

01A

LAKE IN THE HILLS AIRPORT LAKE IN THE HILLS, ILLINOIS

LK015
TOTAL SHEETS:
23



LAKE IN THE HILLS AIRPORT
VILLAGE OF LAKE IN THE HILLS, ILLINOIS
8407 PYOTT ROAD
LAKE IN THE HILLS, ILLINOIS 60156
TELEPHONE: 847-950-7500

APPROVED BY Michael Peranich
MICHAEL PERANICH, AIRPORT MANAGER

DATE 06-10-2022



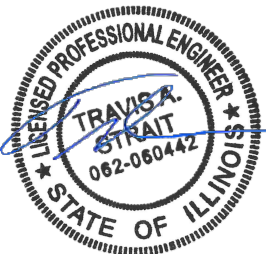
COMMON GROUND ALLIANCE
www.call811.com or
Phone: 811

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

TOWNSHIP: 43 NORTH
RANGE: 8 EAST
SECTION: 17

COUNTY: MCHENRY
TOWNSHIP: ALGONQUIN

Illinois Professional Engineering Practice Act of 1989



SUBMITTED BY Travis A. Strait
TRAVIS A. STRAIT, P.E.

DATE 06-10-2022

License Expires 11/30/2023

CONSTRUCTION PLANS FOR LAKE IN THE HILLS AIRPORT

REHABILITATE RUNWAY 8/26 ELECTRICAL

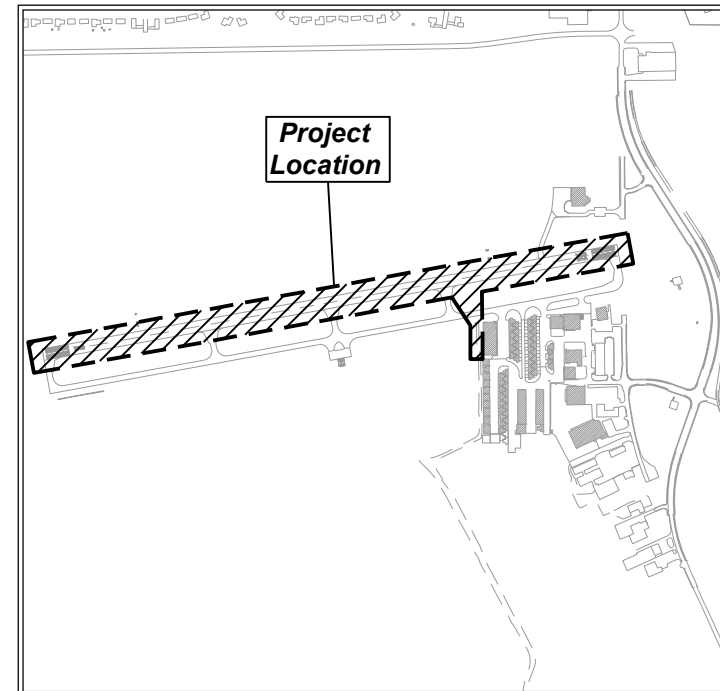
FINAL SUBMITTAL

ILLINOIS PROJECT: 3CK-4874
SBG PROJECT: 3-17-SBGP-TBD

JUNE 10, 2022
(AUGUST 5, 2022 LETTING)



LOCATION MAP



SITE PLAN

DESIGN INFORMATION

RUNWAY 8/26

AIRCRAFT DESIGN GROUP II
DESIGN APPROACH CATEGORY B
RUNWAY SAFETY AREA WIDTH = 150'

MAXIMUM EQUIPMENT HEIGHT - 25'
UNICOM FREQUENCY - 123.05

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CMT DESIGN NUMBER: 21025502.00



LK015

VILLAGE OF
LAKE IN THE HILLS

LAKE IN THE HILLS
MUNICIPAL AIRPORT
LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN
BY:

REV DATE DESCRIPTION

PROJECT NAME:

REHABILITATE
RUNWAY 8/26
ELECTRICAL

SHEET TITLE:

**SUMMARY OF
QUANTITIES**

DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

SHEET NO. REVISION

2

SHEET 2 OF 23 SHEETS

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	RECORD QUANTITY
AR107408	L-806 WIND CONE - 8' LIGHTED	EACH	2.00	
AR108158	1/C #8 5 KV UG CABLE IN UD	FOOT	9,800.00	
AR108258	2/C #8 5 KV UG CABLE IN UD	FOOT	800.00	
AR108706	1/C #6 COUNTERPOISE	FOOT	9,850.00	
AR109110	ERECT PREFABRICATED VAULT	L SUM	1.00	
AR109321	10 KW REGULATOR, STYLE 1	EACH	2.00	
AR109400	POWER DISTRIBUTION SYSTEM	L SUM	1.00	
AR109610	L-854 PCAL SYSTEM	L SUM	1.00	
AR110012	2" DIRECTIONAL BORE	FOOT	405.00	
AR110013	3" DIRECTIONAL BORE	FOOT	340.00	
AR115615	ELECTRICAL HANDHOLE, HIGH VOLTAGE	EACH	1.00	
AR115620	ELECTRICAL HANDHOLE, LOW VOLTAGE	EACH	1.00	
AR125442	TAXI GUIDANCE SIGN, 2 CHARACTER	EACH	4.00	
AR125443	TAXI GUIDANCE SIGN, 3 CHARACTER	EACH	8.00	
AR125446	TAXI GUIDANCE SIGN, 6 CHARACTER	EACH	3.00	
AR125505	MIRL, STAKE MOUNTED	EACH	27.00	
AR125510	MIRL, BASE MOUNTED	EACH	8.00	
AR125545	MI THRESHOLD LIGHT BASE MTD	EACH	16.00	
AR125610	REILS	PAIR	2.00	
AR125901	REMOVE STAKE MOUNTED LIGHT	EACH	48.00	
AR125906	REMOVE SPLICE CAN	EACH	10.00	
AR125912	REMOVE RETROREFLECTIVE MARKER	EACH	16.00	
AR125968	RELOCATE PAPI, 2 BOX SYSTEM	EACH	2.00	
AR150510	ENGINEER'S FIELD OFFICE	L SUM	1.00	
AR150520	MOBILIZATION	L SUM	1.00	
AR800893	2-WAY 2" DIRECTIONAL BORE	FOOT	65.00	
AR800894	3-WAY 3" DIRECTIONAL BORE	FOOT	65.00	
AR800895	2-WAY 2" PVC SCHEDULE 80 CONDUIT, DIRECT BURIED	FOOT	60.00	
AR800896	3-WAY 3" PVC SCHEDULE 80 CONDUIT, DIRECT BURIED	FOOT	60.00	
AR800897	2 #6 XLP-USE, 1 #8 GND IN 1" UD	FOOT	5,870.00	
AR800898	3 #6 XLP-USE, 1 #8 GND IN 1" UD	FOOT	540.00	
AR800899	2 #8 XLP-USE, 1 #8 GND IN 1" UD	FOOT	1,260.00	



LK015

VILLAGE OF LAKE IN THE HILLS

LAKE IN THE HILLS MUNICIPAL AIRPORT
LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN
BY:

REV	DATE	DESCRIPTION

PROJECT NAME:

REHABILITATE RUNWAY 8/26
ELECTRICAL

SHEET TITLE:

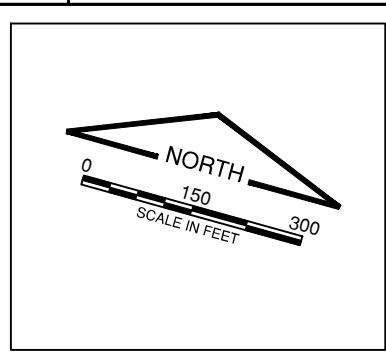
SITE PLAN AND CONTROL

DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

PROJECT NO.: 21025502.00
DATE: JUNE 1, 2022

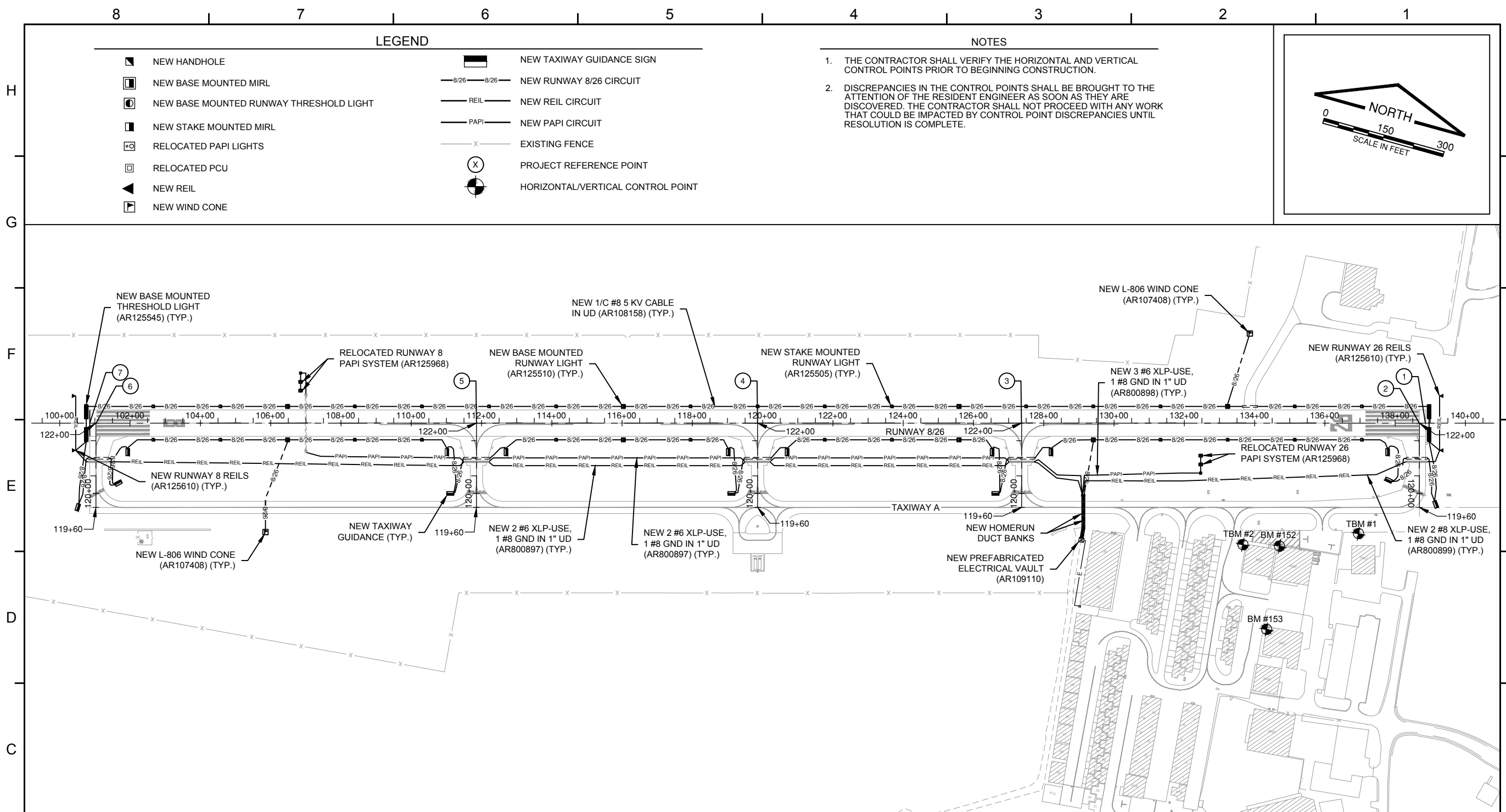
SHEET NO. **3** REVISION

SHEET 3 OF 23 SHEETS



- NOTES**
- THE CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL CONTROL POINTS PRIOR TO BEGINNING CONSTRUCTION.
 - DISCREPANCIES IN THE CONTROL POINTS SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER AS SOON AS THEY ARE DISCOVERED. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK THAT COULD BE IMPACTED BY CONTROL POINT DISCREPANCIES UNTIL RESOLUTION IS COMPLETE.

- LEGEND**
- NEW HANDHOLE
 - NEW BASE MOUNTED MIRL
 - NEW BASE MOUNTED RUNWAY THRESHOLD LIGHT
 - NEW STAKE MOUNTED MIRL
 - RELOCATED PAPI LIGHTS
 - RELOCATED PCU
 - NEW REIL
 - NEW WIND CONE
 - NEW TAXIWAY GUIDANCE SIGN
 - NEW RUNWAY 8/26 CIRCUIT
 - NEW REIL CIRCUIT
 - NEW PAPI CIRCUIT
 - EXISTING FENCE
 - PROJECT REFERENCE POINT
 - HORIZONTAL/VERTICAL CONTROL POINT



HORIZONTAL (NAD83) AND VERTICAL CONTROL POINTS (NAVD 88)

BENCHMARK #	DESCRIPTION	NORTHING	EASTING	ELEVATION
152	NGS PID NUMBER NH0152 NAVD 88 (ADJUSTED 6/1991) SET VERTICALLY IN THE NORTH FACE OF THE NORTHWEST CORNER OF THE CONCRETE FOUNDATION OF THE NORTH ONE OF TWO LARGE CONCRETE BLOCK HANGARS, 1-1/2 FEET EAST OF THE NORTHWEST CORNER, 1 FOOT ABOVE THE LEVEL OF THE GROUND, AND ABOUT LEVEL WITH THE ENTRANCE DRIVE.	2017889.86	988657.46	886.80
153	NGS PID NUMBER NH0152 NAVD 88 (ADJUSTED 6/1991) SET VERTICALLY IN THE WEST FACE OF THE NORTHWEST CORNER OF THE CONCRETE FOUNDATIONS OF THE SOUTH ONE OF THE TWO LARGE CONCRETE BLOCK HANGARS, 1 FOOT SOUTH OF THE NORTHWEST CORNER, AND 1/2 FOOT ABOVE THE LEVEL OF CONCRETE RAMP.	2017650.18	988663.58	886.58
1	TOP OF WELL HEAD AT NORTHWEST CORNER PILOT SHOP	2017965.06	988872.43	890.86
2	TOP OF WELL HEAD AT NORTHWEST CORNER NEW AIRPORT ADMINISTRATION BUILDING.	2017875.46	988554.34	887.68

RUNWAY 8/26 PROJECT REFERENCE POINTS (NAD 83)

POINT	DESCRIPTION	NORTHING	EASTING	STATION
1	RUNWAY 26 END	2018308.5214	989002.7214	STA 138+85.04 ☐ RUNWAY 8/26
2	RUNWAY 26 AND TAXIWAY A END CONNECTOR	2018305.6050	988986.6690	STA 138+68.72 ☐ RUNWAY 8/26
3	RUNWAY 8/26 AND TAXIWAY A3	2018103.1894	987872.4998	STA 127+36.84 ☐ RUNWAY 8/26 STA 122+00.00 ☐ TAXIWAY A3
4	RUNWAY 8/26 AND TAXIWAY A2	2017968.9441	987133.5663	STA 119+85.67 ☐ RUNWAY 8/26 STA 122+00.00 ☐ TAXIWAY A2
5	RUNWAY 8/26 AND TAXIWAY A1	2017825.8931	986346.1613	STA 111+85.67 ☐ RUNWAY 8/26 STA 122+00.00 ☐ TAXIWAY A1
6	RUNWAY 8 AND TAXIWAY A END CONNECTOR	2017632.3354	985280.7499	STA 101+02.61 ☐ RUNWAY 8/26
7	RUNWAY 8 END	2017629.2845	985263.9567	STA 100+85.01 ☐ RUNWAY 8/26

8 7 6 5 4 3 2 1



LK015

VILLAGE OF LAKE IN THE HILLS
LAKE IN THE HILLS MUNICIPAL AIRPORT
LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN
BY:

REV	DATE	DESCRIPTION

PROJECT NAME:

REHABILITATE RUNWAY 8/26
ELECTRICAL

SHEET TITLE:

SEQUENCE OF CONSTRUCTION 2

DESIGNED:	DRAWN:	CHECKED:
CMT-MLI	CMT-MLI	CMT-MLI

PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

SHEET NO. 5 REVISION

SHEET 5 OF 23 SHEETS

PHASE 2 SUGGESTED SEQUENCE

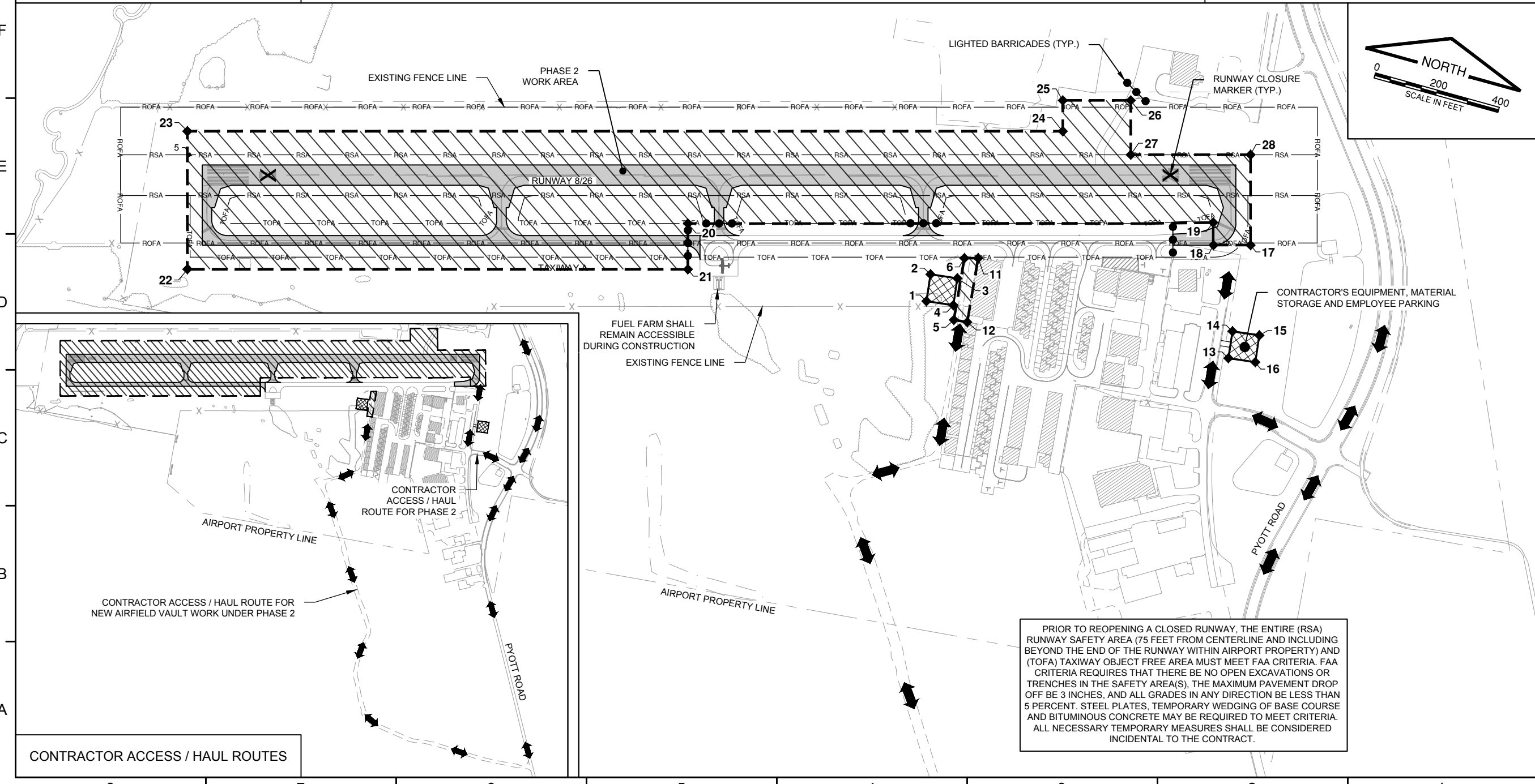
1. AT THE START OF EACH WORKDAY, CONTRACTOR SHALL CLOSE RUNWAY 8/26 AND INSTALL CLOSED RUNWAY MARKERS AND BARRICADES AS SHOWN OR AS DIRECTED BY THE RESIDENT ENGINEER. ONLY DAILY CLOSURES OF THE RUNWAY AND TAXIWAYS WILL BE PERMITTED.
2. INSTALL NEW RUNWAY EDGE LIGHTS, AIRFIELD SIGNAGE, WIND CONES AND CABLE.
3. INSTALL NEW REIL UNITS AND CABLE.
4. RELOCATE EXISTING PAPI UNITS, PCU AND INSTALL NEW CABLE.
5. VERIFY NEW RUNWAY LIGHTING SYSTEM IS FULLY OPERATIONAL FOR USE.
6. REMOVE EXISTING RUNWAY EDGE LIGHTS AND CABLE ONCE NEW LIGHTING SYSTEM IS FULLY OPERATIONAL FOR USE.
7. REMOVE RUNWAY CLOSURE MARKERS AND BARRICADES AT THE END OF EACH WORKDAY AND REOPEN THE RUNWAY AND TAXIWAYS.

GENERAL PHASING NOTES

1. ANY TIME THE HAUL ROUTE USES OR CROSSES EXISTING AIRPORT PAVEMENT, THE PAVEMENT SHALL BE SWEEPED AND CLEANED AS REQUIRED TO THE SATISFACTION OF THE AIRPORT AND/OR RESIDENT ENGINEER.
2. ALL RUNWAYS, TAXIWAYS, AND APRONS SHALL BE KEPT OPEN TO AIRPORT TRAFFIC DURING CONSTRUCTION EXCEPT AS NOTED IN THE CONSTRUCTION ACTIVITY PLAN.
3. WHEN CONFLICTS ARISE BETWEEN CONSTRUCTION ACTIVITIES AND AIRCRAFT OPERATIONS AND SAFETY, AIRCRAFT OPERATIONS AND SAFETY SHALL TAKE PRECEDENCE AND SHALL GOVERN. FINAL AUTHORITY IN THE APPROVAL OF CONSTRUCTION SEQUENCING LIES WITH THE AIRPORT MANAGER.
4. CONSTRUCTION TRAFFIC SHALL STOP AND YIELD TO AIRCRAFT TRAFFIC WHEN ENTERING AIRCRAFT OPERATIONAL AREA.
5. ONLY DAILY RUNWAY AND TAXIWAY CLOSURES WILL BE PERMITTED. NO OVERNIGHT CLOSURES WILL BE PERMITTED.
6. EXISTING TURF AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY HIM AT HIS EXPENSE TO THE SATISFACTION OF THE ENGINEER AND THE AIRPORT.
7. AT THE END OF EACH WORK DAY ALL PAVEMENTS SHALL BE REOPENED TO AIRFIELD TRAFFIC. THE CONTRACTOR SHALL RESTORE ALL RUNWAY AND TAXIWAY SAFETY AREAS AS REQUIRED TO MAINTAIN COMPLIANCE WITH ALL FAA REQUIREMENTS PRIOR TO REOPENING PAVEMENT.
8. DAMAGE TO AIRPORT SERVICE ROADS, CONTRACTOR STAGING AREA AND AIRFIELD PAVEMENTS SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
9. THE EXISTING RUNWAY EDGE LIGHT SYSTEM SHALL REMAIN ACTIVE AND IN PLACE UNTIL THE NEW RUNWAY EDGE LIGHT SYSTEM IS INSTALLED AND COMPLETE. ONCE THE NEW EDGE LIGHT SYSTEM IS OPERATIONAL, THE EXISTING SYSTEM MAY BE DISCONNECTED AND REMOVED.
10. CONTRACTOR SHALL INSTALL AND MAINTAIN RUNWAY CLOSURE MARKERS AT BOTH ENDS OF THE RUNWAY WHEN THE RUNWAY IS CLOSED. SEE SEQUENCE OF CONSTRUCTION DETAILS SHEET FOR RUNWAY CLOSURE MARKER DETAILS AND NOTES.
11. THE LOCATION OF THE BARRICADES SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER. SHOULD THE PHASING REQUIRE THE BARRICADES TO BE REPOSITIONED THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
12. THE CONTRACTOR WILL BE PERMITTED TO STORE EQUIPMENT AND MATERIALS AT THE CONTRACTOR'S STAGING AREA. THE MAXIMUM HEIGHT OF EQUIPMENT, MATERIALS AND STOCKPILES SHALL BE 25' ABOVE GROUND ELEVATION.
13. CONTRACTOR SHALL NOTIFY THE AIRPORT MANAGER THROUGH THE RESIDENT ENGINEER 14 DAYS PRIOR TO THE INITIATION OF ANY WORK WHICH REQUIRES THE CLOSURE OF ACTIVE AIRFIELD PAVEMENT.
14. THE CONTRACTOR SHALL DE-ENERGIZE THE EXISTING RUNWAY 8 AND 26 PAPI UNITS WHILE THE RUNWAY IS CLOSED. UPON DAILY REOPENING OF THE THE RUNWAY, THE PAPI UNITS SHALL BE RE-ENERGIZED UNTIL SUCH TIME THAT THEY ARE REMOVED FROM SERVICE DUE TO RELOCATION. ONCE RELOCATED, THE PAPI UNITS SHALL NOT BE RE-ENERGIZED UNTIL A FAA FLIGHT CHECK IS COMPLETE.
15. SIMULTANEOUS CLOSURE OF PHASE 1 AND PHASE 2 WILL NOT BE PERMITTED.

LEGEND

- PHASE 1 WORK AREA
- PHASE 2 WORK AREA
- CLOSED PAVEMENT
- CONTRACTOR'S STAGING/STORAGE AREA
- RSA - RUNWAY SAFETY AREA
- ROFA - RUNWAY OBJECT FREE AREA
- TOFA - TAXIWAY OBJECT FREE AREA
- CONTRACTOR'S CONSTRUCTION ACCESS / HAUL ROAD
- RUNWAY CLOSURE MARKER
- LOW PROFILE BARRICADES
- CRITICAL POINT
- AIRCRAFT MOVEMENT AREAS



PRIOR TO REOPENING A CLOSED RUNWAY, THE ENTIRE (RSA) RUNWAY SAFETY AREA (75 FEET FROM CENTERLINE AND INCLUDING BEYOND THE END OF THE RUNWAY WITHIN AIRPORT PROPERTY) AND (TOFA) TAXIWAY OBJECT FREE AREA MUST MEET FAA CRITERIA. FAA CRITERIA REQUIRES THAT THERE BE NO OPEN EXCAVATIONS OR TRENCHES IN THE SAFETY AREA(S), THE MAXIMUM PAVEMENT DROP OFF BE 3 INCHES, AND ALL GRADES IN ANY DIRECTION BE LESS THAN 5 PERCENT. STEEL PLATES, TEMPORARY WEDGING OF BASE COURSE AND BITUMINOUS CONCRETE MAY BE REQUIRED TO MEET CRITERIA. ALL NECESSARY TEMPORARY MEASURES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.



LK015

VILLAGE OF LAKE IN THE HILLS

LAKE IN THE HILLS MUNICIPAL AIRPORT
LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN BY:

REV	DATE	DESCRIPTION

PROJECT NAME:

REHABILITATE RUNWAY 8/26
ELECTRICAL

SHEET TITLE:

SEQUENCE OF CONSTRUCTION DETAILS

DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

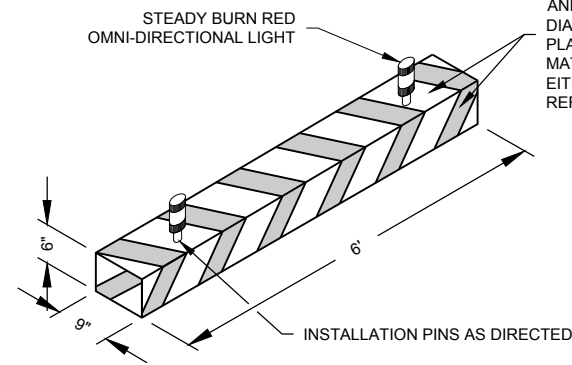
SHEET NO. 7 REVISION

SHEET 7 OF 23 SHEETS

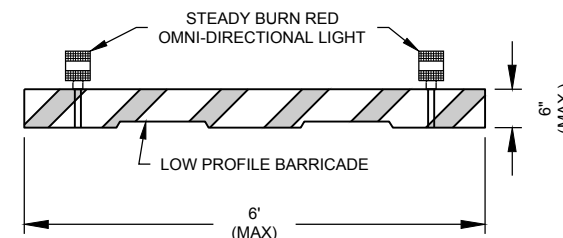
NOTES

1. LOW PROFILE BARRICADES SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE BARRICADES SHALL BE INTERLOCKED WITH NO GAPS BETWEEN BARRICADES.
2. BARRICADES SHALL BE WEIGHTED TO WITHSTAND DISPLACEMENT BY JET OR PROP BLAST.
3. THE BARRICADE LINE SHALL EXTEND ONE BARRICADE PAST THE EDGE OF PAVEMENT INTO THE TURF.
4. FACING OF BARRICADE SHALL BE COVERED WITH REFLECTIVE TAPE OR PAINT.
5. BARRICADES SHALL BE OF LOW MASS, EASILY COLLAPSIBLE UPON CONTACT WITH AN AIRCRAFT OR ANY OF IT'S COMPONENTS, AND WEIGHTED OR STURDILY ATTACHED TO THE SURFACE. IF AFFIXED TO THE SURFACE, THE BARRICADE MUST BE FRANGIBLE AT GRADE LEVEL OR AS LOW POSSIBLE, BUT NOT TO EXCEED 3 INCHES ABOVE THE GROUND.
6. ALL COST ASSOCIATED WITH THE LOW PROFILE BARRICADES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

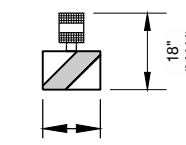
REFLECTIVE MATERIAL, ORANGE FLORESCENT AND WHITE FLORESCENT DIAGONAL SHALL BE PLACED ON ALL FACES. MATERIAL SHALL BE EITHER SCOTCHLITE OR REFLECTIVE MATERIAL.



ISOMETRIC



FRONT ELEVATION



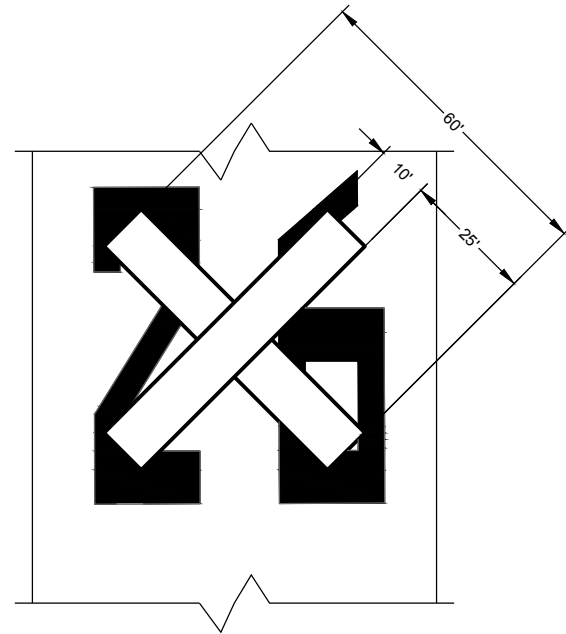
SIDE ELEVATION

INTERLOCKING LOW PROFILE BARRICADE DETAILS

NOT TO SCALE

NOTES

1. CLOSED RUNWAY MARKERS SHALL BE YELLOW.
2. MARKERS SHALL BE A MATERIAL APPROVED BY THE RESIDENT ENGINEER.
3. CONTRACTOR SHALL MAINTAIN AND RELOCATE MARKERS AS DIRECTED BY THE RESIDENT ENGINEER.
4. MARKERS SHALL BE PLACED OVER EXISTING RUNWAY NUMERALS AS SHOWN.
5. COST OF FURNISHING, INSTALLING, MAINTAINING AND REMOVING MARKERS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
6. DURING VARIOUS PHASES OF WORK, IT WILL BE NECESSARY TO CLOSE RUNWAYS TO AIR TRAFFIC ON A TEMPORARY BASIS AS COORDINATED WITH THE AIRPORT. THE CONTRACTOR SHALL MARK THE RUNWAYS TO BE CLOSED BY PLACING A YELLOW CROSS AT THE LOCATION AND DIMENSIONS DETAILED ON THIS SHEET. THE CROSSES ARE SHOWN ON THE RESPECTIVE RUNWAYS ACCORDING TO THE VARIOUS PHASES OF WORK AS DELINEATED IN THE SUGGESTED SEQUENCE OF CONSTRUCTION.

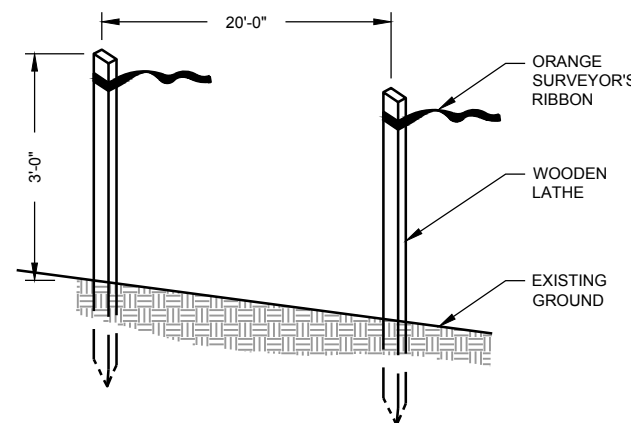


CLOSED RUNWAY MARKER DETAIL

ON PAVEMENT - NO SCALE

CRITICAL POINTS

POINT #	LOCATION DATA					RUNWAY CLOSURE
	LATITUDE	LONGITUDE	SE ELEV.	AGL HEIGHT	AMSL ELEV.	RUNWAY 8/26
1	42° 12' 21.50"	88° 19' 10.60"	868	25	893	X
2	42° 12' 22.49"	88° 19' 10.64"	870	25	895	X
3	42° 12' 22.52"	88° 19' 09.32"	883	25	908	X
4	42° 12' 21.53"	88° 19' 09.28"	883	25	908	X
5	42° 12' 21.01"	88° 19' 09.12"	884	25	909	X
6	42° 12' 23.29"	88° 19' 09.15"	884	25	909	X
7	42° 12' 22.69"	88° 19' 13.60"	868	25	893	X
8	42° 12' 24.93"	88° 19' 14.15"	887	25	912	X
9	42° 12' 25.72"	88° 19' 08.26"	887	25	912	X
10	42° 12' 23.48"	88° 19' 07.73"	888	25	913	X
11	42° 12' 23.38"	88° 19' 08.49"	887	25	912	X
12	42° 12' 21.02"	88° 19' 08.46"	886	25	911	X
13	42° 12' 21.42"	88° 18' 55.59"	888	25	913	X
14	42° 12' 22.41"	88° 18' 55.63"	889	25	914	X
15	42° 12' 22.44"	88° 18' 54.30"	880	25	905	X
16	42° 12' 21.45"	88° 18' 54.26"	880	25	905	X
17	42° 12' 25.61"	88° 18' 55.51"	887	25	912	X
18	42° 12' 25.37"	88° 18' 57.29"	889	25	914	X
19	42° 12' 26.18"	88° 18' 57.50"	888	25	913	X
20	42° 12' 22.73"	88° 19' 22.75"	879	25	904	X
21	42° 12' 21.09"	88° 19' 22.35"	866	25	891	X
22	42° 12' 17.85"	88° 19' 46.42"	878	25	903	X
23	42° 12' 22.78"	88° 19' 47.62"	885	25	910	X
24	42° 12' 28.47"	88° 19' 05.53"	882	25	907	X
25	42° 12' 29.57"	88° 19' 05.80"	878	25	903	X
26	42° 12' 30.01"	88° 19' 02.53"	888	25	913	X
27	42° 12' 28.07"	88° 19' 02.06"	885	25	910	X
28	42° 12' 28.84"	88° 18' 56.30"	888	25	913	X

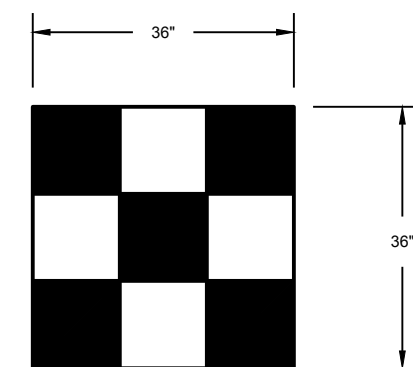


CONSTRUCTION SETBACK LINE DETAIL

NOT TO SCALE

CONSTRUCTION SETBACK NOTES

1. CONTRACTOR SHALL MARKER THE RUNWAY SAFETY AREA AND TAXIWAY OBJECT FREE AREA PER THE CONSTRUCTION SETBACK LINE DETAIL AS DIRECTED BY THE ENGINEER.
2. ALL COST ASSOCIATED WITH THE CONSTRUCTION SETBACK LINE SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.



CONSTRUCTION EQUIPMENT AND TRUCK SIGNAL FLAG

NOT TO SCALE



LK015

VILLAGE OF LAKE IN THE HILLS

LAKE IN THE HILLS MUNICIPAL AIRPORT
LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN
BY:

REV	DATE	DESCRIPTION

PROJECT NAME:

REHABILITATE RUNWAY 8/26
ELECTRICAL

SHEET TITLE:
EXISTING CONDITIONS AND REMOVALS 1

DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

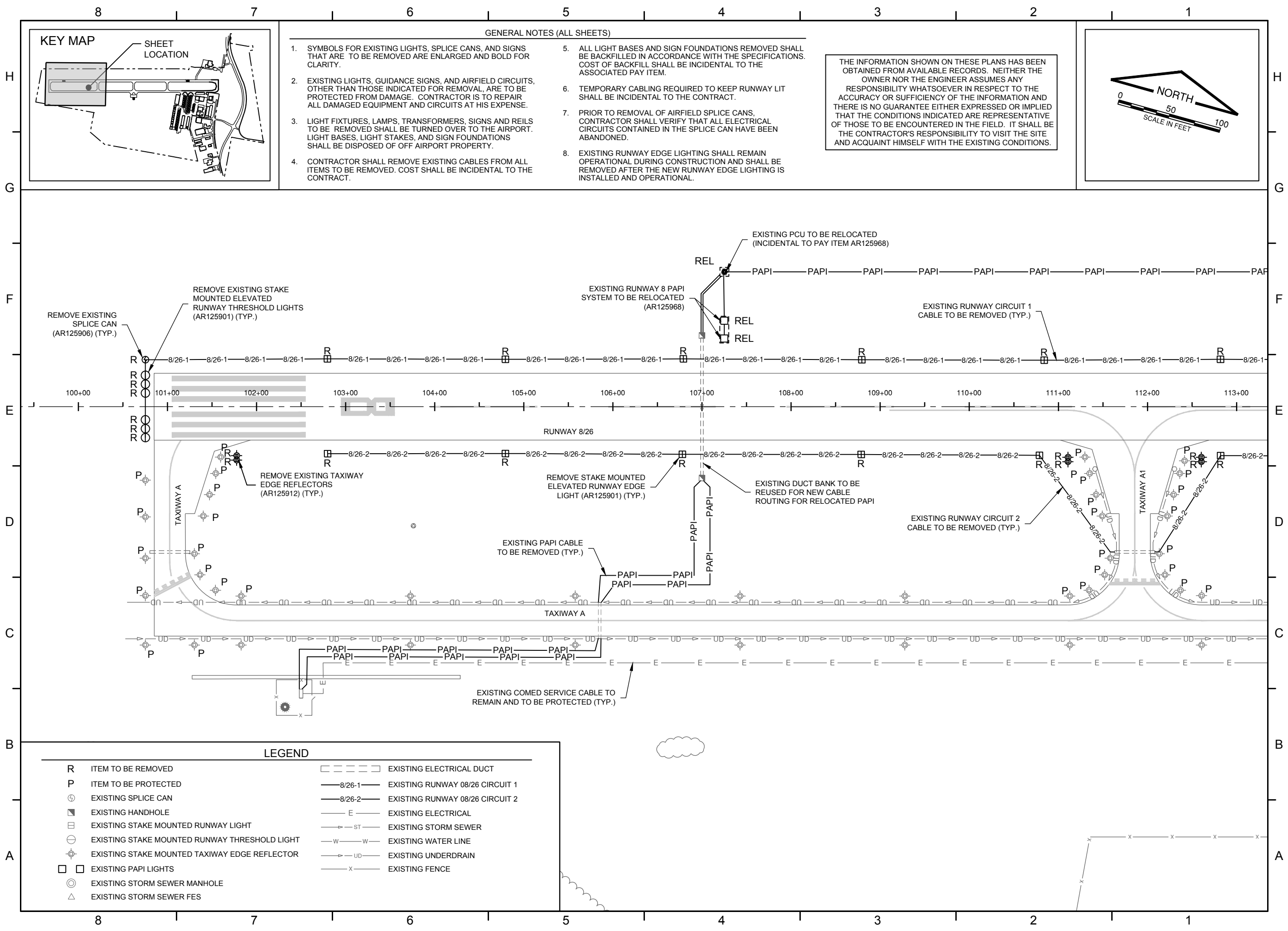
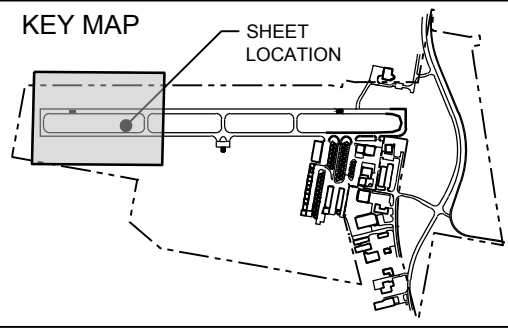
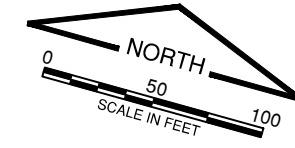
PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

SHEET NO.	8	REVISION
SHEET 8 OF 23 SHEETS		

GENERAL NOTES (ALL SHEETS)

1. SYMBOLS FOR EXISTING LIGHTS, SPLICE CANS, AND SIGNS THAT ARE TO BE REMOVED ARE ENLARGED AND BOLD FOR CLARITY.
2. EXISTING LIGHTS, GUIDANCE SIGNS, AND AIRFIELD CIRCUITS, OTHER THAN THOSE INDICATED FOR REMOVAL, ARE TO BE PROTECTED FROM DAMAGE. CONTRACTOR IS TO REPAIR ALL DAMAGED EQUIPMENT AND CIRCUITS AT HIS EXPENSE.
3. LIGHT FIXTURES, LAMPS, TRANSFORMERS, SIGNS AND REILS TO BE REMOVED SHALL BE TURNED OVER TO THE AIRPORT. LIGHT BASES, LIGHT STAKES, AND SIGN FOUNDATIONS SHALL BE DISPOSED OF OFF AIRPORT PROPERTY.
4. CONTRACTOR SHALL REMOVE EXISTING CABLES FROM ALL ITEMS TO BE REMOVED. COST SHALL BE INCIDENTAL TO THE CONTRACT.
5. ALL LIGHT BASES AND SIGN FOUNDATIONS REMOVED SHALL BE BACKFILLED IN ACCORDANCE WITH THE SPECIFICATIONS. COST OF BACKFILL SHALL BE INCIDENTAL TO THE ASSOCIATED PAY ITEM.
6. TEMPORARY CABLING REQUIRED TO KEEP RUNWAY LIT SHALL BE INCIDENTAL TO THE CONTRACT.
7. PRIOR TO REMOVAL OF AIRFIELD SPLICE CANS, CONTRACTOR SHALL VERIFY THAT ALL ELECTRICAL CIRCUITS CONTAINED IN THE SPLICE CAN HAVE BEEN ABANDONED.
8. EXISTING RUNWAY EDGE LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION AND SHALL BE REMOVED AFTER THE NEW RUNWAY EDGE LIGHTING IS INSTALLED AND OPERATIONAL.

THE INFORMATION SHOWN ON THESE PLANS HAS BEEN OBTAINED FROM AVAILABLE RECORDS. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO THE ACCURACY OR SUFFICIENCY OF THE INFORMATION AND THERE IS NO GUARANTEE EITHER EXPRESSED OR IMPLIED THAT THE CONDITIONS INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE FIELD. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND ACQUAINT HIMSELF WITH THE EXISTING CONDITIONS.



LEGEND

- | | | | |
|---|---|-----------|---------------------------------|
| R | ITEM TO BE REMOVED | - - - - - | EXISTING ELECTRICAL DUCT |
| P | ITEM TO BE PROTECTED | —8/26-1— | EXISTING RUNWAY 08/26 CIRCUIT 1 |
| ⊕ | EXISTING SPLICE CAN | —8/26-2— | EXISTING RUNWAY 08/26 CIRCUIT 2 |
| ■ | EXISTING HANDHOLE | —E— | EXISTING ELECTRICAL |
| □ | EXISTING STAKE MOUNTED RUNWAY LIGHT | —ST— | EXISTING STORM SEWER |
| ⊖ | EXISTING STAKE MOUNTED RUNWAY THRESHOLD LIGHT | —W—W— | EXISTING WATER LINE |
| ⊕ | EXISTING STAKE MOUNTED TAXIWAY EDGE REFLECTOR | —UD— | EXISTING UNDERDRAIN |
| □ | EXISTING PAPI LIGHTS | —X— | EXISTING FENCE |
| ⊙ | EXISTING STORM SEWER MANHOLE | | |
| △ | EXISTING STORM SEWER FES | | |



LK015

VILLAGE OF LAKE IN THE HILLS

LAKE IN THE HILLS MUNICIPAL AIRPORT
LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN
BY:

REV DATE DESCRIPTION

PROJECT NAME:

REHABILITATE
RUNWAY 8/26
ELECTRICAL

SHEET TITLE:
EXISTING CONDITIONS
AND REMOVALS 2

DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

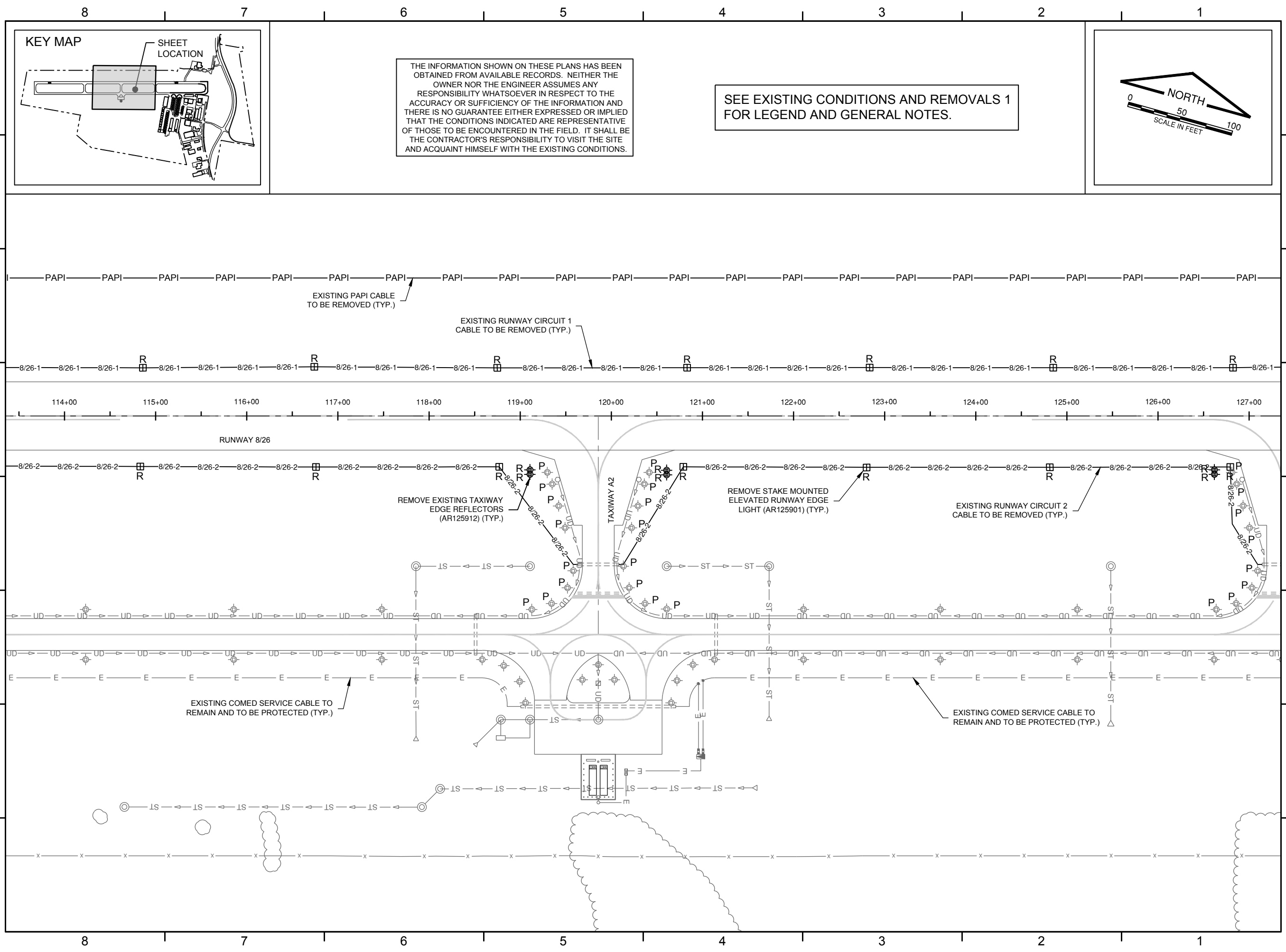
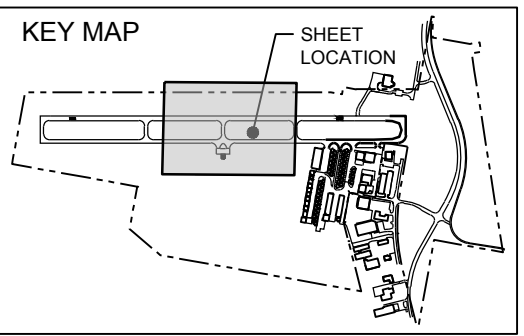
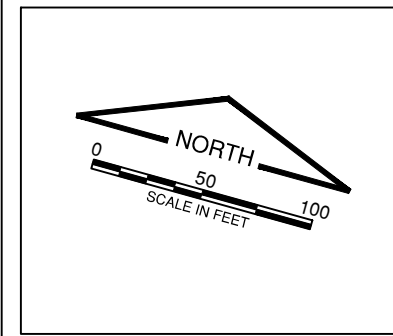
PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

SHEET NO. 9 REVISION

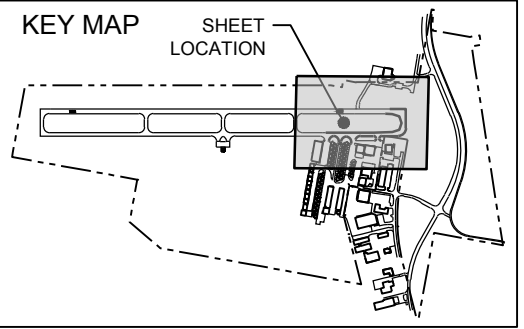
SHEET 9 OF 23 SHEETS

THE INFORMATION SHOWN ON THESE PLANS HAS BEEN OBTAINED FROM AVAILABLE RECORDS. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO THE ACCURACY OR SUFFICIENCY OF THE INFORMATION AND THERE IS NO GUARANTEE EITHER EXPRESSED OR IMPLIED THAT THE CONDITIONS INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE FIELD. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND ACQUAINT HIMSELF WITH THE EXISTING CONDITIONS.

SEE EXISTING CONDITIONS AND REMOVALS 1 FOR LEGEND AND GENERAL NOTES.

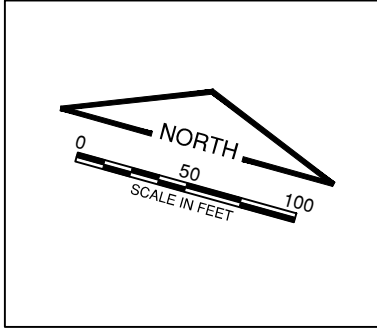


8 7 6 5 4 3 2 1



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SEE EXISTING CONDITIONS AND REMOVALS 1 FOR LEGEND AND GENERAL NOTES.



LK015

VILLAGE OF LAKE IN THE HILLS

LAKE IN THE HILLS MUNICIPAL AIRPORT
LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN BY:

REV DATE DESCRIPTION

PROJECT NAME:

REHABILITATE RUNWAY 8/26 ELECTRICAL

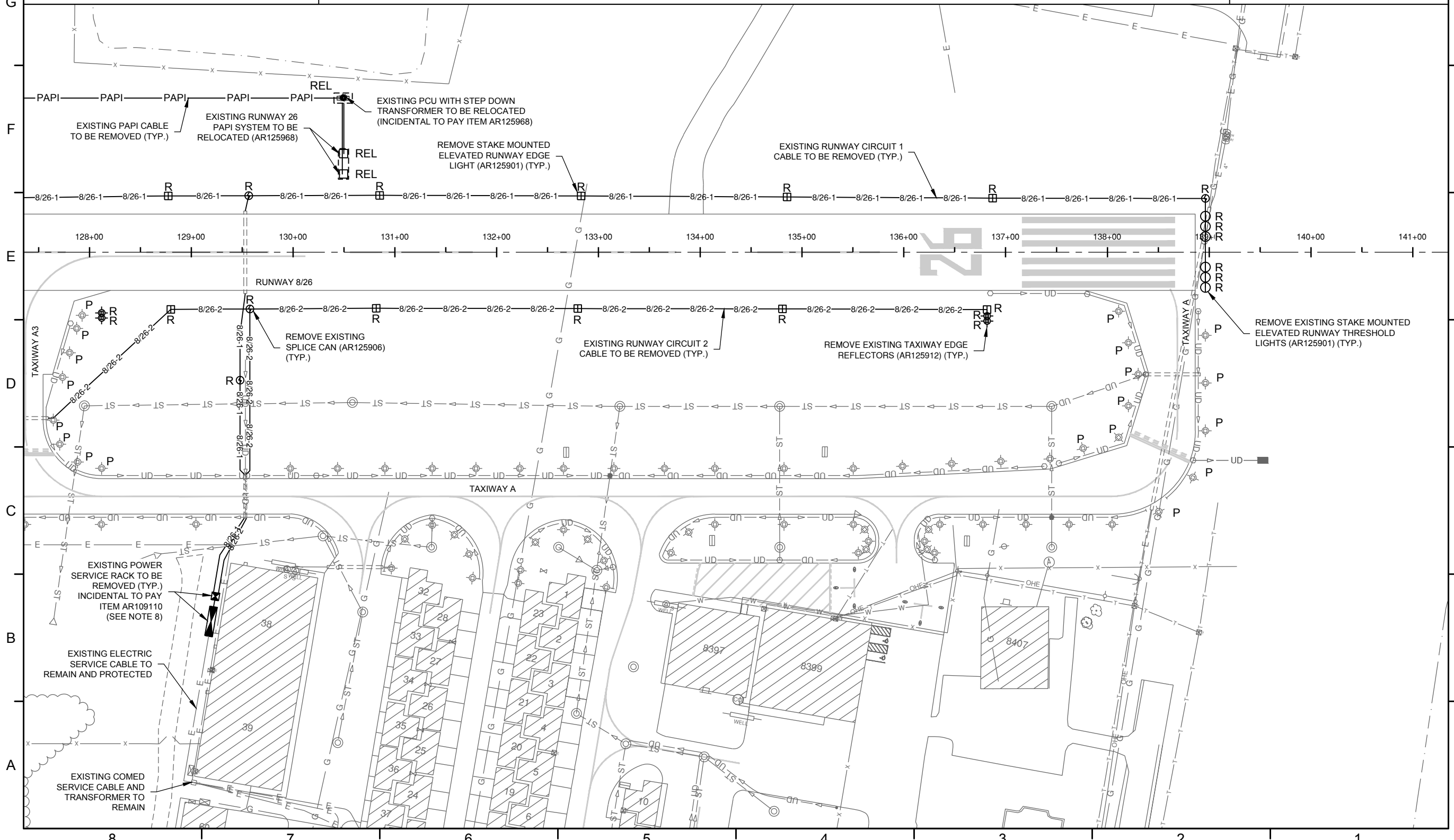
SHEET TITLE:
EXISTING CONDITIONS AND REMOVALS 3

DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

SHEET NO.	10	REVISION
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SHEET 10 OF 23 SHEETS



8 7 6 5 4 3 2 1



LK015

VILLAGE OF LAKE IN THE HILLS

LAKE IN THE HILLS MUNICIPAL AIRPORT LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN BY:

REV	DATE	DESCRIPTION

PROJECT NAME:

REHABILITATE RUNWAY 8/26 ELECTRICAL

SHEET TITLE:

ELECTRICAL PLAN 1

DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

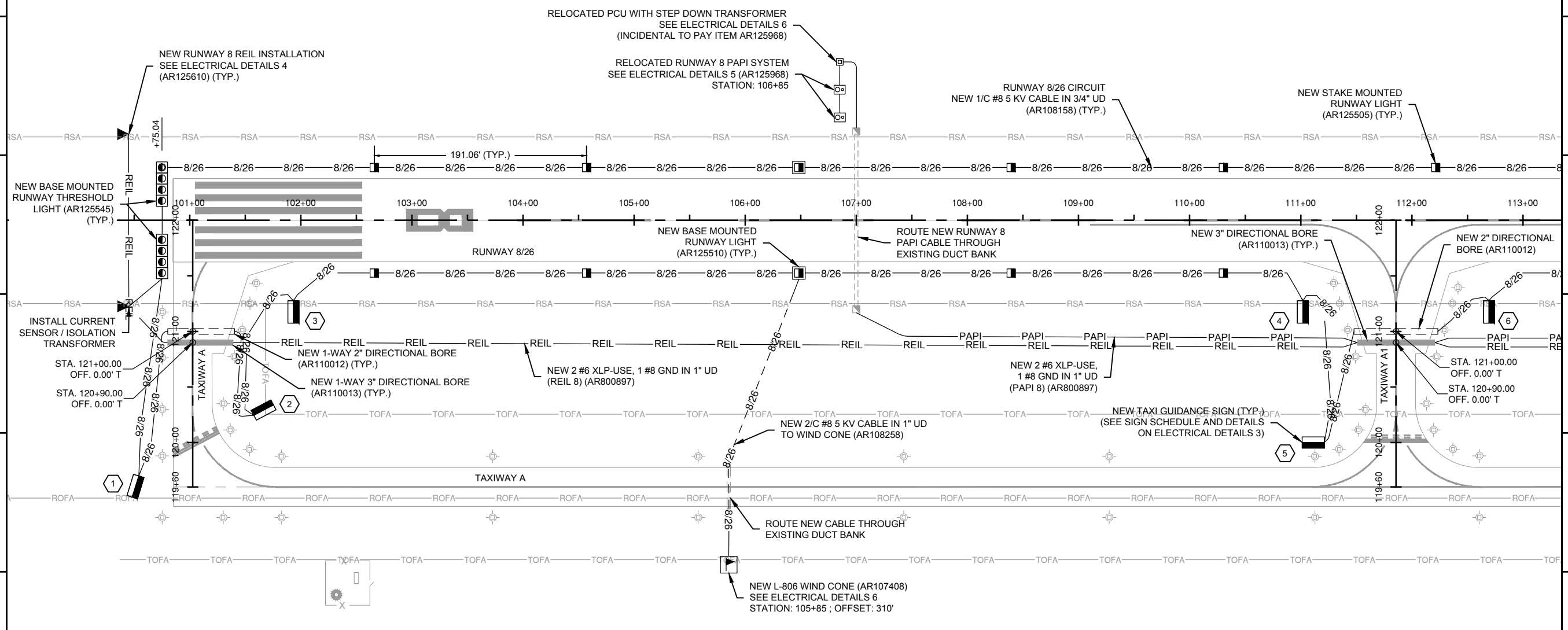
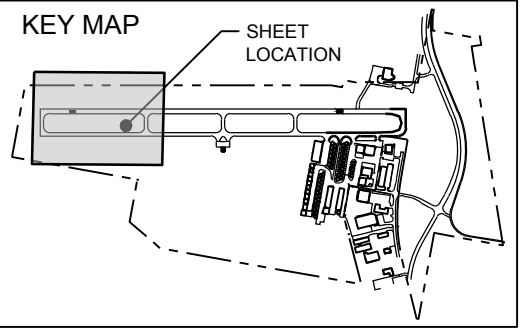
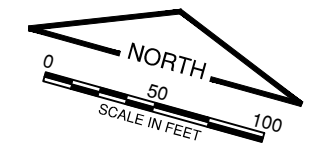
PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

SHEET NO. **11** REVISION

SHEET 11 OF 23 SHEETS

GENERAL NOTES (ALL SHEETS)

- EXISTING LIGHTS, GUIDANCE SIGNS, AND AIRFIELD CIRCUITS, OTHER THAN THOSE INDICATED FOR REMOVAL, ARE TO BE PROTECTED FROM DAMAGE AND REMAIN OPERATIONAL. CONTRACTOR IS TO REPAIR ALL DAMAGED EQUIPMENT AND CIRCUITS AT HIS EXPENSE.
- LIGHT FIXTURES, LAMPS AND TRANSFORMERS TO BE REMOVED SHALL BE TURNED OVER TO AIRPORT MAINTENANCE. LIGHT BASES AND SIGN FOUNDATIONS SHALL BE DISPOSED OFF AIRPORT PROPERTY.
- WHEN POSSIBLE, CONTRACTOR SHALL REMOVE EXISTING CABLES FROM ALL ITEMS TO BE REMOVED. COST SHALL BE INCIDENTAL TO THE CONTRACT.
- ALL LIGHT BASES AND SIGN FOUNDATIONS REMOVED OR RELOCATED SHALL BE BACKFILLED IN ACCORDANCE WITH THE SPECIFICATIONS. COST OF BACKFILL SHALL BE INCIDENTAL TO THE ASSOCIATED PAY ITEM.
- ANY TEMPORARY CABLING REQUIRED FOR THIS PROJECT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 1-WAY DIRECTIONAL BORE SHALL EXTEND 5' PAST THE EDGE OF PAVEMENT, UNLESS NOTED OTHERWISE.
- 1-WAY 2" DIRECTIONAL BORE SHALL BE INSTALLED IN LINE WITH NEW RUNWAY 8/26 CIRCUIT.
- 1-WAY 3" DIRECTIONAL BORE SHALL BE INSTALLED IN LINE WITH NEW PAPI AND REIL CIRCUITS.
- CIRCUITS ROUTED THROUGH NEW 1-WAY, NEW 2-WAY AND EXISTING CONDUITS SHALL BE CABLE IN UNIT DUCT, UNLESS NOTED OTHERWISE.
- ALL CONNECTIONS OF NEW DUCTS AND UNIT DUCTS TO EXISTING DUCTS, BASES, HANDHOLES AND MANHOLES SHALL BE INCIDENTAL TO DUCT AND UNIT DUCT PAY ITEMS.
- ALL EDGE LIGHTS SHALL BE OFFSET 10' FROM THE EDGE OF RUNWAY AND TAXIWAY PAVEMENT.
- COUNTERPOISE SHALL BE INSTALLED ON THE NEW RUNWAY CIRCUIT UNLESS OTHERWISE NOTED. SEE ELECTRICAL DETAIL SHEETS FOR DETAILS.
- SYMBOLS FOR PROPOSED LIGHTS, TAXIWAY GUIDANCE SIGNS, HANDHOLES ARE ENLARGED FOR CLARITY.
- FOR CLARITY, UNDERGROUND UTILITIES ARE NOT SHOWN. REFER TO EXISTING CONDITION SHEETS FOR UTILITIES LOCATION. CONTRACTOR IS RESPONSIBLE TO LOCATE ALL UNDERGROUND UTILITIES. ANY DAMAGE TO EXISTING EQUIPMENT OR UTILITIES DUE TO CONTRACTOR NEGLIGENCE SHALL BE REPAIRED IMMEDIATELY AT THEIR EXPENSE.
- EXISTING RUNWAY EDGE LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION AND SHALL BE REMOVED AFTER THE NEW RUNWAY EDGE LIGHTING IS INSTALLED AND OPERATIONAL.



LEGEND

	NEW HANDHOLE		NEW TAXIWAY GUIDANCE SIGN
	NEW BASE MOUNTED MRL		EXISTING ELECTRICAL DUCT
	NEW BASE MOUNTED RUNWAY THRESHOLD LIGHT		NEW RUNWAY 8/26 CIRCUIT
	NEW STAKE MOUNTED MRL		NEW REIL CIRCUIT
	RELOCATED PAPI LIGHTS		NEW PAPI CIRCUIT
	RELOCATED PCU		NEW 2" DIRECTIONAL BORE
	NEW REIL		NEW 3" DIRECTIONAL BORE
	SIGN SCHEDULE CALLOUT FOR NEW SIGN		NEW HOMERUN DUCT



LK015

VILLAGE OF LAKE IN THE HILLS

LAKE IN THE HILLS MUNICIPAL AIRPORT
LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN
BY:

REV	DATE	DESCRIPTION

PROJECT NAME:

REHABILITATE
RUNWAY 8/26
ELECTRICAL

SHEET TITLE:

ELECTRICAL PLAN 2

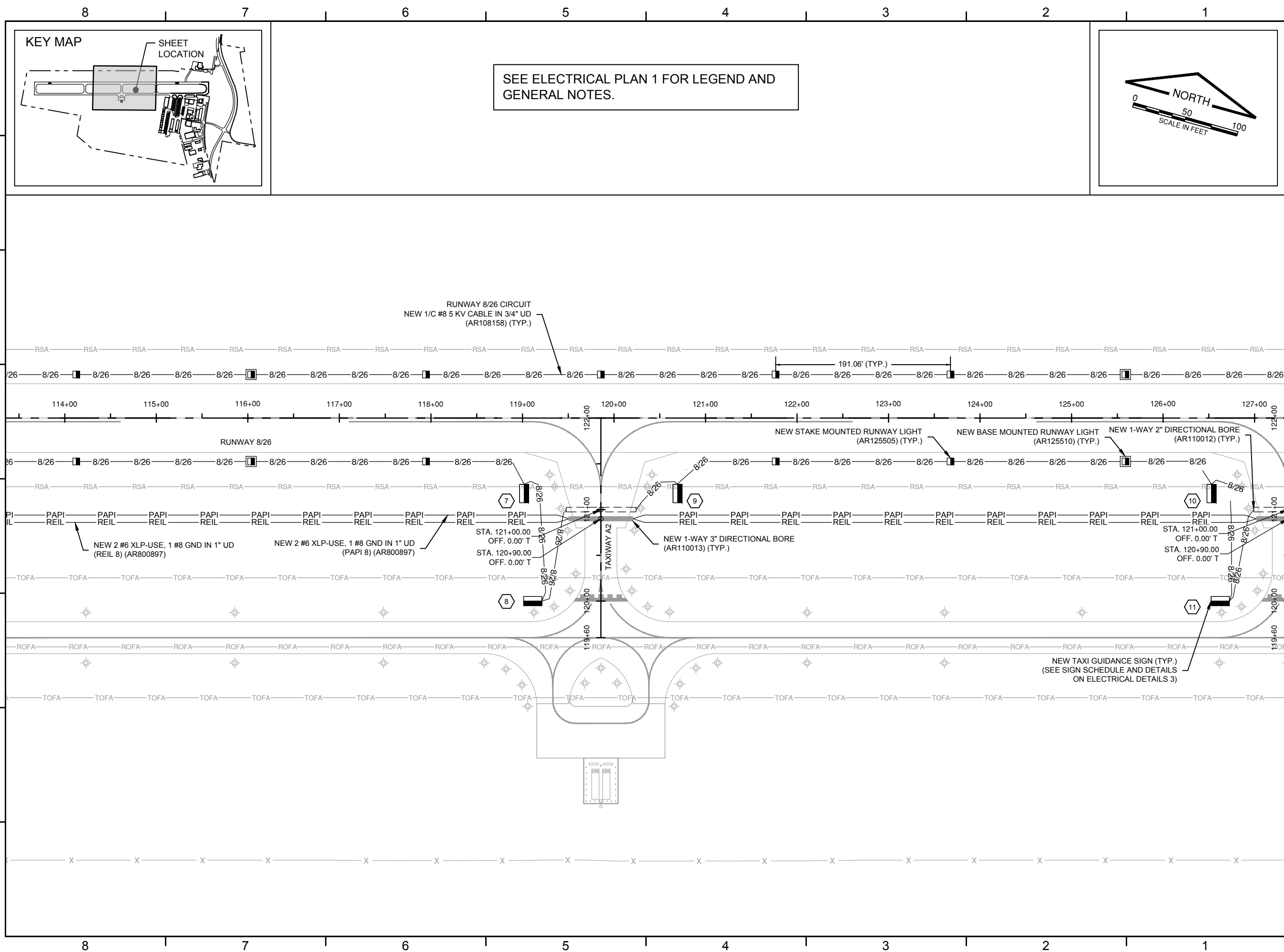
DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

SHEET NO. REVISION

12

SHEET 12 OF 23 SHEETS





LK015

VILLAGE OF LAKE IN THE HILLS

LAKE IN THE HILLS MUNICIPAL AIRPORT
LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN
BY:

REV	DATE	DESCRIPTION

PROJECT NAME:

REHABILITATE
RUNWAY 8/26
ELECTRICAL

SHEET TITLE:

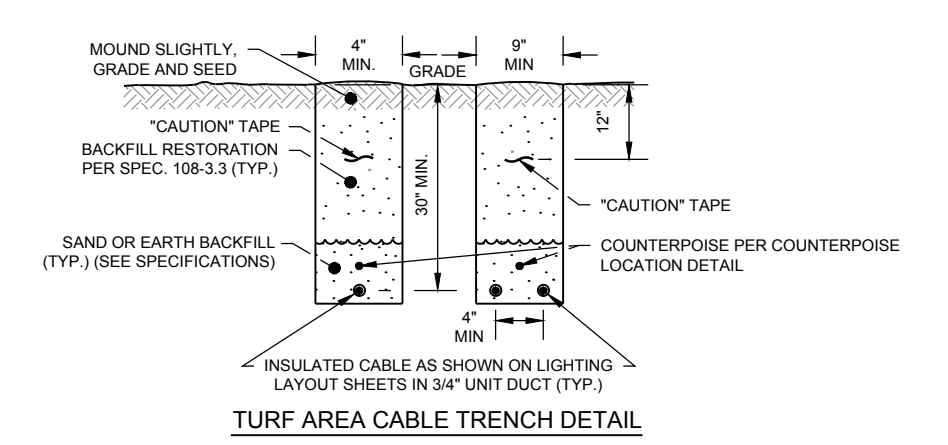
ELECTRICAL DETAILS 1

DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

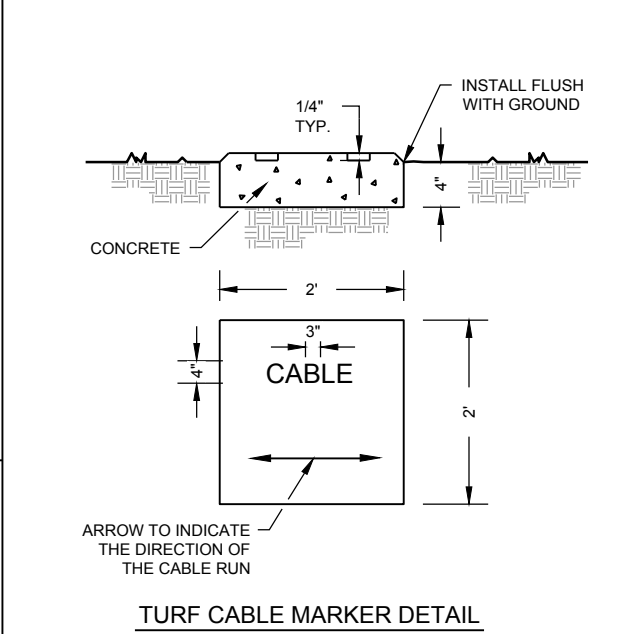
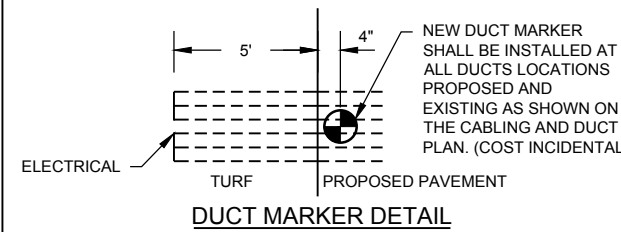
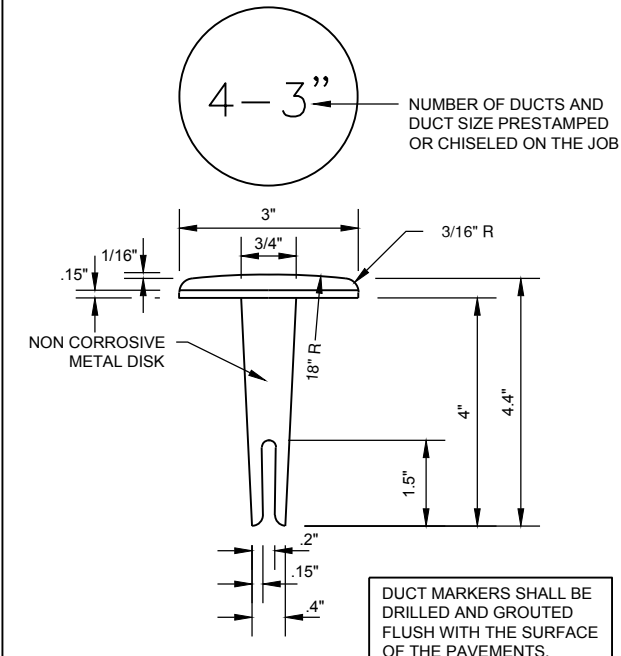
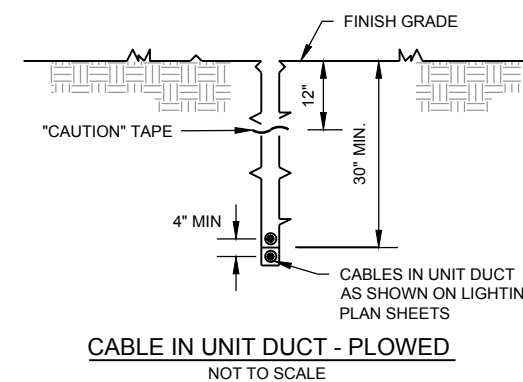
PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

SHEET NO. 14 REVISION

SHEET 14 OF 23 SHEETS



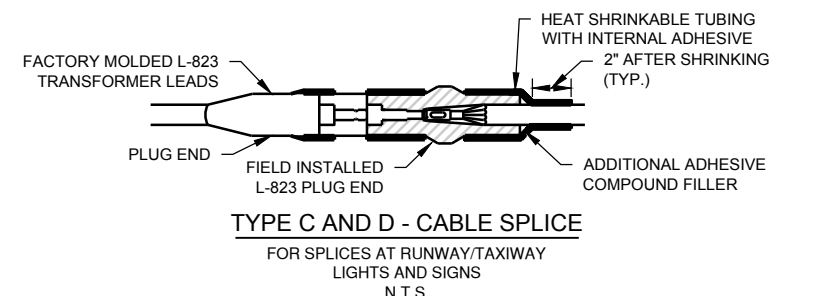
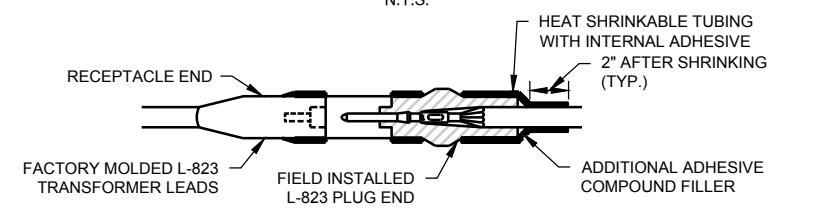
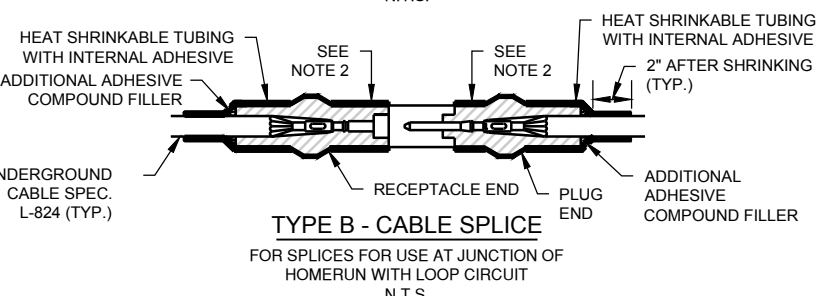
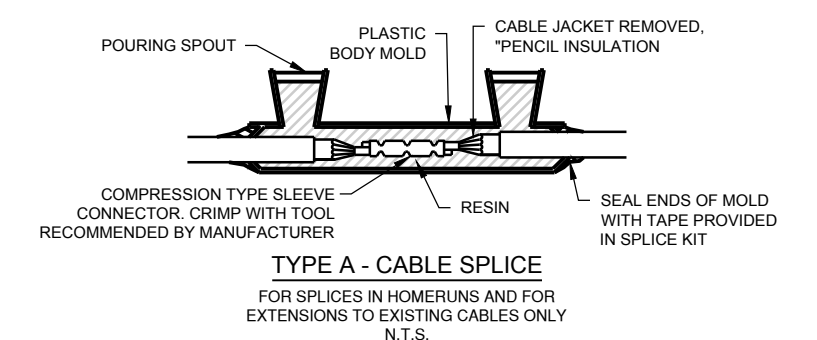
- NOTES:**
- CONTRACTOR SHALL HAVE THE OPTION TO TRENCH OR PLOW UNIT DUCT. NO ADDITIONAL PAYMENT SHALL BE MADE FOR TRENCHING.
 - TRENCHES WITH MORE THAN 2 CABLES SHALL BE INCREASED 3" IN WIDTH FOR EACH ADDITIONAL CABLE. IF SPECIFIED ON PLANS, TWO PARALLEL TRENCHES MAY BE CONSTRUCTED.
 - DEPTH OF TRENCHES SHALL BE AS SHOWN UNLESS OTHERWISE SPECIFIED ON THE PLANS.
 - SAND BACKFILL SHALL BE USED IF THE EXISTING SOIL DOES NOT MEET THE BACKFILL REQUIREMENTS.
 - ALL DISTURBED SURFACES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, COST INCLUDED IN THE CABLE.
 - COUNTERPOISE SHALL BE INSTALLED PER THE SPECIFICATIONS.



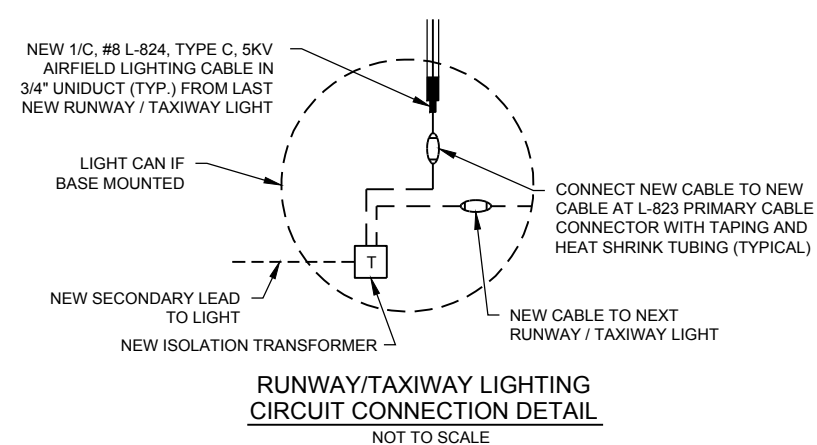
- NOTES:**
- INSTALL A NONCORROSIVE DISC OF 2" MINIMUM DIAMETER WITH THE NUMBER PERMANENTLY STAMPED, CUT OUT, OR ENGRAVED UNDER THE HEAD OF THE BASE PLATE BOLT OR ATTACHED TO LIGHT FLANGE WITH A SET SCREW.
 - NUMERALS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. ALL EXISTING AND PROPOSED TAXIWAY AND RUNWAY LIGHTS SHALL BE TAGGED AS DIRECTED BY THE RESIDENT ENGINEER. ALL LIGHTS ON EXISTING CIRCUITS THAT HAVE LIGHTING IMPROVEMENTS (PROPOSED OR RELOCATED LIGHTS) SHALL BE RETAGGED.
 - COST OF TAGGING LIGHTS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

- GENERAL NOTES:**
- THE CONCRETE BASE FOR BASE MTD. LIGHTS AND SIGNS SHALL BE TROWEL FINISHED WITH A 45° BEVELED EDGE. SLOPE TO DRAIN (ITEM 610).
 - TRANSFORMER HOLDER SHALL BE ANY COMMERCIALY AVAILABLE BRICK.
 - BREAKING GROOVE COUPLINGS SHALL NOT BE OVER 1" ABOVE GROUND LINE.
 - ISOLATION TRANSFORMERS COME WITH A FACTORY INSTALLED PLUG (TYPE 1, CLASS A, STYLE 2) AND RECEPTACLE (TYPE 1, CLASS A, STYLE 9). A TYPE 1, CLASS B, STYLE 3 PLUG AND TYPE 1, CLASS B, STYLE 10 RECEPTACLE SHALL BE INSTALLED ON THE 1/C, No. 8, 5000 V., L-824 TYPE C CABLES FOR CONNECTION TO EACH TRANSFORMER.
 - TO FURTHER REDUCE THE POSSIBILITY OF WATER/MOISTURE ENTRANCE INTO THE CONNECTOR BETWEEN THE CABLE AND THE FIELD ATTACHED CONNECTOR, IT IS REQUIRED THAT A HEAT SHRINKABLE TUBING WITH INTERNAL ADHESIVE BE APPLIED OVER THE ENTIRE CABLE CONNECTOR.
 - ALL SIGNS, LIGHTS, CABLES AND TRANSFORMERS TO BE REMOVED SHALL REMAIN THE PROPERTY OF THE AIRPORT. AT THE DISCRETION OF THE AIRPORT DIRECTOR, THE CONTRACTOR MAY BE REQUIRED TO DISPOSE OF THESE MATERIALS OFFSITE.
 - ALL RUNWAY/TAXIWAY EDGE LIGHTS SHALL HAVE 1.5" DIA. COLUMN AND FRANGIBLE COUPLINGS, UNLESS NOTED OTHERWISE.
 - INSTALL SAFETY GROUND TO EXISTING SIGNS AND L-867 CANS. ATTACH GROUND LUG TO EXISTING CAN AND INSTALL GROUND ROD AS SHOWN ON PLANS.
 - DUCT MARKER SHALL BE INSTALLED AT EVERY NEW DUCT AND AT EVERY EXISTING DUCT USED FOR THIS PROJECT.
 - LAMP FOR FIXTURES SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS. ISOLATION TRANSFORMERS SHALL BE SIZED PER THE FIXTURE MANUFACTURER, 6.6 AMP.

- NOTES:**
- CABLE MARKERS SHALL BE INSTALLED AT ALL BENDS AND EVERY 200' ALONG THE CABLE RUN.
 - 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 CABLE ITEMS.
 - 0.049 CU. YD. CONCRETE PER MARKER.



- CABLE SPLICE NOTES:**
- INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.
 - WRAP WITH AT LEAST ONE LAYER OF RUBBER OR SYNTHETIC RUBBER TAPE AND ONE LAYER OF PLASTIC TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1-1/2 INCHES ON EACH SIDE OF JOINT.
 - THE COST OF FURNISHING AND INSTALLING ALL SPLICE MATERIALS SHALL BE INCIDENTAL TO THE ASSOCIATED CABLE ITEMS.
 - THE CONTRACTOR SHALL HAVE A MINIMUM OF TWO (2) TYPE A SPLICE KITS ON THE JOB SITE AT ALL TIMES FOR EMERGENCY REPAIRS.
 - THE CONTRACTOR MAY ELECT TO USE AN FAA APPROVED PRIMARY CONNECTOR KIT IN LIEU OF HEAT SHRINK KIT AT NO ADDITIONAL COST.





LK015

VILLAGE OF LAKE IN THE HILLS

LAKE IN THE HILLS MUNICIPAL AIRPORT LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN BY:

REV	DATE	DESCRIPTION

PROJECT NAME:

REHABILITATE RUNWAY 8/26 ELECTRICAL

SHEET TITLE:

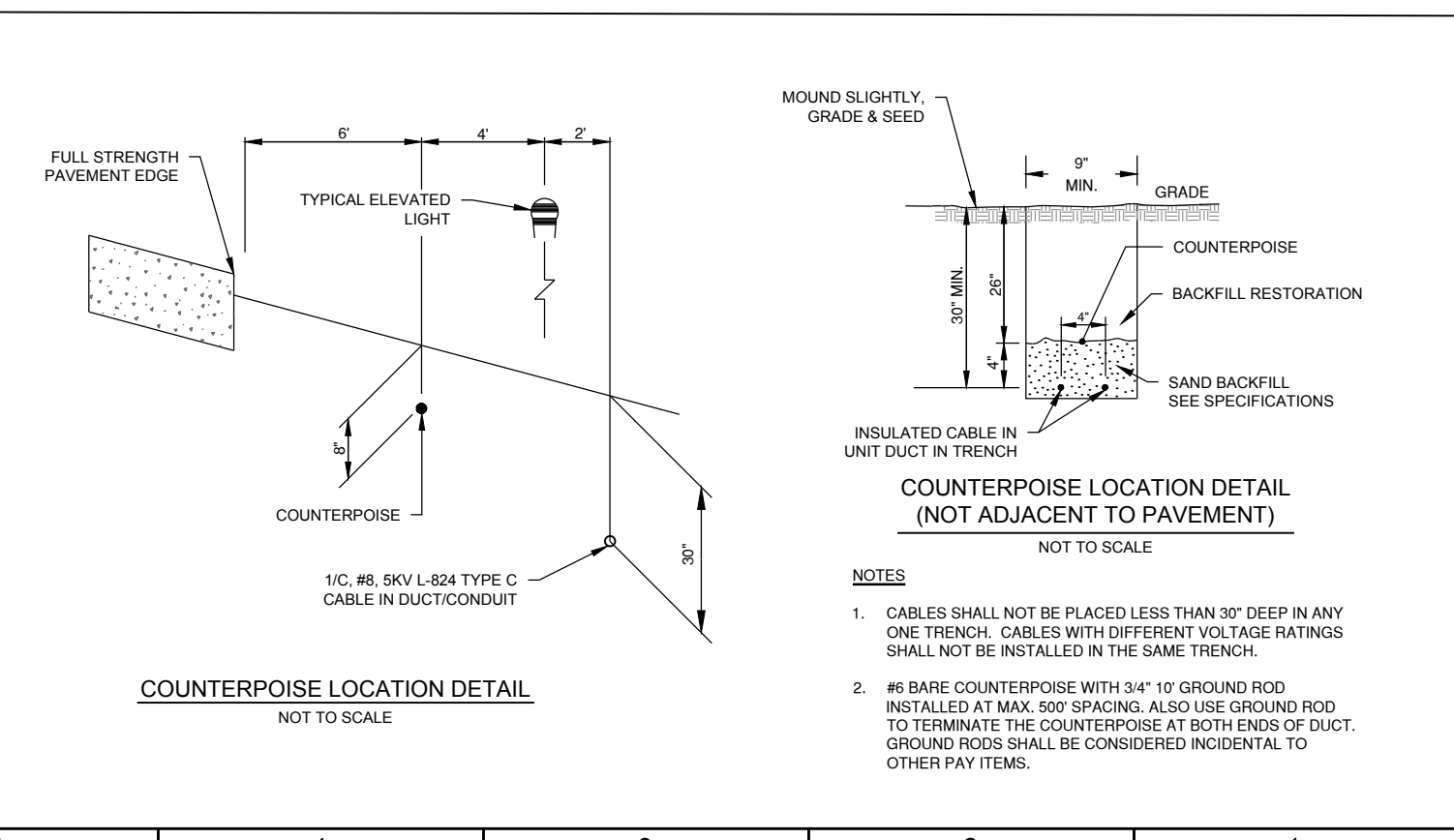
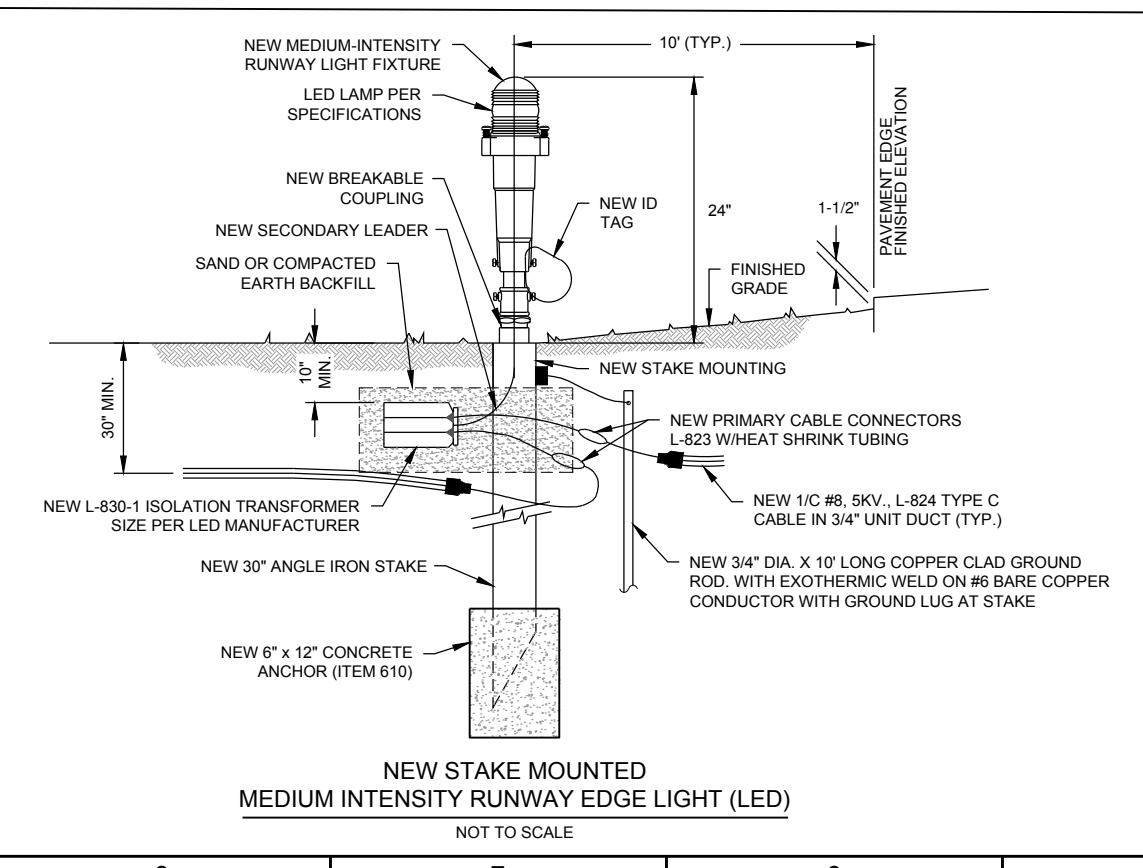
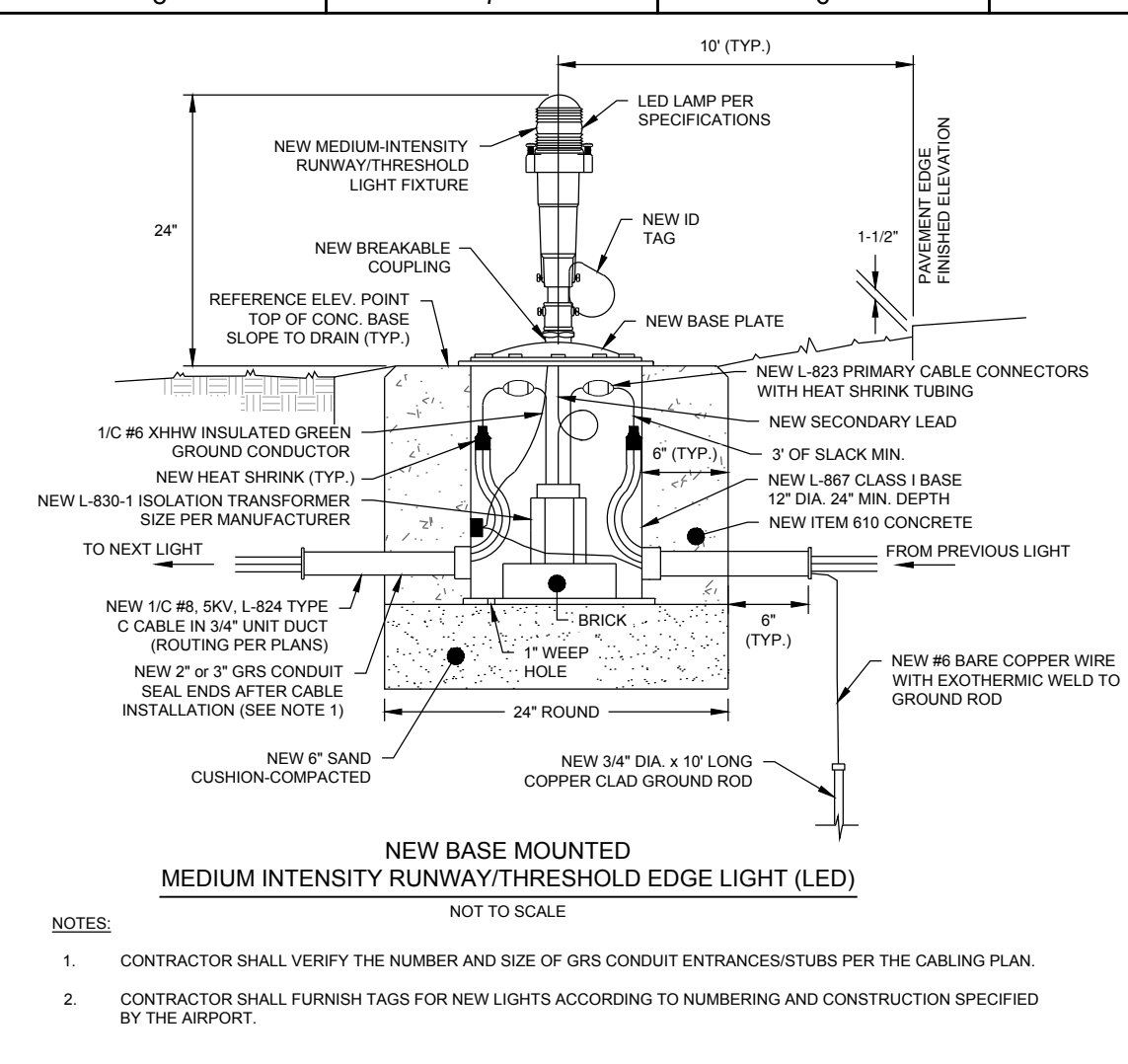
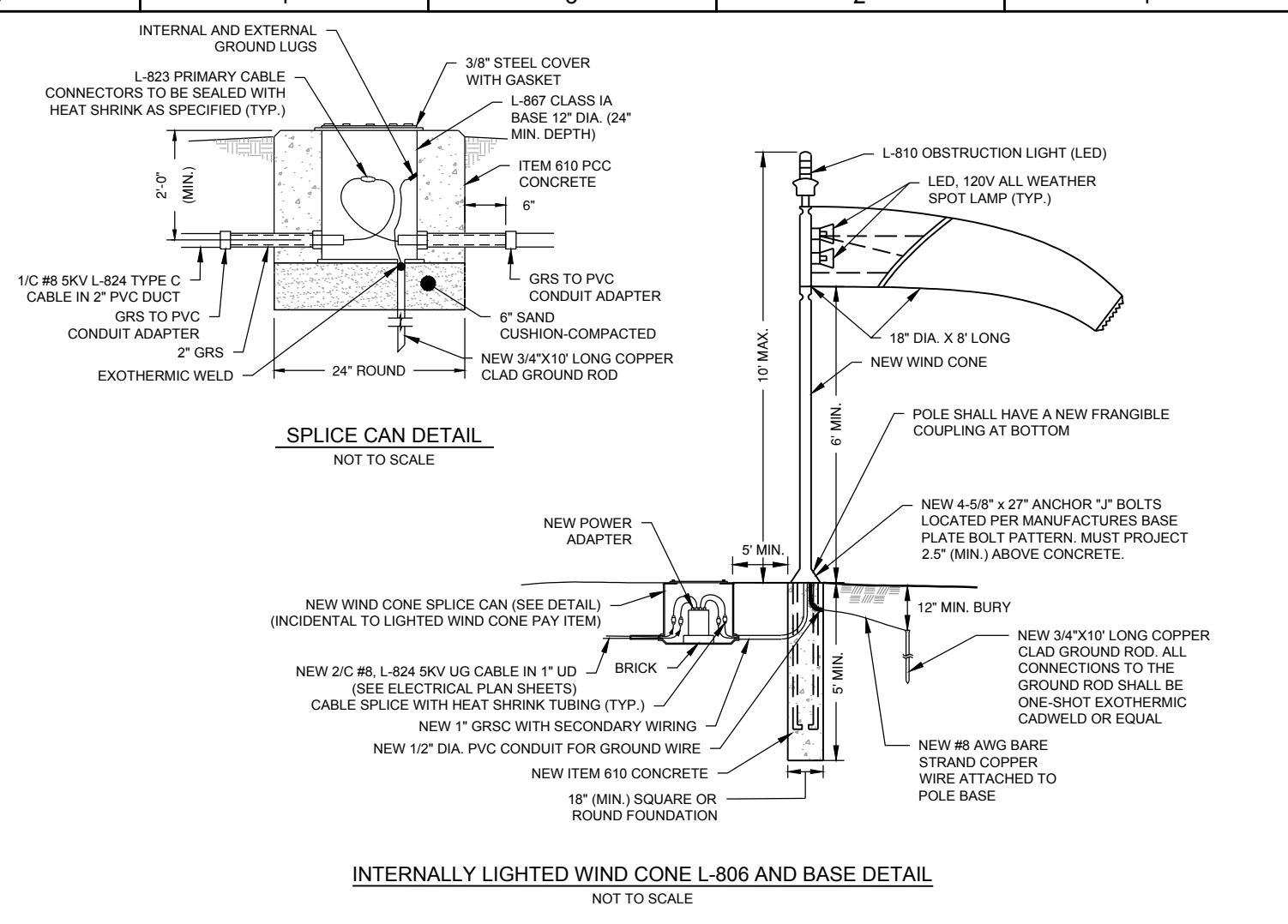
ELECTRICAL DETAILS 2

DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

SHEET NO. 15 REVISION

SHEET 15 OF 23 SHEETS



- NOTES**
- CABLES SHALL NOT BE PLACED LESS THAN 30" DEEP IN ANY ONE TRENCH. CABLES WITH DIFFERENT VOLTAGE RATINGS SHALL NOT BE INSTALLED IN THE SAME TRENCH.
 - #6 BARE COUNTERPOISE WITH 3/4" 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.

- NOTES:**
- CONTRACTOR SHALL VERIFY THE NUMBER AND SIZE OF GRS CONDUIT ENTRANCES/STUBS PER THE CABLING PLAN.
 - CONTRACTOR SHALL FURNISH TAGS FOR NEW LIGHTS ACCORDING TO NUMBERING AND CONSTRUCTION SPECIFIED BY THE AIRPORT.



LK015

VILLAGE OF LAKE IN THE HILLS

LAKE IN THE HILLS MUNICIPAL AIRPORT
LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN BY:

REV	DATE	DESCRIPTION

PROJECT NAME:

REHABILITATE RUNWAY 8/26
ELECTRICAL

SHEET TITLE:

ELECTRICAL DETAILS 3

DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

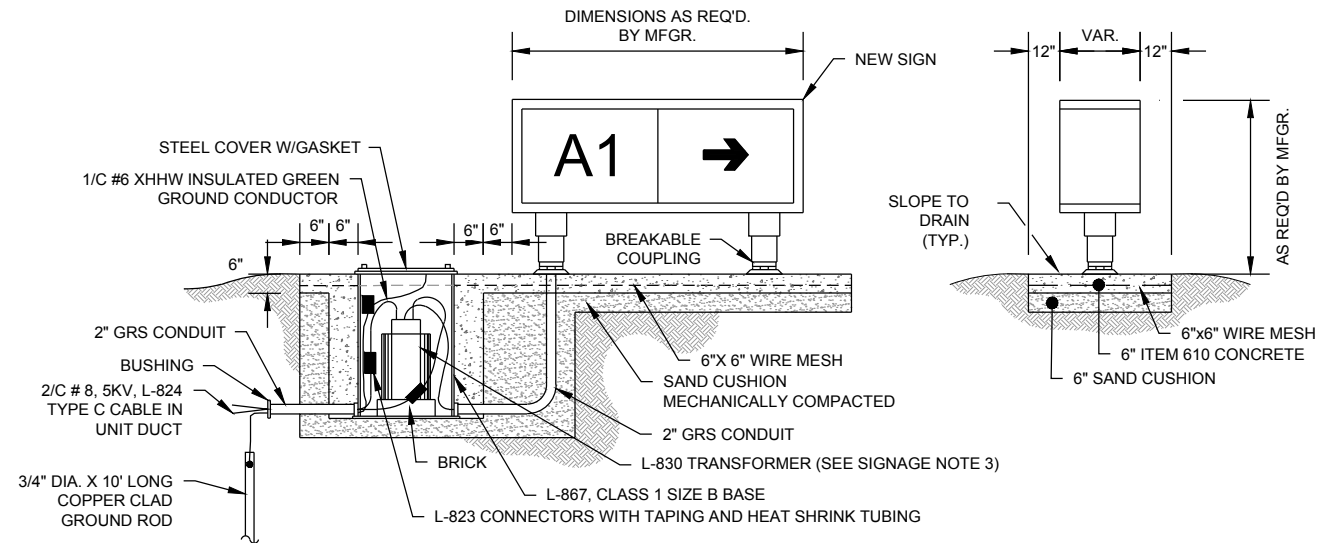
SHEET NO. 16 REVISION

SHEET 16 OF 23 SHEETS

SIGNAGE SCHEDULE						
SIGN NO.	SIDE	SIGN LEGEND	SIGN LOCATION	NUMBER OF CHARACTERS	CIRCUIT	PAY ITEM NUMBER
1	NW SE		STA. 119+69.87 TAXIWAY A	0 2	8/26	AR125442
2	N S		STA. 120+24.50 TAXIWAY A	1 2	8/26	AR125442
3	W E		STA. 101+93.37 RUNWAY 8/26	0 2	8/26	AR125442
4	W E		STA. 111+01.87 RUNWAY 8/26	3 0	8/26	AR125443
5	N S		STA. 120+00.00 TAXIWAY A1	2 6	8/26	AR125446
6	W E		STA. 112+69.47 RUNWAY 8/26	0 3	8/26	AR125443
7	W E		STA. 119+01.87 RUNWAY 8/26	3 0	8/26	AR125443
8	N S		STA. 120+00.00 TAXIWAY A2	2 6	8/26	AR125446
9	W E		STA. 120+69.47 RUNWAY 8/26	0 3	8/26	AR125443
10	W E		STA. 126+53.05 RUNWAY 8/26	3 0	8/26	AR125443
11	N S		STA. 120+00.00 TAXIWAY A3	2 6	8/26	AR125446
12	W E		STA. 128+20.64 RUNWAY 8/26	0 3	8/26	AR125443
13	W E		STA. 137+78.25 RUNWAY 8/26	0 2	8/26	AR125442
14	N S		STA. 120+33.67 TAXIWAY A	0 3	8/26	AR125443
15	NE SW		STA. 119+78.12 TAXIWAY A	1 3	8/26	AR125443

SIGN COLOR DESCRIPTION

- BLACK LEGEND ON YELLOW BACKGROUND
- YELLOW LEGEND ON BLACK BACKGROUND
- WHITE LEGEND WITH BLACK BORDER ON RED BACKGROUND
- BLANK PANEL - BLACK

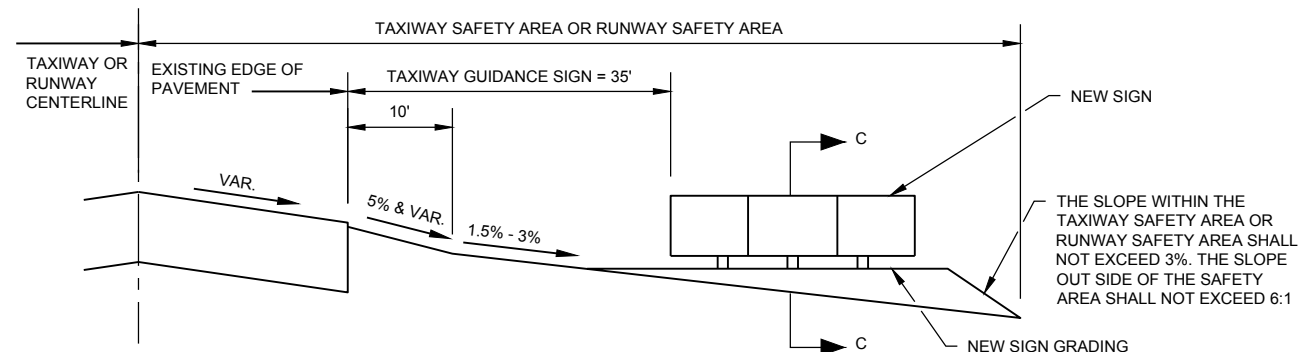


L-858 TAXIWAY GUIDANCE SIGN (LED)

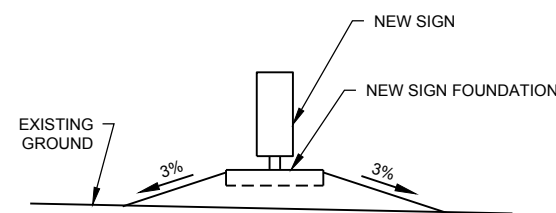
NOT TO SCALE

SIGNAGE NOTES

- TAXIWAY GUIDANCE SIGNS CONNECTED TO RUNWAY 8/26 CIRCUIT SHALL BE 2-SIDED LED, SIZE 2, STYLE 2, CLASS 2.
- SIGNS 1 & 15 WILL BE CANTED IN ACCORDANCE WITH AC 150/5340-18G.
- TRANSFORMER WATTAGE SHALL BE AS RECOMMENDED BY MANUFACTURER FOR LED SIGNS.
- THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS, INCLUDING SIGN, COLOR, SIZE AND PROPOSED LEGEND, IN ENOUGH DETAIL TO DETERMINE PROPOSED SPACING AND OTHER INFORMATION REQUIRED BY THE SPECIFICATIONS PRIOR TO MANUFACTURE. THE CONTRACTOR SHALL VERIFY PROPOSED SIGN LOCATIONS AND ORIENTATIONS WITH THE RESIDENT ENGINEER PRIOR TO INSTALLATION.
- THE NUMBER OF MODULES PER SIGN SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
- NEW SIGNS SHALL BE PROVIDED WITH THE NUMBER OF MODULES REQUIRED TO ACCOMMODATE THE PROPOSED FUTURE LEGEND AS NOTED IN THE SIGNAGE SCHEDULE.
- SIGN LEGEND SHALL BE AS SHOWN IN THE SIGNAGE SCHEDULE.



ELEVATION



SECTION C-C

L-858 AIRFIELD SIGN DETAILS

NOT TO SCALE

NOTES:

- SLOPES SHOWN ARE FROM FAA STANDARDS AND MAY NOT REFLECT THE ACTUAL GRADES IN THE FIELD
- ESTIMATED 2 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 OR RUNWAY SAFETY AREA WILL VARY DUE TO PAVEMENT WIDTHS AND VARIANCES IN SIGN FOUNDATION LENGTHS.

8

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LK015

VILLAGE OF LAKE IN THE HILLS

LAKE IN THE HILLS MUNICIPAL AIRPORT LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN BY:

REV	DATE	DESCRIPTION

PROJECT NAME:

REHABILITATE RUNWAY 8/26 ELECTRICAL

SHEET TITLE:

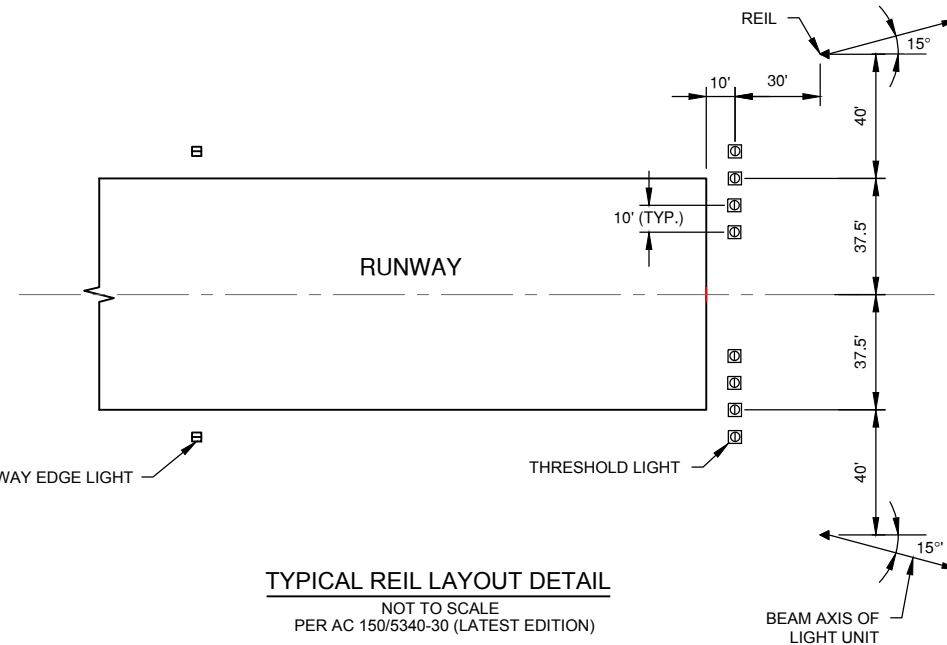
ELECTRICAL DETAILS 4

DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

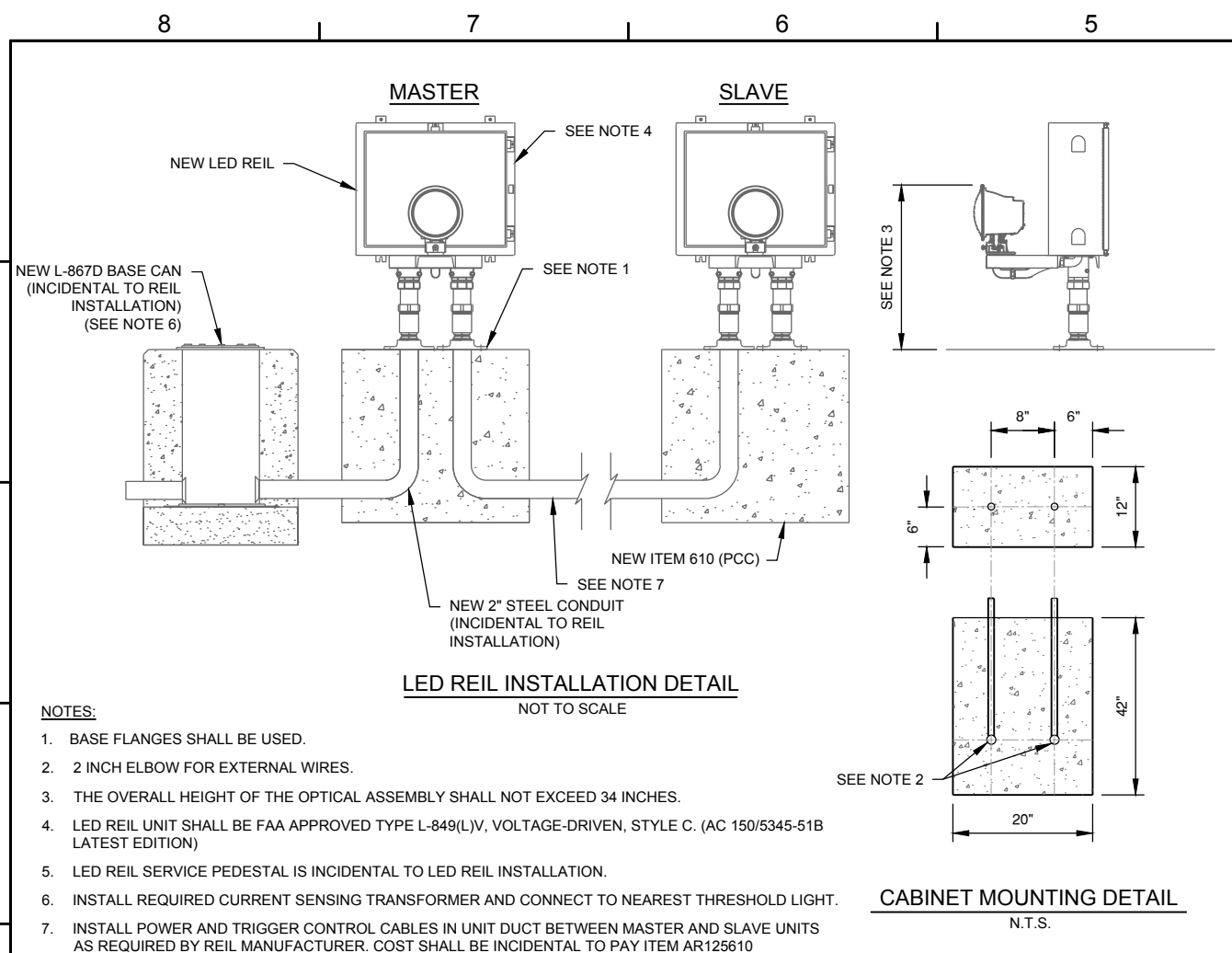
PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

SHEET NO. 17 REVISION

SHEET 17 OF 23 SHEETS

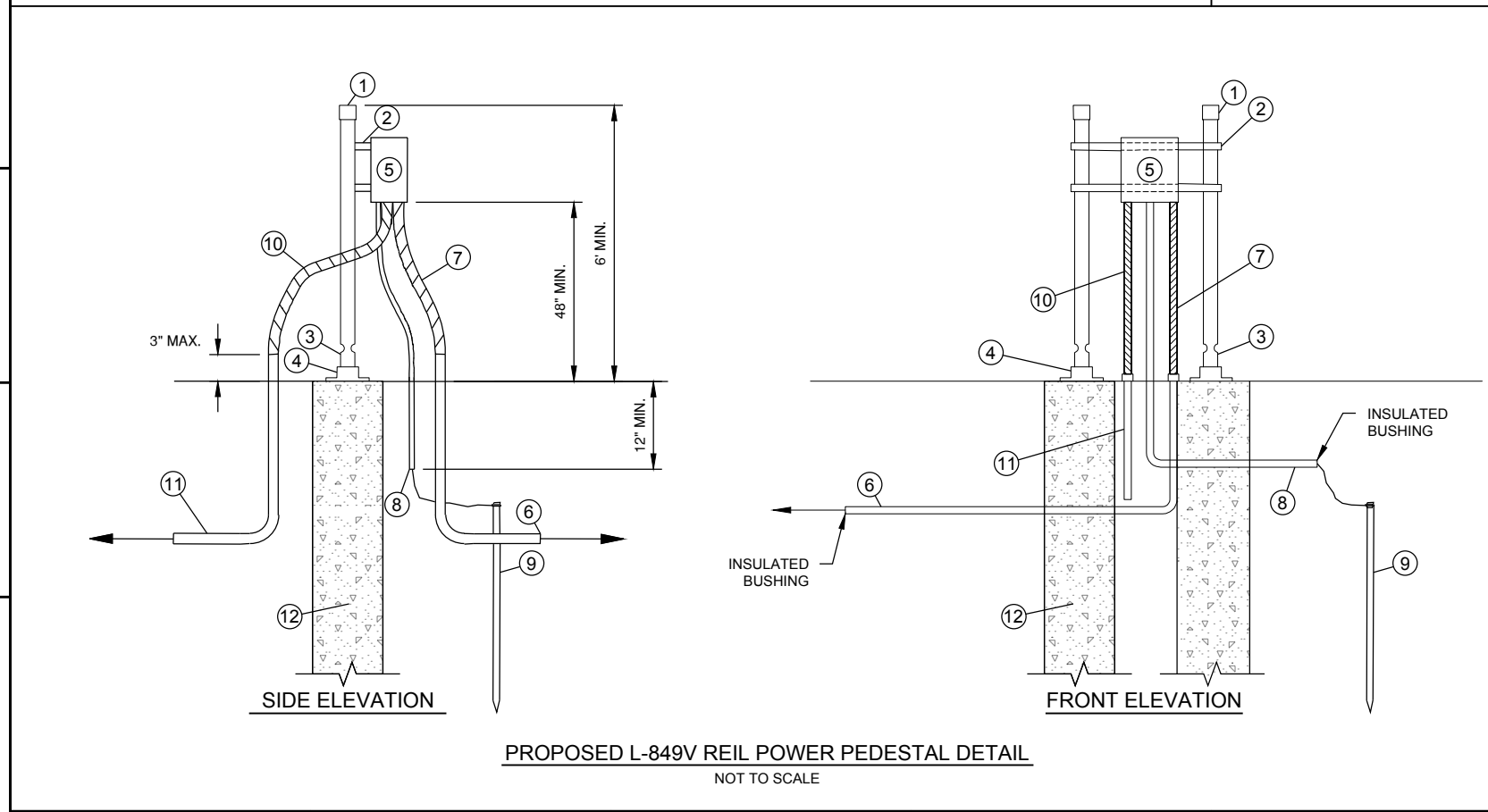


- NOTES:**
1. THE OPTIMUM LOCATION FOR EACH LIGHT UNIT IS IN LINE WITH THE RUNWAY THRESHOLD AT 40 FEET FROM THE RUNWAY EDGE.
 2. A 100 FT UPWIND AND A 30 FT DOWNWIND LONGITUDINAL TOLERANCE IS PERMITTED FROM THE RUNWAY THRESHOLD LIGHTS IN LOCATING THE LIGHT UNITS.
 3. SPACE THE LIGHT UNITS EQUALLY FROM THE RUNWAY CENTERLINE. WHEN ADJUSTMENTS ARE NECESSARY THE DIFFERENCE IN THE DISTANCE OF THE UNITS FROM THE RUNWAY CENTERLINE MUST NOT EXCEED 10 FT.
 4. THE BEAM CENTERLINE OF EACH LIGHT UNIT IS AIMED 15° OUTWARD FROM A LINE PARALLEL TO THE RUNWAY CENTERLINE AND INCLINED AT AN ANGLE 10° ABOVE THE HORIZONTAL. IF ANGLE ADJUSTMENTS ARE NECESSARY, PROVIDE AN OPTICAL BAFFLE AND CHANGE THE ANGLES TO 10° HORIZONTAL AND 20° VERTICAL.
 5. LOCATE THE REIL EQUIPMENT A MINIMUM DISTANCE OF 40 FT FROM OTHER RUNWAYS AND TAXIWAYS.
 6. IF REILS ARE USED WITH VASI, INSTALL REILS 75 FT FROM THE RUNWAY EDGE.
 7. BOTH REIL UNITS MUST BE AT THE SAME ELEVATION AND WITHIN 3 FT OF THE HORIZONTAL PLANE THROUGH THE RUNWAY CENTERLINE.
 8. ALL CONNECTIONS BETWEEN THE MASTER AND SLAVE REIL AND CURRENT SENSING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
- WHEN INSTALLED WITH OTHER GLIDE SLOPE INDICATORS, INSTALL REILS 40 FT FROM THE RUNWAY EDGE IF THERE ARE CONCERNS WITH JET BLAST AND WING VORTICES. SEE FAA ORDER JO 6850.2 FOR ADDITIONAL INFORMATION.



LEGEND FOR REIL POWER DETAIL

- ① 2" GALVANIZED STEEL SUPPORT POST (TYP. OF 2)
- ② STRUT-TYPE SUPPORT, UNISTRUT 2000, OR EQUIVALENT.
- ③ FRANGIBLE COUPLINGS (TYP. OF 2)
- ④ FLOOR FLANGE (TYP. OF 2).
- ⑤ HEAVY-DUTY 30A, 600V UNFUSED DISCONNECT IN NEMA 3R ENCLOSURE. PROVIDE GROUND LUGS. PROVIDE LABEL READING: "CAUTION: 240 VOLTS."
- ⑥ 240V POWER FROM VAULT:
REIL 8: 2 #6 XLP-USE, 1 #8 GND IN 1" UNIT DUCT
REIL 26: 2 #8 XLP-USE, 1 #8 GND IN 1" UNIT DUCT
- ⑦ 1-1/2" OR 2" LIQUID TIGHT FLEXIBLE CONDUIT SHALL BE INSTALLED NO GREATER THAT 3" ABOVE GROUNDLINE.
- ⑧ #8 GROUND WIRE IN 1/2" PVC CONDUIT TO GROUND ROD.
- ⑨ 3/4" DIAMETER X 10' LONG COPPERCLAD GROUND ROD. MIN BURIAL: 1'-0." BOND GROUND WIRES TO GROUND ROD USING EXOTHERMIC WELD, CADWELD., OR EQUIVALENT. CLAMPED CONNECTIONS SHALL NOT BE ACCEPTABLE.
- ⑩ TWO #10 XLP-USE (REIL LIGHTS 240V POWER), ONE #10 GROUND IN 2" LIQUID TIGHT FLEXIBLE CONDUIT.
- ⑪ TWO #10 XLP-USE (REIL LIGHTS 240V POWER), ONE #10 GROUND IN 2" GRS CONDUIT TO REIL MASTER UNIT.
- ⑫ CONCRETE FOUNDATION, 12" DIA., MIN. 4'-0" DEEP (TYP. OF 2)





LK015

VILLAGE OF LAKE IN THE HILLS

LAKE IN THE HILLS MUNICIPAL AIRPORT
LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN BY:

REV	DATE	DESCRIPTION

PROJECT NAME:

REHABILITATE RUNWAY 8/26
ELECTRICAL

SHEET TITLE:

ELECTRICAL DETAILS 5

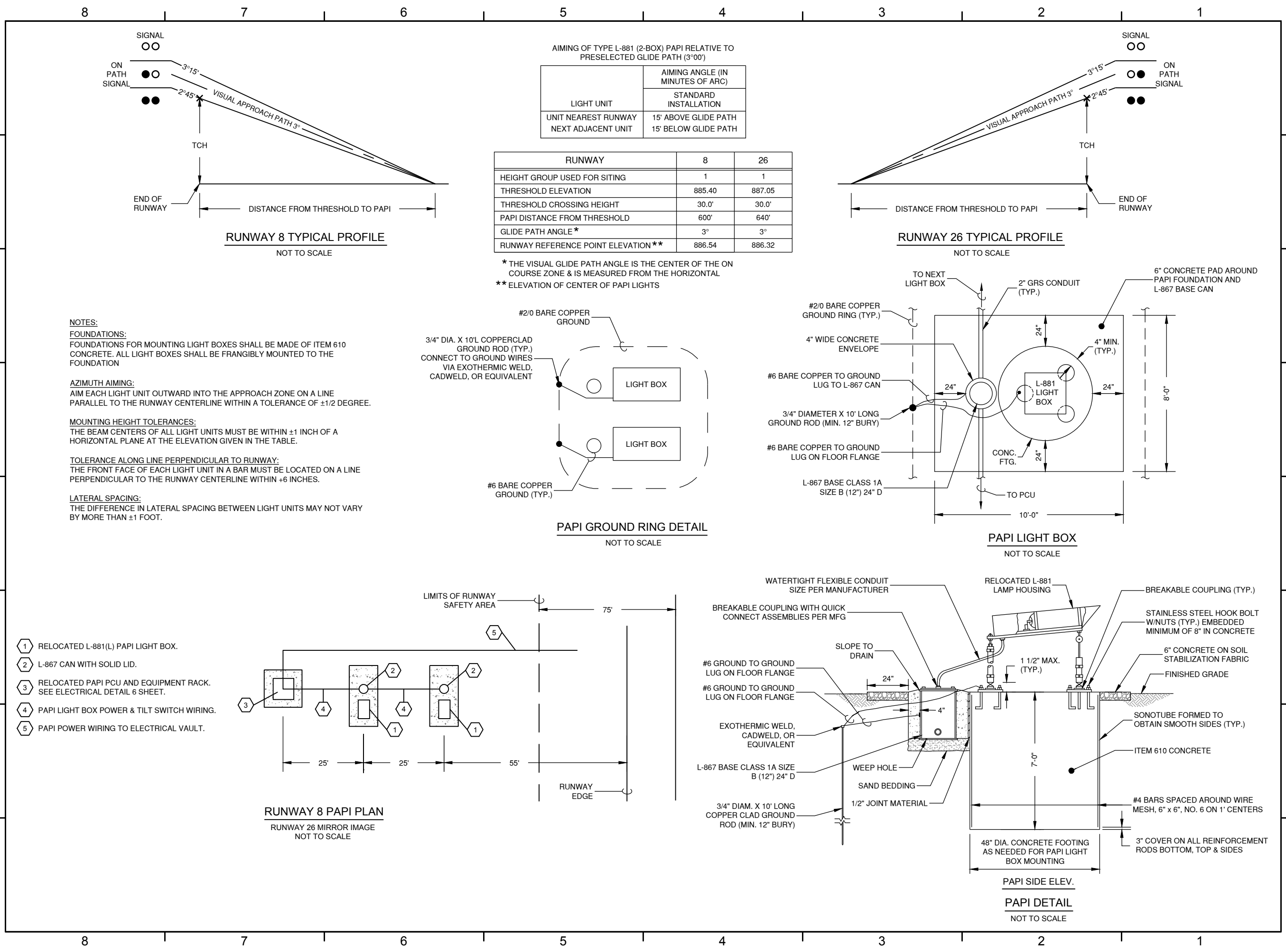
DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

SHEET NO. REVISION

18

SHEET 18 OF 23 SHEETS



- 1 RELOCATED L-881(L) PAPI LIGHT BOX.
- 2 L-867 CAN WITH SOLID LID.
- 3 RELOCATED PAPI PCU AND EQUIPMENT RACK. SEE ELECTRICAL DETAIL 6 SHEET.
- 4 PAPI LIGHT BOX POWER & TILT SWITCH WIRING.
- 5 PAPI POWER WIRING TO ELECTRICAL VAULT.



LK015

VILLAGE OF LAKE IN THE HILLS

LAKE IN THE HILLS MUNICIPAL AIRPORT LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN BY:

REV	DATE	DESCRIPTION

PROJECT NAME:

REHABILITATE RUNWAY 8/26 ELECTRICAL

SHEET TITLE:

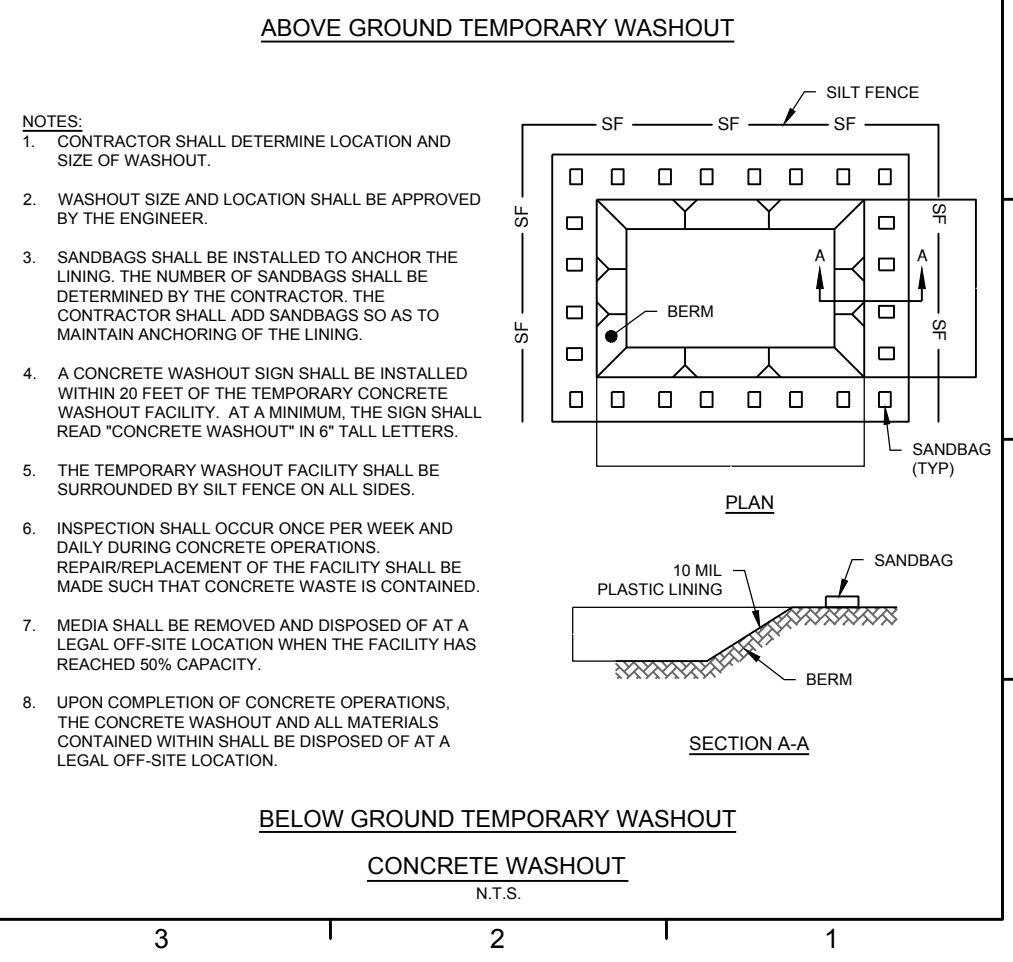
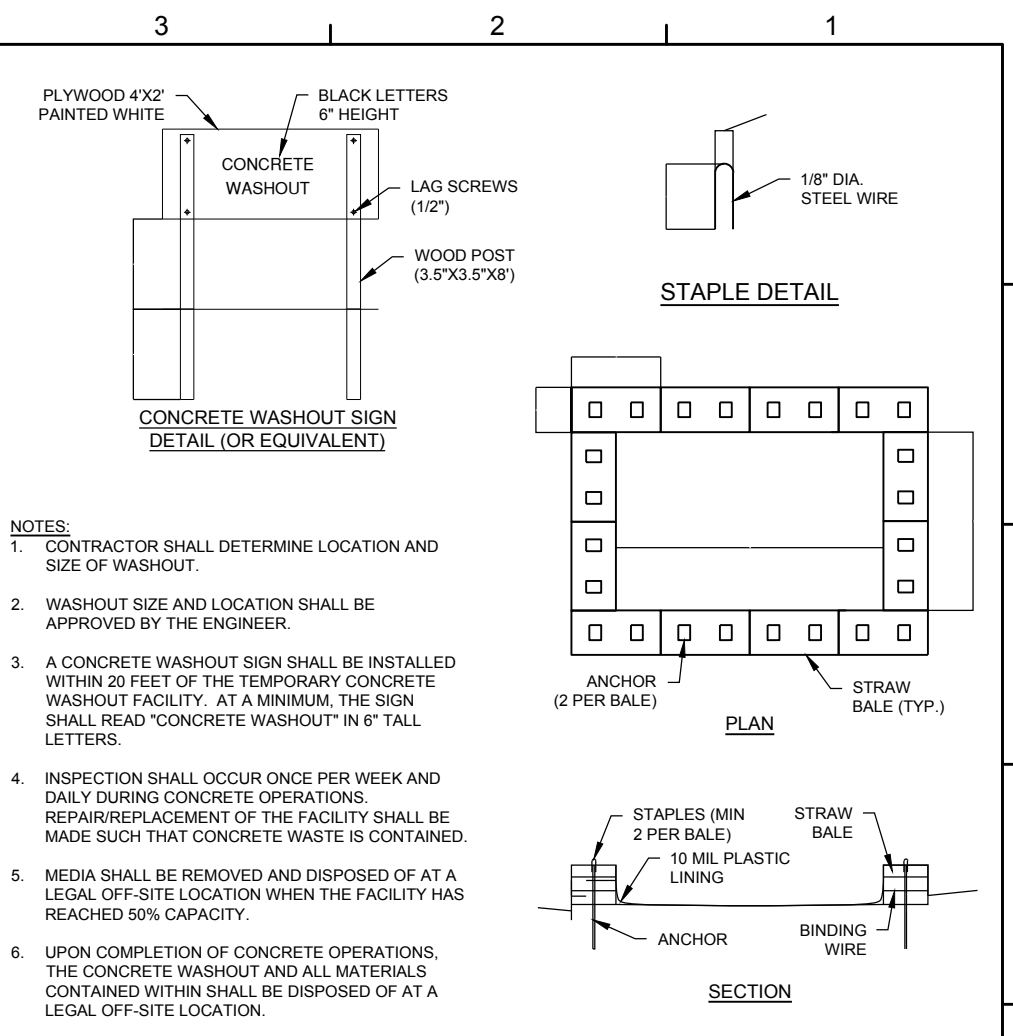
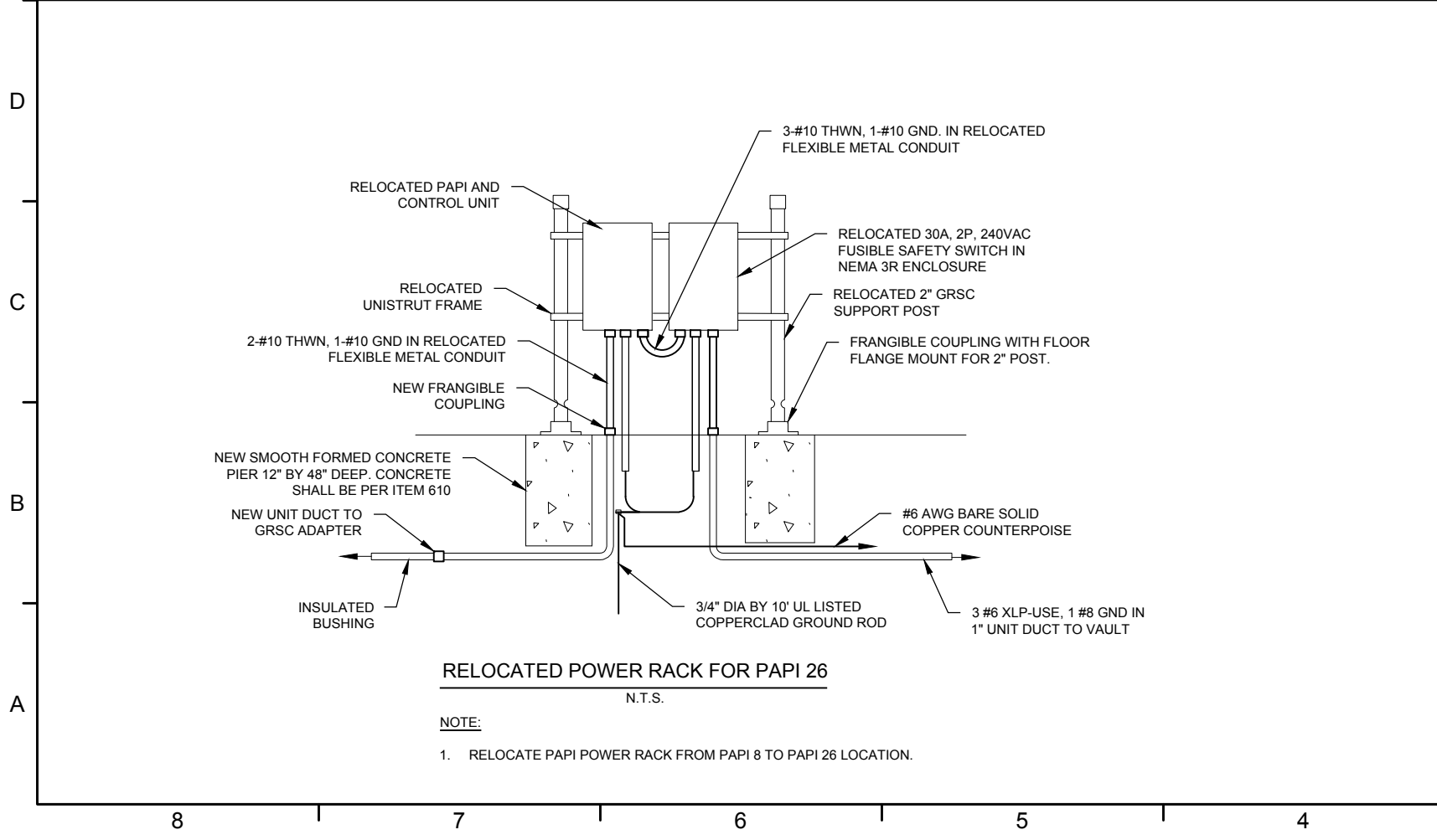
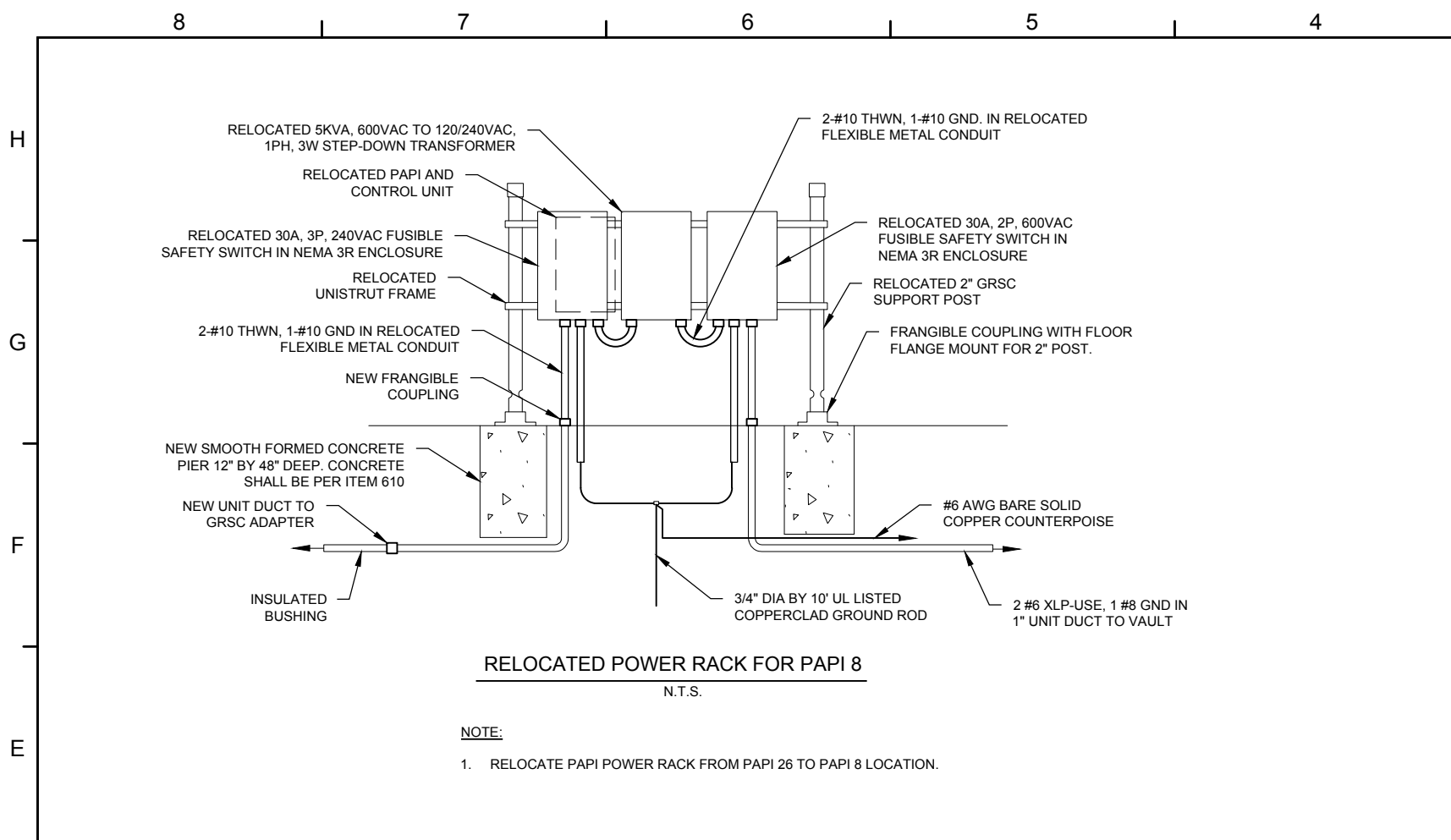
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DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

SHEET NO. 19 REVISION

SHEET 19 OF 23 SHEETS



- NOTES:**
- CONTRACTOR SHALL DETERMINE LOCATION AND SIZE OF WASHOUT.
 - WASHOUT SIZE AND LOCATION SHALL BE APPROVED BY THE ENGINEER.
 - A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 20 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY. AT A MINIMUM, THE SIGN SHALL READ "CONCRETE WASHOUT" IN 6" TALL LETTERS.
 - INSPECTION SHALL OCCUR ONCE PER WEEK AND DAILY DURING CONCRETE OPERATIONS. REPAIR/REPLACEMENT OF THE FACILITY SHALL BE MADE SUCH THAT CONCRETE WASTE IS CONTAINED.
 - MEDIA SHALL BE REMOVED AND DISPOSED OF AT A LEGAL OFF-SITE LOCATION WHEN THE FACILITY HAS REACHED 50% CAPACITY.
 - UPON COMPLETION OF CONCRETE OPERATIONS, THE CONCRETE WASHOUT AND ALL MATERIALS CONTAINED WITHIN SHALL BE DISPOSED OF AT A LEGAL OFF-SITE LOCATION.

- NOTES:**
- CONTRACTOR SHALL DETERMINE LOCATION AND SIZE OF WASHOUT.
 - WASHOUT SIZE AND LOCATION SHALL BE APPROVED BY THE ENGINEER.
 - SANDBAGS SHALL BE INSTALLED TO ANCHOR THE LINING. THE NUMBER OF SANDBAGS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL ADD SANDBAGS SO AS TO MAINTAIN ANCHORING OF THE LINING.
 - A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 20 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY. AT A MINIMUM, THE SIGN SHALL READ "CONCRETE WASHOUT" IN 6" TALL LETTERS.
 - THE TEMPORARY WASHOUT FACILITY SHALL BE SURROUNDED BY SILT FENCE ON ALL SIDES.
 - INSPECTION SHALL OCCUR ONCE PER WEEK AND DAILY DURING CONCRETE OPERATIONS. REPAIR/REPLACEMENT OF THE FACILITY SHALL BE MADE SUCH THAT CONCRETE WASTE IS CONTAINED.
 - MEDIA SHALL BE REMOVED AND DISPOSED OF AT A LEGAL OFF-SITE LOCATION WHEN THE FACILITY HAS REACHED 50% CAPACITY.
 - UPON COMPLETION OF CONCRETE OPERATIONS, THE CONCRETE WASHOUT AND ALL MATERIALS CONTAINED WITHIN SHALL BE DISPOSED OF AT A LEGAL OFF-SITE LOCATION.



LK015

VILLAGE OF
LAKE IN THE HILLS

LAKE IN THE HILLS
MUNICIPAL AIRPORT
LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN
BY:

REV DATE DESCRIPTION

PROJECT NAME:

REHABILITATE
RUNWAY 8/26
ELECTRICAL

SHEET TITLE:

ELECTRICAL DETAILS 7

DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

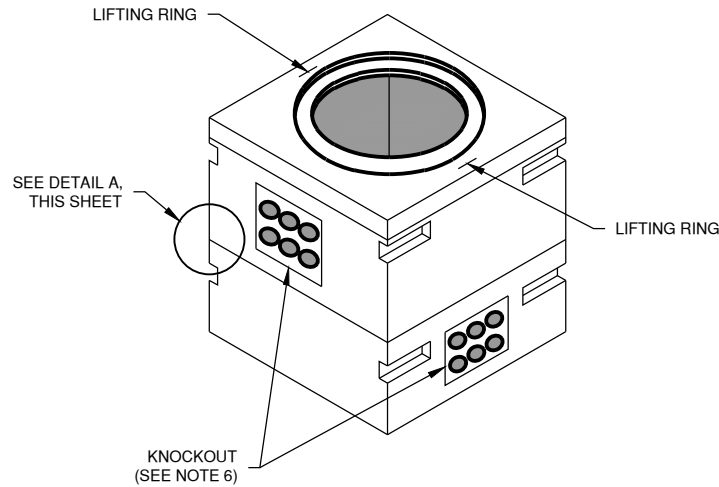
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DATE: JUNE 10, 2022

SHEET NO. 20 REVISION

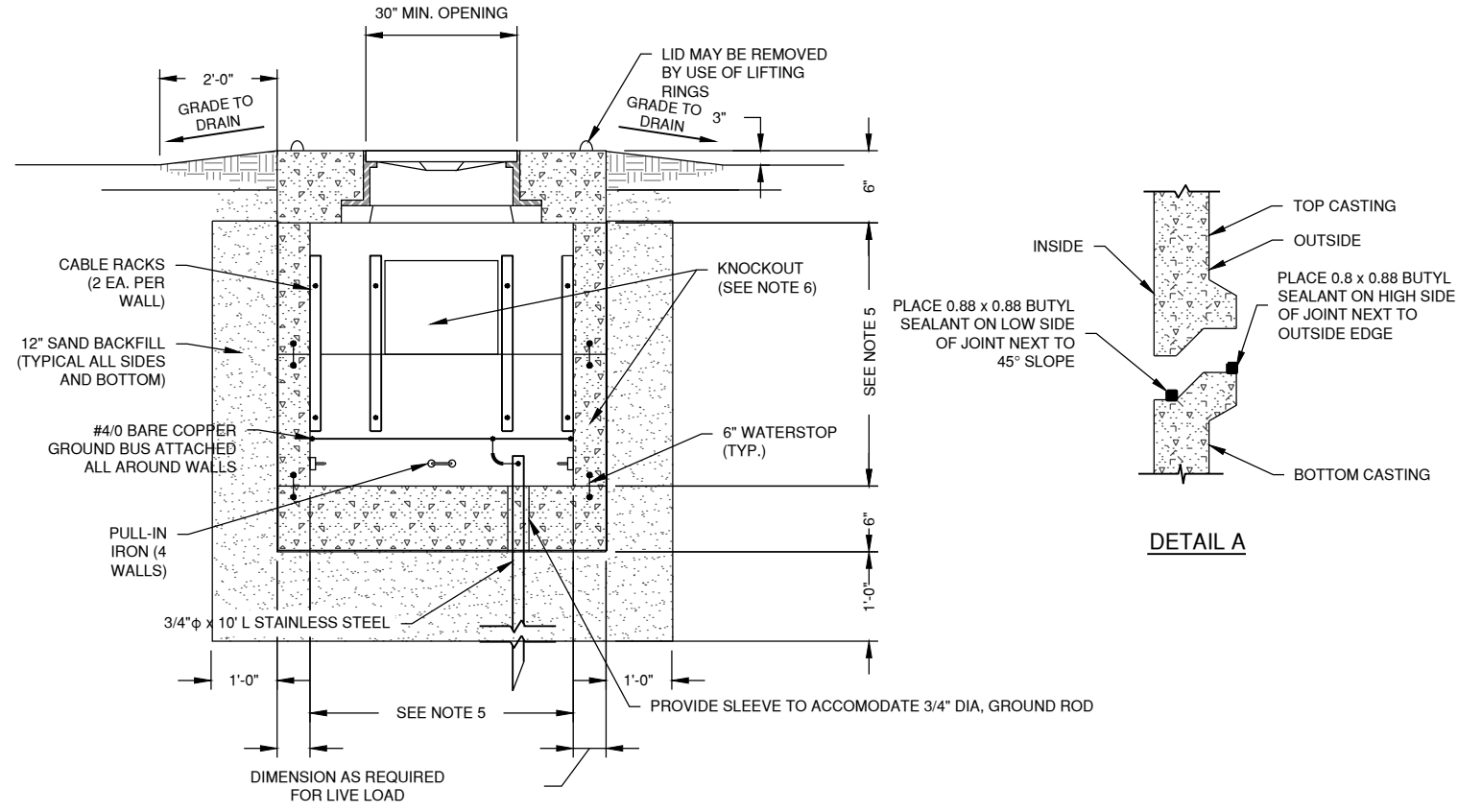
SHEET 20 OF 23 SHEETS

NOTES

- THE HANDHOLE/GRADE RING/HANDHOLE LID ASSEMBLY SHALL BE CONSTRUCTED TO MEET OR EXCEED THE FOLLOWING LOADINGS:
 - EARTHLOAD = 2 FEET FILL AT 130 LBS/FT .
 - SURCHARGE = 2 FEET FILL AT 130 LBS/FT .
 - LIVE LOAD = A.A.S.H.T.O. HS-20 TRUCK WITH 20% IMPACT
 - $f_c = 4,500$ P.S.I.
 - $f_y = 60,000$ P.S.I.
 - 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 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 PROVIDED FOR IN EACH DIRECTION. WHERE KNOWN, SIZE SHALL BE AS REQUIRED FOR PROPOSED ENTRANCE, OTHERWISE 6 - 4" OPENINGS (MINIMUM) SHALL BE PROVIDED AND CAPPED FOR FUTURE USE.
- 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.

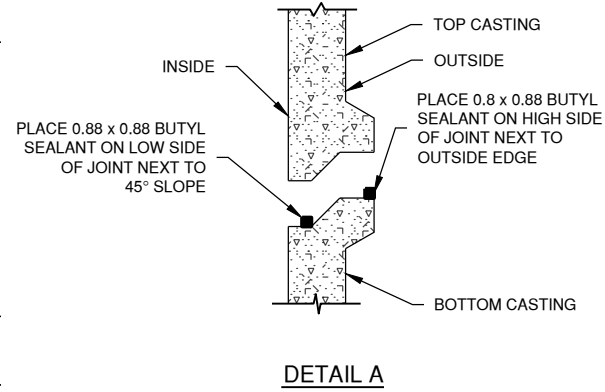


ELEVATION VIEW

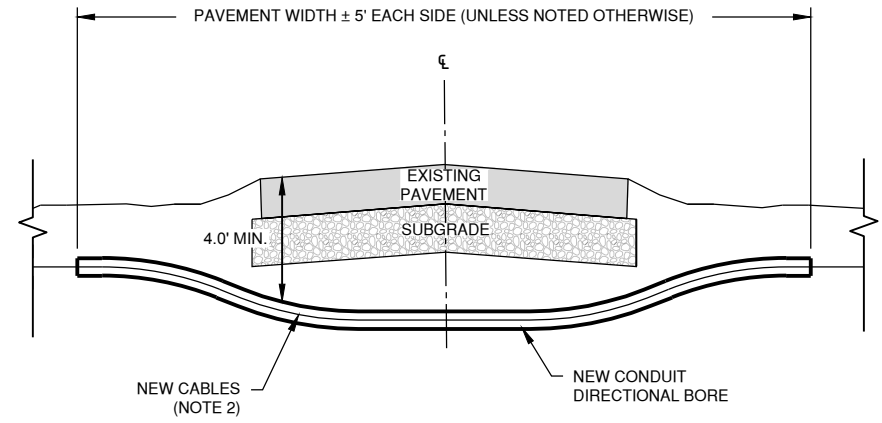


SECTION VIEW

HIGH VOLTAGE ELECTRICAL HANDHOLE DETAILS
NOT TO SCALE



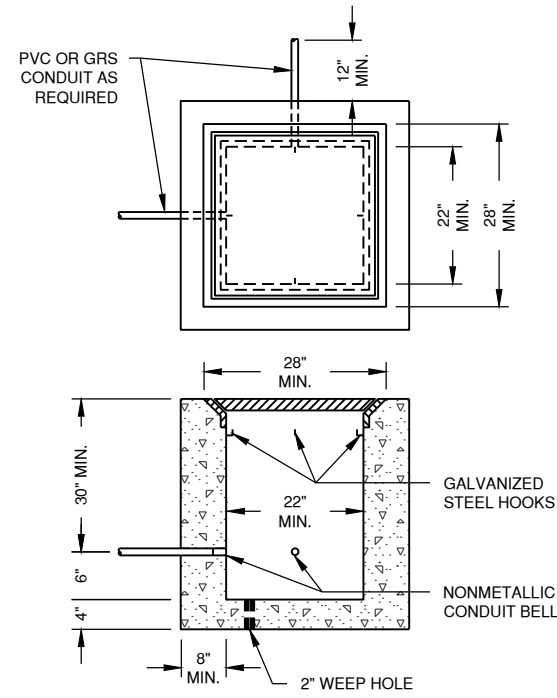
DETAIL A



DIRECTIONAL BORE DETAIL
NOT TO SCALE

NOTES:

- THE DEPTH OF THE DIRECTIONAL BORE SHALL BE NO LESS THAN 4.0' FROM THE PAVEMENT SURFACE AND SHALL NOT DISTURB EXISTING UNDERDRAINS OR NEW LIGHTS/CABLING.
- REFER TO ELECTRICAL SITE PLAN FOR CABLE AND CONDUIT INFORMATION.



LOW VOLTAGE ELECTRICAL HANDHOLE DETAIL
NOT TO SCALE

NOTES:

- PROVIDE 2 - 4" CONDUIT ENTRANCES IN ALL DIRECTIONS. 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.
- FRAME AND LID SHALL BE SUITABLE FOR H-20 LOADING.
- COVER SHALL BE STAMPED "ELECTRIC".



LK015

VILLAGE OF
LAKE IN THE HILLS

LAKE IN THE HILLS
MUNICIPAL AIRPORT
LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN
BY:

REV	DATE	DESCRIPTION

PROJECT NAME:

REHABILITATE
RUNWAY 8/26
ELECTRICAL

SHEET TITLE:

VAULT PLAN 1

DESIGNED:	DRAWN:	CHECKED:
CMT-MLI	CMT-MLI	CMT-MLI

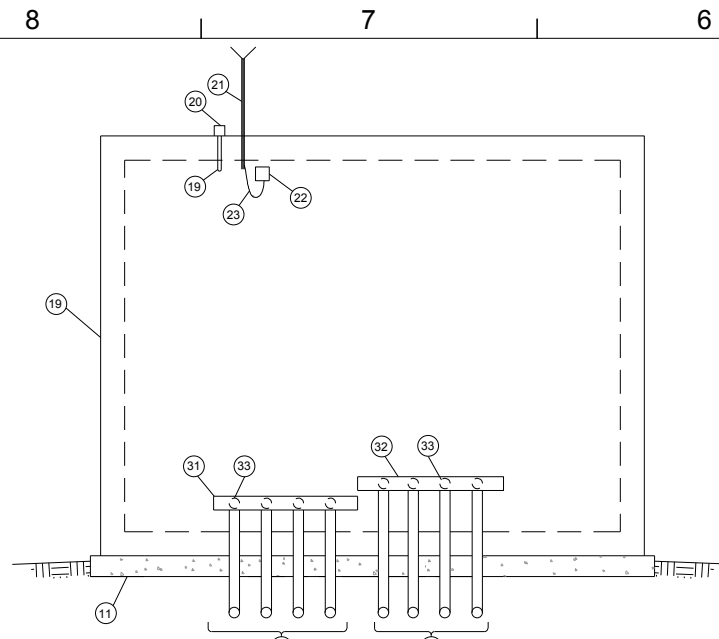
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DATE:	JUNE 10, 2022

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SHEET 21 OF 23 SHEETS

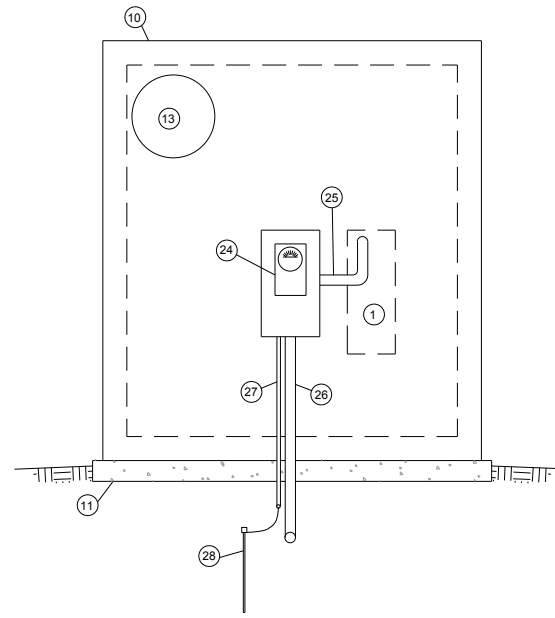
SECTION AND PLAN NOTES

- ① MAIN POWER PANEL, "PP-1", 42 POLE, 200A 120/240V, 1-PHASE, 3-WIRE WITH 200A, 2-POLE MAIN CIRCUIT BREAKER, SERVICE ENTRANCE RATED. SQUARE D OR EQUIVALENT. PROVIDE ENGRAVED NAMEPLATE READING "120/240V MAIN POWER PANEL". PROVIDE ALL BRANCH CIRCUIT BREAKERS AS REQUIRED.
- ② NEW REGULATOR, 10KW, 3-STEP, 240V INPUT, 6.6A OUTPUT FOR REGULATOR 18/36. PROVIDE ENGRAVED NAMEPLATE READING "REGULATOR 8/26"
- ③ NEW SPARE REGULATOR, 10KW, 3-STEP, 240V INPUT.
- ④ NEW HINGED NEMA 1 ENCLOSURE SIZED AS REQUIRED TO HOUSE RUNWAY 8/26 LIGHT, TRANSFORMER AND L-823 CONNECTORS. PROVIDE ENGRAVED NAMEPLATE READING: "RUNWAY 8/26 TRANSFORMER".
- ⑤ NEW ADB SCO SERIES CUTOUT, CAT #14T5.92.030 OR CROUSE-HINDS, FOR SPARE .
- ⑥ NEW HINGED NEMA 1 ENCLOSURE SIZED AS REQUIRED TO HOUSE SPARE REGULATOR'S LIGHT, TRANSFORMER AND L-823 CONNECTORS. PROVIDE ENGRAVED NAMEPLATE READING: "SPARE TRANSFORMER".
- ⑦ NEW ADB SCO SERIES CUTOUT, CAT #14T5.92.030 OR CROUSE-HINDS, FOR RUNWAY 8/26.
- ⑧ NEW L-854 RADIO CONTROLLER (PCAL) (TOP) AND NEW RADIO INTERFACE UNIT (RIU) (BOTTOM). INSTALL CONTROL WIRE AS REQUIRED BY MANUFACTURER.
- ⑨ NEW L-821 LIGHTING CONTROL PANEL (SEE SCHEMATIC).
- ⑩ NEW PRE-FABRICATED CONCRETE EQUIPMENT SHELTER, 14'Wx12'Dx9'H. SEE SPECIFICATIONS.
- ⑪ NEW 6" REINFORCED CONCRETE PAD ON A 6" CRUSHED AGG. BASE PAD COMPACTED TO 95% STD PROCTOR.
- ⑫ NEW INTAKE LOUVER, 24"Wx18"H, MIN. FREE AREA: 1.16 SQ. FT., WITH CD35 MOTORIZED DAMPER (POWER-OPEN/SPRING-CLOSE).
- ⑬ NEW EXHAUST FAN, 120V, 1/4HP, 1,017CFM.
- ⑭ NEW WALL HEATER, 3KW, 240V, SINGLE-PHASE WITH SURFACE MOUNT FRAME.
- ⑮ NEW SURFACE MOUNT LED LIGHT FIXTURE, LITHONIA FEM4LED-3L-35-IMAF1-120, HUBBEL OR EATON.
- ⑯ NEW EXTERIOR LED LIGHT FIXTURE, LITHONIA TWHLED-10C-1000-40K-T3M-120, HUBBEL OR EATON.
- ⑰ NEW 4"x4" NEMA 1 LOW VOLTAGE WIREWAY.
- ⑱ NEW 4"x4" NEMA 3R HIGH VOLTAGE WIREWAY. INSTALL AN ADHESIVE WARNING LABEL ON HINGED DOOR READING: "CAUTION: HIGH VOLTAGE".
- ⑲ NEW TWO #12 THWN (PHOTOCELL CONTROL), ONE #12 GROUND IN 3/4" GRS CONDUIT.
- ⑳ NEW PHOTOCELL.
- ㉑ NEW RADIO CONTROLLER ANTENNA.
- ㉒ NEW 4"x4"x4" NEMA 4 JUNCTION BOX.
- ㉓ NEW RADIO CONTROLLER COAXIAL CABLE. EXIT BOTTOM OF JUNCTION BOX THROUGH WATERPROOF GROMMET.
- ㉔ NEW UTILITY METER AND C.T. CABINET. CONTRACTOR SHALL INSTALL METER BASE AND C.T. CABINET PER UTILITY COMPANY REQUIREMENTS.
- ㉕ 3-1/C #4/0 TYPE USE CABLES (120/240V SERVICE) & #2 GND IN 3"GRS CONDUIT TO UTILITY TRANSFORMER SECONDARY.
- ㉖ 3-1/C #4/0 TYPE USE CABLES (120/240V SERVICE) & #2 GND IN 3" GRS CONDUIT TO POWER PANEL "PP-1". TRANSITION GRS TO CONCRETE ENCASED PVC BELOW GRADE.
- ㉗ NEW 1-1/C NO. 2 BARE COPPER GROUND IN 1/2" PVC CONDUIT TO GROUND ROD.
- ㉘ NEW 3/4" DIAMETER x 10' LONG COPPERCLAD GROUND ROD. MIN. BURIAL: 1'-0". BOND GROUND WIRES TO GROUND ROD USING EXOTHERMIC WELD, CADWELD, OR EQUIVALENT. CLAMPED CONNECTIONS SHALL NOT BE ACCEPTABLE.
- ㉙ NEW 4-2" GRS CONDUITS MIN. 5'-0" FROM EDGE OF CONCRETE PAD (MIN. 1'-6" BELOW GRADE) INSTALL THE FOLLOWING NEW CIRCUITS:
 - 2-1/C #8, L-824, TYPE, C, 5KV CABLES IN UNIT DUCT 2" GRS CONDUIT (RUNWAY 8/26 EDGE CIRCUITS).
 - TRANSITION GRS CONDUIT TO 2-WAY PVC DIRECT BURIED CONDUIT BELOW GRADE.
 - UNUSED 2" GRS CONDUITS SHALL BE INSTALLED AND CAPPED FOR FUTURE USE.
- ㉚ NEW 4-3" GRS CONDUITS MIN. 5'-0" FROM EDGE OF CONCRETE PAD (MIN. 1'-6" BELOW GRADE) INSTALL AND ROUTE THE FOLLOWING NEW CIRCUITS:
 - THREE #8 (600V) L-824C CABLES ONE #8 GROUND FOR PAPI 26 IN UNIT DUCT.
 - TWO #6 (600V) L-824C CABLES ONE #8 GROUND FOR PAPI 8 IN UNIT DUCT.
 - TWO #6 (600V) L-824C CABLES, ONE #8 GROUND FRO REIL 8 IN UNIT DUCT.
 - TWO #8 (600V) L-824C CABLES, ONE #8 GROUND FOR REIL 26 IN UNIT DUCT.
 - TRANSITION GRS CONDUIT TO 3-WAY PVC DIRECT BURIED CONDUIT BELOW GRADE.
 - UNUSED 3" GRS CONDUITS SHALL BE INSTALLED AND CAPPED FOR FUTURE USE.
- ㉛ 4"x4" NEMA 3R LOW VOLTAGE WIREWAY. MOUNT AT SAME HEIGHT AS INTERIOR LOW VOLTAGE WIREWAY.
- ㉜ 4"x4" NEMA 3R HIGH VOLTAGE WIREWAY. MOUNT AT SAME HEIGHT AS INTERIOR HIGH VOLTAGE WIREWAY. INSTALL AN ADHESIVE WARNING LABEL ON HINGED DOOR READING: "CAUTION: HIGH VOLTAGE".
- ㉝ GRS CONDUIT NIPPLES AS NEEDED BETWEEN INTERIOR AND EXTERIOR WIREWAYS.



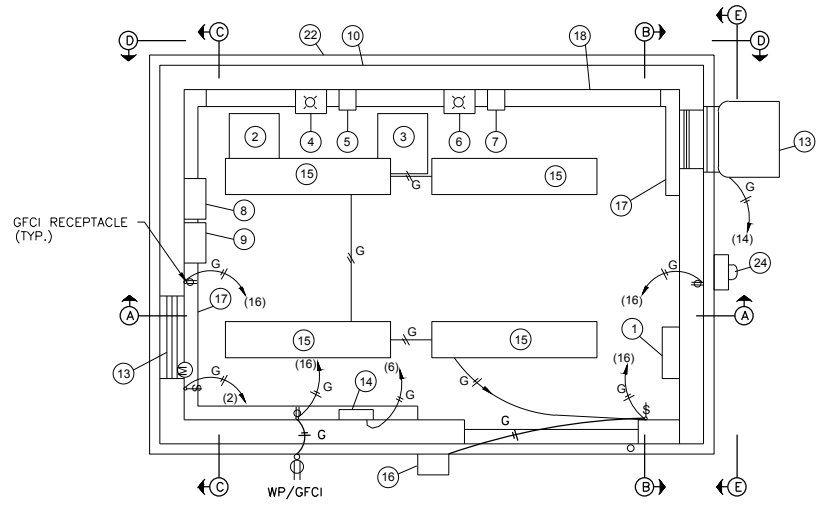
SECTION D

N.T.S.



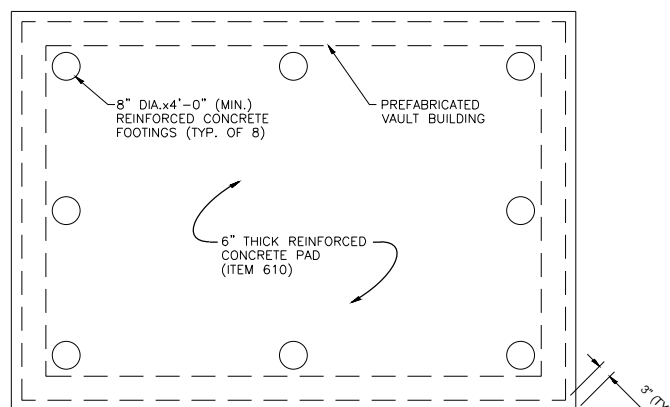
SECTION E

N.T.S.



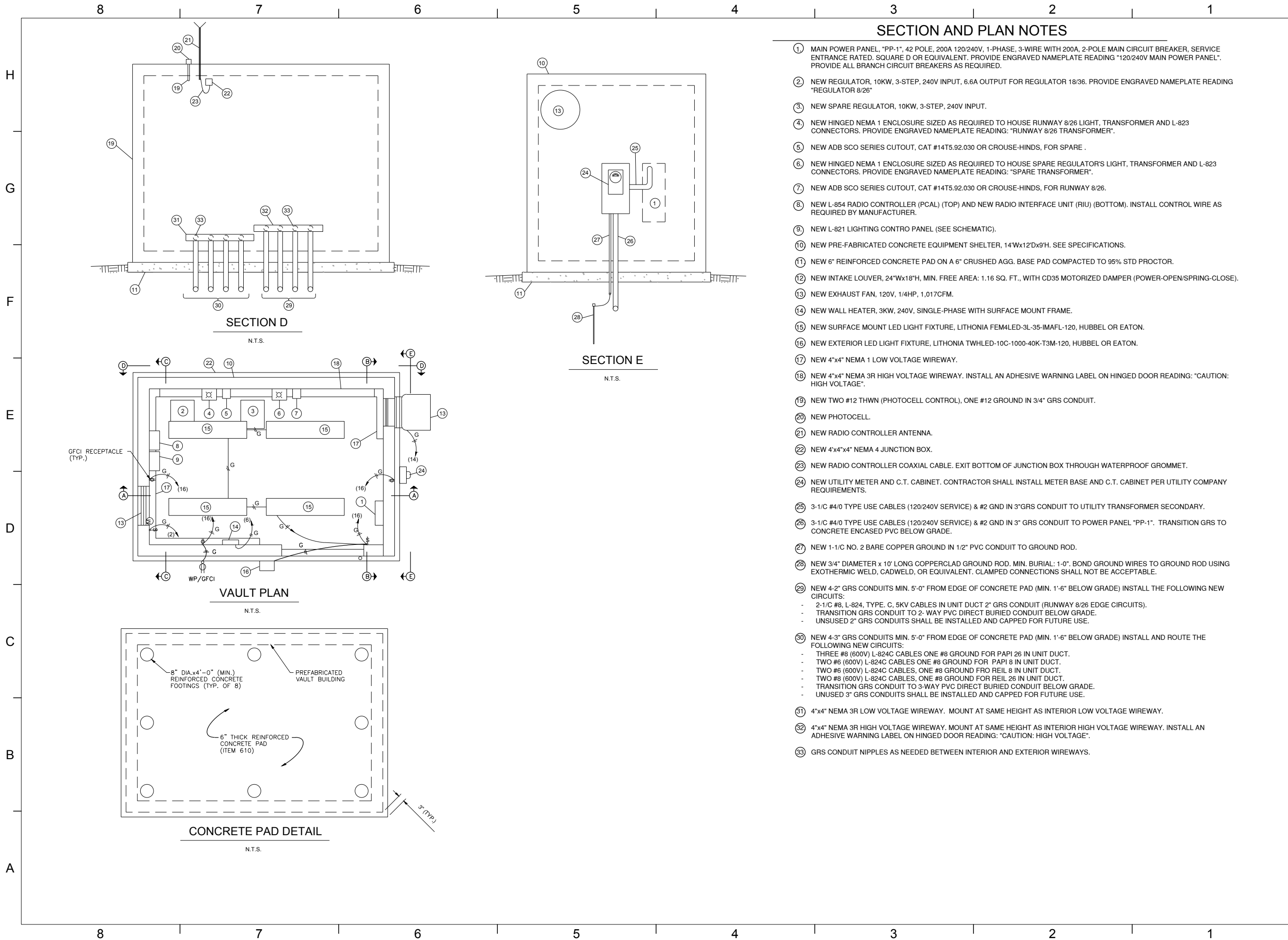
VAULT PLAN

N.T.S.



CONCRETE PAD DETAIL

N.T.S.





LK015

VILLAGE OF
LAKE IN THE HILLS

LAKE IN THE HILLS
MUNICIPAL AIRPORT
LAKE IN THE HILLS, IL

AIP Proj: 3-17-SBGP-TBD
IL Proj: 3CK-4874

APPROVED AS WORKING PLAN
BY:

REV DATE DESCRIPTION

PROJECT NAME:

REHABILITATE
RUNWAY 8/26
ELECTRICAL

SHEET TITLE:

VAULT PLAN 2

DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

SHEET NO. 22 REVISION

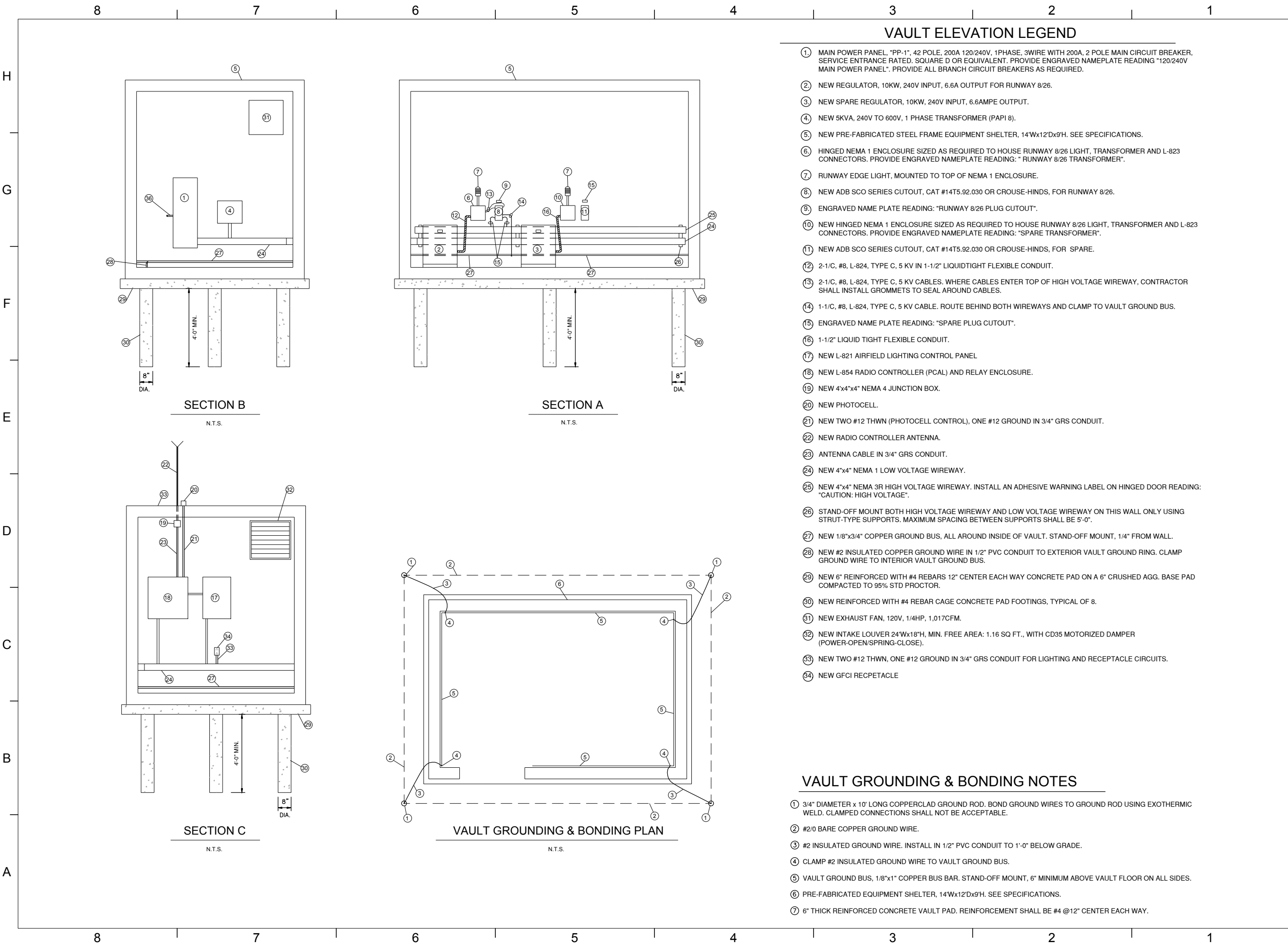
SHEET 22 OF 23 SHEETS

VAULT ELEVATION LEGEND

- 1 MAIN POWER PANEL, "PP-1", 42 POLE, 200A 120/240V, 1PHASE, 3WIRE WITH 200A, 2 POLE MAIN CIRCUIT BREAKER, SERVICE ENTRANCE RATED. SQUARE D OR EQUIVALENT. PROVIDE ENGRAVED NAMEPLATE READING "120/240V MAIN POWER PANEL". PROVIDE ALL BRANCH CIRCUIT BREAKERS AS REQUIRED.
- 2 NEW REGULATOR, 10KW, 240V INPUT, 6.6A OUTPUT FOR RUNWAY 8/26.
- 3 NEW SPARE REGULATOR, 10KW, 240V INPUT, 6.6AMPE OUTPUT.
- 4 NEW 5KVA, 240V TO 600V, 1 PHASE TRANSFORMER (PAPI 8).
- 5 NEW PRE-FABRICATED STEEL FRAME EQUIPMENT SHELTER, 14'Wx12'Dx9'H. SEE SPECIFICATIONS.
- 6 HINGED NEMA 1 ENCLOSURE SIZED AS REQUIRED TO HOUSE RUNWAY 8/26 LIGHT, TRANSFORMER AND L-823 CONNECTORS. PROVIDE ENGRAVED NAMEPLATE READING: " RUNWAY 8/26 TRANSFORMER".
- 7 RUNWAY EDGE LIGHT, MOUNTED TO TOP OF NEMA 1 ENCLOSURE.
- 8 NEW ADB SCO SERIES CUTOUT, CAT #14T5.92.030 OR CROUSE-HINDS, FOR RUNWAY 8/26.
- 9 ENGRAVED NAME PLATE READING: "RUNWAY 8/26 PLUG CUTOUT".
- 10 NEW HINGED NEMA 1 ENCLOSURE SIZED AS REQUIRED TO HOUSE RUNWAY 8/26 LIGHT, TRANSFORMER AND L-823 CONNECTORS. PROVIDE ENGRAVED NAMEPLATE READING: "SPARE TRANSFORMER".
- 11 NEW ADB SCO SERIES CUTOUT, CAT #14T5.92.030 OR CROUSE-HINDS, FOR SPARE.
- 12 2-1/C, #8, L-824, TYPE C, 5 KV IN 1-1/2" LIQUIDTIGHT FLEXIBLE CONDUIT.
- 13 2-1/C, #8, L-824, TYPE C, 5 KV CABLES. WHERE CABLES ENTER TOP OF HIGH VOLTAGE WIREWAY, CONTRACTOR SHALL INSTALL GROMMETS TO SEAL AROUND CABLES.
- 14 1-1/C, #8, L-824, TYPE C, 5 KV CABLE. ROUTE BEHIND BOTH WIREWAYS AND CLAMP TO VAULT GROUND BUS.
- 15 ENGRAVED NAME PLATE READING: "SPARE PLUG CUTOUT".
- 16 1-1/2" LIQUID TIGHT FLEXIBLE CONDUIT.
- 17 NEW L-821 AIRFIELD LIGHTING CONTROL PANEL
- 18 NEW L-854 RADIO CONTROLLER (PCAL) AND RELAY ENCLOSURE.
- 19 NEW 4"x4" NEMA 4 JUNCTION BOX.
- 20 NEW PHOTOCELL.
- 21 NEW TWO #12 THWN (PHOTOCELL CONTROL), ONE #12 GROUND IN 3/4" GRS CONDUIT.
- 22 NEW RADIO CONTROLLER ANTENNA.
- 23 ANTENNA CABLE IN 3/4" GRS CONDUIT.
- 24 NEW 4"x4" NEMA 1 LOW VOLTAGE WIREWAY.
- 25 NEW 4"x4" NEMA 3R HIGH VOLTAGE WIREWAY. INSTALL AN ADHESIVE WARNING LABEL ON HINGED DOOR READING: "CAUTION: HIGH VOLTAGE".
- 26 STAND-OFF MOUNT BOTH HIGH VOLTAGE WIREWAY AND LOW VOLTAGE WIREWAY ON THIS WALL ONLY USING STRUT-TYPE SUPPORTS. MAXIMUM SPACING BETWEEN SUPPORTS SHALL BE 5'-0".
- 27 NEW 1/8"x3/4" COPPER GROUND BUS, ALL AROUND INSIDE OF VAULT. STAND-OFF MOUNT, 1/4" FROM WALL.
- 28 NEW #2 INSULATED COPPER GROUND WIRE IN 1/2" PVC CONDUIT TO EXTERIOR VAULT GROUND RING. CLAMP GROUND WIRE TO INTERIOR VAULT GROUND BUS.
- 29 NEW 6" REINFORCED WITH #4 REBARS 12" CENTER EACH WAY CONCRETE PAD ON A 6" CRUSHED AGG. BASE PAD COMPACTED TO 95% STD PROCTOR.
- 30 NEW REINFORCED WITH #4 REBAR CAGE CONCRETE PAD FOOTINGS, TYPICAL OF 8.
- 31 NEW EXHAUST FAN, 120V, 1/4HP, 1,017CFM.
- 32 NEW INTAKE LOUVER 24"Wx18"H, MIN. FREE AREA: 1.16 SQ FT., WITH CD35 MOTORIZED DAMPER (POWER-OPEN/SPRING-CLOSE).
- 33 NEW TWO #12 THWN, ONE #12 GROUND IN 3/4" GRS CONDUIT FOR LIGHTING AND RECEPTACLE CIRCUITS.
- 34 NEW GFCI RECPETACLE

VAULT GROUNDING & BONDING NOTES

- 1 3/4" DIAMETER x 10' LONG COPPERCLAD GROUND ROD. BOND GROUND WIRES TO GROUND ROD USING EXOTHERMIC WELD. CLAMPED CONNECTIONS SHALL NOT BE ACCEPTABLE.
- 2 #2/0 BARE COPPER GROUND WIRE.
- 3 #2 INSULATED GROUND WIRE. INSTALL IN 1/2" PVC CONDUIT TO 1'-0" BELOW GRADE.
- 4 CLAMP #2 INSULATED GROUND WIRE TO VAULT GROUND BUS.
- 5 VAULT GROUND BUS, 1/8"x1" COPPER BUS BAR. STAND-OFF MOUNT, 6" MINIMUM ABOVE VAULT FLOOR ON ALL SIDES.
- 6 PRE-FABRICATED EQUIPMENT SHELTER, 14'Wx12'Dx9'H. SEE SPECIFICATIONS.
- 7 6" THICK REINFORCED CONCRETE VAULT PAD. REINFORCEMENT SHALL BE #4 @12" CENTER EACH WAY.



SECTION B
N.T.S.

SECTION A
N.T.S.

SECTION C
N.T.S.

VAULT GROUNDING & BONDING PLAN
N.T.S.



LK015

VILLAGE OF LAKE IN THE HILLS

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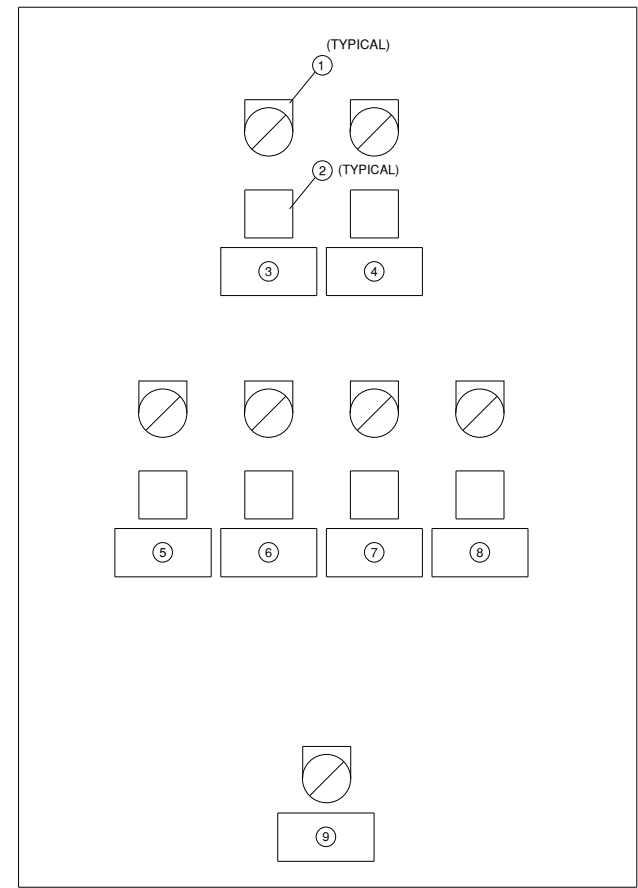
L-821 PANEL LAYOUT

DESIGNED: CMT-MLI DRAWN: CMT-MLI CHECKED: CMT-MLI

PROJECT NO.: 21025502.00
DATE: JUNE 10, 2022

SHEET NO. 23 REVISION

SHEET 23 OF 23 SHEETS



NEW L-821 PANEL LAYOUT
NOT TO SCALE

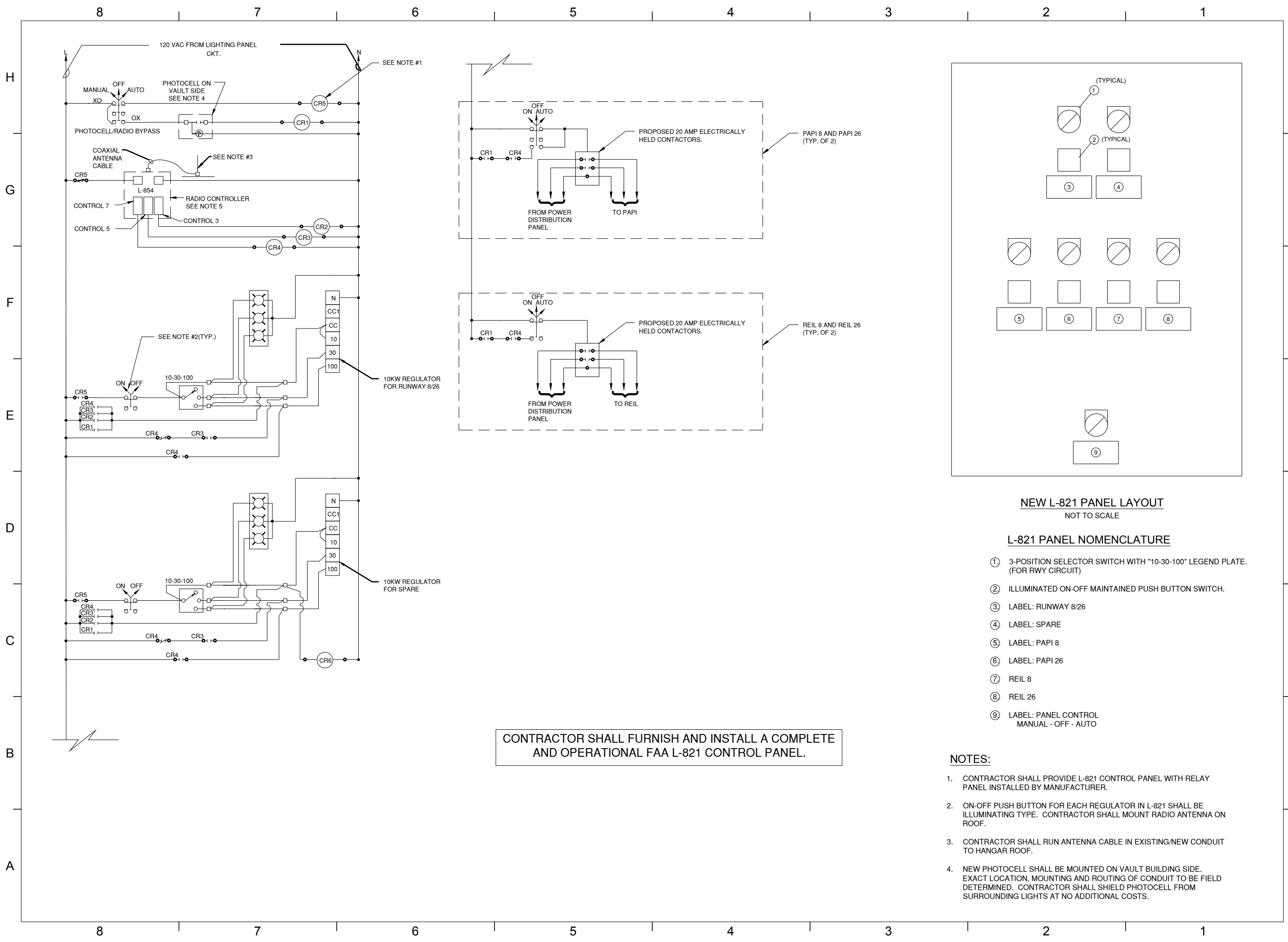
L-821 PANEL NOMENCLATURE

- ① 3-POSITION SELECTOR SWITCH WITH "10-30-100" LEGEND PLATE. (FOR RWY CIRCUIT)
- ② ILLUMINATED ON-OFF MAINTAINED PUSH BUTTON SWITCH.
- ③ LABEL: RUNWAY 8/26
- ④ LABEL: SPARE
- ⑤ LABEL: PAPI 8
- ⑥ LABEL: PAPI 26
- ⑦ REIL 8
- ⑧ REIL 26
- ⑨ LABEL: PANEL CONTROL
MANUAL - OFF - AUTO

NOTES:

1. CONTRACTOR SHALL PROVIDE L-821 CONTROL PANEL WITH RELAY PANEL INSTALLED BY MANUFACTURER.
2. ON-OFF PUSH BUTTON FOR EACH REGULATOR IN L-821 SHALL BE ILLUMINATING TYPE. CONTRACTOR SHALL MOUNT RADIO ANTENNA ON ROOF.
3. CONTRACTOR SHALL RUN ANTENNA CABLE IN EXISTING/NEW CONDUIT TO HANGAR ROOF.
4. NEW PHOTOCELL SHALL BE MOUNTED ON VAULT BUILDING SIDE. EXACT LOCATION, MOUNTING AND ROUTING OF CONDUIT TO BE FIELD DETERMINED. CONTRACTOR SHALL SHIELD PHOTOCELL FROM SURROUNDING LIGHTS AT NO ADDITIONAL COSTS.

CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE AND OPERATIONAL FAA L-821 CONTROL PANEL.



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