

SECTION 01006

PROJECT LOCATION AND SITE ACCESS

PART 1 GENERAL

1.1 LOCATION

- A. The Northeast Oregon Hatchery Project is comprised of 2 sites for which construction activities are to be accomplished under this contract. A vicinity map for each site is included in the Drawings. Locations and access directions for each site are listed below:
- B. The facilities are all within the Grande Ronde Subbasin in northeast Oregon. The individual sites are located as follows:

- 1. Imnaha Satellite Facility Site

The Imnaha Satellite Facility site is located on the Imnaha River, a tributary of the Snake River. The site is approximately 25 miles south of the town of Imnaha, Oregon on the Imnaha River Road.

- 2. Lostine Hatchery and Adult Collection Facility Site

The Lostine River Hatchery site is located off the Lostine River, a tributary of the Wallowa River. The site is approximately 5 miles south of the town of Lostine at the end of Granger Street off of the Lostine River Road.

1.2 SITE ACCESS

- A. Access to all sites shall be through public thoroughfare or previously obtained access permission. Use of any public thoroughfare shall be subject to any limitations imposed as to times of travel, load limit or other such criteria as may be dictated by governing authorities.
- B. The Contractor shall be responsible for the preservation of all roads utilized under the contract for access to the work site, maintaining roads during construction and protecting them from damage. Upon completion of work, the Contractor shall restore roads to at least the original condition existing at start of construction. Access roads shall remain open to traffic during the construction work and safety provisions followed as per these specifications.

NORTHEAST OREGON
HATCHERY PROJECT

C. Owner makes no representation that the right-of-way and other rights which it provides for site access will include all rights which the contractor may find desirable. Any access rights desired by the Contractor in addition to those furnished by Owner will be acquired by the Contractor and shall be made available to Owner during construction. The Contractor shall have a written agreement with the property owner or controlling entity and shall provide a copy of such agreement to the Engineer before any use of the property. This requirement for a written agreement with copy to the Engineer is also applicable to disposal sites used by the Contractor. Agreements shall include:

1. Name of landowner or controlling entity.
2. Location of land.
3. Purposes, terms, and duration of the agreement.
4. Signatures of landowners and Contractor, with dates.

END OF SECTION

SECTION 01010

CONDITIONS

PART 1 GENERAL

1.1 SITE SECURITY

- A. All temporary fencing, barricades, warning lights, signs and flagmen shall be provided by the Contractor and maintained as required to protect the public and for safe conduct of the work. The Contractor will be responsible for maintaining security of all work areas within the construction sites.
- B. The Contractor shall be responsible for the confinement of livestock during the prosecution of the contract. The Contractor shall make advance written notification to the Engineer prior to the removal of any portion of any fence. Verbal contact shall also be made with the Engineer 48 hours in advance of the actual fence removal.

1.2 MATERIALS OR WORK FURNISHED BY OTHERS

- A. Owner, BPA and the NPT are not obligated to furnish any of the materials or work required by these specifications or shown on the Drawings.

1.3 ACCESS BY OTHERS

- A. Coordination may include, but not be limited to, work by others in the following areas:
 - 1. Installation of the primary power lines and transformers by local utility companies.
- B. Access to adjoining lands for landowners or lessees must be maintained through the project site or areas affected by the project at all times.

1.4 CULTURAL RESOURCE PROTECTION

- A. The Contractor shall comply with all Federal and State laws and regulations governing the protection of cultural resources. These resources include any site, structure, object and district significant in history, architecture, archeology or culture that are on or eligible for the National Register of Historic Places and can also include but are not limited to artifacts such as bottles, projectile points, stone flakes, mortars, and pottery. Cultural resources require identification, protection and preservation.

NORTHEAST OREGON
HATCHERY

- B. When the Contractor's operations encounters previously unidentified cultural resources in association with the project including material sources, those operations shall be temporarily discontinued or moved to another area of the project immediately. The Engineer will immediately arrange for the cultural resource clearance.
- C. Any borrow areas established by the Contractor within the project limits for use on project will require cultural resource clearance. All sources, etc., must have clearance prior to any work within the proposed area. The Contractor shall notify the Engineer as soon as these use areas are known, in order to facilitate the clearance process. Disturbance of cultural resources in such proposed areas prior to obtaining cultural resource clearance may preclude use of the area for the project.
- D. Clearance shall be obtained in accordance with direction received from the Nez Perce Cultural Resources Department to assure compliance with the requirements of this subsection. The Engineer may assist the Contractor in arranging cultural resource investigations.

1.5 SUBCONTRACTORS

- A. Contractor shall submit a complete list of subcontractors and suppliers to be used for the Work and their qualifications for review prior to starting subcontractor work.

1.6 PROGRESS REPORTS

- A. The Contractor shall submit a monthly progress chart and written report indicating the percentage of completion of the various divisions of the Work for use in determining progress payments, as authorized. The progress report will include an updated construction schedule showing completion of the remaining construction in accordance with SECTION 01340.

1.7 PERMITS

- A. The following is a list of permits either applied for or received by BPA for the contract. Copies of the permits or a copy of the application will be available for review prior to award of the Contract. The Contractor shall comply with all conditions of the permits and shall obtain all additional required permits not applied for or available for the project.
 - 1. Joint Permit Application
 - a. U.S. Army Corps of Engineers
 - b. Idaho Department of Water Resources
 - 2. NPDES Stormwater Discharge General Permit

NORTHEAST OREGON
HATCHERY

3. U.S. Forest Service Special Use Permit
 4. Water Rights Permit
 5. Access Permits from Nez Perce or Idaho County Road Departments
 6. Septic Permit from Idaho Department of Environmental Quality for Sweetwater Springs
- B. All work on sites within the jurisdictional boundaries of the US Forest Service shall comply with the applicable requirements of Forest Service Handbook 2509.22 - Soil and Water Conservation Practices.

1.8 NOXIOUS WEED CONTROL

- A. The Contractor shall thoroughly clean all equipment with high-pressure water to ensure that it is free of all weeds, including seeds, before moving any equipment onto construction sites. When an area contaminated by weeds is encountered on the construction site, measures shall be implemented to prevent the spreading of weeds to other areas. This may include cleaning the equipment with high-pressure water prior to moving off the work site. The Contractor shall comply with federal, state and local weed control requirements and regulations. Leave all vegetative cover possible and take special precautions to minimize ground disturbance.
- B. Imported earth materials must be free of weed seed.
- C. Any seed or mulch applied at construction sites must be certified as being noxious weed free.
- D. Provisions required by 1.6.B shall apply.

1.9 EROSION CONTROL

- A. Submit a phased Construction Drainage and Temporary Erosion/Sedimentation Control Plan (TESCP) to Owner for acceptance prior to construction. Document the specific procedures, materials, scheduling, and sequencing of drainage, erosion, and sedimentation control measures.
- B. Assist Owner with preparation of a Stormwater Pollution Prevention Plan (SWPP) that includes information in the approved Contractor-submitted TESCP. No construction shall occur until the SWPP is completed.
- C. Maintain the TESCP and SWPP onsite at all times and comply with all conditions.

NORTHEAST OREGON
HATCHERY

1.10 APPLICABLE CODES, STANDARDS, AND SPECIFICATIONS

- A. All work shall comply with codes and standards applicable to each type of work and as listed in individual sections.
 - 1. Where a conflict occurs between reference document and the Project Specifications, the Project Specifications govern.
 - 2. Where conflict occurs between referenced documents, the document containing the most stringent requirements governs.
 - 3. Materials, applications, and tests specified by reference to published standards of a society, association, code or other published standards are included in the specification as if written in their entirety.

1.11 INTENT OF THE CONTRACT DOCUMENTS

- A. The following paragraphs describe the intent of the Contract Documents in addition to the intent established in other sections of the Contract Documents.
 - 1. Any apparatus, appliance, material, or work not shown on Drawings but stated in the Specifications, or vice versa or any incidental accessories necessary to make the work complete in all respects and ready for operation, even though not particularly specified, shall be furnished, delivered, and installed by the Contractor without additional expense to Owner
 - 2. Minor details not shown or specified, but necessary for proper installation and operation, shall be included in the Contractor's estimate, the same as if herein specified or shown.
 - 3. Explanatory notes on the Drawings shall be preferred to conflicting drawn-out indications. Large scale details will be preferred to small scale drawings and figured dimensions to scale measurements. Where figures are lacking, scale measurements may be followed, but in all cases the measurements are to be checked from the work in place. Should variations be found, they must be referred to the Engineer for instructions.
 - 4. The Drawings consist of all Project Drawings and any addenda. They show the kinds of materials to be used and their form, fabrication and assembly. In all cases, measured dimensions taken at the site shall take precedence over scale dimensions.
 - 5. When the Drawings do not give exact details as to elevation of pipe, conduit, and ducts, physically arrange the systems to fit the space available at elevations intended, with proper grades for functioning of system involved in accordance with requirements of the Contract Documents.

NORTHEAST OREGON
HATCHERY

6. Exact locations of outlets, fixtures and equipment items shall be determined by reference to general plans and to detail drawings, equipment drawings, rough-in drawings, certified construction drawings, etc. Minor relocations necessitated by conditions at the site or directed by the Engineer will be made without additional cost.

1.12 ABBREVIATIONS

- A. The Contractor is responsible for conforming with all codes and standards as may be referred to in these specifications. All such referenced codes are, by such reference, incorporated into this Contract as is set forth herein in full.
- B. Codes and standards shall be the latest issued and/or amendment thereto published at the date of the issue for bids. Codes and standards are abbreviated in the General Conditions and as follows:

AA	Aluminum Association
AAMA	Architectural Aluminum Manufacturers Association
AASHTO	American Association of State Highways & Transportation Officials
ACI	American Concrete Institute
AGA	American Gas Association
AIA	American Institute of Architects
AIEE	American Institute of Electrical Engineers
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AMCA	Air Moving and Conditioning Association Inc.
AMA	American Materials Association
ALSC	American Lumber Standards Committee
ANSI	American National Standards Institute
APA	American Plywood Association (formerly DFPA)
APHA	American Public Health Association
ARI	Air-Conditioning And Refrigeration Institute
ASA	American Standards Association (now USAS)
ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standards of U.S. Department of Standards
CSI	Construction Specifications Institute
DFPA	Douglas Fir Plywood Association (now APA)
FGMA	Flat Glass Marketing Association

NORTHEAST OREGON
HATCHERY

FM	Factory Mutual Laboratories
FS	Federal Specifications
HVAC	Heating, Ventilating and Air Conditioning
IBR	Institute of Boiler and Radiator Manufacturers
MBMA	Metal Building Manufacturer's Association
MLA	Metal Lath Association
NAAMM	National Association of Architectural Metal Manufacturers
NBC	National Building Code
NBFU	National Bureau of Fire Underwriters
NBS	National Bureau of Standards
NCMA	National Concrete Masonry Association
NEC	National Electric Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NFPA	National Forest Products Association
NPC	National Plumbing Code
NRMCA	National Ready Mixed Concrete Association
NSF	National Sanitation Foundation
NWMA	National Woodwork Manufacturing Association
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PCI	Precast Concrete Institute
PEI	Porcelain Enamel Institute
SBI	Steel Boiler Institute
SCPI	Structural Clay Products Institute
SDI	Steel Deck Institute
SJI	Steel Joist Institute
SMACNA	Sheet Metal & Air Conditioning Contractors National Association
SPI	Steel Products Institute
SPR	Simplified Practice Recommendation
SSPC	Steel Structures Painting Council
TCA	Tile Council of America
UBC	Uniform Building Code
UL	Underwriters Laboratories
UPC	Uniform Plumbing Code
USAS	United States of America Standards (formerly ASA)
WPCF	Water Pollution Control Federation
WWPA	Western Wood Products Association

- C. Additional Abbreviations may be defined as they appear in the Specifications and as shown on the Drawings.

1.13 MANUFACTURER'S SPECIFICATIONS

- A. Where manufacturer's products and processes are included in the specifications by reference, they shall be included in the specifications as if written in their entirety

NORTHEAST OREGON
HATCHERY

with approved equal product or processes acceptable for the project. Sole source products and/or processes are not intended by these Contract Documents.

- B. Products and processes included in the specifications shall conform to the manufacturer's latest published specifications.
- C. Upon request of the Engineer, the Contractor shall provide a sworn affidavit from the manufacturer certifying that material, products, and processes delivered and used on the project meet the specified requirements. Affidavit shall not relieve Contractor from his responsibility for full compliance with the requirements of the Contract Documents.

1.14 MEANS AND METHODS

- A. Means and methods of construction shall be such as the Contractor or subcontractors may choose; subject, however, to the Engineer's right to reject means and methods proposed which:
 - 1. Constitute a hazard to the work, persons, property, or natural resources.
 - 2. Will not produce finish work in accordance with terms of the contract.
 - 3. Are contrary to specified means or methods included in the contract.
- B. The right to reject means and methods of Contractor or subcontractor shall not be construed or interpreted as acceptance of control of means and methods by the Engineer.
- C. The Engineer's acceptance or failure to exercise right to reject means and methods shall not relieve the Contractor of his obligation to complete the work required by the contract.
- D. Total responsibility for control of all means and methods lies with the Contractor for all work.

1.15 WORK REQUIRING AN OUTAGE OF ENERGIZED EQUIPMENT

- A. Where work to be performed requires the de-energization of utilities other than those owned, leased or operated by BPA, the Contractor shall make arrangements with the power supplier.

1.16 WORK TO BE PERFORMED BY THE CONTRACTOR

- A. The Contractor shall provide all resources necessary to perform all work shown on the drawings and specified within the Contract Documents.

NORTHEAST OREGON
HATCHERY

1.17 COORDINATION

- A. The Contractor shall maintain coordination of the project at all times.
- B. The Contractor shall coordinate work with others and cooperate to facilitate orderly progress of work.

1.18 JOBSITE ADMINISTRATION

- A. The designated Contractor's Representative and project superintendents shall not be removed from the job without prior notification and approval of Owner

END OF SECTION

SECTION 01014
WORK SEQUENCE AND COMPLETION SCHEDULES

PART 1 GENERAL

1.1 SEQUENCE AND SCHEDULE OF CONSTRUCTION

- A. Most of the construction sequencing and scheduling of construction activities is left to the contractor's discretion; however, to meet project objectives and permit conditions there are some activities that must be accomplished within certain time periods or completed by a specific date. These are as follows:

Site	Activity	Earliest Start Date	Completion No Later Than
Lostine River Hatchery	In-stream Work	July 15, 2006	August 15, 2006
		July 15, 2007	August 15, 2007
	Facility Construction	Notice To Proceed (Anticipate July 1, 2006)	February 1, 2008
Imnaha Satellite Facility	In-stream Work	July 15, 2006	August 15, 2006
		July 15, 2007	August 15, 2007
	Facility Construction	Notice To Proceed (Anticipate July 1, 2006)	February 1, 2008

- B. Contractor scheduling must consider very limited or possibly no access during winter months to the Imnaha site.

END OF SECTION

SECTION 01050

FIELD ENGINEERING

PART 1 GENERAL

1.1 DESCRIPTION

A. Work Included

1. The Contractor will provide such field engineering services that are required for proper completion of the work including, but not necessarily limited to:
 - a. Structural design of shores, forms, and other temporary facilities or similar items provided by the Contractor as part of his means and methods of construction as required for accomplishment of the work or as required by the contract documents.
 - b. Provision and maintenance of all horizontal and vertical controls, including field staking of facility locations, from the base information provided on the Drawings.

B. Related Work

1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Special Conditions, and Sections in Division 1 of these Specifications.
2. Additional requirements for field engineering that may also be described in other Sections of these Specifications.

1.2 QUALITY ASSURANCE

- A. The Contractor shall use adequate numbers of skilled workmen and appropriate registered professional engineers who are thoroughly trained and experienced in the necessary crafts or design skills and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work.

1.3 SUBMITTALS

- A. The Contractor shall comply with pertinent provisions of SECTION 01340.

NORTHEAST OREGON
HATCHERY PROJECT

- B. Upon request of the Engineer, the Contractor shall submit:
1. Data demonstrating qualifications of persons proposed to be engaged for field engineering services.
 2. Documentation verifying accuracy of field engineering work.

END OF SECTION

SECTION 01060

SURVEY REQUIREMENTS

PART 1 GENERAL

1.1 SURVEY MONUMENTS

- A. Owner has utilized the benchmarks and survey control monuments shown on the Drawings.
- B. The Contactor shall verify location, elevation, and elevation differential before using the following control points:

1. Site Name: Lostine River Hatchery

Baseline/TBM ID: As listed on Lostine River Hatchery Drawing G5.

Drawing coordinates are approximate NAD 83 coordinates reported in the Oregon north coordinate system, in international feet. Coordinates are based on "navigated" G.P.S. observation at brass cap #1.

Table of Control Point Values

Point#	Northing	Easting	Elevation	Description
#1	654328.29	8991187.23	3682.67	Brass Cap
#2	652400.42	8991163.31	3703.72	1/2" Pin
#3	652100.76	8991207.21	3708.01	1/2" Pin
#5	650858.23	8991321.18	3729.94	1/2" Pin
#4	650838.07	8991642.77	3730.86	1/2" Pin

"Project" combined scale and elevation factor used for horizontal measurements = 0.99972838. "Nails" set for survey control are 6" long spikes.

2. Site Name: Imnaha Satellite Facility

Baseline/TBM ID: Two control points shown on Imnaha Satellite Facility Drawing G5.

NORTHEAST OREGON
HATCHERY PROJECT

Table of Control Point Values

Point#	Northing	Easting	Elevation	Description
#1	100198.00	99930.00	3758.0	Southwest corner of existing acclimation pond
#2	99961.73	99557.89	--	Well Head

Drawing coordinates are based on local coordinate survey developed by USACE, 1987.

1.2 CONSTRUCTION STAKING

- A. From this information, the Contractor shall develop and make such additional surveys as are needed for construction, such as control lines, slope stakes, settlement platforms, batter boards, stakes for pipe location and other working points, lines and elevations.

1.3 LOST CONTROL POINTS

- A. Contractor shall reestablish any reference benchmarks and survey control monuments destroyed by his operations at no cost to Owner

1.4 SURVEY RECORDS

- A. The Contractor shall make available all documents and records of survey work performed on the project for the Engineer's review, when requested.

1.5 SURVEYING

- A. All construction staking shall be done under the responsible charge of an Oregon licensed surveyor.
- B. The Contractor shall protect existing survey control points as follows:
1. Locate and protect survey control points before starting work on the site.
 2. Preserve permanent survey reference points during progress of the Work.
 3. No change or relocation of reference points or items of the Work without specific approval from the Engineer.
 4. Promptly advise the Engineer when a reference point is lost or destroyed, or requires relocation because of other changes in the Work.
 5. Upon direction of the Engineer, the Contractor shall replace reference stakes or markers.

NORTHEAST OREGON
HATCHERY PROJECT

6. Locate such replacements according to the original survey control.
 7. Make available all documents and records of survey work performed on the project for the Engineer's review, when requested.
- C. Certification, signed by the Contractor's retained surveyor, certifying that elevations and locations of improvements are in conformance or non-conformance with requirements of the Contract Documents.

END OF SECTION

SECTION 01200

PROJECT MEETINGS

PART 1 GENERAL

1.1 GENERAL

- A. The Contractor shall be available at anytime to meet with any or all of the Engineer's Representatives at any of the jobsites weekly during contract duration to discuss progress on the Work.
- B. Regularly scheduled weekly meetings will typically be held at the Lostine River Hatchery site.
 - 1. At the above meetings, the Contractor shall provide required written documentation and a verbal overview of schedules, justifications, etc., including progress reports on the project, detailed discussions on the work schedule and present all conflicts, discrepancies, or other difficulties for resolution.

END OF SECTION

SECTION 01210

RESOURCE PROTECTION

PART 1 GENERAL

1.1 GENERAL

- A. The Contractor shall prevent, abate, and control all environmental pollution arising from construction activities by complying with all applicable federal, state, and local laws and regulations concerning environmental pollution control and abatement, as well as the requirements of the Contract Documents
- B. The requirements specified herein apply to any and all personnel and subcontractors in the employ or contracted to the Contractor. Compliance with these requirements by subcontractors will be the responsibility of the Contractor.

1.2 PREVENTION OF WATER POLLUTION

- A. During construction the Contractor shall comply with applicable federal, state and local laws and regulations concerning the control and abatement of water pollution.
- B. The Contractor's construction activities will be performed by methods that will prevent entrance or accidental spillage of solid matter, contaminants, debris and other objectionable pollutants and wastes into rivers, streams, flowing or dry watercourses, irrigation ditches, lakes, ponds, and underground water sources. The Contractor shall legally dispose of all potential pollutants and contaminants such as petroleum products, rubbish, etc., by hauling the material away in tanks or barrels or other method accepted by the governing authority for burial disposal in a regulated landfill or dump site.
 - 1. All storage areas, stockpiles, equipment yards, fueling areas and other construction related activity areas shall be located away from both natural and manmade water courses.
 - a. Runoff from such areas shall be controlled to prevent discharge of any and all potential contaminants and/or pollutants whether accidental or not.
 - 2. All construction activities shall be conducted and coordinated to minimize disturbance and the time period of disturbance of areas adjacent to natural or manmade water courses.

NORTHEAST OREGON
HATCHERY PROJECT

3. Sanitary facilities, such as chemical toilet, shall be located far enough from a well, stream, or pond to prevent pollution of the water.
4. Dewatering work for structure foundations or earthwork operations adjacent to, or encroaching on, streams or watercourses shall be conducted in a manner to prevent muddy water and eroded materials from entering the streams or watercourses by construction of intercepting ditches, bypass channels, barriers, settling ponds or by other approved means. Excavated materials shall not be deposited or stored in, or alongside of, water courses where it can be washed away by high water or storm runoff.
5. Waste waters from aggregate processing, concrete batching or other construction operations shall not enter streams, watercourses, irrigation ditches, or other surface waters.

1.3 ABATEMENT OF AIR POLLUTION

- A. The Contractor shall comply with applicable Federal, State, and local laws and regulations concerning the prevention and control of air pollution.
- B. Construction activities shall be performed in such a manner that air pollution is held to a minimum.
- C. Burning of materials, trees and brush, combustible construction materials, and rubbish will be permitted only after the Contractor has obtained all required permits, the burning program is accepted by the Engineer, and when atmospheric conditions for burning are considered favorable by appropriate state or local air pollution or fire authorities.
 1. Where open burning is permitted, the burn piles shall be properly constructed to minimize smoke and in no case will unapproved materials, such as manmade materials, tires, plastics, rubber products, asphalt products, or other materials that create heavy black smoke, toxic fumes, or nuisance odors be burned.
- D. All access or haul roads, parking areas, stockpiles, and storage areas used during construction shall be managed by application of Engineer accepted dust inhibitors or by sprinkling with water to suppress dust all meeting with methods accepted by the Engineer.

1.4 NOISE ABATEMENT

- A. Construction activities shall be performed in such a manner that the noise level is minimal. All equipment and operation of equipment shall meet with all state and

NORTHEAST OREGON
HATCHERY PROJECT

local regulations. All equipment shall be equipped with mufflers or other noise abatement devices.

- B. The use of *Jake Breaks* on Granger Road is prohibited.

1.5 CONTROL OF OPERATIONS

- A. The Contractor shall control and conduct his operations and personnel to minimize disturbance of local residents, fisheries, wildlife, vegetation, agriculture and/or livestock on the project site and adjoining properties.

1.6 ENVIRONMENTAL LITIGATION

- A. No time lost due to work stoppage because of failure of Contractor to comply with these requirements can be the subject of a claim for extension of time or for costs or damages, unless it is later determined that the Contractor was in compliance.
- B. If construction under these specifications is suspended, delayed, or interrupted by an order of a court or competent jurisdiction pursuant to environmental litigation, through no fault of the Contractor, such suspension, delay, or interruption will be considered to be an unreasonable suspension, delay, or interruption pursuant to the provisions of the General Conditions.

1.7 ADDITIONAL REQUIREMENTS

- A. For construction activities on site within the jurisdictional boundaries of the US Forest Service, the Contractor shall comply with the above items along with the applicable requirements of the Forest Service Handbook 2509.22 – Soil and Water Conservation Practice Handbook.

END OF SECTION

SECTION 01310

CONSTRUCTION SCHEDULE

PART 1 GENERAL

1.1 SCOPE

- A. This section specifies the procedures for preparing and revising the critical path method construction schedule used for planning and managing construction activities. This Contractor prepared schedule provides a basis for determining the progress status of the project relative to specific dates and completion time.

1.2 DESCRIPTION

- A. The Contractor shall provide a graphic construction schedule prepared by the critical path method of analysis. The critical path schedule will be prepared from estimates of the required duration and sequence for each item of work and functions to be performed. A general guide for preparing such a schedule is contained in "The Use of CPM in Construction, A Manual for Contractors", published by the Associated General Contractors of America.
- B. The schedule shall depict all significant construction activities and all items of work listed in the breakdown of contract prices submitted by the contractor in accordance with specification SECTION 01370. The dependencies between activities shall be indicated so that it may be established what affect the progress of any one activity has on the schedule.
- C. Time for completion and all specific dates given in SECTION 01014 will be shown on the schedule. Activities making up the critical path will be identified.
- D. No activity on the schedule will have a duration period longer than 21 days or assigned value greater than \$50,000, except for activities comprised of only fabrication and delivery. Activities which exceed these limits must be divided into more detailed components. The schedule duration of each activity shall be based on the work being performed during the Contractor's planned work week with allowances made for legal holidays and normal weather conditions.

1.3 SUBMITTAL PROCEDURES

- A. Within seven days after the date of Notice to Proceed, the Contractor shall complete a construction schedule conforming to paragraph 1.2 of this Section representing in detail all planned procurement and on-site construction activities.

NORTHEAST OREGON
HATCHERY PROJECT

The schedule shall be prepared on reproducible paper and may be in draft form with legible freehand lines and lettering. Upon completion of the schedule, the Contractor shall submit the original and two copies to the Engineer in accordance with SECTION 01340.

- B. Within four days after receipt of the submittal, the Engineer will review the submitted schedule and return one copy of the marked-up original to the Contractor. If the Engineer finds that the submitted schedule does not comply with specified requirements, the corrective revisions will be noted on the submittal copy returned to the Contractor for corrections and re-submittal as specified in SECTION 01340.

1.4 SCHEDULE REVISIONS

- A. Revisions to the accepted critical path construction schedule may be made only with written approval of the Contractor and Owner. Changes in timing for activities which are not on the critical path may be modified with written agreement of the Contractor and Engineer.

1.5 PROJECT STATUS UPDATE

- A. Project status review and update shall be provided by the Contractor as specified in SECTION 01200.

END OF SECTION

SECTION 01340

SUBMITTALS

PART 1 GENERAL

1.1 REQUIREMENTS INCLUDE

- A. The Contractor shall make submittals to Engineer as per this Section and other portions of the contract documents. Engineer will review and return the noted number of submittal materials. Engineer will use submitted copies that are not returned to the Contractor for internal distribution.
- B. The Contractor shall submit five copies or samples of all materials to Engineer. Four copies will be retained by Engineer. In addition, one reproducible drawing prepared on 11" X 17" bond paper, shall be included with each shop drawing that is larger than 11 X 17 inches.
- C. Testing and certification of materials required for submittals shall be paid for by the Contractor. No materials will be delivered to the project site until the proposed material sources have been accepted by Engineer.
- D. Within 15 days from Notice of Award, the Contractor shall supply two copies of a list of all submittal data, tabulated per specification section, to the Engineer for review.
- E. Shop drawings, project data, and samples are to be submitted in advance to allow Engineer sufficient time to review. In no case shall less than 2 weeks time be provided for each review period, including reviews required for resubmittal materials.

1.2 CONTRACTOR RESPONSIBILITIES

- A. The Contractor shall be responsible for verifying that all submittals comply with the information contained in the Contract Documents. This information shall include, but not be limited to, dimensions, suitability of intended application, material strengths and properties, catalog number and data, equipment and product information, tolerances, and construction sequencing and procedures.
- B. The Contractor shall submit shop drawings and product submittals to Engineer only after the Contractor has approved the submittals. All submittals from the Contractor shall be marked "Approved for Construction", and signed by the Contractor. Submittals shall be transmitted to Engineer using a Submittal Transmittal Form; in accordance with the form provided by Engineer.

NORTHEAST OREGON
HATCHERY PROJECT

- C. The Contractor is to verify that field dimensions shown on the contract documents are accurate.
- D. The Contractor's responsibility for errors and omissions in submittals is not relieved by Engineer's review of submittals.
- E. The Contractor's responsibility for deviations in submittals from contract document requirements is not relieved by Engineer's review of submittals.
- F. The Contractor shall notify Engineer, in writing, prior to submission, of proposed deviations in submittals from contract requirements.
- G. The Contractor is responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes and for techniques of assembly.
- H. The Contractor shall number the submittals sequentially. Use a new sequential number for each item submitted. Submittal number will be in the form as follows: xx-y, where "xx" is the sequential number assigned to the Contractor, and "y" is for resubmittal iterations, i.e., -A, -B, -C being the first, second and third resubmittals, respectively. Submittal 5-B, therefore, is the second iteration (third time submittal) of submittal 5.
- I. The Contractor is required to and is responsible for maintaining a current set of as-built drawings throughout the course of construction.

PART 2 PRODUCTS

2.1 SUBMITTAL DESCRIPTION

- A. Shop drawings. Shop drawings are original drawings prepared by the Contractor, subcontractor, supplier or distributor, which illustrate some portion of the work, showing fabrication, layout, setting or erection details, including erection plan and details as required. The drawings will be prepared as follows:
 - 1. Prepared by qualified detailer.
 - 2. Identify details by reference to sheet and detail numbers shown on contract drawings.
- B. Product data submittals will include the following:
 - 1. Manufacturer's standard schematic drawings;

NORTHEAST OREGON
HATCHERY PROJECT

- a. Modified by deleting information, which is not applicable to project.
 - b. Standard information supplemented to provide additional information pertinent to intended project application.
2. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data which must include the following:
- a. Clearly marked copies to identify pertinent materials, products or models.
 - b. Dimensions and clearances clearly shown.
 - c. Performance characteristics and capacities clearly identified.
 - d. Wiring diagrams and controls clearly shown.
- C. Samples will be submitted to provide data as needed to illustrate materials, equipment or workmanship and to establish standards by which complete work is judged. The Contractor shall maintain one set of samples at the site as directed by Engineer. These samples must be stored in a protected and easily accessible location until no longer needed.
- D. Office samples will be of sufficient size to clearly illustrate the functional characteristics of color, texture, finish and other characteristics appropriate to the submittal of product or material, with integrally related parts and attachment devices.

2.2 QUALITY ASSURANCE

- A. In relation to the coordination of submittals, the Contractor shall:
1. Prior to each submittal, carefully review and coordinate all aspects of each item being submitted.
 2. Verify that each item, and the submittal for it, conforms in all respects with the specified requirements.
 3. Identify each submittal as "Approved for Construction", sign and date the submittal.
 4. By affixing the Contractor's signature to each submittal, certify that this coordination has been performed. Submittals not so marked will be returned to the Contractor prior to review by Engineer.

NORTHEAST OREGON
HATCHERY PROJECT

2.3 SPECIFIED PRODUCTS LIST

- A. For any product specified under reference standards, the Contractor shall include with the listing of each product:
 - 1. Name and address of manufacturer.
 - 2. Trade name.
 - 3. Model or catalog designation.
 - 4. Manufacturer's data.
 - 5. Performance and test data.
 - 6. Reference standards.

PART 3 EXECUTION

3.1 SUBMITTALS

- A. The Contractor shall coordinate each submittal with requirements of:
 - 1. The Work
 - 2. The Contract Documents
 - 3. The Work of Subcontractors
- B. The Contractor shall not begin any work which requires submittals without having the appropriate reviews completed.
- C. After Engineer's review of submittal materials, the Contractor shall make the responses required by Engineer's review comments and distribute copies to appropriate suppliers or subcontractors, or resubmit if necessary. Indicate to the Engineer, by transmittal, that copies of approved data have been distributed to the appropriate entities.

3.2 RESUBMISSION REQUIREMENTS

- A. Shop drawings; the Contractor shall:
 - 1. Revise initial drawings as required and resubmit in accordance with shop drawing submittal procedures.

NORTHEAST OREGON
HATCHERY PROJECT

2. Indicate on drawings all changes which have been made in addition to those requested by Engineer.
- B. Product data and samples; the Contractor shall submit new data and samples in accordance with procedures specified for initial submittal.

3.3 DISTRIBUTION OF SUBMITTALS AFTER REVIEW

- A. Following review, Engineer will retain three copies of submittals and return the remaining copies to the Contractor.
- B. The Contractor shall distribute samples in accordance with the appropriate requirements.

END OF SECTION

SECTION 01370

SCHEDULE OF VALUES

PART 1 GENERAL

1.1 Requirements

- A. Submit to the Engineer a Schedule of Values allocated to the various portions of the Work, within ten days after award of contract.
- B. Upon request of Owner, support the values with data which will substantiate their correctness and accuracy.
- C. The Schedule of Values will be used as part of the basis for the review of Contractor's Applications for Payment.

1.2 FORM AND CONTENT OF SCHEDULE OF VALUES

- A. Type schedule on 8-1/2 inch x 11 inch white paper; Contractor's Standard forms and automated printout will be considered for acceptance by Owner upon Contractor's request. Identify schedule with:
 - 1. Title of Project and Location
 - 2. Project Number
 - 3. Name and Address of Contractor
 - 4. Contract Designation
 - 5. Date of Submission
- B. Schedule shall list the installed value of the component parts of the work in sufficient detail to serve as a basis for computing values for progress payments during construction.
- C. Follow a final, approved by the Engineer, Bid Schedule for major headings and subtotal, with detailed breakdowns by the table of contents of the Technical Specifications as the format for listing component items.
 - 1. Identify each line item with the number and title of the respective major sections of the Technical Specifications.
- D. For each major line item, list sub-values of major products or operations under the item.

NORTHEAST OREGON
HATCHERY PROJECT

- E. For the various portions of the work:
 - 1. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
 - 2. For items on which progress payments will be requested, break down the value based on the total installed value.
- F. The sum of all values listed in the schedule must equal the total Contract Sum.
- G. For materials supplied and on-site, but not installed, partial payment of up to 75% of the direct costs of the material will be allowed, provided copies of the paid receipts are included with the Contractor's pay request.

END OF SECTION

SECTION 01400

QUALITY CONTROL

PART 1 GENERAL

1.1 QUALITY CONTROL

- A. The Contractor shall supplement tests and reports desired in this section with any tests, reports, and other information that may be additionally required in any section of the specifications.
- B. Inspection, sampling, and testing is required for, but not limited to, the following:
 - 1. SECTION 01410 – Testing and Adjustments
 - 2. SECTION 02200 – Earthwork
 - 3. SECTION 02220 – Structural Excavation, Backfill, and Compaction
 - 4. SECTION 02221 – Trenching, Backfill, and Compaction
 - 5. SECTION 02232 – Aggregate Base Course and Surfacing
 - 6. SECTION 02270 – Slope Protection and Erosion Control
 - 7. SECTION 02500 – Asphaltic Concrete Paving
 - 8. SECTION 02660 – Potable Water Distribution System
 - 9. SECTION 02665 – Potable Water Storage and Pumping
 - 10. SECTION 02730 – Sanitary Sewage System
 - 11. SECTION 03300 – Cast-In-Place Concrete
 - 12. SECTION 04200 – Unit Masonry
 - 13. DIVISION 15 – MECHANICAL
 - 14. DIVISION 16 – ELECTRICAL

1.2 TESTS BY INDEPENDENT TESTING LABORATORY

- A. Testing Laboratory
 - 1. Owner will select and direct an independent construction inspector and testing laboratory (Testing Lab) to perform inspection and testing services as described in this Section. The construction inspector and testing laboratory will work solely at the direction of the Engineer for Owner's own Quality Assurance program. The Contractor shall include the cost in the price proposal to provide his own testing services program. An allowance of \$10,000 shall be included in the Contractor's bid to cover any Engineer required testing above those expected of the Contractor. At the end of the project during the final acceptance period, any remaining amount from this allowance will be deducted from the contract amount.

NORTHEAST OREGON
HATCHERY PROJECT

- B. The Contractor shall:
 - 1. Make available and deliver to Testing Lab, at the Contractor's expense, all materials to be tested.
 - 2. Provide labor necessary to supply samples and assist in making tests.
 - 3. Advise Testing Lab of the identity of material sources and instruct suppliers to allow inspections by the laboratory if so desired by the Engineer.

- C. The Testing Lab is not authorized to:
 - 1. Release, revoke, alter or enlarge on, contract requirements.
 - 2. Approve or accept any portion of the work.
 - 3. Perform any duties required of the Contractor, including any testing work requested by the Contractor for verification.

- D. Tests shall be conducted in accordance with the requirements of the specifications as designated or, where not specified, as requested by the Engineer. All testing will be in accordance with the latest standards of American Society for Testing and Materials.

1.3 INDEPENDENT TESTING LABORATORY SERVICES, TESTS AND RELATED CONTRACTOR RESPONSIBILITIES

- A. Testing Lab services will be performed for, though are not limited to, the following items:
 - 1. Compacted Soils
 - a. The Testing Lab will secure samples of on site fills proposed for use or being used in construction and test for proper gradation (sieve analysis) in accordance with the applicable sections of these specifications. This will also be done on Contractor provided samples from offsite borrow sources.
 - b. The Testing Lab will establish optimum moisture - density relationship in accordance with ASTM D698 (Standard Proctor).
 - c. The Engineer reserves the right to make or request in-situ tests of fills and backfills at any time, above those required by the Contractor, in order to determine compliance with the specifications.

NORTHEAST OREGON
HATCHERY PROJECT

B. Concrete

1. The Testing Lab will test samples of aggregates Contractor proposes to use for compliance with specifications.
2. The Testing Lab will verify compliance with the specifications for cement proposed for use by the Contractor based on data submitted by the Contractor.
3. The Testing Lab will review the Contractor's proposed design concrete mix, as well as perform appropriate laboratory tests during construction, including compression tests of cylinders and slump test, if required, to substantiate mix designs.
4. When requested by the Engineer, the Testing Lab will inspect and collect test materials during concrete work to substantiate compliance with specifications and mix requirements.
5. Slump Test
 - a. The right to perform or request a slump test by the Contractor at any time, which may be in addition to the Contractor's testing, is reserved for the Engineer.
6. Test cylinders shall be prepared and supplied by the Contractor as required by SECTION 03300 as follows:
 - a. Each set of test cylinders shall consist of three cylinders prepared by the Contractor.
 - b. Test cylinders shall be made and cured by the Contractor in conformity with ASTM C31. No sooner than 24 hours, but no more than 48 hours, after taking cylinders, the Contractor shall carefully transport the cylinders to the Testing Laboratory for moisture curing.
7. The Testing Lab will perform the required number of compression tests as follows:
 - a. Test one cylinder to failure at 7 days.
 - b. Test two (2) cylinders at 28 days in accordance with ASTM C39 and SECTION 03300 of these specifications.
8. The Contractor will identify all test cylinders with symbols to indicate location on the job where concrete test was made. Symbols will be used to record placement locations on record drawings.

NORTHEAST OREGON
HATCHERY PROJECT

- C. The Testing Lab will verify roadway Aggregate Gradation and Compaction in accordance with the applicable specifications.

1.4 CONTRACTOR'S RESPONSIBILITIES

- A. Furnish product data meeting or exceeding contract requirements in accordance with the applicable specifications.
- B. Cooperate with any of Engineer and Testing Lab personnel, in providing access to work and to manufacturer's or suppliers operations.
 - 1. Direct Contractor's representative, if desired, to monitor each inspection, sampling and test.
 - 2. The Contractor shall, within 24 hours, notify the Engineer in writing of reasons for not acknowledging field testing and sampling procedures.
- C. Provide to the Testing Lab, initial representative samples of materials to be tested, in specified quantities.
- D. Furnish copies of mill test reports.
- E. Furnish verification of compliance with contract requirements for materials and equipment.
- F. Furnish casual labor and facilities:
 - 1. To provide access to work to be tested.
 - 2. To obtain, handle and transport samples at site.
 - 3. To facilitate inspections and tests.
 - 4. For the Testing Lab's exclusive use for storage and pouring of concrete test samples.
- G. Notify the Engineer, Construction Inspector, and the Testing Lab sufficiently in advance of operations to allow for assignment of personnel and scheduling of tests. A minimum of three (3) days advance notice will be provided. Contractor shall notify the Engineer, Construction Inspector and the Testing Lab when work is ready for testing. The Contractor shall provide a schedule for the Testing Lab for acceptance by the Construction Inspector and Engineer. The Contractor shall pay for any testing he or any of his representatives or employees schedule as defined in these specifications.

NORTHEAST OREGON
HATCHERY PROJECT

- H. Work which is defective or which fails to conform to the contract documents shall be corrected by the Contractor at the Contractor's sole expense. Corrective work shall not be cause for delay in the project schedule or the work of other Contractors.
- I. Pay all costs of retesting when test results indicate non-compliance with contract requirements.
- J. Restore all surfaces and areas disturbed by testing operations to conditions existing before testing.

1.5 QUALIFICATIONS FOR WELDING WORK

- A. Welders employed in executing work under this project shall possess qualification papers given by an independent testing laboratory under AWS Code, Standard Qualifications Procedure.
- B. The qualification papers shall be dated no earlier than six months prior to the start of the project. Welders not engaged in welding for a period of three or more months within the 6 months proceeding construction must be re-qualified.

END OF SECTION

SECTION 01410

TESTING AND ADJUSTMENTS

PART 1 GENERAL

1.1 DESCRIPTION

- A. Work consists of furnishing all labor, materials, equipment and manufacturers technical representation to provide for the proper installation, testing of individual components and equipment and the 120 hour continuous hatchery system operational testing of all project systems.
 - 1. Two (2) levels of testing are required as identified and defined in:
 - 2. SECTION 1.2: Individual Component and Equipment Tests and Adjustments.
 - 3. SECTION 1.6: Operation of Facilities and 120-Hour System Testing.

1.2 INDIVIDUAL COMPONENT AND EQUIPMENT TESTS AND ADJUSTMENTS

- A. Shop Assembly and Matchmarking:
 - 1. All equipment shall be shop assembled, inspected and tested as far as is practical. Items to be field erected shall be accurately matchmarked and identified in accordance with erection details to be furnished with the equipment.
 - 2. All fasteners and miscellaneous small parts for field erection shall be individually packaged for shipment, and identified as to location in accordance with a schedule of fasteners furnished with the equipment.
- B. System Installation, Inspection, Testing and Certification:
 - 1. The complete system installation consisting of the several parts and systems and all equipment installed according to the requirements of the specifications and as shown on the Drawings, shall be ready in all respects for it's intended use. Each complete system shall be subjected to a test at full operating conditions and pressures for the full range of normal conditions of use. Testing of individual components must be coordinated with the Engineer.

NORTHEAST OREGON
HATCHERY PROJECT

2. The Contractor is responsible for ensuring that all necessary system adjustments and replacements made which are necessary to fulfill the requirements of the Contract Documents and to comply with the directions and recommendations of the manufacturer's of installed equipment, and for complying with all codes and regulations which apply to the installation, either in part or as a whole. The Contractor is responsible for ensuring that all required adjustments to comply with all provisions of the Contract Documents and equipment manufacturers' installation and operation requirements have been made.
3. The manufacturers of equipment supplied under the following listing shall provide the services of a qualified, factory authorized technician for a minimum of 16 man-hours on site. The technician shall thoroughly inspect and check the equipment installation including, but not limited to, alignment and clearances. The technician will certify results of field erection, where applicable, that initial lubrication procedures are completed, where applicable and, in general, ascertain that the equipment installation was properly completed in accordance with the manufacturers recommendations.

1.3 EQUIPMENT LIST

- A. The following equipment will be subject to the requirements of 1.2.B.3 above:
 1. Process alarm controls and monitoring instrumentation including but not limited to:
 - a. Chiller
 - b. Well Pumps and Controls
 - c. Alarm/Instrumentation System
 2. Standby power generators
 3. Walk-in freezer
 4. Low and high pressure intake screen cleaning systems
 5. UV System
 6. Cyclone Separators
 7. Chiller Equipment
- B. The Contractor shall make all changes, replacements or adjustments that may be required for a complete and proper installation.
- C. When it has been determined that the installation has been completed in accordance with the manufacturer's instructions, the Contractor, in the presence of the manufacturer's field technician shall test the equipment and its appurtenances for satisfactory operation and for performance in accordance with the Contract Documents.
- D. The test procedure will be to the entire satisfaction of Owner and upon completion, the equipment shall be in perfect operating condition.

NORTHEAST OREGON
HATCHERY PROJECT

- E. Upon completion of inspection and satisfactory testing of the equipment, the manufacturer's field technician shall file with the Contractor, in quadruplicate, a "Certificate of Inspection" certifying that the equipment and all appurtenances supplied with it have been installed in accordance with the manufacturer's recommendations and that the test operation was satisfactory. These Certifications shall be included in the Operation Manuals as specified in SECTION 01730.
- F. Five (5) sets of the manufacturer's instructions for the operation and maintenance of each piece of appropriate equipment and all appurtenances shall be furnished to the Engineer for distribution as specified in SECTION 01730 of the specifications.

1.4 EQUIPMENT GUARANTEE

- A. The Contractor shall guarantee all equipment to operate in accordance with the requirements of these specifications and shall also guarantee to immediately replace or repair any parts proven defective within one year from Final Acceptance, or longer, if specifically required by the contract documents, for any particular item of equipment without additional expense to Owner for labor or materials. The Contractor shall file with the Engineer eight copies of a "Contractor's Equipment Guarantee" written in the following form:

1.5 CONTRACTOR'S EQUIPMENT GUARANTEE

" Project _____
Site _____
Contractor _____
Manufacturer _____
Equipment _____
Guarantee Period _____
Date of Final Acceptance _____

We, the Contractor for the subject project, hereby guarantee this equipment for a period of 365 calendar days from the date hereof, and shall immediately replace or repair the equipment or any parts thereof which become defective or do not function properly during normal operations without any expense to Owner for labor or materials or equipment replacement.

Signed _____

Name and Title _____ "

NORTHEAST OREGON
HATCHERY PROJECT

1.6 OPERATION OF HATCHERY AND 120 HOUR SYSTEM TESTING

A. General

1. After written notification from the Contractor to the Engineer that the above tests and adjustments have been made (paragraph 1.3.E) and before the "Substantial Completion" stage of the project, each site, in its entirety, will be operated continuously at the full range of design capability as directed by the Engineer for a period of five days (120 hours) without malfunction or irregular performance. Should malfunction or irregular performance occur, the test will be stopped and required adjustments made. The test will then be restarted and run for 120 hours. The Engineer shall provide a written schedule outlining procedures for the 120-Hour Test and has the option of sequencing or otherwise lessening the overall continuous full-scale test period.
2. The purpose of operation activities is to start up and operate all hatchery systems and subsystems at each site, and to familiarize facility-operating personnel with the functions of various facilities and systems.

B. Scope

1. The Contractor shall insure that equipment manufacturer's representatives and skilled technicians familiar with the hatchery equipment, construction and installation are present for systems testing and for operation of various facilities and systems in the hatchery complex under the direction of the Owner
2. This test does not include normal system component testing, operations, and adjustments required to make equipment, facilities, and systems fully functional as required by other sections of the Contract Documents.

C. Contractor Personnel Required

1. The Contractor shall have a representative on site at all times during this test period who is completely familiar with the work and capable of making corrective action if required.
2. In addition, such Technical Specialists as may be required to start or operate and adjust special equipment will be furnished by the Contractor as necessary to complete testing during the 120-hour operation period.

D. Approval of Systems and Equipment

1. The above operational period is intended to reveal system characteristics when operating in a series of different conditions as well as reveal

NORTHEAST OREGON
HATCHERY PROJECT

operational deficiencies. It is not intended as a substitute for the individual testing requirements for items defined in the Contract Documents.

Acceptance of any of these items is contingent on acceptable results of both individual component/ system testing and operation under the 120-Hour Test.

2. Deficiencies in specified items indicated by the 120-Hour Test operational period will be remedied and that operational phase repeated (in the presence of the Engineer) as necessary to assure compliance with the Contract Documents.
3. The mode of operation selected by Owner will be within the normal ranges of the specified equipment items.
4. If it is determined that permanent system or detailed changes, other than the normal adjustments, are required, such changes will be defined by change order by Owner and will be considered as a change to the Contract.

END OF SECTION

SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL CONTRACTOR REQUIREMENTS

1.1 WEATHER PROTECTION

A. General

1. The Contractor shall provide protection at all times to maintain all materials, apparatus, fixtures, and work free from damage due to weather or other circumstances whether in shipment, in storage, or in place.

B. Heat Provision

1. When heat is required for weather protection, the Contractor shall provide temporary enclosures of work and an acceptable means to provide sufficient heat to maintain temperatures required by the Contract Documents. If not specified, the minimum temperature to be maintained is 50-degrees F.
2. The Contractor shall use only heating apparatus and fuels as accepted by the Engineer, keep equipment and surroundings in a clean, safe condition, use flame resistant materials, as required, for temporary enclosure of space and only use vented heaters.

1.2 TEMPORARY UTILITIES

A. Electricity, Lighting, Heating, Water, Telephone and Sanitary Facilities

1. The Contractor shall provide such temporary services as may be required for construction.
2. The Contractor shall pay the cost of all electrical energy used for construction until completion of the contract and any subsequent change orders or warranty work.
3. The Contractor shall provide lighting as required to maintain site security and safe working conditions and all lighting for any pre-approved nighttime construction. All bulbs will be replaced immediately when burned out.
4. The Contractor shall not use temporary service material in a permanent system without written acceptance of Owner. When temporary electrical

NORTHEAST OREGON
HATCHERY PROJECT

lines are no longer required, the Contractor will remove them and restore to original condition any parts of buildings or grounds damaged by such removal.

5. The Contractor shall provide and maintain temporary lighting at all barricades as required for safety.
6. The Contractor shall provide any and all heating equipment and fuels required to maintain proper temperatures for construction and comfort.

B. Telephone

1. The Contractor will install a telephone in the Contractor's field office for the use of all persons working at the project site and pay all non long distance charges for telephone service (long distance calls by the Engineer or its representatives will be billed to a credit card).
2. Telephone service to the Engineer's field office shall be provided by the Contractor, however, long distance bills incurred by the Engineer shall be paid by the Owner.

C. Water

1. The Contractor shall provide, protect, and maintain an adequate water supply for use on the project for construction purposes and for drinking water purposes.
2. The Contractor shall provide and install, valve, maintain, and protect such water supply lines as may be required for his operations.
3. After temporary lines are no longer required, they shall be removed by the Contractor and any part of grounds or buildings damaged by removal shall be restored to original condition.

D. Sanitary Facilities

1. The Contractor shall provide and maintain suitable, weathertight, painted sanitary toilet facilities for all workmen during construction period. When toilet facilities are no longer required, the Contractor shall promptly remove them from the site and disinfect and clean or treat the area as required.
2. The Contractor shall provide and maintain facilities in accordance with requirements of applicable local and state health authorities and OSHA.
3. The Contractor shall keep all toilet facilities clean and supplied with toilet paper at all times.

NORTHEAST OREGON
HATCHERY PROJECT

1.3 CLEANING UP

- A. The Contractor shall keep premises free of accumulation of surplus materials and rubbish resulting from operations and the operations of subcontractors.
- B. The Contractor shall remove rubbish weekly and at other times as required by the Engineer.
- C. The Contractor shall remove all tools, equipment, scaffolding, and temporary facilities immediately when no longer required for execution of the Work.

1.4 OPERATIONS AND STORAGE AREAS

- A. All operations of the Contractor (including storage of materials) on BPA or Nez Perce Tribe premises or other areas as may have been previously arranged by Owner will be confined to areas authorized and accepted by the Engineer.
- B. Other contractors and employees or agents of the Engineer and its clients may for all necessary purposes enter upon sites of the Work and premises used by the Contractor, and the Contractor shall conduct his work so as not to impede unnecessarily any work being done by others on or adjacent to the site.
- C. The Contractor shall provide and maintain weathertight storage sheds for the Contractor's own use.
- D. Any Contractor provided storage sheds shall have substantial floors raised a minimum of 6 inches above the ground.
- E. The Contractor shall locate all storage sheds as directed by the Engineer.
- F. The Contractor shall completely remove storage sheds, equipment, etc., from the site after completion of work.

1.5 PROTECTION AND RESTORATION

- A. The Contractor shall protect all structures, roadways, fences, pipelines, trees, cables and anchors and other such items not designated for removal. During the progress of the work, the Contractor shall promptly remove from the site all debris and unused materials; and shall, upon completion of the work, restore those portions of the site not covered by new construction as nearly as possible to its original condition, including the replacement, at the Contractor's expense, of any facility, roadway, irrigation ditch, or other significant features at the site which has been damaged by the Contractor.

NORTHEAST OREGON
HATCHERY PROJECT

1.6 ACCESS ROADS

A. Temporary Roads and Storage Areas

The Contractor shall construct and maintain, including snow removal, all temporary access roads and storage areas required; locate and construct all roads, ramps, mats, storage areas, and similar items in a manner accepted by the Engineer and provide overall management of available site areas.

B. Laws and Regulations

1. The Contractor shall observe all laws and regulations of the local, county, and state authorities in the use of all public roads for the transportation of materials and equipment in connection with work on the project; observe all overhead construction, cables, and the like; repair damage to roads, highways, overhead construction and similar off-site items, resulting from operations in connection with this project.

1.7 WATER CONTROL

A. The Contractor shall carry on construction work in a manner that will minimize erosion and direct surface water away from construction areas and away from adjoining properties.

B. The Contractor is responsible for accepting and controlling all storm runoff or snow melt runoff generated from on- or off-site which may affect his construction. Diversion of such water will be in accordance with the Contract Documents and all applicable local, state and federal regulations and with those permit documents obtained by BPA for project approval.

C. The Contractor shall provide a means of maintaining excavations free from ground water encountered in accordance with the Contract Documents. The Contractor shall also provide means of properly conveying such water off the construction site in accordance with the Contract Documents and all applicable local, state and federal regulations.

1.8 PARKING

A. The Contractor shall make all necessary provisions for parking of all employees on the project within the site limits. This includes construction and maintenance, including snow removal, of necessary access roads and parking areas during construction period.

B. The Contractor shall ensure that vehicles are parked in such locations as to avoid interference with normal construction activities and to avoid interference with areas that are open to public access.

NORTHEAST OREGON
HATCHERY PROJECT

1.9 TEMPORARY FIELD OFFICES

- A. The Contractor shall provide separate temporary field offices for use by each of the Contractor and the Engineer for the Lostine and Innaha sites (when facility construction is underway). The Contractor shall provide all utility hook-ups for these facilities and shall be responsible for providing the following:
 - 1. Janitorial service
 - a. Service shall include as a minimum daily trash removal and daily floor cleaning.
 - 2. Electrical service (similar generator at Innaha for both offices, as required).
 - 3. Separate telephone service for both the Contractor and the Engineer (except for Innaha).
 - 4. Cold bottled drinking water with dispenser and cups.
 - 5. Graveled parking area for four vehicles adjacent to office and gravel surfacing and any stairs/steps for accessing the office.
- B. The location shall be within visual site distance at the project sites as accepted by the Engineer.

1.10 SAFETY

- A. The Contractor is responsible for the safety of all construction personnel and personnel visiting on the job site. Local traffic control shall be the responsibility of the Contractor, along with dust control and site access safety.
- B. The Contractor shall provide and maintain a first aid kit for use of workers.
 - 1. The Contractor shall provide first aid supply commensurate with size of the project with items necessary for first aid treatment of all injuries.
 - 2. The Contractor shall advise all workers of the location of first aid supplies.
 - 3. The Contractor shall post telephone numbers of nearest hospital and ambulance service and fire station in a conspicuous location and advise all workers of the location of telephone numbers.
- C. The Contractor shall conduct weekly safety meetings, and designate one on-site employee as Safety Manager. Safety Manager shall as a minimum know CPR and basic first aid.

NORTHEAST OREGON
HATCHERY PROJECT

- D. The Contractor shall provide at least one non-freezing-type fire extinguisher for each building under construction and in each workshop or shed used for storage of flammable materials on the premises. Extinguishers shall be placed in a location readily accessible to workers.
- E. A comprehensive safety plan meeting BPA requirements shall be prepared and approved by the Engineer prior to construction.

1.11 PROJECT CONSTRUCTION SIGNS

- A. The Contractor shall install a project construction sign at each project entrance. The signs shall be mounted in such manner and the lettering shall be as determined by Owner. The sign shall be located in the field as directed by the Engineer. The signs shall be installed within two weeks of Notice to Proceed.
- B. The Contractor shall include an allowance of \$3,000 in the price proposal for this signage. (As for any allowance, should the approved expenditure be less than what is allowed, a deduct change order will be issued by Owner.)

1.12 TRAFFIC CONTROL

- A. Public Safety Convenience: The Contractor shall conduct all operations with the least possible obstruction and inconvenience to the public for both sites.
 - 1. Maintain existing roadways and traffic routes within, and adjacent to, the work area.
 - 2. Keep existing traffic signing and lighting systems in operation as the work proceeds.
 - 3. Maintain access to entrances, driveways, buildings, etc., along the line of work. Provide temporary approaches as necessary to maintain access.
- B. Contractor Responsibility: In particular, the Contractor shall be responsible for providing adequate safeguards, safety devices, protective equipment and all other actions as necessary to protect the life, health and safety of the tenants, public, and other users of Granger Road, and to protect property, in connection with the performance of work covered by the Contract.
 - 1. The Contractor shall provide and maintain flaggers, signs and other traffic control devices as required to warn and protect the public from injury or damage as a result of the Contractor's operation.

NORTHEAST OREGON
HATCHERY PROJECT

2. No work shall be done on or adjacent to any vehicular or pedestrian roadway/walkway until all necessary signs and traffic control devices are in place.
3. A Traffic Control Plan shall be submitted to Wallowa County Planning not less than 7 days prior to commencing work within the County right of way. The Traffic Control Plan shall comply with all provisions of the latest edition of the USDOT Manual on Uniform Traffic Control Devices (MUTCD).
4. The Contractor shall coordinate his Traffic Control Plan with the Engineer and Construction Inspector. Local residents along Granger Road shall be involved with the plan and kept informed of any changes.
5. Granger Road speed limit for all construction related vehicles will be ten (10) miles per hour or less.

END OF SECTION

SECTION 01600

MATERIALS AND EQUIPMENT

PART 1 GENERAL

1.1 MATERIALS

- A. All materials, equipment, and other items incorporated in the work of this project must be new, and both materials and workmanship the best grade of their respective kinds.
- B. To assure ready availability of materials, parts, or components for repair, replacement or future expansion purposes, all materials, equipment, and related components must be obtained from sources which maintain a regular, domestic stock.
- C. Except as designated on the Drawings and specified, the use of the following materials or their alloys in contact with the water is prohibited:

- Zinc
- Copper
- Brass
- Mercury
- Nickle
- Asphaltic Compounds
- Cadmium
- Coal Tar (Coal Tar Epoxy is allowed)
- Petroleum Products
- Lead
- Organohalogens (not polymerized)
- Asbestos
- Known Carcinogens, Mutagens or Teratogens

1.2 ITEMS NOT IN CONTRACT

- A. All items indicated "N.I.C." or "Future" on drawings, or in specifications, are items not included in this contract.

1.3 TRANSPORTATION AND HANDLING

- A. The Contractor shall be responsible for handling and transportation of all materials and equipment.

NORTHEAST OREGON
HATCHERY PROJECT

- B. The Contractor shall provide protection against damage for all materials during delivery to and storage at the site.
- C. Handling of all materials and equipment by the Contractor shall be done with adequate and proper slings, blocking, supports and other such devices required to prevent damage to materials and/or equipment.
- D. The Contractor shall, at his own expense, replace or repair to the satisfaction of the Engineer, all items damaged because of failure of the Contractor to properly protect during transportation, handling, and storage whether on or off the project site.

1.4 STORAGE AND PROTECTION

- A. The Contractor shall refer to SECTION 01500 for requirements for storage sheds. Store all materials subject to damage within storage sheds.
- B. The Contractor shall replace or repair to the satisfaction of the Engineer, all items damaged because of failure of the Contractor to properly protect during storage whether on or off the project site.

END OF SECTION

SECTION 01605

WARRANTIES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Refer to the Technical Specifications.
- B. Refer to the Project Record Documents.

1.2 WARRANTIES AND BONDS

- A. Contractor shall guarantee all Contractor furnished materials and all workmanship after date of final acceptance by the Engineer, in accordance with Article 1.1.A, 1.1.B, and 1.1.C for a period of 12 months.

1.3 WARRANTY, MAINTENANCE, SERVICE

- A. Service: All necessary service to each electrical and mechanical system, such as adjustment of controls, and water balancing valves, mechanical repair of equipment, and other work requiring specialized training, shall be furnished by the Contractor, at no additional cost to Owner, for a period of one year, concurrent with the warranty period specified above. This does not include repair of damage due to fire (unless the fire results from faulty material or workmanship on the part of the Contractor) storm, vandalism, or other factors entirely beyond the control of the Contractor, nor does it include such periodic routine service as oiling motors, replacing lamps or any other work not requiring special skill. The above items pertaining to routine servicing of equipment and motors, and replacing lamps will be the responsibility of the facility operator.
- B. The Contractor will receive no additional compensation for warranty work performed during the specified warranty period.

PART 2 PRODUCTS (NOT APPLICABLE)

NORTHEAST OREGON
HATCHERY PROJECT

PART 3 EXECUTION

3.1 WARRANTY DOCUMENTS

- A. All product warranty and/or guarantee documents provided by the subcontractors, suppliers and/or manufacturers for specific items, including but not limited to such items as building components, and mechanical equipment will be completely filled in and properly submitted by the Contractor. Show all model numbers, serial numbers, date installed or accepted as required to complete the warranty/guarantee forms. Six copies of each completed form shall be provided to the Engineer.

- B. Any manufacturer's warranty/guarantee that expires prior to the required guarantee period specified by the Contract Documents shall be extended as necessary by the Contractor. This extension, if required, shall be furnished at no additional cost to Owner

END OF SECTION

SECTION 01700

PROJECT CLOSEOUT

PART 1 GENERAL

1.1 CONTRACT CLOSEOUT

- A. Upon notification by the Contractor that the Work is complete in accordance with the Contract Documents and that he is ready to submit close-out materials and the final request for payment, Owner and representatives of the Engineer's clients shall review the project, in the presence of the Contractor's Representative, and prepare a project punch list of all items, tasks, procedures, and work to be completed to meet the requirements of the Contract Documents.
- B. When notified by the Contractor that all punch list items have been corrected, the Engineer shall make a re-inspection of the Work. If the punch list item correction is found to be incomplete, the Contractor shall correct the deficiencies noted.
- C. At Contract close-out, following completion of the Work and prior to release of the retained percentage, the Contractor shall submit to the Engineer the following close-out documents:
 - 1. Project Record Documents
 - 2. Vendor Operating and Maintenance Manuals
 - 3. Executed "Release & Certificate of Payment"
 - 4. Guarantees, Bonds and Affidavits

1.2 CLEANING UP

- A. Immediately prior to final review:
 - 1. The Contractor shall remove any accumulated trash, surplus materials and rubbish resulting from construction operations.
 - 2. The Contractor shall clean all surfaces to a condition acceptable for immediate occupancy by the facility operator.
 - 3. The Contractor shall remove all marks, stains, fingerprints, paint droppings, and other foreign matter from all finished surfaces.

NORTHEAST OREGON
HATCHERY PROJECT

1.3 GUARANTEES, BONDS AND AFFIDAVITS

- A. The Contractor shall submit all required written guarantees, bonds and affidavits to the Engineer prior to final payment.
- B. Guarantees shall be extended the full length of the required warranty period after:
 - 1. Replacement of work found defective during the construction period.
 - 2. Repair of inoperative items or adjustments to proper working condition of items not operating properly at the time of final completion.

1.4 TESTS

- A. The Contractor shall complete all tests required to prove actual operating performance of equipment and systems incorporated into the project at no additional cost to Owner.
- B. The Contractor shall submit reports of all tests to the Engineer prior to final payment.

1.5 DAMAGE TO EXISTING STRUCTURES

- A. Prior to final acceptance by Owner, the Contractor shall repair or otherwise return to original condition any parts of the existing facilities which have been damaged during construction to the Engineer's satisfaction.

1.6 EXTRA MATERIALS

- A. The contractor shall provide the following materials to the Engineer at the end of the project:
- B. One gallon of each type and color of paint used on the project.

1.7 FINAL REVIEW

- A. The Contractor shall request a final review in writing at least five (5) days prior to the anticipated date of completion.
- B. The Contractor's Representative shall be at the jobsite during the final review.
- C. The Engineer shall present to the Contractor, after the final review, a list of any items not meeting contract requirements. All items on the list must be made acceptable before final payment shall be made.

END OF SECTION

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.1 PROJECT RECORD DOCUMENTS

- A. During the course of construction, the Contractor shall keep one copy of the Project Record Documents (completed bid form, agreement, general conditions, special conditions, plans, specifications, addenda and modifications) at the site for use by the Engineer. The Record Documents shall be maintained in a clean, dry, legible condition and shall not be used for construction purposes.
- B. At Contract close-out, the Record Documents shall be delivered to Owner. Record Documents shall show all “as-built” deviations from the original Contract Documents. “As-built” drawings shall be prepared by the Contractor which provide accurate measurements and locations for all items concealed from view and otherwise, and provide as-built horizontal and vertical survey data and other as-built information as required.
- C. Final “as-built” drawings shall be submitted to Owner prior to the Contractor’s request for final payment. Failure to submit these drawings shall constitute grounds for withholding payment.

END OF SECTION

SECTION 01730

OPERATING AND MAINTENANCE DATA

PART 1 GENERAL

1.1 DESCRIPTION

A. Work Included and Purpose

1. To aid the continued instruction of operating and maintenance personnel, and to provide a positive source of information regarding the equipment incorporated into the Work, the Contractor shall furnish and deliver the data described in this Section and in other Sections of the Contract Documents.

B. Related Work

1. Documents affecting work of this Section include, but are not necessarily limited to, "Subcontract for Building Construction", Division 1 of these Specifications and the Technical Specifications.

1.2 QUALITY ASSURANCE

- A. In preparing data required by this Section, the Contractor shall use only personnel who are thoroughly trained and experienced in operation and maintenance of the described items, completely familiar with the requirements of this Section, and skilled in technical writing to the extent needed for communicating the essential data.

1.3 SUBMITTALS

- A. The Contractor shall provide five (5) copies of all information submitted under this section. All submittal information shall comply with pertinent provisions of SECTION 01340.

PART 2 PRODUCTS

2.1 INSTRUCTION MANUALS

- A. Where instruction manuals required for specific equipment are to be submitted under other Sections of the Contract Documents, the Contractor shall prepare the manuals in accordance with the provisions of this Section or as directed by Owner

NORTHEAST OREGON
HATCHERY PROJECT

B. Format

1. Size: 8-1/2" x 11"
2. Paper: White bond, at least 20 lb. weight
3. Text: Neatly typed
4. Drawings: 11" in height; bound in with text; foldout acceptable; larger drawings are acceptable but must be neatly folded to fit within the Manual provided in a drawing pocket inside rear cover.
5. Flysheets: Separate each portion of the Manual with neatly prepared flysheets briefly describing contents of the ensuing portion; flysheets must be in color.
6. Binding: The Contractor shall use heavy-duty plastic or fiberboard front and back covers with 3-ring binders. All binding is subject to the Engineer's approval.
7. Measurements: The Contractor shall provide all measurements in U.S. standard units such as feet-and-inches, pounds, and cfm.

C. The front and back covers shall include, at least, the following information:

OPERATING AND MAINTENANCE INSTRUCTIONS

Prepared for _____

(name and address of Work)

(name of Contractor)

(general subject of this Manual)

D. Contents: The Contractor shall include at least the following:

1. Neatly typewritten index near the front of the Manual, giving immediate information as to location within the Manual of all emergency information regarding the installation.
2. Complete instructions regarding operation and maintenance of all equipment involved including lubrication, disassembly, and reassembly.
3. Complete nomenclature of all parts of all equipment.

NORTHEAST OREGON
HATCHERY PROJECT

4. Complete nomenclature and part number of all replaceable parts, name and address of nearest vendor, and all other data pertinent to procurement procedures.
5. Copy of all guarantees and warranties issued.
6. Manufacturers' bulletins, catalog cuts, and other pertinent descriptive data, clearly indicating the precise items included in the installation and deleting, or otherwise clearly indicating, all manufacturers' data with which this installation is not concerned.
7. Such other data as required in pertinent sections of the Contract Documents.

END OF SECTION