

CHATHAM COUNTY PURCHASING & CONTRACTING DEPARTMENT

ADDENDUM NO. 1 TO 19-0001-4

FOR: LITTLE HURST CANAL DRAINAGE IMPROVEMENTS


PLEASE SEE THE FOLLOWING FOR ADDITIONS, CLARIFICATIONS AND/OR CHANGES:

1. See attached sheets (2 pages) for Responses to Questions Received.
2. Replace current Bid Sheets with attached *revised* Bid Sheets (3 pages)
3. Replace current "Special Conditions" with the attached *revised* "Special Conditions" (13 pages)

BID OPENING REMAINS: 2PM, TUESDAY, FEBRUARY 5, 2019

THE PROPOSER IS RESPONSIBLE FOR MAKING THE NECESSARY CHANGES AND MUST ACKNOWLEDGE RECEIPT OF ADDENDUM.

1/25/19
DATE



ROBERT E. MARSHALL
SENIOR PROCUREMENT SPECIALIST
CHATHAM COUNTY

Addendum 1 for Bid No. 19-0001-4
Responses to Questions Received:

1. Q) Are there any special requirements for protecting the existing 48" water lines which run through the project?
A) *There are no special or specific requirements in the documents for protection of the water main, both the totally buried one and the one that is exposed over the channel, and thus fairly shallow in the access area. Since the primary project access will cross over these lines, the contractor should assess the loads that his equipment and materials will impose and take such measures as are needed to ensure no damages to these lines. Costs of protective measures should be included in the lump sum bid for "Utility Coordination".*
2. Q) Please clarify the approved methods for installing the 72" RCP beneath the railroad tracks. If jacking and boring a steel casing is an approved method please provide the type of casing, coating requirements, annular space and annular fill requirements.
A) *As noted on sheet 7 of the project plans, which have been approved by CSX, the pipe under the tracks must be installed by microtunneling or by use of a tunnel boring machine. This is to minimize risk to the embankment. Chatham County considered installation of a casing, either for use as the carrier pipe or to allow a bore and jack installation, but this was not acceptable to CSX.*
3. Q) Can we get a copy of the CSX agreement?
A) *The executed agreement between CSX and Chatham County can be found on the Chatham County Purchasing webpage under the tab for this solicitation. The selected contractor must acknowledge and accept the terms and conditions of the agreement since they will be acting as an agent of the County for this project.*
4. Q) Daily cost for CSX flagman and when flagman will be required to be on the project?
A) *The cost of flaggers and the time periods when they will be required is as determined by CSX. The County does not control either of these items. Bidders should contact CSX for input on these items.*
5. Q) Daily cost for CSX inspector and when inspector will be required to be on the project?
A) *The cost of railroad inspectors and the time when they will be needed is as determined by CSX. The County does not control either of these items. Bidders should contact CSX for input on these items.*
6. Q) Would the County consider paying these costs in an allowance?
A) *Based on the responses above, it is clear that there are unknowns on the railroad costs. Including an allowance will be to the benefit of the County, as the bidders will not have to go overly high to protect themselves, and the bidders, as they will know that their direct costs for these items will be reimbursed. The addendum will contain an amended bid schedule where a fixed cost allowance, similar to the field condition allowance, is included. Payments from this item would be made when support of payments to CSX was provided with the pay request. NOTE: See attached revised Bid Sheets and revised "Special Conditions" .*

7. Q) Will CSX require temporary track supports for this project?

A) *The CSX requirements for the project and the submittals that the selected contractor must provide for review and approval are included in the plans and special conditions. Since the work under the tracks is anticipated to be completed by a tunneling method, there do not appear to be any requirements for temporary track support other than what is needed at the tunnel face/ exit.*

8. Q) Soils information?

A) *The soils information which the County has, in the form of a 2007 report from MACTEC, can be found on the Chatham County Purchasing webpage under the tab for this solicitation.*

STORM DRAINAGE IMPROVEMENTS
LITTLE HURST CANAL
BID SCHEDULE- REVISED 1-25-19

ITEM NUMBER	DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
1.	Mobilization	Job	Lump Sum	_____
2.	Clearing and Grubbing	2.6 AC	_____	_____
3.	Grading	Job	Lump Sum	_____
4.	Remove and replace unsuitable material as directed by owner	300 CY	_____	_____
5.	Foreign Borrow	4500 CY	_____	_____
6.	72" storm drain pipe installed by trenchless methods	216 LF	_____	_____
7.	72" storm drain pipe installed by open cut	384 LF	_____	_____
8.	42" storm drain pipe	96 LF	_____	_____
9.	18" storm drain pipe	56 LF	_____	_____
10.	15" storm drain pipe	106 LF	_____	_____
11.	42" flared end section	1 EA	_____	_____
12.	18" GDOT safety end section	2 EA	_____	_____
13.	Channel excavation	2100 CY	_____	_____
14.	Low water crossing	2 EA	_____	_____
15.	Flowable fill for pipe abandonment	100 CY	_____	_____
16.	6" aggregate surface course, Including filter fabric	1100 SY	_____	_____
17.	8" graded aggregate base course, Including filter fabric	140 SY	_____	_____

STORM DRAINAGE IMPROVEMENTS
LITTLE HURST CANAL
BID SCHEDULE- REVISED 1-25-19

ITEM NUMBER	DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
18.	2" asphaltic concrete binder course, Including bituminous prime	140 SY	_____	_____
19.	1 1/2 " asphaltic concrete surface course, Including tack coat	140 SY	_____	_____
20.	Maintenance of Flow	Job	Lump Sum	_____
21.	Utility Coordination	Job	Lump Sum	_____
22.	Traffic Control	Job	Lump Sum	_____
23.	NPDES Compliance	Job	Lump Sum	_____
24.	Riprap, 12" thickness, including filter fabric	800 SY	_____	_____
25.	Silt Fence – Sensitive	4500 LF	_____	_____
26.	Jute Mesh for slopes, as directed by owner	500 SY	_____	_____
27.	Construction Exit	2 EA	_____	_____
28.	Floating sediment barrier	50 LF	_____	_____
29.	Check Dam	5 EA	_____	_____
30.	Temporary Grassing	17,000 SY	_____	_____
31.	Permanent Grassing	17,000 SY	_____	_____
32.	CSX Coordination	Job	Lump Sum	_____
33.	Field Condition Allowance	Job	Lump Sum	100,000
34.	CSX Cost Allowance	Job	Lump Sum	50,000
TOTAL, ALL WORK			\$	_____

STORM DRAINAGE IMPROVEMENTS
LITTLE HURST CANAL
BID SCHEDULE- REVISED 1-25-19

NAME / TITLE

COMPANY

ADDRESS

PHONE / FAX

E-MAIL

SPECIAL CONDITIONS

SECTION 01600

PART 1 – PROJECT DESCRIPTION

The project is partially located within the corporate limits of Port Wentworth and partially in unincorporated Chatham County. The project begins at the east side of the culvert crossing of SR 21 by Little Hurst Canal, near the intersection of SR 21 with I- 95, and extends to the east side of the canal's crossing of CSX railroad, a total length of some 1400 feet. There is also an access road to be developed to reach the eastern side of the tracks.

The work consists of clearing and grubbing the right-of-way and easements to the extent shown on the plans, installation of storm drain pipes by trenchless and open cut methods, construction or modification of open channels, access road construction and associated work as shown on the plans. Compliance with requirements of the NPDES Georgia general permit, with the exception of stormwater monitoring, is included. There will be minimal traffic impacts, but traffic control remains a part of the project. Capacity for storm water flow must be maintained at all times, although temporary blockages are acceptable. A soil erosion and sedimentation control plan is provided and must be implemented prior to, and maintained during, construction. There is very little contact with existing utility facilities, but coordination with utility providers is included.

Part of the work lies within GDOT right-of-way and will be completed by permit. The bulk of the work lies within the CSX right-of-way and will be completed by agreement. Coordination with CSX and GDOT personnel is required. Further, the selected contractor must make several submittals to CSX, as defined on the plans and in the documents, which must be approved prior to beginning work.

PART 2 – CONTRACT DOCUMENTS

2.1 Technical Specifications:

01600	Special Conditions
02200	Excavation, Filling and Grading
02210	Erosion Control
02221	Excavation, Trenching and Backfilling for Utility Systems
02400	Storm Drainage System
02441	Micro- tunneling and Pipe- jacked Tunnels
02480	Grassing and Sodding

2.2 Drawings:

1	Cover Sheet, Vicinity Map, and Schedule of Drawings
2	General Notes
3	Typical Sections
4-6	Construction Plans
7-8	Pipeline Profiles and Sections
9-10	Cross Sections
11-15	Erosion and Sedimentation Control Plans and Notes

PART 3 – PRE-CONSTRUCTION INSPECTIONS

A pre-construction conditions video (standard DVD format) is required and must be submitted to Chatham County Department of Engineering for approval prior to start of any land disturbing work. Special emphasis shall be given to record pre-disturbance condition of roadways, driveways, buildings, utilities and other improvements located within or within 100 feet of the project limits. This is in addition to other inspections and surveys required of the Contractor or performed by the County. The video shall be prepared by a photographer having experience in similar work and approved by the County. A voice narrative shall identify location and features of the pre-construction video. A typewritten version of the voice narrative shall be provided upon request. Still photographs with a detailed description log may be substituted for the video provided that level of coverage is similar.

PART 4 - STAKING

The County shall engage a surveyor registered by the State of Georgia to provide initial project control and demarcation of right-of-way and easement lines. Ongoing control of the project work shall be the responsibility of the Contractor. The cost to reestablish initial project controls damaged or lost due to construction activities shall be paid for by the Contractor. The Contractor shall provide access and schedule all work in order to accommodate the survey work by the County's surveyor.

PART 5 – DOCUMENTATION

5.1 Documentation to be provided with requests for payment:

- A. In addition to the documentation described elsewhere in the Contract Documents, the Contractor shall submit with each request for payment the following:
 - 1. Copies of material delivery tickets. The Contractor shall be responsible for collecting these documents at the time of delivery. The delivery tickets shall not relieve the Contractor of his responsibility to ensure the materials are in accordance with the contract with the contract documents. Missing or incomplete documentation of delivered materials may be cause for delay/denial of payment.
 - 2. Copies of soil erosion and sedimentation, including NPDES, reports and forms completed during the pay period.
 - 3. Prior to submitting a request for payment, the Contractor shall review the extent of work completed with the County's representative for accuracy and completeness.

PART 6 – EROSION AND SEDIMENTATION CONTROL

- 6.1 The Contractor shall be fully responsible for compliance with the Georgia Water Quality Control Act and completing the approved sediment and erosion control plan contained in the contract documents.
- A. The design engineer shall accomplish shall accomplish the initial inspection of the Best Management Practice (BMP) system installation. The Contractor shall perform no land disturbing activities (other than that which is necessary for installation of the BMPs) until after the design engineer has provided to the Contractor a letter stating approval of the initial BMP installations.
 - B. Storm water monitoring, testing, and reporting will be done by an independent firm working directly for Chatham County. The contractor shall share rainfall records with this organization and shall cooperate with on-site personnel.
 - C. The Contractor shall be responsible for all inspections of the BMP system (Excluding the initial inspections as described above) and for maintaining records at the site for inspection. However, representatives of Port Wentworth and Chatham County may visit the site periodically to verify compliance with regulations. The contractor shall cooperate with these personnel.
 - D. The Contractor shall provide the Owner copies of all inspection reports and other records which occur during a pay period with the pay request.
 - E. The Contractor shall be responsible for preparation of plans, applying for, and obtaining erosion control permit for any impacted areas, or lay down areas proposed by the contractor that are not included in the current plan documents.

PART 7 – FINES AND LIQUIDATED DAMAGES

7.1 Fine

- A. A \$200 per day fee shall be assessed against the Contractor and withheld from the Contract Price for each and every day that the erosion and sedimentation control plan is not in proper operation. This fee shall be in addition to any penalties or assessments made against the Contractor for non-compliance of the Georgia Water Quality Control Act.

7.2 Liquidated Damages

- A. Liquidated Damages shall be assessed at \$ 750 per calendar day for work not completed within the Contract period. The full amount of liquidated damages will be deducted from the final payment to the Contractor.

PART 8 – ALLOWANCES

8.1 Field Condition Allowance

The Field Condition Allowance shown on the bid sheet shall belong to Chatham County. The purpose of this Allowance is to allow the County to designate actions associated with completion of the project which are not indicated on the plans, but which are dictated by field conditions. Bidders shall not use this Allowance to assume any Contractor costs known or unknown at the bidding. Chatham County must approve use of the Allowance. All bidders shall include this Field Condition Allowance within their base bid. Any unused allowance shall revert to Chatham County.

8.2 CSX Cost Allowance

During the course of the work the Contractor will be required to pay CSX for services provided by the railroad, such as flagging or inspection, the rate and duration to be determined at the time of usage. The contractor shall pay the invoices for these services as they are received and then request reimbursement by submitting the invoices on the next pay application after payment is sent to the railroad.

The CSX Cost Allowance shown on the bid schedule shall belong to Chatham County for the purposes noted above. Bidders shall not use this allowance to assume any contract costs known or unknown at the time of bidding. All bidders shall include this allowance in the base bid. Any unused allowance shall revert to the County.

The allowance shall not be used to pay any fines or penalties which may be assessed under the terms of the railroad agreement, any costs for railroad required insurance, or for costs associated with the work as defined in the documents (i.e. costs associated with the required submittals which is part of CSX Coordination).

PART 9 – SPECIAL REQUIREMENTS OF CONSTRUCTION

1. The County will pay for all materials testing as required by the contract. Testing will be performed by an independent testing lab that is hired by the County. The County will not pay for testing in support of contractor operations/schedule. The contractor will be required to pay for failed tests.
2. Clearing debris may not be chipped and spread on the project site.
3. The project site may be accessed from SR 21, with separate points for the west and east sides of the CSX tracks. There will be no cross-track access. Construction exits will

be required at the locations shown on the plans or as necessary to prevent soil deposition on pavement.

4. The Contractor shall comply with all local, state and federal regulations as they pertain to construction activities (erosion control, etc.).
5. All efforts have been made to identify every underground and above ground utility; however, the contractor has the ultimate obligation to proceed with caution when a suspected utility line is present in the excavation. Any lines which are not shown to be abandoned shall be repaired immediately if broken during construction.
6. Work hours shall be limited to 7:00 am to 7:00 pm Monday through Friday and shall exclude weekends and holidays unless otherwise approved by Chatham County. The contractor shall clear all proposed times of work with CSX personnel for work within the railroad right-of-way.
7. **The Contractor shall obtain an Encroachment permit from the Department of Public Works prior to any work within County rights of way.** All work is to be performed within the existing rights of way and easements as shown on the plans unless coordinated with others.
8. All work within the right-of-way of SR 21 is under the jurisdiction of the Georgia Department of Transportation and will be completed by permit. The contractor shall be provided a copy of the permit and shall comply with all conditions and requirements of the permit.
9. Watering past the date of substantial completion of the work shall be provided on seeded areas to achieve full coverage to match existing conditions and as accepted by Chatham County.
10. A detailed construction schedule for the project shall be provided to and approved by Chatham County prior to beginning work.
11. Most of the work will be completed in areas removed from regular vehicular traffic. However, work in the SR 21 right-of way will offer potential for conflicts with traffic. Regular access to and from the work site will also offer potential for conflicts with traffic. Temporary lane closures may be needed for the tie in of the access drive to the existing pavement.

The contractor is responsible for all measures of traffic control, including signs, channelization devices and flagmen.

The contractor shall develop a traffic control plan for review and approval by the County. No work shall commence on the site until the plan has been accepted.
12. Submittals for the following items are required:
 - Storm drain pipe
 - Storm drain structures

- Silt fence
- Grassing

13. The contractor shall be responsible for the continued functioning of the storm drainage system throughout the course of the project. It is understood that flow must be blocked in in order to complete the work in the dry; likewise, groundwater must be controlled.

The contractor will develop a water control plan showing measures proposed for the control and bypass of channel flow and the collection and disposal of groundwater. This plan is to be reviewed and accepted by Chatham County prior to the beginning of construction.

14. Work within the CSX right- of- way will be completed under a Facility Encroachment Agreement between CSX and Chatham County. During the course of the construction the contractor will be considered to be acting as an agent of the County and will be covered as such by the agreement. The contractor will be given a copy of the agreement and must accept and acknowledge his acceptance of these conditions by completing the Contractor's Acceptance that is part of the agreement.

There are several special conditions or required submittals which cover the work in CSX right-of-way. While these may also be found in the contract documents or in the Facility Agreement, they are summarized below as well.

Any soil which is excavated within the CSX right-of-way shall not be removed from the site' or tested without an environmental right- of –entry or written approval from the CSX Environmental Department. Any excess soil that is not reused within the CSX right-of-way shall be treated for contamination and disposed of accordingly at a CSX approved site. All costs of the testing and disposal shall be included in the price bid. No costs will be incurred by or assigned to CSX.

Construction contractor shall provide the following construction submittals to CSX for review and approval prior to beginning construction activities:

1. Manufacturer's literature for micro- tunneling machine or TBM, slurry mixing and separation plant.
2. Guidance system
3. Calculation of anticipated jacking loads
4. Shaft design submittal including the jacking back- stop design
5. Daily log sheet detailing machine performance and operational data
6. Daily log sheet for settlement monitoring data

Contractor will complete a plan for the complete tunneling installation. This shall include methods used to support pit sides and the faces next to the railroad embankment to no earth movement. This plan must be submitted to and approved by CSX prior to the beginning of construction activities.

Contractor shall prepare and submit a temporary shoring design, trench monitoring program and dewatering plan to CSX for review and approval prior to beginning construction. The temporary shoring design shall meet all CSX specifications (½ " minimum deflection

within 12' of trench centerline, 1" maximum deflection outside of 12' of trench centerline).

The contractor shall submit a contingency plan outlining mitigation for unforeseen conditions, including settlement, during the pipe installation.

Under terms of the agreement, Chatham County has documented that it is self-insured so that the insurance coverage requirements do not apply to the County. This does not carry over to the contractor, who must obtain and document the following coverages:

1. Statutory Worker's Compensation and Employer's Liability insurance with available limits of not less than \$ 1,000,000, which must contain a waiver of subrogation against CSX and its affiliates.
2. Commercial General Liability coverage with available limits of not less than \$ 5,000,000 naming CSX and/ or its designee as additional insured and in combined single limits for bodily injury and property damage and covering the contractual liabilities in the Agreement.
3. Business automobile liability insurance with available limits of not less than \$ 1,000,000 combined single limit for bodily injury and/ or property damage per occurrence.
4. Railroad Protective Liability insurance naming CSX and/ or its designee as Named Insured with limits of \$ 5,000,000 per occurrence for bodily injury and property damage and \$ 10,000,000 aggregate limit per annum. If desired, and with approval from CSX, contractor may pay CSX the cost of adding this encroachment to CSX's coverage for the period of the construction.

It is assumed that CSX will require flagging during some or all operations in close proximity to the tracks. The contractor shall be responsible for the cost of the flagging.

PART 10 – MEASUREMENT AND PAYMENT

10.1 Measurement

The items listed in the proposal shall be considered as sufficient to complete the work in accordance with the drawings and specifications. Any portion of the work not listed in the bid form shall be deemed to be a part of the item which it is associated with and shall be included in the cost of the unit shown on the bid form. Payment for the unit shown on the bid form shall be considered to cover the cost of all labor, material, equipment and performing all operations necessary to complete the work in place. The unit of measurement shall be the unit shown on the bid form. Payment for unit price items shall be based upon the actual quantity multiplied by the unit prices. Where work is to be performed at a lump sum price, the lump sum shall include all operations and elements necessary to complete the work. No payment will be made for any material wasted, unused, rejected or used for the convenience of the Contractor.

10.2 Payment

A. Mobilization

Mobilization of equipment and commencement of project. Payment shall be at the sum price in the Bid Proposal and shall not to exceed 5% of the total bid price for the project.

B. Clearing and Grubbing

Clearing shall include removal of all vegetative materials such as trees, shrubs and grass as required to complete the work as shown on the plans. Removal of stumps and roots is a part of clearing. Demolition shall also include the removal of all manmade items required to complete the work as shown on the plans, with the exception of items specifically listed in the Bid Schedule. Payment shall be at the lump sum price in the Bid Proposal

C. Grading

Payment shall be at the lump sum price in the Bid Proposal and shall include all labor, materials and equipment required. The item shall include grading of access/ maintenance roads, channel banks and shoulders, and areas of fill over storm pipes. The item shall also include construction staking, bonds, insurance and all other work required to complete the project and which is not covered by a separate item.

D. Remove and Replace Unsuitable Subgrade Material

Payment shall be at the unit price in the Bid Proposal and shall include all labor, materials and equipment required to remove the material as directed by the owner, dispose of it off-site, and replace with Type II backfill material. Measurement shall be based on before and after cross sections or such other method as may be acceptable to owner.

E. Foreign Borrow

Payment shall be at the unit price in the Bid Proposal and shall include all labor, equipment and materials required to obtain, transport and install borrow material as required to meet final grades as shown on the plans or to replace subgrade or soil material determined by the owner to be unsuitable. Measurement shall be by trench sections or such other method as may be accepted by the owner. Foreign borrow shall include fill material required to install pipes or fill above them if the owner

determines that the materials removed from the trench or excavated elsewhere on the site are not suitable for use on the project.

F. 72" Pipe, Trenchless Method

Measurement shall be on the basis of the actual number of linear feet of pipe installed by trenchless methods as shown on the plans or directed by the owner. Payment shall be at the unit price in the Bid Proposal and shall include all labor, materials and equipment required to install the pipe through the existing rail bed in accordance with the documents and CSX requirements.

G. 72" Pipe, Open Cut

Measurement shall be on the basis of the actual number of linear feet of pipe installed by open cut methods as shown on the plans or directed by the owner. Payment shall be at the unit price in the Bid Proposal and shall include all labor, materials and equipment required to install the pipe and connect it to the pipe installed by trenchless methods in accordance with the documents and CSX requirements. Cost of bedding, trenching and backfill to existing grade to be included in price bid; fill above existing grade will be paid as foreign borrow. Cost of filter fabric wrap shall also be included in price bid.

H. Storm Drain Pipe

Measurement shall be on the basis of the actual number of linear feet of pipe of each size installed as shown on the plans or as directed by the owner. Payment shall be at the unit price in the Bid Proposal for each size and shall include all labor, materials and equipment required to install the pipe, including trenching, bedding, filter fabric wrap and backfill.

I. 42" Flared End Section

Measurement shall be on the basis of the actual number of end sections installed as shown on the plans or directed by the owner. Payment shall be at the unit price in the Bid Proposal and shall include all labor, material and equipment required to install the end section.

J. GDOT Safety End Section

Measurement shall be on the basis of the actual number of safety end sections installed as shown on the plans or directed by the owner. Payment shall be at the unit price in the Bid Proposal and shall include all labor, material and equipment required to install the end section.

K. Channel Excavation

Measurement shall be on the actual number of cubic yards excavated from the channel as shown on the plans or directed by the owner determined by before and after sections or such other method as may be acceptable to the owner. Payment shall be at the unit price in the Bid Proposal and shall include all labor, materials, and equipment required to excavate the material and dispose of it off-site. Suitable material from the excavations shall be used in the embankments before foreign borrow is used.

L. Low Water Crossing

Measurement shall be on the basis of the actual number of low water crossings installed as shown on the plans or directed by the owner. Payment shall be at the unit price in the Bid Proposal and shall include all labor, materials and equipment required to construct the crossings.

M. Flowable Fill for Pipe Abandonment

Measurement shall be on the basis of the actual number of cubic yards of flowable fill used to abandon the existing storm drain pipes as required by CSX. Payment shall be at the unit price in the Bid Proposal and shall include all labor, material, and equipment required to complete the abandonment.

N. 6" Aggregate Surface Course

Measurement shall be on the basis of the actual number of square yards of aggregate surface installed as shown on the plans or directed by the owner. Payment shall be at the unit price in the Bid Proposal and shall include all labor, material and equipment required to install the surface. This will include excavation, grading and filter fabric.

O. 8" Graded Aggregate Base Course

Measurement shall be on the basis of the actual number of square yards of base course installed in the GDOT right-of-way as shown on the plans or directed by the owner. Payment shall be at the unit price in the Bid Proposal and shall include all labor, material and equipment required to install the base to GDOT requirements. Cost of filter fabric under base to be included.

P. Asphaltic Concrete

Measurement shall be on the basis of the actual number of square yards of binder and surface courses installed in the GDOT right-of-way as shown on the plans or directed by the owner. Payment shall be at the unit price in the Bid Proposal for each layer and shall include all labor, material and equipment required to install the

binder and surface to GDOT requirements. Cost of bituminous prime to be included in price for binder. Cost of tack coat to be included in price for surface.

Q. Traffic Control

Payment shall be at the lump sum price in the Bid Proposal and shall include all materials and labor required to control and maintain traffic movement through the work zone. This includes, but is not limited to, signs, barricades, flagmen, temporary and permanent markings and channelization devices.

R. Utility Coordination

Payment shall be at the lump sum price in the Bid Proposal and shall include all measures associated with coordinating the installation of the new storm drain with existing public and private utilities. This will include arranging for location and adjustments.

S. Maintenance of Flow

Payment shall be at the lump sum price in the Bid Proposal and shall include all materials, labor and equipment necessary to maintain the flow of stormwater, sanitary sewer and water as shown on the plans or directed by the owner.

T. Silt Fence

Payment shall be at the unit price for each type in the Bid Proposal and shall include all labor, materials, and equipment required to install the silt fence, maintain it during the construction period, remove it when stabilization is completed, and restore the area where the fence was installed. Measurement shall be on the basis of the actual number of linear feet of each type of silt fence installed as shown on the plans or directed by the owner.

U. Riprap

Payment shall be at the unit price in the Bid Proposal and shall include all labor, materials and equipment required to place the filter fabric and stone riprap. Measurement shall be based on the actual number of square yards placed as shown on the plans or directed by the owner.

V. Floating Silt Barrier

Payment shall be at the unit price in the Bid Proposal and shall include all labor, materials and equipment required to install the floating silt barrier, maintain it during the construction period and remove it when construction is complete. Measurement

shall be based on the actual number of linear feet installed as shown on the plans or directed by the owner.

W. NPDES Compliance

Payment shall be at the unit price in the Bid Proposal and shall include all measures required to comply with the Georgia general permit except for stormwater sampling, testing and reporting. Chatham County will engage a third party for stormwater sampling, testing and reporting.

X. Grassing

Payment shall be at the unit price in the Bid Proposal for each type of grassing and shall include all labor, materials and equipment required to establish the temporary / permanent vegetation on the disturbed areas. This shall include watering and mowing until acceptance by the County. Measurement shall be based on the actual number of square yards of temporary / permanent grassing in place.

Y. Jute Mesh for Slopes

Payment shall be at the unit price in the Bid Proposal and shall include all labor, material and equipment to place matting on the channel slopes to prevent erosion until vegetation is established. Measurement shall be on the basis of the actual number of square yards of matting installed as shown on the plans or directed by the owner.

Z. Construction Exit

Measurement shall be on the basis of the actual number of construction exits installed as shown on the plans or directed by the owner. Payment shall be at the unit price in the Bid Proposal and shall include all labor, material and equipment required to install the exit, maintain it during the construction period, and remove it when construction is complete.

AA. Check Dam

Measurement shall be on the basis of the actual number of check dams installed as shown on the plans or directed by the owner. Payment shall be at the unit price in the Bid Proposal and shall include all labor, materials, and equipment required to install the dam, maintain it during the construction period, and remove it when construction is complete.

BB. CSX Coordination

Payment shall be at the Lump Sum price in the Bid Proposal and shall include all costs associated with working in the CSX right-of-way. This shall include, but not be

limited to, material or operation submittals and required railroad insurance. Flagging and inspection services shall be covered by the CSX Cost Allowance.

CC. Inlet Sediment Trap

Payment shall be at the unit price in the Bid Proposal and shall include all labor, equipment and materials required to install the sediment traps, maintain them during construction, and remove them when work is complete. Measurement shall be based on the actual number of sediment traps installed as shown on the plans or directed by the owner.