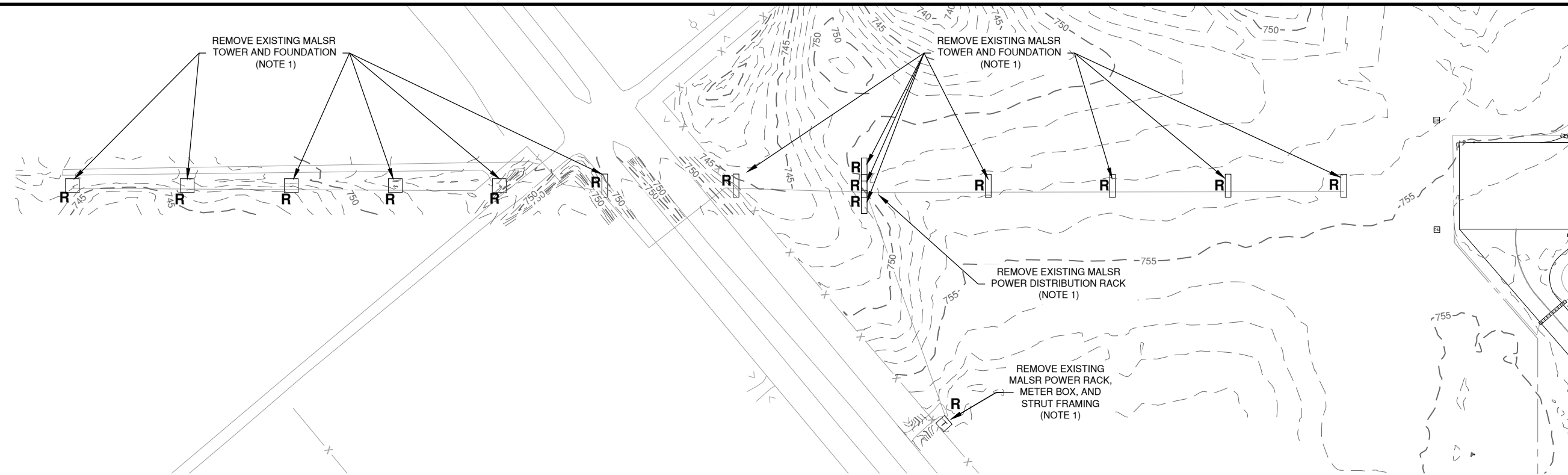


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RECONSTRUCT RUNWAY 4/22  
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REMOVAL NOTES	UTILITY DISCLAIMER	LEGEND	KEYMAP
<ol style="list-style-type: none"> <li>REMOVE ALL EXISTING EQUIPMENT, CONDUCTORS, ABOVE GRADE CONDUITS AND FOUNDATIONS ASSOCIATED WITH THE MALSR SYSTEM. ALL BELOW GRADE CONDUCTORS SHALL BE REMOVED AND CONDUITS ABANDONED IN PLACE.</li> <li>ALL REMOVED MALSR EQUIPMENT SHALL BE SALVAGED AND RETURNED TO THE FAA. EQUIPMENT AND MATERIALS DETERMINED BY FAA TO NOT BE SALVAGED SHALL BE DISPOSED OF OFF SITES BY THE CONTRACTOR.</li> <li>REMOVE GRAVEL FROM EXISTING MALSR TOWER LOCATIONS. GRAVEL MAY BE SALVAGED AND REUSED FOR NEW CRUSHED ROCK PLOTS.</li> <li>BACKFILL REMOVED FOUNDATIONS AND GRADE EXISTING TOWER LOCATIONS TO A MOWABLE SURFACE.</li> <li>ALL REMOVALS AND REGRADING SHALL BE CONSIDERED INCIDENTAL TO THE REMOVE MALSR PAY ITEM.</li> </ol>	<p>THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER, NOR THE PROJECT ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION.</p> <p>IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND FAA OF HIS OPERATIONAL PLANS. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR DETAILED INFORMATION AND ASSISTANCE IN LOCATING UTILITIES. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY, THE OWNER, AND THE RESIDENT ENGINEER. ANY SUCH MAINS AND/OR SERVICES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED IMMEDIATELY AT HIS EXPENSE TO THE SATISFACTION OF THE OWNER AND THE ENGINEER.</p>	<ul style="list-style-type: none"> <li> EXISTING MALSR T-BAR &amp; TOWER</li> <li> EXISTING RAIL &amp; TOWER</li> <li><b>R</b> REMOVE ITEM</li> </ul>	

MARK | DATE | DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 ED100.DWG

DESIGNED BY: HWI

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CHECKED BY: MJD

APPROVED BY: RLV

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SHEET TITLE  
**MALSR EXISTING  
CONDITIONS &  
REMOVALS**

CD103  
SHEET 14 OF 143

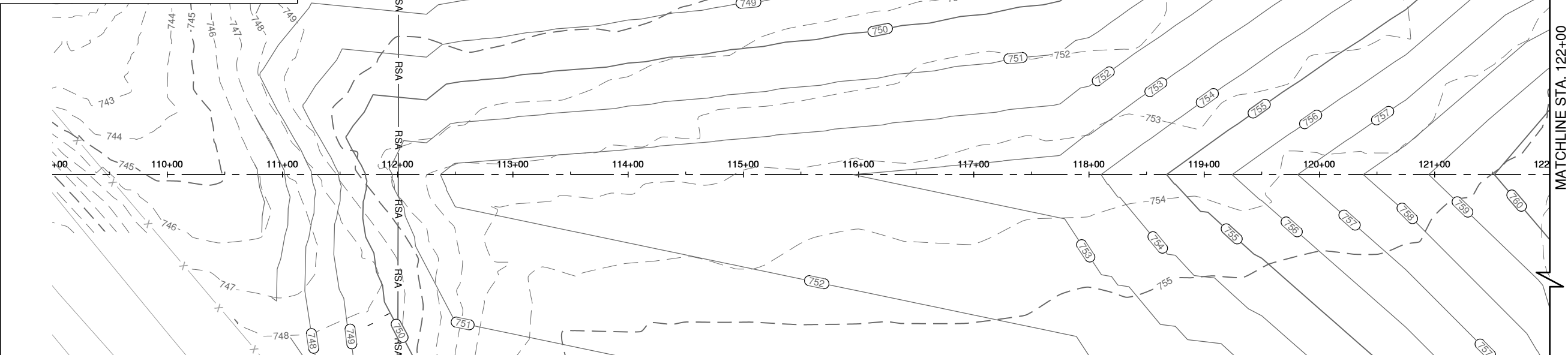




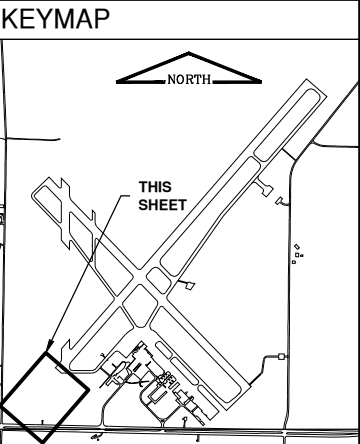
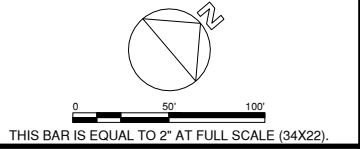


**LEGEND**

- NEW CONTOURS
- EXISTING CONTOURS
- PROPOSED PAVEMENT



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PHASE 4

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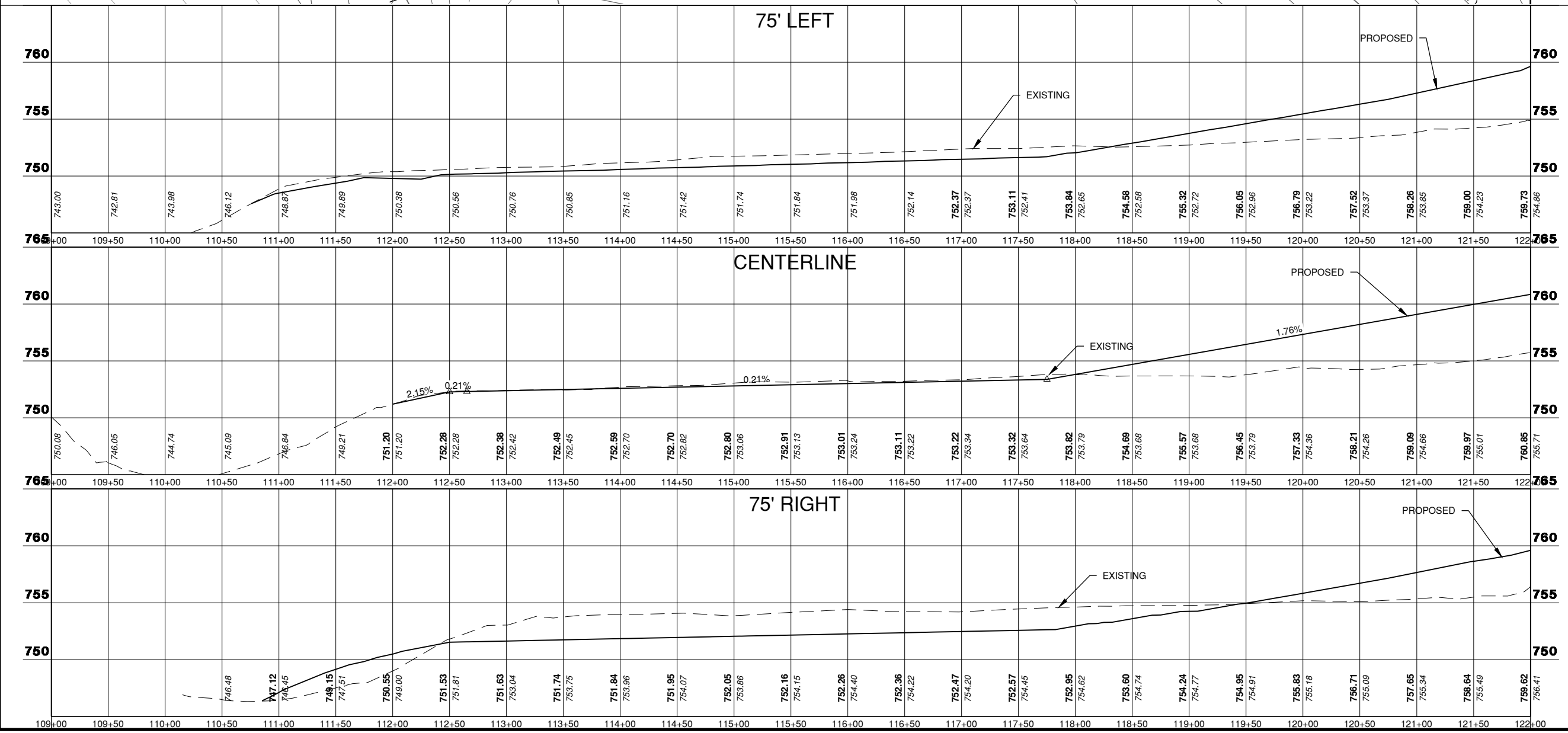


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QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CP201-RWY P+P.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
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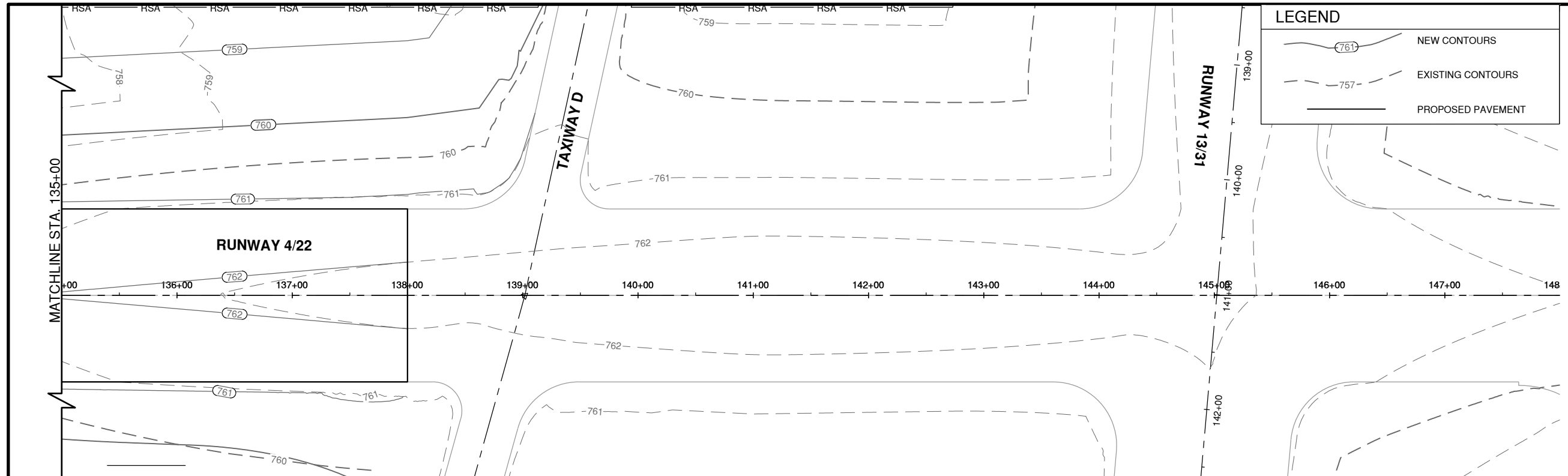
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**RUNWAY 4-22 PLAN &  
PROFILE 1**



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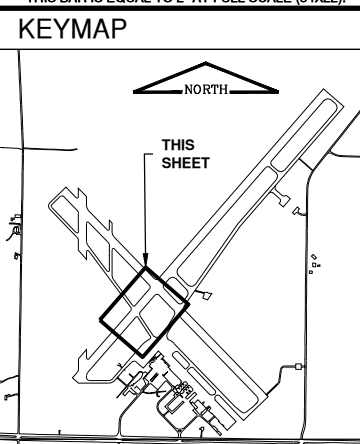
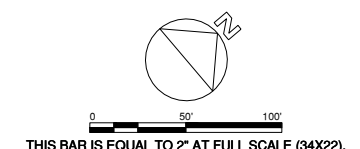


**LEGEND**

- NEW CONTOURS
- EXISTING CONTOURS
- PROPOSED PAVEMENT



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**RECONSTRUCT RUNWAY 4/22  
 PHASE 4**

OWNER



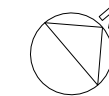
CITY OF QUINCY  
 QUINCY REGIONAL AIRPORT  
 QUINCY, IL

		75' LEFT																																
765																														765				
765																														765				
760																														760				
755																														755				
761.31	760.83	761.35	761.01	761.39	761.17	761.43	761.30	761.46	761.40	761.50	761.48	761.54	761.54	761.58	761.62	761.65	761.69	761.73	761.77	761.76	761.75	761.74	761.73	761.72	761.71	761.83	762.23	761.81	761.30	761.00	760.70	760.40	760.10	
770	135+00	135+50	136+00	136+50	137+00	137+50	138+00	138+50	139+00	139+50	140+00	140+50	141+00	141+50	142+00	142+50	143+00	143+50	144+00	144+50	145+00	145+50	146+00	146+50	147+00	147+50	148+00	770						
		CENTERLINE																																
765																														765				
765																														765				
760																														760				
755																														755				
762.03	761.58	762.07	761.76	762.12	761.92	762.16	762.05	762.20	762.15	762.25	762.23	762.29	762.29	762.33	762.38	762.42	762.46	762.50	762.52	762.52	762.51	762.48	762.43	762.37	762.29	762.20	762.09	761.96	761.82	761.66	761.49	761.30	761.09	
770	135+00	135+50	136+00	136+50	137+00	137+50	138+00	138+50	139+00	139+50	140+00	140+50	141+00	141+50	142+00	142+50	143+00	143+50	144+00	144+50	145+00	145+50	146+00	146+50	147+00	147+50	148+00	770						
		75' RIGHT																																
765																														765				
765																														765				
760																														760				
755																														755				
761.31	760.82	761.35	761.00	761.39	761.16	761.43	761.29	761.46	761.40	761.50	761.48	761.54	761.54	761.58	761.58	761.62	761.65	761.69	761.73	761.77	761.76	761.75	761.74	761.73	761.71	761.70	761.82	761.97	761.57	761.23	760.94	760.66	760.37	760.08
770	135+00	135+50	136+00	136+50	137+00	137+50	138+00	138+50	139+00	139+50	140+00	140+50	141+00	141+50	142+00	142+50	143+00	143+50	144+00	144+50	145+00	145+50	146+00	146+50	147+00	147+50	148+00	770						

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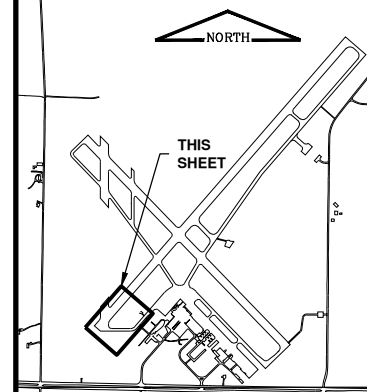
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 IL PROJ. NO: UIN-5051  
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 CAD DWG FILE: 180020-01 PH4 CP201-RWY P+P.DWG  
 DESIGNED BY: HWI  
 DRAWN BY: DPA  
 CHECKED BY: MJD  
 APPROVED BY: RLV  
 COPYRIGHT:

SHEET TITLE  
**RUNWAY 4-22 PLAN &  
 PROFILE 3**



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

**KEYMAP**



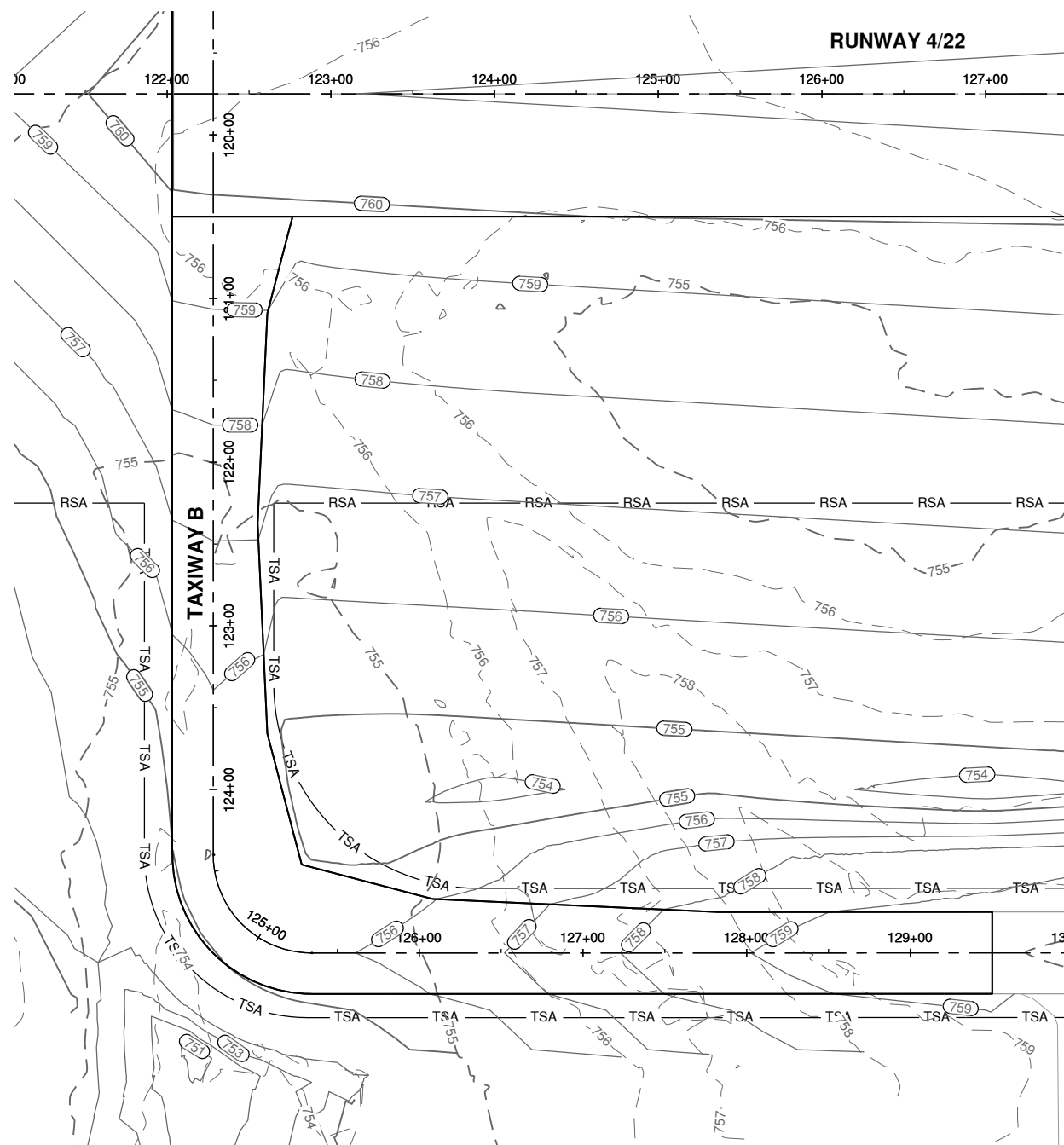
BID ISSUE  
MARCH 08, 2023

**RECONSTRUCT RUNWAY 4/22  
PHASE 4**

OWNER

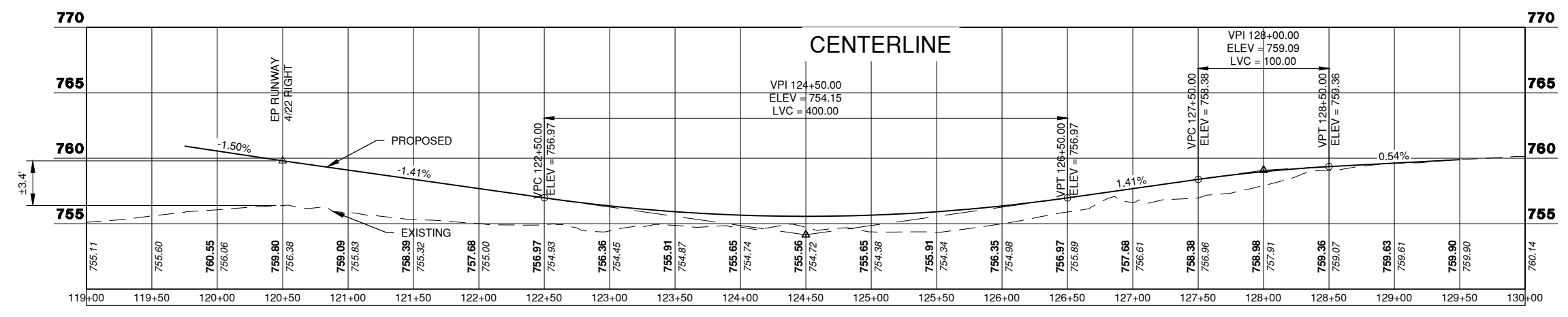


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QUINCY REGIONAL AIRPORT  
QUINCY, IL



**LEGEND**

	NEW CONTOURS
	EXISTING CONTOURS
	PROPOSED PAVEMENT

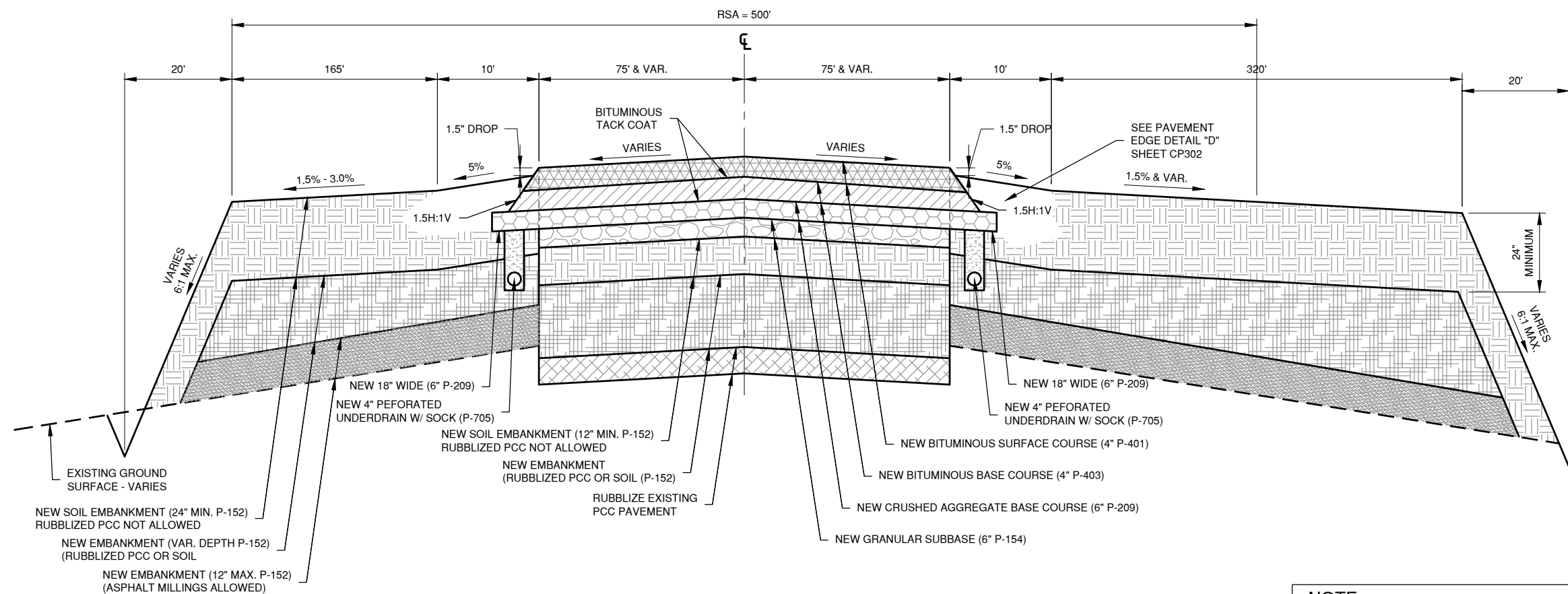


MARK	DATE	DESCRIPTION

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DESIGNED BY: HWI
DRAWN BY: DPA
CHECKED BY: MJD
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**TAXIWAY B PLAN &  
PROFILE**

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Date: Wednesday, March 8, 2023 4:39:21 PM



**A** TYPICAL RUNWAY 4/22 RECONSTRUCTION SECTION A  
N.T.S.  
STA. 122+00 TO STA. 133+50

**NOTE**

1. BITUMINOUS TACK COAT SHALL BE USED BETWEEN ALL LIFTS OF NEW HMA PAVEMENT AND BETWEEN NEW HMA PAVEMENT AND EXISTING PAVEMENT.

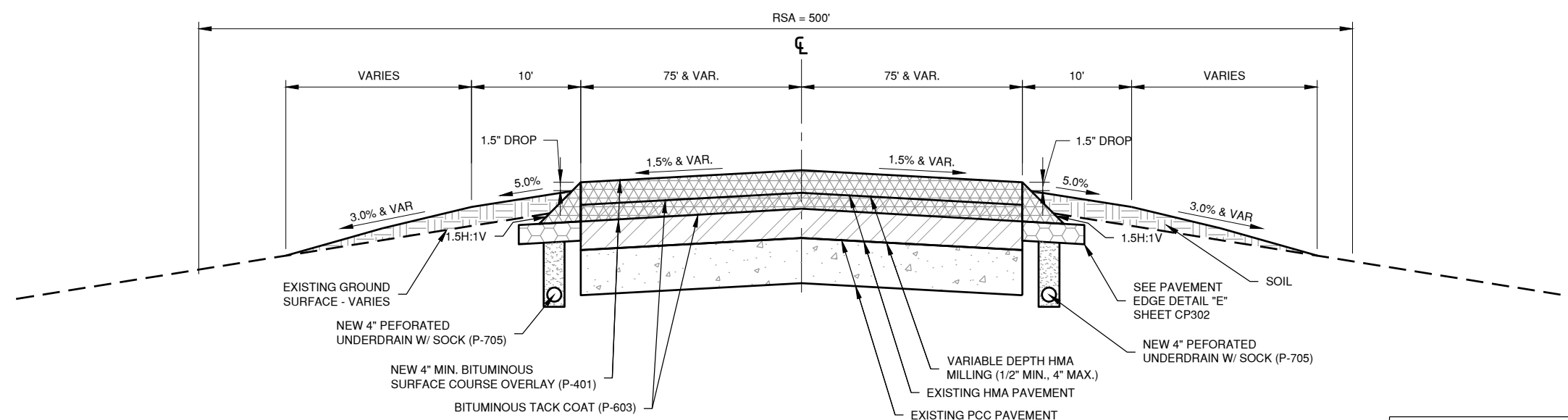
BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



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QUINCY REGIONAL AIRPORT  
QUINCY, IL



**B** TYPICAL RUNWAY 4/22 OVERLAY SECTION B  
N.T.S.  
STA. 133+50 TO STA. 138+00

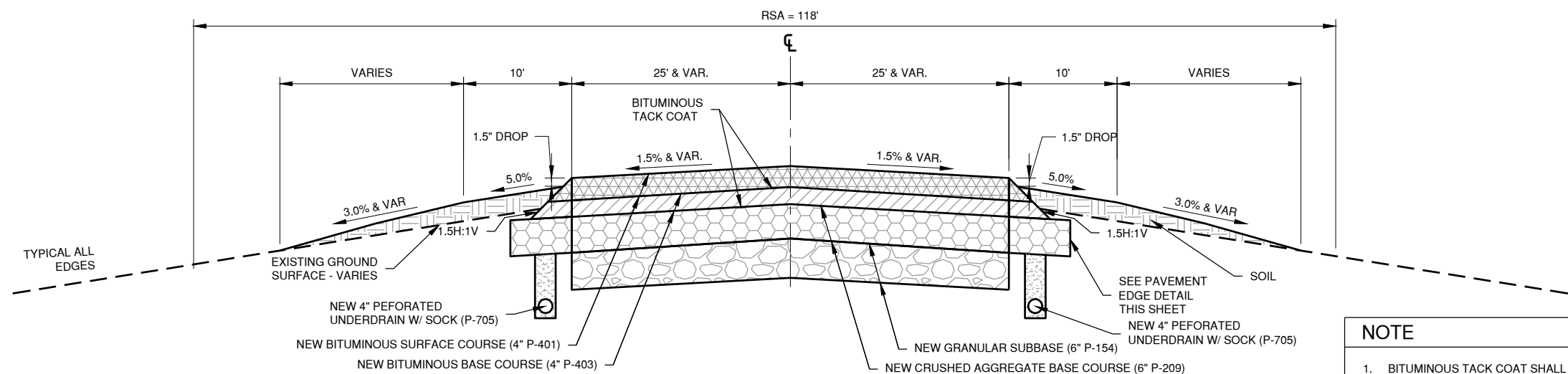
**NOTE**

1. BITUMINOUS TACK COAT SHALL BE USED BETWEEN ALL LIFTS OF NEW HMA PAVEMENT AND BETWEEN NEW HMA PAVEMENT AND EXISTING PAVEMENT.

MARK	DATE	DESCRIPTION

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IL PROJ. NO: UIN-5051  
CMT PROJECT NO: 18002001  
CAD DWG FILE: 180020-01 PH4 CP300.DWG  
DESIGNED BY: HWI  
DRAWN BY: DPA  
CHECKED BY: CHK  
APPROVED BY: APR  
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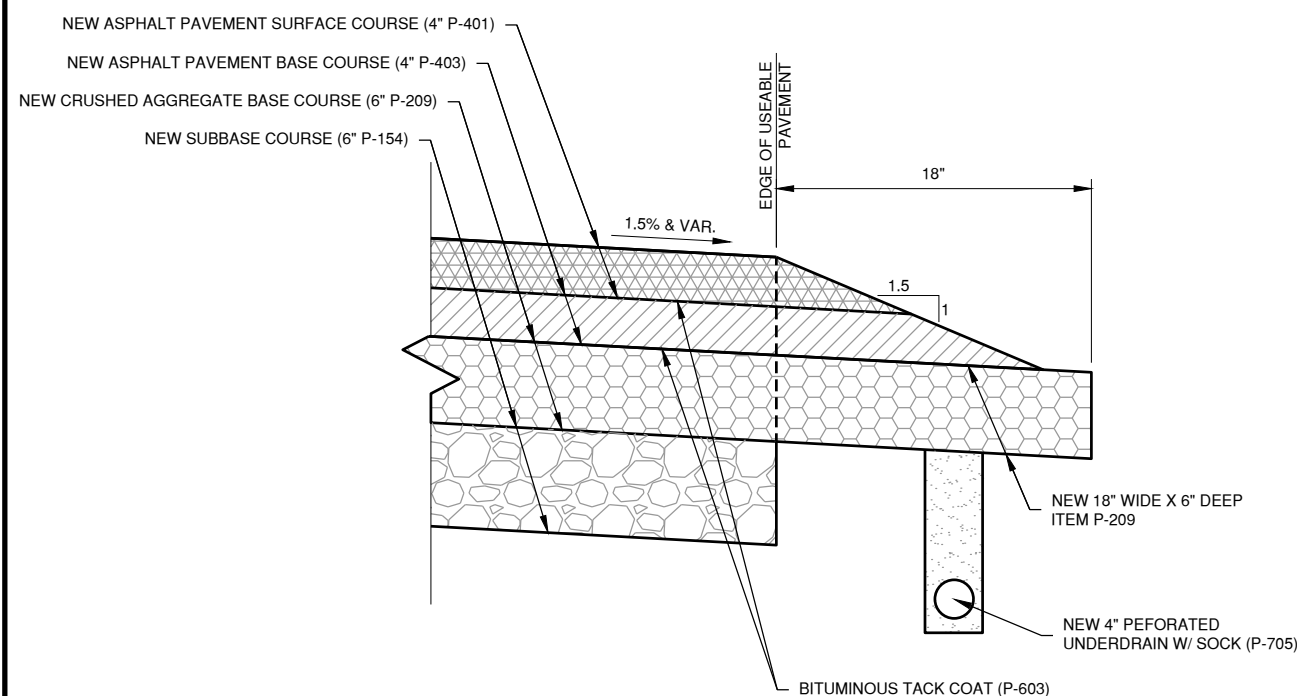
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**TYPICAL SECTIONS 1**



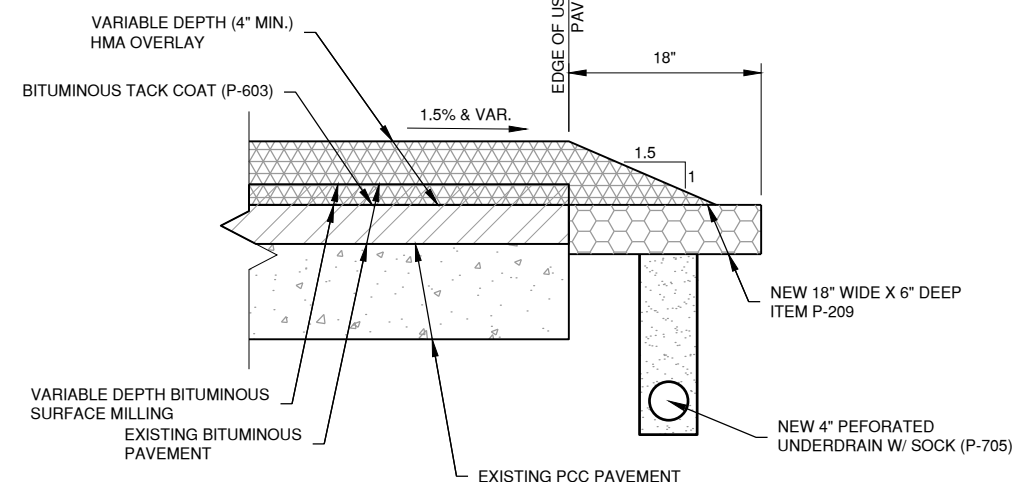
**C** TYPICAL TAXIWAY B SECTION  
N.T.S. STA. 120+50 TO STA. 129+50

**NOTE**

1. BITUMINOUS TACK COAT SHALL BE USED BETWEEN ALL LIFTS OF NEW HMA PAVEMENT AND BETWEEN NEW HMA PAVEMENT AND EXISTING PAVEMENT.



**D** TYPICAL PAVEMENT EDGE DETAIL  
N.T.S. TAXIWAY B & RWY 4-22 STA. 122+00 - STA. 133+50



**E** TYPICAL PAVEMENT EDGE DETAIL STA. 133+50 - STA. 138+00  
N.T.S.

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



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QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

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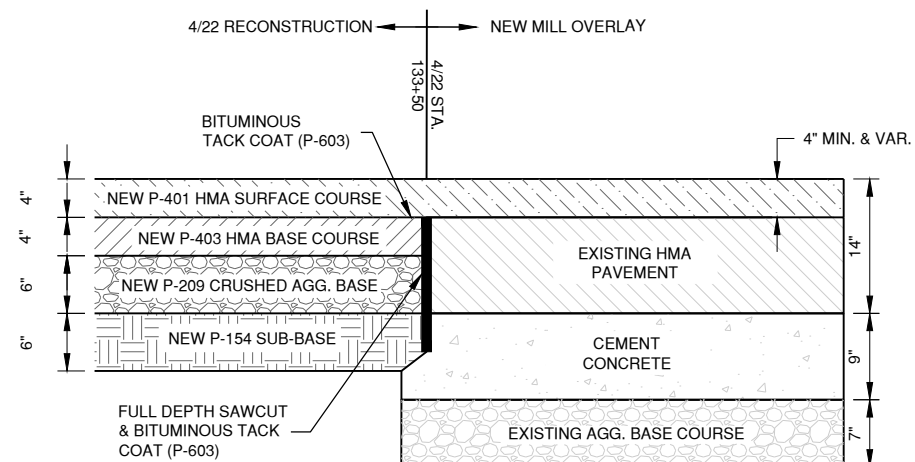
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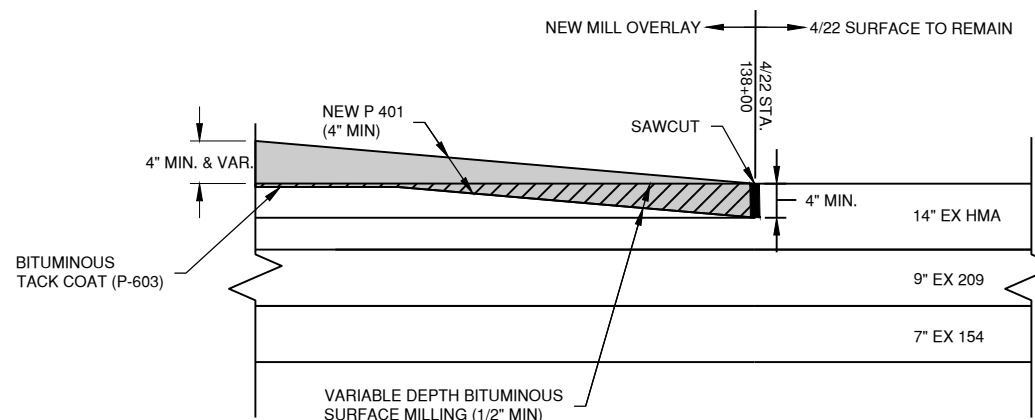
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TYPICAL SECTIONS 2



1 4/22 TRANSITION STA. 133+50  
N.T.S.

SURFACE SENSOR OR



2 4/22 TRANSITION STA. 138+00  
N.T.S.

NOTE

1. EXISTING PAVEMENT DEPTHS SHOWN WERE DEVELOPED BASED ON INFORMATION OBTAINED FROM IDOT RECORDS AND WILL VARY IN ACTUAL THICKNESS.

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RECONSTRUCT RUNWAY 4/22  
PHASE 4

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MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 CP300.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

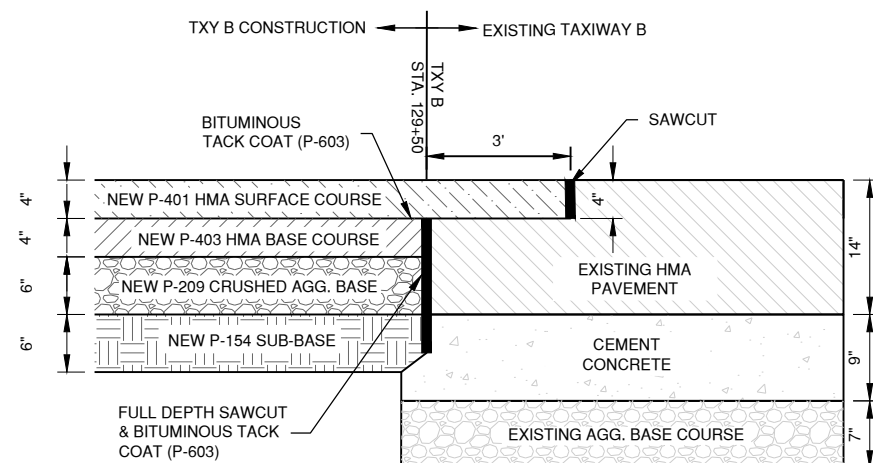
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SHEET TITLE

TYPICAL  
TRANSITIONS

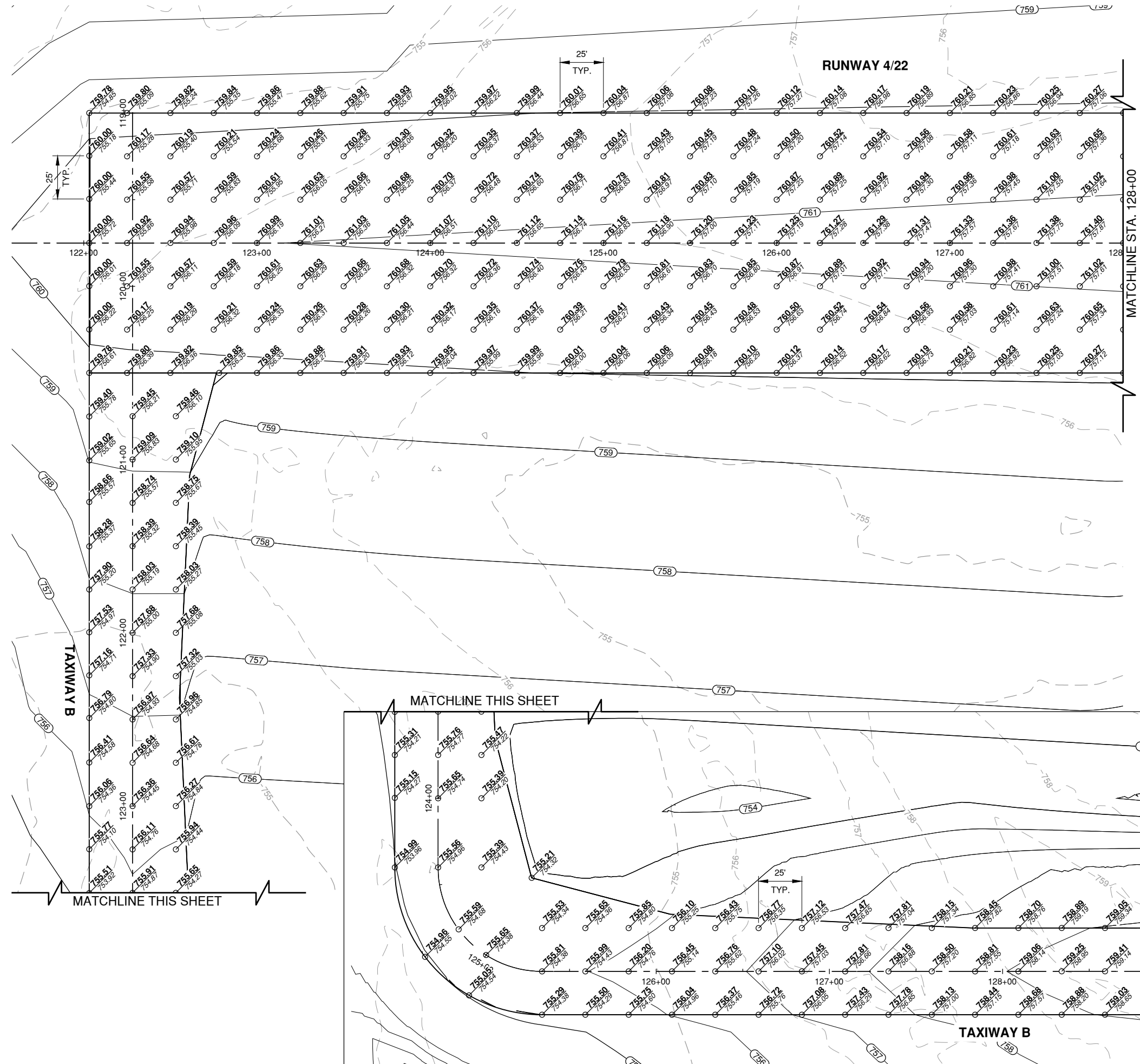


3 TAXIWAY B TRANSITION STA. 129+50  
N.T.S.





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**KEYMAP**

NORTH

THIS SHEET

**LEGEND**

- 594.52 NEW ELEVATION
- 594.11 EXISTING ELEVATION
- 590.5 NEW CONTOUR
- 590.5 EXISTING CONTOUR



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

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 MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
 PHASE 4

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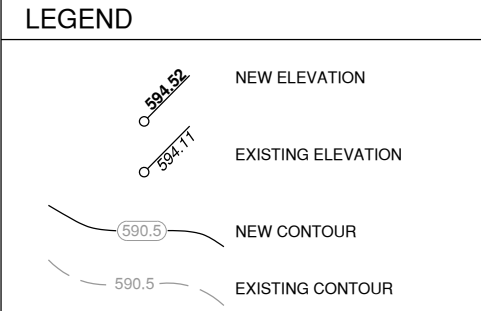
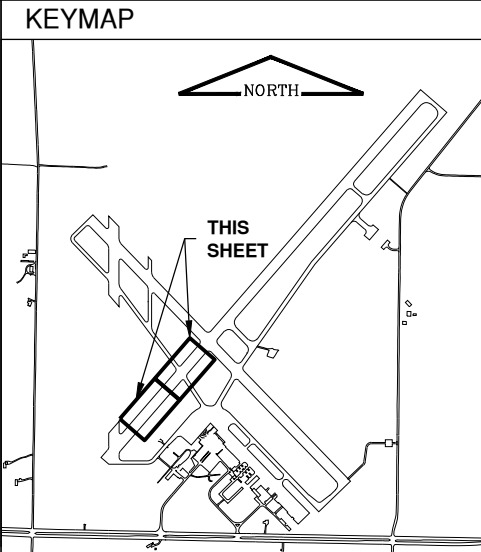
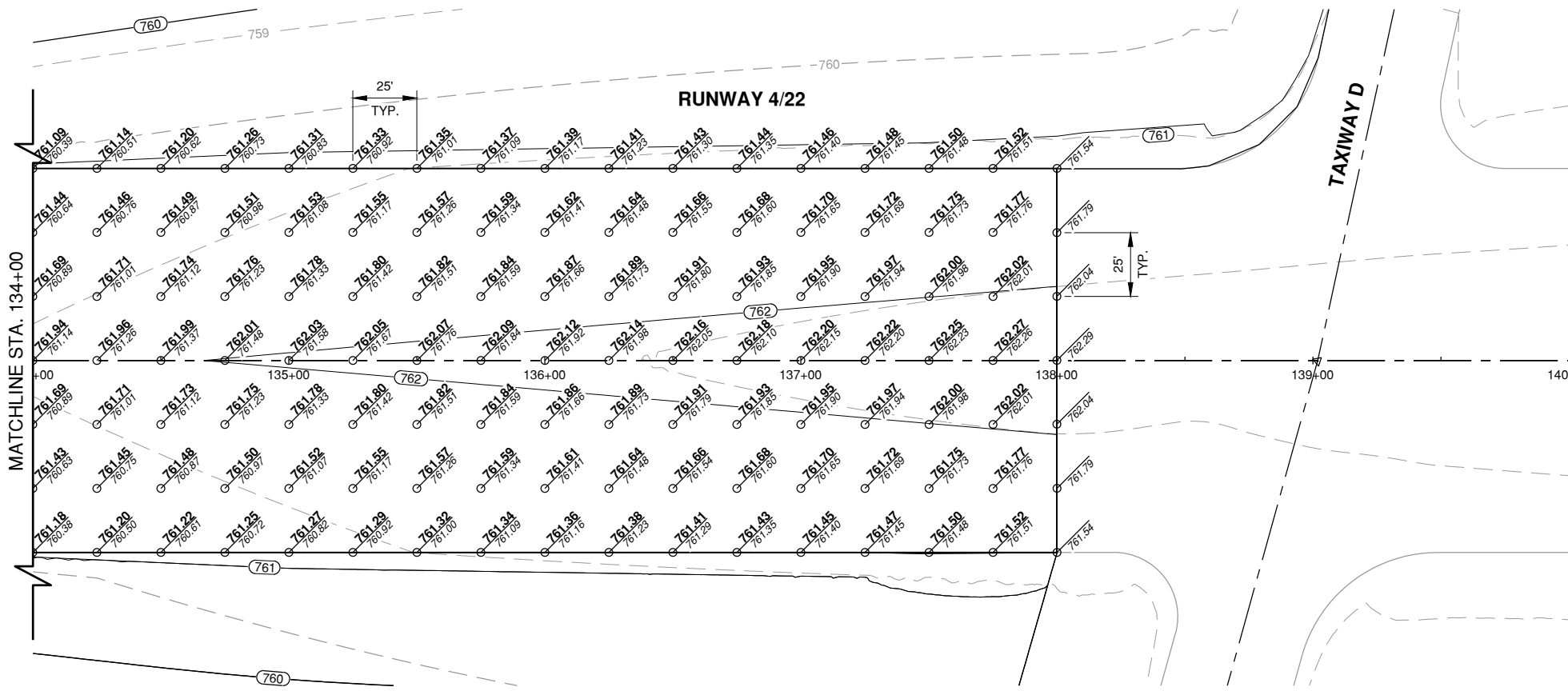
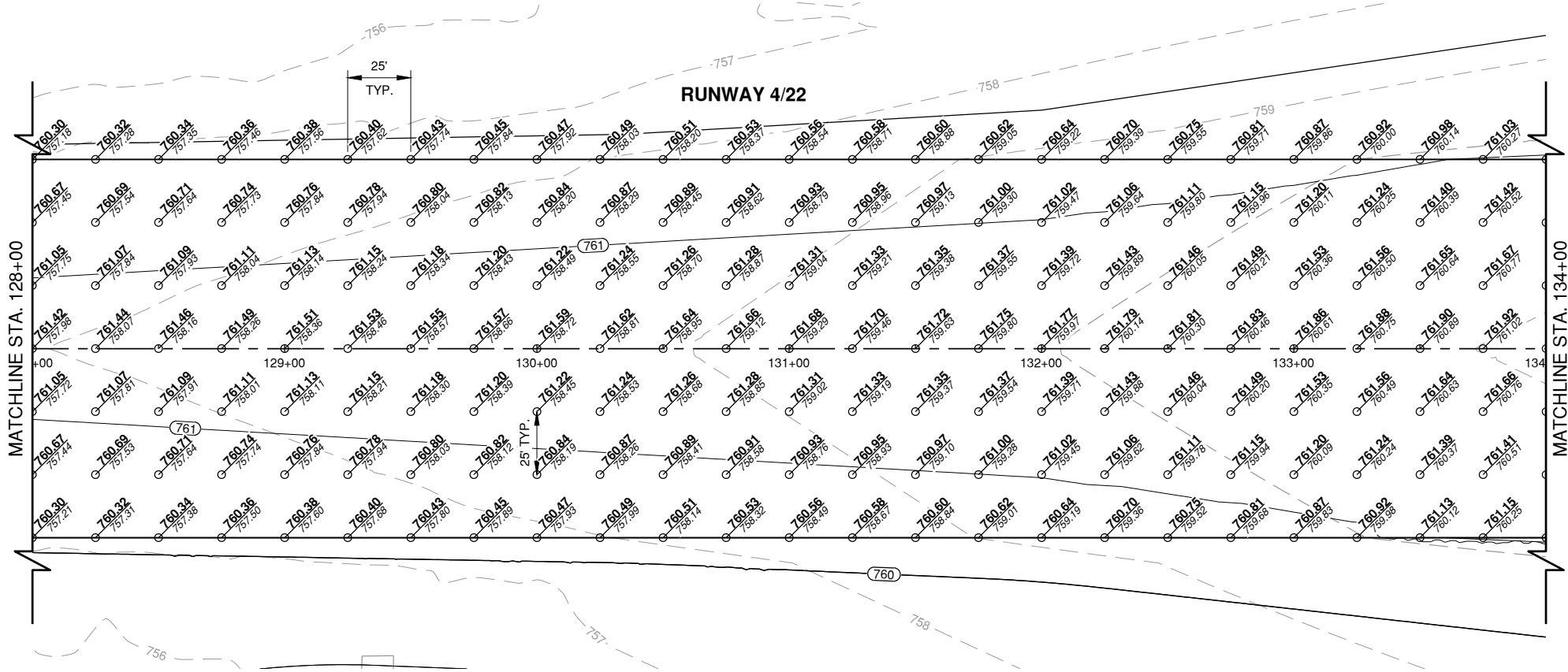
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IL PROJ. NO:	UIN-5051
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DESIGNED BY:	HWI
DRAWN BY:	DPA
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APPROVED BY:	APR
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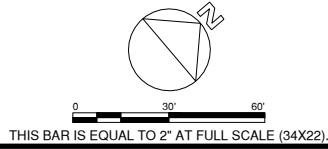
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**STAKING PLAN 1**

CS101  
 SHEET 25 OF 143

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

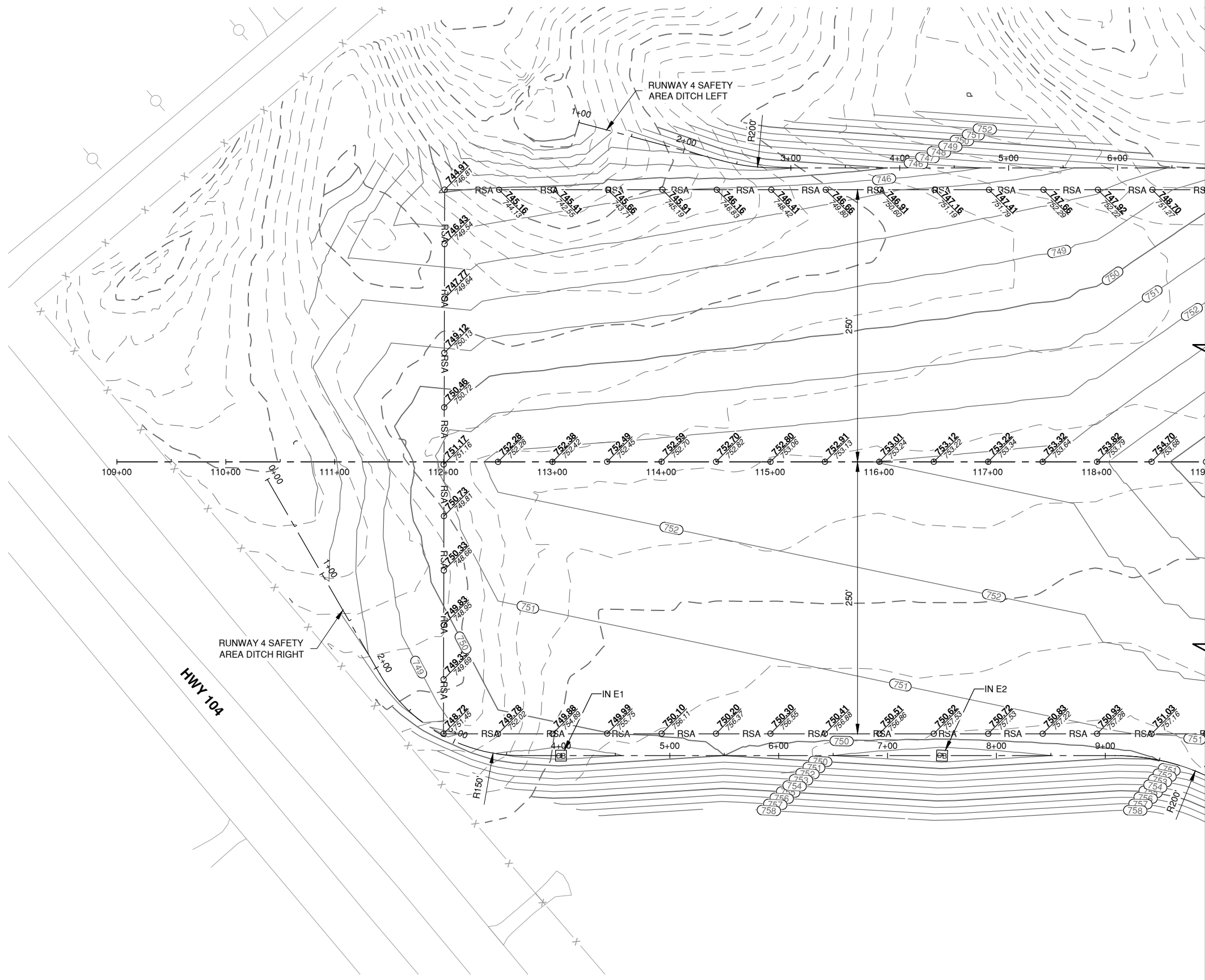


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QUINCY REGIONAL AIRPORT  
QUINCY, IL

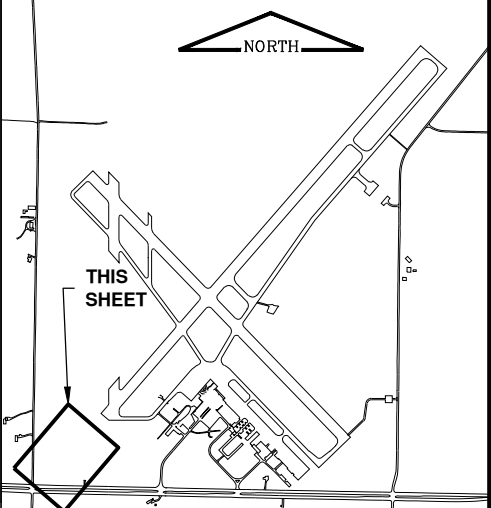
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SHEET TITLE  
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Date: Wednesday, March 8, 2023 4:41:32 PM



**KEYMAP**



**LEGEND**

- NEW PAVEMENT EDGE
- - - EXISTING PAVEMENT EDGE
- 586 PROPOSED CONTOUR
- - - 586 EXISTING CONTOUR
- ⊠ CB EXISTING INLET
- ⊠ CB PROPOSED INLET
- ⊙ PROPOSED MANHOLE
- RUNWAY 4 PAPI
- 594.52 PROPOSED SURFACE ELEVATION
- 594.11 EXISTING SURFACE ELEVATION

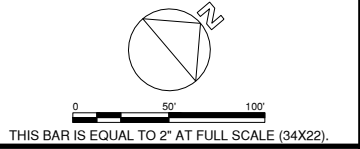
**NOTES**

1. RUNWAY SAFETY AREAS SHALL ADHERE TO A TRANSVERSE GRADE OF 1.5% MINIMUM AND 3.0% MAXIMUM
2. MAINTAIN A 5.0% GRADE FOR 10 FEET OF UNPAVED SURFACE ADJACENT TO THE PAVED SURFACE
3. TAXIWAY SAFETY AREAS SHALL ADHERE TO A TRANSVERSE GRADE OF 1.5% MINIMUM AND 3.0% MAXIMUM
4. GRADING OUTSIDE OF SAFETY AREA 1.0% MINIMUM AND 16.67% MAXIMUM.

MATCHLINE SHEET CG102



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**BID ISSUE**  
MARCH 08, 2023

**RECONSTRUCT RUNWAY 4/22**  
PHASE 4

OWNER



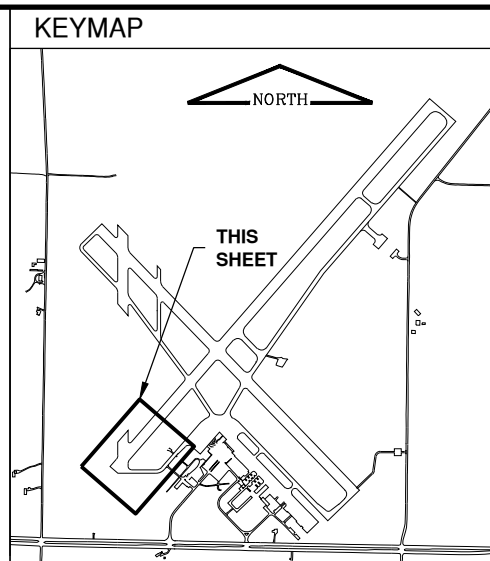
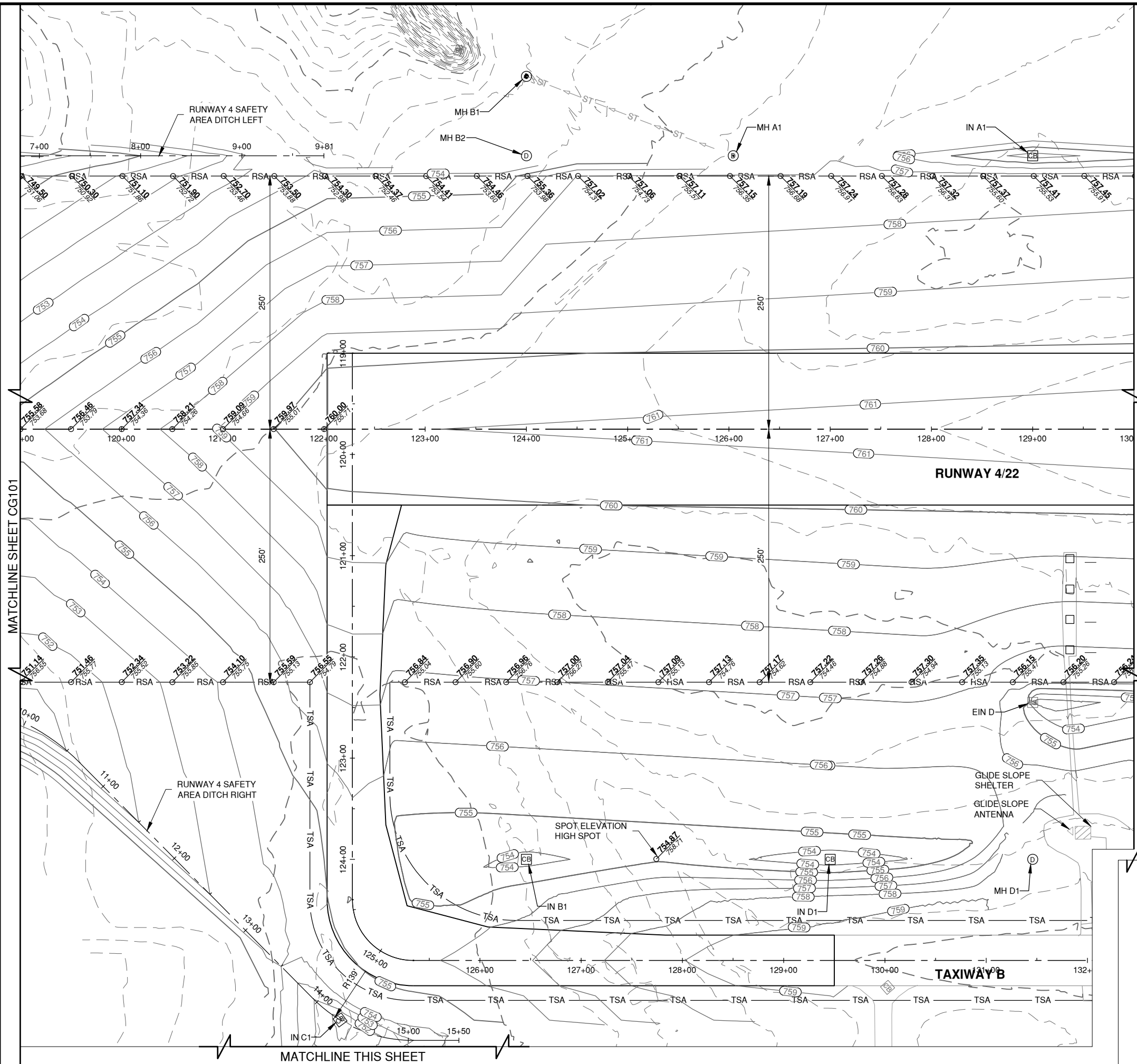
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

**GRADING & DRAINAGE 1**

CG101  
SHEET 27 OF 143

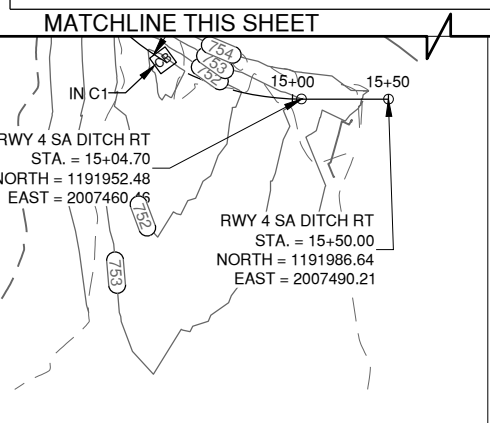
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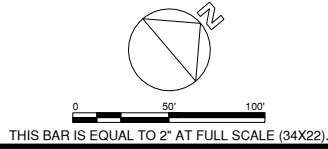
- NEW PAVEMENT EDGE
- - - EXISTING PAVEMENT EDGE
- 586 — PROPOSED CONTOUR
- - - 586 — EXISTING CONTOUR
- CB — EXISTING INLET
- CB — PROPOSED INLET
- — PROPOSED MANHOLE
- — RUNWAY 4 PAPI
- 594.52 / ○ 594.11 — PROPOSED SURFACE ELEVATION
- — EXISTING SURFACE ELEVATION

- NOTES**
- RUNWAY SAFETY AREAS SHALL ADHERE TO A TRANSVERSE GRADE OF 1.5% MINIMUM AND 3.0% MAXIMUM
  - MAINTAIN A 5.0% GRADE FOR 10 FEET OF UNPAVED SURFACE ADJACENT TO THE PAVED SURFACE
  - TAXIWAY SAFETY AREAS SHALL ADHERE TO A TRANSVERSE GRADE OF 1.5% MINIMUM AND 3.0% MAXIMUM
  - GRADING OUTSIDE OF SAFETY AREA 1.0% MINIMUM AND 16.67% MAXIMUM.



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BID ISSUE  
 MARCH 08, 2023

**RECONSTRUCT RUNWAY 4/22  
 PHASE 4**

OWNER



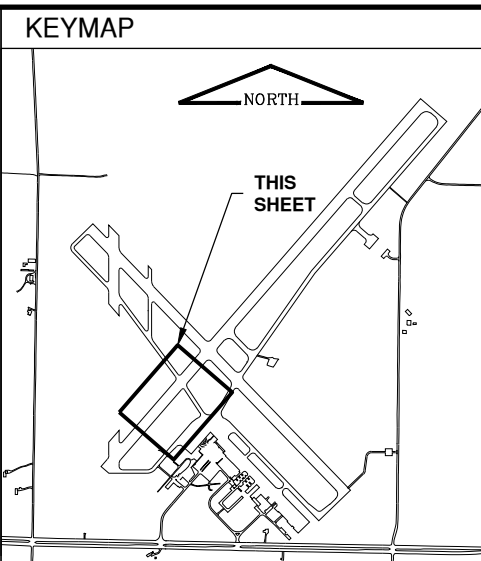
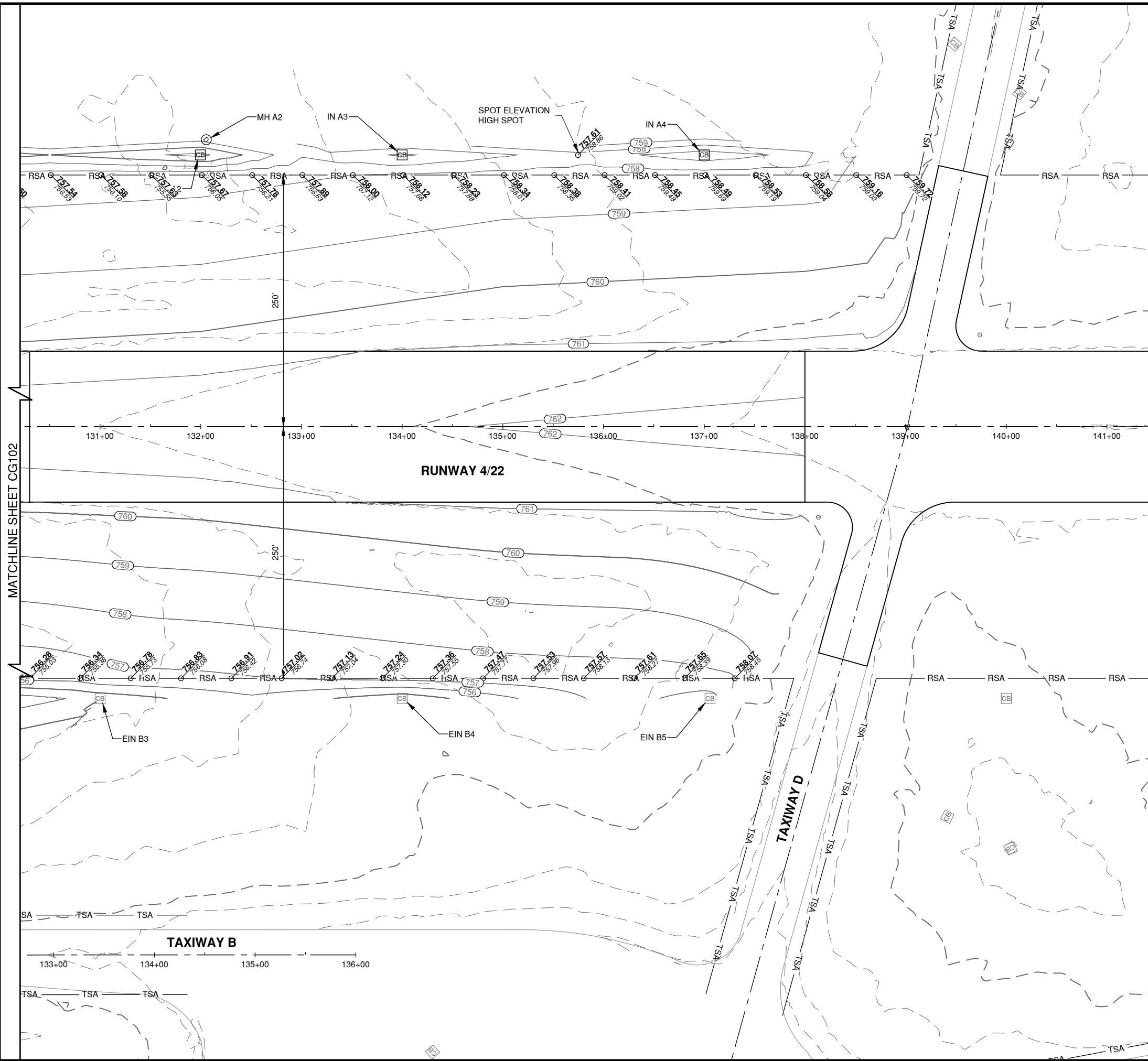
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 QUINCY REGIONAL AIRPORT  
 QUINCY, IL

MARK	DATE	DESCRIPTION

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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CG100.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	CHK
APPROVED BY:	APR
COPYRIGHT:	

**GRADING &  
 DRAINAGE 2**

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**LEGEND**

- NEW PAVEMENT EDGE
- - - EXISTING PAVEMENT EDGE
- 586 — PROPOSED CONTOUR
- - - 586 — EXISTING CONTOUR
- CB — EXISTING INLET
- CB — PROPOSED INLET
- — PROPOSED MANHOLE
- — RUNWAY 4 PAPI
- 594.52 — PROPOSED SURFACE ELEVATION
- 594.11 — EXISTING SURFACE ELEVATION

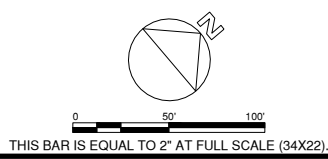
**NOTES**

1. RUNWAY SAFETY AREAS SHALL ADHERE TO A TRANSVERSE GRADE OF 1.5% MINIMUM AND 3.0% MAXIMUM
2. MAINTAIN A 5.0% GRADE FOR 10 FEET OF UNPAVED SURFACE ADJACENT TO THE PAVED SURFACE
3. TAXIWAY SAFETY AREAS SHALL ADHERE TO A TRANSVERSE GRADE OF 1.5% MINIMUM AND 3.0% MAXIMUM
4. GRADING OUTSIDE OF SAFETY AREA 1.0% MINIMUM AND 16.67% MAXIMUM.



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BID ISSUE  
 MARCH 08, 2023

**RECONSTRUCT RUNWAY 4/22  
 PHASE 4**

OWNER



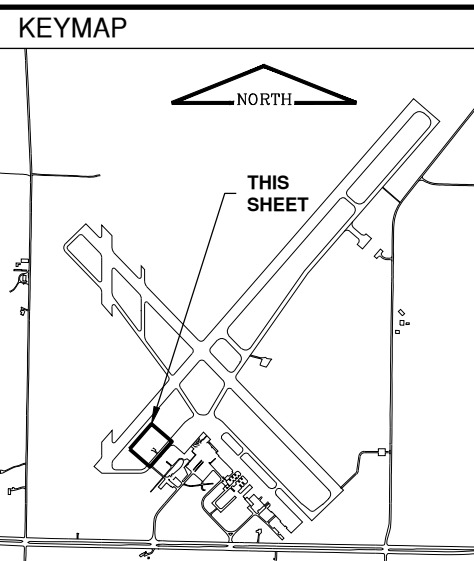
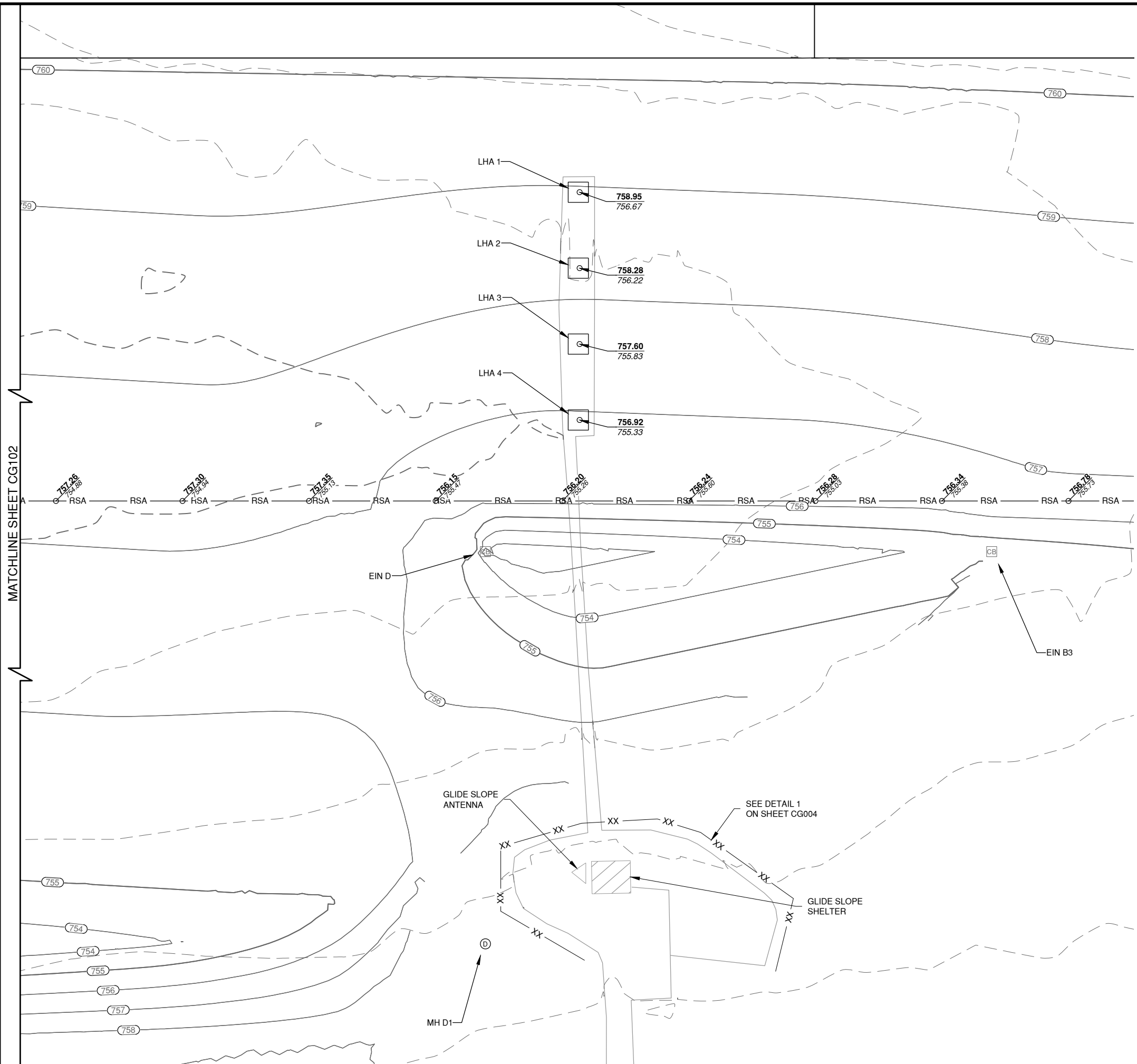
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 QUINCY REGIONAL AIRPORT  
 QUINCY, IL

MARK	DATE	DESCRIPTION

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CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CG100.DWG
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DRAWN BY:	DPA
CHECKED BY:	CHK
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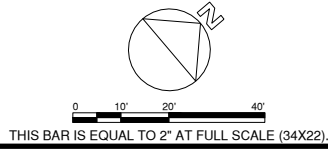
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 DRAINAGE 3**

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**LEGEND**

- NEW PAVEMENT EDGE
- EXISTING PAVEMENT EDGE
- 586 ——— PROPOSED CONTOUR
- - - - - 586 - - - - - EXISTING CONTOUR
- CB EXISTING INLET
- CB PROPOSED INLET
- ⊙ PROPOSED MANHOLE
- RUNWAY 4 PAPI
- 594.52 EXISTING SURFACE ELEVATION
- 594.11

**NOTES**

1. RUNWAY SAFETY AREAS SHALL ADHERE TO A TRANSVERSE GRADE OF 1.5% MINIMUM AND 3.0% MAXIMUM
2. MAINTAIN A 5.0% GRADE FOR 10 FEET OF UNPAVED SURFACE ADJACENT TO THE PAVED SURFACE
3. TAXIWAY SAFETY AREAS SHALL ADHERE TO A TRANSVERSE GRADE OF 1.5% MINIMUM AND 3.0% MAXIMUM
4. GRADING OUTSIDE OF SAFETY AREA 1.0% MINIMUM AND 16.67% MAXIMUM.

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MARCH 08, 2023

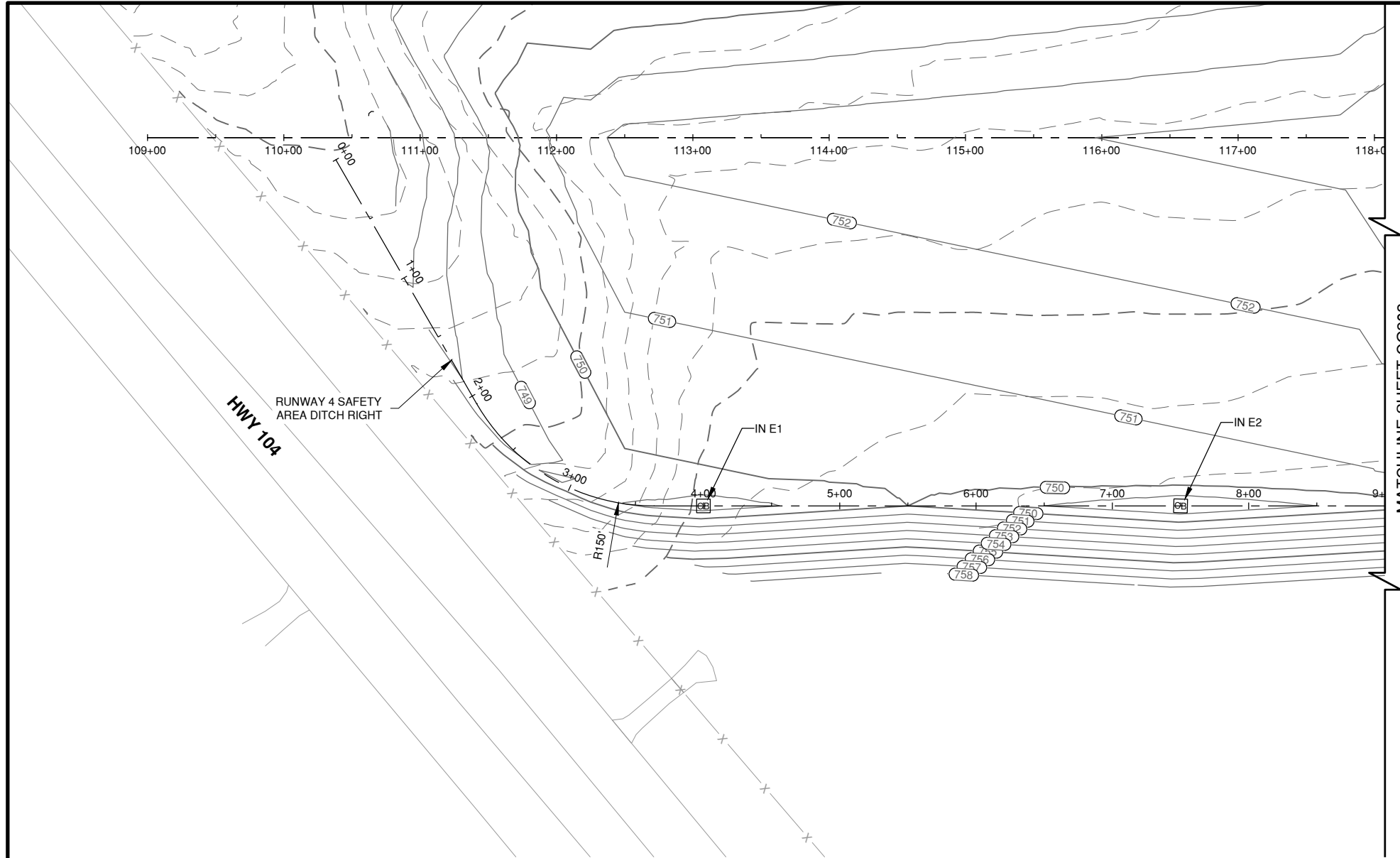
**RECONSTRUCT RUNWAY 4/22 PHASE 4**



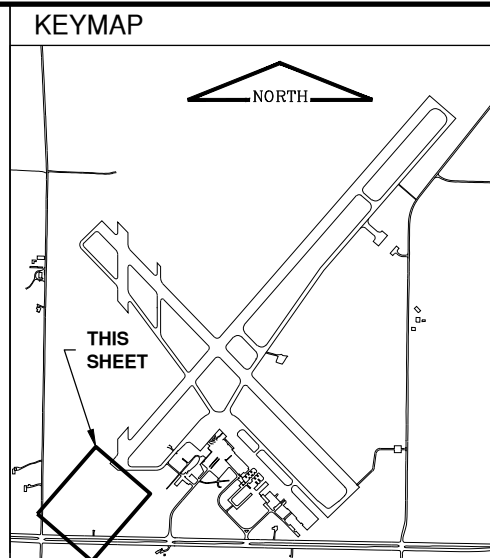
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL


MARK	DATE	DESCRIPTION

SHEET TITLE  
**RUNWAY 4 PAPI SITE GRADING & DRAINAGE**



MATCHLINE SHEET CG202



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0 50' 100'  
THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22)

**LEGEND**

- NEW PAVEMENT EDGE
- EXISTING PAVEMENT EDGE
- PROPOSED CONTOUR
- EXISTING CONTOUR
- EXISTING INLET
- PROPOSED INLET
- PROPOSED MANHOLE
- RUNWAY 4 PAPI

BID ISSUE  
MARCH 08, 2023

**RECONSTRUCT RUNWAY 4/22  
PHASE 4**

- NOTES**
1. RUNWAY SAFETY AREAS SHALL ADHERE TO A TRANSVERSE GRADE OF 1.5% MINIMUM AND 3.0% MAXIMUM
  2. MAINTAIN A 5.0% GRADE FOR 10 FEET OF UNPAVED SURFACE ADJACENT TO THE PAVED SURFACE
  3. TAXIWAY SAFETY AREAS SHALL ADHERE TO A TRANSVERSE GRADE OF 1.5% MINIMUM AND 3.0% MAXIMUM
  4. GRADING OUTSIDE OF SAFETY AREA 1.0% MINIMUM AND 16.67% MAXIMUM.
  5. SEE SHEET CU104 FOR STORM SEWER STRUCTURE.



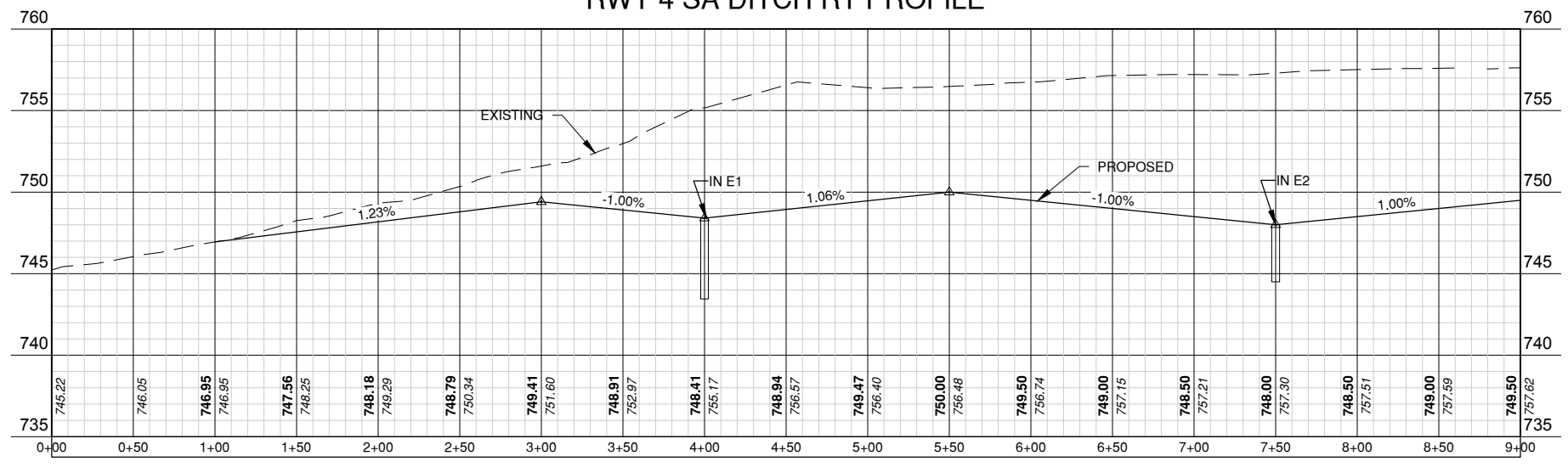
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QUINCY REGIONAL AIRPORT  
QUINCY, IL

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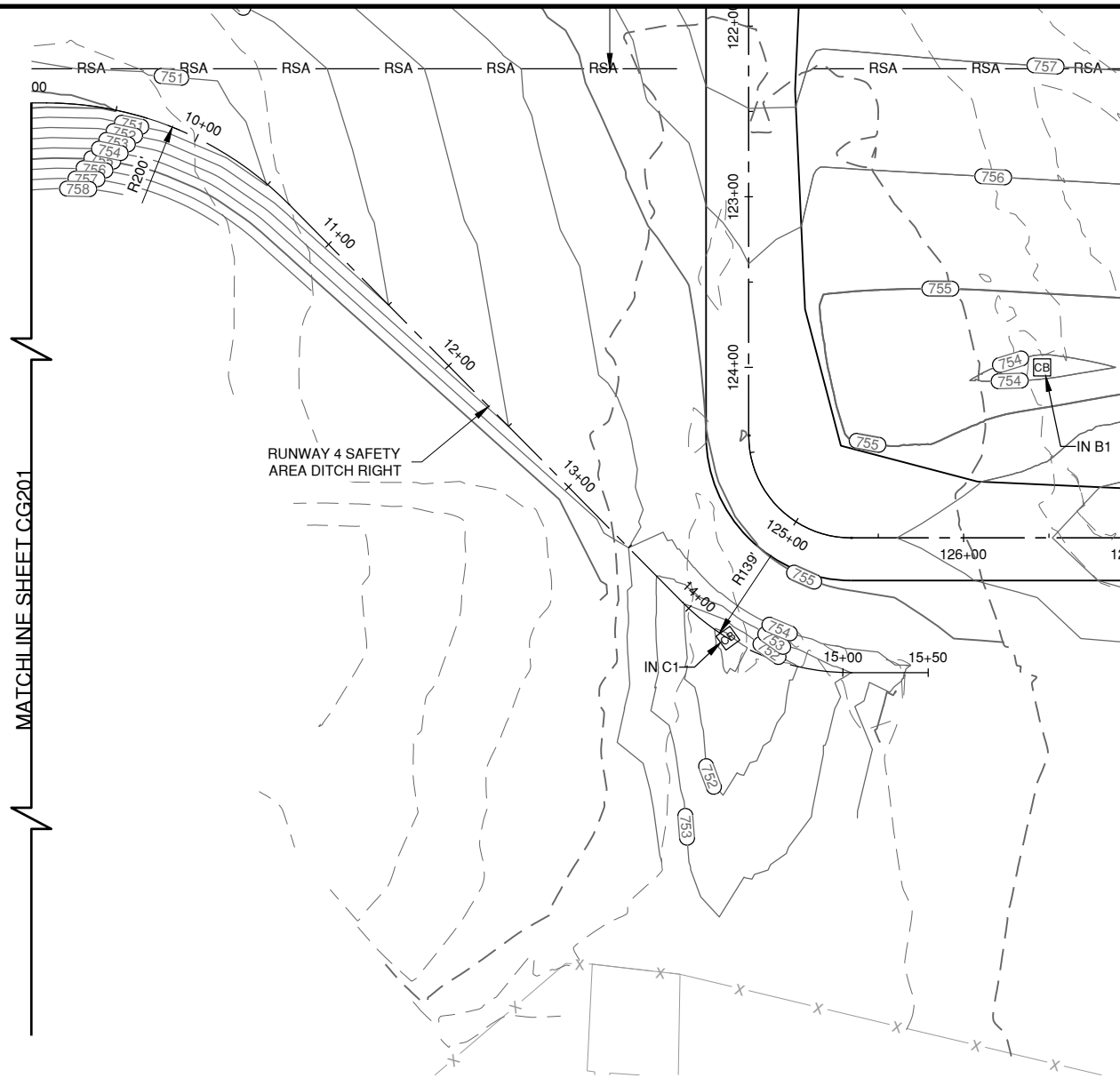
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**RWY 4 SAFETY AREA  
DITCH RIGHT PLAN &  
PROFILE 1**

CG201  
SHEET 31 OF 143

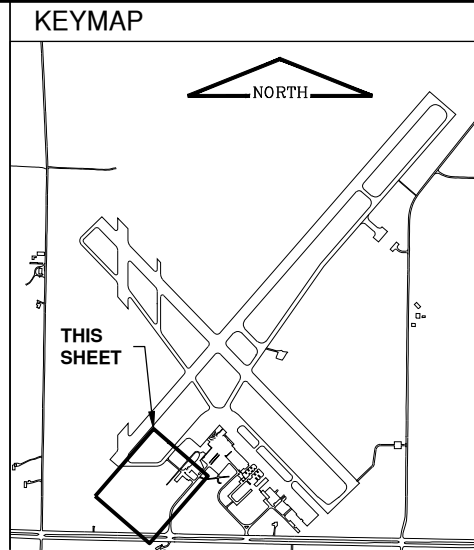
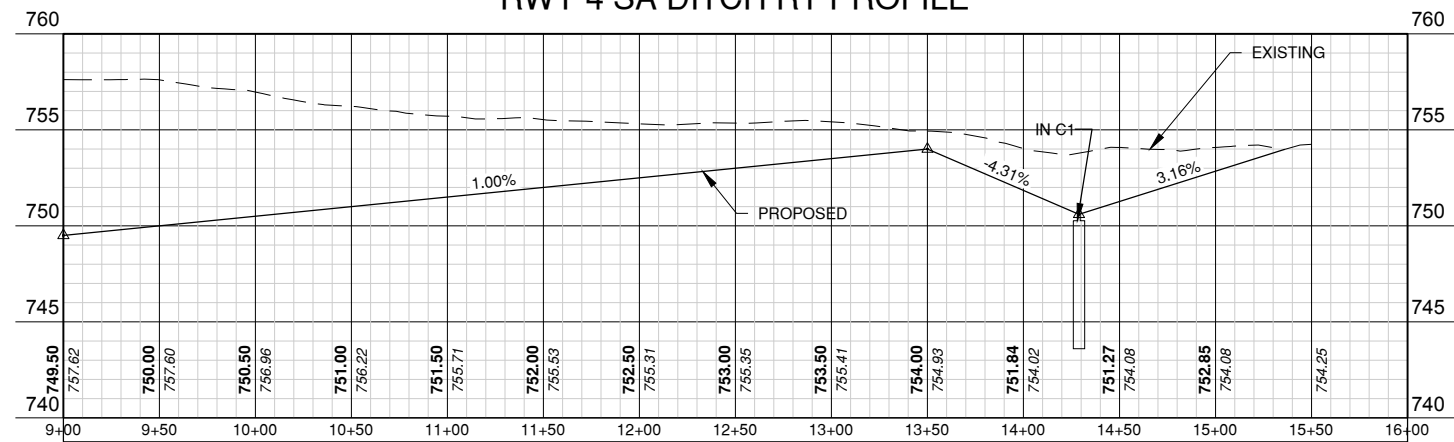
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RWY 4 SA DITCH RT PROFILE



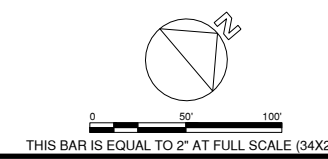
**LEGEND**

- NEW PAVEMENT EDGE
- - - EXISTING PAVEMENT EDGE
- 586 PROPOSED CONTOUR
- - - 586 EXISTING CONTOUR
- CB EXISTING INLET
- CB PROPOSED INLET
- PROPOSED MANHOLE
- RUNWAY 4 PAPI

- NOTES**
- RUNWAY SAFETY AREAS SHALL ADHERE TO A TRANSVERSE GRADE OF 1.5% MINIMUM AND 3.0% MAXIMUM
  - MAINTAIN A 5.0% GRADE FOR 10 FEET OF UNPAVED SURFACE ADJACENT TO THE PAVED SURFACE
  - TAXIWAY SAFETY AREAS SHALL ADHERE TO A TRANSVERSE GRADE OF 1.5% MINIMUM AND 3.0% MAXIMUM
  - GRADING OUTSIDE OF SAFETY AREA 1.0% MINIMUM AND 16.67% MAXIMUM.
  - SEE SHEET CU104 FOR STORM SEWER STRUCTURE.



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MARCH 08, 2023

**RECONSTRUCT RUNWAY 4/22 PHASE 4**

OWNER



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QUINCY REGIONAL AIRPORT  
QUINCY, IL

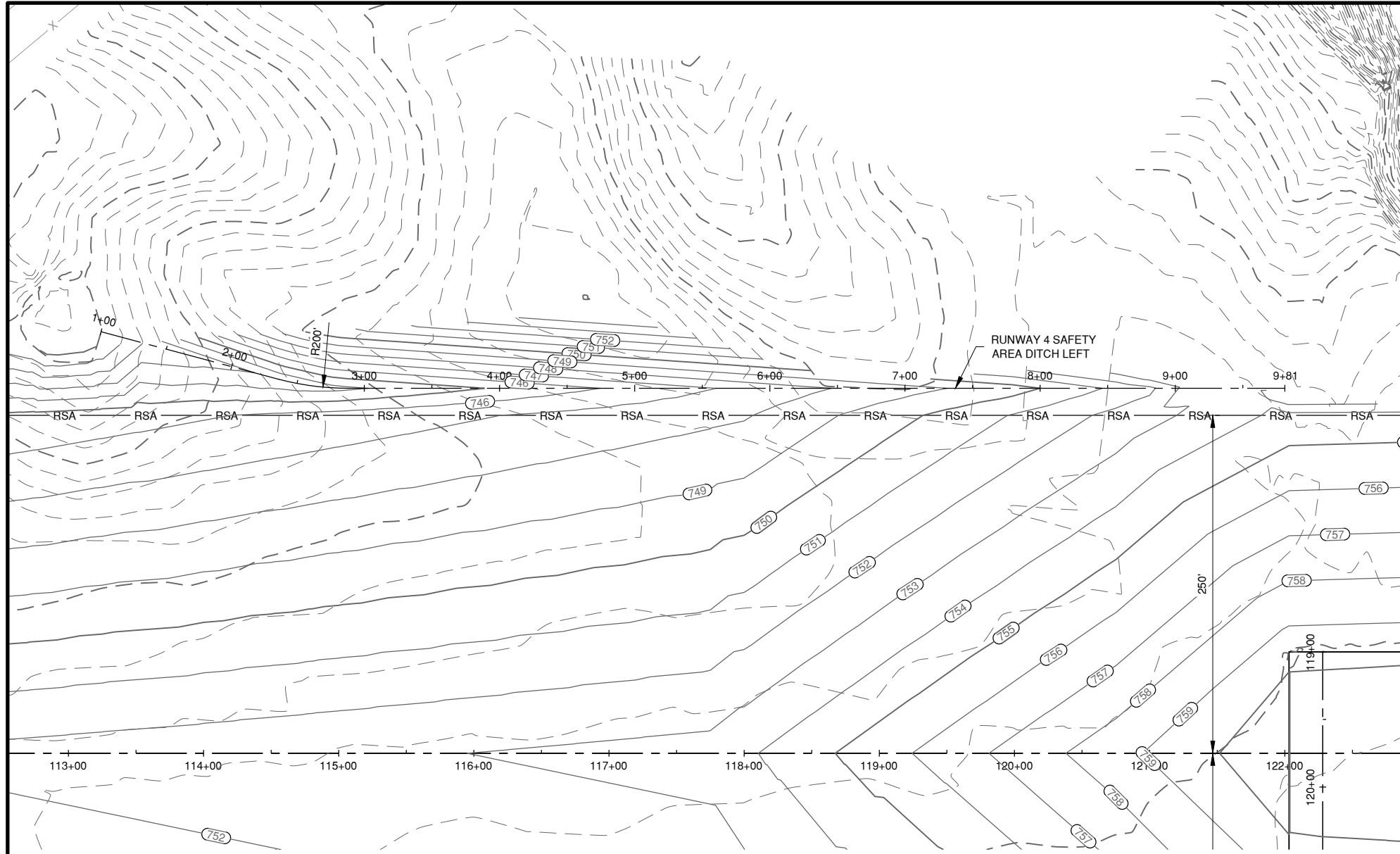
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CMT PROJECT NO: 18002001
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DESIGNED BY: HWI
DRAWN BY: DPA
CHECKED BY: CHK
APPROVED BY: APR
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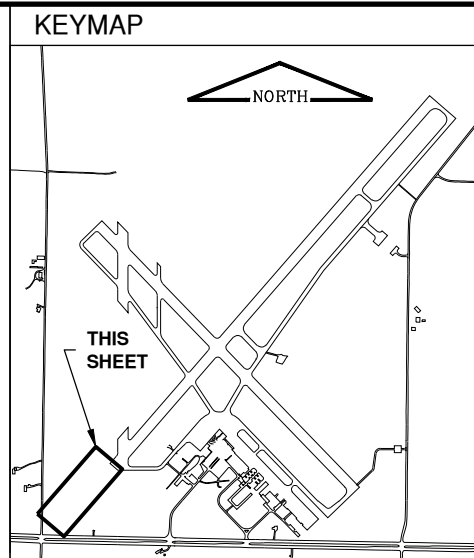
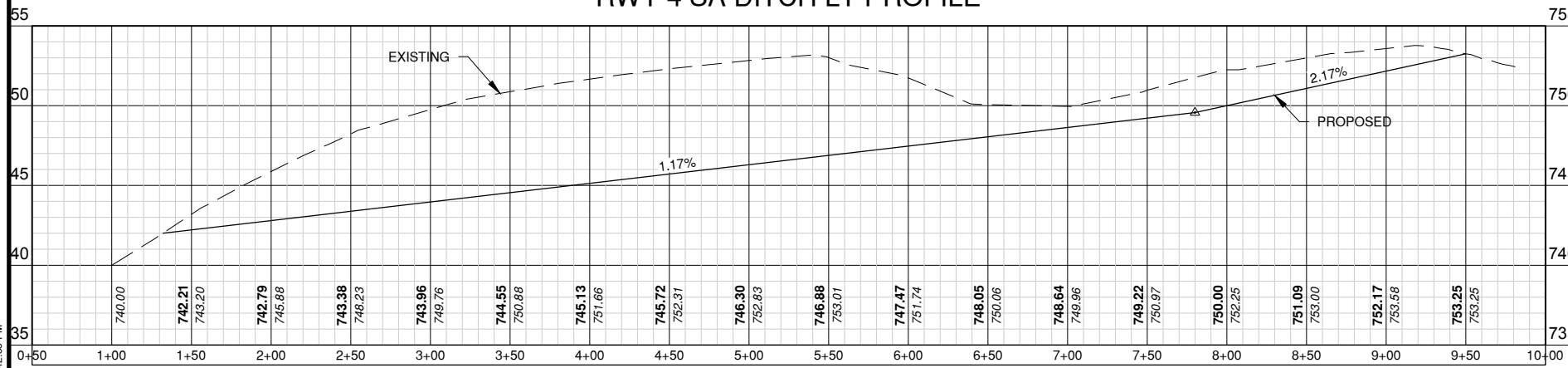
**RWY 4 SAFETY AREA DITCH RIGHT PLAN & PROFILE 2**

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Date: Wednesday, March 8, 2023 4:42:42 PM





RWY 4 SA DITCH LT PROFILE



**LEGEND**

- NEW PAVEMENT EDGE
- - - EXISTING PAVEMENT EDGE
- 586 ○ PROPOSED CONTOUR
- - - 586 - - - EXISTING CONTOUR
- CB □ EXISTING INLET
- CB □ PROPOSED INLET
- ○ PROPOSED MANHOLE
- □ RUNWAY 4 PAPI

- NOTES**
- RUNWAY SAFETY AREAS SHALL ADHERE TO A TRANSVERSE GRADE OF 1.5% MINIMUM AND 3.0% MAXIMUM
  - MAINTAIN A 5.0% GRADE FOR 10 FEET OF UNPAVED SURFACE ADJACENT TO THE PAVED SURFACE
  - TAXIWAY SAFETY AREAS SHALL ADHERE TO A TRANSVERSE GRADE OF 1.5% MINIMUM AND 3.0% MAXIMUM
  - GRADING OUTSIDE OF SAFETY AREA 1.0% MINIMUM AND 16.67% MAXIMUM.
  - SEE SHEET CU104 FOR STORM SEWER STRUCTURE.



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

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RECONSTRUCT RUNWAY 4/22  
 PHASE 4



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 QUINCY REGIONAL AIRPORT  
 QUINCY, IL

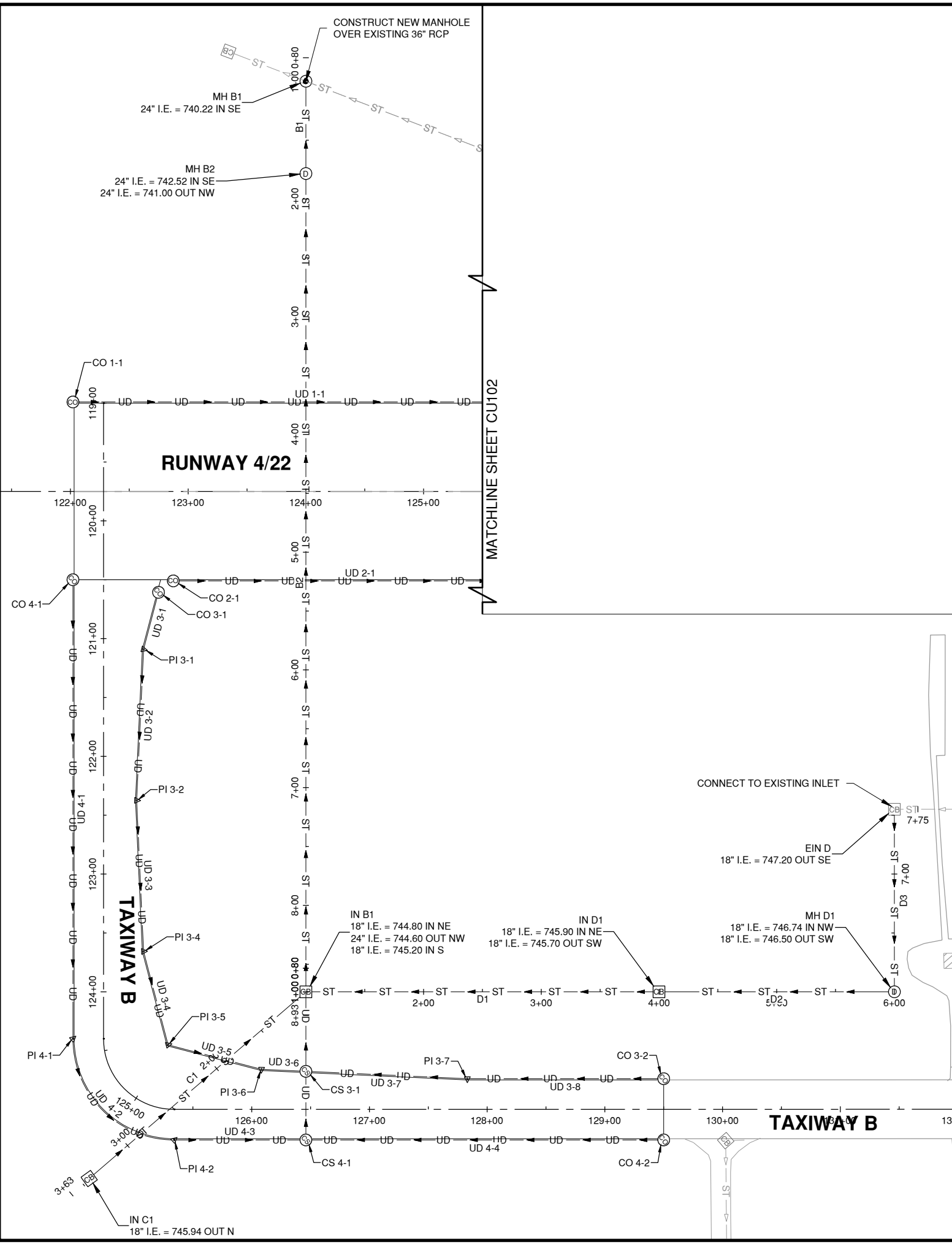
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CAD DWG FILE: 180020-01 PH4 CG100.DWG
DESIGNED BY: HWI
DRAWN BY: DPA
CHECKED BY: CHK
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SHEET TITLE  
**RWY 4 SAFETY AREA  
 DITCH LEFT PLAN &  
 PROFILE**


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Date: Wednesday, March 8, 2023 4:43:38 PM




**NOTES**

- CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION AT ALL POINTS OF CONNECTION TO EXISTING STORM SEWERS PRIOR TO PRECASTING STRUCTURES AND INSTALLING PIPE.
- ITS ANTICIPATED THAT THE CONSTRUCTION OF THE NEW UNDERDRAIN MAY ENCOUNTER PORTIONS OF EXISTING UNDERDRAINS. NO SEPARATE PAYMENTS WILL BE MADE FOR THE REMOVAL OF CONFLICTING UNDERDRAIN, PIPES, OR STRUCTURES ENCOUNTERED.



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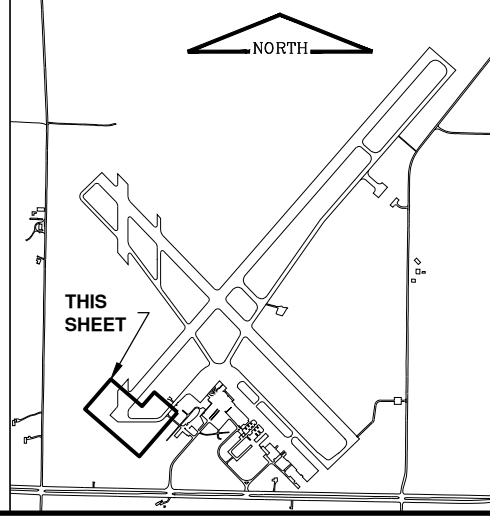
CONSULTANTS



**LEGEND**

- EXISTING PAVEMENT EDGE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER & LINE DESIGNATION
- STORM SEWER TO BE REMOVED
- NEW UNDERDRAIN
- EXISTING STORM SEWER STRUCTURE
- NEW INLET
- NEW MANHOLE
- EXISTING UNDERDRAIN CLEANOUT
- NEW UNDERDRAIN CLEANOUT
- NEW COLLECTION STRUCTURE
- UNDERDRAIN POINT OF INFLECTION (PI)


**KEYMAP**



**BID ISSUE**  
MARCH 08, 2023

**RECONSTRUCT RUNWAY 4/22**  
PHASE 4

OWNER



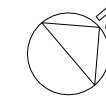
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

**STORM SEWER & UNDERDRAIN PLAN 1**

CU101

SHEET **34** OF 143



0 50' 100'

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

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

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IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 CU100.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

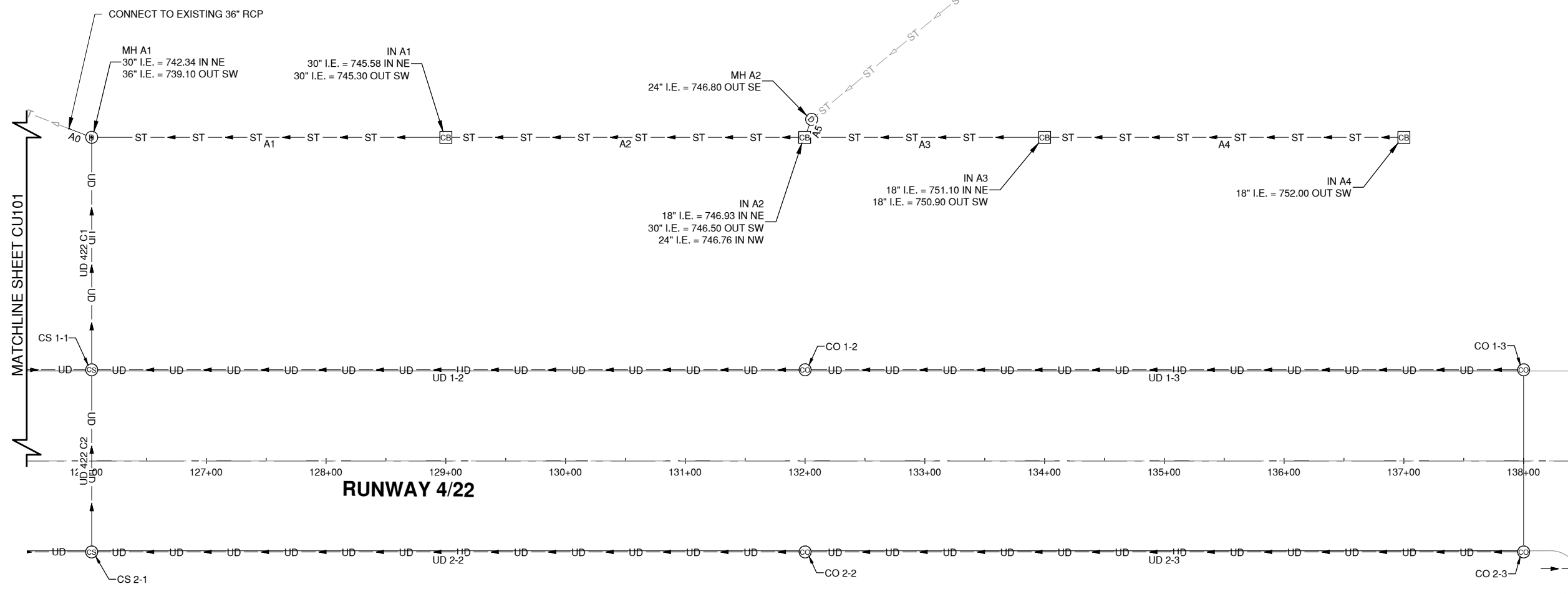
CHECKED BY: MJD

APPROVED BY: RLV

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SHEET TITLE  
**STORM SEWER &  
UNDERDRAIN PLAN 2**

CU102  
SHEET 35 OF 143

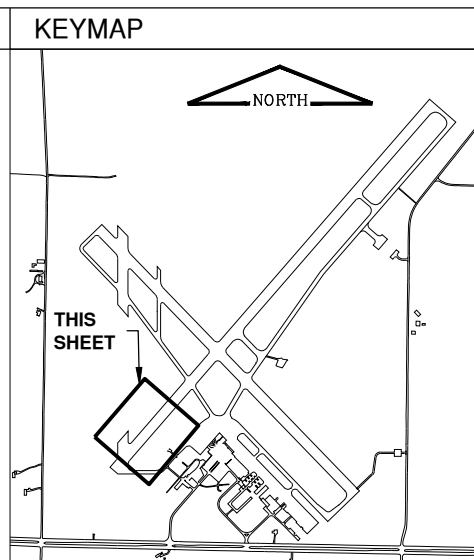


**NOTES**

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- ITS ANTICIPATED THAT THE CONSTRUCTION OF THE NEW UNDERDRAIN MAY ENCOUNTER PORTIONS OF EXISTING UNDERDRAINS. NO SEPARATE PAYMENTS WILL BE MADE FOR THE REMOVAL OF CONFLICTING UNDERDRAIN, PIPES, OR STRUCTURES ENCOUNTERED.

**LEGEND**

	EXISTING STORM SEWER STRUCTURE		EXISTING STORM SEWER
	NEW INLET		PROPOSED STORM SEWER & LINE DESIGNATION
	NEW MANHOLE		STORM SEWER TO BE REMOVED
	EXISTING UNDERDRAIN CLEANOUT		EXISTING UNDERDRAIN
	NEW UNDERDRAIN CLEANOUT		NEW UNDERDRAIN
	NEW DIRECT CONNECTION		UNDERDRAIN POINT OF INFLECTION (PI)
	NEW FLARED END SECTION		





0 50' 100'

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

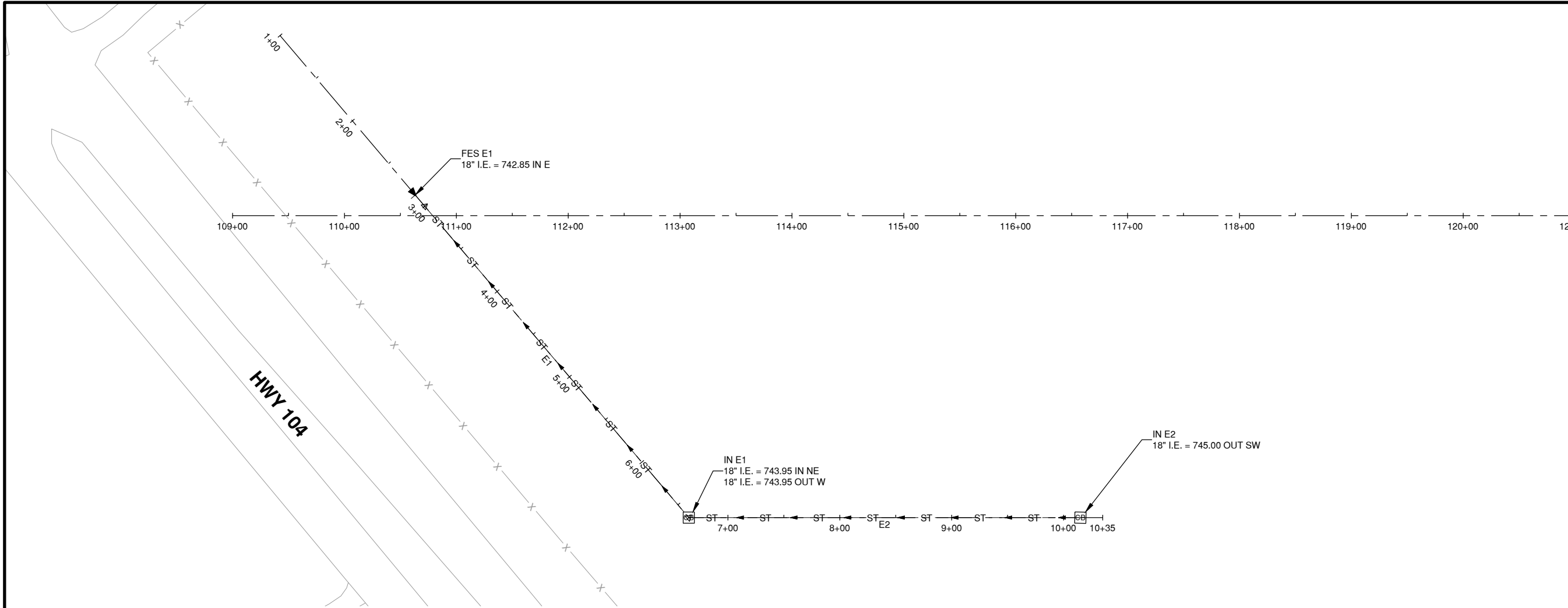
BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

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QUINCY REGIONAL AIRPORT  
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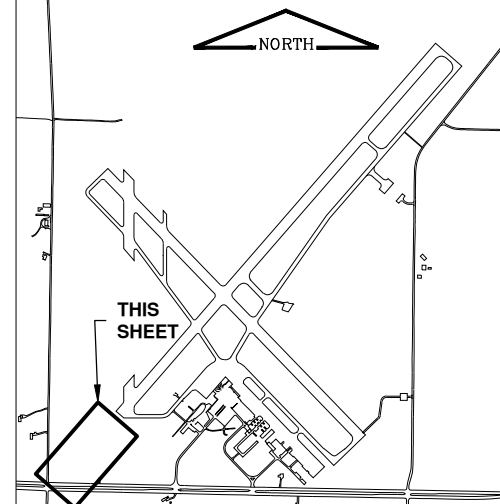
**NOTES**

- CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION AT ALL POINTS OF CONNECTION TO EXISTING STORM SEWERS PRIOR TO PRECASTING STRUCTURES AND INSTALLING PIPE.
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**LEGEND**

- |  |                                |  |   |
|--|--------------------------------|--|---|
|  | EXISTING STORM SEWER STRUCTURE |  | EXISTING PAVEMENT EDGE                  |
|  | NEW INLET                      |  | EXISTING STORM SEWER                    |
|  | NEW MANHOLE                    |  | PROPOSED STORM SEWER & LINE DESIGNATION |
|  | EXISTING UNDERDRAIN CLEANOUT   |  | STORM SEWER TO BE REMOVED               |
|  | NEW UNDERDRAIN CLEANOUT        |  | EXISTING UNDERDRAIN                     |
|  | NEW DIRECT CONNECTION          |  | NEW UNDERDRAIN                          |
|  | NEW FLARED END SECTION         |  | UNDERDRAIN POINT OF INFLECTION (PI)     |

**KEYMAP**



MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX
IL PROJ. NO: UIN-5051
CMT PROJECT NO: 18002001
CAD DWG FILE: 180020-01 PH4 CU100.DWG
DESIGNED BY: HWI
DRAWN BY: DPA
CHECKED BY: MJD
APPROVED BY: RLV
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**STORM SEWER & UNDERDRAIN PLAN 3**



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

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK DATE DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 CU100.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

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SHEET TITLE

STORM SEWER &  
UNDERDRAIN  
SCHEDULES

CU104  
SHEET 37 OF 143

### STORM SEWER STRUCTURE TABLE PHASE 4 STORM SEWER

STRUCTURE NAME AND TYPE	STRUCTURE DETAILS	HORIZONTAL CONTROL
CONNECT TO EXISTING 30" RCP Null Structure	RIM = 741.72 SUMP = N/A A0 INV IN = 738.77	RWY 422 STA 125+85.58 OFFSET -277.17 L
EIN D EXISTING INLET	RIM = 752.33 SUMP = 747.20 D3 INV OUT = 747.20	RWY 422 STA 129+00.00 OFFSET 270.00 R
FES E1 FLARED END SECTION	RIM = 744.65 SUMP = N/A E1 INV IN = 742.85	RWY 422 STA 110+63.28 OFFSET -18.51 L
IN A1 MANHOLE 6' WITH OPEN LID	RIM = 753.54 SUMP = 743.30 A2 INV IN = 745.58 A1 INV OUT = 745.30	RWY 422 STA 129+00.00 OFFSET -270.00 L
IN A2 MANHOLE 6' WITH OPEN LID	RIM = 753.69 SUMP = 744.50 A3 INV IN = 746.93 A5 INV IN = 746.76 A2 INV OUT = 746.50	RWY 422 STA 131+99.63 OFFSET -269.98 L
IN A3 INLET	RIM = 755.86 SUMP = 748.90 A4 INV IN = 751.10 A3 INV OUT = 750.90	RWY 422 STA 134+00.00 OFFSET -270.00 L
IN A4 INLET	RIM = 756.36 SUMP = 750.00 A4 INV OUT = 752.00	RWY 422 STA 137+00.00 OFFSET -270.00 L
IN B1 MANHOLE 5' WITH OPEN LID	RIM = 753.57 SUMP = 744.60 D1 INV IN = 744.80 C1 INV IN = 745.20 B2 INV OUT = 744.60	RWY 422 STA 124+00.00 OFFSET 425.00 R
IN C1 INLET	RIM = 750.60 SUMP = 743.94 C1 INV OUT = 745.94	RWY 422 STA 122+15.92 OFFSET 583.64 R
IN D1 INLET	RIM = 753.20 SUMP = 743.70 D2 INV IN = 745.90 D1 INV OUT = 745.70	RWY 422 STA 127+00.00 OFFSET 425.00 R
IN E1 INLET	RIM = 748.41 SUMP = 743.95 E2 INV IN = 743.95 E1 INV OUT = 743.95	RWY 422 STA 113+07.78 OFFSET 270.00 R
IN E2 INLET	RIM = 748.00 SUMP = 745.00 E2 INV OUT = 745.00	RWY 422 STA 116+57.78 OFFSET 270.00 R
MH A1 MANHOLE 5' WITH CLOSED LID	RIM = 755.97 SUMP = 739.10 A1 INV IN = 742.34 A0 INV OUT = 739.10	RWY 422 STA 126+04.25 OFFSET -270.00 L
MH A2 MANHOLE 4' WITH CLOSED LID	RIM = 756.16 SUMP = 746.80 A5 INV OUT = 746.80	RWY 422 STA 132+05.39 OFFSET -285.00 L
MH B1 MANHOLE 8' WITH CLOSED LID	RIM = 752.86 SUMP = 734.50 B1 INV IN = 740.22	RWY 422 STA 124+00.00 OFFSET -348.42 L
MH B2 MANHOLE 4' WITH CLOSED LID	RIM = 753.77 SUMP = 739.00 B2 INV IN = 742.52 B1 INV OUT = 741.00	RWY 422 STA 124+00.00 OFFSET -270.00 L
MH D1 MANHOLE 4' WITH CLOSED LID	RIM = 758.22 SUMP = 744.50 D3 INV IN = 746.74 D2 INV OUT = 746.50	RWY 422 STA 129+00.00 OFFSET 425.00 R

### STORM SEWER PIPE SCHEDULE PHASE 4 STORM SEWER

PIPE	UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	INVERT	INVERT	LENGTH (FT)	SLOPE	TYPE
A0	MH A1	CONNECT TO EXISTING 30" RCP	739.10	738.77	21	1.63%	CONCRETE PIPE - 36"
A1	IN A1	MH A1	745.30	742.34	296	1.00%	CONCRETE PIPE - 30"
A2	IN A2	IN A1	746.50	745.58	300	0.31%	CONCRETE PIPE - 30"
A3	IN A3	IN A2	750.90	746.93	201	1.98%	CONCRETE PIPE - 18"
A4	IN A4	IN A3	752.00	751.10	301	0.30%	CONCRETE PIPE - 18"
A5	MH A2	IN A2	746.80	746.76	17	0.28%	CONCRETE PIPE - 24"
B1	MH B2	MH B1	741.00	740.22	79	1.00%	CONCRETE PIPE - 24"
B2	IN B1	MH B2	744.60	742.52	695	0.30%	CONCRETE PIPE - 24"
C1	IN C1	IN B1	745.94	745.20	244	0.30%	CONCRETE PIPE - 18"
D1	IN D1	IN B1	745.70	744.80	301	0.30%	CONCRETE PIPE - 18"
D2	MH D1	IN D1	746.50	745.90	200	0.30%	CONCRETE PIPE - 18"
D3	EIN D	MH D1	747.20	746.74	155	0.30%	CONCRETE PIPE - 18"
E1	IN E1	FES E1	743.95	742.85	379	0.29%	CONCRETE PIPE - 18"
E2	IN E2	IN E1	745.00	743.95	350	0.30%	CONCRETE PIPE - 18"

### UNDERDRAIN STRUCTURE TABLE PH4 UD 422

STRUCTURE NAME AND TYPE	STRUCTURE DETAILS	HORIZONTAL CONTROL
CO 1-1 TYPE 1 CLEANOUT	RIM = 759.70 SUMP = 756.00 UD 1-1 INV OUT = 756.00	RWY 422 STA 122+02.13
CO 1-2 TYPE 3 CLEANOUT	RIM = 760.59 SUMP = 756.96 UD 1-3 INV IN = 756.96 UD 1-2 INV OUT = 756.96	RWY 422 STA 132+00.00
CO 1-3 TYPE 1 CLEANOUT	RIM = 761.49 SUMP = 757.76 UD 1-3 INV OUT = 757.76	RWY 422 STA 138+00.00
CO 2-1 TYPE 2 CLEANOUT	RIM = 759.79 SUMP = 756.30 UD 2-1 INV OUT = 756.30	RWY 422 STA 122+87.39
CO 2-2 TYPE 3 CLEANOUT	RIM = 760.59 SUMP = 757.20 UD 2-3 INV IN = 757.20 UD 2-2 INV OUT = 757.20	RWY 422 STA 132+00.00
CO 2-3 TYPE 1 CLEANOUT	RIM = 761.49 SUMP = 757.17 UD 2-3 INV OUT = 757.80	RWY 422 STA 138+00.00
CS 1-1 COLLECTION STRUCTURE	RIM = 760.08 SUMP = 755.00 UD 1-1 INV IN = 755.60 UD 1-2 INV IN = 756.36 UD 422 C2 INV IN = 755.94 UD 422 C1 INV OUT = 755.00	RWY 422 STA 126+04.25
CS 2-1 COLLECTION STRUCTURE	RIM = 760.08 SUMP = 755.49 UD 2-1 INV IN = 755.98 UD 2-2 INV IN = 756.60 UD 422 C2 INV OUT = 756.09	RWY 422 STA 126+04.25
MH A1 CONNECT TO MANHOLE A1	RIM = 752.90 SUMP = N/A UD 422 C1 INV IN = 752.51	RWY 422 STA 126+04.25

### UNDERDRAIN PIPE SCHEDULE PH4 UD 422

PIPE	UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	INVERT	INVERT	LENGTH (FT)	SLOPE	TYPE
UD 1-1	CO 1-1	CS 1-1	756.00	755.60	403	0.10%	PERFORATED WITH SOCK - 4"
UD 1-2	CO 1-2	CS 1-1	756.96	756.36	596	0.10%	PERFORATED WITH SOCK - 4"
UD 1-3	CO 1-3	CO 1-2	757.76	756.96	601	0.13%	PERFORATED WITH SOCK - 4"
UD 2-1	CO 2-1	CS 2-1	756.30	755.98	317	0.10%	PERFORATED WITH SOCK - 4"
UD 2-2	CO 2-2	CS 2-1	757.20	756.60	596	0.10%	PERFORATED WITH SOCK - 4"
UD 2-3	CO 2-3	CO 2-2	757.80	757.20	600	0.10%	PERFORATED WITH SOCK - 4"
UD 422 C1	CS 1-1	MH A1	755.00	752.51	194	1.28%	NON-PERFORATED - 4"
UD 422 C2	CS 2-1	CS 1-1	756.09	755.94	153	0.10%	NON-PERFORATED - 4"

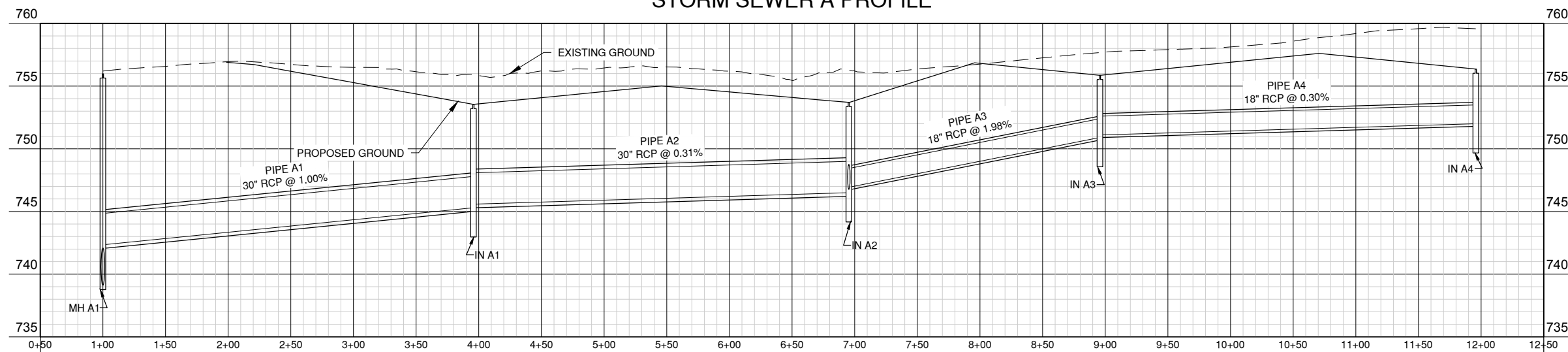
### UNDERDRAIN STRUCTURE TABLE PH4 UD B

STRUCTURE NAME AND TYPE	STRUCTURE DETAILS	HORIZONTAL CONTROL
CO 3-1 TYPE 1 CLEANOUT	RIM = 759.65 SUMP = 756.08 UD 3-1 INV OUT = 756.08	TXY B STA 120+60.67
CO 3-2 TYPE 1 CLEANOUT	RIM = 759.48 SUMP = 755.94 UD 3-8 INV OUT = 755.94	TXY B STA 129+50.00
CO 4-1 TYPE 1 CLEANOUT	RIM = 759.75 SUMP = 756.12 UD 4-1 INV OUT = 756.12	TXY B STA 120+50.00
CO 4-2 TYPE 1 CLEANOUT	RIM = 759.43 SUMP = 755.83 UD 4-4 INV OUT = 755.83	TXY B STA 129+50.00
CS 3-1 COLLECTION STRUCTURE	RIM = 756.46 SUMP = 746.73 UD 3-7 INV IN = 752.88 UD 3-6 INV IN = 751.64 UD B C2 INV IN = 749.22 UD B C1 INV OUT = 749.10	TXY B STA 126+45.99
CS 4-1 COLLECTION STRUCTURE	RIM = 756.49 SUMP = 749.80 UD 4-3 INV IN = 749.90 UD 4-4 INV IN = 752.00 UD B C2 INV OUT = 749.80	TXY B STA 126+45.99
IN B1 CONNECT TO INLET B1	RIM = 750.93 SUMP = N/A UD B C1 INV IN = 748.42	TXY B STA 126+45.99
PI 3-1	RIM = 755.76 SUMP = N/A UD 3-1 INV IN = 755.38 UD 3-2 INV OUT = 755.38	TXY B STA 121+09.15
PI 3-2	RIM = 753.94 SUMP = N/A UD 3-2 INV IN = 753.55 UD 3-3 INV OUT = 753.55	TXY B STA 122+37.43
PI 3-4	RIM = 752.20 SUMP = N/A UD 3-3 INV IN = 751.82 UD 3-4 INV OUT = 751.82	TXY B STA 123+65.72
PI 3-5	RIM = 752.12 SUMP = N/A UD 3-4 INV IN = 751.73 UD 3-5 INV OUT = 751.73	TXY B STA 124+86.99
PI 3-6	RIM = 752.07 SUMP = N/A UD 3-5 INV IN = 751.68 UD 3-6 INV OUT = 751.68	TXY B STA 126+08.27
PI 3-7	RIM = 755.21 SUMP = N/A UD 3-8 INV IN = 754.83 UD 3-7 INV OUT = 754.83	TXY B STA 127+83.14
PI 4-1	RIM = 750.53 SUMP = N/A UD 4-1 INV IN = 750.14 UD 4-2 INV OUT = 750.14	TXY B STA 124+39.87
PI 4-2	RIM = 750.40 SUMP = N/A UD 4-2 INV IN = 750.01 UD 4-3 INV OUT = 750.01	TXY B STA 125+34.12

### UNDERDRAIN PIPE SCHEDULE PH4 UD B

PIPE	UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	INVERT	INVERT	LENGTH (FT)	SLOPE	TYPE
UD 3-1	CO 3-1	PI 3-1	756.08	755.38	51	1.41%	PERFORATED WITH SOCK - 4"
UD 3-2	PI 3-1	PI 3-2	755.38	753.55	129	1.42%	PERFORATED WITH SOCK - 4"
UD 3-3	PI 3-2	PI 3-4	753.55	751.82	129	1.35%	PERFORATED WITH SOCK - 4"
UD 3-4	PI 3-4	PI 3-5	751.82	751.73	83	0.10%	PERFORATED WITH SOCK - 4"
UD 3-5	PI 3-5	PI 3-6	751.73	751.68	83	0.06%	PERFORATED WITH SOCK - 4"
UD 3-6	PI 3-6	CS 3-1	751.68	751.64	38	0.11%	PERFORATED WITH SOCK - 4"
UD 3-7	PI 3-7	CS 3-1	754.83	752.88	138	1.42%	PERFORATED WITH SOCK - 4"
UD 3-8	CO 3-2	PI 3-7	755.94	754.83	167	0.67%	PERFORATED WITH SOCK - 4"
UD 4-1	CO 4-1	PI 4-1	756.12	750.14	390	1.53%	PERFORATED WITH SOCK - 4"
UD 4-2	PI 4-1	PI 4-2	750.14	750.01	136	0.10%	PERFORATED WITH SOCK - 4"
UD 4-3	PI 4-2	CS 4-1	750.01	749.90	112	0.10%	PERFORATED WITH SOCK - 4"
UD 4-4	CO 4-2	CS 4-1	755.83	752.00	305	1.26%	PERFORATED WITH SOCK - 4"
UD B C1	CS 3-1	IN B1	749.10	748.42	68	1.00%	NON-PERFORATED - 4"
UD B C2	CS 4-1	CS 3-1	749.80	749.22	59	1.00%	NON-PERFORATED - 4"

### STORM SEWER A PROFILE



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MARCH 08, 2023

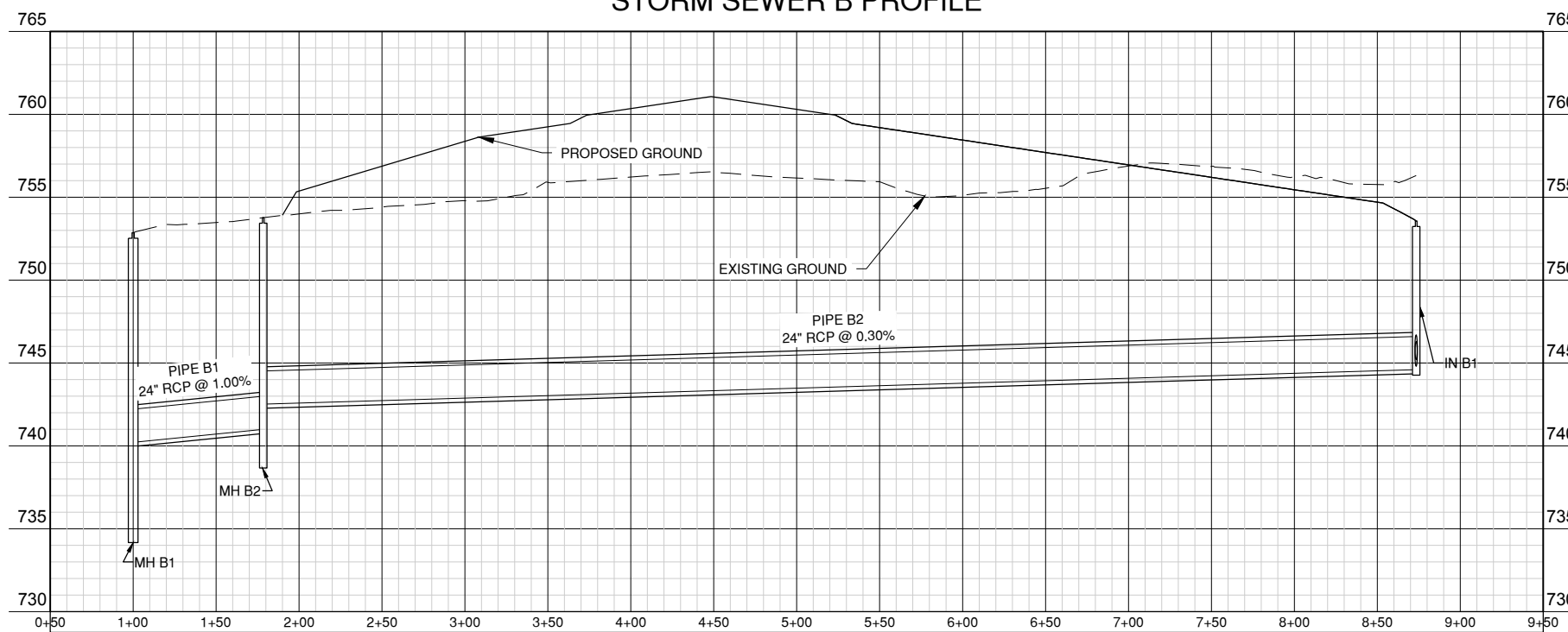
RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

### STORM SEWER B PROFILE



MARK	DATE	DESCRIPTION

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IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 CU200.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: MJD

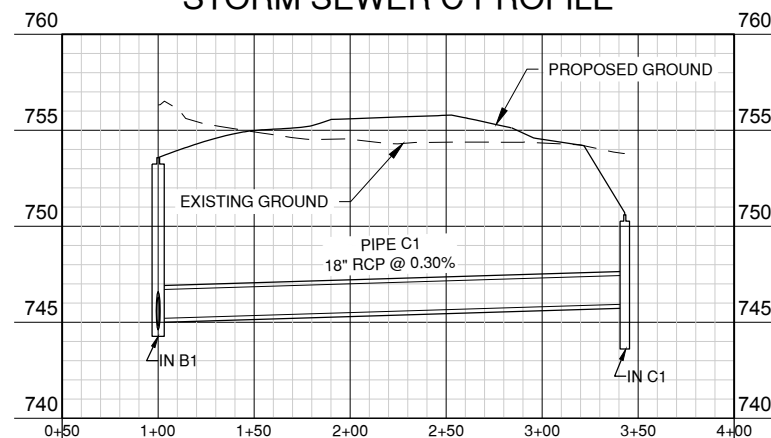
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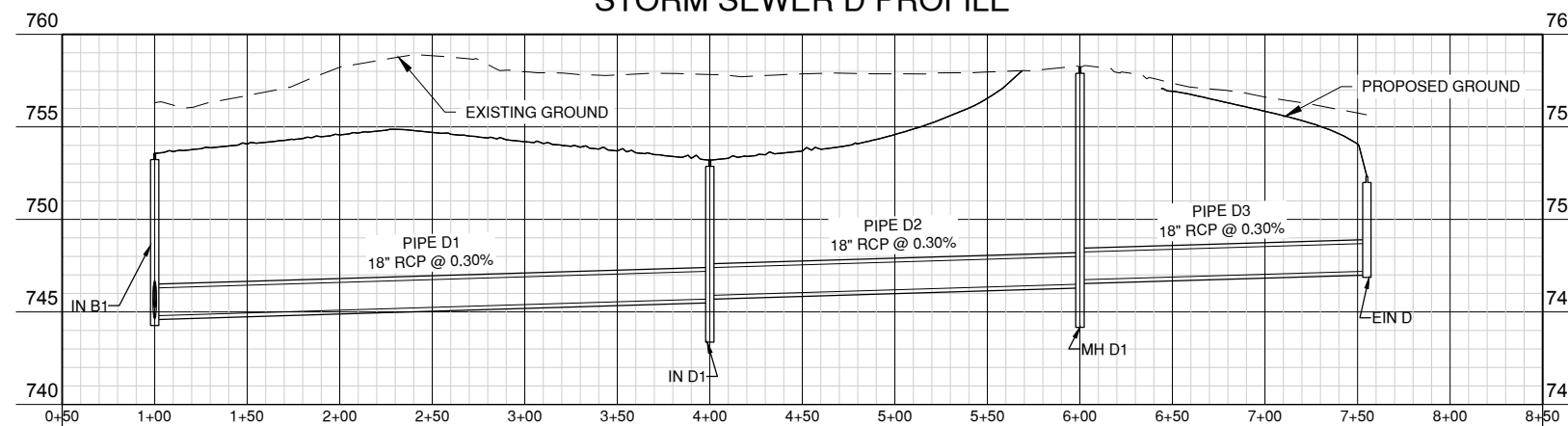
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STORM SEWER  
PROFILES 1

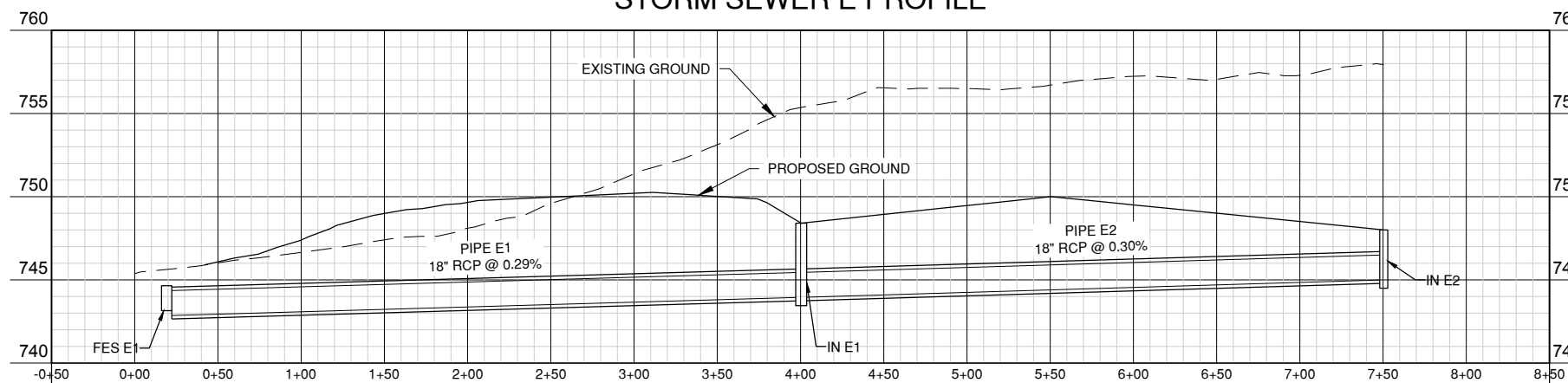
### STORM SEWER C PROFILE



### STORM SEWER D PROFILE



### STORM SEWER E PROFILE



BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 CU200.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: MJD

APPROVED BY: RLV

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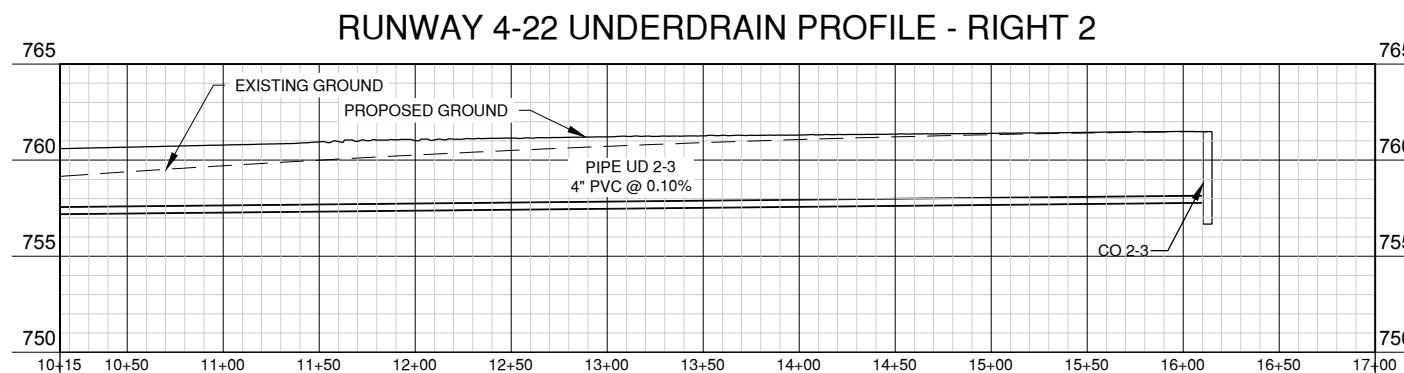
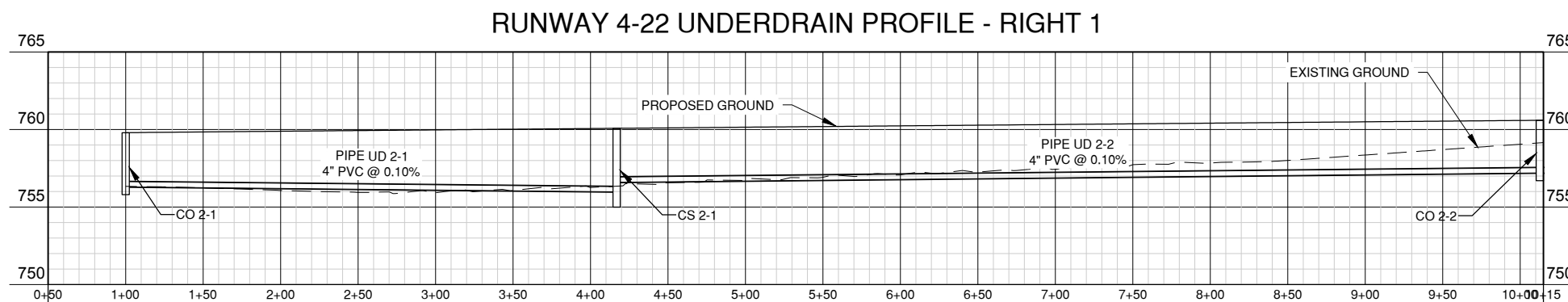
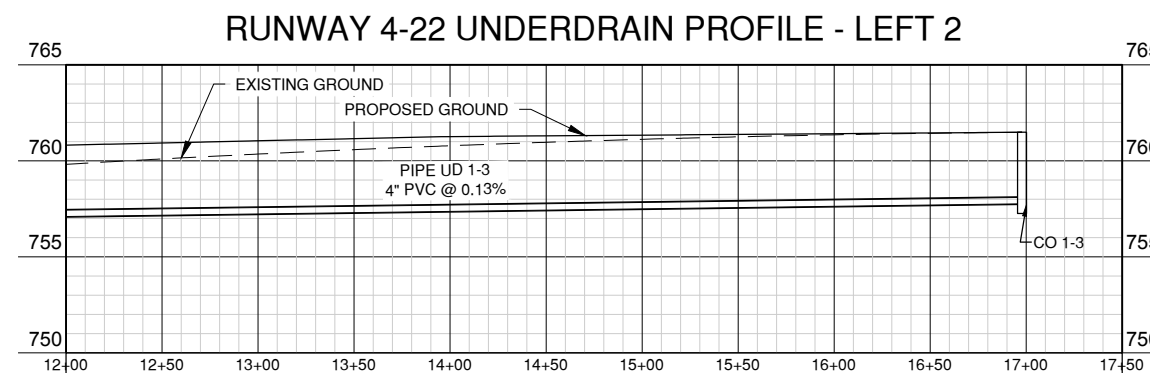
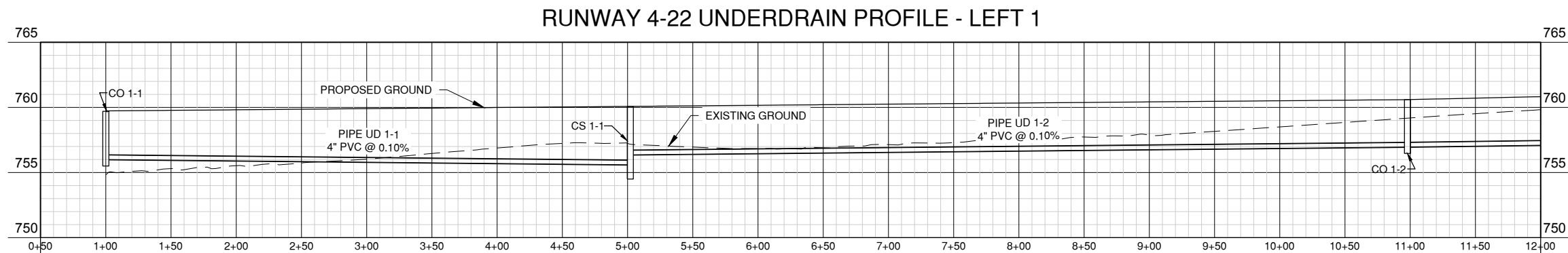
SHEET TITLE

STORM SEWER  
PROFILES 2



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CONSULTANTS



BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK | DATE | DESCRIPTION

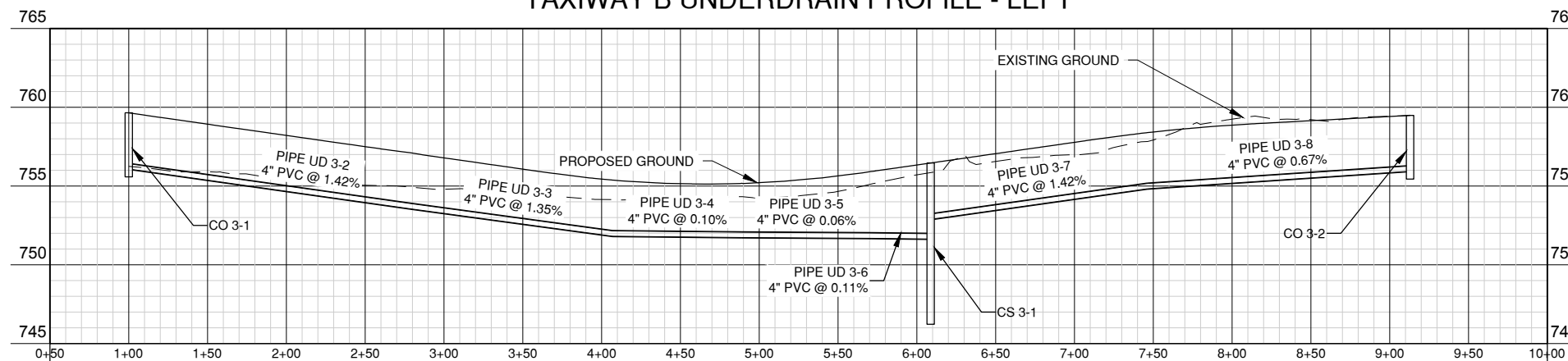
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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CU200.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
APPROVED BY:	RLV
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SHEET TITLE  
**UNDERDRAIN  
PROFILES 1**

CU203  
SHEET 40 OF 143



### TAXIWAY B UNDERDRAIN PROFILE - LEFT



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MARCH 08, 2023

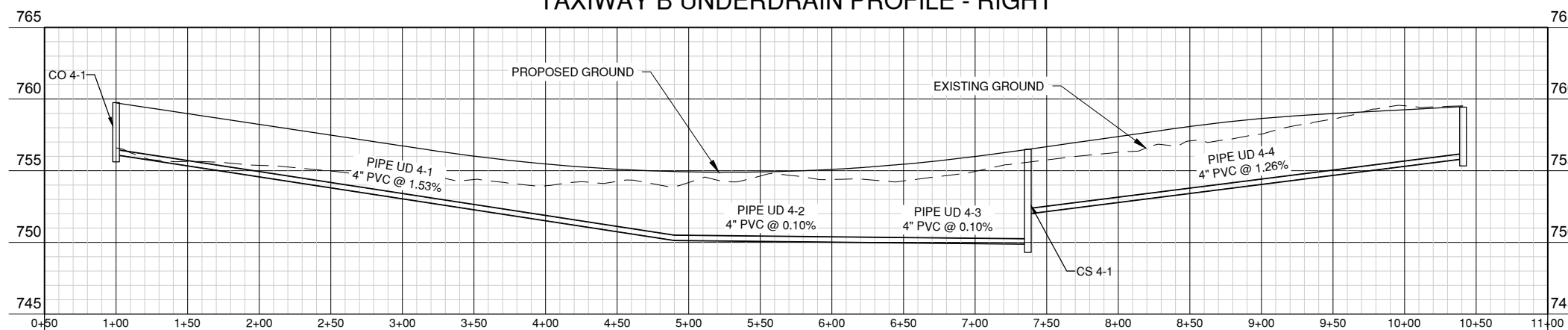
RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

### TAXIWAY B UNDERDRAIN PROFILE - RIGHT



MARK	DATE	DESCRIPTION

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IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 CU200.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: MJD

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SHEET TITLE

UNDERDRAIN  
PROFILES 2

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

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IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 CU500.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: MJD

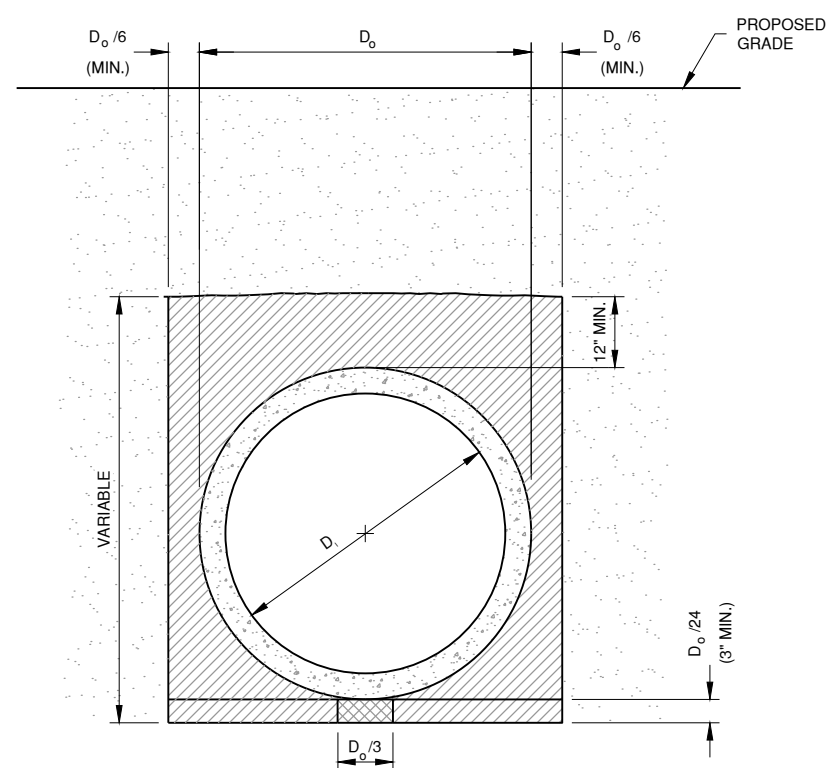
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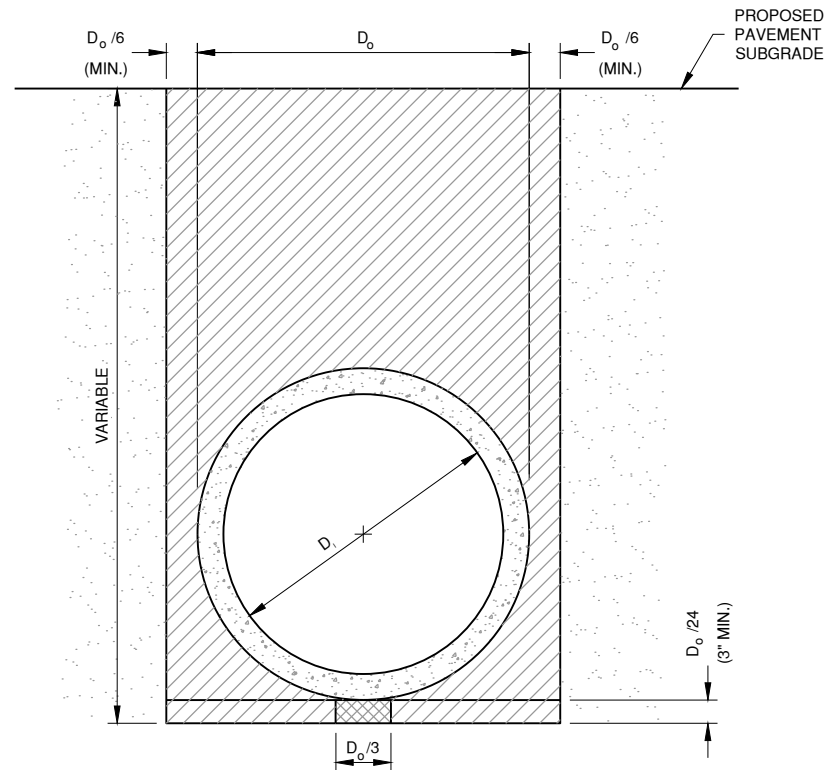
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STORM SEWER  
DETAILS 1

CU501  
SHEET 42 OF 143



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



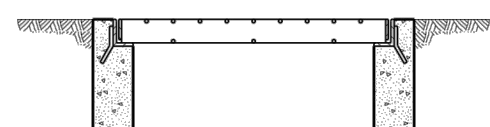
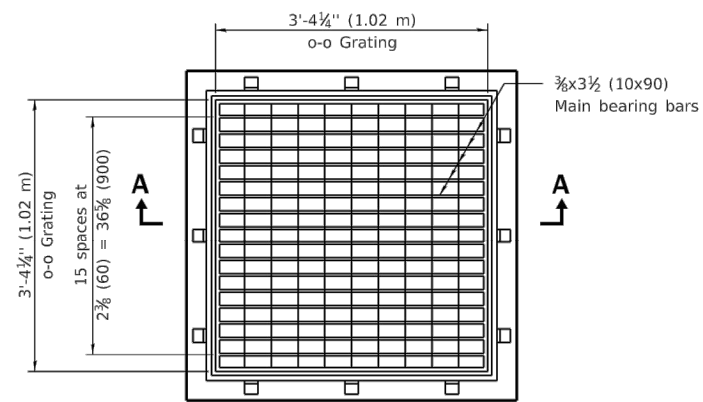
2 STANDARD TRENCH INSTALLATION  
N.T.S. PROPOSED PAVED AREA

LEGEND

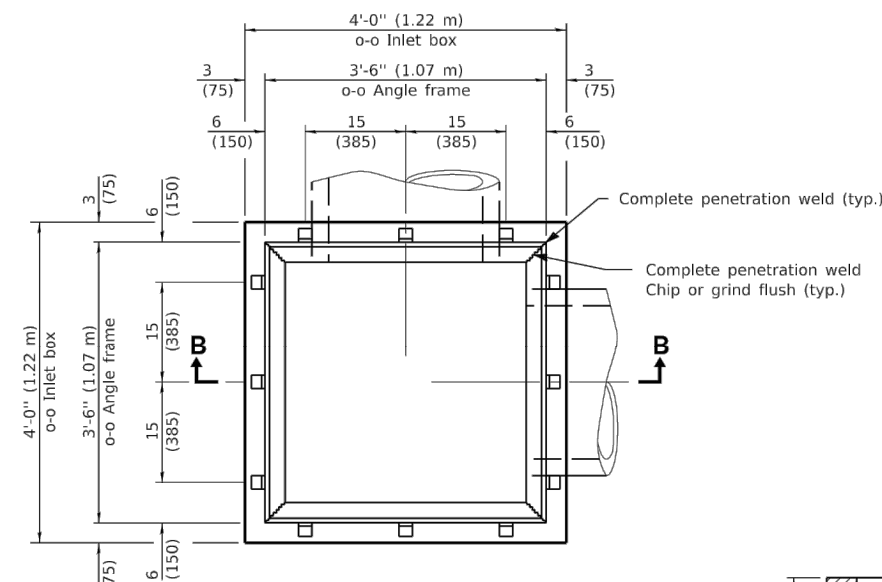
- DRAINAGE CONDUIT MATERIAL-CONCRETE
- MIDDLE BEDDING (EMBEDMENT) LOOSELY PLACED UNCOMPACTED BEDDING
- HAUNCH AND OUTER BEDDING (EMBEDMENT) COMPACTION- 95% STANDARD PROCTOR
- LOWER SIDE AND OVERFILL COMPACTION- SAME AS P-152 EMBANKMENT REQUIREMENTS
- $D_o$  PIPE OUTSIDE DIAMETER
- $D_i$  PIPE INSIDE DIAMETER

NOTES

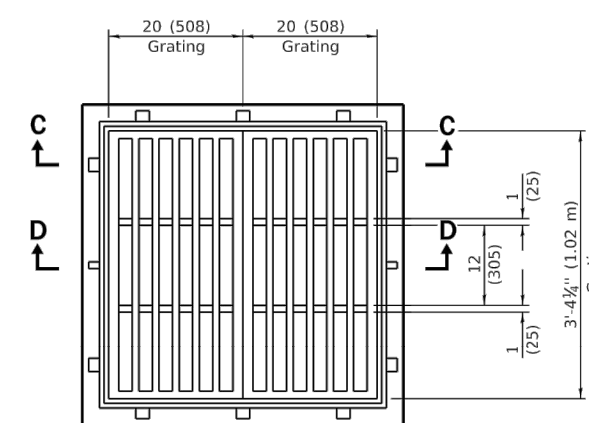
1. BEDDING SHOWN IS IN ACCORDANCE WITH "STANDARD EMBANKMENT INSTALLATIONS", STANDARD INSTALLATION & BEDDING FACTORS FOR THE INDIRECT DESIGN METHOD (DESIGN DATA 40), AMERICAN CONCRETE PIPE ASSOCIATION.
2. MATERIALS AND COMPACTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH STANDARD INSTALLATION TYPE 1 PER ASTM C1479.
3. ALLOWABLE MATERIALS FOR EMBEDMENT INCLUDE USCS SOIL TYPES SW, SP, GW, & GP AND AASHTO M145 SOIL TYPES A-1 & A-3.
4. EMBEDMENT FOR STORM SEWERS INSTALLED UNDER PAVEMENT SHALL EXTEND A MINIMUM OF 5' BEYOND THE EDGE OFF PAVEMENT.



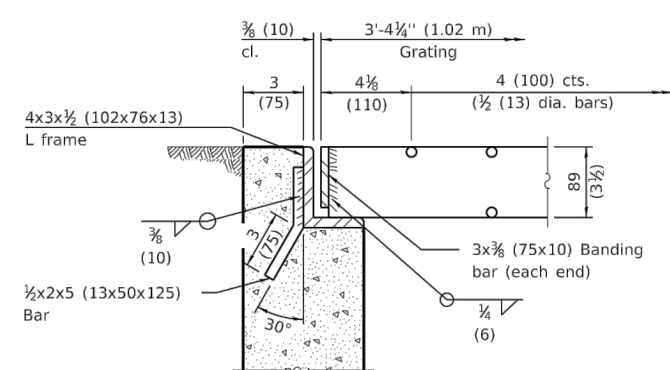
**SECTION A-A**



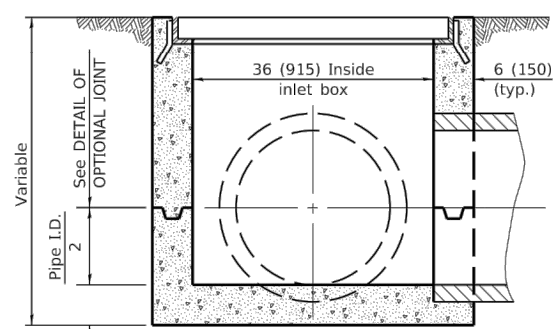
**PLAN**  
(Grating omitted for clarity)



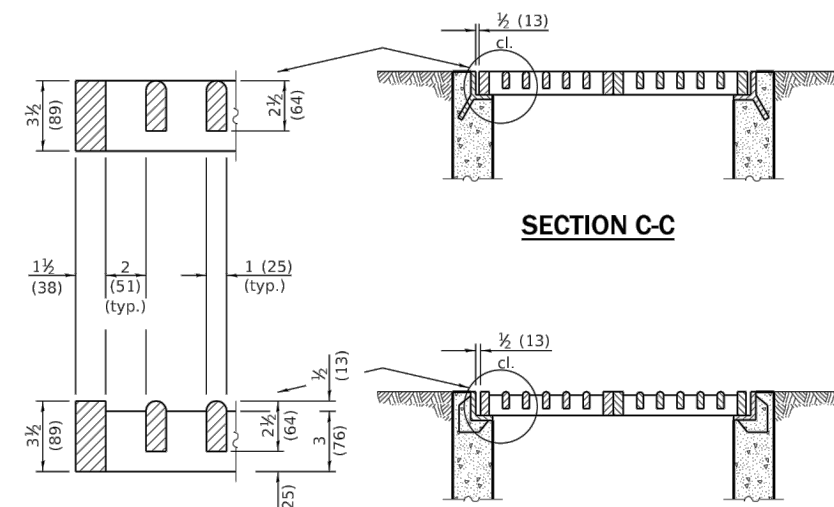
**SECTION C-C**



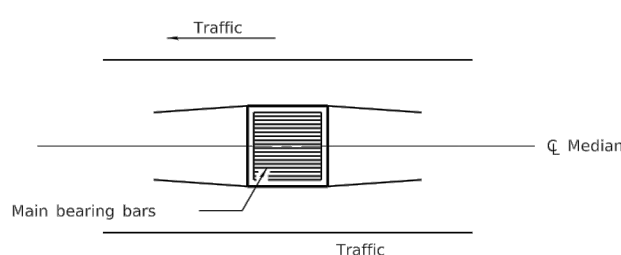
**STEEL FRAME & GRATE**



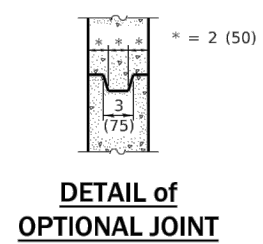
**SECTION B-B**



**SECTION D-D  
CAST FRAME & GRATE**



Sketch showing location and direction of main bearing bars in relation to  $\bar{Q}$  median



**DETAIL of  
OPTIONAL JOINT**

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

DATE	REVISIONS
1-1-09	Switched units to English (metric).
1-1-97	Renum. Standard 2240-6.

**FLUSH INLET BOX  
FOR MEDIAN**

**STANDARD 542546-01**

Illinois Department of Transportation

PASSED January 1, 2009

ISSUED 1-1-97

ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2009

ENGINEER OF DESIGN AND ENVIRONMENT

**SECTION PARALLEL TO PIPE**  
(Without conical top riser)

**SECTION PERPENDICULAR TO PIPE**  
(With conical top riser)

**FLAT SLAB TOP JOINT CONFIGURATIONS**  
(Shown at access hole)

**GEOMETRIC LIMITS FOR PIPE PENETRATION HOLES**

**GENERAL NOTES**

**REVISIONS**

DATE	REVISIONS
1-1-21	Revised Note 1 and lifting hole general note.
3-1-19	Moved wall reinforcement from inside face to middle.

**PRECAST MANHOLE TYPE A**  
**4' (1.22 m) DIAMETER**  
STANDARD 602401-07  
(Sheet 1 of 2)

**SECTION PARALLEL TO PIPE**  
(Without conical top riser)

**SECTION PERPENDICULAR TO PIPE**  
(With conical top riser)

**FLAT SLAB TOP JOINT CONFIGURATIONS**  
(Shown at access hole)

**GEOMETRIC LIMITS FOR PIPE PENETRATION HOLES**

**GENERAL NOTES**

**REVISIONS**

DATE	REVISIONS
1-1-21	Revised Note 1 and lifting hole general note.
3-1-19	Moved wall reinforcement from inside face to middle.

**PRECAST MANHOLE TYPE A**  
**5' (1.52 m) DIAMETER**  
STANDARD 602402-03  
(Sheet 1 of 2)

**PLAN - FLAT SLAB TOP**  
(Showing layout of reinforcement bars and c bars)

**JOINT SPLICE**

**WALL REINFORCEMENT**

Location	Orientation	WWR or Rebar	Spacing (max.)
Riser	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)
Barrel	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)
	Vertical	0.16 sq. in./ft. (339 sq. mm/m)	4 (100)

**BASE SLAB REINFORCEMENT**

Location	Total Height	WWR or Rebar (each direction)	Spacing (max.)
Top Mat	≤ 20 ft. (6.10 m)	0.24 sq. in./ft. (508 sq. mm/m)	10 (250)
	> 20 ft. (6.10 m)	0.24 sq. in./ft. (508 sq. mm/m)	10 (250)

**CONNECTION ANGLE**

**TIE PLATE**

**PRECAST MANHOLE TYPE A**  
**4' (1.22 m) DIAMETER**  
STANDARD 602401-07  
(Sheet 2 of 2)

**PLAN - FLAT SLAB TOP**  
(Showing layout of bottom reinforcement bars and c bars)

**JOINT SPLICE**

**WALL REINFORCEMENT**

Location	Orientation	WWR or Rebar	Spacing (max.)
Riser	Circumferential	0.15 sq. in./ft. (318 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)
Barrel	Circumferential	0.15 sq. in./ft. (318 sq. mm/m)	6 (150)
	Vertical	0.16 sq. in./ft. (339 sq. mm/m)	4 (100)

**BASE SLAB REINFORCEMENT**

Location	Total Height	WWR or Rebar (each direction)	Spacing (max.)
Top Mat	≤ 20 ft. (6.10 m)	0.19 sq. in./ft. (508 sq. mm/m)	10 (250)
	> 20 ft. (6.10 m)	0.23 sq. in./ft. (593 sq. mm/m)	8 (200)
Bottom Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)

**CONNECTION ANGLE**

**TIE PLATE**

**PRECAST MANHOLE TYPE A**  
**5' (1.52 m) DIAMETER**  
STANDARD 602402-03  
(Sheet 2 of 2)

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK DATE DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX  
IL PROJ. NO: UIN-5051  
CMT PROJECT NO: 18002001  
CAD DWG FILE: 180020-01 PH4 CU500.DWG  
DESIGNED BY: HWI  
DRAWN BY: DPA  
CHECKED BY: CHK  
APPROVED BY: APR  
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SHEET TITLE  
**STORM SEWER  
DETAILS 3**

CU503  
SHEET 44 OF 143

1 **MANHOLE - 4' DIA**  
N.T.S.

2 **MANHOLE - 5' DIA**  
N.T.S.

MARK	DATE	DESCRIPTION

AIP PROJ. NO:	3-17-0085-XX
IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CU500.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
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SHEET TITLE  
**STORM SEWER  
DETAILS 4**

**SECTION PARALLEL TO PIPE**  
(Without conical top riser)

**SECTION PERPENDICULAR TO PIPE**  
(With conical top riser)

**BASE SLAB JOINT CONFIGURATIONS**

**JOINT SPLICE**

**CONNECTION ANGLE**

**TIE PLATE**

**SHEAR KEY GEOMETRY**  
(Reinforcement not shown for clarity)

**FLAT SLAB TOP JOINT CONFIGURATIONS**  
(Shown at access hole)

**GEOMETRIC LIMITS FOR PIPE PENETRATION HOLES**

Note 1: A minimum of 9 (230) of monolithic reinforced concrete shall be maintained above pipe penetration holes > 32 (810).

Note 2: A minimum 12 (300) inside arc length of reinforced concrete shall be maintained between pipe penetration holes > 15 (380).

Note 3: A maximum of 60 percent of the inside perimeter of the reinforced concrete manhole walls may be removed.

Note 4: Horizontal joints that intersect pipe penetration holes > 15 (380) shall have one joint splice for every location around the perimeter of the joint where the inside arc length between pipe penetration holes is < 24 (600). See joint splice detail.

Note 5: The recommended pipe penetration hole is equal to the O.D. of the pipe plus 4 (100).

Note 6: Only pipe penetration holes ≤ 15 (380) are allowed in riser sections.

**GENERAL NOTES**

Pipe holes shall be formed to facilitate proper placement of hole reinforcement.

The manufacturer shall ensure that all precast manhole sections are additionally reinforced where required to resist damage from handling, shipping and installation stresses.

Lifting holes shall be located in the sections as per the manufacturer's recommendations.

See Standard 602701 for details of manhole steps.

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

Location	Riser Height (RH)	WWR (each direction) A <sub>s</sub> (min.)	Spacing (max.)	Rebar (each direction except as noted) A <sub>s</sub> (min.)	Spacing (max.)	Bar Size
Top Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	#3 or #4 (#10) (#13)
Bottom Mat	RH ≤ 10 ft. (3.05 m)	0.02 sq. in./ft. (1312 sq. mm/m)	6 (150)	6 (150)	6 (150)	#5 (#16)
	RH > 10 ft. (3.05 m)	0.08 sq. in./ft. (1863 sq. mm/m)	6 (150)	6 (150)	6 (150)	#6 (#19)

Only one layer of WWR permitted to avoid congestion.

Location	Orientation	WWR or Rebar	A <sub>s</sub> (min.)	Spacing (max.)
4 ft. (1.22 m) Ø Riser	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)	8 (200)
6 ft. (1.83 m) Ø Barrel	Circumferential	0.18 sq. in./ft. (381 sq. mm/m)	6 (150)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)	8 (200)

Location	Riser Height (RH)/ Total Height (TH)	WWR or Rebar (each direction) A <sub>s</sub> (min.)	Spacing (max.)
Top Mat	RH = 10 ft. (3.05 m) & TH ≤ 20 ft. (6.10 m)	0.20 sq. in./ft. (593 sq. mm/m)	6 (150)
Bottom Mat	RH > 10 ft. (3.05 m) or TH > 20 ft. (6.10 m)	0.40 sq. in./ft. (847 sq. mm/m)	6 (150)
Bottom Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)

**PRECAST MANHOLE TYPE A  
6' (1.83 m) DIAMETER**  
(Sheet 1 of 3)

Illinois Department of Transportation  
PROJ. NO. 180020-01  
SHEET 1 OF 3  
ENGINEER OF POLICY AND PROCEDURES  
APPROVED: [Signature]  
REGISTERED PROFESSIONAL ENGINEER

**SECTION PARALLEL TO PIPE**  
(Without conical top riser)

**SECTION PERPENDICULAR TO PIPE**  
(With conical top riser)

**BASE SLAB JOINT CONFIGURATIONS**

**JOINT SPLICE**

**CONNECTION ANGLE**

**TIE PLATE**

**SHEAR KEY GEOMETRY**  
(Reinforcement not shown for clarity)

**FLAT SLAB TOP JOINT CONFIGURATIONS**  
(Shown at access hole)

**GEOMETRIC LIMITS FOR PIPE PENETRATION HOLES**

Note 1: A minimum of 9 (230) of monolithic reinforced concrete shall be maintained above pipe penetration holes > 32 (810).

Note 2: A minimum 12 (300) inside arc length of reinforced concrete shall be maintained between pipe penetration holes > 15 (380).

Note 3: A maximum of 60 percent of the inside perimeter of the reinforced concrete manhole walls may be removed.

Note 4: Horizontal joints that intersect pipe penetration holes > 15 (380) shall have one joint splice for every location around the perimeter of the joint where the inside arc length between pipe penetration holes is < 24 (600). See joint splice detail.

Note 5: The recommended pipe penetration hole is equal to the O.D. of the pipe plus 4 (100).

Note 6: Only pipe penetration holes ≤ 15 (380) are allowed in riser sections.

**GENERAL NOTES**

Pipe holes shall be formed to facilitate proper placement of hole reinforcement.

The manufacturer shall ensure that all precast manhole sections are additionally reinforced where required to resist damage from handling, shipping and installation stresses.

Lifting holes shall be located in the sections as per the manufacturer's recommendations.

See Standard 602701 for details of manhole steps.

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

Location	Riser Height (RH)	WWR (each direction) A <sub>s</sub> (min.)	Spacing (max.)	Rebar (each direction except as noted) A <sub>s</sub> (min.)	Spacing (max.)	Bar Size
Top Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	#3 or #4 (#10) (#13)
Bottom Mat	RH ≤ 10 ft. (3.05 m)	0.02 sq. in./ft. (1312 sq. mm/m)	6 (150)	6 (150)	6 (150)	#5 (#16)
	RH > 10 ft. (3.05 m)	0.08 sq. in./ft. (1863 sq. mm/m)	6 (150)	6 (150)	6 (150)	#6 (#19)

Only one layer of WWR permitted to avoid congestion.

Location	Orientation	WWR or Rebar	A <sub>s</sub> (min.)	Spacing (max.)
4 ft. (1.22 m) Ø Riser	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)	8 (200)
6 ft. (1.83 m) Ø Barrel	Circumferential	0.18 sq. in./ft. (381 sq. mm/m)	6 (150)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)	8 (200)

Location	Riser Height (RH)/ Total Height (TH)	WWR or Rebar (each direction) A <sub>s</sub> (min.)	Spacing (max.)
Top Mat	RH = 10 ft. (3.05 m) & TH ≤ 20 ft. (6.10 m)	0.20 sq. in./ft. (593 sq. mm/m)	6 (150)
Bottom Mat	RH > 10 ft. (3.05 m) or TH > 20 ft. (6.10 m)	0.40 sq. in./ft. (847 sq. mm/m)	6 (150)
Bottom Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)

**PRECAST MANHOLE TYPE A  
6' (1.83 m) DIAMETER**  
(Sheet 3 of 3)

Illinois Department of Transportation  
PROJ. NO. 180020-01  
SHEET 3 OF 3  
ENGINEER OF POLICY AND PROCEDURES  
APPROVED: [Signature]  
REGISTERED PROFESSIONAL ENGINEER

**PLAN - FLAT SLAB TOP**  
(Showing layout of bottom reinforcement bars and c bars)

**PLAN - FLAT SLAB TOP**  
(Showing layout of welded wire reinforcement and c bars)

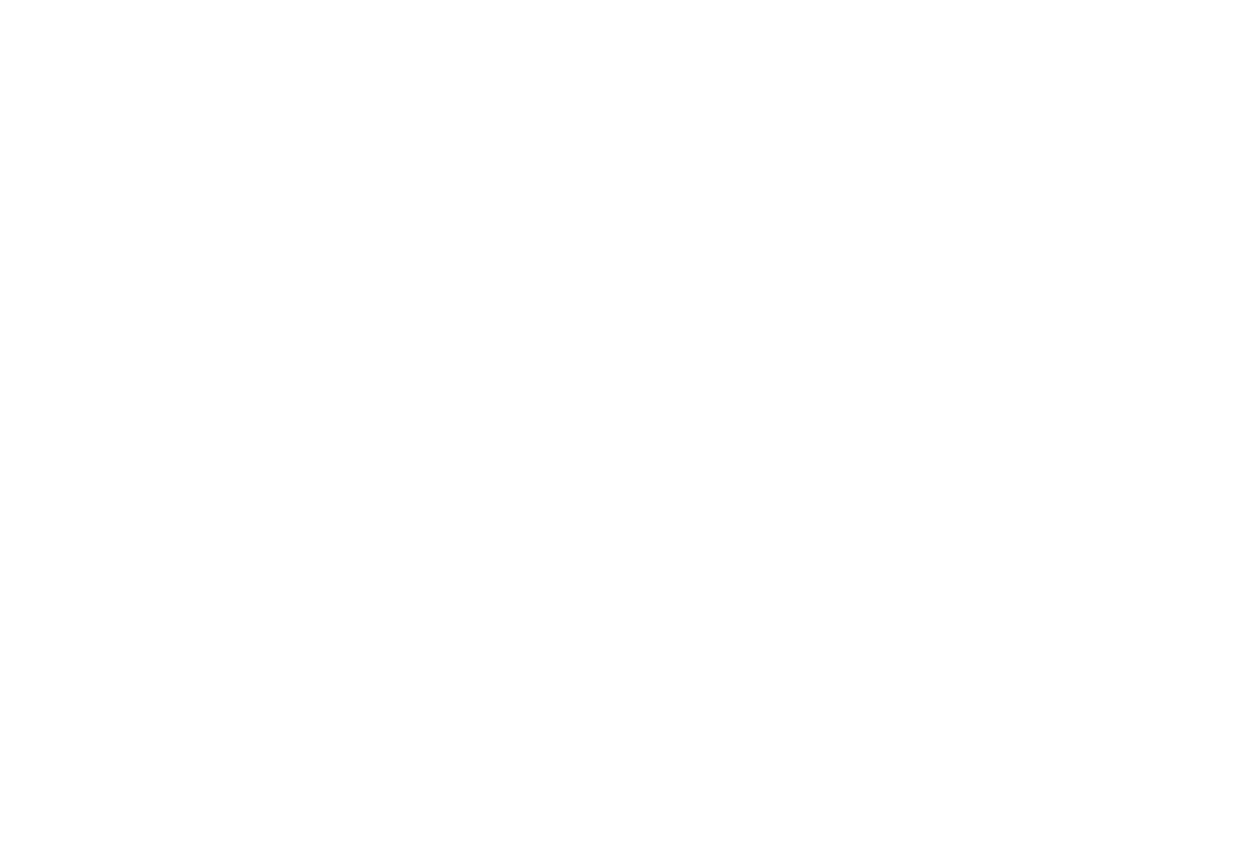
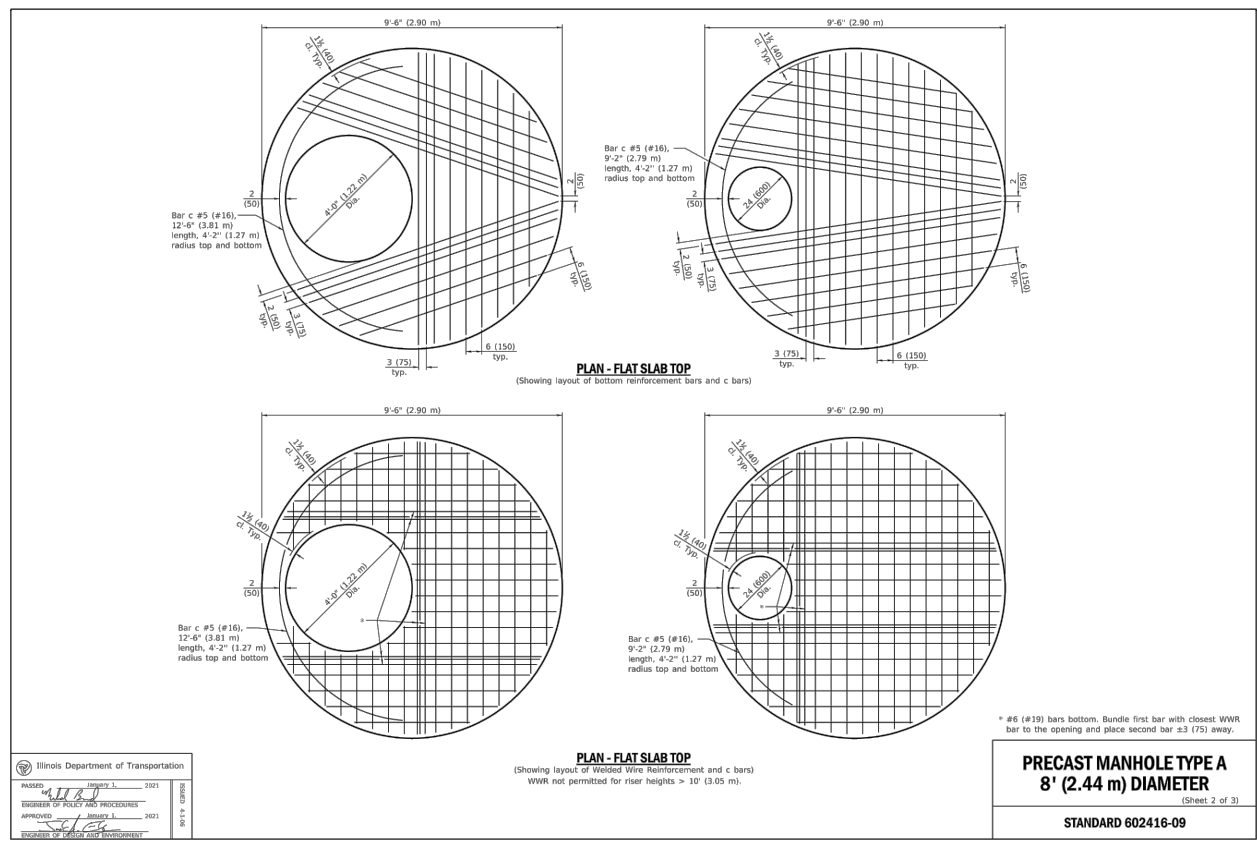
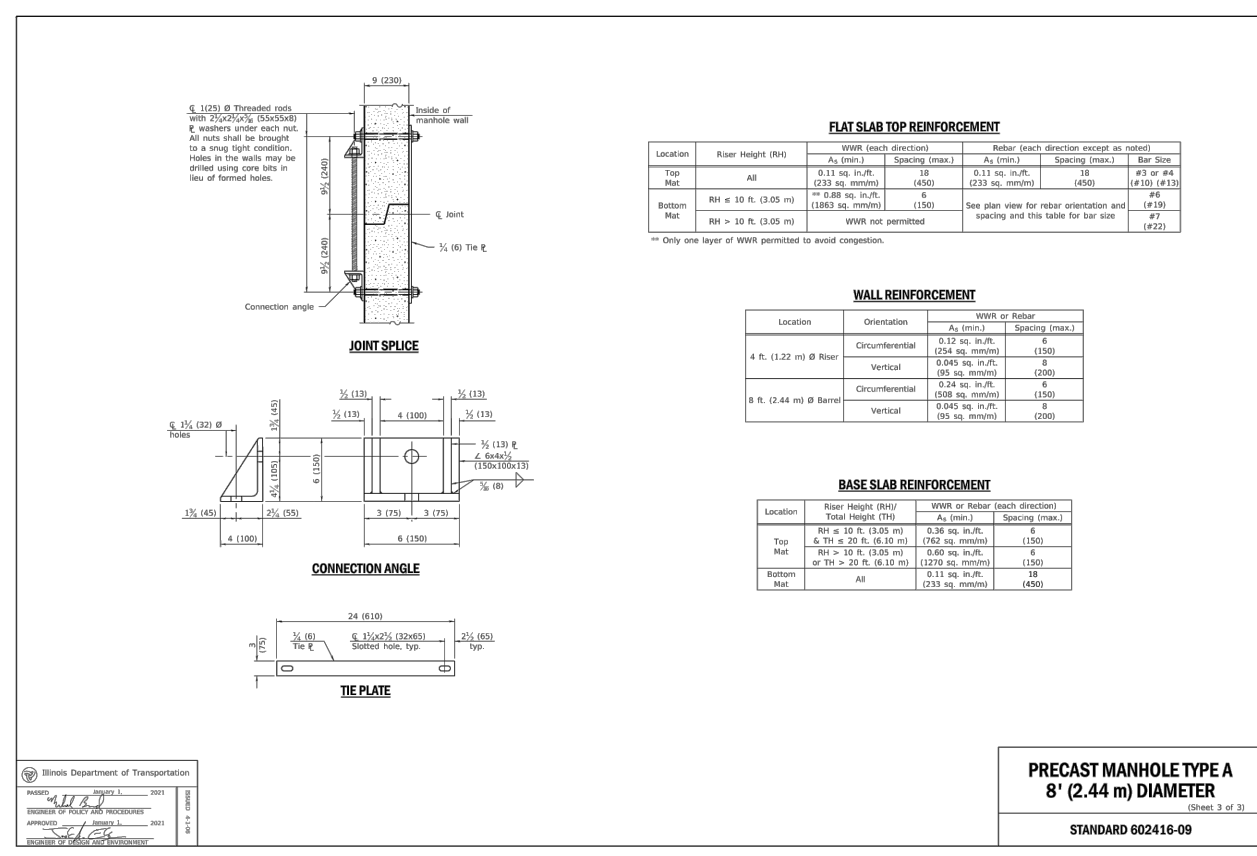
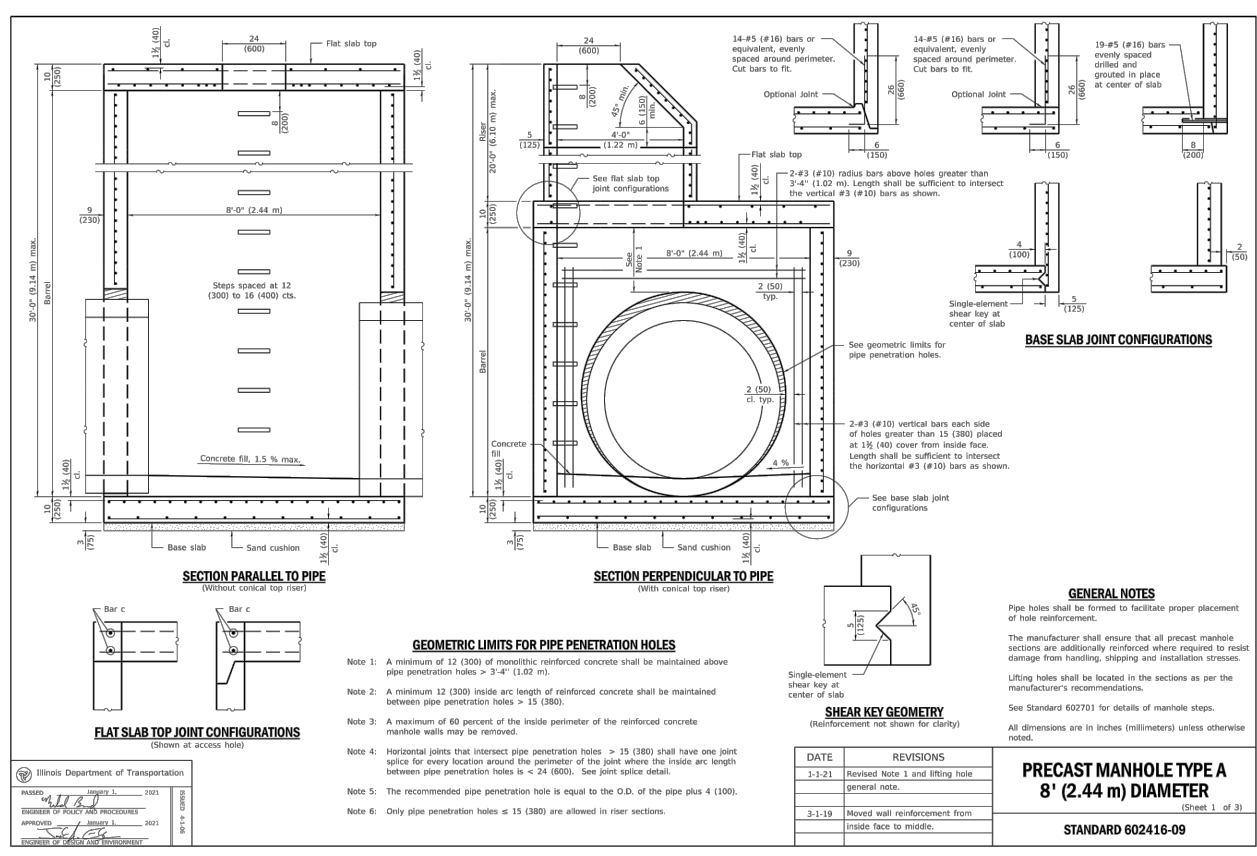
**PRECAST MANHOLE TYPE A  
6' (1.83 m) DIAMETER**  
(Sheet 2 of 3)

\* #5 (#16) bars for risers ≤ 10 ft. (3.05 m) tall or #6 (#19) bars for risers > 10 ft. (3.05 m) tall bottom. Bundle first bar with closest WWR bar to the opening and place second bar #3 (75) away.

**PRECAST MANHOLE TYPE A  
6' (1.83 m) DIAMETER**  
(Sheet 2 of 3)

Illinois Department of Transportation  
PROJ. NO. 180020-01  
SHEET 2 OF 3  
ENGINEER OF POLICY AND PROCEDURES  
APPROVED: [Signature]  
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**1 MANHOLE - 6' DIA**  
N.T.S.



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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
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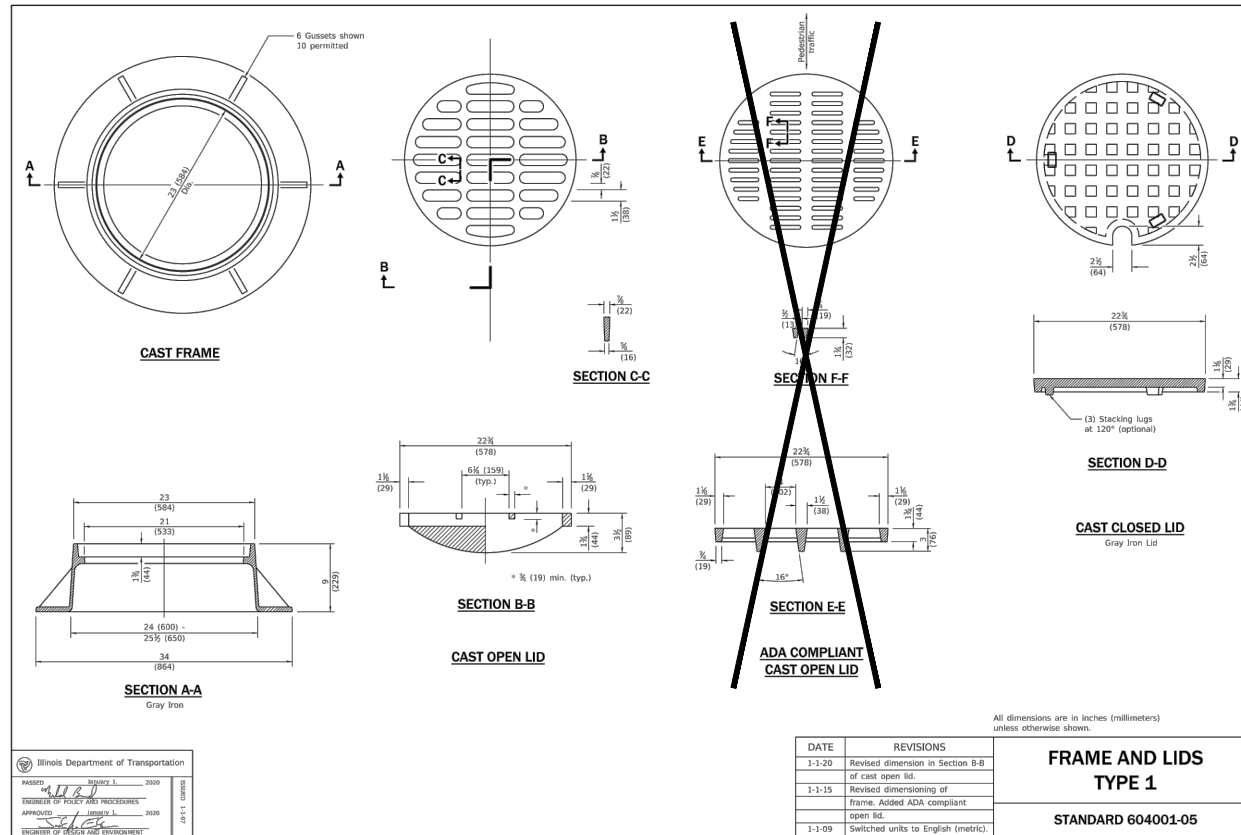
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION
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IL PROJ. NO:	UIN-5051	
CMT PROJECT NO:	18002001	
CAD DWG FILE:	180020-01 PH4 CU500.DWG	
DESIGNED BY:	HWI	
DRAWN BY:	DPA	
CHECKED BY:	CHK	
APPROVED BY:	APR	
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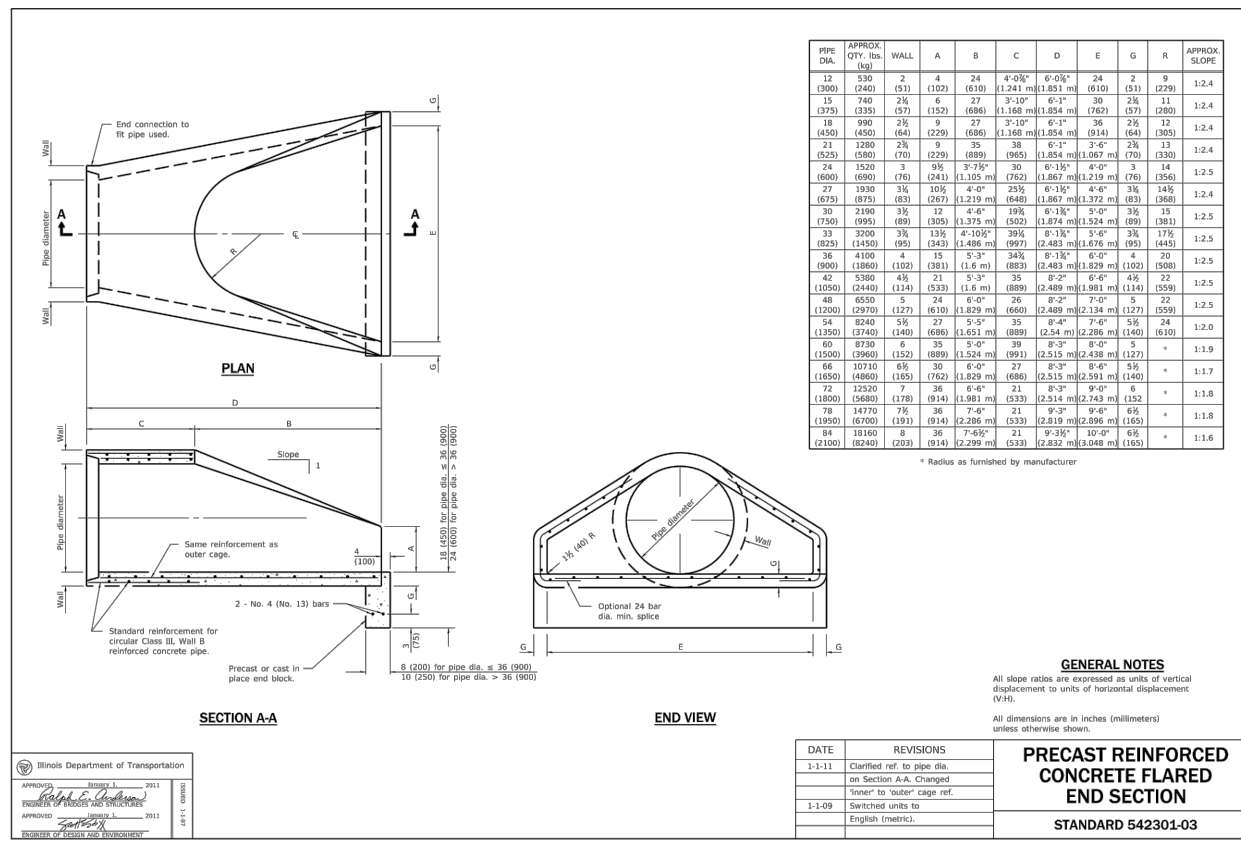
SHEET TITLE  
**STORM SEWER  
DETAILS 5**

CU505  
SHEET 46 OF 143

**1 MANHOLE - 8' DIA**  
N.T.S.



Illinois Department of Transportation  
APPROVED: [Signature] 2020  
ENGINEER OF DESIGN AND PERFORMANCE



Illinois Department of Transportation  
APPROVED: [Signature] 2011  
ENGINEER OF DESIGN AND PERFORMANCE

PIPE DIA.	APPROX. QTY. lbs. (kg)	WALL	A	B	C	D	E	G	R	APPROX. SLOPE
12 (300)	530 (240)	2 (51)	4 (102)	24 (610)	4'-0 1/2" (1.241 m)	6'-0 1/2" (1.831 m)	24 (610)	2 (51)	9 (229)	1:2.4
15 (375)	740 (335)	2 1/2 (64)	6 (152)	27 (686)	3'-10" (1.168 m)	6'-1" (1.854 m)	30 (762)	2 1/2 (64)	11 (279)	1:2.4
18 (450)	990 (450)	3 (76)	9 (229)	30 (762)	3'-10" (1.168 m)	6'-1" (1.854 m)	36 (914)	3 (76)	12 (305)	1:2.4
21 (525)	1260 (580)	3 1/2 (89)	12 (305)	33 (838)	3'-7 1/2" (1.137 m)	6'-1" (1.828 m)	39 (991)	3 1/2 (89)	13 (330)	1:2.4
24 (600)	1520 (690)	4 (102)	15 (381)	36 (914)	3'-7 1/2" (1.137 m)	6'-1" (1.828 m)	42 (1067)	4 (102)	14 (355)	1:2.5
27 (675)	1930 (875)	4 1/2 (114)	18 (457)	40 (1016)	4'-0" (1.219 m)	6'-1 1/2" (1.872 m)	45 (1143)	4 1/2 (114)	14 1/2 (368)	1:2.4
30 (750)	2190 (995)	5 (127)	21 (533)	45 (1143)	4'-4" (1.375 m)	6'-1 1/2" (1.872 m)	48 (1219)	5 (127)	15 (381)	1:2.5
33 (825)	3200 (1450)	5 1/2 (139)	24 (610)	51 (1297)	4'-10 1/2" (1.486 m)	6'-1 1/2" (1.872 m)	51 (1297)	5 1/2 (139)	17 1/2 (445)	1:2.5
36 (900)	4100 (1860)	6 (152)	30 (762)	60 (1524)	5'-3" (1.6 m)	6'-1 1/2" (1.872 m)	54 (1371)	6 (152)	20 (508)	1:2.5
42 (1050)	5360 (2440)	7 (178)	36 (914)	84 (2130)	5'-3" (1.6 m)	6'-2" (1.88 m)	60 (1524)	7 (178)	23 (583)	1:2.5
48 (1200)	6550 (2970)	8 (203)	48 (1219)	108 (2743)	6'-0" (1.828 m)	6'-2" (1.88 m)	66 (1676)	8 (203)	25 (635)	1:2.5
54 (1350)	8240 (3740)	9 (229)	60 (1524)	144 (3658)	6'-0" (1.828 m)	6'-2" (1.88 m)	72 (1829)	9 (229)	28 (711)	1:2.0
60 (1500)	9730 (4420)	10 (254)	72 (1829)	180 (4572)	6'-0" (1.828 m)	6'-3" (1.915 m)	78 (1981)	10 (254)	31 (787)	1:1.9
66 (1650)	10710 (4860)	11 (279)	84 (2130)	216 (5491)	6'-0" (1.828 m)	6'-3" (1.915 m)	84 (2130)	11 (279)	34 (863)	1:1.7
72 (1800)	12520 (5680)	12 (305)	96 (2438)	252 (6350)	6'-0" (1.828 m)	6'-3" (1.915 m)	90 (2286)	12 (305)	37 (940)	1:1.8
78 (1950)	14770 (6700)	13 (330)	108 (2743)	306 (7715)	6'-0" (1.828 m)	6'-3" (1.915 m)	96 (2438)	13 (330)	40 (1016)	1:1.8
84 (2100)	18160 (8240)	14 (355)	120 (3048)	360 (9144)	6'-0" (1.828 m)	6'-3" (1.915 m)	102 (2591)	14 (355)	43 (1092)	1:1.6

\* Radius as furnished by manufacturer

**GENERAL NOTES**  
All slope ratios are expressed in units of vertical displacement to units of horizontal displacement (V:H).  
All dimensions are in inches (millimeters) unless otherwise shown.

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



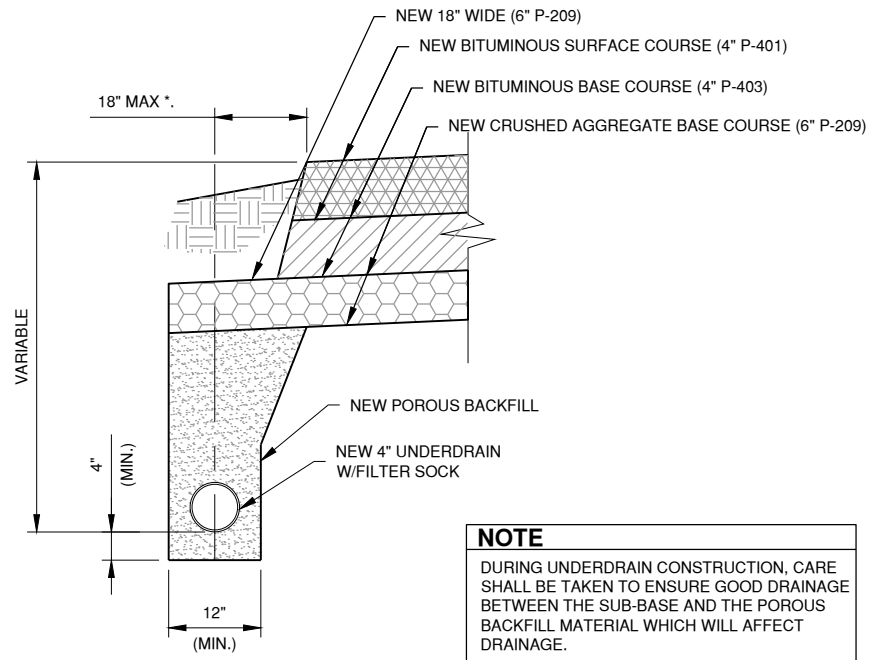
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

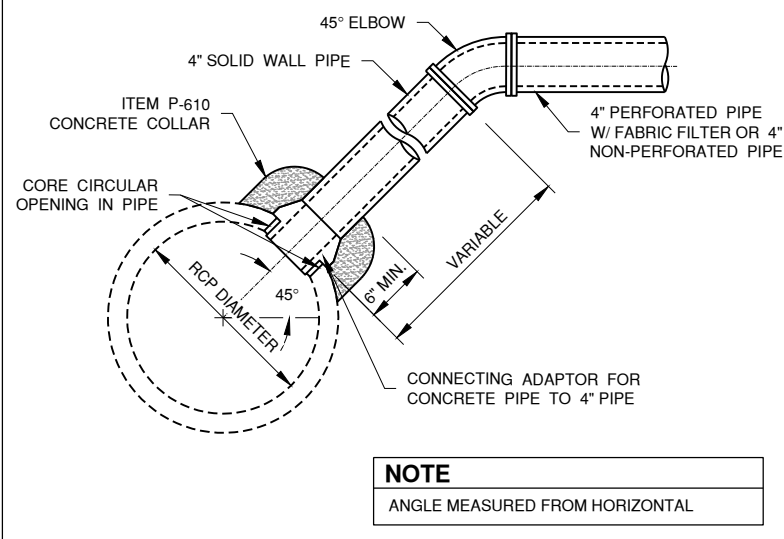
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IL PROJ. NO:	UIN-5051
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SHEET TITLE  
**STORM SEWER  
DETAILS 6**

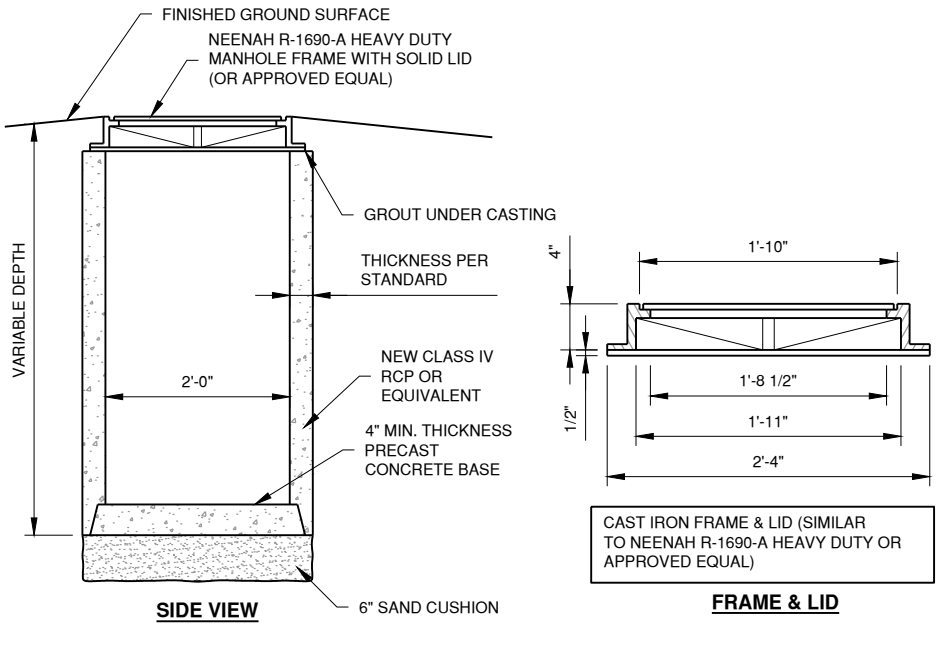
\*UNLESS PLAN LOCATIONS INDICATE ALTERNATE LOCATIONS



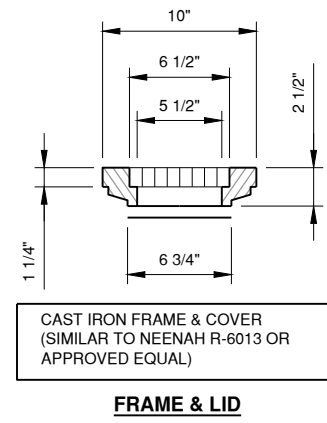
**1 UNDERDRAIN PAVEMENT EDGE**  
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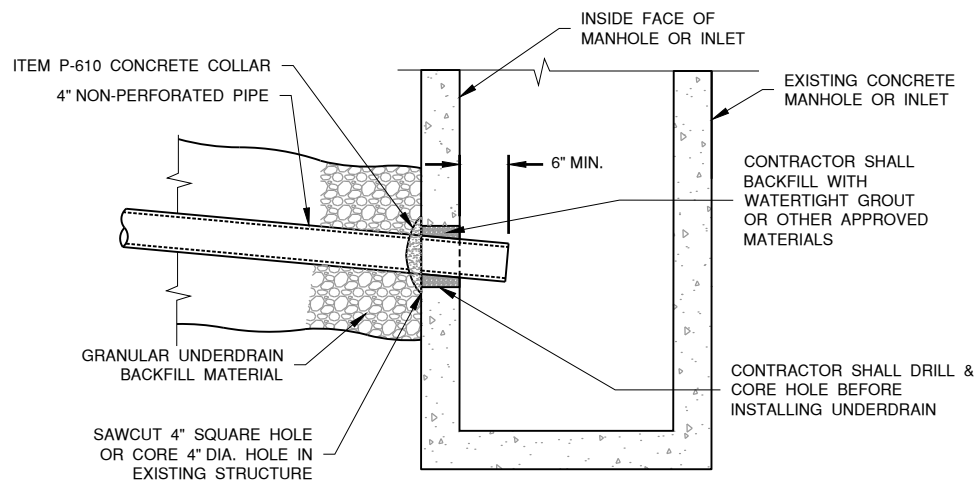
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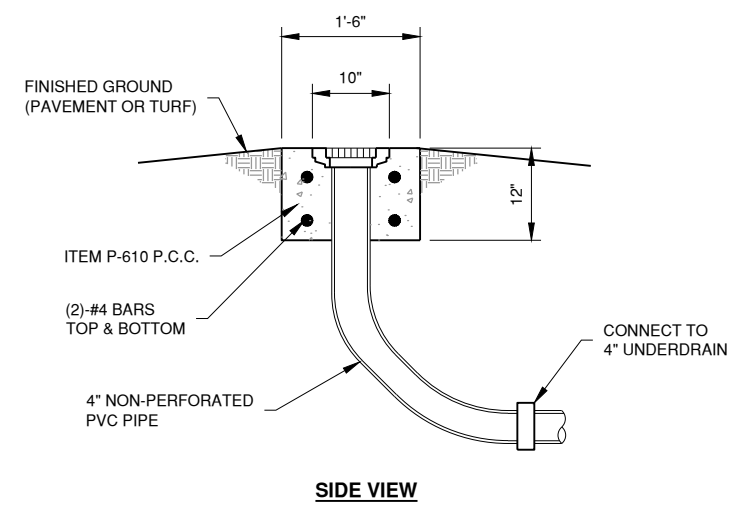
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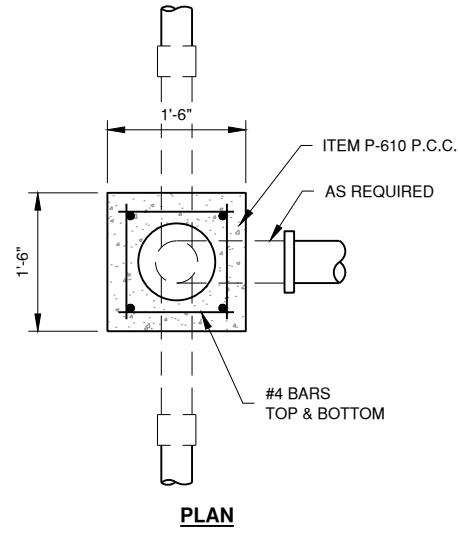
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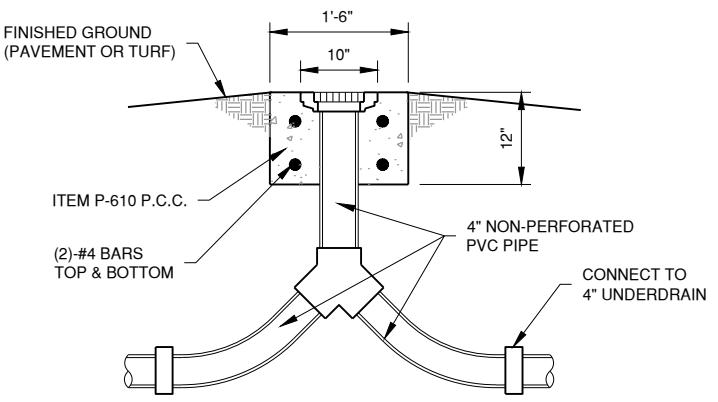
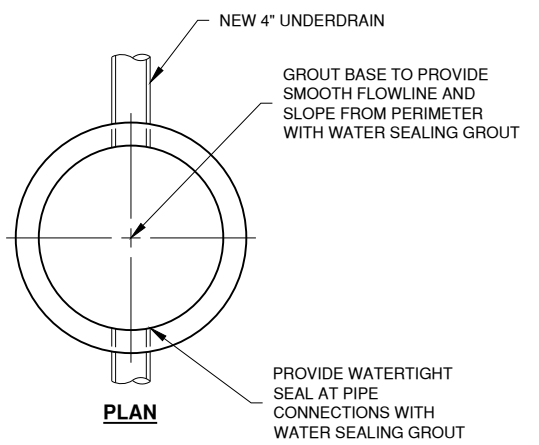
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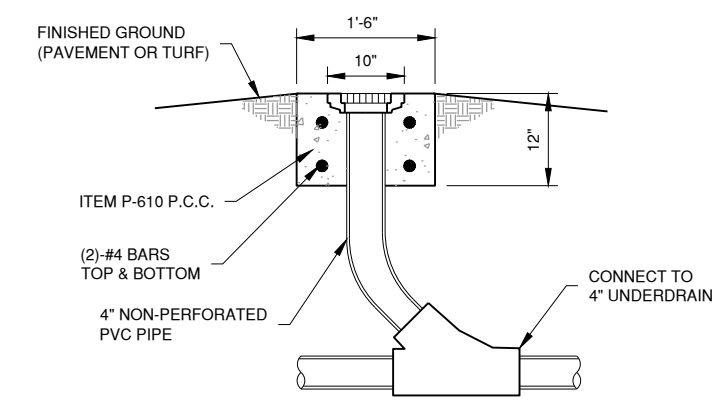
**6 UNDERDRAIN CLEAN-OUT TYPE 1**  
N.T.S.



**5 UNDERDRAIN CLEAN-OUT**  
N.T.S.



**7 UNDERDRAIN CLEAN-OUT TYPE 2**  
N.T.S.



**8 UNDERDRAIN CLEAN-OUT TYPE 3**  
N.T.S.



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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

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QUINCY REGIONAL AIRPORT  
QUINCY, IL

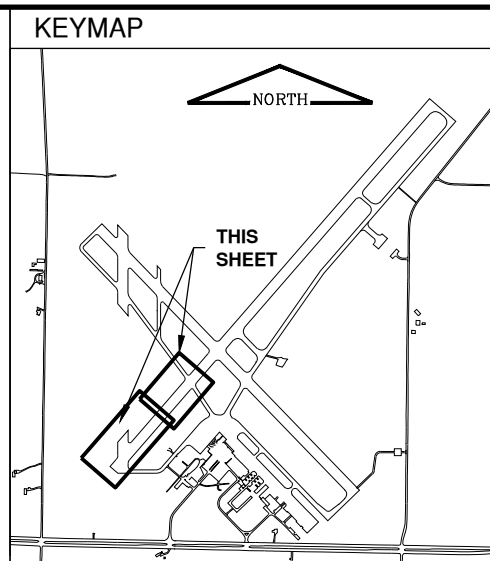
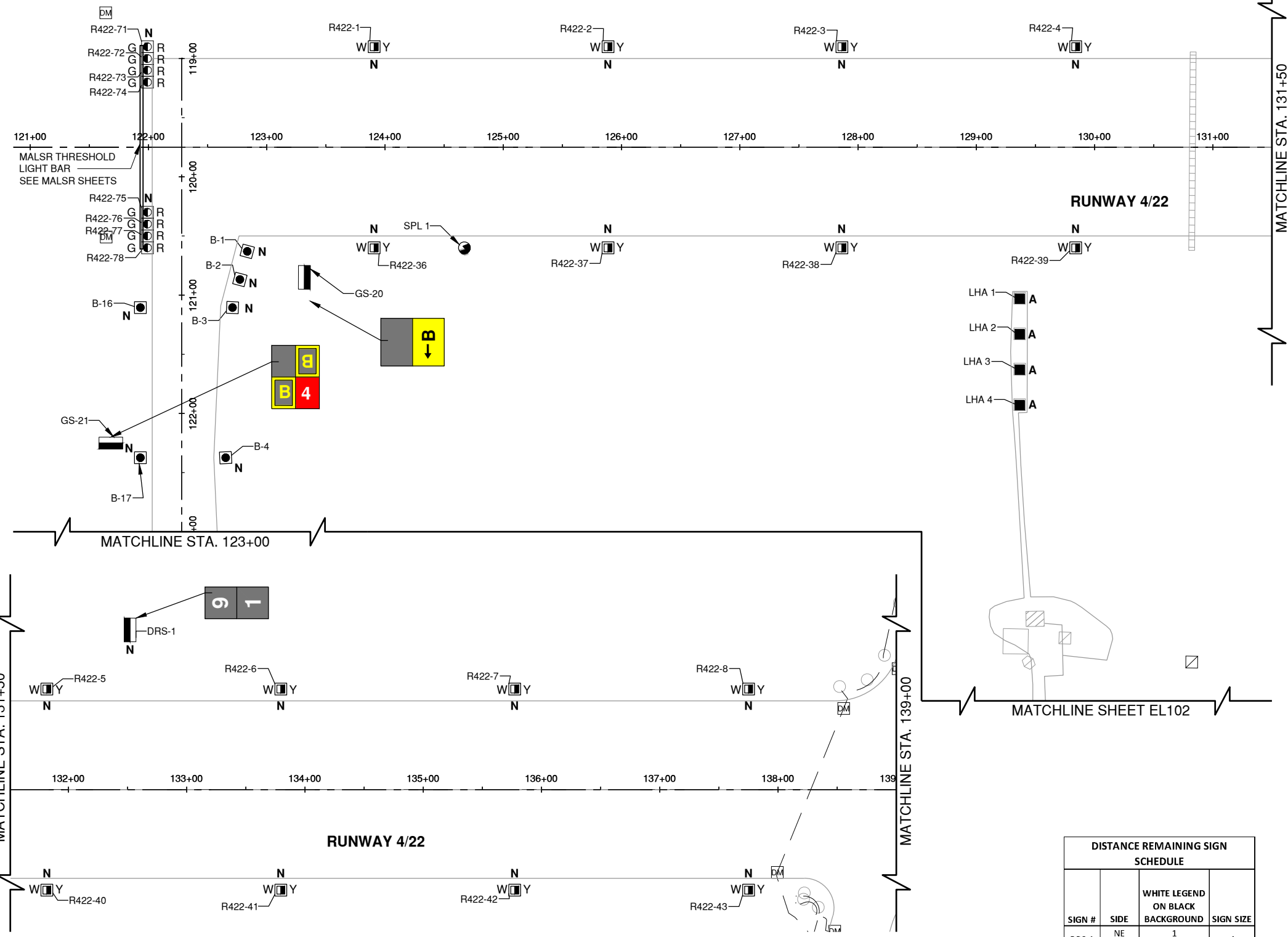
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IL PROJ. NO:	UIN-5051	
CMT PROJECT NO:	18002001	
CAD DWG FILE:	180020-01 PH4 CU500.DWG	
DESIGNED BY:	HWI	
DRAWN BY:	DPA	
CHECKED BY:	CHK	
APPROVED BY:	APR	
COPYRIGHT:		

**UNDERDRAIN  
DETAILS**

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License No. 184-000613

CONSULTANTS



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

**LEGEND**

- |          |     |   |
|----------|-----|---|
| EXISTING | NEW |   |
|          |     | SPLICE CAN  |
|          |     | AIRFIELD GUIDANCE SIGN - SEE SCHEDULE FOR DESCRIPTION |
|          |     | NEW TAXIWAY EDGE LIGHT - STAKE MOUNTED                |
|          |     | NEW TAXIWAY EDGE LIGHT - BASE MOUNTED                 |
|          |     | RUNWAY EDGE LIGHT - BASE MOUNTED W/LENS COLOR         |
|          |     | ELECTRIC HANDHOLE                                     |
|          |     | DUCT BANK   |
|          |     | IN-PAVEMENT LIGHT                                     |
|          |     | ADJUST PAPI   |
|          |     | NEW FIXTURE/SIGN & TRANSFORMER ON EXISTING BASE       |
|          |     | NEW FIXTURE/SIGN, BASE, & TRANSFORMER                 |
|          |     | DUCT MARKER   |
|          |     | NEW RUNWAY THRESHOLD LIGHT                            |
|          |     | (GREEN / RED LENS)                                    |
|          |     |   |
|          |     | PAPI LIGHTS (NOTE 5)                                  |

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
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CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

**NOTES**

- EDGE LIGHTS SHALL BE LOCATED NO MORE THAN 10' AND NO LESS THAN 2' FROM THE EXISTING PAVEMENT EDGE, IN A STRAIGHT LINE.
- THE CONTRACTOR SHALL VERIFY LAYOUT OF LIGHTS WITH THE R.E. PRIOR TO INSTALLING.
- LIGHTS SHALL BE INSTALLED IN A STRAIGHT LINE FROM THE P.T. OR P.C. OR TAPER POINT.
- NEW BASES SHALL BE INSTALLED AT THE ELEVATION COMPATIBLE WITH THE NEW RUNWAY PROFILE.
- ADJUST PAPI MOUNTING HEIGHT. SEE SHEETS EL510 & EL511 FOR DETAILS

**DISTANCE REMAINING SIGN SCHEDULE**

SIGN #	SIDE	WHITE LEGEND ON BLACK BACKGROUND	SIGN SIZE
DRS-1	NE	1	4
	SW	6	
DRS-2	NE	2	4
	SW	5	
DRS-3	NE	3	4
	SW	4	
DRS-4	NE	4	4
	SW	3	
DRS-5	NE	5	4
	SW	2	
DRS-6	NE	6	4
	SW	1	

**GUIDANCE SIGN SCHEDULE**

SIGN #	SIDE	NEW SIGN LEGEND	WHITE WITH BLACK OUTLINE ON RED BACKGROUND (L-858R)	BLACK LEGEND ON YELLOW BACKGROUND (L-858Y)	YELLOW LEGEND ON BLACK BACKGROUND (L-858L)	NUMBER OF CHARACTERS	POWER CIRCUIT	SIGN TYPE	SIGN SIZE	SIGN STYLE	SIGN CLASS	CIRCUIT INTENSITY	REG OUTPUT	SIGN MODE
GS-20	NE	← B		← B		2	TXY B	L-858	1	2	2	MEDIUM	6.6	2
	SW													
GS-21	NW	B			B	2	RWY 4-22	L-858	1	3	2	HIGH	6.6	2
	SE	B 4			B									

MARK	DATE	DESCRIPTION

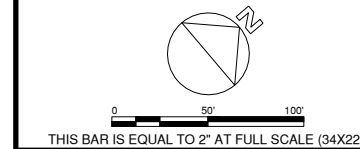
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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 EL100.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
APPROVED BY:	RLV
COPYRIGHT:	

SHEET TITLE  
**LIGHTING & SIGNAGE PLAN 1**

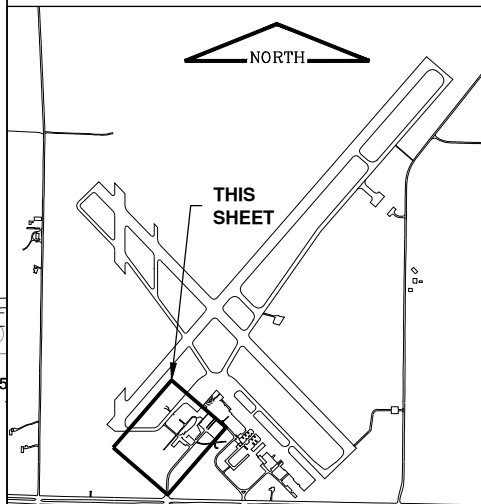


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KEYMAP



LEGEND

- EXISTING: (circle with dot) SPLICE CAN
- NEW: (circle with dot) SPLICE CAN
- (rectangle with horizontal lines) AIRFIELD GUIDANCE SIGN - SEE SCHEDULE FOR DESCRIPTION
- (circle with horizontal line) NEW TAXIWAY EDGE LIGHT - STAKE MOUNTED
- (circle with dot) NEW TAXIWAY EDGE LIGHT - BASE MOUNTED
- (square with horizontal lines) RUNWAY EDGE LIGHT - BASE MOUNTED W/LENS COLOR
- (square with horizontal lines) ELECTRIC HANDHOLE
- (rectangle with diagonal lines) DUCT BANK
- (circle with dot) IN-PAVEMENT LIGHT
- (A) ADJUST PAPI
- (F) NEW FIXTURE/SIGN & TRANSFORMER ON EXISTING BASE
- (N) NEW FIXTURE/SIGN, BASE, & TRANSFORMER
- (DM) DUCT MARKER
- (G) (R) NEW RUNWAY THRESHOLD LIGHT
- (G) (R) (GREEN / RED LENS)
- (G) (R)
- (vertical bars) PAPI LIGHTS (NOTE 5)

NOTES

- EDGE LIGHTS SHALL BE LOCATED NO MORE THAN 10' AND NO LESS THAN 2' FROM THE EXISTING PAVEMENT EDGE, IN A STRAIGHT LINE.
- THE CONTRACTOR SHALL VERIFY LAYOUT OF LIGHTS WITH THE R.E. PRIOR TO INSTALLING.
- LIGHTS SHALL BE INSTALLED IN A STRAIGHT LINE FROM THE P.T. OR P.C. OR TAPER POINT.
- NEW BASES SHALL BE INSTALLED AT THE ELEVATION COMPATIBLE WITH THE NEW RUNWAY PROFILE.
- ADJUST PAPI MOUNTING HEIGHT. SEE SHEETS EL510 & EL511 FOR DETAILS

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MARCH 08, 2023  
RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

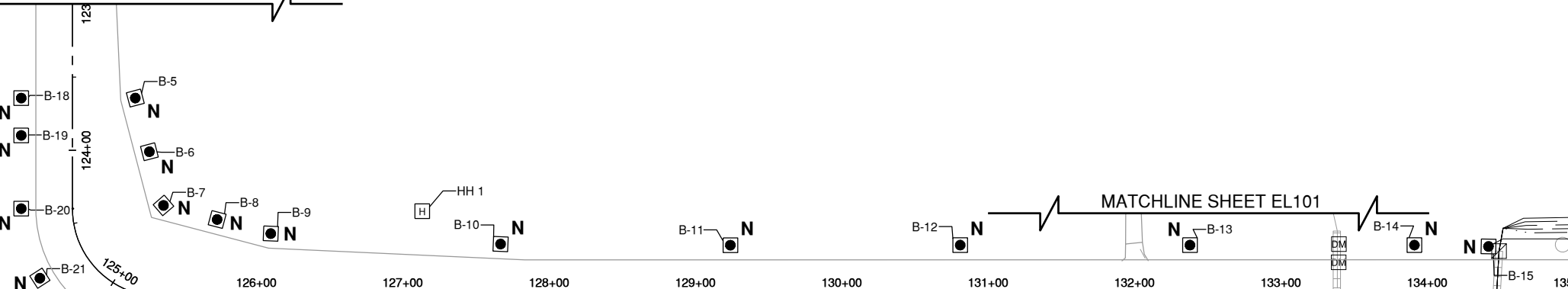
MARK | DATE | DESCRIPTION

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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 EL100.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
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SHEET TITLE  
**LIGHTING & SIGNAGE  
PLAN 2**

EL102  
SHEET 50 OF 143

MATCHLINE STA. 123+00



TAXIWAY B

MATCHLINE SHEET EL101

SEE PROPOSED VAULT  
IMPROVEMENTS SHEET  
EL 302

Path: K:\Quincy\AP180020-01\_ReconRunway4-22\DrawRwy4\Sheets\180020-01\_PH4\_EL100.dwg  
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THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 EL100.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

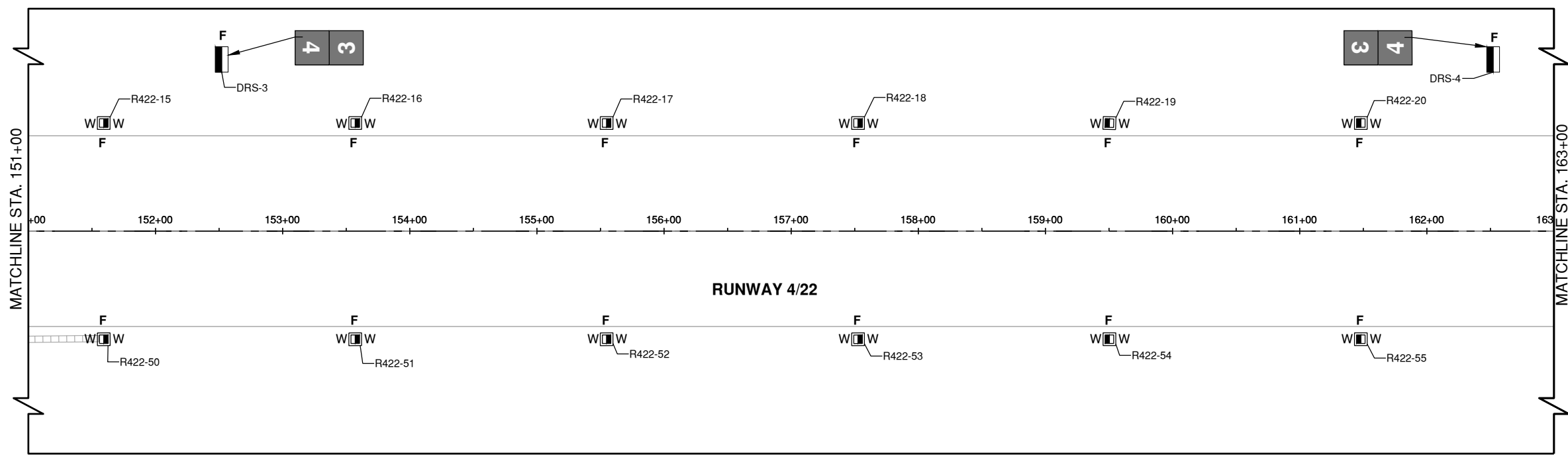
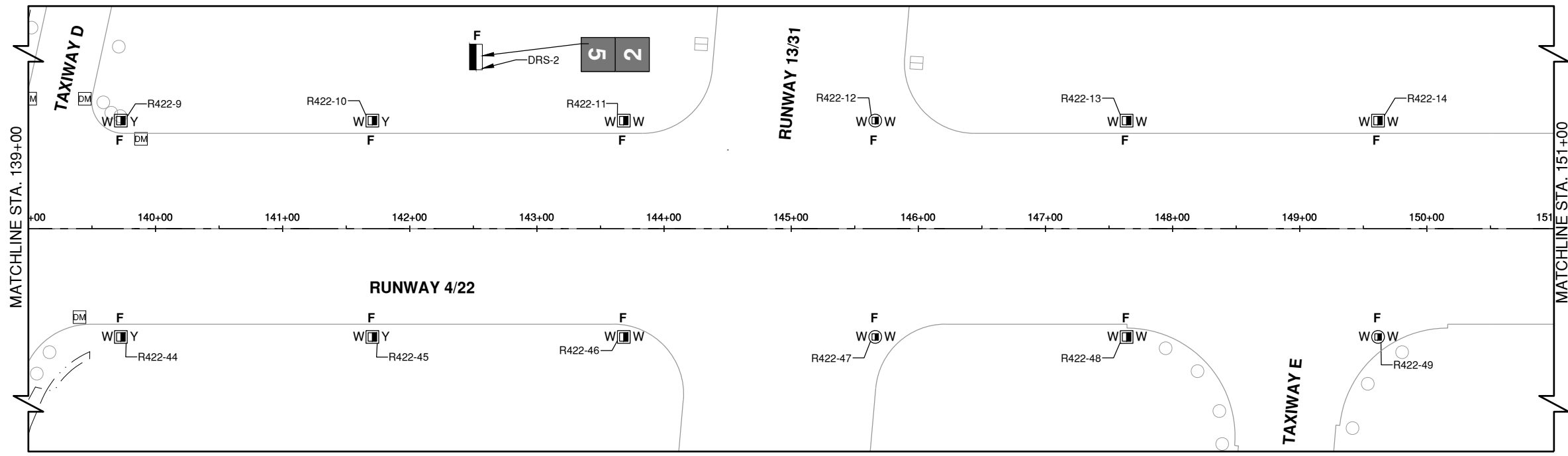
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SHEET TITLE  
**LIGHTING & SIGNAGE  
PLAN 3**

EL103  
SHEET 51 OF 143



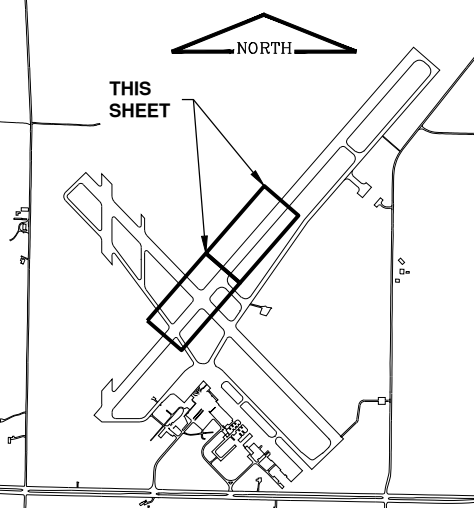
**NOTES**

- "RELOCATE TAXI GUIDANCE SIGN" PAY ITEM SHALL INCLUDE REMOVAL AND STORAGE OF EXISTING SIGN AND TRANSFORMER, REMOVAL OF EXISTING SIGN BASE, CONSTRUCTION OF NEW SIGN BASE, INSTALLATION OF EXISTING GUIDANCE SIGN AND TRANSFORMER ON NEW BASE, AND CABLING.

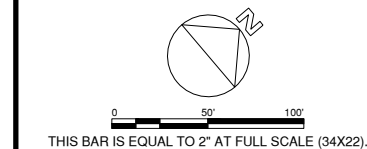
**LEGEND**

EXISTING	NEW	NEW
		<b>N</b> NEW FIXTURE, BASE, & TRANSFORMER
		<b>DM</b> DUCT MARKER
		<b>G</b> <b>R</b> NEW RUNWAY THRESHOLD LIGHT (GREEN / RED LENS)
		<b>G</b> <b>R</b> NEW RUNWAY THRESHOLD LIGHT (GREEN / RED LENS)
		<b>G</b> <b>R</b> NEW RUNWAY THRESHOLD LIGHT (GREEN / RED LENS)
		<b>G</b> <b>R</b> NEW RUNWAY THRESHOLD LIGHT (GREEN / RED LENS)
		<b>W</b> <b>Y</b> RUNWAY EDGE LIGHT - BASE MOUNTED W/LENS COLOR
		<b>H</b> ELECTRIC HANDHOLE
		<b>DUCT BANK</b>
		<b>IN-PAVEMENT LIGHT</b>
		<b>A</b> ADJUST PAPI
		<b>F</b> NEW FIXTURE & TRANSFORMER ON EXISTING BASE (NOTE 5)
		<b>SPLICE CAN</b>
		<b>AIRFIELD GUIDANCE SIGN - SEE SCHEDULE FOR DESCRIPTION</b>
		<b>NEW TAXIWAY EDGE LIGHT - STAKE MOUNTED</b>
		<b>NEW TAXIWAY EDGE LIGHT - BASE MOUNTED</b>
		<b>W</b> <b>Y</b> RUNWAY EDGE LIGHT - BASE MOUNTED W/LENS COLOR
		<b>H</b> ELECTRIC HANDHOLE
		<b>DUCT BANK</b>
		<b>IN-PAVEMENT LIGHT</b>
		<b>A</b> ADJUST PAPI
		<b>F</b> NEW FIXTURE & TRANSFORMER ON EXISTING BASE (NOTE 5)
		<b>PAPI LIGHTS</b>

**KEYMAP**



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RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 EL100.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

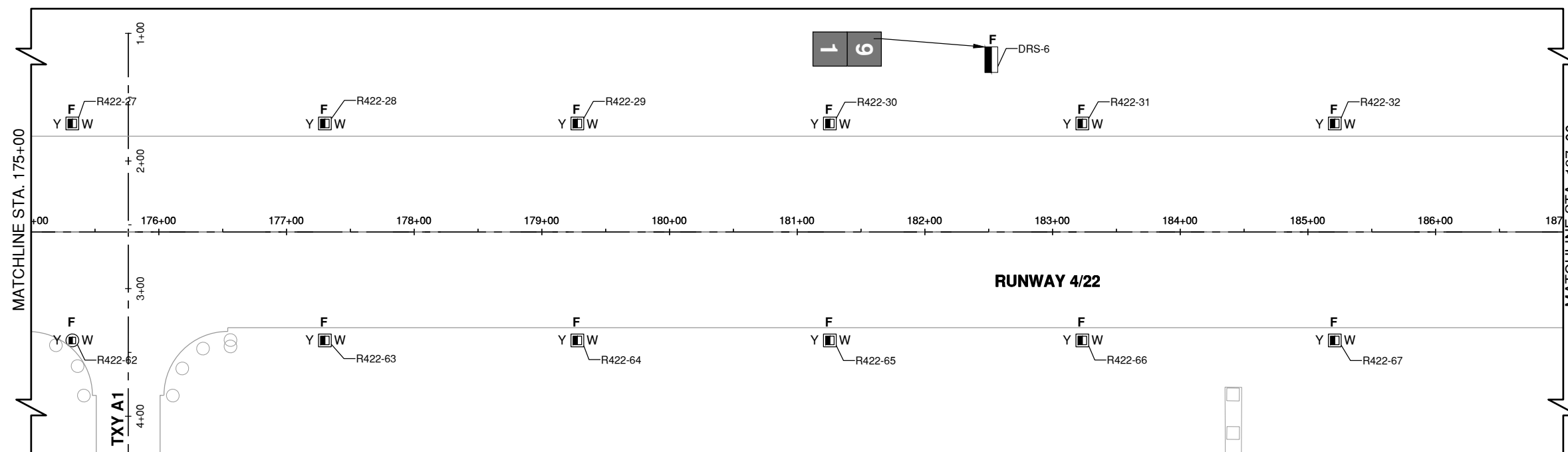
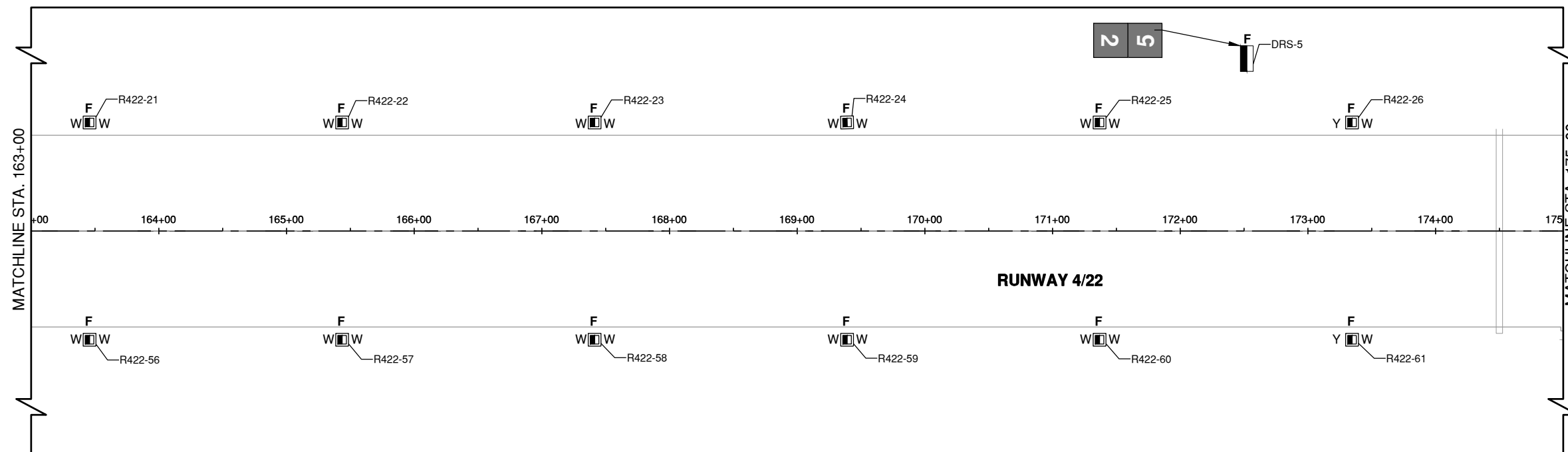
CHECKED BY: MJD

APPROVED BY: RLV

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SHEET TITLE  
**LIGHTING & SIGNAGE  
PLAN 4**

EL104  
SHEET 52 OF 143



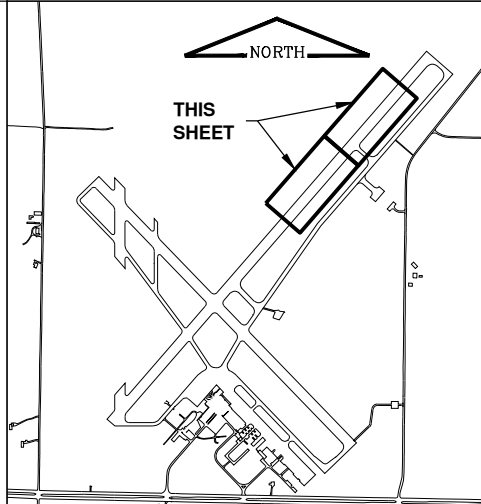
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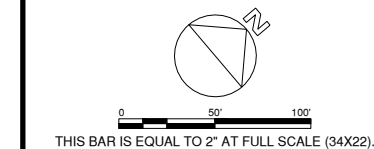
- "RELOCATE TAXI GUIDANCE SIGN" PAY ITEM SHALL INCLUDE REMOVAL AND STORAGE OF EXISTING SIGN AND TRANSFORMER, REMOVAL OF EXISTING SIGN BASE, CONSTRUCTION OF NEW SIGN BASE, INSTALLATION OF EXISTING GUIDANCE SIGN AND TRANSFORMER ON NEW BASE, AND CABLING.

**LEGEND**

EXISTING	NEW		NEW	
		SPLICE CAN		NEW FIXTURE, BASE, & TRANSFORMER
		AIRFIELD GUIDANCE SIGN - SEE SCHEDULE FOR DESCRIPTION		DUCT MARKER
		NEW TAXIWAY EDGE LIGHT - STAKE MOUNTED		NEW RUNWAY THRESHOLD LIGHT (GREEN / RED LENS)
		NEW TAXIWAY EDGE LIGHT - BASE MOUNTED		PAPI LIGHTS
		RUNWAY EDGE LIGHT - BASE MOUNTED W/LENS COLOR		
		ELECTRIC HANDHOLE		
		DUCT BANK		
		IN-PAVEMENT LIGHT		
		ADJUST PAPI		
		NEW FIXTURE & TRANSFORMER ON EXISTING BASE (NOTE 5)		

**KEYMAP**





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RECONSTRUCT RUNWAY 4/22  
PHASE 4

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CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 EL100.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

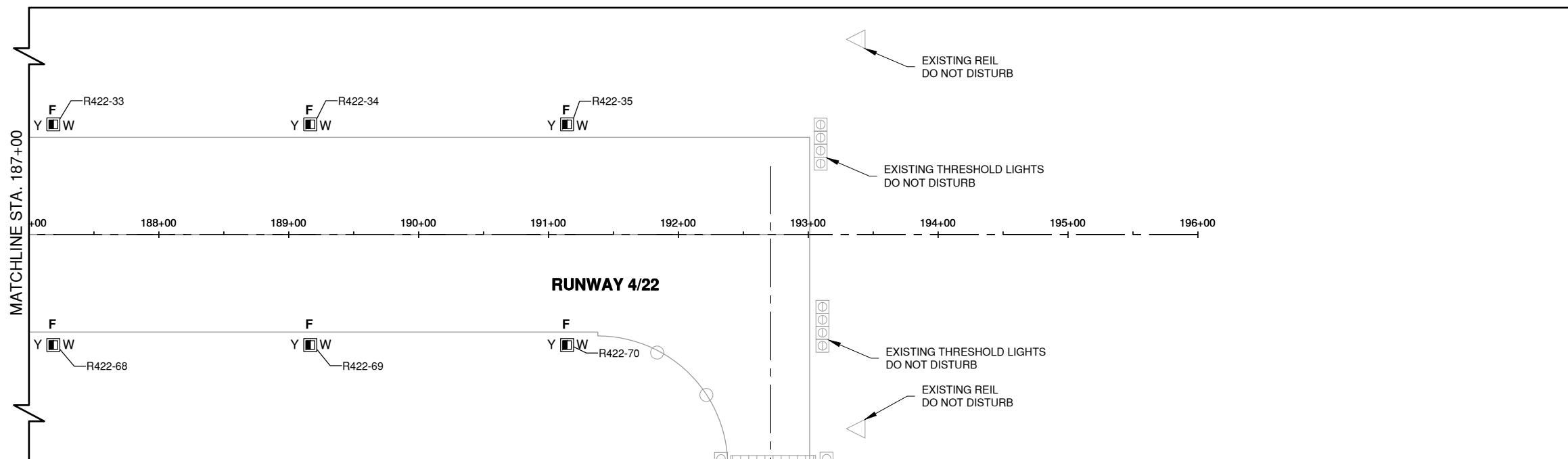
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SHEET TITLE  
**LIGHTING & SIGNAGE  
PLAN 5**

EL105  
SHEET 53 OF 143



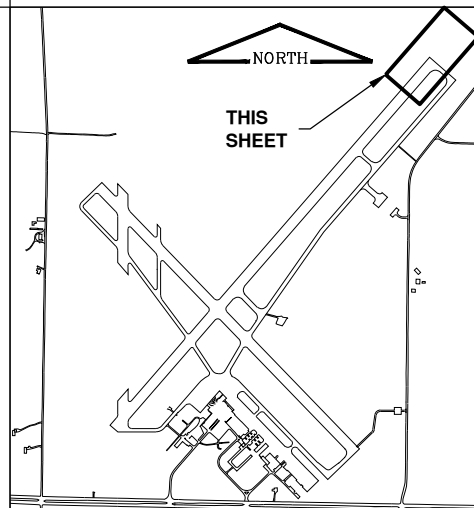
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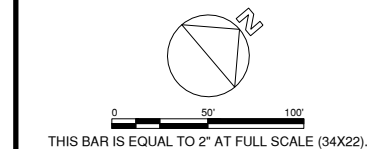
- "RELOCATE TAXI GUIDANCE SIGN" PAY ITEM SHALL INCLUDE REMOVAL AND STORAGE OF EXISTING SIGN AND TRANSFORMER, REMOVAL OF EXISTING SIGN BASE, CONSTRUCTION OF NEW SIGN BASE, INSTALLATION OF EXISTING GUIDANCE SIGN AND TRANSFORMER ON NEW BASE, AND CABLING.

**LEGEND**

EXISTING	NEW	NEW
		<b>N</b> NEW FIXTURE, BASE, & TRANSFORMER
		<b>DM</b> DUCT MARKER
		<b>G</b> <b>R</b> NEW RUNWAY THRESHOLD LIGHT(GREEN / RED LENS)
		<b>G</b> <b>R</b> LIGHT(GREEN / RED LENS)
	<b>W</b> <b>Y</b> RUNWAY EDGE LIGHT - BASE MOUNTED W/LENS COLOR	
		<b>P</b> PAPI LIGHTS
		<b>A</b> ADJUST PAPI
		<b>F</b> NEW FIXTURE & TRANSFORMER ON EXISTING BASE (NOTE 5)

**KEYMAP**





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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

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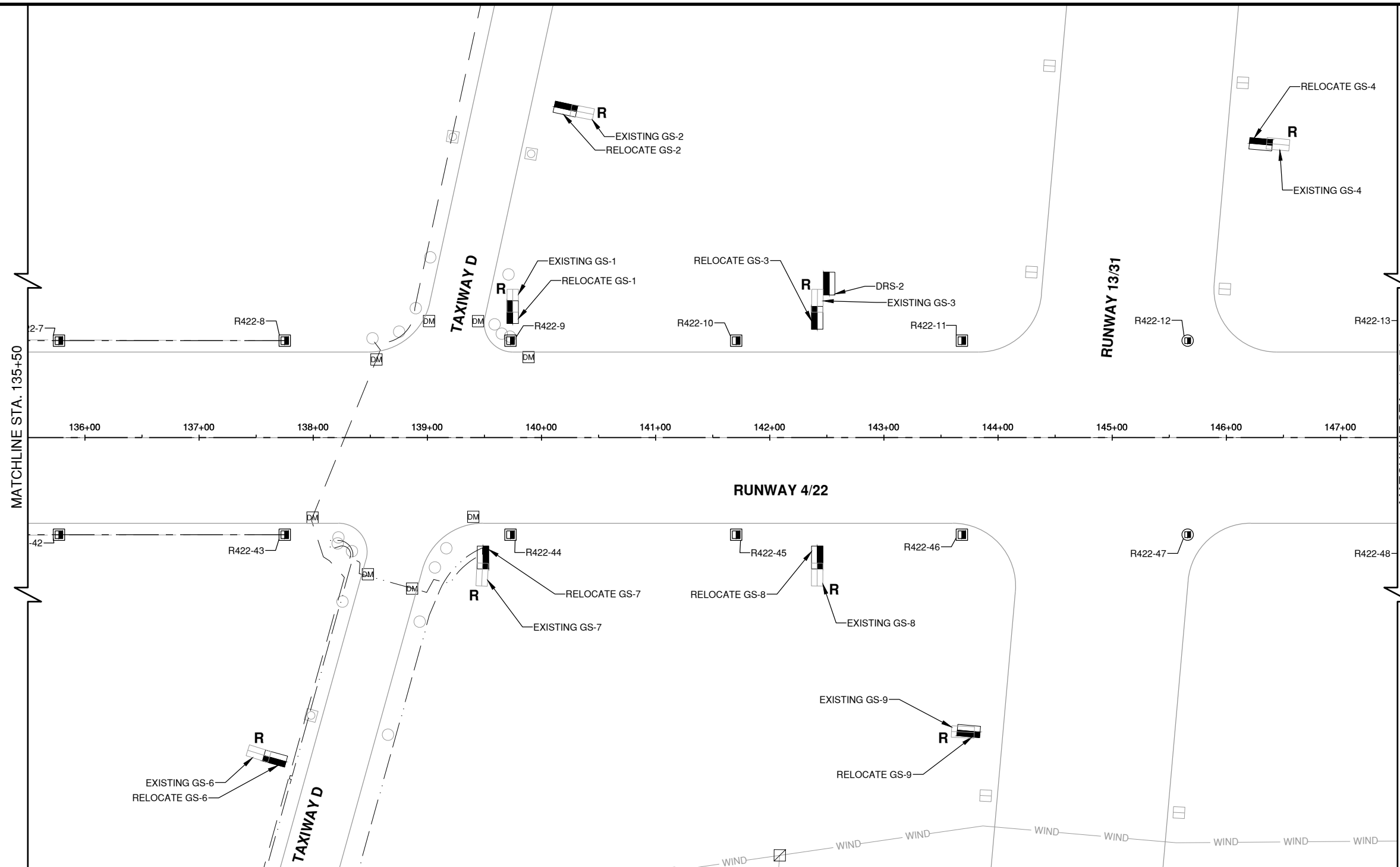
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

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CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 EL100.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
APPROVED BY:	RLV
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SHEET TITLE  
**SIGNAGE  
RELOCATION PLAN 1**

EL106  
SHEET 54 OF 143



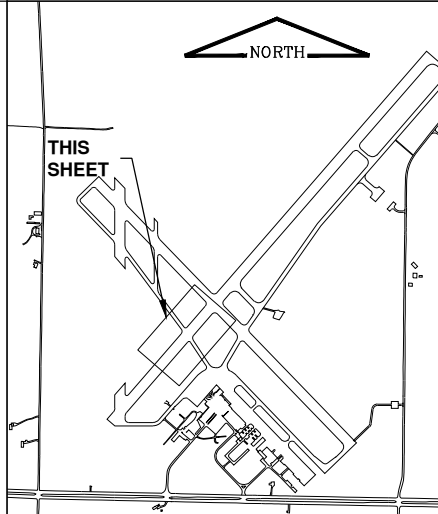
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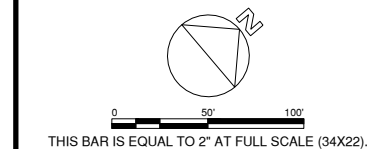
- "RELOCATE TAXI GUIDANCE SIGN" PAY ITEM SHALL INCLUDE REMOVAL AND STORAGE OF EXISTING SIGN AND TRANSFORMER, REMOVAL OF EXISTING SIGN BASE, CONSTRUCTION OF NEW SIGN BASE, INSTALLATION OF EXISTING GUIDANCE SIGN AND TRANSFORMER ON NEW BASE, AND CABLING.

**LEGEND**

- |          |          |   |
|----------|----------|---|
| EXISTING | NEW      |   |
|          |          | AIRFIELD GUIDANCE SIGN - SEE SCHEDULE FOR DESCRIPTION |
|          | <b>R</b> | RELOCATE EXISTING TAXIWAY GUIDANCE SIGN ON NEW BASE   |

**KEYMAP**





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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER

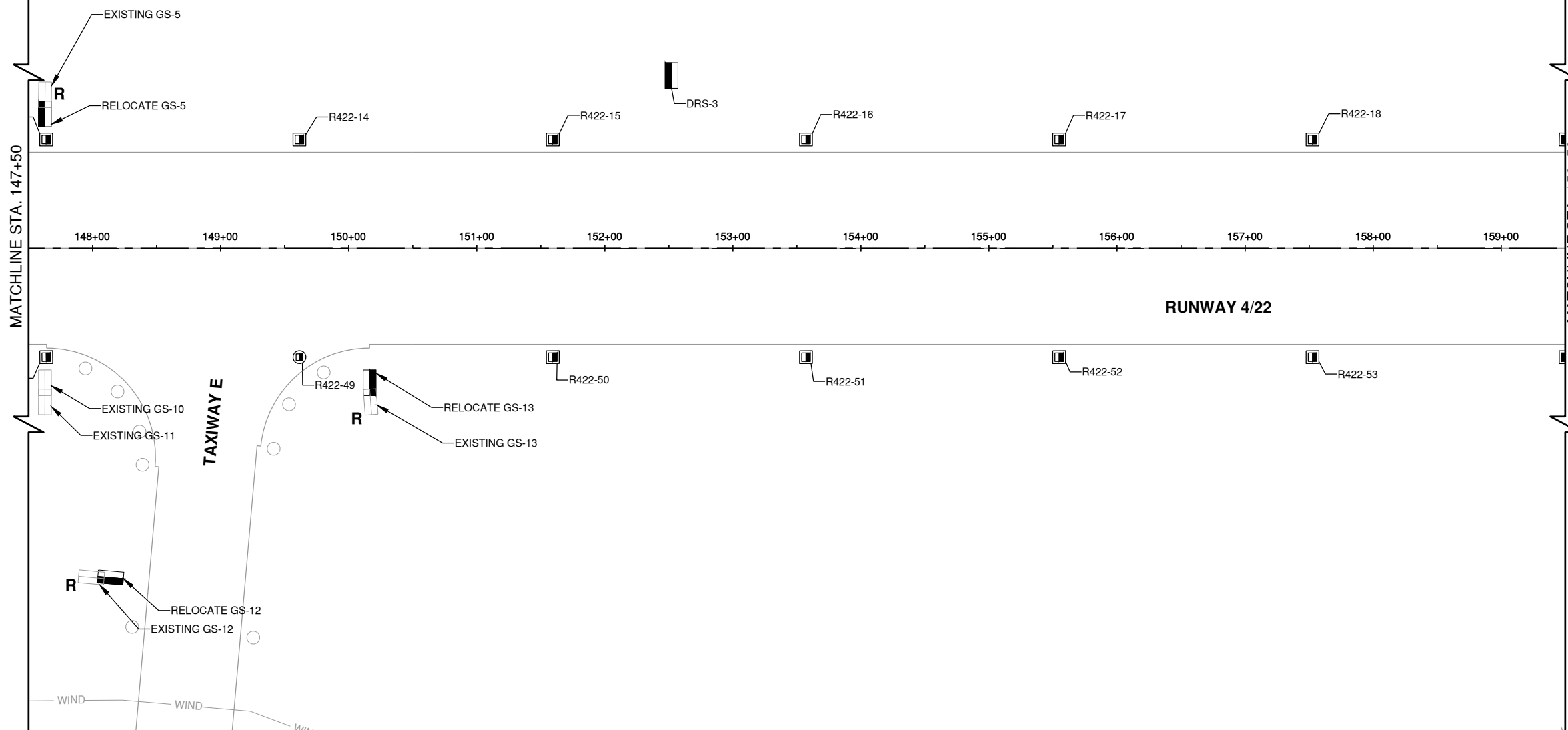


CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION
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		IL PROJ. NO: UIN-5051
		CMT PROJECT NO: 18002001
		CAD DWG FILE: 180020-01 PH4 EL100.DWG
		DESIGNED BY: HWI
		DRAWN BY: DPA
		CHECKED BY: MJD
		APPROVED BY: RLV
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SHEET TITLE  
**SIGNAGE  
RELOCATION PLAN 2**

EL107  
SHEET 55 OF 143



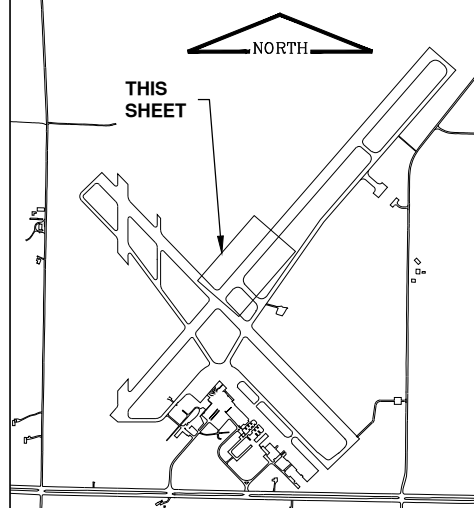
**NOTES**

- "RELOCATE TAXI GUIDANCE SIGN" PAY ITEM SHALL INCLUDE REMOVAL AND STORAGE OF EXISTING SIGN AND TRANSFORMER, REMOVAL OF EXISTING SIGN BASE, CONSTRUCTION OF NEW SIGN BASE, INSTALLATION OF EXISTING GUIDANCE SIGN AND TRANSFORMER ON NEW BASE, AND CABLING.

**LEGEND**

- |          |          |   |
|----------|----------|---|
| EXISTING | NEW      |   |
|          |          | AIRFIELD GUIDANCE SIGN - SEE SCHEDULE FOR DESCRIPTION |
|          | <b>R</b> | RELOCATE EXISTING TAXIWAY GUIDANCE SIGN ON NEW BASE   |

**KEYMAP**



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

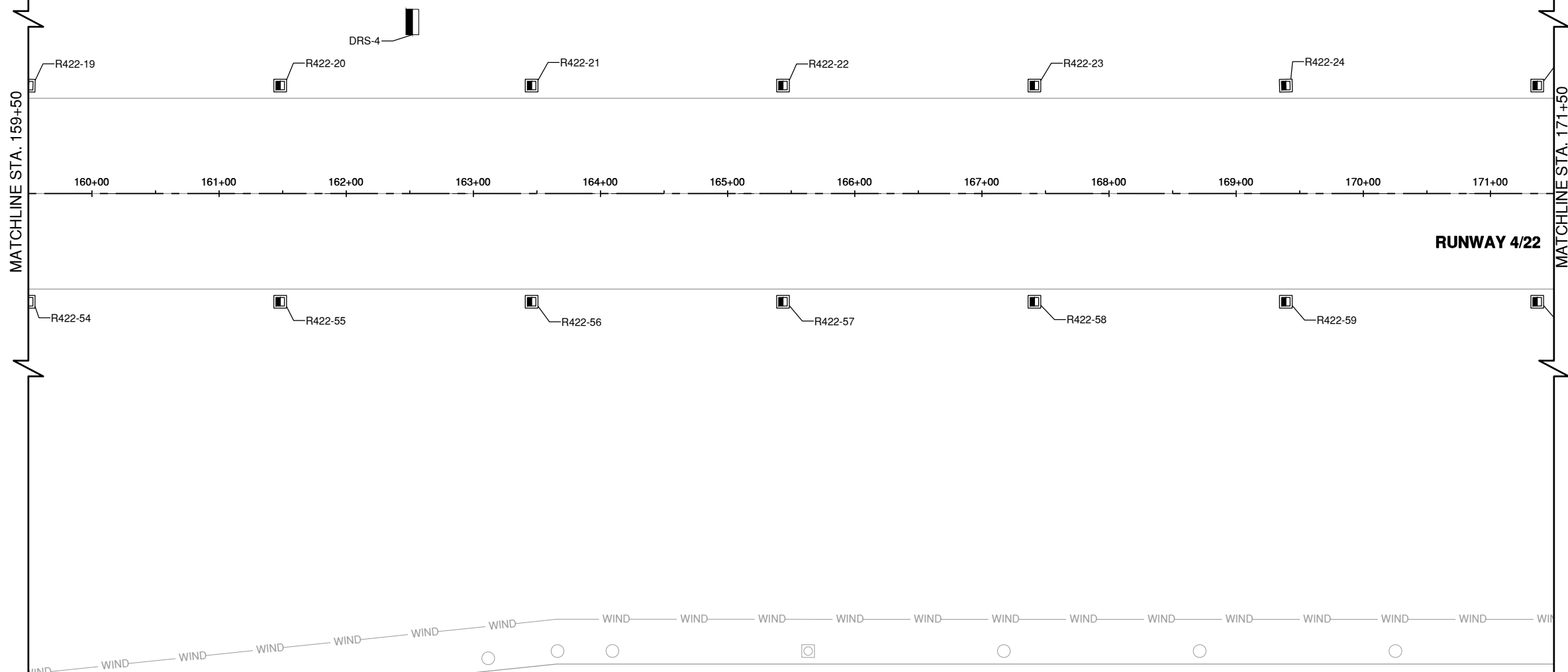
BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL



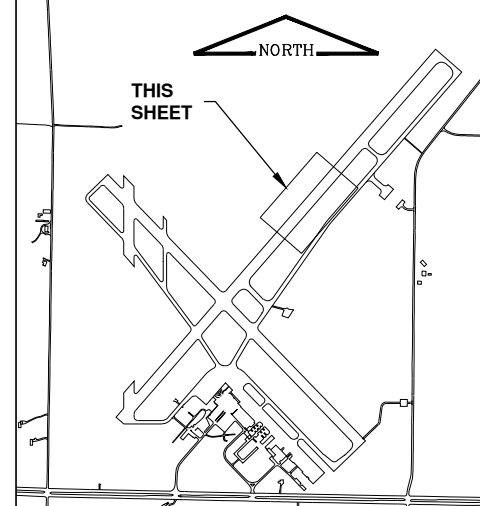
**NOTES**

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**LEGEND**

- |          |          |   |
|----------|----------|---|
| EXISTING | NEW      |   |
|          |          | AIRFIELD GUIDANCE SIGN - SEE SCHEDULE FOR DESCRIPTION |
|          | <b>R</b> | RELOCATE EXISTING TAXIWAY GUIDANCE SIGN ON NEW BASE   |

**KEYMAP**

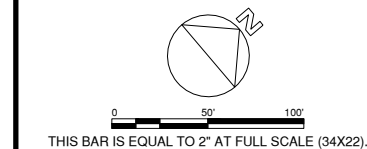


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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 EL100.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
APPROVED BY:	RLV
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SHEET TITLE  
**SIGNAGE  
RELOCATION PLAN 3**





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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



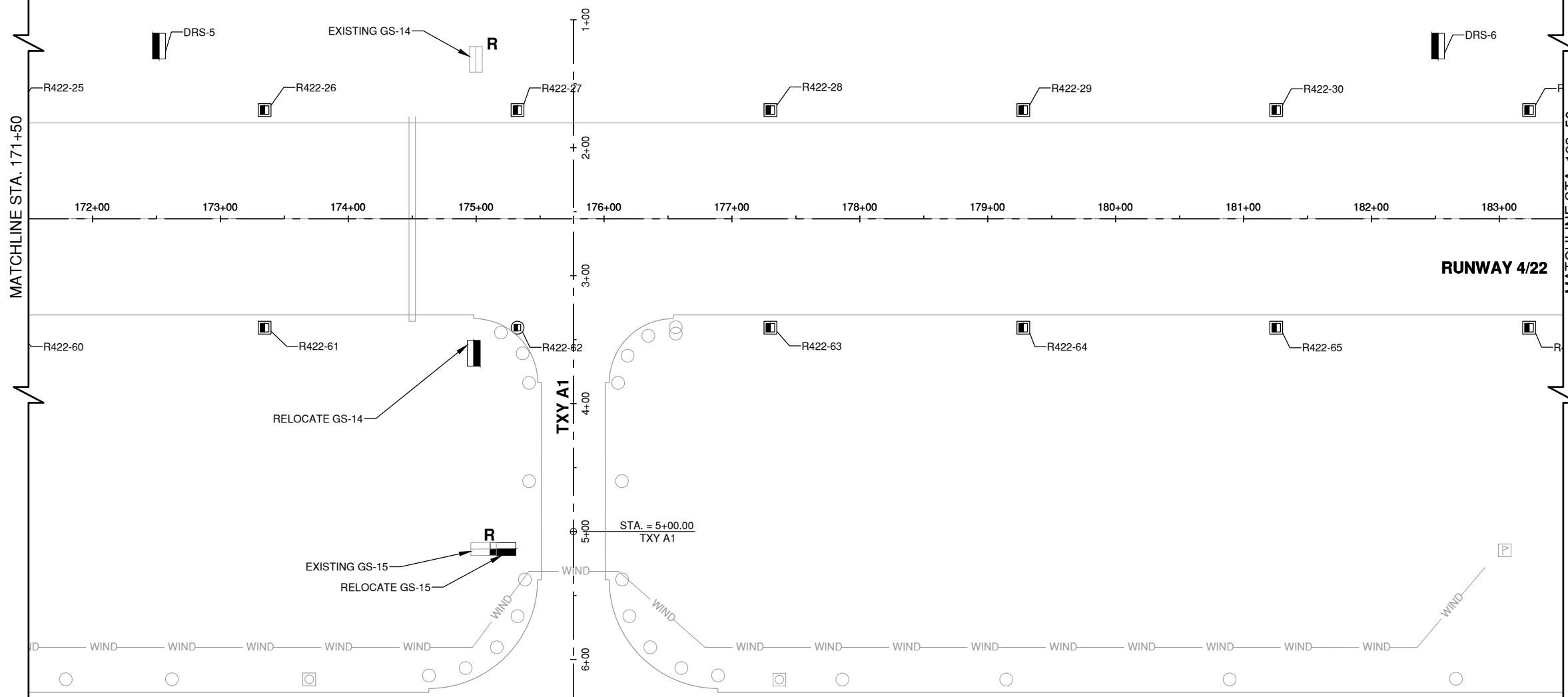
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 EL100.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
APPROVED BY:	RLV
COPYRIGHT:	

SHEET TITLE  
**SIGNAGE  
RELOCATION PLAN 4**

EL109  
SHEET 57 OF 143



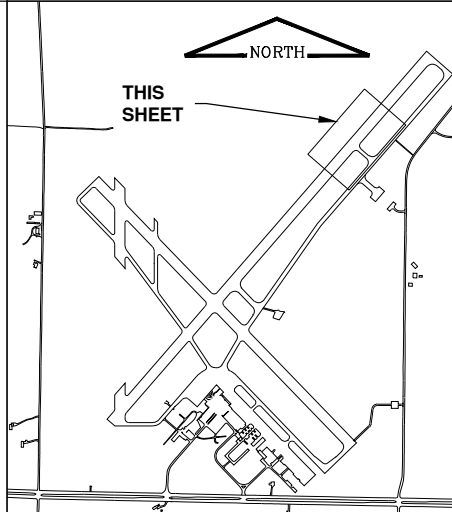
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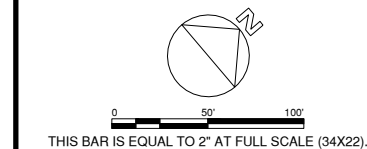
- "RELOCATE TAXI GUIDANCE SIGN" PAY ITEM SHALL INCLUDE REMOVAL AND STORAGE OF EXISTING SIGN AND TRANSFORMER, REMOVAL OF EXISTING SIGN BASE, CONSTRUCTION OF NEW SIGN BASE, INSTALLATION OF EXISTING GUIDANCE SIGN AND TRANSFORMER ON NEW BASE, AND CABLING.

**LEGEND**

- |          |          |   |
|----------|----------|---|
| EXISTING | NEW      |   |
|          |          | AIRFIELD GUIDANCE SIGN - SEE SCHEDULE FOR DESCRIPTION |
|          | <b>R</b> | RELOCATE EXISTING TAXIWAY GUIDANCE SIGN ON NEW BASE   |

**KEYMAP**





BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



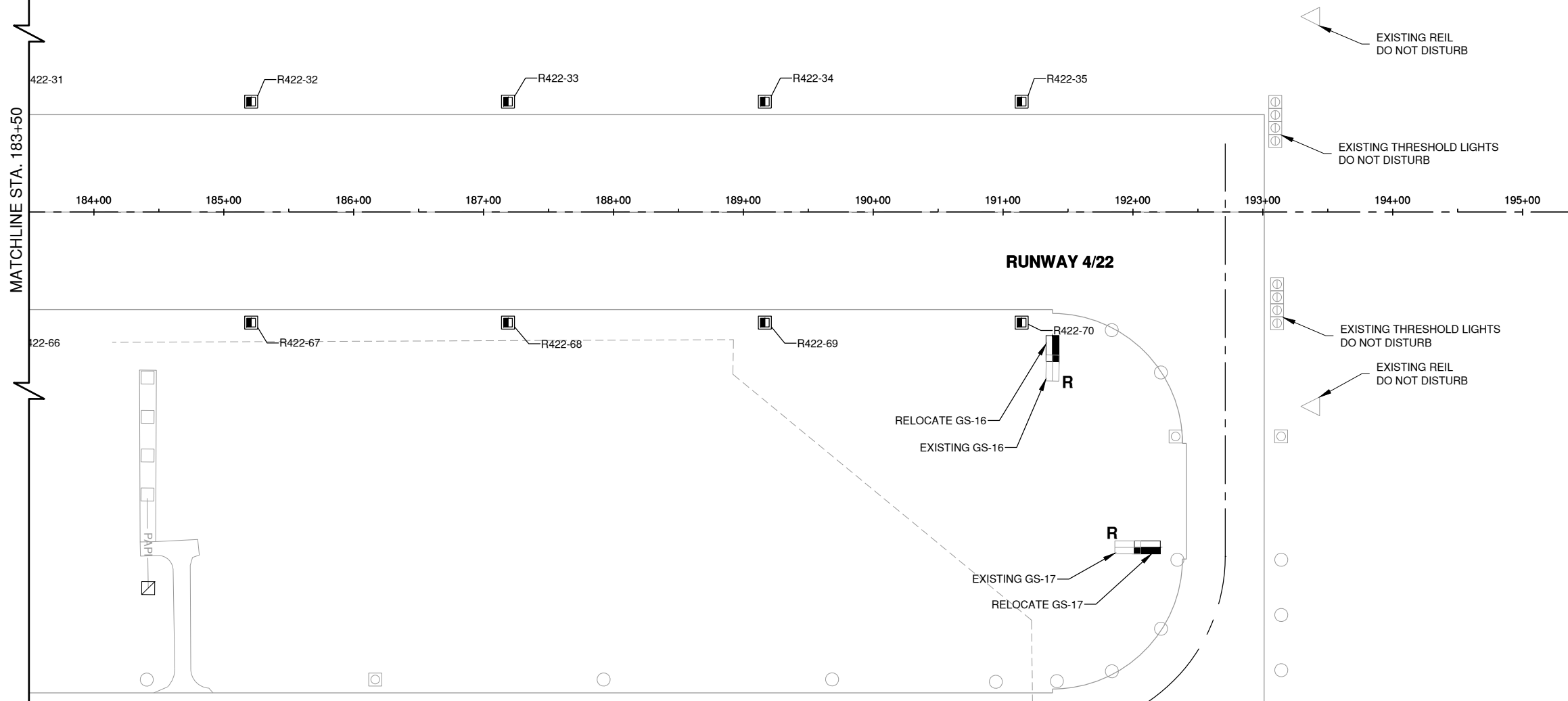
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO:	3-17-0085-XX
IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 EL100.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
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SHEET TITLE  
**SIGNAGE  
RELOCATION PLAN 5**

EL110  
SHEET 58 OF 143



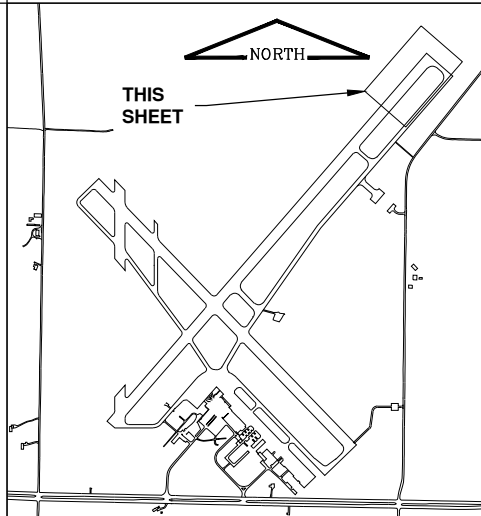
**NOTES**

- "RELOCATE TAXI GUIDANCE SIGN" PAY ITEM SHALL INCLUDE REMOVAL AND STORAGE OF EXISTING SIGN AND TRANSFORMER, REMOVAL OF EXISTING SIGN BASE, CONSTRUCTION OF NEW SIGN BASE, INSTALLATION OF EXISTING GUIDANCE SIGN AND TRANSFORMER ON NEW BASE, AND CABLING.

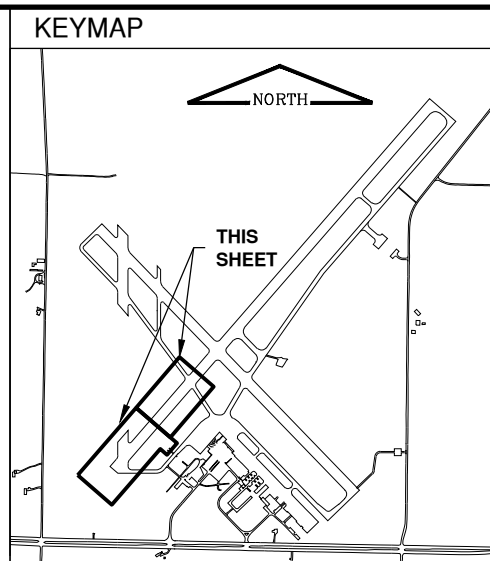
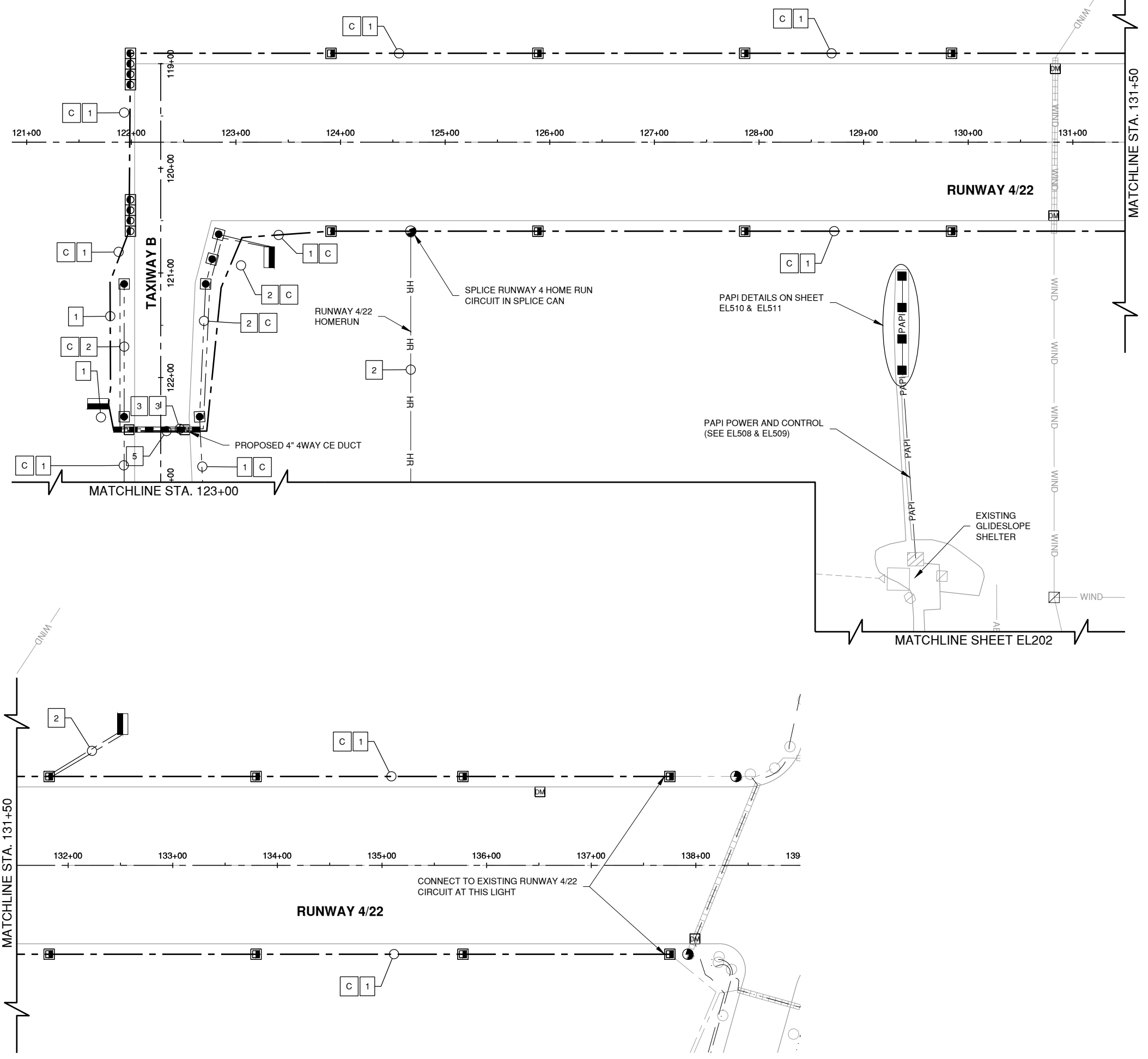
**LEGEND**

- |          |          |   |
|----------|----------|---|
| EXISTING | NEW      |   |
|          |          | AIRFIELD GUIDANCE SIGN - SEE SCHEDULE FOR DESCRIPTION |
|          | <b>R</b> | RELOCATE EXISTING TAXIWAY GUIDANCE SIGN ON NEW BASE   |

**KEYMAP**



Path: K:\Quincy\AP180020-01\_ReconRunway4-22\DrawRunway4\Sheets\180020-01\_PH4\_EL200.dwg  
 Date: Wednesday, March 8, 2023 2:54:28 PM



**CMT**  
 License No. 184-000613  
 CONSULTANTS

**LEGEND**

EXISTING	NEW	
		SPLICE CAN
		TAXIWAY GUIDANCE SIGN
		TAXIWAY EDGE LIGHT - STAKE MOUNTED
		TAXIWAY EDGE LIGHT - BASE MOUNTED
		RELOCATED RUNWAY EDGE LIGHT - BASE MOUNTED W/LENS COLOR
		ELECTRIC HANDHOLE
		DUCT BANK
		IN-PAVEMENT LIGHT
		ADJUST FIXTURE
		DUCT MARKER
		RUNWAY END INDICATOR LIGHT (REIL)
		RUNWAY THRESHOLD LIGHT (GREEN / RED LENS)
		PAPI LIGHTS

**CIRCUIT LEGEND**

EXISTING	NEW	
		RWY 4/22
		RWY 13/31
		TXY B
		PAPI
		WINDCONE
		ABANDONED
		HOMERUN CKT.

**CABLE NOTES**

- 1/C #8 5KV UG CABLE IN UD
- 2/C #8 5KV UG CABLE IN UD
- 1/C #8 5KV UG CABLE
- 2/C #8 5KV UG CABLE
- 4" - 4-WAY CONCRETE ENCASED DUCT
- STEEL ENCASED DUCT BANK
- COUNTERPOISE

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 MARCH 08, 2023

**RECONSTRUCT RUNWAY 4/22  
 PHASE 4**

OWNER

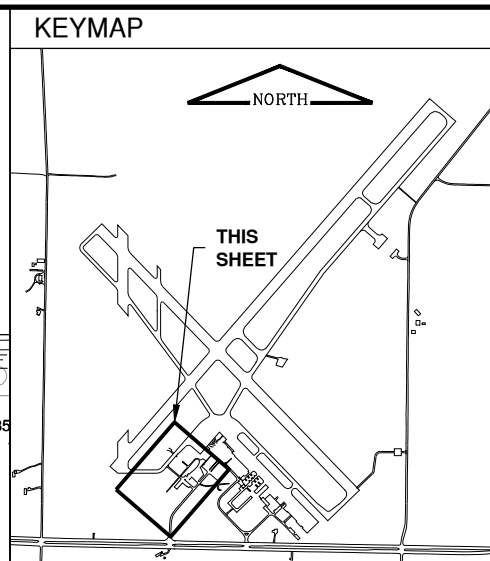
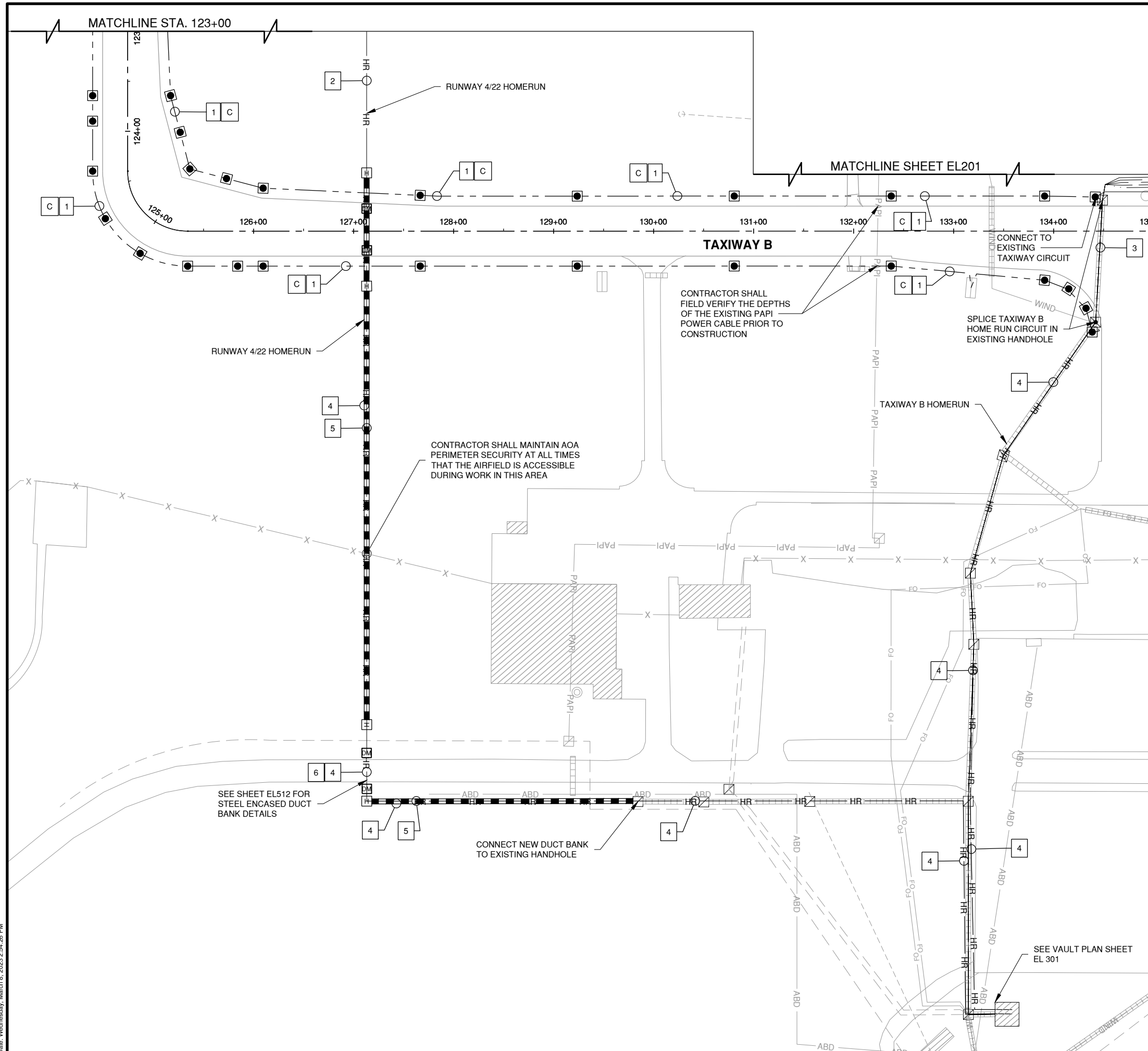
CITY OF QUINCY  
 QUINCY REGIONAL AIRPORT  
 QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO:	3-17-0085-XX
IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 EL200.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
APPROVED BY:	RLV
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SHEET TITLE  
**CABLING PLAN 1**

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 Date: Wednesday, March 8, 2023 2:54:26 PM



**LEGEND**

EXISTING	NEW	
⊕	⊕	SPLICE CAN
▬	▬	TAXIWAY GUIDANCE SIGN
○	○	TAXIWAY EDGE LIGHT - STAKE MOUNTED
⊙	⊙	TAXIWAY EDGE LIGHT - BASE MOUNTED
⊞	⊞	RELOCATED RUNWAY EDGE LIGHT - BASE MOUNTED W/LENS COLOR
⊞	⊞	ELECTRIC HANDHOLE
▬	▬	DUCT BANK
⊞	⊞	IN-PAVEMENT LIGHT
⊞	⊞	ADJUST FIXTURE
⊞	⊞	DUCT MARKER
▼	▼	RUNWAY END INDICATOR LIGHT (REIL)
G R	G R	RUNWAY THRESHOLD LIGHT (GREEN / RED LENS)
G R	G R	
G R	G R	
G R	G R	
▬	▬	PAPI LIGHTS

**CIRCUIT LEGEND**

EXISTING	NEW	
—	—	RWY 4/22
—	—	RWY 13/31
—	—	TXY B
—	—	PAPI
—	—	WIND
—	—	WINDCONE
—	—	ABD
—	—	ABANDONED
—	—	HR
—	—	HOMERUN CKT.

**CABLE NOTES**

- 1/C #8 5KV UG CABLE IN UD
- 2/C #8 5KV UG CABLE IN UD
- 1/C #8 5KV UG CABLE
- 2/C #8 5KV UG CABLE
- 4" - 4-WAY CONCRETE ENCASED DUCT
- STEEL ENCASED DUCT BANK
- C COUNTERPOISE

**CMT**

License No. 184-000613

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RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER

**Quincy**  
Regional Airport

CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX  
 IL PROJ. NO: UIN-5051  
 CMT PROJECT NO: 18002001  
 CAD DWG FILE: 180020-01 PH4 EL200.DWG  
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**CABLING PLAN 2**

EL202  
SHEET 60 OF 143

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RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 EL300.DWG

DESIGNED BY: HWI

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SHEET TITLE

EXISTING VAULT

**GENERAL NOTES**

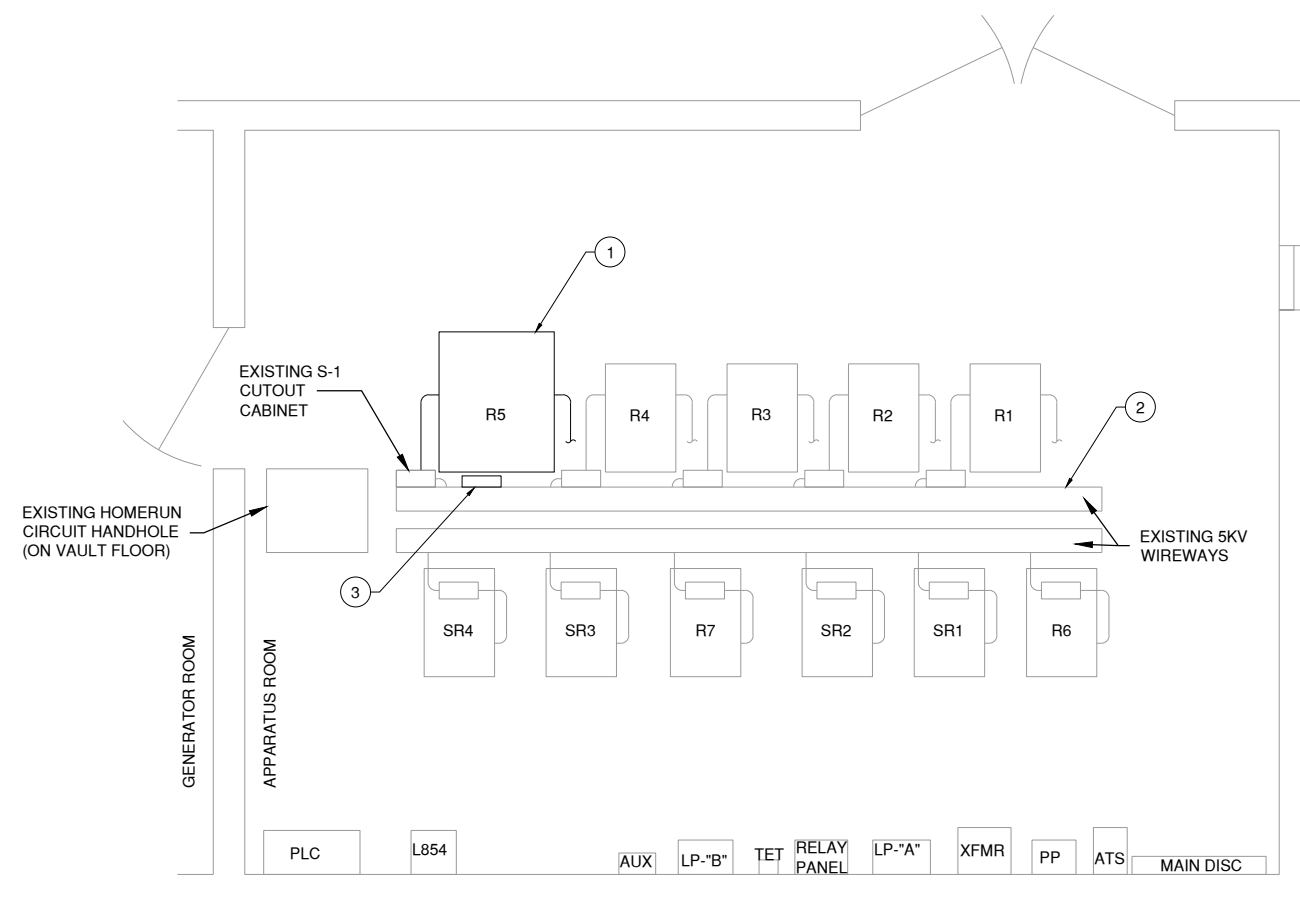
- EQUIPMENT NOT CALLED OUT TO BE REMOVED SHALL REMAIN UNLESS NOTED OTHERWISE.
- EXISTING VAULT GROUNDING SYSTEM SHALL REMAIN AND SHALL BE PROTECTED FROM ANY DAMAGE DURING CONSTRUCTION.
- EXISTING AIRFIELD LIGHTING CIRCUITS SHALL REMAIN OPERATIONAL UNTIL NEW EQUIPMENT IS READY TO BE INSTALLED.

**KEYED NOTES #**

- EXISTING 30 KW RUNWAY 4/22 REGULATOR AND ASSOCIATED CONDUCTORS TO BE REMOVED AND DISPOSED OF OFF AIRPORT PROPERTY.
- REMOVE EXISTING L-824, 5KV, #8 HOME RUN CABLES FOR REGULATOR R1 (TAXIWAY B) AND REGULATOR R5 (RUNWAY 4/22).
- REMOVE EXISTING REGULATOR R5 CIRCUIT BREAKER DISCONNECT CONNECTED TO BUSWAY.

**REGULATOR LIST**

R1	TAXIWAYS A, B, F, & A1
R2	TAXIWAYS C, D, & E
R3	TETREHEDRON LIGHTS
R4	RUNWAY 13/31
R5	RUNWAY 4/22
R6	SUPP. WINDCONES
SR1	SPARE
SR2	SPARE
R7	RUNWAY 18/36
SP3	SPARE
SP4	SPARE



EXISTING VAULT PLAN  
N.T.S.



License No. 184-000613

CONSULTANTS

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RECONSTRUCT RUNWAY 4/22  
PHASE 4

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CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK | DATE | DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 EL300.DWG

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PROPOSED VAULT  
IMPROVEMENTS

EL302  
SHEET 62 OF 143

### GENERAL NOTES

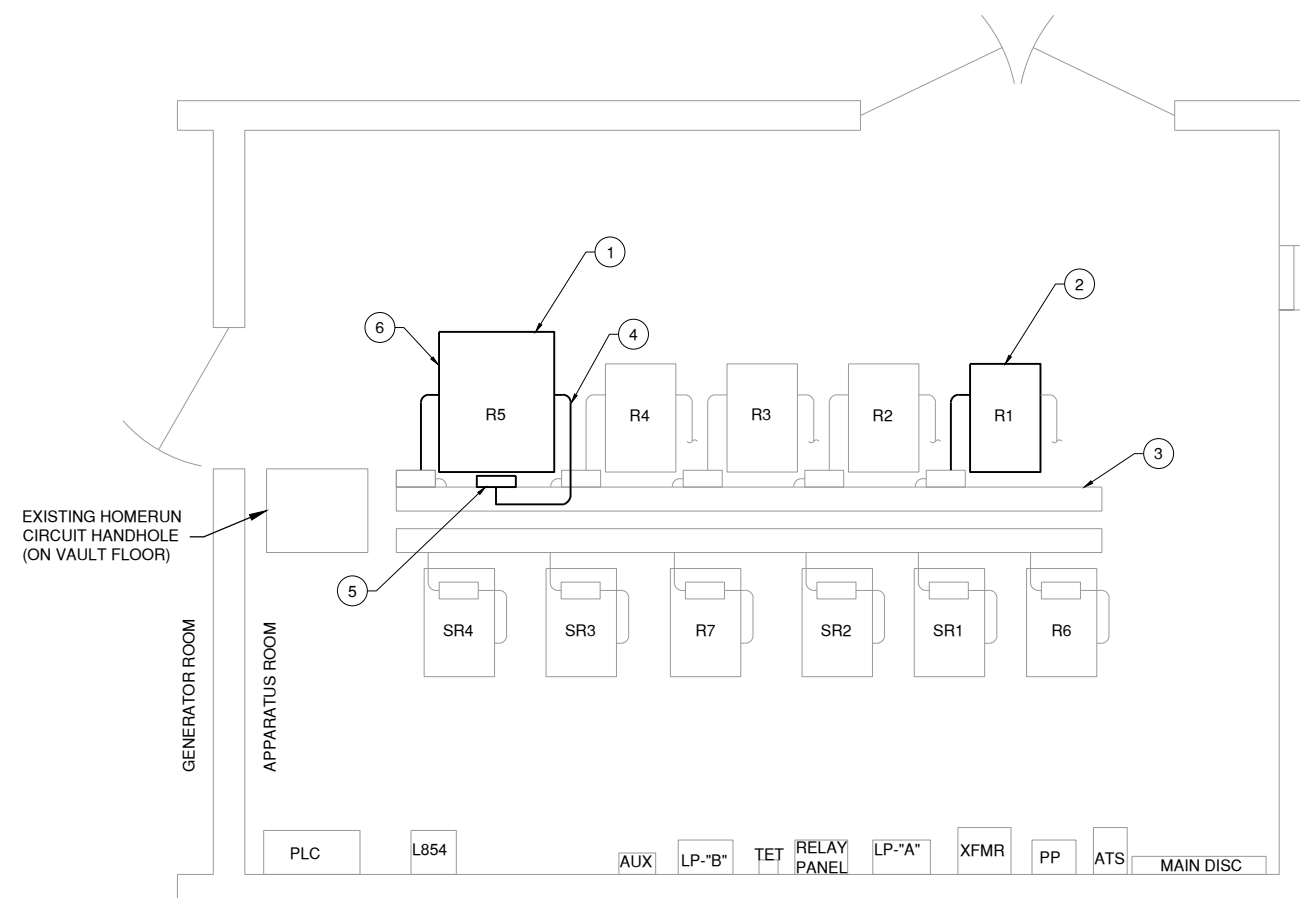
1. THE CONTRACTOR SHALL FURNISH, INSTALL, RELOCATE, CONNECT AND TEST ALL EQUIPMENT ACCESSORIES, CONDUIT CABLES, WIRES, BUSES, GROUNDS AND SUPPORT NECESSARY TO INSURE A COMPLETE AND OPERABLE ELECTRICAL DISTRIBUTION FACILITY FOR THE AIRPORT LIGHTING POWER AND CONTROL SYSTEM AS SPECIFIED IN THE SUBMITTAL PACKAGE.
2. THE CONSTANT CURRENT REGULATOR MANUFACTURER SHALL BE LISTED AS AN FAA APPROVED SUPPLIER OF L-827/L-829 CONSTANT CURRENT REGULATORS IN ACCORDANCE WITH AC 150/5345-10 (CURRENT EDITION).
3. EXISTING EQUIPMENT IS SHOWN FOR INFORMATION ONLY. EQUIPMENT TO BE MODIFIED IS SHOWN IN BOLD.
4. CONTRACTOR SHALL TAG AND LABEL ALL NEW CIRCUITS AND EQUIPMENT.

### KEYED NOTES #

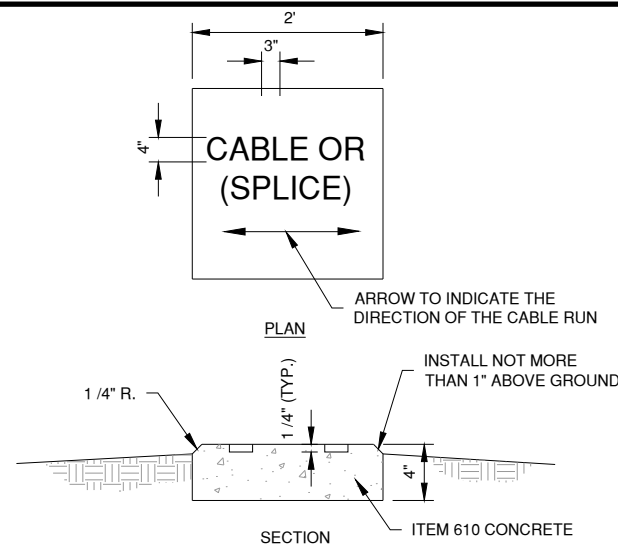
1. NEW 15KW L-829 5-STEP REGULATOR, 480VAC INPUT/ 6.6A OUTPUT FOR RUNWAY 4-22 CIRCUIT.
2. CONNECT PROPOSED TAXIWAY B HOME RUN TO EXISTING REGULATOR R1 AT EXISTING S-1 CUTOUT.
3. ROUTE PROPOSED RUNWAY 4/22 AND TAXIWAY B HOME RUNS THROUGH EXISTING 5KV WIREWAY.
4. NEW 2 X #6, #8 GND IN EXISTING CONDUIT TO CIRCUIT BREAKER.
5. NEW 40A, 2-POLE 480 VAC CIRCUIT BREAKER DISCONNECT CONNECTED TO EXISTING OVERHEAD BUSWAY. MATCH EXISTING INSTALLATION.
6. RE-CONNECT EXISTING RUNWAY 4/22 REGULATOR CONTROLS.

### REGULATOR LIST

R1	TAXIWAYS A, B, F, & A1
R2	TAXIWAYS C, D, & E
R3	TETREHEDRON LIGHTS
R4	RUNWAY 13/31
R5	RUNWAY 4/22
R6	SUPP. WINDCONES
SR1	SPARE
SR2	SPARE
R7	RUNWAY 18/36
SP3	SPARE
SP4	SPARE



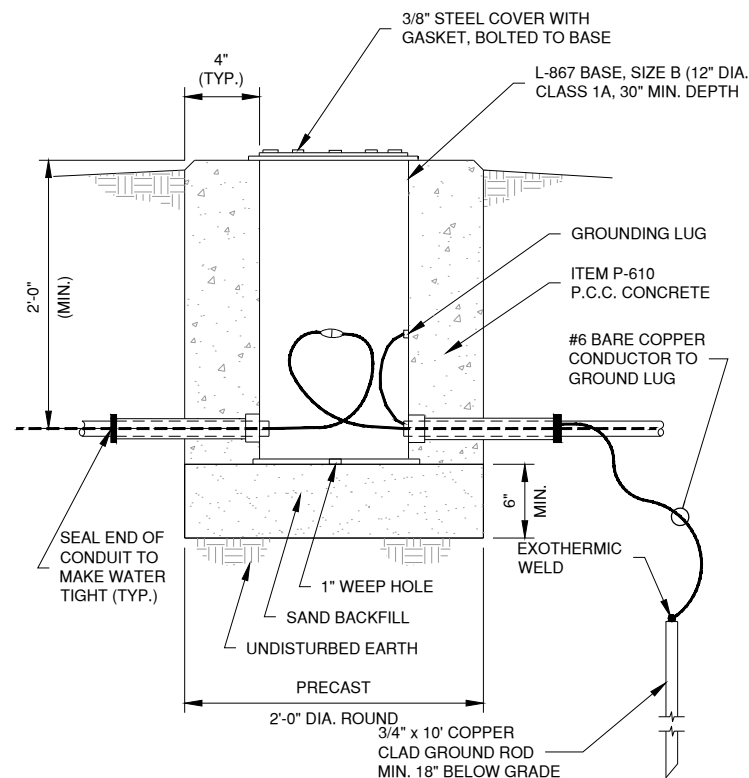
PROPOSED VAULT PLAN  
N.T.S.



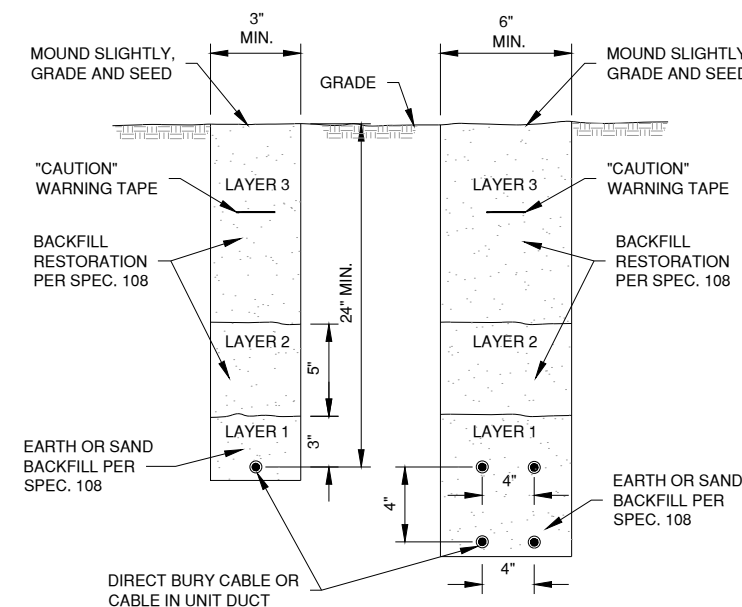
**1 TURF CABLE / SPLICE MARKER**  
N.T.S.

**NOTES**

- DUCT MARKERS SHALL BE INSTALLED AT BOTH EDGES OF PAVEMENT WHERE PROPOSED ELECTRICAL DUCTS CROSS BOTH NEW AND EXISTING PAVEMENTS.
- CABLE MARKERS SHALL BE INSTALLED AT ALL BENDS AND EVERY 200' ALONG THE HOMERUN.
- ITEM 610 CONCRETE SHALL BE USED.
- ALL EXPOSED EDGES SHALL BE EDGED WITH A 1/4" RADIUS TOOL.
- THE COST OF FURNISHING AND INSTALLING NEW MARKERS SHALL BE INCIDENTAL TO THE ASSOCIATED ITEMS.
- 0.049 CU. YD. CONCRETE PER MARKER.
- A MARKER CONFORMING TO THIS DETAIL MARKED "SPLICE" SHALL BE INSTALLED AT ALL SPLICE LOCATIONS NOT IN LIGHT CANS OR MANHOLES.
- COST MARKERS WILL BE INCIDENTAL TO THE RESPECTIVE CABLING/SPLICING PAY ITEMS THE MARKER IS ASSOCIATED WITH.



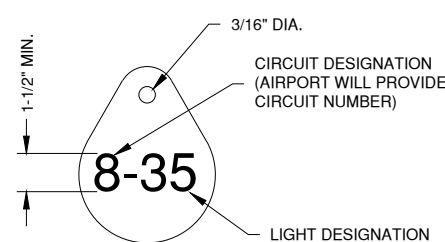
**2 SPLICE CAN**  
N.T.S.



**3 CABLE TRENCH**  
N.T.S.

**NOTES**

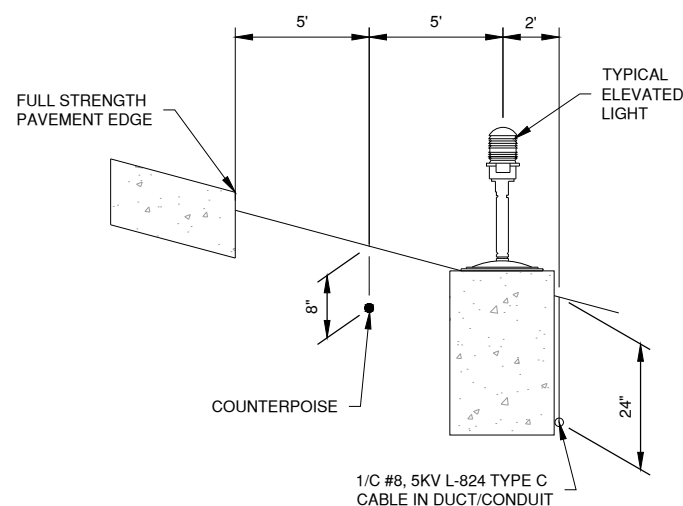
- CABLES SHALL NOT BE PLACED LESS THAN 24" DEEP IN ANY ONE TRENCH UNLESS PERMITTED BY ENGINEER.
- WHERE PERMITTED, CONTRACTOR MAY INSTALL CABLE IN UNIT DUCT BY PLOWING METHOD.



**4 LIGHT IDENTIFICATION TAG**  
N.T.S.

**NOTES**

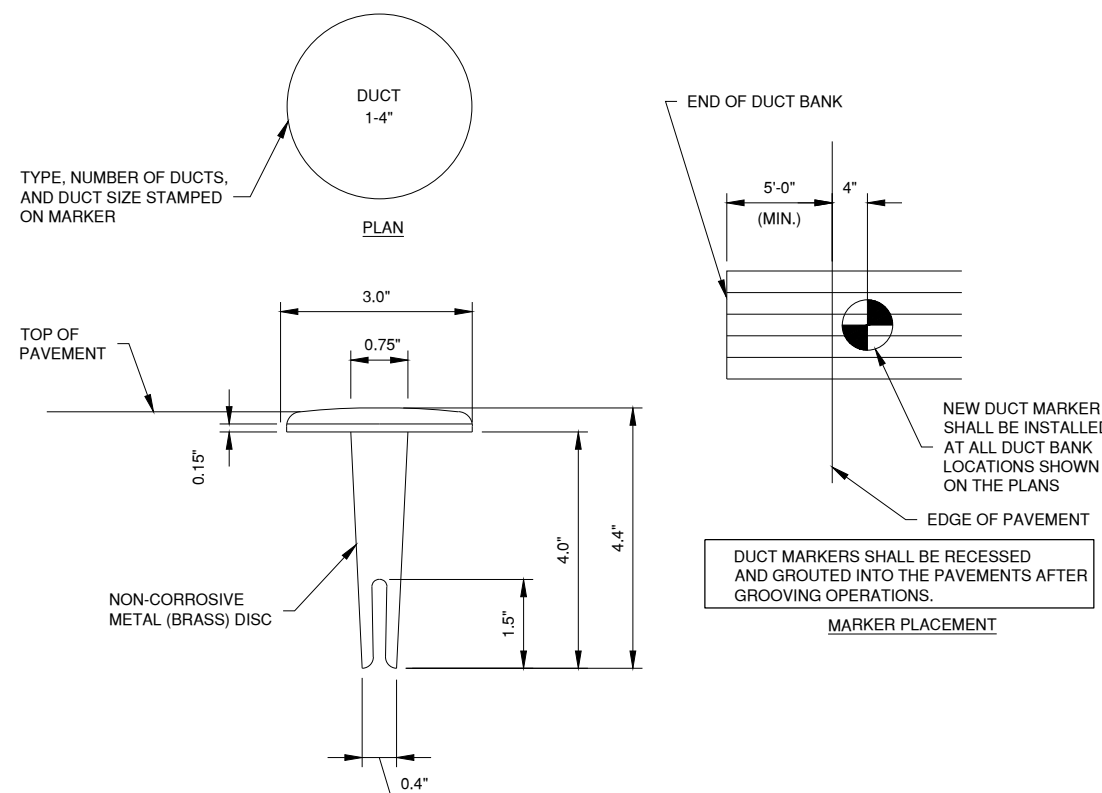
- INSTALL A NON-CORROSIVE DISC OF 2" MINIMUM DIAMETER WITH THE NUMBER PERMANENTLY STAMPED, CUT OUT, OR ENGRAVED UNDER THE HEAD OF THE BASE PLATE BOLT OR ATTACHED TO LIGHT FLANGE WITH SET SCREW.
- LEGENDS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR TO COORDINATE LEGEND WITH AIRPORT.
- THE CONTRACTOR SHALL NUMBER THE EXISTING/ PROPOSED LIGHTS AND SIGNS IN EACH CIRCUIT STARTING AT THE HOMERUN CONTINUING AROUND THE ENTIRE CIRCUIT BACK TO THE HOMERUN.
- AIRFIELD SIGNS SHALL BE TAGGED & NUMBERED.



**5 COUNTERPOISE LOCATION**  
N.T.S.

**NOTES**

- #6 BARE COUNTERPOISE WITH 3/4" x 10' GROUND ROD INSTALLED AT MAX. 500' SPACING. ALSO USE GROUND ROD TO TERMINATE THE COUNTERPOISE AT BOTH ENDS OF DUCT. GROUND RODS SHALL BE CONSIDERED INCIDENTAL TO OTHER PAY ITEMS.



**6 DUCT MARKER - IN PAVEMENT**  
N.T.S.

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RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 EL500.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: CHK

APPROVED BY: APR

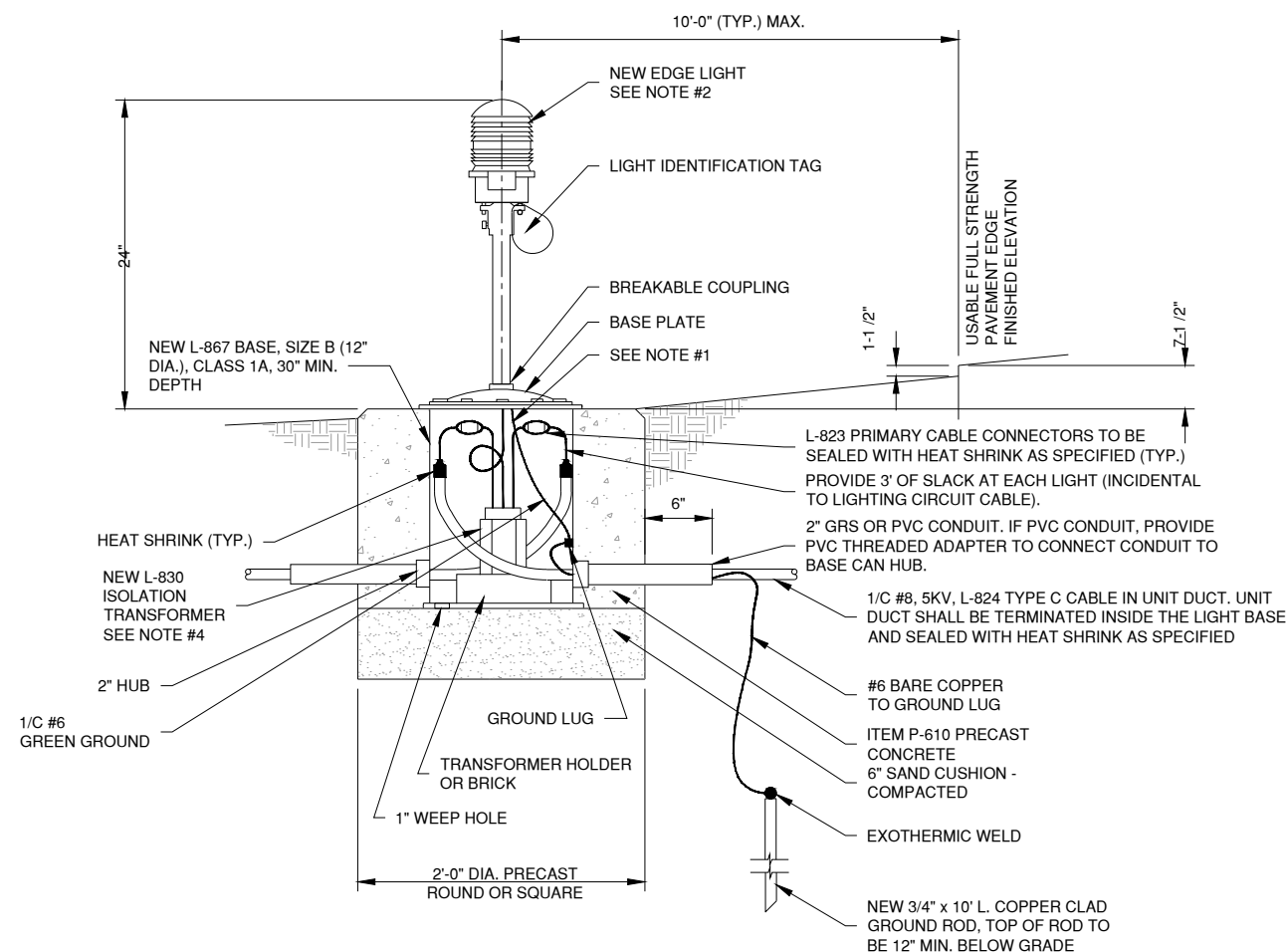
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SHEET TITLE

ELECTRICAL DETAILS

2

SHEET 64 OF 143  
EL502



1 BASE MOUNTED ELEVATED LIGHT  
N.T.S.

EDGE LIGHT NOTES

1. THE LIGHT FIXTURE SHALL BE BONDED TO THE LIGHT BASE INTERNAL GROUND LUG VIA A #6 AWG STRANDED COPPER WIRE RATED FOR 600 VOLTS WITH GREEN XHHW INSULATION. THE GROUND WIRE LENGTH SHALL BE SUFFICIENT TO ALLOW THE REMOVAL OF THE LIGHT FIXTURE FROM THE LIGHT BASE FOR ROUTINE MAINTENANCE. SEE THE LIGHT FIXTURE MANUFACTURER'S INSTRUCTIONS FOR PROPER METHODS OF ATTACHING THIS BONDING WIRE.
2. ALL LIGHT FIXTURES SHALL BE NEW. SEE LIGHT SCHEDULE. INSTALLED RUNWAY LIGHT LENSES SHALL BE ORIENTED AS SHOWN ON THE PLANS.
3. NEW LIGHT FIXTURES & TRANSFORMERS SHALL BE LED L-862 FOR RUNWAYS AND L-861T TAXIWAYS, AS INDICATED ON THE PLANS AND SPECIFICATIONS. ALL NEW RUNWAY LIGHTS SHALL BE LED. ALL NEW TAXIWAY LIGHTS SHALL BE QUARTZ.
4. NEW TRANSFORMERS FOR EDGE LIGHTS AND SIGNS SHALL BE COMPATIBLE WITH THE REGULATORS SERVING THE CIRCUIT. ALL EDGE LIGHT TRANSFORMERS SHALL BE NEW.
5. THE TOLERANCE FOR THE HEIGHT OF RUNWAY/TAXIWAY EDGE LIGHTS SHALL BE ± 1 INCH. THE TOLERANCE FOR THE LATERAL SPACING (LIGHT LANE TO RUNWAY/TAXIWAY CENTERLINE) OF RUNWAY/TAXIWAY EDGE LIGHTS MUST BE ± 1 INCH.
6. DIRECTION OF PRIMARY CABLES SHALL BE IDENTIFIED BY COLOR CODING AS FOLLOWS: WHEN FACING LIGHT WITH BACK FACING PAVEMENT, CABLE TO THE LEFT IS CODED RED AND CABLE TO THE RIGHT IS CODED BLUE.
7. APPLY A CORROSION INHIBITING, ANTI-SEIZE COMPOUND TO ALL SCREWS, NUTS AND FRANGIBLE COUPLING THREADS. IF COATED BOLTS ARE USED PER ENGINEERING BRIEF #83, DO NOT APPLY ANTI-SEIZE COMPOUND.
8. ELECTRICAL INSULATING GREASE SHALL BE APPLIED WITHIN THE L-830 ISOLATION TRANSFORMER SECONDARY TWO CONDUCTOR CONNECTORS TO PREVENT WATER ENTRANCE. THE CONNECTORS MUST NOT BE TAPED.
9. ENTRANCES IN L-867 BASES MUST BE PLUGGED FROM THE INSIDE WITH DUCT SEAL TO MAKE WATERTIGHT.
10. LIGHT BASES SHALL BE PRECAST.
11. RUNWAY EDGE LIGHTS WITHIN THE LAST 2000' OF EACH END OF THE RUNWAY SHALL HAVE YELLOW (AMBER) AND WHITE LENSES. YELLOW LENS FACES SHALL BE VISIBLE IN THE DIRECTION OF LANDING AIRCRAFT APPROACHING THE END OF THE RUNWAY.



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RECONSTRUCT RUNWAY 4/22  
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CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

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CAD DWG FILE: 180020-01 PH4 EL500.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: CHK

APPROVED BY: APR

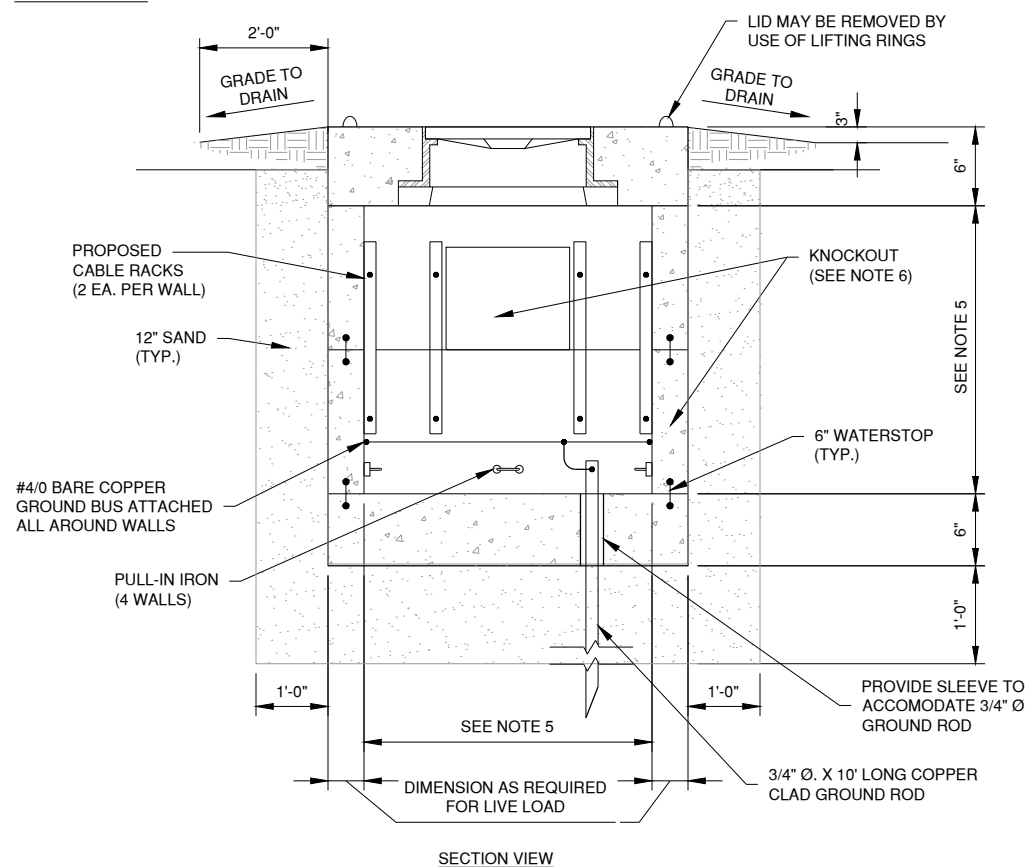
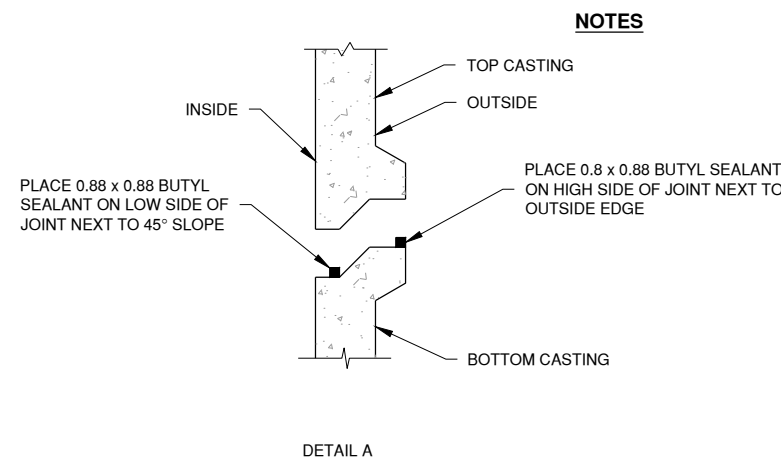
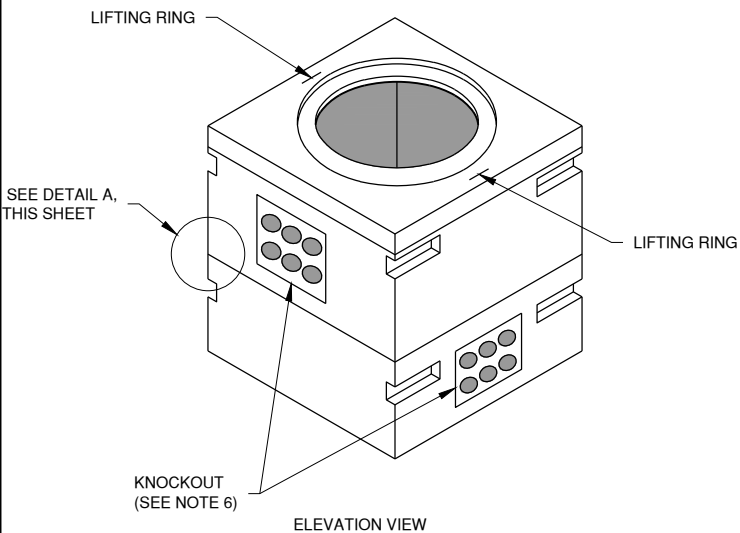
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**ELECTRICAL DETAILS**

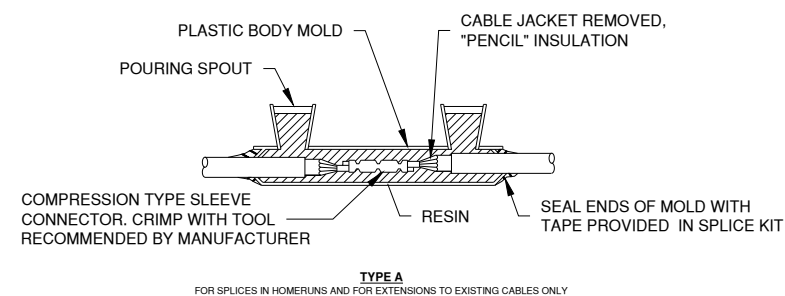
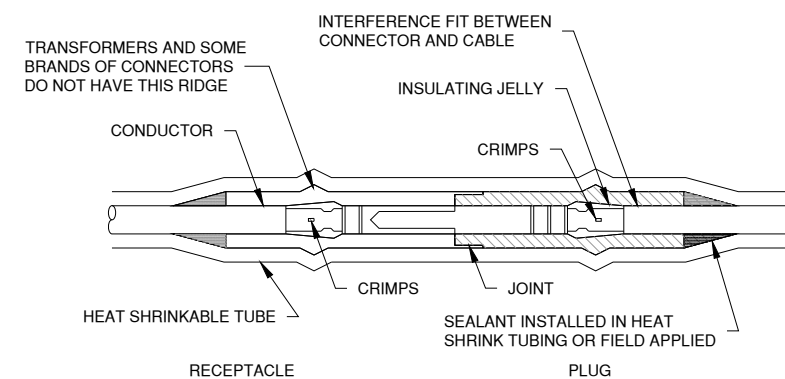
**3**

EL503  
SHEET 65 OF 143

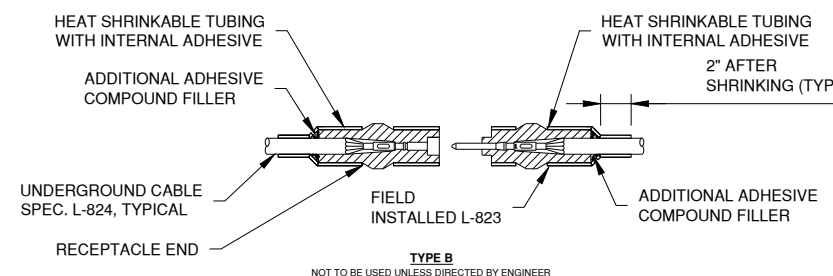


**1 ELECTRICAL HANDHOLE DETAILS**  
N.T.S.

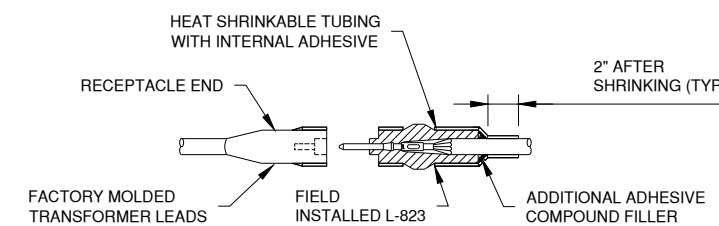
- NOTES**
- THE HANDHOLE/GRADE RING/HANDHOLE LID ASSEMBLY SHALL BE CONSTRUCTED TO MEET OR EXCEED THE FOLLOWING LOADINGS:  
A. EARTHLOAD = 2 FEET FILL AT 130 LBS/FT.  
B. SURCHARGE = 2 FEET FILL AT 130 LBS/FT.  
C. LIVE LOAD = A.A.S.H.T.O. HS-20 TRUCK WITH 20% IMPACT  
D.  $f_c = 4,500$  P.S.I.  
E.  $f_y = 60,000$  P.S.I.  
F. ULTIMATE STRENGTH DESIGN METHOD  
THE SUPPLIER SHALL PROVIDE CERTIFICATION THAT THE HANDHOLES MEET OR EXCEED THESE REQUIREMENTS PRIOR TO INSTALLATION.
  - 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.
  - THE HANDHOLE LID ASSEMBLY SHALL BE INSTALLED SLIGHTLY ABOVE THE SURROUNDING FINAL GRADE AND THE EARTH SHALL BE GRADED UP TO IT.
  - THE HANDHOLE COVER SHALL BE LOCKABLE UTILIZING A PENTAGON BOLT ASSEMBLY.
  - PROPOSED ELECTRICAL HANDHOLE SHALL BE THE FOLLOWING INTERIOR DIMENSIONS: 4' L x 4' W x 4' H
  - SINGLE HANDHOLES: KNOCKOUTS SHALL BE CENTERED IN THE HANDHOLE WALL AND SHALL BE SIZED AS REQUIRED FOR PROPOSED DUCT BANK.
  - HANDHOLES THAT MAKE UP A HANDHOLE PLAZA: 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. KNOCKOUTS SHALL BE SIZED AS REQUIRED FOR PROPOSED DUCT BANK.
  - THE HANDHOLE CONCRETE TOP LID SHALL BE SET THAT IF DESIRED, THE CONCRETE TOP LID MAY BE REMOVED BY USE OF THE LIFTING RINGS.



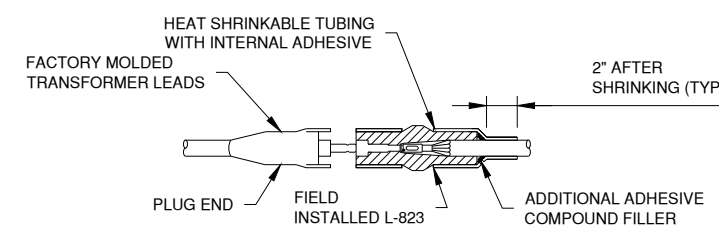
**TYPE A**  
FOR SPLICES IN HOMERUNS AND FOR EXTENSIONS TO EXISTING CABLES ONLY



**TYPE B**  
NOT TO BE USED UNLESS DIRECTED BY ENGINEER



**TYPE C**  
FOR SPLICES AT RUNWAY LIGHTS, TAXIWAY LIGHT AND SIGNS



**TYPE D**  
FOR SPLICES AT RUNWAY LIGHTS, TAXIWAY LIGHT AND SIGNS

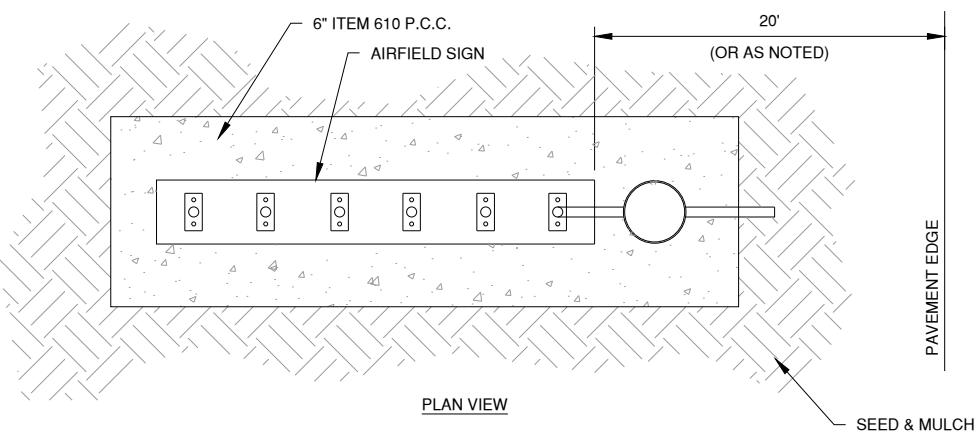
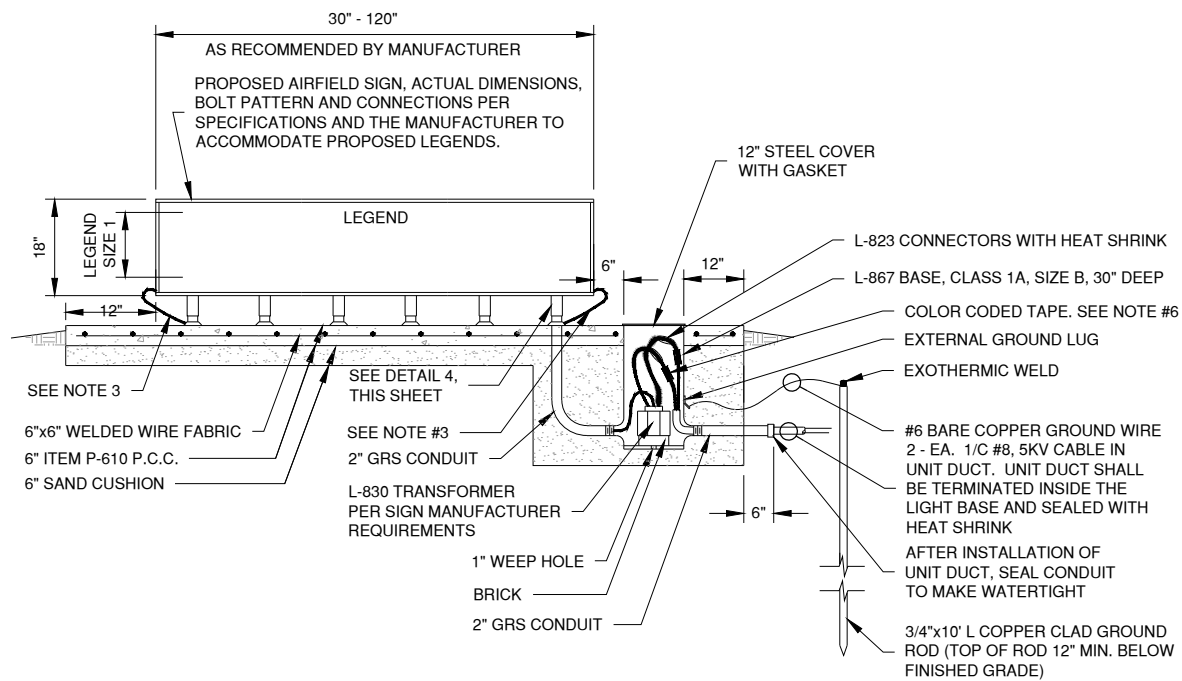
**NOTES**

1. MATCH THE OUTSIDE DIAMETER OF CABLE INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY
2. WRAP WITH AT LEAST ONE LAYER OF RUBBER OR TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1-1/2 INCHES ON EACH SIDE OF JOINT.
3. CONTRACTOR MAY ELECT TO INSTALL FAA APPROVED "COMPLETE KIT" IN LIEU OF SPLICES WITH HEAT SHRINK

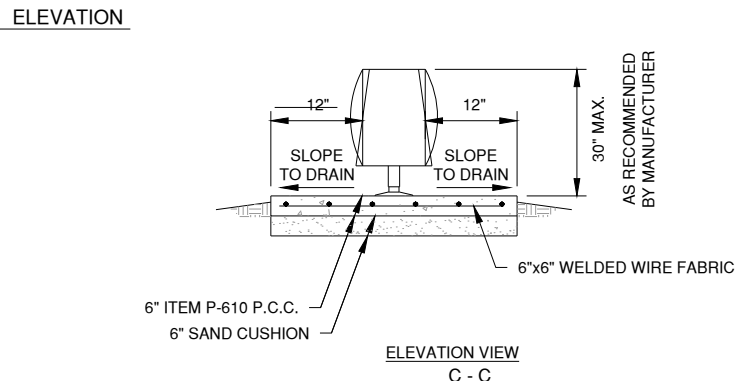
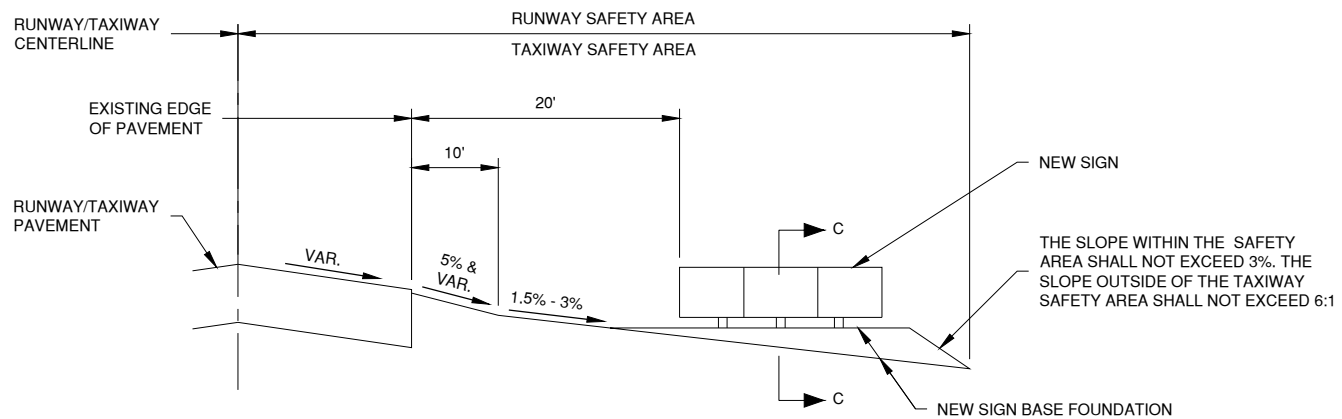
**INSTALLATION INSTRUCTIONS TO SUPPLEMENT THE MANUFACTURER'S INSTRUCTIONS**

1. CLEAN THE CABLE THOROUGHLY 9" MIN. FROM THE END.
2. REMOVE INSULATION PER MANUFACTURER'S INSTRUCTIONS. DO NOT NICK THE CONDUCTOR. DO NOT PENCIL INSULATION ON L-824 TYPE C CABLE.
3. INSTALL PIN AND/OR RECEPTICAL WITH CRIMPING TOOL WHICH MUST BE COMPLETELY CLOSED BEFORE THE TOOL MAY BE REMOVED.
4. BE SURE CABLE AND CONDUCTOR FITTINGS ARE CLEAN. COAT THE CABLE INSULATION WITH INSULATION JELLY FROM THE CONNECTOR.
5. CAREFULLY INSERT CABLE INTO CONNECTOR TO THE PROPER DEPTH.
6. SLIP 14 INCH LENGTH OF HEAT SHRINK TUBING ON TRANSFORMER LEAD RAYCHEM TCS-13-14-U OR APPROVED EQUAL.
7. COMPLETE CONNECTION BY MATING THE PLUG AND RECEPTICAL. \*\*CAUTION\*\* BE SURE THE CABLE DOES NOT SLIP WHEN THE CONNECTION IS MADE.
8. APPLY RUBBER TAPE AND PLASTIC TAPE, ONE HALF LAPPED 1-1/2" ON EACH SIDE OF JOINT.
9. ANY CONNECTOR WHICH IS CONTAMINATED BY DIRT OR OTHER DELETERIOUS MATERIAL SHALL BE REMOVED NOT REINSTALLED.
10. CLEAN CONNECTOR AND CABLE INSULATION WITH WAX OR GREASE SOLVENT TO REMOVE SURFACE SILICONE JELLY.
11. WRAP SEALANT SECURELY AROUND THE CABLE. INSULATION TO EXTEND 1-1/2" BEYOND BOTH ENDS OF CONNECTORS. SEALANT SHALL BE RAYCHEM S-1052 (STRIPS) OR APPROVED EQUAL.
12. CENTER HEAT SHRINK AROUND THE CONNECTOR. APPLY HEAT EVENLY BEGINNING AT THE CENTER AND WORKING AROUND CABLE TO ENDS. THERMOCHROMIC PAINT SHALL SHOW PROPER HEAT HAS BEEN USED. \*\*\* DO NOT OVER HEAT \*\*\*.
13. THE HEAT SOURCE SHALL BE AN ELECTRIC HEAT GUN OR A PROPANE WITH FLAME SPREADER.

**1 CABLE SPLICES**  
N.T.S.



**1 L-858 AIRFIELD GUIDANCE SIGN**  
N.T.S.



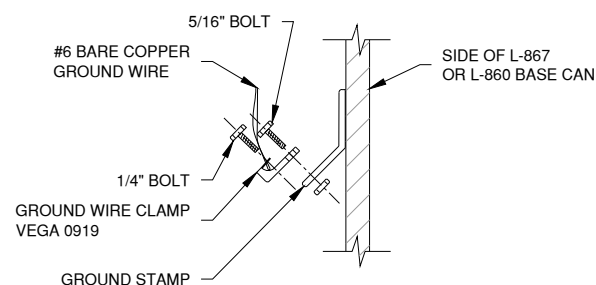
**2 AIRFIELD SIGN INSTALLATION**  
N.T.S.

**AIRFIELD SIGN NOTES**

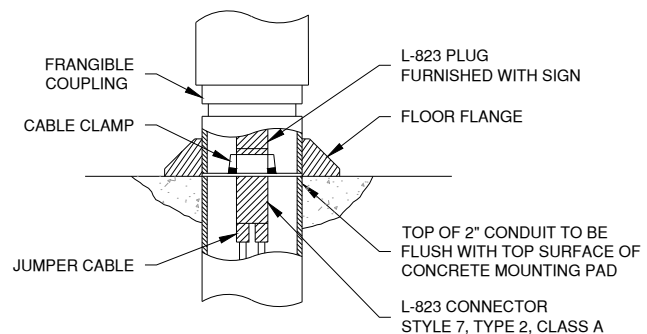
- SLOPES SHOWN ARE FROM FAA STANDARDS AND MAY NOT REFLECT THE ACTUAL GRADES IN THE FIELD.
- ESTIMATED 1 C.Y. OF EMBANKMENT MAY BE REQUIRED TO CONSTRUCT SIGN BASE FOUNDATION. COSTS TO CONSTRUCT SHALL BE INCIDENTAL TO SIGN PAY ITEM.
- ACTUAL LOCATION OF THE SIGN WITHIN THE TAXIWAY SAFETY AREA WILL VARY DUE TO PAVEMENT WIDTHS AND VARIANCES IN SIGN FOUNDATION LENGTHS.
- HYDRO-MULCH SHALL BE PLACED AROUND THE PROTECTION APRON. COST FOR HYDRO-MULCH SHALL BE INCIDENTAL TO SIGN PAY ITEM.

**AIRFIELD GUIDANCE SIGN NOTES**

- TRANSFORMER WATTAGE SHALL BE AS REQUIRED BY LED SIGN MANUFACTURER. SIGNS ON RUNWAY CIRCUITS SHALL BE STYLE 2 OR 3 DEPENDING ON REGULATOR.
- SIGN LEGEND SHALL BE AS SHOWN IN THE PLANS. SIGN SCHEDULE IS SUBJECT TO FAA APPROVAL OF THE SIGNAGE PLAN. CHANGES TO NEW LEGENDS MAY OCCUR DURING CONSTRUCTION.
- SIGN ANCHOR TETHERS AND GROUND WIRES ARE REQUIRED. SEE SPECIFICATIONS.
- SIGNS SHALL BE SIZE 1, STYLE 2 OR 3, CLASS 2, AND MODE 2. SEE SIGN SCHEDULE FOR DETAILS.
- LIGHT I.D. TAG FOR SIGN SHALL INCLUDE SIGN DESIGNATOR SHOWN IN THE PLAN TABLES.
- DIRECTION OF PRIMARY CABLES MUST BE IDENTIFIED BY COLOR CODING AS FOLLOWS: WHEN FACING SIGN IN BACK FACING THE RELATED RUNWAY OR TAXIWAY PAVEMENT, THE CABLE FOR THE CIRCUIT TO THE LEFT IS CODED RED AND CABLE FOR THE CIRCUIT TO THE RIGHT IS CODED BLUE.
- ALL NEW SIGNS SHALL BE LED



**3 FACTORY GROUND LUG**  
N.T.S.



**4 ELECTRICAL CONNECTION**  
N.T.S.



License No. 184-000613  
CONSULTANTS

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

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK | DATE | DESCRIPTION

AIP PROJ. NO:	3-17-0085-XX
IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 EL500.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	CHK
APPROVED BY:	APR
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SHEET TITLE  
**ELECTRICAL DETAILS**  
**5**

SHEET **67** OF **143**  
EL505

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
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OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 EL500.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: CHK

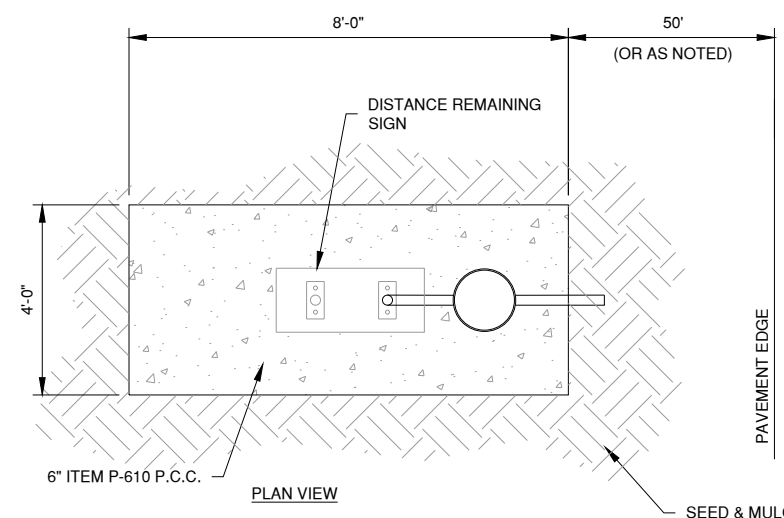
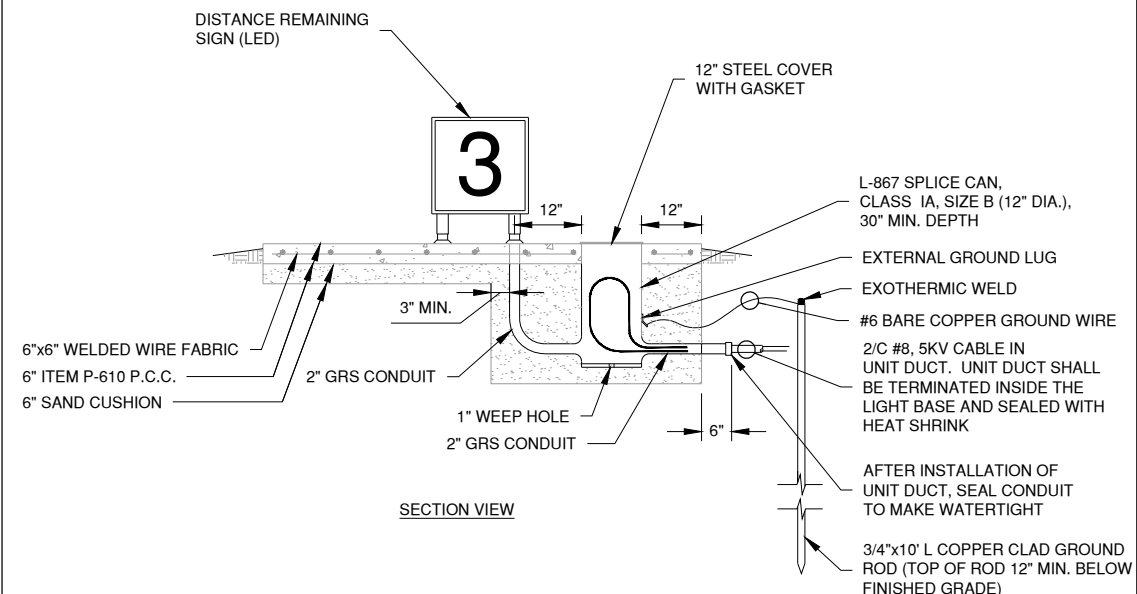
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SHEET TITLE

**ELECTRICAL DETAILS**  
**6**

EL506  
SHEET 68 OF 143



**2 DISTANCE REMAINING SIGN/SIGN BASE**  
N.T.S.

**DISTANCE REMAINING SIGN NOTES**

1. THIS PAY ITEM WILL INCLUDE THE DISTANCE REMAINING SIGN, TRANSFORMER AND CABLE BETWEEN THE SPLICE CAN AND THE SIGN. THE SIGN BASE WILL BE INCLUDED AS A SEPARATE PAY ITEM.

**DISTANCE REMAINING SIGN BASE NOTES**

1. THIS PAY ITEM WILL INCLUDE THE CONSTRUCTION OF A NEW SIGN BASE ONLY. THE DISTANCE REMAINING SIGN, TRANSFORMER AND CABLE BETWEEN THE SPLICE CAN WILL BE INCLUDED AS A SEPARATE PAY ITEM.
2. THIS PAY ITEM IS ONLY APPLICABLE TO DRS-1

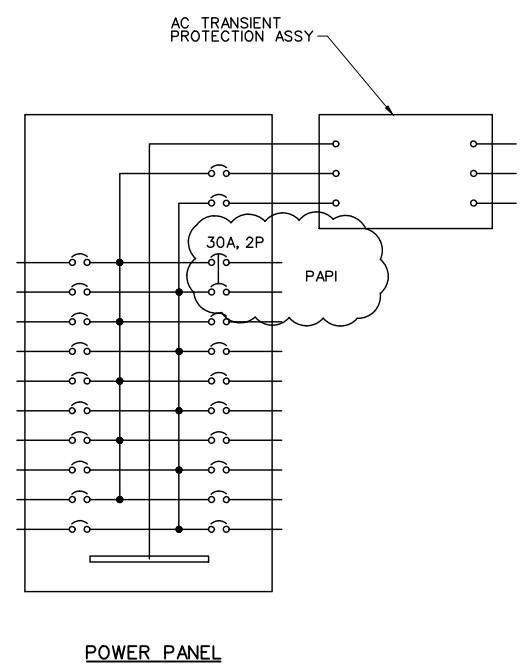
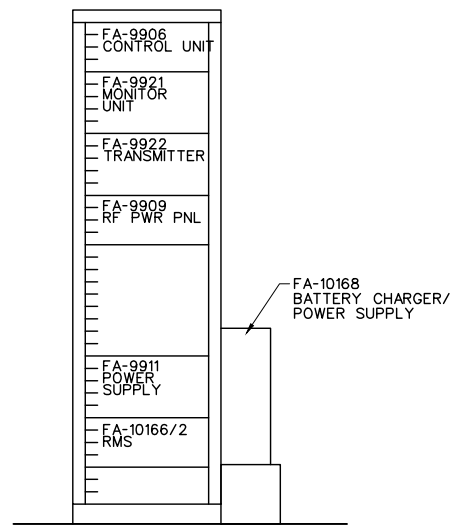
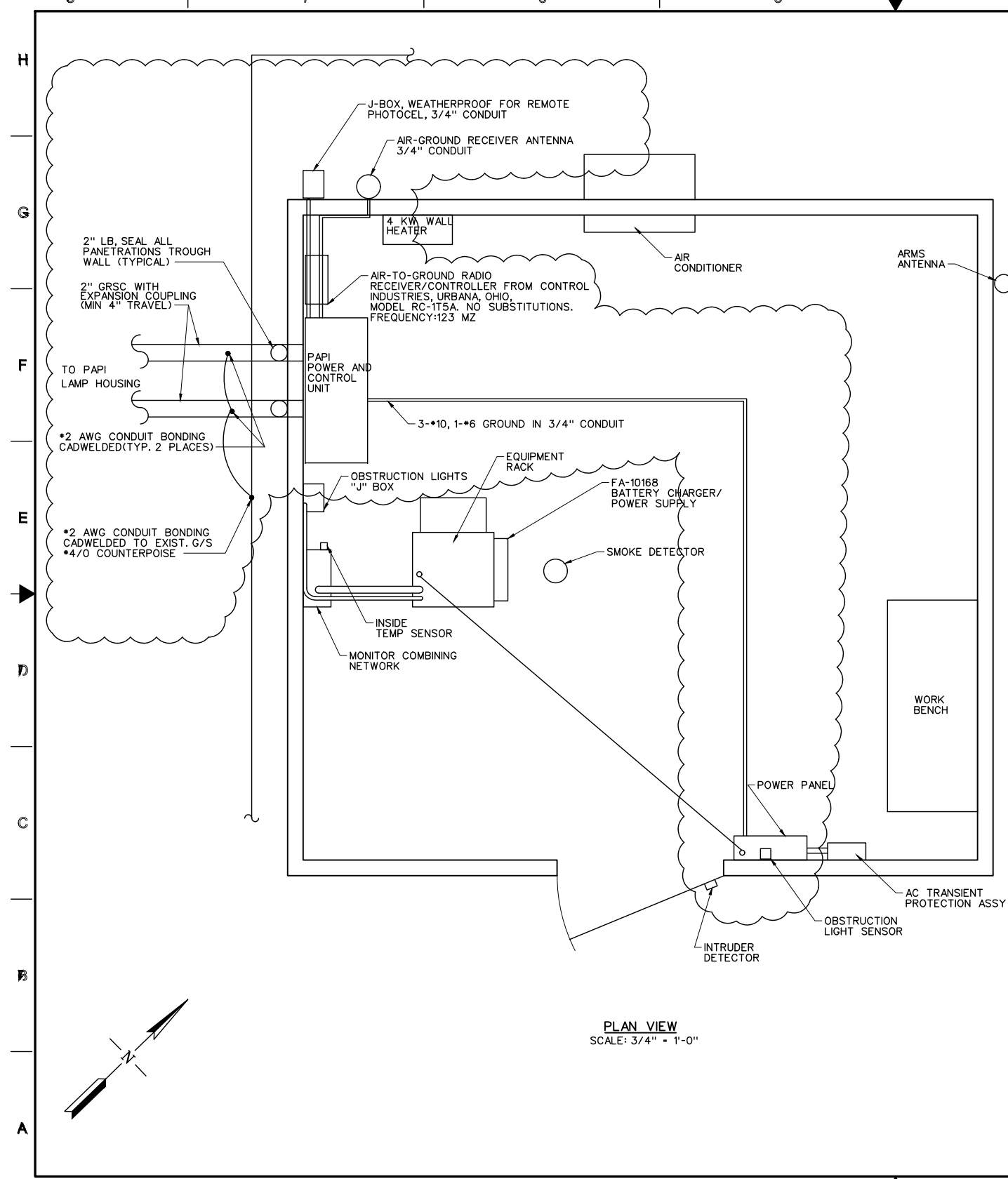
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 RECONSTRUCT RUNWAY 4/22  
 PHASE 4

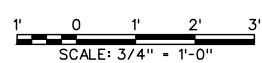
OWNER


 CITY OF QUINCY  
 QUINCY REGIONAL AIRPORT  
 QUINCY, IL

FACILITY DATA	
FREQUENCY	334.4 MHz
IDENT	
LOCATION	LATITUDE 39° 56' 13"
	LONGITUDE 91° 11' 42.5"
	DISTANCE FROM THRESHOLD 735' (224.0m)
	OFFSET FROM RWY 400' (121.92m)
GLIDE ANGLE:	3.0°
MONITORING STATION:	UIN FSS
	METHOD: MONITOR RECEIVER
ANTENNA TYPE:	APC
EQUIPMENT TYPE:	MARK IF



ONLY LOOPED ITEMS  
 APPLY TO THIS CONTRACT



REV	DATE	DESCRIPTION	JCN	RELINE DATE	APP
D	05/29/2014	INSTALL PAPI			GJ
C	09/13/1993	AS BUILT			CM
B	02/13/1990	INSTALL RMS	85424		
A	07/22/1985	AS INSTALLED	32283	06/01/1985	

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION					
ATO - TECHNICAL OPERATIONS			CENTRAL SERVICE AREA		
GS EQUIPMENT LAYOUT GLIDE SLOPE ILS RUNWAY 4					
QUINCY MUNICIPAL BALDWIN FIELD AIRPORT					
DESIGNED BY	CHECKED BY	PROJECT ENGINEER	ISSUED BY	DATE	DRAWING NO
JAMES W. LUSK JR.	ROBERT W. NOTHELFER	CM	CM	07/22/1985	UIN-GL-D-7043-2A
		EL	ENGRNG SVCS		
			NAVAIDS		

**NOTES**

1. THIS FAA DRAWING IS INCLUDED FOR REFERENCE ONLY. REFER TO SHEETS EL510 & EL511 FOR PAPI INSTALLATION DETAILS.

SHEET TITLE  
**GLIDE SLOPE  
 SHELTER EXISTING  
 CONDITIONS**

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 Date: Wednesday, March 8, 2023 2:56:03 PM

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

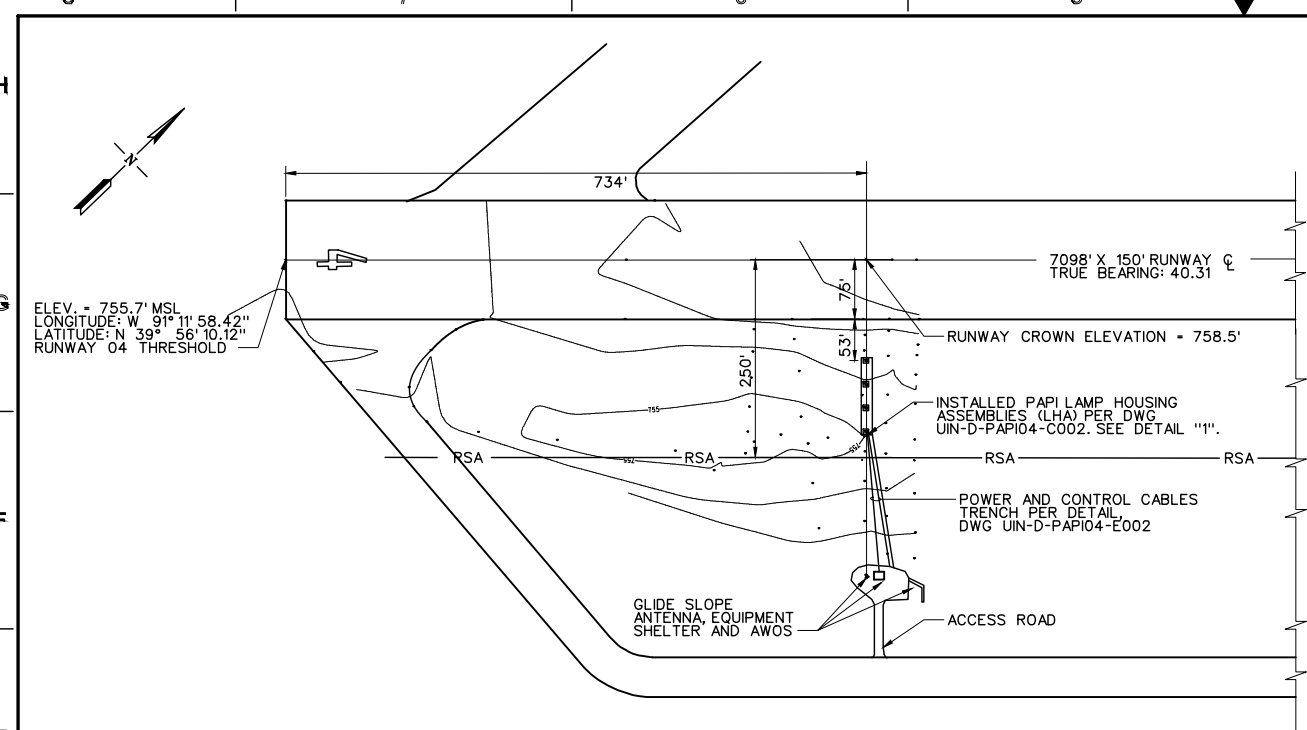
MARK | DATE | DESCRIPTION

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IL PROJ. NO: UIN-5051  
CMT PROJECT NO: 18002001  
CAD DWG FILE: 180020-01 PH4 EL500.DWG  
DESIGNED BY: HWI  
DRAWN BY: DPA  
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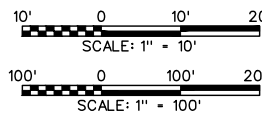
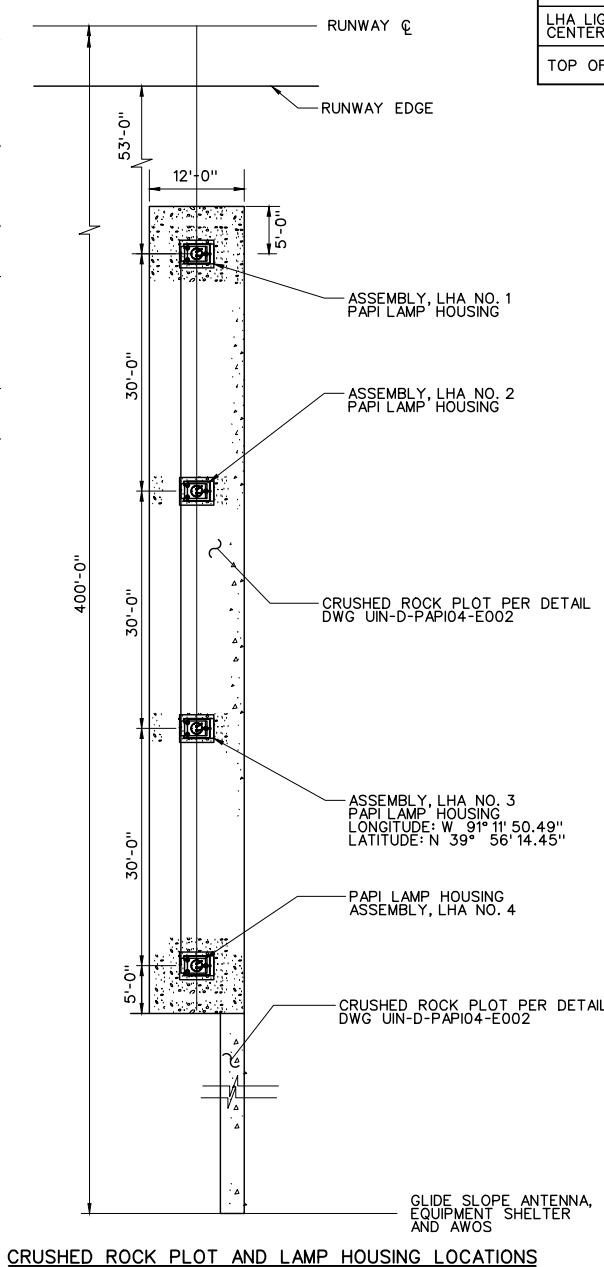
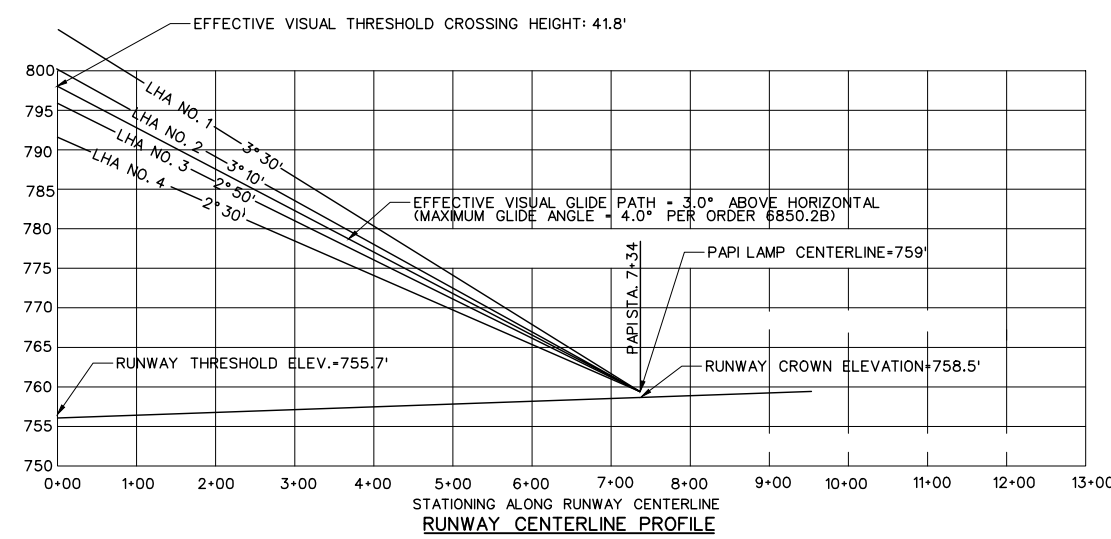
SHEET TITLE  
**PAPI EXISTING  
CONDITION DETAILS 1**

EL508  
SHEET 70 OF 143

TABLE "A"				
	LHA NO. 1	LHA NO. 2	LHA NO. 3	LHA NO. 4
OFFSET DISTANCE FROM RUNWAY CL	128.0'	158.0'	188.0'	218.0'
AIMING ANGLE ABOVE HORIZONTAL	3° 30'	3° 10'	2° 50'	2° 30'
APPROXIMATE GROUND ELEVATION	756.5'	756.0'	755.5'	755.0'
LHA HEIGHT ABOVE GROUND (DO NOT EXCEED 4'-6")	2.5'	3.0'	3.5'	4.0'
LHA LIGHT BEAM CENTERLINE ELEVATION	759.0' (TYPICAL ALL LHA UNITS)			
TOP OF FOUNDATION ELEV.	756.58'	756.13'	755.71'	755.21'



**SITE PLAN**  
SCALE: 1"=100'-0"



REV	APPROVED DATE	DESCRIPTION	JCN	RELEASE DATE	APP
A	10/29/2015	INSTALL PAPI, RWY 04 - AS BUILT	702103	10/01/2015	GJ

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS CENTRAL SERVICE AREA

PAPI  
SITE PLAN  
RUNWAY 04

QUINCY MUNICIPAL BALDWIN FIELD AIRPORT

DESIGNED BY: JHS  
CHECKED BY: JHS

ISSUED BY: ENGINEERING SERVICES  
NAVAIDS

DATE: 10/28/2014  
DRAWING NO: UIN-D-PAPI04-C001

MGR: ENGINEERING  
JCN  
702103

REV A

**NOTES**

1. THIS FAA DRAWING IS INCLUDED FOR REFERENCE ONLY. REFER TO SHEETS EL510 & EL511 FOR PAPI INSTALLATION DETAILS.

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

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER

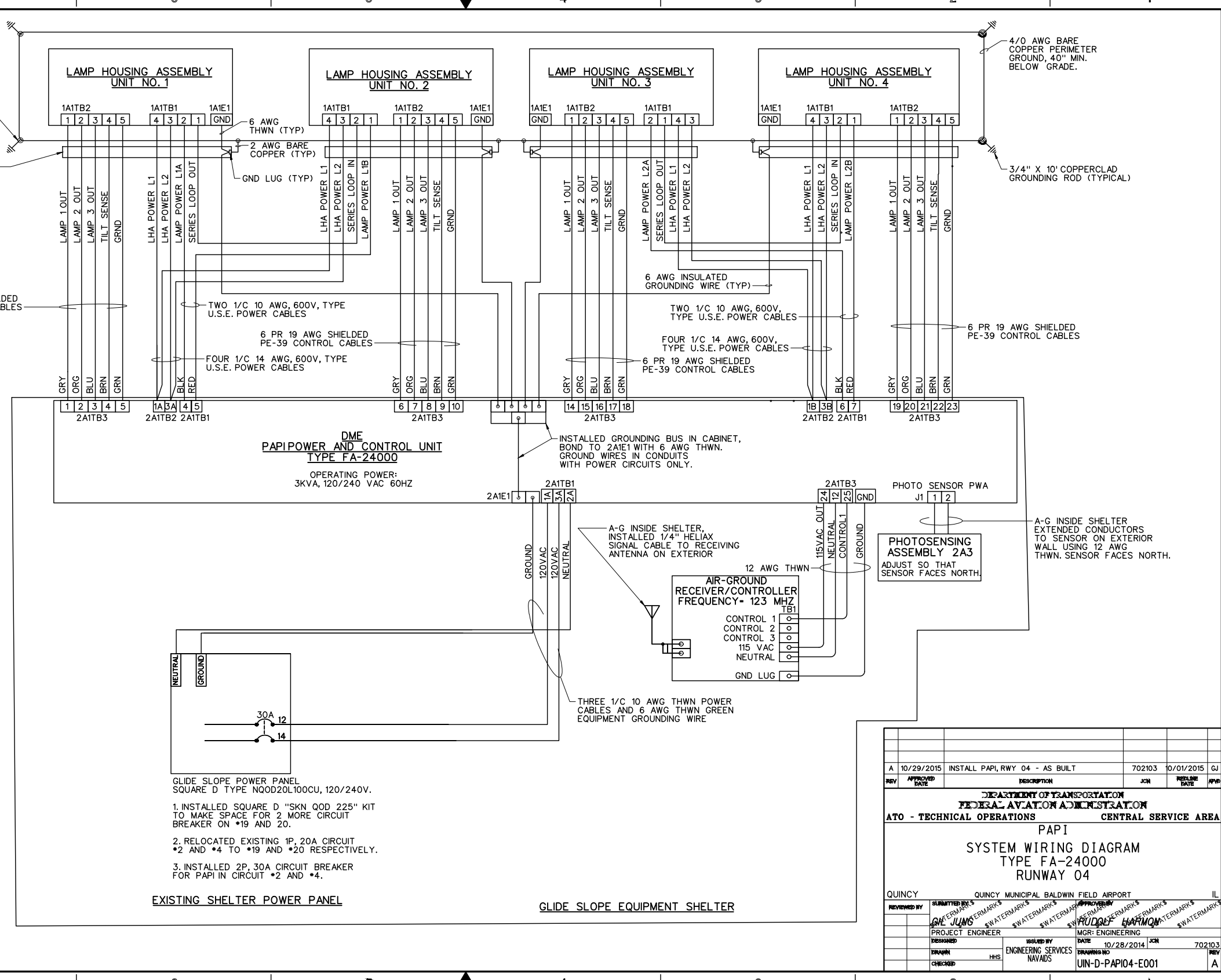


CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

REV	APPROVED DATE	DESCRIPTION	JCN	RELINE DATE	APP
A	10/29/2015	INSTALL PAPI RWY 04 - AS BUILT	702103	10/01/2015	GJ

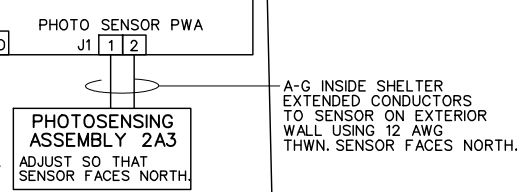
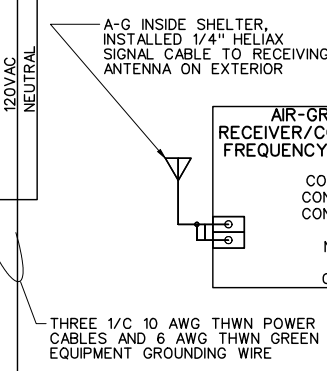
  

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION ATO - TECHNICAL OPERATIONS CENTRAL SERVICE AREA	
PAPI SYSTEM WIRING DIAGRAM TYPE FA-24000 RUNWAY 04	
QUINCY PROJECT ENGINEER DESIGNED BY DRAWN CHECKED	QUINCY MUNICIPAL BALDWIN FIELD AIRPORT MGR: ENGINEERING DATE 10/28/2014 DRAWING NO UIN-D-PAPI04-E001



- NOTES**
- THIS FAA DRAWING IS INCLUDED FOR REFERENCE ONLY. REFER TO SHEETS EL510 & EL511 FOR PAPI INSTALLATION DETAILS.

- GLIDE SLOPE POWER PANEL**  
SQUARE D TYPE NQOD20L100CU, 120/240V.
- INSTALLED SQUARE D "SKN QOD 225" KIT TO MAKE SPACE FOR 2 MORE CIRCUIT BREAKER ON \*19 AND 20.
  - RELOCATED EXISTING 1P, 20A CIRCUIT \*2 AND \*4 TO \*19 AND \*20 RESPECTIVELY.
  - INSTALLED 2P, 30A CIRCUIT BREAKER FOR PAPI IN CIRCUIT \*2 AND \*4.
- EXISTING SHELTER POWER PANEL**



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 Date: Wednesday, March 8, 2023 2:58:10 PM

PAPI EXISTING  
CONDITION DETAILS 2



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

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO:	3-17-0085-XX
IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 EL500.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	CHK
APPROVED BY:	APR
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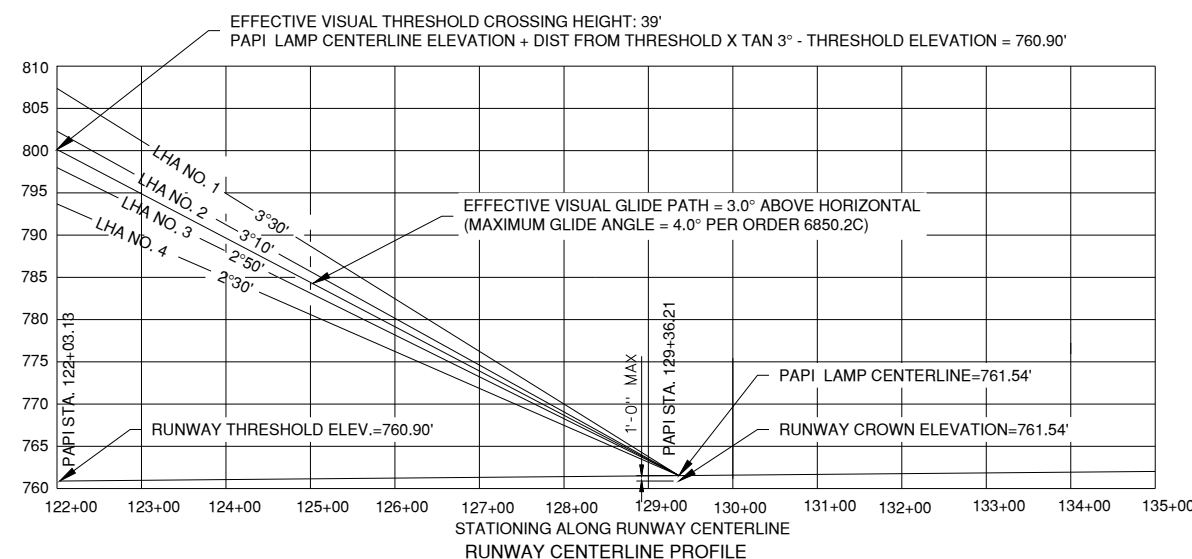
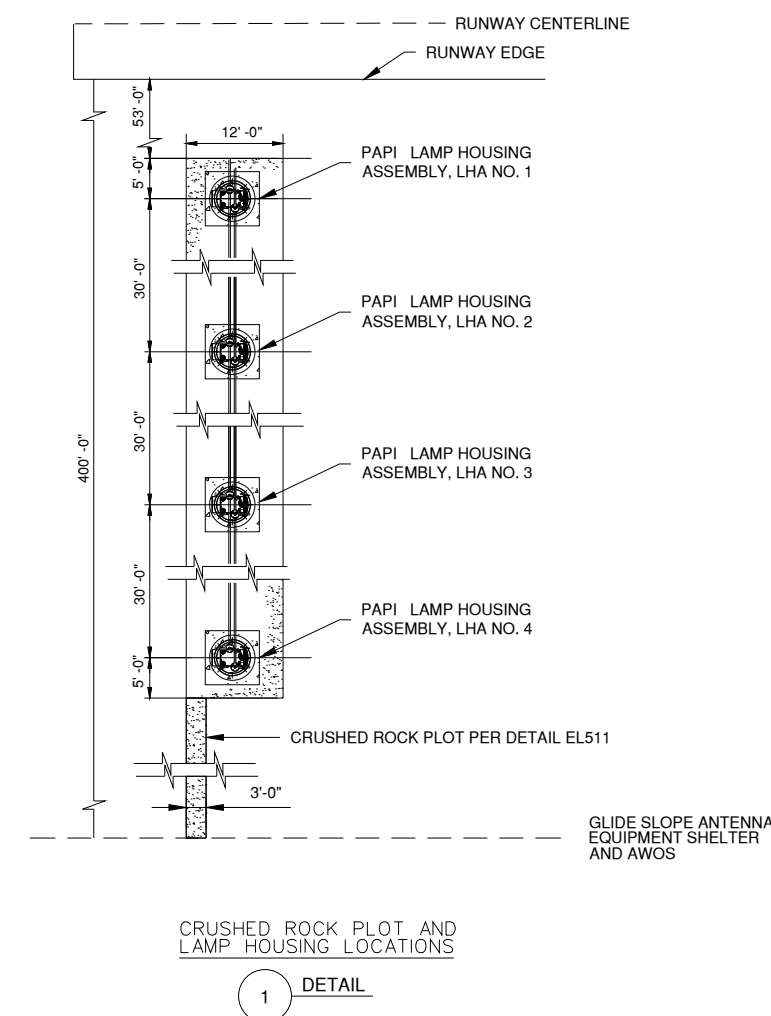
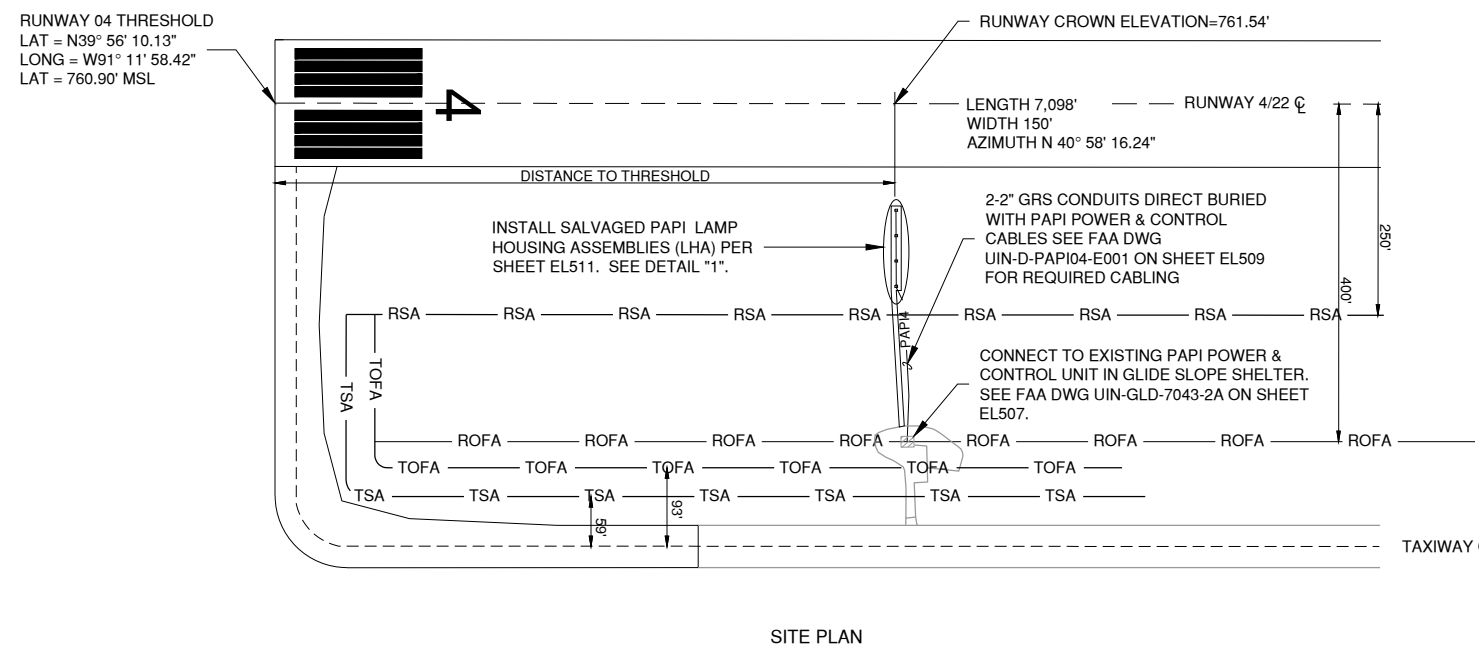
SHEET TITLE  
**PAPI RUNWAY 4  
INSTALLATION  
DETAILS 1**

EL510  
SHEET 72 OF 143

TABLE A RWY 4 PAPI DATA	
RUNWAY	04
THRESHOLD STATION	122+03.13
THRESHOLD ELEVATION	760.90'
LAMP ELEVATION	761.54'
THRESHOLD CROSSING HEIGHT (TCH)	39'
RW CL ELEVATION	761.54'
GLIDE PATH ANGLE	3°
STATIONING FOR FRONT OF PAPI	129+36.71
PAPI DISTANCE FROM THRESHOLD (RRP)	733.58'

NOTES:

PAPI REFERENCE DISTANCE IS TO THE FRONT FACE OF LHA.

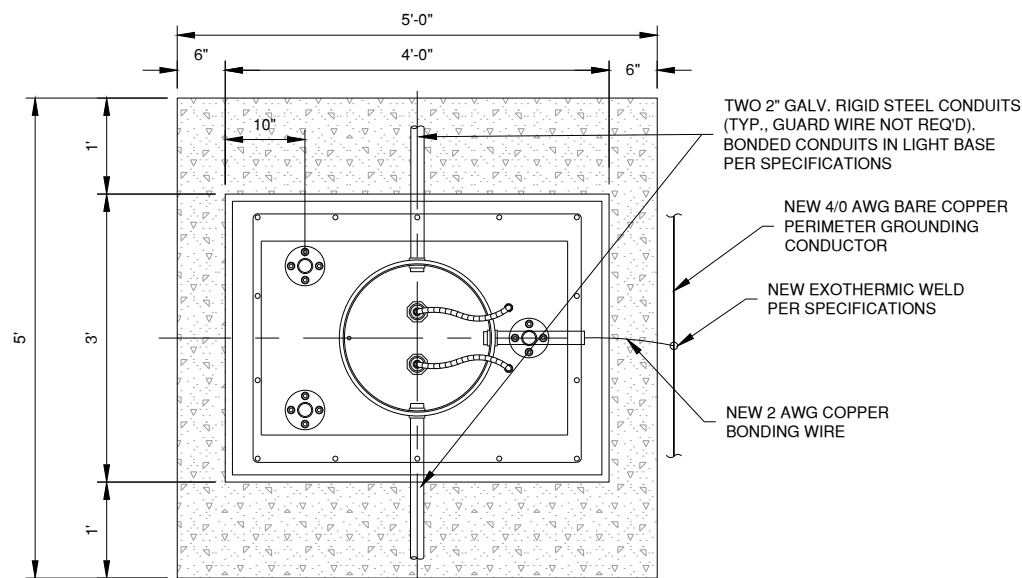


NOTES

THE ADJUST PAPI PAY ITEM SHALL INCLUDE:

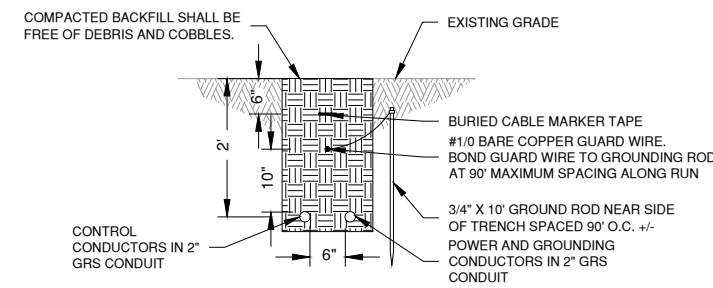
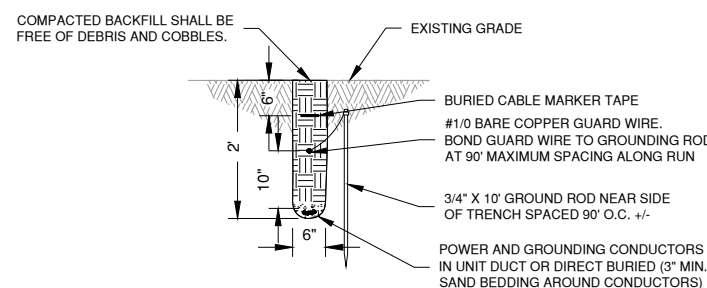
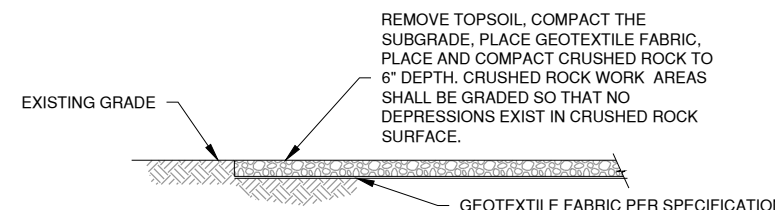
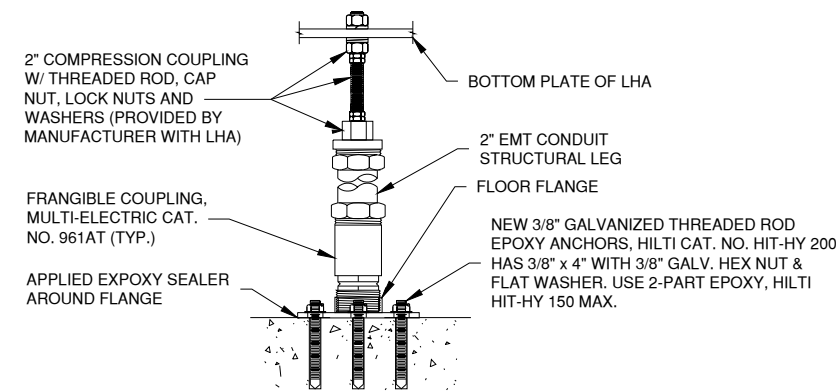
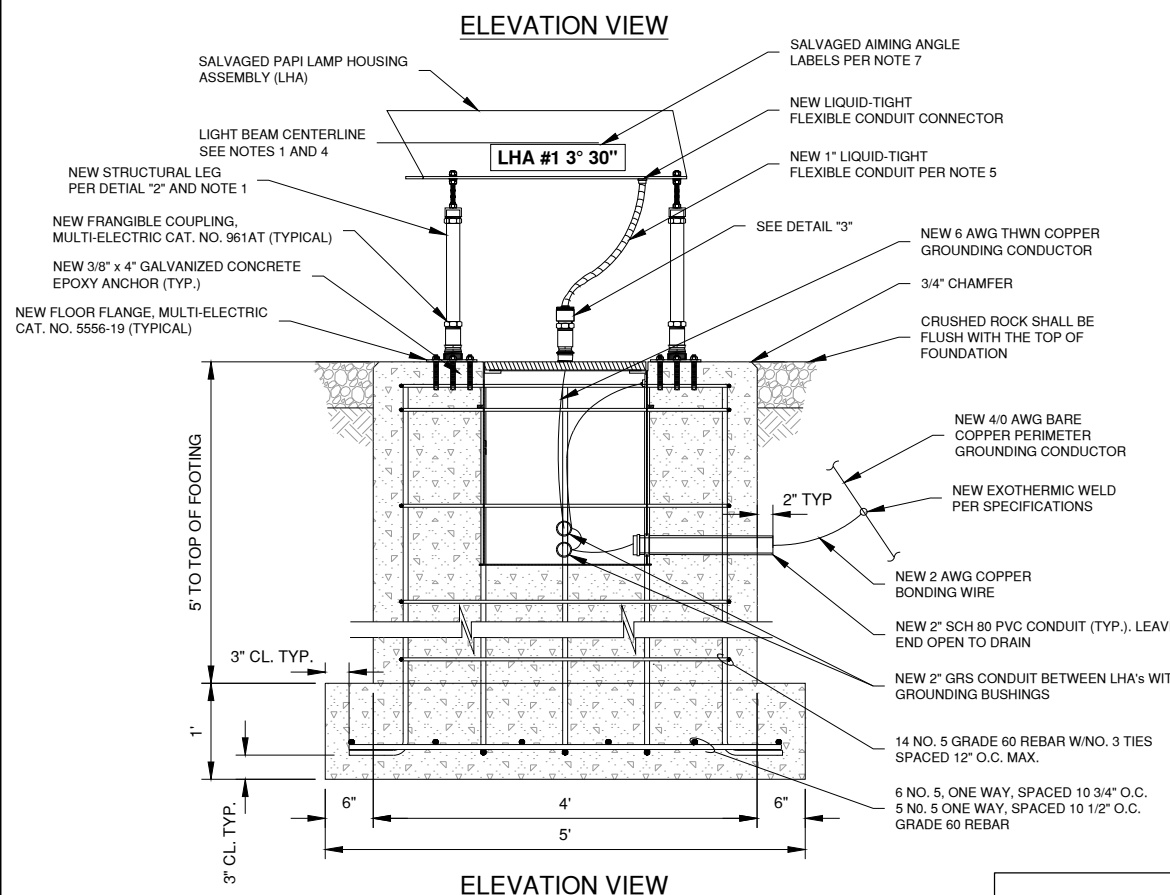
1. REMOVE, SALVAGE, & STORE EXISTING LHA'S.
2. REMOVE REMAINING PAPI EQUIPMENT, FOUNDATIONS, CABLE & CONDUIT.
3. CONSTRUCT NEW FOUNDATIONS, CRUSHED ROCK PLOT, & ALL EQUIPMENT CABLING AND CONDUIT TO THE GLIDE SLOPE SHELTER.
4. INSTALL SALVAGED LHA'S ON NEW FOUNDATIONS.
5. CONNECT NEW CABLING TO THE EXISTING PAPI PCA IN THE GLIDE SLOPE SHELTER.

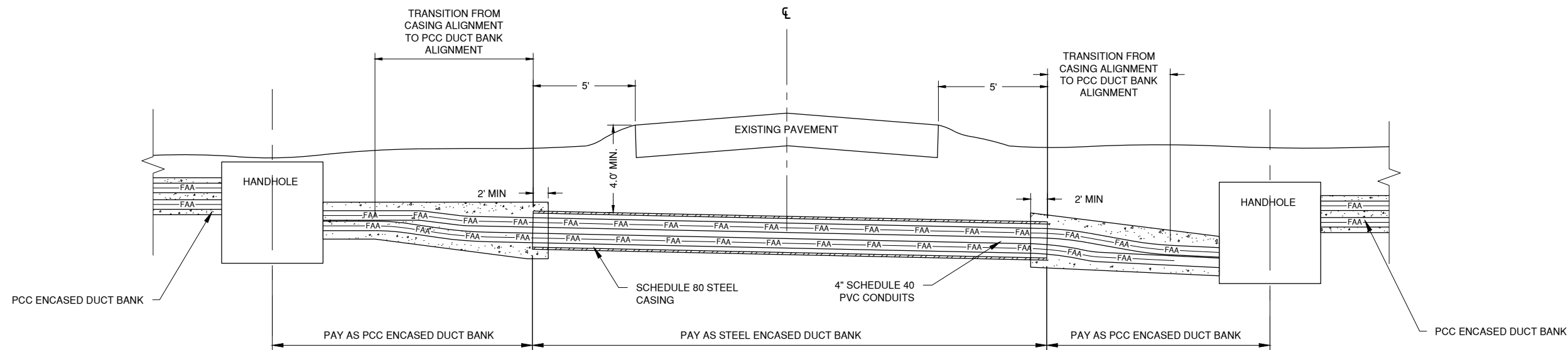




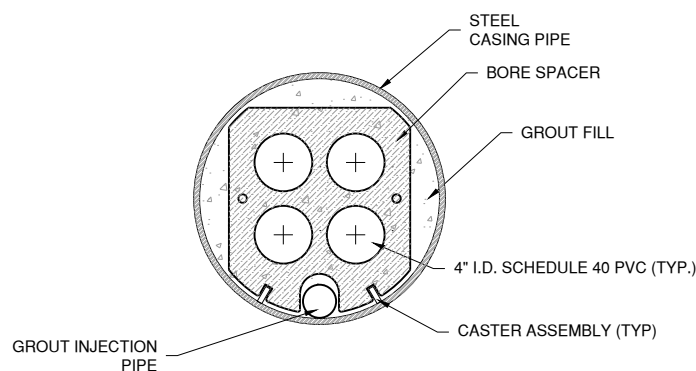
**NOTES**

- SEE TABLE "A" ON EL510 FOR LAMP HOUSING ASSEMBLY (LHA) LIGHT BEAM CENTERLINE ELEVATIONS AND AIMING ANGLES.
- SEE PROJECT SPECIFICATIONS FOR EXCAVATION AND BACKFILL REQUIREMENTS. EXCAVATION SHALL BE SHORED OR SHAPED PER OSHA REQUIREMENTS.
- SEE PROJECT SPECIFICATIONS FOR CONCRETE FORM WORK, REINFORCEMENT, MATERIAL, PLACEMENT, AND CURING REQUIREMENTS.
- AIM EACH OF THE PAPI LHA UNITS INDIVIDUALLY AND SET TILT SWITCHES USING THE AIMING INSTRUMENT PER THE TECHNICAL INSTRUCTION BOOK FURNISHED WITH THE EQUIPMENT.
- LHA HAS FOUR CABLE ACCESS HOLES IN UNDERSIDE OF UNIT, ENLARGED TWO HOLES TO ACCEPT A 1" SHORT NIPPLE. INSTALLED GROUNDING BUSHING ON TOP OF NIPPLE AND 1" COUPLING ON BOTTOM OF NIPPLE ON UNDERSIDE OF LHA. INSTALLED 6 AWG THWN GROUND WIRE IN 1" FLEXIBLE LIQUID-TIGHT CONDUIT WITH POWER CONDUCTORS, BONDED TO BUSHING, AND TERMINATED AT LHA GROUNDING LUG. TERMINATED CONTROL CONDUCTORS PER THE SYSTEM WIRING DIAGRAM AND GROUND THE END OF THE UNUSED CONTROL CONDUCTORS AND SHIELDING TO THE GROUNDING LUG IN THE LHA. FLEX CONDUIT GROUNDING USING 6 AWG INSULATED GROUND WIRE.
- THE CONTRACTOR SHALL PERFORM CABLE TESTING PER SPECIFICATIONS IN THE PRESENCE OF AN FAA SSC REPRESENTATIVE PRIOR TO MAKING CONNECTIONS TO THE LHA'S AND POWER AND CONTROL UNIT.
- THE CONTRACTOR SHALL FURNISH AND INSTALL AIMING ANGLE LABELS ON ONE SIDE OF EACH LHA. LABELS SHALL BE WHITE VINYL WITH SELF-ADHESIVE BACKING. LETTERING SHALL BE 2" HIGH X 1 1/2" WIDE RED LETTERING.
- THE CONTRACTOR SHALL FURNISH AND INSTALL TWO L-868B LIGHT BASES, CLASS 1A, JAQUITH TYPE AC24, 12" O.D., 24" DEEP, WITH INTERNAL GROUNDING CLAMP, 1 1/4" THICK GALVANIZED STEEL COVER PLATE, JAQUITH CAT. NO. AK402020 AND NEOPRENE GASKET, JAQUITH CAT. NO. 10530281. COVER PLATE HAS TWO TAPPED HOLES ARRANGED AS SHOWN FOR 2" FRANGIBLE COUPLINGS. LIGHT BASE HAS THE FOLLOWING FLEXIBLE GROMMET CONNECTIONS (FLEX CONNEX) STACKED VERTICALLY, ONE 2" AT 0°, AND TWO 2" AT 90° AND 270°. PLYWOOD SHIPPING COVER WAS USED AS A FORM TO PROVIDE 5/16" WIDE AIR GAP IN CONCRETE AROUND COVER PLATE. TOP OF COVER IS FLUSH WITH TOP OF CONCRETE FOUNDATION.
- THE PULL CAN IS A SPECIFICATION FAA-E-1315A, L867 LIGHT BASE, CLASS I, JAQUITH TYPE AC632420500301, 16 1/4" I.D., 24" DEEP, WITH 1 1/4" COVER PLATE, JAQUITH TYPE AP202020 AND GASKET, JAQUITH TYPE 10530281. COVER PLATE HAS TWO TAPPED HOLES ARRANGED AS SHOWN FOR 2" FRANGIBLE COUPLINGS. LIGHT BASE HAS THE FOLLOWING FLEXIBLE GROMMET CONNECTIONS (FLEX CONNEX) STACKED VERTICALLY, ONE 2" AT 0°, AND TWO 2" AT 90° AND 270°. PLYWOOD SHIPPING COVER WAS USED AS A FORM TO PROVIDE 5/16" WIDE AIR GAP IN CONCRETE AROUND COVER PLATE. TOP OF COVER IS FLUSH WITH TOP OF CONCRETE FOUNDATION.
- CONNECTIONS OF #10 TO #14 POWER CABLES SHALL BE MADE WITH 3M DIRECT BURY SPLICE KIT DB0/B-6. LEAVE A MINIMUM 6" SLACK LOOP COILED INSIDE THE POWER SPLICE CAN. CONTROL CONDUCTORS ARE NOT SPLICED; SECOND LIGHT BASE IS A PULL CAN FOR THE CONTROL CABLES.
- MAKE BELOW GRADE CONNECTIONS USING EXOTHERMIC WELDS PER SPECIFICATIONS.
- EXISTING PAPI LHA'S SHALL BE REMOVED, SALVAGED & REINSTALLED ON NEW FOUNDATIONS & EQUIPMENT
- ADJUSTED PAPI LHA'S SHALL BE WIRED PER FAA DWG UIN-D-PAPI04-E001 ON SHEET EL509
- ALL PAPI COMPONENTS SHALL BE NEW WITH THE EXCEPTION OF THE SALVAGED LHA'S





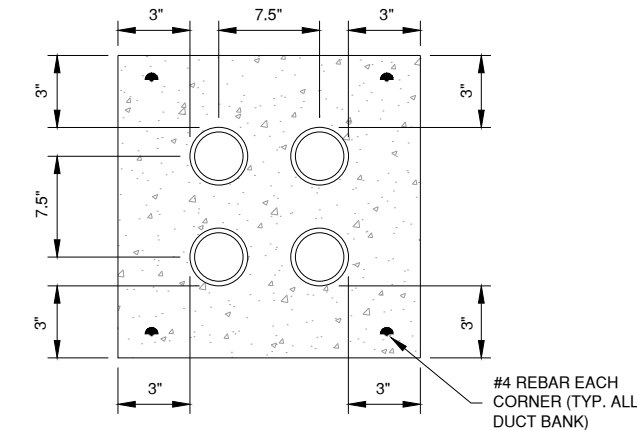
**1 SCHEMATIC BORE PROFILE**  
N.T.S.



**STEEL ENCASED DUCT BANK NOTES**

1. THE TOP OF STEEL CASING SHALL BE A MINIMUM OF 4' BELOW FINISHED PAVEMENT GRADE.
2. THE DIAMETER OF THE CASING SHALL BE SELECTED BY THE CONTRACTOR TO FIT THE REQUIRED NUMBER OF 4" CONDUITS. THE CASING PIPE SHALL BE LARGE ENOUGH TO ALLOW THE FREE FLOW OF GROUT BETWEEN THE INDIVIDUAL CONDUITS.
3. THE 4" PVC CONDUITS SHALL BE SUPPORTED WITH BORING SPACERS PLACED AT A MAXIMUM SPACING OF 5 FEET ON CENTER ALONG THE LENGTH OF THE CASING.
4. THE CONTRACTOR SHALL SECURE THE CONDUIT TO THE BORE SPACERS USING STRAPPING OR CARBON STEEL BANDS ON EACH SIDE OF EACH SPACER.
5. THE CASING SHALL BE INSTALLED AT A MINIMUM GRADE OF 3" PER 100'.

**2 STEEL ENCASED DUCT BANK DETAIL (BORES)**  
N.T.S.



**4-WAY DUCT BANK DETAIL**

**CONCRETE ENCASED DUCT BANK NOTES**

1. DIMENSIONS SHOWN ARE MINIMUM.
2. TOP OF CONCRETE ENCASEMENT SHALL BE NOT LESS THAN 24" BELOW FINISHED SUBGRADE BELOW PAVEMENTS AND NOT LESS THAN 24" BELOW FINISHED GRADE IN UNPAVED AREAS, EXCEPT WHERE DIRECTED OTHERWISE BY ENGINEER. AVOID ALL CONFLICTS WITH OTHER UTILITIES (UNDERDRAINS, WATER LINES, SEWER LINES, TELEPHONE, ELECTRICAL) OR OTHER OBSTACLES, ADJUSTING DEPTH AS NECESSARY.
3. CONCRETE SHALL BE ITEM P-610.
4. CONDUIT SHALL BE SCHEDULE 40 PVC, 4" NOMINAL DIAMETER, OR AS INDICATED ON THE PLANS.
5. CONCRETE ENCASEMENT SHALL EXTEND A MINIMUM OF 5'-0" BEYOND EDGES OF PAVEMENT, OR AS SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
6. #4 REBAR SHALL BE INSTALLED CONTINUOUS THE LENGTH OF THE CONCRETE ENCASEMENT.
7. DUCT BANK SHALL BE STACKED NO MORE THAN THREE CONDUITS HIGH UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
8. AT ENDS OF DUCT BANKS, INSTALL A PVC COUPLING FLUSH WITH END OF CONCRETE FOR CONNECTING FUTURE CONDUIT. INSTALL POLYETHYLENE PULL STRING, GREENLEE, OR EQUIVALENT. PLUG THE ENDS OF UNUSED SPARE CONDUITS WITH WOODEN PLUGS.
9. HIGH VOLTAGE WIRING, RUNWAY & TAXIWAY SERIES CIRCUIT WIRING, ETC., AND POWER WIRING OVER 480V SHALL BE INSTALLED IN SEPARATE CONDUITS FROM LOW VOLTAGE WIRING, 480V OR LESS.

**3 CONCRETE ENCASED DUCT BANK DETAIL**  
N.T.S.

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

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CAD DWG FILE: 180020-01 PH4 EL500.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: CHK

APPROVED BY: APR

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SHEET TITLE

**DUCT BANK DETAILS**

**FIXTURE TABLE  
PH4 RWY 422 REPLACE FIXTURES ON EXISTING BASE**

FIXTURE #	FIXTURE TYPE	HORIZONTAL CONTROL
R422-9	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 139+72.83 OFFSET -85.00 L
R422-10	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 141+70.58 OFFSET -85.00 L
R422-11	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 143+68.33 OFFSET -85.00 L
R422-12	NEW FMRL (LED) ON EXISTING BASE	RWY 422 STA 145+66.08 OFFSET -85.00 L
R422-13	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 147+63.83 OFFSET -85.00 L
R422-14	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 149+61.58 OFFSET -85.00 L
R422-15	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 151+59.33 OFFSET -85.00 L
R422-16	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 153+57.08 OFFSET -85.00 L
R422-17	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 155+54.83 OFFSET -85.00 L
R422-18	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 157+52.58 OFFSET -85.00 L
R422-19	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 159+50.33 OFFSET -85.00 L
R422-20	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 161+48.08 OFFSET -85.00 L
R422-21	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 163+45.83 OFFSET -85.00 L
R422-22	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 165+43.58 OFFSET -85.00 L
R422-23	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 167+41.33 OFFSET -85.00 L
R422-24	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 169+39.08 OFFSET -85.00 L
R422-25	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 171+36.83 OFFSET -85.00 L
R422-26	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 173+34.58 OFFSET -85.00 L
R422-27	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 175+32.33 OFFSET -85.00 L
R422-28	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 177+30.08 OFFSET -85.00 L
R422-29	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 179+27.83 OFFSET -85.00 L
R422-30	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 181+25.58 OFFSET -85.00 L
R422-31	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 183+23.33 OFFSET -85.00 L
R422-32	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 185+21.08 OFFSET -85.00 L
R422-33	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 187+18.83 OFFSET -85.00 L
R422-34	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 189+16.58 OFFSET -85.00 L
R422-35	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 191+14.33 OFFSET -85.00 L
R422-44	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 139+72.83 OFFSET 85.00 R
R422-45	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 141+70.58 OFFSET 85.00 R
R422-46	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 143+68.33 OFFSET 85.00 R
R422-47	NEW FMRL (LED) ON EXISTING BASE	RWY 422 STA 145+66.08 OFFSET 85.00 R
R422-48	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 147+63.83 OFFSET 85.00 R
R422-49	NEW FMRL (LED) ON EXISTING BASE	RWY 422 STA 149+61.58 OFFSET 85.00 R
R422-50	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 151+59.33 OFFSET 85.00 R
R422-51	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 153+57.08 OFFSET 85.00 R
R422-52	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 155+54.83 OFFSET 85.00 R
R422-53	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 157+52.58 OFFSET 85.00 R
R422-54	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 159+50.33 OFFSET 85.00 R
R422-55	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 161+48.08 OFFSET 85.00 R
R422-56	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 163+45.83 OFFSET 85.00 R

**FIXTURE TABLE  
PH4 RWY 422 REPLACE FIXTURES ON EXISTING BASE**

FIXTURE #	FIXTURE TYPE	HORIZONTAL CONTROL
R422-57	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 165+43.58 OFFSET 85.00 R
R422-58	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 167+41.33 OFFSET 85.00 R
R422-59	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 169+39.08 OFFSET 85.00 R
R422-60	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 171+36.83 OFFSET 85.00 R
R422-61	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 173+34.58 OFFSET 85.00 R
R422-62	NEW FMRL (LED) ON EXISTING BASE	RWY 422 STA 175+32.33 OFFSET 85.00 R
R422-63	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 177+30.08 OFFSET 85.00 R
R422-64	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 179+27.83 OFFSET 85.00 R
R422-65	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 181+25.58 OFFSET 85.00 R
R422-66	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 183+23.33 OFFSET 85.00 R
R422-67	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 185+21.08 OFFSET 85.00 R
R422-68	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 187+18.83 OFFSET 85.00 R
R422-69	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 189+16.58 OFFSET 85.00 R
R422-70	NEW HIRL (LED) ON EXISTING BASE	RWY 422 STA 191+14.33 OFFSET 85.00 R

**FIXTURE TABLE  
PH4 RWY 422 NEW LIGHTS & BASES**

FIXTURE #	FIXTURE TYPE	HORIZONTAL CONTROL
R422-1	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 123+90.83 OFFSET -85.00 L
R422-2	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 125+88.58 OFFSET -85.00 L
R422-3	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 127+86.33 OFFSET -85.00 L
R422-4	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 129+84.08 OFFSET -85.00 L
R422-5	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 131+81.83 OFFSET -85.00 L
R422-6	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 133+79.58 OFFSET -85.00 L
R422-7	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 135+77.33 OFFSET -85.00 L
R422-8	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 137+75.08 OFFSET -85.00 L
R422-36	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 123+90.83 OFFSET 85.00 R
R422-37	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 125+88.58 OFFSET 85.00 R
R422-38	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 127+86.33 OFFSET 85.00 R
R422-39	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 129+84.08 OFFSET 85.00 R
R422-40	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 131+81.83 OFFSET 85.00 R
R422-41	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 133+79.58 OFFSET 85.00 R
R422-42	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 135+77.33 OFFSET 85.00 R
R422-43	NEW HIRL (LED) ON NEW BASE	RWY 422 STA 137+75.08 OFFSET 85.00 R
R422-71	NEW THRESHOLD (LED)	RWY 422 STA 121+99.13 OFFSET -85.00 L
R422-72	NEW THRESHOLD (LED)	RWY 422 STA 121+99.13 OFFSET -75.00 L
R422-73	NEW THRESHOLD (LED)	RWY 422 STA 121+99.13 OFFSET -65.00 L
R422-74	NEW THRESHOLD (LED)	RWY 422 STA 121+99.13 OFFSET -55.00 L
R422-75	NEW THRESHOLD (LED)	RWY 422 STA 121+99.13 OFFSET 55.00 R
R422-76	NEW THRESHOLD (LED)	RWY 422 STA 121+99.13 OFFSET 65.00 R
R422-77	NEW THRESHOLD (LED)	RWY 422 STA 121+99.13 OFFSET 75.00 R
R422-78	NEW THRESHOLD (LED)	RWY 422 STA 121+99.13 OFFSET 85.00 R

**FIXTURE TABLE  
PH4 TXY B LIGHTS**

FIXTURE #	FIXTURE TYPE	HORIZONTAL CONTROL
B-1	MITL (QUARTZ)	TXY B STA 120+63.00 OFFSET -55.41 L
B-2	MITL (QUARTZ)	TXY B STA 120+86.76 OFFSET -49.18 L
B-3	MITL (QUARTZ)	TXY B STA 121+10.51 OFFSET -42.94 L
B-4	MITL (QUARTZ)	TXY B STA 122+37.43 OFFSET -37.14 L
B-5	MITL (QUARTZ)	TXY B STA 123+64.35 OFFSET -42.94 L
B-6	MITL (QUARTZ)	TXY B STA 124+61.02 OFFSET -52.57 L
B-7	MITL (QUARTZ)	TXY B STA 124+37.68 OFFSET -62.19 L
B-8	MITL (QUARTZ)	TXY B STA 125+72.97 OFFSET -52.57 L
B-9	MITL (QUARTZ)	TXY B STA 126+09.63 OFFSET -42.94 L
B-10	MITL (QUARTZ)	TXY B STA 127+66.63 OFFSET -35.76 L
B-11	MITL (QUARTZ)	TXY B STA 129+23.63 OFFSET -35.00 L
B-12	MITL (QUARTZ)	TXY B STA 130+80.63 OFFSET -35.00 R
B-13	MITL (QUARTZ)	TXY B STA 132+37.63 OFFSET -35.00 L
B-14	MITL (QUARTZ)	TXY B STA 133+90.98 OFFSET -35.00 L
B-15	MITL (QUARTZ)	TXY B STA 134+41.60 OFFSET -34.07 L
B-16	MITL (QUARTZ)	TXY B STA 121+10.51 OFFSET 35.00 R
B-17	MITL (QUARTZ)	TXY B STA 122+37.43 OFFSET 35.00 R
B-18	MITL (QUARTZ)	TXY B STA 123+64.35 OFFSET 35.00 R
B-19	MITL (QUARTZ)	TXY B STA 123+89.87 OFFSET 35.00 R
B-20	MITL (QUARTZ)	TXY B STA 124+39.87 OFFSET 35.00 R
B-21	MITL (QUARTZ)	TXY B STA 124+71.28 OFFSET 35.00 R
B-22	MITL (QUARTZ)	TXY B STA 125+02.70 OFFSET 35.00 R
B-23	MITL (QUARTZ)	TXY B STA 125+34.12 OFFSET 35.00 R
B-24	MITL (QUARTZ)	TXY B STA 125+84.12 OFFSET 35.00 R
B-25	MITL (QUARTZ)	TXY B STA 126+09.63 OFFSET 35.00 R
B-26	MITL (QUARTZ)	TXY B STA 127+66.63 OFFSET 35.00 R
B-27	MITL (QUARTZ)	TXY B STA 129+23.63 OFFSET 35.00 R
B-28	MITL (QUARTZ)	TXY B STA 130+80.63 OFFSET 35.00 R
B-29	MITL (QUARTZ)	TXY B STA 132+37.63 OFFSET 35.00 R
B-30	MITL (QUARTZ)	TXY B STA 133+90.98 OFFSET 49.14 R
B-31	MITL (QUARTZ)	TXY B STA 134+15.09 OFFSET 57.79 R
B-32	MITL (QUARTZ)	TXY B STA 134+32.39 OFFSET 77.18 R
B-33	MITL (QUARTZ)	TXY B STA 134+38.56 OFFSET 100.96 R

**FIXTURE TABLE  
RELOCATE TAXI GUIDE SIGNS**

FIXTURE #	FIXTURE TYPE	HORIZONTAL CONTROL
RELOCATE GS-1	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 139+74.85 OFFSET -100.00 L
RELOCATE GS-2	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 140+11.18 OFFSET -290.06 L
RELOCATE GS-3	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 142+41.61 OFFSET -95.00 L
RELOCATE GS-4	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 146+20.20 OFFSET -258.00 L
RELOCATE GS-5	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 147+62.82 OFFSET -95.00 L
RELOCATE GS-6	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 137+76.25 OFFSET 283.92 R
RELOCATE GS-7	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 139+48.77 OFFSET 95.00 R
RELOCATE GS-8	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 142+41.61 OFFSET 95.00 R
RELOCATE GS-9	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 143+84.24 OFFSET 258.00 R
RELOCATE GS-12	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 148+24.10 OFFSET 258.00 R
RELOCATE GS-13	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 150+16.37 OFFSET 95.00 R
RELOCATE GS-14	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 174+98.07 OFFSET 95.00 R
RELOCATE GS-15	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 175+31.05 OFFSET 258.00 R
RELOCATE GS-16	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 191+38.09 OFFSET 95.00 R
RELOCATE GS-17	RELOCATE TAXI GUIDANCE SIGN	RWY 422 STA 192+21.03 OFFSET 258.00 R

**FIXTURE TABLE  
PH4 RWY 4 PAPI**

FIXTURE #	FIXTURE TYPE	HORIZONTAL CONTROL
LHA 1	ADJUST PAPI LENS ELEV = 761.54'	RWY 422 STA 129+36.71 OFFSET 128.00 R
LHA 2	ADJUST PAPI LENS ELEV = 761.54'	RWY 422 STA 129+36.71 OFFSET 158.00 R
LHA 3	ADJUST PAPI LENS ELEV = 761.54'	RWY 422 STA 129+36.71 OFFSET 188.00 R
LHA 4	ADJUST PAPI LENS ELEV = 761.54'	RWY 422 STA 129+36.71 OFFSET 218.00 R

**FIXTURE TABLE  
PH4 DISTANCE REMAINING SIGNS**

FIXTURE #	FIXTURE TYPE	HORIZONTAL CONTROL
DRS-1	NEW SIGN AND BASE	RWY 422 STA 132+52.11 OFFSET -125.00 L
DRS-2	NEW SIGN ON EXISTING BASE	RWY 422 STA 142+52.11 OFFSET -125.00 L
DRS-3	NEW SIGN ON EXISTING BASE	RWY 422 STA 152+52.11 OFFSET -125.00 L
DRS-4	NEW SIGN ON EXISTING BASE	RWY 422 STA 162+52.11 OFFSET -125.00 L
DRS-5	NEW SIGN ON EXISTING BASE	RWY 422 STA 172+52.11 OFFSET -125.00 L
DRS-6	NEW SIGN ON EXISTING BASE	RWY 422 STA 182+52.11 OFFSET -125.00 L

**FIXTURE TABLE  
PH4 NEW GUIDANCE SIGNS**

FIXTURE #	FIXTURE TYPE	HORIZONTAL CONTROL
GS-20	L-858 (LED)	RWY 422 STA 123+31.83 OFFSET 100.00 R
GS-21	L-858 (LED)	RWY 422 STA 121+78.13 OFFSET 250.00 R



License No. 184-000613

CONSULTANTS

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

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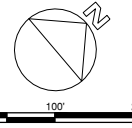
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

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IL PROJ. NO: UIN-5051  
CMT PROJECT NO: 18002001  
CAD DWG FILE: 180020-01 PH4 EL600.DWG  
DESIGNED BY: HWI  
DRAWN BY: DPA  
CHECKED BY: CHK  
APPROVED BY: APR  
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**SHEET TITLE  
LIGHTING & SIGNAGE  
SCHEDULES**

EL601  
SHEET 75 OF 143



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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

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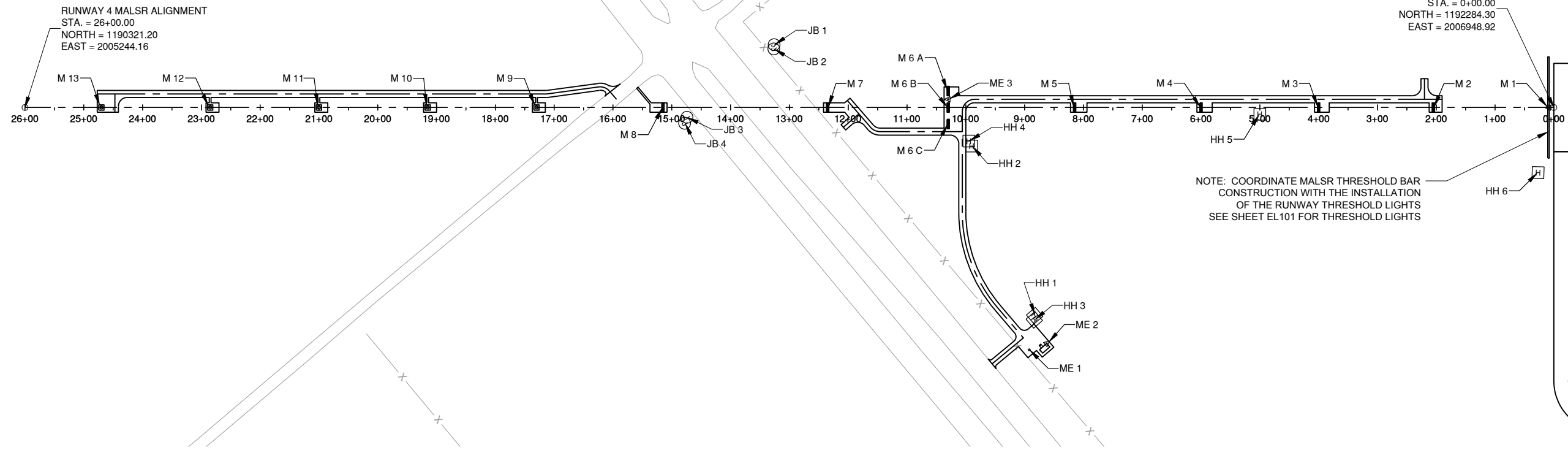


CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION
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IL PROJ. NO:	UIN-5051	
CMT PROJECT NO:	18002001	
CAD DWG FILE:	180020-01 PH4 EP100.DWG	
DESIGNED BY:	HWI	
DRAWN BY:	DPA	
CHECKED BY:	MJD	
APPROVED BY:	RLV	
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SHEET TITLE  
**MALSR EQUIPMENT  
LAYOUT PLAN**

**MALSR-C001**  
SHEET **76** OF **143**



**LOCATION TABLE  
RUNWAY 4 MALSR EQUIPMENT**

EQUIPMENT #	EQUIPMENT TYPE DETAIL SHEET	HORIZONTAL CONTROL
HH 1	HANDHOLE MALS	STA 8+82.91 OFFSET -353.51 L
HH 2	HANDHOLE MALS	STA 9+90.00 OFFSET -65.43 L
HH 3	HANDHOLE RAIL	STA 8+83.52 OFFSET -360.70 L
HH 4	HANDHOLE RAIL	STA 9+95.00 OFFSET -57.00 L
HH 5	HANDHOLE THRESHOLD	STA 5+00.00 OFFSET -11.50 L
HH 6	HANDHOLE THRESHOLD	STA 0+26.78 OFFSET -110.50 L
JB 1	JUNCTION BOX MALS	STA 13+26.05 OFFSET 106.60 R
JB 2	JUNCTION BOX RAIL	STA 13+26.66 OFFSET 99.59 R
JB 3	JUNCTION BOX MALS	STA 14+74.26 OFFSET -16.60 L
JB 4	JUNCTION BOX RAIL	STA 14+78.25 OFFSET -26.75 L
ME 1	TRANSFORMER	STA 8+92.18 OFFSET -411.61 L
ME 2	MALSR EQUIPMENT SHELTER	STA 8+62.43 OFFSET -400.70 L
ME 3	MALSR POWER DISTRIBUTION RACK	STA 10+30.00 OFFSET 14.00 R

**LOCATION TABLE  
RUNWAY 4 MALSR LIGHTS**

FIXTURE #	FIXTURE TYPE DETAIL SHEET	HORIZONTAL CONTROL	LENS ELEVATION	TOP OF FOUNDATION ELEVATION	LENS TO TOP OF FOUNDATION
M 1	THRESHOLD BAR	STA 0+09.00 OFFSET 0.00	762.40'	760.74'	1.66'
M 2	STEADY-BURNING LIGHT BAR MG-20 LIR TOWER	STA 2+05.00 OFFSET 0.00	762.40'	757.40'	5.00'
M 3	STEADY-BURNING LIGHT BAR MG-20 LIR TOWER	STA 4+00.00 OFFSET 0.00	762.40'	754.00'	8.40'
M 4	STEADY-BURNING LIGHT BAR MG-20 LIR TOWER	STA 6+00.00 OFFSET 0.00	763.44'	753.10'	10.34'
M 5	STEADY-BURNING LIGHT BAR MG-20 LIR TOWER	STA 8+15.00 OFFSET 0.00	764.56'	752.70'	11.86'
M 6 A	STEADY-BURNING LIGHT BAR MG-20 LIR TOWER	STA 10+30.00 OFFSET 28.00 R	765.68'	750.40'	15.28'
M 6 B	STEADY-BURNING LIGHT BAR MG-20 LIR TOWER	STA 10+30.00 OFFSET 0.00	765.68'	750.15'	15.53'
M 6 C	STEADY-BURNING LIGHT BAR MG-20 LIR TOWER	STA 10+30.00 OFFSET -28.00 L	765.68'	750.25'	15.43'
M 7	STEADY-BURNING LIGHT BAR MG-20 LIR TOWER	STA 12+35.00 OFFSET 0.00	766.75'	745.65'	21.10'
M 8	STEADY-BURNING LIGHT BAR MG-20 LIR TOWER	STA 15+15.00 OFFSET 0.00	768.21'	752.20'	16.01'
M 9	RAIL FLASHER MG-20 LIR TOWER	STA 17+30.00 OFFSET 0.00	765.01'	753.55'	11.46'
M 10	RAIL FLASHER MG-20 LIR TOWER	STA 19+15.00 OFFSET 0.00	762.26'	750.95'	11.31'
M 11	RAIL FLASHER MG-20 LIR TOWER	STA 21+00.00 OFFSET 0.00	759.50'	748.05'	11.45'
M 12	RAIL FLASHER MG-20 LIR TOWER	STA 22+85.00 OFFSET 0.00	756.75'	745.50'	11.25'
M 13	RAIL FLASHER MG-20 LIR TOWER	STA 24+70.00 OFFSET 0.00	754.00'	748.05'	5.95'

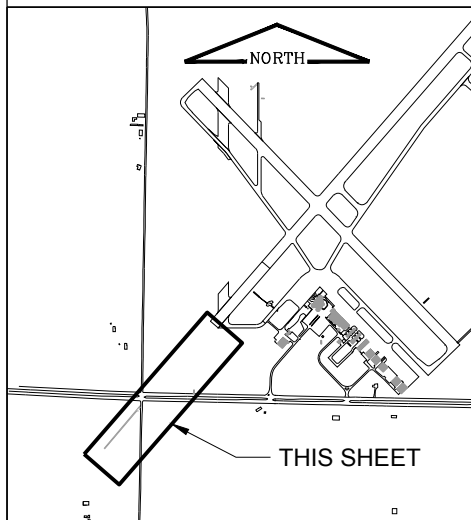
**MALS LIGHT  
AIMING TABLE**

FIXTURE	AIMING ANGLE
M 1	3.1°
M 2	3.2°
M 3	3.3°
M 4	3.4°
M 5	3.4°
M 6 A	3.5°
M 6 B	3.5°
M 6 C	3.5°
M 7	3.6°
M 8	3.7°

**LEGEND**

- HANDHOLE
- JUNCTION BOX
- MALSR TOWER
- RAIL TOWER

**KEYMAP**



BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

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CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

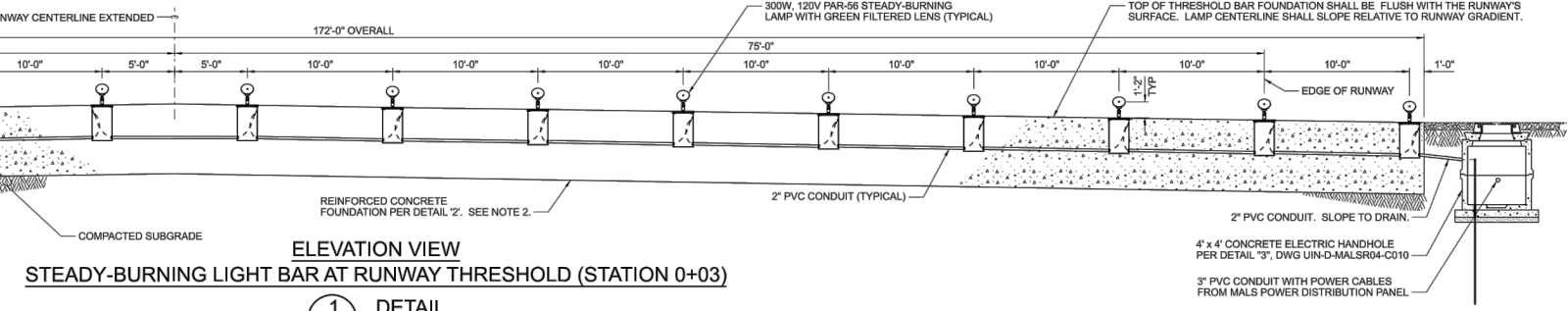
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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 EL520.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
APPROVED BY:	RLV

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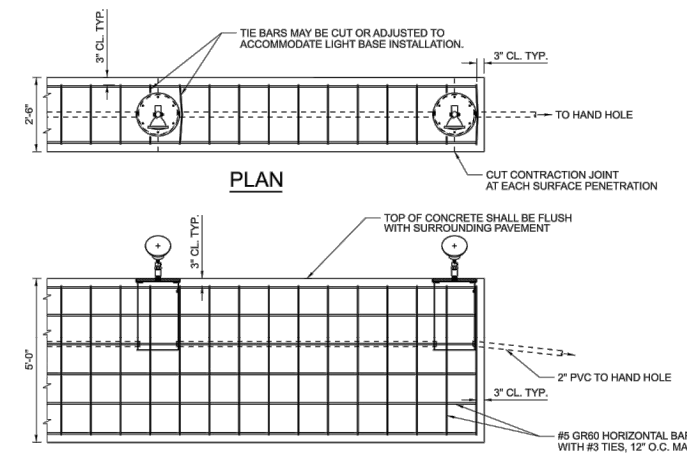
SHEET TITLE  
**THRESHOLD LIGHT  
BAR FOUNDATION  
DETAILS**

**MALSR-C002**  
SHEET 77 OF 143

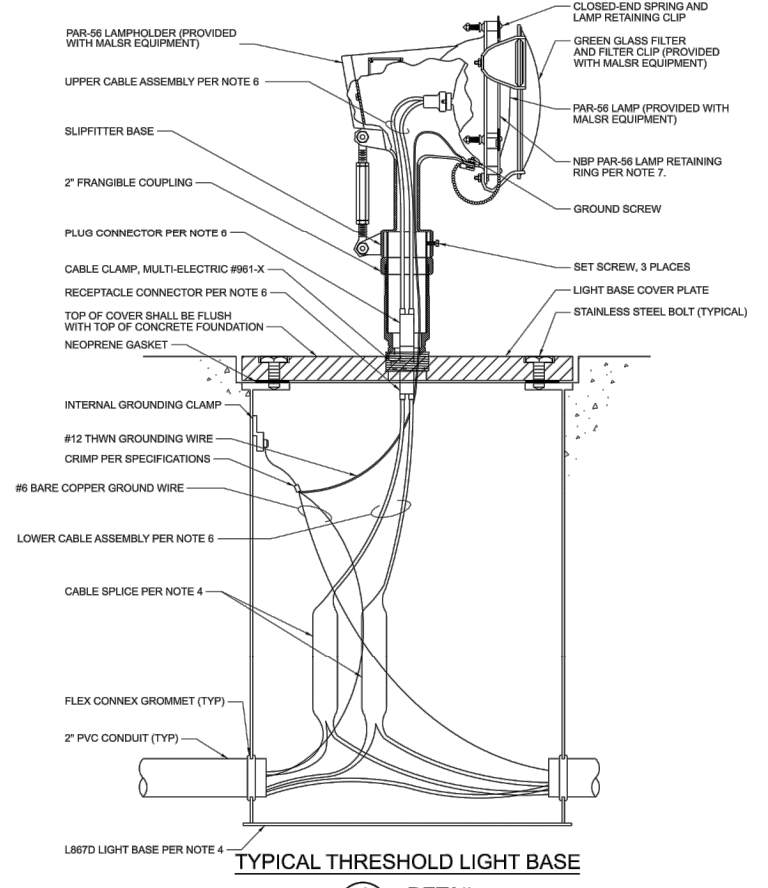


**1** DETAIL  
SCALE: 3/16" = 1'-0"

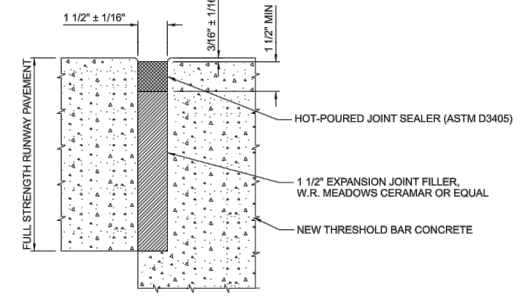
- NOTES:**
- MINIMIZE OVERALL HEIGHT OF THRESHOLD LAMP ABOVE TOP OF CONCRETE AT EACH LIGHT.
  - SEE SPECIFICATIONS FOR EXCAVATION AND BACKFILL REQUIREMENTS, CONCRETE FORMWORK, REINFORCEMENT, MATERIAL, PLACEMENT, AND CURING. EXCAVATION SHALL BE SHORED OR SHAPED PER OSHA.
  - ALL CONNECTIONS TO GROUNDING RODS SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATIONS.
  - THE SPLICE CANS SHALL BE TYPE L887D LIGHT BASE, CLASS 1, 1/8" I.D., 24" DEEP, VEGA #AC63242Q600301 WITH 1 1/4" COVER PLATE, VEGA #A#230203 AND GASKET, VEGA #10530281. THE PLYWOOD SHIPPING COVER, 1/8" DIA. X 1 1/4" DEEP, SHALL BE USED AS CONCRETE FORM TO PROVIDE 5/16" WIDE AIR GAP AROUND COVER PLATE. TOP OF COVER PLATE SHALL BE FLUSH WITH TOP OF CONCRETE. EACH LIGHT BASE SHALL HAVE 2" DIA FLEXIBLE GROMMET CONNECTIONS (FLEX CONNEX) AT 0° AND 180°.
  - EACH CURRENT-CARRYING CABLE MAKING A CONNECTION IN THE LIGHT BASE SHALL HAVE A MINIMUM 4" SLACK LOOP COILED NEATLY INSIDE THE LIGHT BASE. (SLACK LOOP NOT REQUIRED FOR CABLE PASSING THROUGH LIGHT BASE WITHOUT CONNECTION).
  - THE UPPER CABLE ASSEMBLY SHALL BE 2-1/16" #12 STRANDED THWN CABLES AND WATERTIGHT PLUG CONNECTOR, AMERACE #90P-S6. THE LOWER CABLE ASSEMBLY SHALL BE 2-1/16" #10 TYPE U.S.E. CABLES WITH RECEPTACLE CONNECTOR, AMERACE #90R-B8. SPLICE CONDUCTORS USING CRIMP CONNECTORS PER SPECIFICATIONS.
  - THE CONTRACTOR SHALL FURNISH AND INSTALL A LAMP-RETAINING RING (NSN 6210-01-497-5474) ON EACH PAR-56 LAMPHOLDER AT THRESHOLD BAR. RINGS CAN BE PURCHASED FROM NBP CORPORATION, 1480 N. CLAREMONT BLVD. CLAREMONT, CA 91711 PH 909-982-9806 X251. NO SUBSTITUTIONS.



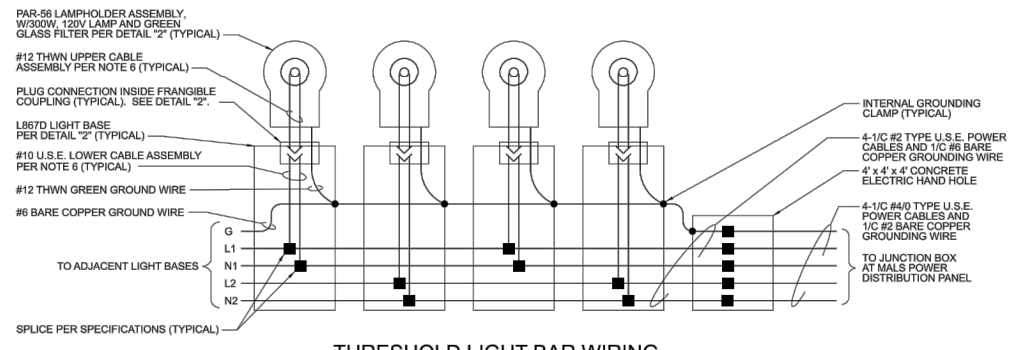
**2** DETAIL  
SCALE: 3/8" = 1'-0"



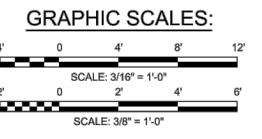
**4** DETAIL  
NOT TO SCALE



**5** DETAIL  
NOT TO SCALE



**3** DETAIL  
NOT TO SCALE



REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS CENTRAL SERVICE AREA

MALSR  
THRESHOLD LIGHT BAR FOUNDATION DETAILS  
RUNWAY 4

QUINCY MUNICIPAL BALDWIN FIELD AIRPORT IL

REVIEWED BY	SUBMITTED BY	APPROVED BY	
	TIMOTHY ALAN DYER	LUIS N DOMINGUEZ	
	Digitally signed by TIMOTHY ALAN DYER Date: 2023.03.01 16:11:47 -0600	Digitally signed by LUIS N DOMINGUEZ Date: 2023.03.01 16:38:24 -0600	
DESIGNED BY	TAD	ISSUED BY	DATE
DRAWN BY	TAD	ENGINEERING SERVICES	02/27/2023
CHECKED BY		NAVAIDS	JCN
			20980077
			UIN-20980077-C002

THIS DRAWING PRODUCED ON THE AXL REGION MICROSTATION SYSTEM

FAA SHEET	CMT SHEET	FAA SHEET	CMT SHEET
UIN-D-MALSR04-C001 =	MALSR-C001	UIN-D-MALSR04-C010 =	MALSR-C010
UIN-D-MALSR04-C002 =	MALSR-C002	UIN-D-MALSR04-C011 =	MALSR-C011
UIN-D-MALSR04-C003 =	MALSR-C003	UIN-D-MALSR04-A001 =	MALSR-A001
UIN-D-MALSR04-C004 =	MALSR-C004	UIN-D-MALSR04-A002 =	MALSR-A002
UIN-D-MALSR04-C005 =	MALSR-C005	GLSD-D-LTNGPROT-E001 =	MALSR-A003
UIN-D-MALSR04-C006 =	MALSR-C006	UIN-D-MALSR04-E001 =	MALSR-E001
UIN-D-MALSR04-C007 =	MALSR-C007	UIN-D-MALSR04-E002 =	MALSR-E002
UIN-D-MALSR04-C008 =	MALSR-C008	UIN-D-MALSR04-S001 =	MALSR-S001
UIN-D-MALSR04-C009 =	MALSR-C009		

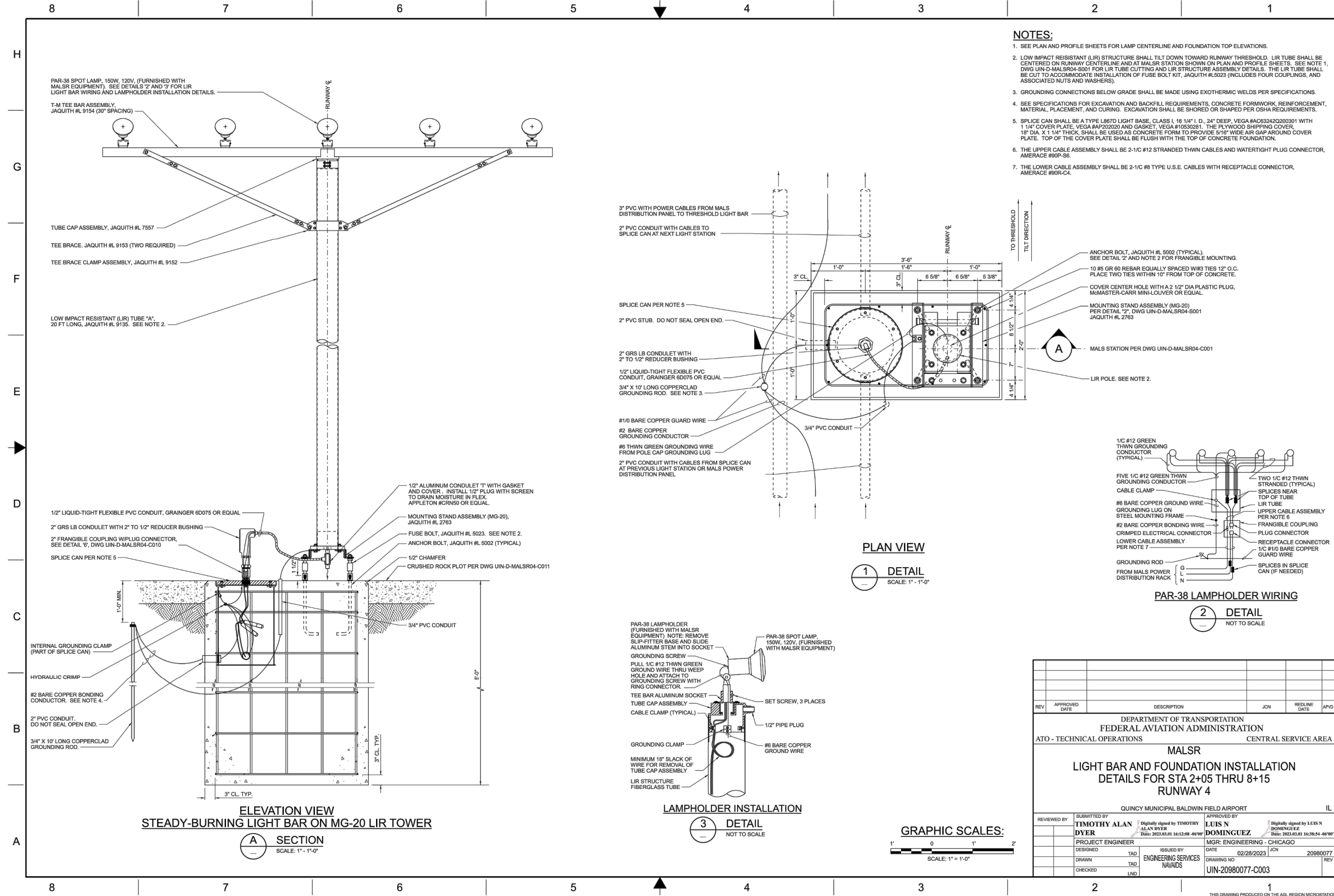
NOTE:  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALSR-A002 FOR EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE CONTRACTOR.

Path: K:\Quincy\AP180020-01\_ReconRunway4-22\DrawRwy4\Sheets\180020-01\_PH4\_EL520.dwg  
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 Plotted by: BRUC-CAGB-EDMS-00080  
 Date: 3/8/2023 2:56:24 PM

MARK	DATE	DESCRIPTION
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IL PROJ. NO:	UIN-5051	
CMT PROJECT NO:	18002001	
CAD DWG FILE:	180020-01 PH4 EL520.DWG	
DESIGNED BY:	HWI	
DRAWN BY:	DPA	
CHECKED BY:	MJD	
APPROVED BY:	RLV	

**NOTES:**

- SEE PLAN AND PROFILE SHEETS FOR LAMP CENTERLINE AND FOUNDATION TOP ELEVATIONS.
- LOW IMPACT RESISTANT (LIR) STRUCTURE SHALL TILT TOWARD RUNWAY THRESHOLD. LIR TUBE SHALL BE CENTERED ON RUNWAY CENTERLINE AND AT MALS STATION SHOWN ON PLAN AND PROFILE SHEETS. SEE NOTE 1, DWG UIN-D-MALS-R04-S001 FOR LIR TUBE CUTTING AND LIR STRUCTURE ASSEMBLY DETAILS. THE LIR TUBE SHALL BE CUT TO ACCOMMODATE INSTALLATION OF FUSE BOLT KIT, JAQUITH #15023 (INCLUDES FOUR COUPLINGS, AND ASSOCIATED NUTS AND WASHERS).
- GROUNDING CONNECTIONS BELOW GRADE SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATIONS.
- SEE SPECIFICATIONS FOR EXCAVATION AND BACKFILL REQUIREMENTS, CONCRETE FORMWORK, REINFORCEMENT, MATERIAL, PLACEMENT, AND CURING. EXCAVATION SHALL BE SHORED OR SHAPED PER OSHA REQUIREMENTS.
- SPLICE CAN SHALL BE A TYPE L8670 LIGHT BASE, CLASS 1, 18 1/4" I. D., 24" DEEP, VEGA #AC63242020301 WITH 1 1/4" COVER PLATE, VEGA #AP2020 AND GASKET, VEGA #10530281. THE PLYWOOD SHIPPING COVER, 18" DIA. X 1 1/4" THICK, SHALL BE USED AS CONCRETE FORM TO PROVIDE 5/16" WIDE AIR GAP AROUND COVER PLATE. TOP OF THE COVER PLATE SHALL BE FLUSH WITH THE TOP OF CONCRETE FOUNDATION.
- THE UPPER CABLE ASSEMBLY SHALL BE 2-1/2" #12 STRANDED THWN CABLES AND WATERTIGHT PLUG CONNECTOR, AMERACE #90P-S6.
- THE LOWER CABLE ASSEMBLY SHALL BE 2-1/2" #8 TYPE U.S.E. CABLES WITH RECEPTACLE CONNECTOR, AMERACE #90R-C4.



REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APD

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS  
CENTRAL SERVICE AREA

MALS  
LIGHT BAR AND FOUNDATION INSTALLATION  
DETAILS FOR STA 2+05 THRU 8+15  
RUNWAY 4

QUINCY MUNICIPAL BALDWIN FIELD AIRPORT

REVIEWED BY	SUBMITTED BY	APPROVED BY
	TIMOTHY ALAN DYER	LUIS N DOMINGUEZ
	Digitally signed by TIMOTHY ALAN DYER Date: 2023.03.01 16:12:08 -0600	Digitally signed by LUIS N DOMINGUEZ Date: 2023.03.01 16:38:54 -0600
PROJECT ENGINEER	DESIGNED BY	ISSUED BY
	TAD	ENGINEERING SERVICES NAVAIDS
DRAWN	CHECKED	DATE
TAD	LND	02/28/2023
		JCN
		20980077
		REV
		UIN-20980077-C003

THIS DRAWING PRODUCED ON THE AGL REGION MICROSTATION SYSTEM

FAA SHEET	CMT SHEET	FAA SHEET	CMT SHEET
UIN-D-MALS-R04-C001 =	MALS-R-C001	UIN-D-MALS-R04-C010 =	MALS-R-C010
UIN-D-MALS-R04-C002 =	MALS-R-C002	UIN-D-MALS-R04-C011 =	MALS-R-C011
UIN-D-MALS-R04-C003 =	MALS-R-C003	UIN-D-MALS-R04-A001 =	MALS-R-A001
UIN-D-MALS-R04-C004 =	MALS-R-C004	UIN-D-MALS-R04-A002 =	MALS-R-A002
UIN-D-MALS-R04-C005 =	MALS-R-C005	GLSD-D-LTNGPROT-E001 =	MALS-R-A003
UIN-D-MALS-R04-C006 =	MALS-R-C006	UIN-D-MALS-R04-E001 =	MALS-R-E001
UIN-D-MALS-R04-C007 =	MALS-R-C007	UIN-D-MALS-R04-E002 =	MALS-R-E002
UIN-D-MALS-R04-C008 =	MALS-R-C008	UIN-D-MALS-R04-S001 =	MALS-R-S001
UIN-D-MALS-R04-C009 =	MALS-R-C009		

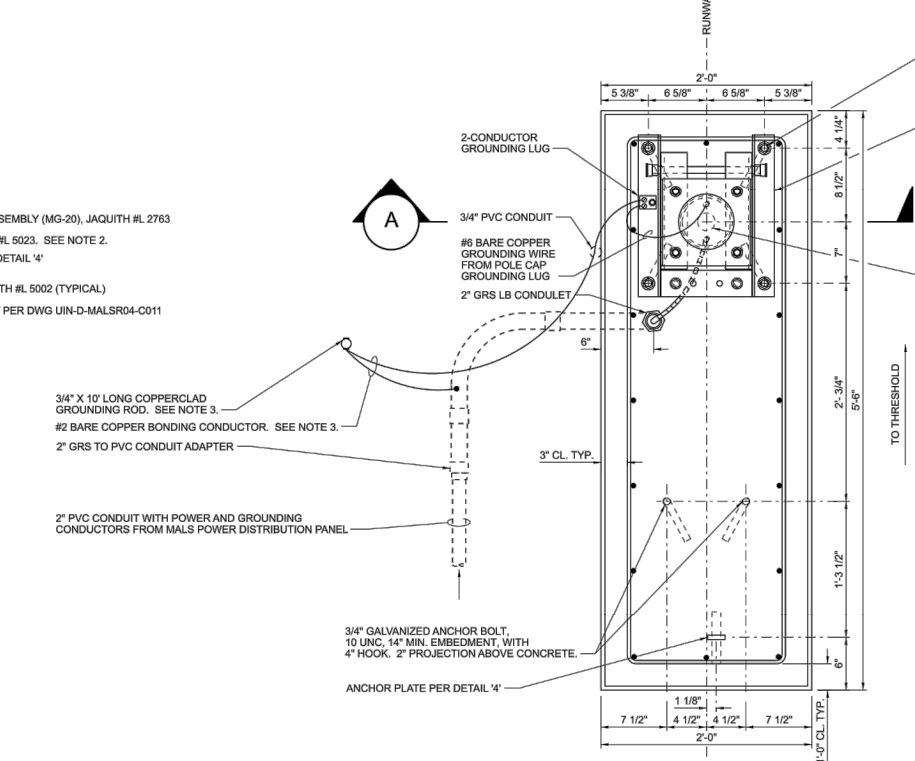
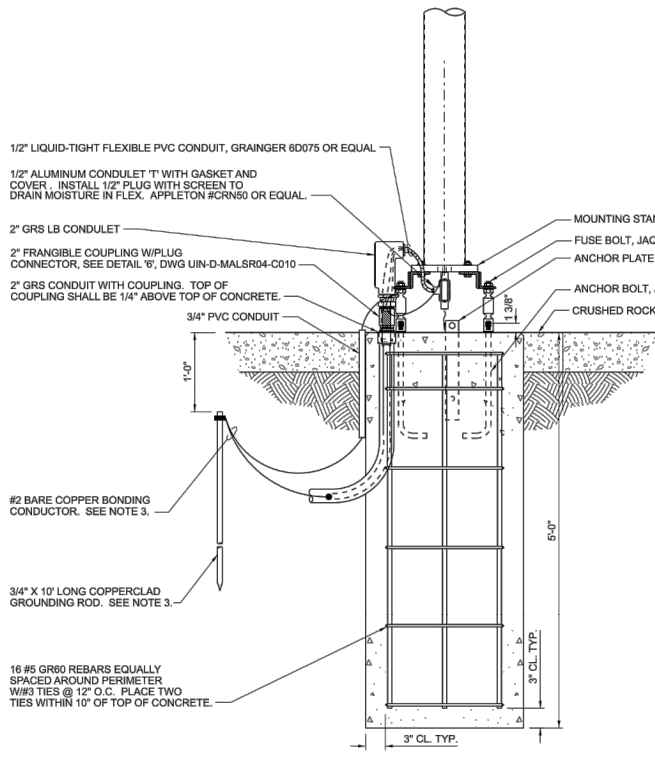
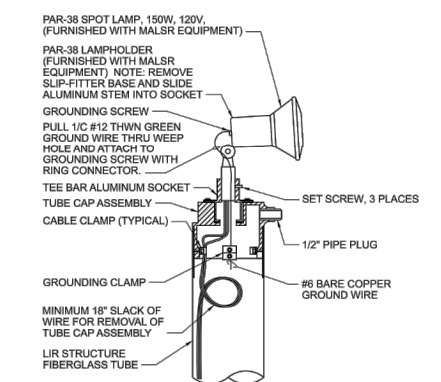
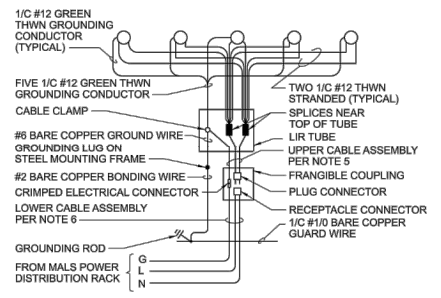
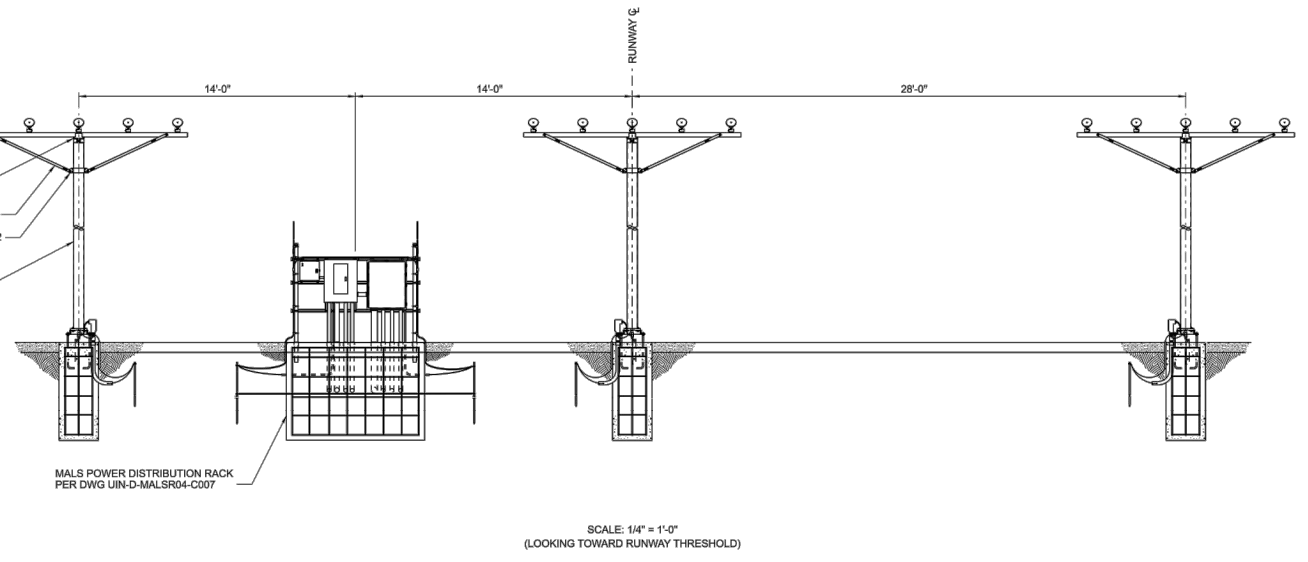
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Picked by: 81WVC-CAGB-EDMS-00080  
02/28/2023 10:07:00 AM

NOTE:  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALS-R-A002 FOR EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE CONTRACTOR.

MARK	DATE	DESCRIPTION
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IL PROJ. NO:	UIN-5051	
CMT PROJECT NO:	18002001	
CAD DWG FILE:	180020-01 PH4 EL520.DWG	
DESIGNED BY:	HWI	
DRAWN BY:	DPA	
CHECKED BY:	MJD	
APPROVED BY:	RLV	

**NOTES:**

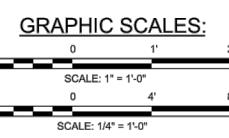
- SEE PLAN AND PROFILE SHEETS FOR LAMP CENTERLINE AND FOUNDATION TOP ELEVATIONS.
- LOW IMPACT RESISTANT (LIR) STRUCTURE SHALL TILT DOWN TOWARD RUNWAY THRESHOLD. LIR TUBE SHALL BE CENTERED ON RUNWAY CENTERLINE AND AT MALS STATION SHOWN ON PLAN AND PROFILE SHEETS. SEE NOTE 1, DWG UIN-D-MALSR04-5001 FOR LIR TUBE CUTTING AND LIR STRUCTURE ASSEMBLY DETAILS. THE LIR TUBE SHALL BE CUT TO ACCOMMODATE INSTALLATION OF FUSE BOX KIT, JAQUITH #L5023 (INCLUDES FOUR COUPLINGS, AND ASSOCIATED NUTS AND WASHERS).
- GROUNDING CONNECTIONS BELOW GRADE SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATIONS.
- SEE SPECIFICATIONS FOR EXCAVATION AND BACKFILL REQUIREMENTS. CONCRETE FORMWORK, REINFORCEMENT, MATERIAL, PLACEMENT, AND CURING. EXCAVATION SHALL BE SHORED OR SHAPED PER OSHA REQUIREMENTS.
- THE UPPER CABLE ASSEMBLY SHALL BE 2-1/2" #12 STRANDED THWN CABLES AND WATERTIGHT PLUG CONNECTOR, AMERACE #90P-S6.
- THE LOWER CABLE ASSEMBLY SHALL BE 2-1/2" #12 TYPE U.S.E. CABLES WITH RECEPTACLE CONNECTOR, AMERACE #90R-C4.



**PAR-38 LAMPHOLDER WIRING**  
2 DETAIL  
NOT TO SCALE

**LAMPHOLDER INSTALLATION**  
3 DETAIL  
NOT TO SCALE

**ANCHOR PLATE FOR WINCH, JAQUITH #L 5004**  
4 DETAIL  
NOT TO SCALE



REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS  
CENTRAL SERVICE AREA

MALS  
LIGHT BAR AND FOUNDATION DETAILS  
FOR STA 10+30  
RUNWAY 4

QUINCY MUNICIPAL BALDWIN FIELD AIRPORT IL

REVIEWED BY	SUBMITTED BY	APPROVED BY
	<b>TIMOTHY ALAN DYER</b>	<b>LUIS N DOMINGUEZ</b>
DESIGNED BY	DATE	ISSUED BY
TAD	02/28/2023	ENGINEERING SERVICES NAVADS
DRAWN BY	DRAWING NO	MGR: ENGINEERING - CHICAGO
TAD	UIN-20980077-C004	JCN 20980077
CHECKED BY	REV	
LNJ		

THIS DRAWING PRODUCED ON THE AIA REGION CAD SYSTEM

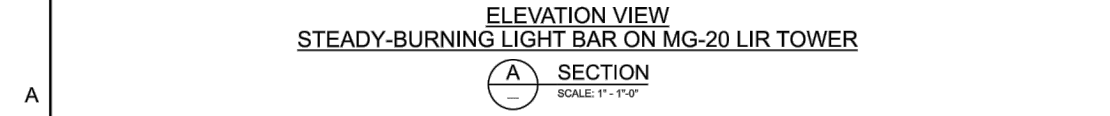
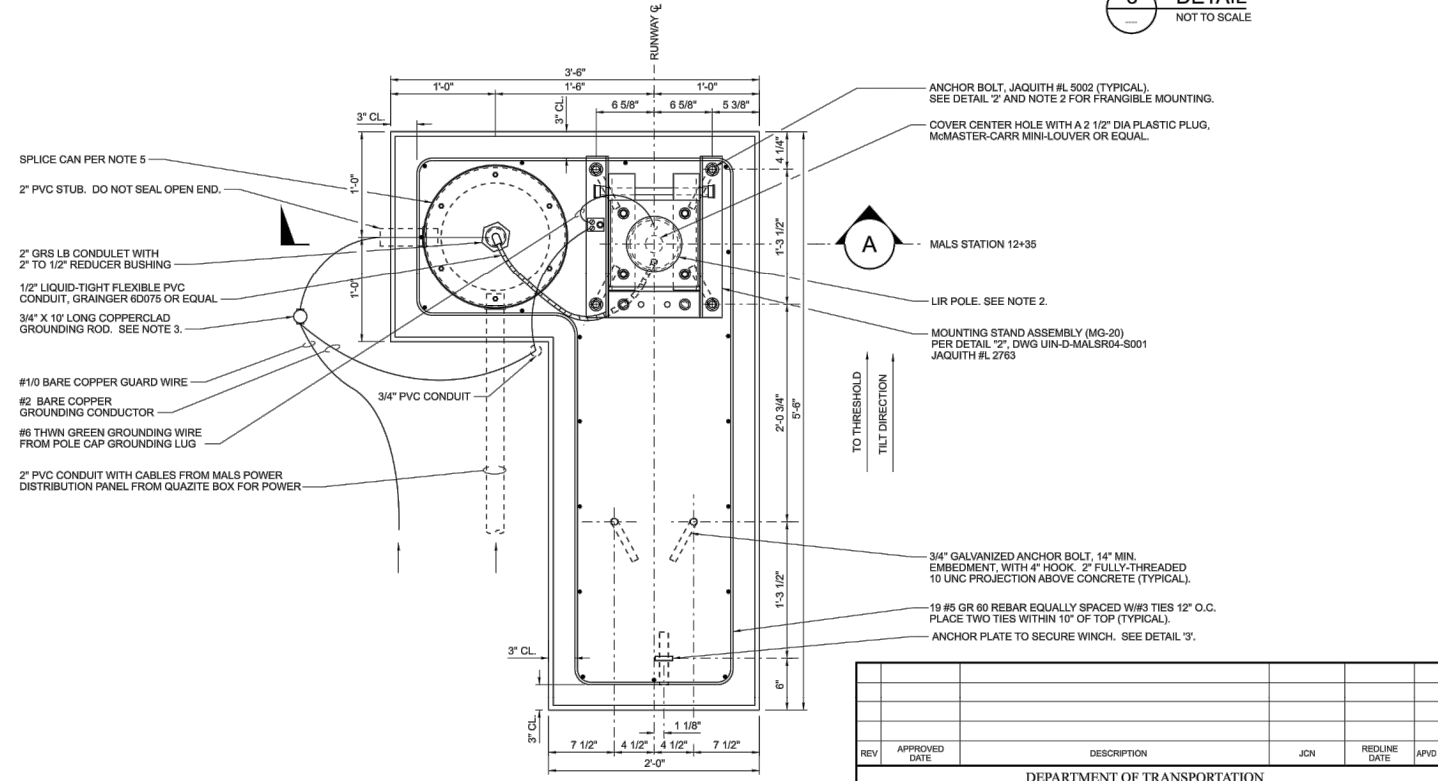
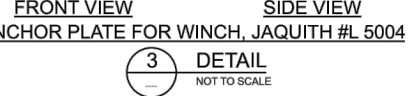
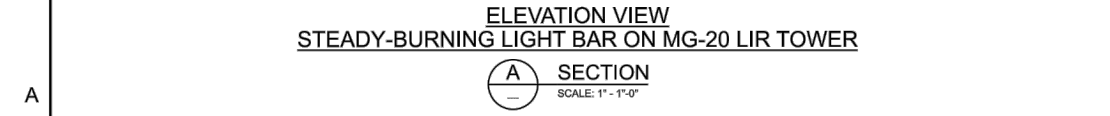
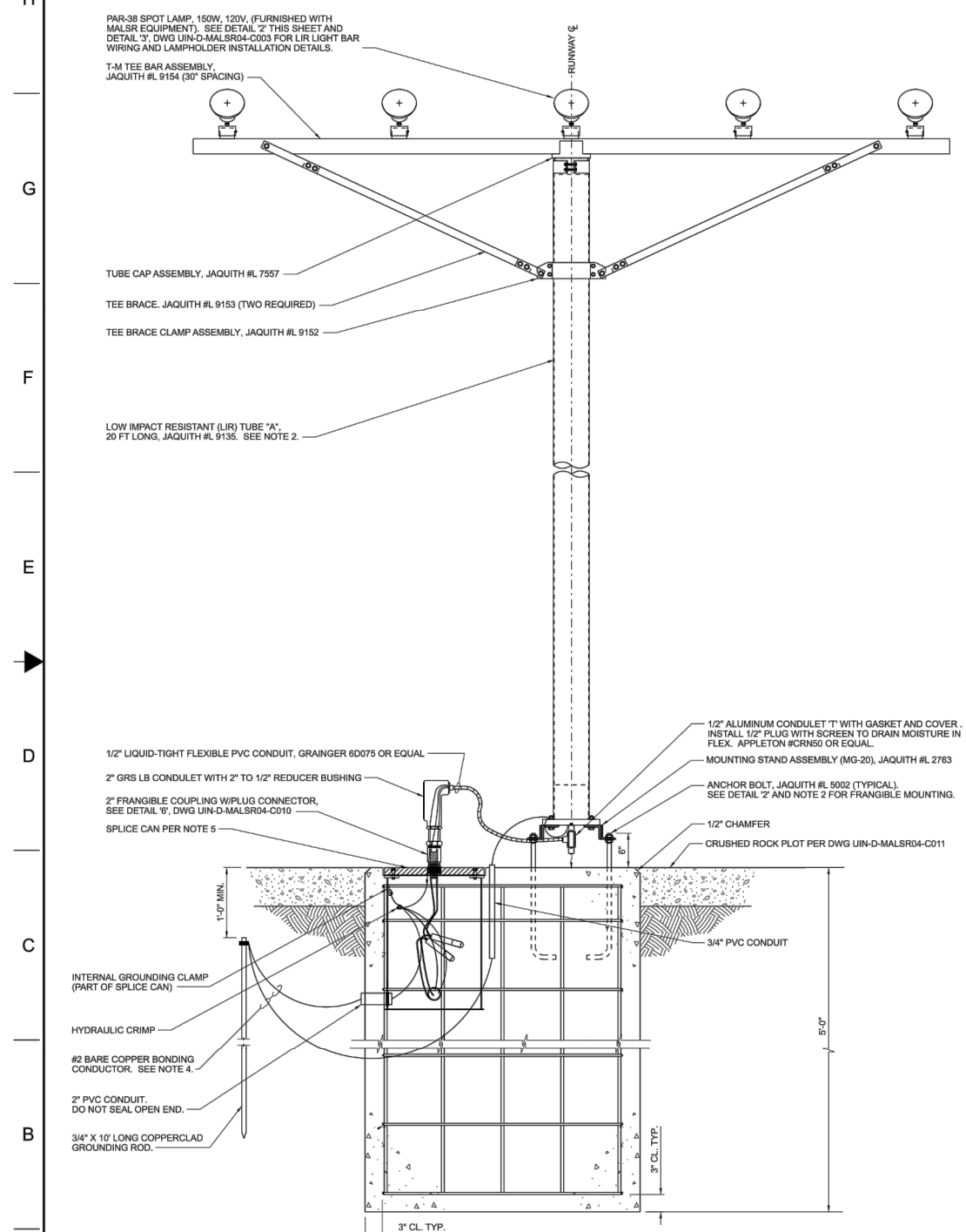
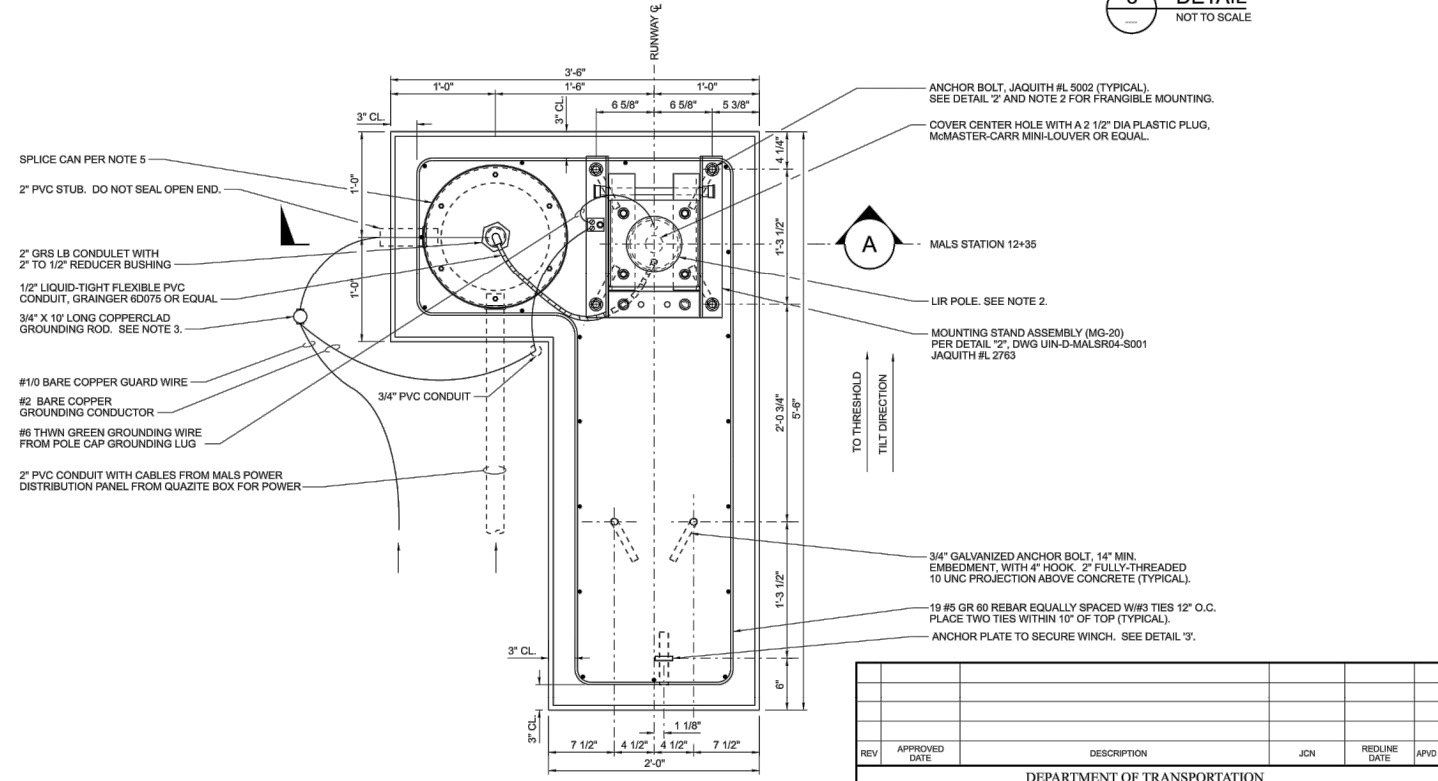
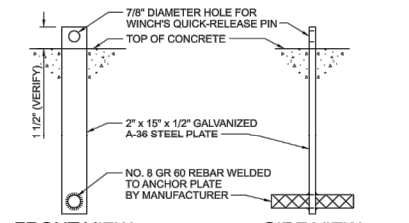
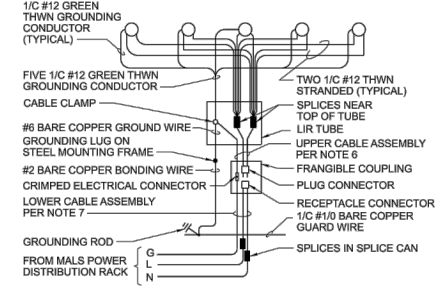
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UIN-D-MALSR04-C002 =	MALS-R-C002	UIN-D-MALSR04-C011 =	MALS-R-C011
UIN-D-MALSR04-C003 =	MALS-R-C003	UIN-D-MALSR04-A001 =	MALS-R-A001
UIN-D-MALSR04-C004 =	MALS-R-C004	UIN-D-MALSR04-A002 =	MALS-R-A002
UIN-D-MALSR04-C005 =	MALS-R-C005	GLSD-D-LTNGPROT-E001 =	MALS-R-A003
UIN-D-MALSR04-C006 =	MALS-R-C006	UIN-D-MALSR04-E001 =	MALS-R-E001
UIN-D-MALSR04-C007 =	MALS-R-C007	UIN-D-MALSR04-E002 =	MALS-R-E002
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UIN-D-MALSR04-C009 =	MALS-R-C009		

NOTE:  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALS-R-A002 FOR EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE CONTRACTOR.

MARK	DATE	DESCRIPTION
AIP PROJ. NO:	3-17-0085-XX	
IL PROJ. NO:	UIN-5051	
CMT PROJECT NO:	18002001	
CAD DWG FILE:	180020-01 PH4 EL520.DWG	
DESIGNED BY:	HWI	
DRAWN BY:	DPA	
CHECKED BY:	MJD	
APPROVED BY:	RLV	

**LIGHT BAR &  
FOUNDATION DETAILS**  
3

- NOTES:**
- SEE PLAN AND PROFILE SHEETS FOR LAMP CENTERLINE AND FOUNDATION TOP ELEVATIONS.
  - LOW IMPACT RESISTANT (LIR) STRUCTURE SHALL TILT DOWN AWAY FROM RUNWAY THRESHOLD. LIR TUBE SHALL BE CENTERED ON RUNWAY CENTERLINE AND AT MALSR STATION SHOWN ON PLAN AND PROFILE SHEETS. SEE NOTE 1, DWG UIN-D-MALSR04-S002 FOR LIR TUBE CUTTING AND LIR STRUCTURE ASSEMBLY DETAILS.
  - GROUNDING CONNECTIONS BELOW GRADE SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATIONS.
  - SEE SPECIFICATIONS FOR EXCAVATION AND BACKFILL REQUIREMENTS, CONCRETE FORMWORK, REINFORCEMENT, MATERIAL, PLACEMENT, AND CURING. EXCAVATION SHALL BE SHORED OR SHAPED PER OSHA REQUIREMENTS.
  - SPLICE CAN SHALL BE A TYPE LB67D LIGHT BASE, CLASS I, 16 1/4" I. D., 24" DEEP, VEGA #A033242020301 WITH 1 1/4" COVER PLATE, VEGA #A0202020 AND GASKET, VEGA #10530281. THE PLYWOOD SHIPPING COVER, 18" DIA. X 1 1/4" THICK, SHALL BE USED AS CONCRETE FORM TO PROVIDE 5/16" WIDE AIR GAP AROUND COVER PLATE. TOP OF THE COVER PLATE SHALL BE FLUSH WITH THE TOP OF CONCRETE FOUNDATION.
  - THE UPPER CABLE ASSEMBLY SHALL BE 2-1/2" STRANDED THWN CABLES AND WATER TIGHT PLUG CONNECTOR, AMERACE #90P-S6.
  - THE LOWER CABLE ASSEMBLY SHALL BE 2-1/2" TYPE U.S.E. CABLES WITH RECEPTACLE CONNECTOR, AMERACE #90R-C4.



**NOTE:**  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALSR-A002 FOR EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE CONTRACTOR.

REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APV

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS      CENTRAL SERVICE AREA

MALSR  
LIGHT BAR AND FOUNDATION INSTALLATION  
DETAILS FOR STA 12+35  
RUNWAY 4

QUINCY MUNICIPAL BALDWIN FIELD AIRPORT      IL

REVIEWED BY	SUBMITTED BY	APPROVED BY
	TIMOTHY ALAN DYER	LUIS N DOMINGUEZ
DESIGNED	TAD	DATE
DRAWN	TAD	02/28/2023
CHECKED	LNJ	ISSUED BY
		ENGINEERING SERVICES NAVADS
		DATE
		02/28/2023
		JCN
		20980077
		REV
		UIN-20980077-C005

THIS DRAWING PRODUCED ON THE AGL REGION MICROSTATION SYSTEM

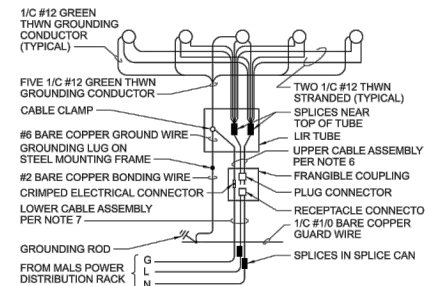
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UIN-D-MALSR04-C002 =	MALSR-C002	UIN-D-MALSR04-C011 =	MALSR-C011
UIN-D-MALSR04-C003 =	MALSR-C003	UIN-D-MALSR04-A001 =	MALSR-A001
UIN-D-MALSR04-C004 =	MALSR-C004	UIN-D-MALSR04-A002 =	MALSR-A002
UIN-D-MALSR04-C005 =	MALSR-C005	GLSD-D-LTNGPROT-E001 =	MALSR-A003
UIN-D-MALSR04-C006 =	MALSR-C006	UIN-D-MALSR04-E001 =	MALSR-E001
UIN-D-MALSR04-C007 =	MALSR-C007	UIN-D-MALSR04-E002 =	MALSR-E002
UIN-D-MALSR04-C008 =	MALSR-C008	UIN-D-MALSR04-S001 =	MALSR-S001
UIN-D-MALSR04-C009 =	MALSR-C009		

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Checked by: SHVC-CAGB-EDMB-00090  
02/28/2023



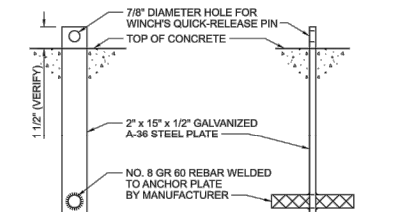
**NOTES:**

- SEE PLAN AND PROFILE SHEETS FOR LAMP CENTERLINE AND FOUNDATION TOP ELEVATIONS.
- LOW IMPACT RESISTANT (LIR) STRUCTURE SHALL TILT DOWN AWAY FROM RUNWAY THRESHOLD. LIR TUBE SHALL BE CENTERED ON RUNWAY CENTERLINE AND AT MALSR STATION SHOWN ON PLAN AND PROFILE SHEETS. SEE NOTE 1, DWG UIN-D-MALSR04-S002 FOR LIR TUBE CUTTING AND LIR STRUCTURE ASSEMBLY DETAILS.
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- SPLICE CAN SHALL BE A TYPE L867D LIGHT BASE, CLASS 1, 16 1/4" L. D., 24" DEEP, VEGA #AC632420200301 WITH 1 1/4" COVER PLATE, VEGA #AP202020 AND GASKET, VEGA #10530281. THE PLYWOOD SHIPPING COVER, 18" DIA. X 1 1/4" THICK, SHALL BE USED AS CONCRETE FORM TO PROVIDE 5/16" WIDE AIR GAP AROUND COVER PLATE. TOP OF THE COVER PLATE SHALL BE FLUSH WITH THE TOP OF CONCRETE FOUNDATION.
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- THE LOWER CABLE ASSEMBLY SHALL BE 2-1/16" #8 TYPE U.S.E. CABLES WITH RECEPTACLE CONNECTOR, AMERACE #90R-C4.



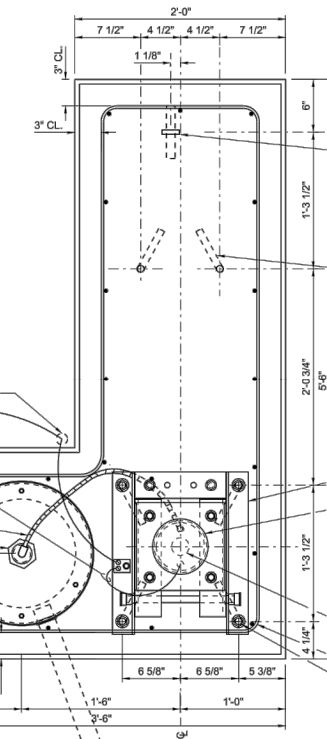
**PAR-38 LAMPHOLDER WIRING**

**2** DETAIL  
NOT TO SCALE



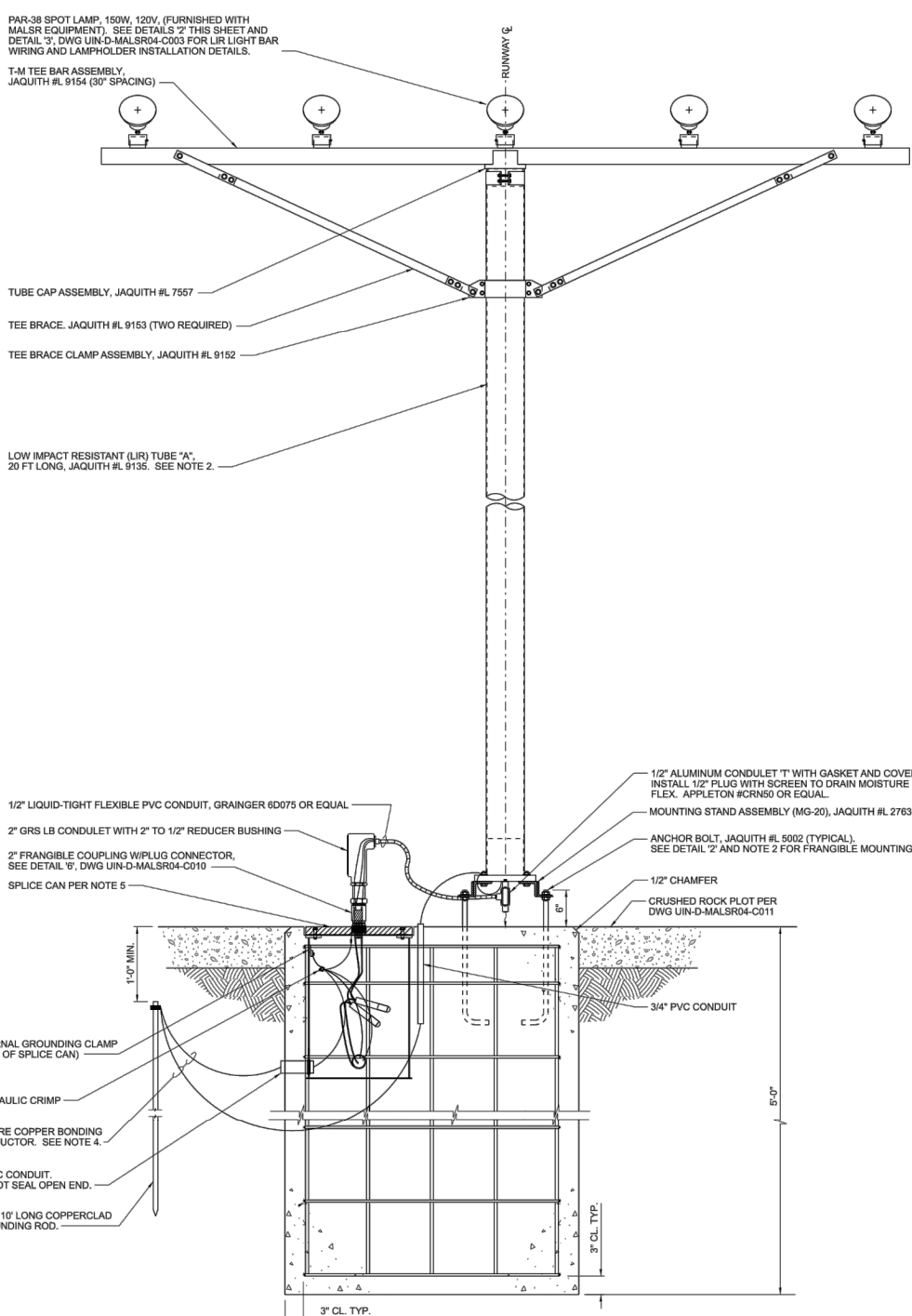
**ANCHOR PLATE FOR WINCH, JAQUITH #15004**

**3** DETAIL  
NOT TO SCALE



**PLAN VIEW  
REINFORCED CONCRETE FOUNDATION**

**1** DETAIL  
NOT TO SCALE



**ELEVATION VIEW  
STEADY-BURNING LIGHT BAR ON MG-20 LIR TOWER**

**A** SECTION  
SCALE: 1" = 1'-0"

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 Date: Wednesday, March 8, 2023 2:56:27 PM  
 Plotted by: SWFC-CAD-6586-00000  
 02/28/2023 4:28:54 PM

**NOTE:**  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALSR-A002 FOR EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE CONTRACTOR.

REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS CENTRAL SERVICE AREA

MALSR  
LIGHT BAR AND FOUNDATION INSTALLATION  
DETAILS FOR STA 15+15  
RUNWAY 4

QUINCY MUNICIPAL BALDWIN FIELD AIRPORT IL

REVIEWED BY	SUBMITTED BY	APPROVED BY
	<b>TIMOTHY ALAN DYER</b>	<b>LUIS N DOMINGUEZ</b>
DESIGNED BY	DATE	ISSUED BY
	02/28/2023	
DRAWN BY	CHECKED BY	

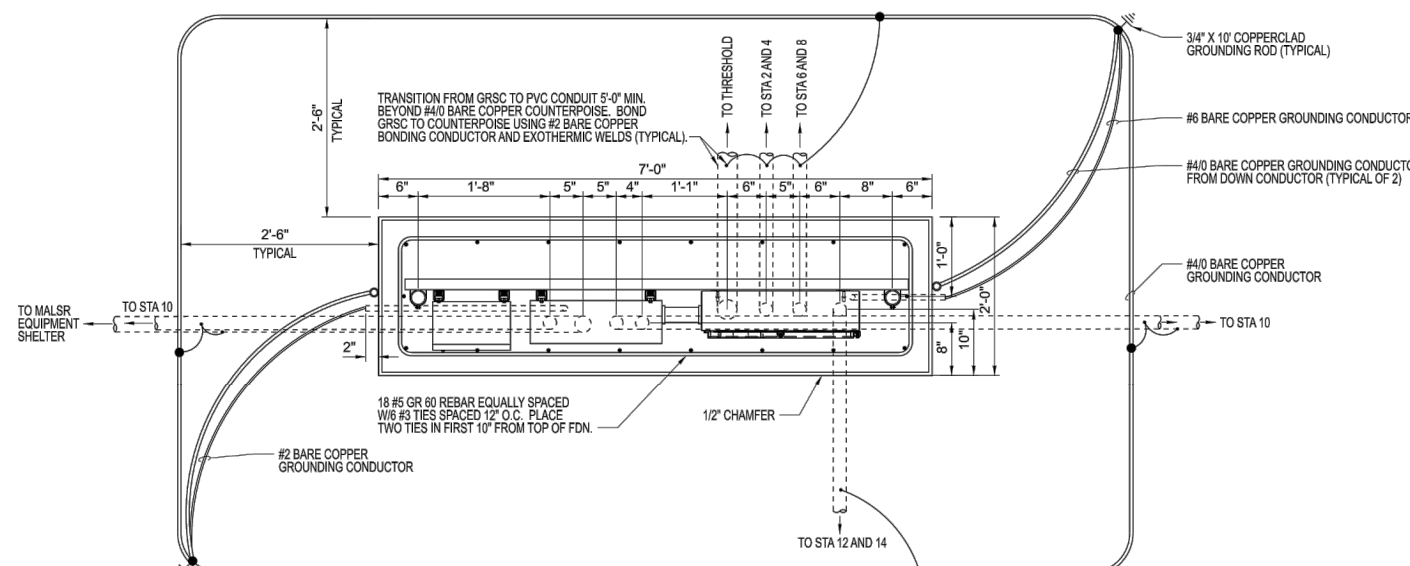
PROJECT ENGINEER: MGR: ENGINEERING - CHICAGO  
 ENGINEERING SERVICES: NAVADS  
 UIN-20980077-C006

THIS DRAWING PRODUCED ON THE AASL REGION MICROSTATION SYSTEM

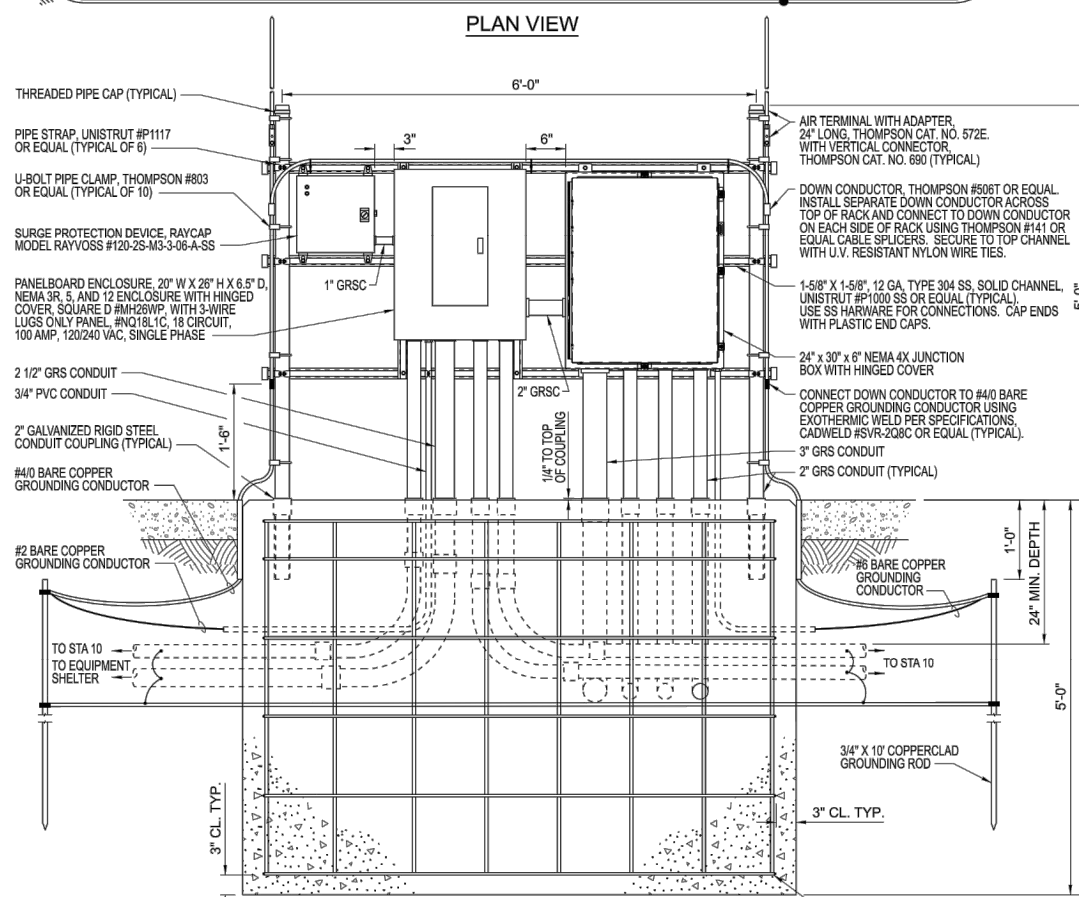
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UIN-D-MALSR04-C001 =	MALSR-C001	UIN-D-MALSR04-C010 =	MALSR-C010
UIN-D-MALSR04-C002 =	MALSR-C002	UIN-D-MALSR04-C011 =	MALSR-C011
UIN-D-MALSR04-C003 =	MALSR-C003	UIN-D-MALSR04-A001 =	MALSR-A001
UIN-D-MALSR04-C004 =	MALSR-C004	UIN-D-MALSR04-A002 =	MALSR-A002
UIN-D-MALSR04-C005 =	MALSR-C005	GLSD-D-LTNGPROT-E001 =	MALSR-A003
UIN-D-MALSR04-C006 =	MALSR-C006	UIN-D-MALSR04-E001 =	MALSR-E001
UIN-D-MALSR04-C007 =	MALSR-C007	UIN-D-MALSR04-E002 =	MALSR-E002
UIN-D-MALSR04-C008 =	MALSR-C008	UIN-D-MALSR04-S001 =	MALSR-S001
UIN-D-MALSR04-C009 =	MALSR-C009		

NOTES:

- 1. SEE THE SPECIFICATIONS FOR EXCAVATION, SHORING, AND BACKFILL REQUIREMENTS.
- 2. SEE THE SPECIFICATIONS FOR CONCRETE FORM WORK, MATERIAL, PLACEMENT, AND CURING REQUIREMENTS.
- 3. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 (60 KSI YIELD).

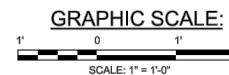


PLAN VIEW



ELEVATION VIEW  
MALS POWER DISTRIBUTION PANEL

1 DETAIL  
SCALE: 1" = 1'-0"



REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APV
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION ATO - TECHNICAL OPERATIONS      CENTRAL SERVICE AREA MALS POWER DISTRIBUTION EQUIPMENT RACK RUNWAY 4 QUINCY MUNICIPAL BALDWIN FIELD AIRPORT      IL					

REVIEWED BY	SUBMITTED BY	APPROVED BY
	TIMOTHY ALAN DYER	LUIS N DOMINGUEZ
DESIGNED	TAD	ISSUED BY
DRAWN	TAD	DATE
CHECKED		

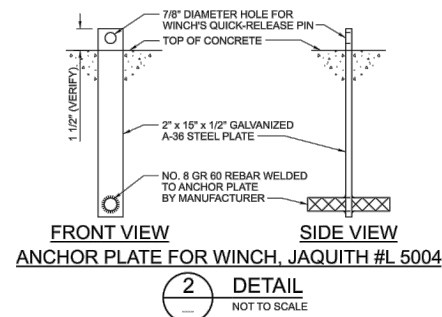
FAA - CMT SHEET REFERENCE TABLE			
FAA SHEET	CMT SHEET	FAA SHEET	CMT SHEET
UIN-D-MALSR04-C001 =	MALS-C001	UIN-D-MALSR04-C010 =	MALS-C010
UIN-D-MALSR04-C002 =	MALS-C002	UIN-D-MALSR04-C011 =	MALS-C011
UIN-D-MALSR04-C003 =	MALS-C003	UIN-D-MALSR04-A001 =	MALS-A001
UIN-D-MALSR04-C004 =	MALS-C004	UIN-D-MALSR04-A002 =	MALS-A002
UIN-D-MALSR04-C005 =	MALS-C005	GLSD-D-LTNGPROT-E001 =	MALS-A003
UIN-D-MALSR04-C006 =	MALS-C006	UIN-D-MALSR04-E001 =	MALS-E001
UIN-D-MALSR04-C007 =	MALS-C007	UIN-D-MALSR04-E002 =	MALS-E002
UIN-D-MALSR04-C008 =	MALS-C008	UIN-D-MALSR04-S001 =	MALS-S001
UIN-D-MALSR04-C009 =	MALS-C009		

NOTE:  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED  
EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALS-A002 FOR  
EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE  
CONTRACTOR.

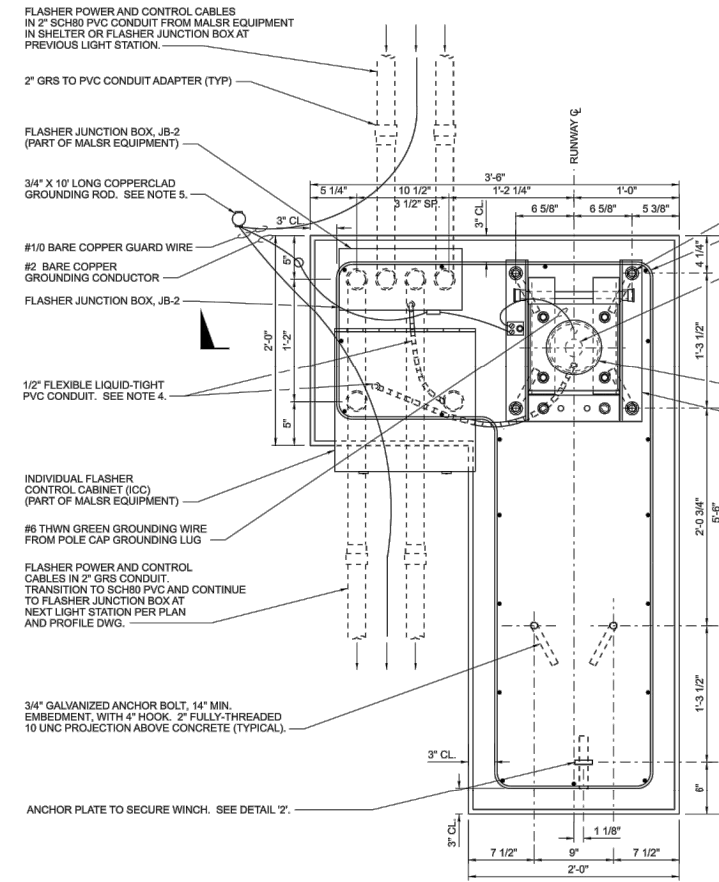
MARK	DATE	DESCRIPTION
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IL PROJ. NO: UIN-5051		
CMT PROJECT NO: 18002001		
CAD DWG FILE: 180020-01 PH4 EL520.DWG		
DESIGNED BY: HWI		
DRAWN BY: DPA		
CHECKED BY: MJD		
APPROVED BY: RLV		
COPYRIGHT:		
SHEET TITLE		
MALS POWER DISTRIBUTION RACK		
MALS-C007		
SHEET	82	OF 143

**NOTES:**

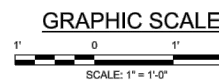
- SEE PLAN AND PROFILE SHEETS FOR LAMP CENTERLINE AND FOUNDATION TOP ELEVATIONS.
- LOW IMPACT RESISTANT (LIR) STRUCTURE SHALL TILT DOWN TOWARD RUNWAY THRESHOLD. LIR TUBE SHALL BE CENTERED ON RUNWAY CENTERLINE AND AT MALSR STATION SHOWN ON PLAN AND PROFILE SHEETS. SEE NOTE 1, DWG UIN-D-MALSR04-S002 FOR LIR TUBE CUTTING AND LIR STRUCTURE ASSEMBLY DETAILS.
- GROUNDING CONNECTIONS BELOW GRADE SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATIONS.
- SEE SPECIFICATIONS FOR EXCAVATION AND BACKFILL REQUIREMENTS, CONCRETE FORMWORK, REINFORCEMENT, MATERIAL, PLACEMENT, AND CURING. EXCAVATION SHALL BE SHORED OR SHAPED PER OSHA REQUIREMENTS.



**2** DETAIL  
NOT TO SCALE



**1** DETAIL  
NOT TO SCALE



FLASHER HEAD UNIT (FIVE FURNISHED WITH MALSR EQUIPMENT). SEE DWG UIN-D-MALSR04-E002 FOR FLASHER WIRING DETAILS AND DETAIL 3', DWG UIN-D-MALSR04-C010 FOR INSTALLATION DETAILS.

T-1 CROSSBAR ASSEMBLY, JAQUITH #L 1001

TUBE CAP ASSEMBLY, JAQUITH #L 7557

LOW IMPACT RESISTANT (LIR) TUBE "A", 20 FT LONG, JAQUITH #L 9135. SEE NOTE 2.

INDIVIDUAL FLASHER CONTROL CABINET (ICC) (PART OF MALSR EQUIPMENT)

2" GALVANIZED RIGID STEEL CONDUIT

1/2" LIQUID-TIGHT FLEXIBLE PVC CONDUIT, GRAINGER 60075 OR EQUAL

FLASHER JUNCTION BOX, JB-2 (PART OF MALSR EQUIPMENT)

2" CONDULET W/2" TO 1/2" REDUCER

2" EMT TO GRSC COMPRESSION COUPLING

2" EMT CONDUIT

2" FRANGIBLE COUPLING (TYPICAL)

2" GALVANIZED RIGID STEEL CONDUIT COUPLING (TYPICAL). TOP OF COUPLING SHALL BE 1/4" ABOVE TOP OF CONCRETE

3/4" PVC CONDUIT STUB

1/2" ALUMINUM CONDULET T' WITH GASKET AND COVER. INSTALL 1/2" PLUG WITH SCREEN TO DRAIN MOISTURE IN FLEX. APPLETON #CRN60 OR EQUAL.

MOUNTING STAND ASSEMBLY (MG-20), JAQUITH #L 2763

ANCHOR BOLT, JAQUITH #L 5002 (TYPICAL)

1/2" CHAMFER

CRUSHED ROCK PLOT PER DWG UIN-D-MALSR04-C011

3/4" X 1/2" LONG COPPERCLAD GROUNDING ROD.

#2 BARE COPPER BONDING CONDUCTOR. SEE NOTE 2.

**ELEVATION VIEW  
RAIL FLASHER ON MG-20 LIR TOWER**

**A** SECTION  
SCALE: 1" = 1'-0"

**NOTE:**  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALSR-A002 FOR EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE CONTRACTOR.

REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APV

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS      CENTRAL SERVICE AREA

**MALSR  
FLASHING LIGHT BAR FOUNDATION  
DETAILS FOR STA 17+30 THRU 22+85  
RUNWAY 4**

QUINCY MUNICIPAL BALDWIN FIELD AIRPORT      IL

REVIEWED BY	SUBMITTED BY	APPROVED BY
	TIMOTHY ALAN DYER	LUIS N DOMINGUEZ
DESIGNED BY	TAD	DATE
DRAWN BY	TAD	02/28/2023
CHECKED BY	LNJ	DRAWING NO
		UIN-20980077-C008

FAA SHEET	CMT SHEET	FAA SHEET	CMT SHEET
UIN-D-MALSR04-C001	MALSR-C001	UIN-D-MALSR04-C010	MALSR-C010
UIN-D-MALSR04-C002	MALSR-C002	UIN-D-MALSR04-C011	MALSR-C011
UIN-D-MALSR04-C003	MALSR-C003	UIN-D-MALSR04-A001	MALSR-A001
UIN-D-MALSR04-C004	MALSR-C004	UIN-D-MALSR04-A002	MALSR-A002
UIN-D-MALSR04-C005	MALSR-C005	GLSD-D-LTNGPROT-E001	MALSR-A003
UIN-D-MALSR04-C006	MALSR-C006	UIN-D-MALSR04-E001	MALSR-E001
UIN-D-MALSR04-C007	MALSR-C007	UIN-D-MALSR04-E002	MALSR-E002
UIN-D-MALSR04-C008	MALSR-C008	UIN-D-MALSR04-S001	MALSR-S001
UIN-D-MALSR04-C009	MALSR-C009		

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Date: 03/07/2023

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK DATE DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX  
IL PROJ. NO: UIN-5051  
CMT PROJECT NO: 18002001  
CAD DWG FILE: 180020-01 PH4 EL520.DWG  
DESIGNED BY: HWI  
DRAWN BY: DPA  
CHECKED BY: MJD  
APPROVED BY: RLV

COPYRIGHT:

SHEET TITLE  
FLASHING LIGHT BAR  
& FOUNDATION  
DETAILS 2

MALSR-C009  
SHEET 84 OF 143

NOTES:

- SEE PLAN AND PROFILE SHEETS FOR LAMP CENTERLINE AND FOUNDATION TOP ELEVATIONS.
- LOW IMPACT RESISTANT (LIR) STRUCTURE SHALL TILT DOWN TOWARD RUNWAY THRESHOLD. LIR TUBE SHALL BE CENTERED ON RUNWAY CENTERLINE AND AT MALSR STATION SHOWN ON PLAN AND PROFILE SHEETS. SEE NOTE 1, DWG UIN-D-MALSR04-S001 FOR LIR TUBE CUTTING AND LIR STRUCTURE ASSEMBLY DETAILS.
- GROUNDING CONNECTIONS BELOW GRADE SHALL BE MADE USING EXOTHERMIC WELDS PER SPECIFICATIONS.
- SEE SPECIFICATIONS FOR EXCAVATION AND BACKFILL REQUIREMENTS, CONCRETE FORMWORK, REINFORCEMENT, MATERIAL, PLACEMENT, AND CURING. EXCAVATION SHALL BE SHORED OR SHAPED PER OSHA REQUIREMENTS.

FLASHER HEAD UNIT (FIVE FURNISHED WITH MALSR EQUIPMENT).  
SEE DWG UIN-D-MALSR04-E002 FOR FLASHER WIRING DETAILS  
AND DETAIL '3', DWG UIN-D-MALSR04-C010 FOR INSTALLATION DETAILS.

T-1 CROSSBAR ASSEMBLY, JAQUITH #L 1001

TUBE CAP ASSEMBLY, JAQUITH #L 7557

LOW IMPACT RESISTANT (LIR) TUBE "A",  
20 FT LONG, JAQUITH #L 9135. SEE NOTE 2.

INDIVIDUAL FLASHER CONTROL CABINET (ICC)  
(PART OF MALSR EQUIPMENT)

2" GALVANIZED RIGID STEEL CONDUIT

1/2" LIQUID-TIGHT FLEXIBLE PVC  
CONDUIT, GRAINGER 60075 OR EQUAL.

FLASHER JUNCTION BOX, JB-2  
(PART OF MALSR EQUIPMENT)

2" CONDULET W/2" TO 1/2" REDUCER

2" EMT TO GRSC COMPRESSION COUPLING

2" EMT CONDUIT

2" FRANGIBLE COUPLING (TYPICAL)

2" GALVANIZED RIGID STEEL CONDUIT  
COUPLING (TYPICAL). TOP OF COUPLING  
SHALL BE 1/4" ABOVE TOP OF CONCRETE

3/4" PVC CONDUIT STUB

2" GALVANIZED RIGID STEEL CONDUIT  
COUPLING (TYPICAL). TOP OF COUPLING  
SHALL BE 1/4" ABOVE TOP OF CONCRETE

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

#2 BARE COPPER BONDING  
CONDUCTOR. SEE NOTE 2.

1/2" ALUMINUM CONDULET 'T' WITH GASKET  
AND COVER. INSTALL 1/2" PLUG WITH SCREEN  
TO DRAIN MOISTURE IN FLEX.  
APPLETON #CRN50 OR EQUAL.

MOUNTING STAND ASSEMBLY (MG-20),  
JAQUITH #L 2763

ANCHOR BOLT, JAQUITH #L 5002 (TYPICAL)

1/2" CHAMFER

CRUSHED ROCK PLOT PER DWG UIN-D-MALSR04-C011

FLASHER POWER AND CONTROL CABLES  
IN 2" SCH80 PVC CONDUIT FROM FLASHER  
JUNCTION BOX AT STATION 22+85.

2" GRS TO PVC CONDUIT ADAPTER (TYP)

FLASHER JUNCTION BOX, JB-2  
(PART OF MALSR EQUIPMENT)

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

#1/0 BARE COPPER GUARD WIRE

#2 BARE COPPER  
GROUNDING CONDUCTOR

FLASHER JUNCTION BOX, JB-2

1/2" FLEXIBLE LIQUID-TIGHT  
PVC CONDUIT. SEE NOTE 4.

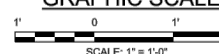
INDIVIDUAL FLASHER  
CONTROL CABINET (ICC)  
(PART OF MALSR EQUIPMENT)

#8 THWN GREEN GROUNDING WIRE  
FROM POLE CAP GROUNDING LUG

PLAN VIEW  
FOUNDATION LAYOUT

1 DETAIL  
NOT TO SCALE

GRAPHIC SCALE:



ELEVATION VIEW  
RAIL FLASHER ON MG-20 LIR TOWER

A SECTION  
SCALE: 1" = 1'-0"

REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APD

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS      CENTRAL SERVICE AREA

MALSR  
FLASHING LIGHT BAR FOUNDATION  
DETAILS FOR STA 24+70  
RUNWAY 4

QUINCY MUNICIPAL BALDWIN FIELD AIRPORT      IL

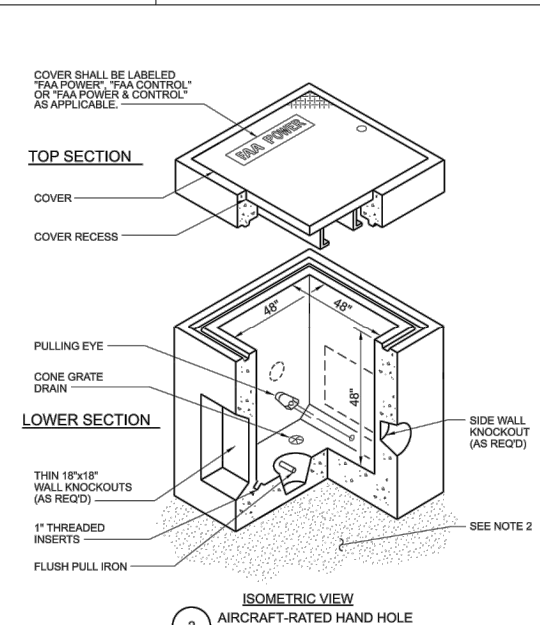
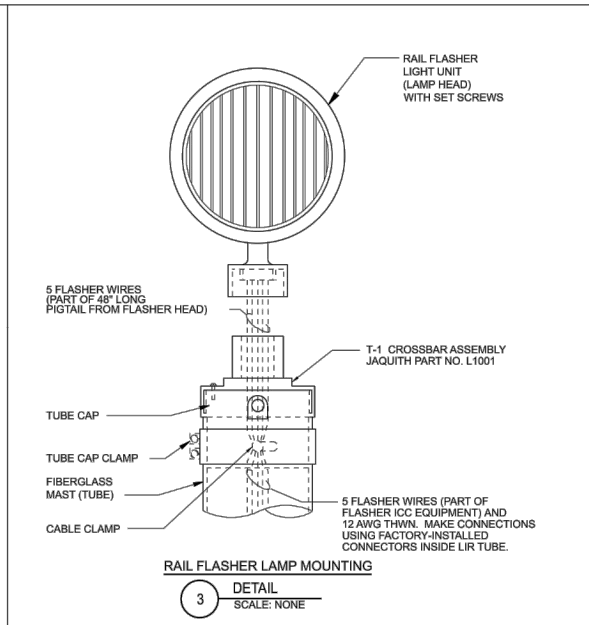
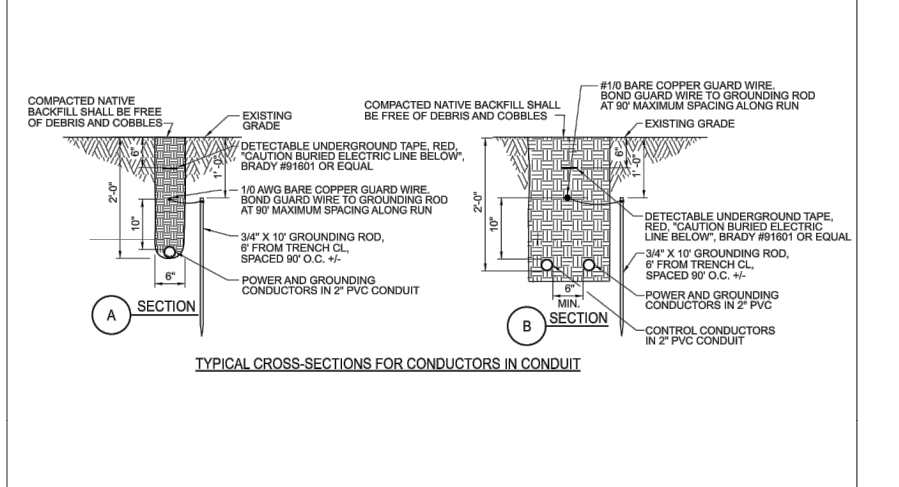
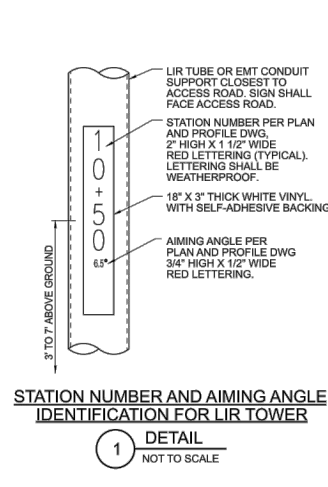
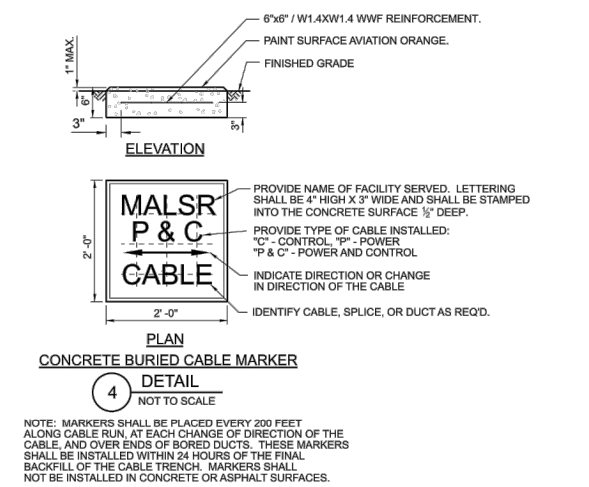
REVIEWED BY	SUBMITTED BY	APPROVED BY
TAD	TIMOTHY ALAN DYER	LUIS N DOMINGUEZ
DRAWN	TAD	DOMINGUEZ
CHECKED	LND	DOMINGUEZ

DESIGNED	ISSUED BY	DATE	JCN
TAD	ENGINEERING SERVICES NAVALDS	02/28/2023	20980077
CHECKED	LND	DRAWING NO	20980077
		UIN-20980077-C009	

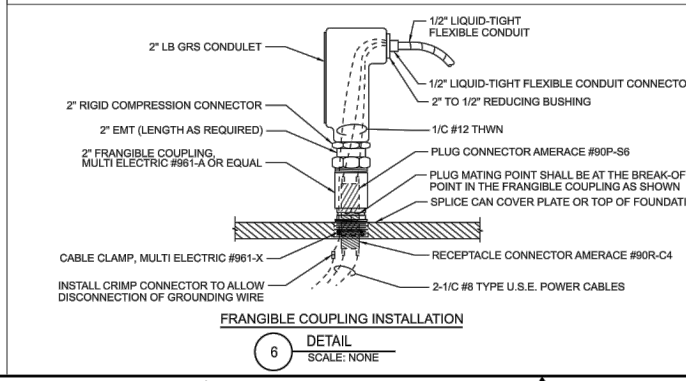
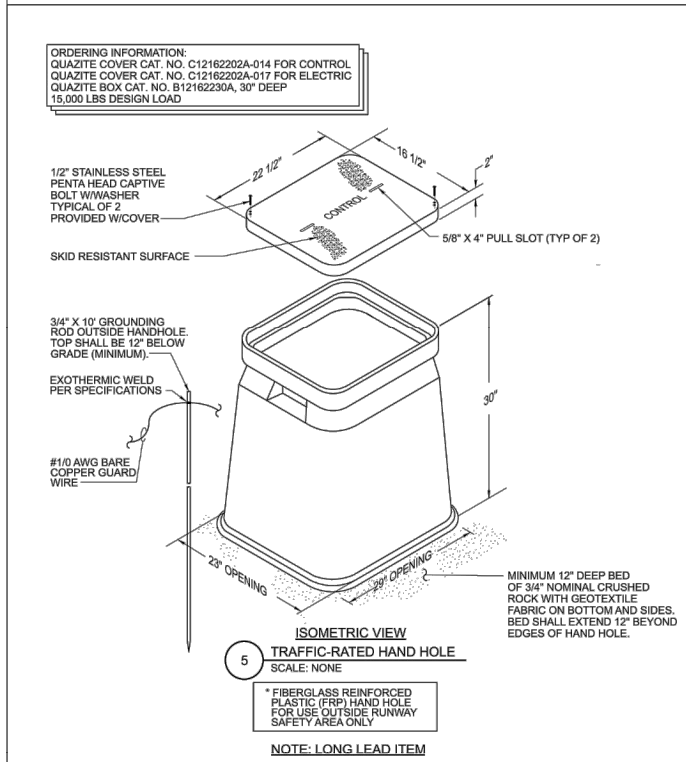
THIS DRAWING PRODUCED ON THE AGL REGION MICROSTATION SYSTEM

FAA SHEET	CMT SHEET	FAA SHEET	CMT SHEET
UIN-D-MALSR04-C001	MALSR-C001	UIN-D-MALSR04-C010	MALSR-C010
UIN-D-MALSR04-C002	MALSR-C002	UIN-D-MALSR04-C011	MALSR-C011
UIN-D-MALSR04-C003	MALSR-C003	UIN-D-MALSR04-A001	MALSR-A001
UIN-D-MALSR04-C004	MALSR-C004	UIN-D-MALSR04-A002	MALSR-A002
UIN-D-MALSR04-C005	MALSR-C005	GLSD-D-LTNGPROT-E001	MALSR-A003
UIN-D-MALSR04-C006	MALSR-C006	UIN-D-MALSR04-E001	MALSR-E001
UIN-D-MALSR04-C007	MALSR-C007	UIN-D-MALSR04-E002	MALSR-E002
UIN-D-MALSR04-C008	MALSR-C008	UIN-D-MALSR04-S001	MALSR-S001
UIN-D-MALSR04-C009	MALSR-C009		

NOTE:  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED  
EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALSR-A002 FOR  
EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE  
CONTRACTOR.



- AIRCRAFT-RATED HAND HOLE INSTALLATION NOTES:**
- HAND HOLE SHALL BE 48" x 48" PRECAST CONCRETE, AIRCRAFT LOAD RATED, EXTRA HEAVY DUTY, (OLDCASTLE PRECAST INC. OR APPROVED EQUAL) WITH GALVANIZED, AIRCRAFT LOAD RATED BOLT-DOWN FRAME WITH SPRING-ASSISTED HINGED DOOR ASSEMBLY (INVERSCO OR APPROVED EQUAL), AND SHALL CONFORM TO LATEST FAA, ASTM, AND AASHTO SPECIFICATIONS.
  - CONSTRUCT 12" MIN. DEPTH CRUSHED ROCK LEVELING BED BELOW HAND HOLE EXTENDING 12" MIN. BEYOND EDGES. PLACE GEOTEXTILE FABRIC ON BOTTOM AND SIDES OF EXCAVATION PRIOR TO PLACING AND COMPACTING CRUSHED ROCK. HAND HOLE SHALL BE LEVEL AND ITS BOTTOM COMPLETELY SUPPORTED BY THE LEVELING BED PRIOR TO PLACING AND COMPACTING BACKFILL.
  - INSTALL GROUNDING ROD INSIDE HAND HOLE AND BOND ALL METAL OBJECTS INCLUDING HAND HOLE METAL LID/FRAME, GROUNDING BUSHINGS, AND CABLE RACKS WITH 2 AWG BARE COPPER BONDING CONDUCTOR. CONNECT TO HAND HOLE GROUNDING ROD WITH EXOTHERMIC WELD.
  - SEAL CONDUIT PENETRATIONS WITH APPROVED GROUT.
  - CONSTRUCT CRUSHED ROCK MAINTENANCE PAD AROUND HAND HOLE EXTENDING 2'-0" MIN. BEYOND EDGES. REMOVE TOPSOIL, COMPACT THE SUBGRADE, PLACE GEOTEXTILE FABRIC, AND PLACE AND COMPACT CRUSHED ROCK TO A 6" DEPTH. CRUSHED ROCK WORK AREA SHALL BE GRADED SO THAT WATER WILL DRAIN AWAY FROM HAND HOLE WITH NO DEPRESSIONS IN CRUSHED ROCK SURFACE.



REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS      CENTRAL SERVICE AREA

**MALSR  
MISCELLANEOUS DETAILS  
RUNWAY 4**

QUINCY MUNICIPAL BALDWIN FIELD AIRPORT

REVIEWED BY	SUBMITTED BY	APPROVED BY	DATE
	TIMOTHY ALAN DYER	LUIS N DOMINGUEZ	02/28/2023
DESIGNED	TAD	ISSUED BY	20980077
DRAWN	TAD	ENGINEERING SERVICES	
CHECKED		NAVAIDS	
		DRAWING NO	UIN-20980077-C010

**FAA - CMT SHEET REFERENCE TABLE**

FAA SHEET	CMT SHEET	FAA SHEET	CMT SHEET
UIN-D-MALSR04-C001 =	MALSR-C001	UIN-D-MALSR04-C010 =	MALSR-C010
UIN-D-MALSR04-C002 =	MALSR-C002	UIN-D-MALSR04-C011 =	MALSR-C011
UIN-D-MALSR04-C003 =	MALSR-C003	UIN-D-MALSR04-A001 =	MALSR-A001
UIN-D-MALSR04-C004 =	MALSR-C004	UIN-D-MALSR04-A002 =	MALSR-A002
UIN-D-MALSR04-C005 =	MALSR-C005	GLSD-D-LTNGPROT-E001 =	MALSR-A003
UIN-D-MALSR04-C006 =	MALSR-C006	UIN-D-MALSR04-E001 =	MALSR-E001
UIN-D-MALSR04-C007 =	MALSR-C007	UIN-D-MALSR04-E002 =	MALSR-E002
UIN-D-MALSR04-C008 =	MALSR-C008	UIN-D-MALSR04-S001 =	MALSR-S001
UIN-D-MALSR04-C009 =	MALSR-C009		

NOTE:  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALSR-A002 FOR EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE CONTRACTOR.



License No. 184-000613  
CONSULTANTS

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

ISSUED FOR: CONSTRUCTION

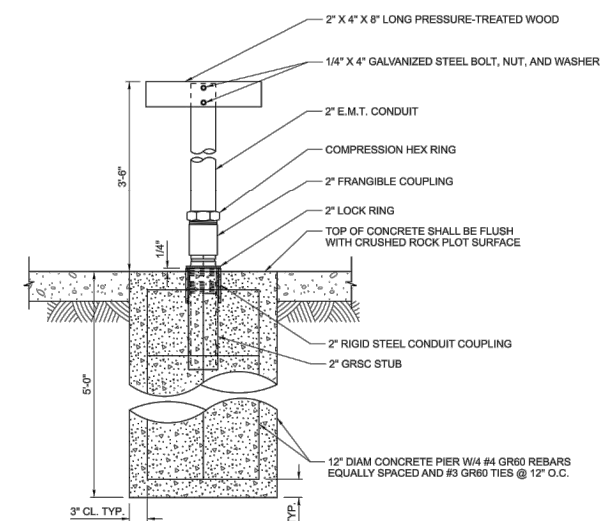
MARK | DATE | DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX  
IL PROJ. NO: UIN-5051  
CMT PROJECT NO: 18002001  
CAD DWG FILE: 180020-01 PH4 EL520.DWG  
DESIGNED BY: HWI  
DRAWN BY: DPA  
CHECKED BY: MJD  
APPROVED BY: RLV

COPYRIGHT:

SHEET TITLE  
**CRUSHED ROCK PLOT  
DETAILS**

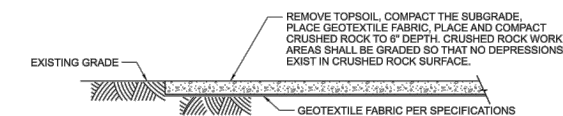
MALSR-C011  
SHEET 86 OF 143



ELEVATION VIEW  
TOWER MAINTENANCE STAND

4 DETAIL  
NOT TO SCALE

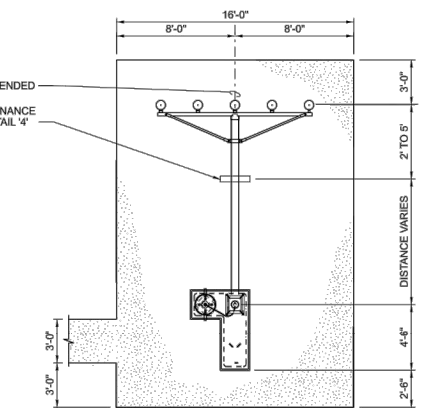
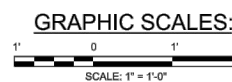
NOTE: INSTALL MAINTENANCE STAND  
FOR EACH TILTING LIGHT BAR



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

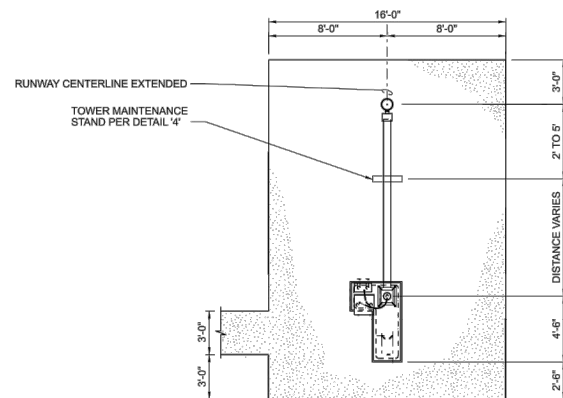
5 DETAIL  
NOT TO SCALE

REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION ATO - TECHNICAL OPERATIONS      CENTRAL SERVICE AREA					
MALSR CRUSHED ROCK PLOT DETAILS RUNWAY 4					
QUINCY MUNICIPAL BALDWIN FIELD AIRPORT      IL					
REVIEWED BY	SUBMITTED BY	APPROVED BY			
	TIMOTHY ALAN DYER	LUIS N DOMINGUEZ			
DESIGNED BY	TAD	ISSUED BY	DATE	JCN	REV
DRAWN BY	TAD	ENGINEERING SERVICES	02/28/2023	20980077	
CHECKED BY	LND	NAVAIDS	DRAWING NO		
			UIN-20980077-C011		



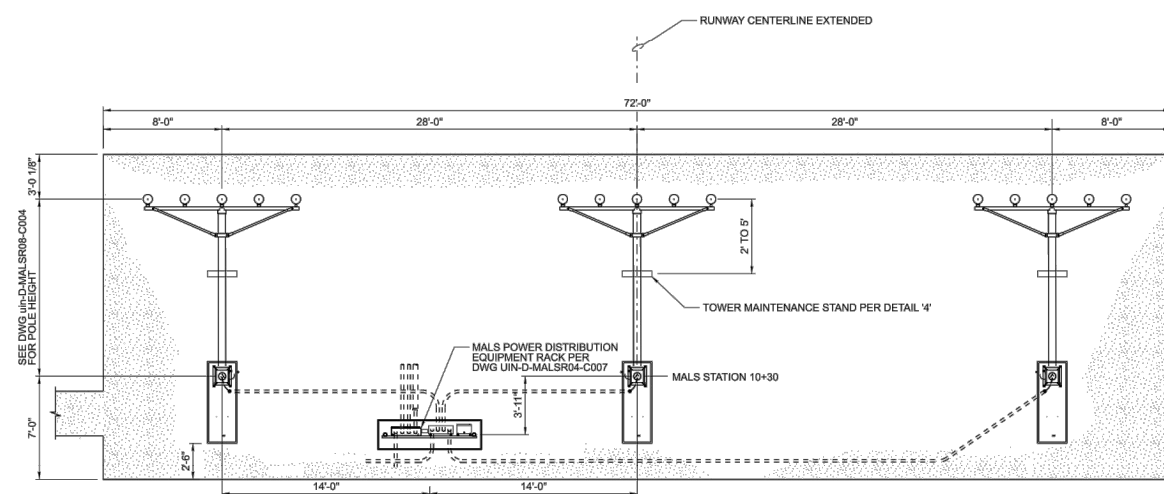
TYPICAL CRUSHED ROCK WORK AREA  
FOR STEADY-BURNING LIGHT BAR ON  
TYPE MG-20 LIR STRUCTURE

1 DETAIL  
SCALE: 1" = 1'-0"



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

2 DETAIL  
SCALE: 1" = 1'-0"

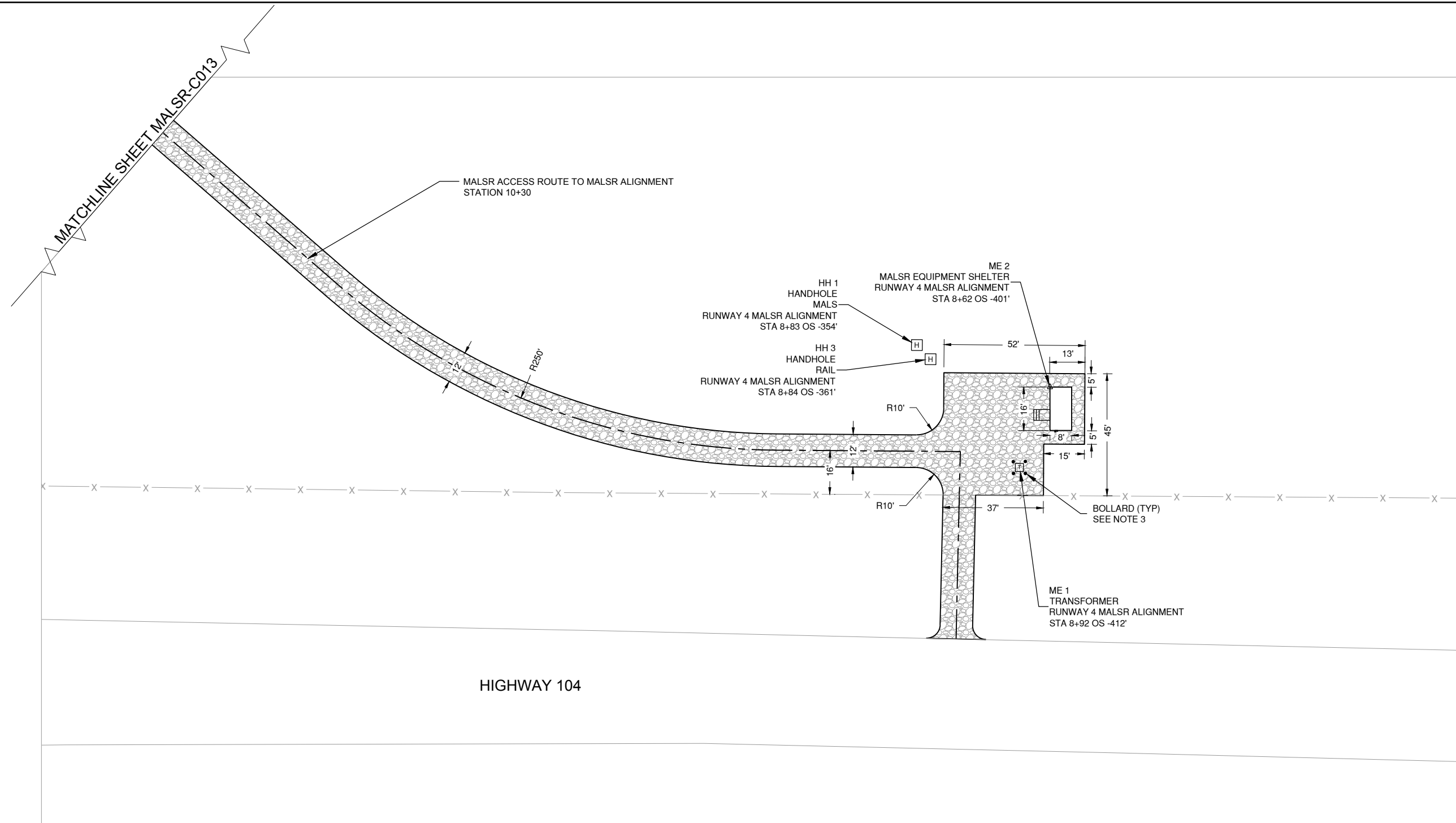
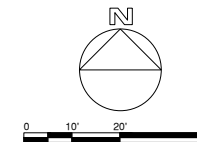


CRUSHED ROCK WORK AREA FOR STEADY-BURNING LIGHT BARS  
ON TYPE MG-20 LIR STRUCTURES AT STA 10+30

3 DETAIL  
SCALE: 1" = 1'-0"

NOTE:  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED  
EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALSR-A002 FOR  
EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE  
CONTRACTOR.

FAA SHEET	CMT SHEET	FAA SHEET	CMT SHEET
UIN-D-MALSR04-C001	MALSR-C001	UIN-D-MALSR04-C010	MALSR-C010
UIN-D-MALSR04-C002	MALSR-C002	UIN-D-MALSR04-C011	MALSR-C011
UIN-D-MALSR04-C003	MALSR-C003	UIN-D-MALSR04-A001	MALSR-A001
UIN-D-MALSR04-C004	MALSR-C004	UIN-D-MALSR04-A002	MALSR-A002
UIN-D-MALSR04-C005	MALSR-C005	GLSD-D-LTNGPROT-E001	MALSR-A003
UIN-D-MALSR04-C006	MALSR-C006	UIN-D-MALSR04-E001	MALSR-E001
UIN-D-MALSR04-C007	MALSR-C007	UIN-D-MALSR04-E002	MALSR-E002
UIN-D-MALSR04-C008	MALSR-C008	UIN-D-MALSR04-S001	MALSR-S001
UIN-D-MALSR04-C009	MALSR-C009		



BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

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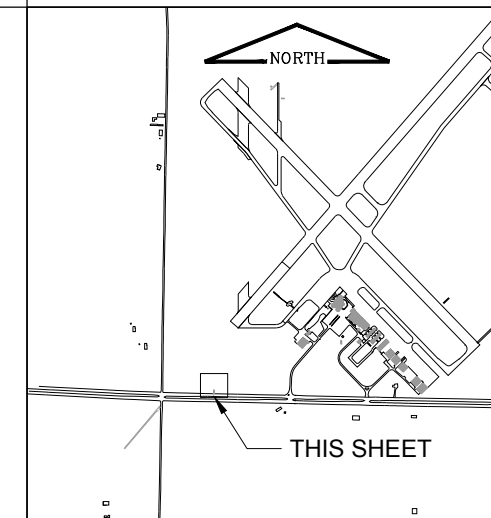
NOTES

1. REFER TO SHEET MALSR-C001 FOR LOCATION TABLES AND FIXTURE TYPE.
2. CONTRACTOR SHALL COORDINATE THE REPLACEMENT OF THE EXISTING TRANSFORMER WITH ADAMS ELECTRIC.
3. CONTRACTOR SHALL INSTALL 4 BOLLARDS SURROUNDING THE TRANSFORMER IN ACCORDANCE WITH DETAIL SHEET C010. THE INSTALLATION OF BOLLARDS SHALL BE INCIDENTAL TO THE INSTALL MALSR SHELTER PAY ITEM.

LEGEND

CRUSHED ROCK PLOT  
SEE DETAIL SHEET C011

KEY MAP

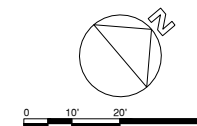


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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 EP101.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
APPROVED BY:	RLV
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SHEET TITLE  
**MALSR SITE PLAN 1**

**MALSR-C012**  
SHEET 87 OF 143



BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER

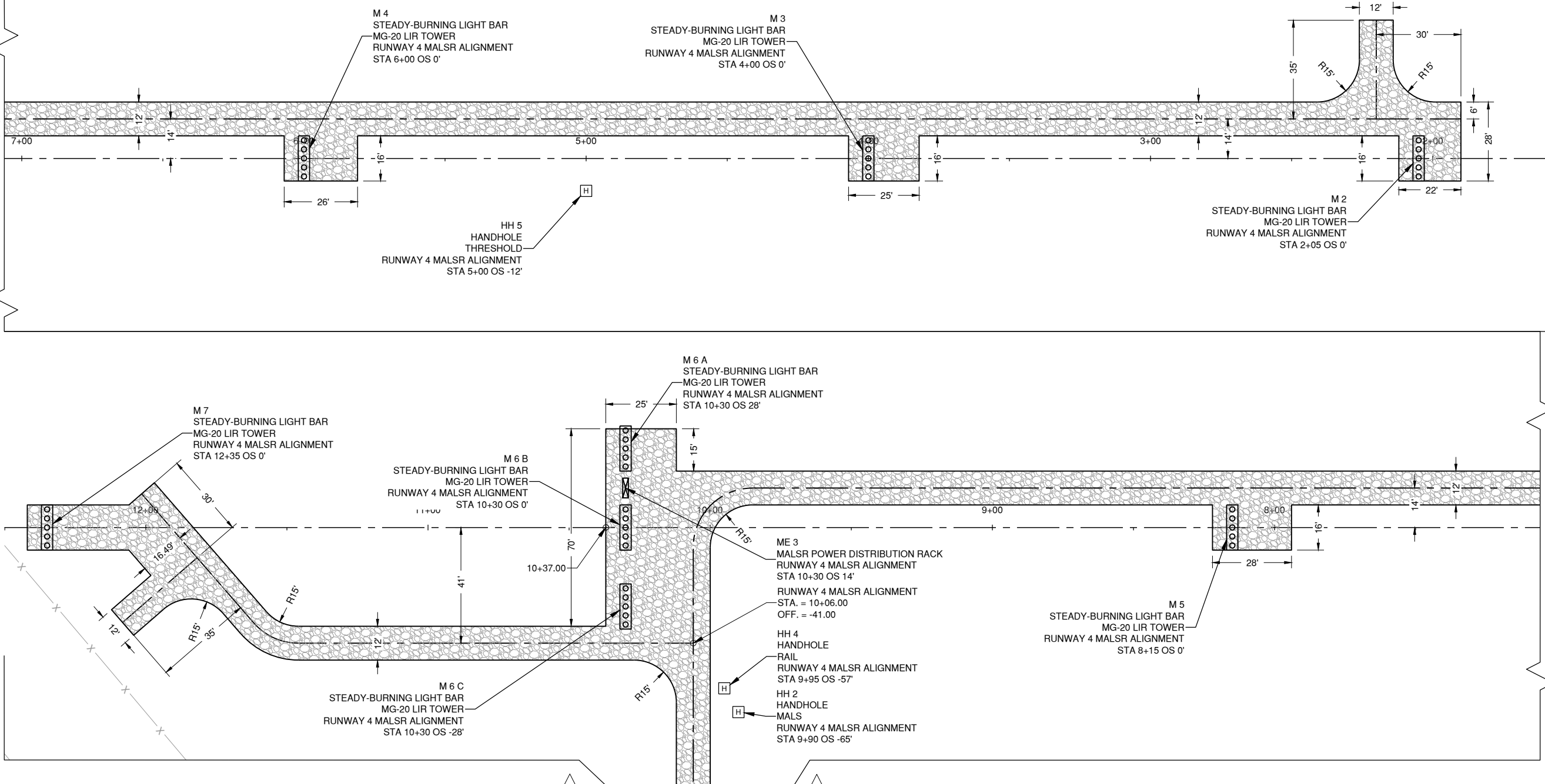


CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MATCHLINE THIS SHEET

MATCHLINE THIS SHEET

MATCHLINE SHEET MALSР-C012



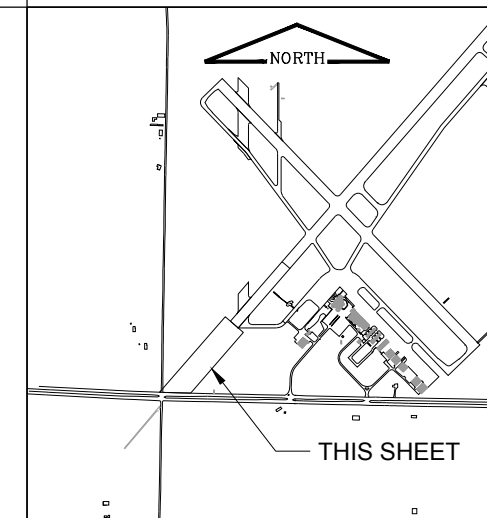
**NOTES**

- REFER TO SHEET MALSР-C001 FOR LOCATION TABLES AND FIXTURE TYPE.

**LEGEND**

CRUSHED ROCK PLOT  
SEE DETAIL SHEET MALSР-C011

**KEY MAP**



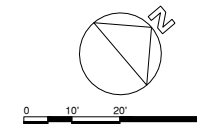
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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 EP101.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
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SHEET TITLE  
**MALSР SITE PLAN 2**

**MALSР-C013**  
SHEET **88** OF **143**





BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER

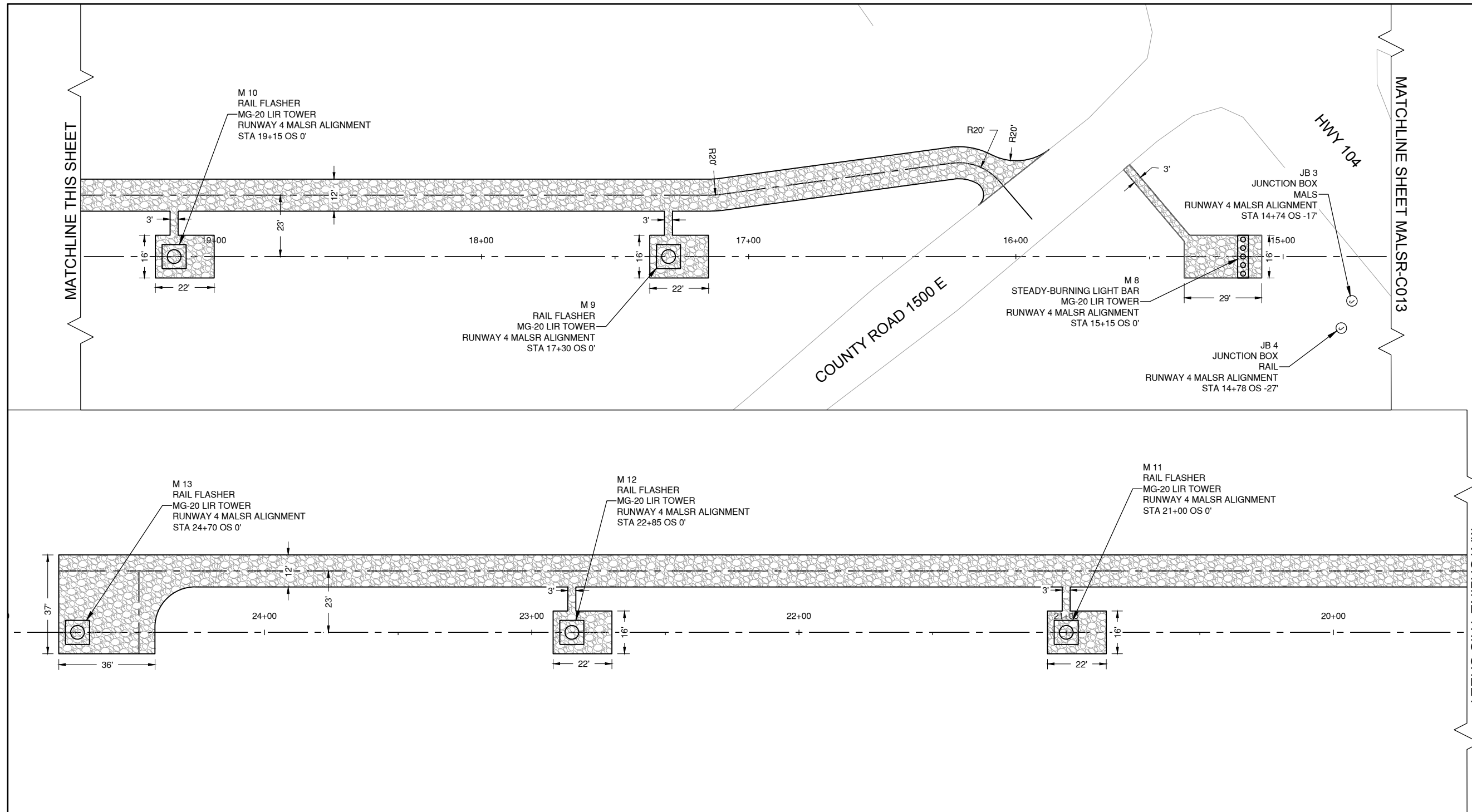


CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION
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		IL PROJ. NO: UIN-5051
		CMT PROJECT NO: 18002001
		CAD DWG FILE: 180020-01 PH4 EP101.DWG
		DESIGNED BY: HWI
		DRAWN BY: DPA
		CHECKED BY: MJD
		APPROVED BY: RLV
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SHEET TITLE  
**MALSR SITE PLAN 3**


**MALSR-C014**  
SHEET 89 OF 143



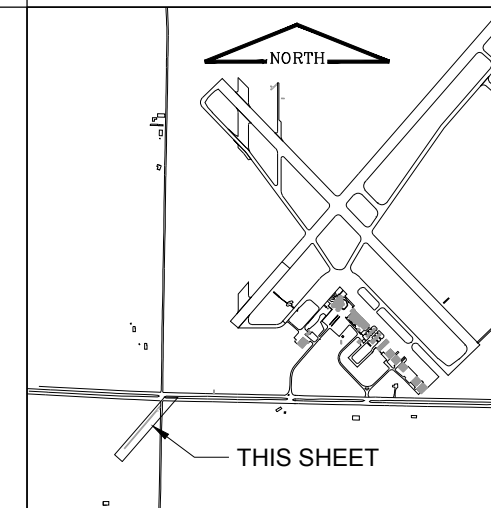
**NOTES**

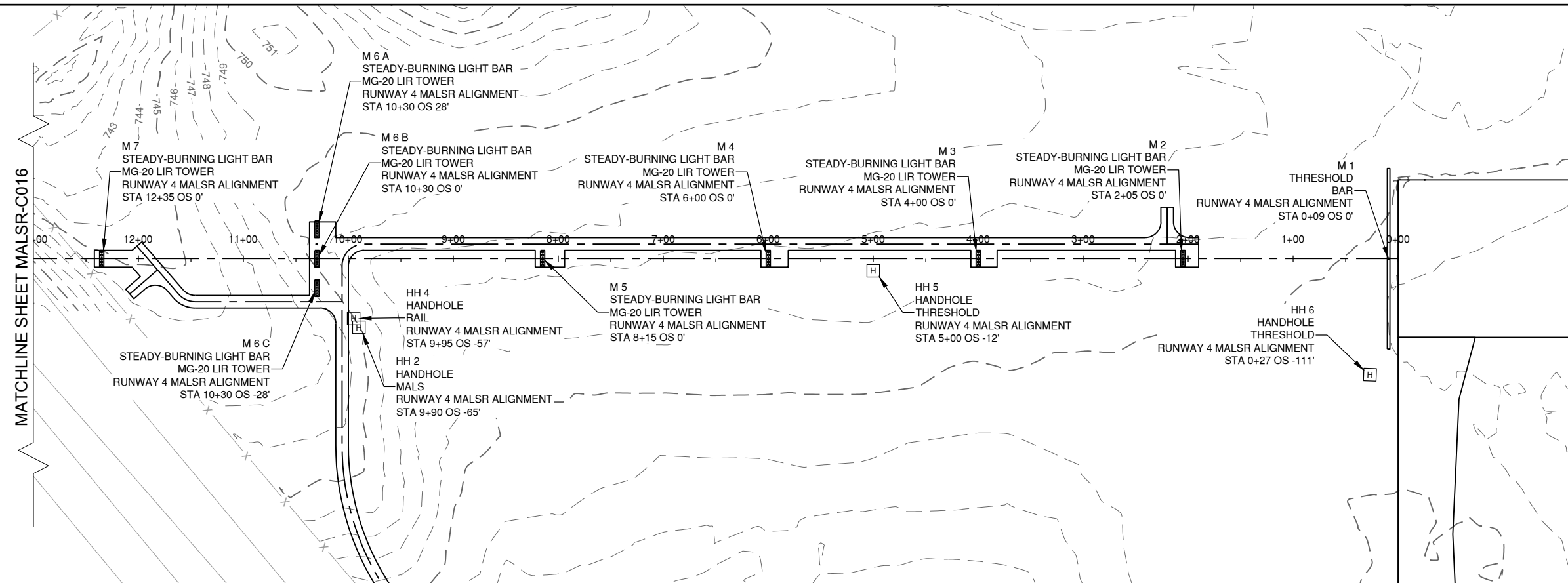
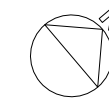
- REFER TO SHEET MALSR-C001 FOR LOCATION TABLES AND FIXTURE TYPE.

**LEGEND**

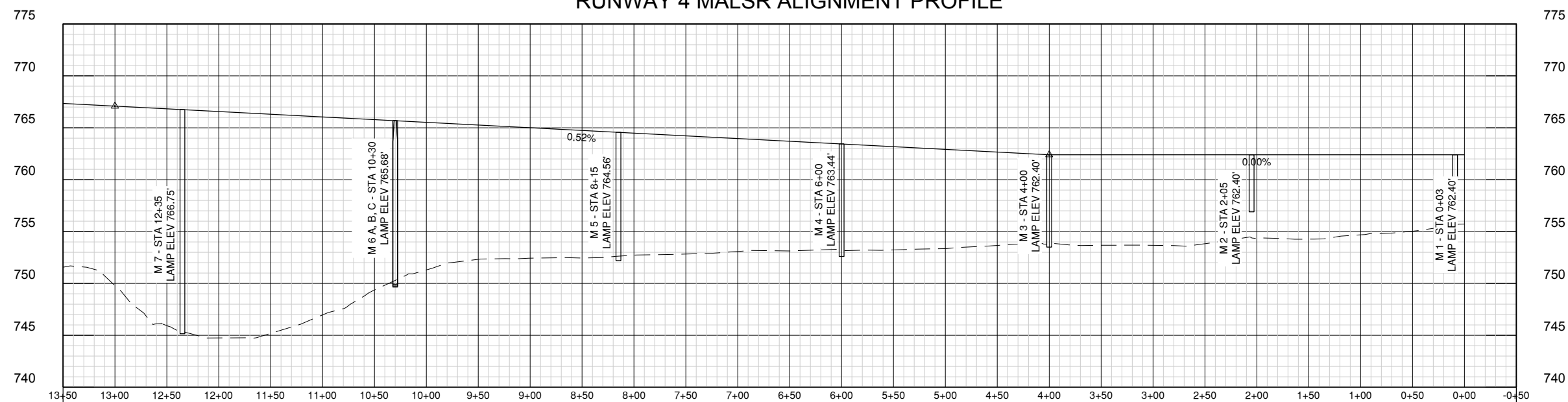
 CRUSHED ROCK PLOT  
SEE DETAIL SHEET C011

**KEY MAP**





RUNWAY 4 MALS ALIGNMENT PROFILE



BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX  
IL PROJ. NO: UIN-5051  
CMT PROJECT NO: 18002001  
CAD DWG FILE: 180020-01 PH4 EP200.DWG  
DESIGNED BY: HWI  
DRAWN BY: DPA  
CHECKED BY: MJD  
APPROVED BY: RLV

NOTES

- CONTRACTOR SHALL VERIFY EXISTING GROUND ELEVATIONS BEFORE ORDERING MATERIAL.
- REMOVE ALL EXISTING EQUIPMENT, CONDUCTORS, ABOVE GRADE CONDUITS AND FOUNDATIONS ASSOCIATED WITH THE MALS SYSTEM. ALL BELOW GRADE CONDUCTORS SHALL BE REMOVED AND CONDUITS ABANDONED IN PLACE.

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SHEET TITLE

MALS PLAN &  
PROFILE 1

MALS-C015  
SHEET 90 OF 143



BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER

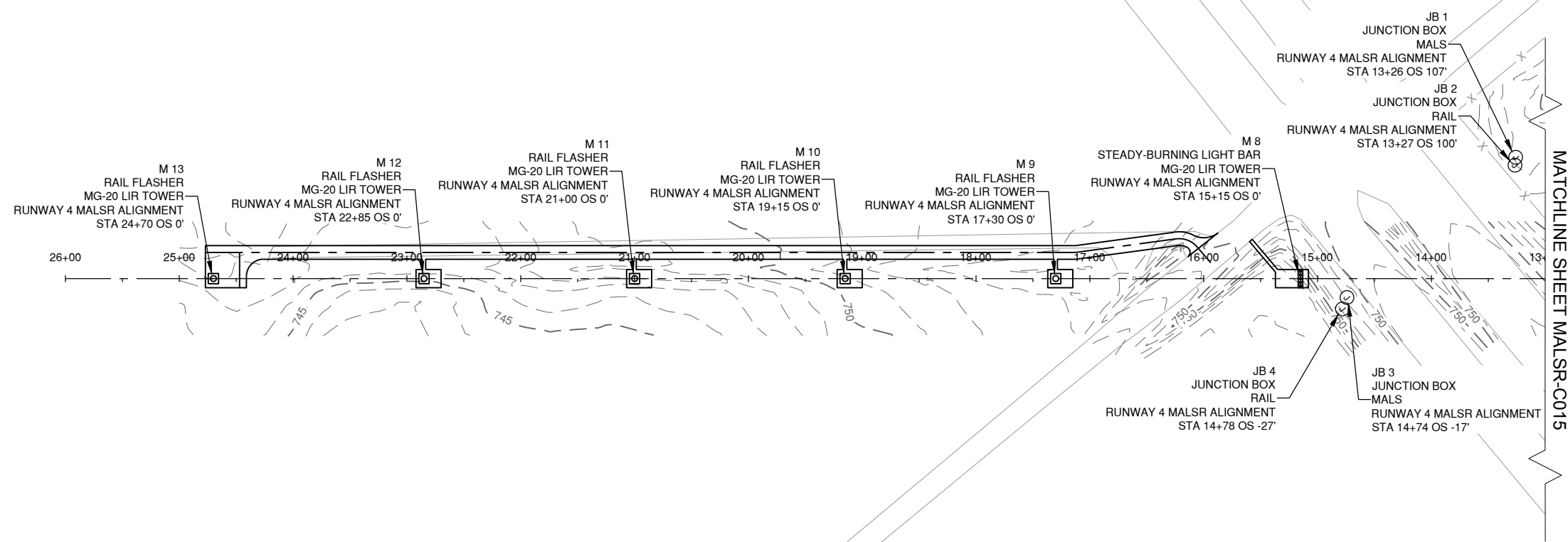


CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

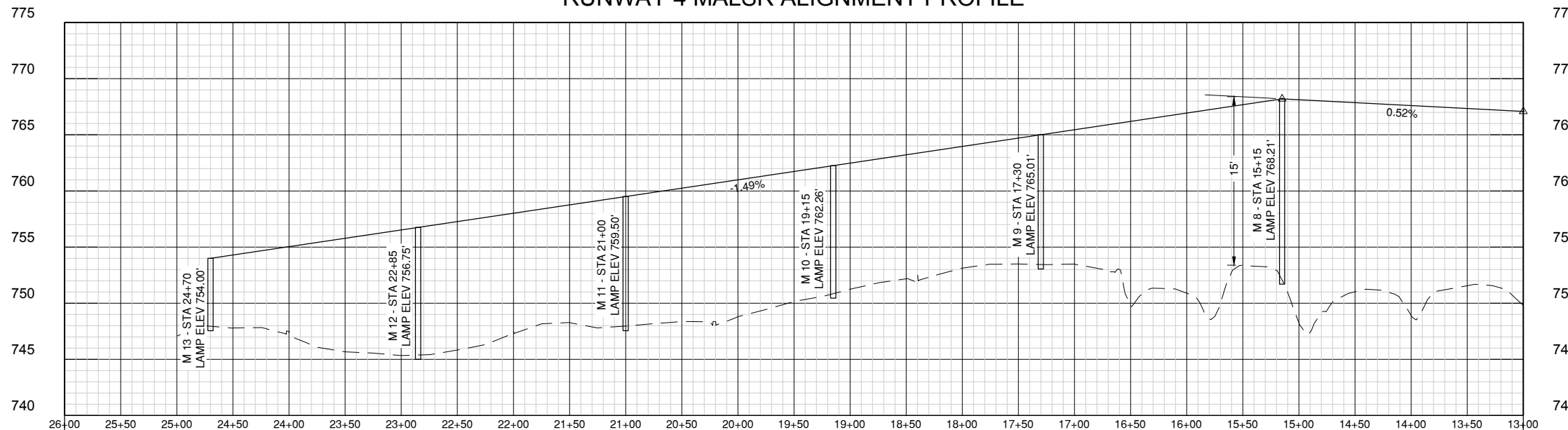
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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 EP200.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
APPROVED BY:	RLV
COPYRIGHT:	

SHEET TITLE  
**MALSR PLAN &  
PROFILE 2**

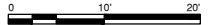


**RUNWAY 4 MALSR ALIGNMENT PROFILE**



- NOTES**
1. CONTRACTOR SHALL VERIFY EXISTING GROUND ELEVATIONS BEFORE ORDERING MATERIAL.
  2. REMOVE ALL EXISTING EQUIPMENT, CONDUCTORS, ABOVE GRADE CONDUITS AND FOUNDATIONS ASSOCIATED WITH THE MALSR SYSTEM. ALL BELOW GRADE CONDUCTORS SHALL BE REMOVED AND CONDUITS ABANDONED IN PLACE.

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BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 EG100.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: MJD

APPROVED BY: RLV

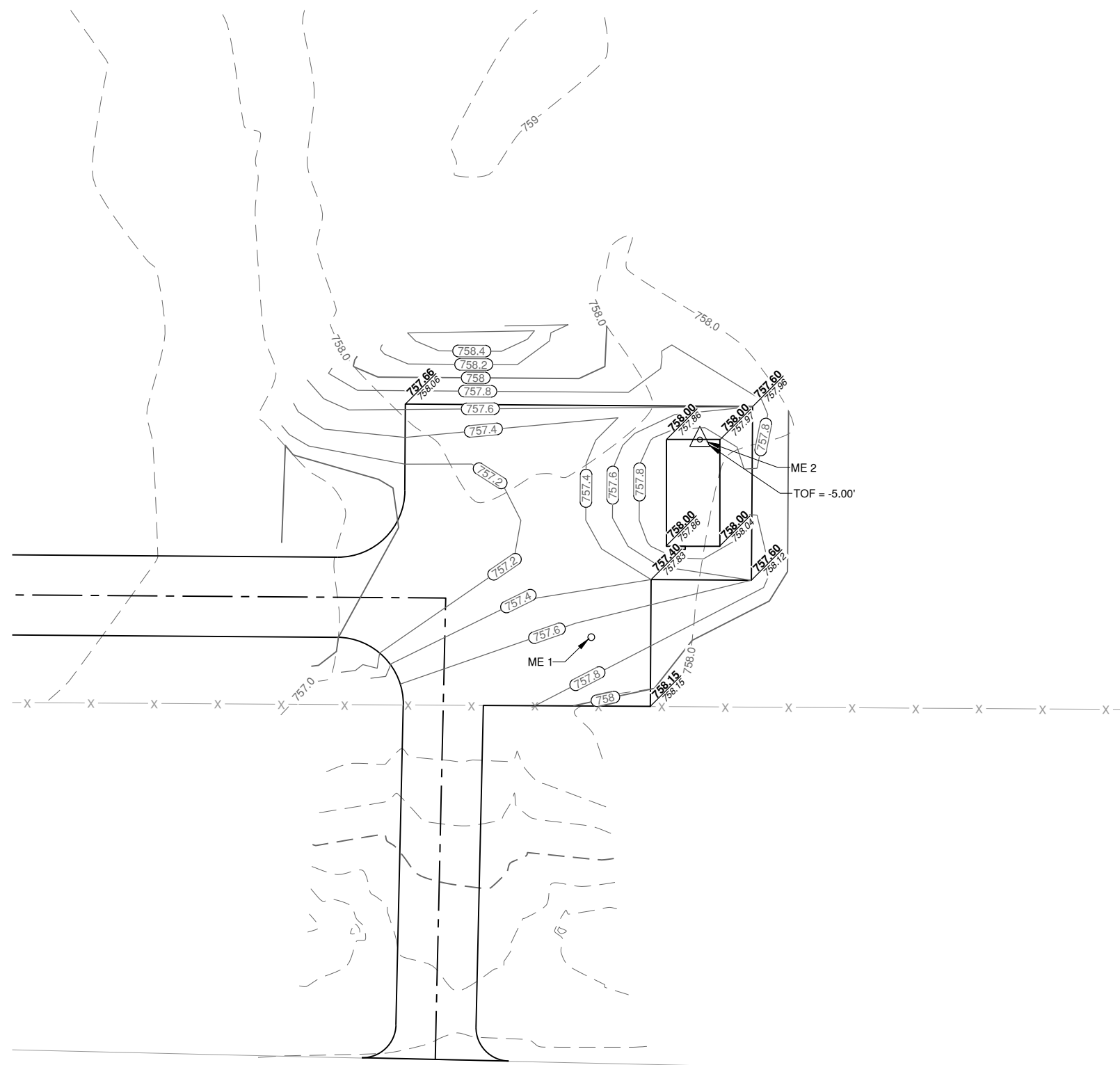
COPYRIGHT:

SHEET TITLE

MALSR GRADING

MALSR-C017

SHEET 92 OF 143



MALSR TOWER SITE GRADING NOTES

- 1. CONTRACTOR SHALL GRADE ALL CRUSHED ROCK PLOTS TO DRAIN AWAY FROM THE MALSR EQUIPMENT.

HIGHWAY 104

MALSR SHELTER PAD GRADING

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 ET100.DWG

DESIGNED BY: HWI

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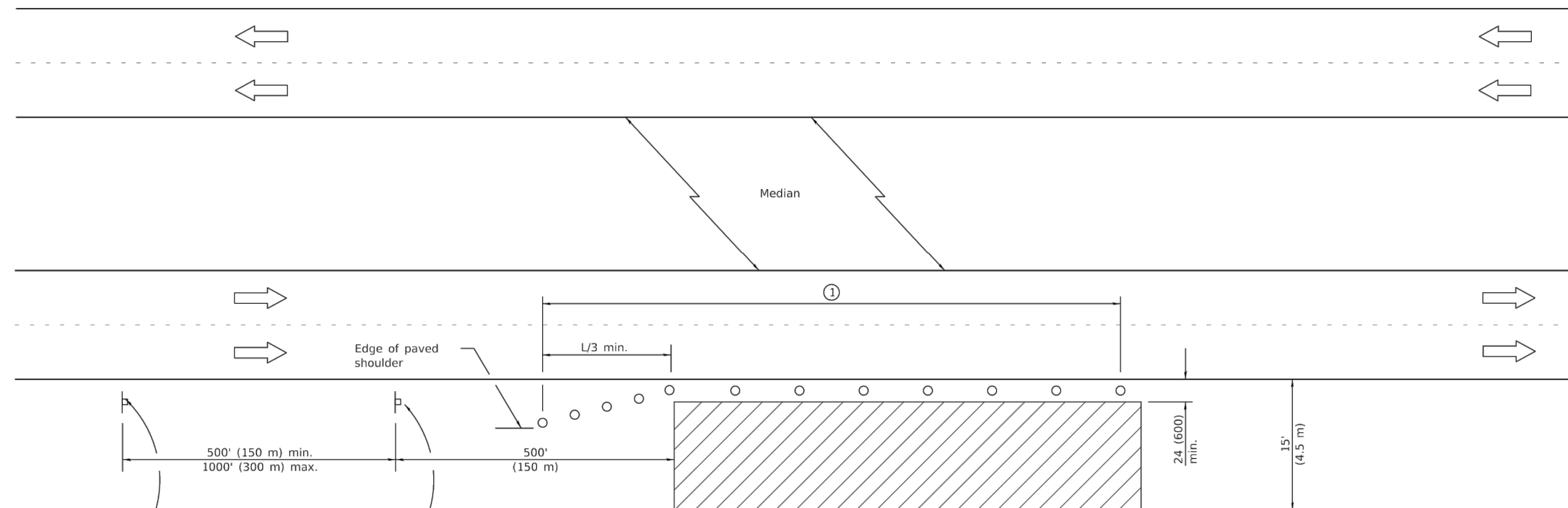
APPROVED BY: RLV

COPYRIGHT:

SHEET TITLE

**TRAFFIC CONTROL  
PLAN 1**

MALSR-C018  
SHEET 93 OF 143



For contract construction projects



W20-1103(0)-48



W21-1(0)-48

For maintenance and utility projects



W20-1(0)-48

**TYPICAL APPLICATIONS**

- Utility operations
- Culvert extensions
- Side slope changes
- Guardrail installation and maintenance
- Delineator installation
- Landscaping operations
- Shoulder repair
- Sign installation and maintenance

① When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

**SYMBOLS**

- Work area
- Sign
- Cone, drum or barricade

**GENERAL NOTES**

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24' (600) from the edge of pavement.

Calculate L as follows:

SPEED LIMIT

FORMULAS  
English (Metric)

40 mph (70 km/h) or less:

$$L = \frac{WS^2}{60} \quad L = \frac{WS^2}{150}$$

45 mph (80 km/h) or greater:

$$L = (W)(S) \quad L = 0.65(W)(S)$$

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

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

DATE	REVISIONS
4-1-16	Corrected typo in title.
1-1-14	Revised workers sign number to agree with current MUTCD.

**OFF-RD OPERATIONS, MULTILANE,  
15' (4.5 m) TO 24" (600 mm)  
FROM PAVEMENT EDGE**

**STANDARD 701101-05**

Illinois Department of Transportation

PASSED April 1, 2016  
ENGINEER OF SAFETY ENGINEERING

APPROVED April 1, 2016  
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 ET100.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: MJD

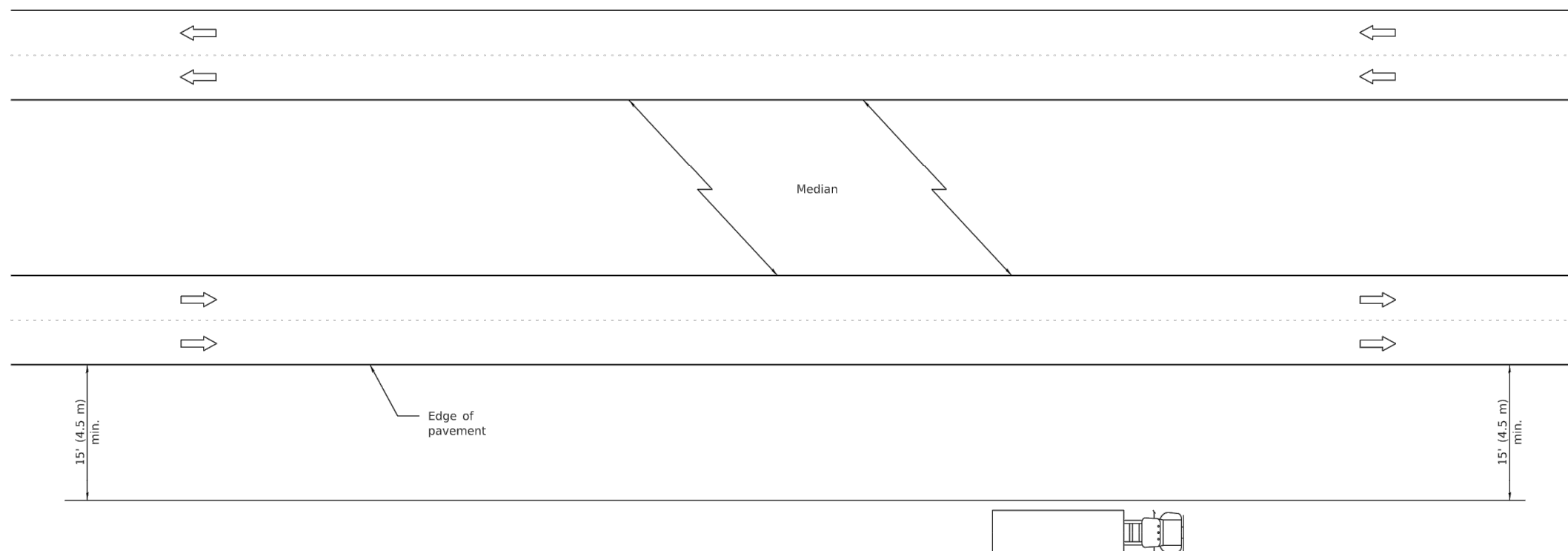
APPROVED BY: RLV

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SHEET TITLE

TRAFFIC CONTROL  
PLAN 2

MALSR-C019  
SHEET 94 OF 143



**TYPICAL APPLICATIONS**

- Landscaping work
- Utility work
- Fencing contracts

**GENERAL NOTES**

This Standard is used where at all times all vehicles, equipment, workers or their activities are more than 15' (4.5 m) from the edge of pavement.

When the work operation requires that two or more work vehicles cross the 15' (4.5 m) clear zone in any one hour, traffic control shall be according to Standard 701101.

This Standard also applies to work performed in the median more than 15' (4.5 m) from either pavement.

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

DATE	REVISIONS
1-1-05	Switched units to English (metric).
1-1-05	Revised title.

**OFF-RD OPERATIONS, MULTILANE,  
MORE THAN 15' (4.5 m) AWAY**

**STANDARD 701106-02**

Illinois Department of Transportation

PASSED January 1, 2009  
ENGINEER OF OPERATIONS

APPROVED January 1, 2009  
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07



License No. 184-000613  
CONSULTANTS

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



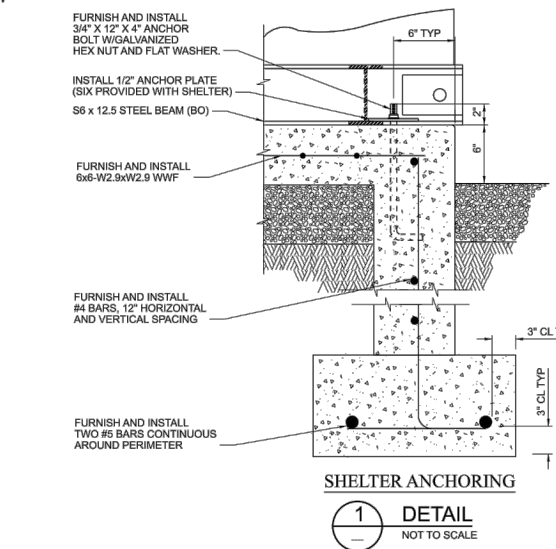
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

NOTES:

1. PREFABRICATED EQUIPMENT SHELTER WILL BE SHIPPED TO THE AIRPORT AND OFFLOADED BY SHIPPER AT PRE-ARRANGED STORAGE LOCATION. CONTRACTOR SHALL PROVIDE CRANE AND FLATBED TRAILER FOR TRANSPORT AND PLACEMENT OF THE SHELTER ON THE FOUNDATION. TWO 12" MIN. LENGTH SPREADER BARS AND FOUR 4" X 28" LONG STRAPS WILL BE REQUIRED TO OFFLOAD THIS SHELTER. LIFTING EQUIPMENT SHALL BE CAPABLE OF SAFELY HANDLING 10,000 LBS.
2. SEE SPECIFICATIONS FOR CONCRETE FORM WORK, REINFORCEMENT, PLACEMENT, CURING, EXCAVATION, AND BACKFILL REQUIREMENTS. EXCAVATION SHALL BE SHORED OR SHAPED PER OSHA REQUIREMENTS.
3. SEE DWG GLSD-D-LTNGPROT-E001 FOR SHELTER LIGHTNING PROTECTION AND GROUNDING DETAILS.
4. CONTRACTOR SHALL SEAL ALL PENETRATIONS THROUGH BUILDING WALLS WITH SILICONE SEALER.
5. BELOW-GRADE CONNECTIONS SHALL BE MADE WITH EXOTHERMIC WELDS PER SPECIFICATIONS.

KEY:

- (BO) = INSTALLED BY SHELTER MANUFACTURER OR FAA INSTALLATION PERSONNEL PRIOR TO SHIPMENT OF THE SHELTER.
- (INSTALL) = INSTALL ITEM SHIPPED LOOSE IN SHELTER.



REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS      CENTRAL SERVICE AREA

MALSR

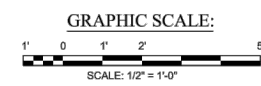
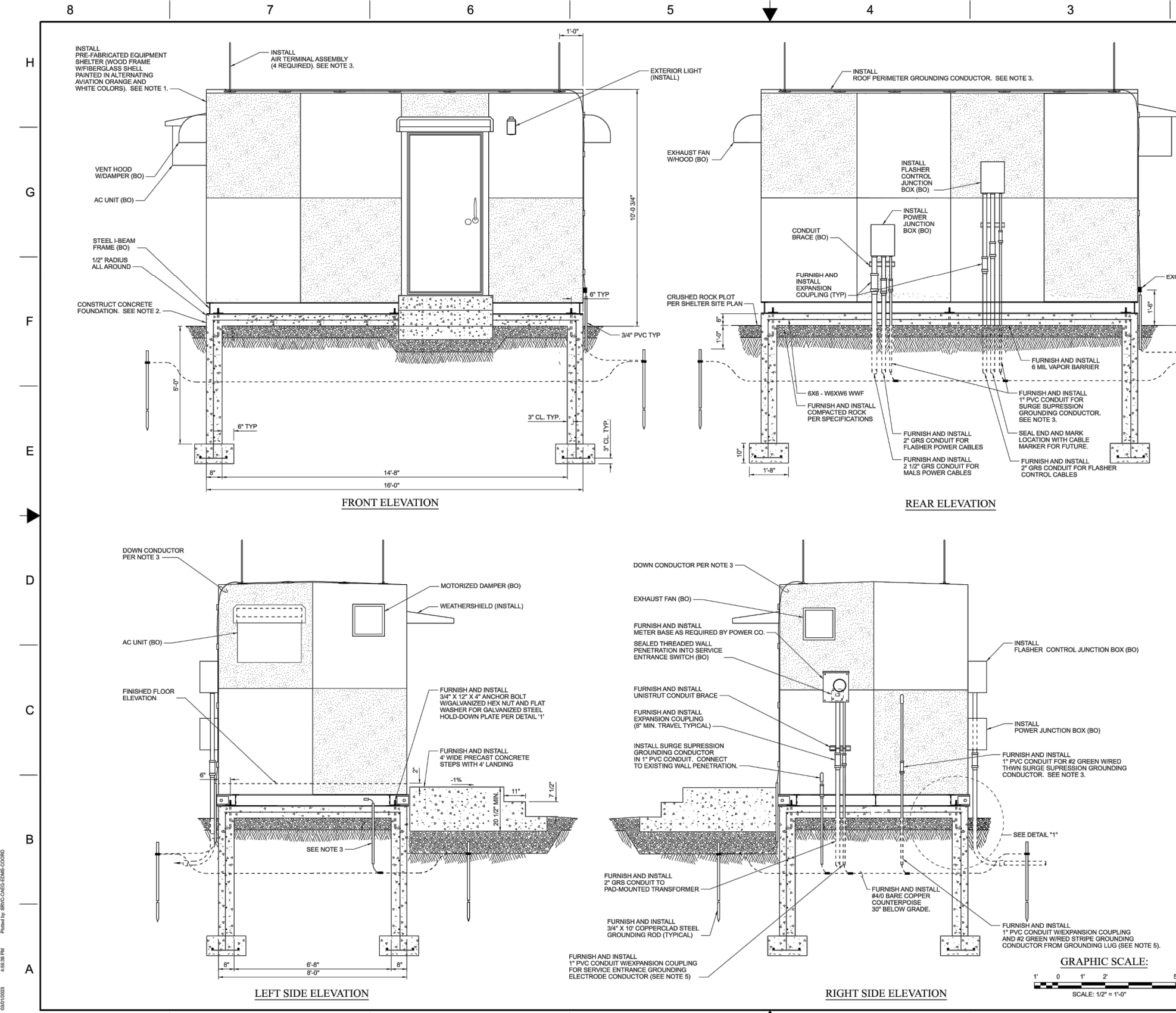
8' X 16' EQUIPMENT SHELTER EXTERIOR  
VIEW AND FOUNDATION INSTALLATION DETAILS  
RUNWAY 4

QUINCY MUNICIPAL BALDWIN FIELD AIRPORT      IL

REVIEWED BY	SUBMITTED BY	APPROVED BY
	TIMOTHY ALAN DYER	LUIS N DOMINGUEZ
DESIGNED	TAD	ISSUED BY
DRAWN	TAD	ENGINEERING SERVICES
CHECKED		NAVAIDS
		DATE
		02/28/2023
		ISSUED BY
		MGR: ENGINEERING
		DATE
		02/28/2023
		JCN
		20980077
		DRAWING NO
		UIN-20980077-A001
		REV

THIS DRAWING PRODUCED ON THE AGL REGION MICROSTATION SYSTEM

FAA SHEET	CMT SHEET	FAA SHEET	CMT SHEET
UIN-D-MALSR04-C001 =	MALSR-C001	UIN-D-MALSR04-C010 =	MALSR-C010
UIN-D-MALSR04-C002 =	MALSR-C002	UIN-D-MALSR04-C011 =	MALSR-C011
UIN-D-MALSR04-C003 =	MALSR-C003	UIN-D-MALSR04-A001 =	MALSR-A001
UIN-D-MALSR04-C004 =	MALSR-C004	UIN-D-MALSR04-A002 =	MALSR-A002
UIN-D-MALSR04-C005 =	MALSR-C005	GLSD-D-LTNGPROT-E001 =	MALSR-A003
UIN-D-MALSR04-C006 =	MALSR-C006	UIN-D-MALSR04-E001 =	MALSR-E001
UIN-D-MALSR04-C007 =	MALSR-C007	UIN-D-MALSR04-E002 =	MALSR-E002
UIN-D-MALSR04-C008 =	MALSR-C008	UIN-D-MALSR04-S001 =	MALSR-S001
UIN-D-MALSR04-C009 =	MALSR-C009		



NOTE:  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALSR-A002 FOR EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE CONTRACTOR.

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Printed by: BRUCE GIBBS  
02/28/2023 2:58:58 PM

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SHEET TITLE  
**MALSR EQUIPMENT SHELTER 1**  
MALSR-A001  
SHEET 95 OF 143

MARK	DATE	DESCRIPTION
AIP PROJ. NO:	3-17-0085-XX	
IL PROJ. NO:	UIN-5051	
CMT PROJECT NO:	18002001	
CAD DWG FILE:	180020-01 PH4 EL520.DWG	
DESIGNED BY:	HWI	
DRAWN BY:	DPA	
CHECKED BY:	MJD	
APPROVED BY:	RLV	

COPYRIGHT:

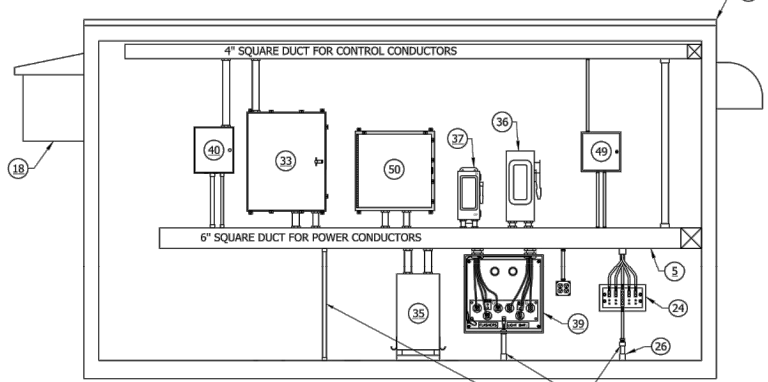
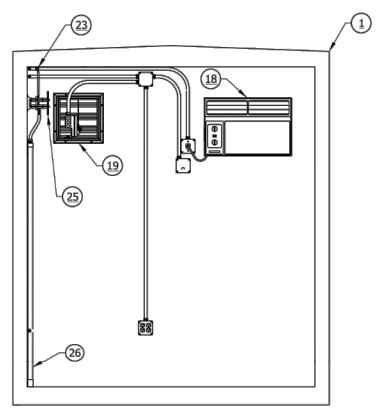
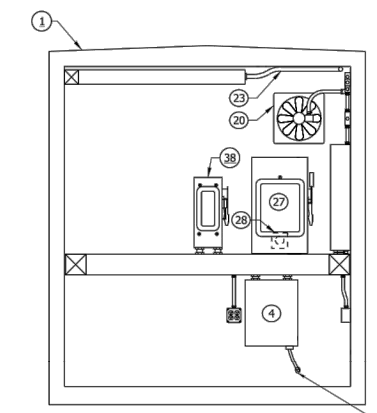
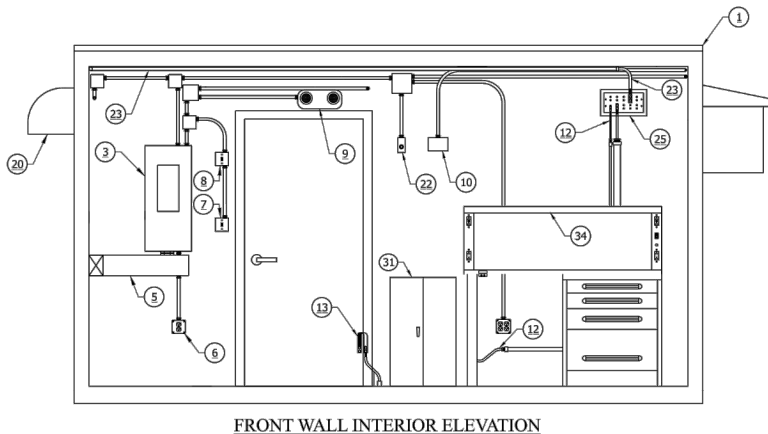
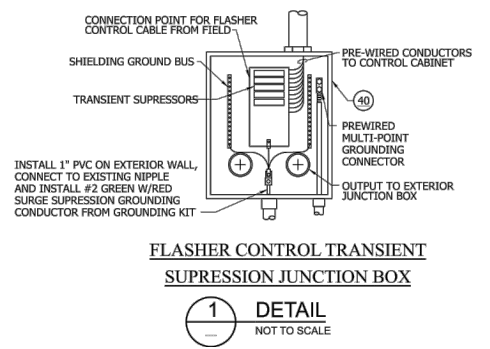
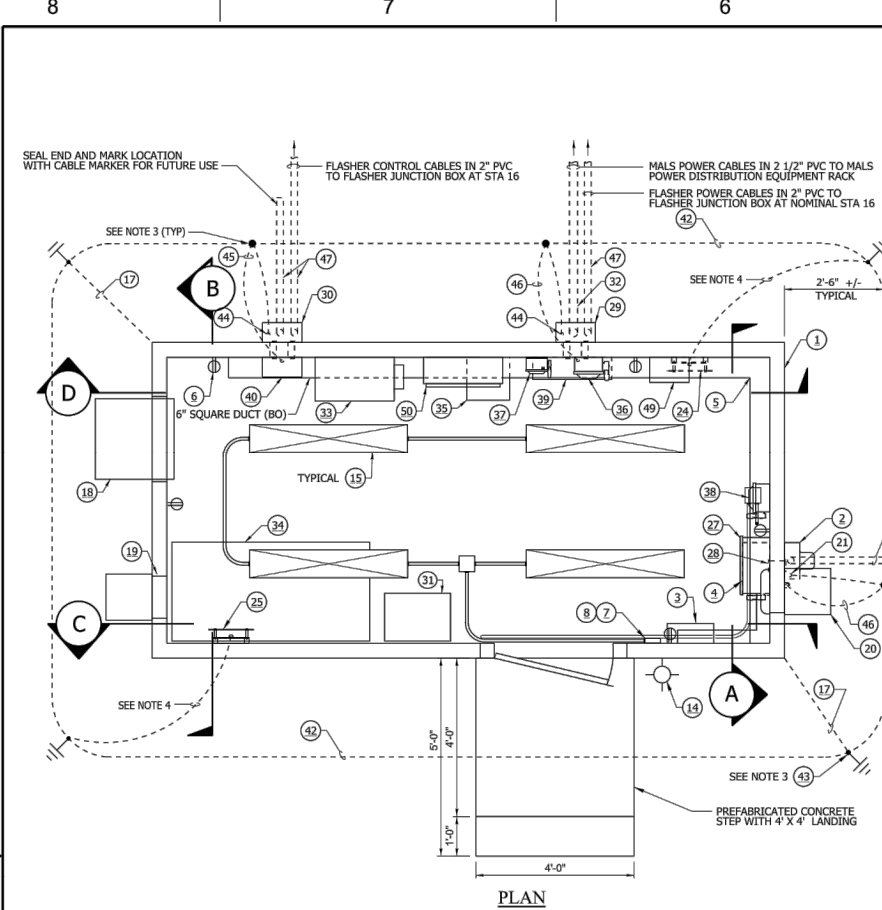
SHEET TITLE

## MALSR EQUIPMENT SHELTER 2

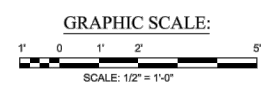
MALSR-A002  
SHEET 96 OF 143

**NUMBERED LEGEND:**

- I = CONTRACTOR SHALL INSTALL ITEM, FBI = CONTRACTOR SHALL FURNISH & INSTALL ITEM, BO = SHALL BE INSTALLED BY FAA INSTALLATION PERSONNEL OR EQUIPMENT SHELTER MANUFACTURER
- I 1 WOOD FRAME EQUIPMENT SHELTER W/FIBERGLASS EXTERIOR FINISH
  - FBI 2 METER BASE FOR USE WITH UNDERGROUND SERVICE PER POWER COMPANY'S SPECIFICATIONS SHALL BE INSTALLED OVER WALL PENETRATION (INSTALLED BY SHELTER MANUFACTURER). INSTALL THREE #3/0 TYPE THWN POWER CABLES AND #6 GREEN THWN GROUNDING CONDUCTOR FROM SERVICE ENTRANCE DISCONNECT SWITCH TO PRIMARY LEADS OF SERVICE ENTRANCE DISCONNECT SWITCH. INSTALL THREE #3/0 U.S.E. POWER CABLES FROM LINE SIDE OF METER BASE TO SECONDARY OPENING LOCATION OF PAD-MOUNTED TRANSFORMER 2' BELOW GRADE (MIN) IN GALVANIZED RIGID STEEL CONDUIT. CONNECTIONS AT TRANSFORMER WILL BE MADE BY POWER COMPANY REPRESENTATIVES.
  - BO 3 100A BREAKER PANEL, LUGS ONLY, 20 CIRCUITS, W/BOLT ON BREAKERS
  - BO 4 INCOMING POWER SURGE ARRESTOR, 120/240V
  - BO 5 6" SQUARE DUCT
  - BO 6 ELECTRICAL RECEPTACLE
  - BO 7 INTERIOR LIGHT SWITCH
  - BO 8 EXTERIOR LIGHT SWITCH
  - BO 9 EMERGENCY LIGHT
  - BO 10 HVAC THERMOSTAT, HEAT/COOL
  - I 11 SECRETARIAL CHAIR (NOT SHOWN). ASSEMBLY REQUIRED
  - BO 12 WORKSTATION GROUND
  - BO 13 GROUNDING STRAP
  - I 14 WALL-MOUNTED EXTERIOR LIGHT WITH PHOTO CONTROL
  - BO 15 4'-LONG 2-LAMP-TUBE FLUORESCENT LIGHT FIXTURE, 120-VOLT
  - BO 16 CONTROL CABLE TRANSIENT SUPPRESSION BOX
  - FBI 17 THOMPSON #506T DOWN CONDUCTOR FROM PERIMETER GROUND ON ROOF TO EXOTHERMIC WELD TO #4/0 BARE COPPER GROUNDING CONDUCTOR 18" ABOVE GRADE.
  - BO 18 AC WINDOW UNIT
  - BO 19 12" SQUARE MOTORIZED LOUVER WITH FILTER AND HOOD
  - BO 20 EXHAUST FAN WITH VENT HOOD
  - BO 21 1" PVC CONDUIT CARRYING #2 GREEN THWN SERVICE ENTRANCE GROUNDING CONDUCTOR
  - BO 22 FAN/LOUVER CONTROL SWITCH
  - BO 23 1" PVC CONDUIT CARRYING #4/0 GREEN THWN W/ORANGE STRIPE FROM MAIN GROUNDING PLATE TO MULTI POINT GROUNDING PLATE.
  - BO 24 MAIN COPPER GROUNDING PLATE WITH PLASTIC COVER. SEE NOTE 4.
  - BO 25 SUPPLEMENTAL GROUNDING PLATE WITH PLASTIC COVER. SEE NOTE 4.
  - BO 26 2" PVC CONDUIT STUB THROUGH FLOOR TO ACCOMMODATE INSTALLATION OF GROUNDING CONDUCTOR. SEE NOTE 4.
  - BO 27 SERVICE ENTRANCE DISCONNECT SWITCH, 200A, 240V, FUSED AT 200A
  - BO 28 THRU-WALL PENETRATION FROM SERVICE ENTRANCE DISCONNECT SWITCH TO EXTERIOR TO ACCOMMODATE INSTALLATION OF SERVICE ENTRANCE CONDUCTORS
  - BO 29 MALSR POWER JUNCTION BOX, NEMA 3R
  - BO 30 FLASHER CONTROL JUNCTION BOX, NEMA 3R
  - I 31 DRAWER STORAGE UNIT, ASSEMBLY REQUIRED
  - FBI 32 2 1/2" GRSC WITH EXPANSION COUPLING AND ELBOW
  - BO 33 MALSR POWER AND CONTROL CABINET
  - BO 34 WORK BENCH/DESK
  - BO 35 MALSR POWER TRANSFORMER
  - BO 36 MALSR POWER DISCONNECT SWITCH
  - BO 37 FLASHER POWER DISCONNECT SWITCH
  - BO 38 MALSR CONTROL CABINET DISCONNECT SWITCH
  - BO 39 MALSR AND FLASHER POWER SURGE ARRESTER
  - BO 40 FLASHER CONTROL TRANSIENT SUPPRESSION JUNCTION BOX
  - FBI 41 #6 BARE COPPER GROUNDING AND BONDING CONDUCTOR
  - FBI 42 #4/0 BARE COPPER PERIMETER GROUNDING CONDUCTOR, 2'-6" BELOW GRADE. SEE NOTE 3.
  - FBI 43 3/4" X 10' COPPERCLAD GROUNDING ROD
  - FBI 44 1" PVC CONDUIT. CONNECT TO EXISTING BOX CONNECTOR AND ROUTE #6 GREEN GROUNDING CONDUCTOR FROM LUG IN JUNCTION BOX
  - I 45 #2 GREEN W/RED STRIPE THWN GROUNDING CONDUCTOR FROM GROUNDING KIT
  - I 46 #4/0 GREEN WITH RED STRIPE GROUNDING CONDUCTOR FROM GROUNDING KIT
  - FBI 47 2" GRSC WITH EXPANSION COUPLING AND ELBOW
  - BO 48 NOT USED
  - I 49 AIR-TO-GROUND RADIO RECEIVER/CONTROLLER (RELOCATED FROM EXISTING RACK)
  - BO 50 POWER ISOLATION UNIT (PIU)



- NOTES:**
1. ELECTRICAL EQUIPMENT SHOWN ON THIS SHEET IS SURFACE MOUNTED BY FAA REPRESENTATIVES PRIOR TO SHIPMENT OF SHELTER UNLESS OTHERWISE NOTED.
  2. CONTRACTOR SHALL NOTIFY RESIDENT ENGINEER IF SHELTER IS DAMAGED OR MISSING ITEMS AT PRECONSTRUCTION CONFERENCE.
  3. ALL GROUNDING CONDUCTORS SHALL BE ATTACHED TO GROUNDING RODS OR GROUNDING COUNTERPOISE CONDUCTOR USING EXOTHERMIC WELDS PER SPECIFICATIONS.
  4. INSTALL GREEN THWN GROUNDING CONDUCTOR (WELDING CABLE PROVIDED WITH SHELTER GROUNDING KIT) FROM GROUNDING PLATE THROUGH EXISTING PVC CONDUIT THROUGH SHELTER FLOOR, OVER FOUNDATION, AND CONNECT TO PERIMETER GROUNDING CONDUCTOR USING EXOTHERMIC WELD.
  5. CONTRACTOR SHALL ASSEMBLE/INSTALL ITEMS SHIPPED LOOSE WITH SHELTER, INCLUDING STORAGE CABINET, CHAIR, WALL CLOCK, FIRE EXTINGUISHER, RAIN GUARD, AND DESK LAMP.



REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS      CENTRAL SERVICE AREA

**MALSR**

**FLOOR PLAN AND INTERIOR ELEVATIONS**  
**8' X 16' PREFAB EQUIPMENT SHELTER**  
**RUNWAY 4**

QUINCY MUNICIPAL BALDWIN FIELD AIRPORT

REVIEWED BY	SUBMITTED BY	APPROVED BY	IL
	<b>TIMOTHY ALAN DYER</b>	<b>LUIS N DOMINGUEZ</b>	
	Digitally signed by TIMOTHY ALAN DYER Date: 2023.03.01 16:18:57 -0600	Digitally signed by LUIS N DOMINGUEZ Date: 2023.03.01 16:37:53 -0600	
DESIGNED BY	ISSUED BY	MGR: ENGINEERING - CHICAGO	
	<b>TAD</b>		
DRAWN BY	ENGINEERING SERVICES	DATE	02/28/2023
	<b>TAD</b>	DRAWING NO	20980077
CHECKED BY	<b>LNJ</b>	UIN-20980077-A002	REV

**FAA - CMT SHEET REFERENCE TABLE**

FAA SHEET	CMT SHEET	FAA SHEET	CMT SHEET
UIN-D-MALSR04-C001 =	MALSR-C001	UIN-D-MALSR04-C010 =	MALSR-C010
UIN-D-MALSR04-C002 =	MALSR-C002	UIN-D-MALSR04-C011 =	MALSR-C011
UIN-D-MALSR04-C003 =	MALSR-C003	UIN-D-MALSR04-A001 =	MALSR-A001
UIN-D-MALSR04-C004 =	MALSR-C004	UIN-D-MALSR04-A002 =	MALSR-A002
UIN-D-MALSR04-C005 =	MALSR-C005	GLSD-D-LTNGPROT-E001 =	MALSR-A003
UIN-D-MALSR04-C006 =	MALSR-C006	UIN-D-MALSR04-E001 =	MALSR-E001
UIN-D-MALSR04-C007 =	MALSR-C007	UIN-D-MALSR04-E002 =	MALSR-E002
UIN-D-MALSR04-C008 =	MALSR-C008	UIN-D-MALSR04-S001 =	MALSR-S001
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**NOTE:**  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALSR-A002 FOR EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE CONTRACTOR.





License No. 184-000613  
CONSULTANTS

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION
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IL PROJ. NO:	UIN-5051	
CMT PROJECT NO:	18002001	
CAD DWG FILE:	180020-01 PH4 EL520.DWG	
DESIGNED BY:	HWI	
DRAWN BY:	DPA	
CHECKED BY:	MJD	
APPROVED BY:	RLV	

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SHEET TITLE

**MALSR EQUIPMENT  
SHELTER LIGHTNING  
PROTECTION**

**MALSR-A003**  
SHEET 97 OF 143

**NOTES:**

- CONTRACTOR SHALL INSTALL ROOF AND DOWN CONDUCTORS, AIR TERMINALS, AND CABLE CLAMPS FURNISHED WITH THE EQUIPMENT SHELTER'S LIGHTNING PROTECTION KIT.
- ALL CLAMPS AND BONDING DEVICES SHALL BE BRONZE. ALL CABLES AND STRAPS SHALL BE COPPER, AND ALL BOLTS, SCREWS, AND FASTENING HARDWARE SHALL BE BRONZE OR BRASS UNLESS OTHERWISE SHOWN.
- BOND AIR VENT FAN, HOOD, FLIGHT CHECK ANTENNA MAST, DOOR FRAME, JUNCTION BOXES, AND ANY MISCELLANEOUS EXTERIOR METAL OBJECTS TO DOWN CONDUCTORS WITH #6 AWG BARE MINIMUM. BOND STEEL I-BEAM FRAME IN TWO PLACES WITH A #10 BARE COPPER BONDING WIRE CONNECTED TO THE COUNTERPOISE WITH AN EXOTHERMIC WELD.
- NO CONDUCTOR SHALL BE BENT TO LESS THAN AN 8" RADIUS NOR SHALL BE BENT TO LESS THAN A 90° ANGLE.
- FOR A GLIDE SLOPE FACILITY, THE #40 BARE COPPER COUNTERPOISE SHALL EXTEND AROUND THE ANTENNA TOWER AND SHALL CONNECT TO TWO GROUNDING ELECTRODES PLACED ON EITHER SIDE OF THE ASSOCIATED STRUCTURE. AIR TERMINALS AND DOWN CONDUCTORS ARE NOT REQUIRED FOR A GLIDE SLOPE SHELTER BECAUSE OF THE LIGHTNING PROTECTION COVERAGE PROVIDED BY THE AIR TERMINAL ON THE ANTENNA TOWER. BOND EXTERIOR METAL OBJECTS AND SHELTER'S STEEL I-BEAM FRAME AS DESCRIBED ABOVE.
- GROUNDING BUSHINGS SHALL BE INSTALLED AT ENDS OF METALLIC CONDUITS. A #2 BARE COPPER BONDING WIRE SHALL BE CONNECTED TO GROUNDING BUSHINGS AND CONNECTED TO THE PERIMETER GROUNDING CONDUCTOR WITH AN EXOTHERMIC WELD. CONTINUOUS METALLIC CONDUITS SHALL BE BONDED TO COUNTERPOISE USING #2 BARE COPPER GROUND WIRE CONNECTED TO CONDUIT AND PERIMETER GROUNDING CONDUCTOR WITH EXOTHERMIC WELDS.
- TWO-HOLE LONG BARREL ELECTROPLATED TINNED COPPER COMPRESSION LUGS SHALL BE USED FOR CABLE CONNECTIONS TO THE GROUNDING PLATES. LUGS SHALL BE CRIMPED HYDRAULICALLY USING A MINIMUM OF 12 TONS APPLIED CONCENTRICALLY. APPROPRIATELY SIZED HARDWARE AND SPRING WASHERS SHALL BE USED FOR ALL CONNECTIONS TO GROUNDING PLATES PER DETAIL "4". TORQUE CONNECTIONS PER TABLE "A".
- 1 1/2" PVC CONDUIT IS INSTALLED BY THE SHELTER MANUFACTURER ON THE INSIDE WALL OF THE SHELTER AND TERMINATES BELOW THE FLOOR (TYPICAL TWO PLACES). CONTRACTOR SHALL EXTEND CONDUIT BELOW GRADE AND ROUTE #40 INSULATED WELDING CABLE (FURNISHED WITH THE GROUNDING KIT) THROUGH THE CONDUIT AND CONNECT TO THE PERIMETER GROUNDING CONDUCTOR WITH AN EXOTHERMIC WELD. CONDUCTOR FROM MAIN GROUNDING PLATE SHALL BE GREEN WITH ORANGE TRACER. CONDUCTOR FROM SUPPLEMENTAL GROUNDING PLATE SHALL BE GREEN WITH RED TRACER.
- THIS DRAWING SHOWS THE LIGHTNING PROTECTION SYSTEM WITH RESPECT TO INSTALLATION ON A TYPICAL SHELTER. LOCATIONS OF SHELTER FEATURES SUCH AS DOOR, AIR HANDLERS, AND JUNCTION BOXES ARE CORRECTLY SHOWN ON THE SITE SPECIFIC DRAWINGS INCLUDED IN THIS SET.

Bill of Materials

Item #	Inv #	Unit of Measure	Part Number	Part Description	QUANTITY BASED ON SHELTER SIZE																	
					6x8	8x12	8x16	10x12	10x16	10x20	12x20	12x26	12x30									
1	1450	EACH	HARGER 1224CUAT	1/2"X24 COPPER AIR TERMINAL - 1224CUST	4	4	4	4	4	6	6	0	6									
2	1451	EACH	HARGER CLBU21	1/2 CU UNIVERSAL BASE- CLBU21	4	4	4	4	4	6	6	6	6									
3	1457	EACH	HARGER #00C3	Cable Clip (field customers only)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
4	1452	EACH	HARGER #260	Copper Adhesive Cable Holder	6	10	12	10	12	14	16	18	22									
5	1458	EACH	HARGER #155	Brass 1/2" verticle Base(not used)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	2472	EACH	FASTENAL	1/2" SS-THREADED ROD X-2" (not used)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	4784	EACH	162483	250 ml Pro Poxyem Epoxy Kit 300 Fast	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	
8	1455	FEET	28 STRAND	14 Conductor Rope lay Conductor for top	28	40	48	44	52	60	64	76	84									
9	1455	FEET	28 STRAND	14 Conductor Rope lay for down drops	2x8'	2x8'	2x8'	2x8'	2x8'	2x8'	2x8'	2x8'	2x8'	2x8'	2x8'	2x8'	2x8'	2x8'	2x8'	2x8'	2x8'	
<b>TOTAL FEET OF CONDUCTOR</b>					44	56	64	60	68	76	80	92	100									

Anchor plates / bolt kits		6x8	8x12	8x16	10x12	10x16	10x20	12x20	12x26	12x30
EACH	Anchor plates	4	6	6	6	6	8	8	8	10
EACH	Anchor bolts (3/4" x 11" galv all-thread)	4	6	6	6	6	8	8	8	10
EACH	Nuts	4	6	6	6	6	8	8	8	10
EACH	Flat washers	4	6	6	6	6	8	8	8	10
EACH	Lock washers	4	6	6	6	6	8	8	8	10
EACH	Epoxy	1	1	1	1	1	2	2	2	2

**TABLE "A"**  
TORQUE AND SPRING WASHER REQUIREMENTS FOR BOLTED BONDS  
FROM FAA STD-019F, SECTION 4.1.1.2.4.2, TABLE II

BOLT SIZE	TORQUE (FT-LBS)	# OF WASHERS REQ'D	SOLON PART #
1/4"	10	3	4-EH-70-301
5/16"	21	3	5-EH-80-301
3/8"	34	3	6-EH-89-301
7/16"	55	6	7-L-70-301
1/2"	83	2	8-18-125-301
9/16"	117	N/A	N/A
5/8"	167	3	10-EH-150-177
3/4"	288	3	12-EH-188-177
7/8"	452	3	14-EH-188-177
1"	567	3	15-H-187-177

REV	DATE	DESCRIPTION	JCN	REDLINE DATE	REV
A	12/29/2022	UPDATED DRAFTING TO FAA STANDARD			

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS  
CENTRAL SERVICE AREA

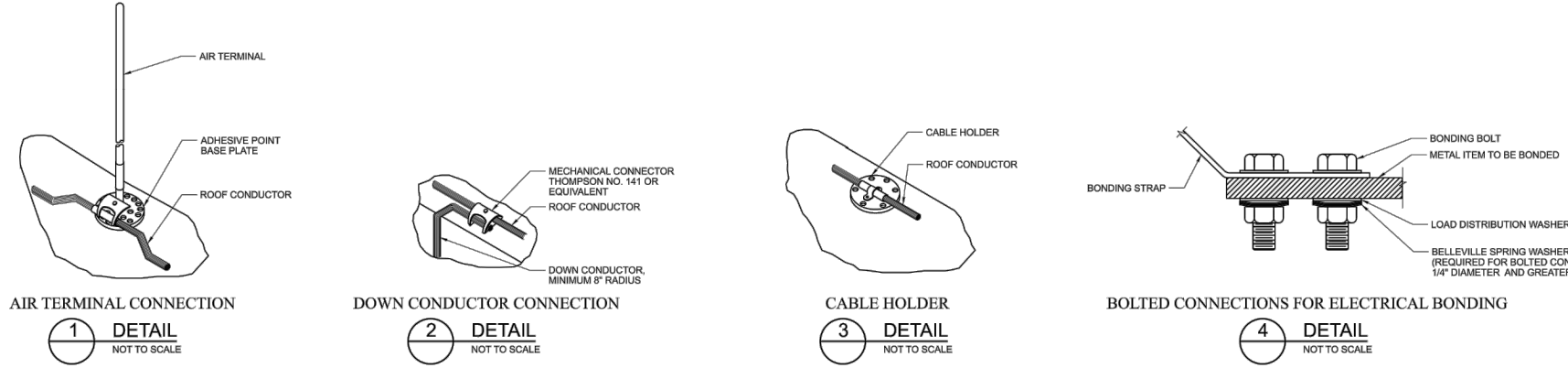
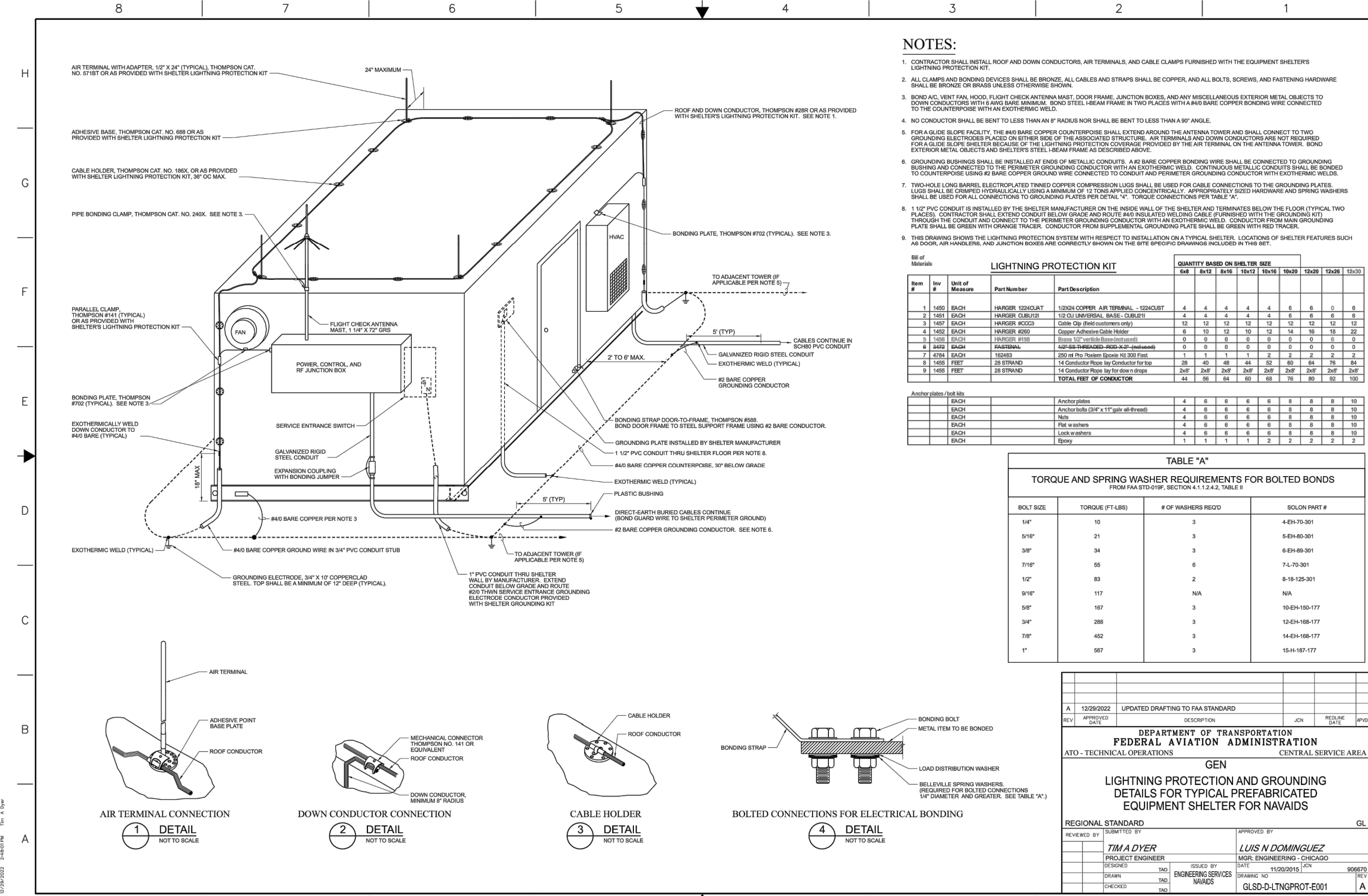
GEN  
LIGHTNING PROTECTION AND GROUNDING  
DETAILS FOR TYPICAL PREFABRICATED  
EQUIPMENT SHELTER FOR NAVAIDS

REGIONAL STANDARD

REVIEWED BY	SUBMITTED BY	APPROVED BY
TIMA DYER	LUIS N DOMINGUEZ	
PROJECT ENGINEER	MGR: ENGINEERING - CHICAGO	
DESIGNED	DATE	JCN
TAD	11/20/2015	906670
DRAWN	ISSUED BY	DRAWING NO
TAD	ENGINEERING SERVICES	GLSD-D-LTNGPROT-E001
CHECKED	NAVAIDS	REV
TAD		A

FAA - CMT SHEET REFERENCE TABLE

FAA SHEET	CMT SHEET	FAA SHEET	CMT SHEET
UIN-D-MALSR04-C001 =	MALSR-C001	UIN-D-MALSR04-C010 =	MALSR-C010
UIN-D-MALSR04-C002 =	MALSR-C002	UIN-D-MALSR04-C011 =	MALSR-C011
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UIN-D-MALSR04-C009 =	MALSR-C009		



NOTE:  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALSR-A002 FOR EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE CONTRACTOR.

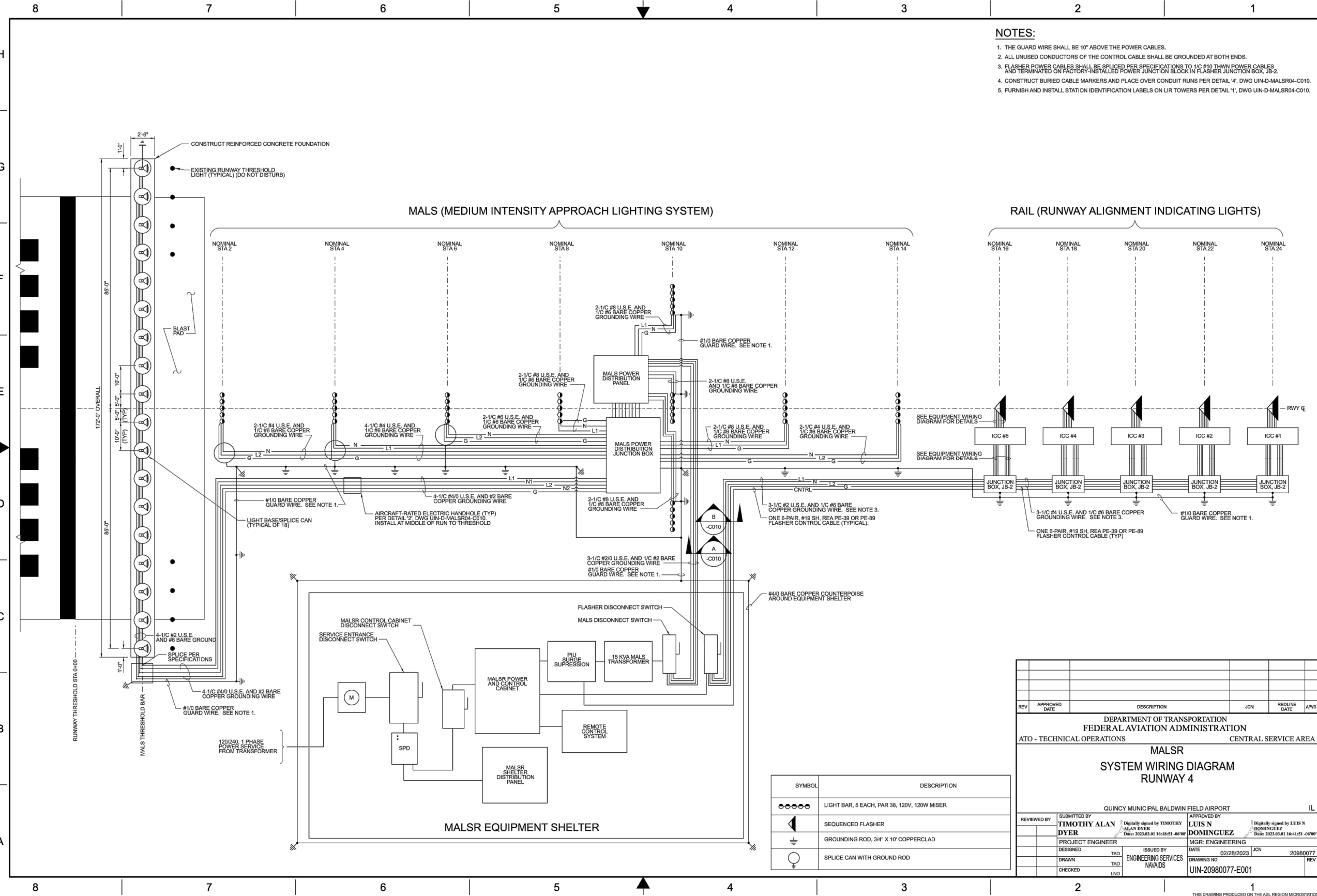
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License No. 184-000613  
CONSULTANTS

**NOTES:**

1. THE GUARD WIRE SHALL BE 10' ABOVE THE POWER CABLES.
2. ALL UNUSED CONDUCTORS OF THE CONTROL CABLE SHALL BE GROUNDED AT BOTH ENDS.
3. FLASHER POWER CABLES SHALL BE SPLICED PER SPECIFICATIONS TO 1/2" #10 THWN POWER CABLES AND TERMINATED ON FACTORY-INSTALLED POWER JUNCTION BLOCK IN FLASHER JUNCTION BOX, JB-2.
4. CONSTRUCT BURIED CABLE MARKERS AND PLACE OVER CONDUIT RUNS PER DETAIL '4', DWG UIN-D-MALSR04-C010.
5. FURNISH AND INSTALL STATION IDENTIFICATION LABELS ON LIR TOWERS PER DETAIL '1', DWG UIN-D-MALSR04-C010.



**NOTE:**  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALSR-A002 FOR EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE CONTRACTOR.

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS CENTRAL SERVICE AREA

**MALS  
SYSTEM WIRING DIAGRAM  
RUNWAY 4**

QUINCY MUNICIPAL BALDWIN FIELD AIRPORT

REVIEWED BY	SUBMITTED BY	APPROVED BY
	TIMOTHY ALAN DYER	LUIS N DOMINGUEZ
DESIGNED BY	ISSUED BY	MGR: ENGINEERING
TAD	NAVAIDS	
DRAWN BY	DATE	
	02/28/2023	
CHECKED BY	DRAWING NO	
	UIN-20980077-E001	

SYMBOL	DESCRIPTION
	LIGHT BAR, 5 EACH, PAR 38, 120V, 120W MISER
	SEQUENCED FLASHER
	GROUNTING ROD, 3/4" X 10' COPPERCLAD
	SPLICE CAN WITH GROUND ROD

MARK	DATE	DESCRIPTION

ISSUED FOR: CONSTRUCTION

AIP PROJ. NO:	3-17-0085-XX
IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 EL520.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
APPROVED BY:	RLV

SHEET TITLE  
**SYSTEM WIRING  
DIAGRAM**

MALSR-E001  
SHEET 98 OF 143

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02/28/2023 2:59:02 PM



License No. 184-000613  
CONSULTANTS

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION
AIP PROJ. NO:	3-17-0085-XX	
IL PROJ. NO:	UIN-5051	
CMT PROJECT NO:	18002001	
CAD DWG FILE:	180020-01 PH4 EL520.DWG	
DESIGNED BY:	HWI	
DRAWN BY:	DPA	
CHECKED BY:	MJD	
APPROVED BY:	RLV	

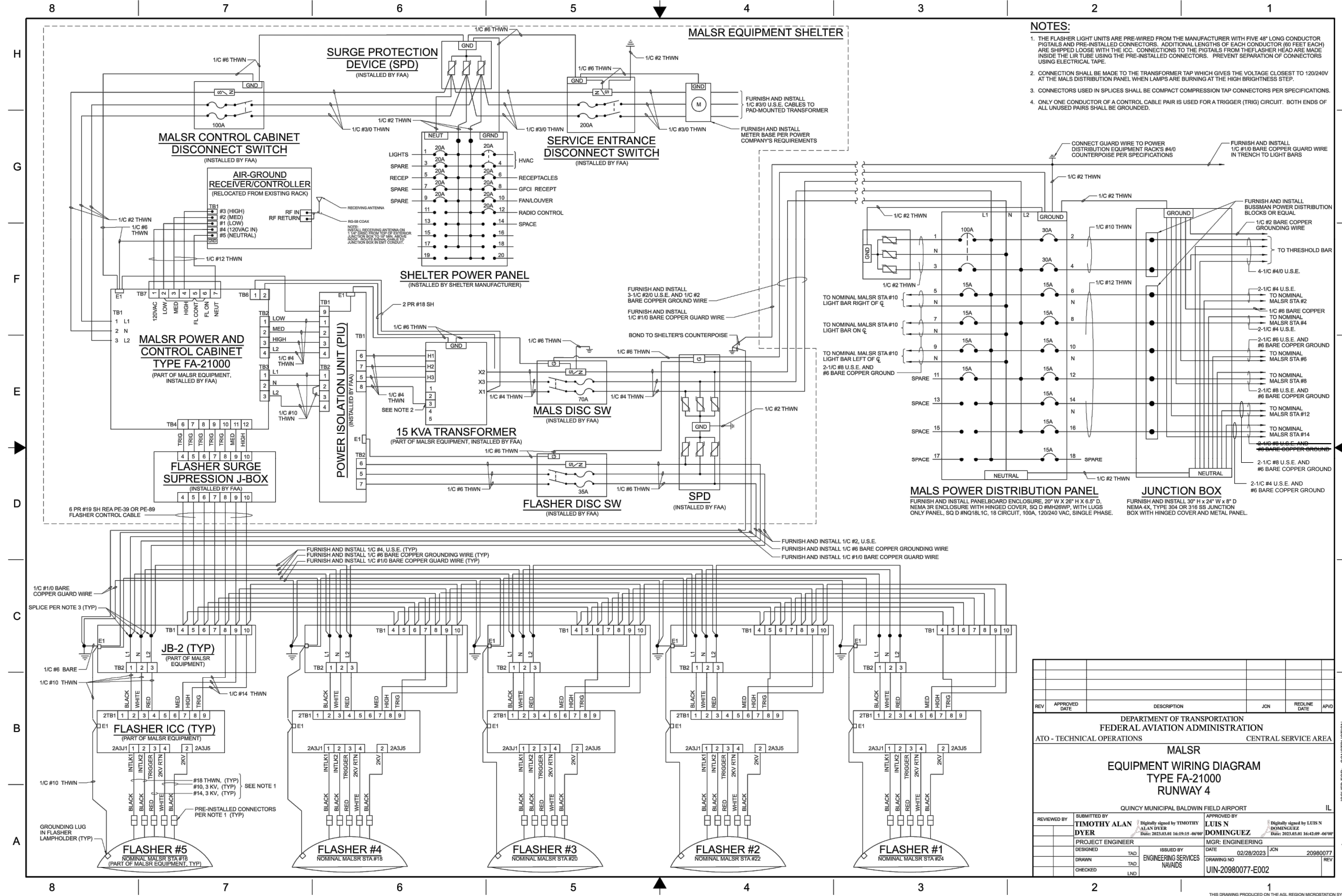
COPYRIGHT:

SHEET TITLE

# EQUIPMENT WIRING DIAGRAM

MALSR-E002  
99 OF 143

- NOTES:**
- THE FLASHER LIGHT UNITS ARE PRE-WIRED FROM THE MANUFACTURER WITH FIVE 48" LONG CONDUCTOR PIGTAILS AND PRE-INSTALLED CONNECTORS. ADDITIONAL LENGTHS OF EACH CONDUCTOR (60 FEET EACH) ARE SHIPPED LOOSE WITH THE I.C. CONNECTIONS TO THE PIGTAILS FROM THE FLASHER HEAD ARE MADE INSIDE THE LIR TUBE USING THE PRE-INSTALLED CONNECTORS. PREVENT SEPARATION OF CONNECTORS USING ELECTRICAL TAPE.
  - CONNECTION SHALL BE MADE TO THE TRANSFORMER TAP WHICH GIVES THE VOLTAGE CLOSEST TO 120V/240V AT THE MALSR DISTRIBUTION PANEL WHEN LAMPS ARE BURNING AT THE HIGH BRIGHTNESS STEP.
  - CONNECTORS USED IN SPLICES SHALL BE COMPACT COMPRESSION TAP CONNECTORS PER SPECIFICATIONS.
  - ONLY ONE CONDUCTOR OF A CONTROL CABLE PAIR IS USED FOR A TRIGGER (TRIG) CIRCUIT. BOTH ENDS OF ALL UNUSED PAIRS SHALL BE GROUNDED.



REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APV

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS      CENTRAL SERVICE AREA

**MALSR  
EQUIPMENT WIRING DIAGRAM  
TYPE FA-21000  
RUNWAY 4**

QUINCY MUNICIPAL BALDWIN FIELD AIRPORT

REVIEWED BY	SUBMITTED BY	APPROVED BY
	TIMOTHY ALAN DYER	LUIS N DOMINGUEZ
DESIGNED	TAD	DATE
DRAWN	TAD	02/28/2023
CHECKED		ISSUED BY
		ENGINEERING SERVICES
		NAVAIDS
		DATE
		02/28/2023
		JCN
		20980077
		REV

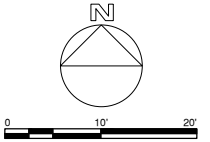
UIN-20980077-E002

THIS DRAWING PRODUCED ON THE AASL REGION MICROSTATION SYSTEM

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UIN-D-MALSR04-C002	= MALSR-C002	UIN-D-MALSR04-C011	= MALSR-C011
UIN-D-MALSR04-C003	= MALSR-C003	UIN-D-MALSR04-A001	= MALSR-A001
UIN-D-MALSR04-C004	= MALSR-C004	UIN-D-MALSR04-A002	= MALSR-A002
UIN-D-MALSR04-C005	= MALSR-C005	GLSD-D-LTNGPROT-E001	= MALSR-A003
UIN-D-MALSR04-C006	= MALSR-C006	UIN-D-MALSR04-E001	= MALSR-E001
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UIN-D-MALSR04-C008	= MALSR-C008	UIN-D-MALSR04-S001	= MALSR-S001
UIN-D-MALSR04-C009	= MALSR-C009		

**NOTE:**  
REFER TO SPECIFICATION SECTION SP-1-1.7, OWNER FURNISHED EQUIPMENT & THE NUMBERED LEGEND ON SHEET MALSR-A002 FOR EQUIPMENT TO BE PROVIDED BY THE FAA AT NO COST TO THE CONTRACTOR.

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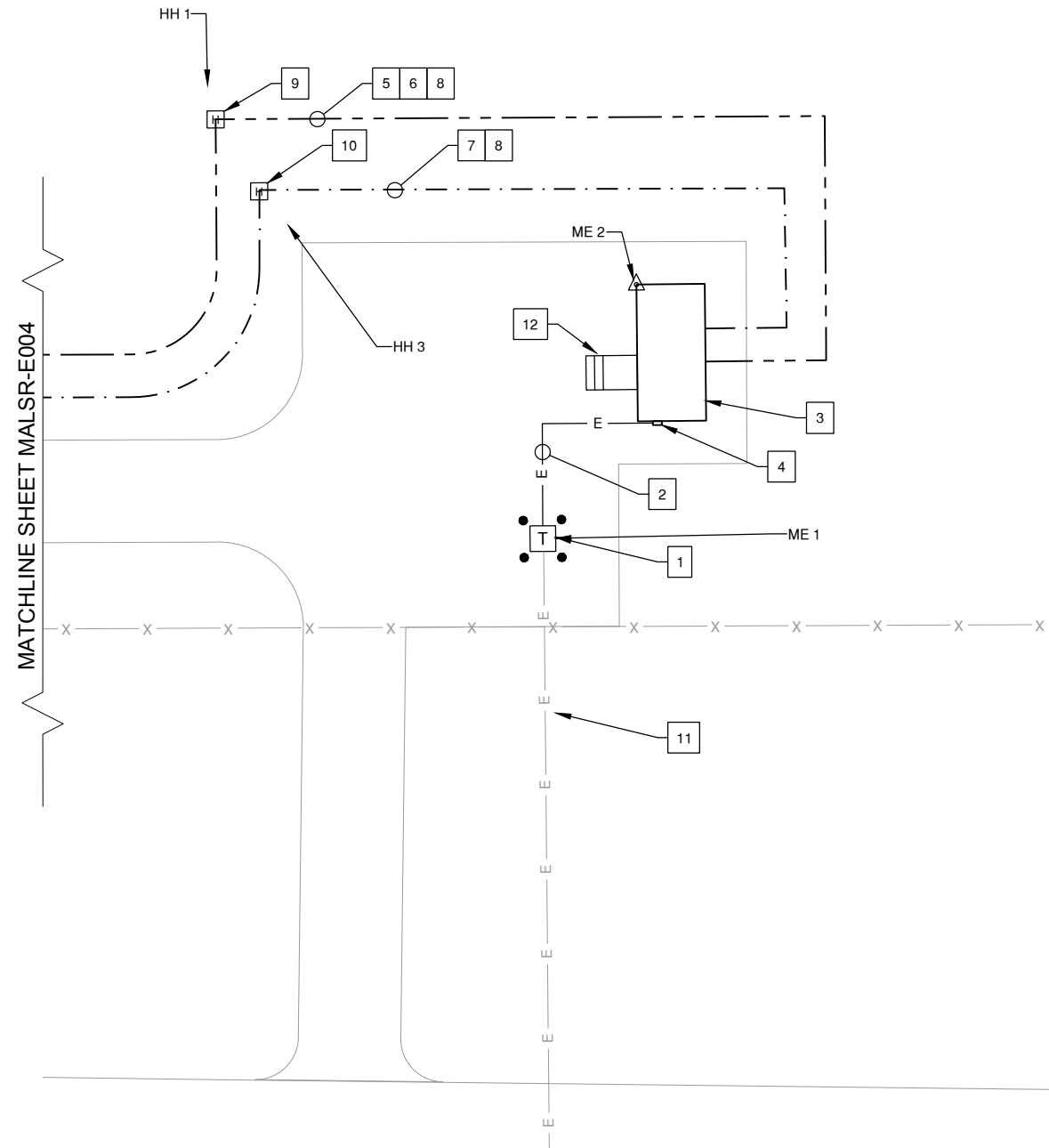
BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL



**GENERAL NOTES**

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

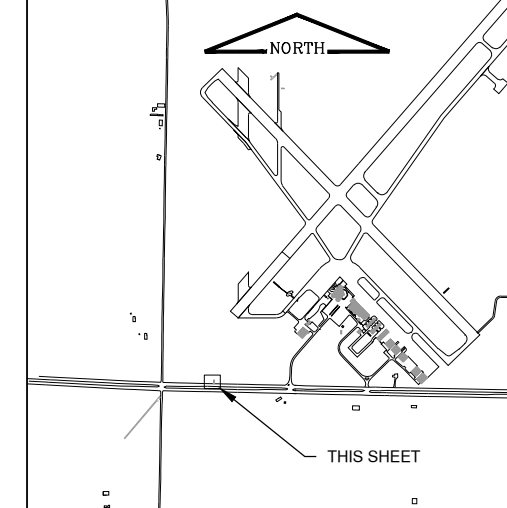
**NUMBERED LEGEND**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li><b>1</b> EXISTING PAD MOUNTED TRANSFORMER, PRIMARY TO 120/240V, SINGLE PHASE</li> <li><b>2</b> 3-1/8" #3/0 USE &amp; #2 GREEN USE GROUND POWER CABLES IN 2" GRS CONDUIT FROM UTILITY TRANSFORMER TO MALSR SHELTER</li> <li><b>3</b> PREFABRICATED 8' X 16' MALSR EQUIPMENT SHELTER INSTALLED ON FOUNDATION CONSTRUCTED BY THE CONTRACTOR, SEE MALSR - A001</li> <li><b>4</b> UTILITY METER &amp; METER BASE. METER TO BE SUPPLIED BY UTILITY COMPANY &amp; BASE TO BE FURNISHED AND INSTALLED BY CONTRACTOR PER UTILITY REQUIREMENTS</li> <li><b>5</b> 3-1/8" #2/0 USE &amp; 1/8" #2 BARE COPPER GROUNDING WIRE IN 2-1/2" PVC CONDUIT (MALSR DISTRIBUTION PANEL)</li> <li><b>6</b> 3-1/8" #2 USE &amp; 1/8" #6 BARE COPPER GROUNDING WIRE IN 2" PVC CONDUIT (FLASHER POWER)</li> </ul> | <ul style="list-style-type: none"> <li><b>7</b> 6 PAIR FLASHER CONTROL CABLE IN 2" PVC CONDUIT (FLASHER CONTROL)</li> <li><b>8</b> #1/0 BARE COPPER GUARD WIRE</li> <li><b>9</b> MALSR POWER HANDHOLE</li> <li><b>10</b> FLASHER CONTROLS HANDHOLE</li> <li><b>11</b> EXISTING PRIMARY FEED TO REMAIN</li> <li><b>12</b> 4'X6' CONCRETE STAIRS</li> </ul> |
|---|---|

**LEGEND**

- MALSR POWER
- RAIL POWER AND CONTROL
- HANDHOLE
- JUNCTION BOX
- MALSR TOWER
- RAIL TOWER

**KEY MAP**

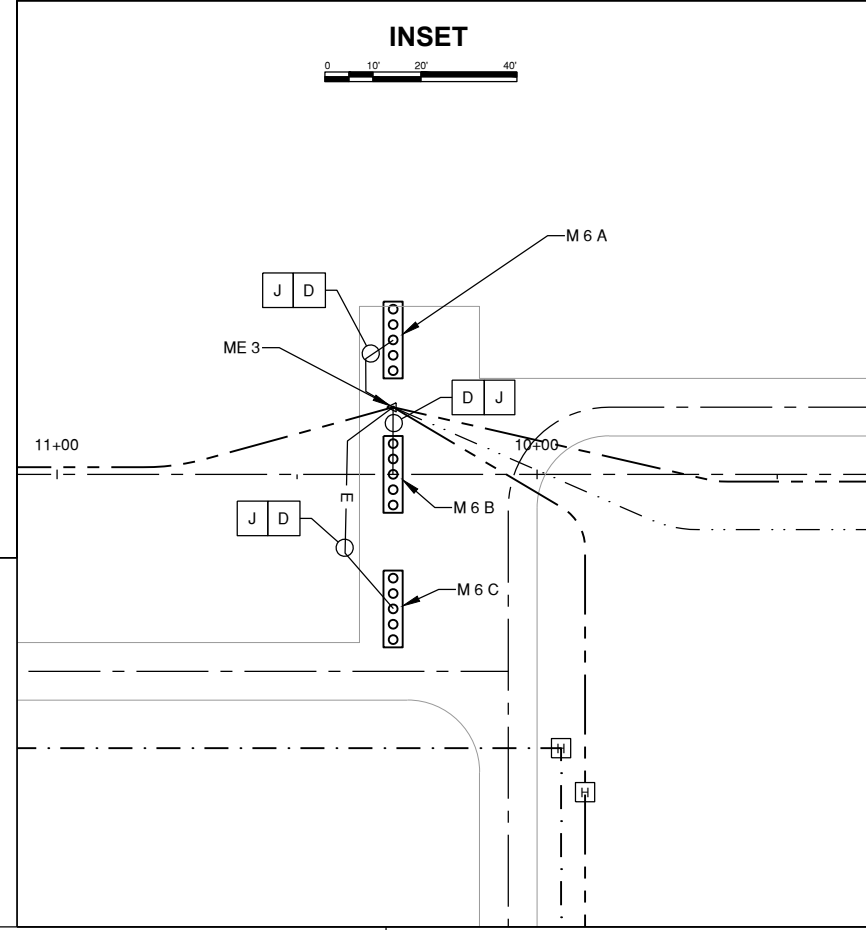
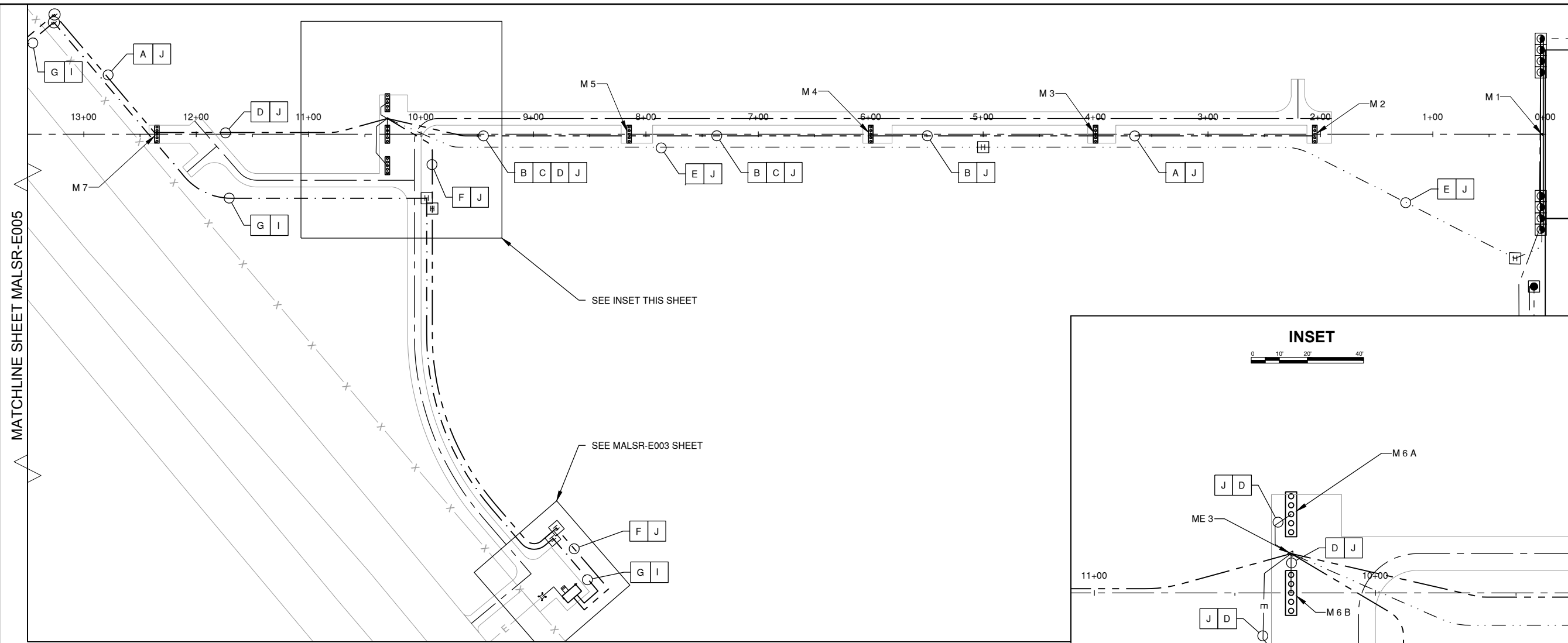
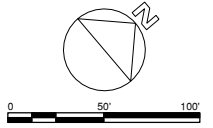


MARK	DATE	DESCRIPTION

SHEET TITLE  
**MALSR SHELTER  
ELECTRICAL SITE  
PLAN**

**MALSR-E003**  
SHEET 100 OF 143

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BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

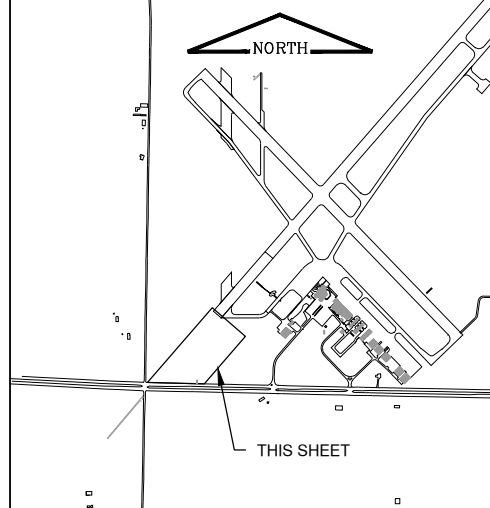
LEGEND

- MALS POWER
- - - RAIL POWER AND CONTROL
- [H] HANDHOLE
- [J] JUNCTION BOX
- [M] MALS TOWER
- [R] RAIL TOWER
- [L] RUNWAY THRESHOLD LIGHTS

CABLE LEGEND

- [A] 2-1/C #4 USE & 1/C #6 BARE COPPER GROUNDING WIRE IN 2" PVC CONDUIT
- [B] 4-1/C #4 USE & 1/C #6 BARE COPPER GROUNDING WIRE IN 2" PVC CONDUIT
- [C] 2-1/C #6 USE & 1/C #6 BARE COPPER GROUNDING WIRE IN 2" PVC CONDUIT
- [D] 2-1/C #8 USE & 1/C #6 BARE COPPER GROUNDING WIRE IN 2" PVC CONDUIT
- [E] 4-1/C #4/0 USE & 1/C #2 BARE COPPER GROUNDING WIRE IN 3" PVC CONDUIT
- [F] 3-1/C #2/0 USE & 1/C #2 BARE COPPER GROUNDING WIRE IN 2-1/2" PVC CONDUIT
- [G] 3-1/C #2 USE & 1/C #6 BARE COPPER GROUNDING WIRE IN 2" PVC CONDUIT
- [H] 3-1/C #4 USE & 1/C #6 BARE COPPER GROUNDING WIRE IN 2" PVC CONDUIT
- [I] 6 PAIR FLASHER CONTROL CABLE IN 2" PVC CONDUIT
- [J] #1/0 BARE COPPER GUARD WIRE

KEY MAP

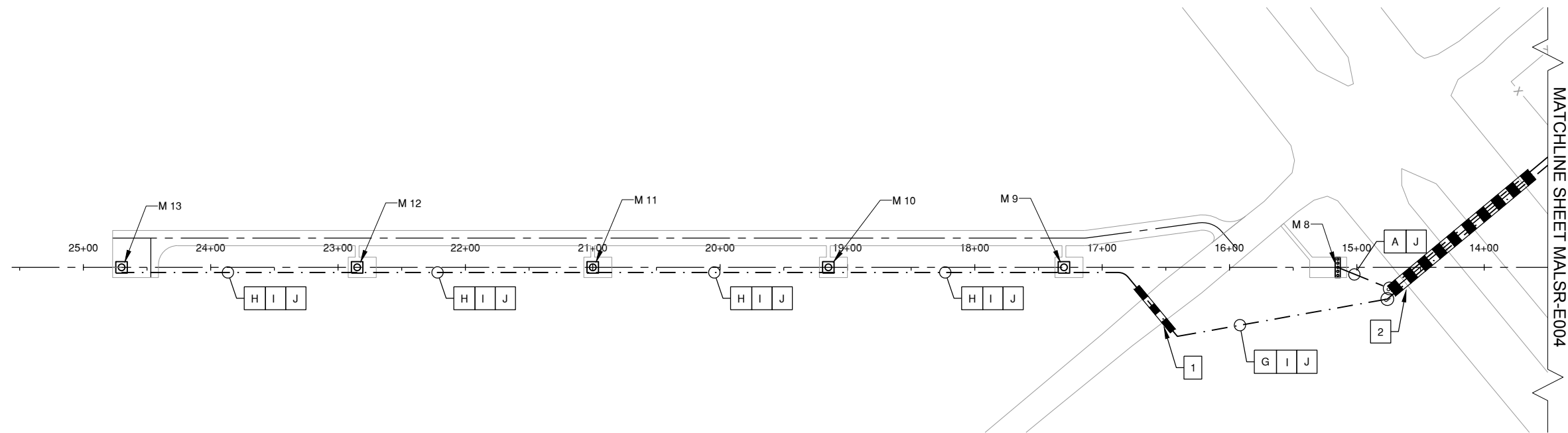
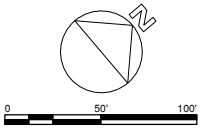


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		DESIGNED BY: HWI
		DRAWN BY: DPA
		CHECKED BY: MJD
		APPROVED BY: RLV
		COPYRIGHT:

SHEET TITLE  
**MALSRL CABLING PLAN**  
1

**MALSRL-E004**  
SHEET 101 OF 143

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

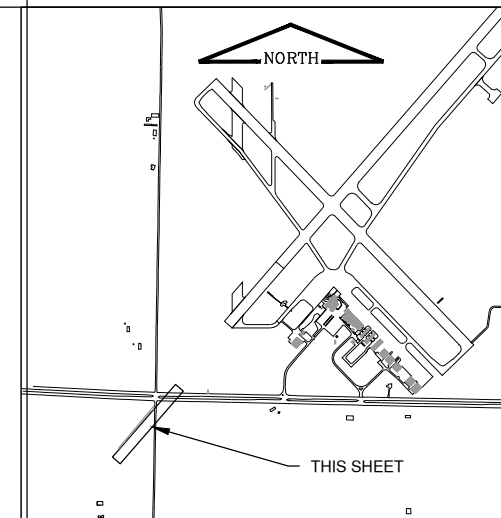
LEGEND

- MALS POWER
- . - . - . RAIL POWER AND CONTROL
- [H] HANDHOLE
- (J) JUNCTION BOX
- [M] MALS TOWER
- [T] RAIL TOWER

CABLE LEGEND

- A 2-1/C #4 USE & 1/C #6 BARE COPPER GROUNDING WIRE IN 2" PVC CONDUIT
- B 4-1/C #4 USE & 1/C #6 BARE COPPER GROUNDING WIRE IN 2" PVC CONDUIT
- C 2-1/C #6 USE & 1/C #6 BARE COPPER GROUNDING WIRE IN 2" PVC CONDUIT
- D 2-1/C #8 USE & 1/C #6 BARE COPPER GROUNDING WIRE IN 2" PVC CONDUIT
- E 4-1/C #4/0 USE & 1/C #2 BARE COPPER GROUNDING WIRE IN 3" PVC CONDUIT
- F 3-1/C #2/0 USE & 1/C #2 BARE COPPER GROUNDING WIRE IN 2-1/2" PVC CONDUIT
- G 3-1/C #2 USE & 1/C #6 BARE COPPER GROUNDING WIRE IN 2" PVC CONDUIT
- H 3-1/C #4 USE & 1/C #6 BARE COPPER GROUNDING WIRE IN 2" PVC CONDUIT
- I 6 PAIR FLASHER CONTROL CABLE IN 2" PVC CONDUIT
- J #1/0 BARE COPPER GUARD WIRE
- 1 CONDUIT PUSHED 2-2"
- 2 CONDUIT PUSHED 3-2"

KEY MAP



MARK | DATE | DESCRIPTION

MARK	DATE	DESCRIPTION
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SHEET TITLE  
**MALS-R CABLING PLAN**  
**2**

**MALS-R-E005**  
SHEET 102 OF 143

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK | DATE | DESCRIPTION

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DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: MJJ

APPROVED BY: RLV

COPYRIGHT:

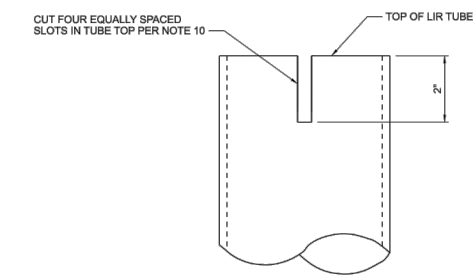
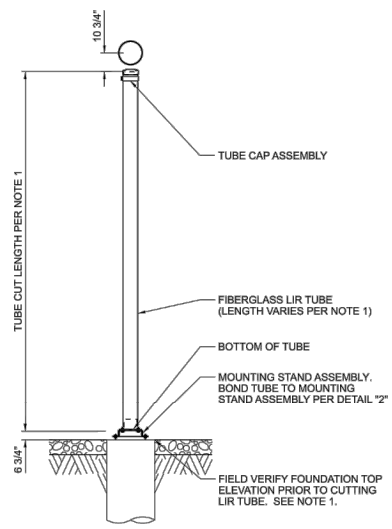
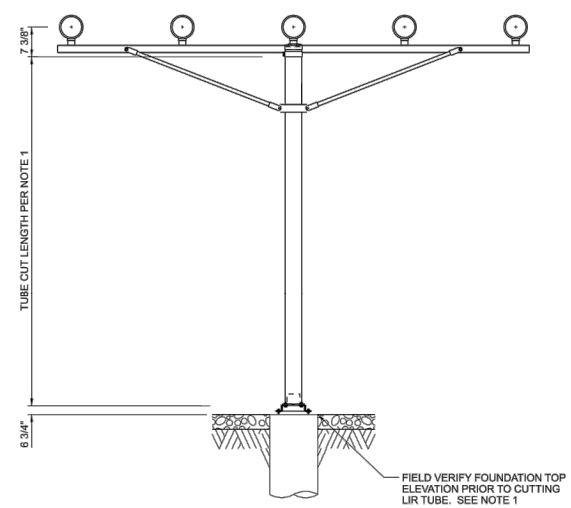
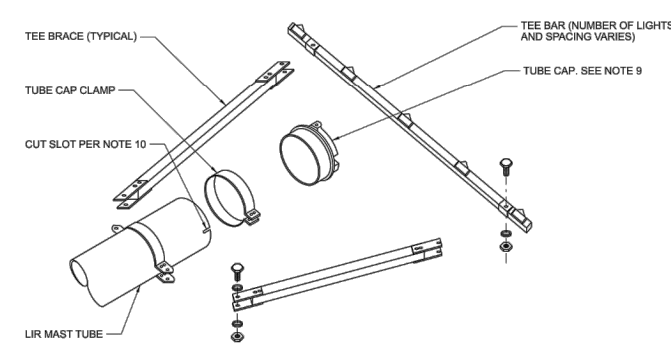
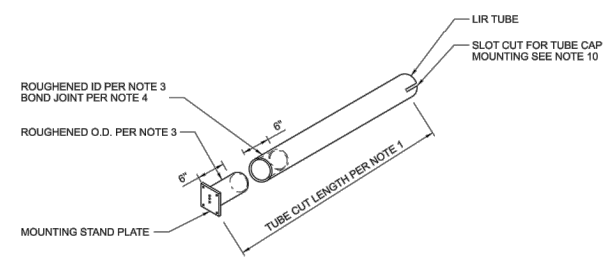
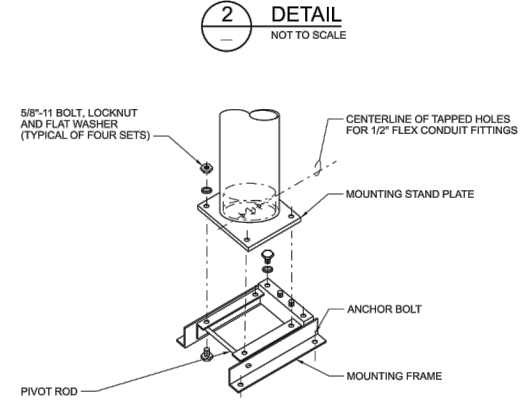
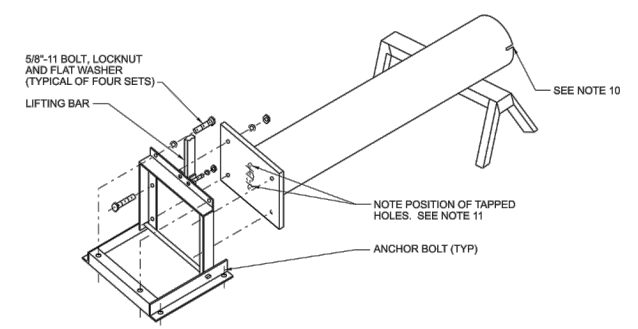
SHEET TITLE

LIR STRUCTURE  
ASSEMBLY & INST.  
DETAILS

MALSR-S001  
SHEET 103 OF 143

NOTES:

- THE CONTRACTOR SHALL ESTABLISH TOP OF FOUNDATION ELEVATION PER PLAN AND PROFILE DRAWINGS AND VERIFY THE ACTUAL FOUNDATION TOP ELEVATION (FOR EACH LIGHT BAR AT A STATION) PRIOR TO CUTTING THE LIR TUBE. THE REQUIRED CUT LENGTH SHALL BE DETERMINED AS FOLLOWS:  
PAR-38 LAMPS ON MG-20 TOWER = LAMP  $\phi$  ELEVATION - T/F ELEVATION - 1.2' (- 1.7' W/FUSE BOLTS)  
FLASHER ON MG-20 TOWER = FLASHER  $\phi$  ELEVATION - T/F ELEVATION - 1.5' (- 2.0' W/FUSE BOLTS)
- CUT TUBE USING A TABLE SAW WITH A DIAMOND OR CARBIDE ABRASIVE BLADE. SAW CUTS SHALL BE PERPENDICULAR TO THE TUBE AXIS. DEBURR CUT EDGES.
- USE EMERY CLOTH TO ABRASE THE SURFACES TO BE BONDED TO THE STAND PLATE PER DETAIL "4". CLEAN THE ROUGHENED SURFACES WITH A SOLVENT (TRICHLOROETHYLENE, ACETONE, OR METHYL ETHYL KETONE).
- CONTRACTOR SHALL BOND EACH JOINT BY SPREADING A LIGHT COAT OF MIXED ADHESIVE ON BOTH SURFACES TO BE BONDED. SLOWLY SLIDE THE TUBE ONTO THE STAND PLATE, WHILE ROTATING IT TO EXCLUDE AIR. THE BONDING ADHESIVE MATERIALS: 2-PART EPOXY, FUSOR 304-1 RESIN AND 304-2 HARDENER, FUSOR 304-1 AND 304-2, JAQUITH CAT. #L-5008. THE ADHESIVE MUST BE MIXED AND CURED IN AIR TEMPERATURES BELOW 67°F. CURING IS COMPLETE AFTER 48 HOURS. SEE MANUFACTURER'S INSTRUCTIONS.
- ASSEMBLE LIR STRUCTURES IN HORIZONTAL POSITION PER DETAIL "2". WHEN LOWERING TOWER, SECURE MOUNTING STAND ON ANCHOR BOLTS. REMOVE TWO 5/8" BOLTS AT REAR OF MOUNTING STAND ASSEMBLY, AND PIVOT INNER SECTION UP TO VERTICAL POSITION. PLACE STAND PLATE (BOTTOM OF MAST) OVER FOUR 5/8" STUDS IN MOUNTING STAND, AND FASTEN WITH HEX NUTS. NOTE POSITION OF TAPPED HOLES IN STAND PLATE. HOLES MUST BE POSITIONED TO ACCOMMODATE INSTALLATION OF TUBE CAP AND TEE BAR ASSEMBLY PER DETAIL "4".
- SEE INSTRUCTION BOOK TI 6850.77 FOR ADDITIONAL ASSEMBLY INSTRUCTIONS.
- WASTE TUBE SECTIONS GREATER THAN 10' LONG SHOULD BE SAVED AS SPARES.
- TEE BAR SHALL BE ALIGNED PERPENDICULAR TO RUNWAY CENTERLINE.
- A SMALL HOLE MUST BE CUT IN THE RUBBER LINER OF TUBE CAP TO ALLOW ACCESS FOR TEE BAR WIRING INSTALLATION. DO NOT REMOVE RUBBER LINER.
- SAWCUT FOUR 2" LONG SLOTS, EQUALLY SPACED AROUND PERIMETER, IN TOP OF LIR TUBE TO ALLOW EASY INSERTION OF TUBE CAP. DRILL EACH SLOT WITH A 3/32" DIAMETER HOLE AND FILL WITH RTV SILICONE SEALANT.



FIELD CUT SLOTS AND HOLES  
6 DETAIL  
NOT TO SCALE

REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APV

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
ATO - TECHNICAL OPERATIONS      CENTRAL SERVICE AREA

MALSR  
LOW IMPACT RESISTANT (LIR) STRUCTURE  
ASSEMBLY AND INSTALLATION DETAILS  
JAQUITH INDUSTRIES MG-20

QUINCY MUNICIPAL BALDWIN FIELD AIRPORT      IL

REVIEWED BY	SUBMITTED BY	APPROVED BY
	TIMOTHY ALAN DYER	LUIS N DOMINGUEZ
	Digitally signed by TIMOTHY ALAN DYER Date: 2023.03.01 16:20:45 -0600	Digitally signed by LUIS N DOMINGUEZ Date: 2023.03.01 16:42:27 -0600
PROJECT ENGINEER	TAD	MGR: ENGINEERING - CENTER A
DESIGNED	TAD	DATE: 02/28/2023    JCN: 20980077
DRAWN	TAD	DRAWING NO: UIN-20980077-S001
CHECKED	LNJ	REV:

THIS DRAWING PRODUCED ON THE AIAA REGION MICROSTATION SYSTEM

FAA SHEET	CMT SHEET	FAA SHEET	CMT SHEET
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UIN-D-MALSR04-C004 =	MALSR-C004	UIN-D-MALSR04-A002 =	MALSR-A002
UIN-D-MALSR04-C005 =	MALSR-C005	GLSD-D-LTNGPROT-E001 =	MALSR-A003
UIN-D-MALSR04-C006 =	MALSR-C006	UIN-D-MALSR04-E001 =	MALSR-E001
UIN-D-MALSR04-C007 =	MALSR-C007	UIN-D-MALSR04-E002 =	MALSR-E002
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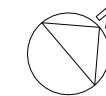
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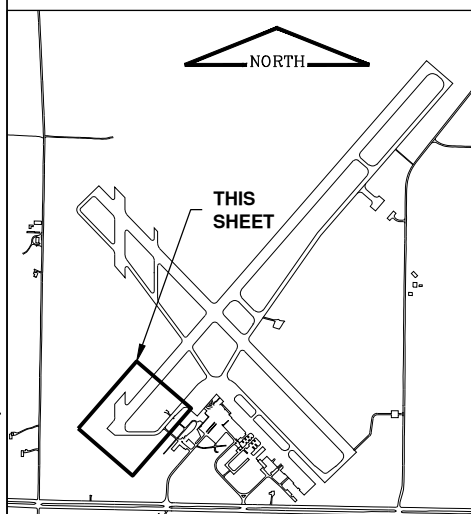
License No. 184-000613

CONSULTANTS



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

### KEYMAP



### LEGEND

- PROPOSED RUNWAY MARKING (W/B)
- PROPOSED TAXIWAY CENTERLINE MARKING (Y/B)
- PROPOSED ENHANCED TAXIWAY CENTERLINE (Y/B)
- PROPOSED HOLDING POSITION MARKING (Y/B)
- PROPOSED SURFACE PAINTED HOLD POSITION MARKING (R/W/B)
- REMOVE EXISTING MARKING
- EXISTING MARKING TO REMAIN

### NOTES

1. PAINT SHALL BE APPLIED IN TWO COATS.
2. GLASS BEADS SHALL BE APPLIED TO WHITE, YELLOW, AND RED PAINT AT THE APPROPRIATE RATES SPECIFIED IN P-620.
3. BLACK PAINT SHALL NOT RECEIVE GLASS BEADS.
4. FIRST CONTINUOUS LINE IN THE HOLDLINE POSITION MARKING ON THE TAXIWAY SIDE SHALL BE 258' FROM THE MARKED RUNWAY CENTERLINE. SEE SHEET CM503; DETAIL 1.

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

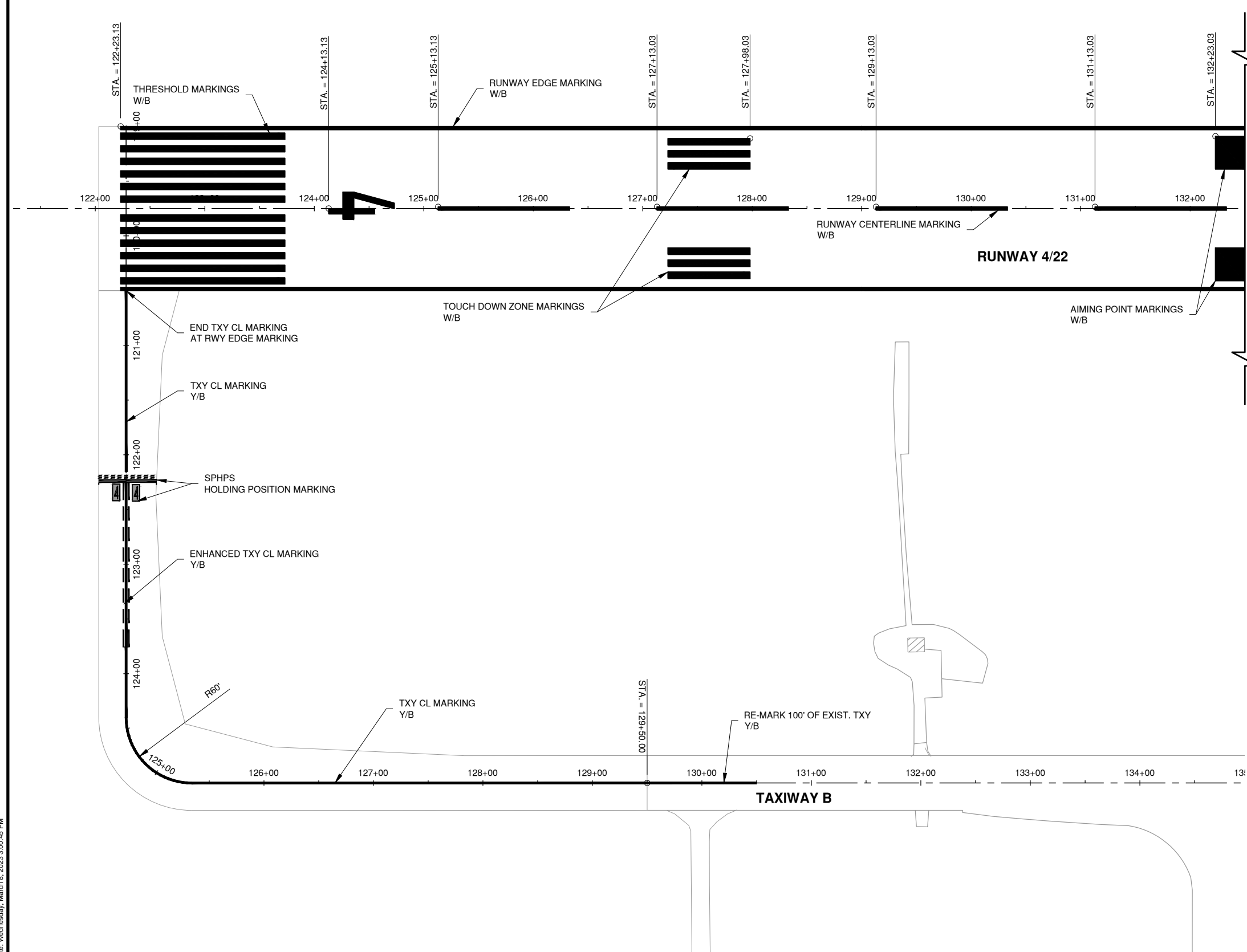
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DRAWN BY:	DPA
CHECKED BY:	CHK
APPROVED BY:	APR
COPYRIGHT:	

SHEET TITLE  
**MARKING PLAN 1**

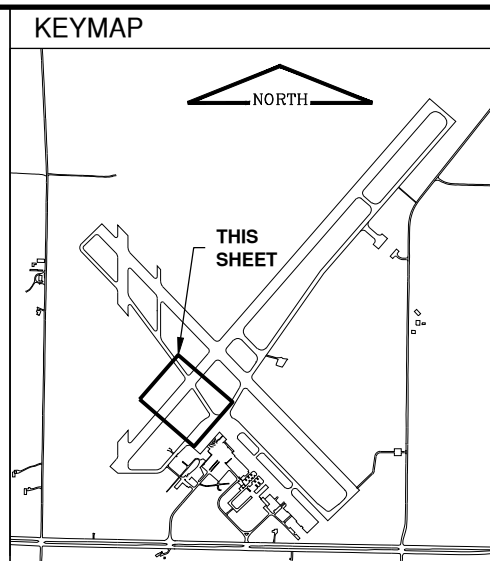
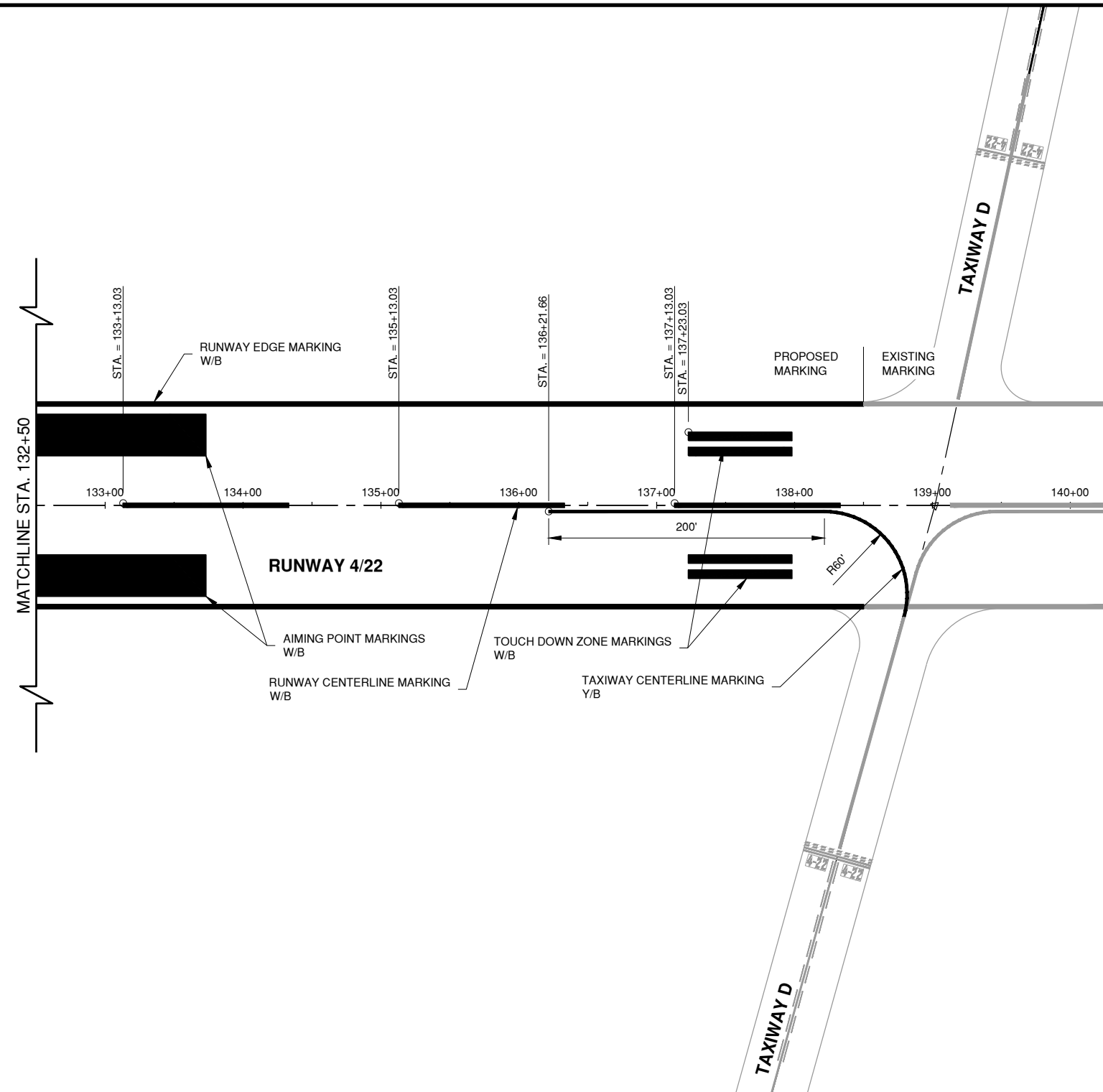
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SHEET 104 OF 143

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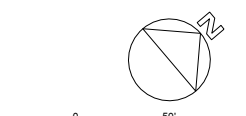
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License No. 184-000613

CONSULTANTS



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

**LEGEND**

- PROPOSED RUNWAY MARKING (W/B)
- PROPOSED TAXIWAY CENTERLINE MARKING (Y/B)
- PROPOSED ENHANCED TAXIWAY CENTERLINE (Y/B)
- PROPOSED HOLDING POSITION MARKING (Y/B)
- PROPOSED SURFACE PAINTED HOLD POSITION MARKING (R/W/B)
- REMOVE EXISTING MARKING
- EXISTING MARKING TO REMAIN

**NOTES**

1. PAINT SHALL BE APPLIED IN TWO COATS.
2. GLASS BEADS SHALL BE APPLIED TO WHITE, YELLOW, AND RED PAINT AT THE APPROPRIATE RATES SPECIFIED IN P-620.
3. BLACK PAINT SHALL NOT RECEIVE GLASS BEADS.
4. FIRST CONTINUOUS LINE IN THE HOLDLINE POSITION MARKING ON THE TAXIWAY SIDE SHALL BE 258' FROM THE MARKED RUNWAY CENTERLINE. SEE SHEET CM503; DETAIL 1.

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MARCH 08, 2023

**RECONSTRUCT RUNWAY 4/22  
PHASE 4**

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO:	3-17-0085-XX
IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CM100.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	###
APPROVED BY:	###
COPYRIGHT:	

SHEET TITLE  
**MARKING PLAN 2**

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Date: Wednesday, March 8, 2023 4:44:39 PM

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



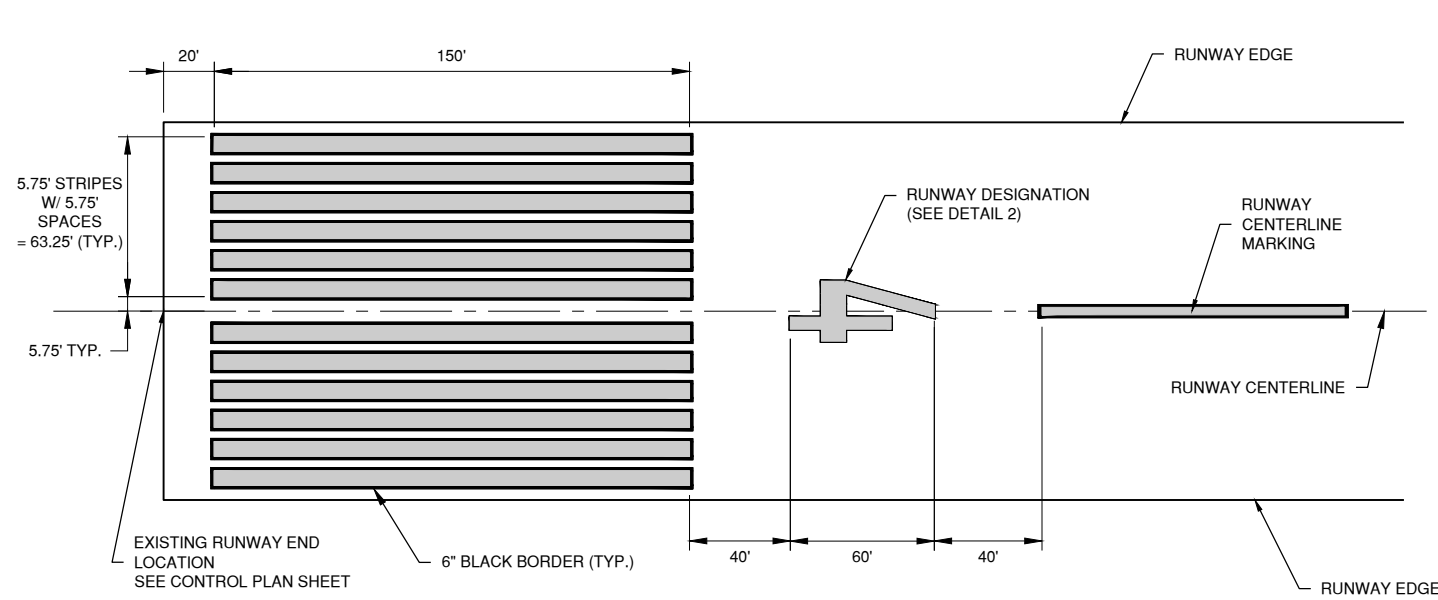
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

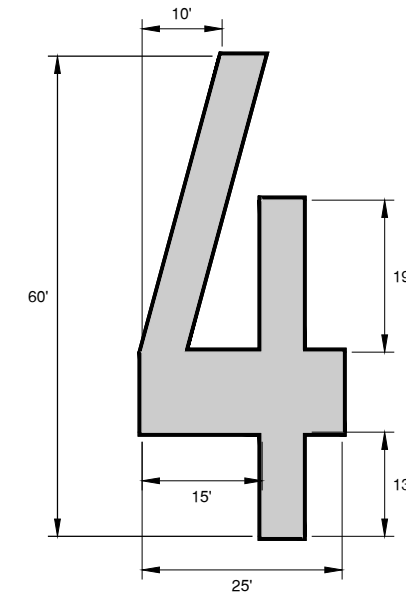
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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CM500.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	MJD
APPROVED BY:	RLV
COPYRIGHT:	

SHEET TITLE  
**MARKING DETAILS 1**

CM501  
SHEET 106 OF 143



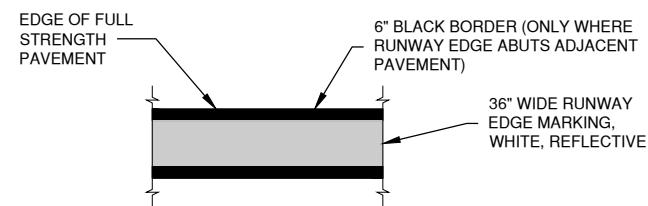
**1 RUNWAY THRESHOLD**  
N.T.S.



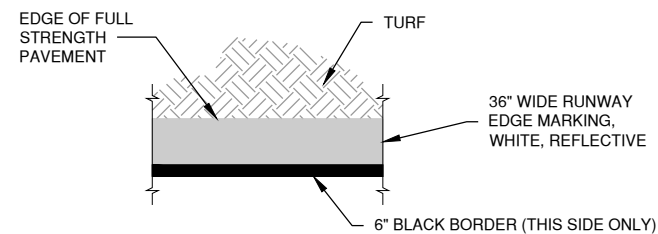
**2 RUNWAY DESIGNATION - 4**  
N.T.S. (602 SF WHITE; 107 SF BLACK)

**RUNWAY DESIGNATION NOTE**

- ALL CHARACTER HAVE THE FOLLOWING FEATURES UNLESS OTHERWISE SPECIFIED.
  - 60' HIGH
  - 20' WIDE
  - VERTICAL STROKE 5'
  - HORIZONTAL STROKE 10'
  - DIAGONAL STROKE 5'
  - 6" BLACK BORDER
- ALL NUMERALS ARE SPACED 15' APART.
- SINGLE DIGITS MUST NOT BE PRECEDED BY ZERO.
- SINGLE DESIGNATIONS ARE LOCATED ON THE RUNWAY PAVEMENT CENTERLINE. FOR DOUBLE DESIGNATIONS, THE OUTER EDGES OF THE TWO NUMERALS IS CENTERED ON THE RUNWAY PAVEMENT CENTERLINE.



**4 RUNWAY EDGE, CONTINUOUS**  
N.T.S.



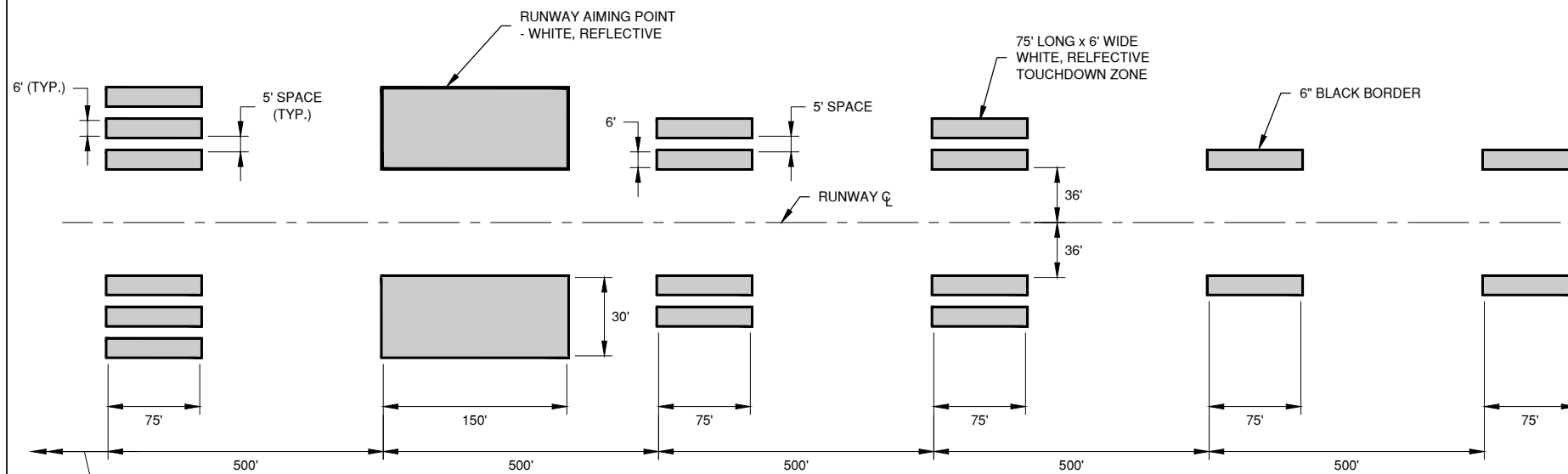
**4A RUNWAY EDGE, CONTINUOUS (TURF EDGE)**  
N.T.S.



**5 RUNWAY CENTERLINE, DASHED**  
N.T.S.

**RUNWAY CENTERLINE NOTE**

- THE DISTANCE BETWEEN STRIPES SHALL BE 80' OR AS NOTED ON THE PROPOSED MARKING SHEETS.
- CENTERLINE STRIPES ARE CENTERED ABOUT THE RUNWAY CENTERLINE.



**6 RUNWAY TOUCHDOWN ZONE**  
N.T.S.

BLACK BORDER SHALL NOT HAVE REFLECTIVE MEDIA

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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 CM500.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

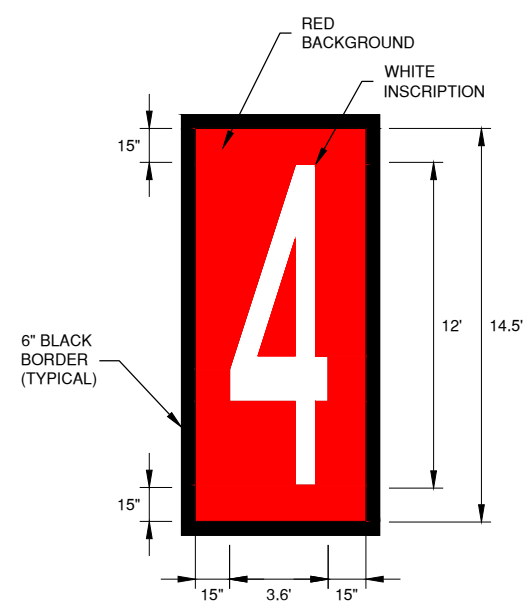
CHECKED BY: MJD

APPROVED BY: RLV

COPYRIGHT:

SHEET TITLE

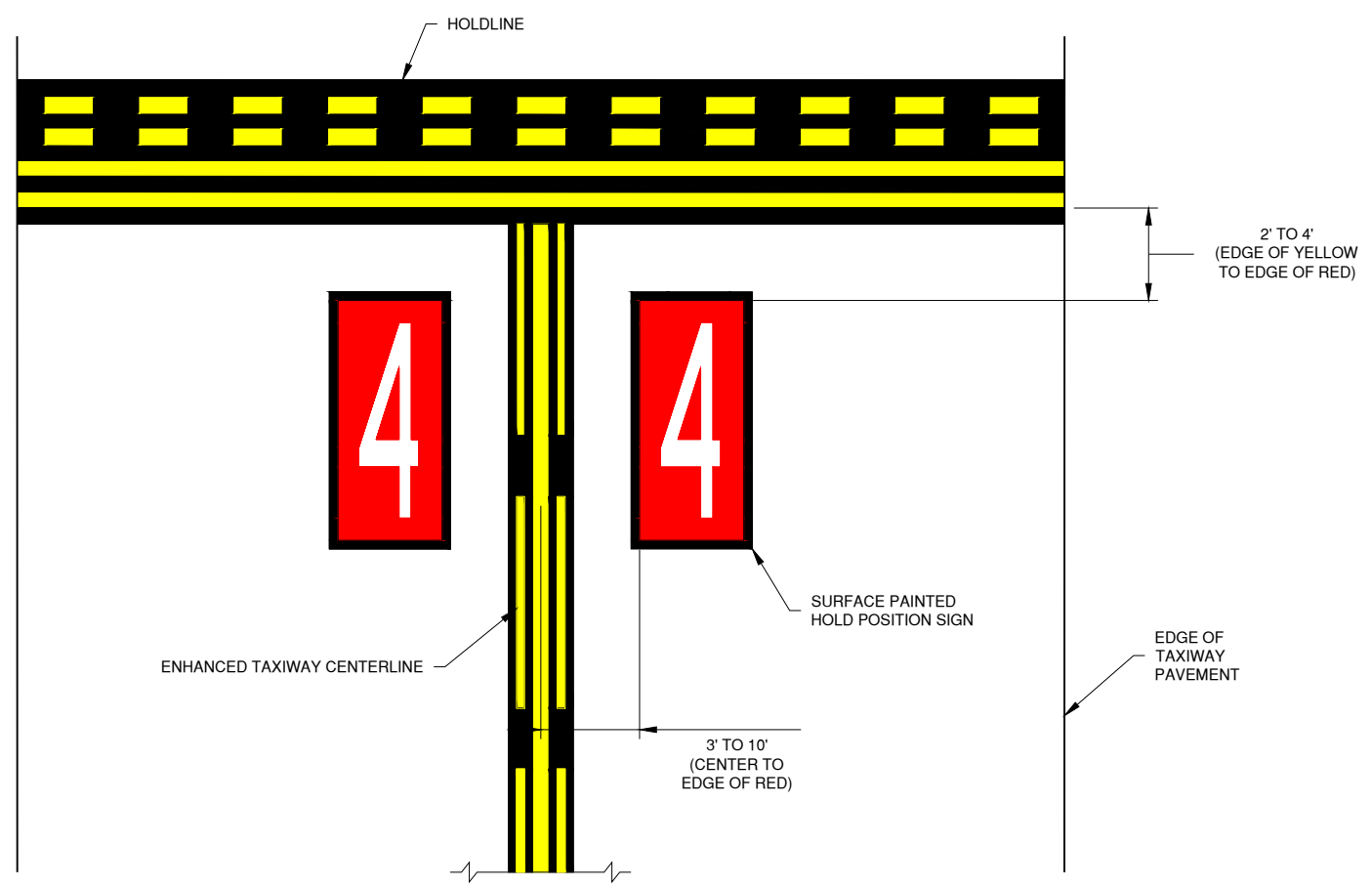
**MARKING DETAILS 2**



ONLY THE BLACK BORDER SHALL  
NOT HAVE REFLECTIVE MEDIA

- SPHPS NOTES**
1. THE APPEARANCE OF THE NUMBERS MUST BE PER APPENDIX B OF THE CURRENT PAVEMENT MARKING ADVISORY CIRCULAR (150/5340-1M).
  2. CONTRACTOR SHALL SUPPLY THE AIRPORT WITH THE SPHPS TEMPLATE FOR USE ON FUTURE REMARKING.
  3. REFER TO P-620 SPEC FOR GLASS BEAD APPLICATION RATE ON RED MARKING.

**1** SURFACE PAINTED HOLDING POSITION SIGN  
N.T.S. (SPHPS)



**2** SPHPS POSITION  
N.T.S.

Path: K:\Quincy\AP\180020-01\_ReconRunway4-22\DrawRwy4\Sheets\180020-01\_PH4\_CM500.dwg  
Date: Wednesday, March 8, 2023 3:00:53 PM

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 CM500.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: MJD

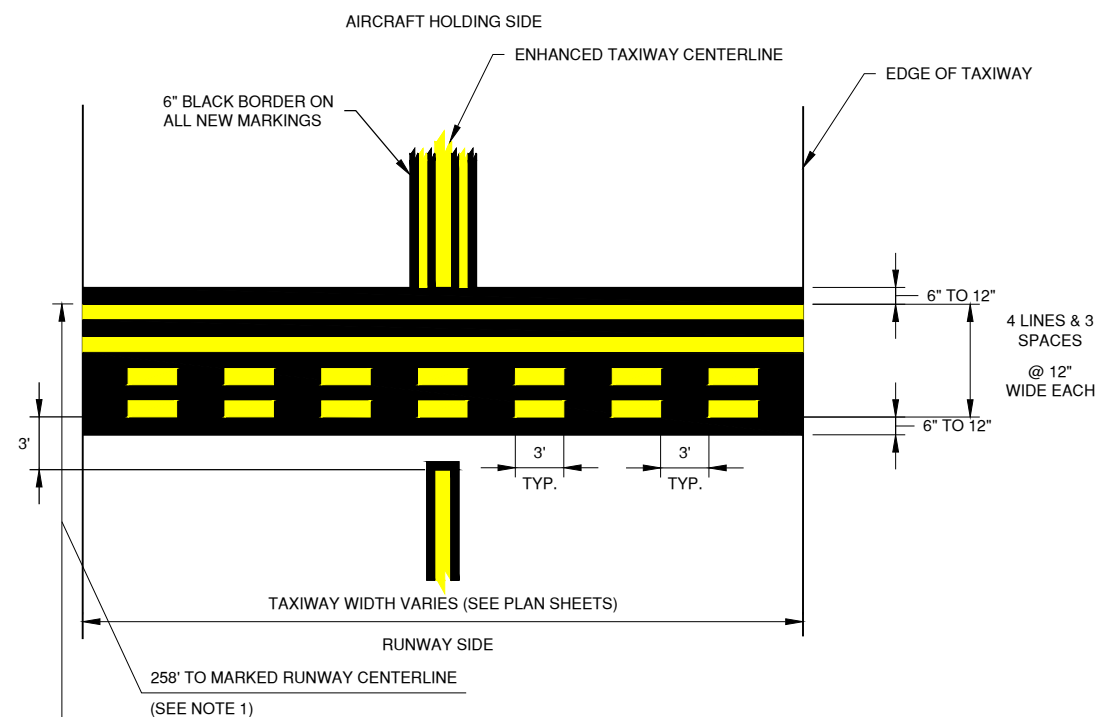
APPROVED BY: RLV

COPYRIGHT:

SHEET TITLE

**MARKING DETAILS 3**

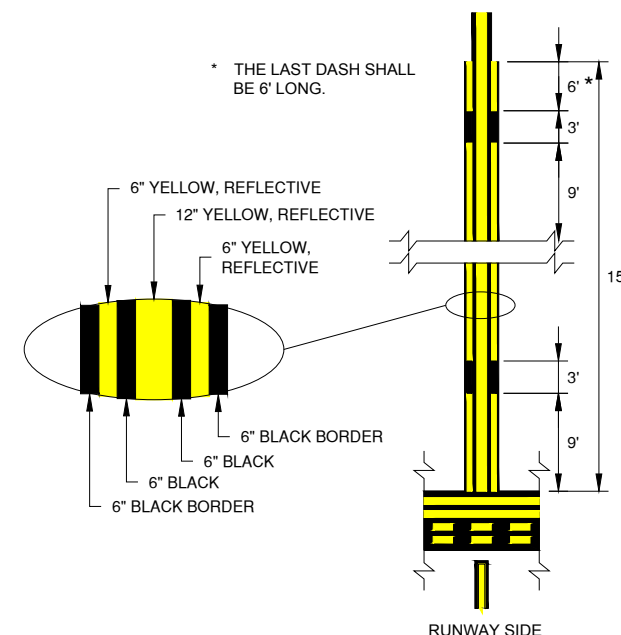
CM503  
SHEET 108 OF 143



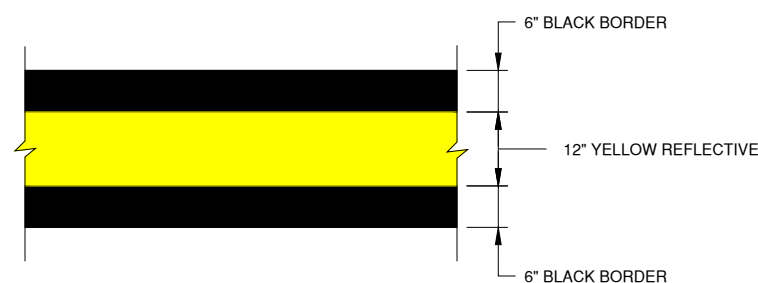
**1** ENHANCED RUNWAY HOLDING POSITION  
N.T.S.

**MARKING NOTE**

- FIRST CONTINUOUS LINE IN THE HOLD POSITION MARKING ON THE TAXIWAY SIDE SHALL BE 258' FROM THE MARKED RUNWAY CENTERLINE.



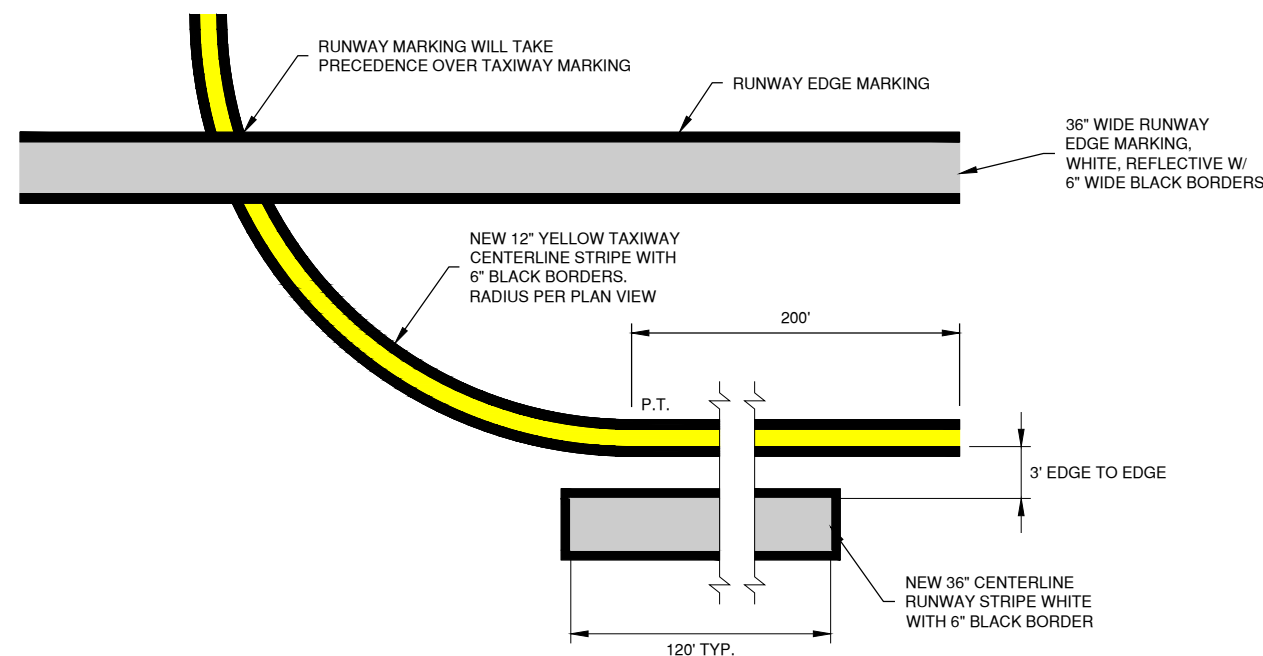
**3** ENHANCED TAXIWAY CENTERLINE  
N.T.S.



**2** TAXIWAY CENTERLINE DETAIL  
N.T.S.

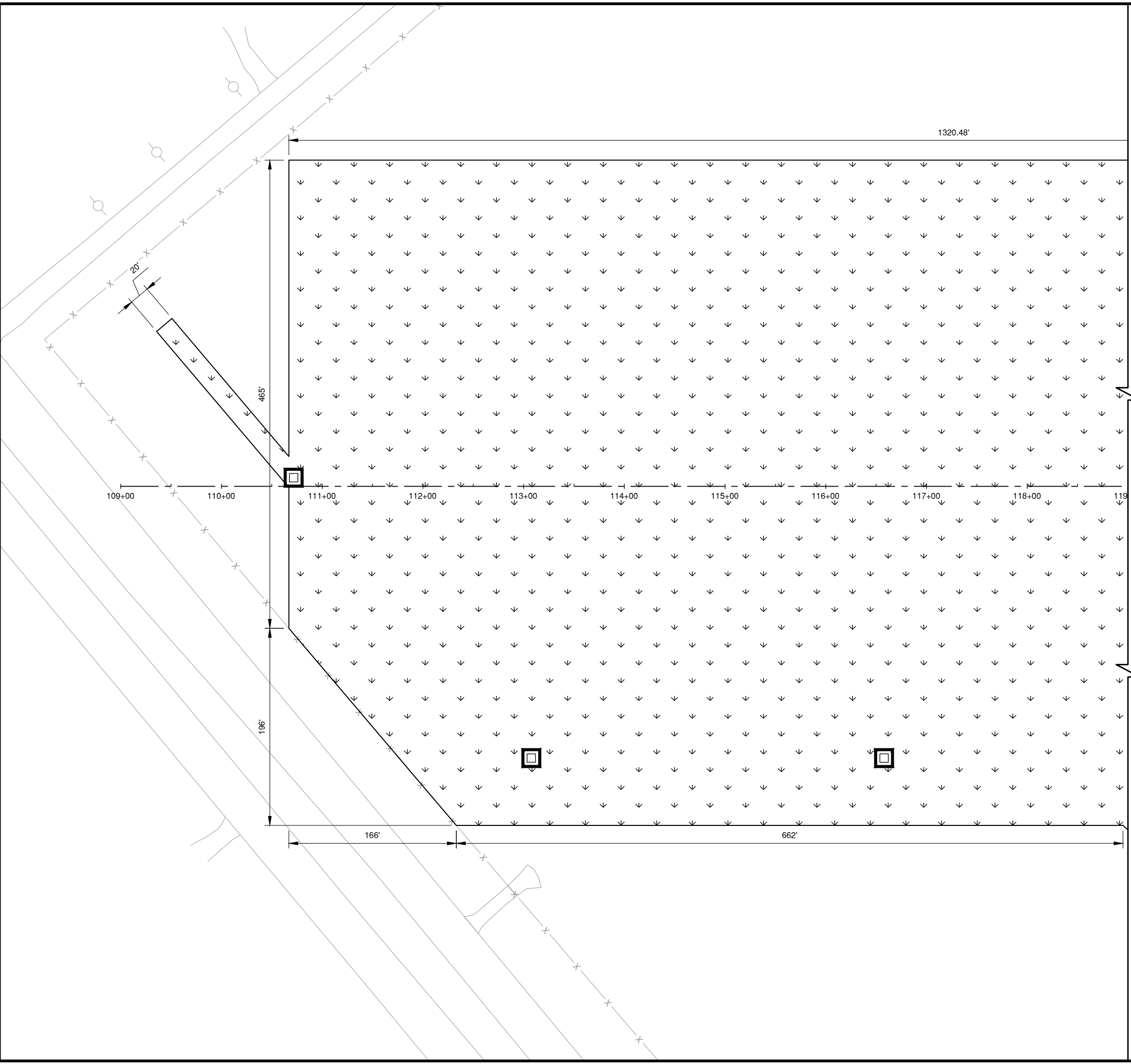
**MARKING NOTE**

- ALL NEW AIRFIELD PAVEMENT MARKING SHALL HAVE REFLECTIVE BEADS & 6" BLACK BORDER.
- BLACK BORDER DOES NOT RECEIVE REFLECTIVE BEADS.

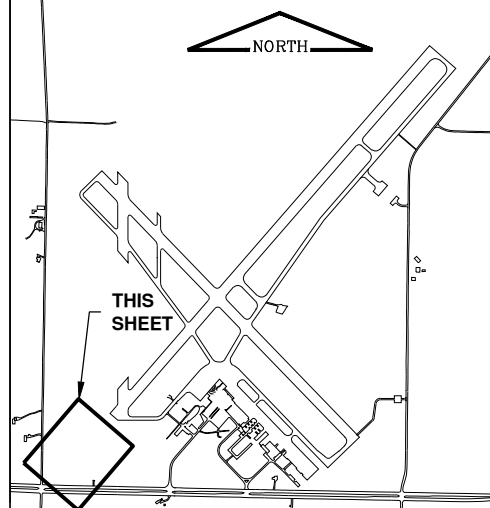


**4** TAXIWAY CENTERLINE LEAD-ON AND LEAD-OFF MARKING  
N.T.S.

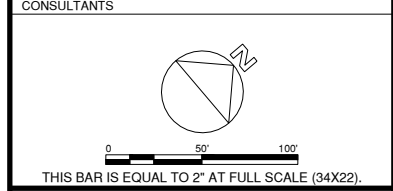
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 Date: Wednesday, March 8, 2023 3:01:30 PM



**KEYMAP**



**CMT**  
 License No. 184-000613  
 CONSULTANTS



**LEGEND**

NEW SEEDING (T-901)  
 NEW HYDRO MULCHING (T-908)  
 NEW 4' WIDE SOD (T-904)  
 INLET PROTECTION

**NOTES**

- ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS SHALL BE SEEDED AND STABILIZED. ANY AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE LIMITS SHOWN SHALL BE SEEDED, STABILIZED AND MULCHED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE RESIDENT ENGINEER AND THE AIRPORT.

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 MARCH 08, 2023

**RECONSTRUCT RUNWAY 4/22  
 PHASE 4**

OWNER

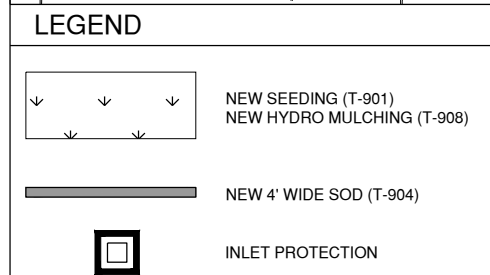
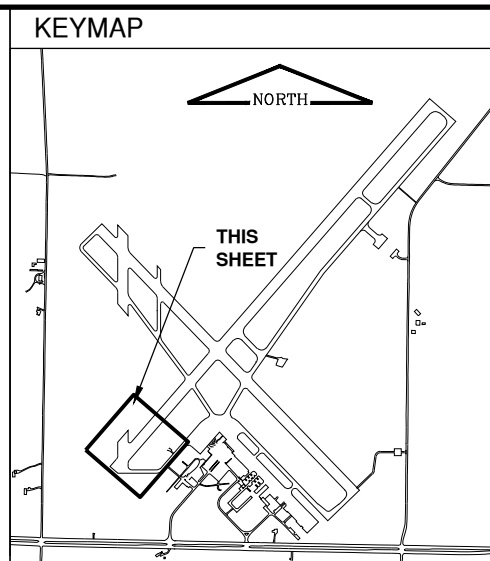
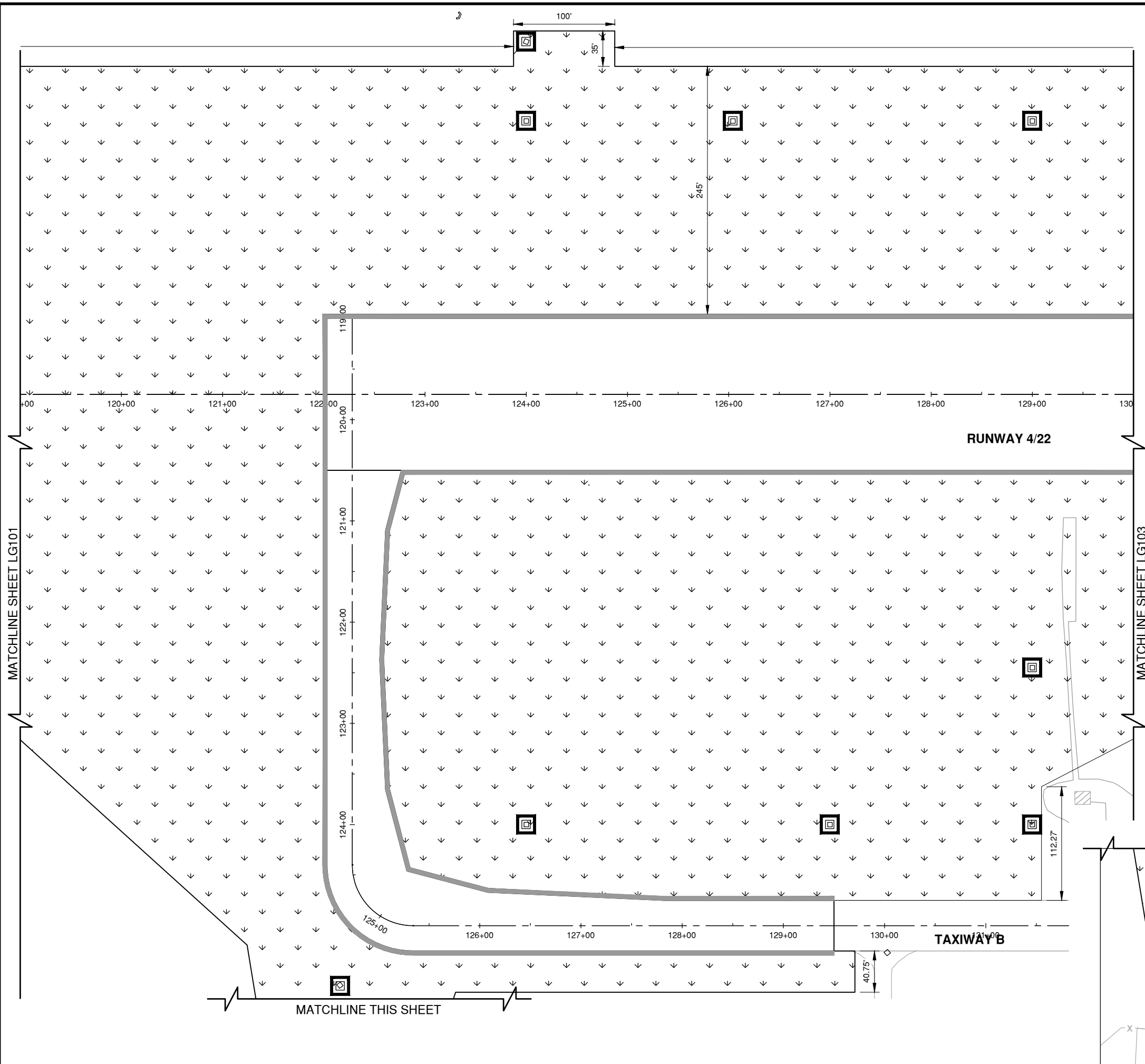
CITY OF QUINCY  
 QUINCY REGIONAL AIRPORT  
 QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO:	3-17-0085-XX
IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 LG100.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	###
APPROVED BY:	###
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**TURFING & EROSION  
 CONTROL 1**

Path: K:\Quincy\AP180020-01\_ReconRunway4-22\DrawRwy4\Sheets\180020-01\_PH4\_LG100.dwg  
 Date: Wednesday, March 8, 2023 3:01:38 PM



NOTES  
 1. ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS SHALL BE SEEDDED AND STABILIZED. ANY AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE LIMITS SHOWN SHALL BE SEEDDED, STABILIZED AND MULCHED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE RESIDENT ENGINEER AND THE AIRPORT.

**CMT**  
 License No. 184-000613  
 CONSULTANTS  
  
 THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

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 MARCH 08, 2023  
 RECONSTRUCT RUNWAY 4/22  
 PHASE 4

OWNER  
  
 CITY OF QUINCY  
 QUINCY REGIONAL AIRPORT  
 QUINCY, IL

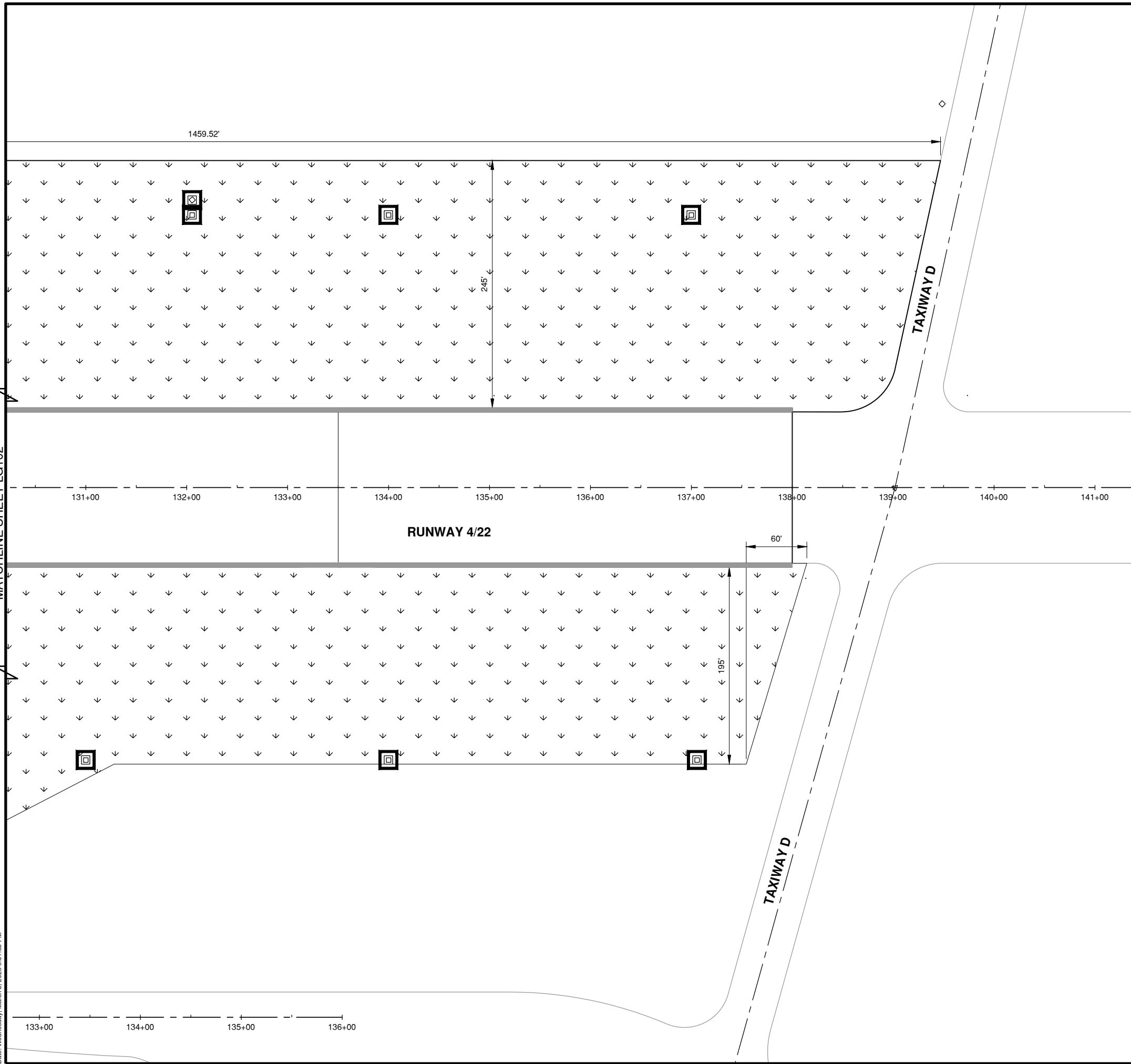
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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
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DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	###
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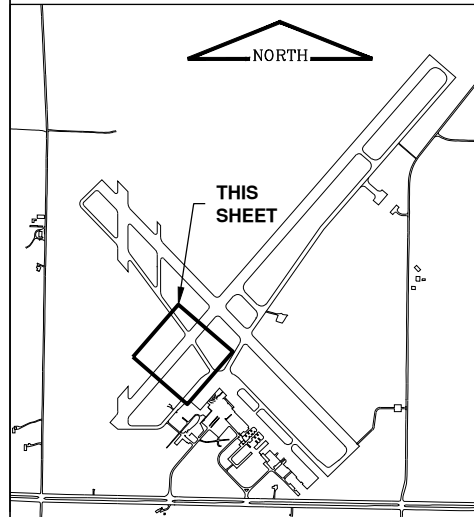
SHEET TITLE  
**TURFING & EROSION CONTROL 2**  
 LG102  
 SHEET 110 OF 143

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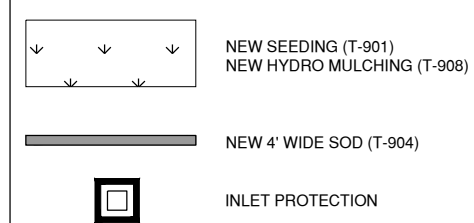
MATCHLINE SHEET LG102



KEYMAP



LEGEND



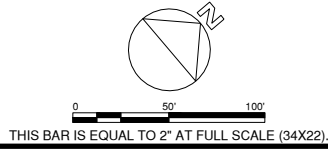
NOTES

- ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS SHALL BE SEEDED AND STABILIZED. ANY AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE LIMITS SHOWN SHALL BE SEEDED, STABILIZED AND MULCHED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE RESIDENT ENGINEER AND THE AIRPORT.



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RECONSTRUCT RUNWAY 4/22  
 PHASE 4

OWNER



CITY OF QUINCY  
 QUINCY REGIONAL AIRPORT  
 QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX
IL PROJ. NO: UIN-5051
CMT PROJECT NO: 18002001
CAD DWG FILE: 180020-01 PH4 LG100.DWG
DESIGNED BY: HWI
DRAWN BY: DPA
CHECKED BY: ###
APPROVED BY: ###
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SHEET TITLE  
**TURFING & EROSION  
 CONTROL 3**

LG103  
 SHEET 111 OF 143

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 LG500.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: CHK

APPROVED BY: APR

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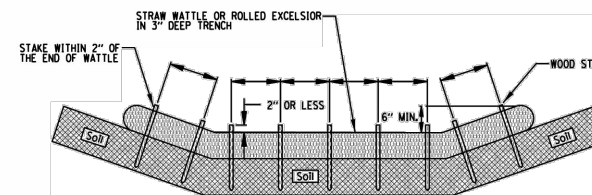
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**EROSION CONTROL  
DETAILS**

LG501  
SHEET 112 OF 143

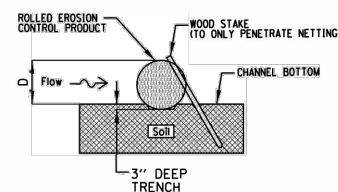
**ROLLED EROSION CONTROL PRODUCTS**

**STAKING PATTERN GUIDE**



- NOTES:
1. OVERLAP MINIMUM IS THE DIAMETER OF THE ROLL.
  2. 4" SPACING FOR WATTLES.
  3. 2" SPACING FOR ROLLED EXCELSIOR.
  4. OR SPACE ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

**STAKE DETAIL**



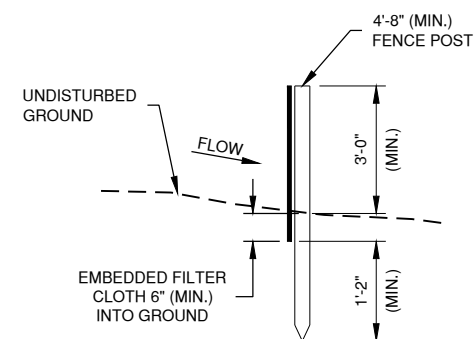
- NOTES:
1. DRAWINGS ARE NOT TO SCALE.
  2. ENDS OF WATTLES OR ROLLED EXCELSIOR SHALL BE TURNED AT LEAST 6" UPSLOPE.
  3. RECOMMENDED STAKES ARE 1 1/8" WIDE x 1 1/8" THICK x 30" LONG.
  4. STAKES SHALL NOT EXTEND ABOVE THE STRAW WATTLE MORE THAN 2".
  5. SPACING: THE TOE OF THE UPSTREAM DITCH CHECK SHALL CREATE A HORIZONTAL LINE WITH THE TOP OF THE DOWNSTREAM DITCH CHECK.

REFERENCE	Project	Date
Designed		
Checked		
Approved		

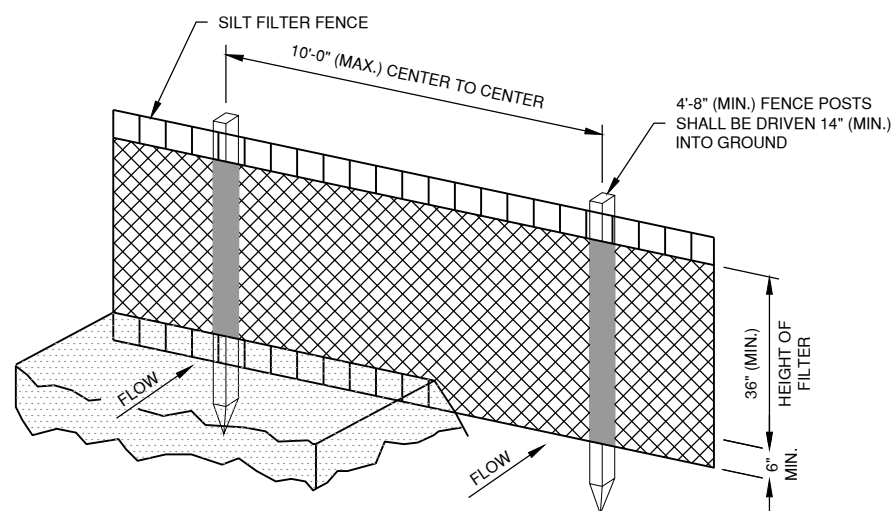


STANDARD DWG. NO.
IUM-514
SHEET 1 OF 1
DATE 08-2-2019

**2 DITCH CHECK**  
N.T.S.



**SECTION**

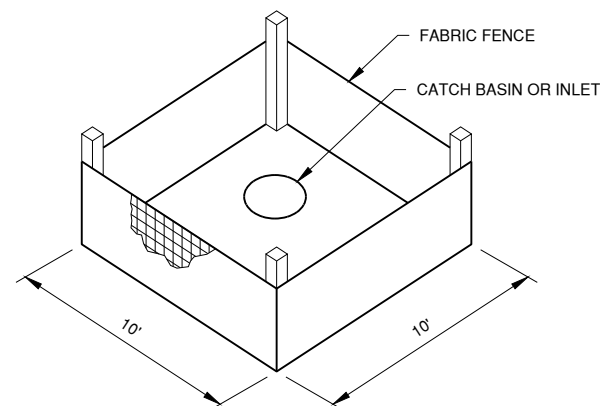


**PERSPECTIVE VIEW**

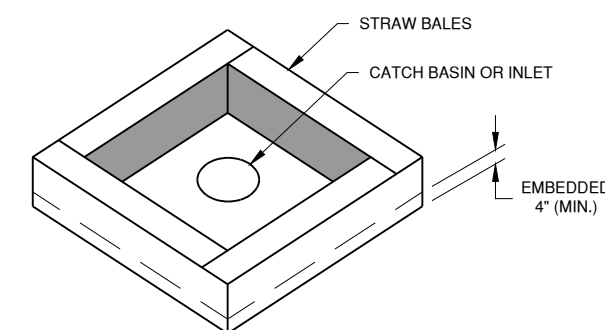
**1 SILT FENCE**  
N.T.S.

**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.



**3 INLET PROTECTION WITH FABRIC**  
N.T.S.



**4 INLET PROTECTION WITH STRAW BALES**  
N.T.S.





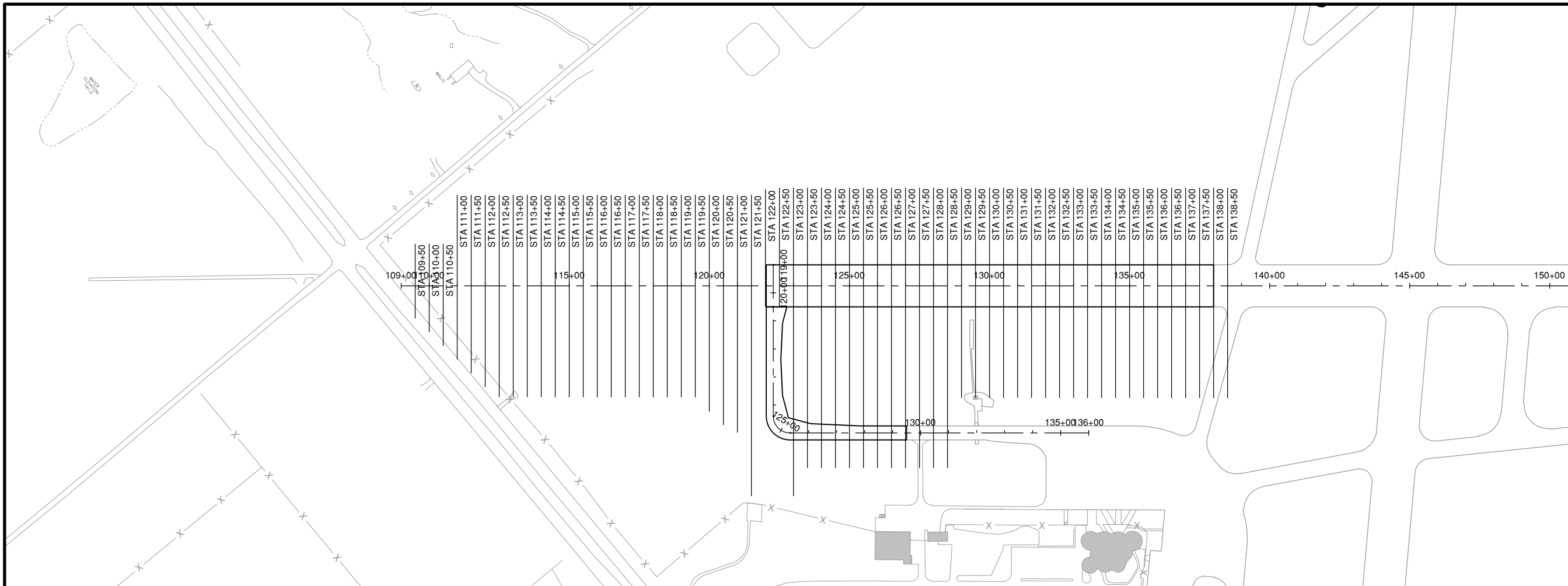
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0 200' 400'

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BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

SECTION LEGEND

---	EXIST. GROUND
—	FINAL GROUND
- - -	EXIST. HMA
- · - · -	EXIST. PCC
- · - -	EXIST. BASE
█	P-401
█	P-403
█	P-209
█	P-154
█	P-152
█	EXISTING PAVEMENT
█	CUT
█	FILL

MARK	DATE	DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX
IL PROJ. NO: UIN-5051
CMT PROJECT NO: 18002001
CAD DWG FILE: 180020-01 PH4 CG600 422 XSECT INDEX.DWG
DESIGNED BY: RWI
DRAWN BY: DPA
CHECKED BY: MJD
APPROVED BY: RLV
COPYRIGHT:

SHEET TITLE  
**RWY 422 CROSS  
SECTION INDEX**

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Date: Wednesday, March 8, 2023 3:02:38 PM



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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

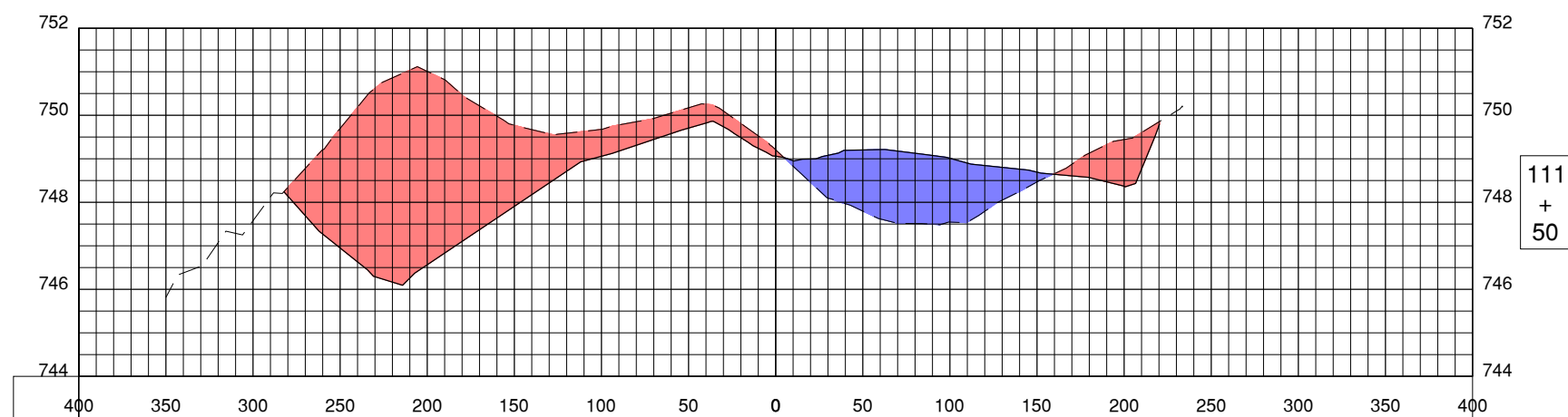
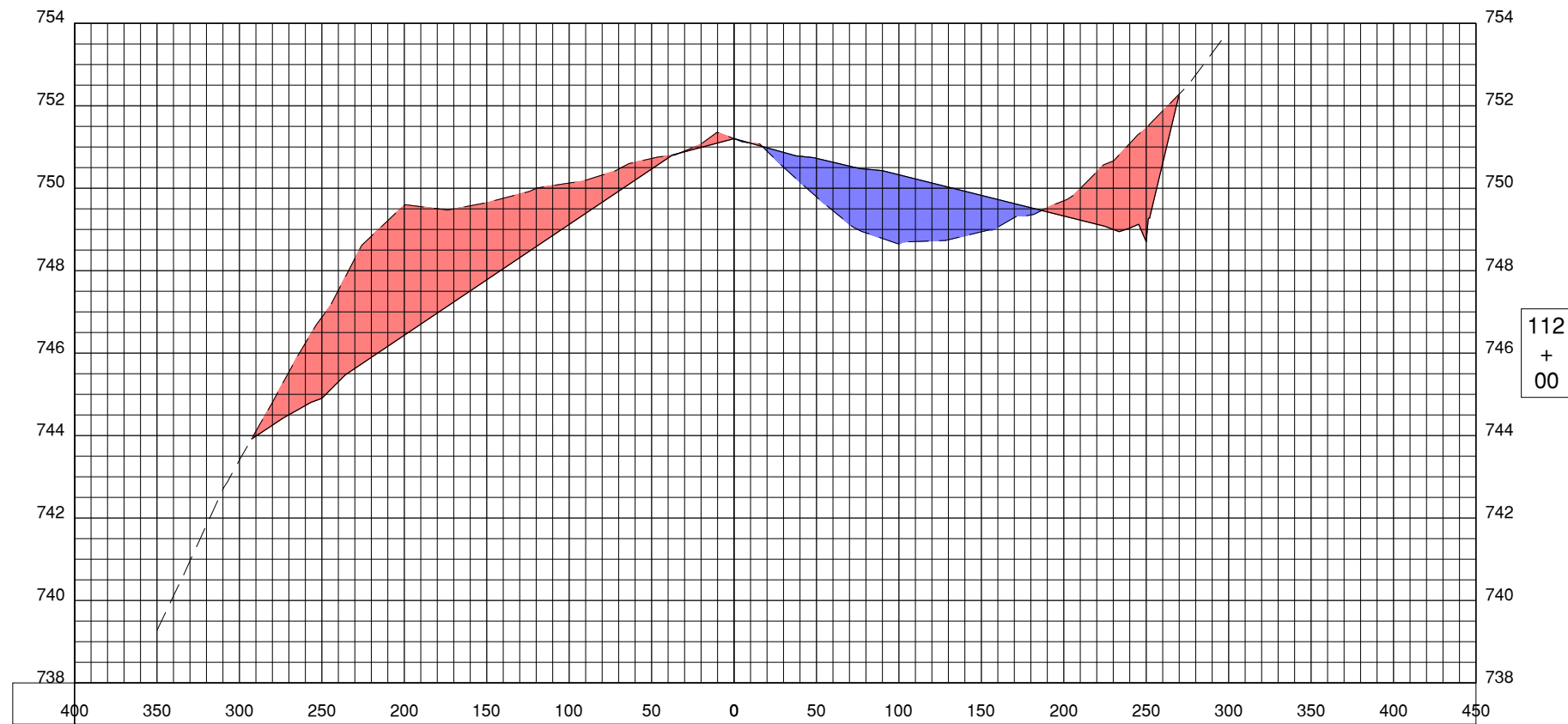
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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CG601 422 XSECT.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	CHK
APPROVED BY:	APR
COPYRIGHT:	

SHEET TITLE

RWY 422 CROSS  
SECTIONS 1

CG601  
SHEET 114 OF 143



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Date: Wednesday, March 8, 2023 3:03:01 PM



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BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

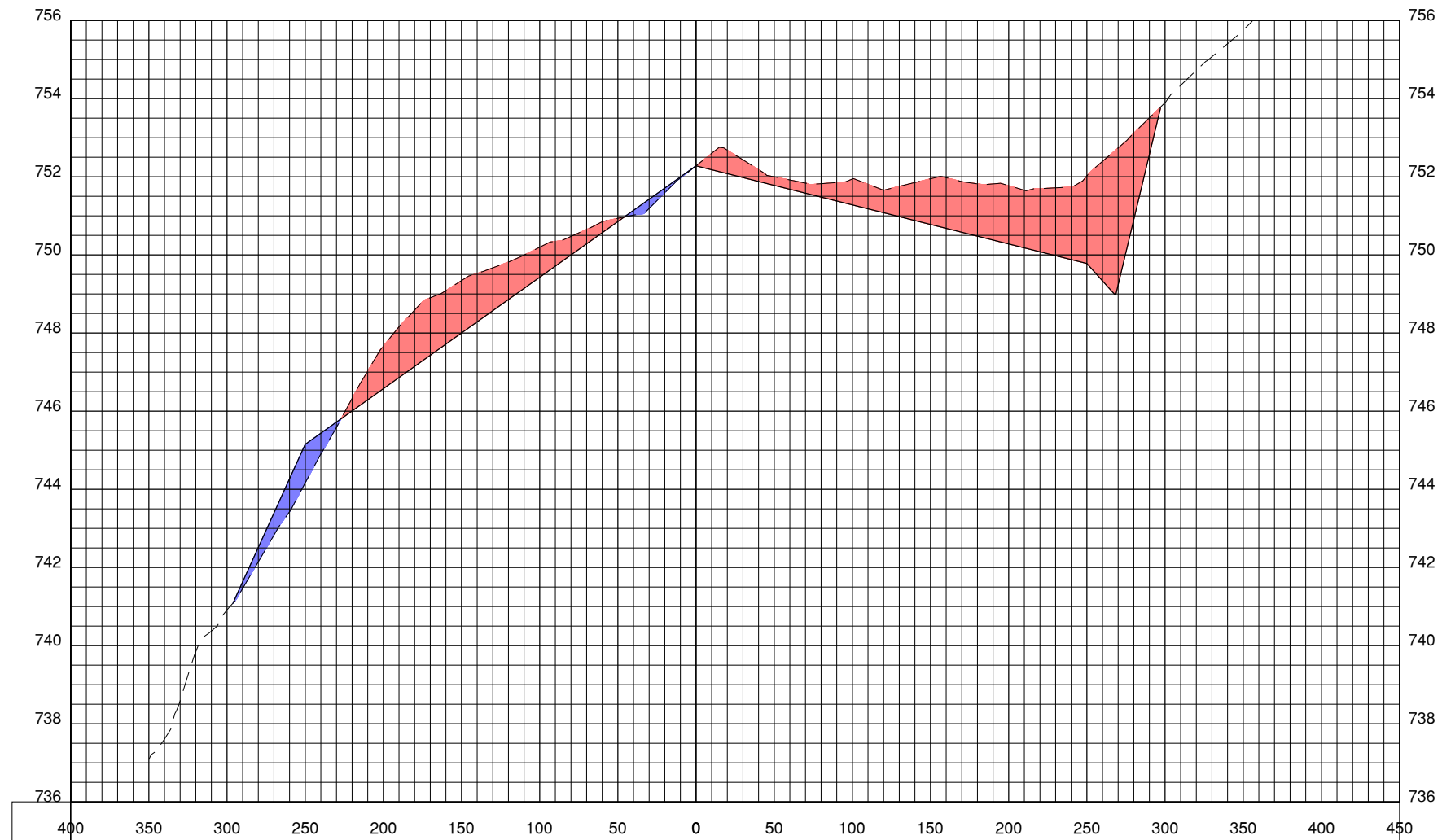
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CMT PROJECT NO:	18002001
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DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	CHK
APPROVED BY:	APR
COPYRIGHT:	

SHEET TITLE

RWY 422 CROSS  
SECTIONS 2

CG602  
SHEET 115 OF 143



Path: K:\Quincy\AP180020-01\_ReconRWY4-22\DrawRwy4\Sheets\180020-01\_PH4\_CG601\_422\_XSECT.dwg  
Date: Wednesday, March 8, 2023 3:03:05 PM



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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

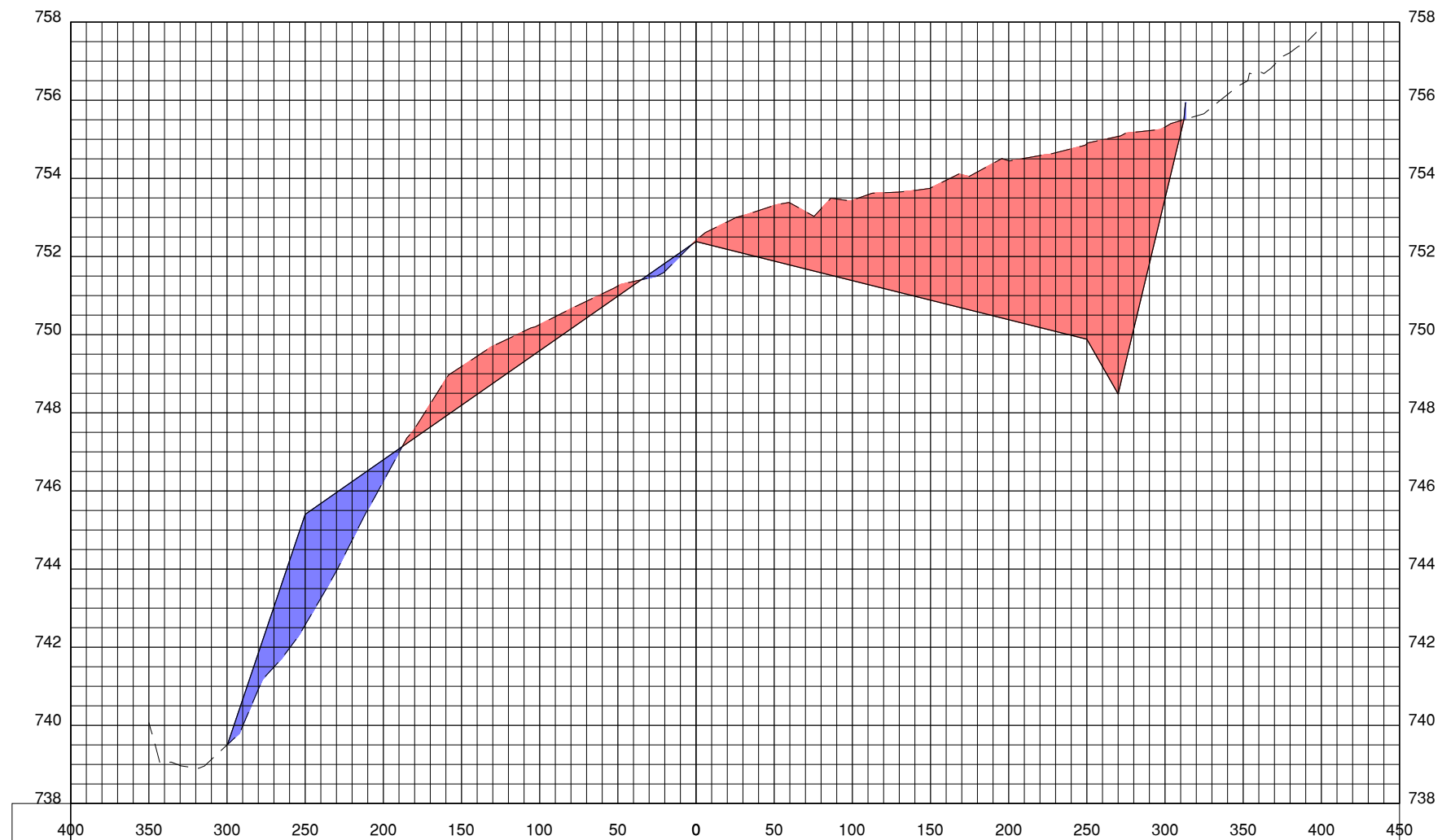
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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CG601 422 XSECT.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	CHK
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SHEET TITLE

**RWY 422 CROSS  
SECTIONS 3**

CG603  
SHEET 116 OF 143



Path: K:\Quincy\AP180020-01\_ReconRunway4-22\DrawRwy4\Sheets\180020-01\_PH4\_CG601\_422\_XSECT.dwg  
Date: Wednesday, March 8, 2023 3:03:08 PM



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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

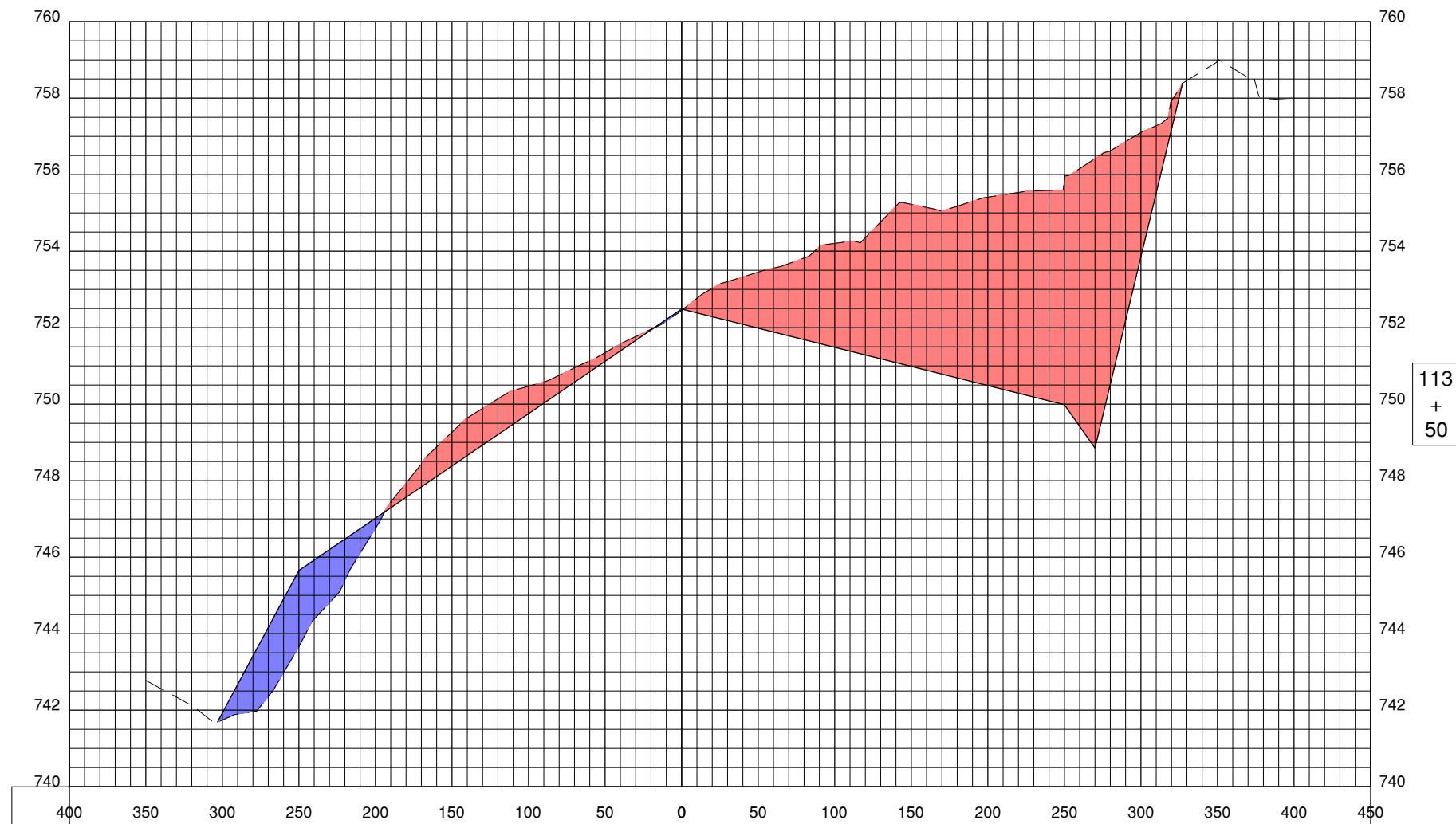
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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CG601 422 XSECT.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	CHK
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SHEET TITLE

RWY 422 CROSS  
SECTIONS 4

CG604  
SHEET 117 OF 143



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Date: Wednesday, March 8, 2023 3:03:11 PM



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QUINCY, IL

MARK DATE DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 CG601 422 XSECT.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: CHK

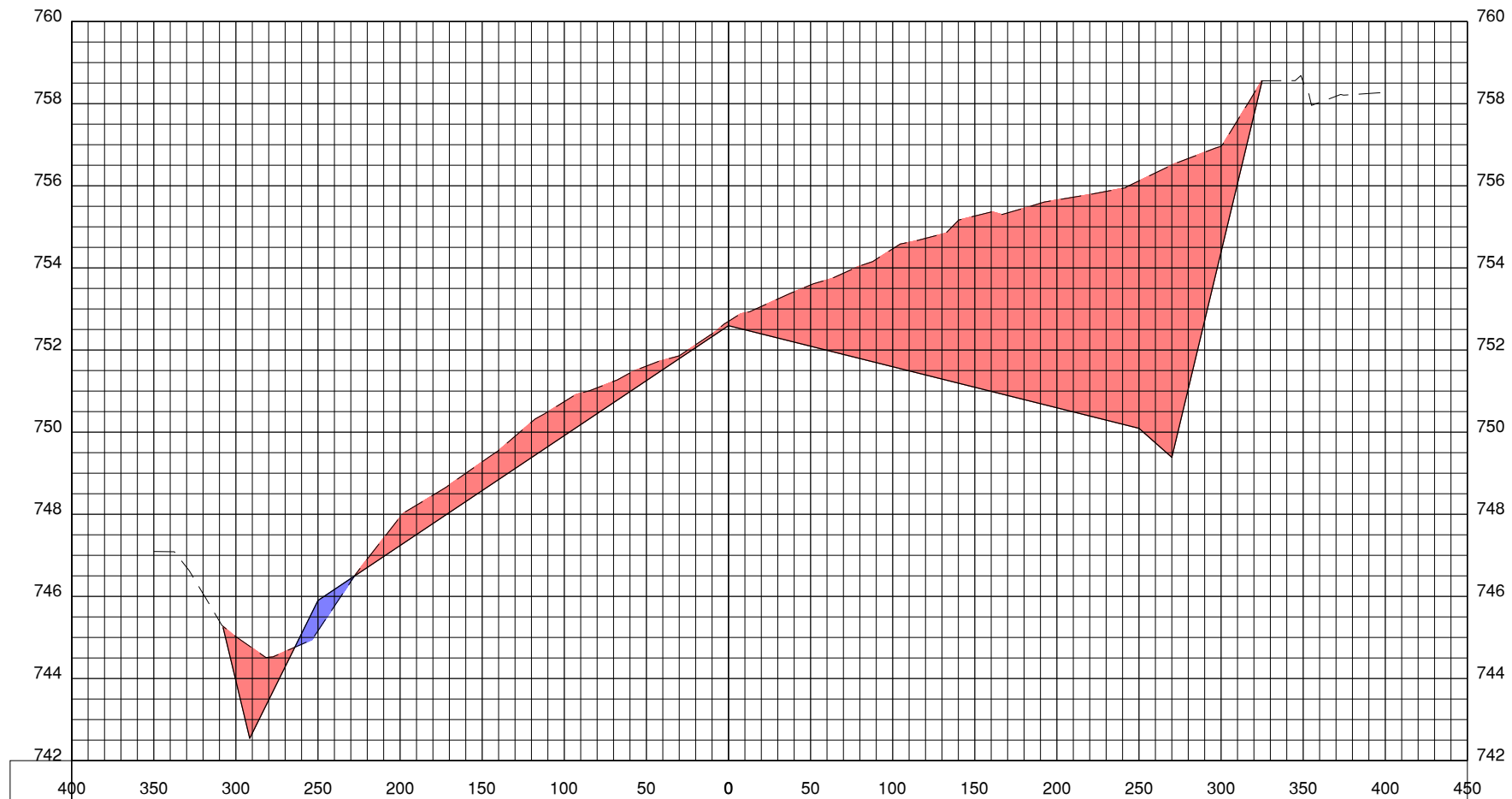
APPROVED BY: APR

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SHEET TITLE

RWY 422 CROSS  
SECTIONS 5

CG605  
SHEET 118 OF 143



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QUINCY, IL

MARK | DATE | DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 CG601 422 XSECT.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: CHK

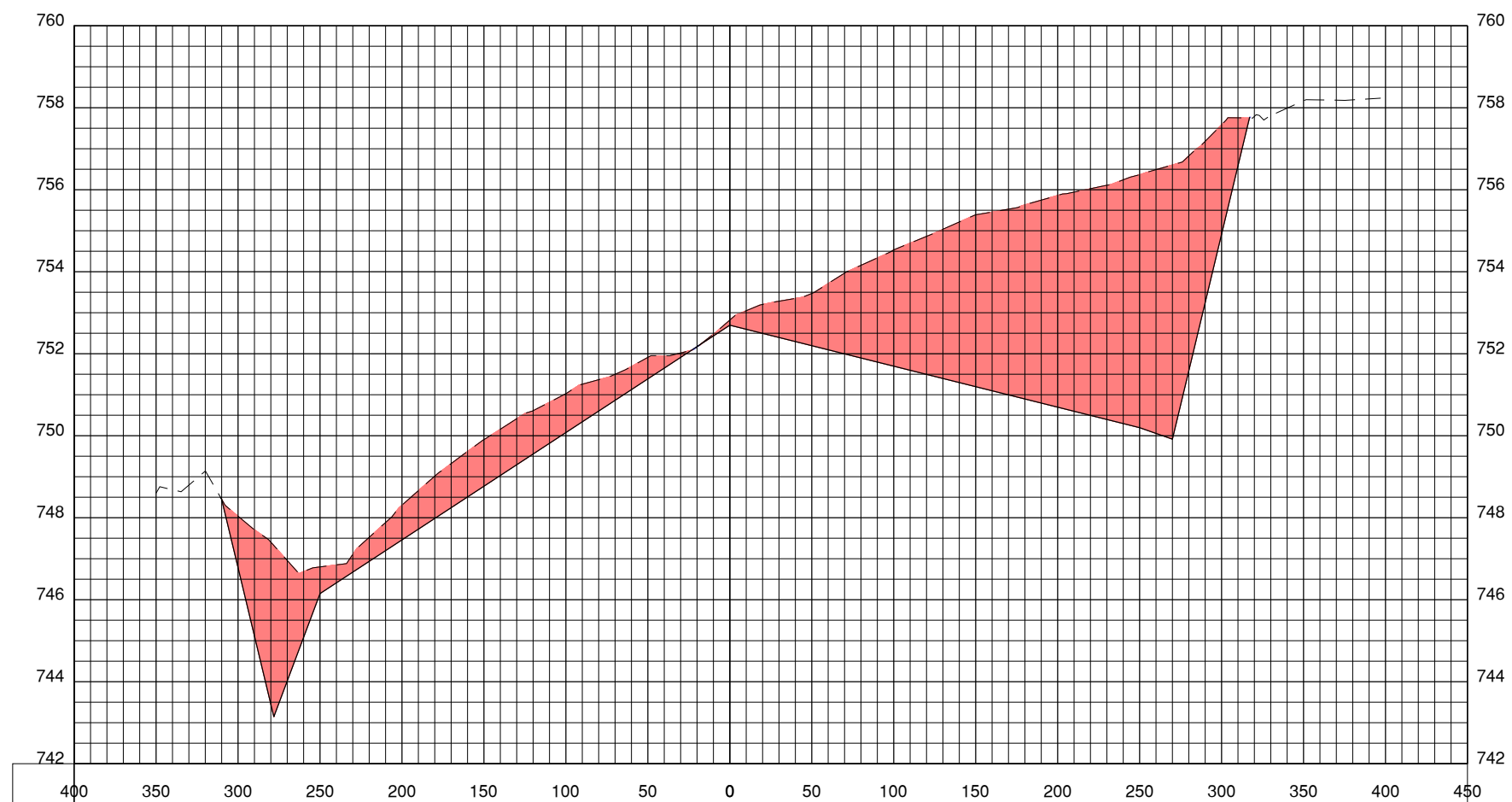
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SHEET TITLE

RWY 422 CROSS  
SECTIONS 6

SHEET 119 OF 143  
CG606



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QUINCY REGIONAL AIRPORT  
QUINCY, IL

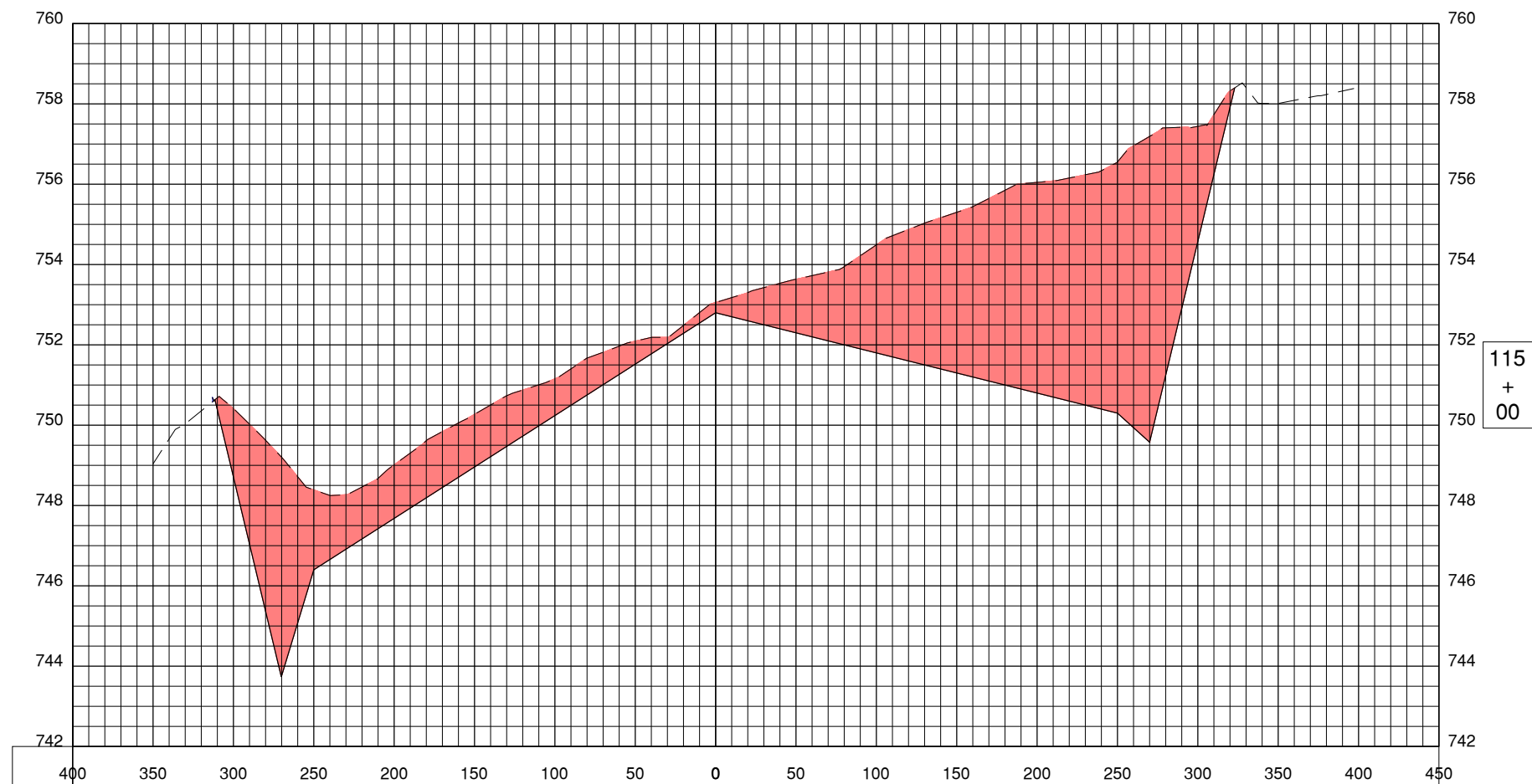
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CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CG601 422 XSECT.DWG
DESIGNED BY:	HWI
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SHEET TITLE

RWY 422 CROSS  
SECTIONS 7

CG607  
SHEET 120 OF 143



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QUINCY, IL

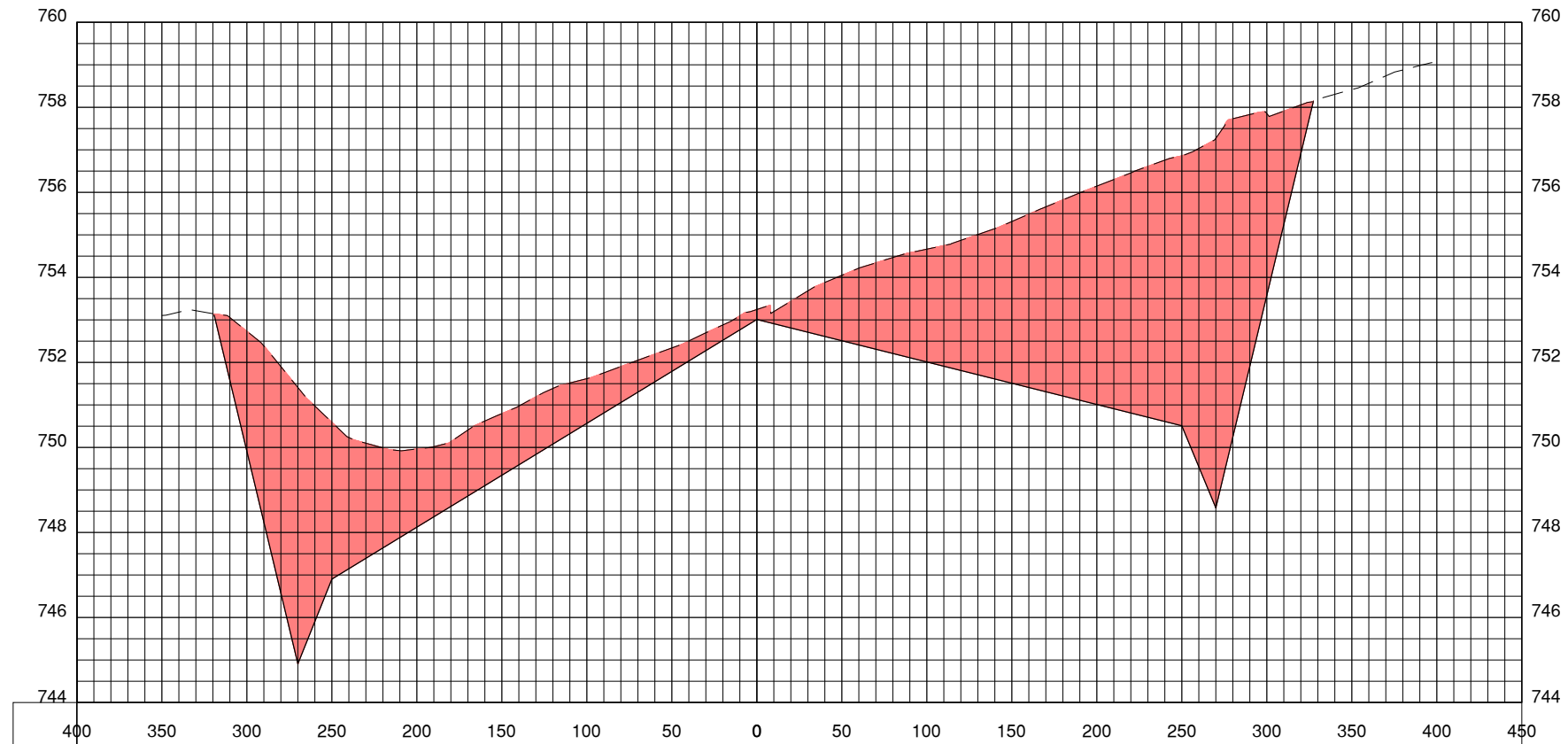
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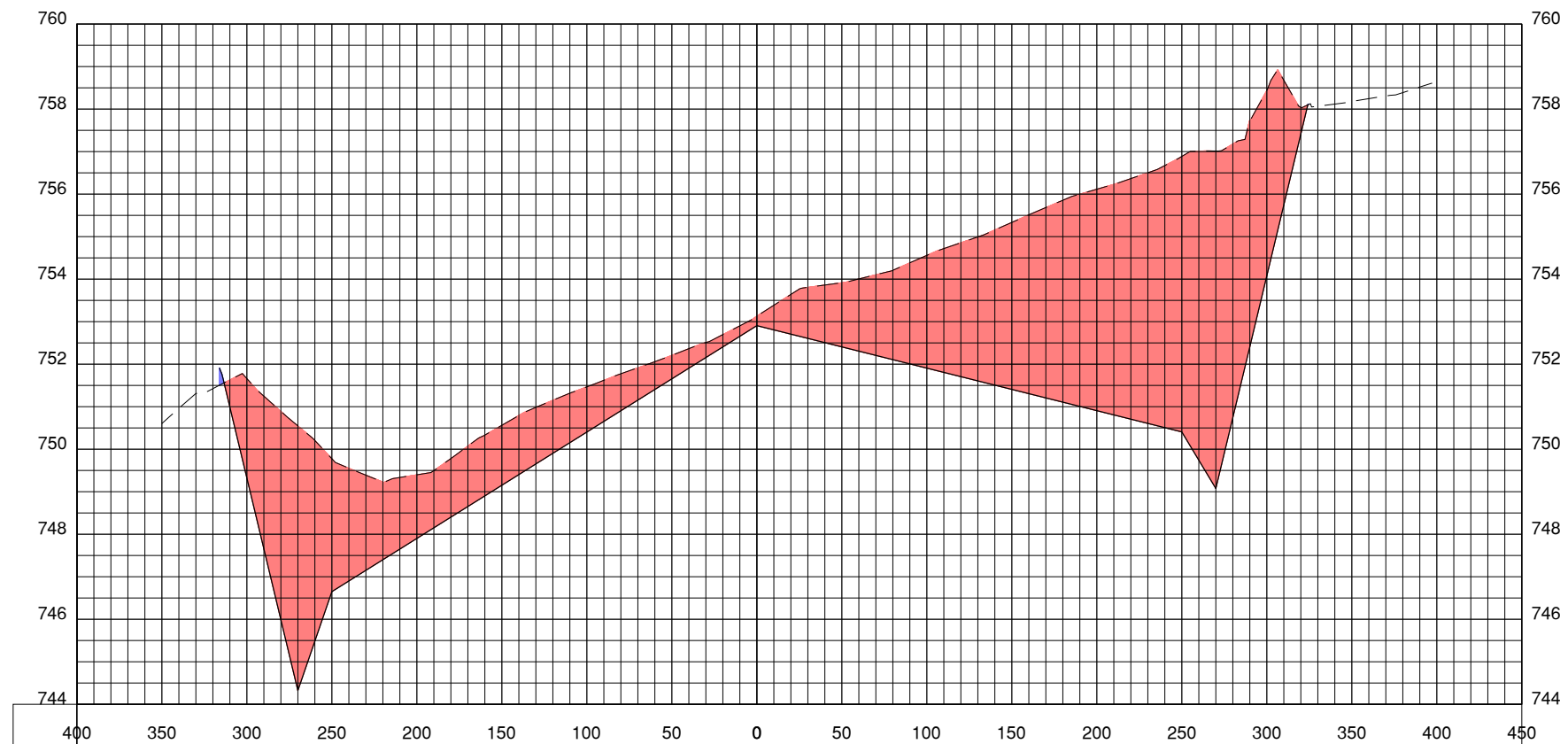
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RWY 422 CROSS  
SECTIONS 8

CG608  
SHEET 121 OF 143



116  
+  
00



115  
+  
50





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RECONSTRUCT RUNWAY 4/22  
PHASE 4

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QUINCY REGIONAL AIRPORT  
QUINCY, IL

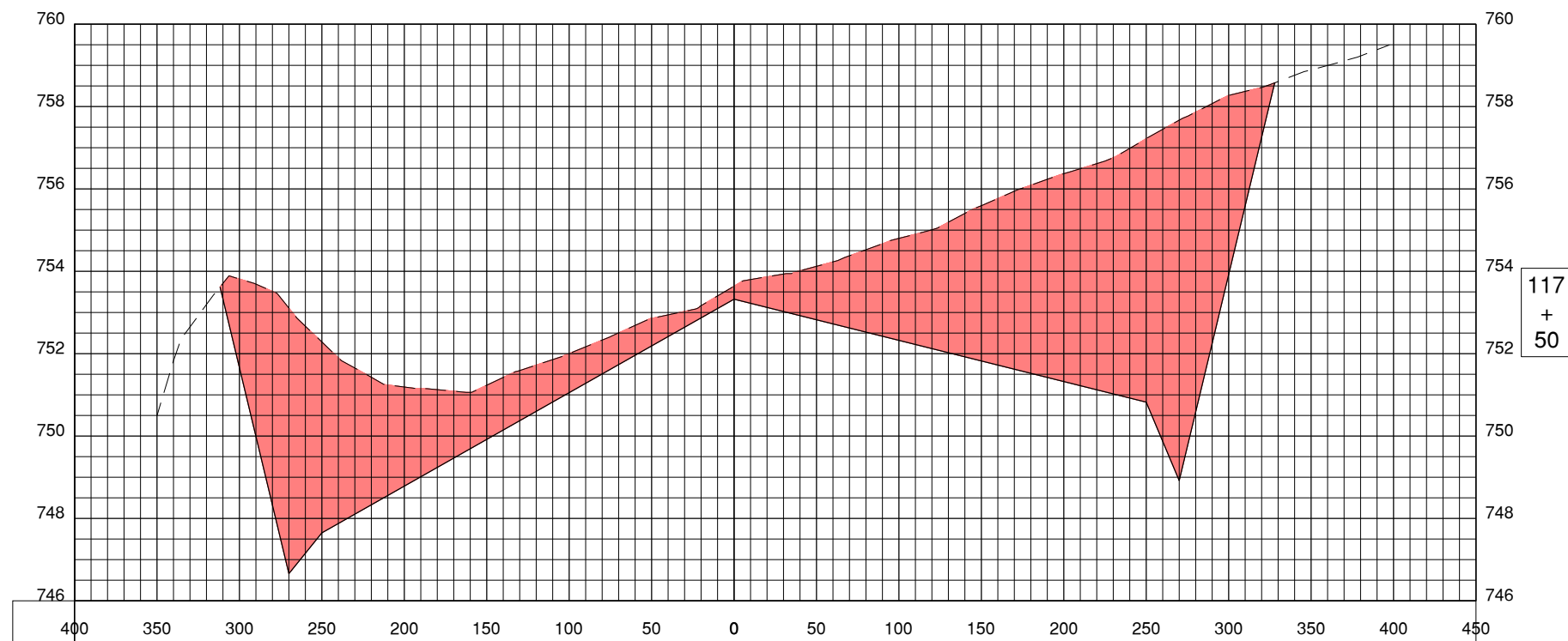
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SHEET TITLE

RWY 422 CROSS  
SECTIONS 10

CG610  
SHEET 123 OF 143



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PHASE 4

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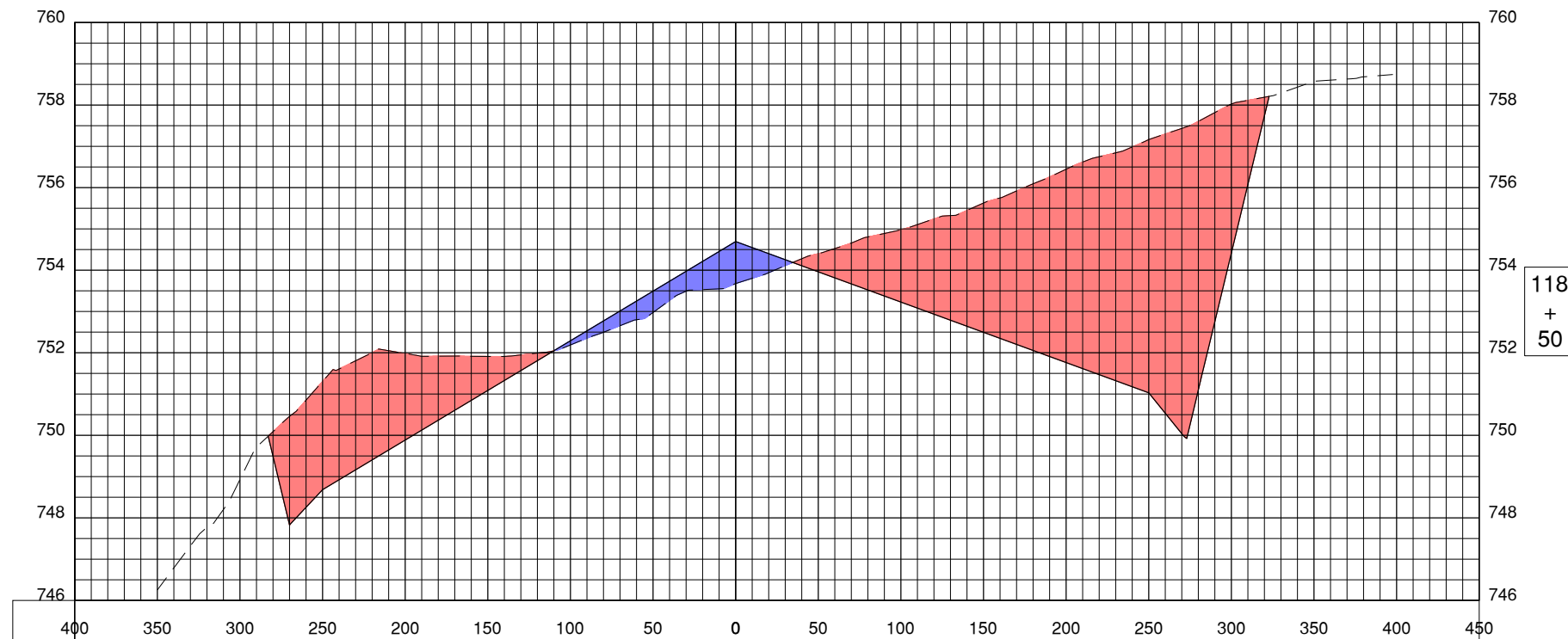
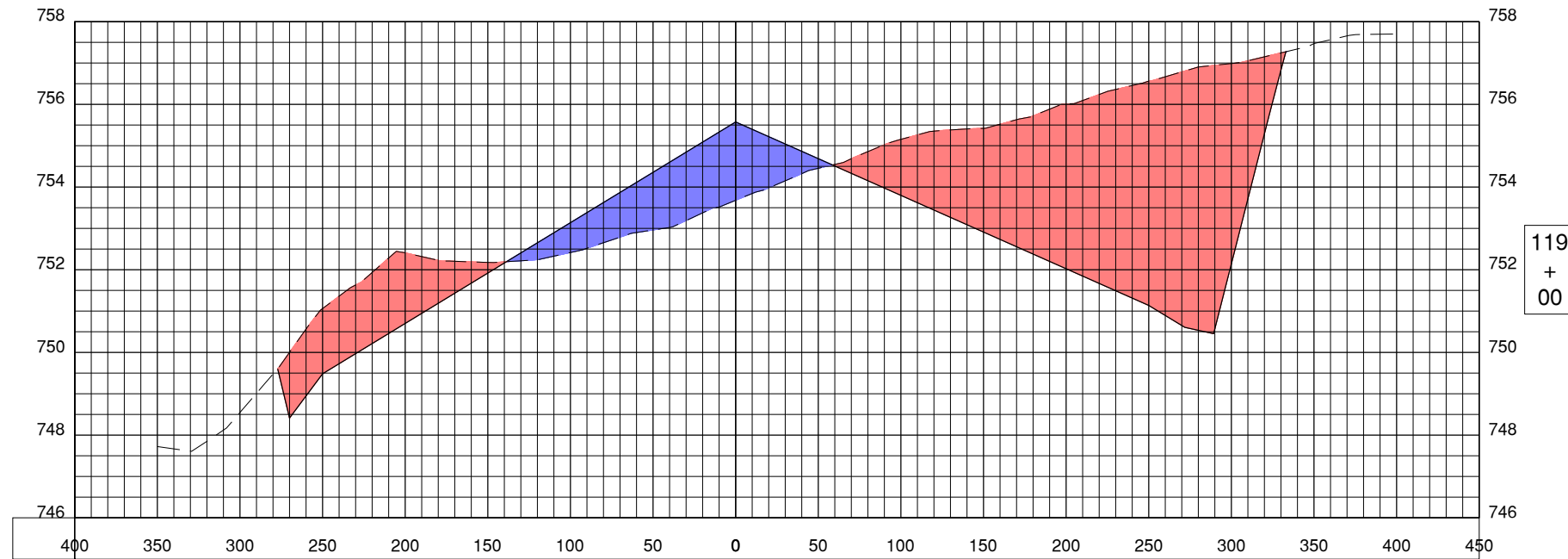
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK | DATE | DESCRIPTION

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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CG601 422 XSECT.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
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SHEET TITLE  
**RWY 422 CROSS  
SECTIONS 11**

SHEET **124** OF **143**  
CG611



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PHASE 4

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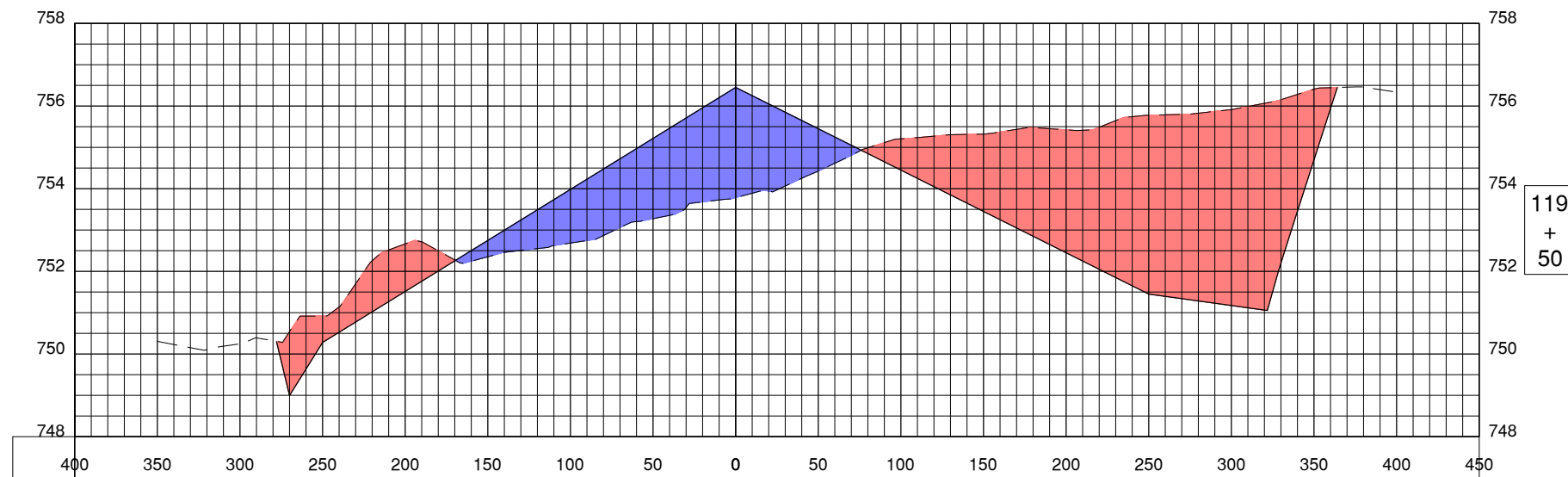
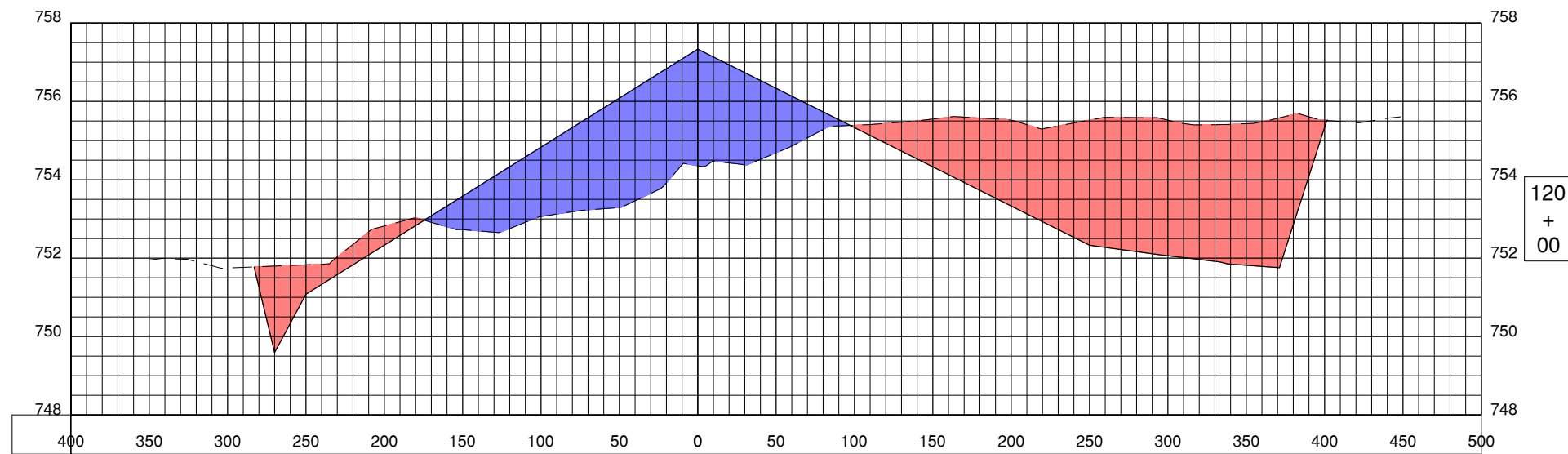
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK | DATE | DESCRIPTION

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DESIGNED BY:	HWI
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SHEET TITLE  
**RWY 422 CROSS  
SECTIONS 12**

SHEET **125** OF **143**  
CG612



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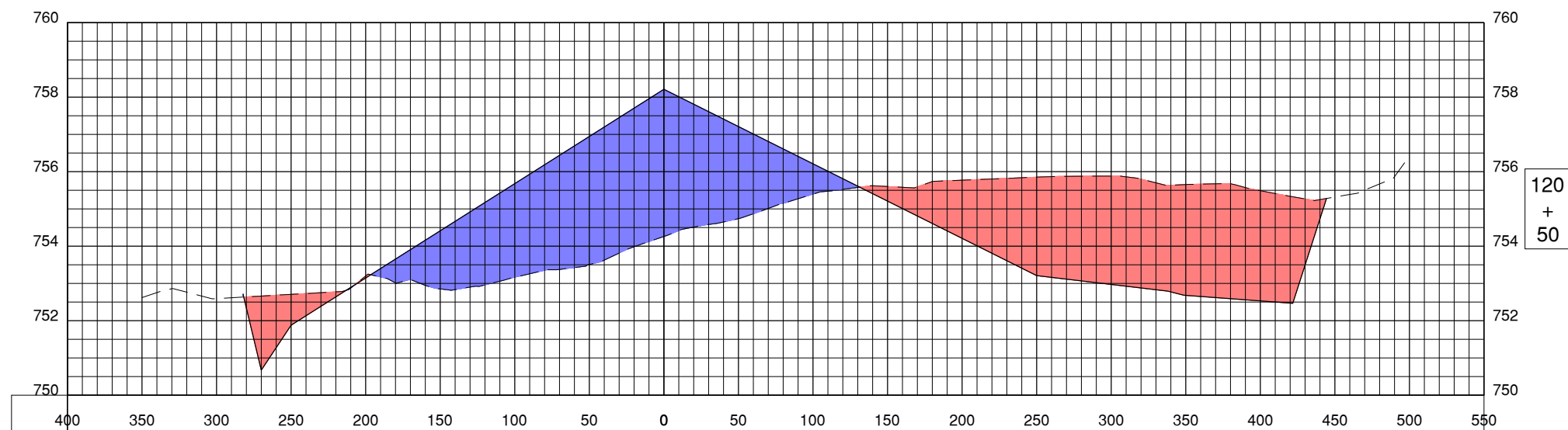
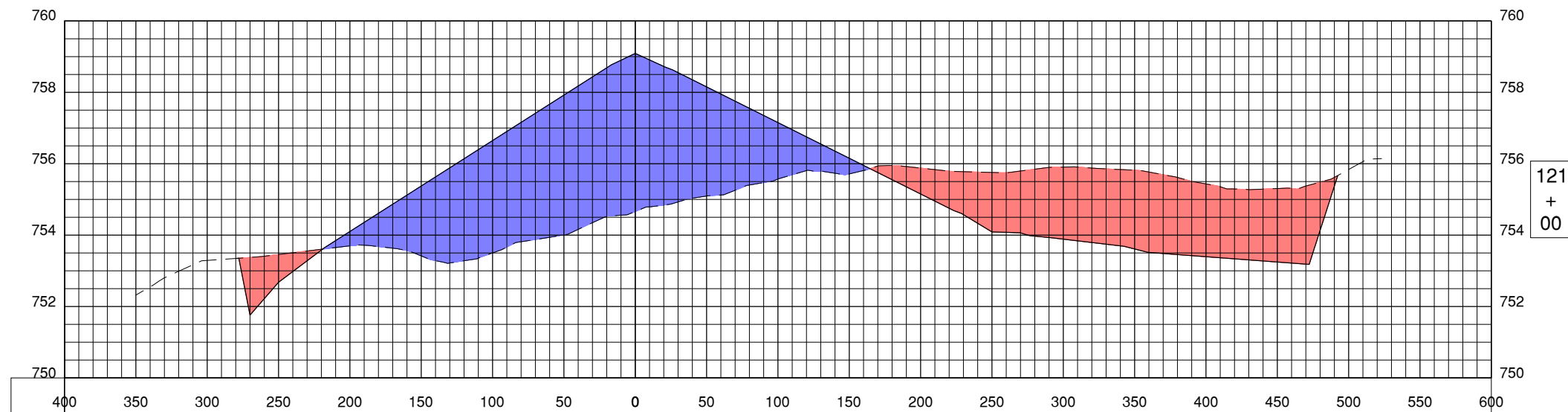
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK | DATE | DESCRIPTION

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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CG601 422 XSECT.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	CHK
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SHEET TITLE  
**RWY 422 CROSS  
SECTIONS 13**

CG613  
SHEET 126 OF 143



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PHASE 4

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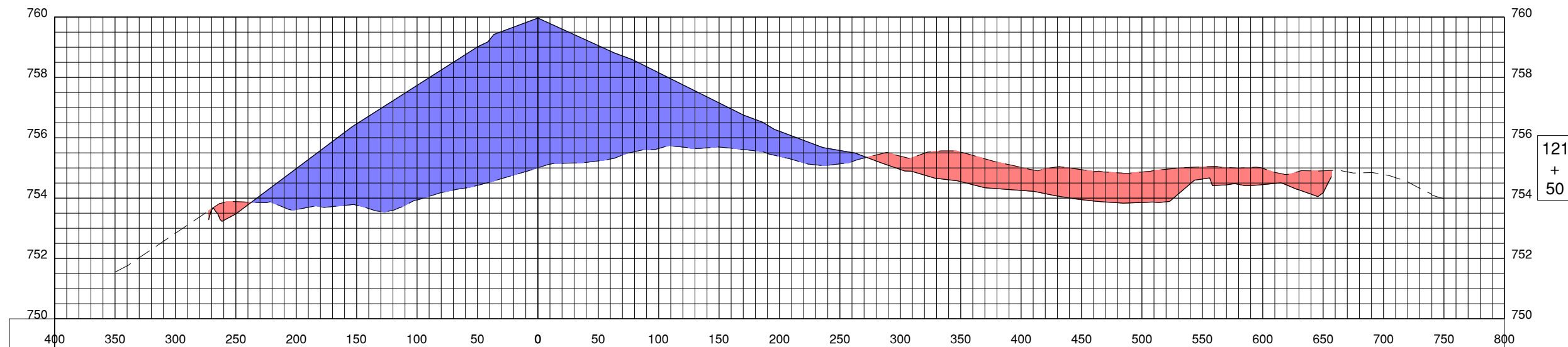
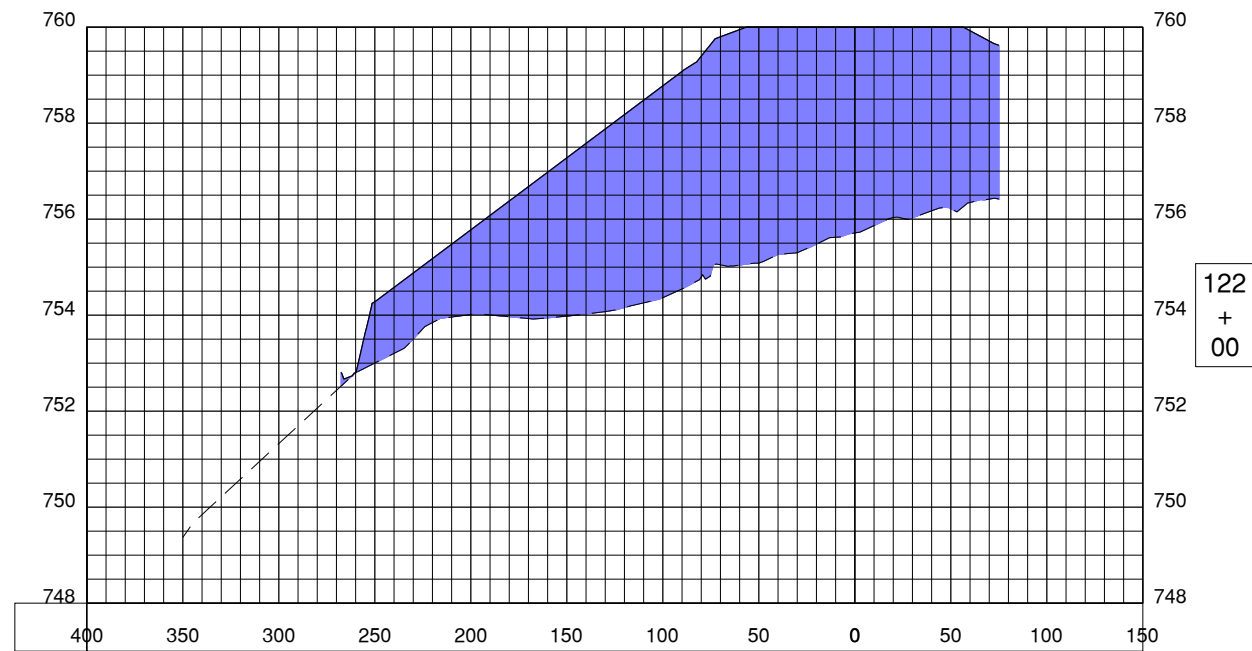
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK | DATE | DESCRIPTION

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DRAWN BY:	DPA
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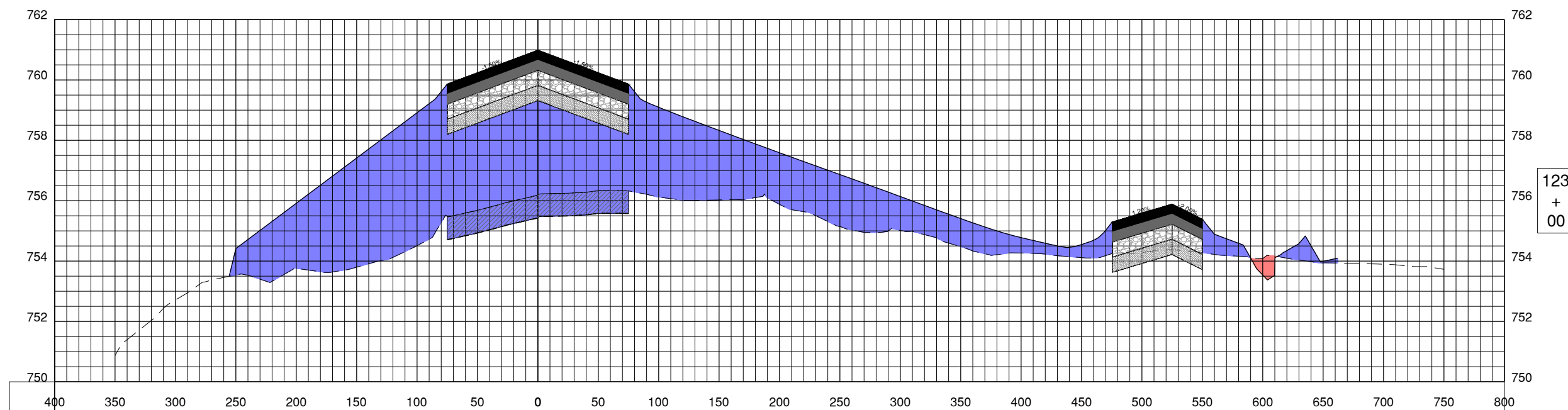
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SECTIONS 14**

CG614  
SHEET 127 OF 143



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Date: Wednesday, March 8, 2023 3:03:48 PM

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123  
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QUINCY, IL

MARK	DATE	DESCRIPTION

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IL. PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

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DESIGNED BY: HWI

DRAWN BY: DPA

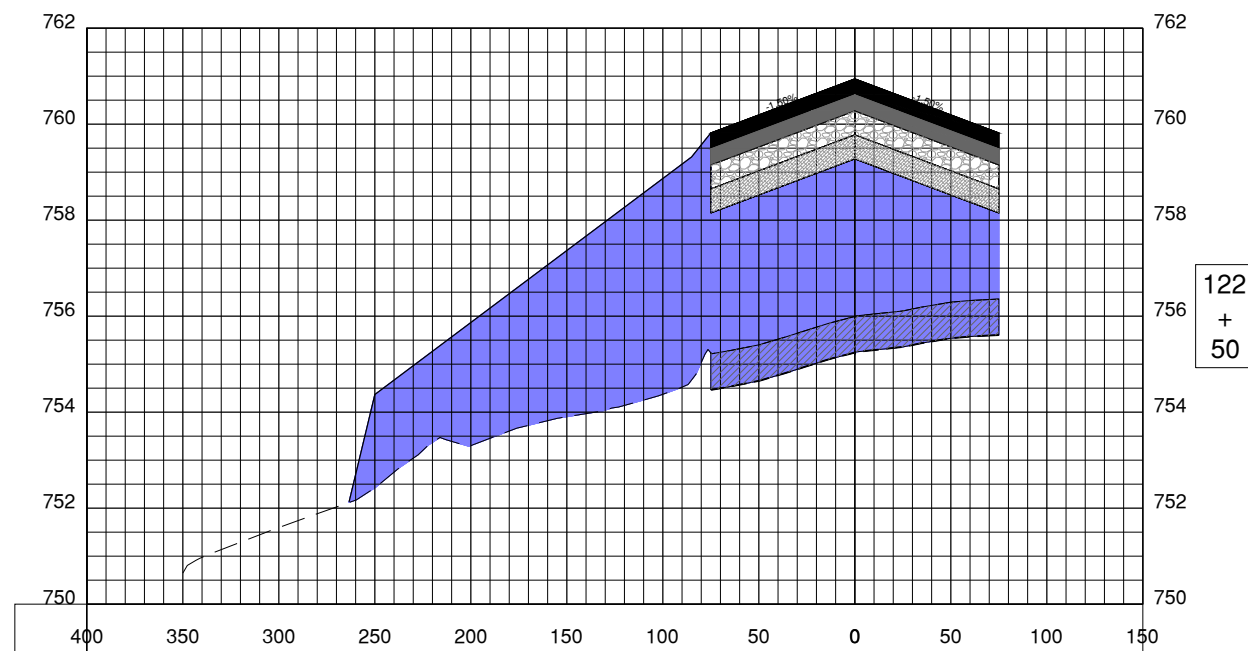
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SHEET TITLE

RWY 422 CROSS  
SECTIONS 15



122  
+  
50





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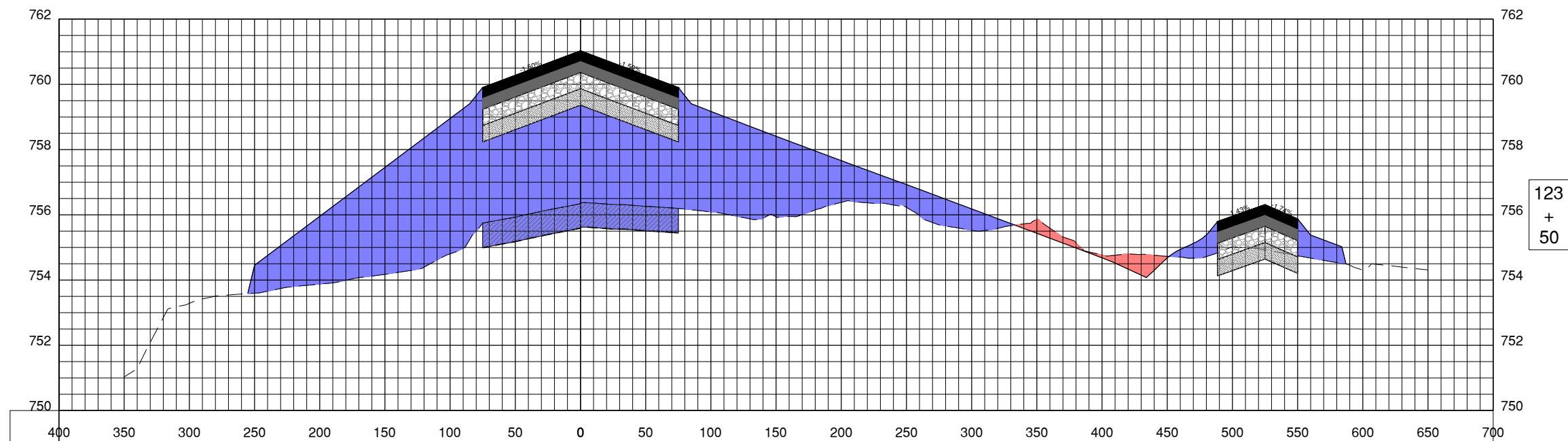
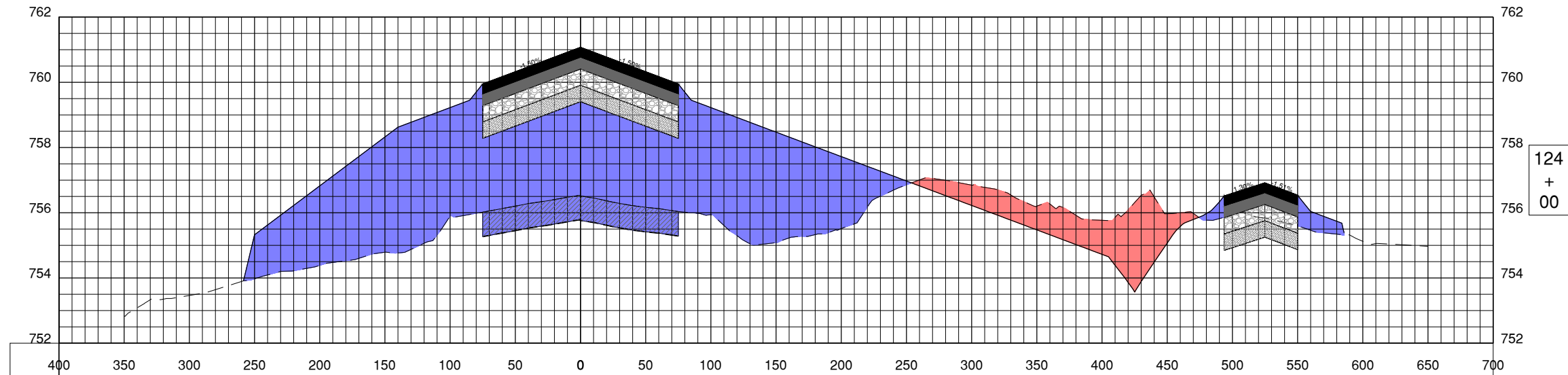
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK | DATE | DESCRIPTION

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CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CG601 422 XSECT.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
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SHEET TITLE  
**RWY 422 CROSS  
SECTIONS 16**

CG616  
SHEET 129 OF 143



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PHASE 4

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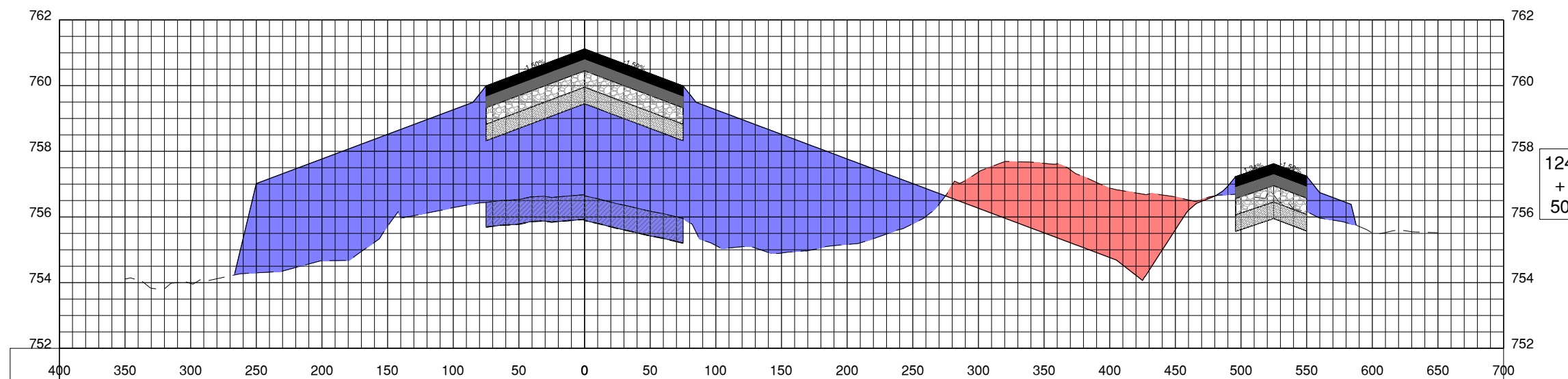
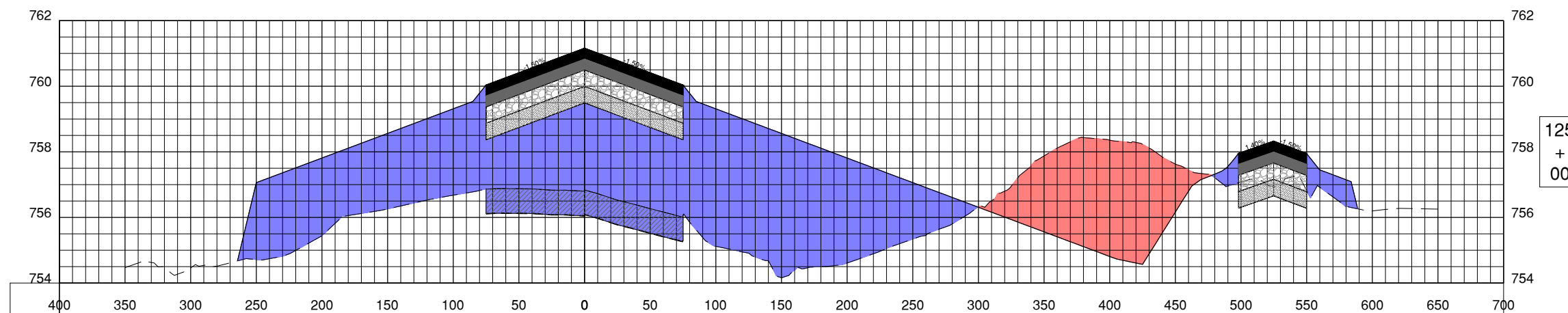
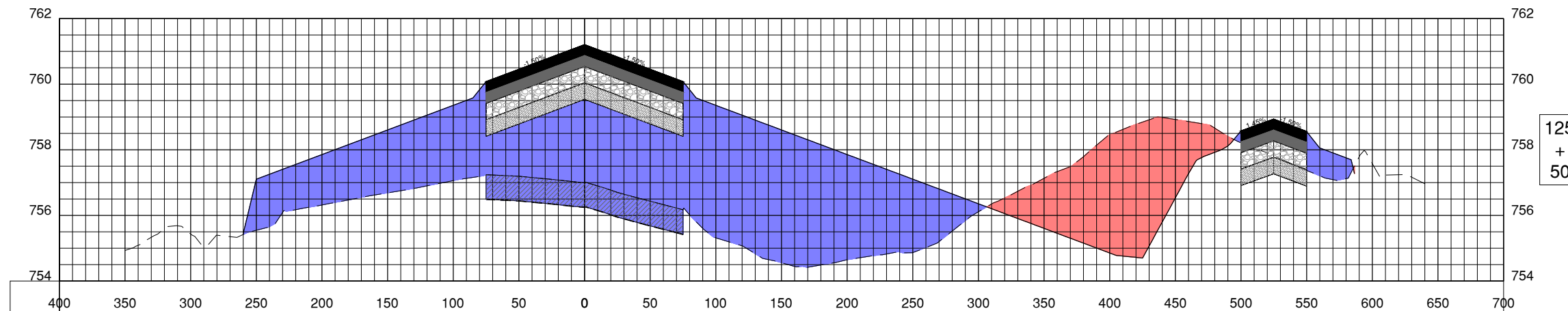


CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

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		CMT PROJECT NO: 18002001
		CAD DWG FILE: 180020-01 PH4 CG601 422 XSECT.DWG
		DESIGNED BY: HWI
		DRAWN BY: DPA
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SHEET TITLE  
**RWY 422 CROSS  
SECTIONS 17**

CG617  
SHEET 130 OF 143



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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

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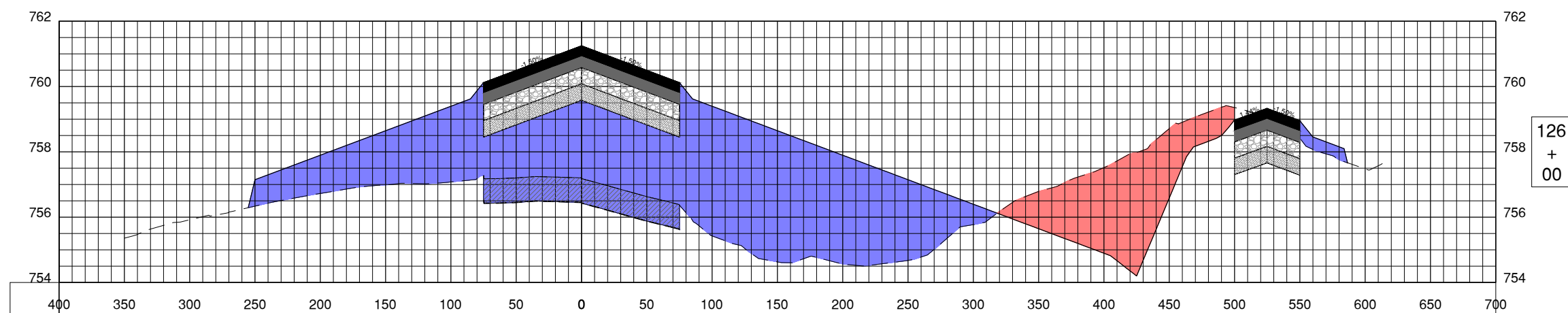
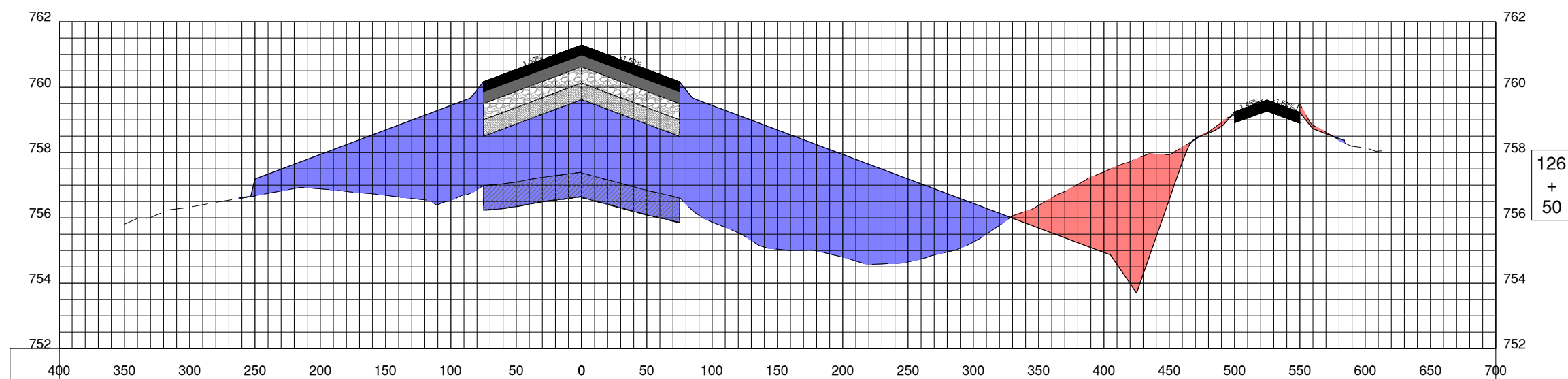


CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CG601 422 XSECT.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
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SHEET TITLE  
**RWY 422 CROSS  
SECTIONS 18**





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RECONSTRUCT RUNWAY 4/22  
PHASE 4

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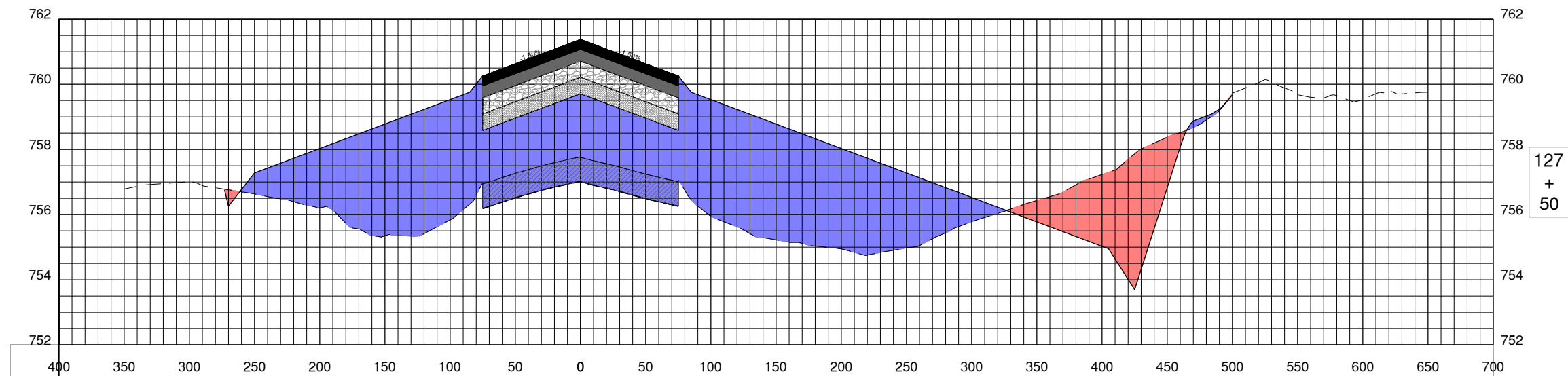
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

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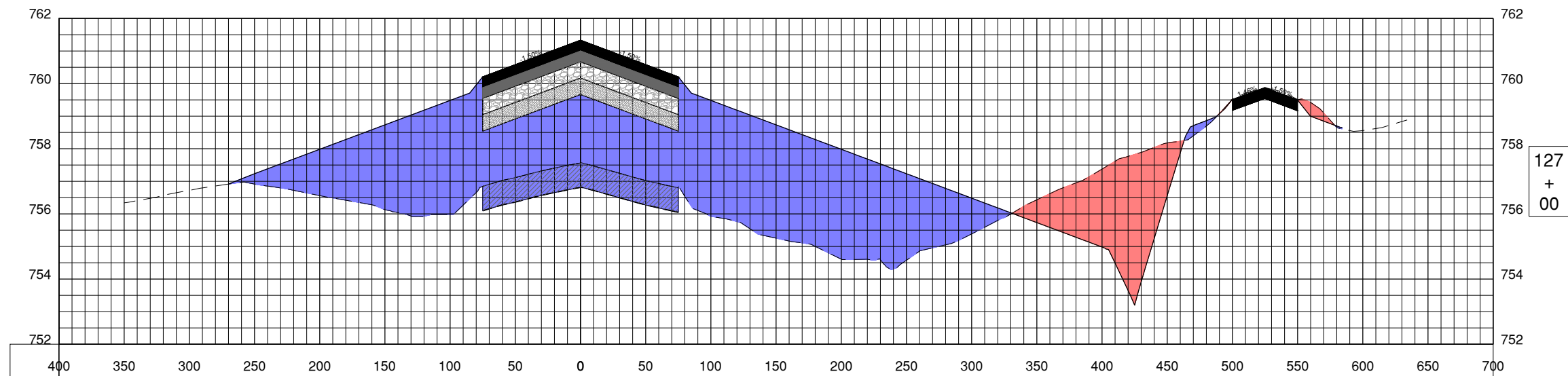
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DESIGNED BY:	HWI
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SHEET TITLE  
**RWY 422 CROSS  
SECTIONS 19**

CG619  
SHEET 132 OF 143



127  
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QUINCY, IL

MARK | DATE | DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 CG601 422 XSECT.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: CHK

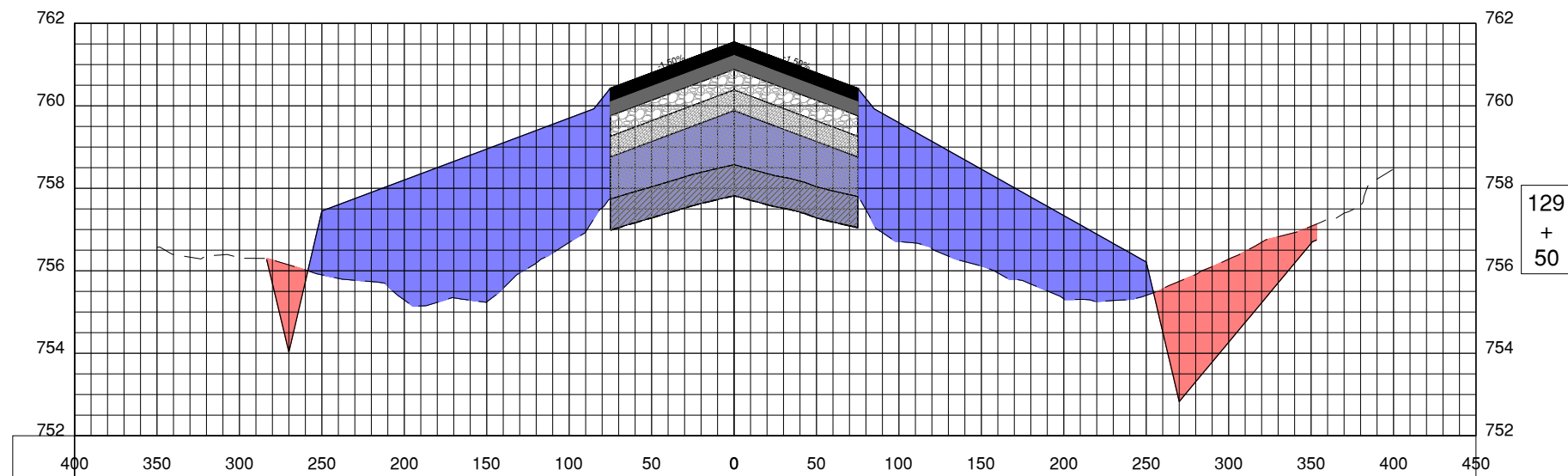
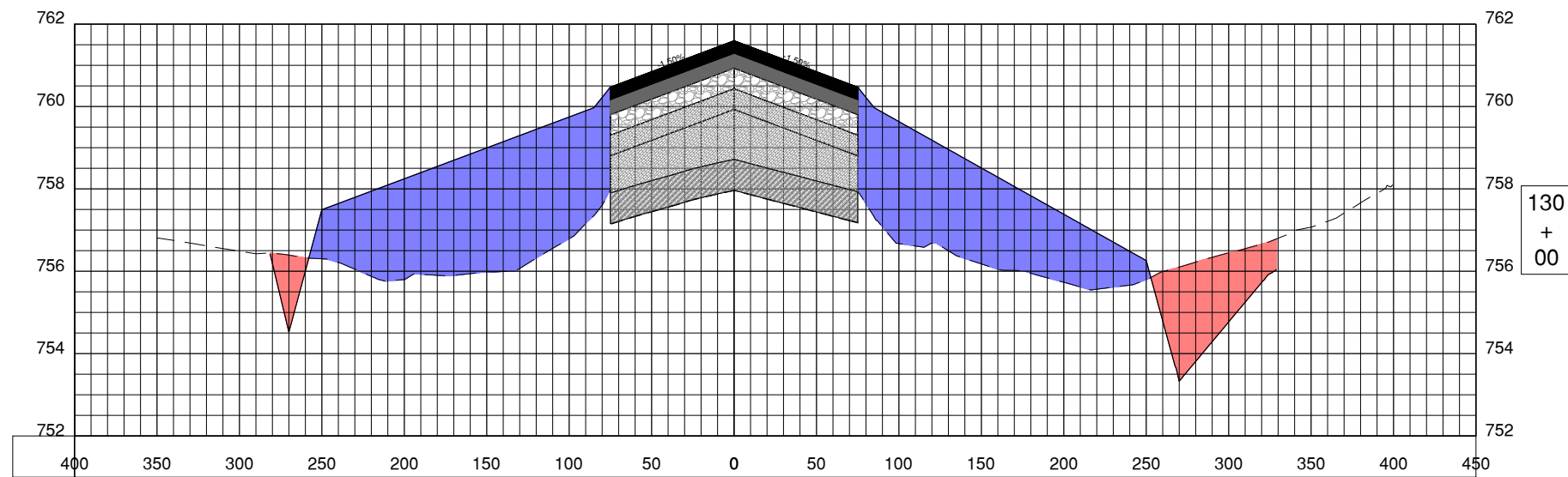
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SHEET TITLE

RWY 422 CROSS  
SECTIONS 21

CG621  
SHEET 134 OF 143



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PHASE 4

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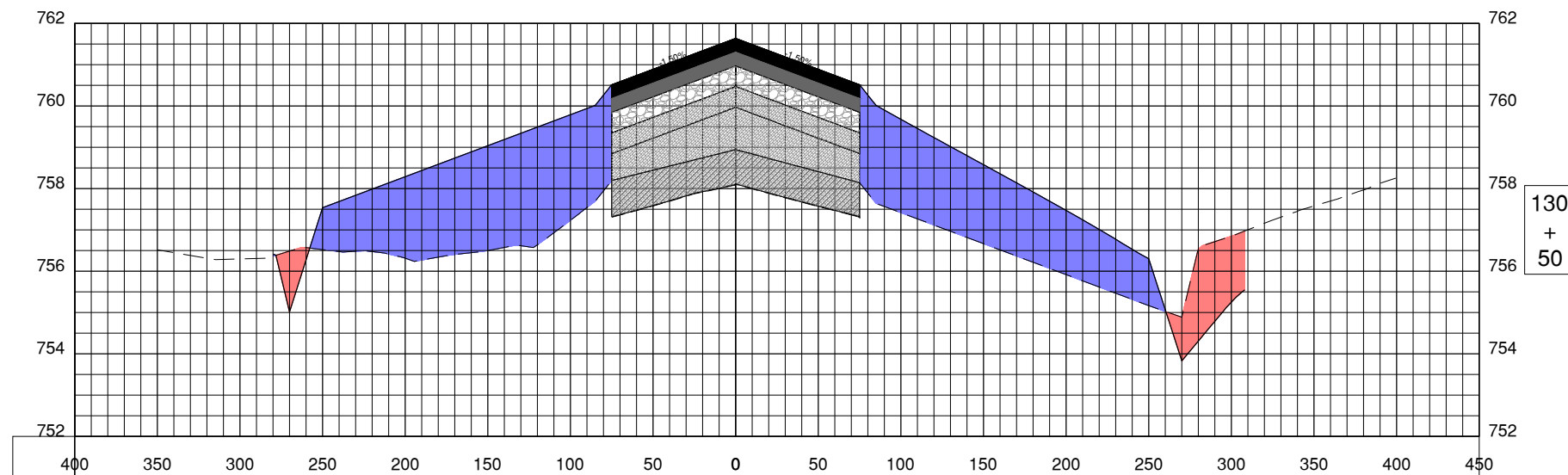
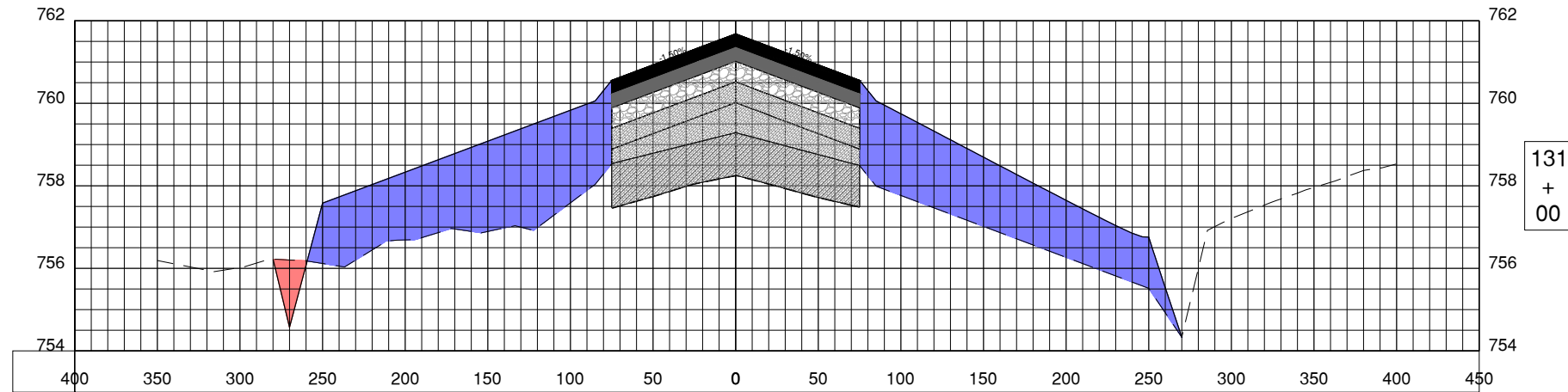
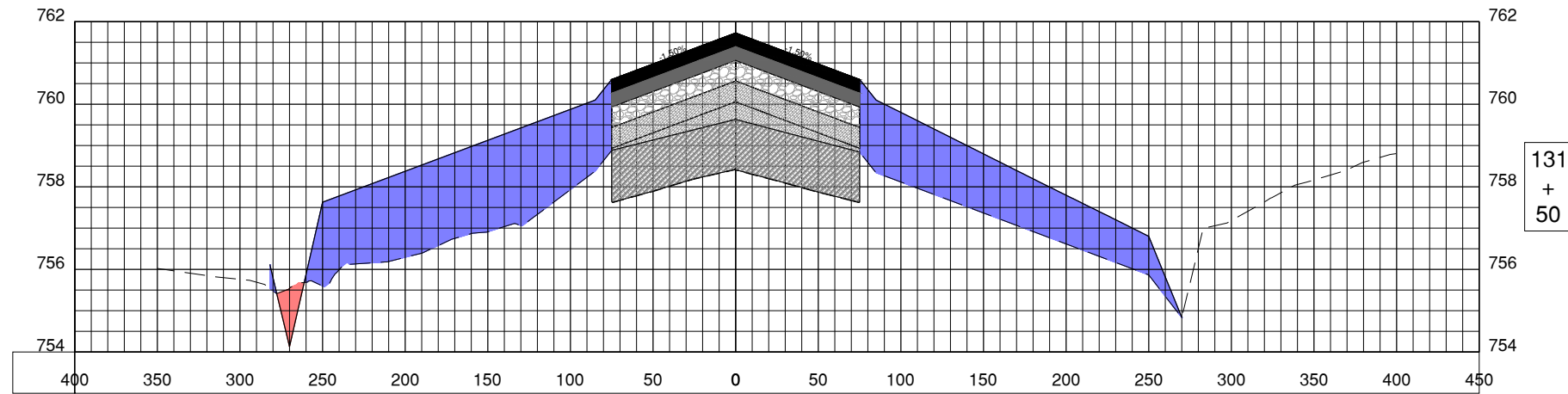
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK | DATE | DESCRIPTION

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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CG601 422 XSECT.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	CHK
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SHEET TITLE  
**RWY 422 CROSS  
SECTIONS 22**

CG622  
SHEET 135 OF 143



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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

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CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK | DATE | DESCRIPTION

AIP PROJ. NO: 3-17-0085-XX

IL. PROJ. NO: UIN-5051

CMT PROJECT NO: 18002001

CAD DWG FILE: 180020-01 PH4 CG601 422 XSECT.DWG

DESIGNED BY: HWI

DRAWN BY: DPA

CHECKED BY: CHK

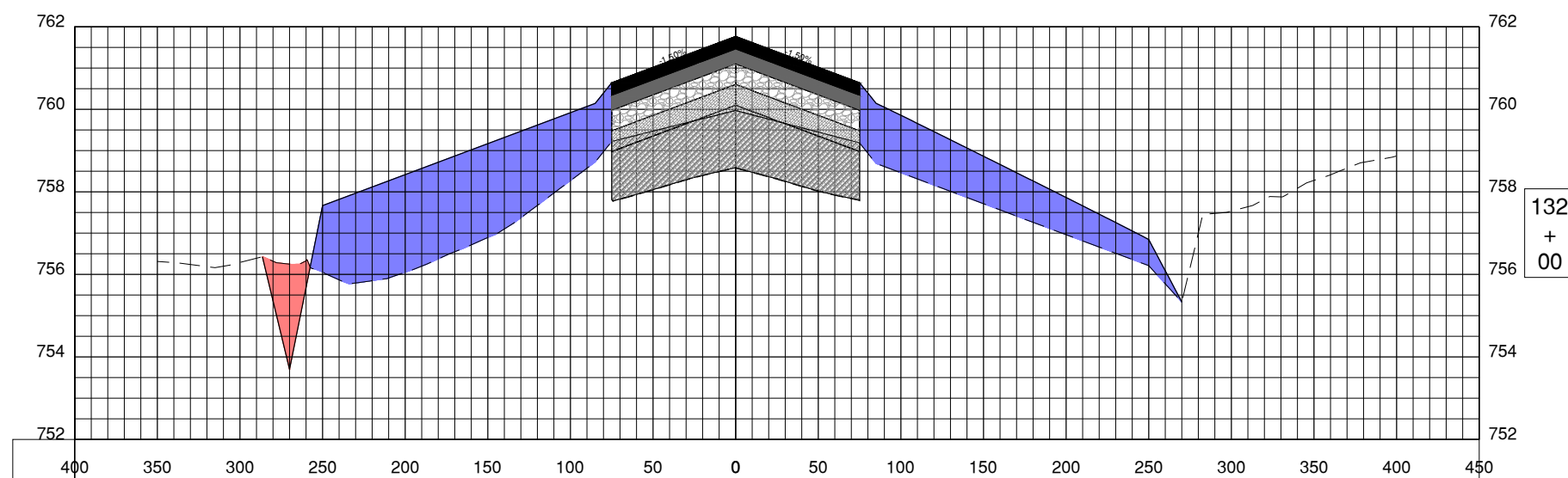
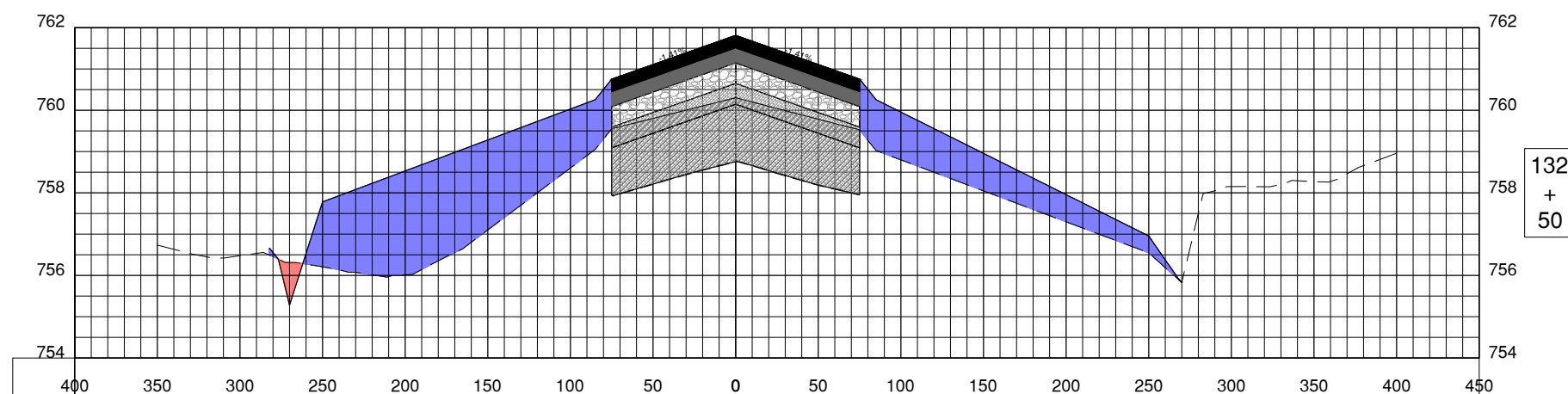
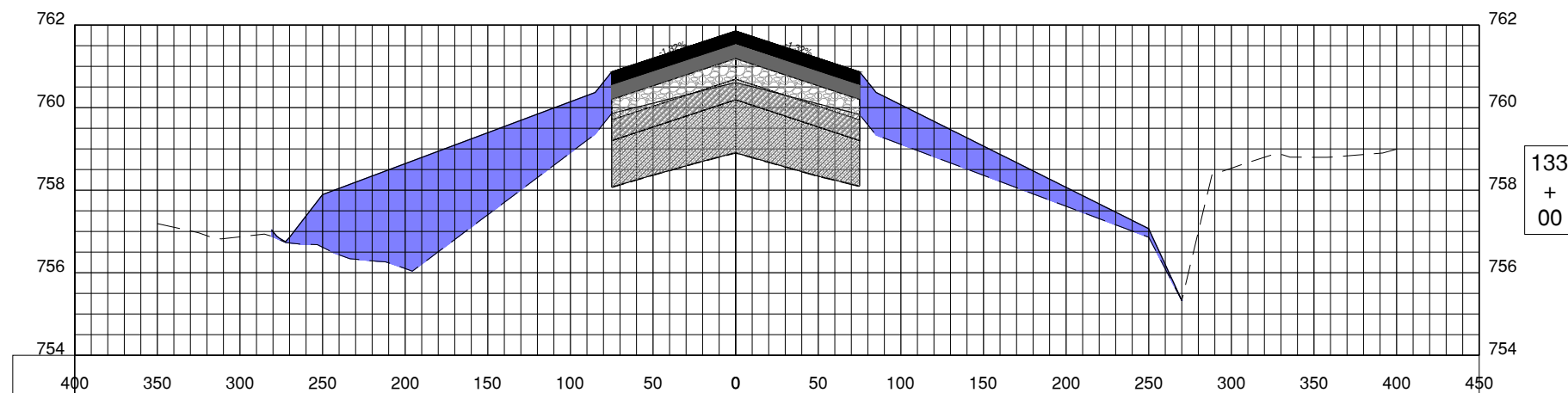
APPROVED BY: APR

COPYRIGHT:

SHEET TITLE

RWY 422 CROSS  
SECTIONS 23

CG623  
SHEET 136 OF 143



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Date: Wednesday, March 8, 2023 3:04:13 PM







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MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



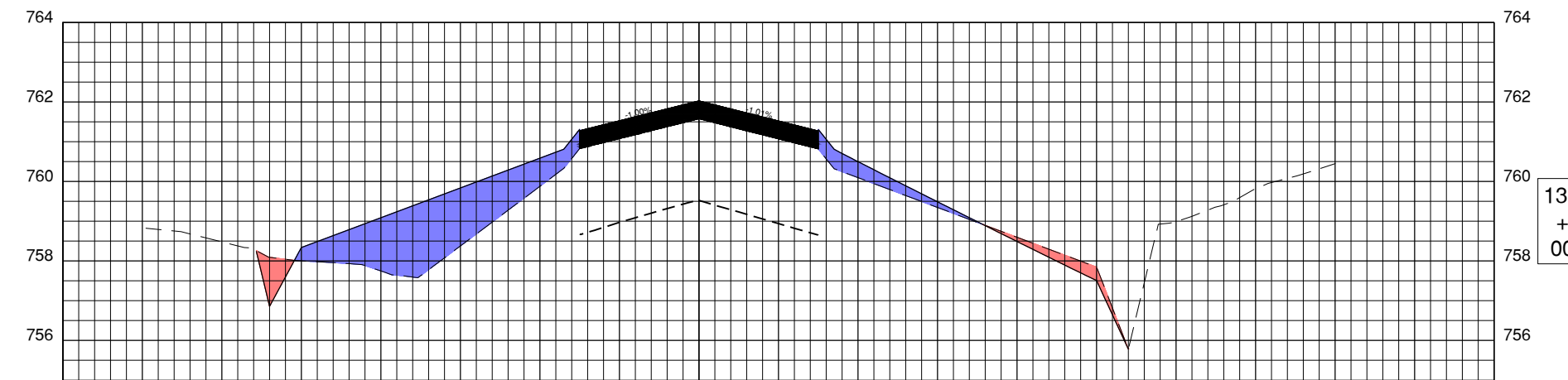
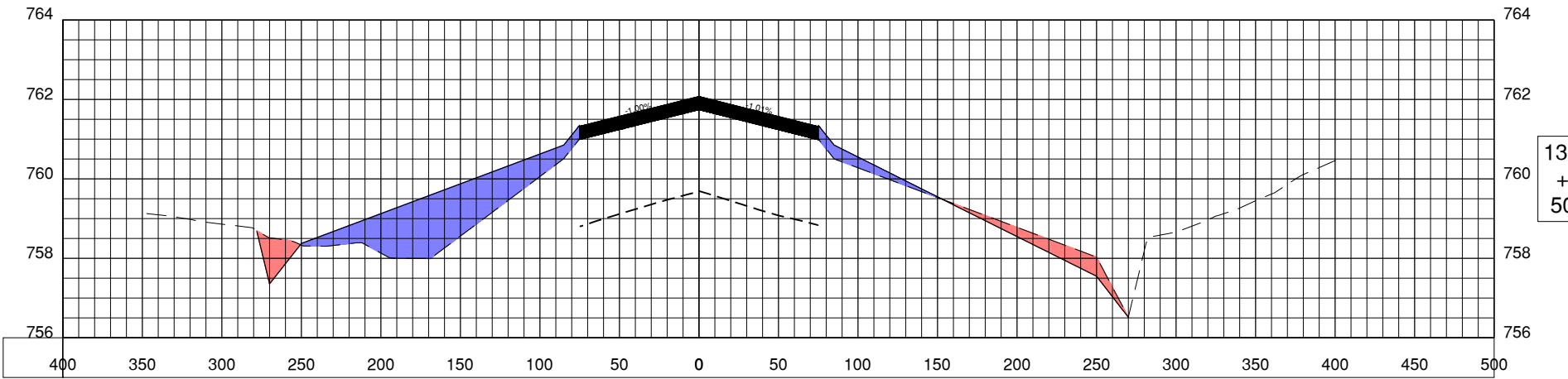
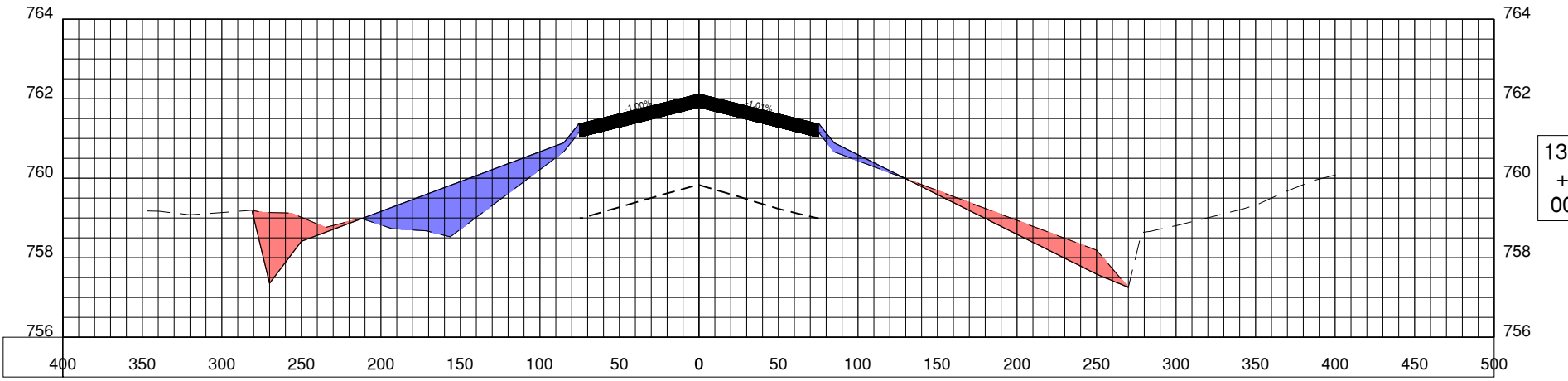
CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

MARK	DATE	DESCRIPTION

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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CG601 422 XSECT.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	CHK
APPROVED BY:	APR
COPYRIGHT:	

SHEET TITLE  
**RWY 422 CROSS  
SECTIONS 25**

SHEET **138** OF **143**  
CG625



Path: K:\Quincy\AP\180020-01\_ReconRunway4-22\DrawRwy4\Sheets\180020-01\_PH4\_CG601\_422\_XSECT.dwg  
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BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

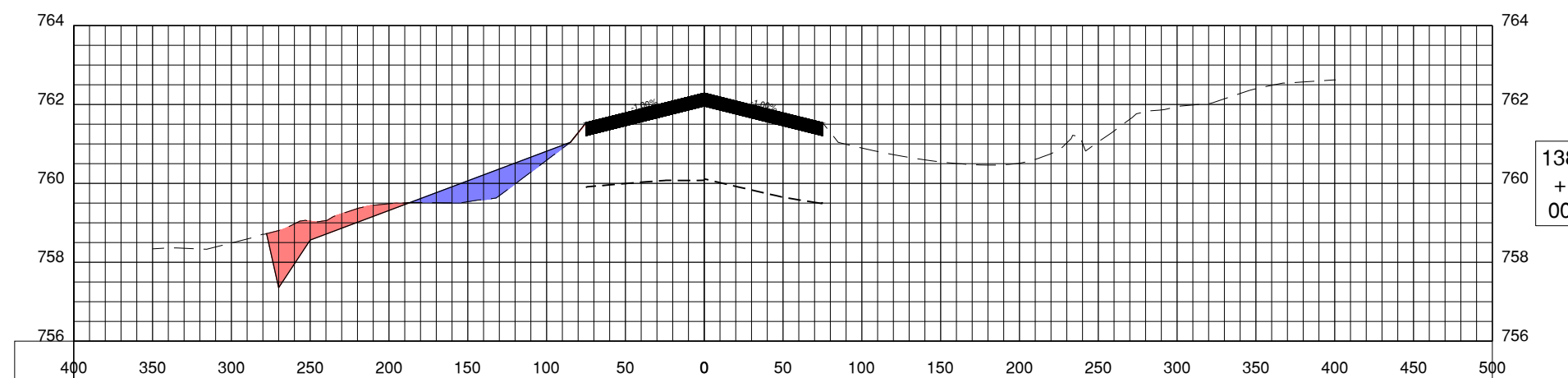
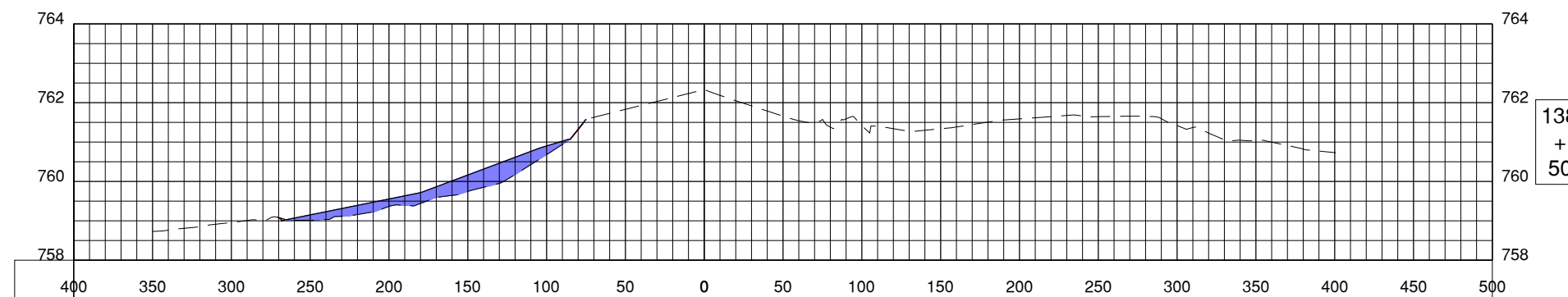
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IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CG601 422 XSECT.DWG
DESIGNED BY:	HWI
DRAWN BY:	DPA
CHECKED BY:	CHK
APPROVED BY:	APR
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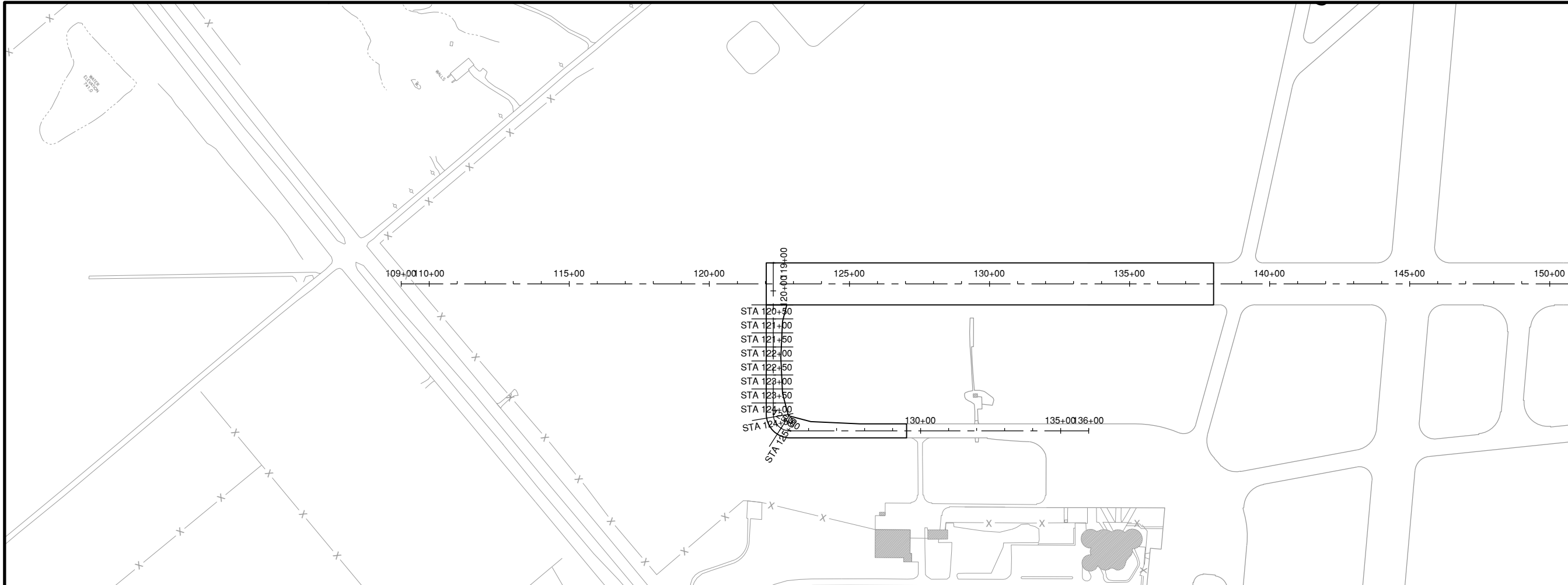
SHEET TITLE  
**RWY 422 CROSS  
SECTIONS 27**

SHEET **140** OF **143**  
CG627

STA	CUT			FILL		
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111+50	549	0	0	161	0	0
112+00	507	1006	1006	168	313	313
112+50	495	955	1961	41	198	511
113+00	996	1421	3382	162	192	703
113+50	1232	2124	5506	131	279	982
114+00	1302	2416	7922	15	138	1120
114+50	1428	2603	10525	1	14	1134
115+00	1598	2885	13410	1	0	1134
115+50	1752	3193	16603	1	1	1135
116+00	1830	3415	20018	0	1	1136
116+50	1870	3528	23546	0	0	1136
117+00	1845	3542	27088	0	0	1136
117+50	1833	3506	30594	0	0	1136
118+00	1616	3288	33882	1	0	1136
118+50	1278	2759	36641	68	65	1201
119+00	1072	2241	38882	205	260	1461
119+50	918	1897	40779	350	529	1990
120+00	807	1644	42423	492	803	2793
120+50	743	1477	43900	727	1162	3955
121+00	588	1268	45168	928	1578	5533
121+50	296	842	46010	1316	2140	7673
122+00	0	282	46292	1153	2354	10027
122+50	0	0	46292	1116	2163	12190
123+00	11	10	46302	1697	2682	14872
123+50	32	40	46342	1471	3020	17892
124+00	205	225	46567	1511	2844	20736
124+50	323	503	47070	1625	2991	23727
125+00	379	669	47739	1600	3075	26802
125+50	386	729	48468	1482	2938	29740
126+00	318	671	49139	1422	2768	32508
126+50	252	543	49682	1420	2709	35217
127+00	264	491	50173	1481	2765	37982
127+50	241	480	50653	1511	2852	40834
128+00	240	458	51111	1536	2905	43739
128+50	193	412	51523	1485	2880	46619
129+00	149	325	51848	1303	2658	49277
129+50	187	320	52168	1182	2369	51646
130+00	147	318	52486	814	1902	53548
130+50	88	223	52709	709	1451	54999
131+00	17	99	52808	645	1290	56289
131+50	12	27	52835	618	1203	57492
132+00	37	47	52882	564	1126	58618
132+50	8	42	52924	510	1023	59641
133+00	0	7	52931	452	916	60557
133+50	7	6	52937	374	787	61344
134+00	28	33	52970	304	646	61990
134+50	28	53	53023	259	536	62526
135+00	31	56	53079	217	453	62979
135+50	45	71	53150	164	363	63342
136+00	84	122	53272	101	252	63594
136+50	139	211	53483	64	157	63751
137+00	163	287	53770	45	103	63854
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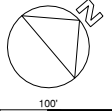


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0 100' 200'

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RECONSTRUCT RUNWAY 4/22  
PHASE 4

OWNER



CITY OF QUINCY  
QUINCY REGIONAL AIRPORT  
QUINCY, IL

**SECTION LEGEND**

---	EXIST. GROUND
—	FINAL GROUND
- - - - -	EXIST. HMA
- · - · -	EXIST. PCC
- - - - -	EXIST. BASE
█	P-401
█	P-403
█	P-209
█	P-154
█	P-152
█	EXISTING PAVEMENT
█	CUT
█	FILL

MARK	DATE	DESCRIPTION

AIP PROJ. NO:	3-17-0085-XX
IL PROJ. NO:	UIN-5051
CMT PROJECT NO:	18002001
CAD DWG FILE:	180020-01 PH4 CG600 422 XSECT
DESIGNED BY:	RWF
DRAWN BY:	DPA
CHECKED BY:	MJD
APPROVED BY:	RLV
COPYRIGHT:	

SHEET TITLE  
**TXY B CROSS  
SECTION INDEX**

CG700  
SHEET 141 OF 143

BID ISSUE  
MARCH 08, 2023

RECONSTRUCT RUNWAY  
4/22 PHASE 4

OWNER

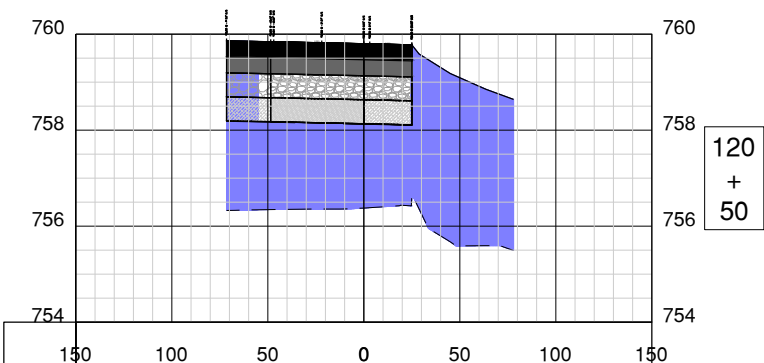
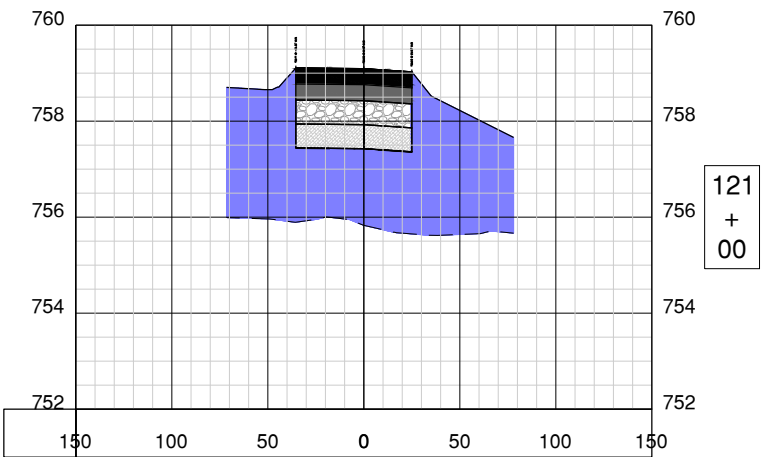
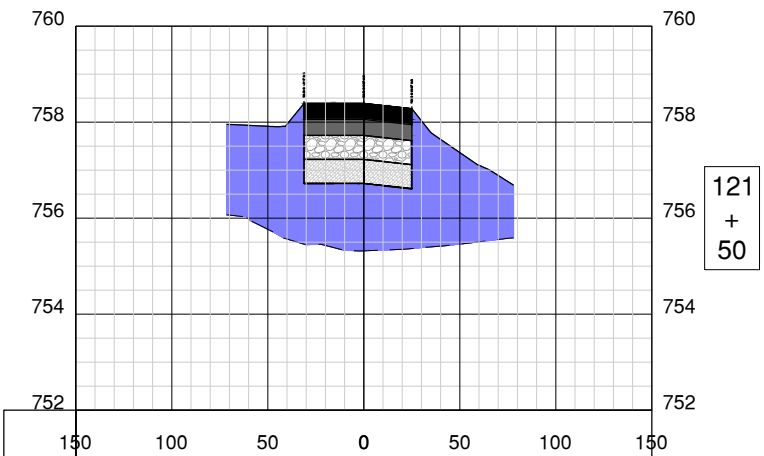
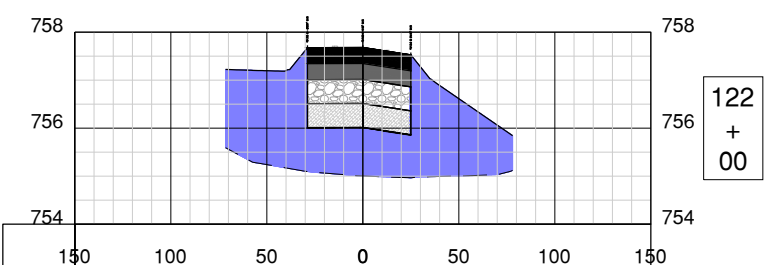
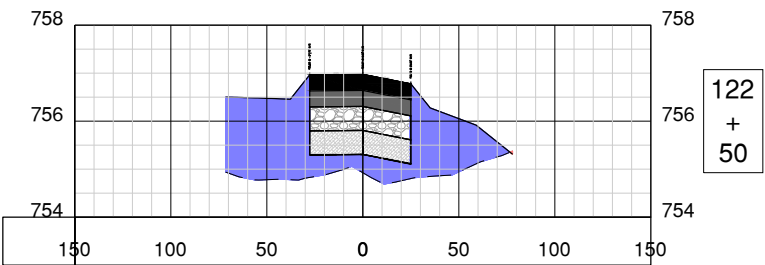
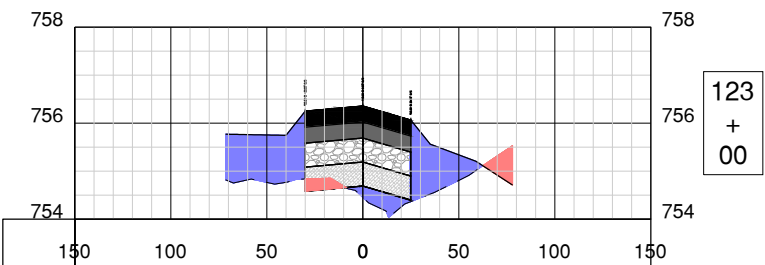
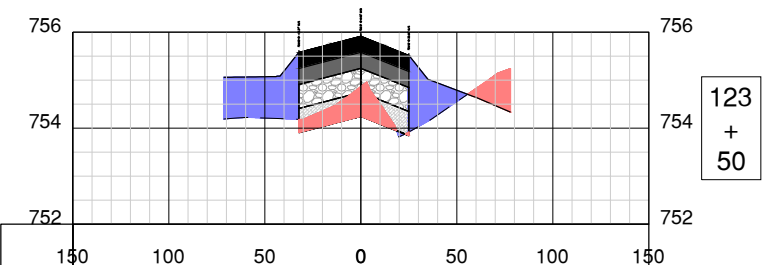
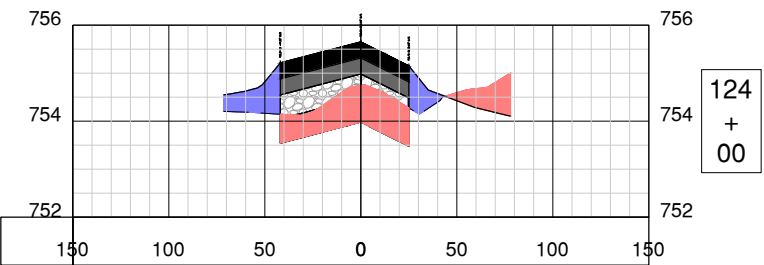
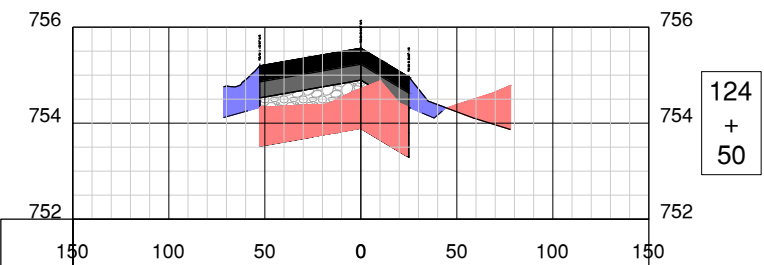
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MARK	DATE	DESCRIPTION

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CAD DWG FILE: 180020-01 PH4 CG701 TXY B XSECT.DWG
DESIGNED BY: DES
DRAWN BY: DPA
CHECKED BY: CHK
APPROVED BY: APR
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SHEET TITLE  
**TXY B CROSS  
SECTIONS 1**

CG701  
SHEET 142 OF 143





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RECONSTRUCT RUNWAY  
4/22 PHASE 4

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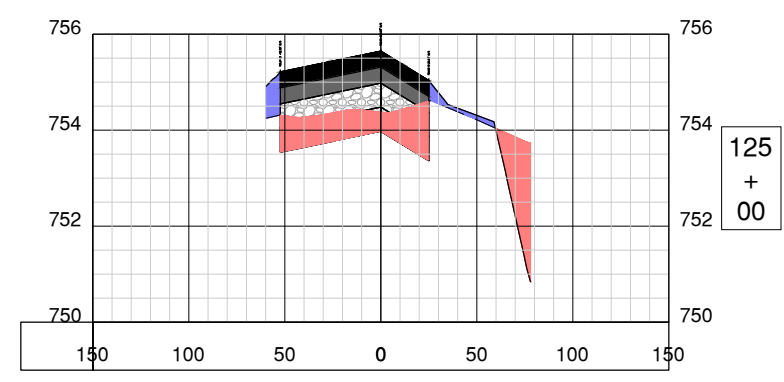
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MARK	DATE	DESCRIPTION

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 CAD DWG FILE: 180020-01 PH4 CG701 TXY B XSECT.DWG  
 DESIGNED BY: DES  
 DRAWN BY: DPA  
 CHECKED BY: CHK  
 APPROVED BY: APR  
 COPYRIGHT:

SHEET TITLE  
 TXY B CROSS  
 SECTIONS 2

TAXIWAY B EARTHWORK CALCULATIONS						
STA	CUT			FILL		
	AREA (SF)	VOLUME (CY)	CUMUL (CY)	AREA (SF)	VOLUME (CY)	CUMUL (CY)
120+50	0	0	0	405	0	0
121+00	0	0	0	334	703	703
121+50	0	0	0	272	577	1280
122+00	0	0	0	232	479	1759
122+50	0	0	0	153	365	2124
123+00	8	7	7	81	222	2346
123+50	30	35	42	58	132	2478
124+00	60	85	127	26	79	2557
124+50	91	144	271	20	43	2600
125+00	77	160	431	11	29	2629



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