

STORM DRAINAGE SYSTEM REHABILITATION PHASE 1

AT THE

TUSCALOOSA REGIONAL AIRPORT
TUSCALOOSA, ALABAMA

AIP No. 3-01-0072-30-2016 (Anticipated)
ATKINS PROJECT No. 100050806

ADDENDUM No. 1

August 3, 2016

The original plans and specifications dated July 18, 2016 for the above project are hereby amended by the City of Tuscaloosa and the project consultants, as noted in this Addendum Number 1. Receipt of this Addendum shall be acknowledged by inserting the Addendum number and date on Page 14, the first page of Section Three for the Proposal documents.

SPECIFICATIONS

MAKE THE FOLLOWING CHANGES TO THE SPECIFICATIONS AND CONTRACT DOCUMENTS BOOK:

1. In Section Three – Proposal (Bid), REPLACE pages 15-1 through 15-8 (the Bid Form) with the like-numbered pages included with this transmittal.

One purpose of this change is to add item number 4 for the CIPP lining of Pipe R to Bid Schedule 2B. This item had been inadvertently omitted from the original version.

A second purpose of this change is to revise all of the items where the bidder is given the option to price either CIPP lining of the pipe or the removal and replacement of that pipe. Whereas previously, these items had been listed with the instruction “Choose One” above the two listed options, the requirement has now been added that the bidder shall circle which of the two optional rehabilitation methods is intended for the single unit price that is given.

2. In Appendix B Special Conditions, Part A Project Stipulations, Under Note 3 covering Haul and Access Roads, after item 3.e., **ADD** the following as item 3.f.:

“When the Contractor needs to cross active runways and taxiways which will remain open, the Contractor shall contact the air traffic control tower (ATCT) to assure that crossing of the taxiway will not interfere with air traffic. Aircraft traffic must be given the right-of-way, and all equipment must stop a minimum of 50 feet from the edge of the taxiway while aircraft are moving across the area in question. The pavement will be cleaned by the Contractor, as required, to keep it clear of all soil, clods, or other debris at all times. The Contractor shall have power vacuum brooms immediately available and readily accessible to these sites at all times.”

3. In Appendix B Special Conditions, Part B Safety Plan and Requirements, In Note 6, **REPLACE** the text in parenthesis regarding the type of two-way radio so that it indicates: “Icom IC-A14 or approved equal.”

The previously listed older model number is no longer among the line of products available for new, retail sale by the manufacturer.

4. Specification Section D-701, Pipe for Storm Drains and Culverts, in Part 701-2.2, **REPLACE**, the line referencing ASTM D2881, with the following:

ASTM F2736 Standard Specification for 6 to 30 in. (152 To 762 mm) Polypropylene (PP)
Corrugated Single Wall Pipe and Double Wall Pipe and Fittings for Non-Pressure
Sanitary Sewer Applications

The purpose for this change is to remove reference to polypropylene storm pipe with soil-tightness joint standards and replace it with the material requirements for polypropylene pipe manufactured to sanitary sewer standards for watertightness in accordance with ASTM 3212, which requires joints to be watertight up to at least a minimum pressure of 10.8 p.s.i.

5. Specification Section D-701, Pipe for Storm Drains and Culverts, in Part 701-2.2, **DELETE**, the line referencing ASTM D3034. The purpose for this change is to clarify that PVC sewer pipe is not an allowable material for replacement of storm drain pipes in this project.

6. Specification Section D-701, Pipe for Storm Drains and Culverts, in Paragraph 701-2.4 covering the material requirements for Rubber Gaskets, after the second sentence, which reads, “Rubber gaskets for PVC pipe, polyethylene, and polypropylene pipe shall conform to the requirements of ASTM F477,” **DELETE**, the two following sentences that run to the end of this paragraph. The purpose of this change is to clarify gaskets for steel pipe and steel reinforced thermoplastic ribbed pipe will not apply to the project, as these types of pipe are not allowable materials for the replacement of storm drain pipes in this project.

7. Specification Section D-701, Pipe for Storm Drains and Culverts, in Paragraph 701-2.5 covering the material requirements for Joint mortar, **REPLACE** all of the text in this paragraph following the title “Joint mortar” with the following text:

“Mortar for pipe joints at connections to other pipes or connections to storm drainage structures is not allowed. These connections shall be made watertight through the use of gaskets or boot connections.”

8. Specification Section D-701, Pipe for Storm Drains and Culverts, in Paragraph 701-2.6 covering the material requirements for Joint fillers, **REPLACE** all of the text in this paragraph following the title “Joint fillers” with the following text:

“Poured filler for pipe joints at connections to other pipes or connections to storm drainage structures is not allowed. These connections shall be made watertight through the use of gaskets or boot connections.”

9. Specification Section D-709, Cured-In-Place Pipe (CIPP), **REPLACE** the paragraph in part 3.1.2 with the following:

“For a Contractor to be considered as Commercially Proven, the Contractor must satisfy all insurance, financial, and bonding requirements of the Owner, and must have had at least 5 (five) years active experience in the commercial installation of the product bid. In addition, the Contractor must have successfully installed at least 150,000 linear feet of CIPP in stormwater or wastewater collection systems, and a minimum of 5,000 linear feet of that total shall have been of thirty-six (36) inch or greater in diameter.

The Contractor’s field supervisor/foreman for the CIPP installation shall have a minimum three (3) years as a foreman/superintendent for a CIPP lining crew, overseeing a minimum of 50,000 lineal feet of CIPP lining, diameters up to, and including, twenty-three (23) inch **and** overseeing a minimum of 10,000 lineal feet of cured-in-place lining of twenty-four (24) inch or greater, installed under his/her supervision, **and** overseeing at least 1,000 lineal feet of cured-in-place lining of pipes with diameters of 48 inches or greater. Such experience shall include the actual product, by trade name, that the Contractor proposes to install.

Acceptable documentation of these minimum installations must be submitted to the Owner.”

10. Specification Section D-709, Cured-In-Place Pipe (CIPP), **REPLACE** part 3.1.3 with the following paragraphs:

“In order to ensure the Owner that all installed products will meet the minimum product quality control standards set forth by the manufacturer, for a product and installer to be Commercially Proven, the installer must either:

- 1) Own and operate a permanent facility to impregnate the CIPP tubes,

or alternatively:

- 2) Be certified by the manufacturer of the CIPP tubes to install CIPP tubes manufactured and impregnated at the manufacturer’s facilities.”

11. Specification Section D-709, Cured-In-Place Pipe (CIPP), **REPLACE** the tabulated design parameters in part 5.6 with the following tabulation:

Design Safety Factor	= <u>2.0</u>
Retention Factor for Long-Term Flexural Modulus to be used in Design (as determined by Long-Term tests described in paragraph 5.2)	= <u>1% - 60%</u>
Ovality*	= <u>2%</u>
Enhancement Factor, k	= <u>See Section 5.3</u>
Groundwater Depth (above invert)*	= <u>Use Full Depth</u>
Soil Depth (above crown)*	= <u>See Plans</u>
Soil Modulus**	= <u>5700 Psi</u>
Soil Density**	= <u>120 pcf</u>
Live Load**	= <u>H20 Highway</u>
Design Condition (partially or fully deteriorated)***	= <u>Partially Deteriorated</u>

The three purposes of this change are, for the determination of the required structural CIPP wall thickness:

- a) to refer the Contractor to the project plans for the depiction of the variable amount of soil cover above the pipes,
- b) to indicate that this full depth of soil cover shall be assumed to be fully saturated by groundwater, and
- c) to specify the assumed design condition for the pipes to be lined as “partially deteriorated.”

- 12.** Specification Section D-751, Manholes, Catch Basins, Inlets, and Inspection Holes, in Paragraph 751-2.1 covering the material requirements for Mortar, **REPLACE** all of the text in this paragraph following the title “Mortar” with the following text:

“Mortar for pipe joints at connections to storm drainage structures is not allowed. These connections shall be made watertight through the use of gaskets or booted connections.”

- 13.** Specification Section D-751, Manholes, Catch Basins, Inlets, and Inspection Holes, in Paragraph 751-3.3 covering the construction methods for precast concrete pipe structures, **REPLACE** the third sentence in the paragraph which begins: “The different sections shall fit . . .” with the following sentence:

“The different sections shall fit together readily, and all jointing and connections shall be made watertight with butyl rubber sealant meeting the requirements of ASTM C990.”

- 14.** Specification Section D-751, Manholes, Catch Basins, Inlets, and Inspection Holes, in Paragraph 751-3.4 covering the construction methods for inlet and outlet pipes, **REPLACE** the final sentence in the paragraph which begins: “For concrete structures, the mortar . . .” with the following sentence:

“For concrete structures, the connections to the inlet and outlet pipes shall be made with watertight booted or gasketed connections.”

PLANS

MAKE THE FOLLOWING CHANGES TO THE PLAN SET:

- 1.** Sheet G1-02, Drawing Index and Schedule of Quantities, **REPLACE** the schedule of quantities with a listing that matches the line items listed in the revised Bid Form. The purpose of this change is to include five line items that were inadvertently left off of Schedule 1 and one item that was inadvertently left off of Schedule 2B. This sheet is not reissued as part of this addendum. Bidders’ attention is instead directed to the quantities listed in the revised bid form. A corrected Schedule of Quantities will be included on this sheet when it is issued for construction.

2. Sheet G1-03, General Notes, Under Note 3 covering Haul and Access Roads, after item 3.E., **ADD** the following as item 3.F.:

“When the Contractor needs to cross active runways and taxiways which will remain open, the Contractor shall contact the air traffic control tower (ATCT) to assure that crossing of the taxiway will not interfere with air traffic. Aircraft traffic must be given the right-of-way, and all equipment must stop a minimum of 50 feet from the edge of the taxiway while aircraft are moving across the area in question. The pavement will be cleaned by the Contractor, as required, to keep it clear of all soil, clods, or other debris at all times. The Contractor shall have power vacuum brooms immediately available and readily accessible to these sites at all times.”

3. Sheet G1-04, Project Layout Plan, **REPLACE** this sheet with the like-numbered sheet included with this transmittal. The purpose of this change is to depict a different location for the Contractors access route and staging area.
4. Sheet G2-01, Safety Notes, In Note 6, **REPLACE** the text in parenthesis regarding the type of two-way radio so that it indicates: “Icom IC-A14 or approved equal.”

The previously listed older model number is no longer among the line of products available for new, retail sale by the manufacturer.

5. Sheet G2-02, Safety Plan, **REPLACE** this sheet with the like-numbered sheet included with this transmittal. The purpose of this change is to depict the Contractor’s staging area in a new location corresponding to the revised version of Sheet G1-04, above. Also, the need for low profile barricades to surround the Contractor’s staging area is omitted.
6. Sheet G2-03, Safety Details, Detail 1, Orange Construcion Fence, **REPLACE** the single note below this detail with the following:

NOTES:

- 1.) COST FOR MATERIALS, WORK, AND EQUIPMENT ASSOCIATED WITH THIS ITEM SHALL BE INCLUDED IN THE CONTRACTOR’S LUMP SUM UNIT PRICE FOR CONSTRUCTION LAYOUT.
- 2.) CONTRACTOR’S USE OF CONSTRUCTION FENCE IS OPTIONAL. CONTRACTOR MAY ELECT TO MARK THE EDGES OF THE ALLOWABLE WORK AREA BY A MORE SIMPLE MEANS, SUCH AS A SERIES OF PERIODIC STAKES WITH FLAGGING ALONG THE BOUNDARIES OF THE PROTECTED AREAS TO SERVE AS A VISUAL GUIDELINE INSTEAD OF A PHYSICAL BARRIER, PERMITTING MORE FLEXIBLE ACCESS OF PERSONNEL AND EQUIPMENT IN AND OUT OF THE WORK AREA. THIS WILL BE ACCEPTABLE TO THE EXTENT THAT THE CONTRACTOR IS ABLE TO MAINTAIN CONTROL OF HIS OR HER FORCES SUFFICIENTLY TO AVOID INCURSIONS INTO PROTECTED AREAS.
- 3.) IF, AT ANY TIME, IT IS DEMONSTRATED THAT INCURSION INTO PROTECTED AREAS IS NOT PREVENTED BY VISUAL GUIDELINES, THEN THE OWNER OR THE OWNER’S DESIGNATED REPRESENTATIVE MAY REQUIRE THE INSTALLATION OF ORANGE CONSTRUCTION FENCE AT THEIR SOLE DISCRETION.

The purpose of this change is to add notes governing the contingent nature of the potential requirement of Orange Construcion Fence

7. Sheet G2-03, Safety Details, Detail 2, Multi-Barrier Low Profile Orange Water Filled Aircraft Barricades, in the series of notes below this detail **REPLACE** notes 1 and 2 with the following like-numbered notes:
- 1.) INTENDED USE FOR THE FOLLOWING
 - MARKING/LIGHTING OF TEMPORARY HAZARDS WITHIN THE AIR OPERATIONS AREA (AOA), SUCH AS THE EDGES OF ANY TRENCHES LEFT OPEN BETWEEN WORK SHIFTS.
 - LONGTERM CLOSURE OF AIRCRAFT ROUTES.
 - 2.) INSTALL AT 12' C/C SPACING ALONG FULL WIDTH OF PAVEMENT OR FULL PERIMETER OF AREA TO BE BARRICADED.

And ADD the following notes 7 through 10 after note 6:

- 7.) COST FOR MATERIALS, EQUIPMENT, AND LABOR FOR ASSEMBLING, PLACING, AND RELOCATING BARRICADES ASSOCIATED WITH THIS ITEM SHALL BE COVERED UNDER THE CONTRACTOR'S LUMP SUM CONTRACT ITEM FOR MAINTENANCE OF TRAFFIC.
- 8.) MATERIALS FOR THIS ITEM MAY BE OBTAINED FROM THE OWNER'S STORED STOCKPILE OF BARRICADES FROM PREVIOUS PROJECTS NUMBERING APPROXIMATELY 200. MOST OF THESE (150) HAVE BEEN USED ON ONLY ONE PROJECT, AND CAN BE ASSUMED TO HAVE FUNCTIONING SOLAR POWERED FLASHING LIGHTS AND AVAILABLE FLAGS. SOME OLDER BARRICADES (50) MAY BE LESS RELIABLY OUTFITTED.
- 9.) CONTRACTOR SHALL BE RESPONSIBLE FOR ASSEMBLING COMPLETE, WORKING, LIGHTED AND FLAGGED BARRICADES FROM THE AVAILABLE MATERIALS ON HAND, SETTING OUT THE SOLAR-POWERED FLASHERS FOR CHARGING BEFORE USE, AND RETURNING BARRICADES TO THE OWNER IN GOOD WORKING ORDER UPON COMPLETION OF THE PROJECT.
- 10.) IT IS NOT ANTICIPATED THAT THE CONTRACTOR SHOULD REQUIRE MORE THAN 150 TO 200 WORKING BARRICADES FOR THE PROJECT; HOWEVER, IF THE CONTRACTOR'S CONTROL OF WORK ON THE SITE SHOULD REQUIRE MORE, THEN ADDITIONAL BARRICADES SHALL BE SUPPLIED BY THE CONTRACTOR. ANY BARRICADES USED ON THE PROJECT SHALL BE TURNED OVER TO THE OWNER IN GOOD WORKING ORDER UPON COMPLETION OF THE PROJECT.

The purpose of this change is to add clarification governing the use and availability of Owner-supplied Type 2 – Multi-Barrier Low Profile Orange Water Filled Aircraft Barricades.

8. Sheets C1-01 through C1-05 and C2-01 through C2-02, **REPLACE** these sheets with the like-numbered sheets included with this transmittal. The three purposes of this change are:
- a) One purpose is to depict the approximate locations for the installation of wattles along the project alignment in areas of new pipe installation is elected over cured-in-place lining of the existing pipe. Along these areas, an existing drainage swale flowline follows the pipe alignment and will need to be re-graded upon completion of the new pipe installation. For the prevention of erosion and the prevention of the washing away of seeding in these areas, wattles are to be installed transverse to the direction of the swale flowline.
 - b) A second purpose is to depict the approximate locations for the installation of wattles along the project alignment in areas where the outfall channel downstream from Pipe A will be re-graded. For the prevention of erosion and the prevention of the washing away of seeding in these areas, wattles are to be installed transverse to the direction of the channel flowline.
 - c) A third purpose is to call out the installation of inlet protection at each of the storm drainage inlet structures to be replaced.

9. Sheet C3-01, Drainage Details – Sheet 1, **REPLACE** this sheet with the like numbered sheet included with this transmittal. The purpose of this change is two-fold:
- a) One purpose is to re-number the two details currently on the sheet so that the Transition Manhole with 48” Riser Detail is given a distinct designation as Detail 2.
 - b) A second purpose is to ADD a new Details 3 and 4 depicting the preferred method of inlet protection, by encircling each replaced inlet structure with braced, wire-backed, reinforced silt fence. Alternative methods of inlet protection against silt washing into the storm drainage network may be allowed, subject to the approval of the Engineer and the contractor’s successful NPDES permitting through ADEM.
10. Sheet C3-02 Drainage Details – Sheet 2, **REPLACE** this sheet with the like numbered sheet included with this transmittal. The purpose of this change is three-fold:
- a) One purpose is to add clarification to two callouts on Detail 2 for Drainage Pipe and Trench Bedding for the clarification of what is meant by “water-tightness” and for the cross-referencing of pipe bedding classes as variously referred to in ASTM classifications and as defined in specification item D-701.
 - b) A second purpose is to add clarification to a callout on Detail 4, for Turf Stabilization above the limits of pipe trenching areas.
 - c) A third purpose is to add a new Detail 5, for the installation of wattles for erosion prevention and sediment control.

QUESTIONS

A deadline has been imposed for questions in order to ensure ample time for questions to be received by the consultants; answered; and for answers to be distributed via a subsequent addendum in time for bidders to incorporate those answers into their bid documents. The end of the period for questions to be submitted in writing to darren.duckworth@atkinsglobal.com was 5:00 p.m. CDT on Thursday, August 4, 2016.

END - ADDENDUM No. 1