

**CITY OF ELKO
DIVISION 1 – GENERAL REQUIREMENTS**

CATTLE DRIVE ACCESS ROAD and WATERLINE PROJECT

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.01 SUMMARY

- A. This project includes construction of approximately 5,600 lineal feet of access road, 30 feet in width. Access road construction will include excavation cut and fill, road side V-ditch, culvert crossings for conveyance of existing drainage, modification of existing drainage channels with rock rip rap channel protection. Construction will also include, approximately 5,686 lineal feet of 18" PVC waterline including fittings, 67 lineal feet of 8" PVC waterline including fittings, fire hydrants, flush valves, air release valves, Pressure Reducing valve, Jack and Bore operation, and existing waterline tie connection to the existing 18" waterline at the beginning of the project in Cattle Drive and at the intersection of Cattle Drive and Autumn Colors Drive.
- B. Furnish tools, equipment, materials, supplies, and manufactured articles; furnish transportation and services including fuel, power, water, and essential communications; and perform labor, work, or other operations required in accordance with the Construction Documents.
- C. The Work shall be complete, and all work, materials, and services not expressly shown or called for in the Construction Documents which may be necessary for the complete and proper construction of the Work in good faith shall be performed, furnished, and installed by Contractor as though originally so specified or shown, at no increase in cost to Owner.

1.02 STREAMLINED SPECIFICATIONS

- A. These specifications are written in the streamlined or declarative style utilizing incomplete sentences.
- B. Omissions of such words and phrases as "The Contractor shall," "in conformity therewith," "shall be," "as shown on the Drawings," "a", "an," "the," and "all" are intentional in streamlined sections.
 - 1. Omitted words shall be supplied by inference in the same manner as when a note appears on the drawings.
 - 2. The omission of such words shall not relieve the Contractor from providing all items and work described herein or indicated on the drawings.

1.03 CONTRACT METHOD

- A. The work hereunder will be constructed under a Line Item Contract.

1.04 WORK BY OTHERS

- A. Work may be conducted at or near the site by other contractors during the performance of the Work under this Contract.
- B. Conduct operations to cause a minimum of interference with work of other contractors and cooperate fully with other contractors.
- C. Interference with Work on Utilities:
 - 1. Cooperate fully with utility forces of Owner or forces of public or private agencies engaged in relocating, altering, or otherwise rearranging of facilities which interfere with the progress of the Work.
 - 2. Schedule the Work to minimize interference with relocating, altering, or other rearranging of facilities.

1.05 CONTRACTOR'S USE OF PROJECT SITE

- A. Contractor's use of project site shall be limited to construction operations, including onsite storage of materials, onsite fabrication facilities, and field offices.
- B. Limit use of site to areas defined by Owner and/or construction limits.
 - 1. Limit use of premises for work and storage to allow for work of other contractors and subcontractors.
 - 2. Notify Owner if any work necessary to complete the Work is outside the construction limits shown.
- C. Owner will have complete control over the use of the site by Contractor. Discuss intended use of site with Owner before starting work.
- D. Assume full responsibility for the protection and safe keeping of products stored on the site.
- E. Move stored products as directed by the Engineer which interfere with operations of Owner or separate contractors.
- F. Obtain and pay for the use of additional storage and work areas needed for operations.

1.06 PERMITS

- A. Obtain all permits required for construction, not already obtained by the Owner.
- B. Pay the required fees and acquire all permits required for the construction of the project.

1.07 WORK SEQUENCE

- A. Schedule activities to accommodate the overall construction schedule of Owner and coordinate the detailed schedule with Owner.
- B. Perform work in an expeditious manner to ensure completion at the earliest possible date, but in no case later than the completion dates to be made available to Contractor by Owner.

- C. A construction schedule will be developed by the contractor and will be submitted for review to the owner.

1.08 OWNER AUTHORIZED OVERTIME

- A. In the event that Owner orders Work to be done during overtime hours which are not caused by the fault of Contractor, daily time sheets will be required to substantiate Contractor's charges for premium pay.

1.09 COMPLETION OF THE WORK

- A. The completion date is the date of the final completion of the project. It is anticipated that the Contract will require approximately 120 calendar days for substantial completion.
- B. For Contract purposes, the completion date of the Contract will be deemed to be the date of final completion of the project, including specially scheduled items.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1

1. General

Payment for each Bid Item shall include the following Work, and shall fully compensate for any necessary Work required to perform the construction operations specified and shall be considered to be included in the bid price for the items of Work and no additional compensation will be allowed therefore. This Work includes any necessary traffic control, surveying, construction staking and layout, storm water pollution prevention, potholing to verify data, dimensions and locations of subsurface facilities and service connections, saw-cutting, removal and disposal of existing improvements, clearing, removal and disposal of vegetation, excavating, removal and disposal of excess material, de-watering, shoring, by pass pumping, coatings, connection to existing and proposed pipes, repairing, cutting and plugging abandoned pipes intercepted by the trench section, repairs to the irrigation system, removal and disposal of abandoned pipes and appurtenances within the trench section, compacting, disinfection, testing, temporary and final asphalt replacement, re-vegetation of disturbed areas, landscaping, irrigation piping, and as well as other incidentals, for completion of the Work in conformance with the Contract Documents.

2. Description of Bid Items and Basis for Payment

The terms "construct, furnish, install, erect, perform, place, prepare, remove or replace" shall mean that the bid item is complete, in place, ready for use and recommended for payment by the Construction Manager. Items of work, either specified or inferred, but not included in the tabulation of bid items shall be considered as included in the price paid for other items of work.

All Work under this Contract shall conform to the requirements of the 2012 edition of the "Standard Specifications for Public Works Construction" (SSPWC), except as modified by these Special Conditions or Technical Specification.

3. Mobilization, Demobilization and Cleanup

- A. Work under this bid item shall consist of CONTRACTOR mobilization, demobilization, clean-up, erosion and dust control, permit coordination, and any preparatory work and operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site before beginning construction. Work under this item shall also include any other item of work for which other bid items have not been established in this bid schedule.
- B. Measurement of this item will be on a lump sum basis.
- C. Payment for Mobilization/demobilization and Cleanup will be pro rata per the following schedule based on the lump sum price named in the Bid Form, which price shall constitute full compensation for preparatory Work and operations, including but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site, for the establishment of Contractor offices, buildings, and other facilities necessary for the Work, and any other incidentals necessary for doing all the work involved in mobilizing for the Work.

Payment for demobilization and cleanup shall constitute full compensation for record drawings and removing all equipment, supplies, debris and offices from the project site.

4. Construction Facilities & Temporary Controls

- A. Work under these bid items shall consist of providing Traffic Control for all improvements.

This work shall conform to the requirements this Contract, including American Traffic Safety Services Association (ATSSA)'s Quality Guidelines for Temporary Traffic Control Devices and Features.

The maximum time for traffic delays is 10 minutes in all areas of the project.

All traffic control devices are subject to being rated by the Construction Manager for conformance to the current American Traffic Safety Services Association (ATSSA) publication "Quality Standards for Work Zone Traffic Control Devices". Any device determined by the Construction Manager to not meet these quality standards shall be replaced with an acceptable device. ...

- B. Measurement of this item will be on a lump sum basis.
- C. Payment for Traffic Control will be pro rata per the preceding schedule based on the lump sum price named in the Bid Form, which price shall constitute full compensation for providing, labor, materials, preparation of traffic control plans, luminaires, signing, traffic drums, warning lights, sequential flashers, temporary striping, placement and moving changeable message signs, preparation of formal inspection reports by Traffic Control Supervisor, labor, tools, equipment, materials and incidentals required to perform the work.

5. Demolition and Site Preparation

- A. Work under this item also includes clearing the project work area of vegetation, large rocks and boulders. Preparing erosion control fencing, and drainage silt barriers, fiber roll check dams, rock check dams, and construction truck entrance and exit areas and any preparatory work and operations necessary for clearing the site for grading activities and water pipe placement. This includes equipment, supplies and incidentals to the project site before beginning construction. Work under this item shall also include any other item of work for which other bid items have not been established in this bid schedule.

- B. Measurement of this item will be on a lump sum basis.

- C. Payment for Demolition and Site Preparation will be pro rata per the following schedule based on the lump sum price named in the Bid Form, which price shall constitute full compensation for preparatory Work and operations, including but not limited to, those necessary for clearing the site of vegetation and/or debris, construction site entrances and exits, erosion control measures, silt fencing, and check dams. The movement of personnel, equipment, supplies, and incidentals to the project site and any other incidentals necessary for doing all the work involved in site clearing and erosion control preparation.

6. SWPPP and Dust Control

- A. Work under this bid item shall consist of providing project Storm Water Pollution Prevention Plan and Dust Control.

- B. Work under this item also includes SWPPP General Permit, Notice of Intent (NOI), revising SWPPP, and Notification of Termination to the NDEP. Monitoring project pollution control devices and recording storm discharge events on a daily basis. Watering for dust control. This includes equipment, supplies and incidentals to the project site before beginning construction. Work under this item shall also include any other item of work for which other bid items have not been established in this bid schedule.
- C. Measurement of this item will be on a lump sum basis.
- D. Payment for SWPPP and Dust Control will be pro rata per the following schedule based on the lump sum price named in the Bid Form, which price shall constitute full compensation for preparatory Work and operations, including but not limited to, those necessary for monitoring the site for storm water control and the construction site entrances and exits, erosion control measures, silt fencing, and check dams and incidentals to the project site and any other incidentals necessary for doing all the work involved in SWPPP and Dust Control preparation.

**7. 8" PVC, DR-18, C900 Water Line
8" GV**

- A. Work under this bid item shall conform to the requirements of Section 02225, 02668, 02675, 02741 of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be per Lineal Foot through valves and fittings in place and per each for fittings in place.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for sawcutting, excavation, existing pavement and base removal, furnishing and placing the pipe including pipe, fittings, angle point markers, thrust blocks and restraining devices, pipe lowering/raising material and appurtenances, locating wire and tape, importing bedding, dewatering, subgrade stabilization and preparation, backfilling, furnishing and installing aggregate base, bituminous pavement and fog seal, and all other work, labor, equipment and materials necessary for a complete installation.

**8. 18" PVC, DR-18, C905 Water Line
18" Elbow 90
18" Elbow 45
18" Elbow 22.5
18" Elbow 11.25
18" End Cap**

- A. Work under this bid item shall conform to the requirements of Section 02225, 02668, 02669, 02675, 02741 of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be per Lineal Foot through valves and fittings in place and per each for fittings in place.

- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for sawcutting, excavation, existing pavement and base removal, furnishing and placing the pipe including pipe, fittings, angle point markers, thrust blocks and restraining devices, pipe lowering/raising material and appurtenances, locating wire and tape, importing bedding, dewatering, subgrade stabilization and preparation, backfilling, furnishing and installing aggregate base, bituminous pavement and fog seal, and all other work, labor, equipment and materials necessary for a complete installation.

9. 68-8-U Vault w/ Spring Loaded Doors

- A. Work under this bid item shall conform to the requirements of Sections 02225, 02668 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be per each of 68-8-U Vault complete in place.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for sawcutting, excavation, existing pavement and base removal, furnishing and placing the pipe including pipe, fittings, angle point markers, thrust blocks and restraining devices, pipe lowering/raising material and appurtenances, locating wire and tape, importing bedding, dewatering, subgrade stabilization and preparation, backfilling, furnishing and installing aggregate base, bituminous pavement and fog seal, and all other work, labor, equipment and materials necessary for a complete installation.

10. 18" Pressure Reducing Valve, Control Valve, Swing Check Valve

- A. Work under this bid item shall conform to the requirements of Sections 02225, 02668 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be per each of Valves complete in place.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for sawcutting, excavation, existing pavement and base removal, furnishing and placing the pipe including pipe, fittings, angle point markers, thrust blocks and restraining devices, pipe lowering/raising material and appurtenances, locating wire and tape, importing bedding, dewatering, subgrade stabilization and preparation, backfilling, furnishing and installing aggregate base, bituminous pavement and fog seal, and all other work, labor, equipment and materials necessary for a complete installation.

11. 8" Gate Valves

- A. Work under this bid item shall conform to the requirements of Section 02225, 02668, 02670, 02675, 02741 of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be for each gate valve, FCA's, location riser in place.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for placing the butterfly valve, and for furnishing and placing the flanged coupling adapters, line location riser, thrust block and restraining devices, riser, valve box and cover, imported bedding, backfill, locating wire and tape, portland cement concrete collar, asphalt concrete, and all other work, labor, equipment and materials necessary for a complete installation.

12. 18" Butterfly Valves

- A. Work under this bid item shall conform to the requirements of Section 02225, 02668, 02670, 02675, 02741 of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be for each butterfly valve, FCA's, location riser in place.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for placing the butterfly valve, and for furnishing and placing the flanged coupling adapters, line location riser, thrust block and restraining devices, riser, valve box and cover, imported bedding, backfill, locating wire and tape, portland cement concrete collar, asphalt concrete, and all other work, labor, equipment and materials necessary for a complete installation.

**13. 18" x 8" Tee (including FCA's)
18" Tee (including FCA's)**

- A. Work under this bid item shall conform to the requirements of Sections 2001 through 2021, as applicable of the Carson City Technical Specifications, and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be for each Tee, FCA's, in place.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for furnishing and placing the tee including thrust block and restraining devices, riser, valve box and cover, imported bedding, backfill, locating wire and tape, portland cement concrete collar, asphalt concrete, and all other work, labor, equipment and materials necessary for a complete installation.

14. Jack and Bore

- A. Work under this bid item shall conform to the requirements of Sections 02225, 02668 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be per lineal foot of Jack and Bore complete in place.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for sawcutting, excavation, existing pavement and base removal, furnishing and placing the pipe including pipe, fittings, angle point markers, thrust blocks and restraining devices, pipe lowering/raising material and appurtenances, locating wire and tape, importing bedding, dewatering, subgrade stabilization and preparation, backfilling, furnishing and installing aggregate base, bituminous pavement and fog seal, and all other work, labor, equipment and materials necessary for a complete installation.

15. Install Fire Hydrant Assembly

- A. Work under this bid item shall conform to the requirements of Sections 02225, 02668, 02669, 02670, 02675 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.

- B. Measurement of this item will be for each fire hydrant assembly complete in place, including pipe from main to fire hydrant.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for furnishing and placing the fire hydrant assembly including hydrant, pipe, fittings, valve, valve box and cover, riser, thrust blocks and restraining devices, crushed gravel, imported bedding, backfill, locating wire and tape, portland cement concrete collar and all other work, labor, equipment and materials necessary for a complete installation.

16. Install Air Release Valve Assembly

- A. Work under this bid item shall conform to the requirements of Sections 02225, 02668, 02669, 02670, 02675 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be for each Air Release Valve assembly complete in place, including pipe from main to Air Release Valve.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for furnishing and placing the Air Release Valve assembly including valve, pipe, fittings, valve, valve box and cover, riser, thrust blocks and restraining devices, crushed gravel, imported bedding, backfill, locating wire and tape, portland cement concrete collar and all other work, labor, equipment and materials necessary for a complete installation.

17. Install Flush Valve Assembly - Modified

- A. Work under this bid item shall conform to the requirements of Sections 02225, 02668, 02669, 02670, 02675 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be for each Flush Valve assembly complete in place, including pipe from main to Flush Valve.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for furnishing and placing the Flush Valve assembly including valve, pipe, fittings, valve, valve box and cover, riser, thrust blocks and restraining devices, crushed gravel, imported bedding, backfill, locating wire and tape, portland cement concrete collar and all other work, labor, equipment and materials necessary for a complete installation.

18. Install Temporary Flush Valve Assembly

- A. Work under this bid item shall conform to the requirements of Sections 02225, 02668, 02669, 02670, 02675 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be for each Temporary Flush Valve assembly complete in place, including pipe from main to Flush Valve.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for furnishing and placing the Flush Valve assembly including valve, pipe, fittings, valve, valve box and cover, riser, thrust blocks and restraining devices, crushed gravel, imported bedding, backfill, locating wire and tape, portland cement concrete collar and all other work, labor, equipment and materials necessary for a complete installation.

19. Excavation & Embankment

- A. Work under this bid item shall conform to the requirements of Sections 02200 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be per cubic yard of dirt complete in place.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for excavation including stripping of top soil vegetation, grinding vegetation stripping for reapplication use on newly graded areas, road bedding compaction, backfill, Hydroseed revegetation and all other work, labor, equipment and materials necessary for a complete installation.

20. Install 60” HDPE Double Wall Storm Drain

- A. Work under this bid item shall conform to the requirements of Sections 02225, 02275, 02502 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be per Lineal Foot in place.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for furnishing and placing the HDPE Culvert including crushed gravel, imported bedding, backfill, portland cement concrete, rip rap, revegetation and all other work, labor, equipment and materials necessary for a complete installation.

21. Install 36” HDPE Double Wall Storm Drain

- D. Work under this bid item shall conform to the requirements of Sections 02225, 02275, 02502 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.
- E. Measurement of this item will be per Lineal Foot in place.
- F. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for furnishing and placing the HDPE Culvert including crushed gravel, imported bedding, backfill, portland cement concrete, rip rap, revegetation and all other work, labor, equipment and materials necessary for a complete installation.

22. Install 30” HDPE Double Wall Storm Drain

- A. Work under this bid item shall conform to the requirements of Sections 02225, 02275, 02502 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be per Lineal Foot in place.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for furnishing and placing the HDPE Culvert including crushed gravel, imported bedding, backfill, portland cement concrete, rip rap, revegetation and all other work, labor, equipment and materials necessary for a complete installation.

23. Install 12” to 18” and 6” to 12” Rock Rip Rap

- A. Work under this bid item shall conform to the requirements of Sections 02200, 02275, 02502, 03400 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be per square foot of rock complete in place.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for furnishing and placing the Rock Rip Rap including imported bedding, backfill, portland cement concrete, revegetation and all other work, labor, equipment and materials necessary for a complete installation.

24. Install 6” to 8” Rock Rip Rap, Embedded 12” Thick

- A. Work under this bid item shall conform to the requirements of Sections 02200, 02275, 03400 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be per square foot of rock complete in place.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for furnishing and placing the Rock Rip Rap including imported bedding, backfill, portland cement concrete, revegetation and all other work, labor, equipment and materials necessary for a complete installation.

25. Swing Gates – 20’ Classic Ranch Style Gate

- A. Work under this bid item shall conform to the requirements of Sections 02225, 02200 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be per each of swing gate complete in place.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for furnishing and placing the swing gates including imported bedding, backfill, revegetation and all other work, labor, equipment and materials necessary for a complete installation.

26. Silt Fencing

- A. Work under this bid item shall conform to the requirements of Sections 02225, 02200 as applicable, of the Technical Specifications and other applicable Technical Specifications contained herein.
- B. Measurement of this item will be per lineal foot of silt fencing complete in place.
- C. Payment for installing this item will be made at the unit price named in the Bid Form, Payment for installing this item will be made at the unit price named in the Bid Form, which price shall constitute full compensation for furnishing and placing the silt fencing including imported bedding, backfill, revegetation and all other work, labor, equipment and materials necessary for a complete installation.

PART 2

2.01 AUTHORITY

- A. Take all measurements and compute quantities. Owner will verify measurement and quantities.
- B. Assist by providing necessary equipment, workers, and survey personnel as required.

2.02 UNIT QUANTITIES SPECIFIED

- A. Quantities indicated on the Plans are for bidding and contract purposes only. Quantities and measurements supplied or placed in the Work and verified by the Owner determine basis for estimated monthly pay requests only and are not the basis for changes to the total lump sum price.
- B. If the actual Work requires more or fewer quantities than those quantities indicated on the Plans, provide the required quantities with no change in the lump sum price, unless those quantities change as a result of a change in the scope of work after award of the Contract.
- C. If the actual Work requires a 25 percent or greater change in quantity less than or more than any quantity indicated, Owner or Contractor may claim for a Contract Price adjustment.

2.03 MEASUREMENT OF QUANTITIES

- A. Measurement Devices:
 - 1. Weight Scales: Inspected, tested, and certified by the applicable agency Weights and Measures department within the past year.
 - 2. Platform Scales: Of sufficient size and capacity to accommodate the conveying vehicle.
 - 3. Metering Devices: Inspected tested and certified by the applicable agency department within the past year.
- B. Measurement by Volume: Measured by cubic dimension using mean length, width, and height or thickness.
- C. Measurement by Area: Measured by square dimension using mean length and width or radius.
- D. Linear Measurement: Measured by linear dimension, at the item centerline or mean chord.
- E. Stipulated Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as a completed item or unit of the Work.

2.04 PROGRESS PAYMENTS

- A. Payments for materials, machinery or equipment not incorporated into the Work, but delivered and suitably stored at the site, shall only be made where permitted by, and in accordance with, the terms and conditions of the Contract Documents.
 - 1. Title to materials, machinery, and equipment delivered and suitably stored at the site shall immediately vest in and become the sole property of the Owner upon delivery to the site.

2. Notwithstanding such transfer of title, the Contractor shall have the full continuing responsibility to install, protect, and maintain the products in proper condition and promptly repair, replace and make good damage thereto without cost to the Owner until the Work is fully accepted by the Owner.
 3. Transfer of title shall in no way affect Contractor's obligations under the Contract.
- B. Where the Contract Documents permit payment for materials stored off the jobsite. Owner shall have discretion either to approve or disapprove payments for such materials, and Contractor shall, in addition to the other requisites of the Contract Documents, make any provisions necessary, including insurance covering loss or damage to the material, to insure and protect Owner's title and right of possession and access to any such materials for which payment is approved by Owner.
- C. Payments otherwise due, may be withheld by Owner because of defective work not remedied, claims filed, reasonable evidence indicating probability of filing of claims, failure of Contractor to make payments properly to its subcontractors or for materials, machinery, fuel or labor, or applicable taxes, fees and fringe benefits or reasonable doubt that the Contract can be completed for the balance then unpaid, or for any other breach of this Contract or for any other causes specified in the Contract Documents.
1. If the causes are not removed, on written notice, Owner may rectify the same at Contractor's expense.
 2. Owner may offset against any sums due Contractor, the amount of any liquidated or unliquidated obligations of Contractor to Owner, whether or not arising out of this Contract.
- D. No payment to Contractor shall operate as an approval of Contractor's work or material, or any part thereof, or to release Contractor from obligations under this Contract.
- E. Format of Payment Applications:
1. Contractor's electronic media driven form including continuation sheets when required.
 2. For each item, provide a column for listing each of the following:
 - a. Item Number.
 - b. Description of Work
 - c. Scheduled Values.
 - d. Previous Applications.
 - e. Work in Place and Stored Materials under this Application.
 - f. Authorized Change Orders.
 - g. Total Completed and Stored to Date of Application.
 - h. Percentage of Completion.
 - i. Balance to Finish.
 - j. Retainage.
- F. Preparation of Applications:
1. Present required information on electronic media printout.

2. Execute certification by signature of authorized officer.
3. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored Products.
4. List each authorized Change Order, including number and dollar amount as for an original item of work.
5. Prepare Application for Final Payment.

G. Submittal Procedures:

1. Submit three copies of each Application for Payment.
2. Submit an updated Construction schedule with each Application for Payment.
3. Payment Period: Submit at intervals stipulated in the Agreement.
4. Submit with transmittal letter as specified for Submittals in Section 01300.
5. Submit Owner required waivers.

H. Substantiating Data:

1. When Engineer requires substantiating information, submit data justifying dollar amounts in question.
2. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

2.05 PAYMENT

- A. Payment includes: Full compensation for all required labor, materials, tools, equipment, plant, transportation, services, and incidentals; excavation, removal, erection, application, or installation of an item of Work; overhead and profits.
- B. Final payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities accepted by the Owner multiplied by the unit price for Work which is incorporated in or made necessary by the Work.

2.06 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specified requirements.
- B. If, in the opinion of Owner's Representative, it is not practical to remove and replace the Work, Owner will direct one of the following remedies:
 1. The defective Work may remain, but the unit price will be adjusted to a new price at the discretion of the Owner.

2. The defective Work will be partially repaired to the instructions of the Owner's Representative and Owner, and the unit price will be adjusted to a new price at the discretion of the Owner.
- C. The authority of Owner to assess the defect and identify payment adjustment is final.

2.07 LUMP SUM BASE BID

- A. The Lump Sum Base Bid is the total lump sum cost for the base bid items, including all labor, materials, and equipment for the scope of work described in Section 01010, Summary of Work.
- B. Lump sum price also includes all bonds, insurance, and surety.
- C. Contractor agrees to meet all schedules set forth for in this project.

PART 3 PRODUCTS

Not used.

PART 4 EXECUTION

Not used.

END OF SECTION

SECTION 01035

MODIFICATIONS PROCEDURE

PART 1 GENERAL

1.01 SUMMARY

- A. The Work to be performed may be modified by changes required by Owner and the Contract Amount and/or the Contract Time set forth in the Agreement will be adjusted by written Change Order in accordance with this section.
- B. No alterations, increases or decreases shall be made in the Work as shown and specified except on the written order of Owner, and when so made, the value of the Work or materials added or omitted shall be computed and determined by Contractor, subject to the written approval and acceptance by Owner, and the Amount so determined shall be added to or deducted from the Contract Amount.
 - 1. Contractor shall have no claim for additional Work or changed work unless such Work has been done in pursuance of a written order from Owner.
 - 2. Extra Work performed without written order will be at Contractor's expense.

1.02 FIELD ORDERS

- A. Owner and Owner's Representative will have authority to order minor changes in the Work not involving an adjustment in the Contract Amount or Time and not inconsistent with the intent of the Construction Documents.
 - 1. Changes shall be effected by written order and shall be binding on Contractor.
 - 2. Contractor shall carry out written order promptly.

1.03 CHANGE ORDER PROCEDURES

- A. If a change in the Work is desired, Owner will notify Contractor and provide a written description, in the form of drawings or otherwise, of the desired change.
- B. Contractor shall submit to Owner, a firm proposal for any changes in the Contract Amount and/or Time resulting from the proposed change within five days after receipt of the proposed change and shall submit the actual Change Order Request within ten days.
- C. Owner shall have thirty days, or such other time as may be agreed upon, in which to accept or reject Contractor's proposal after its submission, and Contractor shall not modify or withdraw the proposal during this period.
- D. The cost or credit to Owner resulting from a change in Contractor's work shall be determined in one of the following ways:

1. By mutually agreed lump sum properly itemized and supported by sufficient substantiating data to permit evaluation in accordance with the Construction Documents (which may be evidenced by Owner's issuance to Contractor of a Change Order for Contractor's firm proposal as described above);
 2. By unit prices stated in the Construction Documents or subsequently agreed upon; or
 3. On the basis of reasonable costs and savings of those performing the Work attributable to the change; provided, however, that in no case shall contractor's firm proposal described above nor any other method for determining the amount of the change include any cost for:
 - a. Materials, labor, machinery, fuel or other expenses not specifically reimbursable as identified in the article, Cost Limitations, below, or
 - b. Allowance for overhead and profit in excess of ten percent.
- E. Contractor shall, provided a written order signed by Owner is received, promptly proceed with the Work involved.
- F. In the event Owner directs Contractor to perform change in the Work by a written order other than a signed Change Order and without agreeing to the Contractor's firm proposal, then Contractor shall proceed to perform the change and the amount of the change shall be determined either under D,2 above (to the extent unit prices may be applied to the Work involved) or under D,3 above, as Owner may elect in its sole discretion, unless a mutually acceptable lump Sum price is subsequently agreed upon.
1. To the extent Owner elects D,2, the unit price shall be as described in the Contract Documents.
 2. To the extent that D,1 or D,3 is elected, the cost of the Work and any savings shall be determined in accordance with Cost Limitations article, below.
- G. In the event of additional Work ordered by Owner, Contractor shall submit labor and time card sheets, with description of the Work and materials supplied, to the Owner's Representative daily. This document shall govern in determining the workers' time and equipment usage involved in time-and-material-based charges, unless later found to be incorrect.
- H. If Owner or Engineers disputes the validity or amount of a Change Order Request submitted by Contractor but Owner nevertheless directs Contractor to proceed, Contractor shall promptly proceed with the Work under the Change Order pending resolution of the dispute and expeditiously complete such work.
- I. If Contractor wishes to make any other claim for an increase in the Contract Amount, Contractor shall give Owner written notice thereof within twenty days after the occurrence of the event giving rise to such claim, but nothing contained herein shall be deemed to permit Contractor to claim damages on account of delays in Contractor's performance of the Work or interference therewith, it being agreed that Contractor's sole remedy shall be to obtain an extension of time as provided in the Construction Documents.

1.04 COST LIMITATIONS

A. Cost shall be limited to the following:

1. Cost of materials, including sales tax and cost of delivery;
2. Cost of labor, including social security, old age and unemployment insurance, and fringe benefits required by agreement or custom;
3. Workers' compensation insurance;
4. Bond premiums;
5. Rental value of equipment and machinery;
6. Additional costs of supervision and field office personnel directly attributable to the change.

B. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of the net increase, if any, with respect to such change.

1.05 CHANGE ORDER REQUEST

A. Change Order Request shall consist of the detailed cost estimate outlining the changes in the Work and detailed documentation justifying proposed changes in time.

1. Compute estimate in accordance with accepted estimating procedures and in accordance with the terms of the Construction Documents.
 - a. Costs for labor, machinery, fuel and materials shall be at prevailing rates or wage scales pertinent to the project.
2. Unless otherwise provided in the Construction Documents, labor costs shall mean wages paid for labor under prevailing wage rates, or under a salary and wage scale agreed upon by Owner and Contractor, and shall include welfare and other benefits, if any, as may be payable with respect thereto in accordance with any applicable salary and wage scale.

PART 2 PART 2 - PRODUCTS

Not used.

PART 3 PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01041

PROJECT COORDINATION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Coordination.
- B. Examination.
- C. Preparation.

1.02 COORDINATION

- A. Coordinate scheduling submittals, and Work of the various sections of the construction specifications to assure efficient and orderly sequence of interdependent construction elements.
- B. Coordinate space requirements and installations. Utilize spaces efficiently to maximize accessibility.
- C. Coordinate completion and clean up of Work of separate sections in preparation for Substantial Completion.
- D. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Construction Documents, to minimize disruption of Owner's activities.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions are acceptable for subsequent Work. Beginning Work means acceptance of existing conditions.
- B. Examine and verify specific conditions described in individual specification sections.
- C. Verify that utility services are correctly located.

END OF SECTION

SECTION 01091

REFERENCE STANDARDS

PART 1 GENERAL

1.01 TITLES OF SECTIONS

- A. Captions accompanying specification sections are for convenience or reference only and do not form a part of the Construction Documents.

1.02 APPLICABLE PUBLICATIONS

- A. When references are made to published specifications, codes, standards, or other requirements, and no date is specified, only the latest specifications standards, or requirements of the respective issuing agencies, which have been published as of the date that the Work is advertised for bids, shall apply; except to the extent that standards or requirements may be in conflict with applicable laws, ordinances, or governing codes.
- B. No requirements specified or shown on Drawings shall be waived because of any provision of, or omission from, standards or requirements.

1.03 SPECIALISTS ASSIGNMENTS

- A. Specification text may require (or imply) that specific work be assigned to specialists or expert entities who must be engaged to perform that work
- B. Such assignments are special requirements over which Contractor has no choice or option.
- C. These requirements shall not be interpreted so as to conflict with enforcement of building codes and similar regulations governing the Work nor to interfere with local union jurisdiction settlements and similar conventions.
- D. Such assignments are intended to establish which party or entity involved in specific unit of work is recognized as "expert" for the indicated construction processes or operations
- E. Final responsibility for fulfillment of Contract requirements remains with Contractor.

1.04 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Work specified shall conform to or exceed requirements of applicable codes and applicable requirements of documents listed below to the extent that the provisions of such documents are not in conflict with requirements of these Specifications or applicable codes.
- B. "Building Code" or "UBC" shall mean the Uniform Building Code of the International Conference of Building Officials (ICBO). The latest edition of the code as approved and used by the local agency as of the date of award, as adopted by the agency having jurisdiction, shall apply to the Work herein, including all addenda, modifications, amendments, or other lawful changes thereto.

- C. In case of conflict between codes, reference standards, Drawings and other Construction Documents, the most stringent requirements shall govern.
 - 1. Bring conflicts to the attention of Owner for clarification and directions prior to ordering or providing materials or labor.
 - 2. Bid the most stringent requirements.
- D. Applicable Standard Specifications:
 - 1. Construct the Work in accordance with requirements of the Construction Documents and the referenced portions of those referenced codes, standards, and specifications listed.
 - 2. Wherever references to "Standard Specifications" are made, the contractual, measurement, and payment provisions therein shall not apply.
- E. "Standard Specifications" shall mean the most recent edition of the "Standard Specifications for Public Works Construction", (Orange Book), including all current supplements, addenda, and revisions thereto.
- F. "Standard Drawings" shall mean the most recent edition of the "Standard Details for Public Works Construction, City of Elko, Nevada, including all current supplements, addenda, and revisions thereto.
- G. "OHSAs Regulations for Construction" shall mean Title 29, Part 1926, Construction Safety and Health Regulations, Code of Federal Regulations (OSHA), including changes and amendments thereto.
- H. "OHSAs Standards" shall mean Title 29, Part 1910, Occupational Safety and Health Standards, Code of Federal Regulations (OHSAs), including changes and amendments thereto.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01200

PROJECT MEETINGS

PART 1 GENERAL

1.01 PRECONSTRUCTION CONFERENCE

- A. Prior to commencement of Work at site, a preconstruction conference will be held at a mutually agreed time and place. The conference shall be attended by:
1. Contractor and its superintendent.
 2. Principal subcontractors.
 3. Engineer.
 4. Representatives of owner.
 5. Governmental representatives as appropriate.
 6. Others as requested by Contractor, Owner, or Engineer.
- B. Unless previously submitted to Owner, bring to the conference a tentative schedule for each of the following:
1. Progress.
 2. Procurement
 3. Values for progress payment purposes.
 4. Shop Drawings and other submittals.
- C. The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established. The agenda will include:
1. Contractor's tentative schedules.
 2. Transmittal, review and distribution of Contractor's submittals.
 3. Processing applications for payment.
 4. Maintaining record documents.
 5. Critical work sequencing.
 6. Field decisions and Change Orders.

7. Use of premises, office and storage areas, security, housekeeping, and Owner's needs.
 8. Major equipment deliveries and priorities.
 9. Contractor's assignments for safety and first aid.
- D. Engineer will preside at the pre construction conference and will arrange for keeping the minutes and distributing the minutes to all persons in attendance.

1.02 PROGRESS MEETINGS

- A. Schedule and administer regular onsite progress meetings at least weekly and at other times as required by Owner or as required by progress of the Work.
- B. Make arrangements for meetings, prepare agenda with copies for participants who preside at meetings.
- C. Contractor and all subcontractors active on the site shall be represented at each meeting. Contractor may request attendance by representatives of suppliers, manufacturers and other subcontractors as appropriate to agenda topics for each meeting.
- D. Owner's Representative will preside at the meetings, record minutes and distribute copies to participants and those affected by decisions made.
- E. Agenda
 1. Review minutes of previous meetings.
 2. Review of Work in progress.
 3. Field observations, problems, and decisions.
 4. Identification of problems which impede planned progress.
 5. Review of submittals schedule and status of submittals.
 6. Maintenance of progress schedule.
 7. Corrective measures to regain projected schedules.
 8. Planned progress during succeeding work period.
 9. Coordination of projected progress.
 10. Maintenance of quality and work standards.
 11. Other business relating to Work.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01300

CONTRACTOR SUBMITTALS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Submittal procedures.
- B. Construction progress schedule.
- C. Schedule of Values.
- D. Shop Drawings.
- E. Inspection Certificates.
- F. Spare Parts.
- G. Mix Designs.
- H. Omissions or Errors in Submitted Data.

1.02 SUBMITTAL PROCEDURES

- A. Accompany submittals by transmittal using format bound with Construction Documents or substitute form approved by Engineer. Submittals not accompanied by a form, or where all applicable items on form are not completed, will be returned for resubmittal.
 - 1. Use separate transmittal form for each specific item or class of material or equipment for which a submittal is required.
 - 2. Transmittal of shop drawings for various items using a single transmittal form will be permitted only when the items taken together constitute a manufacturer's "package" or are so functionally related that expedience indicates review of the group or package as a whole.
- B. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic section number, as appropriate.
- C. Identify Project, Contractor, subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate.
- D. Apply Contractor's stamp, signed or initialed certifying that review, verification of Products required field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of Construction Documents.
- E. Schedule submittals to expedite the Project, and deliver to engineer. Coordinate submission of related items.

- F. For each submittal for review, allow 2 to 4 days excluding delivery time to and from Contractor.
- G. Identify variations from Construction Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
- H. Provide space for Contractor and Engineer review stamps.
- I. Revise and resubmit, identify all changes made since previous submission.
- J. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with provisions.
- K. Submittals not requested will not be recognized or processed.

1.03 CONSTRUCTION SCHEDULE

- A. Prepare and submit to Owner for approval, a Project Construction Schedule showing proposed sequence to carry out Work within the Contract Time and showing beginning times and completion times for major items of work
- B. Project Construction Schedule:
 - 1. In the form of a time-scaled item-numbered network diagram.
 - 2. Supplement diagram by activity listing used in its preparation and outline, in sufficient detail:
 - a. Proposed operations.
 - b. Interrelationships of the various operations.
 - c. Order of performance so that progress of Work can be evaluated accurately at any time during performance of the Contract.
- C. Conform Project Construction Schedule to the following requirements:
 - 1. Time of Completion: Adhere to time specified unless an earlier (advanced) time of completion is requested or agreed to by Owner.
 - 2. Construction Schedule Submittal: Within ten working days after receiving notice of award, furnish to Owner a schedule showing general plan for orderly completion of Work, details of planned mobilization of plant and equipment, sequence of early operations and procurement of materials and equipment.
 - 3. Accepted Construction Schedule: Within five working days after receiving notice of acceptance of schedule furnish to Owner one reproducible and three prints of approved schedule.

4. Contractor's Responsibility: Failure of Construction Schedule to include any element of Work, or any inaccuracy in the Construction Schedule will not relieve Contractor from responsibility for accomplishing Work in accordance with the Contract.
5. Float (Slack) Time:
 - a. Amount of time between earliest start date and latest start date or between earliest finish date and latest finish date of activities of Construction Schedule.
 - b. No time extensions or delay costs will be allowed for delays on paths of activities containing float time, providing such delay does not exceed the float time, per the latest updated version of the accepted Construction Schedule.

D. Format of Construction Schedule:

1. Time-scale arrow diagram of the Critical Path Method (CPM) type, or a time-scale precedence diagram. Include in Schedule of Values, itemized descriptions, quantities, and values of work included in each activity in the Construction Schedule.
2. Construction Schedule shall provide the following:
 - a. Time-scaled cost loaded CPM diagram precedence (activity on node) of activities, coordinated with Owner.
 - b. Activity Durations:
 - 1) Total of actual days required to perform that activity including consideration of weather impact on completion of that activity.
 - 2) No duration longer than 14 days, with exception of procurement activities, unless otherwise acceptable to Owner.
 - c. Sufficient detail to show plan for completion of Work for each stage within time specified.
 - d. Milestone activities showing point of completion for each stage of Work.
 - e. Dependencies (or relationships) and logic between activities.
 - f. Information for material or equipment to be provided as follows:
 - 1) Material or equipment description.
 - 2) Duration in days required for preparation and review of Submittals.
 - 3) Duration in days required for fabrication and delivery
 - 4) Restraints (ties) to activities which will be constrained by delivery date of materials or equipment item.
 - 5) Scheduled delivery dates.

2. Submitting Project Construction Schedule and updates, if applicable, shall be considered as a necessary portion of Work; therefore, partial payments will not be made until requirement for acceptable schedules has been satisfied.
3. Acceptance of any schedule submitted shall not be construed to assign responsibility of performance or contingencies to Owner, or relieve Contractor of responsibility to adjust forces, equipment, and/or work schedule as may be necessary to ensure completion of Work within prescribed Contract Time period.

1.04 SCHEDULE OF VALUES SUBMITTAL

- A. Submit Schedule of Values to Owner for review within 10 days after Contract execution.
 1. Finalize at least 10 days before the first application for a Progress Payment.
 2. Provide cost breakdown of the various parts of the Work aggregating the total sum of the Contract.
 3. Make out in required detail and support by evidence of correctness.
 4. Owner will coordinate and approve Schedule of Values format.
 5. Include itemized descriptions, quantities, and value of all work included in each activity in the Construction Schedule.
- B. Use Schedule of Values as a basis for applications for monthly Progress Payments, unless later found to be in error.
- C. When applying for each Progress Payment, submit a statement based upon this Schedule of Values.

1.05 SHOP DRAWING SUBMITTALS

- A. Furnish to Engineer for review, eight prints of each shop drawing.
 1. The term "shop drawings" shall include detail design calculations, fabrication and installation drawings, lists, graphs, and operating instructions
 2. Unless otherwise required, submit shop drawings a time sufficiently early to allow review by Engineer and to accommodate rate of construction progress under the Contract.
- B. Within fifteen calendar days after receipt of prints Engineer will return prints of each drawing to Contractor with comments noted.
 1. It is considered reasonable that Contractor shall make a complete and acceptable submittal by the second submission of drawings.
 2. Owner reserves the right to withhold monies due Contractor to cover additional costs of Engineer's review beyond second submission.
- C. If three prints of drawing are returned to Contractor marked NO EXCEPTIONS TAKEN, a formal revision of drawing will not be required.

- D. If three prints of drawing are returned to Contractor marked MAKE CORRECTIONS NOTED, a formal revision of drawing will not be required.
- E. If one print of drawing is returned to Contractor marked AMEND-RESUBMIT or REJECTED-RESUBMIT, Contractor shall revise drawing and resubmit eight copies of revised drawing to Engineer for review.
- F. Fabrication of an item shall not be commenced before Engineer has reviewed pertinent shop drawings and returned copies to Contractor marked NO EXCEPTIONS TAKEN or MAKE CORRECTIONS NOTED.
 - 1. Revisions indicated on shop drawings shall be changes necessary to meet requirements or Drawings and Specifications and shall not be taken as basis of claims for extra work.
 - 2. Contractor shall have no claim for damages or extension of time due to delay resulting from Contractor's having to make required revisions to shop drawings (unless review by Engineer of drawings is delayed beyond a reasonable period of time and unless the Contractor can establish that Engineer's delay in review actually resulted in delay in Contractor's construction schedule).
 - 3. Review of drawings by Engineer will be limited to checking for general agreement with Specifications and Drawings, and shall in no way relieve Contractor of responsibility for errors or omissions contained therein, nor shall such review operate to waive or modify any provision contained in Specifications or Drawings.
- G. Engineer's review of shop drawing Submittals shall not relieve Contractor of entire responsibility for correctness of details and dimensions.
 - 1. Contractor shall assume all responsibility and risk for misfits due to errors in Contractor submittals.
 - 2. Contractor shall be responsible for:
 - a. Dimensions and design of adequate connections and details.
 - b. Fabricating dimensions.
 - c. Quantities of materials.
 - d. Applicable code requirements.
 - e. Other Contract requirements.
- H. Engineer shall have authority to reject any product upon completion of review of suppliers' Submittals in regard to proof of acceptability of the product

1.06 CERTIFICATES OF INSPECTION

- A. When specified in individual specification sections, submit inspection certification by appropriate entity to Owner in quantity specified.
- B. Certificates shall be acceptable to Owner.
- C. Indicate Work conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

1.07 SPARE PARTS LISTS SUBMITTAL

- A. Furnish to Owner eight identical sets of spare parts information for instrumentation, mechanical, and electrical equipment.
- B. Include current list price of each spare part.
- C. Limit list to those spare parts which each manufacturer recommends be maintained by Owner in inventory at the site.
- D. Each manufacturer or supplier shall indicate name, address, and telephone number of nearest outlet of spare parts to facilitate Owner in ordering.
- E. Cross-reference spare parts lists to equipment numbers designated in Construction Documents.
- F. Bind spare parts lists in standard size, 3-ring, loose leaf, vinyl plastic hard cover binders suitable for bookshelf storage. Binder ring size shall not exceed 2.5 inches.

1.08 MIX DESIGN SUBMITTALS

- A. Prepare Portland cement concrete and asphalt concrete mix designs.
 - 1. Determine exact proportions of materials to be used for different parts of Work, in conformance with Drawings and Specifications.
 - 2. Submit to Engineer for review prior to use in Work
- B. Samples for mix design shall represent existing stockpile.
 - 1. Mix designs "copied" from previous projects will not be accepted unless the existing stockpile aggregate is tested to assure conformity.
 - 2. Any stockpile additive, binder or cement source location and/or type of material change will require a new mix design.

1.09 OMISSIONS OR ERRORS IN SUBMITTED DATA

- A. Pay costs involved in correcting omissions or errors in submitted data, including failure to make timely submittal.

- B. Pay costs involved in correcting omissions or errors in execution of correctly submitted information.
- C. Costs shall include additional compensation due to Owner and Engineer due to additional services necessitated by the change.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01400
QUALITY CONTROL

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Quality assurance - control of installation.
- B. Tolerances.
- C. Inspecting and testing laboratory services.
- D. Manufacturers' field services and reports.
- E. Inspection at place of manufacture.

1.02 QUALITY ASSURANCE - CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturer's instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Construction Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
- G. All water system components that come in contact with potable water must meet the compatibility and lead free requirements of NSF/ANSI 61 and NSF/ANSI 372

1.03 TOLERANCES

- A. Monitor tolerance control of installed Products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Construction Documents, request clarification from Engineer before proceeding.
- C. Adjust Products to appropriate dimensions; position before securing Products in place.

1.04 INSPECTING AND TESTING LABORATORY SERVICES

- A. Owner will appoint, employ, and pay for specified services of an independent firm to perform inspecting and testing.
- B. The independent firm will perform inspections, tests, and other services specified in individual specification sections and as required by Engineer and Owner.
- C. Inspecting, testing and source quality control may occur on or off the project site. Perform offsite inspecting or testing as required by Engineer or Owner.
- D. Reports will be submitted by the independent firm to Engineer, in duplicate, indicating observations and results of tests and indicating compliance or noncompliance with Construction Documents.
- E. Cooperate with independent firm; furnish samples of materials, design mix, equipment tools, storage, safe access, and assistance by incidental labor as required.
 - 1. Notify Engineer and independent firm 24 hours prior to expected time for operations requiring services.
 - 2. Make arrangements with independent firm and pay for additional samples and tests required for Contractors use.
- F. Testing and inspecting does not relieve Contractor to perform Work to Contract requirements.
- G. Retesting required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by Engineer. Payment for retesting will be charged to Contractor by deducting inspecting or testing charges from the Contract Price.

1.05 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual specification sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions or surfaces and installation, quality of workmanship, start-up of equipment. and test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.
- B. Submit qualifications of observer to Engineer 30 days in advance of required observations.
- C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers written instructions.
- D. Submit report in duplicate within 30 days of observation to Engineer for information.

1.06 INSPECTION AT PLACE OF MANUFACTURE

- A. Products, materials, and equipment shall be subject to inspection by Engineer at place of manufacture.

- B. Presence of Engineer at place of manufacture shall not relieve Contractor of responsibility for finishing products, materials, and equipment which comply with requirements of the Construction Documents.
- C. Compliance is a duty of Contractor which shall not be avoided by any act or omission on the part of Engineer.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01505

MOBILIZATION

PART 1 GENERAL

1.01 DESCRIPTION

- A. Mobilization shall include obtaining permits; moving plant and equipment onto site; furnishing and erecting plants, temporary buildings, and other construction facilities, as required for the proper performance and completion of the Work
- B. Mobilization shall include the following principal items:
 - 1. Moving onto the site of plant and equipment required for first month operations including field office for Owner.
 - 2. Installing temporary construction power, wiring, and lighting facilities.
 - 3. Establishing fire protection system.
 - 4. Developing construction water supply.
 - 5. Providing onsite communication facilities.
 - 6. Providing onsite sanitary facilities and potable water facilities as specified.
 - 7. Arranging for and erection of work and storage yard.
 - 8. Obtaining required permits.
 - 9. Posting OSHA required notices and establishment of safety programs.
 - 10. Having the superintendent at the jobsite full time.
 - 11. Submitting Preliminary Construction Schedule.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01530

PROTECTION OF EXISTING FACILITIES

PART 1 GENERAL

1.01 SUMMARY

- A. Protect existing utilities and improvements not designated for removal.
- B. Restore damaged or temporary relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation.
- C. Verify exact locations and depths of utilities shown and make exploratory excavations of utilities that may interfere with Work.
 - 1. Perform exploratory excavations as soon as practicable after award of Contract and in sufficient time in advance of construction to avoid possible delays to Work.
 - 2. When exploratory excavations show utility location as shown to be in error, notify Engineer.
- D. The number of exploratory excavations required shall be sufficient to determine alignment and grade of existing utilities.

1.02 RIGHTS-OF-WAY

- A. Access to lands or rights-of-way, as stated in Article 4 of the General Conditions, for the Work will be provided by Owner as shown on the Drawings.
 - 1. Nothing contained in the Construction Documents shall be interpreted as giving Contractor exclusive occupancy of the lands or rights-of-way provided.
 - 2. Additional lands or rights-of-way required for construction operations shall be provided by Contractor at his own expense.
- B. Do not enter nor occupy with men, equipment, or materials, any lands outside the rights-of-way or easements shown without meeting the following requirements:
 - 1. Furnish to Owner, prior to use of any other public or private properties by Contractor in performance of Work, written authorization by the property owner for use of such property by Contractor.
 - 2. Prior to acceptance of Work by Owner, furnish Owner with written evidence, acceptable to Owner, releasing Contractor from liability to the property owner for the use of such property by Contractor.
 - 3. Take precautions necessary to preserve private and public property in immediate area of work site.

4. Total liability shall be assumed by Contractor for damage to private and/or public property during the prosecution of Work.
5. Upon completion of Work all private and public property shall be, as a minimum, restored to its conditions existing prior to the commencement of work thereon.

1.03 PROTECTION OF STREET OR ROADWAY MARKERS

- A. Do not destroy, remove, or otherwise disturb existing survey markers or other existing street or roadway markers without proper authorization.
- B. Start no pavement breaking or excavation until survey or other permanent marker points that will be disturbed by the construction operations have been properly referenced for easy and accurate restoration.
- C. Notify Engineer of the time and location that work will be done, sufficiently in advance of construction to avoid delay due to waiting for survey points to be satisfactory referenced for restoration.
- D. Survey markers or points disturbed by Contractor without proper authorization by Owner, will be restored by Owner at Contractor's expense after Work has been completed.

1.04 GENERAL RESTORATION OF PAVEMENT

- A. Replace paved areas, including asphaltic concrete berms cut or damaged during construction, with similar materials and of equal thickness to match the existing adjacent undisturbed areas, except where specific resurfacing requirements have been called for in the Contract Documents or in the requirements of the agency issuing the permit.
- B. Temporary and permanent pavement shall conform to the requirements of the owner of the affected pavement.
- C. Pavements subject to partial removal shall be neatly saw-cut in straight lines.

1.05 CONSTRUCTION INTERFERENCES

- A. Contractor's responsibilities regarding existing utilities and construction interferences shall be in accordance with Standard Specifications for Public Works' Construction, and NDOT with the following additional provisions.
- B. Construction interferences include:
 1. Utility or service connections within the limits of excavation or over-excavation required for the Work
 2. Utility or service connections located in the space which will be required by the Work.
 3. Utility or service connections required to be disturbed or removed to permit construction as specified under the Contract.
- C. Disturb or remove connections only with approval of owner and following notification to owner of interfering utility or service connection.

- D. Promptly reconstruct utility or service connections removed or otherwise disturbed in original or other authorized location in a condition at least as good as prior to such removal or disturbance, subject to the inspection of utilities' owners.
- E. Contractor's responsibility to remove or replace shall apply even in if damage or destruction occurs after backfilling.
- F. Immediately notify owner of utility if service connection damage or destruction occurs or is discovered.
- G. During the performance of the Work, the owner of any utility affected by the Work shall have the right to enter when necessary upon any portion of the Work for the purpose of maintaining service and of making changes in or repairs to the utility.
- H. Contractor shall not be held responsible for failure to complete the Work on time to the extent that such delay was caused by failure of the owner or of the agency having jurisdiction over the utility or service connection to authorize or otherwise provide for its removal, relocation, protection, support, repair, maintenance, or replacement.
- I. Exercise extreme care not to damage existing utilities and/or new and existing facilities which do not physically constitute a construction interference.
 - 1. Use equipment of such weights throughout construction operations so that existing buried utilities and/or new and existing facilities are not damaged by excessive loadings.
 - 2. Contractor shall be responsible for costs of repair and/or replacement of new or existing facilities damaged by construction operations, as determined by Owner.
- J. Contact "CALL BEFORE YOU DIG" not less than 48 hours prior to starting any excavation. Notify by telephone and comply with all instructions received; the toll free number is 1-800-227-2600.
 - 1. All utility companies may not be members of the USA System and, therefore, not automatically contacted by the above referenced telephone number.
 - 2. Contractor shall be responsible for making himself aware of utility company facilities not reported by the USA System, and shall bear any and all damages stemming from repair or delay costs or any other expenses resulting from the unanticipated discovery of underground utilities.
 - 3. Notify the pertinent utilities at least two working days in advance of commencement of work at site, to examine the construction site and mark the location of the utilities' respective facilities. Verify that each utility has responsibly responded to the notification.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01535

SAFETY

PART 1 GENERAL

1.01 SUMMARY

- A. Nothing contained in this section is intended to limit the types and amounts of safety precautions required.
- B. No omission from this section will be recognized as an indication by the City that such safety precautions are not required for successful completion of the Work and compliance with requirements of Contract Documents.

1.02 SAFETY PROTECTION

- A. Prior to starting and during progress of the Work, prevent hazards to personnel and property, including that of the City, Engineer, subcontractors, separate contractors, the neighborhood, and the public.
- B. Provide for proper care, safety, and protection of materials, installed work, personnel, and equipment.
- C. Precautions taken for safety and protection shall not relieve Contractor from liability due to accidents or any other cause.

1.03 COMPLIANCE WITH SAFETY PROGRAM

- A. Implement and enforce a safety program consistent with the needs and objectives of the City.
- B. Comply with the requirements of federal, state, and local regulations governing safety.
- C. Provide personal protective equipment as defined by state and federal laws. Such equipment shall be worn by employees (hard hats, eye protection, etc.)
- D. Hold weekly safety meetings with subcontractors and report items discussed to the City on a weekly basis.
- E. Lower tier subcontractors shall conduct weekly toolbox meetings and weekly safety - inspections of its areas and equipment. Equipment so required by law (such as cranes and cables) shall be inspected daily.
- F. Thoroughly investigate accidents to the degree satisfactory to the City.
- G. Submit weekly written reports to the City for the following items:
 - 1. Safety meetings.
 - 2. Area and equipment inspection

3. Accident investigations and statistics.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01560

TEMPORARY ENVIRONMENTAL CONTROLS

PART 1 GENERAL

1.01 SUMMARY

- A. Provide and maintain control over environmental conditions at the construction site and related areas under Contractor's control.
- B. Remove physical evidence of temporary facilities upon completion of the Work..
- C. Section includes:
 - 1. Dust Control.
 - 2. SWPPP.
 - 3. Debris Control.
 - 4. Pollution Control.
 - 5. Explosives and Blasting.
 - 6. Barriers.
 - 7. Protection of Installed Work.
 - 8. Security.
 - 9. Chemicals.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.01 DUST CONTROL

- A. The Contractor shall obtain a (NDEP) Bureau of Air Pollution Control, Surface Disturbance Permit (SAD) for areas being disturbed.
- B. The Contractor shall submit copies of all required permits to the Construction Manager prior to proceeding with the work.

- C. Provide positive means to prevent airborne dust from disbursing into the atmosphere. See Article 3.05, this section.

3.02 STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

- A. Contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) and Notice of Intent (NOI) for this project, which he shall submit, to the State of Nevada, Division of Environmental Protection (NDEP). The SWPPP shall be prepared and submitted to NDEP regardless of any exemption this project may have due to overall disturbance area. The SWPPP shall incorporate the provisions of the Temporary Drainage Plan the Contractor is required to provide as identified as part of the Construction Plans included with the Drawings. The Contractor shall provide the Construction Manager a copy of the NDEP permit prior to the start of construction.
- B. Control surface water and prevent damage to the Project, the site, and adjoining properties.
- C. Furnish, place, and maintain supports and shoring required for the sides of the excavations. Protect
- D. Properly treat onsite storm drainage water and divert offsite drainage to prevent flooding, erosion, sediment transport or other damage to any portion of the site or to adjoining areas.

3.03 DEBRIS CONTROL

- A. Keep all areas under Contractor's control free from extraneous debris; at all times keep work area in a neat, clean, and safe condition.
- B. Initiate and maintain a specific program to prevent accumulation of debris at the site, in storage and parking areas, and along access roads and haul routes, as follows:
 - 1. Provide containers for deposit of debris.
 - 2. Prohibit overloading of trucks to prevent spillage on access and haul routes.
 - 3. Perform periodic inspections to enforce these requirements.
- C. Schedule periodic collection and disposal of debris and provide additional collection and disposal of debris whenever the periodic schedule is inadequate to prevent accumulation.
- D. If Contractor fails to clean up as provided in Construction Documents, Owner may do so and cost thereof will be charged to Contractor.

3.04 POLLUTION CONTROL

- A. Prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations, including equipment personnel and emergency measures required to contain any spillage, and to remove contaminated soils or liquids.
 - 1. After obtaining proper approvals, excavate and dispose of contaminated earth offsite, and replace with suitable compacted fill and topsoil.

- B. Take special precautions to prevent harmful substances from entering public waters.
 - 1. Prevent disposal of wastes, effluents, chemicals or other substances adjacent to washes, or in sanitary or storm sewers.
- C. Control atmospheric pollutants to prevent toxic concentrations of chemicals, and to prevent harmful dispersal of pollutants into the atmosphere.
- D. This project is located in Elko County, Nevada.
 - 1. Contact the State Health Bureau (Air Pollution Control Division) regarding special considerations concerning air quality requirements in Elko County.
 - 2. Compliance with all rules, regulations, special stipulations and laws pertaining to air quality shall be Contractor's responsibility and the cost thereof shall be considered in the Contract lump sum price.
- E. Applications for Operating Permits and for Authority to Construct facilities for extracting and processing of onsite materials shall be the Contractor's responsibility.

3.05 EXPLOSIVES AND BLASTING

- A. The use of explosives on the Work will not be permitted.

3.06 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
- B. Provide protection for plant life designated to remain. Replace damaged plant life.
- C. Protect non-owned vehicular traffic, stored materials, site and structures from damage.

3.07 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed Work Control activity in immediate work area to prevent damage.
- C. Prohibit traffic from landscaped areas.

3.08 SECURITY

- A. Protect work, existing premises, and Owner operations from theft, vandalism, and unauthorized entry.
- B. Initiate security program in coordination with Owner's existing security system upon receipt of notice to proceed.

3.09 CHEMICALS

- A. All chemicals used during project construction or furnished for project operation (i.e., defoliant, soil sterilant, herbicide, pesticide, disinfectant, polymer, reactant or of other classification) shall show approval of either the U.S. Environmental Protection Agency or the U.S. Department of Agriculture.
 - 1. Use of chemicals and disposal of residues shall be in strict accordance with the printed instructions of the manufacturer.

END OF SECTION

SECTION 01600

MATERIALS AND EQUIPMENT

PART 1 GENERAL

1.01 DEFINITIONS

- A. The word "Products" is defined to include purchased items for incorporation into the Work, regardless of whether specifically purchased for the project or taken from Contractor's stock of previously purchased products.
- B. The word "Materials" is defined as products which must be substantially cut, shaped, worked, mixed, finished, refined, or otherwise fabricated, processed, installed, or applied to form units of work.
- C. The word "Equipment" is defined as products with operational parts, regardless of whether motorized or manually operated, and particularly including products with service connections (wiring, piping, and other like items).
- D. Definitions in this Article are not intended to negate the meaning of other terms used in Construction Documents, including "specialties," "Systems," "Structure," "accessories," "special construction," and similar terms, which are self-explanatory and have recognized meanings in the construction industry.

1.02 QUALITY ASSURANCE

- A. Source limitations: To the greatest extent possible for each unit of work, provide products, materials or equipment of a singular generic kind from a single source.
- B. Compatibility of Options:
 - 1. Where more than one choice is available as options for Contractor's selection of a product, material, or equipment, select an option which is compatible with other products, materials, or equipment already selected.
 - 2. Compatibility is a basic general requirement of product/material selections.
- C. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Construction Documents.
- D. Provide interchangeable components of the same manufacturer, for similar components.
- E. All water system components that come in contact with potable water must meet the compatibility and lead free requirements of NSF/ANSI 61 and NSF/ANSI 372

1.03 PRODUCT DELIVERY-STORAGE-HANDLING

- A. Deliver, handle, and store products in accordance with supplier's written recommendations and by methods and means which will prevent damage, deterioration, and loss, including theft.
 - 1. Control delivery schedules to minimize long- term storage of products at site and overcrowding of construction spaces.
 - 2. Provide delivery/installation coordination to ensure minimum holding or storage times for products recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other sources of loss.

1.04 TRANSPORTATION AND HANDLING

- A. Transport products to avoid product damage and delivery in undamaged condition in supplier's unopened containers or packing, dry.
- B. Provide equipment and personnel to handle products, materials, and equipment, including those provided by Owner, to prevent soiling and damage.

1.05 STORAGE AND PROTECTION

- A. Store products in accordance with suppliers written instructions, with seals and labels intact and legible.
 - 1. Store sensitive products in weather- tight enclosures.
 - 2. Maintain temperature and humidity ranges within tolerances required by supplier's written instructions.
- B. For exterior storage or fabricated products, place on sloped supports above ground.
 - 1. Cover products subject to deterioration with impervious sheet covering.
 - 2. Provide ventilation to avoid condensation.
- C. Store loose granular materials on solid surfaces in a well-drained area and prevent from mixing with foreign matter.
- D. Arrange storage to provide access for inspection. Periodically inspect products to assure that products are undamaged and maintained under required conditions.
- E. Arrange storage to provide access for maintenance of stored items.

1.06 MAINTENANCE OF STORAGE

- A. Periodically inspect stored products on scheduled basis. Maintain a log of inspections and make log available to Owner on request.
- B. Verify that storage facilities comply with supplier's product storage requirements.
- C. Verify that supplier required environmental conditions are maintained continually.

- D. Verify that surfaces of products exposed to elements are not adversely affected and that weathering of finishes is acceptable under requirements of Construction Documents.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01630

PRODUCT OPTIONS AND SUBSTITUTIONS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor's selection of products.
- B. Requests for substitution of products.

1.02 SELECTION OF PRODUCTS

- A. Base bid on products, materials, or systems specified to establish the standard of quality required and to provide a uniform basis for evaluating bids.
- B. Products Specified by Naming Only One Manufacturer:
 - 1. Include that manufacturer in base bid.
- C. Products Specified by Naming One or More Manufacturers:
 - 1. Include first one named in base bid unless a particular section states that any manufacturers listed in that Section may be used in base bid.
- D. When product or manufacturer's names are not specified, provide products, materials, or systems in accordance with performance requirements and install in accordance with material manufacturer's recommendations.
- E. "Or Equal":
 - 1. Where phrases "or equal" or "or approved equal" occur in Construction Documents, do not assume that the products, materials, or system will be approved as equal (even if approved for use on previous projects) until the item has been specifically approved for this work by Engineer.
 - 2. Decision of Engineer shall be final.

1.03 LIMITATIONS ON SUBSTITUTIONS

- A. Substitutions will be considered only when listed on the form provided at the end of this Section (Substitution Request Form).
- B. Only proposed substitutions of Successful Bidder will be reviewed, providing the following procedures have been adhered to:
 - 1. List on Substitution Request Form as specified in Paragraph A.

2. Completely execute Substitution Request Form for each product with substantiating data attached, and signed by authorized representative of Contractor. Submit in quadruplicate.
 3. Deliver requests to Engineer's office within seven calendar days from date of Notice of Award. Late submittals will not be reviewed.
- C. Subsequent requests will be considered in case of product unavailability.
1. Submit a letter to this effect written by the manufacturer accompanied by the completed Substitution Request Form. If, in the opinion of the Engineer, any product specified:
 - a. Cannot be delivered during progress of Work.
 - b. Will no longer be available during progress of Work, or
 - c. If quality of material, as specified, no longer meets Specifications, Engineer will specify a substitute. The material cost differential (credit or extra) between the specified material and the "substitute" will be reflected in a Change Order to Contractor.
 - d. Request for subsequent substitutions may be submitted no later than 30 days after Notice to Proceed is issued.
- D. Substitutions will not be considered when indicated on shop drawings or product data submittals, when requested directly by subcontractor or supplier, or when acceptance will require substantial revisions of Construction Documents.
- E. Substitute products shall not be ordered or installed without written acceptance.
- F. Only one request for substitution for each specified product will be considered. When substitution is not accepted, provide specified product.
- G. Approval, or rejection, of a request for a Substitution will be based on Engineer's opinion, with concurrence by Owner, as to adaptability, durability, quality, aesthetics, and Contract Amount change, when compared to the specified or noted items.

1.04 REQUESTS FOR SUBSTITUTIONS

- A. Identify product by specification section and article numbers. Provide manufacturer's name and address, trade name of product, and model or catalog number. List fabricators and suppliers as appropriate.
- B. Attach product data as specified in Section 01300.
- C. List similar projects using product, dates of installation, and names of Engineers and Owners.
- D. Give itemized comparison of proposed substitution with specified product, listing variations.
- E. Give quality and performance comparison between proposed substitution and the specified product.

- F. Give cost data comparing proposed substitution with specified product, and amount of net change to Contract Amount.
- G. List availability of maintenance services and replacement materials.
- H. State effect of substitution on construction schedule, and changes required in other work or products.

1.05 CONTRACTOR REPRESENTATION

- A. Request for substitution constitutes a representation that Contractor has investigated proposed product and has determined that it is equal to or superior in all respects to specified product. In addition, Contractor:
 - 1. Will provide same warranty for substitution as for specified product.
 - 2. Will coordinate installation of accepted substitute, making such changes as may be required for Work to be complete in all respects.
 - 3. Certifies that cost data presented is complete and includes all related costs under this Contract.
 - 4. Waives claims for additional costs related to substitution which may later become apparent.

1.06 SUBMITTAL PROCEDURES

- A. Submit four copies of request for substitution.
- B. After award of Contract, Engineer will notify Contractor, in writing, of status of requested substitutions within 10 days.
- C. For accepted products, submit shop drawings, product data and samples under provisions of Section 01300.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SUBSTITUTION REQUEST FORM

DATE: _____ PROJECT TITLE: _____

PROJECT NUMBER: _____ LOCATION: _____

NAME AND ADDRESS OF CONTRACTOR:

SUBMITTED FOR REVIEW TO:

GENTLEMEN:

PLEASE CONSIDER FOR APPROVAL THE FOLLOWING PRODUCT OR SYSTEM AS AN "APPROVED EQUAL" SUBSTITUTION IN ACCORDANCE WITH THE PROVISIONS OF THE CONTRACT DOCUMENTS.

* * * * *

NAME AND DESCRIPTION OF SPECIFIED PRODUCT OR SYSTEM:

SPECIFICATION DIVISION _____ SECTION _____ PAGE(S) _____

DRAWINGS NO(S). _____ DETAIL OR SECTION NO(S) _____

NAME AND DESCRIPTION OF SUBMITTAL FOR SUBSTITUTION:

NAME, ADDRESS, AND TELEPHONE NUMBER OF MANUFACTURER:

NAME, ADDRESS AND TELEPHONE NUMBER OF VENDOR:

REASON(S) FOR NOT GIVING PRIORITY TO SPECIFIED ITEM:

1. SUBSTITUTION AFFECTS OTHER MATERIALS OR SYSTEMS:
___ YES ___ NO

2. SUBSTITUTION REQUIRES DIMENSIONAL REVISION OR REDESIGN OF
STRUCTURE: ___ YES ___ NO

(If YES, for 1 and/or 2 above, attach complete data)

3. SAVING OR CREDIT TO OWNER FOR ACCEPTING SUBSTITUTE (even dollar)

\$ _____ (In words: _____ dollars)

4. ATTACH DATA FURNISHED FOR EVALUATION OF SUBSTITUTION:

___ CATALOG, ___ DRAWINGS, ___ SAMPLES, ___ TESTS, ___ REPORTS

___ OTHER.

5. MANUFACTURER'S GUARANTEES OF THE SUBSTITUTE VS SPECIFIED ITEM IS:
___ SAME ___ DIFFERENT (Explain on Attachment)

THE UNDERSIGNED HEREBY CERTIFIES THAT THIS SUBSTITUTION HAS BEEN FULLY
CHECKED AND COORDINATED WITH THE CONTRACT DOCUMENTS.

CONTRACTOR: _____ BY: _____

ADDRESS: _____ TITLE: _____

_____ PHONE: () _____

_____ ACCEPTED _____ ACCEPTED AS NOTED _____ NOT ACCEPTED

_____ RECEIVED TOO LATE DATE RECEIVED: _____

DATE OF ACTION: _____ BY: _____
FOR ENGINEER OF RECORD

SECTION 01710

CLEANING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Cleaning during progress of the Work and at completion of the Work, as required by conditions of the Contract.

1.02 DISPOSAL REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations, and anti-pollution laws.

1.03 CLEANING DURING CONSTRUCTION

- A. Contractor shall be responsible for Contractor's own waste, debris and cleanup on a regular basis and for maintaining a clean environment
- B. After due notice, Owner will clean up areas of Contractor's work not cleaned up and will charge Contractor the cost thereof, which charge will be deducted from payments due or to become due Contractor.
- C. Remove waste materials, debris and rubbish from the site periodically and dispose of it at legal disposal areas away from the site.
- D. Notwithstanding the conditions stated above, the Contractor shall be solely responsible for the collection and removal of all hazardous material.
- E. Contractor shall execute periodic cleaning to keep the Work, the site and adjacent properties free from accumulations of waste materials, rubbish and wind blown debris, resulting from Construction operations under Contractor's control.
- F. Should the Work involve flammable or combustible liquids, Contractor shall be responsible for removing and disposing of same from project site.

1.04 FINAL CLEANING

- A. Immediately prior to the inspection for substantial completion of the Work, the Contractor shall:
 - 1. Remove Contractor's waste materials and rubbish from the site.
 - 2. Remove all bafflers and other protective devices.
 - 3. Thoroughly clean site to leave it in a rake clean condition, ready for use by Owner.

- B. Immediately prior to the final inspection for completion of the project, Contractor shall:
1. Execute final cleaning prior to final inspection.
 2. Prior to final completion, conduct an inspection of all work areas to verify that the entire work is clean.
 3. Maintain work in a clean condition until the Owner determines the Work and the Project are complete.
 4. Promptly remove from the vicinity of the completed work, all rubbish, unused materials, concrete forms, construction equipment, and temporary structures and facilities used during construction.
- C. Final acceptance of the Work by Owner will be withheld until Contractor has satisfactorily complied with the foregoing requirements for final cleanup of the Project site.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01740

WARRANTIES AND BONDS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Contractor's One Year warranty.
- B. Product and Service Warranties.
- C. Preparation and submittal.
- D. Time and schedule of submittals.

1.02 CONTRACTOR'S ONE YEAR WARRANTY

- A. Unless otherwise provided, materials and equipment incorporated into Work shall be new and, where not specified, of the most suitable grade of the respective kinds, for the intended use, and workmanship shall be in accordance with construction practices acceptable to Owner.
- B. Unless otherwise provided, warrant equipment, materials, and labor furnished or performed under this Contract against defects in design, materials and workmanship (unless furnished by Owner), for a period of twelve months (unless longer guarantees or warranties are provided for elsewhere in Construction Documents in which case the longer guarantees or warranties shall prevail) after final acceptance, regardless of whether furnished or performed by Contractor or subcontractors of any tier.
 - 1. Upon receipt of written notice from Owner of any defect in equipment, materials, or labor during the applicable warranty period, due to defective design, materials or workmanship, the affected items or parts thereof shall be redesigned, repaired or replaced by Contractor at a time acceptable to Owner.
- C. Perform tests Owner may require to verify that redesign, repairs and replacements comply with requirements of Contract.
 - 1. Costs incidental to such redesign, repair, replacement and testing, including the removal, necessary to gain access, shall be borne by Contractor.
- D. Warrant redesigned, repaired or replaced work against defective design, materials and workmanship for a period of twelve months from and after date of acceptance thereof.
 - 1. Should Contractor fail to promptly make the necessary redesign, repair, replacement and test, Owner may perform or cause to be performed the same at Contractor's expense.
 - 2. Contractor and its surety or sureties shall be liable for the satisfaction and run performance of the warranties as set forth herein.

1.03 PRODUCT AND SERVICE WARRANTIES

A. Warrant to Owner:

1. That materials and equipment furnished will be of good quality and new unless otherwise required or permitted by Construction Document.
2. That Work will be free from defect not inherent in the quality required or permitted.
3. That Work will conform with requirements of Construction Documents.

B. Work not conforming to requirement, including substitutions not properly approved and authorized, may be considered defective.

C. Contractor's warranty excludes remedy for damage or defect caused by abuse, modifications not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage.

D. If required by Owner, furnish satisfactory evidence as to the kind and quality of materials and equipment.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 FORM OF SUBMITTALS

A. Bind in commercial quality 6-1/2 x 11-inch three D side ring binders with durable plastic covers.

B. Cover: identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.

C. Table of Contents: Neatly typed, in sequence of Table of Contents of Project Manual, identifying each item with number and title of specification section in which specified, and name of Product or work item.

D. Separate each warranty of bond with index tab sheets keyed to the Table of Contents listing.

1. Provide full information, using separate typed sheets as necessary.

2. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

3.02 PREPARATION OF SUBMITTALS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, manufacturers, and suppliers within 10 days after completion of the applicable item of work.
 - 1. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain run information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.

3.03 TIME OF SUBMITTALS

- A. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
- B. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
- C. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.

3.04 WARRANTIES

- A. Provide duplicate notarized copies.
- B. Execute and assemble transferable warranty documents from Subcontractors, suppliers, and manufacturers.
- C. Submit prior to final Application for Payment.
- D. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within 10 days after acceptance, listing date of acceptance as start of warranty period.

END OF SECTION