SUPPLEMENTAL AGREEMENT FOR FAA PROJECTS

NUMBER: 1

AIRPORT: Coeur d'Alene Airport
LOCATION: Hayden, Idaho
CONTRACTOR: J7 Contracting, Inc.

DATE: September 16, 2025
AIP PROJECT NO: 3-16-0010-064-2025

You are requested to perform the following described work upon receipt of an approved copy of this document, or as directed by the Engineer.

Item No.	Description	CHANGE IN			
		Unit	Unit Price	Quantity	Amount
SA 1-1	Item C-105.1 Mobilization (10% Max)	L.S.	40,000.00	1	$40,000.00
SA 1-2	Safety Compliance (Spec 013523)	L.S.	27,383.00	1	$27,383.00
SA 1-3 A	L-108-5.2 L-824C 5 kV Cable Installed	L.F.	2.50	27,500	$68,750.00
SA 1-3 B	L-108-5.3 Cable/Wire Demolition	L.S.	25,427.00	1	$25,427.00
SA 1-4 A	L-125-5.1 Salvage Edge/End Light	EA.	79.00	307	$24,253.00
SA 1-4 B	L-125-5.23 CCR Reconfiguration	L.S.	4,794.00	1	$4,794.00
SA 1-4 C	L-125-5.24 Rehab L-861T(L) on Ex Can	EA.	957.00	307	$293,799.00
SA 1-4 D	L-125-5.25 Bolt Repair	EA.	68.40	20	$1,368.00
				This Supplemental Agreement Total:	$485,774.00
				Previous Contract Total:	$4,558,060.05
				Revised Contract Total:	$5,043,834.05

The time provided for completion of the contract is changed by 30 calendar days. This document shall become an amendment to the Contract and all provisions of the Contract will apply. Changes are shown on Specification Sections 013513 and 344125, dated August 29, 2025; Plan Sheets 12A, E12A, and E12B dated August 29, 2025; and Exhibit A – Regulator Tap Setting, attached.

Recommended by: _____ 9/8/2025
Ardurra — DATE

Approved by: _____
Owner — DATE

Accepted by: _____
Contractor — DATE

NOTE: Change Orders and Supplemental Agreement require FAA approval prior to construction, otherwise on Federal participation can be granted. State Aeronautics concurrence is required when state participation is anticipated.

AIP PROJECT NO: 3-16-0010-064-2025 SUPPLEMENTAL AGREEMENT NO: 1
AIRPORT: Coeur d'Alene Airport LOCATION: Hayden, Idaho

JUSTIFICATION FOR CHANGE

1. Brief description of the proposed contract change(s) and location(s).

Rehabilitate Taxiway N Medium Intensity Lighting circuit consisting of Taxiway C2, C, D, H, G, N and L. This work includes removing existing light fixtures, transformers and cable, then installing new LED light fixtures, isolation transformers and cable.

2. Reason(s) for the change(s).

The lights, cables, and transformers were mainly installed in 2005 and 2006; and are past their design life. Replacing the fixtures with new LED fixtures will reduce the electrical load for the system and contribute to energy efficiency at the airport. Lastly, the new section of Taxiway C constructed in 2025 contains LED fixtures and converting the entire circuit to one type of fixture is preferred by the FAA for consistency of light emitted.

3. Justifications for unit prices or total cost.

The cost analysis was prepared and resulting in a fair and reasonable increase in costs.

4. The sponsor's share of this cost is available from:

Local funds.

5. If this is a supplemental agreement involving more than $2,000; is the cost estimate based on the latest wage rate decision?

Yes ___ No ___ Not Applicable X

6. Has consent of surety been obtained?

Yes X Not Necessary __.

7. Will this change affect the insurance coverage?

Yes X No ___.

8. If yes, will the policies be extended?

Yes X No

9. Has this Change Order been discussed with FAA Officials?

Yes X No ___ When July 23, 2025 With Whom Kevin Jagoda
Comments: Received email response on August 19, 2025, on steps for this grant application and subsequent change.

SUBMIT COPIES TO THE FAA.

SECTION 013513

CONSTRUCTION SAFETY AND PHASING PLAN (CSPP)

PART 1 - GENERAL

1. COORDINATION

A. Predesign Conference
This meeting was held prior to beginning the project to discuss various items relating to design parameters, airport safety, routing of aircraft and equipment, sequencing of construction operations, environmental considerations, and civil rights requirements. Airport management, the FAA, and the consultant will continue coordination on the project as it moves forward.

B. Pre-bid Conference
This meeting will be held prior to the bid opening for this project to help clarify and explain construction methods, procedures, and safety measures required by the contract. It will be open to all interested parties.

C. Preconstruction Conference
This meeting will be conducted by the Sponsor and the Consultant to discuss operational safety, testing, quality control, quality acceptance, security, safety, labor requirements, environmental factors, and other issues. It will be held prior to the beginning of construction. All associated parties related to the construction of this project will be required to attend.

D. Prepaving Conference
This meeting will be conducted by the Sponsor and the Consultant to discuss milling and paving operational safety, testing, quality control, quality acceptance, material requirements, environmental factors, schedule and other issues. It will be held prior to the closure of Runway 6/24. All associated parties related to the milling and paving construction of this project will be required to attend.

E. Weekly Contractor Progress Meeting
Weekly progress meetings will be held throughout the duration of the project to discuss construction, safety, and schedule related topics and issues. Operational Safety will be a standing agenda item for each meeting.

F. Scope or Schedule Changes
Any changes to the project Scope or Schedule shall be coordinated with the Consultant and Sponsor immediately. These changes may require revisions to the CSPP and review and approval by the Sponsor and FAA.

G. FAA ATO Coordination
Coordination with the local FAA ATO will be conducted throughout design and construction regarding closures or other effects the project may have on FAA owned facilities and Navigation Aids (NAVAIDs).

FAA Tech Ops – Navaids and Visaids): This construction project will extend TWY C and re-route the vehicle service road, and widen the threshold area of KCOE RW-06. Construction work inside the Runway Safety Area (RSA) will require closure of KCOE RW-06/24. FAA safety policy during a runway closure for construction is to shut down all runway-associated

navigational and visual landing aids (i.e., navaids and visaids). The purpose of this policy is to minimize pilot risk of landing to a closed or altered runway by inadvertent use of inaccurate landing aids. This is advisable for non-FED facilities as well. Closure of KCOE RW-06/24 for construction within the RSA will require shutdown of COE PAPI RW-06 (FAA), COE MALSR RW-06b(FAA), COE ILS/DME RW-06 (incl LOC and GS, both FAA), KCOE PAPI RW-24 (non-FED), KCOE REIL RW-24 (non-FED), as well as the HIRLs (non-FED). Coordinate the outages of the FAA facilities with the FAA Eastern Washington System Support Center (GEG SSC) Manager, Lawrence Saunders at 509-742-2601 (Office) or 509-944-6010 (Cell). Coordinate non-FED visaid outages through the Coeur D'Alene Airport Manager, Gaston Patterson at 208-446-1860. To ensure adequate time to organize on-site technical support and issue outage-related NOTAMS, coordinate FAA facility outage requests (recommend at least 60days) in advance with the GEG SSC Manager. Similar advance notice is recommended to the Coeur D'Alene Airport Manager for non-FED visual landing aid outages.

Material stockpiles, trucking haul routes, and construction activities must remain clear of ILS Critical Areas for both Localizer (LOC) and Glide Slope (GS) facilities serving KCOE RW-06 while the ILS is in operation and KCOE RW-06 is open to arrivals. Contractor access to or through any ILS Critical Area (including COE LOC and/or COE GS) must first be coordinated through the FAA Eastern Washington System Support Center Manager.

2. PHASING

A. Project Scope

This project is to construct an extension to Taxiway C providing a partial southern parallel taxiway to Runway 6/24, reducing the number of aircraft crossing Runway 6/24, plus the demolition of Taxiway D between Runway 6/24 and Taxiway N. The project is divided into three schedules to track reimbursable expenses and to maximize available funds.

Schedule A includes the construction of Taxiways C and C1, demolition of the access road. Work includes variable preloading, pavement demolition, bituminous taxiway pavement section, pavement markings, grading and seeding.

Schedule B includes the MALSR threshold lights relocation and is a separate schedule for accounting purposes.

Schedule C includes electrical modifications, signage modifications, new taxiway edge lights and new airfield signage.

Schedule D includes the construction of relocating the access road and associated signage.

Schedule E includes the demolition of Taxiway D, including grading and seeding.

Schedule F includes the construction of ARFF road with associated signage and markings.

Supplemental Agreement No. 1 includes electrical modifications for new taxiway edge fixtures, transformers and cable on Taxiways B3, C2, D, C, G, H, N and L.

B. Phasing Elements

Phase 1

Phase 1 consists of work located outside of all Runway Safety Areas (RSA) and all Taxiway Object Free Areas (TOFA).

Work includes but is not limited to: construct haul road & staging area preparation, barricade placement, erosion control, construction survey & staking, topsoil stripping & stockpiling, borrow source excavation, preloading embankment, unclassified excavation & trenching, existing access road demolition, stormwater modifications, Glideslope flight check (by others) and other miscellaneous items.

Phase 1 is anticipated to begin in September of 2024. Phase 1 is scheduled to be completed in 12 calendar days with operating hours between 0700 and 1700 Monday through Friday. 24-hour operations allowed at contractor request.

FAA NAVAIDs are affected by construction activities in Phase 1. FAA Engineering Services shall be contacted for coordination a minimum of 60 days prior to commencing Phase 1.

All areas of the airport will remain open to aircraft operations.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 2
Phase 2 consists of work located outside of all Runway Safety Areas (RSA) and all Taxiway Object Free Areas (TOFA).

Work includes, but is not limited to: remobilization, construct haul road and staging area preparation, barricade placement, erosion control, construction survey and staking, topsoil stripping and stockpiling, borrow source excavation, unclassified excavation and trenching, existing access road demolition, stormwater modifications, utility modifications (by contractor and others), bedding, electrical duct installation, construct access road, P-154 installation, P-209 installation, P-401 test strip, P-401 paving lower lift, P-603 tacking, P-401 paving upper lift, base and junction can installation, grounding and counterpoise, conduit installation, pull cable in conduit, sign foundations, sign installation, light fixture installation, initial pavement markings, glideslope flight check (by others) and other miscellaneous items.

Phase 2 is anticipated to begin no later than April 14, 2025. Phase 2 is scheduled to be completed in 60 calendar days with operating hours between 0700 and 1700 Monday through Friday. 24-hour operations allowed at contractor request. Phase 2 shall be concurrent with Phases 2A, 3 (including subphases) and 4 (including subphases). Phase 2 may be concurrent with Phase 6.

FAA NAVAIDs are affected by construction activities in Phase 2. FAA Engineering Services shall be contacted for coordination a minimum of 60 days prior to commencing Phase 2.

All areas of the airport will remain open to aircraft operations.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 2A
Phase 2A consists of work located outside of all Runway Safety Areas (RSA) but within the Taxiway G(C2) Object Free Areas (TOFA).

Work includes, but is not limited to: barricade placement, construction survey and staking, topsoil stripping and stockpiling, unclassified excavation and trenching, existing access road demolition, stormwater modifications, utility modifications, bedding, electrical duct installation, construct access road, P-154 installation, P-209 installation, P-401 paving lower lift, P-603 tacking, P-401 paving upper lift, base and junction can installation, grounding and

counterpoise, conduit installation, pull cable in conduit, sign demolition, sign foundations, light fixture installation, initial pavement markings, seeding, and other miscellaneous items.

Phase 2A is scheduled to be completed in 6 calendar days with operating hours between 0700 and 1700 Monday through Friday. 24-hour operations allowed at contractor request. Phase 2A shall be concurrent with Phases 2.

All areas of the airport will remain open to aircraft operations.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 3

Phase 3 consists of work located inside of all Runway Safety Areas (RSA) and within Taxiway Object Free Areas (TOFA) of Taxiways D and G(C2).

Work includes, but is not limited to: barricade placement, construction survey & staking, topsoil stripping & stockpiling, unclassified excavation & trenching, existing access road demolition, bituminous pavement milling, base course regrading & compaction, excavation, electrical demolition & modifications, MALSR threshold lights removal, threshold bar construction, removal of Runway 6 threshold lights, cable removal, cable replacement, P-154 installation, P-209 installation, P-401 lower lift paving, P-603 tacking, P-401 upper lift paving, base & junction can installation, grounding & counterpoise, conduit installation, pull cable in conduit, install Runway 6 threshold lights, sign foundations, sign installation, light fixture installation, initial pavement markings, and all other miscellaneous items except grooving and final pavement markings.

Phase 3 is scheduled to be completed in 14 calendar days with operating hours between 0700 and 1700 Monday through Friday. 24-hour operations allowed at contractor request.

The following areas will be closed, as required, during Phase 3: Runway 6/24 and all taxiways crossing runway 6/24 except Taxiways A and L. All other areas of the airport will remain open to aircraft operations. However, either Taxiway D, Taxiway G or both are required to be open during Phase 3, for aircraft access, with appropriate NOTAMs, such as no pavement markings.

ARFF access routes are partially affected by any construction phase of this project. Barricades shall be placed to close taxiways as required but shall allow unobstructed access by emergency vehicles to and through closed areas. Contractor access, staging areas and haul routes are shown on the Construction Safety and Phasing Plan (CSPP) sheets attached as Appendix I. All construction areas will be delineated and marked appropriately as detailed in Section 17, Hazard Marking and Lighting. Aircraft Operations Areas (AOA) barricades will be in place and operational, as shown in Appendix I, at all times during construction.

All construction areas will be delineated and marked appropriately as detailed in Section 17, Hazard Marking and Lighting. Lighted Runway closure X's will be in place and operational on both ends of Runway 6/24. The ILS systems will be turned off during closure and shall be indicated as such in the Runway 6/24 NOTAM. Aircraft Operations Areas (AOA) barricades will be in place and operational, as shown in Appendix I, at all times during construction. Runway 6/24 edge lighting, threshold lights, Precision Approach Path Indicators (PAPIs), and Runway End Identifiers Lights (REILs) will be disabled. Airfield guidance signs directing traffic to Runway 6/24 or other closed portions of the Airport will be covered during this phase so as not to direct pilots to closed portions of the airport.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 3A
Phase 3A consists of work inside of Runway 6/24 RSA and Taxiway D TOFA. Work includes, but is not limited to: barricade placement, construction survey and staking, topsoil stripping and stockpiling, unclassified excavation and trenching, existing access road demolition, bituminous pavement milling, excavation, electrical demolition and modifications including MALSR threshold lights removal and threshold bar construction, removal of Runway 6/24 edge and threshold/end lights, cable removal, base and junction can installation, grounding and counterpoise, conduit installation, cable installation, P-154 installation, P-209 installation, P-401 lower lift paving, Runway 6/24 led edge light and sign foundations.

Phase 3A is scheduled to be completed in 13 non-consecutive calendar day and is concurrent with Phase 3. The following areas will be closed for the duration of Phase 3A includes the closure of Runway 6/24 and Taxiway D.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 3B
Phase 3B consists of work inside of Runway 2/20 ROFA and Taxiway G(C2). Work includes, but is not limited to: barricade placement, construction survey and staking, P-603 tacking, P-401 upper lift paving, pull cable in conduit, sign installation, light fixture installation and initial pavement markings.

Phase 3B is scheduled to be completed in 4 calendar day and is concurrent with Phase 3. The following areas will be closed for the duration of Phase 3B includes the closure of Runway 6/24 and Taxiway G(C2).

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 3C
Phase 3C consists of work inside of Runway 2/20 ROFA. Phase 3C consists of but is not limited to: barricade placement and install Runway 6 threshold lights.

Phase 3C is scheduled to be completed in 1 calendar day and is concurrent with Phase 3. The following areas will be closed for the duration of Phase 3C includes the closure of Runway 6/24.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 4
Phase 4 consists of all work located outside the Runway 6/24 Safety Area (RSA) and inside the Taxiway N Object Free Area (ROFA).

Phase 4 is scheduled to be completed in 8 calendar days. The following areas will be closed for the duration of Phase 4: Taxiway D north of Runway 6/24 and Taxiway N between the north taxiway and the “Stancraft” apron.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 4A
Phase 4A consists of work outside of Runway 6/24 RSA and inside the Taxiway D and N TOFA. Work includes, but is not limited to: barricade placement, topsoil stripping and stockpiling, pavement demolition, unclassified excavation and trenching, bedding, electrical demolition and modifications, duct installation, P-154 installation, P-209 installation, P-401 lower lift paving, P-603 tacking, P-401 upper lift paving, initial pavement markings and all other miscellaneous items (except grooving and final pavement markings).

Phase 4A is scheduled to be completed in 8 calendar day and is concurrent with Phase 4. The following areas will be closed for the duration of Phase 4A includes the closure Taxiway D north of Runway 6/24 and Taxiway N between the north taxiway and the "Stancraft" apron.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 4B
Phase 4B consists of work inside of Runway 2/20 ROFA and Taxiway G(C2). Work includes, but is not limited to barricade placement, sign demolition, sign foundations, guidance sign installation and other miscellaneous items.

Phase 4B is scheduled to be completed in 2 calendar day and is concurrent with Phase 4. The following areas will be closed for the duration of Phase 4B includes the closure the intersection of Taxiways C and D.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 4C
Phase 4C consists of work inside of Runway 2/20 ROFA. Phase 4C consists of barricade placement, sign demolition, sign foundations, guidance sign installation, and other miscellaneous items.

Phase 4C is scheduled to be completed in 2 calendar days and is concurrent with Phase 4. The following areas will be closed for the duration of Phase 4C includes the closure the intersection of Taxiways C and C2.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 4D
Phase 4D consists of work inside of Runway 2/20 ROFA. Phase 4D consists of barricade placement, sign demolition, sign foundations, guidance sign installation, and other miscellaneous items.

Phase 4D is scheduled to be completed in 2 calendar days and is concurrent with Phase 4. The following areas will be closed for the duration of Phase 4D includes the closure the intersection of Taxiways C and C2.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 5
Phase 5 consists of all work on all new pavements and Taxiway C. Work includes but is not limited to pavement grooving and final pavement markings.

Phase 5 is scheduled to be completed in 2 non-consecutive calendar day, a minimum of 30 days after completion of P-401 paving operations is complete. Phase 5A allows for grooving on Runway 6/24 and within the Runway 6/24 RSA. Phase 5A is scheduled for 3 hours. Phase 5B allows for markings on Runway 6/24 and Taxiway C within the Runway 6/24 safety area. Phase 5C allows for markings on the ARFF road. Phase 5D allows for markings on Taxiway C. Phase 5B, 5C and 5D is scheduled for 3 hours.

All construction areas will be delineated and marked appropriately as detailed in Section 17, Hazard Marking and Lighting. Lighted Runway closure X's will be in place and operational on both ends of Runway 6/24. The ILS systems will be turned off during closure and shall be indicated as such in the Runway 6/24 NOTAM. Aircraft Operations Areas (AOA) barricades will be in place and operational, as shown in Appendix I, at all times during construction. Runway 6/24 edge lighting, threshold lights, Precision Approach Path Indicators (PAPIs), and Runway End Identifiers Lights (REILs) will be disabled. Airfield guidance signs directing traffic to Runway 6/24 or other closed portions of the Airport will be covered during this phase so as not to direct pilots to closed portions of the airport.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 6
Phase 6 consists of all work in all disturbed areas. Work includes but is not limited to: mulched seeding. Phase 6 is scheduled to be completed in 2 calendar days. The contractor shall escort the mulched seeders during Phase 6, closing only the areas required for immediate construction activities.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 7
Phase 7 consists of all work for Supplemental Agreement 1 for the Taxiway N MITL rehabilitation, including Taxiways C, C2, D, G, H, N, L and B3. Phase 7 is subdivided in to 3 subphases and is scheduled to be completed in 30 calendar days.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 7A
Phase 7A consists of work outside of the Runway 2/20 and Runway 6/24 RSA. Work includes but is not limited to the removal and replacement of existing MITL lights, transformers and cable.

Phase 7A is scheduled to be completed in 16 calendar day and is concurrent with Phase 7. The following areas will be closed for the duration of Phase 7A includes the closure of Taxiway

N north of Runway 6/24 and Taxiways C and D south of Runway 6/24. Runway 6/24 shall remain open.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 7B
Phase 7B consists of work inside of Runway 6/24 RSA but outside of the Runway 2/20 OFZ. Work includes but is not limited to the removal and replacement of existing MITL lights, transformers and cable.

Phase 7B is scheduled to be completed in 3 calendar day and is concurrent with Phase 7. The following areas will be closed for the duration of Phase 7B includes the closure of Taxiways B3, C, C2, D, G, H and N within the Runway 6/24 RSA but outside of the Runway 2/20 OFZ.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

Phase 7C
Phase 7C consists of work inside of Runway 6/24 RSA and Runway 2/20 OFZ. Work includes but is not limited to the removal and replacement of existing MITL lights, transformers and cable.

Phase 7C is scheduled to be completed in two days at 8 hours per day and is concurrent with Phase 7. The following areas will be closed for the duration of Phase 7C: Taxiway L within the Runway 6/24 RSA and Runway 2/20 OFZ.

All construction equipment will be required to have hazard marking and/or lighting in place while on airport property. All lead times for required notifications have been noted on CSPP sheets in Appendix I.

C. Construction Safety Drawings
Construction Safety and Phasing Plan sheets for this project are included in Appendix I.

3. AREAS AND OPERATIONS AFFECTED BY CONSTRUCTION ACTIVITY

A. Identification of Affected Areas

Runway 6/24
Runway 6/24 will be closed during Phases 3, 5A, 5B, 5C and 6 of the project. Work required inside the Runway 6/24 RSA will be accomplished while Runway 6/24 is closed. Excavation within the Runway 6/24 RSA will be necessary to construct pavement sections, demolition of Taxiway D with associated storm and electrical demolition, replace guidance signs, install cable, conduits and ducts, install runway and taxiway edge lights, relocate MALSR threshold lights, and relocate Runway 6 threshold lights.

Runway 2/20
Runway 2/20 will be closed during Phases 4D and 7D of the project. Work required inside the Runway 2/20 RSA will be accomplished while Runway 2/20 is closed. Two directional and one mandatory guidance signs are to be removed and replaced with guidance signs which are the same or extra modules, requiring foundation modifications.

Taxiway B
Taxiway B will be closed when Runway 2/20 is closed during Phase 4D of the project.

Taxiway C
Taxiway C will be closed when Runway 2/20 is closed during Phase 4D of the project. Taxiway C is to be redesignated as Taxiway A3 and requires modifications to three signs as described above with Runway 2/20.

Taxiway D
Taxiway D will be closed between Runway 6/24 and Taxiway N during Phase 3B through 4A, whereupon it is permanently closed. Taxiway D will be closed between Runway 6/24 and the unnamed taxiway south of Taxiway F(C) during Phases 3B and 4B and 7A. Work required includes the demolition of Taxiway D, the construction of the ARFF road and drainage modifications between Runway 6/24 and Taxiway N. Work required includes guidance sign removal and guidance sign installation south of Runway 6/24. Final pavement markings during Phase 5. Taxiway D or Taxiway G(C2) south of Runway 6/24 shall be open at all times, except Phase 5B, during construction. Both cannot be closed at the same time.

Taxiway E
Taxiway E will be closed when Runway 2/20 is closed during Phases 4D and 7A of the project.

Taxiway F(C)
Taxiway F(C) will be closed on the west apron during Phases 2B and 4C. Taxiway F(C) will be closed at the Taxiway D intersection during Phase 3B and 4B. Taxiway F(C) will be closed between Taxiways G(C2) and D during Phases 5B and 7A. Phase 2B includes the demolition of the existing road and construction of new Taxiway C and access roads. Phase 3 for final pavement lift and site restoration with associated airfield electrical and markings except for the installation of guidance signs and final markings. Phases 4B and 4C includes the installation of guidance signs and Phase 5B includes final pavement markings.

Taxiway G(C2)
Taxiway G(C2) will be closed south of Runway 6/24 during Phase 3B and 4C and 7A. Phase 3B includes the demolition of the existing road and construction of new Taxiway C and access roads. Phase 4 for final pavement lift and site restoration with associated airfield electrical and markings except for the installation of guidance signs and final markings. Phase 4C includes the installation of guidance signs and Phase 5B includes final pavement markings. Taxiway D or Taxiway G(C2) south of Runway 6/24 shall be open at all times, except Phase 5B, during construction. Both cannot be closed at the same time.

Taxiway H
Taxiway H will be closed during Phases 3A, 3C, 5A, 5B and 5C and 7A. This is required during Runway 6/24 closure.

Taxiway N
Taxiway N will be partially closed between the “Stancraft Apron” during Phases 4A and 5C, the compass calibration pad and west of Taxiway G during Phase 3. The Taxiway N is partially closed in Phase 3 for the Runway 6/24 closure. The Taxiway N is partially closed in Phase 4 (4A) for the demolition of Taxiway D and associated marking, storm and electrical demolition, the installation of airfield electrical along Taxiway N and the construction of the ARFF road. The Taxiway N is partially closed in Phase 5C for final pavement markings within the Taxiway N Object Free Area. Taxiway N is closed for Phase 7A.

Support Vehicle Access
ARFF, airport, and support vehicle access will be maintained throughout the project.

B. Mitigation of Effects
This project has been divided into six phases for the purpose of mitigating effects of the project on aircraft operations at the airport. Phasing was developed to prevent the closure of the airport, minimizing having both runways closed at the same time.

4. PROTECTION OF NAVAIDS

All NAVAIDs have been clearly marked on construction plans along with corresponding critical areas. Contract limits are outside of the NAVAID critical areas. Plans and specifications clearly note restrictions associated with construction activities inside NAVAID critical areas along with stressing the importance of protecting NAVAID installations during construction. No stockpiling of material or equipment parking/staging will take place inside NAVAID critical areas. If necessary, during construction airport operations will issue NOTAMs for NAVAID interference with construction equipment. All underground utilities for NAVAIDs shall be protected at all times as noted in Section 12. See Notification of Construction Activities, Section 10 for details regarding issuance of NOTAMs. Reference Section 15 for details regarding temporary visual aids.

5. AWOS

The AWOS will not be affected as a part of this project.

6. CONTRACTOR ACCESS

The CSPP sheets in Appendix I clearly mark all contractor access points and staging areas for the project.

A. Security
Contractor personnel working on the project do not require security badging when escorted by badged supervising personnel in a group less than five. The contractor will be required to maintain airport security in and around the project area for the duration of the project. All gates shall remain closed and locked to prevent access by animals and unauthorized personnel. Any gates left open to facilitate construction activities such as haul operations will require the contractor to provide a full-time gate guard to be stationed at each gate left open.

B. Escort/Movement Area and Radio Training
The Contractor's superintendent will be required to complete escort/movement area, air traffic observation and radio communication training, prior to beginning construction, provided by the Airport. Additional training may be conducted at the Contractor's expense.

C. Driver's Training
The Contractor's superintendent will be required to complete driver's training, prior to beginning construction, provided by the Airport. Additional training may be conducted at the Contractor's expense.

D. Location of Stockpiled Materials

Location for temporarily stockpiled materials has been sited outside of the ROFA, ROFZ, TOFA and NAVAID critical areas. Stockpile materials shall not reach heights that penetrate the OFZ or other airspace surfaces. No stockpiles shall reach heights greater than 30 feet. No stockpiles will be allowed to be placed outside of the staging/storage areas shown on the CSPP sheets in Appendix I. As noted in Section 7, all construction practices, including stockpiles, shall be regulated so as not to become a wildlife attractant. Contractor shall maintain stockpiled materials as to prevent stockpiled material from becoming Foreign Object Debris (FOD) as noted in Section 8.

E. Vehicle and Pedestrian Operations

Construction vehicle and equipment parking will only be permitted within the designated contractor staging areas. The extents of the staging area will be clearly marked and identifiable by the Contractor. See Appendix I for contractor staging areas, airport access and haul routes during specific phases of project.

Access to and from the project will be via the designated access and haul routes shown on the plans. Haul routes have been developed and located to limit construction equipment inside open AOAs. All vehicles and equipment located on airport property will be required to maintain a flag or flashing light on the vehicle at all times in accordance with AC 150/5210-5. The flag shall be a minimum of 3-foot by 3-foot square having a checkered pattern of international orange and white squares at least 1 foot on each side. The flashing light shall be mounted to the uppermost part of the vehicle structure.

The project phasing limits will be clearly delineated to eliminate contractor entry into an open AOA. If during the course of the project access is required outside of the project limits, an escort by airport operations personnel will be required. No work will be permitted outside of the designated limits for the current phase without prior approval from the Airport Safety Officer. Prior to beginning construction, all escorts and contractor superintendent will be required to attend training, provided by airport staff, in vehicle operations on an airport, air traffic observation and monitoring of the Common Traffic Advisory Frequency (CTAF).

The contractor will be required to maintain airport security in and around the project area for the duration of the project. All gates shall remain closed and locked to prevent access by animals and unauthorized personnel. Any gates left open to facilitate construction activities such as haul operations will require the contractor to provide a full-time gate guard to be stationed at each gate left open.

F. Radio Communications

The Contractor shall supply their superintendent with an air band two-way radio for monitoring aircraft operations and communication with airport operations personnel during construction. These individuals shall monitor COE Unicom frequency 122.8 at all times. Radio communication between contractor and airport operations is a vital link in ensuring airport safety during construction.

7. WILDLIFE MANAGEMENT

A. Trash

Contractor shall keep the project area, including the staging area, clean of food scraps and trash at all times. If contractor or construction personnel locate trash or debris outside of the project limits, contractor shall notify airport operations immediately.

B. Standing Water
No standing water will be permitted within the project limits at any time during the duration of the project.

C. Tall Grass and Seed
Grass in the work area shall be maintained and kept to a height so that it does not act as a wildlife attractant. All seeding during the project shall comply with FAA Advisory Circular (AC) 150/5370-10H, Standards for Specifying Construction of Airports, Item T-901, Seeding.

D. Poorly Maintained Fencing and Gates
Any fencing and access gates damaged by the contractor during the project will be replaced immediately to maintain airport security and to limit wildlife access to airport. As noted in Section 6, it is the contractor's responsibility to maintain airport security in and around the project area throughout the duration of the project.

E. Disruption of Existing Wildlife Habitats
No wildlife habitat exists inside project limits. Project limits are confined to developed areas of airport only. Contractor shall not affect or disrupt any wildlife habitat on airport property during construction of the project. If wildlife is observed on airport property, the Contractor will notify the airport safety officer immediately.

8. 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. Contractor shall 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. Fencing or covers as necessary may be required to contain material that can be carried by wind into areas where aircraft operate. The Contractor shall maintain a vacuum sweeper, water truck and necessary equipment on site for cleaning areas adjacent to open AOAs at all times. All areas will be washed, swept, and cleaned prior to reopening for aircraft operations. Open AOAs that are subject to construction traffic shall be cleaned as necessary to maintain a clean surface for aircraft traffic at all times.

9. HAZARDOUS MATERIALS MANAGEMENT

The contractor will be responsible to expeditiously contain and clean up any spills or leaks. The Contractor shall follow Best Management Practices regarding equipment fueling, containment, inspection and storage of hazardous materials. Any leaks or spills that take place on airport property will require Contractor to notify airport operations immediately. Transport and handling of hazardous materials on the airport shall comply with FAA AC 150/5320-15A, Management of Airport Industrial Waste.

10. NOTIFICATION OF CONSTRUCTION ACTIVITIES

The following information details procedures for the immediate notification of Airport Personnel and FAA, as applicable, of any conditions that may impact the operational safety of the airport or operations.

List of Responsible Representatives:

- Airport Manager – Gaston Patterson (208) 446-1860
- ~~Airport Safety Officer – Anthony Link (208) 916-8630~~
- Airport Safety Officer – Jesse Linch (208) 916-8630
- Project Engineer – Corrie Esvelt-Siegford, P.E. (208) 762-3644
- FAA/ATO – Chris Arriola (509) 742-2608
- FAA/Engineering Services – Jerald Lim (206) 231-2643

The Airport will be responsible for the issuance, maintenance, and cancellation of NOTAMS for airport conditions resulting from construction activities. The NOTAMs will detail information regarding areas closed to aircraft, affected NAVAIDs and limited use of areas as well as conditions adjacent to movement areas. In case of emergency, dialing 911 will be the first response. Once emergency services have been contacted, Contractor shall contact airport operations personnel. Emergency services will be coordinated with the Airport Safety Officer. As noted in Section 6, the contractor's safety officer shall always have a radio on for communicating with airport operations. Additional emergency contacts for local agencies are:

- Emergency Services 911
- Kootenai County Sheriff's Department (208) 446-1300
- City of Hayden Police Department – (208) 772-2161
- Northern Lakes Fire Protection (208) 772-5711
- Kootenai Health (208) 625-4000
- Poison Control (800) 222-1222

FAA form 7460-1 will be submitted to the FAA for this project based on necessary lead times prior to beginning construction. Any damage or impacts to airport NAVAIDS or utilities equipping NAVAIDs shall be immediately reported to airport operations personnel who will then contact appropriate personnel with FAA or necessary agencies.

11. INSPECTION REQUIREMENTS

A. Daily Inspections

As a Part 139 certificated airport, airport operations personnel will be making daily inspections of the entire airport. Daily inspections by the Resident Engineer and the Contractor will be required to verify construction activities are not impacting open AOAs or airport safety. Project areas found to be deficient in any way will require immediate attention and/or repair by the Contractor. Airport operations personnel and Resident Engineer shall have the right to halt construction immediately due to airport safety issues.

B. Final Inspections

Any areas of the project completed by the Contractor shall be thoroughly inspected by the Resident Engineer and the Airport Safety Officer prior to re-opening for aircraft use. Prior to the completion of the project, substantial and final completion inspections will be performed by the Contractor, the Airport and the Engineer. This will involve project walkthroughs to check conformity with plans and specifications as well as with this CSPP. Any non-conforming areas will be remediated prior to issuance of the certificate of final completion.

12. UNDERGROUND UTILITIES

Prior to performing any construction-related activities, the contractor will be responsible for contacting the utility notification center to schedule utility locates within the construction limits. In addition, coordination with the FAA ATO/Technical Operations will be performed to locate and identify any NAVAID impacts and utilities existing within the project limits as well. If at any point during construction a utility disruption occurs, Contractor shall immediately contact airport operations as noted in Section 10.

Contact information for utility locates is listed below:

- Utilities Underground Location Center: 811
- FAA ATO/Technical Operations SSC: (509) 742-2601

13. PENALTIES

Any noncompliance with airport rules, regulations, and operational safety plans will involve immediate removal of involved parties from the project at the discretion of the Airport Safety Officer.

14. SPECIAL CONDITIONS

Contractor shall always be in compliance with airport safety and security regulations as noted in Section 6. In case of emergency, contact information for pertinent parties has been provided in Section 10.

15. RUNWAY AND TAXIWAY VISUAL AIDS

A. General

Visual aids for open AOAs will remain in place and operational at all times unless otherwise noted on plans. During each phase all lights and signs within the phase limits will be disabled from the circuit or covered. See CSPP sheets in Appendix I for phasing limits. All standing visual aids are required to be tethered and mounted on frangible couplings. Existing pavement markings located inside the project area will be removed and replaced during construction. Under 14 CFR Part 139.309, any markers, lights or signs installed during construction shall be mounted on a frangible base.

B. Markings

All pavement markings shall be in compliance with FAA AC 150/5340-1M, Standards for Airport Markings. All pavement markings shall be clearly visible and in place for all open AOAs. All markings removed during construction shall have temporary markings applied at 50% the standard application rate. A minimum of 30 days following application of temporary markings; an application of permanent markings at 100% the standard application rate shall be installed. All markings, except black borders, shall be installed with glass beads.

C. Lighting and Visual NAVAIDs

All lighting for project shall conform with FAA AC 150/5340-30J, Design and Installation Details for Airport Visual Aids. Any lighting equipment installed during the project shall be certified under the Airport Lighting Equipment Certification Program as noted in FAA AC 150/5345-53D.

During runway closures, trailered lighted runway closure Xs will be placed at each end of the runway. The runway closure Xs shall be provided by the airport and maintained by the

Contractor. The runway closure Xs shall remain fueled and operational at all times during the closure of a runway. Closure Xs may be placed off the end of the runway to facilitate construction. Two additional fabric closure Xs shall be provided by the contractor for closure of Runway 2/20. All runway edge lights, PAPI, REILs and threshold lights shall be disabled or covered during runway closures. Lights covered must be done so in a manner as to prevent light leakage without damaging the light fixture.

During closures of taxiways, barricades shall be placed in locations shown and edge lights within the closure shall be disabled. All taxiway lights located on open portions of taxiways shall remain operational. Contractor shall provide temporary power measures as necessary to maintain use of lighting affected by construction. If taxiway lights cannot be disabled, lights must be covered in a manner as to prevent light leakage without damaging the light fixture. See Section 17, Hazard Marking and Lighting, for additional details.

D. Signs

All signs shall comply with FAA AC 150/5345-44K, Specifications for Runway and Taxiway Signs, FAA AC 150/5340-18F, Standards for Airport Sign Systems and FAA AC 150/5345-53D, Airport Lighting Certification Program. All airport signs shall remain in place and operational at all times for open AOAs. Lighted runway closure Xs will be in place and operational at all times during the closure of runways. Refer to Paragraph C of this section for information regarding Lighted Runway Closure Xs. All airfield signs directing traffic to closed portions of the airport will be covered to prevent misdirection of pilots to closed areas of airport. Signs shall be covered in a manner so as to not be affected by jet wash or climatic effects such as wind, rain, etc. Covers shall be affixed to signs in a manner that does not damage the sign.

16. MARKING AND SIGNS FOR ACCESS ROUTES

ARFF access routes shall be kept clear of all Contractor equipment and personnel. A gap shall be left in the barricades large enough for ARFF vehicles and equipment to pass through the barricades without striking or damaging the barricades.

Contractor access routes must be clearly marked by the contractor to prevent inadvertent entry to open AOAs. Construction access signs will be placed by the contractor adjacent to access points, as necessary, directing construction traffic to staging areas and delivery points.

Pavement markings and signs located on airport property for access routes shall conform to FAA AC 150/5340-1M and FAA AC 150/5340-18G as applicable. Contractor shall also provide and maintain signs in accordance with MUTCD in all locations where construction traffic enters public roadways. No hand-written signs will be permitted during the project.

17. HAZARD MARKING AND LIGHTING

A. Purpose

The purpose of the hazard marking and lighting is to clearly mark areas of the airport that are closed and/or hazardous to aircraft operations. The Contractor shall file with the airport with contact information for two individuals responsible for maintaining hazardous markings and lighting during the project. These individuals shall be on-call 24 hours a day during the project for emergency repairs to hazard marking and lighting.

B. Hazard Marking and Lighting

AOA closure barricades will be placed at all locations that may provide aircraft access to closed or otherwise hazardous areas of the airport. Barricades will be equipped with two red lights meeting State Highway Department requirements and shall have orange and white diagonal reflective markings. Barricades will be installed as shown in Appendix I with a maximum spacing of 4 feet between barricades, maximum spacing of 10 feet between lights, and a maximum total height of 18 inches. Some barricades shall be provided by the Owner and maintained by the Contractor. Additional barricades shall be provided and maintained by the Contractor. The barricades and lights shall remain operational at all times during use.

Runway closure Xs shall be in place and operational at all times during the closure of runways. See Runway and Taxiway Visual Aids, Section 15, for runway closure X details. Small areas of construction located outside of primary phasing limits or in close proximity to open AOAs shall be obviously marked by contractor with barricades.

C. Equipment

All Contractor equipment shall be clearly marked at all times. See Contractor Access, Section 6, for equipment marking requirements. Equipment shall be sturdy enough to remain in place when subject to jet blast.

D. Work Zone Lighting for Nighttime Construction

Lighting equipment must adequately illuminate the work area if the construction is to be performed during nighttime hours. Refer to AC 150/5370-10H for minimum illumination levels for nighttime paving projects. All equipment, except haul trucks, shall be equipped with artificial illumination to safely illuminate the area immediately surrounding their work areas. The lights shall be positioned to provide the most natural color illumination and contrast with a minimum of shadows. The spacing must be determined by trial. Light towers shall be positioned and adjusted to aim away from ATCT and active runways to prevent blinding effects. Shielding may be necessary. Light towers shall be removed from the construction site when the area is reopened to aircraft operations.

18. PROTECTION

A. Runway Safety Area (RSA)

No construction equipment or personnel shall enter an RSA while the runway is open to aircraft operations. Construction equipment and personnel crossing an open runway will require an escort by airport operations personnel. Where work is required within the existing RSA the runway shall be closed. See Section 10 for issuance of NOTAMs for runway closures. Prior to the re-opening of closed runways, the RSA will be cleared of all equipment, materials and debris the surface shall be cleaned and RSA graded to standards. Open trenches or excavations are not permitted within the RSA while the runway is open. If backfilling excavations before the runway must be opened is impracticable, cover the excavations appropriately. Covering for open trenches must be designed to allow the safe operation of the heaviest aircraft operating on the runway across the trench without damage to the aircraft. Construction contractors must prominently mark open trenches and excavations at the construction 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. In addition, the runway and RSA must be inspected by airport operations prior to re-opening the runway. See Section 6 regarding contractor access and movement in and around the project site.

B. Runway Object Free Area (ROFA)

Construction is permitted inside the ROFA while the runway is open to aircraft operations. However, no equipment will be parked or stored for any length of time in this area when not in use. No stockpiles or staging of materials will be permitted inside the ROFA.

C. Taxiway Safety Area (TSA)

No construction shall take place inside the TSA while the taxiway is open for aircraft operations. No equipment or personnel shall enter the TSA unless escorted by airport operations personnel or by trained escorts equipped with an air band two-way radio for monitoring aircraft operations. Open trenches or excavations are not permitted within the TSA while the taxiway is open. See paragraph A of this section for trenches that cannot be backfilled. Completion of work inside the TSA will require that portion of the taxiway to be closed or the taxiway shifted to remove the work area from the TSA. Appropriate NOTAMs will be issued by the Safety Officer as noted in Section 10. Shifting taxiways shall require coordination with the ATCT and FAA Airports District Office (ADO) prior to implementing. Prior to the reopening of taxiways, the TSA will be cleared and graded to TSA standards. Appropriate NOTAMs will be issued by the Safety Officer as noted in Section 10.

D. Taxiway Object Free Area (TOFA)

No equipment or personnel shall enter the TOFA while the taxiway is open for aircraft operations unless escorted by airport operations or by trained escorts equipped with an air band two-way radio for monitoring aircraft operations. Construction inside the TOFA will require that portion of the taxiway to be closed or the taxiway shifted to remove the work area from the TOFA. Appropriate NOTAMs will be issued by the Safety Officer as noted in Section 10. Hazardous Marking and Lighting will be provided and maintained by contractor as discussed in Hazard Marking and Lighting, Section 17. Prior to the reopening of taxiways, the TOFA will be cleared and graded to standards.

E. Runway Obstacle Free Zone (OFZ)

No construction equipment or personnel shall penetrate the ROFZ of an active runway. As noted in Section 19, no tall equipment will be allowed during the project. See Section 6 regarding limitations of stockpiled materials.

F. Runway Approach/Departure Areas and Clearways
No personnel, material, or equipment shall penetrate any approach siting surface or runway clearways while the runway is open for aircraft operations.

19. OTHER LIMITATIONS ON CONSTRUCTION
The use of tall equipment (cranes, concrete pumps, etc.) is prohibited without advanced approval and a 7460-1 determination letter. Open flame welding or torches, electrical blasting caps, and flare pots shall be strictly prohibited during construction of this project.

20. ARFF COORDINATION
This project will minorly impact ARFF access routes to the airfield. ARFF vehicles shall maintain access to closed areas of the airfield by gaps in the barricades for emergency access. Construction activities will not deactivate utilities critical to ARFF operations. ARFF vehicles always have the right-of-way.

PART 2 - MEASUREMENT AND PAYMENT

Measurement and payment for the work required under this Section shall be made under Specification Section 013523 Airport Project Safety Procedures.

END SECTION

344125 Item L-125 Installation of Airport Lighting Systems

DESCRIPTION

125-1.1 This item shall consist of airport lighting systems furnished and installed in accordance with this specification, the referenced specifications, and the applicable advisory circulars (ACs). The systems shall be installed at the locations and in accordance with the dimensions, design, and details shown in the plans. This item shall include the furnishing of all equipment, materials, services, and incidentals necessary to place the systems in operation as completed units to the satisfaction of the RPR.

EQUIPMENT AND MATERIALS

125-2.1 General.

a. Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be certified under the Airport Lighting Equipment Certification Program in accordance with AC 150/5345-53, current version. FAA certified airfield lighting shall be compatible with each other to perform in compliance with FAA criteria and the intended operation. If the Contractor provides equipment that does not performs as intended because of incompatibility with the system, the Contractor assumes all costs to correct the system for to operate properly.

b. Manufacturer's certifications shall not relieve the Contractor of their responsibility to provide materials in accordance with these specifications and acceptable to the RPR. Materials supplied and/or installed that do not comply with these specifications shall be removed, when directed by the RPR and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

c. All materials and equipment used shall be submitted to the RPR for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Clearly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be clearly made with arrows or circles (highlighting is not acceptable). The Contractor shall be responsible for delays in the project accruing directly or indirectly from late submissions or resubmissions of submittals.

d. The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the plans and specifications. The Contractor's submittals shall be submitted in electronic PDF format, tabbed by specification section. The RPR reserves the right to reject any or all equipment, materials or procedures, which, in the RPR's opinion, does not meet the system design and the standards and codes, specified herein.

e. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least twelve (12) months from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

EQUIPMENT AND MATERIALS

125-2.2 Conduit/Duct. Conduit shall conform to Specification Item L-110 Airport Underground Electrical Duct Banks and Conduits.

125-2.3 Cable and Counterpoise. Cable and Counterpoise shall conform to Item L-108 Underground Power Cable for Airports.

125-2.4 Tape. Rubber and plastic electrical tapes shall be Scotch Electrical Tape Numbers 23 and 88 respectively, as manufactured by 3M Company or an approved equal.

125-2.5 Cable Connections. Cable Connections shall conform to Item L-108 Installation of Underground Cable for Airports.

125-2.6 Retroreflective Markers. Retroreflective markers shall be type L-853 and shall conform to the requirements of AC 150/5345-39. Reflectors shall be Type II, Style I for taxiway edge marking.

Provide spare reflector, same type as installed, complete including mounting means, types as noted below.

Spare Reflectors – Schedule C

Type	Reflector	Qty
L-853	Blue	6
	Pavement Base	2
	Soil Stake	1

125-2.7 Runway and Taxiway Lights. Runway and taxiway lights shall conform to the requirements of AC 150/5345-46. Lamps shall be of size and type indicated, or as required by fixture manufacturer for each lighting fixture required under this contract. Filters shall be of colors conforming to the specification for the light concerned or to the standard referenced. Lights shall be furnished without Artic Kits.

Lights

Type	Class	Mode	Style	Base	Filter	Transformer	Notes
L-861T (L)	N/A	1	N/A	L-867	N/A	L-830	24”
L-862(L)	N/A	1	N/A	L-868	Per Plans	L-830	24”

Provide spare fixtures, same type as installed, complete including baseplate (for elevated fixtures), types as noted below.

Spare Lights – Schedule C1

Type	Lens	Qty
L-861T	Blue	2

125-2.8 Runway and Taxiway Signs. Runway and Taxiway Guidance Signs should conform to the requirements of AC 150/5345-44.

Signs

Type	Size	Style	Class	Mode	Notes
L-858(L)	1 & 2 Per Plans	2	2	2	N/A
L-858	Per Plans	4	2	N/A	Unlighted

Provide sign parts, same type as installed, complete including baseplate (for elevated fixtures), types as noted below.

Spare Sign Parts – Schedule C

Description	Qty
Frangible coupling/legs	8
LED Light, 2 minimum for each size provided, total as noted	6
Power Supply, 2 minimum for each size provided, total as noted	6

125-2.9 Runway End Identifier Light (REIL). Not required.

125-2.10 Precision Approach Path Indicator (PAPI). Not required.

125-2.11 Circuit Selector Cabinet. Not required.

125-2.12 Light Base and Transformer Housings. Light Base and Transformer Housings should conform to the requirements of AC 150/5345-42. Base plates, cover plates, and adapter plates shall be provided to accommodate various sizes of fixtures.

Elevated light bases shall be Type L-867, Class 1A, Size B. Basecans shall be two-piece construction where noted in plans.

Basecan handholes (cans with blank covers) shall be Type L-867, Class 1A, Size B if located in non-movement areas.

125-2.13 Isolation Transformers. Isolation Transformers shall be Type L-830, size as required for each installation. Transformer shall conform to AC 150/5345-47.

INSTALLATION

125-3.1 Installation. The Contractor shall furnish, install, connect and test all equipment, accessories, conduit, cables, wires, buses, grounds and support items necessary to ensure a complete and operable airport lighting system as specified here and shown in the plans.

The equipment installation and mounting shall comply with the requirements of the National Electrical Code and state and local code agencies having jurisdiction.

The Contractor shall install the specified equipment in accordance with the applicable advisory circulars and the details shown on the plans.

125-3.2 Testing. All lights shall be fully tested by continuous operation for not less than 24 hours as a completed system prior to acceptance. The test shall include operating the constant current regulator in each step not less than 10 times at the beginning and end of the 24-hour test. The fixtures shall illuminate properly during each portion of the test.

125-3.3 Shipping and Storage. Equipment shall be shipped in suitable packing material to prevent damage during shipping. Store and maintain equipment and materials in areas protected from weather and physical damage. Any equipment and materials, in the opinion of the RPR, damaged during construction or storage shall be replaced by the Contractor at no additional cost to the owner. Painted or galvanized surfaces that are damaged shall be repaired in accordance with the manufacturer's recommendations.

125-3.4 Elevated and In-pavement Lights. Water, debris, and other foreign substances shall be removed prior to installing light. Light fixtures shall be oriented with the light beams parallel to the runway or taxiway centerline and facing in the required direction. A jig or holding device shall be used when installing each light fixture to ensure positioning to the proper elevation, alignment, level control, and azimuth control. Furnish and use the vendor's recommended aiming device for elevated fixtures, and turn over to airport maintenance when complete. The outermost edge of fixture shall be level with the surrounding pavement. Surplus sealant or flexible embedding material shall be removed. The holding device shall remain in place until sealant has reached its initial set.

Where feasible, drains shall be provided from closed conduit lighting systems into adjacent, constructed drainage systems or swales.

125-3.5 L-867 Mounting Bases. Installation methods must adhere to manufacturer's instructions.

- **a.** The light base must be as shown in the plans.
- **b.** If the soil is unsuitable, then remove an adequate depth of soil and replace it with compacted acceptable material.
- **c.** Bases shall be precast unless conditions require cast-in-place. Bases to be installed in concrete pads, such as for signs, should have the top section of the base bare to the depth of the pad to allow integral construction in the pad. Slope the top of the concrete away from the flange portion of the base. After casting, remove a minimum of 4" of the top of the casting tube, except those bases to be integrated into pads.
- **d.** Orient the cable entrance hubs in the proper direction.
- **e.** Level and elevate the light base so that the mounting flange surface is approximately one inch above the finished grade.
- **f.** Provide select earth backfill, and compact. When installing in sloping ground, shape the uphill and downhill portions to provide a smooth transition and to avoid creating pockets on the cast surround where runoff could accumulate.

125-3.6 L-868 Mounting Bases in New Rigid Pavements. Not used.

125-3.7 L-868 Mounting Bases in New Flexible Pavements. Not used.

125-3.8 Constant Current Regulator Reconfiguration. Reconfiguration of the Taxiway N constant current regulator shall be completed by the Contractor per manufacturer instructions. Contractor shall be required to contact constant current regulator manufacturer to obtain instructions for re-tapping the constant current regulators for reduced lighting load. The Contractor shall coordinate with the RPR prior to reconfiguring the constant current regulator to determine exact new lighting load.

METHOD OF MEASUREMENT

125-4.1. Runway and taxiway lights will be measured by the number of each type installed as completed units in place, ready for operation, and accepted by the RPR. Guidance signs will be measured by the number of each type and size installed as completed units, in place, ready for operation, and accepted by the RPR.

Salvage Edge/End Light shall consist of the salvage of existing runway and taxiway lights, elevated or flush, with base plate, and transformer, and preservation for reinstallation or turnover to airport maintenance for spares stock. Unless noted otherwise on the plans, this item shall include demolition and disposal of basecan

Elevated Runway Edge Light shall consist of providing a new runway edge light with isolation transformer on an existing L-868 basecan to replace a salvaged flush light. Item shall include all baseplates, spacers, adapter rings, and gaskets required.

Reinstall Elevated Runway End Light shall include providing a new L-867 basecan with all the provisions shown in the plans and as noted herein, and the installation and connection of a salvaged Runway End Light and salvaged transformer.

Taxiway Edge Light shall consist of providing a new edge light, isolation transformer, and new L-867 basecan with all the provisions shown in the plans and as noted herein.

Reinstall Taxiway Edge Light shall consist of providing a new L-867 basecan with all the provisions shown in the plans and as noted herein, and the installation and connection of a salvaged Taxiway Edge Light and transformer.

Salvage Sign shall consist of the removal of existing lighted sign with transformer and for turnover to airport maintenance for spares stock. If determined to be unneeded by the airport within seven working days, item shall include disposal of sign at licensed off-site facility.

Sign Base Demolition shall include demolition and disposal of sign pad and basecan, and preservation of connecting conduit for reconnection.

Sign Base Extension shall consist of lengthening existing Size 1 sign pad to accommodate longer Size 1 sign as shown in the plans.

Sign Base Construction shall consist of providing sign bases as shown in the plans. Separate measurement and payment shall be made for the different sign lengths required.

L-858(L) Sign shall consist of providing signs as shown in the plans. Separate measurement and payment shall be made for the different sizes and lengths required.

Spare Parts shall consist of providing the light and sign parts as noted herein, in original packaging, checked for damage in the presence of airport personnel, and turned over to the airport representative. Schedule C spares shall consist of sign and reflector spare parts. Schedule C1 spares shall consist of taxiway edge light spare parts.

Salvage reflector shall consist of removal of removable upper section and mounting base, and turn over to airport personnel of upper section and base if in usable condition.

Rehabilitated Taxiway Edge Light shall consist of providing a new LED edge light and isolation transformer on existing base can with all the provisions shown in the plans and as noted herein.

Bolt repair shall consist of installation of threaded insert designed for basecan use.

Reconfiguration of the existing Constant Current Regulator shall consist of adjustment of the regulator as designed by the electrical engineer including all the provisions shown in the plans and as noted herein.

BASIS OF PAYMENT

125-5.1 Payment will be made at the Contract unit price for each complete runway or taxiway light, guidance sign, and reflective marker installed by the Contractor and accepted by the RPR. This payment will be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, basecans, ground rods, concrete base, testing, tools and incidentals necessary to complete this item.

Payment will be made under:

Item L-125-5.1	Salvage Edge/End Light - per each
Item L-125-5.2	Elevated Runway Edge Light - per each
Item L-125-5.3	Reinstall Elevated Runway End Light - per each
Item L-125-5.4	Taxiway Edge Light - per each
Item L-125-5.5	Reinstall Taxiway Edge Light - per each
Item L-125-5.6	Salvage Sign - per each
Item L-125-5.7	Sign Base Demolition – per each
Item L-125-5.8	Sign Base Extension - per each
Item L-125-5.9	Sign Base Construction, 1-Module – per each
Item L-125-5.10	Sign Base Construction, 2-Module – per each
Item L-125-5.11	Sign Base Construction, 3-Module – per each
Item L-125-5.12	L-858(L) Sign, Size 1, 2-Module- per each
Item L-125-5.13	L-858(L) Sign, Size 1, 3-Module- per each
Item L-125-5.14	L-858(L) Sign, Size 2, 1-Module- per each
Item L-125-5.15	L-858(L) Sign, Size 2, 2-Module- per each
Item L-125-5.17	L-858 Sign Unlighted, Size 1, 1-Module- per each
Item L-125-5.18	L-858(L) Sign, Size 2, 1-Module- per each
Item L-125-5.19	Spare Parts – Schedule C – per lump sum
Item L-125-5.20	Spare Parts – Schedule C1 – per lump sum
Item L-125-5.21	Taxiway Edge Reflector– per each
Item L-125-5.22	Taxiway Edge Reflector Salvage– per each
Item L-125-5.23	Constant Current Regulator Reconfigurations – per lump sum
Item L-125-5.24	Rehabilitated L-861T(L) LED Elevated Taxiway Edge Light Installed on Existing Base Can - per each
Item L-125-5.25	Bolt Repair/Threaded Insert Repair Kit – per each repaired

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Advisory Circulars (AC)

AC 150/5340-18	Standards for Airport Sign Systems
AC 150/5340-26	Maintenance of Airport Visual Aid Facilities
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-5	Circuit Selector Switch
AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-26	Specification for L-823 Plug and Receptacle, Cable Connectors
AC 150/5345-28	Precision Approach Path Indicator (PAPI) Systems
AC 150/5345-39	Specification for L-853, Runway and Taxiway Retroreflective Markers
AC 150/5345-42	Specification for Airport Light Bases, Transformer Housings, Junction Boxes, and Accessories
AC 150/5345-44	Specification for Runway and Taxiway Signs
AC 150/5345-46	Specification for Runway and Taxiway Light Fixtures
AC 150/5345-47	Specification for Series to Series Isolation Transformers for Airport Lighting Systems
AC 150/5345-51	Specification for Discharge-Type Flashing Light Equipment
AC 150/5345-53	Airport Lighting Equipment Certification Program

Engineering Brief (EB)

EB No. 67	Light Sources Other than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures

END OF ITEM L-125

3. CCR Shutdown Procedure

See Figure 4-1. To shut down the CCR, set the rotary switch to position OFF.

NOTE: Power to the output terminals is now off, and the regulator cannot be energized by remote control signals. Power is still present on the input power terminals and on the internal control circuitry.

To remove input power, disengage disconnect switch or external circuit breaker.

4. CCR Adjustment Procedures

This subsection provides procedures for adjusting output current and overcurrent.

NOTE: The regulator has been adjusted at the factory to provide the nominal output current levels as given in Table 2-10. If the current level settings need to be adjusted, read the following warning statement before proceeding.

WARNING: Only personnel qualified to work on high voltage systems should attempt to make any adjustments on the constant current regulator.

WARNING: Turn the rotary selector switch on the front panel of the regulator to position OFF. Remove input power before servicing control circuitry.

WARNING: Never service the regulator when it is in protective shutdown mode, Remote controls or power fluctuations can restart the regulator.

Adjusting Output Current

To adjust the output current, perform the following procedure:

1. Connect a clamp-on true rms-reading instrument (such as a Fluke 87 multimeter with Y8101A current clamp or equivalent) around one of the output current leads.

   NOTE: Make sure the meter is set on the AC current scale.

   NOTE: Because the output current waveform is not a true sine wave, the ammeter must be of the true-rms type. Field instruments such as clamp-on ammeters and Simpson voltmeters will give erroneously low readings.

2. Turn on the CCR and set local control switch to the highest intensity step, 5 for 5-step CCR or 100 for a 3-step CCR.

   NOTE: See Figure 4-2. The external true-rms ammeter (1) should read 6.60 ±0.1 amps (or 20.0 ±0.1 amps). If the reading is outside of this range, adjust potentiometer R47 (7) on the Control PCB to obtain correct.

   NOTE: Potentiometer R47 is the master reference adjustment. Changing this potentiometer changes the adjustment of potentiometers R48 (8), R46 (6), R45 (5), R44 (4), and R43 (3).

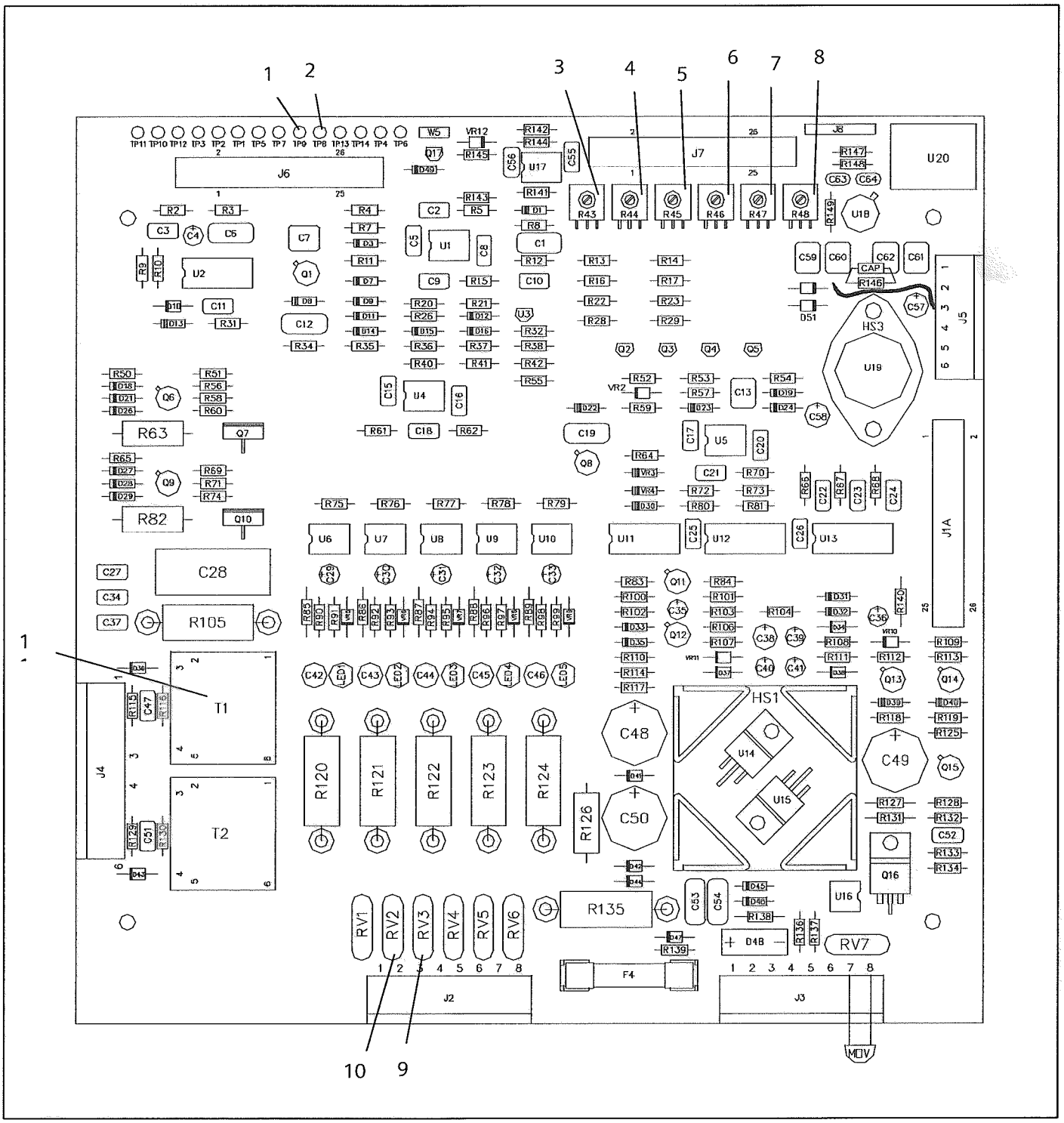


Figure 4-2 Control PCB

Assem. # 44D1475
SEA # 28040194

Adjusting Output Current
(contd.)

3. Set the local switch to next to the lowest brightness step, and verify that the true-rms ammeter reading corresponds to Tables 4-5 and 4-6. If the reading is not in the current value range given in Tables 4-5 and 4-6, adjust the appropriate potentiometer listed in the table until the correct current value is obtained.

Table 4-5 Potentiometers for 3-Step Output Current Levels

CCR S1 Position	Ammeter Reading	Potentiometer
30	5.50	R46
10	4.80	R45

Table 4-6 Potentiometers for 5-Step Output Current Levels

CCR S1 Position	Ammeter Reading	Potentiometer
4	5.20 (15.8)	R46
3	4.10 (12.4)	R45
2	3.40 (10.3)	R44
1	2.80 (8.5)	R43

3. Repeat Step 2 for the remaining lower brightness step(s).

NOTE: See Figure 4-2. Potentiometers R43 (3), R44 (4), R45 (5), R46 (6) have independent circuits, so any adjustments made on these potentiometers will not effect the adjustment of the other three potentiometers.

4. When the output current adjustment has been completed, turn off the CCR. Remove shorting cable on output varistors, if used.

   NOTE: Potentiometers R44 (4) and R43 (3) are used only on 5-step CCRs. R44 and 43 have no function on a 3-step CCR.

Adjusting Overcurrent

Before adjusting the overcurrent, set up the regulator and adjust the output current.

To adjust the overcurrent, perform the following procedure:

1. See Figure 4-2. With power off, connect a test lead across TP7 (1) and TP9 (2) on the Control PCB. This will move the trip level for the overcurrent detection threshold from the normal operating point of 6.93 amps to 6.6 amps (21.0 A to 20.0 A).

2. Turn the local switch to the highest brightness step, 5 for 5-step CCR or 100 for a 3-step CCR. Ammeter should read 6.6 or 20.0 amps.

   NOTE: Do not change the adjustment of R47 (7), since this not only will affect the output current of the CCR but the potentiometer adjustment levels for all other current levels.

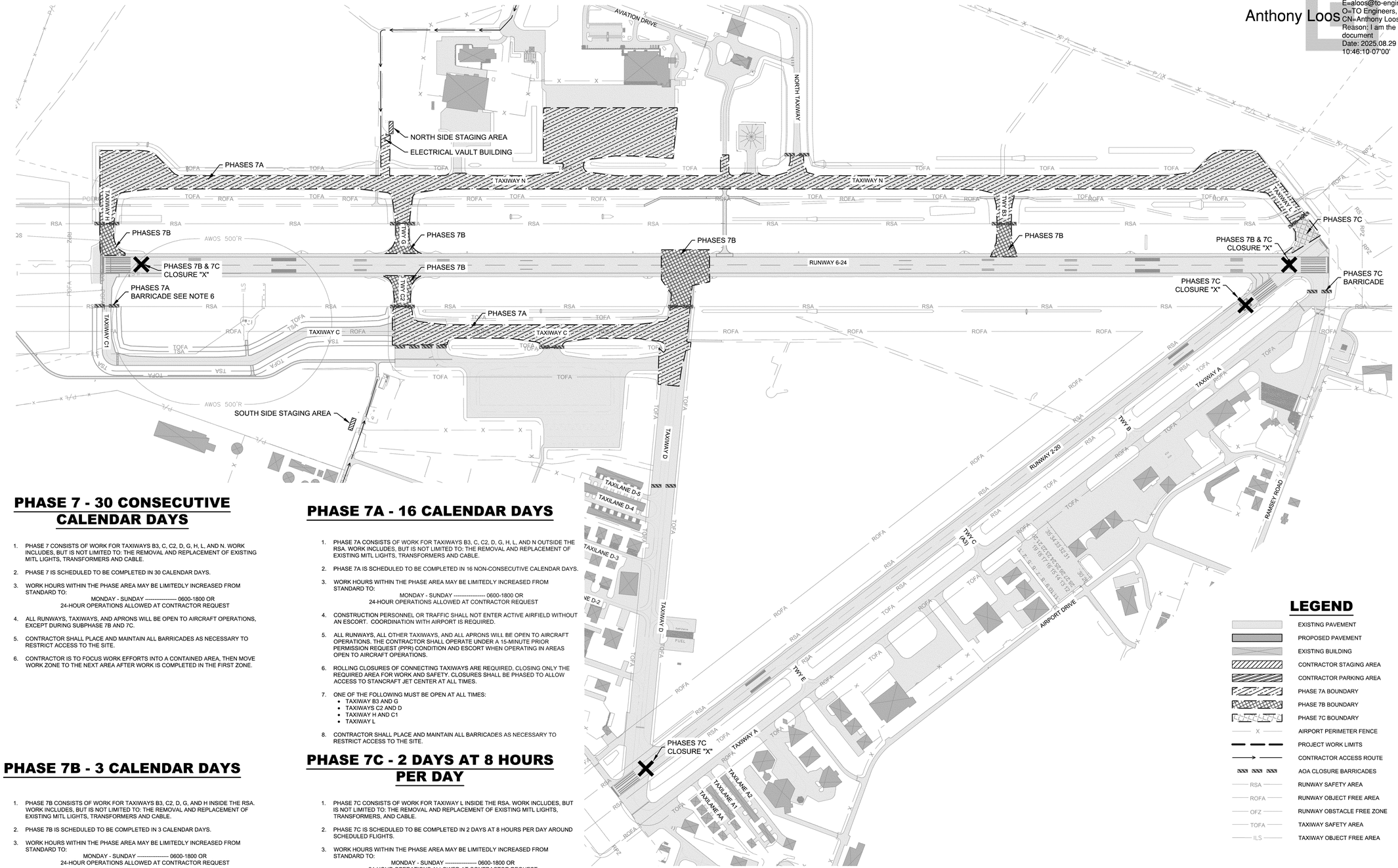
3. Physically center the overcurrent potentiometer R48 (8). While viewing the red overcurrent LED (3) on the control panel, slowly turn R48 (8) clockwise until the LED begins to glow. Then quickly turn control switch S1 (6) to the next lower intensity step. This will turn the LED off because the current level is less.

   NOTE: If the potentiometer R48 is turned too far, the CCR will shut down. If this should occur, return potentiometer R48 to the centered position and reset the CCR by momentarily turning off the CCR off and then back on.

4. While watching the overcurrent LED, return S1 to the highest intensity step, and time how long it takes for the overcurrent LED indicator to start to glow. It should take 3 ±1 s.

   NOTE: If the LED comes on in less than 2 seconds, turn potentiometer R48 a slightly counterclockwise. If more than 4 seconds are required for the LED to light, turn R48 slightly clockwise. Repeat Step 4 until the correct time period (3 ±1 s) is obtained.

5. Turn off the CCR and remove test leads from TP7 (1) and TP9 (2). The trip level for the overcurrent threshold is now calibrated for 6.93 amps.



PHASE 7 - 30 CONSECUTIVE CALENDAR DAYS

1. PHASE 7 CONSISTS OF WORK FOR TAXIWAYS B3, C, C2, D, G, H, L, AND N. WORK INCLUDES, BUT IS NOT LIMITED TO: THE REMOVAL AND REPLACEMENT OF EXISTING MITL LIGHTS, TRANSFORMERS AND CABLE.
2. PHASE 7 IS SCHEDULED TO BE COMPLETED IN 30 CALENDAR DAYS.
3. WORK HOURS WITHIN THE PHASE AREA MAY BE LIMITEDLY INCREASED FROM STANDARD TO:
   MONDAY - SUNDAY ---------- 0600-1800 OR
   24-HOUR OPERATIONS ALLOWED AT CONTRACTOR REQUEST
4. ALL RUNWAYS, TAXIWAYS, AND APRONS WILL BE OPEN TO AIRCRAFT OPERATIONS, EXCEPT DURING SUBPHASE 7B AND 7C.
5. CONTRACTOR SHALL PLACE AND MAINTAIN ALL BARRICADES AS NECESSARY TO RESTRICT ACCESS TO THE SITE.
6. CONTRACTOR IS TO FOCUS WORK EFFORTS INTO A CONTAINED AREA, THEN MOVE WORK ZONE TO THE NEXT AREA AFTER WORK IS COMPLETED IN THE FIRST ZONE.

PHASE 7B - 3 CALENDAR DAYS

1. PHASE 7B CONSISTS OF WORK FOR TAXIWAYS B3, C2, D, G, AND H INSIDE THE RSA. WORK INCLUDES, BUT IS NOT LIMITED TO: THE REMOVAL AND REPLACEMENT OF EXISTING MITL LIGHTS, TRANSFORMERS AND CABLE.
2. PHASE 7B IS SCHEDULED TO BE COMPLETED IN 3 CALENDAR DAYS.
3. WORK HOURS WITHIN THE PHASE AREA MAY BE LIMITEDLY INCREASED FROM STANDARD TO:
   MONDAY - SUNDAY ---------- 0600-1800 OR
   24-HOUR OPERATIONS ALLOWED AT CONTRACTOR REQUEST
4. RUNWAY 6-24, TAXIWAY C2, TAXIWAY G, TAXIWAY D, TAXIWAY L, TAXIWAY H AND TAXIWAY B3 WILL BE CLOSED WHEN PHASE 7B WORK IS PERFORMED. ALL OTHER AOAS SHALL REMAIN OPEN TO AIRCRAFT OPERATIONS.
5. ONE OF THE FOLLOWING MUST BE OPEN AT ALL TIMES:
   - TAXIWAY B3 OR L
6. CONTRACTOR SHALL PLACE AND MAINTAIN ALL BARRICADES AS NECESSARY TO RESTRICT ACCESS TO THE SITE.
7. NO WORK CAN BE CONSTRUCTED IN THIS AREA, IF THERE IS STILL ACTIVE FIRE FIGHTING AIRCRAFT AT THE AIRPORT. IF WORK IS READY TO BEGIN DURING ACTIVE FIRE SEASON, THE CONTRACTOR CAN ELECT TO REHABILITATE LIGHTING AT NIGHT DUE TO FIRE OPERATIONS NOT OCCURRING DURING THE DARK.

PHASE 7A - 16 CALENDAR DAYS

1. PHASE 7A CONSISTS OF WORK FOR TAXIWAYS B3, C, C2, D, G, H, L, AND N OUTSIDE THE RSA. WORK INCLUDES, BUT IS NOT LIMITED TO: THE REMOVAL AND REPLACEMENT OF EXISTING MITL LIGHTS, TRANSFORMERS AND CABLE.
2. PHASE 7A IS SCHEDULED TO BE COMPLETED IN 16 NON-CONSECUTIVE CALENDAR DAYS.
3. WORK HOURS WITHIN THE PHASE AREA MAY BE LIMITEDLY INCREASED FROM STANDARD TO:
   MONDAY - SUNDAY ---------- 0600-1800 OR
   24-HOUR OPERATIONS ALLOWED AT CONTRACTOR REQUEST
4. CONSTRUCTION PERSONNEL OR TRAFFIC SHALL NOT ENTER ACTIVE AIRFIELD WITHOUT AN ESCORT. COORDINATION WITH AIRPORT IS REQUIRED.
5. ALL RUNWAYS, ALL OTHER TAXIWAYS, AND ALL APRONS WILL BE OPEN TO AIRCRAFT OPERATIONS. THE CONTRACTOR SHALL OPERATE UNDER A 15-MINUTE PRIOR PERMISSION REQUEST (PPR) CONDITION AND ESCORT WHEN OPERATING IN AREAS OPEN TO AIRCRAFT OPERATIONS.
6. ROLLING CLOSURES OF CONNECTING TAXIWAYS ARE REQUIRED, CLOSING ONLY THE REQUIRED AREA FOR WORK AND SAFETY. CLOSURES SHALL BE PHASED TO ALLOW ACCESS TO STANCRAFT JET CENTER AT ALL TIMES.
7. ONE OF THE FOLLOWING MUST BE OPEN AT ALL TIMES:
   - TAXIWAY B3 AND G
   - TAXIWAYS C2 AND D
   - TAXIWAY H AND C1
   - TAXIWAY L
8. CONTRACTOR SHALL PLACE AND MAINTAIN ALL BARRICADES AS NECESSARY TO RESTRICT ACCESS TO THE SITE.

PHASE 7C - 2 DAYS AT 8 HOURS PER DAY

1. PHASE 7C CONSISTS OF WORK FOR TAXIWAY L INSIDE THE RSA. WORK INCLUDES, BUT IS NOT LIMITED TO: THE REMOVAL AND REPLACEMENT OF EXISTING MITL LIGHTS, TRANSFORMERS, AND CABLE.
2. PHASE 7C IS SCHEDULED TO BE COMPLETED IN 2 DAYS AT 8 HOURS PER DAY AROUND SCHEDULED FLIGHTS.
3. WORK HOURS WITHIN THE PHASE AREA MAY BE LIMITEDLY INCREASED FROM STANDARD TO:
   MONDAY - SUNDAY ---------- 0600-1800 OR
   24-HOUR OPERATIONS ALLOWED AT CONTRACTOR REQUEST
4. RUNWAY 6-24 AND RUNWAY 2-20 WILL BE CLOSED WHEN PHASE 7C WORK IS PERFORMED. ALL OTHER AOAS SHALL REMAIN OPEN TO AIRCRAFT OPERATIONS.
5. CONTRACTOR SHALL PLACE AND MAINTAIN ALL BARRICADES AS NECESSARY TO RESTRICT ACCESS TO THE SITE.
6. NO WORK CAN BE CONSTRUCTED IN THIS AREA, IF THERE IS STILL ACTIVE FIRE FIGHTING AIRCRAFT AT THE AIRPORT. IF WORK IS READY TO BEGIN DURING ACTIVE FIRE SEASON, THE CONTRACTOR CAN ELECT TO REHABILITATE LIGHTING AT NIGHT DUE TO FIRE OPERATIONS NOT OCCURRING DURING THE DARK.

LEGEND

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- EXISTING BUILDING
- CONTRACTOR STAGING AREA
- CONTRACTOR PARKING AREA
- PHASE 7A BOUNDARY
- PHASE 7B BOUNDARY
- PHASE 7C BOUNDARY
- AIRPORT PERIMETER FENCE
- PROJECT WORK LIMITS
- CONTRACTOR ACCESS ROUTE
- AOA CLOSURE BARRICADES
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- OFZ — RUNWAY OBSTACLE FREE ZONE
- TOFA — TAXIWAY SAFETY AREA
- ILS — TAXIWAY OBJECT FREE AREA

0' 150' 300' 600' 900'

Anthony Loos
Digitally signed by Anthony Loos
DN: C=US, E=aloos@to-engineers.com, O=TO Engineers, CN=Anthony Loos
Reason: I am the author of this document
Date: 2025.08.29 10:46:10-07'00'

PROFESSIONAL ENGINEER LICENSED 18913 8/29/25 STATE OF IDAHO ANTHONY D. LOOS

BORDER SIZE	22"x34"
DESIGNED	ADL
DRAWN	CSH
CHECKED	CES
APPROVED	ADL

NO.	DESCRIPTION	DATE

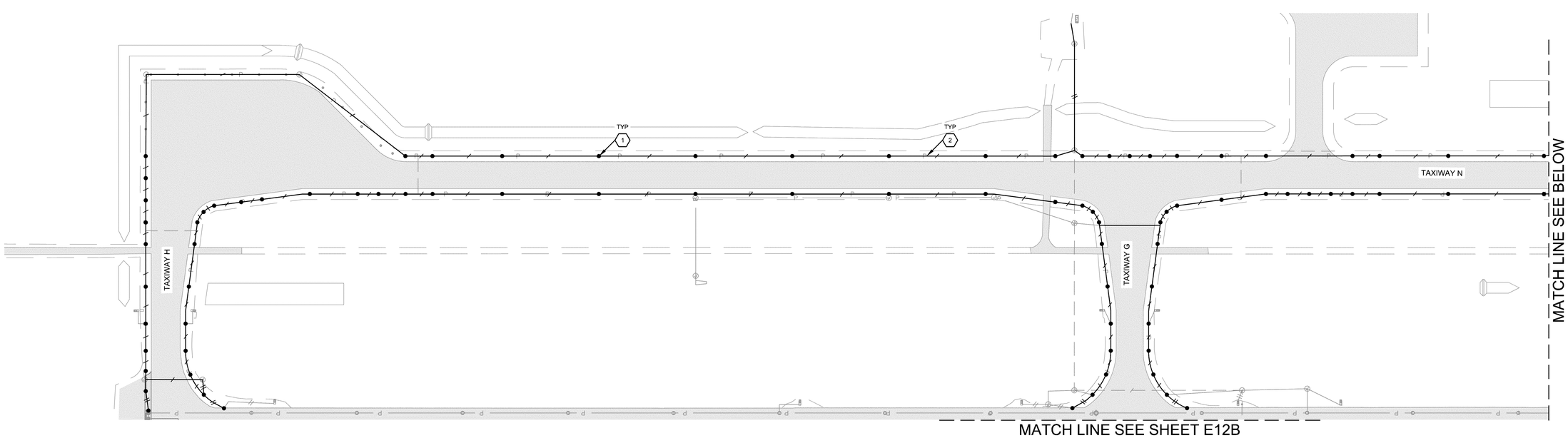
ARDURRA
7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
208-762-3844 | WWW.ARDURRA.COM

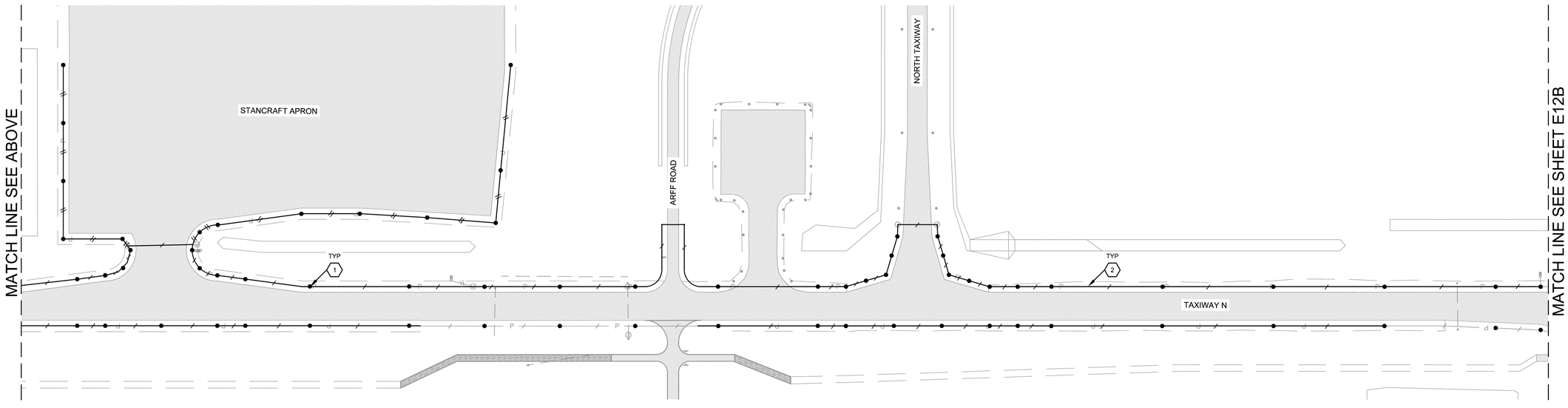
COEUR D'ALENE AIRPORT
EXTEND TAXIWAY C & RELOCATE MALSR THRESHOLD LIGHTS
CONSTRUCTION SAFETY & PHASING PLAN
PHASE 7 - SUPPLEMENTAL AGREEMENT NO.1

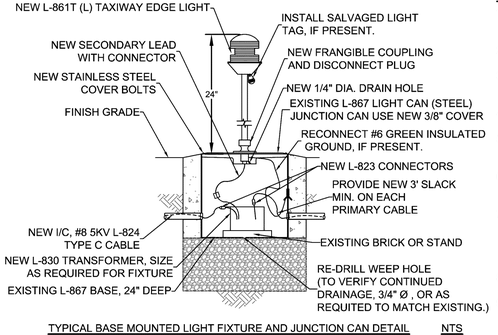
ATTENTION:
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" ON 22x34 SHEET or 1/2" ON 11x17 SHEET, THEN DRAWING IS NOT TO SCALE

DATE: August 29, 2025
PROJECT: 220406
SHEET: 12A

J:\220406\3_ACAD\DWG\SHEETS\CONSTRUCTION SAFETY AND PHASING PLAN-CO_3.DWG, 8/29/2025







TYPICAL BASE MOUNTED LIGHT FIXTURE AND JUNCTION CAN DETAIL NTS

NOTES

1. 6 FEET OF SLACK CABLE SHALL BE PROVIDED WITH EACH CONNECTED TRANSFORMER, 3 FEET FOR EACH CABLE WITH SPLICE CONNECTOR.
2. CABLE ROUTING IS APPROXIMATE. CONTRACTOR TO VERIFY ROUTING.
3. CONTRACTOR WILL REPLACE MITL WITH NEW LED MITL, BOLTS, GASKETS, AND BASE PLATES. ELECTRICAL CONTRACTOR WILL PULL IN NEW CABLE AND INSTALL SPLICES, AND TRANSFORMERS.
4. SEE LIGHTING DETAIL FOR MITL, INSTALLATION AND GROUNDING.
5. RE-DRILLING WEEP HOLE, REMOVE DEBRIS FROM CAN, AND CONFIRM BRICK OR STAND SUPPORT FOR TRANSFORMER AT EACH CAN. INFORM RPR, IF NO TRANSFORMER SUPPORT STAND OR BRICK.
6. ALL BASECANS AND CONDUIT ARE EXISTING, TO REMAIN AS-IS. SCOPE IS REPLACEMENT OF CABLE AND LIGHTS WITH TRANSFORMERS.
7. REPLACE CIRCUIT N CABLE COMPLETE, TO ALL LIGHTS AND SIGNS. IF N CIRCUIT CABLE IS FOUND TO SHARE RACEWAY WITH OTHER CIRCUIT, MAKING REPLACEMENT DIFFICULT, NOTIFY AIRPORT AND MAKE RECOMMENDATION OF HOW TO PROCEED (PULL ALL CABLES AND REINSTALL WITH NEW OR LEAVE AS-IS IF SEGMENT HAS GOOD MEGGER READINGS).
8. CONTRACTOR TO REPAIR BAD BASE CAN BOLT HOLES.
9. CIRCUIT SHALL BE MEGGER TESTED PRIOR AND AT BEGINNING AND COMPLETION OF CABLING INSTALLATION, INCLUDING TESTING OF CIRCUIT SEGMENTS TO IDENTIFY AREAS LESS THAN 250 MEGAOHMS.

KEY NOTES

1	REMOVE TAXIWAY EDGE LIGHT AND TRANSFORMER. PROVIDE LED TAXIWAY EDGE LIGHT WITH TRANSFORMER ON EXISTING BASECAN.
2	REMOVE EXISTING 5kV CABLE IN EXISTING CONDUIT. PROVIDE 5kV CABLE IN EXISTING CONDUIT.

LEGEND

- EXISTING PAVEMENT
- P — EXISTING UNDERGROUND POWER
- EXISTING TAXIWAY LIGHTS
- PROPOSED MITL CABLE
- PROPOSED TAXIWAY LIGHTS

0' 50' 100' 200' 300'

PROFESSIONAL ENGINEER LICENSED Anthony Loos 18913 8/29/25 STATE OF IDAHO ANTHONY D. LOOS

BORDER SIZE	22"x34"
DESIGNED	ADL
DRAWN	CSH
CHECKED	CES
APPROVED	CES

REVISIONS

NO.	DESCRIPTION	DATE
1	CHANGE ORDER #3	7/24/25

ARDURRA
7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
208-762-3644 | WWW.ARDURRA.COM

COEUR D'ALENE AIRPORT
EXTEND TAXIWAY C & RELOCATE MALSR THRESHOLD LIGHTS
ELECTRICAL PLAN

ATTENTION: 0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" ON 22x34 SHEET or 1/2" ON 11x17 SHEET, THEN DRAWING IS NOT TO SCALE

DATE: August 29, 2025
PROJECT: 220406
SHEET: E12A

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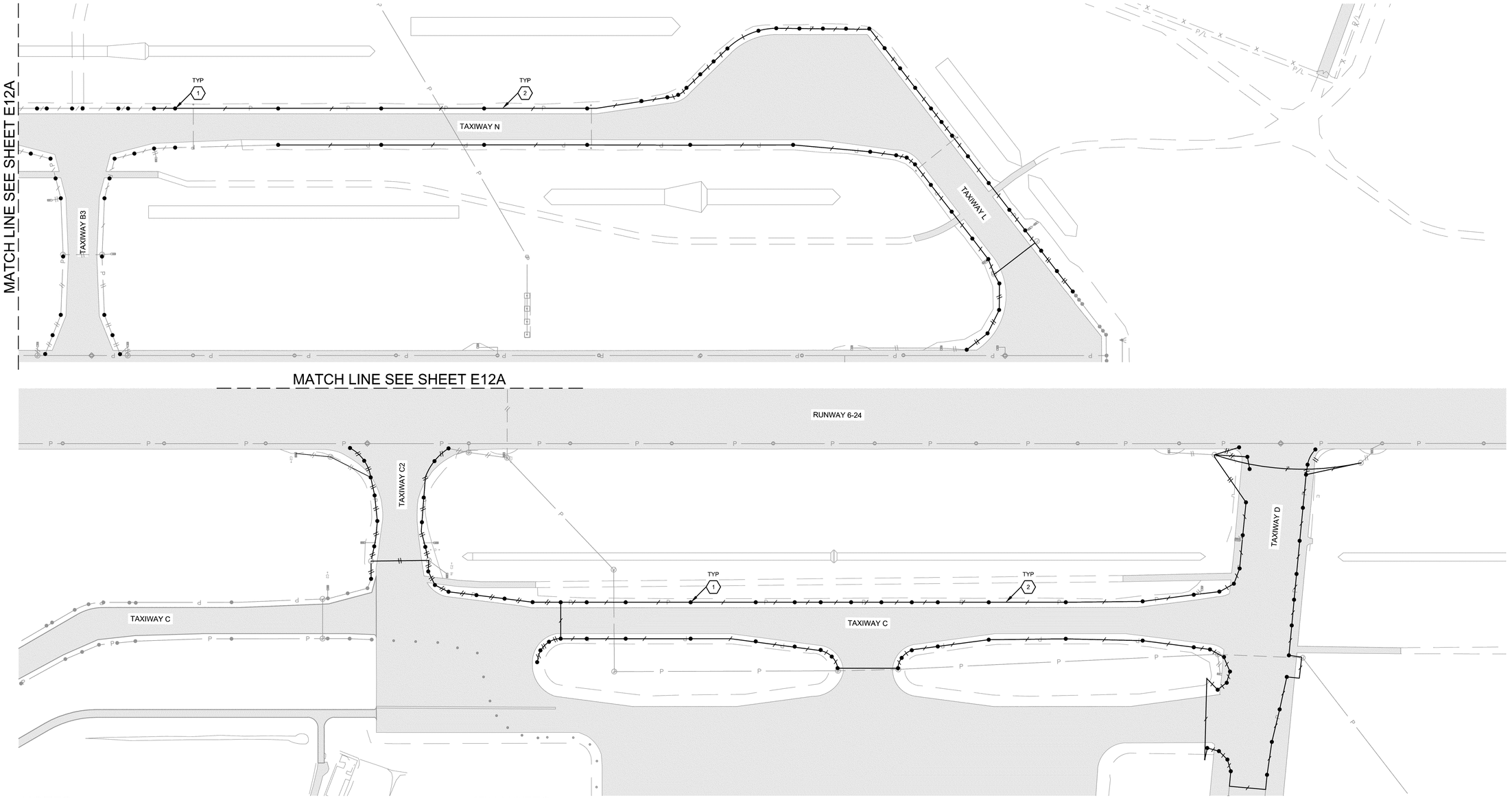

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2. CABLE ROUTING IS APPROXIMATE. CONTRACTOR TO VERIFY ROUTING.
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4. SEE LIGHTING DETAIL FOR MITL, INSTALLATION AND GROUNDING.
5. RE-DRILLING WEEP HOLE, REMOVE DEBRIS FROM CAN, AND CONFIRM BRICK OR STAND SUPPORT FOR TRANSFORMER AT EACH CAN. INFORM RPR, IF NO TRANSFORMER SUPPORT STAND OR BRICK.
6. ALL BASECANS AND CONDUIT ARE EXISTING, TO REMAIN AS-IS. SCOPE IS REPLACEMENT OF CABLE AND LIGHTS WITH TRANSFORMERS.
7. REPLACE CIRCUIT N CABLE COMPLETE, TO ALL LIGHTS AND SIGNS. IF N CIRCUIT CABLE IS FOUND TO SHARE RACEWAY WITH OTHER CIRCUIT, MAKING REPLACEMENT DIFFICULT, NOTIFY AIRPORT AND MAKE RECOMMENDATION OF HOW TO PROCEED (PULL ALL CABLES AND REINSTALL WITH NEW OR LEAVE AS-IS IF SEGMENT HAS GOOD MEGGER READINGS).
8. CONTRACTOR TO REPAIR BAD BASE CAN BOLT HOLES.
9. CIRCUIT SHALL BE MEGGER TESTED PRIOR AND AT BEGINNING AND COMPLETION OF CABLING INSTALLATION, INCLUDING TESTING OF CIRCUIT SEGMENTS TO IDENTIFY AREAS LESS THAN 250 MEGAOHMS.

KEY NOTES

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LEGEND

- EXISTING PAVEMENT
- P — EXISTING UNDERGROUND POWER
- EXISTING TAXIWAY LIGHTS
- PROPOSED MITL CABLE
- PROPOSED TAXIWAY LIGHTS

0' 50' 100' 200' 300'

PROFESSIONAL ENGINEER LICENSED Anthony Loos 18913 8/29/25 STATE OF IDAHO ANTHONY D. LOOS

BORDER SIZE	22"x34"
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DRAWN	CSH
CHECKED	CES
APPROVED	CES

REVISIONS

NO.	DESCRIPTION	DATE
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7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
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COEUR D'ALENE AIRPORT
EXTEND TAXIWAY C & RELOCATE MALSR THRESHOLD LIGHTS
ELECTRICAL PLAN

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DATE: August 29, 2025
PROJECT: 220406
SHEET: E12B

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