

CONTRACT DOCUMENTS FOR:

**Beachfront RV Park Improvements
Port of Brookings-Harbor
16024 Boat Basin Road**

OWNER:

**Port of Brookings-Harbor
16330 Lower Harbor Rd
P.O. Box 848
Brookings OR 97415**

ARCHITECT'S PROJECT NO. 19005

DATE: August 2021

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16330 Lower Harbor Rd
P.O. Box 848
Brookings OR 97415**



ARCHITECT:

**Crow/Clay & Associates Inc.
Architecture and Planning
125 W. Central Avenue, Suite 400
Coos Bay OR 97420
Telephone: (541) 269-9388**

ARCHITECT'S PROJECT NO. 19005

DATE: August 2021

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END OF SECTION

INVITATION TO BID

Notice is hereby given that sealed bids are invited in single contract proposal for upgrades at the Port of Brookings-Harbor Beachfront RV Park. Work consists of demolition of concrete slabs, earthwork, concrete, plumbing and electrical.

Bids must be in writing and delivered to the office of Crow/Clay & Associates Inc., Architecture and Planning; 125 W. Central Avenue, Suite 400; Coos Bay, Oregon 97420. Bids will be accepted until 2:00 PM, Thursday, September 23, 2021. Bids will be opened and read in a public meeting at the office of Crow/Clay & Associates Inc., scheduled for 2:05 PM, Thursday, September 23, 2021. Bids received after 2:00 PM will not be received or considered. After opening, the bids will be available for public inspection.

Construction Documents may be examined at the office of the Architect: **Crow/Clay & Associates Inc., Architecture and Planning; 125 W. Central Avenue, Suite 400; Coos Bay, OR 97420; (541) 269-9388** and at the following locations: Port website: www.portofbrookingsharbor.com; Premier Builders Exchange, Bend; Contractors Plan Center, Clackamas; Daily Journal of Commerce, Portland; Dodge Data & Analytics, Portland; Douglas County Plan Center, Roseburg; Eugene Builders Exchange, Eugene; Klamath Falls Builders Exchange, Klamath Falls; Medford Builders Exchange, Medford; Salem Contractors Exchange, Salem; Daily Journal of Commerce, Seattle; and Builder's Exchange of Washington, Everett.

Prime bidders may obtain one set of bidding documents at the Architect's office upon deposit of \$50.00. Non-bidders' deposits will **not** be refunded. Additional sets and partial sets may be purchased from the Architect for the cost of reproduction. Online Documents: Free online document access will be permitted to all Bidders and Suppliers who contact and register with the Architect's office. All Bidders and Suppliers that receive documents from Architect's office will be added to Plan Holder's list.

Pre-Bid Conference to be held at 10:00 AM, Tuesday, September 7, 2021, at the job site, 16024 Boat Basin Road, Brookings, Oregon. Meet at the Park Office. The Pre-Bid Conference is **not** mandatory.

No bid will be considered unless accompanied by bid security in the form of a Cashier's Check issued in favor of the Owner or a bid bond issued by a bonding company acceptable to the Owner. Bid security must be for 10% of amount of the bid and guarantee bids for a period of thirty (30) days after bid opening.

The provisions of ORS 279c.800 to 279c.870 relative to prevailing wage rates shall be complied by the successful bidder and all subcontractors, and appropriate certificates indicating compliance will be required.

Within two hours of the bid opening, all bidders to be considered as responsive, shall submit at the above address, a form, disclosing the names, addresses, Construction Contractor's Board numbers, if applicable, of all first-tier subcontractors whose contract value for labor or labor and material exceeds 5% of the total project bid or \$15,000, whichever is greater.

The Port of Brookings-Harbor may reject any bid not in compliance with all prescribed public bidding procedures and requirements and may reject for good cause any or all bids upon a finding by the Port that it is in the public interest to do so. The Port reserves the right to waive minor irregularities in Bid Form upon a finding by the Port that it is in the public interest to do so.

Bid Forms and Subcontractors information will be accepted via hand delivery, mail or email.

Mr. Gary Dehlinger

BEACHFRONT RV PARK IMPROVEMENTS
PORT OF BROOKINGS-HARBOR
16024 BOAT BASIN ROAD

PROJECT NO. 19005

Publish Dates:

Daily Journal of Commerce

Friday, August 20, 2021

Curry Coastal Pilot

Friday, August 20, 2021

Friday, August 27, 2021

Friday, September 3, 2021

INSTRUCTIONS TO BIDDERS

1. The Invitation to Bid bound herein shall be considered a part of these Instructions to Bidders as fully as if herein repeated.

2. Examination of Site and Documents:

Before submitting a proposal, the Bidder shall:

- a. Carefully examine the drawings and specifications.
- b. Visit the site of the work and fully inform himself of existing conditions and limitations.
- c. Include in his bid sums, sufficient funds to cover all items required by the Contract Documents, relying entirely upon his own examination in making his proposal.

3. Documents.

One (1) copy of the construction documents may be obtained by prime Bidders upon receipt of cash or check in the amount of \$50.00 made payable to the Architect. Deposit made upon procurement of drawings will be refunded upon the return thereof in good condition by actual Bidders within ten (10) days after the opening of the bids. Non-Bidders' deposits will **not** be refunded. Deposits retained will cover cost of printing.

Individual sheets and specification pages may be purchased:

Drawings - \$2.00 per sheet for the first 10 sheets, \$1.00 per sheet thereafter
Specifications - \$0.25 per page (8½" x 11")

Online Documents: Free online document access will be permitted to all Bidders and Suppliers who contact and register with the Architect's office.

All Bidders and Suppliers that receive documents from Architect's office will be added to Plan Holder's list.

4. Discrepancies and Ambiguities.

Discrepancies between drawings and specifications, omissions, doubt as to meaning, and other questions should be brought to the attention of the Architect not less than six (6) days prior to bid time, and they will be answered by addendum addressed to all Bidders. Questions received less than six (6) days before bids close cannot be answered by addendum.

All addenda issued during time of bidding will be incorporated into the contract. Neither the Owner nor the Architect will be responsible for oral interpretations. The Architect shall make all decisions regarding discrepancies between drawings and specifications, based upon whichever of the contract documents represents his original intent.

5. Substitutions:

No substitutions will be considered prior to Bid Date unless written request for approval has been received by the Architect at least seven (7) days prior to the date for receipt of Bids. Each

such request shall include the name of the manufacturer, material or equipment for which it is to be substituted and a complete description of the proposed substitute; including drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or other work that incorporation of the substitute would require shall be included. The burden of proof of the merit of the proposed substitute is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final. See Section 01300 'Submittals' for submittal requirements.

6. Preparation of Bids

Bids shall be made in ink upon the form provided. It shall not contain any recapitulation of the work to be done. All the blank spaces in the form shall be fully filled. Numbers shall be stated both in writing and in figures, and it shall be understood that, in the event of a conflict between lettered quotations and numerical quotations, lettered quotations shall govern. The completed form shall be without interlineation, alteration or erasures. Oral, telephonic or telegraphic bids or modification of bids cannot be considered.

7. Bid Security

- a. As a security that if awarded the contract the Bidder will execute same and furnish the required performance bond, each bid must be accompanied by a bid security in the form of a cashier's check, certified check or bid bond issued by a bonding company acceptable to the Owner in an amount equal to 10% of total bid, made payable to the Owner.
- b. The successful Bidder's bid security will be retained until they have provided the required insurance certification, performance/payment and materials bonds and executed the Contract. The Owner reserves the right to hold the bid security of the next two lowest Bidders until the successful Bidder has entered into a satisfactory contract, or for a period of thirty days, whichever is the shorter time. Bid bonds of other Bidders will be returned as soon as practical after bids are opened.
- c. Should the successful Bidder fail to enter into a contract and furnish bond within ten days after his proposal has been accepted, the bid guarantee shall be forfeited as liquidated damages.

8. Submission of Bids

- a. Bids and bid security shall be enclosed in an opaque, sealed envelope, addressed and marked as follows:

Construction Bid for (Name and Address of Bidder)
- b. It is the responsibility of Bidder to see that his bid is received at or prior to the time set for the bid opening.
- c. Each bid must be signed in longhand by the Bidder with his usual signature. Bids by partnerships must be signed with the partnership name of one of the partners, followed by the signature and designation of the partner signing. Bids by corporation followed by the name of the Secretary, or other person authorized to bind it in the matter. The name of each person shall be typed or printed below the signature.

- d. First Tier Sub-Contractor Disclosure Forms. Disclosure forms must be submitted in a sealed, opaque, manilla envelope, separate from the envelope that contains the bid, and plainly marked as "Disclosure Form for the Port of Brookings-Harbor Beachfront RV Park Improvements". If the manilla envelope containing the disclosure form is sent in the same mailing envelope that contains the (separate) manilla envelope containing the bid, then the mailing envelope with the two manilla envelopes contained therein shall clearly state on the front, "Sealed bid and separate sealed disclosure form enclosed."

9. Withdrawal or Modification of Bid

No Bidder may withdraw or modify his bid after the hour set for the bid opening until after the lapse of thirty (30) days from the bid opening.

10. Award of Contract

- a. The Owner intends to award a construction contract to the responsible Bidder who complies in full with the bidding documents and submits the lowest bid, provided such action is in the Owner's best interest and provided the Owner holds sufficient funds available to allow an award.
- b. The Owner reserves the right to waive irregularities and informalities in any bid and to reject any or all bids.
- c. Identity of the successful Bidder may not be determined at the time of opening of the bids. The Owner reserves the right to obtain opinion of the counsel and the Architect on the legality and sufficiency of all bids.
- d. Protest of Awards. The offerors shall have the right to protest the proposed or actual award per OAR 137-049-0450 as modified to three (3) calendar days from the receipt of the notification of Intent to Award or Notification of Award.

11. Execution of Contract

- a. After notification in writing of the Owner's intent to award a contract, the successful Bidder shall enter into an agreement with the Owner according to the "Standard Form of Agreement Between Owner and Contractor", A.I.A. Document #A101, 2017 edition, as prepared by the American Institute of Architects. Copies of this document are available and may be examined or purchased at the office of the Architect.
- b. Pursuant to ORS 279C.505(2), the contract shall contain a condition that the contractor shall demonstrate that an employee drug testing program is in place.

12. Prevailing Wage Rates

The project is subject to Bureau of Labor and Industry (BOLI) Prevailing Wage Rates relative to minimum wages. BOLI rates and other requirements shall be complied with by the successful Bidder and all Sub-Contractors and appropriate certificates will be required. Current wage rates can be found at http://www.oregon.gov.BOLI/WHD/PWR/pwr_db2.shtml.

13. Performance and Labor and Materials Bonds

- a. The successful Contractor shall, with submission of his executed contract, furnish a performance bond and labor and material payment bond in full amount and extent of the contract.
- b. Bond written by a company licensed in the State of Oregon and satisfactory to the Owner. Bond form to comply with the laws of the State of Oregon and as approved by the Owner.
- c. Should successful Bidder fail to enter into a contract and furnish bond within ten (10) days after his proposal has been accepted, the Contract shall be considered null and void and the bid guarantee shall be forfeited as liquidated damages.

14. Submission of Post-Bid Information

The selected Bidder shall within seven (7) days of notification of selection submit the following:

- a. A statement of costs for each major item of work included in the bid.
- b. A designation of the work to be performed by the Bidder with his own forces.
- c. A list of names of the subcontractors proposed for the principal portions of the work. The Bidder will be required to establish to the satisfaction of the Architect and Owner, the reliability and responsibility of the proposed subcontractors to furnish and perform the work described in the section of specifications pertaining to such. The Architect will notify the Bidder in writing if either the Owner or the Architect, after due investigation, has a reasonable and substantial objection to any person or organization on such list. If Owner or Architect refuses in writing to accept such person or organization, the Bidder shall submit the next low subcontractor bid for the Owner's and Architect's approval. The bid would be revised by a Change Order to reflect the change in cost.

15. Qualifications of Bidder

The Owner may make such investigations as he deems necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted. No bid for a construction contract shall be received or considered by the Owner unless the Bidder is registered with the construction Contractors Board as required by ORS 701.035 to 701.055.

16. Time of Completion and Liquidated Damages

The Bidder must agree to fully complete the project within the time(s) specified on the Bid Form. Bidder must agree also to pay as liquidated damages, the sum of two hundred dollars (\$200.00) for each consecutive calendar day thereafter as hereinafter provided in the General Conditions. Bidder agrees that the liquidated damages provision in this Contract have been considered by Bidder in establishing the amount of its bid and, as such, is part of the negotiations of this Contract. Bidder further agrees that the amount of liquidated damages is a reasonable forecast of just compensation for the harm caused by any breach and that this harm

is one which is impossible or very difficult to accurately estimate. Bidder further agrees that the damages stated herein are not a penalty.

17. Conditions of Work

Each Bidder must inform himself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful Bidder of his obligation to furnish all material and labor necessary to carry out the provision of his contract. Insofar as possible, the Contractor, in carrying out his work, must employ such methods or means as will not cause any interruption or of interference with the work of any other Contractor or interfere with the ongoing operations of the RV Park.

18. Addenda and Interpretations

No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any Bidder orally.

Every request for such interpretation should be in writing and addressed to the Architect at Crow/Clay & Associates Inc., 125 W. Central Avenue, Suite 400, Coos Bay, Oregon 97420, and to be given consideration must be received at least six (6) days prior to the date fixed for the opening of bids. Any and all such interpretations and supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be mailed by certified mail with return receipt requested to all prospective Bidders (at the respective addresses furnished for such purposes), not later than three (3) days prior to the date fixed for the opening of bids. Failure of any Bidder to receive any such addendum or interpretation shall not relieve such Bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.

19. Notice of Special Conditions

Attention is particularly called to those parts of the Contract Documents and Specifications which deal with the following:

- a. Inspection and testing of materials.
- b. Insurance requirements.
- c. Wage Rates

20. Laws and Regulations

The Bidder's attention is directed to the fact that all applicable state laws, municipal ordinances and the rules and regulations of all authorities having jurisdiction over Construction of the Project shall apply to the Contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

21. Email Bids

- a. An 'Email Offer', as used in this Solicitation Document, means an Offer, modification of an Offer, or withdrawal of an Offer that is transmitted to and received by the Contracting Agency via email.

- b. Offerors may submit Email Offers in response to this Solicitation Document. The entire response must arrive at the place and by the time specified in this Solicitation Document.
 - c. The Contracting Agency reserves the right to Award the Contract solely on the basis of the Email Offer. However, upon the Contracting Agency's request the apparent successful Offeror shall promptly submit its complete original Signed Offer.
 - d. Contracting Agency's receiving email is:

coosbay@crowclay.com
 - e. The Contracting Agency is not responsible for any failure attributable to the transmission or receipt of the email Offer including, but not limited to the following:
 - 1. Receipt of garbled or incomplete documents;
 - 2. Availability or condition of the receiving email computer;
 - 3. Incompatibility between the sending and receiving computers or programs;
 - 4. Delay in transmission or receipt of documents;
 - 5. Failure of the Offeror to properly identify the Offer documents;
 - 6. Illegibility of Offer documents; and
 - 7. Security and confidentiality of data.
22. Facsimile bids will not be accepted.

Stat. Auth.: ORS 279A.065
Stats. Implemented: ORS 279C.365

END OF SECTION

**INSTRUCTIONS FOR FIRST-TIER SUBCONTRACTOR DISCLOSURE
(Reference OAR 137-049-0360)**

Bidders are required to disclose information about certain first-tier subcontractors when the contract value for a Public Improvement is greater than \$100,000 (see ORS 279C.370). Specifically, when the contract amount of a first-tier subcontractor furnishing labor or materials is greater than or equal to: (i) 5% of the project bid, but at least \$15,000, or (ii) \$350,000 regardless of the percentage, the bidder must disclose the following information about that subcontract either in its bid 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 AGENCY MUST REJECT A BID IF THE BIDDER FAILS TO SUBMIT THE DISCLOSURE FORM WITH THIS INFORMATION BY THE STATED DEADLINE (see OAR 137-049-0360).

1) **Submission.** A Bidder shall submit the disclosure form required by this rule either in its Bid submission, or within two (2) working hours after Bid Closing in the manner specified by the Invitation to Bid.

2) **Responsiveness.** Compliance with the disclosure and submittal requirements of ORS 279C.370 and (4), and Oregon Administrative Rule 137-049-0360(5) is a matter of Responsiveness. Bids which are submitted by Bid Closing, but for which the disclosure submittal has not been made by the specified deadline, are not Responsive and shall not be considered for Contract award.

3) **Agency Role.** Agencies shall obtain, and make available for public inspection, the disclosure forms required by ORS 279C.370 and OAR 137-049-0360(3). Agencies shall also provide copies of disclosure forms to the Bureau of Labor and Industries as required by ORS 279C.800 to 279C.870. Agencies are not required to determine the accuracy or completeness of the information provided on disclosure forms.

4) **Substitution.** Substitution of affected first-tier subcontractors shall be made only in accordance with ORS 279C.585. Agencies shall accept written submissions filed under that statute as public records. Aside from issues involving inadvertent clerical error under ORS 279C.585 (5), Agencies do not have a statutory role or duty to review, approve, or resolve disputes concerning such substitutions. See ORS 279C.590 regarding complaints to the Construction Contractors Board on improper substitution.

5) **Effective Date.** The amendments to this temporary rule shall apply to Public Improvement Contracts first advertised on or after March 1, 2005.

Stat. Auth.: ORS 279C.370

Stats. Implemented: ORS 279C.580 to 279C.590

FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM

(OAR 137-049-0360)

Bids which are submitted by Bid Closing, but for which a required disclosure submittal has not been made by the specified Disclosure Deadline, are not responsive and shall not be considered for Contract award

AGENCY SUPPLIED INFORMATION:

PROJECT NAME: Port of Brookings-Harbor Beachfront RV Park Improvements
 BID CLOSING: Date: September 23, 2021 Time: 2:00 PM
 REQUIRED DISCLOSURE DEADLINE: Date: September 23, 2021 Time: 4:00 PM
 Deliver Form To (Agency): Crow/Clay & Associates Inc.
 Designated Recipient (Person): Mr. Michael Crow
 Phone # (541) 269-9388
 Agency's Address: 125 West Central Avenue, Suite 400
 Coos Bay OR 97420

INSTRUCTIONS:

The contracting agency will insert "N/A" above if the contract value is not anticipated to exceed \$100,000. Otherwise this form must be submitted either with the bid or within two (2) working hours after the advertised bid closing date and time; but no later than the DISCLOSURE DEADLINE stated above.

Unless otherwise stated in the solicitation, this document shall not be submitted by facsimile. It is the responsibility of bidders to submit this disclosure form and any additional sheets, with the bid number and project name clearly marked, at the location indicated by the specified disclosure deadline. See 'Instructions to Bidders'.

List below the Name, Category of Work and Dollar Value for each first-tier subcontractor that would be furnishing labor, or labor and material, for which disclosure is required. Enter the word "NONE" if there are no first-tier subcontractors subject to disclosure. ATTACH ADDITIONAL SHEETS IF NECESSARY.

BIDDER DISCLOSURE:

	SUBCONTRACTOR NAME	CATEGORY OF WORK	DOLLAR VALUE
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____

The above listed first-tier subcontractor(s) are providing labor, or labor and material, with a Dollar Value equal to or greater than:

- a) 5% of the total Contract Price, but at least \$15,000. [If the Dollar Value is less than \$15,000 do not list the subcontractor above.]
- or
- b) \$350,000 regardless of the percentage of the total Contract Price.

Form Submitted By (Bidder Name): _____

Contact Name: _____ Phone #: _____

BEACHFRONT RV PARK IMPROVEMENTS
PORT OF BROOKINGS-HARBOR
16024 BOAT BASIN ROAD

PROJECT NO. 19005

BID FORM

Bid: Port of Brookings-Harbor Beachfront RV Park Improvements

To: Port of Brookings-Harbor

Date: September 23, 2021

Time: **CLOSING: 2:00 PM**
OPENING: 2:05 PM

The undersigned bidder declares that he has carefully examined the drawings and specifications, that he has made an examination of the site of the project and has made such investigations necessary to determine the character of material and the conditions to be encountered. The undersigned hereby proposes to furnish all material and labor and perform all work to complete the above referenced project in accordance with drawings and specification as prepared by the firm of:

Crow/Clay & Associates Inc.
Architecture and Planning
125 W. Central Avenue, Suite 400
Coos Bay, Oregon 97420
(541) 269-9388

and to be bound by the following documents:

Invitation to Bid	General Conditions
Instructions to Bidders	Supplementary General Conditions
Bid Form	Specifications and Drawings
Instructions for First Tier Subcontractor	Addenda (if any)

Basic Bid

_____ dollars

and _____ cents (\$_____).

Completion time: _____ calendar days.

It is further agreed that unless extended in accordance with "The General Conditions of the Contract for Construction" that I, the undersigned, will pay as liquidated damages to the Owner for any delay beyond the completion day named above the sum of Two Hundred Dollars (\$200.00) per calendar day for each day required beyond that project's completion date.

The undersigned also agrees that he will commence work within ten (10) days of execution of contract and that he will order all materials and equipment under contract within thirty (30) days of execution thereof. The Contractor will guarantee all bids for a period of thirty (30) days. The undersigned agrees that if the undersigned fails to execute a satisfactory contract within ten (10) days of being notified that the project has been awarded to them, then this proposal shall be null and void and the enclosed bid security shall be forfeited.

The undersigned acknowledges receipt of Addendum Numbers:

1 2 3 4 (Circle the number of each Addendum received).

BEACHFRONT RV PARK IMPROVEMENTS
PORT OF BROOKINGS-HARBOR
16024 BOAT BASIN ROAD

PROJECT NO. 19005

The name of the bidder who is submitting this proposal is:

FIRM NAME: _____

ADDRESS: _____

LICENSED TO DO BUSINESS IN OREGON? _____

BY: _____
Authorized Signature

NAME/TITLE _____
Please Print or Type

TELEPHONE: _____ DATE: _____

CONSTRUCTION CONTRACTOR'S BOARD REGISTRATION NUMBER: _____

WORKMEN'S COMPENSATION INSURANCE COMPANY: _____

WORKMEN'S COMPENSATION POLICY/BINDER NUMBER: _____

RESIDENT BIDDER (CIRCLE ONE) YES NO

END OF BID FORM

BEACHFRONT RV PARK IMPROVEMENTS
PORT OF BROOKINGS-HARBOR
16024 BOAT BASIN ROAD

PROJECT NO. 19005

CONTRACT FORMS

AGREEMENT Owner/Contractor Agreement: A.I.A. A101, 2017 edition.

PERFORMANCE AND PAYMENT BONDS

As approved by Owner in compliance with the laws of the State of Oregon.

PROJECT FORMS

01. Certificate of Insurance.
02. Application and Certification for Payment. A.I.A. G702, G703.
03. Architect's Supplemental Instruction. Supplied by Architect.
04. Request for Information. Supplied by Architect. See following pages.
05. Proposal Request. Supplied by Architect. See following pages.
06. Change Order. Supplied by Architect. See following pages.
07. Construction Change Directive. A.I.A. G714, 2017.
08. Certificate of Substantial Completion. A.I.A. G704, 2010.
09. Contractor's Affidavit of Payment of Debts and Claims. A.I.A. G706, 1994.
10. Contractor's Affidavit of Release of Liens. A.I.A. G706A, 1994.
11. Consent of Surety Company to Final Payment. A.I.A. G707, 1994.

CONTRACT FORMS



CROW/CLAY & ASSOCIATES INC.

ARCHITECTURE AND PLANNING
LAND USE AND INTERIORS

REQUEST FOR INFORMATION

Project: _____ **RFI Number:** _____
Project No.: _____

Regarding: _____

References: *(List specific Contract Documents researched when seeking the information being requested)*

Spec. No.: _____ **Dwg. No.:** _____

Request: *(Provide complete description of request with document references and sketches or photos if necessary, and present status of work)*

Requester's Recommended Solution: *(If RFI concerns a site or construction condition, provide a recommended solution, including cost & schedule considerations)*

Subcontractor: _____ **Date:** _____
CM/Contractor: _____

By: _____ **Date:** _____

Response:

From: Crow/Clay & Associates Inc.

By: _____ **Date:** _____



CROW/CLAY & ASSOCIATES INC.

ARCHITECTURE AND PLANNING
LAND USE AND INTERIORS

PROPOSAL REQUEST

PROPOSAL REQUEST NUMBER:

DATE:

JOB NUMBER:

PROJECT:

CONTRACTOR:

Please submit change in Contract price and completion date, if any, for the change of the Work described below. Do not order material or start any work until approval is received.

CONTRACTOR REPLY:

I agree to change the work as described above for the price indicated. I have attached an itemized breakdown of the cost changes.

This Proposal is valid for _____ calendar days from this date.

Change in Contract price:
(Deduct)(Add) \$ _____

Change in completion date:
_____ calendar days.

CONTRACTOR SIGNATURE _____ DATE: _____

APPROVED BY ARCHITECT _____ DATE: _____

APPROVED BY OWNER _____ DATE: _____

CANCELED _____ DATE: _____

Coos Bay, Oregon

125 W. Central Avenue, Suite 400 • Coos Bay, Oregon 97420 (541) 269-9388

Members American Institute of Architects

www.crowclay.com



CROW/CLAY & ASSOCIATES INC.

ARCHITECTURE AND PLANNING
LAND USE AND INTERIORS

CHANGE ORDER

CHANGE ORDER NUMBER:

JOB NUMBER:

DATE OF ISSUE:

CONTRACT DATE:

CONTRACTOR:

PROJECT:

This Change Order supersedes any and all Contract documents, correspondence, etc., preceding it. The Contract is changed as follows:

The original Contract Sum was:	\$ _____
Net Change by previously authorized Change Orders	\$ _____
The Contract Sum prior to this Change Order was	\$ _____
The Contract Sum will be (increased)(decreased)(unchanged) by this Change Order in the amount of	\$ _____
The new Contract Sum including this Change Order will be	\$ _____

The Contract Time will be (increased)(decreased)(unchanged) by _____ calendar days.

The date of Substantial Completion as of the date of this Change Order therefore is (unchanged)(changed) to _____.

ARCHITECT

OWNER

CONTRACTOR

BY

BY

BY

DATE

DATE

DATE

GENERAL CONDITIONS

General Conditions, A.I.A. Document A-201, 2017 Edition, are a part of the Contract Documents for this project. If not bound herein, a copy of these documents may be examined at the office of the Architect:

Crow/Clay & Associates Inc.
Architecture and Planning
125 W. Central Avenue, Suite 400
Coos Bay, OR 97420
(541) 269-9388

SUPPLEMENTARY GENERAL CONDITIONS

The following supplements modify the "General Conditions of the Contract for Construction," A.I.A. Document A201, Edition, 2017. Where a portion of the General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

ARTICLE 1 GENERAL PROVISIONS

1.1 BASIC DEFINITIONS

Paragraph 1.1.3 THE WORK - Add the following:

"This contract shall include all work shown in the contract documents, except that work specifically indicated as not in contract (N.I.C.)."

Add: Paragraph 1.1.9 DEFINITIONS

"Approved" means approved in writing by the Architect.

"Selected" means selected by the Architect.

"Directed" means directed by the Architect.

"Required" means required by authorities having jurisdiction.

"Necessary" means necessary to achieve the intended result.

"Provide" means furnish and install.

"Furnish" means pay for and deliver to job site storage.

"Install" means remove from job site storage, install, connect and adjust.

"Indicated" means indicated by contract documents.

1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

Paragraph 1.2.2 - Add the following:

"Divisions and Sections in these specifications are intended for convenience. The Architect will not define the limits of any subcontract and will not enter into disputes between the Contractor and his employees or subcontractors."

Paragraph 1.2.3 - Add the following:

"Referenced standards are a part of these specifications. If choices or options are contained therein, selection will be made by the Architect.

"Referenced standards shall mean the edition current on the date of these specifications, unless otherwise indicated.

"Wherever in these specifications a product is referred to in the singular number, such reference shall include as many such items as are indicated or required to complete the work."

1.4 INTERPRETATION

Paragraph 1.4.1 - Add the following:

"These specifications are of the abbreviated or streamlined type and frequently include incomplete sentences. Words such as shall, shall be, the Contractor shall, and similar phrases shall be supplied by inference."

ARTICLE 2 OWNER

2.3 INFORMATION AND SERVICES REQUIRED OF THE OWNER

Paragraph 2.3.6 - Change as follows:

"The Contractor will be furnished four (4) complete sets of drawings and project manuals."

"The Contractor shall pay the cost of reproduction, postage and handling for additional documents furnished."

ARTICLE 3 CONTRACTOR

3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

Paragraph 3.2.1 - Add the following:

"Before executing the Agreement, the Contractor and Subcontractor shall thoroughly familiarize himself with all specified products and submit written notice to the Architect if he objects to the proposed use of any product."

After Paragraph 3.4.2 - Add the following:

"3.4.2.1 After the Contract has been executed, the Owner and the Architect will consider a formal request for the substitution of products in place of those specified **only** under the conditions set forth in the General Requirements (Division 1 of Specifications).

"3.4.2.2 by making requests for substitutions based on Subparagraphs 3.4.2.1 above, the Contractor:

- a. Represents that the Contractor has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified.

- b. Represents that the Contractor will provide the same warranty for the substitution that the Contractor would for that specified.
- c. Certifies that the cost data presented is complete and includes all related costs under this Contract (except the Architect's redesign costs), and waives all claims for additional costs related to the substitution which subsequently become apparent; and
- d. Will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be completed in all respects."

3.7 PERMITS, FEES, NOTICES AND COMPLIANCE WITH LAWS

Paragraph 3.7.1 - Add the following:

"Port of Brookings-Harbor will pay for all permits and fees. Contractor to call for all inspections."

ARTICLE 7 CHANGES IN THE WORK

7.2 CHANGE ORDERS

Add Paragraph 7.2.2

"Costs and credits shall be submitted by the Contractor to the Architect in a complete breakdown form, showing subcontractor's sums, labor and materials costs, overhead and profit. At the Architect's request, subcontract breakdowns may also be required. See Section 01035 for detailed cost breakdown requirements.

"The following allowances for overhead and profit shall be added to the net extra costs of all changes (excluding items for which unit prices have been established):

- 1) For the subcontractor, 8 percent of the net extra cost of work performed by a subcontractor;
- 2) For the Contractor, 12 percent of the net extra cost of work performed by a subcontractor.
- 3) For the Contractor, 12 percent of the net extra cost of the work performed by the Contractor's own forces.
- 4) Contractors and Subcontractors of all tiers must each provide a credit of 5% for profit and overhead for deductive changes not to exceed 20% (aggregate total for all contracts) of the value of the change.

Costs to which overhead and profit are to be applied shall be determined in accordance with Subparagraph 7.3.4.1 through 7.3.4.3. Overhead shall include the following: Supervision, superintendents, wages of timekeepers, watchmen and clerks, hand tools, incidental bond and insurance premiums, general office expenses and other expenses not included in cost. NOTE: No additional allowance will be allowed for insurance and bonds. The 12% allowance for overhead and profit was established to include with insurance and bond premiums.

Contractor agrees to use project forms indicated in Contract Form Section of the contract document's booklet.

ARTICLE 8 TIME

8.3 DELAYS AND EXTENSIONS OF TIME

Paragraph 8.3.3 - Revise to read as follows:

"Liquidated damages for delay will be charged daily against the Contractor if completion is not within the contract time. Such damages being substantial, but incapable of exact determination shall be two hundred dollars (\$200) per calendar day for each day required beyond the specified completion date."

ARTICLE 9 PAYMENTS AND COMPLETION

9.3. APPLICATIONS FOR PAYMENT

Paragraph 9.3.1 Add the following sentence:

"The form of Application for Payment shall be A.I.A. Document G702, Application and Certification for Payment, supported by A.I.A. Document G703, Continuation Sheet, current edition."

Add Paragraph 9.3.1.3

"Until substantial completion, the Owner shall pay the Contractor 95% of the amount due the Contractor on account of progress payments."

9.8 SUBSTANTIAL COMPLETION AND LIQUIDATED DAMAGES

Add Paragraph 9.8.6

"The Owner will suffer financial loss if the project is not substantially completed on the date set forth in the contract documents. The Contractor shall be liable for and shall pay to the Owner the sum of two hundred dollars (\$200) as fixed, agreed and liquidated damages for each calendar day of delay until the work is substantially completed."

9.10 FINAL COMPLETION AND FINAL PAYMENT

Paragraph 9.10.1 - Add the following:

"Architect's additional services made necessary by failure to complete project within the time period established by the contract documents, to include but not limited to the Architect or Architect's consultant's periodic site visits to familiarize himself generally with the progress and quality of the work and to determine in general if the work is proceeding in accordance with the contract documents as set at his standard hourly rates for the time required.

"Final payment is due thirty (30) days after the work under the contract is completed and accepted."

Add: Paragraph 9.10.6:

"Time Limit Set for Final Completion - Final completion shall be accomplished no later than the date established and set forth on the "Certificate of Substantial Completion" (if no date is set forth, then thirty [30] days will be considered the maximum). If final completion is not accomplished within the set period of time, liquidated damages clause shall be reinstated and be in effect until completion or a time extension is granted for final completion."

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

Paragraph 10.2.4 - Add the following:

"When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary, the contractor shall give the Owner reasonable advance notice."

Revise Paragraph 10.3.4 as follows: "...brings to the site." Delete remainder of sentence and add: "The Architect hereby represents that it is his intent that no asbestos materials be used in this project in any fashion. At any time during the bidding or construction process that the Contractor becomes aware that the specifications or drawings imply that asbestos is to be used as a part of any building component, or process, it is the Contractor's responsibility to contact the Architect so that a clarification or correction can be made."

ARTICLE 11 INSURANCE AND BONDS

11.1.2 PERFORMANCE BOND AND PAYMENT BOND

Paragraph 11.1.2 - Delete paragraph 11.1.2 and substitute the following:

"11.1.2 The Contractor shall furnish bonds covering faithful performance of the Contract and payment for obligations arising thereunder. Bonds may be obtained through the Contractor's usual source and the cost thereof shall be included in the Contract Sum. The amount of each bond shall be equal to 100 percent of the Contract Sum."

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

12.2 CORRECTION OF WORK

Paragraph 12.2.1 - Add the following:

"Costs for Architect's additional services to include but not limited to: Architect's or Architect's Consultant's site visit including each full or partial day on or enroute from site including visitation to site to verify non-conforming work has been corrected. Additional visitations are to be at the Architect's or Consultant's discretion. Contract amount will be reduced by change order to cover additional services thereby made necessary. The cost of the Architect's and Architect's Consultant's additional services made necessary will be at his standard hourly rates for time required."

END OF SECTION

1 **SECTION 01010 – SUMMARY OF WORK**

2
3
4 PART 1 – GENERAL

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 PROJECT DESCRIPTION

14
15 The Project consists of providing six (6) new RV sites, modifications to existing sites 76 thru 98. Upgrades
16 to the RV Park electrical system and RV pedestals. New water and sewer connection locations for new
17 site layout.

18
19 Work includes earthwork, grading, concrete, plumbing and electrical.

20
21
22 CONTRACTOR USE OF PREMISES

23
24 General: During the construction period, the Contractor shall have use of 50% of the site for construction
25 at a time.

26
27 Keep driveways and entrances serving the premises clear and available to use at all times. Do not
28 use these areas for parking or storage of materials.

29
30
31 PROTECTION OF EXISTING

32
33 Protect all in-place construction in connection with the Work, unless specifically indicated otherwise.

34
35 Restoration of Existing Improvements: The Contractor shall repair driveways, utilities and all structures and
36 substructures damaged by his operations. These repairs and replacements shall be similar and equal in
37 every respect to those now in place and acceptable to the Architect.

38
39
40 MISCELLANEOUS PROVISIONS

41
42 All Work performed shall be under a single Contract. Divisions in these Specifications conform generally
43 to customary trade practice; they are intended for convenience only. The Architect is not bound to define
44 the limits of any subcontract and will not enter into disputes between the Contractor and his employees,
45 INCLUDING SUBCONTRACTORS.

46
47 Comply with applicable requirements of regulatory agencies and inspection by public officials. The
48 Contractor shall call for all inspections required by public agencies having jurisdiction on the area. Final
49 payment will not be made until the appropriate officials have made a final inspection and all deficient items
50 have been corrected.

51
52 Before ordering any material or doing any Work, the Contractor and/or the Subcontractor for each Section
53 of Work shall verify all measurements at the job. Any difference found between dimensions on Drawings

- 1 and actual measurements shall be brought to Architect's attention via Contractor for consideration before
- 2 proceeding with Work.
- 3
- 4 Carry on the Work so as to minimize interference with the Owner's operation of the existing facilities.
- 5
- 6 Provide necessary supervision, coordination and verification of the Work of the various trades. Transmit
- 7 Contract requirements to Subcontractors. Transmit subcontract questions to Architect.
- 8
- 9 Perform Work during weather conditions conducive to best results for a sound and durable installation.

10
11
12
13
14
15
16
17
18
19

PERMITS AND FEES

Owner (Port of Brookings) will pay for all permits and fees required under this contract. Contractor to call for all inspections.

END OF SECTION

1 **SECTION 01027 – APPLICATIONS FOR PAYMENT**

2
3
4 **PART 1 – GENERAL**

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 SUMMARY

14 This Section specifies requirements governing the Contractor's Applications for Payment.

15
16
17
18 SCHEDULE OF VALUES

19
20 Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction
21 Schedule.

22
23 Submit the Schedule of Values to the Architect at the earliest feasible date, but in no case later
24 than seven (7) days before the date scheduled for submittal of the initial Application for Payment.

25
26
27 Format and Content: Use the Project Manual "Table of Contents" as a guide to establish the format for the
28 Schedule of Values.

29
30 Arrange the Schedule of Values in a tabular form with separate columns to indicate the following
31 for each item listed:

32
33 Generic Name.

34 Related Specification Section.

35 Name of Subcontractors, manufacturer, Fabricator or supplier.

36 Dollar Value.

37 Percentage of Contract Sum to the nearest one-hundredth percent, adjusted to total 100
38 percent.

39
40 Provide a breakdown of the Contract Sum to facilitate evaluation of Application for Payment. Break
41 principal subcontract amounts down into several line items.

42
43 The total shall equal the Contract sum.

44
45 Margins of Cost: Show line items for indirect costs only to the extent such items will be listed individually
46 in Applications for Payment. Each item in the Schedule of Values and Applications for Payment shall be
47 complete including its total cost and proportionate share of general overhead and profit margin.

48
49 Temporary facilities and other major cost items which are not direct cost of actual work-in-place
50 may be shown as separate line items in the Schedule of Values.

51
52 Each Change Order shall become a new line item on the continuation sheet of the Application for
53 Payment Form.

1
2 APPLICATIONS FOR PAYMENT
3

4 Each Application for Payment shall be consistent with previous applications and payments as certified by
5 the Architect and paid for by the Owner.
6

7 Payment Application Times: Monthly anniversary date shall be the twenty-fifth (25) of each month. The
8 period of construction Work covered by each Application for Payment is the period ending five (5) days
9 prior to the date for each progress payment and starting the day following the end of the preceding period.
10

11 Payment Application Forms: Use AIA Document G702 and Continuation Sheets G703 as the forms for
12 Application for Payment.
13

14 Application Preparation: Complete every entry on the form, including notarization and execution by person
15 authorized to sign legal documents on behalf of the Contractor. Incomplete applications will be returned
16 without action.
17

18 Entries shall match data on the Schedule of Values.
19

20 Include amounts of Change Orders issued prior to the last day of the construction period covered
21 by the application.
22

23 Transmittal: Submit executed email copy of each Application for Payment.
24

25 Waivers of Mechanics Lien: With each Application for Payment, submit waivers of mechanics liens from
26 Subcontractors or sub-subcontractors and suppliers for the entire construction period covered by the
27 previous application.
28

29 Waiver Forms: Submit waivers of lien on forms and executed in a manner acceptable to Owner.
30

31 Initial Application for Payment: The following must be submitted before the first Application for Payment.
32

- 33 List of Subcontractors.
- 34 List of principal suppliers and Fabricators.
- 35 Schedule of Values.
- 36 Contractor's Construction Schedule.
- 37 Copies of building permits.
38

39 Application for Payment at Substantial Completion: After issuance of the Certificate of Substantial
40 Completion, submit an Application for Payment.
41

42 Actions or Submittals required with application include:
43

- 44 Occupancy permits and similar approvals.
- 45 Final cleaning.
- 46 Lien waivers.
47

48 Final Payment Application: Actions and Submittals required with submittal of final payment:
49

- 50 Maintenance instructions.
- 51 Completion of Project Close Out requirements.
- 52 Completion of items specified for completion after Substantial Completion.
- 53 Removal of temporary facilities and services.
- 54 Removal of surplus materials, rubbish and similar elements.

BEACHFRONT RV PARK IMPROVEMENTS
PORT OF BROOKINGS-HARBOR
16024 BOAT BASIN ROAD

PROJECT NO. 19005

1
2
3 PART 2 – PRODUCTS (Not Applicable)
4
5
6 PART 3 – EXECUTION (Not Applicable)
7
8
9
10
11

END OF SECTION

1 **SECTION 01035 – MODIFICATION PROCEDURES**

2
3
4 PART 1 – GENERAL

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 SUMMARY

14
15 This Section specifies requirements for handling and processing Contract modifications.

16
17 Related Sections: The following Sections contain requirements that relate to this Section.

18
19 Division 1 Section “Submittals”

20
21 Division 1 Section “Application for Payment”

22
23 Division 1 Section “Product Substitutions” for administrative procedures for handling requests for
24 substitutions made after award of the Contract.

25
26
27 CLARIFICATIONS OR MINOR CHANGES IN THE WORK

28
29 Instructions for document clarification or authorizing minor changes in the Work, not involving an adjustment
30 to the Contract Sum or Contract Time, will be issued by the Architect as a Field Order or as an Architect’s
31 Supplemental Instructions or be documented in the Architect’s Construction Progress Report. A Request
32 for Information (RFI) response may also be used for document clarification or authorization of minor
33 changes in the work.

34
35
36 REQUESTS FOR INFORMATION (RFI)

37
38 Section specifies administrative and procedural requirements for handling and processing Requests for
39 Information (RFI).

40
41 RFI is intended for requesting clarifications and interpretations of Contract Documents due to apparent
42 inconsistencies, errors or omissions in Contract Documents or due to unanticipated existing conditions.

43
44 RFI is not intended for requesting substitutions, Contractor or Subcontractor’s proposed changes,
45 resolution of nonconforming work or for general questions not related to Contract Documents.

46
47 Review of Contract Documents and Field Conditions

48
49 Requests for clarification of errors, inconsistencies or omissions discovered in Contract Documents shall
50 be reported promptly to Architect as an RFI.

51
52 In event of inconsistency between portions of Contract Documents or within Contract Documents; provide
53 better quality or greater quantity of Work and comply with more stringent requirement.

1 Contractor and Subcontractors are not required to ascertain Contract Documents are in accordance with
2 applicable laws, statutes, ordinances, codes and rules and regulations, unless they bear upon construction
3 means, methods, techniques, or safety and health precautions, however, the Contractor or Subcontractor
4 shall promptly report to Architect any nonconformity discovered by or made known as a RFI.
5

6 If Contractor or Subcontractor knowingly proceeds with Work affected by known errors or omissions in
7 Contract Documents, subcontractor shall correct any such errors, inconsistencies, or omissions at no
8 additional cost.
9

10 Contractor's Responsibilities

11
12 When interpretation, clarification or explanation of portion of Construction Documents is needed by
13 Contractor, Subcontractor, Vendor or Supplier, the request shall be processed through Architect.
14

15 Contractor shall review request for completeness, quality, proper referencing to drawing or specification
16 section and reason submitted.
17

18 If request to not acceptable return to submitter with comments regarding reason for return.
19

20 List specific Contract Documents researched when seeking information being requested. Reference all
21 applicable Contract Drawings by sheet number, section, detail, room number, door number, etc.,
22 Specifications by section, page and line number.
23

24 The field titled "Regarding" on attached RFI form must be clear for future reference in reports or
25 correspondence.
26

27 Clearly state request, include sketches, photos or other reference material.
28

29 Fully assess issues, suggest any reasonable solutions and include various factors, including potential costs,
30 schedule impacts, if any, and recommendations which will aid in determining a solution or response. If a
31 reasonable solution cannot be suggested, a statement to that effect should be stated.
32

33 Any critical RFI's requiring a rapid response shall clearly indicate such with an explanation as to why RFI
34 is critical.
35

36 Priority for responses shall be indicated when multiple RFI's are submitted within short period of time.
37

38 Copies of responses to RFI's shall be distributed to all parties affected.
39

40 A response to RFI shall not be considered a notice to proceed with a change that may revise the Contract
41 Sum or Contract Time, unless authorized in writing.
42

43 If response to RFI is determined incomplete, it shall be resubmitted with reason response is unacceptable
44 and any necessary additional information within five (5) days' time of receipt of response to RFI.
45

46 If additional cost or time is involved because of clarifications, interpretations or instructions issued by
47 Architect and if no other solution is possible or desirable, submit Claim in accordance with the Contract
48 Documents with five (5) days of receipt response to the RFI.
49

50 RFI Submittal Format

51
52 Request for Information shall be submitted to Architect on RFI form.
53

54 RFI's shall be assigned unique numbers in sequential order (1, 2, 3, 4, etc).

1
2 A resubmitted RFI or a previously answered RFI requiring further clarification shall be submitted using
3 original RFI number followed by “.1” to indicate revision of RFI (i.e.: RFI No. 34.1 for revision to RFI No.
4 34).

5
6 RFI form shall be electronically filled out and emailed to Architect in text file format. Attachments shall be
7 in electronic text or PDF file format. Photo attachments may be in JPG format.

8
9 Architect’s Response to Request for Information (RFI)

10
11 Clarifications, interpretations and decisions of Architect in response to RFI will be consistent with intent of
12 and reasonably inferable from Contract Documents.

13
14 Architect’s decisions on matters related to aesthetic effects will be final and consistent with intent expressed
15 in Contract Documents.

16
17 Architect shall provide responses to RFI’s with reasonable promptness, but will endeavor to respond with
18 seven (7) days from date or receipt.

19
20 If multiple RFI’s are submitted on same day or within a five (5) day period, review time may be extended by
21 mutual agreement of parties.

22
23 Architect will provide a written response to RFI if Architect believes response only involves an interpretation,
24 clarification, supplemental information or orders a minor change in Work not involving an adjustment in
25 Contract Sum or extension of Contract Time.

26
27 If Architect believes response may result in a change to Contract Sum or Contract Time, response will
28 indicate that a Contract change document will be issued with the response.

29
30 Architect will provide any additional or supplemental drawings, specifications or other information as
31 necessary to facilitate response.

32
33 Architect may return RFI without response for following reasons: RFI is:

- 34
35 1. Unclear.
36 2. Incomplete.
37 3. Related to construction means, methods or techniques.
38 4. Related to health or safety measures.
39 5. Due to lack of adequate coordination.
40 6. Considered a “Substitution Request.”

41
42 Request for Information Form: Use form provided. Sample copy included in Contract Forms Section.
43
44

45 PROPOSAL REQUESTS

46
47 Owner Initiated Proposal Requests: Proposed changes in the Work that will require adjustment to the
48 Contract Sum or Contract Time will be issued by the Architect on the Architect’s Proposal Request Form
49 (reference Contract Forms), with a detailed description of the proposed change and supplemental or revised
50 Drawings and Specifications, if necessary.

51
52 Proposal Request issued by the Architect are for information only. Do not consider them as
53 instructions either to stop work in progress, or to execute the proposed change.
54

1 Unless otherwise indicated in the Proposal Request, within five (5) working days of receipt of the
2 Proposal Request, submit to the Architect for the Owner's review an estimate of cost necessary to
3 execute the proposed change.

4
5 Include a list of quantities of products to be purchased and unit costs, along with the total
6 amount of purchases to be made.

7
8 Include a breakdown of labor required for the change.

9
10 Include credits that may result for labor and/or materials included in the Contract that are
11 no longer required.

12
13 Include applicable taxes, delivery charges, equipment rental and amounts of trade
14 discounts.

15
16 Include a statement indicating the effect the proposed change in the Work will have on the
17 Contract Time.

18
19 Contractor Initiated Proposal Requests: When unforeseen conditions require modifications to the Contract,
20 the Contractor may propose changes by submitting a Proposal Request for a change to the Architect.

21
22 Include a statement outlining the reasons for the change and the effect of the change on the Work.
23 Provide a complete description of the proposed change. Indicate the effect of the proposed change
24 on the Contract Sum and Contract Time.

25
26 Include the breakdowns of cost as described above for Owner Initiated Proposal Requests.

27
28 Comply with requirements in Division 1, Section "Product Substitutions," if the proposed
29 change in the Work requires the substitution of one product or system for a product or
30 system specified.

31
32 Request forms will not be processed by Architect until all information under Owner Initiated
33 Proposal Requests above have been provided.

34
35 Proposal Request Form: Use forms provided. Sample copy included in Contract Forms Section.

36 37 CONSTRUCTION CHANGE DIRECTIVE

38
39
40 Construction Change Directive: When the Owner and Contractor are not in total agreement on the terms
41 of a Proposal Request, the Architect may issue a Construction Change Directive on AIA form G714,
42 instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change
43 Order.

44
45 The Construction Change Directive will contain a complete description of the change in the Work
46 and designate the method to be followed to determine change in the Contract Sum or Contract
47 Time.

48
49 Documentation: Maintain detailed records on a time and material basis of Work required by the
50 Construction Change Directive.

51
52 After completion of the change, submit an itemized account and supporting data necessary to
53 substantiate cost and time adjustments to the Contract.

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CHANGE ORDER PROCEDURES

Subsequent to the Owner's approval of a Proposal Request, the Contractor may proceed with the Work contained in that request. The Architect will issue a Change Order for signatures of the Owner and Contractor, as provided in the conditions of the Contract.

Change Order Form: Sample copy of form included in Contract Forms Section.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

1 **SECTION 01040 – PROJECT COORDINATION**

2
3
4 PART 1 – GENERAL

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 SUMMARY

14 This Section specifies requirements necessary for Project Coordination including, but not limited to:

- 15
16
17 Coordination.
18 General installation provisions.
19 Cleaning and protection.
20

21
22 COORDINATION

23
24 Coordination: Coordinate and schedule construction activities included in Sections of Specifications to
25 assure efficient and orderly installation of the Work. Coordinate construction included under Sections of
26 the Specifications that are dependent upon each other for proper installation, connection and operation.
27

28
29 PART 2 – PRODUCTS (Not Applicable)

30
31
32 PART 3 – EXECUTION

33
34
35 GENERAL INSTALLATION PROVISIONS

36
37 Inspection of Conditions: The Installer of each major component is to inspect the substrate and conditions
38 under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected
39 in an acceptable manner.
40

41 Manufacturer's Instructions: Comply with manufacturer's installation instructions and recommendations
42 unless more stringent requirements are specified.
43

44 Inspect materials or equipment upon delivery and prior to installation. Reject damaged and defective items.
45

46 Provided attachment and connection devices and methods necessary for securing Work. Secure Work
47 true to line and level. Allow for expansion and building movement.
48

49 Visual Effects: Provide uniform joint widths in exposed Work. Arrange joints in exposed Work to obtain the
50 best visual effect. Refer questionable choices to the Architect for final decision.
51

52 Recheck measurements and dimensions, before starting each installation.
53
54

1 CLEANING AND PROTECTION

2

3 During handling and installation, clean and protect construction in progress and adjoining materials in place.

4 Apply protective covering where required to ensure protection from damage or deterioration.

5

6 Clean and maintain completed construction and construction area through the construction period.

7

8

9

10

11

12

END OF SECTION

1 **SECTION 01050 – FIELD ENGINEERING**

2
3
4 PART 1 – GENERAL

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 SUMMARY

14
15 General: This Section specifies administrative and procedural requirements for field engineering services
16 including, but not limited the following:

17
18 Layout Work.

19
20
21 SUBMITTALS

22
23
24 Project Record Documents: Submit a record of Work performed and record survey data as required under
25 provisions of Division 1 “Submittals” and “Project Close Out” Sections.

26
27
28 PART 2 – PRODUCTS (Not Applicable)

29
30
31 PART 3 – EXECUTION

32
33
34 EXAMINATION

35
36 Identification: The Owner will identify existing control points and property line corner stakes.

37
38 Verify layout information shown on the Drawings, in relation to existing benchmarks, before proceeding to
39 layout the Work. Locate and protect existing benchmarks and control points. Preserve permanent
40 reference points during construction.

41
42 Establish and maintain a minimum of two (2) permanent benchmarks on the Site, referenced to data
43 established by survey control points.

44
45 Record benchmark locations, with horizontal and vertical data, on Project Record Documents.

46
47 Existing Utilities and Equipment: The existence and location of underground and other utilities and
48 construction indicated as existing are not guaranteed. Before beginning Site Work, investigate and verify
49 the existence and location of underground utilities and other construction.

50
51 Prior to construction, verify the location and invert elevation at points of connection of sanitary
52 sewer, storm sewer, and water service piping.

1 PERFORMANCE

2
3 Establish benchmarks and marks to set lines and levels of construction and elsewhere as needed to locate
4 each element of the Project. Calculate and measure required dimensions within indicated or recognized
5 tolerances. Do not scale Drawings to determine dimensions.

6
7 Advise entities engaged in construction activities of marked lines and levels provided for their use.

8
9 As construction proceeds, check every major element for line, level and plumb.

10
11 Site Improvements: Locate and layout Site improvements stakes for grading, fill placement, utility slopes
12 and invert elevations.

13
14 Building Lines and Levels: Locate and layout for structures, control lines and levels required for mechanical
15 and electrical Work.

16
17 Existing Utilities: Furnish information necessary to adjust, move or relocate utility poles, lines, services or
18 other appurtenances located in or affected by construction. Coordinate with local authorities having
19 jurisdiction.

20
21
22
23
24
25
END OF SECTION

1 **SECTION 01095 – REFERENCE STANDARDS AND DEFINITIONS**

2
3
4 **PART 1 – GENERAL**

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 DEFINITIONS

14
15 General: Basic Contract definitions are included in the Conditions of the Contract.

16
17 Approve: The term “approved”, where used in conjunction with the Architect’s action on the Contractor’s
18 submittals, applications, and requests, is limited to the Architect’s duties and responsibilities as stated in
19 the Conditions of the Contract.

20
21 Back Prime: See “Prime”.

22
23 Directed: Terms such as “directed”, “requested”, and “authorized” mean “directed by the Architect”,
24 “requested by the Architect” and similar phrases.

25
26 Furnish: The term “furnish” is used to mean “supply and deliver to the Project Site, ready for unloading,
27 unpacking, assembly, installation and similar operations”.

28
29 Indicated: The term “indicated” means “indicated by Contract Documents.” Where terms such as “shown”,
30 “noted”, “scheduled” and “specified” are used, it is to help the reader locate the reference; no limitation on
31 location is intended.

32
33 Install: The term “install” is used to describe operations at the Project Site including the actual unloading,
34 unpacking, assembly, erection, placing anchoring, applying, working to dimension, finishing, curing,
35 protecting, cleaning and similar operations.

36
37 Regulation: The term “regulation” includes laws, ordinances, statutes and lawful orders issued by
38 authorities having jurisdiction, as well as rules, conventions and agreements within the construction industry
39 that control performance of the Work.

40
41 Prime: The term “prime” means that first layer of finishing and means all edges, ends and surfaces, unless
42 otherwise indicated.

43
44 Project Site: The term “Project Site” refers to the space available to the Contractor for performance of
45 construction activities, as part of the Project. The extent of the Project Site is shown on the Drawings.

46
47 Provide: The term “provide” means “to furnish and install, complete and ready for the intended use”.

48
49
50 INDUSTRY STANDARDS

51
52 Applicability of Standards: Except where the Contract Documents include more stringent requirements,
53 applicable construction industry standards have the same force and effect as if bound or copied directly

1 into the Contract Documents to the extent referenced. Such standards are made a part of the Contract
2 Documents by reference.

3
4 Publication Dates: Comply with the standard in effect as of the date of the Contract Documents.

5
6 Copies of Standards: Copies of applicable standards are not bound with the Contract Documents.

7
8 Where copies of standards are needed for performance of a required construction activity, the
9 Contractor shall obtain copies directly from the publication source.

10
11 Abbreviations and Names: Trade association names and titles of general standards are frequently
12 abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract
13 Documents, they mean the recognized name of the trade association, standards generating organization,
14 authority having jurisdiction, or other entity applicable to the context of the provision. Refer to the
15 "Encyclopedia of Associations", published by Gale Research Company, available in most libraries.

16
17
18 GOVERNING REGULATIONS/AUTHORITIES

19
20 The Architect has contacted authorities having jurisdiction where necessary to obtain information necessary
21 for preparation of Contract Documents. Contact authorities having jurisdiction directly for information and
22 decisions having a bearing on the Work.

23
24 All buildings, construction Work and all mechanical installation and appliances connected therewith shall
25 comply with all State and Municipal Laws and Regulations and with all local ordinances and rules, pertaining
26 to this Work. Such laws, regulations, ordinances and rules shall be considered to be a part of these
27 Specifications. Attention is directed to the current OSHA Standards. All equipment, tools and materials
28 which are furnished and/or installed as part of this Contract shall meet or exceed the aforementioned
29 standards in order to be considered.

30
31
32 SUBMITTALS

33
34 Permits, Licenses and Certificates: For the Owner's records, submit copies of permits, licenses,
35 certifications, inspection reports, releases and similar documents and records established in conjunction
36 with compliance with standards and regulations bearing upon performance of the Work.

37
38
39 PART 2 – PRODUCTS (Not Applicable)

40
41
42 PART 3 – EXECUTION (Not Applicable)

43
44
45
46
47
48
END OF SECTION

1 **SECTION 01140 – WORK RESTRICTIONS**

2
3
4 **PART 1 – GENERAL**

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 USE OF PREMISES

14
15 Use of Site: Limit use of premises to Work in areas approved by Owner. Do not disturb portions of Site
16 beyond areas in which the Work is approved.

17
18 Limits: Confine constructions operations to area of park closed by Owner for construction work.

19
20 Owner Occupancy: Approximately 50% of the park will be available for construction.

21
22 Driveways and Entrances: Keep driveways and entrances clear and available to emergency
23 vehicles. Do not use these areas for parking or storage of materials.

24
25 Schedule deliveries to minimize use of driveways and entrances.

26
27 Schedule deliveries to minimize space and time requirements for storage of materials and
28 equipment on Site.

29
30 Work Hours Permitted: 7:00 AM to 10:00 PM

31
32
33 OCCUPANCY REQUIREMENTS

34
35 Partial Owner Occupancy: Owner reserves the right to occupy and use portions of the site before
36 Substantial Completion, provided such occupancy does not interfere with completion of the Work.

37
38 Architect will prepare a Certificate of Substantial Completion for each specific portion of the Work
39 to be occupied.

40
41 Before Partial Owner use of the site, mechanical and electrical systems shall be fully operational,
42 and required tests and inspections shall be successfully completed. On occupancy, Owner will
43 provide, operate and maintain mechanical and electrical systems serving occupied portions of the
44 site.

45
46
47 **PART 2 – PRODUCTS (Not Applicable)**

48
49
50 **PART 3 – EXECUTION (Not Applicable)**

51
52
53
54 **END OF SECTION**

1 **SECTION 01200 – PROJECT MEETINGS**

2
3
4 PART 1 – GENERAL

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 SUMMARY

14 This Section specifies requirements for Project Meetings including but not limited to:

15
16
17 Pre-Construction Conference.
18 Progress Meetings.

19
20 Construction Schedules are specified in Division 1 “Submittals” Section.

21
22
23 PRE-BID CONFERENCE

24
25 Pre-Bid Conference to be held at 10:00 AM, Tuesday, August 24, 2021, at the Job Site, 16035 Boat Basin
26 Road, Brookings, Oregon. Meet at Park Office.

27
28 The Pre-Bid Conference is **not** mandatory.

29
30
31 PRE-CONSTRUCTION CONFERENCE

32
33 Schedule a pre-construction meeting no later than ten (10) days after execution of the Contract and prior
34 to commencement of construction activities. Conduct the meeting to review responsibilities and personnel
35 assignments.

36
37 Attendee: The Owner, Architect and their consultants, the Contractor and its Superintendent, major
38 subcontractors and other concerned parties.

39
40 Agenda: Discuss items of significance which could affect progress including such topics as the following:

41
42 Tentative Construction Schedule.
43 Critical Work sequencing.
44 Designation of responsible personnel.
45 Procedures for processing field decisions and Change Orders.
46 Procedures for processing Applications for Payment.
47 Distribution of Contract Documents.
48 Submittal of Shop Drawings, product data, and samples.
49 Preparation of record documents.
50 Use of the premises.
51 Safety procedures.
52 First aid.
53 Security.
54 Housekeeping.

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PROGRESS MEETINGS

Conduct progress meetings at the Project Site monthly or as needed. Notify the concerned parties of meeting dates.

Attendees: Owner and Architect, Contractor or Contractor's Superintendent, each subcontractor, supplier or any other entity concerned with current or future activities.

Agenda: Minutes of the previous progress meeting. Review items that could affect progress and topics appropriate to the current status of the Project.

Contractor's Construction Schedule: Review progress since the last meeting. Expedite items behind schedule. Review the present and future needs of each entity present.

Schedule Updating: Revise the Construction Schedule after each progress meeting where revisions to the schedule have been made. Issue the revised schedule with the report of each meeting.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

1 **SECTION 01300 – SUBMITTALS**

2
3
4 PART 1 – GENERAL

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 SUMMARY

14
15 Section includes administrative and procedural requirements for submitting Contractor's Construction
16 Schedule, Shop Drawings, Product Data, Samples, and other Submittals.

17
18 Related Sections:

19
20 Division 1 Section "Application for Payment" for submitting Applications for Payment and the
21 Schedule of Values.

22
23 Division 1 Section "Project Closeout" for submitting record Drawings and Maintenance Manuals.

24
25
26 DEFINITIONS

27
28 Submittals: Written and graphic information and physical samples that require Architect's responsive
29 action. Required submittals are indicated in individual Specification Sections.

30
31 Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for
32 representing documents in a device-independent and display resolution-independent fixed-layout
33 document format.

34
35
36 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

37
38 All Submittals to be electronic.

39
40 Architect's Digital Data Files: Electronic copies of CAD Drawings of the Contract Drawings will be
41 provided by Architect for Contractor's use in preparing submittals.

- 42
43 1. Architect will furnish Contractor with one set of digital drawing files of the Contract Drawings
44 for use in preparing Shop Drawings and Project record drawings.
- 45 a. Architect makes no representations as to the accuracy or completeness of digital data
46 drawing files as they relate to the Contract drawings.
 - 47 b. Digital Drawing Software Program: The Contract Drawings are available AutoCad
48 2014.
 - 49 c. The following plot files will be furnished for each appropriate discipline:
 - 50 1) Floor plans
 - 51 2) Reflected ceiling plans
 - 52 3) Other files as approved by the Architect
- 53

1 Coordination: Coordinate preparation and processing of submittals with performance of construction
2 activities.

- 3
- 4 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and
5 related activities that require sequential activity.
- 6 2. Coordinate transmittal of different types of submittals for related parts of the work so processing
7 will not be delayed because of need to review submittals concurrently for coordination.
- 8

9 Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for
10 review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be
11 authorized because of failure to transmit submittals enough in advance of the work to permit processing,
12 including resubmittals.

- 13 1. Initial Review: Allow 5 working days for initial review of each submittal. Allow additional time if
14 coordination with subsequent submittals is required.
- 15 2. Resubmittal Review: Allow 5 working days for review of each resubmittal.
- 16

17 Identification and Information: Identify and incorporate information in each electronic submittal file as
18 follows:

- 19 1. Assemble complete submittal package into a single indexed file with links enabling navigation of
20 each item.
- 21 2. Name file with submittal number or other unique identifier, including revision identifier.
 - 22 a. File name shall use project name and Specification Section number followed by a
23 decimal point and then a sequential number (e.g., LNHS-06100.01).
- 24 3. Provide means for insertion to permanently record Contractor's review and approval markings
25 and action taken by Architect.
- 26 4. Include the following information on an inserted cover sheet:
 - 27 a. Project name
 - 28 b. Date
 - 29 c. Name and address of Architect
 - 30 d. Name of Contractor
 - 31 e. Name, address and phone number of entity involved
 - 32 f. Number and title of appropriate Specification Section
 - 33 g. Drawing number and detail references, as appropriate
 - 34 h. Related physical samples submitted directly
- 35

36 Options: Identify options requiring selection by the Architect.

37
38 Deviations: Identify deviations from the Contract Documents on submittals.

39
40 Transmittal: Assemble each submittal individually and appropriately for transmittal and handling.
41 Transmit each submittal using a transmittal form. Architect will return submittals, without Contractor's
42 review, or submittals received from sources other than Contractor.

- 43 1. Transmittal Form: Provide locations on form for the following information:
 - 44 a. Project name
 - 45 b. Date
 - 46 c. Destination (To:)
 - 47 d. Source (From:)
 - 48 e. Names of subcontractor, manufacturer and supplier
 - 49 f. Submittal purpose and description
 - 50 g. Specification Section number and title
 - 51 h. Drawing number and detail references, as appropriate
 - 52 i. Transmittal number (numbered consecutively)
 - 53 j. Remarks

- 1 2. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information,
2 requests for data, and deviations from requirements in the Contract Documents.
3

4 Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

- 5 1. Note date and content of previous submittal.
6 2. Note data and content of revision in label or title block and clearly indicate extent of revision.
7 3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
8

9 Use for Construction: Use only final submittals that are marked with approval notation from Architect's
10 action stamp.
11

12 PART 2 – PRODUCTS

13 SUBMITTAL PROCEDURES

14
15
16 General Submittal Procedure Requirements: Prepare and submit submittals required by individual
17 Specification Sections. Types of submittals are indicated in individual Specification Sections.
18

- 19
20
21 1. Communications are to be type written, absolutely no handwritten communications will be
22 accepted.
23 2. Submit electronic submittals via email as PDF electronic files.
24 a. Architect will return annotated file. Annotate and retain on copy of file as an
25 electronic Project record document file.
26 3. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified
27 in Division 1 Section "Project Closeout."
28 4. Certificates and Certifications Submittals: Provide a statement that includes signature of entity
29 responsible for preparing certification. Certificates and certifications shall be signed by an officer
30 or other individual authorized to sign documents on behalf of that entity.
31 a. Provide a digital signature on electronically submitted certificates and certifications.
32 5. Test and Inspection Submittals: Comply with requirements specified in Division 1 Section
33 "Quality Control."
34

35 Contractor's Construction Schedule

36
37 Bar Chart Schedule: Prepare a fully developed, horizontal bar chart type Contractor's Construction
38 Schedule. Submit within fifteen (15) days of execution of the Contract.
39

40 Prepare the schedule on a sheet, or other reproducible media, of sufficient width to show data for
41 the entire construction period.
42

43 Secure time commitments for performing critical elements of the Work from parties involved.
44 Show each activity in proper sequence. Indicate graphically sequences necessary for completion
45 of related portions of the Work.
46

47 Indicate Substantial Completion on the schedule to allow time for the Architect's procedures
48 necessary for certification of Substantial Completion.
49

50 Distribution: Following response to the initial Submittal, print and distribute copies to the Architect,
51 Owner, subcontractors and other parties required to comply with the scheduled dates. Post copies in the
52 temporary field office.
53

1 When revisions are made, distribute to the same parties and post in the same locations. Delete
2 parties from distribution when they have completed their assigned portion of the Work and are no
3 longer involved in construction activities.
4

5 Other Submittals

6
7 Product Data: Collect information into a single submittal for each element of construction and type of
8 product or equipment.

- 9 1. Mark each copy of each submittal to show which products and options are applicable.
10 2. Include the following information, as applicable:
11 a. Manufacturer's catalog cuts.
12 b. Manufacturer's product specifications.
13 c. Standard color charts.
14 d. Statement of compliance with specified referenced standards.
15 e. Testing by recognized testing agency.
16 f. Application of testing agency labels and seals.
17 g. Notation of coordination requirements.
18 h. Availability and delivery time information.
19 4. For equipment, include the following in addition to the above, as applicable:
20 a. Wiring diagrams showing factory-installed wiring.
21 b. Printed performance curves.
22 c. Operational range diagrams.
23 d. Clearances required to other construction, if not indicated on accompanying Shop
24 Drawings.
25 5. Submit Product Data before or concurrent with Samples.
26 6. Submit Product Data in the following format:
27 a. PDF electronic file.
28

29 Shop Drawings: Prepare project specific information, drawn accurately to scale. Do not base Shop
30 Drawings on reproductions of the Contract Documents or standard printed data.

- 31 1. Preparation: Include the following information, as applicable:
32 a. Identification of products and materials.
33 b. Compliance with specified standards.
34 c. Notation of coordination requirements.
35 d. Notation of dimensions established by field measurement.
36 e. Relationship and attachment to adjoining construction clearly indicated.
37 f. Seal and signature of professional engineer if required.
38 2. Sheet size: Except for templates, patterns and similar full-size drawings, submit Shop Drawings
39 in sheets at least 8-1/2 by 11 inches but no larger than 24 by 36 inches.
40 3. Submit Shop Drawings in the following format:
41 a. PDF electronic file.
42 4. Shop Drawings will be submitted within two (2) weeks of execution of subcontract.
43

44 Samples: Submit Samples for review of kind, color, pattern and texture for a check of these
45 characteristics with other elements and for a comparison of these characteristics between submittal and
46 actual component as delivered and installed.

- 47 1. Transmit Samples that contain multiple, related components such as accessories together in one
48 submittal package.
49 2. Identification: Attach label on unexposed side of Samples that includes the following:
50 a. Generic description of Sample.
51 b. Product name and name of manufacturer.
52 c. Sample source.
53 d. Number and title of applicable Specification Section.

- 1 3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control
2 comparisons throughout the course of construction activity.
- 3 4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of
4 units showing the full range of colors, textures and patterns available.
 - 5 a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture,
6 or similar characteristics are required to be selected from manufacturer's product line.
7 Architect will return submittal with options selected.
- 8 5. Samples for verification: Submit full-size units or Samples of size indicated, prepared from same
9 material to be used for work, cured and finished in manner specified, and physically identical with
10 material or product proposed for use, and that show full range of color and texture variations
11 expected.
 - 12 a. Number of Samples: Submit three sets of Samples. Architect will retain two sample sets;
13 remainder will be returned.
 - 14 1) Submit a single Sample where assembly details, workmanship fabrication techniques,
15 connections, operation, and other similar characteristics are to be demonstrated.
 - 16 2) If variation in color, pattern, texture, or other characteristic is inherent in material or
17 product represented by a Sample, submit at least three sets of paired units that show
18 approximate limits of variations.
19

20 Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or
21 person. Include lists of completed projects with project names and addresses, contact information of
22 architects and owners, and other information specified.
23

24 Welding Certificates: Prepare written certification that welding procedures and personnel comply with
25 requirements in the Contract Documents. Submit record of Welding Procedure Specification and
26 Procedure Qualification Record on American Welding Society (AWS) forms. Include names of firms and
27 personnel certified.
28

29 Installer Certificates: Submit written statements on manufacturer's letter head certifying that Installer
30 complies with requirements in the Contract Documents and, where required, is authorized by
31 manufacturer for the specific Project.
32

33 Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that
34 manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing
35 experience where required.
36

37 Product Certificates: Submit written statements on manufacturer's letterhead certifying that product
38 complies with requirements in the Contract Documents.
39

40 Material Certificates: Submit written statements on manufacturer's letterhead certifying that material
41 complies with requirements in the Contract Documents.
42

43 Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard
44 form, indicating and interpreting test results of material for compliance with requirements in the Contract
45 Documents.
46

47 Product Test Reports: Submit written reports indicating current product produced by manufacturer
48 complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by
49 manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a
50 qualified testing agency.
51

52
53 DELEGATED DESIGN SERVICES
54

1 Performance and Design Criteria: Where professional design services or certifications by a design
2 professional are specifically required of Contractor by the Contract Documents, provide products and
3 systems complying with specific performance and design criteria indicated.

- 4 1. If criteria indicated are not sufficient to perform services or certification required, submit a written
5 request for additional information to Architect.

6
7 Delegated Design Services Certification: In addition to Shop Drawings, Product Data, and other required
8 submittals, submit digitally signed PDF electronic file and three paper copies of certificate, signed and
9 sealed by a design professional.

- 10 1. Indicate that products and systems comply with performance and design criteria in the Contract
11 Documents. Include list of codes, loads, and other factors used in performing these services.

12
13
14 PART 3 – EXECUTION

15
16
17 CONTRACTOR'S REVIEW

18
19 Submittals: Review each submittal and check for coordination with other work of the Contract and for
20 compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval
21 stamp before submitting to Architect.

22
23 Project Closeout and Maintenance/Material Submittals: Refer to requirements in Division 1 Section
24 'Closeout Procedures.'

25
26 Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and
27 location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's
28 approval, and statement certifying that submittal has been reviewed, checked and approved for
29 compliance with the Contract Documents.

30
31
32 ARCHITECT'S ACTION

33
34 General: Architect will not review submittals that do not bear Contractor's approval stamp and will return
35 them without action.

36
37 Submittals: Architect will review each submittal, make marks to indicate corrections of modifications
38 required, and return it. Architect will stamp each submittal with an action stamp and will stamp
39 appropriately to indicate action, as follows:

- 40
41 1. **No Exceptions**
42 2. **Revise and Resubmit**
43 3. **Make Corrections Noted**
44 4. **Rejected**
45 5. **Submit Specified Item**

46
47 Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned
48 without review.

49
50 Submittals not required by the Contract Documents may not be reviewed and may be discarded.

51
52
53
54 END OF SECTION

1 **SECTION 01400 – QUALITY CONTROL**

2
3
4 **PART 1 – GENERAL**

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 SUMMARY

14 This Section includes administrative and procedural requirements for quality control services.

15
16
17 Quality control services include inspections, tests, and related actions, including reports performed by
18 Contractor, by independent agencies, and by governing authorities. They do not include Contract
19 enforcement activities performed by Architect.

20
21 Inspection and testing services are required to verify compliance with requirements specified or indicated.
22 These services do not relieve Contractor of responsibility for compliance with Contract Document
23 requirements.

24
25 Requirements of this Section relate to customized fabrication and installation procedures, not production
26 of standard products.

27
28 Specific quality control requirements for individual construction activities are specified in the
29 Sections that specify those activities. Requirements in those Sections may also cover production
30 of standard products.

31
32 Specified inspections, tests and related actions do not limit Contractor's quality control
33 procedures that facilitate compliance with Contract Document requirements.

34
35 Requirements for Contractor to provide quality control services required by Architect, Owner or
36 inspecting agency are not limited by provisions of this Section.

37
38
39 RESPONSIBILITIES

40
41 Contractor Responsibilities: Unless otherwise indicated as the responsibility of another identified entity,
42 Contractor shall provide inspections, tests and other quality control services specified elsewhere in the
43 Contract Documents and required by authorities having jurisdiction. Cost for these services are included
44 in the Contract Sum.

45
46 Where individual Sections specifically indicate that certain inspections, test and other quality control
47 services are the Contractor's responsibility, the Contractor shall employ and pay a qualified independent
48 testing agency to perform quality control services. Costs for these services are included in the Contract
49 Sum.

50
51 Where individual Sections specifically indicate that certain inspections, tests, and other quality control
52 services are the Owner's responsibility, the Owner will employ and pay a qualified independent testing
53 agency to perform those services.

1 Retesting: The Contractor is responsible for retesting where results of inspections, tests, or other quality
2 control services prove unsatisfactory and indicate noncompliance with Contract Document requirements,
3 regardless of whether the original test was Contractor's responsibility.
4

5 The cost of retesting construction, revised or replaced by the Contractor, is the Contractor's responsibility
6 where required tests performed on original construction indicated noncompliance with Contract
7 Documents.
8

9 Associated Services: Cooperate with agencies performing required inspections, tests, similar services
10 and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of
11 operations to permit assignment of personnel. Auxiliary services required include, but are not limited to
12 the following:
13

14 Provide access to the Work.

15 Furnish incidental labor and facilities necessary to facilitate inspections and tests.

16 Take adequate quantities of representative samples of materials that require testing or assist the
17 agency in taking samples.
18

19 Provide facilities for storage and curing of test samples.
20

21 Deliver samples to testing laboratories.
22

23 Provide the agency with a preliminary design mix proposed for use for materials mixes that
24 require control by the testing agency.
25

26 Provide security and protection of samples and test equipment at the Project Site.
27

28 Duties of the Testing Agency: The independent agency engaged to perform inspections, sampling, and
29 testing of materials and construction specified in individual Section shall cooperate with the Architect and
30 the Contractor in performance of the agency's duties. The testing agency shall provide qualified
31 personnel to perform required inspections and tests.
32

33 The agency shall notify the Architect and Contractor promptly of irregularities or deficiencies
34 observed in the Work during performance of its services.
35

36 The agency is not authorized to release, revoke, alter or enlarge requirements of the Contract
37 Documents or approve or accept any portion of the Work.
38

39 The agency shall not perform any duties of the Contractor.
40

41 Coordination: Coordinate the sequence of activities to accommodate required services with a minimum
42 of delay. Coordinate activities to avoid the necessity of removing and replacing construction to
43 accommodate inspections and tests.
44

45 The Contractor is responsible for scheduling times for inspections, tests, taking samples and
46 similar activities.
47

48 SUBMITTALS

49 The independent testing agency shall submit a certified written report, in duplicate, of each inspection,
50 test or similar service to the Architect and the Contractor.
51

- 1
2 Report Data: Written reports of each inspection, test or similar service include, but are not limited
3 to, the following:
4
5 Date of issue.
6 Project title and number.
7 Name, address and telephone number of testing agency.
8 Dates and locations of samples and tests or inspections.
9 Names of individuals making the inspection or test.
10 Designation of the Work and test method.
11 Identification of product and Specification Section.
12 Complete inspection or test data.
13 Test results and an interpretation of test results.
14 Ambient conditions at the time of sample taking and testing.
15 Comments or professional opinion on whether inspected or tested Work complies with Contract
16 Document requirements.
17 Name and signature of laboratory inspector.
18 Recommendations on retesting.
19
20

21 QUALITY ASSURANCE
22

23 Qualifications for Service Agencies: Engage inspection and testing service agencies, including
24 independent testing laboratories, which are prequalified as complying with the American Council of
25 Independent Laboratories, "Recommended Requirements for Independent Laboratory Qualification" and
26 that specialize in the types of inspections and tests to be performed.
27
28

29 PART 2 – PRODUCTS (Not Applicable)
30
31

32 PART 3 – EXECUTION
33
34

35 REPAIR AND PROTECTION
36

37 General: Upon completion of inspection, testing, sample taking and similar services, repair damaged
38 construction and restore substrates and finishes.
39

40 Protect construction exposed by or for quality control service activities, and protect repaired construction.
41

42 Repair and protection is Contractor's responsibility, regardless of the assignment of responsibility for
43 inspection, testing or similar services.
44
45
46
47
48

49 END OF SECTION

1 **SECTION 01500 – TEMPORARY FACILITIES**

2
3
4 **PART 1 – GENERAL**

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 SUMMARY

14
15 This Section specifies requirements for temporary services and facilities; including utilities, construction
16 and support facilities, security and protection.

17
18
19 QUALITY ASSURANCE

20
21 Regulations: Comply with industry standards and applicable laws and regulations of authorities having
22 jurisdiction, including but not limited to:

- 23
24 Building Code requirements.
25 Health and safety regulations.
26 Utility company regulations.
27 Environmental protection regulations.
28

29 Standards: Comply with NFPA Code 241, "Building Construction and Demolition Operations," ANSI-A10
30 Series standard for "Safety Requirements for Construction and Demolition," and NECA Electrical Design
31 Library "Temporary Electrical Facilities."
32

33 Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electrical
34 service. Install service in compliance with NFPA 70, National Electric Code.
35

36
37 PROJECT CONDITIONS

38
39 Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a
40 safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities or permit
41 them to interfere with progress. Do not allow hazardous, dangerous and unsanitary conditions or public
42 nuisances to develop or persist on the Site.
43

44
45 **PART 2 – PRODUCTS**

46
47
48 MATERIALS

49
50 General: Provide materials suitable for the use intended.
51

52
53 EQUIPMENT
54

1 Water Hoses: Provided ¾" heavy duty, abrasion resistant, flexible rubber hoses of length required, with
2 pressure rating greater than the maximum pressure of the water distribution system. Provide adjustable
3 shut off nozzles at hose discharge.
4

5 Electrical Power Cords: Provide grounded extension cords; use "hard service" cords where exposed to
6 abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single
7 lengths will not reach areas where construction activities are in progress.
8

9 Lamps and Light Fixtures: Provide general service lamps of wattage required for adequate illumination.
10 Provide guard cages or tempered glass enclosures, where exposed to breakage. Provide exterior
11 fixtures where areas are exposed to moisture.
12

13 Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM or another
14 recognized trade association related to the type of fuel being consumed.
15

16 First Aid Supplies: Comply with governing regulations.
17

18 Fire Extinguishers: Provide hand carried, portable UL rated, class "A" fire extinguisher for temporary
19 offices and similar spaces.
20

21 For other locations, comply with NFPA 10 and 241 for classification, extinguishing agent and size
22 required by location and class of fire exposure.
23
24

25 PART 3 – EXECUTION

26
27

28 UTILITIES

29

30 General: Engage the appropriate local utility company to install temporary service. Where the company
31 provides only part of the service, provide the remainder with matching, compatible materials and
32 equipment; comply with the utilities recommendations.
33

34 Arrange with the company and existing users for a time when service can be interrupted, where
35 necessary, to make connections for temporary services.
36

37 Provide adequate capacity at each stage of construction.
38

39 Use Charges: Cost or use charges for temporary facilities are not chargeable to the Owner or Architect
40 and will not be accepted as a basis of claims for a Change Order.
41

42 Water Service: Contractor may use water service as it exists at the site. Contractor to provide all hoses,
43 hookups, etc.
44

45 Sterilization: Sterilize temporary water piping prior to use.
46

47 Electric Power Service: Contractor may use power as it exists at the site. Contractor to provide all
48 hookups, cords, panels, etc.
49

50 Temporary Lighting: Provide temporary lighting with local switching.
51

52 Install and operate temporary lighting that will fulfill security and protection requirements, without
53 operating the entire system, and will provide adequate illumination for construction operations
54 and traffic conditions.

1
2 Temporary Telephones: Provide cellular phone service or a temporary non coin box telephone service
3 for all personnel engaged in construction activities, throughout the construction period. Install
4 immediately after start of Work, maintain until Project completion. Notify Architect of telephone number.
5 Allow all connected with the Work to use telephone, provided they pay for toll calls. Telephone to have
6 outside bell.
7

8
9 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION

10
11 Temporary Heat: Provide temporary heat as required by construction activities, for curing or drying of
12 completed installations or protection of installed construction from adverse effects of low temperatures or
13 high humidity.
14

15 Heating Facilities: Except where use of the permanent system is authorized, provide vented self-
16 contained LP gas or fuel oil heaters with individual space thermostatic control.
17

18 Use of gasoline burning space heaters, open flame or salamander type heating units are
19 prohibited.
20

21 Toilets: Temporary toilet facilities will be provided by Contractor. Remove from Project Site after Project
22 is accepted as substantially complete.
23

24 Provide toilet tissue, paper towels, paper cups and similar disposal materials for each facility.
25 Provide covered waste containers for used materials.
26

27 Dewatering Facilities and Drains: For temporary drainage and dewatering facilities and operations not
28 directly associated with construction activities included under individual Sections, comply with dewatering
29 requirements of applicable Division 2 Sections. Where feasible, utilize the same facilities. Maintain the
30 site, excavations and construction free of water.
31

32 Temporary Enclosures: Provide temporary enclosure for protection of construction in progress and
33 completed, from exposure, foul weather, other construction operations and similar activities.
34

35 Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply
36 with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce
37 requirements strictly. Dispose of material in a lawful manner.
38
39

40 SECURITY AND PROTECTION FACILITIES INSTALLATION

41
42 Do not change over from use of temporary security and protection facilities to permanent facilities until
43 Substantial Completion.
44

45 Temporary Fire Protection: Until fire protection needs are supplied by permanent facilities, install and
46 maintain temporary fire protection facilities of the types needed to protect against reasonably predictable
47 and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers," and NFPA
48 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations."
49

50 Locate fire extinguishers where convenient and effective for the intended purpose.
51

52 Store combustible materials in containers in fire safe locations.
53

54 Provide supervision of welding operations.

1
2 Barricades, Warning Signs and Lights: Comply with standards and code requirements for barricades.

3
4 Construction barricades, fences, railings and similar safety precautions in accordance with but not
5 limited to "Oregon Administrative Rules, Chapter 437."

6
7 Neatly assemble and firmly brace.

8 Maintain as required during construction period.

9 Remove barriers prior to final acceptance.

10
11 Environmental Protection: Provide protection, operate temporary facilities and conduct construction that
12 comply with environmental regulations. Avoid use of tools and equipment which produce harmful noise.
13 Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or
14 firms near the Site.

15
16
17 OPERATION, TERMINATION AND REMOVAL

18
19 Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities
20 to essential and intended uses to minimize waste and abuse.

21
22 Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by
23 freezing temperatures and similar elements.

24
25 Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and
26 similar facilities on a 24-hour day basis where required to achieve indicated results and to avoid
27 possibility of damage.

28
29 Termination and Removal: Unless the Architect requests it to be maintained longer, remove each
30 temporary facility when the need has ended, or when replaced by authorized use of a permanent facility,
31 or no later than Substantial Completion.

32
33 Materials and facilities that constitute temporary facilities are property of the Contractor.

34
35 At Substantial Completion, clean and renovate permanent facilities that have been used during
36 the construction period.

37
38
39
40
41
END OF SECTION

1 **SECTION 01600 – MATERIALS – DELIVERY, STORAGE AND HANDLING**

2
3
4 **PART 1 – GENERAL**

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 QUALITY ASSURANCE

14
15 Source Limitations: To the fullest extent possible, provide products of the same kind, from a single
16 source.

17
18
19 PRODUCT DELIVERY, STORAGE AND HANDLING

20
21 Deliver, store and handle products in accordance with the manufacturer's recommendations, using
22 means and methods that will prevent damage, deterioration and loss, including theft.

23
24 Deliver products to the Site in the manufacturer's original sealed container or other packaging
25 system, complete with labels and instructions for handling, storing, unpacking, protecting and
26 installing.

27
28 Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure
29 products are undamaged and properly protected.

30
31 Store products subject to damage by the elements above ground, under cover, in a weather tight
32 enclosure with ventilation adequate to prevent condensation. Maintain temperature and humidity
33 within a range required by manufacturer's instructions.

34
35
36 **PART 2 – PRODUCTS**

37
38
39 PRODUCT SELECTION

40
41 General Product Requirements: Provide products that comply with the Contract Documents, that are
42 undamaged and unless otherwise indicated, unused at the time of installation.

43
44 Provide products complete with all accessories, trim, finish, safety guards, other devices and
45 details needed for a complete installation and for the intended use and effect.

46
47 Product Selection Procedures: Product selection is governed by the Contract Documents and governing
48 regulations.

49
50 For products specified only by reference standards, select any product meeting standards by any
51 manufacturer.

52
53 For products specified naming several products or manufacturers, select any product and/or
54 manufacturer named.

1
2 For products specified by naming one or more products but indicating the option of selecting
3 equivalent products by stating "or equal" after specified product; the Contractor must submit
4 requests as required for the substitution for any product not specifically named.
5

6 For products specified by naming only one (1) product and manufacturer, there is no option, and
7 no substitution will be allowed.
8

9 Compliance with Standards, Codes and Regulations: Where the Specifications only require compliance
10 with an imposed code, standard or regulation, select a product that complies with the standards, codes or
11 regulations specified.
12

13
14 PART 3 – EXECUTION

15
16
17 INSTALLATION AND PRODUCTS
18

19 Comply with manufacturer's instructions and recommendations for installation of products in the
20 applications indicated. Anchor each product securely in place, accurately located and aligned with other
21 Work.
22

23 Clean exposed surfaces and protect as necessary to ensure freedom from damage and
24 deterioration at time of Substantial Completion.
25

26
27
28
29
30 END OF SECTION

1 **SECTION 01631 – PRODUCT SUBSTITUTIONS**

2
3
4 PART 1 – GENERAL

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 SUMMARY

14
15 This Section specifies requirements for handling requests for substitutions made **AFTER** award of the
16 Contract. Bids **MUST** be made on the articles and materials named in the Specifications or approved
17 during the Bid process. Approval of substitutions after award will be made only in exceptional cases
18 where Contractor submits evidence, satisfactory to the Architect that through no fault of his own, specified
19 or otherwise approved products cannot be obtained in time to avoid delay in the Work. In any case,
20 substitutions are subject to the approval of the Architect.

21
22 Substitutions **BEFORE** the award of Bid: Requirements are specified in “Instruction to Bidders.”

23
24 Standards: Refer to Division 1 Section “Reference Standards and Definitions” for applicability of industry
25 standards to products specified.

26
27 Requirements governing the Contractor’s selection of products and product options are included under
28 Division 1 Section “Materials – Delivery, Storage and Handling.”

29
30
31 DEFINITIONS

32
33 Substitutions: Requests for changes in products, materials and equipment required by Contract
34 Documents proposed by the Contractor after award of the Contract are considered requests for
35 “substitutions.” The following are not considered substitutions:

36
37 Substitution requested by Bidders during the bidding period and accepted prior to award of
38 Contract are considered as included in the Contract Documents and are not subject to
39 requirements specified in this Section for substitutions.

40
41
42 SUBSTITUTIONS

43
44 Submit one (1) electronic copy or three (3) paper copies of each request for substitution for consideration.
45 Identify the product or the fabrication or installation method to be replaced in each request. Include
46 related Specification Section and Drawing numbers. Provide complete documentation showing
47 compliance with the requirements for substitutions, and the following information, as appropriate:

48
49 Product data, including Drawings and descriptions of products, fabrication and installation
50 procedures.

51
52 Samples, where applicable or requested.

1 A detailed comparison of significant qualities of the proposed substitution with those of the Work
2 specified. Significant qualities may include elements such as size, weight, durability,
3 performance and visual effect.
4

5 Coordination information, including a list of changes or modifications needed to other parts of the
6 Work and to construction performed by the Owner and separate Contractors that will become
7 necessary to accommodate the proposed substitution.
8

9 A statement indicating the substitution's effect on the Contractor's Construction Schedule
10 compared to the schedule without approval of the substitution. Indicate the effect of the proposed
11 substitution on overall Contract Time.
12

13 Cost information on proposed substitution in comparison with specified product or method;
14 including a proposal of the net change, if any, in the Contract Sum.
15

16 Certification by the Contractor that the substitution proposed is equal to or better in every
17 significant respect to that required by the Contract Documents, and that it will perform adequately
18 in the application indicated.
19

20 In making request for substitution, Contractor represents:

21 They will provide the same guarantee for substitution as for the product or method specified.
22
23

24 They will coordinate installation of accepted substitution into the Work, making such changes as
25 may be required for Work to be completed in all respects.
26

27 They waive all claims for additional costs related to substitution which subsequently become
28 apparent.
29

30 Cost data is complete and includes all related costs under his Contract, but excludes:

31
32 Cost under separate Contracts and Architect's redesign.
33
34

35 PART 2 – PRODUCTS (Not Applicable)
36
37

38 PART 3 – EXECUTION (Not Applicable)
39
40
41
42
43

44 END OF SECTION

1 **SECTION 01700 – PROJECT CLOSEOUT**

2
3
4 **PART 1 – GENERAL**

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 SUMMARY

14 This Section specifies requirements for Project Closeout, including but not limited to:

- 15
16
17 Project record document submittal.
18 Operating and maintenance manual submittal.
19 Submittal of warranties.
20 Final cleaning.

21
22 Closeout requirements for specific construction activities are included in the appropriate Sections
23 in Divisions 2 through 16.

24
25
26 SUBSTANTIAL COMPLETION

27
28 Procedures: Before requesting inspection for certification of Substantial Completion, complete the
29 following. List exceptions in the request.

30
31 Prepare a list of incomplete items, the value of incomplete construction and reasons the Work is
32 not complete.

33
34 Submit final certifications and similar documents.

35
36 Obtain and submit releases enabling the Owner unrestricted use of the Work and access to
37 services and utilities; include occupancy permits, operating certificates and similar releases.

38
39 Deliver to Owner, tools, spare parts, extra stock and similar items.

40
41 Make final change over to permanent locks and transmit keys to the Owner.

42
43 Complete start up testing of systems and instructions to the Owner for operating and
44 maintenance personnel. Remove temporary facilities from the Site, along with construction tools,
45 mock ups and similar elements.

46
47 Complete final clean up requirements, including touch up painting. Touch up and otherwise
48 repair and restore marred exposed finishes.

49
50 Submit request for Certificate of Substantial Completion in writing.

51
52
53 FINAL ACCEPTANCE

1 Procedures: Before requesting final acceptance and final payment, complete the following. List
2 exceptions in the request.

3
4 Submit Consent of Surety to Final Payment.

5
6 Submit the final payment request with releases and supporting documentation not previously
7 submitted and accepted.

8
9 Submit a certified copy of the Architect's final inspection list of items to be completed or
10 corrected, stating that each item has been completed or otherwise resolved for acceptance.

11
12 Submit a certificate showing that insurance required by the Contract Documents will remain in
13 force after final payment is currently in effect and will not be cancelled or allowed to expire until at
14 least thirty (30) days prior written notice has been given to the Owner.

15
16
17 RECORD DOCUMENT SUBMITTALS

18
19 General: Do not use record documents for construction purposes; protect from deterioration and loss in a
20 secure, fire resistive location; provide access to record documents for the Architect's reference during
21 normal working hours.

22
23 Record Drawings: Maintain a clean, undamaged set of blue or black line white prints of Contract
24 Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies
25 substantially from the Work as originally shown. Mark whichever Drawing is most capable of showing
26 conditions fully and accurately; where Shop Drawings are used, record a cross reference at the
27 corresponding location on the Contract Drawings. Give particular attention to concealed elements that
28 would be difficult to measure and record at a later date.

29
30 Mark record sets with red erasable pencil; use other colors to distinguish between variations in
31 separate categories of the Work.

32
33 Mark new information that is important to the Owner but was not shown on the Contract Drawings
34 or Shop Drawings.

35
36 Note related Change Order numbers where applicable.

37
38 Organize record Drawing sheets into manageable sets, bind with durable paper cover sheets and
39 print suitable titles, dates and other identification on the cover of each set.

40
41 Record Submittals: Refer to other Specification Sections for requirements of miscellaneous record
42 keeping and Submittals in connection with actual performance of the Work. Immediately prior to the date
43 of Substantial Completion, complete records and place in good order, properly identified and bound or
44 filed, ready for continued use and reference. Submit to the Architect for the Owner's records. Include list
45 of installing Subcontractors (with telephone numbers) for each piece of equipment and type of product.

46
47 Maintenance Manuals: Two (2) copies, all information typed and legible. Organize operating and
48 maintenance data into suitable sets of manageable size. Bind properly indexed data in individual heavy
49 duty 2", 3 ring, vinyl covered binders, with pocket folders for folded sheet information. Mark appropriate
50 identification on front and spine of each binder. Include the catalog number, serial number, sizes, type,
51 capacity and manufacturer's name and address for the following items:

52
53 Operating items of hardware, electrical equipment, plumbing equipment, electric fixtures,
54 plumbing fixtures and fittings and mechanical equipment.

1
2 Include the following types of information:

- 3
- 4 Emergency instructions.
- 5 Spare parts list.
- 6 Copies of warranties.
- 7 Inspection procedures.
- 8 Wiring Diagrams.
- 9 Shop Drawings and Product Data.
- 10 Fixture lamping schedule.

11
12 List installing Subcontractors with telephone number for each piece of equipment and type of product.

13
14
15 PART 2 – PRODUCTS (Not Applicable)

16
17
18 PART 3 – EXECUTION

19
20
21 CLOSEOUT PROCEDURES

22
23 Operating and Maintenance Instructions: Arrange for each Installer of equipment which requires regular
24 maintenance to meet with the Owner's personnel to provide instruction in proper operation and
25 maintenance. If Installers are not experienced in procedures, provide instruction by manufacturer's
26 representatives. Include a detailed review of the following items:

- 27
- 28 Maintenance manuals.
- 29 Record documents.
- 30 Spare parts and materials.
- 31 Tools.
- 32 Lubricants.
- 33 Fuels.
- 34 Identification systems.
- 35 Control sequences.
- 36 Hazards.
- 37 Cleaning.
- 38 Warranties and bonds.
- 39 Maintenance agreements and similar continuing commitments.

40
41 As part of instruction for operating equipment, demonstrate the following procedures:

- 42
- 43 Start up.
- 44 Shut down.
- 45 Emergency operations.
- 46 Noise and vibration adjustments.
- 47 Safety procedures.
- 48 Economy and efficiency adjustments.
- 49 Effective energy utilization.

50
51
52 FINAL CLEANING

53
54 General: General cleaning during construction is required by the General Conditions.

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37

Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.

Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion.

Remove labels that are not permanent labels.

Clean transparent materials. Replace chipped or broken glass and other damaged transparent materials.

Wipe surfaces of electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition.

Clean the Site of rubbish, litter and other foreign substances. Sweep sidewalk areas broom clean; remove stains, spills and other foreign deposits.

Rake grounds that are not gravel paved to a smooth, even textured surface.

Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.

Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the Site and dispose of in a lawful manner.

Where extra materials of value remaining after completion of associated Work have become the Owner's property, arrange for disposition of these materials as directed.

END OF SECTION

1 **SECTION 01740 – WARRANTIES**

2
3
4 **PART 1 – GENERAL**

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 SUMMARY

14
15 This Section specifies general requirements for warranties required by the Contract Documents, including
16 manufacturer's standard warranties on products and special warranties.

17
18 Refer to the General Conditions for terms of the Contractor's special warranty of workmanship
19 and materials.

20
21 Specific requirements for warranties for the Work and products and installations that are specified
22 to be warranted, are included in the individual Sections of Divisions 2 through 16.

23
24 Disclaimers and Limitations: Manufacturer's disclaimers and limitations and product warranties do not
25 relieve the Contractor of the warranty on the Work that incorporates the products.

26
27
28 WARRANTY REQUIREMENTS

29
30 Related Damages and Losses: When correcting warranted Work that has failed, remove and replace
31 other Work that has been damaged as a result of such failure or that must be removed and replaced to
32 provide access for correction of warranted Work.

33
34 Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by
35 replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall
36 be equal to the original warranty with an equitable adjustment for depreciation.

37
38 Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild
39 the Work to an acceptable condition complying with requirements of Contract Documents. The
40 Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the
41 Owner has benefitted from use of the Work through a portion of its anticipated useful service life.

42
43 Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties and shall
44 not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty
45 periods be interpreted as limitations on time in which the Owner can enforce such other duties
46 obligations, rights or remedies.

47
48 Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selections to
49 products with warranties not in conflict with requirements of the Contract Documents.

50
51 The Owner reserves the right to refuse to accept Work for the Project where a special warranty,
52 certification or similar commitment is required on such Work or part of the Work.

1 SUBMITTALS

2
3 Submit written warranties to the Architect prior to the date certified for Substantial Completion.

4
5 Refer to individual Sections of Divisions 2 through 16 for specific content requirements and
6 particular requirements for submittal of special warranties.

7
8 Form of Submittal: At Final Completion, compile two (2) copies of each required warranty and bond
9 properly executed by the Contractor, Subcontractor, supplier or manufacturer. Organize the warranty
10 documents into an orderly sequence based on the Table of Contents of the Project Manual.

11
12 Bind warranties and bonds in heavy duty, commercial quality, durable, 3 ring, vinyl covered, loose leaf
13 binders, thickness as necessary to accommodate contents, and sized to receive 8½" x 11" paper.

14
15 Identify each binder on the front and the spine with the typed or printed title, "Warranties." The
16 Project title or name and the name of the Contractor.

17
18 When operating and maintenance manuals are required for warranted construction, provide additional
19 copies of each required warranty, as necessary, for inclusion in each required manual.

20
21
22 PART 2 – PRODUCTS (Not Applicable)

23
24
25 PART 3 – EXECUTION (Not Applicable)

26
27
28
29
30
31
END OF SECTION

1 **SECTION 02070 – DEMOLITION**

2
3
4 PART 1 – GENERAL

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 SUMMARY

14
15 This Section requires the removal and disposal of two restroom buildings and several concrete slabs and
16 other miscellaneous materials as indicated on the Drawings and as required to accommodate new
17 construction.

18
19
20 JOB CONDITIONS

21
22 Occupancy: Conduct demolition Work in a manner that will maintain Owner's use of RV Park sites not
23 scheduled for modification.

24
25 Damages: Promptly repair damages caused to adjacent facilities by demolition Work at no cost to the
26 Owner.

27
28 Utility Services: Maintain existing utilities in service and protect them against damage during demolition
29 operations except as indicated in this Section.

30
31
32 PART 2 – PRODUCTS (Not Applicable)

33
34
35 PART 3 – EXECUTION

36
37
38 PREPARATION

39
40 General: Before commencing demolition, Contractor shall review with the Owner and/or Architect the
41 demolition schedule and processes.

42
43 Cease operations and notify Owner's Representative immediately if safety appears to be
44 endangered. Take precautions until determination is made for continuing operations.

45
46
47 DEMOLITION

48
49 General: Perform demolition Work in a systematic manner. Use such methods as required to complete
50 Work indicated on Drawings.

51
52 Remove slabs and fences as indicated on Drawings. Remove plumbing and electrical as indicated on
53 Drawings.

1 Structure: Buildings, foundations, slabs, tanks, curbs or other man-made stationary features occurring
2 above or below ground surface.

3
4
5 QUALITY ASSURANCE

6
7 Codes and Standards: Perform excavation work in compliance with applicable requirements of authorities
8 having jurisdiction.

9
10
11 PROJECT CONDITIONS

12
13 Existing Utilities: Locate underground utilities in areas of excavation work. If utilities are to remain in
14 place, provide adequate means of protection during earthwork operations.

15
16 Use of Explosives: Use of explosives is not permitted.

17
18 Protection of Persons and Property: Barricade open excavations occurring as part of this work.

19
20 Post and Operate warning lights as recommended by authorities having jurisdiction.

21
22 Protect new structures, utilities, sidewalks, pavements and other facilities from damage caused by
23 settlement, lateral movement, undermining washout and other hazards created by earthwork
24 operations.

25
26
27 PART 2 - PRODUCTS

28
29
30 SOIL MATERIALS

31
32 Satisfactory soil materials are defined as those complying with American Association of State Highway and
33 Transportation Officials (AASHTO) M145, soil classifications A-1, A-2-4, A-2-5 and A-3.

34
35 Unsatisfactory soil materials are defined in AASHTO M145 soil classification groups A-2-6, A-2-7, A-4, A-
36 5, A-6 and A-7; also peat and other highly organic soils.

37
38 Base Course Material: Naturally or artificially graded mixture of crushed rock, ASTM D 2940, with at least
39 95 percent passing a 3/4 inch sieve and not more than 5 percent passing a No. 8 sieve and less than 2%
40 passing the No. 200 sieve.

41
42 Backfill and Fill Materials: Satisfactory soil materials free of clay, rock or gravel larger than 2" in any
43 dimension, debris, waste, frozen materials, vegetable and other deleterious matter.

44
45 Herbicide Treatment: Commercial chemical for weed control, registered by Environmental Protection
46 Agency. Granular Monoberchlorate.

47
48 Backfill for soft spots and other excavated areas:

49
50 One (1) inch minus crushed rock as directed by Geotechnical Engineer.

51
52
53 PART 3 - EXECUTION

1
2 EXCAVATION

3
4 Excavation Classifications:

5
6 Earth excavation includes excavation, removal and disposal of earth and other materials
7 encountered.

8
9
10 STABILITY OF EXCAVATIONS

11 General: Comply with local codes, ordinances and requirements of agencies having jurisdiction.

12
13
14 Slope sides of excavations to comply with local codes, ordinances and requirements of agencies having
15 jurisdiction. Shore and brace where sloping is not possible because of space restrictions or stability of
16 material excavated. Maintain sides and slopes of excavations in safe condition until completion of
17 backfilling.

18
19 Shoring and Bracing: Provide materials for shoring and bracing, such as sheet piling, uprights, stringers
20 and cross-braces, in good serviceable condition. Establish requirements for trench shoring and bracing to
21 comply with local codes.

22
23
24 DEWATERING

25
26 Prevent surface water and subsurface or ground water from flowing into excavations and from flooding
27 project site and surrounding area.

28
29
30 Do not allow water to accumulate in excavations. Remove water to prevent softening of foundation
31 bottoms, undercutting footings and soil changes detrimental to stability of subgrades and
32 foundations. Provide and maintain pumps, well points, sumps, suction discharge lines and other
33 dewatering system components necessary to convey water away from excavations.

34
35 Establish and maintain temporary drainage ditches and other diversions outside excavation limits
36 to convey rainwater and water removed from excavations to collecting or runoff areas. Do not use
37 trench excavations as temporary drainage ditches.

38
39
40 STORAGE OF EXCAVATED MATERIALS

41
42 Stockpile excavated materials acceptable for backfill and fill. Place, grade and shape stockpiles for proper
43 drainage.

44
45 Locate and retain soil materials away from edge of excavations.

46
47 Dispose of excess excavated soil material and materials not acceptable for use as backfill or fill.

48
49
50 EXCAVATION FOR PAVEMENTS

51
52 Surface under pavement to comply with cross-sections, elevations and grades indicated.

1 TRENCH EXCAVATION FOR PIPES AND CONDUIT

2
3 Refer to Divisions 15 and 16.
4
5

6 BACKFILL AND FILL

7
8 General: Place soil material in layers to elevations using materials specified in Part 2 of this Section.
9

10 Under concrete pads and gravel pavements: use 6" minimum base course material.

11
12 Herbicide Treatment: Prior to installation of aggregate base course at RV spaces, apply chemical
13 weed control agent in strict compliance with manufacturer's recommended dosages and application
14 instructions. Apply to compacted, dry subbase.
15

16 Do not backfill trenches until tests and inspections have been made and backfilling is completed.
17 Use care in backfilling to avoid damage or displacement of pipe systems.
18

19 Backfill excavations as promptly as work permits, but not until completion of the following:
20

21 Acceptance of construction below finish grade.
22

23 Inspection, testing, approval and recording locations of underground utilities have been performed
24 and recorded.
25

26 Removal of shoring and bracing and backfilling of voids with satisfactory materials.
27

28 Removal of trash and debris from excavation.
29
30

31 PLACEMENT AND COMPACTION

32
33 Ground Surface Preparation: Remove upper 3"-4" of existing surface material prior to placement of fill.
34

35 Proof roll subgrade in presence of geotechnical engineer prior to placement of base material. Soft
36 spots to be corrected as directed by engineer.
37

38 When existing ground surface has a density less than that specified under "Compaction" for
39 particular area classification, break up ground surface, pulverize, moisture-condition to optimum
40 moisture content, and compact to required depth and percentage of maximum density.
41

42 Place backfill and fill materials in layers not more than 9 inches in loose depth for material compacted by
43 heavy compaction equipment and not more than 4 inches in loose depth for material compacted by hand-
44 operated tampers.
45

46 Before compaction, moisten or aerate each layer as necessary to provide optimum moisture content.
47 Compact each layer to required percentage of maximum dry density or relative dry density for each area
48 classification. Do not place backfill or fill material on surfaces which are muddy, frozen or contain frost or
49 ice.
50

51 Control compaction, providing minimum percentage of density specified for each area classification
52 indicated below. Correct improperly compacted areas or lifts as directed by Geotechnical Engineer if soil
53 density tests indicate inadequate compaction.
54

1 **SECTION 02512 – GRAVEL PAVING**

2
3
4 PART 1 – GENERAL

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to Work of this Section.

11
12
13 SUMMARY

14 This Section includes provisions for gravel paving.

15
16 Prepared subbase is specified in another Division 2 Section.

17
18
19
20 SUBMITTALS

21
22 Material certificates signed by material producer and Contractor, certifying that each material item
23 complies with or exceeds specified requirements.

24
25
26 SITE CONDITIONS

27
28 Grade Control: Establish and maintain required lines and elevations.

29
30
31 PART 2 – PRODUCTS

32
33
34 MATERIALS

35
36 General: Use locally available materials and gradations that exhibit a satisfactory record of previous
37 installations.

38
39 Base Course Aggregate: Sound, angular crushed stone or crushed gravel ASTM D692, Type 1, well
40 graded. 1½" minus, evenly graded. Minimum 6" thick base course.

41
42 Wear Course Aggregate: Sound, angular, crushed stone or crushed gravel ASTM D692, Type 1, well
43 graded. ¾" minus, evenly graded. Minimum 2" thick.

44
45
46 LOCATION

47
48 New R.V. sites 1 thru 22 and sites 33 thru 38.

49
50
51 PART 3 – EXECUTION

52
53
54 GRAVEL COURSES

BEACHFRONT RV PARK IMPROVEMENTS
PORT OF BROOKINGS-HARBOR
16024 BOAT BASIN ROAD

PROJECT NO. 19005

1
2 Place gravel in compacted layers. Spread, shape and compact all material placed during same day.
3 Compact gravel to 95% of maximum density, in accordance with ASTM D1557 – Method D.
4

5 Place each course to require grade, cross section and compacted thickness.

6 Surface Levelness: Test finished surface using 10 foot straight edge applied parallel with and at right
7 angles to centerline of graveled area. Surfaces will not be acceptable if exceeding the following
8 tolerances for levelness: $\frac{1}{2}$ ".
9

10
11
12
13
14

END OF SECTION

1 **SECTION 03300 – CAST-IN-PLACE CONCRETE**

2
3
4 **PART 1 – GENERAL**

5
6
7 RELATED DOCUMENTS

8
9 Drawings and general provisions of Contract, including General and Supplementary Conditions and
10 Division 1 Specification Sections, apply to this Section.

11
12
13 SUMMARY

14
15 This Section specifies cast-in-place concrete, including formwork, reinforcing, mix design, placement
16 procedures and finishes.

17
18
19 SUBMITTALS

20
21 General: Submit the following in accordance with Conditions of Contract and Division 1 Specification
22 Sections.

23
24 Product Data: Submit concrete manufacturer's mix design.

25
26 Laboratory test reports for concrete materials and mix design test.

27
28 Materials certificates in lieu of materials laboratory test reports when permitted by Architect. Materials
29 certificates shall be signed by manufacturer and Contractor, certifying that each material item complies
30 with or exceeds specified requirements. Provide certification from admixture manufacturer's that chloride
31 content complies with Specification requirements.

32
33
34 QUALITY ASSURANCE

35
36 Codes and Standards: Comply with provisions of following codes, Specifications, and standards, except
37 where more stringent requirements are shown or specified:

38
39 ACI 318, "Building Code Requirements for Structural Concrete and Commentary".

40
41 Concrete Reinforcing Steel Institute (CRSI), "Manual of Standard Practice".

42
43 Concrete Testing Service: The Owner may engage a testing laboratory to perform material evaluation
44 tests and to review concrete mix designs and certificates of compliance.

45
46
47 **PART 2 - PRODUCTS**

48
49
50 FORM MATERIALS

51
52 Forms for Exposed Finish Concrete: Plywood, metal, metal-framed plywood faced or other acceptable
53 panel-type materials, to provide continuous, straight, smooth, exposed surfaces. Furnish in largest
54 practicable sizes to minimize numbers of joints and to conform to joint system shown on Drawings.

1
2 Use plywood to comply with U.S. Product Standard for Construction and Industrial Plywood DOC
3 PS1 "B-B (Concrete Form) Plywood", Class 1 or better, Exterior Grade, mill-oiled and edge
4 sealed, with each piece bearing legible inspection trademark.

5
6 Forms for Unexposed Finish Concrete: Plywood, lumber, metal or other acceptable material. Provide
7 lumber dressed on at least two (2) edges and one (1) side for tight fit.

8
9 Form Coatings: Provide commercial formulation form-coating compounds that will not bond with, stain, or
10 adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

11
12
13 REINFORCING MATERIALS

14
15 Supports for Reinforcement: Bolsters, chairs, spacers and other devices for spacing, supporting and
16 fastening welding wire fabric in place. Use wire-bar-type supports complying with CRSI Specifications.

17
18 For slabs-on-grade, use supports with sand plates or horizontal runners where base material will
19 not support chair legs.

20
21
22 CONCRETE MATERIALS

23
24 Portland Cement: ASTM C 150, Type 1.

25
26 Fly Ash: ASTM C 618, Type F.

27
28 Normal Weight Aggregates: ASTM C 33 and as herein specified. Provide aggregates from a single
29 source for exposed concrete. Natural aggregates free from deleterious coatings. Aggregates shall be
30 thoroughly washed before use.

31
32 Fine Aggregates: Conform to ASTM C 33. Materials finer than the 200 sieve shall not exceed
33 4%. Use only clean, sharp, natural sand.

34
35 Coarse Aggregates: Use only natural gravels, a combination of gravels and crushed gravels,
36 crushed stone or a combination of these materials containing no more than 15 percent flat or
37 elongated particles (long dimension more than five (5) times the short dimension). Materials finer
38 than 200 sieve shall not exceed 0.5%.

39
40 Water: Drinkable.

41
42 Admixtures, General: Provide admixtures for concrete that contain not more than 0.1% chloride ions.

43
44 Water-Reducing Admixture: All concrete shall contain a water-reducing admixture. The admixture shall
45 conform to ASTM C 494, Type A except it shall contain no chlorides, shall be nontoxic after thirty (30)
46 days and shall be compatible with the air-entraining admixtures. The amount of admixture added to the
47 concrete shall be in accordance with the manufacturer's recommendations. Furnish a compliance
48 statement that the admixture used satisfies all requirements of the Specification.

49
50 Moisture-Retaining Cover: One of the following, complying with ASTM C 171.

51
52 Waterproof paper.

53
54 Polyethylene film.

1
2 Polyethylene-coated burlap.
3
4

5 PROPORTIONING AND DESIGN OF MIXES
6

7 Prepare design mixes for each type and strength of concrete by either laboratory trial batch or field
8 experience methods as specified in ACI 301. If trial batch method is used, use an independent testing
9 facility acceptable to Architect for preparing and reporting proposed mix designs. The testing facility shall
10 not be the same facility as used for field quality control testing.
11

12 Limit use of fly ash to not exceed 25 percent of cement content by weight.
13

14 Submit written reports to Architect of each proposed mix for each class of concrete at least seven (7)
15 days prior to start of Work. Do not begin concrete production until proposed mix designs have been
16 reviewed by Architect.
17

18 Design mixes to provide normal weight of concrete with the following properties:
19

20 Exterior Slabs and Curbs: 3000-psi, 28-day compressive strength; (air-entrained). ¾" minus
21 aggregate.
22

23 Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when
24 characteristics of materials, job conditions, weather, test results, or other circumstances warrant, as
25 accepted by Architect. Laboratory test data for revised mix design and strength must be submitted to and
26 accepted by Architect before using in Work.
27

28
29 ADMIXTURES
30

31 Use water-reducing admixture or high range water-reducing admixture (super plasticizer) in all concrete.
32

33 Use air-entraining admixture in exterior exposed concrete slabs, unless otherwise indicated. Add air-
34 entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having
35 total air content of 3% to 6% measured by volume.
36

37 Use admixtures for water reduction and set control in strict compliance with manufacturer's directions.
38

39 Slump Limits: Proportion and design mixes to result in concrete slump at point of placement as follows:
40

41 Slabs: Not more than four (4) inches.
42
43

44 CONCRETE MIXING
45

46 Ready-Mix: comply with requirements of ASTM C 94, and as specified. Provide batch ticket for each
47 batch used in Project. Addition of water to batch at site is not permitted.
48

49 When air temperature is between 85 degrees Fahrenheit (30 degrees Celsius.) and 90 degrees
50 Fahrenheit (32 degrees Celsius), reduce mixing and delivery time from 1½ hours to 75 minutes,
51 and when air temperature is above 90 degrees Fahrenheit (32 degrees Celsius), reduce mixing
52 and delivery time to sixty (60) minutes.
53
54

1 PART 3 – EXECUTION

2
3
4 FORMS

5
6 General: Design, erect, support, brace, and maintain formwork to support loads that might be applied
7 until concrete has cured adequately. Construct formwork so concrete is of correct alignment, elevation
8 and position. Maintain formwork construction tolerances complying with ACI 347.

9
10 Construct forms to obtain accurate alignment, location and grades. Solidly butt joints and provide backup
11 at joints to prevent leakage of cement paste.

12
13 Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush
14 plates where stripping may damage cast concrete surfaces.

15
16 Provisions for Other Trades: Provide openings in concrete formwork to accommodate Work of other
17 trades. Determine size and location of openings, recesses and chases from trades providing such items.
18 Accurately place and securely support items built into forms.

19
20 Cleaning and Tightening: Thoroughly clean forms and adjacent surfaces to receive concrete. Remove
21 chips, wood, sawdust, dirt or other debris just before concrete is placed. Retighten forms and bracing
22 before concrete placement as required to prevent mortar leaks and maintain proper alignment.

23
24
25 PLACING REINFORCEMENT

26
27 General: Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing
28 Reinforcing Bars", for details and methods and reinforcement placement and supports and as herein
29 specified.

30
31 Clean reinforcement of loose rust and mill scale, earth, ice and other materials that reduce or destroy
32 bond with concrete.

33
34 Accurately position, support and secure reinforcement against displacement. Locate and support
35 reinforcing by metal chairs, runners, bolsters, spacers or hangers.

36
37
38 JOINTS

39
40 General: Construct construction, weakened plane, isolation, contraction and expansion joints true to line
41 with face perpendicular to surface of concrete.

42
43 Construction Joints: Locate and install construction joints as indicated, or if not indicated, locate so as not
44 to impair strength and appearance of the structure, as acceptable to Architect. Place construction joints
45 at end of placement and at locations where placement operations are stopped for a period of more than
46 one-half hour, except where such placements terminate at expansion joints. Construct joints as shown,
47 or, if not shown, use standard metal keyway section forms.

48
49 Place construction joints perpendicular to main reinforcement. Continue reinforcement across
50 construction joints, except as otherwise indicated.

1 Weakened Plane (Contraction) Joints: Provide weakened plane joints, sectioning concrete into areas as
2 shown on Drawings. Construct weakened plane joints for a depth equal to at least one-third concrete
3 thickness. Form in fresh concrete by grooving top portion with a recommended cutting tool and finishing
4 edges with a jointer. Spacing as indicated on Drawings.

5
6 Contraction (Control) Joints in Slabs-on-Ground: Construct contraction joints in slabs-on-ground to form
7 panels of patterns as shown. Use saw cuts $\frac{1}{8}$ " wide by $\frac{1}{4}$ slab depth or inserts $\frac{1}{4}$ " wide by $\frac{1}{4}$ of slab
8 depth, unless otherwise indicated.

9
10
11 PREPARATION OF FORM SURFACES

12
13 General: Coat contact surfaces of forms with an approved, nonresidual, low-VOC, form-coating
14 compound before reinforcement is placed. (Moisten wood forms immediately before placing concrete
15 where form coatings are not used.)

16
17 Do not allow excess form-coating material to accumulate in forms or to come into contact with in-place
18 concrete surfaces against which fresh concrete will be placed. Apply in compliance with manufacturer's
19 instructions.

20
21 Forms for Slabs: Set edge forms, bulkheads and intermediate screed strips for slabs to obtain required
22 elevations and contours in finished surfaces.

23
24
25 CONCRETE PLACEMENT

26
27 Inspection: Before placing concrete, inspect and complete formwork installation, reinforcing steel and
28 items to be embedded or cast-in. Notify other crafts to permit installation of their Work; cooperate with
29 other trades in setting such Work. Notify Architect to schedule inspection before scheduling concrete
30 delivery.

31
32 General: Comply with ACI 304, "Recommended Practice for Measuring, Mixing, Transporting and Placing
33 Concrete", and as herein specified.

34
35 Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete
36 that has hardened sufficiently to cause the formation of seams or planes of weakness. If a section cannot
37 be placed continuously, provide construction joints as herein specified. Deposit concrete to avoid
38 segregation at its final location.

39
40 Placing Concrete Slabs: Deposit and consolidate concrete slabs in a continuous operation, within limits
41 of construction joints, until the placing of a panel or section is completed.

42
43 Bring slab surfaces to correct level with straightedge and strike off. Use bull floats or darbies to
44 smooth surface, free of humps or hollows. Do not disturb slab surfaces prior to beginning
45 finishing operations.

46 Maintain reinforcing in proper position during concrete placement.

47
48 Cold-Weather Placing: Comply with provisions of ACI 306 and as follows. Protect concrete Work from
49 physical damage or reduced strength that could be caused by frost, freezing actions or low temperatures.

50
51 When air temperature has fallen to or is expected to fall below 40 degrees Fahrenheit (4 degrees
52 Celsius), uniformly heat water and aggregates before mixing to obtain a concrete mixture
53 temperature of not less than 50 degrees Fahrenheit (10 degrees Celsius) and not more than 80
54 degrees Fahrenheit (27 degrees Celsius) at point of placement.

1
2 Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen
3 subgrade or on subgrade containing frozen materials.
4

5 Do not use calcium chloride, salt or other materials containing antifreeze agents or chemical
6 accelerators, unless otherwise accepted in mix designs.
7

8 Hot-Weather Placing: When hot weather conditions exist that would seriously impair quality and strength
9 of concrete, place concrete in compliance with ACI 305 and as herein specified.
10

11 Cover reinforcing steel with water-soaked burlap, if it becomes too hot, so that steel temperature
12 will not exceed the ambient air temperature immediately before embedment in concrete.
13

14 Fog spray forms, reinforcing steel, and subgrade just before concrete is placed.
15

16 Use water-reducing retarding admixture when required by high temperatures, low humidity or
17 other adverse placing conditions.
18

19 Moisten forms immediately before placing concrete where form coating is not used.
20
21

22 MONOLITHIC SLAB FINISHES 23

24 Float Finish: Apply float finish to monolithic slab surfaces to receive trowel finish and other finishes as
25 hereinafter specified.
26

27 After screeding, consolidating and leveling concrete slabs, do not work surface until ready for floating.
28 Begin floating, using float blades or float shoes only, when surface water has disappeared, when concrete
29 has stiffened sufficiently to permit operation of power-driven floats, or both. Consolidate surface with
30 power-driven floats or by hand-floating, if area is small or inaccessible to power units. Check and level
31 surface plane to tolerance not exceeding ¼" in 10' when tested with a 10' straightedge. Cut down high
32 spots and fill low spots. Immediately after leveling, refloat surface to a uniform, smooth, granular texture.
33

34 Trowel Finish: Apply trowel finish to monolithic slab surfaces to be exposed to view.
35

36 After floating, begin first trowel finish operation using a power-driven trowel. Begin final troweling
37 when surface produces a ringing sound as a trowel is moved over surface. Consolidate concrete
38 surface by final hand-troweling operation, free of trowel marks, uniform in texture and appearance
39 and with surface leveled to a tolerance ⅛" in 10' when tested with a 10' straightedge.
40

41 Nonslip Broom Finish: Apply nonslip broom finish to exterior slabs.
42

43 Immediately after trowel finishing, slightly roughen concrete surface by brooming with fiber-bristle
44 broom perpendicular to main traffic route. Coordinate required final finish with Architect before
45 application.
46
47

48 CONCRETE CURING AND PROTECTION 49

50 General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
51 Start initial curing as soon as free water has disappeared from concrete surface after placing and
52 finishing. Weather permitting, keep continuously moist for not less than seven (7) days.
53

1 Curing Methods: Perform curing of concrete, by moist curing or moisture-retaining cover curing, as herein
2 specified.

3
4 Provide moisture curing by following methods:

5
6 Keep concrete surface continuously wet by covering with water.

7
8 Use continuous water-fog spray.

9
10 Cover concrete surface with specified absorptive cover, thoroughly saturate cover with water, and
11 keep continuously wet. Place absorptive cover to provide coverage of concrete surfaces and
12 edges, with 4-inch lap over adjacent absorptive covers.

13
14 Provide moisture-cover curing as follows:

15
16 Cover concrete surfaces with moisture-retaining cover for curing for curing concrete, placed in
17 widest practicable width with sides and ends lapped at least three (3) inches and sealed by
18 waterproof tape or adhesive. Immediately repair any holes or tears during curing period using
19 cover material and waterproof tape.

20
21 Curing Unformed Surfaces: Cure unformed surfaces, such as slabs and other flat surfaces, by
22 application of appropriate curing method.

23 24 25 REMOVAL OF FORMS

26
27 Do not remove formwork until concrete has hardened and attained sufficient strength to permit safe
28 removal and adequate support for inherent and imposed loads.

29
30 Remove forms carefully to avoid damaging corners and edges of exposed concrete.

31 32 33 REUSE OF FORMS

34
35 Architect approval required before reuse of forms.

36
37 Clean and repair surfaces of forms to be reused in Work. Split, frayed, delaminated, or otherwise
38 damaged form-facing material will not be acceptable for exposed surfaces. Apply new form-coating
39 compound as specified for new formwork.

40 41 42 CONCRETE SURFACE REPAIRS

43
44 Patching Defective Areas: Repair and patch defective areas with cement mortar immediately after
45 removal of forms, when acceptable to Architect.

46
47 Repair of Unformed Surfaces: Test unformed surfaces, such as monolithic slabs, for smoothness and
48 verify surface plane to tolerances specified for each surface and finish. Correct low and high areas as
49 herein specified.

50
51 Repair finished unformed surfaces that contain defects that affect durability of concrete. Surface
52 defects, as such, include crazing and cracks in excess of 0.01 inch wide or that penetrate to
53 reinforcement or completely through non reinforced sections regardless of width, spalling,
54 popouts, honeycomb, rock pockets and other objectionable conditions.

1
2 Correct high areas in unformed surfaces by grinding after concrete has cured at least fourteen
3 (14) days.

4
5 Correct low areas in unformed surfaces during or immediately after completion of surface
6 finishing operations by cutting out low areas and replacing with fresh concrete. Finish repaired
7 area to blend into adjacent concrete. Proprietary patching compounds may be used when
8 acceptable to Architect.

9
10 Repair defective areas, except random cracks and single holes not exceeding one (1) inch in
11 diameter, by cutting out and replacing with fresh concrete. Remove defective areas to sound
12 concrete with clean, square cuts and expose reinforcing steel with at least $\frac{3}{4}$ " clearance all
13 around. Dampen concrete surfaces in contact with patching concrete and apply bonding
14 compound. Mix patching concrete of same materials to provide concrete of same type or class
15 as original concrete. Place, compact and finish to blend with adjacent finished concrete. Cure in
16 same manner as adjacent concrete.

17
18 Repair isolated random cracks and single hole by dry pack method. Groove top of cracks and cut
19 out holes to sound concrete and clean off dust, dirt and loose particles. Dampen cleaned
20 concrete surfaces and apply bonding compound. Mix dry pack, consisting of one part Portland
21 Cement to $2\frac{1}{2}$ parts fine aggregate passing a No. 16 sieve, using only enough water for handling
22 and placing. Place dry pack after bonding compound has dried. Compact mixture in place and
23 finish to match adjacent concrete. Keep patch area continuously moist for not less than seventy-
24 two (72) hours.

25
26 Repair methods not specified above may be used, subject to acceptance of Architect.

27
28
29 QUALITY CONTROL TESTING DURING CONSTRUCTION

30
31 General: The Owner may employ a testing laboratory to perform tests and to submit test reports.

32
33 Sampling and testing for quality control during placement of concrete may include the following, as
34 directed by Architect.

35
36 Sampling Fresh Concrete: ASTM C 172, except modified for slump to comply with ASTM C 94.

37
38 Slump: ASTM C 143; one test at point of discharge for each day's pour of each type of concrete;
39 additional tests when concrete consistency seems to have changed.

40
41 Compression Test Specimen: ASTM C 31; one set of four (4) standard cylinders for each
42 compressive strength test, unless otherwise directed. Mold and store cylinders for laboratory-
43 cured test specimens, except when field-cure test specimens are required.

44
45 Compressive Strength Tests: ASTM C 39; one set for each day's pour exceeding five (5) cu.
46 yds., plus additional sets for each fifty (50) cu. yds. more than the first 25 cu. yds. of each
47 concrete class placed in any one day; one specimen test at seven (7) days, two specimens tested
48 at twenty-eight (28) days, and one specimen retained in reserve for later testing if required.

49
50 When total quantity of a given class of concrete is less than fifty (50) cu. yds., Architect may
51 waive strength test if adequate evidence of satisfactory strength is provided.
52

1 **SECTION 15010 – GENERAL MECHANICAL REQUIREMENTS**

2
3
4 PART 1 GENERAL

5
6
7 DESCRIPTION OF WORK

8
9 Section 15010 details the general requirements for the Division 15 contractor for the installation of the
10 mechanical equipment and systems described in the Contract Documents.

11
12 Division 15 contractor to provide labor, materials for a complete and operable system complying to all the
13 conditions in the Contract Documents. Order of priority of Contract Documents are as follows:

- 14
15 1. Change Orders
16 2. Addendums
17 3. Schedules
18 4. Specifications
19 5. Details
20 6. Drawings

21
22 Drawings are diagrammatic only, to show general arrangement of mechanical equipment and
23 accessories. Coordinate location of all mechanical equipment with other trades prior to rough in. Provide
24 necessary offsets or transitions as required to install the system in the space provided.

25
26 Provide all required accessories for a complete and operable system as intended, review all manufacturer
27 installation requirements prior to rough in. Notify engineer of any conflict between manufacturer's
28 requirements and Contract Documents prior to proceeding with installation.

29
30 Contractor to verify all installation requirements prior to ordering of equipment. Verify correct voltage,
31 amperage, physical size, mounting, and access requirements prior to ordering. Notify engineer of
32 discrepancies prior to ordering.

33
34 Contractor to provide all required transitions from duct or pipe size shown to unit connections.

35
36 Contractor to notify owner if asbestos is found on the project immediately. No materials containing
37 asbestos are to be used on project.

38
39 Contractor to submit for and obtain all permits required to perform the work as described. Contractor is
40 responsible for the payment of the permits and coordination of all inspections required by the local
41 authority having jurisdiction.

42
43 Contractor to install all equipment and accessories in a professional manner, run piping and duct work
44 parallel to the building, install equipment plumb and level, with adequate access for maintenance. Provide
45 permanent plastic laminate labels with equipment identification matching Contract Documents.

46
47 Contractor to provide seismic restraints for all equipment as required by the AHJ. Provide stamped
48 structural calculations as required and submit to the AHJ as requested for approval. Provide all special
49 inspections as required by the AHJ.

50
51 It is the Contractor's responsibility to satisfy himself as to the nature and location of the work, the general
52 conditions, availability of labor, water, electric power, roads, physical conditions at the site, the existing
53 equipment to remain, existing equipment to be modified or to be removed, and all other matters which
54 can in any way affect the work or the cost thereof under this contract. Any failure by the Contractor to

1 acquaint himself with all available information will not relieve him of responsibility of successfully
2 performing the work.

3
4
5 RELATED DOCUMENTS

6
7 Division 15 contractor is bound by Division 1, Division 15, Division 16, Supplemental General Conditions
8 and the associated drawings.

9
10
11 REFERENCE STANDARDS

12
13 Compliance with the codes and standards of the following organizations as applicable to the work being
14 performed:

15
16 Codes, Rules and Regulations of the State of Oregon.

17
18 Local county/city Codes, Rules and Regulations

19 AMCA

20 Air Moving and Conditioning Association

21
22 ADC

23 Air Diffusion Council

24
25 NEMA

26 National Electrical Manufacturers Association

27
28 FM

29 Factory Mutual

30
31 NFPA

32 National Fire Protection Association

33
34 ASTM

35 American Society for Testing Materials

36
37 UL

38 Underwriters Laboratories, Inc.

39
40 NEC

41 National Electrical Code

42
43 ASME

44 American Society of Mechanical Engineers

45
46 ANSI

47 American National Standards Institute

48
49 OSHA

50 Occupational Safety and Health Act

51
52 BSA

53 Board of Standards and Appeals

54

BEACHFRONT RV PARK IMPROVEMENTS
PORT OF BROOKINGS-HARBOR
16024 BOAT BASIN ROAD

PROJECT NO. 19005

- 1 MEA
- 2 Materials and Equipment Acceptance
- 3
- 4 ASHRAE
- 5 American Society of Heating, Refrigeration
- 6 and Air Conditioning Engineers.
- 7
- 8 AWWA
- 9 American Water Works Association
- 10
- 11 ARI
- 12 American Refrigeration Institute
- 13
- 14 SMACNA
- 15 Sheet Metal and Air Conditioning Contractor's
- 16 National Association
- 17
- 18 ASA
- 19 Acoustical Society of America
- 20
- 21 AGA
- 22 American Gas Association
- 23
- 24 AABC
- 25 American Air Balance Council
- 26
- 27 NEBB
- 28 National Environmental Balancing Bureau
- 29

30
31 DEFINITIONS

32
33 "Provide" means furnish and install, complete, with the specified material or equipment and perform all
34 required labor to make a complete and functioning installation.

35
36 "Install" means to provide labor and materials to receive, unload, assemble, place, mount, seismically
37 brace, connect to all required services, clean, start-up, adjust and commission.

38
39 "Clean" means to remove all debris, to wash cabinet inside and out with applicable cleaning solution,
40 chemically clean coils as required to remove trapped dirt, comb coils straight after cleaning, remove all
41 dirt and debris from fan blades, provide new filters, acid flush coils to remove sediment, flush out piping
42 systems until discharge is clear, remove sediment from all strainers, lubricate and place back in service
43 when completed.

44
45 "Service" means to clean equipment, lubricate equipment per manufacturer, replace belts, replace
46 sheaves (as required), replace filters, cycle all dampers/actuators, tighten/adjust all linkage, run
47 equipment through all cycles and verify correct operation. Provide documentation of recorded
48 inputs/outputs after servicing.

49
50 "AHJ" Authority Having Jurisdiction.

51
52
53 PROTECTION

1 Contractor is responsible for all mechanical equipment and accessories until final completion of the
2 project. Contractor to protect all mechanical equipment and accessories provided from damage, theft, and
3 contamination. Contractor is responsible for the repair/replacement of any damaged or stolen equipment
4 or accessories. Contractor is responsible for cleaning any and all equipment contaminated before final
5 completion. Any equipment used prior to final completion must be protected from debris by temporary
6 placement of filters on all intakes. If debris has contaminated the system during construction the
7 contractor is responsible for removal of debris prior to final acceptance.
8
9

10 CUTTING AND PATCHING

11
12 Contractor to coordinate all required penetrations with other trades prior to rough in.

13
14 Contractor is not to cut or notch any framing material without direction from engineer. Contractor will be
15 required to repair/replace any framing member damaged by cutting or notching if done so without prior
16 approval.
17

18 Contractor to patch all penetrations or wall coverings where equipment has been removed, replaced or
19 abandoned to match the adjacent surface.
20

21
22 SUBMITTALS

23
24 Provide submittals per Division 1 Submittals

25
26 The contractor shall submit prior to ordering or construction of the following equipment and accessories
27 for review. Submittals to include shop drawings, equipment performance, equipment efficiencies, listings,
28 coatings, accessories, warranties and supplier information. Submittals to note on first page any
29 differences between specified item and submitted item.
30

31
32 Piping materials, valves, hangers, supports and accessories.
33
34

35 OPERATION AND MAINTENANCE MANUALS (O&M)

36 O&M manuals to include submitted information.

37
38
39 Manufacturer's factory start up forms completed as required for warranty. Warranty information for all
40 equipment.
41

42 Equipment suppliers contact information.
43

44 Equipment service requirements and spare parts list.
45

46 Material Safety Data Sheets on all chemicals provided on the project.
47

48 Reports.

49 Compliance with listings and approvals for equipment and for fire ratings.

50
51 Acceptance certificates from inspecting agencies.
52

53 Manufacturer's performance tests on operating equipment.
54

1 Field pipe pressure testing reports.

2

3 Field operating test results for operating equipment.

4

5 Performance report on the balancing of air system.

6

7 Record drawings showing all significant changes to the Contract Documents. Location of all valves and
8 mechanical equipment access.

9

10 Construction pictures, provide construction pictures showing location of all equipment and accessories
11 covered up by building materials, such as but not limited to piping in walls, above hard lid ceilings or
12 connections/offsets not readily accessible. Label each picture and make note on as-built drawings of
13 picture location.

14

15

16 SUBSTITUTIONS

17

18 Contractor is required to provide substitution requests per Division 1, prior to bid closing. All substituted
19 equipment or accessories must be of the same quality of the specified item, the contractor is responsible
20 to verify all installation requirements prior to submission. All variations to the specified item is to be listed
21 on the front page of the substitution request.

22

23

24 ACCESSIBILITY

25

26 Contractor is to provide manufacturer's minimum access for all equipment provided.

27

28 Contractor to provide adequate access to all valves, test ports, manual vents, gauges and controls for all
29 equipment.

30

31 Contractor responsible to coordinate installation of all panels, ceilings, doors for adequate access.

32

33 Contractor responsible to maintain all access paths to new or existing equipment, locate piping, duct work
34 out of access paths.

35

36 DEMOLITION

37

38 Contractor responsible for the removal of all equipment shown in the contract documents shown to be
39 removed. Contractor to dispose of items off site.

40

41 Contractor responsible for patching all surfaces exposed after demolition of any existing equipment to
42 match the adjacent surface.

43

44 Contractor responsible to remove all components associated with equipment being removed, including
45 but not limited to controls, electrical back to nearest panel, duct work, piping back to the nearest main.

46

47

48

END OF SECTION

1 **SECTION 15050 - BASIC MECHANICAL METHODS AND MATERIALS**

2
3
4 PART 1 - GENERAL

5
6
7 SECTION INCLUDES

8
9 This section describes the pipe specialties for piping systems including, but not limited, to the
10 following:

11
12 Piping support

13
14 Domestic water pipe

15
16 Sanitary sewer and vent pipe

17
18 Fittings

19
20
21 RELATED SECTIONS

22
23 Division 15, Division 16 Supplementary Conditions and drawings.

24
25
26 REFERENCES

27
28 ASME

29
30 ASTM.

31
32 UL

33
34
35 SUBMITTALS

36
37 Product Data: Manufacturer's data sheets on each product to be used, including:

38
39 Preparation instructions and recommendations.

40
41 Storage and handling requirements and recommendations.

42
43 Installation methods.

44
45
46 DELIVERY, STORAGE, AND HANDLING

47
48 Store products in manufacturer's unopened packaging until ready for installation.

49
50 Store and dispose of solvent-based materials, and materials used with solvent-based materials,
51 in accordance with requirements of local authorities having jurisdiction.

52
53
54 PART 2 - PRODUCTS

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MECHANICAL PIPE SUPPORTS

Provide piping support system complying with layout, elevations, slope and support frequency as indicated or required to comply with referenced or applicable codes and ordinances. Installation shall eliminate potential for stress on piping runs, fittings, bends and terminations. Isolate materials to prevent galvanic reaction and abrasive damage due to thermal expansion and vibration. Installation shall not exceed weight capacity of support.

Supports to be adjustable steel clevis type hanger.

Michigan Hanger Co. #400 or approved.

BELOW GROUND (EXTERIOR) WATER PIPING

Domestic potable cold water plumbing system, where shown on the Drawings and Schedules, shall be crosslinked polyethylene pipe, and shall include the following:

Crosslinked polyethylene (PEXa) piping.

Cold-expansion and compression-sleeve fittings.

Pipe fasteners as approved by the manufacturer of the PEXa piping.

Publications listed here are part of this specification to the extent they are referenced. Where no specific edition of the standard or publication is identified, the current edition shall apply.

- ASTM - American Society for Testing and Materials
- ASTM D2765 – Standard Test Method for Determination of Gel Content and Swell Ratio of Crosslinked Ethylene Plastics
- ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials
- ASTM E119 – Standard Test Methods for Fire Tests of Building Construction and Materials
- ASTM F876 – Standard Specification for Crosslinked Polyethylene (PEX) Tubing
- ASTM F877 – Standard Specification for Crosslinked Polyethylene (PEX) Plastic Hot- and Cold-Water Distribution Systems
- ASTM F2023 – Standard Test Method for Evaluating the Oxidative Resistance of Crosslinked Polyethylene (PEX) Tubing and Systems to Hot Chlorinated Water
- ASTM F2080 – Standard Specification for Cold-Expansion Fittings with Metal Compression Sleeves for Crosslinked Polyethylene (PEX) Pipe

AWWA – American Water Works Association
AWWA C904-06 - Crosslinked Polyethylene (PEX) Pressure Pipe, 1/2 In. (12 mm) Through 3 In. (76 mm), for Water Service

Quality Assurance

Manufacturer: Must be a company specializing in the Work of this Section with a minimum of 5 years documented experience.
All components shall be supplied by one manufacturer.
Pipe shall be manufactured in a facility whose quality management system is ISO 9001 certified.
Crosslinked polyethylene (PEXa) pipe shall conform and be certified to ASTM F876, F877 and CSA B137.5. Fittings shall conform and be certified to ASTM F877 or F2080, and CSA B137.5.

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SANITARY WASTE, DRAIN, AND VENT PIPING

ABS or PVC (schedule 40) waste, drain, and vent pipe and fittings

ABS or PVC (schedule 40) waste, drain, and vent pipe and fittings shall be used for the following applications:

Interior waste and vent piping above grade.

The material for all pipe and fittings shall be rated soil pipe and fittings and shall be rated for Drain Waste Vent (DWV).

CLEANOUTS

Cleanouts shall be the same size as the pipe, up to 100 mm (4 inches); and not less than 100 mm (4 inches) for larger pipe. Cleanouts shall be easily accessible and shall be gastight and watertight. Minimum clearance of 600 mm (24 inches) shall be provided for clearing a clogged sanitary line.

Cleanouts shall be provided at or near the base of the vertical stacks with the cleanout plug located approximately 600 mm (24 inches) above the floor. The cleanouts shall be extended to the wall access cover. Cleanout shall consist of sanitary tees. Nickel-bronze square frame and stainless steel cover with minimum opening of 150 by 150 mm (6 by 6 inches) shall be furnished at each wall cleanout. Where the piping is concealed, a fixture trap or a fixture with integral trap, readily removable without disturbing concealed pipe, shall be accepted as a cleanout equivalent providing the opening to be used as a cleanout opening is the size required.

PART 3 - EXECUTION

PIPE INSTALLATION

The pipe installation shall comply with the requirements of the 2021 Oregon Plumbing Specialty Code and these specifications.

Branch piping shall be installed for waste from the respective piping systems and connect to all fixtures, valves, cocks, outlets, casework, cabinets and equipment, including those specified in other sections.

Pipe shall be round and straight. Cutting shall be done with proper tools. Pipe shall be reamed to full size after cutting.

All pipe runs shall be laid out to avoid interference with other work.

The piping shall be installed to permit valve servicing or operation.

Unless specifically indicated on the drawings, the minimum slope shall be 2% slope.

The piping shall be installed free of sags and bends.

Seismic restraint shall be installed where required by code.

1
2 Changes in direction for soil and waste drainage and vent piping shall be made using appropriate
3 branches, bends and long sweep bends. Sanitary tees and short sweep quarter bends may be
4 used on vertical stacks if change in direction of flow is from horizontal to vertical. Long turn
5 double wye branch and eighth bend fittings shall be used if two fixtures are installed back to back
6 or side by side with common drain pipe. Straight tees, elbows, and crosses may be used on vent
7 lines. Do not change direction of flow more than 90 degrees. Proper size of standard increaser
8 and reducers shall be used if pipes of different sizes are connected. Reducing size of drainage
9 piping in direction of flow is prohibited.

10
11
12 SPECIALTY PIPE FITTINGS

13
14 Transition coupling shall be installed at pipe joints with small differences in pipe outside
15 diameters.

16
17 Dielectric fittings shall be installed at connections of dissimilar metal piping and tubing.

18
19
20 PIPE HANGERS, SUPPORTS AND ACCESSORIES

21
22 All piping shall be supported according to the Oregon Plumbing Specialty Code (OPSC) and
23 these specifications. Where conflicts arise between these the code and OPSC, the most
24 restrictive or the requirement that specifies supports with highest loading or shortest spacing shall
25 apply.

26
27 Hangers, supports, rods, inserts and accessories used for pipe supports shall be shop coated
28 with zinc chromate primer paint. Electroplated copper hanger rods, hangers and accessories
29 may be used with copper tubing.

30
31 Horizontal piping and tubing shall be supported within 300 mm (12 inches) of each fitting or
32 coupling.

33
34 Horizontal cast iron piping shall be supported with the following maximum horizontal spacing and
35 minimum hanger rod diameters:

36
37 40 mm or DN40 to 50 mm or DN50 (NPS 1-1/2 inch to NPS 2 inch): 1500 mm (60
38 inches) with 10 mm (3/8 inch) rod.

39
40 80 mm or DN 80 (NPS 3 inch): 1500 mm (60 inches) with 13 mm (1/2 inch) rod.

41
42 100 mm or DN100 to 125 mm or DN125 (NPS 4 to NPS 5): 1500 mm (60 inches) with 16
43 mm (5/8 inch) rod.

44
45
46 TESTS

47
48 Sanitary waste and drain systems shall be tested in sections.

49
50 Filling, Testing & Balancing:

51
52 Tests of domestic plumbing systems shall comply with authorities having jurisdiction, and, where
53 required, shall be witnessed by the building official.

54

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16024 BOAT BASIN ROAD

PROJECT NO. 19005

1 Pressure gauges used in testing and balancing shall show pressure increments of 1 psig and
2 shall be located at or near the lowest points in the distribution system.

3

4 Air Test

5 Charge the completed, yet unconcealed pipes with air at a minimum of 80 psig.

6 Do not exceed 150 psig.

7 The test pressure shall be restored and continued as the main test for 2 hours.

8 The main test pressure shall not fall more than 3 psig after 2 hours.

9 No leakage shall be detected.

10

11 Flush and Disinfect per AHJ

12

13

14

15

16

END OF SECTION

1 **SECTION 16010 - GENERAL ELECTRICAL REQUIREMENTS**

2
3
4 **PART 1 - GENERAL**

5
6
7 DESCRIPTION OF WORK

8
9 Section 65010 details the general requirements for the Division 16 contractor for the installation of
10 the electrical equipment and systems described in the Contract Documents.

11
12 Division 16 contractor to provide labor, materials for a complete and operable system complying
13 to all the conditions in the Contract Documents. Order of priority of Contract Documents are as
14 follows:

- 15
16 1. Change Orders
17 2. Addendums
18 3. Schedules
19 4. Specifications
20 5. Details
21 6. Drawings

22
23 Drawings are diagrammatic only, to show general arrangement of electrical equipment and
24 accessories. Coordinate location of all electrical equipment with other trades prior to rough in.
25 Provide necessary offsets or transitions as required to install the system in the space provided.

26
27 Provide all required accessories for a complete and operable system as intended, review all
28 manufacturer installation requirements prior to rough in. Notify engineer of any conflict between
29 manufacturer's requirements and Contract Documents prior to proceeding with installation.

30
31 Contractor to verify all installation requirements prior to ordering of equipment. Verify correct
32 voltage, amperage, physical size, mounting, and access requirements prior to ordering. Notify
33 engineer of discrepancies prior to ordering.

34
35 Contractor to notify owner if asbestos is found on the project immediately. No materials
36 containing asbestos are to be used on project.

37 Contractor to submit for and obtain all permits required to perform the work as described.
38 Contractor is responsible for the payment of the permits and coordination of all inspections
39 required by the local authority having jurisdiction.

40
41 Contractor to install all equipment and accessories in a professional manner, run race ways
42 parallel to the building, install equipment plumb and level, with adequate access for maintenance.
43 Provide permanent plastic laminate labels with equipment identification matching Contract
44 Documents.

45
46 Contractor to provide seismic restraints for all equipment as required by the AHJ. Provide
47 stamped structural calculations as required and submit to the AHJ as requested for approval.
48 Provide all special inspections as required by the AHJ.

49
50 It is the Contractor's responsibility to satisfy himself as to the nature and location of the work, the
51 general conditions, availability of labor, water, electric power, roads, physical conditions at the
52 site, the existing equipment to remain, existing equipment to be modified or to be removed, and
53 all other matters which can in any way affect the work or the cost thereof under this contract. Any
54 failure by the Contractor to acquaint himself with all available information will not relieve him of

1 responsibility of successfully performing the work.

2
3 This specification and the electrical drawings size equipment, wire, conduit, etc. based on the
4 horse powers of motors and voltage of equipment information available at the time of design and
5 as shown on the plans or specified herein. The contractor is responsible to install wire, conduit,
6 starters, or any other electrical equipment based on equipment actually furnished. The electrical
7 Contractor shall not furnish or install any electrical raceways, conductors, safety switches,
8 contactors, or motor starters of sizes smaller than those required by codes or shown on drawings
9 or specified in this specification. The electrical contractor shall coordinate with various trades, and
10 various sections of specifications to provide the properly sized equipment without additional cost
11 to owner.

12
13
14 RELATED DOCUMENTS

15
16 Division 16 contractor is bound by Division 1, Division 16, Supplemental General Conditions and
17 the associated drawings.

18
19
20 REFERENCE STANDARDS

21
22 Compliance with the codes and standards of the following organizations as applicable to the work
23 being performed:

- 24
25 1. Codes, Rules and Regulations of the State of Oregon.
26 2. Local county/city Codes, Rules and Regulations
27 3. NEMA
28 National Electrical Manufacturers Association
29 4. FM
30 Factory Mutual
31 5. NFPA
32 National Fire Protection Association
33 6. ASTM
34 American Society for Testing Materials
35 7. UL
36 Underwriters Laboratories, Inc.
37 8. NEC
38 National Electrical Code
39 9. OSHA
40 Occupational Safety and Health Act
41 10. BSA
42 Board of Standards and Appeals
43 11. MEA
44 Materials and Equipment Acceptance
45 12. IES
46 Illuminating Engineering Society of North America
47

48
49 DEFINITIONS

50
51 "Provide" means furnish and install, complete, with the specified material or equipment and
52 perform all required labor to make a complete and functioning installation.

53
54 "Install" means to provide labor and materials to receive, unload, assemble, place, mount,

1 seismically brace, connect to all required services, clean, start-up, adjust and commission.

2
3 "Clean" means to remove all debris, to wash inside and out with applicable cleaning solution and
4 place back in service when completed.

5
6 "Service" means to clean equipment, lubricate equipment per manufacturer, check for physical
7 damage, verify correct grounding, verify connections and run equipment through all cycles and
8 verify correct operation.

9
10 "AHJ" Authority Having Jurisdiction.

11
12
13 PROTECTION

14
15 Contractor is responsible for all electrical equipment and accessories until final completion of the
16 project. Contractor to protect all electrical equipment and accessories provided from damage,
17 theft, and contamination. Contractor is responsible for the repair/replacement of any damaged or
18 stolen equipment or accessories. Contractor is responsible for cleaning any and all equipment
19 contaminated before final completion.

20
21
22 CUTTING AND PATCHING

23
24 Contractor to coordinate all required penetrations with other trades prior to rough in.

25
26 Contractor is not to cut or notch any framing material without direction from engineer. Contractor
27 will be required to repair/replace any framing member damaged by cutting or notching if done so
28 without prior approval.

29
30 Contractor to patch all penetrations or wall coverings where equipment has been removed,
31 replaced or abandoned to match the adjacent surface.

32
33
34 SUBMITTALS

35
36 Provide submittals per Division 1 Submittals.

37
38 The contractor shall submit prior to ordering or construction of the following equipment and
39 accessories for review. Submittals to include shop drawings, equipment performance, equipment
40 efficiencies, listings, coatings, accessories, warranties and supplier information. Submittals to
41 note on first page any differences between specified item and submitted item.

- 42
43 1. Conductors and raceways.
44 2. Wiring Devices.
45 3. Panel Boards.
46 4. Meter bases with CT enclosures.
47 5. Breakers
48
49

50 OPERATION AND MAINTENANCE MANUALS (O&M)

51
52 O&M manuals to include submitted information.

53
54 Manufacturer's factory start up forms completed as required for warranty. Warranty information

1 for all equipment.

2
3 Equipment suppliers contact information.

4
5 Equipment service requirements and spare parts list.

6
7 Record drawings showing all significant changes to the Contract Documents. Location of all
8 electrical equipment access.

9
10 Construction pictures, provide construction pictures showing location of all equipment and
11 accessories covered up by building materials, such as but not limited to raceways in walls, above
12 hard lid ceilings or connections/offsets not readily accessible. Label each picture and make note
13 on as-built drawings of picture location.

14
15
16 SUBSTITUTIONS

17
18 Contractor is required to provide substitution requests per Division 1, prior to bid closing. All
19 substituted equipment or accessories must be of the same quality of the specified item, the
20 contractor is responsible to verify all installation requirements prior to submission. All variations to
21 the specified item is to be listed on the front page of the substitution request.

22
23
24 ACCESSIBILITY

25
26 Contractor is to provide manufacturer's minimum access for all equipment provided.

27
28 Contractor responsible to coordinate installation of all panels, ceilings, doors for adequate
29 access.

30
31 Contractor responsible to maintain all access paths to new or existing equipment, raceways out of
32 access paths.

33
34
35 DEMOLITION

36
37 Contractor responsible for the removal of all equipment shown in the contract documents shown
38 to be removed. Contractor to dispose of items off site.

39
40 Contractor responsible for patching all surfaces exposed after demolition of any existing
41 equipment to match the adjacent surface.

42
43 Contractor responsible to remove all components associated with equipment being removed,
44 including but not limited to controls, electrical back to nearest panel, and boxes.

45
46
47 RELOCATION

48
49 Carefully remove, clean and restore items designated for relocation to a "like new" condition, and
50 store them for reuse. Install items as designated on plans.

51
52
53
54 END OF SECTION

1 **SECTION 16050 - BASIC ELECTRICAL MATERIALS AND METHODS**

2
3
4 GENERAL

5
6 DESCRIPTION

7
8 This section of the specification includes the furnishing, installation, connection and testing of the
9 revised electrical system(s). It shall include, but not be limited to, coordination and installation of
10 the main service(s) from the local utility, main distribution panel(s), sub panels, grounding, and
11 RV site upgrades.

12
13 The electrical system shall comply with the latest versions of the National Electrical Code, the
14 2021 Oregon Electrical Specialty Code, NFPA, ADA and the Illuminating Engineering Society of
15 North America (IES) standards and recommendations.

16
17 All components of the electrical system shall be provided and installed in strict conformance of
18 Underwriters Laboratories Inc. (UL) listings.

19
20
21 REFERENCES

- 22
23 EIA/TIA 569A, Commercial Building Wiring Standard.
24 Federal Communications Commission (FCC), Code of Federal Regulations, Part 68.
25 National Electric Code (NEC).
26 National Electrical Manufacturer's Association (NEMA).
27 National Fire Protection Association (NFPA):
28 NFPA 70: National Electrical Code (copyrighted by NFPA, ANSI approved) -
29 hereinafter referred to as NEC.
30 Underwriters Laboratory, Inc. (UL).

31
32
33 SUBMITTALS

34
35 Submit under provisions in Division 1.

36
37 Product Data: Manufacturer's data sheets on each product to be used, including:

- 38 1. Preparation instructions and recommendations.
39 2. Storage and handling requirements and recommendations.
40 3. Installation methods.

41
42 Shop Drawings: Provide diagrams, schematics of networked systems indicating system
43 performance and identifying components with location.

44 Panel Drawings: Submit dimensional drawings.

45
46 One Line Diagrams: Submit one line diagrams of the system configuration proposed. Submit
47 one line drawings indicating location and addresses of all hardware, including, but not limited to,
48 panel board or load center, circuit breaker, MDP, lights, sensors, time clock and receptacles.

49
50 Wiring Diagrams: Submit wiring diagrams detailing power, signal, and control systems, clearly
51 differentiating between manufacturers installed wiring and field installed wiring, and between
52 components provided by the manufacturer and those provided by others.

1 Submit typical connection diagrams for all components including, but not limited to, panel boards,
2 communications devices, sensors, and time clocks.

3
4 Conduit, breakers and wiring as detailed in these specifications.
5

6
7 QUALITY ASSURANCE
8

9 Installer Qualifications: Installer shall be a licensed electrical firm that shall have minimum of 2
10 years documented successful installation experience with projects utilizing similar equipment that
11 is required for this project.
12

13 Product Requirements:

14 Product shall be manufactured by an ISO 9001-2000 Certified facility.
15

16 Product shall be free from defects in material or workmanship.
17

18 Critical manufacturing processes of the product shall have documented in-process inspections
19 and production testing according to ISO 9001-2000.
20

21
22 DELIVERY, STORAGE, AND HANDLING
23

24 Deliver materials to the Project site in supplier's or manufacturer's original wrappings and
25 containers, labeled with supplier's or manufacturer's name, material or product brand name, and
26 lot number, if any.
27

28 Store materials in their original, undamaged packages and containers, inside a well ventilated
29 area protected from weather, moisture, soiling, extreme temperatures, and humidity. Ambient
30 temperature range between -22 degrees F to 131 degrees F (-30 degrees C to 55 degrees C).
31 Ambient humidity range 0% to 95%, non-condensing.
32

33 Store on a pallet or shelf elevated from the ground.
34

35
36 PROJECT CONDITIONS
37

38 Maintain environmental conditions (temperature, humidity, and ventilation) within limits
39 recommended by manufacturer for optimum results. Do not install products under environmental
40 conditions outside manufacturer's absolute limits.
41

42
43 WARRANTY
44

45 Provide manufacturer's standard warranty. Product is warranted free of defects in material or
46 workmanship. Product is warranted to perform the intended function within design limits.
47

48 Field-applied paint coatings on raceway, boxes, plates or fittings shall be excluded from raceway
49 manufacturer's warranty.
50

51 Provide a one year warranty on parts and service.
52
53

1 PART 2 - PRODUCTS

2

3

4 MANUFACTURERS

5

6 Acceptable Manufacturer:

7 See drawings, alternates by substitution request.

8

9

10 ELECTRICAL DELIVERY SYSTEMS

11

12 Interior:

13

14 Conduits:

15 Electric Metallic Tubing (EMT)

16

17 Minimum 1/2" conduit size, minimum #12 copper conductors THHN.

18

19 MDP, Panel boards and breakers to be manufactured by Square D, GE, Siemens, Eaton or
20 approved

21

22 Exterior:

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24 Conductors and conduits per plans.

25

26

27 PART 3 - EXECUTION

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30 EXAMINATION

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32 Do not begin installation until substrates and supporting structures have been properly prepared.

33

34 If substrate preparation is the responsibility of another installer, notify engineer of unsatisfactory
35 preparation before proceeding.

36

37 Review all equipment shown on mechanical plans, electrical contractor to verify correct voltage,
38 phase and circuit size prior to equipment ordering and rough in. Coordinate with mechanical
39 contractor all electrical requirements for mechanical equipment prior to purchasing and
40 installation of electrical systems, including line voltage and low voltage control wiring.

41

42

43 INSTALLATION

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45 Install in strict accordance with the NEC, manufacturer's instructions and requirements indicated
46 in specifications.

47

48 Raceway system shall be free of open gaps and exposed uneven cuts.

49

50 All outlets, boxes, and enclosures shall be fastened securely to walls or permanent structures.

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52 Verify power wires and data cables are separated by a physical barrier. Power wires and data
53 cables shall not be combined in any channel.

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Contractor is not to cut or notch any structural member without prior approval from engineer.

All exposed low voltage wiring is to be concealed in PVC conduit.

All low voltage connections are to be performed in a junction box with cover.

PROTECTION

Protect installed products until completion of project.

Touch-up, repair or replace damaged products before Substantial Completion.

INSTRUCTION

Instruction shall be provided on operation of system. Hands-on demonstration of the operation of equipment.

END OF SECTION