ALLEN COUNTY REGIONAL AIRPORT AUTHORITY

ALLEN COUNTY AIRPORT

LIMA, OHIO

RECONSTRUCT RUNWAY 10-28 LIGHTING
RECONSTRUCT TAXIWAY LIGHTING

AIP No. 3-39-046-023-2021

ALLEN COUNTY
REGIONAL AIRPORT AUTHORITY

APPROVED: _____
JOHN PISLE, PRESIDENT
DATE: _____

APPROVED: _____
ERIC DAVIS, MEMBER
DATE: _____

APPROVED: _____
TRACIE SANCHEZ, MEMBER
DATE: _____

APPROVED: _____
JON NEUMAN, MEMBER
DATE: _____

APPROVED: _____
DAVID BUETTNER, MEMBER
DATE: _____

APPROVED: _____
LARRY WEBB, MEMBER
DATE: _____

APPROVED: _____
DEREK YOUNKMAN, MEMBER
DATE: _____

AIRPORT AUTHORITY SIGNATURES ON FILE AT AIRPORT

VICINITY MAP

NOT TO SCALE

INDEX

REVISIONS

NO.	REMARK	DATE	BY
1			
2			
3			
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STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
TITLE & INDEX
LIMA OHIO

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8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN. 46240-8302
TEL 317-713-4615
FAX 317-713-4616
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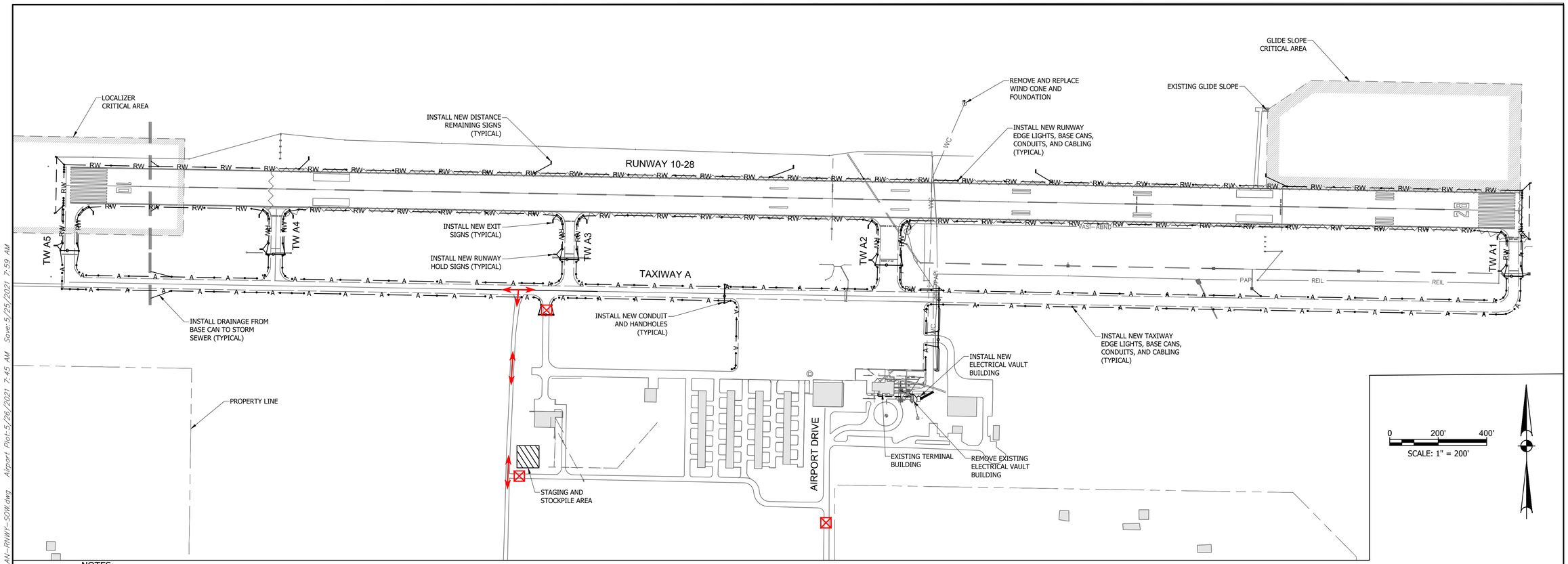
BF&S Butler Fairman & Seufert CIVIL ENGINEERS

Branch Locations
FORT WAYNE 260-459-1532
LOUISVILLE 502-593-1996
LAFAYETTE 765-423-5602
MERRILLVILLE 219-769-2333
PLAINFIELD 317-839-3242

HORIZONTAL SCALE
VERTICAL SCALE N/A
SHEET 01 OF 30
PROJECT AIP No. 3-39-046-023-2021
BFS NO. 6520.9802

\\bfsn1241\Jobs5\652000.9800\9802\ProDevelopment\Design\Drawings_Runway and Taxiway Lighting\6520-PLAN-RWY-TITL.dwg Airport Plot:5/26/2021 7:38 AM Save:5/25/2021 9:48 AM



NOTES:

1. THE SCOPE OF WORK SHEET IS INTENDED ONLY AS A GENERAL DESCRIPTION OF THE WORK ITEMS AND THEIR APPROXIMATE LOCATIONS AND LIMITS FOR THE PURPOSE OF UNDERSTANDING THE SCOPE OF THE PROJECT. IT SHALL NOT BE USED AS A CONSTRUCTION PLAN. REFER TO THE PLAN SHEETS WHICH FOLLOW FOR DETAILED CONSTRUCTION REQUIREMENTS, LOCATIONS, AND ITEMS OF WORK.

2. THIS PROJECT CONSISTS OF REPLACEMENT OF THE RUNWAY AND TAXIWAY LIGHTS, AS WELL AS REPLACEMENT OF THE AIRFIELD LIGHTING VAULT. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL, EQUIPMENT, AND TRANSPORTATION NECESSARY TO CONSTRUCT ALL ELEMENTS OF THE PROJECT AS DESCRIBED IN THE FOLLOWING PLANS, INCLUDING BUT NOT LIMITED TO:

   - REMOVE AND REPLACE RUNWAY LIGHTS/SIGNS
   - REMOVE AND REPLACE TAXIWAY LIGHTS/SIGNS
   - CONSTRUCT NEW ELECTRICAL VAULT AND DEMO EXISTING
   - REMOVE AND REPLACE PRIMARY WIND CONE AND FOUNDATION
   - INSTALL NEW DISTANCE REMAINING SIGNS

3. THE PROJECT PAY ITEMS ARE INTENDED TO BE INCLUSIVE OF ALL WORK TO BE PERFORMED, AS SHOWN IN THESE PLANS. ALL INCIDENTAL WORK REQUIRED TO COMPLETE THE PROJECT, TO THE SATISFACTION OF THE OWNER, SHALL BE INCLUDED IN THE COST OF PERFORMING THESE PAY ITEMS.

4. THE CONTRACTOR SHALL GIVE CONSTANT ATTENTION TO THE WORK TO FACILITATE THE PROGRESS THEREOF AND SHALL COORDINATE WITH THE OWNER IN EVERY WAY POSSIBLE. THE OWNER SHALL ALLOCATE THE WORK AND DESIGNATE THE SEQUENCE OF CONSTRUCTION IN CASE OF CONTROVERSY BETWEEN THE CONTRACTOR AND AIRPORT.

5. THE CONTRACTOR SHALL PAY CLOSE ATTENTION TO THE SAFETY AND PHASING PLANS AND THE AIRPORT SAFETY REQUIREMENTS SECTION OF THE SPECIFICATIONS. THESE SHALL BE STRICTLY ENFORCED.

6. CONSTRUCTION WILL BE IN OR ADJACENT TO RUNWAY AND TAXIWAY OPERATIONAL AREAS. ALL RUBBISH AND DEBRIS RESULTING FROM THE WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR ON A CONTINUAL BASIS.

7. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL REMOVE FROM THE SITE ALL SURPLUS MATERIAL AND EQUIPMENT BELONGING TO THE CONTRACTOR AND HIS/HER SUBCONTRACTORS.

8. THE CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION MEETING PRIOR TO BEGINNING WORK TO COORDINATE WORK PROCEDURES WITH ALL INTERESTED PARTIES. THE CONTRACTOR SHALL PROVIDE A DETAILED CONSTRUCTION SCHEDULE TO THE OWNER A MINIMUM OF 7 DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING FOR APPROVAL. THE CONTRACTOR SHALL ALSO ATTEND ANY JOB MEETING CALLED BY THE ENGINEER.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE CORRECTION TO ALL DAMAGE TO AIRPORT PROPERTY CAUSED BY HIS/HER FORCES OR SUBCONTRACTORS.

10. THE CONTRACTOR SHALL SUPPLY ONE SET OF AS-BUILT DRAWINGS TO THE ENGINEER AT THE COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL KEEP THE RED LINE DRAWING SET ON SITE AND SHALL UPDATE ON A DAILY BASIS THROUGHOUT THE PROJECT.

11. CONTRACTOR SHALL USE HAUL ROUTE AS SHOWN. CONTRACTOR SHALL YIELD TO ALL AIRCRAFT ACTIVITIES AT ALL TIMES. CONTRACTOR SHALL NOT PARK ANY EQUIPMENT AND/OR PERSONAL VEHICLES IN FRONT OF ANY HANGARS AND ON OR NEAR ANY TIE DOWN MARKINGS.

12. CONTRACTOR SHALL PLACE STONE FOR HAUL ROUTE IF NEEDED. AT THE END OF CONSTRUCTION, CONTRACTOR SHALL REPAIR GROUND BACK TO ITS ORIGINAL CONDITION. COST FOR STONE SHALL BE INCLUDED IN MAINTENANCE OF TRAFFIC COST ITEM.

13. CONTRACTOR SHALL PROTECT EXISTING PAINT MARKINGS DURING CONSTRUCTION. IF ANY DAMAGE TO EXISTING PAINT MARKINGS, CONTRACTOR SHALL REPAINT AT HIS OR HER OWN EXPENSE.

14. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING IN AREAS OF EXISTING UTILITIES. THE CONTRACTOR SHALL HAVE EXISTING UTILITIES LOCATED AND MARKED IN ADVANCE OF EXCAVATION IN ALL AREAS. ANY DAMAGE DONE TO FUNCTIONING UTILITIES SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT HIS/HER OWN EXPENSE. THE LOCATION OF ANY UTILITIES SHOWN ON THE PLANS IS APPROXIMATE ONLY. DEPTHS ARE NOT KNOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION OF EXISTING UTILITIES WITH O.U.P.S. 811 1-800-362-2764.

AIRPORT CONTACTS

AIRPORT MANAGER:
JOSH TATTRIE
(567) 208-1871

LEGEND

HAUL ROUTE

STAGING AND STOCKPILE AREA

RESTRICTED FROM CONSTRUCTION HAUL ROUTE TRAFFIC

REVISIONS

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STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
SCOPE OF WORK
LIMA OHIO

Headquarters
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INDIANAPOLIS, IN. 46240-8302
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HORIZONTAL SCALE
1" = 200'
VERTICAL SCALE
N/A
SHEET
02 OF 30
PROJECT
AIP No. 3-39-046-023-2021

BFS NO. 6520.9802

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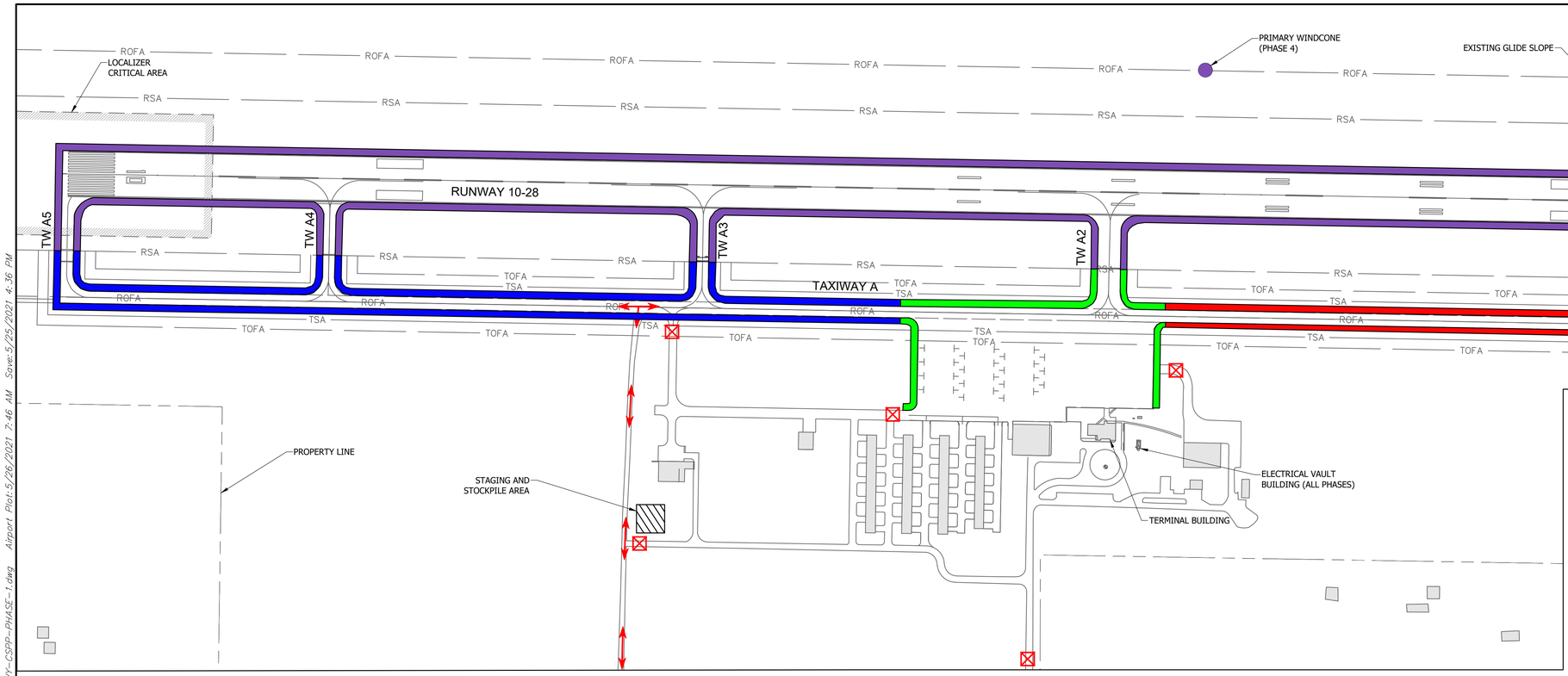

LEGEND

TSA	TAXIWAY SAFETY AREA
TOFA	TAXIWAY OBJECT FREE AREA
RSA	RUNWAY SAFETY AREA
ROFA	RUNWAY OBJECT FREE AREA
RPZ	RUNWAY PROTECTION ZONE
PL	EXISTING PROPERTY LINE
	HAUL ROUTE
	RESTRICTED FROM CONSTRUCTION HAUL ROUTE TRAFFIC
	STAGING AND STOCKPILE AREA
	PHASE 1
	PHASE 2
	PHASE 3
	PHASE 4

GENERAL NOTES

1. ALL CONSTRUCTION MATERIALS TO BE DELIVERED TO THE SITE ARE REQUIRED TO USE GATES AS INDICATED IN PLANS AT ALL TIMES. ATTEMPTED DELIVERIES AT OTHER GATES WILL BE TURNED AWAY.
2. CONTRACTOR SHALL USE EXISTING ACCESS GATES AS IDENTIFIED IN THE PLANS AND SHALL KEEP GATES CLOSED AND LOCKED AT ALL TIMES. CONSTRUCTION VEHICLES SHALL NOT BACK UP TRAFFIC ON ROADWAYS OR BLOCK INTERSECTIONS.
3. ALL CONSTRUCTION VEHICLES, PERSONAL VEHICLES AND EQUIPMENT MUST REMAIN WITHIN THE CONSTRUCTION LIMITS OF THE PROJECT.
4. THE USE OF ROADWAYS OTHER THAN THOSE DESIGNATED IN THE HAUL ROUTE PLAN SHALL BE APPROVED BY THE ENGINEER PRIOR TO USE.
5. PROJECT AREA CLOSURE - THE CONTRACTOR SHALL STOP ALL WORK EFFORTS AND FOCUS EFFORTS SOLELY ON PAVEMENT CLEANING OPERATIONS IN TIME TO SATISFACTORILY COMPLETE PAVEMENT CLEANING OPERATIONS, WITH A MINIMUM OF EIGHT (8) HOURS PRIOR TO END OF THE CLOSURE TIME INDICATED IN THE PHASING PLAN. ONE (1) HOUR PRIOR TO THE END OF THE CLOSURE TIME THE PAVEMENT SHALL BE INSPECTED BY THE OWNER FOR CLEANLINESS.
6. CONTRACTOR TO MAINTAIN HAUL ROUTE. THESE AREAS SHALL BE RESTORED AT THE COMPLETION OF THE PROJECT. CONTRACTOR TO MARK/ PROTECT UTILITIES/ AIRPORT FACILITIES ALONG HAUL ROUTE.
7. ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO CONSTRUCT, MAINTAIN AND RESTORE THE HAUL ROAD SHALL BE INCIDENTAL TO THE "MAINTENANCE OF TRAFFIC" PAY ITEM.
8. MAINTAIN DRAINAGE AT ALL TIMES. RESTORE TO ORIGINAL CONDITION ALL DISTURBED AREAS UPON COMPLETION OF PROJECT.
9. ALL RUNWAY LIGHTING MUST REMAIN OFF DURING THE RUNWAY CLOSURE. THIS INCLUDES EDGE LIGHTS, REILS, AND PAPI's. PRIOR TO REOPENING THE AIRPORT THE AIRFIELD LIGHTING SYSTEM MUST BE CHECKED TO ENSURE PROPER OPERATION OF THE LIGHTS.
10. PRIOR TO REOPENING THE AIRFIELD A SITE INSPECTION SHALL BE CONDUCTED BY THE AIRPORT TO ENSURE THAT ALL AIRPORT SURFACES ARE CLEAN OF ANY DEBRIS.
11. WHILE WORKING IN PHASES 1, 2, AND 3 CONTRACTOR SHALL NOT CROSS RUNWAY 10-28 AT ANYTIME.
12. CONSTRUCTION WILL BE IN OR ADJACENT TO TAXIWAY AND RUNWAY OPERATIONAL AREAS. CONTRACTOR SHALL GIVE ALL AIRCRAFT AND AIRPORT PERSONNEL THE RIGHT OF WAY AT ALL TIMES.

DURATIONS DAYS

PHASE 1:	25 CALENDAR DAYS
PHASE 2:	25 CALENDAR DAYS
PHASE 3:	15 CALENDAR DAYS
PHASE 4A:	21 CALENDAR DAYS
PHASE 4B:	14 CALENDAR DAYS

0 200' 400'

SCALE: 1" = 200'

REVISIONS

NO.	REMARK	DATE	BY
1			
2			
3			
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STATE OF OHIO — JASON CLEARWATERS E-74745 — REGISTERED PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER — DATE 05/26/2021

DESIGNED: BSE DRAWN: CPO

CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING

CONSTRUCTION SAFETY PHASING PLAN - OVERALL

LIMA OHIO

Headquarters
8450 WESTFIELD BLVD., SUITE 300
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PLAINFIELD 317-839-3242

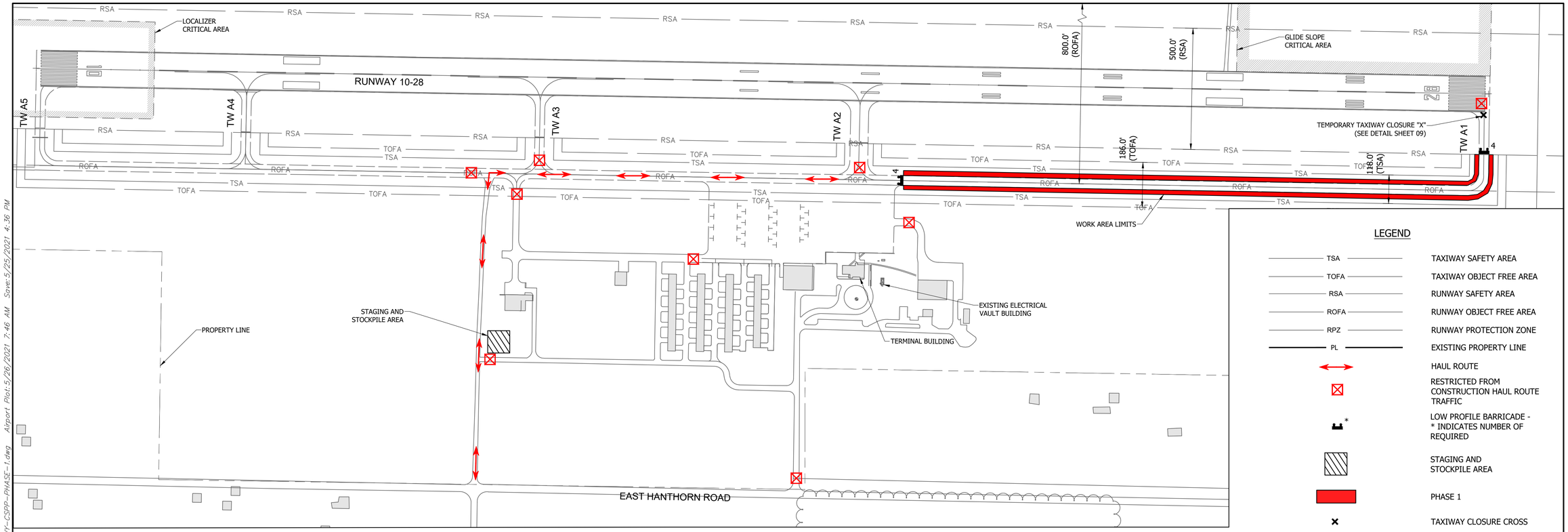
HORIZONTAL SCALE: 1" = 200'

VERTICAL SCALE: N/A

SHEET 03 OF 30

PROJECT: AIP No. 3-39-046-023-2021

BFS NO. 6520.9802



LEGEND

TSA	TAXIWAY SAFETY AREA
TOFA	TAXIWAY OBJECT FREE AREA
RSA	RUNWAY SAFETY AREA
ROFA	RUNWAY OBJECT FREE AREA
RPZ	RUNWAY PROTECTION ZONE
PL	EXISTING PROPERTY LINE
	HAUL ROUTE
	RESTRICTED FROM CONSTRUCTION HAUL ROUTE TRAFFIC
*	LOW PROFILE BARRICADE - * INDICATES NUMBER OF REQUIRED
	STAGING AND STOCKPILE AREA
	PHASE 1
×	TAXIWAY CLOSURE CROSS

0 200' 400'

SCALE: 1" = 200'

GENERAL NOTES

1. PRIOR TO CLOSING ANY RUNWAY OR TAXIWAY, ALL REQUIRED BARRICADES AND CLOSURE CROSSES SHALL BE IN PLACE.
2. PRIOR TO RE-OPENING ANY RUNWAY OR TAXIWAY, THE FOLLOWING SHALL BE COMPLETED BY THE CONTRACTOR:
   a. NO TRENCHES, HOLES OR DROP-OFFS GREATER THAN 1 INCH ARE PRESENT.
   b. ALL AREAS ARE CLEAR OF DEBRIS AND THE PAVEMENT HAS BEEN SWEPT WITH A VACUUM TRUCK IF NEEDED.
   c. ALL BARRICADES AND CLOSURE CROSSES HAVE BEEN REMOVED.
   d. CONTRACTOR HAS COMPLETED A WALK-THROUGH INSPECTION WITH THE AIRPORT INSPECTOR.
   e. ACCEPTED BY THE OWNER.
3. ALL NAVAIDS SHALL BE PROTECTED AT ALL TIMES DURING CONSTRUCTION. IF DAMAGE TO A NAVAID OCCURS, THE CONTRACTOR SHALL NOTIFY THE OWNER, ENGINEER AND FAA IMMEDIATELY. THE DAMAGE SHALL BE REPAIRED IMMEDIATELY AT THE DIRECTION OF THE ENGINEER AND THE FAA.
4. ALL TEMPORARY AND PERMANENT LIGHTING SHALL CONFORM TO AC 150/5340-30, DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS; AC 150/5345-50, SPECIFICATION FOR PORTABLE RUNWAY AND TAXIWAY LIGHTS; AND AC 150/5345-53, AIRPORT LIGHTING CERTIFICATION PROGRAM.
5. DURING NIGHTTIME OR LOW VISIBILITY TAXIWAY CLOSURES, ALL EDGE LIGHTS, AND SIGNS SHALL BE DE-ENERGIZED OR COVERED. ANY COVERS NEEDED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER SHALL APPROVE CONTRACTOR PROVIDED COVERS.
6. IF THE OWNER DETERMINES THAT WEATHER CONDITIONS DO NOT PERMIT A CLOSURE TO TAKE PLACE, THE CLOSURE WILL BE RE-SCHEDULED BY THE OWNER AND THE ADDITIONAL TIME WILL BE ADDED TO THE CONTRACT, BUT AT NO ADDITIONAL COST.
7. THE CONTRACTOR SHALL PROVIDE SUPERVISION ON SITE DURING ALL WORK HOURS. ON SITE SUPERVISION SHALL HAVE THE ABILITY TO CONTROL THE WORK, MATERIALS AND LABOR. IF ADDITIONAL MATERIALS OR LABOR IS NEEDED AT ANY TIME, THE ON SITE REPRESENTATIVE SHALL HAVE THE MEANS TO OBTAIN IT.
8. CONTRACTOR SHALL ENSURE ALL RUNWAY LIGHTS AND SIGNS ARE LIT AT ALL TIMES. CONTRACTOR TO INSTALL TEMPORARY JUMPERS AS NEEDED BETWEEN CIRCUITS, WORK INCIDENTAL TO MAINTENANCE OF TRAFFIC PAY ITEM.
9. CONTRACTOR SHALL GIVE OWNER / ENGINEER AT LEAST 48 HOURS NOTICE OF CLOSURE TO GET NOTAM IN PLACE AND NOTIFY TENANTS.
10. CONSTRUCTION WILL BE IN OR ADJACENT TO TAXIWAY AND RUNWAY OPERATIONAL AREAS. CONTRACTOR SHALL GIVE ALL AIRCRAFT AND AIRPORT PERSONNEL THE RIGHT OF WAY AT ALL TIMES.

AIRPORT OPERATIONS EFFECTED BY CONSTRUCTION

PHASE 1 - 25 CALENDAR DAYS:
TAXIWAY A WILL BE CLOSED FROM A1 TO APRON
TAXIWAY CONNECTOR A1 WILL BE CLOSED

DETAILED NOTES

1. PHASE 1 - SHALL INCLUDE REMOVAL AND REPLACEMENT OF EXISTING ELEVATED EDGE LIGHTS, BASE CANS, AND CABLING. INSTALL NEW EDGE LIGHTS, BASE CANS, CABLING, CONDUIT AND SIGNS.
2. NEW ELECTRICAL VAULT INSTALLATION AND WIRING AND EXISTING ELECTRICAL VAULT REMOVAL CAN BE COMPLETED CONCURRENTLY ACROSS ALL PHASES. WORK ON THESE TWO ITEMS ONLY IS NOT CONTAINED TO PHASE 1. THE RUNWAY CIRCUIT MUST REMAIN ACTIVE UNTIL THE START OF PHASE 4.

REVISIONS

NO.	REMARK	DATE	BY
1			
2			
3			
4			
5			
6			

STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Jason R. Clearwaters 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
CONSTRUCTION SAFETY PHASING PLAN - PHASE 1
LIMA OHIO

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8450 WESTFIELD BLVD., SUITE 300
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Butler Fairman Seufert
CIVIL ENGINEERS

HORIZONTAL SCALE
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AIP No. 3-39-046-023-2021

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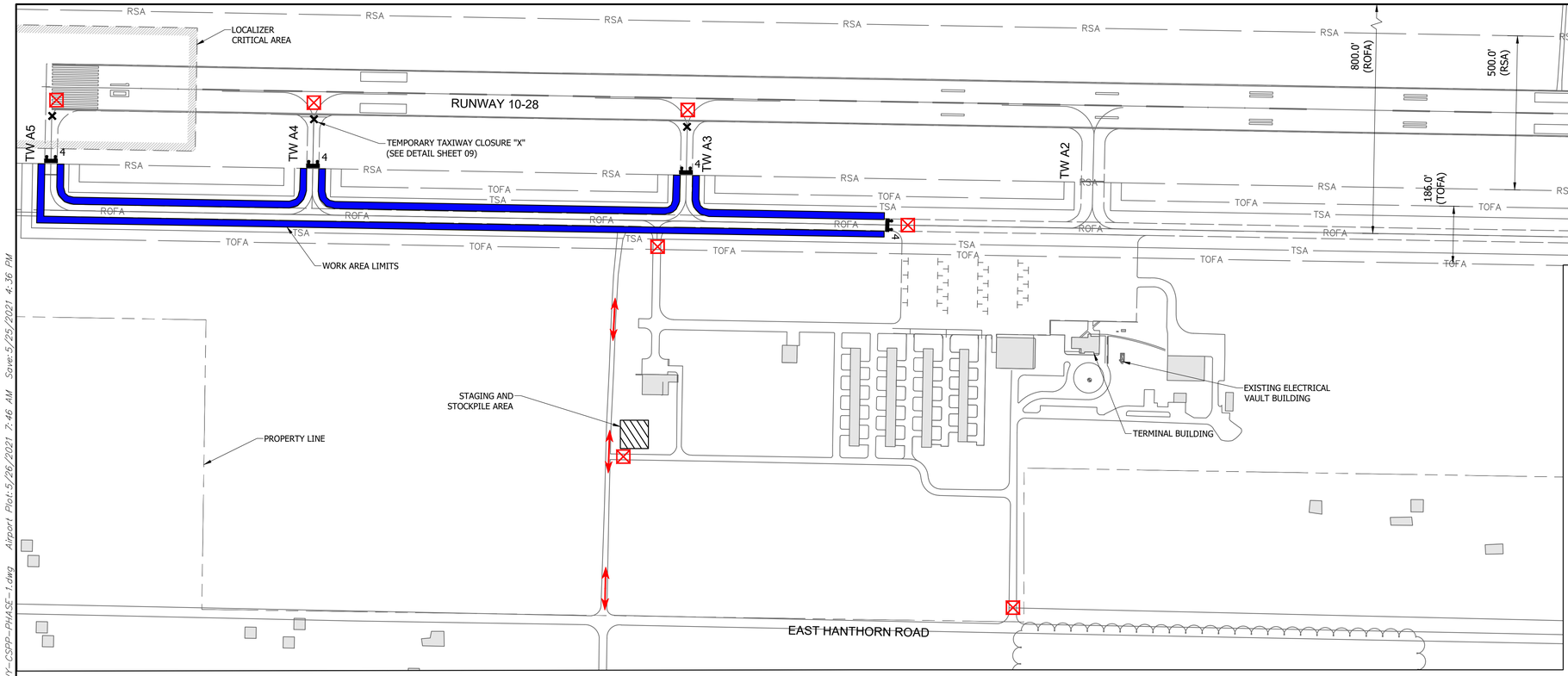

LEGEND

TSA	TAXIWAY SAFETY AREA
TOFA	TAXIWAY OBJECT FREE AREA
RSA	RUNWAY SAFETY AREA
ROFA	RUNWAY OBJECT FREE AREA
RPZ	RUNWAY PROTECTION ZONE
PL	EXISTING PROPERTY LINE
	HAUL ROUTE
	RESTRICTED FROM CONSTRUCTION HAUL ROUTE TRAFFIC
*	LOW PROFILE BARRICADE - * INDICATES NUMBER OF REQUIRED
	STAGING AND STOCKPILE AREA
	PHASE 2
×	TAXIWAY CLOSURE CROSS

0 200' 400'

SCALE: 1" = 200'

GENERAL NOTES

1. PRIOR TO CLOSING ANY RUNWAY OR TAXIWAY, ALL REQUIRED BARRICADES AND CLOSURE CROSSES SHALL BE IN PLACE.
2. PRIOR TO RE-OPENING ANY RUNWAY OR TAXIWAY, THE FOLLOWING SHALL BE COMPLETED BY THE CONTRACTOR:
   a. NO TRENCHES, HOLES OR DROP-OFFS GREATER THAN 1 INCH ARE PRESENT.
   b. ALL AREAS ARE CLEAR OF DEBRIS AND THE PAVEMENT HAS BEEN SWEPT WITH A VACUUM TRUCK IF NEEDED.
   c. ALL BARRICADES AND CLOSURE CROSSES HAVE BEEN REMOVED.
   d. CONTRACTOR HAS COMPLETED A WALK-THROUGH INSPECTION WITH THE AIRPORT INSPECTOR.
   e. ACCEPTED BY THE OWNER.
3. ALL NAVAIDS SHALL BE PROTECTED AT ALL TIMES DURING CONSTRUCTION. IF DAMAGE TO A NAVAID OCCURS, THE CONTRACTOR SHALL NOTIFY THE OWNER, ENGINEER AND FAA IMMEDIATELY. THE DAMAGE SHALL BE REPAIRED IMMEDIATELY AT THE DIRECTION OF THE ENGINEER AND THE FAA.
4. ALL TEMPORARY AND PERMANENT LIGHTING SHALL CONFORM TO AC 150/5340-30, DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS; AC 150/5345-50, SPECIFICATION FOR PORTABLE RUNWAY AND TAXIWAY LIGHTS; AND AC 150/5345-53, AIRPORT LIGHTING CERTIFICATION PROGRAM.
5. DURING NIGHTTIME OR LOW VISIBILITY TAXIWAY CLOSURES, ALL EDGE LIGHTS, AND SIGNS SHALL BE DE-ENERGIZED OR COVERED. ANY COVERS NEEDED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER SHALL APPROVE CONTRACTOR PROVIDED COVERS.
6. IF THE OWNER DETERMINES THAT WEATHER CONDITIONS DO NOT PERMIT A CLOSURE TO TAKE PLACE, THE CLOSURE WILL BE RE-SCHEDULED BY THE OWNER AND THE ADDITIONAL TIME WILL BE ADDED TO THE CONTRACT, BUT AT NO ADDITIONAL COST.
7. THE CONTRACTOR SHALL PROVIDE SUPERVISION ON SITE DURING ALL WORK HOURS. ON SITE SUPERVISION SHALL HAVE THE ABILITY TO CONTROL THE WORK, MATERIALS AND LABOR. IF ADDITIONAL MATERIALS OR LABOR IS NEEDED AT ANY TIME, THE ON SITE REPRESENTATIVE SHALL HAVE THE MEANS TO OBTAIN IT.
8. CONTRACTOR SHALL ENSURE ALL RUNWAY LIGHTS AND SIGNS ARE LIT AT ALL TIMES. CONTRACTOR TO INSTALL TEMPORARY JUMPERS AS NEEDED BETWEEN CIRCUITS, WORK INCIDENTAL TO MAINTENANCE OF TRAFFIC PAY ITEM.
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10. CONSTRUCTION WILL BE IN OR ADJACENT TO TAXIWAY AND RUNWAY OPERATIONAL AREAS. CONTRACTOR SHALL GIVE ALL AIRCRAFT AND AIRPORT PERSONNEL THE RIGHT OF WAY AT ALL TIMES.

AIRPORT OPERATIONS EFFECTED BY CONSTRUCTION

PHASE 2 - 25 CALENDAR DAYS:
TAXIWAY A WILL BE CLOSED FROM APRON TO A5
TAXIWAY CONNECTORS A3, A4, AND A5 WILL BE CLOSED

DETAILED NOTES

1. PHASE 2 - SHALL INCLUDE REMOVAL OF EXISTING ELEVATED EDGE LIGHTS, BASE CANS, AND CABLING. INSTALL NEW EDGE LIGHTS, BASE CANS, CABLING, CONDUIT AND SIGNS.
2. NEW ELECTRICAL VAULT INSTALLATION AND WIRING AND EXISTING ELECTRICAL VAULT REMOVAL CAN BE COMPLETED CONCURRENTLY ACROSS ALL PHASES. WORK ON THESE TWO ITEMS ONLY IS NOT CONTAINED TO PHASE 1. THE RUNWAY CIRCUIT MUST REMAIN ACTIVE UNTIL THE START OF PHASE 4.

REVISIONS

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STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
CONSTRUCTION SAFETY PHASING PLAN - PHASE 2
LIMA OHIO

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Butler Fairman Seufert
CIVIL ENGINEERS

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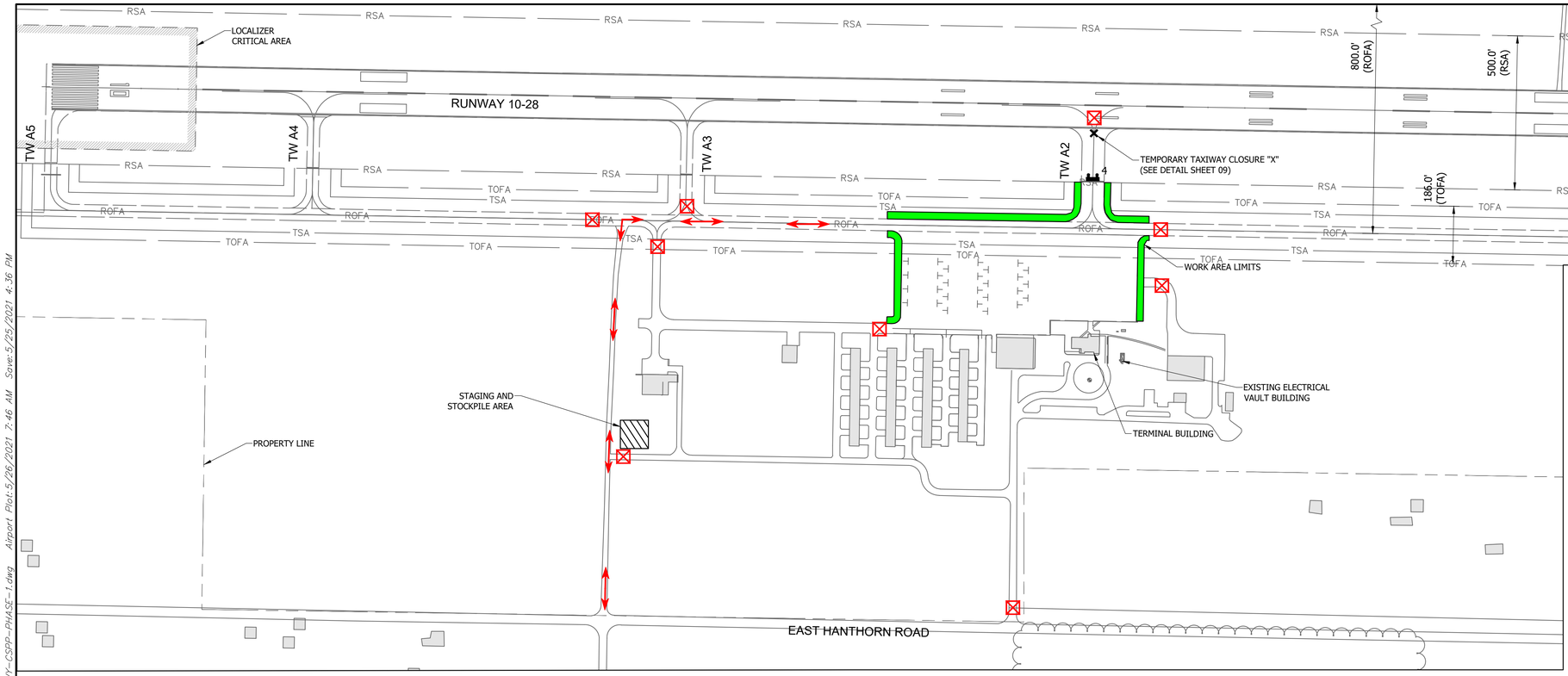


LEGEND

TSA	TAXIWAY SAFETY AREA
TOFA	TAXIWAY OBJECT FREE AREA
RSA	RUNWAY SAFETY AREA
ROFA	RUNWAY OBJECT FREE AREA
RPZ	RUNWAY PROTECTION ZONE
PL	EXISTING PROPERTY LINE
	HAUL ROUTE
	RESTRICTED FROM CONSTRUCTION HAUL ROUTE TRAFFIC
*	LOW PROFILE BARRICADE - * INDICATES NUMBER OF REQUIRED
	STAGING AND STOCKPILE AREA
	PHASE 3
×	TAXIWAY CLOSURE CROSS

0 200' 400'

SCALE: 1" = 200'

GENERAL NOTES

1. PRIOR TO CLOSING ANY RUNWAY OR TAXIWAY, ALL REQUIRED BARRICADES AND CLOSURE CROSSES SHALL BE IN PLACE.
2. PRIOR TO RE-OPENING ANY RUNWAY OR TAXIWAY, THE FOLLOWING SHALL BE COMPLETED BY THE CONTRACTOR:
   a. NO TRENCHES, HOLES OR DROP-OFFS GREATER THAN 1 INCH ARE PRESENT.
   b. ALL AREAS ARE CLEAR OF DEBRIS AND THE PAVEMENT HAS BEEN SWEPT WITH A VACUUM TRUCK IF NEEDED.
   c. ALL BARRICADES AND CLOSURE CROSSES HAVE BEEN REMOVED.
   d. CONTRACTOR HAS COMPLETED A WALK-THROUGH INSPECTION WITH THE AIRPORT INSPECTOR.
   e. ACCEPTED BY THE OWNER.
3. ALL NAVAIDS SHALL BE PROTECTED AT ALL TIMES DURING CONSTRUCTION. IF DAMAGE TO A NAVAID OCCURS, THE CONTRACTOR SHALL NOTIFY THE OWNER, ENGINEER AND FAA IMMEDIATELY. THE DAMAGE SHALL BE REPAIRED IMMEDIATELY AT THE DIRECTION OF THE ENGINEER AND THE FAA.
4. ALL TEMPORARY AND PERMANENT LIGHTING SHALL CONFORM TO AC 150/5340-30, DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS; AC 150/5345-50, SPECIFICATION FOR PORTABLE RUNWAY AND TAXIWAY LIGHTS; AND AC 150/5345-53, AIRPORT LIGHTING CERTIFICATION PROGRAM.
5. DURING NIGHTTIME OR LOW VISIBILITY TAXIWAY CLOSURES, ALL EDGE LIGHTS, AND SIGNS SHALL BE DE-ENERGIZED OR COVERED. ANY COVERS NEEDED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER SHALL APPROVE CONTRACTOR PROVIDED COVERS.
6. IF THE OWNER DETERMINES THAT WEATHER CONDITIONS DO NOT PERMIT A CLOSURE TO TAKE PLACE, THE CLOSURE WILL BE RE-SCHEDULED BY THE OWNER AND THE ADDITIONAL TIME WILL BE ADDED TO THE CONTRACT, BUT AT NO ADDITIONAL COST.
7. THE CONTRACTOR SHALL PROVIDE SUPERVISION ON SITE DURING ALL WORK HOURS. ON SITE SUPERVISION SHALL HAVE THE ABILITY TO CONTROL THE WORK, MATERIALS AND LABOR. IF ADDITIONAL MATERIALS OR LABOR IS NEEDED AT ANY TIME, THE ON SITE REPRESENTATIVE SHALL HAVE THE MEANS TO OBTAIN IT.
8. CONTRACTOR SHALL ENSURE ALL RUNWAY LIGHTS AND SIGNS ARE LIT AT ALL TIMES. CONTRACTOR TO INSTALL TEMPORARY JUMPERS AS NEEDED BETWEEN CIRCUITS, WORK INCIDENTAL TO MAINTENANCE OF TRAFFIC PAY ITEM.
9. CONTRACTOR SHALL GIVE OWNER / ENGINEER AT LEAST 48 HOURS NOTICE OF CLOSURE TO GET NOTAM IN PLACE AND NOTIFY TENANTS.
10. CONSTRUCTION WILL BE IN OR ADJACENT TO TAXIWAY AND RUNWAY OPERATIONAL AREAS. CONTRACTOR SHALL GIVE ALL AIRCRAFT AND AIRPORT PERSONNEL THE RIGHT OF WAY AT ALL TIMES.

AIRPORT OPERATIONS EFFECTED BY CONSTRUCTION

PHASE 3 - 15 CALENDAR DAYS:
TAXIWAY CONNECTOR A2 WILL BE CLOSED

DETAILED NOTES

1. PHASE 3 - SHALL INCLUDE REMOVAL OF EXISTING ELEVATED EDGE LIGHTS, BASE CANS, AND CABLING. INSTALL NEW EDGE LIGHTS, BASE CANS, CABLING, CONDUIT AND SIGNS.
2. NEW ELECTRICAL VAULT INSTALLATION AND WIRING AND EXISTING ELECTRICAL VAULT REMOVAL CAN BE COMPLETED CONCURRENTLY ACROSS ALL PHASES. WORK ON THESE TWO ITEMS ONLY IS NOT CONTAINED TO PHASE 1. THE RUNWAY CIRCUIT MUST REMAIN ACTIVE UNTIL THE START OF PHASE 4.

REVISIONS

NO.	REMARK	DATE	BY
1			
2			
3			
4			
5			
6			

STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
CONSTRUCTION SAFETY PHASING PLAN - PHASE 3
LIMA OHIO

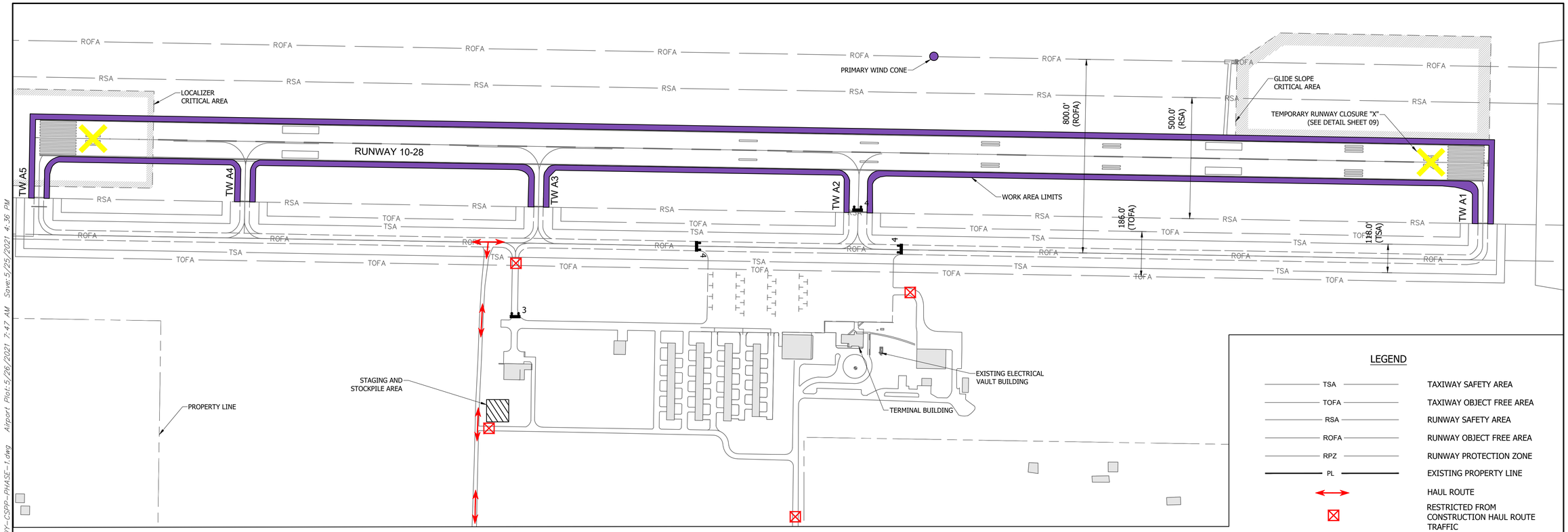
Headquarters
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN. 46240-8302
TEL 317-713-4615
FAX 317-713-4616
www.BFSEngr.com

Butler Fairman Seufert
CIVIL ENGINEERS

Branch Locations
FORT WAYNE 260-459-1532
LOUISVILLE 502-593-1996
LAFAYETTE 765-423-5602
MERRILLVILLE 219-769-2333
PLAINFIELD 317-839-3242

HORIZONTAL SCALE
1" = 200'
VERTICAL SCALE
N/A
SHEET
06 OF 30
PROJECT
AIP No. 3-39-046-023-2021

BFS NO. 6520.9802



LEGEND

TSA	TAXIWAY SAFETY AREA
TOFA	TAXIWAY OBJECT FREE AREA
RSA	RUNWAY SAFETY AREA
ROFA	RUNWAY OBJECT FREE AREA
RPZ	RUNWAY PROTECTION ZONE
PL	EXISTING PROPERTY LINE
	HAUL ROUTE
	RESTRICTED FROM CONSTRUCTION HAUL ROUTE TRAFFIC
*	LOW PROFILE BARRICADE - * INDICATES NUMBER OF REQUIRED
	STAGING AND STOCKPILE AREA
	PHASE 4
	RUNWAY CLOSURE CROSS

0 200' 400'

SCALE: 1" = 200'

GENERAL NOTES

1. PRIOR TO CLOSING ANY RUNWAY OR TAXIWAY, ALL REQUIRED BARRICADES AND CLOSURE CROSSES SHALL BE IN PLACE.
2. PRIOR TO RE-OPENING ANY RUNWAY OR TAXIWAY, THE FOLLOWING SHALL BE COMPLETED BY THE CONTRACTOR:
   a. NO TRENCHES, HOLES OR DROP-OFFS GREATER THAN 1 INCH ARE PRESENT.
   b. ALL AREAS ARE CLEAR OF DEBRIS AND THE PAVEMENT HAS BEEN SWEPT WITH A VACUUM TRUCK IF NEEDED.
   c. ALL BARRICADES AND CLOSURE CROSSES HAVE BEEN REMOVED.
   d. CONTRACTOR HAS COMPLETED A WALK-THROUGH INSPECTION WITH THE AIRPORT INSPECTOR.
   e. ACCEPTED BY THE OWNER.
3. ALL NAVAIDS SHALL BE PROTECTED AT ALL TIMES DURING CONSTRUCTION. IF DAMAGE TO A NAVAID OCCURS, THE CONTRACTOR SHALL NOTIFY THE OWNER, ENGINEER AND FAA IMMEDIATELY. THE DAMAGE SHALL BE REPAIRED IMMEDIATELY AT THE DIRECTION OF THE ENGINEER AND THE FAA.
4. ALL TEMPORARY AND PERMANENT LIGHTING SHALL CONFORM TO AC 150/5340-30, DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS; AC 150/5345-50, SPECIFICATION FOR PORTABLE RUNWAY AND TAXIWAY LIGHTS; AND AC 150/5345-53, AIRPORT LIGHTING CERTIFICATION PROGRAM.
5. DURING NIGHTTIME OR LOW VISIBILITY TAXIWAY CLOSURES, ALL EDGE LIGHTS, AND SIGNS SHALL BE DE-ENERGIZED OR COVERED. ANY COVERS NEEDED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER SHALL APPROVE CONTRACTOR PROVIDED COVERS.
6. IF THE OWNER DETERMINES THAT WEATHER CONDITIONS DO NOT PERMIT A CLOSURE TO TAKE PLACE, THE CLOSURE WILL BE RE-SCHEDULED BY THE OWNER AND THE ADDITIONAL TIME WILL BE ADDED TO THE CONTRACT, BUT AT NO ADDITIONAL COST.
7. THE CONTRACTOR SHALL PROVIDE SUPERVISION ON SITE DURING ALL WORK HOURS. ON SITE SUPERVISION SHALL HAVE THE ABILITY TO CONTROL THE WORK, MATERIALS AND LABOR. IF ADDITIONAL MATERIALS OR LABOR IS NEEDED AT ANY TIME, THE ON SITE REPRESENTATIVE SHALL HAVE THE MEANS TO OBTAIN IT.
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9. CONTRACTOR SHALL GIVE OWNER / ENGINEER AT LEAST 48 HOURS NOTICE OF CLOSURE TO GET NOTAM IN PLACE AND NOTIFY TENANTS.
10. CONSTRUCTION WILL BE IN OR ADJACENT TO TAXIWAY AND RUNWAY OPERATIONAL AREAS. CONTRACTOR SHALL GIVE ALL AIRCRAFT AND AIRPORT PERSONNEL THE RIGHT OF WAY AT ALL TIMES.

AIRPORT OPERATIONS EFFECTED BY CONSTRUCTION

PHASE 4A - 21 CALENDAR DAYS:
RUNWAY 10-28 WILL BE CLOSED
TAXIWAY CONNECTORS A1, A2, A3, A4, AND A5 WILL BE CLOSED

PHASE 4B - 14 CALENDAR DAYS:
RUNWAY 10-28 AND ALL TAXIWAYS WILL BE WORK IN PROGRESS WITH 30 MINUTE PRIOR PERMISSION TO LAND DURING DAY TIME OPERATIONS. THE AIRPORT WILL BE CLOSED AT NIGHT.

DETAILED NOTES

1. PHASE 4A - SHALL INCLUDE REMOVAL OF EXISTING ELEVATED EDGE LIGHTS, BASE CANS, AND CABLING. INSTALL BASE CANS, FOUNDATIONS AND CONDUIT. ALL AREAS DISTURBED INSIDE THE RSA SHALL BE GRADED AND SEEDED.
2. PHASE 4B - SHALL INCLUDE THE INSTALLATION OF ELEVATED EDGE LIGHTS, CABLING, AND GUIDANCE SIGNS.

REVISIONS

NO.	REMARK	DATE	BY
1			
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3			
4			
5			
6			

STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
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DESIGNED: BSE DRAWN: CPO
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ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
CONSTRUCTION SAFETY PHASING PLAN - PHASE 4
LIMA OHIO

HORIZONTAL SCALE: 1" = 200'
VERTICAL SCALE: N/A
SHEET 07 OF 30
PROJECT: AIP No. 3-39-046-023-2021
BFS NO. 6520.9802

Construction Safety and Phasing Plan (CSPP):

Scope of Work: This project at the Allen County Regional Airport consists of work on Runway 10-28 and Taxiway A, including but not limited to:

-Remove existing Runway 10-28 and Taxiway A edge lights, and guidance signs
-Install new Runway 10-28 and Taxiway A edge lights, threshold lights, base cans, cabling, conduit, handholes, guidance signs and distance remaining signs
-Remove and replace Runway End Identification Lights (REILS)
-Remove and replace existing windcone
-Remove and replace existing electrical vault and equipment

General: The CSPP has been developed utilizing the process set forth in AC 150/5370-2 "Operational Safety on Airports During Construction". Everyone has a role in operational safety on airports during construction: the airport operator, the airport's consultants, the construction contractor and subcontractors, airport users, airport tenants, ARFF personnel, Air Traffic personnel, including Technical Operations personnel, FAA Airports Division personnel, and others. Close communication and coordination between all affected parties is the key to maintaining safe operations. Such communication and coordination should start at the project scoping meeting and continue through the completion of the project. The airport operator and contractor should conduct onsite safety inspections throughout the project and immediately remedy any deficiencies, whether caused by negligence, oversight, or project scope change.

SPCD: The contractor is responsible for submitting a Safety Plan Compliance Document (SPCD) which details how the contractor will comply with the CSPP. It is not possible to determine all safety plan details, which are specific to the contractor, during the development of the CSPP. The successful contractor will develop a SPCD that includes equipment hazards, contractor's points of contact, equipment heights, etc. that will be submitted to the airport for review prior to the issuance of a notice-to-proceed. A sample of a SPCD is provided in the project specifications.

(1) Coordination

Airport Operators conducting construction will use pre-design, pre-bid and pre-construction conferences to introduce the subject of airport operational safety during construction (see AC 150/5300-9). In addition, the following should be coordinated as required:

a.) Contractor Progress Meetings: Operational safety will be a standing agenda item for discussion during progress meetings throughout the project. The progress meetings will be held either weekly or bi-weekly at the owner's and engineer's discretion and the frequency may vary during the course of the project. Attendance by the prime contractor and relevant sub-contractors is mandatory.

b.) Scope or Schedule Changes: Changes in the scope or duration of the project may necessitate revisions to the CSPP and review and approval by the airport operator and the FAA. The prime contractor will submit a schedule at the beginning of the project and will be required to update the schedule as deviations occur due to weather, unforeseen circumstances, etc.

c.) FAA ATO Coordination: Early coordination with FAA ATO is required to schedule airway facility shutdowns and restarts. Relocation or adjustments to NAVAIDs, or changes to final grades in critical areas, may require an FAA flight inspection prior to restarting the facility. Flight inspections must be coordinated and scheduled well in advance of the intended facility restart.

(2) Phasing

The project is broken into four (4) phases of construction and is outlined below:

Phase 1 : Removal of existing Taxiway A and Taxiway Connector A1 lights and signs. Install new Taxiway A and Taxiway Connector A1 base cans, conduits, cabling, lights, and signs.

Phase 2: Removal of existing Taxiway A and Taxiway Connectors A3, A4, and A5 lights and signs. Install new Taxiway A and Taxiway Connectors A3, A4, and A5 base cans, conduits, cabling, lights, and signs.

Phase 3: : Removal of existing Taxiway A, Taxiway Connector A2, and Apron lights and signs. Install new Taxiway A. Taxiway Connector A2, and Apron base cans, conduits, cabling, lights, and signs.

Phase 4A: : Removal of existing Runway 10-28 and Taxiway A Connectors lights and signs. Install new Runway 10-28 and Taxiway A base cans, conduit, foundations, conduits, signs, and grade and seed all disturbed areas.

Phase 4B: : Install new Runway 10-28 and Taxiway A elevated edge lights, cabling, and guidance signs.

Sequence of work estimated as follows:

Phase	Contract Time	Work Day/Hour Restrictions
1	25 Calendar Days	None
2	25 Calendar Days	None
3	15 Calendar Days	None
4A	21 Calendar Days	None
4B	14 Calendar Days	None

(3) Areas and Operations Affected by the Construction Activity

See Operations Effects table below.

Table 1: Airport Operations Affected by Construction - Phases 1-4

Phase	Taxiway Restrictions	Runway Restrictions
1	Taxiway Connector A1 is closed. Taxiway A from Taxiway Connector A1 to the Apron is closed	None
2	Taxiway Connectors A3, A4, and A5 are closed. Taxiway A from Taxiway Connector A5 to the Apron is closed.	None
3	Taxiway Connector A2 is closed.	None
4A	All Taxiways are closed	Runway 10-28 is closed
4B	All Taxiways are Work in Progress	Runway 10-28 is closed with 30 minute prior permission to land during daytime operations. Runway 10-28 is closed at night.

Table 2: Safety Area of Active Runways

Runway	Normal	Phase 1-3	Runway Safety Area Width / 2
10-28	D	D	250'

Table 3: Runway Approach Protection Areas During Construction

Runway End	Aircraft Approach Category	Airplane Design Group	Safety Area Prior to Threshold	Minimum Distance to Threshold on Approach Slope	
10	D	III	1,000'	1,000'	20:1
28	D	III	1,000'	1,000'	50:1

*See CSPP plan sheets for graphical representation of impacts.

(4) Protection of Navigational Aids (NAVAIDS)

Before commencing construction activity, parking vehicles or storing construction equipment and materials near a NAVAID, coordinate with the appropriate FAA ATO/Technical Operations Office to evaluate the effect of construction activity and the required distance and direction from the NAVAID. Construction activities, material/equipment storage, and vehicle parking near electronic NAVAIDs require special consideration since the may interfere with signals essential to air navigation.

Table 4: NAVAID Facility Impacts

Facility Type	Phase Impacted	Impact
Runway 28 Glideslope	4A & 4B	Out of Service
Runway 28 Localizer	4A & 4B	Out of Service
Runway 28 MALSR	4A & 4B	Out of Service
Runway 28 REIL	4A & 4B	Removed and Replaced
Runway 28 PAPI	4A & 4B	Out of Service
Runway 10 REIL	4A & 4B	Removed and Replaced
Runway 10 PAPI	4A & 4B	Out of Service

(5) Contractor Access

a.) Location of Stockpiled Materials: Stockpiled materials and equipment storage are not permitted within the Runway or Taxiway Safety Area (RSA/TSA) and Object Free Zone (OFZ), and if possible should not be permitted within the Object Free Area (OFA) of an operational runway.

b.) Vehicle and Pedestrian Operations: Vehicle and pedestrian access routes for airport construction projects must be controlled to prevent inadvertent or unauthorized entry of persons, vehicles, or animals onto the Aircraft Operations Area (AOA). The airport operator should coordinate requirements for vehicle operations with airport tenants, contractors, and the FAA air traffic manager.

1.) Construction Site Parking: The area for vehicle parking for contractor employees is shown on the plan sheets of the CSPP. There shall be no unauthorized entry of persons or vehicles onto the AOA.

2.) Construction Equipment Parking: Contractor employees must park and service all construction vehicles in the designated staging area and never in the safety area of an active runway or taxiway. Unless a complex setup procedure makes movement of specialized equipment infeasible, inactive equipment must not be parked on a closed taxiway or runway. If it is necessary to leave specialized equipment on a closed taxiway or runway at night, the equipment must be well lighted. A maximum equipment height of 25 feet will be enforced, with the location submitted on a FAA Form 7460-1.

3.) Access and Haul Roads: The access and haul road to the project site will be from multiple points due to the varied locations of the work areas as shown on the plan sheets of CSPP. The contractor is not permitted to use any other access points. This access shall be clearly marked by the contractor to prevent trucks and personnel from inadvertently entering into area open to airport operations. The maximum equipment height on the access and haul road will be 25 feet.

4.) Marking and Lighting of Vehicles: Per AC 150/5210-5, the standard for identification lighting is a yellow flashing light that is mounted on the uppermost part of the vehicle structure. The light must be visible from any direction, day and night, including from the air. For vehicles and/or construction equipment where a light is not feasible, a flag must be attached that is readily visible. The flag must be at least a 3-foot by 3-foot square having a checkered pattern of international orange and white squares with at least 1 foot on each side.

5.) Description of Proper Vehicle Operations: All contractor vehicles shall be in proper and safe working order. Under normal conditions vehicles shall follow two-way radio communications procedures outlined below in 9.), under lost communications or emergency conditions all vehicles shall return to the staging area immediately while avoiding the AOA and all safety areas.

6.) Required Escorts: Escorts are not required for this project unless the contractor cannot provide adequate personnel to utilize two-way radio communications for their or their subcontractors work efforts. The airport operator, nor the engineer, shall be responsible for escorting the contractors.

7.) Training Requirement for Vehicle Drivers: Their is no formal airport driver training course at the Allen County Regional Airport. The airport operator and the engineer also reserve the right to revoke driving privileges from contractor personnel. All personnel driving on the airport shall be familiar with the FAA publication "FAA Guide to Ground Vehicle Operations."

8.) Situational Awareness: Vehicle drivers must confirm by personal observation that no aircraft is approaching their position (either in the air or on the ground) when given clearance to cross a runway, taxiway, or any other area open to airport operations. In addition, it is the responsibility of the escort vehicle driver to verify the movement/position of all escorted vehicles at any given time.

9.) Two-way Radio Communications Procedures: Construction contractor personnel engaged in activities involving unescorted operation on aircraft movement areas must observe the proper procedures for communications, including using appropriate radio frequencies at airport with ATCT. When operating vehicles on or near open runways and taxiways, construction personnel must understand the critical importance of maintaining radio contact, as directed by the airport operator, by using CTAF/UNICOM frequency 122.7, however this is not expected with this project.

10.) Maintenance of the Secured Area of the Airport: The contractor must take care to maintain security during construction when access print are created or used. The gate at the construction entrances shall be locked during non-work hours.

(6) Wildlife Management

Construction contractors must carefully control and continuously remove waster or loose materials that might attract wildlife. Contractor personnel must be aware of an avoid construction activities that can create wildlife hazards on airports such as:

a.) Trash: Food scraps must be collected from construction personnel activity.
b.) Standing Water: Contractors must minimize the creation of standing water during construction by always maintaining positive drainage. Any standing water that exists after a rainfall event shall be drained immediately. Any pumping required is incidental and at the contractor's expense.
c.) Tall Grass and Seeds: Grass seed is attractive to birds. Lower quality seed mixtures can contain seeds of plants (such as clover) that attract larger wildlife. Seeding shall comply with the project specifications.
d.) Poorly Maintained Fencing and Gates: The Allen County Regional Airport currently does not have security and wildlife fence.
e.) Disruption of Existing Wildlife Habitat: No existing wildlife habitat is expected to be disturbed by this project. The contractor shall notify the airport operator and engineer of wildlife sightings.

(7) Foreign Object Debris (FOD) Management

Waste and loose materials, commonly referred to as FOD, are capable of causing damage to aircraft landing gears, propellers, and jet engines. Construction contractors must not leave or place FOD on or near active aircraft movement areas. Materials capable of creating FOD must be continuously removed during the construction project. Areas open to aircraft operation shall be inspected for FOD by the contractor at the end of each work day if work was done in that area.

(8) Hazard Materials (HAZMAT) Management

Contractors operating construction vehicles and equipment on the airport must be prepared to expeditiously contain and clean-up spills resulting from fuel or hydraulic fluid leaks. Transport and handling of other hazardous materials on an airport also requires special procedures.

(9) Notification of Construction Activities

a.) List of Responsible Representatives:

Allen County Airport - Manager
Josh Tattrie (419) 227-3225 Office
(567) 208-1871 Mobile

Engineer:
Butler, Fairman & Seufert, Inc. (317) 713-4615 Office

b.) NOTAMs: Only the airport operator or ATCT may initiate or cancel NOTAMs on airport conditions, and is the only entity that can close or open a runway. The airport operator must coordinate the issuance, maintenance and cancellation of NOTAMs about airport conditions resulting from construction activities with tenants and must provide information on closed or hazardous conditions on airport movement areas to the FAA Flight Service Station (FSS) so it can issue a NOTAM. Any person having reason to believe that a NOTAM is missing, incomplete, or inaccurate must notify the airport operator.

c.) Emergency Notification Procedures: The following are contacts for this project.
1.) Emergencies: Dial 911
2.) Non-Emergency numbers:
Lima Police Department (419) 227-4444
Lima Fire Department (419) 221-5160
Lima Memorial Health System (419) 228-3335
Ohio Regional Poison Control Center (800) 222-1222

d.) Coordination with ARFF: There is no Aircraft Rescue and Fire Fighting (ARFF) stationed at the Allen County Regional Airport. No additional coordination by the contractor is required.

e.) Notification to the FAA:
1.) Part 77: FAA Form 7460-1 has been submitted to the FAA for this project. Any deviation from the plan construction areas may require another submission for FAA review.
2.) Part 157: Title 14 CFR Part 157 does not apply to this project.
3.) NAVAIDs: For emergency (short-notice) notifications about impacts to both airport owned and FAA owned NAVAIDs, contact (866) 432-2622. The FAA maintains the following NAVAIDs at the Allen County Regional Airport currently, Runway 28 ILS.

(10) Inspection Requirements

a.) Daily Inspections: Inspections of the site to verify that it is in compliance with the CSPP should be conducted at least daily, but more frequently if needed. The engineer will provide the contractor with a checklist for this inspection. The resident engineer (RE) will also conduct daily inspections.

b.) Final Inspections: Before re-opening closed sections of the airport to operations, the contractor, airport operator, and RE shall inspect the area. Upon their concurrence that the area is safe to operate aircraft, the area will re-open.

(11) Underground Utilities

Locations of all existing underground utilities shown on this plan are based upon above ground evidence (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) and are speculative in nature. There may also be other existing underground utilities for which no above ground evidence was observed. The exact locations of said existing underground utilities should be verified by the contractor prior to any and all construction. They will not however locate airport and FAA owned utilities. Any airport owned utilities that are damaged by construction must be repaired immediately. The contractor shall have an electrician that is available to respond in a timely fashion in case of damage. Known public on-site utilities and their contact information are below:

a.) Telephone
New Knoxville Telephone Company
301 W. South St.
New Knoxville, OH 45871
b.) Electric
AEP Ohio
700 Morrison Road
Gahanna, OH 43230
c.) Water
City of Lima
50 Town Square
Lima, OH 45801
d.) Sanitary/Wastewater
Allen County Sanitary Engineering
3230 N. Cole St.
Lima, OH 45801
e.) Fiber
Centurylink
701 N. Cable Road
Lima, OH 45805
f.) F.A.A.
Charles Edwards
419-408-0760
charles.l.edwards@faa.gov

(12) Penalties

Vehicle/Pedestrian Deviations (V/PDs) from the CSPP will face a penalty of varying amount depending on the severity of the deviation. A runway incursion is any unauthorized intrusion onto a runway, regardless of whether or not an aircraft presents a potential conflict. See runway incursion penalty table below:

Runway Incursion Category	Description	Penalty
Category A	A serious incident in which a collision was narrowly avoided.	Up to $1,500 and Rescission of Access to the AOA.
Category B	An incident in which separation decreases and there is a significant potential for collision, which may result in a time critical corrective/evasive response to avoid a collision.	Up to $500 and Rescission of Access to the AOA.
Category C	An incident characterized by ample time and/or distance to avoid a collision.	Rescission of driving privileges.
Category D	An incident that meets the definition of runway incursion such as incorrect presence of a single vehicle/person/aircraft on the protected area of a surface designated for the landing and take-off of aircraft but with no immediate safety consequences.	Written Warning

Violations of the CSPP outside of runway incursions will be assessed a written warning for the first violation and then $500 per violation thereafter.

(13) Special Conditions

In the case of an aircraft in distress or an accident, all contractor personnel must remove all equipment from the project site and return to the staging area. The project will be suspended until clearance is given from the engineer and the airport operator. In the event of a V/PD the project will be suspended until a safety meeting and de-briefing of the incident occurs.

(14) Runway and Taxiway Visual Aids

Areas where aircraft will be operating are clearly and visibly separated from construction areas, including closed runways. Throughout the duration of the construction project, verify that these areas remain clearly marked and visible at all times and that marking, lighting, signs, and visual NAVAIDs remain in place and operational.

a.) General: Airport markings, lighting, signs, and visual NAVAIDs must be clearly visible to pilots, not misleading, confusing, or deceptive. All must be secured in place to prevent movement by prop wash, jet blast, wing vortices, or other wind currents and constructed of materials that would minimize damage to an aircraft in the event of inadvertent contact.

b.) Markings: Markings must be in compliance with the standards of AC 150/5340-1, Standards for Airport Markings. Runway and exit taxiways closed to aircraft operations are marked with a yellow X.
1.) Closed Runways and Taxiways (See plan sheets for locations)
i. Temporary Closed Runways. For runways that have been temporarily closed, place an X at each end of the runway directly on or as near as practicable to the runway designation numbers. See runway closure X detail and notes.
ii. Temporary Closed Taxiways. Place barricades outside the safety area of intersecting taxiways. For runway/taxiway intersections, place an X at the entrance to the closed taxiway from the runway.
iii. Construct the temporary closure X from any of the following materials: fabric, colored plastic, painted sheets of plywood, snow fence, or similar materials. They must be yellow and properly configured and appropriately secured to prevent movement by prop wash, jet blast, or other wind currents.

c.) Lighting and Visual NAVAIDs: Lighting must be in conformance with AC 150/5340-30, Design and Installation Details for Airport Visual Aids, and AC 150/5345-50, Specifications for Portable Runway and Taxiway Lights. When disconnecting runway and taxiway lighting fixtures, disconnect the associated isolation transformers. Alternatively, cover the light fixture in such a way as to prevent light leakage. Avoid removing the lamp from energized fixtures because an excessive number of isolation transformers with open secondaries may damage the regulators and/or increase the current above its normal value. Secure, identify, and place any above ground temporary wiring in conduit to prevent electrocution and fire ignition sources.
1.) Temporarily Closed Runways: Use runway closure X, both at night and during the day, placed at each end of the runway facing the approach. For runways that have been temporarily closed, but for an extended period, and for those with pilot controlled lighting, disconnect the lighting circuits or secure switches to prevent inadvertent activation.
2.) Partially Closed Runways and Displaced Thresholds: There will be no partially closed runway during the course of this project.
3.) Temporarily Closed Taxiways: If possible, deactivate the taxiway lighting circuits. When deactivation is not possible (for example other taxiways on the same circuit are to remain open), cover the lighting fixture in such a way to prevent light leakage.

d.) Signs: To the extend possible, signs must be in conformance with AC 150/5345-44, Specifications for Runway and Taxiway Signs and AC 150/5340-18, Standard for Airport Sign Systems. At any time a sign does not serve its normal function; it must be covered or removed to prevent misdirecting pilots.

(15) Marking and Signs for Access Routes

Pavement markings and signs for construction personnel will conform to AC 150/5340-18 and, to the extent practicable, with the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) and/or State highway specifications.

(16) Hazard Marking and Lighting

Hazard Marking and Lighting prevents pilots from entering areas closed to aircraft, and prevents construction personnel from entering areas open to aircraft.

a.) Equipment:
1.) Barricades, including traffic cones, (weighted or sturdily attached to the surface) are acceptable methods used to identify and define the limits of construction and hazardous areas on the airport. The spacing of barricades must be such that a breach is physically preventable barring a deliberate act. For example, if barricades are intended to exclude vehicles, gaps between barricades must be smaller than the width of excluded vehicles.
2.) Lights must be red, either steady burning or flashing, and must meet the luminance requirements for the State Highway Department. Batteries powering lights will last longer if lights flash. Lights must be mounted on barricades and spaced no more than 10 ft. Lights must be operated between sunset and sunrise and during periods of low visibility whenever the airport is open for operations. They may be operated by photocell, but this may require the contractor to turn them on manually during periods of low visibility during daytime hours.
3.) Barricades are not permitted in any active safety area. Within a runway or taxiway object free area, and on aprons, use orange traffic cones, flashing or steady burning red lights as noted above, collapsible barricades marked with diagonal, alternating orange and white stripes; and/or signs to separate all construction/maintenance areas from the movement area. Barricades shall be supplemented with alternating orange and white flags at least 20 by 20 inches square and securely fastened to prevent FOD. All barricades adjacent to any open runway or taxiway/taxilane safety area, or apron, must be as low as possible to the ground, and no more than 18 inches high, exclusive of supplementary lights and flags. Barricades must be of low mass; easily collapsible upon contact with an aircraft or any of its components; and weighted or sturdily attached to the surface to prevent displacement. The airport owns approximately 30 low profile barricades that the contractor may use, however light/flags may need to be provided by the contractor.
4.) The contractor shall provide a person on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades. The contractor must file the contact person's information with the airport operator. Lighting should be checked for proper operation frequently.

(17) Protection of Runway and Taxiway Safety Areas

Runway Safety Areas (RSA), Taxiway Safety Areas (TSA), Obstacle Free Zones (OFZ), Object Free Areas (OFA), and approach surfaces must be protected during construction, and are shown on the plan sheets. Protection of these areas includes limitations on the locations and height of equipment and stockpiled material. See the plan sheets of the CSPP for locations and dimensions of the protected areas.

a.) Runway Safety Area (RSA) & Taxiway Safety Area (TSA): A runway safety area is the defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway. A taxiway safety area is a defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway. Construction activities within the existing RSA & TSA are subject to the following conditions:
1.) No construction may occur within the existing RSA or TSA while the corresponding runway or taxiway is open for aircraft operations.
2.) Open trenches or excavations are not permitted within the RSA or TSA while the corresponding runway or taxiway is open. If possible, backfill trenches before the runway or taxiway is opened. If the runway or taxiway must be opened before the excavations are backfilled, cover the excavations appropriately. Covering for open trenches must allow safe operation of the heaviest aircraft operating on the runway or taxiway across the trench without damage to the aircraft. Construction contractors must prominently mark open trenches and excavations at the site with red or orange flags, as approved by the airport operator, and light them with red lights during hours of restricted visibility or darkness.
3.) Soil erosion must be controlled to maintain RSA and TSA standards. The RSA and TSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and capable, under dry conditions of supporting the occasional passage of aircraft without causing structural damage to the aircraft.

b.) Runway Object Free Area (ROFA): Construction, including excavations, may be permitted in the ROFA. However, equipment must be removed from the ROFA when not in use, and material should not be stockpiled in the ROFA if not necessary.

c.) Taxiway Object Free Area (TOFA): Unlike the Runway Object Free Area, aircraft wings regularly penetrate the taxiway object free area during normal operations. Thus, the restrictions are more stringent. Except as noted below, no construction may occur within the TOFA while the taxiway is open for aircraft operations.
1.) Construction activity may be accomplished within the TOFA subject to the following restrictions:
iv. Appropriate NOTAMs are issued.
ii. Marking and lighting meeting the provisions of the CSPP are implemented.
iii. Five foot clearance is maintained between equipment and materials and any part of an aircraft (includes wingtip overhang). In these situations, flaggers must be used to direct construction equipment, and wing walkers will be necessary to guide aircraft. Wing walkers should be airline/aviation personnel rather than construction workers.

d.) Obstacle Free Zone (OFZ): In general, personnel, material and/or equipment may not penetrate the OFZ while the runway is open for aircraft operations. If a penetration to the OFZ is necessary, it may be possible to continue aircraft operations through operational restrictions.

e.) Runway Approach/Departure Areas and Clearways: All personnel, materials, and/or equipment must remain clear of the applicable threshold siting surfaces as shown on the plan sheets of the CSPP. Objects that do not penetrate these surfaces may still be obstructions to air navigation.

(18) Other Limitations on Construction

a.) Prohibitions: No use of tall equipment (cranes, concrete pumps, etc.) unless a 7460-1 determination letter is issued for such equipment. No use of open flame welding or torches unless fire safety precautions are provided and the airport operator has approved their use. No use of electrical blasting caps is allowed on or within 1,000 ft. of the airport property. No use of flare pots is allowed within the AOA.

b.) Restrictions: Construction suspension may be required during specific airport operations. The airport operator will notify the contractor and engineer if this is required.

REVISIONS

NO.	REMARK	DATE	BY
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STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

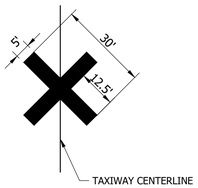
ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
CONSTRUCTION SAFETY PHASING PLAN NOTES
LIMA OHIO

Headquarters
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN. 46240-8302
TEL 317-713-4615
FAX 317-713-4616
www.BFSEngr.com

Butler Fairman & Seufert
CIVIL ENGINEERS

Branch Locations
FORT WAYNE 260-459-1532
LOUISVILLE 502-593-1996
LAFAYETTE 765-423-5602
MERRILLVILLE 219-769-2333
PLAINFIELD 317-839-3242

HORIZONTAL SCALE
VERTICAL SCALE
N/A
SHEET 08 OF 30
PROJECT
AIP No. 3-39-046-023-2021
BFS NO. 6520.9802



SURFACE MOUNTED TAXIWAY CLOSURE DETAIL

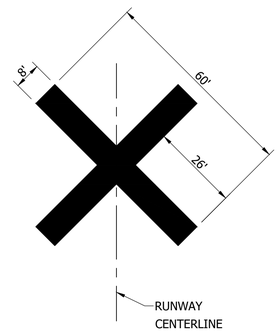
NOT TO SCALE

NOTES:

1. TEMPORARY "CLOSED TAXIWAY" MARKINGS SHALL BE "AVIATION YELLOW".

2. TEMPORARY "CLOSED TAXIWAY" MARKINGS SHALL BE CONSTRUCTED OF PLYWOOD, SNOW FENCE, OR APPROVED FABRIC AND SHALL BE SECURED TO PAVEMENT BY SANDBAGS OR OTHER APPROVED METHOD.

3. "CLOSED TAXIWAY" MARKINGS SHALL BE INCIDENTAL TO "MAINTENANCE OF TRAFFIC" PAY ITEM.



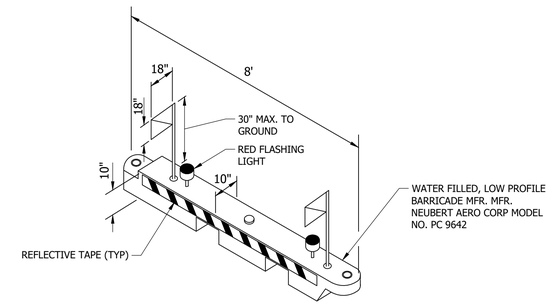
1. TEMPORARY "CLOSED RUNWAY" MARKINGS SHALL BE "AVIATION YELLOW"

2. TEMPORARY "CLOSED RUNWAY" MARKINGS SHALL BE CONSTRUCTED OF PLYWOOD, SNOW FENCE OR APPROVED FABRIC AND SHALL BE SECURED TO PAVEMENT BY SANDBAGS OR OTHER APPROVED METHOD, PER FAA AC 150/5370-2F "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".

3. "CLOSED RUNWAY" MARKINGS SHALL NOT BE A PAY ITEM AND SHALL BE INCIDENTAL TO MAINTENANCE OF TRAFFIC PAY ITEM.

TEMPORARY RUNWAY 10-28 CLOSURE CROSS

NOT TO SCALE



NOTES:

1. BARRICADES SHALL BE PLACED 8' MAXIMUM SEPARATION; OR AS INSTRUCTED BY THE ENGINEER OR OWNER.

2. INSTALL WHERE INDICATED ON CONSTRUCTION SAFETY PLAN OR IN LOCATIONS APPROVED BY THE ENGINEER OR OWNER.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING, PLACING, MOVING, LIGHTING AND MAINTAINING THE BARRICADES DURING CONSTRUCTION OF THE ENTIRE PROJECT.

4. THE BARRICADES SHALL BE WEIGHTED AND CAPABLE OF WITHSTANDING UP TO 110 M.P.H. WIND FORCES.

5. INSTALL A MINIMUM OF 2 OMNI-DIRECTIONAL SOLAR POWERED RED PHOTOCELL LIGHTS EQUALLY SPACED PER EACH 8' LONG BARRICADE. LIGHTS SHALL MAINTAIN SUCH INTENSITY SO AS TO BE READILY IDENTIFIED FROM DISTANCES OF 200' OR GREATER DURING DARKNESS PERIODS.

6. A MINIMUM OF 2 FLAGS NO MORE THAN 20" SQUARE MOUNTED TO THE BARRICADE AND NO MORE THAN 30" HIGH SHALL BE AFFIXED FOR EACH SPAN OF BARRICADES. FLAGS SHALL BE ALTERNATING AVIATION ORANGE (FED-STD-595, NO. 12197) AND WHITE.

7. THE COST OF PROVIDING AND MANIPULATING BARRICADES SHALL BE INCLUDED IN THE "MAINTENANCE OF TRAFFIC" PAY ITEM.

LOW PROFILE BARRICADE DETAIL

NOT TO SCALE

REVISIONS

NO.	REMARK	DATE	BY
1			
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STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
CONSTRUCTION SAFETY PHASING PLAN DETAILS
LIMA OHIO

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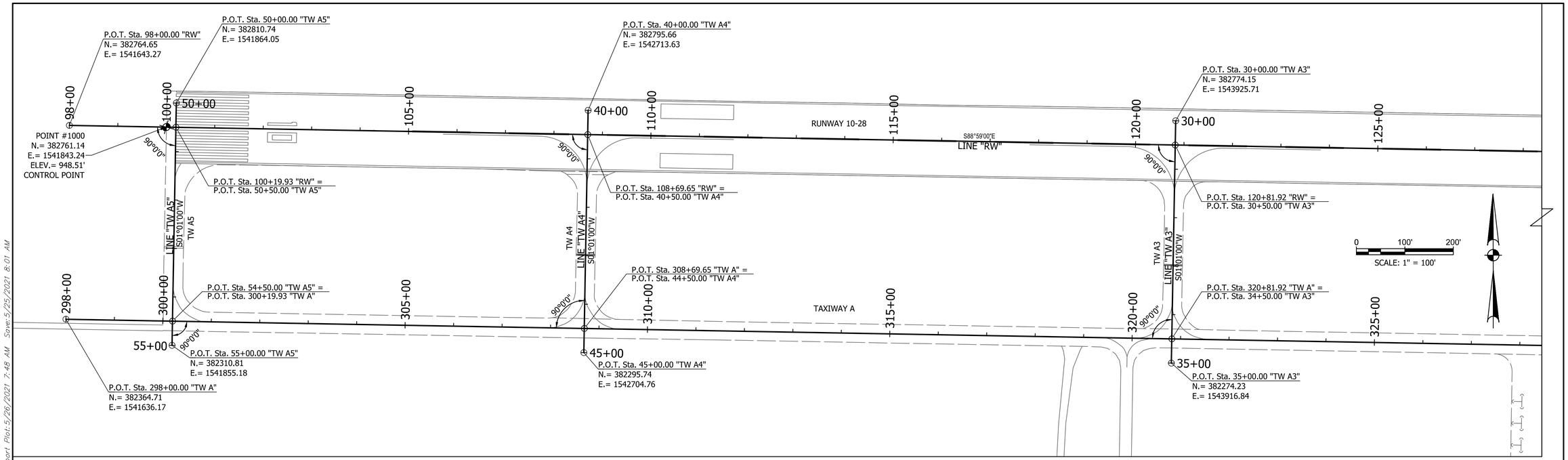
PLAINFIELD 317-839-3242

Butler Fairman Seufert
CIVIL ENGINEERS

HORIZONTAL SCALE
VERTICAL SCALE N/A
SHEET 09 OF 30
PROJECT AIP No. 3-39-046-023-2021

BFS NO. 6520.9802



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SURVEY COORDINATES

ALL COORDINATES SHOWN ON
THIS SHEET AND THROUGHOUT
THE PLAN SET ARE IN NAD83
OHIO STATE PLANE NORTH ZONE
COORDINATES

STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Jason R. Clearwaters 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

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ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING

ALIGNMENT PLAN

LIMA OHIO

HORIZONTAL SCALE
1" = 100'
VERTICAL SCALE
N/A
SHEET
10 OF 30
PROJECT
AIP No. 3-39-046-023-2021

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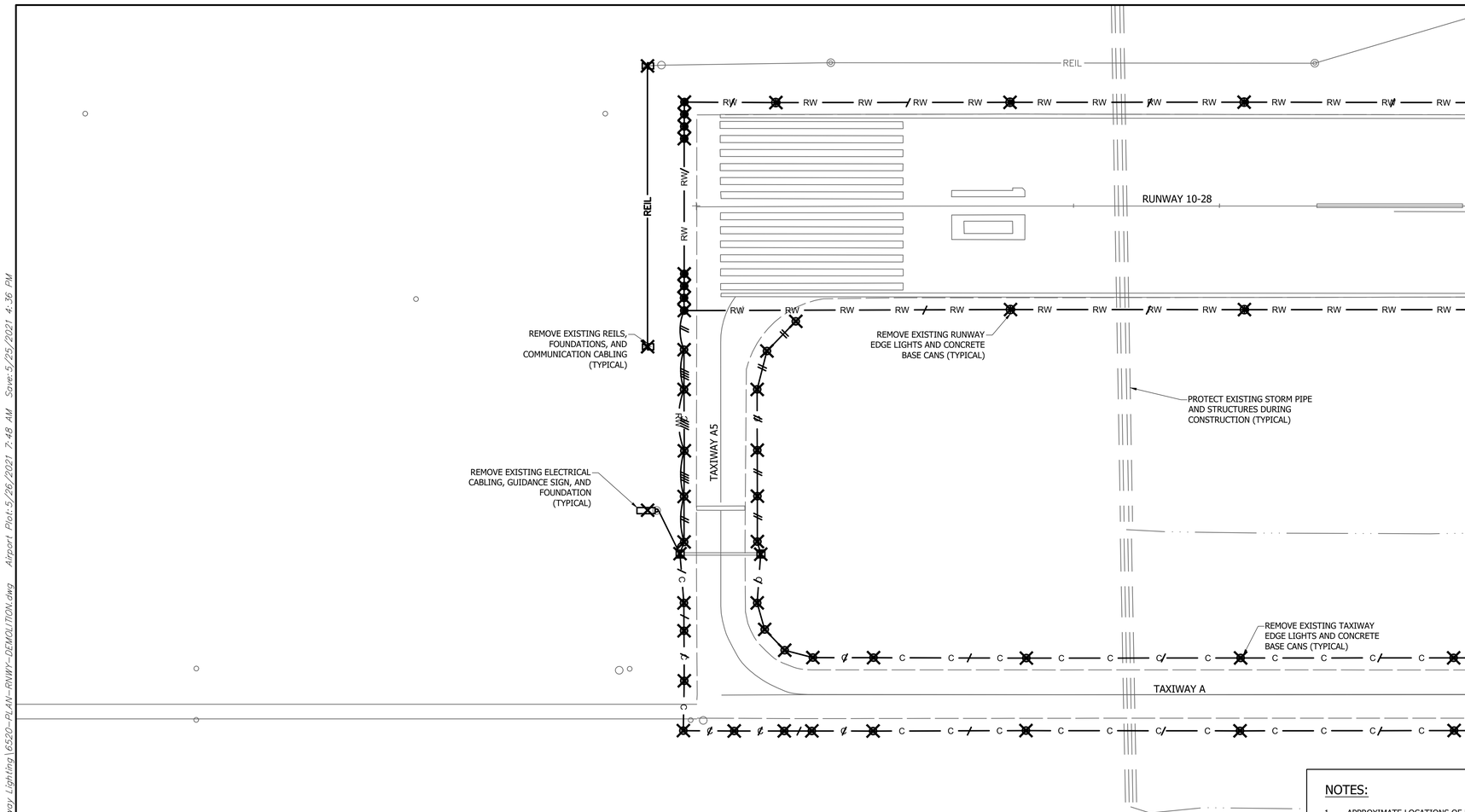

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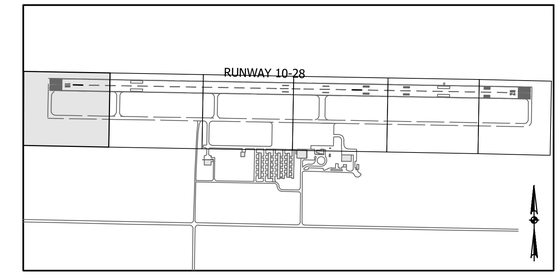

ELECTRICAL SYMBOL & LINE TYPE LEGEND

DESCRIPTION	SYMBOL	
	EXISTING	REMOVAL
RUNWAY "10-28" CIRCUIT		RW
TAXIWAY "A" CIRCUIT	A	A
TAXIWAY "B" CIRCUIT	B	B
TAXIWAY "C" CIRCUIT	C	C
"PAPI" CIRCUIT	PAPI	
#6 BARE COUNTERPOISE		
CONDUIT/DUCT BANK W/ SIZE & QUANTITY TAG	SIZE QUANTITY	
RUNWAY/TAXIWAY EDGE LIGHT		
GUIDANCE SIGN		
LIGHTNING ARRESTOR		
HANDHOLE, 2x2	N/A	
STORM SEWER		
CONCRETE END SECTION		

NOTES:

1. APPROXIMATE LOCATIONS OF KNOWN UTILITIES, CABLES AND CONDUITS ARE SHOWN. LOCATION OF ALL SURFACE FEATURES, UNDERGROUND UTILITIES, CONDUITS AND STRUCTURES ARE APPROXIMATE AND OBTAINED FROM RECORD DOCUMENTS PROVIDED BY THE ALLEN COUNTY REGIONAL AIRPORT AND THE UTILITY AGENCIES SUPPLEMENTED WITH FIELD SURVEY. CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND MARK PRIOR TO CONSTRUCTION. WORK SHALL BE INCIDENTAL TO OTHER CONSTRUCTION PAY ITEMS AND NOT PAID FOR DIRECTLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UNDERGROUND FACILITIES WITHIN THE LIMITS OF DEMOLITION. THE CONTRACTOR SHALL CALL O.U.P.S. 811, 1 (800) 362 2764, AND OWNER AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR DEMOLITION.
2. THE CONTRACTOR SHALL PROTECT ALL UTILITIES AND CABLES DURING DEMOLITION AND CONSTRUCTION. IN THE EVENT DAMAGE IS DONE TO FUNCTIONING UTILITIES AND/OR CABLES, THE OWNER AND/OR UTILITY GOVERNING AGENCY MUST BE NOTIFIED IMMEDIATELY. ANY UTILITIES AND/OR CABLES DAMAGED DURING DEMOLITION AND CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
3. ALL CABLE SPLICES SHALL BE SPLICED IN LIGHT BASE CANS AND/OR GUIDANCE SIGN CANS ONLY. NO SPLICES SHALL BE MADE ANYWHERE BETWEEN ISOLATION TRANSFORMERS. NO SEPARATE PAYMENT SHALL BE MADE FOR SPLICING.
4. SOME EXISTING RUNWAY AND TAXIWAY EDGE LIGHTS HAVE CONCRETE ENCASED BASE CANS WITH LIGHTS. CONTRACTOR SHALL REMOVE ALL REILS, FOUNDATIONS, BASE CANS, EDGE LIGHTS AND EQUIPMENT. EXISTING REILS, EDGE LIGHTS, AND EQUIPMENT BEING REMOVED SHALL BE SALVAGED BY THE CONTRACTOR AND GIVEN TO THE AIRPORT IF SO DESIRED. ANY DAMAGE DONE DURING REMOVAL AND/OR STORAGE SHALL BE REPAIRED AT THE CONTRACTORS OWN EXPENSE. ALL OTHER REMOVAL SHALL BE PROPERLY DISPOSED OFF-SITE.
5. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING CROSSING CONDUITS UNDER PAVEMENT. CONDUIT IS SHOWN IN APPROXIMATE LOCATION.
6. RUNWAY 10-28 AND TAXIWAY A ELECTRIC CABLING CIRCUITS THAT ARE EXPOSED OR IN EXISTING CONDUITS AND/OR STRUCTURES SHALL BE REMOVED. IF ELECTRICAL CABLING CIRCUITS AREN'T EXPOSED DURING DEMOLITION, CABLING SHALL BE ABANDONED IN PLACE. NO SEPARATE PAYMENT FOR ELECTRICAL CABLING CIRCUIT REMOVAL.
7. CONTRACTOR SHALL BACKFILL ANY LIGHT BASE CANS REMOVED WITH DIRT UP TO EXISTING GRADE AND SEED. COST SHALL BE INCIDENTAL TO LIGHT REMOVAL.
8. CONTRACTOR SHALL MAINTAIN RUNWAY EDGE LIGHT ELECTRICAL CIRCUIT AT ALL TIMES. CONTRACTOR SHALL INSTALL ALL JUMPER CABLES IN STEEL CONDUIT UNLESS OTHERWISE NOTED. CONTRACTOR SHALL WEIGH DOWN THE TEMPORARY STEEL CONDUITS WITH SANDBAGS AND/OR WEIGHTED BARRICADES AND BE MONITORED FOR ANY JET BLAST. ALL VEHICULAR TRAFFIC AND VISIBLY MARKED IN GRASS FOR ALLEN COUNTY AIRPORT PERSONNEL AND MOWERS. THESE JUMPER CABLES AND CONDUITS SHALL BE PROTECTED AT ALL TIMES AND ARE INCIDENTAL TO THE MAINTENANCE OF TRAFFIC PAY ITEM.
9. CONTRACTOR SHALL INSTALL NEW ELECTRICAL VAULT, POWER, AND ELECTRICAL EQUIPMENT PRIOR TO EXISTING ELECTRICAL VAULT REMOVAL. CONTRACTOR SHALL COORDINATE WITH RESIDENT INSPECTOR AND AIRPORT MANAGER 72 HOURS PRIOR TO ALL ELECTRICAL SHUT DOWN AND TRANSFERRING POWER TO NEW ELECTRICAL VAULT.

REVISIONS

NO.	REMARK	DATE	BY
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STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER — DATE 05/26/2021

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
DEMOLITION PLANS
LIMA OHIO

Headquarters
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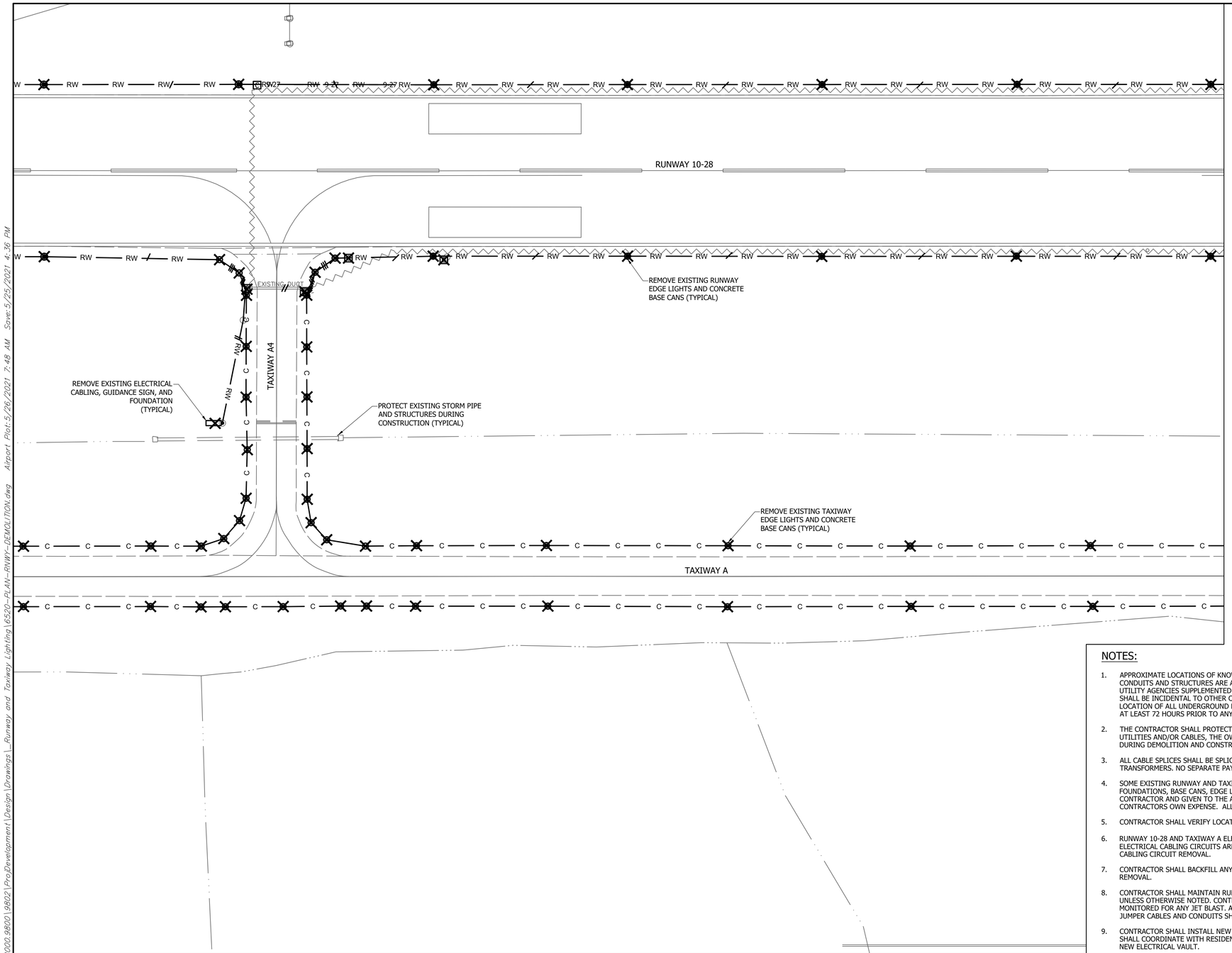
LOUISVILLE 502-593-1996
LAFAYETTE 765-423-5602
MERRILLVILLE 219-769-2333
PLAINFIELD 317-839-3242

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: N/A
SHEET 11 OF 30
PROJECT: AIP No. 3-39-046-023-2021
BFS NO. 6520.9802

\\bfsn1241\Jobs5\652000.9800\9802\ProDevelopment\Design\Drawings_Runway and Taxiway Lighting\6520-PLAN-RWY-DEMOLITION.dwg Airport Plot:5/26/2021 7:48 AM Save:5/25/2021 4:36 PM



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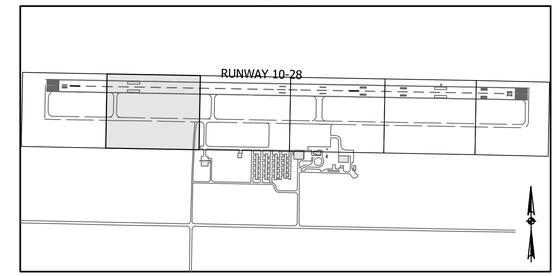
KEYMAP



ELECTRICAL SYMBOL & LINE TYPE LEGEND

DESCRIPTION	SYMBOL EXISTING	SYMBOL REMOVAL
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TAXIWAY "A" CIRCUIT	A	A
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CONDUIT/DUCT BANK W/ SIZE & QUANTITY TAG	SIZE QUANTITY	
RUNWAY/TAXIWAY EDGE LIGHT		
GUIDANCE SIGN		
LIGHTNING ARRESTOR		
HANDHOLE, 2x2	N/A	
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STATE OF OHIO
JASON CLEARWATERS
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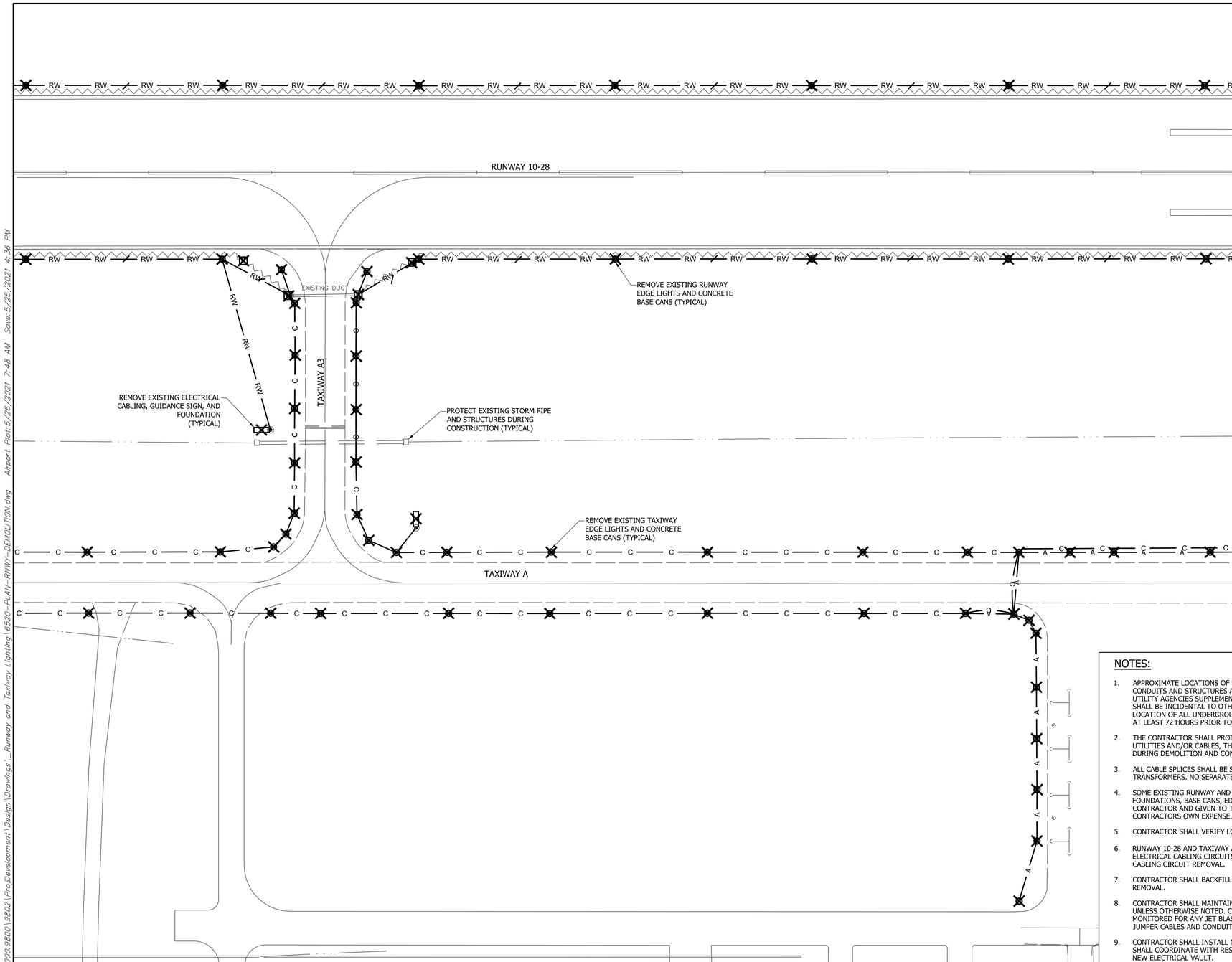

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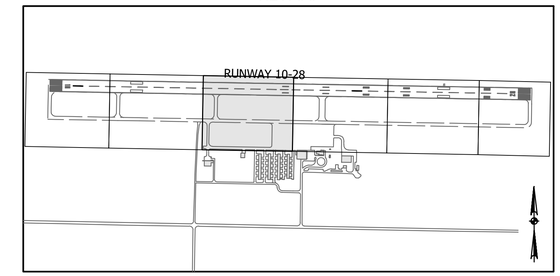
KEYMAP



ELECTRICAL SYMBOL & LINE TYPE LEGEND

DESCRIPTION	SYMBOL EXISTING	SYMBOL REMOVAL
RUNWAY "10-28" CIRCUIT		RW
TAXIWAY "A" CIRCUIT	A	A
TAXIWAY "B" CIRCUIT	B	B
TAXIWAY "C" CIRCUIT	C	C
"PAPI" CIRCUIT	PAPI	
#6 BARE COUNTERPOISE		
CONDUIT/DUCT BANK W/ SIZE & QUANTITY TAG	SIZE QUANTITY	
RUNWAY/TAXIWAY EDGE LIGHT		
GUIDANCE SIGN		
LIGHTNING ARRESTOR		
HANDHOLE, 2x2	N/A	
STORM SEWER		
CONCRETE END SECTION		

NOTES:

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3. ALL CABLE SPLICES SHALL BE SPLICED IN LIGHT BASE CANS AND/OR GUIDANCE SIGN CANS ONLY. NO SPLICES SHALL BE MADE ANYWHERE BETWEEN ISOLATION TRANSFORMERS. NO SEPARATE PAYMENT SHALL BE MADE FOR SPLICING.
4. SOME EXISTING RUNWAY AND TAXIWAY EDGE LIGHTS HAVE CONCRETE ENCASED BASE CANS WITH LIGHTS. CONTRACTOR SHALL REMOVE ALL REILS, FOUNDATIONS, BASE CANS, EDGE LIGHTS AND EQUIPMENT. EXISTING REILS, EDGE LIGHTS, AND EQUIPMENT BEING REMOVED SHALL BE SALVAGED BY THE CONTRACTOR AND GIVEN TO THE AIRPORT IF SO DESIRED. ANY DAMAGE DONE DURING REMOVAL AND/OR STORAGE SHALL BE REPAIRED AT THE CONTRACTORS OWN EXPENSE. ALL OTHER REMOVAL SHALL BE PROPERLY DISPOSED OFF-SITE.
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7. CONTRACTOR SHALL BACKFILL ANY LIGHT BASE CANS REMOVED WITH DIRT UP TO EXISTING GRADE AND SEED. COST SHALL BE INCIDENTAL TO LIGHT REMOVAL.
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REVISIONS

NO.	REMARK	DATE	BY
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STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
DEMOLITION PLANS
LIMA OHIO

Headquarters
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INDIANAPOLIS, IN. 46240-8302
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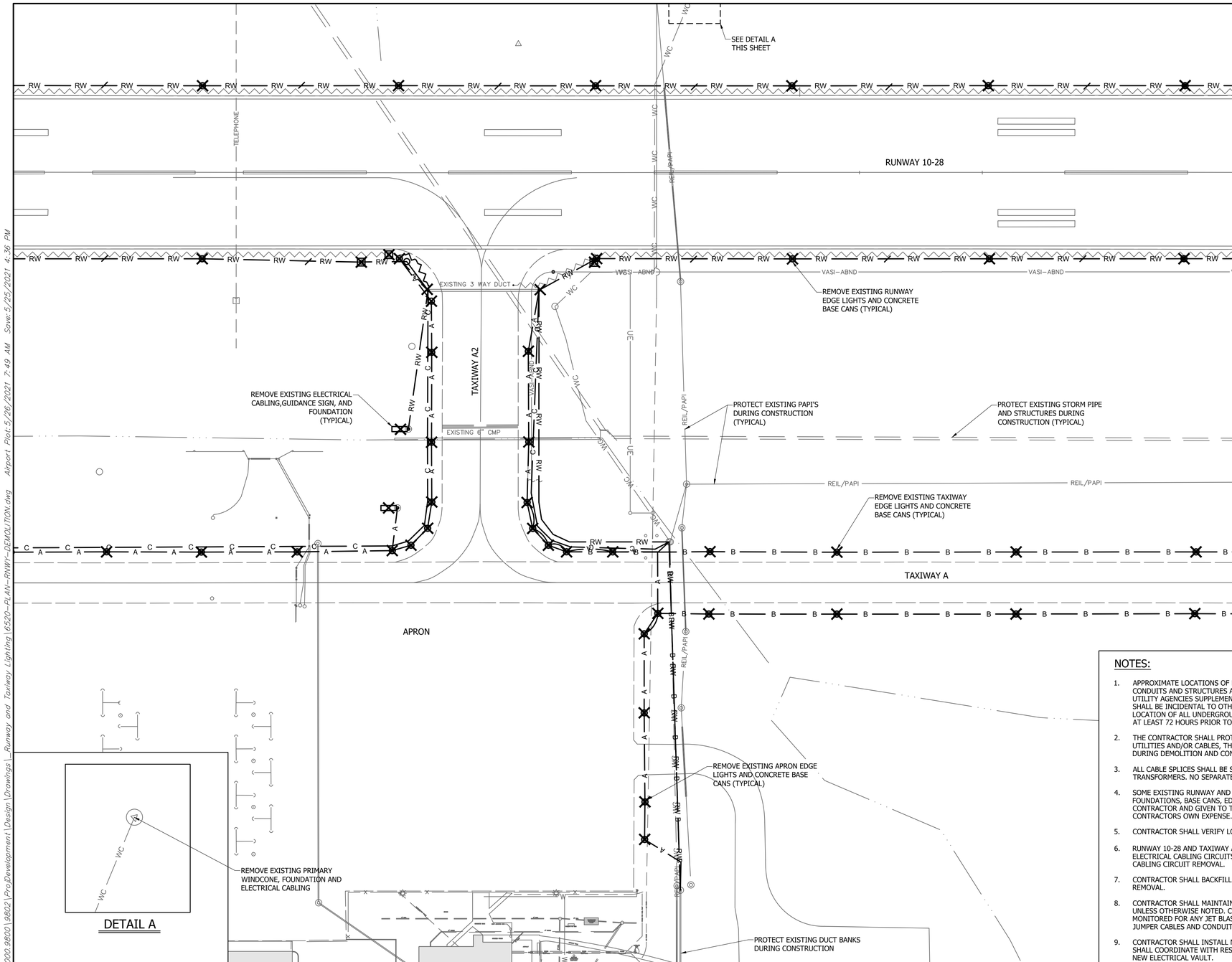
PLAINFIELD 317-839-3242

HORIZONTAL SCALE
1" = 50'
VERTICAL SCALE
N/A
SHEET
13 OF 30
PROJECT
AIP No. 3-39-046-023-2021

BFS NO. 6520.9802

\\bfsnt241\Jobs5\652000.9800\9802\Proj\Development\Design\Drawings_Runway and Taxiway Lighting\6520-PLAN-RWY-DEMOLITION.dwg Airport Plot:5/26/2021 7:48 AM Save:5/25/2021 4:36 PM



DETAIL A

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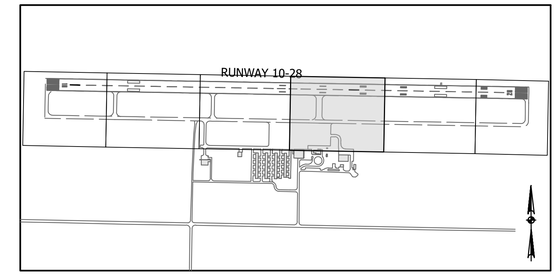
SCALE: 1" = 50'

KEYMAP



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DESCRIPTION	SYMBOL EXISTING	SYMBOL REMOVAL
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STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Jason R. Clearwaters 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
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LIMA OHIO

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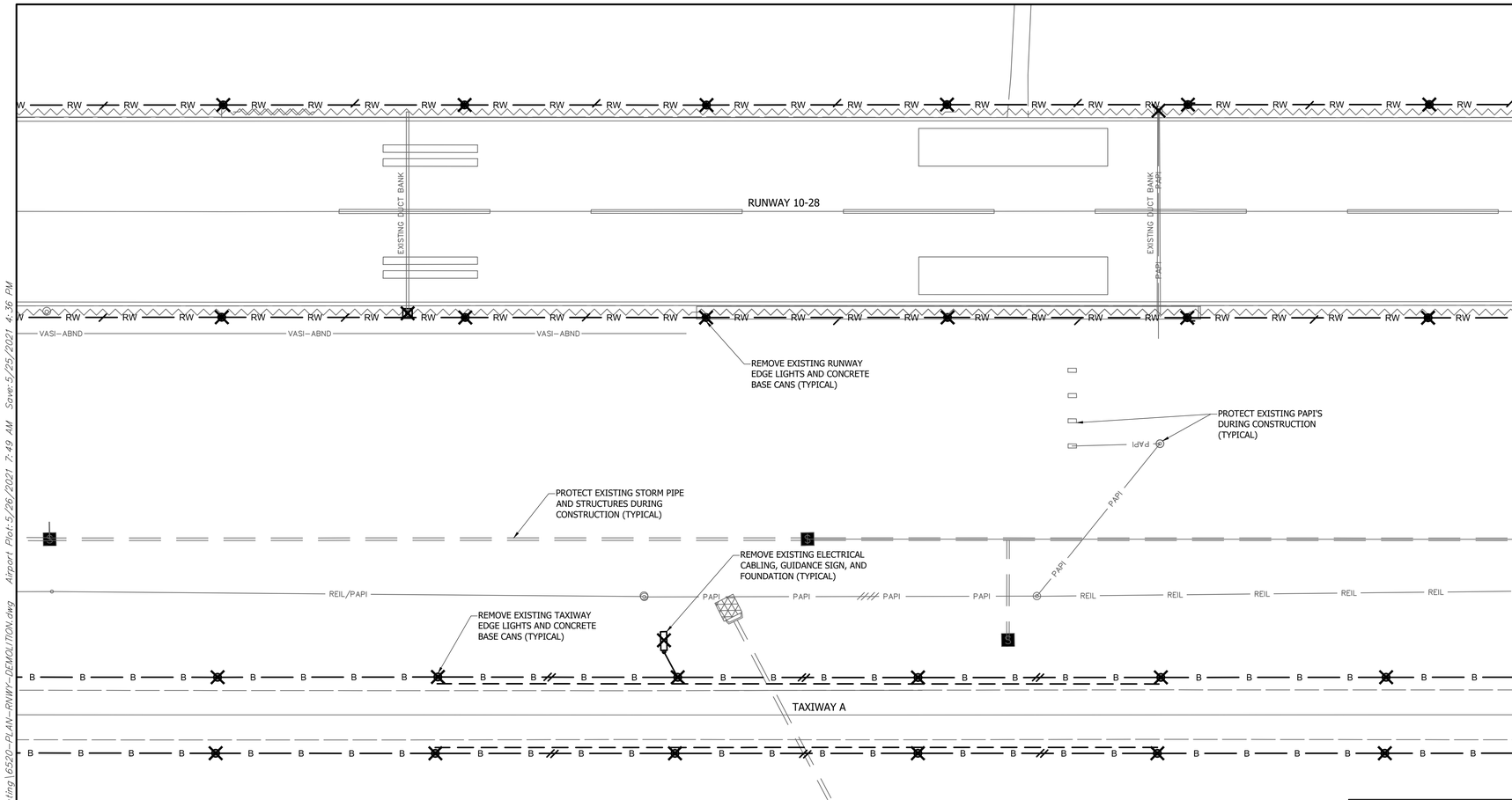
MERRILLVILLE 219-769-2333
PLAINFIELD 317-839-3242

HORIZONTAL SCALE 1" = 50'
VERTICAL SCALE N/A
SHEET 14 OF 30
PROJECT AIP No. 3-39-046-023-2021
BFS NO. 6520.9802



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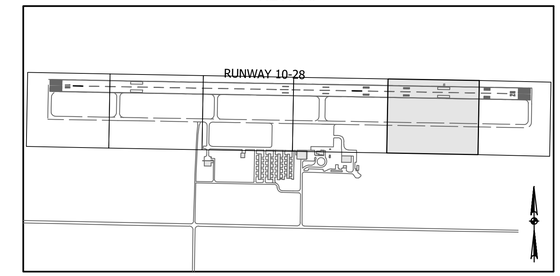
KEYMAP



ELECTRICAL SYMBOL & LINE TYPE LEGEND

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REVISIONS

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STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

Headquarters
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN. 46240-8302
TEL 317-713-4615
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Branch Locations
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Butler Fairman Seufert
CIVIL ENGINEERS

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING

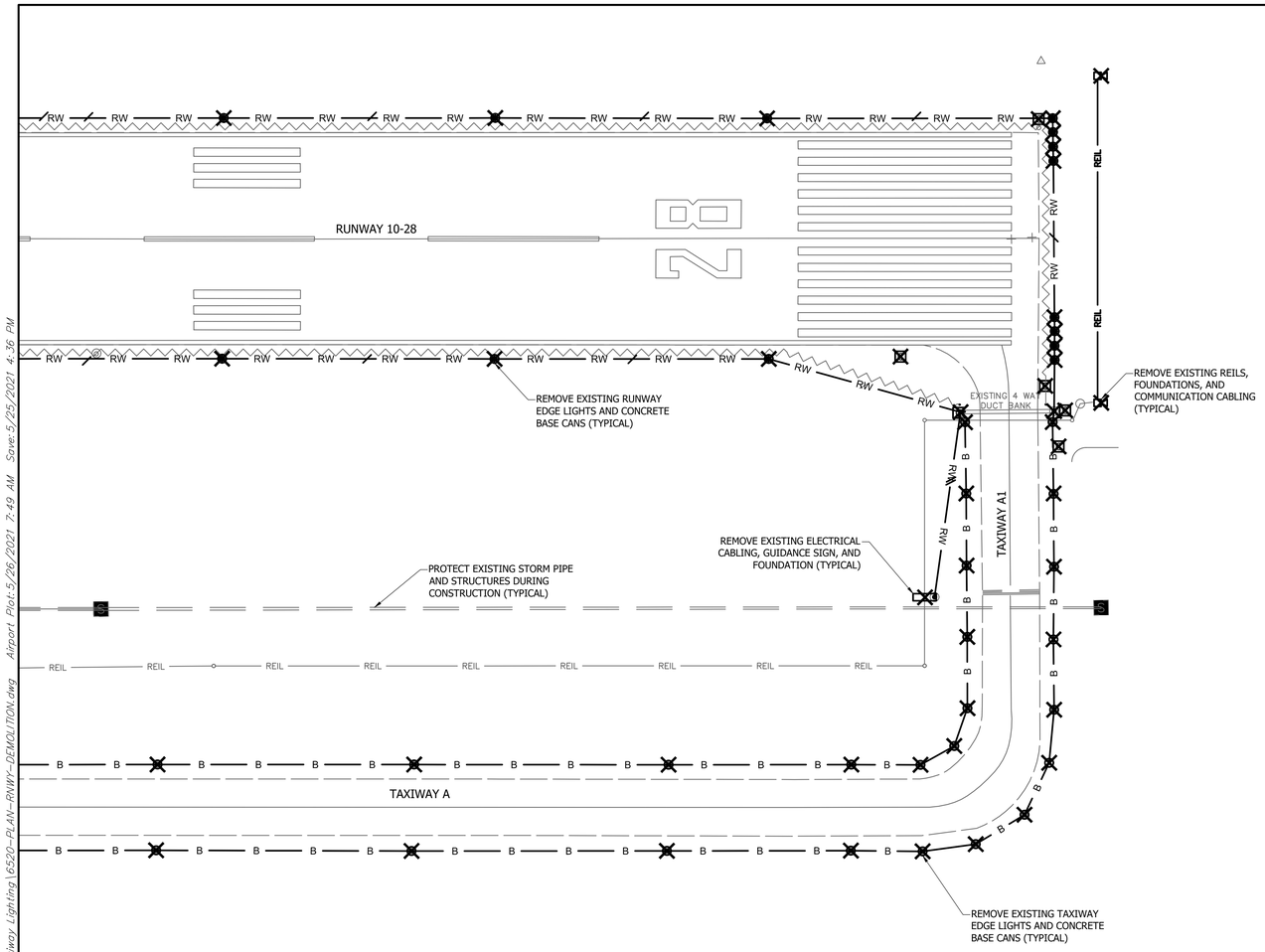
DEMOLITION PLANS

LIMA OHIO

HORIZONTAL SCALE 1" = 50'
VERTICAL SCALE N/A
SHEET 15 OF 30
PROJECT AIP No. 3-39-046-023-2021

BFS NO. 6520.9802

\\bfsn124\Jobs5\652000.9800\9802\ProjDevelopment\Design\Drawings_Runway and Taxiway Lighting\6520-PLAN-RWY-DEMOLITION.dwg Airport Plot:5/26/2021 7:49 AM Save:5/25/2021 4:36 PM



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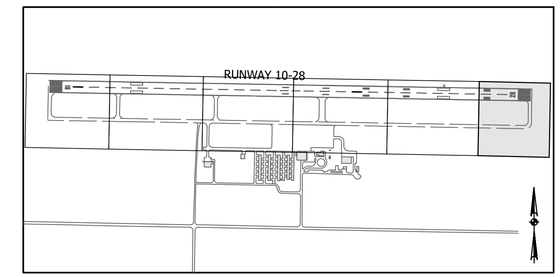
SCALE: 1" = 50'

KEYMAP



ELECTRICAL SYMBOL & LINE TYPE LEGEND

DESCRIPTION	SYMBOL EXISTING	SYMBOL REMOVAL
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TAXIWAY "B" CIRCUIT	B	B
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STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
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ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
DEMOLITION PLANS
LIMA OHIO

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: N/A
SHEET 16 OF 30
PROJECT: AIP No. 3-39-046-023-2021
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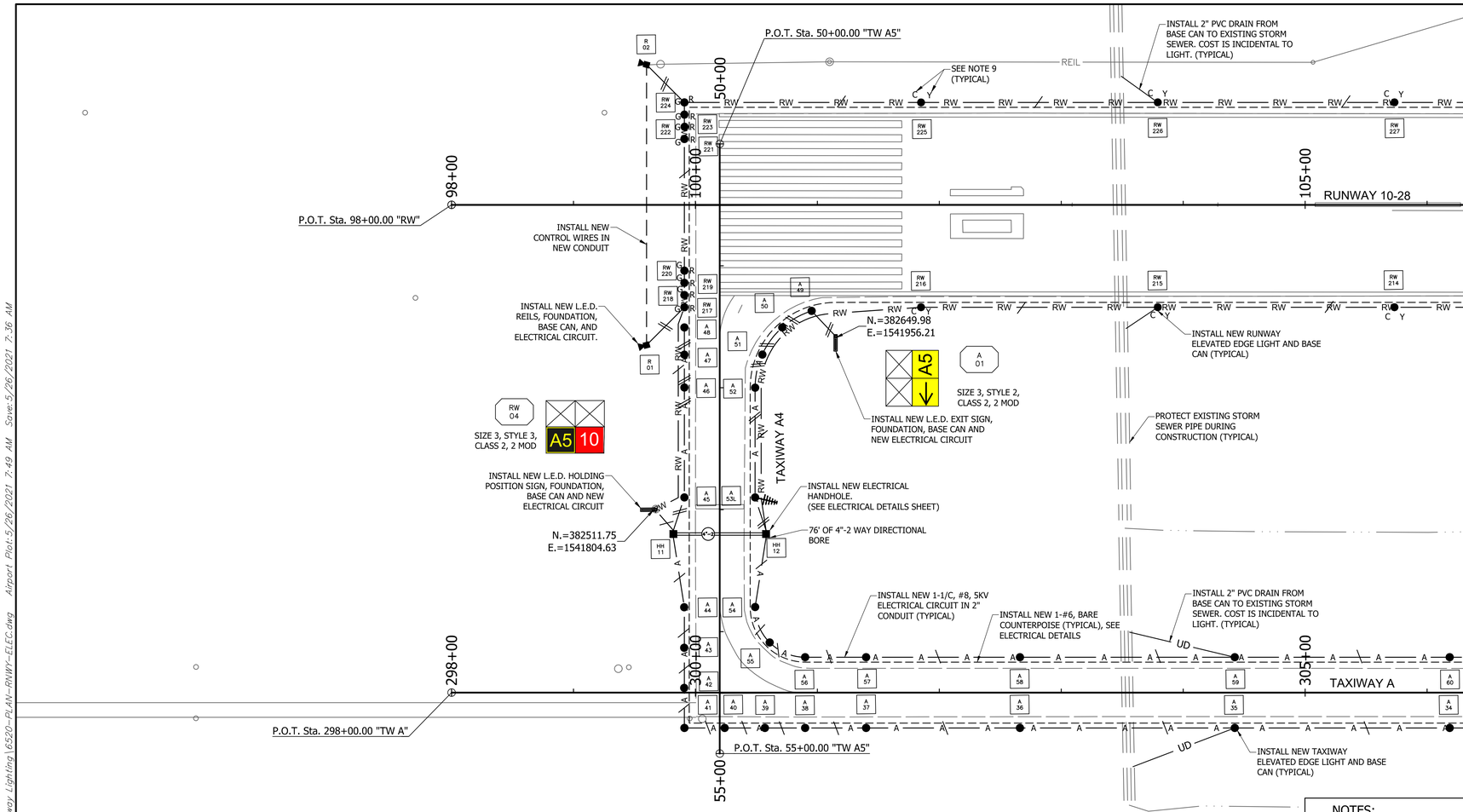

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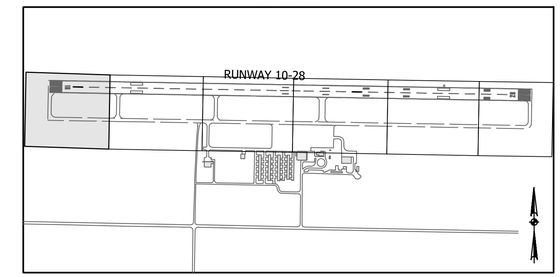

ELECTRICAL SYMBOL & LINE TYPE LEGEND

DESCRIPTION	SYMBOL EXISTING	SYMBOL NEW
EDGE LIGHT		
GUIDANCE SIGN AND FOUNDATION		
ELECTRICAL PULL CAN - 12" DIAMETER		
RUNWAY ELECTRICAL CONDUIT & CABLING	E E	RW
TAXIWAY A ELECTRICAL CONDUIT & CABLING		A A
WINDCONE ELECTRICAL CONDUIT & CABLING	WC	
ELECTRICAL HANDHOLE	HH	HH
ELECTRICAL TRANSFORMER	TR	
FIBER OPTIC	FO FO	
GAS MAIN	G G	
WATER LINE	W W	
SANITARY SEWER AND MANHOLE	SS	
STORM SEWER AND INLET		
FIELD LIGHTNING ARRESTOR		
COUNTERPOISE		

NOTES:

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REVISIONS

NO.	REMARK	DATE	BY
1			
2			
3			
4			
5			
6			

STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
ELECTRICAL PLANS
LIMA OHIO

Headquarters
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN. 46240-8302
TEL. 317-713-4615
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Butler Fairman Seufert
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LAFAYETTE 765-423-5602
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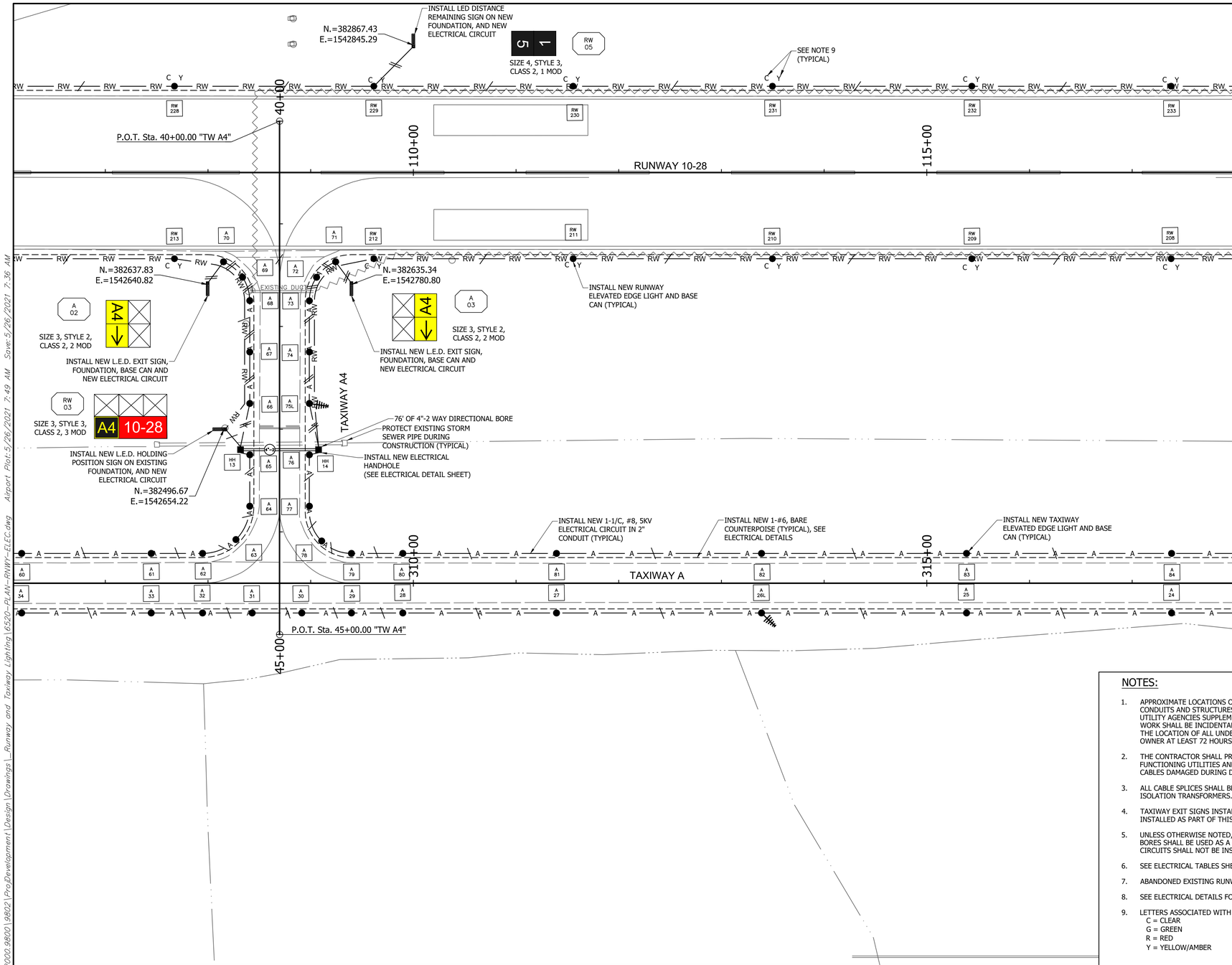
PLAINFIELD 317-839-3242

HORIZONTAL SCALE
1" = 50'
VERTICAL SCALE
N/A
SHEET
17 OF 30
PROJECT
AIP No. 3-39-046-023-2021

BFS NO. 6520.9802

\\bfsn\241\Jobs\652000.9800\9802\Proj Development\Design\Drawings_Runway and Taxiway Lighting\6520-PLAN-RWY-ELEC.dwg Airport Plot:5/26/2021 7:49 AM Save:5/26/2021 7:36 AM



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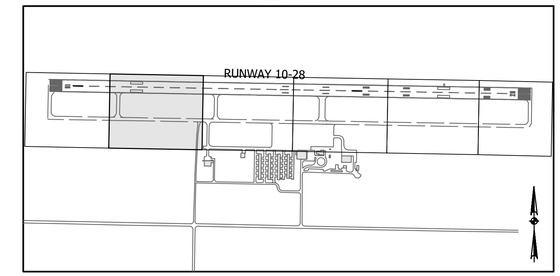
SCALE: 1" = 50'

KEYMAP



ELECTRICAL SYMBOL & LINE TYPE LEGEND

DESCRIPTION	SYMBOL EXISTING	SYMBOL NEW
EDGE LIGHT		
GUIDANCE SIGN AND FOUNDATION		
ELECTRICAL PULL CAN - 12" DIAMETER		
RUNWAY ELECTRICAL CONDUIT & CABLING	E E	RW
TAXIWAY A ELECTRICAL CONDUIT & CABLING		A A
WINDCONE ELECTRICAL CONDUIT & CABLING	WC	
ELECTRICAL HANDHOLE	HH	HH
ELECTRICAL TRANSFORMER	TR	
FIBER OPTIC	FO FO	
GAS MAIN	G G	
WATER LINE	W W	
SANITARY SEWER AND MANHOLE	SS	
STORM SEWER AND INLET		
FIELD LIGHTNING ARRESTOR		
COUNTERPOISE		

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JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
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Butler Fairman Seufert

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
ELECTRICAL PLANS
LIMA OHIO

HORIZONTAL SCALE 1" = 50'
VERTICAL SCALE N/A
SHEET 18 OF 30
PROJECT AIP No. 3-39-046-023-2021

BFS NO. 6520.9802

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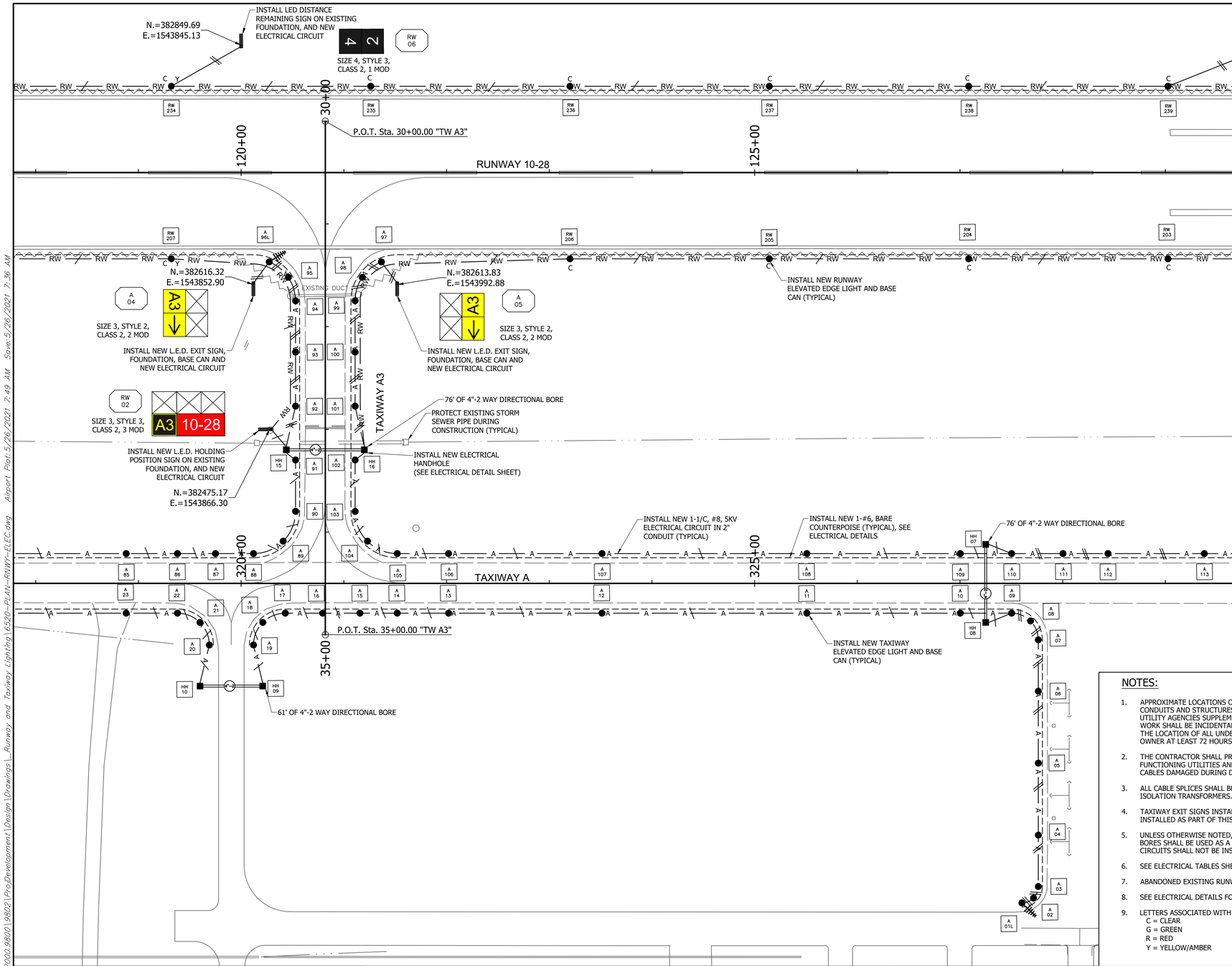

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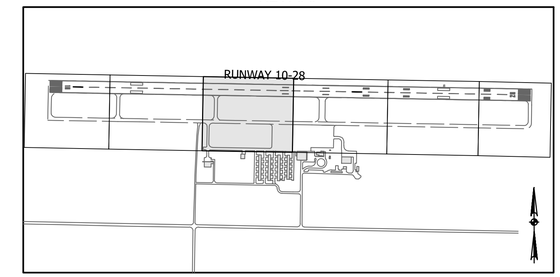

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ELECTRICAL TRANSFORMER	TR	
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E-74745
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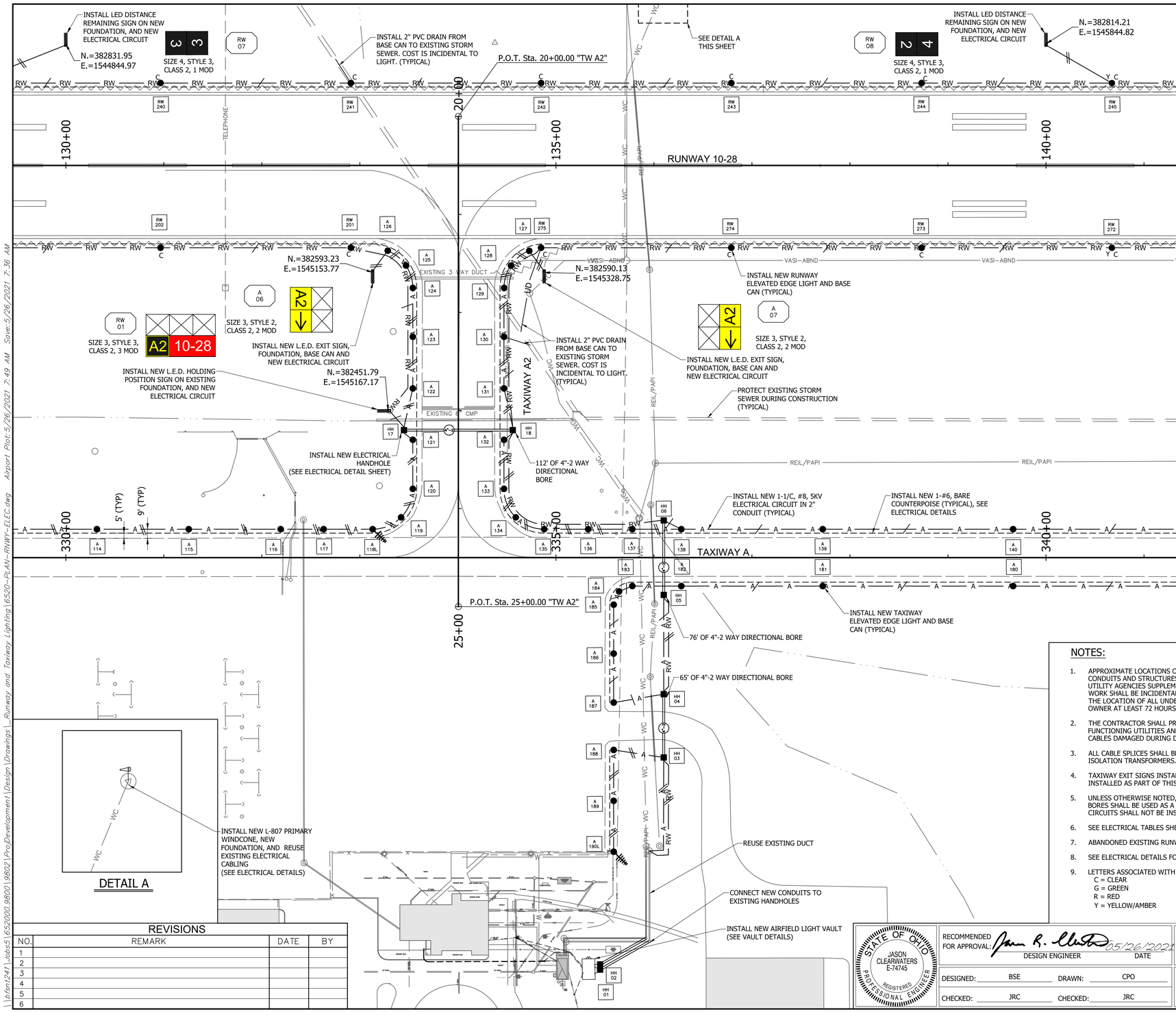
SHEET 19 OF 30
PROJECT AIP No. 3-39-046-023-2021
BFS NO. 6520.9802



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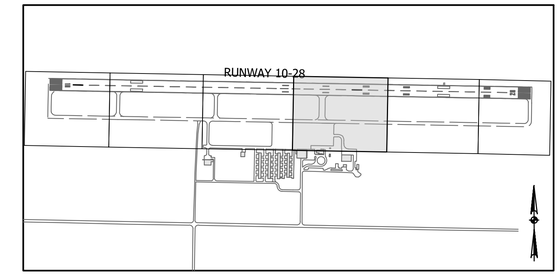

ELECTRICAL SYMBOL & LINE TYPE LEGEND

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GUIDANCE SIGN AND FOUNDATION		
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ELECTRICAL HANDHOLE	HH	HH
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FIBER OPTIC	FO FO	
GAS MAIN	G G	
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STATE OF OHIO — JASON CLEARWATERS E-74745 — REGISTERED PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER — DATE 05/26/2021

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

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VERTICAL SCALE: N/A
SHEET 20 OF 30
PROJECT: AIP No. 3-39-046-023-2021
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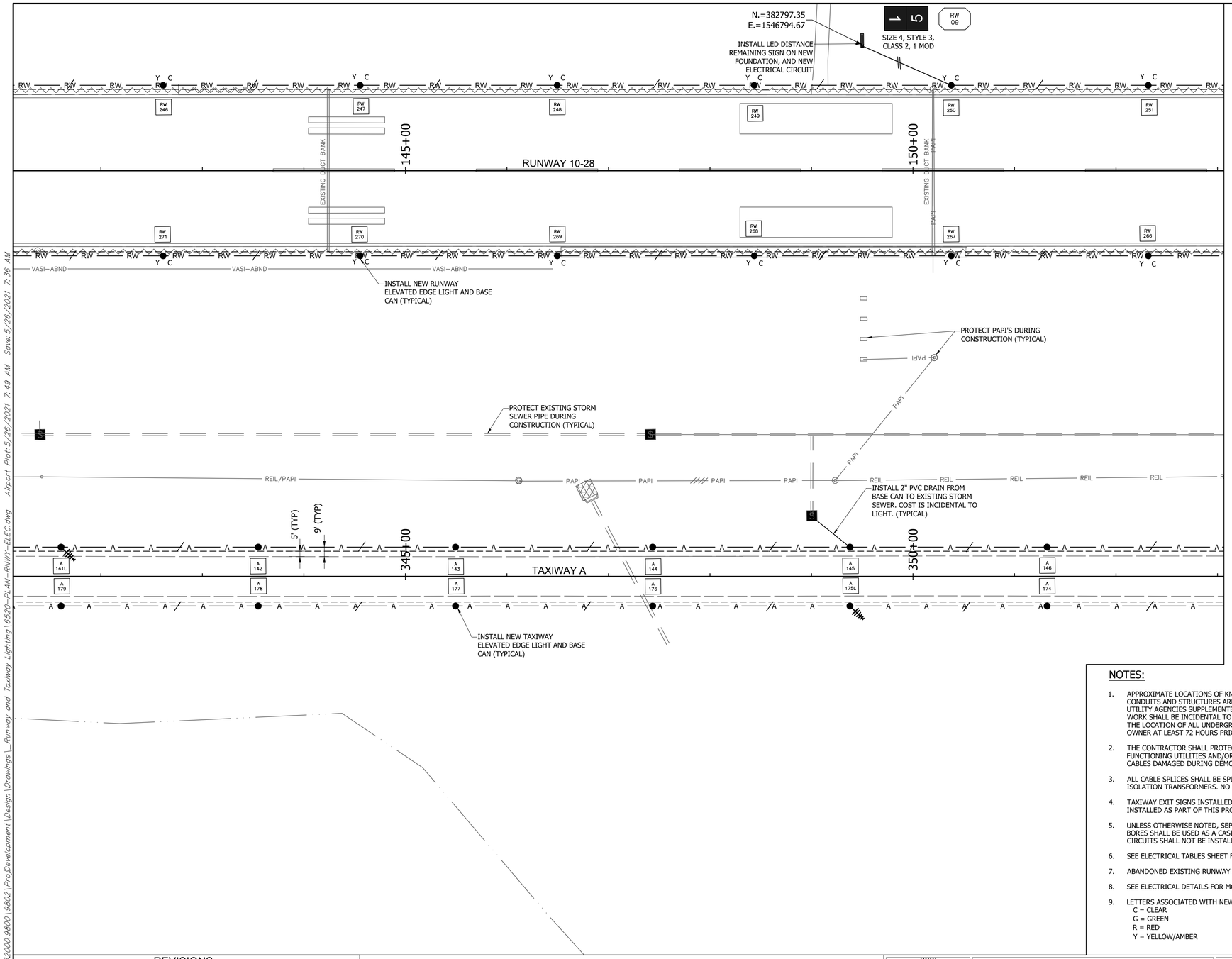

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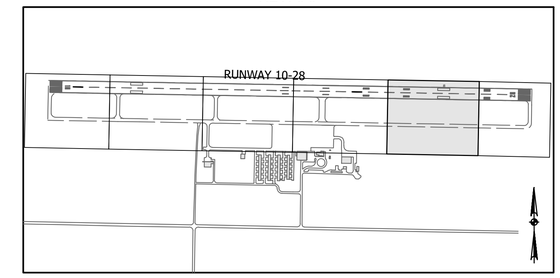

ELECTRICAL SYMBOL & LINE TYPE LEGEND

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GUIDANCE SIGN AND FOUNDATION		
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JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Jason R. Clearwaters 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
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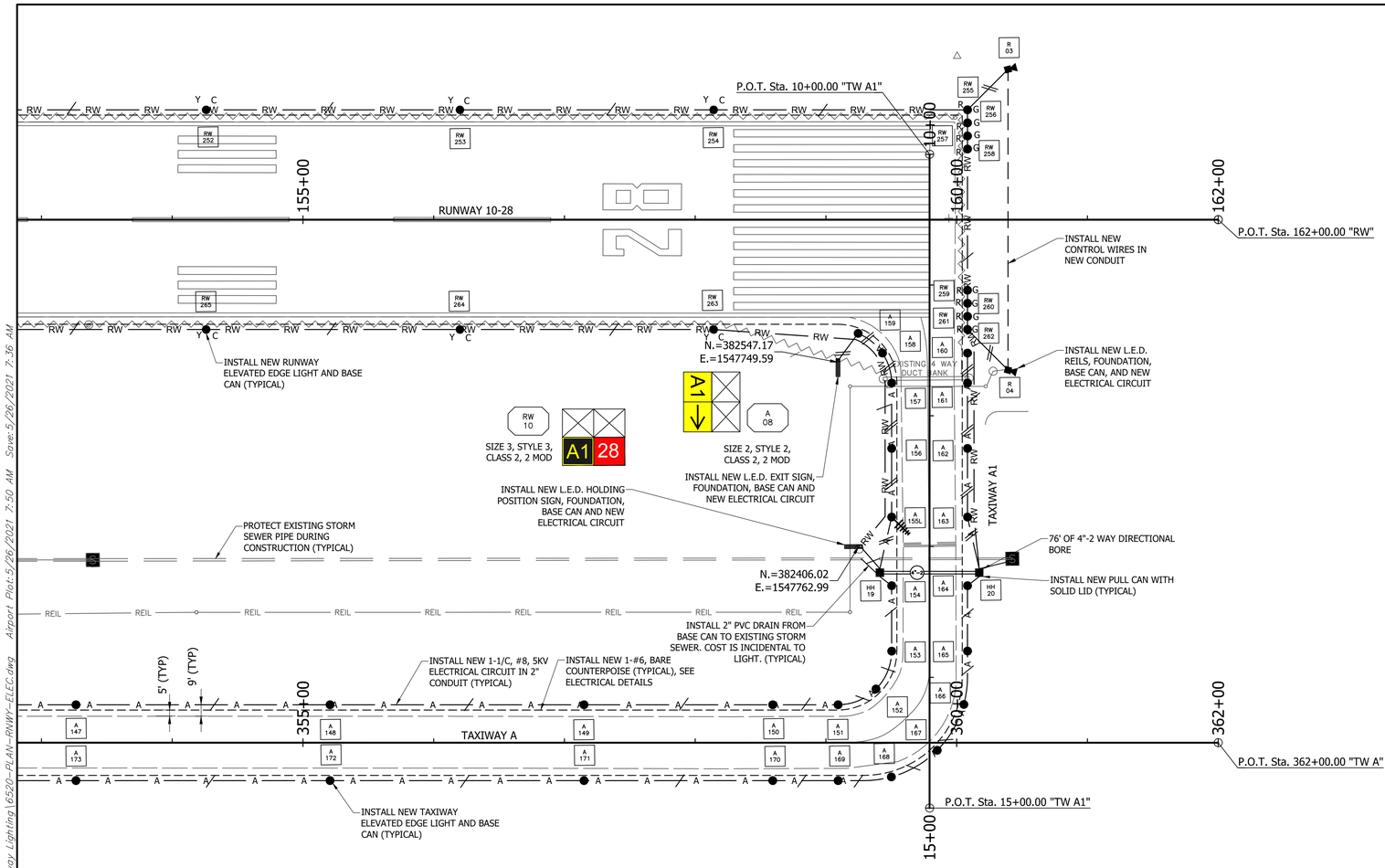

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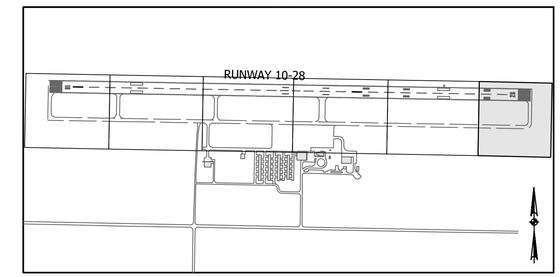

ELECTRICAL SYMBOL & LINE TYPE LEGEND

DESCRIPTION	SYMBOL EXISTING	SYMBOL NEW
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GUIDANCE SIGN AND FOUNDATION		
ELECTRICAL PULL CAN - 12" DIAMETER		
RUNWAY ELECTRICAL CONDUIT & CABLING	E — E	RW
TAXIWAY A ELECTRICAL CONDUIT & CABLING		A — A
WINDCONE ELECTRICAL CONDUIT & CABLING	WC	
ELECTRICAL HANDHOLE	HH	HH
ELECTRICAL TRANSFORMER	TR	
FIBER OPTIC	FO — FO	
GAS MAIN	G — G	
WATER LINE	W — W	
SANITARY SEWER AND MANHOLE	SS	
STORM SEWER AND INLET		
FIELD LIGHTNING ARRESTOR		
COUNTERPOISE		

NOTES:

1. APPROXIMATE LOCATIONS OF KNOWN UTILITIES, CABLES AND CONDUITS ARE SHOWN. LOCATION OF ALL SURFACE FEATURES, UNDERGROUND UTILITIES, CONDUITS AND STRUCTURES ARE APPROXIMATE AND OBTAINED FROM RECORD DOCUMENTS PROVIDED BY THE ALLEN COUNTY REGIONAL AIRPORT AND THE UTILITY AGENCIES SUPPLEMENTED WITH FIELD SURVEY. CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND MARK PRIOR TO CONSTRUCTION. WORK SHALL BE INCIDENTAL TO OTHER CONSTRUCTION PAY ITEMS AND NOT PAID FOR DIRECTLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UNDERGROUND FACILITIES WITHIN THE LIMITS OF DEMOLITION. THE CONTRACTOR SHALL CALL O.U.P.S. 811, 1(800) 362 2764, AND OWNER AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR DEMOLITION.
2. THE CONTRACTOR SHALL PROTECT ALL UTILITIES AND CABLES DURING DEMOLITION AND CONSTRUCTION. IN THE EVENT DAMAGE IS DONE TO FUNCTIONING UTILITIES AND/OR CABLES, THE OWNER AND/OR UTILITY GOVERNING AGENCY MUST BE NOTIFIED IMMEDIATELY. ANY UTILITIES AND/OR CABLES DAMAGED DURING DEMOLITION AND CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
3. ALL CABLE SPLICES SHALL BE SPLICED IN LIGHT BASE CANS AND/OR GUIDANCE SIGN CANS ONLY. NO SPLICES SHALL BE MADE ANYWHERE BETWEEN ISOLATION TRANSFORMERS. NO SEPARATE PAYMENT SHALL BE MADE FOR SPLICING.
4. TAXIWAY EXIT SIGNS INSTALLED AS PART OF THIS PROJECT SHALL BE POWERED FROM THE NEW TAXIWAY A CIRCUIT AND RUNWAY HOLD POSITIONS SIGNS INSTALLED AS PART OF THIS PROJECT SHALL BE POWERED FROM RUNWAY CIRCUIT.
5. UNLESS OTHERWISE NOTED, SEPARATE 2 INCH CONDUITS SHALL BE INSTALLED FOR EACH AIRFIELD CIRCUIT SHOWN ON THE PLANS. THE 4 INCH CONDUIT BORES SHALL BE USED AS A CASING OR SLEEVE SO THAT 2 INCH CONDUIT MAY BE INSTALLED THROUGH THE BORE. HIGH VOLTAGE AND LOW VOLTAGE CIRCUITS SHALL NOT BE INSTALLED IN THE SAME CONDUIT OR PULL CAN AT ANY TIME.
6. SEE ELECTRICAL TABLES SHEET FOR LOCATIONS.
7. ABANDONED EXISTING RUNWAY 10-28 AND TAXIWAY A ELECTRICAL CABLING IS NOT SHOWN FOR CLARITY.
8. SEE ELECTRICAL DETAILS FOR MORE INFORMATION.
9. LETTERS ASSOCIATED WITH NEW RUNWAY LIGHTS INDICATE LENS COLORING, A SCHEDULE OF COLORS IS AS FOLLOWS:
   C = CLEAR
   G = GREEN
   R = RED
   Y = YELLOW/AMBER

REVISIONS

NO.	REMARK	DATE	BY
1			
2			
3			
4			
5			
6			

STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

Headquarters
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN. 46240-8302
TEL 317-713-4615
FAX 317-713-4616
www.BFSEngr.com

Branch Locations
FORT WAYNE 260-459-1532
LOUISVILLE 502-593-1996
LAFAYETTE 765-423-5602
MERRILLVILLE 219-769-2333
PLAINFIELD 317-839-3242

Butler Fairman Seufert
CIVIL ENGINEERS

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING

ELECTRICAL PLANS

LIMA OHIO

HORIZONTAL SCALE 1" = 50'
VERTICAL SCALE N/A
SHEET 22 OF 30
PROJECT AIP No. 3-39-046-023-2021

BFS NO. 6520.9802

HANDHOLE TABLE					
NUMBER	STATION	OFFSET	ALIGNMENT	NORTHING	EASTING
HH 01	335+45.08	420.3	TW A	381878.04	1545373.21
HH 02	335+45.09	414.9	TW A	381883.42	1545373.31
HH 03	336+10.00	203.9	TW A	382093.27	1545441.95
HH 04	336+10.01	139.3	TW A	382157.83	1545443.11
HH 05	336+10.00	38.0	TW A	382259.12	1545444.90
HH 06	336+10.00	-38.0	TW A	382335.10	1545446.24
HH 07	327+25.00	-38.0	TW A	382350.81	1544561.38
HH 08	327+25.00	38.0	TW A	382274.82	1544560.04
HH 09	320+20.99	100.0	TW A	382225.32	1543855.04
HH 10	319+59.99	100.0	TW A	382226.40	1543794.05
HH 11	53+20.00	38.0	TW A5	382491.46	1541820.38
HH 12	53+20.00	-38.0	TW A5	382490.11	1541896.37
HH 13	43+20.00	38.0	TW A4	382476.38	1542669.96
HH 14	43+20.00	-38.0	TW A4	382475.04	1542745.95
HH 15	33+20.00	38.0	TW A3	382454.88	1543882.04
HH 16	33+20.00	-38.0	TW A3	382453.53	1543958.03
HH 17	23+20.00	55.5	TW A2	382431.79	1545182.91
HH 18	23+20.00	-55.5	TW A2	382429.82	1545293.90
HH 19	13+20.00	38.0	TW A1	382385.73	1547778.73
HH 20	13+20.00	-38.0	TW A1	382384.38	1547854.72

REILS TABLE					
NUMBER	STATION	OFFSET	ALIGNMENT	NORTHING	EASTING
R 01	99+59.93	115.0	RW	382646.83	1541801.13
R 02	99+59.93	-115.0	RW	382876.79	1541805.21
R 03	160+39.22	-115.0	RW	382768.93	1547883.55
R 04	160+39.23	115.0	RW	382538.96	1547879.48

NOTES:

1. THE STATIONS/OFFSETS AND COORDINATES ARE FOR INFORMATIONAL PURPOSES TO ASSIST IN THE LAYOUT OF FIXTURES. THEY DO NOT REPLACE FAA GUIDANCE ON THE LOCATION OF FIXTURES.
2. COORDINATES PROVIDED IN THE FOLLOWING TABLES ARE INTENDED TO CORRESPOND TO: EDGE LIGHTS - CENTER OF EDGE LIGHT
3. PER FAA GUIDANCE, EDGE LIGHTS SHALL BE 2'-10' OFF OF THE EDGE OF AIRCRAFT PAVEMENT. THE INTENT ON THIS PROJECT IS THAT THE EDGE LIGHTS ARE AS CLOSE TO 9' OFF THE EDGE OF PAVEMENT AS POSSIBLE, WHILE REMAINING IN A STRAIGHT LINE.

RUNWAY LIGHT TABLE					
NUMBER	STATION	OFFSET	ALIGNMENT	NORTHING	EASTING
201	132+90.73	84.0	RW	382618.72	1545131.96
202	130+96.63	84.0	RW	382622.17	1544937.89
203	129+02.52	84.0	RW	382625.61	1544743.81
204	127+08.42	84.0	RW	382629.06	1544549.73
205	125+14.31	84.0	RW	382632.50	1544355.66
206	123+20.20	84.0	RW	382635.94	1544161.58
207	119+31.99	83.9	RW	382642.89	1543773.43
208	117+37.89	83.9	RW	382646.33	1543579.36
209	115+43.78	83.9	RW	382649.77	1543385.28
210	113+49.67	83.9	RW	382653.22	1543191.21
211	111+55.57	83.9	RW	382656.66	1542997.13
212	109+61.46	83.9	RW	382660.10	1542803.05
213	107+67.35	83.9	RW	382663.55	1542608.98
214	105+73.25	83.9	RW	382666.99	1542414.90
215	103+79.14	83.9	RW	382670.44	1542220.83
216	101+85.04	83.9	RW	382673.88	1542026.75
217	99+90.93	84.0	RW	382677.27	1541832.68
218	99+90.93	74.0	RW	382687.27	1541832.85
219	99+90.93	64.0	RW	382697.27	1541833.03
220	99+90.93	54.0	RW	382707.27	1541833.21
221	99+90.93	-54.0	RW	382815.25	1541835.12
222	99+91.11	-64.0	RW	382825.25	1541835.48
223	99+90.93	-74.0	RW	382835.25	1541835.48
224	99+90.93	-84.0	RW	382845.24	1541835.66
225	101+85.04	-84.0	RW	382841.80	1542029.73

RUNWAY LIGHT TABLE					
NUMBER	STATION	OFFSET	ALIGNMENT	NORTHING	EASTING
226	103+79.14	-84.1	RW	382838.41	1542223.81
227	105+73.25	-84.1	RW	382834.97	1542417.88
228	107+67.35	-84.1	RW	382831.52	1542611.96
229	109+61.46	-84.1	RW	382828.08	1542806.04
230	111+55.57	-84.1	RW	382824.63	1543000.11
231	113+49.67	-84.1	RW	382821.19	1543194.19
232	115+43.78	-84.1	RW	382817.75	1543388.26
233	117+37.89	-84.1	RW	382814.30	1543582.34
234	119+31.99	-84.1	RW	382810.86	1543776.41
235	121+26.10	-84.0	RW	382807.36	1543970.49
236	123+20.20	-84.0	RW	382803.92	1544164.56
237	125+14.31	-84.0	RW	382800.47	1544358.64
238	127+08.42	-84.0	RW	382797.03	1544552.72
239	129+02.52	-84.0	RW	382793.59	1544746.79
240	130+96.63	-84.0	RW	382790.14	1544940.87
241	132+90.73	-84.0	RW	382786.70	1545134.94
242	134+84.84	-84.0	RW	382783.25	1545329.02
243	136+78.95	-84.0	RW	382779.81	1545523.09
244	138+73.05	-84.0	RW	382776.37	1545717.17
245	140+67.16	-84.0	RW	382772.92	1545911.24
246	142+61.27	-84.0	RW	382769.48	1546105.32
247	144+55.37	-84.0	RW	382766.03	1546299.40
248	146+49.48	-84.0	RW	382762.59	1546493.47
249	148+43.58	-84.0	RW	382759.15	1546687.55
250	150+37.69	-84.0	RW	382755.70	1546881.62

RUNWAY LIGHT TABLE					
NUMBER	STATION	OFFSET	ALIGNMENT	NORTHING	EASTING
251	152+31.80	-84.0	RW	382752.26	1547075.70
252	154+25.90	-84.0	RW	382748.81	1547269.77
253	156+20.01	-84.0	RW	382745.37	1547463.85
254	158+14.12	-84.0	RW	382741.93	1547657.93
255	160+08.22	-84.0	RW	382738.48	1547852.00
256	160+08.22	-74.0	RW	382728.48	1547851.82
257	160+08.22	-64.0	RW	382718.49	1547851.65
258	160+08.22	-54.0	RW	382708.49	1547851.47
259	160+08.22	54.0	RW	382600.50	1547849.55
260	160+08.22	64.0	RW	382590.51	1547849.38
261	160+08.22	74.0	RW	382580.51	1547849.20
262	160+08.22	84.0	RW	382570.51	1547849.02
263	158+14.12	84.0	RW	382573.95	1547654.94
264	156+20.01	84.0	RW	382577.40	1547460.87
265	154+25.90	84.0	RW	382580.84	1547266.79
266	152+31.80	84.0	RW	382584.29	1547072.72
267	150+37.69	84.0	RW	382587.73	1546878.64
268	148+43.58	84.0	RW	382591.17	1546684.57
269	146+49.48	84.0	RW	382594.62	1546490.49
270	144+55.37	84.0	RW	382598.06	1546296.42
271	142+61.27	84.0	RW	382601.50	1546102.34
272	140+67.16	84.0	RW	382604.95	1545908.26
273	138+73.05	84.0	RW	382608.39	1545714.19
274	136+78.95	84.0	RW	382611.84	1545520.11
275	134+84.84	84.0	RW	382615.28	1545326.04

REVISIONS			
NO.	REMARK	DATE	BY
1			
2			
3			
4			
5			
6			

STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
ELECTRICAL TABLES
LIMA OHIO

Headquarters
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN. 46240-8302
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Butler Fairman & Seufert
CIVIL ENGINEERS

HORIZONTAL SCALE
VERTICAL SCALE
N/A
SHEET 23 OF 30
PROJECT
AIP No. 3-39-046-023-2021

BFS NO. 6520.9802

TAXIWAY LIGHT TABLE

NUMBER	STATION	OFFSET	ALIGNMENT	NORTHING	EASTING
01	327+60.27	311.2	TW A	382001.05	1544590.45
02	327+71.59	306.5	TW A	382005.53	1544601.85
03	327+76.28	295.2	TW A	382016.76	1544606.74
04	327+76.28	245.2	TW A	382066.76	1544607.63
05	327+76.28	175.1	TW A	382136.84	1544608.87
06	327+76.28	105.0	TW A	382206.92	1544610.12
07	327+76.28	55.0	TW A	382256.91	1544611.00
08	327+68.66	36.6	TW A	382275.43	1544603.72
09	327+50.28	29.0	TW A	382283.37	1544585.47
10	327+00.28	29.0	TW A	382284.25	1544535.48
11	325+50.83	29.0	TW A	382286.91	1544386.05
12	323+51.37	29.0	TW A	382290.45	1544186.63
13	322+01.92	29.0	TW A	382293.10	1544037.20
14	321+51.92	29.0	TW A	382293.98	1543987.21
15	321+15.61	29.0	TW A	382294.63	1543950.90
16	320+79.30	29.0	TW A	382295.27	1543914.60
17	320+42.99	29.0	TW A	382295.92	1543878.30
18	320+21.07	38.1	TW A	382287.23	1543856.22
19	320+11.99	60.0	TW A	382265.47	1543846.75
20	319+68.99	60.0	TW A	382266.23	1543803.76
21	319+59.91	38.1	TW A	382288.31	1543795.07
22	319+37.99	29.0	TW A	382297.78	1543773.31
23	318+87.99	29.0	TW A	382298.67	1543723.32
24	317+38.33	29.0	TW A	382301.32	1543573.68
25	315+38.66	29.0	TW A	382304.86	1543374.04
26	313+38.99	29.0	TW A	382308.41	1543174.40
27	311+39.32	29.0	TW A	382311.95	1542974.76
28	309+89.65	29.0	TW A	382314.61	1542825.12
29	309+39.65	29.0	TW A	382315.49	1542775.12
30	308+91.32	29.0	TW A	382316.35	1542726.80
31	308+42.98	29.0	TW A	382317.21	1542678.47
32	307+94.65	29.0	TW A	382318.07	1542630.15
33	307+44.65	29.0	TW A	382318.95	1542580.16
34	306+18.47	29.0	TW A	382321.19	1542454.00
35	304+42.29	29.0	TW A	382324.32	1542277.84
36	302+66.11	29.0	TW A	382327.44	1542101.69
37	301+39.93	29.0	TW A	382329.68	1541975.53
38	300+89.93	29.0	TW A	382330.57	1541925.54
39	300+56.93	29.0	TW A	382331.15	1541892.54
40	300+23.93	29.0	TW A	382331.74	1541859.55

TAXIWAY LIGHT TABLE

NUMBER	STATION	OFFSET	ALIGNMENT	NORTHING	EASTING
41	299+90.93	29.0	TW A	382332.33	1541826.55
42	54+46.21	29.2	TW A5	382365.11	1541826.98
43	54+13.27	29.2	TW A5	382398.05	1541827.56
44	53+80.00	29.2	TW A5	382431.31	1541828.15
45	52+90.00	29.0	TW A5	382521.30	1541829.91
46	51+99.84	29.0	TW A5	382611.44	1541831.51
47	51+72.89	29.0	TW A5	382638.38	1541831.99
48	51+50.57	29.0	TW A5	382660.71	1541832.38
49	51+37.00	-75.3	TW A5	382672.42	1541936.93
50	51+50.55	-51.3	TW A5	382659.30	1541912.63
51	51+72.82	-34.9	TW A5	382637.33	1541895.88
52	52+00.00	-29.0	TW A5	382610.25	1541889.50
53	52+90.00	-29.0	TW A5	382520.27	1541887.90
54	53+79.84	-29.0	TW A5	382430.44	1541886.30
55	54+08.93	-41.0	TW A5	382401.14	1541897.74
56	300+89.93	-29.0	TW A	382388.56	1541926.57
57	301+39.93	-29.0	TW A	382387.67	1541976.56
58	302+66.11	-29.0	TW A	382385.43	1542102.72
59	304+42.29	-29.0	TW A	382382.31	1542278.87
60	306+18.47	-29.0	TW A	382379.18	1542455.02
61	307+44.65	-29.0	TW A	382376.94	1542581.18
62	307+94.65	-29.0	TW A	382376.06	1542631.18
63	44+07.53	42.5	TW A4	382388.95	1542663.94
64	43+75.00	29.0	TW A4	382421.23	1542677.99
65	43+25.00	29.0	TW A4	382471.23	1542678.87
66	42+75.00	29.0	TW A4	382521.22	1542679.76
67	42+24.84	29.0	TW A4	382571.37	1542680.65
68	41+74.84	29.0	TW A4	382621.36	1542681.54
69	41+52.02	36.0	TW A4	382644.30	1542674.90
70	41+37.00	54.6	TW A4	382659.65	1542656.61
71	41+37.00	-54.6	TW A4	382657.71	1542765.80
72	41+52.09	-36.0	TW A4	382642.96	1542746.93
73	41+75.00	-29.0	TW A4	382620.17	1542739.53
74	42+24.84	-29.0	TW A4	382570.34	1542738.64
75	42+75.00	-29.0	TW A4	382520.19	1542737.75
76	43+25.00	-29.0	TW A4	382470.20	1542736.86
77	43+75.00	-29.0	TW A4	382420.20	1542735.98
78	44+08.99	-41.0	TW A4	382386.00	1542747.38
79	309+39.65	-29.0	TW A	382373.48	1542776.15
80	309+89.65	-29.0	TW A	382372.60	1542826.15

TAXIWAY LIGHT TABLE

NUMBER	STATION	OFFSET	ALIGNMENT	NORTHING	EASTING
81	311+39.32	-29.0	TW A	382369.94	1542975.79
82	313+38.99	-29.0	TW A	382366.40	1543175.43
83	315+38.66	-29.0	TW A	382362.86	1543375.07
84	317+38.33	-29.0	TW A	382359.31	1543574.70
85	318+87.99	-29.0	TW A	382356.66	1543724.35
86	319+37.99	-29.0	TW A	382355.77	1543774.34
87	319+74.96	-29.0	TW A	382355.11	1543811.30
88	320+11.92	-29.0	TW A	382354.46	1543848.26
89	34+08.99	41.0	TW A3	382365.95	1543877.46
90	33+79.84	29.0	TW A3	382394.88	1543889.98
91	33+29.84	29.0	TW A3	382444.88	1543890.87
92	32+77.50	29.0	TW A3	382497.21	1543891.80
93	32+24.84	29.0	TW A3	382549.86	1543892.73
94	31+75.00	29.0	TW A3	382599.69	1543893.61
95	31+52.09	36.0	TW A3	382622.72	1543887.02
96	31+37.00	54.6	TW A3	382638.14	1543868.69
97	31+37.00	-54.6	TW A3	382636.20	1543977.88
98	31+52.02	-36.0	TW A3	382621.51	1543959.06
99	31+74.84	-29.0	TW A3	382598.82	1543951.61
100	32+24.84	-29.0	TW A3	382548.83	1543950.72
101	32+77.50	-29.0	TW A3	382496.18	1543949.79
102	33+29.84	-29.0	TW A3	382443.85	1543948.86
103	33+80.00	-29.0	TW A3	382393.70	1543947.97
104	34+08.99	-41.0	TW A3	382364.50	1543959.46
105	321+51.92	-29.0	TW A	382351.97	1543988.23
106	322+01.92	-29.0	TW A	382351.09	1544038.23
107	323+51.37	-29.0	TW A	382348.44	1544187.66
108	325+50.83	-29.0	TW A	382344.90	1544387.08
109	327+00.28	-29.0	TW A	382342.25	1544536.51
110	327+50.28	-29.0	TW A	382341.36	1544586.50
111	328+00.28	-29.0	TW A	382340.47	1544636.49
112	328+44.06	-29.0	TW A	382339.69	1544680.27
113	329+37.85	-29.0	TW A	382338.03	1544774.04
114	330+31.64	-29.0	TW A	382336.37	1544867.81
115	331+25.42	-29.0	TW A	382334.70	1544961.58
116	332+19.21	-29.0	TW A	382333.04	1545055.36
117	332+63.00	-29.0	TW A	382332.26	1545099.13
118	333+13.00	-29.0	TW A	382331.37	1545149.13
119	24+08.99	58.5	TW A2	382342.87	1545178.33
120	23+79.84	46.5	TW A2	382371.80	1545190.85

TAXIWAY LIGHT TABLE

NUMBER	STATION	OFFSET	ALIGNMENT	NORTHING	EASTING
121	23+29.84	46.5	TW A2	382421.79	1545191.74
122	22+77.50	46.5	TW A2	382474.12	1545192.67
123	22+24.84	46.5	TW A2	382526.78	1545193.60
124	21+75.00	46.5	TW A2	382576.61	1545194.49
125	21+52.16	53.4	TW A2	382599.57	1545188.00
126	21+37.00	72.1	TW A2	382615.06	1545169.56
127	21+37.16	-72.3	TW A2	382612.34	1545313.90
128	21+52.25	-53.7	TW A2	382597.58	1545295.03
129	21+75.00	-46.7	TW A2	382574.96	1545287.63
130	22+24.84	-46.5	TW A2	382525.13	1545286.59
131	22+77.50	-46.5	TW A2	382472.47	1545285.65
132	23+29.84	-46.5	TW A2	382420.14	1545284.72
133	23+79.84	-46.5	TW A2	382370.15	1545283.84
134	24+08.99	-58.5	TW A2	382340.79	1545295.33
135	334+88.00	-29.0	TW A	382328.27	1545324.10
136	335+32.94	-29.0	TW A	382327.47	1545369.04
137	335+77.88	-29.0	TW A	382326.67	1545413.97
138	336+27.88	-29.0	TW A	382325.79	1545463.96
139	337+72.16	-29.0	TW A	382323.23	1545608.22
140	339+66.44	-29.0	TW A	382319.78	1545802.47
141	341+60.72	-29.0	TW A	382316.33	1545996.71
142	343+54.99	-29.0	TW A	382312.89	1546190.96
143	345+49.27	-29.0	TW A	382309.44	1546385.21
144	347+43.55	-29.0	TW A	382305.99	1546579.46
145	349+37.83	-29.0	TW A	382302.55	1546773.71
146	351+32.11	-29.0	TW A	382299.10	1546967.95
147	353+26.39	-29.0	TW A	382295.65	1547162.20
148	355+20.66	-29.0	TW A	382292.21	1547356.45
149	357+14.94	-29.0	TW A	382288.76	1547550.70
150	358+59.22	-29.0	TW A	382286.20	1547694.95
151	359+09.22	-29.0	TW A	382285.31	1547744.94
152	14+08.99	41.0	TW A1	382296.80	1547774.14
153	13+80.00	29.0	TW A1	382325.58	1547786.66
154	13+30.00	29.0	TW A1	382375.57	1547787.55
155	12+77.50	29.0	TW A1	382428.06	1547788.48
156	12+25.00	29.0	TW A1	382480.55	1547789.42
157	11+75.00	29.0	TW A1	382530.54	1547790.30
158	11+52.09	36.0	TW A1	382553.58	1547783.71
159	11+37.00	54.6	TW A1	382568.99	1547765.38
160	11+52.09	-29.0	TW A1	382552.42	1547848.70

TAXIWAY LIGHT TABLE

NUMBER	STATION	OFFSET	ALIGNMENT	NORTHING	EASTING
161	11+75.00	-29.0	TW A1	382529.52	1547848.29
162	12+25.00	-29.0	TW A1	382479.52	1547847.41
163	12+77.50	-29.0	TW A1	382427.03	1547846.47
164	13+30.00	-29.0	TW A1	382374.54	1547845.54
165	13+79.99	-29.0	TW A1	382324.55	1547844.66
166	14+20.77	-26.2	TW A1	382283.83	1547841.15
167	14+55.86	-5.9	TW A1	382249.11	1547820.18
168	14+76.22	29.2	TW A1	382229.38	1547784.74
169	359+09.22	29.0	TW A	382227.32	1547743.91
170	358+59.22	29.0	TW A	382228.21	1547693.92
171	357+14.94	29.0	TW A	382230.77	1547549.67
172	355+20.66	29.0	TW A	382234.21	1547355.42
173	353+26.39	29.0	TW A	382237.66	1547161.17
174	351+32.11	29.0	TW A	382241.11	1546966.92
175	349+37.83	29.0	TW A	382244.56	1546772.68
176	347+43.55	29.0	TW A	382248.00	1546578.43
177	345+49.27	29.0	TW A	382251.45	1546384.18
178	343+54.99	29.0	TW A	382254.90	1546189.93
179	341+60.72	29.0	TW A	382258.34	1545995.69
180	339+66.44	29.0	TW A	382261.79	1545801.44
181	337+72.16	29.0	TW A	382265.24	1545607.19
182	336+27.88	29.0	TW A	382267.80	1545462.93
183	335+77.88	29.0	TW A	382268.68	1545412.94
184	335+64.45	34.6	TW A	382263.36	1545399.41
185	335+58.88	48.0	TW A	382250.02	1545393.61
186	335+58.88	97.9	TW A	382200.10	1545392.72
187	335+58.88	147.9	TW A	382150.17	1545391.84
188	335+58.88	196.2	TW A	382101.83	1545390.98
189	335+58.88	248.1	TW A	382049.94	1545390.06
190	335+58.88	300.0	TW A	381998.06	1545389.14

NOTES:

1. THE STATIONS/OFFSETS AND COORDINATES ARE FOR INFORMATIONAL PURPOSES TO ASSIST IN THE LAYOUT OF FIXTURES. THEY DO NOT REPLACE FAA GUIDANCE ON THE LOCATION OF FIXTURES.
2. COORDINATES PROVIDED IN THE FOLLOWING TABLES ARE INTENDED TO CORRESPOND TO:
   EDGE LIGHTS - CENTER OF EDGE LIGHT
3. PER FAA GUIDANCE, EDGE LIGHTS SHALL BE 2'-10' OFF OF THE EDGE OF AIRCRAFT PAVEMENT. THE INTENT ON THIS PROJECT IS THAT THE EDGE LIGHTS ARE AS CLOSE TO 9' OFF THE EDGE OF PAVEMENT AS POSSIBLE, WHILE REMAINING IN A STRAIGHT LINE.

REVISIONS

NO.	REMARK	DATE	BY
1			
2			
3			
4			
5			
6			

STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
ELECTRICAL TABLES
LIMA OHIO

Headquarters
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN. 46240-8302
TEL. 317-713-4615
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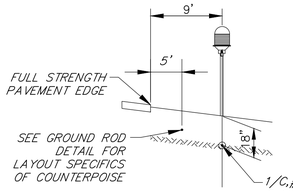
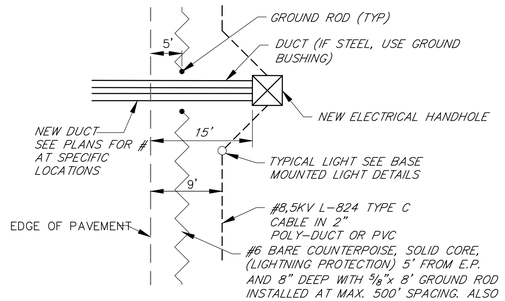
LAFAYETTE 765-423-5602
MERRILLVILLE 219-769-2333
PLAINFIELD 317-839-3242

HORIZONTAL SCALE
VERTICAL SCALE N/A
SHEET 24 OF 30
PROJECT AIP No. 3-39-046-023-2021
BFS NO. 6520.9802



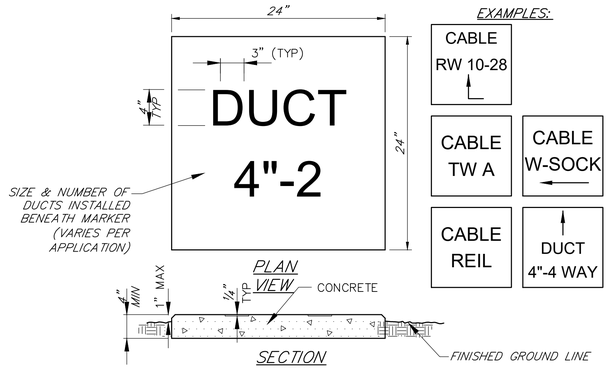
PROFILE VIEW



PLAN VIEW

LIGHT & CABLE INSTALLATION DETAILS

NOT TO SCALE



PLAN VIEW

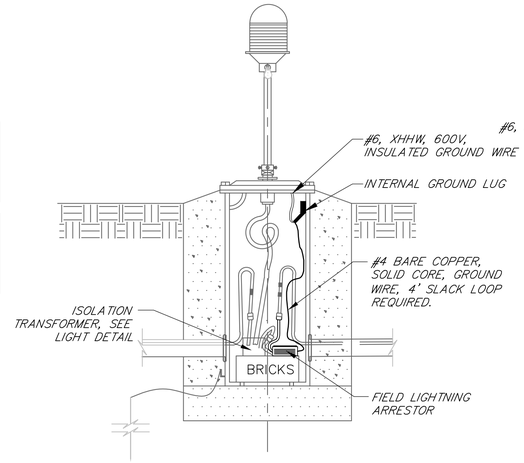
SECTION VIEW

NOTES:

1. MARKERS SHALL BE PLACED WHERE REQUIRED BY SPECIFICATIONS.
2. COST OF CONCRETE MARKERS ARE INCIDENTAL TO THE ASSOCIATED ITEMS OF DUCT OR CABLE.
3. EDGE EXPOSED CONCRETE WITH A 1/4" RADIUS TOOL.
4. WHERE ADDITIONAL SPACE TO FIT THE LEGEND IS REQUIRED, SOME OF THE FOLLOWING METHODS SHALL BE EMPLOYED:
   A. REDUCE LETTER SIZE TO 3" HIGH, 2" WIDE.
   B. INCREASE MARKER SIZE TO 30"x30" MAX.
   C. PROVIDE ADDITIONAL MARKERS PLACED SIDE BY SIDE.
5. CABLE AND DUCT MARKERS ARE SIMILAR WITH LETTERING AS REQUIRED.
6. MARKERS SHOWN ARE ONLY EXAMPLES. ACTUAL MARKER LEGEND SHOULD BE CORRECTLY DETERMINED PER AN INDIVIDUAL BASIS.

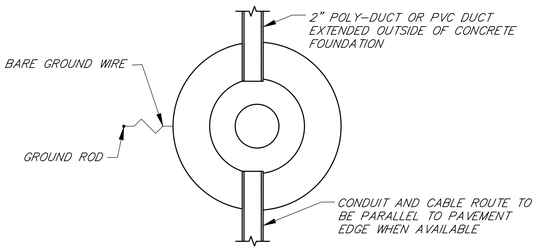
CABLE/DUCT MARKER

NOT TO SCALE

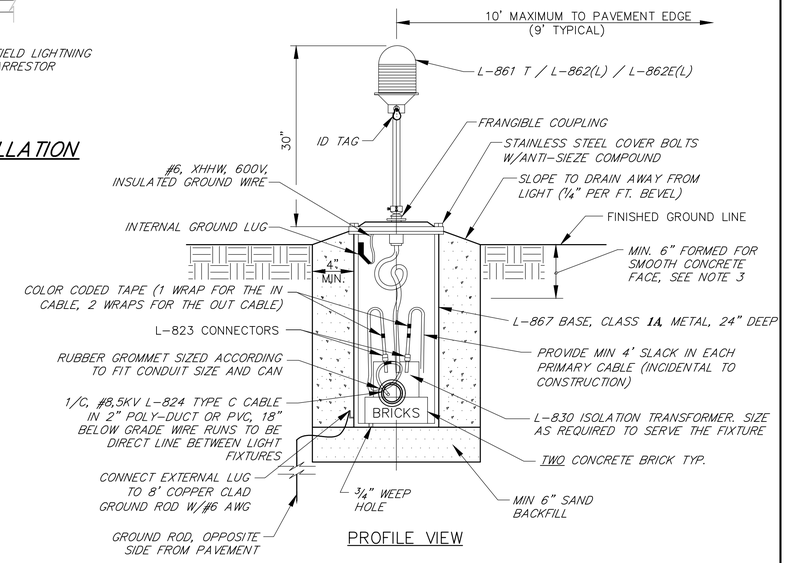


LIGHTNING ARRESTOR INSTALLATION DETAIL

NOT TO SCALE



PLAN VIEW



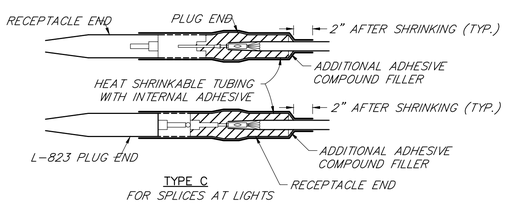
PROFILE VIEW

NOTE:

1. # OF CONDUIT OPENINGS & DIRECTIONALITY REQUIRED FOR EACH LIGHT BASE TO BE DETERMINED ON CASE BY CASE BASIS BY CONTRACTOR, UNLESS SPECIFICALLY NOTED ON THE PLANS, DETAILS & SPECIFICATIONS.
2. DO NOT CONNECT LIGHT GROUND TO COUNTERPOISE (LIGHTNING PROTECTION) SYSTEM.
3. CONCRETE SONOTUBE OR FORM MUST BE REMOVED TO 6" BELOW GRADE.

BASE MOUNTED LIGHT DETAIL

NOT TO SCALE



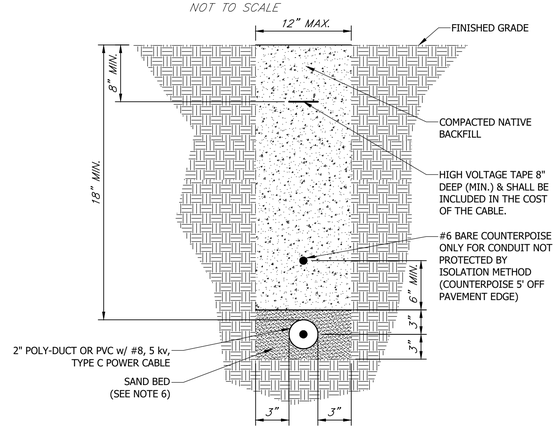
TYPE C
FOR SPLICES AT LIGHTS

NOTE:

1. INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE
2. ALL SPLICE TYPES SHALL BE TYPE "C" MADE AT POINTS WHERE THE CIRCUIT IS CONNECTED TO AN ISOLATION TRANSFORMER. NO INTERMEDIATE SPLICES SHALL BE ALLOWED.
2. CONSIDERED INCIDENTAL TO PLACING CABLE AND NOT PAID FOR DIRECTLY.
3. HEAT SHRINK TUBING SHALL APPLY A WATER TIGHT CONNECTION TO L-823 CONNECTION & CONDUCTOR CABLE.
4. ALL TYPE C SPLICES SHALL INCLUDE ONE COMPLETE WRAP OF RUBBER TAPE UNDERNEATH ONE COMPLETE WRAP OF PLASTIC TAPE, AT LEAST 2" BEYOND THE CONNECTION OF THE 2 RECEPTACLE ENDS.

CABLE SPLICE DETAILS

NOT TO SCALE



HIGH VOLTAGE POWER CABLE TRENCH DETAIL

CABLE TRENCH DETAIL

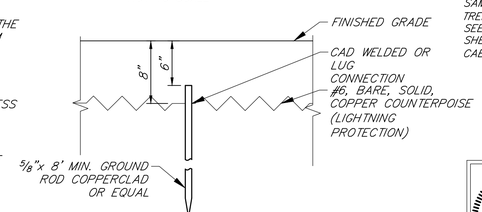
NOT TO SCALE

NOTES:

1) CONDUIT RUNS AND CABLE PATHS TO BE LOCATED AS SHOWN ON PLANS.
2) WHEN APPLICABLE, COMBINE MULTIPLE CABLES IN SINGLE PROPORTIONALLY WIDER TRENCH.
3) SEPARATE CONDUITS WITH CONDUCTORS OF EQUIVALENT VOLTAGE BY NOT LESS THAN 2" (OUTSIDE WALL TO OUTSIDE WALL) HORIZONTALLY AND NOT LESS THAN 6" VERTICALLY.
4) SEPARATE CONDUITS WITH CONDUCTORS OF DIFFERING VOLTAGE BY NOT LESS THAN 3" (OUTSIDE WALL TO OUTSIDE WALL) HORIZONTALLY AND NOT LESS THAN 6" VERTICALLY.
5) WHEN ROCK IS ENCOUNTERED REMOVE AND REPLACE AT LEAST 3" BELOW THE REQUIRED CONDUIT OR DUCT BANK DEPTH WITH SAND BACKFILL. NO ADDITIONAL PAYMENT.
6) SEPARATE CONDUITS FROM TRENCH WALL BY 3" MIN. (OUTSIDE WALL OF CONDUIT TO INSIDE WALL TRENCH)
7) CONTRACTOR SHALL INSTALL COUNTERPOISE IN SAME CABLE TRENCH IN AREAS WHERE CABLE TRENCH IS BEYOND 10' FROM PAVEMENT EDGE. SEE LIGHT AND CABLE INSTALLATION DETAIL. THIS SHEET FOR COUNTERPOISE INSTALLATION WHEN CABLE IS WITHIN 10' OF PAVEMENT EDGE.

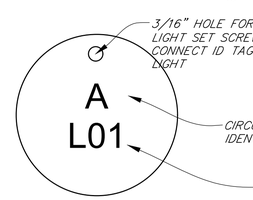
NOTE:

1) THE RESISTANCE TO GROUND OF THE COUNTERPOISE GROUNDING SYSTEM SHALL NOT EXCEED 25 OHMS.
2) COST OF GROUND RODS IS INCIDENTAL TO THE ASSOCIATED ITEMS REQUIRING GROUNDING UNLESS OTHERWISE SPECIFIED.
3) GROUND RODS SHALL BE SPACED NO MORE THAN 500' APART & AT THE ENDS OF COUNTERPOISE WIRE RUNS.
4) GROUND RODS AT LIGHT BASES SHALL NOT BE CONNECTED TO THE COUNTERPOISE (LIGHTNING PROTECTION).



GROUND ROD

NOT TO SCALE



NOTE:

1. AFFIX BRASS OR STAINLESS STEEL TAG TO FIXTURE FACING PAVEMENT WITH SET SCREW, APPLY "ANTI-SEEZ" OR APPROVED EQUAL TO SET SCREW.
2. NUMERALS SHALL BE 1/2" ENGRAVED FOR PERMANENT READABILITY.

ID TAG DETAIL

NOT TO SCALE

REVISIONS

NO.	REMARK	DATE	BY
1			
2			
3			
4			
5			
6			

STATE OF OHIO — JASON CLEARWATERS E-74745 — REGISTERED PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER — DATE 05/26/2021

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

Headquarters
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN. 46240-8302
TEL 317-713-4615
FAX 317-713-4616
www.BFSEngr.com

Butler Fairman & Seufert — CIVIL ENGINEERS

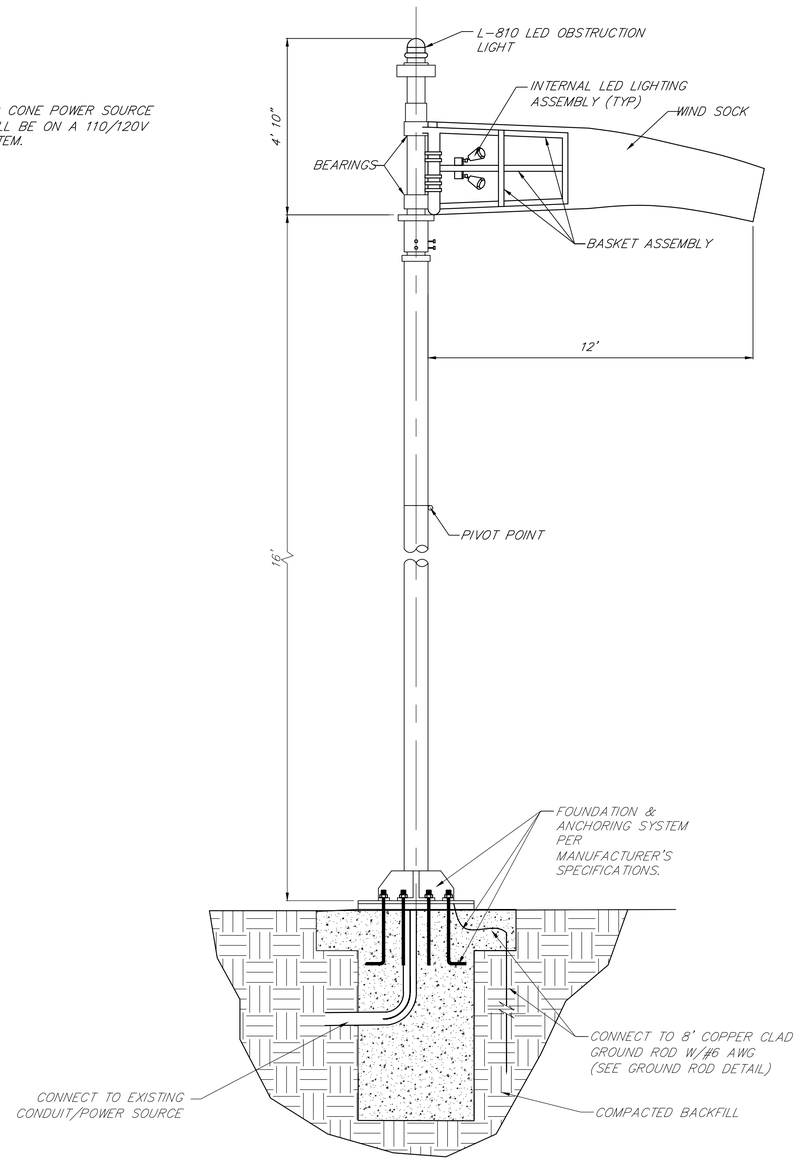
Branch Locations
FORT WAYNE 260-459-1532
LOUISVILLE 502-593-1996
LAFAYETTE 765-423-5602
MERRILLVILLE 219-769-2333
PLAINFIELD 317-839-3242

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
ELECTRICAL DETAILS
LIMA OHIO

HORIZONTAL SCALE
VERTICAL SCALE N/A
SHEET 25 OF 30
PROJECT AIP No. 3-39-046-023-2021
BFS NO. 6520.9802

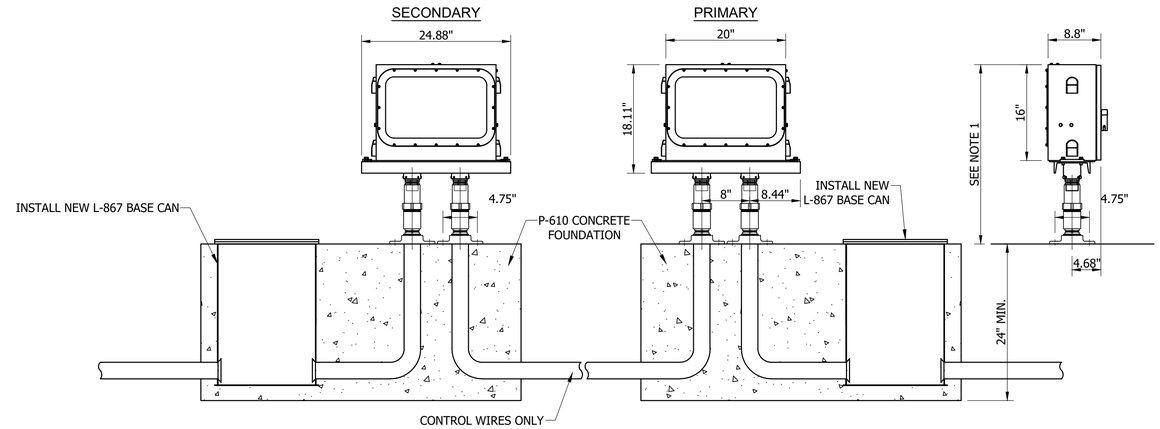
NOTE:

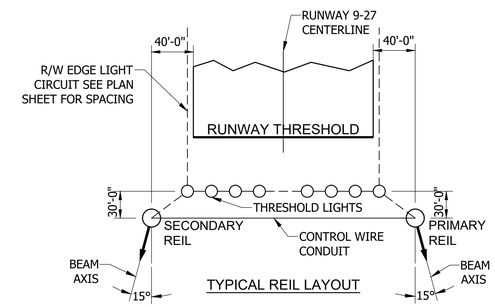
1. WIND CONE POWER SOURCE SHALL BE ON A 110/120V SYSTEM.



L-807 SIZE 2, STYLE 1-B - LED WIND CONE

NOT TO SCALE





NOTES:

1. THE OVERALL HEIGHT OF THE OPTICAL ASSEMBLY SHALL NOT EXCEED 34 INCHES.
2. BASE CANS NEEDED ONLY ON SERIES CIRCUIT POWERED REIL TO HOUSE ISOLATION TRANSFORMER.
3. LED L-849(L), STYLE A, REIL
4. 10° INCLINE ABOVE HORIZONTAL LIGHT PLACE
5. ELEVATION OF BOTH LIGHT UNITS SHALL BE WITHIN 3' OF THE HORIZONTAL PLANE THROUGH THE RUNWAY CENTERLINE.
6. FOUNDATION SIZE SHALL BE AT A MINIMUM, 2' BEYOND ALL FIXTURES TO PROTECT FROM MOWING OPERATIONS.

RUNWAY END IDENTIFIER LIGHTS SYSTEM (REIL) (LED)

NOT TO SCALE

REVISIONS

NO.	REMARK	DATE	BY
1			
2			
3			
4			
5			
6			

STATE OF OHIO — JASON CLEARWATERS E-74745 — REGISTERED PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: 05/26/2021
DESIGN ENGINEER — DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
ELECTRICAL DETAILS
LIMA OHIO

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MERRILLVILLE 219-769-2333
PLAINFIELD 317-839-3242

HORIZONTAL SCALE
VERTICAL SCALE N/A
SHEET 26 OF 30
PROJECT AIP No. 3-39-046-023-2021
BFS NO. 6520.9802

NOTES:

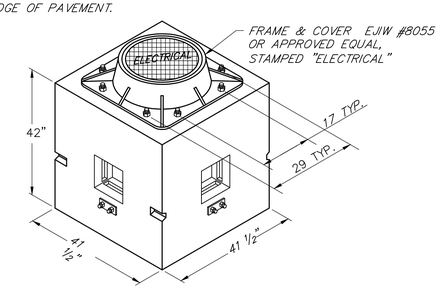
1. LOW AND HIGH VOLTAGE CIRCUITS SHALL NOT BE CO-MINGLED IN A DUCT OR HANDHOLE.
2. ALL CONDUITS ENTERING THE HAND-HOLE SYSTEM SHALL TERMINATE 2" INSIDE OF THE INNER WALL. ALL EDGES OF CUT CONDUITS SHALL BE CLEANED OF BURRS TO PREVENT SCOURING THE INSULATION OF THE CABLES.
3. PROVIDE A MIN. OF 6' SLACK LOOPS IN EACH WIRE IN HAND HOLES. THIS IS TO BE INCIDENTAL TO THE WIRE INSTALL PAY ITEM.
4. WIRE SLACK LOOPS SHALL BE IDENTIFIED WITH WIRE TIES & ID TAGS SIMILAR TO RUNWAY AND TAXIWAY EDGE LIGHTS PER CIRCUIT.
5. WALL MOUNTED WIRE RACKS SHALL BE INSTALLED TO ORGANIZE HANDHOLE.
6. HANDHOLE SHALL BE PLACED ON 6" SAND BACKFILL.

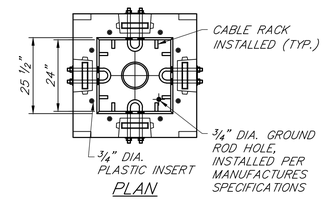
DIMENSIONS

	LENGTH	WIDTH	HEIGHT
	IN.	IN.	IN.
INSIDE	24	24	34
OUTSIDE	41 1/2	41 1/2	42
RECOMMENDED HOLE SIZE	66	66	–

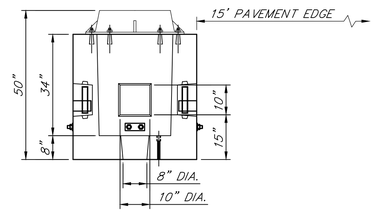
	THICKNESS	WEIGHT
	IN.	LBS.
WALL	8	4,220
FLOOR	8/8	–

* HANDHOLE TO BE LOCATED 15' FROM EDGE OF PAVEMENT.





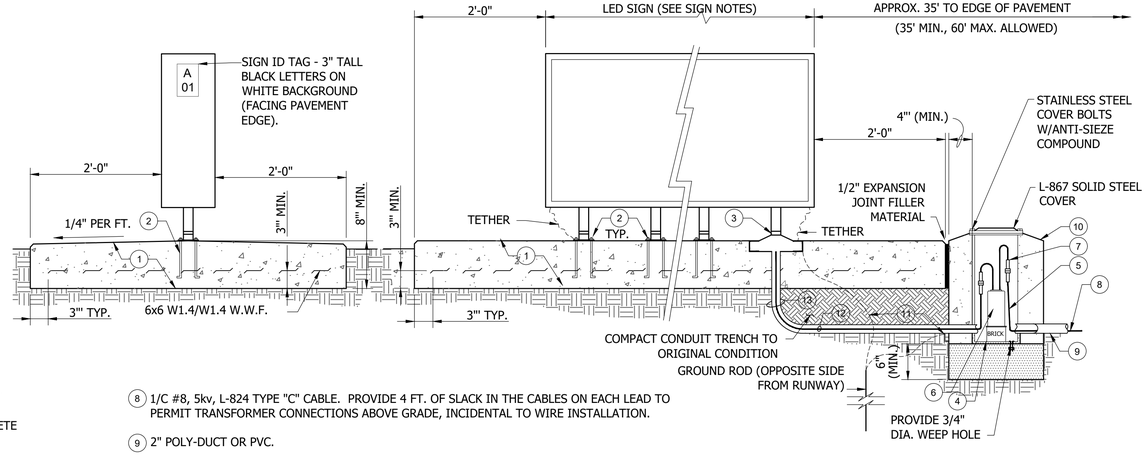
PLAN VIEW

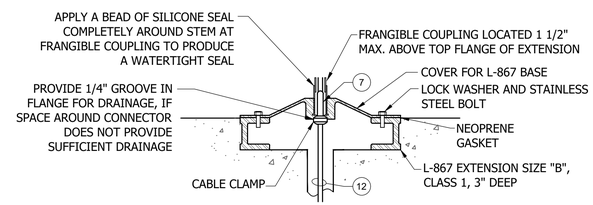


PROFILE VIEW

2' X 2' X 2'-10" AIRPORT ELECTRICAL HANDHOLE

NOT TO SCALE





DETAIL "A"

SIGN NOTES:

1. NUMBER AND SPACING OF LEGS AS PER MANUFACTURER'S REQUIREMENTS.
2. SEE ELECTRICAL PLANS FOR SIGN LEGEND AND LOCATIONS.
3. ALL SIGNS TO BE LED
4. SIGNS ON THE RUNWAY CIRCUIT SHALL BE SIZE 3 OR 4, STYLE 3, CLASS 2
5. SIGNS ON THE TAXIWAY CIRCUIT SHALL BE SIZE 3, STYLE 2, CLASS 2

KEY NOTES:

1. P-610 AIR ENTRAINED CONCRETE PAD. CHAMFER ALL EXPOSED EDGES 1/2"
2. STAINLESS STEEL HOOK-TYPE NUTS & BOLTS. EMBED 6" (MIN.) IN CONCRETE (TYPICAL). CONCRETE ANCHORS ARE ACCEPTABLE ALTERNATE.
3. FRANGIBLE COUPLING (SEE DETAIL 'A').
4. L-867 BASE CLASS 1A, 24" DEEP ON 6" (MIN.) SAND BACKFILL.
5. COLOR CODED TAPE FOR WIRE IDENTIFICATION, 1 WRAP FOR THE IN, 2 WRAPS FOR THE OUT CABLE
6. L-830 TRANSFORMER, SIZE AS REQ'D. BY SIGN MANUFACTURER.
7. L-823 CONNECTOR.
8. 1/C #8, 5kv, L-824 TYPE "C" CABLE. PROVIDE 4 FT. OF SLACK IN THE CABLES ON EACH LEAD TO PERMIT TRANSFORMER CONNECTIONS ABOVE GRADE, INCIDENTAL TO WIRE INSTALLATION.
9. 2" POLY-DUCT OR PVC.
10. P-610 AIR ENTRAINED CONCRETE BASE. PROVIDE 4" (MIN.) COVER AROUND OUTSIDE OF L-867 BASE. SLOPE TOP TO DRAIN AWAY FROM COVER.
11. CONNECT EXTERNAL LUG TO 8' COPPER CLAD GROUND ROD W/#6 AWG.
12. SPECIAL ORDER LENGTH OF SECONDARY EXTENSION WITH CLASS 'A' CONNECTOR (MALE & FEMALE).
13. 2" CONDUIT (NO EXPOSED CABLES ABOVE OR BELOW GRADE).

NEW LED GUIDANCE SIGN AND FOUNDATION DETAIL

NOT TO SCALE

REVISIONS

NO.	REMARK	DATE	BY
1			
2			
3			
4			
5			
6			

STATE OF OHIO — JASON CLEARWATERS E-74745 — REGISTERED PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER — DATE 05/26/2021

DESIGNED: BSE DRAWN: CPO

CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING

ELECTRICAL DETAILS

LIMA OHIO

Headquarters
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN. 46240-8302
TEL 317-713-4615
FAX 317-713-4616
www.BFSEngr.com

Butler Fairman & Seufert CIVIL ENGINEERS

Branch Locations
FORT WAYNE 260-459-1532
LOUISVILLE 502-593-1996
LAFAYETTE 765-423-5602
MERRILLVILLE 219-769-2333
PLAINFIELD 317-839-3242

HORIZONTAL SCALE

VERTICAL SCALE N/A

SHEET 27 OF 30

PROJECT AIP No. 3-39-046-023-2021

BFS NO. 6520.9802

\\bfsn1241\Jobs5\652000.9800\9802\ProDevelopment\Design\Drawings_Runway and Taxiway Lighting\6520-DETL-RNWY-ELEC.dwg Airport Plot:5/26/2021 8:00 AM Save:5/25/2021 5:23 PM

1. Existing underground facilities as shown on plans are approximate locations based on record drawings, and visual observations above ground. All underground facilities may not be shown on the plans. Contractor must field verify locations prior to beginning construction and protect unless otherwise noted. Any repairs due to damage by the contractor will be repaid for at the contractor's expense.

2. The electrical installation, as a minimum, must meet the NEC, FAA, and local regulations.

3. The contractor must ascertain that all lighting system components furnished by him (included FAA approved equipment) are compatible in all respects with each other and the remainder of the new/existing system. Any non-compatible components furnished by this contractor must be replaced by the contractor at no additional cost to the airport sponsor with a similar unit, approved by the engineer (different model or different manufacturer), that is compatible with the remainder of the airport lighting system.

4. In case the contractor selects to furnish and install airport lighting equipment requiring additional wiring, transformers, adapters, mountings, etc., to those shown on the drawings and/or listed in the specifications, any cost for these items must be incidental to the equipment cost.

5. The contractor-installed equipment (including FAA approved) must not generate any EMI in the existing and/or new communications, weather, air navigation, and ATC equipment. Any equipment generating such interference must be replaced by the contractor at no additional cost with equipment meeting the applicable specifications and not generating any interference.

6. When a specific type, style, class, etc., of FAA approved equipment is specified only that type, style, class, etc., will be acceptable, even though equipment of other types, style, class, etc., may be FAA approved.

7. Any and all instructions from the engineer to the contractor regarding changes in, or deviations from, the plans and specifications must be in writing with copies sent to the airport sponsor and the FAA field office (ADO/AFO). The contractor must not accept any verbal instructions from the engineer regarding any changes from the plans and specifications.

8. A minimum of three copies of instruction book must be supplied with each different type of equipment. The books describing a more sophisticated type of equipment, such as regulators, PAPI, REIL, etc., at a minimum must contain the following:

   a. A detailed description of the overall equipment and its individual components.

   b. Theory of operation including the function of each component.

   c. Installation instructions.

   d. Start-up instructions.

   e. Preventative maintenance requirements.

   f. Chart for troubleshooting.

   g. Complete power and control detailed wiring diagram(s), showing each conductor/connection/component "black" boxes are not acceptable. The diagram or the narrative must show voltages/currents/wave shapes at strategic locations to be used when checking and/or troubleshooting the equipment. When the equipment has several brightness steps, these parameters must be indicated for all the different modes.

   h. Parts list will include all major and minor components, such as resistors, diodes, etc. It must include a complete nomenclature of each component and, if applicable, the name of its manufacturer and the catalog number.

   i. Safety instructions.

9. Stencil all electrical equipment to identify function, circuit voltage and phase. Where the equipment contains fuses, also stencil the fuse or fuse link ampere rating. Where the equipment does not have sufficient stenciling area, the stenciling must be done on the wall next to the unit. The letters must be one inch (25 mm) high and painted in white or black paint to provide the highest contrast with the background.

10. Color code all phase wiring by the use of colored wire insulation and/or colored tape. Where tape is used, the wire insulation must be black. Black and red must be used for single-phase, three wire systems and black, red and blue must be used for three-phase systems. Neutral conductors, size No. 6 AWG or smaller, must be identified by a continuous white or natural conductors larger than No. 6 AWG must be identified either by a continuous white or natural gray outer finish along its entire length or by the use of white tape at its terminations and inside accessible wireways.

11. All branch circuit conductors connected to a particular phase must be identified with the same color. The color coding must extend to the point of utilization.

12. In control wiring the same color must be used throughout the system for the same function, such as 10%, 30%, 100% brightness control, etc.

13. All power and control circuit conductors must be copper; aluminum must not be accepted. This includes wire, cable, busses, terminals, switch/panel components, etc.

14. Low voltage (600 V) and high voltage (5000 V) conductors must be installed in separate wireways.

15. Neatly lace wiring in distribution panels, wireways, switches and pull/junction boxes.

16. The size & location of pull/junction cans shall be as shown on the plans & details.

17. A run of conduit between terminations at equipment enclosures, square ducts and pull/junction boxes, must not contain more than the equivalent of four quarter bends (360 degrees total), including those bends located immediately at the terminations. Cast, conduit type outlets must not be treated as pull/junction boxes.

18. Equipment cabinets must not be used as pull/junction boxes. Only wiring terminating at the equipment must be brought into these enclosures.

19. Splices and junction points must be permitted only at the termination points, no splices shall be allowed in junction boxes, ducts, manholes, or other areas.

20. Circuit breakers in power distribution panel(s) must be thermal-magnetic, molded case, permanent trip with 100-ampere, minimum, frame.

21. Dual lugs must be used where two wires, size No. 6 or larger, are to be connected to the same terminal.

22. All wall mounted equipment enclosures must be mounted on wooden mounting boards.

23. Wooden equipment mounting boards must be plywood, exterior type, 3/4 inch (19 mm) minimum thickness, both sides painted with one coat of primer and two coats of gray, latex paint.

24. All conduit within the electrical vault shall be flexible conduit.

25. Unless otherwise shown all exposed conduits must be run parallel to, or at right angles with, the lines of the structure.

26. All steel conduits, fittings, nuts, bolts, etc., must be galvanized.

27. Use conduit bushings at each conduit termination. Where No. 4 AWG or larger ungrounded wire is installed, use insulated bushings.

28. Use double lock nuts at each conduit termination.

29. Wrap all primary and secondary power transformer connections with sufficient layers of insulating tape and cover with insulating varnish for full value of cable insulation voltage.

30. Unless otherwise noted, all indoor single conductor control wiring must be No. 12 AWG.

31. Both ends of each control conductor must be terminated at a terminal block. The terminal block must be of proper rating and size for the function intended and they must be located in equipment enclosures or special terminal cabinets.

32. All control conductor terminators must be of the open-eye connector/screw type. Soldered, closed-eyed terminators, or terminators without connectors are not acceptable.

33. In terminal block cabinets the minimum spacing between parallel terminal blocks must be 6 inches (152 mm). The minimum spacing between terminal block sides/ends and cabinet sides/bottom/top must be 5 inches (127 mm). The minimum spacing will be increased as required by the number of conductors. Additional spacing must be provided at conductor entrances.

34. Both ends of all control conductors must be identified as to the circuit, terminal, block, and terminal number. Only stick-on labels must be used.

35. A separate and continuous neutral conductor must be installed and connected for each breaker circuit in the power panel(s) from the neutral bar to each power/control circuit.

36. The following must apply to relay/contactor panel/enclosures:

   a. All components must be mounted in dust proof enclosures with vertically hinged covers.

   b. The enclosures must have ample space for the circuit components, terminal blocks, and incoming internal wiring.

   c. All incoming/outgoing wiring must be terminated at terminal blocks.

   d. Each terminal on terminal blocks and on circuit components must be clearly identified.

   e. All control conductor terminations must be of the open-eye connector/screw type. Soldered, closed-eye connectors, or terminations without connectors are not acceptable.

   f. When the enclosure cover is opened, all circuit components, wiring, and terminals must be exposed and accessible without any removal of any panels, covers, etc., except those covering high voltage components.

   g. Access to, or removal of, a circuit component or terminal block will not require the removal of any other circuit component or terminal block.

   h. Each circuit component must be clearly identified indicating its corresponding number shown on the drawing and its function.

   i. A complete wiring diagram (not a schematic diagram) must be mounted on the inside of the cover. The diagram must represent each conductor by a separate line.

   j. The diagram must identify each circuit component and numbering and color of each internal conductor and terminal.

   k. All wiring must be neatly trained and laced.

   l. Minimum wire size must be No. 12 AWG.

37. No components of primary circuit such as cable, connectors and transformers must be brought above ground at edge lights, signs, REIL, etc.

38. The joints of the L-823 primary connectors must be wrapped with one layer of rubber or synthetic rubber tape and one layer of plastic tape, one half lapped, extending at least 1-1/2 inches (38 mm) on each side of the joint.

39. There must be no splices in the secondary cable(s) within the stems of a runway/taxiway edge/threshold lighting fixtures and the wireways leading to runway/taxiway signs and PAPI/REIL equipment.

40. Electrical insulating grease must be applied within the L-823, secondary, two conductor connectors to prevent water entrance. These connectors must not be taped.

41. Direction of primary cables must follow in accordance with light fixture numbering system and layout diagrams as shown on plans and must be identified by one stripe of tape for entering cable and two stripes of tape for exiting cable. Color of tape applied at each light fixture is dependent upon the circuit. Circuit coding schedule for color coding shall be submitted to the airport at the completion of the project.

42. Base-mounted frangible couplings must not have weep holes to the outside. Plugged up holes must not be acceptable. It must have a 1/4" (6 mm) diameter minimum or equivalent opening for drainage from the space around the secondary connector into the L-867 base.

43. The elevation of the frangible coupling groove must not exceed 1-1/2" (38 mm) above the edge of the cover in case of base-mounted couplings, or the top of the stake in case of stake-mounted couplings.

44. Where the frangible coupling is not an integral part of the light fixture stem or mounting leg, a bead of silicon seal must be applied completely around the light stem or wireway at frangible coupling to provide a watertight seal.

45. The tolerance for the height of runway/taxiway edge lights must be ±1 inch (25 mm). In case of stake-mounted lights, the specified lighting fixture height must be measured between the top of the stake and the top of the lens. In case of base-mounted light, the specified lighting fixture height must be measured between the top of the base flange and the top of the lens, thus including the base cover, the frangible coupling, the stem, the lamp housing and the lens.

46. The tolerance for the lateral spacing (light lane to runway/taxiway centerline) of runway/taxiway edge lights must be ±1 inch (25 mm). This also applies at intersections to lateral spacing between lights of a runway/taxiway and the intersecting runway/taxiway.

47. Entrances into L-867 bases must be plugged from the inside with duct seal.

48. Galvanized/painted equipment/component surfaces must not be damaged by drilling, filing, etc. Drain holes in metal transformer housings must be made before galvanized.

49. Edge light numbering tags must be facing the pavement.

50. Cable & duct markers must be pre-cast concrete of the size shown. Letters/numbers/arrows for the legend to be impressed into the tops of the markers must be pre-assembled and secured in the mold before the concrete is poured. Legend inscribed by hand in wet concrete must not be acceptable.

51. All underground cable runs must be identified by cable markers at 200 feet (61 m) maximum spacing, with an additional marker at each change of direction of the cable run. Cable markers must be installed immediately above the cable.

52. The cable & duct markers must identify the circuits which the cables belong to, such as RWY 10-28.

53. Locations of ends of all underground ducts must be identified by duct markers.

54. The preferred mounting method of runway and taxiway signs is by the use of single row of legs. However, two rows will be acceptable.

55. All power and control cables in man/hand holes must be tagged. Use embossed copper strips attached at both ends to the cable by the use of plastic straps. Minimum of two tags must be provided on each cable in a man/hand hole - one at the cable entrance and one at the cable exit.

56. Apply "Never-Seez" or approved equal to all threaded connections.

57. There must be no splices between the isolation transformers. L-823 connectors are allowed at transformer connections only, unless otherwise shown.

58. Concrete used for slabs, footing, backfill around transformer housings, markers, etc., must be 4000 PSI, min., air-entrained, P-610.

59. Ground all non-current-carrying metal parts of electrical equipment by using No. 6 AWG bare copper wire to be run inside cabinets and in conduits together with other wires. Where this is not feasible, run the exposed grounding wire parallel or at right angles to the building line and secure it at least every 24 inches (610 mm) and within 6 inches (152 mm) from bend or junction. The exposed wire may be No. 6 AWG if it is not subjected to physical abuse, otherwise No. 4 AWG must be used.

60. All ground connections to ground rods, busses, panels, etc., must be made with pressure type solderless lugs and ground clamps. Soldered or bolt and washer type connections are not acceptable. Clean all metal surfaces before making ground connections.

61. The resistance to ground of the vault grounding system with the commercial power line neutral disconnected must not exceed 10 ohms.

62. The resistance to ground of the counterpoise system, or at isolation locations, such as airport beacon must not exceed 25 ohms.

63. All electrical grounding wires, material and required splices to be considered incidental to other pay items and not paid for directly.

64. Existing edge lights, signs, and reflectors removed under this contract shall be salvaged for future use. This work shall be coordinated with airport personnel, for proper storage area.

65. Where edge lights are removed, the circuit must be temporarily reconnected until permanent connection is made with proposed system. Cost is to be included with other pay items, no direct payment shall be made for this work.

66. Anytime an existing or proposed edge light circuit is modified, damaged/repaired, or additional lights and/or guidance signs added to the circuit that circuit must be activated and remain at high intensity for a minimum of 2 hours prior to the contractor leaving the job site.

REVISIONS

NO.	REMARK	DATE	BY
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STATE OF OHIO
JASON CLEARWATERS
E-74745
REGISTERED
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Jason R. Clearwaters 05/26/2021
DESIGN ENGINEER DATE

DESIGNED: BSE DRAWN: CPO
CHECKED: JRC CHECKED: JRC

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
ELECTRICAL NOTES
LIMA OHIO

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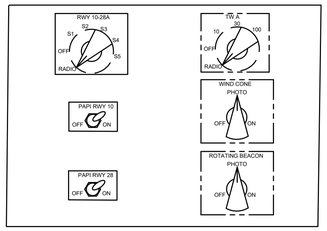
LAFAYETTE 765-423-5602
MERRILLVILLE 219-769-2333
PLAINFIELD 317-839-3242

HORIZONTAL SCALE
VERTICAL SCALE N/A
SHEET 28 OF 30
PROJECT AIP No. 3-39-046-023-2021
BFS NO. 6520.9802

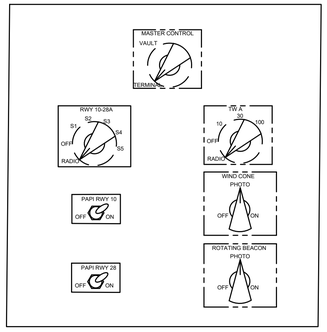
TERMINAL LIGHTING CONTROL PANEL

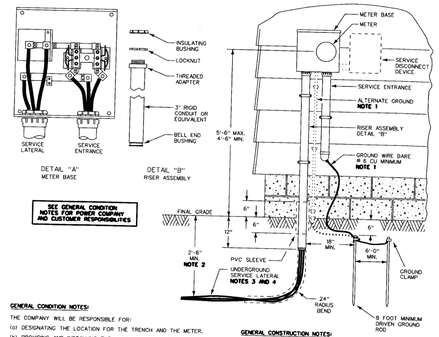
SCALE: NONE



VAULT LIGHTING CONTROL PANEL

SCALE: NONE





GENERAL CONDITION NOTES:

THE COMPANY WILL BE RESPONSIBLE FOR:

(a) DESIGNATING THE LOCATION FOR THE TRENCH AND THE METER.

(b) PROVIDING AND INSTALLING THE UNDERGROUND SERVICE LATERAL IN SERVICE TERRITORIES WHERE REQUIRED.

(c) PROVIDING THE METER BASE TO THE CUSTOMER WHERE REQUIRED.

(d) INSTALLING AND REMOVING THE METER.

(e) MAKING THE CONNECTIONS IN THE METER BASE FOR THE UNDERGROUND SERVICE LATERAL (GETAI A).

THE CUSTOMER WILL BE RESPONSIBLE FOR:

(a) PROVIDING AND INSTALLING THE RISER ASSEMBLY. RISER ASSEMBLY TO CONSIST OF AN INSULATING BUSHING, LOCKNUT, THREADED ADAPTER, GALVANIZED OR SCHEDULE 80 PVC CONDUIT WITH BELL END AND CLAMP.

(b) PROVIDING AND INSTALLING THE GROUND ROD, GROUND CLAMP AND GROUND WIRE.

(c) PROVIDING, INSTALLING AND MAKING METER CONNECTIONS FOR THE SERVICE ENTRANCE CABLE.

(d) SECURELY MOUNT THE METER BASE IN A PLUMB POSITION.

(e) INSTALLING A PVC SLEEVE WITH AN INNER DIAMETER 1½ INCH LARGER THAN THE RISER ASSEMBLY. THIS PVC SLEEVE IS TO BE INSTALLED WHEN CONCRETE OR ASPHALT IS TO BE INSTALLED AROUND THE RISER ASSEMBLY.

(f) INSTALLATION OF EQUIPMENT TO BE IN ACCORDANCE WITH POWER COMPANY STANDARDS AND/OR LOCAL ORDINANCES OR CODES.

GENERAL CONSTRUCTION NOTES:

1. CUSTOMER GROUNDING SHALL BE IN ACCORDANCE WITH NEC AND LOCAL REGULATIONS. IN ARKANSAS, OKLAHOMA, LOUISIANA, AND TEXAS, THE GROUND WIRE SHALL BE CONNECTED IN THE METER SOCKET IN CONDUIT WHERE REQUIRED. THE CUSTOMER SHALL HAVE A MINIMUM OF 2 DRIVEN GROUND RODS AT LEAST 6 FEET APART.
2. BURIAL DEPTH IS THE DISTANCE BETWEEN FINAL GRADE AND TOP OF THE BURIED CABLE OR CONDUIT. THE POWER COMPANY SHALL SPECIFY THE REQUIRED BURIAL DEPTH TO CONFORM TO LOCAL CODES. IN ARKANSAS, THE BURIAL DEPTH SHALL NOT BE LESS THAN 2'-6". IN ARKANSAS, OKLAHOMA, LOUISIANA, AND TEXAS SHALL NOT BE LESS THAN 3'.
3. IF THE CUSTOMER DOES THE TRENCHING, THE TRENCH IS TO EXTEND NO CLOSER TO THE POWER COMPANY TRANSFORMER OR PEDESTAL THAN A DISTANCE SPECIFIED BY THE POWER COMPANY. CUSTOMER TO DETERMINE LOCATION OF ALL UTILITIES BEFORE TRENCHING.
4. ADDITIONAL PVC CONDUIT AND A 24 INCH BEND MAY BE INSTALLED IN ORDER TO EXTEND CONDUIT BEYOND ANY GROUND LEVEL OBSTRUCTION (PATIO, DECK, DRIVEWAY, ETC.) IF ADDITIONAL PVC CONDUIT IS REQUIRED TO CLEAR OBSTRUCTIONS, REFER TO POWER COMPANY FOR APPROVED PVC USAGE.
5. METER SOCKET USED ON COMMERCIAL CUSTOMER SHALL HAVE A LEVER OPERATED JAW RELEASE BY-PASS FOR THREE PHASE AND SINGLE PHASE.

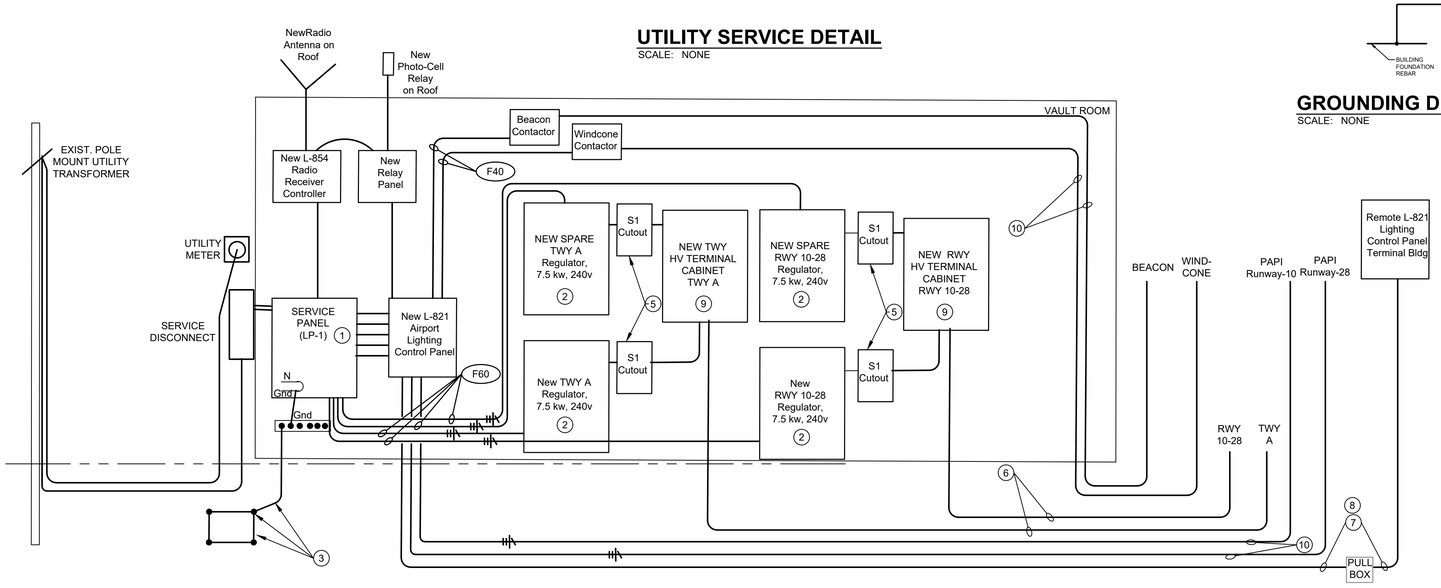
SINGLE PHASE UNDERGROUND SERVICE METER INSTALLATION
FIGURE 8

DEC 31, 2018

1. UNDERGROUND CONDUIT DEPTH IS MINIMUM 34" TO GRADE.
2. ALL UNDERGROUND SERVICE REQUIRE AN INSPECTION, BY STATE ELECTRICAL INSPECTOR OR LOCAL ELECTRICAL INSPECTOR (CITY, COUNTY ETC.)
3. CONTRACTOR SHALL PROVIDE ADDITIONAL 35' OF EXTRA WIRE PER RISER TO UP POLE, WHICH WILL BE INSTALLED BY AEP.
4. CONTRACTOR SHALL TRENCH 2' FROM EXISTING POLE.
5. UNDERGROUND 3" CONDUIT WILL BE PVC SCHEDULE 80, ABOVE GROUND EXTERIOR WILL BE GRC.
6. METER SOCKET FOR 200A, 1PH OH/UG WILL BE TALON#40405-02GP (UL) OR UTILITY COMPANY APPROVED. 200A, SOCKETS SHALL HAVE GOOD QUALITY JAW RELEASE MANUAL BYPASS, 100% RATED.

UTILITY SERVICE DETAIL

SCALE: NONE



POWER DIAGRAM

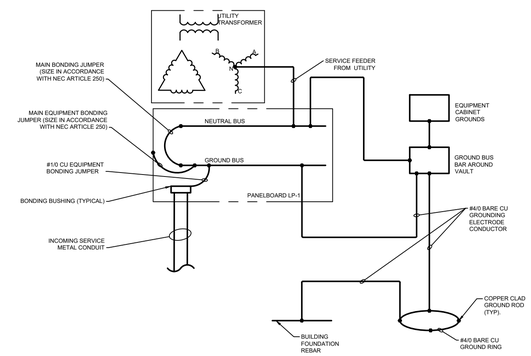
SCALE: NONE

PLAN NOTES:

1. NEW PANEL LP-1, PROVIDE BONDING JUMPER BETWEEN NEUTRAL AND GROUND.
2. PROVIDE CONSTANT CURRENT REGULATOR 7.5 KVA.
3. COPPER CLAD GROUND ROD, 3/4"x10'L, DRIVE IN GROUND AND CONNECT WITH 4\0 AWG COPPER GROUND CONDUCTOR, AND BOND TO TRANSFORMER GROUND, REFERENCE GROUND BUS & PANEL LP-1. USE CADWELD AT UNDERGROUND CONNECTION AND MECHANICAL CONNECTION AT TRANSFORMER AND PANEL.
4. PROVIDE 3"C, (3)#4/0 AWG+1#1/0 GND FROM UTILITY TRANSFORMER TO SERVICE DISCONNECT.
5. PROVIDE (S1) SERIES CUTOUTS, MEETING FAA AC150/5340-30A (CURRENT ADDITION), THREE POSITION, LOCKING WITH UNIQUE KEY OPTION, 30A CURRENT CAPACITY, 5000 VOLTS, COMPATIBLE WITH CONSTANT CURRENT REGULATOR. PROVIDE WITH TWO DIFFERENT COLORED GROUNDING COVERS FOR GROUNDING EITHER SIDE OF THE CCR OUTPUT. ADB 1475.92.030-1 OR APPROVED EQUAL AND HV CABLE FROM CUTOUT TO AIRFIELD.
6. HIGH VOLTAGE FEEDER IN 3"C, (3)#8, 5KV GND FROM REGULATOR TO RUNWAY AND TAXIWAY AIRFIELD LIGHTS..
7. PROVIDE REMOTE LIGHTING CONTROL PANEL IN TERMINAL BUILDING. REUSE EXISTING QUAZITE BOX AND CONDUIT FROM BOX TO TERMINAL BUILDING. MODIFY AND EXTEND EXISTING 4" PVC CONDUIT FROM EXISTING VAULT TO NEW VAULT.
8. PROVIDE (35) CONDUCTORS, #12 AWG CONTROL CABLES BETWEEN TERMINAL BUILDING AND NEW ELECTRIC VAULT. IINSTALL LOW CAPACITANCE CABLE IN NEW AND EXISTING CONDUIT. CONTRACTOR SHALL PROVIDE MANUFACTURER'S CABLE CAPACITANCE DATA FOR APPROVAL PRIOR TO INSTALLATION.
9. PROVIDE NEMA-1 REGULATOR TERMINAL CABINET WITH HV CONNECTOR (TERMINAL) FOR EACH REGULATOR(S) AND LOAD SIDE (OUTPUT) AND JUMPER CABLES.
10. 240 VOLT FEEDERS FROM VAULT TO AIRFIELD:
    a. PAPI RW 28: 3/C#12 AWG.
    b. PAPI RW 10: 3/C #8 AWG.
    c. WINDCONE: 3/C #12 AWG.
    d. BEACON" 3/C #12 AWG.

LIGHTING CONTROL PANEL NOTES:

1. SWITCH POSITIONS SHOWN SHALL BE THE DEFAULT OPERATIONAL POSITION.
2. VAULT EQUIPMENT AND NAVAIDS DEPICTED IN THE PLAN SHEETS SHALL BE COORDINATED TO OPERATE CIRCUITS AS DIRECTED IN THE PLANS AND SPECIFICTIONS.
3. TERMINAL BUILDING LIGHTING CONTROL PANELS AND VAULT BUILDING LIGHTING CONTROL PANELS SHALL BOTH OPERATE EQUIPMENT SHOWN. PROVIDE CONNECTIONS AND INTERFACES AS REQUIRED.
4. THE LIGHTING CONTROL PANEL FOR THE TERMINAL BUILDING SHALL INCLUDE ALL REQUIRED CONDUIT(S), CONTROL WIRING(S), PATCHING AND PAINTING, EXCAVATION, LOBOR, EQUIPMENT AND MISCELLANEOUS ITEMS REQUIRED FOR INSTALLATION AND SHALL INCLUDE IN L-109 PAY ITEM.



GROUNDING DETAIL

SCALE: NONE

GENERAL NOTES:

1. COORDINATE OUTAGE WITH OWNER AND PROVIDE (60) DAYS NOTICE OF PROPOSED OUTAGE FOR NOTIFICATION OF THE AIRPORT USERS.
2. COORDINATE ELECTRICAL SERVICE REQUIREMENT WITH LOCAL SERVICE PROVIDER (AEP).
3. ELECTRICAL VAULT EQUIPMENT LUMP SUM BID PRICE TO INCLUDE ELECTRICAL WORK FROM ELECTRICAL METER, INSIDE THE VAULT AND TO THE 1ST HAND HOLES LOCATED JUST OUTSIDE THE VAULT BUILDING. THIS SHALL INCLUDE ALL CONNECTIONS, LABOR, EQUIPMENT COMPLETE AND IN SERVICE TO ENGINEERS ACCEPTANCE.
4. THE ELECTRICAL VAULT BUILDING INSTALLED UNDER THE LUMP SUM PAY ITEM SHALL INCLUDE THE BUILDING, FOUNDATION, MISC. FURNITURE AND ALL NECESSARY HARDWARE TO COMPLETE THE BUILDING INSTALL.
5. ELECTRICAL VAULT BUILDING SHALL BE A PRE-CAST CONCRETE TYPE BUILDING.
6. THE FLOOR SLAB AND FOUNDATION SHALL BE PER MANUFACTURER'S RECOMMENDATIONS A DESIGN RELEASE BY CONTRACTOR SHALL BE REQUIRED FOR THIS WORK.
7. ALL ELECTRICAL WORK SHALL BE INSTALLED TO MEET OR EXCEED THE PROVISIONS OF THE CURRENT N.E.C (NFPA-70) AND STATE AND LOCAL REGULATIONS.
8. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS OF THE MANUFACTURER.
9. WHERE ELECTRICAL DRAWINGS INDICATE THE WORK INTENDED AND THE FUNCTIONS TO BE PERFORMED, THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT, MATERIAL, AND LABOR TO COMPLETE THE INSTALLATION WORK, AND ACCOMPLISH ALL INDICATED FUNCTIONS OF THE DESIGN INTENT.
10. SERVICE ENTRANCE EQUIPMENT FOR POWER SERVICE SHALL BE IN ACCORDANCE WITH REGULATIONS OF LOCAL UTILITY PROVIDING SERVICE.
11. INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXISTING UNDERGROUND UTILITY PRIOR TO DIGGING.
12. ALL AREA DISTURBED BY TRENCHING, STORING, CABLE LAYING, PAD CONSTRUCTION AND OTHER WORK SHALL BE RESTORED TO THE ORIGINAL CONDITION OR BETTER.
13. THE FINISH FLOOR OF THE NEW ELECTRICAL VAULT BUILDING SHALL BE AT OR ABOVE THE FOUNDATION OF THE EXISTING BUILDING. ANY FILL AND GRADING REQUIRED IS INCIDENTAL TO THE LUMP SUM COST OF THE BUILDING.

FEEDER AND BRANCH CIRCUIT SIZING TABLE FOR THHN/THWN-2, 600V, 75 degree C, COPPER CONDUCTORS (NEC-Table-310.15(B)(16)) & (NEC-Table-1, Chapter-9)

OCPD SIZE (AMP)	SETS	CONDUCTOR SIZE PER CONDUIT		TAG	2 & 3 WIRE + GROUND			TAG	4 WIRE + GROUND		
		PH & N	GND		EMT	RMC	PVC		EMT	RMC	PVC
20	1	12	12	F20	3/4"	3/4"	3/4"	F20N	3/4"	3/4"	3/4"
30	1	10	10	F30	3/4"	3/4"	3/4"	F30N	3/4"	3/4"	3/4"
40	1	8	10	F40	3/4"	3/4"	3/4"	F40N	3/4"	3/4"	1"
50	1	8	10	F50	3/4"	3/4"	1"	F50N	1"	1"	1"
60	1	6	10	F60	1"	1	1"	F60N	1-1/4"	1-1/4"	1-1/4"
Service Circuit Sizing TABLE For XHHW-2, 600V, 90 degree C, Cooper Condutors (Exterior and Under slab will be PVC 80, Interior will be RMC)											
200	1	4/0	1/0	F200U			3"				

PANELBOARD SCHEDULE

Panel Name:	LP-1	New	X	Main:	[MB]	Location:	ELECTRICAL VAULT	Project	LIMA- Allen Co Airport
SPD	[YES]	Exist		Amp	200 A	Mounting:	WALL/SURFACE	Project No.	21-029
Voltage:	[120/240]V			Nema	[12]	Kaic Rating:	25 KA	Date:	5.17.2021
Phase/Wire:	1ph/3w	Feed From:		UTILITY TRANSFORMER				Applied Engineering Services (317-810-7878)	

Ckt	Description	Breaker Pole	Breaker Trip	Load In KVA LTS	RECP	MISC	"A"	"B"	Load In KVA LTS	RECP	MISC	Breaker Pole	Breaker Trip	Description	Ckt
1	Vault lighting (L1,L2)	1	20	0.1			1.1				1.0	1	20	Radio Control panel	2
3	EF Fan & Damper	1	20			1.0		1.1	0.1			1	20	Vault receptacle	4
5	Exterior Recept. Vault	1	20		0.4		1.4		1.0			1	20	Lighting control Panel	6
7	Runway 10-28 Lighting (7.5 kw CCR)	2	50	3.8				7.5			3.8	2	50	Taxiway 'A' Lighting (7.5 kw CCR)	8
9				3.8			7.5				3.8				10
11	Runway10-28 Backup (7.5 kw CCR)	2	50	3.8				7.5			3.8	2	50	Taxiway 'A' Backup (7.5 kw CCR)	12
13				3.8			7.5				3.8				14
15	Wind Cone	1	20					1.9	1.9			2	30	Vault Space Heater	16
17	Beacon	1	30				1.9		1.9						18
19	Runway 10 PAPI	2	20	0.8				0.8				1	20	Spare	20
21				0.8			0.8					1	20	Spare	22
23	Runway 28 PAPI	2	20	0.8				0.8				1	20	Spare	24
25				0.8			0.8					1	20	Spare	26
27	Spare	1	20					0.0				2	30	SPD	28
29	Spare	1	20				0.0								30
							21	20							

	Connected KVA	Demand Factor	Demand KVA	
Lighting Load (KVA)	23	1.0	23	
Receptacle Load (KVA)	0	NEC	0	
Misc Load (KVA)	17	0.8	14	
Total Load (KVA)	41	DF	37	155.00

Notes:
1. Sevice Rated Panelboard

LIGHTING FIXTURE SCHEDULE

5.4.2021

TYPE	TYPE	DESCRIPTION	MOUNTING	LAMPS TYPE	COLOR	DELIVERED LUMENS	Lumens/ Watts	VOLT	MANUFACTURERS	WATT	NOTES
L1	FIBERGLASS -4'	INDUSTRIAL LIGHT: FIBER GLASS HOUSING WITH F1 RATING, GASKETED, IMPACT MODIFIED ACRYLIC LENS, STAINLESS HARDWERE, BAKED WHITE ENAMEL FINISH, DAMP LOCATION COMPLAINCE, 25 DEGREE C.	SURFACE OR CABLE HUNG	LED	4000 K, CRI >80	5000	>110	120	HUBBELL LXEM4-RFA-EDU, METALUX VT3 SERIES, LITHONIA FEM SERIES, FAIL-SAFE EQUAL, FLEX LIGHTING EQUAL,	52	1,2,3,4
L2	WALL MOUNTED EXTERIOR EMERGENCY LIGHT	DIE CAST ALUMINUM HOUSING, ELECTRONIC LED DRIVER, SUITABLE FOR DIRECT CONNECTION FROM SURFACE MOUNTED CONDUIT, BLACK FINISH, AND WET LOCATION LABEL.	WALL	LED	4000 K, >70 CRI	1400 LUMENS	>95	120	LUMARK XTOR1B-WBK-PC1, COMPUS EQUAL, ISOLITE EQUAL, LITHONIA EQUAL	12	1,2,3,4

NOTES:
1. The manufacturer model # are shown for series/reference, supplier shall provide fixture to comply with description, lumens and lumens per watts as minimum.
2. Maximum 10% THD Electronic Driver.
3. All fixture shall be painted after fabrication where applicable.
4. The manufacturer model # are shown for series/reference, supplier shall provide fixture to comply with description, lumens and lumens per watts as minimum.

REVISIONS

NO.	REMARK	DATE	BY
1			
2			
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5575 Castle Creek Parkway N Drive, Suite 300 • Indianapolis, Indiana 46250
IN: 317.810.7878 • Fax: 317.810.7879 • www.appliedes.com

STATE OF OHIO — RALPH J. POWER — 80284 — REGISTERED PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Ralph Power — DESIGN ENGINEER — 05/20/2021 — DATE

DESIGNED: RAP DRAWN: RAP
CHECKED: ML CHECKED:

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
ELECTRICAL DETAILS AND SCHEMATIC
LIMA OHIO

Headquarters
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN. 46240–8302
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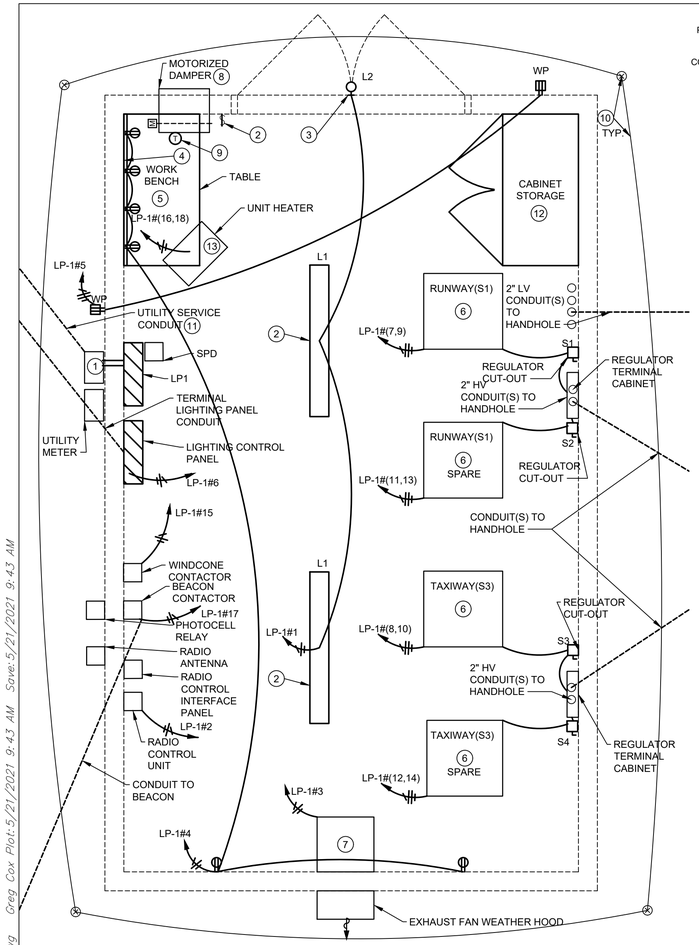
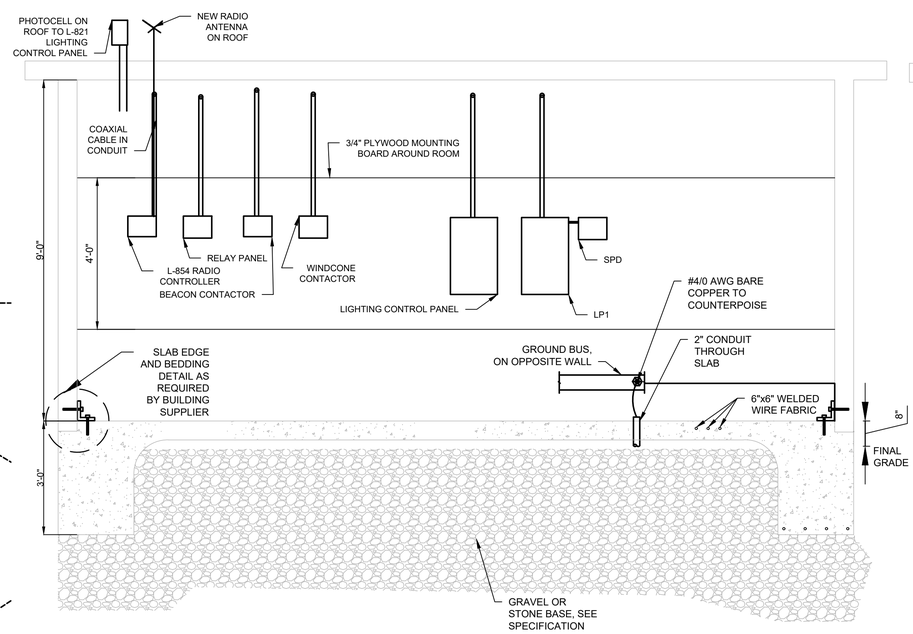
LAFAYETTE 765–423–5602
MERRILLVILLE 219–769–2333
PLAINFIELD 317–839–3242

HORIZONTAL SCALE
VERTICAL SCALE
SHEET 29 OF 30
PROJECT
AIP NO. XXXX
BFS NO. 6520.9802



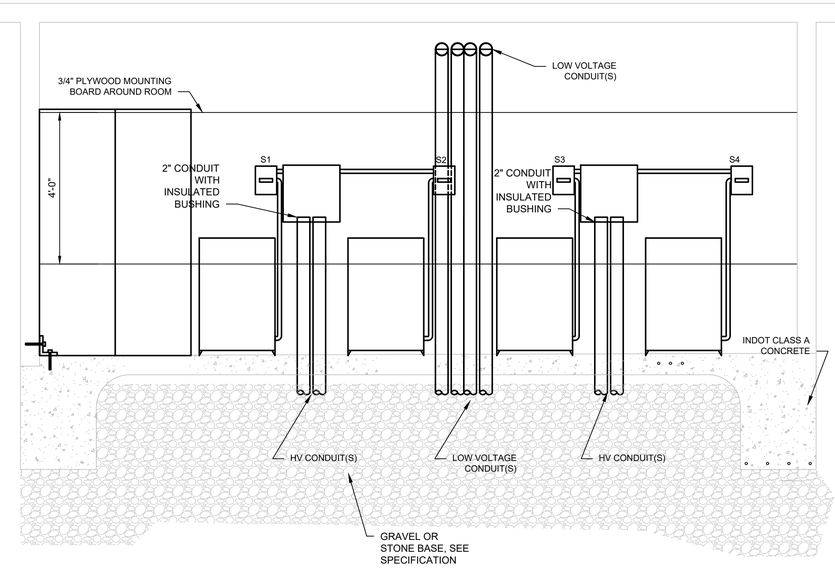
ELECTRICAL VAULT PLAN

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



WEST WALL ELEVATION

SCALE: NONE

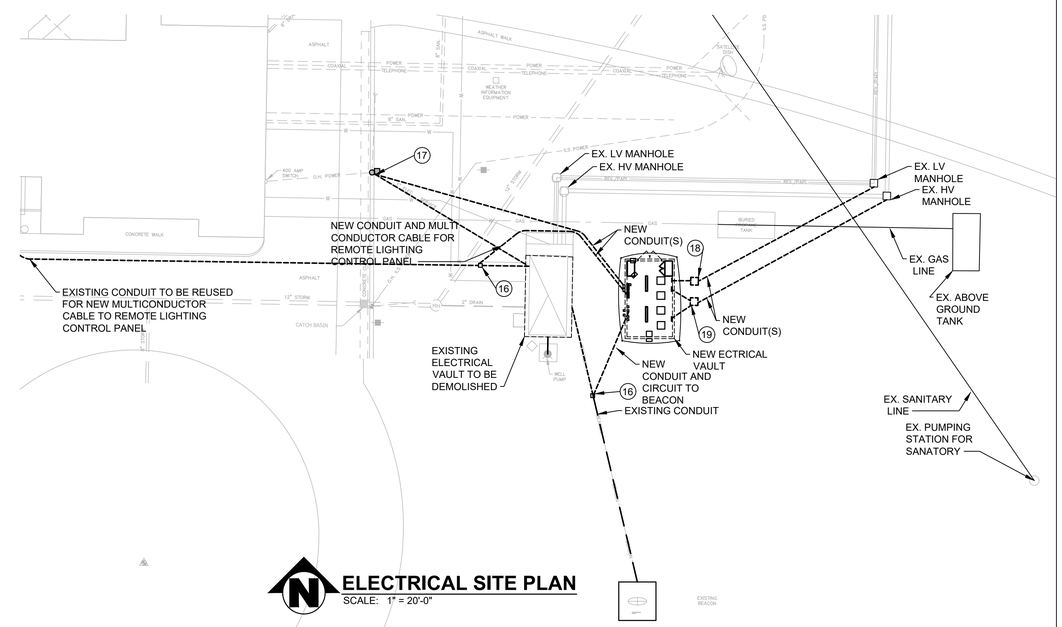


EAST WALL ELEVATION

SCALE: NONE

PLAN NOTES:

1. PROVIDE 200A, 2P, 240V SERVICE RATED FUSE SWITCH IN NEMA 3R ENCLOSURE.
2. LIGHTS, SURFACE MOUNT ON CEILING AND CONNECT TO 20A,1P, 120VAC CIRCUIT FROM PANEL LP1 VIA LIGHT SWITCH(SENSOR). MOUNT SWITCH AT 48" AFF.
3. EXTERIOR MOUNT LIGHTS, MOUNT AT 7'-6" AFF AND CONNECT TO LIGHTING CIRCUIT.
4. 3' LONG PLUGMOLD, HUBBELL HBLAU24GB306 SERIES (OR APPROVED EQUAL) WITH 20A,1P NEMA 5-20 RECEPTACLES AT 6" ON CENTER AND CONNECT TO CIRCUIT SHOWN. MOUNT BOTTOM AT 40" AFF.
5. PROVIDE ADJUSTABLE LEG 48"W X 24"D X 34"H WORKBENCH WITH STEEL TOP SURFACE AND LOWER SHELF, EDSAL WMT4824 OR APPROVAL EQUAL.
6. PROVIDE CONSTANT CURRENT REGULATOR, 7.5KVA.
7. PROVIDE DIRECT-DRIVE SIDEWALL PROPELLER EXHAUST FAN. 12" DIAMETER PROP FAN WITH ALUMINUM BLADES, 55 CFM AT 0.25" S.P., 1\10 HP MOTOR, 120V, 1PH, MAX. 1520 FAN RPM, 4800 FPM TIP SPEED, AND 11 SONES NOISE LEVEL AT DESIGN CONDITION; LIKE GREENHECK MODEL SE1-12-426-D. FAN SHALL BE MOUNTED IN MANUFACTURER'S HOUSING, WITH INLET-SIDE FAN GUARD AND GRAVITY DISCHARGE DAMPER. MANUFACTURER SHALL FURNISH DISCHARGE WEATHERHOOD, OF GALVANIZED STEEL CONSTRUCTION WITH BAKED ENAMEL FINISH AND INSERT SCREEN. MANUFACTURER SHALL FURNISH SOLID STATE SPEED CONTROLLER FOR FIELD INSTALLATION. PROVIDE 20A TOGGLE TYPE DISCONNECT AND CONNECT TO CIRCUIT SHOWN. REFER TO WALL MOUNTED PROPELLER FAN INSTALLATION DETAIL.
8. PROVIDE 16"x24" ADJUSTABLE LOUVER, EXTRUDED ALUMINUM CONSTRUCTION, DRAINABLE BLADE TYPE, MINIMUM 40% FREE AREA, INCLUDE 120V, MOTORIZED ACTUATOR AND INSECT SCREEN. CONNECT TO FAN CIRCUIT.
9. WALL MOUNTED LINE VOLTAGE THERMOSTAT. WHEN ROOM TEMPERATURE RISES ABOVE 85 DEG. F. (ADJUSTABLE SET POINT), THERMOSTAT SHALL OPEN ADJUSTABLE LOUVER AND CYCLE ON THE EXHAUST FAN. THERMOSTAT SETPOINT TEMPERATURE SHALL HAVE A 2 TO 3 DEGREE DEADBAND.
10. COPPER CLAD GROUND ROD, 3/4"x10'L, DRIVE IN GROUND AND CONNECT WITH 4\0 AWG COPPER GROUND CONDUCTOR, AND BOND TO GROUND BUS AND PANELBOARD, REFER TO GROUNDING DETAIL FOR ADDITIONAL SCOPE.
11. PROVIDE 3"C, (3)#4/0 AWG+1#1/0 GND FROM UTILITY TRANSFORMER TO PANELBOARD.
12. PROVIDE AND INSTALL A STEEL STORAGE CABINET, DOUBLE DOOR, WITH FIVE ADJUSTABLE SHELVES, 48"Wx24"Dx78"H, EDSAL 7802LG OR APPROVED EQUAL.
13. PROVIDE CEILING MOUNTED HEATER, 3 KW, 240V, 1PH, WITH INTERNAL DISCONNECT AND THERMOSTAT, CHROMALOX MUH-03-2 (MT-1) (MPDS-25) OR APPROVED EQUAL.
14. PROVIDE NEMA-1 REGULATOR TERMINAL CABINET WITH HV CONNECTOR (TERMINAL) FOR S1,S2, & LOAD SIDE AND JUMPER CABLES.
15. PROVIDE NEMA-1 REGULATOR TERMINAL CABINET WITH HV CONNECTOR (TERMINAL) FOR S3,S4, & LOAD SIDE AND JUMPER CABLES.
16. PROVIDE QUAZITE UNDERGROUND BOX, PRECAST POLYMER CONCRETE TYPE, TIER 22 FLUSH BURIAL WITH OPEN BOTTOM. WEATHERPROOF COVER WITH TAMPERPROOF HARDWARE, (ELECTRIC), INTERCEPT EXISTING CONDUIT, PROVIDE NEW CONDUCTOR(S) FROM NEW VAULT TO EXISTING AND TERMINATE AT BOTH END.
17. PROVIDE NEW SERVICE FEEDER CONDUIT FROM VAULT TO EXISTING UTILITY POLE, INTERCEPT EXISTING VERTICAL CONDUIT AT POLE AND PROVIDE NEW FEEDER CONDUCTOR FROM EXISTING CUT-OUT ON POLE TO NEW PANELBOARD.
18. CONTRETE AIRPORT ELECTRICAL HANDHOLE FOR LOW VOLTAGE CONDUIT (600 V), REFER TO ELECTRICAL DETAIL SHEETS.
19. CONTRETE AIRPORT ELECTRICAL HANDHOLE FOR HIGH VOLTAGE CONDUIT (5000 V), REFERT TO ELECTRICAL DETAIL SHEETS.



ELECTRICAL SITE PLAN

SCALE: 1" = 20'-0"

GENERAL NOTES:

1. COORDINATE OUTAGE WITH OWNER AND PROVIDE (60) DAYS NOTICE OF PROPOSED OUTAGE FOR NOTIFICATION OF THE AIRPORT USERS.
2. COORDINATE ELECTRICAL SERVICE REQUIREMENT WITH LOCAL SERVICE PROVIDER.
3. ELECTRICAL VAULT EQUIPMENT LUMP SUM BID PRICE TO INCLUDE ELECTRICAL WORK FROM ELECTRICAL METER, INSIDE THE VAULT AND TO THE 1ST HAND HOLES LOCATED JUST OUTSIDE THE VAULT BUILDING. THIS SHALL INCLUDE ALL CONNECTIONS, LABOR, EQUIPMENT COMPLETE AND IN SERVICE TO ENGINEERS ACCEPTANCE.
4. THE ELECTRICAL VAULT BUILDING INSTALLED UNDER THE LUMP SUM PAY ITEM SHALL INCLUDE THE BUILDING, FOUNDATION, ACCESS DRIVE, MISC. FURNITURE AND ALL NECESSARY HARDWARE TO COMPLETE THE BUILDING INSTALL.
5. ELECTRICAL VAULT BUILDING SHALL BE A PRE-CAST CONCRETE TYPE BUILDING.
6. THE FLOOR SLAB AND FOUNDATION SHALL BE PER MANUFACTURER'S RECOMMENDATIONS A DESIGN RELEASE BY CONTRACTOR SHALL BE REQUIRED FOR THIS WORK.

REVISIONS

NO.	REMARK	DATE	BY
1			
2			
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4			
5			
6			

STATE OF OHIO
RALPH J. POWER
80284
REGISTERED PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Ralph J. Power 05/20/2021
DESIGN ENGINEER DATE

DESIGNED: RAP DRAWN: RAP
CHECKED: ML CHECKED:

ALLEN COUNTY REGIONAL AIRPORT - RUNWAY & TAXIWAY LIGHTING
ELECTRICAL VAULT SITE PLAN
LIMA OHIO

HORIZONTAL SCALE
VERTICAL SCALE
SHEET 30 OF 30
PROJECT
AIP NO. XXXX

BFS NO. 6520.9802

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