

August 23, 2019

TO: HOLDERS LIST

SUBJECT: NIM Stormwater Pipe Extension
CONTRACT NO. 071143

ADDENDUM NUMBER # 01

This addendum is issued to add, remove, clarify and amend the following:

SPECIFICATIONS

A. SECTION 00 41 00 – BID FORM

DELETE the Bid Form in its entirety and **REPLACE** with the amended **Section 00 41 00 – Bid Form** (Attachment A).

B. SECTION 01 14 00 – WORK RESTRICTIONS

DELETE the entire section and **REPLACE** with the amended **Section 01 14 00 – Work Restrictions** (Attachment B).

C. SECTION 01 20 00 – PRICE AND PAYMENT

DELETE the entire section and **REPLACE** with the amended **Section 01 20 00 – Price and Payment** (Attachment C).

D. SECTION 33 40 00 – STORMWATER UTILITY SYSTEMS

After paragraph C of section **3.06 Acceptance Testing**, **ADD** the following paragraph.

“D. CCTV each section of pipe prior to paving. CCTV shall be performed by an experienced operator using remote controlled self-propelled equipment. Video shall include live narration of observations made along the pipe including position of noted item. Provide a digital copy of CCTV exploration to the Port on a USB compatible drive in a commonly used video format (MOV, MP4, AVI, WMV.)”

Receipt for this addendum shall be indicated in the space provided in Section 00 41 00, Bid Form.



Attachment A – Addendum No. 1 Section 00 41 00 – Bid Form

Attachment B – Addendum No. 1 Section 01 14 00 – Work Restrictions

Attachment C – Addendum No. 1 Section 01 20 00 – Price and Payment

END OF SECTION

BIDDER'S NAME: _____

PROJECT TITLE: **NIM STORMWATER PIPE EXTENSION**

The undersigned Bidder declares that it has read the Contract Documents, including documents provided by reference, understands the conditions under which the Work will be performed, has examined the Project site, and has determined for itself all situations affecting the Work herein Bid upon. Bidder proposes and agrees, if this Bid is accepted, to provide at Bidder's own expense, all labor, machinery, tools, materials, etc., including all Work incidental to, or described or implied as incidental to such items, according to the Contract Documents, and that the Bidder will complete the Work within the time stated, and that Bidder will accept in full the lump sum or unit price(s) set forth below:

ITEM NO.	DESCRIPTION OF ITEM	QTY	UOM	UNIT PRICE	EXTENDED PRICE (QTY. x UNIT PRICE)
1	Mobilization and Demobilization	1	LS		
2	Project Administration	1	LS		
3	TESC	1	LS		
4	Field Survey	1	LS		
5	Trench Safety System	787	LF		
6	Sawcut Asphalt	1,800	LF		
7	Remove, Haul, and Dispose Full Depth Asphalt	400	Ton		
8	Grind and Dispose Asphalt	400	SY		
9	24-inch PVC Storm Pipe	787	LF		
10	48-inch SDMH	1	EA		
11	60-inch SDMH	1	EA		
12	72-inch Saddle SDMH	1	EA		
13	Concrete Manhole Collar	3	EA		
14	Unsuitable Soil	500	Ton		
15	Quarry Spalls	20	Ton		
16	Gravel Backfill	200	Ton		
17	Crushed Rock Base	400	Ton		
18	Asphalt Class 1/2 - inch	150	Ton		
19	Asphalt Class 3/4 - inch	270	Ton		
20	Plug Existing Storm Pipe	1	LS		
21	Allowance for Dewatering	1	LS	58,000	58,000
TAXABLE BASE BID SUBTOTAL					

TOTAL BID AMOUNT	
10.2% WASHINGTON STATE SALES TAX (WSST) ON BASE BID SUBTOTAL	
BID TOTAL (WITH WSST)	

Note: Show prices in figures only.

Evaluation of Bids. In accordance with the provisions of the Contract Documents, Bids will be evaluated to determine the lowest Base Bid Subtotal offered by a responsible Bidder submitting a responsive Bid.

Trench Excavation Safety Provision. If the Project contains Work that requires trenching exceeding a depth of four (4) feet, all costs for trench safety shall be included in the Base Bid and indicated below for adequate trench safety systems in compliance with RCW 39.04 and WAC 296-155-650. Bidder shall include a lump sum amount, excluding Washington State Sales Tax. If trench excavation safety provisions do not pertain to the Work, the Bidder should enter "N.A." or "Not Applicable" in the blank on the Bid Form.

Trench Excavation Safety: _____(Total in Written Figures Only)

Non-Collusion Representation. The Bidder declares under penalty of perjury that the Bid submitted is genuine and not a sham or collusive bid, or made in the interest or on behalf of any person or firm not therein named; and further represents that the Bidder has not directly or indirectly induced or solicited any other bidder to submit a sham bid, or encouraged any other person or corporation to refrain from bidding; and that the Bidder has not in any manner sought by collusion to secure to the Bidder an advantage over any other bidder or bidders.

RCW 39.04.350 Certification. The Bidder represents and certifies, under penalty of perjury, that within the three- (3-) year period immediately preceding the Bid Date, the Bidder has not been determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries, nor through a civil judgment entered by a court of limited or general jurisdiction, to have willfully violated, as defined in RCW 49.48.082, any provision of Chapters 49.46, 49.48, nor 49.52 RCW.

Addenda. Bidder acknowledges receipt and acceptance of all Addenda through No. ____
(Identify Last Addenda By Number)

Bid Security. A certified check, cashier's check, or other obligation of a bank, or a bid bond in substantially the form set forth in Section 00 43 13, Bid Security Form for at least five (5) percent of the Base Bid Subtotal, shall be submitted with this Bid.

Liquidated Damages. The Bidder agrees to pay the Port as liquidated damages the sum of \$1,000.00 for each consecutive calendar day that is in default after the Contract Time. Liquidated damages shall be deducted from the Contract Sum after taxes and retainage.

Name of Firm

Date

Signature

By

Title

Mailing Address

City, State

Zip Code

Telephone Number

Email Address

WA State Contractor's License No.

Date of Issue

Expiration Date

Unified Business Identifier (UBI) No.

Employment Security Department No.

Identification of Bidder as a sole proprietor, a partnership, a joint venture, a corporation, or another described form of legal entity

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section specifies work sequence and constraints.
- B. The purpose of the milestones, sequence and limitations of construction are to ensure that the Contractor understands the requirements and limitations on its work by the specific characteristics of the Contract, schedules and conducts work in a manner consistent with achieving these purposes, and complies with the construction schedule, the specific sequence, constraints, milestones and limitations of work specified.
- C. Sequence of construction. Plan the sequence of construction to accommodate all the requirements of the specifications. The Contract Price shall include all specified requirements as described in the Contract Documents.

1.02 CONTRACTOR ACCESS AND USE OF PREMISES

- A. Activity Regulations
 - 1. Ensure Contractor personnel deployed to the project become familiar with and follow all regulations or restrictions established by the Engineer.
- B. Working Facility
 - 1. Work at the Husky Terminal will remain in operation for the duration of construction. The Contractor shall conduct all items of the Work in such a manner as to prevent interference with the normal operations of the Facility.
 - 2. TWIC Escorting Requirements:
 - a. The Husky Terminal is a secure area and requires TWIC credentialed individuals to access the Project at East 11th Street guard house. Refer to Section 00 73 63 for escort requirements.
- C. Work Site Regulations
 - 1. Keep within the limits of work and assigned avenues of ingress and egress. Do not enter any areas outside the designated work location unless previously approved by the Engineer. The Contractor must comply with the following conditions:
 - a. Restore all common areas to a clean and useable condition that permits the resumption of Tenant operations after the Contractor ceases daily work.
 - b. Be responsible for control and security of Contractor-owned equipment and materials at the work site. Report to Port Security (phone (253) 383-9472) any missing/lost/stolen property.
 - c. Ensure all materials, tools and equipment will be removed from the site or secured within the designated laydown area at the end of each shift.

1.03 WORK SEQUENCE

- A. Provide pre-work and material submittals to include a pre-work photo gallery of the pipe alignment and work areas.
- B. **Survey, sawcutting, temporary fencing, potholing, utility locates, and export of materials to include asphalt pavement, and CCTV shall be accomplished outside of after Terminal operating hours (typically Terminal operating hours are 7:30 am to 45:300 pm) or on**

weekends. Temporary fencing sawcutting, survey and utility locates shall be completed prior to asphalt removal and excavation.

- C. Mobilize equipment
- D. Work shall begin at the downstream storm drain manhole (SDMH) No. 3 and progress upstream to the existing SDMH. Other than Items A and B above, complete all remaining work (including pipe cleaning, air testing and CCTV) for each pipe run or phase (SDMH to SDMH) before moving to the ~~the~~ next pipe run. Pipe runs (phase) are:

1. SDMH No 3 to SDMH No. 2
2. SDMH No. 2 to SDMH No. 1
3. SDMH No. 1 to Existing SDMH

~~E. Schedule and compete CCTV~~

~~E~~F. Submit as-built drawings to the Engineer.

~~E~~G. Clean up and demobilize equipment and temporary facilities used during construction.

1.04 CONSTRAINTS - GENERAL

A. Constraints

1. Work shall be coordinated with the Engineer or Engineers Representative.
2. Terminal operations shall not be impacted by construction activities; terminal operated equipment and vehicles shall have right-of-way at all times.
3. Business hours at the Terminal are subject to change as dictated by vessel and rail schedules. Contractor shall be flexible in planning their work schedule. Consider using the Port's website for vessel and rail schedules at <http://www.portoftacoma.com/vessel-schedule> and <http://www.portoftacoma.com/shipping>.

1.05 CONSTRAINTS AT OPERATING TERMINAL

A. Construction at the Husky Terminal

1. Work area is confined to a 60-foot wide fenced corridor with sufficient room at each end for equipment access and operation to install SDMHs. Work shall be restricted to this area until the new pipeline, SDMHs, backfill, testing and final asphalt paving are in place.
2. Work adjacent to SDMH No. 1, south of the high mast pole requires a reduced work area to accommodate two way Terminal traffic during construction. The exact configuration of the temporary fence at this locations shall be field determined.
3. Conduct satisfactory air test for each pipe run per phase. Air test shall be accomplished prior to final paving.
4. ~~At the completion of all work clean the pipeline and CCTV the entire pipeline extension. Plan for this work to occur after Terminal hours or on weekends.~~
45. Typical Terminal business hours are Monday through Friday from 7:30 am to 4:30 pm. However, these hours can be extended or modified based on vessel and train schedules. Contractor shall coordinate their project schedule and work schedule with the Engineer and Husky Operations on a weekly basis to address on-going Terminal operations. For any reason during work the Contractor determines a change to the project work schedule is necessary, the Contractor shall immediately inform the Engineer and Husky Operations of the change.

56. Contractor shall plan to work a flexible schedule that may include working at night or weekends to accomplish the project in a timely manner.
67. Refer to Section 01 55 00 Vehicular Access and Parking for construction workers.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. Procedures for preparation and submittal of applications for progress payments.

1.02 PAYMENT PROCEDURES

- A. Monthly pay estimates shall clearly identify the work performed for the given time period based on the approved Schedule of Values.
1. At the Pre-construction meeting, the Engineer and the Contractor shall agree upon a date each month when payment applications shall be submitted.
- B. For each pay estimate the Contractor shall submit the following:
1. Completed "Application and Certificate for Payment" on form as required by Division 01 or as established by the Engineer.
 2. Baseline Project Schedule and narrative updated as required by Section 01 32 16 of the Project Manual.
 3. Completed "Amounts Paid to Subcontracts and Suppliers" showing total contract amount, amount paid this estimate, total paid to date, and balance owing.
 4. Completed "Conditional Release and Waiver of Liens and Claims."
 5. An estimated cashflow statement projecting the Contractor's monthly billings on the project shall be submitted with each payment application.
- C. Prior to submitting a payment application, the Contractor and Engineer shall meet each month to review the work accomplished to determine the actual quantities including labor, materials and equipment charges to be billed.
1. Prior to the payment application meeting, the Contractor shall submit to the Engineer all measurement documentation as referenced in these contract documents; to include all measurement by weight, volume or field.
 2. For all change work being done on a force account basis, the Contractor shall submit prior to meeting with Engineer all Force Account back-up documentation as required to process the payment application where Force Account work is being billed. The Engineer and the Contractor shall review the documentation at the payment application meeting to verify quantities and review the work accomplished.
 3. The Contractor shall bring a copy of all documentation to the pay application meeting with the Engineer.
 4. The Contractor shall submit the updated baseline project schedule for review prior to submitting the payment application to ensure the payment processing is not held up due to necessary schedule revisions.
- D. Following the Engineers' review, the Contractor shall submit the agreed upon pay estimate electronically, with complete supporting documentation, using e-Builder®.

1.03 PAYMENT PRICING

- A. Pricing for the various lump sum or unit prices in the Bid Form, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to

the items of work being described, as necessary to complete the various items of the work in accordance with the requirements of the Contract Documents.

- B. Pricing also includes all costs of compliance with the regulations of public agencies having jurisdiction, including safety and health requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA).
- C. No separate payment will be made for any item that is not specifically set forth in the Bid Form, and all costs therefore shall be included in the prices named in the Bid Form for the various appurtenant items of work.
- D. All other work not specifically mentioned in the measurement and payment sections identified below shall be considered incidental to the work performed and merged into the various unit and lump sum prices bid. Payment for work under one item will not be paid for under any other item.
- E. The Port of Tacoma reserves the right to make changes should unforeseen conditions necessitate such changes. Where work is on a unit price basis, the actual quantities occasioned by such changes shall govern the compensation.

1.04 LUMP SUM MEASUREMENT

- A. Lump sum measurement will be for the entire item, unit of Work, structure, or combination thereof, as specified and as indicated in the Contractor's submitted bid.
 - 1. If the Contractor requests progress payments for lump sum items, such progress payments will be made in accordance with an approved Schedule of Values. The quantity for payment for completed work shall be an estimated percentage of the lump sum amount, agreed to between the Engineer and Contractor, payable in monthly progress payments in increments proportional to the work performed in amounts as agreed between the Engineer and the Contractor.

1.05 MEASUREMENT OF QUANTITIES FOR UNIT PRICES

- A. Measurement Standards:
 - 1. All Work to be paid for at a contract price per unit measurement, as indicated in the Contractor's submitted bid, will be measured by the Engineer in accordance with United States Standard Measures.
- B. Measurement by Weight:
 - 1. Reinforcing steel, steel shapes, castings, miscellaneous metal, metal fabrications, and similar items to be paid for by weight shall be measured by scale or by handbook weights for the type and quantity of material actually furnished and incorporated into the Work.
 - 2. Unless shipped by rail, material to be measured and paid for by weight shall be weighed on sealed scales regularly inspected by the Washington State Department of Agriculture's Weights and Measures Section or its designated representative. Measurement shall be furnished by and at the expense of the Contractor. All weighing, measuring, and metering devices shall be suitable for the purpose intended and shall conform to the tolerances and specifications as outlined in Washington State Department of Transportation Standard Specifications, Division 1, General Requirements, Article 1-09.2, Weighing Equipment.
 - 3. Provide or utilize platform scales of sufficient size and capacity to permit the entire vehicle or combination of vehicles to rest on the scale platform while being weighed. Combination vehicles may be weighed as separate units provided they are disconnected while being weighed. Scales shall be inspected and certified as often as the Engineer may deem

necessary to ascertain accuracy. Costs incurred as a result of regulating, adjusting, testing, inspecting, and certifying scales shall be borne by the Contractor.

4. A licensed weighmaster shall weigh all Contractor-furnished materials. The Engineer may be present to witness the weighing and to check and compile the daily record of such scale weights. However, in any case, the Engineer will require that the Contractor furnish weight slips and daily summary weigh sheets. In such cases, furnish a duplicate weight slip or a load slip for each vehicle weighed, and deliver the slip to the Engineer at the point of delivery of the material.
5. If the material is shipped by rail, the certified car weights will be accepted, provided only actual weight of material will be paid for and not minimum car weights used for assessing freight tariff. Car weights will not be acceptable for material to be passed through mixing plants. Material to be measured by weight shall be weighed separately for each bid item under which it is to be paid.
6. Trucks used to haul material being paid for by weight shall be weighed empty daily and at such additional times as the Engineer may require. Each truck shall bear a plainly legible identification mark. The Engineer may require the weight of the material be verified by weighing empty and loaded trucks on such other scales as the Engineer may designate.

C. Measurement by Volume:

1. Measurement by volume will be by the cubic dimension indicated in the Contractor's submitted bid. Method of volume measurement will be by the unit volume in place or removed as shown on the Contract Drawings or as specified.
2. When material is to be measured and paid for on a volume basis and it is impractical to determine the volume by the specified method of measurement, or when requested by the Contractor in writing and accepted by the Engineer in writing, the material may be weighed in accordance with the requirements specified for weight measurement. Such weights will be converted to volume measurement for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the Resident Engineer and shall be agreed to by the Contractor before such method of measurement of pay quantities will be accepted.

D. Measurement by Area: Measurement by area will be by the square dimension shown on the Contract Drawings or as specified. Method of square measurement will be as specified.

E. Linear Measurement: Linear measurement will be by the linear dimension listed or indicated in the Contractor's submitted bid. Unless otherwise indicated, items, components, or Work to be measured on a linear basis will be measured at the centerline of the item in place.

F. Field Measurement for Payment:

1. The Contractor shall take all measurements by providing equipment, workers, and survey crews as required to measure quantities in accordance with the provisions for measurement specified herein. No allowance will be made for specified tolerances.
2. The Engineer will verify all quantities of Work performed by the Contractor on a unit-price basis, for progress payment purposes.

1.06 REJECTED, EXCESS, OR WASTED MATERIALS

- A. Quantities of material wasted or disposed of in a manner not called for under the Contract; rejected loads of material, including material rejected after it has been placed by reasons of the failure of the Contractor to conform to the provisions of the Contract; material not unloaded from the transporting vehicle; material placed outside the lines indicated on the Contract Drawings or

established by the Engineer; or material remaining on hand after completion of the Work, will not be paid for, and such quantities shall not be included in the final total quantities. No additional compensation will be permitted for loading, hauling, and disposing of rejected material.

1.07 MEASUREMENT AND PAYMENT

A. Item #1: MOBILIZATION AND DEMOBILIZATION

1. Payment for MOBILIZATION AND DEMOBILIZATION shall be for preparatory work and operations performed by the Contractor including, but not limited to, those necessary for the movement of its personnel, equipment, supplies and incidentals to and from the project site; temporary facilities and controls; for the establishment and removal of its offices, buildings and other facilities necessary for work on the project; for other work and operations which it must perform or costs it must incur before beginning production work on the various items on the project site, and for removal of personnel, equipment, supplies, offices, building facilities, sheds, fencing, and other incidentals from the site. This item also include all project close out requirements.
2. Mobilization and Demobilization shall be paid at the lump sum price listed in the Contractor's submitted bid. Incremental payment shall be made for each location as follows:
 - a. 40% after completion of 5% of the total contract amount of other bid items have been earned.
 - b. 40% after completion of 20% of the total contract amount of other bid items have been earned.
 - c. 20% after completion of all work on the project has been completed, including cleanup and acceptance of the project by the Port.

B. Item #2:

1. Item Description: The Work of this item includes all administrative costs associated with administering and supervising the project including, but not limited to supervision of personnel, coordination of all work activities, coordination of subcontractors and/or suppliers, preparation and transmittal of submittals, for premiums on bonds and insurance for the project, and project overhead.
2. Measurement: This item will be measured based on a percentage complete for the overall lump sum amount.
3. Payment: This item will be paid for at the Contract lump sum price as specified in the Contractor's submitted bid, in accordance with the approved Schedule of Values.

C. Item #3: TESC

1. Item Description: The Work of this time includes Temporary Stormwater Pollutions Controls to install suitable temporary erosion and pollutions control measures, to ~~properly~~properly maintain controls, prepare and submit a SWPPP to address construction activities throughout the project.
2. Measurement: This item will be measured on a percentage basis proportional to the work completed as determined by the Engineer.
3. Payment: This item will be paid for at the Contract lump sum price as specified in the Contractor's submitted bid, in accordance with the approved Schedule of Values. Payable in monthly progress payments.

D. Item #4: Field Engineering

1. Item Description: The Work of this item includes providing surveys by a licensed surveyor in the State of Washington to establish benchmarks, pipeline alignment, cut and fill staking, maintaining control points and survey files throughout the project. Also provide interim surveys as required for a complete project, final as-built surveys to document final pipeline inverts, rim elevations and pavement conditions.
2. Measurement: This item will be measured on a percentage basis proportional to the work completed as determined by the Engineer.
3. Payment: This item will be paid for at the Contract lump sum price as specified in the Contractor's submitted bid, in accordance with the approved Schedule of Values. Payable in monthly progress payments.

E. Item #5: TRENCH SAFETY SYSTEM

1. Item Description: The Work of this item includes shoring and safety systems for all trench excavations exceeding 4-foot depths. Work includes furnishing, installing, maintaining, and removal of temporary shoring and bracing systems.
2. Measurement: This item will be measured per foot of trench to include storm drain structures.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's submitted bid, in accordance with the approved Schedule of Values.

F. Item #6: SAWCUT ASPHALT.

1. Item Description: The Work of this item includes sawcutting existing pavement and overlay cut perpendicular to the pipeline alignment or structure along neat lines, and to the full pavement depth. Work also includes management of slurry generated during saw cutting to prevent discharge into storm and sanitary inlets.
2. Measurement: This item will be measured on a per foot basis for the number of linear feet of sawcutting done in accordance with the plans, typical sections and direction of the Engineer. No sawcutting will be measured for payment under this item which the Contractor may choose to do for his own convenience.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values. Payment for removal and disposal of cut pavement shall be paid for under separate bid item.

G. Item #7: REMOVE, HAUL, and DISPOSE FULL DEPTH PAVEMENT.

1. Item Description: The Work of this item includes removal of full depth cut pavement, managing and stockpiling material on-site, load, haul and dispose at an approved disposal sites.
2. Measurement: This item will be measured on a per ton basis with certified weight tickets submitted to the Engineer.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values.

H. Item #8: PAVEMENT GRIND AND DISPOSAL.

1. Item Description: The Work of this item includes grinding existing pavement along neat lines to the width and depth shown on the plans and typical sections to allow for proper

joining of existing pavement with new pavement. Also includes managing and stockpiling grinding on-site, load, haul and dispose at an approved disposal site.

2. Measurement: This item will be measured on a square yard basis for pavement grinding in accordance with the plans and typical sections and directed by the Engineer. No pavement grinding will be measured for payment under this item which the Contractor may choose to do for his own convenience.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values.

I. Item #9: 24-INCH PVC STORM PIPE.

1. Item Description: The Work of this item includes installation of new storm drain pipe of the size and depth indicated on the plans by open-cut trench method, complete as specified, including but not limited to utility locates or potholing, pipe materials, trench excavation, pipe bedding, initial and subsequent backfill, warning tape, compaction, grading, removal and disposal of trench spoils, chipping existing manhole at upstream end for pipe connection (Sta 0+00), pipe cleaning, air testing and CCTV video of new pipe. Work also includes minor pumping to control water in the trench and ensure a suitable subgrade to support the new pipe and plugs necessary to control water in existing pipelines from entering the trench excavation.
2. Measurement: This item will be measured on a per foot basis to the nearest whole number along a horizontal plane along the centerline alignment. The horizontal distance shall be measured from centerline of manhole to centerline of manhole.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values.

J. Item #10: 48-INCH SDMH.

1. Item Description: The Work of this item includes furnishing new concrete structure of the size and load bearing capacity indicated on the plans by open-cut trench method, complete as specified, including excavation, geotextile fabric, quarry spalls, and crushed rock base for the foundation, backfill, compaction, grade rings, steps, and frame with solid lid. Provide Kor-n-Seal pipe connectors with pre cored concrete section. Work also includes adjusting structure to grade with grade rings and minor pumping to control water in the excavated area to ensure a suitable subgrade to support the new structure.
2. Measurement: This item will be measured on a per each basis for a complete installation in accordance with the plans, typical sections and specifications.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values.

K. Item #11: 60-INCH SDMH.

1. Item Description: The Work of this item includes furnishing new concrete structure of the size and load bearing capacity indicated on the plans by open-cut trench method, complete as specified, including excavation, geotextile fabric, quarry spalls, and crushed rock base for the foundation, backfill, compaction, grade rings, steps, and frame with solid lid. Work also includes cutting existing storm drain pipe, grouting existing pipelines to pre cored holes in the structure and provide Kor-n-Seal pipe connector for the new storm drain pipe with pre cored concrete section. Work also includes adjusting structure to grade with grade rings and minor pumping to control water in the excavated area to ensure a suitable subgrade to support the new structure.

2. Measurement: This item will be measured on a per each basis for a complete installation in accordance with the plans, typical sections and specifications.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values.

L. Item #12: 72-INCH SADDLE SDMH.

1. Item Description: The Work of this item includes furnishing new concrete saddle structure of the size and load bearing capacity indicated on the plans by open-cut trench method, complete as specified, including excavation, geotextile fabric, quarry spalls, and crushed rock base for the foundation, backfill, compaction, grade rings, steps, chipping concrete for pipe penetrations, grouting pipe in-place and frame with solid lid. Work also includes adjusting structure to grade with grade rings and minor pumping to control water in the excavated area to ensure a suitable subgrade to support the new structure.
2. Measurement: This item will be measured on a per each basis for a complete installation in accordance with the plans, typical sections and specifications.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values.

M. Item #13 CONCRETE MANHOLE COLLAR.

1. Item Description: The Work of this item includes placing forms, setting reinforcing steel, pour concrete and finish to match pavement elevation and maintain existing flow lines in accordance with the plans and typical sections for a complete collar. Also include road plates to cover the collars until concrete has cured, then remove forms and road plates prior to paving.
2. Measurement: This item will be measured on a per each basis for a complete installation in accordance with the plans and typical sections.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values.

N. Item #14: UNSUITABLE SOIL.

1. Item Description: The Work of this item includes excavation, managing stockpile on-site, load, haul and dispose of unsuitable materials to a depth designated by the Engineer and replaced with either gravel backfill or quarry spalls as indicated by the Engineer. Disposal of unsuitable material shall be at an approved disposal site.
2. Measurement: This item will be measured on a per ton basis calculated from certified tickets delivered to the Engineer.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values.

O. Item #15: QUARRY SPALLS.

1. Item Description: The Work of this item includes procure, transport, placement, grading, shaping and compaction to provide a complete and suitable subgrades to support new construction.
2. Measurement: This item will be measured on a per ~~ton cubic-yard~~ basis calculated from certified weight tickets and delivered to the Engineer.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values.

P. Item #16: GRAVEL BACKFILL.

1. Item Description: The Work of this item includes procure, transport, placement, grading, shaping and compaction to provide a complete and suitable subgrades to support new construction.
2. Measurement: This item will be measured on a per ton basis calculated from certified weight tickets and delivered to the Engineer.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values

Q. Item #17: CRUSHED ROCK BASE.

1. Item Description: The Work of this item includes procure, transport, placement, grading, shaping and compaction to the line and grade indicated on the plans and typical sections, to provide a complete and suitable base to support new pavement.
2. Measurement: This item will be measured on a per ~~ton~~ **cubic-yard** basis calculated from certified weight tickets and delivered to the Engineer.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values.

R. Item #18. ASPHALT 1/2 - INCH.

1. Item Description: The Work of this item includes placing asphalt pavement along neat lines to the width and depth shown on the plans and typical sections to allow for proper joining with existing pavement and maintain existing flow lines. Also includes transport, placing, grading, compaction, joint sealant, and tack coat for a complete finished surface.
2. Measurement: This item will be measured on a per ton basis calculated from certified weight tickets and delivered to the Engineer.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values.

S. Item #19 ASPHALT 3/4 - INCH.

1. Item Description: The Work of this item includes placing asphalt pavement to the width and depth indicated on the plans and typical sections, and placed in lifts suitable for compaction. Also includes transport, placing, grading, compaction, joint sealant, and tack coat for a complete base course.
2. Measurement: This item will be measured on a per ton basis calculated from certified weight tickets and delivered to the Engineer.
3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values.

~~T. Item #20 TEMPORARY ATB.~~

- ~~1. Item Description: The Work of this item includes placing asphalt treated base (ATB) to the width and depth indicated on the plans and typical sections to allow a temporary running surface for Terminal yard equipment. Work also includes transport, placing, grading, compaction for a suitable running surface, and removal of temporary ATB.~~
- ~~2. Measurement: This item will be measured on a per ton basis calculated from certified weight tickets and delivered to the Engineer. No ATB will be measured for payment under this time which the Contractor may choose to do for his own convenience.~~

~~3. Payment: This item will be paid for at the Contract unit price as specified in the Contractor's bid, in accordance with the approved Schedule of Values.~~

~~TU.~~ Item #201: PLUG EXISTING STORM PIPE.

1. Item Description: The Work of this item includes plugging an existing storm drain pipe with controlled density fill (CDF) or mechanical plugs to prevent the by-pass of storm water from the new drain line. Work includes installing plugs at each end of the pipe, ~~to contain the CDF, pumping to ensure the pipe is full and absent of voids,~~ control existing stormwater in existing drainage system and comply with confined space entry.
2. Measurement: This item will be measured on a lump sum basis.
3. Payment: This item will be paid for at the Contract lump sum as specified in the Contractor's bid, in accordance with the approved Schedule of Values.

~~UV.~~ Item #212: ALLOWANCE FOR DEWATERING.

1. Item Description: The Work of this item includes operating a dewatering system to maintain a suitable excavation free of water during construction. Work includes the design and installation of a dewater system to adequately control groundwater below the trench bottom to provide a suitable subgrade for supporting new construction, suitable collection system to monitor water quality, treatment of pumped water and disposal. Also provide fuel and maintenance of the system for the duration required for dewatering the trench segments, personnel to refuel as required, standby equipment and removal of the system when dewatering is no longer necessary. This Item excludes minor pumping of water in the trench to ensure suitable installation of the pipeline.
2. Measurement: This item will be measured on an incremental basis on a percentage of the work required to provide dewatering per trench segment and allocated by the Engineer.
3. Payment: This item will be paid for on a lump sum basis and allocated by change order to the Contractor for the actual work performed.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION