

**CONTRACT DOCUMENTS
FOR THE
CONSTRUCTION OF**

**AIRPORT STANDBY POWER GENERATOR
PROJECT NO: 22PW06
BIL NO: 3-41-0054-031-2024
STATE NO: COAR-RBG-0033**



**CITY OF ROSEBURG
PUBLIC WORKS DEPARTMENT
DOUGLAS COUNTY, OREGON**

**PREPARED BY:
Mead & Hunt
9600 NE Cascades Parkway
Suite 100
Portland, OR 97220**

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CERTIFICATION PAGE

THE DOCUMENTS FOR THIS PROJECT WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION:



PAGES OR SHEETS COVERED BY THIS SEAL:

Advertisement for Bid	Disadvantage Business Enterprise (DBE)
Invitation to Bid	Utilization
Information to Bidders	Appendix A to Part 26
Bidder's Checklist	DBE Letter of Intent
Bid Form	Construction Contract
Standard Bid Bond	Standard Contract Provisions
First Tier Subcontractor Disclosure Form	Public Works Bond Filing Certification
Instructions	Standard Performance bond
First Tier Subcontractor Disclosure Form	Payment bond
Employee Drug Testing Program	Lowest Bidder Responsibility Determination
Pay Equity Compliance Training	Form
Public Works Bond – Pre-Bid Notice and	Prevailing Wage Rates for Public Works
Certification	Contracts
Buy American Certification	General Conditions
Buy American Waiver Request	Required Federal Contract Provisions
Certification Regarding Domestic Preferences	Federal General Contract Provisions
for Procurements	
Equal Employment Opportunity Report	Technical Specifications:
Statement	NS-102
Certification of Offeror/Bidder Regarding Tax	F-162
Delinquency and Felony Convictions	
Bidder's List	Construction Safety and Phasing Plan (CSPP)

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THE DOCUMENTS FOR THIS PROJECT WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION:



PAGES OR SHEETS COVERED BY THIS SEAL:

Technical Specifications:

NS-101
NS-109
NS-111
NS-112
L-108
L-110
L-115
263213
262600

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TECHNICAL SPECIFICATIONS

ITEM NS-101 LOCATE AND PROTECT EXISTING EQUIPMENT
ITEM NS-102 SAFETY AND COMPLIANCE
ITEM NS-109 ELECTRICAL BUILDING WORK
ITEM NS-111 FBO WORK
ITEM NS-112 FUEL FARM WORK
ITEM F-162 CHAIN-LINK FENCE
ITEM L-108 UNDERGROUND POWER CABLE FOR AIRPORTS
ITEM L-110 AIRPORT UNDERGROUND ELECTRICAL DUCT BANKS AND CONDUITS
ITEM L-115 ELECTRICAL MANHOLES AND JUNCTION STRUCTURES
263213 ENGINE GENERATOR
263600 TRANSFER SWITCH

DRAWINGS

CITY OF ROSEBURG ADVERTISEMENT FOR BID

Project Name: Airport Standby Power Generator
Project Number: 22PW06
Project Description: Furnish and installation of a new 80kV diesel powered standby generator and automatic transfer switch; miscellaneous cabling and conduit; electrical connections within the existing airfield electrical building; replacement of (2) existing fuel pump motors; and relocation of existing 6-foot chain-link fence.

Bids are due by 2:00 p.m. on Thursday, October 12, 2023
All bids will be opened at 2:00 p.m.
Additional forms disclosing first tier subcontractors are due by 4:00 p.m.
No bids shall be received after this date and time.

Contact – Submit bids to:
City of Roseburg City Recorder
900 SE Douglas
Roseburg OR 97470
(541) 492-6866
bids@cityofroseburg.org

Address Technical Questions to:
Ryan Bergstrom
Mead & Hunt
9600 NE Cascades Pkwy Suite 100
Portland, OR 97220
ryan.bergstrom@meadhunt.com

SOLICITATION DOCUMENTS: Solicitation documents, including contract terms, conditions, specifications, all attachments and/or addenda for the Invitation to Bid are available for review at the above contact address. Bid documents will not be mailed to prospective bidders but may be downloaded from OregonBuys through the following internet address: <https://www.oregon.gov/das/Procurement/Pages/oregonbuys.aspx>. Bidders without access to OregonBuys may download the documents at a Plan Center or the City of Roseburg's website at www.cityofroseburg.org under "Bidding Opportunities."

Bidders must be licensed with the Oregon Construction Contractors Board and comply with City of Roseburg Municipal Code.

The resulting public works contract is subject to ORS 279C.800 to 279C.870 and the Davis-Bacon Act (40 U.S.C. 3141 to 3148). No bid will be considered unless the bid contains a statement that the bidder will comply with the provisions of ORS 279C.840 (Prevailing Wage Rates).

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INVITATION TO BID

The City of Roseburg will receive sealed bids or bids submitted via email marked **"Bid for Airport Standby Power Generator"** until the hour of **2:00 p.m. on Thursday, October 12, 2023**, at which time they will be publicly opened and read in person or virtually. If opened virtually, a link will be posted on the City's website at <https://www.cityofroseburg.org/bidding> no later than 24 hours prior to the opening. When required by ORS 279C.370, bidders must submit a list of their first-tier subcontractors providing labor, or labor and materials, no later than 4:00 p.m. that same day. Bids shall be addressed and delivered to Patty Hitt, City Recorder, City Hall, 900 SE Douglas Avenue, Roseburg, Oregon 97470, or emailed to bids@cityofroseburg.org. Any and all bids received after the 2:00 p.m. deadline for submission, or for which the list of first-tier subcontractors has not been submitted by 4:00 p.m. that same day, shall be considered nonresponsive and returned to the bidder. All bidders must list their "Construction Contractors Board" or "State Landscape Contractors Board" license number as required by ORS 701.021 or 671.530 on the bid form.

The proposed work generally consists of furnishing all labor, equipment, materials and supervision for the construction of a new 80kV diesel powered standby generator and automatic transfer switch; miscellaneous cabling and conduit; electrical connections within the existing airfield electrical building; replacement of (2) existing fuel pump motors; and remove & replace 6-foot chain-link fence. The bids will be evaluated as unit price pursuant to OAR 137-049-0380(2)(b). The proposed work will require the bidder to meet the highest standards prevalent in the industry or business related to the work to be performed. Failure to meet such standards may result in a reduction or withholding of payment; require bidder to provide, at bidder's own expense, additional work required to meet such standards; or termination of the contract, with damages being sought. Technical questions regarding the work to be performed should be addressed to:

Ryan Bergstrom
Mead & Hunt
9600 NE Cascades Pkwy Suite 100
Portland, OR 97220
Ryan.Bergstrom@meadhunt.com

Bids must be accompanied by a certified check, cashier's check, irrevocable letter of credit or Bid Bond in an amount equal to not less than ten percent (10%) of the total amount of the bid. Bidders shall state as part of the bid that the provisions of ORS 279C.800 to 279C.870 (Prevailing Wage Rates) and the Davis-Bacon Act (40 U.S.C. 3141 et seq.) shall be complied with. The project is subject to both the state and federal prevailing rates of wage and the bid must contain a statement by the bidder that contractor and every subcontractor shall pay the higher of the applicable state or federal prevailing rate of wage to all workers on the project. Bidders must also certify as part of the bid that the requirements of ORS 279C.505(2) (Employee Drug Testing Program) shall be complied with. Each bid must contain a statement as to whether the bidder is a resident bidder, as defined in ORS 279A.120. Bidders are not required to be licensed under ORS 468A.720 (Asbestos Abatement). However, the successful bidder shall at all times during the project provide qualified staff on site that is able to identify asbestos containing material. Bidders are hereby notified there are underground pipelines and structures containing asbestos within the City of Roseburg. If any such material is encountered during the project, the bidder shall thereupon be required to notify the City and comply with all requirements of applicable laws and regulations. Unless exempt under ORS 279C.800 to 279C.870, the successful bidder must file a \$30,000 Public Works Bond with the Construction Contractors Board prior to beginning work on the project and certify that all sub-contractors have also filed such bond. Bidders must agree to use recyclable products to the maximum extent financially feasible. **Bidders with 50 or more employees**

and for contracts over \$500,000, are required to possess a certificate issued by the Department of Administrative Services for completion of pay equity training (NEW).

The City of Roseburg may reject any bid not in compliance with all public bidding procedures and requirements, including the requirement to demonstrate the bidder's responsibility under ORS 279C.375(3)(b), may waive any irregularities, and may reject for good cause any or all bids upon a finding of the City it is the public interest to do so. The City may also cancel this invitation in accordance with OAR 137-049-0270.

Federal Requirements for Federally Funded Projects (Applies to Bid Schedule A only). This Project is being partially funded under the Federal Aviation Administration (FAA) Airport Improvement Program (AIP). Bidders must comply with specific federally required provisions as listed herein and contained in the bidding documents. The following federal provisions are incorporated in this solicitation by reference:

1. Buy American Preference (49 USC § 50101)
2. Civil Rights – Title VI Assurance (49 USC § 47123; FAA Order 1400.11)
3. Davis-Bacon Act (2 CFR § 200, Appendix II(D); 29 CFR Part 5)
4. Debarment and Suspension (2 CFR part 180 (Subpart C), 2 CFR part 1200, DOT Order 4200.5)
5. Lobbying and Influencing Federal Employees (31 USC § 1352 – Byrd Anti-Lobbying Amendment; 2 CFR part 200, Appendix II(J); 49 CFR part 20, Appendix A)
6. Procurement of Recovered Materials (2 CFR § 200.322; 40 CFR part 247; Solid Waste Disposal Act)

Civil Rights - Title VI Solicitation Notice. The City of Roseburg, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that for any contract entered into pursuant to this advertisement, select businesses, or disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and no businesses will be discriminated against on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in consideration for an award.

Disadvantaged Business Enterprise (Applies to Bid Schedule A only). The requirements of 49 CFR part 26 apply to this contract. It is the policy of the City of Roseburg to practice nondiscrimination based on race, color, sex or national origin in the award or performance of this contract. The Owner encourages participation by all firms qualifying under this solicitation regardless of business size or ownership. The City of Roseburg is an equal opportunity and affirmative action employer. Small, minority, veteran, and women-owned businesses are encouraged to submit bids.

A DBE contract goal of 5.32 percent has been established for this contract. The bidder/offeror shall make good faith efforts, as defined in Appendix A, 49 CFR Part 26, to meet the contract goal for DBE participation in the performance of this contract. The bidder/offeror will be required to submit the following information: (1) the names and addresses of DBE firms that will participate in the contract; (2) a description of the work that each DBE firm will perform; (3) the dollar amount of the participation of each DBE firm participating; (4) Written documentation of the bidder/offeror's commitment to use a DBE subcontractor whose participation it submits to meet the contract goal; (5) Written confirmation from the DBE that is participating in the contract as provided in the commitment made under (4); and (6) if the contract goal is not met, evidence of good faith efforts.

DBE Bid Information Submitted as a matter of responsiveness:

The Owner's award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR § 26.53.

As a condition of responsiveness, the Bidder or Offeror must submit the following information with its proposal on the forms provided herein:

- 1) The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
- 2) A description of the work that each DBE firm will perform;
- 3) The dollar amount of the participation of each DBE firm listed under (1);
- 4) Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal
- 5) Written confirmation from each listed DBE firm that it is participating in the contract in the kind and amount of work provided in the prime contractor's commitment; and
- 6) If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26. The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

DBE Bid Information submitted as a matter of responsibility:

The Owner's award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR § 26.53.

As a condition of responsibility, every Bidder or Offeror must submit the following information on the forms provided herein within five days after bid opening.

- 1) The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
- 2) A description of the work that each DBE firm will perform;
- 3) The dollar amount of the participation of each DBE firm listed under (1);
- 4) Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal;
- 5) Written confirmation from each listed DBE firm that it is participating in the contract in the kind and amount of work provided in the prime contractor's commitment; and
- 6) If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26. The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity.

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables

Goals for minority participation for each trade: 2.4%

Goals for female participation in each trade: 6.9%

These goals are applicable to all of the contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction. The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is Douglas County, Roseburg, Oregon.

Federal Fair Labor Standards Act. All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, et seq, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers.

The Bidder has full responsibility to monitor compliance to the referenced statute or regulation. The Bidder must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

Trade Restriction Certification By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror –

- 1) is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR);
- 2) has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and
- 3) has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18 USC § 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR § 30.17, no contract shall be awarded to an Offeror or subcontractor:

- 1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR; or
- 2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list; or
- 3) who incorporates in the public works project any product of a foreign country on such USTR list.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The Contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by USTR, unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration (FAA) may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

Dated this 19th day of September, 2023.

CITY OF ROSEBURG, DOUGLAS COUNTY, OREGON
/s/ Patty Hitt, City Recorder

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INFORMATION TO BIDDERS

1. **FORM OF BID**

All bids must be made upon the blank Bid Form attached hereto and must give a price for each item and an aggregate amount or a lump sum price as required in the Bid Form.

The bid form consists of Schedule A and Schedule B.

- Bid items under Schedule A are being funded, in part, by the Federal Aviation Administration and therefore are subject to the Required Federal Contract Provisions and General Contract Provisions provided herein. As identified on the bidder's checklist, the Buy American Certification and Disadvantaged Business Enterprise documentation applies to Schedule A only.
- Bid items under Schedule B are being funded, in part, by the Oregon Department of Aviation and are not subject to the Required Federal Contract Provisions and General Contract Provisions provided herein. The Buy American Certification and Disadvantaged Business Enterprise documentation does not apply to Schedule B.

The City reserves the right to reject any or all bids or to accept the bid deemed in the best interest of the City. Without limiting the generality of the foregoing, the City may reject any bid which is incomplete, obscure or irregular; which omits any one or more items in the price sheet; in which unit prices are obviously unbalanced; or which is accompanied by an insufficient or irregular Bid Bond.

The bidder shall sign the Bid Form in the blank space provided, therefore. All bids must contain the bidder's tax identification number. Bids made by a corporation, general or limited partnership, or L.L.C., shall contain the name and address of such organization, together with names and addresses of officers, partners or managing members. If the bid is made by a corporation, it must be signed by one of the corporate officers with the authority to sign for the corporation; if made by a partnership, by one of the partners.

All bids must be submitted at the time and place, and in the manner prescribed in the Invitation to Bid.

2. **BID PROTEST; REQUEST FOR CHANGE OR CLARIFICATION**

A bidder may protest or request a change in items in the bid documents, including contract terms and conditions or specifications, by filing a written protest with the City not less than ten (10) calendar days prior to the bid submission deadline. Such written protest or request for change must include a detailed statement of the grounds for the protest and a statement of the desired changes to the contract terms and conditions or specifications.

The City shall not consider a bidder's protest or request for change after the deadline for submitting such protest or request. The City shall provide notice to the bidder if it entirely rejects the bidder's protest or request for change. If the City agrees with the bidder's protest or request, in whole or in part, the City shall issue a written Addendum to the bid documents or specifications.

Prior to the deadline for submitting a written protest or request for change, a bidder may request that the City clarify any provision of the bid documents. The City's clarification to a bidder,

whether orally or in writing, shall not change the bid documents and is not binding on the City unless the City amends the bid documents by issuing a written addendum.

If a written addendum is issued by the City, all bidders must provide written acknowledgement, with their bids, of receipt of all issued addenda.

3. CONTRACT DOCUMENTS

The Contract Documents for this Project consist of, but are not necessarily limited to, the Invitation to Bid, Information to Bidders, Bid Form, Construction Contract including Exhibit "A" Standard City Contract Provisions, First-Tier Subcontractor Disclosure Form, Drug Testing Program Certification Form, Bidder's Responsibility Form, Performance Bond, Payment Bond, Public Works Bond Filing Certification form (when required), Pay Equity Compliance Certification (when applicable), Buy American Certification, Certification Regarding Domestic Preferences for Procurements, Equal Employment Opportunity Statement, Certification of Offeror/Bidder Regarding Tax Delinquency and Felony Convictions, Bidder's List, DBE Utilization, DBE Letter of Intent, General Conditions, Required Federal Contract Provisions, Federal General Contract Provisions, Technical Provisions, CSPP, Special Conditions, Standard Drawings, Specifications and Plans and Supplemental Specifications, all as required for the full execution and satisfactory completion of the Project. Any person contemplating the submission of a bid and being in doubt as to the meaning or intent of said Contract Documents should request of the City, in writing, an interpretation thereof. Any interpretation of said Contract Documents shall be made only in writing by the City.

4. ESTIMATE OF QUANTITIES

The estimate of quantities of work to be done as stated in the Bid Form, although stated with as much accuracy as possible, is approximate only and is assumed solely for the purpose of comparing bids. The quantities on which payments will be made to the Contractor are to be determined by measurement of the work actually performed and paid at the unit price bid, regardless of the amount of increase or decrease in the estimated quantities as specified in the Contract Documents. The City reserves the right to increase or diminish the amount of any class of work as may be deemed necessary.

5. CONSTRUCTION CONTRACTORS' BOARD - STATE LANDSCAPE CONTRACTORS' BOARD

All contractors bidding on public contracts must be licensed with the Construction Contractors' Board or the State Landscape Contractors Board as required by ORS 701.021 or 671.530. Bids must be identified with the Contractors' Board license number. No bids will be considered without this information.

6. DISCLOSURE OF FIRST-TIER SUBCONTRACTORS

When a public improvement contract value is greater than \$100,000, all bidders are required to disclose information about first-tier subcontractors, providing labor or labor and materials, when the contract amount of such first-tier subcontractor is equal to or greater than:

- 1) 5% of the project bid, or \$15,000, whichever is greater; or
- 2) \$350,000 regardless of the percentage of the total bid.

Bidders must disclose the following information about such subcontracts, on the First-Tier Subcontractor Disclosure Form provided by the City and included herein, within two hours of the bid submission deadline:

- 1) The subcontractor's name;
- 2) The subcontract dollar value; and
- 3) The category of work to be performed by the subcontractor.

Any bidder not using subcontractors subject to the above disclosure form, must write "NONE" on the Disclosure Form and sign and submit the form. The City will reject a bid if the bidder fails to submit the Disclosure Form before the deadline.

7. DRUG TESTING PROGRAM

ORS 279C.505(2) requires public improvement contracts to include a provision requiring contractors to demonstrate that they have an employee drug and alcohol testing program in place. All bidders are required to certify, on the Drug Testing Program Certification Form provided by the City and included herein, that they have such program in place. This certification will become part of the Contract if awarded and contractor will be required to maintain such program throughout the performance of the Contract. Failure to maintain a program shall constitute a material breach of the Contract.

8. PROMPT PAY POLICY - TIMELY PROGRESS PAYMENTS

ORS 279C.570 and 279C.580 require prompt payment to contractors and subcontractors and provides for settlement of compensation disputes between the parties. The City is required to automatically calculate and pay interest on invoices from the contractor when payments become overdue. The interest commences thirty (30) calendar days after receipt of the invoice from the contractor, or fifteen (15) calendar days after the payment is approved by the City, whichever is earlier. The rate of interest charged to the City on the amount due shall equal three times the discount rate on 90-day commercial paper, but shall not exceed 30 percent.

The City is also required to ensure that the contractor includes a clause in each subcontract that obligates the contractor to pay first-tier subcontractors for satisfactory performance under its contract. Contractors must pay subcontractors within ten (10) calendar days of receiving payment from the City. Contracts between primary contractors and subcontractors must also contain an interest penalty clause that obligates the contractor, if payment is not made to the subcontractor within thirty (30) calendar days after receipt of payment from the City, to pay the first-tier subcontractor an interest penalty on amounts due in the case of each payment not made in accordance with the subcontract payment clause. The contractor is also required to ensure that first-tier subcontractors include these requirements in each of its subcontracts with lower-tier subcontractors or suppliers.

If requested in writing by a first-tier subcontractor, within ten (10) calendar days after receiving the request, the contractor must provide the first-tier subcontractor, a copy of that portion of any invoice or request for payment submitted to the City, or pay document provided by the City to the contractor, specifically related to any labor or materials supplied by the first-tier subcontractor.

9. PRE-QUALIFICATION OF BIDDERS

Bidders must be licensed with the Oregon Construction Contractors Board and comply with City of Roseburg Municipal Code.

10. BID BOND, PUBLIC WORKS BOND, PAYMENT BOND AND PERFORMANCE BOND

A Bid Bond, Public Works Bond Filing Certification, Payment Bond, and Performance Bond shall be provided as specified in Subsection 5.4 of the General Conditions. No waivers, special requirements or emergency provisions have been established for this Contract.

11. PAY EQUITY COMPLIANCE CERTIFICATION (NEW)

ORS 279A.167 requires businesses with fifty (50) or more employees, and a contract valued at more than \$500,000, to provide proof they are properly trained on Oregon's pay equity laws. A certificate proving the contractor has completed the training shall be provided as specified in Subsection 26 of the "Bid Form".

12. HIGHEST STANDARDS OF WORK AND CONSEQUENCES FOR FAILURE

The work to be performed must meet the highest standards prevalent in the industry or business most closely related to the work to be performed. Failure to meet such standards may result in consequences including, but not limited to a reduction or withholding of payment; a requirement that bidder perform, at bidder's own expense, additional work required to meet such standards; or termination of the contract, with damages being sought.

13. CONDITIONS OF WORK

Bidders must make their own determination of the nature of the work proposed under this Contract, the local conditions which can be encountered in this area, and all other matters which can in any way affect the work proposed under this Contract. It shall also be the bidder's responsibility to be thoroughly familiar with the Contract Documents. Failure to make the examination necessary for this determination or to examine any form, instrument or document of the Contract shall not release the bidder from the obligations of this Contract.

14. REVIEW OF BIDS; BASIS FOR AWARD; NOTICE OF INTENT TO AWARD; AND RIGHT TO PROTEST AWARD

In reviewing all bids received and determining the lowest responsible bidder, the City reserves the right to take into account and give reasonable weight to the extent of the bidder's experience on work of the nature involved, on the bidder's record as to dependability in carrying out of contracts, and evidence of present ability to perform the Contract in a satisfactory manner.

The City may make such investigations as deemed necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the City all such information and data for this purpose as the City may request. The City reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the City that such bidder is properly qualified to carry out the obligations of the Contract, to complete the work contemplated therein, and to do so in a timely manner. The City specifically reserves the right to reject a bid from a bidder who, at the time bids are opened, has failed to complete work in a

timely manner under a contract previously awarded to the bidder by the City. Conditional bids will not be accepted.

In accordance with ORS 279A.120(2)(b), in determining the lowest responsible bidder, the City shall, for the purpose of awarding the Contract, add a percentage increase on the bid of a non-resident bidder equal to the percent, if any, of the preference given to that bidder in the state in which the bidder resides.

Within forty-five (45) calendar days after the bid opening, the City will accept one of the bids or reject all of the bids received. If the City intends to accept one of the bids, it shall issue a Notice of Intent to Award the Contract to all bidders. The City's award will not be final until seven (7) calendar days after the date of the notice if no protest is filed; or if a protest is filed, until the City provides a written response to all timely-filed protests that denies the protest and affirms the award.

A bidder may submit a formal written protest to the City's Notice of Intent to Award the Contract within seven (7) calendar days of the date of the City's Notice of Intent. The written protest must specify the grounds upon which the protest is based and must show that the protesting party is an adversely affected or aggrieved bidder. A bidder is adversely affected or aggrieved only if the bidder is eligible for award of the Contract as the responsible bidder submitting the lowest responsible bid, is next in line for award and claims that all lower bidders are ineligible for award in accordance with law.

Such protest must be submitted to the City Recorder, 900 SE Douglas, Roseburg, OR 97470 or by email at info@cityofroseburg.org. Any protest received after the 7-day deadline will not be considered. The City Recorder shall forward such protest to the City Manager who shall have the authority to settle or resolve the protest by written decision.

15. EXECUTION OF CONTRACT, BONDS AND DAMAGES FOR FAILURE TO EXECUTE

The bidder whose bid is accepted will be required to appear within ten (10) calendar days after notice that the Contract has been awarded to bidder and to execute the Contract with the City for the full and complete performance of all work specified, and as required by Subsection 5.4 of the General Conditions, deliver the Public Works Bond Filing Certification form, the Payment Bond to assure payment of the obligations incurred in the performance of the Contract and the Performance Bond and to ensure performance of the Contract.

Should the successful bidder fail or refuse to execute the Contract and furnish the Public Works Bond Filing Certification form, Payment Bond and/or Performance Bond when required, then the Bid Bond deposited by said bidder shall be retained by the City as liquidated damages.

16. COMMENCEMENT DATE AND EXPIRATION DATE OF CONTRACT

This Contract shall be in effect from the time the Contract is signed until the Project is completed. The Contractor must be capable of commencing construction on the work contemplated in the Contract Documents within ten (10) calendar days after the execution of the Contract and receipt of the City's notification to proceed and shall complete the same within the time specified in the bid.

17. DURATION OF BIDS; RETURN OF BID BONDS

All bids will be binding until the later of:

- 1) the day the contract is executed; or
- 2) sixty (60) calendar days after the date of bid opening.

Bid bonds will be returned to unsuccessful bidders not later than the date on which the bids are no longer binding.

18. PUBLIC RECORDS

These Contract Documents and each bid received in response to it, together with copies of documents pertaining to the award of a contract shall be kept on file as a public record by the City Recorder; provided however, such records shall not be disclosed until after the notice of intent to award the contract has been issued.

19. RECORDS REVIEW; CONFIDENTIALITY

After notice of intent to award the resulting contract has been issued, all bids shall be available for public inspection except for those portions of a bid that the bidder designates in its bid as trade secrets or as confidential proprietary data in accordance with applicable state law. If the City determines such designation is not in accordance with applicable law, the City shall make those portions available for public inspection. The bidder shall separate information designated as confidential from other non-confidential information at the time of submitting its proposal. Prices, makes, models or catalog numbers of items offered, scheduled delivery dates and terms of payment are not confidential, and shall be publicly available regardless of a bidder's designation to the contrary.

20. MATERIALS CONTAINING ASBESTOS

Materials containing asbestos may be present in underground pipe systems. All appropriate Federal, State, County and Municipal rules, regulations and guidelines must be followed when working with asbestos containing material. Non friable material must be handled, transported and disposed of in a way that prevents it from becoming friable and releasing asbestos fibers. If AC pipe is shattered, damaged or badly weathered, it is considered to be friable and will likely release asbestos fibers. A DEQ licensed asbestos abatement contractor using DEQ certified workers must remove all friable asbestos material. Any and all permits and fees that are required by the DEQ, Douglas County and any other regulatory agency must be obtained and paid for by the Contractor prior to disposing of the asbestos containing material. For information about asbestos rules, contact the DEQ Western Region office in Medford, Oregon.

21. REQUIRED FEDERAL CONTRACT PROVISIONS

Contractor shall comply with the Required Federal Contract Provisions and include in all subcontracts.

22. DISADVANTAGED BUSINESS ENTERPRISE

The requirements of 49 CFR part 26 apply to this contract. It is the policy of the City of Roseburg to practice nondiscrimination based on race, color, sex or national origin in the award or performance of this contract. The Owner encourages participation by all firms qualifying under this solicitation regardless of business size or ownership. The City of Roseburg is an equal opportunity and affirmative action employer. Small, minority, veteran, and women-owned businesses are encouraged to submit bids.

A DBE contract goal of 5.32 percent has been established for this contract. The bidder/offeror shall make good faith efforts, as defined in Appendix A, 49 CFR Part 26, to meet the contract goal for DBE participation in the performance of this contract. The bidder/offeror will be required to submit the following information: (1) the names and addresses of DBE firms that will participate in the contract; (2) a description of the work that each DBE firm will perform; (3) the dollar amount of the participation of each DBE firm participating; (4) Written documentation of the bidder/offeror's commitment to use a DBE subcontractor whose participation it submits to meet the contract goal; (5) Written confirmation from the DBE that is participating in the contract as provided in the commitment made under (4); and (6) if the contract goal is not met, evidence of good faith efforts.

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BIDDER'S CHECK LIST

Bidder's attention is called to the following forms, which must be executed in full as required with the bid:

- A. **BID FORM(S)**: Each bidder shall complete the bid form(s). Prices must be shown in the spaces provided and must be expressed in figures. Each bidder shall acknowledge receipt of all addenda on the bid form(s).
- B. **BID BOND**: This form is to be executed by bidder and bidder's Surety. The amount of cash, certified check, cashier's check, irrevocable letter of credit or Bid Bond shall not be less than 10% of the total Bid amount.
- C. **FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM**: When required by law, this form must be submitted by the bid submission deadline, at which time bids will be opened and read, or within two (2) working hours of such submission deadline. If no subcontractors for labor or for labor and materials will be used, the bidder must write "NONE" on the disclosure form, sign and submit the form as required. Failure to submit this form within two hours of the bid submission deadline will result in the bid becoming non-responsive and such bid will be returned to the bidder.
- D. **DRUG TESTING PROGRAM CERTIFICATION FORM**: This form must be submitted with the bid to demonstrate that bidder has an employee drug and alcohol testing program in place and will continue to keep the program in place throughout the duration of performing the Contract awarded.
- E. **PUBLIC WORKS BOND PRE-BID NOTICE & CERTIFICATION FORM**: This form must be submitted with the bid to demonstrate contractor's awareness of and intended compliance with the requirement to file a Public Works Bond with the Construction Contractors Board prior to beginning work on the project if awarded the bid.
- F. **PAY EQUITY COMPLIANCE CERTIFICATION FORM (NEW)**: If applicable pursuant to Section 11 of "Information for Bidders", this form must be submitted with the bid to demonstrate contractor has completed required training regarding pay equity and the prohibition against discrimination in compensation or wage benefits.
- G. **BUY AMERICAN CERTIFICATION (Applies to Bid Schedule A only)**: Each bidder shall check the appropriate boxes and sign.
- H. **CERTIFICATION REGARDING DOMESTIC PREFERENCES FOR PROCUREMENTS (Applies to Bid Schedule A only)**: Each bidder shall complete the form in its entirety.
- I. **EQUAL OPPORTUNITY REPORT STATEMENT**: Each bidder shall check the appropriate boxes, sign, and date.
- J. **CERTIFICATION OF OFFERER/BIDDER REGARDING TAX DELINQUENCY AND FELONY CONVICTIONS**: Each bidder shall check the appropriate boxes, date, and sign.
- K. **BIDDER'S LIST (Applies to Bid Schedule A only)**: Each bidder shall complete the form in its entirety.
- L. **DBE UTILIZATION STATEMENT (Applies to Bid Schedule A only)**: Each bidder shall complete the form in its entirety.
- M. **DBE GOOD FAITH EFFORTS (Applies to Bid Schedule A only)**: Each bidder shall provide evidence of good faith efforts when unable to meet the contract goal.

- N. **DBE LETTER OF INTENT (Applies to Bid Schedule A only)** : This form shall be submitted for each DBE firm intended to perform work on the project.

The following forms are to be executed after the Contract is awarded, prior to beginning work on the project:

- A. **CONSTRUCTION CONTRACT**: This agreement is to be executed by the successful bidder.
- B. **PERFORMANCE BOND AND PAYMENT BOND**: Both a Performance Bond and a Payment Bond are to be executed by the successful bidder and bidder's Surety Company and submitted at the time the Contract is executed.
- C. **PUBLIC WORKS WAGE CERTIFICATION FORM**: This form is to be completed in accordance with state law and submitted monthly during the duration of the contract, by the fifth business day of the following month, with request for payment.
- D. **CERTIFICATE OF INSURANCE**: This certificate is to be executed by the successful bidder and bidder's insurance company and submitted at the time the Contract is executed.
- E. **PUBLIC WORKS BOND FILING CERTIFICATION**: This form is to be executed by the successful bidder and submitted at the time the Contract is executed to certify if Contractor has filed the required Public Works Bond or elected not to file the Bond due to qualifying under ORS 200.055.

BID FORM

City of Roseburg
900 SE Douglas Avenue
Roseburg, Oregon 97470

The undersigned bidder has carefully examined the Contract Documents for the construction of the
Airport Standby Power Generator
Project No. 22PW06

referred to in the Invitation to Bid dated September 19, 2023, inviting bids on such Project and also the site of the Project. Bidder will provide all necessary labor, equipment, tools, apparatus and other means of construction, do all the work and furnish all the materials called for by said Contract Documents in the manner prescribed therein to provide a complete Project.

The undersigned bidder understands that the quantities of work as shown herein are approximate only, unless noted otherwise, and are subject to increase or decrease. The bidder offers to perform the work, at the unit price stated in the following schedule, whether the quantities are increased or decreased.

Schedule A – Base Bid					
Item No.	Description	Unit*	Estimated Quantity	Unit Price (in figures)	Estimated Total Price (in figures)
A-1	Safety and Compliance	LS	1	\$	\$
A-2	80kW Standby Power Generator w/Automatic Transfer Switch	LS	1	\$	\$
A-3	Remove 6-foot Chain-Link Fence	LF	43	\$	\$
A-4	Install 6-foot Chain-Link Fence	LF	42	\$	\$
A-5	Electrical Building Work	LS	1	\$	\$
Schedule A Bid Item Total:				\$	

Schedule B – Base Bid					
Item No.	Description	Unit*	Estimated Quantity	Unit Price (in figures)	Estimated Total Price (in figures)
B-1	Concrete Encased, Electrical Conduit, 1-Way 3-inch C, 18-inch Minimum Cover	LF	386	\$	\$
B-2	Non-Encased, Electrical Conduit, 1-Way 3-inch C, 18-inch Minimum Cover	LF	16	\$	\$
B-3	4-#250KCMIL, 1-#2 Ground Installed Duct Bank or Conduit	LF	402	\$	\$
B-4	No. 6 AWG, Solid, Bare Copper Counterpoise Wire	LF	402	\$	\$
B-5	Electrical Handhole	EA	2	\$	\$

B-6	Replace 7.5HP Fuel Farm Motor	LS	1	\$	\$
B-7	Replace 10HP Fuel Farm Motor	LS	1	\$	\$
B-8	Fuel Farm Work	LS	1	\$	\$
B-9	FBO Work	LS	1	\$	\$
Schedule B Bid Item Total:				\$	

The undersigned also declares and agrees as follows:

1. That the only persons or parties interested in this bid are those named herein, that the bid is in all respects fair and without fraud, and that it is made without any connection or collusion with any person making another bid on this Contract.
2. That the bidder, and any subcontractor upon which the bidder is relying, have carefully examined and had an opportunity to comment on, the Contract Documents for the construction of the proposed improvements including a full set of the plans and specifications, including all addenda thereto; that bidder has personally inspected the contemplated construction area or areas; that bidder is satisfied as to the adequacy and completeness of the plans and specifications, the feasibility of the work described therein, quantities of materials, items of equipment and conditions of work involved, including the fact that the description of work and materials as included herein are approximate only; and that this bid is made according to the provisions and under the terms of the Specifications which are hereto attached and hereby made a part of this bid.
3. All of the Specifications and Plans which are listed herein have been examined by the undersigned bidder and the terms and conditions thereof are hereby accepted.
4. It is understood that the Plans may be supplemented by additional Drawings and Specifications in explanation and elaboration of the Plans and it is agreed that such Supplemental Drawings, when not in conflict with those referred to in Paragraph 3 above, will have the same force and effect as if completed and attached hereto, and that when received, will be considered a part of the Contract Documents.
5. It is understood that all work will be performed under the price schedule outlined herein and that all services, materials, labor and equipment and all work necessary to complete the Project in accordance with the Plans and Specifications shall be furnished for the prices named in the bid. If there is a change in the scope of work or work which cannot be properly classified under the price schedule then bidder agrees to do this work as "extra work". The undersigned bidder agrees to do any extra work and furnish materials, and to accept as full compensation therefore at such prices as may be agreed upon in writing by the City and the Contractor before extra work begins. Each party binds itself to agree to reasonable prices.
6. It is understood the work to be performed must meet the highest standards prevalent in the industry or business most closely related to the work to be performed. It is further understood that failure to meet such standards may result in consequences including, but not limited to, a reduction or withholding of payment; a requirement that bidder perform, at bidder's own expense, additional work required to meet such standards; or termination of the contract, with damages being sought.
7. The bidder agrees that if this bid is accepted, the bidder will, within ten (10) calendar days after the notification of acceptance, execute the Construction Contract with the City in the form of Contract specified, and will, at the time of execution of the Contract, deliver to the City the

Performance Bond, Payment Bond and Public Works Bond Filing Certification form as required herein, and will furnish all the materials necessary to complete the Project in the manner, in the time and according to methods as specified in the Specifications and required by the City.

8. The cash, certified check, cashier's check, irrevocable letter of credit or Bid Bond shall be payable to the City to the extent of 10% of the amount of the bid in case this bid is accepted by the City and the undersigned shall fail or refuse to execute the Contract and furnish a Payment Bond, a Performance Bond or the Public Works Bond Filing Certification form as required by the Specifications within the time limit named therein after notification that said bid is accepted, all in accordance with the provisions of this bid and the Plans and Specifications which are a part hereof.
9. All items for the Contract for which forms are provided herein have been completed in full by the showing of prices for each and every item thereof, and for the showing of other information indicated by the Bid Form.
10. Bidder agrees to begin work within ten (10) calendar days after the execution of the Contract proposed herein and receipt of the City's notification to begin work and to complete work in all respects within 30 calendar days for the Mobilization Element and 20 working days after "Notice to Proceed" for the Construction Element has been issued by the City.
11. In the event the bidder is awarded the Contract and fails to complete the Project within the time limit or extended time agreed upon, as more specifically set forth in the General Conditions, liquidated damages shall be paid to or withheld by the City pursuant to Paragraph 4 of the Construction Contract (Time of Performance - Liquidated Damages) at the rate of Two-Hundred Fifty Dollars (\$250) per day, until the Project has been completed as provided in the General Conditions.
12. The undersigned bidder hereby states, as part of this bid, that the applicable provisions of Oregon's Prevailing Wage Law (ORS 279C.800 to 279C.870) and the Federal Prevailing Wage Law (Davis-Bacon Act, 40 U.S.C. 3141-3148), shall be complied with. When the Project is subject to both the State and Federal Prevailing Wage Laws and rates, workers in each trade will be paid the higher of the two rates.
13. The undersigned bidder and bidder's subcontractors shall comply with ORS 656.017, which requires them to provide Workers' Compensation coverage for all their subject workers.
14. The undersigned bidder hereby states, as part of this bid, that bidder shall comply with ORS 279C.505(2) which requires bidder to have an employee drug testing program in place.
15. The undersigned bidder and bidders' subcontractors shall comply with ORS 279C.570 and 279C.580, which require timely progress payments for public improvement projects and provide interest penalties for late payment.
16. The undersigned bidder hereby states, as part of this bid, bidder and bidder's subcontractors shall comply with the provisions of Exhibit "A" - "Standard City Contract Provisions".
17. **If applicable** pursuant to Section 11 of "Information for Bidders", the undersigned bidder hereby states, as part of this bid, that bidder has completed pay equity compliance training and received a certificate of completion from the Oregon Department of Administrative Services.

18. If the bidder is awarded the Contract for this work, the name and address of the Surety who will provide the Payment Bond, Performance Bond and Public Works Bond (if required) will be:_____.
19. The name and address of the bidder who is submitting this bid is:_____, which is the address to which all communications pertinent to this bid and the Contract shall be sent. The bidder's email address is:_____.
20. The names of the principal officers of the corporation submitting this bid or of the partnership, or of all parties interested in this bid as principals are as follows:_____.
21. The undersigned bidder acknowledges that Addenda No. _____ through _____ have been delivered to bidder and have been examined as part of the Contract Documents.
22. In the prosecution of this work, the bidder proposes to use the subcontractors listed on the First-Tier Subcontractor Disclosure Form presented within two working hours of the bid submission deadline as set forth in the Invitation to Bid. Any bidder not using subcontractors subject to the above referenced Disclosure Form shall indicate "NONE" on the Disclosure Form and sign and submit the form as required.
23. Declaration of Residency: I "am" or "am not" (circle one) a "resident bidder"* as defined by ORS 279A.120, a contractor that has paid unemployment taxes or income taxes in Oregon during the 12 calendar months immediately preceding submission of the bid, has a business address in this state and has stated in the bid whether the bidder is a "resident bidder" pursuant to ORS 279A.120.
24. The bidder's Construction Contractors Board License Number or Landscape Contractors Board License Number is: _____.
25. Bidder's Tax Identification Number: _____. Email:_____.
26. Public Works Bond: If the bid is accepted, prior to beginning work on the project, the bidder will file with the Construction Contractors Board, a Public Works Bond in the amount of \$30,000 with a corporate surety authorized to do business in the State of Oregon; and before permitting a subcontractor to begin work on the project, the bidder will verify that the subcontractor has also filed the aforementioned bond. If the bidder, as a certified disadvantaged, minority, women or emerging small business enterprise, elects not to file the Public Works Bond, bidder will file written verification of such certification with the Construction Contractors Board and provide the Board and the City of Roseburg with notice of such election.

If sole Proprietor or Partnership:

In witness hereto, the undersigned as set his/her hand this _____ day of _____, 2023.

Printed name of bidder: _____

Signature of bidder: _____

Title: _____

If Corporation:

In witness whereof, the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this ____ day of _____, 2023.

Name of Corporation: _____

Printed name of person signing: _____

Signature: _____

Title: _____

Attest: _____

Secretary

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STANDARD BID BOND

We, _____, "as Principal,"
(Name of Principal)
and _____, an _____ Corporation,
(Name of Surety)

authorized to transact Surety business in Oregon, as "Surety," hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns to pay unto the City of Roseburg ("Obligee") the sum of (\$_____) dollars.

WHEREAS, the condition of the obligation of this bond is that Principal has submitted its proposal or bid to an agency of the Obligee in response to Obligee's procurement document (No. _____) for the project identified as:

_____ which proposal or bid is made a part of this bond by reference, and Principal is required to furnish bid security in an amount equal to ten percent (10%) of the total amount of the bid pursuant to the procurement document and ORS 279C.365(5) for competitive bidding or 279C.400(5) for competitive proposals.

NOW, THEREFORE, if the proposal or bid submitted by Principal is accepted, and if a contract pursuant to the proposal or bid is awarded to Principal, and if Principal enters into and executes such contract within the time specified in the procurement document and executes and delivers to Obligee its good and sufficient performance bond, payment bond and public works bond as required by Obligee within the time fixed by Obligee, then this obligation shall be void; otherwise, it shall remain in full force and effect.

IN WITNESS WHEREOF, we have caused this instrument to be executed and sealed by our duly authorized legal representatives this _____ day of _____, 2023.

PRINCIPAL: _____

SURETY: _____

By _____
Signature

BY ATTORNEY-IN-FACT:

Official Capacity

Name

Attest: _____
Corporation Secretary

Signature

Address

City State Zip

Phone Email

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FIRST TIER SUBCONTRACTOR DISCLOSURE FORM INSTRUCTIONS

Instructions for First-Tier Subcontractor Disclosure:

Bidders are required to disclose information regarding certain first-tier subcontracts (ORS 279C.370). Specifically, when the contract amount of a first-tier subcontract furnishing labor or labor and materials would be great than or equal to: (1) 5% of the project bid, but at least \$15,000; or (2) \$350,000 regardless of the percentage, the bidder must disclose the following information about that subcontract either in its bids submission, or within two hours after bid closing:

- (A) The subcontractor's name;
- (B) The category of work that the subcontractor would be performing; and
- (C) The dollar value of the subcontract.

If the bidder will not be using any subcontractors that are subject to the above disclosure requirements, the bidder is required to indicate "NONE" on the accompanying form.

THE CONTRACTING AGENCY MUST REJECT A BID IF THE BIDDER FAILS TO SUBMIT THE DISCLOSURE FORM WITH THIS INFORMATION BY THE STATED DEADLINE (OAR 137-049-0360).

** The subject form is on the following page.*

FIRST TIER SUBCONTRACTOR DISCLOSURE FORM

PROJECT NAME: _____

BID#: _____

BID CLOSING: DATE: _____ **TIME:** _____

This form must be submitted at the location or email specified in the Invitation to Bid on the advertised bid closing date and within two working hours after the advertised bid closing time.

List below: the name of each subcontractor that will be furnishing labor or labor and materials and is required to be disclosed, the category of work that the subcontractor will be performing and the dollar value of the subcontract. Enter "NONE" if there are no subcontractors that need to be disclosed. (ATTACH ADDITIONAL SHEETS IF NEEDED)

NAME OF SUBCONTRACTOR	DOLLAR CATEGORY OF VALUE WORK
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____

Failure to submit this form by the disclosure deadline will result in a nonresponsive bid. A nonresponsive bid will not be considered for award.

Form submitted by (bidder name): _____

Contact name: _____ **Phone #:** _____

Form Received in the City Recorder's Office:

Time: _____ **Date:** _____ **By:** _____

EMPLOYEE DRUG TESTING PROGRAM CERTIFICATION FORM

BIDDER'S NAME: _____

PROJECT NAME & NUMBER: _____

ORS 279C.505 (2) provides that every public improvement contract contain a condition that the Contractor shall demonstrate that an employee drug testing program is in place. The City's award of the Contract for which this certificate is required is conditioned, in part, upon the Bidder's demonstration of compliance with the provisions of ORS 279C.505(2). If the Bidder named above is awarded the Contract, this certificate shall become a part of, and shall constitute a continuing representation and warranty under, the Contract.

To induce the City to award the Contract to the Bidder, the undersigned, as the duly authorized representative of the Bidder, hereby represents and warrants, on behalf of the above named Bidder:

1. That Bidder has and enforces, and at all times during the term of the Contract will have and enforce, a written employee drug testing policy that at a minimum, requires compliance with the Oregon Department of Transportation Commercial Drivers License drug testing regulations;
2. A copy of the Bidder's current written employee drug testing policy will be available for inspection by the City at any time upon the City's request; and
3. The Bidder understands and agrees that its representations and warranties herein will become a continuing part of the Contract and that breach of any of the foregoing will be sufficient grounds for disqualification under 279C.440(2)(d).

The City shall not be liable, either directly or indirectly, in any dispute arising out of the substance or procedure of Bidder/Contractor's drug testing program. Nothing in this drug testing provision shall be construed as requiring Bidder/Contractor to violate any legal, including constitutional rights of any employee, including but not limited to, selection of which employees to test and the manner of such testing. The City shall not be liable for Bidder/Contractor's negligence in establishing or implementing, or failure to establish or implement, a drug testing policy, or for any damage or injury caused by Bidder/Contractor's employees acting under the influence of drugs while performing work covered by the Contract. These are Bidder/Contractor's sole responsibilities.

In Witness whereof, the Bidder has caused this document to be executed by its duly authorized representative on the date shown below.

Signature: _____

Printed Name, Title: _____

Date: _____

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**CITY OF ROSEBURG
PUBLIC WORKS BOND - PRE-BID NOTICE AND CERTIFICATION**

I, the undersigned contractor, hereby certify that if awarded the contract for which I am submitting this bid, prior to beginning work on such Project, unless exempt under ORS 279C.800 to 279C.870, I will file with the Construction Contractors Board, a Public Works Bond in the amount of \$30,000 with a corporate surety authorized to do business in the State of Oregon. I further certify that before permitting a subcontractor to start work on the Project upon which I am submitting this bid, I will verify that the subcontractor has also filed such Public Works Bond or has elected not to file such bond as allowed by state law. The Public Works Bond shall provide that the contractor or subcontractor will pay claims ordered by the Bureau of Labor and Industries to workers performing labor upon public works projects. The bond shall be a continuing obligation and remain continuously in effect.

If, as a contractor, I qualify as a disadvantaged, minority, women, disable veteran or emerging small business enterprise certified under ORS 200.055 and I have elected not to file the aforementioned Public Works Bond, I hereby certify that I will file written verification of such certification with the Construction Contractors Board. I also certify that before beginning any work on the Project, I will provide the City of Roseburg and the Construction Contractors Board written notice that I have elected not to file the Public Works Bond. If so certified under ORS 200.055, I understand that my election not to file the Public Works Bond will expire one year from the date it was filed and that a claim for unpaid wages may be filed against the payment bond I submitted on the Project.

I further certify that I understand the Public Works Bond described above is in addition to any other bond that I am required to provide, or that may be required of a subcontractor, for this Project.

Project Name: _____

Project Number: _____

Contractor's Printed Name: _____

Contractor's Signature: _____

Dated: _____

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**PAY EQUITY COMPLIANCE TRAINING
CERTIFICATION FORM
(NEW)**

BIDDER'S NAME: _____

PROJECT NAME & NUMBER: _____

ORS 279A.167(1) provides that the Oregon Department of Administrative Services shall establish a program to certify that a person that intends to submit a bid or proposal for a public contract understands the prohibition set forth in ORS 652.220 and in other laws or rules that prohibit discrimination in compensation or wage payments. Following completion of the course, a certificate of completion will be provided. This certification is recommended for ANY contractor in the state of Oregon, and **required for any contractor who employs fifty (50) or more people, and for a contract valued at more than \$500,000**. Information on how to receive this certification can be found by clicking [here](#).

To induce the City to award the Contract to the Bidder when the certification is required, the undersigned, as the duly authorized representative of the Bidder, hereby represents and warrants, on behalf of the above-named Bidder:

1. That Bidder has completed the training on pay equity as outlined in ORS 652.220; and
2. A copy of the Certificate of Completion of the pay equity compliance training will be available for inspection by the City at any time upon the City's request.

In Witness whereof, the Bidder has caused this document to be executed by its duly authorized representative on the date shown below.

Signature: _____

Printed Name, Title: _____

Date: _____

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BUY AMERICAN CERTIFICATION

(Title 49 U.S.C. Section 50101, Executive Order 14005, and BABA)

Project name: Airport Standby Power Generator

Airport name: Roseburg Regional Airport

AIP number: 3-41-0054-031-2024

The Contractor certifies that its bid/offer is in compliance with 49 USC § 50101, BABA and other related Made in America Laws, 1 U.S. statutes, guidance, and FAA policies, which provide that Federal funds may not be obligated unless all iron, steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

The bidder or offeror must complete and submit the certification of compliance with FAA's Buy American Preference, BABA and Made in America laws included herein with their bid or offer. The Airport Sponsor/Owner will reject as nonresponsive any bid or offer that does not include a completed certification of compliance with FAA's Buy American Preference and BABA.

The bidder or offeror certifies that all constructions materials, defined to mean an article, material, or supply other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber; or drywall used in the project are manufactured in the U.S.

Type of Certification is based on Type of Project:

There are two types of Buy American certifications.

- For projects for a facility, the Certificate of Compliance Based on Total Facility (Terminal or Building Project) must be submitted. **(NOT APPLICABLE TO THIS PROJECT)**
- For all other projects, the Certificate of Compliance Based on Equipment and Materials Used on the Project (Non-building construction projects such as runway or roadway construction; or equipment acquisition projects) must be submitted. **(APPLICABLE TO THIS PROJECT)**

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Certificate of Buy American Compliance for Manufactured Products

(Non-building construction projects, equipment acquisition projects)

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with its proposal. The bidder or offeror must indicate how it intends to comply with 49 USC § 50101, BABA and other related Made in America Laws, U.S. statutes, guidance, and FAA policies, by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (i.e., not both) by inserting a checkmark (✓) or the letter "X".

- ☐ Bidder or offeror hereby certifies that it will comply with 49 USC § 50101, BABA and other related U.S. statutes, guidance, and policies of the FAA by:
- a) Only installing iron, steel and manufactured products produced in the United States;
 - b) Only installing construction materials defined as: an article, material, or supply – other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber or drywall that have been manufactured in the United States.
 - c) Installing manufactured products for which the Federal Aviation Administration (FAA) has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
 - d) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

- a) To provide to the Airport Sponsor or the FAA evidence that documents the source and origin of the iron, steel, and/or manufactured product.
 - b) To faithfully comply with providing U.S. domestic products.
 - c) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.
 - d) Certify that all construction materials used in the project are manufactured in the U.S.
- ☐ The bidder or offeror hereby certifies it cannot comply with the 100 percent Buy American Preferences of 49 USC § 50101(a) but may qualify for a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:
- a) To submit to the Airport Sponsor or FAA within 15 calendar days of being selected as the responsive bidder, a formal waiver request and required documentation that supports the type of waiver being requested.
 - b) That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination that may result in rejection of the proposal.
 - c) To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.

- d) To furnish U.S. domestic product for any waiver request that the FAA rejects.
- e) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

Required Documentation

Type 2 Waiver (Nonavailability) - The iron, steel, manufactured goods or construction materials or manufactured goods are not available in sufficient quantity or quality in the United States. The required documentation for the Nonavailability waiver is

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire
- b) Record of thorough market research, consideration where appropriate of qualifying alternate items, products, or materials including;
- c) A description of the market research activities and methods used to identify domestically manufactured items capable of satisfying the requirement, including the timing of the research and conclusions reached on the availability of sources.

Type 3 Waiver – The cost of components and subcomponents produced in the United States is more than 60 percent of the cost of all components and subcomponents of the “facility/project.” The required documentation for a Type 3 waiver is:

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire including;
- b) Listing of all manufactured products that are not comprised of 100 percent U.S. domestic content (excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108; products of unknown origin must be considered as non-domestic products in their entirety).
- c) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly and installation at project location.
- d) Percentage of non-domestic component and subcomponent cost as compared to total “facility” component and subcomponent costs, excluding labor costs associated with final assembly and installation at project location.

Type 4 Waiver (Unreasonable Costs) - Applying this provision for iron, steel, manufactured goods or construction materials would increase the cost of the overall project by more than 25 percent. The required documentation for this waiver is:

- a) A completed Content Percentage Worksheet and Final Assembly Questionnaire from
- b) At minimum two comparable equal bids and/or offers;
- c) Receipt or record that demonstrates that supplier scouting called for in Executive Order 14005, indicates that no domestic source exists for the project and/or component;
- d) Completed waiver applications for each comparable bid and/or offer.

False Statements: Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

Date

Signature

Company Name

Title

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BUY AMERICAN WAIVER REQUEST

(Title 49 U.S.C Section 50101 (b))

For Airfield Development Projects funded under the Airport Improvement Program

Instructions for Permissible Waivers

Nationwide Waivers: The FAA Office of Airports publishes national waivers for equipment and products that meet Buy American requirements under 49 USC 50101. Nationwide waivers are published at: http://www.faa.gov/airports/aip/procurement/federal_contract_provisions/media/buy_american_waiver.xls

Section 50101(b)(1) & (b)(2) Waivers:

The bidder may request a waiver based upon the best interests of the public, Section 50101 (b)(1) or request a waiver based upon insufficient supply of U.S. manufactured products, Section 50101 (b)(2), however approval is rare and waivers may only be approved by the FAA Office of Airports in Washington DC.

Section 50101(b)(3) Waiver:

The bidder may request a waiver if 60% or more of the components are produced in the United States and final assembly occurs in the U.S. Bidder is hereby advised that the Owner's approval with the bidder's waiver request is contingent upon FAA approval.

1. "Equipment" in Section 50101 shall mean the following:
 - a) Individual type "L" items (Airfield Lighting Equipment) as listed in FAA Advisory Circular 150/5345-53.
 - b) Individual bid items as established within FAA Advisory Circular 150/5370-10.
 - c) A waiver request may only address one specific equipment item. Submit separate requests for each equipment item for which a waiver.
 - d) Items listed under the Nationwide Waiver referenced above do not require further review.
2. The bidder must base the U.S. percentage upon the value that results from completing a component cost calculation table similar to the attached format. The Bidder must submit the component cost calculation table as an attachment to the waiver request.
3. Components/subcomponents are the material and products composing the "equipment".
4. The final assembly of the AIP-funded "equipment" must be within the USA (*Section 50101(b)(3)(B)*). Final assembly is the substantial transformation of the components and subcomponents into the end product.
5. All steel used in the "Equipment" must be produced in the United States.
6. The Buy American requirements apply to all tier contractors and subcontractors. All contractors/subcontractors are required to provide appropriate documentation that indicates origin of manufacturer and percentage of domestic made product.

7. The bidder is hereby advised there is no implied or expressed guarantee that a requested waiver will be issued by the Federal Aviation Administration (FAA). Less than 60% USA component/subcomponent proposed for this facility CANNOT be waived. Products made with foreign steel are not eligible for a waiver.
8. North America Free Trade Act (NAFTA): Free Trade Agreements such as NAFTA do not apply to the AIP. Products and material made in Canada or Mexico must be considered as foreign made products.
9. Preparation of a Component Cost Calculation Table is not necessary for equipment listed on the FAA national listing:
http://www.faa.gov/airports/aip/procurement/federal_contract_provisions/media/buy_american_waiver.xls.
Bidder however shall submit a listing of any equipment it proposes to install on the project that is included on the National Buy American conformance list.

Instructions for Section 50101(b)(4) Waiver:

1. The bidder may request a waiver if application of Buy American preferences results in a 25% cost increase in the overall project. This waiver is rarely applicable. Consult the Owner before making this request.

BUY AMERICAN COST CALCULATION TABLE

(Title 49 U.S.C Section 50101 (b)(3))

For Airfield Development Projects funded under the Airport Improvement Program

COMPONENT COST CALCULATION TABLE (Type 3 Waiver)

- In lieu of completing this table, bidder may prepare a spreadsheet that addresses the same information and calculations as presented herein.
- Preparation of a Component Cost Calculation Table is not necessary for equipment listed on the FAA national listing:
http://www.faa.gov/airports/aip/procurement/federal_contract_provisions/media/buy_american_waiver.xls.
- The component breakout shall be along major components of the equipment. Submit separate calculation for each different equipment types. Do not combine the component cost calculations of different types of equipment.
- For Airfield development projects, equipment is defined as the “L” items (Airfield Lighting Equipment) as listed in FAA Advisory Circular 150/5345-53 and the b) individual bid items as established within FAA Advisory Circular 150/5370-10. The individual bid item method may not be applied to the “L” type items.

An authorized person shall attest under signature and date that the submitted information is accurate and complete. Buy American Documentation for submittal can be found at:

https://www.faa.gov/airports/aip/buy_american/

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NOT SUBJECT TO DISCLOSURE UNDER EXEMPTION # 4 OF THE FREEDOM OF INFORMATION ACT

Buy American Product Content Percentage Worksheet

Company Name:

Date:

Address:

Point of Contact:

Telephone:

Fax:

Email:

Product Structure: Multi-Level Bill of Materials (through level 2 only)

FAA Eligible Item:

FAA Item Number (if applicable):

Total Material Cost:

US Content (%) (attach Certificate of Origin, US Customs Form 434, if applicable):

Other (%):

Address of Final Assembly Location:

The undersigned certifies that this information is true and accurate to the best of their knowledge. A false certification represents a violation of 18 U.S.C § 1001 and 49 U.S.C § 47126. Signatory has the burden of proof to establish compliance.

Signature: _____

Name:

Instruction: Items listed in Federal Acquisition Regulation Part 25.104 may be counted as US Origin but should include a note stating the item is exempt in 25.104.

Level codes: Level **0** is the final product; Level **1** is a component; Level **2** is a sub-component.

Level (0, 1, 2)	Part Number	Item Description	Quantity Per Unit	Unit of Measure	Price/Unit of Measure	US Origin Price/Unit of Measure	US Origin Cost/Each	Other Price/Unit of Measure	Other Cost/Each

FAA Form 5100-136 (8/20) SUPERSEDES PREVIOUS EDITION

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NOT SUBJECT TO DISCLOSURE UNDER EXEMPTION # 4 OF THE FREEDOM OF INFORMATION ACT

Level (0, 1, 2)	Part Number	Item Description	Quantity Per Unit	Unit of Measure	Price/Unit of Measure	US Origin Price/Unit of Measure	US Origin Cost/Each	Other Price/Unit of Measure	Other Cost/Each

[Submit by Email](#)



**-- CONFIDENTIAL --
NOT SUBJECT TO DISCLOSURE UNDER EXEMPTION # 4
OF THE FREEDOM OF INFORMATION ACT**

Buy American Preferences – Final Assembly Questionnaire

To assist the Federal Aviation Administration (FAA) in making the determination of whether final assembly of the product occurs in the United States, please complete and submit this questionnaire when requesting a Buy American Waiver under 49 USC § 50101(b)(3)(A).

Company Name:

Date:

FAA Eligible Item:

FAA Item Number (if applicable):

Address of Final Assembly Location:

1. Provide a description of the assembly process occurring at the specified final location in the United States.
 - a. Describe the final assembly process and its various operations.
 - b. How long does the final assembly process take to complete?
2. Provide a description of the resources used to conduct the assembly of the product at the specified location in the United States.
 - a. How many employees are involved in the final assembly process and what is the general skill level of those employees?
 - b. What type of equipment is used during the final assembly process?
 - c. What is a rough estimate of the associated cost to conduct final assembly of the product at the specified location in the United States?

The undersigned certifies that this information is true and accurate to the best of their knowledge. A false certification represents a violation of 18 U.S.C § 1001 and 49 U.S.C § 47126. Signatory has the burden of proof to establish compliance.

Signature: _____

Name:

Submit by Email

FAA Form 5100-137 (8/20) SUPERSEDES PREVIOUS EDITION

CERTIFICATION REGARDING DOMESTIC PREFERENCES FOR PROCUREMENTS

(DOMESTIC PREFERENCES FOR PROCUREMENTS, A28.1 SOURCE, 2 CFR § 200.322, 2 CFR Part 200, Appendix II(L))

Must be included in all subawards, including all contracts and purchase orders for work or products under the grant.

The Bidder or Offeror certifies by signing and submitting this bid or proposal that, to the greatest extent practicable, the Bidder or Offeror has provided a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including, but not limited to, iron, aluminum, steel, cement, and other manufactured products) in compliance with 2 CFR § 200.322.

Date

Signature and Title

Intentionally left blank

EQUAL EMPLOYMENT OPPORTUNITY REPORT STATEMENT

Each bidder shall complete and sign the Equal Employment Opportunity Report Statement. A bid may be considered unresponsive and may be rejected, in the Owner's sole discretion, if the bidder fails to provide the fully executed statement or fails to furnish the required data. The bidder shall also, prior to award, furnish such other pertinent information regarding its own employment policies and practices as well as those of its proposed subcontractors as the FAA, the Owner, or the Executive Vice Chairman of the President's Committee may require.

The bidder shall furnish similar statements executed by each of its first-tier and second-tier subcontractors and shall obtain similar compliance by each subcontractor, before awarding subcontracts. No subcontract shall be awarded to any non-complying subcontractor.

EQUAL EMPLOYMENT OPPORTUNITY REPORT STATEMENT

As Required in 41 CFR 60-1.7(b)

The bidder shall complete the following statements by checking the appropriate blanks. Failure to complete these blanks may be grounds for rejection of the bid:

1. The Bidder has ___ has not ___ developed and has on file at each establishment affirmative action programs pursuant to 41 CFR 60-1.40 and 41 CFR 60-2.
2. The Bidder has ___ has not ___ participated in any previous contract or subcontract subject to the equal opportunity clause prescribed by Executive order 11246, as amended.
3. The Bidder has ___ has not ___ filed with the Joint Reporting Committee the annual compliance report on Standard Form 100 (EEO-1 Report).
4. The Bidder does ___ does not ___ employ fifty or more employees.

Date

Signature of Authorized Agent

Company Name

Printed Name of Authorized Agent

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CERTIFICATION OF OFFERER/BIDDER REGARDING TAX DELINQUENCY AND FELONY CONVICTIONS

(Reference: Sections 415 and 416 of Title IV, Division L of the Consolidated Appropriations Act, 2014 (Pub. L. 113-76), and similar provisions in subsequent appropriations acts.)

(Reference: DOT Order 4200.6 - Requirements for Procurement and Non-Procurement Regarding Tax Delinquency and Felony Convictions)

The bidder must complete the following two certification statements. The bidder must indicate its current status as it relates to tax delinquency and felony conviction by inserting a checkmark (✓) in the space following the applicable response. The bidder agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

Certifications

- 1) The bidder represents that it is ☐ is not ☐ a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.
- 2) The bidder represents that it is ☐ is not ☐ a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

If the bidder responds in the affirmative to either of the above representations, the bidder is ineligible to receive an award unless the sponsor has received notification from the agency suspension and debarment official (SDO) that the SDO has considered suspension or debarment and determined that further action is not required to protect the Government's interests. The bidder therefore must provide information to the owner about its tax liability or conviction to the Owner, who will then notify the FAA Airports District Office, which will then notify the agency's SDO to facilitate completion of the required considerations before award decisions are made.

Term Definitions

Felony conviction: Felony conviction means a conviction within the preceding twenty-four (24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 U.S.C. § 3559.

Tax Delinquency: A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

Date

Signature of Authorized Agent

Company Name

Printed Name of Authorized Agent

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BIDDER'S LIST

The Bidder shall provide information on **ALL** subcontractors/material suppliers bidding or quoting on subcontracts for this project.

Name of Firm	Address	Type of Work to be Performed on Contract	Licensed in Yes No State			Contractors License # Class		Certified DBE Yes No		Certification Number	Bid Amount	Date Firm Established	*GRS

Attach additional pages, as necessary.

***GRS - Annual Gross Receipts**

Enter 1 for less than \$1 million

Enter 2 for more than \$1 million but less than \$5 million

Enter 3 for more than \$5 million but less than \$10 million

Enter 4 for more than \$10 million but less than \$15 million

Enter 5 for more than \$15 million

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DISADVANTAGED BUSINESS ENTERPRISE (DBE) UTILIZATION

The undersigned bidder/offeror has satisfied the requirements of the bid specification in the following manner (please check the appropriate space):

_____ The bidder/offeror is committed to a minimum of _____ % DBE utilization on this contract.

_____ The bidder/offeror (if unable to meet the DBE goal of 5.32%) is committed to a minimum of _____ % DBE utilization on this contract a submits documentation demonstrating good faith efforts.

Name of bidder/offeror's firm: _____

State Registration No. _____

By _____
(Signature)

Title

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APPENDIX A TO PART 26—GUIDANCE CONCERNING GOOD FAITH EFFORTS

I. When, as a recipient, you establish a contract goal on a DOT-assisted contract for procuring construction, equipment, services, or any other purpose, a bidder must, in order to be responsible and/or responsive, make sufficient good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.

II. In any situation in which you have established a contract goal, Part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, you have the responsibility to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made, based on the regulations and the guidance in this Appendix. The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call. Determinations should not be made using quantitative formulas.

III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.

IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

- A. (1) Conducting market research to identify small business contractors and suppliers and soliciting through all reasonable and available means the interest of all certified DBEs that have the capability to perform the work of the contract. This may include attendance at business matchmaking meetings and events, advertising and/or written notices, posting of Notices of Sources Sought and/or Requests for Proposals, written notices or emails to all DBEs listed in the State's directory of transportation firms that specialize in the areas of work desired (as noted in the DBE directory) and which are located in the area or surrounding areas of the project.

- (2) The bidder should solicit this interest as early in the acquisition process as practicable to allow the DBEs to respond to the solicitation and submit a timely offer for the subcontract. The bidder should determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.
- B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units (for example, smaller tasks or quantities) to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces. This may include, where possible, establishing flexible timeframes for performance and delivery schedules in a manner that encourages and facilitates DBE participation.
- C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation with their offer for the subcontract.
- D. (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional Agreements could not be reached for DBEs to perform the work.
- (2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
- E. (1) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal. Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for the work was not the lowest received. However, nothing in this paragraph shall be construed to require the bidder or prime contractor to accept unreasonable quotes in order to satisfy contract goals.

(2) A prime contractor's inability to find a replacement DBE at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original DBE. The fact that the contractor has the ability and/or desire to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find a replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.

- F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
- G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
- H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, State, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

V. In determining whether a bidder has made good faith efforts, it is essential to scrutinize its documented efforts. At a minimum, you must review the performance of other bidders in meeting the contract goal. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts. As provided in §26.53(b)(2)(vi), you must also require the contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract to review whether DBE prices were substantially higher; and contact the DBEs listed on a contractor's solicitation to inquire as to whether they were contacted by the prime. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under the rule.

VI. A promise to use DBEs after contract award is not considered to be responsive to the contract solicitation or to constitute good faith efforts.

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LETTER OF INTENT
Disadvantage Business Enterprise
(This page shall be submitted for each DBE firm)

Bidder/Offer Name: _____
Address: _____
City: _____ State: _____ Zip: _____

DBE Firm: DBE Firm: _____
Address: _____
City: _____ State: _____ Zip: _____

DBE Contact Person: Name: Phone: () _____

DBE Certifying Agency: Expiration _____ Date: _____
Each DBE Firm shall submit evidence (such as a photocopy) of their certification status.

Classification: ☐ Prime Contractor ☐ Subcontractor ☐ Joint Venture
☐ Manufacturer ☐ Supplier

Work item(s) to be performed by DBE	Description of Work Item	Quantity	Total

The bidder/offeror is committed to utilizing the above-named DBE firm for the work described above. The estimated participation is as follows:

DBE contract amount: \$ _____ Percent of total contract: ____%

AFFIRMATION:

The above-named DBE firm affirms that it will perform the portion of the contract for the estimated dollar value as stated above.

By: _____
(Signature) (Title)

* In the event the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.

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**CITY OF ROSEBURG
CONSTRUCTION CONTRACT
PROJECT 22PW06**

Dated: _____

Parties: City of Roseburg
A municipal corporation in the State of Oregon
900 SE Douglas Avenue
Roseburg, OR 97470

("CITY")

and

[Name of Company]

("CONTRACTOR")

Additional Independent Contractor Information:

- A. Type of Entity: ☐ Sole Proprietorship ☐ Partnership ☐ Limited Liability Company ☐ Corporation
B. Address:
C. Telephone:
D. Fax No:
E. Email:
F. Construction Contractor Board No.

This Contract is made and entered into this _____ day of _____, 2023, by and between _____ hereinafter called the "Contractor", and the City of Roseburg, a municipal corporation of the State of Oregon, hereinafter called the "City".

WITNESSETH

That the Contractor and City, for the consideration hereinafter described agree as follows:

1. WORK TO BE PERFORMED. The Contractor agrees to do all the work and furnish all necessary labor, materials, tools and equipment for the completion of the **Airport Standby Power Generator** in accordance with the bid made by the Contractor on the ____ day of _____, 2023, all in full compliance with the Contract Documents referred to herein, and guarantees all materials and workmanship for one year after acceptance of the project.

2. CONTRACT DOCUMENTS. The Contract Documents include the City's Invitation to Bid, Information to Bidders, the Bid Form signed by the Contractor, this Construction Contract with Exhibit A, First-Tier Subcontractor Disclosure Form, Drug Testing Program Certification Form, Bidder's Responsibility Form, Performance Bond, Payment Bond, Public Works Bond Filing Certification form (when required), General Conditions, Technical Provisions, Special Conditions, Standard Drawings, Specifications and Plans and Supplemental Specifications, all as required for the full execution and satisfactory completion of the work. All of the Contract Documents are incorporated herein by this reference and made a part of this Contract.

3. **PAYMENT.** In consideration of the faithful performance of the work herein described, the City agrees to pay the Contractor **(insert cost/bid amount)** as payment in full per the provisions of the Contract Documents. The Contractor may elect to receive payments directly to their bank account by completing the attached Vendor Automatic Payment Authorization form.

4. **TIME OF PERFORMANCE - LIQUIDATED DAMAGES.** The Contractor shall commence work under this Contract upon receiving notification to proceed from the City. The Contractor agrees that the work under this Contract shall be completed within 30 calendar days for the Mobilization Element and 20 working days for the Construction Element after notification to begin work. If the Contractor fails to complete the Project within the time hereinbefore mentioned, or in the extended time agreed upon, liquidated damages shall be paid to or withheld by the City at the rate of Two-Hundred Fifty Dollars (\$250) per day until the Project is completed. It has been agreed that the damages arising from a delay in completion would be difficult to ascertain with any degree of accuracy, even after the Project is completed. It has also been agreed that the amount of liquidated damages specified herein is a reasonable forecast of just compensation for the harm that will be caused by a delay in completion of the Project. Any such sum which the Contractor may be obligated to pay under the terms of this Paragraph is paid as liquidated damages, and not as a penalty.

5. **COMPLIANCE WITH LAW.** The Contractor shall comply with all local, state and federal laws, ordinances and regulations applicable to contracts covering municipal contracts, and shall make prompt payment of all amounts that may be due from said Contractor in the way of taxes, other governmental charges or lawful deductions, and shall make prompt payment of all labor and materials and shall save the City harmless from any damages or claims whatsoever in the performance of the Contract. Contractor and all subcontractors agree to comply with the City's Standard Contract Provisions, attached as Exhibit A and incorporated herein by this reference, and Roseburg Municipal Code Regulations relating to business registration.

6. **NOTICE.** Any notice required or permitted by this Contract must be delivered and served personally, or alternatively, deposited in the United States mail, postage prepaid, registered or certified, return receipt requested, addressed to the parties as shown below:

CITY:
City of Roseburg
ATTN: City Manager
900 SE Douglas Avenue
Roseburg OR 97470

CONTRACTOR:

Such notice, if mailed within the State of Oregon, shall be deemed delivered upon the second day following the date postmarked. If mailed outside the State of Oregon, notice shall be deemed delivered upon the fifth day following the date postmarked.

7. **GOVERNING LAW; VENUE LOCATION.** Oregon law shall be applied to all actions relating to the Contract, and the venue in any such action shall lie in the Circuit Court of Douglas County, Oregon.

8. **ELECTRONIC SIGNATURES.** This Contract and any amendments may be signed by facsimile, PDF, or other electronic means, each of which will be deemed an original and all of which when taken together will constitute one contract. Facsimile and electronic signatures will be binding for all purposes.

IN WITNESS WHEREOF, the parties hereto have executed this Contract the day and year first above written.

CITY

CONTRACTOR

Nicole Messenger
City Manager

(Authorized Signature)
Title:_____

Date:_____

Date:_____

ATTEST:

Tax Identification Number

Email:_____

Patty Hitt, City Recorder

Intentionally left blank

EXHIBIT "A"
STANDARD CONTRACT PROVISIONS
PREVAILING WAGE CONTRACT
(ORS 279C.800 - 279C.870)

The following provisions, if applicable, are hereby included in and made a part of the attached public contract which is subject to Prevailing Wage Laws and rates, between the City of Roseburg and the Contractor named therein as provided for in the Roseburg Code, Oregon Revised Statutes, and Federal laws, rules, regulations, and guidelines. If a Contractor or Subcontractor violates the provisions below, the City may, at its option, terminate the contract or a subcontract and said Contractor or Subcontractor in such event shall forfeit all rights under the contract except to payment for actual labor and materials furnished to the City. The City may waive in whole or in part any forfeitures or sanctions provided in this Exhibit.

1. PREFERENCE FOR OREGON GOODS AND SERVICES; NONRESIDENT CONTRACTOR REPORT TO DEPARTMENT OF REVENUE - ORS 279A.120:

1.1 For purposes of awarding the contract the City will:

1.1.1 give preference to goods and services that have been manufactured or produced in Oregon if the price, fitness, availability and quality are otherwise equal; and

1.1.2 add a percentage increase to the bid of a non-resident bidder equal to the percentage, if any, of the preference given to the contractor in the same state in which the contractor lives.

1.2 As used in this Section:

1.2.1 "nonresident contractor" means a contractor that is not a resident contractor;

1.2.2 "resident contractor" means a contractor that has paid unemployment taxes or income taxes in the state of Oregon during the twelve (12) calendar months immediately preceding submission of the bid for the contract; has a business address in this state; and stated in the bid for the contract that it was not a "resident bidder" under ORS 279A.120.

1.3 If the Contractor is a nonresident contractor and the contract price exceeds \$10,000, the Contractor shall promptly report to the Department of Revenue on forms to be provided by the Department, the total contract price, terms of payment, length of contract and such other information as the Department may require before the Contractor may receive final payment on the public contract. The City shall satisfy itself that the requirement of this Subsection has been complied with before it issues a final payment on the contract.

2. PAYMENT OF LABORERS AND MATERIALMEN, CONTRIBUTIONS TO INDUSTRIAL ACCIDENT FUND, LIENS, AND WITHHOLDING TAXES - ORS 279C.505(1): The Contractor shall:

2.1 Make payment promptly, as due, to all persons supplying to such Contractor, labor or material for the performance of the work provided for in the contract.

2.2 Pay all contributions or amounts due the Industrial Accident Fund from such Contractor or Subcontractor incurred in the performance of the contract.

- 2.3 Not permit any lien or claim to be filed or prosecuted against the City of Roseburg or any subdivision thereof on account of any labor or material furnished.
- 2.4 Pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

3. PAYMENT OF CLAIMS BY PUBLIC OFFICERS - ORS 279C.515:

- 3.1 If the Contractor fails, neglects or refuses to make prompt payment of any claim for labor or services furnished to the Contractor or a Subcontractor by any person in connection with the contract as such claim becomes due, the public officer or officers representing the City of Roseburg may pay such claims to the person furnishing the labor or services and charge the amount of the payment against funds due or to become due the Contractor by reason of the contract. The payment of a claim in the manner authorized shall not relieve the Contractor or his/her surety from his or her obligations with respect to any unpaid claims.
- 3.2 If the Contractor or a first-tier Subcontractor fails, neglects or refuses to make payment to a person furnishing labor or materials in connection with the contract within thirty (30) days after receipt of payment from the City of Roseburg or the Contractor, the Contractor or first-tier Subcontractor shall owe the person the amount due plus interest charges commencing at the end of the 10-day period that payment is due under ORS 279C.580(4) and ending upon final payment, unless payment is subject to a good faith dispute as defined in ORS 279C.580. The rate of interest charged to the Contractor or first-tier Subcontractor on the amount due shall equal three times the discount rate on 90-day commercial paper in effect at the Federal Reserve Bank in the Federal Reserve District that includes Oregon on the date that is thirty (30) calendar days after the date when payment was received from the City of Roseburg or from the Contractor, but the rate of interest shall not exceed 30 percent. The amount of interest may not be waived.
- 3.3 If the Contractor or Subcontractor fails, neglects or refuses to make payment to a person furnishing labor or materials in connection with the contract, the person may file a complaint with the Construction Contractors Board, unless payment is subject to a good faith dispute as defined in ORS 279C.580. The Contractor shall announce the foregoing in any Subcontract issued.

4. HOURS OF LABOR - ORS 279C.520: No person shall be employed for more than 10 hours in any one day, or 40 hours in any one week, except in cases of necessity, emergency, or when the public policy absolutely requires it, and in such cases the employee shall be paid at time and a half pay:

- 4.1 For all overtime worked in excess of 8 hours a day or 40 hours in any one week, when the work week is five consecutive days, Monday through Friday; or
- 4.2 For all overtime in excess of 10 hours a day or 40 hours in any one week when the work week is four consecutive days, Monday through Friday; and
- 4.3 For all work performed on Saturday and on any legal holiday specified in ORS 279C.540, or all holidays specified in a collective bargaining agreement.

The Contractor must give notice to employees who perform work on the contract, in writing, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, the number of hours per day and days per week that the employees may be required to work.

5. PAYMENT FOR MEDICAL CARE AND ATTENTION TO EMPLOYEES - ORS 279C.530:

- 5.1** The Contractor shall promptly as due, make payment to any person, co-partnership or association or corporation furnishing medical, surgical, and hospital care or other needed care and attention, incident to sickness or injury, to the employees of such Contractor, of all sums which the Contractor agrees to pay for such services and all monies and sums which the Contractor collected or deducted from the wages of employees pursuant to any law, contract or agreement for the purpose of providing or paying for such service.
- 5.2** The Contractor, its subcontractors, if any, and all employers providing work, labor or materials under this Contract who are subject employers under the Oregon Workers' Compensation Law shall comply with ORS 656.017, which requires them to provide workers' compensation coverage that satisfies Oregon law for all their subject workers. Out-of-state employers must provide workers' compensation coverage that complies with ORS 656.126 for their workers. Employer's Liability Insurance with coverage of not less than \$500,000 each accident shall be included.

6. PAYMENT TO SUBCONTRACTORS - ORS 279C.580:

- 6.1** The Contractor shall include in each subcontract for property or services entered into by the Contractor and a first-tier Subcontractor, including a material supplier, for the purpose of performing the public contract:

6.1.1 A payment clause that obligates the Contractor to pay the first-tier Subcontractor for satisfactory performance under its subcontract within ten (10) calendar days of payment by the City out of such amounts as are paid to the Contractor by the City of Roseburg under the contract; and

6.1.2 An interest penalty clause that obligates the Contractor, if payment is not made within thirty (30) calendar days after receipt of payment from the City of Roseburg, to pay to the first-tier Subcontractor an interest penalty on amounts due in the case of each payment not made in accordance with the payment clause included in the subcontract pursuant to Paragraph 6.1.1 of this Subsection. A Contractor or first-tier Subcontractor shall not be obligated to pay an interest penalty if the only reason that the Contractor or first-tier Subcontractor did not make payment when payment was due is that the Contractor or first-tier Subcontractor did not receive payment from the City of Roseburg or Contractor when payment was due. The interest penalty shall be:

6.1.2.1 For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and

6.1.2.2 Computed at the rate specified in ORS 279C.515(2).

- 6.2** The Contractor shall include in each of its subcontracts, for the purpose of performance of such contract condition, a provision requiring the first-tier Subcontractor to include a payment clause and an interest penalty clause conforming to the standards set forth in Paragraphs 6.1.1 and 6.1.2 and requiring each of its Subcontractors to include such clauses in their subcontracts with each lower-tier Subcontractor or supplier.
- 6.3** None of the provisions of this Section 6 are intended to prevent the Contractor or any Subcontractor from including in its contracts the provisions described in ORS 279C.580(5) and (6).

7. **PROHIBITION OF DISCRIMINATORY WAGE RATES BASED ON SEX – ORS 652.220:** The Contractor shall not:
- 7.1 Discriminate between employees on the basis of a protected class in the payment of wages or other compensation for work of comparable character, the performance of which requires comparable skills;
- 7.2 Pay wages or other compensation to any employee at a rate greater than that at which the employer pays wages or other compensation to employees of a protected class for work of comparable character, the performance of which requires comparable skills. This section does not apply where:
- (a) Payment is made pursuant to a seniority or merit system which does not discriminate on the basis of a protected class; or
 - (b) A system measures earnings by quantity or quality of production, including piece-rate work; or
 - (c) Travel is necessary and regular for the employee; or
 - (d) Education, training, experience, or any combination of factors account for the entire compensation differential.
- 7.3 Discriminate in the payment of wages or other compensation against any employee because the employee has filed a complaint in a proceeding, has testified or is about to testify, or because the employer believes that the employee may testify in any investigation, proceedings or criminal action pursuant to ORS 652.210 to 652.235.
8. **DRUG TESTING - ORS 279C.505(2):**
- 8.1 The Contractor shall demonstrate that an employee drug testing program is in place at the time of submitting its bid, and that such program will be maintained throughout the contract period, including any extensions. The failure of Contractor to have, or to maintain such a drug testing program is grounds for rejection of a bid or immediate termination of the contact.
- 8.2 The City of Roseburg shall not be liable, either directly or indirectly, in any dispute arising out of the substance or procedure of Contractor's drug testing program. Nothing in this drug testing provision shall be construed as requiring Contractor to violate any legal, including constitutional, rights or any employee, including but not limited to, selection of which employees to test and the manner of such testing. The City shall not be liable for Contractor's negligence in establishing or implementing, failure to establish or implement a drug testing policy, or for any damage or injury caused by Contractor's employees acting under the influence of drugs while performing work covered by the contract. These are Contractor's sole responsibilities and nothing in this provision is intended to create any third-party beneficiary rights against the City.
9. **PREVAILING WAGE PROVISIONS - ORS 279C.800 - 279C.870; 40 U.S.C. 3141 – 3148:**
- 9.1 The hourly rate of wage to be paid by the Contractor and all Subcontractors to workers under the contract shall not be less than the prevailing rate of wage for an hour's work in the same trade or occupation in the locality where the labor is performed as set forth in the specifications for the public contract; provided however, if the public contract is also subject to the Federal Prevailing Wage Rate pursuant to the Davis-Bacon Act (40 U.S.C. 3141 - 3148), then the higher of the two rates shall be paid. The Contractor will comply with the provisions of ORS 279C.840

and all applicable provisions of ORS 279C.800 to 279C.870 and/or the Davis-Bacon Act, 40 U.S.C. 3141 - 3148.

- 9.2** The Contractor or the Contractor's surety and every Subcontractor or the Subcontractor's surety shall file certified statements with the City in writing using the form prescribed by the Commissioner of the Bureau of Labor and Industries certifying the hourly rate of wage paid each worker whom the Contractor or the Subcontractor has employed in the Work under the contract and further certifying that no worker employed under such public contract has been paid less than the prevailing rate of wage or less than the minimum hourly rate of wage specified in the contract. The certified statement shall be verified by the oath of the Contractor or the Contractor's surety or Subcontractor or the Subcontractor's surety that the Contractor or Subcontractor has read the certified statement and knows the contents thereof and that the same is true to the Contractor's or Subcontractor's knowledge. The certified statements shall set out accurately and completely the payroll records for the prior week including the name and address of each worker, the worker's correct classification, rate of pay, daily and weekly number of hours worked, deductions made, and actual wages paid.
- 9.3** Each certified statement shall be delivered or mailed by the Contractor or Subcontractor to the City. A true copy of the certified statement shall also be filed at the same time with the Commissioner of the Bureau of Labor and Industries. Certified statements for each week during which the Contractor or Subcontractor employs a worker under the public contract shall be submitted once a month, by the fifth business day of the following month. Information submitted on certified statements may be used only to ensure compliance with the provisions of ORS 279C.800 to 279C.870. The City shall retain 25% of the amount earned by the Contractor if the certified statements are not submitted as required. The City shall pay the Contractor the amount retained within 14 days after the Contractor files the certified statements regardless of whether a Subcontractor has failed to file the required certified statements. The Contractor shall retain 25% of any amount earned by a first-tier Subcontractor until the Subcontractor has filed with the City, the required certified statements. The Contractor shall verify the first-tier Subcontractor has filed the certified statements before the Contractor may pay the Subcontractor any amount retained. The Contractor shall pay the first-tier Subcontractor the amount retained within 14 days after the Subcontractor files the required certified statements.
- 10. PUBLIC WORKS BOND REQUIREMENTS – ORS 279C.836:**
- 10.1** If the public contract involves public works, unless exempt under ORS 279C.800 to 279C.870, prior to beginning work on the contract, the Contractor shall file with the Construction Contractors Board, a Public Works Bond in the amount of \$30,000 with a corporate surety authorized to do business in the State of Oregon.
- 10.2** Before allowing a Subcontractor to begin work under a public contract involving public works, for which the Contractor has been awarded the contract, the Contractor shall verify that the Subcontractor has also filed a Public Works Bond with the Construction Contractors Board or elected not to file such bond as allowed by state law.
- 10.3** The Public Works Bond shall provide that the Contractor or Subcontract will pay claims ordered by the Bureau of Labor and Industries to workers performing labor under the public contract involving public works. The bond shall be a continuing obligation and remain continuously in effect.

- 10.4** If the Contractor or Subcontractor qualifies as a disadvantaged, minority, women, disabled veteran, or emerging small business enterprise certified under ORS 200.055 and has elected not to file the Public Works Bond, the Contractor or Subcontractor will file written verification of such certification with the Construction Contractors Board. If the Contractor or Subcontractor elects not to file the Public Works Bond, before beginning any work on the public contract involving public works, the Contractor or Subcontractor shall provide the City and the Construction Contractors Board with written notification of such election.

11. DEMOLITION CONTRACTS; LAND AND LANDSCAPE MAINTENANCE - ORS 279C.510:

- 11.1** If the public contract includes demolition, the Contractor shall salvage or recycle construction and demolition debris, if feasible and cost effective.
- 11.2** If the public contract includes services for lawn and landscape maintenance, the Contractor shall compost or mulch yard waste material at an approved site.

12. DISCRIMINATION IN SUBCONTRACTING PROHIBITED; REMEDIES - ORS 279A.110:

- 12.1** The Contractor may not discriminate against a Subcontractor in the awarding of a subcontract because the Subcontractor is a minority, women, disabled veteran, or emerging small business enterprise certified under ORS 200.055.
- 12.2** By entering into the contract, the Contractor certified it has not discriminated and will not discriminate, in violation of Subsection 12.1, against any minority, women, disabled veteran or emerging small business enterprise in obtaining any required subcontract.
- 12.3** If the Contractor violates the nondiscrimination certification made under Subsection 12.2, the City may regard the violation as a breach of contract that permits the City to terminate the contract or exercise any remedies for breach permitted under the contract.

13. HIGHEST STANDARDS; CONSEQUENCES FOR FAILURE – ORS 279B.060:

- 13.1** By entering into the Contract, Contractor agrees to perform the work to the highest standards prevalent in the industry or business most closely related to the work to be provided;
- 13.2** Contractor understands that failure to meet the highest standards in the industry may result in consequences including, but not limited to:
- 13.2.1** reducing or withholding of payment;
- 13.2.2** requiring Contractor to perform, at Contractor's own expense, additional work required to meet such standards; or
- 13.2.3** declaring a default, terminating the Contract, and seeking damages and other relief available under the terms of the Contract or other applicable law.

- 14. COMPLIANCE WITH LAWS:** The Contractor and Subcontractor shall comply with all federal, state, and local laws, rules, ordinances, and regulations at all times and in the performance of the contract.

AUTHORIZATION STATEMENT FOR AUTOMATIC VENDOR PAYMENT

We hereby authorize the City of Roseburg to make credit entries to our bank account for payments owed to us by the City.

Remittance Name

Address

City, State, Zip

Phone Number

Contact

Email Address

Payment Notification Request:

- ☐ Notify via email once payment is made.
☐ Notify via postal service.
☐ No notification necessary.

Tax ID #

(Federal Tax ID if Business, SSN if Individual)

Bank Name

Bank Address

City, State, Zip

Bank Phone Number

Bank Account Number

Bank Routing Number

Authorized Signature



Committed to Continuous Improvement and Quality Customer Service

Vendor Automatic Payment Authorization

As a City of Roseburg vendor you now have the option to receive payments directly to your bank account. No more waiting for the check to arrive through the mail or need to run to the bank to make the deposit.

Q. How do I sign up?

A. Simply complete and return the attached authorization form. You must include a voided check.

Q. How soon will the Automatic Payment Plan Start?

A. Once we have your authorization and have verified the banking information, we will begin making future payments to you through the Electronic Funds Transfer (EFT) method.

Q. How can I be sure that I have received payment from you?

A. You can request notification of the payment to be sent to you via e-mail or through the postal service at the time the electronic payment is made by selecting the appropriate box on the authorization form. Also, your monthly bank statement will clearly reflect the automatic payment.

Q. What if I have a question about my payment?

A. Simply call the City of Roseburg at (541) 492-6710 and ask to speak to the Accounts Payable Department.

Q. What if I try the Automatic Payment Plan and don't like it?

A. You can cancel your authorization for automatic payments at any time by notifying us in writing.

City of Roseburg, 900 SE Douglas Avenue, Roseburg, OR 97470, Finance@cityofroseburg.org



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**CITY OF ROSEBURG
PUBLIC WORKS BOND FILING CERTIFICATION**

Pursuant to ORS 279C.800 to 279C.870, I, undersigned contractor, do hereby certify that, prior to beginning work on the Project for which I have been awarded the bid by the City of Roseburg:

1. I have filed with the Construction Contractors Board ("Board"), a Public Works Bond in the amount of \$30,000 with a corporate surety authorized to do business in the State of Oregon.
_____ **Yes** _____ **No (Check one)**

2. I have elected not to file a Public Works Bond with the Board because I am a disadvantaged, minority, women, disabled veteran or emerging small business enterprise certified under ORS 200.055. I have provided the Board written verification of such certification and written notification of my election not to file the Public Works Bond. I understand that my election not to file the Public Works Bond will expire one year from the date it was filed and that a claim for unpaid wages may be filed against the payment bond I submitted on the Project. _____ **Yes** _____ **No (Check one)**

3. I have verified any subcontractor involved in the Project has, prior to beginning any work on this Project, either filed the Public Works Bond with the Board or has elected not to file the Public Works Bond because the subcontractor is a disadvantaged, minority, women, disabled veteran, or emerging small business enterprise certified under ORS 200.055. _____ **Yes** _____ **No (Check one)**

(a) I have verified that any subcontractor involved in this Project that has elected not to file the Public Works Bond has provided the Board written verification of its certification under ORS 200.055 and written notification of its election not to file the Public Works Bond. _____ **Yes**
_____ **No (Check one)**

I understand the Public Works Bond described above is in addition to any other bond that I am required to provide, or that may be required by a subcontractor, for this Project.

Project Name: _____

Project Number: _____

Contractor's Printed Name: _____

Contractor's Signature: _____

Dated: _____

Intentionally left blank

**CITY OF ROSEBURG
STANDARD PERFORMANCE BOND**

Bond No.: _____
Solicitation: _____
Project Name: _____

_____ (Surety #1) Bond Amount No. 1: \$ _____
_____ (Surety #2)* Bond Amount No. 2: \$ _____
**If using multiple sureties* Total Penal Sum of Bond \$ _____

We, _____ as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns, firmly by these presents to pay to the City of Roseburg the sum of (Total Penal Sum of Bond) _____ (Provided that we the Sureties bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety), and

WHEREAS, the Principal has entered into a contract with the City of Roseburg, the plans, specifications, terms and conditions of which are contained in the above-referenced Solicitation;

WHEREAS, the terms and conditions of the contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of contract prices, are made a part of this Performance Bond by reference, whether or not attached to the contract (all hereafter called "Contract"); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans and specifications, and all authorized modifications of the Contract which increase the amount of the work, the amount of the Contract, or constitute an authorized extension of the time for performance, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal herein shall faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, and shall well and truly and fully do and perform all matters and things undertaken by Contractor to be performed under the Contract, upon the terms set forth therein, and within the time prescribed therein, or as extended as provided in the Contract, with or without notice to the Sureties, and shall indemnify and save harmless the City of Roseburg and members thereof, its officers, employees and agents, against any direct or indirect damages or claim of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the Contract by the Principal or its subcontractors, and shall in all respects perform said Contract according to law, then this obligation is to be void; otherwise, it shall remain in full force and effect.

Nonpayment of the bond premium will not invalidate this bond nor shall the City of Roseburg be obligated for the payment of any premiums.

This bond is given and received under authority of ORS Chapters 279A, 279B and 279C, the provisions of which hereby are incorporated into this bond and made a part hereof.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES.

Dated this _____ day of _____, 2023.

PRINCIPAL: _____

By _____
Signature

Official Capacity

Attest: _____
Corporation Secretary

SURETY: _____
[Add signatures for each surety if using multiple bonds]

BY ATTORNEY-IN-FACT:
[Power-of-Attorney must accompany each surety bond]

Name

Signature

Address

City State Zip

Phone Email

**CITY OF ROSEBURG
PAYMENT BOND**

Bond No.: _____
Solicitation: _____
Project Name: _____

_____ (Surety #1) Bond Amount No. 1: \$ _____
_____ (Surety #2)* Bond Amount No. 2: \$ _____

**If using multiple sureties* Total Penal Sum of Bond \$ _____

We, _____ as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns, firmly by these presents to pay to the City of Roseburg the sum of (Total Penal Sum of Bond) _____ (Provided that we the Sureties bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety), and

WHEREAS, the Principal has entered into a contract with the City of Roseburg, the plans, specifications, terms and conditions of which are contained in the above-referenced Solicitation;

WHEREAS, the terms and conditions of the contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of contract prices, are made a part of this Payment Bond by reference, whether or not attached to the contract (all hereafter called "Contract"); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans and specifications, and schedule of Contract prices which are set forth in the Contract and any attachments, and all authorized modifications of the Contract which increase the amount of the work, or the cost of the Contract, or constitute authorized extensions of time for performance of the Contract, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal shall faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, and shall well and truly and fully do and perform all matters and things by it undertaken to be performed under said Contract and any duly authorized modifications that are made, upon the terms set forth therein, and within the time prescribed therein, or as extended therein as provided by the Contract, with or without notice to the Sureties, and shall indemnify and save harmless the City of Roseburg and members thereof, its officers, employees and agents, against any direct or indirect damages or claim of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the Contract by the Contractor or its subcontractors, and shall promptly pay all persons supplying labor, materials or both to the Principal or its subcontractors for prosecution of the work provided in the Contract; and shall promptly pay all contribution due according to workers compensation requirements and the State Unemployment compensation Fund from the Principal or its subcontractors in connection with the performance of the Contract; and shall pay over to the Oregon Department of Revenue all sums required to be deducted and retained from the wages of employees of the Principal and its subcontractors pursuant to ORS 316.167, and shall permit no lien nor claim to be filed or prosecuted against the City on account of any labor or materials furnished; and do all things

required of the Principal by the laws of this State, then this obligation shall be void; otherwise, it shall remain in full force and effect.

Nonpayment of the bond premium will not invalidate this bond nor shall the City of Roseburg be obligated for the payment of any premiums.

This bond is given and received under authority of ORS Chapters 279A, 279B and 279C, the provisions of which hereby are incorporated into this bond and made a part hereof.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES.

Dated this _____ day of _____, 2023.

PRINCIPAL: _____

By _____
Signature

Official Capacity

Attest: _____
Corporation Secretary

SURETY: _____
[Add signatures for each surety if using multiple bonds]

BY ATTORNEY-IN-FACT:
[Power-of-Attorney must accompany each surety bond]

Name

Signature

Address

City State Zip

Phone Email

**LOWEST BIDDER RESPONSIBILITY DETERMINATION FORM
(TO BE COMPLETED BY THE CITY UPON NOTICE OF INTENT TO AWARD)**

“Lowest responsible bidder” means the lowest bidder who is not on the list established by the Construction Contractors Board pursuant to ORS 701.227 and who has:

1. Substantially complied with all prescribed public contracting procedures and requirements of the State of Oregon and the City of Roseburg;
2. Met the standards of responsibility described in ORS 279B.110 and 279C.375, and Roseburg Municipal Code Chapter 3.06; and
3. Not been disbarred or disqualified from bidding or debarred by the State of Oregon under ORS 279B.130 or 279C.440, or by the City under the provisions of Roseburg Municipal Code Chapter 3.06.

Project Name: _____

Bid/Project Number: _____

Business Entity/ Bidder's Name: _____

CCB License Number: _____

Form submitted by City of Roseburg.

Form submitted by:

Name: _____

Title: _____

Date: _____

The City has (check all of the following):

- ☐ Checked the list created by the Construction Contractors Board under ORS 701.227 for bidders who are not qualified to hold a public improvement contract.
- ☐ Determined whether the bidder has met the standards of responsibility. In so doing, the City has found that the bidder demonstrated that the bidder:
- ☐ Has available the appropriate financial, material, equipment, facility and personnel resources and expertise, or the ability to obtain the resources and expertise, necessary to meet all contractual responsibilities.
- ☐ Holds current licenses that businesses or service professionals operating in this state must hold in order to undertake or perform the work specified in the Contract.
- ☐ Is covered by liability insurance and other insurance in amounts required in the solicitation documents.
- ☐ Qualifies as a carrier-insured employer or a self-insured employer under ORS 656.407, or has elected coverage under ORS 656.128.

- ☐ Has disclosed the bidder's first-tier subcontractors in accordance with ORS 279C.370.
- ☐ Has a satisfactory record of performance.
- ☐ Has a satisfactory record of integrity.
- ☐ Is legally qualified to contract with the City.
- ☐ Possesses a certificate that the Oregon Department of Administrative Services issued under ORS 279A.167 – Pay Equity Compliance (if applicable). **(NEW)**
- ☐ Has supplied all necessary information in connection with the inquiry concerning responsibility.
- ☐ Determined the bidder to be (check one of the following):
 - ☐ Responsible under ORS 279C.375(3)(a) and (b).
 - ☐ Not responsible under ORS 279C.375(3)(a) and (b).

If the City has found the bidder not to be responsible, please see attached document explaining the City's determination.

Note: This form is to be submitted by the City of Roseburg to the Construction Contractors Board immediately following issuance of the City's Notice of Intent to Award the subject contract. A copy must immediately be filed with the City Recorder.

**BUREAU OF LABOR AND INDUSTRIES
PREVAILING WAGE RATES FOR PUBLIC WORKS CONTRACTS**

Prevailing Wage Rates are the minimum wages that must be paid to all workers employed in the construction, reconstruction, major renovation or painting of all public works, unless specifically exempted by state or federal law. Rather than including the entire State and/or Federal Prevailing Wage Rate publications in the bid specifications and contract, public entities may make reference to the specific prevailing wage rate publication where the prevailing wage rates are found *or* provide a link to the specific prevailing wage rate publication where the prevailing wage rates are found.

Oregon Bureau of Labor and Industries Prevailing Wage Rates applicable to the subject project/contract are available on BOLI's website at [BOLI : Prevailing Wage Rates : For Employers : State of Oregon](#). The prevailing wages to be applied throughout the duration of this project are those in effect for BOLI Prevailing Wage Rate District 6, (Douglas County Oregon), upon the date the project is first advertised.

Federal Prevailing Wages Rates under the Davis Bacon Act (40 U.S.C. 3141 et seq.) may be found at [SAM.gov | Home](#). The prevailing wages to be applied throughout the duration of this project are those in effect for Federal Prevailing Wage Rates under the Davis Bacon Act (40 U.S.C. 3141 et seq.) at the time the initial specifications were first advertised for bid solicitations.

This project is subject to both ORS 279C.800 to 279C.870 and to the Davis Bacon Act (40 U.S.C. 3414 et seq.). The contractor and every subcontractor shall pay the higher of the applicable state or federal prevailing rate of wage to all workers on the projects.

For specific information or questions regarding the Prevailing Wage Rate Law, you may log on to the above referenced websites or contact the nearest Oregon Bureau of Labor and Industries office listed below.

BOLI Office Locations

Eugene	1400 Executive Parkway, Eugene, OR 97401	541/686-7623
Medford	700 E. Main, Suite 105, Medford, OR 97504	541/776-6270
Portland	800 NE Oregon St., #32, Portland, OR 97232	503/731-4074
Salem	3865 Wolverine St. NE, Bldg. E-1, Salem, OR 97305	503/378-3292

**THIS PROJECT IS SUBJECT TO THE OREGON BOLI PREVAILING WAGE RATES
EFFECTIVE ON OCTOBER 1, 2023**

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GENERAL CONDITIONS

1. **DEFINITIONS**

- 1.1 Whenever used in these General Conditions or in the other Contract Documents, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:

“Acceptance” means that the work has been completed in accordance with the Contract Documents and approved in writing by the Owner.

“Act of God or Nature” means a natural phenomenon of such catastrophic proportions or intensity as would reasonably prevent performance.

“Addendum” means any written document, signed by all parties, pertaining to additions, deletions, revisions or other issues with the Contract Documents issued after the Contract Documents have been issued.

“Bid” means the offer of a bidder to perform the work described by the Contract Documents when made out and submitted on the prescribed Bid Form and properly signed.

“Bidder” means any person, firm, partnership, corporation, limited liability company, or other entity submitting a bid for the work described hereunder.

“Change Order” means a document recommended by the Project Manager which is signed by the Contractor and the City and authorizes an addition, deletion or revision in the work or an adjustment in the Contract price or Contract times, issued on or after the effective date of the Contract.

“City” means the City of Roseburg located in the State of Oregon, and owner of the Project and work related thereto.

“Contract Documents” means and includes the Invitation to Bid, Information for Bidders, Bid Form, Construction Contract with Exhibit “A” Standard Contract Provisions, First-Tier Subcontractor Disclosure Form, Drug Testing Program Certification Form, Bidder’s Responsibility Form, Performance Bond, Payment Bond, Public Works Bond Filing Certification form (when required), General Conditions, Technical Provisions, Special Conditions, Standard Drawings, Specifications & Plans, and Supplemental Specifications all as required for the full execution and satisfactory completion of the Project.

“Contractor” means the firm, partnership, corporation, limited liability company, or other entity executing the Contract with the City for the performance of the work herein described.

“Defective” means, when modifying the work, refers to work that is unsatisfactory, faulty, or deficient in that it:

- a. does not conform to the Contract Documents; or
- b. does not meet the requirements of any applicable inspection, reference standard, test or approval referred to in the Contract Documents; or

- c. has been damaged prior to the Project Manager's recommendation of final payment (unless responsibility for the protection thereof has been assumed by the City at Substantial Completion in accordance with the Contract Documents).

"Design Consultant" means the firm who prepared the Plans and Specifications and shall not mean the Project Manager.

"Engineer" means the City's authorized Engineer, as designated by the City Manager or Public Works Director for the Contract, either acting directly or through the inspector, within the scope of assigned duties.

"Final Completion" means that all work has been completed in conformance with the Contract Documents and the Contract has been fully performed.

"Holidays" means any Oregon legal holiday.

"Liquidated Damages" means that which is set forth in Subsection 6.9 herein.

"Milestone" means a principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all of the work.

"Pay Equity Compliance Certificate" means a certificate issued by the Department of Administrative Services pursuant to ORS 279A.167 following completion of pay equity training.

"Payment Bond" means the approved form of security furnished by the Contractor and Contractor's Surety as a guarantee of good faith on the part of the Contractor to make all payments that are the Contractor's obligations, in accordance with the terms of the Contract.

"Performance Bond" means the approved form of security furnished by the Contractor and Contractor's Surety as a guarantee of good faith on the part of the Contractor to execute the work that is the Contractor's obligation, in accordance with the terms of the Contract.

"Plans" means and includes the City approved maps, standard drawings, work order drawings and supplemental drawings and sketches which will show the locations, character, dimensions and details of the work to be done.

"Project" means all work described and specified herein and as indicated on the Plans.

"Project Manager" means the City's authorized Project Manager for the Contract, as designated by the City Manager or Public Works Director, either acting directly or through a designated representative, within the scope of assigned tasks.

"Proposal Request" means a written statement issued by the Project Manager to the Contractor on or after the effective date of the Contract and signed by the City and the Contractor identifying additions, deletions, or revisions in the work, or responding to differing or unforeseen subsurface or physical conditions under which the work is to be performed or to emergencies. A Proposal Request will not change the Contract price or the Contract times but is evidence that the parties expect that the change ordered or documented by a Proposal Request will be incorporated in a subsequently issued Change Order.

“Public Works Bond” means a \$30,000 form of security furnished by the Contractor and/or Subcontractor and Contractor’s and/or Subcontractor’s Surety to the Construction Contractors Board to pay claims ordered by the Bureau of Labor and Industries to workers performing labor under a public works project.

“Punch List” means a list developed by the Project Manager after Substantial Completion that identifies defects or deficient workmanship or work not completed in conformance with the Contract Documents.

“Request for Information” means a formal request from the Contractor to the Project Manager requesting clarification and/or direction necessary to complete the work.

“Signature” means either a hand written or electronic signature.

“Specifications” means and includes the directions, provisions and requirements contained herein and referred to herein pertaining to the Project.

“Submittals” means all drawings, diagrams, material data, schedules and other information which are specifically prepared or assembled by or for the Contractor and submitted by the Contractor to illustrate some portion of the work.

“Substantial Completion” means that the degree of completion of the Project, or portion of the Project as evidenced by the Project Manager’s written notice of Substantial Completion, sufficient to provide the City, the full-time use of the Project, or portion of the Project, for the purpose for which it was intended. Determination of Substantial Completion is solely at the discretion of the Project Manager. Substantial Completion does not mean complete in accordance with the Contract nor shall Substantial Completion of all or any part of the Project entitle the Contractor to final acceptance under the Contract. The criteria the Project Manager may use in exercising his/her discretion in determining Substantial Completion includes, but is not limited to, the completion of all equipment contained in the Project, or portion of the Project, all other components necessary to enable the City to operate the facility in the manner that was intended.

“Superintendent” means the executive representative of Contractor, authorized to receive and fulfill instructions from the Project Manager or Project Manager’s representatives.

“Supplemental Specifications” means specific instructions setting forth conditions or requirements peculiar to the Project under consideration when said Project is not completely covered by the Specifications contained herein.

“Surety” means the person, firm, partnership, corporation, limited liability company or other entity that has the requisite authority to execute the bonds required from the Contractor.

2. CONTRACT DOCUMENTS

2.1 Award, Execution of Documents, Delivery of Bonds.

2.1.1 If awarded, the Contract will be awarded to the lowest responsible bidder whose qualifications indicate the award will be in the best interest of the City and whose bid complies with all the prescribed requirements. No award will be made until the City has concluded such investigations as the City deems necessary to establish the

responsibility, qualifications, and financial ability of the Bidders to do the work in accordance with the Contract Documents.

2.1.2 In determining the lowest responsible bidder for the purpose of awarding the Contract, the City, pursuant to ORS 279A.120 shall:

2.1.2.1 give preference to goods and services that have been manufactured or produced in Oregon if the price, fitness, availability, and quality are otherwise equal; and

2.1.2.2 add a percentage increase on the bid of a nonresident bidder equal to the percent, if any, of the preference given to that bidder in the state in which the bidder resides.

2.1.3 The City reserves the right to reject any and all bids not in compliance with all public bidding procedures and requirements or when such rejection is in the interest of the City; to reject the bid of a bidder who has previously failed to perform properly or complete contracts of a similar nature on time; and to reject the bid of a bidder who is not, in the opinion of the City, in a position to perform the Contract. If the Contract is awarded, the City will give the successful bidder written notice of award within forty-five (45) calendar days after bid opening.

2.1.4 At least three (3) counterparts of the Construction Contract and such other Contract Documents as practicable will be signed by the City and Contractor. The Contractor shall receive one (1) executed counterpart of the Contract Documents.

2.1.5 When required by the specifications, the Contractor shall deliver simultaneously with the execution of the Contract Documents a good and sufficient Payment Bond to ensure payment of the obligations incurred in the performance of this Contract, a Performance Bond to assure performance of the Contract and the Public Works Bond Filing Certification form executed by the Contractor. No exceptions will be made to this provision.

2.1.6 Failure of the successful bidder to execute the Contract Documents and deliver the required Payment Bond, Performance Bond and Public Works Bond Filing Certification form within ten (10) calendar days of the notification of the award of the Contract shall be just cause for the City to annul the award.

2.2 Correlation, Interpretation, and Intent of Contract Documents.

2.2.1 The intent of the Plans and Specifications as contained herein is to describe the complete Project which the Contractor shall undertake to do in full compliance with the Construction Contract with Exhibit "A", Plans and Specifications. The Contract Documents comprise the entire agreement between the City and the Contractor. The Contract Documents may only be altered as provided in the General Conditions of the Contract.

2.2.2 The Plans and Specifications are intended to be explanatory and complimentary of each other. Contractor shall execute any work indicated in the Plans and not in the Specifications, or vice versa, as if indicated in both. Should any work or materials be reasonably required or intended for carrying the Project to satisfactory completion, which

is inadvertently omitted on the Plans and Specifications, Contractor shall furnish the same as fully as if particularly delineated or described. Should it appear that the work to be done or any of the matters relative thereto are not sufficiently detailed or explained in the Contract Documents, the Contractor shall apply to the Project Manager for further explanations as may be necessary and shall conform thereto so far as may be consistent with the terms of the Contract. In the event any doubt or question arising respecting the true meaning of the Plans or Specifications, Contractor may seek a determination by the Project Manager according to Subsection 3.2 and Paragraph 3.3.3. Should the Contractor disagree with the Project Manager's decision, the Contractor may appeal to the City Manager in accordance with Paragraph 3.4.2. In resolving such conflicts, errors and/or discrepancies, the Contract Documents shall be given precedence in the following order: Construction Contract with Exhibit "A", the Plans and the Specifications. Within the Specifications, the order of precedence shall be as follows: General Conditions, Information for Bidders, Special Conditions and Technical Provisions.

2.2.3 Figure dimensions on Plans shall govern over scale dimensions, and detailed drawings shall govern over general drawings. Any work that may reasonably be inferred from the Plans and/or Specifications as being required to produce the intended result shall be supplied whether or not it is specifically called for. Work, materials or equipment described in words which so applied have a well-known technical or trade meaning shall be deemed to reference such recognized standards. The Contractor assumes full responsibility for having familiarized himself with the nature and extent of the Contract Documents, work locality and local conditions that may in any manner affect the work to be done.

- 2.3 Verification and Warranty.** The Contractor shall make the determination of the nature of the work proposed under the Contract, local conditions which can be encountered within the Project area and all other matters which can in any way affect the work proposed under the Contract. It shall also be the responsibility of the Contractor to be thoroughly familiar with the Contract Documents. Failure to make the examination necessary for this determination or to examine any form, instrument or document of the Contract with Exhibit "A" shall not release the Contractor from the obligations of the Contract with Exhibit "A". The Contractor warrants that no oral or written agreement or conversation with any officer, agent or employee of the City, either before or after the execution of the Contract, has affected or modified any of the terms or obligations herein contained.
- 2.4 Documents to be Kept on the Jobsite.** The Contractor shall keep at least one (1) copy of the Contract Documents at the jobsite, in good order, available to the Project Manager.
- 2.5 Additional Contract Documents.** The City will furnish to the Contractor, on request and free of charge, up to three (3) copies of the Contract Documents. Additional copies of Contract Documents may be obtained upon request by paying the actual cost of reproduction.
- 2.6 Surveys.** When required for the Project, surveying and staking of the component parts of the work shall be as detailed in the Specifications and on the Plans. The Contractor shall construct the work in accordance with the construction stakes and shall be charged with full responsibility for conformity and agreement of the work with said construction stakes.

3. PROJECT MANAGER-CITY CONTRACTOR RELATIONS

3.1 General. The City has the authority to act as the sole judge of the work with respect to both quantity and quality as set forth in the Contract. It is expressly stipulated that the Plans, Specifications, and other Contract Documents set forth the requirements as to the nature of the completed work and do not purport to control the method of performing work except in those instances where the nature of the completed work is dependent on the method of performance.

3.2 Project Manager. The Project Manager is the representative of the City and is employed to act as advisor and consultant to the City in project managing matters related to the Contract. The City has delegated its authority to the Project Manager to make initial decisions regarding all claims and questions, which may arise as to the quality or acceptability of materials furnished and work performed and as to the manner of performance and rate of progress of the work under the Contract. The Project Manager determines the intent and meaning of the Contract and makes initial decisions with respect to the Contractor's fulfillment of the Contract and the Contractor's entitlement to compensation. Should the Contractor disagree with a decision of the Project Manager with respect to the Contract, the Contractor may request that the City Manager review the Project Manager's decision and make a determination in the manner provided under Paragraph 3.4.2.

The Project Manager may designate a field representative as an alternate in his/her capacity on the job site. All notifications required under the Contract shall be made directly to the Project Manager or the designated representative.

3.3 Duties and Responsibilities of the Project Manager

3.3.1 The Project Manager will make periodic visits to the site of the Project to observe the progress and quality of the work and to determine, in general, if the work is proceeding in accordance with the intent of the Contract Documents. The Project Manager shall not be required to make comprehensive or continuous inspections to check the quality or quantity of the work, and shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Project. Visits and observations made by the Project Manager shall not relieve the Contractor of obligations to conduct comprehensive inspections of the work, to perform acceptable work and to provide adequate safety precautions.

3.3.2 The Project Manager or the field representative thereof will be assigned to periodically observe the work and to act in matters of construction under the Contract. It is understood the Project Manager or field representative shall have the power to issue instructions and make decisions within the limitations of the authority granted by the City. Such inspection shall not relieve the Contractor of obligations to conduct comprehensive inspections of the work, perform acceptable work and provide adequate safety precautions.

3.3.3 All claims of the Contractor shall be presented to the Project Manager or designated representative, for a decision which shall be made in writing within a reasonable time. All decisions of the Project Manager shall be final subject only to the Contractor's right to appeal the Project Manager's decision to the City Manager in the manner provided in Subsection 3.4.

3.4 Appeal to the City Manager by the Contractor.

3.4.1 Determination by the Project Manager. As provided in Subsections 3.1, 3.2, and 3.3, the Contractor shall refer questions regarding meaning and intent of the Contract Documents in writing to the Project Manager for his/her decision. The Project Manager shall, within a reasonable time, respond to the Contractor in writing with his/her decision. If the Contractor disagrees with the Project Manager's decision or considers the decision requires extra work, Contractor may appeal the decision to the City Manager. Any related work performed by the Contractor prior to the Project Manager's decision is done at Contractor's risk unless otherwise authorized by the Project Manager.

3.4.2 City Manager Appeal Process. In the event the Contractor disagrees with any decision of the Project Manager, the Contractor may, within ten (10) calendar days of the date of such decision, appeal the decision to the City Manager for review. The appeal must be in writing and must set forth the questions referred to the Project Manager, the Project Manager's decision and the Contractor's basis for disagreement. The Contractor shall deliver a copy of the appeal to the Project Manager at the time it is filed with the City Manager. The City Manager shall make all reasonable efforts to review the appeal and deliver his/her decision in writing to the Contractor within thirty (30) calendar days from the date of receipt of the appeal. Failure of the Contractor to appeal the decision of the Project Manager within the said ten (10) calendar day period constitutes a knowing and voluntary waiver of the Contractor's right to thereafter assert any claim resulting from such decision. This procedure is not meant to preclude or discourage informal resolution of disagreements between the Project Manager and the Contractor.

In the event the City Manager elects to do so, the City Manager may establish a "Claims Review Board" either to assist in reviewing an appeal hereunder or to consider Contractor appeals directly. Once established, the Claims Review Board will hear all future appeals of claims for this Contract.

During the pendency of any appeal, any related work performed by the Contractor shall be done at the Contractor's risk unless otherwise authorized by the Project Manager.

The filing of an appeal does not automatically extend the milestones and/or deadlines set forth in the Contract Documents and the Contractor continues to be subject to liquidated damages for failure to complete the Project within the time allotted.

In the event the City Manager or the Contractor commences arbitration or other legal action against the other for damages or for equitable relief, the prevailing party in such arbitration or other legal action is entitled to recover its reasonable attorney's fees therein and in any appeal therefrom.

The parties hereby stipulate and consent that venue for all arbitration or other legal actions arising under the Contract is in Douglas County, Oregon and that jurisdiction for all legal actions that are brought in or transferred to court is in the Douglas County Circuit Court of the State of Oregon; except, if a claim must be brought in a federal forum, then it must be brought and adjudicated solely and exclusively in the United States District Court for the District of Oregon located in Eugene, Oregon.

3.5 Suspension of Work. The Project Manager shall, in addition to its other authority, have the authority to suspend the work, wholly or in part, for such period or periods as may be deemed

necessary due to unsuitable weather or such other conditions as are considered unfavorable for prosecution of the work, or failure on the part of the Contractor to carry out the provisions of the Contract. The Contractor shall not suspend operation without the permission of the Project Manager or Project Manager's authorized representative.

3.6 Notice of Potential Claim for Additional Compensation and/or Time.

3.6.1 The Contractor shall not be entitled to any additional compensation or extension of time for any act or failure to act by the Project Manager or the City, the happening of any event or occurrence or any other cause, unless the Contractor shall have given the Project Manager a written notice of potential claim.

3.6.2 The written notice of potential claim shall set forth the reasons for which the Contractor believes additional compensation or time will or may be due, the nature of the costs involved and insofar as possible, the amount of the potential claim. If based on an act or failure to act by the Project Manager or the City, except in case of emergency, such notice shall be given to the Project Manager prior to the time that the Contractor starts performance of the work giving rise to the potential claim for additional compensation. In all other cases, notice shall be given within ten (10) calendar days after the happening of the event or occurrence giving rise to the potential claim.

3.6.3 It is the intention of this section that differences between the parties arising under and by virtue of the Contract shall be brought to the attention of the Project Manager at the earliest possible time in order that such matters may be settled if possible or other appropriate action may be taken promptly.

3.7 Examination of Completed Work. If the Project Manager requests it, the Contractor at any time before acceptance of the Project by the City, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standards required by the Contract Documents. Should the work thus exposed or examined prove to be in accordance with the Contract Documents, the uncovering or removing, the replacing of the covering or making good of the parts removed, shall be paid for by the City; but should the work so exposed or examined prove to be not in accordance with the Contract Documents, the uncovering or removing and the replacing of the covering or the making good of the parts removed, shall be at Contractor's expense. Should any work be performed without giving notice of plan of work, thereby eliminating an opportunity of inspection by the Project Manager, the Project Manager may require the Contractor to uncover such work at Contractor's own expense for examination by the Project Manager. Cost of uncovering such work shall be borne by the Contractor, whether or not the work is found acceptable. The work shall also be subject to inspection by appropriate governmental inspectors at all times.

3.8 Contractor's Superintendent. A qualified superintendent, who is acceptable to the Project Manager, shall be maintained by the Contractor on the Project to give efficient supervision over the Project until its completion. The superintendent shall have full authority to act on behalf of the Contractor, and all directions given to the superintendent shall be considered given to the Contractor. In general, the Project Manager's instructions shall be confirmed in writing and always upon written request from the Contractor.

3.9 Information Regarding Existing Facilities and Utilities.

3.9.1 Facilities. Any information relative to the location of other structures as might be shown on the Contract Documents will be obtained from the best information available and field observations; however, the City cannot guarantee the accuracy or completeness of this information.

3.9.2 Utilities. The Design Consultant has endeavored to determine the existence of utilities at the job site from the records of positions of these utilities as derived from such records as are shown on the Drawings. No excavations were made to verify the location shown for underground utilities. The service connections to these utilities are not shown on the Drawings. It is the responsibility of the Contractor to determine the exact location of all utilities and service connections hereto. The Contractor shall make its own investigations, including contacting the owners of appropriate utilities and making exploratory excavations to determine the locations and type of existing utilities, including service connections, prior to commencing work that could result in damage to such utilities and/or surrounding structures. The Contractor shall immediately notify the Project Manager as to any utility discovered by the Contractor that is not shown on the Drawings or that is in a different position than shown on the Drawings.

In the event it is necessary to remove, relocate or temporarily maintain a utility because of interference with the work, the Contractor shall perform the work on the utility and the City shall pay Contractor as follows:

- 3.9.2.1** When it is necessary to remove, relocate or temporarily maintain a service connection, the cost of which is not required to be borne by the owner thereof, the Contractor bears all expenses incidental to the work on the service connection. The Contractor shall perform the work on the service connection in a manner satisfactory to the owner thereof; if being understood that the owner of the service connection has the option of doing such work with its own forces or permitting the work to be done by the Contractor.
- 3.9.2.2** When it is necessary to remove, relocate or temporarily maintain a utility or underground obstruction that is in the position shown on the Drawings, the cost of which is not required to be borne by the owner thereof, the Contractor bears all expenses incidental to the work on the utility. The Contractor shall perform the work on the utility in a manner satisfactory to the owner thereof; it being understood that the owner of the utility has the option of doing such work with its own forces or permitting the work to be done by the Contractor.
- 3.9.2.3** When it is necessary to remove, relocate or temporarily maintain a utility or underground obstruction that is not shown on the Drawings or is in a position different from that shown on the Drawings and were it in the position shown on the Drawings would not need to be removed, relocated or temporarily maintained, the cost of which is not required to be borne by the owner thereof, the

City will make arrangements with the owner of the utility for such work to be done at no cost to the Contractor.

No representations are made that the obligations to move or temporarily maintain any utility and to pay the cost thereof, is or is not required to be borne by the owner of such utility, and it is the responsibility of the Contractor to investigate to determine whether or not said cost is required to be borne by the owner of the utility.

Governmental agencies and owners of utilities reserve the right to enter at any time upon any street, alley, right-of-way or easement for the purpose of making changes in their property made necessary by the work and for the purpose of maintaining and making repairs to their property.

3.10 Use of Premises

3.10.1 All work included under the Contract is to be constructed on land belonging to the City, on public right-of-way administered and regulated by state and/or local government or on easements to the benefit of the City or the public. The Contractor shall abide by special conditions or requirements of the property owner or governing authority. The Contractor shall confine equipment, the storage of materials and the operation of Contractor's workers to the limits as shown on the Plans or as indicated by law, ordinances, permits or directions of the Project Manager and shall not unreasonably encumber the premises with materials.

3.10.2 Any additional land and access thereto which the Contractor might desire for temporary construction facilities or for storage of materials shall be provided by the Contractor with no liability to the City. The Contractor shall pay all costs involved in acquiring such rights and all clean up shall be made as required by these Specifications.

3.11 Private Property. The Contractor shall not enter upon private property for any purpose without obtaining permission and shall be responsible for the preservation of all public property, trees, monuments, etc. along and adjacent to the street and/or right-of-way and shall use every precaution necessary to prevent damage or injury thereto. The Contractor shall use suitable precautions to prevent damage to pipes, conduits, and other underground structures, including but not limited to, verifying with all appropriate utilities where underground structures are located, and shall protect carefully from disturbance or damage all monuments and property marks until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed.

3.12 Assignment of Contract. Contractor shall not sublet, sell or assign the Contract or sublet any of the work to be performed hereunder without the written consent of the City. Any such assignment or subletting of any such work without City's consent shall be null and void and without force or effect.

3.13 City's Right to do Work. If, in the sole opinion of the Project Manager, the Contractor neglects to prosecute the work properly or neglects or refuses at Contractor's own cost, to take up and replace work that has been rejected by the Project Manager, the Project Manager shall notify the City who shall notify the Surety of the condition. After at least ten (10) calendar days written notice to the Contractor and the Contractor's Surety, or without notice if an emergency or danger

to the Project or public exists, and without prejudice to any other right which the City may have under the Contract, the City may take over that portion of the Project which has been improperly executed, make good the deficiencies, and deduct the actual costs thereof from the payments then or thereafter due the Contractor. If no amount is owed to the Contractor, then the City may still pursue all of its other legal and/or equitable remedies.

3.14 City's Right to Terminate Contract.

3.14.1 Upon occurrence of any one or more of the following, the City may terminate the Contract at any time, immediately or upon such notice as the City in its sole discretion deems appropriate, by providing written notice to the Contractor which describes the reason for termination:

- 3.14.1.1** Contractor persistently fails to perform the work in accordance with the Contract Documents, including but not limited to, failure to supply sufficient skilled workers, suitable materials or equipment and failure to adhere to the progress schedule as the schedule may be revised from time to time;
- 3.14.1.2** Contractor fails to comply with applicable laws or the provisions of any of the Contract Documents, including, but not limited to the Construction Contract with Exhibit "A" Standard City Contract Provisions;
- 3.14.1.3** Contractor disregards the authority of the Project Manager;
- 3.14.1.4** Contractor violates any provision of the Contract and, after receiving notice of the violation, fails to remedy the breach immediately; or
- 3.14.1.5** Contractor files for bankruptcy under any chapter of the Bankruptcy Code (Title 11, United States Code); or a petition in bankruptcy is filed against Contractor under the Bankruptcy Code or any other provision of law seeking substantial relief; or Contractor makes a general assignment for the benefit of creditors; or a trustee, receiver or similar agent is appointed to take charge of Contractor's property for the benefit of creditors; or Contractor otherwise admits in writing to being unable to pay its debts as they become due.

3.14.2 Upon the City's issuance of written notice of termination, the Contractor shall immediately cease all work under this Contract, unless, as shall be specified in the notice, the City, in its sole discretion, would be harmed by any uncompleted work, in which case, Contractor shall complete those items specified by the City in its notice.

3.14.3 The City may terminate the Contract upon seven (7) calendar days' notice if the City determines for any reason that the completion of the Contract is no longer in the best interests of the City.

3.14.4 If the City terminates the Contract pursuant to Paragraph 3.14.1, the City may choose any remedy available to it under the Contract, applicable statutes, City Code or

common law, including but not limited to, completing the Project itself or through another contractor. The Contractor shall pay the City for all additional costs incurred by the City to obtain substitute performance. The Contractor shall be entitled to payment for that portion of the work that the Contractor completed according to the Contract, less the City's costs to obtain substitute performance for the balance of the work.

3.14.5 If the City terminates the Contract pursuant to Section 3.14.3, the City shall pay Contractor for that portion of the work the Contractor has completed according to the Contract, plus Contractor's cost for materials ordered and delivered to the site before Contractor receives the City's notice of termination; provided that such materials shall then belong to the City.

3.15 Contractor's Right to Stop Work or Terminate Contract. The Contractor may suspend work or terminate the Contract upon ten (10) calendar days written notice to the City, for any of the following reasons:

3.15.1 If an order of any court or other public authority caused the work to be stopped or suspended for a period of ninety (90) calendar days through no act or fault of the Contractor or his employees;

3.15.2 If the City should fail to act upon any request for payment within thirty (30) calendar days after its approval by the Project Manager; or

3.15.3 If the City should fail to pay the Contractor any sum within thirty (30) calendar days after its award by arbitrators.

3.16 Rights of Various Interests. Wherever work being done by the City's forces is contiguous to work covered by the Contract, the respective rights of the various interests involved shall be established by the Project Manager to secure the completion of the various portions of the work in general harmony.

3.17 Subcontracts.

3.17.1 The Contractor shall not be permitted to subcontract any of the work to be performed under the Contract without the written consent of the City, submission of the First-Tier Subcontractor Disclosure Form as required prior to the Bid opening deadline and verification that the Subcontractor has filed a Public Works Bond, when required, with the Construction Contractors Board prior to beginning any work on the Project. The Contractor shall not employ any subcontractor that the Project Manager may object to due to subcontractor lacking the capability of performing work of the type and scope anticipated. No changes will be allowed from the approved subcontractor list without approval of the Project Manager.

3.17.2 The Contractor agrees to be as fully responsible to the City for the acts and omissions of the Contractor's subcontractors or of any persons either directly or indirectly, employed by Contractor's subcontractors as Contractor is for the acts and omissions of persons directly employed by Contractor.

3.17.3 Nothing contained in the Contract Documents shall create any contractual relation between any subcontractor and the City.

- 3.18 Unforeseen Difficulties.** The Contractor shall protect the work and materials from damage due to the nature of the work, the elements, carelessness of other contractors or from any cause whatever until completion and acceptance of the Project. All loss or damages arising out of the nature of the work to be done under the Contract Documents, from any unseen obstruction or defects which may be encountered in the prosecution of the work, or from the action of the elements, shall be sustained by the Contractor.
- 3.19 Work During an Emergency.** The Contractor shall be responsible for and must have resources available for all emergency work which might occur on the Project under construction for which the Contractor is responsible. The Contractor shall perform any work and furnish and install any materials and equipment necessary during an emergency endangering life or property. In all cases the Contractor shall notify the Project Manager of the emergency as soon as practicable, but the Contractor shall not wait for instructions before proceeding to properly protect both life and property.
- 3.20 Oral Agreements.** No oral order, objection, claim or notice by any party to the others shall affect or modify any of the terms or obligations contained in any of the Contract Documents. No provision of the Contract Documents shall be held to be waived or modified by reason of any act whatsoever, other than by a definitely agreed waiver or modification thereof in writing. No evidence shall be introduced in any proceeding of any other waiver or modification.
- 3.21 Liens and Claims Against Contractor.** The Contractor shall not permit any lien or claim to be filed or prosecuted against the City on account of any labor or material furnished under this Contract whether the same be furnished by the Contractor or any Subcontractor. If the Contractor fails, neglects, or refuses to make prompt payment of any claim for labor or services furnished to the Contractor or a Subcontractor by any person in connection with the Contract as such claim becomes due, the City may pay such claim to the person furnishing the labor or services and charge the amount of the payment against funds due or to become due to the Contractor under this Contract. The payment of a claim in this manner does not relieve the Contractor or its surety from obligation with respect to any unpaid claims.

Any claim, by a person claiming to have supplied labor or materials for the performance of the work, for payment asserted against the Contractor's payment bond must be asserted in conformity with ORS 279C.600 et. Seq.

4. MATERIALS AND WORKMANSHIP

4.1 Materials to be Reviewed Before Use.

4.1.1 Only materials conforming with the specified requirements and conditionally accepted by the Project Manager shall be used in the Project.

4.1.2 Before any material to be used in the Project is delivered, the Contractor shall advise the Project Manager of the source from which the material is to be obtained, furnish such samples as may be required for testing purposes, and receive the Project Manager's conditional acceptance for the use of that particular material. The conditional acceptance of any source of supply by the Project Manager does not imply that all material from that source will be accepted. Should material from any conditionally accepted source fail to maintain a quality meeting the requirements of the Specifications, use of material from that source shall be discontinued and the Contractor shall furnish acceptable material from other sources. Regardless of the source, any material

delivered for the Project which fails to meet the requirements will be rejected. Only material meeting all requirements will be allowed to be incorporated in the Project. Any material or item incorporated in the Project which does not meet requirements of the Contract Documents, even if it was used with the consent and/or the presence of an inspector, shall be removed and acceptable material shall be used in its place, with all costs related to such removal and installation being borne by the Contractor.

4.1.3 Any material which, after conditional acceptance, has for any reason become unsuitable for use shall be rejected and not used.

4.2 Tests of Materials.

4.2.1 All tests of materials shall be made in accordance with acceptable methods as described and designated in the Specifications. When tests of materials are required, such tests shall be made by a testing laboratory accepted by the Project Manager and at the expense of the Contractor. The Contractor shall afford such facilities as may be required for collecting and forwarding samples and shall hold the materials represented by the samples until tests have been made and the materials found equal to the requirements of the Specifications or to approved samples. The Contractor in all cases shall furnish the required samples without charge.

4.2.2 In the absence of any definite Specification or reference to a Specification in the Technical Specifications or in the Special Provisions for the particular Project involved, it shall be understood that such materials shall meet the Specifications and requirements of the American Society for Testing Materials. Unless otherwise specified, all tests of materials shall be made in accordance with the methods prescribed by the American Society for Testing Materials.

4.2.3 In cases where compliance of materials or equipment with Contract requirements is not readily determinable through inspection and tests, the Project Manager shall request the Contractor provide properly authenticated documents, certificates or other satisfactory proof of compliance. These documents, certifications and proofs must cover performance characteristics, materials or construction and the physical or chemical characteristics of materials.

4.2.4 If the Specifications require, or the Contractor's request is approved by the Project Manager, inspection or testing may take place away from the job site. The additional cost to the City for such remote inspection or testing includes travel and subsistence expenses and will be paid by the Contractor through a reduction in payment to the Contractor equal to the travel and subsistence expenses. In the event the remote inspection or testing is not specified and is required by the City, the required travel and subsistence expense will be paid for by the City.

4.3 Storage of Materials. Materials shall be so stored as to insure the preservation of their quality and fitness for the Project. When considered necessary, they shall be placed on wooden platforms or other hard, clean surfaces, and not on the ground, and/or they shall be placed under cover. Stored materials shall be located so as to facilitate prompt inspection. Private property shall not be used for storage purposes without the written permission of the City and the private property owner.

- 4.4 Character of Workers.** The Contractor shall at all times be responsible for the conduct and discipline of Contractor's employees and/or any subcontractor or persons employed by subcontractors. All workers must have sufficient knowledge, skill and experience to properly perform the work assigned to them. Any foreman or worker employed by the Contractor or Subcontractor who, in the opinion of the Project Manager, does not perform the work in a skillful manner, appears to be incompetent or acts in a disorderly or intemperate manner shall, at the written request of the Project Manager, be removed from work on any portion of the Project except as allowed by the Project Manager.
- 4.5 Construction Means, Methods, Techniques, and Procedures.** The Contractor shall have the full power and authority to select the means, methods, techniques and procedures for performing the work covered under the Contract, provided said means, methods, techniques and procedures are in strict compliance with the requirements of all local, state and federal authorities and with these Specifications, and are not in conflict with the recommended installation practices of the manufacturers who are the suppliers of the materials to be utilized on the contemplated Project. The construction means, methods, techniques and procedures utilized shall produce a satisfactory quality of workmanship and shall be adequate to maintain the schedule of progress as required under the provisions of these Specifications.
- 4.6 Contractor's Tools and Equipment.** The Contractor's tools and equipment used on the work covered under the Contract shall be furnished in sufficient quantity and of a capacity and type that will safely perform the work specified and shall be maintained and used in a manner that will not create a hazard to persons or property or cause a delay in the progress of the work.
- 4.7 Rejected Materials and Work.** Any material supplied by the Contractor which is condemned or rejected by the Project Manager or the Project Manager's authorized representative because of non-conformity with the Contract Documents shall be removed at once from the vicinity of the Project by the Contractor at his own expense, and the same shall not be used on the Project. Any defective work whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause shall be removed within ten (10) calendar days after written notice is given by the Project Manager, and the work shall be re-executed by the Contractor at his own expense.
- 4.8 Unnoticed Defects.** Any defective work or materials furnished by the Contractor and discovered by the Project Manager before the Project has been given final acceptance or final payment has been made, or during the guarantee period, shall be removed and replaced by work and materials which shall conform to the provisions of the Contract Documents. Failure on the part of the Project Manager or his representative to condemn or reject bad or inferior work or materials shall not be construed to imply acceptance of such work or materials.
- 4.9 Right to Retain Imperfect Work.** If any part or portion of the work done or material furnished by the Contractor under the Contract proves to be defective and not in accordance with the Plans and Specifications, and if the imperfection in the same is not of sufficient magnitude or importance as to make the work dangerous or unsuitable, or if the removal of such work will create conditions which are dangerous or undesirable, the City shall have the right and authority to retain such work but shall make such deductions in the payment therefore as may be just and reasonable.
- 4.10 Correction of Defective Work.** When, and as often as the Project Manager determines through its inspection procedures, material, equipment, or workmanship incorporated in the Project do not meet the requirements of the Contract, the Project Manager may give notice of the

noncompliance to the Contractor in writing. Within five (5) calendar days of receipt of such notice, the Contractor shall undertake all work necessary to correct the deficiency and to comply with the Contract. The Contractor agrees to pay all costs of correcting the defective work, including wages and overhead charges for inspection. If the Contractor disagrees with the Project Manager's determination and believes the corrective work should be covered by a Change Order, the Contractor shall immediately notify the City, in writing, setting forth the basis for its position. The City will review the matter and notify the Contractor, in writing, of its determination within thirty (30) calendar days after receipt of the Contractor's notification. If the City determines the corrective work is required to comply with the Contract, the Contractor shall proceed with such work.

As a condition precedent to the Contractor's claim for either additional compensation or time extension or both resulting from the performance of such corrective work, the Contractor shall, within fifteen (10) calendar days after receipt of the City's determination, notify the City in writing of its intent to claim additional compensation, time or both. The Contractor shall document all cost information associated with the corrective work and shall submit such information to the Project Manager on a monthly basis. Receipt of the cost data by the Project Manager does not constitute an Acceptance of the corrective work or an authorization for a Change Order to cover the corrective work.

4.11 Cutting and Patching. The Contractor shall do, or be responsible for, all cutting, fitting or patching that may be required by, shown on or reasonably implied by the Plans and Specifications. Any defective work performed or material furnished by the Contractor, which is discovered by the Project Manager before final acceptance of the Project or before final payment has been made, shall be removed, and replaced or patched at the Contractor's expense in a manner approved by the Project Manager or his representative.

4.12 Cleanup.

4.12.1 As the Project progresses and immediately after completion of the Project, the Contractor shall clean up and remove all refuse and unused materials of any kind resulting from the Project. If the Contractor fails to commence the cleanup within 24 hours after being directed to do so by the Project Manager, the Project Manager may have the cleanup performed by others. The cost shall be borne by the Contractor and may be deducted from payments due or to become due the Contractor.

4.12.2 After the Project is completed and before final acceptance of the Project, all areas affected by the Project shall be neatly finished and all equipment, temporary structures, rubbish, and waste shall be removed from the Project area.

4.13 Guarantee.

4.13.1 The Contractor shall fully warrant all work for at least one (1) full calendar year from the City's Final Acceptance of the Project, regardless of the length of manufacturers' or installers' warranties.

4.13.2 In addition to any other warranties that are required, the Contractor shall make all necessary repairs and replacements to remedy any and all defects, breaks or failures of the work occurring within one (1) calendar year following the date of the City's Final Acceptance due to faulty or inadequate materials or workmanship. Such repairs and

replacements must conform to the Contract Specifications under which the Contractor originally performed the work.

4.13.3 In the event of a dispute regarding any portion of the work, the Contractor shall nonetheless provide any warranty service, repairs or replacements as described in Paragraphs 4.13.1 and 4.13.2 above, for that portion of the work that is not in dispute. In the event a dispute delays the City's Final Acceptance of the work, the warranty for portions of the work not in dispute runs from the date of the City's Final Acceptance of the remaining portions of the work.

4.13.4 The Contractor shall also repair any damage or remedy any disturbance to other publicly owned property or improvements thereon if caused by the Contractor's work and if the damage or remedy occurs during the warranty period.

4.13.5 If the Contractor performs warranty work, then the warranty work for repetitive defects in materials, workmanship or equipment also shall have a one (1) calendar year warranty period from the date of its completion and the City's Final Acceptance of that work. The Contractor shall continue to provide warranty work pursuant to the terms of the Contract until the defects are completed and the City provides notice of its Final Acceptance of the work.

4.13.6 The City shall provide the Contractor with written notice of the need to perform warranty work unless it is determined that an emergency exists, that delay would cause serious additional loss or damage, or if any delay in performing the work might cause injury to any member of the public. If the Contractor, after written Notice, fails within ten (10) calendar days to comply with the City's request, the City has the right to perform the warranty work either by hiring another Contractor or by using its own forces. In either event, the Contractor and its Surety remain liable to the City for the cost of the work performed and any additional damage suffered by the City.

4.13.7 The Contractor shall provide a bond during the one (1) calendar year warranty period to guarantee the Contractor's performance of warranty work. The Contractor shall provide to the City a bond in the amount of 20% of the final Contract Amount in one of the following ways:

- 4.13.7.1** Continuation of the Contract performance and payment bond.
- 4.13.7.2** Any new performance and payment bond, acceptable to the City, which covers the Contractor's warranty obligations imposed by the Contract Documents.
- 4.13.7.3** Cash deposit to the City Finance Department. A receipt from the City Finance Director constitutes proof of the deposit.
- 4.13.7.4** Other arrangements proposed by the Contractor that the City finds acceptable in the City's sole discretion.

5. INSURANCE, LEGAL AND FINANCIAL RESPONSIBILITY, AND PUBLIC SAFETY

5.1 Insurance.

5.1.1 Policy Requirements. The insurance policies specified herein shall be approved as to form by the City. Contractor shall deliver a certificate of all required policies to City upon execution of the Contract Documents and prior to commencement of any work under the Contract. If requested by the City, Contractor shall furnish the City with executed copies of such policies of insurance. Coverage provided by the Contractor must be underwritten by an insurance company deemed acceptable to the City. Insurance coverage shall be provided by companies admitted to do business in Oregon and rated A- or better by AM Best. A thirty (30) day notice of cancellation, termination or non-renewal in coverage clause shall be included in all insurance policies. Failure to maintain any required insurance coverage in the minimum required amount shall constitute a material breach of the Contract and shall be grounds for immediate termination of the Contract. If the insurer is unwilling or unable to provide such commitment, the Contractor shall provide the City with the relevant sections of its policies describing how the insurer may reduce, modify, or cancel the insurance. Furthermore, the Contractor has an affirmative duty to provide the City with any notice the Contractor receives regarding the reduction, modification, or cancellation of its insurance within 24 hours of Contractor's receipt of such notice. All policies required by these provisions shall:

- 5.1.1.1** also name the City as an additional insured, protecting City from any and all claims, losses, actions, or omissions of Contractor or as a result of the joint concurring or contributory act, omission or negligence of Contractor and City arising with or related to activities specified under the Contract;
- 5.1.1.2** be written as primary policies, not contributing with, or in excess of, any coverage City may have; and
- 5.1.1.3** have loss payable clauses in favor of and reasonably satisfactory to City.

5.1.2 Commercial General Liability Insurance. During the performance of the Contract, Contractor shall obtain and maintain continuously in effect a commercial general liability insurance policy, including personal and advertising injury liability and products, completed operations and construction site coverage, with a combined single limit per occurrence of not less than \$2,000,000. The aggregate limit shall not be less than \$4,000,000. The policy shall be endorsed to state that the aggregate limit of liability shall apply separately to the Contract. Coverage may be written in combination with Commercial Automobile Liability Insurance with separate limits for Commercial General Liability and Commercial Automobile Liability. If available, such policy shall contain a contractual liability endorsement to cover Contractor's indemnification obligations under the Contract. Claims Made policies will not be accepted.

5.1.3 Commercial Automobile Liability Insurance. At all times during the term of the Contract, and at the sole expense of Contractor, Contractor shall maintain continuously in effect, "Symbol 1" commercial automobile liability coverage covering all owned, non-owned and hired vehicles. This coverage may be written in combination

with the Commercial General Liability Insurance with separate limits for Commercial Automobile Liability and Commercial General Liability. Combined single limit per occurrence shall not be less than \$2,000,000. If this coverage is written in combination with the Commercial General Liability, the aggregate limit for Commercial General Liability shall not be less than \$4,000,000 and the policy shall be endorsed to state that the aggregate limit of Commercial General Liability shall apply separately to the Contract.

5.1.4 Workers Compensation. At all times during the term of the Contract, and at the sole expense of the Contractor and Subcontractors, the Contractor and all Subcontractors shall comply with ORS 656.017, which requires them to provide Workers Compensation coverage for all their subject workers.

5.1.5 Pollution Liability. Contractor or appropriate Subcontractor shall obtain, at their expense, and keep in effect during the term of the Contract, Pollution Liability Insurance covering their liability for bodily injury, property damage and environmental damage resulting from sudden accidental or gradual pollution and related cleanup costs incurred by the Contractor or appropriate Subcontractor, all arising out of the work or services (including the transportation risk, when applicable) to be performed under the Contract. Combined single limit per occurrence shall not be less than \$2,000,000, with an annual aggregate limit of not less than \$4,000,000. If available, such policy shall contain a contractual liability endorsement to cover Contractor's indemnification obligations under the Contract. Claims Made policies will not be accepted.

5.2 Indemnification. The Contractor shall hold the City harmless from, and indemnify it for, all loss, costs, claims, demands, damages, suits, actions and judgments for property damage and/or personal injury, including death, arising out of the Project or performance under the Contract by the Contractor's agents or employees, or any of them. In any event any such action or claim is brought against City, Contractor shall, if City so elects, upon tender by City, defend the same at Contractor's sole cost and expense, promptly satisfy any judgment adverse to City or to City and Contractor jointly and reimburse City for any loss, costs, damage or expense (including legal fees) suffered or incurred by City.

5.3 Taxes and Charges. The Contractor shall pay state and local sales and use taxes on all items as required by the laws and statutes of the state and its political subdivisions. The Contractor shall withhold and pay any and all withholding taxes, whether state or federal; pay all social security charges and state unemployment compensation charges; and pay or cause to be withheld, as the case may be, any and all taxes, charges, fees or sums whatsoever which are now or may hereafter be required to be paid or withheld under the laws.

5.4 Bid Bond, Payment Bond, Performance Bond and Public Works Bond.

5.4.1 Contracts for Under \$25,000.00. Except when required by the Purchasing Agent, and except for public improvement contracts, bids on all public contracts under twenty-five thousand dollars (\$25,000.00) are exempt from the requirements for a Bid Bond, a Performance Bond to assure performance of the Contract and a Payment Bond to assure payment of the obligations incurred in the performance of the Contract. The Information for Bidders shall state when Bonds are required for contracts under \$25,000.00.

5.4.2 Contracts for \$25,000.00 or More. Except for public improvement contracts, or except when waived by the Council, bids on all public contracts of twenty-five thousand

dollars (\$25,000.00) or more, shall be accompanied by a Bid Bond, and the Contractor shall post a Performance Bond to assure performance of the Contract and a Payment Bond to assure payment of the obligations incurred in the performance of the Contract. The Information for Bidders shall state when the requirement for Bonds have been waived for contracts of \$25,000.00 or more.

5.4.2.1 Bid Bonds with Paper Bids. For bids submitted in paper format, the bidder must include a certified check, cashier's check, irrevocable letter of credit or Bid Bond in an amount equal to not less than ten percent (10%) of the total amount of the bid.

5.4.2.1 Bid Bonds with Electronic Bids. For bids submitted electronically, the bidder has the following options:

- Submit an electronic Bid Bond as part of the digitally signed bid document prior to the time of the Bid Closing; or
- Submit a paper Bid guaranty in the form of an irrevocable letter of credit issued by an insured institution as defined in ORS 706.008, or a cashier's check or certified check made payable to the City of Roseburg prior to the time of Bid Closing.

5.4.3 Public Improvement Contracts & Contracts for Highways, Bridges and Other Transportation Projects:

5.4.3.1 Bids on Public Improvement contracts for one hundred thousand dollars (\$100,000.00) or less, and contracts for highways, bridges and other transportation projects for fifty thousand dollars (\$50,000.00) or less, are exempt from the requirement of a Bid Bond, a Performance Bond and a Payment Bond.

5.4.3.2 Bids on Public Improvement contracts for more than one hundred thousand dollars (\$100,000), and contracts for highways, bridges and other transportation projects for more than fifty thousand dollars (\$50,000), must be accompanied by a Bid Bond, Performance Bond and Payment Bond.

5.4.4 Emergency Contracts. For all contracts awarded under Roseburg Municipal Code Subsection 3.06.025(F), the City Council or the Purchasing Agent may waive the requirements for Bid Bond, the Payment Bond and the Performance Bond. Upon receiving the Purchasing Agent's report regarding the emergency conditions necessitating waiver, as required by Roseburg Municipal Code Subsection 3.06.025(F), the Council may modify or reject the Purchasing Agent's decision to waive Bond requirements.

5.4.5 Public Works Bond. Before beginning work on a public works contract, a contractor or subcontractor, unless exempt under ORS 279C.800 to 279C.870, shall submit a \$30,000 Public Works Bond to the Construction Contractors Board and certify to the City that such Bond has been submitted. In case of an emergency, or when the City's interest or property would probably suffer material injury by delay or other cause, the requirement to file a Public Works Bond may be excused if the Purchasing Agent has declared an emergency under Roseburg Municipal Code Section 3.06.025.

5.4.6 Submittal and Return of Bid Bonds. When required by the above Subparagraphs, the Bid Bond shall accompany the bid in the form of cash, certified check, cashier's check, irrevocable letter of credit or Bid Bond in a form approved by City, and in an amount equal to ten percent (10%) of the total amount of the bid. There shall be no exceptions to this provision. All required Bid Bonds, excepting that of the Contractor submitting the successful bid, will be returned by mail for paper Bid Bonds, and by email for electronic Bid Bonds, within thirty (30) calendar days after the Contract has been awarded. The Bid Bond from the successful Contractor will be retained until bidder has entered into a satisfactory Contract with the City, and when required, furnished a Performance Bond to assure performance of the Contract, a Payment Bond to assure payment of the obligations incurred in the performance of the Contract and the Public Works Bond Confirmation form executed by the Contractor. Should the successful bidder fail or refuse to execute the Contract and/or furnish the Payment Bond, Performance Bond or Public Works Bond Confirmation form as required, the Bid Bond deposited by said bidder shall be retained as liquidated damages by the City.

5.4.7 Bond Form. The form of all bonds required by the City shall be as the City may prescribe and shall be with a Surety company satisfactory to the City and authorized to do business in the State of Oregon. Bonds shall be in force for one year after acceptance of the completed Project to cover all guarantees against defective materials and workmanship and all claims by subcontractors or third parties for services or materials provided to Contractor or Contractor's Subcontractors.

5.5 Royalties and Patents. The Contractor shall pay all royalty and license fees, unless otherwise specified. The Contractor shall defend all suits or claims for infringement of any patent rights and shall save the City and the Project Manager harmless from loss on account thereof.

5.6 Permits and Licenses.

5.6.1 The Contractor shall apply for and obtain, but the City shall cover the cost of, all rights-of-way permits, easements, franchises, highway crossing permits and railroad crossing permits as required. The Contractor shall comply with all specifications or requirements stipulated in the permits granted to the City.

5.6.2 The Contractor shall obtain at Contractor's expense, all other permits (such as building permits, burning permits, blasting permits and safety permits), licenses and inspection fees necessary for construction purposes as required by appropriate local, county, state or federal laws and/or ordinances. The Contractor shall also be registered to do business with the City of Roseburg prior to beginning work on the Contract.

5.7 Laws to be Observed. The Contractor shall keep fully informed of all local and county ordinances, state and federal laws in any manner affecting the Project herein specified. Contractor shall at all times comply with said ordinances, laws and regulations, and the City's Standard Contract Provisions in Exhibit "A" of the Construction Contract; and protect and indemnify the City and City's officers and agents against any claim or liability arising from or based on the violation of any such laws, ordinances, provisions, or regulations.

5.8 Safety.

5.8.1 The Contractor will be solely and completely responsible for conditions of the jobsites, including safety of all persons and property during work on the Project. This

requirement will apply continuously and not be limited to normal working hours. Safety provisions shall conform to all applicable federal, state, county and local laws, ordinances, and codes. The Contractor shall comply with ORS 279C.505(2) drug testing program requirements at all times throughout the completion of the Project.

5.8.2 The Contractor shall also comply with the "U.S. Department of Labor Occupational Safety and Health Act", the "Construction Safety Act" administered by the U.S. Department of Labor, and the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, except where these are in conflict with state laws, in which case the more stringent requirement must be followed.

5.8.3 Contractor shall comply with all federal, state, and local safety requirements, including but not limited to regulations pertaining to health hazard notification, control of hazardous energy, use of hazardous substances, handling and disposal of hazardous waste, removal and disposal of asbestos, entry into and work in confined spaces and handling of materials containing lead. City will notify Contractor of any hazardous conditions of which City is aware and will provide Contractor with information about City's safety and hazard notification programs. Such notification from the City does not relieve Contractor of any responsibility under the Contract or under federal or state statute, regulation or common law to inform itself of existing and potential hazards, to communicate those hazards to its employees, and to use all reasonable steps to minimize the risk of harm to its employees, other workers and the public.

5.8.4 The Contractor shall maintain at the jobsite all articles necessary for giving first aid to the injured and shall establish the procedure for the immediate removal to a hospital or a doctor's care of persons (including employees) who may be injured on the jobsite.

5.8.5 The duty of the Project Manager to conduct construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures in, on or near the construction sites.

5.8.6 If death, serious injuries, or serious damages are caused, the accident shall be reported immediately by telephone or messenger to both the Project Manager and the City. In addition, the Contractor must promptly report in writing to the Project Manager all accidents whatsoever arising out of, or in connection with, work on the Project or adjacent to the sites, giving full details and statements of witnesses.

5.8.7 If any claim is made by anyone against the Contractor or any Subcontractor because of any accident, the Contractor shall promptly report the facts in writing to the Project Manager, giving full details of the claim.

5.9 Equal Opportunity Clause. The provisions of Executive Order 11246 of September 24, 1965, and the Rules and Regulations issued therein are hereby incorporated by reference, and the Contractor agrees, by acceptance of the Contract, to comply with such Executive Order, rules, regulations and amendments thereto, to the extent the same are applicable to the contracting and/or subcontracting of services or work hereunder.

5.10 Warning Signs and Barricades. The Contractor shall provide adequate signs, barricades and lights and take all necessary precautions for the protection of the work under the Project and the safety of the public. All barricades and obstructions shall be protected at night by signal lights

which shall be kept burning from sunset to sunrise. Barricades shall be of substantial construction and shall be painted white or whitewashed to increase their visibility at night. Suitable warning signs shall be so placed and illuminated at night as to show in advance where construction, barricades or detours exist.

- 5.11 Flaggers.** In addition to furnishing and maintaining adequate signs, barricades and lights, the Contractor is required to furnish any and all flaggers that are required to control traffic. The City is hereby specifically exempted from furnishing any flaggers for the Project. If flaggers are required on any jobsite, they shall be supplied by the Contractor at no additional cost to the City.
- 5.12 Public Safety and Convenience.** The Contractor shall at all times conduct work on the Project so as to insure the least possible obstruction to traffic and inconvenience to the general public and residents in the vicinity of the Project, and to insure the protection of persons and property in a manner satisfactory to the Project Manager. No road or street shall be closed to the public except with the permission of the Project Manager and proper governmental authority. Temporary provisions shall be made by the Contractor to ensure the use of sidewalks and the proper functioning of all gutters, sewer inlets, drainage ditches and irrigation ditches, which shall not be obstructed except as approved by the Project Manager.
- 5.13 Protection of Work and City's Property.** The Contractor shall at all times safely guard the City's property and equipment from injury or loss in connection with Contractor's work under the Contract. The Contractor shall at all times safely guard and protect the Project and adjacent property (as provided by law and the Contract Documents) from damage. Contractor shall be responsible for any damage to the City's property and equipment which is a result of the Contractor's negligence.
- 5.14 Sanitary Provisions.** The Contractor shall provide and maintain such sanitary accommodations for the use of its employees and those of its subcontractors as may be necessary to comply with the requirements and regulations of the local and state departments of health and as directed by the Project Manager.
- 5.15 Payment of Prevailing Wages on Public Works in Oregon.**

5.15.1 The Contractor and all Subcontractors on the Project shall pay not less than the "prevailing rate of wage" as that term is defined in ORS 279C.800 to 279C.870, and if applicable, the Federal Prevailing Wage required under the Davis-Bacon Act (40 U.S.C. 3141 - 3148), whichever is higher. The determination and application of such prevailing rate of wage is provided for in ORS 279C.800 through 279C.870, and if applicable, the Davis-Bacon Act (40 U.S.C. 3141 - 3148).

5.15.2 If the Bureau of Labor has made no determination of the prevailing rate of wage, it shall be the obligation of the Contractor to determine the same by making application to the Bureau of Labor or otherwise.

5.15.3 The Contractor or the Contractor's surety and every Subcontractor or the Subcontractor's surety shall file certified statements with the City in writing using the form prescribed by the Commissioner of the Bureau of Labor and Industries certifying the hourly rate of wage paid each worker whom the Contractor or the Subcontractor has employed in the work under this Contract and further certifying that no worker employed upon such public work has been paid less than the prevailing rate of wage or less than the minimum hourly rate of wage specified in this Contract. The certified statement shall

be verified by the oath of the Contractor or the Contractor's surety or Subcontractor or the Subcontractor's surety that the Contractor or Subcontractor has read the certified statement and knows the contents thereof and that the same is true to the Contractor's or Subcontractor's knowledge. The certified statements shall set out accurately and completely the payroll records for the prior week including the name and address of each worker, the worker's correct classification, rate of pay, daily and weekly number of hours worked, deductions made, and actual wages paid.

5.15.4 Each certified statement shall be delivered or mailed by the Contractor or Subcontractor to the City. A true copy of the certified statement shall also be filed at the same time with the Commissioner of the Bureau of Labor and Industries. Certified statements for each week during which the Contractor or Subcontractor employs a worker upon the public work shall be submitted once a month, by the fifth business day of the following month. Information submitted on certified statements may be used only to ensure compliance with the provisions of ORS 279C.800 to 279C.870 or the Davis-Bacon Act (40 U.S.C. 3141 - 3148), whichever applies.

5.15.5 As provided by ORS 279C.810, the contract amount threshold for application of the state prevailing wage rate law is \$50,000.00.

5.16 Subcontractor and Supplier Agreements. The Contractor shall include in its subcontracts for property or services entered into by the Contractor and a first-tier subcontractor, including a material supplier, for the purpose of performing the Contract:

5.16.1 A payment clause that obligates the Contractor to pay the first-tier subcontractor for satisfactory performance under its subcontract within ten (10) calendar days of payment by the City out of such amounts as are paid to the Contractor by the City under the Contract; and

5.16.2 An interest penalty clause that obligates the Contractor, if payment is not made within thirty (30) calendar days after receipt of payment from the City, to pay to the first-tier subcontractor, an interest penalty on amounts due in the case of each payment not made in accordance with the payment clause included in the subcontract pursuant to this requirement. The Contractor or first-tier subcontractor shall not be obligated to pay an interest penalty if the only reason that the Contractor or first-tier subcontractor did not make payment when payment was due, is that the Contractor or first-tier subcontractor did not receive payment from the City or Contractor when payment was due. The interest penalty shall be:

5.16.2.1 For the period beginning on the day after the required payment date and ending on the date on which payment of the amount is made; and

5.16.2.2 Computed at the rate specified in ORS 279C.515(2).

5.16.3 The Contractor shall include in each of its subcontracts, for the purpose of performance of the Contract condition, a provision requiring the first-tier subcontractor to include a payment clause and an interest penalty clause conforming to the standards set forth in this section and requiring each of its subcontractors to include such clauses in their subcontracts with lower-tier subcontractors or suppliers.

5.16.4 None of the provisions of this section are intended to prevent the Contractor or any subcontractor from including in its contracts, the provision described in ORS 279C.580 (5) and (6).

5.17 Application for and Processing of Subcontractor and Supplier Payments. The Contractor shall provide each first-tier Subcontractor, including a material supplier, with a standard form that the first-tier Subcontractor may use as an application for payment or as another method by which the Subcontractor may claim a payment due from the Contractor. The Contractor, except as otherwise provided in this Subsection, shall use the same form and regular administrative procedures for processing payments during the entire term of the subcontract. The Contractor may change the form or the regular administrative procedures the Contractor uses for processing payment if the Contractor:

5.17.1 Notifies the Subcontractor in writing at least forty-five (45) calendar days before the date on which the Contractor makes the change; and

5.17.2 Includes with the written notice a copy of the new or changed form or a description of the new or changed procedure.

6. PROGRESS AND COMPLETION OF PROJECT

6.1 Contract Time and Commencement of Construction. The Contractor shall be capable of commencing construction on the Project covered under the Contract within ten (10) calendar days after signing of the Construction Contract. The Contract shall be in effect from the time it is signed until the Project is complete and accepted by the City. During periods when weather or other conditions are unfavorable for construction, the Contractor shall pursue only such portions of the work that will not be damaged thereby. Contractor shall not construct any portion of the work during the time unfavorable conditions exist that are likely to adversely affect the quality or efficiency of the work. It is expressly understood and agreed by and between the Contractor and the City that the Contract time specified for completion of the work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the work.

6.2 Preconstruction Conference. A preconstruction conference will be scheduled by the City prior to commencement of construction. The Contractor will be notified of the time and place of this conference and shall be required to attend. Ten (10) calendar days prior to the preconstruction conference, the Contractor shall provide to the Project Manager four (4) copies of a project work schedule for review and approval. The Contractor has an affirmative duty to update the construction schedule each time changes occur.

6.3 Prosecution of the Project.

6.3.1 It is expressly understood and agreed that the time of beginning, rate of progress and time of completion of the Project are of the essence of the Contract. The Contractor shall perform the construction of said Project with due diligence and at such a rate and in such a manner as, in the opinion of the Project Manager, is necessary for completion within the time set forth in Paragraph 4 of the Contract.

6.3.2 After commencement of construction on the Project by the Contractor, if the Contractor is delayed by reason of the failure of the City to provide sufficient materials for construction thereof or to provide continuous open right-of-way, then the completion

date of said Project shall be extended to the extent that the Contractor is delayed in carrying on said Project by reason of such failure on the part of the City.

6.3.3 The Contractor shall arrange its work and dispose of materials so as to insure the least possible interference and inconvenience to the landowners on or beside whose property the construction is taking place, or to the public where the construction lies in or near a public thoroughfare. Contractor shall employ only such number of construction crews as are reasonably necessary to construct said Project within the allotted time. The City may require the employment of an additional crew or crews, if in its judgment it is necessary in order to complete said Project with the time required.

6.3.4 If the Contractor desires to carry on work at night or outside the regular hours, timely notice shall be given to the Project Manager to allow satisfactory arrangements to be made for inspecting the Project in progress.

6.4 Provisions for Delays:

6.4.1 Notice of Delays. Whenever the Contractor foresees any delay in the prosecution of the work, and in any event, immediately upon the occurrence of any delay which the Contractor regards as unavoidable, Contractor shall notify the Project Manager in writing on the probability of the occurrence of such delays, the probable duration and cause. The Contractor shall take immediate steps to prevent the occurrence or continuance of the delay. If this cannot be done, the Project Manager shall determine how long the delay will probably continue and to what extent the prosecution and completion of the work are being delayed thereby. The Project Manager shall also determine whether the delay is to be considered avoidable or unavoidable and shall notify the Contractor of his/her determination. The Contractor shall not make a claim for delays that are not called to the attention of the Project Manager at the time of their occurrence.

6.4.2 Avoidable Delays Defined. Avoidable delays in the prosecution or completion of the work include, but are not limited to:

- 6.4.2.1** All delays that could have been avoided by the exercise of care, prudence, foresight, and diligence on the part of the Contractor or its Subcontractor;
- 6.4.2.2** Delays that do not necessarily prevent or delay the prosecution of other parts of the work or the completion of the whole work within the time specified;
- 6.4.2.3** Reasonable delays resulting from time required by the City and Project Manager for approval of plans submitted by the Contractor and for the making of surveys, measurements, testing and inspections; and
- 6.4.2.4** Delays arising from interruptions occurring in the prosecution of the work on account of the reasonable interference from other contractors employed by the City which do not necessarily prevent the completion of the whole work within the time specified.

6.4.3 Unavoidable Delays Defined. Unavoidable delays in the prosecution or completion of the work include, but are not limited to, all delays (other than avoidable delays as defined above) that result from causes beyond the control of the Contractor and that could not have been avoided by the exercise of care, prudence, foresight and diligence on the part of the Contractor or its Subcontractors. Delays caused by other contractors employed by the City will be considered unavoidable delays only insofar as they interfere with the Contractor's completion of the work. Delays due to normal weather condition are not regarded as unavoidable delays insofar as they interfere with the Contractor's completion of the work. If the Project Manager determines the Contractor has experienced an unavoidable delay, and further that such delay has affected the controlling operations of the work, the City shall grant to the Contractor an extension of time for Contract performance, not to exceed the number of calendar days of unavoidable delay experienced by the Contractor. The Contractor has no remedy for unavoidable delay except as provided by this paragraph. Delays due to normal weather conditions are not regarded as unavoidable as the Contractor agrees to plan its work with prudent allowances for interference by normal weather conditions. Delays caused by acts of God, fire, unusual storms, flood, earthquakes, epidemics, quarantine restrictions, strikes, labor disputes and freight embargoes are considered unavoidable delays insofar as they interfere with the Contractor's completion of the work. Delays caused by shortages of materials are considered unavoidable providing the Contractor can prove to the City that the Contractor has made reasonable and timely attempts to secure the material(s).

A rainstorm, windstorm, high water or other natural phenomenon for the specific locality of the work, which might reasonably have been anticipated from historical records of the general locality of the work, do not constitute unusually severe weather. For the purposes of this Contract, rainfall data is assumed to be the same as that measured at the Roseburg Regional Airport by the Environmental Data Service of the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.

6.4.4 Time Extension for Delays.

6.4.4.1 Extensions for Avoidable Delays. In case the work is not completed in the time specified, including extensions of time as may have been granted for unavoidable delays, the Contractor will be assessed damages for those costs incurred by the City that are attributable to the fact the work was not completed on schedule. The City may grant an extension of time for avoidable delay if the City deems it in its best interest. The Contractor shall compensate the City, in exchange for granting an extension of time for avoidable delay, for the actual costs to the City of Project management, inspection, general supervision and overhead expenses which are directly chargeable to the work and that accrue during the period of such extension. The actual costs do not include charges for final inspection and preparation of the final estimate by the City.

6.4.4.2 Extensions for Unavoidable Delays. For delays the Contractor considers unavoidable, the Contractor shall submit to the Project Manager, complete information demonstrating the effect of the delay on the controlling operation in its construction schedule.

The submission must be made within ten (10) calendar days of the beginning of the occurrence which is claimed to be responsible for the unavoidable delay. The Project Manager shall review the Contractor's submittal and determine the number of calendar days of unavoidable delay, if any, and the effect of such delay on the controlling operations of the work. If the Project Manager determines the Contractor has experienced an unavoidable delay, and further that such delay has affected the controlling operations of the work, the City shall grant to the Contractor an extension of time for Contract performance, not to exceed the number of calendar days of unavoidable delay experienced by the Contractor. The Contractor has no remedy for the unavoidable delay except as provided in this Section. During such extension of time, neither charges for the inspection nor administration nor damages for delay will be assessed against the Contractor. It is understood and agreed by the Contractor and the City that time extensions due to unavoidable delays involve controlling operations that would prevent completion of the whole work within the specified time.

If the Contractor disagrees with the Project Manager's determination, the Contractor may appeal such determination to the City Manager in accordance with Paragraph 3.4.2.

- 6.5 Changes in the Project.** The City may, as the need arises, order changes in the Project through additions, deletions, or modifications without invalidating the Contract. Compensation and time of completion affected by the change shall be adjusted at the time of ordering such change.
- 6.6 Extra Work.** New and unforeseen items of work found to be necessary but which cannot be covered by any item or combination of items for which there is an established Contract price, shall be classified as extra work. Upon written order from the City and approval from the Project Manager, the Contractor shall do such extra work as may be required for the proper completion or construction of the whole Project contemplated. In the absence of such written order, no claim for extra work shall be considered. Extra work shall be performed in accordance with these Specifications where applicable and work not covered by the Specifications or special provisions shall be done in accordance with the best practice as approved by the Project Manager. Extra work required in an emergency to protect life and property shall be performed by the Contractor as required. Contractor shall notify the Project Manager of the emergency as soon as possible but shall begin work prior to providing notice if immediate work is necessary to protect life or property.
- 6.7 Unforeseen Difficulties.** A delay beyond the Contractor's control occasioned by an act of God, or by strikes, lockouts, fire, etc., may entitle the Contractor to an extension of time to complete the Project as determined by the Project Manager, provided however, that the Contractor shall immediately give written notice to the Project Manager of the cause of such delay. In no event shall the Contractor be entitled under the Contract to collect or recover any damages, loss or expense incurred by any delay other than as caused by the City as stipulated hereinabove in Subsection 6.3 "Prosecution of the Project".
- 6.8 Use of Completed Portions.** The City shall have the right to take possession of and use any completed or partially completed portions of the Project. Such use shall not be considered as

final acceptance of any portion of the Project, nor shall such use be considered as cause for an extension of Contract completion time unless authorized by a change order issued by the City.

- 6.9 Liquidated Damages.** If the Contractor fails to complete the work, or any part thereof, in the time agreed upon in the Contract or within such extra time as may have been allowed for delays by extensions granted as provided in the Contract, the Contractor shall reimburse the City for the additional expense and damage for each calendar day that the Contract remains uncompleted after the Contract completion date. It is agreed that the amount of such additional expense and damage incurred by reason of failure to complete the Contract is the per diem rate as stipulated in the Bid. The amounts are hereby agreed upon as liquidated damages for the loss to the City.

It is expressly understood and agreed that this amount is not to be considered in the nature of a penalty but as damages for delay which have accrued against the Contractor. The exact amount of damage that would be sustained by the City due to delay is difficult, if not impossible, to accurately ascertain, but the parties believe the specified amount of liquidated damages to be a reasonable forecast of the damage for delay that the City would likely sustain. Such liquidated damages are in addition to any other ascertainable damage, other than for delays that the City sustains for Contractor's breach of the Contract. The City may deduct such damages from any amount due, or that may become due the Contractor or the amount of such damages becomes due and may be collected from the Contractor or its Surety.

- 6.10 Substantial Completion.** Substantial Completion shall have the meaning set forth in Subsection 1.1 "Definitions" of these General Conditions.

Upon consideration by the Contractor that a determination of Substantial Completion of the Project, or a designated portion thereof, is completed, the Contractor shall so notify the Project Manager in writing. This notice shall include the Contractor's list of any minor incomplete contract work items to finish the Project. Upon receipt of the written notification, the Project Manager will promptly, by personal inspection, determine the actual status of the work in accordance with the terms of the Contract. If the Project Manager finds that the terms of Substantial Completion of the Contract have not yet been met, the Project Manager will so inform the Contractor. If, instead, the Project Manager determines from the inspection that the work, or the designated portion thereof, has met the terms of Substantial Completion, the Project Manager will issue to the Contractor a "Written Notice of Substantial Completion" along with a Punch List of any deficient work items needing repair or correction. The Contractor agrees to complete all such corrective work within thirty (30) calendar days after submission of the Punch List to the Contractor by the Project Manager. If the Contractor fails to complete the corrective work within the thirty (30) calendar days, the Contractor is liable to the City in the amount stated in the liquidated damages section of the Contract for each day thereafter until all corrective work is completed. The City shall be entitled to deduct liquidated damages from final payment.

- 6.11 Final Completion.** The Contractor shall notify the Project Manager in writing requesting a designation of Final Completion at the completion of the punch list items related to the Substantial Completion designation, and at the completion of any other items necessary to the completion of the Project. The Project Manager will inspect these remaining items, and upon satisfactory completion, will issue a written "Notice of Final Completion" which shall be subject to the City's Final Acceptance. In the event some items are not ready for the City's Final Acceptance the City may, without waiving any of the City's right to the portion(s) of the Project not yet receiving Final Acceptance, nonetheless provide Final Acceptance for those portion(s) of the items of the Project the City deems appropriate. As stated in Subsection 4.13, the terms

of the guarantee commence on the date of the City's Written Notice of Final Acceptance for that portion of the work.

7. MEASUREMENT AND PAYMENT

7.1 General.

7.1.1 All work acceptably completed under the Contract shall be measured by the Project Manager according to United States Standard Measures, and the quantities of work performed or materials furnished shall be computed on the basis of such measurements.

7.1.2 The Contractor shall accept the compensation as herein provided in full payment for furnishing all materials not provided by the City and all labor, tools and equipment; for performing all work under the Contract; for all loss or damage arising from the nature of the Project other than unforeseeable environmental conditions as described in ORS 279C.525, the action of the elements or any unforeseen difficulties which may be encountered during the prosecution of the Project, until its final acceptance by the City.

7.2 Payments. The City shall make monthly progress payments within thirty (30) calendar days from the date of the pay request for work which has been completed and accepted by the City per ORS 279C.570.

7.3 Final Payment. The City shall retain five percent (5%) of all payments until the entire Project has been given Final Acceptance by the City. The entire Project must be accepted by the City prior to releasing retainage. Upon the City's acceptance of the entire Project, the retainage will be released and the Contractor shall be responsible for the workmanship and materials for one year thereafter as provided in Subsection 4.13.

If the contract price exceeds \$500,000, the City will place amounts deducted as retainage into an interest-bearing escrow account. Interest on the retainage amount accrues from the date the payment request is approved until the date the retainage is paid to the Contractor.

7.4 City's Right to Withhold Payment. The City may withhold payment in whole or in part on an approved invoice to the extent necessary to protect City from loss due to any of the following causes discovered subsequent to approval of the invoice by the Project Manager or the Project Manager's representative:

7.4.1 Defective work;

7.4.2 Evidence indicating the probable filing of claims by other parties against the Contractor;

7.4.3 Failure of the Contractor to make payments to Subcontractors, material suppliers or workers; or

7.4.4 Damage to another contractor.

7.5 Payment for Uncorrected Work. Should the Project Manager direct the Contractor not to correct work that has been damaged or that was not performed in accordance with the Contract

Documents, the City may make an equitable deduction from the amount due to the Contractor on the Project in order to compensate the City for the uncorrected work.

7.6 Payment for Extra Work. In any case where the Contractor deems additional compensation is due Contractor for work or materials not clearly covered in the Contract Documents or not ordered by the Project Manager according to provisions of the Contract Documents, the Contractor shall notify the Project Manager, in writing, of his intention to make a claim in order that such matters may be settled, if possible, or other appropriate action promptly taken. If such notification is not given, or the Project Manager is not afforded proper facilities by the Contractor for keeping strict account of actual cost, then the Contractor hereby waives the claim for such extra compensation. Such notice by the Contractor, and the fact that the Project Manager has kept account of the cost as aforesaid, shall not in any way be construed as proving the validity of the claim. Claims for additional compensation shall be made in itemized detail and submitted, in writing, to the City and Project Manager within ten (10) calendar days following completion of that portion of the Project for which the Contractor makes his claim. In case the claim is found to be just, it shall be allowed and paid under a supplemental agreement to be entered into between the parties to the Contract.

7.7 Release of Liens.

7.7.1 Before the City pays the Contractor for the work included under the Contract, the Contractor shall sign and deliver to the City a release of liens or claims sworn to under oath and duly notarized. The release shall state that the Contractor has satisfied all claims and indebtedness of every nature in any way connected with the Project, including but not limiting the generality of the foregoing, all payrolls, amounts due to subcontractors, accounts for labor performed and materials furnished, incidental services, liens and judgments.

7.7.2 If any lien or claim remains unsatisfied after payment to the Contractor is made, the Contractor shall refund to the City all monies that the City may be compelled to pay in discharging such a lien or claim, including all costs and reasonable attorneys' fees.

7.8 Acceptance of Payment Constitutes Release. The acceptance by the Contractor of a payment for the invoice shall release the City from all claims and liability to the Contractor for all things done or furnished in connection with the work specified on said invoice, and every act of the City and others relating to or arising out of the Project. No payment, however, final or otherwise, shall operate to release the Contractor or his Sureties from obligations under the Contract, the Performance Bond or the Payment Bond as herein provided.

7.9 Correction of Defective Work. The Project Manager's approval of the invoice for work completed and the City's payment to the Contractor on such invoice, shall not relieve the Contractor of the responsibility for faulty materials or workmanship on said work during the one-year guarantee period as stipulated in Subsection 4.13. The one-year guarantee period for each portion of the Project begins when each portion of the Project receives written notice of Final Acceptance from the City. The City shall promptly give notice of faulty materials or workmanship which are discovered within the one-year guarantee period and the Contractor shall promptly replace any such defects. If the Contractor fails to make the repairs and replacements promptly, the City may do the work, and the Contractor and Contractor's Surety shall be liable for the cost thereof.

8. ENVIRONMENTAL MATTERS

8.1 Contractor Compliance. Contractor shall comply with, and require its Subcontractors to comply with, all applicable federal, state and local statutes, ordinances, orders, rules and regulations relating to the protection of human health and environment, including but not limited to, the use, storage, release, spill, disposal or other handling of petroleum products and other hazardous substances.

8.2. Unanticipated Regulatory Compliance and Site Conditions.

8.2.1 If Contractor is delayed or additional work is required due to the enactment of new or an amendment to existing statutes, ordinances or regulations relating to the prevention of environmental pollution and the preservation of natural resources occurring after submission of the successful bid, City may, at its sole discretion:

- 8.2.1.1** terminate the Contract;
- 8.2.1.2** complete the Project itself;
- 8.2.1.3** use non-City forces already under contract with the City;
- 8.2.1.4** require that the underlying property owner be responsible for the additional work;
- 8.2.1.5** call for bids for a new contractor to provide the necessary services; or
- 8.2.1.6** issue Contractor a change order setting forth the additional work that must be undertaken.

8.2.2 If Contractor encounters a condition not referred to in the Contract Documents, not caused by Contractor and not discoverable by a reasonable pre-bid visual site inspection, and such condition requires compliance with the regulations referred to in Paragraph 8.2.1 above, Contractor shall immediately provide City notice of the condition. Except as required by any environmental or natural resource regulation, or, in case of an emergency, Contractor shall not commence work or incur any additional job site costs with regard to the condition encountered without written direction from the City. Upon request, Contractor shall estimate emergency or regulatory compliance costs as well as the anticipated delay and costs resulting from the encountered condition, and promptly deliver such estimate to City for resolution.

8.2.3 In the event of an occurrence of an unanticipated site condition as described in Paragraph 8.2.2 above, City, within a reasonable period of time, may do any of the following at its sole discretion:

- 8.2.3.1** terminate the Contract;
- 8.2.3.2** complete the Project itself;
- 8.2.3.3** use non-City forces already under contract with the City;

- 8.2.3.4** require that the underlying property owner be responsible for the additional work;
- 8.2.3.5** call for bids for a new contractor to provide the necessary services; or
- 8.2.3.6** issue Contractor a change order setting for the additional work that must be undertaken.

8.2.4 In the event City terminates the Contract under Subparagraph 8.2.1.1 or 8.2.3.1, Contractor shall be entitled to all costs and expenses incurred to the date of the termination, including overhead and reasonable profits, on the percentage of the Project completed. Contractor shall not be entitled to profits or consequential damages on the uncompleted portion of the Contract. If the City chooses to issue a change order or terminate the Contract for either of the reasons set forth in Paragraph 8.2.1 or 8.2.3, Contractor agrees to provide the City access to Contractor's documentation used to prepare Contractor's bid in order to assist City in making the City's determination of the additional compensation to be paid.

9. CHANGE ORDERS.

9.1 Authorized Changes in the Work. Changes to the drawings, specifications, quantities or details of the Project are inherent in the nature of construction and may be necessary or desirable during the course of Project construction. Without impairing or invalidating the Contract, the City may at any time, without notice to any surety, by written order designed or indicated to be a Change Order or a Proposal Request, make any change in the work within the general scope of the Contract, including, but not limited to changes:

- 9.1.1** In the Plans and Specifications (including drawings and designs);
- 9.1.2** In the time, method, or manner of performance of the work;
- 9.1.3** In the City-furnished facilities, equipment, materials, services or site; or
- 9.1.4** Directing acceleration in the performance of the work.

9.2 Unauthorized Changes in the Work. The Contractor shall not be entitled to an increase in the Contract price or an extension of the Contract times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented except in the case of an emergency. In the event of an emergency, the Contractor has seven (7) calendar days to notify the Project Manager of the nature and extent of the emergency. If notification is not provided within seven (7) calendar days, no time adjustment or cost compensation will be allowed.

9.3 Execution of Change Orders. The City and the Contractor shall execute appropriate Change Orders and Proposal Requests and upon receipt of an approved Change Order or Proposal Request, the Contractor shall perform the work as modified. If the Change Order increases the Contract amount, the Contractor shall notify Contractor's Surety of the increase and shall provide the City with a copy of any resulting modification to the Bond documents. Change Order and Proposal Requests shall clearly state all costs and schedule adjustments.

9.4 No Oral Change Orders. No oral order, statement or conduct of the City constitutes a Change Order or entitles the Contractor to an equitable adjustment.

9.5 Change of Contract Price.

9.5.1 The Contract price may only be changed by a Change Order.

9.5.2 The value of any work covered by a Change Order or of any claim for an adjustment in the Contract price will be determined as follows:

9.5.2.1 Where the work involved is covered by the unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved; or

9.5.2.2 Where the work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum; or

9.5.2.3 Where the work involved is not covered by the unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Subparagraph 9.5.2.2, time and materials basis plus the Contractor's fee for overhead and profit as defined in Paragraph 9.5.3.

9.5.3 Percentage Allowances. For work negotiated and completed on a time and materials basis the Contractor's maximum allowable percentage markup of such costs shall be as follows:

Materials	15%
Equipment	15%
Labor	20%
Special Services	15%

9.5.3.1 When a subcontractor performs work under a time and materials Change Order, the Contractor will be allowed a supplemental markup of 5% on the subcontractor's charges.

9.6 Lump Sum Change Orders. Whenever practicable, changes in Contract price resulting from extra work will be determined by a mutually agreed-upon lump sum price. The Contractor's proposal for such changes must include a detailed breakdown of all labor and materials to be performed by its forces and by the forces of its Subcontractors and material suppliers.

Costs for labor, material, rentals, approved services, and for overhead and profit for the Contractor, Subcontractor and material suppliers must be calculated as specified under the Subsection 9.7.

When the City desires a price quotation from the Contractor for a proposed change to the Contract, the Project Manager will issue a Proposal Request describing the proposed changes. The Contractor shall respond with a price quote within ten (10) calendar days of the issuance of the Proposal Request.

Contractor's quotations for Change Orders and Proposal Requests must be in writing and firm for a period of thirty (30) calendar days. Any compensation paid in conjunction with the terms

of a Change Order compromises the total compensation due the Contractor for the modification defined in the Change Order. By signing the Change Order or Proposal Request, the Contractor acknowledges that the stipulated compensation includes payment for the modification plus all payment for the interruption of schedules, extended overhead, delay or any other impact claim or ripple effect, and by such signing specifically waives any reservation or claim for additional compensation or claim for Contract time extension in respect to the subject Change Order or Proposal Request.

The City's request for quotations on modifications to the work is not considered authorization to proceed with the work prior to the approval of a formal Proposal Request or Change Order, and such request does not justify any delay in existing work.

9.7 Time and Material Change Orders. Whenever the Contractor is directed by written notice from the Project Manager as the City's representative, to perform extra work on a time and material basis, the Contractor shall furnish labor, equipment, and materials necessary to complete the work in a satisfactory manner and within a reasonable period of time. For the work performed, payment will be made for the documented actual necessary expense of the following:

9.7.1 Field and office labor, including estimating and procurement personnel and foremen, who are directly assigned to the time and materials work (actual payroll cost, including wages, fringe benefits as established by law). The cost of labor includes any employer payment to or on behalf of the worker for health and welfare, pension, vacation and similar purposes. Where subsistence and travel allowances are required for performance of extra work, the charges consist of the actual amount paid to each worker. No other fixed labor burdens will be considered unless approved in writing by the City.

9.7.2 Material delivered and used on the designated work, including sales tax, if paid by the Contractor or its Subcontractor.

9.7.3 Rental or equivalent rental cost of equipment, including necessary transportation, for items having a value in excess of \$100. When equipment is not rented, the equivalent rental cost of equipment is based on the standard rental rates for Contractor-owned equipment, but in no event exceeds the rental rates set forth in the most current edition of the "Equipment Watch Rental Rate Blue Book", published by Penton Media. For equipment not listed in the Blue Book, the rental rate is as listed by the local section of the Associated General Contractors. If the equipment is not listed by the Associated General Contractors, the rental rate will be mutually agreed upon in writing between the Contractor and City prior to the use of the unlisted equipment. The reasonable cost of moving equipment onto and off the job site may be included, but equipment rental will not be paid when the equipment is inoperative due to breakdowns. Individual pieces of equipment or small tools having a replacement value of \$100 or less are considered as included in the overhead allowances and no additional payment therefore will be made.

When equipment is used on the extra work for less than five (5) business days, hourly rates will be used. Less than thirty (30) minutes of operation are considered ½ hour of operation. When equipment is used on the extra work for more than five (5) business days, weekly rates apply. In this case, less than four (4) hours of operation is considered to be ½ calendar day of operation.

Rental or equivalent rental cost will be allowed for only those days or hours during which the equipment is in actual use. Rental and transportation allowances must not exceed

the current rental rates prevailing in the locality. The rentals allowed for equipment are understood to cover all fuel, supplies, repairs, and renewals.

The City reserves the right to furnish such materials and equipment as it deems expedient, and the Contractor has no claim for profit or added fees on the cost of such materials and equipment.

9.7.4 The added fixed fees defined in Paragraph 9.5.3 constitute full compensation for the cost of general supervision, overhead, profit and any other general expense.

9.7.5 If a dispute occurs over payment for work provided on a time and material basis, the dispute is not cause for stopping work.

9.7.6 The Contractor shall maintain accurate and detailed records for all work performed on a time and materials basis. These records must reflect all the actual necessary expenses pertaining to the extra work and must at all times be available for audit by the City.

9.7.7 The Contractor shall make clear distinction in its records between the direct costs of work paid for on a time and materials basis and the costs of other work. The Contractor shall furnish the Project Manager report sheets in duplicate of each day's work that itemize the labor, materials and equipment used, and shall make the report sheets available for the City's review. The daily report sheet must provide names or identifications and classifications of workers, the hours worked, the sizes, types and identification numbers of equipment, and hours operated. Daily report sheets must be signed by the Contractor or its authorized agent and verified by the Project Manager.

9.7.8 To receive partial payments and final payment for time and materials work, the Contractor shall submit to the Project Manager, in a manner approved by the Project Manager, detailed and complete documented verification of the Contractor's and any of its Subcontractor's actual cost incurred. Material and rental charges must be substantiated by copies of vendors' invoices. Such costs must be submitted within thirty (30) calendar days after said work has been satisfactorily completed.

REQUIRED FEDERAL CONTRACT PROVISIONS

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REQUIRED FEDERAL CONTRACT PROVISIONS

ACCESS TO RECORDS AND REPORTS

(Refs: 2 CFR § 200.333; 2 CFR § 200.336; FAA Order 5100.38)

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the sponsor, the Federal Aviation Administration, and the Comptroller General of the United States or any of their duly authorized representatives, access to any books, documents, papers, and records of the contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts, and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY

(Refs: 41 CFR Part 60-4; Executive Order 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables

Goals for minority participation for each trade: 2.4%

Goals for female participation in each trade: 6.9%

These goals are applicable to all of the contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction. The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is Douglas County, Roseburg, Oregon.

BREACH OF CONTRACT TERMS

(Ref: 2 CFR § 200 Appendix II(A))

Any violation or breach of terms of this contract on the part of the contractor or its subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement.

Owner will provide Contractor written notice that describes the nature of the breach and corrective actions the Contractor must undertake in order to avoid termination of the contract. Owner reserves the right to withhold payments to Contractor until such time the Contractor corrects the breach or the Owner elects to terminate the contract. The Owner's notice will identify a specific date by which the Contractor must correct the breach. Owner may proceed with termination of the contract if the Contractor fails to correct the breach by deadline indicated in the Owner's notice.

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights, and remedies otherwise imposed or available by law.

FAA BUY AMERICAN PREFERENCE

(Ref: Title 49 USC § 50101, Executive Order 14005, and BABA)

The Contractor certifies that its bid/offer is in compliance with 49 USC § 50101, BABA and other related Made in America Laws,¹ U.S. statutes, guidance, and FAA policies, which provide that Federal funds may not be obligated unless all iron, steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

The bidder or offeror must complete and submit the certification of compliance with FAA's Buy American Preference, BABA and Made in America laws included herein with their bid or offer. The Airport Sponsor/Owner will reject as nonresponsive any bid or offer that does not include a completed certification of compliance with FAA's Buy American Preference and BABA.

The bidder or offeror certifies that all construction materials, defined to mean an article, material, or supply other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber; or drywall used in the project are manufactured in the U.S.

**CERTIFICATION OF COMPLIANCE WITH FAA BUY AMERICAN PREFERENCE –
CONSTRUCTION PROJECTS**

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with its proposal. The bidder or offeror must indicate how it intends to comply with 49 USC § 50101, BABA and other related Made in America Laws, U.S. statutes, guidance, and FAA policies, by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (i.e., not both) by inserting a checkmark (✓) or the letter “X”.

- ☐ Bidder or offeror hereby certifies that it will comply with 49 USC § 50101, BABA and other related U.S. statutes, guidance, and policies of the FAA by:
- a) Only installing iron, steel and manufactured products produced in the United States;
 - b) Only installing construction materials defined as: an article, material, or supply – other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber or drywall that have been manufactured in the United States.
 - c) Installing manufactured products for which the Federal Aviation Administration (FAA) has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
 - d) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

- a) To provide to the Airport Sponsor or the FAA evidence that documents the source and origin of the iron, steel, and/or manufactured product.
 - b) To faithfully comply with providing U.S. domestic products.
 - c) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.
 - d) Certify that all construction materials used in the project are manufactured in the U.S.
- ☐ The bidder or offeror hereby certifies it cannot comply with the 100 percent Buy American Preferences of 49 USC § 50101(a) but may qualify for a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:

- a) To submit to the Airport Sponsor or FAA within 15 calendar days of being selected as the responsive bidder, a formal waiver request and required documentation that supports the type of waiver being requested.
- b) That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination that may result in rejection of the proposal.
- c) To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.
- d) To furnish U.S. domestic product for any waiver request that the FAA rejects.
- e) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

Required Documentation

Type 2 Waiver (Nonavailability) - The iron, steel, manufactured goods or construction materials or manufactured goods are not available in sufficient quantity or quality in the United States. The required documentation for the Nonavailability waiver is

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire
- b) Record of thorough market research, consideration where appropriate of qualifying alternate items, products, or materials including;
- c) A description of the market research activities and methods used to identify domestically manufactured items capable of satisfying the requirement, including the timing of the research and conclusions reached on the availability of sources.

Type 3 Waiver – The cost of components and subcomponents produced in the United States is more than 60 percent of the cost of all components and subcomponents of the “facility/project.” The required documentation for a Type 3 waiver is:

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire including;
- b) Listing of all manufactured products that are not comprised of 100 percent U.S. domestic content (excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108; products of unknown origin must be considered as non-domestic products in their entirety).
- c) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly and installation at project location.
- d) Percentage of non-domestic component and subcomponent cost as compared to total “facility” component and subcomponent costs, excluding labor costs associated with final assembly and installation at project location.

Type 4 Waiver (Unreasonable Costs) - Applying this provision for iron, steel, manufactured goods or construction materials would increase the cost of the overall project by more than 25 percent. The required documentation for this waiver is:

- a) A completed Content Percentage Worksheet and Final Assembly Questionnaire from
- b) At minimum two comparable equal bids and/or offers;
- c) Receipt or record that demonstrates that supplier scouting called for in Executive Order 14005, indicates that no domestic source exists for the project and/or component;
- d) Completed waiver applications for each comparable bid and/or offer.

False Statements: Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

Date

Signature

Company Name

Title

GENERAL CIVIL RIGHTS PROVISIONS

(Ref: 49 USC § 47123)

In all its activities within the scope of its airport program, the Contractor agrees to comply with pertinent statutes, Executive Orders, and such rules as identified in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

The above provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract.

CIVIL RIGHTS - TITLE VI SOLICITATION NOTICE

The City of Roseburg, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that for any contract entered into pursuant to this advertisement, select businesses, or disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and no businesses will be discriminated against on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in consideration for an award.

CIVIL RIGHTS – TITLE VI ASSURANCES

(Refs: 49 USC § 47123; FAA Order 1400.11)

Compliance with Nondiscrimination Requirements

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts And Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Nondiscrimination Acts And Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts And Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
 - i. Withholding payments to the contractor under the contract until the contractor complies; and/or
 - ii. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

Title VI List of Pertinent Nondiscrimination Acts and Authorities

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination In Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title

VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);

- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

CLEAN AIR AND WATER POLLUTION CONTROL

(Ref: 2 CFR § 200, Appendix II(G))

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 U.S.C. § 740-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. § 1251-1387). The Contractor agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

Contractor must include this requirement in all subcontracts that exceeds \$150,000.

CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

(Ref: 2 CFR § 200, Appendix II(E))

1. Overtime Requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; Liability for Unpaid Wages; Liquidated Damages.

In the event of any violation of the clause set forth in paragraph (1) of this clause, the contractor, and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this clause, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this clause.

3. Withholding for Unpaid Wages and Liquidated Damages.

The Federal Aviation Administration (FAA) or the Owner shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this clause.

4. Subcontractors.

The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this clause.

COPELAND “ANTI-KICKBACK” ACT

(Ref: 2 CFR § 200, Appendix II(D); 29 CFR Parts 3 & 5)

Contractor must comply with the requirements of the Copeland “Anti-Kickback” Act (18 U.S.C. 874 and 40 U.S.C. 3145), as supplemented by Department of Labor regulation 29 CFR part 3. Contractor and subcontractors are prohibited from inducing, by any means, any person employed on the project to give up any part of the compensation to which the employee is entitled. The Contractor and each Subcontractor must submit to the Owner, a weekly statement on the wages paid to each employee performing on covered work during the prior week. Owner must report any violations of the Act to the Federal Aviation Administration.

DAVIS-BACON REQUIREMENTS

(Ref: 2 CFR § 200, Appendix II(D); 29 CFR Part 5)

1. Minimum Wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination;
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the Contractor, the laborers, or mechanics to be employed in the classification, or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding.

The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Federal Aviation Administration may, after written notice to the Contractor, Sponsor, Applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and Basic Records.

(i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records that show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR § 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <https://www.dol.gov/agencies/whd/government-contracts/construction/payroll-certification> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker and shall provide them upon request to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit them to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, Sponsor, or Owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR § 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR § 5.5 (a)(3)(i), and that such information is correct and complete;

(2) That each laborer and mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The Contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Sponsor, the

Federal Aviation Administration, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, Sponsor, applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR § 5.12.

4. Apprentices and Trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR § 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the

applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination that provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal Employment Opportunity. The utilization of apprentices, trainees, and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act Requirements.

The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

6. Subcontracts.

The Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR §§ 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR § 5.5.

7. Contract Termination: Debarment.

A breach of the contract clauses in paragraph 1 through 10 of this section may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR § 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes Concerning Labor Standards.

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of Eligibility.

- (i) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR § 5.12(a)(1).
- (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR § 5.12(a)(1).
- (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 USC § 1001.

DEBARMENT AND SUSPENSION

(Refs: 2 CFR part 180 (Subpart C); 2 CFR part 1200; DOT Order 4200.5)

CERTIFICATION OF OFFERER/BIDDER REGARDING DEBARMENT

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

CERTIFICATION OF LOWER TIER CONTRACTORS REGARDING DEBARMENT

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>
2. Collecting a certification statement similar to the Certificate Regarding Debarment and Suspension (Bidder or Offeror), above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract

If the FAA later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedies, including suspension and debarment of the non-compliant participant.

DISADVANTAGED BUSINESS ENTERPRISES

(Ref: 49 CFR part 26)

Contract Assurance (§ 26.13) – The Contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- 1) Withholding monthly progress payments;
- 2) Assessing sanctions;
- 3) Liquidated damages; and/or
- 4) Disqualifying the Contractor from future bidding as non-responsible.

Prompt Payment (49 CFR § 26.29)

The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 30 days from the receipt of each payment the prime contractor receives from the City of Roseburg. The prime contractor agrees further to return retainage payments to each subcontractor within 30 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the City of Roseburg. This clause applies to both DBE and non-DBE subcontractors.

Termination of DBE Subcontracts (49 CFR § 26.53(f))

The prime contractor must not terminate a DBE subcontractor listed in response to the Invitation to Bid (or an approved substitute DBE firm) without prior written consent of the City of Roseburg. This includes, but is not limited to, instances in which the prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

The prime contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent of the City of Roseburg. Unless the City of Roseburg consent is provided, the prime contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

[Name of Recipient] may provide such written consent only if the City of Roseburg agrees, for reasons stated in the concurrence document, that the prime contractor has good cause to terminate the DBE firm. For purposes of this paragraph, good cause includes the circumstances listed in 49 CFR §26.53.

Before transmitting to the City of Roseburg its request to terminate and/or substitute a DBE subcontractor, the prime contractor must give notice in writing to the DBE subcontractor, with a copy to the City of Roseburg, of its intent to request to terminate and/or substitute, and the reason for the request.

The prime contractor must give the DBE five days to respond to the prime contractor's notice and advise [Name of Recipient] and the contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the City of Roseburg should not approve the prime contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), the City of Roseburg may provide a response period shorter than five days.

In addition to post-award terminations, the provisions of this section apply to preaward deletions of or substitutions for DBE firms put forward by offerors in negotiated procurements.

TEXTING WHEN DRIVING

(Refs: Executive Order 13513; DOT Order 3902.10)

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving" (10/1/2009) and DOT Order 3902.10 "Text Messaging While Driving" (12/30/2009), the FAA encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or sub-grant.

In support of this initiative, the Owner encourages the Contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding \$3,500 and involve driving a motor vehicle in performance of work activities associated with the project.

CERTIFICATION REGARDING DOMESTIC PREFERENCES FOR PROCUREMENTS

(Ref: 2 CFR § 200.322)

The Bidder or Offeror certifies by signing and submitting this bid or proposal that, to the greatest extent practicable, the Bidder or Offeror has provided a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including, but not limited to, iron, aluminum, steel, cement, and other manufactured products) in compliance with 2 CFR § 200.322.

EQUAL OPPORTUNITY CLAUSE

(Refs: 2 CFR 200, Appendix II(C); 41 CFR § 60-1.4; 41 CFR § 60-4.3; Executive Order 11246)

During the performance of this contract, the contractor agrees as follows:

- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identify or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however,* That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS

1. As used in these specifications:

- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;
- c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
- d. "Minority" includes:

- (1) Black (all) persons having origins in any of the Black African racial groups not of Hispanic origin);
- (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race);
- (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
- (4) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors shall be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the contractor has a collective bargaining agreement to refer either minorities or women shall excuse the contractor's obligations under these specifications, Executive Order 11246 or the regulations promulgated pursuant thereto.

6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the contractor during the training period and the contractor shall have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The contractor, where possible, will assign two or more women to each construction project. The contractor shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefore along with whatever additional actions the contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the contractor has a collective bargaining agreement has not referred to the contractor a minority person or female sent by the contractor, or when the contractor has other information that the union referral process has impeded the contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the

company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the contractor's EEO policy with other contractors and subcontractors with whom the contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students; and to minority and female recruitment and training organizations serving the contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor union, contractor community, or other similar groups of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through 7p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's and failure of such a group to fulfill an obligation shall not be a defense for the contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, if the particular group is employed in a substantially disparate manner (for example, even though the contractor has achieved its goals for women generally,) the contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.

10. The contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone number, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice,

trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

FEDERAL FAIR LABOR STANDARDS ACT

(Ref: 29 USC § 201, et seq)

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part time workers.

The contractor has full responsibility to monitor compliance to the referenced statute or regulation. The contractor must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

TRADE RESTRICTION CERTIFICATION

(Refs: 49 USC § 50104; 49 CFR part 30)

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror -

- a. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (U.S.T.R.);
- b. has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the U.S.T.R; and
- c. has not entered into any subcontract for any product to be used on the Federal on the project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the U.S.T.R.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to an Offeror or subcontractor:

- (1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the U.S.T.R. or
- (2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such U.S.T.R. list or
- (3) who incorporates in the public works project any product of a foreign country on such U.S.T.R. list;

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by U.S.T.R, unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

CERTIFICATION REGARDING LOBBYING

(Ref: 31 U.S.C. § 1352; 2 CFR part 200, Appendix II(J); 49 CFR part 20, Appendix A)

The bidder or offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the Bidder or Offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the

extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

(Ref: 20 CFR part 1910)

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. Contractor must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The Contractor retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). Contractor must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

(Ref: 2 CFR § 200, Appendix II(K); 2 CFR § 200.216)

Contractor and Subcontractor agree to comply with mandatory standards and policies relating to use and procurement of certain telecommunications and video surveillance services or equipment in compliance with the National Defense Authorization Act [Public Law 115-232 § 889(f)(1)].

PROHIBITION OF SEGREGATED FACILITIES

(Ref: 41 CFR § 60)

(a) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(b) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

PROCUREMENT OF RECOVERED MATERIALS

(Ref: 2 CFR § 200.322; 40 CFR part 247)

Contractor and subcontractor agree to comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, and the regulatory provisions of 40 CFR Part 247. In the performance of this contract and to the extent practicable, the Contractor and subcontractors are to use products containing the highest percentage of recovered materials for items designated by the Environmental Protection Agency (EPA) under 40 CFR Part 247 whenever:

- 1) The contract requires procurement of \$10,000 or more of a designated item during the fiscal year; or
- 2) The contractor has procured \$10,000 or more of a designated item using Federal funding during the previous fiscal year.

The list of EPA-designated items is available at www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products.

Section 6002(c) establishes exceptions to the preference for recovery of EPA-designated products if the contractor can demonstrate the item is:

- a) Not reasonably available within a timeframe providing for compliance with the contract performance schedule;
- b) Fails to meet reasonable contract performance requirements; or
- c) Is only available at an unreasonable price.

SEISMIC SAFETY

(Ref: 49 CFR part 41)

The contractor agrees to ensure that all work performed under this contract, including work performed by subcontractors, conforms to a building code standard that provides a level of seismic safety substantially equivalent to standards established by the National Earthquake Hazards Reduction Program (NEHRP). Local building codes that model their code after the current version of the International Building Code (IBC) meet the NEHRP equivalency level for seismic safety.

CERTIFICATION OF OFFEROR/BIDDER REGARDING TAX DELINQUENCY AND FELONY CONVICTIONS

The applicant must complete the following two certification statements. The applicant must indicate its current status as it relates to tax delinquency and felony conviction by inserting a checkmark (✓) in the space following the applicable response. The applicant agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

Certifications

- 1) The applicant represents that it is () is not () a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.
- 2) The applicant represents that it is () is not () a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

Note

If an applicant responds in the affirmative to either of the above representations, the applicant is ineligible to receive an award unless the Sponsor has received notification from the agency suspension and debarment official (SDO) that the SDO has considered suspension or debarment and determined that further action is not required to protect the Government's interests. The applicant therefore must provide information to the owner about its tax liability or conviction to the Owner, who will then notify the FAA Airports District Office, which will then notify the agency's SDO to facilitate completion of the required considerations before award decisions are made.

Term Definitions

Felony conviction: Felony conviction means a conviction within the preceding twenty four (24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. Code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 USC § 3559.

Tax Delinquency: A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not

being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

TERMINATION OF CONTRACT

(Ref: 2 CFR § 200 Appendix II(B); FAA Advisory Circular 150/5370-10, Section 80-09)

TERMINATION FOR CONVENIENCE

The Owner may terminate this contract in whole or in part at any time by providing written notice to the Contractor. Such action may be without cause and without prejudice to any other right or remedy of Owner. Upon receipt of a written notice of termination, except as explicitly directed by the Owner, the Contractor shall immediately proceed with the following obligations regardless of any delay in determining or adjusting amounts due under this clause:

1. Contractor must immediately discontinue work as specified in the written notice.
2. Terminate all subcontracts to the extent they relate to the work terminated under the notice.
3. Discontinue orders for materials and services except as directed by the written notice.
4. Deliver to the owner all fabricated and partially fabricated parts, completed, and partially completed work, supplies, equipment, and materials acquired prior to termination of the work and as directed in the written notice.
5. Complete performance of the work not terminated by the notice.
6. Take action as directed by the owner to protect and preserve property and work related to this contract that Owner will take possession.

Owner agrees to pay Contractor for:

1. completed and acceptable work executed in accordance with the contract documents prior to the effective date of termination;
2. documented expenses sustained prior to the effective date of termination in performing work and furnishing labor, materials, or equipment as required by the contract documents in connection with uncompleted work;
3. reasonable and substantiated claims, costs and damages incurred in settlement of terminated contracts with Subcontractors and Suppliers; and
4. reasonable and substantiated expenses to the contractor directly attributable to Owner's termination action

Owner will not pay Contractor for loss of anticipated profits or revenue or other economic loss arising out of or resulting from the Owner's termination action.

The rights and remedies this clause provides are in addition to any other rights and remedies provided by law or under this contract.

TERMINATION FOR DEFAULT

Section 80-09 of FAA Advisory Circular 150/5370-10 establishes conditions, rights and remedies associated with Owner termination of this contract due default of the Contractor.

VETERAN'S PREFERENCE

(Ref: 49 USC § 47112(c))

In the employment of labor (excluding executive, administrative, and supervisory positions), the contractor and all sub-tier contractors must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 U.S.C. 632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

END OF REQUIRED FEDERAL CONTRACT PROVISIONS

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GENERAL CONTRACT PROVISIONS

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Part 1 – General Contract Provisions

Section 10 Definition of Terms

When the following terms are used in these specifications, in the contract, or in any documents or other instruments pertaining to construction where these specifications govern, the intent and meaning shall be defined as follows:

Paragraph Number	Term	Definition
10-01	AASHTO	The American Association of State Highway and Transportation Officials.
10-02	Access Road	The right-of-way, the roadway and all improvements constructed thereon connecting the airport to a public roadway.
10-03	Advertisement	A public announcement, as required by local law, inviting bids for work to be performed and materials to be furnished.
10-04	Airport	Airport means an area of land or water which is used or intended to be used for the landing and takeoff of aircraft; an appurtenant area used or intended to be used for airport buildings or other airport facilities or rights of way; airport buildings and facilities located in any of these areas, and a heliport.
10-05	Airport Improvement Program (AIP)	A grant-in-aid program, administered by the Federal Aviation Administration (FAA).
10-06	Air Operations Area (AOA)	The term air operations area (AOA) shall mean any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operation area shall include such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiway, or apron.
10-07	Apron	Area where aircraft are parked, unloaded or loaded, fueled and/or serviced.
10-08	ASTM International (ASTM)	Formerly known as the American Society for Testing and Materials (ASTM).
10-09	Award	The Owner's notice to the successful bidder of the acceptance of the submitted bid.

Paragraph Number	Term	Definition
10-10	Bidder	Any individual, partnership, firm, or corporation, acting directly or through a duly authorized representative, who submits a proposal for the work contemplated.
10-11	Building Area	An area on the airport to be used, considered, or intended to be used for airport buildings or other airport facilities or rights-of-way together with all airport buildings and facilities located thereon.
10-12	Calendar Day	Every day shown on the calendar.
10-13	Certificate of Analysis (COA)	The COA is the manufacturer's Certificate of Compliance (COC) including all applicable test results required by the specifications.
10-14	Certificate of Compliance (COC)	The manufacturer's certification stating that materials or assemblies furnished fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer's authorized representative.
10-15	Change Order	A written order to the Contractor covering changes in the plans, specifications, or proposal quantities and establishing the basis of payment and contract time adjustment, if any, for work within the scope of the contract and necessary to complete the project.
10-16	Contract	<p>A written agreement between the Owner and the Contractor that establishes the obligations of the parties including but not limited to performance of work, furnishing of labor, equipment and materials and the basis of payment.</p> <p>The awarded contract includes but may not be limited to: Advertisement, Contract form, Proposal, Performance bond, payment bond, General provisions, certifications and representations, Technical Specifications, Plans, Supplemental Provisions, standards incorporated by reference and issued addenda.</p>
10-17	Contract Item (Pay Item)	A specific unit of work for which a price is provided in the contract.
10-18	Contract Time	The number of calendar days or working days, stated in the proposal, allowed for completion of the contract, including authorized time extensions. If a calendar date of completion is stated in the proposal, in lieu of a number of calendar or working days, the contract shall be completed by that date.

Paragraph Number	Term	Definition
10-19	Contractor	The individual, partnership, firm, or corporation primarily liable for the acceptable performance of the work contracted and for the payment of all legal debts pertaining to the work who acts directly or through lawful agents or employees to complete the contract work.
10-20	Contractors Quality Control (QC) Facilities	The Contractor's QC facilities in accordance with the Contractor Quality Control Program (CQCP).
10-21	Contractor Quality Control Program (CQCP)	Details the methods and procedures that will be taken to assure that all materials and completed construction required by the contract conform to contract plans, technical specifications and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors.
10-22	Control Strip	A demonstration by the Contractor that the materials, equipment, and construction processes results in a product meeting the requirements of the specification.
10-23	Construction Safety and Phasing Plan (CSPP)	The overall plan for safety and phasing of a construction project developed by the airport operator, or developed by the airport operator's consultant and approved by the airport operator. It is included in the invitation for bids and becomes part of the project specifications.
10-24	Drainage System	The system of pipes, ditches, and structures by which surface or subsurface waters are collected and conducted from the airport area.
10-25	Engineer	The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for engineering, inspection, and/or observation of the contract work and acting directly or through an authorized representative.
10-26	Equipment	All machinery, together with the necessary supplies for upkeep and maintenance; and all tools and apparatus necessary for the proper construction and acceptable completion of the work.
10-27	Extra Work	An item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, but which is found by the Owner's Engineer or Resident Project Representative (RPR) to be necessary to complete the work within the intended scope of the contract as previously modified.

Paragraph Number	Term	Definition
10-28	FAA	The Federal Aviation Administration. When used to designate a person, FAA shall mean the Administrator or their duly authorized representative.
10-29	Federal Specifications	The federal specifications and standards, commercial item descriptions, and supplements, amendments, and indices prepared and issued by the General Services Administration.
10-30	Force Account	<p>a. Contract Force Account - A method of payment that addresses extra work performed by the Contractor on a time and material basis.</p> <p>b. Owner Force Account - Work performed for the project by the Owner's employees.</p>
10-31	Intention of Terms	<p>Whenever, in these specifications or on the plans, the words “directed,” “required,” “permitted,” “ordered,” “designated,” “prescribed,” or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the Engineer and/or Resident Project Representative (RPR) is intended; and similarly, the words “approved,” “acceptable,” “satisfactory,” or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Engineer and/or RPR, subject in each case to the final determination of the Owner.</p> <p>Any reference to a specific requirement of a numbered paragraph of the contract specifications or a cited standard shall be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.</p>
10-32	Lighting	A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.
10-33	Major and Minor Contract Items	A major contract item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 20% of the total amount of the award contract. All other items shall be considered minor contract items.
10-34	Materials	Any substance specified for use in the construction of the contract work.

Paragraph Number	Term	Definition
10-35	Modification of Standards (MOS)	Any deviation from standard specifications applicable to material and construction methods in accordance with FAA Order 5300.1.
10-36	Notice to Proceed (NTP)	A written notice to the Contractor to begin the actual contract work on a previously agreed to date. If applicable, the Notice to Proceed shall state the date on which the contract time begins.
10-37	Owner	The term "Owner" shall mean the party of the first part or the contracting agency signatory to the contract. Where the term "Owner" is capitalized in this document, it shall mean airport Sponsor only. The Owner for this project is the City of Roseburg.
10-38	Passenger Facility Charge (PFC)	Per 14 Code of Federal Regulations (CFR) Part 158 and 49 United States Code (USC) § 40117, a PFC is a charge imposed by a public agency on passengers enplaned at a commercial service airport it controls.
10-39	Pavement Structure	The combined surface course, base course(s), and subbase course(s), if any, considered as a single unit.
10-40	Payment bond	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will pay in full all bills and accounts for materials and labor used in the construction of the work.
10-41	Performance bond	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will complete the work in accordance with the terms of the contract.
10-42	Plans	The official drawings or exact reproductions which show the location, character, dimensions and details of the airport and the work to be done and which are to be considered as a part of the contract, supplementary to the specifications. Plans may also be referred to as 'contract drawings.'
10-43	Project	The agreed scope of work for accomplishing specific airport development with respect to a particular airport.
10-44	Proposal	The written offer of the bidder (when submitted on the approved proposal form) to perform the contemplated work and furnish the necessary materials in accordance with the provisions of the plans and specifications.

Paragraph Number	Term	Definition
10-45	Proposal guaranty	The security furnished with a proposal to guarantee that the bidder will enter into a contract if their own proposal is accepted by the Owner.
10-46	Quality Assurance (QA)	Owner's responsibility to assure that construction work completed complies with specifications for payment.
10-47	Quality Control (QC)	Contractor's responsibility to control material(s) and construction processes to complete construction in accordance with project specifications.
10-48	Quality Assurance (QA) Inspector	An authorized representative of the Engineer and/or Resident Project Representative (RPR) assigned to make all necessary inspections, observations, tests, and/or observation of tests of the work performed or being performed, or of the materials furnished or being furnished by the Contractor.
10-49	Quality Assurance (QA) Laboratory	The official quality assurance testing laboratories of the Owner or such other laboratories as may be designated by the Engineer or RPR. May also be referred to as Engineer's, Owner's, or QA Laboratory.
10-50	Resident Project Representative (RPR)	The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for all necessary inspections, observations, tests, and/or observations of tests of the contract work performed or being performed, or of the materials furnished or being furnished by the Contractor, and acting directly or through an authorized representative.
10-51	Runway	The area on the airport prepared for the landing and takeoff of aircraft.
10-52	Runway Safety Area (RSA)	A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to aircraft. See the construction safety and phasing plan (CSPP) for limits of the RSA.
10-53	Safety Plan Compliance Document (SPCD)	Details how the Contractor will comply with the CSPP.
10-54	Specifications	A part of the contract containing the written directions and requirements for completing the contract work. Standards for specifying materials or testing which are cited in the contract specifications by reference shall have the same force and effect as if included in the contract physically.

Paragraph Number	Term	Definition
10-55	Sponsor	A Sponsor is defined in 49 USC § 47102(24) as a public agency that submits to the FAA for an AIP grant; or a private Owner of a public-use airport that submits to the FAA an application for an AIP grant for the airport.
10-56	Structures	Airport facilities such as bridges; culverts; catch basins, inlets, retaining walls, cribbing; storm and sanitary sewer lines; water lines; underdrains; electrical ducts, manholes, handholes, lighting fixtures and bases; transformers; navigational aids; buildings; vaults; and, other manmade features of the airport that may be encountered in the work and not otherwise classified herein.
10-57	Subgrade	The soil that forms the pavement foundation.
10-58	Superintendent	The Contractor's executive representative who is present on the work during progress, authorized to receive and fulfill instructions from the RPR, and who shall supervise and direct the construction.
10-59	Supplemental Agreement	A written agreement between the Contractor and the Owner that establishes the basis of payment and contract time adjustment, if any, for the work affected by the supplemental agreement. A supplemental agreement is required if: (1) in scope work would increase or decrease the total amount of the awarded contract by more than 25%; (2) in scope work would increase or decrease the total of any major contract item by more than 25%; (3) work that is not within the scope of the originally awarded contract; or (4) adding or deleting of a major contract item.
10-60	Surety	The corporation, partnership, or individual, other than the Contractor, executing payment or performance bonds that are furnished to the Owner by the Contractor.
10-61	Taxilane	A taxiway designed for low-speed movement of aircraft between aircraft parking areas and terminal areas.
10-62	Taxiway	The portion of the air operations area of an airport that has been designated by competent airport authority for movement of aircraft to and from the airport's runways, aircraft parking areas, and terminal areas.
10-63	Taxiway/Taxilane Safety Area (TSA)	A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an aircraft. See the construction safety and phasing plan (CSPP) for limits of the TSA.

Paragraph Number	Term	Definition
10-64	Work	The furnishing of all labor, materials, tools, equipment, and incidentals necessary or convenient to the Contractor's performance of all duties and obligations imposed by the contract, plans, and specifications.
10-65	Working day	A working day shall be any day other than a legal holiday, Saturday, or Sunday on which the normal working forces of the Contractor may proceed with regular work for at least six (6) hours toward completion of the contract. When work is suspended for causes beyond the Contractor's control, it will not be counted as a working day. Saturdays, Sundays and holidays on which the Contractor's forces engage in regular work will be considered as working days.
10-66	Owner Defined terms	See Section 1 of the City of Roseburg General Conditions.

END OF SECTION 10

Section 20 Proposal Requirements and Conditions

20-01 Advertisement (Notice to Bidders). See Advertisement for Bid and Invitation to Bid.

20-02 Qualification of bidders. See Information to Bidders, Section 9.

20-03 Contents of proposal forms. See Information to Bidders, Section 1.

20-04 Issuance of proposal forms. The Owner reserves the right to refuse to issue a proposal form to a prospective bidder if the bidder is in default for any of the following reasons:

- a. Failure to comply with any prequalification regulations of the Owner, if such regulations are cited, or otherwise included, in the proposal as a requirement for bidding.
- b. Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts in force with the Owner at the time the Owner issues the proposal to a prospective bidder.
- c. Documented record of Contractor default under previous contracts with the Owner.
- d. Documented record of unsatisfactory work on previous contracts with the Owner.

20-05 Interpretation of estimated proposal quantities. See Information to Bidders, Section 4.

20-06 Examination of plans, specifications, and site. See Information to Bidders, Section 13.

20-07 Preparation of proposal. See Information to Bidders, Section 1.

20-08 Responsive and responsible bidder. A responsive bid conforms to all significant terms and conditions contained in the Owner's invitation for bid. It is the Owner's responsibility to decide if the exceptions taken by a bidder to the solicitation are material or not and the extent of deviation it is willing to accept.

A responsible bidder has the ability to perform successfully under the terms and conditions of a proposed procurement, as defined in 2 CFR § 200.318(h). This includes such matters as Contractor integrity, compliance with public policy, record of past performance, and financial and technical resources.

20-09 Irregular proposals. Proposals shall be considered irregular for the following reasons:

- a. If the proposal is on a form other than that furnished by the Owner, or if the Owner's form is altered, or if any part of the proposal form is detached.
- b. If there are unauthorized additions, conditional or alternate pay items, or irregularities of any kind that make the proposal incomplete, indefinite, or otherwise ambiguous.
- c. If the proposal does not contain a unit price for each pay item listed in the proposal, except in the case of authorized alternate pay items, for which the bidder is not required to furnish a unit price.
- d. If the proposal contains unit prices that are obviously unbalanced.
- e. If the proposal is not accompanied by the proposal guaranty specified by the Owner.
- f. If the applicable Disadvantaged Business Enterprise information is incomplete.

The Owner reserves the right to reject any irregular proposal and the right to waive technicalities if such waiver is in the best interest of the Owner and conforms to local laws and ordinances pertaining to the letting of construction contracts.

20-10 Bid guarantee. See Invitation to Bid.

20-11 Delivery of proposal. See Invitation to Bid.

20-12 Withdrawal or revision of proposals. A bidder may withdraw or revise (by withdrawal of one proposal and submission of another) a proposal provided that the bidder's request for withdrawal is

received by the Owner in writing or by email before the time specified for opening bids. Revised proposals must be received at the place specified in the advertisement before the time specified for opening all bids.

20-13 Public opening of proposals. Proposals shall be opened, and read, publicly at the time and place specified in the advertisement. Bidders, their authorized agents, and other interested persons are invited to attend. Proposals that have been withdrawn (by written or telegraphic request) or received after the time specified for opening bids shall be returned to the bidder unopened.

20-14 Disqualification of bidders. A bidder shall be considered disqualified for any of the following reasons:

a. Submitting more than one proposal from the same partnership, firm, or corporation under the same or different name.

b. Evidence of collusion among bidders. Bidders participating in such collusion shall be disqualified as bidders for any future work of the Owner until any such participating bidder has been reinstated by the Owner as a qualified bidder.

c. If the bidder is considered to be in “default” for any reason specified in paragraph 20-04, *Issuance of Proposal Forms*, of this section.

20-15 Discrepancies and Omissions. A Bidder who discovers discrepancies or omissions with the project bid documents shall immediately notify the Owner’s Engineer of the matter. A bidder that has doubt as to the true meaning of a project requirement may submit to the Owner’s Engineer a written request for interpretation no later than 5 business days prior to bid opening.

Any interpretation of the project bid documents by the Owner’s Engineer will be by written addendum issued by the Owner. The Owner will not consider any instructions, clarifications or interpretations of the bidding documents in any manner other than written addendum.

END OF SECTION 20

Section 30 Award and Execution of Contract

30-01 Consideration of proposals. After the proposals are publicly opened and read, they will be compared on the basis of the summation of the products obtained by multiplying the estimated quantities shown in the proposal by the unit bid prices. If a bidder's proposal contains a discrepancy between unit bid prices written in words and unit bid prices written in numbers, the unit bid price written in words shall govern.

Until the award of a contract is made, the Owner reserves the right to reject a bidder's proposal for any of the following reasons:

a. If the proposal is irregular as specified in Section 20, paragraph 20-09, *Irregular Proposals*.

b. If the bidder is disqualified for any of the reasons specified Section 20, paragraph 20-14, *Disqualification of Bidders*.

In addition, until the award of a contract is made, the Owner reserves the right to reject any or all proposals, waive technicalities, if such waiver is in the best interest of the Owner and is in conformance with applicable state and local laws or regulations pertaining to the letting of construction contracts; advertise for new proposals; or proceed with the work otherwise. All such actions shall promote the Owner's best interests.

30-02 Award of contract. See Instruction to Bidders, Section 14.

30-03 Cancellation of award. The Owner reserves the right to cancel the award without liability to the bidder, except return of proposal guaranty, at any time before a contract has been fully executed by all parties and is approved by the Owner in accordance with paragraph 30-07 *Approval of Contract*.

30-04 Return of proposal guaranty. See Instructions to Bidders, Section 17.

30-05 Requirements of contract bonds. See Instruction to Bidders, Section 15.

30-06 Execution of contract. See Instructions to Bidders, Section 15.

30-07 Approval of contract. See Instructions to Bidders, Section 15.

30-08 Failure to execute contract. See Instructions to Bidders, Section 15.

END OF SECTION 30

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Section 40 Scope of Work

40-01 Intent of contract. The intent of the contract is to provide for construction and completion, in every detail, of the work described. It is further intended that the Contractor shall furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with the plans, specifications, and terms of the contract.

40-02 Alteration of work and quantities. The Owner reserves the right to make such changes in quantities and work as may be necessary or desirable to complete, in a satisfactory manner, the original intended work. Unless otherwise specified in the Contract, the Owner's Engineer or RPR shall be and is hereby authorized to make, in writing, such in-scope alterations in the work and variation of quantities as may be necessary to complete the work, provided such action does not represent a significant change in the character of the work.

For purpose of this section, a significant change in character of work means: any change that is outside the current contract scope of work; any change (increase or decrease) in the total contract cost by more than 25%; or any change in the total cost of a major contract item by more than 25%.

Work alterations and quantity variances that do not meet the definition of significant change in character of work shall not invalidate the contract nor release the surety. Contractor agrees to accept payment for such work alterations and quantity variances in accordance with Section 90, paragraph 90-03, *Compensation for Altered Quantities*.

Should the value of altered work or quantity variance meet the criteria for significant change in character of work, such altered work and quantity variance shall be covered by a supplemental agreement. Supplemental agreements shall also require consent of the Contractor's surety and separate performance and payment bonds. If the Owner and the Contractor are unable to agree on a unit adjustment for any contract item that requires a supplemental agreement, the Owner reserves the right to terminate the contract with respect to the item and make other arrangements for its completion.

40-03 Omitted items. The Owner, the Owner's Engineer or the RPR may provide written notice to the Contractor to omit from the work any contract item that does not meet the definition of major contract item. Major contract items may be omitted by a supplemental agreement. Such omission of contract items shall not invalidate any other contract provision or requirement.

Should a contract item be omitted or otherwise ordered to be non-performed, the Contractor shall be paid for all work performed toward completion of such item prior to the date of the order to omit such item. Payment for work performed shall be in accordance with Section 90, paragraph 90-04, *Payment for Omitted Items*.

40-04 Extra work. Should acceptable completion of the contract require the Contractor to perform an item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, Owner may issue a Change Order to cover the necessary extra work. Change orders for extra work shall contain agreed unit prices for performing the change order work in accordance with the requirements specified in the order, and shall contain any adjustment to the contract time that, in the RPR's opinion, is necessary for completion of the extra work.

When determined by the RPR to be in the Owner's best interest, the RPR may order the Contractor to proceed with extra work as provided in Section 90, paragraph 90-05, *Payment for Extra Work*. Extra work that is necessary for acceptable completion of the project, but is not within the general scope of the work covered by the original contract shall be covered by a supplemental agreement as defined in Section 10, paragraph 10-59, *Supplemental Agreement*.

If extra work is essential to maintaining the project critical path, RPR may order the Contractor to commence the extra work under a Time and Material contract method. Once sufficient detail is available

to establish the level of effort necessary for the extra work, the Owner shall initiate a change order or supplemental agreement to cover the extra work.

Any claim for payment of extra work that is not covered by written agreement (change order or supplemental agreement) shall be rejected by the Owner.

40-05 Maintenance of traffic. It is the explicit intention of the contract that the safety of aircraft, as well as the Contractor's equipment and personnel, is the most important consideration. The Contractor shall maintain traffic in the manner detailed in the Construction Safety and Phasing Plan (CSPP).

a. It is understood and agreed that the Contractor shall provide for the free and unobstructed movement of aircraft in the air operations areas (AOAs) of the airport with respect to their own operations and the operations of all subcontractors as specified in Section 80, paragraph 80-04, *Limitation of Operations*. It is further understood and agreed that the Contractor shall provide for the uninterrupted operation of visual and electronic signals (including power supplies thereto) used in the guidance of aircraft while operating to, from, and upon the airport as specified in Section 70, paragraph 70-15, *Contractor's Responsibility for Utility Service and Facilities of Others*.

b. With respect to their own operations and the operations of all subcontractors, the Contractor shall provide marking, lighting, and other acceptable means of identifying personnel, equipment, vehicles, storage areas, and any work area or condition that may be hazardous to the operation of aircraft, fire-rescue equipment, or maintenance vehicles at the airport in accordance with the construction safety and phasing plan (CSPP) and the safety plan compliance document (SPCD).

c. When the contract requires the maintenance of an existing road, street, or highway during the Contractor's performance of work that is otherwise provided for in the contract, plans, and specifications, the Contractor shall keep the road, street, or highway open to all traffic and shall provide maintenance as may be required to accommodate traffic. The Contractor, at their expense, shall be responsible for the repair to equal or better than preconstruction conditions of any damage caused by the Contractor's equipment and personnel. The Contractor shall furnish, erect, and maintain barricades, warning signs, flag person, and other traffic control devices in reasonable conformity with the Manual on Uniform Traffic Control Devices (MUTCD) (<http://mutcd.fhwa.dot.gov/>), unless otherwise specified. The Contractor shall also construct and maintain in a safe condition any temporary connections necessary for ingress to and egress from abutting property or intersecting roads, streets or highways.

40-06 Removal of existing structures. All existing structures encountered within the established lines, grades, or grading sections shall be removed by the Contractor, unless such existing structures are otherwise specified to be relocated, adjusted up or down, salvaged, abandoned in place, reused in the work or to remain in place. The cost of removing such existing structures shall not be measured or paid for directly, but shall be included in the various contract items.

Should the Contractor encounter an existing structure (above or below ground) in the work for which the disposition is not indicated on the plans, the Resident Project Representative (RPR) shall be notified prior to disturbing such structure. The disposition of existing structures so encountered shall be immediately determined by the RPR in accordance with the provisions of the contract.

Except as provided in Section 40, paragraph 40-07, *Rights in and Use of Materials Found in the Work*, it is intended that all existing materials or structures that may be encountered (within the lines, grades, or grading sections established for completion of the work) shall be used in the work as otherwise provided for in the contract and shall remain the property of the Owner when so used in the work.

40-07 Rights in and use of materials found in the work. Should the Contractor encounter any material such as (but not restricted to) sand, stone, gravel, slag, or concrete slabs within the established lines, grades, or grading sections, the use of which is intended by the terms of the contract to be embankment, the Contractor may at their own option either:

- a. Use such material in another contract item, providing such use is approved by the RPR and is in conformance with the contract specifications applicable to such use; or,
- b. Remove such material from the site, upon written approval of the RPR; or
- c. Use such material for the Contractor's own temporary construction on site; or,
- d. Use such material as intended by the terms of the contract.

Should the Contractor wish to exercise option a., b., or c., the Contractor shall request the RPR's approval in advance of such use.

Should the RPR approve the Contractor's request to exercise option a., b., or c., the Contractor shall be paid for the excavation or removal of such material at the applicable contract price. The Contractor shall replace, at their expense, such removed or excavated material with an agreed equal volume of material that is acceptable for use in constructing embankment, backfills, or otherwise to the extent that such replacement material is needed to complete the contract work. The Contractor shall not be charged for use of such material used in the work or removed from the site.

Should the RPR approve the Contractor's exercise of option a., the Contractor shall be paid, at the applicable contract price, for furnishing and installing such material in accordance with requirements of the contract item in which the material is used.

It is understood and agreed that the Contractor shall make no claim for delays by reason of their own exercise of option a., b., or c.

The Contractor shall not excavate, remove, or otherwise disturb any material, structure, or part of a structure which is located outside the lines, grades, or grading sections established for the work, except where such excavation or removal is provided for in the contract, plans, or specifications.

40-08 Final cleanup. Upon completion of the work and before acceptance and final payment will be made, the Contractor shall remove from the site all machinery, equipment, surplus and discarded materials, rubbish, temporary structures, and stumps or portions of trees. The Contractor shall cut all brush and woods within the limits indicated and shall leave the site in a neat and presentable condition. Material cleared from the site and deposited on adjacent property will not be considered as having been disposed of satisfactorily, unless the Contractor has obtained the written permission of the property Owner.

END OF SECTION 40

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Section 50 Control of Work

50-01 Authority of the Resident Project Representative (RPR). The RPR has final authority regarding the interpretation of project specification requirements. The RPR shall determine acceptability of the quality of materials furnished, method of performance of work performed, and the manner and rate of performance of the work. The RPR does not have the authority to accept work that does not conform to specification requirements.

50-02 Conformity with plans and specifications. All work and all materials furnished shall be in reasonably close conformity with the lines, grades, grading sections, cross-sections, dimensions, material requirements, and testing requirements that are specified (including specified tolerances) in the contract, plans, or specifications.

If the RPR finds the materials furnished, work performed, or the finished product not within reasonably close conformity with the plans and specifications, but that the portion of the work affected will, in their opinion, result in a finished product having a level of safety, economy, durability, and workmanship acceptable to the Owner, the RPR will advise the Owner of their determination that the affected work be accepted and remain in place. The RPR will document the determination and recommend to the Owner a basis of acceptance that will provide for an adjustment in the contract price for the affected portion of the work. Changes in the contract price must be covered by contract change order or supplemental agreement as applicable.

If the RPR finds the materials furnished, work performed, or the finished product are not in reasonably close conformity with the plans and specifications and have resulted in an unacceptable finished product, the affected work or materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor in accordance with the RPR's written orders.

The term "reasonably close conformity" shall not be construed as waiving the Contractor's responsibility to complete the work in accordance with the contract, plans, and specifications. The term shall not be construed as waiving the RPR's responsibility to insist on strict compliance with the requirements of the contract, plans, and specifications during the Contractor's execution of the work, when, in the RPR's opinion, such compliance is essential to provide an acceptable finished portion of the work.

The term "reasonably close conformity" is also intended to provide the RPR with the authority, after consultation with the Sponsor and FAA, to use sound engineering judgment in their determinations to accept work that is not in strict conformity, but will provide a finished product equal to or better than that required by the requirements of the contract, plans and specifications.

The RPR will not be responsible for the Contractor's means, methods, techniques, sequences, or procedures of construction or the safety precautions incident thereto.

50-03 Coordination of contract, plans, and specifications. The contract, plans, specifications, and all referenced standards cited are essential parts of the contract requirements. If electronic files are provided and used on the project and there is a conflict between the electronic files and hard copy plans, the hard copy plans shall govern. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, calculated dimensions will govern over scaled dimensions; contract technical specifications shall govern over contract general provisions, plans, cited standards for materials or testing, and cited advisory circulars (ACs); contract general provisions shall govern over plans, cited standards for materials or testing, and cited ACs; plans shall govern over cited standards for materials or testing and cited ACs. If any paragraphs contained in the Special Provisions conflict with General Provisions or Technical Specifications, the Special Provisions shall govern.

From time to time, discrepancies within cited testing standards occur due to the timing of the change, edits, and/or replacement of the standards. If the Contractor discovers any apparent discrepancy within

standard test methods, the Contractor shall immediately ask the RPR for an interpretation and decision, and such decision shall be final.

The Contractor shall not take advantage of any apparent error or omission on the plans or specifications. In the event the Contractor discovers any apparent error or discrepancy, Contractor shall immediately notify the Owner or the designated representative in writing requesting their written interpretation and decision.

50-04 List of Special Provisions.

ORDER OF PRECEDENCE

1. Permits issued by jurisdictional regulatory agencies
2. Change Orders
3. Addenda;
4. Contract;
5. Notice to Proceed;
6. Notice of Award;
7. Construction Safety and Phasing Plan
8. Technical Specifications
9. FAA General Contract Provisions; **(In the event of a discrepancy between the FAA General Contract Provisions and the City of Roseburg General Conditions, the most advantageous provision / condition to the City of Roseburg shall govern)**
10. Required Federal Contract provisions for FAA AIP Projects
11. City's General Conditions; **(In the event of a discrepancy between the FAA General Contract Provisions and the City of Roseburg General Conditions, the most advantageous provision / condition to the City of Roseburg shall govern)**
12. Drawings/Plans;
13. Contractor's Bid Proposal and Attachments;
14. Notice Inviting Bids;
15. Instructions to Bidders;
16. Any documents prepared by and on behalf of a third party that were not prepared specifically for this Project, including the Greenbook Standard Specifications, the ODOT Standard Specifications, and the ODOT Special Provisions.

50-05 Cooperation of Contractor. The Contractor shall be supplied with an electronic PDF of the plans and specifications. The Contractor shall have available on the construction site at all times one hardcopy each of the plans and specifications. Additional hard copies of plans and specifications may be obtained by the Contractor for the cost of reproduction.

The Contractor shall give constant attention to the work to facilitate the progress thereof, and shall cooperate with the RPR and their inspectors and with other Contractors in every way possible. The Contractor shall have a competent superintendent on the work at all times who is fully authorized as their agent on the work. The superintendent shall be capable of reading and thoroughly understanding the plans and specifications and shall receive and fulfill instructions from the RPR or their authorized representative.

50-06 Cooperation between Contractors. The Owner reserves the right to contract for and perform other or additional work on or near the work covered by this contract.

When separate contracts are let within the limits of any one project, each Contractor shall conduct the work not to interfere with or hinder the progress of completion of the work being performed by other Contractors. Contractors working on the same project shall cooperate with each other as directed.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with their own contract and shall protect and hold harmless the Owner from any and all damages or claims that may arise because of inconvenience, delays, or loss experienced because of the presence and operations of other Contractors working within the limits of the same project.

The Contractor shall arrange their work and shall place and dispose of the materials being used to not interfere with the operations of the other Contractors within the limits of the same project. The Contractor shall join their work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

50-07 Construction layout and stakes. The Contractor is responsible to establish all layout required for the construction of the project.

No direct payment will be made, unless otherwise specified in contract documents, for this labor, materials, or other expenses. The cost shall be included in the price of the bid for the various items of the Contract.

50-08 Authority and duties of Quality Assurance (QA) inspectors. QA inspectors shall be authorized to inspect all work done and all material furnished. Such QA inspection may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. QA inspectors are not authorized to revoke, alter, or waive any provision of the contract. QA inspectors are not authorized to issue instructions contrary to the plans and specifications or to act as foreman for the Contractor.

QA Inspectors are authorized to notify the Contractor or their representatives of any failure of the work or materials to conform to the requirements of the contract, plans, or specifications and to reject such nonconforming materials in question until such issues can be referred to the RPR for a decision.

50-09 Inspection of the work. All materials and each part or detail of the work shall be subject to inspection. The RPR shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.

If the RPR requests it, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work; but should the work so exposed or examined prove unacceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be at the Contractor's expense.

Provide advance written notice to the RPR of work the Contractor plans to perform each week and each day. Any work done or materials used without written notice and allowing opportunity for inspection by the RPR may be ordered removed and replaced at the Contractor's expense.

Should the contract work include relocation, adjustment, or any other modification to existing facilities, not the property of the (contract) Owner, authorized representatives of the Owners of such facilities shall have the right to inspect such work. Such inspection shall in no sense make any facility owner a party to the contract, and shall in no way interfere with the rights of the parties to this contract.

50-10 Removal of unacceptable and unauthorized work. All work that does not conform to the requirements of the contract, plans, and specifications will be considered unacceptable, unless otherwise determined acceptable by the RPR as provided in paragraph 50-02, *Conformity with Plans and Specifications*.

Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner in accordance with the provisions of Section 70, paragraph 70-14, *Contractor's Responsibility for Work*.

No removal work made under provision of this paragraph shall be done without lines and grades having been established by the RPR. Work done contrary to the instructions of the RPR, work done beyond the lines shown on the plans or as established by the RPR, except as herein specified, or any extra work done without authority, will be considered as unauthorized and will not be paid for under the provisions of the contract. Work so done may be ordered removed or replaced at the Contractor's expense.

Upon failure on the part of the Contractor to comply with any order of the RPR made under the provisions of this subsection, the RPR will have authority to cause unacceptable work to be remedied or removed and replaced; and unauthorized work to be removed and recover the resulting costs as a liquidated damage against the Contractor.

50-11 Load restrictions. The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the work. A special permit will not relieve the Contractor of liability for damage that may result from the moving of material or equipment.

The operation of equipment of such weight or so loaded as to cause damage to structures or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction shall be limited as directed. No loads will be permitted on a concrete pavement, base, or structure before the expiration of the curing period. The Contractor, at their own expense, shall be responsible for the repair to equal or better than preconstruction conditions of any damage caused by the Contractor's equipment and personnel.

50-12 Maintenance during construction. The Contractor shall maintain the work during construction and until the work is accepted. Maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces so that the work is maintained in satisfactory condition at all times.

In the case of a contract for the placing of a course upon a course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations.

All costs of maintenance work during construction and before the project is accepted shall be included in the unit prices bid on the various contract items, and the Contractor will not be paid an additional amount for such work.

50-13 Failure to maintain the work. Should the Contractor at any time fail to maintain the work as provided in paragraph 50-12, *Maintenance during Construction*, the RPR shall immediately notify the Contractor of such noncompliance. Such notification shall specify a reasonable time within which the Contractor shall be required to remedy such unsatisfactory maintenance condition. The time specified will give due consideration to the exigency that exists.

Should the Contractor fail to respond to the RPR's notification, the Owner may suspend any work necessary for the Owner to correct such unsatisfactory maintenance condition, depending on the exigency that exists. Any maintenance cost incurred by the Owner, shall be recovered as a liquidated damage against the Contractor.

50-14 Partial acceptance. If at any time during the execution of the project the Contractor substantially completes a usable unit or portion of the work, the occupancy of which will benefit the Owner, the Contractor may request the RPR to make final inspection of that unit. If the RPR finds upon inspection that the unit has been satisfactorily completed in compliance with the contract, the RPR may accept it as being complete, and the Contractor may be relieved of further responsibility for that unit. Such partial acceptance and beneficial occupancy by the Owner shall not void or alter any provision of the contract.

50-15 Final acceptance. Upon due notice from the Contractor of presumptive completion of the entire project, the RPR and Owner will make an inspection. If all construction provided for and contemplated by the contract is found to be complete in accordance with the contract, plans, and specifications, such inspection shall constitute the final inspection. The RPR shall notify the Contractor in writing of final acceptance as of the date of the final inspection.

If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the RPR will notify the Contractor and the Contractor shall correct the unsatisfactory work. Upon correction of the work, another inspection will be made which shall constitute the final inspection, provided the work has been satisfactorily completed. In such event, the RPR will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of final inspection.

50-16 Claims for adjustment and disputes. If for any reason the Contractor deems that additional compensation is due for work or materials not clearly provided for in the contract, plans, or specifications or previously authorized as extra work, the Contractor shall notify the RPR in writing of their intention to claim such additional compensation before the Contractor begins the work on which the Contractor bases the claim. If such notification is not given or the RPR is not afforded proper opportunity by the Contractor for keeping strict account of actual cost as required, then the Contractor hereby agrees to waive any claim for such additional compensation. Such notice by the Contractor and the fact that the RPR has kept account of the cost of the work shall not in any way be construed as proving or substantiating the validity of the claim. When the work on which the claim for additional compensation is based has been completed, the Contractor shall, within 10 calendar days, submit a written claim to the RPR who will present it to the Owner for consideration in accordance with local laws or ordinances.

Nothing in this subsection shall be construed as a waiver of the Contractor's right to dispute final payment based on differences in measurements or computations.

END OF SECTION 50

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Section 60 Control of Materials

60-01 Source of supply and quality requirements. The materials used in the work shall conform to the requirements of the contract, plans, and specifications. Unless otherwise specified, such materials that are manufactured or processed shall be new (as compared to used or reprocessed).

In order to expedite the inspection and testing of materials, the Contractor shall furnish documentation to the RPR as to the origin, composition, and manufacture of all materials to be used in the work. Documentation shall be furnished promptly after execution of the contract but, in all cases, prior to delivery of such materials.

At the RPR's option, materials may be approved at the source of supply before delivery. If it is found after trial that sources of supply for previously approved materials do not produce specified products, the Contractor shall furnish materials from other sources.

The Contractor shall furnish airport lighting equipment that meets the requirements of the specifications; and is listed in AC 150/5345-53, *Airport Lighting Equipment Certification Program and Addendum*, that is in effect on the date of advertisement.

60-02 Samples, tests, and cited specifications. All materials used in the work shall be inspected, tested, and approved by the RPR before incorporation in the work unless otherwise designated. Any work in which untested materials are used without approval or written permission of the RPR shall be performed at the Contractor's risk. Materials found to be unacceptable and unauthorized will not be paid for and, if directed by the RPR, shall be removed at the Contractor's expense.

Unless otherwise designated, quality assurance tests will be made by and at the expense of the Owner in accordance with the cited standard methods of ASTM, American Association of State Highway and Transportation Officials (AASHTO), federal specifications, Commercial Item Descriptions, and all other cited methods, which are current on the date of advertisement for bids.

The testing organizations performing on-site quality assurance field tests shall have copies of all referenced standards on the construction site for use by all technicians and other personnel. Unless otherwise designated, samples for quality assurance will be taken by a qualified representative of the RPR. All materials being used are subject to inspection, test, or rejection at any time prior to or during incorporation into the work. Copies of all tests will be furnished to the Contractor's representative at their request after review and approval of the RPR.

A copy of all Contractor QC test data shall be provided to the RPR daily, along with printed reports, in an approved format, on a weekly basis. After completion of the project, and prior to final payment, the Contractor shall submit a final report to the RPR showing all test data reports, plus an analysis of all results showing ranges, averages, and corrective action taken on all failing tests.

60-03 Certification of compliance/analysis (COC/COA). The RPR may permit the use, prior to sampling and testing, of certain materials or assemblies when accompanied by manufacturer's COC stating that such materials or assemblies fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer. Each lot of such materials or assemblies delivered to the work must be accompanied by a certificate of compliance in which the lot is clearly identified. The COA is the manufacturer's COC and includes all applicable test results.

Materials or assemblies used on the basis of certificates of compliance may be sampled and tested at any time and if found not to be in conformity with contract requirements will be subject to rejection whether in place or not.

The form and distribution of certificates of compliance shall be as approved by the RPR.

When a material or assembly is specified by “brand name or equal” and the Contractor elects to furnish the specified “or equal,” the Contractor shall be required to furnish the manufacturer’s certificate of compliance for each lot of such material or assembly delivered to the work. Such certificate of compliance shall clearly identify each lot delivered and shall certify as to:

- a. Conformance to the specified performance, testing, quality or dimensional requirements; and,
- b. Suitability of the material or assembly for the use intended in the contract work.

The RPR shall be the sole judge as to whether the proposed “or equal” is suitable for use in the work.

The RPR reserves the right to refuse permission for use of materials or assemblies on the basis of certificates of compliance.

60-04 Plant inspection. The RPR or their authorized representative may inspect, at its source, any specified material or assembly to be used in the work. Manufacturing plants may be inspected from time to time for the purpose of determining compliance with specified manufacturing methods or materials to be used in the work and to obtain samples required for acceptance of the material or assembly.

Should the RPR conduct plant inspections, the following conditions shall exist:

- a. The RPR shall have the cooperation and assistance of the Contractor and the producer with whom the Contractor has contracted for materials.
- b. The RPR shall have full entry at all reasonable times to such parts of the plant that concern the manufacture or production of the materials being furnished.
- c. If required by the RPR, the Contractor shall arrange for adequate office or working space that may be reasonably needed for conducting plant inspections. Place office or working space in a convenient location with respect to the plant.

It is understood and agreed that the Owner shall have the right to retest any material that has been tested and approved at the source of supply after it has been delivered to the site. The RPR shall have the right to reject only material which, when retested, does not meet the requirements of the contract, plans, or specifications.

60-05 Engineer/ Resident Project Representative (RPR) field office. An Engineer/RPR field office is not required.

60-06 Storage of materials. Materials shall be stored to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located to facilitate their prompt inspection. The Contractor shall coordinate the storage of all materials with the RPR. Materials to be stored on airport property shall not create an obstruction to air navigation nor shall they interfere with the free and unobstructed movement of aircraft. Unless otherwise shown on the plans and/or CSPP, the storage of materials and the location of the Contractor’s plant and parked equipment or vehicles shall be as directed by the RPR. Private property shall not be used for storage purposes without written permission of the Owner or lessee of such property. The Contractor shall make all arrangements and bear all expenses for the storage of materials on private property. Upon request, the Contractor shall furnish the RPR a copy of the property Owner’s permission.

All storage sites on private or airport property shall be restored to their original condition by the Contractor at their expense, except as otherwise agreed to (in writing) by the Owner or lessee of the property.

60-07 Unacceptable materials. Any material or assembly that does not conform to the requirements of the contract, plans, or specifications shall be considered unacceptable and shall be rejected. The

Contractor shall remove any rejected material or assembly from the site of the work, unless otherwise instructed by the RPR.

Rejected material or assembly, the defects of which have been corrected by the Contractor, shall not be returned to the site of the work until such time as the RPR has approved its use in the work.

60-08 Owner furnished materials. The Contractor shall furnish all materials required to complete the work, except those specified, if any, to be furnished by the Owner. Owner-furnished materials shall be made available to the Contractor at the location specified.

All costs of handling, transportation from the specified location to the site of work, storage, and installing Owner-furnished materials shall be included in the unit price bid for the contract item in which such Owner-furnished material is used.

After any Owner-furnished material has been delivered to the location specified, the Contractor shall be responsible for any demurrage, damage, loss, or other deficiencies that may occur during the Contractor's handling, storage, or use of such Owner-furnished material. The Owner will deduct from any monies due or to become due the Contractor any cost incurred by the Owner in making good such loss due to the Contractor's handling, storage, or use of Owner-furnished materials.

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Section 70 Legal Regulations and Responsibility to Public

70-01 Laws to be observed. The Contractor shall keep fully informed of all federal and state laws, all local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. The Contractor shall at all times observe and comply with all such laws, ordinances, regulations, orders, and decrees; and shall protect and indemnify the Owner and all their officers, agents, or servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor or the Contractor's employees.

70-02 Permits, licenses, and taxes. The Contractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful execution of the work.

70-03 Patented devices, materials, and processes. If the Contractor is required or desires to use any design, device, material, or process covered by letters of patent or copyright, the Contractor shall provide for such use by suitable legal agreement with the Patentee or Owner. The Contractor and the surety shall indemnify and hold harmless the Owner, any third party, or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material or process, or any trademark or copyright, and shall indemnify the Owner for any costs, expenses, and damages which it may be obliged to pay by reason of an infringement, at any time during the execution or after the completion of the work.

70-04 Restoration of surfaces disturbed by others. The Owner reserves the right to authorize the construction, reconstruction, or maintenance of any public or private utility service, FAA or National Oceanic and Atmospheric Administration (NOAA) facility, or a utility service of another government agency at any time during the progress of the work. To the extent that such construction, reconstruction, or maintenance has been coordinated with the Owner, such authorized work (by others) must be shown on the plans and is indicated as follows:

Sheet CE-051

Pacific Power

Doug Agee

4025 Old Hwy 99 S, Roseburg, OR 97471

Douglas.Agee@pacificorp.com

1-877-508-5088

Except as listed above, the Contractor shall not permit any individual, firm, or corporation to excavate or otherwise disturb such utility services or facilities located within the limits of the work without the written permission of the RPR.

Should the Owner of public or private utility service, FAA, or NOAA facility, or a utility service of another government agency be authorized to construct, reconstruct, or maintain such utility service or facility during the progress of the work, the Contractor shall cooperate with such Owners by arranging and performing the work in this contract to facilitate such construction, reconstruction or maintenance by others whether or not such work by others is listed above. When ordered as extra work by the RPR, the Contractor shall make all necessary repairs to the work which are due to such authorized work by others, unless otherwise provided for in the contract, plans, or specifications. It is understood and agreed that the Contractor shall not be entitled to make any claim for damages due to such authorized work by others or for any delay to the work resulting from such authorized work.

70-05 Federal Participation. The United States Government has agreed to reimburse the Owner for some portion of the contract costs. The contract work is subject to the inspection and approval of duly authorized representatives of the FAA Administrator. No requirement of this contract shall be construed

as making the United States a party to the contract nor will any such requirement interfere, in any way, with the rights of either party to the contract.

70-06 Sanitary, health, and safety provisions. The Contractor's worksite and facilities shall comply with applicable federal, state, and local requirements for health, safety and sanitary provisions.

70-07 Public convenience and safety. The Contractor shall control their operations and those of their subcontractors and all suppliers, to assure the least inconvenience to the traveling public. Under all circumstances, safety shall be the most important consideration.

The Contractor shall maintain the free and unobstructed movement of aircraft and vehicular traffic with respect to their own operations and those of their own subcontractors and all suppliers in accordance with Section 40, paragraph 40-05, *Maintenance of Traffic*, and shall limit such operations for the convenience and safety of the traveling public as specified in Section 80, paragraph 80-04, *Limitation of Operations*.

The Contractor shall remove or control debris and rubbish resulting from its work operations at frequent intervals, and upon the order of the RPR. If the RPR determines the existence of Contractor debris in the work site represents a hazard to airport operations and the Contractor is unable to respond in a prompt and reasonable manner, the RPR reserves the right to assign the task of debris removal to a third party and recover the resulting costs as a liquidated damage against the Contractor.

70-08 Construction Safety and Phasing Plan (CSPP). The Contractor shall complete the work in accordance with the approved Construction Safety and Phasing Plan (CSPP) developed in accordance with AC 150/5370-2, Operational Safety on Airports During Construction. The CSPP is on sheet G-080 of the project plans.

70-09 Use of explosives. The use of explosives is not permitted on this project.

70-10 Protection and restoration of property and landscape. The Contractor shall be responsible for the preservation of all public and private property, and shall protect carefully from disturbance or damage all land monuments and property markers until the Engineer/RPR has witnessed or otherwise referenced their location and shall not move them until directed.

The Contractor shall be responsible for all damage or injury to property of any character, during the execution of the work, resulting from any act, omission, neglect, or misconduct in manner or method of executing the work, or at any time due to defective work or materials, and said responsibility shall not be released until the project has been completed and accepted.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the non-execution thereof by the Contractor, the Contractor shall restore, at their expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, or otherwise restoring as may be directed, or the Contractor shall make good such damage or injury in an acceptable manner.

70-11 Responsibility for damage claims. The Contractor shall indemnify and hold harmless the Engineer/RPR and the Owner and their officers, agents, and employees from all suits, actions, or claims, of any character, brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of the Contractor; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of said Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the "Workmen's Compensation Act," or any other law, ordinance, order, or decree. Money due the Contractor under and by virtue of their own contract considered necessary by the Owner for such purpose may be retained for the use of the Owner or, in case no money is due, their own surety may be held until such suits, actions, or claims for injuries or damages shall have

been settled and suitable evidence to that effect furnished to the Owner, except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that he or she is adequately protected by public liability and property damage insurance.

70-12 Third party beneficiary clause. It is specifically agreed between the parties executing the contract that it is not intended by any of the provisions of any part of the contract to create for the public or any member thereof, a third-party beneficiary or to authorize anyone not a party to the contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of the contract.

70-13 Opening sections of the work to traffic. If it is necessary for the Contractor to complete portions of the contract work for the beneficial occupancy of the Owner prior to completion of the entire contract, such "phasing" of the work must be specified below and indicated on the approved Construction Safety and Phasing Plan (CSPP) and the project plans. When so specified, the Contractor shall complete such portions of the work on or before the date specified or as otherwise specified.

See Construction Safety and Phasing Plan.

Upon completion of any portion of work listed above, such portion shall be accepted by the Owner in accordance with Section 50, paragraph 50-14, *Partial Acceptance*.

No portion of the work may be opened by the Contractor until directed by the Owner in writing. Should it become necessary to open a portion of the work to traffic on a temporary or intermittent basis, such openings shall be made when, in the opinion of the RPR, such portion of the work is in an acceptable condition to support the intended traffic. Temporary or intermittent openings are considered to be inherent in the work and shall not constitute either acceptance of the portion of the work so opened or a waiver of any provision of the contract. Any damage to the portion of the work so opened that is not attributable to traffic which is permitted by the Owner shall be repaired by the Contractor at their expense.

The Contractor shall make their own estimate of the inherent difficulties involved in completing the work under the conditions herein described and shall not claim any added compensation by reason of delay or increased cost due to opening a portion of the contract work.

The Contractor must conform to safety standards contained AC 150/5370-2 and the approved CSPP.

Contractor shall refer to the plans, specifications, and the approved CSPP to identify barricade requirements, temporary and/or permanent markings, airfield lighting, guidance signs and other safety requirements prior to opening up sections of work to traffic.

70-14 Contractor's responsibility for work. Until the RPR's final written acceptance of the entire completed work, excepting only those portions of the work accepted in accordance with Section 50, paragraph 50-14, *Partial Acceptance*, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part due to the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except damage to the work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God such as earthquake, tidal wave, tornado, hurricane or other cataclysmic phenomenon of nature, or acts of the public enemy or of government authorities.

If the work is suspended for any cause whatever, the Contractor shall be responsible for the work and shall take such precautions necessary to prevent damage to the work. The Contractor shall provide for normal drainage and shall erect necessary temporary structures, signs, or other facilities at their own expense. During such period of suspension of work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established planting, seeding, and sodding furnished under the contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

70-15 Contractor's responsibility for utility service and facilities of others. As provided in paragraph 70-04, *Restoration of Surfaces Disturbed by Others*, the Contractor shall cooperate with the owner of any public or private utility service, FAA or NOAA, or a utility service of another government agency that may be authorized by the Owner to construct, reconstruct or maintain such utility services or facilities during the progress of the work. In addition, the Contractor shall control their operations to prevent the unscheduled interruption of such utility services and facilities.

To the extent that such public or private utility services, FAA, or NOAA facilities, or utility services of another governmental agency are known to exist within the limits of the contract work, the approximate locations have been indicated on the plans and/or in the contract documents.

Pacific Power (Public Utility Service)

Doug Agee

4025 Old Hwy 99 S, Roseburg, OR 97471

Douglas.Agee@pacificorp.com

1-877-508-5088

City of Roseburg (Airfield Electrical, Fuel Farm Electrical, Storm Sewer)

Ryan Herinckx

900 SE Douglas Ave, Roseburg, OR 97470

rherinckx@cityofroseburg.org

541-492-6884

It is understood and agreed that the Owner does not guarantee the accuracy or the completeness of the location information relating to existing utility services, facilities, or structures that may be shown on the plans or encountered in the work. Any inaccuracy or omission in such information shall not relieve the Contractor of the responsibility to protect such existing features from damage or unscheduled interruption of service.

It is further understood and agreed that the Contractor shall, upon execution of the contract, notify the Owners of all utility services or other facilities of their plan of operations. Such notification shall be in writing addressed to "The Person to Contact" as provided in this paragraph and paragraph 70-04, *Restoration of Surfaces Disturbed By Others*. A copy of each notification shall be given to the RPR.

In addition to the general written notification provided, it shall be the responsibility of the Contractor to keep such individual Owners advised of changes in their plan of operations that would affect such Owners.

Prior to beginning the work in the general vicinity of an existing utility service or facility, the Contractor shall again notify each such Owner of their plan of operation. If, in the Contractor's opinion, the Owner's assistance is needed to locate the utility service or facility or the presence of a representative of the Owner is desirable to observe the work, such advice should be included in the notification. Such notification shall be given by the most expeditious means to reach the utility owner's "Person to Contact" no later than two normal business days prior to the Contractor's commencement of operations in such general vicinity. The Contractor shall furnish a written summary of the notification to the RPR.

The Contractor's failure to give the two days' notice shall be cause for the Owner to suspend the Contractor's operations in the general vicinity of a utility service or facility.

Where the outside limits of an underground utility service have been located and staked on the ground, the Contractor shall be required to use hand excavation methods within 3 feet (1 m) of such outside limits at such points as may be required to ensure protection from damage due to the Contractor's operations.

Should the Contractor damage or interrupt the operation of a utility service or facility by accident or otherwise, the Contractor shall immediately notify the proper authority and the RPR and shall take all reasonable measures to prevent further damage or interruption of service. The Contractor, in such events, shall cooperate with the utility service or facility owner and the RPR continuously until such damage has been repaired and service restored to the satisfaction of the utility or facility owner.

The Contractor shall bear all costs of damage and restoration of service to any utility service or facility due to their operations whether due to negligence or accident. The Owner reserves the right to deduct such costs from any monies due or which may become due the Contractor, or their own surety.

70-16 Furnishing rights-of-way. The Owner will be responsible for furnishing all rights-of-way upon which the work is to be constructed in advance of the Contractor's operations.

70-17 Personal liability of public officials. In carrying out any of the contract provisions or in exercising any power or authority granted by this contract, there shall be no liability upon the Engineer, RPR, their authorized representatives, or any officials of the Owner either personally or as an official of the Owner. It is understood that in such matters they act solely as agents and representatives of the Owner.

70-18 No waiver of legal rights. Upon completion of the work, the Owner will expeditiously make final inspection and notify the Contractor of final acceptance. Such final acceptance, however, shall not preclude or stop the Owner from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the Owner be precluded or stopped from recovering from the Contractor or their surety, or both, such overpayment as may be sustained, or by failure on the part of the Contractor to fulfill their obligations under the contract. A waiver on the part of the Owner of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor, without prejudice to the terms of the contract, shall be liable to the Owner for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Owner's rights under any warranty or guaranty.

70-19 Environmental protection. The Contractor shall comply with all federal, state, and local laws and regulations controlling pollution of the environment. The Contractor shall take necessary precautions to prevent pollution of streams, lakes, ponds, and reservoirs with fuels, oils, asphalts, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter.

70-20 Archaeological and historical findings. Unless otherwise specified in this subsection, the Contractor is advised that the site of the work is not within any property, district, or site, and does not contain any building, structure, or object listed in the current National Register of Historic Places published by the United States Department of Interior.

Should the Contractor encounter, during their operations, any building, part of a building, structure, or object that is incongruous with its surroundings, the Contractor shall immediately cease operations in that location and notify the RPR. The RPR will immediately investigate the Contractor's finding and the Owner will direct the Contractor to either resume operations or to suspend operations as directed.

Should the Owner order suspension of the Contractor's operations in order to protect an archaeological or historical finding, or order the Contractor to perform extra work, such shall be covered by an appropriate contract change order or supplemental agreement as provided in Section 40, paragraph 40-04, *Extra Work*, and Section 90, paragraph 90-05, *Payment for Extra Work*. If appropriate, the contract change order or supplemental agreement shall include an extension of contract time in accordance with Section 80, paragraph 80-07, *Determination and Extension of Contract Time*.

70-21 Insurance Requirements. See City of Roseburg General Conditions, Section 5.

END OF SECTION 70

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Section 80 Execution and Progress

80-01 Subletting of contract. The Owner will not recognize any subcontractor on the work. The Contractor shall at all times when work is in progress be represented either in person, by a qualified superintendent, or by other designated, qualified representative who is duly authorized to receive and execute orders of the Resident Project Representative (RPR).

The Contractor shall perform, with his organization, an amount of work equal to at least 25 percent of the total contract cost.

Should the Contractor elect to assign their contract, said assignment shall be concurred in by the surety, shall be presented for the consideration and approval of the Owner, and shall be consummated only on the written approval of the Owner.

The Contractor shall provide copies of all subcontracts to the RPR 14 days prior to being utilized on the project. As a minimum, the information shall include the following:

- Subcontractor's legal company name.
- Subcontractor's legal company address, including County name.
- Principal contact person's name, telephone and fax number.
- Complete narrative description, and dollar value of the work to be performed by the subcontractor.
- Copies of required insurance certificates in accordance with the specifications.
- Minority/ non-minority status.

80-02 Notice to proceed (NTP). The Owners notice to proceed will state the date on which contract time commences. The Contractor is expected to commence project operations within 10 days of the NTP date. The Contractor shall notify the RPR at least 24 hours in advance of the time contract operations begins. The Contractor shall not commence any actual operations prior to the date on which the notice to proceed is issued by the Owner.

80-03 Execution and progress. Unless otherwise specified, the Contractor shall submit their coordinated construction schedule showing all work activities for the RPR's review and acceptance at least 10 days prior to the start of work. The Contractor's progress schedule, once accepted by the RPR, will represent the Contractor's baseline plan to accomplish the project in accordance with the terms and conditions of the Contract. The RPR will compare actual Contractor progress against the baseline schedule to determine that status of the Contractor's performance. The Contractor shall provide sufficient materials, equipment, and labor to guarantee the completion of the project in accordance with the plans and specifications within the time set forth in the proposal.

If the Contractor falls significantly behind the submitted schedule, the Contractor shall, upon the RPR's request, submit a revised schedule for completion of the work within the contract time and modify their operations to provide such additional materials, equipment, and labor necessary to meet the revised schedule. Should the execution of the work be discontinued for any reason, the Contractor shall notify the RPR at least 24 hours in advance of resuming operations.

The Contractor shall not commence any actual construction prior to the date on which the NTP is issued by the Owner.

The Contractor shall maintain the work schedule and provide an update and analysis of the progress schedule on a twice monthly basis, or as otherwise specified in the contract. Submission of the work

schedule shall not relieve the Contractor of overall responsibility for scheduling, sequencing, and coordinating all work to comply with the requirements of the contract.

80-04 Limitation of operations. The Contractor shall control their operations and the operations of their subcontractors and all suppliers to provide for the free and unobstructed movement of aircraft in the air operations areas (AOA) of the airport.

When the work requires the Contractor to conduct their operations within an AOA of the airport, the work shall be coordinated with airport operations (through the RPR) at least 48 hours prior to commencement of such work. The Contractor shall not close an AOA until so authorized by the RPR and until the necessary temporary marking, signage and associated lighting is in place as provided in Section 70, paragraph 70-08, *Construction Safety and Phasing Plan (CSPP)*.

When the contract work requires the Contractor to work within an AOA of the airport on an intermittent basis (intermittent opening and closing of the AOA), the Contractor shall maintain constant communications as specified; immediately obey all instructions to vacate the AOA; and immediately obey all instructions to resume work in such AOA. Failure to maintain the specified communications or to obey instructions shall be cause for suspension of the Contractor's operations in the AOA until satisfactory conditions are provided. The areas of the AOA identified in the Construction Safety Phasing Plan (CSPP) and as listed below, cannot be closed to operating aircraft to permit the Contractor's operations on a continuous basis and will therefore be closed to aircraft operations intermittently as follows:

See Construction Safety and Phasing Plan.

The Contractor shall be required to conform to safety standards contained in AC 150/5370-2, Operational Safety on Airports During Construction and the approved CSPP.

80-04.1 Operational safety on airport during construction. All Contractors' operations shall be conducted in accordance with the approved project Construction Safety and Phasing Plan (CSPP) and the Safety Plan Compliance Document (SPCD) and the provisions set forth within the current version of AC 150/5370-2, Operational Safety on Airports During Construction. The CSPP included within the contract documents conveys minimum requirements for operational safety on the airport during construction activities. The Contractor shall prepare and submit a SPCD that details how it proposes to comply with the requirements presented within the CSPP.

The Contractor shall implement all necessary safety plan measures prior to commencement of any work activity. The Contractor shall conduct routine checks to assure compliance with the safety plan measures.

The Contractor is responsible to the Owner for the conduct of all subcontractors it employs on the project. The Contractor shall assure that all subcontractors are made aware of the requirements of the CSPP and SPCD and that they implement and maintain all necessary measures.

No deviation or modifications may be made to the approved CSPP and SPCD unless approved in writing by the Owner. The necessary coordination actions to review Contractor proposed modifications to an approved CSPP or approved SPCD can require a significant amount of time.

80-05 Character of workers, methods, and equipment. The Contractor shall, at all times, employ sufficient labor and equipment for prosecuting the work to full completion in the manner and time required by the contract, plans, and specifications.

All workers shall have sufficient skill and experience to perform properly the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform the work satisfactorily.

Any person employed by the Contractor or by any subcontractor who violates any operational regulations or operational safety requirements and, in the opinion of the RPR, does not perform his work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the RPR, be removed immediately by the Contractor or subcontractor employing such person, and shall not be employed again in any portion of the work without approval of the RPR.

Should the Contractor fail to remove such person or persons, or fail to furnish suitable and sufficient personnel for the proper execution of the work, the RPR may suspend the work by written notice until compliance with such orders.

All equipment that is proposed to be used on the work shall be of sufficient size and in such mechanical condition as to meet requirements of the work and to produce a satisfactory quality of work. Equipment used on any portion of the work shall not cause injury to previously completed work, adjacent property, or existing airport facilities due to its use.

When the methods and equipment to be used by the Contractor in accomplishing the work are not prescribed in the contract, the Contractor is free to use any methods or equipment that will accomplish the work in conformity with the requirements of the contract, plans, and specifications.

When the contract specifies the use of certain methods and equipment, such methods and equipment shall be used unless otherwise authorized by the RPR. If the Contractor desires to use a method or type of equipment other than specified in the contract, the Contractor may request authority from the RPR to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the RPR determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The Contractor shall remove any deficient work and replace it with work of specified quality, or take such other corrective action as the RPR may direct. No change will be made in basis of payment for the contract items involved nor in contract time as a result of authorizing a change in methods or equipment under this paragraph.

80-06 Temporary suspension of the work. The Owner shall have the authority to suspend the work wholly, or in part, for such period or periods the Owner may deem necessary, due to unsuitable weather, or other conditions considered unfavorable for the execution of the work, or for such time necessary due to the failure on the part of the Contractor to carry out orders given or perform any or all provisions of the contract.

In the event that the Contractor is ordered by the Owner, in writing, to suspend work for some unforeseen cause not otherwise provided for in the contract and over which the Contractor has no control, the Contractor may be reimbursed for actual money expended on the work during the period of shutdown. No allowance will be made for anticipated profits. The period of shutdown shall be computed from the effective date of the written order to suspend work to the effective date of the written order to resume the work. Claims for such compensation shall be filed with the RPR within the time period stated in the RPR's order to resume work. The Contractor shall submit with their own claim information substantiating the amount shown on the claim. The RPR will forward the Contractor's claim to the Owner for consideration in accordance with local laws or ordinances. No provision of this article shall be construed as entitling the Contractor to compensation for delays due to inclement weather or for any other delay provided for in the contract, plans, or specifications.

If it becomes necessary to suspend work for an indefinite period, the Contractor shall store all materials in such manner that they will not become an obstruction nor become damaged in any way. The Contractor shall take every precaution to prevent damage or deterioration of the work performed and provide for

normal drainage of the work. The Contractor shall erect temporary structures where necessary to provide for traffic on, to, or from the airport.

80-07 Determination and extension of contract time. The number of working days shall be stated in the proposal and contract and shall be known as the Contract Time.

If the contract time requires extension for reasons beyond the Contractor's control, it shall be adjusted as follows:

80-07.1 Contract time based on working days. Contract time based on working days shall be calculated weekly by the Resident Project Representative (RPR). The RPR will furnish the Contractor a copy of their weekly statement of the number of working days charged against the contract time during the week and the number of working days currently specified for completion of the contract (the original contract time plus the number of working days, if any, that have been included in approved Change Orders or Supplemental Agreements covering Extra Work).

The weekly statement of contract time charged is based on the following considerations:

(1) Time will be charged for days on which the Contractor could proceed with scheduled work under construction at the time for at least six (6) hours with the normal work force employed on such items. When normal work force is a double-shift, use 12 hours; and when the normal work force is on a triple-shift, use 18 hours. Conditions beyond the Contractor's control such as strikes, lockouts, unusual delays in transportation, temporary suspension of the scheduled work items under construction or temporary suspension of the entire work which have been ordered by the Owner for reasons not the fault of the Contractor, shall not be charged against the contract time.

(2) The RPR will not make charges against the contract time prior to the effective date of the notice to proceed.

(3) The RPR will begin charges against the contract time on the first working day after the effective date of the notice to proceed.

(4) The RPR will not make charges against the contract time after the date of final acceptance as defined in Section 50, paragraph 50-14, *Final Acceptance*.

(5) The Contractor will be allowed one (1) week in which to file a written protest setting forth their own objections to the RPR's weekly statement. If no objection is filed within such specified time, the weekly statement shall be considered as acceptable to the Contractor.

The contract time (stated in the proposal) is based on the originally estimated quantities as described in the Section 20, paragraph 20-05, *Interpretation of Estimated Proposal Quantities*. Should the satisfactory completion of the contract require performance of work in greater quantities than those estimated in the proposal, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in contract time shall not consider either the cost of work or the extension of contract time that has been covered by change order or supplemental agreement and shall be made at the time of final payment.

80-07.2 Contract time based on calendar days. Contract Time based on calendar days shall consist of the number of calendar days stated in the contract counting from the effective date of the Notice to Proceed and including all Saturdays, Sundays, holidays, and non-work days. All calendar days elapsing between the effective dates of the Owner's orders to suspend and resume all work, due to causes not the fault of the Contractor, shall be excluded.

At the time of final payment, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in the contract time shall not consider either cost of work or the extension of contract time

that has been covered by a change order or supplemental agreement. Charges against the contract time will cease as of the date of final acceptance.

80-08 Failure to complete on time. For each calendar day or working day, as specified in the contract, that any work remains uncompleted after the contract time (including all extensions and adjustments as provided in paragraph 80-07, *Determination and Extension of Contract Time*) the sum specified in the contract and proposal as liquidated damages (LD) will be deducted from any money due or to become due the Contractor or their own surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages including but not limited to additional engineering services that will be incurred by the Owner should the Contractor fail to complete the work in the time provided in their contract.

Base Bid	Liquidated Damages Cost	Allowed Construction Time
Mobilization Element	\$250/calendar day	30 calendar days
Construction Element Phases 1 & 2	\$250/working day	20 working days

Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the Owner of any of its rights under the contract.

80-09 Default and termination of contract. The Contractor shall be considered in default of their contract and such default will be considered as cause for the Owner to terminate the contract for any of the following reasons, if the Contractor:

- a. Fails to begin the work under the contract within the time specified in the Notice to Proceed, or
- b. Fails to perform the work or fails to provide sufficient workers, equipment and/or materials to assure completion of work in accordance with the terms of the contract, or
- c. Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, or
- d. Discontinues the execution of the work, or
- e. Fails to resume work which has been discontinued within a reasonable time after notice to do so, or
- f. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or
- g. Allows any final judgment to stand against the Contractor unsatisfied for a period of 10 days, or
- h. Makes an assignment for the benefit of creditors, or
- i. For any other cause whatsoever, fails to carry on the work in an acceptable manner.

Should the Owner consider the Contractor in default of the contract for any reason above, the Owner shall immediately give written notice to the Contractor and the Contractor's surety as to the reasons for considering the Contractor in default and the Owner's intentions to terminate the contract.

If the Contractor or surety, within a period of 10 days after such notice, does not proceed in accordance therewith, then the Owner will, upon written notification from the RPR of the facts of such delay, neglect, or default and the Contractor's failure to comply with such notice, have full power and authority without violating the contract, to take the execution of the work out of the hands of the Contractor. The Owner may appropriate or use any or all materials and equipment that have been mobilized for use in the work and are acceptable and may enter into an agreement for the completion of said contract according to the

terms and provisions thereof, or use such other methods as in the opinion of the RPR will be required for the completion of said contract in an acceptable manner.

All costs and charges incurred by the Owner, together with the cost of completing the work under contract, will be deducted from any monies due or which may become due the Contractor. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay to the Owner the amount of such excess.

80-10 Termination for national emergencies. The Owner shall terminate the contract or portion thereof by written notice when the Contractor is prevented from proceeding with the construction contract as a direct result of an Executive Order of the President with respect to the execution of war or in the interest of national defense.

When the contract, or any portion thereof, is terminated before completion of all items of work in the contract, payment will be made for the actual number of units or items of work completed at the contract price or as mutually agreed for items of work partially completed or not started. No claims or loss of anticipated profits shall be considered.

Reimbursement for organization of the work, and other overhead expenses, (when not otherwise included in the contract) and moving equipment and materials to and from the job will be considered, the intent being that an equitable settlement will be made with the Contractor.

Acceptable materials, obtained or ordered by the Contractor for the work and that are not incorporated in the work shall, at the option of the Contractor, be purchased from the Contractor at actual cost as shown by receipted bills and actual cost records at such points of delivery as may be designated by the RPR.

Termination of the contract or a portion thereof shall neither relieve the Contractor of their responsibilities for the completed work nor shall it relieve their surety of its obligation for and concerning any just claim arising out of the work performed.

80-11 Work area, storage area and sequence of operations. The Contractor shall obtain approval from the RPR prior to beginning any work in all areas of the airport. No operating runway, taxiway, or air operations area (AOA) shall be crossed, entered, or obstructed while it is operational. The Contractor shall plan and coordinate work in accordance with the approved CSPP and SPCD.

END OF SECTION 80

Section 90 Measurement and Payment

90-01 Measurement of quantities. All work completed under the contract will be measured by the RPR, or their authorized representatives, using United States Customary Units of Measurement.

The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice.

Unless otherwise specified, longitudinal measurements for area computations will be made horizontally, and no deductions will be made for individual fixtures (or leave-outs) having an area of 9 square feet (0.8 square meters) or less. Unless otherwise specified, transverse measurements for area computations will be the neat dimensions shown on the plans or ordered in writing by the RPR.

Unless otherwise specified, all contract items which are measured by the linear foot such as electrical ducts, conduits, pipe culverts, underdrains, and similar items shall be measured parallel to the base or foundation upon which such items are placed.

The term “lump sum” when used as an item of payment will mean complete payment for the work described in the contract. When a complete structure or structural unit (in effect, “lump sum” work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories.

When requested by the Contractor and approved by the RPR in writing, material specified to be measured by the cubic yard (cubic meter) may be weighed, and such weights will be converted to cubic yards (cubic meters) for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the RPR and shall be agreed to by the Contractor before such method of measurement of pay quantities is used.

Measurement and Payment Terms

Term	Description
Excavation and Embankment Volume	In computing volumes of excavation, the average end area method will be used unless otherwise specified.
Measurement and Proportion by Weight	The term “ton” will mean the short ton consisting of 2,000 pounds (907 kg) avoirdupois. All materials that are measured or proportioned by weights shall be weighed on accurate, independently certified scales by competent, qualified personnel at locations designated by the RPR. If material is shipped by rail, the car weight may be accepted provided that only the actual weight of material is paid for. However, car weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty daily at such times as the RPR directs, and each truck shall bear a plainly legible identification mark.
Measurement by Volume	Materials to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable for the materials hauled, provided that the body is of such shape that the actual contents may be readily and accurately determined. All vehicles shall be loaded to at least their water level

Term	Description
	capacity, and all loads shall be leveled when the vehicles arrive at the point of delivery.
Asphalt Material	Asphalt materials will be measured by the gallon (liter) or ton (kg). When measured by volume, such volumes will be measured at 60°F (16°C) or will be corrected to the volume at 60°F (16°C) using ASTM D1250 for asphalts. Net certified scale weights or weights based on certified volumes in the case of rail shipments will be used as a basis of measurement, subject to correction when asphalt material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work. When asphalt materials are shipped by truck or transport, net certified weights by volume, subject to correction for loss or foaming, will be used for computing quantities.
Cement	Cement will be measured by the ton (kg) or hundredweight (km).
Structure	Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions.
Timber	Timber will be measured by the thousand feet board measure (MFBM) actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.
Plates and Sheets	The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be specified and measured in decimal fraction of inch.
Miscellaneous Items	When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gauge, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.
Scales	<p>Scales must be tested for accuracy and serviced before use. Scales for weighing materials which are required to be proportioned or measured and paid for by weight shall be furnished, erected, and maintained by the Contractor, or be certified permanently installed commercial scales. Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end.</p> <p>Scales shall be accurate within 0.5% of the correct weight throughout the range of use. The Contractor shall have the scales checked under the observation of the RPR before beginning work and at such other times as requested. The intervals shall be uniform in spacing throughout the graduated or marked length of the beam or dial and shall not exceed 0.1% of the nominal rated capacity of the scale, but not less than one pound (454 grams). The use of spring balances will not be permitted.</p> <p>In the event inspection reveals the scales have been “overweighing” (indicating more than correct weight) they will be immediately adjusted. All materials</p>

Term	Description
	<p>received subsequent to the last previous correct weighting-accuracy test will be reduced by the percentage of error in excess of 0.5%.</p> <p>In the event inspection reveals the scales have been under-weighting (indicating less than correct weight), they shall be immediately adjusted. No additional payment to the Contractor will be allowed for materials previously weighed and recorded.</p> <p>Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the RPR can safely and conveniently view them.</p> <p>Scale installations shall have available ten standard 50-pound (2.3 km) weights for testing the weighing equipment or suitable weights and devices for other approved equipment.</p> <p>All costs in connection with furnishing, installing, certifying, testing, and maintaining scales; for furnishing check weights and scale house; and for all other items specified in this subsection, for the weighing of materials for proportioning or payment, shall be included in the unit contract prices for the various items of the project.</p>
Rental Equipment	<p>Rental of equipment will be measured by time in hours of actual working time and necessary traveling time of the equipment within the limits of the work. Special equipment ordered in connection with extra work will be measured as agreed in the change order or supplemental agreement authorizing such work as provided in paragraph 90-05 <i>Payment for Extra Work</i>.</p>
Pay Quantities	<p>When the estimated quantities for a specific portion of the work are designated as the pay quantities in the contract, they shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the RPR. If revised dimensions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the authorized changes in the dimensions.</p>

90-02 Scope of payment. The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials, for performing all work under the contract in a complete and acceptable manner, and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the execution thereof, subject to the provisions of Section 70, paragraph 70-18, *No Waiver of Legal Rights*.

When the “basis of payment” subsection of a technical specification requires that the contract price (price bid) include compensation for certain work or material essential to the item, this same work or material will not also be measured for payment under any other contract item which may appear elsewhere in the contract, plans, or specifications.

90-03 Compensation for altered quantities. When the accepted quantities of work vary from the quantities in the proposal, the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract price for the accepted quantities of work actually completed and accepted. No allowance, except as provided for in Section 40, paragraph 40-02, *Alteration of Work and Quantities*, will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor which results directly from such alterations or

indirectly from their own unbalanced allocation of overhead and profit among the contract items, or from any other cause.

90-04 Payment for omitted items. As specified in Section 40, paragraph 40-03, *Omitted Items*, the RPR shall have the right to omit from the work (order nonperformance) any contract item, except major contract items, in the best interest of the Owner.

Should the RPR omit or order nonperformance of a contract item or portion of such item from the work, the Contractor shall accept payment in full at the contract prices for any work actually completed and acceptable prior to the RPR's order to omit or non-perform such contract item.

Acceptable materials ordered by the Contractor or delivered on the work prior to the date of the RPR's order will be paid for at the actual cost to the Contractor and shall thereupon become the property of the Owner.

In addition to the reimbursement hereinbefore provided, the Contractor shall be reimbursed for all actual costs incurred for the purpose of performing the omitted contract item prior to the date of the RPR's order. Such additional costs incurred by the Contractor must be directly related to the deleted contract item and shall be supported by certified statements by the Contractor as to the nature the amount of such costs.

90-05 Payment for extra work. Extra work, performed in accordance with Section 40, paragraph 40-04, *Extra Work*, will be paid for at the contract prices or agreed prices specified in the change order or supplemental agreement authorizing the extra work.

90-06 Partial payments. Partial payments will be made to the Contractor at least once each month as the work progresses. Said payments will be based upon estimates, prepared by the RPR, of the value of the work performed and materials complete and in place, in accordance with the contract, plans, and specifications. Such partial payments may also include the delivered actual cost of those materials stockpiled and stored in accordance with paragraph 90-07, *Payment for Materials on Hand*. No partial payment will be made when the amount due to the Contractor since the last estimate amounts to less than five hundred dollars.

a. From the total of the amount determined to be payable on a partial payment, 5 percent of such total amount will be deducted and retained by the Owner for protection of the Owner's interests. Unless otherwise instructed by the Owner, the amount retained by the Owner will be in effect until the final payment is made except as follows:

(1) Contractor may request release of retainage on work that has been partially accepted by the Owner in accordance with Section 50-14. Contractor must provide a certified invoice to the RPR that supports the value of retainage held by the Owner for partially accepted work.

(2) In lieu of retainage, the Contractor may exercise at its option the establishment of an escrow account per paragraph 90-08.

b. The Contractor is required to pay all subcontractors for satisfactory performance of their contracts no later than 30 days after the Contractor has received a partial payment. Contractor must provide the Owner evidence of prompt and full payment of retainage held by the prime Contractor to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed. A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished and documented as required by the Owner. When the Owner has made an incremental acceptance of a portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed.

c. When at least 95% of the work has been completed to the satisfaction of the RPR, the RPR shall, at the Owner's discretion and with the consent of the surety, prepare estimates of both the contract value and the cost of the remaining work to be done. The Owner may retain an amount not less than twice the contract value or estimated cost, whichever is greater, of the work remaining to be done. The remainder, less all previous payments and deductions, will then be certified for payment to the Contractor.

It is understood and agreed that the Contractor shall not be entitled to demand or receive partial payment based on quantities of work in excess of those provided in the proposal or covered by approved change orders or supplemental agreements, except when such excess quantities have been determined by the RPR to be a part of the final quantity for the item of work in question.

No partial payment shall bind the Owner to the acceptance of any materials or work in place as to quality or quantity. All partial payments are subject to correction at the time of final payment as provided in paragraph 90-09, *Acceptance and Final Payment*.

The Contractor shall deliver to the Owner a complete release of all claims for labor and material arising out of this contract before the final payment is made. If any subcontractor or supplier fails to furnish such a release in full, the Contractor may furnish a bond or other collateral satisfactory to the Owner to indemnify the Owner against any potential lien or other such claim. The bond or collateral shall include all costs, expenses, and attorney fees the Owner may be compelled to pay in discharging any such lien or claim.

90-07 Payment for materials on hand. Partial payments may be made to the extent of the delivered cost of materials to be incorporated in the work, provided that such materials meet the requirements of the contract, plans, and specifications and are delivered to acceptable sites on the airport property or at other sites in the vicinity that are acceptable to the Owner. Such delivered costs of stored or stockpiled materials may be included in the next partial payment after the following conditions are met:

a. The material has been stored or stockpiled in a manner acceptable to the RPR at or on an approved site.

b. The Contractor has furnished the RPR with acceptable evidence of the quantity and quality of such stored or stockpiled materials.

c. The Contractor has furnished the RPR with satisfactory evidence that the material and transportation costs have been paid.

d. The Contractor has furnished the Owner legal title (free of liens or encumbrances of any kind) to the material stored or stockpiled.

e. The Contractor has furnished the Owner evidence that the material stored or stockpiled is insured against loss by damage to or disappearance of such materials at any time prior to use in the work.

It is understood and agreed that the transfer of title and the Owner's payment for such stored or stockpiled materials shall in no way relieve the Contractor of their responsibility for furnishing and placing such materials in accordance with the requirements of the contract, plans, and specifications.

In no case will the amount of partial payments for materials on hand exceed the contract price for such materials or the contract price for the contract item in which the material is intended to be used.

No partial payment will be made for stored or stockpiled living or perishable plant materials.

The Contractor shall bear all costs associated with the partial payment of stored or stockpiled materials in accordance with the provisions of this paragraph.

90-08 Payment of withheld funds. At the Contractor's option, if an Owner withholds retainage in accordance with the methods described in paragraph 90-06 *Partial Payments*, the Contractor may request that the Owner deposit the retainage into an escrow account. The Owner's deposit of retainage into an escrow account is subject to the following conditions:

- a. The Contractor shall bear all expenses of establishing and maintaining an escrow account and escrow agreement acceptable to the Owner.
- b. The Contractor shall deposit to and maintain in such escrow only those securities or bank certificates of deposit as are acceptable to the Owner and having a value not less than the retainage that would otherwise be withheld from partial payment.
- c. The Contractor shall enter into an escrow agreement satisfactory to the Owner.
- d. The Contractor shall obtain the written consent of the surety to such agreement.

90-09 Acceptance and final payment. When the contract work has been accepted in accordance with the requirements of Section 50, paragraph 50-15, *Final Acceptance*, the RPR will prepare the final estimate of the items of work actually performed. The Contractor shall approve the RPR's final estimate or advise the RPR of the Contractor's objections to the final estimate which are based on disputes in measurements or computations of the final quantities to be paid under the contract as amended by change order or supplemental agreement. The Contractor and the RPR shall resolve all disputes (if any) in the measurement and computation of final quantities to be paid within 30 calendar days of the Contractor's receipt of the RPR's final estimate. If, after such 30-day period, a dispute still exists, the Contractor may approve the RPR's estimate under protest of the quantities in dispute, and such disputed quantities shall be considered by the Owner as a claim in accordance with Section 50, paragraph 50-16, *Claims for Adjustment and Disputes*.

After the Contractor has approved, or approved under protest, the RPR's final estimate, and after the RPR's receipt of the project closeout documentation required in paragraph 90-11, *Contractor Final Project Documentation*, final payment will be processed based on the entire sum, or the undisputed sum in case of approval under protest, determined to be due the Contractor less all previous payments and all amounts to be deducted under the provisions of the contract. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

If the Contractor has filed a claim for additional compensation under the provisions of Section 50, paragraph 50-16, *Claims for Adjustments and Disputes*, or under the provisions of this paragraph, such claims will be considered by the Owner in accordance with local laws or ordinances. Upon final adjudication of such claims, any additional payment determined to be due the Contractor will be paid pursuant to a supplemental final estimate.

90-10 Construction warranty.

- a. In addition to any other warranties in this contract, the Contractor warrants that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, workmanship, or design furnished, or performed by the Contractor or any subcontractor or supplier at any tier.
- b. This warranty shall continue for a period of one year from the date of final acceptance of the work, except as noted. If the Owner takes possession of any part of the work before final acceptance, this warranty shall continue for a period of one year from the date the Owner takes possession.
- c. The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Owner real or personal property, when that damage is the result of the Contractor's failure to conform to contract requirements; or any defect of equipment, material, workmanship, or design furnished by the Contractor.

d. The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for one year from the date of repair or replacement.

e. The Owner will notify the Contractor, in writing, within seven (7) days after the discovery of any failure, defect, or damage.

f. If the Contractor fails to remedy any failure, defect, or damage within 10 days after receipt of notice, the Owner shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

g. With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall: (1) Obtain all warranties that would be given in normal commercial practice; (2) Require all warranties to be executed, in writing, for the benefit of the Owner, as directed by the Owner, and (3) Enforce all warranties for the benefit of the Owner.

h. This warranty shall not limit the Owner's rights with respect to latent defects, gross mistakes, or fraud.

90-11 Contractor Final Project Documentation. Approval of final payment to the Contractor is contingent upon completion and submittal of the items listed below. The final payment will not be approved until the RPR approves the Contractor's final submittal. The Contractor shall:

a. Provide two (2) copies of all manufacturers warranties specified for materials, equipment, and installations.

b. Provide weekly payroll records (not previously received) from the general Contractor and all subcontractors.

c. Complete final cleanup in accordance with Section 40, paragraph 40-08, *Final Cleanup*.

d. Complete all punch list items identified during the Final Inspection.

e. Provide complete release of all claims for labor and material arising out of the Contract.

f. Provide a certified statement signed by the subcontractors, indicating actual amounts paid to the Disadvantaged Business Enterprise (DBE) subcontractors and/or suppliers associated with the project.

g. When applicable per state requirements, return copies of sales tax completion forms.

h. Manufacturer's certifications for all items incorporated in the work.

i. All required record drawings, as-built drawings or as-constructed drawings.

j. Project Operation and Maintenance (O&M) Manual(s).

k. Security for Construction Warranty.

l. Equipment commissioning documentation submitted, if required.

END OF SECTION 90

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CONSTRUCTION SAFETY PHASING PLAN (CSPP)

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CONSTRUCTION SAFETY AND PHASING PLAN

Standby Power Generator

Roseburg Regional Airport

City of Roseburg, Public Works Department

Project No. 22PW06



September 2023

Issued for Bid



Mead & Hunt Project No. 1821200-212174.01

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SUPPLEMENTS TO CSPP

SUPPLEMENT 1: Work Area Plan Sheet

SUPPLEMENT 2: Daily Safety Inspection Checklists

SUPPLEMENT 3: Safety Plan Compliance Document (SPCD) Requirements

SUPPLEMENT 4: Definition of Terms

1. Overview

This document presents the Construction Safety and Phasing Plan (CSPP) for the proposed Standby Power Generator project at the Roseburg Regional Airport (RBG or Airport) being funded, in part, under the Federal Aviation Administration (FAA) Bipartisan Infrastructure Law (BIL). The City anticipates awarding the construction contract by Fall 2023. The project allows for a Mobilization period and Construction period.

- The Mobilization element is 30 calendar days and requires the Contractor to submit all material submittals, a proposed work schedule, and a Safety Plan Compliance Document (SPCD).
- It is anticipated there will be a lapse of time between ordering the standby power generator and its arrival to the site. Therefore, the Construction Element is split into two phases to allow elements of construction to occur prior to arrival of the standby power generator. Phase 1 allows 10 working days to complete installation of the standby generator foundation; as well as the removal and reinstallation of the 6-foot chain-link fence. Phase 2 allows 10 working days to complete installation of the standby generator, automatic transfer switch, and removal/replacement of the fuel farm pumps.

The objective of this CSPP is to provide a general outline of the construction safety and phasing provisions for working in or near the Air Operations Area (AOA) contained in the bid documents (Project Plans and Specifications), and to explain how those provisions will be implemented during construction.

2. Purpose

The Plan provides single source procedural information for all key project personnel to use during construction. The CSPP defines the specific responsibilities of the Airport Operator, the Contractor, Airport tenants, and the Resident Project Representative (RPR). This CSPP includes the FAA's Safety/Phasing Plan checklist that was utilized in preparing the construction documents, provisions for airport safety and security, operational limitations on construction activities, identifies potential hazards and impacts those hazards may have on airfield and construction activities, and construction phasing requirements to minimize impact on airfield operations.

Requirements for maintaining operational safety during construction are in conformance with FAA Advisory Circular 150/5370-2G, "Operational Safety on Airports During Construction." The Project specific safety and phasing provisions for the project elements are shown on Plan Sheet G-081. Copies of the Plan Sheets are attached to this report as Supplement 1.

3. Construction Safety and Phasing Responsibilities

Airport Operator. The Airport Operator is responsible for operational safety on the Airport at all times. The City of Roseburg is the Airport Operator. The City will issue Notice to Airmen (NOTAMS) whenever construction activities occur in the AOA. The City will provide oversight of all construction activities and coordinate those activities with the Airport users (pilots) and Airport tenants. The City will hold construction progress and safety meetings based upon the Contractor's submitted work schedule. During these meetings, operational safety will be reviewed and an action plan will be developed as needed to address any discrepancies in safety that need to be corrected. The City will require and approve a Safety

Plan Compliance Document (SPCD) from the Contractor prior to the Construction Notice to Proceed. The SPCD outline is attached to this report as Supplement 3.

Construction Contractor. The Contractor will be determined by a competitive bidding process. The Contractor's responsibilities for safety and phasing are detailed and defined in the Contract Documents. The Contractor will be required to attend construction progress and safety meetings and to correct any discrepancies found in safety. The Contractor is required to submit a completed SPCD to the City for approval prior to the Construction Notice to Proceed.

Airport Tenants. The City will notify Airport tenants of all pending construction activities that impact them and advise the tenants of planned pavement closures and other activities in the AOA that will affect aircraft operations.

Resident Project Representative (RPR). As part of the Project Construction Management, Inspection, and Quality Assurance process the RPR will monitor construction safety when the Contractor is on-site, utilizing the "Construction Project Daily Safety Inspection Checklist" (see Supplement 2) to ensure an appropriate level of priority is given to safety. Any discrepancies in safety will be immediately brought to the Contractor's and City's attention for corrective action implementation.

The RPR is authorized by the Owner to be responsible for all necessary inspections, observations, tests, and/or observations of tests of the contract work performed or being performed, or of the materials furnished or being furnished by the Contractor, and acting directly or through an authorized representative.

4. Construction Safety and Phasing

A. Coordination

- A prebid conference will not be held for this project.
- A preconstruction conference will be held as soon as practicable after the contract has been awarded and before issuance of the Construction Notice to Proceed. The preconstruction conference participants may include, but not be limited to, the sponsor's engineer, RPR, airport management, testing laboratory representative, contractor and subcontractor(s), contractor's project superintendent, contractor's project clerk, airport users, utility companies, federal, state, or local agencies affected by the proposed construction, and FAA representative.
- Contractor progress meetings will be held during construction. Operational safety will be a standing agenda item for discussion during progress meetings throughout the project. Date, time, and location of the progress meetings will be determined at the pre-construction meeting.
- Scope or schedule changes for the project may necessitate revisions to the CSPP and may require review and approval by the City and the FAA.

- The project will require a temporary outage of the airfield lighting and airport-owned NAVAIDs to perform primary power service upgrade and subsequent connection to the automatic transfer switch inside the electrical building. The contractor shall provide a construction schedule to the City at the pre-construction conference so that the City can coordinate outages appropriately with tenants.
- At all times when construction activities are being performed on the project, the prime Contractor must have a foreman on-site or immediately available who is authorized to make decisions regarding the operations and safety of all personnel employed by the Contractor and Subcontractors. Each day the designated foreman must meet with the RPR or City to coordinate activities for the day's work.

B. Construction Work Plan

The project is confined to the west edge of the south general aviation apron and does not require closure of taxiway and runway pavements. Temporary deactivation of airfield lighting and airport-owned NAVAIDs will require coordination with the City, FAA, airport users and/or others. See plan sheet G-081 for additional information regarding available work hours, working days, scheduling of work order, etc.

Construction - Phase 1

- Scope of Work – Install standby power generator concrete foundation including associated conduit routing to existing electrical building and fuel farm; removal and installation of 6-foot chain-link fence.
- Area closed to aircraft operations – West edge of the south general aviation apron between the FBO and Aviation Suites.
- Duration – 10 working days. Working hours are 8am - 4pm local time.
- Taxi route – Not affected by construction.
- Construction staging area – As shown on sheet G-081 (in vehicle parking lot outside the AOA fence)
- Construction access and haul route – As shown on sheet G-081 (along west edge of south general aviation apron and within the vehicle parking lot outside the AOA fence)
- Impacts to NAVAIDs – None.
- Lighting and marking changes – None.
- Required hazard marking and lighting – Construction delineators or drums with red steady burning or flashing lights shall be placed along the east edge of the construction area.
- Lead times for required notification – 2 weeks

Construction - Phase 2

- Scope of Work – Install standby generator and perform electrical connections within the existing electrical building; remove and replace existing fuel farm motors.
- Area closed to aircraft operations – None.
- Duration – 10 working days. Working hours are 8am - 4pm local time.
- Taxi route – Not affected by construction.

- Construction staging area – As shown on sheet G-081 (in vehicle parking lot outside the AOA fence)
- Construction access and haul route – As shown on sheet G-081 (along west edge of south general aviation apron and within the vehicle parking lot outside the AOA fence)
- Impacts to NAVAIDs – A one-day temporary shutdown of the electrical building will be required (30 minutes after sunrise to 30 minutes before sunset). Impacts include Runway 16 REIL (temp. out of service), Runway 34 REIL (temp. out of service), primary wind cone (temp. out of service).
- Lighting and marking changes – Runway 16-34 edge lighting (temp. out of service), Taxiway edge lighting (temp. out of service).
- Required hazard marking and lighting – None.
- Lead times for required notification – 2 weeks

1. Construction Safety Drawings

Drawings specifically indicating operational safety procedures and methods in affected areas have been developed for each work area. These drawings have been included in *Supplement 1* and can also be found in the contract drawing bid package (Plan Sheet G-081).

2. Interruption of Water Supplies

Not anticipated as part of this project.

3. Approach/Departure Surfaces

The dimension, location, and slope criteria for the approach/departure surfaces for Runway 16-34 are described in **Section Q – Protection of Runway and Taxiway Safety Areas**. For this project, the runway approach/departure surfaces are unaffected subject to the equipment height limitation described in **Section R – Other Limitations on Construction**.

C. Areas and Operations Affected by Construction

1. Runways.

Scope of Work	RUNWAY 16/34	
Operational Requirements	Normal (Existing)	Construction (Anticipated)
Runway ARC	B-II	No impact
Runway Safety Area	150-feet	No impact
Runway Object Free Area	500-feet	No impact
Special Conditions		A one-day temporary shutdown of the electrical building will be required (30 minutes after sunrise to 30 minutes before sunset). All edge lighting and NAVAIDs on the airfield will be temporarily disabled.

2. Taxiways

Scope of Work	TAXIWAY A	
Operational Requirements	Normal (Existing)	Construction (Anticipated)
Taxiway Design Group	2	No impact
Taxiway Safety Area	79-feet	No impact
Taxiway Object Free Area	131-feet	No impact
Special Conditions		A one-day temporary shutdown of the electrical building will be required (30 minutes after sunrise to 30 minutes before sunset). All edge lighting and NAVAIDs on the airfield will be temporarily disabled.

D. NAVAID PROTECTION

1. VOR/DME

The VOR is located off airport property and will not be affected by construction. The VOR shall remain operational for the entire duration of the project.

2. Runway End Identifier Lights (REILs)

The Runway existing 16 & 34 REILs will not be affected by construction. However, the construction contractor will deactivate the Runway 16 & 34 REILs during the one-day temporary shutdown of the electrical building.

3. Primary Windcone

The existing primary windcone will not be affected by construction. However, the construction contractor will deactivate the windcone during the one-day temporary shutdown of the electrical building.

4. Rotating Beacon

The rotating beacon will not be affected by construction.

E. CONTRACTOR ACCESS

1. Location of Stockpiled Construction Materials

Location of stockpiled materials and equipment storage shall be in the staging area or as approved by the City. Stockpiling materials and equipment outside the staging area shall receive prior approval from the City and will be subjected to the restrictions described in this paragraph. Stockpiled materials and equipment storage are not permitted within the RSA or OFZ, and if possible, should not be placed within the OFA of an operational runway. See **Section Q – Protection of Runway and Taxiway Safety Areas** for requirements of stockpiled materials inside the ROFA. Stockpiles shall be restricted to a maximum height of 18-feet. Stockpiled material shall meet the requirements of **Section F – Wildlife Management** to prevent the stockpile location(s) from becoming wildlife attractants.

2. Vehicle and Pedestrian Operations**(i) Construction site parking**

Employees' vehicles shall be parked in the staging areas designated on the plans. No employee vehicles will be allowed beyond the staging area limits. In areas where the staging area is adjacent to the perimeter security fence, all vehicles shall be positioned a minimum 10-feet away from either side of the fence.

(ii) Construction equipment parking

All service and construction vehicles and/or equipment shall be parked in the staging area when not in use and shall be positioned a minimum of 10-feet away from either side of a perimeter security fence. See **Section Q – Protection of Runway and Taxiway Safety Areas** for further parking restrictions within safety areas and object free areas. Unless a complex setup procedure makes movement of specialized equipment infeasible, inactive equipment will not be allowed to park on a closed taxiway or runway. If it is necessary to leave specialized equipment on a closed taxiway or runway at night, the City must approve the request and the equipment shall be lighted in accordance with **Section R – Other Limitations on Construction**.

(iii) Access and haul roads

The contractor will be restricted to use the project security gates and haul routes shown on the drawings. Work area specific haul routes are shown on the work area plans. Right-of-way shall be given to all emergency vehicles and aircraft sharing the haul routes with the contractor. See paragraphs (v.) and (vi.) in this section for requirements operating within the airfield environment.

(iv) Marking and lighting of vehicles

Only marked Contractor-owned or operated vehicles required for the proper execution of the work will be allowed in the work area. All vehicles and equipment shall have an omni-directional amber flashing light and 3-foot by 3-foot flag having a checkered pattern of international orange and white squares at least one foot on each side. All vehicles and equipment must be equipped with an omni-directional amber flashing light for all airfield activities between sunset and sunrise or when visibility is low. Vehicles within the airfield environment shall display company identification markings on both sides of the vehicle. Non-motorized equipment shall have reflective device displayed on the front, back and sides. All supervisory and survey personnel vehicles which operate within the airfield environment but outside the work area shall have a company vehicle with an amber flashing light mounted on the roof of the cab and identifying markings, visible from 300 feet, mounted on both sides of the vehicle.

(v) Required escorts

All activities within open aircraft movement areas shall have an escort provided by the City. **This project is outside the aircraft movement area and will not require escorts.**

(vi) Situational awareness

Yield to the right-of-way to moving aircraft, whether under tow or their own power, and pedestrians. While driving or working on the airfield environment, there shall be no

devices in or on ears other than those used to protect hearing or communicate company business. Yield right-of-way to emergency vehicles displaying rotating beacons (other than amber) and/or using sirens and other audible emergency signals. In the event of an emergency, be prepared to move workers, vehicles, and equipment immediately at the direction of the City.

(vii) Two-way radio communication procedures

All activities within open aircraft movement areas will require two-way radio communication. **This project is outside the aircraft movement area and will not require two-way radio communication.** In the event the contractor needs to access an open movement area, all radio communications will be performed by the City using the Common Traffic Advisory Frequency (CTAF). The Contractor's safety representative and onsite foreman/lead/superintendents shall carry (or have immediately available) a VHF aviation radio provided by the City. Frequency that will be used by City personnel is:

➤ CTAF - 122.80 Mhz

(viii) Maintenance of the secured area of the airport

In area of work activities, the Contractor shall maintain security against unauthorized access to the airfield area through the security gate(s). Gate personnel shall be required at all times when the gate is kept open for construction use. The gate shall be closed and locked when not in use. Where the Contractor's lock is used for access through City gates, mark the lock to identify the Contractor. Place the lock in series with existing locks. Failure to adhere to these requirements will result in the Contractor's lock being removed by the City.

F. WILDLIFE MANAGEMENT

1. Trash

Receptacles shall be provided by the contractor and equipped with metal, canvas, or plastic covers. Food scraps or other trash may not be disposed on the ground and must be collected and placed in the covered receptacles as to not attract wildlife.

2. Standing water

The work area shall be graded to drain to avoid attracting wildlife.

3. Tall grass and seeds

Use of tall grass and seeds is not required on this project.

4. Poorly maintained fencing and gates

Fences and/or gates left open and unattended can allow undesired wildlife inside the airport perimeter fence. Refer to **Section E – Contractor Access** for requirements of maintaining the secured area of the airport. Contractor personnel shall immediately notify the City of unwanted wildlife inside the airport perimeter fence.

5. Disruption of existing wildlife habitat

There is no existing wildlife habitat known to be located within the construction limits of this project.

G. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

The contractor will be required to ensure the airfield environment is kept continuously free of construction debris, equipment and/or materials that might endanger or be ingested by an aircraft. Take extreme care to ensure no work-related debris or other loose items are allowed to be blown by wind or aircraft engine blast. The Contractor shall be responsible for any resulting damage to aircraft engines and/or other property arising from failure to secure and/or protect debris, tools, supplies, or other loose items. Following the requirements in **Section F – Wildlife Management** will help eliminate the potential for FOD. In areas that may result in the tracking of soil, sediments, or hazardous materials on the wheels of hauling equipment outside the area that are enclosed by erosion and silt/sediment control devices, the Contractor shall provide the means and methods to remove these materials prior to the vehicle exiting the controlled area. If water wash stations are used, the Contractor shall provide systems for the collection, treatment, and disposal of wheel wash water and accumulated sediment. Equipment operated on haul routes over existing pavements shall be kept free of material spillage and foreign matter at all times. Standby equipment is required to be onsite and operational at all times throughout the project and shall include, at a minimum, a self-propelled regenerative air sweeper and a water truck kept loaded at all times. Backup equipment will not be required to remain in an unproductive standby status and may be used for normal productive work.

H. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

If shipments of hazardous material (including hazardous debris, contaminated soil or water, and hazardous waste) will be unloaded onto or loaded from City property, the Contractor shall have a qualified person available onsite when shipments are received or made who is current with U.S. Department of Transportation (DOT) approved training for the transportation of hazardous materials. Contractor shall properly characterize and manifest waste material leaving City property for disposal. When the waste reaches its final destination, the owner or operator of the designated and permitted treatment, storage, and disposal (TSD) facility shall sign the manifest and return a copy to the City within 35 days to confirm receipt.

Minor spills can be controlled by the first responder at the discovery of the spill. Use absorbent materials on small spills rather than hosing down or burying the spill. First responder should contain the spread of the spill, recover spilled materials, clean the contaminated area and properly dispose of contaminated materials. For minor spills, consult the products MSDS for recommended actions for spills or container leaks. Additionally, MSDS's provided emergency phone numbers and occupational health hazard information.

Semi-significant spills can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. Notify the City of semi-significant spills. Spills should be cleaned up immediately. Contain the spread of the spill and notify the project foreman immediately. If the spill occurs on paved or impermeable surfaces, clean up by using dry methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely. If the spill occurs in dirt areas, immediately

contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil. If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills that cannot be controlled by personnel in the immediate vicinity must be reported to the local emergency response by dialing 911. In addition to 911, the contractor will notify the City and proper county officials. Notify the state Emergency Services Warning Center. The services of a spills contractor or a HAZMAT team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site. Other agencies which may need to be consulted include, but are not limited to, the Fire Department, the Public Works Department, the Highway Patrol, the City/County Police Department, and the Department of Toxic Substance.

Ensure that hazardous goods and material delivered to or from the construction site meet applicable DOT labeling and placarding requirements. Upon request from the City, supply material safety data sheets (MSDS) for all hazardous material being delivered to the site.

The storage and shipment of hazardous waste shall also comply with the requirements of this section.

It is emphasized, however, that although spills resulting from incidents or accidents should be responded to, securing the well-being of people comes first.

Good housekeeping practices should be utilized during equipment fueling and maintenance operations. Inspect fueling equipment for leaks prior to dispensing. Fueling operations shall be continuously attended while dispensing fuel. Fueling and maintenance operations shall not be performed within 50-feet of a storm drain, inlet, ditch, surface water, wetland, etc. to allow adequate time for containment in the event of a spill.

I. NOTIFICATION OF CONSTRUCTION ACTIVITIES

1. Responsible representatives / points of contact:

<u>Name</u>	<u>Representing</u>	<u>Office</u>	<u>Cell</u>
Ryan Herinckx	City of Roseburg	541.492.6884	541.643.0682
Ryan Bergstrom	Mead & Hunt, Inc.	503.548.1494	701.793.0174
Joe Dalke	FAA	206.231.4137	

Additional points of contact will be provided at the Preconstruction Meeting.

2. Notices to Airmen (NOTAM)

Only the City may initiate or cancel a NOTAM on airport conditions and is the only entity that can close or open a runway. Points of contact for issuing NOTAMS are as follows: Main Contact – Rob Levin 541.430.8339 (cell), Alternate Contact – Ryan Herinckx 541.643.0682.

3. Emergency Contact Information

- Emergency – DIAL 911
- City of Roseburg – 541.643.0682 (Ryan Herinckx)
- CTAF radio emergency – 122.80 MHz (Ryan Herinckx)
- Roseburg Police Department – 541.440.4471
- Roseburg Fire Department – 541.492.6770
- Hospital – Mercy Medical Center -541.673.0611
- Oregon Poison Center – 800.222.1222

4. Coordination with ARFF personnel

There is no Aircraft Rescue and Firefighting (ARFF) located on the airfield. The airport is served by the Roseburg Fire Department. The proposed project does not deactivate waterlines or hydrants and is not anticipated to include the use of hazardous materials. Therefore, coordination efforts with Aircraft Rescue and Firefighting (ARFF) personnel is not anticipated for this project.

5. Notification of the FAA**(i) Part 77**

The project will affect navigable airspace. Therefore, the City will file an FAA 7460-1, Notice of Proposed Construction or Alteration, for the project. Any equipment, (cranes, graders, other equipment) used by the contractor that exceed the height limitation in **Section R – Other Limitations on Construction** must also have a 7460-1 airspace evaluation and determination prior to use.

(ii) NAVAIDS

For emergency (short-notice) notification about impacts to both airport owned and FAA owned NAVAIDS, contact: 866.432.2622. All NAVAIDS are airport owned and will be disabled in the electrical building during periods of runway closure.

a. Airport owned/FAA maintained facilities

There are no Airport owned/FAA maintained facilities located on the Airport.

b. FAA owned facilities

There are no FAA owned facilities located on the Airport.

(iii) Strategic Interruptions Service Level Agreement

The City will notify FAA-ATO, Planning and Requirements, Western Service Area, preferably 45 days in advance for runway closures and temporary shutdown of NAVAIDS. A shutdown of NAS equipment must be reported for consecutive days in excess of 4 hours daily or for time periods greater than 24 hours, or for runway/taxiway closures greater than 24 hours.

J. INSPECTION REQUIREMENTS**1. Daily Inspections**

Inspections should be conducted by the Contractor at least daily, but more frequently if necessary to ensure conformance with the CSPP. These areas shall be maintained in accordance with **Section G – Foreign Object Debris Management**. The City will have the final authority in

determining if the area is suitable for aircraft use. *Supplement 2* contains a safety inspection checklist that may be used by the Contractor or City.

Prior to reopening the south general aviation apron, a final inspection will be made to ensure that all requirements have been met and that the apron is in safe operating condition prior to reopening.

2. Final Inspections

A final inspection shall be conducted by the City prior to the commissioning of any newly constructed areas open to air traffic. The City will have the final authority in determining if the area is suitable for aircraft use. *Supplement 2* contains a safety inspection checklist that may be used by the Contractor or City.

K. UNDERGROUND UTILITIES

Notify the Oregon Utility Notification Center (OUNC), and owners of underground utilities within the construction area or within affected public rights-of-way or easements, via the “one-call” notification system (1-800-332-2344) in advance of the commencement of excavation activities. Notify the City when the “one-call” request is being initiated. Contractor shall not cross electrical or communication cables unless protected by approved means. In the event of interruption to field-located utility services as a result of the work, promptly notify the City first, and then the proper authority. Cooperate with said authority in restoring service as promptly as possible. If required, the Contractor shall install suitable temporary service until permanent repair is completed.

L. PENALTIES

Liquidated Damages are defined in Section 80-08 of the General Contract Provisions. Additionally, the Contractor is responsible for maintaining security during construction as detailed herein. The Contractor shall is to observe the security requirements contained herein or required by the SPCD. Violations will be cause for the project to be stopped and project safety procedures evaluated. Contractor calendar/working days will continue to be charged, even if the City ceases construction operations. The City will decide if and when work will continue. Enforcement of these regulations will be by the City and/or Police.

Violations of the driving regulations may be cause for the project to be stopped and project safety procedures evaluated. The City will decide if and when work will continue. Enforcement of these regulations will be by the City and/or Police.

M. SPECIAL CONDITIONS

Low visibility conditions will trigger specific safety mitigation actions outlined in this CSPP. For the purposes of this project, low visibility conditions will exist when the prevailing visibility is less than 1 statute mile and/or the runway visual range (RVR) is less than 6,000-feet. The City will notify the Contractor when these conditions exist so adequate safety measures can be taken by the Contractor.

An aircraft in distress may require the Contractor to immediately move equipment away from an aircraft movement area. The City will notify the Contractor in the unlikely event of an aircraft in distress. The Contractor will be required to comply with all City instructions.

Various circumstances, such as an aircraft accident, security breach, or other unforeseen event may require suspension of the construction. The City will notify the Contractor when suspension of the work will be required. **See Section I – Notification of Construction Activities** for emergency contact information.

A VPD (vehicle / pedestrian deviation) is any entry or movement on the movement area by a vehicle or pedestrian that has not been authorized by the City. In the event of a VPD, the City reserves the right to suspend the work or any portion thereof and continue suspension until the completion of any investigation or evaluation by the City and full compliance with any corrective measures which the City may reasonably require. In addition, the City may require the Contractor to provide to the City a written plan, satisfactory to the City, to demonstrate the Contractor's ability to prevent future violations. See **Section E – Contractor Access** for vehicle and pedestrian operations and two-way radio communication requirements.

N. RUNWAY AND TAXIWAY VISUAL AIDS

Temporary runway and taxiway lighting, marking, signs, or visual NAVAIDs are not required for this project.

O. MARKING AND SIGNS FOR ACCESS ROUTES

The Contractor shall place construction delineators or drums along the east edge of the work area to advise vehicular traffic of construction operations. Traffic control shall conform with the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD), 2009 edition.

P. HAZARD MARKING AND LIGHTING

Before starting work, provide and have available all traffic control and lights necessary for protection of the work. Install and maintain adequate lighted construction delineators or drums to protect property and personnel in the work area. Traffic control devices shall be weighted or anchored to prevent overturning from wind or aircraft engine blast. **All traffic control under this project is located outside the runway and taxiway object free area; as well as outside the aircraft movement area.**

The Contractor shall have 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 City. Lighting shall be checked for proper operation at least once per day, preferably at dusk.

Open trenches, excavations, or obstructions not being actively worked shall be marked with lighted and weighted barricades which can be seen from a reasonable distance.

Q. PROTECTION OF RUNWAY AND TAXIWAY SAFETY AREAS**1. Runway Safety Area (RSA)**

No construction may occur within the existing RSA while the runway is open for aircraft operations. The dimension for the Runway 16-34 RSA is 75-FT each side of centerline and 300-FT beyond each runway end. **No impacts to the RSA are anticipated for this project.**

2. Runway Object Free Area (ROFA)

Construction, including excavations, may be permitted within the ROFA. However, equipment must be removed from the ROFA when not in use and material should not be stockpiled in the ROFA. Stockpiling material in the ROFA requires submittal of a 7460-1 form and City approval. The dimension for the Runway 16-34 ROFA is 250-FT each side of centerline and 300-FT beyond each runway 16 end. **No impacts to the ROFA are anticipated for this project.**

3. Taxiway Safety Area (TSA)

No construction may occur within the TSA while the taxiway is open to aircraft operations. The TSA is 39.5-FT each side of taxiway centerline. **No impacts to the TSA are anticipated for this project.**

4. Taxiway Object Free Area (TOFA)

No construction may occur within the TOFA while the taxiway is open to aircraft operations. The TOFA is 65.5-FT each side of centerline. **No impacts to the TOFA are anticipated for this project.**

5. Obstacle Free Zone (OFZ)

Personnel, material, and/or equipment may not penetrate the OFZ while the runway is open to aircraft operations. The dimension for Runway 16-34 OFZ is 200-FT wide each side of centerline and 200-FT beyond each runway end. **No impacts to the OFZ are anticipated for this project.**

6. Runway approach/departure surfaces

All personnel, material, and/or equipment must remain clear of the threshold siting surfaces (approach and departure surfaces). **No impacts to the Runway 16-34 approach/departure surfaces are anticipated for this project.**

(i) Runway 16-34 Approach Surface

Runway 16-34 is a visual approach. Using Table 3-2 and Figure 3-3 from AC150/5300-13A for Runway Type 3, the resulting approach surface begins 200-feet behind the displaced runway threshold and consists of a trapezoid with the following dimensions:

- Width at inner approach (runway threshold) – 400-feet
- Width at outer approach – 1,000-feet
- Length of approach – 10,000-feet
- Approach slope – 20:1

(ii) Runway 16-34 Departure Surface

Runway 16-34 is a visual departure. Using Table 3-2 and Figure 3-4 from AC150/5300-13A for Runway Type 10, the resulting departure surface begins at the runway pavement end and consists of a trapezoid with the following dimensions:

- Width at inner departure (runway threshold) – 1000-feet

- Width at outer departure – 6,466-feet
- Length of departure – 10,200-feet
- Departure slope – 40:1

R. OTHER LIMITATIONS ON CONSTRUCTION

1. Prohibitions

- Open flame welding or torches are prohibited unless fire safety precautions are provided and the City has approved their use.
- Electrical blasting caps are prohibited on or within 1,000-feet of the airport property.
- The use of flare pots is prohibited within the Airport Operations Area (AOA).
- No smoking will be allowed within the airfield environment except as designated by the City.

2. Restrictions

- Construction equipment that extends 18-feet or more above ground level shall be cleared through the City prior to moving onto site. When cranes are used, an FAA-approved, 3-foot orange and white checkered flag and a solid red light shall be mounted at the highest point on the crane. Equipment that may be lowered readily shall be lowered at night, during reduced daytime visibility, and during other periods of storage to comply with the 18-foot height limitation.
- If directed by the City, construction equipment that cannot be lowered below the 18-foot height limitation shall be lighted at night and during periods of reduced daytime visibility. Light shall be mounted on the highest point of equipment; shall be omni-directional; and shall consist of, as a minimum, one 100-watt bulb enclosed within an aviation red lens. Also, for daytime operations, mount an FAA-approved three-foot square orange and white checkered flag at the highest point.
- During daylight hours with severe visibility problems or heavy fog, cranes shall not operate. The City will determine when visibility problems exist and will coordinate and designate requirements for position and location of flag and light.
- Construction sequence, duration, and time limitations can be found in Section B – Construction Work Plan/Work Areas.

SUPPLEMENT 1: Work Area Plan Sheet

(REFERENCE SHEET G-081 OF THE DRAWING SET)

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SUPPLEMENT 2: Daily Safety Inspection Checklists

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CONSTRUCTION PROJECT DAILY SAFETY INSPECTION CHECKLIST

The situations identified below are potentially hazardous conditions that may occur during airport construction projects. Safety area encroachments, unauthorized and improper ground vehicle operations, and unmarked or uncovered holes and trenches near aircraft operating surfaces pose the most prevalent threats to airport operational safety during airport construction projects. The list below is one tool that the airport operator or contractor may use to aid in identifying and correcting potentially hazardous conditions. It should be customized as appropriate for each project.

POTENTIALLY HAZARDOUS CONDITIONS

Item	Action Required	or	None
Excavation adjacent to runways, taxiways, and aprons improperly backfilled.			<input type="checkbox"/>
Mounds of earth, construction materials, temporary structures, and other obstacles near any open runway, taxiway, or taxi lane; in the related Object Free area and aircraft approach or departure areas/zones; or obstructing any sign or marking.			<input type="checkbox"/>
Runway resurfacing projects resulting in lips exceeding 3 in (7.6 cm) from pavement edges and ends.			<input type="checkbox"/>
Heavy equipment (stationary or mobile) operating or idle near AOA, in runway approaches and departures areas, or in OFZ.			<input type="checkbox"/>
Equipment or material near NAV AIDs that may degrade or impair radiated signals and/or the monitoring of navigation and visual aids. Unauthorized or improper vehicle operations in localizer or glide slope critical areas, resulting in electronic interference and/or facility shutdown.			<input type="checkbox"/>
Tall and especially relatively low visibility units (that is, equipment with slim profiles) – cranes, drills, and similar objects – located in critical areas, such as OFZ and approach zones.			<input type="checkbox"/>
Improperly positioned or malfunctioning lights or unlighted airport hazards, such as holes or excavations, on any apron, open taxiway, or open taxi lane or in a related safety, approach, or departure area.			<input type="checkbox"/>
Obstacles, loose pavement, trash, and other debris on or near AOA. Construction debris (gravel, sand, mud, paving materials) on airport pavements may result in aircraft propeller, turbine engine, or tire damage. Also, loose materials may blow about, potentially causing personal injury or equipment damage.			<input type="checkbox"/>

CONSTRUCTION SAFETY AND PHASING PLAN – ROSEBURG REGIONAL AIRPORT

Item	Action Required	or	None
Inappropriate or poorly maintained fencing during construction intended to deter human and animal intrusions into the AOA. Fencing and other markings that are inadequate to separate construction areas from open AOA create aviation hazards.			<input type="checkbox"/>
Improper or inadequate marking or lighting of runways (especially thresholds that have been displaced or runways that have been closed) and taxiways that could cause pilot confusion and provide a potential for a runway incursion. Inadequate or improper methods of marking, barricading, and lighting of temporarily closed portions of AOA create aviation hazards.			<input type="checkbox"/>
Wildlife attractants – such as trash (food scraps not collected from construction personnel activity), grass seeds, tall grass, or standing water – on or near airports.			<input type="checkbox"/>
Obliterated or faded temporary markings on active operational areas.			<input type="checkbox"/>
Misleading or malfunctioning obstruction lights. Unlighted or unmarked obstructions in the approach to any open runway pose aviation hazards.			<input type="checkbox"/>
Failure to issue, update, or cancel NOT AMs about airport or runway closures or other construction related airport conditions.			<input type="checkbox"/>
Failure to mark and identify utilities or power cables. Damage to utilities and power cables during construction activity can result in the loss of runway / taxiway lighting; loss of navigation, visual, or approach aids; disruption of weather reporting services; and/or loss of communications.			<input type="checkbox"/>
Restrictions on ARFF access from fire stations to the runway / taxiway system or airport building.			<input type="checkbox"/>
Lack of radio communications with construction vehicles in airport movement areas.			<input type="checkbox"/>
Objects, regardless of whether they are marked or flagged, or activities anywhere on or near an airport that could be distracting, confusing, or alarming to pilots during aircraft operations.			<input type="checkbox"/>
Water, snow, dirt, debris, or other contaminants that temporarily obscure or derogate the visibility of runway/taxiway marking, lighting, and pavement edges. Any condition or factor that obscures or diminishes the visibility of areas under construction.			<input type="checkbox"/>
Spillage from vehicles (gasoline, diesel fuel, oil) on active pavement areas, such as runways, taxiways, aprons, and airport roadways.			<input type="checkbox"/>

CONSTRUCTION SAFETY AND PHASING PLAN – ROSEBURG REGIONAL AIRPORT

Item	Action Required	or	None
Failure to maintain drainage system integrity during construction (for example, no temporary drainage provided when working on a drainage system).			<input type="checkbox"/>
Failure to provide for proper electrical lockout and tagging procedures. At larger airports with multiple maintenance shifts/workers, construction contractors should make provisions for coordinating work on circuits.			<input type="checkbox"/>
Failure to control dust. Consider limiting the amount of area from which the contractor is allowed to strip turf.			<input type="checkbox"/>
Exposed wiring that creates an electrocution or fire ignition hazard. Identify and secure wiring, and place it in conduit or bury it.			<input type="checkbox"/>
Site burning, which can cause possible obscuration.			<input type="checkbox"/>
Construction work taking place outside designated work areas and out of phase.			<input type="checkbox"/>

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**SUPPLEMENT 3: Safety Plan Compliance Document
(SPCD) Requirements**

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**CONTRACTOR'S
SAFETY PLAN COMPLIANCE DOCUMENT (SPCD)
(AC 150/5370-2G)**

Project Information

Airport and Sponsor: Roseburg Regional Airport, City of Roseburg

Project ID: _____

Description of Project: Install Standby Power Generator

Type of Work: Electrical

FAA Project Manager: Joe Dalke Phone: 206-231-4137

Airport Operator Contact: Ryan Herinckx Phone: 541-492-6884

Contractor's Information

Prime Contractor: _____

Address: _____

Contractor Contact: _____ Phone: _____

Contractor's Responsibility

In accordance with Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5370-2G, "Operational Safety during Airport Construction", a SPCD for a project must be submitted to the FAA and to the Airport Operator for review and approval prior to the issuance of a Notice-to-Proceed for Construction. The SPCD shall be prepared in a detailed written and graphical format that identifies the timing and methodology for the Contractor's compliance with the project's Construction Safety and Phasing Plan (CSPP).

The Contractor shall comply with all provisions contained herein and provide the following project-specific complementary and supplemental information to the FAA-approved Construction Safety and Phasing Plan:

1. Contractor shall have copies of the CSPP and SPCD available at all times for reference by the Airport Operator and its representatives, and by Contractor's and subcontractor's employees.

Location(s) of CSPP and SPCD: _____

2. Provide contact information for the person responsible for initiating and coordinating an immediate response to correct any construction-related activity that may adversely affect the operational safety of the Airport. Project will require 24-hour coverage.

Point of Contact: _____ Phone: _____

CONSTRUCTION SAFETY AND PHASING PLAN – ROSEBURG REGIONAL AIRPORT

3. Provide list of Contractor's on-site employees responsible for monitoring compliance with the CSPP and SPCD whenever active construction is ongoing.

Contact Person: _____ Phone: _____
Contact Person: _____ Phone: _____
Contact Person: _____ Phone: _____
Contact Person: _____ Phone: _____

4. Contractor shall conduct inspections at least once daily, and more frequently if necessary to ensure construction personnel comply with the CSPP and SPCD and that there are no altered construction activities that could create potential safety hazards. A Construction Project Daily Safety Inspection Checklist is attached.
5. Describe details of Contractor's plan to restrict movement of construction vehicles and personnel to permitted construction areas by flagging, barricading, erecting temporary fencing, or providing escorts, as appropriate and as specified in the CSPP. Include the appropriate plan sheets to identify timing and/or location of control measures: [**Contractor to insert detailed description.**]
6. Describe details of Contractor's plan to ensure that no employees of Contractor, subcontractors, suppliers, or other persons enter any part of the Air Operations Area (AOA) unless authorized. [**Contractor to insert detailed description.**]
7. Provide a description and schedule of anticipated operation for all Contractor equipment over 18 feet in height (e.g. cranes, concrete pumps, other similarly tall equipment) and heights of stockpiles and haul routes when different from what is shown on previously filed CSPP. [**Contractor to insert detailed equipment list/stockpile heights as applicable.**]

(As necessary, the Contractor must coordinate with the Airport Operator for the purpose of filing a supplemental submittal of FAA Form 7460-1 to the FAA for determination of whether or not an aeronautical study must be conducted prior to allowing tall equipment operations to begin.)

CONSTRUCTION SAFETY AND PHASING PLAN – ROSEBURG REGIONAL AIRPORT

8. Provide a description of Contractor's plan to ensure that construction personnel are familiar with the safety procedures and regulations on the Airport, the CSPP, and the SPCD. [***Contractor to insert detailed description.***]

SPCD Amendment

The SPCD shall be amended when there is a construction practice proposed by the Contractor that does not conform to the CSPP and SPCD and may impact the Airport's operational safety. This will require a revision to the CSPP and SPCD and re-coordination with the Airport Operator and the FAA in advance.

Statement of Certification

I certify that we understand the operational safety requirements of the CSPP and assert that we will not deviate from the approved CSPP and SPCD unless written approval is granted by the Airport Operator and FAA.

Signature: _____ Date: _____

Print Name: _____ Title: _____

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SUPPLEMENT 4: Terms and Acronyms

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TERMS AND ACRONYMS

Table 1. Terms and Acronyms

Term	Definition
Form 7460-1	Notice of Proposed Construction or Alteration. For on-airport projects, the form submitted to the FAA regional or airports division office as formal written notification of any kind of construction or alteration of objects that affect navigable airspace, as defined in 14 CFR Part 77, <i>Safe, Efficient Use, and Preservation of the Navigable Airspace</i> . (See guidance available on the FAA web site at https://oeaaa.faa.gov .) The form may be downloaded at http://www.faa.gov/airports/resources/forms/ , or filed electronically at: https://oeaaa.faa.gov .
Form 7480-1	Notice of Landing Area Proposal. Form submitted to the FAA Airports Regional Division Office or Airports District Office as formal written notification whenever a project without an airport layout plan on file with the FAA involves the construction of a new airport; the construction, realigning, altering, activating, or abandoning of a runway, landing strip, or associated taxiway; or the deactivation or abandoning of an entire airport. The form may be downloaded at http://www.faa.gov/airports/resources/forms/ .
Form 6000-26	Airport Sponsor Strategic Event Submission Form
AC	Advisory Circular
ACSI	Airport Certification Safety Inspector
ADG	Airplane Design Group
AIP	Airport Improvement Program
ALECP	Airport Lighting Equipment Certification Program
ANG	Air National Guard
AOA	Air Operations Area, as defined in 14 CFR Part 107. Means a portion of an airport, specified in the airport security program, in which security measures are carried out. This area includes aircraft movement areas, aircraft parking areas, loading ramps, and safety areas, and any adjacent areas (such as general aviation areas) that are not separated by adequate security systems, measures, or procedures. This area does not include the secured area of the airport terminal building.
ARFF	Aircraft Rescue and Fire Fighting
ARP	FAA Office of Airports
ASDA	Accelerate-Stop Distance Available
AT	Air Traffic
ATCT	Airport Traffic Control Tower
ATIS	Automatic Terminal Information Service
ATO	Air Traffic Organization
Certificated Airport	An airport that has been issued an Airport Operating Certificate by the FAA under

Term	Definition
	the authority of 14 CFR Part 139, <i>Certification of Airports</i> .
CFR	Code of Federal Regulations
Construction	The presence of construction-related personnel, equipment, and materials in any location that could infringe upon the movement of aircraft.
CSPP	Construction Safety and Phasing Plan. The overall plan for safety and phasing of a construction project developed by the airport operator, or developed by the airport operator's consultant and approved by the airport operator. It is included in the invitation for bids and becomes part of the project specifications.
CTAF	Common Traffic Advisory Frequency
Displaced Threshold	A threshold that is located at a point on the runway other than the designated beginning of the runway. The portion of pavement behind a displaced threshold is available for takeoffs in either direction or landing from the opposite direction.
DOT	Department of Transportation
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FOD	Foreign Object Debris/Damage
FSS	Flight Service Station
GA	General Aviation
HAZMAT	Hazardous Materials
HMA	Hot Mix Asphalt
IAP	Instrument Approach Procedures
IFR	Instrument Flight Rules
ILS	Instrument Landing System
LDA	Landing Distance Available
LOC	Localizer antenna array
Movement Area	The runways, taxiways, and other areas of an airport that are used for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading aprons and aircraft parking areas (reference 14 CFR Part 139).
MSDS	Material Safety Data Sheet
MUTCD	Manual on Uniform Traffic Control Devices
NAVAID	Navigation Aid
NAVAID Critical Area	An area of defined shape and size associated with a NAVAID that must remain clear and graded to avoid interference with the electronic signal.
Non-Movement Area	The area inside the airport security fence exclusive of the Movement Area. It is important to note that the non-movement area includes pavement traversed by aircraft.

Term	Definition
NOTAM	Notices to Airmen
Obstruction	Any object/obstacle exceeding the obstruction standards specified by 14 CFR Part 77, subpart C.
OCC	Operations Control Center
OE / AAA	Obstruction Evaluation / Airport Airspace Analysis
OFA	Object Free Area. An area on the ground centered on the runway, taxiway, or taxi lane centerline provided to enhance safety of aircraft operations by having the area free of objects except for those objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes. (See AC 150/5300-13 for additional guidance on OFA standards and wingtip clearance criteria.)
OFZ	Obstacle Free Zone. The airspace below 150 ft (45 m) above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVAIDs that need to be located in the OFZ because of their function, in order to provide clearance protection for aircraft landing or taking off from the runway and for missed approaches. The OFZ is subdivided as follows: Runway OFZ, Inner Approach OFZ, Inner Transitional OFZ, and Precision OFZ. Refer to AC 150/5300-13 for guidance on OFZ.
OSHA	Occupational Safety and Health Administration
OTS	Out of Service
P&R	Planning and Requirements Group
NPI	NAS Planning & Integration
PAPI	Precision Approach Path Indicator
PFC	Passenger Facility Charge
PLASI	Pulse Light Approach Slope Indicator
Project Proposal Summary	A clear and concise description of the proposed project or change that is the object of Safety Risk Management.
RA	Reimbursable Agreement
RE	Resident Engineer
REIL	Runway End Identifier Lights
RNAV	Area Navigation
ROFA	Runway Object Free Area
RSA	Runway Safety Area. A 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, in accordance with AC 150/5300-13 .
SDS	Safety Data Sheet
SIDA	Security Identification Display Area
SMS	Safety Management System

Term	Definition
SPCD	Safety Plan Compliance Document. Details developed and submitted by a contractor to the airport operator for approval providing details on how the performance of a construction project will comply with the CSPP.
SRM	Safety Risk Management
SSC	System Support Center
Taxiway Safety Area	A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway, in accordance with <u>AC 150/5300-13</u> .
TDG	Taxiway Design Group
Temporary	Any condition that is not intended to be permanent.
Temporary Runway End	The beginning of that portion of the runway available for landing and taking off in one direction, and for landing in the other direction. Note the difference from a displaced threshold.
Threshold	The beginning of that portion of the runway available for landing. In some instances, the landing threshold may be displaced.
TODA	Takeoff Distance Available
TOFA	Taxiway Object Free Area
TORA	Takeoff Run Available. The length of the runway less any length of runway unavailable and/or unsuitable for takeoff run computations. See <u>AC 150/5300-13</u> for guidance on declared distances.
TSA	Taxiway Safety Area, or Transportation Security Administration
UNICOM	A radio communications system of a type used at small airports.
VASI	Visual Approach Slope Indicator
VGSI	Visual Glide Slope Indicator. A device that provides a visual glide slope indicator to landing pilots. These systems include precision approach path indicator (PAPI), visual approach slope indicator (VASI), and pulse light approach slope indicator (PLASI).
VFR	Visual Flight Rules
VOR	Very High Frequency Omnidirectional Radio Range
VPD	Vehicle / Pedestrian Deviation

TECHNICAL SPECIFICATIONS

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ITEM NS-101 LOCATE AND PROTECT EXISTING EQUIPMENT

DESCRIPTION

101-1.1 This Work includes the testing and location of all power and control circuits that are located within the construction area or haul routes, providing prompt repair or replacement of electrical cables or equipment damaged during construction operations, careful handling of any FAA installed cables or equipment encountered during construction and/or removal/reinstallation of existing cables. This also includes protecting existing equipment in the area of construction.

CONSTRUCTION METHODS

101-2.1 Immediately prior to construction, locate and mark all existing circuits and utilities in the area of new construction with paint or flagging throughout the area.

The Contractor is entirely responsible for location and identifying existing underground cables and equipment. Do not, under any circumstances, deliberately plow, trench, or work across existing utilities for the sole purpose of locating cables. Cable, utilities, and equipment that is cut or damaged, and is not designated for replacement shall be replaced at the Contractors expense in its entirety.

It is the Contractor's responsibility to maintain all marked or flagged routes. Re-apply paint or re-flag as needed.

101-2.2 Obtain megger test readings of all airport circuits that will be encountered during construction, including those crossed by haul routes or access roads, shall be taken in the presence of the Owner and the Engineer. If the Contractor notes problems in the existing circuits prior to starting Work, these circuits may be repaired by the owner or noted to the mutual satisfaction of the Contractor and the Owner as not being the responsibility of the Contractor. Test circuits repaired by the Owner once again prior to construction.

101-2.3 Upon completion of construction, in the presence of the Owner and the Engineer, megger test all airport circuits encountered during construction. Repair all portions of circuits that have been damaged during construction. Damaged circuits are any circuit with a lower megger reading than prior to construction.

101-2.4 The excavation, cutting, removal, and reinstallation of existing cables as required in the Contract Documents shall be incidental to this Pay Item. The Contractor's superintendent or on-site representative must remain in communication with the Engineer until such repairs are completed and the lighting system has been checked for operation and accepted by the Owner.

METHOD OF MEASUREMENT

101-3.1 Locate and protect existing Airfield Electrical will not be measured separately.

BASIS OF PAYMENT

101-4.1 Locate and protect existing Airfield Electrical will not be paid for separately.

END OF ITEM NS-101

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Item NS-102 Safety And Compliance

DESCRIPTION

102-1.1 General. This Section provides for construction safety in an Airport environment; limitations on construction operations; minimum requirements for construction management and scheduling; and site-specific information pertaining to potential impacts on construction activities. Unless otherwise noted, all costs associated with related work shall be included in the contract pay item for Safety and Compliance.

SAFETY AND COMPLIANCE

102-2.1 The Contractor shall comply with the project-specific Construction Safety and Phasing Plan (CSPP) included as Exhibit A of the specifications. As part of the requirements of the CSPP, the contractor is required to provide a Safety Plan Compliance Document (SPCD).

The SPCD shall detail how the Contractor will comply with the CSPP. This shall include all Project-specific construction safety plan details not included in the CSPP, including construction equipment heights, any applicable hazard management requirements, and contact information for the Contractor's safety management staff responsible for monitoring the CSPP and SPCD during construction. The SPCD shall be a supplement to and enhancement of the Project CSPP. See *Appendix A* for example of SPCD outline.

The SPCD must include a statement that the Contractor understands the operational safety requirements of the CSPP and an assertion that the Contractor will not deviate from the approved CSPP and SPCD without written approval from the Engineer. Any construction operation, activity, or practice proposed by the Contractor that does not conform to the CSPP and SPCD will require a revision to those documents. The revised CSPP and SPCD must be submitted to FAA for review and approval prior to performing any activities that are not in compliance with a previously approved CSPP.

Copies of the approved CSPP and SPCD must be available on-site at all times. The Contractor shall ensure all construction personnel are familiar with safety procedures and regulations applicable to construction on the Airport. At least one of the Contractor's safety management staff must be on-site whenever active construction is ongoing to act as point of contact and immediate response coordinator to correct any construction-related activity that may adversely affect operational safety of the Airport.

102-2.2 For vehicular and pedestrian traffic, the Contractor shall furnish, erect, and maintain barricades, lights and other traffic control devices in reasonable conformity with the Manual on Uniform Traffic Control Devices or as otherwise identified on the plans.

102-3.1 Posted notices. Prior to commencement of construction activities, the Contractor must post the following documents in a prominent and accessible place where they may be easily viewed by all employees of the prime Contractor and by all employees of subcontractors engaged by the prime Contractor: Equal Employment Opportunity (EEO) Poster "Equal Employment Opportunity is the Law" in accordance with the Office of Federal Contract Compliance Programs Executive Order 11246, as amended; Davis Bacon Wage Poster (WH 1321) - DOL "Notice to All Employees" Poster; and Applicable Davis-Bacon Wage Rate Determination. These notices must remain posted until final acceptance of the work by the Owner.

METHOD OF MEASUREMENT

102-3.1 Safety and Compliance will be measured as a lump sum item.

BASIS OF PAYMENT

102-4.1 Safety and Compliance.

Progress Payment = Actual working days of work completed during current pay period x Lump Sum Price

Total days to complete the project

Safety and Compliance will be paid for at the Contract price per lump sum and shall include full compensation for all labor, materials, tools, equipment, CSPP compliance, SPCD preparation and compliance, and incidentals necessary to complete the work as specified herein and as required on the plans.

Payments made for Safety and Compliance will be excluded from consideration in determining compensation under changed quantities.

Payment will be made under:

Safety and Compliance - lump sum

END OF ITEM M-102

Item NS-109 Electrical Building Work

DESCRIPTION

NS-109-1.1 This item shall consist of work to be done in the electrical building per this specification and as shown on the plans or as required by the RPR. This item shall include the installation of the new 400A panel as well as the relocation for the L-854 radio controller and the relay enclosure to the satisfaction of the RPR.

EQUIPMENT AND MATERIALS

NS-109-2.1 General.

a. All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when so requested by the RPR.

b. Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials per these specifications. Materials supplied and/or installed that do not comply with these specifications shall be removed (when directed by the RPR) and replaced with materials that comply with these specifications at the Contractor's cost.

c. All materials and equipment used to construct this item 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. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify products or models applicable to this project. Indicate all optional equipment and delete any non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment to which they apply on each submittal sheet. Markings shall be made bold and clear with arrows or circles (highlighting is not acceptable). The Contractor is solely responsible for delays in the project that may accrue 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 electronically submitted in pdf format, tabbed by specification section. The RPR reserves the right to reject any and all equipment, materials or procedures that do not meet the system design and the standards and codes, specified in this document.

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 the date of 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.

NS-109-2.2 Cable. Cables shall be in conformance with Specification Item L-108, Underground Power Cable for Airports.

NS-109-2.3 Duct. Duct shall be in conformance with Item L-110, Airport Underground Electrical Duct Banks and Conduits.

NS-109-2.4 MDP Panel. The new MDP Panel shall be a NEMA 1, service rated panel as shown on the plans. The voltage shall be 120/240V, 1-phase, 3-wire, and rated for 400A buss, a minimum of 24 spaces and with all branch circuit breakers as shown on the plans. The panel shall be surface mounted. All busses including the neutral and ground busses shall be copper. The panel shall include connection to an external SPD or include an in-line SPD with the panel itself. Circuit breakers shall be molded case circuit breakers

with thermal-magnetic, inverse time-current for low level overloads and instantaneous trip elements for short circuits.

NS-109-2.5 Utility Meter. The Contractor shall provide a utility approved meter socket, and if required, an accompanying meter enclosure. Coordinate with the utility to verify acceptable meters and meter enclosures.

NS-109-2.6 Disconnect Switch. The service rated, NEMA 3R, heavy duty, disconnect switch shall be 240V, 400A, single phase, 3 wire to match the new service. The disconnect switch shall be fused at 400A.

NS-109-2.7 Seal Offs. The seal offs shall be rated for hazardous areas and be UL listed for that purpose. The seal offs shall be sized to fit the conduit as required by the NEC.

CONSTRUCTION METHODS

NS-109-3.1 Electrical building Work. The Contractor shall field verify all existing conditions prior to work to limit equipment down time during construction. The Contractor shall coordinate all work with the Airport to limit disruptions to airport operations, including the fuel farm operations.

The Contractor shall install the new generator, ATS (separate bid items), the MDP, the meter socket, meter enclosure, the disconnect switch, cables and conduits as shown on the plans. Once these items are installed and ready to cut over, the Contractor shall coordinate with the Airport and the Utility to replace the existing 120/240V, 200A single phase service with a new 120/240V, 400A single phase service as shown on the plans. This will limit the down time to the fuel farm and the airfield lighting and nav aids.

This shall include all wall penetrations and conduit installations, including the seal offs are required per the NEC.

To provide room for the new 400A panel, the Contractor shall move the existing L-854 Radio controller and the existing relay control enclosure. The Contractor shall field verify the best way to relocate the items based on time and space to meet the NEC working space requirements. Basis of design was to shift the Radio controller up towards the ceiling enough to shift the relay enclosure away from the existing panel to provide enough separation to meet the NEC working space requirements.

This work shall include wall penetrations for the ATS to new MDP panel and for the MDP to fuel farm panel power cables. It shall include patching and sealing an existing penetration left from the removal of the existing service cables. This wall penetration seal/patch shall meet all local and national building codes and match the existing wall as close as possible.

When done, the electrical building shall be restored to previous conditions by removing all waste and debris from the construction work. Contractor shall run the electrical building through the paces with the Airport to make sure all the nav aids and airfield lights work as before. this will include using a handheld air-band radio to simulate pilot control of the airfield lighting. To simulate night conditions, either use the photocell bypass (if available) or cover/block the photoeye to simulate nighttime. using the air-band radio, run through the cycle again to make sure the electrical building is operating properly. Allow the timer to time out in the radio controller or manually reset it to make sure the electrical building operates as it should.

The Contractor shall run the tests before and after construction to verify it is electrical building is working properly before construction. Any faults found before construction; the Airport shall fix. Then run the tests again to make sure it is working properly. Any faults found after construction begins, the Contractor shall fix.

Contractor shall verify radio controller/relay enclosure control with the Airport prior to testing. Record testing and submit as part of the final inspection.

Day:

(No clicks) Windcone Off, REILs off, Rwy and Twy Edge lights Off, PAPI lights on High.

(3-clicks) Windcone Off, REILs on Low, Rwy and Twy Edge lights on Low, PAPI lights on High.

(5-clicks) Windcone Off, REILs on Med, Rwy and Twy Edge lights on MED, PAPI lights on High.

(7-clicks) Windcone Off, REILs on High, Rwy and Twy Edge lights on High, PAPI lights on High.

Night:

(No clicks) Windcone On, REILs off, Rwy and Twy Edge lights off, PAPI lights on Low.

(3-clicks) Windcone On, REILs on Low, Rwy and Twy Edge lights on Low, PAPI lights on Low.

(5-clicks) Windcone On, REILs on Med, Rwy and Twy Edge lights on MED, PAPI lights on Low.

(7-clicks) Windcone On, REILs on High, Rwy and Twy Edge lights on High, PAPI lights on Low.

METHOD OF MEASUREMENT

NS-109-4.1 Electrical building work shall be measured by lump sum, completed and accepted. This shall include all work in the electrical building and connections to the generator and to the fuel farm panel, and all restoration required to bring it back to existing conditions.

BASIS OF PAYMENT

NS-109-5.1 Payment shall be made at the contract unit price per lump sum. This price shall be full compensation for furnishing all equipment and materials; and for all preparation, excavation, coring, sealing/patch, backfilling, and placing of the materials, furnishing and installation of appurtenances and connections as may be required to complete the item as shown on the plans and for all labor, equipment, tools and incidentals necessary to complete the work in and around the electrical building as shown on the plans.

Payment will be made under:

Electrical Building Work –Per Lump Sum

END OF ITEM NS-109

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Item NS-111 FBO Work

DESCRIPTION

NS-111-1.1 This item shall consist of work within the FBO per this specification and as shown on the plans or as required by the RPR. This item shall include the installation of a new UPS battery backup for the existing router, modem, and Sentinel monitor; as well as the removal of the fuel farm panel power cables and relabeling the panel directories to the satisfaction of the RPR.

EQUIPMENT AND MATERIALS

NS-111-2.1 General.

a. All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when so requested by the RPR.

b. Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials per these specifications. Materials supplied and/or installed that do not comply with these specifications shall be removed (when directed by the RPR) and replaced with materials that comply with these specifications at the Contractor's cost.

c. All materials and equipment used to construct this item 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. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify products or models applicable to this project. Indicate all optional equipment and delete any non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment to which they apply on each submittal sheet. Markings shall be made bold and clear with arrows or circles (highlighting is not acceptable). The Contractor is solely responsible for delays in the project that may accrue 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 electronically submitted in pdf format, tabbed by specification section. The RPR reserves the right to reject any and all equipment, materials or procedures that do not meet the system design and the standards and codes, specified in this document.

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 the date of 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.

NS-111-2.2 Cable. Cables shall be in conformance with Specification Item L-108, Underground Power Cable for Airports.

NS-111-2.3 Duct. Duct shall be in conformance with Item L-110, Airport Underground Electrical Duct Banks and Conduits.

NS-111-2.4 UPS. The new UPS shall be a battery backup to the existing router, modem, and Sentinel monitor used in the fueling management system to process payments. The UPS shall be an off the shelf model to allow easy repair or procure parts. The UPS shall be sized for 3kW battery backup. The unit shall

plug into the wall receptacle. The unit shall be able to rest on a shelf/desk or be wall mounted as required by the Airport.

CONSTRUCTION METHODS

NS-111-3.1 FBO Work. The Contractor shall field verify all existing conditions prior to work to limit equipment down time during construction. The Contractor shall coordinate all work with the Airport to limit disruptions to airport operations, including the fuel farm operations.

The Contractor shall remove the existing power cables from the panel inside the FBO. The existing 3P-100A breaker shall be changed to "Spare". The Contractor shall change all fuel farm related breakers to spare also if not being used by the fuel farm. Contractor shall relabel all breakers in the panel and include a new typed written panel directory for the panel.

The Contractor shall coordinate the installation of the UPS for the fuel management system router, modem and Sentinel monitor by unplugging the existing components and plugging them into the UPS. Coordinate location of the UPS with the Airport.

METHOD OF MEASUREMENT

NS-111-4.1 FBO work shall be measured by lump sum, completed and accepted. This shall include all work inside the FBO and all restoration required to bring it back to existing conditions.

BASIS OF PAYMENT

NS-111-5.1 Payment for FBO Work shall be made at the contract unit price per lump sum. This price shall be full compensation for furnishing all equipment and materials, including UPS battery backup unit, and for all preparation and placing of the materials, furnishing and installation of appurtenances and connections as may be required to complete the item as shown on the plans; removal of the fuel farm panel power cables and relabeling the panel directories to the satisfaction of the RPR; and for all labor, equipment, tools and incidentals necessary to complete the work within the FBO as shown on the plans.

Payment will be made under:

FBO Work – Lump Sum

END OF ITEM NS-111

Item NS-112 Fuel Farm Work

DESCRIPTION

NS-112-1.1 This item shall consist of work to be done at the Fuel Farm per this specification and as shown on the plans or as required by the RPR. This item shall include the installation of a new fuel farm panel, the removal of the existing fuel farm panel, and the replacement of the two fuel pump motors.

EQUIPMENT AND MATERIALS

NS-112-2.1 General.

a. All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when so requested by the RPR.

b. Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials per these specifications. Materials supplied and/or installed that do not comply with these specifications shall be removed (when directed by the RPR) and replaced with materials that comply with these specifications at the Contractor's cost.

c. All materials and equipment used to construct this item 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. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify products or models applicable to this project. Indicate all optional equipment and delete any non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment to which they apply on each submittal sheet. Markings shall be made bold and clear with arrows or circles (highlighting is not acceptable). The Contractor is solely responsible for delays in the project that may accrue 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 electronically submitted in pdf format, tabbed by specification section. The RPR reserves the right to reject any and all equipment, materials or procedures that do not meet the system design and the standards and codes, specified in this document.

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 the date of 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.

NS-112-2.2 Cable. Cables shall be in conformance with Specification Item L-108, Underground Power Cable for Airports.

NS-112-2.3 Duct. Duct shall be in conformance with Item L-110, Airport Underground Electrical Duct Banks and Conduits.

NS-112-2.4 Fuel Panel. The new Fuel Panel shall be a NEMA 3R, lockable panel as shown on the plans. The voltage shall be 120/240V, 1-phase, 3-wire, and rated for 125A buss, a minimum of 24 spaces and with all branch circuit breakers as shown on the plans. The panel shall be surface mounted. All busses including the neutral and ground busses shall be copper. Circuit breakers shall be molded case circuit breakers with

thermal-magnetic, inverse time-current for low level overloads and instantaneous trip elements for short circuits.

NS-109-2.5 Seal Offs. The seal offs shall be rated for hazardous areas and be UL listed for that purpose. The seal offs shall be sized to fit the conduit as required by the NEC.

NS-109-2.6 7.5 HP Pump Motor. The 7.5 hp fuel pump shall be rated for 240V, single phase motor as shown on the plans. The pump shall be rated for fuel usage. The item shall also include a soft starter for the motor that is recommended by the motor manufacturer.

NS-109-2.7 10 HP Pump Motor. The 10 hp fuel pump shall be rated for 240V, single phase motor as shown on the plans. The pump shall be rated for fuel usage. The item shall also include a soft starter for the motor that is recommended by the motor manufacturer.

CONSTRUCTION METHODS

NS-112-3.1 Fuel Farm Work. The Contractor shall field verify all existing conditions prior to work to limit equipment down time during construction. The Contractor shall coordinate all work with the Airport to limit disruptions to airport operations, including the fuel farm operations.

When time to remove the existing panel, coordinate work with the Airport to have the fuel trucks filled up for the duration of the fuel farm being down. The Contractor shall secure the fuel tanks and fuel service for the duration of the work in the fuel farm area.

Field verify how the E-stop works at this location. As-builts where not located prior to the design, so how the E-stop operates is unknown. It is assumed that there is a contactor in the E-stop enclosure that is used to cut power as required by the NEC. How the E-stop buttons and system is unknown and will be reused on this project when finished.

The existing 7.5 and 10 hp fuel pump motors shall be replaced with new fuel pump motors as shown on the plans. The new motors shall include soft starters recommended by the manufacturer. All modifications to the existing systems shall be to NEC requirements in the hazardous environment. Seal offs shall be used as required by the NEC.

The existing fuel panel shall be deenergized and removed, careful to protect the existing conduits in the area except for those being removed and replaced for the new power feeds. The new panel shall go in the same locations as the existing. Install new conduits as shown in the plans, including seal offs where required by the NEC. Reconnect the existing power feeds to the loads shown to remain. New power cables shall be installed to feed the new motors. Existing conduit may be reused if sized properly for the cables, if not, install conduit as called out on the plans.

Once all the motors, cables and panel are installed and ready to energize, the Contractor shall demonstrate that the E-stop will function properly by dispensing some fuel and hit the E-stop button and show that the power is removed as required by the NEC. This shall be required for both fuel pump motors.

METHOD OF MEASUREMENT

NS-112-4.1 Fuel Farm work shall be measured by lump sum, completed, and accepted. This shall include all work in the Fuel farm area and connections to the fuel farm panel and those from the electrical building, and all restoration required to bring back to existing conditions.

NS-112-4.2 Replace fuel farm motors shall be measured per lump sum, completed, and accepted.

BASIS OF PAYMENT

NS-112-5.1 Payment shall be made at the contract unit price per lump sum. This price shall be full compensation for furnishing all equipment and materials; and for all preparation, excavation, coring, sealing/patch, backfilling, seal offs, and placing of the materials, furnishing and installation of appurtenances and connections as may be required to complete the item as shown on the plans and for all labor, equipment, tools and incidentals necessary to complete the work in and around the fuel farm as shown on the plans.

Payment will be made under:

Fuel Farm Work – Lump Sum

NS-112-5.2 Payment shall be made at the contract unit price per fuel farm motor. This price shall be full compensation for removal and disposal of the existing motor; furnishing all equipment and materials including motor and soft starter; and for all preparation, seal offs, and placing of the materials, furnishing and installation of appurtenances and connections as may be required to complete the item as shown on the plans and for all labor, equipment, tools and incidentals necessary to complete the work in and around the fuel farm as shown on the plans.

Payment will be made under:

Replace 7.5HP Fuel Farm Motor –Lump Sum

Replace 10HP Fuel Farm Motor –Lump Sum

END OF ITEM NS-112

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Item F-162 Chain-Link Fence

DESCRIPTION

162-1.1 This item shall consist of furnishing and erecting a chain-link fence in accordance with these specifications, the details shown on the plans, and in conformity with the lines and grades shown on the plans or established by the RPR.

Chain-link fence materials removed under other bid items may be salvaged and reused under this specification. See 162-3.1 for further information.

MATERIALS

162-2.1 Fabric. The fabric shall be woven with a 9-gauge galvanized steel wire in a 2-inch mesh and shall meet the requirements of ASTM A392, Class 2.

162-2.2 Barbed wire. Barbed wire shall be 2-strand 12-1/2 gauge zinc-coated wire with 4-point barbs and shall conform to the requirements of ASTM A121, Class 3, Chain Link Fence Grade.

162-2.3 Posts, rails, and braces. Line posts, rails, and braces shall conform to the requirements of ASTM F1043 or ASTM F1083 as follows:

- Galvanized tubular steel pipe shall conform to the requirements of Group IA, (Schedule 40) coatings conforming to Type A, or Group IC (High Strength Pipe), External coating Type B, and internal coating Type B or D.

The dimensions of the posts, rails, and braces shall be in accordance with Tables I through VI of Federal Specification RR-F-191/3.

162-2.4 Gates. Not Used.

162-2.5 Wire ties and tension wires. Wire ties for use in conjunction with a given type of fabric shall be of the same material and coating weight identified with the fabric type. Tension wire shall be 7-gauge marcelled steel wire with the same coating as the fabric type and shall conform to ASTM A824.

All material shall conform to Federal Specification RR-F-191/4.

162-2.6 Miscellaneous fittings and hardware. Miscellaneous steel fittings and hardware for use with zinc-coated steel fabric shall be of commercial grade steel or better quality, wrought or cast as appropriate to the article, and sufficient in strength to provide a balanced design when used in conjunction with fabric posts, and wires of the quality specified herein. All steel fittings and hardware shall be protected with a zinc coating applied in conformance with ASTM A153. Barbed wire support arms shall withstand a load of 250 pounds (113 kg) applied vertically to the outermost end of the arm.

162-2.7 Concrete. Concrete shall have a minimum 28-day compressive strength of 3000 psi (2670 kPa).

162-2.8 Marking. Each roll of fabric shall carry a tag showing the kind of base metal (steel, aluminum, or aluminum alloy number), kind of coating, the gauge of the wire, the length of fencing in the roll, and the name of the manufacturer. Posts, wire, and other fittings shall be identified as to manufacturer, kind of base metal (steel, aluminum, or aluminum alloy number), and kind of coating.

CONSTRUCTION METHODS

162-3.1 General. The fence shall be constructed in accordance with the details on the plans and as specified here using new materials, **unless the Contractor elects to salvage and reuse existing fencing materials as described below.** All work shall be performed in a workmanlike manner satisfactory to the RPR. The Contractor shall layout the fence line based on the plans. The Contractor shall span the opening below the fence with barbed wire at all locations where it is not practical to conform the fence to the general contour of the ground surface because of natural or manmade features such as drainage ditches. The new fence shall be permanently tied to the terminals of existing fences as shown on the plans.

The Contractor shall arrange the work so that construction of the new fence will immediately follow the removal of existing fences. The length of unfenced section at any time shall not exceed 300 feet. The work shall progress in this manner and at the close of the working day the newly constructed fence shall be tied to the existing fence.

At the Contractor's option, 6-foot chain-link fence materials removed under this project may be salvaged and reused to construct the new 6-foot chain-link fence shown on the plans. Salvageable is considered fabric without holes, tears, snags, etc.; extension arms without kinks or broken brackets; posts and rails without kinks or bends; and functioning rods and turnbuckles. The Contractor is responsible for ensuring all salvaged components are compatible with any new materials provided under this specification.

162-3.2 Clearing fence line. Clearing shall consist of the removal of all stumps, brush, rocks, trees, or other obstructions that will interfere with proper construction of the fence. The bottom of the fence shall be placed a uniform distance above ground, as specified in the plans. When shown on the plans or as directed by the RPR, the existing fences which interfere with the new fence location shall be removed by the Contractor as a part of the construction work unless such removal is listed as a separate item in the bid schedule. All holes remaining after post removal shall be refilled with suitable soil, gravel, or other suitable material and compacted with tampers.

The cost of removing and disposing of the material shall not constitute a pay item and shall be considered incidental to fence construction.

162-3.3 Installing posts. Posts shall be set in concrete or line-driven as shown on the plans; and at the required dimension and depth and at the spacing shown on the plans.

The concrete shall be thoroughly compacted around the posts by tamping or vibrating and shall have a smooth finish slightly higher than the ground and sloped to drain away from the posts. All posts shall be set plumb and to the required grade and alignment. No materials shall be installed on the posts, nor shall the posts be disturbed in any manner within seven (7) days after the individual post footing is completed.

Should rock be encountered at a depth less than the planned footing depth, a hole 2 inches (50 mm) larger than the greatest dimension of the posts shall be drilled to a depth of 12 inches (300 mm). After the posts are set, the remainder of the drilled hole shall be filled with grout, composed of one part Portland cement and two parts mortar sand. Any remaining space above the rock shall be filled with concrete in the manner described above.

In lieu of drilling, the rock may be excavated to the required footing depth. No extra compensation shall be made for rock excavation.

162-3.4 Installing top rails. The top rail shall be continuous and shall pass through the post tops. The coupling used to join the top rail lengths shall allow for expansion.

162-3.5 Installing braces. Horizontal brace rails, with diagonal truss rods and turnbuckles, shall be installed at all terminal posts.

162-3.6 Installing fabric. The wire fabric shall be firmly attached to the posts and braced as shown on the plans. All wire shall be stretched taut and shall be installed to the required elevations. The fence shall generally follow the contour of the ground, with the bottom of the fence fabric no less than one inch (25 mm) or more than 4 inches (100 mm) from the ground surface. Grading shall be performed where necessary to provide a neat appearance.

At locations of small natural swales or drainage ditches and where it is not practical to have the fence conform to the general contour of the ground surface, longer posts may be used and multiple strands of barbed wire stretched to span the opening below the fence. The vertical clearance between strands of barbed wire shall be 6 inches (150 mm) or less.

162-3.7 Electrical grounds. Electrical grounds shall be constructed at each point where new fence ties into existing fence. The ground shall be accomplished with a copper clad rod 8 feet (2.4 m) long and a minimum of 5/8 inches (16 mm) in diameter driven vertically until the top is 6 inches (150 mm) below the ground surface. A No. 6 solid copper conductor shall be clamped to the rod and to the fence in such a manner that each element of the fence is grounded. Installation of ground rods shall not constitute a pay item and shall be considered incidental to fence construction. The Contractor shall comply with FAA-STD-019, Lightning and Surge Protection, Grounding, Bonding and Shielding Requirements for Facilities and Electronic Equipment, paragraph 4.2.3.8, Lightning Protection for Fences and Gates, when fencing is adjacent to FAA facilities.

162-3.8 Cleaning up. The Contractor shall remove from the vicinity of the completed work all tools, buildings, equipment, etc., used during construction. All disturbed areas shall be restored using existing landscape rock from the site.

162-3.9 Remove chain-link fence. Chain-link fence identified for removal shall be disassembled and posts removed entirely from the ground by methods chosen by the Contractor, become the property of the Contractor, and shall be legally disposed of off-site. Chain-link fence includes, but is not limited to, fence fabric, posts and post footings, extension arms, barbed wire; etc. All holes remaining after post removal shall be refilled with suitable soil, gravel, or other suitable material and compacted with tampers. **See 162-3.1 for optional usage of removed chain-link fence materials.**

METHOD OF MEASUREMENT

162-4.1 Chain-link fence will be measured for payment by the linear foot. Measurement will be along the top of the fence from center to center of end posts.

162-4.2 Remove Chain-Link Fence will be measured for payment by the linear foot. Measurement will be along the top of the fence from center to center of end posts.

BASIS OF PAYMENT

162-5.1 Payment for chain-link fence will be made at the contract unit price per linear foot. The price shall be full compensation for furnishing all materials, and for all preparation, erection, and installation of these materials, and for all labor equipment, tools, and incidentals necessary to complete the item. If the Contractor elects to salvage and utilize chain-link fence materials as specified herein, those costs to salvage and reuse shall be included under this item.

Payment will be made under:

Install 6-foot Chain-Link Fence - per linear foot

162-5.2 Payment for remove chain-link fence will be made at the contract unit price per linear foot. This price shall be full compensation for furnishing all materials and for all preparation, excavation, removal and disposal of the demolished materials off airport property (unless otherwise salvaged by the Contractor); backfill and clean up; and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Remove 6-foot Chain-Link Fence - per linear foot

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.

ASTM International (ASTM)

ASTM A121	Standard Specification for Metallic-Coated Carbon Steel Barbed Wire
ASTM A153	Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASTM A392	Standard Specification for Zinc-Coated Steel Chain-Link Fence Fabric
ASTM A491	Standard Specification for Aluminum-Coated Steel Chain-Link Fence Fabric
ASTM A824	Standard Specification for Metallic-Coated Steel Marcellled Tension Wire for Use with Chain Link Fence
ASTM B117	Standard Practice for Operating Salt Spray (Fog) Apparatus
ASTM F1043	Standard Specification for Strength and Protective Coatings on Steel Industrial Fence Framework
ASTM F1083	Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures
ASTM F1183	Standard Specification for Aluminum Alloy Chain Link Fence Fabric
ASTM F1345	Standard Specification for Zinc 5% Aluminum-Mischmetal Alloy Coated Steel Chain-Link Fence Fabric
ASTM G152	Standard Practice for Operating Open Flame Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials
ASTM G153	Standard Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials
ASTM G154	Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials
ASTM G155	Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials

Federal Specifications (FED SPEC)

FED SPEC RR-F-191/3 Fencing, Wire and Post, Metal (Chain-Link Fence Posts, Top Rails and Braces)

FED SPEC RR-F-191/4 Fencing, Wire and Post, Metal (Chain-Link Fence Accessories)

FAA Standard	
FAA-STD-019	Lightning and Surge Protection, Grounding, Bonding and Shielding Requirements for Facilities and Electronic Equipment
FAA Orders	
5300.38	AIP Handbook

END OF ITEM F-162

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Item L-108 Underground Power Cable for Airports

DESCRIPTION

108-1.1 This item shall consist of furnishing and installing power cables that are within conduit or duct banks per these specifications at the locations shown on the plans. Also included are the installation of counterpoise wires, ground wires, ground rods and connections, cable splicing, cable marking, cable testing, and all incidentals necessary to place the cable in operating condition as a completed unit to the satisfaction of the RPR. This item shall not include the installation of duct banks or conduit, trenching and backfilling for duct banks or conduit, or furnishing or installation of cable for FAA owned/operated facilities.

EQUIPMENT AND MATERIALS

108-2.1 General.

a. Airport lighting equipment and materials covered by advisory circulars (AC) shall be approved under the Airport Lighting Equipment Certification Program per AC 150/5345-53, current version.

b. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification, when requested by the RPR.

c. Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials per these specifications. Materials supplied and/or installed that do not comply with these specifications shall be removed (when directed by the RPR) and replaced with materials that comply with these specifications at the Contractor's cost.

d. All materials and equipment used to construct this item 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. Submittal data shall be presented in a clear, precise, and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify products or models applicable to this project. Indicate all optional equipment and delete any non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment to which they apply on each submittal sheet. Markings shall be made bold and clear with arrows or circles (highlighting is not acceptable). The Contractor is solely responsible for delays in the project that may accrue directly or indirectly from late submissions or resubmissions of submittals.

e. 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 electronically submitted in pdf format. The RPR reserves the right to reject any and all equipment, materials, or procedures that do not meet the system design and the standards and codes, specified in this document.

f. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for at least twelve (12) months from the date of 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. The Contractor shall maintain a minimum insulation resistance in accordance with paragraph 108-3.10e with isolation transformers connected in new circuits and new segments of existing circuits through the end of the contract warranty period when tested in accordance with AC 150/5340-26, *Maintenance Airport Visual Aid Facilities*, paragraph 5.1.3.1, Insulation Resistance Test.

108-2.2 Cable. Wire for electrical circuits up to 600 volts shall comply with Specification L-824 and/or Commercial Item Description A-A-59544A and shall be type THWN-2, 75°C for installation in conduit

and RHW-2, 75°C for direct burial installations. Conductors for parallel (voltage) circuits shall be type and size and installed in accordance with NFPA-70, National Electrical Code.

Unless noted otherwise, all 600-volt and less non-airfield lighting conductor sizes are based on a 75°C, THWN-2, 600-volt insulation, copper conductors, not more than three single insulated conductors, in raceway, in free air. The conduit/duct sizes are based on the use of THWN-2, 600-volt insulated conductors. The Contractor shall make the necessary increase in conduit/duct sizes for other types of wire insulation. In no case shall the conduit/duct size be reduced. The minimum power circuit wire size shall be #10 AWG.

Conductor sizes may have been adjusted due to voltage drop or other engineering considerations. Equipment provided by the Contractor shall be capable of accepting the quantity and sizes of conductors shown in the Contract Documents. All conductors, pigtails, cable step-down adapters, cable step-up adapters, terminal blocks, and splicing materials necessary to complete the cable termination/splice shall be considered incidental to the respective pay items provided.

Cable type, size, number of conductors, strand and service voltage shall be as specified in the Contract Document.

Due to this cable being installed for a fuel farm, the cable(s) shall be gas and oil resistant rated.

108-2.3 Bare copper wire (counterpoise, bare copper wire ground and ground rods). Wire for counterpoise or ground installations for airfield lighting systems shall be No. 6 AWG bare solid copper wire for counterpoise and/or No. 6 AWG insulated stranded for grounding bond wire per ASTM B3 and ASTM B8, and shall be bare copper wire. For voltage powered circuits, the equipment grounding conductor shall comply with NEC Article 250.

Ground rods shall be copper-clad steel. The ground rods shall be of the length and diameter specified on the plans, but in no case be less than 10 feet long and 3/4 inch in diameter. Ground rods shall be incidental to the counterpoise installation.

108-2.4 Cable connections. In-line connections or splices of underground primary cables shall be of the type called for on the plans and shall be one of the types listed below. No separate payment will be made for cable connections.

a. The cast splice. A cast splice, employing a plastic mold and using epoxy resin equivalent to that manufactured by 3M™ Company, "Scotchcast" Kit No. 82-B, or an approved equivalent, used for potting the splice is acceptable. For use on 600V circuits only.

b. The field-attached plug-in splice. Field attached plug-in splices shall be installed as shown on the plans. The Contractor shall determine the outside diameter of the cable to be spliced and furnish appropriately sized connector kits and/or adapters. Tape or heat shrink tubing with integral sealant shall be in accordance with the manufacturer's requirements. Primary Connector Kits manufactured by Amerace, "Super Kit", Integro "Complete Kit", or approved equal is acceptable.

c. The factory-molded plug-in splice. Specification for L-823 Connectors, Factory-Molded to Individual Conductors, is acceptable.

d. The taped or heat-shrink splice. Not used this project.

108-2.5 Splicer qualifications. Every airfield lighting cable splicer shall be qualified in making airport cable splices and terminations on cables rated at or above 5,000 volts AC. The Contractor shall submit to the RPR proof of the qualifications of each proposed cable splicer for the airport cable type and voltage level to be worked on. Cable splicing/terminating personnel shall have a minimum of three (3) years continuous experience in terminating/splicing medium voltage cable.

108-2.6 Concrete. Not used this project.

108-2.7 Flowable backfill. Not used this project.

108-2.8 Cable identification tags. Cable identification tags shall be made from a non-corrosive material with the circuit identification stamped or etched onto the tag. The tags shall be of the type as detailed on the plans.

108-2.9 Tape. Electrical tapes shall be Scotch™ Electrical Tapes –Scotch™ 88 (1-1/2 inch wide) and Scotch™ 130C® linerless rubber splicing tape (2-inch wide), as manufactured by the Minnesota Mining and Manufacturing Company (3M™), or an approved equivalent.

108-2.10 Electrical coating. Electrical coating shall be Scotchkote™ as manufactured by 3M™, or an approved equivalent.

108-2.11 Existing circuits. Whenever the scope of work requires connection to an existing circuit, the existing circuit's insulation resistance shall be tested, in the presence of the RPR. The test shall be performed per this item and prior to any activity that will affect the respective circuit. The Contractor shall record the results on forms acceptable to the RPR. When the work affecting the circuit is complete, the circuit's insulation resistance shall be checked again, in the presence of the RPR. The Contractor shall record the results on forms acceptable to the RPR. The second reading shall be equal to or greater than the first reading or the Contractor shall make the necessary repairs to the existing circuit to bring the second reading above the first reading. All repair costs including a complete replacement of the L-823 connectors, L-830 transformers and L-824 cable, if necessary, shall be borne by the Contractor. All test results shall be submitted in the Operation and Maintenance (O&M) Manual.

108-2.12 Detectable warning tape. Plastic, detectable, American Public Works Association (APWA) Red (electrical power lines, cables, conduit, and lighting cable) with continuous legend tape shall be polyethylene film with a metalized foil core and shall be 3-6 inches wide. Detectable tape is incidental to the respective bid item. Detectable warning tape for communication cables shall be orange. Detectable warning tape color code shall comply with the APWA Uniform Color Code.

CONSTRUCTION METHODS

108-3.1 General. The Contractor shall install the specified cable at the approximate locations indicated on the plans. Unless otherwise shown on the plans, all cable required to cross under pavements expected to carry aircraft loads shall be installed in concrete encased duct banks. Cable shall be run without splices, from fixture to fixture.

Cable connections between lights will be permitted only at the light locations for connecting the underground cable to the primary leads of the individual isolation transformers. The Contractor shall be responsible for providing cable in continuous lengths for home runs or other long cable runs without connections unless otherwise authorized in writing by the RPR or shown on the plans.

In addition to connectors being installed at individual isolation transformers, L-823 cable connectors for maintenance and test points shall be installed at locations shown on the plans. Cable circuit identification markers shall be installed on both sides of the L-823 connectors installed and on both sides of slack loops where a future connector would be installed.

Provide not less than 3 feet (1 m) of cable slack on each side of all connections, isolation transformers, light units, and at points where cable is connected to field equipment. Where provisions must be made for testing or for future above grade connections, provide enough slack to allow the cable to be extended at least one foot vertically above the top of the access structure. This requirement also applies where primary cable passes through empty light bases, junction boxes, and access structures to allow for future connections, or as designated by the RPR.

Primary airfield lighting cables installed shall have cable circuit identification markers attached on both sides of each L-823 connector and on each airport lighting cable entering or leaving cable access points, such as manholes, hand holes, pull boxes, junction boxes, etc. Markers shall be of sufficient length for

imprinting the cable circuit identification legend on one line, using letters not less than 1/4 inch in size. The cable circuit identification shall match the circuits noted on the construction plans.

108-3.2 Installation in duct banks or conduits. This item includes the installation of the cable in duct banks or conduit per the following paragraphs. The maximum number and voltage ratings of cables installed in each single duct or conduit, and the current-carrying capacity of each cable shall be per the latest version of the National Electric Code, or the code of the local agency or authority having jurisdiction.

The Contractor shall make no connections or splices of any kind in cables installed in conduits or duct banks.

Unless otherwise designated in the plans, where ducts are in tiers, use the lowest ducts to receive the cable first, with spare ducts left in the upper levels. Check duct routes prior to construction to obtain assurance that the shortest routes are selected and that any potential interference is avoided.

Duct banks or conduits shall be installed as a separate item per Item L-110, Airport Underground Electrical Duct Banks and Conduit. The Contractor shall run a mandrel through duct banks or conduit prior to installation of cable to ensure that the duct bank or conduit is open, continuous, and clear of debris. The mandrel size shall be compatible with the conduit size. The Contractor shall swab out all conduits/ducts and clean light bases, manholes, etc., interiors immediately prior to pulling cable. Once cleaned and swabbed, the light bases and all accessible points of entry to the duct/conduit system shall be kept closed except when installing cables. Cleaning of ducts, light bases, manholes, etc., is incidental to the pay item of the item being cleaned. All raceway systems left open, after initial cleaning, for any reason shall be re-cleaned at the Contractor's expense. The Contractor shall verify existing ducts proposed for use in this project as clear and open. The Contractor shall notify the RPR of any blockage in the existing ducts.

The cable shall be installed in a manner that prevents harmful stretching of the conductor, damage to the insulation, or damage to the outer protective covering. The ends of all cables shall be sealed with moisture-seal tape providing moisture-tight mechanical protection with minimum bulk, or alternately, heat shrinkable tubing before pulling into the conduit and it shall be left sealed until connections are made. Where more than one cable is to be installed in a conduit, all cable shall be pulled in the conduit at the same time. The pulling of a cable through duct banks or conduits may be accomplished by hand winch or power winch with the use of cable grips or pulling eyes. Maximum pulling tensions shall not exceed the cable manufacturer's recommendations. A non-hardening cable-pulling lubricant recommended for the type of cable being installed shall be used where required.

The Contractor shall submit the recommended pulling tension values to the RPR prior to any cable installation. If required by the RPR, pulling tension values for cable pulls shall be monitored by a dynamometer in the presence of the RPR. Cable pull tensions shall be recorded by the Contractor and reviewed by the RPR. Cables exceeding the maximum allowable pulling tension values shall be removed and replaced by the Contractor at the Contractor's expense.

The manufacturer's minimum bend radius or NEC requirements (whichever is more restrictive) shall apply. Cable installation, handling and storage shall be per manufacturer's recommendations. During cold weather, particular attention shall be paid to the manufacturer's minimum installation temperature. Cable shall not be installed when the temperature is at or below the manufacturer's minimum installation temperature. At the Contractor's option, the Contractor may submit a plan, for review by the RPR, for heated storage of the cable and maintenance of an acceptable cable temperature during installation when temperatures are below the manufacturer's minimum cable installation temperature.

Cable shall not be dragged across base can or manhole edges, pavement, or earth. When cable must be coiled, lay cable out on a canvas tarp, or use other appropriate means to prevent abrasion to the cable jacket.

108-3.3 Installation of direct-buried cable in trenches. Not used this project.

108-3.4 Cable markers for direct-buried cable. Not used this project.

108-3.5 Splicing. Connections of the type shown on the plans shall be made by experienced personnel regularly engaged in this type of work and shall be made as follows:

a. Cast splices. These shall be made by using crimp connectors for jointing conductors. Molds shall be assembled, and the compound shall be mixed and poured per the manufacturer's instructions and to the satisfaction of the RPR. For use on 600V circuits only.

b. Field-attached plug-in splices. These shall be assembled per the manufacturer's instructions. These splices shall be made by plugging directly into mating connectors. The joint where the connectors come together shall be finished by one of the following methods: (1) wrapped with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape, one-half lapped, extending at least 1-1/2 inches (38 mm) on each side of the joint (2) Covered with heat shrinkable tubing with integral sealant extending at least 1-1/2 inches (38 mm) on each side of the joint or (3) On connector kits equipped with water seal flap; roll-over water seal flap to sealing position on mating connector.

c. Factory-molded plug-in splices. These shall be made by plugging directly into mating connectors. The joint where the connectors come together shall be finished by one of the following methods: (1) Wrapped with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape, one-half lapped, extending at least 1-1/2 inches (38 mm) on each side of the joint. (2) Covered with heat shrinkable tubing with integral sealant extending at least 1-1/2 inches (38 mm) on each side of the joint. or (3) On connector kits so equipped with water seal flap; roll-over water seal flap to sealing position on mating connector.

d. Taped or heat-shrink splices. Not Used.

108-3.6 Bare counterpoise wire installation for lightning protection and grounding. If shown on the plans or included in the job specifications, bare solid #6 AWG copper counterpoise wire shall be installed for lightning protection of the underground cables. The RPR shall select one of two methods of lightning protection for the airfield lighting circuit based upon sound engineering practice and lightning strike density.

a. Equipotential. –The counterpoise size is as shown on the plans. The equipotential method is applicable to all airfield lighting systems; i.e., runway, taxiway, apron – touchdown zone, centerline, edge, threshold, and approach lighting systems. The equipotential method is also successfully applied to provide lightning protection for power, signal, and communication systems. The light bases, counterpoise, etc. – all components - are bonded together and bonded to the vault power system ground loop/electrode.

Counterpoise wire shall be installed in the same trench for the entire length of buried cable, conduits and duct banks that are installed to contain airfield cables. The counterpoise is centered over the cable/conduit/duct to be protected.

The counterpoise conductor shall be installed no less than 8 inches minimum or 12 inches maximum above the raceway or cable to be protected, except as permitted below:

(1) The minimum counterpoise conductor height above the raceway or cable to be protected shall be permitted to be adjusted subject to coordination with the airfield lighting and pavement designs.

(2) The counterpoise conductor height above the protected raceway(s) or cable(s) shall be calculated to ensure that the raceway or cable is within a 45-degree area of protection, (45 degrees on each side of vertical creating a 90 degree angle).

The counterpoise conductor shall be bonded to each metallic light base, mounting stake, and metallic airfield lighting component.

All metallic airfield lighting components in the field circuit on the output side of the constant current regulator (CCR) or other power source shall be bonded to the airfield lighting counterpoise system.

All components rise and fall at the same potential; with no potential difference, no damaging arcing, and no damaging current flow.

See AC 150/5340-30, Design, and Installation Details for Airport Visual Aids and NFPA 780, Standard for the Installation of Lightning Protection Systems, Chapter 11, for a detailed description of the Equipotential Method of lightning protection.

Reference FAA STD-019E, Lightning and Surge Protection, Grounding Bonding and Shielding Requirements for Facilities and Electronic Equipment, Part 4.1.1.7.

b. Isolation – Not used this project.

c. Common Installation requirements. When a metallic light base is used, the grounding electrode shall be bonded to the metallic light base or mounting stake with a No. 6 AWG bare, annealed, or soft drawn, solid copper conductor.

When a nonmetallic light base is used, the grounding electrode shall be bonded to the metallic light fixture or metallic base plate with a No. 6 AWG bare, annealed, or soft drawn, solid copper conductor.

Grounding electrodes may be rods, ground dissipation plates, radials, or other electrodes listed in the NFPA 70 (NEC) or NFPA 780.

Where raceway is installed by the directional bore, jack and bore, or other drilling method, the counterpoise conductor shall be permitted to be installed concurrently with the directional bore, jack and bore, or other drilling method raceway, external to the raceway or sleeve.

The counterpoise wire shall also be exothermically welded to ground rods installed as shown on the plans but not more than 500 feet apart around the entire circuit. The counterpoise system shall be continuous and terminate at the transformer vault or at the power source. It shall be securely attached to the vault or equipment external ground ring or other made electrode-grounding system. The connections shall be made as shown on the plans and in the specifications.

Where an existing airfield lighting system is being extended or modified, the new counterpoise conductors shall be interconnected to existing counterpoise conductors at each intersection of the new and existing airfield lighting counterpoise systems.

d. Parallel Voltage Systems. Provide grounding and bonding in accordance with NFPA 70, National Electrical Code.

108-3.7 Counterpoise installation above multiple conduits and duct banks. Counterpoise wires shall be installed above multiple conduits/duct banks for airfield lighting cables, with the intent being to provide a complete area of protection over the airfield lighting cables. When multiple conduits and/or duct banks for airfield cable are installed in the same trench, the number and location of counterpoise wires above the conduits shall be adequate to provide a complete area of protection measured 45 degrees each side of vertical.

Where duct banks pass under pavement to be constructed in the project, the counterpoise shall be placed above the duct bank. Reference details on the construction plans.

108-3.8 Counterpoise installation at existing duct banks. When airfield lighting cables are indicated on the plans to be routed through existing duct banks, the new counterpoise wiring shall be terminated at ground rods at each end of the existing duct bank where the cables being protected enter and exit the duct bank. The new counterpoise conductor shall be bonded to the existing counterpoise system.

108-3.9 Exothermic bonding. Bonding of counterpoise wire shall be by the exothermic welding process or equivalent method accepted by the RPR. Only personnel experienced in and regularly engaged in this type of work shall make these connections.

Contractor shall demonstrate to the satisfaction of the RPR, the welding kits, materials, and procedures to be used for welded connections prior to any installations in the field. The installations shall comply with the manufacturer's recommendations and the following:

- a. All slag shall be removed from welds.
- b. Using an exothermic weld to bond the counterpoise to a lug on a galvanized light base is not recommended unless the base has been specially modified. Consult the manufacturer's installation directions for proper methods of bonding copper wire to the light base. See AC 150/5340-30 for galvanized light base exception.
- c. If called for in the plans, all buried copper and weld material at weld connections shall be thoroughly coated with 6 mm of 3M™ Scotchkote™, or approved equivalent, or coated with coal tar Bitumastic® material to prevent surface exposure to corrosive soil or moisture.

108-3.10 Testing. The Contractor shall furnish all necessary equipment and appliances for testing the airport electrical systems and underground cable circuits before and after installation. The Contractor shall perform all tests in the presence of the RPR. The Contractor shall demonstrate the electrical characteristics to the satisfaction of the RPR. All costs for testing are incidental to the respective item being tested. For phased projects, the tests must be completed by phase. The Contractor must maintain the test results throughout the entire project as well as during the warranty period that meet the following:

- a. Earth resistance testing methods shall be submitted to the RPR for approval. Earth resistance testing results shall be recorded on an approved form and testing shall be performed in the presence of the RPR. All such testing shall be at the sole expense of the Contractor.

- b. Should the counterpoise or ground grid conductors be damaged or suspected of being damaged by construction activities the Contractor shall test the conductors for continuity with a low resistance ohmmeter. The conductors shall be isolated such that no parallel path exists and tested for continuity. The RPR shall approve of the test method selected. All such testing shall be at the sole expense of the Contractor.

After installation, the Contractor shall test and demonstrate to the satisfaction of the RPR the following:

- c. That all affected lighting power and control circuits (existing and new) are continuous and free from short circuits.

- d. That all affected circuits (existing and new) are free from unspecified grounds.

- e. That the insulation resistance to ground of all new non-grounded high voltage series circuits or cable segments is not less than 500 megohms. Verify continuity of all series airfield lighting circuits prior to energization.

- f. That the insulation resistance to ground of all new non-grounded conductors of new multiple circuits or circuit segments is not less than 100 megohms.

- g. That all affected circuits (existing and new) are properly connected per applicable wiring diagrams.

- h. That all affected circuits (existing and new) are operable. Tests shall be conducted that include operating each control not less than 10 times and the continuous operation of each lighting and power circuit for not less than 1/2 hour.

- i. That the impedance to ground of each ground rod does not exceed 25 ohms prior to establishing connections to other ground electrodes. The fall-of-potential ground impedance test shall be used, as described by American National Standards Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE) Standard 81, to verify this requirement. As an alternate, clamp-on style ground impedance test meters may be used to satisfy the impedance testing requirement. Test equipment and its calibration sheets shall be submitted for review and approval by the RPR prior to performing the testing.

Two copies of tabulated results of all cable tests performed shall be supplied by the Contractor to the RPR. Where connecting new cable to existing cable, insulation resistance tests shall be performed on the new cable prior to connection to the existing circuit.

There are no approved “repair” procedures for items that have failed testing other than complete replacement.

METHOD OF MEASUREMENT

108-4.1 Cable or counterpoise wire installed in trench, duct bank or conduit between the fuel farm and electrical building shall be measured by the number of linear feet installed, including grounding connectors and trench marking tape ready for operation, and accepted as satisfactory. Separate measurement shall be made for each cable or counterpoise wire installed in trench, duct bank or conduit. The measurement for this item shall not include additional quantities required for slack.

Cable slack is considered incidental to this item and is included in the Contractor’s unit price. No separate measurement or payment will be made for cable slack.

All other cables shown on the plans shall be incidental to the respective bid item.

108-4.2 No separate measurement will be made for ground rods.

BASIS OF PAYMENT

108-5.1 Payment will be made at the contract unit price for cable installed in duct bank or conduit; and for bare counterpoise wire installed in trench (direct-buried), in place by the Contractor and accepted by the RPR. This price shall be full compensation for furnishing all materials and for all preparation and installation of these materials, and for all labor, equipment, tools, and incidentals, including ground rods and ground connectors and trench marking tape, necessary to complete this item.

Payment will be made under:

4-#250KCMIL, 1-#2 Ground Installed Duct Bank or Conduit - per liner foot

No. 6 AWG, Solid, Bare Copper Counterpoise Wire, Installed Above the Duct Bank or Conduit, Including Connections/Terminations - per linear foot

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 150/5340-26	Maintenance of Airport Visual Aid Facilities
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
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 150/5345-53	Airport Lighting Equipment Certification Program

Commercial Item Description

A-A-59544A	Cable and Wire, Electrical (Power, Fixed Installation)
A-A-55809	Insulation Tape, Electrical, Pressure-Sensitive Adhesive, Plastic

ASTM International (ASTM)

ASTM B3	Standard Specification for Soft or Annealed Copper Wire
ASTM B8	Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft
ASTM B33	Standard Specification for Tin-Coated Soft or Annealed Copper Wire for Electrical Purposes
ASTM D4388	Standard Specification for Nonmetallic Semi-Conducting and Electrically Insulating Rubber Tapes

Mil Spec

MIL-PRF-23586F	Performance Specification: Sealing Compound (with Accelerator), Silicone Rubber, Electrical
MIL-I-24391	Insulation Tape, Electrical, Plastic, Pressure Sensitive

National Fire Protection Association (NFPA)

NFPA-70	National Electrical Code (NEC)
NFPA-780	Standard for the Installation of Lightning Protection Systems

American National Standards Institute (ANSI)/Institute of Electrical and Electronics Engineers (IEEE)

ANSI/IEEE STD 81	IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System
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Federal Aviation Administration Standard

FAA STD-019E	Lightning and Surge Protection, Grounding Bonding and Shielding Requirements for Facilities and Electronic Equipment
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Item L-110 Airport Underground Electrical Duct Banks and Conduits

DESCRIPTION

110-1.1 This item shall consist of underground electrical conduits and duct banks (single or multiple conduits encased in concrete or buried in sand) installed per this specification at the locations and per the dimensions, designs, and details shown on the plans. This item shall include furnishing and installing of all individual and multiple underground conduits. It shall also include all trenching, backfilling, removal, and restoration of any paved or landscaped areas; concrete encasement, mandrelling, pulling lines, plugging of conduits, and the testing of the installation as a completed system ready for installation of cables per the plans and specifications. This item shall also include furnishing and installing conduits and all incidentals for providing positive drainage of the system. Verification of existing ducts is incidental to the pay items provided in this specification.

EQUIPMENT AND MATERIALS

110-2.1 General.

a. All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the RPR.

b. Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials per 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 comply with these specifications, at the Contractor's cost.

c. All materials and equipment used to construct this item 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. Submittal data shall be presented in a clear, precise, and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify 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 made bold and clear with arrows or circles (highlighting is not acceptable). The Contractor is solely responsible for delays in project that accrue 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 electronically submitted in pdf format, tabbed by specification section. The RPR reserves the right to reject any and all equipment, materials or procedures that do not meet the system design and the standards and codes specified in this document.

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.

110-2.2 Steel conduit. Rigid galvanized steel (RGS) conduit and fittings shall be hot dipped galvanized inside and out and conform to the requirements of Underwriters Laboratories Standards 6, 514B, and 1242. All RGS conduits or RGS elbows installed below grade, in concrete, permanently wet locations or other similar environments shall be painted with a 10-mil thick coat of asphaltum sealer or shall have a factory-bonded polyvinyl chloride (PVC) cover. Any exposed galvanizing or steel shall be coated with 10 mils of

asphaltum sealer. When using PVC coated RGS conduit, care shall be exercised not to damage the factory PVC coating. Damaged PVC coating shall be repaired per the manufacturer's written instructions. In lieu of PVC coated RGS, corrosion wrap tape shall be permitted to be used where RGS is in contact with direct earth."

110-2.3 Plastic conduit. Plastic conduit and fittings shall conform to the following requirements:

- UL 514B covers W-C-1094-Conduit fittings all types, classes 1 thru 3 and 6 thru 10.^[11]_[SEP]
- UL 514C covers W-C-1094- all types, Class 5 junction box and cover in plastic (PVC).
- UL 651 covers W-C-1094-Rigid PVC Conduit, types I and II, Class 4.
- UL 651A covers W-C-1094-Rigid PVC Conduit and high-density polyethylene (HDPE) Conduit type III and Class 4.

Underwriters Laboratories Standards UL-651 and Article 352 of the current National Electrical Code shall be one of the following, as shown on the plans:

- a. Type I—Schedule 40 and Schedule 80 PVC suitable for underground use either direct-buried or encased in concrete.
- b. Type II—Schedule 40 PVC suitable for either above ground or underground use.
- c. Type III – Schedule 80 PVC suitable for either above ground or underground use either direct-buried or encased in concrete.
- d. Type III –HDPE pipe, minimum standard dimensional ratio (SDR) 11, suitable for placement with directional boring under pavement.

The type of solvent cement shall be as recommended by the conduit/fitting manufacturer.

110-2.4 Split conduit. Split conduit shall be pre-manufactured for the intended purpose and shall be made of steel or plastic.

110-2.5 Conduit spacers. Conduit spacers shall be prefabricated interlocking units manufactured for the intended purpose. They shall be of double wall construction made of high-grade, high-density polyethylene complete with interlocking cap and base pads. They shall be designed to accept No. 4 reinforcing bars installed vertically.

110-2.6 Concrete. Concrete shall be proportioned, placed, and cured per state department of transportation structural concrete with minimum 25% Type F fly ash, and a minimum allowable compressive strength of 4,000 psi.

110-2.7 Precast concrete structures. Precast concrete structures shall be furnished by a plant meeting National Precast Concrete Association Plant Certification Program or another RPR approved third party certification program. Precast concrete structures shall conform to ASTM C478.

110-2.8 Flowable backfill. Not used under this project.

110-2.9 Detectable warning tape. Plastic, detectable, American Public Works Association (APWA) red (electrical power lines, cables, conduit, and lighting cable), orange (telephone/fiber optic cabling) with continuous legend magnetic tape shall be polyethylene film with a metallized foil core and shall be 3-6 inches wide. Detectable tape is incidental to the respective bid item.

CONSTRUCTION METHODS

110-3.1 General. The Contractor shall install underground duct banks and conduits at the approximate locations indicated on the plans. The RPR shall indicate specific locations as the work progresses, if

required to differ from the plans. Duct banks and conduits shall be of the size, material, and type indicated on the plans or specifications. Where no size is indicated on the plans or in the specifications, conduits shall be not less than 2 inches inside diameter or comply with the National Electrical Code based on cable to be installed, whichever is larger. All duct bank and conduit lines shall be laid so as to grade toward access points and duct or conduit ends for drainage. Unless shown otherwise on the plans, grades shall be at least 3 inches per 100 feet. On runs where it is not practicable to maintain the grade all one way, the duct bank and conduit lines shall be graded from the center in both directions toward access points or conduit ends. Pockets or traps where moisture may accumulate shall be avoided. Under pavement, the top of the duct bank shall not be less than 18 inches below the subgrade; in other locations, the top of the duct bank or underground conduit shall be not less than 18 inches below finished grade.

The Contractor shall mandrel each individual conduit whether the conduit is direct-buried or part of a duct bank. An iron-shod mandrel, not more than 1/4 inch smaller than the bore of the conduit shall be pulled or pushed through each conduit. The mandrel shall have a leather or rubber gasket slightly larger than the conduit hole.

The Contractor shall swab out all conduits/ducts and clean base can, manhole, pull boxes, etc., interiors immediately prior to pulling cable. Once cleaned and swabbed the light bases, manholes, pull boxes, etc., and all accessible points of entry to the duct/conduit system shall be kept closed except when installing cables. Cleaning of ducts, base cans, manholes, etc., is incidental to the pay item of the item being cleaned. All raceway systems left open, after initial cleaning, for any reason shall be recleaned at the Contractor's expense. All accessible points shall be kept closed when not installing cable. The Contractor shall verify existing ducts proposed for use in this project as clear and open. The Contractor shall notify the RPR of any blockage in the existing ducts.

For pulling the permanent wiring, each individual conduit, whether the conduit is direct-buried or part of a duct bank, shall be provided with a 200-pound test polypropylene pull rope. The ends shall be secured and sufficient length shall be left in access points to prevent it from slipping back into the conduit. Where spare conduits are installed, as indicated on the plans, the open ends shall be plugged with removable tapered plugs, designed for this purpose.

All conduits shall be securely fastened in place during construction and shall be plugged to prevent contaminants from entering the conduits. Any conduit section having a defective joint shall not be installed. Ducts shall be supported and spaced apart using approved spacers at intervals not to exceed 5 feet.

Unless otherwise shown on the plans, concrete encased duct banks shall be used when crossing under pavements expected to carry aircraft loads, such as runways, taxiways, taxilanes, ramps and aprons.

All conduits within concrete encasement of the duct banks shall terminate with female ends for ease in current and future use. Install factory plugs in all unused ends. Do not cover the ends or plugs with concrete.

Where turf is well established and the sod can be removed, it shall be carefully stripped and properly stored.

Trenches for conduits and duct banks may be excavated manually or with mechanical trenching equipment unless in pavement, in which case they shall be excavated with mechanical trenching equipment. Walls of trenches shall be essentially vertical so that a minimum of shoulder surface is disturbed. Blades of graders shall not be used to excavate the trench.

When rock is encountered, the rock shall be removed to a depth of at least 3 inches below the required conduit or duct bank depth and it shall be replaced with bedding material of earth or sand containing no mineral aggregate particles that would be retained on a 1/4-inch sieve.

Underground electrical warning (Caution) tape shall be installed in the trench above all underground duct banks and conduits in unpaved areas. Contractor shall submit a sample of the proposed warning tape for approval by the RPR. If not shown on the plans, the warning tape shall be located 6 inches above the duct/conduit or the counterpoise wire if present.

Joints in plastic conduit shall be prepared per the manufacturer's recommendations for the particular type of conduit. Plastic conduit shall be prepared by application of a plastic cleaner and brushing a plastic solvent on the outside of the conduit ends and on the inside of the couplings. The conduit fitting shall then be slipped together with a quick one-quarter turn twist to set the joint tightly. Where more than one conduit is placed in a single trench, or in duct banks, joints in the conduit shall be staggered a minimum of 2 feet.

Changes in direction of runs exceeding 10 degrees, either vertical or horizontal, shall be accomplished using manufactured sweep bends.

Whether or not specifically indicated on the drawings, where the soil encountered at established duct bank grade is an unsuitable material, as determined by the RPR, the unsuitable material shall be removed and replaced with suitable material. Additional duct bank supports shall be installed, as approved by the RPR.

All excavation shall be unclassified and shall be considered incidental to Item L-110. Dewatering necessary for duct installation, and erosion per federal, state, and local requirements is incidental to Item L-110.

Unless otherwise specified, excavated materials that are deemed by the RPR to be unsuitable for use in backfill or embankments shall be removed and disposed of offsite.

Any excess excavation shall be filled with suitable material approved by the RPR and compacted.

It is the Contractor's responsibility to locate existing utilities within the work area prior to excavation. Where existing active cables cross proposed installations, the Contractor shall ensure that these cables are adequately protected. Where crossings are unavoidable, no splices will be allowed in the existing cables, except as specified on the plans. Installation of new cable where such crossings must occur shall proceed as follows:

a. Existing cables shall be located manually. Unearthed cables shall be inspected to assure absolutely no damage has occurred

b. Trenching, etc., in cable areas shall then proceed with approval of the RPR, with care taken to minimize possible damage or disruption of existing cable, including careful backfilling in area of cable.

In the event that any previously identified cable is damaged during the course of construction, the Contractor shall be responsible for the complete repair.

110-3.2 Duct banks. Unless otherwise shown in the plans, duct banks shall be installed so that the top of the concrete envelope is not less than 18 inches below the bottom of the base or stabilized base course layers where installed under runways, taxiways, aprons, or other paved areas, and not less than 18 inches below finished grade where installed in unpaved areas.

Unless otherwise shown on the plans, duct banks under paved areas shall extend at least 3 feet beyond the edges of the pavement or 3 feet beyond any under drains that may be installed alongside the paved area. Trenches for duct banks shall be opened the complete length before concrete is placed so that if any obstructions are encountered, provisions can be made to avoid them. Unless otherwise shown on the plans, all duct banks shall be placed on a layer of concrete not less than 3 inches thick prior to its initial set. The Contractor shall space the conduits not less than 3 inches apart (measured from outside wall to outside wall). All such multiple conduits shall be placed using conduit spacers applicable to the type of conduit. As the conduit laying progresses, concrete shall be placed around and on top of the conduits not less than 3 inches thick unless otherwise shown on the plans. All conduits shall terminate with female ends for ease of access in current and future use. Install factory plugs in all unused ends. Do not cover the ends or plugs with concrete.

Conduits forming the duct bank shall be installed using conduit spacers. No. 4 reinforcing bars shall be driven vertically into the soil a minimum of 6 inches to anchor the assembly into the earth prior to placing the concrete encasement. For this purpose, the spacers shall be fastened down with locking collars attached to the vertical bars. Spacers shall be installed at 5-foot intervals. Spacers shall be in the proper sizes and

configurations to fit the conduits. Locking collars and spacers shall be submitted to the RPR for review prior to use.

When specified, the Contractor shall reinforce the bottom side and top of encasements with steel reinforcing mesh or fabric or other approved metal reinforcement. When directed, the Contractor shall supply additional supports where the ground is soft and boggy, where ducts cross under roadways, or where shown on the plans. Under such conditions, the complete duct structure shall be supported on reinforced concrete footings, piers, or piles located at approximately 5-foot intervals.

All pavement surfaces that are to have ducts installed therein shall be neatly saw cut to form a vertical face. All excavation shall be included in the contract with price for the duct.

Install a plastic, detectable, color as noted, 3 to 6 inches wide tape, 8 inches minimum below grade above all underground conduit or duct lines not installed under pavement. Utilize the 3-inch wide tape only for single conduit runs. Utilize the 6-inch wide tape for multiple conduits and duct banks. For duct banks equal to or greater than 24 inches in width, utilize more than one tape for sufficient coverage and identification of the duct bank as required.

When existing cables are to be placed in split duct, encased in concrete, the cable shall be carefully located and exposed by hand tools. Prior to being placed in duct, the RPR shall be notified so that he may inspect the cable and determine that it is in good condition. Where required, split duct shall be installed as shown on the drawings or as required by the RPR.

110-3.3 Conduits without concrete encasement. Trenches for single-conduit lines shall be not less than 6 inches nor more than 12 inches wide. The trench for 2 or more conduits installed at the same level shall be proportionately wider. Trench bottoms for conduits without concrete encasement shall be made to conform accurately to grade so as to provide uniform support for the conduit along its entire length.

Unless otherwise shown on the plans, a layer of fine earth material, at least 4 inches thick (loose measurement) shall be placed in the bottom of the trench as bedding for the conduit. The bedding material shall consist of soft dirt, sand, or other fine fill, and it shall contain no particles that would be retained on a 1/4-inch sieve. The bedding material shall be tamped until firm.

Unless otherwise shown on plans, conduits shall be installed so that the tops of all conduits within the Airport's secured area where trespassing is prohibited are at least 18 inches below the finished grade. Conduits outside the Airport's secured area shall be installed so that the tops of the conduits are at least 24 inches below the finished grade per National Electric Code (NEC), Table 300.5.

When two or more individual conduits intended to carry conductors of equivalent voltage insulation rating are installed in the same trench without concrete encasement, they shall be spaced not less than 3 inches apart (measured from outside wall to outside wall) in a horizontal direction and not less than 6 inches apart in a vertical direction. Where two or more individual conduits intended to carry conductors of differing voltage insulation rating are installed in the same trench without concrete encasement, they shall be placed not less than 3 inches apart (measured from outside wall to outside wall) in a horizontal direction and not less than 6 inches apart in a vertical direction.

Trenches shall be opened the complete length between normal termination points before conduit is installed so that if any unforeseen obstructions are encountered, proper provisions can be made to avoid them.

Conduits shall be installed using conduit spacers. No. 4 reinforcing bars shall be driven vertically into the soil a minimum of 6 inches to anchor the assembly into the earth while backfilling. For this purpose, the spacers shall be fastened down with locking collars attached to the vertical bars. Spacers shall be installed at 5-foot intervals. Spacers shall be in the proper sizes and configurations to fit the conduits. Locking collars and spacers shall be submitted to the RPR for review prior to use.

110-3.4 Markers. Not used this project.

110-3.5 Backfilling for conduits. For conduits, 8 inches of sand, soft earth, or other fine fill (loose measurement) shall be placed around the conduits ducts and carefully tamped around and over them with hand tampers. The remaining trench shall then be backfilled and compacted per Item P-152 except that material used for back fill shall be select material not larger than 4 inches in diameter.

Trenches shall not contain pools of water during back filling operations.

The trench shall be completely backfilled and tamped level with the adjacent surface; except that, where sod is to be placed over the trench, the backfilling shall be stopped at a depth equal to the thickness of the sod to be used, with proper allowance for settlement.

Any excess excavated material shall be removed and disposed of per instructions issued by the RPR.

110-3.6 Backfilling for duct banks. After the concrete has cured, the remaining trench shall be backfilled and compacted except that the material used for backfill shall be select material not larger than 4 inches in diameter.

Trenches shall not contain pools of water during backfilling operations.

The trench shall be completely backfilled and tamped level with the adjacent surface; except that, where sod is to be placed over the trench, the backfilling shall be stopped at a depth equal to the thickness of the sod to be used.

Any excess excavated material shall be removed and disposed of per instructions issued by the RPR.

110-3.7 Restoration. All areas disturbed by the work shall be restored to its original condition. In paved areas, the restoration shall include reestablishing the aggregate base course and placing hot-mix asphalt to the original thickness, as shown on the plans. In non-paved areas, the restoration shall include reestablishing the landscape rock to the original thickness, as shown on the plans. The Contractor shall be held responsible for maintaining all disturbed surfaces and replacements until final acceptance. All restoration shall be considered incidental to the respective L-110 pay item. Following restoration of all trenching near airport movement surfaces, the Contractor shall thoroughly visually inspect the area for foreign object debris (FOD), and remove any such FOD that is found. This FOD inspection and removal shall be considered incidental to the pay item of which it is a component part.

110-3.8 Ownership of removed cable. Removed cable becomes property of the contractor and shall be disposed off-site.

110-3.9 Removed Conduit. Any conduit removed shall be incidental to that bid item. This included any conduit modifications required in reusing existing conduit to fit the work shown on the plans.

METHOD OF MEASUREMENT

110-4.1 Underground conduits between the fuel farm and electrical building shall be measured by the linear feet of conduits installed, including encasement, locator tape, trenching and backfill with designated material, and restoration (paved and non-paved areas), all measured in place, completed, and accepted.

BASIS OF PAYMENT

110-5.1 Payment will be made at the contract unit price per linear foot for each type and size of conduit and duct bank completed and accepted, including trench and backfill with the designated material, and restoration (paved and non-paved areas). This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item per the provisions and intent of the plans and specifications.

Clearing existing duct of debris or cable is incidental to the cable installation pay item.

Payment will be made under:

Concrete Encased, Electrical Conduit, 1-Way 3-inch C, 18-inch Minimum Cover - per linear foot

Non-Encased, Electrical Conduit, 1-Way 3-inch C, 18-inch Minimum Cover - per linear foot

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 Circular (AC)

AC 150/5340-30 Design and Installation Details for Airport Visual Aids

AC 150/5345-53 Airport Lighting Equipment Certification Program

ASTM International (ASTM)

ASTM A615 Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement

National Fire Protection Association (NFPA)

NFPA-70 National Electrical Code (NEC)

Underwriters Laboratories (UL)

UL Standard 6 Electrical Rigid Metal Conduit - Steel

UL Standard 514B Conduit, Tubing, and Cable Fittings

UL Standard 514C Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers

UL Standard 1242 Electrical Intermediate Metal Conduit Steel

UL Standard 651 Schedule 40, 80, Type EB and A Rigid PVC Conduit and Fittings

UL Standard 651A Type EB and A Rigid PVC Conduit and HDPE Conduit

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Item L-115 Electrical Manholes and Junction Structures

DESCRIPTION

115-1.1 This item shall consist of junction structures (hand holes, pull boxes, junction cans, etc.) installed per this specification, at the indicated locations and conforming to the lines, grades and dimensions shown on the plans or as required by the RPR. This item shall include the installation of each junction structure with all associated excavation, backfilling, sheeting and bracing, concrete, reinforcing steel, ladders, appurtenances, testing, dewatering and restoration of surfaces to the satisfaction of the RPR.

EQUIPMENT AND MATERIALS

115-2.1 General.

a. All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when so requested by the RPR.

b. Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials per these specifications. Materials supplied and/or installed that do not comply with these specifications shall be removed (when directed by the RPR) and replaced with materials that comply with these specifications at the Contractor's cost.

c. All materials and equipment used to construct this item 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. Submittal data shall be presented in a clear, precise, and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify products or models applicable to this project. Indicate all optional equipment and delete any non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment to which they apply on each submittal sheet. Markings shall be made bold and clear with arrows or circles (highlighting is not acceptable). The Contractor is solely responsible for delays in the project that may accrue 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 electronically submitted in pdf format, tabbed by specification section. The RPR reserves the right to reject any and all equipment, materials or procedures that do not meet the system design and the standards and codes, specified in this document.

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 the date of 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.

115-2.2 Concrete structures. Not Used.

115-2.3 Precast concrete structures. Precast concrete structures shall be furnished by a plant meeting National Precast Concrete Association Plant Certification Program or another engineer approved third party certification program. Provide precast concrete structures where shown on the plans.

Precast concrete structures shall be an approved standard design of the manufacturer. Precast units shall have mortar or bitumastic sealer placed between all joints to make them watertight. The structure shall be designed to withstand H20 loads, unless otherwise shown on the plans. Openings or knockouts shall be provided in the structure as detailed on the plans.

Threaded inserts and pulling eyes shall be cast in as shown on the plans.

If the Contractor chooses to propose a different structural design, signed and sealed shop drawings, design calculations, and other information requested by the RPR shall be submitted by the Contractor to allow for a full evaluation by the RPR. The RPR shall review per the process defined in the General Provisions.

115-2.4 Junction boxes. Not Used.

115-2.5 Mortar. The mortar shall be composed of one part of cement and two parts of mortar sand, by volume. The cement shall be per the requirements in ASTM C150, Type I. The sand shall be per the requirements in ASTM C144. Hydrated lime may be added to the mixture of sand and cement in an amount not to exceed 15% of the weight of cement used. The hydrated lime shall meet the requirements of ASTM C206. Water shall be potable, reasonably clean, and free of oil, salt, acid, alkali, sugar, vegetable, or other substances injurious to the finished product.

115-2.6 Concrete. Not used this project .

115-2.7 Frames and covers. The frames shall conform to one of the following requirements:

- a. ASTM A48 Gray iron castings
- b. ASTM A47 Malleable iron castings
- c. ASTM A27 Steel castings
- d. ASTM A283, Grade D Structural steel for grates and frames
- e. ASTM A536 Ductile iron castings
- f. ASTM A897 Austempered ductile iron castings

All castings specified shall withstand a maximum load of 33,500 lbs.

All castings or structural steel units shall conform to the dimensions shown on the plans and shall be designed to support the loadings specified.

Each frame and cover unit shall be provided with fastening members to prevent it from being dislodged by traffic, but which will allow easy removal for access to the structure.

All castings shall be thoroughly cleaned. After fabrication, structural steel units shall be galvanized to meet the requirements of ASTM A123.

Each cover shall have the word "ELECTRIC" or other approved designation cast on it. Each frame and cover shall be as shown on the plans or approved equivalent. No cable notches are required.

Each manhole shall be provided with a "DANGER -- PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER" safety warning sign as detailed in the Contract Documents and in accordance with OSHA 1910.146 (c)(2).

115-2.8 Ladders. Not used this project.

115-2.9 Reinforcing steel. Not used this project .

115-2.10 Bedding/special backfill. Bedding or special backfill shall be as shown on the plans.

115-2.11 Flowable backfill. Flowable material used to backfill shall conform to the requirements of Item P-153, Controlled Low Strength Material.

115-2.12 Cable trays. Not used this project .

115-2.13 Plastic conduit. Plastic conduit shall comply with Item L-110, Airport Underground Electrical Duct Banks and Conduits.

115-2.14 Conduit terminators. Conduit terminators shall be pre-manufactured for the specific purpose and sized as required or as shown on the plans.

115-2.15 Pulling-in irons. Pulling-in irons shall be manufactured with 7/8-inch diameter hot-dipped galvanized steel or stress-relieved carbon steel roping designed for concrete applications (7 strand, 1/2-inch diameter with an ultimate strength of 270,000 psi). Where stress-relieved carbon steel roping is used, a rustproof sleeve shall be installed at the hooking point and all exposed surfaces shall be encapsulated with a polyester coating to prevent corrosion.

115-2.16 Ground rods. Ground rods shall be one piece, copper clad steel. The ground rods shall be of the length and diameter specified on the plans, but in no case shall they be less than 10 feet long nor less than 3/4 inch in diameter.

CONSTRUCTION METHODS

115-3.1 Unclassified excavation. It is the Contractor's responsibility to locate existing utilities within the work area prior to excavation. Damage to utility lines, through lack of care in excavating, shall be repaired or replaced to the satisfaction of the RPR without additional expense to the Owner.

The Contractor shall perform excavation for structures and structure footings to the lines and grades or elevations shown on the plans or as staked by the RPR. The excavation shall be of sufficient size to permit the placing of the full width and length of the structure or structure footings shown.

All excavation shall be unclassified and shall be considered incidental to Item L-115. Dewatering necessary for structure installation and erosion per federal, state, and local requirements is incidental to Item L-115.

Boulders, logs, and all other objectionable material encountered in excavation shall be removed. All rock and other hard foundation material shall be cleaned of all loose material and cut to a firm surface either level, stepped or serrated, as directed by the RPR. All seams, crevices, disintegrated rock, and thin strata shall be removed. When concrete is to rest on a surface other than rock, special care shall be taken not to disturb the bottom of the excavation. Excavation to final grade shall not be made until just before the concrete or reinforcing is to be placed.

The Contractor shall provide all bracing, sheeting, and shoring necessary to implement and protect the excavation and the structure as required for safety or conformance to governing laws. The cost of bracing, sheeting, and shoring shall be included in the unit price bid for the structure.

Unless otherwise provided, bracing, sheeting, and shoring involved in the construction of this item shall be removed by the Contractor after the completion of the structure. Removal shall be effected in a manner that will not disturb or mar finished masonry. The cost of removal shall be included in the unit price bid for the structure.

After each excavation is completed, the Contractor shall notify the RPR. Structures shall be placed after the RPR has approved the depth of the excavation and the suitability of the foundation material.

Prior to installation the Contractor shall provide a minimum of 6 inches of sand or a material approved by the RPR as a suitable base to receive the structure. The base material shall be compacted and graded level and at proper elevation to receive the structure in proper relation to the conduit grade or ground cover requirements, as indicated on the plans.

115-3.2 Concrete structures. Not used this project.

115-3.3 Precast unit installations. Precast units shall be installed plumb and true. Joints shall be made watertight by use of sealant at each tongue-and-groove joint and at roof of manhole. Excess sealant shall be removed and severe surface projections on exterior of neck shall be removed.

115-3.4 Placement and treatment of castings, frames, and fittings. All castings, frames and fittings shall be placed in the positions indicated on the Plans or as directed by the RPR and shall be set true to line and to correct elevation. If frames or fittings are to be set in concrete or cement mortar, all anchors or bolts shall be in place and position before the concrete or mortar is placed. The unit shall not be disturbed until the mortar or concrete has set.

Field connections shall be made with bolts, unless indicated otherwise. Welding will not be permitted unless shown otherwise on the approved shop drawings and written approval is granted by the casting manufacturer. Erection equipment shall be suitable and safe for the workman. Errors in shop fabrication or deformation resulting from handling and transportation that prevent the proper assembly and fitting of parts shall be reported immediately to the RPR and approval of the method of correction shall be obtained. Approved corrections shall be made at Contractor's expense.

Anchor bolts and anchors shall be properly located and built into connection work. Bolts and anchors shall be preset by the use of templates or such other methods as may be required to locate the anchors and anchor bolts accurately.

Pulling-in irons shall be located opposite all conduit entrances into structures to provide a strong, convenient attachment for pulling-in blocks when installing cables. Pulling-in irons shall be set directly into the concrete walls of the structure.

115-3.5 Installation of ladders. Not used this project.

115-3.6 Removal of sheeting and bracing. In general, all sheeting and bracing used to support the sides of trenches or other open excavations shall be withdrawn as the trenches or other open excavations are being refilled. That portion of the sheeting extending below the top of a structure shall be withdrawn, unless otherwise directed, before more than 6 inches of material is placed above the top of the structure and before any bracing is removed. Voids left by the sheeting shall be carefully refilled with selected material and rammed tight with tools especially adapted for the purpose or otherwise as may be approved.

The RPR may direct the Contractor to delay the removal of sheeting and bracing if, in his judgment, the installed work has not attained the necessary strength to permit placing of backfill.

115-3.7 Backfilling. After a structure has been completed, the area around it shall be backfilled in horizontal layers not to exceed 6 inches in thickness measured after compaction. Each layer shall be deposited all around the structure to approximately the same elevation. The top of the fill shall meet the elevation shown on the plans or as directed by the RPR.

Backfill shall not be placed against any structure until approval is given by the RPR. In the case of concrete, such approval shall not be given until tests made by the laboratory under supervision of the RPR establish that the concrete has attained sufficient strength to provide a factor of safety against damage or strain in withstanding any pressure created by the backfill or the methods used in placing it.

Where required, the RPR may direct the Contractor to add, at his own expense, sufficient water during compaction to assure a complete consolidation of the backfill. The Contractor shall be responsible for all damage or injury done to conduits, duct banks, structures, property, or persons due to improper placing or compacting of backfill.

115-3.8 Connection of duct banks. To relieve stress of joint between concrete-encased duct banks and structure walls, reinforcement rods shall be placed in the structure wall and shall be formed and tied into duct bank reinforcement at the time the duct bank is installed.

115-3.9 Grounding. A ground rod shall be installed in the floor of all concrete structures so that the top of rod extends 6 inches above the floor. The ground rod shall be installed within one foot of a corner of the concrete structure. Ground rods shall be installed prior to casting the bottom slab. Where the soil condition does not permit driving the ground rod into the earth without damage to the ground rod, the Contractor shall drill a 4-inch diameter hole into the earth to receive the ground rod. The hole around the ground rod shall

be filled throughout its length, below slab, with Portland cement grout. Ground rods shall be installed in precast bottom slab of structures by drilling a hole through bottom slab and installing the ground rod. Bottom slab penetration shall be sealed watertight with Portland cement grout around the ground rod.

A grounding bus of 4/0 bare stranded copper shall be exothermically bonded to the ground rod and loop the concrete structure walls. The ground bus shall be a minimum of one foot above the floor of the structure and separate from other cables. No. 2 American wire gauge (AWG) bare copper pigtails shall bond the grounding bus to all cable trays and other metal hardware within the concrete structure. Connections to the grounding bus shall be exothermic. If an exothermic weld is not possible, connections to the grounding bus shall be made by using connectors approved for direct burial in soil or concrete per UL 467. Hardware connections may be mechanical, using a lug designed for that purpose.

115-3.10 Cleanup and repair. Prior to acceptance, the entire structure shall be cleaned of all dirt and debris.

115-3.11 Restoration. After the backfill is completed, the Contractor shall dispose of all surplus material, dirt, and rubbish from the site. The Contractor shall restore all disturbed areas equivalent to or better than their original condition. All grading and surface restoration shall be considered incidental to the respective Item L-115 pay item.

The Contractor shall grade around structures as required to provide positive drainage away from the structure.

Areas with special surface treatment, such as roads, sidewalks, or other paved areas shall have backfill compacted to match surrounding areas, and surfaces shall be repaired using materials comparable to original materials.

Following restoration of all trenching near airport movement surfaces, the Contractor shall thoroughly visually inspect the area for foreign object debris (FOD), and remove any such FOD that is found. This FOD inspection and removal shall be considered incidental to the pay item of which it is a component part.

After all work is completed, the Contractor shall remove all tools and other equipment, leaving the entire site free, clear and in good condition.

115-3.12 Inspection. Prior to final approval, the electrical structures shall be thoroughly inspected for conformance with the plans and this specification. Any indication of defects in materials or workmanship shall be further investigated and corrected. The earth resistance to ground of each ground rod shall not exceed 25 ohms. Each ground rod shall be tested using the fall-of-potential ground impedance test per American National Standards Institute / Institute of Electrical and Electronic Engineers (ANSI/IEEE) Standard 81. This test shall be performed prior to establishing connections to other ground electrodes.

115-3.13 Manhole elevation adjustments. Not used this project .

115-3.14 Duct extension to existing ducts. Where existing concrete encased ducts are to be extended, the duct extension shall be concrete encased plastic conduit. The fittings to connect the ducts together shall be standard manufactured connectors designed and approved for the purpose. The duct extensions shall be installed according to the concrete encased duct detail and as shown on the plans.

METHOD OF MEASUREMENT

115-4.1 Electrical handholes shall be measured by each unit completed in place and accepted. The following items shall be included in the price of each unit: All required excavation and dewatering; sheeting and

bracing; all required backfilling with on-site materials; restoration of all surfaces and finished grading; all required connections; temporary cables and connections; and ground rod testing

BASIS OF PAYMENT

115-5.1 The accepted quantity of electrical handholes will be paid for at the Contract unit price per each, complete and in place. This price shall be full compensation for furnishing all materials and for all preparation, excavation, backfilling and placing of the materials, furnishing and installation of appurtenances and connections to duct banks and other structures as may be required to complete the item as shown on the plans and for all labor, equipment, tools, and incidentals necessary to complete the structure.

Payment will be made under:

Electrical Handhole – Per Each

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.

American National Standards Institute / Insulated Cable Engineers Association (ANSI/ICEA)

ANSI/IEEE STD 81	IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System
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Advisory Circular (AC)

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 150/5345-42	Specification for Airport Light Bases, Transformer Housings, Junction Boxes, and Accessories
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-53	Airport Lighting Equipment Certification Program

Commercial Item Description (CID)

A-A 59544	Cable and Wire, Electrical (Power, Fixed Installation)
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ASTM International (ASTM)

ASTM A27	Standard Specification for Steel Castings, Carbon, for General Application
ASTM A47	Standard Specification for Ferritic Malleable Iron Castings
ASTM A48	Standard Specification for Gray Iron Castings
ASTM A123	Standard Specification for Zinc (Hot Dip Galvanized) Coatings on Iron and Steel Products
ASTM A283	Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates
ASTM A536	Standard Specification for Ductile Iron Castings

ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM A897	Standard Specification for Austempered Ductile Iron Castings
ASTM C144	Standard Specification for Aggregate for Masonry Mortar
ASTM C150	Standard Specification for Portland Cement
ASTM C206	Standard Specification for Finishing Hydrated Lime
FAA Engineering Brief (EB)	
EB #83	In Pavement Light Fixture Bolts
Mil Spec	
MIL-P-21035	Paint High Zinc Dust Content, Galvanizing Repair
National Fire Protection Association (NFPA)	
NFPA-70	National Electrical Code (NEC)

END OF ITEM L-115

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SECTION 263213 - ENGINE GENERATORS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes a packaged engine-generator set 120/240V, 1P-3W, 55kW, for standby power supply with the following features:
 - 1. Diesel engine.
 - 2. Unit-mounted cooling system.
 - 3. Unit-mounted control and monitoring.
 - 4. Outdoor enclosure.
- B. Related Sections include the following:
 - 1. Section 263600 "Transfer Switches" for transfer switches including sensors and relays to initiate automatic-starting and -stopping signals for engine-generator sets.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of packaged engine generator indicated. Include rated capacities, operating characteristics, and furnished specialties and accessories. In addition, include the following:
 - 1. Thermal damage curve for generator.
 - 2. Time-current characteristic curves for generator protective device.
- B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 1. Dimensioned outline plan and elevation drawings of engine-generator set and other components specified.
 - 2. Design Calculations: Signed and sealed by a qualified professional engineer. Calculate requirements for selecting vibration isolators and seismic restraints and for designing vibration isolation bases.
 - 3. Vibration Isolation Base Details: Signed and sealed by a qualified professional engineer. Detail fabrication, including anchorages and attachments to structure and to supported equipment. Include base weights.
 - 4. Wiring Diagrams: Power, signal, and control wiring.

1.3 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For installer and testing agency.
- B. Source quality-control test reports.
 - 1. Certified summary of prototype-unit test report.
 - 2. Certified Test Reports: For components and accessories that are equivalent, but not identical, to those tested on prototype unit.
 - 3. Certified Summary of Performance Tests: Certify compliance with specified requirement to meet performance criteria for sensitive loads.
 - 4. Report of factory test on units to be shipped for this Project, showing evidence of compliance with specified requirements.
 - 5. Report of sound generation.
 - 6. Report of exhaust emissions showing compliance with applicable regulations.
 - 7. Certified Torsional Vibration Compatibility: Comply with NFPA 110.
- C. Field quality-control test reports.
- D. Warranty: Specified in Section 1.10.

1.4 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For packaged engine generators to include in emergency, operation, and maintenance manuals. Include the following:
 - 1. List of tools and replacement items recommended to be stored at Project for ready access. Include part and drawing numbers, current unit prices, and source of supply.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Fuses: One for every 10 of each type and rating, but no fewer than one of each.
 - 2. Indicator Lamps: Two for every six of each type used, but no fewer than two of each.
 - 3. Filters: One set each of lubricating oil, fuel, and combustion-air filters.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.

1. Maintenance Proximity: Not more than six hours' normal travel time from Installer's place of business to Project site.
 2. Engineering Responsibility: Preparation of data for vibration isolators and seismic restraints of engine skid mounts, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.
- B. Manufacturer Qualifications: A qualified manufacturer. Maintain, within 600 miles of Project site, a service center capable of providing training, parts, and emergency maintenance repairs.
- C. Testing Agency Qualifications: An independent agency, with the experience and capability to conduct the testing indicated, that is a member company of the InterNational Electrical Testing Association or is a nationally recognized testing laboratory (NRTL), and that is acceptable to authorities having jurisdiction.
1. Testing Agency's Field Supervisor: Person currently certified by the InterNational Electrical Testing Association or the National Institute for Certification in Engineering Technologies to supervise on-site testing specified in Part 3.
- D. Source Limitations: Obtain packaged generator sets and auxiliary components through one source from a single manufacturer, including the Automatic Transfer Switch.
- E. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- F. Comply with ASME B15.1.
- G. Comply with NFPA 37.
- H. Comply with NFPA 99.
- I. Comply with NFPA 110 requirements for Level 1 emergency power supply system.
- J. Comply with UL 2200.
- K. Engine Exhaust Emissions: Comply with applicable state and local government requirements.
- L. Noise Emission: Comply with applicable state and local government requirements for maximum noise level at adjacent property boundaries due to sound emitted by generator set including engine, engine exhaust, engine cooling-air intake and discharge, and other components of installation.
- 1.7 PROJECT CONDITIONS
- A. Environmental Conditions: Engine-generator system shall withstand the following environmental conditions without mechanical or electrical damage or degradation of performance capability:
1. Ambient Temperature: Minus 30 to plus 40 deg C.

2. Relative Humidity: 0 to 95 percent.

3. Altitude: Sea level to 2700 feet.

1.8 COORDINATION

- A. Coordinate size and location of concrete bases for package engine generators. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified with concrete.

1.9 WARRANTY

- A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of packaged engine generators and associated auxiliary components that fail in materials or workmanship within specified warranty period.

1. Warranty Period one year from date of Substantial Completion.

1.10 MAINTENANCE SERVICE

- A. Initial Maintenance Service: Beginning at Substantial Completion, provide 12 months full maintenance by skilled employees of manufacturer's designated service organization. Include quarterly exercising to check for proper starting, load transfer, and running under load. Include routine preventive maintenance as recommended by manufacturer and adjusting as required for proper operation. Provide parts and supplies same as those used in the manufacture and installation of original equipment.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with requirements.

2.2 ENGINE-GENERATOR SET

- A. Factory-assembled and -tested, engine-generator set.
- B. Mounting Frame: Maintain alignment of mounted components without depending on concrete foundation; and have lifting attachments.
1. Rigging Diagram: Inscribed on metal plate permanently attached to mounting frame to indicate location and lifting capacity of each lifting attachment and generator-set center of gravity.
- C. Capacities and Characteristics:
1. Power Output Ratings: Nominal ratings as indicated.
2. Output Connections: Single-phase, four wire.

3. Nameplates: For each major system component to identify manufacturer's name and address, and model and serial number of components.

D. Generator-Set Performance:

1. Oversizing generator compared with the rated power output of the engine is permissible to meet specified performance.
 - a. Nameplate Data for Oversized Generator: Show ratings required by the Contract Documents rather than ratings that would normally be applied to generator size installed.
2. Steady-State Voltage Operational Bandwidth: 1 percent of rated output voltage from no load to full load.
3. Transient Voltage Performance: Not more than 10 percent variation for 50 percent step-load increase or decrease. Voltage shall recover and remain within the steady-state operating band within 0.5 second.
4. Steady-State Frequency Operational Bandwidth: Plus or minus 0.25 percent of rated frequency from no load to full load.
5. Steady-State Frequency Stability: When system is operating at any constant load within the rated load, there shall be no random speed variations outside the steady-state operational band and no hunting or surging of speed.
6. Transient Frequency Performance: Less than 2-Hz variation for 50 percent step-load increase or decrease. Frequency shall recover and remain within the steady-state operating band within three seconds.
7. Output Waveform: At no load, harmonic content measured line to neutral shall not exceed 2 percent total with no slot ripple. Telephone influence factor, determined according to NEMA MG 1, shall not exceed 50 percent.
8. Sustained Short-Circuit Current: For a 1-phase, bolted short circuit at system output terminals, system shall supply a minimum of 300 percent of rated full-load current for not less than 10 seconds and then clear the fault automatically, without damage to winding insulation or other generator system components.
9. Excitation System: Performance shall be unaffected by voltage distortion caused by nonlinear load.
 - a. Provide permanent magnet excitation for power source to voltage regulator.
10. Start Time: Comply with NFPA 110, Type 10, system requirements.

2.3 ENGINE

- A. Fuel: Fuel oil, Grade DF-1.
- B. Rated Engine Speed: 1800 rpm.

- C. Maximum Piston Speed for Four-Cycle Engines: 2250 fpm.
- D. Lubrication System: The following items are mounted on engine or skid:
 - 1. Filter and Strainer: Rated to remove 90 percent of particles 5 micrometers and smaller while passing full flow.
 - 2. Thermostatic Control Valve: Control flow in system to maintain optimum oil temperature. Unit shall be capable of full flow and is designed to be fail-safe.
 - 3. Crankcase Drain: Arranged for complete gravity drainage to an easily removable container with no disassembly and without use of pumps, siphons, special tools, or appliances.
- E. Engine Fuel System:
 - 1. Main Fuel Pump: Mounted on engine. Pump ensures adequate primary fuel flow under starting and load conditions.
 - 2. Relief-Bypass Valve: Automatically regulates pressure in fuel line and returns excess fuel to source.
- F. Coolant Jacket Heater: Electric-immersion type, factory installed in coolant jacket system. Comply with NFPA 110 requirements for Level 1 equipment for heater capacity.
- G. Governor: Adjustable isochronous, with speed sensing.
- H. Cooling System: Closed loop, liquid cooled, with radiator factory mounted on engine-generator-set mounting frame and integral engine-driven coolant pump.
 - 1. Coolant: Solution of 50 percent ethylene-glycol-based antifreeze and 50 percent water, with anticorrosion additives as recommended by engine manufacturer.
 - 2. Size of Radiator: Adequate to contain expansion of total system coolant from cold start to 110 percent load condition.
 - 3. Expansion Tank: Constructed of welded steel plate and rated to withstand maximum closed-loop coolant system pressure for engine used. Equip with gage glass and petcock.
 - 4. Temperature Control: Self-contained, thermostatic-control valve modulates coolant flow automatically to maintain optimum constant coolant temperature as recommended by engine manufacturer.
 - 5. Coolant Hose: Flexible assembly with inside surface of nonporous rubber and outer covering of aging-, ultraviolet-, and abrasion-resistant fabric.
 - a. Rating: 50-psig maximum working pressure with coolant at 180 deg F and noncollapsible under vacuum.
 - b. End Fittings: Flanges or steel pipe nipples with clamps to suit piping and equipment connections.

- I. Muffler/Silencer: Industrial type, sized as recommended by engine manufacturer and selected with exhaust piping system to not exceed engine manufacturer's engine backpressure requirements.
 - 1. Minimum sound attenuation of 12 dB at 500 Hz.
 - 2. Sound level measured at a distance of 25 feet from exhaust discharge after installation is complete shall be 87 dBA or less.
- J. Air-Intake Filter: Heavy-duty, engine-mounted air cleaner with replaceable dry-filter element and "blocked filter" indicator.
- K. Starting System: 24-V electric, with negative ground.
 - 1. Components: Sized so they will not be damaged during a full engine-cranking cycle with ambient temperature at maximum specified in Part 1 "Project Conditions" Article.
 - 2. Cranking Motor: Heavy-duty unit that automatically engages and releases from engine flywheel without binding.
 - 3. Cranking Cycle: As required by NFPA 110 for system level specified.
 - 4. Battery: Adequate capacity within ambient temperature range specified in Part 1 "Project Conditions" Article to provide specified cranking cycle at least three times without recharging.
 - 5. Battery Cable: Size as recommended by engine manufacturer for cable length indicated. Include required interconnecting conductors and connection accessories.
 - 6. Battery Compartment: Factory fabricated of metal with acid-resistant finish and thermal insulation. Thermostatically controlled heater shall be arranged to maintain battery above 10 deg C regardless of external ambient temperature within range specified in Part 1 "Project Conditions" Article. Include accessories required to support and fasten batteries in place.
 - 7. Battery-Charging Alternator: Factory mounted on engine with solid-state voltage regulation and 35-A minimum continuous rating.
 - 8. Battery Charger: Current-limiting, automatic-equalizing, and float-charging type. Unit shall comply with UL 1236 and include the following features:
 - a. Operation: Equalizing-charging rate of 10 A shall be initiated automatically after battery has lost charge until an adjustable equalizing voltage is achieved at battery terminals. Unit shall then be automatically switched to a lower float-charging mode and shall continue to operate in that mode until battery is discharged again.
 - b. Automatic Temperature Compensation: Adjust float and equalize voltages for variations in ambient temperature from minus 40 deg C to plus 60 deg C to prevent overcharging at high temperatures and undercharging at low temperatures.

- c. Automatic Voltage Regulation: Maintain constant output voltage regardless of input voltage variations up to plus or minus 10 percent.
- d. Ammeter and Voltmeter: Flush mounted in door. Meters shall indicate charging rates.
- e. Safety Functions: Sense abnormally low battery voltage and close contacts providing low battery voltage indication on control and monitoring panel. Sense high battery voltage and loss of ac input or dc output of battery charger. Either condition shall close contacts that provide a battery-charger malfunction indication at system control and monitoring panel.
- f. Enclosure and Mounting: NEMA 250, Type 1, wall-mounted cabinet.

2.4 FUEL OIL STORAGE

- A. Comply with NFPA 30.
- B. Base-Mounted Fuel Oil Tank: Factory installed and piped, complying with UL 142 fuel oil tank. Features include the following:
 - 1. Tank level indicator.
 - 2. Capacity: Fuel for twenty-four hours' continuous operation at 100 percent rated power output.
 - 3. Vandal-resistant fill cap.
 - 4. Containment Provisions: Comply with requirements of authorities having jurisdiction.
 - 5. Tank shall be double wall with inner tank breach indicator and alarm.

2.5 CONTROL AND MONITORING

- A. Automatic Starting System Sequence of Operation: When mode-selector switch on the control and monitoring panel is in the automatic position, remote-control contacts in one or more separate automatic transfer switches initiate starting and stopping of generator set. When mode-selector switch is switched to the on position, generator set starts. The off position of same switch initiates generator-set shutdown. When generator set is running, specified system or equipment failures or derangements automatically shut down generator set and initiate alarms. Operation of a remote emergency-stop switch also shuts down generator set.
- B. Manual Starting System Sequence of Operation: Switching on-off switch on the generator control panel to the on position starts generator set. The off position of same switch initiates generator-set shutdown. When generator set is running, specified system or equipment failures or derangements automatically shut down generator set and initiate alarms. Operation of a remote emergency-stop switch also shuts down generator set.
- C. Configuration: Operating and safety indications, protective devices, basic system controls, and engine gages shall be grouped in a common control and monitoring panel mounted on the generator set. Mounting method shall isolate the control panel from generator-set vibration.

- D. Indicating and Protective Devices and Controls: As required by NFPA 110 for Level 1 system, and the following:
1. AC voltmeter.
 2. AC ammeter.
 3. AC frequency meter.
 4. DC voltmeter (alternator battery charging).
 5. Engine-coolant temperature gage.
 6. Engine lubricating-oil pressure gage.
 7. Running-time meter.
 8. Ammeter-voltmeter, phase-selector switch(es).
 9. Generator-voltage adjusting rheostat.
 10. Fuel tank derangement alarm.
 11. Fuel tank high-level shutdown of fuel supply alarm.
 12. Generator overload.
- E. Supporting Items: Include sensors, transducers, terminals, relays, and other devices and include wiring required to support specified items. Locate sensors and other supporting items on engine or generator, unless otherwise indicated.
- F. Connection to Data Link: A separate terminal block, factory wired to Form C dry contacts, for each alarm and status indication is reserved for connections for data-link transmission of indications to remote data terminals.
- G. Common Remote Audible Alarm: Signal the occurrence of any events listed below without differentiating between event types. Connect so that after an alarm is silenced, clearing of initiating condition will reactivate alarm until silencing switch is reset.
1. Engine high-temperature shutdown.
 2. Lube-oil, low-pressure shutdown.
 3. Overspeed shutdown.
 4. Remote emergency-stop shutdown.
 5. Engine high-temperature prealarm.
 6. Lube-oil, low-pressure prealarm.
 7. Fuel tank, low-fuel level.

8. Low coolant level.

- H. Remote Alarm Annunciator: Comply with NFPA 99. An LED labeled with proper alarm conditions shall identify each alarm event and a common audible signal shall sound for each alarm condition. Silencing switch in face of panel shall silence signal without altering visual indication. Connect so that after an alarm is silenced, clearing of initiating condition will reactivate alarm until silencing switch is reset. Cabinet and faceplate are surface- or flush-mounting type to suit mounting conditions indicated.
- I. Remote Emergency-Stop Switch: Flush; wall mounted, unless otherwise indicated; and labeled. Push button shall be protected from accidental operation.

2.6 GENERATOR OVERCURRENT AND FAULT PROTECTION

- A. Generator Circuit Breaker: Molded-case, thermal-magnetic type; 100 percent rated; complying with NEMA AB 1 and UL 489.
 - 1. Tripping Characteristic: Designed specifically for generator protection.
 - 2. Trip Rating: Matched to generator rating.
 - 3. Shunt Trip: Connected to trip breaker when generator set is shut down by other protective devices.
 - 4. Mounting: Adjacent to or integrated with control and monitoring panel.
- B. Generator Disconnect Switch: Molded-case type, 100 percent rated.
 - 1. Rating: Matched to generator output rating.
 - 2. Shunt Trip: Connected to trip switch when signaled by generator protector or by other protective devices.
- C. Generator Protector: Microprocessor-based unit shall continuously monitor current level in each phase of generator output, integrate generator heating effect over time, and predict when thermal damage of alternator will occur. When signaled by generator protector or other generator-set protective devices, a shunt-trip device in the generator disconnect switch shall open the switch to disconnect the generator from load circuits. Protector shall perform the following functions:
 - 1. Initiates a generator overload alarm when generator has operated at an overload equivalent to 110 percent of full-rated load for 60 seconds. Indication for this alarm is integrated with other generator-set malfunction alarms.
 - 2. Under single or three-phase fault conditions, regulates generator to 300 percent of rated full-load current for up to 10 seconds.
 - 3. As overcurrent heating effect on the generator approaches the thermal damage point of the unit, protector switches the excitation system off, opens the generator disconnect device, and shuts down the generator set.

4. Senses clearing of a fault by other overcurrent devices and controls recovery of rated voltage to avoid overshoot.

- D. Ground-Fault Indication: Comply with NFPA 70, "Emergency System" signals for ground-fault. Integrate ground-fault alarm indication with other generator-set alarm indications.

2.7 GENERATOR, EXCITER, AND VOLTAGE REGULATOR

- A. Comply with NEMA MG 1.
- B. Drive: Generator shaft shall be directly connected to engine shaft. Exciter shall be rotated integrally with generator rotor.
- C. Electrical Insulation: Class H or Class F.
- D. Stator-Winding Leads: Brought out to terminal box to permit future reconnection for other voltages if required.
- E. Construction shall prevent mechanical, electrical, and thermal damage due to vibration, overspeed up to 125 percent of rating, and heat during operation at 110 percent of rated capacity.
- F. Enclosure: Drip-proof.
- G. Instrument Transformers: Mounted within generator enclosure.
- H. Voltage Regulator: Solid-state type, separate from exciter, providing performance as specified.
 1. Adjusting rheostat on control and monitoring panel shall provide plus or minus 5 percent adjustment of output-voltage operating band.
- I. Strip Heater: Thermostatically controlled unit arranged to maintain stator windings above dew point.
- J. Windings: Two-thirds pitch stator winding and fully linked amortisseur winding.
- K. Subtransient Reactance: 12 percent, maximum.

2.8 OUTDOOR GENERATOR-SET ENCLOSURE

- A. Description: Vandal-resistant, weatherproof steel housing, wind resistant up to 110 mph. Multiple panels shall be lockable and provide adequate access to components requiring maintenance. Panels shall be removable by one person without tools. Instruments and control shall be mounted within enclosure.
- B. Engine Cooling Airflow through Enclosure: Maintain temperature rise of system components within required limits when unit operates at 110 percent of rated load for 2 hours with ambient temperature at top of range specified in system service conditions.
 1. Louvers: Fixed-engine, cooling-air inlet, and discharge. Storm-proof and drainable louvers prevent entry of rain and snow.

2. Automatic Dampers: At engine cooling-air inlet and discharge. Dampers shall be closed to reduce enclosure heat loss in cold weather when unit is not operating.
 - C. Interior Lights with Switch: Factory-wired, vaporproof-type fixtures within housing; arranged to illuminate controls and accessible interior. Arrange for external electrical connection.
 1. AC lighting system and connection point for operation when remote source is available.
 2. DC lighting system for operation when remote source and generator are both unavailable.
 - D. Convenience Outlets: Factory wired, GFCI. Arrange for external electrical connection.
- 2.9 NOT USED.
- 2.10 FINISHES
- A. Indoor and Outdoor Enclosures and Components: Manufacturer's standard finish over corrosion-resistant pretreatment and compatible primer.
- 2.11 SOURCE QUALITY CONTROL
- A. Prototype Testing: Factory test engine-generator set using same engine model, constructed of identical or equivalent components, and equipped with identical or equivalent accessories.
 1. Tests: Comply with NFPA 110, Level 1 Energy Converters and with IEEE 115.
 - B. Project-Specific Equipment Tests: Before shipment, factory test engine-generator set and other system components and accessories manufactured specifically for this Project. Perform tests at rated load and power factor. Include the following tests:
 1. Test components and accessories furnished with installed unit that are not identical to those on tested prototype to demonstrate compatibility and reliability.
 2. Full load run.
 3. Maximum power.
 4. Voltage regulation.
 5. Transient and steady-state governing.
 6. Single-step load pickup.
 7. Safety shutdown.
 8. Provide 14 days' advance notice of tests and opportunity for observation of tests by Owner's representative.
 9. Report factory test results within 10 days of completion of test.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas, equipment bases, and conditions, with Installer present, for compliance with requirements for installation and other conditions affecting packaged engine-generator performance.
- B. Examine roughing-in of piping systems and electrical connections. Verify actual locations of connections before packaged engine-generator installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Comply with packaged engine-generator manufacturers' written installation and alignment instructions and with NFPA 110.
- B. Install packaged engine generator to provide access, without removing connections or accessories, for periodic maintenance.
- C. Install packaged engine generator with elastomeric isolator pads having a minimum deflection of 1 inch on 4-inch-high concrete base. Secure sets to anchor bolts installed in concrete bases. Concrete base construction is specified on the plans.
- D. Electrical Wiring: Install electrical devices furnished by equipment manufacturers but not specified to be factory mounted.

3.3 CONNECTIONS

- A. Piping installation requirements are specified in other Sections. Drawings indicate general arrangement of piping and specialties.
- B. Connect fuel, cooling-system, and exhaust-system piping adjacent to packaged engine generator to allow service and maintenance.
- C. Connect engine exhaust pipe to engine with flexible connector.
- D. Connect fuel piping to engines with a gate valve and union and flexible connector.
- E. Ground equipment according to NEC and manufacturer's requirements.
- F. Connect wiring according to NEC and manufacture's requirements.
- G. All cable and conduit between the generator set and automatic transfer switch shall be included under this item.

3.4 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections and prepare test reports.

- B. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections. Report results in writing.
- C. Perform tests and inspections and prepare test reports.
 - 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- D. Tests and Inspections:
 - 1. Perform tests recommended by manufacturer and each electrical test and visual and mechanical inspection for "AC Generators and for Emergency Systems" specified in NETA Acceptance Testing Specification. Certify compliance with test parameters.
 - 2. NFPA 110 Acceptance Tests: Perform tests required by NFPA 110 that are additional to those specified here including, but not limited to, single-step full-load pickup test.
 - 3. Battery Tests: Equalize charging of battery cells according to manufacturer's written instructions. Record individual cell voltages.
 - a. Measure charging voltage and voltages between available battery terminals for full-charging and float-charging conditions. Check electrolyte level and specific gravity under both conditions.
 - b. Test for contact integrity of all connectors. Perform an integrity load test and a capacity load test for the battery.
 - c. Verify acceptance of charge for each element of the battery after discharge.
 - d. Verify that measurements are within manufacturer's specifications.
 - 4. Battery-Charger Tests: Verify specified rates of charge for both equalizing and float-charging conditions.
 - 5. System Integrity Tests: Methodically verify proper installation, connection, and integrity of each element of engine-generator system before and during system operation. Check for air, exhaust, and fluid leaks.
 - 6. Exhaust-System Back-Pressure Test: Use a manometer with a scale exceeding 40-inch wg. Connect to exhaust line close to engine exhaust manifold. Verify that back pressure at full-rated load is within manufacturer's written allowable limits for the engine.
 - 7. Exhaust Emissions Test: Comply with applicable government test criteria.
 - 8. Voltage and Frequency Transient Stability Tests: Use recording oscilloscope to measure voltage and frequency transients for 50 and 100 percent step-load increases and decreases and verify that performance is as specified.

9. Harmonic-Content Tests: Measure harmonic content of output voltage under 25 percent and at 100 percent of rated linear load. Verify that harmonic content is within specified limits.
 10. Noise Level Tests: Measure A-weighted level of noise emanating from generator-set installation, including engine exhaust and cooling-air intake and discharge, at two locations (one-25 feet away and one at the closest property line), and compare measured levels with required values.
- E. Coordinate tests with tests for transfer switches and run them concurrently.
 - F. Test instruments shall have been calibrated within the last 12 months, traceable to standards of NIST, and adequate for making positive observation of test results. Make calibration records available for examination on request.
 - G. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.
 - H. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation.
 - I. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
 - J. Remove and replace malfunctioning units and retest as specified above.
 - K. Retest: Correct deficiencies identified by tests and observations and retest until specified requirements are met.
 - L. Report results of tests and inspections in writing. Record adjustable relay settings and measured insulation resistances, time delays, and other values and observations. Attach a label or tag to each tested component indicating satisfactory completion of tests.
 - M. Infrared Scanning: After Substantial Completion, but not more than 60 days after Final Acceptance, perform an infrared scan of each power wiring termination and each bus connection. Remove all access panels so terminations and connections are accessible to portable scanner.
 1. Follow-up Infrared Scanning: Perform an additional follow-up infrared scan 11 months after date of Substantial Completion.
 2. Instrument: Use an infrared scanning device designed to measure temperature or to detect significant deviations from normal values. Provide calibration record for device.
 3. Record of Infrared Scanning: Prepare a certified report that identifies terminations and connections checked and that describes scanning results. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

3.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain packaged engine generators. This session shall be videotaped by the Contractor and submit a CD/DVD to the Airport for future use and training. Contractor shall verify Airport can run CD/DVD prior to closeout. Contractor may submit different formats of the demonstration upon approval by the Airport.

4.1 METHOD OF MEASUREMENT

- A. 80kW Standby Power Generator will be measured by the lump sum.

5.1 BASIS OF PAYMENT

- A. 80kW Standby Power Generator, including Automatic Transfer Switch will be paid by the lump sum based on the schedule of values submitted by the Contractor. This price shall be full compensation for furnishing and installing all materials; and for all labor, equipment, tools, and incidental necessary to provide a complete functional unit as described in the plans and specifications. All cable and conduit between the generator set and automatic transfer switch shall be included under this item.

END OF SECTION 263213

SECTION 263600 - TRANSFER SWITCH

PART 1 - GENERAL

1.1 SUBMITTAL

- A. The submittal shall include prototype test certification and specification sheets showing all standard and optional accessories to be supplied, schematic wiring diagrams, dimension drawings, and interconnection diagrams identifying by terminal number, each required interconnection between the generator set and the transfer switch if it is included elsewhere in these specifications. Obtain packaged automatic transfer switch and auxiliary components through one source from a single manufacturer, including the generator set.
- B. Testing.
1. To assure that the equipment has been designed and built to the highest reliability and quality standards, the manufacturer and/or local representative shall be responsible for three separate tests: design prototype tests, final production tests, and site tests.
 2. Design Prototype Tests. Components of the emergency system such as the engine/generator set, transfer switch and accessories shall not be subjected to prototype tests since the tests are potentially damaging. Rather, similar design prototypes and preproduction models, which will not be sold, shall be used for the following tests.
 3. Production Tests. Each transfer switch shall be tested under load with all guards in place. Tests shall include:
 - a. The complete automatic transfer switch shall be tested to ensure proper operation of the individual components and correct overall sequence of operation and to ensure that the operating transfer time, voltage, frequency, and time delay settings are in compliance with the specification requirements.
 - b. The complete automatic transfer switch shall be subjected to a dielectric strength test per NEMA Standard ICS 1-109.05.
 - c. The control panel shall meet or exceed the voltage surge withstand capability in accordance with ANSI C37.90a-2978 and the impulse withstand voltage test in accordance with NEMA Standard ICS 1-109.
 - d. Upon request, arrangements to witness this test will be made, or a certified test record will be sent prior to shipment.
- C. Site Tests. The manufacturer's local representative shall perform an installation check, start-up and building load test. The engineer, regular operators and the maintenance staff shall be notified of the time and date of the site test.

1.2 WARRANTY & MAINTENANCE

- A. The manufacturer's standard warranty for the automatic transfer switch shall be included to guarantee against defective material and workmanship in accordance with the manufacturer's published warranty from date of start-up.

- B. The automatic transfer switch manufacturer and its distributor shall maintain a 24-hour parts and service organization. This organization shall be regularly engaged in a maintenance contract program to perform preventive maintenance and service on equipment similar to that specified. A service agreement shall be available and shall include system operation under simulated operating conditions, adjustment to the generator, transfer switch and switchgear controls as required, and certification in the owner's maintenance log of repairs made and proper functioning of all systems.

1.3 COMPLIANCE WITH CODES AND STANDARDS

- A. The ATS shall conform to the requirements of:
1. UL 1008--Standard for Automatic Transfer Switches
 2. NFPA 70--National Electrical Code, including use in emergency and standby systems in accordance with Articles 517, 700
 3. NFPA 99--Essential Electrical Systems for Health Care Facilities
 4. NFPA 110--Standard for Emergency and Standby Power Systems
 5. IEEE Standard 446--Recommended Practice for Emergency and Standby Power Systems (Orange Book)
 6. IEEE Standard 241--Recommended Practice for Electric Power Systems in Commercial Buildings (Gray Book)
 7. NEMA Standard IC10 (formerly ICS 2-447) Automatic Transfer Switches
 8. UL 508 – Standard for industrial Control Equipment
 9. EN61000-4-5 Surge Immunity Class 4 (voltage sensing and programmable inputs only)
 10. EN61000-4-4 Fast Transient Immunity Severity Level 4
 11. IEC Specifications for EMI/EMC Immunity as follows
 - a. CISPR 1 Radiated Emissions
 - b. IEC 1000-4-2, Electrostatic Discharge
 - c. IEC 1000-4-3, Radiated Electromagnetic Fields
 - d. IEC 1000-4-4, Electrical Fast Transient (Bursts)
 - e. IEC 1000-4-5, Surge Voltage
 - f. IEC 1000-4-6, Conducted RF Disturbances
 - g. IEC 1000-4-8, Magnetic Fields
 - h. IEC 1000-4-11, Voltage Variations and Interruptions

1.4 ELECTRICAL REQUIREMENTS

- A. Automatic transfer switches not intended for continuous duty or repetitive load transfer switching are not acceptable.
- B. The automatic transfer switch shall be rated in amperes for total system transfer including control of motors, electric-discharge lamps, electric heating, and tungsten-filament lamp load. Switches rated 400 amperes and below shall be suitable for 100% tungsten-filament lamp load. Switches rated above 400 amperes shall be suitable for 30% tungsten-filament load.
- C. The automatic transfer switch shall be rated to withstand the rms symmetrical short circuit current available at the automatic transfer switch terminals, with the type of over-current protection shown on the plans.

PART 2 - PRODUCTS

2.1 EQUIPMENT

- A. The transfer switch shall have the following characteristics:
 - 1. 400-amp current rating
 - 2. 3 Pole
 - 3. 4 wire, 1 phase
 - 4. 240 Volt-60Hz
 - 5. Solid Neutral
 - 6. The withstand and closing ratings with a current-limiting fuse shall be 200,000 Amps.
 - 7. The withstand and closing ratings with any over-current protective device shall be 35,000 Amps.
- B. The ATS shall be furnished in a NEMA 1 enclosure with a pad lockable User Interface Cover.
- C. The switch shall be a 600-volt class.
- D. The switch shall include 2 sets of input/out modules for remote monitoring requirements.

2.2 MECHANICAL REQUIREMENTS

- A. All main contacts shall be of silver composition. The main contacts shall be protected by arcing contacts in sizes 400 amperes and above. The main contacts shall be of the blow-on configuration and of segmented construction in ratings 600 amperes and above.
- B. All contacts, coils, springs, and control elements shall be conveniently removable from the front of the transfer switch without major disassembly or disconnection of power conductors.

- C. The contact transfer time shall not exceed one-sixth of a second.
- D. All moveable parts of the operating mechanism shall remain in positive mechanical contact with the main contacts during the transfer operation without the use of separate mechanical interlocks.
- E. All contacts, coils, springs, and control elements shall be conveniently removable from the front of the transfer switch without major disassembly or disconnection of power conductors.
- F. The neutral conductor shall be solidly connected as shown on the plans; a neutral conductor terminal plate with fully rated AL-CU pressure connectors shall be provided.

2.3 TRANSFER SWITCH CONTROL SYSTEM

- A. The control module shall direct the operation of the transfer switch. The module's sensing and logic shall be a built-in microprocessor-based system for maximum reliability, minimum maintenance, and inherent digital communications capability. The control settings shall be stored in nonvolatile EEPROM. The module shall contain an integral battery-backed programmable clock and calendar. The control module shall have a keyed disconnect plug to enable the control module to be disconnected from the transfer mechanism for routine maintenance.
- B. The control module shall be mounted separately from the transfer mechanism unit for safety and ease of maintenance. Interfacing relays shall be industrial control grade plug-in type with dust cover.
- C. The control module shall include a dynamic function keypad with tactile feedback pushbuttons that allows complete programming and viewing capability at the door. It shall also include a backlit, 4 lines x 20 characters, LCD display. These features shall be user accessible when the enclosure door is closed:
 - 1. Keypad pushbuttons:
 - a. Start/end system test
 - b. Set/end exercise
 - c. End time delay
 - d. Lamp test/service reset
 - 2. Light-emitting diode status indicators:
 - a. Contactor Position: normal, off, emergency
 - b. Source Available: normal, emergency
 - c. Service required: immediate, maintenance
 - d. Not in automatic mode
 - e. Four stage time delay remaining
 - f. Exercise: load, no load, set/disabled
 - g. Test: load, no load

- h. Load control active: peak shave, load shed, pre/post-transfer signal
- i. In-phase monitor/Off delay active

D. Outputs

- 1. Generator engine start gold flashed contact rated 2 amps @ 30 VDC/250VAC.
- 2. Pre-transfer load control, one normally open contact rated 10 amps @ 30 VDC/250 VAC.
- 3. One Programmable output, factory-set to load bank control rated 2 amps @ 30 VDC/250 VAC.

2.4 OPERATION

A. All phases of normal and all phases of emergency shall be monitored for over and under voltage, and single phase of normal and emergency for over- and under-frequency. In addition, the controller shall use anti-single phasing protection that detects regenerative voltage (using the phase angle of the source) to determine a failed source condition.

B. Voltage and frequency sensing:

- 1. Undervoltage pick-up set at 90% of nominal voltage, adjustable 85% - 100% of nominal voltage.
- 2. Undervoltage dropout set at 90% of pickup voltage, adjustable 75% - 98% of pickup voltage.
- 3. Overvoltage dropout set at 110% of nominal voltage, adjustable 105% - 135% of nominal voltage.
- 4. Overvoltage pick-up set at 95% of dropout voltage, adjustable 85% - 100% of nominal voltage.
- 5. Voltage dropout time set at 0.5 seconds adjustable 0.1 – 9.9 seconds.
- 6. Voltage accuracy: 2%.
- 7. Under frequency pick-up set at 90% of nominal frequency, adjustable 85% - 95% of nominal frequency.
- 8. Under frequency dropout set at 99% of pick-up frequency, adjustable 95% - 99% of pick-up frequency.
- 9. Over frequency dropout set at 101% of pick-up frequency, adjustable 101% - 105% of nominal frequency.
- 10. Over frequency pick-up set at 110% of nominal frequency, adjustable 105% - 120% of nominal frequency.
- 11. Frequency accuracy: 1%

- C. Time Delays:
1. Time delay for engine start to delay initiation of transfer for momentary source outages: Range 0-6 seconds. Factory set at 3 seconds.
 2. Time delay for transfer to standby: Range 0-60 minutes. Factory set at 1 second.
 3. Time delay for transfer back to normal: Range 0-60 minutes. Factory set at 15 minutes.
 4. Time delay for engine cool down: Range 0-60 minutes. Factory set at 0 minutes.
 5. Failure to acquire standby source: Range 0-60 minutes. Factory set at 1 minute.
 6. Pre-transfer to normal signal: Range 0-60 minutes. Factory set at 3 second.
 7. Pre-transfer to standby signal: Range 0-60 minutes. Factory set at 3 second.
 8. Post-transfer to normal signal: Range 0-60 minutes. Factory set at 0 minute.
 9. Post-transfer to standby signal: Range 0-60 minutes. Factory set at 0 minute.
- D. User terminals shall be available to connect a normally open contact that, when closed, signals the control module to start and transfer load to the engine-generator. Opening these contacts shall initiate a retransfer and engine cool down sequence. The load shall be transferred to an available utility source immediately if the generator source should fail.
- E. The following features shall be built into the control module logic. These features shall be enabled at the factory or in the field.
1. Phase rotation sensing programmable ABC or CBA.
 2. In-phase monitoring shall continuously monitor the contactor transfer times, source voltage, frequency, and phase angle to provide a self-adjusting, zero crossing contactor transfer signal. A flashing LED on the user interface panel shall indicate active in-phase monitoring.
 3. Plant Exerciser: Programmable seven-day or fourteen-day exerciser with user selectable load or no-load operation. An LED, on the user interface, shall indicate the type of exercise (load or no load). The time remaining on the exercise shall be indicated. The exercise time may be reset at any time with a single keystroke. The engine shall be allowed to run when the exercise period is terminated. The exerciser may be disabled for maintenance purposes. An amber LED shall flash on the user interface if the exerciser has been disabled. The exerciser shall have the capability of being programmed, using up to twenty-one (21) event for a calendar mode.

The controller shall have provisions for disconnecting a load bank (during exercise) if there is a loss of normal power.
 4. The control module must be upgradeable with the following options:

- a. Preferred source switch
- b. Supervised transfer control switch
- c. Line to neutral voltage monitoring
- d. Three stage charging, dual-output battery charger rated 6 amps @ 12 VDC/3 amps @ 24 VDC
- e. PC based communication application
- f. Provide a programmable input/output (I/O) module with two inputs and six outputs rated 2 amps @ 30 VDC/250 VAC

2.5 MONITORING, PROGRAMMING AND COMMUNICATIONS

A. Modbus® link:

1. Industry standard Modbus® RTU communication shall be available with network and setup connections.
2. A Modbus® master will be able to monitor controller data.
3. A Modbus® master will be able to alter parameters.
4. The Modbus® master must be capable of starting and stopping the generator.
5. The manufacturer shall provide a Modbus® communications protocol manual to facilitate communications with a Modbus® master by a third-party developer.
6. The Modbus® network shall communicate to the controller using a twisted pair of wire.

B. Personal Computer Set-up/monitoring Software

1. The controller must have the capability to communicate to a personal computer (IBM or compatible) running Windows XP or Windows 7 through an RS-232 communication format (in addition to the Modbus® connection).
2. The software shall be Windows® based.
3. The programming capability shall be password protected

C. It shall be possible to start the generator and transfer the loads to the generator.

D. Event monitoring shall be accessible using either a personal computer with the personal computer software or Modbus® link to view the following:

1. Historical data (total and resettable)
 - a. Days in operation
 - b. Hours in standby
 - c. Hours not in preferred

- d. Switch transfers
 - e. Failure to transfer
 - f. Transfers due to loss of preferred
 - g. Start-up date
 - h. Last maintenance date
 - i. Switch transfer count since last maintenance
 - 2. Transfer switch information
 - a. ATS serial number
 - b. Controller serial number
 - c. Contactor serial number
 - d. Load description
 - e. Location
 - f. Branch
 - g. Network connection ID
 - h. Baud rate
 - i. Parity bit
 - 3. System events (time and date stamped) of the last 100 events which include all failures of the sources, transfer switch and all functions of the controller and contactor.
 - 4. Line to line voltage
 - 5. System frequency
 - 6. Time delay active
 - 7. Time delay remaining
 - 8. System status
 - 9. Source available
 - 10. Contactor position
 - 11. Exerciser schedule, mode and time remaining on active exercise.
- E. Programmable features may be viewed, selected, or adjusted as follows:
- 1. System voltage
 - 2. System frequency

3. Single/three-phase operation
 4. Open/closed-transition operation
 5. ABC or CBA phase rotation
 6. In-phase monitor
 7. Commit/no commit transfer mode
 8. User defined password
- F. Programmable inputs shall be defined using either a personal computer with the personal computer software or Modbus® link:
1. End time delay input
 2. Inhibit transfer
 3. Low external battery fault
 4. Peak shave/area protection input
 5. Remote common fault
 6. Remote test
- G. Programmable outputs shall be defined using either a personal computer with the personal computer software or Modbus® link:
1. Auxiliary switch fault
 2. Common fault
 3. Contactor position
 4. Exercise active
 5. Failure to acquire standby source
 6. Failure to transfer fault
 7. Generator engine start
 8. Load bank control
 9. Loss of phase fault
 10. Low backup battery
 11. No in automatic mode

12. Non-emergency transfer
13. Over and undervoltage faults
14. Over and under frequency faults
15. Peak shave/area protection active
16. Phase rotation error
17. Modbus®-controlled relay outputs
18. Source available
19. Test active

PART 3 - EXECUTION - Not applicable

PART 4 - METHOD OF MEASUREMENT

- A. Automatic Transfer Switch will not be measured separately.

PART 5 - BASIS OF PAYMENT

- A. Automatic Transfer Switch will not be paid for separately and shall be included in the price for 80kW Standby Power Generator w/ Automatic Transfer Switch.

END OF SECTION 263600

STANDARD DRAWINGS

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ROSEBURG REGIONAL AIRPORT

STANDBY POWER GENERATOR

ROSEBURG, OREGON

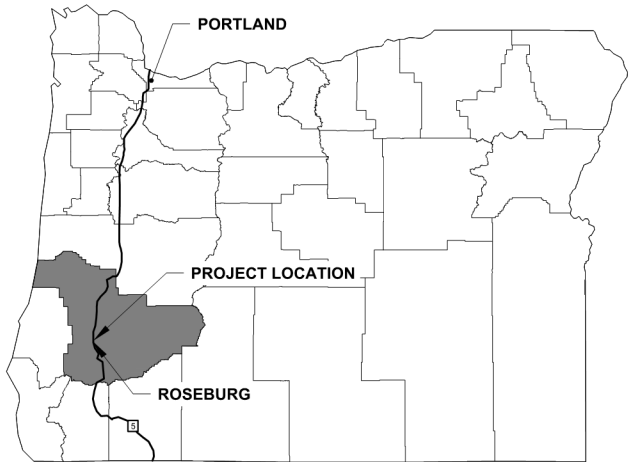
CITY NO.: 22PW06

BIL NO.: 3-41-0054-031-2024

STATE NO.: COAR-2022-RBG-00033

SEPTEMBER 2023

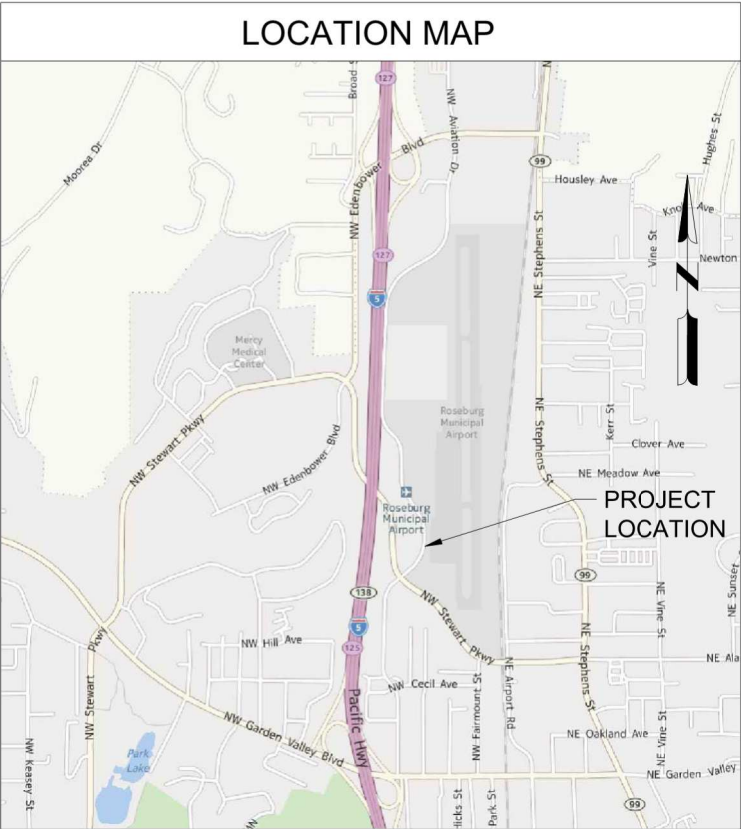
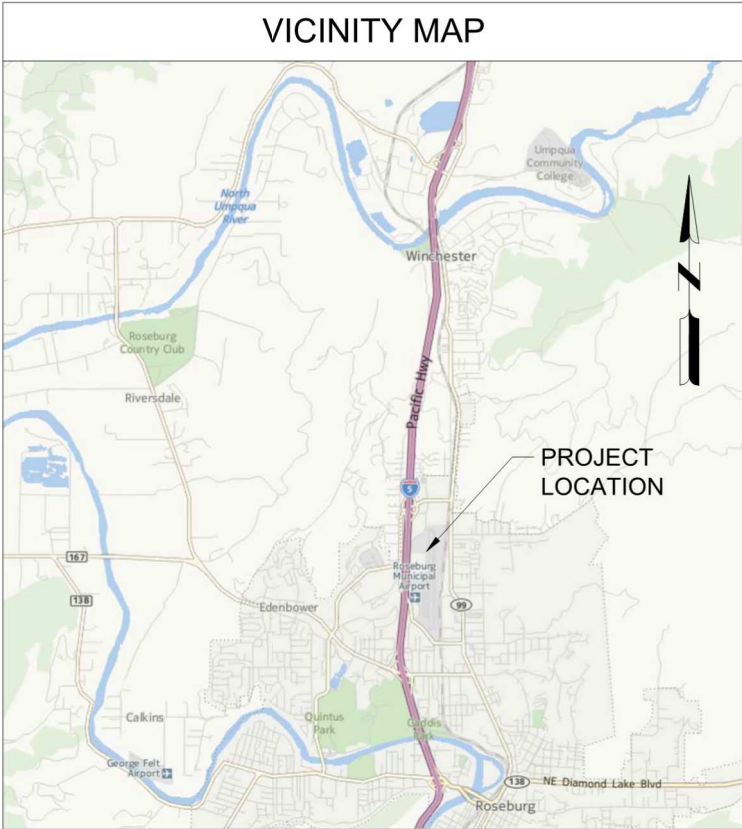
ISSUED FOR BID



DOUGLAS COUNTY, OREGON

SHEET INDEX

SHT #	DWG #	SHEET TITLE
G-001	1	COVER SHEET
G-081	2	CONSTRUCTION SAFETY, PHASING AND SITE LAYOUT PLAN
CE-051	3	DEMOLITION PLAN
CE-201	4	SITE AND ELECTRICAL LAYOUT PLAN
CE-301	5	FENCING AND ELECTRICAL DETAILS
E-401	6	ELECTRICAL BUILDING EQUIPMENT LAYOUT
E-501	7	ELECTRICAL ONE-LINE DIAGRAMS AND PANEL SCHEDULES





Know what's below.
Call before you dig.

ATTENTION:
OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH 952-001-0100. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER AT (800) 332-2344.



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Suite 100
Portland, OR 97220
phone: 503-548-1494
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THE CITY OF
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ROSEBURG REGIONAL AIRPORT
STANDBY POWER GENERATOR
2151 NW AVIATION DRIVE
ROSEBURG, OREGON

ISSUED
ISSUED FOR BID

MSH NO.: 1821200-212174.01
DATE: SEPTEMBER 2023
DESIGNED BY: RJB
DRAWN BY: JTH
CHECKED BY: RJB
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SHEET CONTENTS
COVER SHEET

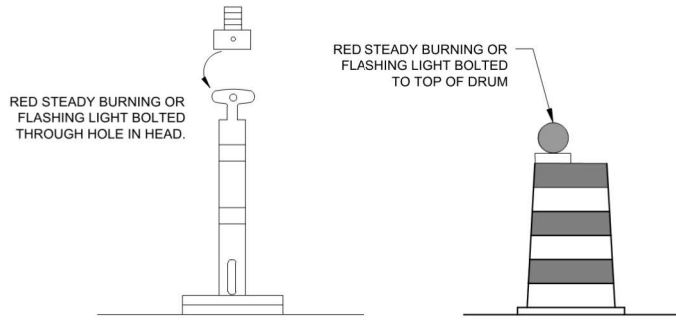
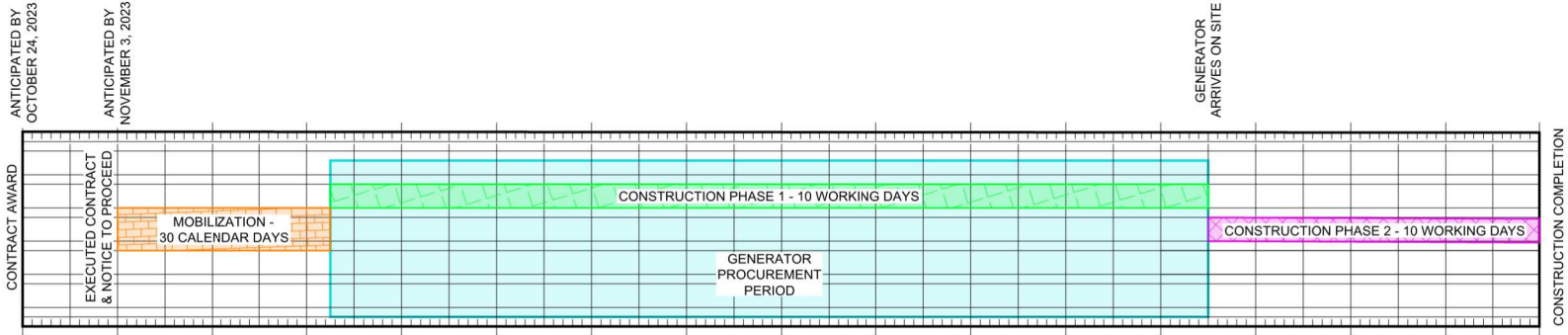
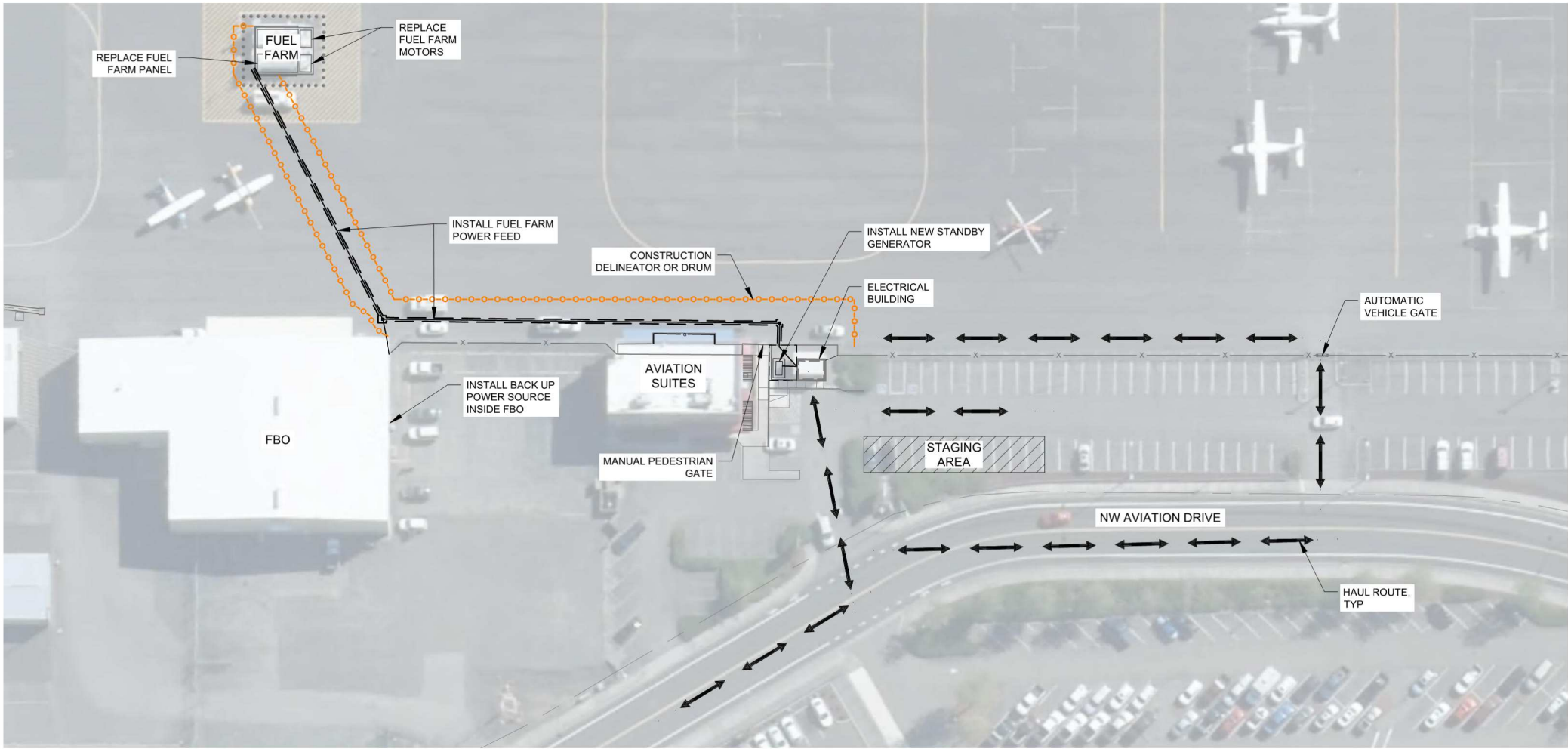
SHEET NO. 1 of 7

G-001



REGISTERED PROFESSIONAL
ENGINEER
86602PE
DIGITALLY SIGNED
OREGON
3/13/2012
RYAN J. BERGSTRÖM
EXPIRES: 12 / 31 / 23

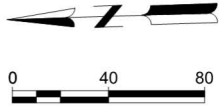
X:\18212001\21714_01\TECH\DRAWINGS\G-081 CONSTRUCTION SAFETY, PHASING AND SITE LAYOUT PLAN.DWG
9/19/2023 12:41:09 PM



NOTES:

1. THE CONTRACTOR HAS THE OPTION TO USE DELINEATORS OR DRUMS WHERE IDENTIFIED IN THE PLANS.
2. CONSTRUCTION DELINEATORS OR DRUMS SHALL BE PROVIDED BY THE CONTRACTOR. CONTRACTOR SHALL SUPPLY A SUFFICIENT NUMBER OF DELINEATORS OR DRUMS FOR THE DURATION OF THE PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE APPROPRIATE NUMBER OF DELINEATORS OR DRUMS AS IT RELATES TO THE CONTRACTOR'S WORK PLAN.
3. CONTRACTOR SHALL MAINTAIN ALL LIGHTS IN WORKING ORDER FOR THE DURATION OF THE PROJECT.
4. GAPS BETWEEN DELINEATOR/DRUMS SHALL BE NO MORE THAN 5 FEET.

1 CONSTRUCTION DELINEATOR OR DRUM
NOT TO SCALE



PROJECT PHASING - WORK TO BE COMPLETED

AIRPORT INFORMATION

AIRPORT REFERENCE CODE (ARC): B-II
TAXIWAY DESIGN GROUP (TDG): II
CRITICAL AIRCRAFT: CESSNA CITATION XLS
TAXIWAY OBJECT FREE AREA: 124 FEET (62 FEET FROM TAXIWAY C/L)
COMMON TRAFFIC ADVISORY FREQUENCY (CTAF): 122.8 MHz

MOBILIZATION ELEMENT - 30 CALENDAR DAYS

NOTICE TO PROCEED (NTP) FOR THE MOBILIZATION ELEMENT WILL BE GIVEN IMMEDIATELY AFTER CONTRACT EXECUTION. THE MOBILIZATION ELEMENT INCLUDES:

- PROVIDE ALL REQUIRED SUBMITTALS IDENTIFIED IN THE CONTRACT DOCUMENTS.
- PROVIDE CONTRACTOR'S PROPOSED WORK SCHEDULE.
- SUBMISSION OF AN APPROVED SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) AS PROVIDED IN THE CSPP.

CONSTRUCTION ELEMENT - 20 WORKING DAYS

IT IS ANTICIPATED THERE WILL BE A LAPSE OF TIME BETWEEN THE MOBILIZATION ELEMENT AND CONSTRUCTION ELEMENT FOR THE CONTRACTOR TO PROCURE MATERIALS. ADDITIONALLY THE CONSTRUCTION ELEMENT HAS BEEN SPLIT INTO TWO PHASES TO ALLOW ELEMENTS OF CONSTRUCTION TO OCCUR PRIOR TO ARRIVAL OF THE STANDBY POWER GENERATOR.

NOTICE TO PROCEED FOR THE CONSTRUCTION ELEMENT WILL NOT BE ISSUED UNTIL THE MOBILIZATION ELEMENT IS COMPLETE. THE CONSTRUCTION ELEMENT SHALL BE COMPLETED AND READY FOR FINAL PAYMENT IN 20 WORKING DAYS AND SHALL BE PHASED AS OUTLINED BELOW.

PHASE 1 - 10 WORKING DAYS

- COMPLETE PLACEMENT OF CONCRETE FOUNDATION FOR STANDBY GENERATOR, INCLUDING ASSOCIATED CONDUIT ROUTING TO EXISTING ELECTRICAL BUILDING.
- COMPLETE THE REMOVAL, SALVAGE (AS REQUIRED), AND INSTALLATION OF 6-FOOT CHAIN-LINK FENCE.

PHASE 2 - 10 WORKING DAYS

- PHASE 2 MAY BEGIN ONCE THE CONCRETE PLACED UNDER PHASE 1 HAS CURED IN ACCORDANCE WITH ODOT 00540 STRUCTURAL CONCRETE CONCRETE STRUCTURES.
- COMPLETE INSTALLATION OF THE STANDBY GENERATOR AND AUTOMATIC TRANSFER SWITCH, INCLUDING ALL WIRING, CONNECTIONS, TESTING, INSPECTIONS, AND OTHER NECESSARY ITEMS TO PROVIDE A FULLY FUNCTIONAL STANDBY GENERATOR UNIT.
- COMPLETE INSTALLATION OF CONDUIT AND WIRING BETWEEN ELECTRICAL BUILDING AND FUEL FARM.
- COMPLETE THE REMOVAL AND REPLACEMENT OF EXISTING FUEL FARM PUMPS INCLUDING ALL WIRING, CONNECTIONS, TESTING, INSPECTIONS, AND OTHER NECESSARY ITEMS TO RE-ESTABLISH A FULLY FUNCTIONAL FUEL FARM.
- COMPLETE FBO WORK, FUEL FARM WORK, AND ELECTRICAL BUILDING WORK.

IMPACT ON AIRPORT OPERATIONS

1. ALL WORK ELEMENTS ARE OUTSIDE OF EXISTING RUNWAY AND TAXIWAY OBJECT FREE AREAS. RUNWAY 16/34 AND TAXIWAY A SHALL REMAIN OPERATIONAL AT ALL TIMES DURING CONSTRUCTION.
2. A TEMPORARY ONE-DAY POWER OUTAGE AT THE EXISTING ELECTRICAL BUILDING IS NECESSARY TO COMPLETE THE FINAL CONNECTIONS INSIDE THE ELECTRICAL BUILDING. THIS OUTAGE WILL IMPACT THE AIRPORT-OWNED RUNWAY 34 PAPI, RUNWAY 34 REILS, RUNWAY 16 REILS, PRIMARY AND SUPPLEMENTAL WINDCONES, RUNWAY AND TAXIWAY EDGE LIGHTING. THE TEMPORARY OUTAGE OF THE ELECTRICAL BUILDING MAY ONLY OCCUR FROM 30-MINUTES AFTER SUNRISE TO 90-MINUTES BEFORE SUNSET, AND SHALL BE APPROVED BY THE AIRPORT PRIOR TO SCHEDULING. A MINIMUM OF 5-DAYS' NOTICE SHALL BE PROVIDED BY THE CONTRACTOR TO SCHEDULE THE OUTAGE.
3. A TEMPORARY TWO-DAY POWER OUTAGE AT THE EXISTING FUEL FARM IS ALLOWED TO COMPLETE THE REPLACEMENT OF FUEL FARM MOTORS AND PERFORM FINAL ELECTRICAL CONNECTIONS AT THE FUEL FARM. THE TEMPORARY OUTAGE SHALL BE APPROVED BY THE FBO AND AIRPORT PRIOR TO SCHEDULING. A MINIMUM OF 5-DAYS' NOTICE SHALL BE PROVIDED BY THE CONTRACTOR TO SCHEDULE THE OUTAGE.
4. THE CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP). THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD), AS OUTLINED IN THE CSPP, AT THE PRE-CONSTRUCTION MEETING.
5. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE AIRFIELD SECURE AT ALL TIMES. SECURITY GATES MUST BE CLOSED AND LOCKED WHEN NOT IN USE.
6. THE CONTRACTORS' MAXIMUM EQUIPMENT HEIGHT MAY NOT EXCEED 18 FEET, UNLESS OTHERWISE APPROVED BY THE AIRPORT.
7. CONTRACTOR SHALL PROVIDE ADEQUATE MARKING, BARRICADES, OR OTHER ACCEPTABLE MEANS TO PROTECT THE WORK BEING PERFORMED UNDER THIS CONTRACT.
8. CONTRACTOR SHALL ENSURE THAT ALL PAVED SURFACES ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.



Mead & Hunt

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STANDBY POWER GENERATOR

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ROSEBURG, OREGON

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SHEET CONTENTS
CONSTRUCTION
SAFETY, PHASING
AND SITE LAYOUT
PLAN

SHEET NO. 2 of 7

G-081

LEGEND

FEATURES

	(E) CATCH BASIN (CB)
	(E) SANITARY MANHOLE (MH)
	(E) STORM MANHOLE
	(N) AIRFIELD ELECTRICAL HANDHOLE
	(E) GATE
	REMOVE (E) AC AND REMOVE AND SALVAGE (E) AB
	(E) CONCRETE
	(N) ASPHALT
	(E) AGGREGATE BASE
	(E) GRASS

LINETYPES

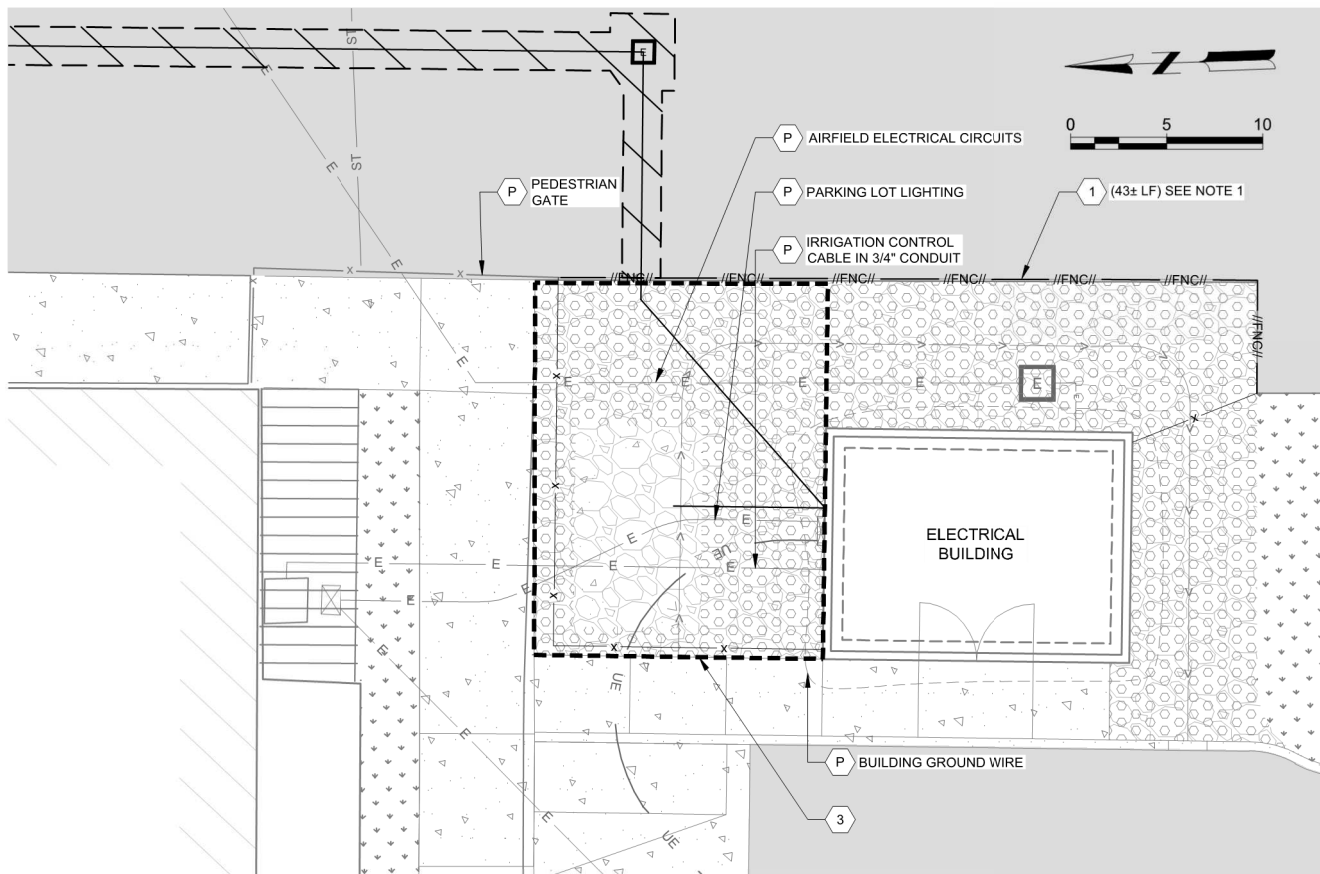
	(E) AIRPORT ELEC CIRCUIT (UNDERGROUND)
	(E) POWER (UNDERGROUND)
	(N) CONDUIT
	(E) BARBED WIRE FENCE
	REMOVE AND SALVAGE FENCE
	(N) CHAIN-LINK FENCE
	(E) WATER LINE
	(E) STORM SEWER
	(E) EDGE OF PAVEMENT
	(E) HANDRAIL



EXISTING 10 HP



EXISTING 7.5 HP



DEMOLITION NOTES:

1. AT THE CONTRACTOR'S OPTION, 6-FOOT CHAIN-LINK FENCE MATERIALS REMOVED UNDER THIS PROJECT MAY BE SALVAGED AND REUSED TO CONSTRUCT 6-FOOT CHAIN-LINK FENCE CONTAINED UNDER OTHER ITEMS OF WORK. THESE MATERIALS ARE LIMITED TO CHAIN-LINK FENCE FABRIC, BARBED WIRE EXTENSION ARMS, TOP RAIL, AND GATE PANELS. SALVAGEABLE IS CONSIDERED FABRIC WITHOUT HOLES, TEARS, SNAGS, ETC.; EXTENSION ARMS WITHOUT KINKS OR BROKEN BRACKETS; TOP RAIL WITHOUT KINKS; AND GATE PANELS THAT, WHEN HUNG, PROVIDE THE FUNCTIONALITY OF A NEW GATE. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL SALVAGED COMPONENTS ARE COMPATIBLE WITH THE NEW MATERIALS BEING PROVIDED.
2. THE EXISTING ELECTRICAL SERVICE TO THE ELECTRICAL BUILDING WILL BE UPGRADED FROM A 200A SINGLE-PHASE SERVICE TO A 400A SINGLE-PHASE SERVICE BY PACIFIC POWER. THE CITY WILL COORDINATE WITH THE CONTRACTOR REGARDING UPGRADE SCHEDULE ONCE KNOWN.
3. ASPHALT REMOVAL FOR UTILITY TRENCH IS SHOWN FOR GRAPHICAL PURPOSES ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE REMOVAL LIMITS NEEDED TO INSTALL THE CONDUIT AND HANDHOLES SHOWN ON SHEET E-201.
4. THE CONTRACTOR SHALL NOT BEGIN EXCAVATION UNTIL ALL EXISTING UNDERGROUND FACILITIES WITHIN THE AREA TO BE EXCAVATED HAVE BEEN MARKED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR SHALL POTHOLE AND VERIFY THE DEPTH OF ALL UTILITIES WITHIN THE CONSTRUCTION ZONE BEFORE TRENCHING OR BEGINNING EXCAVATIONS OF ANY TYPE. CALL THE OREGON UTILITY NOTIFICATION CENTER 1-800-332-2344 OR 811. IN ACCORDANCE WITH OREGON LAW, FOLLOW RULES ADOPTED BY OREGON NOTIFICATION CENTER (OAR-952-001-0010 THROUGH OAR 952-001-0100). COPIES OF THE RULES MAY BE OBTAINED BY CALLING THE CENTER.
5. NO GUARANTEE IS EXPRESSED OR IMPLIED THAT ALL UNDERGROUND OBSTRUCTIONS ARE SHOWN ON THE PLANS. UNDERGROUND OBSTRUCTIONS NOT SHOWN MAY BE ENCOUNTERED. THOSE SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE AND THE CONTRACTOR IS CAUTIONED THAT THE ENGINEERS, AND THE CITY ASSUME NO RESPONSIBILITY FOR ANY OBSTRUCTIONS EITHER SHOWN OR NOT SHOWN ON THE PLANS.
6. ITEMS OF REMOVAL SHALL BE DEPOSED OF BY THE CONTRACTOR OFF SITE, UNLESS OTHERWISE SPECIFIED.
7. THE PROJECT DISTURBS LESS THAN ONE ACRE OF LAND AND IS NOT ANTICIPATED TO CREATE EROSION OR SEDIMENT RUNOFF DURING CONSTRUCTION. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES (BMP) TO PREVENT EROSION OR SEDIMENT RUNOFF FROM LEAVING THE SITE.

SHEET KEYNOTES:

- 1 REMOVE AND SALVAGE 6-FOOT CHAIN-LINK FENCE WITH 3 STRAND BARBED WIRE
- 2 SAWCUT AND REMOVE EXISTING 4" ASPHALT AND SALVAGE 7" AGGREGATE BASE
- 3 REMOVE AND SALVAGE LANDSCAPE ROCK (3" THICK)
- P PROTECT IN PLACE



EXPIRES: 12 / 31 / 23

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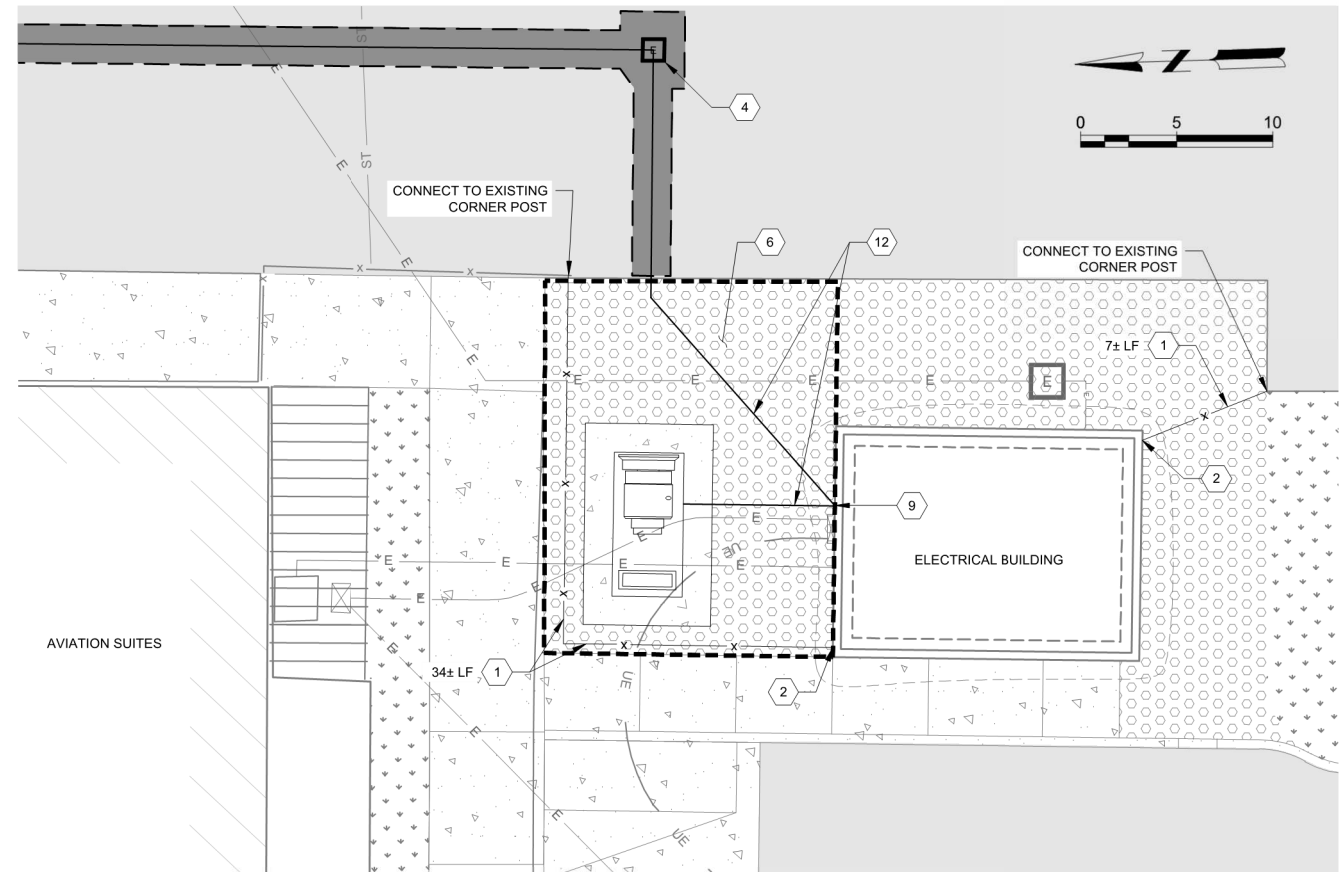
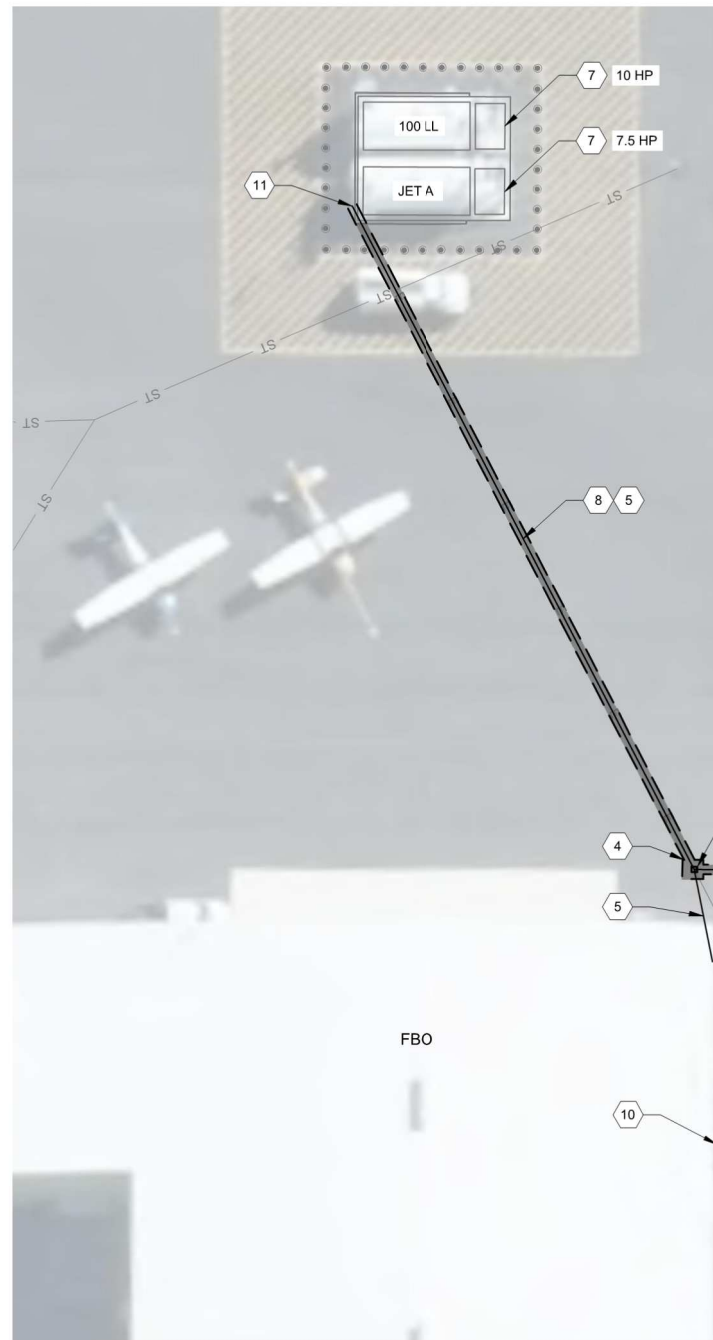
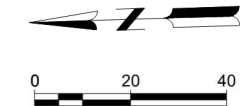
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SHEET CONTENTS
DEMOLITION PLAN

SHEET NO. 3 of 7

CE-051

X:\1821200\212174_01\TECH\DRAWINGS\IE-501 ELECTRICAL ONE-LINE DIAGRAMS AND PANEL SCHEDULES.DWG
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SEE INSET BELOW

SHEET KEYNOTES:

- 1 INSTALL 6-FOOT CHAIN-LINK FENCE WITH BARBED WIRE. SEE DETAIL 1/CE-301
- 2 CONNECT FENCE TO BUILDING. SEE DETAIL 4/CE-301
- 3 INTERCEPT EXISTING FUEL FARM CONDUIT AND INSTALL ELECTRICAL HANDHOLE. PROVIDE SEAL OFFS FOR ALL CONDUITS FROM FUEL FARM AREA. SEE DETAIL 7/CE-301
- 4 INSTALL ELECTRICAL HANDHOLE. SEE DETAIL 7/CE-301
- 5 INSTALL CONCRETE ENCASED CONDUIT. SEE DETAIL 6/CE-301
- 6 DISTRIBUTE SALVAGED LANDSCAPE ROCK EVENLY AROUND PERIMETER OF GENERATOR PAD AND SURROUNDING AREA
- 7 REPLACE EXISTING 3-PHASE MOTOR WITH NEW SINGLE-PHASE MOTOR
- 8 REMOVE AND REPLACE POWER CABLES IN EXISTING CONDUIT. PROTECT IN PLACE THE COMM. CABLES.
- 9 PENETRATE BUILDING WALL WITH NEW CONDUIT
- 10 INSTALL BATTERY BACK UP UNIT (UPS) IN FBO
- 11 REPLACE EXISTING FUEL PANEL WITH NEW PANEL. CONNECT NEW POWER CABLES TO PANEL. REUSE EXISTING E-STOP AND CONDUITS.
- 12 INSTALL NON-ENCASED CONDUIT. SEE DETAIL 5/CE-301



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STANDBY POWER GENERATOR**

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ROSEBURG, OREGON

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DRAWN BY: JTH
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SHEET CONTENTS
SITE AND ELECTRICAL
LAYOUT PLAN

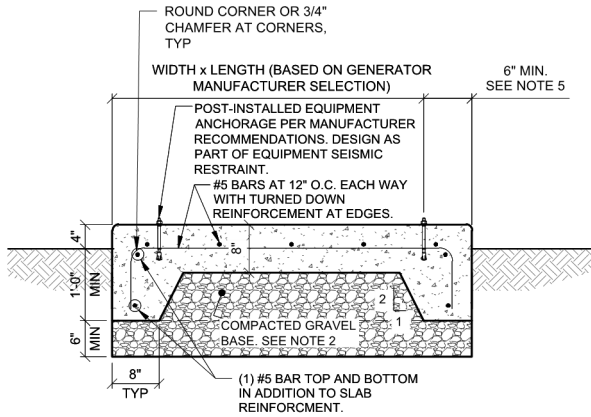
SHEET NO. 4 of 7

CE-201

EQUIPMENT SCHEDULE	
ITEM (#)	DESCRIPTION
1	METER SOCKET, 250 A, TO BE REMOVED (COORDINATE WITH UTILITY).
2	BARD 2 TON HEAT PUMP, 240V, 1φ, WITH 4KW HEATER STRIP AND CLIMATE CONTROL.
3	PANELBOARD, 200A, 240/120V, 1φ, 3W, 42 SP, WITH 200A MAIN, 10,000 AIC, EXISTING TO REMAIN, REFEED FROM NEW 400A PANEL.
4	DISCONNECT, 200A, 240V, NEMA 3R, SOLID NEUTRAL TO BE REMOVED (COORDINATE WITH UTILITY). CONTRACTOR TO RESEAL WALL PENETRATION.
5	TVSS, 200,000 KA RATING
6	PHOTOELECTRIC CONTROL, 120V, 20A CONTACTS
7	NOT USED
8	CONTROL CABINET, NEMA 1, 36"x36"x8"
9	TRANSFER RELAY , ELECTRICALLY HELD, CONTACTS AS REQUIRED
10	TIME DELAY (On) RELAY, SOLID STATE, 120V, 0-60 SEC., OCTAL BASE (SET TO 1 SEC)
11	METAL LAY-IN WIREWAY, 8"x8", NEMA 1, WITH BARRIER DIVIDER
12	PULL BOX, 30"x24"x8", NEMA 1
13	CONSTANT CURRENT REGULATOR (CCR), 20 KW, 240V INPUT, 6.6A, OUT PUT, 3 BRIGHTNESS STEPS, L-828, TYPE I, CLASS 1, STYLE 1, FERRORESONANT
14	PILOT CONTROL RADIO, VHF BAND (118-136 MHZ), PROGRAMMABLE TO OPERATE IN ANY FREQUENCY, WITH OUTPUT RELAYS FOR 3, 5, AND 7 CLICKS, ADJUSTABLE SENSITIVITY FROM 1-20 MILES
15	LIGHTING CONTACTOR, 2P, 30A, WITH 120V COIL AND ROTARY HOA SWITCH SUITABLE FOR TRANSFORMER SWITCHING, IN A NEMA 1 ENCLOSURE
16	SERIES PLUG CUTOUT, "SCO" TYPE, W/ THREE WORKING POSITIONS
17	NOT USED
18	LIGHTNING ARRESTER, SECONDARY CLASS, FOR PROTECTION OF 120/240 CKTS
19	DISCONNECT, 30A, 600V, NEMA 1
20	DRY-TYPE TRANSFORMER, 1φ, 3 kVA, 480VP/240/120V S, 60 HZ, NEMA 1.
21	ELECTRICAL ENCLOSURE, 48"x24"x12"
22	1-1/4"x1/4" COPPER GROUND BUSS INSTALLED ON 1" STAND-OFFS
23	50 POINT TERMINAL STRIP,SQUARE D CLASS 9080, SUITABLE FOR #22 TO #10 AWG WIRE
24	2 - 2 LAMP FLUORESCENT FIXTURES
25	80kW GENERATOR SET WITH OUTDOOR ENCLOSURE, SUBBASE, TANK AND CONCRETE FOUNDATION. 120/240V, 400A, 1P-3W
26	ATS, 400A, 120/240V, 1P-3W, WITH LOST PHASE AND PHASE REVERSAL DETECTION, NEMA 3R CABINET. PROVIDE COMMUNICATION WIRING TO ATS AS REQUIRED BY GENERATOR MANUFACTURER
27	HEAVY DUTY, SERVICE RATED, 240V, 400A, 1P-3W FUSED DISCONNECT SWITCH
28	UTILITY APPROVED 400A, 120/240V, 1P-3W METER SOCKET AND METERING CABINET
29	NEW 400A, 120/240V, 1P-3W, NEMA 1, SERVICE RATED MAIN PANEL WITH SPD

GENERAL NOTES:

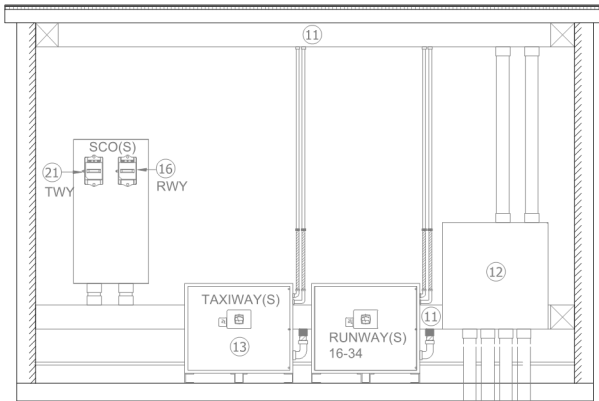
- ITEMS SHOWN IN GRAYSCALE ARE EXISTING AND ARE FOR REFERENCE ONLY. NEW WORK IS SHOWN IN BOLD.
- ALL WORK SHALL BE DONE IN A WORKMANLIKE MANNER.
- ALL WORK SHALL CONFORM TO THE 2023 EDITION OF THE NEC AND LOCAL CODES.
- ALL METAL CABINETS SHALL BE GROUNDED TO GROUND BUS AS PER THE REQUIREMENTS OF THE NEC.
- CONTRACTOR SHALL COORDINATE ALL PERMITTING AND INSPECTIONS REQUIRED TO PLACE THE STANDBY GENERATOR INTO SERVICE.
- ALL EQUIPMENT INSTALLED UNDER THIS PROJECT SHALL MEET BUY AMERICAN REQUIREMENTS. CONTRACTOR SHALL PROVIDE PROOF WITH EACH SUBMITTAL SHEET SUBMITTED FOR APPROVAL.
- FINAL CONNECTION TO EQUIPMENT SUBJECT TO VIBRATION SHALL BE THROUGH FLEXIBLE METALLIC CONDUIT.
- CONTRACTOR/INSTALLER SHALL TRAIN THE CITY MAINTENANCE STAFF ON THE OPERATION AND MAINTENANCE OF THE GENERATOR SET, INCLUDING RUNNING THE GENERATOR SET WITH LOAD TO PREVENT WET STACKING.
- AIRPORT OWNED EDGE LIGHTING AND NAVIGATIONAL AIDS POWERED FROM THE EXISTING ELECTRICAL BUILDING MUST REMAIN OPERATIONAL FROM 90 MINUTES BEFORE SUNSET TO 30 MINUTES AFTER SUNRISE. CONTRACTOR SHALL COORDINATE NECESSARY ELECTRICAL OUTAGES WITH PACIFIC POWER AND THE CITY OF ROSEBURG.
- ALL GROUND RODS ARE 3/4" X 10' COPPER CLAD.
- THIS DRAWINGS ARE DIAGRAMMATIC IN NATURE AND DEPICT THE GENERAL DESIGN CONCEPT. MINOR CHANGES TO THE LAYOUT OR DESIGN TO MAKE THE VARIOUS COMPONENTS FIT ARE ACCEPTABLE AND SHALL NOT BE CONSIDERED A JUSTIFIABLE CAUSE FOR ADDITIONAL COMPENSATION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES OF THE SITE CONDITIONS AND TO BRING TO THE CITY'S ATTENTION ANY DISCREPANCIES BETWEEN THE SITE CONDITIONS AND THE CONTRACT DOCUMENTS PRIOR TO SUBMITTING A BID PRICE FOR THE WORK. NO ADDITIONAL COMPENSATION SHALL BE MADE FOR SMALL DIFFERENCES BETWEEN THE SITE CONDITIONS AND CONTRACT DOCUMENTS.
- AFTER EXISTING METER SOCKET AND DISCONNECT SWITCH ARE REMOVED, CONTRACTOR SHALL REPAIR EXISTING WALL PENETRATION.
- CONTRACTOR SHALL VERIFY IF THE NEUTRAL-GROUND BOND IS PRESENT IN THE EXISTING PANEL. IF SO, REMOVE THIS BOND AS PER NEC.



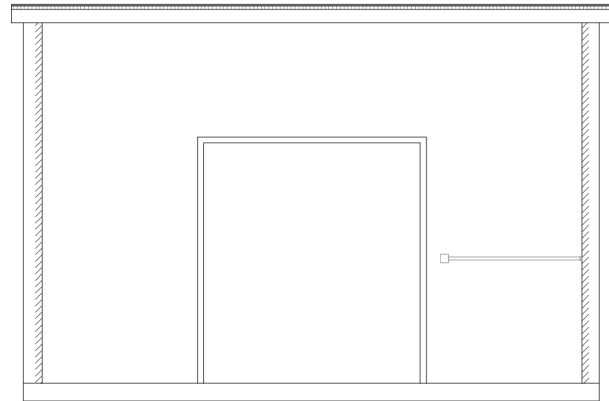
7 EXTERIOR GENERATOR PAD
NOT TO SCALE

EXTERIOR GENERATOR PAD NOTES:

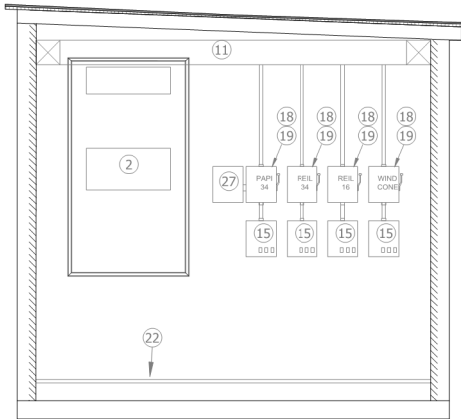
- REMOVE ALL LANDSCAPE ROCK, AND EXCAVATE TO BOTTOM OF GRAVEL BASE ELEVATION. EXCAVATED MATERIAL SHALL BE DISPOSED BY THE CONTRACTOR OFFSITE.
- PROVIDE GRAVEL BASE MEETING THE MATERIAL AND CONSTRUCTION REQUIREMENTS OF ODOT 00759.11 AGGREGATE BASE (3/4"-0).
- TOP OF GENERATOR PAD SHALL BE AT THE SAME ELEVATION AS THE FINISHED FLOOR ELEVATION OF THE ADJACENT ELECTRICAL BUILDING.
- DISTANCE FROM GENERATOR PAD TO BUILDING FOUNDATION SHALL BE AS RECOMMENDED BY THE MANUFACTURER BUT IN NO CASE BE LESS THAN 5-FEET.
- CONCRETE PAD SHALL EXTEND A MINIMUM OF 6-INCHES BEYOND THE OUTSIDE EDGE OF THE GENERATOR ENCLOSURE, OR GREATER IF RECOMMENDED BY THE MANUFACTURER.
- CONCRETE MIX AND REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF ODOT 02001-CONCRETE AND 02510-REINFORCEMENT.
- STRUCTURAL CONCRETE MEETING ODOT 02001 SHALL BE PLACED, CURED, AND FINISHED IN ACCORDANCE WITH ODOT 00540 STRUCTURAL CONCRETE.



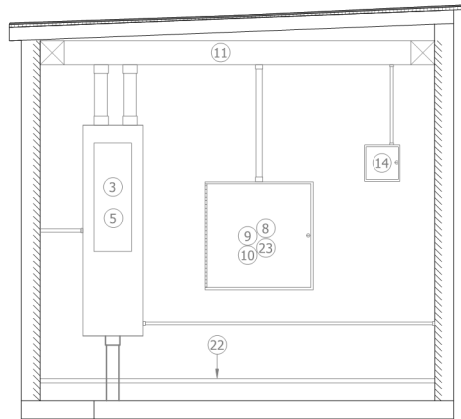
1 EAST INTERIOR ELEVATION (EXISTING)
SCALE: 3/8"=1'



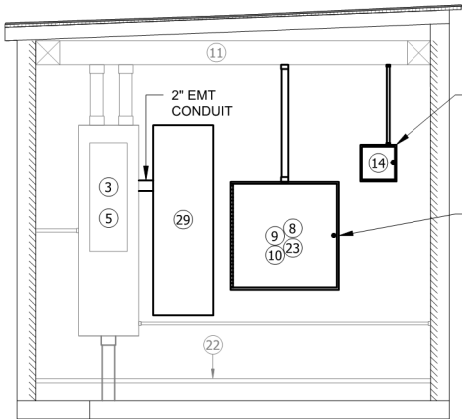
2 WEST INTERIOR ELEVATION (EXISTING)
SCALE: 3/8"=1'



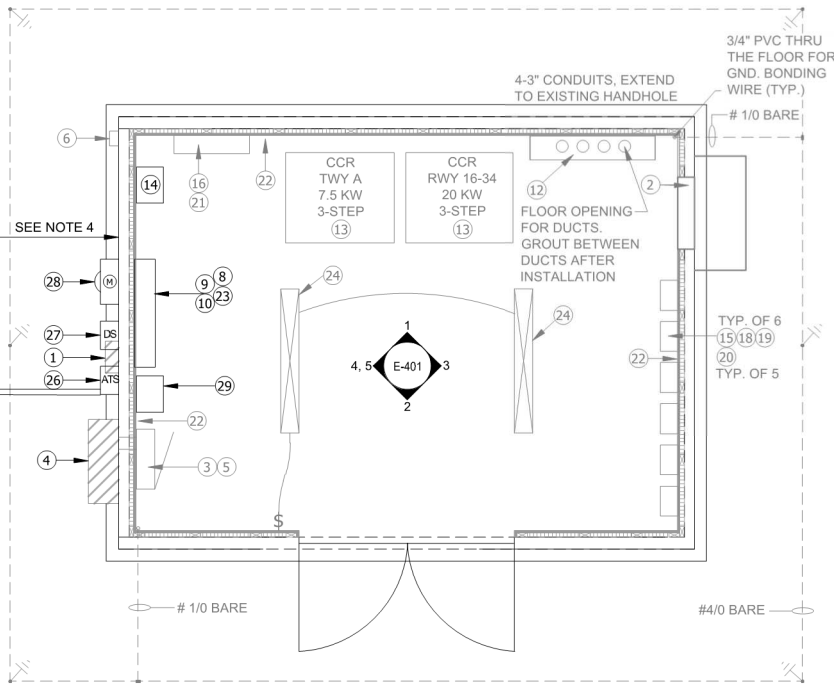
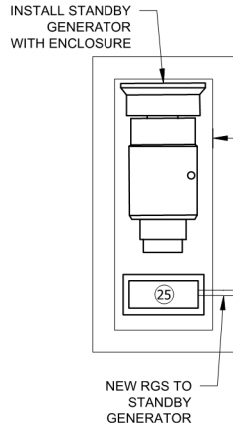
3 SOUTH INTERIOR ELEVATION (EXISTING)
SCALE: 3/8"=1'



4 NORTH INTERIOR ELEVATION (EXISTING)
SCALE: 3/8"=1'



5 NORTH INTERIOR ELEVATION (FUTURE)
SCALE: 3/8"=1'



6 VALUT EQUIPMENT LAYOUT
SCALE: 3/8"=1'



Mead & Hunt

Mead and Hunt, Inc.
9600 NE Cascades Parkway,
Suite 100
Portland, OR 97220
phone: 503-548-1494
meadhunt.com



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ROSEBURG REGIONAL AIRPORT
STANDBY POWER GENERATOR

2151 NW AVIATION DRIVE
ROSEBURG, OREGON

ISSUED
ISSUED FOR BID

M&H NO.: 1821200-212174.01
DATE: SEPTEMBER 2023
DESIGNED BY: CMH
DRAWN BY: JTH
CHECKED BY: RJB
DO NOT SCALE DRAWINGS

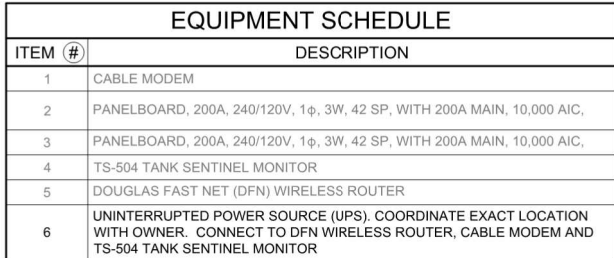
SHEET CONTENTS
ELECTRICAL BUILDING
EQUIPMENT LAYOUT

SHEET NO. 6 of 7

E-401



PANEL SCHEDULE:				FUEL PANEL				1 PHASE				3 WIRE				VOLTAGE LL: 240				VOLTAGE LG: 120			
OC DEVICES:		MCB		DEVICE FAMILY:				MOUNTING:		Surface		ENCLOSURE:				NEMA		3R					
COMMENTS:						BUS RATING:		200A		AVAILABLE FAULT DUTY:						10000A							
CKT NO	DESCRIPTION/ LOCATION	LOAD TYPE	CRITERIA EA QTY		DEM	TOTAL VA	REMARKS	DEVICE AMPS	P	H	DEVICE AMPS	P	REMARKS	TOTAL VA	LOAD TYPE	CRITERIA EA QTY		DEM	DESCRIPTION/ LOCATION	CKT NO			
1	10 HP AV GAS MOTOR		5500	1	10	5500		90	2	A				0						2			
3	---		5500	1	10	5500			--	B				0						4			
5	7.5 HP JET A MOTOR		3600	1	9	3600		70	2	A				0						6			
7	---		3600	1	9	3600			--	B				0						8			
9	AV GAS CONTACTOR		100	1		100		15	1	A				0						10			
11	CARDREADER		100	1		100		20	1	B				0						12			
13	E-STOP		100	1		100		20	1	A				0						14			
15	PUMP LIGHTS		400	1		400		20	1	B				0						16			
17						0				A				0						18			
19						0				B				0						20			
21						0				A				0						22			
23						0				B				0						24			
25						0				A				0						26			
27						0				B				0						28			
29						0				A				0						30			
ENDUSE LOADS:		PHASE "A" KVA =		9		PHASE "B" KVA =		10		DESIGN KVA =		13											
TOTAL LOADS:		CONNECTED KVA =		19		DEMAND KVA =		12		DESIGN KVA =		13											
		CONNECTED FLA =		79		DEMAND FLA =		48		DESIGN FLA =		55											



PREPARED BY



9600 NE Cascades Parkway, Ste. 100
Portland, Oregon 97220
503-548-1494
www.meadhunt.com