

**DeKalb County**  
**Department of Purchasing and Contracting**  
Talisa Clark, Interim Chief Procurement Officer

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January 17, 2017

**TO: ALL RESPONDENTS UNDER REQUEST FOR PROPOSALS No. 16-500426**

**FROM: Department of Purchasing and Contracting, DeKalb County, Georgia**

**ADDENDUM NO. 2**

**Request for Proposals No. 16-500426 Design Build Services for Rockbridge Road Asbestos Cement Water Main Replacement Project, is hereby amended as follows:**

1. We have received questions pertaining to the above-referenced Request for Proposal. The questions and their resulting answers appear below:

- 1. Question:** What are the work hour and work day restrictions for section A (GDOT maintained) and section B (County maintained)?

**Answer:** As stated in Attachment L, general work hours are between 7:00 AM and 7:00 PM, Monday through Friday with lane closures only allowed between 9:00 AM and 4:00 PM, Monday through Friday for all sections. Work outside of these hours may be allowed on a case by case basis with written approval from the County.
- 2. Question:** Any additional restrictions above/beyond County restrictions (weather, night work, etc.)?

**Answer:** Any additional restrictions as required by all applicable permitting agencies will be the responsibility of the Design Builder to adhere to.
- 3. Question:** What is the contract time (# days) for Substantial Completion and for Final Completion?

**Answer:** Actual number of days will be determined when the contract is issued an NTP to meet substantial (October 31, 2018) and final (December 31, 2018) completion dates for each Contract. If NTP for Contract A and/or B extend beyond June 30, 2017 then the Contract(s) may be extended accordingly.
- 4. Question:** How is Substantial Completion defined?

**Answer:** Refer to the Definitions section in the RFP document.
- 5. Question:** If DeKalb has delays in awarding the contract by March 2017, will the deadline be extended?

**Answer:** See answer to Question #3.
- 6. Question:** How many days will Dekalb County need, from the time of Bid, to Award the Contract and Issue an NTP? We assume additional days will be added to the Contract Time for each day beyond the amount of time

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- Answer:** required by the County to Award, correct  
See answer to Question #3.
7. **Question:** How many days will Dekalb County need for Design review?
- Answer:** Each design submittal shall have a review period of 10 business days.
8. **Question:** We assume additional days will be added to the Contract Time for each day beyond the amount of time required by the County to review, correct?
- Answer:** No
9. **Question:** If weather delays construction, will contract time be extended?
- Answer:** See Article 17, Part H of the Sample County Design/Build Agreement.
10. **Question:** If the County elects to provide materials for the Project, we assume that days will be added to the Contract Time for each day that materials are unavailable for pick-up from the County, correct?
- Answer:** County will not supply materials.
11. **Question:** If DeKalb delays the crews by not providing materials in a timely manner, will the County pay for crew downtime or additional mobilizations/demobilizations?
- Answer:** See answer to Question #10.
12. **Question:** Is there a limit to the number of lane shifts/traffic control setups and/or construction crews allowed to work on the project at the same time? If so, how many is maximum?
- Answer:** Design Builder is responsible to meet all permit requirements for lane closures. A maximum of one pipe installation crew is allowed per contract at one time.
13. **Question:** How were the bid quantities determined?
- Answer:** The current bid tab has no quantities.
14. **Question:** If bid quantities are found to be much lower than 60% design quantities, then the bid GMP will likely be lower than the 60% GMP. Will DeKalb remove the requirement that the bid GMP must not be exceeded? Or just remove the GMP component of the bid altogether? This is a very high risk for the D/B to take (based on assumed quantities with no design) and will likely result in very high bid pricing and/or very few responsive bids. The bid documents state that the intent of the Contract is to have 'appropriate sharing of risk' between Owner and Contractor. However, it

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appears that the Contractor will shoulder all the risk if the bid GMP must remain and cannot be altered after 60% design is complete.

**Answer:** See answer to Question #13.

**15. Question:** Will DeKalb provide bidders with GIS drawings showing all utilities it has in its database (water, sewer, storm, gas, power, etc.)?

**Answer:** GIS shapefiles are provided in Addendum #2.

**16. Question:** Will DeKalb extend the bid date to allow consideration of all question answers, addenda, and additional exhibits (GIS maps, etc.)?

**Answer:** Yes

**17. Question:** Is night work allowed? Weekend work?

**Answer:** See answer to Question #1.

**18. Question:** Is the bid item for Engineering lump sum refer only to 60% design or does it refer to 100% design? If 60% design, then the winning bidder will submit another Engineering lump sum fee to take the documents from 60% to 100%, correct?

**Answer:** See new bid form issued in Addendum #2.

**19. Question:** Rock excavation near active AC water mains may introduce extraordinary risk of breaking the existing AC lines. How will DeKalb pay for repair of these existing mains, should it be necessary?

**Answer:** Design-Builder must take precaution when working next to active lines and is responsible for all repairs related to damages caused by the construction of this project.

**20. Question:** If rock excavation quantities far exceed estimated quantities, will DeKalb extend contract time? If so, how will that extension time be determined?

**Answer:** See answer to Question #13.

**21. Question:** If 75% of the work is to be self-performed, will the LSBE requirement remain 20%? This would leave only 5% for engineering/design costs, which is not a reasonable percentage assumption based on our experience. Will the County reduce this 75% self-perform req't?

**Answer:** This has been addressed in Addendum #1.

**22. Question:** If bidder joint ventures with an LSBE, and that LSBE performs 20% of the work as a sub to the JV, will that satisfy the LSBE req't?

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- Answer:** Yes
23. **Question:** Is DeKalb really expecting a Preliminary Design Report (with drawings, see page of 21 of RFP)? This is a tremendous amount of uncompensated work and will likely reduce the number of bidders on this RFP.
- Answer:** Design Builder is expected to provide a Preliminary Design Report in enough detail to indicate the design intent and understanding of the Project goals. Compensation for this work will be covered through Item Number 1: Engineering and Design Costs to 60%
24. **Question:** Does Article 20 'Ownership of Documents' refer to 60% design documents? If so, what happens if D/B and County cannot agree of payment terms for the 60% design? It would be best to have a line item for 60% Design in RFP to avoid potential trouble with this negotiation. It is unlikely that any firm will give ownership of design docs without compensation.
- Answer:** This has been addressed in Addendum #2.
25. **Question:** According to the bid docs, no construction may begin until design documents are 100%. Contract A and Contract B are separated into Sections 1 and 2. Does the 100% refer to the entire contract or the section? In other words, if design is 100% on Contract A Section 1, can construction begin on that section? Or does the entirety of Contract A need to be 100% designed before construction can begin?
- Answer:** Construction can begin on each segment after it reaches 100% design completion.
26. **Question:** Will the County consider extending the contract time beyond October/December 2018? If no construction can begin until design docs are 100% and NTP is issued in March 2017, then likely no construction will begin until Sept/Oct 2017 to allow time for design and County review. This gives only one year for construction of 40,000LF. This equates to about 1000LF/week average which is a very aggressive schedule and quite risky for the Contractor.
- Answer:** This project will be awarded in two contracts with approximately 20,600 feet in Contract A and 18,400 feet in Contract B. If the Design Builder is awarded both Contracts then they must have enough resources to complete both Contracts within the required substantial and final completion dates.
27. **Questions:** Will the County consider revising the bid tab to reasonable quantities and units (not Lumb Sum, Quantity of 1)?
- Answer:** No
28. **Question:** How will DeKalb County handle easement acquisition delays? Such de-

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lays could impact the schedule, particularly if condemnation is required.

**Answer:** Easements shall be the responsibility of the Design Builder but it is highly recommended the Design Builder uses the existing right of way for the installation of the water main as much as possible.

**29. Question:** Will the County handle all materials testing during construction? Will the Contractor or County be responsible for inspecting any/all testing?

**Answer:** Material testing shall be the responsibility of the Design Builder by a County approved third party testing firm and will be paid out of the pipe installation line item. Any material testing performed by the County shall be for quality control purposes and not for use by the Design Builder.

**30. Question:** Because a Basis of Design Report are being requested, plus concept plans and a GMP cost must be included with Proposal, more time (and County Utility GIS drawings) is needed to prepare a comprehensive and accurate proposal response. We request that the submission date be advanced at least 4 weeks.

**Answer:** Basis of Design Report is not required as part of the proposal, see Part III.B for Technical Proposal requirements. See Addendum #2 for submission date extension.

**31. Question:** Use of a progressive design-build contract requires a line item of funds to be paid to the Contractor for preparing and submitting Phase I work. Where is this cost to be shown? Does the County guarantee we will be paid this amount?

**Answer:** See new bid form in Addendum #2 which includes a 60% Design line item.

**32. Question:** Will there be a delay for County approval (by Commissioners/Finance Committee/etc.) at the end of Phase 1 (60%/GMP Submittal)? If so, will the number of days delayed be added to Contract Time? How many days should be assumed for purposed of bidding/scheduling?

**Answer:** The Contract amount will be approved by the BOC prior to NTP. The negotiated GMP after the 60% submittal only requires approval by the DeKalb County Department of Watershed Management.

**33. Question:** How many days will Dekalb County need for Design reviews (60%, 90%, and 100%)? We assume additional days will be added to the Contract Time for each day beyond the amount of time required by the County to review, correct?

**Answer:** See answer to Question #7.

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2. Delete Attachment A, Project Fee and Rate Proposal Forms for Contracts A and B. Insert the attached Project Fee and Rate Proposal Forms for Contracts A and B.
3. Delete Attachment O Rockbridge Road Standard Specifications in its entirety. Insert the attached Attachment O Rockbridge Road Standard Specifications.
4. Add Attachment R, Department of Watershed Management Contractor Badging Procedures
5. Add Attachment S, GIS Shapefiles for Rockbridge Road which contains:
  - a. Water Mains
  - b. Water Valves
  - c. Water Meters
  - d. Water Hydrants
  - e. Sewer Manholes
  - f. Sewer Gravity Mains
  - g. Sewer Force Mains
  - h. Roads
  - i. Creeks
6. Within Contract A, there is a planned GDOT – City of Pine Lake Project along Rockbridge Road between Allgood and Rowland to be constructed in 2018. The design of the of the water main is scheduled to be finished no later than 9/1/2017.
7. **The Proposal submission date has been extended until February 6, 2017 at 3:00 P.M.**
8. All other conditions remain in full force and effect.
9. All respondents under this Request for Proposals are kindly requested to acknowledge receipt of this Addendum in their Proposal only.



**Darrell Releford** | Procurement Agent  
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**Addendum No. 2 to  
RFP No. 16-500426 Design Build Services for Rockbridge Road  
Asbestos Cement Water Main Replacement Project,**

Date: \_\_\_\_\_

The above Addendum is hereby acknowledged:

\_\_\_\_\_  
(NAME OF RESPONDENT)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)

**Contract A: Rate Proposal Form**

	SUMMARY OF PROPOSAL DESIGN-BUILD PRICE	UNIT	QUANTITY	TOTAL PRICE
<b>Item Number</b>	<b>Rockbridge Road Contract A</b>			
<b>A</b>	<b>Project Development Costs:</b>			
1	Engineering and Design Costs to 60% Completion of Entire Length of Contract A	LS	1	\$
2	Engineering and Design Costs from 61% to 100% Completion of Entire Length of Contract A	LS	1	\$
3	Permitting	LS	1	\$
<b>B</b>	<b>Paving</b>			
4	Traffic Control	LS	1	\$
5	Milling, Resurfacing, Leveling, & Deep Patching	LS	1	\$
<b>C</b>	<b>Water Mains</b>			
6	Traffic Control	LS	1	\$
7	Erosion Control	LS	1	\$
8	Landscaping	LS	1	\$
9	Installation of approximately 20,600-feet of 8-inch Ductile Iron Pipe with all necessary appurtenances including but not limited to driveway, sidewalk, curb and gutter restoration, pipe encasement, concrete cap, jack and bore, free bore, flowable fill, cut & plug, air release valves, gate valves, tapping sleeves, fire hydrants, meters and service lines, thrust collars, test holes, point repairs, and insertion valves.	LS	1	\$
10	Rock Excavation	LS	1	\$
<b>D</b>	<b>Other Direct and Indirect Costs:Temporary Facilities</b>			
11	Administrative	LS	1	\$
12	Record Drawings	LS	1	\$
13	Insurance (During Construction)	LS	1	\$
14	Payment & Performance Bond (During Construction)	LS	1	\$
15	Safety & Quality Control	LS	1	\$
<b>E</b>	<b>Total Design/Build Price (A+B+C+D)</b>			\$

\*\*\*\*\*DEDUCT\*\*\*\*\*

Deduct from Contract A if the Owner supplies the 8-inch ductile iron pipe in the amount of:

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**Contract B: Rate Proposal Form**

	<b>SUMMARY OF PROPOSAL DESIGN-BUILD PRICE</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>TOTAL PRICE</b>
<b>Item Number</b>	<b>Rockbridge Road Contract B</b>			
<b>A</b>	<b>Project Development Costs:</b>			
1	Engineering and Design Costs to 60% Completion of Entire Length of Contract B	LS	1	\$
2	Engineering and Design Costs from 61% to 100% Completion of Entire Length of Contract B	LS	1	\$
3	Permitting	LS	1	\$
<b>B</b>	<b>Paving</b>			
4	Traffic Control	LS	1	\$
5	Milling, Resurfacing, Leveling, & Deep Patching	LS	1	\$
<b>C</b>	<b>Water Mains</b>			
6	Traffic Control	LS	1	\$
7	Erosion Control	LS	1	\$
8	Landscaping	LS	1	\$
9	Installation of approximately 18,400-feet of 8-inch Ductile Iron Pipe with all necessary appurtenances including but not limited to driveway, sidewalk, curb and gutter restoration, pipe encasement, concrete cap, jack and bore, free bore, flowable fill, cut & plug, air release valves, gate valves, tapping sleeves, fire hydrants, meters and service lines, thrust collars, test holes, point repairs, and insertion valves.	LS	1	\$
10	Rock Excavation	LS	1	\$
<b>D</b>	<b>Other Direct and Indirect Costs:Temporary Facilities</b>			
11	Administrative	LS	1	\$
12	Record Drawings	LS	1	\$
13	Insurance (During Construction)	LS	1	\$
14	Payment & Performance Bond (During Construction)	LS	1	\$
15	Safety & Quality Control	LS	1	\$
<b>E</b>	<b>Total Design/Build Price (A+B+C+D)</b>			<b>\$</b>

\*\*\*\*\*DEDUCT\*\*\*\*\*

Deduct from Contract B if the Owner supplies the 8-inch ductile iron pipe in the amount of:

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**ATTACHMENT O**  
**Standard Specifications**

**Rockbridge Road Asbestos Cement  
Water Main Replacement**

December 2016

**RFP 16-500426**



**DeKalb County**  
**Department of Watershed Management**

1580 Roadhaven Drive  
Stone Mountain, Georgia 30083  
770-414-6181

## **SECTION 01001 SUMMARY OF WORK**

### **PART 1 – GENERAL**

#### **1.01 SCOPE**

- A. The Work to be performed under this Contract shall consist of furnishing plants, tools, equipment, materials, supplies, and manufactured articles and furnishing labor, transportation, and services, including fuel, power, water, and essential communications, and performing work, or other operations required for the fulfillment of the Contract in strict accordance with the Contract Documents. The Work shall be complete, and any work, materials, and services not expressly indicated or called for in the Contract Documents that may be necessary for the complete and proper construction of the Work in good faith, shall be provided by the **Contractor** as though originally so indicated, at no increase in cost to the **County**.
- B. The quantities shown on the bid form are estimates for the Work, including the intended construction method based upon the available information. The assigned means, methods, and quantities described herein are subject to revision by the **County** for various reasons including but not limited to, unforeseen utility conflicts/ground water, discovery of subsurface rock strata, unforeseen pipeline encasement, etc. As such, a unit price contract type has been selected to prosecute the Work and is not intended to be a guarantee for a minimum amount of work.

#### **1.02 PROJECT LOCATION**

The Work is required at the locations shown on the Approved Drawings.

#### **1.03 WORK COVERED BY THE CONTRACT DOCUMENTS**

Work shall be performed according to the requirements of the Contract Documents.

#### **1.04 WORK COORDINATION**

- A. The **Contractor** shall coordinate the Work with third parties (such as public utilities and the telephone company) in areas where such parties may have rights to underground property or facilities; and request maps or other descriptive information as to the nature and location of such underground facilities or property.
- B. The **Contractor** shall coordinate the Work with owners of private and public property where access is required for the performance of the Work.
- C. The **County** will work with the **Contractor** to assign and schedule the Work in a logical and efficient format. However, the items in this contract shall be priced such that each item may be assigned independently or combined with other items at the **County's** sole discretion in regard to both quantity and scope. The **Contractor** shall perform only those work items directed by the **County** at the prices specified herein. (For example, if the **County** determines that a line segment shall be cleaned but not televised, the same unit price for cleaning shall apply.)

## 1.05 CONDITIONS AT THE SITES

- A. The **Contractor** shall make necessary investigations to determine the existence and location of underground utilities.
- B. The **Contractor** shall be responsible for damage to and for maintenance and protection of existing utilities, structures, and personal property.
- C. These Contract Documents do not guarantee such utilities are in the location indicated or that they actually exist, or that other utilities are not within the area of the operations.
- D. The **Contractor** is responsible for safety at no additional cost to the **County**.
- E. The **Contractor** shall report hazardous conditions to the **County**.

+++ END OF SECTION 01001 +++

# SECTION 01010 - PROJECT PROCEDURES

## PART 1 - GENERAL

### 1.01 SUMMARY

Section includes:

- A. Lands and Rights-of-Way/Easements, and Permits
- B. Access to and **Contractor's** use of the site
- C. Coordination requirements
- D. Construction procedures

### 1.02 LANDS AND RIGHTS-OF-WAY: EASEMENTS AND PERMITS

- A. **Contractor** shall, within 30 days of Notice To Proceed, submit to the **County** an Easement and Permit Plan listing easements and permits obtained, permits and easements yet to be obtained, the timing for obtaining required easements and permits, and conditions and mitigations associated with the easements and permits. The **Contractor** shall coordinate the acquiring of easements and permits within the accepted Construction Schedule.

The timing of acquiring easements and permits is the responsibility of the **Contractor**. Delays and rescheduling of the Work to maintain the Construction Schedule shall be mitigated by the **Contractor** at the **Contractor's** sole cost and expense.

- B. Access to the Work shall be limited to the right-of-way or easement area provided for execution of the Work. The **Contractor** shall not enter any adjacent private property without prior written approval from the property owner. Proof of such approval shall be furnished to the **County** upon request. Additional permitting and easements required shall be obtained by the **Contractor** and the **Contractor** shall bear the cost.
- C. If the **Contractor** performs any work or service for any property owner outside the specified scope of the **Contractor's** agreement with the **County** or has any agreements with a private property owner for access to or for temporary use of property outside of the right-of-way or easement area, a written agreement shall be entered into with the private property owner(s) prior to any work or service being performed or prior to any use by **Contractor** of the private property and such agreement shall be provided to the **County**. The agreement shall contain the following language, in addition to the terms agreed to between the **Contractor** and the property owner:

"The Property Owner understands that DeKalb **County** is not a party to this Agreement, exercises no control over the means, methods, and execution of this agreement, and that DeKalb **County** assumes no responsibility for the **Contractor's** compliance with the terms of this agreement. The **Contractor** shall be solely liable for any and all claims, demands, and judgments related to loss or damage to property or person

(including death) arising from or in any way related to the **Contractor's** acts or omissions related to the agreement."

### 1.03 ACCESS TO AND CONTRACTOR'S USE OF THE SITE

- A. The space available to the **Contractor** for the performance of the Work, either exclusively or in conjunction with others performing other construction as part of the project, is shown on the drawings.
- B. The **County** shall continue to utilize the existing wastewater collection system and water system during assessment and construction.
  - 1. The **County** will endeavor to cooperate with the **Contractor's** operations when the **Contractor** has notified the **County** in advance of need for changes in operations in order to accommodate construction operations.
  - 2. The **Contractor** shall conduct the Work to cause the least interference with the **County's** operations.
- C. Equipment and vehicles used by the **Contractor** on the project shall be marked with the **Contractor's** name and telephone number.

### 1.04 COORDINATION REQUIREMENTS

- A. Coordination with **County**:
  - 1. Limit access through occupied areas to those days and times the **County** approves. Occupied areas include areas in which the **County's** regular operations will be going on or to which the **County** requires access during the construction period.
  - 2. When the following must be modified, provide alternate facilities acceptable to the **County**:
    - a. Emergency means of egress
    - b. Utilities that must remain in operation
    - c. Informational signage
  - 3. The **Contractor** shall notify the **County** immediately of any circumstances that may jeopardize or that have interrupted utility service.
- B. Security Procedures:
  - 1. Limit access to the site to persons involved in the work.
  - 2. Provide secure storage for materials.
  - 3. Secure completed work as required to prevent loss.
- C. Coordination of Construction:
  - 1. Inform each party involved, in writing, of procedures required for coordination of the Work; include requirements for giving notice, submitting reports, and attending meetings.
  - 2. Inform the **County** in advance, with ample time, when coordination of Work is required.

- D. Utilities Notification Prior to Construction:
1. Georgia law mandates that, before beginning mechanical digging or excavation work, **Contractor** shall contact Georgia 811 by using eRequest on [www.Georgia811.com](http://www.Georgia811.com) or by calling 811 or 1-800-282-7411.
  2. **Contractor** may utilize EDEN (Excavation Digging Event Notification) web application that enables Members and Professional Excavators to create, manage, respond to, and edit Georgia 811 Locate Request Tickets.
  3. **Contractor** shall retain records of notification and responses during the course of the project until final Payment.

## **PART 2 - PRODUCTS (NOT USED)**

## **PART 3 - EXECUTION**

### **3.01 CONSTRUCTION**

#### **A. General Examination Requirements:**

1. Prior to performing work, examine the applicable substrates and the conditions under which the work is to be performed.
2. If unsafe or otherwise unsatisfactory conditions are encountered, take corrective action before proceeding.
3. Notify the **County** promptly of type modifications required.
4. Before starting work that might affect existing construction, verify the existence and location of underground utilities and other underground construction.
5. Prepare preconstruction photographic documentation in conformance with the requirements of Section 01380 of these specifications.

#### **B. General Preparation Requirements:**

1. The **Contractor** shall obtain, maintain, and pay for required permits.
2. The **Contractor** shall take field measurements as required to properly conduct the work.

#### **C. Cleaning and Protection: Keep installed work clean, and clean again when soiled by other operations.**

#### **D. Final Cleaning:**

1. Remove materials and equipment that are not part of the work and any debris from the site prior to substantial completion.
2. Dispose of debris in a lawful manner.
3. Perform final cleaning after substantial completion has been certified, but before final payment.
4. Clean entire project site and grounds.

#### **E. Substantial Completion:**

1. Requirements for the **Contractor** achieving Substantial Completion are defined in the Contract Documents in GR-1 of the General Requirements.

2. Substantial Completion is typically defined to include:

- a. Completion of Work required by the Contract Documents
- b. Operation of components and systems of the Work, including acceptance of testing and startup requirements
- c. Closeout of quality deficiencies and non-conformances
- d. Delivery and acceptance of spare parts, operations manuals, and vendor documentation
- e. Completion of vendor training
- f. Completion and delivery of "red-line" as built drawings

2. When the **Contractor** believes substantial completion has been achieved, **Contractor** shall notify the **County** in writing, requesting Substantial Completion. The **County** will verify that the contractual documentation requirements for Substantial Completion have been completed, including closeout of open NCRs. If verified, the **County** will schedule a Substantial Completion inspection and walk-through with the **Contractor**, DWM Operations, and the Designer, or will notify the **Contractor** in writing of acceptance or the reason(s) for denying Substantial Completion.

F. Final Completion:

1. Requirements for the **Contractor** achieving Final Completion are defined in the Contract Documents in GR-9 of the General Requirements.
2. After Substantial Completion, **Contractor** shall meet additional requirements for Final Completion and release of final payment. These requirements will be defined in the Contract and typically include:
  - a. Completion of punch list items by the **Contractor**
  - b. Demobilization from the project site
  - c. Submittal of warranties
  - d. Release of subcontractor or vendor liens
  - e. Turnover of remaining project documents required by the Contract, including final as-built drawings by the Design Consultant

### 3.02 CHANGE MANAGEMENT

A. Contract Change Process

Any firm under contract with the **County** may submit a Change Request (CR) to the **County** following the requirements of the contract. A CR may address requested changes in cost and/or schedule, as well as contract terms or scope that do not result in cost or schedule impacts.

Changes may also be initiated by the **County** in the form of a Field Order (FO). The **Contractor** shall proceed with the change unless they believe the FO entitles them to a change in contract price, time, and/or term. If so, the **Contractor** shall submit a CR within 15 days of receiving the FO.

The CR from the **Contractor** is to be accompanied by a detailed proposal describing the **Contractor's** opinion of the CR's cost, schedule, and/or contract term impacts.



If the CR is acceptable to the **County**, the **Contractor** will be directed to submit a CO to the **County** to process. If the CR is not acceptable to the **County** then the **Contractor** may negotiate the CR. If the cost and/or schedule impacts cannot be agreed, then the **County** will either instruct the **Contractor** to proceed with the change using a Unilateral Change Directive (UCD), if the change is deemed by the **County** to be needed, or the change can be terminated if the change is deemed to be not needed. If the **County** issues a UCD after failing to agree on the price of a CO, then the pricing of the change is per the contract terms.

A UCD can be initiated by the **County** only when there is an imminent threat to public safety or health, or a potential shutdown of a vital **County** function.

#### B. Amendment to the Contract

If the approval of a CO requires a written, formal amendment to the contract, the **County** will process the formal amendment.

#### C. Project Scope Change Impacts

A change to a Design /Build contract may materially change the scope of the project, including greater impact on the construction scope than the design scope. A design scope change may also materially impact the project configuration even if it is a no-cost change. Additionally, a change to one project's scope may have impacts to another project's scope.

So that a CO is not approved without understanding its full impacts beyond the affected contract scope, project scope change impacts shall be approved by the **County**. These must consider changes through every phase of the project, and/or impacts to other projects.

#### D. Baseline

If a CO is approved, the **Contractor** will prepare a Project Baseline Change Instruction Form to formally change the project scope, baseline schedule, and baseline budget.

#### E. Change Monitoring

The **Contractor** is responsible for monitoring changes to the contract. The **Contractor** will maintain a Design Change Log for each project, and will maintain a Construction Change Log that includes the change description, change status, category of change, contract, estimate of cost, estimate of schedule impact, and current process step. Change logs are updated each month and included with the Project Progress Report.

Responding to and processing changes in a timely manner is a priority. Change backlogs will be vigorously monitored and managed. Change status reports will be developed by the **Contractor** from the Change Logs to provide current status of each open change, which process step is active, and how many days remain in the

process step. “Overdue” reports will be elevated to the **County** for follow-up and closure.

#### F. Change Status

Changes will be identified by one of the four following status descriptions:  
Proposed Change is a change that has been submitted as a CR or FO, but has not yet been negotiated. Proposed changes require closure if they are deemed to be not required, or must be resolved in a timely manner if they are deemed required. The cost estimate and/or schedule impact of a proposed change will usually change as it goes through the contract change process. These changes must be reflected in the Change Log as they occur and included in monthly cost and schedule forecasts.

Pending Change is a change that has been negotiated, but has not yet received final **County** approval. These changes must be included in monthly cost and schedule forecasts.

Approved Change is a change that has received final **County** approval. The contract scope, budget, and/or schedule will be amended to include approved changes. Approved changes will be included in monthly cost and schedule forecasts until a formal re-baselining of the project schedule and/or budget is approved.

Closed Change is a change that has been formally rejected and closed by the **County**, or withdrawn by the originator.

#### G. Category of Change

Changes will be categorized as follows to track the types of changes that occur over the life of the project:

- **County Requests:** any change initiated by the **County**.
- **Differing Site Conditions:** new information not reasonably available during design, or considered “unforeseeable” through due diligence on the part of the **Contractor**.
- **Design Errors:** changes due to errors or deficiencies in the design.
- **Design Omissions:** items omitted from the design that would have been included in the original bid, had they been known.
- **Regulatory Requirements:** changes mandated by regulatory agencies that are different from approved permit conditions at the time the contract was approved.
- **Other:** changes required for all other reasons, including emergency work, adjustment of bid quantities, force majeure events, incentive payments, accepted substitutions, and changes identified during value engineering.

### 3.03 HEALTH AND SAFETY CONSIDERATIONS

- A. Take precautions to prevent fires and to facilitate firefighting operations.
- B. Take precautions to prevent accidents due to physical hazards.

- C. Maintain working conditions in order to keep the site and adjacent public ways free of hazardous and unsanitary conditions and public nuisances.
- D. Maintain working conditions to control rodents and other pests; prevent infestation of adjacent sites and buildings due to pests on this site.
- E. Keep public streets free of debris from this Work.
- F. Provide adequate traffic control in accordance with current MUTCD standards and the approved traffic permit.
- G. When using trenches/excavations, follow OSHA standards 29 CFR 1926.650, 29CFR 1926.651, and 29 CFR 1926.652.

### 3.04 ENVIRONMENTAL PROTECTION

#### A. General

**Contractor** shall conduct its operation in a manner to prevent pollution of the environment surrounding the area of work and shall be responsible for furnishing necessary items for fulfilling the work described herein.

#### B. Material Transport

**Contractor** shall comply with the Official Code **County** of DeKalb Georgia pertaining to the duties of the **Contractor** in hauling material over **County**-owned rights-of-way. This includes, but is not limited to, approval of proposed haul routes, prevention of dropping of materials or debris on the streets from trucks arriving and leaving the site, providing a suitable vehicle inspection and cleaning installation with permanent crew, and the removal of material spilled in public areas at no additional cost to the local government agency.

#### C. Waste Materials

No waste or erosion materials shall enter natural or manmade water, wastewater collection systems, or stormwater drains. Erosion materials from excavations, borrow areas, or stockpiled fill shall be contained within the work area. **Contractor** shall develop methods for control of waste and erosion, which shall include filtration, settlement, and manual removal to satisfy the above requirements.

#### D. Burning

No burning of waste shall be allowed.

#### E. Dust Control

The **Contractor** shall control the generation of dust by its operations. Control of dust shall be accomplished by water sprinkling or by other methods approved by the **County**.

## F. Noise Control

The **Contractor** shall minimize the noise caused by its operations.

When required by agencies having jurisdiction, noise-producing work shall be performed in less sensitive hours of the day or week as directed by the **County**.

The **Contractor** shall provide equipment that operates with the least possible noise. The use of noisy equipment is prohibited. Hoists and compressor plants shall be electrically operated unless otherwise permitted. The air intake of compressors shall be equipped with silencers, and machinery operated by gearing shall be provided with a type of gearing designed to reduce noise. Internal combustion engines shall be equipped with mufflers in good order.

Noise generated by mobile construction equipment, stationary construction equipment, and other equipment involved in the construction of the Work shall not exceed the decibel levels indicated below. Noise generated by mobile and stationary construction equipment will be measured 3 to 6 feet from building lines, and on the A-weighting network of Type 2 general purpose sound level meter set at fast response.

	Combined Residential and Commercial
Allowable sound levels of mobile construction equipment: - From 7 a.m. to 10 p.m., Monday thru Saturday, except legal holidays - At times other than those listed above	85 dBA  70 dBA
Allowable sound levels of stationary construction equipment: - From 7 a.m. to 10 p.m., Monday thru Saturday, except legal holidays - At times other than those noted above  Night work from 10 p.m. until 7 a.m. shall require an approved special permit from the <b>County</b> .	70 dBA  60 dBA  The dBA level will be included in the approved permit.

## G. Use of Chemicals

Chemicals used during construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant, or of other

classification, shall show approval of either EPA or FDA. Use of such chemicals and disposal of residues shall be in conformance with instructions.

#### H. Bypassing During Construction

No wastewater shall be bypassed at sewage collection or treatment facilities during project construction unless a bypassing schedule has been approved by the **County**. It shall be the responsibility of the **Contractor** to prepare and secure the approval of bypassing not specifically identified in the Contract Documents.

#### I. Responsibility for Spills and Accidental Discharges

In the event the **Contractor** causes or has a spill or accidental discharge for which the **County** is fined by the State of Georgia Department of Natural Resources Environmental Protection Division (EPD), the **Contractor** agrees to remediate the spill or discharge immediately in accordance with current EPD regulations and to pay fines assessed against the **County** and/or **Contractor**, and pay for the **County's** cost associated with efforts to remediate the situation. The **County** shall be notified immediately of such an event.

#### J. Odor Control

**Contractor** shall provide approved temporary odor control measures as required to control objectionable odors resulting from its cleaning and/or bypass pumping operations. Approved temporary odor control measures, when required, shall include odor control filters, additional ventilation, and/or covering of manholes.

### 3.05 PROTECTION OF THE WORK

- A. Conduct construction operations so no part of the Work is subjected to damaging operations or influences that are in excess of those to be expected during normal occupancy conditions.
- B. Execute work and stockpile spoils and materials to prevent flooding of excavations, below grade construction, and adjacent properties due to rainwater runoff.
- C. Protect existing property not indicated to be removed.
- D. Provide temporary supports as required to prevent movement and structural failure as designed by a Registered Professional Engineer in the state of Georgia at the **Contractor's** cost.
- E. Equipment and vehicles used on DWM projects shall be clearly marked with the **Contractor's** name and telephone number. The identifying markings may be in the form of magnetic signs, decals, or painted lettering and shall be located on both sides of the equipment/vehicle. The lettering shall be legible, of a contrasting color

to the background surface, and at least two inches in height. Markings shall be in place upon initiation of the work on the project site.

- F. A copy of the Project Notice to Proceed letter issued by the **County** shall be available on the job site as proof of the contractual relationship of the **Contractor** with the **County**. The letter shall be presented for review upon request by regulatory agencies or other **County** departments that visit the job site.
- G. If removal and replacement of a paved private driveway is required, the replacement shall be performed within 2 weeks of removal. The required permanent pavement replacement for public roadways shall be performed within 30 days or within 7 days if the roadway is a state highway or major **County** arterial roadway. Temporary surface maintenance is the **Contractor's** responsibility and shall be adequate for the volume and type of traffic loads imposed. Temporary asphalt cold mix application, steel traffic plates, etc. shall be utilized as necessary.
- H. The **Contractor** shall always maintain copies of permits and approved plans on the project site.

### 3.06 NOTIFICATION OF SERVICE INTERRUPTION

During progress of work under this Contract, it may be necessary to temporarily interrupt water, sewer, or other utility service to a limited number of customers in the vicinity of the work. It shall be the **Contractor's** responsibility to coordinate the service outage with the utility and to provide proper advance notification (a minimum of 48 hours) to the affected customers.

Due to the nature of businesses and traffic in certain projects' areas, water outages for connections, service changeovers, and other Work may not be allowed during normal work hours. The **Contractor** shall factor these considerations into bid price submitted. Coordination, special lighting, traffic control, employee overtime, special customer notification, etc. shall be included in these considerations by the **Contractor**.

++++END OF SECTION 01010++++

## SECTION 01011 UNIQUE REQUIREMENTS

### PART 1 - GENERAL

#### 1.01 SCOPE

- A. This Section conveys to the **Contractor** unique and unusual stipulations and requirements established for this Project. Some of the stipulations and requirements are a result of negotiations with various entities and organizations, which have an interest in this Project. Some requirements are based on technical aspects of the Project, which are not otherwise conveyed to the **Contractor**. The provisions of this Section shall supersede the provisions of the Division 1 through 17 Specifications, but shall not supersede the Bidding Requirements, Contract Forms, or Conditions of the Contract.
- B. If Owner Controlled Insurance Program (OCIP) is implemented in the contract, then OCIP shall govern as follows: In connection with the Work, and for the **Contractor** and those subcontractors deemed eligible by the **County** for participation, the **County** shall implement an OCIP, providing certain insurance coverages as detailed herein. The insurance coverages provided by the OCIP apply only to the Work performed on the Project site. The **Contractor** and its subcontractors shall provide their own insurance for off-site activities. The Builder's Risk/All Risk Property Insurance component of the OCIP shall expressly exclude coverage on **Contractor's** and subcontractors' machinery, tools, and equipment not destined to become a part of the Project Work.

#### 1.02 EXISTING FACILITY OPERATIONS

- A. The existing facilities shall remain in operation while the new construction is in progress.
- B. The **Contractor** shall coordinate the Work with the **County** so that the construction shall not restrain or hinder the operation of the existing facilities.
- C. After having coordinated the Work with the **County**, the **Contractor** shall prepare a submittal in accordance with Specification Section 01014 and 01300 to include the time, time limits, and methods of each connection or alteration and have the approval of the **County** before Work is undertaken on the connections or alterations.

#### 1.03 SEQUENCING

- A. General: The **Contractor** shall be solely responsible for all construction sequencing.
- B. Notify the **County** at least 48 hours prior to relocating piping or diverting flows.
- C. Sequence Submittal:

1. The **Contractor** shall submit to the **County** for review a proposed sequence with appropriate times of starting and completion of tasks.
  2. The **Contractor** may propose alternatives to the sequencing constraints shown in this Section in an attempt to reduce the disruption of the operation of the existing facility or streamline the tasks of this Contract. The **County** is not obligated to accept these alternatives.
- A. Parking for **Contractor** personnel shall be fully contained within the site boundaries. No parking is permitted on public roads or on streets within the neighborhood. If necessary, the **Contractor** shall make arrangements for remote parking for its personnel, at no additional cost to the **County**.
  - B. **Contractor** is advised there are numerous pressurized pipes, energized conduits and duct banks, overhead utilities, and gravity flow systems on the site. The **Contractor** shall be responsible for protecting the existing utility lines and shall be responsible for the repair, damages and all cost resulting from construction activities to these systems. In addition to these requirements, the **Contractor** is required to verify the actual locations of various buried lines shown in the Drawings by carefully excavated test pits and other direct means before starting Work in given areas at no additional cost to the **County**. Special care shall be taken during excavation to mitigate damage potential from previously unknown and active systems. Overhead utilities may require raising or relocation to access site.
  - C. Unless shown otherwise on the Drawings, the **Contractor** shall restore the site to its original grade. Fill placed at the site to return it to its original grade shall be controlled fill, approved by the **County**. The site shall be grassed, strawed, and mowable. Final landscaping, including trees and shrubs, but not including grassing, shall be paid separately.
  - D. The **Contractor** shall be responsible for maintaining and cleaning the Site Access Road from the date it occupies the Construction Site through the final completion of the construction period.
  - E. **Contractor** shall grade site, relocate, set up, and connect utilities, including telephone and internet services for office facilities.

END OF SECTION 01011



## SECTION 01014 WORK SEQUENCE

### PART 1 - GENERAL

#### 1.01 SCOPE

- A. Work under this Section includes construction sequencing and providing temporary facilities as necessary to operate the (wastewater collection) (water distribution) facilities and prevent (wastewater) (potable water) bypasses during the Work. Work shall be scheduled and conducted by the **Contractor** so as to neither impede nor adversely affect any **County** or utility operations.
- B. The existing (wastewater collection system) (water distribution system) is currently and continuously receiving (wastewater) (potable water). Those functions shall not be interrupted except as specified herein. The **Contractor** shall coordinate the Work to avoid any interference with normal operation of the (collection) (distribution) system. The **Contractor** shall comply with the following general requirements:
  - 1. Provide temporary pumps and other facilities necessary to meet the requirements of this Section.
  - 2. Notify the **County** at least 48 hours before starting to relocate piping or taking existing components out of service.
  - 3. Never bypass untreated or partially treated sewage to surface waters or drainage courses. This is strictly prohibited during construction. If the **Contractor's** operations cause accidental bypassing, the **County** shall immediately be entitled to employ others to stop the bypassing, and shall be entitled to do so without written notice to the **Contractor**.
- C. Penalties imposed on the **County** because of any bypass caused by the actions of the **Contractor**, its employees, or subcontractors, shall be borne in full by the **Contractor**. This includes legal fees, cleanup, remediation, and other **County** expenses resulting directly or indirectly from the bypass.

#### 1.02 SUBMITTALS

- A. Outage Plan: In accordance with the General Conditions, the **Contractor** shall submit a detailed outage plan and schedule for any operations that necessitate removing a pipeline or structure from service. The schedule shall be coordinated with the construction schedule specified in this Section and shall meet the restrictions and conditions specified herein. The detailed plan shall describe the **Contractor's** method for preventing bypassing, the length of time required to complete said operation, the affected facility(ies), and the equipment the **Contractor** shall provide in order to prevent bypassing.

- B. Sequence Submittal: The sequence provided in Part 3 of this Section is offered as a suggestion to the **Contractor**. The **Contractor** shall submit to the **County** for review and approval a proposed detailed sequence with appropriate times of starting and completion of tasks.
- C. Alternate Sequences: The **Contractor** may propose alternate sequences to those shown in Part 3 of this Section if they would reduce disruption of the existing facility's operation or streamline the tasks of this Contract.

### 1.03 QUALITY ASSURANCE

At least two weeks prior to any proposed activity that will require any portion of the (wastewater collection) (water distribution) system to be removed from operation, require bypassing, or interrupt flow, the **Contractor** shall schedule a meeting with DWM operating personnel to discuss the **Contractor's** detailed plan for the proposed operation. The plan shall meet the following minimum requirements:

- A. Plan shall be written in outline form and presented in a format that shows the progression of events in sequential and/or concurrent order of activity, along with the duration of each activity.
- B. The written plan shall be supplemented by understandable drawings, sketches, and details as required to show the logic of the plan.
- C. The plan shall delineate the responsibilities of the DWM operating personnel and the **Contractor**, to eliminate delays from conflicting viewpoints about responsibilities when the plan is plan implemented.
- D. After discussion of the plan at the meeting, any agreed changes shall be incorporated into the plan and a copy of the plan and details shall be distributed to DWM operating personnel, the **County**, and **Contractor** at least one week prior to commencement of activities. On the day prior to the commencement of activity, a brief meeting of involved parties shall convene to establish the starting time and initial activity of DWM operating personnel and **Contractor's** personnel.

## PART 2 - PRODUCTS (NOT USED)

## PART 3 - EXECUTION

### 3.01 GENERAL

The sequence of construction is outlined for the major items of Work required. The **Contractor** shall coordinate its Work with the DWM operating personnel to minimize disruptions of system operation. The **Contractor** shall ascertain that existing facilities are protected and shall not be damaged as a result of this construction. No settlement of existing facilities shall be acceptable. All work shall be performed in a safe manner.

Unless otherwise permitted, no existing valves or equipment shall be operated by the **Contractor**.

### 3.02 PROPOSED CONSTRUCTION SEQUENCE

The project shall be constructed in five stages to allow continuous operation of the facilities and provide treatment of wastewater to a quality equivalent to the existing secondary treatment plant or better. The five stages of construction shall generally be performed in sequence, with overlap as required to maintain the treatment facilities in service. The five stages are:

Stage 1 - Preparatory

Stage 2 - Bypass Facilities

Stage 3 - New Pipe, Structures, Valves, and Connections

Stage 4 - Modification to Existing Facilities

Stage 5 - Cleanup and Final Restoration

### 3.03 REQUIRED SEQUENCES

The following items define the sequence of certain construction steps that shall occur in order to properly and safely operate and maintain the treatment facilities.

### 3.04 COORDINATION WITH OTHER CONTRACTORS

The performance of the project shall be coordinated with other work going on at the same time on the project site. Certain portions of the project are required to be completed so others can perform their work in a timely manner. The construction schedule prepared by the **Contractor** shall take into account the intermediate requirements depicted on the sequence diagram. The **Contractor** shall bear the responsibility for Work delays that cause delay and damages to other contractors requiring connection to Work under this contract.

### 3.05 LIMITS OF CONSTRUCTION

Due to the need for other contractors to be performing work on the site, the **Contractor's** access to the site may be limited. The **Contractor** shall have access to some areas of the site only during certain steps during construction. The **Contractor** shall have access to the property defined within the construction limits throughout the project. Additionally, the **Contractor** shall have access to areas within the construction limit of others for only the periods of time required to perform the work.

- A. Except where indicated otherwise on the drawings, pipeline and underground construction shall terminate at the construction limit lines indicated on the drawings. The **Contractor** reaching the construction limit first shall be responsible for adequately capping the line to allow both for testing and for easy continuation of or connection to the line by the **Contractor** continuing the line.
- B. The **Contractor** may be responsible for performing work within the construction limits of other contractors.

### 3.06 MISCELLANEOUS CONSTRUCTION

Miscellaneous Work necessary to complete any flow diversion required may include piping, electrical work, diversion plugs, bulkheads, equipment installation, easements, permits, and other activities. The cost for these items shall be included in the **Contractor's** base bid.

END OF SECTION 01014

## **SECTION 01016 OCCUPANCY**

### **PART 1 – GENERAL**

#### **1.01 PARTIAL OCCUPANCY BY COUNTY**

Whenever, in the opinion of the **County**, any section or portion of the Work is in suitable condition, it may be put into use upon the written order of the **County** and such usage shall not be held in any way as an acceptance of said Work, or any part thereof, or as a waiver of any of the provisions of these Specifications and the Contract. Pending completion and final acceptance of the Work, all necessary repairs, and replacements, due to defective materials or workmanship or operations of the **Contractor**, for any section of the Work so put into use shall be performed by the **Contractor** at **Contractor's** own expense.

END OF SECTION 01016

## SECTION 01040 COORDINATION

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. The **Contractor** shall coordinate execution of the Work with subcontractors, other contractors working on related **County** projects, and the **County**, as required, to maintain operation of the existing facilities and satisfactory progress of the Work.
- B. Requirements of this Section shall be in addition to those stated in the General Requirements.
- C. The **County** requires a written explanation of the **Contractor's** plan for coordinating and accomplishing separate phases of the Work, supplemental to the details provided under Section 01310 - Construction Schedule.

#### 1.02 EXISTING UTILITIES

- A. Consult with the **County** on a daily basis while the **Contractor** performs demolition, excavation, or any other alteration activity. No water or sewer function, utility, or structure is to be altered, shut off, or removed unless approved in advance, and in writing, by the **County**. The **Contractor** shall give the **County** at least 48 hours advanced notice, in writing, of the need to alter, shut off, or remove such function.
- B. Coordinate the Work with the **County** and revise daily activities to avoid adversely affecting system operations. Such revisions in the proposed work schedule shall be accomplished with no additional compensation to the **Contractor**.

END OF SECTION 01040

## **SECTION 01045 CUTTING AND PATCHING**

### **PART 1 - GENERAL**

#### **1.01 DEFINITIONS**

"Cutting and patching" includes cutting into existing construction to provide for the installation or performance of other Work and subsequent fitting and patching required to restore surfaces to their original conditions.

- A. Cutting and patching is performed for coordination of the Work, to uncover Work for access or inspection, to obtain samples for testing, to perform alterations, or for similar purposes.
- B. Cutting and patching performed during the manufacture of products, or during the initial fabrication, erection or installation processes is not considered to be "cutting and patching" under this definition. Drilling of holes to install fasteners and similar operations are also not considered "cutting and patching."
- C. "Demolition" and "Selective Demolition" are recognized as related, but separate categories of Work, which may or may not require cutting and patching as defined in this section, refer to "Demolition" and "Selective Demolition" sections of Division 2.

#### **1.02 SECTION INCLUDES**

Unless otherwise specified, requirements of this section apply to mechanical and electrical Work. Refer to Divisions 15 and 16 for additional requirements and limitations on cutting and patching of mechanical and electrical work. Refer to other sections of these specifications for specific cutting and patching requirements and limitations applicable to individual units of Work.

This Section includes:

- A. Administrative and procedural requirements for cutting and patching
- B. Reference to other sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work

#### **1.03 RELATED SECTIONS**

- A. Drawings and general provisions of Contract, including General Requirements and other Division 1 Specification Sections.
- B. Requirements for mechanical and electrical installations and reference to Sections in Divisions 15 and 16 for other requirements and limitations applicable to cutting and patching mechanical and electrical installations

## 1.04 QUALITY ASSURANCE

- A. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would reduce the load-carrying capacity or load-deflection ratio.

Obtain approval of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems.

1. Primary operational systems and equipment
2. Air or smoke barriers
3. Water, moisture, or vapor barriers
4. Fire Protection Systems
5. Control Systems
6. Communication systems
7. Conveying systems
8. Noise and vibration control elements and systems

- B. Operational and Safety Limitations: Do not cut and patch operating elements or safety related components in a manner that would reduce capacity to perform as intended, or result in increased maintenance, or decrease operational life or safety.

- C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces, in a manner that would reduce the building's aesthetic qualities, or result in visual evidence of cutting and patching. Remove and replace Work cut and patched in visually unsatisfactory manner.

Retain the original installer or fabricator, if possible, to cut and patch the exposed Work listed below. If it is impossible to engage the original installer or fabricator, engage another recognized experienced and specialized firm.

- A. Stonework and stone masonry
- B. Window wall systems
- C. Ornamental metal
- D. Firestopping
- E. Stucco and ornamental plaster
- F. Carpeting
- G. Wall coverings

- C. Approval: Obtain approval to proceed before temporary or permanent cutting and patching of the following categories:

1. Structural steel
2. Miscellaneous structural metals, including lintels, equipment supports, stair systems, and similar categories of Work
3. Structural concrete
4. Foundation construction
5. Steel



6. Lintels
  7. Bearing and retaining walls
  8. Structural decking
  9. Exterior curtain wall construction
  10. Equipment Supports
  11. Piping, ductwork, vessels, and equipment
  12. Structural systems of special construction, as specified by Division 13 sections
  13. Shoring, bracing, and sheeting
  14. Primary operational systems and equipment
  15. Water/moisture/vapor/air/smoke barriers, membranes, and flashings
  16. Noise and vibration control elements and systems
  17. Control, communication, conveying, and electrical wiring systems
- E. Installer Qualifications: Company specializing in performing the Work of this section with minimum 5 years of experience
- F. Products Requiring Electrical Connection: Listed and classified by UL as suitable for the purpose specified and indicated

## **1.05 SUBMITTALS**

Procedural Proposal for Cutting and Patching: Submit proposed procedures for this Work well in advance of the time Work shall be performed, and request approval to proceed. Include the following information, as applicable, in the submittal:

- A. Describe nature of the Work and how it is to be performed, indicating why cutting and patching cannot be avoided. Describe anticipated results of the Work in terms of changes to existing Work, including structural, operational, and visual changes as well as other significant elements.
- B. List products to be used and firms, including their qualifications, that shall perform the Work.
- C. Give dates when Work is expected to be performed.
- D. List utilities that will be disturbed or otherwise affected by Work, including those that will be relocated and those that will be out of service temporarily. Indicate how long utility service shall be disrupted.
- E. Acknowledge that the Architect's approval to proceed with cutting and patching does not waive the Architect's right to later require complete removal and replacement of unsatisfactory Work.
- F. Submit details and engineering calculations to show how reinforcement is integrated with original structure to satisfy requirements when cutting and patching of structural Work involves the addition of reinforcement.
- G. List certified welder who shall perform structural welding.

## 1.06 WARRANTY

Existing Warranties: Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required or existing.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

- A. General: Except as otherwise indicated, or as directed by the Contracting Officer, use materials for cutting and patching that are identical to existing materials. If identical materials are not available, or cannot be used, use compatible materials matching existing adjacent surfaces to the fullest extent possible also with regard to visual effect. Use materials for cutting and patching to result in equal-or-better performance characteristics.
- B Trade Name: The use of a trade name and supplier's name and address shall indicate a possible source of the product. Products of the same type from other sources shall not be excluded provided they possess like physical and functional characteristics.
- C. Identical Materials: Use materials that are identical to existing materials. If identical materials are not available or cannot be used where exposed surfaces are involved, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials with installed performance equal to or surpassing that of existing materials.

## PART 3 - EXECUTION

### 3.01 EXAMINATION

- A. Corrective Action: Before cutting existing surfaces, examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Take corrective action before proceeding, if unsafe or unsatisfactory conditions are encountered.
- B. Trade Meeting: Before the start of cutting Work, meet at the Work site with the parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate layout of the Work and resolve potential conflicts before proceeding with the Work.

### 3.02 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut. If the cut is on a structural member, a PE registered in the state of Georgia shall submit a temporary support design plan to the **County** for approval.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.

- C. Interference: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Precautions: Take necessary precautions to protect existing pipe conduit, or ductwork serving the building, and schedule to remove or relocate conduits until bypass provisions have been made.

### **3.03 PERFORMANCE**

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.
- B. Existing Construction: Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original conditions.
- C. Damage Control: Cut existing construction using methods least likely to damage elements retained or adjoining construction. Review proposed procedures with the original installer, where possible; comply with the original installer's recommendations.
  - 1. Use hand or small tools designed for sawing or grinding, where cutting is required. Do not hammer and chop. Cut holes and slots neatly to size required with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - 2. Cut the exposed or finished side into concealed surfaces to avoid marring existing finish.
  - 3. Cut through concrete and masonry using a cutting machine such as a carborundum saw or diamond core drill.
  - 4. Comply with requirements of applicable Sections or Division 2 where cutting and patching require excavating and backfilling.
  - 5. Bypass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated, or abandoned. Cut off pipe or conduit in walls or partitions to be removed. Cap valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after bypassing and cutting.
- D. Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
  - 1. Inspect and test patched areas to demonstrate integrity of the installation, where feasible.
  - 2. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that shall eliminate evidence of patching and refinishing.

3. Patch, and repair floor and wall surfaces in the new space to provide an even surface of uniform color and appearance when removal extends one finish area into another. Remove existing floor and wall coverings and replace with new materials, as necessary to achieve uniform color and appearance.

Extend final paint coat over entire unbroken area containing the patch, where patching occurs in a smooth painted surface, after the patched area has received primer and second coat.

4. Patch, repair, or rehang existing ceiling as necessary to provide an even surface of uniform appearance.

### **3.04 CLEANING**

- A. Clean Thoroughly: Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Completely remove paint, mortar, oils, putty, and items of similar nature. Thoroughly clean piping, conduit, and similar features before paint or other finishing is applied. Restore damaged pipe covering to its original conditions.
- B. Traffic: Do not permit traffic over unprotected floor surface.

END OF SECTION 01045

## SECTION 01060 REGULATORY REQUIREMENTS

### PART 1 - GENERAL

#### 1.01 SCOPE

- A. The **Contractor** shall, without additional expense to the **County**, be responsible for obtaining National Pollutant Discharge Elimination System (NPDES) permits for discharges from this project to stormwater systems or watercourses, and for complying with any applicable federal, state, county, and municipal laws, codes, and regulations, in connection with the prosecution of the Work.
- B. The **Contractor** shall take proper safety and health precautions to protect the Work, the workers, the public, and the property of others.
- C. The **Contractor** shall be responsible for materials delivered and Work performed until completion and acceptance of the Work, except for any completed unit of construction thereof that may heretofore have been accepted.

#### 1.02 NPDES PERMITS FOR STORMWATER DISCHARGES

- A. The Federal Water Pollution Control Act (also known as the Clean Water Act, or CWA), as amended in 1987, requires NPDES permits for stormwater discharges associated with industrial activity.
- B. On November 16, 1990, (55 FR 47990), the U.S. Environmental Protection Agency (EPA) issued regulations establishing permit application requirements for stormwater discharges associated with industrial activity. These are in Section 122.26 of Section 40 of the Code of Federal Regulations (40 CFR Part 122.26).
- C. The November 16, 1990 regulation established the following definition of "stormwater discharge associated with industrial activity" at 40 CFR 122.26(b) (14):

"Stormwater discharge associated with industrial activity" means the discharge from any conveyance that is used for collecting and conveying stormwater and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. For the categories of industries identified in subparagraphs (i) through (x) of this subsection, the term includes, but is not limited to, stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. The following

categories of facilities are considered engaging in "industrial activity" for purposes of this subsection:

- (x) Construction activity including clearing, grading, and excavation activities except: operations that result in the disturbance of less than five acres of total land area, which are not part of a larger common plan of development or sale
- D. These regulations are effective for activities covered by the regulation on or after October 1, 1992.
- E. The **Contractor** shall complete EPA Form 3510-2F. A "Guidance Manual for the Preparation of NPDES Permit Applications for Stormwater Discharges Associated with Industrial Activity," as published by EPA, is available to assist the **Contractor** in the application process.

END OF SECTION 01060

## **SECTION 01100 SPECIAL PROJECT PROCEDURES**

### **PART 1 - GENERAL**

#### **1.01 CONNECTIONS TO EXISTING SYSTEMS**

The **Contractor** shall perform the Work necessary to locate, excavate, and prepare for connections to the terminus of the existing systems as shown on the Drawings. The cost for this Work and for the actual connection to the existing systems shall be included in the bid price for the project and shall not result in any additional cost to the **County**. Connections shall be made only after approval by the **County**.

#### **1.02 RELOCATIONS**

The **Contractor** shall be responsible for the relocation of structures, including but not limited to light poles, signs, sign poles, fences, piping, conduits, and drains that interfere with the positioning of the Work as set out on the Drawings. The cost of such relocations shall be included in the bid price.

#### **1.03 EXISTING UNDERGROUND PIPING, STRUCTURES, AND UTILITIES**

- A. The **Contractor** shall exercise extreme care before and during excavation to locate and flag various sewer, water, gas, telephone, electrical, or other utility lines not shown on the Drawings to avoid damage. Should damage occur to an existing line, the **Contractor** shall bear the costs associated with the damage and repair the line at no cost to the **County**.
- B. The **Contractor** shall note that the locations of existing underground piping structures and utilities are shown without express or implied representation, assurance, or guarantee that they are complete or correct or that they represent a true picture of underground piping to be encountered.
- C. The **Contractor** shall notify the **County** of existing piping and utilities that interfere with new construction and shall reroute or relocate the pipeline or utility as directed before any piping and utilities not shown on the Drawings are disturbed. .
- D. The **Contractor** shall exercise care in any excavation to locate existing piping and utilities. Utilities that do not interfere with complete Work shall be carefully protected against damage. Any existing utilities damaged in any way by the **Contractor** shall be restored or replaced at the **Contractor's** expense as directed by the **County**.

#### **1.04 HAZARDOUS LOCATIONS**

The **Contractor** shall check existing wet wells, manholes, and related areas that are hazardous locations, to determine whether adequate oxygen is available whenever personnel are working in these areas. The **Contractor** shall exercise caution because explosive concentrations of sewage gas may be present and the wet well may be deficient in oxygen.

**1.05 CONNECTIONS TO WORK BY OTHERS** (Revise or delete as needed for this project)

- A. Under this Contract, and as shown on the Drawings, the **Contractor** shall construct pipelines that are to be connected to pipelines constructed by others.
- B. The **Contractor** shall connect pipelines built under this Contract to pipelines constructed by others by removing the plugs and making the connection.
- C. The **Contractor** shall lay any pipelines (under this Contract) not constructed by others to the required line and grade, terminated with a plugged connection precisely at the location indicated on the Drawings, and then backfilled and marked with a yellow stake exposed a minimum of 3 feet above grade.

**1.06 WATER FOR CONSTRUCTION PURPOSES**

The Contractor shall be responsible for any cost of water used on the Project. A water meter and backflow device shall be obtained from the DeKalb County DWM main office for recording water used for cleaning and other Work items requiring water.

**PART 2 - PRODUCTS** (NOT USED)

**PART 3 - EXECUTION** (NOT USED)

END OF SECTION 01100



## **SECTION 01200 PROJECT MEETINGS**

### **PART 1 - GENERAL**

#### **1.01 SUMMARY**

- A. The **County** shall schedule and administer a preconstruction meeting, and may schedule periodic progress meetings, and specially called meetings throughout progress of the Work. The **County** shall set the agenda for the meetings and preside at the meetings. The **Contractor** shall make physical arrangements for the meetings pursuant to the **County's** requirements. Meetings are not a pay item.
- B. Representatives of the **Contractor**, subcontractors, and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.

#### **1.02 PRECONSTRUCTION MEETING**

- A. The **County** shall schedule a Preconstruction Meeting prior to the start of construction.
- B. The Preconstruction Meeting shall be attended by the following:
  - 1. **County's** representative(s)
  - 2. **Contractor's** Project Manager and Superintendent
  - 3. Others as appropriate or required by the **County**
- C. The Preconstruction Meeting will generally have the following agenda:
  - 1. Designation of responsible personnel
  - 2. Distribution and discussion of list of major subcontractors and suppliers
  - 3. Projected construction schedule with critical Work sequencing
  - 4. Major equipment deliveries and priorities
  - 5. Procedures and processing of:
    - a. Submittals
    - b. Requests for Information (RFIs)
    - c. Change Documents
      - 1. Requests for Proposals (RFPs)
      - 2. Work Authorizations
      - 3. Proposed Change Order Requests (CORs)
    - d. Field Decisions and Clarification Memos
    - e. Applications for Payment
    - f. Change Orders
  - 6. Procedures for maintaining Record Documents (Section 01350 - Project Document Tracking and Control Systems)

7. Periodic Meeting Schedule
8. Mobilization Form Submittal – **Contractor** shall complete and submit a Mobilizations Request form after the following have been completed:
  - a. NTP Received
  - b. Preconstruction Meeting completed and minutes reviewed and accepted
  - c. Safety Plan, Construction Quality Plan, and Permit/ Easement Plan submitted to and approved by **County**

### 1.03 PERIODIC PROGRESS MEETINGS

- A. Project Progress Meetings shall be held monthly throughout the project duration. The **County** may alter the timing of, or add supplemental, scheduled periodic progress meetings, at its discretion.
- B. The Project Progress Meetings shall be attended by the following:
  1. **County's** representative(s)
  2. **Contractor's** Project Manager, Superintendent, and other appropriate representative(s)
  3. Others as appropriate or required by the **County**
- C. The Progress Meetings will generally have the following agenda:
  1. Review Work progress since last meeting
  2. Discussion of Construction Schedule for next period
  3. Status of major equipment and material deliveries
  4. Construction problems affecting progress
  5. Field observations, including Safety Report(s)
  6. Status of pending RFIs and changes
  7. Stakeholder complaints/public outreach
  8. Status of permits and easements
  9. Status of invoicing
  10. Other business

### 1.04 OTHER MEETINGS

- A. Schedule Progress Meetings

As per Section 01310 - Construction Schedule, during weekly progress meetings, the **Contractor** shall submit a Look-Ahead Schedule. This schedule shall cover four weeks: the immediate past week, the current week, and the forthcoming two weeks. This schedule shall include activities that are complete, started, incomplete or underway, or scheduled to be performed during this four-week timeframe. Results of the Progress meetings shall be reported in the Project Progress Meetings.

- B. Specially-called meetings may be requested by either party or by other affected entities. Requests shall be made through the **County**, which shall coordinate the meeting schedule. Specially-called meetings shall be held as warranted by:
1. Unforeseen developments during construction or as needed to coordinate special events, such as tie-ins or system shutdowns
  2. Concerns regarding individual project performance and adherence to the schedule of construction

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

END OF SECTION 01200

**SECTION 01210  
MEASUREMENT AND PAYMENT**

**PART 1 – GENERAL**

**1.01 SCOPE**

- A. Work includes furnishing all plant, labor, equipment, tools, materials, and performing all operations required to complete the Work satisfactorily, in-place, as specified, and as indicated in RFP 16-500398.
- B. All costs of required items of work and incidentals necessary for the satisfactory completion of the Work shall be considered as included in the Total Bid. The cost of work not directly covered by the pay items shall be considered incidental to the contract and no additional compensation shall be allowed.
- C. The **Contractor** shall take no advantage of any apparent error or omission on the Drawings or Specifications, and the **County** shall be permitted to make corrections and interpretations as may be deemed necessary for fulfillment of the intent of the Contract Documents.

**1.02 SUBMITTALS**

- A. The **Contractor** shall submit to the **County** for approval, in the form directed or acceptable to the County, a complete schedule of values of the various portions of the Work, including quantities and unit prices, aggregating the Contract Price. An unbalanced breakdown providing for overpayment to the **Contractor** on items of Work, which would be performed first, will not be approved.
- B. Submit application for payment on a form approved by the **County** showing allowances, lump sum schedule of value items, and unit price items in accordance with Section 01310.

**1.03 UNIT PRICE ITEMS**

- A. Payment for all work shall be in accordance with the unit price bid items in the Bid Schedule and shall be full compensation for all labor, materials, and equipment required to furnish, install, construct, and test the Work covered under the unit price bid item. Work for which there is no price schedule item will be considered incidental to the Work and no additional compensation shall be allowed.
- B. Payment will be made only for the actual quantities of work performed in compliance with the Drawings and Specifications. The **Contractor** will be paid an amount equal to the approved quantity times the applicable unit price. Any unused balance of the unit price work shall revert to the **County** upon completion of the project.
- C. All unit price work shall be considered as part of the Work to be performed within the time limits specified elsewhere for Substantial Completion and Project Completion. No increase in contract time will be allowed for increases in quantities of unit price work performed beyond the quantities shown in the Bid Schedule, unless it can be demonstrated that the additional Work performed under the unit price item is on the critical path of the Project Schedule and has produced an increase in time to the contract.

**1.04 MEASUREMENT OF QUANTITIES**

- A. Final payment quantities shall be determined from the record drawings. The record drawing lengths, dimensions, quantities, etc. shall be determined by a survey after completion of all

required work. The precision of final payment quantities shall match the precision shown for that item in the Bid Schedule. Measurements will be taken according to the United States standard measurements and in the manner as specified in these Specifications.

**B. Measurement Devices**

1. Scales shall be inspected, tested, and certified by the applicable Weights and Measures Department within the past year and shall be of sufficient size.
2. Metering devices shall be inspected, tested, and certified by the applicable department within the past year.
3. Volume shall be determined by cubic dimension by multiplying mean length by mean width by mean height or thickness.
4. Area shall be determined by square dimension by multiplying mean length by mean width or height.
5. Linear measurement shall be measured by linear dimension, along the item centerline or mean chord.
6. Stipulated price measurement shall include items measured by number, weight, volume area, length or combination thereof as appropriate.

<b>Item</b>	<b>Method of Measurement</b>
AC	Acre - Field Measure
AL	Allowance
CY	Cubic Yard - Field Measure within limits specified or shown, or measured in vehicle by volume, as specified
EA	Each - Field Count
GAL	Gallon - Field Measure
HR	Hour
LB	Pound(s) - Weight Measure by Scale
LF	Linear Foot - Field Measure
LS	Lump Sum - Unit is one; no measurement will be made
SF	Square Foot
SY	Square Yard
TON	Ton - Weight Measure by Scale (2,000 pounds)
VF	Vertical Foot - Field Measure

## **SECTION 1 – UNIT PRICE BID ITEMS**

### **Part A: Project Development Costs**

#### **1. Engineering and Design Costs to 60% Completion**

- A. The measurement for payment for Engineering and Design Costs shall be the lump sum price stated in the Rate Proposal Form.
- B. The lump sum price shall include all necessary time and materials to design the Work in accordance with the Contract Requirements and all local, state and federal requirements. This includes but is not limited to Basis of Design Report, 30%, and 60% design packages, surveying, geotechnical, subsurface utility engineering, and easement acquisitions and all other necessary services required.
- C. Payment shall be made based on work performed during each work period.

#### **2. Engineering and Design Costs**

- A. The measurement for payment for Engineering and Design Costs shall be the lump sum price stated in the Rate Proposal Form.
- B. The lump sum price shall include all necessary time and materials to design the Work in accordance with the Contract Requirements and all local, state and federal

requirements. This includes but is not limited to 90%, and 100% design packages, surveying, geotechnical, subsurface utility engineering, and easement acquisitions and all other necessary services required.

C. Payment shall be made based on work performed during each work period.

**3. Permitting**

A. The measurement for payment for Permitting shall be the lump sum price stated in the Rate Proposal Form.

B. The lump sum price shall include all necessary time and materials to obtain and maintain all required local, state, and federal permits to perform the Work throughout the life of the contract. Refer to Attachment L of the RFP for permit requirements.

C. Payment shall be made based on work performed during each work period.

**Part B: Paving**

**4. Traffic Control**

A. The measurement for payment for Traffic Control shall be the lump sum price stated in the Rate Proposal Form.

B. The lump sum price shall include all necessary signage, flagmen, detours, traffic control plans, and related requirements of GDOT or DeKalb County.

C. Payment shall be made based on work performed during each work period.

**5. Mill Asphalt Concrete Pavement, 2 inch depth**

A. Milling asphaltic concrete pavement, measured as specified, will be paid for in the lump sum price stated in the Rate Proposal Form.

B. Payment is full compensation for furnishing equipment, milling, hauling, and disposing milled material, and satisfactorily performing the work.

**6. Recycled Asphalt Concrete 12.5 MM Superpave Including Bitum Material & H Lime, 2-inch depth**

A. Recycled asphaltic concrete mixture, complete in place and accepted, is measured in tons. The weight is determined by recorded weights if an approved recording device is used. Or, the weight is determined by weighing each loaded vehicle on an approved motor truck scale as the material is hauled to the roadway.

B. The work performed and the materials furnished as described in this Specification will be paid for in the lump sum price stated in the Rate Proposal Form. Payment is full compensation for providing materials, hauling and necessary crushing, processing, placing, rolling and finishing the recycled mixture, and providing labor tools, equipment, and incidentals necessary to complete the work, including hauling and disposing of reclaimed asphalt pavement (RAP) or reclaimed asphalt shingles (RAS) material.

C. Any pavement damaged outside the payment width shall be repaired and no additional payment will be allowed for such work outside the payment width.

**7. Asphalt Concrete Leveling**

A. Payment of hot mix asphaltic concrete leveling is included in the lump sum price stated in the Rate Proposal Form, regardless of the type mix, is full compensation for furnishing materials, bituminous materials, and hydrated lime (when required) for patching and repair of minor defects, surface preparation, cleaning, hauling, mixing, spreading, and rolling.

**8. Miscellaneous Paving Items**

A. The measurement for payment for miscellaneous paving items shall be included in the lump sum price stated in the Rate Proposal Form.

B. The lump sum price shall include all necessary striping, pavement markers, loop detectors, and any other items necessary to meet all local and state requirements of the Project that were not included in other bid items.

- C. Payment shall be made based on Work performed during each Work Period.

**Part B-1: Concrete Deep Patch (Patching width of 5 feet or less)**

**9. Recycled Asphalt Concrete 12.5-MM Superpave, including Bitum Material and H Lime**

- A. Recycled asphaltic concrete mixture, complete in place and accepted, is measured in tons and shall be spread at a rate of 165 LB/SY. The weight is determined by recorded weights if an approved recording device is used. Or, the weight is determined by weighing each loaded vehicle on an approved motor truck scale as the material is hauled to the roadway. This line item shall only be used at the discretion of DWM or its representative.
- B. The work performed and the materials furnished as described in this Specification will be paid for in the lump sum price stated in the Rate Proposal Form. Payment is full compensation for providing materials, hauling and necessary crushing, processing, placing, rolling and finishing the recycled mixture, and providing labor tools, equipment, and incidentals necessary to complete the work, including hauling and disposing reclaimed asphalt pavement (RAP) or reclaimed asphalt shingles (RAS) material.
- C. Any pavement damaged outside the payment width shall be repaired and no additional payment will be allowed for such work outside the payment width.

**10. 8-inch Class B Concrete**

- A. The area that will be paid for under this item is the number of cubic yards of concrete poured in the road right of way as required in the Specifications and accepted as measured complete in place. The final thickness shall be 8 inches throughout the entire length of the project. This line item shall only be used at the discretion of DWM or its representative.
- B. No additional payment over the Contract lump sum price will be made for concrete with an average thickness greater than required in the Specifications. No additional payment over the Contract lump sum price will be made for a lot of concrete that develops more strength at 28 days than the required compressive strength in the Specifications.
- C. Payment is full compensation for furnishing and placing materials, reinforcements, dowel and joint materials, supplies, and incidentals to complete the work.

**11. 8-inch Graded Aggregate Base**

- A. Graded aggregate base shall be measured by the square yard with a final thickness of 8 inches, complete and in place. This line item shall only be used at the discretion of DWM or its representative.
- B. Graded aggregate base will be paid for in the lump sum price stated in the Rate Proposal Form, complete, in place, and accepted. This payment shall be full compensation for: materials, shaping and compacting the existing roadbed, loading, hauling, unloading, crushing and processing, mixing, spreading, watering, compacting and shaping, maintenance, priming when required, and all incidentals necessary to complete the Work.

**Part B-2: Asphalt Deep Patch (Patching width greater than 5 feet)**

**12. Recycled Asphalt Concrete 12.5-MM Superpave, including Bitum Material and H Lime**

- A. Recycled asphaltic concrete mixture, complete in place and accepted, is measured in tons and shall be spread at a rate of 165 LB/SY. The weight is determined by recorded weights if an approved recording device is used. Or, the weight is determined by weighing each loaded vehicle on an approved motor truck scale as

the material is hauled to the roadway. This line item shall only be used at the discretion of DWM or its representative.

- B. The work performed and the materials furnished as described in this Specification will be paid for in the lump sum price stated in the Rate Proposal Form. Payment is full compensation for providing materials, hauling and necessary crushing, processing, placing, rolling and finishing the recycled mixture, and providing labor tools, equipment, and incidentals necessary to complete the work, including hauling and disposing reclaimed asphalt pavement (RAP) or reclaimed asphalt shingles (RAS) material.
- C. Any pavement damaged outside the payment width shall be repaired and no additional payment will be allowed for such work outside the payment width.

**13. Recycled Asphalt Concrete 19-MM Superpave, including Bitum Material and H Lime**

- A. Recycled asphaltic concrete mixture, complete in place and accepted, is measured in tons and shall be spread at a rate of 220 LB/SY. The weight is determined by recorded weights if an approved recording device is used. Or, the weight is determined by weighing each loaded vehicle on an approved motor truck scale as the material is hauled to the roadway. This line item shall only be used at the discretion of DWM or its representative.
- B. The work performed and the materials furnished as described in this Specification will be paid for in the lump sum price stated in the Rate Proposal Form. Payment is full compensation for providing materials, hauling and necessary crushing, processing, placing, rolling and finishing the recycled mixture, and providing labor tools, equipment, and incidentals necessary to complete the work, including hauling and disposing reclaimed asphalt pavement (RAP) or reclaimed asphalt shingles (RAS) material.
- C. Any pavement damaged outside the payment width shall be repaired and no additional payment will be allowed for such work outside the payment width.

**14. Recycled Asphalt Concrete 25-MM Superpave, including Bitum Material and H Lime**

- A. Recycled asphaltic concrete mixture, complete in place and accepted, is measured in tons and shall be spread at a rate of 660 LB/SY. The weight is determined by recorded weights if an approved recording device is used. Or, the weight is determined by weighing each loaded vehicle on an approved motor truck scale as the material is hauled to the roadway. This line item shall only be used at the discretion of DWM or its representative.
- B. The work performed and the materials furnished as described in this Specification will be paid for in the lump sum price stated in the Rate Proposal Form. Payment is full compensation for providing materials, hauling and necessary crushing, processing, placing, rolling and finishing the recycled mixture, and providing labor tools, equipment, and incidentals necessary to complete the work, including hauling and disposing reclaimed asphalt pavement (RAP) or reclaimed asphalt shingles (RAS) material.
- C. Any pavement damaged outside the payment width shall be repaired and no additional payment will be allowed for such work outside the payment width.

**15. 8-inch Graded Aggregate Base**

- A. Graded aggregate base shall be measured by the square yard with a final thickness of 8 inches, complete and in place. This line item shall only be used at the discretion of DWM or its representative.
- B. Graded aggregate base will be paid for in the lump sum price stated in the Rate Proposal Form, complete, in place, and accepted. This payment shall be full compensation for: materials, shaping and compacting the existing roadbed, loading, hauling, unloading, crushing and processing, mixing, spreading, watering,



compacting and shaping, maintenance, priming when required, and all incidentals necessary to complete the Work.

## **Part C: Water Mains**

### **16. Traffic Control**

- A. The measurement for payment for Traffic Control shall be the lump sum price stated in the Rate Proposal Form.
- B. The lump sum price shall include all necessary signage, flagmen, detours, traffic control plans and related requirements of the GDOT or the **County**.
- C. Payment shall be made based on work performed during each work period.

### **17. Erosion Control**

- A. Measurement for all Erosion Control shall be one lump sum.
- B. The lump sum price for erosion control measures will include but is not limited to all labor, materials, equipment, sampling, permit fees, maintenance, re-placement, inspections, water quality monitoring, laboratory analysis, restoration, removal, temporary and permanent grassing, and all other items and work to fully execute the requirements of the Work, including Georgia Erosion Control Regulations and all local, state and federal requirements.
- C. Payment shall be made based on work performed during each work period.

### **18. Landscaping**

- A. The measurement for payment for Landscaping shall be the lump sum price stated in the Rate Proposal Form.
- B. The lump sum price shall include all necessary labor, materials, equipment, maintenance, restoration, temporary and permanent grassing, shrub and tree planting, structure restoration, and all other items and work to fully execute the requirements of the Work and restore all landscaping to original conditions or better throughout the length of the project.
- C. Payment shall be made based on work performed during each work period.

### **19. Driveway Cut Restoration**

- A. Measurement for payment for gravel, concrete, and asphalt driveway replacement shall be the actual number of square yards of driveway replaced.
- B. Included in the lump sum bid item shall be subgrade preparation, providing stone equal or similar to existing, grading, and other incidental work to replace driveway to original condition, including culvert replacement.
- C. No extra payment will be made for items included in other lump sum items.

### **20. Sidewalk Restoration**

- A. Measurement for payment for concrete sidewalk replacement shall be included in the lump sum item stated in the Rate Proposal Form.
- B. Payment will be full compensation for furnishing all labor, materials, tools, and equipment necessary to install and finish concrete sidewalk and shall include: excavation; backfilling; compaction; restoration of property; disposal of existing materials; all joints; all special construction at driveways or other entrances and points; hauling and placing materials; and incidentals necessary to complete the work. Payment shall include all approaches through curb and gutter indicated on the Plans
- C. No extra payment will be made for work included in other lump sum items.

### **21. Curb and Gutter Restoration**

- A. Measurement for payment of concrete curb and gutter, concrete curb, or granite curb and concrete valley gutter shall be included in the lump sum item stated in the Rate Proposal Form
- B. Payment will constitute full compensation for all work necessary to install the curb

and gutter, including, but not limited to, the purchase, delivery to the work site, on-site storage, delivery to the work areas, excavation, backfilling, compaction, placement, restoration of property, disposal of existing materials, all joints, all special construction at driveways and other entrances or points, and cleanup. Payment shall include all approaches through curb and gutter indicated on the Plans.

C. No extra payment will be made for work included in other lump sum items.

**22. Concrete Encasement, 12 Inches Thick**

- A. The lump sum item stated in the Rate Proposal Form shall include the number of cubic yards of concrete encasement installed around the water main as required in the Specifications and accepted as measured complete in place. The concrete encasement shall be Class B and 12 inches thick.
- B. No additional payment over the contract unit price will be made for concrete with an average thickness greater than required in the Specifications. No additional payment over the contract lump sum price will be made for a lot of concrete that develops more strength at 28 days than the required compressive strength in the Specifications.
- C. Payment is full compensation for furnishing and placing materials, reinforcements, dowel and joint materials, supplies, and incidentals to complete the work.

**23. Concrete Cap**

- A. The lump sum item stated in the Rate Proposal Form shall include the number of cubic yards of concrete poured over the trench width in the road right of way as required in the Specifications and accepted as measured complete in place. The final concrete cap shall be 8 inches thick throughout the entire length of the project.
- B. No additional payment over the contract lump sum price will be made for concrete with an average thickness greater than required in the Specifications. No additional payment over the contract unit price will be made for a lot of concrete that develops more strength at 28 days than the required compressive strength in the Specifications.
- C. Payment is full compensation for furnishing and placing materials, reinforcements, dowel and joint materials, supplies, and incidentals to complete the work.

**24. Polyethylene Encasement, water main**

- A. Measurement for payment for polyethylene encasement shall be included in the lump sum price stated in the Rate Proposal Form.
- B. Payment will constitute full compensation for all work necessary for a complete installation including, but not limited to, labor, materials and supplies, and equipment required for the handling and installation of the encasement, on-site storage, delivery to the work areas, site preparation, complete restoration, and cleanup not included in other items..

**25. Steel Casing, Bore and Jack Installation 8-Inch-Diameter Pipe**

- A. Measurement for payment for Jacking and Boring shall be included in the lump sum price stated in the Rate Proposal Form.
- B. Payment will constitute full compensation for all work necessary for a complete installation including, but not limited to, labor, materials and supplies, and equipment required for the handling and installation of the casing and carrier pipe, access and receiving shafts, shaft support, shoring and bracing removal, groundwater control, annular space fill, spacers, casing end plugs and other associated materials, and surface settlement monitoring, on-site storage, delivery to the work areas, site preparation, backfill, complete restoration and cleanup.

**26. Steel Casing, Bore & Jack Installation 6-Inch-Diameter Pipe**

- A. Measurement for payment for Jacking and Boring shall be included in the lump sum

price stated in the Rate Proposal Form.

- B. Payment will constitute full compensation for all work necessary for a complete installation including, but not limited to, labor, materials and supplies, and equipment required for the handling and installation of the casing and carrier pipe, access and receiving shafts, shaft support, shoring and bracing removal, groundwater control, annular space fill, spacers, casing end plugs and other associated materials, and surface settlement monitoring, on-site storage, delivery to the work areas, site preparation, backfill, complete restoration and cleanup.

**27. Free Bore Installation, 8-Inch-Diameter Pipe**

- A. Pipe installed by boring is measured by the linear foot of pipe complete in place. Measurement is made between the ends of the pipe along the control axis as installed.
- B. Work performed and materials furnished as prescribed by this item and measured as provided will be paid under the lump sum item stated in the Rate Proposal Form for boring of the pipe type, size, and class specified. Payment is full compensation for furnishing the pipe and the incidentals to complete the item.
- C. Excavation will not be paid for separately.

**28. Free Bore Installation, 6-Inch-Diameter Pipe**

- A. Pipe installed by boring is measured by the linear foot of pipe complete in place. Measurement is made between the ends of the pipe along the control axis as installed.
- B. Work performed and materials furnished as prescribed by this item and measured as provided will be paid under the lump sum item stated in the Rate Proposal Form for boring of the pipe type, size, and class specified. Payment is full compensation for furnishing the pipe and the incidentals to complete the item.
- C. Excavation will not be paid for separately.

**29. Flowable Fill**

- A. Flowable fill shall be paid for under the lump sum item stated in the Rate Proposal Form for number of cubic yards of flowable fill complete in place and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, flushing, plugging air release valves and service connections, installation of flowable fill, plugs, and caps, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, proper disposal of all types and sizes of pipe materials removed to install flowable fill, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to install the flowable fill.

**30. Water Main, 8-Inch-Diameter DIP, Push On Joint**

- A. Measurement for payment of furnishing and installing ductile iron water distribution pipe will be included under the lump sum item stated in the Rate Proposal Form on a linear foot basis as determined by measurement along the centerline of the pipe in-place.
- B. Payment will constitute full compensation for all work necessary for installation of ductile iron water distribution pipe, including but not limited to furnishing, transporting, storing, and installing the pipe, fittings, ground penetrating radar pipe location along the pipeline route, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, backfilling and compaction, cleaning, treating and testing, site restoration, and all other specified work not included in another bid item.

**31. Water Main, 6-Inch-Diameter DIP**

- A. Measurement for payment of furnishing and installing ductile iron water distribution

pipe will be included under the lump sum item stated in the Rate Proposal Form on a linear foot basis as determined by measurement along the centerline of the pipe in-place.

- B. Payment will constitute full compensation for all work necessary for installation of ductile iron water distribution pipe, including but not limited to furnishing, transporting, storing, and installing the pipe, fittings, ground penetrating radar pipe location along the pipeline route, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, backfilling and compaction, cleaning, treating and testing, site restoration and all other specified work

**32. Cut & Plug Existing Water Main**

- A. Measurement for payment of cutting and plugging of existing water mains shall be included in the lump sum item in the Rate Proposal Form.
- B. Cut and plug shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, bedding and bedding materials, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration (including the concrete cap, as required), and all work and materials necessary execute the Work.

**33. Air Release Valve Assembly and Vault**

- A. Measurement for payment to furnish and install air release valve assembly and vault shall be included in the lump sum item in the Rate Proposal Form.
- B. Air release valve assemblies shall include all sizes and types of air release valve assembly installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, bedding and bedding materials, installation of the air release assembly, tapping saddle, isolation valve, reducers, piping, restraints, fittings, tracer wire, concrete manhole or vault, ring and cover, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration (including the concrete cap, as required), and all work and materials necessary to place the air release assembly into service.

**34. Gate Valve, 6 inches, with box and pad**

- A. Measurement for payment to furnish and install 6-inch gate valves shall be included in the lump sum item in the Rate Proposal Form.
- B. Each valve shall be furnished and installed, in accordance with the requirements of the Contract Documents. Payment will constitute full compensation for all work necessary to install the valves, including, but not limited to, the purchase, delivery to the work site, on-site storage, delivery to the work areas, surface preparation, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, cleaning, treating and testing, cleanup, including valve box, extension, concrete collar, if required and all other specified work.

**35. Gate Valve, 8 inches, with box and pad**

- A. Measurement for payment to furnish and install 8-inch gate valves shall be included in the lump sum item in the Rate Proposal Form
- B. Each valve shall be furnished and installed, in accordance with the requirements of the Contract Documents. Payment will constitute full compensation for all work necessary to install the valves, including, but not limited to, the purchase, delivery to the work site, on-site storage, delivery to the work areas, surface preparation, saw

cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, cleaning, treating and testing, cleanup, including valve box, extension, concrete collar, if required and all other specified work.

**36. Valve Marker**

- A. Measurement for payment to furnish and install valve marker shall be included in the lump sum item in the Rate Proposal Form.
- B. Each valve marker shall be furnished and installed, in accordance with the requirements of the Contract Documents. Payment will constitute full compensation for all work necessary to install the valve markers, including, but not limited to, the purchase, delivery to the work site, on-site storage, delivery to the work areas, surface preparation, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, cleaning, treating and testing, cleanup, including all required materials and all other specified work to install the valve marker.

**37. Tapping Sleeve & Valve Assembly, 6 inches x 6 inches**

- A. Measurement for payment to furnish and install tapping sleeves and valves shall be included in the lump sum item in the Rate Proposal Form. Tapping sleeves and valves shall be furnished, installed and tested, in accordance with the requirements of the Contract Documents.
- B. Payment for furnishing and installing tapping sleeves shall constitute full compensation for the complete installation of the tapping sleeve, valve and valve box. This also includes surface preparation, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, cleaning, treating and testing, cleanup, including valve box, extension, concrete collar, if required and all other specified work.

**38. Tapping Sleeve & Valve Assembly, 8 inches x 6 inches**

- A. Measurement for payment to furnish and install tapping sleeves and valves shall be included in the lump sum item in the Rate Proposal Form. Tapping sleeves and valves shall be furnished, installed and tested, in accordance with the requirements of the Contract Documents.
- B. Payment for furnishing and installing tapping sleeves shall constitute full compensation for the complete installation of the tapping sleeve, valve and valve box. This also includes surface preparation, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, cleaning, treating and testing, cleanup, including valve box, extension, concrete collar, if required and all other specified work.

**39. Tapping Sleeve & Valve Assembly, 8 inches x 8 inches**

- A. Measurement for payment to furnish and install tapping sleeves and valves shall be included in the lump sum item in the Rate Proposal Form. Tapping sleeves and valves shall be furnished, installed and tested, in accordance with the requirements of the Contract Documents.
- B. Payment for furnishing and installing tapping sleeves shall constitute full compensation for the complete installation of the tapping sleeve, valve and valve

box. This also includes surface preparation, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, cleaning, treating and testing, cleanup, including valve box, extension, concrete collar, if required and all other specified work.

**40. Tapping Sleeve & Valve Assembly, 16 inches x 8 inches**

- A. Measurement for payment to furnish and install tapping sleeves and valves shall be included in the lump sum item in the Rate Proposal Form. Tapping sleeves and valves shall be furnished, installed and tested, in accordance with the requirements of the Contract Documents.
- B. Payment for furnishing and installing tapping sleeves shall constitute full compensation for the complete installation of the tapping sleeve, valve and valve box. This also includes surface preparation, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, cleaning, treating and testing, cleanup, including valve box, extension, concrete collar, if required and all other specified work.

**41. Fire Hydrant Assembly (without valve)**

- A. Measurement for payment for furnishing and installing fire hydrant assemblies shall be included in the lump sum item stated in the Rate Proposal Form and shall include but is not limited to transporting, storing, furnishing, and installation.
- B. Payment for furnishing and installing fire hydrant assemblies shall be included in the lump sum item stated in the Rate Proposal Form and shall constitute full compensation for the construction of fire hydrant assemblies, complete, including fire hydrant, fire hydrant extensions, fire hydrant tee, required linear feet of 6-inch restrained joint ductile iron piping, concrete collars and thrust blocks, gravel pockets and all fittings. A backflow preventer may be required based on distance from the main line with approval from the County. This also includes surface preparation, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, cleaning, treating and testing, cleanup, including valve box, extension, concrete collar, if required and all other specified work.

**42. Salvage Existing Fire Hydrant**

- A. Removal of fire hydrant assemblies shall be included in the lump sum item stated in the Rate Proposal Form for each hydrant assembly removed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheet and shoring, removal of existing fire hydrant assembly, installation of required couplers, joints, caps, and plugs, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration (including the concrete cap, as required), storage and delivery of removed hydrants identified to be salvaged, and all work necessary to remove the hydrant.

**43. ¾-inch Water Meter, Box, Customer Cut Off Valve and Box**

- A. Replace Water Meters and Box shall be paid for in the lump sum item stated in the Rate Proposal Form for each size water meter installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, bedding and bedding materials, installation of the meter, box and DWM required remote meter reader device, adjustment to final grade, fittings, protection of existing

utilities, removal of old meter, abandonment of old meter box, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to place the meter into service except where such items are to be paid for under a separate Pay Item.

**44. 1-inch Water Meter, Box, Customer Cut Off Valve & Box**

- A. Replace Water Meters and Box shall be paid for in the lump sum item stated in the Rate Proposal Form for each size water meter installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, bedding and bedding materials, installation of the meter, box and DWM required remote meter reader device, adjustment to final grade, fittings, protection of existing utilities, removal of old meter, abandonment of old meter box, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to place the meter into service except where such items are to be paid for under a separate Pay Item.

**45. 1-½-inch Water Meter, Box, Customer Cut Off Valve & Box**

- A. Replace Water Meters and Box shall be paid for in the lump sum item stated in the Rate Proposal Form for each size water meter installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, bedding and bedding materials, installation of the meter, box and DWM required remote meter reader device, adjustment to final grade, fittings, protection of existing utilities, removal of old meter, abandonment of old meter box, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to place the meter into service except where such items are to be paid for under a separate Pay Item.

**46. 2-inch Water Meter, Box, Customer Cut Off Valve & Box**

- A. Replace Water Meters and Box shall be paid for in the lump sum item stated in the Rate Proposal Form for each size water meter installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, bedding and bedding materials, installation of the meter, box and DWM required remote meter reader device, adjustment to final grade, fittings, protection of existing utilities, removal of old meter, abandonment of old meter box, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to place the meter into service except where such items are to be paid for under a separate Pay Item.

**47. Water Service Line, ¾ inch**

- A. Measurement for payment for furnishing and installing water service line shall be included in the lump sum item stated in the Rate Proposal Form in accordance with the requirements of the Contract Documents.
- B. Payment for furnishing and installing water service lines shall constitute full compensation for the complete installation and testing of the water service from the water main to the meter stop in the meter box at the property line. Water services shall include all excavation and backfill, and fittings from the main to the upstream side of the meter including connection to the meter, all copper piping measured

horizontally from the face of the meter box to the centerline of the main, casing measured horizontally, tracer wire, valves, corporation stop, saddle strap, meter stop, and all other fittings or items as required by the Contract Documents to provide a complete water service connection. This also includes surface preparation, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, cleaning, testing, cleanup, site restoration, and all other specified work.

**48. Water Service Line, 1 inch**

- A. Measurement for payment for furnishing and installing water service line shall be included in the lump sum item stated in the Rate Proposal Form in accordance with the requirements of the Contract Documents.
- B. Payment for furnishing and installing water service lines shall constitute full compensation for the complete installation and testing of the water service from the water main to the meter stop in the meter box at the property line. Water services shall include all excavation and backfill, and fittings from the main to the upstream side of the meter including connection to the meter, all copper piping measured horizontally from the face of the meter box to the centerline of the main, casing measured horizontally, tracer wire, valves, corporation stop, saddle strap, meter stop, and all other fittings or items as required by the Contract Documents to provide a complete water service connection. This also includes surface preparation, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, cleaning, testing, cleanup, site restoration, and all other specified work.

**49. Water Service Line, 1 ½ inch**

- A. Measurement for payment for furnishing and installing water service line shall be included in the lump sum item stated in the Rate Proposal Form in accordance with the requirements of the Contract Documents.
- B. Payment for furnishing and installing water service lines shall constitute full compensation for the complete installation and testing of the water service from the water main to the meter stop in the meter box at the property line. Water services shall include all excavation and backfill, and fittings from the main to the upstream side of the meter including connection to the meter, all copper piping measured horizontally from the face of the meter box to the centerline of the main, casing measured horizontally, tracer wire, valves, corporation stop, saddle strap, meter stop, and all other fittings or items as required by the Contract Documents to provide a complete water service connection. This also includes surface preparation, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, cleaning, testing, cleanup, site restoration, and all other specified work.

**50. Water Service Line, 2 inch**

- A. Measurement for payment for furnishing and installing water service line shall be included in the lump sum item stated in the Rate Proposal Form in accordance with the requirements of the Contract Documents.
- B. Payment for furnishing and installing water service lines shall constitute full compensation for the complete installation and testing of the water service from the



water main to the meter stop in the meter box at the property line. Water services shall include all excavation and backfill, and fittings from the main to the upstream side of the meter including connection to the meter, all copper piping measured horizontally from the face of the meter box to the centerline of the main, casing measured horizontally, tracer wire, valves, corporation stop, saddle strap, meter stop, and all other fittings or items as required by the Contract Documents to provide a complete water service connection. This also includes surface preparation, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, cleaning, testing, cleanup, site restoration, and all other specified work.

#### **51. Disposal of Water Main**

- A. Removal of water mains shall be included in the lump sum item stated in the Rate Proposal Form for each size and type of water main to be removed and shall cover the cost for all materials, transportation, labor, specially trained and equipped labor, equipment, excavation, sheeting and shoring, installation of required couplers, joints, caps, and plugs, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, bypass pumping (as required), restoration (including the concrete cap, as required), and all work and materials necessary to locate, remove and dispose of the pipe and associated appurtenances. Unless indicated for removal in a separate Pay Item, appurtenances to be removed shall include but not be limited to fittings, isolation valves, air release valves, valve boxes, blow-offs, steel casings, casing spacers, fire hydrant assemblies, water service lines, water meter boxes, thrust blocks, and concrete. All such surplus items shall become the property of the Contractor unless specified to be salvaged by the Utility Owner. For asbestos concrete pipe, the lump sum item shall also include proper containment of contaminated or hazardous or potentially hazardous materials, proper labeling, any special fees associated with the removal, transport and disposal of the material, and all other costs required to excavate, remove, temporarily store, haul, and dispose the pipe sections.

#### **52. Concrete Thrust Collar, 6-inch pipe or smaller**

- A. Concrete thrust collars shall be measured on an individual basis on the number of each size thrust collar acceptably installed.
- B. Concrete thrust collars shall be paid for in the lump sum item stated in the Rate Proposal Form and shall cover the cost of all materials, transportation, labor, equipment, excavation, sheeting and shoring, reinforced concrete thrust collars, retainer glands, reinforcement, protection of existing utilities, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration (including the concrete cap, as required), and all work and materials necessary to install a complete thrust collar. When Concrete Thrust Collar is not shown as a pay item, include the cost of the work in the bid price for the appropriate item

#### **53. Concrete Thrust Collar, 8-inch pipe**

- A. Concrete thrust collars shall be measured on an individual basis on the number of each size thrust collar acceptably installed.
- B. Concrete thrust collars shall be paid for in the lump sum item stated in the Rate Proposal Form and shall cover the cost of all materials, transportation, labor, equipment, excavation, sheeting and shoring, reinforced concrete thrust collars, retainer glands, reinforcement, protection of existing utilities, backfilling, backfill

material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration (including the concrete cap, as required), and all work and materials necessary to install a complete thrust collar. When Concrete Thrust Collar is not shown as a pay item, include the cost of the work in the bid price for the appropriate item

#### **54. Exploratory Excavations**

- A. Measurement will be made for each pre-approved test hole, measured as 144 square inches each, fully executed and restored. Written pre-approval by the Owner is required.
- B. Payment shall be included in the lump sum item stated in the Rate Proposal Form for each test hole executed as per this section. Payment is full compensation for all materials, labor, equipment, reports, research, temporary traffic control, permits, water, disposal of debris or unsuitable materials or liquids, cleanup, full restoration, and all other work incidental to the execution of the work.

#### **55. Rock Excavation**

- A. Measurement for payment for rock excavation shall be included in the lump sum item stated in the Rate Proposal Form. Payment will constitute full compensation for all work necessary for rock excavation in accordance with the Plans and Specifications, including, but not limited to, labor, materials and equipment
  - 1. For pipeline excavation, the volume of rock excavation shall be calculated by multiplying the allowable trench width of outside pipe bell diameter plus 24 inches times the horizontal distance along the survey centerline times the average vertical height measured every 50 feet to 4 inches below the invert of the pipe.
  - 2. Rock shall be defined as any material that cannot be excavated with conventional excavating equipment and occupies an original volume of at least one cubic yard.
  - 3. For all other structures including manholes, maximum width shall be 24 inches beyond each edge of the completed structure. Depth for payment purposes shall be no deeper than 12 inches below the bottom of the manhole or structure.
  - 4. No payment will be made for rock excavation below the required grade or outside the width pay limits.
  - 5. Payment shall include the cost of removal and lawful disposal of the rock from the site. Backfill in place of the excavated rock is incidental and included in the payment of rock.
  - 6. Payment for rock excavation associated with micro-tunneling, directional drilling, jack and bore, tunnel construction and tunnel access shaft shall be considered incidental to the respective work.

#### **56. Point Repairs**

- A. Measurement and payment for point repairs shall be included in the lump sum item stated in the Rate Proposal Form. This line item will be used for any repairs needed on conflicting utilities, drainage pipes, etc and will only be used as directed by the **County** or the **County's** Representative.
- B. Payment will constitute full compensation for all work necessary for a complete repair including, but not limited to, labor, materials and supplies, and equipment required for the repair, groundwater control, site preparation, backfill, complete restoration, and cleanup

#### **57. Insertion Valve – 6 inch**

- A. Measurement will be made for each valve inserted on an existing pressurized water main while maintaining constant pressure and service as usual

- B. Insertion valves shall be paid for in the lump sum item stated in the Rate Proposal Form for each size valve inserted and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of the valve, valve boxes, fittings, restraints, concrete pad or collar, valve identification disc, valve marker, polyethylene encasement, protection of existing utilities, chlorine for disinfection, disinfection, sampling points, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to install the insertion valve and place it in service.

**58. Insertion Valve – 8 inch**

- A. Measurement will be made for each valve inserted on an existing pressurized water main while maintaining constant pressure and service as usual
- B. Insertion valves shall be paid for in the lump sum item stated in the Rate Proposal Form for each size valve inserted and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of the valve, valve boxes, fittings, restraints, concrete pad or collar, valve identification disc, valve marker, polyethylene encasement, protection of existing utilities, chlorine for disinfection, disinfection, sampling points, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to install the insertion valve and place it in service.

**59. Insertion Valve – 16 inch**

- A. Measurement will be made for each valve inserted on an existing pressurized water main while maintaining constant pressure and service as usual
- B. Insertion valves shall be paid for in the lump sum item stated in the Rate Proposal Form for each size valve inserted and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, installation of the valve, valve boxes, fittings, restraints, concrete pad or collar, valve identification disc, valve marker, polyethylene encasement, protection of existing utilities, chlorine for disinfection, disinfection, sampling points, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to install the insertion valve and place it in service.

**60. Remove Backflow Prevention Assembly**

- A. Removal of an existing backflow preventer shall be measured on an individual basis.
- B. Removal of backflow prevention devices shall be paid for in the lump sum item stated in the Rate Proposal Form for each backflow preventer removed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheet and shoring, bedding and bedding materials, removal of existing backflow preventer, removal of existing meter, removal of existing remote meter reader, installation of each at another location, adjustment to final grade, testing and certification, fittings, tees, restraints, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work necessary to locate, remove and relocate the backflow prevention device.

**61. Relocate Backflow Prevention Assembly**

- A. Relocation of an existing backflow preventer shall be measured on an individual basis.
- B. Relocation of backflow prevention devices shall be paid for in the lump sum item

stated in the Rate Proposal Form for each backflow preventer relocated and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheet and shoring, bedding and bedding materials, removal of existing backflow preventer, removal of existing meter, removal of existing remote meter reader, installation of each at another location, adjustment to final grade, testing and certification, fittings, tees, restraints, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill material, disposal of unsuitable backfill materials, tamping, testing, densities, dewatering, trench stabilization, clean-up, restoration, and all work necessary to locate, remove and relocate the backflow prevention device. The service line from the main to the relocated backflow preventer shall be paid for under a separate Pay Item.

**62. Backflow Prevention Assembly**

- A. Backflow prevention devices shall be measured on an individual basis on the number of each size and type of backflow preventer acceptably installed. If the device is located in a vault, then the measurement shall include the vault and meter.
- B. Back flow prevention devices shall be paid for in the lump sum item stated in the Rate Proposal Form for each type backflow preventer installed and shall cover the cost for all materials, transportation, labor, equipment, excavation, sheeting and shoring, bedding and bedding materials, installation of the backflow preventer, water meter, remote meter reader, concrete vault, adjustment to final grade, testing and certification, fittings, tees, restraints, protection of existing utilities, chlorine for disinfection, disinfection, backfilling, backfill materials, disposal of unsuitable backfill material, tamping, testing, densities, utility crossings, dewatering, trench stabilization, clean-up, restoration, and all work and materials necessary to place the meter into service except where such items are to be paid for under a separate Pay Item.

**63. Transfer Water Service**

- A. Measurement for payment for water service transfer shall be included in the lump sum item stated in the Rate Proposal Form for the actual number of water services transferred from an existing water main to a new, relocated water main.
- B. Payment for water service transfer shall constitute full compensation for the complete transfer of the water service from the main to the meter; the meter shall not be relocated. This item shall include all fittings, piping, and restoration, to transfer the service, including pressure testing and disinfection, including connection to the meter. Work shall be performed by a licensed plumber. This also includes surface preparation, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, cleanup, and all other specified work.

**64. Relocation of Existing Water Service**

- A. Measurement for payment for water service relocation shall be included in the lump sum item stated in the Rate Proposal Form.
- B. Payment will constitute full compensation for all work necessary to relocate the service including relocation of the water meter and including, but not limited to, the purchase, delivery to the work site, on-site storage, delivery to the work areas, surface preparation, placement and cleanup, required for the complete relocation of the water service from the main to the property line. The existing meter shall be reset as directed by the **County**. This item shall include all fittings, piping, and restoration, to relocate the service, including removal of the existing service, pressure testing and disinfection, including connection to the relocated meter. Work shall be performed by a licensed plumber. This also includes surface preparation,

saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, and all other specified work.

**65. Relocation of Existing Fire Hydrant**

- A. Measurement for payment for fire hydrant relocation shall be included in the lump sum item stated in the Rate Proposal Form.
- B. Payment will constitute full compensation for all work necessary to relocate the hydrant including, but not limited to, the purchase, delivery to the work site, on-site storage, delivery to the work areas, surface preparation, placement and cleanup, required for the complete relocation of the fire hydrant from one area of the project to another, as directed by DWM. This item shall include all fittings, piping, and restoration, to relocate the hydrant, pressure testing and disinfection, including connection to the relocated hydrant. Work shall be performed by a licensed plumber. This also includes surface preparation, saw cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, dewatering, temporary water service, placement, backfilling and compaction, and all other specified work.

**Part D: Other Direct and Indirect Costs- Temporary Facilities**

**66. Administrative**

- A. Measurement and payment for administrative costs shall be on lump sum basis.
- B. Payment will constitute full compensation for all administrative costs required during the execution of the work.

**67. Record Drawings**

- A. Measurement and payment for record drawings, O&M manuals and training shall be on a lump sum basis.
- B. Payment will constitute full compensation for all work necessary to produce record drawings for the work installed.

**68. Insurance (During Construction)**

- A. Measurement and payment for Insurance costs shall be on a lump sum basis.
- B. Payment will constitute full compensation for all insurance required during construction.

**69. Payment & Performance Bond (During Construction)**

- A. Measurement and payment for Payment and Performance Bond costs shall be on a lump sum basis.
- B. Payment will constitute full compensation for all bonds required during construction.

**70. Safety and Quality Control**

- A. Measurement and payment for Safety and Quality Control costs shall be on a lump sum basis.
- B. Payment will constitute full compensation for all Safety and Quality Control costs required to meet all local, state, and federal safety requirements.

**+++END OF SECTION 01200+++**

# SECTION 01300

## SUBMITTALS

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. Section Includes:
  - 1. Preparing and processing of submittals for review and action.
  - 2. Preparing and processing of informational submittals.
- B. Submit the following for the **County's** review and action:
  - 1. Shop drawings
  - 2. Product data
  - 3. Samples
  - 4. Submittals indicated as "for approval"
- C. Submit the following as informational submittals:
  - 1. Structural design information required by the contract documents
  - 2. Certificates
  - 3. Coordination drawings
  - 4. Reports
  - 5. Qualification statements for manufacturers/installers
  - 6. Submittals indicated as "for information only"
- D. Specific submittals are described in individual sections.
- E. Do not commence Work that requires review of any submittals until receipt of returned submittals with an acceptable action.
- F. Do not allow submittals without an acceptable action marking to be used for the project.
- G. Submittals shall be submitted to the **County** by a flash or jump drive. No email submittals shall be allowed for approval. One copy of each submittal shall be uploaded by the **Contractor** into the software program named by the **County**. The **County** may determine that certain submittals also shall be submitted in hard copy form.

#### 1.02 DEFINITIONS

- A. "Shop drawings" are drawings and other data prepared by the entity that is to do the Work, specifically to show a portion of the Work.

- B. "Product data submittals" are standard printed data that show or otherwise describe a product or system, or some other portion of the Work.
- C. "Samples" are actual examples of the products or Work to be installed.
- D. "Informational submittals" are those identified in the Contract Documents as for information only.

### 1.03 FORM OF SUBMITTALS

- A. Sheets larger than 8-1/2 by 14 Inches:
  - 1. Maximum sheet size: 24 by 36 inches (except for full-size pattern or template drawings).
  - 2. Number of copies:
    - a. Submittals for review: Three blue or blackline prints
    - b. Informational submittals: Three blue or blackline prints
- B. Small sheets or pages:
  - 1. Minimum sheet size: 8-1/2 by 11 inches
  - 2. Maximum sheet size for opaque copies: 11 by 17 inches
  - 3. Number of copies shall be the same as for larger sheets
- C. Samples:
  - 1. Two sets of each shall be submitted with the original submittal.
  - 2. One set shall be returned.
  - 3. If additional sets are needed by other entities involved in Work represented by the samples, these shall be submitted with original submittal.

### 1.04 COORDINATION OF SUBMITTALS

Coordinate submittals and activities that shall be performed in sequence or of different types for the same product or system so that the **County** has enough information to properly review each submittal.

## PART 2 - PRODUCTS (NOT USED)

## PART 3 - EXECUTION

### 3.01 TIMING OF SUBMITTALS

- A. Transmit each submittal at the time indicated on the approved construction schedule.
- B. Deliver each submittal requiring approval in time to allow for adequate review and processing time, including resubmittals if necessary; failure of the **Contractor** in this respect shall not be considered as grounds for an extension of the contract time.

- C. Deliver each informational submittal prior to start of the Work involved, unless the submittal is of a type that cannot be prepared until after completion of the Work; submit promptly.
- D. If a submittal must be processed within a certain time in order to maintain the progress of the Work, state so clearly on the submittal.
- E. If a submittal must be delayed for coordination with other submittals not yet submitted, the **County** may, at its option, either return the submittal with no action or notify the **Contractor** of the other submittals that shall be received before the submittal can be reviewed.

### 3.02 SUBMITTAL PROCEDURES - GENERAL

- A. **Contractor** review: Sign each copy of each submittal certifying compliance with the requirements of the contract documents.
- B. Notify the **County**, in writing and at time of submittal, of points upon which the submittal does not conform to the requirements of the contract documents, if any.
- C. Preparation of submittals:
  - 1. Label each copy of each submittal with the following information:
    - a. Project name
    - b. Date of submittal
    - c. **Contractor's** name and address
    - d. Supplier's name and address
    - e. Manufacturer's name
    - f. Specification section where the submittal is specified
    - g. Numbers of applicable drawings and details
    - h. Other necessary identifying information
  - 2. Submittals to receive **County's** action marking: Provide blank space on the label or on the submittal itself for action marking: minimum 4 inches wide by 5 inches high.
- D. Transmittal of submittals:
  - 1. Submittals shall be accepted from the **Contractor** only.
  - 2. Submittals received without a transmittal form shall be returned without review or action.
  - 3. Transmittal form: The **Contractor** shall use a form acceptable to the **County**, with space provided on the form for:
    - a. Project name
    - b. Submittal date
    - c. Transmittal number
    - d. Specification section number
    - e. To:



- f. From:
  - g. **Contractor's** name
  - h. Subcontractor's and supplier's names
  - i. Manufacturer's name
  - j. Submittal type (shop drawing, product data, sample, informational submittal).
  - k. Description of submittal
  - l. Action marking
  - m. Comments
4. The **Contractor** shall complete a separate transmittal form for each submittal, also including the following:
- a. Other relevant information
  - b. Requests for additional information

### 3.03 SHOP DRAWINGS

- A. Content: Include the following information:
- 1. Dimensions, at accurate scale
  - 2. All field measurements that have been taken, at accurate scale
  - 3. Names of specific products and materials used
  - 4. Details, identified by contract document sheet and detail numbers
  - 5. Compliance with the specific standards referenced
  - 6. Coordination requirements, including the relationship to adjacent or critical Work
  - 7. Name of preparing firm
  - 8. Design calculations
- B. Preparation:
- 1. Reproductions of contract documents are not acceptable as shop drawings.
  - 2. Copies of standard printed documents are not acceptable as shop drawings.
  - 3. Documents shall be identified as indicated for submittals.
  - 4. Space for **County's** action marking shall be adjacent to the title block.

### 3.04 PRODUCT DATA

- A. Submit product data submittals for each system or unit of Work as one submittal.
- B. When product data submittals are prepared specifically for this Project (in the absence of standard printed information), submit such information as shop drawings, and not as product data submittals.
- C. Content:

1. Submit manufacturer's standard printed data sheets.
2. Identify the particular product being submitted; submit only pertinent pages.
3. Show compliance with properties specified.
4. Identify which options and accessories are applicable.
5. Include recommendations for application and use.
6. Show compliance with the specific standards referenced.
7. Show compliance with specified testing agency listings; show the limitations of their labels or seals, if any.
8. Identify dimensions, which have been verified by field measurement.
9. Show special coordination requirements for the product.

### 3.05 SAMPLES

#### A. Samples:

1. Provide samples that are the same as the proposed product.
2. Where selection is required, provide the full set of options.

#### B. Preparation:

1. Attach a description to each sample.
2. Attach name of manufacturer or source to each sample.
3. Where compliance with specified properties is required, attach documentation showing compliance.
4. Where there are limitations in availability, deliveries, or other similar characteristics, attach descriptions of such limitations.
5. Where selection is required, the first submittal may be a single set of options; after return of submittal with selection indicated, submit standard number of sets of selected item.

#### C. Keep final sample set(s) at the Project Site, available for use during progress of the Work.

### 3.06 REVIEW OF SUBMITTALS

#### A. Submittals for approval shall be reviewed, marked with appropriate action, and returned. Submittals are reviewed for conformance with project design concept and for compliance with standard of quality established in the Contract Documents. This review shall not relieve the **Contractor** from responsibilities for correctness of detail and dimension, nor from deviation from Contract Document requirements, except as noted and accepted in writing by the **County** at the time of submittal.

#### B. Informational submittals shall be reviewed.

#### C. Action markings for submittals for approval shall be as follows:

1. **NO EXCEPTIONS TAKEN (NET):** Indicate that the submitted item is released

for manufacture

2. MAKE CORRECTIONS NOTED (MCN): Indicate that the submitted item is released for manufacture with the submittal complying with the comments
3. AMEND AND RESUBMIT (AAR): Indicates that the submittal shall be revised or a new submittal complying with the comments made shall be prepared.
4. REJECTED (REJ): Indicates that the submitted item does not comply with contract requirements and that another selection shall be made and the submittal process repeated.
5. SUBMIT SPECIFIED ITEM(s) (SSI): Indicates that the submittal shall submit specified item(s) based on the specifications or as stated by the County

### **3.07 RETURN, RESUBMITTAL, AND DISTRIBUTION**

- A. Submittals shall be returned to the **Contractor** by mail.
- B. The **Contractor** shall address resubmittals in the same manner as original submittals, with changes other than those requested by the **County**, clearly indicated.
  1. Exception: Transmittal number for resubmittal shall be the number of the original submittal plus a letter suffix.
  2. Resubmittals shall be submitted within 14 days of **Contractor's** receipt of rejected submittal.
- C. Distribution: The **Contractor** shall make one copy for project record documents.

END OF SECTION 01300

## SECTION 01310 CONSTRUCTION SCHEDULE (Large Project)

### PART 1 – GENERAL

#### 1.01 SCOPE

- A. Timely performance is of the essence on this Project. The **Contractor** may schedule its Work to complete the Project or any part of the Project earlier than is stipulated in the Contract and the milestone requirements. However, under no circumstances shall the **Contractor** be entitled to added compensation for delays that occur during the originally stipulated contract period.
- B. The **County** has purchased the **Contractor's** entire scheduled time period by virtue of this Contract and further stipulates that only those delays that meet the tests set forth in GR-6 of the General Requirements shall be considered for adjustment and only to the extent that they delay the Work past the originally contractually stipulated milestones.

#### 1.02 PROCEDURES

- A. The Work under this Contract shall be planned, scheduled, executed, reported, and accomplished using the Precedence Diagramming Critical Path Method (CPM). The Work required by this section includes the requirement to prepare, maintain, and update the detailed schedules as described in this section. The CPM schedules shall be prepared in such a manner as to permit the orderly planning, organization, and execution of the Work and be sufficiently detailed to accurately depict all the Work required by the Contract. **Contractor** shall resource (labor, material, and equipment) and cost load its schedule as specified herein.
- B. **Contractor** hereby agrees that in the process of preparing its baseline schedule and monthly updates, it shall consult with all key subcontractors and suppliers to obtain concurrence with the feasibility and achievability of **Contractor's** planned start dates, sequencing, durations, and completion dates. A copy of the computer input files, in PRX or XER format, shall be submitted on USB flash drive(s) containing fully detailed logs with each submittal. The procedures, technical details, and **Contractor's** participation and responsibilities shall be as hereinafter described.
- C. **Contractor** is responsible for determining the sequence of activities; the time estimates for the detailed construction activities; and the means, methods, techniques and procedures to be employed. The schedules identified herein shall represent the **Contractor's** best judgment of how it shall prosecute the Work in compliance with the Contract requirements. **Contractor** shall maintain a current and accurate schedule that is properly and timely monitored, updated, and revised as Project conditions may require and as required by the Contract Documents.
- D. **Contractor's** Construction Schedule shall be prepared using the latest version of Oracle Primavera P6 Enterprise Project Portfolio Management (P6) Release 8. Any and all costs incurred by the **Contractor** in researching, training, and/or educating

its personnel in CPM and/or P6 (or the utilization of outside consultants) shall be part of the **Contractor's** bid price and not reimbursed separately by the **County**

1. The Project Network Schedule Diagram, mathematical analyses, written narrative, and monthly updates will be reviewed by the **County**. Items will be reviewed for compliance with these Specifications and accurate reporting by the **Contractor** of Work in place, resource loading, and Work activity durations.
2. The **Contractor** shall submit to the **County** an accepted final CPM construction schedule and final schedule of values, including allowance Items, allocated to the CPM schedule activities within 45 days of Notice to Proceed. Requirements for the final CPM construction and final schedule of values are further described hereinafter. **Contractor's** Application for Payment shall not be approved until the final CPM Schedule and Schedule of Values have been accepted. The Contract Baseline Schedule submittal shall not show any progress until it is accepted by the **County**

### 1.03 STANDARDS

- A. Definition: CPM, as required by this Section, shall comply with the standards outlined in the Associated General **Contractors'** publication, "Construction Planning and Scheduling," unless specifically changed by this Section.
- B. PM Construction Schedule: The **Contractor's** CPM Construction Schedule shall include a graphic time scaled logic network, computerized tabular reports, and resource loading as described below. To be acceptable, the schedule shall demonstrate the following:
  1. A logical succession of Work from start to finish. This logical succession, when accepted, is the **Contractor's** Work plan and, contrary to normal CPM standards, is designated as early start/early finish solely to accommodate the P6 software.
  2. Clear definition of each activity including cost, manpower, equipment, and material quantities as resources. The assigned dollar value (cost loading) of each activity shall cumulatively equal the contract price.
  3. Proper interfacing of related activities including submittals, major material and equipment deliveries, procurement, required permits, and other constraints, such as equipment or manpower/crew availability. Submittal dates shall include review periods and permit schedules shall include agency review and issue dates. The narrative shall explain the rationale for all constraints, lags, and unusual relationships.
  4. Agreement with the interim milestones, schedule coordination requirements, and completion dates shall be as indicated in the Contract Documents.
- C. CPM Graphic Logic Network
  1. The CPM graphic logic network or diagram shall be in the form of a time-scaled diagram of the customary precedence diagram and may be divided into a number of separate pages with suitable notation relating the interface

points among the pages. Individual pages shall not exceed 34 inches by 44 inches. At a minimum, notation on each activity line shall include activity descriptions, total float, and durations.

2. All construction activities and procurement shall be indicated in a time-scaled format, and a calendar shall be shown on all sheets along the entire sheet length. Each activity shall be plotted so the beginning and completion dates of said activity can be determined graphically by comparison with the calendar scale. A legend shall be included to clearly distinguish between critical and non-critical path activities and progress to date.
- D. Duration: The duration indicated for each activity shall be in units of whole working days and shall represent the single best time considering the scope of the Work and resources planned for the activity including time for holidays and inclement weather. The calendar for the network shall be in calendar days. Except for certain non-labor activities, such as submittal preparation and review, curing concrete, delivering and fabrication of materials, or other activities described specifically in the Contract, activity durations shall not exceed 14 days, be less than one day, nor exceed \$50,000 in value, unless otherwise accepted by the **County**.
  - E. The Interim Schedule and Contract Baseline Schedule shall show dependencies (or relationships) between each activity. Each activity shall have a successor and predecessor, except for the project start and finish milestone. The use of date constraints shall be limited to Contract milestones and Contract completion dates only, unless approved by the **County**.
  - F. Contract Baseline Schedule shall contain or be able to demonstrate that the following items have been addressed: 1) the Project's name; 2) the **Contractor's** name; 3) revision or edition number; 4) activities of completed Work; e) activities relating to different areas of responsibility, such as subcontracted Work that is distinctly separated from that being done by the **Contractor** directly; 5) labor resources distinguished by craft or crew requirements; 6) equipment and material resources distinguished by equipment and material requirements; 7) distinct and identifiable subdivisions of Work, such as cleaning, pre-liner installation inspection, CIPP installation; 8) locations of Work within the contract limit lines that necessitate different times or crews to perform; 9) outage schedules for existing utility services that will be interrupted during the performance of the Work; 10) phases; and 11) interim milestones and the Contract completion dates.
  - G. Computerized Tabular Reports: Reports shall include the following for each activity depicted in the schedule.
    1. Activity ID
    2. Activity description
    3. Duration (original and remaining)
    4. Early start date
    5. Early finish date
    6. Total float

7. Percent complete
  8. Activity cost and resources
  9. Actual start date
  10. Actual finish date
- H. Project Information: Each report shall be prefaced with the following summary data:
1. Project name
  2. **Contractor**
  3. Type of tabulation (initial or updated)
  4. Project duration
  5. Project scheduled completion date
  6. Projected completion date

#### 1.04 ACCEPTANCE

- A. The finalized CPM Construction Schedule shall be acceptable to the **County** when it provides an orderly progression of the Work from Notice to Proceed to Final Completion in accordance with the Contract requirements, adequately defines the **Contractor's** Work plan, provides a workable arrangement for processing submittals in accordance with the requirements, and properly allocates resource values for manpower, major materials, equipment and costs to each activity (free of unbalances in resources) as determined by the **County**. Manpower may be represented as composite crews in the CPM construction schedule. The network diagram and tabular reports, when accepted by the **County**, shall constitute the CPM construction schedule until revised and re-accepted.
- B. When the CPM Construction Schedule has been accepted, the **Contractor** shall submit to the **County**:
1. Three copies of the CPM graphic logic network
  2. Three copies of a computerized, tabular report in which activities have been sequenced by early starting date
  3. Two copies of the schedule on a USB Flash Drive
  4. Three copies of the narrative
- C. The **County's** review and acceptance of the **Contractor's** CPM Construction Schedule is for conformance to the requirements of the Contract Documents only. Review and acceptance by the **County** of the **Contractor's** CPM Construction Schedule does not relieve the **Contractor** of any of its responsibility whatsoever for the accuracy or feasibility of the CPM Construction Schedule, or of the **Contractor's** ability to meet interim milestone dates and the Contract completion date, nor does such review and acceptance expressly or impliedly warrant, acknowledge, or admit the reasonableness of the logic, durations, and resource value loading of the **Contractor's** CPM Construction Schedule.

- D. The **Contractor** shall participate in a conference with the **County** to review the **County's** comments on the schedule and evaluation of the proposed network diagram, mathematical analyses, and monetary value of activities. The intent is to reach a clearer understanding of the CPM and achieve consensus on any revisions to be made. Any revisions necessary as a result of this review shall be resubmitted to the **County** within 10 calendar days after the conference. The accepted schedule shall then be used by the **Contractor** for planning, organizing, and directing the Work, and for reporting progress. If the **Contractor** desires to make changes in its method of performing the Work, it shall notify the **County** in writing, stating the reason for the changes. The **Contractor** shall receive written acceptance of the change prior to putting the change into the accepted schedule.

## 1.05 QUALIFICATIONS

- A. The **Contractor** shall demonstrate competence in the use of CPM scheduling through the submission of a fully compliant CPM construction schedule with the initial CPM submission. In the event the **Contractor** fails to so demonstrate competence in the CPM scheduling, the **County** may direct the **Contractor** to employ the services of a scheduling firm that can demonstrate competence. The **Contractor** shall comply with such directive.
- B. The **Contractor** shall use the services of a scheduler who has verifiable training and credentials in preparing and maintaining computerized CPM Construction Schedules using P6 software as specified herein. The scheduler shall qualify within the planning period.
1. Required Experience: Performed CPM scheduling on at least two completed construction projects of value at least 75 percent as large as this one and having at least 75 percent as many schedule items as this one. Scheduling of both projects shall have been done using the latest version of P6 Release 8 or equal.
  2. Submit to the **County** the following:
    - a. Descriptions of at least two projects of the value and complexity above.
    - b. Copy of a CPM schedule from one of the previous projects.
    - c. Names and telephone numbers of facility **County** representative, design engineer, and construction manager for each project.
    - d. Evidence supporting the above qualifications.

## 1.06 SUBMITTAL REQUIREMENTS

- A. Initial submittal, revisions, and monthly updates of the network diagram, mathematical analyses, and written narrative shall be submitted in three hard copies and two data copies on a USB flash drive. Submittals shall not be accepted unless they are complete as described herein.
- B. The **Contractor** shall submit the following:
1. A CPM time scaled logic network, computer generated using the latest version of P6 Release 8.



2. Computerized tabular reports:
  - a. Activity sort by early start, organized by facility or area
  - b. Predecessor/successor listing
  - c. Activity code dictionary
  - d. Resource code dictionary
3. Basis of schedule narrative describing the logic and reasoning of the schedule. The narrative shall summarize the overall approach to construction sequencing, including but not limited to: 1) anticipated lost days due to weather; 2) the rationale for all constraints, lags, and unusual relationships; 3) the definition of labor and crews; 4) a list and durations for all major pieces of equipment and resources; and 5) Work proposed to be performed on any other than single-shift 5-day workweek basis
4. Resource value allocation by activity.
5. Breakdown of specific cost amount for each component of multi-component activities in the CPM schedule in spreadsheet format (using Microsoft Excel) showing component unit quantities as well as costs. Such breakdown, when accepted by the **County**, shall constitute the schedule of values for the Project.
6. USB flash drive copy of entire schedule, narrative, and spreadsheet.

## **PART 2 – PRODUCTS (NOT USED)**

## **PART 3 - EXECUTION**

### **3.01 SCHEDULE ORIENTATION SESSION**

- A. **Contractor** shall, upon notification from the **County**, attend a Schedule Orientation Session relating to the schedules and reports requirements for this Contract. The Schedule Orientation Session is designed to review in detail, the objectives of the schedules and reports requirements and the requirements. **Contractor** shall arrange for its Project Manager, Superintendent, and Scheduler to attend the Schedule Orientation Session.
- B. The following items shall be discussed during the Schedule Orientation Session: 1) the procedures and requirements for the preparation of the Contract Baseline Schedule, and monthly updates by **Contractor**; b) how the requirements of the Contract Documents will be monitored and enforced by the **County**; c) how long-lead items and time requirements for the Work by subcontractors shall be identified and included in the Contract Baseline Schedule; d) testing and startup; e) coding and logic for the Contract Baseline Schedule; and f) identification and scheduling of shop drawings and other submittals.

### **3.02 SCHEDULE OF VALUES**

- A. Submittals

1. **Contractor** shall allocate a dollar value for each activity on the Contract Baseline Schedule. The dollar value for the activity shall be the cost of the Work, including labor, materials, and equipment. Allowances shall be loaded on activities specifically included for this purpose. No activity on the Contract Baseline Schedule shall exceed a value of \$50,000, unless approved by the **County**. The sum of all activity costs shall equal the Contract Price. **Contractor** shall revise the resource and value loading as necessary to gain the acceptance of the **County**
2. The final schedule of values shall incorporate all comments associated with the **Contractor's** schedule/schedule of values submittals.
3. Submit documentation to support the values with data that shall substantiate their correctness, as requested by the **County**.
4. The schedule of values, when accepted by the **County**, shall be used as the only basis for the **Contractor's** applications for payment. The total price paid for mobilization shall be as approved by the **County**, but in no case shall it exceed 4 percent of the total Part 1 and Part 2 bid amount.
5. The schedule of values shall be derived from the assigned progress schedule activity values and identified by activity ID.

B. Form and content of Schedule of Values

1. Identify the schedule of values submittal with:
  - a. Title of Contract and location
  - b. Contract Number
  - c. Name and address of **Contractor**
  - d. Date of submission
2. The **Contractor's** Schedule of Values shall list the installed value of the component parts of the Work in sufficient detail to serve as the basis for computing values for progress payments during construction.
3. Identify accounts with the location code and area code as defined in the P6 Release 8 format and list the number and title of the respective major Section of the Specifications.
4. All accounts in the Schedule of Values shall be derived from the activities in the progress schedule. Account data pertaining to the Schedule of Values shall, at a minimum, include the following for each account:
  - a. CPM Activity number
  - b. **County's** Standard Code listed on the Bid Schedule
  - c. Account representative quantities (linear feet of CIPP, linear feet of cleaning, tons of debris, etc.), unit costs, person-hours, item and account dollar value
  - d. WBS code (as used by Primavera Project Planner scheduling software), including location, responsibility and area codes.
  - e. Specification Section Number

- f. Account Type: Lump Sum (LS), Unit Price (UP), Allowance (AL), or Change Order (CO)
- C. Unit Price Accounts (UP): Payment for Unit Price Accounts shall be based upon actual quantities of Work performed in compliance with the Contract Documents, as verified and accepted by the **County**. Whenever the actual quantity differs from the estimated quantity on the Unit Price Accounts, the **Contractor** shall notify the **County** in writing. Quantity over- and under-runs shall be tracked on the Schedule of Values.
- D. Allowance Accounts (AL): Payment for Allowance Accounts shall be based upon invoices submitted by the **Contractor** subject to conditions and limitations of the Contract Documents. Refer to Section 01210 - Measurement, and Payment, for requirements. The Allowance shall be adjusted to the actual amount paid for such services, and adjusted by CO, either at the end of that phase of the Work or at the completion of the Work. The **County** shall have sole discretion on determining when to make adjustments to the Allowance.
- E. A new account shall be added to the Schedule of Values for approved CO work. Payment for Time and Expense CO work shall be based upon the General and Supplementary Conditions of these Specifications.
- F. The sum of all Account Values listed in the Schedule of Values shall equal the total Contract Price, excluding allowance Items.

### 3.03 MONTHLY APPLICATION FOR PAYMENT

- A. Monthly Application for Payment: **Contractor** shall provide monthly Schedule Update, monthly Payment Report, and monthly Narrative Report as its monthly Application for Payment package.
- B. Monthly Schedule Update: The **Contractor** shall submit, at intervals of 30 calendar days, an update of all activities in the as-planned CPM schedule. Update shall be created by updating the mathematical analyses and the corresponding computerized network diagram of the Schedule.
  - 1. The schedule shall be updated by entering the following: Actual start and completion dates of completed activities and the actual start date and remaining duration of activities in progress.
  - 2. The updated network diagram shall be submitted in the same format as noted in Section 1.02 - Procedures, with the calendar starting from the date of the update.
  - 3. The updated mathematical analysis shall be submitted in the same format noted in Section 1.02 - Procedures.
  - 4. The schedule update shall include an update of the cash flow projections in the same format as the original approved submittal.
  - 5. The schedule update shall state the percentage of the Work actually completed and scheduled as of the report date.

- C. The Monthly Payment Report shall show the activities or portions of activities completed during the reporting period, their total monetary values and the monetary values earned as a basis for the **Contractor's** Application for Payment. A mutually agreed upon percent complete shall be assigned to each completed and partially completed activity to be used for calculating the monetary value earned to date. For activities underway, the percent complete shall not be related to the remaining duration.
- D. A monthly narrative report shall be submitted, including, but not limited to, the following:
  - 1. Description of Work accomplished.
  - 2. Summary of safety and quality issues occurring during the month and corrective actions taken.
  - 3. **Contractor** evaluation of actual progress versus progress planned.
  - 4. If the project is behind schedule, progress along all paths with negative float, along with the reasons for the delay.
  - 5. A description of all revisions made to the schedule, including: all accepted added, deleted, and revised activities; all logic revisions; and all duration revisions.
  - 6. A description of the problem areas, current and anticipated delaying factors and their impact, and an explanation of corrective actions taken or proposed.
- E. If the **Contractor** fails to submit any of the required components of the Application for Payment, the **County** shall withhold approval of the Application for Payment until such time as the **Contractor** submits the required components.

### 3.04 PROGRESS MEETINGS AND LOOK-AHEAD SCHEDULES

- A. For the weekly progress meetings, the **Contractor** shall submit a Look-Ahead Schedule. This schedule shall cover 4 weeks: the immediate past week, the current week, and the forthcoming 2 weeks. This schedule shall include all activities that are complete, started, are incomplete or underway, or scheduled to be worked during this 4-week timeframe. This schedule shall list all activities from the accepted CPM construction schedule that are complete, are scheduled for Work during the period, are currently planned to be worked, even if out of sequence, and Work that is unfinished but scheduled to be finished. Actual start and completion dates shall be provided for the Work that has been completed the prior week; forecast start and finish dates shall be provided for the Work that is in process or upcoming.
- B. The **Contractor** shall review the Project Schedule and progress of Work and comparison with the latest approved baseline schedule. This shall include an analysis of Work accomplished since previous meeting, offsite fabrication status and issues, material delivery status and issues, actual and potential schedule slippage, problems arising from proposed changes, and other factors that might affect the Work

- C. Each activity noted above shall be identified by activity number corresponding to the accepted CPM Construction Schedule and detailed description of the activity.
- D. The Look-Ahead Schedule shall be delivered to the **County** 24 hours prior to the weekly progress meeting.
- E. The Look-Ahead Schedule shall be in a format approved by the **County**.
- F. Tabular reports for manpower and equipment resources shall be provided for and with each Look-Ahead Schedule.

### 3.05 CPM CONSTRUCTION SCHEDULE REVISIONS

- A. Contract Baseline Schedule shall not change, except as noted below:
  - 1. Significant changes in scope requiring redesign of major project elements and additional time to incorporate the changes
  - 2. Budget constraints deferring construction funding, resulting in placing the project on hold
  - 3. A significant variance in the actual construction contract NTP date and the construction NTP date at the time of award
  - 4. Any approved change orders that result in significant Project Scope Changes, as determined by the **County**
  - 5. Any baseline change shall be accompanied with a Baseline Change Directive.
- B. The **County** may direct and, if so directed, the **Contractor** shall propose, revisions to the CPM construction schedule upon occurrence of any of the following instances:
  - 1. The actual physical progress of the Work falls more than 5 percent behind the accepted CPM Construction Schedule, as demonstrated by comparison to the accepted monthly CPM Construction Schedule updates or as determined by the **County** if a current accepted CPM Construction Schedule does not exist.
  - 2. The **County** considers milestone or completion dates to be in jeopardy because of "activities behind schedule." "Activities behind schedule" are those that have not or cannot be started or completed by the dates shown in the CPM Construction Schedule, regardless of the existence of positive float on the activity.
  - 3. A CO has been issued that changes, adds, or deletes scheduled activities, or that affects the time for completion of scheduled activities.
- C. When instances requiring revision to the CPM construction schedule occur, the **Contractor** shall submit the proposed revised CPM Construction Schedule within 10 working days after receiving direction from the **County** to provide such schedule. No additional payment shall be made to the **Contractor** for preparation

and submittal of proposed revised CPM Construction Schedules. However, if the **County** accepts the proposed revised CPM Construction Schedule, it shall replace and supersede all previous CPM Construction Schedules and substitute for the next monthly CPM Construction Schedule update that would otherwise be required.

- D. Revisions to the CPM Construction Schedule shall comply with all of the same requirements applicable to the original schedule.

### **3.06 SCHEDULE RECOVERY**

- A. If a revised CPM Construction Schedule accepted by the **County** requires the **Contractor** to employ additional manpower, equipment, hours of Work or Work shifts, or to accelerate procurement of materials or equipment, or any combination thereof, as schedule recovery measures to meet Contract milestones, the **Contractor** shall implement such schedule recovery measures without additional charge to the **County**.
- B. Furthermore, if efforts to recover are not deemed effective as determined by the **County**, or if prior to submittal of the recovery schedule, the **County** determines that critical milestones are in jeopardy, the **County** may direct the **Contractor** to implement the above or any other recovery efforts at no additional costs to the **County**.

### 3.07 TIME IMPACT ANALYSIS REQUIREMENT

- A. When the **Contractor** experiences delays and a time extension is requested, the **Contractor** shall submit to the **County** a written Time Impact Analysis illustrating the influence of all changes or all delays on the current Project completion date. The time impact analysis shall be constructed on an As-Built Schedule Analysis approach. The As-Built Schedule that is created shall incorporate all actual start and finish dates, actual durations of activities, and actual sequences of construction (referred to as the As-Built Logic) current as of the time the Time Impact Analysis is performed. This Time Impact Analysis shall incorporate all delays (including **County**, **Contractor**, and third party delays without exception) in the timeframe that they actually occurred with actual logic ties.

The As-Built Schedule data shall be obtained from the most recent approved monthly schedule update. The As-Built Schedule shall be created as an early start schedule with the actual start and finish dates coinciding with the early start and finish dates from the most recent approved monthly schedule update. The As-Built Schedule shall show the original activity durations equal to the actual duration and the actual logic driving all activities. The **County** shall validate this As-Built Schedule. All requests for time extension shall be based upon an analysis of this As-Built Schedule. The critical path shall be established and all **County**-caused delays on the critical path shall be identified. The time extension shall be based solely upon the cumulative duration of all **County** and third-party-caused delays that are on the critical path. Any time extensions to the project's Interim Milestone Dates, if any, shall be non-compensable time extensions only.

- B. Each Time Impact Analysis shall demonstrate the estimated time impact based on the events of delay, the status of construction at that point in time, and the event time computation of all activities affected by the change or delay. The event times used in the analysis shall be those included in the latest approved update of the project schedule, in effect at the time the change or delay was encountered.

END OF SECTION 01310

## SECTION 01350 PROJECT DOCUMENT TRACKING AND CONTROL SYSTEM

### 1.01 SCOPE

- A. The **Contractor** shall utilize the **County's** Project Document Tracking and Control System (DTCS). **(Rename as appropriate to match DWM's System)**  
The primary function of the system is to facilitate timely processing and approval of contract documentation in coordination with the overall Project Schedule established by these Specifications and the **Contractor**. The **Contractor** shall utilize this system for document tracking and control, including use of Lynx Photo Management software. The software will:
1. Facilitate communication between the **County** and **Contractor**.
  2. Support turnaround time with regard to responses and approvals.
  3. Provide a central location for Project information to support Project participants in performing their tasks based on the latest Project data.
  4. Provide a standard system of project administration with accountability.
- B. The **Contractor** shall utilize the web-based system that resides on the DWM server to generate documents in the proper format for submission to the **County**. The **Contractor** shall access the system using a compatible web browser from the **Contractor's** administrative field office location, and/or other locations where Work associated with the Project is being performed.
- C. The **Contractor** shall be required to generate Project documents and records utilizing the aforementioned system. The **Contractor** shall be required to transmit and submit the Project documents within the system to the **County**.
- D. The **Contractor** shall utilize a high-capacity scanner capable of scanning 11 x 17 documents, double-sided, onsite for the entire duration of the Project. Documents shall be scanned in and attached to the appropriate Contract Manager document, including submittals, shop drawings, operations & maintenance manuals, and other documents requested by the **County**.
- E. The **Contractor** shall utilize the document control system to create and maintain Project documents, including, but not limited to the following:
1. Company Directory: Addresses, Phone Numbers, Personnel Contacts, etc.
  2. Drawings Log: Current Drawing revision log
  3. Submittals Integrated with Project Schedule through Activity codes
  4. Transmittals
  5. Risk Register
  6. Requests for Information (RFIs)
  7. Requests for Proposal (RFPs)
  8. Work Authorization Requests (WARs)
  9. Work Authorizations (WAs)



10. Change Order Requests (CORs)
11. Change Orders (COs)
12. Daily Reports (Daily Diaries)
13. Field Decisions, Field Orders (FOs), and Clarification Memos
14. Notice of Non-Compliance
15. Construction issue memos
16. Punch lists
17. Meeting Minutes and agendas
18. Correspondence
19. Work Plans
20. Startup Plans
21. Equipment Operations & Maintenance training
22. Spare parts lists

F. The **Contractor** shall utilize the complete capabilities of the DTCS to meet the requirements of this Section. The **Contractor** shall provide a highly trained and experienced construction project controls person knowledgeable in construction Work sequencing, productivity, scheduling, and application of the Primavera P6 software system. This person, along with the **Contractor's** management team, shall work closely with the **County** to deliver the documents outlined in this Section.

G. Software Support

The **Contractor** shall be required to establish an internet connection using DSL or better to connect to the DTCS to permit the forwarding and receipt of documents.

1. The Contract Manager software supports and the **Contractor** shall utilize Microsoft Outlook .
2. The **Contractor** shall also provide 2 days of consulting services in the base bid for troubleshooting and maintenance of the DTCS at any location designated by the **County** or at the **Contractor's** administrative field office (if authorized by the **County**). Troubleshooting, maintenance, upgrade, configuration, and setup shall be performed by a **County** approved project management system implementation company based on a scope pre-defined by the **County**. The **Contractor** shall utilize the custom data fields, dictionaries, and coding systems as required by the **County**.

H. The **Contractor's** staff shall be required to attend a 2-day training session on the operation of the **County's** DTCS, provided by an Authorized Trainer. The **Contractor** shall provide the training session for 10 participants (fee for the Primavera Authorized Trainer). The training session shall be held at the Evans Technology, Roswell, Georgia, facility and shall be attended by the **Contractor** (limited to three participants) as well as DWM representatives (seven participants). The **Contractor** shall be responsible for the cost of training for additional members of its firm or future retraining, as may be deemed necessary by the **Contractor**.

I. The **Contractor** shall meet with the **County** within 15 days after the Contract is awarded to discuss access requirements and the **Contractor's** plan to utilize

DTCS and execute the document control functions herein.

- J. Access through the internet to the DTCS shall be operational within 30 days following the pre-construction meeting date. This shall be operational from the **Contractor's** administrative field office location.

## 1.02 COMPANY DIRECTORY

The **Contractor** and the **County** shall monitor and manage the Company Directory. The directory shall include Company name, Company abbreviation, contact names, address, phone numbers, and e-mail addresses.

## 1.03 DRAWING LOG

The **County** will maintain a log of initial "issued for construction" drawings in the DTCS. Information shall include drawing number, title and revision number. In addition to logging the initial project drawing list, the **County** will maintain a log on the DTCS of subsequent revisions to these drawings and any sketches resulting from clarification memos, RFPs, WARs, WAs, RFIs, Field Orders, and Change Orders (COs). It shall be the **Contractor's** responsibility to utilize the latest drawings and sketches in the performance of the Work.

## 1.04 SUBMITTALS/SHOP DRAWINGS

- A. Requirements: This section specifies supplemental requirements to GR-24 and Section 01300, Submittals, related to the processing of submittals and shop drawings. The **Contractor** shall utilize the DTCS to log and track submittals, as well as generate associated transmittal letters.
- B. Submittals and Product Data: A list of required submittals shall be entered into the DTCS by the **Contractor**. Submittals shall be incorporated into packages, with numbering as follows: **XXXXX-YYY**, where X denotes the applicable specification section and Y denotes the individual submittal number for that particular specification section, beginning with 001. The **Contractor** shall log and track submittals utilizing the DTCS. Each review cycle shall be entered into the DTCS. The **Contractor** shall identify as activities in the CPM schedule, to include data submittals, as well as those involving complex reviews and long lead deliveries, and procurement items required for construction activities. Submittal schedule information shall be updated monthly with the **Contractor's** updated project CPM schedule.
- C. Samples: A list of required sample submittals shall be entered into the DTCS by the **Contractor**. Sample submittals shall be identified as individual submittals within the submittal packages, with numbering as specified above.
- D. Guarantees/Warranties: A list of required Guarantee/Warranty submittals shall be entered into the DTCS by the **Contractor**. These submittals shall be identified as individual submittals within the submittal packages with numbering as specified above.
- E. Work Plans, Startup Plans, O&M Submittals, and Spare Parts: Testing, Startup,

and O&M submittals shall be entered into the DTCS by the **Contractor**. These submittals shall be identified as individual submittals within the submittal packages identified with numbering as specified above.

- F. Submittal Procedures: The **Contractor** shall prepare submittal packages utilizing the submittal numbering system, description, and packaging conventions described above. Submittals prepared by the **Contractor** that fail to follow the conventions described above, will be returned “amend and resubmit.” Should the **Contractor** determine that a submittal is required and is not covered by the listing within the DTCS, the **Contractor** shall consult with the **County** to determine the submittal number, description, and packaging that shall be required.

## 1.05 CORRESPONDENCE

The **County** shall monitor and manage the correspondence, Non-Compliance Notices, Field Decisions and Clarification Memos, and Construction Issue Memo logs. The **Contractor** shall generate Project correspondence within the DTCS, and forward the correspondence to the **County**.

## 1.06 TRANSMITTAL LOG

The **Contractor** and the **County** will monitor and manage the transmittal log. Project transmittals shall be created electronically, automatically sequentially numbered, and logged into the DTCS system as they are created. The **Contractor** shall utilize the system to create transmittals for items transmitted to the **County**, Resident Inspection Staff, and other contractors.

## 1.07 RISK MANAGEMENT PLAN AND RISK REGISTER

**Contractor** shall provide a detailed and specific description of their approach to the management of risks associated with the Project, including permitting, design, construction, and testing and the **County's** operation and maintenance of the Project. Such risks shall include those allocated under the Contract to the County as well as those allocated to the **Contractor**.

**Contractor** is to develop and maintain a Risk Management Plan that can be used by the **County** to understand and evaluate the **Contractor's** understanding of the biggest risks and challenges to the Project, and how it intends to mitigate such risks. The **Contractor** shall provide sufficient information to enable the **County** to understand this evaluation. The Risk Management Plan shall include:

- A. A detailed risk register that identifies Project risk, the likelihood of such risk manifesting itself on the Project, the severity of such risk and a mitigation plan for such risk.
- B. An identification of and elaboration upon features of the **Contractor's** Design (if Design-Build type delivery) and Construction Plan that the **Contractor** considers unique and/or innovative relative to reducing or eliminating Project risk.

The **Contractor, County and Construction Manager** will review the Risk Register during the Project's progress meetings. The **Contractor** shall update the project Risk Register and provide these updates to the project team through the DTCS system on a monthly basis.

#### 1.08 REQUEST FOR INFORMATION & ANSWERS

The **Contractor** shall be responsible for generating RFIs on the DTCS system. The **Contractor** shall notify the **County** when an RFI is submitted. The **County** will monitor and manage the RFI log. The **County** will generate an Answer document in response to each RFI and forward them to the **Contractor**. The DTCS shall track "Ball in Court" for RFIs and Answers, as well as date of original generation and response date. In addition, the RFIs shall reference the relative Specification Section and Drawings. The DTCS shall identify the date of the request and the originator, responsible party for a response and the date of the response.

#### 1.09 CHANGE DOCUMENTS

Change documents include Request for Proposals (RFPs), Work Authorization Requests (WARs), Work Authorizations (WAs), Change Orders Requests (CORs), and Change Orders (COs). Change documents will be monitored and managed by the **County** utilizing the DTCS. The DTCS shall track "Ball in Court" status of change documents.

#### 1.10 DAILY REPORTS

The **Contractor** is responsible for creating daily reports (daily diaries) utilizing the DTCS. The **Contractor** shall enter the Daily Reports into the DTCS by 10:00 a.m. of the subsequent day that the **Contractor** or any subcontractor performs Work. Daily reports shall be logged into the DTCS by the **Contractor**. The **Contractor** shall also provide one signed hard copy of daily reports on a weekly basis. Required information shall include the **Contractor**, Date, Day, Temperature, Precipitation, Sky, Wind, Work Activity, Equipment, Field Force, Visitors, Materials, and Scheduled Activities utilizing the Primavera schedule activity codes. Daily reports that fail to link Work activities to the active Project schedule shall not be acceptable.

#### 1.11 PUNCH LISTS

The **County** will monitor and manage punch lists, and will create punch lists to be forwarded to the **Contractor**. The **Contractor** shall address the punch list items that have been assigned to the **Contractor** and forward updates to the **County**. Once accepted as complete, the **County** will access the punch list in the DTCS and close it out.

#### 1.12 MEETING MINUTES AND AGENDA

The **County** will monitor and manage the meeting minute process. The **County** will forward meeting minutes to the **Contractor** electronically. The **County** will log the meeting minute items into the DTCS within 3 days of the meeting date.

#### 1.13 PROGRESS PAYMENTS /REQUISITIONS FOR PAYMENT

The **Contractor** is responsible for creating progress payment applications directly from the project scheduling software and then forwarding them to the **County** electronically, along with hard copies, by 4:00 p.m. at the end of each update/billing period. The **Contractor** shall also simultaneously provide a separate submittal of the updated progress schedule (P6 or latest version at the time of purchase), as specified in Section 01310.- Progress Payments, Schedule of values shall be developed as defined in Section 01310 within the Pay Application and shall be coordinated with the **County's** Project Manager. Maintenance of the "As-Built" record documents by the **Contractor** shall be verified before processing shall be approved. Failure of a **Contractor** to maintain project record documents, maintain current and properly prepared daily reports, or submit the project schedule update per Section 01310 shall be just cause for withholding the monthly or final payment.

#### 1.14 LYNX PHOTO MANAGEMENT SOFTWARE

The Lynx PM software shall be utilized by the **County** and the **Contractor** for the duration of the project. The daily construction photographs shall be the permanent visual record of the pre-construction conditions, daily construction site activities, and the completion of construction Work. The **Contractor** shall submit to the **County** no less than four record photos for each activity ID listed in the project schedule per the last schedule update. Applicable photos shall accompany each Pay Application.

+++END OF SECTION 01350+++

## SECTION 01351 PUBLIC OUTREACH

### PART 1-GENERAL

#### 1.01 SCOPE

The **Contractor** shall provide personnel, services, and materials necessary to meet the requirements and responsibilities related to the Public Outreach Office and the Public Communications & Outreach Team Leader (PCPCPCOTL), as specified hereinafter, during performance of Work. The **Contractor** supports the outreach efforts as specified herein and required.

#### 1.02 STAFFING

- A. The **Contractor** shall employ a full-time PCOTL who meets the required minimum qualifications and experience below. The sole and specific duties and job of the PCOTL shall be to perform Customer Service-related functions and to continuously coordinate and provide information and services as required to the **County's** Construction Manager, Public Outreach staff, and others as necessary.
1. The PCOTL shall have been employed on at least two satisfactorily completed (waterline, sewer line, or pumping station) construction projects.
  2. The PCOTL shall have had responsibility for receiving, logging, tracking, responding, and resolving customer/citizen complaints and claims, providing notices to and personal interaction with affected customers/citizens regarding project impact and projected work schedules of the **Contractor**, and reviewing project schedules and "look-ahead" to determine projected areas of impact from the Work.
  3. The PCOTL shall have a minimum of 2 years of experience in performing this type of work on similar projects.
  4. The PCOTL shall attend a 4-hour mandatory Public Outreach training session presented by the DWM Public Outreach Office.
  5. The PCOTL shall manage a team of two persons, employed by the **Contractor**, to quickly resolve incidental complaints on-site during the project.

### PART 2-PRODUCTS (NOT USED)

### PART 3-EXECUTION

#### 3.01 PUBLIC INFORMATION KICK-OFF MEETING

- A. Prior to commencement of Work under the Contract and following the Preconstruction Meeting, the **Contractor**, the PCOTL, and the **County** shall

attend a public information meeting hosted by the Public Outreach Office. At this meeting, the **Contractor's** responsibilities and the relationship with the Public Outreach Office and the functions and responsibilities of the PCOTL employed by the **Contractor** as required under Section 1.02 A, above will be discussed. The **Contractor's** PCOTL and backup individual shall be identified to the DWM's Call Center and the Public Outreach Office with 24/7 contact telephone numbers provided.

### 3.02 RESPONSIBILITIES OF THE PCOTL

- A. The duties of the **Contractor's** PCOTL shall be as defined below and may be expanded by the **County's** Construction Manager as needed. Responsibilities of the **Contractor's** PCOTL shall include, but not be limited to, the following elements.
1. Receiving, logging, tracking, and resolving customer/citizen complaints and Claims, either received directly, by the **County** or its authorized representative, and providing periodic updates and reports as specified.
  2. Providing notice to affected customers/citizens in the event there are scheduled service outages or other work elements required for the performance of Work under the Agreement that are scheduled that shall have an impact on the neighborhood or property owners.
  3. Attending and participating in scheduled project progress meetings for discussion, updates, and resolution to customer/citizen complaints, claims, review of schedules, and other matters, as required.
  4. Attending and participating in periodic public meetings. Working with the Public Outreach Office to prepare necessary information in advance of these meetings.

In the event Work is required on private property where an easement has been acquired, the PCOTL shall notify the property owner at least 14 days in advance of commencement of the Work in writing, a copy shall be provided to the Public Outreach Office.

Prior to commencement of work in any neighborhood, the PCOTL shall provide notice to the Public Outreach Office and at the Public Outreach Office's direction and with its coordination, notify the customers/citizens 30 days in advance. In addition, 24 hours prior to actual commencement of the work, the PCOTL shall notify the customers/citizens via door or mailbox hangers as hereinafter provided for in this Section. Such notices shall be coordinated with the **County's** Construction Manager and Public Outreach Office.

The PCOTL shall be responsible for managing those notifications within the context of the Project Schedule and the approved project procedures. The PCOTL shall assist the **County** site staff with the resolution of public outreach-related items that might delay or disrupt the project work.

The PCOTL shall be on 24-hour call, 7 days a week, and be equipped with a mobile phone. In the event the PCOTL is away from work, the **Contractor** shall designate a second individual to handle the responsibilities and functions who shall be fully familiar and aware of the duties and prosecution of the Work.

The **Contractor**/PCOTL shall report and log complaints to the Public Outreach Office Call Center within 6 hours of receipt. Conversely, calls received by the Help Line will be transmitted to the PCOTL within 24 to 48 hours of receipt and the PCOTL shall perform follow-up within 24 hours with resolution after receipt of the notice. Upon receipt of the information, the Call Center will create a file to document the incident.

The **Contractor's** PCOTL shall maintain a Project Complaint Log fully detailing customer/citizen complaints/claims, questions, and resolutions. Complaints/inquiries received in the field by the work crew regarding the project shall be documented by the PCOTL and entered into the Project Log, even if resolved immediately. This Complaint Log shall be available to the **County's** Construction Manager and the Public Outreach Office in its updated state for review or reference when needed. The Log shall be submitted on a monthly basis with the progress payment request.

Where property owners make damage claims, the PCOTL shall coordinate the activities of the **Contractor's**, subcontractor's, or vendor's insurance provider(s) during the investigation and repair process and obtain the complainant's signoff to conclude and close the file. The **County** shall be informed in writing upon resolution of any complaint by the **Contractor** or its designated representative and copied on the sign-off documents. The PCOTL shall track any and all insurance damage claims, payments, settlements, etc., on the Project, whether they are the responsibility of the **Contractor** or subcontractors, or are disputed. This Damage Claim Log shall be separate from the Complaint Log, but shall be cross-referenced if the damage results in a complaint.

The PCOTL shall assist the **Contractor's** Traffic Control Manager in coordination of street closures, detours, and traffic pattern changes with the **Contractor's** field management staff, the **County's** Construction Manager, Public Outreach Office, and the Department of Public Works or the GDOT. The PCOTL shall check the notice status with the **Contractor's** Traffic Control Manager each morning and confirm that notifications to the **County's** Traffic Control center are current and accurate for police, fire, and emergency vehicle access. The PCOTL shall also assist in the coordination on the signal changes involved with temporary traffic plans. This includes, but is not limited to, maintaining safe residential and business access, mail delivery, and garbage pick-up, providing temporary and /or alternate services and relocation coordination for school bus, MARTA stops, and any other temporary facilities needed to keep neighborhood safety, security, and services within acceptable limits. These items and their coordination shall be required as part of the detailed work plans, site-specific safety plans, traffic management plans, erosion and sedimentation plans, and project schedules.

As required, the PCOTL shall provide notice to the affected areas at least 3 weeks in advance of the scheduled closures, detours, and traffic pattern changes.



In the event there is an emergency involving the public or a situation where media inquiries and responses are possible, the **County's** Public Outreach Office shall be notified immediately. The Public Outreach Office will then coordinate with the **County's** Media Relations Manager for appropriate action. **Under no circumstance and at no time shall the PCOTL, any employee, subcontractor, or vendor of the Contractor make any comments to the media regarding the project.**

The PCOTL shall be responsible for holding media relations training and management with the onsite staff. Procedures shall be developed within the site-specific safety plan to establish guidelines for managing any media response to an emergency issue. The entire site staff shall be trained on them.

### 3.03 ISSUES MANAGEMENT TRACKING

- A The **Contractor** shall employ an organized and comprehensive issues management strategy for tracking customer/citizen complaints, claims, and inquiries, including, but not limited to the use of Customer Service Tracking Software. Should the **Contractor** choose to use tracking software, usage licenses shall also be purchased at no cost to the **County**, related information shall be updated on a daily basis by the PCOTL. Tracking information and responses shall be coordinated with the Public Outreach Team. Additionally the **Contractor** shall purchase Technical Support and Maintenance services until final completion of the project plus 6 months or until all claims on the project are resolved. Reports shall be provided as weekly updates on all activities and on specific cases within 24 hours when requested.
- B Information recorded shall include, but not be limited to, the following:
  - 1. Date complaint/claim/inquiry received
  - 2. Name, address and telephone number of individual filing complaint/claim/inquiry
  - 3. Nature of complaint/claim/inquiry
  - 4. Address where problem is located if different than above
  - 5. Action required, date, action taken, date action completed
  - 6. Follow-up with person who filed under number 2 above to verify satisfaction or status
  - 7. Documents associated with actions taken
  - 8. Any information regarding resolution with the **Contractor's**, subcontractor's, or vendor's Insurance Company shall be fully documented

### 3.04 IDENTIFICATION BADGES AND SECURITY

- A. All members of the **Contractor's** staff and its subcontractors' permanent staff at or above the level of foreman who will be working on-site shall be issued an ID badge by the **County**. The ID badge will list the worker's name and company affiliation and will include a picture.
- B. A template will be provided by the Public Outreach Team and shall be returned to the Public Outreach Team when updated with the above information.

- C It shall be the **Contractor**'s responsibility to collect the ID badge from any employee who is discharged or resigns prior to completion of the project as well as at completion of the project. The **Contractor** shall return the ID badges to the Public Outreach Team within 48 hours of their collection. The **Contractor** shall be charged a fee of \$25.00 per badge for any badges not returned at completion of the project. For ID badges lost during the term of the project, that shall be reissued, there shall be a charge of \$15.00 per ID badge. The **Contractor** shall deduct these charges from its periodic or closeout payment request or the **County** shall deduct them.
- D Because lower-level personnel of the **Contractor**, subcontractor, or vendor will not be issued ID badges, the **Contractor** shall maintain a daily sign-in sheet for daily workers under its supervision. The Superintendent shall be able to identify any employee on the site as a *bona fide* worker if asked and if not able to identify, the **County** shall direct the Superintendent to remove the individual from the site. The **Contractor** and subcontractors or vendors shall provide a program of temporary ID badges and/or laminated on-site passes that are cross-referenced to each day's employee time card/payroll sheet with unique employees' numbers. Any employee that will be on the Project over 30 days shall be issued a picture ID with the employee number prominently shown. Employees possessing an ID badge shall wear that badge visibly at all times on the Project. The **Contractor** shall be responsible for maintaining a safe "drug-free" work environment.
- E The **Contractor** shall develop a Security Plan for use on the job site during construction. The Plan shall encompass at a minimum such topics as the use of pre-employment background checks for specific project staff, drug tests, crime prevention and anti-theft procedures, workplace violence, and methods to secure project documents. The staff working on the site shall be familiar with the requirements of the Security Plan.
- F **County** Ordinances prohibit the carrying of weapons on **County** streets. The **County** Police Department shall be notified of any person bringing weapons to the jobsite; they shall be removed immediately and prosecuted.
- G The **Contractor**'s staff at or above the level of foreman shall attend a 4-hour mandatory Safety Training session conducted by DWM safety inspectors. Multiple training sessions shall be offered and staff shall complete the training at least within 1 month of commencing work on the jobsite. The costs associated with the training shall be considered as incidental to the Contract.
- H Persons on the jobsite shall report any suspicious activity by workers or by others at the jobsite area first to the Project Management, and/or DeKalb County Police and/or Fire Department by calling 911 and immediately to the Engineering and Construction Management Service Division Head.

### 3.05 DOOR HANGERS

The **Contractor** shall produce door hangers required for notice to customers/citizens and residents from the template provided by the **County's** Public Outreach Team (see example at the end of this Section) as specified above in paragraph 3.02. Door hangers shall be utilized for notification in the event of, but not limited to, the following events:

- A. Planned service disruption/outages
- B. Road closures/detours/traffic pattern changes
- C. Access/entrance to property
- D. Work startup
- E. Smoke testing
- F. Blasting

### 3.06 IMPACTED AREA ADDRESS DATABASE

- A. The **Contractor** shall provide the Public Outreach Office with a database of addresses and phone numbers (and names if available) of project-affected residences, businesses, and facilities at least 3 weeks prior to project startup. The database will be used by the Public Outreach Team for regular citizen communications and notifications.
- B. The **Contractor** and **County** shall copy the **County's** Public Outreach Team on correspondence and Right-of-Entry Agreements with citizens and property owners.

### 3.07 SCHEDULE

- A. The **Contractor** shall provide the Public Outreach Team with a copy of the detailed project schedule following approval by the **County**.
- B. Biweekly, the **Contractor** shall provide a list of properties:
  - 1. That shall be affected by the **Contractor's** activities within the upcoming 4 weeks.
  - 2. Where work is ongoing in the right of way in front or in the back of the property.
  - 3. Where site restoration activities are ongoing.
- C. The **Contractor** shall inform the **County's** Public Outreach Team through the weekly progress meetings and in writing of any project schedule changes or changes in "disruptive work" such as blasting, road closures, etc., that would have significant impact on citizens or require prior citizen notification. The PCOTL shall notify the Public Outreach Team of any "disruptive" activities affecting the public that occur on the jobsite within 4 hours of their occurrence.

### 3.08 MEDIA RELATIONS AND JOB SITE INQUIRIES

- A. As specified above in paragraph 3.01, only authorized persons shall release any information to media inquiries. The **Contractor's** field personnel shall at all times have project information cards available that shall be provided to media and citizens if inquiries are made onsite. The inquiries shall be directed to the person referred to on the card and citizens shall be referred to the Project Information Line.

- B. Project information cards shall be produced by the **Contractor** from the template provided by the Public Outreach Team. A sample information card is provided at the end of this Section. Final language to be included on the Project Information Card shall be provided at the Public Outreach Kick-off Meeting.

### 3.09 VEHICLE SIGNS AND PROJECT SITE SIGNAGE

- A. The **Contractor** shall place pre-approved magnetic signs on job-site project vehicles. The signage template shall be approved by the **County** Communications Office. Signs shall be produced by the **Contractor**.
- B. All project Sites shall have pre-approved project signs that read in accordance with the template provided by the Public Outreach Office. Signs shall be produced by the **Contractor**. Some of the signs shall be mounted on moveable skids so they can be relocated as the project progresses on various streets in the project area. Sizes will vary, but shall be smaller than the 96"x 48" size project signs shown. Size shall be as directed by the **County**.

### 3.10 NOTIFICATIONS

The **Contractor** shall provide the following notifications to the Public Outreach Team to facilitate its communication with affected citizens through automated phone message or mailers:

- A. Anticipated work start date – notify at least 3 weeks prior to start of construction so that Public Outreach Team can send out mailer 2 weeks prior and complete distribution notification letter 48 to 72 hours before construction begins.
- B. Service disruptions - notify Public Outreach Team at least 72 hours in advance so that a 48-hour notice automated phone message notice may be issued.
- C. Street Closure or Partial Closure - notify Public Outreach Team at least 72 hours in advance to permit 48-hour automated phone messaging.
- D. Significant work in a neighborhood, such as blasting, directional drilling, trenchless installation, open cut, etc., shall require notification of the Public Outreach Team at least 72 hours in advance to permit 48-hour automated phone messaging.
- E. The **Contractor** shall provide the following door hanger notifications and the manpower to deliver them at a minimum:
  - 1. Service disruptions: notice to citizens 48 hours prior to disruption.
  - 2. Street Closure or Partial Closure: notify fire, police, other emergency services, and other authorities 48 hours prior to street closure.
  - 3. Significant work in neighborhood, such as blasting, directional drilling, and trenchless installation, open cut, etc.: notify citizens via door hangers 48 hours in advance.

- F. The **Contractor** shall be fully responsible for notification to emergency-related services for detours, closures (partial or full) or traffic pattern changes and shall be detailed in their traffic control plan and implemented through the **Contractor's** Traffic Control Manager and per permitting requirements.
- G. The **Contractor** shall be fully responsible for distributing notifications a minimum of 48 hours in advance of service outages for schools, nursing homes, hospitals, medical clinics, assisted living facilities, or other types of facilities. **Contractor** shall also make personal contact with facility representatives no later than 60 minutes prior to the outage.
- H. The **Contractor** shall at all times coordinate with the Public Outreach Team and Call Center to provide detailed schedules and street locations for service disruptions or street closures to ensure that DWM Customer Service Call Center is well equipped to provide adequate response to citizen inquiries.

### 3.11 RESOLUTION OF COMPLAINTS AND CLAIMS

- A. Failure of the **Contractor** to resolve any legitimate complaint or claim filed resulting from the work performed under this contract, following notice in accordance with the General Requirements, shall result in resolution of the complaint or claim by the **County**. The **Contractor** shall be charged for the associated cost in accordance with the applicable General Requirements of the contract. No additional payment shall be made to the **Contractor** for any costs associated with complaint or claim resolution, same being incidental to the various contract items that are bid. Failure to manage the issues and items adequately to minimize public complaints and impacts shall be cause for increasing the retainage, withholding payment, and/or Notice and Termination of the **Contractor** for cause if more than 10 percent of the noticed complaints or claims past 30 days are without decisive resolution and scheduling of recovery work.

+++END OF SECTION 01351+++

# SECTION 01380 - PHOTOGRAPHIC DOCUMENTATION

## PART 1 - GENERAL

### 1.01 SCOPE OF WORK

The **Contractor** shall clearly document site conditions along the entire project site prior to the start and upon the completion of the project/contract by use of digital video recording. The cost of the photographic documentation shall be included in the Contract Price.

The **Contractor** shall submit monthly color progress photos along the entire line of the active Work site. Monthly record progress photographs shall be submitted with monthly payment requisition. Photographs shall document construction within roadways, rights-of-way, and easements,

The **Contractor** shall engage the services of an experienced professional photographer, approved by the **County**, to take videos, color photographs of the site as directed by the **County**.

### 1.02 PROCEDURES

- A. The digital video recording and periodic still photographs shall be taken from identifiable reference points along the Work corridor. The same reference points shall be used through the life of the project/contract to achieve an accurate record of construction.
- B. The **Contractor** shall adequately document areas of sensitivity such as landscaped areas, lake or stream banks, or areas surrounding existing structures.
- C. Each photograph, video, or digital file of such submitted shall be dated, identified, and captioned, referencing the location, project name, project number, and pertinent information to clearly describe the scene.
- D. Recording shall be done with adequate lighting. Written authorization by the **County** to proceed with video documentation at any areas shall be done with consideration of existing environmental conditions. The designee of the **County** will accompany the photographer during the video and photo sessions.
- E. **Contractor** shall notify **County** of the time and place for video recording and digital photography. **Contractor** shall provide access and accommodation to the **County** representative during the photographic documentation process. The **County** reserves the right to reject any photograph that is not clear or definitive. Any photograph so rejected shall be subtracted from the total exposures required under this Contract.
- F. The Lynx Photo Management software shall be utilized by the **County** and the **Contractor** for the duration of the Project. The daily construction photographs shall be the permanent visual record of the pre-construction conditions, daily construction site activities, and the completion of construction Work. The

**Contractor** shall submit to the **County** no fewer than four record photos for each activity ID listed in the project schedule per the last schedule update. Applicable photos shall accompany each Pay Application.

### **1.03 VIDEOS**

- A.** The project corridor shall be documented by digital video recordings.
- B.** All digital video recordings shall be in color and shot with a 1080 HD (1920 x 1080) using MPEG-4 program stream encoding (ISO-IEC 14496-14) camera and shall be a clear, stable image with no interference. Black and white recordings shall not be accepted. The video shall be provided on Digital Video Discs (DVDs) or USB Flash Drives and shall conform to currently recognized standards for video recordings. Specifically, the recordings shall be in focus and properly illuminated with good contrast. The picture shall be clear and possess accurate color levels and balance (tint) without outside interference. All recordings shall also include a clear and distortion free audio narration that clearly identifies all, important features of the project, including stationing along pipeline construction, and is in synchronization with the video. The recording shall bear a continuous "date and time stamp" that is electronically recorded by the camera.
- C.** A record of the contents of each recording shall be provided on a run sheet, identifying each chapter segment of the recording. The run sheet shall be provided in paper copy as well as on the flash drive or hard drive.

### **1.04 PHOTOGRAPHS**

- A.** The file format for digital photographs shall be Tagged Image File Format (TIFF).
- B.** Digital cameras shall produce records with true optical resolution. Images shall not be resized or interpolated to a higher resolution from a lower resolution.
- C.** Photographic images shall be provided as 8 bit per channel RGB color images.
- D.** Digital camera files shall be captured as 12 megapixel files or greater in size with a minimum pixel array of 5,000 pixels by 3,500 pixels.
- E.** Three color 8" x 10" (or 8-1/2" x 11") glossy prints of each photograph shall be produced. One set of digital images shall be furnished on a DVD along with the glossy prints. All disks shall have a label that includes project information as well as the date, and whether these are pre-construction, construction, or post-construction photographs.
- F.** The prints shall have indelibly printed on their reverse side the information listed below. The same information shall be printed on a sheet of paper in a clear sleeve to be included in the binder holding the prints and DVD+R. The information shall also be provided in a Microsoft Excel spreadsheet that shall be included on the DVD. Additionally, this information shall be embedded in each digital photo file using the IPTC/XMP (International Press Telecommunications Council's/Adobe Extensible Metadata Platform) Standard.

1. Project number
  2. Project name
  3. Contract number and description
  4. Photo number
  5. View and description, indicating:
    - a. Location of camera
    - b. General description of what the photograph represents
  6. Whether this is a pre-construction, construction or post-construction photograph
  7. Date picture was taken
  8. Name of photographer
  9. **County** witness
- G. The **Contractor** shall transmit one electronic copy of each photo to the Engineer for use in preparing descriptions. The photos with descriptions will be returned to the **Contractor** for printing and mounting.
- H. The prints shall be suitably mounted and labeled in loose-leaf type binders with protective covers for the prints. The binders shall be equipped with a pocket suitable for storing the DVDs. The materials shall meet the requirements of ISO 18902:2013 "Imaging materials - Processed Imaging Materials – Albums, Framing and Storage Materials."

## 1.05 SUBMITTALS

- A. The **Contractor** shall furnish to the **County** for approval one copy of the video digital file taken of existing conditions prior to start of the Project and before the submittal of the first request for payment. The video digital file shall be assembled upon completion of the Project and shall be furnished to the **County** for approval prior to submittal of the final request for payment. No pay requests shall be processed before the submittal of the respective video records.
- B. **Contractor** shall utilize **County** Lynx Photo Management Software to submit videos and progress photographs in electronic format for the duration of the project in accordance with Section 01350.

## PART 2 - PRODUCTS (NOT USED)

## PART 3 – EXECUTION

### 3.01 USE OF PHOTOGRAPHS AND VIDEOS

- A. Upon their creation, the photographs, prints, DVDs, and videos resulting from the Work under this Contract shall become the exclusive property of the **County**.
- B. Neither the **Contractor** nor the photographer nor the video recording firm shall retain any rights pertaining to the photographs, prints, CDs/DVDs, or videos, nor



shall they reproduce or otherwise publish or disseminate any of the photographs, aerials, prints, CDs/DVDs, or videos taken under this Contract without the prior written approval of the **County**.

- C. The photographs, prints, CDs/DVDs, and videos shall be considered "Work made for hire" under applicable provisions of the Copyright Act, and the **County** shall be the copyright owner thereof and of the aspects, elements, and components thereof in which copyright protection might subsist. To the extent that such materials do not qualify as "Work made for hire," the **Contractor** hereby irrevocably transfers, assigns, and conveys exclusive copyright ownership in and to such materials to the **County**, free and clear of any liens, claims, or other encumbrances. The agreements between the **Contractor** and the photographer and videotaping firm shall include a provision containing these requirements.

+++END OF SECTION 01380+++

## SECTION 01400 Contractor's Work Quality

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. **Contractor's** Quality Assurance / Quality Control Requirements
- B. Experience and Qualifications of Supply and Service Companies
- C. Quality of Materials, Equipment, and Work
- D. Defective Work, Equipment, or Materials
- E. Welding Certification and Welding Inspection
- F. **Contractor's** Surveyor
- G. Field Measurements

#### 1.02 PAYMENT

No separate payment shall be made for performing any Work of this Section and costs thereof shall be deemed incidental to the Work and included in the prices bid for the Contract, unless otherwise specified in the Detailed Specifications.

#### 1.03 RELATED SECTIONS

Detailed Specification 01410.

#### 1.04 DESCRIPTION

- A. Experience and Qualifications of Supply and Service Companies: The **Contractor** shall require subcontractors, materialmen, and equipment service providers to comply with the accepted Health, Safety & Security Plan, and Quality Assurance requirements under the Contract.
- B. Quality of Materials, Equipment and Work
  - 1. All materials, fixtures, fittings, supplies, and equipment furnished under this Contract shall be new, of standard first grade quality, of the best workmanship, correctly designed, and be intended for the use for which they are offered. Materials or equipment that, in the opinion of the **County**, are inferior or of a lower grade than indicated, specified or required, or are obsolete, shall not be accepted.
  - 2. All Work of assembly, installation, and construction shall be done in a neat, first-class, and skillful manner. If the quality of the material, fixtures, fittings, supplies, equipment or Work required by the Drawings does not agree with that required by the Specifications, the better quality shall be supplied. In asking for

prices on, or placing orders for, materials, fixtures, fittings, supplies, and equipment intended for use or installation under this Contract, the **Contractor** shall provide the manufacturer or dealer with such complete information from these Specifications as may in any case be necessary. In every case, it shall quote in full to each such manufacturer or dealer the text of this subparagraph, as well as the text of such other portions of the Specifications, as are appropriate.

3. At all times while Work under this Contract is being performed, the **County** shall have access to all parts of the **Contractor's** or manufacturers' plants or other locations where the forgings, plates, materials, fixtures, fittings, supplies, or any other articles required under this Contract are manufactured, assembled, tested, or inspected. The **County** shall be permitted to witness any or all of these operations, as the **County** may deem necessary to determine that the Work is being performed in accordance with the Specifications and the approved shop drawings. The cost, if any, of providing such access shall be considered part of the normal expense of conducting business and therefore non-reimbursable.
4. The **County** shall be furnished with full facilities for inspecting the Work and ascertaining that it is being done strictly in accordance with the requirements of the Specifications, Drawings, and the intent of this Contract.
5. The **Contractor** shall provide a suitable space for the **County** and the **County's** authorized representatives conveniently located near that part of each plant where materials or equipment to be furnished under this Contract are being manufactured, assembled, or shop tested. Each space shall be furnished with facilities for the making and the keeping of records and correspondence. The reasonable use of a photocopier, telephone, and fax shall be provided, as required by the **County**. Long distance communications shall be made using **County** mobile telephones at no cost to the **Contractor**.
6. The **Contractor** shall give notice in writing to the **County** sufficiently in advance of its intention to commence the manufacture or preparation of materials especially manufactured or prepared for use in or as part of the permanent construction in the event that the **County** intends to perform Witness Shop Testing and Quality Assurance Inspection. Such notice shall contain the date of commencement and the expected date of completion of the manufacture or preparation of materials. Upon receipt of such notice, the **County** will: decide upon its intent to inspect the Work or notify the **Contractor** that inspection will be waived. In those instances where the **County** inspector(s) arrive at the agreed-upon location, at the agreed-upon date and time, and find that the article(s) to be inspected are not ready for

inspection, the inspector(s) shall return to their home office and the expenses incurred shall be borne by the **Contractor** and shall be deducted from the **Contractor's** next payment, unless otherwise determined by **County**.

7. Inspection of the Work by the **County** is made solely for the benefit of the **County**. The inspection of the Work shall not relieve the **Contractor** of any of its obligations to fulfill the Contract as herein prescribed, and defective Work shall be repaired or replaced at the **Contractor's** sole expense.

C. Defective Work, Equipment, or Materials

1. All defective or imperfect Work, equipment, or materials furnished by the **Contractor** that is discovered before the Final Acceptance of the Work, or during a warranty period, shall be removed immediately even though it may have been overlooked by the **County** and approved for payment. The **Contractor** shall repair such defect, without compensation, in a manner satisfactory to the **County**.
2. Unsuitable materials and equipment shall be rejected, notwithstanding that such defective Work, materials, and equipment may have been previously overlooked by the **County** and accepted or approved for payment.
3. If any workmanship, materials, or equipment are rejected by the **County** as unsuitable or not in conformity with the Specifications or Drawings, the **Contractor** shall promptly replace such materials and equipment with acceptable materials and equipment at no additional cost to the **County**. Equipment or materials rejected by the **County** shall be tagged as such and shall be immediately removed from the site.
4. The **County** may order tests of imperfect or damaged Work equipment, or materials to determine the required functional capability for possible acceptance, if there is no other reason for rejection. The cost of such tests shall be borne by the **Contractor**, and the nature, tester, extent, and supervision of the tests shall be as determined by the **County**. If the results of the tests indicate that the required functional capability of the Work, equipment, or material was not impaired, the Work, equipment, or materials may be deemed acceptable, in the discretion of the **County**. If the results of such tests reveal that the required functional capability of the questionable Work, equipment, or materials has been impaired, then such Work, equipment, or materials shall be deemed imperfect and shall be replaced. The **Contractor** may elect to replace the imperfect Work, equipment, or material instead of performing the tests.
5. If, in the making of any test, it is ascertained by the **County** that the material or equipment does not comply with the Contract, the

**Contractor** will be notified thereof, and it will be directed to refrain from delivering said material or equipment, or to promptly remove it from the site or from the Work and replace it with acceptable material without cost to the **County**. Upon rejection of any material or equipment submitted as the equivalent of that specifically named in the Contract, the **Contractor** shall immediately proceed to furnish the named material or equipment.

D. Welding Certification and Welding Inspection

1. For Work performed within the limits of the **County**, field welding required under this Contract shall be performed by certified welders:
  - a. Certification for Welding – For field and shop welding, the following welding qualification provisions shall apply:
    - i. For field welding, required permits and safety plans shall be in place and adhered to.
    - ii. For shop welding: welding shall be performed in accordance with the relevant Work-specific requirements in the Specifications and Drawings.
    - iii. If existing certification is not approved or not submitted, then the welders/welding shop/tack welders shall be qualified in accordance with the above procedures and tests, as administered by an inspection agency approved by the **County**. The costs associated with the required tests for certification and/or retests, if any, shall be borne by the **Contractor**. The **County** shall be given a notice of not less than 5 business days prior to such tests and may elect to witness any or all of these tests. The costs associated with witnessing these tests shall be borne by the **Contractor**.
  - b. Any deviation from the above shall not be permitted without a written waiver from the **County** or its designee.
2. All welding, including welder certification, shall be performed in accordance with the requirements of AWS D1, ASME IX (and the applicable construction code), and as approved by the **County**.
3. Welding inspection shall be in accordance with the latest rules of the American Welding Society, and the following shall apply:
  - a. All welds shall be inspected visually in accordance with Section V of the ASME Code.
  - b. All stainless steel partial penetration groove welds shall be inspected and approved by means of Liquid Penetrant Examination (PT) in accordance with Appendix 8 of Section VIII, Division 1 of the ASME Code. Welds failing the inspection shall be made good and re-inspected by PT.

- c. All carbon steel partial penetration groove welds shall be inspected and approved by means of Magnetic Particle Examination (MT) in accordance with Appendix 6 of Section VIII, Division 1, of the ASME Code. Welds failing the inspection shall be made good and re-inspected by MT.
- d. On full penetration welds, both the root pass and the final weldment shall be inspected by means of MT or PT as applicable.
- e. Unless otherwise approved, inspection of welds shall be conducted by an inspection agency approved by the **County**.
- f. Unless waived by the **County**, full-penetration welds shall be inspected by Radiographic Examination (RT) in accordance with ASME Code, Section VIII, Division I, Paragraph UW-51.
- g. The **County** may elect to witness any or all of the welding inspection. Notice shall be given to the **County** not less than 5 business days prior to welding and inspection of those items specifically designated by the **County**. The costs associated with the welding inspection by the **County** inspectors and any additional testing required by the **County** shall be borne by the **Contractor**.

E. **Contractor's Surveyor**

- 1. The **Contractor** shall retain the services of a licensed land surveyor to perform survey Work, including, but not limited to, establishing line and grade, in advance of the construction; and to perform other surveying services for the Work included under the Contract. The surveyor shall be subject to the approval of the **County**. Survey drawings shall be submitted to the **County** for approval.
- 2. The **Contractor** shall erect, install, and maintain survey platforms, targets, benchmarks, and similar facilities to be used by the **County** in the performance of its inspection services; and shall perform survey Work required before, during, and after construction.

F. **Field Measurements**

- 1. The **Contractor** shall take the necessary measurements in the field to determine the exact dimensions for Work and verify pertinent data and dimensions shown on the Contract Drawings.

1.05 **QUALITY ASSURANCE / QUALITY CONTROL PLAN**

- A. The **Contractor** shall establish and execute a Quality Assurance/Quality Control (QA/QC) Plan for the services and equipment that will be supplied

under this Contract. The plan shall provide the **Contractor** with adequate measures for verification and conformance to defined requirements by its personnel and subcontractors, fabricators, suppliers, and vendors. The **County's** review and acceptance of the **Contractor's** QA/QC plan shall not relieve the **Contractor** from any of its obligations for the performance of the Work. The **Contractor's** assigned QA/QC personnel are subject to the **County's** review and continued acceptance. No Work covered by the QA/QC plan shall start until the **County's** written acceptance of the **Contractor's** QA/QC plan has been obtained.

- B. The **Contractor's** quality control organization with lines of authority and reporting structure. The Construction Quality staffing shall include a Construction Quality Manager and a supporting staff as applicable to the project. The reporting structure shall clearly provide for direct reporting access by the Construction Quality Manager to the **Contractor's** principal officers.
- C. The names, qualifications (in resume format), duties, responsibilities, and authorities of the Construction Quality Manager and staff. Construction Quality personnel qualifications (in resume form), including copies of each member's applicable certificates of training and/or qualification.
- D. A copy of a letter to the Construction Quality Manager signed by a principal officer of the **Contractor's** firm that describes the responsibilities of the Construction Quality Manager and establishes his/her authority, including authority to stop Work that does not conform with the Contract Documents. The Construction Quality Manager shall issue letters of direction to other Construction Quality staff outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the CIP PMT and CM.
- E. A copy of a letter to the Construction Quality Manager signed by a principal officer of the **Contractor's** firm that describes the responsibilities of the Construction Quality Manager and establishes his/her authority, including authority to stop Work that does not conform with the Contract Documents. The Construction Quality Manager shall issue letters of direction to other Construction Quality staff outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the CIP PMT and CM.

#### 1.06 SUBMITTALS

- A. Within 15 days after the commence Work date given in the Notice to Proceed (NTP), the **Contractor** shall provide its QA/QC plan to the **County** for approval. At a minimum, the plan shall consist of the following quality elements:
  - 1. Responsibilities

2. Management and Production Instructions
  3. Material Control
  4. Marking and Material Identification
  5. Setup and Operational Procedures
  6. Non-Conformances
  7. Painting
- B. Additionally, when required by the **County**, the **Contractor** shall submit the following information prior to his entering into a supply or service subcontracts:
1. Contract number, supplies or services to be provided and a general description of the proposed item(s), such as trade name, type, etc.
  2. The name and address of the manufacturer or service company and the location of the plant where supplies will be manufactured and tested as required, or at which the services will be performed.
  3. Experimental and test data required to support the claimed performance of the supplies.
  4. A description of the testing plant, including the hydraulic, electrical and other facilities, in sufficient detail to show that the plant is adequately equipped for performing the tests, if such testing is required.
  5. All additional information that the **County** may deem necessary in order to determine the ability of the supply or service company to produce the item as called for by the Specifications.

## **PART 2 PRODUCTS (NOT USED)**

## **PART 3 EXECUTION**

### **1.01 Quality Deficiency and Non-Conformance Documentation**

Quality Deficiencies and Non-Conformances are defined as documentation, drawings, material, and equipment or Work not conforming to the specified requirements or procedures. The **County** will implement and maintain a three-tier non-conformance process, as follows:

- A. Deficiency Notice (DN) – The lowest level of non-conformance reporting. It documents the deficient condition and provides the **Contractor** 72 hours, or before the Work is covered, to correct the issue before it is elevated to the next level of reporting. It is issued for deficiencies that can be easily corrected without an engineering resolution. An example would be incorrect formwork dimensions observed prior to placement of concrete.
- B. Non-Conformance Report (NCR) - The second level is an NCR that documents deficient Work that has not been corrected, or that would require an engineering



solution to remedy. NCRs shall be answered in writing by the **Contractor** within 24 hours. The **Contractor** shall not be allowed to progress items for payment if it has open NCRs.

- C. Corrective Action Request (CAR) – The highest level of non-compliant reporting. CARs are issued for programmatic and repetitive non-compliant conditions. Examples of CARs would be using the wrong drawing revision in the field (programmatic) and a condition where the same type of Work has multiple NCR issues over a short period of time (repetitive). CARs cannot be answered by the **Contractor** field staff. They shall be transmitted to the **Contractor's** senior level management for response.

+++END OF SECTION 01400+++

## SECTION 01410 TESTING LABORATORY SERVICES

### PART 1 - GENERAL

#### 1.01 SCOPE

- A. Testing shall be performed to determine that materials provided for the Work meet the specified requirements, in accordance with the requirements of the Specifications. Such testing includes, but is not necessarily limited to:
  - 1. Cement
  - 2. Aggregate
  - 3. Concrete
  - 4. Concrete block
  - 5. Pipe
  - 6. Steel and metals
  - 7. Welding
  - 8. Soil compaction
  - 9. Bituminous pavement
- B. Requirements for testing may be described in various sections of these Specifications; where no testing requirements are described, however if the **County** decides that testing is required to demonstrate compliance with specified material or performance standards, the **County** shall require testing to be performed under current pertinent standards for testing.
- C. Employment of a testing laboratory shall in no way relieve the **Contractor** of its obligation to perform Work meeting the requirements of the Contract.
- D. The independent testing laboratory shall be selected and paid by the **Contractor** and approved in writing by the **County** before any testing services are performed.
- E. The **Contractor** shall pay directly for the services of the independent testing laboratory, approved by the **County**, for all testing required under this Contract.

#### 1.02 LABORATORY DUTIES

- A. Cooperate with **County** and **Contractor**.
- B. Provide qualified personnel promptly on notice.
- C. Perform specified inspections, sampling, and testing of materials and methods of construction.
  - 1. Comply with specified standards, ASTM, other recognized authorities and as specified.
  - 2. Ascertain compliance with requirements of Contract Documents.

- D. Promptly notify the **County** and **Contractor** of irregularity or deficiency of Work that is observed during performance of services.
- E. Promptly submit three copies (two copies to **County** and one copy to **Contractor**) of report of inspections and tests in addition to those additional copies required by the **Contractor**, including:
  - 1. Date issued
  - 2. Project title and number
  - 3. Testing laboratory name and address
  - 4. Name and signature of inspector
  - 5. Date of inspection or sampling
  - 6. Record of temperature and weather
  - 7. Date of test
  - 8. Identification of product and Specification section
  - 9. Location of Project and test
  - 10. Type of inspection or test
  - 11. Results of test
  - 12. Observations regarding compliance with Contract Documents
- F. Perform additional services as required.
- G. Laboratory shall not be authorized to:
  - 1. Release, revoke, alter, or enlarge on requirements of Contract Documents.
  - 2. Approve or accept any portion of Work.

### 1.03 CONTRACTOR RESPONSIBILITIES

- A. Cooperate with laboratory personnel; provide access to Work and/or manufacturer's requirements. **Contractor** shall not charge for downtime due to required testing.
- B. Provide to laboratory, preliminary representative samples, in required quantities, of materials to be tested.
- C. Furnish copies of mill test reports.
- D. Furnish required labor and facilities:
  - 1. To provide access to Work to be tested
  - 2. To obtain and handle samples at the site
  - 3. To facilitate inspections and tests
  - 4. Build or furnish a holding box for concrete cylinders or other samples as required by the laboratory
- E. Notify laboratory sufficiently in advance of operation to allow for the assignment of

personnel and schedules of tests.

- F. Laboratory Tests: Where such inspection and testing are to be conducted by an independent laboratory agency, the sample or samples shall be selected by such laboratory or agency or the **County** and shipped to the laboratory by the **Contractor** at **Contractor's** expense.
- G. Copies of the correspondence between the **Contractor** and testing agencies shall be provided to the **County**.

#### 1.04 QUALITY ASSURANCE

Testing, when required, shall be in accordance with all pertinent codes and regulations and with procedures and requirements of the American Society for Testing and Materials (ASTM).

#### 1.05 PRODUCT HANDLING

Promptly process and distribute all required copies of test reports and related instructions to insure all necessary retesting or replacement of materials with the least possible delay in progress of the Work.

#### 1.06 FURNISHING MATERIALS

The **Contractor** shall be responsible for furnishing all materials necessary for testing.

#### 1.07 CODE COMPLIANCE TESTING

Inspections and tests required by codes or ordinances or by a plan approval authority, and made by a legally constituted authority, shall be the responsibility of and shall be paid for by the **Contractor**, unless otherwise provided in the Contract Documents.

#### 1.08 CONTRACTOR'S CONVENIENCE TESTING

Inspection or testing performed exclusively for the **Contractor's** convenience shall be the sole responsibility of the **Contractor**.

#### 1.09 SCHEDULES FOR TESTING

- A. Establishing Schedule
  - 1. The **Contractor** shall, by advance discussion with the testing laboratory, determine the time required for the laboratory to perform its tests and to issue each of its findings, and make all arrangements for the testing laboratory to be onsite to provide the required testing.
  - 2. Provide all required time within the construction schedule.
- B. When changes of construction schedule are necessary during construction, coordinate all such changes of schedule with the testing laboratory as required.

## 1.10 TEST AND CERTIFICATIONS

- A. General: As a minimum, the following tests shall be performed and the following certifications provided:
  - 1. Cement: Certified test results by cement manufacturer or by independent laboratory shall be furnished as required by the **County**.
  - 2. Aggregate and Mortar Sand: Certified test results by aggregate producer or by independent laboratory shall be furnished as required by the **County**.
  - 3. Concrete
    - a. At least five standard 6-inch cylinders shall be taken each day for each 100 cubic yards or fraction thereof for each class of concrete used.
    - b. The number of cylinders, the point of sampling, and the method of securing the samples shall be determined by the **County**.
    - c. All samples shall be taken to the testing laboratory for laboratory curing.
    - d. Two of the laboratory cured samples shall be tested at 7 days, two samples tested at 28 days; one sample held in reserve.
    - e. Test all concrete in accordance with ASTM C31-69, C39-71, and C-172.
    - f. Slump Tests
      - (1) Perform slump tests on the job in accordance with ASTM standards.
      - (2) One slump test shall be performed for each 25 cubic yards of concrete.
      - (3) More slump tests shall be performed if deemed necessary by the **County**.
    - g. Perform air entrainment tests in accordance with the following standards:
      - (1) Field tests - ASTM C 173
      - (2) Laboratory tests - ASTM C 231
- B. Precast and Concrete Block for Buildings
  - 1. Block and precast may be visually inspected on the site by the **County**.
  - 2. The **County** reserves the right to have the concrete block tested by an independent laboratory.
- C. Steel and Miscellaneous Metal: Reinforcing steel, structural steel, and miscellaneous metal may be inspected visually on the site by the **County**.
- D. Welding: 1 percent minimum of all structural welds during construction shall be inspected either visually or by an independent laboratory as required by the **County**.
- E. Compaction of Earthwork
  - 1. The compaction shall be tested by the **County** or by an independent laboratory.
  - 2. The testing shall be performed in a manner in accordance with these

Specifications.

- F. Bituminous Concrete: The material testing for the bituminous concrete shall be performed by an independent laboratory as deemed necessary by the **County**.

#### **1.11 TAKING SPECIMENS**

Unless otherwise provided in the Contract Documents, all specimens and samples for tests shall be taken by the testing laboratory or the **County**.

#### **1.12 TRANSPORTING SAMPLES**

The **Contractor** shall be responsible for transporting all samples, except those taken by testing laboratory personnel, to the testing laboratory.

+++END OF SECTION 01410+++

## SECTION 01500 TEMPORARY FACILITIES

### PART 1 - GENERAL

#### 1.01 SCOPE

- A. The **Contractor** shall provide the temporary facilities necessary for the proper completion of the Work, as necessary and as specified.
- B. Maintain temporary facilities in proper and safe condition through the progress of the Work. In the event of loss or damage, immediately make repairs and replacements necessary subject to approval of the **County** and at no additional cost to **County**. At completion of the Work remove such temporary facilities or as directed by the **County**.
- C. The ownership of the trailers for **County's** facilities shall remain with the **Contractor**. However, the office furnishings and equipment provided by **Contractor** under this section of specifications shall remain as **County** properties. At completion of the Work, move the office furnishings and equipment to a location designated by the **County**.

#### 1.02 REQUIREMENTS

- A. General
  - 1. The materials, equipment, and furnishings provided under this Section shall be new, and shall meet applicable codes and regulations.
  - 2. Make provisions, and pay the costs of furnishing, installation, maintenance, professional services, permit fees, and site Work for the temporary facilities.
- B. Construction
  - 1. Temporary buildings shall be structurally sound, weather tight, with floors raised above ground. The mobile/modular buildings shall comply with GA-DCA/SBCC/ADA requirements, and shall be Williams-Scottsman or approved equal.
  - 2. Temporary buildings shall have temperature transmission resistance compatible with occupancy and storage requirements.

#### 1.03 CONTRACTOR'S FACILITIES

- A. Submit a plan of the facilities layout to **County** for approval within 15 days of the Notice to Proceed. **Contractor's** plant, for purposes of this Section, is defined to include but not limited to its field offices, first aid station, sanitary facilities, storage facilities, and major equipment. Sufficient facilities shall be provided and maintained at the points where Work is in progress to adequately meet the demands of the Work and with ample margin for emergencies or overload.

The location of stationary and mobile equipment shall be subject to the **County's** approval.

- B. First Aid Stations: **Contractor** shall provide a suitable first aid station equipped with the facilities and medical supplies necessary to administer emergency first aid treatment. **Contractor** shall have standing arrangements for the removal and hospital treatment of any injured person. The information reflecting this arrangement shall be clearly posted for easy visibility. The first aid facilities and emergency ambulance service shall be made available by **Contractor** to **County** and **County's** personnel.

#### 1.04 COUNTY'S FACILITIES

A. **County's** Project Office

1. Within 60 days after receipt of Notice to Proceed, provide the materials and equipment and construct, paint, furnish, and maintain the **County's** project office that shall meet the contract minimum square feet of finished floor space and 8 feet high with a full height partition dividing the office into rooms, as approved by the **County**. The partition walls shall be lined with vinyl covered sheetrock and sound deadening materials. The floor space shall be partitioned to provide for offices, a plan room, a copy room, a conference room, break area with kitchen facilities, including hot and cold running water in a double stainless steel sink, men's and women's rest rooms with exhaust fans, each with a wash basin with hot and cold running water, and a change room with two shower stalls, a wash basin, and a separate 40-gallon hot water heater. Contract Drawings shall show the office and site location and layout.
2. The actual layout and dimensions for the rooms shall be shown on the contract drawings. Additional entities, such as closets, built-in cabinets, and shelving, shall be determined by the **County** through the shop drawing approval process. The offices shall be provided with approximately 150 lineal feet of two-tier hung shelving and 150 lineal feet of lower cabinets, 30 inches in width and surfaced with wood grained laminate counter top. Each office shall include two letter-sized file cabinets of two drawers each, used as a vertical support to the laminated counter top. The two-tier shelving shall be constructed of 1"x12" white pine, faced with 1"x2" and 1"x3" facing stained to match the paneling, and finished with two coats of polyurethane satin varnish. The shelving shall be designed to support a full load of manuals, books, etc. without sagging. Interior floors shall be covered with indoor/outdoor carpeting, except rest rooms, main entry, and the kitchen area, which shall be composition vinyl.
3. The **County's** project office shall be a pre-fabricated building or a double-wide mobile office having ceiling, floor, and walls adequately insulated. This facility shall be erected on top of a minimum 6-inch 4,000-PSI reinforced concrete slab, over a 6-inch layer of crushed stone minimum 95 percent compaction with subgrade minimum of 95 percent compaction. The facility shall be tied down to meet code requirements. The complex shall have a minimum of five exterior steel doors, each equipped with a double deadbolt with a pull handle exterior and closer. The partition and closet doors shall be furnished with integral locks. The



main entry shall have a covered porch at least 12 feet by 34 feet and approach steps and railing built with pressure treated wood and shall have an ADA-compliant access. The other entrance(s) shall have a covered porch at least 4 feet square with appropriate steps and railing. The office facility shall be properly skirted using perforated fiberglass skirting material designed to match the exterior of the structure. Also, construct additional supports below the floor space occupied by the fireproof filing cabinets to meet the max dead and live loads. The office shall be secured with tie-downs 100-mile-per-hour minimum gusts and winds.

4. The office shall have a minimum of 18 vertical sliding windows, each, 46 inches x 27 inches, to allow adequate sunlight and ventilation, properly weatherproofed, equipped with insulated glass, screening, exterior steel reinforced bugler bars and Levelor blinds. Lighting fixtures with diffuser covers, in adequate numbers, shall be installed to give minimum illumination of 150 foot-candles and minimum glare. Exterior flood lights shall be provided at each exterior entry. The **Contractor** shall provide 110-volt duplex outlets, two above, and one below the lower cabinet counter top on each wall in each office shall be provided. The office building shall be adequately wired for electricity in accordance with applicable codes to handle the total lighting, air conditioning, and other loads. Provide air conditioning and heating combination unit(s) to maintain 78 degrees F inside in winter with outside air temperature of 20 degrees F and 72 degrees F inside in summer with outside temperature of 100 degrees F. The HVAC units shall be located at the kitchen/break room end of the facility equipped with an overhead plenum wall return air wall system.
5. Furnish the services of a professional computer system installer to install, connect, and test the various computers, printers, communication equipment, and other peripherals specified by contract. The project office and equipment layout is to be a complete installation with wall outlets and be a satisfactorily functioning system.
6. The **Contractor** shall provide furnishings, fixtures, and equipment, as stated in the Contract and approved by the **County**

## 1.05 TELEPHONE SERVICES

### A. General

1. Make the necessary arrangements for outside telephone service to **Contractor's** office, **County's** Project Office(s), and the First Aid Station. The connection to **County's** Facilities shall be consistent with the specified hardware requirements for such facilities. Schematic drawings, showing the complete telephone system to be installed, shall be provided for review by the **County** before installation of the service. The communication system shall be maintained in good working condition.
2. All expenditures for installation costs of hardware, lines, line extensions, service changes, and recurring service charges for telephone service shall be paid by the **Contractor**. The **County** will reimburse the **Contractor** for long distance charges made by the **County**.

3. The telephone system to be installed and maintained for the **County's** Facilities shall meet minimum requirements within the contract. The **Contractor** shall provide the **County's** Project Office with five separate, auto rollover numbers, with intercom, paging, voice mail, conference calling, speaker phone, redial and speed dialing, call and message waiting signals, volume control, outgoing call restriction, night service, and flexible function keys. The **County's** Project Office shall be provided with phones for each office, including the conference and kitchen. The intercom and paging shall extend to the **County's** Site Office (if existing or in the contract) located adjacent to the **County's** Project Office.
4. Furnish two additional dedicated telephone lines to the **County's** Project Office. One shall be used for a dedicated facsimile machine. The second line shall be used for dedicated computer communications with the **County's** networked mainframe computer that shall meet the contract minimum requirement.

#### **1.06 PARKING FACILITIES**

- A. Provide ample parking, paved, adjacent to **County's** Project Office(s), without necessitating jockeying of cars, for minimum parking spaces of one per office plus two at the **County's** Project Office. Minimum handicapped parking places at the County office shall be marked. The parking surfaces shall be promptly and adequately maintained by the **Contractor** for the duration of the Contract.
- B. The parking facilities shall be limited to the contract limits shown on the plans. The storage and Work facilities provided by the **County** shall not be used for parking by the **Contractor** or its personnel. Additional parking facilities required by the **Contractor** shall be the **Contractor's** responsibility.

#### **1.07 SECURITY AND MAINTENANCE**

- A. Provide periodic indoor and outdoor maintenance and cleaning for temporary structures, furnishings, equipment, and services as specified herein above.
- B. During other than normal daytime office working hours provide a totally separate electronic security system monitored by a security agency for the **County's** facilities. The offices shall be equipped with exterior security flood lights automatically activated by darkness and in sufficient number and placement to provide adequate lighting of the office and the parking areas.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION**

#### **3.01 PREPARATION**

Fill and grade sites for temporary structures to provide surface drainage.

#### **3.02 INSTALLATION**

- A. Construct temporary field offices, first aid stations, and storage facilities on proper

foundations and provide connections for utility services.

- B. Locate construction office facilities at locations within the Project approved by the **County**.
- C. Determine the need for temporary utility services, including utility services for **County's** facilities and first aid stations, and make the arrangements with utility companies and governmental agencies to secure such services. Such services shall be provided at no additional cost to the **County**. Temporary utility services shall be furnished, installed, connected, and maintained by **Contractor** in a workmanlike manner, satisfactory to the **County**, and shall be removed in like manner prior to final acceptance.
- D. Provide an outside standpipe equipped with a non-freeze hose bib at **County's** Project Office. The hose bib shall be sized for a standard half-inch garden hose connection.

### **3.03 MAINTENANCE AND CLEANING**

Repair and clean the offices, parking areas and access routes and provide complete professional janitorial services, including ample hand soap, toilet paper, and paper towels, in the **County's** facilities for the duration of the project. Cleaning shall be done on a daily basis, to the satisfaction of the **County**, during other than normal daytime office working hours. These services shall include daily sweeping, vacuuming, dusting, emptying of trash, cleaning of wash basins, bathroom and shower facilities, kitchen, daily mopping and monthly waxing of the vinyl floors and monthly shampooing of carpet. **Contractor** shall also provide for monthly exterminating services of the offices.

### **3.04 REMOVAL**

- A. Remove temporary field offices, contents, and services at a time when no longer needed. The office contents shall be packed, moved, and unpacked by the **Contractor** to a location designated by the **County**.
- B. Remove foundations and debris to an approved dump site; grade site to required elevations; clean and restore areas to **County's** satisfaction.

+++END OF SECTION01500+++

## **SECTION 01540 SECURITY AND SAFETY**

### **Part 1 - GENERAL**

#### **1.01 SECURITY PROGRAM**

- A. The **Contractor** shall protect the Work, including field office trailers and contents, from theft, vandalism, and unauthorized entry.
- B. The **Contractor** shall initiate a site security program at the time of mobilization onto the Work site that provides adequate security for material stored and installed onsite.
- C. The **Contractor** shall maintain the security program throughout the Contract duration.
- D. The **Contractor** and subcontractors shall be wholly responsible for the security of its storage compound and laydown areas, and for plant, material, equipment, and tools at times.
- E. The **Contractor** shall provide the **County** with a list of 24-hour emergency phone numbers, including chain of command.

#### **1.02 ENTRY CONTROL**

- A. The **Contractor** shall restrict entry of unauthorized personnel and vehicles onto the Project site.
- B. The **Contractor** shall allow entry only to authorized persons with proper identification.
- C. The **Contractor** shall maintain an Employee Log and Visitor Log and make the log available to the **County** upon request. This log shall be submitted to the **County** bi-weekly, or as necessary.
- D. The **Contractor** shall require visitors to sign the Visitor Acknowledgment of the Program Site Rules/Visitor Log, which includes a release form. Copies of these forms shall be submitted to the **County** bi-weekly and maintained in the **Contractor's** security files on-site. See the end of this Section.
- E. The **Contractor** shall require each employee to sign the Employee Acknowledgment of Project Site Rules Log included at the end of this Section. Employees, subcontractor employees, and lower-tier **Contractor** employees will receive a new employee orientation. Signing the Employee Log by the employee is certifying that the orientation training has been received.
- F. The **County** has the right to refuse access to the site or request that a person or vehicle be removed from the site if found violating any of the Project safety, security, or conduct rules.

#### **1.03 BARRICADES, LIGHTS, AND SIGNALS**

- A. The **Contractor** shall furnish and erect such barricades, fences, lights, and danger signals and shall provide such other precautionary measures for the protection of persons or property, and of the Work as necessary. Barricades shall be painted in a color that is visible at night. From sunset to sunrise, the **Contractor** shall furnish and maintain at least one light at each barricade and sufficient numbers of barricades shall be erected to keep vehicles from being driven on or into any Work under construction.
- B. The **Contractor** shall be held responsible for damage to the Work and any resulting injuries due to failure of barricades, signs, and lights. Whenever evidence is found of such damage, the **Contractor** shall immediately remove the damaged portion and replace it at the **Contractor's** cost and expense. The **Contractor's** responsibility for the maintenance of barricades, signs, and lights shall not cease until the Project has been accepted by the **County**.

#### 1.04 RESTRICTIONS

The **Contractor** shall not allow cameras on site or photographs taken without approval of the **County**, except as required under Section 01380.

#### 1.05 CONTRACTOR SAFETY/HEALTH AND SECURITY PLAN

- A. Within 30 days of Notice To Proceed, and prior to the performance of any Work, the **Contractor** shall prepare and submit a Contract-specific Health, Safety, and Security Plan signed by an officer of the **Contractor's** organization. Adequacy is the responsibility of the **Contractor**.
- B. The **County** will review the **Contractor's** Health, Safety, and Security Plan for the adequacy of the plan. The plan shall:
  - 1. Identify the person(s) responsible for implementation and enforcement of Health, Safety, and Security rules and regulations for this Project.
  - 2. Address safe Work procedures for the activities within the **Contractor's** scope of Work.
  - 3. Include a new employee orientation program to address job- and site-specific rules, regulations, and hazards.
  - 4. Include the **Contractor's** Drug-Free Work Place Policy describing the substance abuse prevention and testing program.
  - 5. Include provisions to protect the **Contractor's** employees, other persons, and organizations possibly affected by the Work from injury, damage, or loss.
  - 6. Comply with current Fed/OSHA regulations; the Health, Safety, and Security Plan; the facility safety program (when applicable); and locally accepted safety codes, regulations, and practices.
  - 7. Include a site-specific emergency action and evacuation plan.
  - 8. Include Hazard Communication/Right-To-Know Program.
  - 9. Include security procedures for the **Contractor's** Work, tools, and equipment.

10. Include the capability of providing the **County** with documentation to show compliance with the plan, plus accidents, and investigation reports.
  11. Address other contract-specific requirements, including the Unique Requirements of these specifications.
- C. Prior to the start of Work, **Contractor** shall provide Job Safety Analyses (JSAs) for unique Work activities necessary to prosecute the scope of Work.
  - D. Review of the **Contractor's** Health, Safety, and Security Plan by the **County** shall not impose any duty or responsibility upon the **County** for the **Contractor's** performance of the Work in a safe manner.
  - E. The **Contractor** shall be fully responsible for the safety and health of its employees, its subcontractors, and lower tier contractors during performance of its Work.
  - F. The **Contractor** shall provide the **County** with safety reports, training records, competent person list, and accident reports prepared in compliance with Fed/OSHA and the Project Health, Safety, and Security Plan.

#### 1.06 PROJECT SAFETY COORDINATOR

- A. The **Contractor** shall be responsible for the safety of the **Contractor's** and **County's** employees, the **County's** personnel and other personnel at the Work site. The **Contractor** shall identify a Project Safety Coordinator (PSA) on the job with an appropriate office on the job site to maintain and keep available safety records and up-to-date copies of pertinent safety rules and regulations.
- B. The Project Safety Coordinator shall:
  1. Comply with applicable health and safety requirements of governing legislation.
  2. Schedule and conduct safety meetings and safety training programs as required by law and included in the **Contractor** Health, Safety, and Security Plan for personnel engaged in the Work.
  3. Post appropriate notices regarding safety and health regulations at locations that afford maximum exposure to personnel at the job site.
  4. Post the name(s), address and hours of the nearest medical doctor(s), names and addresses of nearby clinics and hospitals, and the telephone numbers of the fire and police departments.
  5. Post appropriate instructions and warning signs with regard to hazardous areas or conditions.
  6. Have proper safety and rescue equipment adequately maintained and readily available for any contingency. This equipment shall include such applicable items as: proper fire extinguishers, first aid kits, safety ropes, and harnesses; stretcher, life preservers, oxygen breathing apparatus, resuscitators, gas detectors, oxygen deficiency indicators, explosion meters; and other equipment mandated by law.

7. Inspect each Work crew at least once daily in accordance with an Inspection Checklist Report Form to make sure that workers are wearing their appropriate personal safety equipment; machines, tools, and equipment are in safe operating condition; Work methods are not dangerous; and the Work site and Work methods are free of hazards.
8. Submit to the **County**, upon request, copies of inspection checklist report forms; safety records, safety inspection reports, and certifications from regulating agencies and insurance companies.
9. Immediately notify the **County** of a serious accident, followed by a detailed written report within 24 hours. "Serious accident" is defined as that requiring an absence of Work of more than two days and/or hospitalization.
10. Immediately notify the **County** in the event of a fatal accident.
11. Immediately notify the **County** of any accident claim against the **Contractor** or any subcontractor, followed by a detailed written report on the claim, and its resolution.
12. Review safety aspects of the **Contractor's** submittals as applicable.

## VISITOR ACKNOWLEDGMENT OF THE PROJECT SITE RULES

By signing this Visitor's Log, I acknowledge that I understand and agree to abide by the project rules outlined below.

In consideration of my receipt of a visitor's pass as issued by the **County** directly or indirectly for the **County**, I waive on behalf of myself, my heirs, employer, legal representatives and assigns and hereby release and discharge the **County**, Program Manager, Designer, and its subcontractors and consultants and each of its directors, officers, employees, representatives, and agents from any and all claims, actions, causes of action, or any charge of any kind whatsoever that may arise or could arise in the future as a result of my being present at the facility including injury, death, or property damage whether or not caused by the fault or negligence of any of the parties released hereunder.

I further acknowledge that I have been briefed on specific hazards, hazardous substances that are on site, and the site emergency action procedure.

### PROHIBITED ACTIVITIES

- Unauthorized removal or theft of **County** property
- Violation of safety or security rules or procedures
- Possession of firearms or lethal weapons on jobsite
- Acts of sabotage
- Destruction or defacing **County** property
- Failure to use sanitary facilities
- Failure to report accidents or job-related injuries
- Being under the apparent influence of drugs, alcohol, or other intoxicants or in possession of drugs, alcohol, or other intoxicants on the property
- Wearing shorts or tennis shoes on the jobsite
- Failure to wear a hardhat/safety glasses, and safety vests
- Gambling at any time on the project
- Fighting, threatening behavior, or engaging in horseplay on the project
- Smoking in unauthorized areas on the project
- Open fire cooking or making unauthorized fires on project property
- Selling items or raffles without authorization
- Use of unauthorized cameras on the project
- Use of radio or television in the construction area
- Failure to park personal vehicle in authorized parking area
- Failure to wear designated identification [Site Specific]
- Failure to use designated gates



I have read, understand, and agree to abide by the PROJECT SITE RULES.  
Furthermore, I understand failure to abide by these rules is grounds for being denied access to the project site. I have received a personal copy for my use and reference.

## VISITOR LOG

THE SIGNING OF THIS LOG ACKNOWLEDGES I HAVE READ, UNDERSTAND, AND AGREE TO ABIDE BY THE PROJECT RULES OUTLINED ABOVE. **THIS IS NOT A VEHICLE ACCESS PERMIT.**

VISITOR'S NAME PRINT	SIGNATURE	COMPANY VISITED	DATE	IN	OUT



## EMPLOYEE ACKNOWLEDGMENT OF THE PROJECT SITE RULES

By signing this Employee Log, I acknowledge that I understand and agree to abide by the project rules outlined below.

### PROHIBITED ACTIVITIES

- Unauthorized removal or theft of **County** property
- Violation of safety or security rules or procedures
- Possession of firearms or lethal weapons on jobsite
- Acts of sabotage
- Destruction or defacing **County** property
- Failure to use sanitary facilities
- Failure to report accidents or job-related injuries
- Under the apparent influence of drugs, alcohol, or other intoxicants or in possession of drugs, alcohol or, other intoxicants on the property
- Wearing shorts or tennis shoes on the jobsite
- Failure to wear a hardhat/safety glasses and safety vest
- Gambling at any time on the project
- Fighting, threatening behavior, or engaging in horseplay on the project
- Smoking in unauthorized areas on the project
- Open fire cooking or making unauthorized fires on project property
- Selling items or raffles without authorization
- Use of unauthorized cameras on the project
- Use of radio or television in the construction area
- Failure to park personal vehicle in authorized parking area
- Failure to wear designated identification [Site Specific]
- Failure to use designated gates

I have read, understand, and agree to abide by the PROJECT SITE RULES. Furthermore, I understand failure to abide by these rules is grounds for being denied access to the project site. I have received a personal copy for my use and reference.

## EMPLOYEE LOG

BY SIGNING THIS LOG ACKNOWLEDGMENT, I HAVE READ AND UNDERSTAND, AND AGREE TO ABIDE BY THE PROJECT RULES OUTLINED ABOVE AND ANY STATE, FEDERAL, LOCAL, OR ANY OTHER CONTRACT OBLIGATIONS THAT MAY APPLY. I FURTHER ACKNOWLEDGE THAT I HAVE BEEN ORIENTED AS TO THE SITE-SPECIFIC HAZARDS, ANY HAZARDOUS SUBSTANCES I MAY BE EXPOSED TO WHILE ON THE SITE, AND THE SITE/COMPANY EMERGENCY ACTION PROCEDURES, BY A REPRESENTATIVE OF THE COMPANY.

EMPLOYEES (PRINT)	SIGNATURE	COMPANY NAME	DATE
<i>Signature of Company Representative:</i>		<i>Date Signed:</i>	

END OF SECTION 01540

## SECTION 01550 TRAFFIC REGULATION

### PART 1 - GENERAL

#### 1.01 SCOPE

The Work specified in this section includes the provision of products, permits, services, procedures, and personnel by the **Contractor** to effect traffic control during the Work.

#### 1.02 TRAFFIC CONTROL MANAGER REQUIREMENTS

- A. The **Contractor** shall designate a qualified individual as the Traffic Control Manager (TCM) who shall be responsible for selecting, installing, and maintaining traffic control devices in accordance with the Plans and Specifications and the Manual of Uniform Traffic Control Devices (MUTCD). A written resume documenting the experience and credentials of the TCM shall be submitted and accepted by the **County** prior to beginning any Work that involves traffic control. The TCM shall be available on a 24-hour basis to perform his or her duties. If the Work requires traffic control activities to be performed during the daylight and nighttime hours, it shall be necessary for the **Contractor** to designate an alternate TCM. An alternate TCM shall meet the same requirements and qualifications as the primary TCM and be accepted by the **County** prior to beginning any traffic control duties. The TCM's traffic control responsibilities shall have priority over other assigned duties.
- B. As the representative of the **Contractor**, the TCM shall have full authority to act on behalf of the **Contractor** in administering the Traffic Control Plan. The TCM shall have appropriate training in safe traffic control practices in accordance with Part VI of the MUTCD. In addition to the TCM, other individuals making decisions regarding traffic control shall meet the training requirements of Part VI of the MUTCD. The TCMs shall supervise the initial installation of traffic control devices. The **County**, prior to the beginning of construction, will review the initial installation. Modifications to traffic control devices as required by sequence of operations or staged construction shall be reviewed by the TCMs.

### PART 2 - PRODUCTS

#### 2.01 SIGNS, SIGNALS, AND DEVICES

- A. The **Contractor** shall provide post-mounted and wall-mounted traffic control and informational signs as specified and required by local jurisdictions.
- B. The **Contractor** shall provide automatic traffic control signals as approved by local jurisdictions.
- C. The **Contractor** shall provide traffic cones and drums, and flashing lights as approved by local jurisdictions.
- D. The **Contractor** shall provide flagmen equipment as required by local jurisdictions.

## PART 3 - EXECUTION

### 3.01 PERMITS

- A. The **Contractor** shall obtain permits from authorities having jurisdiction over road closures before closing any road. The **Contractor** shall use forms provided by authorities having jurisdiction (DeKalb County Department of Public Works, Georgia Department of Transportation, etc.).
- B. The **Contractor** shall either fax or hand carry any permit applications to the DeKalb County Department of Public Works. Permit applications shall indicate the time (in days); length (in feet); the number of lanes; and the purpose of the closure.
- C. All permits are approved for operations during off-peak hours, 9:00 a.m. to 4:00 p.m., unless special approval is received from the **County**.
- D. Operations between the hours of 6:00 p.m. and 10:00 p.m. and Saturdays, and Sundays shall require approval by the **County**.
- E. Full street closure permits shall require 96 hours' advance notice prior to road closure. The following additional information shall be provided by the **Contractor** prior to approval:
  - 1. The recommended detour route with signage and Traffic Management Plan as per the MUTCD.
  - 2. A copy of the resident and/or business notification letters about the closure. The residents/businesses located between the detour routes shall be notified about the closure at least 5 business days prior to the proposed closure.
- F. The DeKalb County Department of Public Works will return full road closure permit applications to the **Contractor**. The Fire Chief, Chief of Police, DeKalb Hospital, MARTA, and the DeKalb County Board of Education shall be notified in writing at least 72 hours before commencing road closure activities.

Lane closure permits are issued during operating hours Mondays through Fridays. The DeKalb County Department of Public Works will return lane closure permit applications to the **Contractor**. The **Contractor** shall provide a minimum of 48-hour notice prior to closure. The **Contractor** shall continuously maintain the safety of the traveling public during lane closures in accordance with the requirements of the MUTCD and as stipulated by public officers.

### 3.02 PREPARATION OF TRAFFIC CONTROL PLANS



The Traffic Control Plan drawings included with the Contract Documents shall only be considered as a guide and are not intended to contain the traffic regulation details that shall be required by the specifications, permitting agencies, and the MUTCD. The **Contractor** shall develop detailed staging and traffic control plans for performing specific areas of the Work including, but not limited to: requirements for certified flagmen, additional traffic control devices, traffic shifts, detours, paces, lane closures, or other activities that disrupt traffic flow. The **Contractor** shall submit these plans in accordance with the Specifications to receive final approvals from permitting agencies and provide required traffic control devices as required by both the permitting agencies and these specifications at no additional cost to the **County**.

### 3.03 CONSTRUCTION PARKING CONTROL

- A. The **Contractor** shall control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles, and **County's** operations.
- B. The **Contractor** shall monitor parking of construction personnel's vehicles in existing facilities and maintain vehicular access to and through parking areas.
- C. The **Contractor** shall prevent parking on or adjacent to access roads or in non-designated areas.

### 3.04 MAINTENANCE OF TRAFFIC

- A. Whenever and wherever, in the **County's** opinion, traffic is sufficiently congested or public safety is endangered, the **Contractor** shall furnish uniformed officers to direct traffic and to keep traffic off the highway area affected by construction operations.
- B. When the Contract requires the maintenance of vehicular traffic on an existing road, street, or highway during the **Contractor's** performance of Work that is otherwise provided for in the Plans and these Specifications, the **Contractor** shall keep such road, street, or highway open to traffic and shall provide such maintenance as may be required to safely accommodate traffic. The **Contractor** shall furnish, erect, and maintain barricades, warning signs, flagmen, and other traffic control devices in conformity with the requirements of the Georgia Department of Transportation and other local jurisdictions. The **Contractor** shall also construct and maintain in a safe condition any temporary connections necessary to ingress to and egress from abutting property or intersecting roads, streets, or highways. The **Contractor** shall maintain traffic in accordance with any traffic control plans furnished with and made a part of the Plan assembly.
- C. The **Contractor** shall make its own estimate of labor, materials, equipment, and incidentals necessary for providing the maintenance of traffic as specified in this section.
- D. Unless specified in the Plans or these Specifications, and subject to the approval of the **County**, the cost of maintaining traffic specified in this section shall be considered incidental to the Work and no separate measurement or payment shall be made.

### 3.05 UNIFORMED POLICE OFFICER FOR TRAFFIC CONTROL

- A. The **Contractor** shall provide uniformed police officers to regulate traffic when construction operations encroach on public traffic lanes, as approved by the **County**.
- B. Officers shall be currently employed by a local jurisdiction, be in full uniform and have full arrest power while working.
- C. Officers shall be employed and paid by the **Contractor**.
- D. Officers' shall be responsible for directing traffic within the construction site.

### 3.06 FLAGMEN

The **Contractor** shall provide trained and equipped flagmen to regulate traffic when construction operations or traffic encroaches into public traffic lanes.

### 3.07 FLASHING LIGHTS

The **Contractor** shall use flashing lights during hours of low visibility to delineate traffic lanes and to guide traffic.

### 3.08 HAUL ROUTES

- A. The **Contractor** shall consult with authorities and establish public thoroughfares to be used for haul routes and site access.
- B. The **Contractor** shall confine construction traffic to designated haul routes.
- C. The **Contractor** shall provide traffic control at critical areas of haul routes to regulate traffic and minimize interference with public traffic.

### 3.09 ROAD CLOSURES ON COUNTY ROADS

- A. No street, road, or highway shall be closed without the permission of the owner of any street, road, or highway and the fire department having jurisdiction. Prior to closing a street, road, or highway, signs shall be posted for a minimum of 7 days prior to actual closing, forewarning of the imminent closing. The **County** shall determine the information to be placed upon the signs by the **Contractor**. Where traffic is diverted from the Work, the **Contractor** shall provide materials and perform Work for the construction and maintenance of required temporary roadways, structures, barricades, signs, and signalization.
- B. To obtain approval to close a road or street maintained by the **County**, the **Contractor** shall proceed as follows:
  - 1. The **Contractor** shall obtain approval of the traffic plan from the **County**. The traffic plan shall be in accordance with the requirements of the Georgia Department of Transportation and DeKalb County.
  - 2. The **Contractor** shall obtain a utility permit.
  - 3. The **Contractor** shall apply in writing to the **County** and obtain a permit to close the road on a specific date.

4. The **Contractor** shall obtain a permit from the **County** before posting closure signs. Signs shall be posted for 7 days prior to the first day of closure. Signs shall be acceptable to the **County**.
5. The **County** will handle emergency road closures.

### 3.10 PROCEDURES FOR TRAFFIC DETOUR ROUTE PLAN

- A. The **Contractor** shall provide a sketch map to the **County**, showing the traffic detour route plan. The sketch map need not be drawn to scale, but should resemble, as closely as possible, the actual location. The sketch map shall be drawn in a manner so as to provide emergency agencies a better understanding of the detour for quick response. The sketch map shall include directional arrows showing the flow of traffic.
- B. The **Contractor** shall erect "Road Closed Ahead" signs before the start point of the detour indicating the name of the street closed.
- C. The **Contractor** shall erect "Detour" signs with appropriate directional arrows at intersection along the detour route until the end of the detour, when the traffic is back to the original street.
- D. The **Contractor** shall erect an "End Detour" sign at the end of the detour.
- E. The **Contractor** shall erect an accessory plate indicating the name of the street being detoured to accompany each "Detour" and "End Detour" sign.
- F. The **Contractor** shall apply appropriate traffic control measures in accordance with the requirements of the MUTCD and **County** codes.

### 3.10 BARRICADES AND WARNING SIGNS

- A. The **Contractor** shall furnish, erect, and maintain barricades and warning signs for hazards necessary to protect the public and the Work. When used during periods of darkness, such barricades, warning signs, and hazard markings shall be suitably illuminated or reflectorized.
- B. For vehicular and pedestrian traffic, the **Contractor** shall furnish, erect, and maintain barricades, warning signs, lights, and other traffic control devices in conformity with the requirements of the Georgia Department of Transportation and DeKalb County.
- C. The **Contractor** shall furnish and erect barricades and warning signs for hazards prior to commencing Work that requires such erection and shall maintain the barricades and warning signs for hazards until their dismantling is directed by the **County**.

### 3.11 REMOVAL

The **Contractor** shall remove equipment and devices when no longer required and repair damage caused by installation.

END OF SECTION 01550

## SECTION 01600

### GENERAL MATERIAL AND EQUIPMENT REQUIREMENTS

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

- A. The **Contractor** shall use the latest version of the manufacturer's product line of installed materials and equipment at the time of purchase. The **Contractor** shall not purchase materials and equipment that have been outdated by newer versions at the time of purchasing. Materials and equipment that show any signs of extended storage such as corrosion, scratches, and dents shall not be accepted.
- B. The **Contractor** shall use equipment for performing the Work that conforms to the latest version of applicable safety standards including, but not limited to, OSHA requirements. **Contractor** shall not exceed or ignore any requirements or recommendations of the equipment manufacturer. Equipment not meeting requirements of this Section shall be barred from use on the project.
- C. The **Contractor** shall install material and equipment that meets or exceeds the latest applicable code requirements, including, but not limited to: Underwriters Laboratory, Standard Building Code, and OSHA, as well as requirements of these Specifications. Where there is conflict with requirements of the Contract Documents and code requirements, the **Contractor** shall comply with the more stringent requirements with no additional compensation to the **Contractor**.

#### PART 2 - MATERIALS AND EQUIPMENT

##### 2.01 ANCHOR BOLTS

- A. The **Contractor** shall use anchor bolts that are ANSI Type 316 stainless steel unless otherwise specified or indicated, and shall conform to requirements of this Section and the material articles in the appropriate Sections where they are used.
- B. The **Contractor** shall use anchor bolts supplied by the manufacturer or fabricator of the specific material or equipment to be installed.
- C. Design criteria for anchor bolts:
  - 1. When the size, length, or load carrying capacity of an anchor bolt, expansion anchor, or concrete insert is not shown on the Drawings, provide the size, length and capacity required to carry the design load times a minimum safety factor of four.
  - 2. Determine design loads as follows:
    - a. For equipment anchors, use the design load recommended by

the manufacturer and approved by the **County**.

- b. For pipe hangers and supports, use half the total weight of pipe, fittings, valves, accessories, and water contained in full pipe, between the hanger or support in question and adjacent hangers and supports on both sides.
- c. Allowances for vibration are included in the safety factor specified above.
- d. Anchors shall develop ultimate shear and pull-out loads of not less than the following values in concrete:

<b>Bolt Diameter (Inches)</b>	<b>Min. Shear (Pounds)</b>	<b>Min. Pull-Out Load (Pounds)</b>
$\frac{1}{2}$	4,500	6,300
$\frac{5}{8}$	6,900	7,700
$\frac{3}{4}$	10,500	9,900

3. Embedment depth shall be minimum 6 inches for epoxy anchors and 4 inches for steel expansion anchors, unless noted otherwise on the drawings.

**D. Anchor Type and Manufacturer**

1. Where epoxy anchors are noted on the drawings, provide ANSI Type 316 stainless steel threaded rod with Speed Bond #1 epoxy injection as manufactured by Prime Resins, Inc. or approved equal.
2. For other applications, provide ANSI Type 316 steel expansion anchors from one of the following manufacturers:
  - a. Hilti, Incorporated
  - b. Ramset, Incorporated
  - c. Approved equal
3. Install anchors per manufacturer's recommendations and this Section.

Drilled anchorage holes are to be blown out with compressed air before installing anchor.

**2.02 CONNECTION BOLTS**

- A. Materials shall be as specified in other Sections of the Specifications, or as shown on the Drawings. Where materials are not specified or shown on the Drawings, they shall be of ANSI Type 316 stainless steel, with ANSI Type 316 stainless steel nuts and washers.
- B. Unless otherwise specified, stud, tap, and machine bolts and nuts shall be ANSI Type 316 stainless steel and shall conform to the requirements of

ASTM Standard Specification for Carbon Steel Externally and Internally Threaded Standard Fasteners, Designation A307-80. Hexagonal nuts of the same quality of metal as the bolts shall be used. Threads shall be clean cut and shall conform to ANSI Standard B1.1-1989 for Unified Inch Screw Threads (UN and UNR Thread Form).

### **2.03 CONCRETE INSERTS**

Concrete inserts for hangers shall be designed to support safely, in the concrete that is used, the maximum load that can be imposed by the hangers used in the inserts. Inserts for hangers shall be of a type that permits adjustment of the hangers both horizontally (in one plane) and vertically and locking of the hanger head or nut. Inserts shall be galvanized, then epoxy phenolic primed and top coated with PVC, using thermal bond process.

### **2.04 SLEEVES**

- A. Unless otherwise indicated on the Drawings or specified, openings for the passage of pipes through floors and walls shall be formed of sleeves of standard-weight, stainless-steel pipe. The sleeves shall be of ample diameter to pass the pipe and its insulation, if any, and to permit such expansion as may occur. Sleeves shall be of sufficient length to be flush at the walls and the bottom of slabs and to project 4 inches above the finished floor surface. Threaded nipples shall not be used as sleeves.
- B. Sleeves in exterior walls below grade or in walls to have liquids on one or both sides shall be as detailed on the Approved Drawings and specified in other sections.
- C. Sleeves shall be set accurately before the concrete is placed or shall be built in accurately as the masonry is being built.

### **2.05 ELECTRICAL EQUIPMENT ENCLOSURES**

Items of electrical equipment that are furnished with process equipment shall conform to the requirements specified under the appropriate electrical sections of the specifications. Enclosures for electrical equipment such as switches, starters, etc., shall conform to the requirements specified under the appropriate electrical sections of the specifications.

### **2.06 EQUIPMENT DRIVE GUARDS**

Equipment driven by open shafts, belts, chains, or gears shall be provided with acceptable all-metal guards enclosing the drive mechanism. Guards shall be constructed of epoxy paint coated, galvanized sheet steel or galvanized woven wire or expanded metal set in a frame of galvanized steel members. Guards shall be secured in position by steel braces or straps that will permit easy removal for servicing the equipment. The guards shall conform to applicable safety codes and regulations.

### **2.07 NAMEPLATES**

- A. The **Contractor** shall provide each piece of equipment, with the exception of the items mentioned below, with a substantial nameplate of non-

corrodible metal, securely fastened in place and clearly and permanently inscribed with the manufacturer's name, model or type designation, serial number, principal rated capacities, electrical or other power characteristics, and similar information as appropriate.

- B. This requirement shall also apply to standard, manually operated gate, lobe, check, and plug valves.



- C. Each process valve shall be provided with a substantial tag of noncorrodible metal securely fastened in place and inscribed with an identification number in conformance with the tag numbers indicated on the Process and Instrumentation Drawings.

## **2.08 LUBRICANTS**

During testing and prior to acceptance, the **Contractor** shall furnish lubricants necessary for the proper lubrication of equipment furnished under this Contract.

## **2.09 PROTECTION AGAINST ELECTROLYSIS**

Where dissimilar metals are used in conjunction with each other, the **Contractor** shall provide suitable insulation between adjoining surfaces to eliminate direct contact and any resultant electrolysis. The insulation shall be bituminous impregnated felt, heavy bituminous coatings, nonmetallic separators, or washers, or other approved acceptable materials.

## **2.10 TRANSPORTATION, HANDLING, STORAGE, AND PROTECTION**

### **A. Packing and Shipping:**

1. Product and materials shall be shipped and handled in ways that shall prevent damage.
2. Equipment shall be protected against damage from moisture, dust, handling, or other cause during transport from manufacturer's premises to the project site. Bearing housing, vents, and other types of openings shall be wrapped or otherwise sealed to prevent contamination by grit and dirt.
3. Ship equipment, material, and spare parts in assembled units except where partial disassembly is required by transportation regulations or for protection of components.
4. Pipe and appurtenances shall be handled, stored, and installed as recommended by the manufacturer. Pipes shipped with interior bracing shall have the bracing removed only when recommended by the pipe manufacturer.
5. Stiffeners shall be used where necessary to maintain shapes and to give rigidity.
6. Each item or package shall be marked with the number unique to the specification reference covering the item. Spare parts shall be packed in containers bearing labels clearly designating contents and pieces of equipment for which intended.

### **B. Acceptance at Site:**

- C. Damaged items shall not be permitted as part of the Work except in cases of minor damage that have been satisfactorily repaired and are acceptable to the **County**.

### **D. Damage shall be corrected to conform to the requirements of the Contract**

before the assembly is incorporated into the Work.

- E. The **Contractor** shall bear the costs arising out of dismantling, inspection, repair, and reassembly.
- F. Storage and Protection:
  - 1. During the interval between the delivery to the site and installation, equipment and materials shall be stored in an enclosed space affording protection from weather, dust, and mechanical damage and providing favorable temperature, humidity, and ventilation conditions to protect against equipment deterioration. Manufacturer's recommendations shall be adhered to in addition to these requirements.
  - 2. Equipment and materials to be located outdoors may be stored outdoors if protected against moisture condensation and ultraviolet (UV) degradation. Equipment shall be stored at least 6 inches above ground. Temporary power shall be provided to energize space heaters or other heat sources for control of moisture condensation. Space heaters or other heat sources shall be energized without disturbing the sealed enclosure.

## 2.11 UNIT RESPONSIBILITY

- A. Equipment systems made up of two or more components shall be provided as a unit by the responsible manufacturer. Unless otherwise specified, the **Contractor** shall obtain each system from the supplier of the driven equipment, and the supplier shall provide components of the system to enhance compatibility, ease of construction, and efficient maintenance. The **Contractor** shall be responsible to the **County** for performance of systems in accordance with the provisions of the General Requirements of the Contract Documents.
- B. Where the detailed specifications require the **Contractor** to furnish a certificate of unit responsibility, such certificate shall be executed by the manufacturer. No other submittal material shall be processed until the Certificate of Unit Responsibility has been received and has been found to be satisfactory.

END OF SECTION 01600

## SECTION 01610

### TRANSPORTATION AND HANDLING

#### PART 1 GENERAL

##### 1.01 SCOPE

- A. The **Contractor** shall provide transportation of equipment, materials, and products furnished under these Contract Documents to the Work site. In addition, the **Contractor** shall provide preparation for shipment, loading, unloading, handling, and preparation for installation, as well as other Work and incidental items necessary or convenient to the **Contractor** for the satisfactory prosecution and completion of the Work.
- B. Equipment, materials, and products damaged during transportation or handling shall be repaired or replaced by the **Contractor** at no additional cost to the **County** prior to being incorporated into the Work. Acceptance of damaged goods is at the discretion of the **County**.

##### 1.02 TRANSPORTATION

- A. Equipment shall be suitably boxed, crated, or otherwise protected during transportation.
- B. Where equipment will be installed using existing cranes or hoisting equipment, the **Contractor** shall confirm that the weights of the assembled sections do not exceed the actual capacity of the cranes or hoisting equipment.
- C. Small items and appurtenances such as gauges, valves, switches, instruments, and probes that could be damaged during shipment shall be removed from the equipment prior to shipment, packaged, and shipped separately. Openings shall be plugged or sealed to prevent the entrance of water or dirt.

##### 1.03 HANDLING

- A. Equipment, materials, and products shall be carefully handled to prevent damage or excessive deflections during unloading or transportation.
- B. Lifting and handling drawings and instructions furnished by the manufacturer or supplier shall be strictly followed. Eyebolts or lifting lugs furnished on the equipment shall be used in handling the equipment. Shafts and operating mechanisms shall not be used as lifting points. Spreader bars or lifting beams shall be used when the distance between lifting points exceeds that permitted by standard industry practice.
- C. Under no circumstances shall equipment or products such as pipe, structural steel, castings, reinforcement, lumber, piles, poles, etc., be thrown or rolled off of trucks onto the ground.
- D. Slings and chains shall be of size and capacity rating to safely support the weights of items to be unloaded. Slings and chains shall be regularly inspected and tagged as in

good conditions in accord with OSHA requirements. Slings and chains shall be padded as required to prevent damage to protective coatings and finishes.

+++END OF SECTION 01610+++

## **SECTION 01640 MANUFACTURERS' SERVICES**

### **PART 1 - GENERAL**

#### **1.01 SCOPE OF WORK**

The **Contractor** shall require manufacturers to provide Operations & Maintenance Manuals, onsite services of experienced technicians, and trainers to provide the services detailed hereinafter.

The **Contractor** shall submit approved Operations & Maintenance Manuals at least 30 days prior to scheduling training of **County** Operations Personnel.

#### **1.01 DEFINITIONS**

- A. Reference Section 01650 - Facility Startup.
- B. Man-Day: One person for 8 hours within regular **Contractor** working hours.

#### **1.02 SUBMITTALS**

- A. Submittals shall be made in accordance with the requirements of the General Conditions of the Contract Documents. In addition, the following specific information shall be provided:
  - 1. Preliminary Training Plan: Submit within 120 days after Notice to Proceed.
  - 2. Training Schedule: Submit not less than 30 days prior to start of equipment installation and revise as necessary for acceptance.
  - 3. Final Training Plan: Submit after training coordination meeting.
  - 4. Training Materials:
    - a. Submit written outlines of proposed training sessions not less than 30 days prior to scheduled training.
    - b. Furnish complete training materials, to include operation and maintenance data as required in this section. Provide 12 extra copies of training materials to **County**.
    - c. Quality Control Submittals: When specified in the individual Specifications, submit:
      - i. Qualifications and resume of Manufacturer's Representative performing specified services
      - ii. Manufacturer's authorized representative's signature on the Certificate of Proper Installation form appended to this section

#### **1.03 QUALIFICATION OF MANUFACTURER'S REPRESENTATIVE**

- A. Authorized representative of the manufacturer shall be factory trained and experienced in the technical applications, installation, operation, and maintenance of respective equipment, subsystem, or system. Additional qualifications may be specified elsewhere.
- B. Representative is subject to acceptance by the **County**. No substitute representatives shall be allowed unless prior written approval by the **County** has been given.

#### 1.04 FULFILLMENT OF SPECIFIED MINIMUM SERVICES

- A. Manufacturers' qualified representative services are required for operating equipment furnished under the Contract. Where time is necessary in excess of that stated in the Specifications for manufacturers' services, additional time required to perform the specified services shall be considered incidental Work.

- B. Schedule manufacturer's services to avoid conflicting with other onsite testing or other manufacturer's onsite services.

- 1. Determine that conditions necessary to allow successful testing have been met before scheduling services.
    - 2. Only those days of service approved by the **County** shall be credited to fulfill the specified minimum services.
    - 3. If specified, manufacturer's onsite services shall be 8 hours minimum and include as a minimum:
      - i. Assistance during product (system, subsystem, or component) installation to include observation, guidance, instruction of **Contractor's** assembly, erection, installation, or application procedures.
      - ii. Inspection, checking, and adjustment as required for product (system, subsystem, or component) to function as warranted by manufacturer and necessary to furnish written approval of installation.
      - iii. Revisiting the Site as required to correct problems and until installation and operation are acceptable to **County**.
      - iv. Resolution of assembly or installation problems attributable to, or associated with, the respective manufacturer's products and systems.
      - v. Assistance during functional and performance testing and startup demonstration, and until product acceptance by the **County**.
      - vi. Training of **County's** personnel in the operation and maintenance of respective product as required.

- vii. Completion of Manufacturer's Certificate of Proper Installation (form enclosed at end of this section) with applicable certificates for proper installation and initial, interim, and final test or service.
- viii. Additional requirements that may be specified elsewhere.

#### 1.05 TRAINING PLAN

- A. Preliminary Training Plan: If specified, and within 120 days after Notice of Award, the **Contractor** shall submit for each proposed course:
  - 1. Title and objectives
  - 2. Training schedule
  - 3. Prerequisite training and experience of attendees
  - 4. Recommended types of attendees (e.g., managers, **County's** operators, maintenance)
  - 5. Course description and outline of course content
  - 6. Duration
  - 7. Location (e.g., training center or site)
  - 8. Format (e.g., lecture, self-study, demonstration, hands-on)
  - 9. Instruction materials and equipment requirements
- B. Final Training Plan: the **Contractor** shall submit the following after training coordination meeting, if specified:
  - 1. Updated versions of course descriptions from preliminary training plan
  - 2. Who will attend each course
  - 3. Schedule of training courses including dates, durations, and locations of each class
  - 4. Detailed course schedule for each day showing time allocated to each topic
  - 5. Resumes of instructors providing the training

#### 1.06 TRAINING SCHEDULE

- A. The **Contractor** shall list specified equipment and systems with respective manufacturers that require training services of manufacturers' representatives and show:
  - 1. Estimated dates for installation completion
  - 2. Estimated training dates to allow for multiple sessions when several shifts are involved
- B. The **Contractor** shall adjust training schedule to train appropriate personnel as deemed necessary by **County**, and to allow full participation by manufacturers' representatives. The **Contractor** shall adjust schedule for interruptions in operability of equipment.
- C. The **Contractor** shall coordinate with Progress Schedules as specified in Special Conditions and Section 01650 - Facility Startup.



## 1.07 TRAINING COUNTY'S PERSONNEL

- A. The **Contractor** shall furnish trained, articulate personnel to coordinate and expedite training, to be present during training coordination meetings with the **County**, and familiar with Operations & Maintenance manual information.
- B. The **Contractor** shall furnish manufacturers' representatives for detailed classroom and hands-on training to **County's** personnel on operation and maintenance of specified product (system, subsystem, component) and as may be required in applicable Specifications.
- C. Manufacturer's Representative shall be familiar with plant operation and maintenance requirements as well as with specified equipment.
- D. Pre-startup Training:
  - 1. The **Contractor** shall coordinate training sessions with **County's** operating personnel and manufacturers' representatives.
  - 2. Training shall be complete at least 7 days, but no more than 14 days, prior to actual startup.
- E. Post-Startup Training:
  - 1. Respective manufacturers' representatives shall furnish and coordinate training of **County's** operating personnel.
  - 2. Manufacturers' representatives shall be required for a follow-up visit of one day.
- F. Taping of Training Sessions:
  - 1. The **County** will provide audio/video taping of training sessions.
  - 2. Manufacturer's trainer shall provide appropriate props, such as charts, photographs, and samples in large enough sizes to be videotaped.
  - 3. Trainers shall provide their full cooperation to the **County's** video technician.

## 1.08 SUPPLEMENTS

The supplements listed below, following "END OF SECTION," are part of this Specification.

- A. Manufacturer's Certificate of Proper Installation
- B. Manufacturer's Instruction Certification Form

## PART 2 - PRODUCTS (NOT USED)

## PART 3 - EXECUTION (NOT USED)

+++END OF SECTION 01640+++

**DEKALB COUNTY (Spec Writer - Insert Project Name)**  
**MANUFACTURER'S CERTIFICATE OF PROPER INSTALLATION**

COUNTY \_\_\_\_\_

EQPT SERIAL NO: \_\_\_\_\_

EQPT TAG NO: \_\_\_\_\_

EQPT/SYSTEM: \_\_\_\_\_

PROJECT NO: \_\_\_\_\_

SPEC. SECTION: \_\_\_\_\_

SITE LOCATION: \_\_\_\_\_

I hereby certify that the above-referenced equipment/system has been:

(Check Applicable)

<input type="checkbox"/>	Installed in accordance with Manufacturer's recommendations.
<input type="checkbox"/>	Inspected, checked, and adjusted.
<input type="checkbox"/>	Serviced with proper initial lubricants.
<input type="checkbox"/>	Electrical and mechanical connections meet quality and safety standards.
<input type="checkbox"/>	All applicable safety equipment has been properly installed.
<input type="checkbox"/>	System has been performance tested, and meets or exceeds specified performance requirements (when complete system of one manufacturer).
<input type="checkbox"/>	System has been started up and meets or exceeds performance requirements.

I, the undersigned Manufacturer's Representative, hereby certify that I am (i) a duly authorized representative of the manufacturer, (ii) empowered by the manufacturer to inspect, approve, and operate his equipment and (iii) authorized to make recommendations required to assure that the equipment furnished by the manufacturer is complete and operational, except as may be otherwise indicated herein. I further certify that all information contained herein is true and accurate.

Date: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

By Manufacturer's Authorized Representative: \_\_\_\_\_  
(Authorized Signature)

DEKALB COUNTY (Spec Writer - Insert Project Name)  
MANUFACTURER'S INSTRUCTION CERTIFICATION FORM

Contract No.: \_\_\_\_\_

Specification Section: \_\_\_\_\_

Equipment Name: \_\_\_\_\_

Contractor: \_\_\_\_\_

Manufacturer of Equipment Item: \_\_\_\_\_

The undersigned manufacturer certifies that a service expert has instructed the **County** operating personnel in the proper maintenance and operation of the equipment designated herein.

Operations Check List (check appropriate spaces)

Startup procedure reviewed \_\_\_\_\_  
Shutdown procedure reviewed \_\_\_\_\_  
Normal operation procedure reviewed \_\_\_\_\_

Others: \_\_\_\_\_  
\_\_\_\_\_

Maintenance Check List (check appropriate spaces)

Described normal oil changes (frequency) \_\_\_\_\_  
Described special tools required \_\_\_\_\_  
Described normal items to be reviewed for wear \_\_\_\_\_  
Described preventive maintenance instructions \_\_\_\_\_  
Described greasing frequency \_\_\_\_\_

Others: \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Date                      Manufacturer

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Date                      Signature of County's Representative

\_\_\_\_\_  
Date                      Signature of Contractor's Representative

## **SECTION 01700 CONTRACT CLOSEOUT**

### **PART 1- GENERAL**

#### **1.01 RELATED DOCUMENTS:**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### **1.02 SUMMARY:**

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
  - 1. Substantial Completion procedures.
  - 2. Final completion procedures.
  - 3. Warranties.
  - 4. Final cleaning.
  - 5. Repair of the Work.
  - 6. Specific closeout and special cleaning requirements for the Work in those Sections.

#### **1.03 SUBMITTALS:**

- A. Submit the following shop drawings in accordance with Section 01300.
- B. Product Data: For cleaning agents.
- C. **Contractor's** List of Incomplete Items: Initial submittal at Substantial Completion.
- D. Certified List of Incomplete Items: Final submittal at Final Completion.
- E. Certificates of Release: From authorities having jurisdiction.
- F. Certificate of Insurance: For continuing coverage.
- G. Field Report: For pest control inspection.
- H. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

#### 1.04 SUBSTANTIAL COMPLETION PROCEDURES:

- A. **Contractor's** List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (**Contractor's** punch list), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of (10) days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
  - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting **County** unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  - 2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
  - 3. Submit closeout submittals specified in individual Divisions 02 through 16 Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  - 4. Submit maintenance material submittals specified in individual Divisions 02 through 16 Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by **County**. Label with manufacturer's name and model number where applicable.
    - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain **County** signature for receipt of submittals.
  - 5. Submit test/adjust/balance records.
  - 6. Submit sustainable design submittals required in Division 01 sustainable design requirements Section and in individual Division 02 through 16 Sections.
  - 7. Submit changeover information related to **County's** occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of (10) days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
  - 1. Advise **County** of pending insurance changeover requirements.

2. Make final changeover of permanent locks and deliver keys to **County**. Advise **County's** personnel of changeover in security provisions.
  3. Complete startup and testing of systems and equipment.
  4. Perform preventive maintenance on equipment used prior to Substantial Completion.
  5. Instruct **County's** personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Division 01 Section "Training."
  6. Advise **County's** of changeover in heat and other utilities.
  7. Participate with **County** in conducting inspection and walkthrough with local emergency responders.
  8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
  9. Remove labels that are not permanent labels.
  10. Complete final cleaning requirements, including touchup painting.
  11. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of (10) days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, **County** will either proceed with inspection or notify **Contractor** of unfulfilled requirements. **County** will prepare the Certificate of Substantial Completion after inspection or will notify **Contractor** of items, either on **Contractor's** list or additional items identified by **County**, that shall be completed or corrected before certificate shall be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  2. Results of completed inspection shall form the basis of requirements for final completion.

#### **1.05 STARTING OF SYSTEMS:**

- A. Conform to the requirements of sections within Division 1
- B. Coordinate schedule for start-up of various equipment and systems.
- C. Notify **County** (seven) days prior to start-up of each item.

- D. Verify each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
- E. Verify tests, meter readings, and specified electrical characteristics agree with those required by equipment or system manufacturer.
- F. Verify wiring and support components for equipment are complete and tested.
- G. Execute start-up under supervision of applicable manufacturer's representative, **Contractors'** personnel, and **County** in accordance with manufacturers' instructions.
- H. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, approve equipment or system installation prior to start-up, to supervise placing equipment or system in operation, and to train the **County's** staff.

#### **1.06 DEMONSTRATION AND INSTRUCTIONS:**

- A. Conform to the requirements of sections 01640 and 01650
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within (six) months.
- C. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with **County's** personnel in detail to explain all aspects of operation and maintenance.
- D. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at a scheduled and agreed time, for each piece of equipment at each designated location. Time shall be acceptable to the **County**.
- E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- F. Required instruction time for each item of equipment and system is specified in individual sections.

#### **1.07 TESTING, ADJUSTING AND BALANCING:**

- A. **County** shall appoint and employ services of independent firm to perform testing, adjusting, and balancing to ensure smooth and unhindered equipment operation. **Contractor** shall pay for services and funds shall be within the contract price.

Reports shall be submitted by independent firm to **County** indicating observations and results of tests and indicating compliance or non-compliance with requirements of Contract Documents.

## **1.08 PROJECT RECORDS DOCUMENTS**

- A. The **Contractor** shall record any actual revisions to the Work and maintain one set of the following Project Record Documents on Site:
1. Contract Drawings, Specifications, and Addenda.
  2. Change Orders, Field Orders, and other written notices.
  3. Shop drawings, Product data, and samples.
  4. Records of surveying and layout Work.
  5. Project Record Drawings.
- B. The **Contractor** shall record information on the Project Record Documents concurrent with construction progress and store these documents separately from the documents used for construction.
1. The **County** will supply a set of Contract Drawings. The **Contractor** shall mark thereon all revisions as the Work progresses in order to produce a set of as-built drawings.
  2. The **Contractor** shall note any changes made during construction by any of the **Contractor's** forces or those of any Subcontractors.
  3. The **Contractor** shall dimension the locations of buried or concealed Work, especially piping and conduit, with reference to exposed structures.
  4. The **Contractor** shall dimension the installed locations of concealed service lines on the Site or within the structure by reference from the centre line of the service to the structure column lines, or other main finished faces, or other structural points which are easily identified and located in the finished Work.
  5. Certificates of Substantial Performance and Total Performance shall not be issued until as-built drawings are complete and submitted, and the **Contractor** has satisfied all requirements for Substantial Performance and Total Performance of the Work.
- C. For Project Record Documents and Record Shop Drawings, the **Contractor** shall legibly mark each item to record actual construction including:
1. Field changes of dimensions and details.
  2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
  3. Measured locations of internal utilities and appurtenances which are concealed in construction, referenced to visible and accessible features of the Work.



4. Any Changes in the Work from the contract documents.
  5. Record the location of concealed mechanical services and electrical main feeders, junction boxes and pullboxes.
- D. Upon completion of the Work, the **Contractor** shall prepare two CD-ROM sets of the Record Shop Drawings and an index.
- E. The **Contractor** prepared Record Shop Drawings CD-ROM index shall identify the **County's** project number, project name, and Contract number and the contents of each CD in the following format:
1. The index shall include the following columns of information for each Record Shop Drawing:
    - a. CD number.
    - b. Specification Section number.
    - c. Specification title.
    - d. Shop drawing transmittal number.
    - e. Shop drawing equipment description including Preselected Equipment Vendor and Supplier.
  2. The index shall be printed by the following two sorts:
    - a. Primary sort: Specification Section number. Secondary sort: shop drawing transmittal number.
    - b. Primary sort: CD number. Secondary sort: Specification Section number.
  3. The index shall be generated using Microsoft Excel software. A copy of the electronic file shall be furnished to the **County**.
  4. The **Contractor** shall provide a set of Project Record Documents on CD-ROM in an electronic format compatible with the plant CD-ROM record standards. All drawings are to be provided electronically on CD-ROM in both AutoCAD (latest version) and Adobe Acrobat PDF (latest version). Also provide a set of CD-ROMs containing the software implemented on this project, including standard software and custom application software. Also provide a set of CD-ROMs containing the various programming tools and files necessary for maintenance, editing, backing up and restoring programmable equipment implemented on this project.

## **1.09 EQUIPMENT INVENTORY SPREADSHEET**

- A. As part of the **County's** asset management program, the **Contractor** shall complete all fields for the equipment inventory file for each piece of equipment and device provided

under this Contract, as a requirement for Substantial Performance. An electronic format of the equipment inventory spreadsheet shall be provided on a CD by the **Contractor**.

#### **1.10 EQUIPMENT PREVENTATIVE MAINTENANCE SPREADSHEET**

- A. As part of the **County's** asset management program, the **Contractor** shall complete all fields for each piece of equipment and device provided under this Contract, as a requirement for Substantial Completion. The **Contractor** shall transfer all of the manufacturer's recommended preventative maintenance tasks and frequencies into the spreadsheet. An electronic format of the equipment inventory spreadsheet shall be provided on a CD by the **Contractor**

#### **1.11 PROTECTING INSTALLED CONSTRUCTION:**

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

#### **1.12 SPARE PARTS AND MAINTENANCE PRODUCTS:**

- A. Furnish spare parts, maintenance, and extra products in quantities specified in individual specification sections.
- B. Deliver to location as directed by **County**; obtain receipt prior to final payment.
- C. Crate in containers designed for prolonged storage suitable for handling with hoisting equipment containers:
- D. Stencil on containers:
  - 1. Manufacturer/supplier name.
  - 2. Unit name.
  - 3. Spare part name.

4. Manufacturer catalogue number.
5. Other identifying information.
6. Precautionary information.

### 1.13 FINAL COMPLETION PROCEDURES:

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
  1. Submit a final Application for Payment according to Division 1
  2. Certified List of Incomplete Items: Submit certified copy of **County's** Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by **County's** Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
  3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  4. Submit pest-control final inspection report.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, **County** will either proceed with inspection or notify **Contractor** of unfulfilled requirements. **County** will prepare a final Certificate for Payment after inspection or will notify **Contractor** of construction that shall be completed or corrected before certificate shall be issued.
  1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

### 1.14 LIST OF INCOMPLETE ITEMS (PUNCH LIST):

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by **Contractor** that are outside the limits of construction.
  1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
  2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
  3. Include the following information at the top of each page:
    - a. Project name.

- b. Date.
  - c. Name of **Contractor**.
  - d. Page number.
4. Submit list of incomplete items in the following format:
- a. PDF electronic file. **County** will return annotated file.
  - b. Three paper copies. **County** will return two copies.

**1.15 SUBMITTAL OF PROJECT WARRANTIES:**

- A. Time of Submittal: Submit written warranties on request of **County** for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit **County's** rights under warranty.
- B. Partial Occupancy: Submit properly executed warranties within (15) days of completion of designated portions of the Work that are completed and occupied or used by **County** during construction period by separate agreement with **Contractor**.
- C. Organize warranty documents into an orderly sequence based on the table of contents of Contract Documents.
  - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (215-by-280-mm) paper or as Directed by the **County**.
  - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of **Contractor**.
  - 4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

## PART 2 - PRODUCTS

### 2.01 MATERIALS:

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
  - 1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the Georgia Code of Regulations maximum allowable VOC levels.

## PART 3 - EXECUTION

### 3.01 FINAL CLEANING:

- A. General: Perform final cleaning as directed by the **County**.
- B. Pest Control: Comply with pest control requirements in Division 01 Section "Temporary Facilities and Controls." Prepare written report.
- C. Construction Waste Disposal: Comply with waste disposal requirements in Division 1 and shall meet all local laws.

### 3.02 REPAIR OF THE WORK:

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
  - 1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
  - 2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
    - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.

3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
4. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

3.03 ADJUSTING:

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

END OF SECTION - 01700



## DeKalb County Watershed Management Training & Badging Procedures

### DeKalb County Watershed Management (DWM) Contractor Badging Procedures

In an effort to promote safety and security, all individuals working on any DeKalb County Department of Watershed Management –construction projects site must wear a County issued ID badge. The ID badging program plays a key role in Watershed Management’s safety and security efforts on construction sites. The ID badge will provide proof of authorization to be on the construction site, and aid DWM staff in affirming the employee has received safety training before commencing work. Although a contractor may only be required to visit our sites/property on an infrequent basis, badging is still a requirement. This standard applies to all contractors and subcontractors working on (DWM) projects, and individuals must have their assigned badge on their person at all times. Personnel without a current badge will not be allowed to continue to work. All workers must obtain and display an identification badge issued by the County’s Safety Representative **before** reporting to work on any (DWM) construction project. All contractors and subcontractors vendors or their transient onsite visitors, which are not fulltime employees of the site, shall be escorted while onsite as a visitor by a Department of Watershed Management badged contractor.

#### Prior to Badging:

- All contractor and subcontractor employees are required to attend safety training before receiving a badge,
- The **contractor is responsible** for conduction and/or arrangement of their employees training,
- Prior safety training will qualify-provided the training was received within 12 months prior to the start of work on the (DWM) construction project(s),
- Whereas, the OSHA 10 hour and 30 hour training does not expire, actual date of training must be less than 12 months prior to the start of work on the (DWM) construction project(s) to qualify as “current,”
- Suggested safety topics are included on page 3,
- Employees should have adequate knowledge of all company safety rules and applicable OSHA standards,
- **Contractor’s training should include general construction safety and the specific safety concerns/hazards employees may encounter at the Watershed Management construction site,**

- Personal instruction, safety videos, and on-line training are permissible,
- Upon completion, employees should have a basic knowledge of safety, know the company's views about safety, know safety concerns specific to Watershed Management's construction projects and know what PPE to use on the jobsite.
- PPE shall be supplied by the contractor,
- **Before training commences, the contractor must provide the DMW' Safety Division Representative their safety training outline.**
- **A copy of each employee's training certificate(s) or training certification signed by a company management representative.**

### **Badging:**

- Once the contractor's employees have completed their training requirements, they must provide training documentation to the DWM's Safety Division representative,
- Training rosters / sign-in sheets must include course name, the participating students' printed name, attendees signed name, printed name of instructor, instructor's signature and date of training,
- Contractor's proof of training documentation must outline the topics covered in training/training objectives,
- E-mail to:  
Daniel Neuman - [daneuman@dekalbcountyga.gov](mailto:daneuman@dekalbcountyga.gov)  
Anthony Franco - [alfranco@dekalbcountyga.gov](mailto:alfranco@dekalbcountyga.gov)  
Julian Reasonover – [jareasonover@dekalbcountyga.gov](mailto:jareasonover@dekalbcountyga.gov)
- After receipt of the sign-in sheet, the safety representative will register the employee in the badging system, then, the employee is eligible to receive the badge,
- All contractor and subcontractor employees are required to provide proper form photo identification prior to receiving a Dekalb County Watershed Management badge.  
Acceptable forms of photo identification are as follows:
  - \* ID cards issued by federal, state, local governmental agencies
  - \*TWIC (Transportation Worker Identification Credential)
  - \* Any I-9 Acceptable Documents( with accompanying photo)
  - \* Driver License or Identification card issued by a state motor vehicle department with a photo that clearly identifies the individual.
- Field verification will be done randomly by the DWM Safety staff to ensure employees were trained and following County, OSHA & State regulations.
- Only those employees registered in the badging system are eligible to receive a badge,
- Badging will take place at the DeKalb County Watershed Management, Safety Division, 1641 Roadhaven Drive, Stone Mtn., 30083.

**Badging hours are Tuesdays and Thursday from 9:00am to 12:00pm.**



Badges are valid until the expiration date shown on the badge. If a worker changes companies or projects, the badge must be surrendered and a new badge will be issued if needed. If applicable, the new employer will provide the employee certification that the safety training is completed. After verification by the safety representative, the badging database will be updated and a new badge issued.

**Lost-Badge Replacement – Contractor must notify DMW’ Safety Division immediately, if a badge is lost, stolen or an employee is no longer employee with the contractor**

**Safety Topics Suggestions:**

Company Safety Policy/Rules (including Accident Reporting Policy)

Basic Safety

Personal Protective Equipment requirements & proper use

Fall Protection

Back/Lifting Safety

Trenching & Excavation

Traffic Control/Traffic Safety (Flagging)

Aerial Lifts

Ladder Safety

Housekeeping

Confined Space & Confined Space Rescue

Hazardous Materials

Globally Harmonized Hazard Communication Standard (GHS)

Hand & Power tools

Scaffolding

Crane safety

Other relevant OSHA standards

**Additional Training Requirements – Additional training requirements maybe requested if there is a change in the contractor’s scope of work or responsibilities.**